



**City Council
Electronic Meeting**

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

**Monday, June 13, 2022
7:00 p.m.**

Pg. # ITEM

MINUTES

1. *Motion to:*

- CNCL-9 (1) *adopt the **minutes** of the Regular Council meeting held on May 24, 2022; and*
- CNCL-20 (2) *receive for information the Metro Vancouver **'Board in Brief'** dated May 27, 2022.*



AGENDA ADDITIONS & DELETIONS

PRESENTATION

Jim Young, Director, Facilities and Project Development to present the Recreation Facilities Association of British Columbia (RFABC)- Bill Woycik Outstanding Facility Award 2022 (for Minoru Centre for Active Living) to Council.

COMMITTEE OF THE WHOLE

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

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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. 13.

4. *Motion to rise and report.*

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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.

RECOMMENDATIONS FROM COMMITTEE WILL APPEAR ON THE REVISED COUNCIL AGENDA, EITHER ON THE CONSENT AGENDA OR NON-CONSENT AGENDA DEPENDING ON THE OUTCOME AT COMMITTEE.

CONSENT AGENDA HIGHLIGHTS

- Receipt of Committee minutes
- Public Electric Vehicle Charger Program Update: Additional Motion
- Richmond Animal Shelter Public Art Project Terms Of Reference
- Steveston Cannery Channel
- 2022 BC Energy Step Code And GHG Requirements For New Buildings

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ITEM

- Land use applications for first reading (to be further considered at the Public Hearing on July 18, 2022):
 - 9231 Kilby Street – Rezone From "Single Detached (RS1/E)" Zone To The "Single Detached (RS2/A)" ZONE (D.C. Ltd. (Dhinjal Construction Ltd.) – Applicant)
 - 9271 Kilby Street – Rezone from Single Detached (RS1/E)" Zone To The "Single Detached (RS2/A)" (Parm Dhinjal – Applicant)

5. *Motion to adopt Items No. 6 through No. 12 by general consent.*

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6. **COMMITTEE MINUTES**

That the minutes of:

(1) *the Finance Committee meeting held on June 6, 2022; (distributed seperately)*

(2) *the General Purposes Committee meeting held on June 6, 2022; (distributed seperately)*

CNCL-36 (3) *the **Parks, Recreation and Cultural Services Committee** meeting held on May 25, 2022;*

(4) *the Planning Committee meeting held on June 7, 2022 (distributed seperately) and*

CNCL-41 (5) *the **Public Works and Transportation Committee** meeting held on May 18, 2022*

be received for information.

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Consent
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Item

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Consent
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Item

7. **PUBLIC ELECTRIC VEHICLE CHARGER PROGRAM UPDATE:
ADDITIONAL MOTION**

(File Ref. No. 02-0780-01) (REDMS No. 6869022)

CNCL-45

See Page CNCL-45 for full report

**PUBLIC WORKS AND TRANSPORTATION COMMITTEE
RECOMMENDATION**

That a letter be sent to the Province of BC Minister of Housing requesting legislation for the right to charge that will enable installation of electric vehicle charging infrastructure in more strata and apartment buildings.



Consent
Agenda
Item

8. **RICHMOND ANIMAL SHELTER PUBLIC ART PROJECT TERMS
OF REFERENCE**

(File Ref. No. 11-7000-09-20-284) (REDMS No. 6856017)

CNCL-54

See Page CNCL-54 for full report

**PARKS, RECREATION AND CULTURAL SERVICES COMMITTEE
RECOMMENDATION**

That the Terms of Reference for the Richmond Animal Shelter Public Art Project as presented in the report titled, "Richmond Animal Shelter Public Art Project Terms of Reference", dated April 13, 2022, from the Director, Arts, Culture and Heritage Services, be approved.



Consent
Agenda
Item

9. **STEVESTON CANNERY CHANNEL**

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

CNCL-68

See Page CNCL-68 for full report

GENERAL PURPOSES COMMITTEE RECOMMENDATION

- (1) *That Council endorses a sustainable and cost-sharing approach to the critical necessity of dredging the Steveston Cannery Channel; and,*
- (2) *That the matter of the Steveston Cannery Channel dredging be referred to staff to:*
 - (a) *determine the potential costs and likely share of the costs to the City of Richmond and source of funding;*
 - (b) *determine a potential cost-sharing arrangement model;*

- (c) *outline the terms for a permanent funding formula;*
- (d) *outline the rationale for the proposed dredging;*
- (e) *undertake a historical review of dredging in the Channel; and,*
- (f) *review the feasibility of the City owning and operating dredging equipment permanently.*



Consent
Agenda
Item

10. **2022 BC ENERGY STEP CODE AND GHG REQUIREMENTS FOR NEW BUILDINGS**

(File Ref. No. 10-6125-07-02) (REDMS No. 6898984)

CNCL-71

See Page CNCL-71 for full report

GENERAL PURPOSES COMMITTEE RECOMMENDATION

- (1) *That Building Regulation Bylaw 7230, Amendment Bylaw 10365, which amends Sections 10.1.1 and 16.1 regarding updates to existing BC Energy Step Code and greenhouse gas intensity (GHGI) requirements for Part 9 residential buildings and Part 3 residential, hotel, commercial and office buildings, be introduced and given first reading;*
- (2) *That for buildings requiring a Development Permit, notwithstanding the adoption of Building Regulation Bylaw 7230, Amendment Bylaw 10365:*
 - (a) *If a Development Permit is issued prior to July 1, 2022, the owner may, while their Development Permit remains valid, apply for a Building Permit in compliance with energy efficiency requirements applicable prior to the adoption of Bylaw 10365; or*
 - (b) *If an acceptable Development Permit application has been submitted to the City prior to adoption of Bylaw 10365, is considered and endorsed by the Development Permit Panel prior to July 1, 2023, and has a complete Building Permit application acceptable to the City submitted prior to July 1, 2023, the owner may apply for a Building Permit in compliance with energy efficiency requirements applicable prior to adoption of Bylaw 10365.*

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(3) *That Official Community Plan Bylaw 9000, Amendment Bylaw 10364, which amends Section 14.2.10 to Schedule 1 (Development Permit Guidelines) regarding the use of design approaches and technologies that improve the energy performance of buildings, be introduced and given first reading;*

(4) *That Richmond Official Community Plan Bylaw 9000, Amendment Bylaw 10364, 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; and

(5) *That Richmond Official Community Plan Bylaw 9000, Amendment Bylaw 10364, 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.*



Consent
Agenda
Item

11. **APPLICATION BY D.C. LTD. (DHINJAL CONSTRUCTION LTD.) FOR REZONING AT 9231 KILBY STREET FROM THE "SINGLE DETACHED (RS1/E)" ZONE TO THE "SINGLE DETACHED (RS2/A)" ZONE**

(File Ref. No. RZ 21-925460; 12-8060-20-010379) (REDMS No. 6884760)

CNCL-107

See Page CNCL-107 for full report

PLANNING COMMITTEE RECOMMENDATION

That Richmond Zoning Bylaw 8500, Amendment Bylaw 10379, for the rezoning of 9231 Kilby Street from "Single Detached (RS 1 /E)" zone to "Single Detached (RS2/ A)" zone, be introduced and given first reading.



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12. **APPLICATION BY PARM DHINJAL FOR REZONING AT 9271 KILBY STREET FROM THE "SINGLE DETACHED (RS1/E)" ZONE TO THE "SINGLE DETACHED (RS2/A)" ZONE**
(File Ref. No. RZ 21-934410; 12-8060-20-010380) (REDMS No. 6886931)

CNCL-128

See Page CNCL-128 for full report

PLANNING COMMITTEE RECOMMENDATION

That Richmond Zoning Bylaw 8500, Amendment Bylaw 10380, for the rezoning of 9271 Kilby Street from the "Single Detached (RS1/E)" zone to the "Single Detached (RS2/A)" zone, be introduced and given first reading.



CONSIDERATION OF MATTERS REMOVED FROM THE CONSENT AGENDA

PUBLIC ANNOUNCEMENTS AND EVENTS

NEW BUSINESS

BYLAWS FOR ADOPTION

CNCL-148

Richmond Zoning Bylaw 8500, Amendment **Bylaw No. 10047**
(9020 Glenallan Gate, 9460, 9480 and 9500 Garden City Road)
Opposed at 1st Reading- None
2nd/3rd Readings – Cllr. Wolfe



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CNCL-150	Civic Election Administration and Procedure Bylaw No. 7244, Amendment Bylaw No. 10349. Opposed at 1 st /2 nd /3 rd Readings – None.

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CNCL-156	Richmond Zoning Bylaw No. 8500, Amendment Bylaw No. 10351 (To Establish Zoning for the properties at 8320, 8340, 8360, 8440 Bridgeport Road and 8311, 8351 Sea Island Way) Opposed at 1 st Reading – None. Opposed at 2 nd /3 rd Readings – None.
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DEVELOPMENT PERMIT PANEL

13. RECOMMENDATION

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

CNCL-160	(1) <i>That the Chair's report for the Development Permit Panel meetings held on November 25, 2022 be received for information; and</i> (2) <i>That the recommendations of the Panel to authorize the issuance of a Development Permit (DP 19-867710) for the property located at 9020 Glenallan Gate, 9460, 9480 and 9500 Garden City Road, be endorsed, and the Permits so issued.</i>
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ADJOURNMENT

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Regular Council

Tuesday, May 24, 2022

Place: Council Chambers
Richmond City Hall

Present: Mayor Malcolm D. Brodie
Councillor Chak Au
Councillor Carol Day
Councillor Andy Hobbs
Councillor Alexa Loo
Councillor Bill McNulty
Councillor Linda McPhail (by teleconference)
Councillor Harold Steves (by teleconference)
Councillor Michael Wolfe

Corporate Officer – Claudia Jesson

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

RES NO. ITEM

MINUTES

- R22/10-1 1. It was moved and seconded
That:
- (1) *the minutes of the Regular Council meeting held on May 9, 2022, be adopted as circulated;*
 - (2) *the minutes of the Special Council meeting held on May 16, 2022, be adopted as circulated; and*
 - (3) *the minutes of the Regular Council meeting for Public Hearings held on May 16, 2022, be adopted as circulated.*

CARRIED



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AGENDA ADDITIONS & DELETIONS

R22/10-2

It was moved and seconded

That Item No. 6(4) "Receiving Public Works and Transportation minutes for information" be deleted from the Council Agenda.

CARRIED

PRESENTATION

COMMITTEE OF THE WHOLE

R22/10-3

2.

It was moved and seconded

That Council resolve into Committee of the Whole to hear delegations on agenda items (7:01 p.m.).

CARRIED

3.

Delegations from the floor on Agenda items

Item No. 10 – Referral Response: Proposed Mandatory Market Rental Housing Policy And Proposed Rental Housing Parking Changes

John Roston, Rental Housing Advocacy Group, spoke about the number of new rental housing created in Richmond compared to surrounding municipalities as well as about the allowance of increased building height to allow for 100 percent rental tenure housing on top of existing single storey commercial buildings.

Item No. 6 (2) General Purposes Committee Minutes – Re: Translink Presentation

Nathan Davidowicz, Richmond resident shared his concerns regarding the Translink Transport 2050: 10 Year Priorities plan.

R22/10-4

4.

It was moved and seconded

That Committee rise and report (7:16 p.m.).

CARRIED

2.



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CONSENT AGENDA

- R22/10-5 5. It was moved and seconded
That Items No. 6 through No. 13 be adopted by general consent.

CARRIED

6. **COMMITTEE MINUTES**

That the minutes of:

- (1) *the Community Safety Committee meeting held on May 10, 2022;*
- (2) *the General Purposes Committee meeting held on May 16, 2022;*
- (3) *the Planning Committee meeting held on May 17, 2022; and*
be received for information.

ADOPTED ON CONSENT

7. **TOUCHSTONE FAMILY ASSOCIATION RESTORATIVE JUSTICE
CONTRACT RENEWAL 2023-2025 AND ANNUAL PERFORMANCE
OUTCOME EVALUATION REPORT**

(File Ref. No. 03-1000-05-069) (REDMS No. 6867340)

- (1) *That Council approve the contract renewal with Touchstone Family Association for the provision of Restorative Justice for three-years (2023-2025) as outlined in the staff report titled "Touchstone Family Association Restorative Justice Contract Renewal 2023-2025 and Annual Performance Outcome Evaluation Report", dated April 4, 2022, from the General Manager, Community Safety; and*
- (2) *That the Chief Administrative Officer and the General Manager, Community Safety be authorized to execute the renewal of the contract with Touchstone Family Association under the terms and conditions described in this report.*

ADOPTED ON CONSENT



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8. CAR HAILING FINES

(File Ref. No. 12-8275-02) (REDMS No.6904829)

- (1) *That a letter be written to the Province and the Passenger Transportation Board (PTB) requesting an examination of penalties for illegal ride-hailing drivers and companies.*
- (2) *That staff be directed to raise the possibility of penalties regarding illegal ride-hailing drivers and companies, to the Inter-Municipal Business Licence advisory working group; and*
- (3) *Encourage the PTB to consider an educational program.*

ADOPTED ON CONSENT

ADDITIONAL RECOMMENDATION

That staff reach out to YVR Council Liaison, Dan Nomura, and ask him to raise the issue of illegal ride-hailing services that are operating out of YVR, and that YVR respond to Council.

ADOPTED ON CONSENT

9. ELECTION PROCEDURE AMENDMENT BYLAW FOR MAIL BALLOT VOTING

(File Ref. No. 12-8060-20-010349 12-8125-90-10) (REDMS No. 6874788, 6836127)

That “Civic Election Administration and Procedure Bylaw No. 7244, Amendment Bylaw No. 10349” be introduced and given first, second, and third readings.

ADOPTED ON CONSENT

10. REFERRAL RESPONSE: PROPOSED MANDATORY MARKET RENTAL HOUSING POLICY AND PROPOSED RENTAL HOUSING PARKING CHANGES

(File Ref. No. 08-4057-08, 12-8060-20-010375, 12-8060-20-010376) (REDMS No. 6852754, 6841292,6880341)

- (1) *That Richmond Official Community Plan Bylaw 7100 and Bylaw 9000 Amendment Bylaw 10375, which proposes to amend the following:*
 - (a) *in Schedule 1 of Richmond Official Community Plan Bylaw*



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9000, amend Section 3.3 “Diverse Range of Housing Types, Tenure and Affordability” by introducing City-wide market rental housing provisions for new development including:

- (i) inserting language to secure a minimum of 15% of residential floor area as market rental units in new development that includes more than 60 apartment units;*
 - (ii) inserting language to establish that for townhouse development with 5 or more units and apartment development with 60 or less units, a community amenity contribution may be accepted or voluntary construction of market rental units with an associated density bonus may be supported through a rezoning application; and*
 - (iii) inserting language to clarify further parking reductions for secured rental housing.*
- (b) in Schedule 2.2A (Thompson Area Dover Crossing Sub-Area Plan), Schedule 2.4 (Steveston Area Plan), Schedule 2.10C (McLennan North Sub-Area Plan), Schedule 2.12 (Bridgeport Area Plan), and Schedule 2.14 (Hamilton Area Plan) of Richmond Official Community Plan Bylaw 9000, insert language to support density bonus provisions with respect to the Official Community Plan Market Rental Housing Policy, be introduced and given first reading.*
- (2) That Richmond Official Community Plan Bylaw 7100 and Bylaw 9000, Amendment Bylaw 10375, having been considered in conjunction with:*
- the City’s Financial Plan and Capital Program; and*
 - 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.



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- (3) *That Richmond Official Community Plan Bylaw 7100 and Bylaw 9000, Amendment Bylaw 10375, 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.*
 - (4) *That Richmond Zoning Bylaw 8500, Amendment Bylaw 10376, which proposes to update existing multi-family zones to reflect changes to the Official Community Plan Market Rental Housing Policy that introduce a mandatory market rental requirement be introduced and given first reading.*
 - (5) *That the following provisions apply to instream applications that are received prior to adoption of Richmond Official Community Plan Bylaw 7100 and Bylaw 9000, Amendment Bylaw 10375 and Richmond Zoning Bylaw 8500, Amendment Bylaw 10376:*
 - (a) *Instream rezoning applications may be exempt from the mandatory provision of market rental housing provided the application achieves first reading within one year of the amendment bylaws being adopted and final adoption and issuance of a Development Permit within one year following the associated Public Hearing; and*
 - (b) *Instream Development Permit applications may be exempt from the mandatory provision of market rental housing provided the Development Permit is issued within one year of the amendment bylaws being adopted.*
- Instream applications that are unable to comply with the timeline may be required to redesign to construct market rental housing.*
- (6) *That staff report back to Council regarding key findings related to the implementation of updates to the Official Community Plan Market Rental Housing Policy after the program provisions are in place for two years.*
 - (7) *That Council review the policy annually.*

ADOPTED ON CONSENT



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**11. APPLICATION TO GOVERNMENT OF CANADA ACTIVE
TRANSPORTATION FUND**

(File Ref. No. 01-0140-20-INFR1; 03-1090-19) (REDMS No. 6862702))

- (1) *That the City Centre Cycling Network Expansion application for cost-sharing as described in the attached report titled “Application to Government of Canada Active Transportation Fund” dated March 29, 2022 from the Director, Transportation, be endorsed;*
- (2) *That, should the above application be successful, the Chief Administrative Officer and the General Manager, Planning and Development, be authorized on behalf of the City to execute the funding agreement; and*
- (3) *That the Consolidated 5 Year Financial Plan (2022-2026) be amended accordingly.*

ADOPTED ON CONSENT

**12. AWARD OF CONTRACT 7214Q – ON CALL ROOFING
CONTRACTOR**

(File Ref. No. 03-1000-20-7214Q) (REDMS No. 6863966)

- (1) *That Contract 7214Q – On Call Roofing Contractor be awarded to Marine Roofing and Repair Service (2003) Ltd., in the amount of \$714,010.44 for a three-year term as described in the report titled “Award of Contract 7214Q – On Call Roofing Contractor,” dated April 12, 2022 from the Director, Facilities and Project Development.*
- (2) *That the Chief Administrative Officer and General Manager, Engineering and Public Works be authorized to extend the initial three-year term, up to the maximum total term of five years, for the maximum total amount of \$1,240,125.81, as described in the report titled “Award of Contract 7214Q – On Call Roofing Contractor,” dated April 12, 2022 from the Director, Facilities and Project Development.*
- (3) *That the Chief Administrative Officer and General Manager, Engineering and Public Works be authorized to execute the contract and all related documentation with Marine Roofing and Repair Service (2003) Ltd.*

ADOPTED ON CONSENT

7.



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13. **CHANGE ORDER APPROVAL - CONTRACT 6503P – EV CHARGING INFRASTRUCTURE AND MANAGEMENT PROVIDER**
(File Ref. No. 03-1000-20-6503P) (REDMS No. 6871147)

That staff be authorized to issue a change order to increase the value of the current contract between the City of Richmond and Foreseeson Technology by \$2,290,663 bringing the new contract value to \$3,796,985 over the initial five-year contract term as detailed in the staff report titled “Change Order Approval – Contract 6503P – EV Charging Infrastructure and Management Provider”, dated April 14, 2022, from the Director, Public Works Operations.

ADOPTED ON CONSENT

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

NON-CONSENT AGENDA ITEMS

PLANNING COMMITTEE

Councillor Bill McNulty, Chair

14. **REQUEST TO REVISE REZONING CONSIDERATIONS FOR THE APPLICATION BY BENE (NO. 3) ROAD DEVELOPMENT LTD. FOR REZONING OF THE PROPERTY AT 4700 NO. 3 ROAD FROM THE “AUTO-ORIENTED COMMERCIAL (CA)” ZONE TO A NEW “HIGH RISE OFFICE COMMERCIAL (ZC44) – ABERDEEN VILLAGE” ZONE**

(File Ref. No. RZ 14-672055, 12-8060-20-009216) (REDMS No. 6822556, 6886141, 6880163, 6219995, 5630259, 6130741)

R22/10-6

It was moved and seconded



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- (1) *That the request to revise the rezoning considerations associated with Richmond Zoning Bylaw 8500, Amendment Bylaw 9216, for the creation of a new “High Rise Office Commercial (ZC44) – Aberdeen Village” zone, and for the rezoning of 4700 No. 3 Road from the “Auto-Oriented Commercial (CA)” zone to the new “High Rise Office Commercial (ZC44) – Aberdeen Village” zone, to remove the rezoning consideration limiting the subdivision of office space, be approved, and*
- (2) *That the rezoning consideration be revised limiting subdivision of office space within the building (item #7 of the rezoning considerations) to the following: Registration of a legal agreement on title, limiting subdivision (including stratification and/or air space parcels) of the office space:*
 - *For the 9th and 10th floors, the top two floors of the building, no more than one strata lot or air space parcel per storey (single owner per storey of office space);*
 - *For the 6th, 7th and 8th floors, no more than 12 strata lots or air space parcels per storey, and a minimum 60.4 m₂ (650 ft₂) strata lot size;*
 - *For the 5th floor, no more than two strata lots or air space parcels per storey, and a minimum 334.5 m₂ (3,600 ft₂) strata lot size; and*
- (3) *That a new rezoning consideration be added stating: “City acceptance of the developer’s voluntary contribution in the amount of \$357,044.61 to the City’s Affordable Housing Reserve.”*

The question on the motion was not called as discussion ensued regarding (i) the City receiving 100 percent of the land lift (ii) vacancy rates for office space in the downtown City Centre is about 5 percent, (iii) with more people working from home whether there will be a need for large office spaces, and (iv) foreign buyer tax does not apply to commercial office space.

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



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15. **APPLICATION BY PAKLAND PROPERTIES FOR REZONING AT 3660/3662 WILLIAMS ROAD FROM THE “TWO-UNIT DWELLINGS (RD1)” ZONE TO THE “SINGLE DETACHED (RS2/B)” ZONE**
(File Ref. No. RZ 21-936512, 12-8060-20-010383) (REDMS No. 6886845, 6886838)

R22/10-7

It was moved and seconded

That Richmond Zoning Bylaw 8500, Amendment Bylaw 10383, for the rezoning of 3660/3662 Williams Road from the “Two-Unit Dwellings (RD1)” zone to the “Single Detached (RS2/B)” zone, be introduced and given first reading.

The question on the motion was not called as discussion ensued regarding, (i) the options to build something other than two single-family homes, (ii) the proposed application complies with the Official Community Plan (OCP), (iii) staff recommendation is based on compliance of the City’s Zoning bylaw, OCP and Council policy, (iv) examining ways of providing real incentives for affordable housing and (v) a variety of housing creates diversity of population.

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

PUBLIC ANNOUNCEMENTS AND EVENTS

Mayor Brodie advised that the Wednesday, May 26, 2022 Development Permit Panel meeting has been cancelled.

BYLAWS FOR ADOPTION

R22/10-8

It was moved and seconded

That the following bylaws be adopted:

Richmond Zoning Bylaw No. 8500, Amendment Bylaw No. 10101

Richmond Zoning Bylaw No. 8500, Amendment Bylaw No. 10109

CARRIED

10.



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DEVELOPMENT PERMIT PANEL

- R22/10-9 16. It was moved and seconded
- (1) *That the Chair's report for the Development Permit Panel meeting held on April 13, 2022, be received for information; and*
 - (2) *The recommendations of the Panel to authorize the issuance of Development Variance Permit (DV 20-918782) for the property located at 6560 Granville Avenue be endorsed, and the Permit so issued.*

CARRIED

ADJOURNMENT

- R22/10-10 It was moved and seconded
That the meeting adjourn (8:26 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 Tuesday, May 24, 2022.

Mayor (Malcolm D. Brodie)

Corporate Officer (Claudia Jesson)

For Metro Vancouver meetings on Friday, May 27, 2022

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:

media@metrovancover.org.

Metro Vancouver Regional District**E1.1 Overview of the Declaration on the Rights of Indigenous Peoples Act Action Plan, 2022–2027****RECEIVED**

This report summarizes the *Declaration on the Rights of Indigenous Peoples Act Action Plan, 2022–2027*, which was released by the Province on March 30, 2022. In addition to providing background on the *Declaration Act* and related *Action Plan*, this report highlights actions relevant to local governments, and discusses both implications for and ongoing items already addressed by Metro Vancouver. The *Action Plan* will affect local governments, including advancing First Nations' participation in regional district boards, increasing support for urban Indigenous organizations, and reviewing the naming of municipalities and regional districts. The Province will produce annual reports on progress made to implement the *Action Plan*. In the meantime, the next steps for Metro Vancouver will be to disseminate this report to internal departments, and to educate and speak with staff about various actions in the *Action Plan* and their applicability to the work of the regional district.

The Board received the report for information.

E1.2 External Agency Status Report for the Katzie Treaty Negotiation Table**RECEIVED**

This report provides an overview of the Katzie treaty table negotiation efforts over the past six months including: background on Katzie First Nation, information on the First Nation's Statement of Intent area, the status of negotiations, and the roles and responsibilities of the local government representative sitting at the treaty table.

The Board received the report for information.

E2.1 2021 Statement of Financial Information**APPROVED**

The Financial Information Act is provincial legislation that requires local governments to annually submit to the Board for approval the *Statement of Financial Information Report* (SOFI). The SOFI consists of a series of statements and schedules, three of which are an integral part of the 2021 annual audited financial statements which were approved by the Board on April 29, 2022. These schedules include payments of remuneration and expenses for elected officials and employees, and payments to suppliers for goods and services.

The remuneration for elected officials in 2021 was \$1.4 million, 9.9 per cent lower than the prior year, as the prior year included retroactive adjustments to remuneration calculated from January 2019.

Total remuneration for employees in 2021 was \$185.5 million, 11.1 per cent higher than 2020, largely a result of general labour adjustments from collective agreement settlements, including two years of retroactive pay calculated from January 2020.

The Board approved the *Statement of Financial Information* for the year ended December 31, 2021 as presented.

E2.2 Electronic Meeting Participation Policy

APPROVED

An updated Board policy was presented to formalize the procedures that have taken place over the course of the past two years. It establishes procedures for the administration of, and participation at, electronic Board and committee meetings, addressing attendance and quorum; remote location requirements; how to obtain the floor; voting; confidentiality and unauthorized access; conflict of interest; and technology issues.

The Board approved the *Electronic Meeting Participation Policy* as presented and rescinded the *Electronic Meetings and Participation by Members Guideline*.

E2.3 External Organization Appointment Policy

APPROVED

At its May 12, 2022 meeting, the Finance Committee considered a draft policy setting out the process for Board appointments to external organizations. It outlines the two types of organizations to which Metro Vancouver appoints, nomination methods to do so, and requirements for eligibility, term limits, equity, reporting, and privacy. It confirms the Board makes appointment decisions, and lays out the process to follow.

E2.4 Sponsorship Policy Amendments

APPROVED

A report presented to the April 29, 2022 Board meeting directed staff to bring forward proposed amendments to the *Sponsorship Policy* in response to Invest Vancouver's unique role as an economic development leadership service. The proposed amendments would exempt Invest Vancouver from the application and review procedure for sponsorships with a total value of more than \$1,500 and sponsorships with a total value of \$1,500 or less, provided that Invest Vancouver partnership and collaboration efforts fall within the Invest Vancouver budget, as approved by the Metro Vancouver Board during the annual budget process.

The Board approved the revised *Sponsorship Policy*, as presented.

E2.5 Award of Contract Resulting from Request for Proposal (RFP) No. 21-266: Supply and Delivery of Light and Medium Duty Vehicles

APPROVED

The Board approved award of a five-year contract in the estimated amount of \$6,500,000 (exclusive of taxes) to Metro Motors Ltd. resulting from RFP No. 21-266: *Supply and Delivery of Light and Medium Duty Vehicles*, subject to final review by the Chief Administrative Officer.

E3.1 Initial Engagement to Develop an Approach for Managing Greenhouse Gas Emissions from Large Buildings in Metro Vancouver

APPROVED

Buildings emit one-quarter of regional GHG emissions, primarily through burning natural gas for space and water heating. The *Clean Air Plan* and *Climate 2050 Buildings Roadmap*, both approved by the Board in 2021, call for “greenhouse gas performance requirements for existing large buildings” as a pivotal action measure to achieve regional climate targets, which would also reduce health-harming air emissions. Such requirements would address a current policy gap related to emissions from existing large buildings and complement provincial and local government action. Given the longevity of building stock in the region and the need for transparency to best allow building owners to plan for emission reductions and improvements, it is recognized that comprehensive research and engagement will be critical for successful program design and implementation. Accordingly, staff believe early signaling of long-term future emission limits for GHG and other air emissions to building owners will allow them to plan for necessary changes, and to work with Metro Vancouver staff to design optimum approaches for phased implementation.

The Board authorized staff to proceed with an initial phase of engagement to develop an approach for managing greenhouse gas emissions from large buildings as presented.

E3.2 Engagement on Proposed Amendments to GVRD Boilers and Process Heaters Emission Regulation Bylaw No. 1087, 2008

APPROVED

This report sought authorization from the Board to proceed with engagement on proposed amendments to *GVRD Boilers and Process Heaters Emission Regulation Bylaw No. 1087, 2008*, coordinated with the preliminary engagement on managing greenhouse gas emissions from large buildings, recognizing that there is some overlap in the stakeholder audience. Under the current bylaw, Metro Vancouver regulates the discharge of air contaminants from boilers and process heaters. In November 2019, the Board adopted stricter ambient air quality objectives for nitrogen dioxides that align with national standards. Metro Vancouver staff seek to engage on proposed amendments to the bylaw to continue to meet the ambient air quality objectives as they become more stringent, thereby enabling continuous improvement in air quality. The proposed amendments include stricter emission limits for nitrogen oxides, additional requirements for dispersion modelling and responses when modelling indicates exceedance of air quality objectives, and additional requirements for emission stack design to reduce impacts near boilers and process heaters.

The Board directed staff to proceed with engagement on the proposed amendments to *Regional District Boilers and Process Heaters Emission Regulation Bylaw No. 1087, 2008* as presented.

E4.1 Regional Parks 2021 Annual Report

RECEIVED

In 2021, Metro Vancouver worked to keep regional parks open and visitors safe during the continuing COVID-19 pandemic and multiple extreme weather events. There were 16.3 million visits to regional parks — a 37 per cent increase from visitation in 2019. Staff demonstrated flexibility and creativity to continue the delivery of park programs safely. As a result, 23,670 people were able to take part in 822 programs, events, and outreach activities while 3,751 volunteers contributed 11,606 hours to stewardship, education, and interpretive programs. Nearly 76 hectares of land were added to the regional parks system while staff advanced numerous planning, design, and asset management initiatives.

The Board received the report for information.

E5.1 Process to Consider Stronger Climate Action Language and Policy for Metro 2050

RECEIVED

The Board recently directed staff to explore stronger policy directions in *Metro 2050* with regards to GHG emission reductions and regional resilience, driven in part by the unprecedented climate change-related impacts the region and surrounding areas suffered in 2021 including the heat dome, wildfires, landslides, and flooding. Consistent with the recently released Intergovernmental Panel on Climate Change report, scientific experts recognize that further and faster action is needed to assist in reducing climate change impacts. This report presents a proposed scope of work and engagement plan to explore opportunities for stronger climate action language and policy for *Metro 2050*.

The schedule to adopt *Metro 2050* will proceed as directed by the MVRD Board, with possible consideration of bylaw adoption in July 2022. Given that land use intersects with many issue areas and the actions of other Metro Vancouver management plans, staff will concurrently be preparing the draft *Climate 2050 Land Use and Growth Management Roadmap*.

Over the latter half of 2022, staff will engage with the Regional Planning Advisory Committee, Regional Planning Committee, Climate Action Committee, and other standing committees, as well as with stakeholders and subject matter experts on the policy directions and the *Roadmap*, and will prepare recommendations for enhanced policies to be considered by the Board in 2023.

The Board received the report for information.

E5.2 Regional Parking Strategy – Scope of Work

RECEIVED

Regional Planning is initiating a *Regional Parking Strategy* that builds on the apartment parking studies completed in 2012 and 2018. The *Regional Parking Strategy* will develop policy guidance aimed at reducing the amount of under-utilized parking and, as a result, the construction cost of new housing. The strategy will provide best practices and guidance on:

- Developing new and amended parking policies and regulations
- Reducing the supply of both parking spaces and vehicles
- How best to pursue greater land efficiency and housing affordability through reduced construction costs

Member jurisdictions have requested that the project scope emphasize strategic planning and the provision of guidance, rather than simply data collection. The strategy will feature a demand-side (pricing-based) element and be steered by a technical working group. The project will be completed by the end of 2023.

The Board received the report for information.

E5.3 Social Equity in Regional Growth Management Phase 3 Study – Project Scope

RECEIVED

This report provided an overview of the scope and timeline for Phase 3 of the Social Equity in Growth Management project. Regional Planning staff will pilot the use of the social equity baseline indicator mapping analyses from the 2020 phase 2 report in a series of case study “mini projects” to help support local planning efforts. This project will include a review of the draft policies of *Metro 2050* to identify ways to enhance social equity outcomes through potential future amendments of the regional growth strategy and/or the accompanying implementation guidelines. This phase of work will also involve promoting the indicator data and other resources associated with the project among local planning practitioners. Finally, this project will involve updating the social equity indicator maps with 2021 Census data in early 2023 after the required data becomes available.

The Board received the report for information.

E5.4 2022 Agriculture Awareness Grant Recommendations

APPROVED

Programs and outreach that support local sustainable food production are important contributions toward increasing awareness across the region. The funding provided through the Agriculture Awareness Grants is particularly valuable now for those community organizations doing public outreach on the value of producing or buying food close to home.

The Board awarded the annual Agriculture Awareness Grants to the following 14 non-profit organizations:

- Fraser North Farmers Market Society, for the “Nibble Network” project in the amount of \$2,500
- Hives for Humanity Society, for “Stories and Sounds of Connection around Beekeeping and Gardening” in the amount of \$2,000
- Immigrant Link Centre Society, for the “‘From Pollution to Solution’ Educational Cartoon” project in the amount of \$5,500
- See-emia Cultural Studies Society, for the “Sovereign Seedlings” project in the amount of \$4,750
- Urban Bounty/Richmond Food Security Society, for “From Field to Fork” in the amount of \$5,000
- Delta Farmland & Wildlife Trust, for “Day at the Farm” in the amount of \$4,500
- BC Agriculture in the Classroom, for “Take a Bite of BC” in the amount of \$3,000
- Earthwise Society, for the “Tomato Festival” in the amount of \$2,500
- Public Health Association of BC, for “Farm to School BC” in the amount of \$3,500
- The Sharing Farm Society, for the “12th Annual Garlic Festival” in the amount of \$2,000
- BC Association of Farmers Markets, for the “PechaKucha: Local Food and Agriculture” project in the amount of \$3,000
- FarmFolk/CityFolk, for the “Visioning a Sustainable Food System in BC” project in the amount of \$4,250

- Pacific Immigrant Resources Society, for the “Local Food Literacy for Immigrant and Refugee Women in Metro Vancouver” project in the amount of \$5,500
- Growing Chefs Society, for “Edible Education Programming” in the amount of \$2,000

E5.5 Request for Sanitary Service Connection at 13179 224 Street, Maple Ridge

APPROVED

The City of Maple Ridge submitted an application to extend sewer service to a parcel to provide servicing to allow for the expansion of an existing restaurant at 13179 224 Street. The property is outside of the Fraser Sewerage Area, on land with a *Metro 2040* agricultural land use designation, and outside of the Urban Containment Boundary. Staff review found that the application is generally consistent with *Metro 2040* given that:

- The Agricultural Land Commission has confirmed that the *Agricultural Land Commission Act* does not apply to the parcel given its size
- An on-site septic system is not feasible for the proposed use
- The connection will not result in the expansion of the existing uses on the site
- The proposal will not impact the surrounding agricultural uses
- Sewerage infrastructure is located under 224 Street, across the frontage of the property

The Board resolved that the extension of sewerage services in the City of Maple Ridge is consistent with the provisions of *Metro 2040*, and forwarded the request to the GVS&DD Board for consideration.

E6.1 Renewal of MVRD Internal Financing of MVHC Mortgages

APPROVED

The approval of continuing to provide first mortgage financing for Semlin Terrace, Grandview Gardens, Kelly Court, Earle Adams, and Euclid Square for a five-year term at a variable interest rate based on MVRD’s estimated internal rate of return on investments, is recommended. The estimated rate for 2022 is 1.7 per cent, well below current institutional rate of 2.52 per cent. MVRD has provided first mortgage financing for these properties since 2017 and this will be the last renewal term for these mortgages. As there continues to be global uncertainty in the economy, and with anticipated interest rates hikes, financing these mortgages through MVRD provides MVHC with the greatest flexibility and financial savings. The risk of rising interest rates is somewhat mitigated in that MVHC earns the same internal rate on its reserve funds held by MVRD.

The Board approved continuing to provide first mortgage financing on five MVHC properties, and directed the Corporate Officer to publish in the newspaper, pursuant to requirements the *Local Government Act*, Metro Vancouver’s intention to lend money to the MVHC.

