



City Council

Council Chambers, City Hall
6911 No. 3 Road

Monday, July 28, 2014
7:00 p.m.

Pg. # ITEM

MINUTES

1. *Motion to:*

- (1) *adopt the minutes of the Regular Council meeting held on Monday, July 14, 2014; (distributed previously)*
- CNCL-17 (2) *adopt the **minutes** of the Regular Council meeting for Public Hearings held on Monday, July 21, 2014; and*
- CNCL-65 (3) *receive for information the Metro Vancouver **'Board in Brief'** dated Friday, July 11, 2014.*



AGENDA ADDITIONS & DELETIONS

COMMITTEE OF THE WHOLE

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



3. Delegations from the floor on Agenda items.

(PLEASE NOTE THAT FOR LEGAL REASONS, DELEGATIONS ARE NOT PERMITTED ON ZONING OR OCP AMENDMENT BYLAWS WHICH ARE TO BE ADOPTED; OR ON DEVELOPMENT PERMITS/DEVELOPMENT VARIANCE PERMITS - ITEM NO. 30.)

4. *Motion to rise and report.*



RATIFICATION OF COMMITTEE ACTION

CONSENT AGENDA

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

CONSENT AGENDA HIGHLIGHTS

- Receipt of Committee minutes
- Lafarge Canada Inc. – High Angle Rope Rescue Service
- Fire Protection and Life Safety Bylaw Update
- Minoru Recreation Complex Program
- Brighthouse Firehall No. 1 Program Allocation
- Cambie Firehall No. 3 Program Allocation
- 9700 and 9740 Alexandra Road (Polygon Development 296 Ltd.) – Proposed Affordable Housing Contribution
- Application by Hollybridge Limited Partnership (Intracorp) for Rezoning at 6888 River Road and 6900 Pearson Way from Residential/Limited Commercial (RCL3) to Residential/Limited Commercial (ZMU27) – Oval Village (City Centre)
- Land use applications for first reading (to be further considered at the Public Hearing on Tuesday, September 2, 2014):
 - 9700 and 9740 Alexandra Road – Rezone from RD1 and RS1/F to ZT71 (Polygon Development 296 Ltd. – applicant)
 - 9191 and 9231 Alexandra Road – Rezone from RS1/F to ZMU28 (S-8135 Holdings Ltd. – applicant)

Council Agenda – Monday, July 28, 2014

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ITEM

- Flood Protection Update 2014
- East Richmond Agricultural Water Supply
- Fraser River Dredging and Environmental Considerations for Steveston Harbour and Sturgeon Bank
- Cigarette Butt Recycling Program
- Report 2013: Achieving Goals Through Community Engagement
- Graybar Road Drainage and Sanitary Main Replacement
- Electric Vehicle Promotion at Community Events
- Alexandra District Energy Utility Expansion Phase 3
- Japanese-Canadian Film / Media Project
- City of Richmond Utility Box Art Wrap Program
- City Centre Community Centre – Service Levels

5. *Motion to adopt Items 6 through 26 by general consent.*



6. **COMMITTEE MINUTES**

That the minutes of:

- CNCL-69 (1) *the **Community Safety Committee** meeting held on Tuesday, July 15, 2014;*
- CNCL-77 (2) *the **General Purposes Committee** meeting held on Monday, July 21, 2014;*
- CNCL-88 (3) *the **Planning Committee** meeting held on Tuesday, July 22, 2014;*
- CNCL-111 (4) *the **Public Works & Transportation Committee** meeting held on Wednesday, July 23, 2014;*
- (5) *the Parks, Recreation and Cultural Services Committee meeting held on Thursday, July 24, 2014; (to be distributed on the table)*

be received for information.



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Consent
Agenda
Item

7. **LAFARGE CANADA INC. – HIGH ANGLE ROPE RESCUE SERVICE**

(File Ref. No.) (REDMS No. 4249702)

CNCL-118

See Page **CNCL-118** for full report

COMMUNITY SAFETY COMMITTEE RECOMMENDATION

That the Chief Administrative Officer and General Manager, Law and Community Safety be authorized to negotiate and execute an amendment to the existing Confined Space Rescue Service Agreement between the City and Lafarge Canada Inc. (Lafarge) to include Technical High Angle Rope Rescue services by Richmond Fire-Rescue to Lafarge operations at 7611 No.9 Road on the terms and conditions outlined in the staff report titled High Angle Rope Rescue Services, dated June 19, 2014, from the Fire Chief, Richmond Fire-Rescue.



Consent
Agenda
Item

8. **FIRE PROTECTION AND LIFE SAFETY BYLAW UPDATE**

(File Ref. No. 09-5140-01/2014) (REDMS No. 3784900 v. 9)

CNCL-121

See Page **CNCL-121** for full report

COMMUNITY SAFETY COMMITTEE RECOMMENDATION

- (1) *That Fire Protection and Life Safety Bylaw No. 8306, Amendment Bylaw No. 9151, be introduced and given first, second, and third readings;*
- (2) *That Consolidated Fees Bylaw No. 8636, Amendment Bylaw No. 9152, be introduced and given first, second, and third readings;*
- (3) *That Municipal Ticket Information Authorization Bylaw No. 7321, Amendment Bylaw No. 9153, be introduced and given first, second, and third readings; and*
- (4) *That Notice of Bylaw Violation Dispute Adjudication Bylaw No. 8122, Amendment Bylaw No. 9154, be introduced and given first, second, and third readings.*



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Consent
Agenda
Item

9. **MINORU RECREATION COMPLEX PROGRAM**
(File Ref. No. 06-2052-55-01) (REDMS No. 4276756 v. 9)

CNCL-157

See Page **CNCL-157** for full report

GENERAL PURPOSES COMMITTEE RECOMMENDATION

That:

- (1) *the Guiding Principles for the Minoru Recreation Complex program as outlined in the staff report titled “Minoru Recreation Complex Program” dated July 3, 2014, from the Senior Manager, Recreation and Sport Services and the Senior Manager, Project Development, be endorsed;*
- (2) *the Minoru Recreation Complex functional space program as outlined in the staff report titled “Minoru Recreation Complex Program” dated July 3, 2014 from the Senior Manager, Recreation and Sport Services and the Senior Manager, Project Development, be endorsed; and*
- (3) *a business plan for the operation of the Minoru Recreation Complex be developed.*



Consent
Agenda
Item

10. **BRIGHOUSE FIREHALL NO. 1 PROGRAM ALLOCATION**
(File Ref. No. 06-2052-25-FHGI1) (REDMS No. 4264020 v.7)

CNCL-177

See Page **CNCL-177** for full report

GENERAL PURPOSES COMMITTEE RECOMMENDATION

That the staff report titled Brighthouse Firehall No. 1 Program Allocation, dated June 25, 2014, from the Director, Engineering and Fire Chief, Richmond Fire-Rescue, be endorsed.



Consent
Agenda
Item

11. **CAMBIE FIREHALL NO. 3 PROGRAM ALLOCATION**
(File Ref. No. 06-2050-20-F3) (REDMS No. 4245908 v.11)

CNCL-184

See Page **CNCL-184** for full report

GENERAL PURPOSES COMMITTEE RECOMMENDATION

That the staff report titled Cambie Firehall No. 3 Program Allocation, dated June 25, 2014, from the Director, Engineering and Fire Chief, Richmond Fire-Rescue, be endorsed.



Consent
Agenda
Item

12. **9700 AND 9740 ALEXANDRA ROAD (POLYGON DEVELOPMENT 296 LTD.)- PROPOSED AFFORDABLE HOUSING CONTRIBUTION**
(File Ref. No. 08-4057-05) (REDMS No. 4216164 v.4)

CNCL-191

See Page CNCL-191 for full report

PLANNING COMMITTEE RECOMMENDATION

- (1) *That Option 1 in the staff report titled 9700 and 9740 Alexandra Road (Polygon Development 296 Ltd.) – Proposed Affordable Housing Contribution, dated May 20, 2014, from the General Manager, Community Services, be endorsed to permit cash-in-lieu affordable housing contributions from the rezoning of 9700 and 9740 Alexandra Road (Polygon Jayden Mews Homes Ltd.) as part of Rezoning Application RZ 13-649641;*
- (2) *That the Chief Administrative Officer and General Manager, Community Services be authorized to negotiate and execute an amendment to the Affordable Housing Contribution Agreement between the City and Kiwanis Senior Citizens Housing Society to:*
- (a) *add 9700 and 9740 Alexandra Road as a proposed development project that is to provide a minimum affordable housing contribution of \$678,107; and*
- (b) *reduce the proposed affordable housing contribution from 9491, 9511, 9531 and 9591 Alexandra Road to \$892,634.*



Consent
Agenda
Item

13. **APPLICATION BY HOLLYBRIDGE LIMITED PARTNERSHIP (INTRACORP) FOR REZONING AT 6888 RIVER ROAD AND 6900 PEARSON WAY FROM RESIDENTIAL/LIMITED COMMERCIAL (RCL3) TO RESIDENTIAL/LIMITED COMMERCIAL (ZMU27) - OVAL VILLAGE (CITY CENTRE)**
(File Ref. No. 12-8060-20-009148/008995/009150; RZ 14-665416) (REDMS No. 4284264)

CNCL-198

See Page CNCL-198 for full report

PLANNING COMMITTEE RECOMMENDATION

- (1) *That the staff report titled Application By Hollybridge Limited Partnership (Intracorp) for Rezoning at 6888 River Road and 6900 Pearson Way from Residential/Limited Commercial (RCL3) to Residential/Limited Commercial (ZMU27) – Oval Village (City Centre, dated July 11, 2014, from the Director, Development, be received for information; and*

- (2) *That \$3.0 million for the Storeys development interim funding be allocated from surplus casino funding as a one-time source of funding.*



Consent
Agenda
Item

14. **APPLICATION BY POLYGON DEVELOPMENT 296 LTD. FOR REZONING AT 9700 AND 9740 ALEXANDRA ROAD FROM “TWO-UNIT DWELLINGS (RD1)” AND “SINGLE DETACHED (RS1/F)” TO “TOWN HOUSING (ZT71) – ALEXANDRA NEIGHBOURHOOD (WEST CAMBIE)”**

(File Ref. No. 12-8060-20-009159; RZ 13-649641) (REDMS No. 4126857 v.7)

CNCL-243

See Page CNCL-243 for full report

PLANNING COMMITTEE RECOMMENDATION

- (1) *That Richmond Zoning Bylaw 8500, Amendment Bylaw No. 9159:*
- (a) *to create “Town Housing (ZT71) – Alexandra Neighbourhood (West Cambie)”;* and
 - (b) *to rezone 9700 and 9740 Alexandra Road from “Two-Unit Dwellings (RD1)” and “Single Detached (RS1/F)” to “Town Housing (ZT71) – Alexandra Neighbourhood (West Cambie)”;*
- be introduced and given first reading; and*
- (2) *That the affordable housing contribution for the rezoning of 9700 and 9740 Alexandra Road (RZ 13-649641) be allocated entirely (100%) to the capital Affordable Housing Reserve Fund established by Reserve Fund Establishment Bylaw No. 7812.*



Consent
Agenda
Item

15. **APPLICATION BY S-8135 HOLDINGS LTD. FOR REZONING AT 9191 AND 9231 ALEXANDRA ROAD FROM RS1/F (SINGLE-DETACHED) TO ZMU28 (RESIDENTIAL/LIMITED COMMERCIAL)**

(File Ref. No. 12-8060-20-009163/009164; RZ 14-656219) (REDMS No. 4287209 v.2)

CNCL-391

See Page CNCL-391 for full report

PLANNING COMMITTEE RECOMMENDATION

- (1) *That Richmond Official Community Plan Bylaw 7100, Amendment Bylaw 9164, to amend Schedule 2.11A of the Richmond Official Community Plan Bylaw 7100:*

(a) *to create a new “Residential Mixed Use” designation and change the land use designation on the Alexandra Neighbourhood Land Use Map for 9191 and 9231 Alexandra Road from “Mixed Use” to “Residential Mixed Use”; and*

(b) *to incorporate related text and map changes to Section 8.2 of the Area Plan;*

be introduced and given first reading;

(2) *That Bylaw 9164, 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 882(3) (a) of the Local Government Act;

(3) *That Bylaw 9164, having been considered in accordance with OCP Bylaw Preparation Consultation Policy 5043, is hereby found not to require further consultation; and*

(4) *That Richmond Zoning Bylaw 8500, Amendment Bylaw 9163 to create the “Residential/Limited Commercial (ZMU28) - Alexandra Neighbourhood (West Cambie)” zone and to rezone 9191 and 9231 Alexandra Road from “Single-Detached (RS1/F)” to “Residential/Limited Commercial (ZMU28) - Alexandra Neighbourhood (West Cambie)” be introduced and given first reading.*



Consent
Agenda
Item

16. **FLOOD PROTECTION UPDATE 2014**

(File Ref. No. 10-6060-04-01) (REDMS No. 4265796)

CNCL-418

See Page CNCL-418 for full report

PUBLIC WORKS AND TRANSPORTATION COMMITTEE
RECOMMENDATION

That the staff report titled, Flood Protection Update 2014, dated June 23, 2014, from the Director, Engineering, be received for information, be forwarded to Council for information, and be published on the City website.



Consent
Agenda
Item

17. **EAST RICHMOND AGRICULTURAL WATER SUPPLY**

(File Ref. No. 10-6060-04-01) (REDMS No. 4266052)

CNCL-426

See Page CNCL-426 for full report

Pg. # ITEM

PUBLIC WORKS AND TRANSPORTATION COMMITTEE
RECOMMENDATION

That the report titled East Richmond Agricultural Water Supply Update 2013 as attached to the staff report titled East Richmond Agricultural Water Supply, dated June 27, 2014, from the Director, Engineering, be used as input in the five year capital program process.

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Consent
Agenda
Item

18. **FRASER RIVER DREDGING AND ENVIRONMENTAL CONSIDERATIONS FOR STEVESTON HARBOUR AND STURGEON BANK**

(File Ref. No. 10-6150-01) (REDMS No. 4239913)

CNCL-509

See Page CNCL-509 for full report

PUBLIC WORKS AND TRANSPORTATION COMMITTEE
RECOMMENDATION

That the staff report titled Fraser River Dredging and Environmental Considerations for Steveston Harbour and Sturgeon Bank, dated June 30, 2014, from the Director, Engineering, be received for information, be forwarded to Council for information, and be published on the City website.

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Consent
Agenda
Item

19. **CIGARETTE BUTT RECYCLING PROGRAM**

(File Ref. No. 10-6370-01) (REDMS No. 4245647)

CNCL-516

See Page CNCL-516 for full report

PUBLIC WORKS AND TRANSPORTATION COMMITTEE
RECOMMENDATION

- (1) *That the staff report titled Cigarette Butt Recycling Program, from the Director, Public Works, dated June 25, 2014, be received for information; and*
- (2) *That staff work with Vancouver Coastal Health Authority on strategies to reduce cigarette butt litter at the locations identified in the staff report titled Cigarette Butt Recycling Program, from the Director, Public Works, dated June 25, 2014.*

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Consent
Agenda
Item

20. **REPORT 2013: ACHIEVING GOALS THROUGH COMMUNITY ENGAGEMENT**

(File Ref. No. 10-6375-05) (REDMS No. 4258490)

CNCL-526

[See Page CNCL-526 for full report](#)

PUBLIC WORKS AND TRANSPORTATION COMMITTEE
RECOMMENDATION

That the annual report titled, Report 2013: Achieving Goals Through Community Engagement be endorsed and made available to the community through the City's website and through various communication tools including social media channels and as part of community outreach initiatives.



Consent
Agenda
Item

21. **GRAYBAR ROAD DRAINAGE AND SANITARY MAIN REPLACEMENT**

(File Ref. No. 10-6000-01) (REDMS No. 4255539)

CNCL-587

[See Page CNCL-587 for full report](#)

PUBLIC WORKS AND TRANSPORTATION COMMITTEE
RECOMMENDATION

That funding of \$325,000 from the Sanitary Utility Reserve and \$275,000 from the Drainage Utility Reserve be included as an amendment to the 5 Year Financial Plan (2014-2018) to complete the Graybar Road Drainage and Sanitary Main Replacement Project.



Consent
Agenda
Item

22. **ELECTRIC VEHICLE PROMOTION AT COMMUNITY EVENTS**

(File Ref. No. 10-6000-01) (REDMS No. 4258974)

CNCL-591

[See Page CNCL-591 for full report](#)

PUBLIC WORKS AND TRANSPORTATION COMMITTEE
RECOMMENDATION

That the City's participation in the Emotive electric vehicle initiative, as described in the staff report titled Electric Vehicle Promotion at Community Events, dated June 16, 2014, from the Director, Engineering, be endorsed.



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Consent
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Item

23. **ALEXANDRA DISTRICT ENERGY UTILITY EXPANSION PHASE 3**
(File Ref. No. 10-6600-10-02/2014) (REDMS No. 4180584 v. 25)

CNCL-595

See Page CNCL-595 for full report

PUBLIC WORKS AND TRANSPORTATION COMMITTEE
RECOMMENDATION

That:

- (1) *the expansion of the Alexandra District Energy Utility include additional geexchange fields in the West Cambie Neighbourhood Park, with supplemental conventional energy systems for back up, as presented in the staff report titled Alexandra District Energy Utility Expansion Phase 3, dated July 3, 2014, from the Director, Engineering, be endorsed; and*
- (2) *capital submissions totalling \$12.3M for design, construction and commissioning of the ADEU Phase 3 be submitted for Council's consideration as part of the City's Five Year Financial Plan (2015-2019).*



Consent
Agenda
Item

24. **JAPANESE-CANADIAN FILM / MEDIA PROJECT**
(File Ref. No.)

CNCL-607

See Page CNCL-607 for full report

PARKS, RECREATION AND CULTURAL SERVICES COMMITTEE
RECOMMENDATION

That \$75,000 from the Council Provisional Account be allocated to fund the Japanese-Canadian Film / Media Project – Nikkei Stories of Steveston.



Consent
Agenda
Item

25. **CITY OF RICHMOND UTILITY BOX ART WRAP PROGRAM**
(File Ref. No. 11-7000-09-20-101) (REDMS No. 4271007)

CNCL-618

See Page CNCL-618 for full report

PARKS, RECREATION AND CULTURAL SERVICES COMMITTEE
RECOMMENDATION

That the opportunity to integrate public artwork on City of Richmond utility boxes, as outlined in the staff report titled City of Richmond Utility Box Art Wrap Program, dated July 2, 2014, from the Director, Arts, Culture and Heritage Services, be endorsed.



Consent
Agenda
Item

26. **CITY CENTRE COMMUNITY CENTRE – SERVICE LEVELS**
(File Ref. No. 11-7125-01) (REDMS No. 4276403)

CNCL-626

See Page CNCL-626 for full report

PARKS, RECREATION AND CULTURAL SERVICES COMMITTEE
RECOMMENDATION

That:

- (1) *the service levels associated with Option 1 for the City Centre Community Centre, as described in the attached Business Plan of the staff report titled City Centre Community Centre – Service Levels, dated July 3, 2014, from the Senior Manager, Recreation and Sport Services, be endorsed for consideration in the 2015 Operating Budget;*
- (2) *the material terms for an operating agreement, as described in the attached Business Plan of the staff report titled City Centre Community Centre – Service Levels, dated July 3, 2014, from the Senior Manager, Recreation and Sport Services, be negotiated with the City Centre Community Association and brought back to Council for approval in early 2015;*
- (3) *the Position Complement Controls for the six positions included in the OBI Option 1 for the City Centre Community Centre, as described in the attached Business Plan of the staff report titled City Centre Community Centre – Service Levels, dated July 3, 2014, from the Senior Manager, Recreation and Sport Services be endorsed for consideration in the 2015 Operating Budget; and*
- (4) *Lang Centre continue to operate as a community facility as part of the delivery of recreation services in City Centre.*



CONSIDERATION OF MATTERS REMOVED FROM THE
CONSENT AGENDA

NON-CONSENT AGENDA ITEMS

PLANNING COMMITTEE

Councillor Bill McNulty, Chair

27. **REFERRAL: WEST CAMBIE ALEXANDRA NEIGHBOURHOOD
BUSINESS OFFICE AREA REVIEW**

(File Ref. No. 08-4375-01) (REDMS No. 4242481)

CNCL-657

See Page CNCL-657 for full report

From June 17, 2014

PLANNING COMMITTEE RECOMMENDATION

Opposed: Cllrs. McNulty and Steves

- (1) *That Official Community Plan Bylaw 7100 and 9000, Amendment Bylaw 9121 to amend Schedule 2.11A in the 2041 Official Community Plan Bylaw 7100, to change the existing Business Office designation to Mixed Use (60% Employment: 40% Residential) designation, be introduced and given first reading;*
- (2) *That Official Community Plan Bylaw 7100 and 9000, Amendment Bylaw 9121, having been considered in conjunction with:*
 - (a) *the City's Financial Plan and Capital Program;*
 - (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 882(3)(a) of the Local Government Act;*
- (3) *That, in accordance with section 879 (2)(b) of the Local Government Act and OCP Bylaw Preparation Consultation Policy 5043, Official Community Plan Bylaw 7100 and 9000, Amendment Bylaw 9121, be referred to the following bodies for comment for the Public Hearing:*
 - (a) *the Vancouver International Airport Authority (VIAA) (Federal Government Agency), and*
 - (b) *the Board of Education of School District No. 38 (Richmond); and*
- (4) *That City staff be directed to consult with VIAA staff regarding the proposed recommendation, prior to the Public Hearing.*



PUBLIC DELEGATIONS ON NON-AGENDA ITEMS

28. *Motion to resolve into Committee of the Whole to hear delegations on non-agenda items.*

☐

- CNCL-716** (1) **Bonnie Morley**, Richmond resident, to speak on the removal of the Dover Park off-leash dog area.
- CNCL-717** (2) **Audra Harajda**, Richmond resident, to speak on the Dover Park off-leash dog area and solutions.
- CNCL-718** (3) **Emily Baptiste**, 5900 Dover Crescent, to speak on the Dover Park off-leash dog area and solutions.
- CNCL-719** (4) **Connie Ho** to speak on the Dover Park off-leash dog area.
- CNCL-720** (5) **Sylvia Chiu** to speak on the Dover Park off-leash dog area and solutions.
- CNCL-721** (6) **Paris Rosa** to speak on the Dover Park off-leash area and solutions.

29. *Motion to rise and report.*

☐

RATIFICATION OF COMMITTEE ACTION

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PUBLIC ANNOUNCEMENTS AND EVENTS

NEW BUSINESS

BYLAWS FOR ADOPTION

- CNCL-722** Alexandra District Energy Utility Bylaw No. 8641, Amendment **Bylaw No. 9160**
Opposed at 1st/2nd/3rd Readings – None.
- ☐
- CNCL-726** Richmond Official Community Plan Bylaw 7100, Amendment **Bylaw No. 8865**, and Richmond Zoning Bylaw No. 8500, Amendment **Bylaw No. 8864**
(4660, 4680, 4700, 4720, 4740 Garden City Road and 9040, 9060, 9080, 9180, 9200, 9260, 9280, 9320, 9340, 9360, 9400, 9420, 9440, 9480, 9500 Alexandra Road, RZ 10-528877)
Opposed at 1st Reading – Cllr. Steves.
Opposed at 2nd/3rd Readings – Cllrs. Au and Steves.
- CNCL-734** Richmond Official Community Plan Bylaw 9000, Amendment **Bylaw No. 8973**
(9440, 9480, 9500 Alexandra Road, RZ 10-528877)
Opposed at 1st Reading – Cllr. Steves.
Opposed at 2nd/3rd Readings – Cllrs. Au and Steves.
- ☐
- CNCL-735** Richmond Zoning Bylaw No. 8500, Amendment **Bylaw No. 8890**
(6471, 6491, and 6511 No. 2 Road, RZ 11-586782)
Opposed at 1st Reading – None.
Opposed at 2nd/3rd Readings – None.
- ☐
- CNCL-737** Richmond Zoning Bylaw No. 8500, Amendment **Bylaw No. 8972**
(9431, 9451, 9471 and 9491 Williams Road, RZ 11-586280)
Opposed at 1st Reading – None.
Opposed at 2nd/3rd Readings – None.
- ☐
- CNCL-739** Richmond Zoning Bylaw No. 8500, Amendment **Bylaw No. 9112**
(10820 No. 5 Road, ZT 14-656053)
Opposed at 1st Reading – None.
Opposed at 2nd/3rd Readings – None.
- ☐

DEVELOPMENT PERMIT PANEL

30. RECOMMENDATION

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

- CNCL-741** (1) *That the minutes of the Development Permit Panel meetings held on Wednesday, June 25, 2014 and Wednesday, July 16, 2014, and the Chair's reports for the Development Permit Panel meetings held on October 24, 2012, December 12, 2013, January 15, 2014, June 11, 2014, June 25, 2014, and February 12, 2014, be received for information; and*
- (2) *That the recommendations of the Panel to authorize the issuance of:*
- CNCL-778** (a) *a Development Permit (DP 12-600815) for the property at 8380 Lansdowne Road;*
- CNCL-781** (b) *a Development Permit (DP 12-617455) for the property at 6511 No. 2 Road (formerly 6471, 6491 and 6511 No. 2 Road);*
- CNCL-781** (c) *a Development Permit (DP 13-641796) for the property at 10820 No. 5 Road;*
- CNCL-781** (d) *a Development Permit (DP 13-650988) for the property at 4660, 4680, 4700, 4720, 4740 Garden City Road and 9040, 9060, 9080, 9180, 9200, 9260, 9280, 9320, 9340, 9360, 9400, 9420, 9440, 9480, 9500 Alexandra Road;*
- CNCL-789** (e) *a Development Permit (DP 13-630413) for the property at 9431, 9451, 9471 and 9491 Williams Road;*
- be endorsed, and the Permits so issued.*



ADJOURNMENT





**Regular Council Meeting for Public Hearings
Monday, July 21, 2014**

Place: Council Chambers
Richmond City Hall

Present: Mayor Malcolm D. Brodie
Councillor Chak Au
Councillor Linda Barnes
Councillor Derek Dang
Councillor Evelina Halsey-Brandt
Councillor Ken Johnston
Councillor Bill McNulty
Councillor Linda McPhail
Councillor Harold Steves

Michelle Jansson, Acting Corporate Officer

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

1. **RICHMOND ZONING BYLAW 8500, AMENDMENT BYLAW 8789
(RZ 10-552482)**
(Location: 3391, 3411, 3451 No. 4 Road and Lot B, NWD PLAN 14909;
Applicant: Tien Sher Land Investment Group Ltd.)

Applicant's Comments:

The applicant was available to respond to queries.

Written Submissions:

None.

Submissions from the floor:

None.

PH14/7-1

It was moved and seconded

***That Richmond Zoning Bylaw 8500, Amendment Bylaw 8789 be given
third reading.***

CARRIED



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2. RICHMOND ZONING BYLAW 8500, AMENDMENT BYLAW 9136 (RZ 13-649999)

(Location: 9580, 9600, 9620, 9626, 9660, 9680 Alexandra Road;
Applicant: Am-Pri Developments (2012) Ltd.)

Applicant's Comments:

The applicant was available to respond to queries.

Written Submissions:

None.

Submissions from the floor:

None.

PH14/7-2

It was moved and seconded

That Richmond Zoning Bylaw 8500, Amendment Bylaw 9136 be given second and third readings.

CARRIED

3. RICHMOND ZONING BYLAW 8500, AMENDMENT BYLAW 9138 (RZ 13-643436)

(Location: 3471 Chatham Street; Applicant: Cotter Architects Inc.)

Applicant's Comments:

With the aid of a PowerPoint presentation (attached to and forming part of these minutes as Schedule 1), Rob Whetter, ZGF Cotter Architects Inc., provided an overview of the proposed project and highlighted the following:

- since the initial rezoning application, the design has changed due to consultations with the Planning Committee, the Public Art Advisory Committee and the Heritage Commission;
- the revised plan is consistent with the Steveston Area Plan and the Sakamoto Guidelines;
- the on-site parking exceeds the minimum requirement for this residential and commercial site;
- the site will be upgraded to include new curbs, sidewalks, a boulevard, street trees and a new water main;
- the proposed development is in keeping with the existing form and character of the neighbourhood;



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- due to privacy concerns, the west facing balconies have been reduced;
- the proposed development is designed for senior citizens and therefore, an elevator will be installed to make the building fully accessible;
- the roof deck will be setback, in order to ensure privacy for neighbouring residents; and
- the art panels previously displayed on the former G&F Financial building will be incorporated into the design of the proposed new development.

In response to a query from Council, Mr. Whetter stated that Cotter Architects Inc. is working with staff to determine the best location for the proposed elevator.

Written Submissions:

- (a) Brent Greig, 3646 Garry Street (Schedule 2)
- (b) Ed Katai, 11211 2nd Avenue (Schedule 3)
- (c) George and Nadyne Montgomery, 4171 Tucker Avenue (Schedule 4)
- (d) Brian and Wendy Oseki, 11220 7th Avenue (Schedule 5)
- (e) Kyle Samules, 3688 Chatham Street (Schedule 6)
- (f) Krish Dass, 3688 Chatham Street (Schedule 7)
- (g) Greg Antonyk, 3688 Chatham Street (Schedule 8)
- (h) Andy Stokes, 3688 Chatham Street (Schedule 9)
- (i) Stephen Pink, 3688 Chatham Street (Schedule 10)
- (j) Brian R. Purcell, 2-11991 5th Avenue (Schedule 11)
- (k) Gary and Deborah Harris, 8400 Seafair Drive (Schedule 12)
- (l) Garry and Rosa Guy, 16248 Lincoln Woods Court, Surrey (Schedule 13)
- (m) Rocky, Address not provided (Schedule 14)
- (n) Kathleen Beaumont, 6415 London Road (Schedule 15)
- (o) E.E. Straforelli, 11995 4th Avenue (Schedule 16)



Regular Council meeting for Public Hearings Monday, July 21, 2014

Submissions from the floor:

Stephen Pink, 3688 Chatham Street, spoke in favour of the proposed development and stated that he believed that Steveston needs more professional retail space.

Kathleen Beaumont, 6415 London Road, spoke in support of the proposed development; however, she expressed concern with regard to the lack of setbacks in Steveston rezoning projects.

[REDACTED] spoke in favour of the proposed project as [REDACTED] was of the opinion that growth and change are necessary, and [REDACTED] was pleased to see that shadow line diagrams were included in the proposal.

Erin Hodder, 11931 3rd Avenue, spoke in support of the proposed development as she believed it will be a welcome addition to the Steveston community.

Janie Slye, 11911 3rd Avenue, spoke in favour of the proposed development as she was pleased to see a new development on the subject project, which will include the iconic art panels from the former G&F Financial.

Ken Yoshikawa, 3571 Richmond Street, spoke in support of the proposed development as he believed it will add high quality commercial and residential space.

Emily Deboer, 10351 Springhill Crescent, spoke in favour of the proposed development and was of the opinion that the building will provide much needed accessibility, particularly for seniors. Also, she wished to see the elevator provide access to all floors of the building, including the rooftop.

Sam Virani, 3451 Springfield Drive, spoke in support of the proposed development.

Edith Turner, 3411 Chatham Street, read from her submission (attached to and forming part of these Minutes as Schedule 17). Ms. Turner was of the opinion that the proposed development is too large for the lot size; and does not compliment the character of the neighbourhood. Also, she expressed concern with regard to the proposed setbacks, noting they should be increased.

Ralph Turner, 3411 Chatham Street, read from his submission (attached to and forming part of these Minutes as Schedule 18). Mr. Turner spoke in opposition to the proposed development, as he was of the opinion that the proposed building was too high and too dense for this area. He believed that this proposed development does not fit into the character of the neighbourhood.



**Regular Council meeting for Public Hearings
Monday, July 21, 2014**

PH14/7-3

Loren Slye, 11911 3rd Avenue, spoke in favour of the proposed development as he believed that it will add to the character of Steveston.

It was moved and seconded

That Richmond Zoning Bylaw 8500, Amendment Bylaw 9138 be given second and third readings.

The question on Resolution PH14/7-3 was not called as discussion ensued regarding the need to strengthen the Sakamoto Guidelines and how the proposed development meets the City's standards.

The question on Resolution PH 14/7-3 was then called and it was **CARRIED.**

**4. RICHMOND ZONING BYLAW 8500, AMENDMENT BYLAW 9157
(RZ 13-650616)**

(Location: 5280/5300 Moncton Street; Applicant: Barbara Stylianou)

Applicant's Comments:

The applicant was available to respond to queries.

Written Submissions:

None.

Submissions from the floor:

None.

PH14/7-4

It was moved and seconded

That Richmond Zoning Bylaw 8500, Amendment Bylaw 9157 be given second and third readings.

CARRIED



**Regular Council meeting for Public Hearings
Monday, July 21, 2014**

ADJOURNMENT

PH14/7-5

It was moved and seconded

That the meeting adjourn (8:01 p.m.).

CARRIED

Certified a true and correct copy of the
Minutes of the Regular meeting for Public
Hearings of the City of Richmond held on
Monday, July 21, 2014.

Mayor (Malcolm D. Brodie)

Acting Corporate Officer
(Michelle Jansson)

Schedule 1 to the Minutes of
the Council Meeting for
Public Hearings held on
Monday, July 21, 2014.

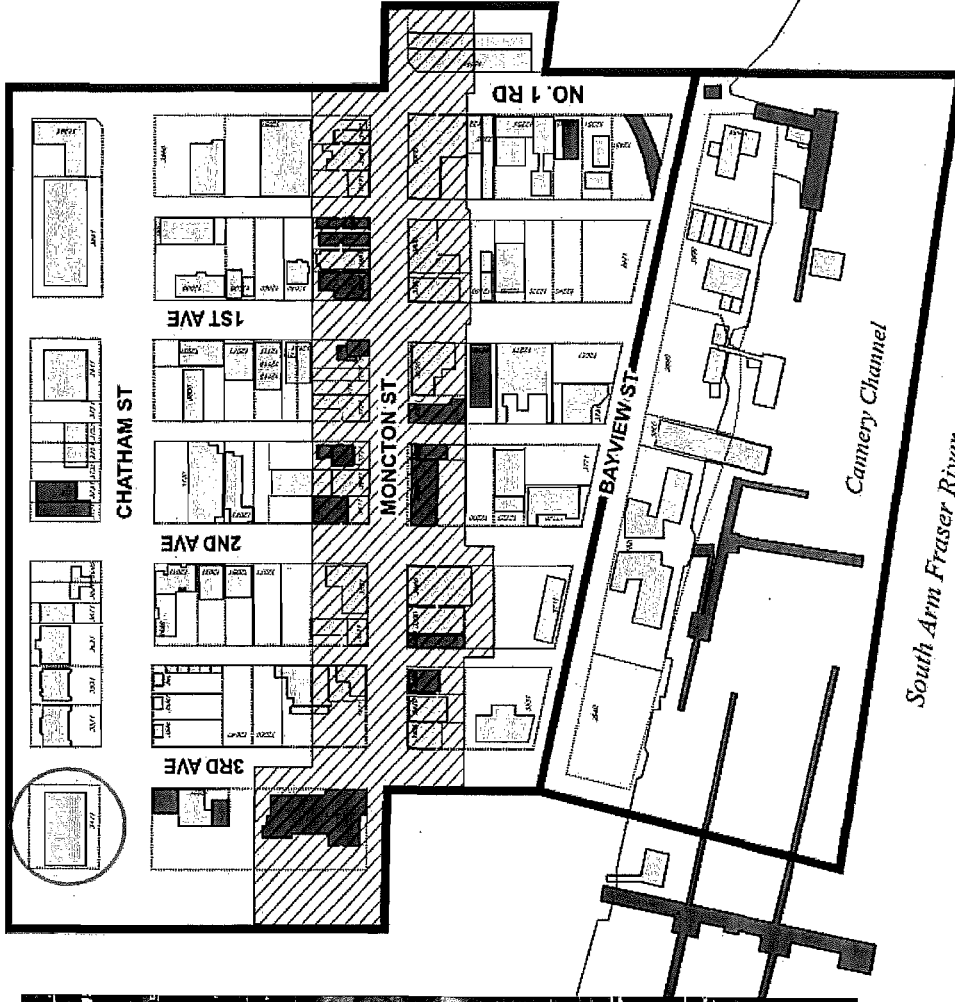


CNCL - 23

ZGF
COTTER
and COTTER ARCHITECTS, INC.

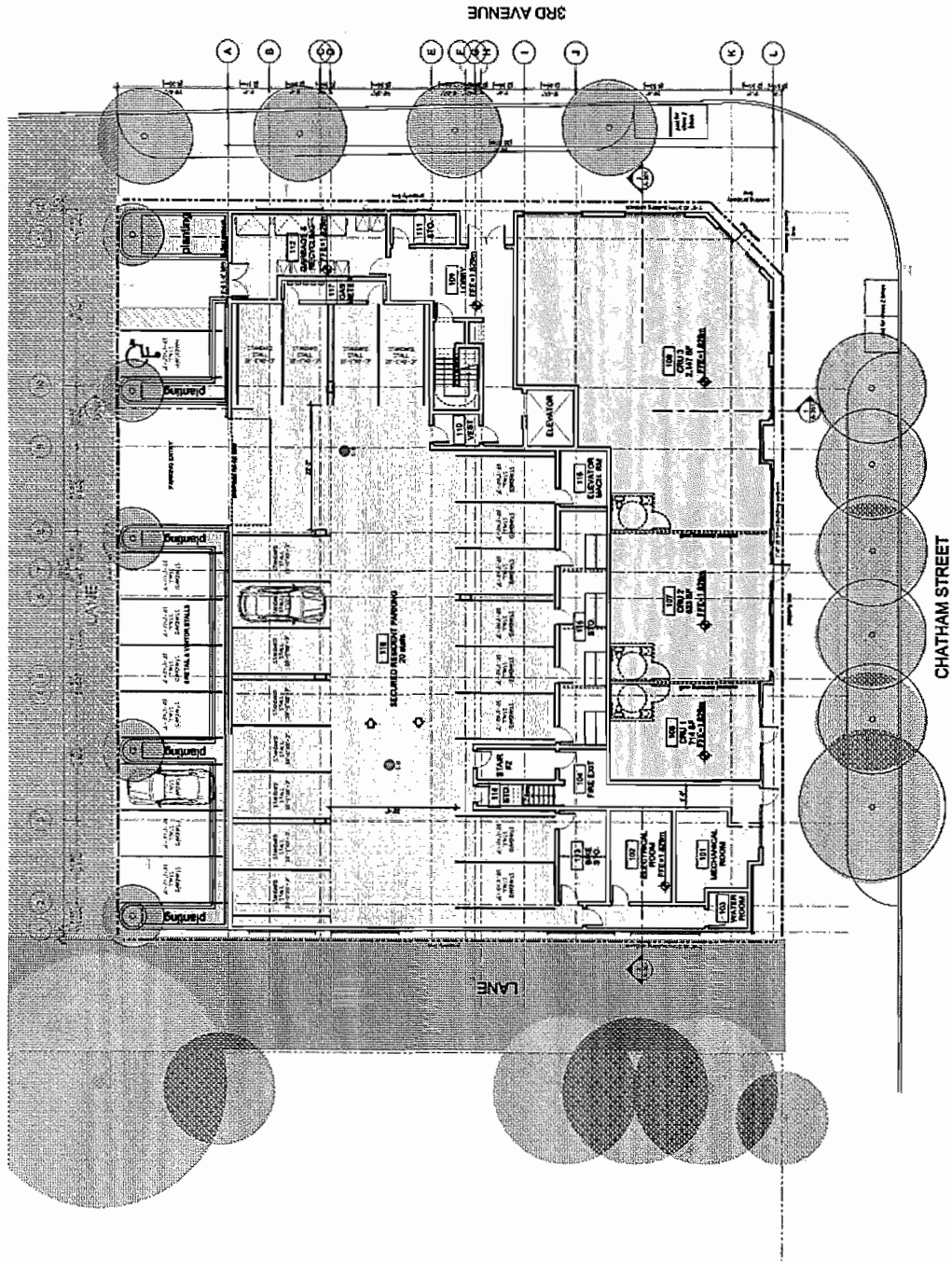
REZONING APPLICATION

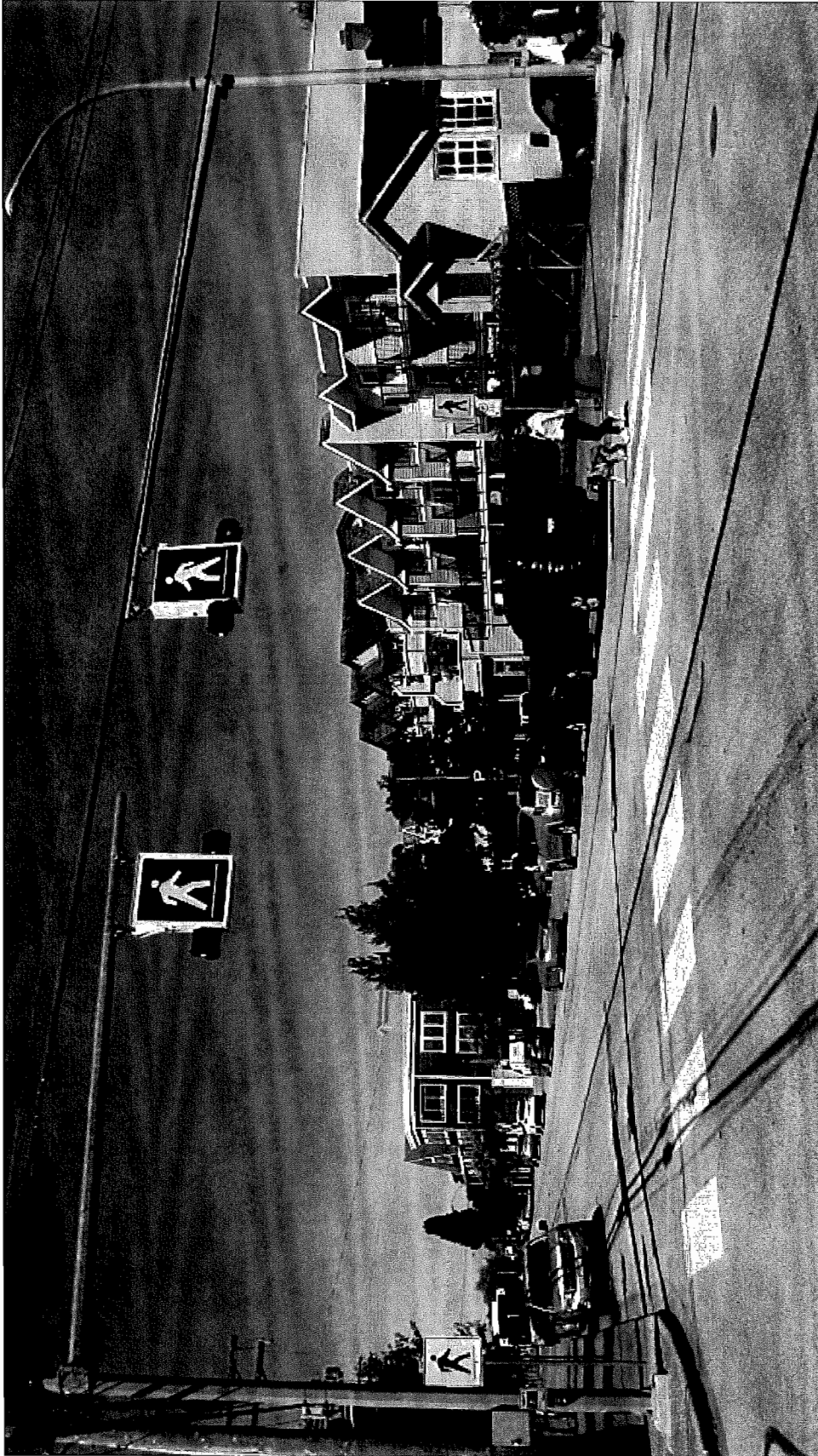
3471 Chatham St. | Public Hearing | July 21, 2014





MCKINNEY HOUSE,
HEPWORTH BLOCK,
LONDON FARM,
ORIGINAL BARN,
STEVESTON MUSEUM
(CLOCKWISE FROM TOP LEFT)



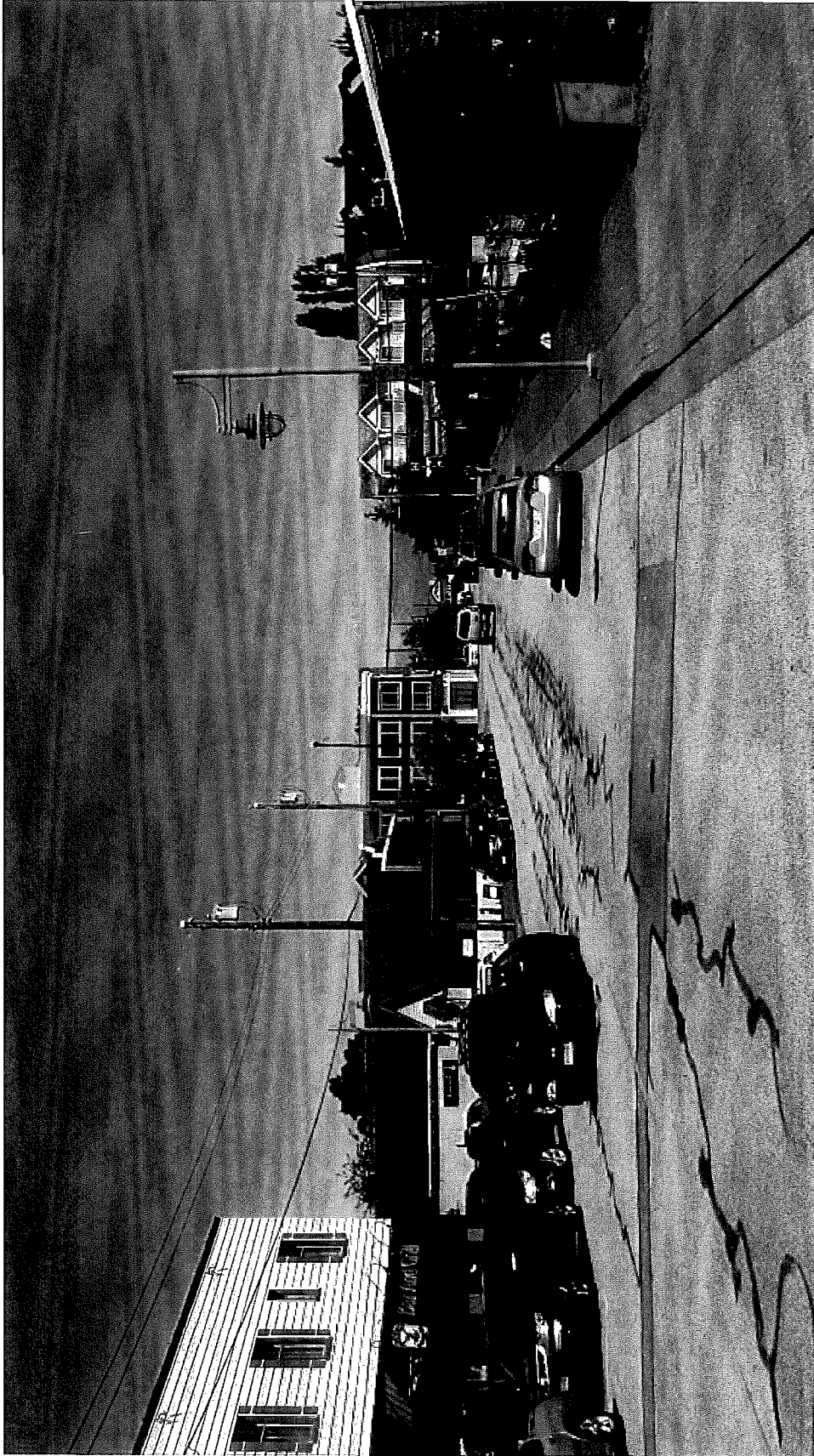


CNCL - 27

ZGF
COTTER
EST. 2011 ARCHITECT, INC.

STREET PERSPECTIVE

3471 Chatham St. | Public Hearing | July 21, 2014

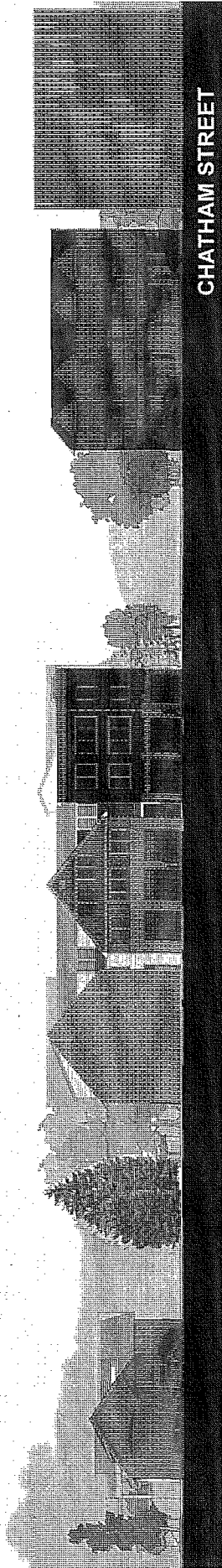


CNCL - 28

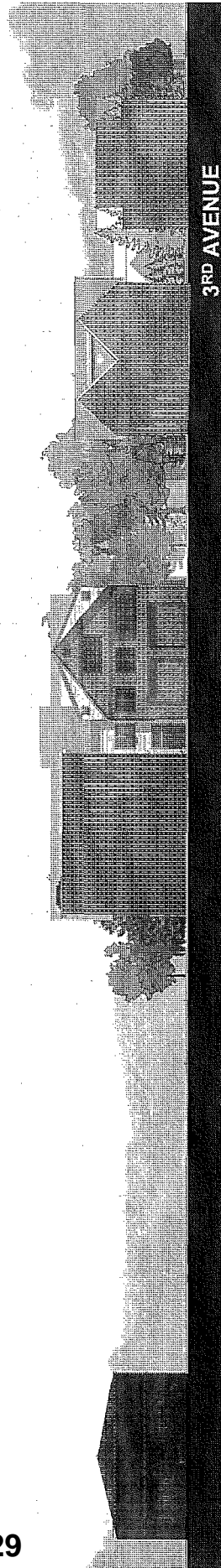
ZGF
COTTER
and
COTTER ASSOCIATES, INC.

STREET PERSPECTIVE

3471 Chatham St. | Public Hearing | July 21, 2014



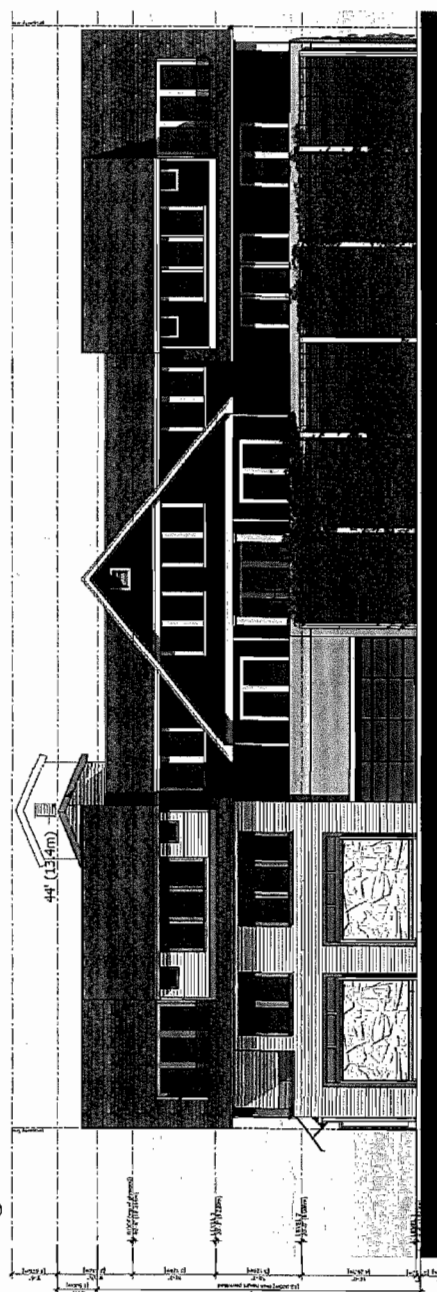
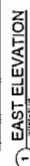
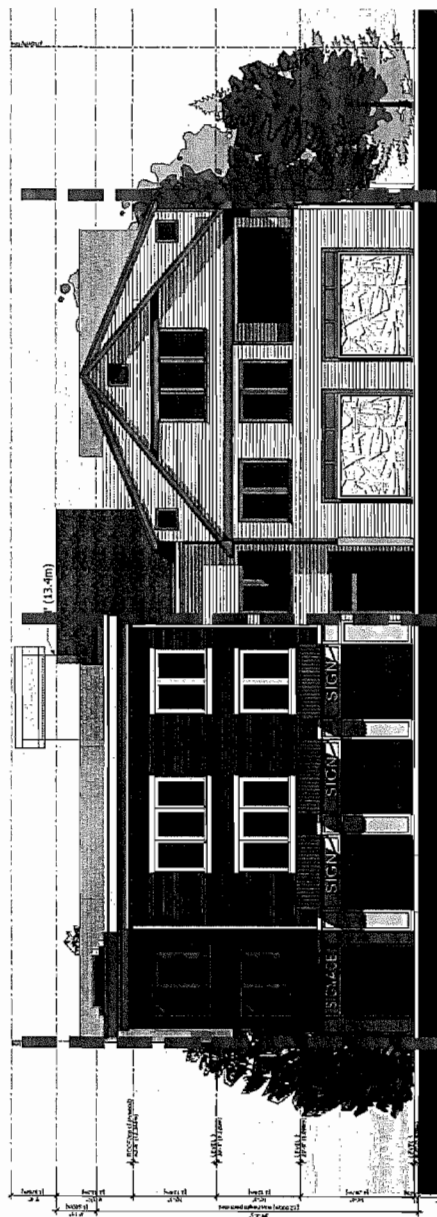
CNCL - 29



ZGF
COTTER
OF COTTER & ASSOCIATES, INC.

STREETSCAPE ELEVATIONS

3471 Chatham St. | Public Hearing | July 21, 2014



Case no.	Case name	Year	Age	Gender	Site	Occupation	Exposure	Outcome
1	Case 1	1998	45	Male	Urban	Farmer	High	Death
2	Case 2	1999	52	Female	Rural	Homemaker	Low	Survived
3	Case 3	2000	38	Male	Urban	Teacher	Medium	Death
4	Case 4	2001	60	Female	Rural	Homemaker	Low	Survived
5	Case 5	2002	42	Male	Urban	Farmer	High	Death
6	Case 6	2003	55	Female	Rural	Homemaker	Low	Survived
7	Case 7	2004	35	Male	Urban	Teacher	Medium	Death
8	Case 8	2005	48	Female	Rural	Homemaker	Low	Survived
9	Case 9	2006	50	Male	Urban	Farmer	High	Death
10	Case 10	2007	40	Female	Rural	Homemaker	Low	Survived
11	Case 11	2008	58	Male	Urban	Teacher	Medium	Death
12	Case 12	2009	45	Female	Rural	Homemaker	Low	Survived
13	Case 13	2010	30	Male	Urban	Farmer	High	Death
14	Case 14	2011	65	Female	Rural	Homemaker	Low	Survived
15	Case 15	2012	40	Male	Urban	Teacher	Medium	Death
16	Case 16	2013	55	Female	Rural	Homemaker	Low	Survived
17	Case 17	2014	35	Male	Urban	Farmer	High	Death
18	Case 18	2015	48	Female	Rural	Homemaker	Low	Survived
19	Case 19	2016	50	Male	Urban	Teacher	Medium	Death
20	Case 20	2017	40	Female	Rural	Homemaker	Low	Survived

cotton
ARCHITECTS

CHATHAM & 3RD
RESIDENTIAL/COMMERCIAL
MIXED USE DEVELOPMENT

Investment Flats Development Corporation

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ADDITIONAL INFORMATION: The following information is provided for your information only. It is not intended to be used as a basis for a decision to award or deny a contract. The information is provided for your information only.

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NORTH ELEVATION
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EAST ELEVATION

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PLATE

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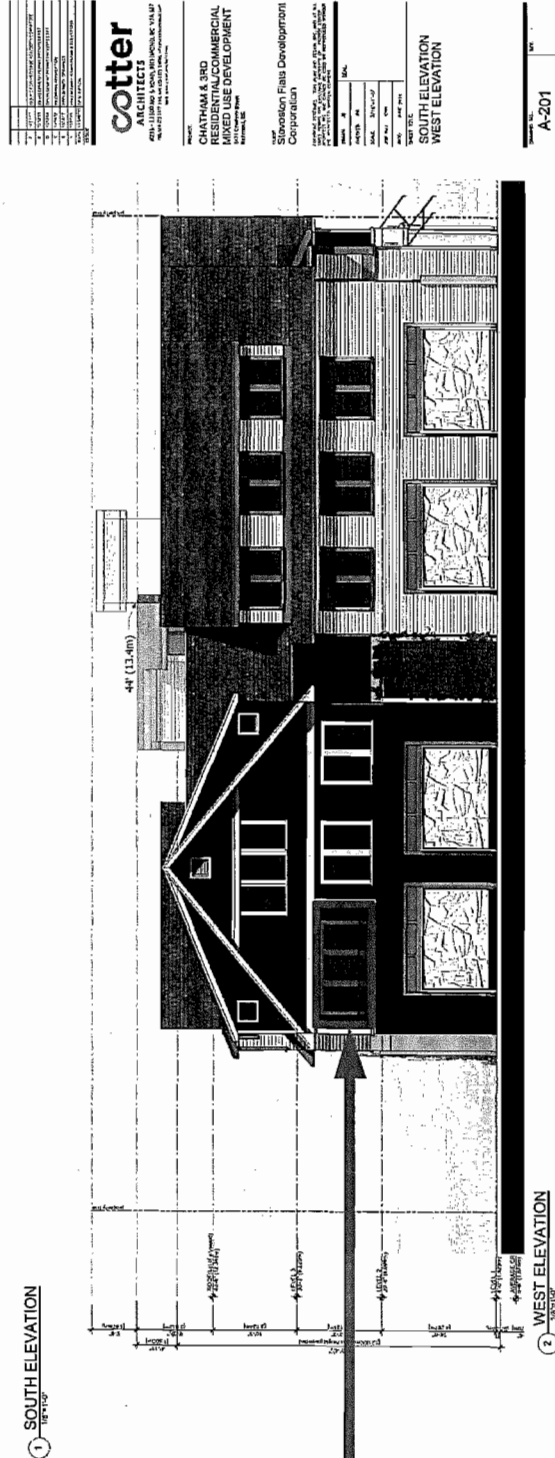
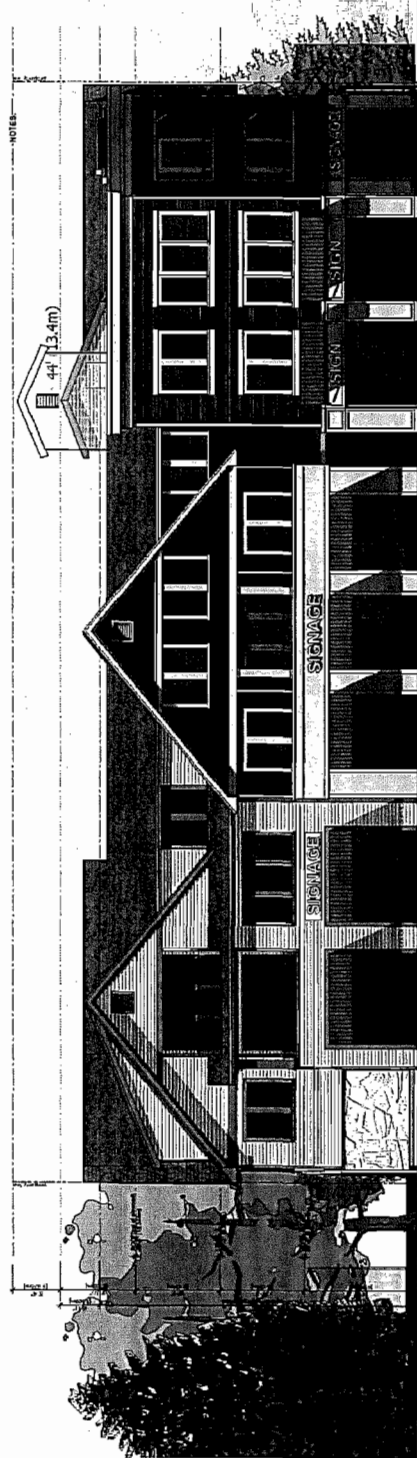
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EAST & NORTH ELEVATIONS

3471 Chatham St. | Public Hearing | July 21, 2014

ZGF
COTTER
ZGF COTTER ARCHITECTS, INC.

SHILK
SOFTWARE ARCHITECTURE INC.



Universal Housing Features:

1. Door & hallway clearances
2. Accessible windows, outlets & switches
3. Wheelchair accessible bathrooms & kitchens
4. Maneuvering space in bedrooms and closets
5. Accessible balconies
6. Building entry, circulation and amenity space accessibility

Figure 6. Clear Floor Area at Tub (Refer #720, Sep 5/12)

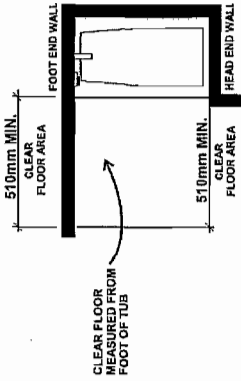


Figure 2. Front Approach, Pull Side (Refer #725, Sep 5/12)

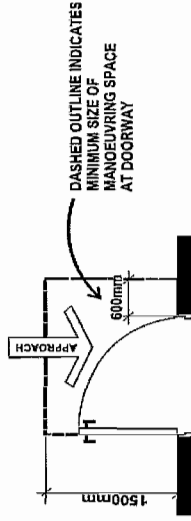


Figure 3. Front Approach, Push Side (Refer #724, Sep 5/12)

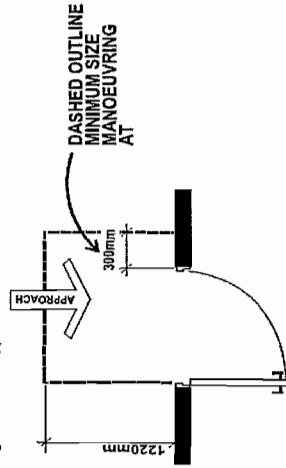


Figure 4. Separation of Doors in Series

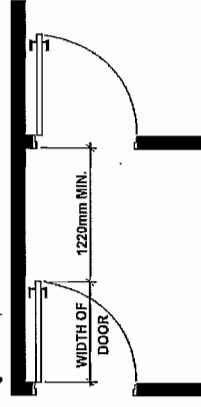
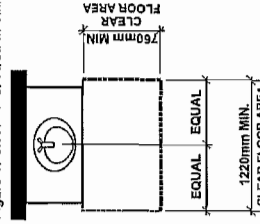
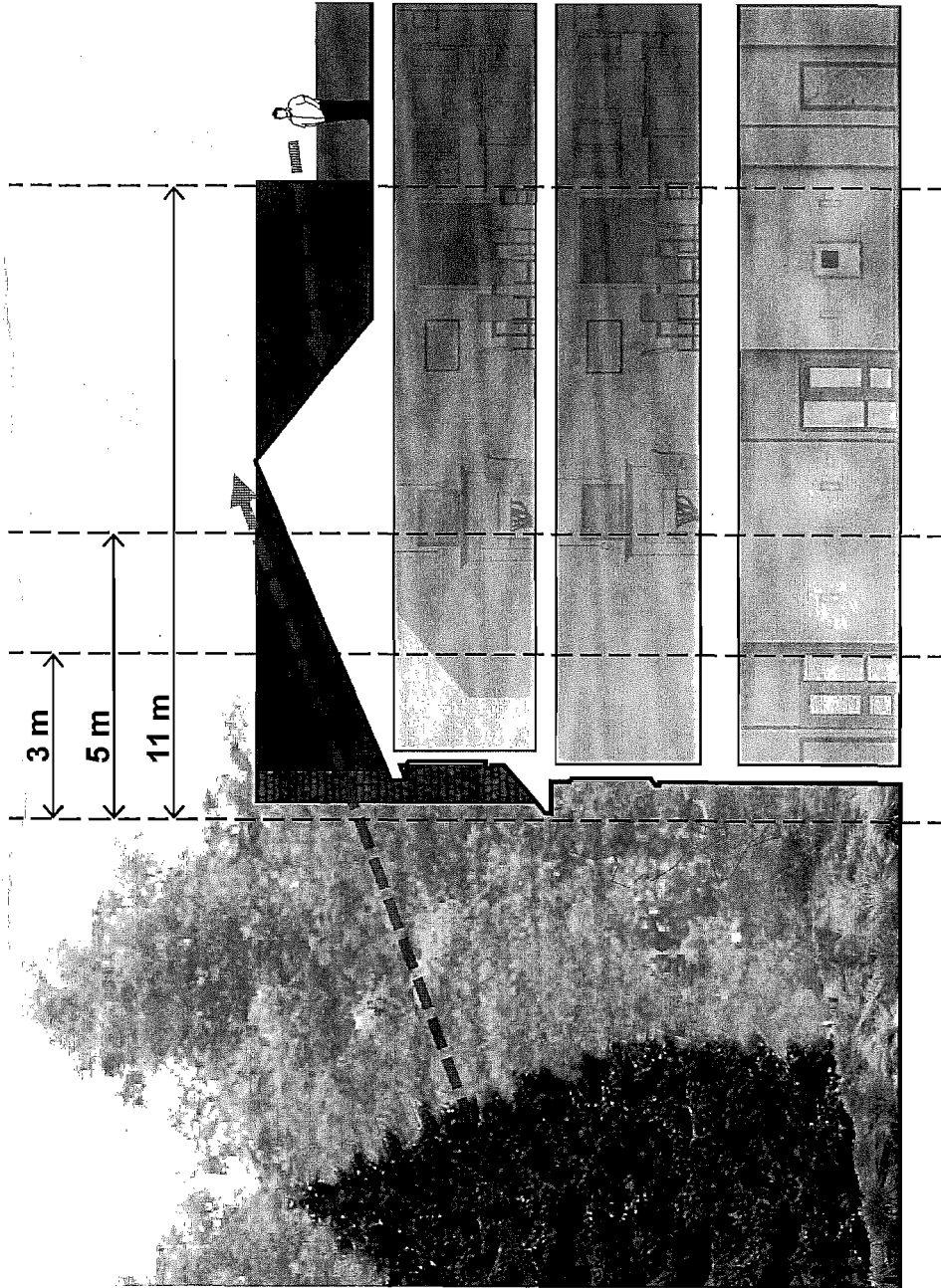


Figure 1. Clear Opening Measurement For Doors



Figure 5. Clear Floor Area at Sink



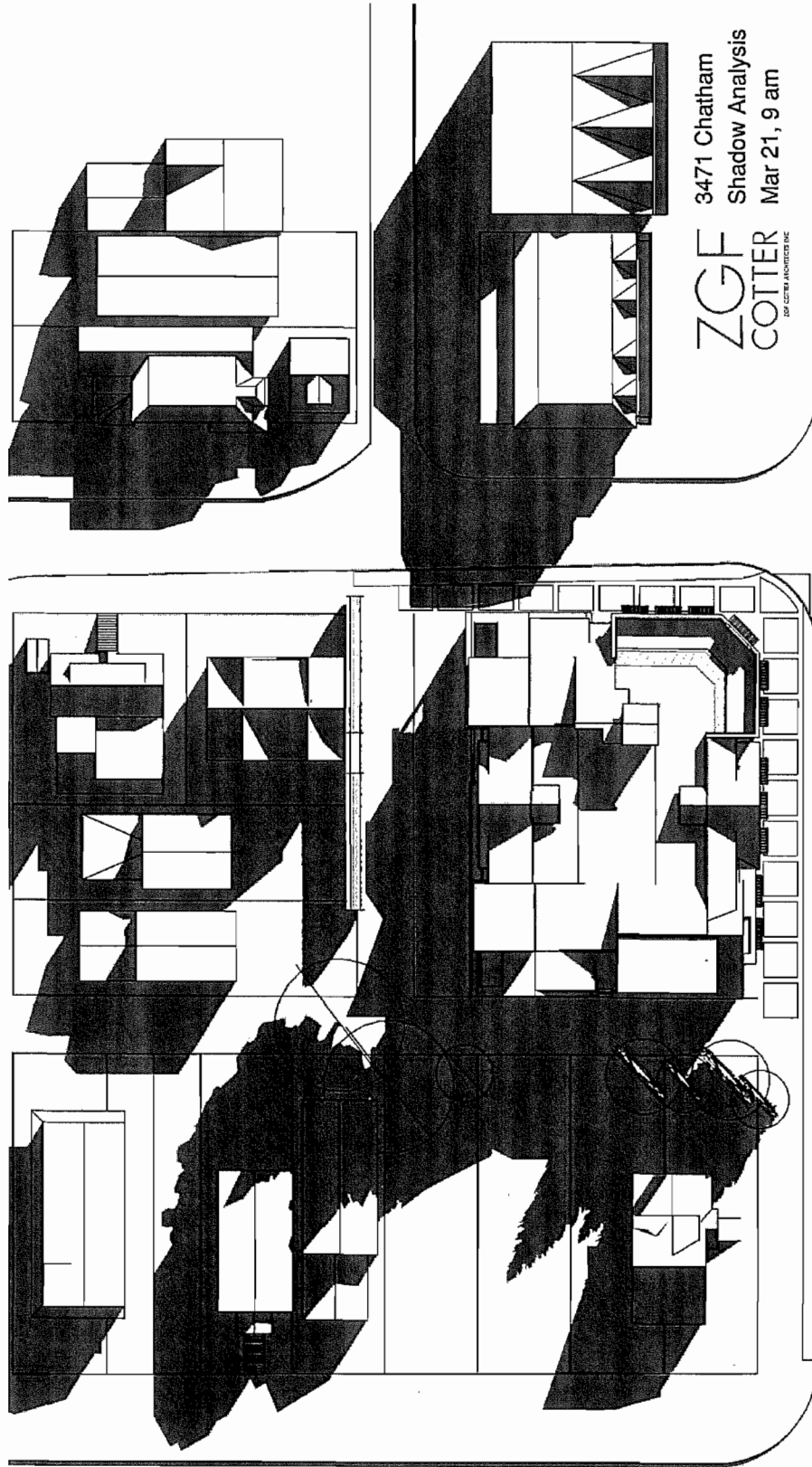




ZGF
COTTER
and KOTLYAR ARCHITECTS INC.

STREET VIEW

3471 Chatham St. | Public Hearing | July 21, 2014

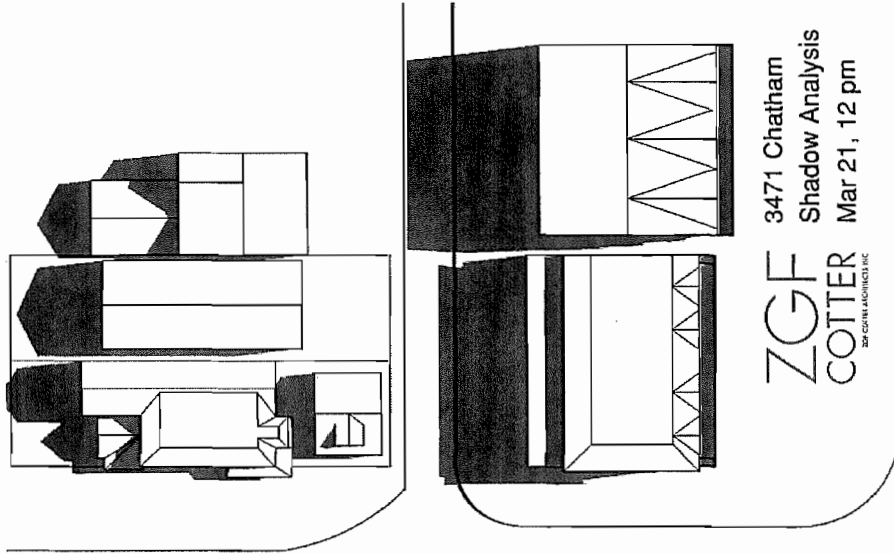


CNCL - 36

ZGF
COTTER
204 COTTER ARCHITECTS INC.

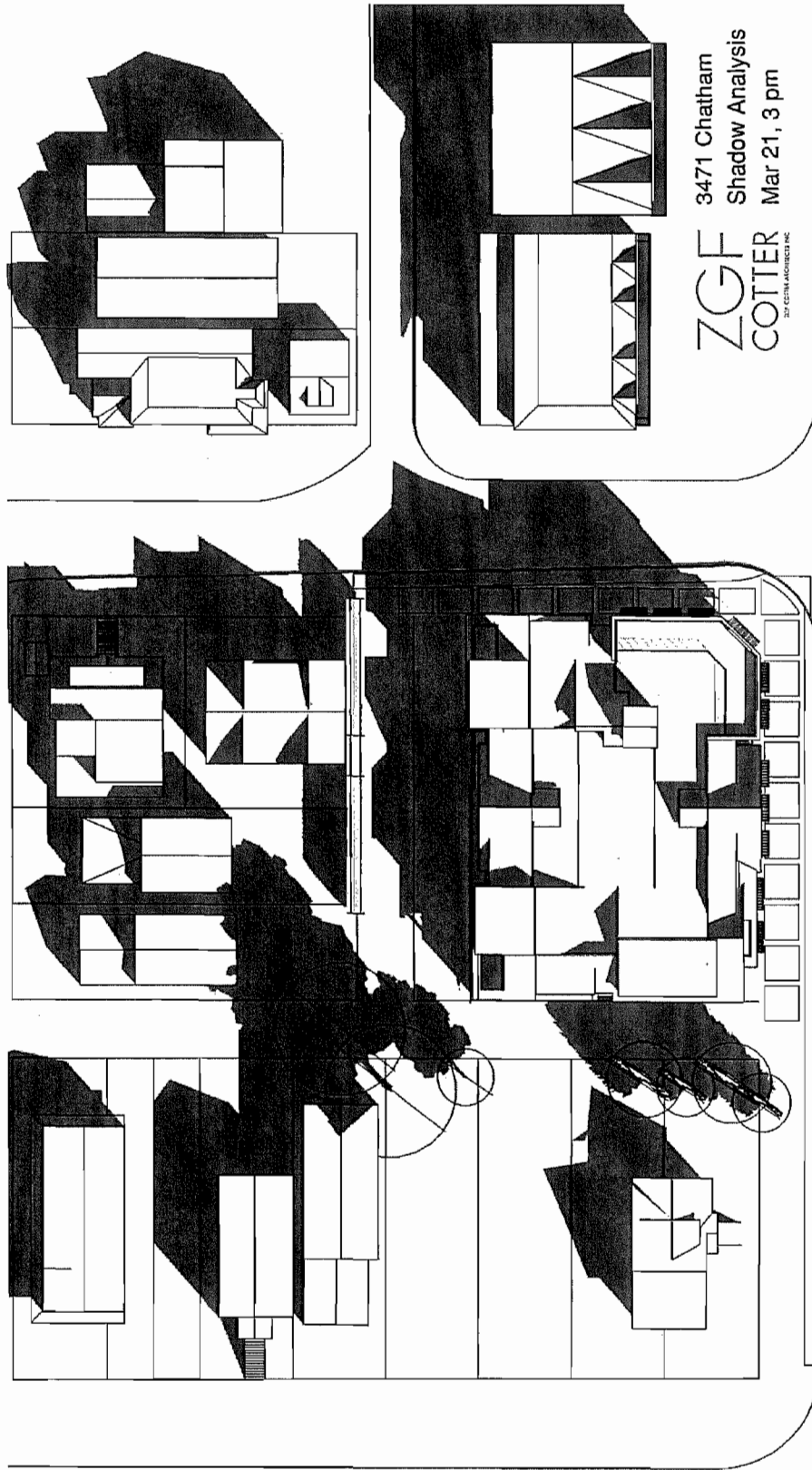
SHADOW STUDY

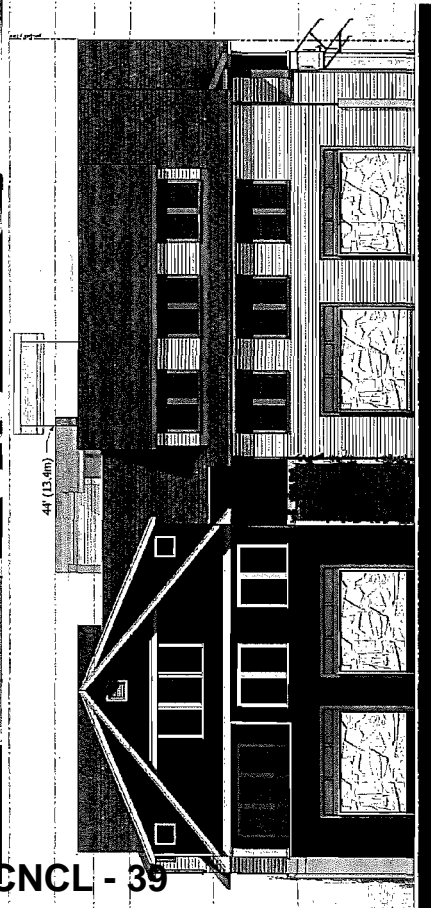
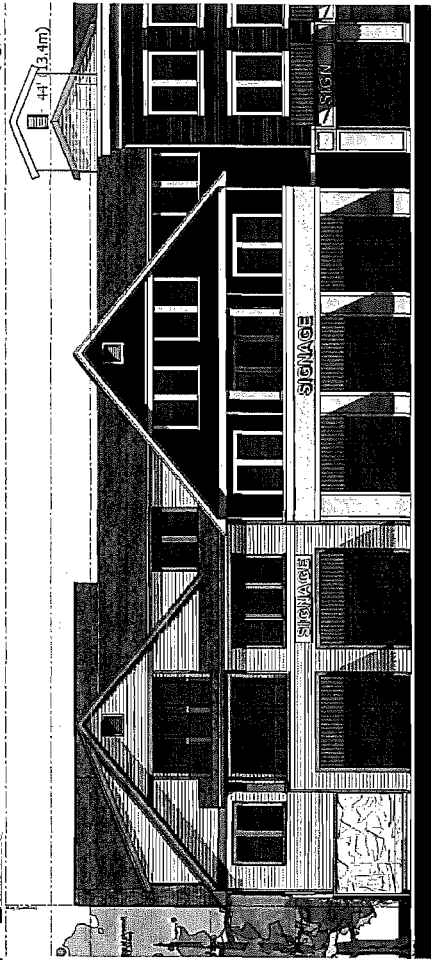
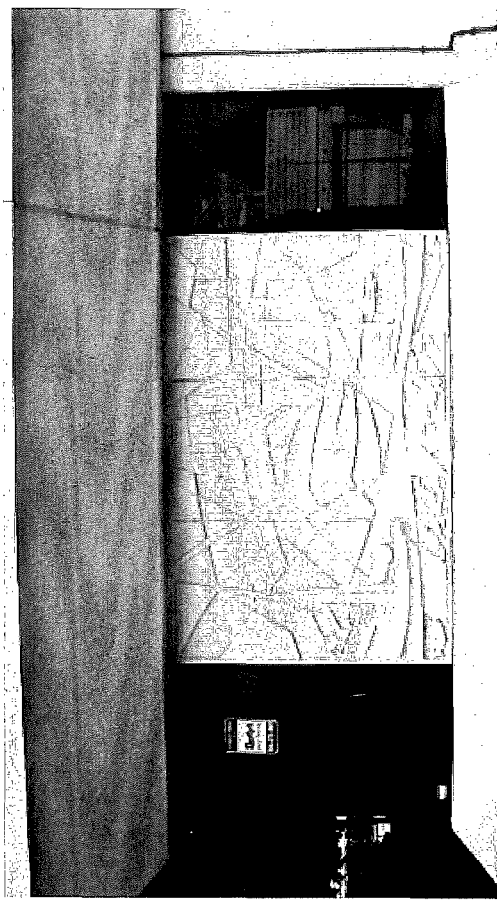
3471 Chatham St. | Public Hearing | July 21, 2014



3471 Chatham
Shadow Analysis
Mar 21, 12 pm

ZGF
COTTER
300 COTTER ARCHITECTS, INC.