E7.1 Metro Vancouver External Agency Activities Status Report – May 2022

RECEIVED

The Board received for information reports from Metro Vancouver representatives to the following external organizations:

- Board of Trustees of the Sasamat Volunteer Fire Department

- Delta Heritage Airpark
- Fraser Basin Council, Lower Mainland Flood Management Strategy Leadership Committee
- Katzie Treaty Negotiation Table
- Lower Mainland Local Government Association
- Municipal Finance Authority of BC
- Ocean Watch Action Committee
- Pacific Parklands Foundation
- Union of British Columbia Municipalities
- Western Transportation Advisory Council
- Zero Emission Innovation Centre Board of Directors

G1.1 MVRD Concrete and Concrete Products Industries Emission Regulation Amending Bylaw No. 1341, 2022 **APPROVED**

Engagement on updates to air quality management fees took place from January to April 2021. Emails were sent to all facilities regulated under GVRD *Concrete and Concrete Products Industries Emission Regulation Bylaw No. 1084, 2008*, with information that would result in increases of \$50 to each facility's annual fees. Metro Vancouver heard no concerns from these regulated facilities. On October 29, 2021, the Board updated the fees when it adopted MVRD *Air Quality Management Fees Regulation Bylaw No. 1330, 2021*. This bylaw updates brings fees into alignment with the changes proposed during engagement and reflects the updated fee rates in *Bylaw 1330*.

The Board gave first, second, and third readings to the *Concrete and Concrete Products Industries Emission Regulation Amending Bylaw*, then passed and finally adopted said bylaw.

G1.2 MVRD Gasoline Distribution Emission Regulation Amending Bylaw No. 1342, 2022 **APPROVED**

Engagement on updates to air quality management fees took place from January to April 2021. Emails were sent to all facilities regulated under GVRD *Gasoline Distribution Emission Regulation Bylaw No. 1085, 2008* with information that would result in increases to annual fees ranging from \$50 for most facilities to a few thousand dollars for bulk and terminal facilities. Metro Vancouver heard no concerns from these regulated facilities. On October 29, 2021, the MVRD Board updated the fees when it adopted *Air Quality Management Fees Regulation Bylaw No. 1330, 2021*. An amended bylaw brings fees in alignment with the changes proposed during engagement and reflects the updated fee rates in *Bylaw 1330*.

The Board gave first, second, and third readings to the *Gasoline Distribution Emission Regulation Amending Bylaw*, then passed and finally adopted it.

G1.3 MVRD Boilers and Process Heaters Emission Regulation Amending Bylaw No. 1343, 2022 **APPROVED**

Engagement on updates to air quality management fees took place from January to April 2021. Emails were sent to all facilities regulated under *Boilers and Process Heaters Emission Regulation Bylaw No. 1087, 2008* with information about proposed increases in fees ranging from about \$500 to \$5,000 in each facility's annual fees. Metro Vancouver heard no concerns from these regulated facilities. On October 29, 2021, the

MVRD Board updated the fees when it adopted *the Air Quality Management Fees Regulation Bylaw No. 1330, 2021*. Updates to *Bylaw 1087* update fees in alignment with the changes proposed during engagement and reflects the updated fee rates in *Bylaw 1330*.

The Board gave first, second and third readings to the *Boilers and Process Heaters Emission Regulation Amending Bylaw* then passed and finally adopted it.

G2.1 Metro Vancouver Regional District Election Bylaw 1340

APPROVED

The Local Government Act permits local governments to establish certain electoral procedures by bylaw. Staff brought forward a new *Election Bylaw* to reflect recent changes to provincial legislation, in particular in relation to the mail-in ballot voting process, as well as general housekeeping amendments.

The Board gave first, second, and third readings to *Election Bylaw No. 1340, 2022*, then passed and finally adopted the aforementioned bylaw.

I 1 Committee Information Items and Delegation Summaries

RECEIVED

The Board received information items and delegation summaries from standing committees.

Indigenous Committee – May 11, 2022

Information Items:

5.3 Quarterly Report on Reconciliation Activities

This report provides a summary of reconciliation events and activities undertaken by Metro Vancouver over the past few months as well as information on upcoming events and activities over the next few months.

Performance and Audit Committee – May 12, 2022

Information Items:

5.1 Metro Vancouver Quarterly Financial Report – March 31, 2022

This was the first quarterly financial report for 2021. The information presented in this package is the first of these quarterly reports, representing financial information as of March 31, 2022. The results of the first quarter of 2022, indicates that Metro Vancouver's quarter-to-date operating budgets are on target compared to budget.

Capital spending is lower than expected; however, it is early in the year and it is expected that construction will ramp up in the remainder of the year as projects previously delayed move forward. Cash flow projections and accounts receivable collections are on target and remain positive in both the likely and pessimistic scenarios.

5.2 Improving Metro Vancouver Financial Standing – Update

At the April 14, 2021 meeting of the Performance and Audit Committee, staff brought forward a report outlining the actions to enhance both the effect and the perspectives of Metro Vancouver’s financial management approach. This work includes reviewing key policies and enhancing transparency through improved and more frequent reporting.

While Metro Vancouver continues to maintain a solid financial position with a strong balance sheet and good indicators of financial health, these actions pursue opportunities to increase the level of sophistication of its financial policies and processes in order to match the challenging environment in which it operates, and the constantly evolving issues that need to be addressed. This work is even more important now than it was a year ago due to the uncertain macro-economic environment and growth in the capital program.

Finance Committee – May 12, 2022

Delegation Summaries:

3.1 Roderick V. Louis: TransLink’s 2022 Investment Plan and Proposed Increase in Borrowing Limit

Climate Action Committee – May 13, 2022

Delegation Summaries:

3.1 Dr. Larry Barzelai, Chair of the BC branch of the Canadian Association of the Physicians for the Environment: Proposed Tilbury LNG Plant Expansion

Metro Vancouver Housing Corporation

E1.1 Construction Cost Escalation Since 2020

RECEIVED

Construction costs have seen unprecedented increases over the past two years, a trend that is significantly impacting the development of new housing and, in particular, affordable rental housing.

This report provides an overview of construction cost escalation trends since 2020, highlighting how the COVID-19 pandemic and other global challenges have impacted supply chains, material and labour shortages, and increased market unpredictability. Metro Vancouver Housing will continue to assess projections for escalation rates moving forward and return to the Committee and Board to advise how this will impact housing development projects and budgeting.

The Board received the report for information.

E2.1 Change of Address for MVHC Registered Office

APPROVED

In fall 2021, Metro Vancouver changed its address to 4515 Central Boulevard in Burnaby. Pursuant to the *Business Corporations Act*, the MVHC directors must authorize this change in address, which must be kept up to date with the BC Registrar of Companies.

The Board authorized the change of the mailing address and delivery address of the corporation's registered office to c/o Metro Vancouver Regional District, 4515 Central Boulevard, Burnaby, BC, V5H 0C6, and authorized the Corporate Officer to undertake all necessary actions to complete the address change.

I 1 Committee Information Items and Delegation Summaries

RECEIVED

The Board received information items and delegation summaries from standing committees.

Housing Committee – May 19, 2022

Information Items:

5.2 Status of Metro Vancouver Housing Corporation Capital Expenditures to December 31, 2021

The capital expenditure reporting process provides for regular status updates on capital expenditures. This is the year-end report for 2021 and compares capital spending for the 2021 fiscal year to the annual budget. In 2021, annual capital expenditures for MVHC were \$13.9 million compared to a capital budget of \$49.1 million. The capital underspend in Housing Services is primarily due to additional lead time required for the design for Welcher Avenue that has, in turn, delayed the construction to 2022 and construction delays related to Kingston Gardens - Phase 1 due to permitting delays. This underspend will be partially utilized for these projects in 2022. Any additional capital funding surplus will remain with Housing Reserves to fund future capital.

Greater Vancouver Water District

E1.1 Award of Contract Resulting from Request for Proposal No. 22-015: Supply and Delivery of Sodium Hypochlorite

APPROVED

Sodium hypochlorite is used by Water Services for drinking water disinfection at the Seymour Capilano Filtration Plant, Coquitlam Water Treatment Plant, and the secondary disinfection facilities. Liquid Waste Services uses sodium hypochlorite for effluent disinfection at the Annacis Island, Lions Gate, and Lulu Island Wastewater Treatment Plants.

The Board approved award of a contract for an estimated value of \$11,992,000 (exclusive of taxes) to Brenntag Canada Inc., for an initial three-year term, resulting from RFP No. 22-015: Supply and Delivery of Sodium Hypochlorite, subject to final review by the Commissioner.

E1.2 Award of Contract Resulting from Request for Proposal No. 21-468: Newton Pump Station No. 2 – Reservoir Tunnelling and Outlets

APPROVED

To meet future water supply demands, Metro Vancouver is replacing the existing Newton Pump Station in the City of Surrey with the Newton Pump Station No. 2. The project is being delivered in two phases: construction of new outlets on the existing Newton Reservoir, followed by the construction of the new pump station.

An increase in project budget is required to complete this work; however, with permanent savings realized from other projects, there will be no increase to the overall approved GVWD capital budget.

The Board authorized an increase of the project budget in the amount of \$8,000,000 for the Newton Pump Station No. 2 project, bringing the revised total project budget to \$53,000,000, and approved award of a contract in the amount of up to \$12,362,769 (exclusive of taxes) to Michels Canada Co., subject to final review by the Commissioner.

E1.3 State of the Assets Report - Water

RECEIVED

This report provides a summary of the asset inventory, condition, replacement value, and forecast long-term investment needs of the nine water asset classes. The overall condition has been assessed as “good” for water assets. Current analysis indicates that the *2022–2026 Financial Plan* contains sufficient funding to adequately maintain these existing assets. Key drivers going forward creating pressure on future budgets are growth, resilience, and regulatory changes which are not considered in this report and will be addressed separately. Confidence in the accuracy and repeatability of the data used to generate the report ranges from uncertain (asset valuation) to reliable (asset inventory, asset condition). Continuous improvement of asset data, information technologies, and business practices is ongoing to better enable evidence based decision making and sustain targeted service levels.

The Board received the report for information.

I 1 Committee Information Items and Delegation Summaries

RECEIVED

The Board received information items and delegation summaries from standing committees.

Water Committee – May 11, 2022

Information Items:

5.1 Lower Seymour Conservation Reserve Management Plan 2022

The LSCR plays an important function in current water utility operations and future water supply planning. Home to a variety of water supply-based infrastructure including the Seymour Capilano Filtration Plant, and 10 kilometres of the Seymour water main, the LSCR also provides an excellent ecological buffer between the urban region and the water supply area. As was originally contemplated when the area was set aside, a second dam at mid-valley remains as a long-term water supply option.

The *Lower Seymour Conservation Reserve Management Plan* was updated this year. The new 2022 plan expresses a long-term vision to guide the operations of the reserve over a 10-year horizon and is based on the existing programs and uses. This report highlights high-level objectives of the 2022 plan and provides links to the *Drinking Water Management Plan* and public and agency engagement. Through the 2022 plan update process, it was determined that the original goals and principles were still substantially relevant and required only minor updates to modernize them and expand the management vision over the next decade. Primary updates were focused within the strategies and goals to better reflect current challenges and newly discovered initiatives.

5.2 Water Services Wildfire Preparedness Update

An integral component of the provision of water services is protection of the forested lands surrounding Capilano, Seymour and Coquitlam reservoirs. This objective is primarily achieved by restricting public access to eliminate pollution, reduce wildfire risk, and ensure the areas are solely used for drinking water supply. As a result, the water supply areas have a historically low incidence of wildfire with the primary remaining cause being lightning strikes during periods of moderate or higher fire danger. Real-time lightning detection, staff patrols, and local air traffic reports ensure fires are discovered and extinguished quickly.

The Water Services Protection Program has staff with expertise in wildfire management, an array of weather monitoring stations, equipment available for strategic deployment, and a provincial resource sharing agreement to ensure readiness for the 2022 fire season. Further, the protection team has developed several strategic interagency relationships, including the new Watershed Wildfire Strategic Partners Working Group, and together with our Corporate Security and Emergency Preparedness team hosted a *Metro Vancouver Regional Wildfire Symposium* in March 2022.

Greater Vancouver Sewage and Drainage District

E1.1 State of the Assets Report - Liquid Waste

RECEIVED

This report provides a summary of the asset inventory, condition, replacement value, and forecast long-term investment needs of the eight liquid waste asset classes. The overall condition has been assessed as “good” for liquid waste assets. Current analysis indicates that the *2022–2026 Financial Plan* contains sufficient funding to adequately maintain these existing assets. Key drivers going forward that are creating pressure on future budgets are growth, resilience, and regulatory changes which are not considered in this report and will be addressed separately.

Confidence in the accuracy and repeatability of the data used to generate the report ranges from uncertain (asset valuation) to reliable (asset inventory, asset condition). Continuous improvement of asset data, information technologies, and business practices is ongoing to better enable evidence based decision making and sustain targeted service levels.

The Board received the report for information.

E1.2 Environmental Risk Management Policy for Liquid Waste Services

APPROVED

Liquid Waste Services is developing an Environmental Management System (EMS) based on ISO 14001:2015. A key aspect to its success is the development and adoption of a Board-approved environmental policy.

Establishment of the *Environmental Risk Management Policy* formalizes the utility’s commitment to achieving excellence in environmental performance, provides a framework for further development of the EMS, and drives LWS decision-making to support ongoing priority risk mitigation. LWS has been working in conjunction with Water Services to develop EMS components beneficial to both utilities.

The Board approved the *Environmental Risk Management Policy* for Liquid Waste Services, as presented.

E1.3 Grant Funding Application for Northwest Langley Wastewater Treatment Plant Renewable Natural Gas Project **APPROVED**

On January 17, 2022, the governments of Canada and British Columbia committed up to \$134 million towards a third intake of the Green Infrastructure – CleanBC Communities Fund, which is part of the federal government’s Investing in Canada Infrastructure Program, to support cost-sharing of infrastructure projects in communities across the province. This intake supports projects starting in 2023 and completing by March 2027.

The proposed Northwest Langley Wastewater Treatment Plant renewable natural gas project will reduce regional greenhouse gas emissions and generate ongoing revenues, in support of *Climate 2050* and *Integrated Liquid Waste and Resource Recovery Plan* goals. The project will install infrastructure that will clean up excess biogas at the new plant, and recover heat from treated effluent to increase excess biogas availability. The cleaned biogas will be sold to FortisBC as renewable natural gas for use throughout the region, reducing regional greenhouse gas emissions.

This grant application for \$13,400,000 from the CleanBC Communities Fund will help fund the design and construction of the project, which has a total cost of \$27.1 million, excluding owner’s costs and risk reserve.

The Board supported the application for grant funding of \$13,400,000 for the Northwest Langley Wastewater Treatment Plant renewable natural gas project to CleanBC Communities Fund, as presented.

Subject to successful grant funding, the Board would approve financing of eligible costs until the provincial government contributions are received, and approve funding for any ineligible and potential project cost overruns.

E1.4 Award of Contract Resulting from Request for Proposal No. 22-015: Supply and Delivery of Sodium Hypochlorite **APPROVED**

Sodium hypochlorite is used by Water Services for drinking water disinfection at the Seymour Capilano Filtration Plant, Coquitlam Water Treatment Plant, and the secondary disinfection facilities.

Liquid Waste Services uses sodium hypochlorite for effluent disinfection at the Annacis Island, Lions Gate, and Lulu Island Wastewater Treatment Plants.

The Board approved award of a contract for an estimated value of \$11,992,000 (exclusive of taxes) to Brenntag Canada Inc., for an initial three-year term, resulting from RFP No. 22-015: Supply and Delivery of Sodium Hypochlorite, subject to final review by the Commissioner.

G1.1 Greater Vancouver Sewerage and Drainage District Development Cost Charge Reserve Fund Expenditure Bylaw No. 355, 2022 **APPROVED**

This *Development Cost Charge (DCC) Expenditure Bylaw* provides authority for 2021 annual funding applied for growth capital debt servicing amounts and growth capital project expenditures.

In total, \$42.2 million of DCCs were applied for the 2021 year over the four defined sewerage areas. Total DCCs held in deferred revenue reserve balances as at December 31, 2021 were \$258.6 million.

The Board gave first, second, and third readings to the *Development Cost Charge Reserve Fund Expenditure Bylaw No. 355, 2022*; then passed and finally adopted said bylaw.

I 1 Committee Information Items and Delegation Summaries

RECEIVED

The Board received information items and delegation summaries from standing committees.

Performance and Audit Committee – May 12, 2022

Information Items:

5.3 Semi-Annual Report on GVS&DD Development Cost Charges

Total GVS&DD Development Cost Charges (DCCs) collected in 2021 was \$85.1 million, up from \$62.9 million in the prior year. Development in the region continued to be strong despite COVID-19. Development activity in the region for 2021 was relatively steady with January to December 2021 building permit values approaching close to \$10 billion (2020 - \$10.2 billion). The vast majority of the building permit activity in 2021 (72 per cent) was in the residential development sector (2020 - 70 per cent). Affordable housing development cost charge (DCC) waivers were approved in 2021 for a total of 2,223 units (2020 – 415 units) in the four sewer areas of Fraser, Vancouver, Lulu Island and North Shore representing close to \$4.3 million (2020 - \$1.1 million) in forgone DCC collections.

Total DCCs held in deferred revenue reserve balances as at December 31, 2021 were \$258.6 million (December 31, 2020 - \$213.1 million). DCCs will now be updated annually as part of the budget process to ensure that Metro Vancouver stays current and maximized this revenue stream to reduce rate impacts of the capital program.

Zero Waste Committee – May 13, 2022

Information Items:

5.1 2021 Waste Composition Data

Metro Vancouver's waste composition program includes a series of annual studies to learn about the types and quantities of waste disposed in the region. In 2021, both a full-scale study examining waste disposed from all sectors and a multi-family sector specific study were completed. Results from the full-scale study indicate that waste composition in 2021 was similar to 2018, with 2020 being an outlier year due to the COVID-19 pandemic. Key similarities in 2018 and 2021 waste composition include quantities of organics and building material disposed. Single-use item disposal increased in 2021 compared to 2020, but is lower overall than pre-pandemic levels. Personal protective equipment disposal, particularly masks, also increased in 2021. Multi-family waste composition demonstrates that compostable organics remain the

largest component of multi-family waste and a key opportunity for waste diversion in this sector. Waste composition results help identify priorities for solid waste management plan update and inform behaviour change campaigns such as “Food Scraps Aren’t Garbage.”

5.2 Single-Use Item Reduction Regulatory Update

Since the Board approved the *Regionally Harmonized Approach to Municipal Single-Use Item Reduction Bylaws* on November 26, 2021 the Government of Canada, the Government of BC, and member jurisdictions have implemented or announced plans to implement single-use item reduction regulations. While the proposed regulations largely align with the regionally harmonized approach, there are some proposed additions such as banning plastic ring carriers at the federal level and banning compostable foodservice ware at the provincial level. The proposed regulations for Canada and BC, once enacted, will provide a high level of harmonization. At the same time, the flexibility of the proposed BC regulations will allow municipalities to pursue new policies to address single-use waste that go beyond the scope of the provincial and federal government regulations. Five of Metro Vancouver’s member jurisdictions have bylaws and three have received direction to work on bylaws. In addition, recent changes to *the BC Food Safety Act* allow customers to bring containers to be filled by restaurants.

5.3 2022 Food Scraps Recycling “Food Scraps Aren’t Garbage” Results

The 2022 “Food Scraps Aren’t Garbage” campaign ran from January 3 to March 6, 2022. The campaign’s primary objective is to increase the diversion of organic waste into the green bin. New in 2022 were two target audience segments: those on the fence about using the green bin (men age 18–44), and those who can further improve by reducing contamination (women age 45–65). A new key message making the connection between composting and climate change was added. Residents who have seen the campaign feel that reducing production of methane is the most important benefit of food scraps recycling (27 per cent vs 17 per cent unaware of advertising). This is likely a direct result of the new message. The campaign performed strongly, with 31 million impressions, two million reach, and over 16,000 webpage visits. There were 12,700 likes, comments, and shares on social media, which is well above average. The campaign will run again in early 2023.

Climate Action Committee – May 13, 2022

Information Items:

5.3 2022 Update on Liquid Waste Sustainability Innovation Fund Projects

This report provides an update on eight projects that were approved for funding in 2017 through 2021 under the Sustainability Innovation Fund. Of the eight projects, two are highlighted for significant milestones:

- Genomics Approach to Anaerobic Digestion Optimization. The United States Patent and Trademark Office granted a patent titled “Syntrophic Enrichment for Enhanced Digestion Processes” to Metro Vancouver in March 2022.

- Hydrothermal Processing – Biofuel Demonstration Facility. The contract for design of the hydrothermal processing unit was awarded in January 2022.

Descriptions of the other six projects that are progressing are included in the report.



Parks, Recreation and Cultural Services Committee

Date: Wednesday, May 25, 2022

Place: Council Chambers
Richmond City Hall

Present: Councillor Harold Steves, Chair (by teleconference)
Councillor Chak Au
Councillor Bill McNulty (by teleconference)
Councillor Linda McPhail (by teleconference)
Councillor Michael Wolfe (by teleconference)

Also Present: Councillor Carol Day
Councillor Andy Hobbs
Councillor Alexa Loo

Call to Order: The Chair called the meeting to order at 4:52 p.m.

MINUTES

It was moved and seconded

That the minutes of the meeting of the Parks, Recreation and Cultural Services Committee held on April 26, 2022, be adopted as circulated.

CARRIED

DELEGATIONS

1. (1) Dr. Michael Bomford, Chair, Department of Sustainable Agriculture, Kwantlen Polytechnic University (KPU), was in attendance to briefly review the KPU Research and Teaching Farm 2021 Annual Report.

A PowerPoint presentation was given (copy on file) to briefly summarize 2021 activities and provide images/outline of land utilization of the KPU Farm at the Garden City Lands.

It was noted that the farm was certified organic April 1, 2021 and produced 18 tons of certified organic produce.

Parks, Recreation & Cultural Services Committee
Wednesday, May 25, 2022

It was moved and seconded

That the KPU Farm at the Garden City Lands 2021 Annual Report be received.

CARRIED

- (2) Brent Elliott, Director, Planning and Sustainability, Kwantlen Polytechnic University (KPU), was in attendance to speak to the proposed KPU Barn at Garden City Lands.

A PowerPoint presentation was given (copy on file) providing an overview of the proposed upgrades to the KPU Farm Master Plan, including renderings of the barn, which will securely store assets and equipment for improving farm operations. Once complete (by March 2024), the barn will have a strong presence and punctuate the importance of agriculture.

Councillor Day left the meeting (5:18 p.m.)

A brief discussion ensued with respect to consideration of public washroom facilities.

Councillor Au left the meeting (5:21 p.m.)

COMMUNITY SERVICES DIVISION

2. **RICHMOND ANIMAL SHELTER PUBLIC ART PROJECT TERMS OF REFERENCE**

(File Ref. No. 11-7000-09-20-284) (REDMS No. 6856017)

It was moved and seconded

That the Terms of Reference for the Richmond Animal Shelter Public Art Project as presented in the report titled, "Richmond Animal Shelter Public Art Project Terms of Reference", dated April 13, 2022, from the Director, Arts, Culture and Heritage Services, be approved.

CARRIED

2A. **REFERRALS**

- (i) *Designated BMX Track and Neighbourhood Pump Track*

Councillor Loo put forward the subject referral for consideration.

2.

Parks, Recreation & Cultural Services Committee

Wednesday, May 25, 2022

It was moved and seconded

That staff analyze the concept of a designated BMX track and neighbourhood pump track, and report back with potential sites, estimated costs and possible funding sources.

CARRIED

(ii) National Historic Site Designation for Steveston Village

Councillor Steves put forward the subject referral for consideration.

A brief discussion ensued with respect to progress on the Steveston Museum and the Steveston Waterfront, noting concerns raised in 2014 when a large portion of the area had been approved.

It was moved and seconded

That staff prepare an update on the "National Historic Site designation for Steveston Village" for the next committee meeting. Designation to include the area from the Britannia Shipyard National Historic Site to the Gulf of Georgia National Historic Site. The following buildings with National Historic significance to be included:

- *Britannia Shipyard representing boat building and repairs,*
- *Two Phoenix Net Lofts, representing large cannery structures, Lubzinski Ship Wheel construction, and potential Easthope Engine Shop (one of the worlds earliest engine builder), indoor boat collection, maritime museum interpretation, maritime arts, marine habitat centre or "Estuarium"*
- *Chinese Bunkhouse, representing Chinese history,*
- *Murakami House, representing Japanese History,*
- *Murakami Boatworks, representing early Japanese boat building,*
- *Kishi Boatworks, representing later Japanese boat building,*
- *First Nation Smokehouse, representing First Nations and one of the last remaining smokehouses,*
- *Steveston Post Office, and bank, one the last remaining community Post Offices in Canada*
- *Japanese Fisherman's Benevolent society building, including the Benevolent Society Office, Japanese School Principals Office and Hospital office and nurses quarters for the Japanese Hospital and the first medicare system in Canada,*
- *Gulf of Georgia Cannery National Historic Site.*

CARRIED

Parks, Recreation & Cultural Services Committee
Wednesday, May 25, 2022

3. MANAGER'S REPORT

(i) Staffing Update

Mandy Hadfield was introduced as the new Manager, Sport and Community Events.

(ii) Doors Open Richmond

The 15th Doors Open Richmond returns in 2022 as a free, in-person and online event from June 2 to 5, 2022, celebrating cultural diversity and raising civic awareness by offering a look inside places of worship, cultural and civic centres, local businesses, museums and heritage sites.

(iii) Outdoor Pool Opening

Steveston Outdoor Pool was the first to open on May 21st, to be followed by South Arm on June 11th. Also seeing schools getting more active with 19 schools that have booked sessions at the outdoor pools this spring, as well as schools taking advantage of the water safety sessions, noting a total of 55 sessions booked at the pools to prepare children and youth for water safe activities through the spring and summer.

(iv) Seniors Week

Seniors Week – June 6-12, 2022, will kick off on June 6th with the Mayor's welcome and a walk around Minoru Track. Over 20 fun, free/low-cost, creative activities and events will be offered throughout the week.

(v) ParticipACTION Community Better Challenge

Taking place June 1-30, 2022, a calendar with over 40 activities has been created for Richmond residents to participate in the ParticipACTION Community Better Challenge, with participants eligible to win a variety of fun prizes. New for this year are some friendly competitions for aquatic and arena user groups, sports teams and school classrooms to become the most active in their respective categories. Download the ParticipACTION App, join the Community Better Challenge and track your physical activity as Richmond strives to be crowned Canada's Most Active Community.

ADJOURNMENT

It was moved and seconded

That the meeting adjourn (5:37 p.m.).

CARRIED

4.

Parks, Recreation & Cultural Services Committee
Wednesday, May 25, 2022

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 May 25, 2022.

Councillor Harold Steves
Chair

Lorraine Anderson
Legislative Services Associate



Public Works and Transportation Committee

Date: Wednesday, May 18, 2022

Place: Council Chambers
Richmond City Hall

Present: Councillor Chak Au, Chair
Councillor Alexa Loo
Councillor Andy Hobbs
Councillor Linda McPhail
Councillor Michael Wolfe (by teleconference)

Call to Order: The Chair called the meeting to order at 4:43 p.m.

MINUTES

It was moved and seconded

That the minutes of the meeting of the Public Works and Transportation Committee held on April 20, 2022, be adopted as circulated.

CARRIED

PLANNING AND DEVELOPMENT DIVISION

1. APPLICATION TO GOVERNMENT OF CANADA ACTIVE TRANSPORTATION FUND

(File Ref. No. 01-0140-20-INFR1) (REDMS No. 6862702)

In reply to a query from the Committee, staff advised that the funding is restricted to new projects.

It was moved and seconded

(1) That the City Centre Cycling Network Expansion application for cost-sharing as described in the attached report titled "Application to Government of Canada Active Transportation Fund", dated March 29, 2022, from the Director, Transportation, be endorsed;

Public Works & Transportation Committee
Wednesday, May 18, 2022

- (2) *That, should the above application be successful, the Chief Administrative Officer and the General Manager, Planning and Development, be authorized on behalf of the City to execute the funding agreement; and*
- (3) *That the Consolidated 5 Year Financial Plan (2022-2026) be amended accordingly.*

CARRIED

ENGINEERING AND PUBLIC WORKS DIVISION

2. AWARD OF CONTRACT 7214Q – ON CALL ROOFING CONTRACTOR

(File Ref. No. 10-6000-01) (REDMS No. 6863966)

In reply to a query from the Committee, staff advised that an update regarding living wages for the contractor's employees will be provided at the next Council meeting.

It was moved and seconded

- (1) *That Contract 7214Q – On Call Roofing Contractor be awarded to Marine Roofing and Repair Service (2003) Ltd., in the amount of \$714,010.44, for a three-year term as described in the report titled “Award of Contract 7214Q – On Call Roofing Contractor,” dated April 12, 2022, from the Director, Facilities and Project Development.*
- (2) *That the Chief Administrative Officer and General Manager, Engineering and Public Works, be authorized to extend the initial three-year term up to the maximum total term of five years, for the maximum total amount of \$1,240,125.81, as described in the report titled “Award of Contract 7214Q – On Call Roofing Contractor”, dated April 12, 2022, from the Director, Facilities and Project Development.*
- (3) *That the Chief Administrative Officer and General Manager, Engineering and Public Works, be authorized to execute the contract and all related documentation with Marine Roofing and Repair Service (2003) Ltd.*

CARRIED

Public Works & Transportation Committee

Wednesday, May 18, 2022

3. **PUBLIC ELECTRIC VEHICLE CHARGER PROGRAM UPDATE**

(File Ref. No. 02-0780-01) (REDMS No. 6869022)

John Roston, Richmond resident, commented on the need for legislation requiring the installation of electric vehicle (EV) charging stations in strata buildings.

In reply to queries from the Committee, staff advised (i) the cost of installing Level 3 chargers is significantly higher than Level 2 chargers; (ii) upon completion of a review of the City's charging needs, funding for additional Level 3 chargers may be considered; and (iii) it may be beneficial for Council to send a letter advocating for the right to charge, in accordance with the Community Energy and Emissions Plan (CEEP).

It was moved and seconded

That a letter be sent to the Province of BC Minister of Housing requesting legislation for the right to charge that will enable installation of electric vehicle charging infrastructure in more strata and apartment buildings.

CARRIED

It was then moved and seconded

That the report titled "Public Electric Vehicle Charger Program Update", dated April 14, 2022, from the Director, Sustainability and District Energy and the Director, Public Works Operations, be received for information.

CARRIED

4. **CHANGE ORDER APPROVAL - CONTRACT 6503P – EV CHARGING INFRASTRUCTURE AND MANAGEMENT PROVIDER**

(File Ref. No. 02-0780-01) (REDMS No. 6871147)

It was moved and seconded

That staff be authorized to issue a change order to increase the value of the current contract between the City of Richmond and Foreseeson Technology by \$2,290,663 bringing the new contract value to \$3,796,985 over the initial five-year contract term as detailed in the staff report titled "Change Order Approval – Contract 6503P – EV Charging Infrastructure and Management Provider", dated April 14, 2022, from the Director, Public Works Operations.

CARRIED

5. **MANAGER'S REPORT**

(i) *Electric Scooter Pilot Program*

The program launched with a fleet of 50 scooters and 25 electric bikes. It has been well received with no complaints from Richmond residents.

Public Works & Transportation Committee

Wednesday, May 18, 2022

(ii) *2022 Canadian Association of Municipal Administrators (CAMA) Leadership and Sustainability Award*

The City is the recipient of the CAMA Leadership and Sustainability Award for implementing the Citywide Pollinator Program. The award details have been posted on the website and media channels.

(iii) *Local Government Climate Action Program*

The provincial government recently announced the launch of the three- year Local Government Climate Action Program. Staff will provide a memorandum regarding program details and will report back on results.

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 Public Works and Transportation Committee of the Council of the City of Richmond held on Wednesday, May 18, 2022.

Councillor Chak Au
Chair

Haely Lindau
Legislative Services Associate



City of Richmond

Report to Committee

To: Public Works & Transportation Committee
From: Peter Russell
Director, Sustainability and District Energy
Suzanne Bycraft
Director, Public Works Operations
Date: April 14, 2022
File: 02-0780-01/2022-Vol
01
Re: Public Electric Vehicle Charger Program Update

Staff Recommendation

That the report titled "Public Electric Vehicle Charger Program Update", dated April 14, 2022, from the Director, Sustainability and District Energy and the Director, Public Works Operations, be received for information.

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

Suzanne Bycraft
Director, Public Works Operations
(604-233-3338)

Att. 3

REPORT CONCURRENCE	
CONCURRENCE OF GENERAL MANAGER 	
SENIOR STAFF REPORT REVIEW	INITIALS:
APPROVED BY CAO - Acting 	

Staff Report

Origin

This report provides an update on the most recent expansion of the City's public electric vehicle charging infrastructure and related matters. Additionally, this report responds to the June 28, 2021 Council referral related to the "Electric Vehicle Adoption – Youth Outreach Initiative" report:

That the report titled "Electric Vehicle Adoption – Youth Outreach Initiative" from the Interim Director, Public Works Operations, dated June 7, 2021, be received for information; and That staff report back on the program in 12 months."

This report supports Council's Strategic Plan 2018-2022 Strategy #2 A Sustainable and Environmentally Conscious City:

Environmentally conscious decision-making that demonstrates leadership in implementing innovative, sustainable practices and supports the City's unique biodiversity and island ecology.

2.2 Policies and practices support Richmond's sustainability goals.

This report supports Council's Strategic Plan 2018-2022 Strategy #6 Strategic and Well-Planned Growth:

Leadership in effective and sustainable growth that supports Richmond's physical and social needs.

6.2 "Green" and circular economic growth and practices are emphasized.

This report supports Council's Community Energy & Emissions Plan (CEEP) 2050:

Action 2.1.1 identifies that the City will 'Build out a network of public EV charging stations at civic facilities in Richmond to accelerate rate of local EV adoption' through securing funding for priority 'on the go' EV charging locations identifying optimal locations for the City's public EV charging network as EV ownership expands. Action 2.1.1 is also noted as an equity opportunity.

Analysis

Achievements to Date

The City currently owns and operates 51 public chargers with 7 additional chargers to be installed in Q2 2022 at City Hall, Richmond Animal Shelter and Capstan Park. Included in these figures is the most recent expansion which added 34 chargers at 12 locations across the City. The approved budgets for the expansion was \$1,340,000 with costs to be offset by a \$440,000 contribution from Natural Resources Canada. Attachment 1 provides a summary of current and planned level of service and locations for all public City-owned chargers.

In conjunction with Natural Resources Canada, staff are evaluating opportunities to share this information with the public and promote the City's continued foresight and progress in creating charging infrastructure in support of community EV adoption. A media event is contemplated upon completion of the installations at City Hall.

Charger Usage

The COVID-19 pandemic and timing of the introduction of user fees in March of 2020 saw a reduction in usage of the public chargers. However, recent usage is showing signs of increasing recovery and is expected to continue growing as COVID-19 restrictions ease and new EV sales continue to grow in the community. Tables 1, 2, and 3 show the gross revenue, charging sessions and energy consumption for Q1 2022.

Monthly revenues in March were double those in January. The number of charging sessions and energy used has increased by 34%, indicating longer visits per session, and supports the charge it and move it motto of increasing fees after longer than a two hour stay.

Table 1: Gross Revenue



Table 2: Monthly Charging Sessions

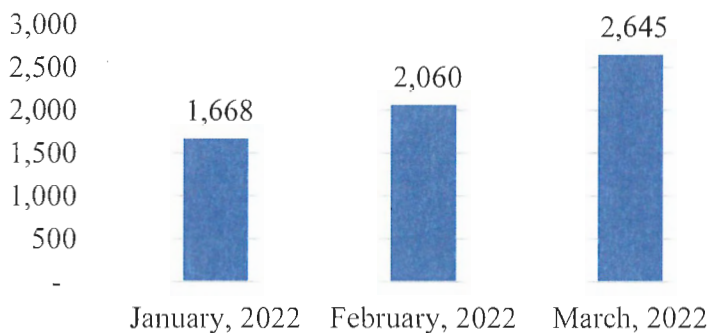
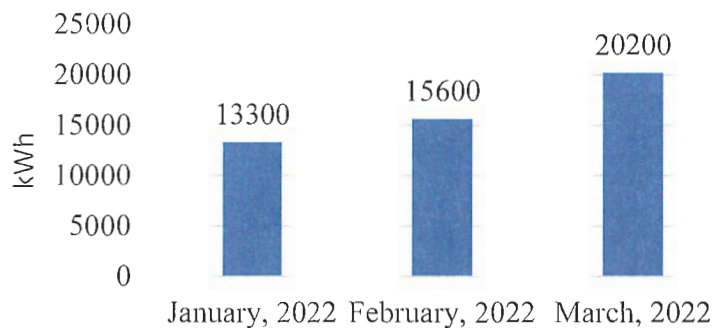


Table 3: Energy Distributed



Future Considerations

Below is an update on current work that is under development:

- **Staffing:** Council endorsed staff recommendations for the 'Parking Stall Fees at City-Owned Electric Vehicle Charging Stations' report at the December 18, 2019, Council meeting which included a recommendation to create a regular full-time position following analysis of operational demand in 2020. Due to reduced usage and revenue caused by the pandemic, staff have not brought forward the request to date. Staff will continue to monitor the current growth trend and bring forward recommendations for consideration in the 2023 budget cycle.
- **Rates:** Currently, a time-based rate is applied and charged per minute. See Attachment 2 for current rates and the principles behind the rate design. Rates can also be applied by electricity consumption.

Effective March 22, 2019, BC's Ministry of Energy Mines and Petroleum Resources provided exemptions under the Utilities Commission Act for the resale of electricity for the purposes of EV charging. Prior to this, there was concern that charging user fees for electricity for EV charging would require the seller to be regulated as a utility. Additionally, under Canada's Electricity and Gas Inspection Act, Measurement Canada has the mandate to protect the right of consumers to accurate and reliable measurement when they make a purchase based on measurement. Measurement Canada has initiated a process to allow chargers that meet established technical standards to charge directly for energy consumption. Staff will continue to monitor these developments and will bring forward rate structure options for Council consideration as appropriate.

Update on Fleet EV Chargers

The City's corporate electric vehicle charging infrastructure continues to expand as part of the Green Fleet Action Plan. The approved budgets for the current expansion is \$2,629,700 with costs to be offset by a \$420,000 contribution from Natural Resources Canada. The City recently joined

the West Coast Electric Fleets Diamond Lane pledge, which sets out a commitment to replace above 10% of all new corporate passenger fleet vehicle procurements as zero emission vehicles. To date, the City has installed 24 chargers to support growth in its corporate EV fleet. Current approved projects will increase this to 81 chargers. Attachment 3 provides a summary of the level of service and locations for all corporate chargers.

Update on Electric Vehicle Adoption – Youth Outreach Initiative

An outreach initiative to promote EV adoption among youth was developed for elementary-aged school children. The Richmond EVie Lesson Toolkit (RELT) was created with the assistance of the City Green Ambassadors, a group of volunteers with a keen interest in supporting City EV outreach events. Plug-In BC, Plug-In Richmond and the Richmond School District were partners in the development of this outreach initiative.

City staff worked with the Richmond School District 38 to launch the EVie Lesson Toolkit in preparation for program roll out starting in September 2021. Implementation has been slowed by COVID-19 restrictions and resource limitations requiring the Richmond School District to allocate resources to other school programs of importance. The RELT website had 40 visits, the challenge posters website had 30 visits, the introductory videos were viewed over 100 times, and a group of students are currently submitting design and video challenges as part of the program.

Staff will continue to promote the toolkit as COVID-19 restrictions ease and expect broader uptake in the program moving forward with a strong launch focus in the fall of 2022. Several promotional activities are in progress to support the adoption of the RELT program. These include launch of RELT program to all school principals in Richmond, three virtual information sessions on the program and the future of transportation, and a 10 week campaign to drive Richmond students to participate in a design or video challenges which concludes on Earth Day.

Additionally, Emotive and the Fraser Basin Council, who helped fund the development of this Richmond-based initiative, will make the toolkit available to other school districts in British Columbia to help further promote adoption of electric vehicles.

Financial Impact

None.

Conclusion

Council has established a strategic vision, backed by policies and funding, which have facilitated accelerated growth in EV charging infrastructure. This rapid deployment of chargers in Richmond has spurred growth in both community and corporate EV adoption. As COVID-19 restrictions ease, the use of chargers is beginning to spike, which correlates well with the pending completion of new City charger installations.

A media launch is contemplated to share the City's progress in completing these important community initiatives. The City also continues to raise awareness and promote EV adoption

April 14, 2022

- 6 -

through initiatives such as its RELT youth outreach initiative, being launched in cooperation with the Richmond School District.

A black ink signature of Peter Russell, consisting of a stylized 'P' followed by a horizontal line.

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

A blue ink signature of Dinos Ramos, featuring a stylized 'D' and 'R'.

Dinos Ramos
Public Works Operations Coordinator
(604-233-3302)

- Att. 1: Public Chargers Current and Planned
2: Current Rates and Principals of Charging Fees
3: Corporate Chargers Current and Planned

Public Chargers Current and Planned

Station Location	Address	No. of Ports	Type of Station		Type of Stall
Existing Public EV Charging Stations			Level 2	Level 3	Accessible Stall
Blundell Park	6468 Blundell Rd	2	✓		✓
Britannia Heritage Ship Yards	5180 Westwater Dr	2	✓		
Cambie Community Centre	12800 Cambie Rd	2	✓		
City Hall	6911 No. 3 Rd	2	✓		
City Works Yard	5599 Lynas Ln	2	✓		
Firehall 1	6960 Gilbert Rd	2	✓		
Firehall 3	9660 Cambie Rd	2	✓		
Garden City Park	6620 Garden City Rd	2	✓		✓
Hamilton Community Centre	5140 Smith Dr	2	✓		✓
King George Park	4100 No 5 Rd	1		✓	✓
King George Park	4100 No 5 Rd	2	✓		✓
Minoru Park (Arenas)	7551 Minoru Gate	4	✓		✓
Minoru Centre for Active Living	7191 Granville Ave	4	✓		
RCMP City Centre Community Police Office	6931 Granville Ave	2	✓		
Richmond Ice Centre	14140 Triangle Rd	1		✓	✓
Richmond Ice Centre	14140 Triangle Rd	2	✓		✓
Richmond Oval	6111 River Rd	1		✓	✓
Richmond Oval	6111 River Rd	4	✓		
South Arm Community Centre	8880 Williams Rd	2	✓		✓
Steveston Community Centre	4111 Moncton St	2	✓		
Steveston Tennis Courts	4151 Chatham St	2	✓		✓
Thompson Community Centre	5151 Granville Ave	2	✓		
West Richmond Community Centre	9180 No 1 Rd	4	✓		✓
SUBTOTAL		51			
Planned Public EV Charging Stations					
Capstan Park (On Street Parking)	3311 Carscallen Rd	2	✓		
City Hall	6911 No. 3 Rd	1		✓	✓
City Hall	6911 No. 3 Rd	2	✓		✓
Richmond Animal Shelter	12071 No. 5 Rd.	2	✓		
SUBTOTAL		7			
TOTAL CURRENT & PLANNED		58			

Current Rates and Principals of Charging Fees

Type of Charger	Charging Rate
Level 2	\$2.00/hour first 2 hours, \$5.00/hour thereafter
Level 3 (DCFC) 25kW	\$8.00/hour
Level 3 (DCFC) 50kW	\$16.00/hour

Fees have been set with the intention of increasing turnover, reducing average idle time at stations and encouraging EV drivers to preferentially charge at home or in the workplace, if that option is available. Rates are comparable to regional pricing in surrounding municipalities and BC Hydro stations.

Corporate Chargers Current and Planned

Station Location	Address	No. of Ports	Type of Station	
Existing Corporate EV Charging Stations			Level 2	Level 3
City Hall	6911 No. 3 Rd	2	✓	
City Works Yard	5599 Lynas Ln	6	✓	
City Hall Annex	6900 Minoru Blvd	12	✓	
RCMP City Centre Community Police Office	6931 Granville Ave	2	✓	
RCMP Headquarters	11411 No. 5 Rd	2	✓	
SUBTOTAL		24		
Planned Corporate EV Charging Stations				
City Hall	6911 No. 3 Rd	1		✓
City Works Yard	5599 Lynas Ln	2		✓
City Works Yard	5599 Lynas Ln	20	✓	
City Hall Annex	6900 Minoru Blvd	22	✓	
Firehall 1	6960 Gilbert Rd	4	✓	
Firehall 2	11011 No. 2 Rd	2	✓	
Firehall 3	9660 Cambie Rd	4	✓	
RCMP Headquarters	11411 No. 5 Rd	2	✓	
SUBTOTAL		57		
TOTAL CURRENT & PLANNED		81		



City of Richmond

Report to Committee

To: Parks, Recreation and Cultural Services Committee
From: Marie Fenwick
Director, Arts, Culture and Heritage Services
Date: April 13, 2022
File: 11-7000-09-20-284/Vol 01
Re: Richmond Animal Shelter Public Art Project Terms of Reference

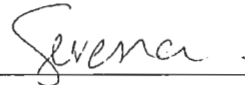
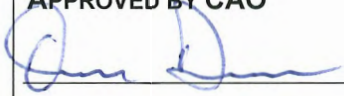
Staff Recommendation

That the Terms of Reference for the Richmond Animal Shelter Public Art Project as presented in the report titled, "Richmond Animal Shelter Public Art Project Terms of Reference", dated April 13, 2022, from the Director, Arts, Culture and Heritage Services, be approved.

CM Fenwick

Marie Fenwick
Director, Arts, Culture and Heritage Services
(604-276-4288)

Att. 1

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Finance Department	☒	
Facility Services & Project Development	☒	
Animal Protection Services	☒	
SENIOR STAFF REPORT REVIEW	INITIALS: 	APPROVED BY CAO 

Staff Report

Origin

On July 22, 2019, Council approved the renovation and expansion of the Richmond Animal Shelter located at 12071 No. 5 Road. Construction began in 2021 and the project was completed in spring 2022.

In accordance with the Public Art Program Policy No. 8703, the project budget includes an allocation of one per cent of the construction budget for public art. The one per cent public art contribution for this project is \$44,000. As the location best suited for public viewing is facing No. 5 Road, staff determined that the best timing for the artwork installation is after the facility is completed.

This report presents the proposed Terms of Reference for the Richmond Animal Shelter Public Art Project for Council's consideration.

This report supports Council's Strategic Plan 2018-2022 Strategy #3 One Community Together:

Vibrant and diverse arts and cultural activities and opportunities for community engagement and connection.

3.1 Foster community resiliency, neighbourhood identity, sense of belonging, and intercultural harmony.

3.2 Enhance arts and cultural programs and activities.

Analysis

Richmond Animal Shelter Public Art Project Background

The Richmond Animal Shelter plays an important role in temporarily housing stray animals. Services also include offering residents the opportunity to adopt companion animals, and promoting awareness of animal welfare and responsible pet ownership. The new facility will be operated by the BC SPCA.

The guiding design and operating principles of the facility are:

- Be designed to ensure efficient operations and delivery of services;
- Include design measures to reduce animal stress and promote animal welfare and health;
- Incorporate best practices and industry standards in the care of animals;
- Provide appropriate spaces for adoption activities;
- Provide adequate spaces to effectively manage disease control;
- Provide safe and appropriate spaces for staff and volunteer operations;
- Provide safe spaces for interaction between the staff and animals, between the staff and the public, and between the public and animals; and
- Be designed to integrate sustainable practices and accommodate future growth.

In keeping with these principles, the proposed public art will co-exist as part of a fence that both encloses the edge of a safe outdoor space for dogs and runs parallel to the main road to the entrance, providing a wayfinding function to signal arrival.

Proposed Location

The Richmond Animal Shelter is located at 12071 No.5 Road. The new facility building is set back from the main street frontage and is accessed from a driveway leading to a visitor parking lot and main building entrance. The large dog run enclosure is located on the east side of the site and extends to become the main street frontage on No.5 Rd.

The commissioned artist will have the option of proposing an artwork to replace all or some of the fence, or have the public artwork co-exist with it (e.g., attached to the fence). The commissioned artwork will be required to meet all functional design specifications of the fence to ensure the safety of animals and the general public.

Richmond Animal Shelter Public Art Opportunity

Shortlisted artists for this commission will be invited to develop public art concept proposals that support wayfinding and create a sense of arrival and welcome for visitors, volunteers and staff.

The Richmond Animal Shelter Public Art Project Terms of Reference for an artist call is provided in Attachment 1.

Selection Process for Artists and Artworks

A two-stage artist selection process will be implemented and will follow the Richmond Public Art Program Policy guidelines as outlined in the Public Art Program Administrative Procedures Manual. The Artist Call will be open to artists residing in British Columbia.

Following the selection process, the preferred artwork concept proposal will be brought forward to Council for endorsement in fall 2022, in order to proceed with the detailed design and installation phases of the artwork in spring 2023.

The Public Art Advisory Committee endorsed the Terms of Reference at its meeting on April 19, 2022.

Financial Impact

The total budget for the Richmond Animal Shelter Public Art Project is \$44,000. \$9,000 has been set aside for installation and administration costs. The remaining budget of \$35,000 will be available to cover all implementation expenses including design, production, fabrication, taxes and other associated costs to deliver a completed artwork integrated with the site.

The Richmond Animal Shelter Public Art Project is funded from the approved Richmond Animal Shelter capital project. Any maintenance and repairs required to the artwork will be the

responsibility of the Public Art Program and will be funded out of the Public Art Program's annual operating budget.

Conclusion

The Richmond Animal Shelter Public Art Project supports the 2041 Official Community Plan and Richmond Arts Strategy 2019-2024. An artwork at this location will contribute to the neighbourhoods character and foster a sense of identity and belonging for residents and visitors.



Biliana Velkova
Public Art Planner
(604-247-4612)

Att. 1: Richmond Animal Shelter Public Art Project Terms of Reference

Call to Artists



Architectural Rendering, Richmond Animal Shelter Renovation and Expansion Project.

Richmond Animal Shelter

Request for Qualifications

May 2022

Opportunity

The Richmond Public Art Program is seeking an artist or artist team to create a public artwork as part of the renovation and expansion of the Richmond Animal Shelter, 12071 No.5 Road. The public artwork will function as a wayfinding feature and create a sense of arrival and welcome at the entrance to the site and facility. All information about the project is described below.

Budget:	\$35,000
Eligibility:	Professional artists residing in British Columbia
Deadline:	July 11, 2022
Completion:	March 2023

Call to Artists

PUBLIC ART
RICHMOND

Background

The Richmond Animal Shelter (RAS) was originally built in 1978 with a dog kennel and administrative spaces. In 2016, a portable structure was added to accommodate more than 800 animals a year, including dogs, cats, small animals and birds. In 2019, Richmond City Council approved funding for renovation and expansion of the facility. Construction began in 2021 and the project was completed in spring 2022.

RAS plays an important role in temporarily housing stray animals. Services also include offering residents the opportunity to adopt companion animals, and promoting awareness of animal welfare and responsible pet ownership. The new facility will be operated by the BC SPCA.

Public Art Opportunity

The new public artwork for this facility will function as a wayfinding feature and signal “arrival and welcome” for visitors and staff. The facility is set back from No. 5 Road so it is not readily visible to drivers as they approach. Artwork located at the street entrance will help visitors locate the facility as well as contribute to the neighbourhood’s character and identity.

As shown in Figures 1 to 5, the existing chainlink fence (1.8 meters tall by 20 meters long) encloses the eastern edge of the dog run and runs parallel to No. 5 Road. The dog run provides outdoor space for shelter dogs to run and play under staff supervision. The new public artwork along No. 5 Road will replace all or part of this fence, or co-exist with the chainlink fence if it is installed within the median strip between the fence and sidewalk edge. [See Figures 1 to 5.]

Design Considerations

- If replacing all or part of the chainlink fence, the artwork:
 - must satisfy the same design specifications (minimum 1.8 meters tall by 20 meters long) and function of the existing fence to keep animals safely within the dog run while keeping out predator animal species.
 - cannot have any transparent or see-through openings. This is required in order to minimize stress in the shelter dogs.
- If the artwork is installed as a stand-alone piece, the above design considerations do not apply.
- Materials for the new artwork must be durable and easily maintained, and may include, but not be limited to powder coated steel, aluminium, wood and/or fibreglass.
- The new public artwork will need to co-exist or could be integrated with the building signage. Please refer to Figure 4 and 5.

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- The artwork must provide clearance at the base to accommodate lawn mowers and string trimmer equipment.
- The artwork cannot extend past the sidewalk or fence line. It must be located within the space between the fence and sidewalk as indicated in Figure 3.

Location

The Richmond Animal Shelter is located at 12071 No.5 Road in Richmond's – Ironwood neighbourhood. The area is characterized by light industrial and commercial buildings with access to nature and walking trails along the Fraser River. Applicants are encouraged to visit the site to better understand the neighbourhood context.

Budget

A budget of \$35,000 CAD, inclusive of all applicable taxes, excluding GST, is available for this project. The budget will include (but is not limited to) artist fees, engineering fees, materials, fabrication, installation, photography and insurance.

Engineering fees required to certify the structural integrity of the artwork, including foundation design and structural connections will be the responsibility of the commissioned artist. An additional budget of up to \$5,000 will be allocated by the City for materials and labour to install the artwork. If the cost of materials and labour to install the artwork exceeds \$5,000, costs over that amount will be the responsibility of the commissioned artist.

A \$500 artist fee will be provided to shortlisted artists to prepare a concept and presentation materials for the second stage of the artist selection process.

Artist Eligibility

Artists and/or artist teams residing in British Columbia are eligible to apply for this opportunity. City employees and members of the Richmond Public Art Advisory Committee are not eligible to apply. Artists who are currently under contract with the Public Art Program are not eligible to apply.

Selection Process

A selection panel consisting of a combination of artists, art professionals and community representatives will engage in a two-stage artist selection process to review all artist applications. At the conclusion of the process, the panel will recommend one artist and/or artist team for the commission. Indigenous artists and artists from equity-seeking communities are encouraged to apply.

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Stage One: Selection Criteria

- Demonstrated ability to produce work of the highest quality and merit.
- Experience in producing work that reflects community identity and assists in building meaningful cultural places.
- Demonstrated capacity to complete work within established project schedules and timelines.
- Demonstrated ability to work with multiple project stakeholders.

Stage Two: Selection Criteria

- Ability of concept proposal to reflect arrival and welcome, community identity and contribute to building the character and identity of the neighbourhood.
- Ability of the 3D artist visualizations (such as digital renderings, maquettes or models) to communicate the concept and how it responds to the existing character of the site by taking into account scale, colour, material, texture, content and the physical characteristics and design parameters of the location.
- Appropriateness of the proposed project budget including, but not limited to: artist fees, materials, fabrication, administration, insurance, installation, documentation and consultant fees.
- Concept proposal sensitivity to durability, life span and environmental concerns with respect to artwork materials, method of fabrication, installation and maintenance.
- Artist response to any feedback and follow-up questions from Selection Panel regarding artistic merit of the concept proposal in response to project opportunity.
- Appropriateness of the concept proposal to the [Public Art Program goals](https://www.richmond.ca/culture/publicart/policy.htm): (<https://www.richmond.ca/culture/publicart/policy.htm>)

Submission Requirements

Email all documentation as one (1) PDF document, not to exceed a file size of 5 MB to: publicart@richmond.ca.

Stage One

- ☐ **INFORMATION FORM** – please complete the information form attached to this document.
- ☐ **STATEMENT OF INTEREST** – no more than 300 words, describing artist or creative practice and experience of work and themes/topics of interest you would like to explore for this opportunity. Please consider and reference the Stage One Selection Criteria (above) in your

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Statement. Please do not include text descriptions of a concept proposal. This information will not be accepted and will be removed by staff prior to review with the Selection Panel.

- ☐ **ARTIST CV** – two-page maximum. If submitting as an artist team, please submit maximum one pages per team member.
- ☐ **WORK SAMPLES** – up to ten (10) supporting image examples of previous work. One image per page. Please include artist name(s), title, year, location and medium information to be on each image page.
- ☐ **REFERENCES** – three (3) references who can speak to your skills and experience. Please only provide the names, titles and email and/or telephone contact information for each individual. Only references for shortlisted artists will be contacted.

Stage Two (shortlisted artists ONLY)

- ☐ **CONCEPT PROPOSAL** – no more than 500 words, describing concept, rationale in response to the public art opportunity, materials and location/site.
- ☐ **CONCEPT VISUALIZATION** – may include digital artist renderings, maquettes/models to fully communicate dimensions, scale, colour, viewer experience, materials and relationship to site features.
- ☐ **PROJECT BUDGET** – to outline the allocation for expenses, including but not limited to artist fee, administration, materials, production, fabrication, installation, insurance, documentation, engineering design fees, other consultant fees.
- ☐ **PRESENTATION/INTERVIEW** – 15-20 minute artist presentation to the Selection Panel followed by a Q+A to present the shortlisted artist concept proposal for consideration.

Project Timeline

*Applicants are requested to be available for a meeting on this date.

Submission Deadline:	July 11, 2022
Finalist Notifications:	July 21, 2022
Shortlist Artist Orientation:	July 26, 2022*
Contract Start:	October, 2022
Completion:	March, 2023

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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. Portfolio images and concept sketches would be best formatted to landscape format.
3. Submission files must be 5 MB or smaller.
4. All documents must be sent by email to: publicart@richmond.ca

Accessibility

We strive to implement an inclusive and accessible program that enables all individuals to engage fully in our programs. If completion of the written application poses barriers, we will accept oral applications. Please contact publicart@richmond.ca or phone (604) 204-8671 if you require additional support or have any accessibility-related questions.

Additional Information

1. The selected artist may be required to show proof of WCB coverage and \$2,000,000 general liability insurance.
2. 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 re-issue 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 the 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

Email: publicart@richmond.ca | .Tel: 604-204-8671

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Figure 1. Aerial map location of Richmond Animal Shelter at 12071 No.5 Road.

ANIMAL SHELTER BUILDING — RENOVATION AND EXPANSION SITE PLAN | FLOOR PLAN

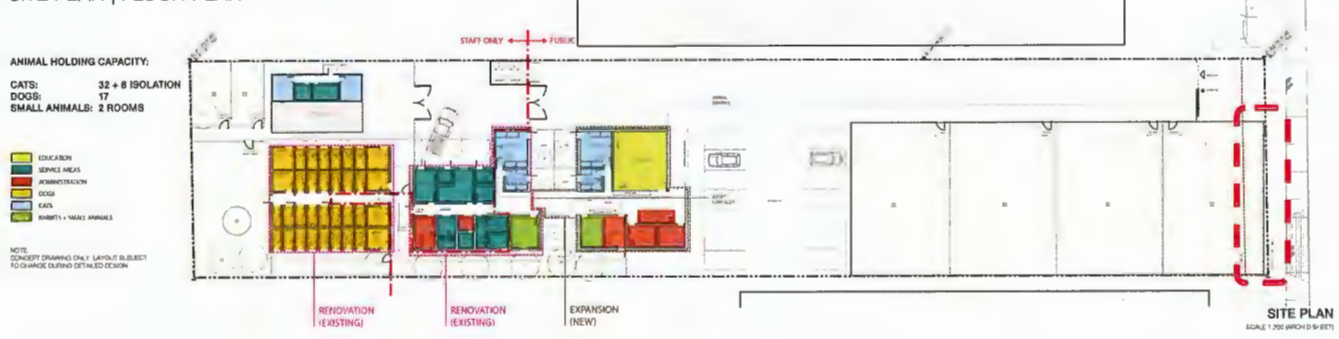


Figure 2. Site Plan of Richmond Animal Shelter Renovation and Expansion. Proposed location of the public artwork is indicated by the red dashed rectangle at the eastern edge of the dog run perimeter fence, parallel to No.5 Road.

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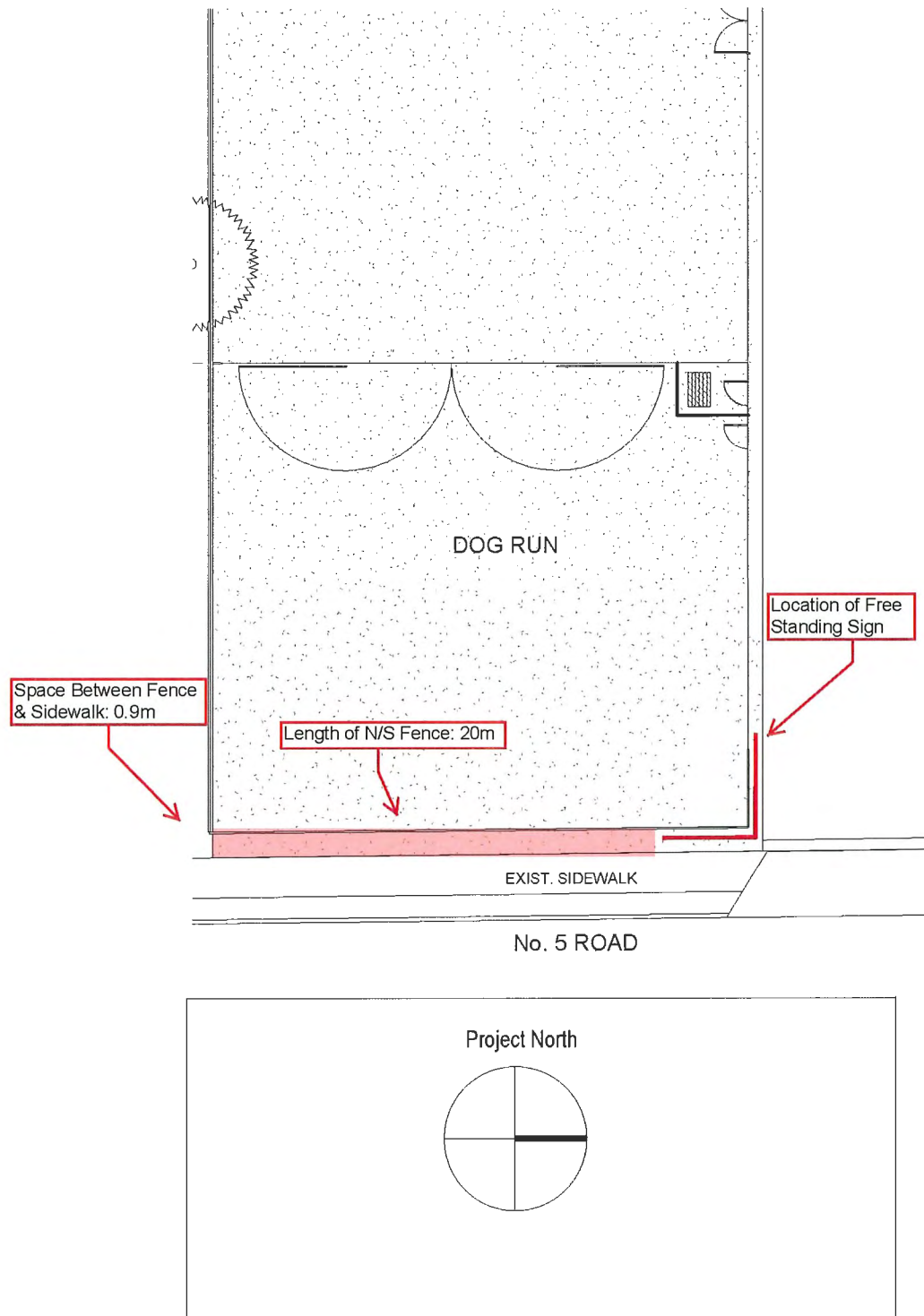


Figure 3. Cropped site plan showing proposed location of public artwork and extent of the east section of chain link fence.

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Figure 4. Site photo and rendering showing 6-foot high chainlink fence with mesh scrim and proposed building signage. The public artwork will co-exist with the building signage.



Figure 5. Building signage at entrance to RAS driveway. Overall dimensions 5' high x 8' 6" length

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Attach one (1) copy of this form as the first page of the submission.

Name: _____

Address: _____

City: _____ Postal Code: _____

Primary Phone: _____ Secondary Phone: _____

Email: _____ Website: _____
(One website or blog only)

Incomplete submissions will not be accepted. Emailed submissions over 5 MB will not be accepted.

The 2019-2024 Richmond Arts Strategy's guiding principles include advancing and promoting inclusivity and diversity in the arts. The City invites members of diverse groups, including those typically under-represented, to participate in the telling of their story in the Richmond context and through creative expression.

Do you self-identify as a member of an equity-seeking and/or under-represented community? If so, please specify: _____

Please let us know how you found out about this opportunity:

Would you like to receive direct emails from the Richmond Public Art Program? ☐ Yes ☐ No

Signature: _____ Date: _____

Submit applications by email to: 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 RFQ as required. All submissions to this RFQ 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.



May 26, 2022

STEVESTON HARBOUR AUTHORITY

12740 Trites Road, Richmond, B.C. V7E 3R8 604-272-5539 Fax 604-271-6142

Mayor and Councillors
City of Richmond
6911 No. 3 Road
Richmond, BC V6Y 2C1
Via email: mayorandcouncillors@richmond.ca

RE: CRITICAL STATUS OF THE STEVESTON CANNERY CHANNEL

Dear Mayor Brodie and City Councillors:

I write you today to highlight a major problem that we are continually facing here at Steveston Harbour: maintenance dredging of the Cannery Channel. This is an issue that many of you are likely familiar with to some extent and my hope is that this letter will draw additional awareness and understanding to what I consider to be an existential threat to the functionality of Steveston Harbour as a whole.

As you all know, a vast amount of commerce takes place in Steveston, which is Canada's largest commercial fishing harbour. This economic activity provides employment to hundreds of people, both directly and indirectly. Furthermore, Steveston's storied fishing heritage combined with the fact that it remains an active fishing harbour makes it a truly unique tourist destination. Steveston Harbour is without a doubt, the most popular tourist attraction in the entire City of Richmond and generates vast amounts of revenue for local businesses of all types.

Several years ago, Steveston Harbour Authority's (SHA's) Board of Directors resolved to make its primary goal to transform Steveston Harbour into the central hub of the BC fishing industry. We believe that SHA has made significant progress in achieving this goal by attracting a wide range of fishing-related tenants to our site. This consolidation of services into one convenient central location, combined with SHA's subsidized rates, provides tremendous value to commercial fishers. We believe this value creation will drive growth and prosperity in the area for years to come.

Sediment Infill in the Cannery Channel: A Significant, Ongoing Problem

Despite the amazing progress we have achieved in a relatively short period of time, there does however remain an immense, looming issue which threatens the economic sustainability of the entire region: sediment infill in the Cannery Channel. We believe significant steps must soon be taken to address the Cannery Channel's maintenance dredging needs.

The sediment in many sections of the Cannery Channel is quickly approaching critical levels, one such area that is of deep concern to us is a large hump at the entrance of the Cannery Channel. This sediment buildup creates serious navigational and safety hazards, especially for larger vessels. Presently, many large ships may only enter

Steveston at high tide and the situation is worsening with each passing day. The only way to remedy this issue is to enact a regular maintenance dredging campaign that will increase the water depth throughout the channel. It is vital that we ensure Steveston's waterways remain fully accessible so that local commerce may continue unimpeded.

In addition to providing in-water access to Steveston Harbour and housing significant, critical infrastructure for the BC fishing industry, the Cannery Channel is also of great importance to various properties belonging to the City of Richmond. The channel is used by visiting transient boaters who wish to access Steveston Village as well as the City-owned docks at Imperial Landing and Britannia Heritage Shipyards.

Background

Historically, maintenance dredging of local channels has been the federal government's responsibility. Public Works began dredging in 1901, and in 1982, the responsibility was passed to the Canadian Coast Guard. In 1998, the *Canada Marine Act* transferred responsibility to commercial users and the commercial ports, which resulted in an abrupt halt of dredging activity.

The Port of Vancouver implemented the *Local Channel Dredging Program* in 2009, whereby stakeholders responsible for the 14 local channels along the Fraser River could each apply for up to \$500,000 in funding for the purpose of dredging. While \$500,000 may have potentially been enough to finance dredging for a smaller channel, it was barely enough to even get us started. \$125,000 was spent to dredge the channel entrance and the remainder was put towards a small portion of the western wing of the channel (Phase I). In order to complete the dredging of the western wing, an additional \$786,000 was required, which was provided to us by the City of Richmond and the BC Provincial Government.

Once this work was completed, SHA began actively working with all levels of government in an attempt to raise more funds to dredge the eastern half of the channel. Eventually, SHA entered into a cost-sharing agreement with the City of Richmond and the Province of BC in order to finally complete dredging of the western channel arm (Phase II), a full 5 years after the western portion was dredged. Further to this cost-sharing agreement, SHA contributed \$590,000 of its own funds, making SHA the first and only harbour in the *Small Craft Harbours Program* to have ever contributed funds for the purpose of channel dredging. Funding for dredging is far outside of SHA's mandate, but we had no choice but to provide these last funds in order to enable the dredging project to proceed.

The Port of Vancouver ended the *Local Channel Dredging Program* in 2019, leaving stakeholders of each channel in a precarious position as dredging costs continue to rise. In response to this unwise and abrupt decision, SHA has taken it upon itself to create a "Sediment Management Fund" which is funded by levying a surcharge on all transactions. All money collected in this fund is earmarked for dredging purposes. Despite these efforts, we are still faced with a considerable funding shortfall and thus still require significant aid from other stakeholders in order to finance future dredging projects.

The Present Reality: Skyrocketing Costs and Long Wait Times

A recent estimate pegged the cost of dredging the entire Cannery Channel to be as much as \$5,000,000, which would be a 79% increase to the cost of the last program, which itself was not sufficient at the time, as we ran out of funds before the entire Channel was dredged. In addition to the shocking sticker price for this work, we also anticipate significant delays in obtaining the permits that are required for channel dredging. This means that SHA must begin the permit application process now if we hope to perform any sort of maintenance dredging in the next two years.

Due to the timing issues and financial constraints laid out above, SHA finds itself in a difficult position as we expect serious navigational and safety hazards to occur if we do not dredge the harbour in the very near future. To this end, we have been lobbying the Provincial and Federal Governments for financial aid as well as potential solutions to the overly burdensome permitting process. We are hopeful that these governmental agencies as well as the City of Richmond are able to assist us in overcoming these challenges.

Our Proposed Solution

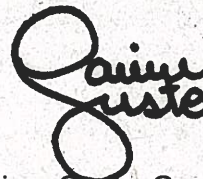
We believe that it is in everyone's best interest to ensure that the Cannery Channel is well-maintained and accessible to all vessels at all times. Similar to the previous dredging campaign, we are proposing that the various stakeholders enter into a cost-sharing agreement to finance the next channel dredging project. At this time, we are requesting that the SHA, City of Richmond and BC Provincial Government each agree to contribute up to 33% of the funding that is necessary to dredge the entire channel to desired grade. We are also engaging with the Federal Government in hopes of including them into the funding agreement as well. Despite Ottawa previously indicating that they would no longer finance local channel dredging, our lobbying efforts appear to be gaining traction as the issue seems to be back on the table for discussion. We are hopeful that by educating them of the Cannery Channel's importance, they will come around and realize that the waterway is far too important for them to ignore. If the Federal Government were included in the proposed funding partnership, it would reduce each party's share to 25% of the total cost.

SHA firmly believes that the financial challenges outlined in this letter can be overcome with the proper inter-governmental collaboration. We look forward to working with you to ensure the continued success of Steveston Harbour and the BC commercial fishing industry. Please call Jaime Gusto at 604-272-5539 or email her at jaime@stevestonharbour.com so that we may further discuss these issues and plan the next steps accordingly.

Yours truly,



Robert Kiesman, Board Chairman
Steveston Harbour Authority



Jaime Gusto, General Manager
Steveston Harbour Authority

Cc: SHA Board of Directors



To:	General Purposes Committee	Date:	May 9, 2022
From:	Peter Russell, Director, Sustainability and District Energy	File:	10-6125-07-02/2022-Vol 01
Re:	2022 BC Energy Step Code and GHG Requirements for New Buildings		

Staff Recommendation

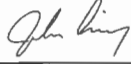
1. That Building Regulation Bylaw 7230, Amendment Bylaw 10365, which amends Sections 10.1.1 and 16.1 regarding updates to existing BC Energy Step Code and greenhouse gas intensity (GHGI) requirements for Part 9 residential buildings and Part 3 residential, hotel, commercial and office buildings, be introduced and given first reading;
2. That for buildings requiring a Development Permit, notwithstanding the adoption of Building Regulation Bylaw 7230, Amendment Bylaw 10365:
 - (a) If a Development Permit is issued prior to July 1, 2022, the owner may, while their Development Permit remains valid, apply for a Building Permit in compliance with energy efficiency requirements applicable prior to the adoption of Bylaw 10365; or
 - (b) If an acceptable Development Permit application has been submitted to the City prior to adoption of Bylaw 10365, is considered and endorsed by the Development Permit Panel prior to July 1, 2023, and has a complete Building Permit application acceptable to the City submitted prior to July 1, 2023, the owner may apply for a Building Permit in compliance with energy efficiency requirements applicable prior to adoption of Bylaw 10365.
3. That Official Community Plan Bylaw 9000, Amendment Bylaw 10364, which amends Section 14.2.10 to Schedule 1 (Development Permit Guidelines) regarding the use of design approaches that improve the energy performance of buildings, be introduced and given first reading;
4. That Richmond Official Community Plan Bylaw 9000, Amendment Bylaw 10364, 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; and
5. That Richmond Official Community Plan Bylaw 9000, Amendment Bylaw 10364, 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.

Peter Russell, MCIP RPP
Director, Sustainability and District Energy
(604-276-4130)

May 9, 2022

- 2 -

Att. 4

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Law	☒	
Building Approvals	☒	
Development Applications	☒	
Policy Planning	☒	
SENIOR STAFF REPORT REVIEW	INITIALS: 	APPROVED BY CAO 

Staff Report

Origin

This report includes a proposed amendment to the Building Regulation Bylaw 7230 to achieve Step Code requirements for new Part 9 residential buildings and Part 3 buildings, including multi-unit residential buildings and hotels/motels, offices and commercial uses as well as retail uses. The proposed amendment continues to expand the two-option approach, under which builders and developers have the choice to build to the prescribed Step Code performance requirement or request a one-Step relaxation if the new building will be installed with, or connected to, or connected to a District Energy Utility owned by the City (LCES). More information can be found in Attachment 1 regarding Richmond's implementation of the Step Code to date.

This report also includes a proposed amendment to the City's Official Community Plan (OCP) with respect to Development Permit (DP) Guidelines encouraging design approaches and technologies that improve the energy performance of buildings. This amendment addresses the expected influence of higher levels of energy performance on building design and clarifies that compliance with a given Step of the BC Energy Step Code shall not compromise the intent of the City's well-established form and character guidelines.