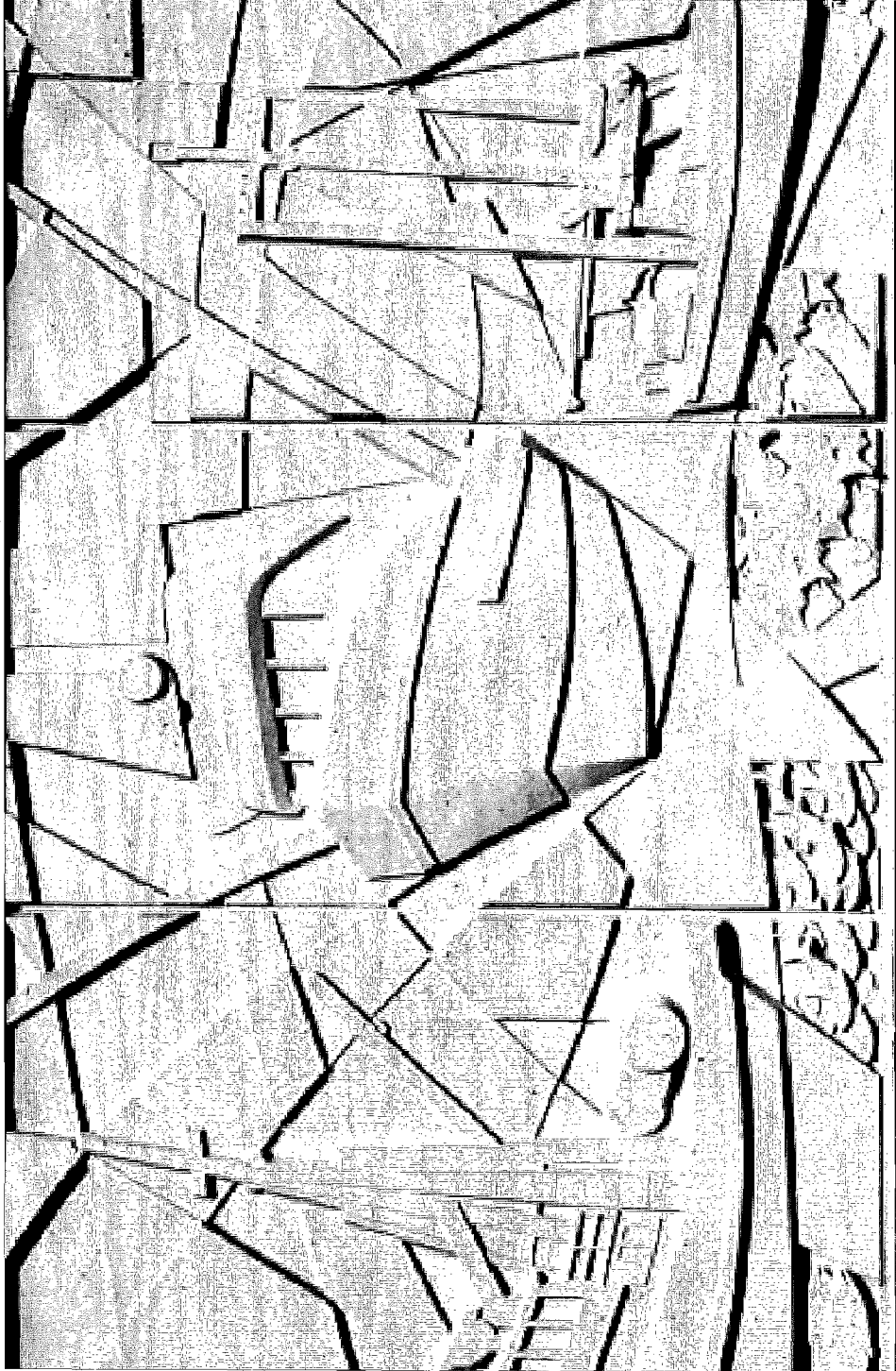


CNCL - 39

ZGFC
COTTER
ARCHITECTURE INC.

SCULPTURAL PANEL REUSE

3471 Chatham St. | Public Hearing | July 21, 2014



CNCL - 40

ZGF
COTTER
201 COTTER ARCHITECTS INC.

BAS-RELIEF PANEL DETAIL

3471 Chatham St. | Public Hearing | July 21, 2014

thank you

Schedule 2 to the Minutes of
the Council Meeting for
Public Hearings held on
Monday, July 21, 2014.

G/ASS (1966) LTD.

To Public Hearing
Date: <u>JULY 21 2014</u>
Item # <u>3</u>
Re: <u>Bylaw 9138</u>
<u>RZ 13-643436</u>

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	DW	
✓	MJ	
	DB	

July 9, 2014

8060-20-9138

To: City Council
6911 No 3 Rd
Richmond BC V6Y 2C1

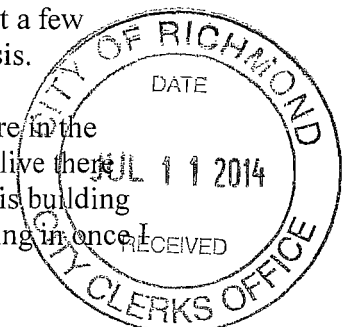
Re: RZ13-643436

I am writing today in support of the proposed residential commercial development at 3471 Chatham Street. As I am owner of an established business that has been doing work in Richmond for over 60 years I am excited to see, what I know from past experience with dealing with the builder on this project, Reiner Siperko, will be a truly unique top quality addition to the Steveston neighbourhood. And, as a resident of Steveston for the past 35 years, I see this as a necessary evolution in our neighbourhood.

I have been working with Reiner for over 30 years on many projects. His projects are not only top quality in terms of materials used but also in design. He has a great eye for detail and I think that one of his greatest gifts is that besides building a unique and quality project, he also ensures that they fit well within the neighbourhoods that they are built in. I believe that this new project in Steveston will set a new benchmark for future projects that I think are inevitable and necessary in our Community and my neighbourhood.

I have lived in Richmond all my life and in Steveston for the past 35 years. I am in fact, about 3 blocks away from this proposed development. When I first moved into Steveston, it was at the time where there was much debate about densifying Steveston by allowing the existing 66 foot lots to be rezoned to 33 foot lots. I think that decision to allow that rezoning made Steveston into the wonderful neighbourhood that it is today. By allowing this densification, it allowed more people to live in this neighbourhood and because of that local businesses were encouraged to move there and set up shop. In turn the City made some wonderful additions and redesign of the waterfront that made Steveston the jewel of the Community that it is today. Today I can get everything I need just a few steps from my door and I love strolling the vibrant waterfront on a regular basis.

Steveston has become a desirable place to live and I cannot think of any where in the Lower Mainland that I would like to live more. It is my desire to continue to live there once I retire and I don't believe that I am alone in this desire. The fact that this building has basic universal housing features makes it a viable place to think about living in once I



do retire. We need more project like this in Steveston that gives residents like myself, who love our community, to remain there as we grow older.

Thank you for your time for reading this letter. I believe that this proposed development will be a great addition to our neighbourhood and to our Community. I have seen Steveston grow into not only a desirable neighbourhood to live in but one that if managed properly will continue to be one of the best places in the Lower Mainland to live in. By building a successful neighbourhood it is not hard to understand why more residents want to stay there and more people want to be part of it. I believe this development will help maintain the integrity of our community by complimenting the existing buildings in the neighbourhood and at the same time allow people of all abilities to live in or continue to live in Steveston.

I can be reached at 604-618-3344 if you have any questions.

Regards,



Brent Greig
3646 Garry St
Owner- Island Glass

**Schedule 3 to the Minutes of
the Council Meeting for
Public Hearings held on
Monday, July 21, 2014.**

Mayor and Council
City of Richmond
6911 No. 3 Road
Richmond, B.C. V6Y 2C1

To Public Hearing	
Date:	<u>July 21 2014</u>
Item #	<u>3</u>
Re:	<u>B411111 9138</u>
	<u>RZ 13-643436</u>

	DW	
	MJ	
	DB	
	HB	

12-860-20-009138

Re: 3471 Chatham Street, RZ 13-643436

Attn: City Clerk

I am writing on behalf of myself and my wife Kay Katai. We were both raised in Steveston, work took us away for 45 years and we have now returned to Steveston to enjoy our retirement.

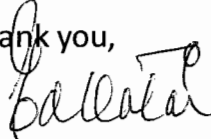
We are in support of the proposed development at 3471 Chatham Street because of the amenities afforded in the suites, especially for seniors, and the proximity to the Steveston Village.

We heard about this project more than one year ago and look forward to its completion. We are considering a move from our two level house on 2nd Ave, with all its bedrooms upstairs, to this new building, which is all on one level with elevator and wheelchair access.

The location of the proposed development provides easy walking access to services and amenities such as the grocery store, the bank, the post office, fresh seafood at the wharf, and the many restaurants in the Village.

Fitness and activities are important in our everyday lives. Steveston Community Centre offers many exercise programs and Garry Point is a great place for walking. Both of these venues are within 4 blocks of the proposed development.

In closing, with the growing population of seniors, the Village needs more of these types of housing.

Thank you,


Ed Katai
11211 2nd Ave. Steveston



Schedule 4 to the Minutes of
the Council Meeting for
Public Hearings held on
Monday, July 21, 2014.

To Public Hearing	
Date:	JULY 21, 2014
Item #	3
Re:	BALW 9138
George and Nadyne Montgomery RZ13-643436	

		INT
DW		
MJ		
DB		

George and Nadyne Montgomery RZ13-643436

4171 Tucker Avenue

Richmond, B.C. V7C 1L9

8060-20-9138

July 9, 2014

Richmond City Council,

City of Richmond,

6911 No. 3 Road

Richmond, B.C. V6Y 2C1

Dear Council Members,

Regarding: 3471 Chatham Street, RZ13-643436

As a long time Richmond residents I would like to notify you of my wife Nadyne and my support for this project. We are considering purchasing a unit in this building when completed so we have had numerous discussions with the developers. We understand the building will be constructed of the highest quality in both workmanship and materials. It also will be an energy efficient building which is very important to us as well as features such as wheelchair access in all units.

The developers apparently have made several re-design changes after consulting with City Committees, City Councillors and neighbors of the project. From what we have heard and seen we feel this will be a wonderful addition to the fabric of Steveston. We currently drive to the Village to

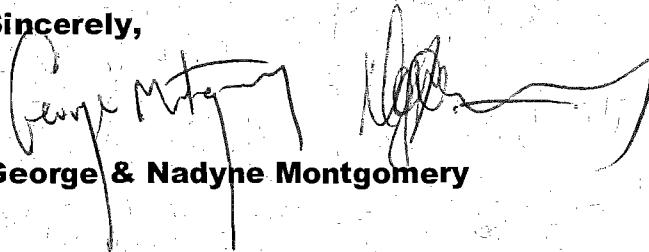
CNCL - 45



access all amenities and look forward to being able to walk the businesses and restaurants we frequent.

We look forward to seeing this project completed and feel it will be very beneficial to the businesses and neighborhood of Steveston.

Sincerely,

Handwritten signatures of George and Nadyne Montgomery. The signature on the left is 'George Montgomery' and the signature on the right is 'Nadyne Montgomery'.

George & Nadyne Montgomery

**Schedule 5 to the Minutes of
the Council Meeting for
Public Hearings held on
Monday, July 21, 2014.**

Mayor and Council
City of Richmond
6911 No. 3 Road,
Richmond, B.C.
V6Y 2C1

To Public Hearing	
Date:	<u>JULY 21 2014</u>
Item #	<u>3</u>
Re:	<u>Bikun 9138</u>
	<u>RZ B-643436</u>

		INT
	DW	
	MJ	
	DB	
	✓ HB	

12-860-2-009138

Attn: City Clerk

Re: 3471 Chatham Street, RZ 13-643436

My wife and I have lived in Steveston for 35 years and fully support the proposed development at 3471 Chatham Street. We will be retiring soon and hope to move into the new building. My wife's mother is living with us so the wheelchair accessible units will be perfect for our family to live out our lives.

We know there is some resistance to change in Steveston but the building will be of high quality both in workmanship and materials and will be a great addition to the revitalization of the Steveston Village.

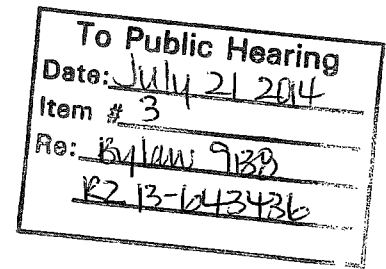
Thank you, *Brian Oseki & Wendy Ann*

Brian and Wendy Oseki
11220 7th Ave.
Richmond, B.C.
V7E 3B9

Brian Oseki & Wendy Ann



**Schedule 6 to the Minutes of
the Council Meeting for
Public Hearings held on
Monday, July 21, 2014.**



City of Richmond
6911 No.3 Road
Richmond, B.C. V6Y 2C1

Re: 3471 Chatham St. RZ 13-643436

To: City council
City of Richmond
6911 No. 3 Road
Richmond, B.C. V6Y 2C1
Attn: City Clerk

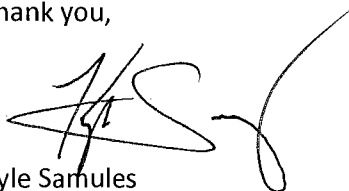
My name is Kyle Samuels of 3688 Chatham Street. I have worked in Steveston for 5 years and welcome new neighbours.

I give my full support to the project at 3471 Chatham Street, as I feel it will add to the new Steveston Revitalization in a positive way. Steveston needs more residential densification and high quality commercial space to support the existing retail/commercial entities. This new project, using the latest technology for energy efficient utilities, building all 10 units as (B.U.H.F) accessible units and supplying new high grade commercial and residential space to the Steveston Village, will be very good for people to work/live out their lives in this great community.

I think that there is a shortage of quality office space in Steveston. It seems to be a long and expensive process to get something built.

This situation increases costs to the small business person making it harder to get started and operate a business that can provide professional services to the community.

Thank you,



Kyle Samuels



**Schedule 7 to the Minutes of
the Council Meeting for
Public Hearings held on
Monday, July 21, 2014.**

To Public Hearing
Date: <u>JULY 21 2014</u>
Item # <u>3</u>
Re: <u>BURW 988</u>
<u>RZ 13-643436</u>

City of Richmond
6911 No.3 Road
Richmond, B.C. V6Y 2C1

Re: 3471 Chatham St. RZ 13-643436

To: City council
City of Richmond
6911 No. 3 Road
Richmond, B.C. V6Y 2C1
Attn: City Clerk

My name is Krish Dass of 3688 Chatham Street. I have worked in Steveston for 15 years and welcome new neighbours.

I give my full support to the project at 3471 Chatham Street, as I feel it will add to the new Steveston Revitalization in a positive way. Steveston needs more residential densification and high quality commercial space to support the existing retail/commercial entities. This new project, using the latest technology for energy efficient utilities, building all 10 units as (B.U.H.F) accessible units and supplying new high grade commercial and residential space to the Steveston Village, will be very good for people to work/live out their lives in this great community.

I think that there is a shortage of quality office space in Steveston. It seems to be a long and expensive process to get something built.

This situation increases costs to the small business person making it harder to get started and operate a business that can provide professional services to the community.

Thank you,


Krish Dass



**Schedule 8 to the Minutes of
the Council Meeting for
Public Hearings held on
Monday, July 21, 2014.**

To Public Hearing	
Date:	<u>July 21, 2014</u>
Item #	<u>3</u>
Re:	<u>Bylaw 988</u>
	<u>RZ 13-643436</u>

City of Richmond
6911 No.3 Road
Richmond, B.C. V6Y 2C1

Re: 3471 Chatham St. RZ 13-643436

To: City council
City of Richmond
6911 No. 3 Road
Richmond, B.C. V6Y 2C1
Attn: City Clerk

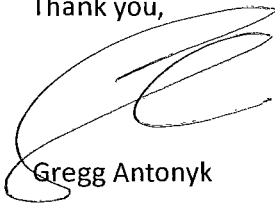
My name is Gregg Antonyk of 3688 Chatham Street. I have worked in Steveston for 20 years and welcome new neighbours.

I give my full support to the project at 3471 Chatham Street, as I feel it will add to the new Steveston Revitalization in a positive way. Steveston needs more residential densification and high quality commercial space to support the existing retail/commercial entities. This new project, using the latest technology for energy efficient utilities, building all 10 units as (B.U.H.F) accessible units and supplying new high grade commercial and residential space to the Steveston Village, will be very good for people to work/live out their lives in this great community.

I think that there is a shortage of quality office space in Steveston. It seems to be a long and expensive process to get something built.

This situation increases costs to the small business person making it harder to get started and operate a business that can provide professional services to the community.

Thank you,



Gregg Antonyk



**Schedule 9 to the Minutes of
the Council Meeting for
Public Hearings held on
Monday, July 21, 2014.**

To Public Hearing
Date: <u>July 21, 2014</u>
Item # <u>3</u>
Re: <u>B41/W 9133</u>
<u>RZ 13-643436</u>

City of Richmond
6911 No.3 Road
Richmond, B.C. V6Y 2C1

Re: 3471 Chatham St. RZ 13-643436

To: City council
City of Richmond
6911 No. 3 Road
Richmond, B.C. V6Y 2C1
Attn: City Clerk

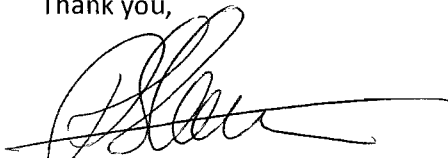
My name is Andy Stokes of 3688 Chatham Street. I have worked in Steveston for 15 years and welcome new neighbours.

I give my full support to the project at 3471 Chatham Street, as I feel it will add to the new Steveston Revitalization in a positive way. Steveston needs more residential densification and high quality commercial space to support the existing retail/commercial entities. This new project, using the latest technology for energy efficient utilities, building all 10 units as (B.U.H.F) accessible units and supplying new high grade commercial and residential space to the Steveston Village, will be very good for people to work/live out their lives in this great community.

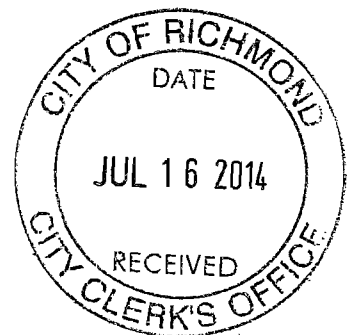
I think that there is a shortage of quality office space in Steveston. It seems to be a long and expensive process to get something built.

This situation increases costs to the small business person making it harder to get started and operate a business that can provide professional services to the community.

Thank you,



Andy Stokes



**Schedule 10 to the Minutes of
the Council Meeting for
Public Hearings held on
Monday, July 21, 2014.**

To Public Hearing	
Date:	<u>July 21 2014</u>
Item #	<u>3</u>
Re:	<u>B/LAW 9138</u>
	<u>RZ 13-643436</u>

		INT
	<input checked="" type="checkbox"/>	
	MJ	
	DB	
<input checked="" type="checkbox"/>	HB	<input checked="" type="checkbox"/>

City of Richmond
6911 No.3 Road
Richmond, B.C. V6Y 2C1

Re: 3471 Chatham St. RZ 13-643436

To: City council
City of Richmond
6911 No. 3 Road
Richmond, B.C. V6Y 2C1
Attn: City Clerk

12-8000-20-009138

My name is Stephen Pink of 3688 Chatham Street. I have worked in Steveston for 23 years and welcome new neighbours.

I give my full support to the project at 3471 Chatham Street, as I feel it will add to the new Steveston Revitalization in a positive way. Steveston needs more residential densification and high quality commercial space to support the existing retail/commercial entities. This new project, using the latest technology for energy efficient utilities, building all 10 units as (B.U.H.F) accessible units and supplying new high grade commercial and residential space to the Steveston Village, will be very good for people to work/live out their lives in this great community.

I think that there is a shortage of quality office space in Steveston. It seems to be a long and expensive process to get something built.

This situation increases costs to the small business person making it harder to get started and operate a business that can provide professional services to the community.

Thank you,



Stephen Pink



**Schedule 11 to the Minutes of
the Council Meeting for
Public Hearings held on
Monday, July 21, 2014.**

To Public Hearing	
Date:	<u>July 21 2014</u>
Item #	<u>3</u>
Re:	<u>Bylaw 988</u> <u>R2 B-1043436</u>

July 17, 2014

Mayor and Council
City of Richmond
6911 No. 3 Road
Richmond, BC
V6Y 2C1

Attention: City Clerk

Dear Sir/Madam:

Re: Public Hearing with respect to Application to Rezone Property at 3471 Chatham Street, Richmond, BC (the "Property")

My wife and I moved to Steveston approximately 4 years ago and currently reside with our three-year old daughter at #2-11991 5th Avenue, Richmond, BC.

Our home is adjacent to Chatham Street and two blocks west of the Property.

We have found Steveston to be a vibrant community with numerous shops, restaurants and commercial services.

We believe that the proposed development of the Property, with commercial space on the main floor that will be constructed to the sidewalk and the residential units above, has been well-designed and will be a quality improvement to Chatham Street and the Steveston landscape.

Accordingly my wife and I whole-heartedly support the development proposal for the Property.

Yours truly,



Brian R. Purcell



**Schedule 12 to the Minutes of
the Council Meeting for
Public Hearings held on
Monday, July 21, 2014.**

To Public Hearing	
Date:	<u>July 21, 2014</u>
Item #	<u>3</u>
Re:	<u>Bylaw 9138</u> <u>R213-643436</u>

To Whom it May Concern,

I am writing to show my support to the Robert Hodder / Reiner Siperko retail/residential project proposed for Chatham Street in Steveston.

My wife and I are very impressed with the design, as it incorporates the artwork from the exterior of the Fisherman's Credit Union, which was the building originally on the development site.

We have intention to purchase one condo in the building once the construction begins and the units are offered for sale. We particularly like the location, being close to the retail shops in Steveston, and public transit. It will allow us to walk or bike to most places, and city transit and the Canada Line will allow us to go from a two car family, to one that will stay in the garage most of the time.

The size of the residential units are larger than most in Richmond, and that is what has convinced us that we could move from our house in Seafair to an apartment style condo. We have also researched other developments that Mr. Siperko and Mr. Hodder have been involved in, and we like the design and quality of their projects.

Once again, allow me to express our wholehearted support for the Hodder / Siperko development. We would very much like the Richmond City Council to approve the project. I know Mr. Hodder and Mr. Siperko both have a good community conscience and intend to make the project fit the community.

Please contact me if I can be of any further assistance to assist council in their decision on this matter.

Best Regards,

Gary and Deborah Harris
8400 Seafair Drive

Ph 604-271-8527
cell 604-790-8181=



**Schedule 13 to the Minutes of
the Council Meeting for
Public Hearings held on
Monday, July 21, 2014.**

Mayor and Council
City of Richmond
6911 No.3 Road
Richmond, B.C. V6Y2C1

To Public Hearing	
Date:	<u>July 21, 2014</u>
Item #	<u>3</u>
Re:	<u>Bylaw 9138</u> <u>RZ13-6434310</u>

Re: 3471 Chatham Street, RZ13-643436

Attn: City Clerk

I am writing on behalf of myself and my wife Rosalind Guy. Rosa was raised in Steveston and I lived in Steveston 1963-1973 (grade 10-graduation at UBC). After a year in Denver on an internship program I have practiced dentistry in Langley since 1974. I retire this year and we are very much looking forward to moving back to Steveston.

Having lived in Delta and Surrey over this time, we experienced both positive and negative changes in both of these communities. As our retirement plan has been to come back home to Steveston we also kept a close watch on positive and negative developments in Steveston. Through that, we became familiar with the quality of care that Reiner Siperko puts into his projects and are in support of the proposed development at 3471 Chatham Street. We have been closely following this building as the residential suites are designed with the needs of senior citizens in mind. The units are sound proof of each other and have energy efficient utilities. The floor plans are well thought out and have wheel chair access from covered parking.

The location of the proposed development provides easy walking access to amenities such as grocery stores, banking, post office, sea food shopping at the wharf and many restaurants in the village.

Fitness activities are important in our every-day lives. We are looking forward to walking to the Steveston Community Centre with all of its many exercise programs and also to walking along the dykes with friends and family.

This project is working hard to comply with your council so that this commercial and residential development can complement Steveston merchants and the well-being of a great historical and tourist site.

Looking forward to moving back home.

Garry and Rosa Guy
16248 Lincoln Woods Court
Surrey, B.C.
V4P 3A1



**Schedule 14 to the Minutes of
the Council Meeting for
Public Hearings held on
Monday, July 21, 2014.**

Mayor and Councillors

From: Webgraphics
Sent: Saturday, 19 July 2014 11:51 PM
To: Mayor and Councillors
Subject: Send a Submission Online (response #797)

Categories: 12-8060-20-9138 - RZ 13-643436 3471 Chatham St.

To Public Hearing
Date: <u>July 21, 2014</u>
Item # <u>3</u>
Re: <u>Bylaw 9138</u>
<u>RZ13-643436</u>

Send a Submission Online (response #797)

Survey Information

Site:	City Website
Page Title:	Send a Submission Online
URL:	http://cms.richmond.ca/Page1793.aspx
Submission Time/Date:	7/19/2014 11:50:37 PM

Survey Response

Your Name	rocky
Your Address	6911 No.3 Road (note: City Hall address)
Subject Property Address OR Bylaw Number	Bylaw 9138
Comments	<p>1. This project was presentation to Richmond Heritage committee a few month ago, and the applicant agreed to modify one handicap parking spot into indoor parking space for resident use. 2. During The Richmond Heritage committee review we expressed some concerns to the Architect that the majority of the art panels were out of public view on the west side of the building facing the undeveloped lane way which belongs to the city. In an attempt to improve access and visibility to the artwork we suggested that the lane be redeveloped and landscaped and maybe some seating placed there, after all this is public property. It is also noted in the recent reports that the city has agreed to grass the area but it was further recommended that it be landscaped with some thorn bushes to discourage access. This raises the question as to why the public property is blocked, as well as the question of why going through all that trouble of preserving and reinstalling the panels on a side of</p>

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	<p>the building where they can't be seen. From The Heritage committee perspective this is just a token effort to preserve this heritage artwork.</p>
--	--

Schedule 15 to the Minutes of
the Council Meeting for
Public Hearings held on
Monday, July 21, 2014.

Mayor and Councillors

From: Webgraphics
Sent: Monday, 21 July 2014 8:51 AM
To: Mayor and Councillors
Subject: Send a Submission Online (response #798)

Categories: 12-8060-20-9138 - RZ 13-643436 3471 Chatham St.

To Public Hearing
Date: <u>July 21, 2014</u>
Item # <u>3</u>
Re: <u>Bylaw 9138</u> <u>RZ13-643436</u>

Send a Submission Online (response #798)

Survey Information

Site:	City Website
Page Title:	Send a Submission Online
URL:	http://cms.richmond.ca/Page1793.aspx
Submission Time/Date:	7/21/2014 8:50:12 AM

Survey Response

Your Name	Kathleen Beaumont
Your Address	6415 London Rd
Subject Property Address OR Bylaw Number	RZ13-643436 3471 Chatham St
Comments	Would like to make comments at Public Hearing on this application by Cotter Architects with regard to current regulations in relation to the 2041 OCP the 2009 Steveston Conservation Strategy and the Sakamoto guidelines



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**Schedule 16 to the Minutes of
the Council Meeting for
Public Hearings held on
Monday, July 21, 2014.**

Date: July 21, 2014
TO: Director, City Clerk's Office
FAX: 604-278-5139
SUBJECT: Richmond Zoning Bylaw 8500
Amendment Bylaw 9138 (RZ13-643436)

To Public Hearing	
Date:	July 21/14
Item #	3
Re:	Bylaw 9138
	RZ 13-643436

I have read the letter from the developers in the newspaper and am happy to see that they have redesigned the new building to be situated at 3471 Chatham Street in Steveston incorporating the Sakamoto Report Façade Guidelines and the Leonard Epp designed artistic concrete panels from the building formerly located on the same site.

I have also looked at the sketches of the proposed new building and have the following comments:

1. Living along the wind corridor (Chatham Street), I would suggest that the rooftop deck of the proposed site, while it may be a selling feature increasing the value of each suite in the building will probably not be a usable asset for the residents due to the strength and resulting chill factor of the daily winds that whip along Chatham.

I had the opportunity to visit an Open House for the building located at the corner of No. 1 Road and Chatham a few years ago. Nice, warm sunny day at ground level. Wicked wind on the exterior deck. I don't believe I have ever seen an open market umbrella on this deck in the years since.

Air moves faster the higher it is above the ground – think Jet Stream – or do a simple elementary school science experiment with a small anemometer or child's pinwheel and note the speed difference in relation to the different heights above ground at marked intervals as it is held in the same spot. I doubt that the use of the deck will justify the added cost of the installation of the rooftop elevator access.

In addition, this access, from looking at the sketch, does nothing to add to the aesthetic value of the building – in fact it detracts from it.

2. Set Back: According to the diagrams this building will be set back from the curb the distance of ONE sidewalk width only.

This is totally out of keeping with everything to the east and west of the proposed building along either side of Chatham Street (this includes the new building at No. 1 Rd and Chatham).

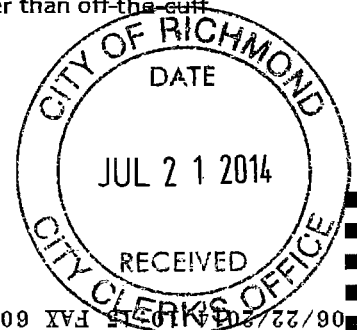
Requiring the building to respect the same distances (equivalent to 1.5 – 2 sidewalk widths) would be in order.

If the building were being constructed along Moncton Street, in the centre of the village, I am certain that a consistent curb setback would be required.

For the City to maintain a consistent setback along the full East-West length of Chatham Street would provide a sense of unity of design indicating a respect for the village's past and coherent, rather than off-the-cuff planning for the future by the City of Richmond.

E. E. Straforelli
11995 Fourth Avenue
V7E 3H9

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Public hearing for rezoning of 3471 Chatham Street
July 21, 2014

Over the past year we have appreciated the opportunity to express our concerns about the proposed development for 3471 Chatham Street. Voicing our thoughts about a proposal that so greatly impacts our life and the enjoyment of our property is important and we sincerely hope that Council will truly listen and seriously consider our opinion.

In our February 17, 2014 letter to the Planning Department, we outlined how the new building contravened several existing design criteria and guidelines established by the city. Citing specific sections of the Steveston Conservation Guidelines, the city's building code, and the Steveston Area Plan including the Sakamoto Guidelines, all of which we read in great detail, we noted how it was too large for the site – the scale and character being incompatible with surrounding homes. How it was not complimentary to the block of entirely single family homes. How it did not reflect Steveston's architectural history. How it did not "transition" into the neighbourhood. How the height would create shadow, and how it would significantly impact the privacy of adjacent yards.

While Planning Department staff agreed that in almost all instances the proposal did not fit the guidelines, they were quite prepared to make exceptions, especially since the developers were equally prepared to put money in the city coffers, so they recommended acceptance of the plan.

To give credit where credit is due, the developers did make some revisions that improved the look of the building but they did nothing at all to substantially alter its size which is still the main source of our concern. Just because you CAN build a monstrously large building doesn't mean you SHOULD. Developers buy density because it is advantageous to them, not to the surrounding neighbours. In this case, Council seems prepared to sell out our neighbourhood for \$296,476 which I suspect is considerably less than the anticipated real estate price for only one of the ten proposed residential units. The only one that benefits here is the developer.

In trying to minimize the extensive shadowing effect of the proposed building, the developers have made claims that our trees already shade our house so their building will not make any difference. I'm not going to deny the existence of our trees or that they shade the house, but what the developers conveniently neglect to say is that two of the trees are deciduous so have no leaf cover all winter, thus create no shadow, and, more importantly, that there is a 40 foot gap between the trees which allows the morning sun into our yard. It is that very gap which this building will fill thus putting one third of our yard in shadow every morning. And that, according to the sun shading diagrams provided by the developers, is in the summer months when the sun is high. It will be even worse during the winter months when the sun is lower.

Councillor Halsey-Brandt, in her justification for voting in favour of rooftop patios, spoke fervently of everyone's right to enjoy sunshine and outdoor living. Sadly, it is ironic that those very amenities which you seem so eager to provide to the residents of this new building are exactly the ones that you deem fit to take away from us. While they will enjoy unlimited sunshine every day all year long on their private patio, we will have a back yard that will be unpleasantly dark and damp for a considerable part of the year because of the proposed building's shadow. I see no fairness there at all. What I do see is a Council willing to bow to the wishes of a developer rather than seriously consider the requests of a long-time resident.

Councillor Steves has publicly apologized for having let rooftop patio space slip into Steveston. Unfortunately his words ring disappointingly hollow and his apologies are absolutely meaningless if he, and you, keep voting to allow developers to continue doing the same thing. Rooftop patios should not become the norm in Steveston.

This is not, as the developer accuses, a case of NIMBY-ism. We have never said, nor would we ever say, that the owners do not have a right to build on their property. They do. We have had a building next door for 36 of the 39 years we have lived here and we fully expect a building to be there for the foreseeable future.

Neither are we questioning the quality of any construction. Making all units fully accessible is commendable but it doesn't change the fact that the proposed building is just too big. The equation is simple - make the building smaller and, voila, you might even have room at ground level for that priceless outdoor amenity space you all seem so keenly committed to providing to the residents of the new building.

This Council has the power and the responsibility and, I hope, the courage to make sure that whatever is built at 3471 Chatham Street is the right building - the one most appropriate for the neighbourhood. The one that is the least intrusive and makes the least negative impact on the neighbourhood.

Reject the rooftop patio, deny the request for the unnecessary height increase, refuse the application for increased density, and require the developer to construct a building that falls within already existing design guidelines and by-laws. It's not difficult. Just say no to this proposal as currently presented.

Edith Turner
3411 Chatham Street

SPEAKING NOTES - PUBLIC HEARING, Monday July 21

THANK YOU FOR THE OPPORTUNITY TO SPEAK AT THIS HEARING. I FEEL THERE IS A NEED TO REITERATE WHAT EDITH HAS ALREADY SAID AS THIS PROPOSAL IS GOING TO HAVE A HUGE IMPACT ON OUR NEIGHBOURHOOD.

I AM NOT AGAINST DEVELOPMENT OF THE PROPERTY AT 3471 CHATHAM STREET. THE DEVELOPERS OWN IT AND HAVE EVERY RIGHT TO BUILD ON IT BUT I THINK IT SHOULD BE WITHIN THE CONFINES OF CURRENT GOVERNING BYLAWS AND EXISTING GUIDELINES. THEY SHOULD NOT BE GIVEN ANY INCREASED DENSITY OR INCREASED ALLOWANCE FOR HEIGHT.

UNLIKE THESE DEVELOPERS WHO HAVE BEEN ABLE TO CONVINCE THEIR RELATIVES AND ACQUAINTANCES TO SEND IN GLOWING LETTERS OF SUPPORT FOR THIS PROJECT, I HAVE SPOKEN TO SEVERAL NEIGHBOURS WHO HAVE A “YOU CAN’T FIGHT CITY HALL” ATTITUDE. THEY DON’T LIKE THE PROPOSAL BUT THEY ALREADY FEEL DEFEATED. THEY TOLD ME THAT ONCE A PROJECT GETS TO THIS STAGE IT’S A “DONE DEAL” ANYWAY AND THERE’S NOTHING THEY CAN DO ABOUT IT. ONE WOMAN TOLD ME SHE JUST WON’T LOOK IN THAT DIRECTION ANY MORE.

I HAVE BEEN PUBLICALLY ACCUSED OF “NIMBY”-ISM BUT IT IS MORE THAN MY BACKYARD BEING AFFECTED. THE STEVESTON CONSERVATION AREA GUIDELINES STATES THAT:

“THE FORM OF NEW DEVELOPMENT SHOULD BE GUIDED BY THAT OF ADJACENT EXISTING DEVELOPMENT, EVEN WHERE NEW USES ARE BEING INTRODUCED. FOR EXAMPLE, MULTIPLE FAMILY RESIDENTIAL OR COMMERCIAL USES INTRODUCED ADJACENT TO SINGLE FAMILY HOMES SHOULD ADOPT A SCALE AND CHARACTER SIMILAR TO THOSE EXISTING DWELLINGS...

(Section 9.2.2).

THIS PROPOSED BUILDING CERTAINLY DOES NOT FIT THESE PARAMETERS.

PERHAPS THE ACRONYM SHOULD BE "NISBY" OR "NOT IN STEVESTON'S BACKYARD" SINCE THIS BUILDING IS LARGER THAN ANYTHING ELSE IN A RESIDENTIAL BLOCK ON THE OUTSKIRTS OF THE VILLAGE.

MY MAIN CONCERN THOUGH, NOW THAT THE EXTERIOR DESIGN HAS BEEN CHANGED, IS THE INTRUSION INTO THE NEIGHBOURHOOD OF AN UNNECESSARILY HIGH BUILDING AND THE SHADOWING IT WILL INEVITABLY PRODUCE. IT IS INTERESTING TO NOTE THAT THE SUN SHADING DIAGRAM PROVIDED FOR THE JUNE MEETING OF THE PLANNING COMMITTEE OF COUNCIL WERE ONLY FOR THE MONTHS OF MARCH AND JUNE WHEN THE SUN IS HIGH THUS CAUSING THE LEAST AMOUNT OF SHADOW. WHY DID THE CITY NOT REQUIRE DIAGRAMS FOR THE WINTER MONTHS AS WELL, WHEN THE SUN IS AT ITS LOWEST AND CAUSING LONGER SHADOWS? THIS SPEAKS TO A DEFINITE BIAS IN FAVOUR OF THE DEVELOPER.

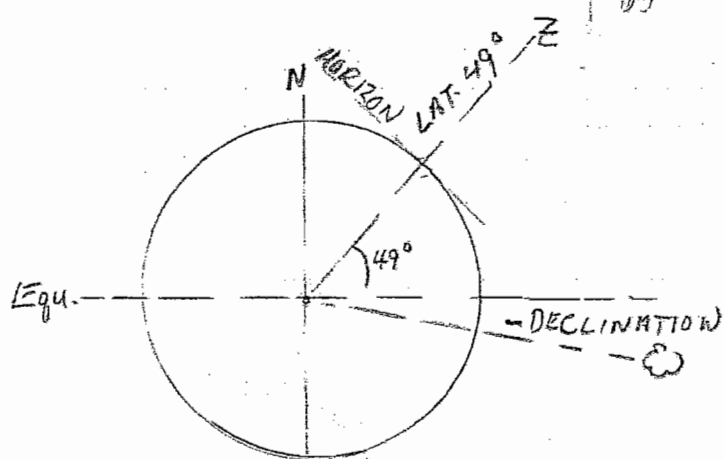
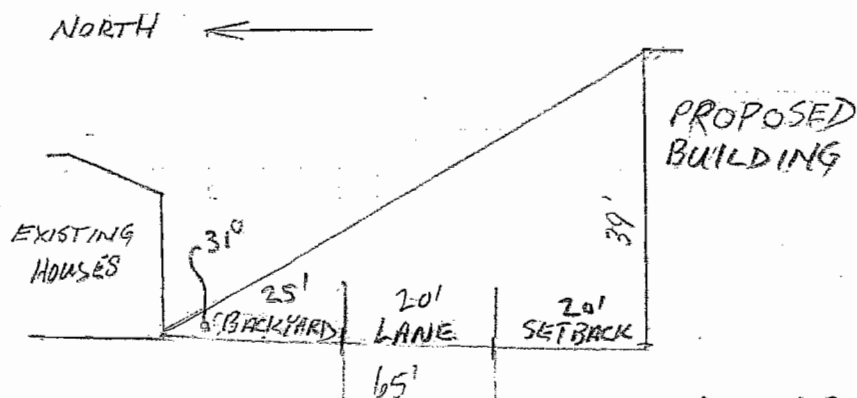
AS A BC LAND SURVEYOR WITH OVER 40 YEARS EXPERIENCE, I HAVE DONE SOME CALCULATIONS OF MY OWN AND MY NUMBERS SHOW THAT A BUILDING 12m (39 ft) HIGH WILL CAST A MINIMUM NOON SHADOW OF 65 FT IN LENGTH EVERY DAY BETWEEN THE MONTHS OF NOVEMBER AND FEBRUARY. THE SHADOW ON DECEMBER 21st, THE SHORTEST DAY OF THE YEAR WILL BE 124 ft. LONG. EVEN THE SHORTEST SHADOW DURING THE WINTER MONTHS WILL OBVIOUSLY COVER THE PROPOSED BUILDING'S 20 ft NORTH SIDE SETBACK AND THE 20 ft LANE PLUS 25 ft OF THE BACKYARDS OF THE RESIDENCES TO THE NORTH OF THIS BUILDING. THESE YARDS WILL NEVER SEE SUNLIGHT.

IF THIS PROPOSED BUILDING IS ALLOWED TO PROCEED WITH YOUR BLESSING THEN IT IS OBVIOUS TO ME THAT THIS COUNCIL HAS NO REAL REGARD FOR THE SURROUNDING LONG-ESTABLISHED RESIDENTS OR THE COMMUNITY OF STEVESTON. IF YOU APPROVE THIS, THEN SHAME ON YOU.

RALPH TURNER
3411 CHATHAM STREET
STEVESTON

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Re Shadowing effect at 3471 Chatham St
Caused by a building 12m (39 feet) high.



Zenith \angle of Sun = Lat - Dec of Sun
Altitude of Sun = $90^\circ - Z \angle$

Alt. of Sun to create a 65' shadow:

$$\text{Alt. of Sun} = 90^\circ - Z \angle$$

$$31^\circ = 90^\circ - Z \angle$$

$$Z \angle = 90^\circ - 31^\circ$$

$$Z \angle = 59^\circ$$

What period of the year does this occur?

$$Z \angle = \text{Lat} - \text{Dec of Sun}$$

$$\text{Dec} = \text{Lat} - Z \angle$$

$$\text{Dec} = 49^\circ - 59^\circ$$

$$\text{Dec of Sun} = -10^\circ \text{ or } 10^\circ \text{ South of Equator}$$

This occurs between Oct 20th & Feb 23rd
(approximately)

How long of a shadow would be cast on the shortest day of the year?

Alt. of Sun above horizon:

$$\text{Alt} = 90^\circ - Z \angle$$

$$\text{on Dec 21 Dec of Sun} = 23.5^\circ$$

$$Z \angle = 49^\circ - (-23.5^\circ)$$

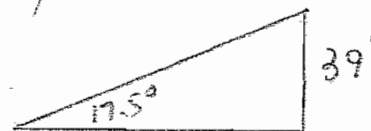
$$Z \angle = 49 + 23.5$$

$$Z \angle = 72.5^\circ$$

$$\text{Alt of Sun} = 90^\circ - Z \angle$$

$$= 90^\circ - 72.5^\circ$$

$$\text{Alt of Sun} = 17.5^\circ$$



$$\tan 17.5^\circ = \frac{39}{x}$$

$$x = \frac{39}{\tan 17.5^\circ} \approx 124'$$

For Metro Vancouver meetings on Friday, July 11, 2014

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 either:

Bill Morrell, 604-451-6107, Bill.Morrell@metrovancover.org or

Glenn Bohn, 604-451-6697, Glenn.Bohn@metrovancover.org

Greater Vancouver Regional District - Parks**Capilano River Regional Park – National Hiking Trail Designation****APPROVED**

The Board approved the designation of the Capilano Pacific Trail, Shinglebolt Trail and Baden-Powell Trail in Capilano River Regional Park, as part of the National Hiking Trail.

The designation was requested by Hike BC, a non-profit society initiated in 1998 establish long distance hiking trails and designate a hiking trail route from Cape Spear, Newfoundland, to North Vancouver, and to the rest of British Columbia via Vancouver Island.

Greater Vancouver Regional District**Investment Policy Update****APPROVED**

The Board approved an amended Corporate Investment Policy, to increase Metro Vancouver's investing flexibility. The policy provides access to greater investment returns, while maintaining the conservative risk exposure appropriate for an organization of our nature.

GVRD Sustainability Innovation Fund Policy**REFERRED**

The Board referred for further consideration by the Regional Administrative Advisory Committee, a policy which sets out how the \$16.3 million Sustainability Innovation Fund will be used. The policy deals with project evaluation and decision-making to ensure that the money in the Fund is awarded to projects that will contribute to the region's overall sustainability.

The policy was developed using input from the Intergovernmental and Administration Committee. The policy is intended to facilitate the use of the fund for its intended purpose and to ensure it is managed in an effective, transparent and accountable manner.

Corporate Energy Management Policy**APPROVED**

The Board approved a Corporate Energy Management Policy and directed staff to develop the

energy management system required to implement the policy.

The policy defines the objectives for managing energy in Metro Vancouver operations and activities and to provide the principles and criteria to develop an Energy Management System. The policy will be applied to the planning, design, procurement, construction, operation, and maintenance of facilities, vehicles, and equipment owned or operated by Metro Vancouver, or by third parties on Metro Vancouver's behalf.

Federal Gas Tax Fund: Community Works Fund Distributions to Metro Vancouver Local Governments

APPROVED

The Government of Canada, the Province of British Columbia and the Union of British Columbia Municipalities recently signed a 2014-2024 Administrative Agreement on the Federal Gas Tax Fund in B.C. The agreement identifies three separate funds through which federal gas tax funding will be delivered to local governments. One of the funds is the Community Works Fund (CWF), which provides dedicated funding to local governments for investments in local capital and capacity building projects.

For the first year of the agreement, the GVRD's 22 member jurisdictions will together receive a total of \$7.7 million in CWF funding. In subsequent years, total CWF funding available will be increased by 2% annually. The annual CWF allocations to member jurisdictions are being made at the request of the GVRD Board to ensure some level of support for local projects. Each member municipality will itself select the projects that receive funding through its CWF allocation each year. Funding for eligible local projects in Electoral Area A will be approved by the GVRD Board.

The Board entered into the Community Works Fund Agreement for 2014-2024.

Consideration of the Village of Anmore's Regional Context Statement

APPROVED

The Board accepted the Village of Anmore's Regional Context Statement as received by Metro Vancouver on June 5, 2014.

Delegation Executive Summaries Presented at Committee – June 2014

RECEIVED

The Board received a summary of a delegation to the Intergovernmental and Administration Committee from Eoin Finn, an Electoral Area A resident, and Village of Lions Bay Mayor Brenda Broughton.

Officers and Delegation Bylaw No. 1208, 2014 Procurement and Real Property Contracting Authority Policy

APPROVED

The Board approved the Greater Vancouver Regional District Officers and Delegation Bylaw

No. 1208, 2014, and approved the Procurement and Real Property Contracting Authority Policy.

The bylaw establishes officer positions of the Greater Vancouver Regional District, assigns powers, duties and functions to those officer positions and provides for the delegation of certain powers, duties and functions to officers and employees.

Metro Vancouver 2040: Shaping our Future Amendment Request from the City of Port Moody – Moody Centre Transit-Oriented Development Area and Murray Street Boulevard Area **APPROVED**

The Board initiated a bylaw amendment process following the City of Port Moody's request for a Type 3 minor amendment to Metro Vancouver's Regional Growth Strategy for the Moody Centre Transit-Oriented Development Area and Murray Street Boulevard Area.

Metro Vancouver 2040: Shaping our Future Amendment Request from the City of Port Moody – Andres Wines Site **DECLINED**

The Board declined the City of Port Moody's requested amendment to Metro Vancouver's Regional Growth Strategy for the Andres Wines site.

Metro Vancouver 2040: Shaping our Future Amendment Request from the City of Port Moody – Mill and Timber Site **DECLINED**

The Board declined the City of Port Moody's requested amendment to Metro Vancouver's Regional Growth Strategy for the Mill and Timber site.

Greater Vancouver Sewage and Drainage District

Officers and Delegation Bylaw No. 284, 2014 Procurement and Real Property Contracting Authority Policy **APPROVED**

The Board approved the Greater Vancouver Sewerage and Drainage District Officers and Delegation Bylaw No. 284, 2014, and approved the Procurement and Real Property Contracting Authority Policy.

The bylaw establishes officer positions of the Greater Vancouver Regional District, assigns powers, duties and functions to those officer positions and provides for the delegation of certain powers, duties and functions to officers and employees.



Greater Vancouver Water Regional District

Officers and Delegation Bylaw No. 247, 2014 Procurement and Real Property Contracting Authority Policy

APPROVED

The Board approved the Greater Vancouver Water District Officers and Delegation Bylaw No. 247, 2014, and approved the Procurement and Real Property Contracting Authority Policy.

The bylaw establishes officer positions of the Greater Vancouver Regional District, assigns powers, duties and functions to those officer positions and provides for the delegation of certain powers, duties and functions to officers and employees.



Community Safety Committee

Date: Tuesday, July 15, 2014

Place: Anderson Room
Richmond City Hall

Present: Councillor Derek Dang, Chair
Councillor Linda McPhail
Councillor Ken Johnston
Councillor Evelina Halsey-Brandt
Councillor Bill McNulty

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

AGENDA ADDITION

It was moved and seconded
That Richmond Fire-Rescue Emergency Response Services be added to the agenda as Item 7(iv).

CARRIED

MINUTES

It was moved and seconded
That the minutes of the meeting of the Community Safety Committee held on Tuesday, June 10, 2014, be adopted as circulated.

CARRIED

NEXT COMMITTEE MEETING DATE

Tuesday, September 9, 2014, (tentative date) at 4:00 p.m. in the Anderson Room

Community Safety Committee
Tuesday, July 15, 2014

PRESENTATIONS

1. (1) **PET KITS**
(File Ref. No.)

Tim Wilkinson, Deputy Fire Chief, Richmond Fire-Rescue (RFR), accompanied by Mia Kivari, Firefighter, provided a brief presentation on the emergency pet kit initiative. This initiative allows RFR to administer first aid to pets in trauma, including supplying oxygen to those that have suffered from smoke inhalation or requiring resuscitation. Also, it was noted that each first response rescue truck is equipped with two Wag'n Pet Oxygen Mask Kits.

In response to queries from Committee, Ms. Kivari advised that (i) other fire departments have initiated similar pet kits, (ii) pet kit bags and oxygen masks were provided by the generous support of Invisible Fence and Burquitlam Animal Hospital, and (iii) the collapsible carriers and cat bags are available for purchase through pet supply retailers and local veterinary offices.

(2) **RICHMOND COMMUNITY CRIME PREVENTION GUIDE**
(File Ref. No.)

Lainie Goddard, Manager, RCMP Administration, accompanied by Sheila Yamamoto, Block Watch Coordinator, and Shyreen Sharma, Crime Prevention Coordinator, presented the Crime Prevention Guide – a comprehensive booklet focused on promoting community safety.

Ms. Sharma advised that the Guide is a living document that will be adapted to meet Richmond's changing needs and safety concerns. Also, she noted that the Guide will be available at City Hall, community police stations, and on the City website.

In response to queries from Committee, Ms. Sharma and Ms. Yamamoto provided the following information:

- the Guide will be available on the City's RCMP webpage, also, the Guide will be distributed to each block watch group; and
- further to the English and Chinese versions; the Police Contact Information (PCI) is available in Punjabi; it is anticipated that the PCI will also be translated in Tagalog in the near future.

Committee congratulated all those involved in the development of the Crime Prevention Guide and requested that the Guide be shared with the Richmond Chamber of Commerce and distributed to community centres.

Community Safety Committee
Tuesday, July 15, 2014

LAW AND COMMUNITY SAFETY DEPARTMENT

2. RCMP'S MONTHLY REPORT - MAY ACTIVITIES

(File Ref. No. 09-5000-01) (REDMS No. 4250660)

Eric Hall, Inspector, Operations Support Officer, Richmond RCMP, commented on May 2014 activities. Insp. Hall advised that a concerted effort to reduce the number of thefts from motor vehicles is underway, noting that the RCMP is (i) working with local business operators to enhance surveillance equipment and signage in parking areas, and (ii) educating the public regarding vehicle crime reduction measures.

In response to queries from Committee, Insp. Hall provided the following information:

- the RCMP primarily use radar on high risk areas, while trained Speed Watch volunteers choose specific locations to monitor driving habits;
- a high percentage of stolen vehicles are recovered, as often these vehicles are used to carry out a crime, and are subsequently disposed of; and
- the increase in volunteer hours is a result of additional auxiliary officers.

Committee discussed whether the crosswalk signals on Minoru Boulevard, between Granville Avenue and Westminster Highway, and the crosswalk signal on Westminster Highway, between Minoru Boulevard and No. 3 Road, should be full traffic signals. It was suggested that the matter be discussed at a future Public Works and Transportation Committee meeting.

It was moved and seconded

That the report titled RCMP's Monthly Report – May Activities, dated June 9, 2014, from the Officer In Charge, Richmond RCMP be received for information.

CARRIED

3. COMMUNITY BYLAWS MONTHLY ACTIVITY REPORT – MAY 2014

(File Ref. No.) (REDMS No. 4264017)

Edward Warzel, Manager, Community Bylaws, commented that the dog licence canvas program commenced in late May and resulted in a significant spike in new dog licenses for the month.

In reply to queries from the Committee, Mr. Warzel advised that (i) calls to the public regarding dog licensing were conducted by Community Bylaw staff, and (ii) parking meter upgrades are underway.

Community Safety Committee
Tuesday, July 15, 2014

The Committee expressed appreciation for Community Bylaws' efforts in relation to unsightly premises and grease management inspections.

It was moved and seconded

That the staff report titled Community Bylaws Monthly Activity Report – May 2014, dated June 10, 2014, from the General Manager, Law & Community Safety, be received for information.

CARRIED

4. RICHMOND FIRE-RESCUE – MAY 2014 ACTIVITY REPORT

(File Ref. No. 09-5000-01) (REDMS No. 4260970)

John McGowan, Fire Chief, RFR, highlighted that RFR's Car Seat Inspection Program has generated interest from across local governments, and is becoming a model program. Fire Chief McGowan further highlighted that 99% of property and content value was protected for the month of May. He noted that the lack of water supply at an incident presented challenges for fire crews; however, RFR worked with the company to install a tanker water supply in the event of a future emergency.

Committee advised staff to encourage the IAFF 1286 Society to increase the use of the "Boot Drive" fundraising initiative at community events.

It was moved and seconded

That the staff report titled Richmond Fire-Rescue – May 2014 Activity Report, dated June 18, 2014, from the Fire Chief, Richmond Fire-Rescue, be received for information.

CARRIED

5. LAFARGE CANADA INC. – HIGH ANGLE ROPE RESCUE SERVICE

(File Ref. No.) (REDMS No. 4249702)

Fire Chief McGowan accompanied by Kim Howell, Deputy Fire Chief, provided background information and noted that site improvements to the training facility are anticipated to commence in October 2014.

It was moved and seconded

That the Chief Administrative Officer and General Manager, Law and Community Safety be authorized to negotiate and execute an amendment to the existing Confined Space Rescue Service Agreement between the City and Lafarge Canada Inc. (Lafarge) to include Technical High Angle Rope Rescue services by Richmond Fire-Rescue to Lafarge operations at 7611 No.9 Road on the terms and conditions outlined in the staff report titled High Angle Rope Rescue Services, dated June 19, 2014, from the Fire Chief, Richmond Fire-Rescue.

CARRIED

Community Safety Committee
Tuesday, July 15, 2014

6. FIRE PROTECTION AND LIFE SAFETY BYLAW UPDATE

(File Ref. No. 09-5140-01/2014) (REDMS No. 3784900 v.9)

In response to a query from Committee, Fire Chief McGowan accompanied by Kevin Gray, Deputy Fire Chief, advised that fines have increased from \$100 to \$1000 to address RFR's costs and the risks associated with such offences. Also, it was noted that the fines are comparable with those of other lower mainland municipalities'.

It was moved and seconded

- (1) *That Fire Protection and Life Safety Bylaw No. 8306, Amendment Bylaw No. 9151, be introduced and given first, second, and third readings;*
- (2) *That Consolidated Fees Bylaw No. 8636, Amendment Bylaw No. 9152, be introduced and given first, second, and third readings;*
- (3) *That Municipal Ticket Information Authorization Bylaw No. 7321, Amendment Bylaw No. 9153, be introduced and given first, second, and third readings; and*
- (4) *That Notice of Bylaw Violation Dispute Adjudication Bylaw No. 8122, Amendment Bylaw No. 9154, be introduced and given first, second, and third readings.*

CARRIED

7. FIRE CHIEF BRIEFING

(Verbal Report)

(i) Bloodmobile

Fire Chief McGowan advised that as part of the Canadian Blood Services – Public Service Challenge between June 15, 2014 and August 31, 2014, RFR will be participating in an event on Tuesday, August 19, 2014 at Fire Hall No. 1. RFR members and the public are encouraged to donate blood and alternatively, if unable to attend the event, to book an appointment to donate blood. Appointments may be made by calling 1-888-2-DONATE or by visiting the Canadian Blood Services website at www.blood.ca.

(ii) Summer Safety

Fire Chief McGowan commented that RFR is focusing on barbeque and water safety messaging through news releases, social media, and read-o-graph messaging during the summer months.

Community Safety Committee

Tuesday, July 15, 2014

(iii) Raise a Reader Program

Fire Chief McGowan noted that on Wednesday, September 24, 2014, volunteers from RFR will be attending high pedestrian traffic areas, such as the Richmond Brighthouse Canada Line station, to exchange copies of the *Vancouver Sun* for donations to the Raise-A-Reader Program campaign. The Program aims to empower children and families with tools to improve their reading skills.

(iv) RFR Emergency Response Services

Fire Chief McGowan spoke on RFR's Emergency Response Services with regard to a referral from Committee on May 13, 2014, and reviewed the staff memorandum titled Richmond Fire Rescue Emergency Response Services dated July 14, 2014 (copy on file City Clerk's Office).

In response to queries from Committee, Fire Chief McGowan provided the following information:

- RFR will respond to critical, life intervention emergencies at the Vancouver International Airport (YVR); however, YVR medical attendants or British Columbia Ambulance Services will be first responders for minor medical emergencies;
- while RFR can provide statistical data for assessing service performance and service delivery capacities, a consultant has the expertise required for analysis and assessment purposes; and
- a critical component of developing a request for proposal for consulting services to develop (i) a comprehensive strategic and long range facilities, and (ii) a deployment plan for RFR and the Richmond RCMP, is the participation of staff throughout the process.

Frances Clark, 8160 Railway Avenue, expressed concern with regard to her experience liaising with senior staff subsequent to her May 2014 presentation to Committee. Ms. Clark was of the opinion that a staff report addressing the May 2014 referral has yet to come before Committee. Ms. Clark was also of the opinion that a community decision must be made to increase emergency services within Richmond in order to meet demands and to adequately respond to a major event.

Committee thanked Ms. Clark for expressing her concerns and acknowledged the importance of reporting back to Committee and advising those concerned with regard to the May 2014 referral.

Committee suggested that staff seek community stakeholder input (i.e. appropriate Advisory Committees, Richmond Chamber of Commerce) related to emergency services prior to reporting back to Committee on the referral.

Community Safety Committee
Tuesday, July 15, 2014

8. RCMP/OIC BRIEFING

(Verbal Report)

(i) Strategic Plan Update

Insp. Hall advised that the Strategic Plan is in the community consultation process and it is anticipated that the RCMP will report back to Committee in the fall.

In response to a query from Committee, Phyllis Carlyle, General Manager, Law and Community Safety, advised that correspondence from an individual concerned with the response by E-Comm and the Richmond RCMP has been forwarded to Dave Guscott, President and CEO, E-Comm, and Superintendent Renny Nessel, Officer in Charge, Richmond RCMP for independent investigations. Committee requested that Ms. Carlyle report back to Committee whether the matter has been resolved.

(ii) RCMP Updates

Insp. Hall advised that Richmond RCMP vehicles are sporting new decals as part of a campaign launched by the Combined Forces Special Enforcement Unit of British Columbia (CFSEU-BC) to aid in the public education of gangs, the effects of gang violence, and the prevention of gang membership.

Insp. Hall further advised that a rumbler siren, a device that emits a low frequency bass vibration in conjunction with the traditional lights and sirens, is being tested on a number of Richmond RCMP vehicles as an additional tool to gain a driver's attention to an approaching police vehicle.

In response to a query from Committee, Insp. Hall commented that frequent water patrols are being conducted during the summer months.

9. JOINT BRIEFING - FIRE CHIEF AND RCMP/OIC

(Verbal Report)

(i) Canada Day – Ships to Shore

Insp. Hall advised that the Canada Day – Ships to Shore event was successful, noting that it was the lowest number of calls for service over the past five years. Also, it was noted that a separate radio channel was used during the event, which allowed members to respond quickly to calls for service.

Fire Chief McGowan commented that over 300 children attended the RFR obstacle course and that the parade, Ships to Shore event, and Canada Day fireworks display were successful events due to the planning efforts of Community Services, RFR, Richmond RCMP, B.C. Ambulance Services, and Marine Search and Rescue.

Community Safety Committee
Tuesday, July 15, 2014

10. **MANAGER'S REPORT**

None.

ADJOURNMENT

It was moved and seconded

That the meeting adjourn (5:27 p.m.).

CARRIED

Certified a true and correct copy of the Minutes of the meeting of the Community Safety Committee of the Council of the City of Richmond held on Tuesday, July 15, 2014.

Councillor Derek Dang
Chair

Heather Howey
Committee Clerk



General Purposes Committee

Date: Monday, July 21, 2014

Place: Anderson Room
Richmond City Hall

Present: Mayor Malcolm D. Brodie, Chair
Councillor Chak Au
Councillor Linda Barnes
Councillor Derek Dang
Councillor Evelina Halsey-Brandt
Councillor Ken Johnston
Councillor Bill McNulty
Councillor Linda McPhail
Councillor Harold Steves

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

MINUTES

It was moved and seconded

That the minutes of the meeting of the General Purposes Committee held on Monday, July 7, 2014, be adopted as circulated.

CARRIED

COMMUNITY SERVICES DEPARTMENT

1. **COUNCIL POLICY HOUSEKEEPING**
(File Ref. No. 01-0105-00) (REDMS No. 3859515 v. 16)

It was moved and seconded

That the staff report titled "Council Policy Housekeeping" be referred to staff for further analysis.

CARRIED

General Purposes Committee

Monday, July 21, 2014

2. MINORU RECREATION COMPLEX PROGRAM

(File Ref. No. 06-2052-55-01) (REDMS No. 4276756 v. 9)

Jim Young, Senior Manager, Project Development, accompanied by Serena Lusk, Senior Manager, Recreation and Sport Services, provided background information and advised that the staff report focussed on programming and space allocation of the approximately 110,000 sq. ft. facility with a view towards next steps for options related to the form and character of the building. Site preparation has commenced including the (i) relocation of the watermain and sports fields, and (ii) preliminary demolition and pre-load activity.

Staff advised that subsequent to the June 2014 General Purposes referral, Council and staff have had the opportunity to tour the Hillcrest Community Centre and Edmonds Community Center and a review of best practices has concluded. Further to meeting with community stakeholders, staff have met with the Minoru Major Facility Stakeholder Advisory Committee and the Major Facility Building/Project Technical Advisory Committee at which time discussion and consensus was reached on the following five key issues:

- in view of the need for safety, privacy, and efficiency, two reception areas is considered the best option, with one reception area dedicated to older adults and the other to service the rest of the facility;
- best efficiencies will be met through providing a well designed fitness facility, with accompanying changerooms, that would create separate spaces for older adults providing a level of comfort and privacy for individuals, families, and cultural groups;
- in recognition of the valuable hot meal service provided by the Minoru Senior's Society, a single commercial kitchen servicing the entire facility with a separate store front to service the aquatic and sport field users is the best option;
- in addition to the permanently allocated multi-purpose rooms, the Advisory Committees' recommended that some multi-purpose rooms be designated for 'primary' users to ensure that the needs of each group are met; and
- with the continued use of Watermania to serve the needs for competitive swim meets, a 25-metre lap pool accompanied by a variety of leisure pool elements focusing on the needs of city centre residents for lessons, leisure, and training is the recommended option.

In response to queries from Committee, Mr. Young and Ms. Lusk provided the following additional information:

- the lease agreement for the Watermania facility expires in 2025; lease and replacement options are being explored;

General Purposes Committee

Monday, July 21, 2014

- should current maintenance levels be supported, it is anticipated that the Watermania facility would continue in good operating condition beyond 2025;
- to facilitate a 50-metre pool that would include all of the leisure elements proposed with the 25-metre pool, an additional 8,000 sq. ft. of floor space would be required, increasing the capital cost by approximately \$8 million and the annual operating costs by approximately \$80,000;
- the proposed dedicated activity space for the Older Adults Centre will be behind a separate control point with the proposed primary multi-purpose rooms adjacent to the dedicated space;
- the primary multi-purpose activity rooms will be regulated through the business plan and associated operating agreements to be developed for the proposed facility;
- the feasibility of separate entrances from the Older Adults Centre to the shared fitness centre and changerooms will be considered at the design phase of the project;
- a self-contained Senior's Centre with shared mechanical elements with the Aquatics Centre is achievable, however, the option may result in a loss of approximately five percent of the overall space;
- moving forward, staff will (i) continue formal and informal consultation with stakeholders regarding design and space allocation, and (ii) develop operating agreements to ensure clarity concerning roles and spaces;
- the proposed aquatic facility complete with a 10-lane 25-metre lap pool and leisure pool elements was the Aquatic Services Board preferred programming option;
- bulkheads or moveable dividers can be used with a 50-metre pool to create leisure friendly space; however, operational costs would increase accordingly;
- the proposed 33,000 sq. ft. Older Adult Centre would have approximately 22,100 sq. ft. of dedicated and 'primary' use activity space from Monday to Friday between 9 a.m. and 5 p.m. whereas the existing 18,000 sq. ft. Seniors' Centre has approximately 11,000 sq. ft. of useable activity space;
- the final configuration of the water elements will be determined once a decision has been reached regarding a 25 or 50-metre pool;

General Purposes Committee

Monday, July 21, 2014

- the maximum eating area capacity at the existing Seniors' Centre is 60 persons; the dedicated eating area in the proposed Older Adults Centre has a capacity of 80 persons with additional available space;
- a separate eating area is proposed adjacent to the pool and a concession area is proposed to service the sport field users;
- possible design features for the fitness centre may include a L-shaped room or removable partitions that would create separate or private spaces for individual user groups;
- the proposed shared changerooms will be universal in purpose with design features that are culturally sensitive and create privacy for users;
- a single commercial kitchen may generate a business opportunity for the Minoru Senior's Society in providing food services for the entire facility;
- the team rooms for sports field users including showers and washrooms are accessible from the exterior and are reflected in the 4,833 sq. ft. of dedicated activity space for team rooms, officials room, first aid, and concession area;
- the rationale for a 25-metre pool was two-fold: (i) the need for a 10-lane 50-metre competitive pool will be met through the Watermania facility and the two facilities currently under construction by the City of Surrey and the University of British Columbia; and (ii) careful consideration was given to the demographic needs, particularly those of the older adult, of the city centre area for flexible leisure pool elements; and
- the allocation of the primary use multi-purposes spaces and policies with regard to its use will be addressed through the business plan and associated agreements.

The Chair noted that at a meeting with the Minoru Major Facility Stakeholder Advisory Committee, Major Facility Building/Project Technical Advisory Committee, Hughes Condon Marler Architects, and Stuart Olson Dominion Construction Ltd. that consensus was reached on: (i) one shared commercial kitchen possibly offering "storefront" in other areas; (ii) one integrated fitness centre with at least 3,000 sq. ft. of separated space; (iii) a main reception desk and a separate reception desk for older adults; (iv) shared multi-purpose space; (v) the 25-metre pool, with a preference for 10-lanes.

General Purposes Committee

Monday, July 21, 2014

Discussion ensued with regard to (i) various aspects, including design, privacy, and safety, related to integrating the Older Adults Centre with the Aquatic facility, and (ii) ensuring that the proposed facility meets the activity and fitness needs for future generations. Committee was not unanimous on the 25-metre pool option and the opinion was expressed that the community may be better served with the construction of a 50-metre competitive pool prior to the expiration of the Watermania lease agreement.

Bill Sorenson, Member Minoru Major Facility Stakeholder Advisory Committee and Minoru Seniors Society Executive, circulated a copy of an Associated Press article titled “More seniors-only fitness centers popping up” dated June, 19, 2007, for Committee information (attached to and forming part of these minutes as **Schedule 1**). Mr. Sorenson advised that the Minoru Seniors Society had envisioned a dedicated space for the Older Adults Centre and that integrated shared space is a concept suitable for sport or recreation centres. He expressed the view that seniors need autonomy and that Option 3 in the staff report titled “Guiding Principles and Options for configuration of Key Program Elements for Minoru Recreation Complex” dated May 30, 2014, presented at the General Purposes Committee meeting held on June 16, 2014, better reflected the needs of the Older Adults Centre to facilitate the health and wellness of seniors. Mr. Sorenson was of the opinion that the existing Minoru Seniors Centre is considered an example of “best practice” by communities throughout the province and that the City needs to build on the current practice.

In response to queries from Committee, Mr. Sorenson provided the following information:

- that he could not comment on whether it was acceptable to have less space, due to duplication for fitness equipment and amenities, in order to facilitate a fully separated Older Adults Centre;
- that a dedicated Older Adults Centre would be the preferred option;
- that the Society had envisioned a new 22,000 sq. ft. centre and not 11,000 sq. ft. of dedicated space with an additional 11,000 sq. ft. of ‘primary’ use multi-purpose space;
- the Minoru Seniors Centre provides programming exclusive to the centre, particularly in terms of health and wellness; Community Centres focus primarily on fitness programming;
- a separate fitness centre with separate access to the changeroom areas would be preferred;
- the Society has considered the changing demographics and worked closely with Vancouver Coastal Health with regard to health and wellness programming that will meet the future needs of Older Adults; and

General Purposes Committee

Monday, July 21, 2014

- moving forward it is recognized that a greater fitness component for the Older Adults Centre will be required.

Rosemary Nickerson, Co-Chair, Aquatic Services Board, spoke on behalf of the Board noting that the proposed facility is considered a replacement community aquatic facility and that the Watermania Aquatic Centre meets the need for a competitive pool. The Board was of the view that the Minoru site could not easily accommodate the parking and space requirements associated with the attendance at competitive events. As a replacement facility, the proposed Aquatic Centre including a 10-lane 25-metre pool and accessory elements would best fit the growth and multi-generational needs in the city centre and would allow for a variety of programming. In terms of the combined facility, Ms. Nickerson advised that the shared spaces would maximize user opportunities and the single commercial kitchen could provide a fundraising opportunity to service the entire facility.

In response to queries from Committee, Ms. Nickerson provided the following information:

- the Board prefers a single 10-lane 25-metre pool as it can be easily divided for a variety of programming; and
- while the Board acknowledges the need for a competitive pool for national and international meets, the Board would be hesitant to support the construction of a competitive pool at the Minoru Site at the expensive of non-competitive user programming.

In response to a query from Committee, Ms. Lusk advised that creative exterior and interior signage, floor patterns, and colour are design options that could assist in developing distinct entrances or gateway features for the various user groups.

In response to queries from Committee, Michael Henderson, Architect, Hughes Condon Marler Architects (HCMA), provided the following additional information:

- the primary use multi-purpose rooms could be connected internally through a corridor, accessed directly through the larger facility, or through a controlled entrance that is accessible to particular user groups at certain times of the day with less restrictions after hours;
- a separate exterior entrance and an unique internal entrance to the Older Adults Centre is achievable;
- the primary use multi-purpose rooms can be designed in such a way that access is available only through the Older Adults Centre at certain periods of the day; the access would then be converted to prevent access to the Older Adults Centre and allow user groups entrance from the Aquatic Centre for the balance of programmable time; and

General Purposes Committee

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- dual access to the shared fitness centre will be dependent upon the location of the area within the proposed facility; however partial or fully separated spaces for the various groups can be achieved using partitions.

In response to a query from Committee, Ms. Lusk advised that the 4,833 sq. ft. of dedicated activity space for the multi-purpose/outdoor changerooms includes the team rooms, officials' area, concession, first aid area, and public washrooms and showers. Ms. Lusk further advised that the 2,153 sq. ft. primary use multi-purpose room replicates the second floor space of the pavilion.

Bob Jackson, Vice-Chair, Richmond Sports Council, expressed support for the proposed design for exterior access and space allocations for the sport field groups as presented by staff.

Discussion ensued regarding (i) expanding the programming at the proposed Older Adults Centre to include Community Centre programming, (ii) creating positive multi-generational aquatic and fitness programming, and (iii) architectural design including a separate exterior entrance for the Older Adults Centre and flexibility for the 11,000 sq. feet of primary use area to be closed off for the exclusive use of the Older Adults Centre during the day.

It was moved and seconded

That:

- (1) ***the Guiding Principles for the Minoru Recreation Complex program as outlined in the staff report titled "Minoru Recreation Complex Program" dated July 3, 2014, from the Senior Manager, Recreation and Sport Services and the Senior Manager, Project Development, be endorsed;***
- (2) ***the Minoru Recreation Complex functional space program as outlined in the staff report titled "Minoru Recreation Complex Program" dated July 3, 2014 from the Senior Manager, Recreation and Sport Services and the Senior Manager, Project Development, be endorsed; and***
- (3) ***a business plan for the operation of the Minoru Recreation Complex be developed.***

The question on the motion was not called as discussion ensued regarding the dedicated space of 11,000 sq. ft. plus an additional 11,000 sq. ft. for the exclusive use of the Older Adults Centre during the day complete with separate exterior access and visible identification from the exterior for each component of the facility.

General Purposes Committee

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Committee acknowledged that the proposed Minoru Recreation Complex is a replacement facility; however options must be explored for replacing the Watermania pool with a 50-metre competitive pool facility capable of hosting national and international events such as the Canada or Commonwealth Games. Committee also expressed the need for sensitivity to the comments and concerns of the community as the project moves forward.

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

ENGINEERING & PUBLIC WORKS DEPARTMENT

3. **BRIGHOUSE FIREHALL NO. 1 PROGRAM ALLOCATION**

(File Ref. No. 06-2052-25-FHGI1) (REDMS No. 4264020 v.7)

In response to queries from Committee, Mr. Young accompanied by John McGowan, Fire Chief, Richmond Fire-Rescue (RFR), provided the following information:

- building materials will be comparable with best practices and those used in the construction of Richmond Firehalls No. 2, 4 and 5;
- an increase in programmable space would cost an additional \$450.00 per square foot;
- while the 2041 Official Community Plan is a baseline document, the 2031 space allocation was provided to the Consultant to ensure a greater level of accuracy that the proposed facility will be adequate to meet future operational needs to 2031 and beyond; and
- the fire prevention office and meeting room space is used by the fire prevention officers to deliver the service to the public, while education is a function of the training facility located at Fire Hall No. 3.

It was moved and seconded

That the staff report titled Brighthouse Firehall No. 1 Program Allocation, dated June 25, 2014, from the Director, Engineering and Fire Chief, Richmond Fire-Rescue, be endorsed.

The question on the motion was not called as in reply to a query from Committee, Mr. Young advised that the mandate of the Major Facility Building/Project Technical Advisory Committee included providing design input on other major projects such as Fire Hall No. 1 upon request on an ad-hoc basis. The question on the motion was then called and it was **CARRIED**.

General Purposes Committee
Monday, July 21, 2014

4. **CAMBIE FIREHALL NO. 3 PROGRAM ALLOCATION**

(File Ref. No. 06-2050-20-F3) (REDMS No. 4245908 v.11)

In response to queries from Committee, Mr. Young commented that (i) B.C. Ambulance Services support the proposed space allocation for ambulance service, and (ii) the Emergency Vehicle Technicians space has been incorporated into the design of Firehall No. 3.

It was moved and seconded

That the staff report titled Cambie Firehall No. 3 Program Allocation, dated June 25, 2014, from the Director, Engineering and Fire Chief, Richmond Fire-Rescue, be endorsed.

CARRIED

ADJOURNMENT

It was moved and seconded

That the meeting adjourn (6:09 p.m.).

CARRIED

Certified a true and correct copy of the Minutes of the meeting of the General Purposes Committee of the Council of the City of Richmond held on Monday, July 21, 2014.

Mayor Malcolm D. Brodie
Chair

Heather Howey
Committee Clerk

Schedule 1 to the Minutes of the General Purposes Committee Meeting of Monday, July 21, 2014.

More seniors-only fitness centers popping up

Comments below
Below: Discuss Related
Gyms for baby boomers favor softer music, 'gentle yoga' for older clients

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AP Associated Press PM ET

NEW YORK — Marshall Kahn attends a gym with yoga, tai chi and Pilates classes, weight training and treadmills. It also has a driving simulator, where members can keep their skills from deteriorating.

The gym, Nifty After Fifty, is one of many fitness centers popping up around the country aimed at serving older clients.

"I'm 80, my wife is 48. So I have to stay fit," said Kahn, who signed up at one of the company's four Los Angeles locations earlier this year and pays about \$50 per month to work out three times a week. "I joined a gym about three or four years ago, and I didn't like it at my age — it was young, noisy and frenetic. They were doing all these crazy things I couldn't participate in. Here, I'm not intimidated. I'm more inclined to go."



Marshall Kahn and his wife Melanie exercise at the Nifty After Fifty gym in Whittier, Calif.

When it comes to designing a gym, it's not all about attracting the hard bodies anymore, and when it comes to senior fitness, there's more out there than water aerobics. As more of America's baby boomers start entering their 60s, more startup gyms are homing in on a more mature market.

Gentler atmosphere

"As we get older, we're sort of intimidated about going into a 25,000 square-foot gym with rock music and people in tight leotards and muscle bulging from every aspect of their tank shirts," said 74-year-old Sheldon Zinberg, who opened Nifty After Fifty last year.

Nifty After Fifty plays softer music than the typical gym, and uses smooth, air pressure-driven equipment for strength training as opposed to your typical metal weights. So does Healthfit, a club based in Needham, Mass., where paintings adorn the walls and the average client is over 50.

FitWright — a club that opened last fall in Dedham, Mass., which has seen particular interest recently from people in their 60s and 70s — offers a special "gentle yoga" class for its less limber members.

"I think more than half the calls I get, and there's no regionality to this, are about doing a senior-only health club," said John Atwood, who runs Healthfit and the consulting firm Club Management Group, which advises small or mid-size clubs. "There was very little of this in the '90s."

The business potential is huge, and expanding. Club 50, a fitness chain for the over-40 crowd that has mushroomed to more than 40 franchises since it began in 2003, points out that seniors control more than 70 percent of the country's disposable income.

And the oldest of the baby boomers, born between 1946 and 1964, started turning 60 last year. In less than 25 years, there will be more than 71 million 65-year-olds, twice as many as there were in 2000, according to the National Association of Area Agencies on Aging.

The U.S. health club industry pulls in about \$16 billion in annual revenue, according to data from the International Health, Racquet & Sportsclub Association. Over the last 20 years, the number of people with club memberships has more than doubled and the number of clubs has nearly tripled, IHRSA's data shows.

It's not only the growing number of retirees and their spending power — it's also their schedule. In the late morning and early afternoon, when most gyms are nearly empty, those that are popular among the gray-haired set are bustling.

"The average age at health clubs just went up to 37 years old. Here (at Healthfit), the average age is 53. In the middle of the day, the average age is about 80," Atwood said.

Different goals

An older client's goals are a bit different from those of your typical gym hound. Sure, many want to lose weight, but they are particularly focused on improving their posture, lowering their cholesterol, increasing bone density against osteoporosis, alleviating joint pain and avoiding falls.

"They're not in it for the same things as the 35-year-olds," said Keith Wrightington, who runs FitWright. "They just want to feel better."

A senior-focused gym requires senior-focused equipment and a senior-focused staff. Many of them are hiring only fitness

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More women
opting for
preventive
mastectomy - but
should they be?



Rates of women who are opting for preventive mastectomies, such as Angelina Jolie, increased by an estimated 50 percent in recent years. But many doctors are puzzled because it doesn't carry a 100 percent guarantee, it's not a one-time procedure and women have other options, from a once-a-year mammogram to careful monitoring.

Larry Page's damaged vocal cords: Tru with trade-offs

<http://www.nbcnews.com/id/19312646/ns/health-fitness/t/more-seniors-only-fitness-center...> 5/27/2014

coaches with bachelor's or master's degrees in subjects like kinesiology, and keep in regular contact with members' primary care physicians to stay on top of their medications.

That's not to say that other clubs aren't drawing in the older set. One-third of IHRSA's more than 4,000 clubs have senior programming, the association said, and between 2000 and 2005 the number of members over the age of 55 climbed from 7.3 million to 7.9 million.

Larger chains, such as Bally Total Fitness and Gold's Gym, in recent years have been trying to sign up more baby boomers through campaigns using older people in their advertising. Some have paired up with SilverSneakers, a fitness program started in 1992 offered through health insurers to people with Medicare. New York-based fitness chain Equinox has also seen more seniors signing up, especially older women, said Carol Espel, Equinox's national director of group fitness.

But a big lure for some people of the senior-focused clubs is the notion of fitting in — what the fitness chain Curves for Women appealed to among females — and not worrying about measuring up to the 25-year-old Adonis doing bench presses at the machine next to you.

"I've been working out in gyms since high school," said Healthfit member Horace Aikman, a 53-year-old landscape architect. "And to be honest with you, I've reached the point in my life where I want to be working out with people my age."

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6 Speed Reads: Levi's CEO Says Never Wash Your Jeans (NBC News)

30 Secrets to Hiring the Right People (NBC News)



Planning Committee

Date: Tuesday, July 22, 2014

Place: Anderson Room
Richmond City Hall

Present: Councillor Bill McNulty, Chair
Councillor Evelina Halsey-Brandt
Councillor Chak Au
Councillor Linda Barnes
Councillor Harold Steves
Mayor Malcolm Brodie (entered at 4:05 p.m.)

Also Present: Councillor Linda McPhail

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

MINUTES

It was moved and seconded

That the minutes of the meeting of the Planning Committee held on Tuesday, July 8, 2014, be adopted as circulated.

CARRIED

NEXT COMMITTEE MEETING DATE

Wednesday, September 3, 2014, (tentative date) at 4:00 p.m. in the Anderson Room

COMMUNITY SERVICES DEPARTMENT

1. **9700 AND 9740 ALEXANDRA ROAD (POLYGON DEVELOPMENT 296 LTD.)- PROPOSED AFFORDABLE HOUSING CONTRIBUTION**
(File Ref. No. 08-4057-05) (REDMS No. 4216164 v.4)

Planning Committee

Tuesday, July 22, 2014

Dena Kae Beno, Affordable Housing Coordinator, provided an overview of the proposed affordable housing contribution and highlighted the following:

- the proposed development provides an option for an affordable housing contribution towards the Kiwanis Towers Affordable Housing development;
- the proposed affordable housing contribution would mitigate the risk of the contribution from the proposed Alexandra East project in the event the project is delayed; and
- six additional affordable housing units will be secured in the Alexandra East development under this proposal approach.

In reply to queries from Committee, Ms. Beno advised that (i) the amount for the proposed affordable housing contribution is secured from the proposed Alexandra East development, (ii) the proposed affordable housing contribution will be received earlier than what is anticipated from the final contribution proposed in the Alexandra East development, and (iii) the proposed affordable housing contribution, being forgone on the proposed Alexandra East development, will be received as built units instead.

Mayor Brodie entered the meeting (4:05 p.m.).

In reply to queries from Committee, Wayne Craig, Director, Development, advised that the proposed affordable housing contribution would be received as a cash-in-lieu developer contribution and that affordable housing units of equal value would then be incorporated into the proposed Alexandra East site.

Discussion ensued with respect to the integration of affordable housing units. Mr. Craig noted that the City's approach is to seek integrated affordable housing units within the development. Mr. Craig added that the proposed affordable housing contribution presented opportunities to secure affordable housing funding to be allocated for the Kiwanis Towers Affordable Housing development.

The Chair expressed concerns with respect to committing to proposed applications prior to approval. Mr. Craig advised that each rezoning application is considered on its own merit and that rezoning applications are not guaranteed approval.

Planning Committee
Tuesday, July 22, 2014

It was moved and seconded

- (1) *That Option 1 in the staff report titled 9700 and 9740 Alexandra Road (Polygon Development 296 Ltd.) – Proposed Affordable Housing Contribution, dated May 20, 2014, from the General Manager, Community Services, be endorsed to permit cash-in-lieu affordable housing contributions from the rezoning of 9700 and 9740 Alexandra Road (Polygon Jayden Mews Homes Ltd.) as part of Rezoning Application RZ 13-649641;*
- (2) *That the Chief Administrative Officer and General Manager, Community Services be authorized to negotiate and execute an amendment to the Affordable Housing Contribution Agreement between the City and Kiwanis Senior Citizens Housing Society to:*
 - (a) *add 9700 and 9740 Alexandra Road as a proposed development project that is to provide a minimum affordable housing contribution of \$678,107; and*
 - (b) *reduce the proposed affordable housing contribution from 9491, 9511, 9531 and 9591 Alexandra Road to \$892,634.*

CARRIED

PLANNING & DEVELOPMENT DEPARTMENT

2. **APPLICATION BY POLYGON DEVELOPMENT 296 LTD. FOR REZONING AT 9700 AND 9740 ALEXANDRA ROAD FROM “TWO-UNIT DWELLINGS (RD1)” AND “SINGLE DETACHED (RS1/F)” TO “TOWN HOUSING (ZT71) – ALEXANDRA NEIGHBOURHOOD (WEST CAMBIE)”**

(File Ref. No. 12-8060-20-009159; RZ 13-649641) (REDMS No. 4126857 v.7)

Mr. Craig provided an overview of the proposed development and noted that approximately 64 three-storey townhouses are planned for the site. He added that the proposed development will build upon the proposed north-south wildlife corridor being established by the adjacent development to the west.

It was moved and seconded

- (1) *That Richmond Zoning Bylaw 8500, Amendment Bylaw No. 9159:*
 - (a) *to create “Town Housing (ZT71) – Alexandra Neighbourhood (West Cambie)”;* and
 - (b) *to rezone 9700 and 9740 Alexandra Road from “Two-Unit Dwellings (RD1)” and “Single Detached (RS1/F)” to “Town Housing (ZT71) – Alexandra Neighbourhood (West Cambie)”;**be introduced and given first reading; and*

3.

Planning Committee
Tuesday, July 22, 2014

- (2) *That the affordable housing contribution for the rezoning of 9700 and 9740 Alexandra Road (RZ 13-649641) be allocated entirely (100%) to the capital Affordable Housing Reserve Fund established by Reserve Fund Establishment Bylaw No. 7812.*

CARRIED

The Chair advised that the order of the agenda would be varied to consider Item No. 3 last.

4. **APPLICATION BY S-8135 HOLDINGS LTD. FOR REZONING AT 9191 AND 9231 ALEXANDRA ROAD FROM RS1/F (SINGLE-DETACHED) TO ZMU28 (RESIDENTIAL/LIMITED COMMERCIAL)**
(File Ref. No. 12-8060-20-009163/009164; RZ 14-656219) (REDMS No. 4287209 v.2)

Mr. Craig briefed Committee on the proposed development and noted that the site will be zoned for higher density townhouses.

In reply to queries from Committee, Mr. Craig advised that the proposed development will be connected to the Alexandra District Energy Utility (ADEU). Also, Mr. Craig noted that the developer may qualify for a reduction in the City Beautification contribution as a result of the installation of beautification works off-site.

Discussion ensued with respect to sustainability features of the proposed development. Mr. Craig advised that the proposed development is not required to meet an EnerGuide 82 rating because of the proposed development's plan to connect to the ADEU.

It was moved and seconded

- (1) *That Richmond Official Community Plan Bylaw 7100, Amendment Bylaw 9164, to amend Schedule 2.11A of the Richmond Official Community Plan Bylaw 7100:*

(a) *to create a new "Residential Mixed Use" designation and change the land use designation on the Alexandra Neighbourhood Land Use Map for 9191 and 9231 Alexandra Road from "Mixed Use" to "Residential Mixed Use"; and*

(b) *to incorporate related text and map changes to Section 8.2 of the Area Plan,*

be introduced and given first reading;

- (2) *That Bylaw 9164, 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;*

4.

Planning Committee
Tuesday, July 22, 2014

is hereby found to be consistent with said program and plans, in accordance with Section 882(3) (a) of the Local Government Act;

- (3) That Bylaw 9164, having been considered in accordance with OCP Bylaw Preparation Consultation Policy 5043, is hereby found not to require further consultation; and*
- (4) That Richmond Zoning Bylaw 8500, Amendment Bylaw 9163 to create the "Residential/Limited Commercial (ZMU28) - Alexandra Neighbourhood (West Cambie)" zone and to rezone 9191 and 9231 Alexandra Road from "Single-Detached (RS1/F)" to "Residential/Limited Commercial (ZMU28) - Alexandra Neighbourhood (West Cambie)" be introduced and given first reading.*

The question on the motion was not called as discussion ensued with regard to proposed development's sustainability features including its connection to the ADEU.

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

- 3. **APPLICATION BY HOLLYBRIDGE LIMITED PARTNERSHIP (INTRACORP) FOR REZONING AT 6888 RIVER ROAD AND 6900 PEARSON WAY FROM RESIDENTIAL/LIMITED COMMERCIAL (RCL3) TO RESIDENTIAL/LIMITED COMMERCIAL (ZMU27) - OVAL VILLAGE (CITY CENTRE)**

(File Ref. No. 12-8060-20-009148/008995/009150; RZ 14-665416) (REDMS No. 4284264)

Discussion ensued with regard to addressing matters related to the City's proposed funding arrangements for the Storeys development in a closed session.

The meeting was recessed at 4:15 p.m.

The meeting reconvened at 4:36 p.m. with all members of Planning Committee present, including Cllr. McPhail.

In reply to queries from Committee, Mr. Craig advised that it is anticipated that there will be sufficient resources available from the surplus casino funds to allocate to the affordable housing component in the Storeys development. He added that the existing zoning in place secures the 29 affordable housing units on the subject site.

Planning Committee
Tuesday, July 22, 2014

It was moved and seconded

That \$3.0 million for the Storeys development interim funding be allocated from surplus casino funding as a one-time source of funding.

The question on the motion was not called as discussion ensued regarding the positive effects of allocating surplus casino funding to social services.

Staff were then directed to bring public awareness to the City's use of surplus casino funds.

Discussion then ensued with respect to (i) integrating affordable housing units into developments, (ii) expanding the proposal to allocate surplus casino funds to other affordable housing initiatives, (iii) the City's casino fund policy, and (iv) allocating casino funds on a case-by-case basis.

It was moved and seconded

- (1) That the staff report titled Application By Hollybridge Limited Partnership (Intracorp) for Rezoning at 6888 River Road and 6900 Pearson Way from Residential/Limited Commercial (RCL3) to Residential/Limited Commercial (ZMU27) - Oval Village (City Centre, dated July 11, 2014, from the Director, Development, be received for information; and***
- (2) That \$3.0 million for the Storeys development interim funding be allocated from surplus casino funding as a one-time source of funding.***

CARRIED

4. MANAGER'S REPORT

(a) Changes to the Agricultural Land Commission Act

Terry Crowe, Manager, Policy Planning, spoke of the Ministry of Agriculture's invitation to comment on possible changes to the *Agricultural Land Commission Act* by August 22, 2014.

Discussion ensued regarding the short time frame to provide feedback. Mr. Crowe noted that comments will be provided by the August 22, 2014 deadline and a feedback report will be provided to Council early in September 2014.

(b) Metro Vancouver Regional Growth Strategy Amendment – City of Port Moody

Mr. Crowe commented on the consultation process for a proposed Metro Vancouver 2040 Regional Growth Amendment for the City of Port Moody, noting that a feedback report will be provided to Council to meet the Metro Vancouver September 17, 2014 comment deadline.

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Discussion ensued with respect to the City of Port Moody's transit infrastructure and how the possible loss of industrial areas could affect the region.

(c) Nanaksar Gurdwara Temple

Mr. Craig spoke of the previous Nanaksar Gurdwara Temple expansion and a possible non-farm use application to use an adjacent gravel parcel for farm staging and overflow parking.

Discussion ensued with regard to the farming done in the temple lands. Mr. Craig noted that the blueberry trees on the land were removed due to illness but will be replanted in the future.

(d) Correspondence – Richmond Seniors Advisory Committee

Discussion ensued with respect to a letter dated June 24, 2014 from the Richmond Seniors Advisory Committee (attached to and forming part of these minutes as **Schedule 1**) regarding the Canada Health Accord.

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

That staff examine the resolution provided in the letter dated June 24, 2014 by the Richmond Seniors Advisory Committee and report back.

ADJOURNMENT

It was moved and seconded

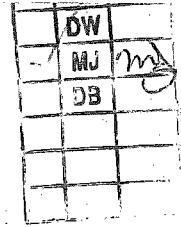
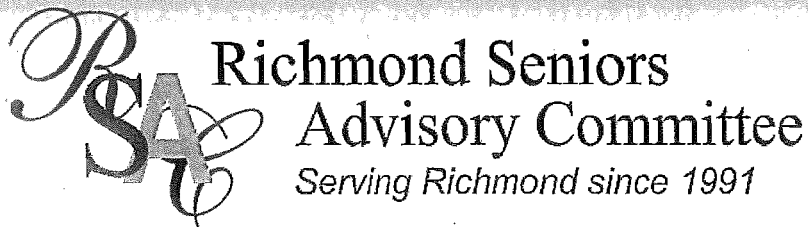
That the meeting adjourn (4:53 p.m.).

CARRIED

Certified a true and correct copy of the Minutes of the meeting of the Planning Committee of the Council of the City of Richmond held on Tuesday, July 22, 2014.

Councillor Bill McNulty
Chair

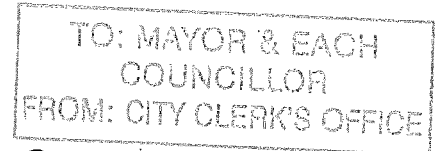
Evangel Biason
Auxiliary Committee Clerk



0100-30-SADV1-01

June 24, 2014

Mayor Malcolm Brodie
City of Richmond
6911 No. 3 Road,
Richmond, BC, V6Y 2C1



PC: John Foster
Cathy Carlile

Dear Mayor and Council:

Re: Canada Health Accord

I am writing this letter on behalf of the Richmond Seniors Advisory Committee. At our June meeting, RSAC members passed a motion to write a letter asking City Council to endorse the resolution made by the Council of Senior Citizens Organizations (COSCO).

The resolution is meant to address concerns of senior's organizations regarding the decisions from the federal government around the Canada Health Accord. The previous Health Accord expired on March 31, 2014. The Federal Government has chosen to renew the accord for three years providing funding on the same basis as the previous agreement. At the end of three years, funding will be tied directly to the percentage growth in the economy.

There is significant concern that this approach being taken by the Federal Government has been done without consultation with the provinces and that no consideration is being given to major factors such as the aging population.

Attached you will find the resolution wording that we are asking Council to endorse. The wording that we are asking Council to endorse is slightly different than the proposed wording from COSCO.

Thank you for considering this request.

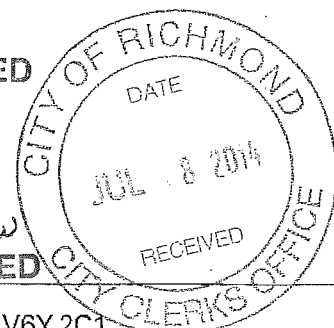
Yours truly,

Kathleen Holmes
Chair, Richmond Seniors Advisory Committee

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CNCL - 95

Richmond City Hall, 6911 No. 3 Road, Richmond, BC V6Y 2C1

Telephone: 604-276-4390 Fax: 604-276-4132 Email: sdavies@richmond.ca

Proposed Health Care Resolution:

WHEREAS; we believe that access to quality health care is a fundamental right of every Canadian resident, regardless of race, gender, disability, political belief, social conditions, location, or ability to pay, AND

WHEREAS: we believe that a system of public and non-profit health care, publicly administered and delivered on a not-for-profit basis, contributes to the economic welfare of Canada and provides its citizens with high quality health care, AND

WHEREAS; we believe that all levels of government have a role to play in the delivery of quality and accessible health care, and that the Federal Government should give strong leadership in enforcing national standards and providing coordination, innovation, and federal transfers at a level that secures the integrity and reinforcement of the Canada Health Act of 1984, AND

WHEREAS; we believe that all Canadians should have equitable access to safe, affordable, and appropriate medications; many Canadians depend on medications for their very lives, AND

WHEREAS; we believe that Canadians should have the security of a continuum of community-based integrated services that includes a universal system of home care, home support and long-term care services, and hospice and palliative care; and that this continuum of services should be an integral part of a Canadian comprehensive health care system, AND

WHEREAS; we believe that a comprehensive national health care system includes education, prevention, diagnosis, counselling, and timely treatment.

THEREFORE BE IT RESOLVED; that the federal, provincial and territorial governments be urged to negotiate a new Health Accord that protects, transforms, and strengthens our National Health Care System to include adequate and stable human and financial resources, as well as a national seniors' health care plan and a national pharmaceutical strategy that will improve health outcomes for Canadians.

ORIGINAL COSCO RESOLUTION

HEALTH CARE RESOLUTION

WHEREAS; we believe that access to quality health care is a fundamental right of every Canadian resident, regardless of race, gender, disability, political belief, social conditions, location, or ability to pay, AND

WHEREAS; we believe that a system of public and non-profit health care, publicly administered and delivered on a not-for-profit basis, contributes to the economic welfare of Canada and provides its citizens with high quality health care, AND

WHEREAS; we believe that all levels of government have a role to play in the delivery of quality and accessible health care, and that the Federal Government should give strong leadership in enforcing national standards and providing coordination, innovation, and federal transfers at a level that secures the integrity and reinforcement of the Canada Health Act of 1984, AND

WHEREAS; we believe that all Canadians should have equitable access to safe, affordable, and appropriate medications; many Canadians depend on medications for their very lives, AND

WHEREAS; we believe that Canadians should have the security of a continuum of community-based integrated services that includes a universal system of home care, home support and long-term care services, and hospice and palliative care; and that this continuum of services should be an integral part of a Canadian comprehensive health care system, AND

WHEREAS; we believe that a comprehensive national health care system includes education, prevention, diagnosis, counseling, and timely treatment.

THEREFORE BE IT RESOLVED; that the federal, provincial and territorial governments be urged to negotiate a new Health Accord that protects, transforms, and strengthens our National Health care System to include adequate and stable human financial resources including a six per cent escalator as well as a

... national seniors' health care plan and a national pharmaceutical
... strategy that will improve health outcomes for Canadians.



COSCO News

Council of Senior Citizens' Organizations of B.C.

Number 94

www.coscobc.ca



June, 2014

COSCO calls on Ottawa to provide leadership to strengthen Medicare

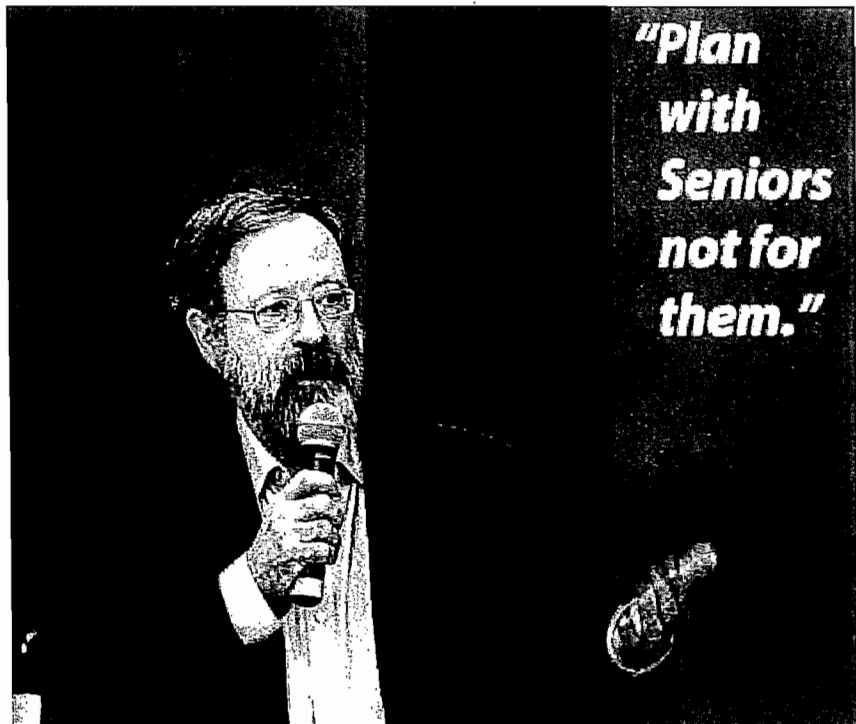
BRITISH COLUMBIA's largest federation of seniors has called on the federal, provincial and territorial governments to negotiate "a new comprehensive health accord that protects, transforms and strengthens our national health care system."

At a special meeting held in Vancouver in April – 11 days after the expiry of the national health accord – about 100 seniors unanimously adopted a declaration that quality health care must be available to every resident of Canada without discrimination, and regardless of ability to pay.

"All levels of government have a role to play in the delivery of quality and accessible health care," said Lorraine Logan, President of the 107,000 member Council of Senior Citizens' Organizations of B.C.

"The federal government should give strong leadership in enforcing national standards, not walking away from the table and refusing to negotiate a new accord," said Logan.

"To ensure Medicare is not fragmented, Ottawa must provide co-



Michael McBane, National Coordinator of the Canadian Health Coalition, addressed a special meeting of COSCO delegates April 11.

ordination, foster innovation, and provide financial support at a level that secures the integrity of the 1984 Canada Health Act," she said.

The meeting of COSCO delegates

heard from three health policy experts on the issue.

Michael McBane of the Canadian Health Coalition said the Harper gov-

Continued on page 3

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**Council Of Senior Citizens'
Organizations Of BC (COSCO)**

www.coscobc.ca

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Second Vice-President:

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Gord Sheppard (UNIFOR 111)

Jean Sickman (BCGREA)

Ralph Steeves (IAMR)

COSCO News welcomes your letters and contributions. Contact soren.bech@shaw.ca, or Editor, 2102 Porter Rd. Roberts Creek, B.C. V0N 2W5.

ELDER ABUSE:

It's time to face the reality

By Alice Edge

COSCO Second Vice-President

THE BC PROVINCIAL government has issued a statement recognizing June 15 as World Elder Abuse Awareness Day. A very important event as according to federal government literature one in five Canadians believe they know of a senior who might be experiencing some form of abuse.

Elder abuse is any action by someone in a relationship of trust that results in harm or distress to an older person. Neglect is a lack of action by that person in a relationship of trust with the same result.

Abuse takes many forms such as: physical (hitting, pushing, shaking, inappropriate physical or chemical restraints, harm created by over or under medicating), psychological (includes actions that decrease their sense of self-worth and dignity), financial (includes actions that decrease the financial worth of an older person without benefit to that person) and neglect (includes inactions that may result in harm to an older person).

In the past year I have served as the Ombudsperson for COSCO, assisting seniors throughout the province to access governmental services federally or provincially, navigate the health care system, and find health services, which are not funded. For me it has highlighted the plight of many seniors in our communities who are bewildered, angry, frustrated, sad and overwhelmed by the lack of support they need.

So as World Elder Abuse Awareness Day arrives, I wonder if systemic abuse of the elderly exists in our country, province and communities. Have we neglected the elderly in exchange for tax credits, a few more dollars of tax relief (which the government promptly takes back in user fees like tolls, increased payment for health insurance)? Have we offered in the place of well resourced sustainable long term home care and health care, charity-funded services that are piecemeal, provide no continuity and leap from one project lily pad to the next?

What we need for Seniors' Week in BC and World Elder Abuse Awareness Day is a strong declaration that we should and must do better for the elderly. If we help them we will help everyone. It is not about entitlement it is about fairness, justice and dignity.

New health accord needed to prevent fragmentation of public health care

Continued from page 1

ernment has launched a "stealth attack" on Medicare, with reductions in funding scheduled for future years.

"We need a national debate, a national conversation on the future of Medicare," said McBane, adding that the withdrawal of federal leadership will lead to a fragmentation of service.

"This is a fight to maintain access so people can get care based on need," he said.

Wendell Potter, former head of communications at a large health insurance company in the USA, said he walked away from his job when he realized private corporations were not improving access, were not improving quality of care, and looked on health

care as a major profit centre.

"With help from the Fraser Institute, the company misinformed Americans about Canada's health care system, calling it the slippery slope to socialism," said Potter.

He called on Canadians to carefully examine the misleading language used by those who promote privatization.

"Sound the alarm" said Potter. "You can lose Medicare for yourselves, your children, your grandchildren and future generations."

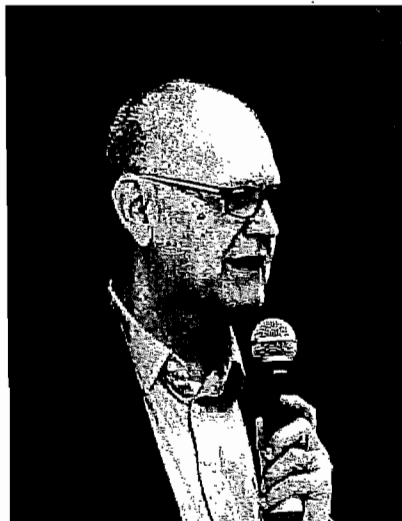
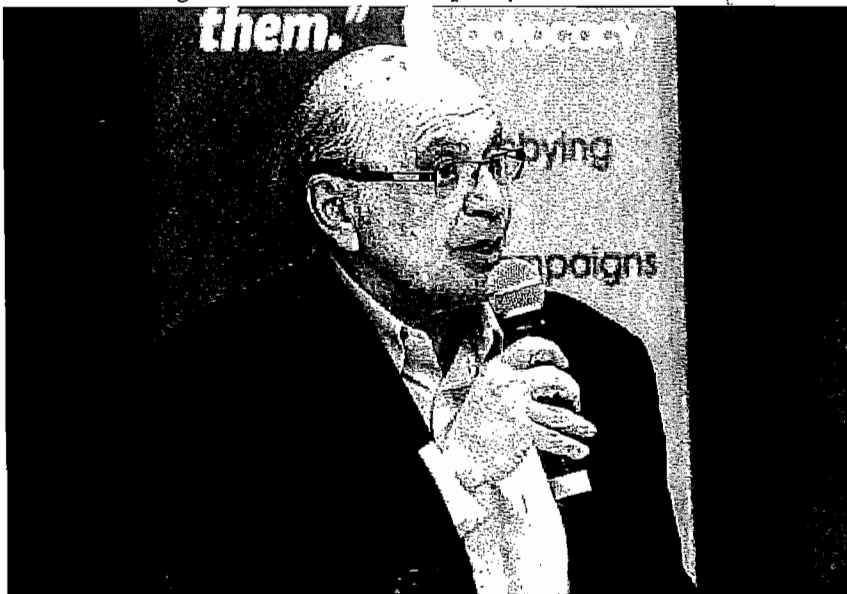
Alex Himelfarb – director of the Glendon School of Public and International Affairs at York University, former Clerk of the Privy Council and Secretary to the Cabinet for three prime ministers – said that private health care is far more expensive and has longer wait times.

Himelfarb called for a national Pharmacare program, a better approach to care for chronic illness, and the integration of home care and home support into Medicare.

"Countries that have done that have a more sustainable health care system than we have," he said. "We have lots of work to do to make Medicare strong, better and more affordable. We need a clear vision for the future. We need federal leadership – and we don't have it," he said.

Seniors at the meeting expressed outrage that the federal government has refused to negotiate a new health accord, effectively ending Medicare as a national program.

They were also frustrated that four B.C. Conservative Members of Parliament – including Richmond MP Alice Wong, the minister of state for seniors – have refused to meet with them to discuss these issues.



Clockwise from top: Alex Himelfarb, Wendell Potter, and Lorraine Logan warned of the need to defend and enhance Medicare for Canadians.

PRESIDENT'S REPORT

Keeping you up-to-date on COSCO'S advocacy for seniors

By Lorraine Logan
President, COSCO

THIS WILL be a short article to update our members, affiliates and associates on where we are focussing our advocacy efforts and resources.

One of our major achievements to date is the campaign jointly sponsored by the Retired Teachers Association of B.C. and COSCO concerning the Canada Health Accord.

Through the efforts of this sub-committee, all of the Members of Parliament in B.C. have been contacted, questioned, informed and been asked to support a new and better Health Accord Agreement with the provinces and territories.

This campaign will continue into 2015 as a Federal Election unfolds.

We have also given support to our B.C. Health Coalition in their court challenge with Dr. Day and the private clinics.

This issue comes to trial in September. We will continue to support this effort.

The Postal Carrier cut-backs and development of community mail boxes continues to be an issue.

Art Kube, our Past President, has been addressing this at various events. This is also on-going and we will try to influence the Federal Government that this creates quite a hardship for older adults and older adults with physical disabilities.

We now have active committees to relate, resource and research our main areas of concern.

The following delegates are now Chairs of their respective portfolios:

- Barb Mikulec – Housing.
- Kathleen Jamieson – Health.
- Jean Sickman – Policy and Planning.
- Pat Brady – Finance.
- Lorraine Logan – Transportation.
- Alice Edge/Alex Hui – Communication/Facebook.
- Gudrun Langolf – Legislative/regulatory matters eg. BC Hydro (BC Utility Commission and Public Advocacy Centre), Media (CRTC), Elder Law etc. and our webpage.
- Ralph Steeves – Organizing.

As we move forward with issues and concerns that we perceive or that are presented to COSCO, these committee Chairs will take on these challenges and with the delegates' and members' input we will attempt to resolve issues or work with the parties involved to create a better environment for our seniors.

The table officers recently met with the new Senior's Advocate, Isobell Mackenzie, on April 8th and we had a good opportunity to discuss our concerns and enforce our COSCO motto, "Work and Plan with Seniors, not for them."

We met for approximately three hours and we are hopeful that COSCO and the Senior Advocate's Office will be collaborating on systemic issues that affect all older adults.

We have been assured that as her mandate begins to develop, that COSCO will be one of the groups sitting on any Advisory Council.

Regarding Coastal Ferries, the hardship in fare increases along with schedule reductions has certainly caused great concern for our older population relying on these transportation services.

COSCO has been supporting our branch in Sechelt/Gibsons with hundreds of signed petitions, letters of concern, attending rallies and generally attempting to get this government to re-think these decisions and reopen a real public consultation. This campaign will also continue.

The Table Officers and Chairs of our committees will be meeting in June to formulate a kind of strategic plan of "next steps" for COSCO in the coming years.

This should identify what we are now doing, what we may need to do and confirm and maintain our policies that identify with our mandate to Advocate for Seniors.

One of the slight changes to our delegates meeting is to encourage our delegates to "report out" on their specific concerns that occur in their own associations or groups.

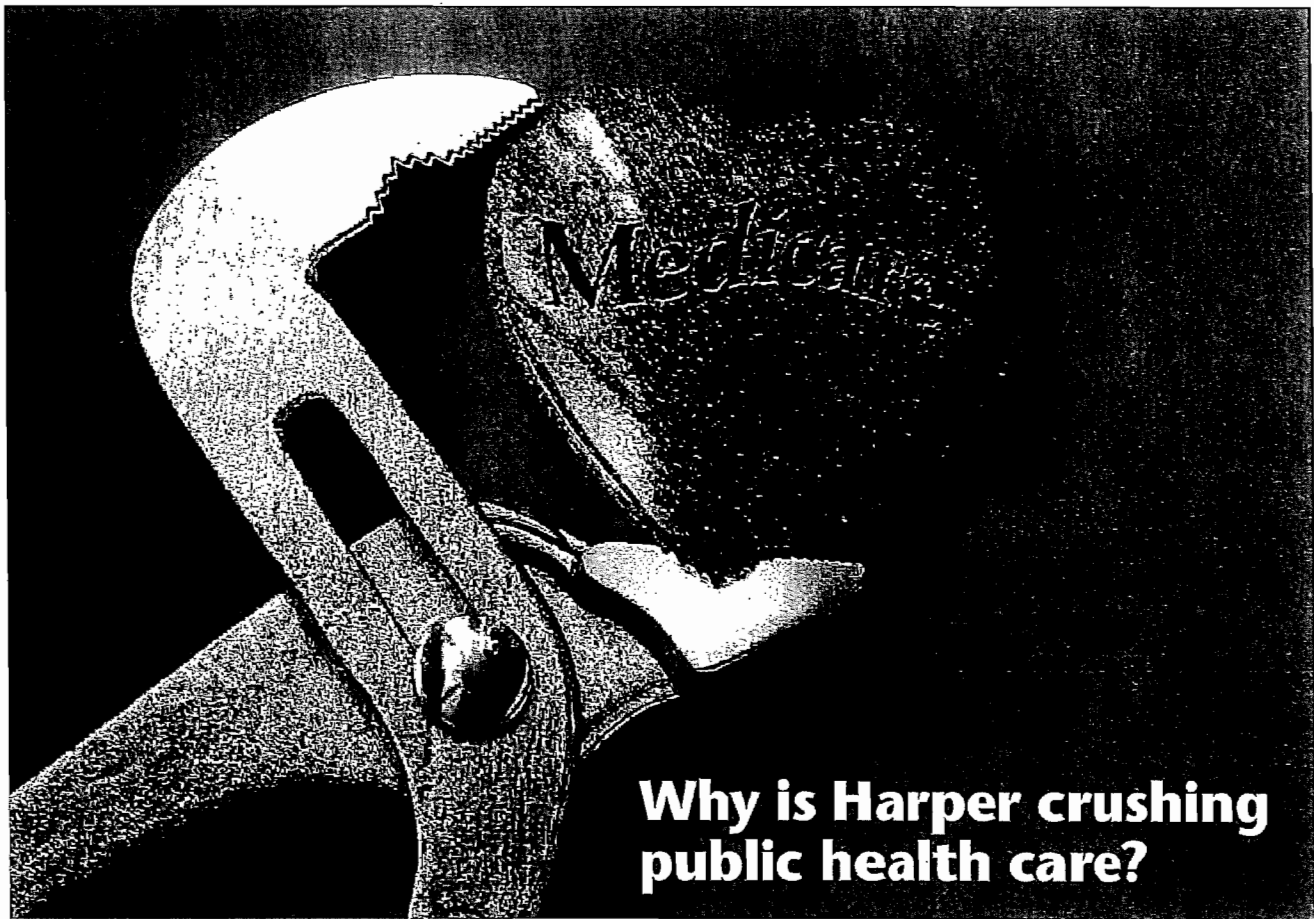
Art had begun this process to some extent last year and we will continue to seek input from our members.

Stay tuned.

For the very latest news about COSCO activities, please visit us on the web:

www.coscobc.ca

Fighting for public health care



Why is Harper crushing public health care?

This special report is reprinted with permission from The Advocate, the quarterly news magazine published by BC FORUM, a COSCO affiliate. Visit www.bcforum.ca to learn more about BC FORUM.

"I am concerned that without leadership from Ottawa and with reduced money, we are going to see a further slowdown of reforms, more regional disparities, and a push for more private health care."

– Roy Romanov, Chair of the Royal Commission on the Future of Health Care in Canada

Taking action to defend Medicare

CANADIANS MAY face bed shortages and more expensive prescription drugs now that the 10-year Health Accord between Ottawa and the provinces has expired. The federal government has walked away from the table, refusing to negotiate a new agreement.

"It means the end of any rational planning for the health care system," said Michael McBane, executive director of the Canadian Health Coalition (CHC).

To draw attention to the importance of the issue, thousands of Canadians participated in 40 events across the country on March 31, the day the Health Accord expired.

No federal leadership

McBane said a federal voice is needed to work towards equality of access throughout the country.

"The voice of Canada is the federal government, not the provinces. So national standards – to ensure equity of access regardless of where you live or your ability to pay – is a uniquely federal role. Nobody else can play that role," said McBane.

On the same day, the federal government shut down the Health Council of Canada which reported on health care problems and identified best practices to fix them.

"Without the Council, no one is doing that work," he said.

The Harper government has also announced, without consultation, that it is changing the funding arrangement with provinces and territories. They have eliminated the built-in equalization mechanism, starting this year. They will cut Ottawa's anticipated contribution to Medicare by \$36 billion, starting in 2017.

"Instead of negotiating a new Health Accord, Conservatives are



Stephanie Smith of the BCGEU, along with Diane Wood and Marion Pollack (not pictured) of BC FORUM, were among the thousands who participated in a national day of action to call for federal leadership in public health care.

downloading health care costs onto the provinces and turning their backs on a system that Canadians have relied on for generations," said Libby Davies, NDP Health Critic.

"As a result, we will see increased disparities across the country – longer wait times, reduced front-line services, and lack of access to home and long-term care," she said.

Rich Alberta gets more

The end of the equalization system means the federal contribution to health care will fluctuate widely across Canada.

Alberta gets an extra \$1 billion this year. B.C. loses \$250 million.

The federal share of health costs will be slashed from 20 percent to 11 percent in Manitoba. It will be increased from 15 percent to 20 percent in Alberta.

The funding changes imposed by the Harper government will undermine the provinces' ability to meet the requirements of the Canada Health Act, said McBane.

"You can't have a universal social program unless you have the financial means to have poorer regions subsidized or financially supported," he said.

"The sole gainer in this is Alberta. Almost everybody else loses," said McBane.

We need national Pharmacare

THE NEED for a national pharmacare program is becoming desperate, says Dr. Jeff Turnbull, chief of staff at Ottawa Hospital. Patients are doing without medicine that could potentially cure them because they can't afford it.

"For the first time in my career, I have patients saying: I just can't afford this. I am going to have to live with my illness," says Turnbull.

Patients are left to struggle with painful and debilitating disease for the rest of their lives because new drugs for rheumatoid arthritis cost \$30,000. The cost of drugs to com-

bat hepatitis C is in the range of \$80,000.

Turnbull despaired that doctors will have to make life-and-death decisions based on people's ability to pay.

A study by the Canadian Medical Association found that one in ten Canadians cannot afford to fill prescriptions. The record is worst in B.C. where 17 percent do without prescribed drugs.

The fragmented pharmacare systems found in Canada lack the administrative efficiency and purchasing power of a single-payer sys-

tem which could save Canadians as much as \$14-billion per year.

The Health Council of Canada, now disbanded by the Harper government, initially worked towards a pharmacare plan for catastrophic drug coverage, aiming to reduce costs through bulk federal purchasing and coordinated prescribing practices.

The Harper government, however, began to back away from this initiative shortly after the 2006 election. It is an issue that requires federal leadership. The provinces cannot do it on their own.

Health care: Now is the time

AFTER A YEAR and a half of consultations with thousands of Canadians in public forums and meetings with key stakeholders, NDP Health Critic Libby Davies (Vancouver East) has released a report that summarizes what she heard, and what needs to be done to improve public health care.

"This document outlines the concerns we heard from Canadians regarding primary care, home and long-term care, mental health, prescription drug coverage, and preventative health care," said Davies.

The work by Davies also outlines the steps that New Democrats propose to strengthen Medicare. Among the highlights, the report says the NDP will:

- Revoke the Conservatives' unilateral decision to take \$36 billion in anticipated funding out of health care.
- Support the development of new agreements with provinces and territories to improve health outcomes for Canadians.
- Invest in prevention by address-



Libby Davies, NDP Health Critic

ing the social determinants of health to ensure all Canadians have a decent income, access to healthy food, affordable housing and a social safety net.

- Ensure better value by working with provinces to make better use

of resources and fundamentally change how health care services are organized, managed and delivered.

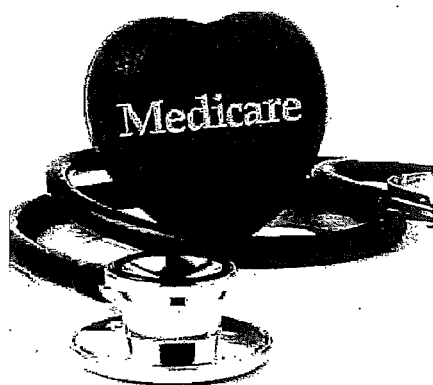
"The federal government has a clear role in ensuring that health care in Canada remains public and accessible," says the report.

"In particular, the federal government must investigate and enforce the ban on troublesome practices such as double-billing, queue-jumping, and increased privatization of medically necessary services."

The report identifies four major pillars for action: better access to prescription drugs, better care across the continuing care spectrum, timely access to primary care and prevention.

As an example of problems in the system, the report notes that half of Canadians cannot get a same day or next day appointment with their family doctors, thereby increasing the pressure on hospital emergency rooms.

You can read the full report on the web at www.ndp.ca/health.



**Tell
them
what
you
think!**

It's time for all of us to take action to defend public health care

BC FORUM, BCRTA and COSCO, along with other seniors groups in B.C. urge you to:

- Write, phone, or visit your Member of Parliament to call for federal leadership on health care.
- Complete the short survey below to share and register your views on what should be done to improve health care services for this and future generations.

Make your voice count

Please complete this survey in one of three easy ways:

- On the web: bcforum.ca, coscobc.ca or bcrt.ca
- Mail to Survey, 207 – 1530 Mariner Walk, Vancouver, B.C. V6J 4X9, or
- Scan and email to pither470@shaw.ca

1. Should the federal government negotiate a new Health Accord with provinces and territories in order to ensure there can be equal access to public health care across Canada?

Yes	No	Don't know
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Should the federal and provincial governments initiate a national Pharmacare program to provide better coverage for patients, and save up to \$14 billion a year through bulk purchases?

Yes	No	Don't know
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Since Medicare was implemented, the federal contribution has been cut from 50% to 20% in 2010. If current trends continue, it will drop to less than 12% over the next 25 years. Is it time for Ottawa to increase its contribution to public health care?

Yes	No	Don't know
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Should home support, extended care and palliative care be brought under the Canada Health Act as essential parts of the continuum of care?

Yes	No	Don't know
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Will the future of public health care be a key issue for you when you decide how to vote in the next federal election?

Yes	No	Don't know
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Taking a stand on health care

The following resolution was adopted unanimously by COSCO delegates on April 11

Whereas access to quality health care is a fundamental right of every Canadian resident, regardless of race, gender, disability, political belief, social conditions, location, or ability to pay.

Whereas a system of public and non-profit health care, publicly administered and delivered on a not-for-profit basis, contributes to the economic welfare of Canada and provides its citizens with high quality health care.

Whereas all levels of government have a role to play in the delivery of quality and accessible health care; and that the Federal Government should give strong leadership in enforcing

national standards and providing coordination, innovation, and federal transfers at a level that secures the integrity and reinforcement of the Canada Health Act of 1984.

Whereas all Canadians should have equitable access to safe, affordable, and appropriate medications; many Canadians depend on medications for their very lives.

Whereas Canadians should have the security of a continuum of community-based integrated services that includes a universal system of home care, home support and long-term care services, and hospice and palliative care; and that this continuum of services should be an integral part of a Canadian comprehensive health care system.

Whereas a comprehensive national health care system includes education, prevention, diagnosis, counselling,

and timely treatment.

Therefore be it resolved that the federal, provincial and territorial governments be urged to negotiate a new comprehensive health accord that protects, transforms, and strengthens our national health care system. This must include human and financial resources including a 6 per cent escalator, as well as a national seniors health care plan and a national pharmaceutical strategy that will improve health outcomes for Canadians; and further

That this meeting of the Affiliates of the Council of Senior Citizens' Organizations of British Columbia ask other seniors organizations and individuals to join us in declaring our commitment to use all democratic means to ensure that the foregoing proposals are implemented in a new Canadian health accord.

Making the most of new communication tools

By Alice Edge, Chair, COSCO Communications Committee

New technology has certainly changed how we communicate with our family, friends or community. Seniors have demonstrated they are as adept as the young folks at using the computer for email, research, skyping, Facebook, and tweeting.

Some have used smart phones to take and send photos of themselves and their activities and shared them with the world in real time. We have been encouraged and educated by our children and grandchildren.

COSCO has jumped on the techie bandwagon and its first fledgling journey is on Facebook. The plan is to report events attended by the executive, highlight articles and activities of interest and transition some communication like minutes of meetings and the newsletter to those who have access to computers or smart phones.

As you are likely aware postal rates have increased significantly and like so many other non-profit organizations, COSCO has to administer its finances wisely.

In addition to Facebook, our web site is being re-designed to make

it more esthetically pleasing, user friendly and useful in information sharing. Our plan is to use it for membership application/renewal and payment of fees in the future.

I would like to thank Gudrun Langolf, Second Vice President and Alex Hui, Member at Large for their support, enthusiasm and creativity to shape COSCO's future in the world of technology.

COSCO has heard your concerns that hard copy/paper communication must continue for the foreseeable future to continue the communication connection with our affiliates, associate members and the public.

A Campaign to "Keep the Heart in Medicare"

By JoAnn Lauber,
on behalf of the
Campaign Committee

WITH THE imminent expiry of the 2004 Health Accord on March 31, 2014, and the refusal of the federal government to negotiate with the provinces and territories to establish a new agreement, members of the BCRTA and COSCO sprang into action.

As seniors, many of us could remember, or had heard of, what life was like before Medicare, when a serious illness or accident could consign a family to months, even years, of struggle and toil to pay off medical debts. We were not about to sit idly by and allow our public health care system to be quietly dismantled.

We set out to arrange meetings with B.C.'s 36 Members of Parliament. During February, March and April, more than 90 BCRTA members and COSCO colleagues made contact with almost every B.C. MP. Twenty-nine MPs we met face-to-face in discussion. From two, we received printed communication. Two more we still hope to visit. Only three MPs would not meet with us, though we live in their constituencies and, as seniors, we do vote!

Some of the MPs who hold portfolios in Ottawa proved to be the most challenging to meet: "too busy" or no response, apparently not interested.

We asked the MPs whether they agreed that there is a need for federal leadership to negotiate a new 10-year health accord in order to secure the health care needs of citizens in all regions and into the future.

We asked them if they supported our requests, which were that a new Accord should include the following:

- Adequate and stable federal funding.



The first MP visit of the campaign: constituents Dale Lauber, JoAnn Lauber, MP Peter Julian (Burnaby- New Westminster), constituents David Scott and Bonnie Scott.

- A continuing Care Plan that integrates home, facility-based long term, respite and palliative care.
- A universal public drug plan that provides equitable access to safe and appropriate medication.

We were especially concerned about Ottawa's unilateral decision to reduce the health care funding and to change the funding to a per capita grant, which will mean losses in transfer funds to most provinces.

Each advocacy group sent us a report of the visit as they interpreted it.

Generally, those who spoke with Conservative MPs found their response to be similar-- that the health transfer funds were adequate and that the criteria surrounding future transfers were reasonable. When the changes came in 2017, the provinces would decide how to use the funds and how to make up the short fall.

The Liberal Party MPs generally support the three tenets we proposed for a new health accord, though they were not committed to the annual 6% escalator. Instead, they would institute stronger accountability measures to ensure that the provinces were

meeting set goals.

The Green Party MP supported a new Accord, not only protecting what is good in the system but also expanding and strengthening it.

The NDP MPs agreed enthusiastically with our proposals. They could see that a national drug plan would serve all Canadians well, ensure that all citizens had access to needed medications, and save billions of dollars.

In addition to visiting MPs, advocates submitted opinion articles, letters to editors and health accord materials to other community members. They sent valentines to the Prime Minister and to other federal ministers urging them to "Keep the Heart in Medicare." And they organized a number of public meetings.

As next steps, we have asked for a meeting with B.C.'s health minister, to see how the funding cuts will be dealt with here, and we are reaching out to national and provincial groups that share our concerns.

It is our intention to make this an election issue at all three levels of government.

Defending public health care in the courts

Patients, doctors, health groups join in court battle with for-profit clinic seeking US-style system

A GROUP of patients, doctors and health care advocates has won the right to present expert evidence defending Canadian health care in the BC Supreme Court. A constitutional challenge by private, for-profit clinic owner Brian Day could determine the future of Canadian public health care.

"Brian Day's plan to bring US-style health care to Canada would be disastrous for Canadians," said Dr. Rupinder Brar of Canadian Doctors for Medicare.

"If Dr. Day wins, physicians will be allowed to charge patients any amount they like for services, and patients who can pay will get faster care than the rest of us. A win for Dr. Day will mean skyrocketing costs and longer wait times in the public health system as it loses doctors to a parallel private system."

Brar said this could force patients to produce a credit card before getting the care they need.

"If we use all the evidence we have right now as to how to improve what we have, we can have a fantastic system with good access based on need and not ability to pay," she said.

Dr. Day operates the Vancouver-based for-profit Cambie Surgery Corporation, infamous for unlawfully billing patients for services covered by Medicare – in some cases, up to six times the legal amount.

Day and his clinics are behind a constitutional challenge to Medicare, scheduled to go to trial in BC Supreme Court this September.



Dr. Rupinder Brar from Canadian Doctors for Medicare and Adam Lynes-Ford, BC Health Coalition at the BC Supreme Court.

The coalition opposing Day includes, among others, the Canadian Doctors for Medicare and the BC Health Coalition.

These organizations are concerned that Day's case would increase health care costs while lengthening overall wait times for patients and erasing the fundamental Canadian principle of universal access to quality health care.

Also active in the coalition is a patient living with Limb-Girdle Muscular Dystrophy who could not afford and would not qualify for private health insurance under a US-style system.

"Our universal health care provides so much more than just hospitals," said Rick Turner, BC Health Coalition co-chair.

"It ensures that patients have access to care, that doctors can focus on practicing medicine, and that Canadian businesses aren't haggling over health benefits instead of creating new jobs. In September, we will present evidence to the Court that irrefutably

demonstrates the benefits of our single-payer, public health care system."

"Dr. Day claims that the defining principle at the heart of Canadian Medicare – that health services be provided according to patients' needs, not their ability to pay – is unconstitutional.

"If Day wins, the public health care system that Canadians rely on – and overwhelmingly support – will be effectively dismantled right across the country," said Turner.

The "Coalition Interveners" as they're called in court will present evidence highlighting how Day's challenge, if successful, would compromise patient health, disrupt medical practices, increase costs, and weaken the Canadian economy.

Last year, Day was ordered to disclose financial statements dating back five years. Investigators with the Medical Services Commission found evidence patients had been extra-billed for services covered by Medicare.

The case is scheduled to start September 8.

BC needs quality, affordable housing for seniors

By Barb Mikulec, Chair
COSCO Housing Committee

THE HOUSING issues facing seniors are complex and daunting.

It is projected that the number of people aged 75 or over will increase by 85 percent in 15 years, and the overall population of Vancouver will grow by almost 40,000. These trends will continue to drive up housing costs at a time when Vancouver already has very low vacancy rates and the most expensive housing in Canada. Pensions are already stretched by rising costs for basics like electricity, heating, cable and food.

The question arises, will seniors be able to live in their own communities? Will communities be age-friendly? Will downsizing mean a loss of the services and neighbourhoods that are familiar to seniors? Are we serving blind or deaf citizens with appropri-

ate housing and care homes with staff who are able to communicate and assist seniors to retain their cognitive skills?

It is important for housing to be safe, in a cultural space which respects the citizens. Clean air, water, diversity and livability are important. Housing needs to be available, decent and affordable. A large and growing number of seniors are living alone and do not have the support that comes with a shared household and this situation particularly affects older senior women. Shelter costs have risen while incomes have declined.

Ideally, seniors should be near transit, shopping, medical services and a community centre that provides programs for a healthy lifestyle and sociability.

A related concern is the problem facing tenants of co-ops who will lose

rental assistance when the Federal Co-operative Housing Program shuts down in 2020. This affects more than 3,000 BC households. The province and federal government must step up to make sure the subsidies continue.

One program which makes rent more affordable is the Shelter Aid for Elderly Renters. It provides support to BC seniors age 60 or over who have low to moderate incomes. For eligibility criteria, contact www.bchousing.org or (604) 433-2218.

COSCO's policy is to actively work with and maintain solidarity with community organizations to promote affordable, safe, accessible and quality housing. Our housing committee is working to gather information and become vocal on housing issues.

We invite your comments to Barb Mikulec, chair at mikulec@telus.net.

Membership Application

Please mail to the address below

- ☐ I wish to join COSCO as an Associate Member. I enclose my \$25 membership fee.
☐ I wish to make a donation to COSCO. Please find enclosed a cheque for \$_____.

Name: _____
(PLEASE PRINT)

Address: _____

Postal Code: _____ Phone: _____ Fax: _____

E-mail: _____

Date: _____ Signature: _____

Please make cheques payable to COSCO.

Mail your application to Ernie Bayer, Membership Secretary,
6079 - 184 A Street, Surrey, BC V3S 7P7 604 576-9734.

Seniors groups and organizations wishing more information about joining COSCO should write or phone Ernie Bayer and request a membership package.



Public Works & Transportation Committee

Date: Wednesday, July 23, 2014

Place: Anderson Room
Richmond City Hall

Present: Councillor Linda Barnes, Chair
Councillor Chak Au
Councillor Derek Dang
Councillor Linda McPhail
Councillor Harold Steves
Mayor Malcolm Brodie

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

MINUTES

It was moved and seconded

That the minutes of the meeting of the Public Works & Transportation Committee held on Wednesday, June 18, 2014, be adopted as circulated.

CARRIED

NEXT COMMITTEE MEETING DATE

Wednesday, September 17, 2014, (tentative date) at 4:00 p.m. in the Anderson Room

ENGINEERING AND PUBLIC WORKS DEPARTMENT

1. **FLOOD PROTECTION UPDATE 2014**
(File Ref. No. 10-6060-04-01) (REDMS No. 4265796)

In reply to queries from Committee, Lloyd Bie, Manager, Engineering Planning, provided the following information:

- staff did not receive many complaints related to rainfall this year;

Public Works & Transportation Committee

Wednesday, July 23, 2014

- staff liaise with the Vancouver Airport Authority with regard to dike planning for the Burkeville area;
- the City is well protected against potential future floods;
- the City's flood protection strategies are unique in that they are shaped by the rise and fall of the Pacific Ocean as oppose to freshet; and
- the City's flood protection strategies account for subsidence; for instance, of the 1.2 metres anticipated sea level rise, 0.2 metre is for subsidence.

Discussion ensued regarding the report titled *The Economic Importance of the Lower Fraser River* published by the Richmond Chamber of Commerce, in partnership with other Chambers of Commerce.

Robert Gonzalez, General Manager, Engineering and Public Works, noted that since the release of the report, which the City was not consulted on, staff have been working with the Richmond Chamber of Commerce to ensure that consistent information is disseminated to the public in regards to the City's flood protection. Also, Mr. Gonzalez noted that the City has proactively initiated many studies related to flood protection and has robust flood protection strategies.

In reply to further queries from Committee, Mr. Bie and Mr. Gonzalez provided the following information:

- staff anticipate bringing forward two submissions for backup generators at two drainage pump stations as part of the City's capital budget process;
- in the event of a power failure, staff can utilize mobile generators at drainage pump stations that are not equipped with backup generators; and
- Port Metro Vancouver (PMV) held a head lease for Shady Island; however it has expired, which reverted ownership back to the Province.

Discussion further took place regarding the report titled *The Economic Importance of the Lower Fraser River*, and it was noted that much of the information in the report is misleading in regards to City's flood protection infrastructure.

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

It was moved and seconded

That the staff report titled, Flood Protection Update 2014, dated June 23, 2014, from the Director, Engineering, be received for information, be forwarded to Council for information, and be published on the City website.

Public Works & Transportation Committee
Wednesday, July 23, 2014

The question on the motion was not called as staff was directed to prepare a press release in relation to the report titled *The Economic Importance of the Lower Fraser River*.

Also, Committee referenced a staff memorandum dated July 16, 2014 from the Director, Engineering titled 'Lower Mainland Regional Flood Management Strategy' (copy on file, City Clerk's Office), noting that the content of the memorandum is noteworthy and should be made available to the public.

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

2. EAST RICHMOND AGRICULTURAL WATER SUPPLY

(File Ref. No. 10-6060-04-01) (REDMS No. 4266052)

In reference to the report titled *The Economic Importance of the Lower Fraser River*, it was noted that, if the River were dredged to 18 metres to accommodate the increasing draft of ships, it could potentially result in a portion of Richmond eroding into the River. Also, discussion took place regarding the salt wedge.

In response to comments made by Committee, Mr. Bie advised that staff will continue to monitor the salt wedge as it relates to salinity in the north and south arm of the River.

It was moved and seconded

That the report titled East Richmond Agricultural Water Supply Update 2013 as attached to the staff report titled East Richmond Agricultural Water Supply, dated June 27, 2014, from the Director, Engineering, be used as input in the five year capital program process.

CARRIED

3. FRASER RIVER DREDGING AND ENVIRONMENTAL CONSIDERATIONS FOR STEVESTON HARBOUR AND STURGEON BANK

(File Ref. No. 10-6150-01) (REDMS No. 4239913)

In reply to queries from Committee, Mr. Bie, accompanied by Lesley Douglas, Manager, Environmental Sustainability, provided the following information:

- staff have participated in a series of discussions with PMV to investigate potential habitat restoration works at Sturgeon Bank;
- discussions with PMV focused on establishing appropriate baseline reporting, goals, objectives, and next steps required to determine the feasibility of restoration work; and

Public Works & Transportation Committee
Wednesday, July 23, 2014

- preliminary restoration strategies were discussed with PMV, including the deposit of dredge materials in the tidal flats, intended to abate erosion of both the mudflats and the foreshore march leading edge.

Discussion took place regarding the City's access to the River and the potential removal of the adjacent red zone.

In response to comments made by Committee, Mr. Bie and Ms. Douglas advised that staff will continue to liaise with PMV regarding the location of sand piles and the different manners in which marshes can be created.

The Chair commented on the significance of the staff report and requested that staff report on this matter annually. Also, it was noted that the staff report be forwarded to Council for its information and be published on the City website.

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

It was moved and seconded

That the staff report titled Fraser River Dredging and Environmental Considerations for Steveston Harbour and Sturgeon Bank, dated June 30, 2014, from the Director, Engineering, be received for information, be forwarded to Council for information, and be published on the City website.

CARRIED

4. CIGARETTE BUTT RECYCLING PROGRAM

(File Ref. No. 10-6370-01) (REDMS No. 4245647)

In response to a query from Committee, Dr. James Lu, Medical Health Officer, Vancouver Coastal Health, commented on joint initiatives with the City in regards to public awareness of provincial and local regulations related to smoking.

It was moved and seconded

- (1) *That the staff report titled Cigarette Butt Recycling Program, from the Director, Public Works, dated June 25, 2014, be received for information; and*
- (2) *That staff work with Vancouver Coastal Health Authority on strategies to reduce cigarette butt litter at the locations identified in the staff report titled Cigarette Butt Recycling Program, from the Director, Public Works, dated June 25, 2014.*

CARRIED

Public Works & Transportation Committee
Wednesday, July 23, 2014

5. REPORT 2013: ACHIEVING GOALS THROUGH COMMUNITY ENGAGEMENT

(File Ref. No. 10-6375-05) (REDMS No. 4258490)

The Chair highlighted that the City has achieved 70% waste diversion from single-family homes, and thanked those involved in attaining this milestone.

In reply to a query from Committee, Suzanne Bycraft, Manager, Fleet and Environmental Programs, advised that staff anticipate reporting on the City's pilot program for food scraps and organics collection for multi-family in the fall.

It was moved and seconded

That the annual report titled, Report 2013: Achieving Goals Through Community Engagement be endorsed and made available to the community through the City's website and through various communication tools including social media channels and as part of community outreach initiatives.

CARRIED

6. GRAYBAR ROAD DRAINAGE AND SANITARY MAIN REPLACEMENT

(File Ref. No. 10-6000-01) (REDMS No. 4255539)

In accordance with Section 100 of the *Community Charter*, Councillor Linda McPhail declared herself to be in a conflict of interest as her husband's business was affected by the Graybar Road drainage and sanitary main replacement and left the meeting (4:44 p.m.).

It was moved and seconded

That funding of \$325,000 from the Sanitary Utility Reserve and \$275,000 from the Drainage Utility Reserve be included as an amendment to the 5 Year Financial Plan (2014-2018) to complete the Graybar Road Drainage and Sanitary Main Replacement Project.

CARRIED

Cllr. McPhail returned to the meeting (4:45 p.m.).

7. 2014 CORPORATE ENERGY MANAGEMENT UPDATE

(File Ref. No. 10-6000-01) (REDMS No. 4258807)

It was moved and seconded

That the staff report titled 2014 Corporate Energy Management Program Update, dated June 25, 2014, from the Director of Engineering, be received for information.

CARRIED

Public Works & Transportation Committee
Wednesday, July 23, 2014

8. ELECTRIC VEHICLE PROMOTION AT COMMUNITY EVENTS

(File Ref. No. 10-6000-01) (REDMS No. 4258974)

Brendan McEwen, Manager, Sustainability, provided background information.

It was moved and seconded

That the City's participation in the Emotive electric vehicle initiative, as described in the staff report titled Electric Vehicle Promotion at Community Events, dated June 16, 2014, from the Director, Engineering, be endorsed.

CARRIED

9. ALEXANDRA DISTRICT ENERGY UTILITY EXPANSION PHASE 3

(File Ref. No. 10-6600-10-02/2014) (REDMS No. 4180584 v. 25)

In reply to queries from Committee, Alen Postolka, District Energy Manager, advised that the proposed expansion (Phase 3) of the Alexandra District Energy Utility (ADEU) will (i) triple its capacity, and (ii) connect approximately 60% to 70% of its total build out.

It was moved and seconded

That:

- (1) the expansion of the Alexandra District Energy Utility include additional geoexchange fields in the West Cambie Neighbourhood Park, with supplemental conventional energy systems for back up, as presented in the staff report titled Alexandra District Energy Utility Expansion Phase 3, dated July 3, 2014, from the Director, Engineering, be endorsed; and*
- (2) capital submissions totalling \$12.3M for design, construction and commissioning of the ADEU Phase 3 be submitted for Council's consideration as part of the City's Five Year Financial Plan (2015-2019).*

CARRIED

10. MANAGER'S REPORT

(i) Port Metro Vancouver Study

Victor Wei, Director, Transportation, spoke on an upcoming transportation study spearheaded by PMV, and noted that a detailed memorandum to Council is forthcoming.

Public Works & Transportation Committee

Wednesday, July 23, 2014

(ii) TransLink – Compass Card

Mr. Wei advised that TransLink has delayed the rollout of the compass card program due to technical difficulties. He noted that the compass cards and their reading devices have been continuously performing inconsistently and therefore, TransLink has not set an anticipated rollout date.

(iii) Crosswalk Traffic Signals

In reply to a query from Committee regarding the effectiveness of crosswalk traffic signals, Mr. Wei advised that staff will be conducting a compliance assessment at the commencement of the school year. He noted that selected crosswalks will be observed and staff will report back with their findings.

In reply to further queries from Committee, Mr. Wei advised staff will also provide current statistical information related to accidents.

ADJOURNMENT

It was moved and seconded

That the meeting adjourn (4:55 p.m.).

CARRIED

Certified a true and correct copy of the Minutes of the meeting of the Public Works & Transportation Committee of the Council of the City of Richmond held on Wednesday, July 23, 2014.

Councillor Linda Barnes
Chair

Hanieh Berg
Committee Clerk



City of Richmond

Report to Committee

To: Community Safety Committee

Date: June 19, 2014

From: John McGowan
Fire Chief

File: 99-Fire Rescue/2014-
Vol 01

Re: Lafarge Canada Inc. – High Angle Rope Rescue Service

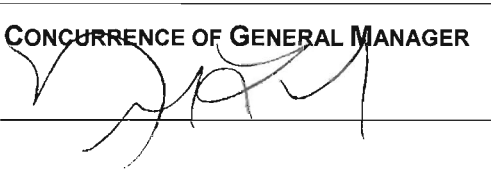

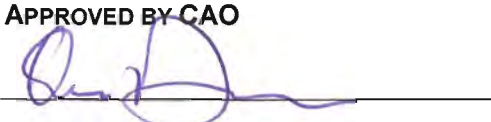
Staff Recommendation

That the Chief Administrative Officer and General Manager, Law and Community Safety be authorized to negotiate and execute an amendment to the existing Confined Space Rescue Service Agreement between the City and Lafarge Canada Inc. (Lafarge) to include Technical High Angle Rope Rescue services by Richmond Fire-Rescue to Lafarge operations at 7611 No.9 Road on the terms and conditions outlined in the staff report titled "High Angle Rope Rescue Services" dated June 19, 2014 from the Fire Chief.



John McGowan
Fire Chief
(604-303-2734)

Att. 1

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

Staff Report

Origin

This report supports Council's Term Goal 1:

To ensure Richmond remains a safe and desirable community to live, work and play in, through the delivery of effective public safety services that are targeted to the City's specific needs and priorities.

At the Council meeting, held on October 24, 2011, the Chief Administration Officer and the General Manager of Law and Community Safety were authorized to:

To negotiate and execute on behalf of the City, a fee-for-service agreement for the provision of Confined Space Rescue services by the City's Fire Rescue Division to Lafarge Canada Inc.'s operations at 7611 No. 9 Road on the terms and conditions outlined in the staff report titled "Lafarge Canada Inc. – Confined Space Rescue, Fee-for-Service Agreement" dated September 23, 2011.

In June 2012, the Confined Space Rescue Services Agreement was signed and activated. Subsequently, an effective strategic alliance with Lafarge was developed.

Richmond Fire-Rescue (RFR) conducted the familiarized inspections, and has been on stand-by 24 hours a day, seven days a week, available to respond if requested. Fortunately, a confined space incident has not occurred on the Lafarge site and therefore RFR confined space rescue services have not been requested.

Analysis

With the success of the confined space rescue agreement, Lafarge has expressed a desire to expand the service agreement to include Technical High Angle Rope Rescue (THARR).

Under the Occupational Health and Safety Guidelines, for the Industrial High Angle Rope Rescue Program Lafarge conducted a risk assessment and identified the requirement for a THARR program.

The guidelines provide that if the local fire department has THARR capabilities, an employer can enter into agreement with the local fire department to provide the THARR services. The written agreement with the fire department may require agreement terms such as:

1. site inspections to determine site suitability for rescue purposes; and
2. the provision of additional and reasonable support to assist rescue capabilities.

RFR has a THARR program and therefore is capable of providing the service to Lafarge. The THARR service provision would be under similar conditions as the existing Confined Space Rescue Service Agreement, whereby, RFR would be on standby and respond when requested. It is proposed to amalgamate the two services into one agreement, with very similar terms and no additional cost to Lafarge, since RFR is able to provide the THARR services without incurring additional costs to the City. The monthly site inspections can occur at the same time for both services.

Lafarge has also committed to providing, at their costs, improvements to the training site that RFR will occupy. Those include, install fencing with lockable gate and a fire hydrant for the City's use as well as provide use of the classroom trailer currently on site.

The proposal to enter into a THARR program agreement with Lafarge will not affect the delivery of fire and rescue emergency services to the City, as the existing agreement provides that service. Since 2006 RFR has not respond to a THARR event at the Lafarge plant. In the event that RFR resources are fully deployed RFR will notify Lafarge that technical rescue services (confined space and THARR) will be suspended until such time that RFR resources are fully available.

The Confined Spaces Services Agreement would be amended to include THARR services to the rescue services provided under the contract, on the same terms and conditions and for the same fees as the current contract. The current contract terms are as follows:

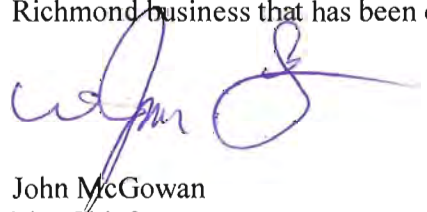
1. **Basic Services:** being on standby 24 hours per day, 7 days per week; performing emergency rescue services when necessary and conducting 12 on-site familiarization visits per year at Lafarge's operation at 7611 No.9 Road.
2. **Additional Services:** dedicated on-site THARR team, on request by Lafarge.
3. **Term:** one year with automatic annual renewals subject to termination with 6 months notice.
4. **Fee for Basic Services:** \$14,300 per year, adjusted annually on the WorkSafe BC rates for THARR services, plus 12 site visits/year @ \$250 per visit. This fee is based on a full cost recovery basis.
5. **Fee for Additional Services:** cost recovery based on the hourly rate plus benefits and equipment of the RFR emergency response team and back fill of RFR staff.
6. **Indemnity:** Lafarge Canada Inc. shall hold harmless and indemnify the City of Richmond against any and all claims and actions arising from providing the services.

Financial Impact

No further financial impacts beyond the current contract terms.

Conclusion

Providing both confined space rescue and THARR rescue services to Lafarge provides mutual benefits to both parties including the creation a strong working relationship with a long-standing Richmond business that has been operating since 1958.



John McGowan
Fire Chief
(604-303-2734)

JM:kh

Att. 1: G4.13(3)(a) Industrial high angle rope rescue program REDMS #4254855



City of Richmond

Report to Committee

To: Community Safety Committee

Date: June 27, 2014

From: John McGowan
Fire Chief

File: 09-5140-01/2014-Vol
01

Re: Fire Protection and Life Safety Bylaw Update

Staff Recommendation

1. That Fire Protection and Life Safety Bylaw No. 8306, Amendment Bylaw No. 9151, be introduced and given first, second, and third readings.
2. That Consolidated Fees Bylaw No. 8636, Amendment Bylaw No. 9152, be introduced and given first, second, and third readings.
3. That Municipal Ticket Information Authorization Bylaw No. 7321, Amendment Bylaw No. 9153, be introduced and given first, second, and third readings.
4. That Notice of Bylaw Violation Dispute Adjudication Bylaw No. 8122, Amendment Bylaw No. 9154, be introduced and given first, second, and third readings.

John McGowan
Fire Chief
(604-303-2734)

Att. 4

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

Staff Report

Origin

This report supports Council Term Goal 1:

“To ensure Richmond remains a safe and desirable community to live, work and play in, through the delivery of effective public safety services that are targeted to the City’s specific needs and priorities.”

Richmond Fire-Rescue’s *Fire-Rescue Plan 2012-2015* identifies the review of fire related regulations and enforcement mechanisms associated with those regulations as a short term objectives. This report provides proposed changes to the Fire Protection and Life Safety Bylaw to enhance and streamline RFR’s Fire Prevention problem.

Background

Changes to encourage compliance with the City’s Fire Protection and Life Safety Bylaw No. 8306 regulations are presented for Council’s consideration and include:

1. the use of the adjudication process so that the public can more easily be heard should they have any concerns relating to their tickets;
2. establishing consistency of fine amounts with other municipalities and enhancing the ability to ticket;
3. the authority to charge for new fees for service; record retrieval, training for the private sector;
4. the consolidation of the existing Fireworks Regulation Bylaw into the Fire Protection and Life Safety Bylaw;
5. providing the Fire Chief the ability to set conditions for the hours of fireworks display times;
6. Community Services staff with the right to enter any property where a fireworks display is proposed or taking place;
7. decreasing the existing fire alarm activation standby time from 60 minutes to 30 minutes; and
8. additional authority for Fire, Police, Bylaw or Health inspectors to address both fire and security alarms.

Analysis

The rationale for the proposed changes to the Municipal Ticketing Information Bylaw No. 7321 and Notice of Bylaw Violation Dispute Adjudication Bylaw No. 8122 are as follows:

Enforcement

RFR’s progressive approach to enforcing the regulations in the City’s Fire Protection and Life Safety Bylaw is similar to other municipal enforcement programs with the intent of gaining voluntary compliance.

Municipal ticketing, the issuance of compliance orders, and in serious cases provincial court charges, are the enforcement tools available. In the past, RFR has relied on the issuance of orders through its fire inspectors for serious offences and infrequently utilized municipal ticketing for less serious offences. A broader implementation of the ticketing enforcement program will help sustain a safe community.

RFR's current approach to enforcement for lesser offences and community safety can be improved through the greater use of Municipal Ticket Information (MTI) and their inclusion in the adjudication process for disputing tickets. Using an integrated approach, RFR suppression crews will now be issuing MTI's during their routine fire inspections. Before the implementation in 2014, RFR suppression crews would be trained to ensure consistency in enforcement and proper issuance of tickets.

To bring about the change in enforcement approach, bylaw changes are proposed that provide a separation between the more serious and lesser offences based on their level of safety risk. Lesser offences, where provincial court proceedings are not appropriate, will be moved to the Notice of Bylaw Violation Dispute Adjudication Bylaw (see Attachment 1). The maximum penalty set by municipalities under the provincial adjudication legislation is \$500. The contravention penalty in the Adjudication Bylaw schedule provides early payment options for the different penalty levels as shown in Figure 1, below.

Figure 1.		
Penalty 29 to 60 days	Early Payment Option 1 to 28 days	Late Payment Amount 61 days or more
\$400	\$300	\$500
\$200	\$150	\$250
\$75	\$75	\$100

New \$100 offences relating to fire hydrants on private property have been added, as there were no existing offences (see Attachment 2) for:

- 1) Failure to maintain space around the fire hydrant [Sec. 5.7.1(a)]
- 2) Failure to maintain ground cover and clearance around hydrant [Sec. 5.7.1(b)]
- 3) Failure to maintain, inspect and service or test hydrant [Sec. 5.7.4]
- 4) Failure to provide written hydrant inspection report [Sec. 5.7.5(b)]

The serious offence fine amounts, such as a failure to comply with orders or compromising fire protection equipment, were reviewed and are recommended to increase to \$1,000 (see Attachment 3).

The rationale for the proposed changes to Fire Protection and Life Safety Bylaw No. 8306 are as follows:

a) *Fire Watch Regulations*

The Fire Watch is a Life Safety process which temporarily replaces an alarm and/or sprinkler protection system while in-operable/under repair. The Fire Watch warning system and inspection process can be ordered by RFR to be introduced within a building when any portion of the fire alarm, sprinkler or emergency power systems are not working. The Fire Watch is maintained until such time as all required systems are in operation.

The fine proposed if there is a contravention of the requirement to provide a Fire Watch is \$1000.00, which is in alignment with the seriousness of the offence to public safety. The inclusion of this fine in the MTI Bylaw would permit tickets to be issued immediately upon discovery of contravention.

b) *New Fees for Public Service Requests*

RFR delivers fire extinguisher training to Richmond for profit groups and is seeking to recover program delivery costs including staff time, extinguisher materials and fuel. On average RFR delivers training to 6 for profit groups annually, the proposed new fee would be \$25 per person for profit groups.

RFR receives requests for records and information relating to the history of RFR service to a property or individual and is seeking the authority to charge for this service. Currently the Consolidated Fees Bylaw 8636 contains a fee of \$66.50 per property for the preparation of an information or comfort letter for general land use or building issues. RFR is proposing to establish the authority to charge a fee of \$66.50 per request for fire records research, copying and or letter. The fee covers staff time for research and processing these non-FOI requests.

c) *Fireworks Regulations*

The incorporation of the Fireworks Regulation Bylaw No. 7917 into the Fire Protection and Life Safety Bylaw No. 8306 would consolidate fire related bylaws regulations into a single bylaw for ease of the public's access.

With fireworks being more frequently used during private celebrations, an ability to set conditions for fireworks display times (ie. 7pm to 8pm) would afford the Fire Chief the opportunity to consider the potential impact of the time of the display on the surrounding residents as part of the permit issuance considerations.

The ability of the Fire Chief to designate additional persons such as Community Services staff, with the right on behalf of the City to enter any property where a fireworks display is proposed or is taking place. The change would recognize the important role that the Community Services staff provide in attending events well in advance to ensure that the fireworks displays are conducted in a safe manner and ensuring the terms of the permit (including setup location) are followed.

These changes will allow RFR on-duty suppression crews to continue to respond to emergency calls and, as available, attend shortly before the fireworks event is scheduled to begin.

d) Fire and Security Alarm – Regulations and Response

RFR responds to fire alarm activations and once the response is complete, the fire alarm system needs re-setting. Currently a property representative must attend the premises within 60 minutes after a fire alarm system has activated. Depending on the circumstances and potential risk, the suppression crews and apparatus may be required to remain on standby at the premises until such time as the property representative arrives on site.