This report supports Council's Strategic Plan 2018-2022 Strategy #2 A Sustainable and Environmentally Conscious City:

2.1 Continued leadership in addressing climate change and promoting circular economic principles.

This report supports the implementation of Richmond's Community Energy and Emissions Plan 2050, and OCP emission reduction policies through:

Strategic Direction 3: Carbon Neutral New Buildings

Action Categories:

- ☒ Accelerate Transition to the Top Level of Building Performance
- ☒ Support Continuous Improvement to the BC Energy Step Code
- ☒ Advance Implementation of Low Carbon Energy Systems

Analysis

The following section details proposed changes to the Building Regulation Bylaw for Part 9 and Part 3 buildings in Richmond. Attachment 1 has more information on implementation of the Step Code in Richmond to date. Part 9 buildings include single family dwellings, duplexes and multiplexes including townhomes, small apartments whereas Part 3 buildings include large wood frame and concrete residential buildings, offices and hotels. Anticipated provincial opt-in greenhouse gas (GHG) emission requirements are also considered for future bylaw changes for both Part 9 and Part 3 buildings; based on developer feedback, providing advance notice of future proposed bylaw changes is essential for project planning. Recommended changes to form and character guidelines, as set out in the DP Guidelines within the City's OCP, that support a transition to higher levels of the Step Code are also outlined below.

Proposed Building Regulation Bylaw Amendment for Part 9 Residential Buildings

The proposed Bylaw Amendment for July 1, 2022 (Table 1) uniformly raises minimum BC Energy Step Code performance requirements for all Part 9 residential buildings. Staff engaged Richmond's design and construction community on these proposed changes at a series of virtual Builder Breakfast workshops held from mid-2021 to early 2022. The proposed amendment would include an administrative requirement limiting the use of the Percent Better than Reference House metric only to buildings reaching the highest Step Code level (Step 5), consistent with Council direction. This approach is consistent with the City's ability to administratively set special performance conditions at various stages of Step Code implementation, if at each stage there is at least one option with no such condition.

Table 1 shows current and proposed requirements for Part 9 residential buildings for July 2022, as well as current thinking about timing of future increases from 2023 to 2027. As a first step in transitioning to the Province's forthcoming greenhouse gas intensity (GHGI) requirements, staff recommend that for all applications accepted on or after July 1, 2022, the City implement a new LCES definition identical to the Province's forthcoming "Low" GHGI standard. Attachment 2 has more details on the Province's proposed opt-in GHGI requirements.

Table 1: Current, Proposed and Future Step Code Requirements for Part 9 Residential Buildings

	Current Bylaw	Proposed Bylaw	Future Bylaw Amendments Subject to Council Approval		
	Dec. 2020	July 2022	July 2023	Jan. 2025	Jan. 2027
Single Family Dwellings, Duplexes and Multiplexes including Townhomes & Apartments	Step 3 -or- Step 2 + LCES <6 kg/m ²	Step 5 -or- Step 4 -or- Step 3 + LCES <2.5 kg/m ²	Step 5 + BC GHGI: Mid Carbon -or- Step 4 + BC GHGI: Low Carbon -or- Step 3 + BC GHGI: Zero Carbon Ready	Step 5 + BC GHGI: Low Carbon -or- Step 4 + BC GHGI: Zero Carbon Ready	Step 5 + BC GHGI: Zero Carbon Ready

Consultation

Staff undertook extensive online consultation with Part 9 homebuilders, designers and energy advisors, starting with an information session in May 2021, followed by two workshops (September 8, 2021 and March 3, 2022) to assess and review proposed 2022 Building Regulation Bylaw changes. This engaged 200 participants in total, with live polling on three potential options for proposed 2022 residential requirements.

Proposed Building Regulation Bylaw Amendment for Part 3 Buildings

The proposed Bylaw Amendment for July 2022 also sets requirements for all Part 3 buildings in Richmond regulated by the BC Energy Step Code. These changes are in general agreement with

proposed future Step Code requirements signalled in a Report to General Purposes Committee on October 19, 2020. These requirements include an optional one-Step relaxation in Step Code levels available to applicants that install an on-site renewable energy system providing a minimum 70% of the building's annual heating, cooling and domestic hot water energy demand, or that connect to a low carbon energy system, including the City's district energy utility. With approval of the proposed amendment, this relaxation option would be available to all Part 3 Step Code regulated buildings.

Table 2 shows proposed July 1, 2022 requirements for Part 3 buildings and current thinking about future energy and GHG emission requirements for each building type from 2023 to 2027.

Table 2: Current, Proposed and Future Step Code Requirements for Part 3 Buildings

	Current Bylaw	Proposed Bylaw	Future Bylaw Amendments Subject to Council Approval		
	<i>Dec. 2020</i>	<i>July 2022</i>	<i>July 2023</i>	<i>Jan. 2025</i>	<i>Jan. 2027</i>
Office and Retail	Step 2	Step 3 -or- Step 2 + LCES	Step 3 + BC GHGI -or- Step 2 + BC GHGI	Step 3 + BC GHGI	Step 3 + BC GHGI
Residential: Wood Frame (mid-rise)	Step 3	Step 4 -or- Step 3 + LCES	Step 4 + BC GHGI -or- Step 3 + BC GHGI	Step 4 + BC GHGI	Step 4 + BC GHGI
Residential: Concrete Frame	Step 3 -or- Step 2 + LCES	Step 3 -or- Step 2 + LCES	Step 3 + BC GHGI -or- Step 2 + BC GHGI	Step 4 + BC GHGI -or- Step 3 + BC GHGI	Step 4 + BC GHGI
Hotels and Motels	Step 3 -or- Step 2 + LCES	Step 3 -or- Step 2 + LCES	Step 4 + BC GHGI -or- Step 3 + BC GHGI	Step 4 + BC GHGI -or- Step 3 + BC GHGI	Step 4 + BC GHGI

Consultation

For Part 3 developers, staff provided updates on proposed 2022 Energy Step Code requirements and relaxations for low carbon energy systems at UDI-Richmond Liaison Committee meetings on September 28, 2021 and January 19, 2022. These bylaw requirements were covered again during a 90-minute workshop with UDI members on March 8, 2022, which included a review of

findings from Richmond's building form and character review, as well as expected timing of adoption of the GHGI framework in 2023. Presentations for feedback were also made to Richmond's Advisory Design Panel on August 18, 2021 and on March 23, 2022.

In-Stream Provisions for Development Permit Applications

When Richmond introduced new BC Energy Step Code requirements in September 2018, and December 2020, Council approved in-stream provisions for buildings requiring a Development Permit (DP). Staff recommend similar in-stream provisions with respect to the proposed bylaw amendment, such that an owner would be permitted to submit a Building Permit application in compliance with prior requirements if:

- a) a DP was issued prior to July 1, 2022, and remains valid; or
- b) an acceptable DP application is submitted prior to adoption of Amendment Bylaw No. 10365, and, prior to July 1, 2023, the DP is considered and endorsed by the Development Permit Panel and an acceptable Building Permit application is submitted to the City. The Building Permit application must include architectural drawings showing envelope details and schedule of mechanical systems in compliance with Part 10 (Step Code section) of the BC Building Code (BCBC).

High-Performance Building Standards and Richmond's Development Permit Guidelines

As the City implements higher Step Code levels, building design is expected to increasingly favour simpler massing, lower window-to-wall ratios, increased use of sun shades, increased attention to solar orientation, better insulated wall and window systems, and thermally-broken balconies. This design shift will affect building types differently. For example:

- Townhouses already achieve the lower window-to-wall ratio encouraged by Step Code, but often have highly articulated building envelopes (e.g., dormers and bay windows) that can negatively impact energy performance; and
- High-rise and mid-rise buildings typically have the simpler massing encouraged by Step Code, but office buildings often have high-window-to-wall ratios and multi-family residential buildings have balconies, both of which can pose challenges for efficient heating and cooling.

Staff compared current form and character guidelines with high-performance building standards such as Passive House, Net Zero Energy Ready. Potential conflicts between high-performance building standards and the City's guidelines are negligible but staff recommend amending the guidelines to better support development proponents and general public as the City transitions to higher levels of the Step Code. Like the Step Code, Richmond's form and character DP Guidelines are generally performance-based and not prescriptive, which provides opportunities to explore alternative ways of satisfying energy requirements without compromising other City objectives. For example:

- Townhouses may choose between bay windows and dormers (rather than including both) and/or may choose to include decorative porches, changes in materials or colour, or other means of articulation that do not compromise energy performance;
- Office buildings may choose to use better insulated window systems rather than reducing their window-to-wall ratio; and

- Larger residential buildings may choose balcony designs that limit heat loss through the envelope by using thermally-broken concrete slabs, hung, pinned or self-supported balconies.

Attachment 3 provides further insight into potential built form changes, which staff have summarized into a table of possible friction points and design trends for each building type subject to the Step Code. In addition, resource sheets have been developed highlighting the range of potential design and technology options for achieving high performance in typical new buildings in Richmond (see Attachment 4).

Proposed OCP (Schedule 1) DP Guidelines Amendment Bylaw

To help clarify the City's intent, staff recommend that sub-section 14.2.10 (Green Buildings and Sustainable Infrastructure) within Section 14 (Development Permit Guidelines), of the OCP be amended by:

- Removing wording qualifying "green building and sustainable infrastructure" as a "voluntary undertaking, where feasible";
- Stating that "applicable new buildings will be designed and constructed to meet the BC Energy Step Code" and including a reference table of high-performance building design considerations;
- Strengthening existing language on the need to integrate energy performance considerations at the start of the building design process, stating that "through rezoning, Development Permit and other permit approval processes, proposed buildings shall demonstrate compliance with the applicable requirements of the BC Energy Step Code to the satisfaction of the City (e.g. by providing energy modelling outputs)"; and,
- Clarifying that compliance with the Step Code will not compromise the intent of any of the Development Permit Guidelines contained in Schedules 1 or 2 of the OCP, and that any remedial actions taken during construction to achieve compliance with the Step Code shall not compromise the intent of the Development Permit Guidelines applicable to the building.

OCP Consultation Policy

Should Council grant first reading to the amendment bylaws, the amendment bylaws will be forwarded to a Public Hearing where any resident or interested party will have an opportunity to comment. The public will have the opportunity to comment further on all proposed bylaw amendments at the Public Hearing. Public notification for the Public Hearing will be provided in accord with the *Local Government Act*.

Staff have reviewed the proposed OCP amendments with respect to the *Local Government Act* and the City's OCP Bylaw Preparation Consultation Policy 5043 requirements, and recommend that this report does not require referral to external stakeholders. Richmond Official Community Plan Bylaw 9000, Amendment Bylaw 10364, having been considered in accordance with OCP Bylaw Preparation Consultation Policy 5043, is hereby found to not require further consultation.

Next Steps

Staff will monitor compliance with new Step Code and forthcoming GHGI requirements to understand the impact on permitting procedures and address any building performance, market or regulatory issues that may arise during the construction phase. Staff will also monitor the affects of high performance standards on the form and character of buildings. The Province of BC has indicated that an opt-in framework for Provincial greenhouse gas emissions limits should be available for use by local governments in 2023. To support the transition toward high performance, low-emissions new buildings, staff will continue to offer knowledge and capacity-building opportunities through virtual Builder Breakfast events, UDI-Richmond developer webinars, and other educational opportunities.

Finally, staff will update the following bulletins to include the July 1, 2022 Energy Step Code requirements: Building-37 Energy Step Code: Part 9 Buildings Overview; and Building-40 Energy Step Code: Part 3 Buildings. Staff will also create a new bulletin regarding revisions to Development Permit Guidelines (Section 14.2.10) on form and character consideration for low carbon, highly energy efficient new buildings using materials found in Attachment 4.

Financial Impact

None.

Conclusion

Implementing new BC Energy Step Code requirements for Part 9 and Part 3 buildings in July 2022 will advance the City's policy objectives for higher energy efficiency and reduce greenhouse gas emissions in new construction. The proposed Building Regulation Bylaw amendments provide a platform to integrate anticipated Provincial GHGI standards when they become available.

Council policy direction is for Richmond to reach the top performance level of the Energy Step Code, and achieve near zero emissions several years ahead of the Provincial target in the CleanBC Roadmap. To support a successful transition to high-performance buildings, staff recommend that the existing Green Buildings and Sustainable Infrastructure subsection of the General Considerations be amended within the form and character section of the Development Permit Guidelines in the Official Community Plan Bylaw No. 9000, included in this report.



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- Att. 1: Step Code Implementation in Richmond
2: Proposed Provincial Opt-in Greenhouse Gas Emissions Intensity (GHGI) Standards
3: Step Code / Possible Development Trends / February 14, 2022
4: Key Considerations for High Performance Buildings

Step Code Implementation in Richmond

The City's implementation of the BC Energy Step Code is nested within Provincial policy initiated by the 2018 CleanBC Plan signaling that a "net zero energy-ready" level of efficiency would be required for all new buildings in the 2032 BC Building Code, specifically:

Compared to the current base BC Building Code, new buildings will be:

- 20 per cent more energy efficient by 2022,
- 40 per cent more energy efficient by 2027, and
- 80 per cent more energy efficient by 2032, the net-zero energy ready standard.

Richmond was one of the first municipalities to adopt the BC Energy Step Code into local regulation. In July 2018, Council amended Building Regulation Bylaw 7230 to implement energy efficiency requirements of the BC Energy Step Code for new Part 9 residential buildings that included single detached houses, townhouses and small apartment buildings, and Part 3 multi-unit residential, office and commercial buildings. Council also approved amendments to the Official Community Plan (Schedule 1, Section 12.4, Energy) that included a schedule of future Building Regulation Bylaw amendments for 2020, 2022 and 2025, subject to future Council approvals, signaling the expected timing of higher BC Energy Step Code requirements and the City's greenhouse gas (GHG) reduction targets.

Richmond pioneered a two-option approach for Step Code implementation, under which builders and developers have the choice to build to the prescribed Step Code performance requirement or request a one-Step relaxation if the new building will be installed with, or connected to, a low-carbon energy system (LCES). This approach was first introduced for residential concrete towers in 2018, extended to Part 9 residential buildings and hotels/motels in 2020, and with Council approval, would be extended to mid-rise, wood-frame multi-unit residential buildings, commercial office and retail buildings on July 1, 2022.

In December 2020, Council approved amendments to Building Regulation Bylaw 7230 to implement incrementally higher Step Code requirements for new Part 9 residential buildings (per OCP direction), and added hotel and motel uses to Richmond's Step Code regulation.

Builders and developers have been regularly consulted with regarding the proposed timing of Step Code requirements in Richmond. Staff continue to receive positive feedback on Richmond's innovative options approach to Step Code regulation, which offers a relaxation in the default Step requirement to help drive installation of, or connection to, a low carbon energy system.

In 2022, City Council endorsed deeper GHG emission reduction targets for 2030 and 2050, through the renewed Community Energy and Emissions Plan 2050, and adopted the Official Community Plan Amendment Bylaw 10328, with a commitment to reduce citywide carbon emissions to 50% below 2007 levels by 2030, and achieve net zero GHG emissions by 2050.

Proposed Provincial Opt-in Greenhouse Gas Emissions Intensity (GHGI) Standards

In November 2020, a mandate letter from Premier John Horgan directed the Minister Responsible for Housing, David Eby, to “*build on our government's work to require new buildings and retrofits to be more energy efficient and cleaner by supporting local governments to set their own carbon pollution performance standards for new buildings.*” Correspondingly, the Province has been developing opt-in standards limiting GHG emissions in new buildings that would be included in a forthcoming revision to the BC Building Code in December 2022.

In 2021, the Province of BC brought forward a plan to accelerate climate action at the provincial scale through the CleanBC Roadmap to 2030. The following target was set for new buildings:

By 2030, all new buildings will be zero carbon, and all new space and water heating equipment will meet the highest standards for efficiency.

The 2022 BC Building Code update is expected to enter into force in mid-December 2022. The 20% more energy efficient Code requirement will apply to all Building Permit applications submitted after the in-force date, and will apply to all new buildings. For Step Code regulated Part 9 residential buildings, Step 3 is 20% more efficient, while for Part 3 buildings, Step 2 achieves 20% more energy efficiency across all building types.

Orderly transition to mandatory GHGI limits for new buildings

The Provincial process to introduce an opt-in framework of GHGI requirements for new buildings has been slower than expected. Staff understand that the proposed framework will be available for use by local governments in early 2023.

Having both BC Energy Step Code and a GHGI framework in the BC Building Code enables local governments to set both energy performance levels and carbon emission limits for most new buildings, eliminating the need to offer a Step Code relaxation as an incentive. Accordingly, Tables 1 and 2 and Figure 1 show how the City will integrate forthcoming Provincial greenhouse gas emission limits with Step Code requirements for new buildings, starting in 2023.

The GHGI framework uses a stepped approach similar to the BC Energy Step Code, providing local governments with flexibility to phase the transition to near zero emission buildings, with easier GHGI performance levels set initially, followed by incrementally higher performance requirements over time. This framework also allows local governments to set both energy performance levels via the BC Energy Step Code, as well as carbon emission limits for new buildings using the new GHGI framework.

A summary of the framework is included below, with three GHGI levels and the performance range (kilograms of CO₂e emitted per square meter annually) indicated for each level:

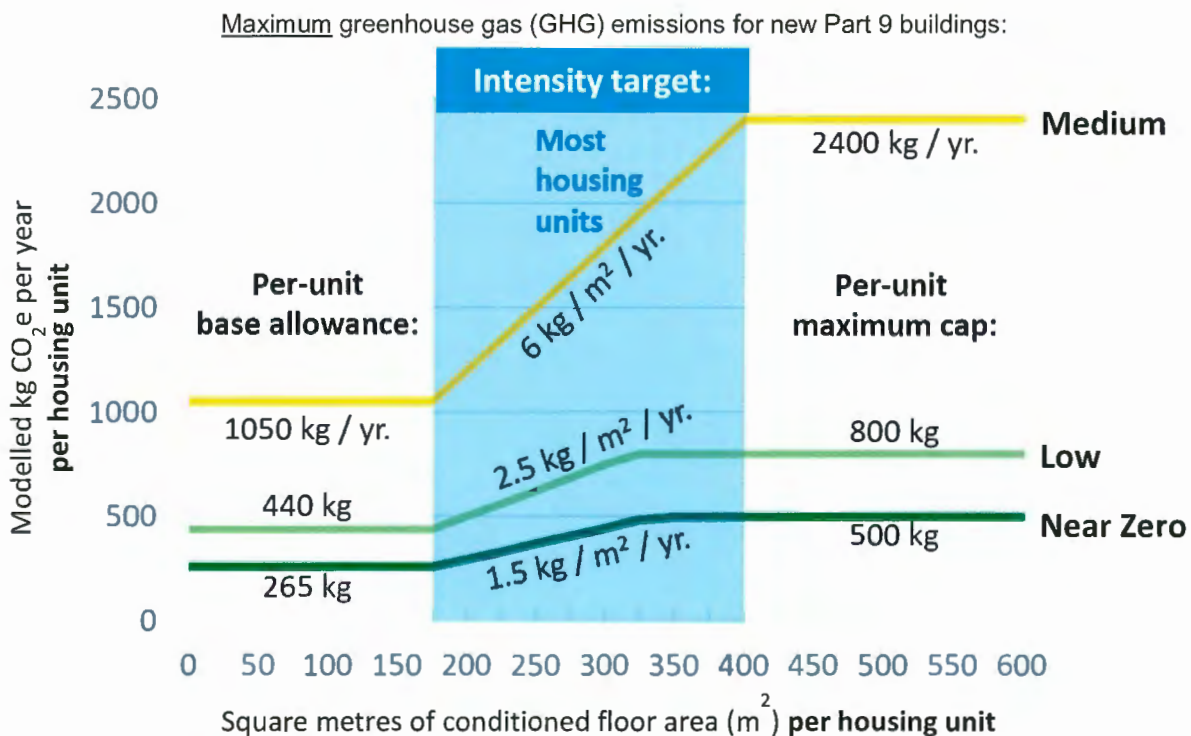
Table A-1: Proposed BC GHGI Framework – Intended Outcomes

Medium Carbon Emissions (‘Mid Carbon’)	Low Carbon Emissions (‘Low Carbon’)	Near Zero Carbon Emissions (‘Zero Carbon Ready’)
At least one major heating system is fully decarbonized; domestic hot water <u>or</u> space heating.	Both domestic hot water <u>and</u> space heating are fully decarbonized; natural gas may be used for cooking or peak heating.	All electric building; no natural gas uses.

Table A-2: Proposed BC GHGI Framework - Performance Requirements for Part 3 Buildings

Medium Carbon Emissions (‘Mid Carbon’)	Low Carbon Emissions (‘Low Carbon’)	Near Zero Carbon Emissions (‘Zero Carbon Ready’)
5 kg to 9 kg CO ₂ e / m ² / year (depending upon archetype)	2.5 kg to 4 kg CO ₂ e / m ² / year (depending upon archetype)	1.5 kg to 2 kg CO ₂ e / m ² / year (depending upon archetype)

Figure A-1: Proposed BC GHGI Framework - Performance Requirements for Part 9 Buildings



Per-unit base allowance: Even when their per-resident and total GHG emissions are relatively low, the limited floor space of small housing units means they often have higher GHG emissions *per square metre of conditioned floor space* than larger homes. Having a modest base allowance of GHG emissions for housing units levels the playing field for more-affordable small homes while ensuring overall GHG emissions remain low.

Intensity target: Larger housing units tend to have higher GHG emissions; there is more space to heat and cool, and they often have additional energy-consuming bathrooms. An intensity target based on the conditioned floor area (i.e. excluding unheated indoor spaces like garages) ensures a wide range of homes achieve comparable levels of GHG reductions performance.

Per-unit maximum cap: Experience shows that it is easier for very large housing units to meet a given GHG intensity target than mid-sized units, and even low per-metre intensity targets can produce large homes with high total and per-resident GHG emissions. Adding a maximum cap to GHG emissions per housing unit limits total and per capita GHGs from large homes without increasing compliance costs relative to smaller housing units.

STEP CODE / POSSIBLE DEVELOPMENT TRENDS / FEBRUARY 14 2022

GENERAL (COMMERCIAL & RESIDENTIAL)				
Features	High Performance (HP) Building Directions	OCP Form/Character Objectives	Friction with HP Directions	Possible Trends
Massing & Roofs	- More compact massing to reduce the overall size of the thermal envelope - Simpler building and roof forms to enhance thermal performance - Fewer architectural features with complex junctions that can contribute to heat loss (e.g., less bay windows, dormers, recesses, and stepping)	- Varied forms (e.g., more complex residential and simpler commercial forms) - Massing is visually broken up with recesses, stepping, and decorative projections	Complex massing and projections can cause heat loss due to thermal bridging and/or increased wall area	Move away from complex massing to simpler forms and strategic/limited use of stepping, recesses, and projections
Orientation & Shading	- Strategic building and window orientation for more effective winter solar heat gain and summer shading - External shading devices on key south and west facades (e.g., balconies, fins, blinds, shutters, and deciduous trees) - Operable windows for natural ventilation	- Street oriented uses at grade and lower floors - Tower form/orientation considers site-specific factors - Tower separation protects sun, views, and privacy - Window treatments vary with use, ranging from towers with floor-to-ceiling glass to multi-pane and smaller windows in traditional-character housing	- No OCP conflict, BUT street orientation plus typical building layouts and shading may not optimize heating and cooling for all tenants - No OCP conflict, BUT 40% WWR and higher sills may be contrary to accepted market norms - Multi-pane and smaller windows may increase heat loss due to more frame area - Balconies and complex deck designs can cause heat loss due to thermal bridging	- Increased distinction between sunny and shady building facades - Increased use of shading devices for shading and visual interest - More strategic window use to better balance heating, cooling, livability, views, and daylighting - Decreased use of multi-pane and smaller windows - Higher WWR as needed to satisfy market demands - Thermally-broken, projecting and stacked balconies will provide required open space and add visual interest
Windows & Daylighting	- Lower window-to-wall-ratio (WWR) to lessen heat gain (i.e. 40% encouraged) - A few larger windows (rather than more smaller or multi-pane windows) to minimize heat loss through window frames (e.g., mullions, muntins, etc.) - Higher sills to reduce window size without compromising daylighting			
Balconies & Roof Decks	- Thermally broken designs (e.g., modified slab, pinned, hanging, and self-supported) to reduce heat loss at balcony connection points - Fewer and/or stacked recessed balconies to reduce the heat loss associated with this balcony type (due to more wall area, corners, and connection points) - Where appropriate, use of roof decks in place of balconies	Residential units must have balconies, decks, patios, and/or gardens		
Envelope Materials & Design	- Increase insulation (e.g., thicker exterior wall assemblies and triple glazing), especially where heat loss is unavoidable (e.g., due to a high WWR) - Reduced use of lower performing window/wall systems (e.g., curtain wall) - Increased variation in colour, materials, and pattern in place of other building articulation (i.e. instead of more complex massing or architectural features)	- Light, glassy towers - Colour/material/pattern variation visually breaks up massing and enhances building features	No OCP conflict, BUT typical curtain/window wall and spandrel systems perform poorly compared to alternative window/wall designs	- Less curtain/window wall - Use of panel systems may lead to more colourful, patterned buildings - Use of materials/detailing in lieu of complex forms (particularly in traditional-character housing areas)

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FORM AND CHARACTER IMPLICATIONS FOR HIGH PERFORMANCE BUILDINGS – CITY STAFF SUMMARY

(PART 3) COMMERCIAL BUILDINGS

Features	High Performance (HP) Building Directions	OCP Form/Character Objectives	Friction with HP Directions	Possible Trends
Massing & Roofs	- More compact massing to reduce the overall size of the thermal envelope - Simpler building and roof forms to enhance thermal performance - Fewer architectural features with complex junctions that can contribute to heat loss (e.g., less bay windows, dormers, recesses, and stepping)	- Varied building types (e.g., low, mid, and high-rise retail, office, and hotel) - Typically simple forms with limited recesses, stepping, and decorative projections	No OCP conflict	No specific change
Orientation & Shading	- Strategic building and window orientation for more effective winter solar heat gain and summer shading - External shading devices on key south and west facades (e.g., balconies, fins, blinds, shutters, and deciduous trees) - Operable windows for natural ventilation	- Street oriented uses at grade and lower floors - Tower form/orientation considers site-specific factors - Tower separation protects sun, views, and privacy	No OCP conflict, BUT street orientation plus typical building layouts and shading may not optimize heating and cooling for all tenants	- Increased distinction between sunny and shady building facades - Increased use of shading devices for shading and visual interest
Windows & Daylighting	- Lower window-to-wall-ratio (WWR) to lessen heat gain (i.e. 40% encouraged) - A few larger windows (rather than more smaller or multi-pane windows) to minimize heat loss through window frames (e.g., mullions, muntins, etc.) - Higher sills to reduce window size without compromising daylighting	- Transparency required at grade on street frontages - Window treatment must enhance appearance - Operable windows	No OCP conflict, BUT 40% WWR and higher sills may be contrary to accepted market norms (e.g., flexible multi-tenant space)	- More strategic window use to better balance heating, cooling, livability, views, and daylighting - Higher than 40% WWR to as needed to meet market demand, combined with mitigating measures (e.g., tinted/coated glass and more shading devices)
Balconies & Roof Decks	- Thermally broken designs (e.g., modified slab, pinned, hanging, and self-supported) to reduce heat loss at balcony connection points - Fewer and/or stacked recessed balconies to reduce the heat loss associated with this balcony type (due to more wall area, corners, and connection points) - Where appropriate, use of roof decks in place of balconies	Not required	No OCP conflict	No specific change
Envelope Materials & Design	- Increase insulation (e.g., thicker exterior wall assemblies and triple glazing), especially where heat loss is unavoidable (e.g., due to a high WWR) - Reduced use of lower performing window/wall systems (e.g., curtain wall) - Increased variation in colour, materials, and pattern in place of other building articulation (i.e. instead of more complex massing or architectural features)	- Light, glassy towers - Colour/material/pattern variation visually breaks up massing and enhances building features	Typical curtain/window wall and spandrel systems perform poorly compared to alternative window/wall designs	- Less curtain/window wall - Use of panel systems may lead to more colourful, patterned buildings

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FORM AND CHARACTER IMPLICATIONS FOR HIGH PERFORMANCE BUILDINGS – CITY STAFF SUMMARY

(PART 3) HIGH-RISE MIXED-USE/RESIDENTIAL

Features	High Performance (HP) Building Directions	OCP Form/Character Objectives	Friction with HP Directions	Possible Trends
Massing & Roofs	- More compact massing to reduce the overall size of the thermal envelope - Simpler building and roof forms to enhance thermal performance - Few architectural features with complex junctions that can contribute to heat loss (e.g., less bay windows, dormers, recesses, and stepping)	- Small floorplate towers (650 m²), landscaped podiums, and low/mid-rise streetwalls - Massing is visually broken up with recesses, stepping, and decorative projections	Complex massing and projections can cause heat loss due to thermal bridging and/or increased wall area	Move away from complex massing to simpler forms and strategic/limited use of stepping, recesses, bay windows, and projections
Orientation & Shading	- Strategic building and window orientation for more effective winter solar heat gain and summer shading - External shading devices on key south and west facades (e.g., balconies, fins, blinds, shutters, and deciduous trees)	- Street oriented uses at grade and lower floors - Tower form/orientation considers site-specific factors - Tower separation protects sun, views, and privacy	No OCP conflict, BUT street orientation plus typical building layouts and shading may not optimize heating and cooling for all tenants	- Increased distinction between sunny and shady tower facades - Increased use of shading devices for shading and visual interest
Windows & Daylighting	- Lower window-to-wall-ratio (WWR) to lessen heat gain (i.e. 40% encouraged) - A few larger windows (rather than more smaller or multi-pane windows) to minimize heat loss through window frames (e.g., mullions, muntins, etc.) - Higher sills to reduce window size without compromising daylighting - Operable windows for natural ventilation	- Transparency required at grade along street frontages - Window treatment must enhance appearance - Operable windows	No OCP conflict, BUT 40% WWR and higher sills may be contrary to accepted market norms (e.g., floor-to-ceiling windows)	- More strategic window use to better balance heating, cooling, livability, views, and daylighting - Use of tinted/coated glass to reduce solar heat gain
Balconies & Roof Decks	- Thermally broken designs (e.g., modified slab, pinned, hanging, and self-supported) to reduce heat loss at balcony connection points - Fewer and/or stacked recessed balconies to reduce the heat loss associated with this balcony type (due to more wall area, corners, and connection points) - Where appropriate, use of roof decks in place of balconies	Units must have balconies, decks, and/or patios (i.e. min. 6 – 9 m² /apartment)	Balconies can cause heat loss due to thermal bridging	- Hung and pinned balconies likely preferred - Projecting and stacked recessed balconies may give visual interest in lieu of massing articulation
Envelope Materials & Design	- Increase insulation (e.g., thicker exterior wall assemblies and triple glazing), especially where heat loss is unavoidable (e.g., due to a high WWR) - Reduced use of lower performing window/wall systems (e.g., curtain wall) - Increased variation in colour, materials, and pattern in place of other building articulation (i.e. instead of more complex massing or architectural features)	- Light, glassy towers - Colour/material/pattern variation visually breaks up massing and enhances building features	Typical curtain/window wall and spandrel systems perform poorly compared to alternative window/wall designs	- Less curtain/window wall - Use of panel systems may lead to more colourful, patterned buildings

FORM AND CHARACTER IMPLICATIONS FOR HIGH PERFORMANCE BUILDINGS – CITY STAFF SUMMARY

(PART 3) MID-RISE RESIDENTIAL

Features	High Performance (HP) Building Directions	OCP Form/Character Objectives	Friction with HP Directions	Possible Trends
Massing & Roofs	- More compact massing to reduce the overall size of the thermal envelope - Simpler building and roof forms to enhance thermal performance - Few architectural features with complex junctions that can contribute to heat loss (e.g., less bay windows, dormers, recesses, and stepping)	- Typically, block-like forms with flat roofs (3 – 6 storeys) - Massing is visually broken up with recesses, stepping, bay windows, and decorative projections	Complex massing and projections can cause heat loss due to thermal bridging and/or increased wall area	Move away from complex massing to simpler forms and strategic/limited use of stepping, recesses, bay windows, and projections
Orientation & Shading	- Strategic building and window orientation for more effective winter solar heat gain and summer shading - External shading devices on key south and west facades (e.g., balconies, fins, blinds, shutters, and deciduous trees)	- Street orientation preferred - Roof overhangs, decorative projections (e.g., frames and fins), and trees provide weather protection and enhance character	No OCP conflict, BUT street orientation plus typical building layouts and shading may not optimize heating and cooling for all tenants	- Increased distinction between sunny and shady building facades - Increased use of shading devices for shading and visual interest
Windows & Daylighting	- Lower window-to-wall-ratio (WWR) to lessen heat gain (i.e. 40% encouraged) - A few larger windows (rather than more smaller or multi-pane windows) to minimize heat loss through window frames (e.g., mullions, muntins, etc.) - Higher sills to reduce window size without compromising daylighting - Operable windows for natural ventilation	- Residential window patterns (i.e. varied shapes and sizes), including multi-pane and smaller windows in traditional-character areas - Operable windows	No OCP conflict, BUT multi-pane and smaller windows may increase heat loss due to more frame area	More strategic window use to better balance heating, cooling, livability, views, and daylighting
Balconies & Roof Decks	- Thermally broken designs (e.g., modified slab, hanging, and self-supported) to reduce heat loss at balcony connection points - Fewer and/or stacked recessed balconies to reduce the heat loss associated with this balcony type (due to more wall area, corners, and connection points) - Where appropriate, use of roof decks in place of balconies	Units must have balconies, decks, and/or patios (i.e. min. 6 – 9 m² /apartment)	Balconies and complex deck designs can cause heat loss due to thermal bridging	- Self-supported balconies likely preferred (possibly creating opportunities for larger/deeper balconies) - Stacked recessed balconies may give visual interest in lieu of massing articulation
Envelope Materials & Design	- Increase insulation (e.g., thicker exterior wall assemblies and triple glazing), especially where heat loss is unavoidable (e.g., due to a high WWR) - Reduced use of lower performing window/wall systems (e.g., curtain wall) - Increased variation in colour, materials, and pattern in place of other building articulation (i.e. instead of more complex massing or architectural features)	Colour/material/pattern variation visually breaks up massing and enhances building features	No OCP conflict	Particularly in traditional-character areas, increased use of materials/detailing to achieve desired character (in lieu of complex forms)

FORM AND CHARACTER IMPLICATIONS FOR HIGH PERFORMANCE BUILDINGS – CITY STAFF SUMMARY

(PART 9) TOWNHOUSES				
Features	High Performance (HP) Building Directions	OCP Form/Character Objectives	Friction with HP Directions	Possible Trends
Massing & Roofs	- More compact massing to reduce the overall size of the thermal envelope - Simpler building and roof forms to enhance thermal performance - Few architectural features with complex junctions that can contribute to heat loss (e.g., less bay windows, dormers, recesses, and stepping)	- House-like forms that may be articulated (particularly in traditional-character areas) with complex roofs, dormers, bay windows, and decorative projections - Generally, 2-3 storey buildings (2-6 units each) with the larger buildings along street frontages	- Complex massing and projections can cause heat loss due to thermal bridging and/or increased wall area - Larger buildings (e.g., 6 units) preferred for energy efficiency	- Move away from complex massing to simpler forms and strategic/limited use of stepping, recesses, bay windows, and projections - Decreasing acceptance of smaller (2 unit) buildings
Orientation & Shading	- Strategic building and window orientation for more effective winter solar heat gain and summer shading - External shading devices on key south and west facades (e.g., balconies, fins, blinds, shutters, and deciduous trees)	- Street orientation preferred - Roof overhangs, decorative projections, and trees provide weather protection and enhance character	No OCP conflict, BUT street orientation plus typical building layouts and shading may not optimize heating and cooling for all tenants	- Increased distinction between sunny and shady building facades - Increased use of shading devices for shading and visual interest
Windows & Daylighting	- Lower window-to-wall-ratio (WWR) to lessen heat gain (i.e. 40% encouraged) - A few larger windows (rather than more smaller or multi-pane windows) to minimize heat loss through window frames (e.g., mullions, muntins, etc.) - Higher sills to reduce window size without compromising daylighting - Operable windows for natural ventilation	- House-like window patterns, including multi-pane and smaller windows in traditional-character areas - Operable windows	Multi-pane and smaller windows may increase heat loss due to more frame area	Decreased use of multi-pane and smaller windows in favour of alternative traditional-character and modern window styles
Balconies & Roof Decks	- Thermally broken designs (e.g., modified slab, hanging, and self-supported) to reduce heat loss at balcony connection points - Fewer and/or stacked recessed balconies to reduce heat loss associated with this balcony type (due to more wall area, corners, and connection points) - Where appropriate, use of roof decks in place of balconies	- Units must have balconies, decks, and/or gardens (i.e. min. 30 – 37 m² /unit) - Inward site orientation preferred (i.e. away from neighbours and street noise)	Balconies and complex deck designs can cause heat loss due to thermal bridging	- Self-supported balconies and roof decks preferred - Street-fronting balconies (e.g., porches) may give visual interest in lieu of massing articulation
Envelope Materials & Design	- Increase insulation (e.g., thicker exterior wall assemblies and triple glazing), especially where heat loss is unavoidable (e.g., due to a high WWR) - Reduced use of lower performing window/wall systems (e.g., curtain wall) - Increased variation in colour, materials, and pattern in place of other building articulation (i.e. instead of more complex massing or architectural features)	Colour/material/pattern variation visually breaks up massing and enhances building features	No OCP conflict	Use of materials/detailing in lieu of complex forms (particularly in traditional-character housing areas)

FORM AND CHARACTER IMPLICATIONS FOR HIGH PERFORMANCE BUILDINGS – CITY STAFF SUMMARY

(PART 9) DUPLEXES				
Features	High Performance (HP) Building Directions	OCP Form/Character Objectives	Friction with HP Directions	Possible Trends
Massing & Roofs	- More compact massing to reduce the overall size of the thermal envelope - Simpler building and roof forms to enhance thermal performance - Few architectural features with complex junctions that can contribute to heat loss (e.g., less bay windows, dormers, recesses, and stepping)	- House-like form (2 storeys) - Massing/roof variations mitigate adjacency issues (e.g., scale and overlook) - Traditional SF features (e.g., bay windows) enhance neighbourhood fit	Complex massing and projections can cause heat loss due to thermal bridging and/or increased wall area	Move away from complex massing to simpler forms and strategic/limited use of stepping, recesses, bay windows, and projections
Orientation & Shading	- Strategic building and window orientation for more effective winter solar heat gain and summer shading - External shading devices on key south and west facades (e.g., balconies, fins, blinds, shutters, and deciduous trees)	- Street orientation preferred - Roof overhangs, decorative projections, and trees provide weather protection and enhance character	No OCP conflict, BUT street orientation plus typical building layouts and shading may not optimize heating and cooling for all tenants	- Increased distinction between sunny and shady building facades - Increased use of shading devices for shading and visual interest
Windows & Daylighting	- Lower window-to-wall-ratio (WWR) to lessen heat gain (i.e. 40% encouraged) - A few larger windows (rather than more smaller or multi-pane windows) to minimize heat loss through window frames (e.g., mullions, muntins, etc.) - Higher sills to reduce window size without compromising daylighting - Operable windows for natural ventilation	- House-like window patterns - Operable windows	No OCP conflict, BUT multi-pane and smaller windows may cause heat loss due to more frame area	Decreased use of multi-pane and smaller windows in favour of alternative traditional-character and modern window styles
Balconies & Roof Decks	- Thermally broken designs (e.g., modified slab, hanging, and self-supported) to reduce heat loss at balcony connection points - Fewer and/or stacked recessed balconies to reduce the heat loss associated with this balcony type (due to more wall area, corners, and connection points) - Where appropriate, use of roof decks in place of balconies	- Units must have gardens - Balconies/decks must not overlook neighbours	Balconies and complex deck designs can cause heat loss due to thermal bridging	Move away from balconies and complex deck designs where adequate open space can be provided at grade
Envelope Materials & Design	- Increase insulation (e.g., thicker exterior wall assemblies and triple glazing), especially where heat loss is unavoidable (e.g., due to a high WWR) - Reduced use of lower performing window/wall systems (e.g., curtain wall) - Increased variation in colour, materials, and pattern in place of other building articulation (i.e. instead of more complex massing or architectural features)	Colour/material/pattern variation visually breaks up massing and enhances building features	No OCP conflict	No specific change

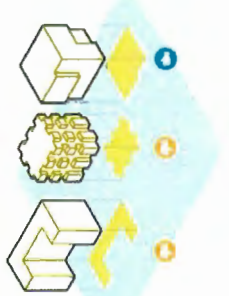
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KEY CONSIDERATIONS FOR HIGH PERFORMANCE BUILDINGS

The following design strategies, which relate to building form and character, are considered **best practice** and the most cost-effective way to achieve the higher steps of the BC Energy Step Code. Following these best practices closely may not always be feasible due to project-specific context, such as site constraints and regulations. Similar performance outcomes can be achieved with various combinations of high performance strategies. For example, a building with a somewhat more complex massing may achieve the same energy target as a building with simple massing, if the wall and/or window performance is increased. Designers can use energy models to explore different trade-offs and validate the appropriate set of strategies to meet multiple project objectives and balance various considerations, including form and character guidelines. Energy models help inform design decision making including cost-benefit considerations, and best-value options.