Decreasing the existing fire alarm activation standby time from 60 minutes to 30 will reduce suppression crews and apparatus standby times and increase their availability to respond to other emergency 911 calls within their primary response zones. There is an existing standby fee charged of \$452.00 per vehicle after 60 minutes (per vehicle, per hour).

The addition of the authority for Fire, Police, Bylaw or Health inspectors to address the continuous ringing and stopping of both fire and security alarms and the authority to charge for their attendance to these types of calls is recommended. Currently there is no provision to charge for such response.

e) Administrative Changes to the Existing Bylaw

1. The Fire Department Establishment Bylaw No. 4987 is already incorporated into the Fire Protection and Life Safety Bylaw No. 8306, and thus can be repealed.
2. The definition of "Fire Department" is amended to use "Richmond Fire-Rescue".

Financial Impact

There is no financial impact. The increased fines are considered a deterrent and compliance incentive; the fee changes, corrections and additions presented in this report are not expected to result in any significant change to revenue.

Conclusion

The presented bylaw amendments, procedures and changes relating to enforcement bring logic and consistency to the degree of seriousness of the Fire Protection and Life Safety Bylaw.



Kevin Gray
Deputy Fire Chief
(604-303-2700)

- Att. 1: Proposed Adjudication Bylaw schedule
2: Fire Protection and Life Safety Bylaw – reference 5.7 Fire Hydrants on Private Property
3: Proposed MTI Offence Fine Changes
4: Bylaws: No. 8306, No. 8636, No. 7321 and No. 8122

A1 Bylaw	A2 Description of Contravention	A3 Section	A4 Compliance Agreement Available	A5 Penalty	A6 Early Payment Options	A7 Late Payment Amount	A8 Compliance Agreement Discount
Fire Protection and Life Safety Bylaw No. 8306	Interference with member at incident	3.5.1	No	\$400	\$300	\$500	n/a
	Interference with member determining cause	3.5.2					
	Unauthorized entry to scene	3.6.1					
	Obstructing assistance response	3.8					
	Unwarranted evacuation response	6.2					
	Ignition of fireworks without a display permit	9.14.3					
	Ignition of fireworks contrary to terms of display permit	9.14.3					
	Ignition of fireworks in manner that endangers or causes nuisance to a person or property	9.14.3					
	Ignition of fireworks without property owner's permission	9.14.4					
	Open Air Burning without permit	4.1.1 (f)	No	\$200	\$150	\$250	n/a
	Failure to Comply with open air permit conditions	4.5.3					
	Failure to submit acceptable plan	7.1.1 (a)					
	Possession of fireworks without a plan	9.14.2					
	Permit required – No permit – general	4.1.1	No	\$75	\$75	\$100	n/a
	Failure to Comply with permit conditions	4.4.1					
	Failure to post or produce permit	4.4.1 (d)					
	Missing caps	5.2.2					
	Failure to back-flush	5.2.2					
	Obstructed access	5.2.3					
	Failure to post sign	5.2.4					
	System protection capacity exceeded	5.3.1					
	System performance confirmation not provided	5.3.2					
	System performance confirmation deficient	5.3.3					

System not maintained during demolition	5.4				
Not maintained, tested, repaired or replaced	5.6.1				
Unapproved hose connection, colour or location	5.6.1				
Unauthorized use	5.6.2				
Obstructed view	5.7.1				
Failure to provide clearance or ground cover	5.7.1				
Failure to maintain space around the fire hydrant	5.7.1 (a)				
Failure to maintain ground cover and clearance around fire hydrant	5.7.1 (b)				
Failure to maintain, inspect, service, or test hydrant	5.7.4				
Failure to provide written hydrant inspection report	5.7.5 (b)				
No signs/ Unapproved signs	5.9.2				
Secured route – No signs/Unapproved signs	5.9.3				
Parking in emergency route	5.9.4 (a)				
Interfering with, hindering or obstructing access	5.9.4 (b)				
Failure to provide contact persons	6.1.2				
Contact person without access or ability to secure	6.1.4				
Failure to locate plan on premises	7.1.1 (d)				
Trained supervisory staff not designated	7.1.2				
Trained supervisory staff not present	7.1.3				
Inadequate training of supervisory staff	7.1.4				
Failure to submit acceptable pre-incident plan	7.2.2				
Access or keys not accessible	7.3.1				
Storage box not approved	7.4.1				
Fire safety plan inaccessible by Fire Dept	7.4.2				
Obstructed access or egress	7.6.1				

Required rooftop passageway obstructed	7.8.1					
Unauthorized re-entry	7.9.1					
Failure to display civic address	7.10.1					
Deficiency in civic address	7.10.1					
Obstructing inspection	8.2.1					
Causing or permitting fire hazard	9.1.1					
Failure to relocate container	9.2.1					
Unsafe storage or use	9.3					
Fuel not removed to safe location	9.5.1					
Failure to report hazard, spill or incident	9.6.1					
Vacant – failure to maintain or secure	9.7.2					
Damaged building – failure to secure	9.8.1					
Failure to comply with display conditions	9.9.1					
Failure to post system operating instructions	9.10.1 (c)					
Extension cord used as permanent wiring	9.13.1					
Failure to maintain means of egress	10.1.1					
Smoke emitting security system obstructing exit	10.1.2					
Deficient access to exit	10.1.3					
Non-approved locking device on exit door	10.1.4					
Failure to display elevator use sign	10.1.5					
Obstruction of required self-closing door	10.1.8					
Failure to maintain an exit sign	10.1.10					
Failure to inspect or test emergency lighting	10.1.11					
Improper storage	10.2.1					
Failure to use required forms	12.1.3					
Failure to provide form to the Fire Chief	12.1.3					
Failure to post local alarm sign at pull station	12.1.5					

FIRE PROTECTION and LIFE SAFETY Bylaw No. 8306**5.7 Fire Hydrants on Private Property**

5.7.1 Where a fire hydrant is located on private property, the **owner** or **occupier** of the **premises** must:

- (a) maintain the space around the fire hydrant with stable ground cover and a clear and unobstructed area for a radius of at least one (1) metre; and
- (b) maintain ground cover and clearance around the hydrant so as to provide a clear view of the fire hydrant from the street when being approached from either direction.

5.7.4 The **owner** or **occupier** of **premises** on which a private fire hydrant is installed, must ensure that the hydrant is maintained in good working condition at all times and that the hydrant is inspected, serviced and tested at least yearly by a **Fire Protection Technician** in accordance with the requirements of the **Fire Code**.

5.7.5 Without limiting Section 5.7.4, the **owner** of property on which a private fire hydrant is installed must:

- (b) provide the **Fire Chief** with a written report of the inspection, servicing and testing performed on the private fire hydrant during the previous twelve months.

Proposed MTI Offence Fine Changes

Offence	Original Fine	New Fine
Fire Protection Equipment		
Failure to inspect, test or maintain	\$100	\$1,000
Fire Hydrant		
Tampering	\$100	\$1,000
Unauthorized removal	\$100	\$1,000
Private Hydrant/Water Supply		
Failure to comply with maintenance order	\$100	\$1,000
Premises Under Construction		
Fire access route unsuitable	\$100	\$1,000
Fire protection water supply not installed	\$100	\$1,000
Failure to notify of new fire hydrant	\$100	\$1,000
Failure to notify of conditions affecting fire safety	\$100	\$1,000
Emergency Access Route		
Unauthorized securing	\$100	\$1,000
Evacuation of Buildings		
Failure to comply with evacuation order	\$100	\$1,000
Fire Hazards		
Failure to comply with hazard removal order	\$100	\$1000
Flammable Combustible Liquids		
Failure to comply with liquids removal order	\$100	\$1,000
Vacant or Damaged Premises		
Failure to comply with secure premises order	\$100	\$1,000
Commercial Cooking Equipment		
Failure to clean or maintain equipment	\$100	\$1,000
Combustible Dust and Dust Removal		
Failure to control or remove combustible dust	\$100	\$1,000
Safety to Life		
Tampering with or unauthorized use of fire protection equipment	\$100	\$1,000
Fire Protection Equipment - Inspection and Testing		
Failure to inspect or test fire protection equipment	\$100	\$1,000
Fire Watch		
Failure to provide or initiate a system of fire watch	new	\$1,000
Fireworks		
Purchasing of Fireworks	\$1,000	same
Sell or Distribute Fireworks	\$1,000	same
Displaying fireworks for the purpose of sale	\$1,000	same

Bylaws:

- Fire Protection and Life Safety Bylaw No. 8306 amendment Bylaw No. 9151, 2014
- Consolidated Fees Bylaw No. 8636 Amendment Bylaw No. 9152, 2014
- Municipal Ticket Information Authorization Bylaw 7321 Amendment Bylaw No. 9153, 2014
- Notice of Bylaw Violation Dispute Adjudication Bylaw No. 8122 Amendment Bylaw No. 9154, 2014



**Fire Protection and Life Safety Bylaw No. 8306,
Amendment Bylaw No. 9151**

The Council of the City of Richmond enacts as follows:

1. The **Fire Protection and Life Safety Bylaw No. 8306**, as amended, is further amended at Part 2, by deleting subsection 2.6.1 and substituting the following:
 - 2.6.1 The provisions of this bylaw apply to all **buildings, structures, premises** and conditions within the **City** and, for certainty, apply to both existing **buildings** and **buildings** under **construction**.
2. The **Fire Protection and Life Safety Bylaw No. 8306**, as amended, is further amended at Part 6, by deleting the opening paragraph of subsection 6.1.4 and substituting the following:
 - 6.1.4 Where a contact person fails to respond to a fire alarm and attend the premises within 30 minutes:
3. The **Fire Protection and Life Safety Bylaw No. 8306**, as amended, is further amended at Part 6, by deleting subsection 6.1.4(b) and substituting the following:
 - (b) the **owner** or **occupier** of the **premises** shall be liable to reimburse the **City**, at the rates in the amount set from time to time in the Consolidated Fees Bylaw No. 8636 for the cost to the **City** of all time during which **Richmond Fire-Rescue apparatus** and **members** were required to remain on standby at the **premises**, commencing after the 30 minute time period specified in this Section, until such time as a contact person, **owner** or **occupier** arrives to attend at, provide access to, or secure the **premises**.
4. The **Fire Protection and Life Safety Bylaw No. 8306**, as amended, is further amended at Part 6, by the addition of new subsection 6.3:

6.3 Fire Watch

- 6.3.1 The owner or occupier of any building in which any of the fire alarm system, automatic sprinkler system, or emergency power system, or any portion thereof, if not operating, shall institute and maintain a **fire watch** in that building until all required systems are in operation.

5. The **Fire Protection and Life Safety Bylaw No. 8306**, as amended, is further amended at Part 9 by the addition of new subsection 9.14:

9.14 Fireworks Regulation

- 9.14.1 A person must not purchase, sell, display for the purpose of sale, offer for sale, give, dispose of or distribute **fireworks** to any person.
- 9.14.2 A person must not possess **fireworks** except as permitted under a **display permit**.
- 9.14.3 Subject to subsection 9.14.4, a person must not ignite, explode, set off or detonate **fireworks**:
- (a) except in accordance with the terms of a **display permit**;
 - (b) in such a manner as may endanger or create a nuisance to any person or property.
- 9.14.4 A person who is permitted by this bylaw to ignite, explode, set off or detonate **fireworks** must only do so on property, whether privately or publicly held, with the written consent of the owner or the agent for the owner of such property.
- 9.14.5 A person may apply to the **Fire Chief** for a **display permit** which authorizes the holder to ignite, explode, set off or detonate **fireworks** in accordance with the terms of the **display permit**.
- 9.14.6 To obtain a **display permit**, the applicant must be at least 18 years of age and submit:
- (a) a completed **display permit** application;
 - (b) an indemnity agreement;
 - (c) an application fee in the amount set out from time to time in the Consolidated Fees Bylaw No. 8636;
 - (d) an authorization signed by the property owner or owner's agents, where the **fireworks** event is to occur on property not owned by the applicant;
 - (e) a certificate of insurance showing evidence that the applicant has comprehensive general liability insurance which:
 - (i) has a coverage limit of not less than \$5,000,000 per occurrence;
 - (ii) includes the **City** as an additional named insured;
 - (iii) has a deductible of not more than \$5,000, unless the **City** advises in writing that it consents to a higher deductible; and
 - (f) proof of Fireworks Supervisor or Pyrotechnician certification issued to the applicant by the Explosives Regulatory Division of Natural Resources Canada at least ten **business days** prior to the fireworks event.
- 9.14.7 The **Fire Chief** is authorized to:

- (a) issue **display permits** to eligible applicants;
 - (b) refuse to issue a **display permit** where the applicant has failed to meet the requirements of section 9.14.6;
 - (c) refuse to issue a **display permit** where the applicant has provided false information on the application for the permit;
 - (d) impose terms and conditions on a **display permit** regarding the following:
 - (i) the location at which the **fireworks** display may take place;
 - (ii) the time or times within which the **fireworks** display may take place;
 - (ii) fire safety precautions which must be taken with respect to the **fireworks** display;
 - (iii) safe storage of **fireworks**;
 - (e) revoke, cancel, or suspend a **display permit** where:
 - (i) the holder has violated the terms and conditions of the **display permit** or the provisions of this bylaw or any applicable provincial or federal legislation;
 - (ii) the holder has acted in such a manner as to endanger property or public safety; or
 - (iii) environmental or weather conditions are such that the use of **fireworks** would endanger property or public safety; and
 - (f) conduct an examination or analysis of an article that appears to be a **firework**, and to prepare a report confirming that the **Fire Chief** has examined or analyzed the item, describing the results of the examination or analysis, and stating whether or not, in the opinion of the **Fire Chief**, the item is a **firework**.
- 9.14.8 The holder of a **display permit** must comply with the terms and conditions specified in the **display permit** and the requirements of this bylaw, all other bylaws of the **City**, and all applicable provincial and federal legislation.
- 9.14.9 In the event that a **display permit** is denied, revoked, cancelled or suspended, the application fee is non-refundable.
- 9.14.10 A **display permit** is:
- (a) valid only for the location and during the times specified in the **display permit**; and
 - (b) not transferable.
- 9.14.11 **Fire inspectors, bylaw enforcement officers, police officers** and others as designated by the **Fire Chief** are authorized to enter on property at any time to determine whether the requirements of a **display permit** and of this and other applicable bylaws of the **City** and any applicable provincial or federal statutes are being met.

6. The **Fire Protection and Life Safety Bylaw No. 8306**, as amended, is further amended at Part 14, by deleting subsection 14.3 and substituting the following:

14.3.1 This bylaw may be enforced by means of a ticket issued under the City's *Municipal Ticket Information Authorization Bylaw, No. 7321*, as amended or replaced from time to time.

7. The **Fire Protection and Life Safety Bylaw No. 8306**, as amended, is further amended at Part 14, by the addition of new subsection 14.4:

14.4 Notice of Bylaw Violation

14.4.1 A violation of provisions of this bylaw may result in liability for penalties and late payment amounts established in Schedule A of the Notice of Bylaw Violation Dispute Adjudication Bylaw No. 8122, as amended or replaced from time to time.

14.4.2 A violation of provisions of this bylaw may be subject to the procedures, restrictions, limits, obligations and rights established in the *Notice of Bylaw Violation Dispute Adjudication Bylaw No. 8122* in accordance with the *Local Government Bylaw Notice Enforcement Act, SBC 2003, c.60*.

8. The **Fire Protection and Life Safety Bylaw No. 8306**, as amended, is further amended at Part 15, by deleting subsection 15.1.1 and substituting the following:

15.1.1 Every person who applies for any of the following services of **Richmond Fire-Rescue** must pay the applicable fee in the amount set from time to time in the Consolidated Fees Bylaw No. 8636 of this bylaw:

- (a) a **permit** required under Part Four;
- (b) review of a new **fire safety plan**;
- (c) review of an existing or amended **fire safety plan**;
- (d) review of a **fire safety plan** for demolition and construction;
- (e) review of a new **pre-incident plan**;
- (f) review of an existing **pre-incident plan**;
- (g) for a security alarm routed to **Fire Department**;
- (h) for providing public education services including, but not limited to, fire extinguisher training; and
- (i) file records research.

9. The **Fire Protection and Life Safety Bylaw No. 8306**, as amended, is further amended at Part 15, by deleting subsection 15.4.1(d) and substituting the following:

(d) carries out open air burning of combustible materials without a permit;

shall be deemed to have caused a nuisance and, in addition to any penalty imposed under this bylaw or otherwise by law, shall be liable to pay the actual costs and expenses incurred by **Richmond Fire-Rescue** in abating that nuisance by responding to and investigating the fire, loss or false alarm, calculated in accordance with the rates in the amount set from time to time in the Consolidated Fees Bylaw No. 8636 of this bylaw.

10. The **Fire Protection and Life Safety Bylaw No. 8306**, as amended, is further amended at Part 15 by the addition of new subsections 15.5.6 through 15.5.10:

- 15.5.6 A person must not cause, permit, or allow, a security or fire alarm:
- (a) to **sound** continuously or sporadically for a period of more than 2 hours; or
 - (b) to continue to **sound** once the **premises** or **vehicle** is secure.
- 15.5.7 For the purposes of subsection 15.5.6, a person is deemed to have caused the **sound** even if the sounding of the alarm arose from malfunction of the said alarm.
- 15.5.8 In the event of a violation of subsection 15.5.6, an **inspector** may stop the alarm from sounding by:
- (a) in the case of a house alarm, entering onto the property, including entering into any buildings on the property, and disabling the alarm by whatever means possible; and
 - (b) in the case of a **vehicle** alarm, by having the alarm disconnected and towing the **vehicle**, at the owner's expense, to a secure storage yard.
- 15.5.9 Neither the **City**, any **City** employee, **Police Officer**, nor any persons authorized by the **City** to enforce subsections 15.5.6, 15.5.7 and 15.5.8 may be found liable for any action taken in good faith, pursuant to those subsections.
- 15.5.10 Every owner or occupier of real property from which a **false alarm** has been generated must pay to the **City** the amount set out from time to time in the Consolidated Fees Bylaw No. 8636.

11. The **Fire Protection and Life Safety Bylaw No. 8306**, as amended, is further amended by deleting Schedule "A" and substituting the following:

SCHEDULE "A"
to Fire Protection and Life Safety Bylaw No. 8306

Interpretation

In this bylaw:

“apparatus” means any vehicle machinery, device, equipment or material used for fire protection or **assistance response** and any vehicle used to transport **members** or supplies;

“assistance response” means aid provided in respect of fires, alarms, **explosions**, medical assistance, floods, earthquakes or other natural disasters, escape of dangerous goods, rail or aeronautical **incidents**, motor vehicle or other accidents, or circumstances necessitating rescue efforts;

“authority having jurisdiction” means any person or agency authorized by this or any other bylaw, regulation or statute to inspect or approve any thing or place;

“building” means any structure used or intended for supporting or sheltering any use or **occupancy**;

“Building Code” means the *British Columbia Building Code*, as amended or re-enacted from time to time;

“business day” means Monday through Friday, inclusive, except where such day falls on a statutory holiday;

“Bylaw Enforcement Officer” means an employee of the **City** appointed by Council for enforcement of **City** bylaws;

“City” means the Corporation of the City of Richmond and the geographic area governed thereby, as the context requires;

“City Engineer” means the Director of Engineering for the **City** or a person designated to act in the place of the Director;

“combustible dust” means dusts and particles that are ignitable and liable to produce an explosion;

“combustible fibre” means finely divided, combustible vegetable or animal fibres and thin sheets or flakes of such materials which, in a loose, unbaled condition, present a flash **fire hazard**, including but not limited to cotton, wool, hemp, sisal, jute, kapok, paper and cloth;

“combustible liquid” means a liquid having a **flash point** at or above 37.8 degrees Celsius and below 93.3 degrees Celsius;

“combustible material” means any material capable of being ignited;

“combustible metal” means a metal, including but not limited to magnesium, titanium, sodium, potassium, calcium, lithium, hafnium, zirconium, zinc, thorium, uranium, plutonium or other similar metals, which ignites easily when in the form of fine particles or molten metal;

“construct” includes build, erect, install, repair, alter, add, enlarge, move, locate, relocate or reconstruct;

“construction” includes a building, erection, installation, repair, alteration, addition, enlargement, or reconstruction;

“Council” means Council for the City;

“dangerous goods” means those products or substances that are regulated under the Canada *Transportation of Dangerous Goods Act* and its Regulation, as amended from time to time;

“Deputy Fire Safety Director” means a person appointed in writing by a **building owner**, **business owner** or a **Fire Safety Director** and given the responsibility and necessary authority to supervise and maintain a **fire safety plan** in the absence of the **Fire Safety Director**;

“display permit” means a permit issued pursuant to section 9.14.7;

“emergency access route” means portion of a roadway or yard providing an access route for fire department vehicles from a public thoroughfare, as required under the **Building Code**;

“explosion” means a rapid release of energy, that may or may not be preceded or followed by a fire, which produces a pressure wave or shock wave in air and is usually accompanied by a loud noise;

“extension cord” means a portable, flexible electrical cord of any length which has one male connector on one end and one or more female connectors on the other;

“false alarm” means the activation of a **fire alarm system** or **security alarm system** as a result of which services, including fire, police, bylaws and health inspector services, or any of them, are provided by or on behalf of the **City** and the providers of the services do not find any evidence of fire, fire damage, smoke, criminal activity or other similar emergency;

“fire alarm system” means a device or devices installed on or in real property and designed to issue a warning of a fire by activating an audible alarm signal

or alerting a monitoring facility but does not include a fire alarm system that is intended to alert only the occupants of the dwelling unit in which it is installed;

“Fire Chief” means the Director of Fire-Rescue for the **City**, acting as head of **Richmond Fire-Rescue**, or a person designated to act in the place of the Director;

“Fire Code” means the *Fire Code Regulation* made under the *Fire Services Act* of British Columbia, as amended or replaced from time to time;

“fire hazard” means any condition, arrangement or act which increases the likelihood of fire or which may provide a ready fuel supply to augment the spread or intensity of a fire or which may obstruct, delay, hinder, or interfere with the operations of **Richmond Fire-Rescue** or the egress of occupants in the event of fire;

“Fire Inspector” means the **Fire Chief** and every **member** of **Richmond Fire-Rescue** or any other person designated as such by the **Fire Chief** by name or office or otherwise;

“fire protection equipment” includes but is not limited to, **fire alarm systems, automatic sprinkler systems**, special extinguisher systems, portable fire extinguishers, fire hydrants, water supplies for fire protection, standpipe and hose systems, fixed pipe fire suppression systems in commercial cooking exhaust systems, smoke control measures and emergency power installations;

“Fire Protection Technician” means a person certified under the *Applied Science Technologists and Technicians Act* as a fire protection technologist, or a person having other certification acceptable to the **Fire Chief**, that qualifies the person to perform inspections and testing on **fire protection equipment**;

“Fire Safety Director” means a person appointed in writing by a **building owner** or business **owner** and given the responsibility and necessary authority to supervise and maintain a **fire safety plan**;

“fire safety plan” means a fire safety plan for a **building** required under the **Fire Code** and this bylaw, that includes, without limitation:

- (a) emergency procedures to be used in case of fire,
- (b) training and appointment of designated supervisory staff to carry out fire safety duties,
- (c) documents showing the type, location and operation of fire emergency systems,
- (d) the holding of fire drills,
- (e) the control of fire hazards, and
- (f) inspection and maintenance of facilities for the safety of the **building’s** occupants;

“Fire Services Act” means the *Fire Services Act*, RSBC 1996, c. 144, as amended or replaced from time to time;

“fire watch” means a fire warning and inspection process within a building that includes the following:

- (a) posting of written notices at all entrances and exists on each floor stating that a Fire Watch is in effect and its expected duration;
- (b) an hourly physical inspection of all public areas and building service rooms equipped with a fire alarm detection device;
- (c) notation in an entry book at least one every hour of the conditions noted by the person(s) performing the Fire Watch;
- (d) some provision on site for the person(s) performing the Fire Watch for the making of 911 emergency call(s); and
- (e) posting of instructions in the building as to the alerting of all occupants of the building of alternate actions to be taken in case of an emergency.

“fireworks” means any article containing a combustible or explosive composition or any substance or combination of substances prepared for, capable of, or discharged for the purposes of producing a pyrotechnical display which may or may not be preceded by, accompanied with, or followed by an explosion, or an explosion without any pyrotechnical display, and includes, without limitation, barrages, batteries, bottle rockets, cannon crackers, fireballs, firecrackers, mines, pinwheels, roman candles, skyrockets, squibs, torpedoes, and other items of a similar nature, that are intended for use in pyrotechnical displays or as explosives or that are labelled, advertised, offered, portrayed, presented or otherwise identified for any such purpose;

“flammable gas” means a gas which can ignite readily and burn rapidly or explosively;

“flammable liquid” shall have the meaning ascribed to it in the **Fire Code**;

“flammable material” means any free burning material including but not limited to solids, **combustible dust**, **combustible fibres**, **flammable liquid**, **flammable gas**, and liquified **flammable gas**;

“flash point” means the minimum temperature at which a liquid within a container gives off vapour in sufficient concentration to form an ignitable mixture with air near the surface of the liquid;

“incident” means an event or situation to which **Richmond Fire-Rescue** has responded or would normally respond;

“Inspector” includes a **Bylaw Enforcement Officer** employed by the **City**, a **Police Officer**, the Chief Public Health Inspector, and any employee acting under the supervision of any of them;

“member” means a person employed by the **City** and holding a position within **Richmond Fire-Rescue** as an **officer** or firefighter;

“member in charge” means the senior **member** at the scene of an **incident** or the **member** that is appointed as such by the **Fire Chief**;

“occupancy” means the use or intended use of a **building** or part thereof for the shelter or support of persons, animals or property;

“occupier” includes an **owner** or agent of the **owner**, a tenant, lessee, user, agent and any other person who has a right of access to, possession and control of a **building** or other **premises** to which this bylaw applies;

“officer” means the **Fire Chief**, Deputy Fire Chief, Battalion Chief, Chief Training Officer, Chief Fire Prevention Officer, a Captain and a Fire Prevention Officer and a member designated by the Fire Chief to act in the capacity of an officer;

“officer in charge” means the senior member of **Richmond Fire-Rescue** who is present at an **incident** or a **member** appointed as such by the **Fire Chief**;

“owner” means a person who has ownership or control of real or personal property, and includes, without limitation,

- (a) the registered owner of an estate in fee simple,
- (b) the tenant for life under a registered life estate,
- (c) the registered holder of the last registered agreement for sale, and
- (d) in relation to common property and common facilities in a strata plan, the strata corporation;

“Police Officer” means a member of the Royal Canadian Mounted Police;

“permit” means a current and valid document issued by the **Fire Chief** or a **member** authorizing a person to carry out a procedure or undertaking described in the **permit**, or to use, store or transport materials under conditions stipulated in the **permit**;

“pre-incident plan” means a document that includes general and detailed information about a **building** to assist **Richmond Fire-Rescue** in determining the resources and actions necessary to mitigate anticipated emergencies at that **building**;

“premises” includes the whole or any part of a lot of real property and any **buildings** or structures on the property;

“Richmond Fire-Rescue” means that department of the City responsible for providing fire and rescue services;

“security alarm system” means a device or devices installed on or in real property and designed to warn of criminal activity or unauthorized entry by activating an audible alarm signal or alerting a monitoring facility;

“sound” means an oscillation in pressure in air which can produce the sensation of hearing when incident upon the ear;

“sprinkler system” means an integrated system of underground and overhead piping designed in accordance with fire protection standards which is normally activated by heat from a fire and discharges water over the fire area;

“storey” means that portion of a **building** which is situated between the top of any floor and the top of the floor next above it, and is there is no floor above it, that portion between the top of such floor and the ceiling above it;

“structure” means a **construction** or portion thereof, of any kind, whether fixed to, supported or sunk into land or water, except landscaping, fences, paving and retaining structures less than 1.22 metres in height; and

“vehicle” means the interpretation given in the *Motor Vehicle Act*.

12. The **Fire Protection and Life Safety Bylaw No. 8306**, as amended, is further amended by replacing each reference to “the **Fire Department**” with “**Richmond Fire-Rescue**”.
13. The **Fireworks Regulation Bylaw No. 7917**, as amended, is hereby repealed
14. The **Fire Department Establishment Bylaw No. 4987**, as amended, is hereby repealed.
15. This Bylaw is cited as “**Fire Protection and Life Safety Bylaw No. 8306, Amendment Bylaw No. 9151**”.

FIRST READING

SECOND READING

THIRD READING

ADOPTED

MAYOR

CORPORATE OFFICER

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



Consolidated Fees Bylaw No. 8636, Amendment Bylaw No. 9152

The Council of the City of Richmond enacts as follows:

1. The **Consolidated Fees Bylaw No. 8636**, as amended, is further amended by deleting Schedule – Fire Protection and Life Safety Bylaw No. 8306 Fees & Cost Recovery in its entirety and substituting the following:

Fire Protection and Life Safety Bylaw No. 8306 Fees & Cost Recovery

Description	Section	Fee	Units
Permit	4.1	\$22.00	
Permit Inspection, <i>first hour</i>	4.3	\$86.50	
Permit Inspection, <i>subsequent hours or part thereof</i>	4.3	\$54.50	
Attendance - open air burning without permit <i>first hour</i>	4.5.1	\$452.00	per vehicle
Attendance - open air burning without permit <i>subsequent half-hour or part thereof</i>	4.5.1	\$227.00	per vehicle
Attendance - open air burning in contravention of permit conditions <i>first hour or part thereof</i>	4.5.3	\$452.00	per vehicle
Attendance - open air burning in contravention of permit conditions <i>subsequent half-hour or part thereof</i>	4.5.3	\$227.00	per vehicle
Attendance - false alarm - by Fire-Rescue – standby fee - contact person not arriving within 30 minutes after alarm <i>Per hour or portion of hour Fire Department standing by</i>	6.1.4(b)	\$452.00	per vehicle
Vacant premises – securing premises	9.7.4	Actual cost	
Damaged building – securing premises	9.8.1	Actual cost	
Display permit application fee, fireworks	9.14.6	\$108.00	
Work done to effect compliance with order in default of owner	14.1.6	Actual cost	
Fire Extinguisher Training	15.1.1	\$25.00	Per person for profit groups
Fire Records (Research, Copying or Letter)	15.1.1	\$66.50	Per address

<u>Review - Fire Safety Plan any building</u>	15.1.1 (b)		
Any building < 600 m ² area		\$111.00	
Any building > 600 m ² area		\$164.00	
High building, institutional		\$218.00	
Revisions (per occurrence)		\$54.50	
<u>Inspection</u>	15.2.1 (a)		
4 stories or less and/or less than 914 m ² per floor		\$218.00	
4 stories or less and between 914 and 1524 m ² per floor		\$326.00	
5 stories or more and between 914 and 1524 m ² per floor		\$541.00	
5 stories or more and over 1524 m ² per floor		\$756.00	
Re-inspection or follow-up to an order <i>first hour</i>	15.2.1 (b)	\$86.50	
Re-inspection or follow-up to an order <i>subsequent hours or part of hour</i>	15.2.1.(b)	\$54.50	
Nuisance investigation, response & abatement	15.4.1	Actual cost	
Mitigation, clean-up, transport, disposal of dangerous goods	15.4.2	Actual cost	
<u>Attendance - False alarm</u>			
No false alarm reduction program in place	15.5.1	\$326.00	
False alarm reduction program in place and participation	15.5.5	No charge	
Attendance – false alarm – by bylaw, police or health officers where the intentional or unintentional activation of a security alarm system causes the unnecessary response of an inspector	15.5.6	\$108.00	
Caused by security alarm system	15.6.1	\$218.00	
Monitoring agency not notified	15.7.1	\$218.00	
Alternate solution report or application review	General	\$164.00	

- The **Consolidated Fees Bylaw No. 8636**, as amended, is further amended by deleting Schedule – Fireworks Regulation Bylaw No. 7917 in its entirety.
- This Bylaw is cited as “**Consolidated Fees Bylaw No. 8636, Amendment Bylaw No. 9152**”.

FIRST READING

SECOND READING

THIRD READING

ADOPTED

MAYOR

CORPORATE OFFICER

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



**Municipal Ticket Information Authorization Bylaw 7321,
Amendment Bylaw No. 9153**

The Council of the City of Richmond enacts as follows:

1. The **Municipal Ticket Information Authorization Bylaw No. 7321**, as amended, is further amended at Schedule A, by deleting subsection Section 7 and substituting the following:
 7. Fire Protection and Life Safety Bylaw No. 8306
 - Bylaw Enforcement Officer
 - Fire Inspector
 - Police Officer
2. The **Municipal Ticket Information Authorization Bylaw No. 7321**, as amended, is further amended at Schedule A, by deleting subsection Section 8 in its entirety and marking it "Repealed":
3. The **Municipal Ticket Information Authorization Bylaw No. 7321**, as amended, is further amended at Schedule B7, by deleting Schedule B7 and substituting the following:

SCHEDULE B7

FIRE PROTECTION AND LIFE SAFETY BYLAW No. 8306

Column 1	Column 2	Column 3
Offence	Bylaw Section	Fine
Fire Protection Equipment		
Failure to inspect, test or maintain	5.1.1	\$1000
Fire Hydrant		
Tampering	5.6.3	\$1000
Unauthorized removal	5.6.4	\$1000

Private Hydrant/Water Supply

Failure to comply with maintenance order	5.7.2	\$1000
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Premises Under Construction

Fire access road unsuitable	5.8.1	\$1000
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Fire protection water supply not installed	5.8.2	\$1000
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Failure to notify of new fire hydrant	5.8.3	\$1000
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Failure to notify of conditions affecting fire safety	5.8.4	\$1000
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Emergency Access Route

Unauthorized securing	5.9.1	\$1000
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Fire Watch

Failure to provide or initiate a system of fire watch	6.3.1	\$1000
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Evacuation of Buildings

Failure to comply with evacuation order	7.9.1	\$1000
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Fire Hazards

Failure to comply with hazard removal order	9.1.2	\$1000
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Flammable Combustible Liquids

Failure to comply with liquids removal order	9.4.1	\$1000
--	-------	--------

Vacant or Damaged Premises

Failure to comply with secure premises order	9.7.3	\$1000
--	-------	--------

Commercial Cooking

Failure to clean or maintain equipment	9.10.1	\$1000
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Combustible Dust and Dust Removal

Failure to control or remove combustible dust	9.12	\$1000
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Fireworks

Purchasing of fireworks	9.14.1	\$1000
Sell or distribute fireworks	9.14.1	\$1000
Displaying fireworks for the purpose of sale	9.14.1	\$1000

Safety to Life

Tampering with or unauthorized use of fire protection equipment	10.3.1	\$1000
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Fire Protection Equipment Inspection and Testing

Failure to inspect or test fire protection equipment	12.1.1	\$1000
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4. The **Municipal Ticket Information Authorization Bylaw No. 7321**, as amended, is further amended by deleting Schedule B8 in its entirety and marking it "Repealed":
5. This Bylaw is cited as "**Municipal Ticket Information Authorization Bylaw 7321, Amendment Bylaw No. 9153**".

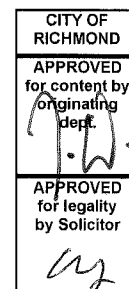
FIRST READING

SECOND READING

THIRD READING

ADOPTED

MAYOR

CORPORATE OFFICER




**Notice of Bylaw Violation Dispute Adjudication Bylaw No. 8122,
Amendment Bylaw No. 9154**

The Council of the City of Richmond enacts as follows:



1. The **Notice of Bylaw Violation Dispute Adjudication Bylaw No. 8122**, as amended is further amended at Part 1, by the addition of the following:
 - (m) Fire Protection and Life Safety Bylaw No. 8306, as amended;
2. The **Notice of Bylaw Violation Dispute Adjudication Bylaw No. 8122**, as amended is further amended by adding to the end of the table in Schedule A of Bylaw No. 8122 the content of the table in Schedule A attached to and forming part of this bylaw.
3. This Bylaw is cited as “**Notice of Bylaw Violation Dispute Adjudication Bylaw No. 8122, Amendment Bylaw No. 9154**”.

FIRST READING

SECOND READING

THIRD READING

ADOPTED

CITY OF RICHMOND
APPROVED for content by originating dept. 
APPROVED for legality by Solicitor 

MAYOR

CORPORATE OFFICER

SCHEDULE A

Designated Bylaw Contraventions and Corresponding Penalties

A1 Bylaw	A2 Description of Contravention	A3 Section	A4 Compliance Agreement Available	A5 Penalty	A6 Early Payment Options	A7 Late Payment Amount	A8 Compliance Agreement Discount
	Period of Time from Receipt (inclusive)		n/a	29 to 60 days	1 to 28 days	61 days or more	n/a
Fire Protection and Life Safety Bylaw No. 8306	Interference with member at incident	3.5.1	No	\$400	\$300	\$500	n/a
	Interference with member determining cause	3.5.2					
	Unauthorized entry to scene	3.6.1					
	Obstructing assistance response	3.8					
	Unwarranted evacuation response	6.2					
	Ignition of fireworks without a display permit	9.14.3					
	Ignition of fireworks contrary to terms of display permit	9.14.3					
	Ignition of fireworks in manner that endangers or causes nuisance to a person or property	9.14.3					
	Ignition of fireworks without property owner's permission	9.14.4					
	Open Air Burning without permit	4.1.1 (f)	No	\$200	\$150	\$250	n/a

A1 Bylaw	A2 Description of Contravention	A3 Section	A4 Compliance Agreement Available	A5 Penalty	A6 Early Payment Options	A7 Late Payment Amount	A8 Compliance Agreement Discount
	Period of Time from Receipt (inclusive)		n/a	29 to 60 days	1 to 28 days	61 days or more	n/a
CNCL - 152	Failure to Comply with open air permit conditions	4.5.3					
	Failure to submit acceptable plan	7.1.1 (a)					
	Possession of fireworks without a plan	9.14.2					
	Permit required – No permit – general	4.1.1	No	\$75	\$75	\$100	n/a
	Failure to Comply with permit conditions	4.4.1					
	Failure to post or produce permit	4.4.1 (d)					
	Missing caps	5.2.2					
	Failure to back-flush	5.2.2					
	Obstructed access	5.2.3					
	Failure to post sign	5.2.4					
	System protection capacity exceeded	5.3.1					
	System performance confirmation not provided	5.3.2					
	System performance confirmation deficient	5.3.3					
	System not maintained during demolition	5.4					
	Not maintained, tested, repaired or	5.6.1					

A1 Bylaw	A2 Description of Contravention	A3 Section	A4 Compliance Agreement Available	A5 Penalty	A6 Early Payment Options	A7 Late Payment Amount	A8 Compliance Agreement Discount
	Period of Time from Receipt (inclusive)		n/a	29 to 60 days	1 to 28 days	61 days or more	n/a
CNCL - 153	replaced						
	Unapproved hose connection, colour or location	5.6.1					
	Unauthorized use	5.6.2					
	Obstructed view	5.7.1					
	Failure to provide clearance or ground cover	5.7.1					
	Failure to maintain space around the fire hydrant	5.7.1 (a)					
	Failure to maintain ground cover and clearance around fire hydrant	5.7.1 (b)					
	Failure to maintain, inspect, service, or test hydrant	5.7.4					
	Failure to provide written hydrant inspection report	5.7.5 (b)					
	No signs/ Unapproved signs	5.9.2					
	Secured route – No signs/Unapproved signs	5.9.3					
	Parking in emergency route	5.9.4 (a)					

A1 Bylaw	A2 Description of Contravention	A3 Section	A4 Compliance Agreement Available	A5 Penalty	A6 Early Payment Options	A7 Late Payment Amount	A8 Compliance Agreement Discount
	Period of Time from Receipt (inclusive)		n/a	29 to 60 days	1 to 28 days	61 days or more	n/a
CNCL - 154	Interfering with, hindering or obstructing access	5.9.4 (b)					
	Failure to provide contact persons	6.1.2					
	Contact person without access or ability to secure	6.1.4					
	Failure to locate plan on premises	7.1.1 (d)					
	Trained supervisory staff not designated	7.1.2					
	Trained supervisory staff not present	7.1.3					
	Inadequate training of supervisory staff	7.1.4					
	Failure to submit acceptable pre-incident plan	7.2.2					
	Access or keys not accessible	7.3.1					
	Storage box not approved	7.4.1					
	Fire safety plan inaccessible by Fire Dept	7.4.2					
	Obstructed access or egress	7.6.1					
	Required rooftop passageway obstructed	7.8.1					
	Unauthorized re-entry	7.9.1					

A1 Bylaw	A2 Description of Contravention	A3 Section	A4 Compliance Agreement Available	A5 Penalty	A6 Early Payment Options	A7 Late Payment Amount	A8 Compliance Agreement Discount
	Period of Time from Receipt (inclusive)		n/a	29 to 60 days	1 to 28 days	61 days or more	n/a
CNCL - 155	Failure to display civic address	7.10.1					
	Deficiency in civic address	7.10.1					
	Obstructing inspection	8.2.1					
	Causing or permitting fire hazard	9.1.1					
	Failure to relocate container	9.2.1					
	Unsafe storage or use	9.3					
	Fuel not removed to safe location	9.5.1					
	Failure to report hazard, spill or incident	9.6.1					
	Vacant – failure to maintain or secure	9.7.2					
	Damaged building – failure to secure	9.8.1					
	Failure to comply with display conditions	9.9.1					
	Failure to post system operating instructions	9.10.1 (c)					
	Extension cord used as permanent wiring	9.13.1					
	Failure to maintain means of egress	10.1.1					
	Smoke emitting security system obstructing exit	10.1.2					

A1 Bylaw	A2 Description of Contravention	A3 Section	A4 Compliance Agreement Available	A5 Penalty	A6 Early Payment Options	A7 Late Payment Amount	A8 Compliance Agreement Discount
	Period of Time from Receipt (inclusive)		n/a	29 to 60 days	1 to 28 days	61 days or more	n/a
CNCL - 156	Deficient access to exit	10.1.3					
	Non-approved locking device on exit door	10.1.4					
	Failure to display elevator use sign	10.1.5					
	Obstruction of required self-closing door	10.1.8					
	Failure to maintain an exit sign	10.1.10					
	Failure to inspect or test emergency lighting	10.1.11					
	Improper storage	10.2.1					
	Failure to use required forms	12.1.3					
	Failure to provide form to the Fire Chief	12.1.3					
	Failure to post local alarm sign at pull station	12.1.5					



City of Richmond

Report to Committee

To: General Purposes Committee
From: Serena Lusk
Senior Manager, Recreation and Sport Services
Jim V. Young, P. Eng.
Senior Manager, Project Development
Date: July 3, 2014
File: 06-2052-55-01/Vol 01
Re: Minoru Recreation Complex Program

Staff Recommendation

That:

1. The Guiding Principles for the Minoru Recreation Complex program as outlined in the attached report, "Minoru Recreation Complex Program," dated July 3, 2014, from the Senior Manager, Recreation and Sport Services and the Senior Manager, Project Development, be endorsed; and
2. The Minoru Recreation Complex functional space program as outlined in the attached report, "Minoru Recreation Complex Program," dated July 3, 2014 from the Senior Manager, Recreation and Sport Services and the Senior Manager, Project Development, be endorsed; and
3. A business plan for the operation of the Minoru Recreation Complex be developed.

Serena

Serena Lusk
Senior Manager, Recreation and Sport Services
(604-233-3344)

Jim V. Young

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

Att. 6

REPORT CONCURRENCE		
ROUTED TO: Community Social Development	CONCURRENCE <input checked="" type="checkbox"/>	CONCURRENCE OF GENERAL MANAGER <i>[Signature]</i>
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS: <i>[Signature]</i>	APPROVED BY CAO <i>[Signature]</i>

Staff Report

Origin

On November 12, 2013, Council made the following resolution:

The following Major Capital Facilities Program Phase 1 projects be endorsed and included in the City's 2014 budget process for Council consideration and described in the staff report titled, "Major Capital Facilities Program Phase 1," dated May 31, 2013 from the Director, Engineering:

- a. A co-located Aquatics and Older Adults' Centre at Minoru 2 Field in Minoru Park (as shown in Attachments 4 & 5 and described in the staff report titled, "Minoru Older Adults and Aquatic Centre Site Selection," dated October 30, 2013 from the General Manager, Community Services and the General Manager, Engineering & Public Works.*

Council subsequently approved the following items related to the project:

- a. Capital budget (December 9, 2013);
- b. Award of Architectural and Engineering Services (March 10, 2014); and
- c. Public Engagement Plan – including establishment of stakeholder and building advisory committees (March 10, 2014).

Work has been ongoing in terms of all elements of the project since Council's approvals were received.

At the June 16th General Purposes committee, staff received the following referral related to the project:

That the staff report titled "Guiding Principles and Options for Configuration of Key Program Elements for Minoru Recreation Complex" be referred back to staff: (1) to arrange tours of the Edmonds Community Centre in Burnaby and the Hillcrest Community Centre in Vancouver; (2) for further analysis on the synergy between the Older Adults Centre and Pavilion; (3) to meet with the Minoru Major Facility Stakeholder Advisory Committee for input; and (4) to review best practices.

Since the referral, tours of both the Hillcrest Community Centre and Edmonds Community Centre have occurred, a review of best practises has concluded and analysis regarding the synergy of the Older Adults Centre and the Pavilion has been completed. Further, on July 7th, 2014 a meeting of the Minoru Major Facility Stakeholder Committee as well as the Building/Technical Advisory Committee was held and provided valuable input on key topics related to the development.

The purpose of this report is to address the referral from the June 16, 2014 General Purposes Committee meeting and to seek Council's endorsement of the Guiding Principles for the project and for the functional space program. Endorsement of the functional space program will allow

work to continue towards a report to Council on the form and character of the facility planned for the fall of 2014.

Analysis

Guiding Principles

The proposed Guiding Principles for this project were developed based on a review of best practises and trends in recreation facilities, preliminary work done on the project to date and feedback received during the initial stakeholder consultation process.

In particular, the current trend in recreation facility design is towards facilities where space is designed for multiple uses and users. Through programming, spaces are then allocated to specific uses or users. Trends around services to older adults point to providing neighbourhood-based services to allow older adults to 'age in place'. Centralized services then provide support and leadership but do not need to meet all community needs in one location.

These Guiding Principles were reviewed with the Stakeholder and Building/Technical Advisory Committee members at their July 7, 2014 meeting.

The proposed Guiding Principles (Attachment 1) are as follows:

1. Be Exceptional

Design and build an iconic, innovative and well-functioning centre for aquatics, older adults and community sport development that creates a sense of place and speaks to its surroundings.

2. Be Sustainable

Reflect sustainability Principles through all stages of the project:

- Financial – Deliver the project on time and on budget.
- Social – Ensure decisions are transparent, responsive to community input and contribute to community development through public engagement.
- Environmental – Consider options for construction and future operations that deliver exceptional energy management and improve and respect the natural environment.

3. Be Accessible

Prioritize cultural and physical accessibility and ensure spaces and places are designed with all aspects of accessibility in mind.

4. Be “A Centre of Excellence” for Active Living and Wellness

Demonstrate that Richmond is the best place for residents to play, live a long and healthy active life, raise their family and achieve their highest potential by reflecting a “Sport for Life” model.

5. Be Synergistic

Take advantage of the opportunity to create synergy among users and uses while being sensitive to unique needs. Ensure multi-purpose spaces facilitate excellence and ensure appropriate, dedicated spaces are available where needed.

6. Be Connected

Improve the urban realm and respect the history and uses in Minoru Park while integrating public art, transportation, circulation improvements and connections to the outdoors and nature to benefit all visitors to the Civic Precinct.

The Guiding Principles are intended to provide overall direction in the program development, design, construction methodology and eventual operations.

Functional Space Program

A functional space program identifies the key spaces and sizes of spaces in a facility. It forms the foundation for development of the design of a facility and informs its future use.

The November 2013 report adopted by Council referred to a co-located aquatic and older adults centre which was further described as a facility that would include the aquatic centre, older adults centre and the Minoru Pavilion. The total space identified for the project in November 2013 was 110,000 square feet with a budget of \$79.6 million plus a multi-project contingency. The proposed functional space program has been developed within these parameters. Any addition to the program would require an increase in the project budget.

Development of the functional space program has been ongoing since November and has included the following steps:

- Establishment of a Stakeholder Advisory Committee and Building / Technical Advisory Committee to provide advice on the functional space program,
- Meetings with a variety of stakeholder groups including the Aquatics Services Board, the Minoru Senior’s Society, Richmond Sports Council, the Richmond Fitness and Wellness Association, Vancouver Coastal Health and other stakeholder groups,
- Review of best practises in services and facilities for sports, fitness, aquatics and older adults including visits to local facilities,
- Meetings with specific staff teams to identify needs and wants of current facility users,
- Meetings with the Advisory Committees to seek their advice on program related issues, and

- Meetings with the City's Construction Manager to assess the impacts to schedule and budget based on programming and space allocation choices.

Throughout the program development process there have been some key areas of discussion where opinions have differed among stakeholders or in relation to best practises. These areas are summarized below. The Stakeholder Advisory Committee and the Building / Technical Advisory Committee (the "Committees") discussed these key functional space program issues at their July 7th 2014 meeting and the advice provided by the Committees is included in the summary:

1. Commercial Kitchen – A commercial kitchen is required to allow the Minoru Senior's Society to continue to offer its much-needed hot meal program. Food services are also required to service a concession for the aquatics centre and potentially the sports fields. As well, catering services will be required for event rentals in large multi-purpose rooms. Rather than duplicating the kitchen to meet these varied needs, it is proposed that the Commercial Kitchen associated with the Minoru Senior's Society service all facility users.

An alternate approach is to have two food services areas, specifically a commercial kitchen to service the Minoru Senior's Society exclusively and another kitchen to service the rest of the facility and sports fields. This option would require a space of approximately 550 ft² which would require a reduction of area in other spaces in the facility.

Stakeholder/Building Committee Comments

The Committees provided consensus advice that one kitchen to service the entire facility is the best option. A similar operating model to the current model where the commercial kitchen in the Seniors Centre works well was expressed as the preference of the advisory committee members. Discussions occurred around the need to develop policies around the kitchen to help ensure its financial viability including potential exclusivity for catering in the facility and a separate store front to service the aquatic users.

2. Reception – One reception desk for all facility users creates the most efficient use of space and staff resources. However, the Minoru Senior's Society and staff that work with older adults have identified the desire for a separate reception space that allows for dedicated service and space for older adults to rest and check-in with dedicated staff. The space needed for an additional reception desk is approximately 250 ft² and can be accommodated within the proposed functional space program.

Stakeholder/Building Committee Comments

The Committees provided consensus advice that two reception areas is the best option with one reception area dedicated to older adults and the other to service the rest of the facility. Key advice provided was the need for safety, privacy, efficiency of customer

needs and comfort for older adults and that the lobby design needs to include clear signage and wayfinding to assist in separating users.

3. Fitness and Changerooms – A single fitness centre within the facility can serve the needs of a diverse population in the same manner that currently occurs within Richmond’s community centre facilities. A single fitness centre also only requires one set of changerooms. The Minoru Senior’s Society has identified concerns from its members about safety, privacy and comfort in a shared facility. Staff and the design team believe that through careful attention to these concerns at the facility design stage, these concerns can be addressed.

Additional space of approximately 1000 ft² would be required if two separate fitness rooms are required. This would require a reduction of space in other areas of the facility.

Stakeholder/Building Committee Comments

The Committees discussed this issue at length and ultimately provided the advice that one fitness facility and accompanying changerooms is the preferred option. Staff also received the advice that through the design process there must be a method of creating separate spaces for older adults within the fitness facility so that there is a level of comfort and privacy created.

There was significant discussion about changerooms and clear advice that great sensitivity must be shown in the design in order to meet the privacy needs for individuals, families and different cultural groups.

4. Multi-Purpose Rooms – All three of the facility components have multi-purpose spaces. The functional space program proposes that some of these spaces be dedicated to certain program elements and some be shared among users in order to allow the spaces to be used at all times of day and to fully meet community needs.

In particular, approximately 11,050 ft² of dedicated activity space has been allocated for use by older adults, specifically for a Games Room, Medium Size Activity Room, Fireplace Lounge, Washrooms, Art Studio, Woodworking and Storage.

The allocation of multi-purpose spaces does not impact the functional space program or change the overall square footage of programmable space. However, allocation will need to be determined through future agreements with user groups. A business plan should be developed to address this need and provide clarity to stakeholder groups around use of shared spaces.

Stakeholder/Building Committee Comments

Whether multi-purpose spaces are dedicated or shared does not directly impact the functional space program. However, discussion with the Committees led to the advice to

designate some multi-purpose rooms for ‘primary’ users to ensure that the needs of each group are met.

5. Aquatic Facility – As this facility is a replacement facility for the Minoru Aquatic Centre, allocation of the water spaces has been prioritized based on the current uses as well as projected future needs — lessons, older adults, fitness, and swim training — and includes a 25-metre lap pool as well as a number of leisure pool elements. The allocation also takes into account the current use at Watermania which includes an 8-lane, 50-metre competition pool with a dive tank and spectator seating and can accommodate both aquatic training and competitions.

As an alternative, a 50-metre pool can be accommodated in the water allocation in the new facility; however it would not provide as much flexibility in use as the proposed 25-metre option. Both options are shown in Table 1 below for comparison.

Stakeholder/Building Committee Comments

The consensus advice from the Committees was that a 25-metre lap pool accompanied by a variety of leisure pool elements is the preferred option. Discussion occurred regarding focusing on the needs of city centre residents for lessons, leisure and swim training through this new facility and continued use of Watermania to serve the needs for swimming competitions given its 8-lane, 50-metre pool.

Table 1: Comparison of Aquatic Program Elements for Minoru Recreation Complex

Aquatic Program Elements	Proposed Aquatic 25m	Proposed Aquatic 50m	Existing Minoru 25m	Existing Watermania 50m
Lap pool(s)	7,266*	11,625**	7,860	13,000
Leisure pool	5,382***	3,702	0	5,000
Teach pool and ramp	1,938	0	1,460	0
Hot pools	1,830	989	520	400
Cold plunge pool	75	0	0	0
Sauna & Steam Rooms	1,076	807	160	300
Deck space	13,616	14,060	10,000	21,690
Support Spaces	3,682	3,682	2,000	2,760
Total Area	34,865 sf	34,865 sf	22,000 sf	43,150 sf

* 6-lane, 25-metre and 4-lane, 25-metre

** 8-lane, 54-metre with two moveable bulkheads

*** The leisure pool will include 2 – 3, 25-metre swim lanes with warmer water temperatures

Graphics illustrating the relative size and possible program elements of the proposed 25-metre and 50-metre lap pool options compared with the existing Minoru and Watermania aquatic spaces have been included as Attachments 4, 5 and 6. The proposed 25-metre and 50-metre aquatic spaces illustrated are concepts only and are intended to highlight only the relative scale of the proposed facilities – presentation to Council of the proposed design of these spaces will follow once the program and space allocation is approved.

Summary of Key Functional Space Program Recommendations

Based on a review of best practises, expert information, feedback from stakeholders and advice from the Advisory Committees the following recommendations have been included in the proposed functional space program for one building:

1. One commercial kitchen to service the entire facility.
2. Two reception desks with one specifically dedicated to older adults.
3. A single fitness centre and changerooms to service the entire facility with careful attention to design to ensure spaces within the facility can be separated and provide safety and comfort for users of all ages, abilities and cultures.
4. A combination of dedicated and ‘primary’ use multi-purpose rooms to ensure the needs of all users are met.
5. A 25-metre lap pool aquatic configuration plus additional leisure pool elements.

Proposed Functional Space Program

A proposed functional space program is identified in Attachment 3. It should be noted that square footage is approximate and may change slightly through the design phase. However, the overall square footage by program area will not change significantly.

Key features of this single facility program include:

- Aquatic spaces that serve multi-generational needs including a large teaching area, large hot pools, and ramp access to all water areas.
- A high proportion of universal (family) changerooms to provide a safe, comfortable changing environment for people of all ages and abilities with careful attention paid to privacy and cultural sensitivities.
- A fitness centre that includes areas for strength, cardiovascular and flexibility exercise and spaces that can be separated for privacy, safety and comfort of specific user groups such as older adults.
- Dedicated spaces for older adults including offices, a volunteer area, activity rooms, art studios, a lounge and a woodworking shop.
- Team rooms for sports field users including showers and washrooms that are accessible from the outdoors and do not require access through the main building.
- Washrooms and showers for general public users of Minoru parks.
- A variety of multi-purpose spaces including meeting rooms to serve 8 – 15 people and large, dividable spaces to serve up to 400 people.

- Generous spaces for lobby, hallways, public washrooms and other areas to create opportunities for facility users to connect casually.

The approximate sizes of proposed key program elements are shown in Table 2 on the next page. This program meets the program objectives of 69,000 square feet for aquatics, 33,000 square feet for older adults and 8,000 square feet for the replacement of the Minoru Pavilion in one building.

Table 2: Minoru Recreation Complex Key Program Element Sizes

		Aquatic Centre	Older Adults Centre	Dedicated Multi-Purpose/Outdoor Changerooms	Combined
		(sf)	(sf)	(sf)	Total (sf)
1.	Dedicated Activity Space	0	11,044	4,833	15,877
2.	Aquatic Centre	34,865	0	0	34,865
3.	Shared Lobby	1,777	826	0	2,603
4.	Reception	376	250	0	626
5.	Primary Use Multi-Purpose Rooms	1,184	11,065	2,153	14,402
6.	Shared Fitness Centre	4,521	2,810	0	7,331
7.	Shared Changerooms	6,781	0	0	6,781
8.	Shared Facility Support	2,506	237	584	3,327
9.	Shared Service Areas (includes offices)	16,990	6,768	430	24,188
Total Facility Area		69,000	33,000	8,000	110,000

Next Steps

Following approval of the functional space program, staff will use the information to develop form/character renderings and schematic floor plans which will be brought to Council for input and consideration for approval in the fall of 2014. A project schedule has been included as Attachment 2.

As well, ongoing formal and informal consultation and engagement will continue and a business planning exercise will be undertaken to ensure needs of all stakeholders are balanced and unique identities of each group are respected.

Financial Impact

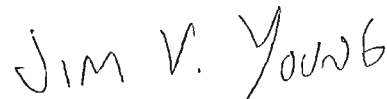
None.

Conclusion

Endorsing the Guiding Principles and the functional space program will provide direction for the project team to continue its work towards identifying the form and character of the facility for Council's consideration in the fall. Developing a business plan for the operation of the Minoru Recreation Complex will assist in clarifying use of shared spaces among stakeholders



Serena Lusk
Senior Manager, Recreation and Sport Services
(604-233-3344)



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

- Att. 1: Guiding Principles
- Att. 2: Project Schedule
- Att. 3: Proposed Functional Space Program
- Att. 4: Richmond Minoru Major Facility 2 x 25m Lap Pools
- Att. 5: Richmond Minoru Major Facility 1 x 25m Lap Pool
- Att. 6: Richmond Minoru Major Facility 50m Lap Pool

Minoru Recreation Complex

Guiding Principles:

1. BE EXCEPTIONAL



Design and build an extraordinary, innovative and well-functioning centre for aquatics, older adults and community sport development that creates a sense of place and speaks to its surroundings.

2. BE SUSTAINABLE

Reflect sustainability principles through all stages of the project:



- **FINANCIAL** - Deliver the project on time and on budget



- **SOCIAL** - Ensure decisions are transparent, responsive to community input and contribute to community development through public engagement



- **ENVIRONMENTAL** - consider options for construction and operations that deliver exceptional energy management and improve and respect the natural environment.

3. BE ACCESSIBLE



Prioritize cultural and physical accessibility and ensure spaces/ places are designed with all aspects of accessibility in mind.

4. BE "A CENTRE OF EXCELLENCE FOR ACTIVE LIVING AND WELLNESS"



Demonstrate that Richmond is the best place for residents to play, live a long and healthy active life, raise their family and achieve their highest potential by reflecting a 'Sport for Life' model.

5. BE SYNERGISTIC



Take advantage of the opportunity to create synergy among users and uses while being sensitive to unique needs. Ensure multi-purpose spaces facilitate excellence and ensure appropriate, dedicated spaces are available where needed.

6. BE CONNECTED



Improve the urban realm and respect the history and uses in Minoru Park while integrating public art, transportation, circulation improvements and connections to the outdoors and nature to benefit all visitors to the Civic Precinct.

ATTACHMENT 2

Minoru Aquatic Centre/Older Adults Centre Project Schedule

Minoru Aquatic Centre/Older Adults Centre - Projected Schedule	Start	Complete
Programming / Space Allocation	Mar, 2014	Jun, 2014
Enabling Works*	May, 2014	Aug, 2015
Council (Programming / Space Allocation)	Jul, 2014	Jul, 2014
Develop Floor Plans / Form & Character	Jul, 2014	Sept, 2014
Council (Floor plans / Form & Character)	Oct, 2014	Oct, 2014
Working Drawings	Nov, 2014	Feb, 2015
Tender	Jan, 2015	Aug, 2015
Construction	Jun, 2015	Jun, 2017

*Enabling works include temporary relocation of Minoru Pavilion electrical controls, installation of temporary washrooms, changerooms and storage space, watermain relocation and pavilion demolition.

ATTACHMENT 3

Minoru Aquatics and Older Adults Centre

Functional Program Space List

08-Jul-14

SUMMARY - BUILDING AREA TOTALS		SM	SF
1.0 Dedicated Activity Spaces		1475	15,877
2.0 Aquatics		3239	34,865
3.0 Shared Lobby		242	2,603
4.0 Reception		58	626
5.0 Primary Use Multi-Purpose Spaces		1338	14,402
6.0 Fitness Centre		681	7,331
7.0 Shared Change Rooms		630	6,781
8.0 Facility Support		309	3,327
9.0 Shared Service Areas		2247	24,188
Facility Gross Building Area		10219	110,000
1.0 DEDICATED ACTIVITY SPACE			
1.1 Cafeteria and Kitchen			
Cafeteria Seating Area (Capacity 80)		160	1,722
Cafeteria Queuing, Serving and Sales Area		30	323
Small Commercial Kitchen		70	754
Dry, Cold, Frozen and Liquour Storage		16	172
Dishwashing and Waste Management		24	258
Sub-Total		300	3,230
1.2 Older Adults Dedicated Activity Spaces			
Medium-Sized Activity Room		160	1,722
Games Room		125	1,346
Fireplace Lounge		125	1,346
Fitness and Wellness Room		75	807
Art Studio		95	1,023
Woodworking Shop		80	861
Storage Rooms		50	538
Handicapped Accessible Washrooms x 4		16	171
Sub-Total		726	7,814



David Lewis
Consulting Inc.

Older Adults Assigned Area Sub-Total	1026	11,044
1.3 Outdoor Changeroom		
Team Rooms w. Showers / WC (Capacity 20 each) x 8	304	3,273
Storage	60	646
Public Washrooms (Accessible from Outside) x 2	30	323
First Aid / Taping	9	97
Referees / Mixed Team w. Shower (capacity 6 each) x 2	28	301
Office	9	97
Concession Window	9	97
Sub-Total	449	4,833
Outdoor Changerooms Dedicated	449	4,833
Combined Dedicated Activity Space	1475	15,877
2.0 AQUATICS		
2.1 Natatorium		
Lap Pool 25m	675	7,266
Teach Pool and Ramp	180	1,938
Spa Hot Pools	170	1,830
Spa Cold Plunge Pool	7	75
Leisure Pool	500	5,382
Steam and Sauna	100	1,076
Pool Deck	1265	13,616
Support Spaces	342	3,682
Sub-Total	3239	34,865
Aquatic Component Area	3239	34,865
3.0 SHARED LOBBY		
3.1 Lobby Spaces		
Aquatic Lobby Portion	165	1777
Older Adult Centre Lobby portion	77	826
Sub-Total	242	2603
Total Combined Lobby Areas	242	2603

4.0 Reception

4.1 Dedicated Reception Spaces			
Dedicated Aquatic Reception	35	376	
Dedicated Older Adult Centre Reception	23	250	
Sub-Total	58	626	
Total Reception Areas	58	626	

5.0 PRIMARY USE MULTI-PURPOSE SPACES**5.1 Multi-Purpose Rooms**

Large Group Fitness Studio (Sprung; Capacity 40)	185	1,990	
Yoga / Meditative Group Fitness (Capacity 20)	95	1,023	
Fitness Storage Room(s) x 2	30	323	
Large Multi-Purpose Room (Sub-dividable; Cap. 350)	350	3,768	
Medium Multi-Purpose Rms. (Sub-dividable; Cap. 150) x 2	320	3,445	
Small Multi-Purpose Room (Capacity 75) x 2	200	2,153	
Coffee Servery	10	108	
Multi-Purpose Rooms Storage (distributed) x 5	75	807	
Board Room (Capacity 15)	35	377	
Meeting Rooms (Capacity 8)	18	194	
Convenience Handicapped Washrooms x 4	20	215	
Sub-Total	1338	14,402	
Total Primary Multi-Purpose Space	1338	14,402	

6.0 FITNESS CENTRE**6.1 Fitness Centre**

Fitness Centre Aquatic Primary	420	4,521	
Fitness Centre Older Adults Primary	261	2,810	
Sub-Total	681	7,331	
Combined Fitness Area	681	7,331	

7.0 SHARED CHANGE ROOMS

7.1 Universal Change Rooms (500 bathers assuming shared)		
Universal Change Cubicles (w. Shower) x 46	207	2,228
Full-Height Locker Columns and Aisle (250 columns)	150	1,615
Disabled Assisted Change Cubicles and WC	12	129
Handicapped Accessible Washrooms x 6	24	258
Vanity Stations x 6	18	194
Stroller / Wheelchair Area	12	129
Sub-Total	423	4,554
7.2 Gender Locker Rooms (300 bathers) / Staff Change Rooms		
Women's Locker Room (100 columns, 150 lockers)	60	645
Women's WCs, Showers, Vanities (3 of each)	23	242
Men's Locker Room (100 columns, 150 lockers)	60	646
Men's WCs, Showers, Vanities (3 of each)	23	242
Staff Universal Change Cubicles (w. Shower) x 4	18	194
Staff Universal Change Lockers (30 columns)	18	194
Custodial Closet x 3	6	65
Sub-Total	207	2,227
Shared Changeroom Component	630	6,781

8.0 FACILITY SUPPORT

8.1 Front of House Functions		
Food Concession Point-of-Sales		
First Aid Room		
Tenant Service Space (unimproved)		

8.2 Back-of House Functions		
Loading Dock		
Storage / Staging Area		
Waste / Recycling Management		
Maintenance Shop		
Custodial Storage		
Facility Operations Office		
Staff WC, Shower and Lockers x 2		

Total Facility Support	309	3,327
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9.0 SHARED SERVICE AREAS**9.1 Shared Service Areas**

Public Washrooms (20 stalls)
 Pro-Rated Building Mechanical / Electrical 5%
 Pro-Rated Walls and Structure 4%
 Component Internal Circulation 10%

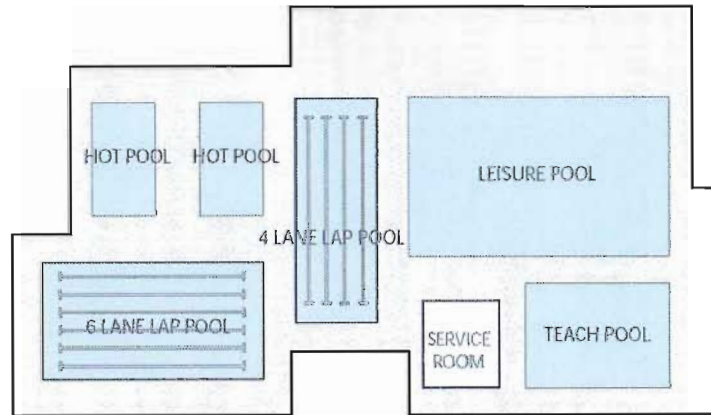
9.2 Administrative Areas (Offices)

Total Facility Support	2,247	24,188
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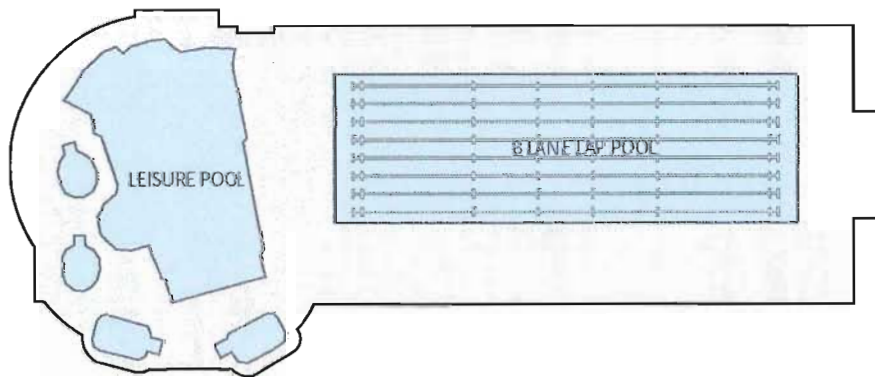
10.0 OUTDOOR AREAS (Net in Building Interior Areas Total)**10.1 Programmable Spaces**

Leisure Pool Outdoor Patio Area
 Adult Spa Areas Outdoor Patio Area
 Fitness Centre Outdoor Group Exercise Area
 Covered Passenger Drop-Off Area at Main Entrance
 Older Adult Centre Outdoor Scooter Parking (Energized)
 Older Adult Centre Outdoor Raised Bed Gardens
 Older Adult Cafeteria Outdoor Seating Area
 Fenced Bicycle Parking
 Large Multi-Purpose Room Outdoor Patio Area

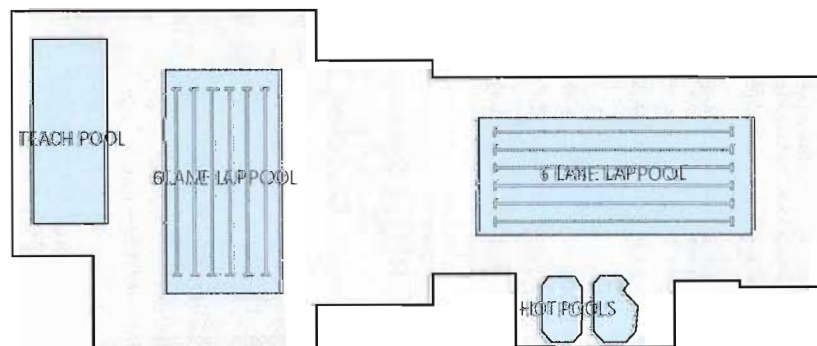
RICHMOND MINORU MAJOR FACILITY 2 X 25M LAP POOLS



WATERMANIA 50M LAP POOL

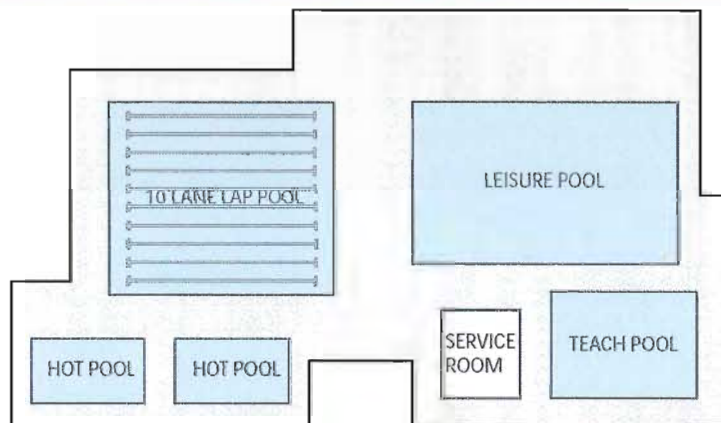


EXISTING MINORU AQUATIC CENTRE 25M LAP POOLS

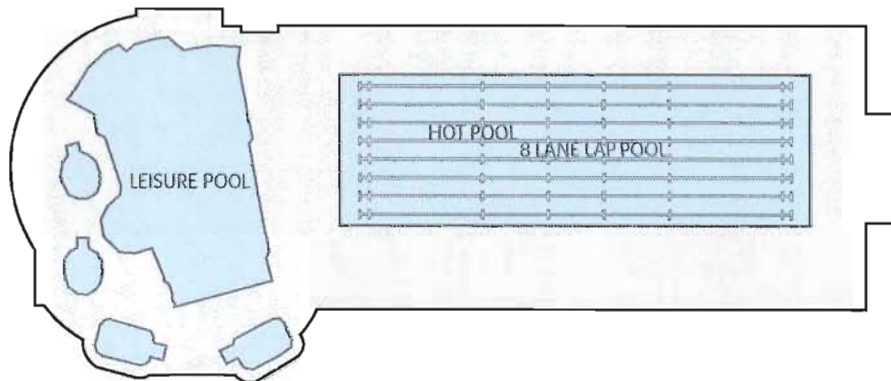


ATTACHMENT 5

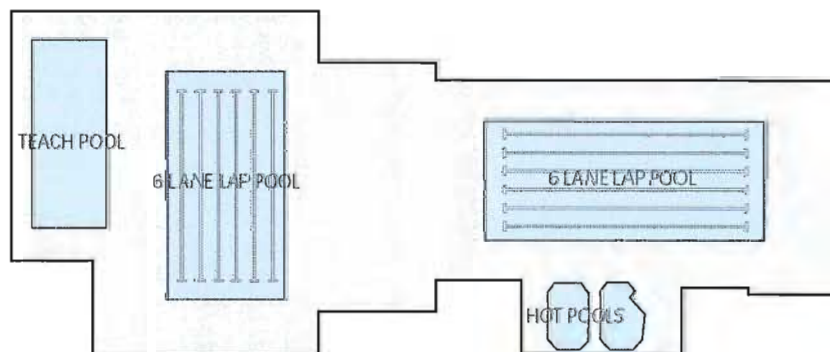
RICHMOND MINORU MAJOR FACILITY 1 X 25M LAP POOL



WATERMANIA 50M LAP POOL



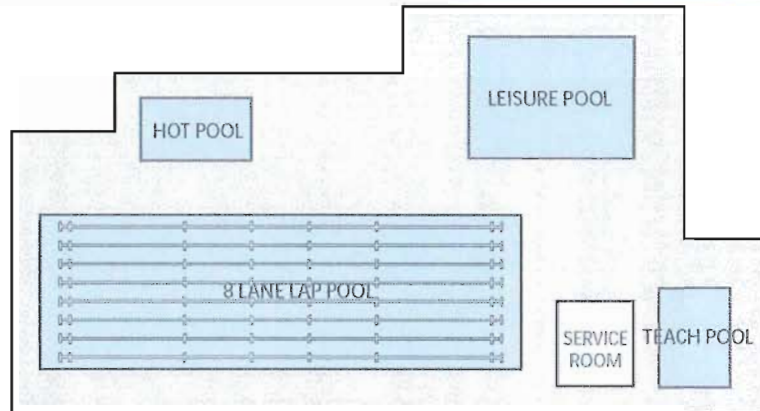
EXISTING MINORU AQUATIC CENTRE 25M LAP POOLS



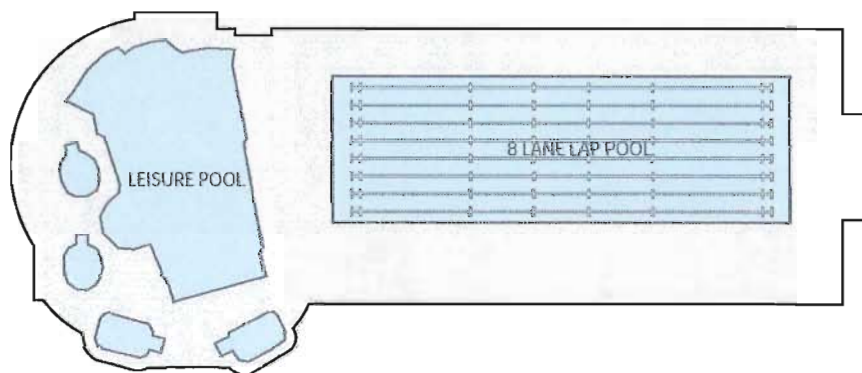
PROPOSED BASE AQUATIC
Aquatics review

ATTACHMENT 6

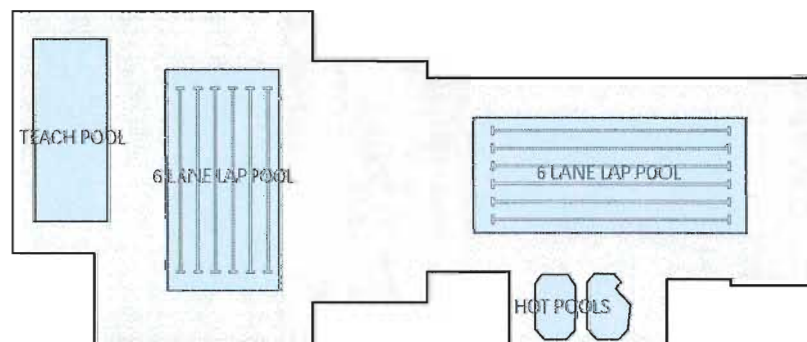
RICHMOND MINORU MAJOR FACILITY 50M LAP POOL



WATERMANIA 50M LAP POOL



EXISTING MINORU AQUATIC CENTRE 25M LAP POOLS



HCMA



PROPOSED ALTERNATE
Aquatics review



City of Richmond

Report to Committee

To: General Purposes Committee

Date: June 25, 2014

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

File: 06-2052-25-FHG1/Vol 01

John McGowan
Fire Chief, Richmond Fire Rescue

Re: Brighthouse Firehall No. 1 Program Allocation

Staff Recommendation

That the Brighthouse Firehall No. 1 Program Allocation report from the Director, Engineering and Fire Chief, Richmond Fire Rescue, be endorsed.

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

John McGowan
Fire Chief
(604-303-2734)

Att: 1

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

Staff Report

Origin

On June 24, 2013 Council approved the Major Facilities Phase I projects which included the Minoru Aquatic Centre/Older Adults Centre, Firehall No. 1 and the City Centre Community Centre. On March 10, 2014 Council approved award of Architectural and Engineering Services for Firehall No. 1 to HCMA.

Council approved funding of \$22.3 million to construct a new Firehall No. 1 as part of the 2014 Capital Program.

The purpose of this report is to seek Council endorsement of the proposed Firehall No. 1 program.

Background

Funding of \$22.3 million, plus multi-project contingency, was approved by Council on November 12, 2013 to complete design and construction of a new Firehall No. 1. The new facility is proposed to have an area of approximately 24,900 ft² as previously adopted by Council, to replace the existing 17,000 ft², 4 bay facility with approximate areas as summarized below.

- | | |
|---------------------------|------------------------|
| • Administration | 6,460 ft ² |
| • Fire Prevention | 1,960 ft ² |
| • Fire Rescue/Suppression | 16,480 ft ² |

Award of design and engineering services to HCMA was confirmed by Council at their March 10, 2014 meeting. Design of Firehall No. 1 is being closely coordinated with the new Minoru Aquatic Centre/Older Adults Centre facility which is also being designed by HCMA. Design opportunities and features are being closely coordinated with Firehall No. 3 design.

Confirmation of the proposed program area allocations have been achieved through a series of meetings with Project Development staff, Richmond Fire Rescue staff and the consulting team over the period of March to June 2014. Design will incorporate the lessons learned from the most recently constructed Firehalls No. 2, 4 and 5.

Richmond Fire Rescue, together with Project Development also completed a best practices site review of several facilities as summarized below.

- Firehall No. 1, Saanich
- Firehall No. 14, Surrey
- Firehall No. 15, Vancouver
- North Delta Public Safety Building, Delta
- Firehalls No. 2, 4 and 5, Richmond

In addition, debriefs on Richmond's newest firehalls (Steveston, Sea Island and Hamilton) were conducted to assist in improving both the design process and facility features of future firehalls. Several meetings were also held with internal stakeholders including Public Art, Engineering, IT, Transportation, Planning and Sustainability to identify needs/requirements.

In 2013 a Fire Rescue Parameters Report was prepared as a basis for Firehall No. 1 programming/space allocation. The Parameters report reflects Firehall No. 1 needs based on maintaining the current level of service, accounting for a future increase in population, development and densification to 2031 and is consistent with previously established City and fire facility best practices design standards for programming and space allocation.

As per the City's High Performance Building Policy, LEED Gold certification has been set as the desired building performance target for the new Firehall No. 1. The green features will maximize operational efficiency through optimizing energy performance and minimizing water usage and maintenance costs.

Analysis

Programming and space allocation has proceeded based on ensuring the current level of service.

A series of work sessions with Richmond Fire Rescue and Project Development were held to review best practices findings, learn from previous experience with Firehalls No. 2, 4 and 5 and identify project specific needs. The results of these sessions were used to move forward with planning of program space for Firehall No. 1 and identify the functional and operational requirements of the new firehall.

The following proposed program allocation for Firehall No. 1 reflects maintaining the current level of service and future needs. Should Council endorse this report, the next step is to use the area allocation to develop spatial relationships, a site plan and the form and character of the building.

Firehall No. 1 - 6960 Gilbert Road (ensure current level of service)

Facility Program - New Firehall No. 1 24,900 sq.ft	
Building Statistics	
Year to be Constructed	2016
Administration	6,460 ft ²
Senior Administration	✓
Administrative Support	✓
Community Relations	✓
Tech & Communication Systems	✓
Building Support	✓
Fire Prevention	1,960 ft ²
Fire Prevention Offices	✓
Fire Suppression	16,480 ft ²
Apparatus Bays (4)	✓

Apparatus Support	✓
Suppression Office	✓
Health & Recovery	✓
Building Specification	
Sustainable Initiatives	LEED Gold
Floors	Up to four storey
Apparatus Bays	Four bay facility
Hose tower	Up to four storey
Projected Costs	
Construction	\$13.1M
Enabling Work*	\$3.4M
Soft Costs**	\$5.8M
TOTAL	\$22.3M
Multi-Project Contingency	\$3.0M
Lifecycle Costs	
Building Lifespan	50 Years
Energy Dependency	LEED Gold
Functional Space	
Fire Suppression Crews	3
Training	Single Company
Community Relations	Yes
Fire Prevention Office	Yes

**Traffic Management Centre relocation, temporary firefighter alert recovery at Firehall No. 4, relocation of Human Resources and Bylaws staff, temporary relocation of Emergency Vehicle Technicians (EVT), temporary relocation of former Tram shed to City Hall West to house an engine truck, City Hall West reconfigurations for temporary occupancy by Fire staff.*

***Professional fees, Construction Manager fees, Permit/City fees, LEED certification fees, Furniture Fixtures and Equipment (FF&E) and Public Art.*

As the building form and character design proceeds, it may be necessary to make small adjustments to the areas noted.

Alternative – Building Reduction

There is opportunity to construct a lesser quality Firehall No. 1 than the recommended option that maintains the current level of service by eliminating and/or reducing space sizes and through construction materials changes as summarized below.

- *Reduction in Fire Prevention and Administration Space* – The proposed space program was established using standard size spaces common in the industry and supported by previously established City policies. Fire Prevention and Administration space has been allocated based on future demand – this space can be reduced by approximately 25% but

would only accommodate the current need. This reduction will prohibit the ability to accommodate additional staffing requirements.

- *Building Materials* – Firehall No. 1 is planned for construction with standard building materials, similar to other metro Vancouver and firehall projects. Lesser materials may be used as a cost savings opportunity, i.e., exterior building envelope could use less expensive wood siding as opposed to more standard materials such as metal or bricks. This is likely to reduce the facility life expectancy and increase maintenance costs.

Implementation of these changes has the potential to reduce costs in the order of 10%.

Alternative – Building Increase

There is opportunity to construct a higher quality Firehall No. 1 than proposed through expanding/adding spaces as well as using higher quality, non-standard materials as summarized below.

- *Increase in Overall Programmable Space* – The proposed space program was established using standard size spaces common in the industry and supported by previously established City policies. An option is to exceed the current program by making spaces larger in several areas including offices, exercise room, kitchen, eating area, alert recovery and multi-purpose room.
- *Building Materials* – Firehall No. 1 is planned for construction with standard building materials, similar to other Metro Vancouver and firehall projects. Higher quality materials may be used at an increased cost, i.e., building exterior finishes could include architecturally designed metal siding as opposed to standard finishes such as brick and metal.

Implementation of these changes that increase building quality will increase costs somewhere in the order of 20%.

Emergency Vehicle Technician Space

The Emergency Vehicle Technicians (EVT's) currently work out of Firehall No. 1. Staff are continuing to explore options for a permanent location, but at this time EVT's are included in the current Firehall No. 3 program. Opportunities that are also being explored as temporary EVT space solutions include use of existing City firehall space, City owned facilities in general, City wide possibilities including leased space and close proximity municipalities that may have suitable space available.

Staff will report back to Council with other available options.

Form and Character

Following approval of the building program allocation, staff will use the information to develop renderings and schematic floor plans which will be brought to Council for input and

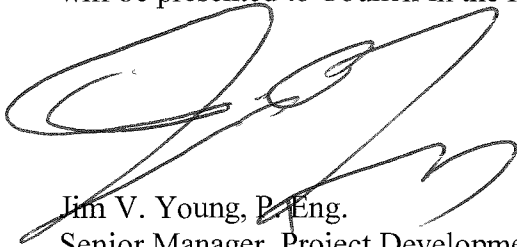
consideration for approval in the fall of 2014. A project schedule has been included as Attachment 1.

Financial Impact

There is no financial impact. Capital budgets have already been approved by Council.

Conclusion

Council approved funding to complete design and construction of a new Firehall No. 1 at the existing site. Architectural and engineering services have been awarded to HCMA and the work has progressed to the point where area allocations are complete. Development of Firehall No. 1 form and character will proceed based on the area allocations included in this report. An update will be presented to Council in the fall of 2014.



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



Kim Howell
Deputy Fire Chief
(604-303-2762)

JVY: jvy/tv

Attachment 1: Firehall No. 1 Project Schedule

Attachment 1: Firehall No. 1 Project Schedule

Firehall No. 1 - Projected Schedule	Start	Finish
Programming / Space Allocation	Mar 2014	Jun 2014
Council (Programming / Space Allocation)	Jul 2014	Jul 2014
Develop Floor Plans / Form & Character	Jul 2014	Sept 2014
Council (Floor plans / Form & Character)	Oct 2014	Oct 2014
Working Drawings	Nov 2014	Mar 2015
Tender	Apr 2015	May 2015
Construction	May 2015	Nov 2016



City of Richmond

Report to Committee

To: General Purposes Committee

Date: June 25, 2014

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

File: 06-2050-20-F3/Vol 01

John McGowan
Fire Chief, Richmond Fire Rescue

Re: Cambie Firehall No. 3 Program Allocation




Staff Recommendation

That the Cambie Firehall No. 3 Program Allocation report from the Director, Engineering and Fire Chief, Richmond Fire Rescue, be endorsed.

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

John McGowan
Fire Chief
(604-303-2734)

Att: 1

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

Staff Report

Origin

On July 23, 2012 Council approved construction of a new Firehall No. 3. In late 2013, a lease agreement was reached with BC Ambulance to construct Firehall No. 3 as an integrated facility, to be used jointly with Richmond Fire-Rescue.

Council approved funding of \$20.7 million to construct a new Firehall No. 3 through the 2005 - 2009 Capital Programs.

The purpose of this report is to seek Council endorsement of the proposed Firehall No. 3 program.

Background

Funding of \$20.7 million plus multi-project contingency was approved by Council over a period of several years to complete design and construction of a new Firehall No. 3. The new facility is proposed to replace the existing 4,000 ft², 2 bay facility and have an area of approximately 9,000 ft² plus several program areas that are new to Firehall No. 3 as summarized below.

• Fire Rescue/Suppression	9,000 ft ²
• Training	2,300 ft ²
• Emergency Vehicle Technician (EVT) Space	5,100 ft ²
• Fire/Ambulance Shared Space	1,600 ft ²
• BC Ambulance	<u>5,100 ft²</u>
TOTAL	23,100 ft ²

Three properties near the vicinity of No. 4 Road and Cambie Road (9620, 9660 and 9700 Cambie Road) were previously purchased to be the site for the new facility.

Award of Architectural Design and Engineering services to DGBK Architects was confirmed by Council at their March 10, 2014 meeting. Design opportunities and features of Firehall No. 3 are being closely coordinated with Firehall No. 1 design.

Confirmation of the proposed program area allocations have been achieved through a series of meetings with Project Development staff, Richmond Fire Rescue staff, BC Ambulance representatives and the consulting team over the period of March to June 2014. Design will incorporate the areas learned from the most recently constructed Firehalls No. 2, 4 and 5.

Richmond Fire Rescue, together with Project Development, also completed a best practices site review of several facilities as summarized below.

- Firehall No. 1, Saanich
- Firehall No. 14, Surrey
- Firehall No. 15, Vancouver
- North Delta Public Safety Building, Delta

- Firehalls No. 2, 4 and 5, Richmond

In addition, debriefs on Richmond's newest firehalls (Steveston, Sea Island and Hamilton) were conducted to assist in improving both the design process and facility features of future firehalls. Several meetings were also held with internal stakeholders including Public Art, Engineering, IT, Transportation, Planning and Sustainability to identify needs and requirements.

In 2013 a Fire Rescue Parameters Report was prepared as a basis for Firehall No. 3 programming/space allocation. The Parameters report reflects Firehall No. 3 needs based on maintaining the current level of service, accounting for a future increase in population, development and densification to 2031 and is consistent with previously established City and fire facility best practices design standards for programming and space allocation.

As per the City's High Performance Building Policy, LEED Gold certification has been set as the desired building performance target for the new Firehall No. 3. The green features will maximize operational efficiency through optimizing energy performance and minimizing water usage and maintenance costs.

Analysis

Programming and space allocation has proceeded based on ensuring the current level of service.

A series of work sessions with Richmond Fire Rescue and Project Development were held to review best practices findings, learning's from previous experience with Firehalls No. 2, 4 and 5 and project specific needs. The results of these sessions were used to move forward with planning of program space for Firehall No. 3 and identify the functional and operational requirements of the new firehall.

The following proposed program allocation for Firehall No. 3 reflects maintaining the current level of service and future needs. Should Council endorse this report, the next step is to proceed with a rezoning application and use the area allocation to develop the spatial building design, a site plan and the form and character of the building. It is anticipated that the rezoning report will be presented for Council consideration in the fall of 2014.

Firehall No. 3 - 9620-9700 Cambie Road (ensure current level of service)

	Facility Program - New Firehall
Building Statistics	
Year Constructed	2016
Fire Suppression	9,000 ft ²
Apparatus Bays (2)	✓
Apparatus Support	✓
Suppression Office	✓
Health & Recovery	✓

Training	2,300 ft ²
Functional Training	✓
Emergency Vehicle Technician	5,100 ft ²
EVT Bays (2)	✓
EVT Support	✓
Shared Space	1,600 ft ²
Corridor, Stairways & Common Area	✓
Washrooms	✓
Storage Space & Janitor Room	✓
Exercise Room	✓
BC Ambulance	5,100 ft ²
BCAS Garage (2)	✓
BCAS Crew Quarters	✓
BCAS Day Spaces	✓
BCAS Building Support	✓
Building Specification	
Sustainable Initiatives	LEED Gold
Floors	Up to four storey
Apparatus Bays	Six bay facility (include EVT & BCAS)
Hose Tower	Up to four storey
Projected Costs	
Land Acquisition	\$3.2 M
Soft Costs	\$4 M
Site Development	\$2.5 M
Construction	\$11 M
TOTAL	\$20.7 M
Multi Project Contingency	\$5 M
Lifecycle Costs	
Building Lifespan	50 Years
Energy Dependency	Average
Functional Space	
Fire Suppression Crew	2
Training	Multi Company
Emergency Vehicle Technician	Yes
BC Ambulance Service	Yes

As the building form and character design proceeds, it may be necessary to make small adjustments to the areas noted. Design will proceed to allow conversion of BC Ambulance lease space to Richmond Fire Rescue space with minimum effort should lease arrangements not be extended.

Alternative – Building Reduction

There is opportunity to construct a lesser quality Firehall No. 3 than the recommended option that maintains the current level of service by eliminating and/or reducing space sizes and through construction materials changes as summarized below.

- *Reduction in Training and Administration Space* – The proposed space program was established using standard size spaces common in the industry and supported by previously established City policies. Training and Administration space has been allocated based on future demand – this space can be reduced by approximately 25% but would only accommodate the current need. This reduction will prohibit the ability to accommodate additional staffing requirements.
- *Building Materials* – Firehall No. 3 is planned for construction with standard building materials, similar to other metro Vancouver and firehall projects. Lesser materials may be used as a cost savings opportunity, i.e., exterior building envelope could use less expensive wood siding as opposed to more standard materials such as metal or bricks. This is likely to reduce the facility life expectancy and increase maintenance costs.

Implementation of these changes has the potential to reduce costs in the order of 10%.

Alternative – Building Increase

There is opportunity to construct a higher quality Firehall No. 3 than proposed through expanding/adding spaces as well as using higher quality, non-standard materials as summarized below.

- *Addition of Apparatus Bay* – it is anticipated an additional apparatus bay will be required by 2041. This can be constructed now and be available for Fire Apparatus in the future with an interim use as flexible space.
- *Increase in Programmable Space* - The proposed space program was established using standard size spaces common in the industry and supported by previously established City policies. An option is to exceed the current program by making spaces larger in several areas including offices, exercise room, kitchen, eating area, alert recovery and multi-purpose room.
- *Building Materials* – Firehall No. 3 is planned for construction with standard building materials, similar to other Metro Vancouver and firehall projects. Higher quality materials may be used at an increased cost, i.e., building exterior finishes could include architecturally designed metal siding as opposed to standard finishes such as brick and metal.

Implementation of these changes that increase building quality will increase costs somewhere in the order of 20% and impact schedule.

Emergency Vehicle Technician Space

The Emergency Vehicle Technicians (EVT's) currently work out of Firehall No. 1. Staff are continuing to explore options for a permanent location, but at this time EVT's are included in the current Firehall No. 3 program.

Opportunities that are also being explored as temporary EVT space solutions include use of existing City firehall space (possibly Firehall No. 2 or 6), City owned facilities in general, City wide possibilities including leased space at YVR or from the private sector and close proximity municipalities that may have suitable space available.

Form and Character

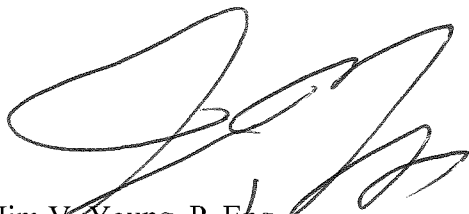
Following approval of the building program, staff will use the information to develop renderings and schematic floor plans which will be brought to Council for input and consideration for approval in the fall of 2014. A project schedule has been included as Attachment 1.

Financial Impact

There is no financial impact. Capital budgets have already been approved by Council.

Conclusion

Council approved funding to complete design and construction of a new Firehall No. 3 at the Cambie site. Architectural and engineering services have been awarded to DGBK and the work has progressed to the point where area allocations are completed. Development of Firehall No. 3 form and character will proceed following Council endorsement of programming and space allocation. An update will be presented to Council in the fall of 2014.



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



Kim Howell
Deputy Fire Chief
(604-303-2762)

JVY:jvy/mc

Attachment 1: Firehall No. 3 Project Schedule

Attachment 1: Firehall No. 3 Project Schedule

Firehall No. 3 - Projected Schedule	Start	Complete
Programming / Space Allocation	Mar, 2014	Jun, 2014
Council (Programming / Space Allocation)	Jul, 2014	Jul, 2014
Develop Floor Plans / Form & Character	Jul, 2014	Sept, 2014
Rezoning Application	Aug, 2014	Feb, 2015
Council (Floor plans / Form & Character)	Oct, 2014	Oct, 2014
Working Drawings	Nov, 2014	Apr, 2015
Tender	Apr, 2015	May, 2015
Construction	Mar, 2015	Oct, 2016



City of Richmond

Report to Committee

To: Planning Committee **Date:** May 20, 2014
From: Cathryn Volkering Carlile **File:** 08-4057-05/2014-Vol 01
General Manager, Community Services
Re: **9700 and 9740 Alexandra Road (Polygon Development 296 Ltd.)- Proposed Affordable Housing Contribution**

Staff Recommendation

1. That Option 1 in the staff report, dated May 20, 2014, from the General Manager, Community Services, be endorsed to permit cash-in-lieu affordable housing contributions from the rezoning of 9700 and 9740 Alexandra Road (Polygon Jayden Mews Homes Ltd.) as part of Rezoning Application RZ 13-649641.
2. That the Chief Administrative Officer and General Manager, Community Services be authorized to negotiate and execute an amendment to the Affordable Housing Contribution Agreement between the City and Kiwanis Senior Citizens Housing Society to:
 - a) Add 9700 and 9740 Alexandra Road as a proposed development project that is to provide a minimum affordable housing contribution of \$678,107; and
 - b) Reduce the proposed affordable housing contribution from 9491, 9511, 9531 and 9591 Alexandra Road to \$892,634.

Cathryn Volkering Carlile
General Manager, Community Services
(604-276-4068)

Att. 2

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

Staff Report

Origin

This report presents a proposal for Council's consideration of an affordable housing capital contribution from the proposed Polygon Jayden Mews Homes Ltd. (Polygon) project at 9700 and 9740 Alexandra Road (See Attachment 1) towards a Council approved Affordable Housing Special Development Circumstance project (i.e. Kiwanis Towers Affordable Housing Development at 6251 Minoru Boulevard).

The report is consistent with Council's Term Goal# 2.5:

Development of a clearer definition of affordable housing priorities and subsequent utilization of affordable housing funding.

Analysis

Affordable Housing Policy Considerations

Section 904 of the *Local Government Act* establishes conditions that will entitle an owner to a higher density in their development(s) with the provision of affordable and special needs housing. The City's Affordable Housing Strategy includes provisions for cash-in-lieu contributions towards the City's *Affordable Housing Reserve* in exchange for increased density proposed as part of rezoning applications.

The West Cambie Area Plan emphasizes that at the time of rezoning, a development applicant will indicate how the proposed development complies with the City's policies regarding affordable housing. The plan outlines the intent of density bonusing for affordable housing to be utilized to:

1. Secure a number of affordable housing units within a development (e.g. 5% of the total units) and to permit additional density for market housing as a financial incentive to the developer for building the affordable housing;
2. Accept contributions to the Affordable Housing Statutory Reserve Fund from developments where affordable housing isn't being built; or
3. Provide a cash contribution towards affordable housing only in Council approved special development circumstances, while continuing to meet the City's affordable housing policy requirements.

Affordable Housing Special Development Circumstance "Donor Site" Considerations

On June 25, 2012, Council approved the Kiwanis Towers development at 6251 Minoru Boulevard as an Affordable Housing Special Development Circumstance and the related Rezoning RZ 11-591685 for Polygon Carrerra Homes Ltd.

Including Polygon's Carrerra project, nine Polygon development sites were identified as potential donor sites to provide cash contributions towards the City's capital Affordable Housing Reserve Fund to assist in meeting the Kiwanis project's financial requirements (Attachment 2). The first of four installments of the City's committed funding disbursements have been made towards the Kiwanis project capital costs. The fourth and final disbursement is scheduled for fall 2017. The

final disbursement is to be released to Kiwanis when the City receives the final contribution from the proposed donor sites, including a contribution from a proposed site owned by Polygon in the Alexandra East area, if rezoning of this site is approved by Council.

Polygon has recently applied to rezone 9700 and 9740 Alexandra Road from “Two-Unit Dwellings (RD1)” and “Single Detached (RS1/F)” to a Site Specific Zone, “Town Housing (ZT71)- Alexandra Neighbourhood (West Cambie) (RZ 13-649641)”, in order to develop approximately 64 three-storey townhomes on an assembled site (“Jayden Mews”).

The developer is proposing a cash contribution from its Jayden Mews project towards the City’s capital *Affordable Housing Reserve Fund*. This report provides two options for Council’s consideration with respect to the proposed affordable housing contribution, including:

Option 1: Affordable Housing Value Transfer Approach- (Substitution) - Recommended

Polygon has requested their subject development (Jayden Mews) be considered as a potential affordable housing special development circumstance “donor site” to replace the final contribution from their proposed Alexandra East project.

Subject to Council’s approval, the proposed Jayden Mews contribution would be received at Rezoning adoption of this project, which would be earlier than what is proposed for the final contribution from the proposed Alexandra East project (fall 2017). The advantages of the earlier contribution payment would be:

- Mitigating the risk of the contribution from the proposed Alexandra East project if the project is not approved or delayed;
- Providing greater certainty for the final contributions to support the Kiwanis project, due to the fact that the Kiwanis project is slightly ahead of its proposed construction schedule;
- If approved by Council, yielding more affordable housing units in Polygon’s proposed Alexandra East apartment project than what could be provided for in the Jayden Mews townhouse project; and
- Providing more conducive fund management.

Polygon proposes to develop affordable housing units at its Alexandra East development at a comparable value of the cash contribution from the Jayden Mews project, estimated at \$678,107. The built units would meet the requirements for the developer to receive a density bonus in exchange for the provision of affordable housing, yielding six affordable housing units (e.g. two 535 ft² one-bedroom and four 800 ft² two-bedroom units).

Potentially securing built affordable housing units at the proposed Alexandra East project would contribute to an:

- Increase of affordable housing stock in the West Cambie area; and
- Offset the negative impact of Affordable Housing Value Transfer contributions that were received from other Polygon West Cambie projects towards the Kiwanis Towers development.

The proposed cash contribution in Option 1 is based on the proposed “Affordable Housing Value Transfer” approach, as per the report from the General Manager, Community

Services dated May 30, 2012, which allows for a developer to make a cash contribution towards Council approved affordable housing special development circumstances.

The Jayden Mews project proposes to provide a voluntary cash-in-lieu developer contribution of \$678,107 to the City's Capital Affordable Housing Reserve, which is derived from:

- An Affordable Housing Value Transfer rate of \$160/ft² (i.e. as per the report from the General Manager, Community Services dated May 30, 2012, this rate assumes wood construction with the affordable housing floor area not being retained on site) and used for market housing, resulting in a cash contribution in lieu of constructing affordable housing units on the subject site of 4,238 ft² x \$160/ft² = \$678,106 towards the Kiwanis Towers recipient site.

It is important to note that the rate is derived for the purpose of the Kiwanis Development project only.

The West Cambie - Alexandra Interim Amenity Guidelines state that if a developer chooses not to build affordable housing, the City will accept a developer's financial contribution at the rate of \$5.10 per buildable square foot as consideration for increasing the maximum FAR up to 0.65. Polygon is proposing to increase the maximum FAR for the Jayden Mews site to 0.72 by providing a voluntary contribution of \$678,107.

The \$678,107 being proposed under Option 1 is greater than the \$421,486 that would be generated from the standard contribution calculation method of:

- A West Cambie Affordable Housing Contribution rate of \$5.10 per buildable square foot, based on the proposed FAR in the development of 82,644.25 ft² (i.e. Maximum buildable area based on 0.65 FAR of Site Area).

Option 2: Built Affordable Housing Unit Requirement (Jayden Mews project) (no cash contribution)

Alternatively, if Polygon opted to build affordable housing in the proposed Jayden Mews project, it would yield two townhouse units at a 0.75 FAR. The Strategy recommends a minimum of four affordable housing units to cover the construction costs and increase the overall profitability of the project. Additional units would have to be negotiated as part of the subject development to meet the four unit minimum threshold.

Although the Jayden Mews project could potentially provide two secured affordable townhouse units at the proposed density of 0.75 FAR or \$421,486 at the base density of 0.65 FAR, it would provide less cash and built affordable housing contribution to the City than Option 1, if approved. Whereas, Option 1 would support the provision of six apartment units disbursed throughout the proposed Alexandra East development site with access to shared amenity spaces.

Application to the Council approved Kiwanis Towers Affordable Housing Special Development Circumstance

On April 10, 2012, Council endorsed proposed amendments to the Affordable Housing Statutory Reserve Fund Policy 5008, Section 5.15 of the Zoning Bylaw 8500 and Affordable Housing Operating Reserve Fund Bylaw No. 8206 to allow Council with the authority to direct different

proportions of contributions to the Affordable Housing Reserve Funds, from time to time, to support Council approved affordable housing special development circumstances.

To support the viability of the Kiwanis project and to further Kiwanis' ability to provide tenant rents below what is stipulated in the Affordable Housing Strategy, Staff recommend that Council direct 100% of the \$678,107 contribution to the City's Capital Affordable Housing Reserve Fund, should Council support Option 1 above. At Council's discretion these funds can be used to support the Kiwanis project.

If Council approves Option 1, and supports the Jayden Mews project, amendments would be made to the Kiwanis project Contribution Agreement entered into by the City of Richmond and the Kiwanis Senior Citizens Housing Society to:

- Add the proposed contribution from 9700 and 9740 Alexandra Road (Jayden Mews) in the amount of \$678,107; and
- Reduce the proposed contribution from the proposed 9491, 9511, 9531 and 9591 Alexandra Road (Alexandra East) site from \$1,570,741 to \$892,634.

In summary, it is important to note that the City's contribution to the Kiwanis project would not change as a result of this proposal. The City's maximum contribution to the Kiwanis project is not to exceed \$20,837,610.

Financial Impact

The City will redirect approximately \$203,432 in funds that would have otherwise been contributed to the City's Affordable Housing Operating Reserve Fund to the capital Affordable Housing Reserve Fund (i.e. \$678,107 x 30% that is typically directed to the Affordable Housing Operating Reserve Fund, per Policy 5008 and Bylaw 8206).

Conclusion

Subject to Option 1 and the rezoning of 9700 and 9740 Alexandra Road (Jayden Mews) being approved, the proposed affordable housing cash contribution would mitigate the financial risk of delayed contribution payments towards the Kiwanis project, while potentially leveraging built affordable housing units in the West Cambie area (i.e. Alexandra East). Thus, Staff are recommending Council's consideration and support for Option 1.



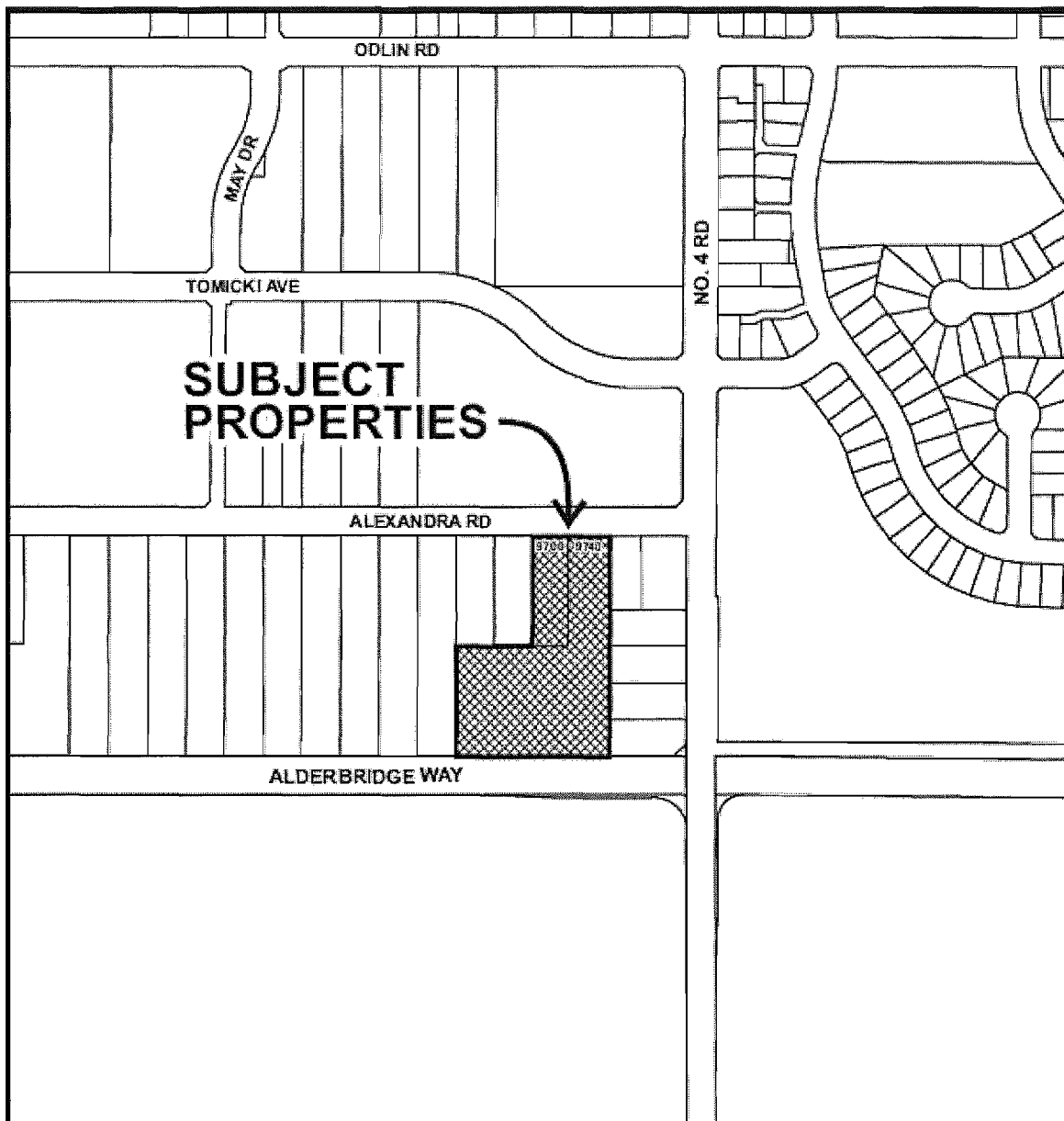
Dena Kae Beno
Affordable Housing Coordinator
(604-247-4946)

Att. 1: Site Map

Att. 2: Kiwanis Context Map



City of
Richmond



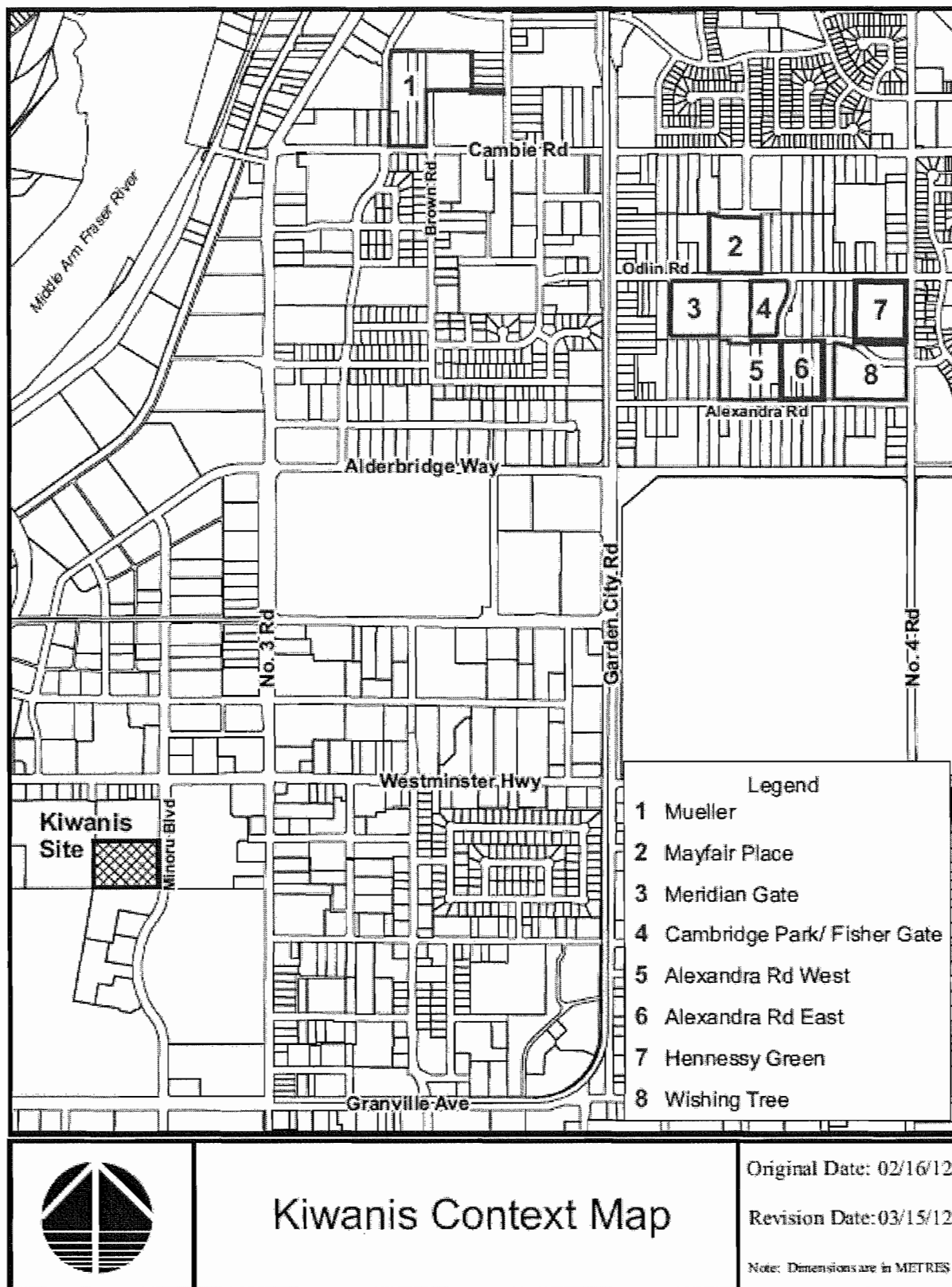
9700 & 9740 Alexandra Rd

Original Date: 05/20/14

Revision Date:

Note: Dimensions are in METRES

ATTACHMENT 2






City of Richmond

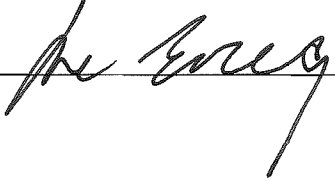
Report to Committee Planning and Development Department

To: Planning Committee **Date:** July 11, 2014
From: Wayne Craig **File:** RZ 14-665416
Director of Development
Re: **Application by Hollybridge Limited Partnership (Intracorp) for Rezoning at 6888 River Road and 6900 Pearson Way from Residential/Limited Commercial (RCL3) to Residential/Limited Commercial (ZMU27) - Oval Village (City Centre)**

Staff Recommendation

- 1) That Richmond Zoning Bylaw 8500, Amendment Bylaw 9148, to amend the Richmond Zoning Bylaw 8500 to repeal references to 6888 River Road and 6900 Pearson Way in the "Residential/Limited Commercial (RCL3)" zone, create the "Residential/Limited Commercial (ZMU27) - Oval Village (City Centre)", and rezone 6888 River Road and 6900 Pearson Way from "Residential/Limited Commercial (RCL3)" to "Residential/Limited Commercial (ZMU27) - Oval Village (City Centre)", be introduced and given first reading.
- 2) That Termination of Housing Agreement (5440 Hollybridge Way) Bylaw 9150, to authorize the termination, release, and discharge of the Housing Agreement entered into pursuant to Housing Agreement (5440 Hollybridge Way) Bylaw 8995, be introduced and given first reading.
- 3) That the affordable housing contribution resulting from the rezoning of 6888 River Road and 6900 Pearson Way (RZ 14-665416) be allocated entirely (100%) to the capital Affordable Housing Reserve Fund established by Reserve Fund Establishment Bylaw 7812.
- 4) That the child care contribution resulting from the rezoning of 6888 River Road and 6900 Pearson Way (RZ 14-665416) be allocated entirely (100%) to the capital Child Care Development Reserve Fund created by Reserve Fund Establishment Bylaw 7812, unless Council directs otherwise prior to the date of the owner's payment, in which case the payment shall be deposited as directed by Council.


Wayne Craig
Director of Development
WC:spc
Att.

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Affordable Housing	<input checked="" type="checkbox"/>	
Finance Division	<input checked="" type="checkbox"/>	
Arts, Culture & Heritage	<input checked="" type="checkbox"/>	
Community Social Development	<input checked="" type="checkbox"/>	
Transportation	<input checked="" type="checkbox"/>	

Staff Report

Origin

Hollybridge Limited Partnership (Intracorp) has applied to the City of Richmond for permission to rezone 6888 River Road and 6900 Pearson Way (Oval Village) to a new site specific, mixed use zone, "Residential/Limited Commercial (ZMU27) - Oval Village (City Centre)" and amend the "Residential/Limited Commercial (RCL3)" zone (to remove references to the two subject lots) in order to permit the developer to make a voluntary (density bonus), cash-in-lieu contribution towards the City's capital Affordable Housing Reserve Fund in lieu of constructing affordable housing on-site. (Attachments 1 & 2)

This rezoning application was considered at the Planning Committee meeting on June 17, 2014, where a recommendation to refer the application back to staff was passed and subsequently adopted as the following Council Referral:

"That staff examine options:

- 1) for a partial cash-in-lieu contribution that would provide affordable housing units in the proposed Oval Village (City Centre) development and offset the interim funding committed for affordable housing projects in the city centre;*
- 2) to accept the proposed contribution only as affordable units; and*
- 3) to offset the interim funding committed for the affordable housing and report back."*

Findings of Fact

Through the original rezoning of the subject site (RZ 09-506904), it was agreed that the developer would construct, at the developer's sole cost, 100% of the development's required affordable housing (i.e. 5% of the combined total maximum permitted residential floor area on the two lots) in Phase 2 (6900 Pearson Way) in the form of a stand-alone, wood frame building containing 29 low-end market rental units. A Development Permit (DP) and Building Permit (BP) have been issued for Phase 1 of the subject development (DP 12-617639 and BP 13-634548) and the developer wishes to move forward with Phase 2.

On June 17, 2014, Planning Committee considered the developer's proposal for a \$4,639,530 contribution to Richmond's capital Affordable Housing Reserve Fund in lieu of 100% of the development's required affordable housing, based on an affordable housing conversion rate of \$210 per square foot of converted affordable housing (i.e. the City-approved rate applicable to wood frame affordable housing conversions wherein the developer retains the floor area of the affordable housing for market residential purposes).

As directed by Planning Committee, the developer and staff have examined alternative affordable housing options. As a result, the developer's June 17, 2014 proposal has been revised to provide for a reduced affordable housing cash-in-lieu contribution together with the construction of on-site affordable housing units. More specifically, the developer proposes that:

- a) 35% of the development's required affordable housing (i.e. 725.3 m² / 7,807 ft²) is provided in the form of seven (7), two and three-bedroom, family-oriented townhouse units fronting Pearson Way, which affordable units shall be secured with the City's

standard Housing Agreement and constructed at the developer's sole cost in Phase 2 of the subject development (Attachment 3); and

- b) 65% of the development's required affordable housing (i.e. 1,327.2 m² / 14,286 ft²) is converted to a \$3 million cash-in-lieu contribution towards the City's capital Affordable Housing Reserve Fund, submitted prior to rezoning adoption, based on \$210 per square foot of converted affordable housing (i.e. the City-approved rate applicable to wood frame affordable housing conversions wherein the developer retains the floor area of the affordable housing for market residential purposes).

Note that, as per the Staff Report (dated June 6, 2014) presented to Planning Committee on June 17, 2014 (Attachment 5), a Development Permit application for Phase 2 (DP 14-662341) must be completed to the satisfaction of the Director of Development prior to rezoning adoption.

A Revised Development Application Data Sheet summarizing the developer's updated proposal is attached (Attachment 4). Further details regarding the development proposal are included in the Staff Report (dated June 6, 2014) presented to Planning Committee on June 17, 2014 (Attachment 5).

Staff Comments

In light of the developer's revised affordable housing proposal, voluntary developer contributions described in the Staff Report (dated June 6, 2014) presented to Planning Committee on June 17, 2014 (Attachment 5) have been updated for Public Art and Community Planning. Under current City policies, voluntary developer contributions with respect to those items do not apply to floor area used for affordable housing. The updated voluntary developer contributions are detailed in the attached Rezoning Considerations – Addendum (Attachment 6) and are summarized as follows:

Voluntary Developer Contributions	Contributions Previously Secured Via RZ 09-506904	UPDATED VALUE of Additional Contributions	Total
Public Art	\$340,891	\$23,131	\$364,022
Community Planning	\$113,630	\$7,711	\$121,341

Other technical requirements are addressed in the Staff Report (dated June 6, 2014) presented to Planning Committee on June 17, 2014. (Attachment 5)

Analysis

On June 17, 2014, Planning Committee directed that staff examine three affordable housing options with respect to the subject rezoning application. The findings of that examination are summarized as follows:

Option 1: Preferred – Combination of Cash-in-Lieu and On-Site Affordable Housing

This option is consistent with the developer's revised proposal, which provides for 35% of the development's required affordable housing (i.e. 725.3 m² / 7,807 ft²) to be constructed on 6900 Pearson Way and 65% as a \$3,000,000 cash-in-lieu contribution to Richmond's capital Affordable Housing Reserve Fund (submitted to the City prior to adoption of the subject rezoning application).

Pros:

- Affordable, two and three-bedroom townhouse units on a residential street with convenient access to the riverfront and amenities, like those the developer proposes to construct, are important to providing family-friendly housing options in Richmond's City Centre.
- The developer's proposed cash-in-lieu contribution to Richmond's capital Affordable Housing Reserve Fund may be used, if so determined at the sole discretion of the City, to facilitate the construction of affordable housing Special Development Circumstance projects elsewhere in Richmond.

Cons:

- The proposed cash-in-lieu developer contribution will reduce the number of affordable housing units constructed in the Oval Village in the near term.

Option 2: *Not recommended* – 100% On-Site Affordable Housing

This option is consistent with the original rezoning of 6888 River Road and 6900 Pearson Way (RZ 09-506904), which provided for 100% of the development's required affordable housing (2,052.5 m² / 22,093 ft²) to be constructed on the subject site in Phase 2 (6900 Pearson Way) in the form of a stand-alone, wood frame building.

Pros:

- The number of affordable housing units committed for construction by developers in the Oval Village in the near term will not be impacted.

Cons:

- The City will forego the opportunity to receive a cash-in-lieu contribution to Richmond's capital Affordable Housing Reserve Fund, which funds could be used, if so determined at the sole discretion of the City, to facilitate the construction of affordable housing Special Development Circumstance projects elsewhere in Richmond.

Option 3: *Not recommended* – Alternative Affordable Housing Funding Opportunities

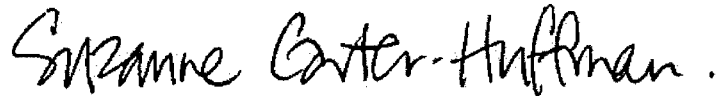
Staff contacted a number of developers and found the subject developer to be the only one interested in making a voluntary (density bonus) contribution to Richmond's capital Affordable Housing Reserve Fund that the City, at its sole discretion, can use to offset the interim funding committed for affordable housing projects in the City Centre. Alternate developer voluntary (density bonus) cash-in-lieu contributions to the Affordable Housing Reserve Fund with respect to the Affordable Housing Strategy's policy for townhouses and smaller apartment developments are small (i.e. \$2/ft² and \$4/ft² respectively) and, thus, have limited ability to generate sufficient funds to offset the City's interim funding commitment in a timely manner. Non-developer funding opportunities will be the subject of future reports from the Manager, Community Social Development.

Financial Impact or Economic Impact

None

Conclusion

Based on a review of three affordable housing options, staff has concluded that the developer's proposal to provide a \$3 million cash-in-lieu contribution to Richmond's capital Affordable Housing Reserve Fund, together with the construction on-site of seven (7) family-oriented, two- and three-bedroom, affordable housing townhouse units is preferred because it gives the City the opportunity, at its sole discretion, to facilitate the funding of affordable housing Special Development Circumstance projects elsewhere in Richmond, while providing for developer-constructed affordable units in the Oval Village. Staff recommends support for the subject rezoning application and related Zoning Bylaw amendments on the basis that they are consistent with City policies for the development of the City Centre and supportive of Richmond's affordable housing objectives.



Suzanne Carter-Huffman
Senior Planner/Urban Design

SPC:spc

Attachment 1: Location Map

Attachment 2: Aerial Photograph

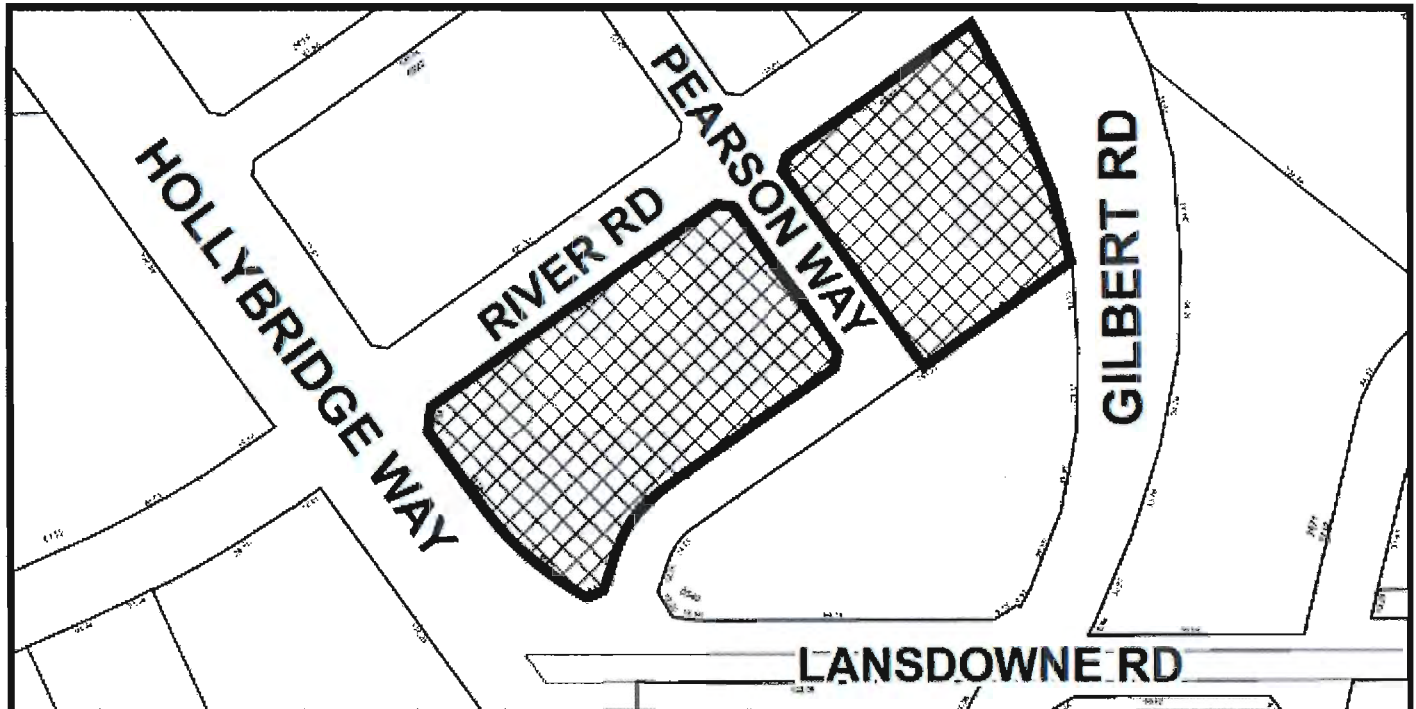
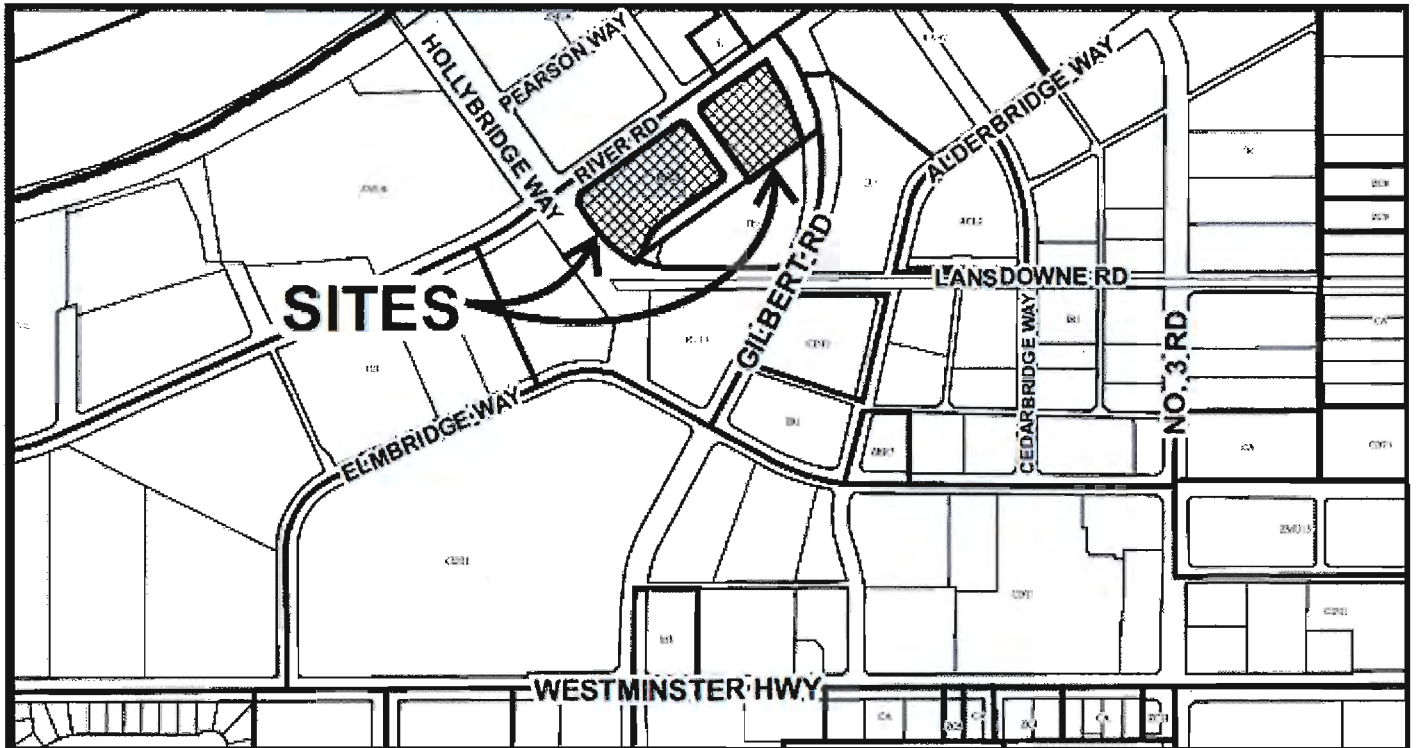
Attachment 3: Affordable Housing Conceptual Development Plans

Attachment 4: Revised Development Application Data Sheet

Attachment 5: Staff Report (June 6, 2014) Presented to Planning Committee on June 17, 2014

Attachment 6: Rezoning Considerations – Addendum

ATTACHMENT 1
Location Map

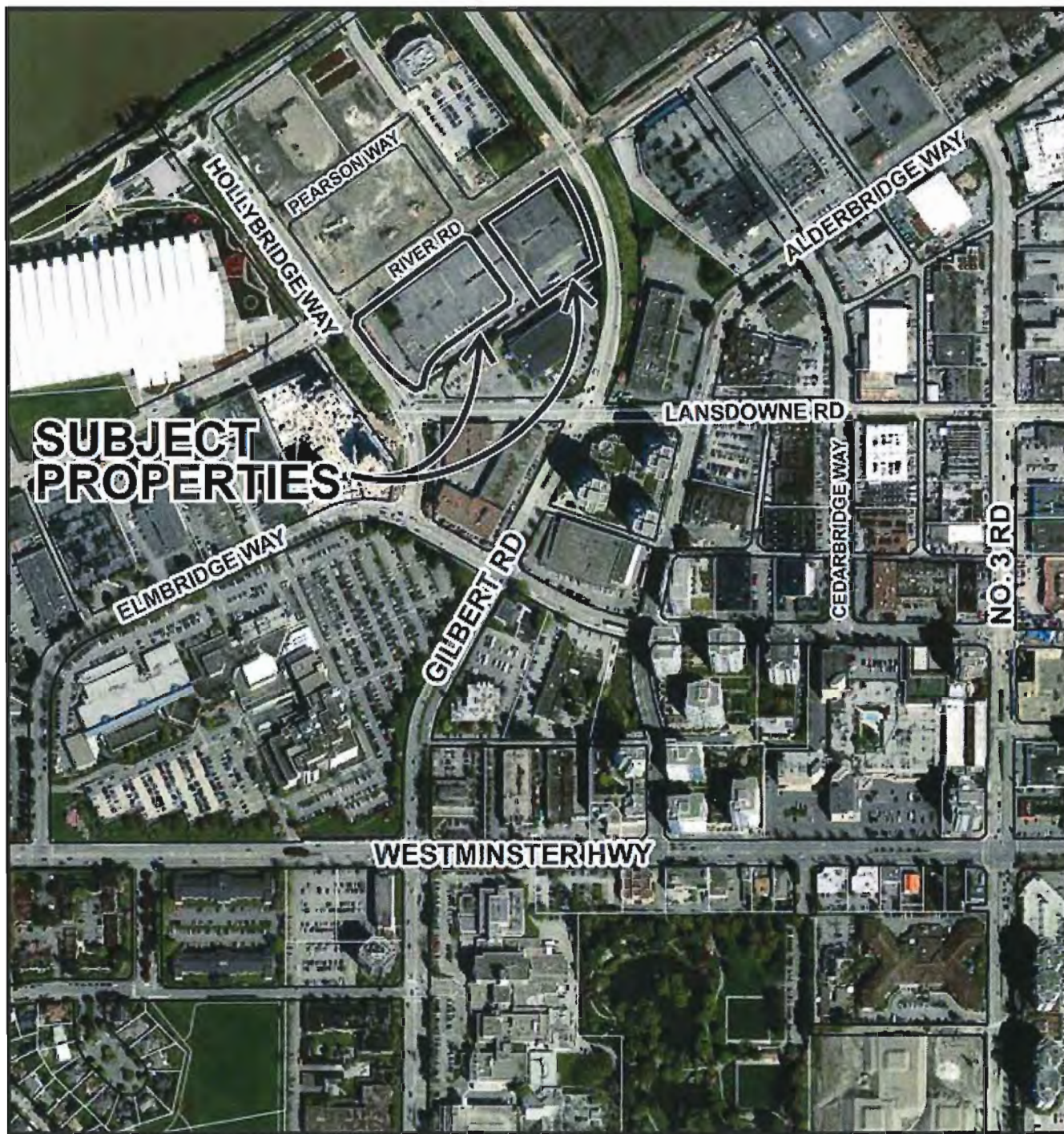


RZ 14-657289

Original Date: 03/07/14

Revision Date: 05/12/14

Note: Dimensions are in METRES



RZ 14-665416

Original Date: 03/07/14

Revision Date: 05/12/14

Note: Dimensions are in METRES

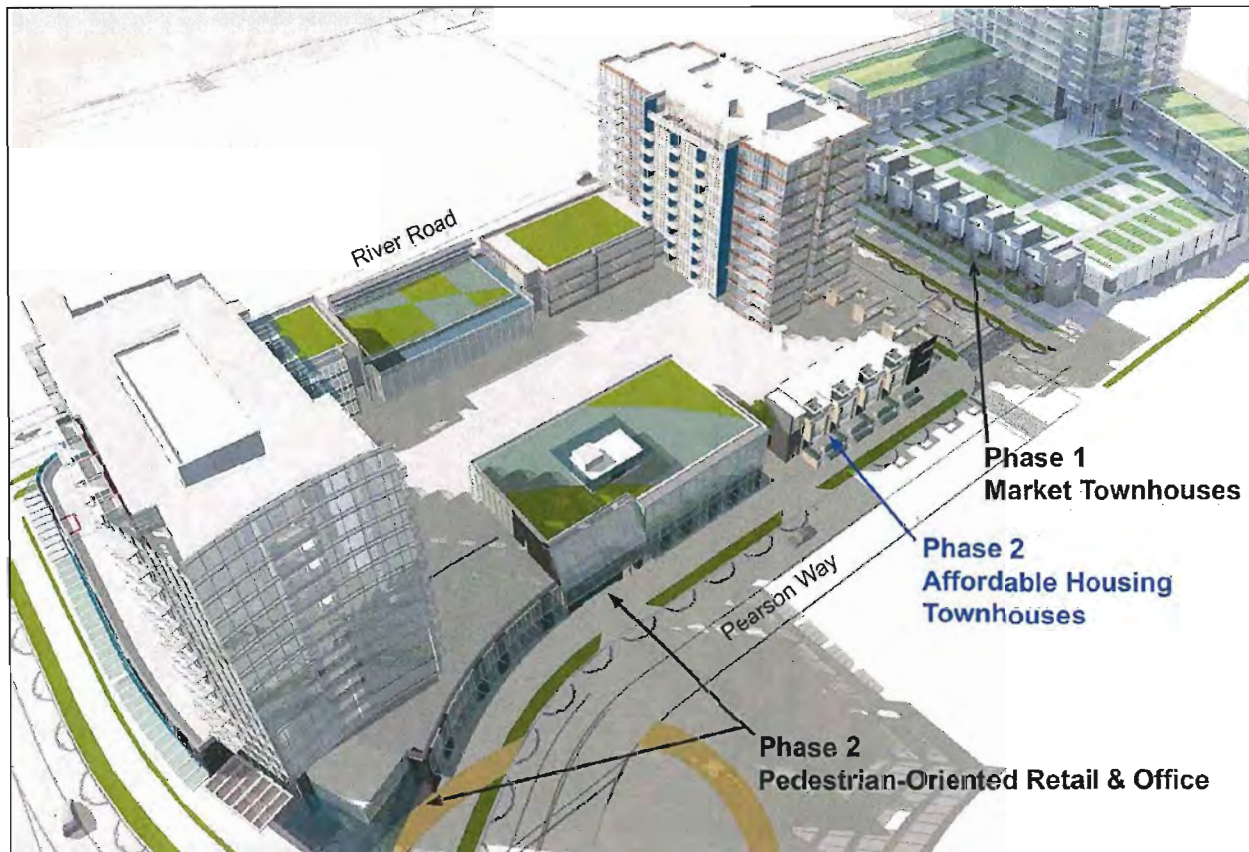
ATTACHMENT 3

Affordable Housing Conceptual Design

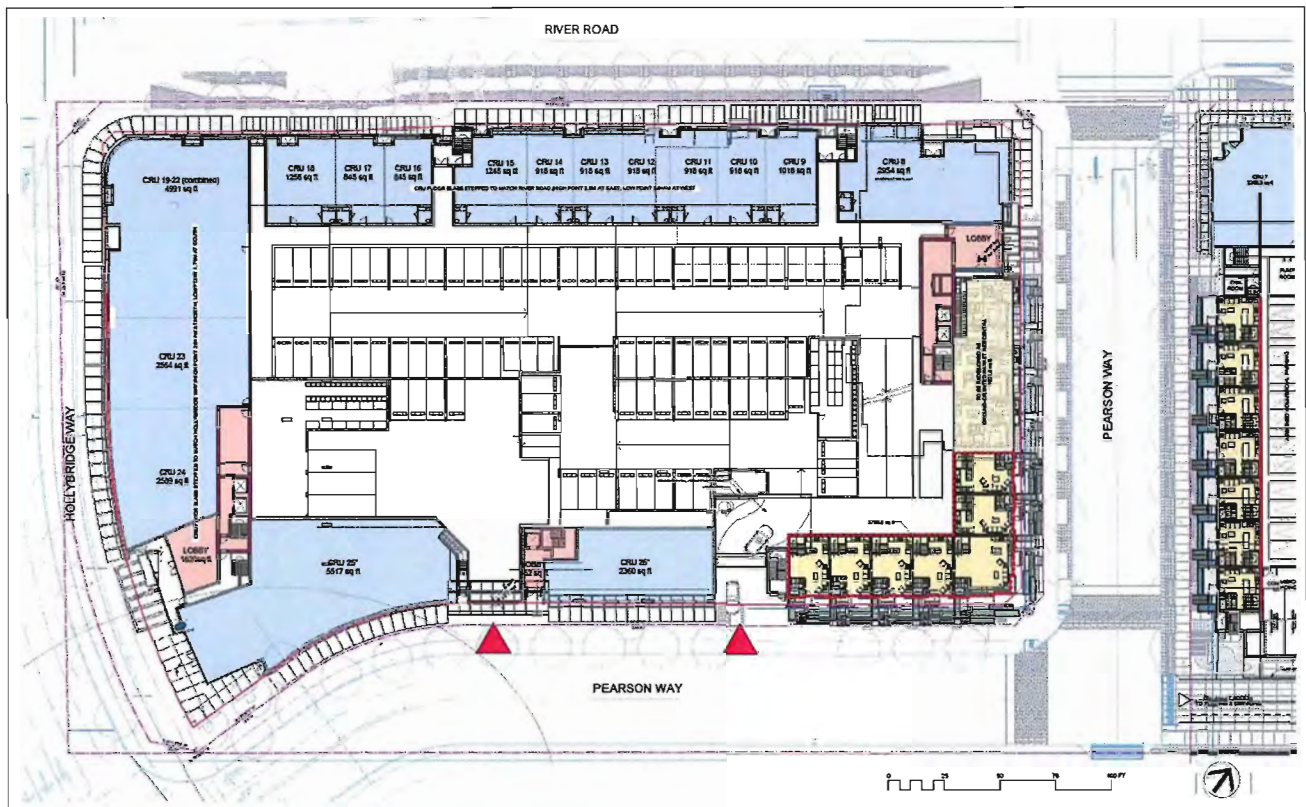
Previously Approved Stand-Alone Affordable Housing Building @ 6900 Pearson Way (Phase 2)



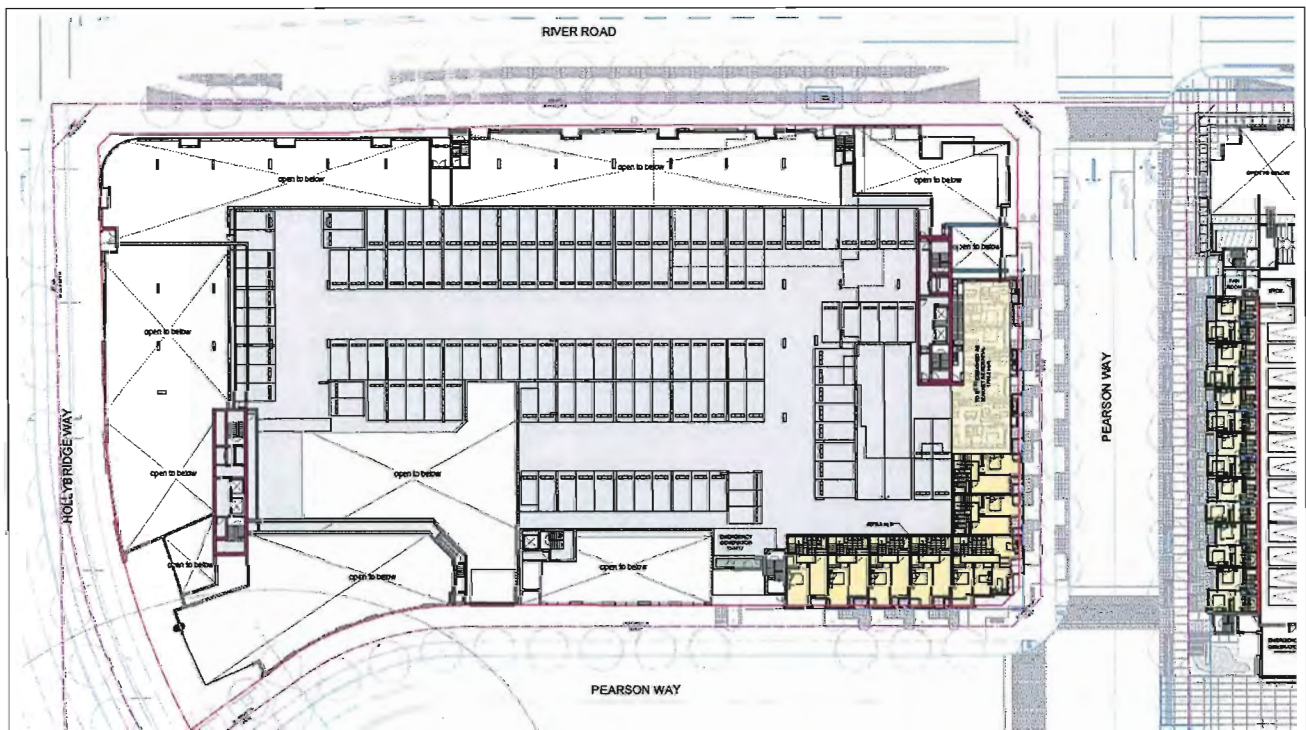
Proposed Affordable Housing Townhouses @ 6900 Pearson Way (Phase 2)



Proposed Affordable Housing Townhouses @ 6900 Pearson Way (Phase 2)



Ground Floor



Second Floor

NOTE: Through the Development Permit process, the design of the affordable housing townhouses will be refined to provide for a direct connection to on-site indoor and outdoor residential amenities (e.g., with a corridor to the tower lobby, mail room, and elevator core).

ATTACHMENT 3
Affordable Housing Conceptual Design

Proposed Affordable Housing Townhouses @ 6900 Pearson Way (Phase 2)



The form & character of the proposed Phase 2 Pearson Way affordable housing townhouses will be similar to that of the developer's Phase 1 market townhouses (shown above), which also front Pearson Way.



**City of
Richmond**

REVISED Development Application Data Sheet

Development Applications Division

RZ 14-665416

Address: 6888 River Road and 6900 Pearson Way

Applicant: Hollybridge Limited Partnership (Intracorp)

Planning

Area(s): City Centre (Oval Village)

	Existing	Proposed
Owner	<ul style="list-style-type: none"> Hollybridge Project (Nominee) Ltd., Inc. No. BC0947509 	<ul style="list-style-type: none"> No change
Site Size	<ul style="list-style-type: none"> 6888 River Road: 6,824.3 m² 6900 Pearson Way: 9,837.3 m² TOTAL: 16,661.6 m² 	<ul style="list-style-type: none"> No change
Land Uses	<ul style="list-style-type: none"> Vacant 	<ul style="list-style-type: none"> High density, high-rise, mixed use
OCP	<ul style="list-style-type: none"> Mixed Use 	<ul style="list-style-type: none"> No change
CCAP	<ul style="list-style-type: none"> Urban Centre T5 (45 m/25 m): 2 FAR Village Centre Bonus (VCB): 1 FAR 	<ul style="list-style-type: none"> No change
Zoning	<ul style="list-style-type: none"> Residential/Limited Commercial (RCL3) 	<ul style="list-style-type: none"> Residential/Limited Commercial (ZMU27) - Oval Village (City Centre)
Number of Dwelling Units	<ul style="list-style-type: none"> Currently: Nil (vacant) RZ 09-506904: 586 total (estimate) 	<ul style="list-style-type: none"> Phase 1: 200 (BP 13-634548 approved) Phase 2: 293 (DP 14-662341 proposed) TOTAL: 493
Affordable Housing Units	<ul style="list-style-type: none"> Nil 	<ul style="list-style-type: none"> 7 family-oriented townhouse units (100% in Phase 2 / 6900 Pearson Way)
Aircraft Noise Sensitive Development	<ul style="list-style-type: none"> All Aircraft Noise Sensitive Development (ANSND) uses are permitted if a covenant, noise mitigation, and air conditioning or equivalent are provided Residential uses limited to 2/3 of maximum CCAP buildable area 	

	Existing "RCL3"	Proposed "ZMU27"
Floor Area Ratio (FAR) (max.)	<ul style="list-style-type: none"> Residential: 2.0 FAR <i>Includes 5% affordable housing</i> VCB (commercial): 1.0 FAR <i>Max. VCB floor area limited via legal agreements on title (+/-0.21 FAR)</i> TOTAL: 3.0 FAR 	<ul style="list-style-type: none"> Residential: 2.0 FAR <i>Includes an affordable housing density bonus (i.e. cash-in-lieu contribution)</i> VCB (commercial): 0.29 FAR TOTAL: 2.29 FAR
Floor Area (max.)	<ul style="list-style-type: none"> Residential: 41,049.0 m² VCB (commercial): 3,608.5 m² <i>Max. VCB floor area limited via legal agreements on title (3,608.5 m²)</i> TOTAL: 44,657.5 m² 	<ul style="list-style-type: none"> Residential: 41,049.0 m² VCB (commercial): 4,768.0 m² TOTAL: 45,817.0 m²
Lot Coverage	<ul style="list-style-type: none"> Building: 90% (max.) 	<ul style="list-style-type: none"> Building: 90% (max.)
Lot Size (min.)	<ul style="list-style-type: none"> 4,000 m² 	<ul style="list-style-type: none"> 6888 River Road: 6,800.0 m² 6900 Pearson Way: 9,800.0 m²
Setback @ Street (min.)	<ul style="list-style-type: none"> 6.0 m, but may be reduced to 3.0 m based on City-approved design 	<ul style="list-style-type: none"> 6.0 m, but may be reduced to 3.0 m based on City-approved design
Height	<ul style="list-style-type: none"> 47 m geodetic 	<ul style="list-style-type: none"> 47 m geodetic



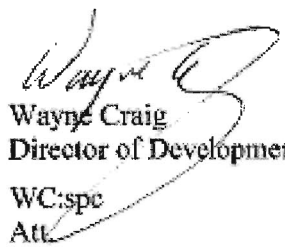
**City of
Richmond**

Report to Committee
Planning and Development Department

To: Planning Committee **Date:** June 6, 2014
From: Wayne Craig **File:** RZ 14-665416
 Director of Development
Re: **Application by Hollybridge Limited Partnership (Intracorp) for Rezoning at 6888 River Road and 6900 Pearson Way from Residential/Limited Commercial (RCL3) to Residential/Limited Commercial (ZMU27) - Oval Village (City Centre)**

Staff Recommendation

- 1) That Richmond Zoning Bylaw 8500, Amendment Bylaw 9148, to amend the Richmond Zoning Bylaw 8500 to repeal references to 6888 River Road and 6900 Pearson Way in the "Residential/Limited Commercial (RCL3)" zone, create the "Residential/Limited Commercial (ZMU27) - Oval Village (City Centre)", and rezone 6888 River Road and 6900 Pearson Way from "Residential/Limited Commercial (RCL3)" to "Residential/Limited Commercial (ZMU27) - Oval Village (City Centre)", be introduced and given first reading.
- 2) That Termination of Housing Agreement (5440 Hollybridge Way) Bylaw 9150, to authorize the termination, release, and discharge of the Housing Agreement entered into pursuant to Housing Agreement (5440 Hollybridge Way) Bylaw 8995, be introduced and given first reading.
- 3) That the affordable housing contribution resulting from the rezoning of 6888 River Road and 6900 Pearson Way (RZ 14-665416) be allocated entirely (100%) to the capital Affordable Housing Reserve Fund established by Reserve Fund Establishment Bylaw 7812.
- 4) That the child care contribution resulting from the rezoning of 6888 River Road and 6900 Pearson Way (RZ 14-665416) be allocated entirely (100%) to the capital Child Care Development Reserve Fund created by Reserve Fund Establishment Bylaw 7812, unless Council directs otherwise prior to the date of the owner's payment, in which case the payment shall be deposited as directed by Council.

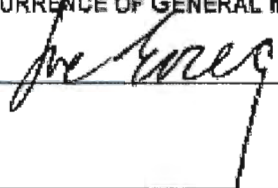

 Wayne Craig
 Director of Development

WC:spc
 Att:

June 6, 2014

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RZ 14-657289

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Finance Division	<input checked="" type="checkbox"/>	
Arts, Culture & Heritage	<input checked="" type="checkbox"/>	
Affordable Housing	<input checked="" type="checkbox"/>	
Community Social Development	<input checked="" type="checkbox"/>	
Transportation	<input checked="" type="checkbox"/>	

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RZ 14-657289

Staff Report

Origin

Hollybridge Limited Partnership (Intracorp) has applied to the City of Richmond for permission to rezone 6888 River Road and 6900 Pearson Way (Attachments 1 & 2) to a new site specific, mixed use zone, "Residential/Limited Commercial (ZMU27) - Oval Village (City Centre)" and amend the "Residential/Limited Commercial (RCL3)" zone (to remove references to the two subject lots) in order to remove the requirement that the developer construct on-site affordable housing units as part of the development of these properties. In place of constructing affordable housing units, the subject application proposes that the developer makes a voluntary (density bonus), cash-in-lieu contribution towards the City's capital Affordable Housing Reserve Fund, which funds may be used, if so determined at the sole discretion of the City, to facilitate the construction of affordable housing Special Development Circumstance projects elsewhere in Richmond.

Richmond Council has approved two affordable housing Special Development Circumstance projects in the City Centre, including the Kiwanis/Polygon project on Minoru Boulevard and a project at the City-owned site at 8111 Granville Avenue and 8080 Anderson Road. The City has directed funds towards these projects, whereby Council-approved Affordable Housing Value Transfer (AHVT) developments have converted the requirement to construct on-site affordable housing units into a cash-in-lieu equivalent contribution to Richmond's Affordable Housing Reserve Fund (100% capital) based on Council-approved affordable housing density bonus contribution rates. If the subject application is approved and the proposed AHVT cash-in-lieu contribution is deposited in the capital Affordable Housing Reserve Fund, Council may freely decide, at its sole discretion, how the funds will be allocated. Community Services staff recommends that the funds secured through the subject application be directed to the Council-approved Special Development Circumstance project at 8111 Granville Avenue and 8080 Anderson Road. Staff will seek formal Council authorization to utilize the funds once they have been received from the developer.

Off-site servicing and related improvements required with respect to the development of 6888 River Road and 6900 Pearson Way are addressed via the developer's original rezoning (RZ 09-506904), associated Servicing Agreements (SA 12-622948 and SA 12-626212), and legal agreements registered on the titles of the two lots.

Background

On September 5, 2012, Council granted third reading to the rezoning of 6888 River Road and 6900 Pearson Way (formerly 5440 Hollybridge Way) in the City Centre's Oval Village from "Industrial Business Park (IB1)" to "Residential/Limited Commercial (RCL3)" to permit the site's subdivision into two lots, the dedication and construction of a portion of Pearson Way, and the construction of a high-rise, high density, mixed use development including approximately 586 dwellings and 5% affordable housing secured with a Housing Agreement registered on title. The affordable housing was to be constructed as a "stand alone", wood frame building and ancillary spaces (e.g., circulation) in the development's second phase (i.e. 6900 Pearson Way). Prior to rezoning adoption on February 25, 2013, legal agreements were registered on title restricting Development Permit (DP) issuance for the development's second phase until the developer provides for the required affordable housing, at the developer's sole cost, to the satisfaction of the City.

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A DP and Building Permit (BP) were issued for the development's first phase (i.e. 6888 River Road) in 2013 (DP 12-617639 / BP 13-634548), and the developer has recently submitted a DP application for the project's second phase (DP 14-662341 for the entirety of 6900 Pearson Way). Before staff can consider the developer's Phase 2 DP application, the City must determine whether the developer's proposal to provide a cash-in-lieu affordable housing contribution in place of constructing on-site affordable housing units can be supported and, if so, accordingly amend the Zoning Bylaw, terminate the existing Housing Agreement registered on title, and make changes to related legal agreements and development requirements.

Findings of Fact

A Development Application Data Sheet detailing the developer's proposal and how it compares to existing zoning is attached (Attachment 3).

Surrounding Development

The subject site, which is currently vacant, is situated in the Oval Village. Development in the vicinity of the subject site includes:

- To the North: A new portion of River Road (i.e. former CPR corridor), beyond which is a City-owned park designated as a heritage landscape and five lots owned by ASPAC Developments, zoned for child care and high-density, mixed use development.
- To the East: Gilbert Road, beyond which is a mix of older light industrial uses and newer multi-family residential buildings, including the recently approved mid-rise Onni "Riva" and Amacon "Tempo" developments.
- To the South: The City-owned Richmond Winter Club, beyond which is Lansdowne Road and the recently approved, Cressey "Cadence", high-rise, mixed use development.
- To the West: Hollybridge Way, beyond which is the recently constructed, Onni "Ora", high-rise, mixed use development.

Related Policies & Studies

Development of the subject site is affected by a variety of City policies and regulations, key among them being the City Centre Area Plan (CCAP) (Attachment 4), Affordable Housing Strategy, and Zoning Bylaw. An overview of these items, together with the developer's proposed responses, is provided in the Analysis section of this report.

Consultation

Signage is posted on-site to notify the public of the subject application. At the time of writing this report, no correspondence regarding the application had been received. The statutory Public Hearing will provide local property owners and other interested parties with the opportunity to comment on the subject application.

Staff Comments

Based on staff's review of the subject application, staff is supportive of the proposed rezoning of the developer's properties to a new site specific zone, "Residential/Limited Commercial (ZMU27) - Oval Village (City Centre)", and related amendments to the "Residential/Limited Commercial (RCL3)" zone, provided that the developer fully satisfies the Rezoning Considerations (Attachment 5). In addition, staff notes the following:

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RZ 14-657289

Transportation:

Through the original rezoning of the subject site, legal agreements were registered on the title of 6900 Pearson Way to restrict the maximum number of driveways to one, allow for shared use of the driveway in the event the property was subdivided in the future, and require the developer to design and construct the Lansdowne/Hollybridge/Pearson intersection through a Servicing Agreement process (SA 12-626212) based on the City's standard road cross-sections. However, the developer no longer plans to subdivide 6900 Pearson Way and as a result of the development's proposed increase in commercial floor space and increased commercial and residential uses on adjacent properties, staff recommends changes to those earlier directions as follows:

- a) Amend the legal agreements currently registered on title to allow two driveways at 6900 Pearson Way, provided that such driveways do not adversely affect pedestrian amenity, traffic flow, pedestrian or vehicle safety, or streetscape quality as determined to the satisfaction of the City through the City's standard Development Permit review process (DP 14-662341);
- b) Discharge the statutory right-of-way registered on the title of 6900 Pearson Way to facilitate shared driveway use; and
- c) Revise the design of the Lansdowne/Hollybridge/Pearson intersection to be constructed through SA 12-626212 to enhance pedestrian mobility and the role of this crossroads as an important "gateway" to the Oval Village, the Richmond Olympic Oval, and the riverfront (e.g., raised intersection, special pavement treatment, street furnishings and features).