MASSING AND ARTICULATION

Focus on creating a **compact building** with simple massing. This approach helps to reduce thermal losses through the building envelope. Simpler massing with fewer details and complex junctions reduce the number of points at which thermal bridging often occurs, and make it easier to achieve a continuous air barrier.



 Easy to accommodate
  Challenging to accommodate
  Easy to accommodate

Tip: As an alternative to building forms requiring a complex building envelope, consider using colours, textures and/or building elements external to the thermal envelope to articulate the facade with minimal impact on thermal performance.

GLAZING

Use **triple glazing** in a high performance frame, vertically centered on the insulation layer in order to maximize continuity of the building's thermal envelope. The frame is the weakest point of a window assembly so it is important to minimize the number of framing elements. Avoid intermediate mullions where not required, and opt for fewer larger windows rather than more smaller ones.

Even high-performance windows have a much lower thermal resistance than opaque walls. To minimize heat losses, consider targeting an overall **window-to-wall ratio** of 40%.



Tips: Consider raising window sills to a least 2' (600mm) above the floor. This will reduce the heat losses through the glazing, reduce risk of glare and improve comfort without compromising daylighting and views.

ORIENTATION AND SHADING

Orient buildings and distribute fenestration to maximize solar gains in winter and maximize daylighting, while allowing for natural ventilation. Consider the shading effect of adjacent buildings or trees on the building's solar gains.

Maximize **glazing area** on the south to benefit from the best potential for solar gains in the winter. Windows on the south can be shaded effectively to manage the potential for overheating during the summer months, with minimal impact on winter heat gains. This approach is key to addressing increased summer temperatures in future climate conditions. Consider reducing excess window area on north-facing building elevations as available solar gains are limited for this orientation, while balancing the benefit of daylighting in reducing artificial lighting energy consumption.

Ensure **shading strategies** are implemented on the south and west orientations. **Deciduous trees**, for example, can provide shading in the summer, when it is most useful, and minimize shading in the winter when additional light and heat is of maximum benefit. **Operable windows** on multiple facades can also contribute to natural ventilation, reducing the energy used by the active ventilation system.

Tip: Solar shading devices can take many forms and help articulate the building, including fixed horizontal overhangs, vertical fins, sliding or folding louvers, motorized blinds, dynamic glass, and/or deciduous trees.

BUILDING ENVELOPE MATERIALS AND DESIGN

Increase insulation levels and consider building designs with thicker envelope assemblies, as there is no loss of total calculated floor space when doing so.

Reduce **thermal bridging** from design elements like exposed slab balconies. Where thermal bridging cannot be avoided, use lower thermal conductivity materials to help reduce heat transfer.

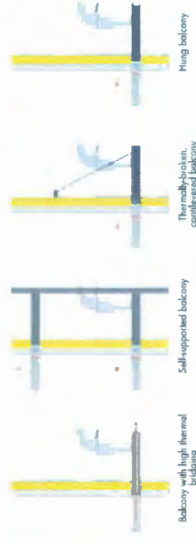


Tip: Use materials with low thermal conductivity (such as wood, fiberglass, etc.) for any elements penetrating the insulation layer. For example, using wood studs in an exterior wall with insulated stud cavities will greatly reduce thermal bridging relative to using steel studs.

SPECIFIC CONSIDERATIONS FOR BALCONIES

Conventional balconies created from concrete floor slabs penetrating through the thermal envelope of the building create significant **thermal bridges** between the conditioned space of the building and the exterior. This approach allows large amounts of heat to be conducted between the exterior and interior, even through well-insulated building envelopes.

Use thermally broken balconies, hung balconies, or self-supported structures to minimize unwanted heat losses/gains through the building envelope. These strategies will have an impact on project cost and may affect the building aesthetic.



Recessed balconies may pose an additional challenge for efficient envelope performance, compared to extended balconies; they increase building envelope area, and often create complex junctions and corners all of which lead to more heat losses through the envelope. Stacking recessed balconies to reduce the number of complex junctions in the building envelope, can minimize those impacts.

BUILDING SCALE AND DENSITY

Larger buildings tend to be more compact, with a smaller ratio of building envelope surface to floor area. This helps to reduce the impact of envelope heat losses on overall building performance.

Buildings with a higher density of occupants and/or other heat-emitting features (kitchen, server room, etc) can benefit from the additional "free heat" provided by people and equipment. These buildings may find it easier to meet the envelope performance requirements (TEDI target) of the BC Energy Step Code, since heat losses through the envelope are typically less critical where more internal gains are available. For example, a MURB with a more complex massing may achieve the same level of energy performance as a single family home with a simple massing, as the MURB's high internal gains can compensate for some of the additional heat losses through the envelope.

However, buildings with higher internal gains may face additional cooling loads to be considered in the project design, in order to ensure thermal comfort in summer.

PART 3 MIXED-USE / RESIDENTIAL HIGH-RISE BUILDINGS

The purpose of this page is to describe the main potential tension points between high performance design strategies and form and character objectives for **Part 3 mixed-use / residential high-rise buildings**. For each potential tension point, issues are summarized, and strategies to consider are presented which balance high performance design and form and character objectives.

BALCONIES AND THERMAL BRIDGING

Conventional balconies are created by extending the concrete floor slab through the thermal envelope. As reinforced concrete is a good thermal conductor, the slab penetrating the insulation layer functions like a radiator fin, transferring heat from the building interior to the outdoors. When designing balconies, consider the following strategies to limit heat losses:

CANTILEVERED BALCONIES (CONCRETE AND METAL CLIP-ON STRUCTURES)

A thermal break is used to separate the building and balcony structures. The thermal break should be placed in line with the insulation layer in the wall assembly. While thermally broken concrete balconies appear the same as typical cantilevered balconies, metal clip-on balconies can have a different aesthetic.



HUNG BALCONIES

Steel tension cables and rods are used to suspend the balcony and greatly reduce the total area of the thermal connections passing through the thermal envelope to the building structure. These have a different look than typical cantilevered balconies and may have limitations on size.



SELF-SUPPORTED BALCONIES

An external structure extending to the ground supports the balcony (instead of the building's structure), thus limiting thermal envelope penetrations. While this approach is more commonly used on mid-rise buildings, some high-rise buildings have also been built with self-supported balconies.



COMPACT MASSING AND ARTICULATION

Compact massing is key to limiting heat losses from the envelope since the complex corners and detailing resulting from a more complex building envelope is often a significant source of thermal bridging. Although simple shifts in massing can often be accommodated in high performance buildings, the following strategies create articulation and visual interest with no or minimal impact on energy performance:

COLOUR, MATERIALS AND TEXTURES

Changes in exterior cladding material, colour or textures can create architectural interest while maintaining simple building volume.



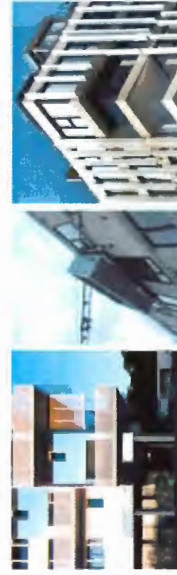
SHADING DEVICES

Shading is critical to avoid overheating in summer, on the south and west elevations. Shading devices can provide interest by providing external detailing and enabling the creation and varying of patterns across the elevation.



ELEMENTS OUTSIDE THE THERMAL ENVELOPE

A simple, efficient thermal envelope can be independent of the outer appearance of the building. Elements such as balconies, shading devices, and cladding with various depths or materials can create visual interest with minimal impact on the building thermal envelope, if carefully detailed.



GLAZING AND HEAT LOSS

Even the most efficient triple-glazed windows have much less thermal resistance than insulated solid walls. It is therefore important to limit the overall glazing area and distribute it where it is most needed, to allow for views, daylighting, connection to the street, etc. The following solutions can be adopted to reduce heat losses through windows and window frames:

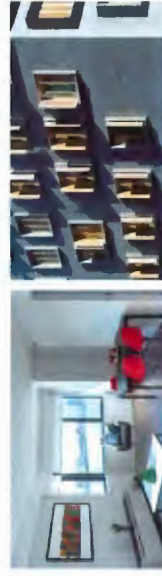
TRANSPARENCY AT GRADE, LESS GLAZING ON UPPER FLOORS

High-performance buildings can achieve an active/transparent facade at grade while achieving a lower overall window-to-wall ratio by reducing glazing on the upper floors. The increased heat losses from the ground floor glazing are compensated for with less heat losses from the upper floors.



RAISE WINDOW SILLS

Although floor to ceiling windows are popular, the lower part of the glazing does not contribute to views or daylighting. Consider raising the height of the window sill to at least 2' (600mm) to benefit from reduced glazing area without impacting daylighting or access to views by occupants.



CONSIDER SOLAR ORIENTATION FOR WINDOWS

Glazing area on the south orientation can be increased to maximize solar gains, with appropriate shading to mitigate the summertime overheating risks (now and in the future, as the local climate warms). Optimize glazing on the north orientation to maximize daylighting for occupants while minimizing heat losses.



PART 3 MIXED-USE/RESIDENTIAL HIGH-RISE CASE STUDIES

CONVENTIONAL STRATEGIES

These projects demonstrate conventional design approaches (listed below) that would be challenging to accommodate in high-performance buildings.



West Hall, Washington - US

Architect: ODA New York

1. Very high window-to-wall ratio
2. Complex massing with large amount of thermal bridging
3. Minimal shading relative to the amount of glass, increasing overheating risk in summer.



6900 Pearson Way, Richmond - Canada

1. Very high window-to-wall ratio
2. Similar window-to-wall ratio on all orientations
3. Minimal shading provided
4. Extensive use of inefficient curtain wall and spandrels
5. Recessed balconies increases building envelope area

HIGH PERFORMANCE STRATEGIES

Although these projects have not reached high levels of energy performance, the following features demonstrate design practices aligned with high performance.



Couch9, Portland - US

Architect: Vollaster Cori Architects

1. Overall simple and compact massing, although the recessed balconies would affect building energy performance.
2. Self-supported balconies on the west, and clip-on balconies on the east limit thermal bridging
3. West-oriented glazing shaded by balconies
4. Higher window-to-wall ratio on the south
5. Higher transparency at grade



ZAC Bourcail, Paris - France

Architect: MG-AU

1. Simple and compact massing
2. Folding shutters and deep window frames provide visual interest with minimal impact on performance
3. Low window-to-wall ratio
4. Large windows with minimal framing
5. Highly glazed ground floor

HIGH PERFORMANCE ACHIEVED

These projects demonstrate design approaches (listed below) that have been used to achieve high performance.



Buggi 50, Freiburg - Germany

Architect: Deimele Oelschlaeger

1. Compact and simple massing
2. Canistered thermally-broken balconies
3. Low window-to-wall ratio
4. Largest windows shaded by balconies
5. Large windows with minimal framing

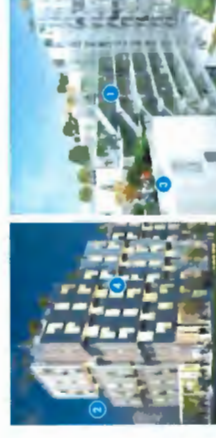


Boyen Street, Berlin - Germany

Architect: Deimele Oelschlaeger

PASSIVE HOUSE, ZERO EMISSIONS

1. Low window-to-wall ratio
2. Simple and compact massing overall (note that the building envelope is sufficiently high-performance to allow for several bump-outs on the north elevation)
3. Self-supported balconies on the south, to limit thermal bridging
4. South-facing windows shaded by folding shutters on balconies and retractable shades on upper floor



Corvette Landing, Admirals Road & Constance Avenue, Victoria - Canada

Architect: LVPAC

PASSIVE HOUSE

1. Conditioned area of the building reduced by pushing the hallways and stairways outdoors
2. Relatively complex massing is offset by the large scale of the project, which reduces the surface-area-to-volume ratio
3. Outdoor amenity space provided on the rooftop to avoid thermal bridging impact of balconies (note that balconies for all units are required in Richmond)
4. Fairly low window-to-wall ratio



Solis Passive House, Seattle - US

Architect: Weber Thompson

PASSIVE HOUSE PHIUS CERTIFIED

1. Simple massing
2. Low window-to-wall ratio
3. Thermally broken balconies
4. Lobby, stair and elevator shaft are located outside of thermal envelope
5. Ground floor windows shaded by canopy with building integrated PV's
6. Higher transparency at grade to create visual connection to the street

PART 3 MID-RISE RESIDENTIAL BUILDINGS

The purpose of this page is to describe the main potential tension points between high performance design strategies and form and character objectives for **Part 3 mid-rise residential buildings**. For each potential tension point, issues are summarized, and strategies to achieve both high performance design and form and character objectives are presented for consideration.

BALCONIES AND THERMAL BRIDGES

Conventional balconies are created by extending the concrete floor slab through the thermal envelope. As reinforced concrete is a good thermal conductor, the slab penetrating the insulation layer functions like a radiator fin, transferring heat from the building interior to the outdoors. When designing balconies, consider the following strategies to limit heat losses:

SELF-SUPPORTED BALCONIES

An external structure extending to the ground supports the balcony (instead of the building's structure), thus limiting thermal envelope penetrations. These types of balconies work well on mid-rise buildings.



CANTILEVERED BALCONIES (CONCRETE AND METAL CLIP-ON STRUCTURES)

A thermal break is used to separate the building and balcony structures. The thermal break should be placed in line with the insulation layer in the wall assembly. While thermally broken concrete balconies appear the same as typical cantilevered balconies, metal clip-on balconies can have a different aesthetic.



HUNG BALCONIES

Steel tension cables and rods are used to suspend the balcony and greatly reduce the total area of the thermal connections passing through the thermal envelope to the building structure. These have a different look than typical cantilevered balconies and may have limitations on size.



COMPACT MASSING AND ARTICULATION

Compact massing is key to limiting heat losses from the envelope and helps to avoid complex detailing which can be a source of thermal bridging and air leakage. Although simple shifts in massing can often be accommodated in high performance buildings, the following strategies create articulation and visual interest with no or minimal impact on energy performance:

COLOUR, MATERIALS AND TEXTURES

Changes in exterior cladding material, colour or textures can create architectural interest while maintaining simple building volume.



SHADING DEVICES

Shading is critical to avoid overheating in summer, on the south and west elevations. Shading devices can provide interest by providing external detailing and enabling the creation and varying of patterns across the elevation.



ELEMENTS OUTSIDE THE THERMAL ENVELOPE

A simple, efficient thermal envelope can be independent of the outer appearance of the building. Elements such as balconies, shading devices, and cladding with various depths or materials can create visual interest with minimal impact on the building thermal envelope, if carefully detailed.



GLAZING AND HEAT LOSS

Even the most efficient triple-glazed windows have much less thermal resistance than insulated solid walls. It is therefore important to limit the overall glazing area and distribute it where it is most needed, to allow for views, daylighting, connection to the street, etc.

The following solutions can be adopted to reduce heat losses through windows and window frames:

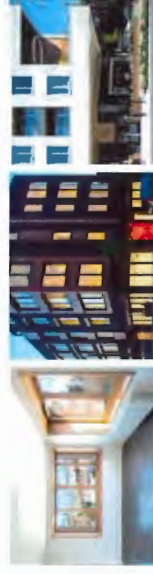
TRANSPARENCY AT GRADE, LESS GLAZING ON UPPER FLOORS

High-performance buildings can achieve an active/transparent facade at grade while achieving a lower overall window-to-wall ratio by reducing glazing on the upper floors. The increased heat losses from the ground floor glazing are compensated for with less heat losses from the upper floors.



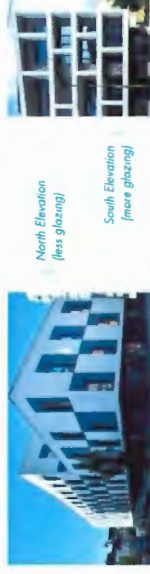
RAISE WINDOW SILLS

Although floor to ceiling windows are popular, the lower part of the glazing does not contribute to views or daylighting. Consider raising the height of the window sill to at least 2' (600mm) to benefit from reduced glazing area without impacting daylighting or access to views by occupants.



CONSIDER SOLAR ORIENTATION FOR WINDOWS

Glazing area on the south orientation can be increased to maximize solar gains, with appropriate shading to mitigate the summertime overheating risks (now and in the future, as the local climate warms). Optimize glazing on the north orientation to maximize daylighting for occupants while minimizing heat losses.



PART 3 MID-RISE RESIDENTIAL BUILDINGS CASE STUDIES

CONVENTIONAL STRATEGIES

These projects demonstrate conventional design approaches (listed below) that would be challenging to accommodate in high-performance buildings.



The Village, 4211 Bayview Street, Richmond - Canada
Architect: Yamamoto Architecture Inc.

1. Compact massing, roof forms and building articulations
2. High window-to-wall ratio
3. Extensive use of non-thermally-broken concrete balconies increases thermal bridging.

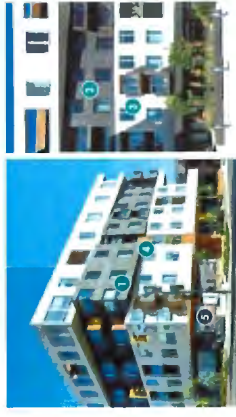


Mandaley, 9371 Hemlock Drive, Richmond - Canada

1. High window-to-wall ratio on all orientations maximizes thermal losses in winter and overheating in summer.
2. Extensive use of non-thermally-broken concrete balconies increases thermal bridging.
3. Multiple window mullions increase transmission heat losses.

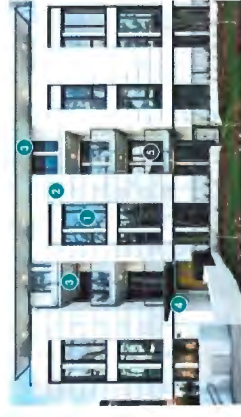
HIGH PERFORMANCE STRATEGIES

Although these projects have not reached high levels of energy performance, the following features demonstrate design practices aligned with high performance.



The Black and White, 1033 Cook Street, Victoria - Canada
Architect: Architects

1. Compact and simple massing
2. Low window-to-wall ratio on upper floors
3. Large windows with limited framing
4. Color and materials used to emphasize building articulation with no impact on building performance.
5. Highly glazed ground floor allows connection to the street.



Mercy, 2239 West 7th Ave, Vancouver - Canada

1. Low window-to-wall ratio. Large windows with minimal framing
 2. Relatively simple massing
 3. Windows shaded by roof overhang and balconies
 4. Exterior front canopy minimizes thermal bridging.
- Other form and character objectives:
5. Balconies or private outdoor space provided for each unit

HIGH PERFORMANCE ACHIEVED

These projects demonstrate design approaches (listed below) that have been used to achieve high performance.



Residence Andee, rue v. Brussels, Belgium

Architect: AZM

PASSIVE HOUSE

1. South oriented windows shaded by balconies
2. Self-supported balconies
3. Thermal envelope with a very simple volumetry, with all elements contributing to articulation located outdoors
4. High window-to-wall ratio on the south (this building has a lower window-to-wall ratio on its north elevation)

Other form and character objectives:

5. Generous south-oriented balconies or private outdoor space for every unit



Dubrucq Escart, Brussels, Belgium

Architect: R2D2

PASSIVE HOUSE CERTIFIED

1. Compact massing
 2. Visual interest from pattern variation in the wood cladding, thus with no or minimal impact on thermal performance
 3. Limited window-to-wall ratio on upper floors
 4. Windows shaded by balconies and wood slats
 5. Large windows with minimal framing
- Other form and character objectives:

6. Balconies or rooftop terrace provided for each unit
7. Higher transparency at grade to create visual connection to the street



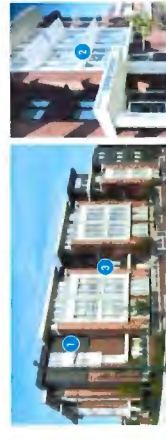
Orient, Brussels, Belgium

Architect: R2D2

PASSIVE HOUSE

1. Compact massing
 2. Lower window-to-wall ratio on the north
 3. Higher window-to-wall ratio on the south
 4. Large windows with minimal framing
 5. Use of colour and materials provides articulation with no impact on energy performance.
- Other form and character objectives:

6. Balconies or rooftop terrace provided for all units



Spire Landing, 7065 57th Ave, Vancouver - Canada

Architect: Cornerstone Architecture

PASSIVE HOUSE CERTIFIED

1. Relatively simple massing for a building of this scale
2. Fixed horizontal sunshades on the south facing windows
3. Use of various materials, shading devices and some volumetric shifts create articulation, with minimal impact on thermal envelope.

PART 3 COMMERCIAL BUILDINGS

The purpose of this page is to describe the main potential tension points between high performance design strategies and form and character objectives for **Part 3 commercial buildings**. For each potential tension point, issues are summarized, and strategies to consider are presented which balance high performance design and form and character objectives.

GLAZING AND HEAT LOSS

Even the most efficient triple-glazed windows have much less thermal resistance than insulated solid walls. It is therefore important to limit the overall glazing area and distribute it where it is most needed, to allow for views, daylighting, connection to the street, etc. The following solutions can be adopted to reduce heat losses through windows and window frames:

TRANSPARENCY AT GRADE, LESS GLAZING ON UPPER FLOORS

High-performance buildings can achieve an active/transparent frontage at grade while achieving a lower overall window-to-wall ratio by reducing glazing on the upper floors. The increased heat losses from the ground floor can be balanced with less heat losses from the upper floors.



RAISE WINDOW SILLS

Although floor to ceiling windows are popular, the lower part of the glazing does not contribute to views or daylighting. Consider raising the height of the window sill to at least 2' (600mm) to benefit from reduced glazing area without impacting daylighting or access to views by occupants.



CONSIDER SOLAR ORIENTATION FOR WINDOWS

Glazing area on the south orientation can be increased to maximize solar gains, with appropriate shading to mitigate the summertime overheating risks (now and in the future, as the local climate warms). Optimize glazing on the north orientation to maximize daylighting for occupants while minimizing heat losses.



COMPACT MASSING AND ARTICULATION

Compact massing is key to limiting heat losses from the envelope and helps to avoid complex detailing which can be a source of thermal bridging and air leakage. Although simple shifts in massing can often be accommodated in high performance buildings, the following strategies create articulation and visual interest with no or minimal impact on energy performance:

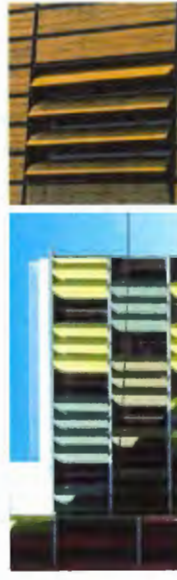
COLOUR, MATERIALS AND TEXTURES

Shading is critical to avoid overheating in summer, on the south and west elevations. Shading devices can provide interest by providing external detailing and enabling the creation and varying of patterns across the elevation.



SHADING DEVICES

Shading is critical to avoid overheating in summer, on the south and west elevations. Shading devices can provide interest by varying patterns across the elevation.



ELEMENTS OUTSIDE THE THERMAL ENVELOPE

A simple, efficient thermal envelope can be independent of the outer appearance of the building. Elements such as balconies, shading devices, and cladding with various depths or materials can create visual interest with minimal impact on the building thermal envelope, if carefully detailed.



CURTAIN WALLS AND SPANDRELS

While used on several building types, curtain wall systems are commonly used as the building envelope on commercial office buildings. These systems consist of floor to ceiling glass with opaque panels at floor slabs or other service spaces.

Curtain walls perform relatively poorly compared to other window wall systems, and spandrel panels perform significantly worse than a well-insulated opaque wall. Selecting a building envelope that can deliver the performance required is a critical choice for achieving overall energy efficiency targets.

If the building will incorporate a curtain wall system, a second key determinant of energy performance is optimizing the window-to-wall ratio in order to limit heat transfer.

Consider limiting the amount of spandrel panels in the envelope, and using insulated walls where transparency is not required.



AUST 1 No 3 rd Richmond office building with extensive curtain wall and spandrels



Capital Park, office building, Victoria BC
Appropriate window-to-wall ratio with punched windows and less curtain wall areas

PART 3 COMMERCIAL BUILDINGS CASE STUDIES

CONVENTIONAL STRATEGIES

These projects demonstrate conventional design approaches (listed below) that would be challenging to accommodate in high-performance buildings.



3820 Cessna Drive, Richmond - Canada

1. Building fully glazed on all facades
2. Building oriented on the north-south axis (main elevations on the east and west) with no shading, increasing the risk of overheating in summer
3. Exterior concrete columns supporting the overhang produce significant thermal bridging



5951 No. 3 Road, Richmond, Canada

1. High window-to-wall ratio on all elevations, including on the north orientation
2. Exterior glazing flush with face of cladding is not in line with the mid-point of the insulation layer, increasing thermal bridging at window perimeters.

HIGH PERFORMANCE STRATEGIES

Although these projects have not reached high levels of energy performance, the following features demonstrate design practices aligned with high performance.



1515 Douglas Street & 750 Pandora Avenue, Victoria, Canada

1. Limited window-to-wall ratio on upper floors
2. Compact massing
3. Use of different colours and cladding materials to create articulation with no impact on energy performance
4. Shading and weather protection provided by exterior canopy at grade, fully outside the thermal envelope
5. Higher transparency at grade to create visual connection to the street.

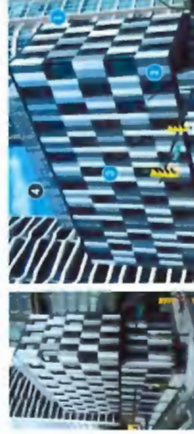


111 East Grand and St. Kilda Surf & Surf, Des Moines, US

1. Simple massing
2. Articulation created by the use of different colours and materials, with no impact on energy performance.
3. Thermal bridging minimized by the use of wood exterior columns, rather than a concrete or steel structure with increased heat transfer
4. Limited window to wall ratio on upper floors
5. Balconies appear to be recessed, but are strategically stacked at the corner so that they do not increase the total surface area of the building envelope
6. Large overhang provides shading to the large windows.
7. Higher transparency at grade to create visual connection to the street.

HIGH PERFORMANCE ACHIEVED

These projects demonstrate design approaches (listed below) that have been used to achieve high performance.



825 Pacific Street, Vancouver - Canada

Architect: IBI Group

PASSIVE HOUSE

1. Compact massing
 2. Use of various colours of cladding to create visual interest with no impact on thermal performance
 3. Limited window-to-wall ratio, with a few large glazed units
- Other form and character objectives:
4. Architectural screens concealing rooftop mechanical equipment

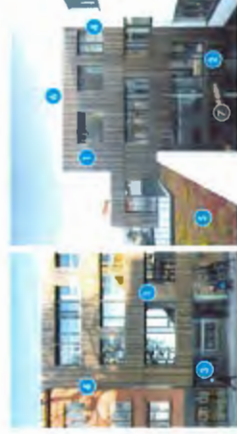


Lonsdale Avenue Commercial Building, Vancouver, Canada

Architect: Hensworth Architecture

PASSIVE HOUSE

1. Compact and simple massing
 2. Limited window-to-wall ratio on upper floors
 3. Most glazing is south facing. No glazing on the north
 4. Exterior canopy hung from the exterior wall and independent of the thermal envelope, provides shading for the glazed ground floor with minimal thermal bridging.
- Other form and character objectives:
5. Higher transparency at grade to create visual connection to the street



Maison de l'Emploi, Brussels, Belgium

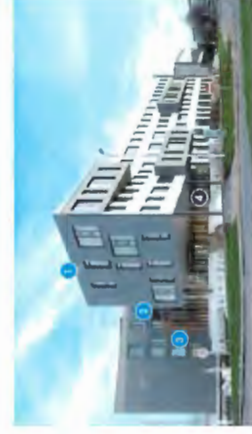
Architect: A2M

PASSIVE HOUSE

1. Limited window-to-wall ratio. Glazing with a raised sill.
2. Simple volumetry with interior courtyard to maximize daylighting
3. More glazing at street level, placed strategically where most beneficial
4. Varied cladding materials create articulation with no impact on massing.
5. Green roofs provide additional insulation on the roofs
6. Rooftop PV array

Other form and character objectives:

7. Rooftop and interior courtyard offer exterior common amenity space for occupants



The Genesis, Braine-l'Alleud, Belgium

Architect: A2M

PASSIVE DESIGN, BREEAM CERTIFIED: EXCELLENT

1. Two compact boxes connected by an atrium
2. Glazed atrium height is maximized on the [south facing] entrance side, but reduced to a single story on the [north facing] rear elevation to limit heat losses.
3. Wood fins outside the thermal envelope create articulation with no impact on the building enclosure.

Other form and character objectives:

4. Large overhang at main entrance creates protected outdoor space.

PART 9 TOWNHOUSES AND DUPLEXES

The purpose of this page is to describe the main potential tension points between high performance design strategies and form and character objectives for **Part 9 townhouses and duplexes**. These are included together because they have similar considerations. For each potential tension point, issues are summarized, and strategies to consider are presented which balance high performance design and form and character objectives.

COMPACT MASSING AND ARTICULATION

Compact massing is key to limiting the heat losses from the envelope since the complex corners and increased surface area resulting from a detailed building envelope is often a significant source of thermal bridging and air leakage. Dormers, pitched roofs and bay windows typically add complex junctions and increase the overall surface area of the building envelope, increasing heat transfer. The following strategies allow for articulation and visual interest with minimal impact on energy performance:

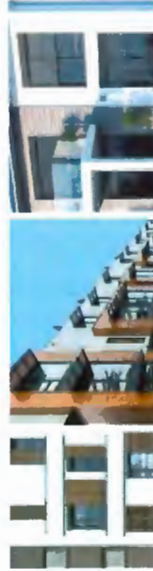
COLOUR, MATERIALS AND TEXTURES

Changes in exterior cladding material, colour or textures can create architectural interest while maintaining simple building volume.



SHADING DEVICES

Shading is critical to avoid overheating in summer, on the south and west elevations. Shading devices can provide interest by varying patterns across the elevation.



ELEMENTS OUTSIDE THE THERMAL ENVELOPE

A simple, efficient thermal envelope can be independent of the outer appearance of the building. Elements such as balconies, shading devices, and cladding with various depths or materials can create visual interest with minimal impact on the building thermal envelope, if carefully detailed.

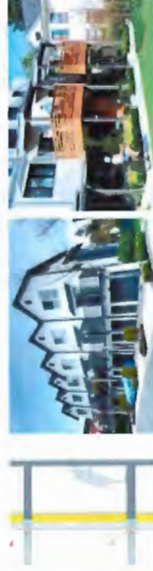


BALCONIES AND THERMAL BRIDGING

Conventional balconies are created by extending the concrete floor slab outside the thermal envelope. As reinforced concrete is a good thermal conductor, the slab penetrating the insulation layer function as radiator fins, transferring heat from the building interior to the outdoors. When designing balconies, consider the following strategies to limit heat losses:

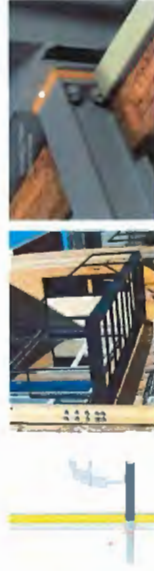
SELF-SUPPORTED BALCONIES

An external structure extending to the ground supports the balcony (instead of the building's structure), thus limiting thermal envelope penetrations. These types of balconies work well on low-rise buildings.



CANTILEVERED BALCONIES (METAL CLIP-ON STRUCTURES)

A thermal break is used to separate the building and balcony structures. The thermal break should be placed in line with the insulation layer in the wall assembly. Metal clip-on balconies are more common than concrete balconies for Part 9 buildings.



HUNG BALCONIES

Steel tension cables and rods are used to suspend the balcony and greatly reduce the total area of the thermal connections passing through the thermal envelope to the building structure. These have a different look than typical cantilevered balconies and may have limitations on size.



OTHER HIGH PERFORMANCE DESIGN CONSIDERATIONS UNIQUE TO SMALL RESIDENTIAL BUILDINGS

Townhouses are small buildings with a relatively high ratio of building envelope to gross floor area. In smaller buildings, complex geometries can significantly decrease the building performance. Although achieving an energy efficient design with a complex volumetry is technically feasible, these designs tend to cost more and use more materials than a simpler building. Complex massing also results in increased numbers of complex junctions, making thermal bridging and airtightness difficult to manage and optimize. A simple thermal envelope volume is key for success. Designers should be strategic about trade-offs between different design elements.

BAY WINDOWS AND DORMERS

The addition of bay windows and dormers add envelope area and increase heat losses. It is also typical that these features necessitate more small windows increasing heat losses through the additional window frames.



PITCHED ROOFS

Pitched roofs tend to increase the surface area of the thermal envelope compared to a flat roof when the attic space is conditioned. If the attic space is not heated, it may be more challenging to maintain a continuous air barrier and continuous insulation between the exterior wall and the attic floor. Careful detailing can help minimize heat losses and air leakage.



SHARED WALLS

Maximizing the contact surface between adjacent units helps to reduce heat losses where shared walls between townhouses separate two conditioned spaces. Keeping the townhouses aligned at the front and back minimizes the building envelope area exposed to the outside. Adjacent units can be differentiated by materials or texture rather than relying on modulation of the building facade.



PART 9 TOWNHOUSES - CASE STUDIES

CONVENTIONAL STRATEGIES

These projects demonstrate conventional design approaches (listed below) that would be challenging to accommodate in high-performance buildings.



Tigris Garden, 7471 No 4 Road, Richmond - Canada

1. Complex massing created by dormers, bay windows and canopies increases heat losses through the increased surface area of the building envelope
2. Numerous complex junctions introduce additional thermal bridging



22888 Windsor Court, Richmond - Canada

1. Complex massing with bay windows and multiple roof shapes increases heat losses through the increased surface area of the building envelope
2. Recessed balconies create more opportunities for thermal bridging
3. Many small windows increase amount of window framing and associated heat losses

HIGH PERFORMANCE STRATEGIES

Although these projects have not reached high levels of energy performance, the following features demonstrate design practices aligned with high performance.



19159 Walkins Drive, Surrey - Canada

Builder: Mosaic

1. Compact massing and simple thermal envelope
2. Visual interest created by the use of various colours and cladding treatments, with no impact on energy performance
3. Limited window-to-wall ratio

4. Externally supported balconies to minimize thermal bridging
5. Exterior canopies with minimal thermal bridging

Other form and character objectives:

6. Pitched roofs create a visual separation between units.



Tilley Row Homes, Austin - US

Architect: Michael Hu

1. Compact massing
2. Small size balconies minimize thermal bridging
3. Deep grey window frames and wood elements provide articulation and contrast with the white cladding, with no impact on energy performance.
4. Limited window-to-wall ratio

Other form and character objectives:

5. Small recesses highlight the entrances, provide weather protection and private outdoor spaces. Townhouses facing the street
6. Pitched roofs create a visual separation between units.

HIGH PERFORMANCE ACHIEVED

These projects demonstrate design approaches (listed below) that have been used to achieve high performance.



The Walk, Bainbridge Island - US

Architect: Davis Studio Architecture + Design

NET ZERO ENERGY

1. Compact massing
2. Limited window-to-wall ratio, with a few large glazed units
3. Visual interest created by the use of different materials and colours with no impact on thermal performance

Other form and character objectives:

4. Entrances facing the street, with weather protection



Tillamook Row, Portland - US

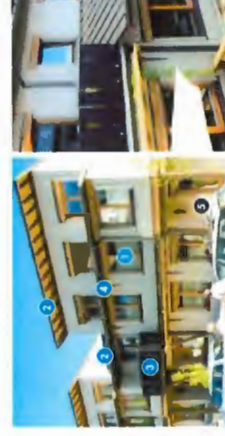
Architect: Green Hammer

ZERO ENERGY, PASSIVE HOUSE

1. Fixed horizontal sunshades and roof overhangs for shading on the south elevation
2. Sliding shutters on east and west elevations for shading and visual interest
3. Individual units have a compact massing.
4. Balconies and canopies with self-supported structure to reduce thermal bridging.

5. Articulation created by the use of different materials, colours and patterns, with no impact on thermal performance.

6. Limited window-to-wall ratio with minimal window framing
7. Rooftop PV array



Ankeny Row Cohousing, Portland - US

Architect: Green Hammer

PASSIVE HOUSE

1. Limited window-to-wall ratio
2. Roof overhangs provide shading
3. Balconies with structure braced back to the exterior wall to minimize thermal bridging.
4. Articulation provided by elements outside of the thermal envelope.

Other form and character objectives:

5. Entrances facing the street, with weather protection



Skagen, 606 Foster Avenue, Coquitlam - Canada

Architect: Cornerstone Architecture

PASSIVE HOUSE

1. Compact massing
2. Limited window-to-wall ratio
3. Use of various colours and cladding materials to create articulation with no impact on thermal performance
4. Front canopy outside the thermal envelope
5. Fixed horizontal sunshades on south and west elevations

Other form and character objectives:

6. Entrances facing the street, with weather protection

PART 9 DUPLEXES - CASE STUDIES

CONVENTIONAL STRATEGIES

These projects demonstrate conventional design approaches (listed below) that would be challenging to accommodate in high-performance buildings.



The Bridge Lynn Valley Homes, 1163 Harold Road, North Vancouver - Canada
Architect: Evolve International Design

1. Very complex roof lines and overall massing increase heat losses through the additional building envelope area
2. Numerous complex junctions introduce additional thermal bridging and make it more challenging to achieve a high level of airtightness
3. Window-to-wall ratio similar for all orientations
4. Small windows increase heat losses through window frames



310 11th Street East, North Vancouver - Canada

1. Complex massing and roof lines increase heat losses through the additional building envelope area
2. Numerous complex junctions introduce additional thermal bridging and make it more challenging to achieve a high level of airtightness

HIGH PERFORMANCE STRATEGIES

Although these projects have not reached high levels of energy performance, the following features demonstrate design practices aligned with high performance.



4236 Inverness Street, Vancouver - Canada

1. Simple and compact massing
 2. Exterior canopy outside of thermal envelope, minimizing thermal bridging
 3. Low window to wall ratio
- Other form and character objectives:
4. Entrances facing the street, with weather protection



Dickens, 1041 East 16th Avenue, Vancouver - Canada
Architect: Evolve International Design

1. Simple and compact 'box' massing
 2. Porches and canopies supported by external structure to limit thermal bridging
 3. Overall low window-to-wall ratio
 4. Higher window-to-wall ratio on the south, lower on the north
 5. Deep frame around upper south windows provide summertime shading
- Other form and character objectives:
6. Entrances facing the street, with weather protection

HIGH PERFORMANCE ACHIEVED

These projects demonstrate design approaches (listed below) that have been used to achieve high performance.

Mary Street Duplex, Victoria - Canada

Architect: hcma

PASSIVE HOUSE CERTIFIED

1. Compact massing
 2. South-facing clerestory glazing provides solar gains and daylighting on north side of building
 3. Use of different cladding materials and colours to create articulation with no impact on thermal performance
 4. Large overhang on south elevation provides summertime shading
 5. East and west facades shaded with exterior blinds and vegetated structure
 6. Balcony supported by exterior structure
- Other form and character objectives:
7. Entrances facing the street



Furhaus, 1152 East 13th Avenue, Vancouver - Canada

Architect: b Squared Architecture

PASSIVE HOUSE

1. Roof overhang and fixed horizontal sunshades over south-facing windows provide summertime shading
2. Exterior canopies outside the thermal envelope provide shading
3. Limited window-to-wall ratio
4. Compact volumetry
5. Large windows with minimal framing



South Deerfield Net Zero Energy Duplex, South Deerfield - US

Architect: Fitch Architecture & Community Design

NET ZERO ENERGY, TIER 3 ENERGY STAR

1. Simple and compact massing
 2. Limited window-to-wall ratio
 3. Front canopy outside the thermal envelope with minimal thermal bridging
 4. Rooftop PV array
- Other form and character objectives:
5. Entrances facing the street, with weather protection



Rainbow Passive House Duplex, Whistler - Canada

Architect: Marika Design + Consulting

PASSIVE HOUSE

1. Low window-to-wall ratio
 2. Balconies and canopies supported by external structure limit thermal bridging
 3. Fixed horizontal sunshades over windows
 4. Exterior blinds on the south
 5. Rooftop solar thermal array
- Other form and character objectives:
6. Entrances facing the street, with weather protection





**Building Regulation Bylaw No. 7230,
Amendment Bylaw No. 10365
(Energy Step Code requirements)**

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

1. *Building Regulation Bylaw No. 7230*, as amended, is further amended by replacing the table in Section 10.1.1 with the following table:

<i>Buildings subject to Part 9 of the Building Code</i>			
Building Type	Building permit application filed on or after September 1, 2018	Building permit application filed on or after December 15, 2020	Building permit application filed on or after July 1, 2022
Townhomes and apartments	Step 3	Step 3 OR Step 2 for buildings that implement a low carbon building energy system.	Step 5 OR Step 4 for buildings that comply with the building envelope performance requirement using absolute metrics OR Step 3 for buildings that comply with the building envelope performance requirement using absolute metrics, and that implement a low carbon building energy system.
Single family, duplex and other dwelling units	Step 1		

<i>Buildings subject to Part 3 of the Building Code</i>			
Building Type	Building permit application filed on or after September 1, 2018	Building permit application filed on or after December 15, 2020	Building permit application filed on or after July 1, 2022
Hotels and Motels	n.a.	Step 3 OR Step 2 for buildings that implement a low carbon building energy system.	Step 3 OR Step 2 for buildings that implement a low carbon building energy system.
Other Group C Residential occupancies greater than 6 stories or non-combustible construction (not including hotel and motel occupancies)	Step 3 OR Step 2 for buildings that implement a low carbon building energy system.		Step 3 OR Step 2 for buildings that implement a low carbon building energy system.
Other Group C Residential occupancies 6 stories or less and combustible construction (not including hotel and motel occupancies)	Step 3		Step 4 OR Step 3 for buildings that implement a low carbon building energy system.
Group D Business and personal services occupancies or Group E mercantile occupancies	Step 2		Step 3 OR Step 2 for buildings that implement a low carbon building energy system.

2. *Building Regulation Bylaw No. 7230*, as amended, is further amended at Section 16.1 by adding the following definitions in alphabetical order:

ABSOLUTE METRICS

means:

- a) the thermal energy demand intensity listed under the "Performance Requirement of Building Envelope" column of Table 9.36.6.3.A in the British Columbia Building Code, or
- b) the thermal energy demand intensity requirement calculated using the formula in Sentence 4 of Section 9.36.6.3 in the British Columbia Building Code.

BUILDING ENERGY USE

means the total modelled annual energy requirements of an occupied building, including space heating, cooling, hot water heating, ventilation, appliances and electrical plug loads.

**BUILDING ENVELOPE
PERFORMANCE REQUIREMENT**

means the requirements listed under the "Performance Requirement of Building Envelope" column of Table 9.36.6.3.A in the British Columbia Building Code.

3. *Building Regulation Bylaw No. 7230*, as amended, is further amended at Section 16.1 by removing the definition of "Low Carbon Building Energy System" and replacing it with:

**LOW CARBON BUILDING
ENERGY SYSTEM**

means:

- a) for buildings subject to Part 3 of the Building Code, a building's space heating, cooling and domestic hot water heating mechanical system that is supplied energy through:
 - (i) a connection to a district energy utility system owned by the City or a corporate subsidiary of the City; or
 - (ii) on-site energy supply equipment designed to meet a minimum 70% of each of the building's A) annual heating demand, B) annual cooling demand, and C) domestic hot water energy demand, from a renewable energy source, approved by the City's General Manager of Engineering and Public Works. Applicable renewable energy source technologies include, but are not limited to, air and ground source heat pump systems, waste heat recovery systems, solar collectors, or other systems as approved by the City's General Manager of Engineering and Public Works. The building's energy system must be designed and constructed such that it is ready to connect to a future district energy utility system owned by the City or a corporate subsidiary of the City. For sites outside district energy utility service areas and the City Centre Area (as defined in Bylaw No. 9000, Official Community Plan), the City's General Manager of Engineering and Public Works may exempt the building's energy system from the requirement to be ready to connect to a future district energy utility system.
- b) for buildings subject to Part 9 of the Building Code, annual GHG emissions from building energy use, per metre of conditioned floor space, of no more than the amount defined below:

	Submission date of complete Building Permit Application	
	On or after December 15, 2020, and before July 1, 2022	On or after July 1, 2022
Part 9 Residential buildings	1200 kg CO ₂ e per dwelling unit per year OR no more than 6 kg CO ₂ e per spare meter of conditioned floor space per year	440 kg CO ₂ e per dwelling unit per year OR no more than 2.5 kg CO ₂ e per spare meter of conditioned floor space per year, <u>and</u> no more than 800 kg CO ₂ e per dwelling unit per year

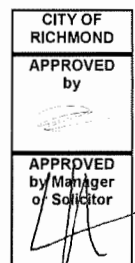
4. This Bylaw may be cited as “**Building Regulation Bylaw No. 7230, Amendment Bylaw No. 10365**”.

FIRST READING

SECOND READING

THIRD READING

ADOPTED



MAYOR

CORPORATE OFFICER



**Richmond Official Community Plan Bylaw 9000, Amendment Bylaw
10364 (Development Permit Guidelines for Low Carbon, Energy
Efficient Buildings)**

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 14.2.10 Green Buildings and Sustainable Infrastructure, by deleting the words:

"The intent is to provide general direction in regards to the voluntary undertaking, where feasible, of green building and sustainable infrastructure to support City of Richmond sustainability objectives and help reduce the demand for energy and resources."

and replacing them with:

"The intent is to provide general direction in regards to the undertaking of green building and sustainable infrastructure to support City of Richmond greenhouse gas (GHG) emission reduction and sustainability objectives and help reduce the demand for energy and resources."

- 2) Richmond Official Community Plan Bylaw 9000, as amended, is further amended at Section 14.2.10 Green Buildings and Sustainable Infrastructure, by deleting the text of subsection 14.2.10.A Low Carbon, Energy Efficient Buildings in its entirety and replacing it with the following:

14.2.10.A Low Carbon, Energy Efficient Buildings

- a) New buildings are encouraged to be designed to achieve low or zero GHG emissions in their operations.
- b) As required in the Building Regulation Bylaw, applicable new buildings will be designed and constructed to meet the BC Energy Step Code to support more energy efficient development, which may include, but may not be limited to, the high-performance building considerations set out in the table below.
 - Through rezoning, Development Permit and other permit approval processes, proposed buildings shall demonstrate compliance with the applicable requirements of the BC Energy Step Code to the satisfaction of the City (for example, by providing energy modelling outputs).

- Compliance with a given Step of the BC Energy Step Code shall not compromise the intent of any of the Development Permit Guidelines contained in Schedule 1 or Schedule 2 of the OCP.
- In the event that, during the Building Permit process, a new building subject to an approved Development Permit requires remedial actions to achieve compliance with the applicable step of the BC Energy Step Code, any such remedial actions shall not compromise the intent of the Development Permit Guidelines applicable to the building.

Features	High-Performance Building Considerations
Massing & Roofs	• Consider compact massing to reduce the overall size of the building envelope¹. • Consider simple building and roof forms to enhance thermal performance. • Use fewer architectural features with complex junctions that may contribute to heat loss due to thermal bridges² and/or increased building envelope area (e.g., bay windows, dormers, recesses, and stepping).
Orientation & Shading	• Consider strategic building and window orientations that enhance opportunities for winter solar heat gain and summer shading. • Provide external shading devices on key south and west facades (e.g., balconies, fins, blinds, shutters, and deciduous trees). • Include operable windows to enable natural ventilation.
Windows & Daylighting	• Limit the window-to-wall-ratio (WWR)³ to reduce solar heat gain (i.e. typically 40% or less, as applicable). • Consider fewer, larger windows (rather than more smaller or multi-pane windows) to minimize thermal bridging through window frames, mullions, and muntins. • Raise window sills to reduce window size without compromising daylighting.
Balconies & Roof Decks	• Use thermally-broken⁴ balcony designs (e.g., modified slab, pinned, hanging, and self-supported) to reduce thermal bridging at building connection points. • Avoid recessed balconies and/or consider stacking recessed balconies to reduce thermal bridging due to increased wall area, corners, and connection points. • Where appropriate, consider using roof decks in place of balconies.

Envelope
Materials &
Design

- Increase insulation (e.g., thicker exterior wall assemblies and triple glazing), especially where heat loss is unavoidable (e.g., due to a high WWR).
- Reduce use of lower-performing window/wall systems (e.g., curtain wall).
- Where appropriate, consider enhancing thermal performance of the building envelope by utilizing variation in colour, materials, and pattern as building articulation strategies in lieu of complex massing and architectural features.

¹ “Building envelope” means the connected system of foundations, floors, windows, walls, ceilings and/or roofs, which provide an air, moisture and heat insulation barrier separating the conditioned interior spaces of a building from unconditioned interior spaces (for example, an unheated garage or attic) and/or the outdoors.

² “Thermal bridge” means a building component or system that permits a greater heat transfer through the building envelope than surrounding materials.

³ “Window-to-wall ratio (WWR)” means, for a given building, the total surface area of windows, divided by the total wall area (including windows).

⁴ “Thermally-broken” means use of a building component or system to minimize heat transfer through the building envelope by mitigating potential thermal bridges.

3) This Bylaw is cited as “**Richmond Official Community Plan Bylaw 9000, Amendment Bylaw 10364**”.

FIRST READING

PUBLIC HEARING

SECOND READING

THIRD READING

ADOPTED

Ready for

MAYOR

CORPORATE OFFICER





City of Richmond

Report to Committee

To: Planning Committee

Date: May 25, 2022

From: Wayne Craig
Director, Development

File: RZ 21-925460

Re: Application by D.C. Ltd. (Dhinjal Construction Ltd.) for Rezoning at
9231 Kilby Street from the "Single Detached (RS1/E)" Zone to the "Single
Detached (RS2/A)" Zone

Staff Recommendation

That Richmond Zoning Bylaw 8500, Amendment Bylaw 10379, for the rezoning of
9231 Kilby Street from "Single Detached (RS1/E)" zone to "Single Detached (RS2/A)" zone, be
introduced and given first reading.

Wayne Craig
Director, Development
(604-247-4625)

WC/NA:js/blg
Att. 7

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Affordable Housing	☒	

Staff Report

Origin

D.C. Ltd. (Dhinjal Construction Ltd. – Pardeep Dhinjal) has applied to the City of Richmond for permission to rezone 9231 Kilby Street from the “Single Detached (RS1/E)” zone to the “Single Detached (RS2/A)” zone in order to permit the property to be subdivided into two single-family residential lots each with vehicle access from the rear lane. A location map and aerial photo are provided in Attachment 1. A survey showing the proposed subdivision plan is provided in Attachment 2.

Findings of Fact

A Development Application Data Sheet providing details about the development proposal is provided in Attachment 3.

Subject Site Existing Housing Profile

The single-family home on the property is tenanted and does not contain a secondary suite.

Surrounding Development

Development immediately surrounding the subject site is as follows:

To the North: Across the lane, single-family dwellings on lots zoned “Single Detached (RS1/E)” fronting Walford Street.

To the South: Across Kilby Street, duplexes on lots zoned “Two-Unit Dwellings (RD1)” fronting Kilby Street.

To the East: A single-family dwelling on a lot zoned “Single Detached (RS1/E)” fronting Kilby Street which is the subject of a rezoning application for two single-family lots with vehicle access from the rear lane (RZ 21-934410). The proposed rezoning of that property is the subject of a separate staff report.

To the West: A single-family dwelling on a lot zoned “Single Detached (RS1/E)” fronting Kilby Street.

Related Policies & Studies

Official Community Plan/West Cambie Area Plan

The 2041 OCP Land Use Map designation for the subject site is “Neighbourhood Residential” and the West Cambie Area Plan land use designation for the subject site is “Residential (Single Family)” (Attachment 4). This redevelopment proposal is consistent with these designations.

Lot Size Policy 5446

The subject site is located within the area covered by Lot Size Policy 5446 (adopted by Council September 16, 1991, amended June 21, 1999) (Attachment 5). This Policy permits rezoning and subdivision of lots on the north side of Kilby Street in accordance with “Single Detached (RS2/A)”. This redevelopment proposal would enable the property to be subdivided into a maximum of two lots.

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 (ANSD) Policy

The subject site is located within the “Moderate Aircraft Noise Area (Area 3)” of the OCP ANSD Policy. While all new aircraft noise sensitive land uses may be considered in this area, the applicant is required to register an Aircraft Noise Sensitive Use Covenant on title prior to final adoption of the rezoning bylaw to address public awareness and ensure that noise mitigation, mechanical ventilation, and central air conditioning capability is incorporated into building design and construction, consistent with CMHC interior noise standards and ASHRAE 55-2004 “Thermal Environmental Conditions for Human Occupancy” standards for interior living. The covenant requires the submission of acoustical and thermal reports prepared by qualified professionals prior to Building Permit issuance to confirm how noise mitigation measures will be incorporated into dwelling construction.

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.

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

This redevelopment proposes to rezone and subdivide one existing single-family property into two new single-family lots and vehicular access from the rear lane. Both of the new lots will provide a minimum one-bedroom secondary suite.

This rezoning and subdivision is consistent with the lot fabric and vehicular access of the adjacent lots on Kilby Street.

Existing Legal Encumbrances

There is currently a statutory right-of-way (SRW) registered on title of the subject property, at the northwest corner of the property for sanitary sewer connection (RD15917). The applicant is aware that encroachment into the SRW is not permitted.

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 two bylaw-sized trees on the subject property. No trees were assessed on neighbouring or City property.

The City's Tree Preservation Coordinator has reviewed the Arborist's Report and supports the Arborist's findings, with the following comments:

- One tree (tag# 121) located in the front yard is a 59 cm caliper Flowering Cherry in fair condition for a species of its size. A Tree Survival Security of \$10,000.00 will be required.
- One tree (tag# 122) located in the rear yard is a 70 cm caliper Western Red Cedar. This tree is in fair condition and should be retained and protected. A Tree Survival Security of \$10,000.00 will be required.
- With Lot A retaining two existing trees, at minimum, two new replacement trees (minimum 4 m high or 8 cm caliper) should be provided on Lot B (created as a result of subdivision) consistent with Zoning Bylaw 8500, as this new lot would have no existing trees on it.
- No neighbouring or City trees were identified to be retained and protected.

The existing low height hedge located in the front and west yards is proposed to be removed due to low landscape value, site circulation, and ditch infill purposes.

Tree Replacement

The applicant wishes to remove zero on-site trees. The applicant has agreed to plant a minimum of two new trees on Lot B proposed; for a total minimum of two new trees. The required replacement trees are to be of the following minimum sizes, based on the size of the trees being removed as per Tree Protection Bylaw No. 8057.

No. of Replacement Trees	Minimum Caliper of Deciduous Replacement Tree	Minimum Height of Coniferous Replacement Tree
2	8 cm	4 m

Tree Protection

Two on-site trees (tag# 121 and 122) 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 6). Further review of the Tree Protection Zones is required prior to Building Permit issuance. 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 final adoption of the rezoning bylaw, submission to the City of a Tree Survival Security in the amount of a total \$20,000.00 for the two on-site trees (tag# 121 (\$10,000.00) and 122 (\$10,000.00)) to be retained and protected.
- 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.

Affordable Housing Strategy

The City's Affordable Housing Strategy for single-family rezoning applications requires a secondary suite or coach house on 100% of new lots created through single-family rezoning and subdivision applications; a secondary suite or coach house on 50% of new lots created and a cash-in-lieu contribution to the City's Affordable Housing Reserve Fund of the total buildable area of the remaining lots; or a cash-in-lieu contribution of the total buildable area of all lots where a secondary suite cannot be accommodated in the development.

Consistent with the Affordable Housing Strategy, the applicant has proposed to provide a one-bedroom secondary suite of minimum 33 m² (355 ft²) in each of the dwellings to be constructed on the new lots, for a total of two suites. Prior to the adoption of the rezoning bylaw, the applicant must register a legal agreement on title to ensure that no Building Permit inspection is granted until a minimum one-bedroom secondary suite of approximately 33 m² (355 ft²) is constructed on each of the two future lots, to the satisfaction of the City in accordance with the BC Building Code and the City's Zoning Bylaw.

Ministry of Transportation and Infrastructure (MOTI) Approval

MOTI approval is a condition of final adoption of the rezoning bylaw. Preliminary approval has been granted by MOTI for one year.

Transportation and Site Access

Vehicular access is to be from the rear lane. Registration of a restrictive covenant on title will be required to ensure vehicle access to the site at future development stage is from the rear lane only, with no vehicular access permitted to or from Kilby Street. Ditch infill will provide for pedestrian access to each single-family dwelling from Kilby Street.

Site Servicing and Frontage Improvements

At future Subdivision stage, the applicant will be required to pay Development Cost Charges (City and GVS & DD), Engineering Improvement Charges for futures road improvements, School Site Acquisition Charge, Address Assignment Fee, and Servicing Costs. The applicant must also enter into a Servicing Agreement for the design and construction of the required site servicing and off-site improvements, including lane upgrades, as described in Attachment 7. Ditch infill and storm sewer works are required for frontage improvements. Furthermore, payment of a \$27,200.00 cash-in-lieu for transportation upgrades along road and lane frontage and payment of a \$14,000.00 cash-in-lieu for street light upgrades along road frontages will be required at the time of subdivision.

Financial 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 purpose of this application is to rezone 9231 Kilby Street from the "Single Detached (RS1/E)" zone to the "Single Detached (RS2/A)" zone to permit the property to be subdivided to create two single detached lots with vehicle access from the rear lane. The proposal is consistent with Single-Family Lot Size Policy 5446 and all applicable policies and land use designations contained within the Official Community Plan (OCP). The proposal is consistent with the direction of redevelopment in the surrounding area.

The list of rezoning considerations is included as Attachment 7, which has been agreed to by the applicants (signed concurrence on file).

It is recommended that Richmond Zoning Bylaw 8500, Amendment Bylaw 10379 be introduced and given first reading.



Nathan Andrews
Planning Technician
(604-247-4911)

NA:js/blg

Attachments:

Attachment 1: Location Map

Attachment 2: Survey and Proposed Subdivision Plan

Attachment 3: Development Application Data Sheet

Attachment 4: West Cambie Area Land Use Map

Attachment 5: Lot Size Policy 5446

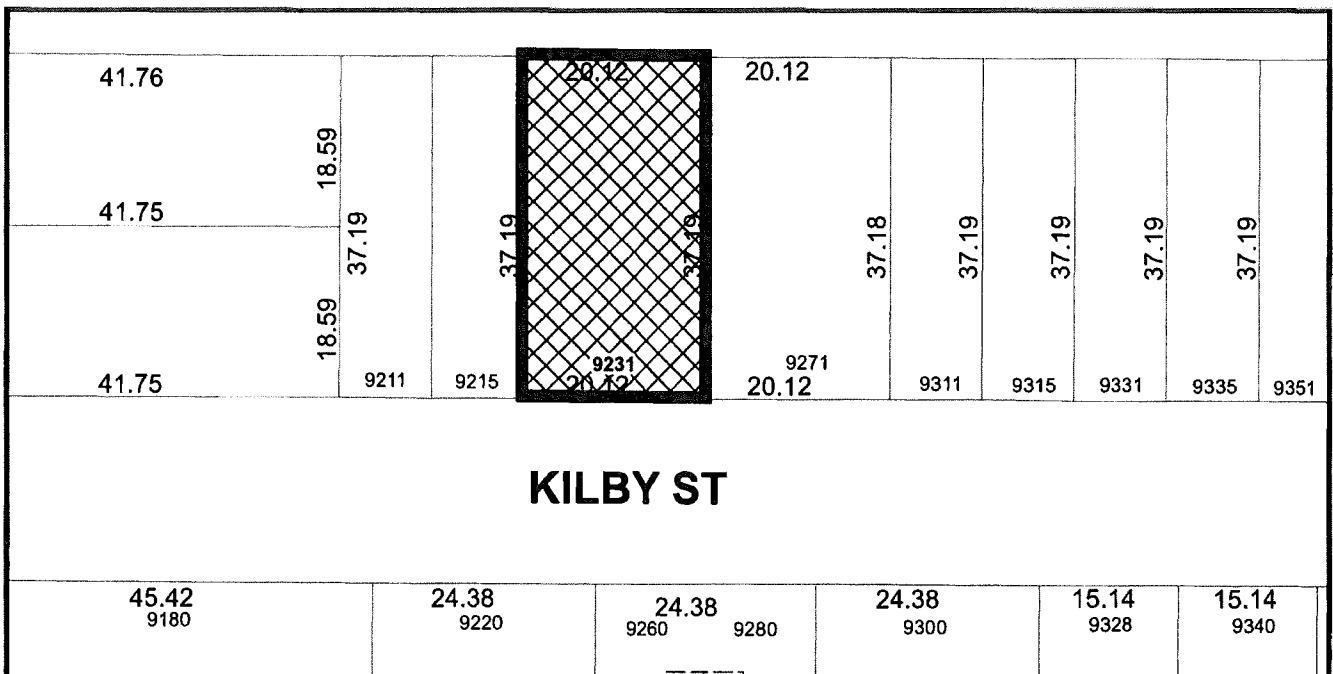
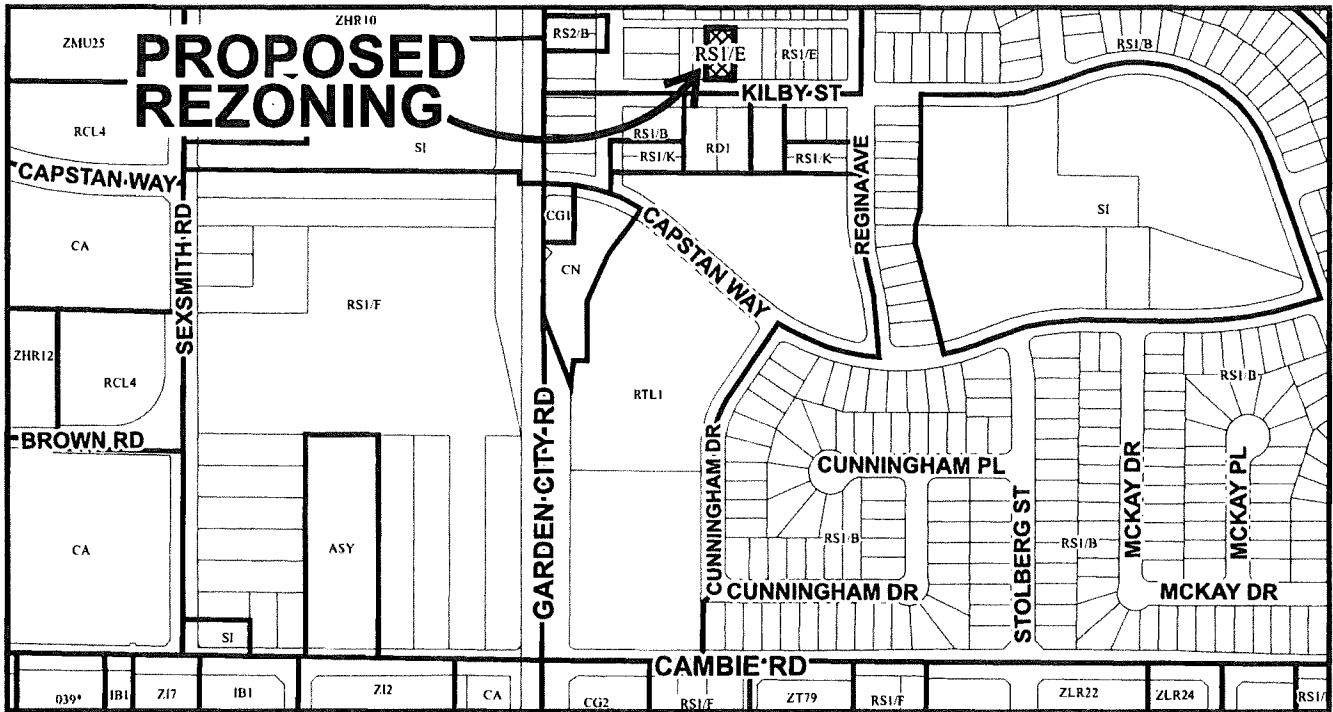
Attachment 6: Tree Retention Plan

Attachment 7: Rezoning Considerations



City of Richmond

ATTACHMENT 1



KILBY ST



RZ 21-925460

Original Date: 03/08/21

Revision Date:

Note: Dimensions are in METRES



City of
Richmond



RZ 21-925460

Original Date: 03/08/21

Revision Date:

Note: Dimensions are in METRES

**TOPOGRAPHIC SURVEY AND PROPOSED SUBDIVISION OF
LOT 36 SECTION 27 BLOCK 5 NORTH RANGE 6 WEST
NEW WESTMINSTER DISTRICT PLAN 26153**

#9231 KILBY STREET,
RICHMOND, B.C.
P.I.D. 008-801-444

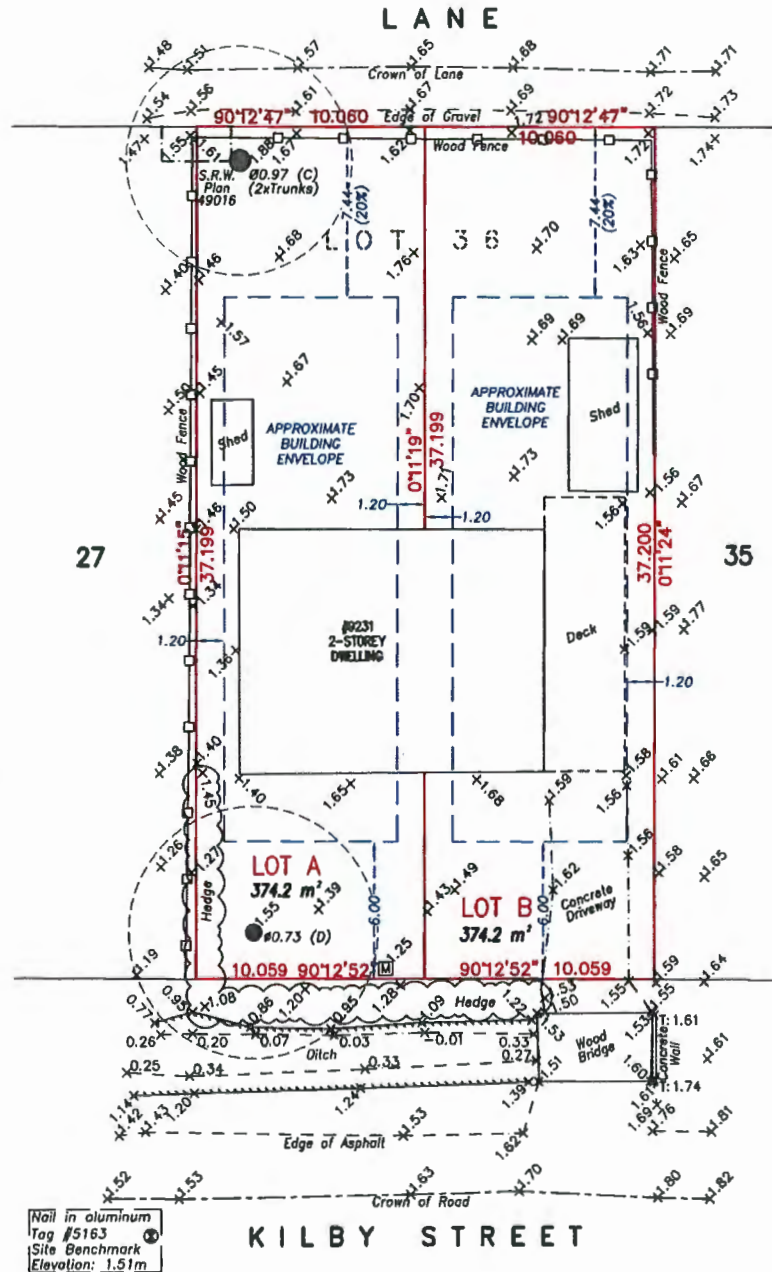
NOTE:

Elevations shown are based on
City of Richmond HPN
Benchmark network.
Benchmark: HPN #190
Control Monument 94H1624
Elevation: 2.353m
Benchmark: HPN #234
Control Monument 77H4891
Elevation: 1.125m



LEGEND:

(C) denotes conifer
(D) denotes deciduous
(M) denotes water meter
T: denotes top of wall



© copyright
J. C. Tam and Associates
Canada and B.C. Land Surveyor
115 - 8833 Odlin Crescent
Richmond, B.C. V6X 3Z7
Telephone: (604) 214-8928
Fax: (604) 214-8929
E-mail: office@jctam.com
Website: www.jctam.com
Job No. 7626
FB-395 P64-65
Drawn By: WK

DWG No. 7626-Topo

SCALE: 1:200
0 5 10 15
ALL DISTANCES ARE IN METRES AND DECIMALS
THEREOF UNLESS OTHERWISE INDICATED

NOTE:

Use site Benchmark Tag #5163 for
construction elevation control.

CERTIFIED CORRECT:
LOT DIMENSION ACCORDING TO
FIELD SURVEY.

Johnson
Tam U814B9
JOHNSON C. TAM, B.C.L.S., C.L.S.

Digitally signed by
Johnson Tam U814B9
Date: 2021.02.01
08:18:10 -08'00'

January 21st, 2012.



RZ 21-925460

Attachment 3

Address: 9231 Kilby Street

Applicant: Dhinjal Construction Ltd.