Analysis

In addition to the developer's proposal to make a voluntary, cash-in-lieu contribution towards the City's capital Affordable Housing Reserve Fund in place of constructing 5% affordable housing on site, the developer also proposes to utilize the floor area originally intended for affordable housing for market residential purposes and to increase the amount of Village Centre Bonus (commercial) floor area currently permitted on the site.

Affordable Housing Strategy:

The developer proposes a voluntary, cash-in-lieu contribution to Richmond's capital Affordable Housing Reserve Fund in the amount of \$4,639,530. This contribution is based on an Affordable Housing Value Transfer (AHVT) approach whereby the 5% affordable housing the developer is required to construct on-site under the affordable housing density bonus provisions contained within the site's current zone, "Residential/Limited Commercial (RCL3)", is converted, in its entirety, into a cash-in-lieu contribution. The proposed conversion rate of \$210 per square foot of converted affordable housing is consistent with the AHVT rate established by the City for this purpose (i.e. based on wood frame construction and the developer's retention of the floor area for market residential purposes).

The developer proposes to submit the cash-in-lieu contribution in two phases, including \$2,800,000 (cash) prior to adoption of rezoning Bylaw 9148 and the balance (\$1,839,530) prior to Building Permit (BP) issuance for the development's second phase (6900 Pearson Way). The second contribution will be secured with Zoning Bylaw (density bonus) provisions and a "no build" covenant restricting BP issuance for 6900 Pearson Way until the entirety of the required affordable housing cash-in-lieu contribution is submitted to the City.

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Proposed Affordable Housing Value Transfer (AHVT)	
Residential - Max Permitted Floor Area	41,049.0 m ² (441,847 ft ²)
5% Affordable Housing (subject to AHVT)	2,052.5 m ² (22,093 ft ²)
AHVT Cash-in-Lieu Contribution Rate	\$210 / ft ² AHT
Proposed AHVT Cash-in-Lieu Contribution	\$4,639,530 + CPI (as per proposed site specific zone)
Contribution Strategy	<ul style="list-style-type: none"> ▪ Prior to RZ adoption: \$2,800,000 (cash) & "No Build" Covenant ▪ Prior to Phase 2 BP issuance: \$1,839,530 + CPI (cash)

In accordance with the Richmond Affordable Housing Strategy and as secured through the original rezoning (RZ 09-506904), it is the City's preference that a development of this type and size (i.e. more than 80 apartment units) be required to construct affordable housing units on site. Nevertheless, Community Services staff recommends support for the developer's request to provide a voluntary AHVT cash-in-lieu contribution to Richmond's Affordable Housing Reserve Fund (100% capital) in lieu of building affordable housing units on-site because affordable housing is being constructed by other developers in proximity to the subject site and the developer's contribution of funds to the Affordable Housing Reserve Fund (100% capital) would provide Council with the flexibility to provide funds for the construction of affordable housing elsewhere in the city.

Note that City policy directs that monetary affordable housing contributions are allocated 70% to capital and 30% to operating unless otherwise directed by Council. On April 10, 2012, Council endorsed proposed amendments to the Affordable Housing Statutory Reserve Fund Policy 5008, Zoning Bylaw 8500 and Affordable Housing Operating Reserve Fund Bylaw 8206 to provide Council with the authority to direct different proportions of contributions to the Affordable Housing Reserve Funds, from time to time, to support Affordable Housing Special Development Circumstances. In the case of AHVT cash-in-lieu developer contributions, such as that proposed by the subject developer, 100% is to be allocated to capital to provide capital financial support for specific Affordable Housing Special Development Circumstance projects. The City's Affordable Housing Special Development Circumstance provisions in the Affordable Housing Strategy provide guidance on how the funds may be used by Council, at their discretion, in the future.

If Council chooses to support the developer's affordable housing proposal, its implementation would entail various Zoning Bylaw changes, together with legal and development requirements including:

- Adoption of Bylaw 9150, to authorize the termination, release, and discharge of the existing Housing Agreement;
- Execution of an agreement to terminate the existing Housing Agreement;
- Discharge of the existing affordable housing covenant and rent charge registered on title;
- Cancellation of the existing notice on title regarding the Housing Agreement;
- Discharge of any additional charges or cancellation of any additional notices on title regarding the affordable housing and the subject properties;
- Submission of a voluntary (density bonus) contribution valued at \$2,800,000, in cash, to the City's Affordable Housing Reserve Fund (100% capital); and

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- g) Registration of legal agreements to restrict Building Permit issuance for 6900 Pearson Way, in whole or in part, until the developer submits an additional voluntary (density bonus) cash in-lieu contribution, valued at \$1,839,530, to the City's Affordable Housing Reserve Fund (100% capital).

Village Centre Bonus (VCB):

The subject site and other CCAP "village centre" properties are designated as Village Centre Bonus locations with the understanding that pedestrian-oriented, convenience commercial and related uses are important to the vitality and livability of these centres. The developer proposes to increase the amount of VCB floor area in the subject development by locating the additional market residential floor area secured through the AHVT process within one of the two towers planned for Phase 2 (i.e. 6900 Pearson Way) and introducing 1,159.5 m² (12,481 ft²) of street-fronting ground floor and low-rise retail, office, and related uses along Pearson Way (in the portion of the building previously proposed for affordable housing). As a result of this, the development's proposed commercial density will increase from approximately 0.21 floor area ratio (FAR) to 0.29 FAR.

While the developer does not propose to maximize the commercial density permitted under the VCB (i.e. up to 1.0), the proposed increase in commercial floor area and the establishment of a commercial frontage along Pearson Way are consistent with CCAP objectives and will contribute to the amenity of the Oval Village. Furthermore, as per VCB amenity contribution provisions contained within the CCAP and Zoning Bylaw, the developer's proposed increase in commercial floor area requires a proportional increase in the development's amenity contribution (i.e. 5% of bonus floor area). As was the case when the subject site was originally rezoned (RZ 09-506904), staff recommends that:

- a) The developer should provide a voluntary "construction-value" cash contribution in lieu of constructing community amenity space (i.e. 5% of the VCB floor area is too small to meet identified community amenity needs on its own);
- b) The developer's contribution should be based on \$450/ft² of required amenity floor area (i.e. 5% of the VCB floor area), as per the agreed contribution rate determined through the original rezoning of the subject site (RZ 09-506904); and
- c) The cash-in-lieu contribution should be allocated entirely (100%) to the Child Care Development (capital) Reserve Fund, unless Council directs otherwise prior to the date of the owner's payment, in which case the payment shall be deposited as directed by Council.

Note that City policy directs that monetary child care contributions are allocated 90% to capital and 10% to operating, unless otherwise directed by Council. Through the original rezoning of the subject site (RZ 09-506904), 100% of the developer's child care cash-in-lieu contribution was directed to capital to facilitate the construction of a child care elsewhere. Community Services staff likewise recommends that the same approach is taken with respect to the developer's currently proposed additional contribution.

June 6, 2014

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RZ 14-657289

Village Centre Bonus (VCB) Amenity – Child Care	
Non-Residential - Max Permitted Floor Area	4,768.0 m ² (51,322 ft ²)
5% VCB Amenity Requirement	238.4 m ² (2,566 ft ²)
VCB Amenity Construction Value Cash-in-Lieu Contribution Rate (as per RZ 09-506904)	\$450 / ft ² VCB Amenity
TOTAL VCB Amenity Contribution	\$1,154,700
LESS Prior VCB Amenity Contribution (RZ 09-506904)	\$874,000
Additional VCB Amenity Contribution	\$280,700
Strategy for Additional VCB Amenity Contribution	<ul style="list-style-type: none"> • Prior to RZ adoption: "No Build" Covenant • Prior to Phase 2 BP issuance: \$280,700 + CPI (cash)

If Council chooses to support the developer's Village Centre Bonus proposal, its implementation would entail:

- The discharge of the covenant currently registered on title restricting the maximum commercial floor area permitted on 6888 River Road and 6900 Pearson Way;
- Amendments to the Zoning Bylaw to restrict the maximum Village Centre Bonus permitted on 6888 River Road and 6900 Pearson Way and specifying related density bonus requirements; and
- The registration of legal agreements to restrict Building Permit issuance for 6900 Pearson Way, in whole or in part, until the developer submits the required additional (density bonus) cash in-lieu contribution to the City's Child Care Development Reserve Fund.

Other Voluntary Developer Contributions:

In addition to the developer's proposed affordable housing and child care contributions, based on City policy and legal agreements currently registered on title, the developer's proposed increase in market residential and commercial floor area results in increases in developer contribution towards public art and community planning as shown in the tables below. If Council chooses to support the developer's proposal, the developer would be required to submit the community planning contribution prior to adoption of rezoning Bylaw 9148 and legal agreements would be registered on the title of 6900 Pearson Way restricting BP issuance, in whole or in part, until the developer submits the public art contribution.

Public Art	
Total Combined Max Permitted Floor Area	45,817.0 m ² (493,169.22 ft ²)
Public Art Contribution Rate (as per RZ 09-506904)	\$0.75/ft ² max permitted floor area
TOTAL Public Art Contribution	\$369,877
LESS Prior Public Art Contribution (RZ 09-506904)	\$340,891
Additional Public Art Contribution	\$28,986
Strategy for Additional Public Art Contribution	<ul style="list-style-type: none"> • Prior to RZ adoption: "No Build" Covenant • Prior to Lot 2 BP issuance: \$28,986 (cash)

June 6, 2014

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RZ 14-657289

Community Planning (CCAP)	
Total Combined Max Permitted Floor Area	45,817.0 m ² (493,169 ft ²)
Community Planning Contribution Rate	\$0.25/m ² max permitted floor area
TOTAL Community Planning Contribution	\$123,292
LESS Prior Community Planning Contribution (RZ 09-506904)	\$113,830
Additional Community Planning Contribution	\$9,662
Strategy for Additional Community Planning Contribution	Prior to RZ adoption: \$9,662 (cash)

Richmond Zoning Bylaw:

The subject site is currently zoned "Residential/Limited Commercial (RCL3)", a standard zone intended for use in high density, mixed use areas of the City Centre where the Village Centre (1.0 FAR) Bonus (i.e. 5% of bonus floor area must be provided as amenity space unless otherwise determined by the City) and the City's standard affordable housing density bonus provisions apply (i.e. for project with more than 80 units, density is increased from 1.2 FAR to 2.0 FAR if 5% of residential floor area is constructed on-site as affordable housing). Through the original rezoning of the subject site (RZ 09-506904), the "RCL3" zone was amended to allow for an increase in density on the subject site with respect to the developer's dedication of Pearson Way (i.e. as permitted under CCAP policy with regard to the dedication of fully functional "minor streets" for which Development Cost Charge credits are not applicable). If the zoning of the subject site was to remain "RCL3", further amendments would be required to allow for the development's proposed AHVT cash-in-lieu contribution, which could make the "RCL3" confusing. Instead, staff recommends:

- Amending the "RCL3" zone to repeal references to 6888 River Road and 6900 Pearson Way; and
- Rezoning 6888 River Road and 6900 Pearson Way to a new site specific zone, "Residential/Limited Commercial (ZMU27) - Oval Village (City Centre)", which zone is based on "RCL3", but includes specific provisions with respect to the subject development's proposed affordable housing and child care cash-in-lieu contributions and CCAP "minor street" dedication.

Form and Character:

The developer proposes to construct a high-rise, high density residential development over ground floor and low-rise commercial uses. Phase 1 (6888 River Road) has received Development Permit and Building Permit issuance (DP 12-617639 / BP 13-634548) and the design of that phase is unaffected by the proposed AHVT and increase in commercial floor area. The increase in market residential floor area resulting from the subject AHVT is proposed to be located in one of Phase 2's towers and the Pearson Way frontage vacated by the former "stand alone" affordable housing building is proposed to be replaced with ground floor retail with office and commercial uses above.

Overall, staff supports the development proposal as generally illustrated in the attached Development Concept (Attachment 6). More specifically, the addition of commercial uses along Pearson Way is positive and can be expected to contribute to the vitality of this street; and, the developer has satisfactorily demonstrated that the form and character changes resulting from the proposed AHVT (e.g., reduced variation in tower height) are manageable and can be reasonably addressed through the Development Permit review process.

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RZ 14-657289

Based on staff's review, it is recommended that processing of a Development Permit application for Phase 2 (DP 14-662341) be completed to the satisfaction of the Director of Development prior to adoption of the subject rezoning. Through this process, steps should be taken to ensure that:

- a) The form and character of Phase 2 (6900 Pearson Way) contributes towards an attractive, visually interesting streetscape and skyline;
- b) The addition of a second driveway along the Pearson Way frontage does not adversely affect pedestrian amenity, traffic flow, pedestrian or vehicle safety, or streetscape quality; and
- c) Uses and activities at the podium roof level are designed to provide for a good relationship between adjacent residential and non-residential uses.

Other Requirements:

Through the original rezoning of the subject site (RZ 09-506904), a covenant was registered on the titles of 6888 River Road and 6900 Pearson Way to restrict DP issuance, on a phase-by-phase basis, until various phasing, heritage landscape/park, and affordable housing requirements are satisfied. Staff recommends that this covenant be discharged on the basis that:

- a) For 6888 River Road (Phase 1): The requirements of the covenant have been fully satisfied by the developer and the City has issued both a DP and Building Permit for this property; and
- b) For 6900 Pearson Way: Prior to adoption of rezoning Bylaw 9148 –
 - The developer's affordable housing contribution will be secured to the City's satisfaction as set out in this report;
 - A DP application (DP 14-662341) will be processed for the entirety of the lot to the satisfaction of the Director of Development (i.e. one phase); and
 - Through the DP review and approval processes, the developer shall be required to address all heritage landscape/park requirements, including any necessary compensation or mitigation, as determined to the satisfaction of the City.

Financial Impact or Economic Impact

None

Conclusion

Staff recommends support for the subject rezoning application and related Zoning Bylaw amendments on the basis that they are consistent with City objectives for the development of the City Centre and would provide a significant contribution towards Richmond's capital Affordable Housing Reserve Fund, which may be used, at Council's sole discretion, to facilitate the construction of affordable housing Special Development Circumstance projects elsewhere in Richmond.



Suzanne Carter-Huffman
Senior Planner/Urban Design
SPC:cas

June 6, 2014

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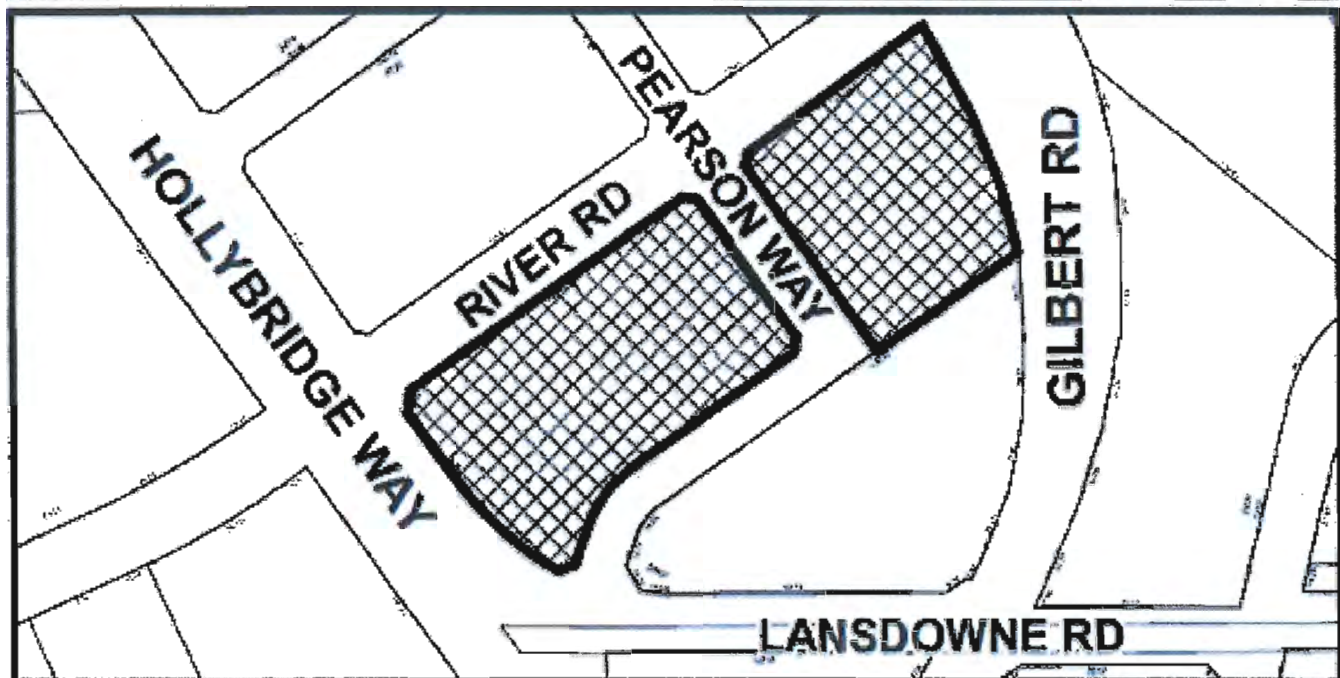
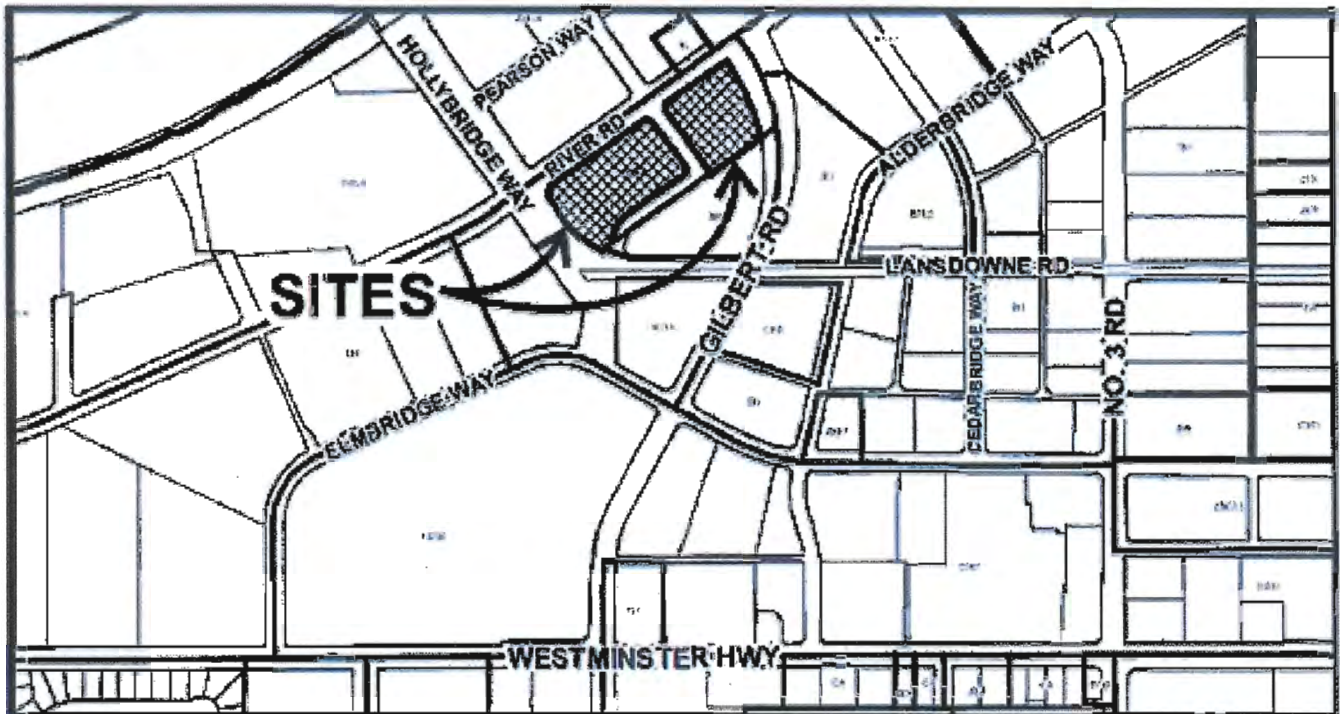
RZ 14-657289

Attachments:

1. Location Map
2. Aerial Photograph
3. Development Application Data Sheet
4. City Centre Area Plan (CCAP) – Specific Land Use Plan: Oval Village (2031)
5. Rezoning Considerations
6. Conceptual Development Proposal

PLN - 159

CNCL - 220

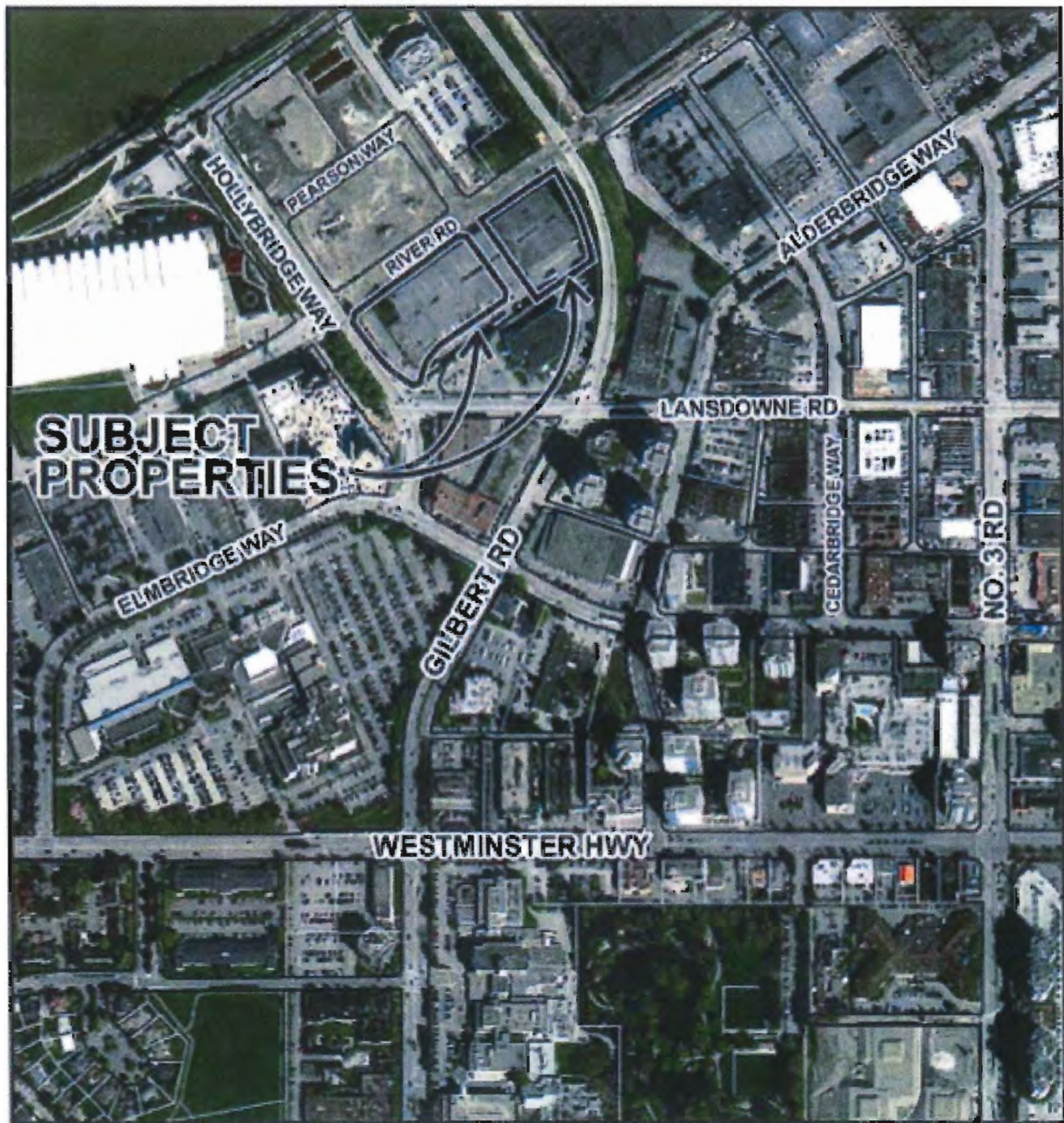


RZ 14-657289

Original Date: 03/07/14

Revision Date: 05/12/14

Note: Dimensions are in METRES



RZ 14-665416

Original Date: 03/07/14

Revision Date: 05/12/14

Note: Dimensions are in METRES



**City of
Richmond**

Development Application Data Sheet
Development Applications Division

RZ 14-665416

Address: 6888 River Road and 6900 Pearson Way

Applicant: Hollybridge Limited Partnership (Intracorp)

Planning

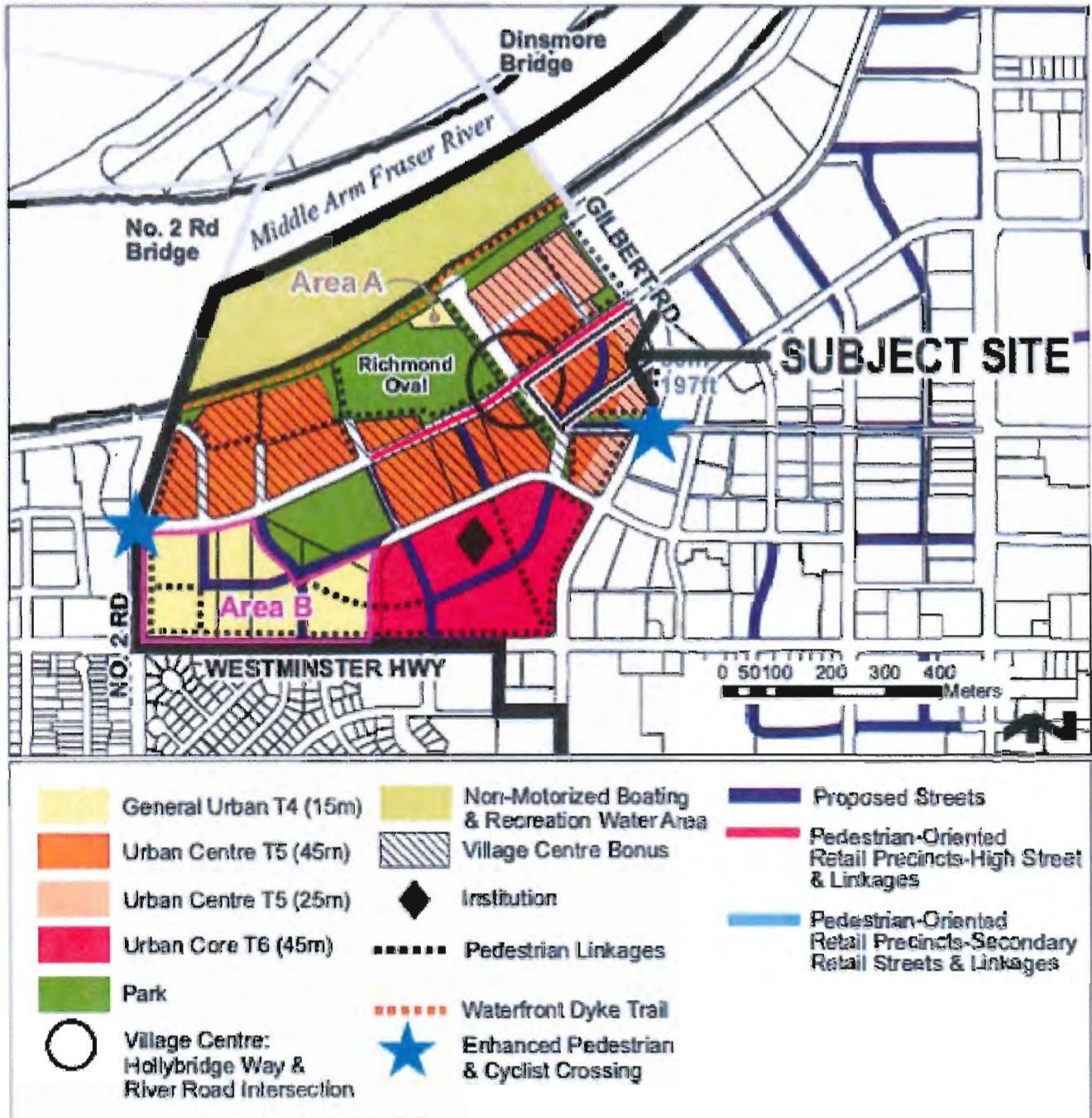
Area(s): City Centre (Oval Village)

	Existing	Proposed
Owner	<ul style="list-style-type: none"> Hollybridge Project (Nominee) Ltd., Inc. No. BC0847509 	<ul style="list-style-type: none"> No change
Site Size	<ul style="list-style-type: none"> 6888 River Road: 6,824.3 m² 6900 Pearson Way: 9,837.3 m² TOTAL: 16,661.6 m² 	<ul style="list-style-type: none"> No change
Land Uses	<ul style="list-style-type: none"> Vacant 	<ul style="list-style-type: none"> High density, high-rise, mixed use
OCP	<ul style="list-style-type: none"> Mixed Use 	<ul style="list-style-type: none"> No change
CCAP:	<ul style="list-style-type: none"> Urban Centre T5 (45 m/25 m): 2 FAR Village Centre Bonus (VCB): 1 FAR 	<ul style="list-style-type: none"> No change
Zoning:	<ul style="list-style-type: none"> Residential/Limited Commercial (RCL3) 	<ul style="list-style-type: none"> Residential/Limited Commercial (ZMU27) - Oval Village (City Centre)
Number of Units	<ul style="list-style-type: none"> Currently: Nil (vacant) RZ 09-506904: 586 total (estimate) 	<ul style="list-style-type: none"> Phase 1: 200 (BP 13-634548 approved) Phase 2: 293 (DP 14-662341 proposed) TOTAL: 493
Aircraft Noise Sensitive Development (ANSD)	<ul style="list-style-type: none"> All ANSD uses permitted, if a covenant, noise mitigation, and air conditioning or equivalent provided Residential uses limited to 2/3 of maximum CCAP buildable area 	<ul style="list-style-type: none"> No change

	Existing "RCL3"	Proposed "ZMU27"
Floor Area Ratio (FAR) (max.)	<ul style="list-style-type: none"> Residential: 2.0 FAR <i>Includes 5% affordable housing</i> VCB (commercial): 1.0 FAR <i>Max. VCB floor area limited via legal agreements on title (+/-0.21 FAR)</i> TOTAL: 3.0 FAR 	<ul style="list-style-type: none"> Residential: 2.0 FAR <i>Includes an affordable housing density bonus (i.e. cash-in-lieu contribution)</i> VCB (commercial): 0.29 FAR TOTAL: 2.29 FAR
Floor Area (max.)	<ul style="list-style-type: none"> Residential: 41,049.0 m² VCB (commercial): 3,608.5 m² <i>Max. VCB floor area limited via legal agreements on title (3,608.5 m²)</i> TOTAL: 44,657.5 m² 	<ul style="list-style-type: none"> Residential: 41,049.0 m² VCB (commercial): 4,766.0 m² TOTAL: 45,815.0 m²
Lot Coverage	<ul style="list-style-type: none"> Building: 90% (max.) 	<ul style="list-style-type: none"> Building: 90% (max.)
Lot Size (min.)	<ul style="list-style-type: none"> 4,000 m² 	<ul style="list-style-type: none"> 6888 River Road: 6,800.0 m² 6900 Pearson Way: 9,800.0 m²
Setback @ Street (min.)	<ul style="list-style-type: none"> 6.0 m, but may be reduced to 3.0 m based on City-approved design 	<ul style="list-style-type: none"> 6.0 m, but may be reduced to 3.0 m based on City-approved design
Height	<ul style="list-style-type: none"> 47 m geodetic 	<ul style="list-style-type: none"> 47 m geodetic

Specific Land Use Map: Oval Village (2031)

Bylaws 8685, 8701
2011/10/24





**City of
Richmond**

Rezoning Considerations

Development Applications Division
6911 No. 3 Road, Richmond, BC V6Y 2C1

Address: 6888 River Road and 6900 Pearson Way

File No.: RZ 14-665416

Prior to final adoption of Richmond Zoning Bylaw 8500, Amendment Bylaw 9148, the developer is required to complete the following:

1. Housing Agreement Termination:

- 1.1. Final Adoption of Termination of Housing Agreement (5440 Hollybridge Way) Bylaw 9150.
- 1.2. Execution of a consent to the adoption of Termination of Housing Agreement (5440 Hollybridge Way) Bylaw 9150 and entering into a legal agreement with the City to terminate, release, and discharge the associated Housing Agreement and Housing Covenant.
- 1.3. Discharge of Housing Covenant CA2994213 and Rent Charge CA2994214.
- 1.4. Cancellation of Housing Agreement Notice CA3043363.
- 1.5. Discharge of any additional charges or cancel any additional notices on title regarding the Affordable Housing and the subject properties.

2. Affordable Housing Value Transfer (AHVT): The City's acceptance of the developer's voluntary AHVT cash-in-lieu contribution of at least \$4,639,530 to the City's capital Affordable Housing Reserve Fund. The terms of the voluntary developer contribution shall include:

- 2.1. This contribution is in exchange for the discharge of the Affordable Housing requirements pertaining to 2,052.5 m² (22,093 ft²) of "required affordable housing" that was to have been constructed, at the developer's sole cost, at 6900 Pearson Way (i.e. 5% of the maximum permitted combined total residential floor area on 6888 River Road and 6900 Pearson Way under the existing "Residential/Limited Commercial (RCL3)" zone and proposed "Residential/Limited Commercial (ZMU27) - Oval Village (City Centre)" zone).
- 2.2. This contribution is based on \$210 per square foot of "required affordable housing", which rate is the City-approved rate applicable to AHVT proposals for which the developer intends on retaining the floor area of the "required affordable housing" for market residential purposes.
- 2.3. Prior to rezoning adoption, the developer shall:
 - a) Submit a voluntary contribution valued at \$2,800,000, in cash, to the City's capital Affordable Housing Reserve Fund established by Reserve Fund Establishment Bylaw 7812; and
 - b) "**No Build**": Enter into legal agreements registered on title to 6900 Pearson Way requiring that "no building" shall be permitted and restricting Building Permit* issuance for 6900 Pearson Way, in whole or in part, until the developer submits an additional voluntarily contribution, in cash, to the City's capital Affordable Housing Reserve Fund, the value of which additional contribution shall be \$1,839,530 adjusted annually beginning at the end of December 2015 by any increase in the CPI Inflation Index as at the end of December 2014, wherein CPI Inflation Index shall mean for the purposes of this bylaw the All-items Consumer Price Index for British Columbia, not seasonally adjusted, as published by Statistics Canada (or its successor government department or agency), or such substitute index as is formally designated by the Government of Canada or, if no index is published or designated by the Government of Canada in substitution therefore, such substitute index as the City considers, in its discretion, most closely approximating the All-items Consumer Price

Index for British Columbia. Whenever the Official Time Base (currently 2002 = 100) is changed or a substitute index is designated, historical value will be rebased through the use of a conversion factor as published by the Government of Canada or, in the absence of such publication, such conversion factor shall be the conversion factor that the City considers, in its discretion, best achieves comparability.

3. Village Centre Bonus (VCB) Amenity Contribution:

- 3.1. Discharge of Covenant CA2994207, which restricts the maximum density bonus available to the subject sites.

Note: The purpose of this agreement was to restrict Village Centre Bonus floor area to an amount less than the maximum permitted under the "Residential/Limited Commercial (RCL3)" zone, based on the developer amenity contribution agreed to via RZ 09-506904. This agreement is made redundant by the proposed site specific zone, "Residential/Limited Commercial (ZMU27) - Oval Village (City Centre)", Section 20.27.8, as it restricts bonus floor area.

- 3.2. City acceptance of the developer's offer to voluntarily contribute at least \$280,700, in cash, to the City's Child Care Development Reserve Fund, payable prior to Building Permit (BP) issuance for 6900 Pearson Way, in whole or in part. The terms of the voluntary developer contribution shall include:
- a) The value of the developer's voluntary contribution is based on the following, as determined to the satisfaction of the City:

Village Centre Bonus (VCB) Amenity – Child Care	
Maximum Permitted VCB Floor Area	4,768.0 m ² (51,322 ft ²), as per the combined total maximum permitted non-residential floor area at 6888 River Road and 6900 Pearson Way under "Residential/Limited Commercial (ZMU27) - Oval Village (City Centre)"
VCB Amenity Requirement	238.4 m ² (2,566 ft ²), based on 5% of Maximum Permitted VCB Floor Area
VCB Amenity Cash-in-Lieu Contribution Rate	At least \$450 per ft ² of VCB Amenity Requirement, as per the VCB cash-in-lieu (construction-value) amenity contribution rate determined through RZ 09-506904
TOTAL VCB Amenity Contribution	At least \$1,154,700
LESS Prior VCB Amenity Contribution	\$874,000, secured through RZ 09-506904
Additional Voluntary VCB Amenity Contribution	At least \$280,700 (cash)

Note: If the BP for 6900 Pearson Way is issued, in whole or in part, after December 31, 2015, then the Additional Voluntary VCB Amenity Contribution shall be adjusted for inflation, as determined to the satisfaction of the City (as per paragraph 3.2(b) below).

- b) **"No Build":** Prior to rezoning adoption, the developer shall enter into legal agreements registered on title to 6900 Pearson Way requiring that "no building" shall be permitted and restricting Building Permit* issuance for 6900 Pearson Way, in whole or in part, until the developer submits a voluntarily contribution, in cash, to the City's Child Care Development Reserve Fund created by Reserve Fund Establishment Bylaw 7812 (or as otherwise directed by Council), the value of which contribution shall be \$280,700 adjusted annually beginning at the end of December 2015 by any increase in the CPI Inflation Index as at the end of December 2014, wherein CPI Inflation Index shall mean for the purposes of this bylaw the All-items Consumer Price Index for British Columbia, not seasonally adjusted, as published by Statistics Canada (or its successor government department or agency), or such substitute index as is formally designated by the Government of Canada or, if no

index is published or designated by the Government of Canada in substitution therefore, such substitute index as the City considers, in its discretion, most closely approximating the All-items Consumer Price Index for British Columbia. Whenever the Official Time Base (currently 2002 = 100) is changed or a substitute index is designated, historical value will be rebased through the use of a conversion factor as published by the Government of Canada or, in the absence of such publication, such conversion factor shall be the conversion factor that the City considers, in its discretion, best achieves comparability.

4. **Public Art:** City acceptance of the developer's offer to voluntarily contribute at least \$28,986, in cash, to the City's Public Art fund, payable prior to Building Permit (BP) issuance for 6900 Pearson Way, in whole or in part. The terms of the voluntary developer contribution shall include:

- 4.1. The value of the developer's voluntary contribution is based on the following, as determined to the satisfaction of the City:

Public Art	
Maximum Permitted Floor Area	45,817.0 m ² (493,169.22 ft ²), as per the combined total maximum permitted floor area at 6888 River Road and 6900 Pearson Way under "Residential/Limited Commercial (ZMU27) - Oval Village (City Centre)"
Public Art Contribution Rate	At least \$0.75 per ft ² of Maximum Permitted Floor Area
TOTAL Public Art Contribution	At least \$369,877
LESS Prior Public Art Contribution	\$340,891, secured through RZ 09-506904
Additional Voluntary Public Art Contribution	At least \$28,986 (cash)

Note: If the BP for 6900 Pearson Way is issued, in whole or in part, after December 31, 2015, then the greater of the above Public Art Contribution Rate or the Council-approved public art contribution rate(s) in effect at the time of BP issuance shall apply to the balance of the Maximum Permitted Floor Area not previously approved for construction at 6888 River Road (BP 13-634548) and the required Additional Voluntary Public Art Contribution shall be adjusted accordingly.

- 4.2. **"No Build":** Prior to rezoning adoption, the developer shall amend the existing Public Art Covenant CA2994217 registered on title or enter into legal agreement(s) registered on title, as determined to the satisfaction of the City, requiring that "no building" shall be permitted and restricting Building Permit* issuance for 6900 Pearson Way, in whole or in part, until the developer satisfies additional public art requirements (i.e. over and above the developer's public art contribution secured through RZ 09-506904) in the form of an Additional Voluntarily Public Art Contribution to the Public Art Reserve, in cash, the value of which contribution shall be the greater of \$28,986 or as otherwise determined to the satisfaction of the City (as per paragraph 4.1 above).

Note: The proposed Additional Voluntary Public Art Contribution shall, among other things, be understood to satisfy Section 2.1(c)(ii) of the existing Public Art Covenant CA2994217 registered on title, which requires a developer cash-in-lieu contribution to the City's Public Art Reserve with respect to eligible floor area in excess of that anticipated through RZ 09-506904.

5. **Community Planning:** City acceptance of the developer's offer to voluntarily contribute \$9,662, based on \$0.25 per buildable square foot of total combined maximum floor area permitted on 6888 River Road and 6900 Pearson Way (as set out under the proposed "Residential/Limited Commercial (ZMU27) - Oval Village (City Centre)" zone) LESS the developer's community planning contribution submitted with respect to prior Council approval of RZ 09-506904 (i.e. \$123,292 LESS \$113,630), to the City's community planning reserve fund.

6. Vehicle Access:

- 6.1. Discharge of Statutory Right of Way CA3493966 and Covenant CA3493964 (Lot 2 Driveway) on title to 6900 Pearson Way, registered prior to Phase 1 Building Permit issuance (BP 13-634548).

Note: The purpose of this agreement was to facilitate shared driveway access in the event that 6900 Pearson Way was subdivided. This agreement is made redundant by the proposed site specific zone, "Residential/Limited Commercial (ZMU27) - Oval Village (City Centre)", Section 20.27.8, as it restricts further subdivision of the subject lots.

- 6.2. Amend the Covenant CA3493968 (Driveway Crossings) on title to 6900 Pearson Way and 6888 River Road, registered prior to Phase 1 Building Permit issuance (BP 13-634548), to increase the maximum number of driveway crossings permitted at 6900 Pearson Way from one (1) to two (2), both of which must be located along the south property line of the lot as determined to the satisfaction of the City through an approved Development Permit and Servicing Agreement.

7. Existing "No Development" Phasing, Heritage Landscape and Park, and Affordable Housing Covenant: Discharge of Covenant CA2994209 (No Development Covenant).

Note: Phasing and affordable housing requirements included in this existing covenant are made redundant by the proposed "Residential/Limited Commercial (ZMU27) - Oval Village (City Centre)" zone and AHVT. Furthermore, Development Permit* issuance is complete for 6888 River Road and processing of a Development Permit* for 6900 Pearson Way to the satisfaction of the Director of Development, including the developer's identification and compensation/mitigation with respect to potential heritage landscape and park impacts, is a requirement of the subject rezoning.

8. Development Permit: The submission and processing of a Development Permit* for the entirety of 6900 Pearson Way, completed to a level deemed acceptable by the Director of Development. Through the Development Permit* process, the developer shall, among other things, address the following to the satisfaction of the City with respect to the City-owned heritage woodlot and park at 6900 River Road:

- 8.1. Submit a contract entered into between the developer and a registered professional (e.g., Certified Arborist) for the supervision of all work in the vicinity of 6900 River Road, site monitoring inspections, and provisions for the Arborist to submit post-activity assessment report(s) to the City for review;
- 8.2. Submit a Development Impact Assessment, which shall identify any potential impacts on protected trees, habitat, and related heritage and environmental features located at 6900 River Road arising as a result of development at 6900 Pearson Way (e.g., shading, changes in ground water conditions) and demonstrate that any such impacts are minimized; and
- 8.3. In the event that the City determines that impacts may be significant and/or unavoidable, submit a plan for mitigation and/or compensation to the City's satisfaction, which plan may require the developer to submit and receive Council approval for a Heritage Alteration Permit* and/or enter into legal agreements registered on title to 6900 Pearson Way requiring that "no building" and/or occupancy of a building shall be permitted, in whole or in part, until mitigation and/or compensation are implemented to the City's satisfaction.

NOTE:

- Items marked with an asterisk require 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 copy on file

Signed

Date

6900 PEARSON WAY: Phase 2 Preliminary Design

PHASE 2: VIEW FROM SOUTHWEST (HOLLYBRIDGE WAY/PEARSON WAY INTERSECTION)



RZ 09-506904 Conceptual Design



Proposed Conceptual Design

PHASE 2: VIEW FROM NORTHWEST (RIVER ROAD IN FOREGROUND)

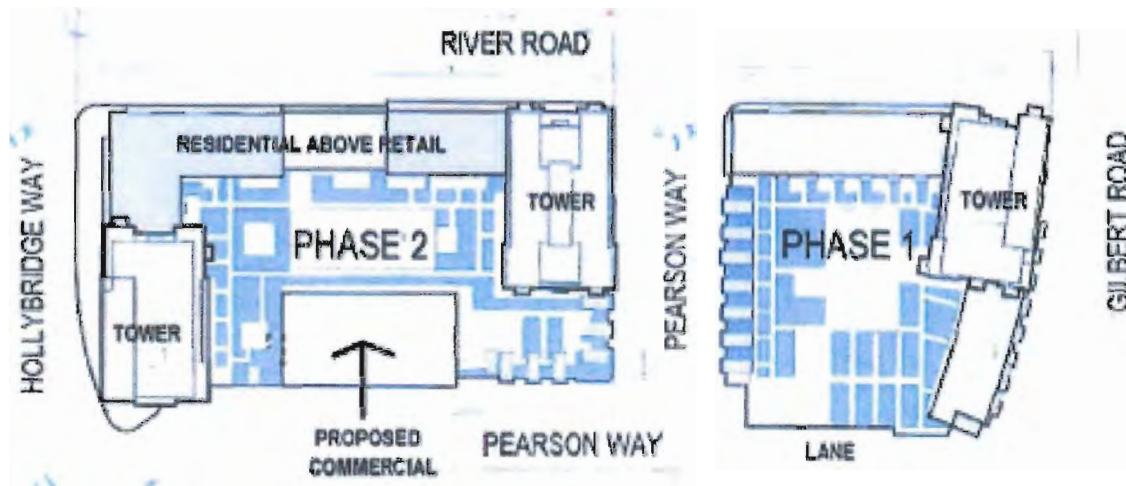


RZ 09-506904 Conceptual Design

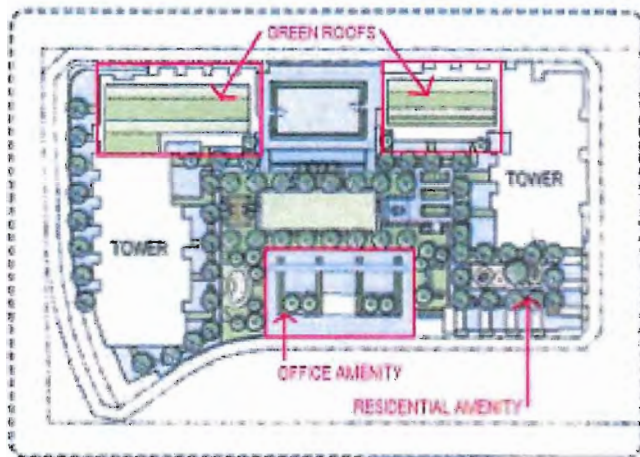


Proposed Conceptual Design

6900 PEARSON WAY: Phase 2 Preliminary Design



PHASE 2: Proposed Conceptual Design



PHASE 1: Approved Design

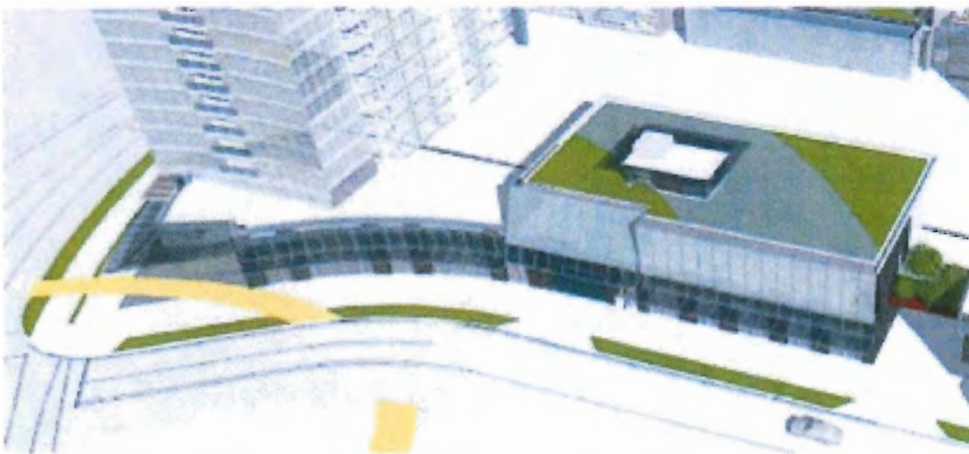
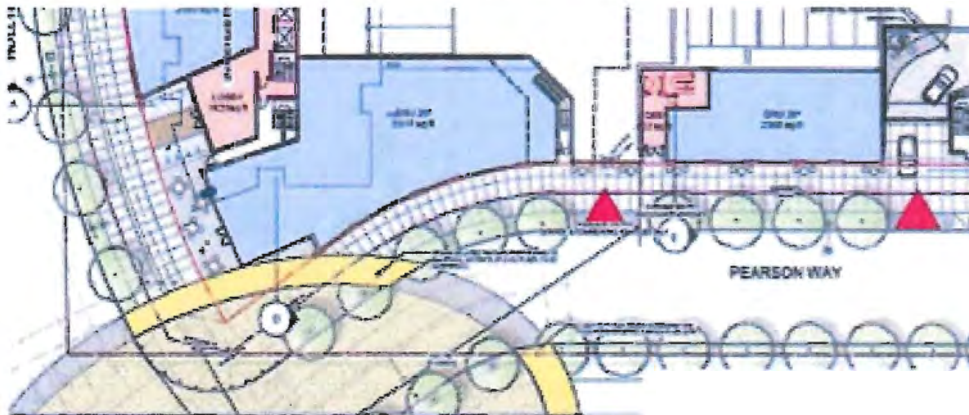


PHASE 1: Approved Design



6900 PEARSON WAY: Phase 2 Preliminary Design

PHASE 2. Proposed Pearson Road Commercial Frontage



PLN - 171
CNCL - 232



**City of
Richmond**

Rezoning Considerations – Addendum

Development Applications Division
6911 No. 3 Road, Richmond, BC V6Y 2C1

Address: 6888 River Road and 6900 Pearson Way

File No.: RZ 14-665416

The following sections replace Sections 2, 4, and 5 of the Rezoning Considerations signed by the Developer and attached to the Staff Report (dated June 6, 2014) considered by Planning Committee on June 17, 2014.

Affordable Housing: The City's acceptance of the developer's voluntary affordable housing contribution, which contribution is proposed in exchange for the discharge of the Affordable Housing requirements pertaining to 2,052.5 m² (22,093 ft²) of "required affordable housing" that was to have been constructed, at the developer's sole cost, at 6900 Pearson Way (i.e. 5% of the maximum permitted combined total residential floor area on 6888 River Road and 6900 Pearson Way under the existing "Residential/Limited Commercial (RCL3)" zone and proposed "Residential/Limited Commercial (ZMU27) - Oval Village (City Centre)" zone). The proposed voluntary developer affordable housing contribution shall include:

1. Affordable Housing Value Transfer (AHVT): A cash-in-lieu AHVT contribution of \$3,000,000 to the City's capital Affordable Housing Reserve Fund, the terms of which contribution includes the following:
 - a) This contribution is based on \$210 per square foot of 1,327.2 m² (14,286 ft²) of "required affordable housing", which rate is the City-approved rate applicable to AHVT proposals for which the developer intends on retaining the floor area of the "required affordable housing" for market residential purposes.
 - b) Prior to rezoning adoption, the developer shall submit a voluntary contribution valued at \$3,000,000, in cash, to the City's capital Affordable Housing Reserve Fund established by Reserve Fund Establishment Bylaw 7812; and
2. On-Site Affordable Housing Units: Registration of the City's standard Housing Agreement to secure approximately seven (7) affordable housing units, with a combined habitable floor area of at least 725.3 m² (7,807 ft²), all of which units shall be located at 6900 Pearson Way. The form of the Housing Agreement is to be agreed to by the developer and the City prior to adoption of the subject rezoning; after which time, changes to the Housing Agreement will only be permitted for the purpose of accurately reflecting the specifics of the Development Permit* for 6900 Pearson Way (e.g., form, character) and other non-material amendments resulting thereof and made necessary by the Development Permit* approval requirements, to the satisfaction of the Director of Development and Manager, Community Social Development. The terms of the Housing Agreements shall indicate that they apply in perpetuity and provide for the following:
 - a) The affordable (low-end market rental) housing shall be comprised of two-storey, ground-oriented townhouse units fronting onto Pearson Way, with direct, individual access to Pearson Way and direct, individual or shared access to indoor and outdoor, shared, residential amenity spaces located at/near the podium rooftop.
 - b) The number of affordable housing units, types, sizes, unit mix, rental rates, and occupant restrictions shall be in accordance with the City's Affordable Housing Strategy and guidelines for Low End Market Rental Housing and, unless otherwise agreed to by the Director of Development and Manager, Community Social Development, shall be as follows:

Unit Type	Number of Units	Minimum Unit Area	Maximum Monthly Unit Rent**	Total Maximum Household Income**
Bachelor	Nil	37 m ² (400 ft ²)	\$850	\$34,000 or less
1-Bedroom	Nil	50 m ² (535 ft ²)	\$950	\$38,00 or less
2-Bedroom	Nil	80 m ² (860 ft ²)	\$1,162	\$46,500 or less
2-Bedroom + Den	5			
3-Bedroom	2	91 m ² (980 ft ²)	\$1,437	\$57,500 or less
TOTAL	7	Varies	Varies	Varies

** May be adjusted periodically, as provided for under adopted City policy.

- c) Occupants of the affordable housing units subject to the Housing Agreement shall enjoy full and unlimited access to and use of all on-site indoor and outdoor amenity spaces provided with respect to Richmond Official Community Plan (OCP) and City Centre Area Plan (CCAP) policies.
 - d) Parking, “Class 1” bike storage, related electric vehicle (EV) charging stations, and loading shall be provided for the use of the occupants of the affordable housing units subject to the Housing Agreement as per the OCP and Zoning Bylaw at no additional charge to the affordable housing occupants (e.g., no monthly rents or other fees shall apply for the casual, shared, or assigned use of the parking spaces, bike storage, EV charging stations, loading, or related facilities by the affordable housing occupants), which features may be secured via legal agreement(s) on title, as determined to the satisfaction of the City.
 - e) The affordable housing units, all related uses (e.g., parking, garbage/recycling facilities, hallways and circulation, amenities), and associated landscaped areas shall be completed to a turnkey level of finish, at the sole cost of the developer, to the satisfaction of the Director of Development and Manager, Community Social Development.
 - f) Final Building Permit* inspection granting occupancy for any building at 6900 Pearson Way, in whole or in part, shall not be granted until the required affordable housing units are completed to the satisfaction of the City and have received Final Building Permit* inspection granting occupancy.
4. Public Art: City acceptance of the developer’s offer to voluntarily contribute at least \$23,131, in cash, to the City’s Public Art fund, payable prior to Building Permit (BP)* issuance for 6900 Pearson Way, in whole or in part. The terms of the voluntary developer contribution shall include:
- 4.1. The value of the developer’s voluntary contribution is based on the following, as determined to the satisfaction of the City:

Public Art	
Max Permitted Floor Area @ 6888 River Road & 6900 Pearson Way, as per “Residential/Limited Commercial (ZMU27) - Oval Village (City Centre)”	45,817.0 m ² (493,170 ft ²)
LESS On-Site Affordable Housing secured with a Housing Agreement	LESS 725.3 m ² (7,807 ft ²)
Applicable Net Floor Area	45,091.7 m ² (485,363 ft ²)
Public Art Contribution Rate	At least \$0.75 per ft ²
TOTAL Public Art Contribution	At least \$364,022
LESS Prior Public Art Contribution (RZ 09-506904)	LESS \$340,891
Additional Public Art Contribution	At least \$23,131

3. Note: If the BP* for 6900 Pearson Way is issued, in whole or in part, after December 31, 2015, then the greater of the above Public Art Contribution Rate or the Council-approved public art contribution rate(s) in effect at the time of BP* issuance shall apply to the balance of the Applicable Net Floor Area not previously approved for construction at 6888 River Road (BP 13-634548) and the Additional Public Art Contribution shall be adjusted accordingly.
- 4.2. “No Build”: Prior to rezoning adoption, the developer shall amend the existing Public Art Covenant CA2994217 registered on title or enter into legal agreement(s) registered on title, as determined to the satisfaction of the City, requiring that “no building” shall be permitted and restricting Building Permit* issuance for 6900 Pearson Way, in whole or in part, until the developer satisfies additional public art requirements (i.e. over and above the developer’s public art contribution secured through RZ 09-506904) in the form of an Additional Public Art Contribution to the Public Art Reserve, in cash, the value of which contribution shall be the greater of \$23,131 or as otherwise determined to the satisfaction of the City (as per paragraph 4.1 above).
4. Note: The proposed Additional Public Art Contribution shall, among other things, be understood to satisfy Section 2.1(c)(ii) of the existing Public Art Covenant CA2994217 registered on title, which requires a developer cash-in-lieu contribution to the City’s Public Art Reserve with respect to eligible floor area in excess of that anticipated through RZ 09-506904.
5. Community Planning: City acceptance of the developer’s offer to voluntarily contribute \$7,711 to the City’s community planning reserve fund, prior to adoption of the subject rezoning, based on the following:

Community Planning (CCAP)	
Max Permitted Floor Area @ 6888 River Road & 6900 Pearson Way, as per “Residential/Limited Commercial (ZMU27) - Oval Village (City Centre)”	45,817.0 m ² (493,170 ft ²)
LESS On-Site Affordable Housing secured with a Housing Agreement	LESS 725.3 m ² (7,807 ft ²)
Applicable Net Floor Area	45,091.7 m ² (485,363 ft ²)
Community Planning Contribution Rate	\$0.25 per ft ²
TOTAL Community Planning Contribution	\$121,341
LESS Prior Community Planning Contribution (RZ 09-506904)	LESS \$113,630
Additional Community Planning Contribution	\$7,711

Signed copy on file

Signed _____

Date _____



**Richmond Zoning Bylaw 8500
Amendment Bylaw 9148 (RZ 14-665416)
6888 River Road and 6900 Pearson Way**

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

1. Richmond Zoning Bylaw 8500, as amended, is further amended by:
 - a) repealing Section 9.4.4.6 in its entirety and marking it as “Repealed”; and
 - b) inserting Section 20.27 as follows:

“20.27 Residential / Limited Commercial (ZMU 27) – Oval Village (City Centre)

20.27.1 Purpose

The **zone** accommodates mid- to high-rise apartments within the **City Centre**, plus a limited amount of **commercial uses** and compatible **secondary uses**. Additional **density** is provided to achieve **City** objectives in respect to **road** and affordable housing.

20.27.2 Permitted Uses

- child care
- congregate housing
- housing, apartment
- housing, town
- live/work dwelling

20.27.3 Secondary Uses

- amenity space, community
- animal grooming
- boarding and lodging
- broadcast studio
- community care facility, minor
- education, commercial
- entertainment, spectator
- government service
- health service, minor
- home-based business
- hotel
- library and exhibit
- liquor primary establishment
- manufacturing, custom indoor
- office
- park
- parking, non-accessory
- private club

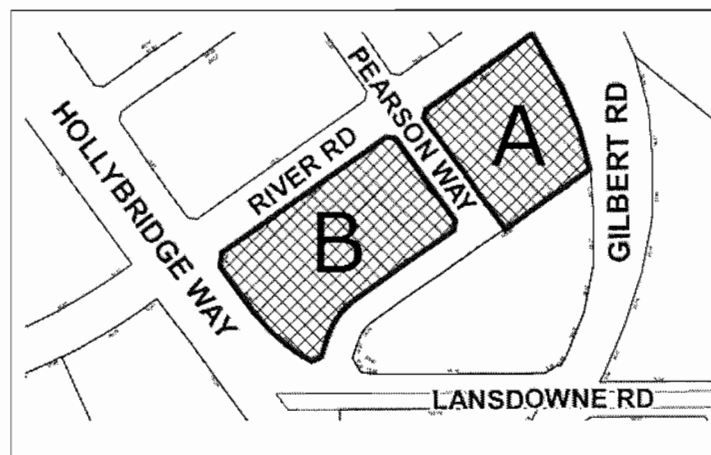
- recreation, indoor
- religious assembly
- restaurant
- retail, convenience
- retail, general
- retail, second hand
- service, business support
- service, financial
- service, household repair
- service, personal
- studio
- vehicle rental, convenience
- veterinary service

20.27.4 Permitted Density

1. The maximum **floor area ratio** is 1.2, together with an additional 0.1 **floor area ratio** provided that it is entirely used to accommodate **amenity space**.
2. Notwithstanding Section 20.27.4.1, the reference to “1.2”:
 - a) is increased to a higher **floor area ratio** of “1.68”, provided that the **owner** has paid a monetary contribution of \$3,000,000 to the **City’s capital affordable housing reserve**; and
 - b) is further increased to a higher **floor area ratio** of “2.0”, provided that prior to first occupancy of the **building** in the area shown cross-hatched and indicated as “B” in Section 20.27.4.4, Diagram 1, the **owner**:
 - i. provides in the **building** not less than seven **affordable housing units** in the form of **town housing** and the combined **habitable space** of the total number of **affordable housing units** would comprise at least 725.3 m²; and
 - ii. enters into a **housing agreement** with respect to the **affordable housing units**, registers the **housing agreement** against the title to the **lot**, and files a notice in the Land Title Office.
3. If the **owner** of a **lot** has paid a sum into the **City’s capital affordable housing reserve** under paragraph 20.27.4.2(a) and provided **affordable housing units** and entered into a **housing agreement** registered on title to the **lot** under paragraph 20.27.4.2(b), an additional 0.23 **density bonus floor area ratio** is permitted, provided that:
 - a) the **lot** is located in the Village Centre Bonus Area designated by the **City Centre Area Plan**;
 - b) the **owner** uses the additional 0.23 **density bonus floor area ratio** only for non-residential purposes, which non-residential purposes shall provide, in whole or in part, for **convenience retail uses** (e.g., large format grocery store; drug store), **minor health services**, pedestrian-oriented **general retail**,

- or other **uses** important to the viability of the Village Centre as determined to the satisfaction of the **City**;
- c) the **owner** uses a maximum of 49% of the **gross floor area** of the **building**, including the additional 0.23 **density bonus floor area ratio** (i.e. the **gross floor area** of the additional **building area**), for non-residential purposes; and
 - d) the **owner** has paid or secured to the satisfaction of the **City** a monetary contribution of \$1,154,700 to the **City's capital child care reserve fund**.
4. For the area within the **City Centre** shown cross-hatched in Section 20.27.4.4, Diagram 1, notwithstanding paragraph 20.27.4.2(b), the reference to "2.0" is increased to a higher **floor area ratio** of "2.47" and, notwithstanding Section 20.27.4.3, the reference to "0.23" is increased to a higher **floor area ratio** of "0.29", provided that:
- a) the **owner** complies with the conditions set out in paragraphs 20.27.4.2(a) and (b) and paragraphs 20.27.4.3(a), (b), (c), and (d);
 - b) the **owner** dedicates not less than 3,862.9 m² of land to the **City** as **road**;
 - c) the maximum total combined **floor area** for the areas shown cross-hatched in Section 20.27.4.4, Diagram 1, shall not exceed 45,817.0 m², of which the **floor area** of residential **uses** shall not exceed 41,049.0 m² and the **floor area** of other **uses** shall not exceed 4,768.0 m²; and
 - d) the maximum **floor area** for the areas shown cross-hatched and indicated as "A" and "B" in Section 20.27.4.4, Diagram 1, shall not exceed:
 - i. for "A": 16,670.0 m², of which the **floor area** of residential **uses** shall not exceed 15,496.9 m² and the **floor area** of other **uses** shall not exceed 1,173.1 m²; and
 - ii. for "B": 29,147.0 m², of which the **floor area** of residential **uses** shall not exceed 25,552.1 m² and the **floor area** of other **uses** shall not exceed 3,594.9 m².

Diagram 1



20.27.5 Permitted Lot Coverage

1. The maximum **lot coverage** for **buildings** and landscaped roofs over **parking spaces** is 90%, exclusive of portions of the **site** the **owner** dedicated to the **City** for **road** purposes.

20.27.6 Yards & Setbacks

1. Minimum setbacks shall be:
 - a) for **road setbacks**, measured to a **lot line** or the boundary of an area granted to the **City** via a statutory **right-of-way** for **road** purposes: 6.0 m, but this may be reduced to 3.0 m if a proper interface is provided as specified in a Development Permit approved by the **City**;
 - b) for **interior side yard setbacks**, measured to a **lot line**: 6.0 m, but may be reduced to 0.0 m if a proper interface is provided as specified in a Development Permit approved by the **City**; and
 - c) for parking situated below finished grade, measured to a **lot line**: 0.0 m.

20.27.7 Permitted Heights

1. The maximum **building height** shall be:
 - a) 25.0 m for portions of the **building** located less than 60.0 m from a **lot line** abutting Gilbert Road; and
 - b) 47.0 m geodetic elsewhere.
2. Notwithstanding paragraph 20.27.7.1(a), the maximum **building height** may be increased to 47.0 m geodetic if a proper interface is provided with adjacent **buildings**, **parks**, and **roads**, as specified in a Development Permit approved by the **City**.
3. The maximum **height** for **accessory buildings** is 5.0 m.
4. The maximum **height** for **accessory structures** is 12.0 m.

20.27.8 Subdivision Provisions

1. The minimum **lot area** for the areas shown cross-hatched and indicated as “A” and “B” in Section 20.27.4.4, Diagram 1, exclusive of portions of the **site** the **owner** dedicates to the **City** for **road** purposes, shall be:
 - a) for “A”: 6,800.0 m²; and
 - b) for “B”: 9,800.0 m².

20.27.9 Landscaping & Screening

1. **Landscaping** and **screening** shall be provided according to the provisions of Section 6.0.

20.27.10 On-Site Parking & Loading

1. On-site **vehicle** and bicycle parking and loading shall be provided according to the standards set out in Section 7.0.

20.27.11 Other Regulations

1. Signage shall be provided according to the standards set out in *Sign Bylaw No. 5560*, as amended or replaced from time to time, as it applies to development in the Downtown Commercial (CDT1) **zone**, except that:
 - a) for projecting signs, canopy signs, and fascia signs, maximum **height** shall not project above the first habitable **storey** of the **building**;
 - b) freestanding signs shall include freestanding mall/outside signs; and
 - c) for freestanding signs:
 - i. the maximum number of signs shall be 1 per **lot**;
 - ii. the maximum total combined area of the signs, including all sides used for signs, shall not exceed 10.0 m² per lot;
 - iii. the maximum **height**, measured to the **finished site grade** of the **lot** upon which the sign is situated, shall not exceed 4.0 m; and
 - iv. the maximum width, measured horizontally to the outer limits of the sign at its widest point, including any associated structure, shall not exceed 1.2 m.
2. **Congregate housing** and **apartment housing** must not be located on the **first storey** of the **building**, exclusive of interior entries, common stairwells, and common elevator shafts.
3. **Telecommunication antenna** must be located a minimum of 20.0 m above the ground (i.e. on the roof of a **building**).
4. In addition to the regulations listed above, the General Development Regulations in Section 4.0 and the Specific Use Regulations in Section 5.0 apply.”
2. 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 lots and by designating it “**RESIDENTIAL / LIMITED COMMERCIAL (ZMU 27) – OVAL VILLAGE (CITY CENTRE)**”:

P.I.D. 029-221-986
Lot 1 Section 5 Block 4 North Range 6 New Westminster District Plan EPP33697

P.I.D. 029-221-994
Lot 2 Sections 5 and 6 Block 4 North Range 6 New Westminster District Plan EPP33697

3. This Bylaw may be cited as **“Richmond Zoning Bylaw 8500, Amendment Bylaw 9148”**.

FIRST READING

PUBLIC HEARING

SECOND READING

THIRD READING

OTHER CONDITIONS SATISFIED

ADOPTED

_____	<div style="border: 1px solid black; padding: 2px;"> <p style="font-size: 8px; margin: 0;">CITY OF RICHMOND</p> <hr/> <p style="font-size: 8px; margin: 0;">APPROVED by</p> <p style="font-size: 12px; margin: 0;"><i>ul</i></p> <hr/> <p style="font-size: 8px; margin: 0;">APPROVED by Director or Solicitor</p> <p style="font-size: 12px; margin: 0;"><i>us</i></p> </div>

MAYOR

CORPORATE OFFICER



**Termination of Housing Agreement (5440 Hollybridge Way)
Bylaw No. 9150**

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

1. The Mayor and City Clerk for the City of Richmond are authorized:
 - a) to execute agreements to terminate the housing agreement referred to in Housing Agreement (5440 Hollybridge Way) Bylaw No. 8995 (the "Housing Agreement");
 - b) to cause Notices and other charges registered at the Land Title Office in respect to the Housing Agreement to be discharged from title; and
 - c) to execute such other documentation required to effect the termination of the Housing Agreement.
2. This Bylaw may be cited as **"Termination of Housing Agreement (5440 Hollybridge Way) Bylaw No. 9150"**.

FIRST READING

PUBLIC HEARING

SECOND READING

THIRD READING

OTHER CONDITIONS SATISFIED

ADOPTED

CITY OF RICHMOND
APPROVED by 
APPROVED by Director or Solicitor 

MAYOR

CORPORATE OFFICER



To: Planning Committee
From: Wayne Craig
Director of Development

Date: June 26, 2014

File: RZ 13-649641

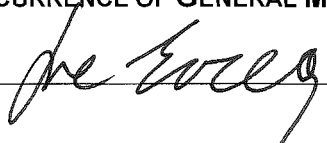
Re: Application by Polygon Development 296 Ltd. for Rezoning at 9700 and 9740 Alexandra Road from "Two-Unit Dwellings (RD1)" and "Single Detached (RS1/F)" to "Town Housing (ZT71) – Alexandra Neighbourhood (West Cambie)"

Staff Recommendation

1. That Richmond Zoning Bylaw 8500, Amendment Bylaw No. 9159:
 - a) to create "Town Housing (ZT71) – Alexandra Neighbourhood (West Cambie)"; and
 - b) to rezone 9700 and 9740 Alexandra Road from "Two-Unit Dwellings (RD1)" and "Single Detached (RS1/F)" to "Town Housing (ZT71) – Alexandra Neighbourhood (West Cambie)";be introduced and given first reading; and
2. That the affordable housing contribution for the rezoning of 9700 and 9740 Alexandra Road (RZ 13-649641) be allocated entirely (100%) to the capital Affordable Housing Reserve Fund established by Reserve Fund Establishment Bylaw No. 7812.


Wayne Craig
Director of Development

WC:dcb

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Affordable Housing Law	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	

Staff Report

Origin

Polygon Jayden Mews Homes Ltd., (formerly, Polygon Development 296 Ltd.) ("Polygon") has applied to Rezone 9700 and 9740 Alexandra Road from "Two-Unit Dwellings (RD1)" and "Single Detached (RS1/F)" to a Site Specific Zone, "Town Housing (ZT71) – Alexandra Neighbourhood (West Cambie)", in order to develop approximately 64 three-storey townhomes on the assembled site. A location map is provided in Attachment 1.

Project Overview

The proposed development site is located in the Alexandra Neighbourhood on a consolidation of two large lots between Alexandra Road and Alderbridge Way in an area that was re-designated for residential use by Council in 2012.

Constrained by an irregular shaped lot, the developer proposes 13 buildings fronting onto an internal drive aisle accessing Alexandra Road. The proposed site layout includes a 213.9 m² (2,302 ft²) two-storey amenity building with an adjacent children's play area and a meandering landscaped path which will incorporate original, visible artworks that will also function as habitat for barn owls. The site plan also shows a common green space for outdoor recreation and informal gathering and a landscaped outdoor seating area around an existing large conifer tree to be retained on site.

As proposed, individual townhouse units will range in size from 126.2 m² (1,358.5 ft²) to 152.0 m² (1,636.3 ft²) and approximately 40% of the townhouses will have direct walkway connections to the meandering landscaped pathway that runs through the site.

An emergency vehicle access to Alderbridge Way will be incorporated into the site plan off one of the two drive aisle ends adjacent to Alderbridge Way. The final location and configuration will be determined during the Development Permit review.

A 337.9 m² (3,637 ft²) land dedication will be required along Alderbridge Way to accommodate the installation of a new public sidewalk and a treed boulevard that will ultimately run between Garden City Road and No. 4 Road along Alderbridge Way.

Frontage improvements are also proposed along Alexandra Road including raising the Alexandra Road surface, the installation of concrete sidewalks, and provision for parking and new light standards along the south side of Alexandra Road. In addition, upgrading and/or replacement of existing sanitary lines, storm lines, watermain lines, additional fire hydrants and the undergrounding of hydro lines, will be required as part of development's off-site works and addressed through a separate Servicing Agreement.

Findings of Fact

The proposed development site is approximately 1.215 ha (3.00 ac. before land dedications) in size. The developer has submitted an application to demolish the residential buildings on the two lots and the lots have extensive tree and understorey vegetation coverage especially in the southern two-thirds of the site.

Both properties are currently owned by Polygon Development 296 Ltd.

A covenant is currently registered on title over 9700 Alexandra Road restricting use of the property to a two-family dwelling. The removal of this covenant is necessary in order to permit townhouses on the lot and is included in the Rezoning considerations.

The developer's conceptual development plans are provided in Attachment 2 and a Development Application Data Sheet is provided in Attachment 3.

Surrounding Development

To the North: At 9566 Tomicki Avenue, is an existing 26 building three-storey townhouse development containing (known as Wishing Tree) 141 units [zoned "Town Housing (ZT67) – Alexandra Neighbourhood (West Cambie)" (DP 08-432203)].

To the East: Six large residential lots (9800 and 9820 Alexandra Road and 4711–4771 No. 4 Road) all zoned "Single Detached (RS1/F)". The West Cambie Area Plan identifies the area containing these Single Detached lots as "Residential Area 2" permitting two- and three-storey Townhomes. Redevelopment of these lots in the future is likely.

To the South: Alderbridge Way and the Garden City lands (5555 No. 4 Road) to the south of that. The 55 ha (136.5 ac.) Garden City lands are zoned "Agriculture (AG1)".

To the West: Five large residential lots (9580–9680 Alexandra Road) currently zoned "Single Detached (RS1/F)" and/or "Two-Unit Dwellings (RD1)". All five lots are included in a Rezoning application (RZ 13-649999) by Am-Pri Developments (2012) Ltd. which proposes to develop approximately 96 three-storey townhouse units on the consolidated property.

Further west, between May Drive and Garden City Road is the proposed First Richmond North Shopping Centre (Smart Centres) (RZ 10-528877 – pending final).

Related Policies & Studies

Official Community Plan – West Cambie Area Plan

On October 15, 2012, Council adopted an Official Community Plan (OCP) amendment to re-designate 9540–9820 Alexandra Road and 4711–4771 No. 4 Road from "Public and Open Space Use" and "Park" to "Neighbourhood Residential" with the exception of a greenway strip over 9540 Alexandra Road and portions of 9560–9600 Alexandra Road (see Attachment 4). An amendment to the West Cambie Area Plan was also adopted to re-designate the same properties from "Park" to "Townhouses". Although the "Park" designations were removed from the West Cambie Area Plan, the ESA designations within the former park were retained with the intent

that these areas would be reassessed for possible retention on a case-by-case basis as a requirement of any redevelopment proposals involving these properties.

Current Use and Density

The Alexandra Neighbourhood Land Use Map (Attachment 4) within the West Cambie Area Plan identifies the subject properties as being within “Residential Area 2” which supports two and three-story townhouses at a base Floor Area Ratio (FAR) of 0.65 with density bonusing to 0.75 FAR for affordable housing. The developer is proposing a project density of 0.72 FAR with an affordable housing contribution (see the “Affordable Housing Policy” section below for further discussion), consistent with the Area Plan.

Affordable Housing and the West Cambie-Alexandra Interim Amenity Guidelines Policy 5044

The development site is located within the West Cambie Planning Area and is subject to the “West Cambie-Alexandra Interim Amenity Guidelines Policy 5044”. This Policy establishes guidelines for voluntary developer contributions toward affordable housing, community and engineering planning costs, child care and City beautification for new developments in the Alexandra area.

As outlined in the report from the General Manager, Community Services dated May 20, 2014, Polygon (the Developer) has requested that this development be considered as a special development circumstance “donor site” for which the developer proposes to make a \$678,107.00 voluntary contribution to the City’s Affordable Housing Reserve (capital fund) in lieu of building affordable housing units on site. Staff recommends that the entire contribution amount be placed into the Reserve’s capital fund per the report from the General Manager, Community Services.

The proposed contribution amount is based on the Affordable Housing Value Transfer (AHVT) rate of \$160/ft² (established in a report from the General Manager, Community Services dated May 30, 2012) applied to one-third of the density bonus from 0.65 base FAR to 0.75 FAR (although Polygon has opted for a lower density of 0.72 FAR). Specifically, the affordable housing contribution is derived from:

- A net site area of 11,812.16 m² (127,145 ft²);
- One-third of the Affordable Housing density 0.1 FAR bonus per the West Cambie Area Plan;
- An AHVT rate of \$160/ft² ;
- The AHVT rate assumes wood construction and the affordable housing floor area not being retained on site; and
- Formula: $(127,145 \text{ ft}^2 \times 0.1 \text{ FAR bonus}) / 3 \times (\$160/\text{ft}^2) = \$678,107.00$.

The Affordable Housing contribution for the subject site would be secured prior to adoption of the Rezoning Bylaw. The proposed “Town Housing (ZT71) – Alexandra Neighbourhood (West Cambie)” Zoning for the site incorporates both the density bonus and the affordable housing contribution amount.

The Developer will also be required to make additional contributions pursuant to the West Cambie-Alexandra Interim Amenity Policy 5044. Preliminary estimates of these contributions are:

- Community and engineering planning costs at \$0.07/ft² (estimated at \$6,230.11);
- Child care at \$0.60/ft² (estimated at \$53,400.90); and
- City beautification at \$0.60/ft² (estimated at \$53,400.90).