Planning Area(s): West Cambie

	Existing	Proposed
Owner:	Pardeep Singh Dhinjal	To be determined
Site Size (m²):	748.4 m ²	Lot A: 374.2 m ² Lot B: 374.2 m ²
Land Uses:	One single-family dwelling	Two single-family dwellings
OCP Designation:	Neighbourhood Residential	No change
Area Plan Designation:	Residential (Single-Family only)	No change
702 Policy Designation:	Policy 5446 permits subdivision to "Single Detached (RS2/A)"	No change
Zoning:	Single Detached (RS1/E)	Single Detached (RS2/A)
Number of Units:	1	2
Other Designations:	N/A	No change

On Future Subdivided Lots	Bylaw Requirement	Proposed	Variance
Floor Area Ratio:	Max. 0.55 for lot area up to 464.5 m ² plus 0.3 for area in excess of 464.5 m ²	Max. 0.55	none permitted
Buildable Floor Area (m ²):*	Lot A: Max. 205.81 m ² (2,215.3 ft ²) Lot B: Max. 205.81 m ² (2,215.3 ft ²)	Lot A: Max. 205.81 m ² (2,215.3 ft ²) Lot B: Max. 205.81 m ² (2,215.3 ft ²)	none permitted
Lot Coverage (% of lot area):	Building: Max. 45% Non-porous Surfaces: Max. 70% Live Landscaping: Min. 20%	Building: Max. 45% Non-porous Surfaces: Max. 70% Live Landscaping: Min. 20%	none
Lot Size:	Min. 270 m ²	Lot A: 374.2 m ² Lot B: 374.2 m ²	none
Lot Dimensions (m):	Width: Min. 9.0 m Depth: Min. 24.0 m	Width: 10.06 m Depth: 37.2 m	none

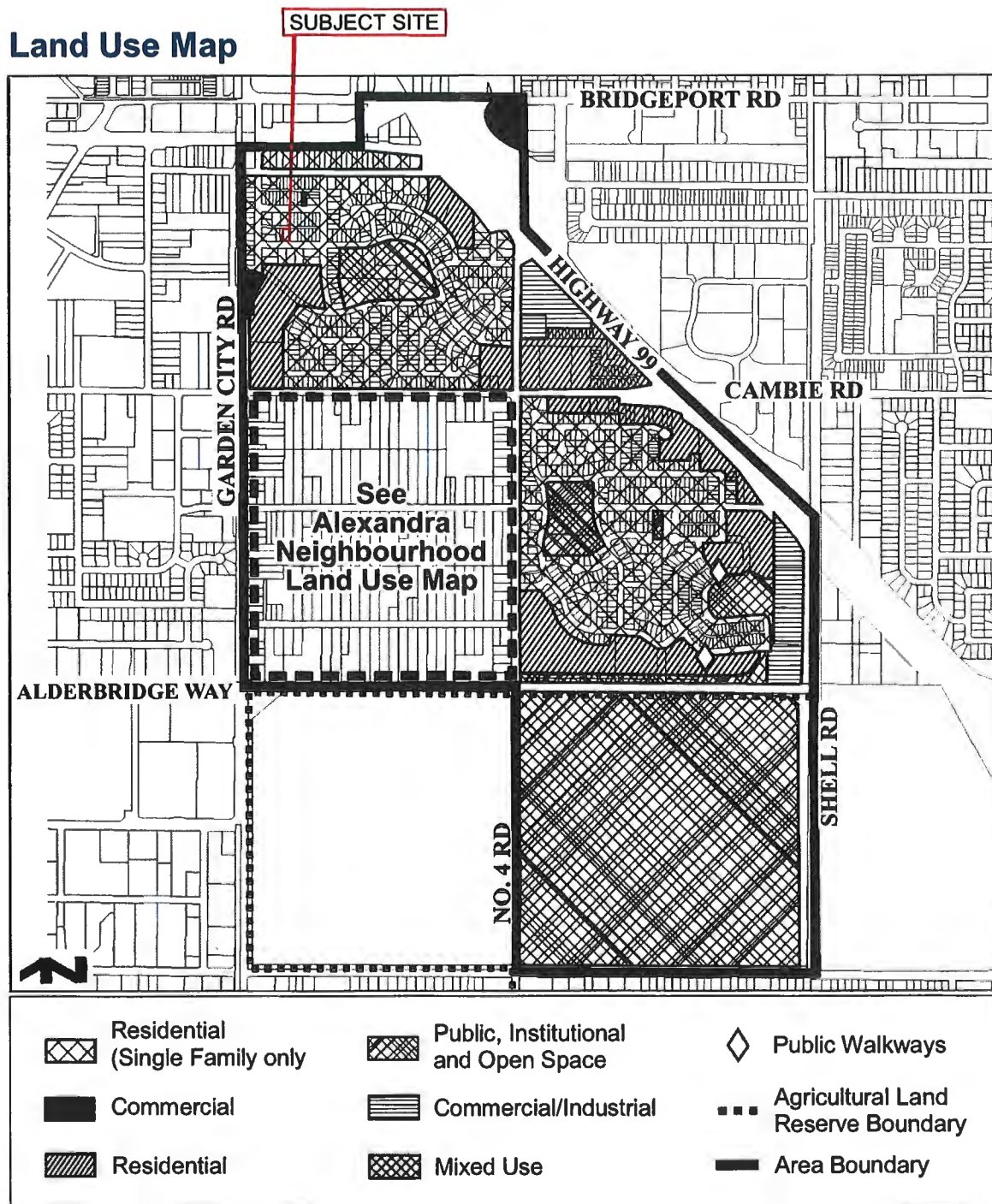
On Future Subdivided Lots	Bylaw Requirement	Proposed	Variance
Setbacks (m):	Front: Min. 6.0 m Rear: Greater of 6.0 m or 20% of total lot depth, for a maximum width of 60% of the rear wall of the first storey; and 25% of the total lot depth, for the remaining 40% of the rear wall of the first storey and any second storey, or half storey above, up to a max. required setback of 10.7 m Side: Min. 1.2 m Exterior Side: Min. 3.0 m	Front: Min. 6.0 m Rear: Min. 7.44 m for a maximum width of 60% of the rear wall of the first storey; and min. 9.3 m for the remaining 40% of the rear wall of the first storey and any second storey, or half storey above, up to a max. required setback of 10.7 m Side: Min. 1.2 m	none
Height (m):	Max. 2.5 storeys or 9.0 m	2.5 storeys or 9.0 m	none
Off-street Parking Spaces – Total:	2	2	none

Other: _____

* Preliminary estimate; not inclusive of garage; exact building size to be determined through zoning bylaw compliance review at Building Permit stage.

City of Richmond

Land Use Map



**City of Richmond****Policy Manual**

Page 1 of 2

Adopted by Council: September 16, 1991

POLICY 5446

Amended by Council: June 21, 1999

File Ref: 4430-00

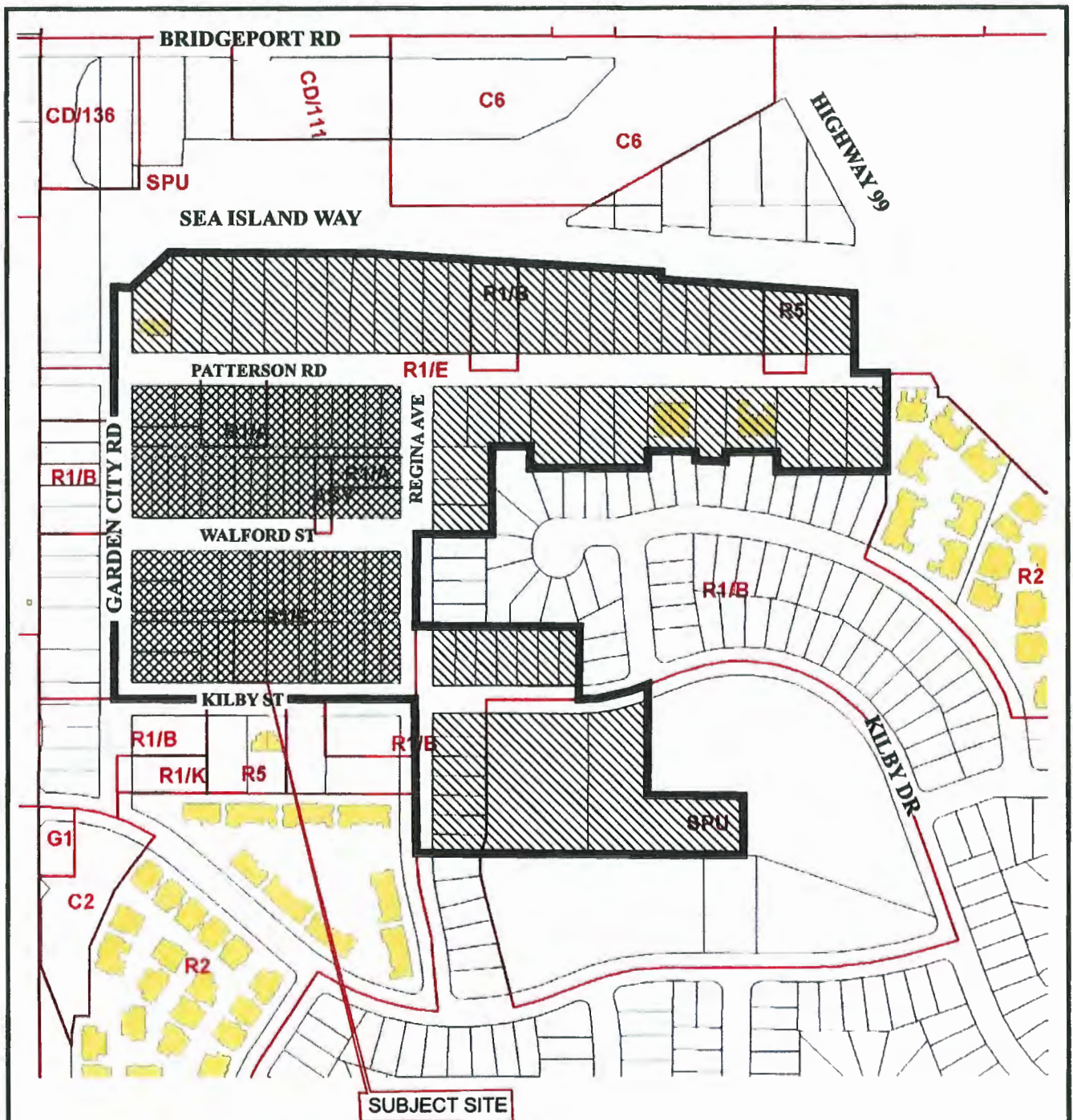
SINGLE-FAMILY LOT SIZE POLICY IN QUARTER-SECTION 27-5-6

POLICY 5446:

The following policy establishes lot sizes in a portion of Section 27-5-6, bounded by **Sea Island Way, Highway 99, east side of Garden City Road, east side of Regina Avenue and north side of Kilby Street:**

That properties within the area bounded by Sea Island Way, Highway 99 and the east side of Regina Avenue, in a portion of Section 27-5-6, be permitted to subdivide in accordance with the provisions of Single-Family Housing District, Subdivision Area B (R1/B) and further that properties within the area bounded by the east side of Garden City Road, the south side of Patterson Road, the west side of Regina Avenue and the north side of Kilby Street be permitted to subdivide in accordance with the provisions of Single-Family Housing District, Subdivision Area A (R1/A) in Zoning and Development Bylaw 5300.

That this policy, as shown on the accompanying plan, be used to determine the disposition of future single-family rezoning applications in this area, for a period of not less than five years, unless changed by the amending procedures contained in the Zoning and Development Bylaw.



Subdivision permitted as per R1/A

Subdivision permitted as per R1/B



Policy 5446 Section 27-5-6

Adopted Date: 09/16/91

Amended Date: 06/21/99

Note: Dimensions are in METRES

Tag/ID	Common name, (botanical)	Dbh	Ht	SpR	LCR	Class	Condition	Contribution	Priority	Action
121	Flowering cherry	59	5.0	80	O	P	L	LOW	RETAIN	
122	Western redcedar	70	9	50	O	P	L	LOW	RETAIN	

Tag/ID	Common name, (botanical)	Dbh	Ht	SpR	LCR	Class	Condition	Contribution	Priority	Action
121	Flowering cherry	59	5.0	80	O	P	L	LOW	RETAIN	
122	Western redcedar	70	9	50	O	P	L	LOW	RETAIN	

[illegible]

LEGEND-REPLACEMENT TREE PLANTING:

- * See plant list for species
- To be planted to current ICC/AVCMA specifications

ORIGINAL REPLACEMENT TREES TO BE PLANTED

SUGGESTED PLANT LIST: REPLACEMENT TREES

CODE	QTY	Size	BOTANICAL NAME
SP	1	8cm C	<i>Sesuvium portulacastrum</i>
PO	2	4cm H	<i>Pilea crotilla</i>

DRAWING USE AND COORDINATION:

- [illegible]

ARBORTECH CONSULTING
acigroup.ca

PROJECT:	PROPOSED TWO-LOT SUBDIVISION
ADDRESS:	9230 KILBY ST RICHMOND BC
CLIENT:	DHINJAL CONSTRUCTION
CITY REF:	ACL FILE: 21112
PLOT SIZE:	22734M ² REV # 1
DATE:	MAY 17 2022



Address: 9231 Kilby Street

File No.: RZ 21-925460

Prior to final adoption of Richmond Zoning Bylaw 8500, Amendment Bylaw 10379, the developer is required to complete the following:

1. Provincial Ministry of Transportation & Infrastructure Approval.
2. Registration of a flood indemnity covenant on title (2.9 m GSC – Area A).
3. Registration of an aircraft noise sensitive use covenant on title (ANSI Area 3) to address public awareness and to ensure that noise mitigation, mechanical ventilation, and central air conditioning capability is incorporated into building design and construction (i.e., building components of the proposed development must be designed and constructed in a manner that mitigates potential aircraft noise to the proposed dwelling with doors and windows closed). 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

and;

- b) the ASHRAE 55-2004 “Thermal Environmental Conditions for Human Occupancy” standard (and subsequent updates as they may occur) for interior living spaces.
4. Registration of a restrictive covenant on Title to ensure vehicular access to the site at future development stage is from the rear lane only, with no access permitted to or from Kilby Street.
5. Registration of a legal agreement on Title to ensure that no final Building Permit inspection is granted until at minimum a 33 m² (355 ft²) one-bedroom secondary suite is constructed on both of the two future lots, to the satisfaction of the City in accordance with the BC Building Code and the City’s Zoning Bylaw.
6. Submission of a Landscape Security in the amount of \$1,500.00 (\$750/tree) to ensure that a total of two new trees are planted and maintained on Lot B; minimum 8 cm deciduous caliper or 4 m high conifers.
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 \$20,000.00 for the two trees (tag# 121 and 122) to be retained.

Prior to Demolition Permit Issuance, the developer must complete the following requirements:

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.

At Subdivision* stage, the developer must complete the following requirements:

1. At future Subdivision stage, the applicant will be required to pay Development Cost Charges (City and GVS & DD), Engineering Improvement Charges for futures road improvements, School Site Acquisition Charge, Address Assignment Fee, and Servicing Costs.
2. Submission of a \$14,400.00 Cash-in-lieu contribution for street lighting upgrades.

3. Submission of a \$27,200.00 Cash-in-lieu contribution for future upgrades of Kilby Street and the lane.

Note: Cash-in-lieu rates are updated yearly to adjust for inflation and fluctuations in actual construction costs. The City will re-assess the required contribution when the cash-in-lieu is paid, based on the cash-in-lieu rate that is in effect at that time.

4. Enter into a Servicing Agreement* for the design and construction of engineering infrastructure improvements. A Letter of Credit or cash security for the value of the Service Agreement works, as determined by the City, will be required as part of entering into the Servicing Agreement. Works include, but may not be limited to:

Water Works:

- a) Using the OCP Model, there is 258.0 L/s of water available at a 20 psi residual at the Kilby St frontage. Based on your proposed development, your site requires a minimum fire flow of 95 L/s.
- b) At Developer's cost, the Developer is required to:
 - i) Cut and cap the existing water service connection along the 9231 Kilby St frontage and install a new 25mm water service connection complete with water meter and water meter box to service the west lot per City specifications.
 - ii) Install a new 25mm diameter water service connection complete with water meter and meter box for the east lot per standard City specifications.
- c) At Developer's cost, the City will:
 - i) Complete all tie-ins for the proposed works to existing City infrastructure.

Storm Sewer Works:

- d) At Developer's cost, the Developer is required to:
 - i) Provide an erosion and sediment control plan for all on-site and off-site works, to be reviewed as part of the servicing agreement design.
 - ii) Install a new 600mm storm sewer along the Kilby St frontage of the subject site with two manholes per City specifications. Tie-in the proposed storm sewer to the existing drainage system at approximately a 45 degree angle using manholes or headwalls as required. Confirm the condition of the drainage infrastructure at each tie-in point.
 - iii) Infill the existing ditch fronting the subject site with granular material and soil. A watercourse crossing permit is required for modifications to the ditch and culvert fronting 9231 Kilby St per the City's Watercourse Protection and Crossing Bylaw No. 8441.
 - iv) Install a new storm sewer service connection and IC at the common property line of the subject site with dual storm service connections to service the west lot and the east lot per City standards.
 - v) Install a new storm sewer along the lane frontage of 9231 Kilby St per City specifications. IC to be installed near the west property line of 9231 Kilby St.
 - vi) Collaborate with the adjacent development at 9271 Kilby St to install a new laneway storm sewer and IC between the east PL of 9271 Kilby St and STIC150580 per City specifications.
- e) At Developer's cost, the City will:
 - i) Complete all tie-ins for the proposed works to existing City infrastructure.

Sanitary Sewer Works:

- f) At Developer's cost, the Developer is required to:
 - i) Not start onsite excavation or foundation construction until completion of rear-yard sanitary works by City crews.
 - ii) Install a new 100mm sanitary service connection and IC with dual service leads at the common property line of the subject site per City specifications. Provide a 1.5mx1.5m wide SRW for the sanitary IC.
- g) At Developer's cost, the City will:

- i) Complete all tie-ins for the proposed works to existing City infrastructure.

Street Lighting:

- h) At Developer's cost, the Developer is required to:
 - i) Review street lighting levels along all road and lane frontages.

General Items:

- i) At Developer's cost, the Developer is required to:
 - i) Complete other frontage improvements as per Transportation requirements:
 - Vehicular access be off the lane, that is, no access off Kilby Street.
 - ii) Not encroach into City rights-of-ways with any proposed trees, retaining walls, or other non-removable structures. Retaining walls proposed to encroach into rights-of-ways must be reviewed by the City's Engineering Department.
 - iii) Provide a signed and sealed letter from the project engineer confirming that the development at 9231 Kilby Street is coordinated with the developments in 9271 Kilby Street and 9180 Kilby Street. The City's Engineering department will not begin review of the servicing agreement design drawings until the coordination letter is received.

The letter shall confirm that the following design components have been coordinated:

- Corridors for City utilities (existing and proposed water, storm sewer, sanitary sewer and private utilities).
- Pipe sizes, materials and slopes.
- Location of manholes and fire hydrants.
- Road grades.
- Proposed street light design.
- Design and construction of laneway drainage between the east property line of 9271 Kilby Street and STIC150580

Prior to Building Permit Issuance, the developer must complete the following requirements:

1. Submission of acoustical and thermal reports prepared by qualified professionals to confirm noise mitigation measures, mechanical ventilation, and central air conditioning capability will be incorporated into dwelling construction as per the legal agreement registered on title at rezoning stage.
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. 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.

Signed

Date



**Richmond Zoning Bylaw 8500
Amendment Bylaw 10379 (RZ 21-925460)
9231 Kilby Street**

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 **"SINGLE DETACHED (RS2/A)"**.

P.I.D. 008-801-444

Lot 36 Section 27 Block 5 North Range 6 West New Westminster District Plan 26153

2. This Bylaw may be cited as **"Richmond Zoning Bylaw 8500, Amendment Bylaw 10379"**.

FIRST READING

A PUBLIC HEARING WAS HELD ON

SECOND READING

THIRD READING

MINISTRY OF TRANSPORTATION AND
INFRASTRUCTURE APPROVAL

ADOPTED

CITY OF RICHMOND
APPROVED by 
APPROVED by Director or Solicitor 

MAYOR

CORPORATE OFFICER



City of Richmond

Report to Committee

To: Planning Committee
From: Wayne Craig
Director, Development

Date: May 18, 2022
File: RZ 21-934410

Re: Application by Parm Dhinjal for Rezoning at 9271 Kilby Street from the
"Single Detached (RS1/E)" Zone to the "Single Detached (RS2/A)" Zone

Staff Recommendation

That Richmond Zoning Bylaw 8500, Amendment Bylaw 10380, for the rezoning of 9271 Kilby Street from the "Single Detached (RS1/E)" zone to the "Single Detached (RS2/A)" zone, be introduced and given first reading.

Wayne Craig
Director, Development
(604-247-4625)

WC/NA:js/blg
Att. 7

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Affordable Housing	☒	

Staff Report

Origin

Parm Dhinjal has applied to the City of Richmond, on behalf of the owner Signature Living Inc. (Parm Dhinjal), for permission to rezone 9271 Kilby Street from the “Single Detached (RS1/E)” zone to the “Single Detached (RS2/A)” zone in order to permit the property to be subdivided into two single-family residential lots each with vehicle access from the rear lane. A location map and aerial photo are provided in Attachment 1. A survey showing the proposed subdivision plan is provided in Attachment 2.

Findings of Fact

A Development Application Data Sheet providing details about the development proposal is provided in Attachment 3.

Subject Site Existing Housing Profile

The two-storey single-family home on the property is tenanted and does not contain a secondary suite.

Surrounding Development

Development immediately surrounding the subject site is as follows:

To the North: Across the lane, single-family dwellings on lots zoned “Single Detached (RS1/E)” fronting Walford Street.

To the South: Across Kilby Street, duplexes on lots zoned “Two-Unit Dwellings (RD1)” and “Single Detached (RS1/E)” fronting Kilby Street.

To the East: A single-family dwelling on a lot zoned “Single Detached (RS1/E)” fronting Kilby Street.

To the West: A single-family dwelling on a lot zoned “Single Detached (RS1/E)” fronting Kilby Street. The City has received a rezoning application 9231 Kilby Street to facilitate the subdivision of the property to provide for two single-family lots with vehicle access from the rear lane (RZ 21-925460). The proposed rezoning of 9231 Kilby Street is the subject of a separate staff report.

Related Policies & Studies

Official Community Plan/West Cambie Area Plan

The 2041 OCP Land Use Map designation for the subject site is “Neighbourhood Residential” and the West Cambie Area Plan land use designation for the subject site is “Residential (Single Family only)” (Attachment 4). This subdivision proposal is consistent with these designations.

Lot Size Policy 5446

The subject site is located within the area covered by Lot Size Policy 5446 (adopted by Council September 16, 1991, amended June 21, 1999) (Attachment 5). This Policy permits rezoning and subdivision of lots on the north side of Kilby Street in accordance with “Single Detached (RS2/A)”. This redevelopment proposal would enable the property to be subdivided into a maximum of two lots.

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 (ANSD) Policy

The subject site is located within the “Moderate Aircraft Noise Area (Area 3)” of the OCP ANSD Policy. While all new aircraft noise sensitive land uses may be considered in this area, the applicant is required to register an Aircraft Noise Sensitive Use Covenant on title prior to final adoption of the rezoning bylaw to address public awareness and ensure that noise mitigation, mechanical ventilation, and central air conditioning capability is incorporated into building design and construction, consistent with CMHC interior noise standards and ASHRAE 55-2004 “Thermal Environmental Conditions for Human Occupancy” standards for interior living. The covenant requires the submission of acoustical and thermal reports prepared by qualified professionals prior to Building Permit issuance to confirm how noise mitigation measures will be incorporated into dwelling construction.

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.

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

This redevelopment proposes to rezone and subdivide one existing single-family property into two new single-family lots with vehicular access from the existing rear lane. Both of the new lots will provide a minimum one-bedroom secondary suite.

This rezoning and subdivision is consistent with the lot fabric and vehicular access of the adjacent lots on Kilby Street.

Existing Legal Encumbrances

There is currently a statutory right-of-way (SRW) registered on title of the subject property, at the north end of the property for sanitary sewer connection (RD15917). Removal of the SRW will be required to accommodate a future SRW at the common property line and will be reviewed as part of the Servicing Agreement works. The applicant is aware that encroachment into the SRW is not permitted.

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 one bylaw-sized tree on the subject property and one tree on neighbouring property.

The City's Tree Preservation Coordinator has reviewed the Arborist's Report and supports the Arborist's findings, with the following comments:

- One on-site tree (tag #43 a 25.5 cm caliper Ornamental False Cypress) exhibits a shrub-like form and is in moderate health but of low landscape value. Due to the tree being in conflict with the proposed building footprint and of low landscape value it should be removed and replaced.
- One tree (tag #A a 28 cm caliper Hedging Cedar) located on adjacent neighbouring property at 9311 Kilby Street is in moderate health and identified to be retained and protected. Provide tree protection as per City of Richmond Tree Protection Information Bulletin Tree-03.
- Replacement trees should be specified at 2:1 ratio as per the OCP.

Tree Replacement

The applicant wishes to remove one on-site tree (Tree tag #43). The 2:1 replacement ratio would require a total of two replacement trees. The applicant has agreed to plant two trees on each lot proposed consistent with Zoning Bylaw 8500; for a total of four trees. The required replacement trees are to be of the following minimum sizes, based on the size of the trees being removed as per Tree Protection Bylaw No. 8057.

No. of Replacement Trees	Minimum Caliper of Deciduous Replacement Tree	Minimum Height of Coniferous Replacement Tree
4	8 cm	4 m

Tree Protection

One tree (tag #A) on neighbouring properties is 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 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 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 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.

Affordable Housing Strategy

The City's Affordable Housing Strategy for single-family rezoning applications requires a secondary suite or coach house on 100% of new lots created through single-family rezoning and subdivision applications; a secondary suite or coach house on 50% of new lots created and a cash-in-lieu contribution to the City's Affordable Housing Reserve Fund of the total buildable area of the remaining lots; or a cash-in-lieu contribution of the total buildable area of all lots where a secondary suite cannot be accommodated in the development.

Consistent with the Affordable Housing Strategy, the applicant has proposed to provide a one-bedroom secondary suite of minimum 33 m² (355 ft²) in each of the dwellings to be constructed on the new lots, for a total of two suites. Prior to the adoption of the rezoning bylaw, the applicant must register a legal agreement on title to ensure that no Building Permit inspection is granted until a minimum one-bedroom secondary suite of approximately 33 m² (355 ft²) is constructed on each of the two future lots, to the satisfaction of the City in accordance with the BC Building Code and the City's Zoning Bylaw.

Ministry of Transportation and Infrastructure (MOTI) Approval

MOTI approval is a condition of final adoption of the rezoning bylaw. Preliminary approval has been granted by MOTI for one year.

Transportation and Site Access

Vehicular access is proposed to be from the rear lane. Registration of a restrictive covenant on title will be required to ensure vehicle access to the site at future development stage is from the rear lane only, with no vehicular access permitted to or from Kilby Street. Ditch infill along the property frontage will provide for pedestrian access to each single-family dwelling from Kilby Street.

Site Servicing and Frontage Improvements

At future subdivision stage, the applicant will be required to pay Development Cost Charges (City and GVS & DD), Engineering Improvement Charges for futures road improvements, School Site Acquisition Charge, Address Assignment Fee, and Servicing Costs. The applicant

must also enter into a Servicing Agreement for the design and construction of the required site servicing and off-site improvements, including lane upgrades, as described in Attachment 7. Ditch infill and storm sewer works are required for frontage improvements. Furthermore, payment of a \$27,200.00 cash-in-lieu for transportation upgrades along road and lane frontages and a \$14,400.00 cash-in-lieu payment for street light upgrades along road frontages will be required at the time of subdivision.

Financial 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 purpose of this application is to rezone 9271 Kilby Street from the "Single Detached (RS1/E)" zone to the "Single Detached (RS2/A)" zone to permit the property to be subdivided to create two single detached lots with vehicle access from the rear lane. The proposal is consistent with Single-Family Lot Size Policy 5446 and all applicable policies and land use designations contained within the Official Community Plan (OCP). The proposal is consistent with the direction of redevelopment in the surrounding area.

The list of rezoning considerations is included as Attachment 7, which has been agreed to by the applicants (signed concurrence on file).

It is recommended that Richmond Zoning Bylaw 8500, Amendment Bylaw 10380 be introduced and given first reading.



Nathan Andrews
Planning Technician
(604-247-4911)

NA:js/blg

Attachments:

- Attachment 1: Location Map
- Attachment 2: Survey and Proposed Subdivision Plan
- Attachment 3: Development Application Data Sheet
- Attachment 4: West Cambie Area Land Use Map
- Attachment 5: Lot Size Policy 5446
- Attachment 6: Tree Retention Plan
- Attachment 7: Rezoning Considerations



City of
Richmond

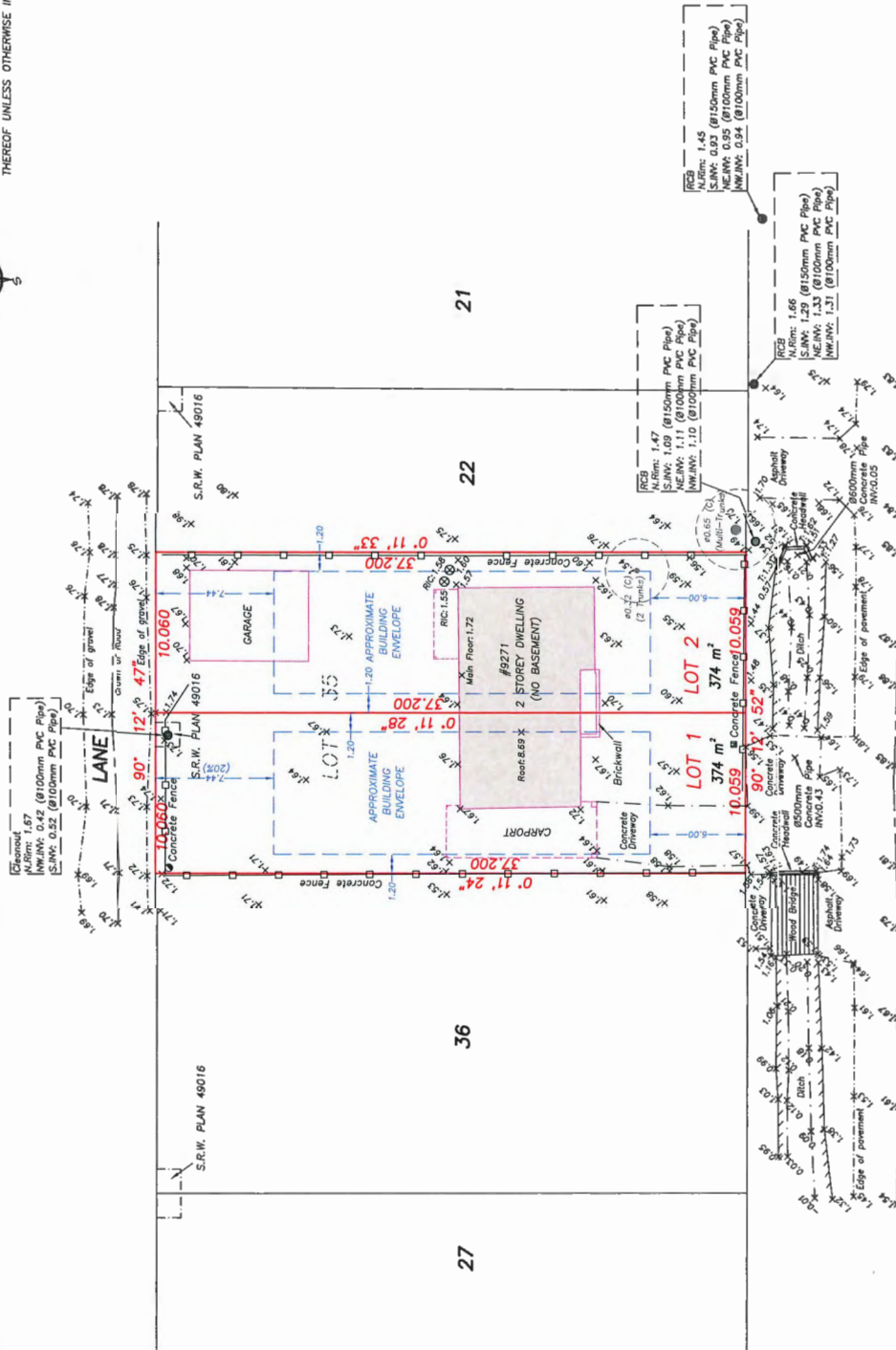
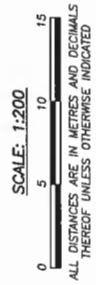


RZ 21-934410

Original Date: 06/28/21

Revision Date:

Note: Dimensions are in METRES



CERTIFIED CORRECT:
LOT DIMENSION ACCORDING TO
FIELD SURVEY.

JOHNSON C. TAM, B.C.L.S., C.L.S.
APRIL 7th, 2021.

NOTE:
Use site Benchmark Tag #5421 for
construction elevation control.

NOTE:
Elevations shown are based on
City of Richmond HPN
Benchmark network.
Benchmark: HPN #234
Control Monument 77H4891
Elevation: 1.125m
Benchmark: HPN #190
Control Monument 94H1624
Elevation: 2.353m

Canada and B.C. Land Surveyor
115 - 8833 Odlin Crescent
Richmond, B.C. V6X 3Z7
Telephone: 214-8928
Fax: 214-8929
E-mail: office@jctam.com
Website: www.jctam.com
Job No. 7673
FB-393 P101-102; FB-401 P8
Drawn By: KA

DWG No. 7673-TOPO-02



RZ 21-934410

Attachment 3

Address: 9271 Kilby Street

Applicant: Parm Dhinjal

Planning Area(s): West Cambie

	Existing	Proposed
Owner:	Signature Living Inc.	To be determined
Site Size (m²):	748 m ²	Lot 1: 374 m ² Lot 2: 374 m ²
Land Uses:	One single-family dwelling	Two single-family dwellings
OCP Designation:	Neighbourhood Residential	No change
Area Plan Designation:	Residential (Single Family only)	No change
702 Policy Designation:	Policy 5446 permits subdivision to "Single Detached (RS2/A)"	No change
Zoning:	Single Detached (RS1/E)	Single Detached (RS2/A)
Number of Units:	1	2
Other Designations:	N/A	No change

On Future Subdivided Lots	Bylaw Requirement	Proposed	Variance
Floor Area Ratio:	Max. 0.55 for lot area up to 464.5 m ² plus 0.3 for area in excess of 464.5 m ²	Max. 0.55	none permitted
Buildable Floor Area (m ²):*	Lot 1: Max. 205.7 m ² (2,214 ft ²) Lot 2: Max. 205.7 m ² (2,214 ft ²)	Lot 1: Max. 205.7 m ² (2,214 ft ²) Lot 2: Max. 205.7 m ² (2,214 ft ²)	none permitted
Lot Coverage (% of lot area):	Building: Max. 45% Non-porous Surfaces: Max. 70% Live Landscaping: Min. 20%	Building: Max. 45% Non-porous Surfaces: Max. 70% Live Landscaping: Min. 20%	none
Lot Size:	Min. 270 m ²	Lot 1: 374 m ² Lot 2: 374 m ²	none
Lot Dimensions (m):	Width: Min. 9.0 m Depth: Min. 24.0 m	Width: 10.06 m Depth: 37.2 m	none

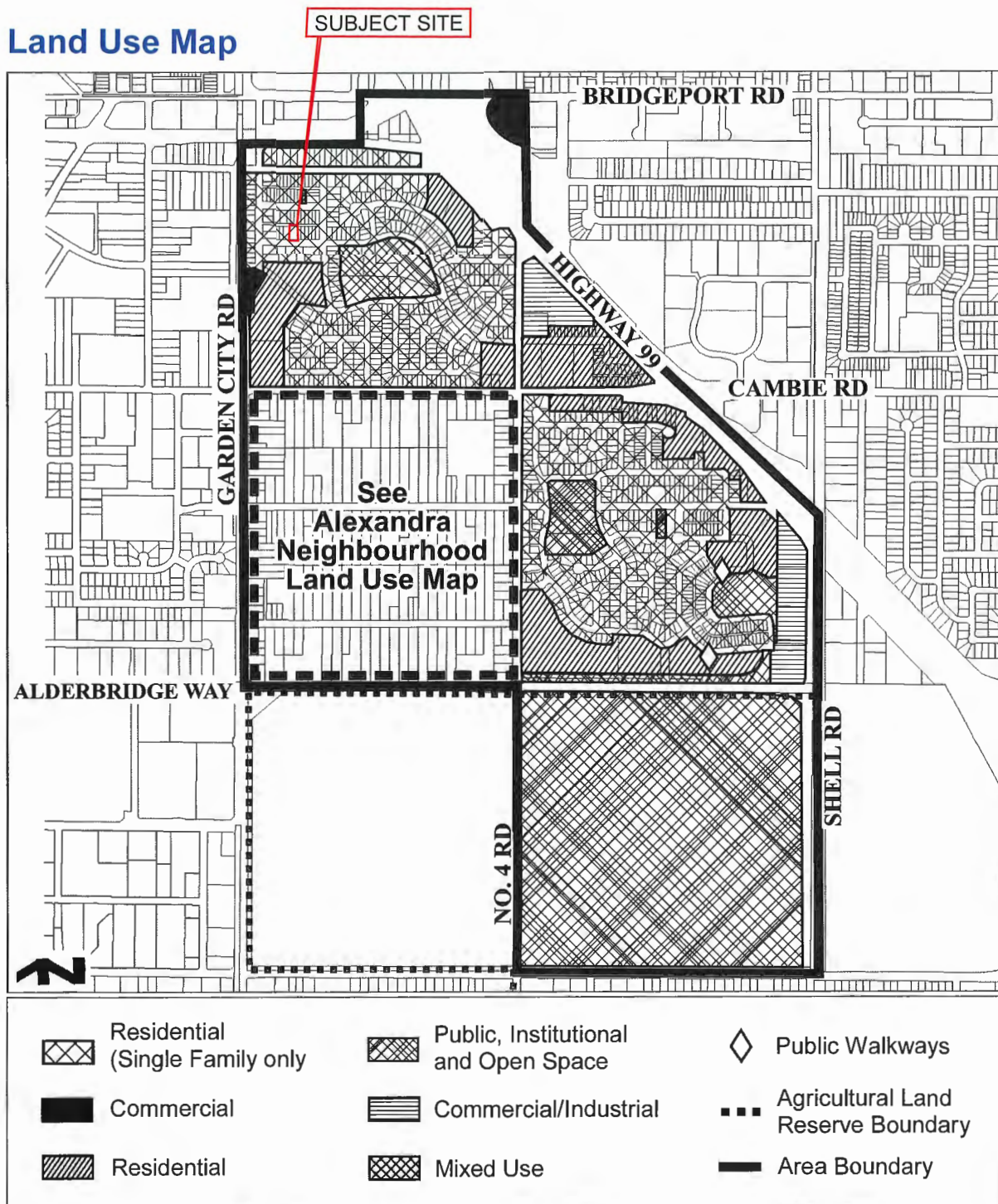
On Future Subdivided Lots	Bylaw Requirement	Proposed	Variance
Setbacks (m):	Front: Min. 6.0 m Rear: Greater of 6.0 m or 20% of total lot depth, for a maximum width of 60% of the rear wall of the first storey; and 25% of the total lot depth, for the remaining 40% of the rear wall of the first storey and any second storey, or half storey above, up to a max. required setback of 10.7 m Side: Min. 1.2 m Exterior Side: Min. 3.0 m	Front: Min. 6.0 m Rear: Min. 7.44 m for a maximum width of 60% of the rear wall of the first storey; and min. 9.3 m for the remaining 40% of the rear wall of the first storey and any second storey, or half storey above, up to a max. required setback of 10.7 m Side: Min. 1.2 m	none
Height (m):	Max. 2.5 storeys or 9.0 m	2.5 storeys or 9.0 m	none
Off-street Parking Spaces – Total:	2	2	none

Other: _____

* Preliminary estimate; not inclusive of garage; exact building size to be determined through zoning bylaw compliance review at Building Permit stage.

City of Richmond

Land Use Map



**City of Richmond****Policy Manual**

Page 1 of 2

Adopted by Council: September 16, 1991

POLICY 5446

Amended by Council: June 21, 1999

File Ref: 4430-00

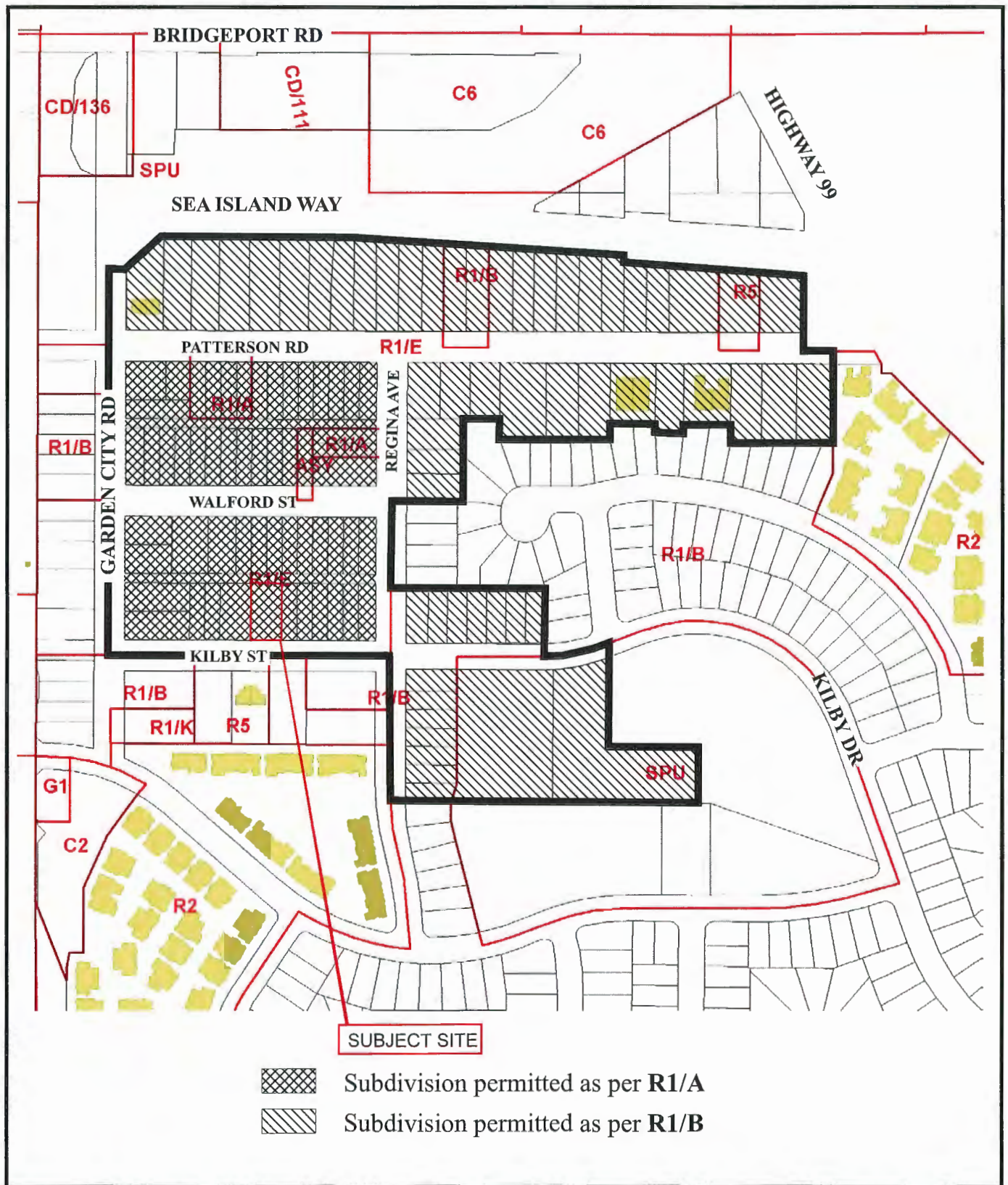
SINGLE-FAMILY LOT SIZE POLICY IN QUARTER-SECTION 27-5-6

POLICY 5446:

The following policy establishes lot sizes in a portion of Section 27-5-6, bounded by **Sea Island Way, Highway 99, east side of Garden City Road, east side of Regina Avenue and north side of Kilby Street:**

That properties within the area bounded by Sea Island Way, Highway 99 and the east side of Regina Avenue, in a portion of Section 27-5-6, be permitted to subdivide in accordance with the provisions of Single-Family Housing District, Subdivision Area B (R1/B) and further that properties within the area bounded by the east side of Garden City Road, the south side of Patterson Road, the west side of Regina Avenue and the north side of Kilby Street be permitted to subdivide in accordance with the provisions of Single-Family Housing District, Subdivision Area A (R1/A) in Zoning and Development Bylaw 5300.

That this policy, as shown on the accompanying plan, be used to determine the disposition of future single-family rezoning applications in this area, for a period of not less than five years, unless changed by the amending procedures contained in the Zoning and Development Bylaw.



Policy 5446 Section 27-5-6

Adopted Date: 09/16/91

Amended Date: 06/21/99

Note: Dimensions are in METRES



Address: 9271 Kilby Street

File No.: RZ 21-934410

Prior to final adoption of Richmond Zoning Bylaw 8500, Amendment Bylaw 10380, the developer is required to complete the following:

1. Provincial Ministry of Transportation & Infrastructure Approval.
2. Registration of a flood indemnity covenant on title (2.9 m GSC – Area A).
3. Registration of an aircraft noise sensitive use covenant on title (ANSD Area 3) to address public awareness and to ensure that noise mitigation, mechanical ventilation, and central air conditioning capability is incorporated into building design and construction (i.e., building components of the proposed development must be designed and constructed in a manner that mitigates potential aircraft noise to the proposed dwelling with doors and windows closed). 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

and;

- b) the ASHRAE 55-2004 “Thermal Environmental Conditions for Human Occupancy” standard (and subsequent updates as they may occur) for interior living spaces.
4. Registration of a restrictive covenant on Title to ensure vehicular access to the site at future development stage is from the rear lane only, with no access permitted to or from Kilby Street.
5. Registration of a legal agreement on Title to ensure that no final Building Permit inspection is granted until at minimum a 33 m² (355 ft²) one-bedroom secondary suite is constructed on both of the two future lots, to the satisfaction of the City in accordance with the BC Building Code and the City’s Zoning Bylaw.
6. Submission of a Landscape Security in the amount of \$3,000.00 (\$750/tree) to ensure that a total of two replacement trees are planted and maintained on each lot proposed (for a total of four trees); minimum 8 cm deciduous caliper or 4 m high conifers). **NOTE: minimum replacement size to be as per Tree Protection Bylaw No. 8057 Schedule A – 3.0 Replacement Trees.**

Prior to Demolition Permit Issuance, the developer must complete the following requirements:

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.

At Subdivision* stage, the developer must complete the following requirements:

1. At future Subdivision stage, the applicant will be required to pay Development Cost Charges (City and GVS & DD), Engineering Improvement Charges for futures road improvements, School Site Acquisition Charge, Address Assignment Fee, and Servicing Costs.
2. Submission of a \$14,400.00 Cash-in-lieu contribution for street lighting upgrades.
3. Submission of a \$27,200.00 Cash-in-lieu contribution for future upgrades of Kilby Street and the lane.

Note: Cash-in-lieu rates are updated yearly to adjust for inflation and fluctuations in actual construction costs. The City will re-assess the required contribution when the cash-in-lieu is paid, based on the cash-in-lieu rate that is in effect at that time.

4. Enter into a Servicing Agreement* for the design and construction of engineering infrastructure improvements. A Letter of Credit or cash security for the value of the Service Agreement works, as determined by the City, will be required as part of entering into the Servicing Agreement. Works include, but may not be limited to:

Water Works:

- a) Using the OCP Model, there is 258.0 L/s of water available at a 20 psi residual at the Kilby St frontage. Based on your proposed development, your site requires a minimum fire flow of 95 L/s.
- b) At Developer's cost, the Developer is required to:
 - i) Cut and cap the existing water service connection along the 9271 Kilby St frontage and install a new 25mm water service connection complete with water meter and water meter box to service the west lot per City specifications.
 - ii) Install a new 25mm diameter water service connection complete with water meter and meter box for the east lot per standard City specifications.
- c) At Developer's cost, the City will:
 - i) Complete all tie-ins for the proposed works to existing City infrastructure.

Storm Sewer Works:

- a) At Developer's cost, the Developer is required to:
 - i) Provide an erosion and sediment control plan for all on-site and off-site works, to be reviewed as part of the servicing agreement design.
 - ii) Install a new 600mm storm sewer along the Kilby St frontage of the subject site with two manholes per City specifications. Tie-in the proposed storm sewer to the existing drainage system at approximately a 45 degree angle using manholes or headwalls as required. Confirm the condition of the drainage infrastructure at each tie-in point.
 - iii) Infill the existing ditch fronting the subject site with granular material and soil. A watercourse crossing permit is required for modifications to the ditch and culvert fronting 9271 Kilby St per the City's Watercourse Protection and Crossing Bylaw No. 8441.
 - iv) Install a new storm sewer service connection and IC at the common property line of the subject site with dual storm service connections to service the west lot and the east lot per City standards.
 - v) Install a new storm sewer along the lane frontage of 9271 Kilby St per City specifications. IC to be installed near the west property line of 9271 Kilby St.
 - vi) Collaborate with the adjacent development at 9231 Kilby St to install a new laneway storm sewer and IC between the east PL of 9271 Kilby St and STIC150580 per City specifications.
- b) At Developer's cost, the City will:
 - i) Complete all tie-ins for the proposed works to existing City infrastructure.

Sanitary Sewer Works:

- d) At Developer's cost, the Developer is required to:
 - i) Not start onsite excavation or foundation construction until completion of rear-yard sanitary works by City crews.
 - ii) Install a new 100mm sanitary service connection and IC with dual service leads at the common property line of the subject site per City specifications. Provide a 1.5mx1.5m wide SRW for the sanitary IC.
- e) At Developer's cost, the City will:
 - i) Complete all tie-ins for the proposed works to existing City infrastructure.

Street Lighting:

- f) At Developer's cost, the Developer is required to:
- i) Review street lighting levels along all road and lane frontages.

General Items:

- g) At Developer's cost, the Developer is required to:
- i) Complete other frontage improvements as per Transportation requirements:
 - Vehicular access be off the lane, that is, no access off Kilby Street.
 - ii) Not encroach into City rights-of-ways with any proposed trees, retaining walls, or other non-removable structures. Retaining walls proposed to encroach into rights-of-ways must be reviewed by the City's Engineering Department.
 - iii) Provide a signed and sealed letter from the project engineer confirming that the development at 9271 Kilby Street is coordinated with the developments in 9231 Kilby Street and 9180 Kilby Street. The City's Engineering department will not begin review of the servicing agreement design drawings until the coordination letter is received.

The letter shall confirm that the following design components have been coordinated:

- Corridors for City utilities (existing and proposed water, storm sewer, sanitary sewer and private utilities).
- Pipe sizes, materials and slopes.
- Location of manholes and fire hydrants.
- Road grades.
- Proposed street light design.
- Design and construction of laneway drainage between the east property line of 9271 Kilby Street and STIC150580

Prior to Building Permit Issuance, the developer must complete the following requirements:

1. Submission of acoustical and thermal reports prepared by qualified professionals to confirm noise mitigation measures, mechanical ventilation, and central air conditioning capability will be incorporated into dwelling construction as per the legal agreement registered on title at rezoning stage.
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. 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.

Signed _____

Date _____



**Richmond Zoning Bylaw 8500
Amendment Bylaw 10380 (RZ 21-934410)
9271 Kilby Street**

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 **"SINGLE DETACHED (RS2/A)"**.

P.I.D. 008-896-844

Lot 35 Section 27 Block 5 North Range 6 West New Westminster District Plan 26092

2. This Bylaw may be cited as **"Richmond Zoning Bylaw 8500, Amendment Bylaw 10380"**.

FIRST READING

A PUBLIC HEARING WAS HELD ON

SECOND READING

THIRD READING

MINISTRY OF TRANSPORTATION AND
INFRASTRUCTURE APPROVAL

ADOPTED

CITY OF RICHMOND
APPROVED by 
APPROVED by Director or Solicitor 

MAYOR

CORPORATE OFFICER



**Richmond Zoning Bylaw 8500
Amendment Bylaw 10047 (RZ 18-829032)
9020 Glenallan Gate, 9460, 9480 & 9500 Garden City 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 **“LOW DENSITY TOWNHOUSES (RTL4)”**.

P.I.D. 003-349-306

Lot 277 Section 27 Block 4 North Range 6 West New Westminster District Plan 35222

P.I.D. 004-231-775

Lot 278 Section 27 Block 4 North Range 6 West New Westminster District Plan 35222

P.I.D. 004-058-887

Lot 279 Section 27 Block 4 North Range 6 West New Westminster District Plan 35222

P.I.D. 007-151-071

Lot 280 Section 27 Block 4 North Range 6 West New Westminster District Plan 35222

2. This Bylaw may be cited as **“Richmond Zoning Bylaw 8500, Amendment Bylaw 10047”**.

FIRST READING

JUN 24 2019

A PUBLIC HEARING WAS HELD ON

JUL 15 2019

SECOND READING

JUL 15 2019

THIRD READING

JUL 15 2019

OTHER CONDITIONS SATISFIED

MAY 25 2022

ADOPTED



MAYOR

CORPORATE OFFICER



**Civic Election Administration and Procedure Bylaw No. 7244,
Amendment Bylaw No. 10349**

The Council of the City of Richmond enacts as follows:

1. Civic Election Administration and Procedure Bylaw No. 7244, as amended, is hereby amended as follows:
 - a) Delete subsection 4.6.2 (b).
 - b) Delete subsection 4.6.3 and replace it with a new subsection 4.6.3 as follows:

4.6.3 Upon the fulfilment of the provisions of subsections 4.6.1 and 4.6.2, and sections 5.6 and 5.7, the Chief Election Officer must, to obtain the election results, direct an election official to insert the **memory packs** from each **vote counting unit** into the **memory pack receiver (accumulator)** in order to obtain the totals of the votes.
 - c) Delete Section 5.1.2 and replace it with a new subsection 5.1.2 as follows:

5.1.2 In accordance with the *Local Government Act* and this bylaw all electors are permitted to vote by **mail ballot** and to register by mail in conjunction with **mail ballot** voting.
 - d) Insert a new subsection 5.1.3 as follows:

5.1.3 The Chief Election Officer is authorized to establish time limits in relation to voting by **mail ballot**.
 - e) Delete subsection 5.2.1 and replace it with a new subsection 5.2.1 as follows:

5.2.1 A person wishing to vote by **mail ballot** must apply to the Chief Election Officer in writing, using the form and providing the information required by the Chief Election Officer.
 - f) Delete subsection 5.2.2 (a) and replace it with a new subsection 5.2.2 (a) as follows:
 - a) Make available to the applicant a **mail ballot** package; and

- g) Delete subsection 5.3.2 (d) and replace it with a new subsection 5.3.2 (d) as follows:
 - (d) mail, or have delivered, the outer envelope and its contents to the Chief Election Officer at the address specified by the Chief Election Officer so that it is received no later than the close of voting on General Voting Day.
- h) Delete subsections 5.5.4 and 5.5.5 and replace with new subsections 5.5.4 and 5.5.5 as follows:
 - 5.5.4 The Chief Election Officer is authorized to establish one or more **mail ballot advance tabulation sessions**, to be held no earlier than 9 a.m on the twelfth day before General Voting Day, where certification envelopes accepted under subsection 5.5.1 are to be opened, and the secrecy envelopes contained within the certification envelopes are also to be opened, under the supervision of the presiding election official for mail ballot voting, and in the presence of at least one other person present, where:
 - (a) such certification envelopes were received from persons whose right to vote using a mail ballot has not been challenged; or
 - (b) such challenge has been resolved, and the challenged person has been permitted to vote.
 - 5.5.5 **Vote counting units** are to be used for all **mail ballot advance tabulation sessions**, and the **mail ballots** contained within the secrecy envelopes must be inserted into a **vote counting unit** designated for such purpose.
- i) Insert new subsections 5.5.6, 5.5.7, 5.5.8, 5.5.9 and 5.5.10 as follows.
 - 5.5.6 Any **mail ballot** accepted by the **vote counting unit** is valid, and any acceptable marks contained on such **ballots** will be counted in the election, subject to any determination made under a judicial recount.
 - 5.5.7 Any **mail ballot** which is returned by the **vote counting unit** when being inserted, must, through the use of the **ballot** return over-ride procedure and under the supervision of the presiding election official for mail ballot voting, be reinserted into the **vote counting unit** to ensure that any acceptable marks are counted.
 - 5.5.8 During any period that a **vote counting unit** being used in a **mail ballot advance tabulation session** is not functioning, the provisions of subsections 4.4.1 to 4.4.3 inclusive apply, so far as applicable.
 - 5.5.9 After all **mail ballots** have been inserted into the **vote counting unit** under subsection 5.5.5 the presiding election official for mail ballot voting must ensure that the voting counting unit and election materials are secured in accordance with the requirements in subsection 4.5.3, so far as applicable.

5.5.10 The Chief Election Officer must provide written notice to all candidates and official agents of any **mail ballot advance tabulation sessions**.

j) Delete Section 5.6 and replace with a new section 5.6 as follows:

5.6 Mail Ballot Procedures After the Close of Voting – Unopened Certification Envelopes

5.6.1 As soon as possible after 8:00 pm on General Voting Day all of the unopened certification envelopes accepted under subsection 5.5.1 are to be opened, and the secrecy envelopes contained within the certification envelopes are also to be opened, under the supervision of the presiding election official for mail ballot voting, in the presence of at least one other person, where:

- (a) such certification envelopes were received from persons whose right to vote using a mail ballot has not been challenged; or
- (b) such challenge has been resolved, and the challenged person has been permitted to vote.

5.6.2 **Vote counting units** are to be used to tabulate **mail ballots** processed under subsection 5.6.1, and the mail ballots contained within the secrecy envelopes must be inserted into a **vote counting unit** designated for such purpose.

5.6.3 Any **mail ballot** accepted by the **vote counting unit** is valid, and any acceptable marks contained on such **ballots** will be counted in the election, subject to any determination made under a judicial recount.

5.6.4 Any mail ballot which is returned by the **vote counting unit** when being inserted, must, through the use of the **ballot** return over-ride procedure and under the supervision of the presiding election official for mail ballot voting, be reinserted into the **vote counting unit** to ensure that any acceptable marks are counted.

5.6.5 During any period that a **vote counting unit** being used to tabulate mail ballots is not functioning, the provisions of subsections 4.4.1 to 4.4.3 inclusive apply, so far as applicable.

5.6.6 Upon the fulfilment of the provisions of subsections 5.6.1 to 5.6.5 inclusive the presiding election official for mail ballot voting must:

- (a) ensure that any remaining **ballots** in the emergency ballot compartment are inserted into the vote counting unit;

- (b) secure the **vote counting unit** so that no more ballots can be inserted;
- (c) generate two copies of the **results tape** from the **vote counting unit**;
- (d) remove the **memory pack** from the **vote counting unit** and deliver it, along with one copy of the **results tape**, to the Chief Election Officer at **election headquarters**;
- (e) complete the ballot account to account for the voted ballots, unused ballots, spoiled ballots and unaccounted for ballots, and place ballot account in the election night returns envelope;
- (f) place the voted ballots into the election materials transfer box;
- (g) place any spoiled ballots in a sealed envelope and place the envelope into the election materials transfer box;
- (h) seal the election materials transfer box;
- (i) place one copy of the **results tape** into the Chief Election Officer envelope; and
- (j) deliver:
 - (i) the sealed election materials transfer box
 - (ii) the **vote counting unit**;
 - (iii) the election night returns envelope; and
 - (iv) the Chief Election Officer envelope,

to the Chief Election Officer at election headquarters.

- k) Delete Sections 5.7 and 5.8 and replace with new Sections 5.7, 5.8 and 5.9 as follows:

5.7 Mail Ballot Procedures After the Close of Voting – Mail Ballot Advance Tabulation Sessions

- 5.7.1 As soon as possible after 8:00 pm on General Voting Day, the Chief Election Officer must direct the presiding election official for mail ballot voting to generate the **results tape** and secure the voting materials for all **mail ballot advance tabulation sessions** in accordance with the provisions of clauses (a) to (j) inclusive of subsection 5.6.6.

5.8 Challenge of Elector

- 5.8.1 A person exercising the right to vote by mail ballot may be challenged in accordance with, and on the grounds specified in, the *Local Government Act*.

5.9 Elector's Name Already Used

- 5.9.1 Where, upon receiving a request for a mail ballot, the Chief Election Officer determines that another person has voted or has already been issued a mail ballot in that elector's name, the provisions of the Local Government Act apply, so far as applicable.

- 1) Amend Subsection 9.1 as follows:

- i) Delete the following definition:

PORTABLE BALLOT BOX

means a **ballot** box which is used in the election where a **vote counting unit** is not being used at the time of voting.

- ii) Insert the following definition and re-order the remaining definitions accordingly:

MAIL BALLOT

means a **ballot** used for mail ballot voting.

**MAIL BALLOT
ADVANCE ADVANCE
TABULATION SESSION**

means an event established by the Chief Election Officer in which **mail ballot** certification envelopes and secrecy envelopes are opened and inserted into **vote counting units** to be tabulated, without a results tape generated.

2. This Bylaw is cited as "Civic Election Administration and Procedure Bylaw No. 7244, Amendment Bylaw No. 10349".

FIRST READING

SECOND READING

THIRD READING

ADOPTED

MAYOR

MAY 2 4 2022

MAY 2 4 2022

MAY 2 4 2022

CORPORATE OFFICER

CITY OF RICHMOND
APPROVED for content by originating dept. <i>Mo</i>
APPROVED for legality by Solicitor <i>ACI</i>



**Richmond Zoning Bylaw 8500, Amendment Bylaw 10351
to Establish Zoning for the Properties at 8320, 8340, 8360, 8440
Bridgeport Road and 8311, 8351 Sea Island Way,
which were Developed under Land Use Contract 126**

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 inserting the following into Section 22 (Site Specific Commercial Zones), in numerical order:

“ 22.51 Commercial (ZC51) – Bridgeport Road and Sea Island Way (City Centre)

22.51.1 Purpose

The **zone** provides for **commercial uses**. This **zone** is for properties developed under Land Use Contract 126 on Bridgeport Road and Sea Island Way in the north portion of City Centre.

22.51.2 Permitted Uses

- contractor service
- entertainment, spectator
- equipment, minor
- manufacturing, custom indoor
- office
- recreation, indoor
- restaurant
- retail, general
- service, business support
- service, household repair

22.51.3 A. Secondary Uses

- n/a

22.51.3 B. Additional Uses

- restaurant, drive-through

22.51.4 Permitted Density

1. The maximum **floor area ratio** (FAR) is 0.65, except that a **lot** with a **lot area** of less than 450 m² shall not be used as the **site** of a **building**.

22.51.5 Permitted Lot Coverage

1. The maximum **lot coverage** is 46% for **buildings**.

22.51.6 Yards & Setbacks

1. The minimum **setback** to Bridgeport Road, No. 3 Road and Sea Island Way is 7.5 m.
2. There is no minimum **interior side yard**.
3. The minimum **rear yard** is 3.0 m.

22.51.7 Permitted Heights

1. The maximum **height** for **buildings** is 11.0 m but containing no more than 3 **storeys**.
2. The maximum **height** for **accessory structures** is 9.0 m.

22.51.8 Subdivision Provisions/Minimum Lot Size

1. The minimum **lot area** is 1,270.0 m².
2. The minimum **lot width** is 15.0 m.
3. There is no minimum **lot depth** requirement.

22.51.9 Landscaping & Screening

1. **Landscaping** and **screening** shall be provided in accordance with the provisions of Section 6.0, except that on the following listed sites, the portion of the **lot** which is within 7.5 m of a **property line** abutting a **road** shall be planted and maintained with any combination of trees, shrubs, ornamental plants or lawn:
 - a) 8440 Bridgeport Road
P.I.D. 000-541-362
Lot 90 Section 28 Block 5 North Range 6 West New Westminster District
Plan 57164
 - b) 8311 Sea Island Way
P.I.D. 003-727-246
Lot 85 Except Part Subdivided by Plan 57164 Section 28 Block 5 North
Range 6 West New Westminster District Plan 56425
 - c) 8351 Sea Island Way
P.I.D. 024-947-989
Lot 4 Section 28 Block 5 North Range 6 West New Westminster District
Plan LMP48700

22.51.10 On-Site Parking and Loading

1. On-site **vehicle** and bicycle parking and loading shall be provided according to the standards set out in Section 7.0.

22.51.11 Other Regulations

2. In addition to the regulations listed above, the General Development Regulations of Section 4.0 and the Specific Use Regulations of Section 5.0 apply.
3. **Restaurant, drive-through** is only permitted on the following listed sites:
 - a) 8440 Bridgeport Road
P.I.D. 000-541-362
Lot 90 Section 28 Block 5 North Range 6 West New Westminster District Plan 57164
 - b) 8311 Sea Island Way
P.I.D. 003-727-246
Lot 85 Except Part Subdivided by Plan 57164 Section 28 Block 5 North Range 6 West New Westminster District Plan 56425
2. The Zoning Map of the City of Richmond, which accompanies and forms part of Richmond Zoning Bylaw 8500, as amended, is further amended by designating that portion outlined in bold on "Schedule A attached to and forming part of Bylaw 10351" as "**Commercial (ZC51) –Bridgeport Road and Sea Island Way (City Centre)**".
3. This Bylaw may be cited as "**Richmond Zoning Bylaw 8500, Amendment Bylaw 10351**".

FIRST READING

A PUBLIC HEARING WAS HELD ON

SECOND READING

THIRD READING

MINISTRY OF TRANSPORTATION AND
INFRASTRUCTURE APPROVAL

ADOPTED

FEB 28 2022

MAR 21 2022

MAR 21 2022

MAR 21 2022

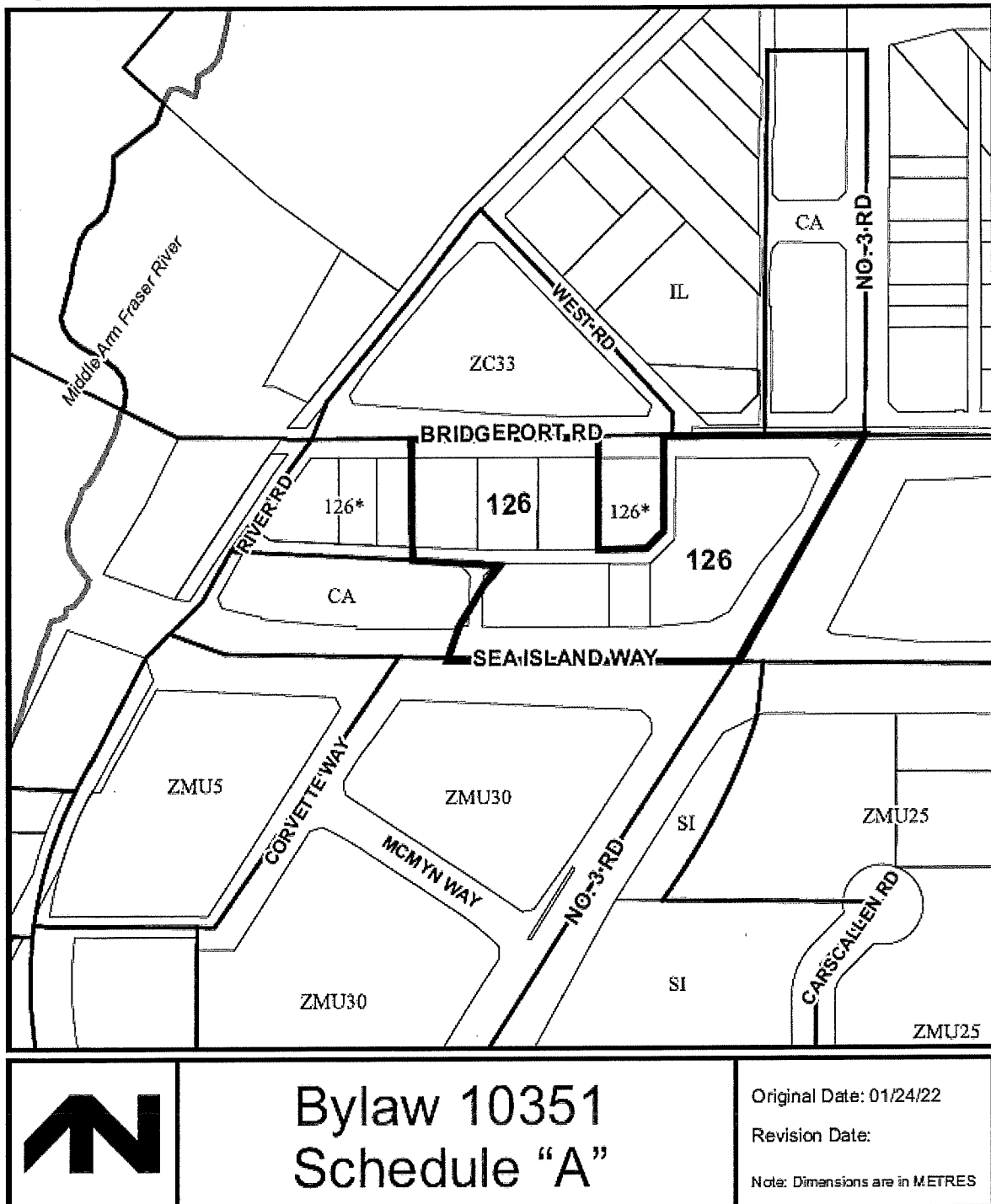
MAY 25 2022

_____
MAYOR_____
CORPORATE OFFICER

Schedule A attached to and forming part of Bylaw 10351



City of
Richmond





City of Richmond

Report to Council

To: Richmond City Council

Date: May 30, 2022

From: Joe Erceg
Chair, Development Permit Panel

File: DP 19-867710

Re: **Development Permit Panel Meeting Held on November 25, 2020**

Staff Recommendation

That the recommendation of the Panel to authorize the issuance of a Development Permit (DP 19-867710) for the property located at 9020 Glenallan Gate, 9460, 9480 and 9500 Garden City Road, be endorsed and the Permit so issued.

Joe Erceg
Chair, Development Permit Panel
(604-276-4083)

WC/SB:blg

Panel Report

The Development Permit Panel considered the following item at its meeting held on November 25, 2020.

DP 19-867710 – MATTHEW CHENG ARCHITECT INC.
– 9020 GLENALLAN GATE, 9460, 9480 AND 9500 GARDEN CITY ROAD
(November 25, 2020)

The Panel considered a Development Permit (DP) application to permit the construction of 13 townhouse units on a site zoned “Low Density Townhouses (RTL4)”. A variance is included in the proposal to reduce the minimum exterior side yard setback to Garden City Road from 6.0 m to 4.5 m.

Architect, Matthew Cheng, of Matthew Cheng Architect Inc., and Landscape Architect, Yiwen Ruan, of PMG Landscape Architects, provided a brief presentation, including:

- The proposed exterior side yard (which functions as a front yard) setback variance to Garden City Road will allow for increased setback along the east property line and provides an appropriate interface with adjacent single-family homes to the east.
- A statutory right-of-way (SRW) has been secured to allow for access to/from the adjacent future development to the south through the subject’s site’s internal drive aisle.
- The height of the end units of three-storey townhouse buildings at the corner of Garden City Road and Glenallan Gate and adjacent to the south property line is reduced to provide an appropriate transition to the predominantly single-family neighbourhood.
- Two-storey units provide an appropriate transition to the adjacent homes to the east.
- No retaining walls are proposed as the finished grade on the proposed development is compatible with the grade along the property lines.
- Two side-by-side parking spaces will be provided for each townhouse unit and will be equipped with electric vehicle (EV) charging; no tandem parking is proposed.
- Three visitor parking spaces are proposed, one of which is accessible; indoor and outdoor bicycle parking spaces will also be incorporated into the development.
- Two convertible units are proposed, one of which includes a secondary suite.
- A privacy screen will be provided for the balcony of the townhouse unit adjacent to the residential property to the south to address potential overlook concerns.
- The proposed development will achieve Step Code 3 of the BC Energy Step Code.
- Proposed sustainability features include, among others, the provision of an air source heat pump system; the condensing units will be screened and an acoustical report provided by the applicant indicates that the proposed units comply with the City’s Noise Bylaw.
- The recommendations of the City’s Advisory Design Panel have been incorporated into the proposal to improve the project’s elevations, landscaping, accessibility, sustainability, provision of common amenities and further define the site’s vehicular and residential entries.
- Two on-site trees and three off-site trees will be retained and protected, 14 on-site trees will be removed and 29 replacement trees are proposed.
- A low permeable aluminum fence along the street frontages with concrete columns at the unit entries is proposed to improve the streetscape.

- The planting strip along the street frontages includes, among others, flowering trees, to enhance the pedestrian experience.
- Private yards of each unit are enclosed by a hedge and a fence to ensure privacy.
- Permeable pavers are proposed for the vehicular entry, the pedestrian pathway within the internal drive aisle, and visitor parking spaces to provide visual interest and safety.
- The common outdoor amenity area includes, among others, a play area with a large play equipment and natural play elements and a picnic table.
- The project's soft landscaping and permeable paving treatment for some on-site surface areas enhance the project's sustainability features.
- Drought tolerant and low maintenance plants are proposed to be planted on the site.

In reply to a Panel query, Yiwen Ruan acknowledged that the two on-site trees to be retained are located along the Garden City Road and Glenallan Gate frontages.

Staff noted that: (i) there is a Servicing Agreement associated with the project for frontage works along Garden City Road and Glenallan Gate and site services; (ii) the proposed exterior side yard setback variance is consistent with the City's Arterial Road Guidelines for Townhouses; (iii) a 6 m rear yard setback is provided to create adequate separation from the single-family homes to the east; (iv) there is no road widening associated the project and the setback to the front buildings from the Garden City Road curb will be approximately 8.6 m; and (v) the project's acoustical engineer has submitted an acoustical report which indicates that the project will meet the Canada Mortgage and Housing Corporation's (CMHC) interior noise standards.

Correspondence was submitted to the meeting regarding the application by Norm Roberts and Agnes Trinidad.

Staff noted that Mr. Roberts expressed concern regarding the amount of private outdoor space provided for the proposed development. In response to the concern staff noted, the proposed front yard setback along Garden City Road and the 6 m rear yard setback allow for the provision of adequate private outdoor space for each unit and the project's communal outdoor amenity area exceeds the City's minimum requirement.

Staff noted that Agnes Trinidad and other residents of her address expressed support for the proposed townhouse development.

The Panel expressed support for the proposed development, noting that it is a well thought out and detailed project.

The Panel recommends the Permit be issued.