These contributions will be finalized through the Development Permit review and collected at the prior to final adoption of the Rezoning Bylaw. The actual City beautification contribution may be reduced from the \$0.60/ft² rate established by Policy 5044 by the equivalent value of frontage improvements identified and bonded for through the Servicing Agreement. The offsite works which may qualify for this reduction include works along a portion of the north side of Alexandra Road (i.e. conversion of the existing ditch to a swale, sidewalk installation, resetting of existing pedestrian bridges to address grade changes, etc).

Environmentally Sensitive Area Designations

Richmond's ESA designations were most recently updated as part of the 2041 Official Community Plan (OCP) (Bylaw 9000) review using 2012 aerial photogrammetry, GIS mapping and limited ground truthing. Staff notes that a detailed on-site assessment was not undertaken for the subject properties during the 2012 ESA Management Strategy update and OCP review.

The designated ESAs in the Alexandra Neighbourhood are classified in the City's ESA inventory as "Upland Forest" areas. Upland Forests are typically treed areas (woody vegetation > 5 m (16.4 ft.) tall not including forested wetlands (swamps and bog forests) or forested riparian zones, adjacent to streams, rivers, and other watercourses.

Depending upon the type of development or activity proposed and the degree of anticipated impact upon the designated ESA, environmental assessment requirements vary from "no review" being required to a "detailed inventory and assessment" being required by qualified environmental professionals (QEPs). The intent of an environmental assessment is to verify the nature, extent and quality of any valued environmental features present and to provide recommendations for their preservation where possible, impact mitigation and/or compensation measures where impacts are determined to be unavoidable. A detailed review and assessment of the ESA is discussed later in this report.

Flood Construction Elevation and Road Elevation Requirements

The West Cambie Area Plan establishes a minimum Flood Construction Level within the Alexandra Neighbourhood of 2.6 m GSC and a minimum elevation of 2.0 m GSC for all new roads within the neighbourhood. The development proposes to meet these requirements by raising the grade for most of the lot and raising the elevation of the north frontage road (i.e. a portion of Alexandra Road) by approximately 0.6 m to bring it up to the required 2.0 m elevation. Registration of a Flood Covenant with a minimum Flood Construction Level of 2.6 m GSC is included in the Rezoning considerations.

Aircraft Noise Policy

The subject property is located within "Area 2" of the Aircraft Noise Sensitive Development (ANSI) Policy Areas. All aircraft noise sensitive land uses except new single family may be considered within Area 2. The proposed townhouse development conforms to this policy. The Rezoning Adoption requirements include **ONCL-247** restrictive covenants, submission of an

acoustic report, incorporation of noise mitigation in construction such as mechanical ventilation and central air conditioning.

District Energy Utility and Sustainability Features

The development site is not within the area where connection to the West Cambie District Energy Utility (DEU) is required.

The Developer is exploring a range of sustainability features to incorporate into the development. To time of writing, the Developer is proposing to incorporate the following sustainability features into the buildings:

- Achieving Ener-Guide ratings of at least 82 for all the homes;
- Pre-ducting for solar hot water heating;
- Double glazed Low-E glazing on all windows;
- Energy Star appliances;
- Low VOC paints in all homes;
- Dual flush toilets and low flow faucets;
- Drywall with recycled gypsum and paper content; and
- Recycling bin storage in all kitchens.

The Rezoning considerations include requirements for achieving an Ener-Guide rating of 82 or better and pre-ducting for solar hot water heating, and entering into a legal agreement to secure this.

Additional sustainability initiatives for this development will be further reviewed and confirmed as part of the Development Permit design review submission.

Public Art

The applicant has submitted a Public Art Plan checklist and is working with the Public Art Planner to address the City's Public Art Program Policy 8703. The developer's preliminary concept is to work with a wildlife biologist and an artist to develop a public art project that will also provide a Barn owl roost (e.g. nesting box) on the development site.

A voluntary contribution of \$70,162.85 to the City's public art fund is included in the rezoning considerations.

Consultation

Impacts to an Existing Ditch Along Alexandra Road

The City's requirement for raising the full width of Alexandra Road to 2.0 m GSC will result in changes being made to an existing open ditch that lies adjacent to the Wishing Tree Strata complex (9566 Tomicki Avenue), converting it to a swale. The Wishing Tree Strata Council has advised, through Polygon, that they accept the changes to the pedestrian bridge elevations provided that there is no reduction in function or accessibility, to which Polygon has agreed.

The Wishing Tree Strata has also requested that the City investigate the possibility of installing traffic calming measures on Alexandra Road to address "cut-through" traffic caused by the proposed new retail centre on Alexandra Road (Smart Centres) and that street parking be reintroduced on No. 4 Road adjacent to Wishing Tree as a means to slow down traffic speed.

Staff investigations into traffic calming measures on Alexandra Road to address “cut-through” traffic as a result of the proposed new retail centre were undertaken and reported to Planning Committee (report dated September 7, 2012, from the General Manager, Planning & Development re: West Cambie Natural Park Re-designation). Specific measures recommended through that report will be incorporated with development in the area. Notably:

- A right-in-right-out diverter will be constructed as part of Polygon’s development (Jaden Mews) on the east leg of Alexandra at May Drive; and
- A future traffic-calming measure on No. 4 Road at Alexandra Road will be implemented when the parcels fronting No.4 Road, between Alexandra Road and Alderbridge Way, redevelop.

Transportation Staff have also reviewed the possibility of on-street parking on No. 4 Road but found that it would not be feasible due to existing road configuration.

Public Input

To the time of writing, one letter has been received regarding the proposed Rezoning. The owner of 9800 Alexandra Road has written to the City (Attachment 8) with concerns about the impact on his property and its future redevelopment potential. In response to concerns about future redevelopment potential of 9800 Alexandra Road, staff note that this site must be developed with the adjacent lot to the immediate east and also include other lots fronting No. 4 Road. Redevelopment would generally consist of townhouses similar to existing townhouse projects along the west side of No. 4 Road north of Odlin Road.

He has also requested that a connection be installed to the sanitary line that would have to be built by Polygon that would allow his property to connect up to as his property is currently on a septic field system and he has concerns about the affect the neighbouring development will have on it. While no commitments have been made to this point, Engineering staff will review this when the detailed Servicing Agreement plans are submitted to the City.

Staff also responded to approximately four telephone enquiries from residents in the area on the status of both the Polygon application and the Am-Pri application for the adjacent lots (9580 to 9680 Alexandra Road).

Staff Comments

Environmentally Sensitive Area and Tree Retention

Approximately 77% of the net development site is designated in the Official Community Plan as an Environmentally Sensitive Area (ESA). Detailed assessments of the environmental features and the condition of the trees on site were undertaken by Keystone Environmental Ltd. (Biologist report dated April 17, 2014 and summary of findings report dated June 3, 2014 – see Attachment 5) and Pacific Sun Tree Services (Arborist report dated June 6, 2014 – see Attachment 6).

Biologist Review

The Biologist’s report and supplemental document:

- Provides comment on the extent of the City’s ESA designation on the site;
- Assesses the subject site for its Valued Ecosystem Components (VECs);

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- Identifies the presence or likelihood of any federally or provincial species at risk;
- Provides a rating of the value of the existing habitat;
- Provides recommendations for mitigation and enhancement; and
- Includes a habitat balance sheet assessment of the pre and post development conditions.

Based on their review the Biologists prepared a Habitat Survey Map (shown on the next page) that identifies three distinct areas on the site:

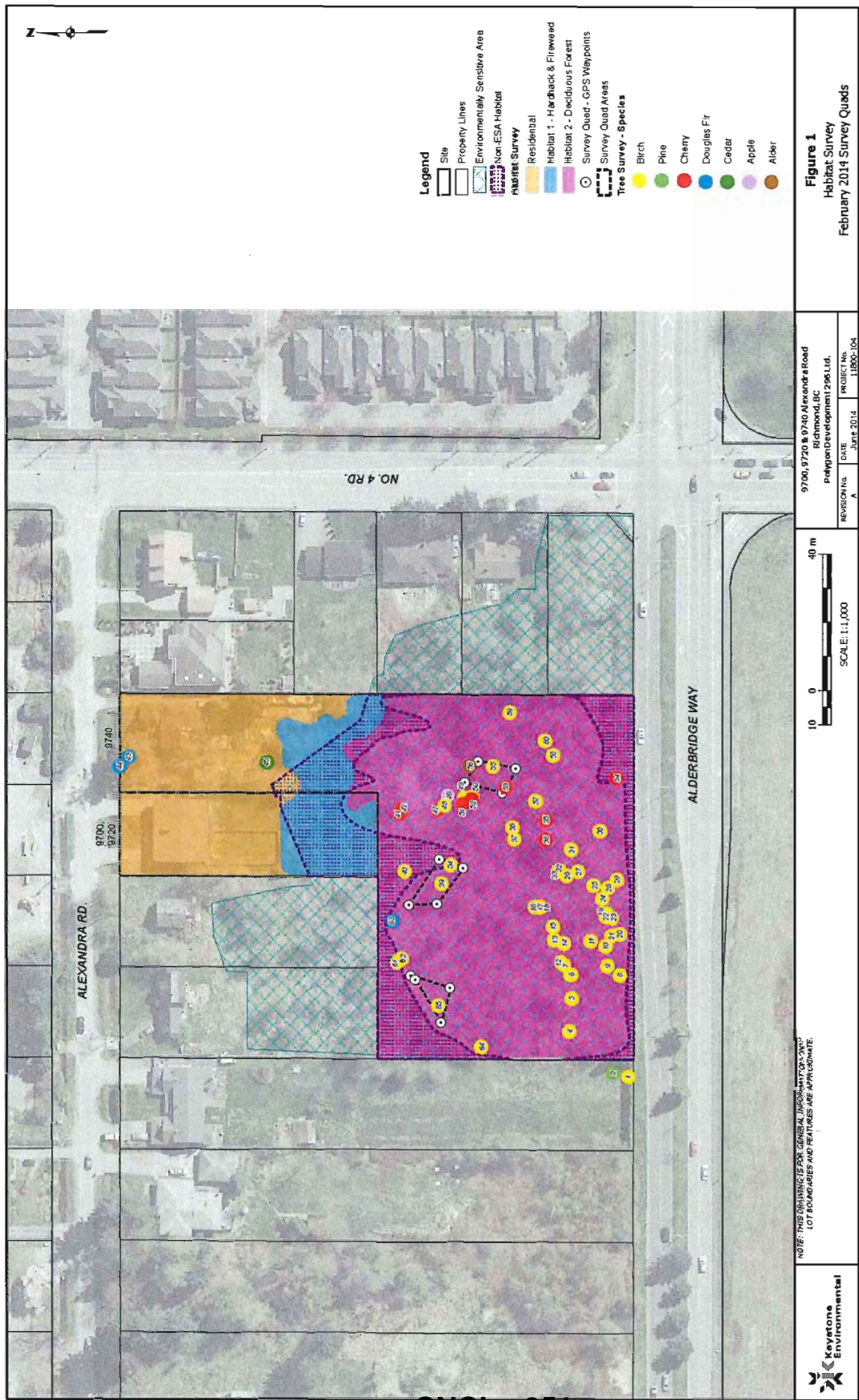
- “Residential” (located in the northern portion of the site),
- “Habitat 1 – Hardhack & Fireweed-Blackberry Open Habitat”; and
- “Habitat 2 – Deciduous Dominated Mixed Community” (located primarily in the southern portion of the site).

The Biologists note that the “Residential” area, the “Habitat 1” area and approximately 1,318.1 m² of the “Habitat 2” area are “*not meeting the criteria for Upland Forest within the ESA definition*”. The assessment indicates that the habitat value provided by these areas so low that the Biologists have recommended these areas (totalling 2,149 m²) be removed from the City’s ESA.

The Biologists further comment that “*the remaining 6,935 m² area in “Habitat 2” is considered low value habitat due to a high density of invasive Himalayan blackberries and die-back of paper birch (possibly due to birch borer infestation).*” While the Biologists have not explicitly recommended complete removal of the balance of the Habitat 2 area from the City’s ESA their supplemental assessment is that, from a habitat value perspective, full compensation for impacts arising from the development of the site is achieved by replacement planting at a ratio of 1 to 0.25 (i.e. 1 m² of replacement planting is worth 4 m² of existing habitat).

The “Habitat Survey Map” on the next page shows the extent of the City’s existing ESA designation over the subject site, the reductions to the ESA proposed by the Biologist’s site assessment and the extent of the three identified category areas. The map also shows the locations and species of 65 of the site’s 87 reported bylaw sized trees. (Tree counts on this map were based on field studies conducted July 29, 2013. Additional field studies were conducted on May 12 and 15, 2014 with the results provided in Attachment 5.)

Biologist's Habitat Survey Map



The table below summarizes the Biologist's assessment of the habitat values present in Habitat areas 1 and 2.

Habitat Valuation

Habitat Category Areas	Fish and Fish Habitat	Vegetation Diversity and Health	Wildlife Habitat Connectivity	Invasive Species Presence	Overall Rank
Habitat 1	N/A	Low	Low	High	Low
Habitat 2	N/A	Low	Low	High	Low

The impact of the invasive and diseased vegetation on the site's habitat is apparent in that the Biologist's assessment indicates that the development's proposed landscaping and enhancement plans indicating 1,750 m² will still result in a net benefit of habitat for wildlife.

Arborist Review

An Arborist's report has been prepared for the site (Attachment 6). The report identifies 87 bylaw sized trees on the property. These are almost entirely deciduous species with the majority of these being Birch trees. Other tree species found on the site include: Cherry, Douglas fir, Apple, Alder, Cedar, Hemlock, English Oak, Crab Apple, Shore Pine and Sycamore Maple.

The Arborist indicates that approximately 86% (i.e. 75) of the bylaw sized trees on site should be removed primarily due to deteriorating conditions, structural defects or impacts, by Bronze Birch Borer beetles.

Five are being considered for retention, while the remaining seven are being removed due to construction grade changes or site layout conflicts. Most of the development site is proposed to be raised to meet the 2.6m GSC Flood Construction Elevation requirements.

One of the five on-site trees proposed for retention one is a 30 cm dbh Douglas-fir located in the interior of the site. It's retention as a central feature for the proposed development. A second prominent tree proposed for retention is a larger Birch tree located along Alderbridge Way near the site's proposed green space area. The Arborist's report includes tree protection fencing zones around each of the trees proposed for retention.

The Tree Summary Table below shows the total number of bylaw sized trees on site and the number proposed for removal and retention. The tree retention and replacement plans will be refined through the Development Permit review.

Tree Summary Table

Total bylaw sized trees on site (over 8 " (200 mm) in diameter)	87	100%
Trees in suitable condition over 8 " (200 mm) in diameter	12	14%
Trees in unsuitable condition for retention over 8" (200 mm) in diameter	75	86%
Bylaw sized trees proposed for removal (87 including bylaw sized trees)	82	94%
Trees proposed for retention on-site	5	
Trees to be replaced per OCP at 2 for 1	164	

Proposed Landscaping Plan and Objectives

The preliminary landscape plan prepared for the site is intended to improve habitat for wildlife.

The strips along the eastern and western boundaries will be approximately 3 m wide with the western property boundary strip being designed to combine with a similar vegetation strip proposed on the adjacent property through its redevelopment (RZ 13-649999). This will result in a 6 m wide vegetation corridor between the projects creating songbird habitat and facilitating movement of small birds and mammals.

Along the new southern property boundary (post land dedication) two vegetated buffer strips are proposed that will merge into a central green space. The two vegetation strips will also be enhanced through plant species selections designed to create a year round visual screen between this development and the Garden City lands to the south.

The table below summarizes the proposed vegetation strips for the development site. To the extent possible, breaks in these vegetation strips will be kept to a minimum.

Proposed Vegetation Strips

West property boundary	6 m wide when combined with buffer strip on the adjacent development property (AmPri Development 9580-9680 Alexandra Road)
South property boundary	2.7 m to 6 m wide strip of native trees and shrubs except for the area adjacent to the interior green space – species selections to minimize agricultural issues for the Garden City Lands to the south. Taller trees and shrubs used.
East property boundary	3 m wide strip of native trees and shrubs that would be intended to combine with a landscaped buffer established on adjacent lands when they redevelop.

The Development Permit considerations will include a requirement for a long-term maintenance plan to ensure that invasive plant species are managed within the vegetation strips.

The Biologist's assessment, recommendations and species selections will be reviewed in greater detail through the forthcoming Development Permit application. Particular attention will be paid to species selections along Alderbridge Way across from the agricultural lands. Staff will also work with the applicant to refine the assessment, reduce the net loss of habitat area on site and determine compensation if required through the Development Permit.

Analysis

Land Use and Zoning

The proposed Zoning Bylaw amendment will create a new "Town Housing (ZT71) – Alexandra Neighbourhood (West Cambie)" zone for this development site. The new zone is based on an existing site specific zone "Town Housing (ZT67)" used at the Wishing Tree townhouse development north of Alexandra Road but is customized to address issues specific to this site. The new zone provides for the following elements:

- A minimum rear yard setback of 4 m to accommodate a dense "year round" natural vegetation strip adjacent to Alderbridge Way;
- A maximum base density of 0.65 FAR
- An increase in the maximum density to 0.72 FAR if the owner has paid or secured a monetary contribution of \$678,107.00 to the City's capital Affordable Housing Reserve Fund;
- A maximum building height of 12.2 m; and
- A minimum front yard setback along Alexandra Road of 3.0 m for the accessory amenity building and 4.0 m for all other buildings.

Affordable Housing Contribution

Polygon has requested a density in excess of the 0.65 FAR base and has offered to provide a voluntary contribution to the City's capital Affordable Housing Reserve Fund and proposed that this site be a potential "donor site" for the Kiwanis special development circumstance project. Their voluntary contribution of \$678,107.00 is based on one-third of the increased density of 0.1 FAR as permitted by the West Cambie Area Plan land use map even though Polygon has opted instead for a lower density of 0.72 FAR. Staff supports this voluntary contribution as it fully addresses the density bonusing provisions for affordable housing outlined in the West Cambie Area Plan. Subject to Council's approval, Polygon proposes to develop affordable housing units at its Alexandra East development at a comparable value of the cash contribution from the Jayden Mews project.

ESA Response – Preliminary Overview

The Biologist's review indicates that the future landscape planting will provide improved habitat value for the site by removing the extensive areas of invasive species and providing targeted enhancements create songbird habitat, and will provide north-south movement corridors.

Both the Arborist's and the Biologists' reports indicate the quality of the on-site trees is low. The initial proposal suggests that five bylaw sized trees are to be retained and 126 replacement trees will be provided through the development plan. The developer has committed to complying with the OCP 2 to 1 replacement ratio through the forthcoming Development Permit via a combination of tree planting and monetary compensation as necessary.

The Developer has been advised that clearing of the primary vegetation stands on the site will not be permitted until the Development Permit has been issued unless safety issues are evident. Additionally, retention of trees within land dedication areas will also need to be reviewed by Parks Arboriculture staff. The Rezoning Considerations include a requirement for submission of a pre-clearing bird nest survey summary of findings and recommendations prior to site clearing activities.

Alderbridge Way Median Enhancement

Additional infill tree planting will be installed along the centre median for the portion of Alderbridge Way fronting the subject site. The applicant will work with Parks staff on an appropriate planting plan for the median via a Servicing Agreement.

Engineering and Transportation Requirements

No significant concerns have been identified through the technical review related to the subject development proposal. As there are several developments occurring or proposed to occur within the vicinity of Alexandra Road some of the off-site works may be advanced by others. Engineering staff will determine how the frontage works along Alexandra Road will occur based on the sequence of Servicing Agreement submissions received and discussions with the individual developers.

Highlights of the off-site engineering requirements include:

- Construction of a 200 mm diameter gravity sanitary sewer along Alexandra Road from the east property line of the development site to future May Drive;
- Construction of a 375 mm diameter sanitary sewer along the future May Drive from Alexandra Road connecting to the existing system on Tomicki Avenue;
- If adequate water flow is not available, then upgrades beyond the development site frontage may be required, e.g. constructing a 200 mm diameter watermain along the future May Drive from Alexandra Road to Tomicki Avenue or from Alexandra Road to Alderbridge Way;
- Replacement of existing watermain from the west property line of the development site to No 4 Road;
- Installation of additional fire hydrants;
- Upgrading of the existing storm sewer line along the property frontage; and
- Undergrounding of existing private utility lines along Alexandra Road.

Key elements of the transportation related off-site requirements include:

- Design and construction of the Alexandra Road frontage including curbing, an 8.5 m wide travel road surface, treed boulevards and sidewalks;
- Design and construction of a 1.5 m wide treed boulevard and 3.3 m wide shared cyclist/pedestrian path along Alderbridge Way;
- Land dedication along Alderbridge Way for the sidewalk and treed boulevard;
- No vehicle access other than emergency access to Alderbridge Way;
- Parking at a ratio of 1.7 spaces for each dwelling unit (1.5 residents, 0.2 visitors);
- A minimum 20% of the parking stalls with a 120 volt receptacle for electric vehicles;
- An addition 25% of the parking stalls be pre-ducted for future wiring for the future installation of electric vehicle charging equipment;
- Provide SU-9 vehicle turning templates;
- Bicycle parking: 1.25 Class 1 spaces per dwelling, 0.2 Class 2 spaces per dwelling; and

- On-site drive aisles should be no less than 6.0 m wide.

Staff will ensure that the engineering and transportation related requirements are addressed in the forthcoming Development Permit and Servicing Agreements. Both the Development Permit and the Servicing Agreement(s) are included the Rezoning considerations.

Rezoning Considerations

Detailed Rezoning considerations are provided in Attachment 7.

Development Permit Issues

Issues that will be addressed through the forthcoming Development Permit include:

- Confirmation of the site plan in relation to the Zoning Schedule (ZT71), detailing building massing and design, provision of parking, loading, pedestrian access, amenity areas, surface permeability, incorporation of play areas, etc.;
- Details on the existing vegetation, ESA mitigation, compensation and long-term maintenance plan preparation and protection;
- Addressing drainage concerns in the corridor between this site and the site to the west;
- Registration of any legal agreements related to the protection and maintenance of the ESA vegetation areas;
- Confirmation of the Public Art response;
- Resolving on-site garbage collection and ensuring appropriate vehicle movement;
- Incorporation of appropriate Aircraft Noise Mitigation measures in the building plans;
- A variance will be required to accommodate the number of tandem stalls proposed;
- Addressing accessibility features within the units; and
- Greater definition of the sustainability measures that will be built into the units.

Financial Impact or Economic Impact

None.

Conclusion

The proposed development provides for ground oriented town housing consistent with the West Cambie Area Plan and the Alexandra Neighbourhood Land Use Map. Detailed Biologist and Arborist assessments of the existing vegetation on the subject site have revealed the limitations of the habitat currently found at that location and have been used to prepare appropriate plans for vegetation replacement and enhancement aimed at creating a higher quality of habitat on site.

Based on the information submitted, Staff recommend that:

- a) Bylaw 9159 to create “Town Housing (ZT71) – Alexandra Neighbourhood (West Cambie)” Zoning and to rezone the subject properties to “Town Housing (ZT71) – Alexandra Neighbourhood (West Cambie)” be introduced and given first reading; and
- b) The affordable housing contribution for the rezoning of 9700 and 9740 Alexandra Road be allocated entirely (100%) to the capital Affordable Housing Reserve Fund.



David Brownlee
Planner 2

Attachment 1: Location Map

Attachment 2: Conceptual Development Plans

Attachment 3: Development Application Data Sheet

Attachment 4: Alexandra Neighbourhood Land Use Map

Attachment 5: Biologist's Report – Keystone Environmental dated April 17, 2014, and
supplemental findings summary report dated June 3, 2014

Attachment 6: Arborist's Report – Pacific Sun Tree Services dated June 6, 2014

Attachment 7: Rezoning Considerations Concurrence

Attachment 8: Letter from the owner of 9800 Alexandra Road



City of
Richmond



RZ 13-649641

Original Date: 11/13/13

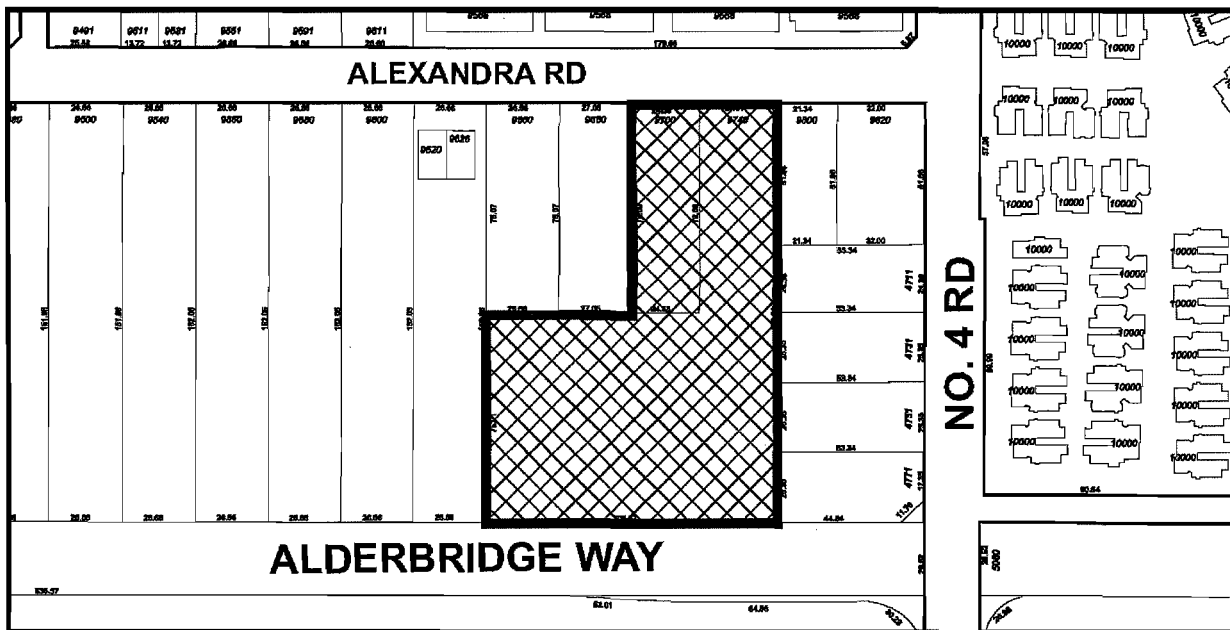
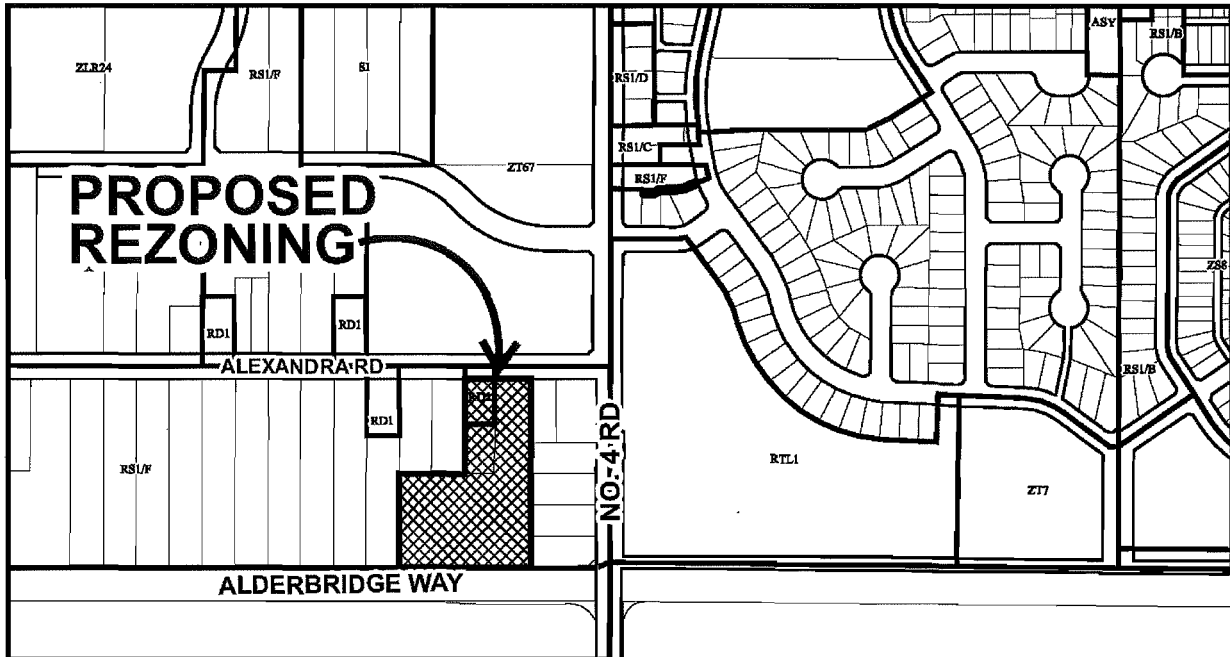
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Note: Dimensions are in METRES

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City of
Richmond



RZ 13-649641

Original Date: 03/05/14

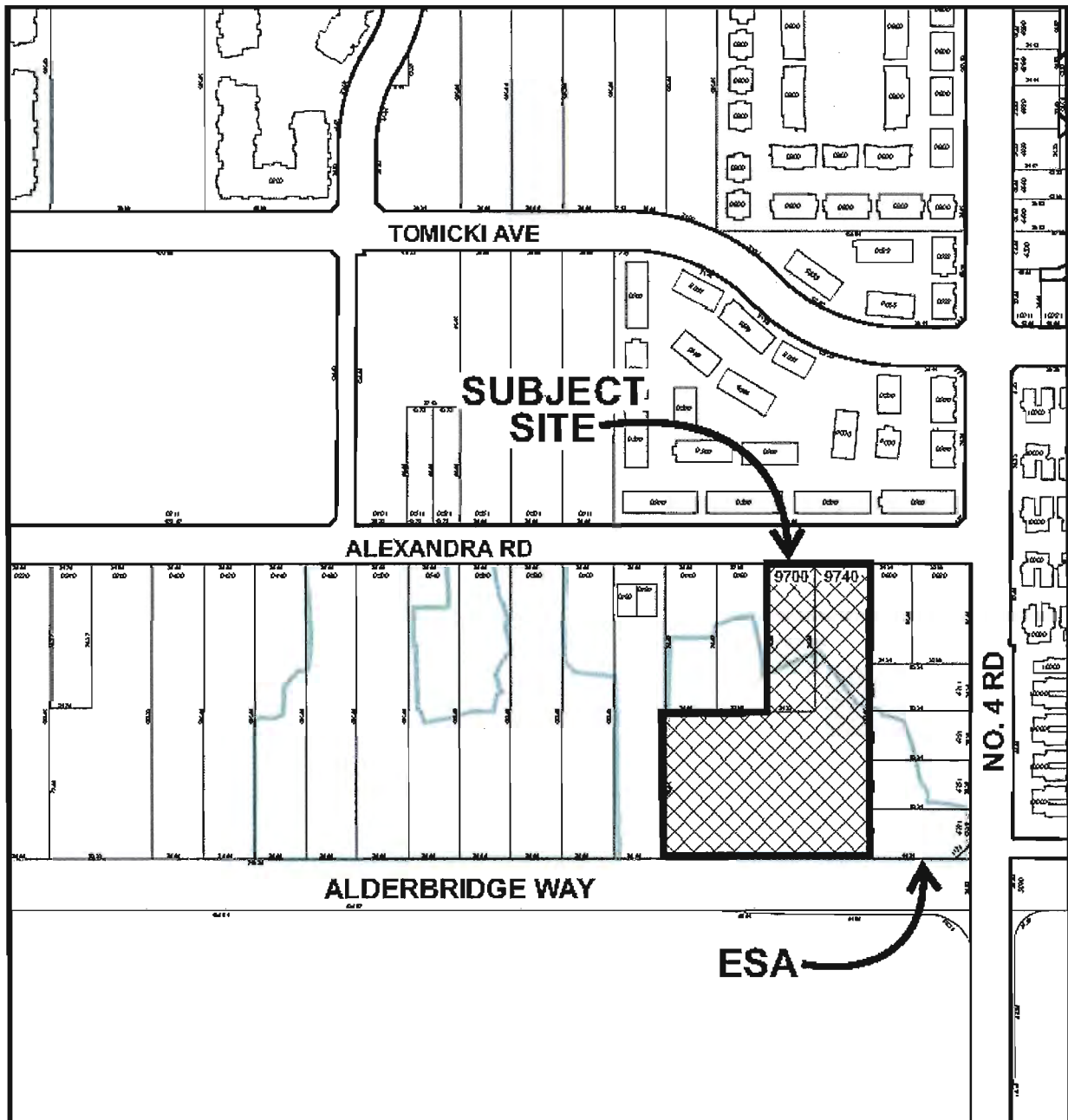
Revision Date:

Note: Dimensions are in METRES

CNCL - 259



City of
Richmond



**Environmentally Sensitive
Areas**

Original Date: 05/26/14

Revision Date:

Note: Dimensions are in METRES

OWNER:	PORTION DEVELOPMENT, 102, WOODROW VIA 423 PH: 681.971.1181 CONTACT: CHRIS HO
ARCHITECT:	FORWARDER ARCHITECTURAL INC., 10000 16TH AVE S.W. VANCOUVER, B.C. V6V 1N5 PH: 603.531.5441 CONTACT: TYLER HERRON
LANDSCAPE:	REFORD TRACER & ASSOCIATES INC., 10000 16TH AVE S.W. VANCOUVER, B.C. V6V 1N5 PH: 603.531.4515 CONTACT: DARL TRACER
CIVIL:	COHN GROUP CONSULTANTS LTD., 305 - 6800 TRANSCENT COURT VANCOUVER, B.C. V6N 1S5 PH: 604.291.2005 CONTACT: DOMINIC INGLAN

DEVELOPMENT DATA

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VANCOUVER JIC VAN 417
TEL 871 410

L A Y D E N M E W S

RAYWIND

DATA SHEET

ALF	SHEET
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A7.01

AREA CALCULATIONS

UNIT AREA TOTALS

UNIT TYPE	TOTAL QUANTITY	UNIT FLOOR AREA (SQ. FT.)	UNIT FLOOR AREA (SQ. M.)	TOTAL FLOOR AREA (SQ. FT.)	TOTAL FLOOR AREA (SQ. M.)
A1	1	1,840.5	1,702.1	1,840.5	1,702.1
A2/A2B	18	1,744.9	1,620.1	35,368	32,745
A3	7	2,011.4	1,865.4	14,060	9,559
A3B/A3M	4	1,978.8	1,834.2	7,775	5,653
C	14	1,273.5	1,175.3	21,337	21,337
D	4	1,250.4	1,154.4	5,000	5,000
D5	1	2,004.5	1,859.9	2,004.5	2,004.5
TOTAL	44		12,124.8	121,124.8	111,308.1



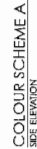
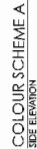
REVIEWS	
ISSUED FOR RECONSTRUCTION PERMIT	NOV. 4, 2013
ISSUED FOR COORDINATION	FEB. 25, 2014
ISSUED FOR CRIME REVIEW	MAR. 17, 2014
ISSUED FOR COORDINATION	MAR. 25, 2014
RECEIVED FOR DEVELOPMENT PERMIT	APR. 7, 2014
ISSUED FOR A.D.	APR. 23, 2014



625 West 5th Ave., Vancouver, BC V6J 1H5
 Fax 605-2076 Phone 605-5441

9700 ALEXANDRA ROAD
RICHMOND, BC

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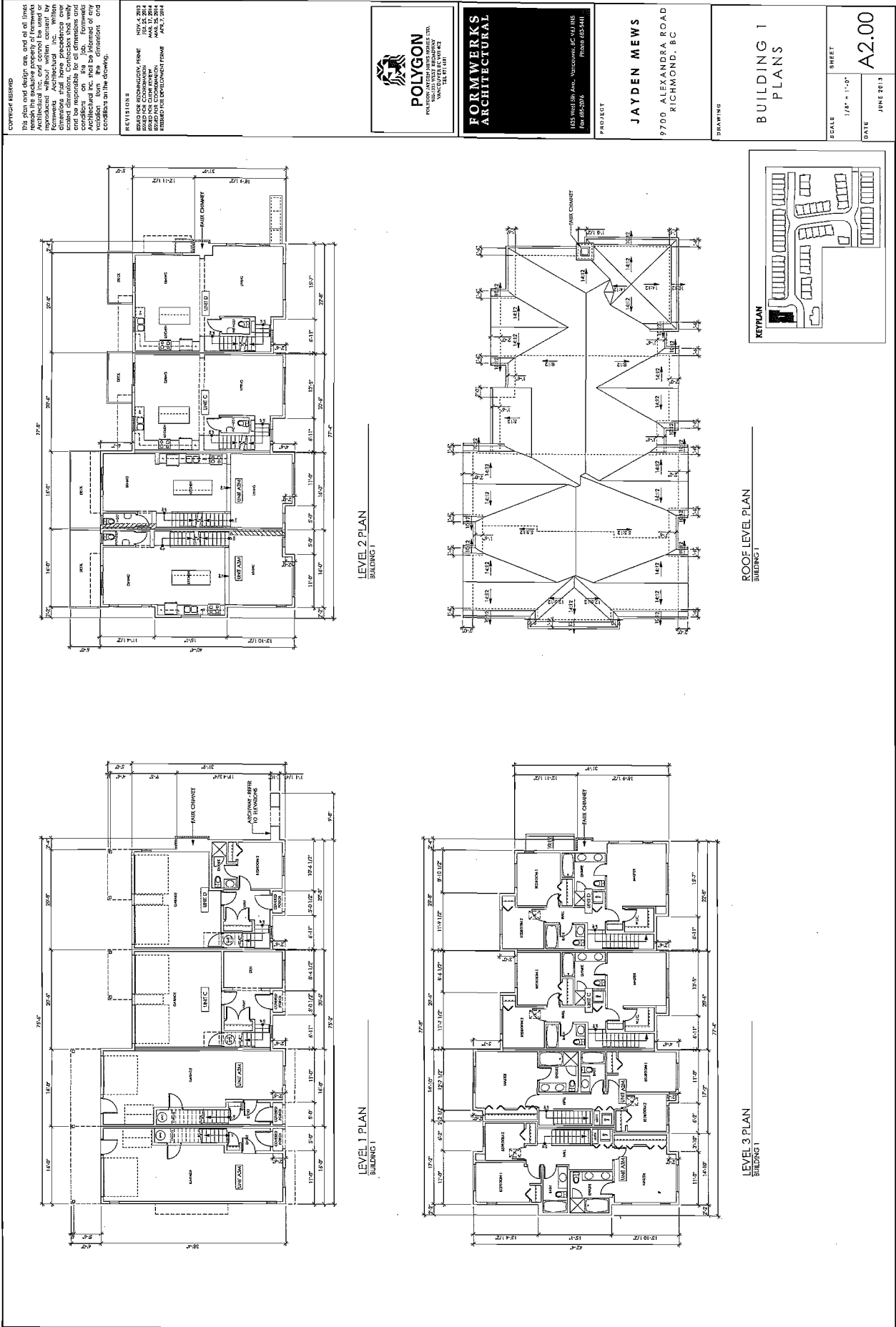


DRAWING

COLOUR
SCHEME B
ELEVATIONS

SCALE	1/8" = 1'-0"	SHEET	A1.06
DATE	JUNE 2013		





NOTES:

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REVISIONS:

NO.	DATE	DESCRIPTION
1	NOV. 4, 2013	ISSUED FOR ARCHITECTURAL REVIEW
2	NOV. 15, 2013	ISSUED FOR ARCHITECTURAL REVIEW
3	NOV. 15, 2013	ISSUED FOR ARCHITECTURAL REVIEW
4	NOV. 15, 2013	ISSUED FOR ARCHITECTURAL REVIEW
5	NOV. 15, 2013	ISSUED FOR ARCHITECTURAL REVIEW
6	NOV. 15, 2013	ISSUED FOR ARCHITECTURAL REVIEW
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POLYGON

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Phone: 604-681-5441

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Phone: 604-681-5441

JAYDEN MEWS

9700 ALEXANDRA ROAD
RICHMOND, BC

BUILDING 2 PLANS

LEVEL 1 PLAN

BUILDING 2

LEVEL 2 PLAN

BUILDING 2

LEVEL 3 PLAN

BUILDING 2

ROOF LEVEL PLAN

BUILDING 2

KEY PLAN

A2.02

CNCL - 270

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POLYGON
 PROJECT: 1000 WEST BROADWAY
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 FAX: 804.688.2094
 EMAIL: info@polygonva.com
 WEBSITE: www.polygonva.com

FORMWERKS ARCHITECTURAL
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 PHONE: 804.688.2094
 FAX: 804.688.2094
 EMAIL: info@formwerks.com
 WEBSITE: www.formwerks.com

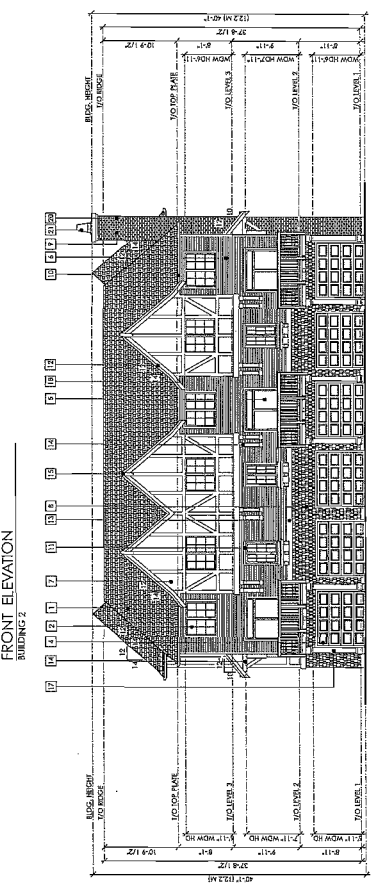
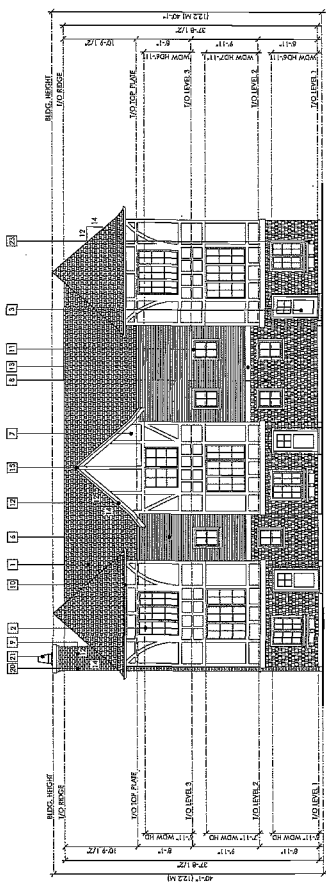
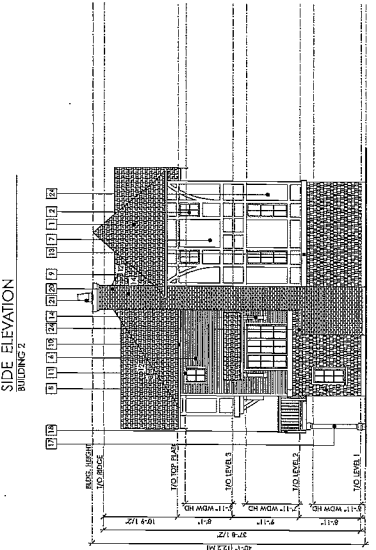
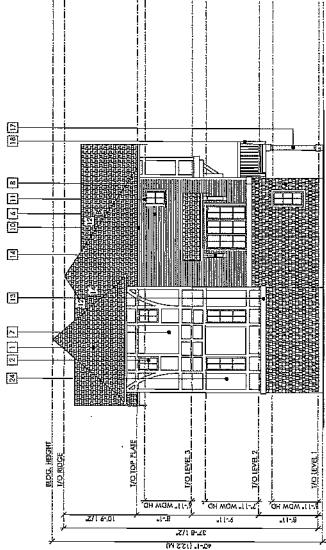
JAYDEN MEWS
 9700 ALEXANDRA ROAD
 RICHMOND, VA 23135
 PROJECT: 1000 WEST BROADWAY

BUILDING 2 ELEVATIONS
 DRAWING: 1000 WEST BROADWAY

SCALE
 1/8" = 1'-0"

DATE
 JUNE 2013

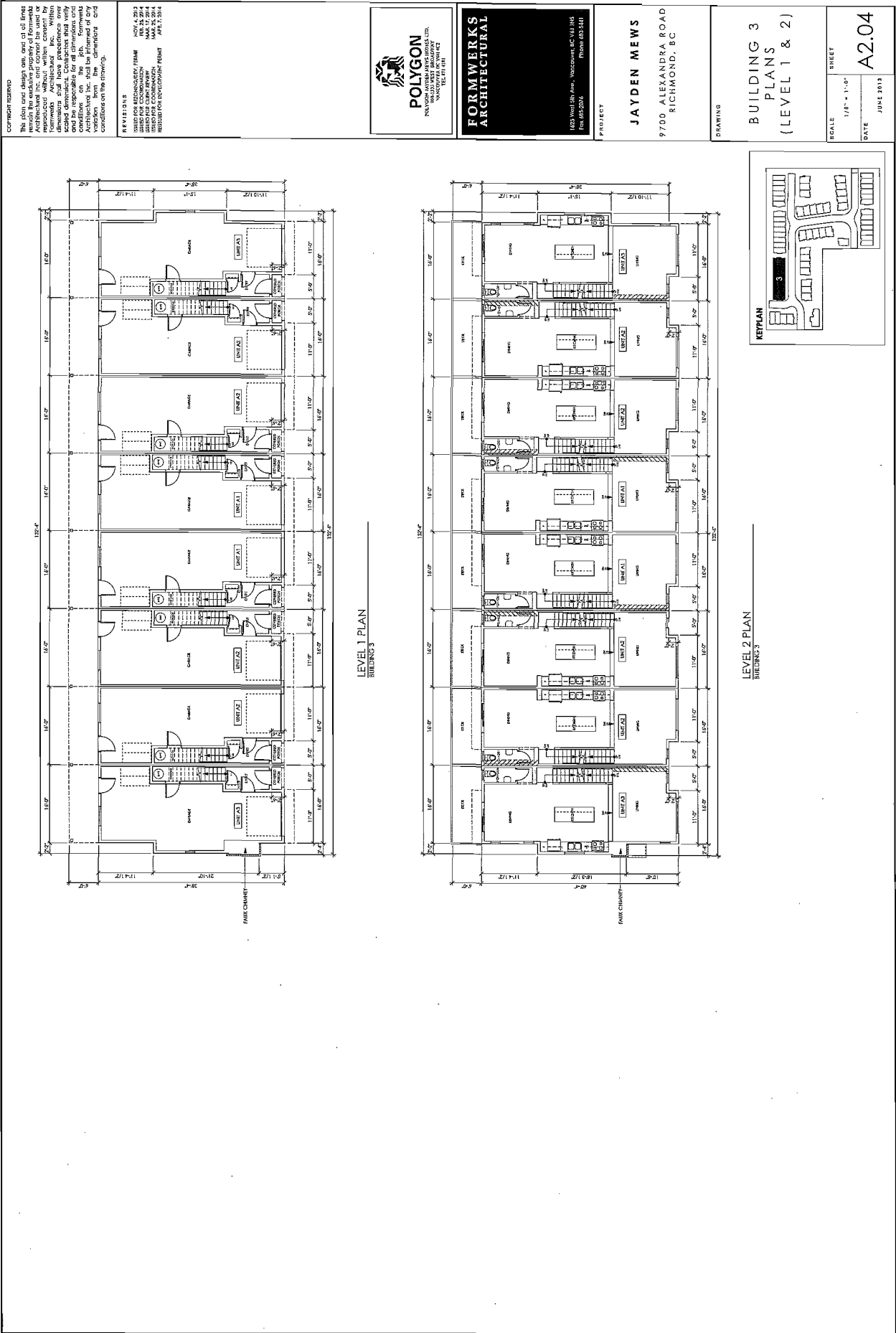
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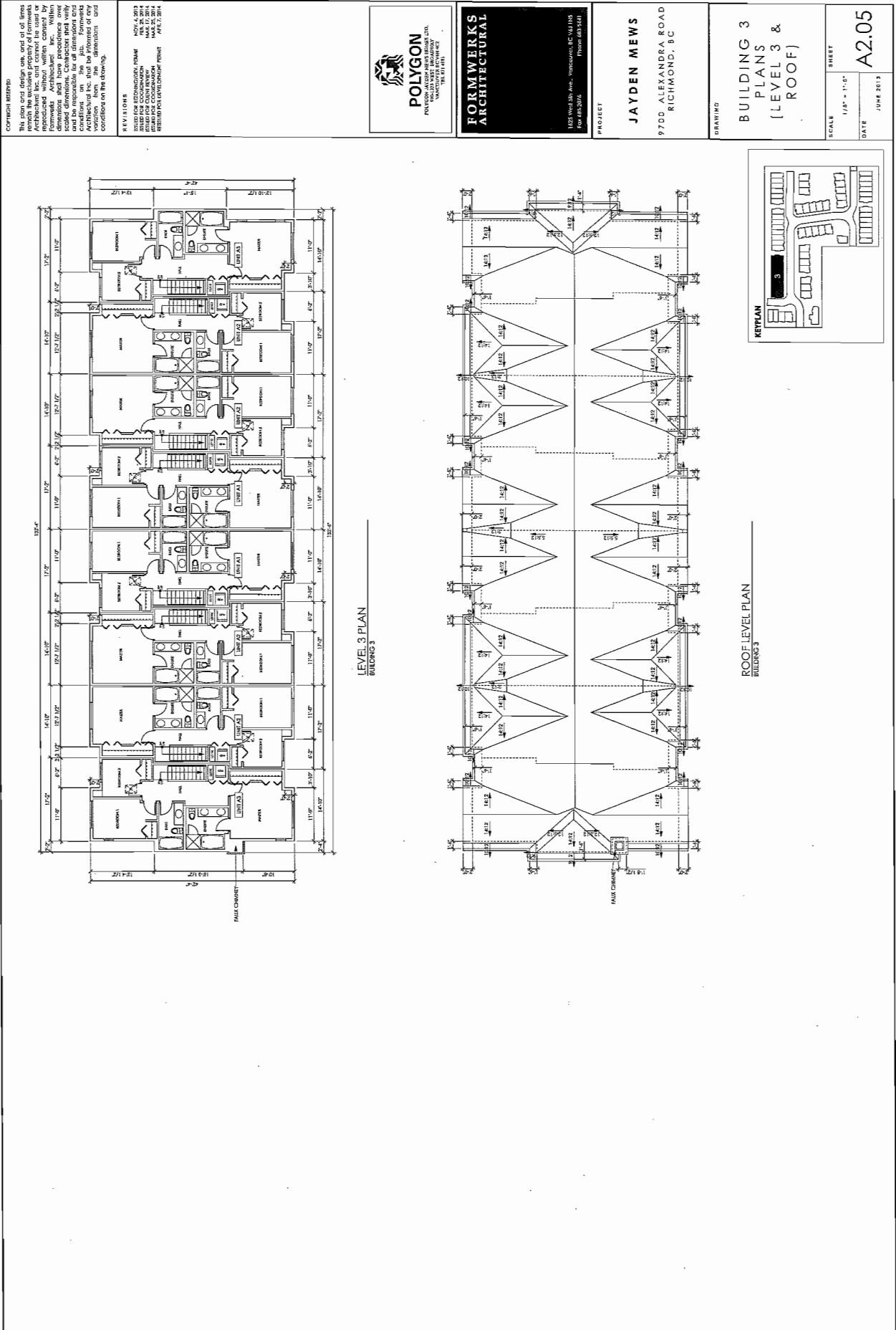


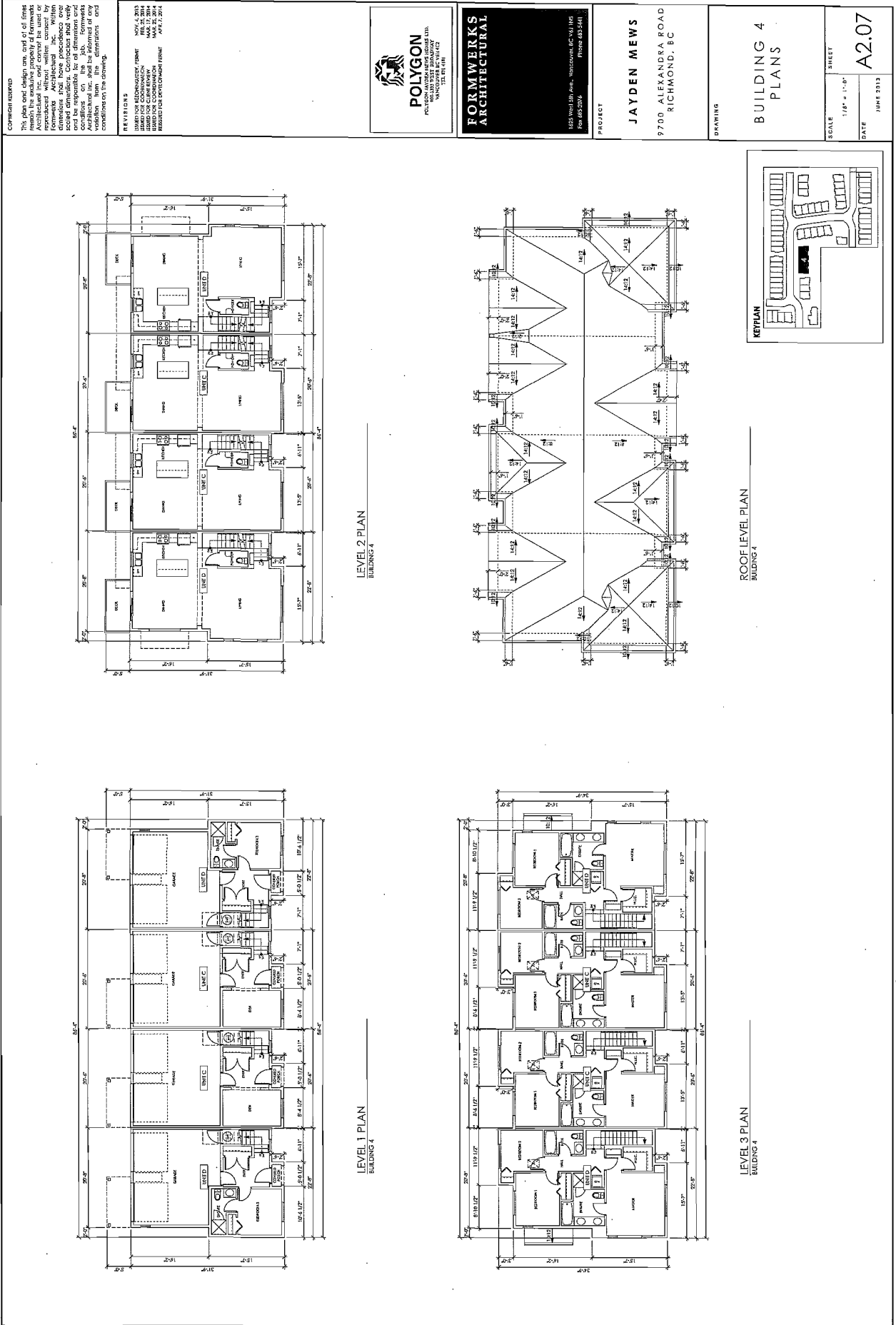
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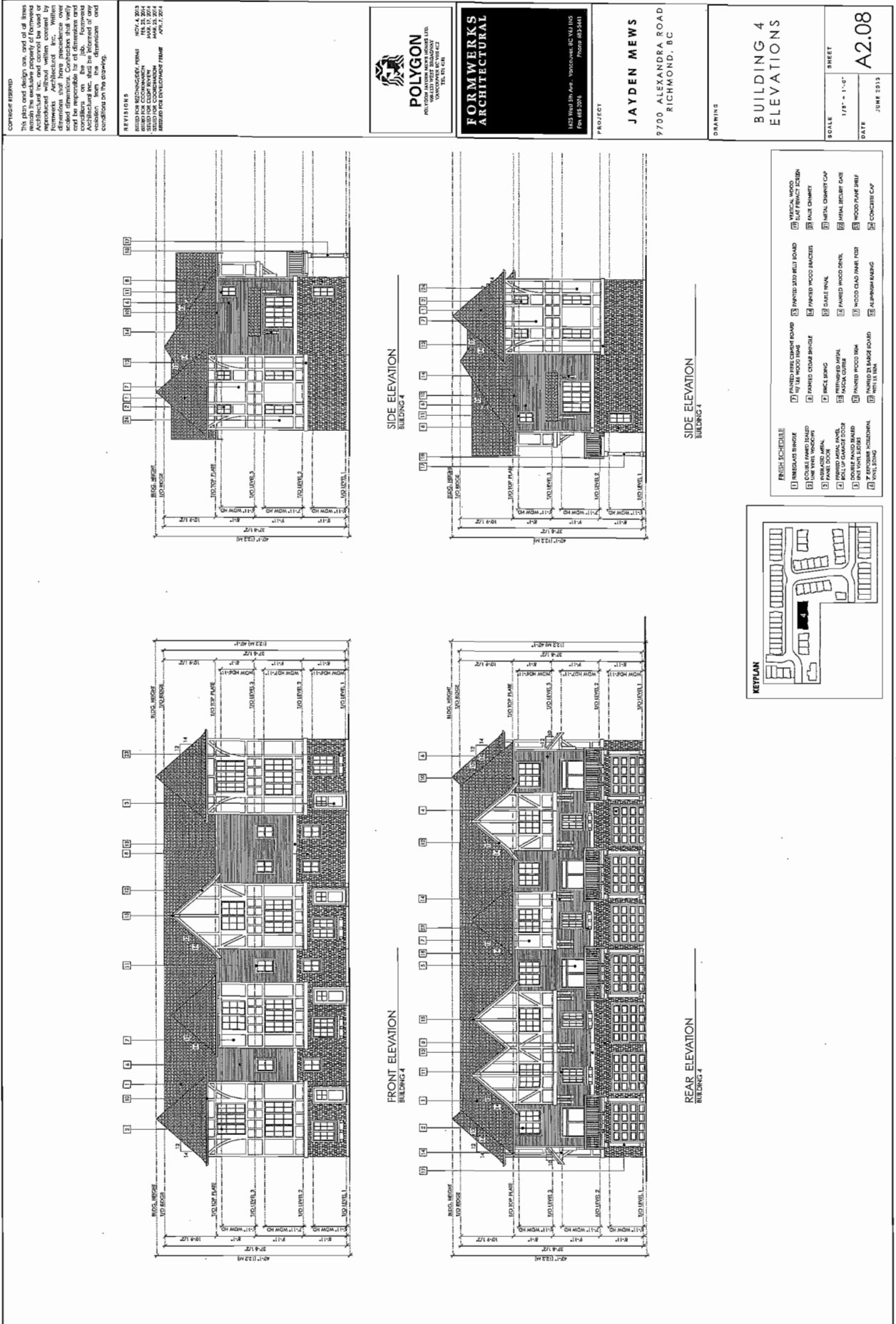
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REVISIONS

NOV 4, 2013
DESIGN FOR CONSTRUCTION PERMIT
NOV 4, 2013
DESIGN FOR CONSTRUCTION PERMIT
NOV 4, 2013
DESIGN FOR CONSTRUCTION PERMIT
NOV 4, 2013
DESIGN FOR CONSTRUCTION PERMIT



FORMWORKS ARCHITECTURAL

1125 West 5th Ave. Vancouver, BC V6H 1B5
Phone: 603-5411
Fax: 603-5411

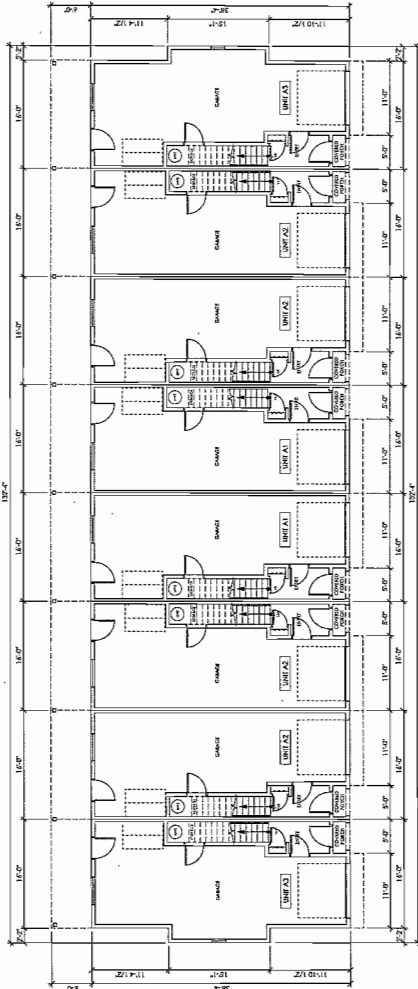
PROJECT

JAYDEN MEWS
9700 ALEXANDRA ROAD
RICHMOND, BC

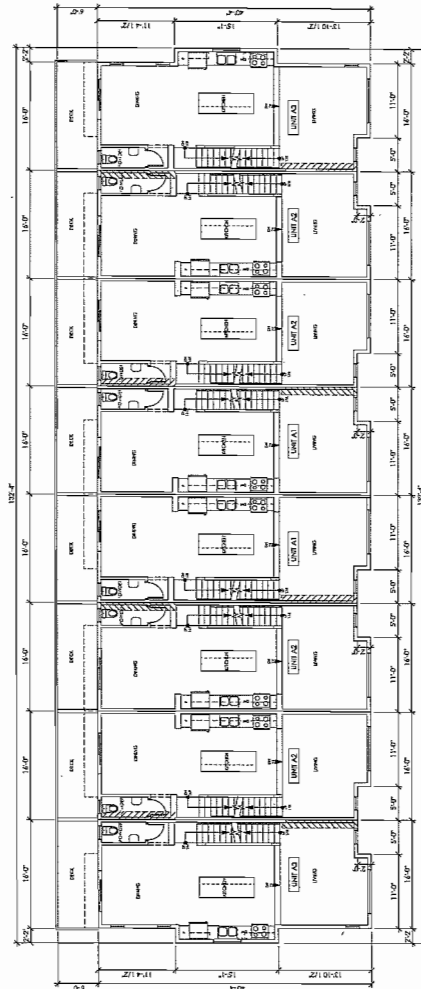
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**BUILDING 5
PLANS
(LEVEL 1 & 2)**

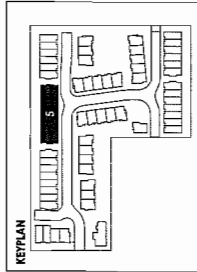
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DATE
JUNE 2013
A2.09

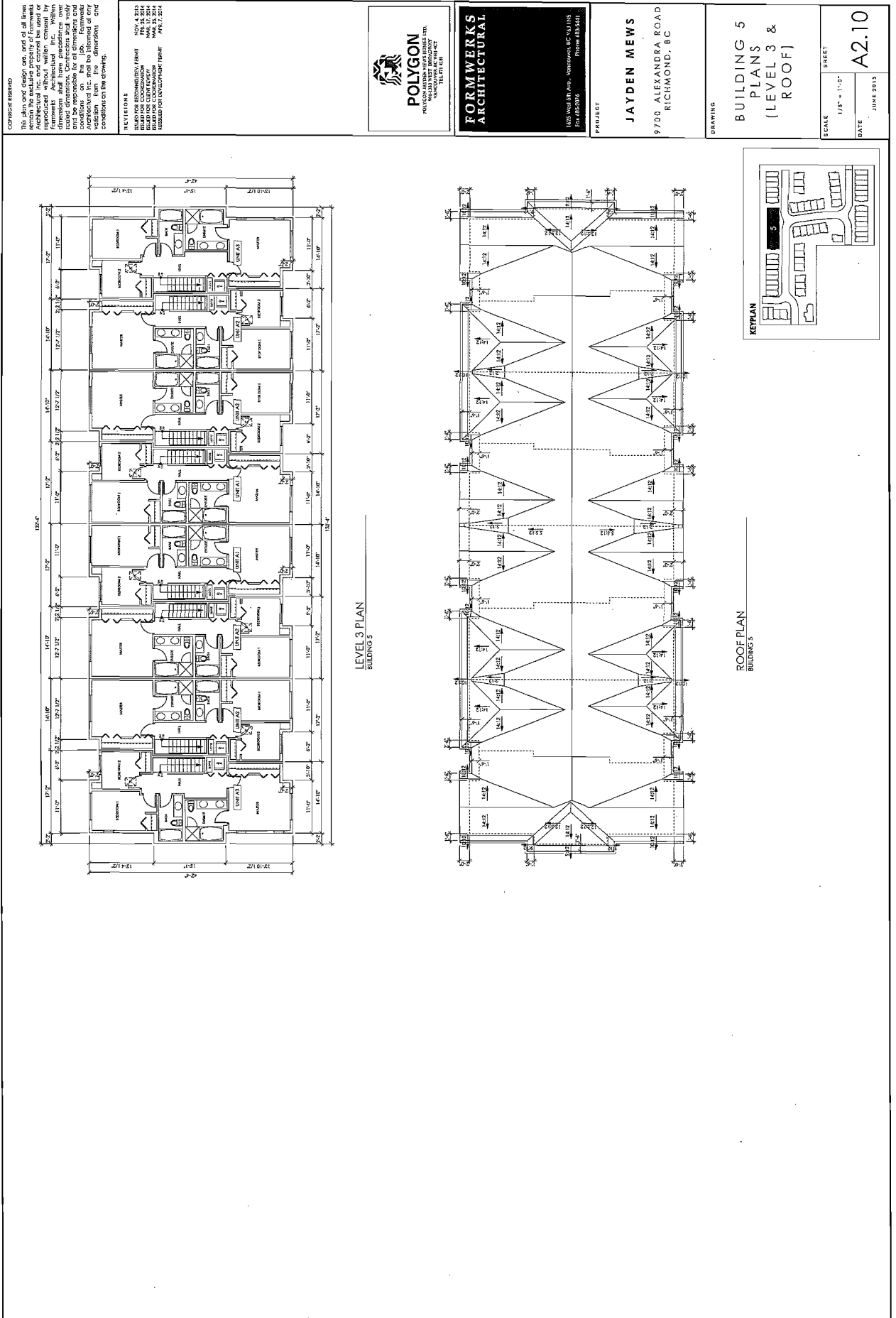


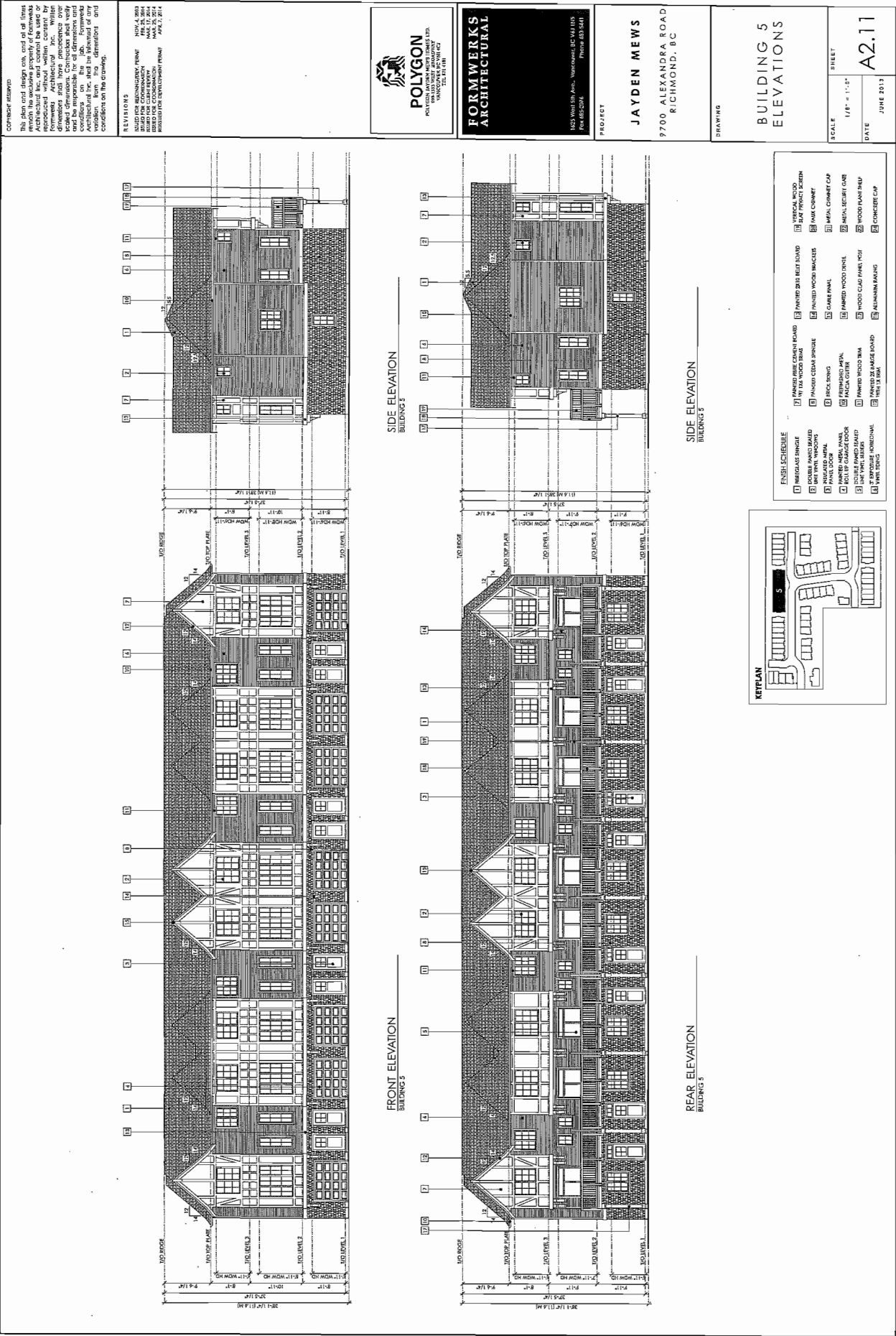
LEVEL 1 PLAN
BUILDING 5



LEVEL 2 PLAN
BUILDING 5







LEVEL 1 PLAN
BUILDING 6

LEVEL 2 PLAN
BUILDING 6

LEVEL 3 PLAN
BUILDING 6

ROOF LEVEL PLAN
BUILDING 6

KEY PLAN

BUILDING 6 PLANS

DRAWING

JAYDEN MEWS
9700 ALEXANDRA ROAD
RICHMOND, BC

PROJECT

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POLYMER CONSTRUCTION LTD.
1000 WEST BRIDGESIDE
VANCOUVER, BC V6L 1A1
TEL: 671-1111

REVISED
NOV. 4, 2013
ISSUED FOR RECONSTRUCTION PERMITS
MAY 15, 2014
ISSUED FOR COORDINATION
MAY 25, 2014
ISSUED FOR COORDINATION PERMITS
JUNE 11, 2014

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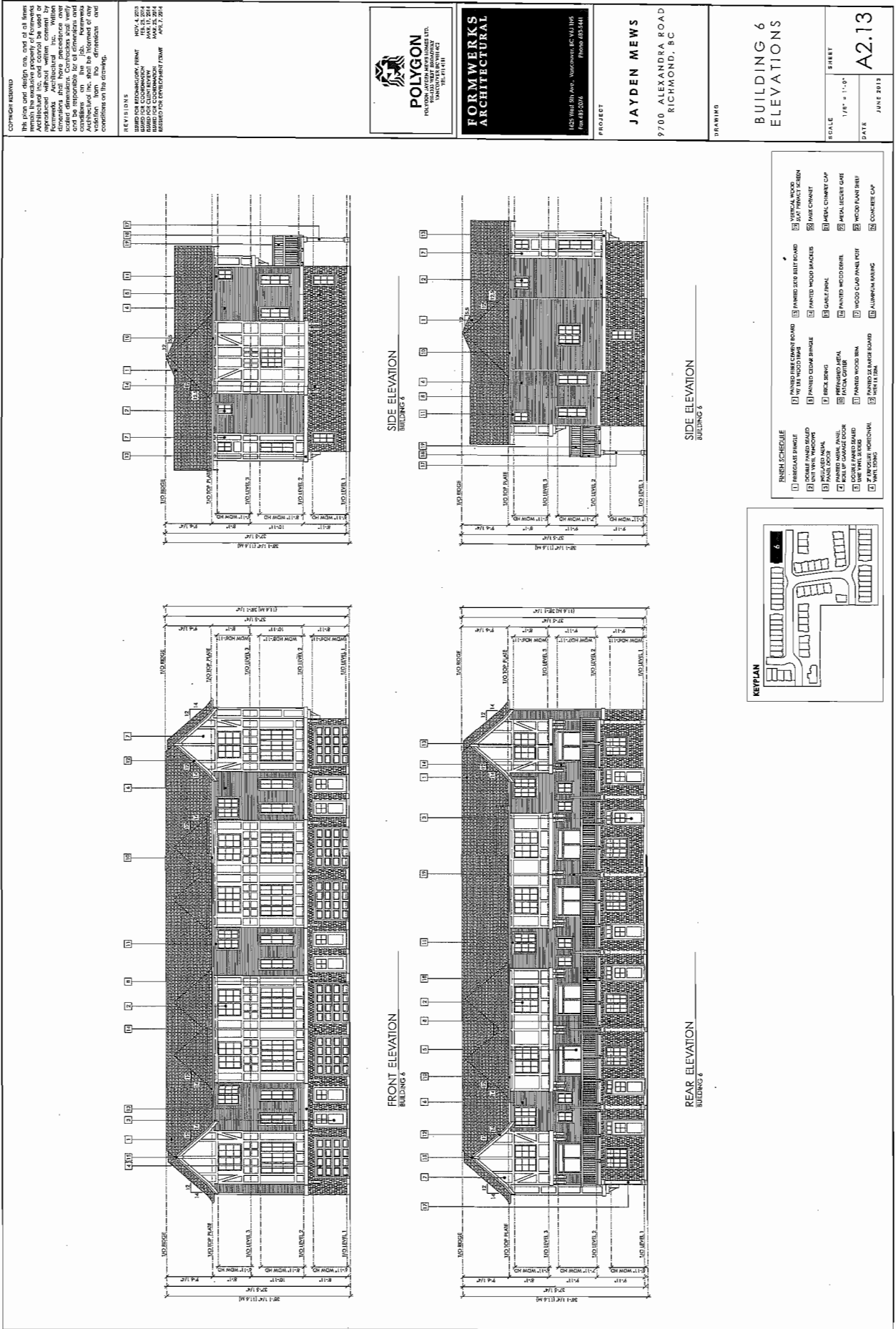
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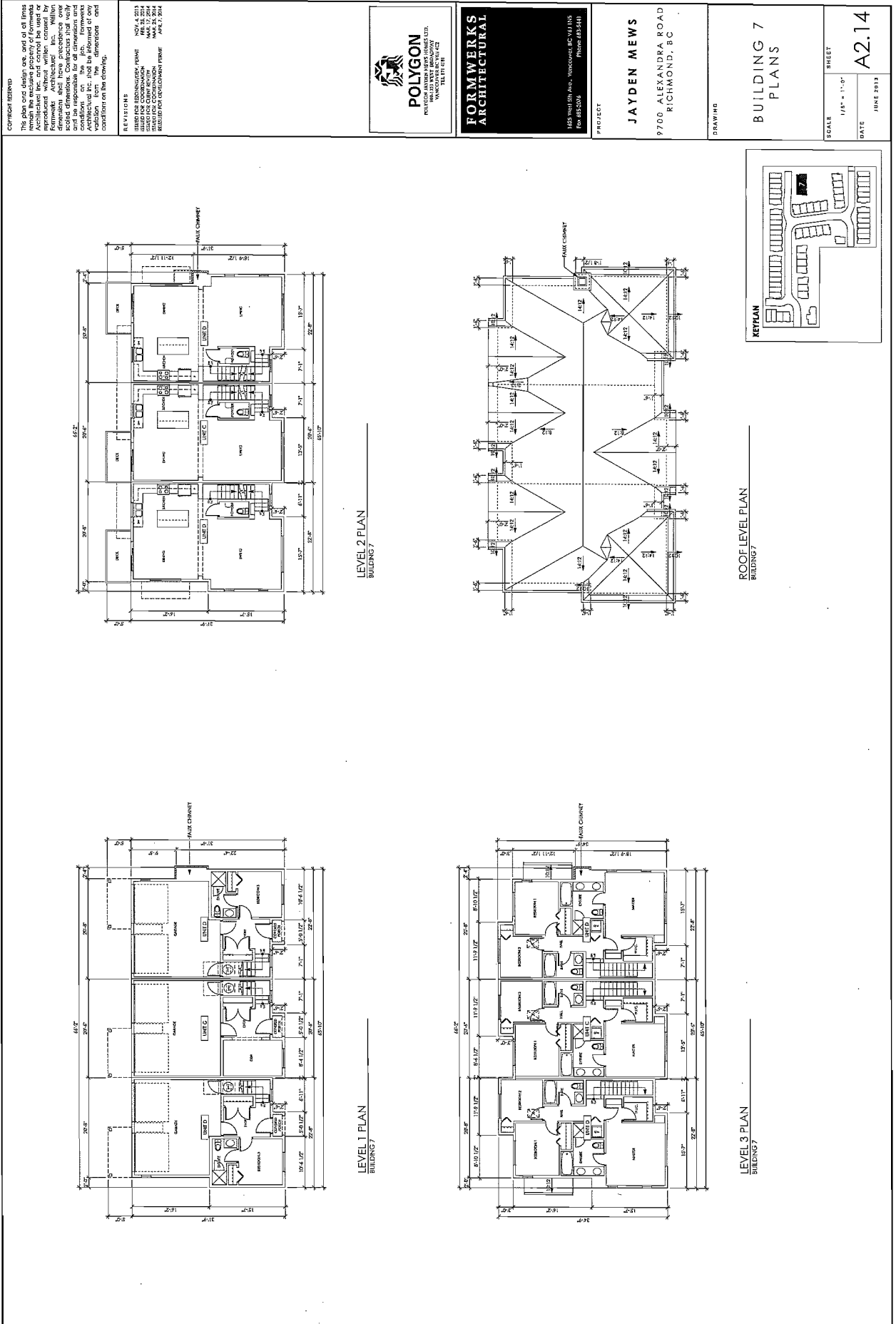
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JUNE 2013

SHEET
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DATE
JUNE 2013

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REVISIONS

NO.	DATE	DESCRIPTION
1	NOV. 4, 2013	REVISED FOR ARCHITECTURAL TEAM
2	NOV. 15, 2013	REVISED FOR CONSTRUCTION
3	MAY 17, 2014	REVISED FOR CONSTRUCTION
4	MAY 22, 2014	REVISED FOR CONSTRUCTION
5	MAY 22, 2014	REVISED FOR CONSTRUCTION

POLYGON

PROFESSIONAL ARCHITECTS

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JAYDEN MEWS

9700 ALEXANDRA ROAD
RICHMOND, SC

PROJECT

DRAWING

BUILDING 7

ELEVATIONS

DATE

JUNE 2013

SHEET

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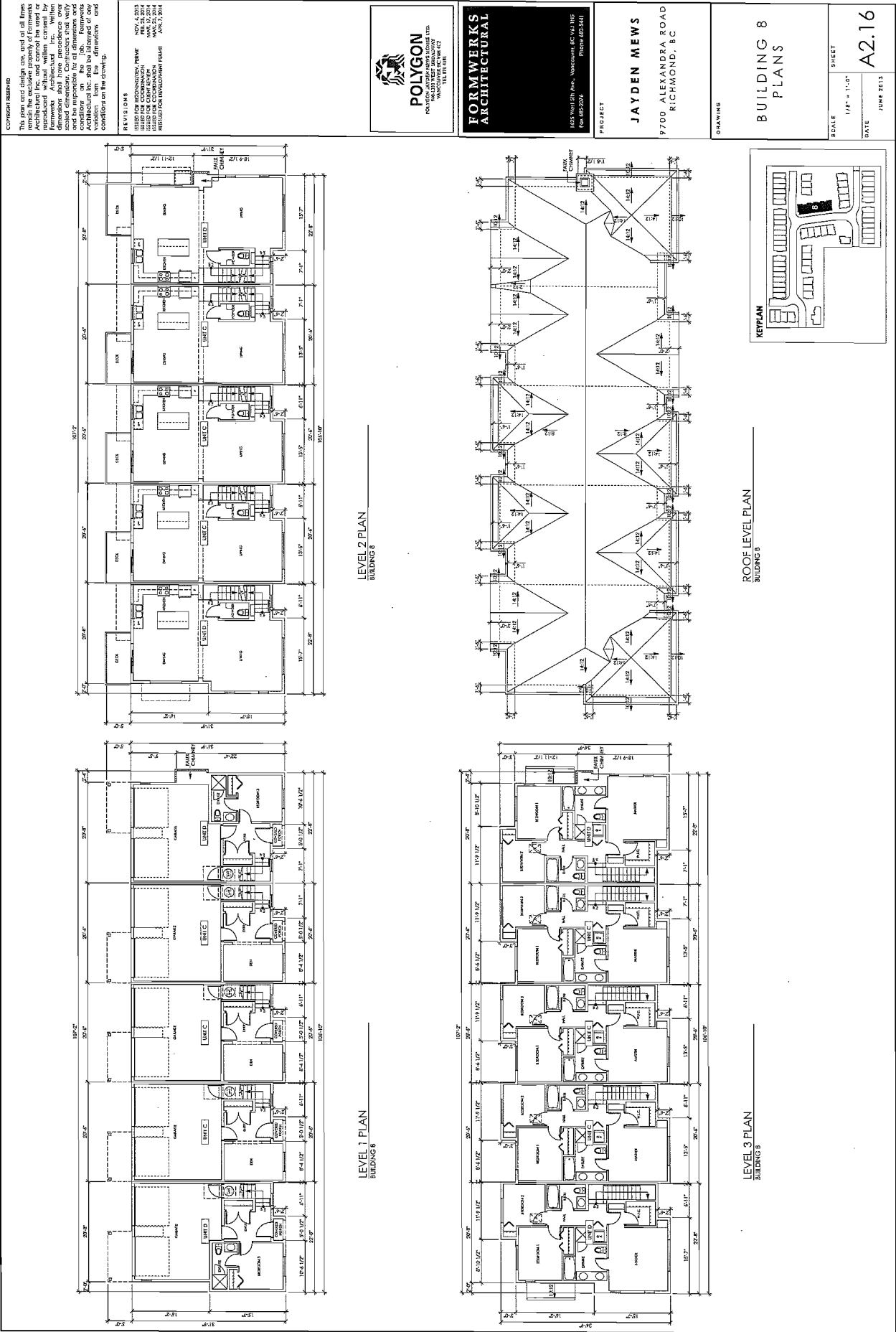
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KEYPLAN

FINISH SCHEDULE

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REVISIONS

NOV. 4, 2013
REVISION FOR COMMENTS
NOV. 12, 2013
REVISION FOR COMMENTS
NOV. 12, 2013
REVISION FOR COMMENTS



FORMWERKS ARCHITECTURAL

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Fax: 485-5276

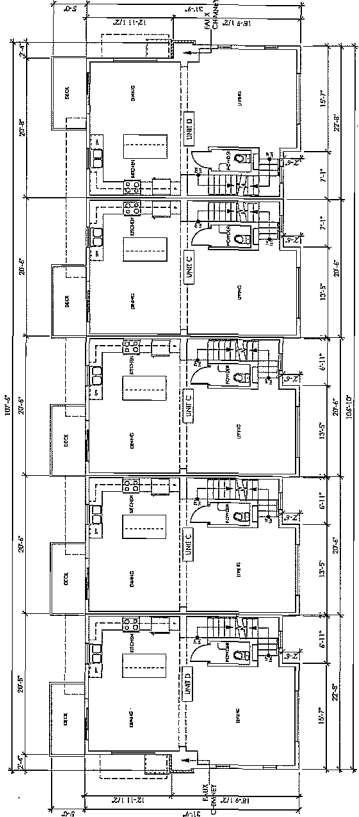
JAYDEN MEWS

9700 ALEXANDRA ROAD
RICHMOND, BC

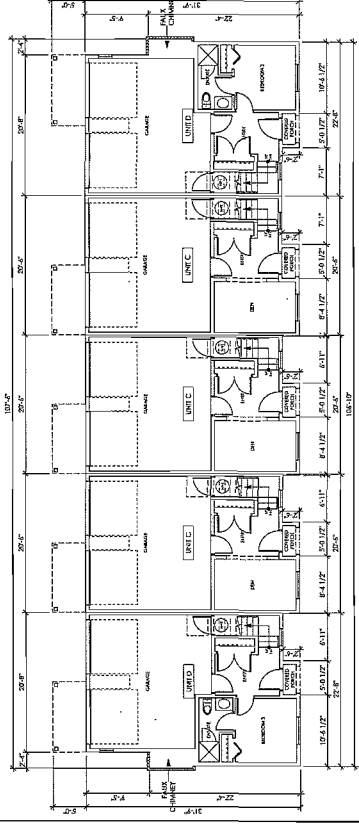
**BUILDING 9
PLANS**

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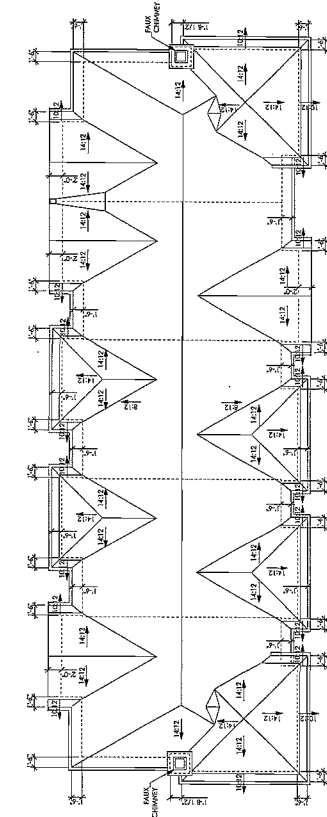
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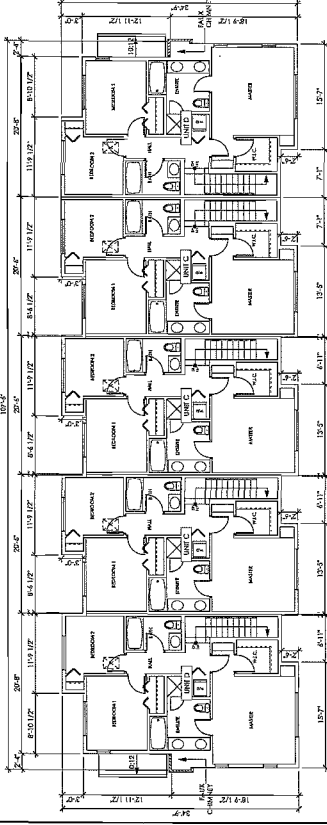
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BUILDING 9



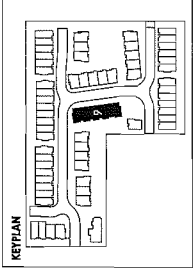
LEVEL 1 PLAN
BUILDING 9



ROOF LEVEL PLAN
BUILDING 9



LEVEL 3 PLAN
BUILDING 9



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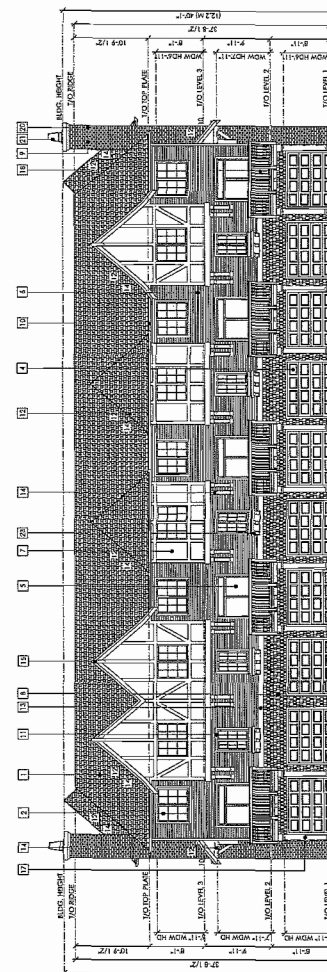
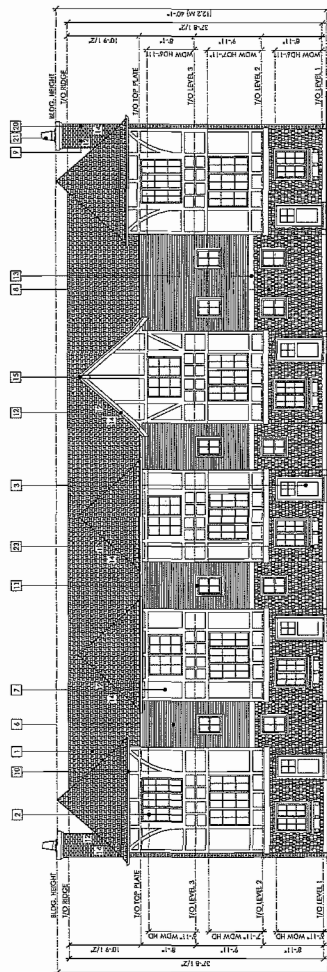
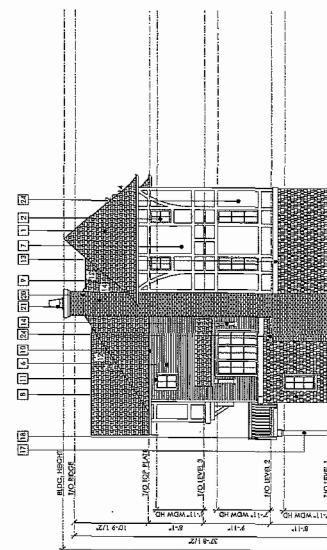
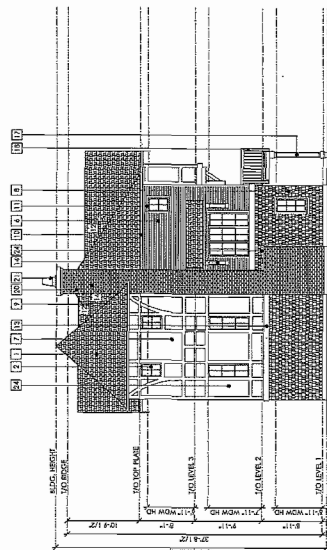
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ISSUED FOR COORDINATION
ISSUED FOR CLIENT REVIEW
ISSUED FOR COORDINATION
ISSUED FOR DEVELOPMENT PERMIT



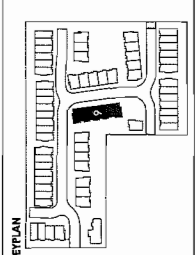
JAYDEN MEWS
700 ALEXANDRA ROAD
RICHMOND, BC

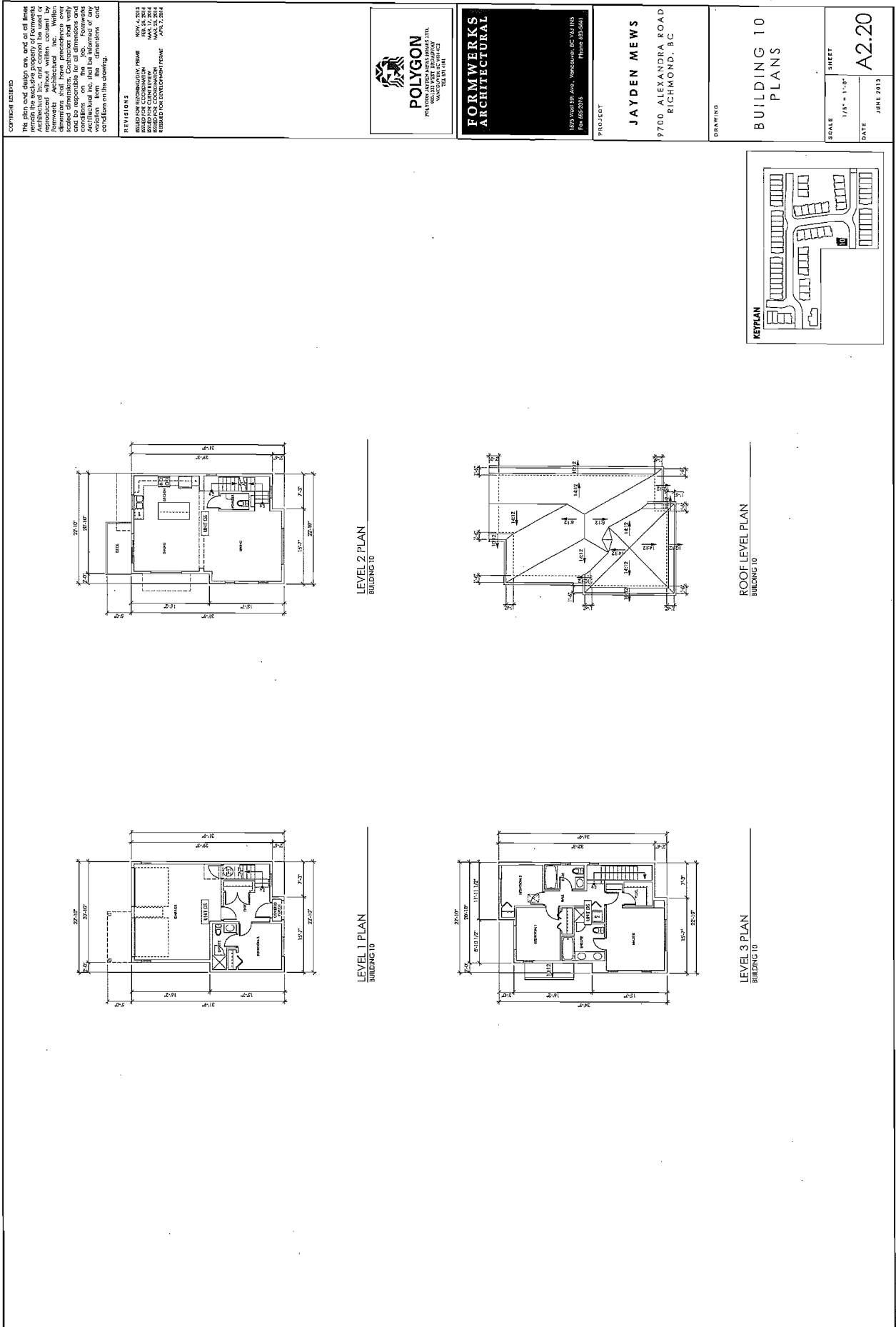
BUILDING 9
ELEVATIONS

DATE	1/8" x 1'-0"	SHEET	A2
DATE			JUNE 2013



FISHBONE CHARTABLE	
1. BRICKWORK SINGLE	11. VENEER WOOD
2. BOMBER PANEL SAILED	12. BLUNT PINEY SCHEIN
3. BOMBER PANEL SAILED	13. ALICE CHERRY
4. BRICKWORK SINGLE	14. METAL CHERRY CAP
5. BRICKWORK SINGLE	15. METAL CHERRY CAP
6. BOMBER PANEL SAILED	16. METAL CHERRY CAP
7. BOMBER PANEL SAILED	17. METAL CHERRY CAP
8. BOMBER PANEL SAILED	18. METAL CHERRY CAP
9. BOMBER PANEL SAILED	19. METAL CHERRY CAP
10. BOMBER PANEL SAILED	20. METAL CHERRY CAP





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REVISIONS

NOV. 4, 2013
NOV. 17, 2013
NOV. 17, 2014
NOV. 17, 2014
NOV. 17, 2014

DESIGNED FOR: JAYDEN MEWS
SIGNED FOR: JAYDEN MEWS
SIGNED FOR: JAYDEN MEWS
SIGNED FOR: JAYDEN MEWS
SIGNED FOR: JAYDEN MEWS



PROJECT

JAYDEN MEWS

9700 ALEXANDRA ROAD
RICHMOND, VA 23234

DRAWING

BUILDING 10 ELEVATIONS

SHEET

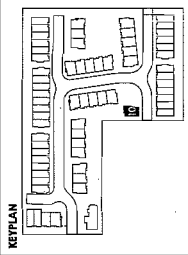
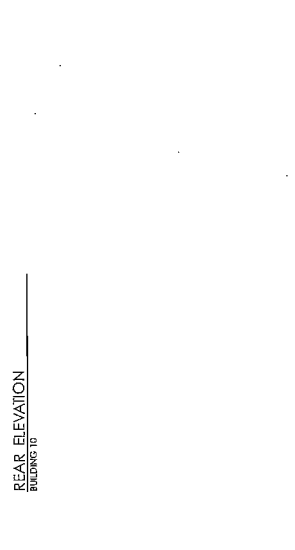
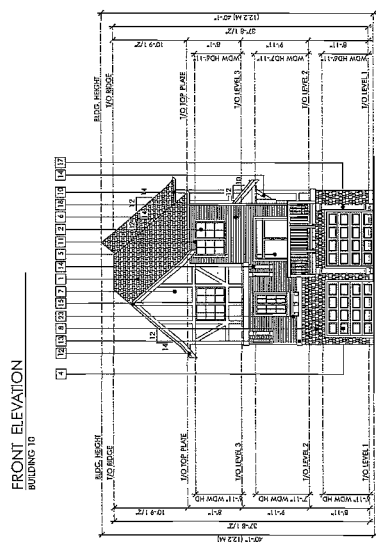
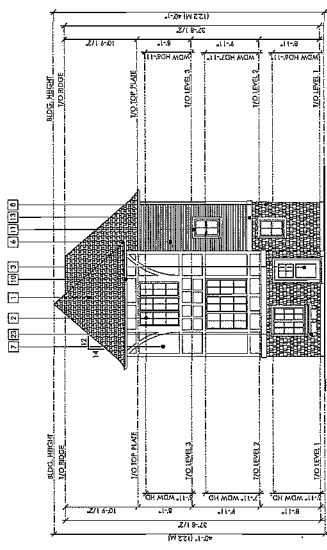
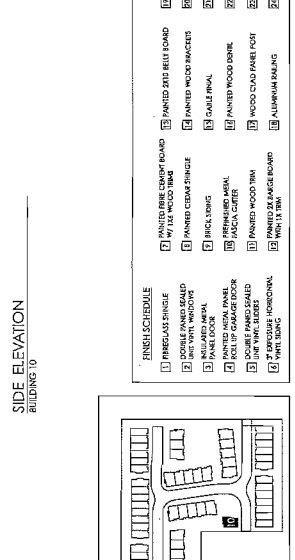
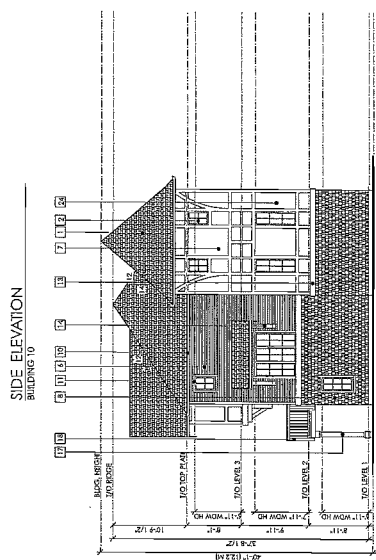
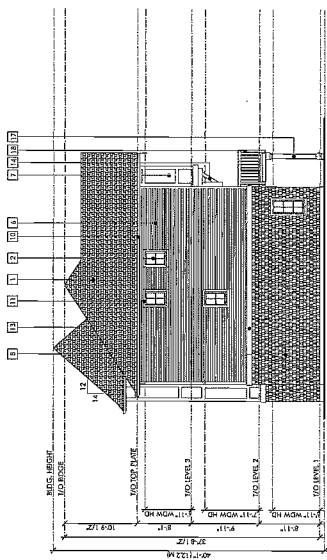
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SCALE

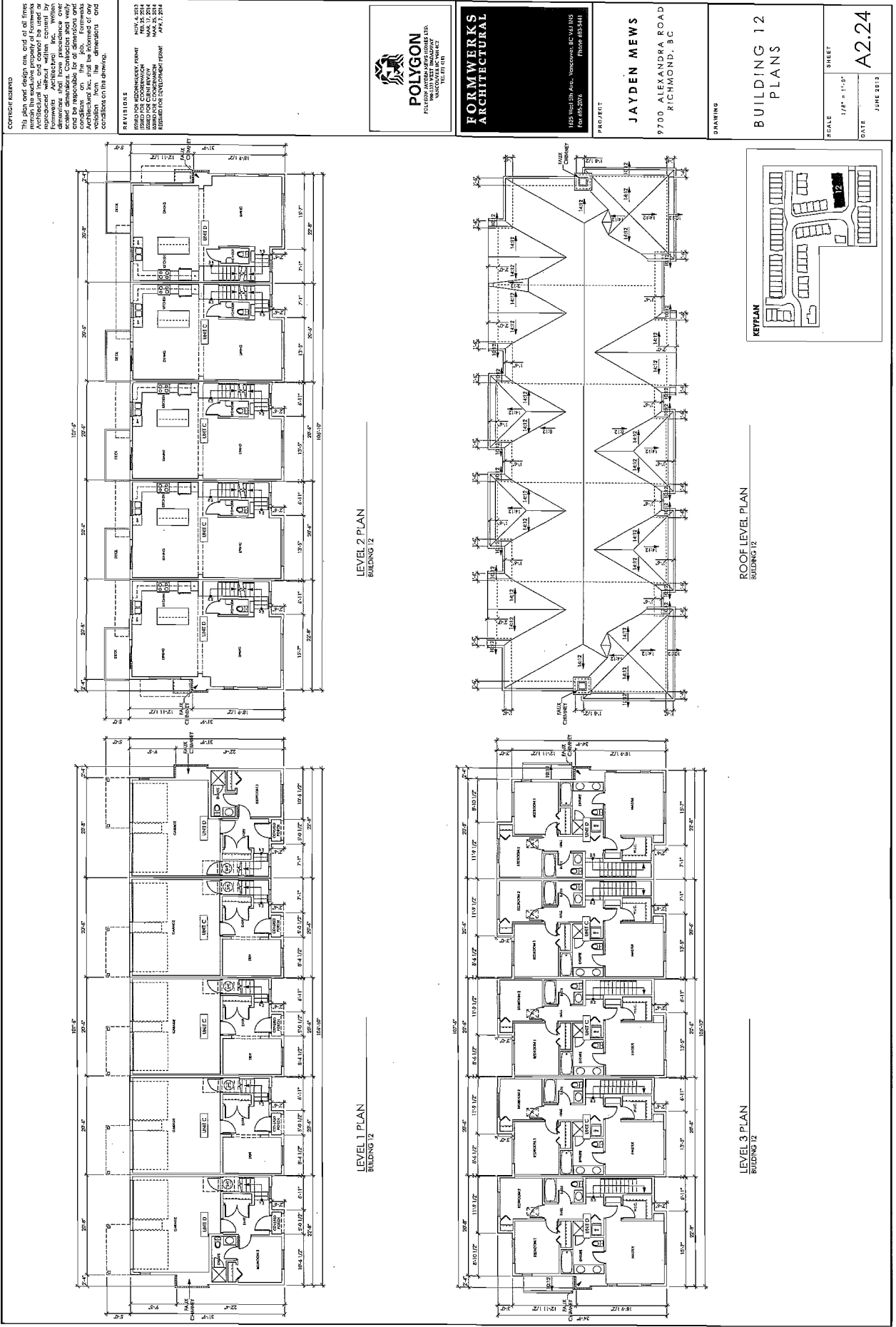
1/8" = 1'-0"

DATE

JUNE 2013



FINISH SCHEDULE	
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99. PAINTED STEEL BRACKET	100. PAINTED STEEL BRACKET



REVIEWS	
ISSUED FOR RECONSTRUCTION PERMIT	NOV. 4, 2013
ISSUED FOR COORDINATION	FEB. 25, 2014
ISSUED FOR CLIENT REVIEW	MAR. 17, 2014
ISSUED FOR COORDINATION	MAR. 25, 2014
ISSUED FOR DEVELOPMENT PERMIT	APR. 7, 2014

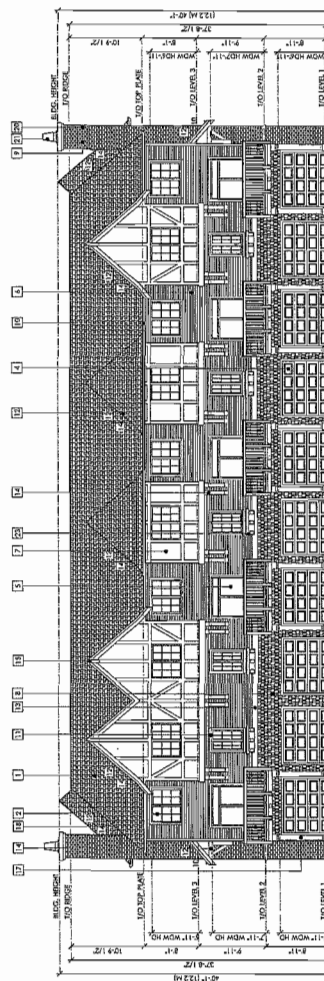
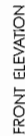
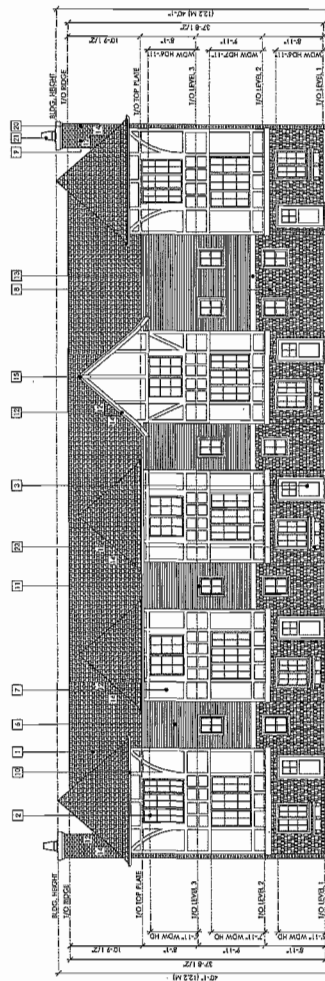
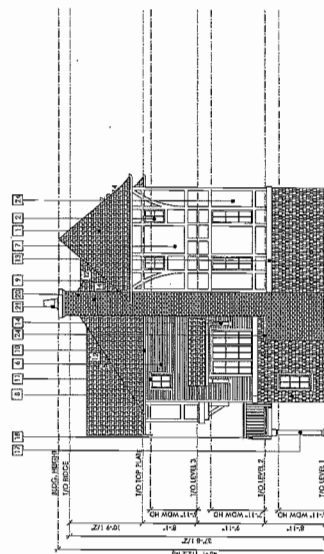
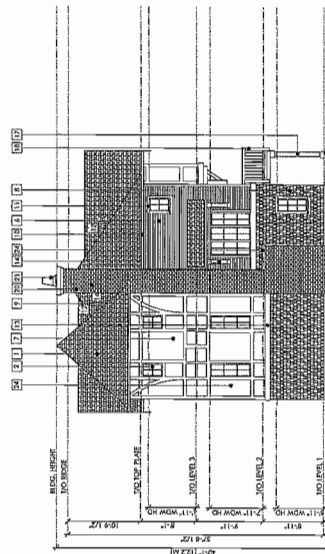


1625 West 5th Ave., Vancouver, BC V6J 1H5
 Tel: (604) 683-5441
 Fax: (604) 683-5441

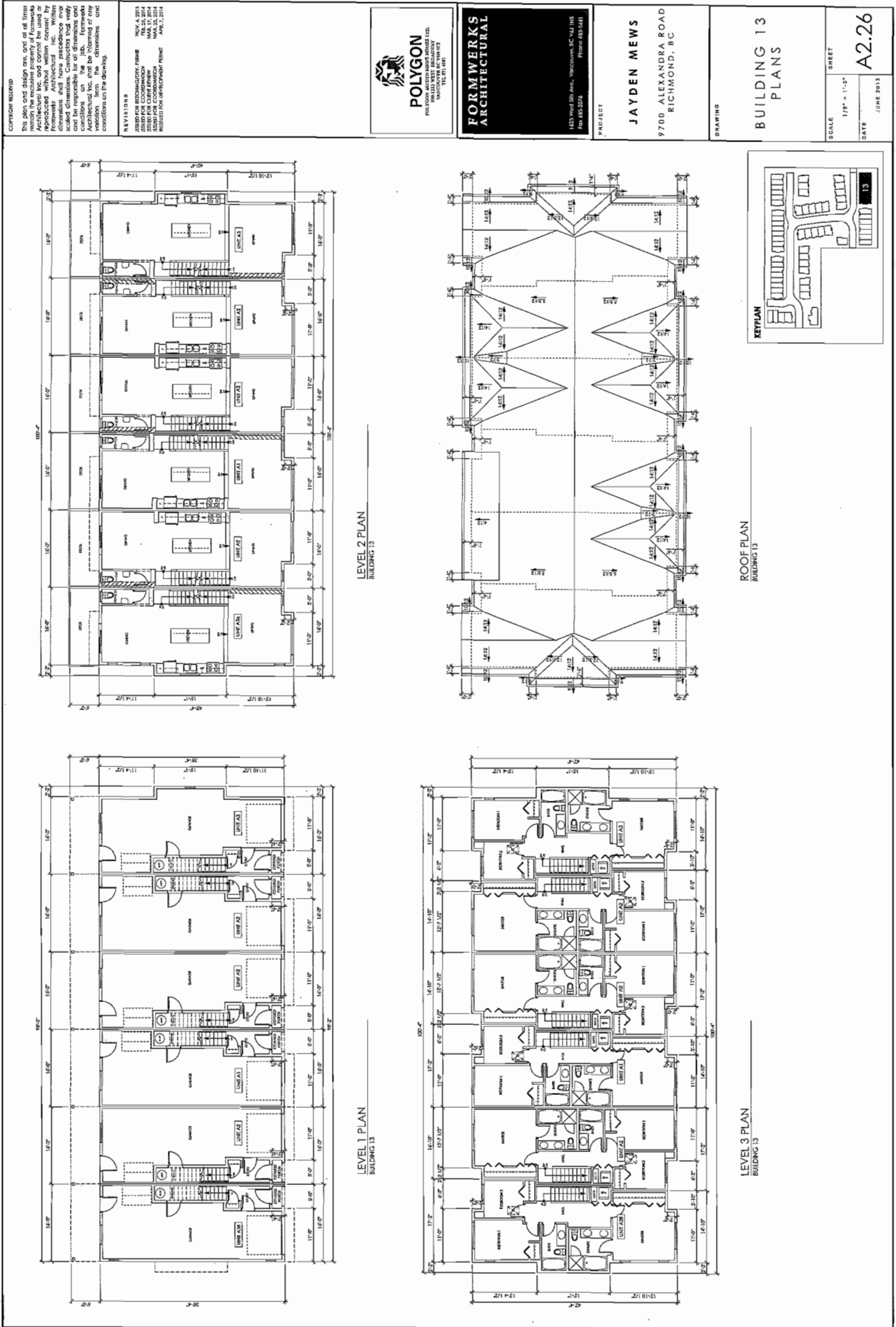
9700 ALEXANDRA ROAD
RICHMOND, BC

BUILDING 12
ELEVATIONS

A2.25



FINISH SCHEDULE	
1	FINISH FLOOR
2	FINISH CEILING
3	FINISH WALLS
4	FINISH DOORS
5	FINISH WINDOWS
6	FINISH CABINETS
7	FINISH FURNITURE
8	FINISH LIGHTING
9	FINISH PAINTING
10	FINISH HARDWARE
11	FINISH ACCESSORIES
12	FINISH CLEANING
13	FINISH INSPECTION
14	FINISH HANDOVER
15	FINISH DOCUMENTATION
16	FINISH PROJECT CLOSURE



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REVISIONS	
ISSUED FOR RETURNING/DREV. PERMIT	NOV. 4, 2013
ISSUED FOR COORDINATION	FEB. 25, 2014
ISSUED FOR CLIENT REVIEW	MAR. 17, 2014
ISSUED FOR COORDINATION	MAR. 23, 2014
RESUBMITTED FOR DEVELOPMENT PERMIT	APR. 7, 2014



625 West 5th Ave., Vancouver, B.C. V6J 1K5
Phone 683-5441
Fax 685-2076

JAYDEN MEWS

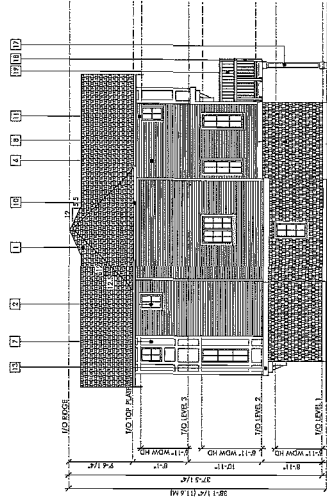
9700 ALEXANDRA ROAD
RICHMOND, BC

BUILDING 13
ELEVATIONS

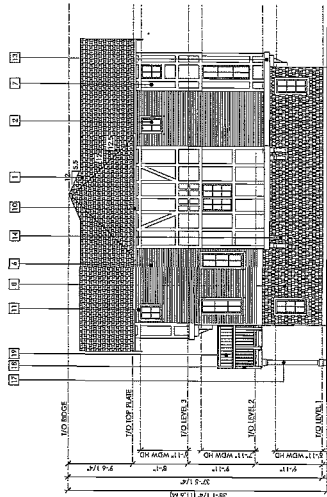
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13700

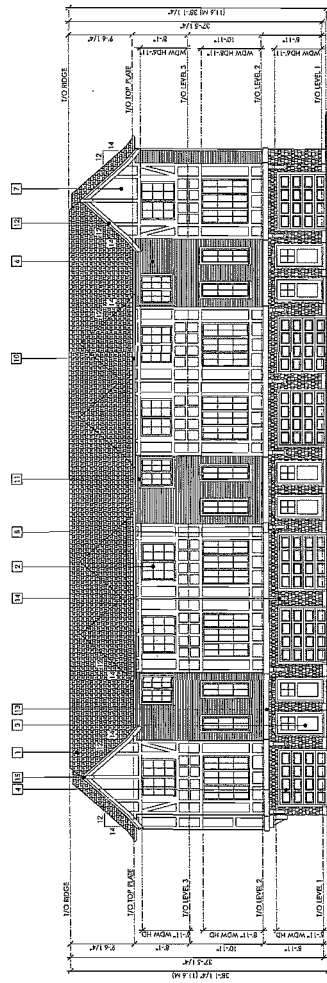
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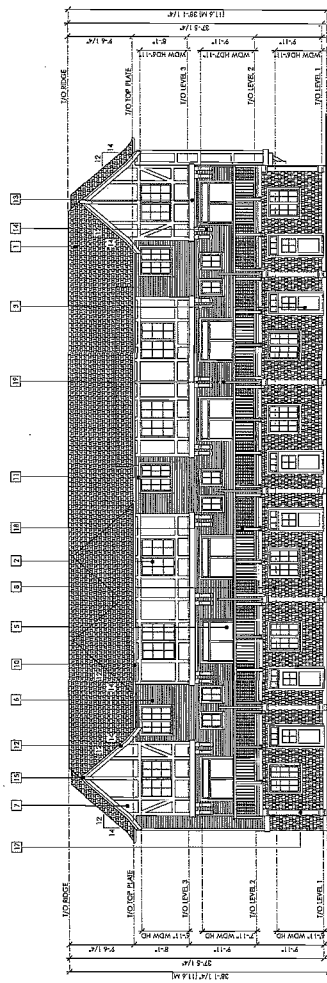
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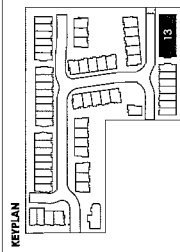
SIDE ELEVATION



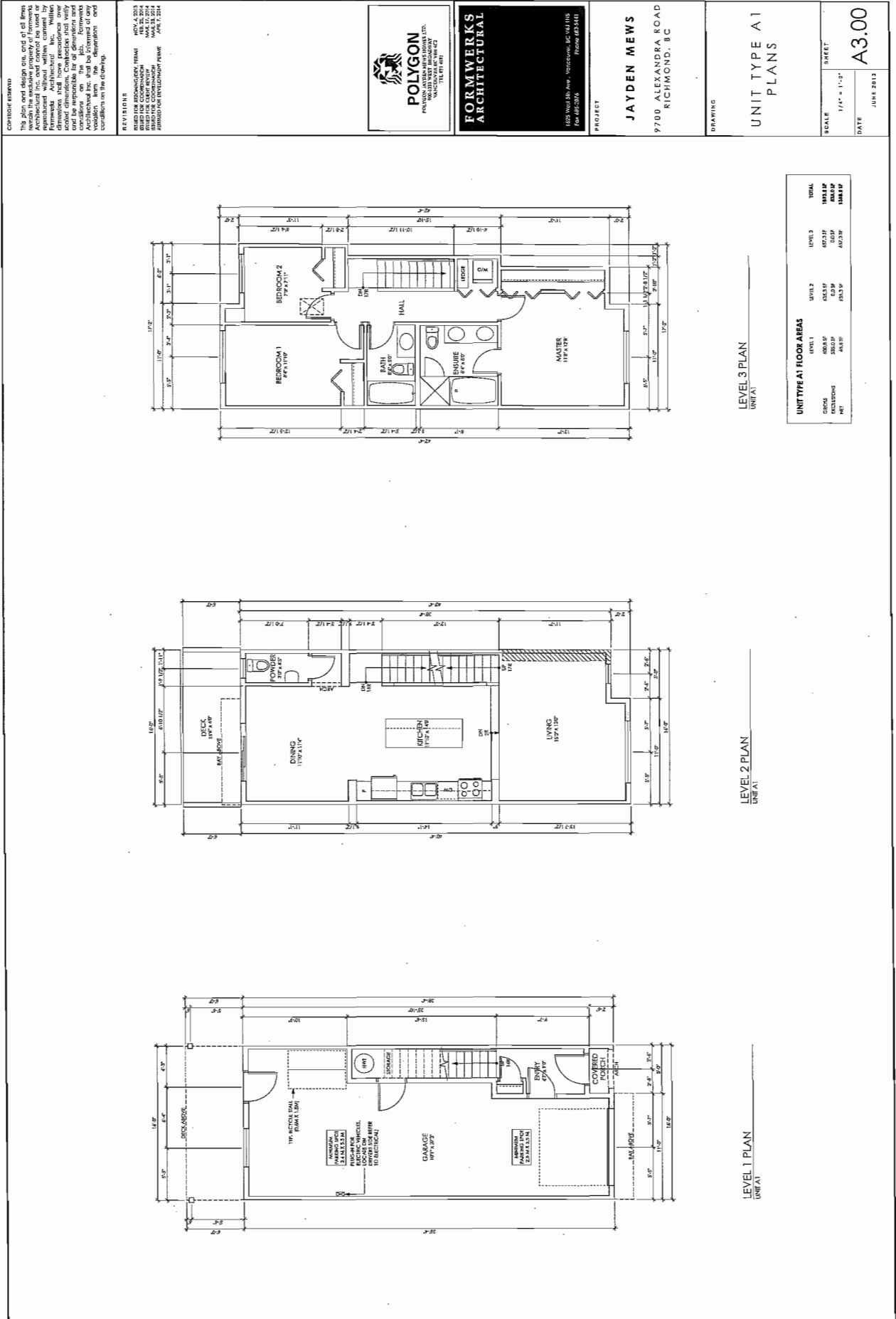
FRONT ELEVATION

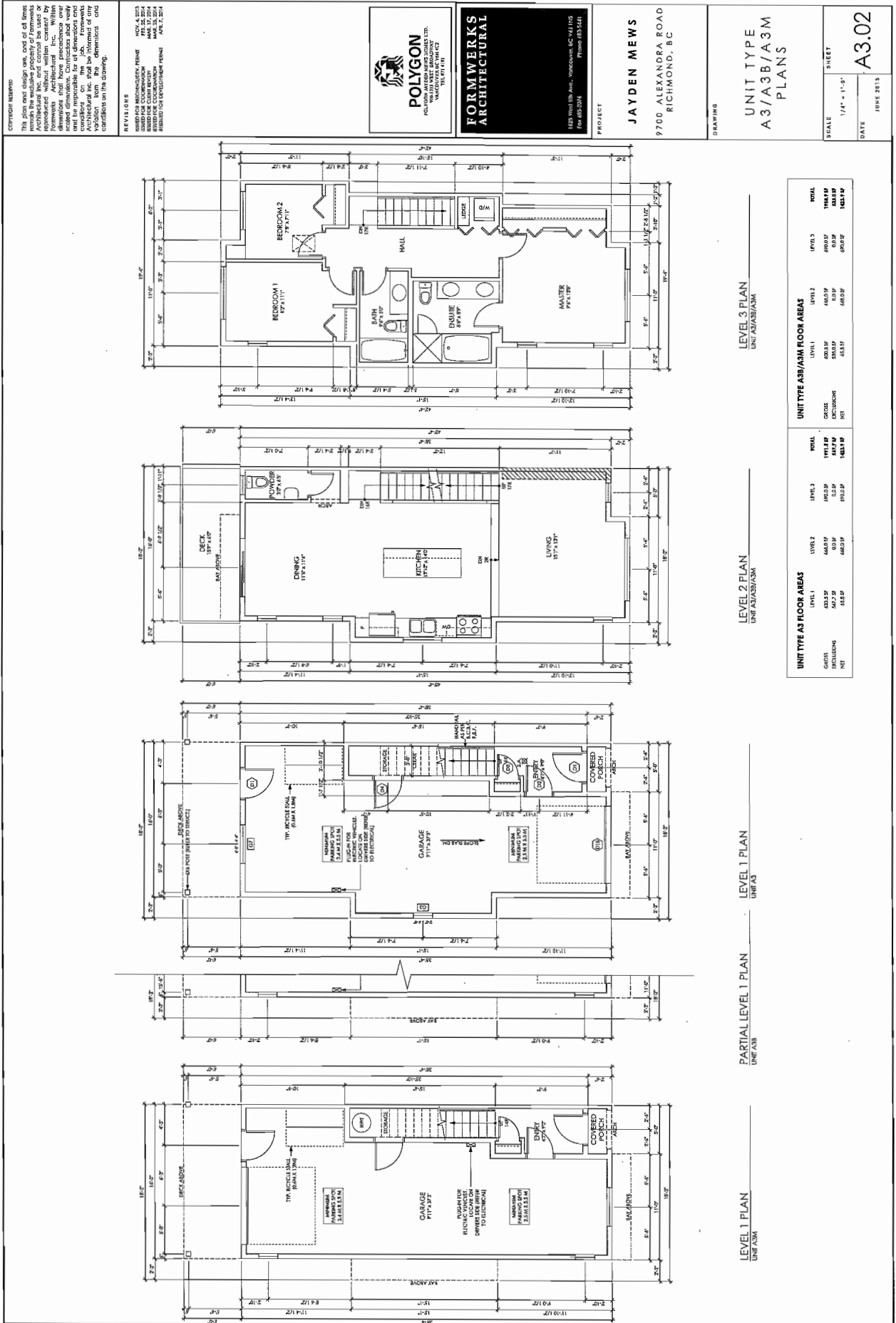


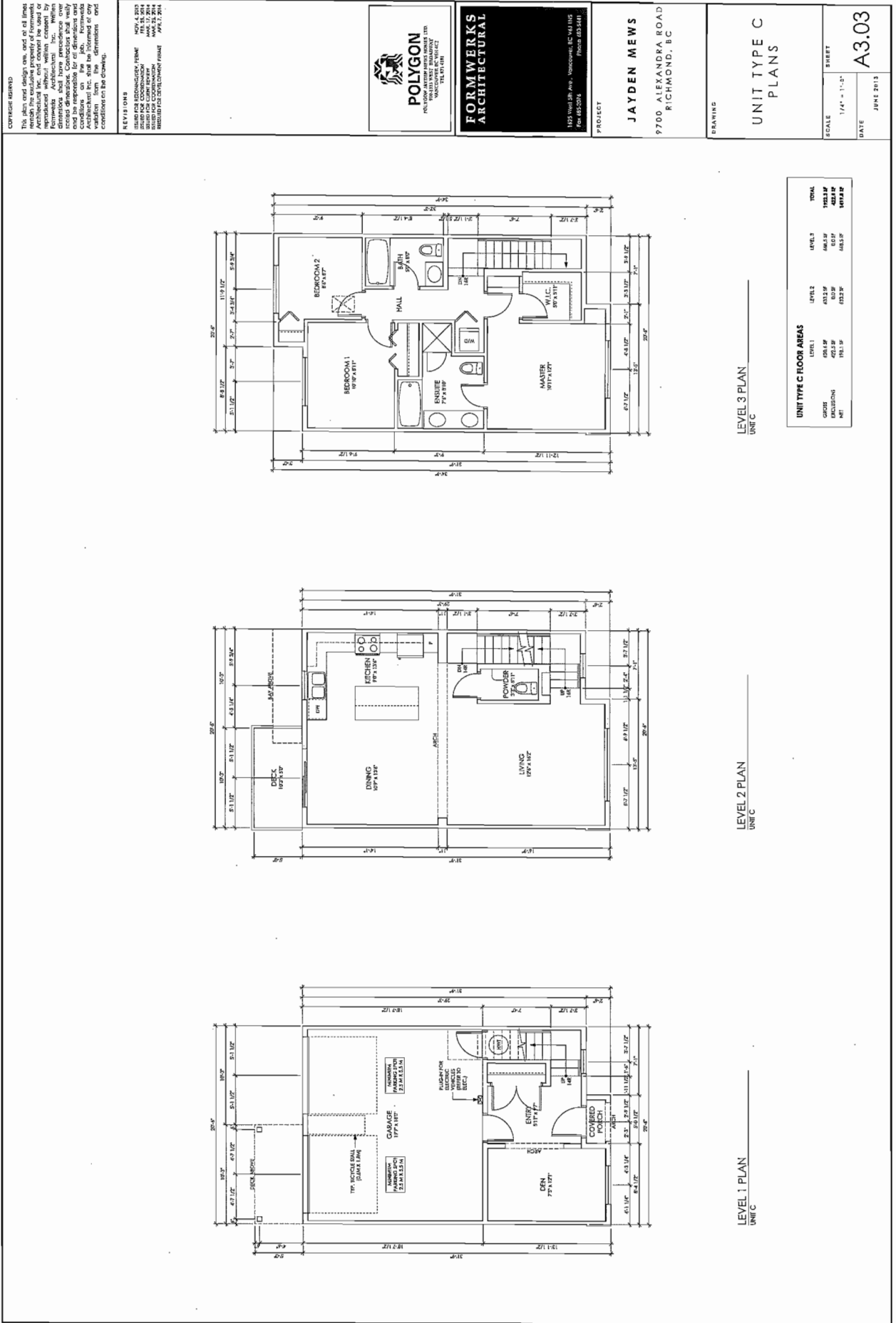
REAR ELEVATION



FINISH SCHEDULE	
1 FIBERGLAS SKIN	27 PAINTED 2"0 BUILT BOARD
2 DOUBBLE PANELED BRASS	28 PAINTED WOOD INSETS
3 INSET WITH WINDOWS	29 PAINTED CROWN MOULD
4 PAINTED METAL PART	30 PAINTED WOOD INSETS
5 ROLL UP GARAGE DOOR	31 METAL CHAMF. CAP
6 PAINTED METAL	32 METAL CHAMF. CAP
7 PAINTED WOOD TRIM	33 METAL SCRYG GATE
8 PAINTED WOOD TRIM	34 WOOD PLANT B&P
9 PAINTED WOOD TRIM	35 CONCRETE CAP
10 PAINTED 3"0 BUILT BOARD	36 ALUMINUM RAIL
11 PAINTED 3"0 BUILT BOARD	
12 PAINTED 3"0 BUILT BOARD	
13 PAINTED 3"0 BUILT BOARD	
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26 PAINTED 3"0 BUILT BOARD	







REVISIONS	
ISSUED FOR REWORKING/REV. PERMIT	NOV. 4, 2013
ISSUED FOR COORDINATION	FEB. 25, 2014
ISSUED FOR CLIENT REVIEW	MAR. 17, 2014
ISSUED FOR COORDINATION	MAR. 25, 2014
ISSUED FOR DEVELOPMENT PERMIT	APR. 7, 2014



**FORMWERKS
ARCHITECTURAL**

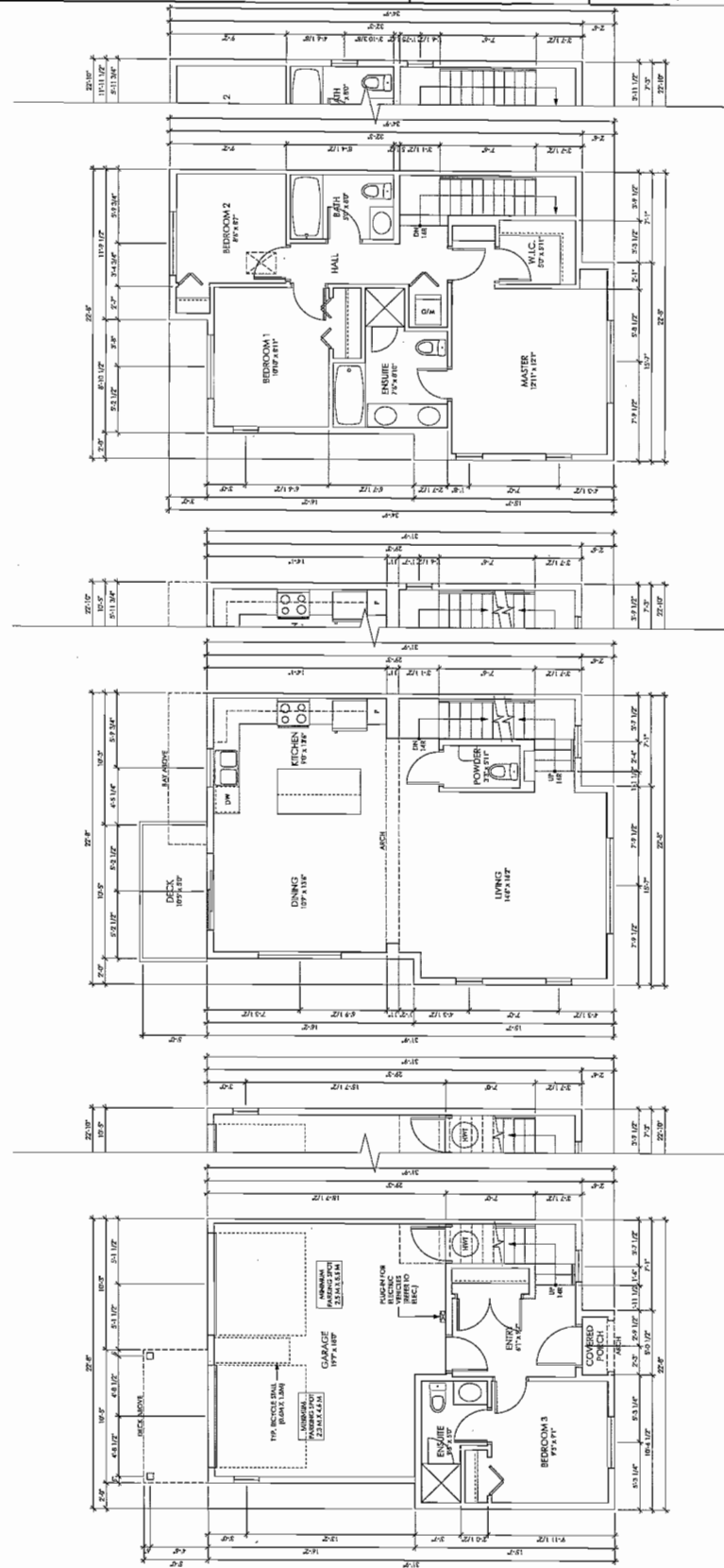
1825 West 5th Ave., Vancouver, BC V6J 1N5
Tel: 605-2076
Faxes: 603-5441

PROJECT

JAYDEN MEWS

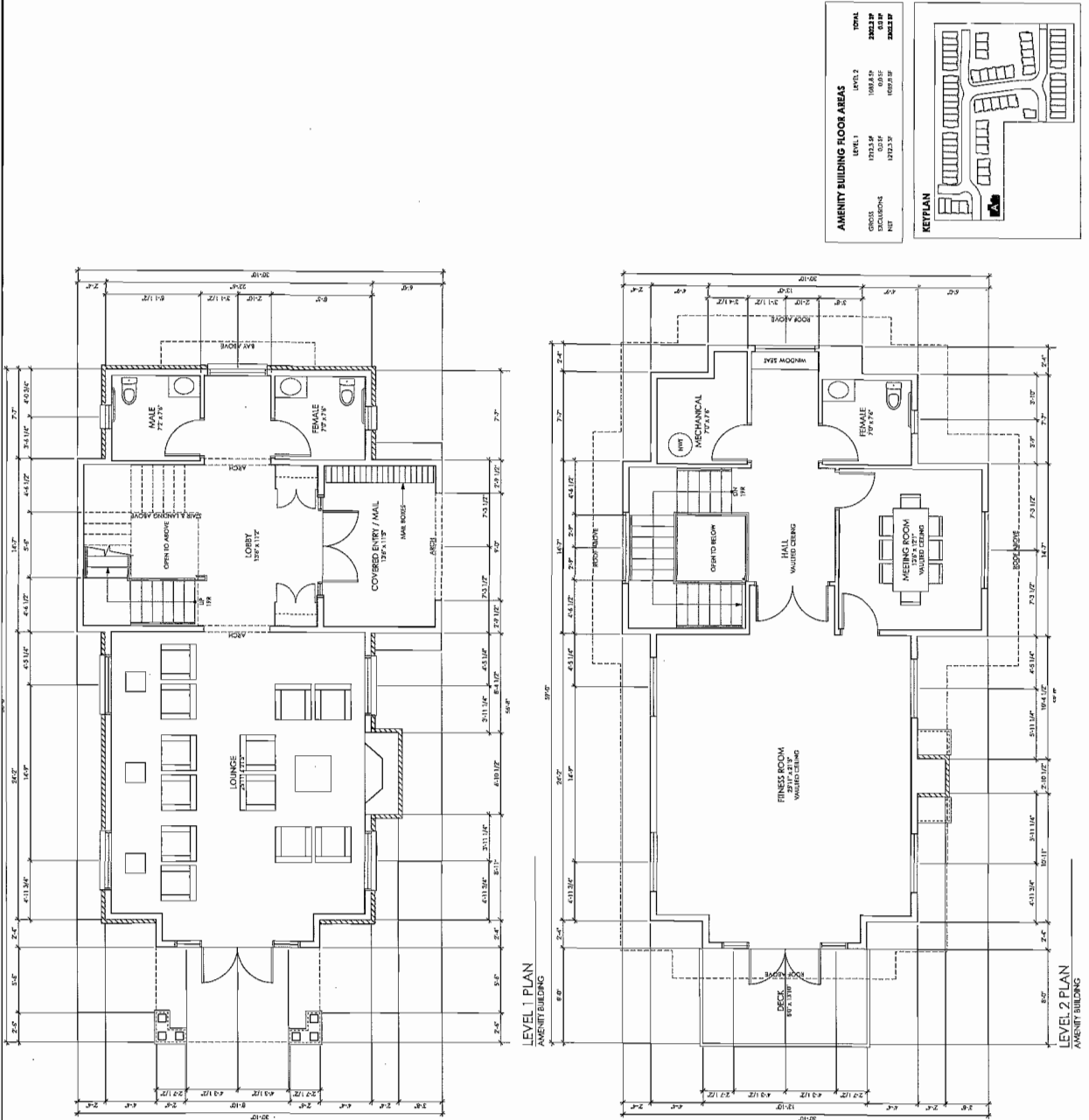
7700 ALEXANDRA ROAD
RICHMOND, BC

DRAWING	UNIT TYPE D/DS PLANS	SCALE	1/4" = 1'-0"	SHEET	A3.04
		DATE	JUNE 2013		



UNIT TYPE D FLOOR AREAS					UNIT TYPE DS FLOOR AREAS				
	LEVEL 1	LEVEL 2	LEVEL 3	TOTAL		LEVEL 1	LEVEL 2	LEVEL 3	TOTAL
GROSS	637.29	664.25	786.29	2087.83	GROSS	612.29	612.29	772.29	2006.87
EXCLUSIONS	665.29	0.00	0.00	665.29	EXCLUSIONS	665.29	0.00	0.00	665.29
NET	294.29	664.25	786.29	1644.83	NET	294.29	612.29	772.29	1678.87

DATE	1/4" = 1'-0"	SHEET
AB2.00		
JUNE 2013		





**City of
Richmond**

Development Application Data Sheet
Development Applications Division

RZ 13-649641

Attachment 3

Address: 9700 and 9740 Alexandra Road

Applicant: Polygon Development 296 Ltd.

Planning Area(s): West Cambie

	Existing	Proposed
Owner:	Polygon Development 296 Ltd.	Same
Site Size (m²):	12,150.05 m ² gross area (130,782 ft ²)	11812.16 m ² (127,145 ft ²) net of dedications Road dedication = 337.89 m ²
Land Uses:	Single-Family Residential	Multi-Family Residential
OCP Designation:	Neighbourhood Residential	Same
Area Plan Designation: (West Cambie Area Plan)	Residential Area 2; 0.65 base FAR (Max. 0.75 FAR with density bonusing for affordable housing). Two- and three-storey Townhouses.	Same
Zoning:	Two-Unit Dwellings (RD1) and Single Detached (RS1/F)	"Town Housing (ZT71) – Alexandra Neighbourhood (West Cambie)"
Number of Units:	2 single family dwellings	Approximately 64
Other Designations:	75% of the site is designated Environmentally Sensitive Area	Portions of the site will be retained and enhanced as natural areas. It is proposed that the ESA designation be adjusted through a subsequent OCP amendment.

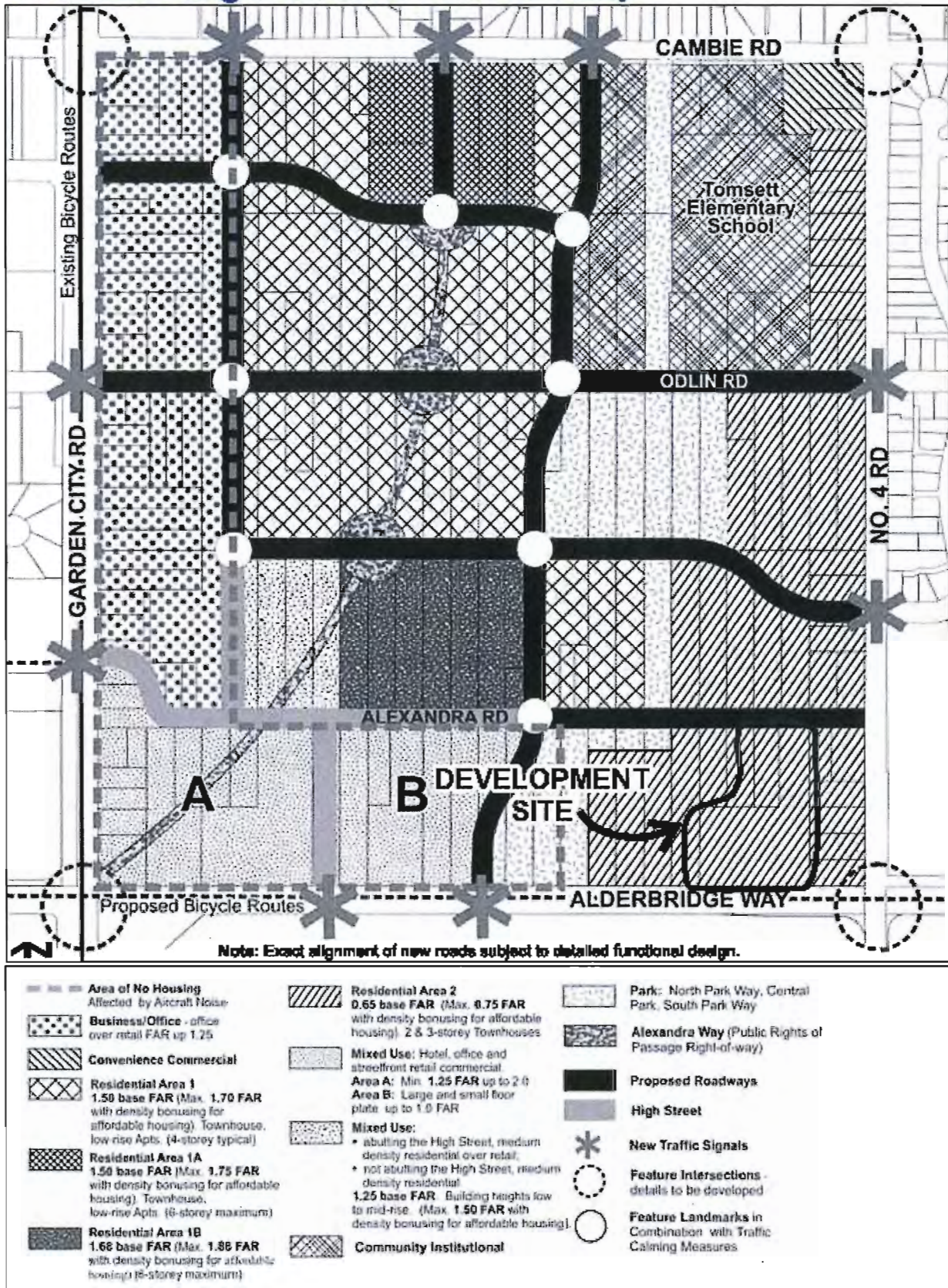
On Future Subdivided Lots	Bylaw Requirement	Proposed	Variance
Density (units/acre):	N/A	64/3.00 = 21.93 upa	None permitted
Floor Area Ratio:	Max. 0.65 or 0.75 with affordable housing contribution per West Cambie Area Plan	0.72 with a voluntary cash contribution of \$678,107.00 based on a net buildable of 91,120.59 ft ²	None permitted
Lot Coverage – Building:	Max. 40%	33%	None
Lot Size (min. area):	10,000 m ²	11812.16 m ² net (127,145 ft ²)	None

CNCL - 303

On Future Subdivided Lots	Bylaw Requirement	Proposed	Variance
Setback – Front Yard (m):	Min. 3.0 m for amenity building; 4.0 m for all other buildings	Min. 3.0 m for amenity building; 4.0m for all other buildings m Min.	None
Setback – Side Yards (m):	Min. 3.0 m	Min. 3.0 m	None
Setback – Rear Yard (m):	Min. 4.0 m	Min. 4.0 m to 6.0 m	None
Height (m):	12.2 m	12.2 m	None
Off-street Parking Spaces – Regular (R) / Visitor (V):	98 (R) and 13 (V) per unit (1.5 R / 0.2 V)	152 (R) and 13 (V) per unit	None
Off-street Parking Spaces – Total:	111	165	None
Stalls with Electrical Plug-ins	25% = 32 stalls	64 stalls	None
Enclosed Tandem Parking Spaces:	Permitted	72 tandem spaces within 36 units (56.25%)	Variance 8 stalls over
Bicycle Stalls	Class 1: 1.25/unit (80) Class 2: 0.20/unit (13)	Class 1: 87 Class 2: 13	None
Amenity Space – Indoor:	Min. 100 m ² (1,076 ft ²)	213.86 m ² (2,302 ft ²)	None
Amenity Space – Outdoor:	6.0 m ² (64.59 ft ²) per unit 384 m ² total	1,411.01 m ² (15,188 ft ²)	None

Other: Tree replacement compensation required for loss of significant trees.

Alexandra Neighbourhood Land Use Map





April 17, 2014

Mr. Chris Ho
Polygon Development 296 Ltd.
Suite 900 - 1333 West Broadway
Vancouver, BC
V6H 4C2

Dear Mr. Ho:

**Re: DRAFT Report of Findings – Biophysical Assessment
9700 and 9740 Alexandra Road, Richmond, BC
Project No. 11800 (v2.0)**

We have enclosed one copy of the report titled *DRAFT Report of Findings – Biophysical Assessment – 9700 and 9740 Alexandra Road, Richmond, BC* (version 2.0). We are pleased to submit this report to the Polygon Construction. If you have any questions, please do not hesitate to contact us.

Sincerely,

Keystone Environmental Ltd.

DRAFT

Craig S. Patterson, B.Sc.
Project Manager

11800 140417 DRAFT Biophysical Assessment updated.docx

Encl.

**DRAFT REPORT OF FINDINGS
BIOPHYSICAL ASSESSMENT**

**9700 and 9740 Alexandra Road
Richmond, BC**

Prepared for:

**POLYGON DEVELOPMENT 296 LTD.
Suite 900 – 1333 West Broadway
Vancouver, BC
V6H 4C2**

Prepared by:

**KEYSTONE ENVIRONMENTAL LTD.
Suite 320 – 4400 Dominion Street
Burnaby, BC
V5G 4G3**

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www.keystoneenviro.com

Project No. 11800

April 2014

EXECUTIVE SUMMARY

Keystone Environmental Ltd. (Keystone Environmental) was contracted by Polygon Developments to conduct a Biophysical Assessment on a proposed development located at 9700 and 9740 Alexandra Road in Richmond, BC.

The objectives of this study were as follows:

- Conduct an environmentally-based literature and database search on the property and surrounding areas, including applicable fisheries, wildlife and habitat databases.
- Perform a Site reconnaissance to assess flora, fauna and habitat features, and the collection of applicable biophysical information and photographic documentation.
- Complete a report, which contains study findings, identifies potential habitat sensitivities, and provided recommendations.
- Develop and present an Environmental Balance Sheet, detailing and quantifying habitat currently present and comparing to future landscaping plans.
- Present within this report, advisement and recommendations on developing within an Environmentally Sensitive Area (ESA), as per City of Richmond bylaws.

An assessment of the Site was conducted on July 29, 2013 and on February 5, 2014, according to the City of Richmond's *Criteria for the Protection of Environmentally Sensitive Areas, 2001*. Tree species noted in the assessment included birch, pine, cherry, Douglas fir, cedar, apple and alder; in total, 65 trees were surveyed. Throughout the Site, a dense understory of shrubs and herbs were noted. Fauna observed on-Site included a variety of songbirds and other passerines; no mammals, amphibians or reptiles were noted on-Site. Barn owls and barred owls had been previously documented as roosting on-Site, however no evidence of owls was visible during the field surveys. In the comparison between vegetation currently present on-Site and the proposed landscaping (designed by ETA landscape architecture), the environmental balance sheet shows an improvement in habitat quality in the future development. Based on City bylaws and Site observations, a number of recommendations were made, with the general theme of retaining the trees on-Site habitat values and/or incorporating habitat values, such as songbird habitat into the proposed development.

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LIST OF ACRONYMS

ASL	ABOVE SEA LEVEL
BC	BRITISH COLUMBIA
BEC	BIOGEOCLIMATIC ECOSYSTEM CLASSIFICATION SYSTEM
BMPs	BEST MANAGEMENT PRACTICES
CDC	BRITISH COLUMBIA CONSERVATION DATA CENTRE
CMN	COMMUNITY MAPPING NETWORK
COSEWIC	COMMITTEE ON THE STATUS OF ENDANGERED WILDLIFE IN CANADA
CWHxm	COASTAL WESTERN HEMLOCK VERY DRY MARITIME
DFO	FISHERIES AND OCEANS CANADA
EA	ENVIRONMENTAL ASSESSMENT
EOR	ELEMENT OCCURRENCE RECORD
ESA	ENVIRONMENTALLY SENSITIVE AREA
FISS	FISHERIES INFORMATION SUMMARY SYSTEM
MFLNRO	BRITISH COLUMBIA MINISTRY OF FORESTS, LANDS AND NATURAL RESOURCE OPERATIONS
MOE	BRITISH COLUMBIA MINISTRY OF ENVIRONMENT
OCP	OFFICIAL COMMUNITY PLAN
RISC	RESOURCE INVENTORY STANDARDS COMMITTEE
ROW	RIGHT-OF-WAY
SARA	<i>SPECIES AT RISK ACT</i>
SHIM	SENSITIVE HABITAT AND INVENTORY MAPPING
VEC	VALUED ECOSYSTEM COMPONENTS

1. INTRODUCTION

Keystone Environmental Ltd. (Keystone Environmental) was contracted by Polygon Development 296 Ltd., to conduct a Biophysical Assessment at 9700 and 9740 Alexandra Road, located in Richmond, BC (the Site). On these properties, the southern portion (approximately 9000 m²) is designated as an Environmentally Sensitive Area (ESA) (City of Richmond, 1999). These ESAs are identified as areas with ecological value, forming links between conservation areas/parks (in this case, between the ESA at Shell Road and the Nature Park), or are lands that are part of the Agricultural Land Reserve. The City has adopted the *Environmentally Sensitive Areas Guidelines, 1999* (and its companion document *Criteria for the Protection of Environmentally Sensitive Areas, 2001*) to conserve and protect ESAs. This report was prepared in response to the City of Richmond's requirement that an assessment be conducted prior to issuing a development permit approval, to address potential impacts to the Environmentally Sensitive Area (ESA). As required by these guidelines, with the aim of assessing the habitat values of these properties, an assessment of the vegetation and wildlife present was conducted.

1.1 Site Description

The Site is located on the south side of Alexandra Road between Garden City Road and No. 4 Road in the City of Richmond, BC. The Site is currently occupied by two residences, a duplex residence and a single residence. The Site is bordered to the north by Alexandra Road and by residential properties to the west, south and east, as shown on Figure 1 (Appendix A).

The stratigraphy of the Site consists of bog, swamp, and shallow lake deposits of postglacial age. This unit consists of lowland peat up to 8 m thick, in part overlying overbank sandy to silt loam over deltaic and distributary channel fill (Geological Survey of Canada Map 1486A, 1979).

The local groundwater flow direction may vary as a result of local conditions, such as topography, geology and the presence of drainage channels and buried utilities, and is subject to confirmation with field measurements. Based on the relatively flat local topography, the local groundwater flow direction is inferred to be variable and indeterminate. With the exception of drainage ditches (located adjacent to the north of the Site) the closest waterbody is the Middle Arm of the Fraser River, located approximately 1.8 km northwest of the Site.

1.2 Scope of Assessment

The scope of work for this study included the following tasks:

- Conduct an environmentally-based literature and database search on the property and surrounding areas including applicable fisheries, wildlife and habitat databases.
- Perform a Site reconnaissance to assess flora, fauna and habitat features, and the collection of applicable biophysical information and photographic documentation.
- Complete a report, identifying study findings, potential habitat sensitivities, and recommendations.

Spatial boundaries for this assessment included the proposed Site's footprint (approximately 1.2 ha) and surrounding habitats. The surrounding habitats were bordered by Alexandra Road to the north, Alderbridge Way to the south, housing and No. 4 Road to the east, and the open grass area of 9620/ 9626 Alexandra Road to the west. Temporal boundaries encompass the existing land use of the study area and the construction and post-construction phases of the project.

1.3 Regulatory Framework

Regulatory framework applicable to the project includes:

- City of Richmond Official Community Plan – Bylaw 7100, Environmentally Sensitive Area Guidelines, Section 9.6 – March 15, 1999
- Government of Canada *Species at Risk Act 2002* - Schedule 1
- Government of British Columbia *Wildlife Act 1996* – Sections 5, 6
- Government of Canada *Wildlife Act 1985*
- Government of Canada *Fisheries Act 2012*
- Government of Canada *Migratory Bird Convention Act 1994*

2. DESCRIPTION OF THE EXISTING ENVIRONMENT

The biophysical attributes of 9700 and 9740 Alexandra Road are described by major type: terrestrial flora and fauna and their habitats, including adjacent agricultural lands habitats with potential influence on terrestrial ecosystem composition.

Field investigations were used to confirm environmental information collected during the background literature review and to identify and record other potential Valued Ecosystem Components (VECs) that could be impacted by the proposed project. The likely presence of wildlife, birds, aquatic life and habitat at risk in the project area was also assessed during field surveys. Photographs, representing and describing the biophysical elements in the study area, are provided in Appendix B.

2.1 Terrestrial Flora and Fauna Background Information

Database, reference manual, and map searches were conducted to identify recorded ESAs or threatened and endangered species on-Site or in the vicinity using the following provincial and federal on-line databases:

- BC Ministry of Forests, Lands and Natural Resource Operations Conservation Data Centre (CDC) species lists and Element Occurrence Reports (EOR)
- Committee on the Status of Endangered Wildlife in Canada (COSEWIC)
- Community Mapping Network (CMN) Sensitive Habitat and Inventory Mapping (SHIM)
- Environment Canada Species at Risk
- BC Biogeoclimatic Ecosystem Classification Map

The on-line search of the CDC database for known occurrences of rare wildlife, plants, and ecological communities within 5 km of the Site was conducted and revealed two records of an animal observation and two records of plant observations. Details of these four CDC EORs and a list of the BC Species and Ecosystems Explorer search results for species at risk with potential to occur in the study area are provided in Appendix C:

- An occurrence record for the northern water-meal (*Wolffia borealis*) was identified approximately 2 km south-east of the Site. This species is identified as Red Listed and was last observed in 1980. The plant is found in lakes, ponds, and open water habitats (MoE CDC, 2011a).
- An occurrence record for the Northern Red-legged Frog (*Rana aurora*) was identified approximately 2.2 km south of the Site. This species is identified as Blue-Listed and was last observed in 2004, when one adult, four juveniles and six unclassified frogs were observed in a backyard pond.
- Occurrence records (three) for the Vancouver Island beggarticks (*Bidens amplissima*) were identified approximately 2.5 km northeast, 1.8 km southeast and 1.7 km south of the Site. This species is identified as Blue-Listed and was last observed in 2012.
- An occurrence record for the white sturgeon (*Acipenser transmontanus*) was identified in the Fraser River, approximately 1.8 km east of the Site. This species is identified as Red-listed and was last observed in 2004. This species prefers broad, shallow side channels with cobble/gravel bars and islands (MoE CDC, 2013).

Vegetation and wildlife habitat units were identified using aerial photographic interpretation. Fieldwork conducted on July 29, 2013 and on February 5, 2014 involved further defining and confirming the unit's vegetation and wildlife characteristics. Vegetation was identified and described using Plants of Coastal British Columbia (Pojar and MacKinnon, 2004).

Wildlife surveys followed the British Columbia Resource Inventory Standards Committee (RISC) protocols and methodologies (RISC 1999, 1998). The focus of the wildlife assessment was to identify presence and/or potential breeding habitat for rare or threatened (i.e., Red- or Blue-listed) vertebrate and invertebrate animal species of management concern as listed by:

- The Committee on the Status of Endangered Wildlife in Canada (COSEWIC) (October, 2011)
- Schedule 1 of the *Species at Risk Act* (Government of Canada, 2002)
- the British Columbia Conservation Data Centre's Animal Tracking List for the Chilliwack Forest District (October, 2011)

Bird surveys focused on identifying the presence/not-detected status of rare birds listed in the CDC and COSEWIC lists. Habitat usage was evaluated by direct nest identification, faecal wash, prey remains, feathers or any other signs indicating that birds may inhabit the area. The searches were completed in order to verify active use within the Site's habitat units, primarily by raptors (i.e., hawks and owls), and/or by songbirds, herons or other bird species. Based on these visual observations, the occurrences of nests were classified as "present" or "not detected." Significant cavity trees and/or wildlife trees with the potential to serve as roosting sites were also investigated for diurnal and nocturnal bird presence and/or use.

Large (>500 grams) and small (<500 grams) mammal presence was recorded based on signs of presence: scat, tracks, forage/browse indicators, scrapings, and direct field observation/reported sightings. The terrestrial invertebrate and herpetofauna assessments involved identification of habitats (i.e., ponded/pooled water areas) typically used by species of management concern. Habitat units defined during the vegetation survey were cross-referenced with the life requisites of species of management concern (Red- or Blue-listed) to evaluate potential occurrence and habitat usage in the study area.

2.2 Vegetation Assemblages

The project area lies within the dry maritime subzone of the Coastal Western Hemlock (CWHxm) biogeoclimatic zone as indicated by the BC Biogeoclimatic Ecosystem Classification Map. The elevation limits range from sea level to approximately 900 m a.s.l. (Pojar *et al.*, 1991). The CWH zone is characterized by cool summers and mild winters. The forests are dominated primarily by western hemlock (*Tsuga heterophylla*) with frequent occurrences of western red cedar (*Thuja plicata*) throughout the zone south of 56°N latitude and Douglas-fir (*Pseudotsuga menziesii*) south of Dean Channel. Common deciduous trees include black cottonwood (*Populus balsamifera* ssp. *trichocarpa*), red alder (*Alnus rubra*), and bigleaf maple (*Acer macrophyllum*). In the natural understorey of the CWH dry maritime subzone, the shrub layer is dominated by salal (*Gaultheria shallon*), dull Oregon-grape (*Mahonia nervosa*), and red huckleberry (*Vaccinium parvifolium*). Various species of moss and fern are also common throughout the zone.

Table 2-1 lists the provincial Red- and Blue-Listed species that could potentially occur in the study area. Table 2-2 lists the ecological communities at risk that could potentially occur in the study area. The potential for occurrence within the study area was based on database searches for species at risk occurring within the Chilliwack Forest District; Richmond is located within this district.

Table 2-1 Provincial Red- and Blue Listed Plant Species Potentially Occurring in the Study Area

Scientific Name	Common Name	Provincial Status	SARA Status	COSEWIC Status	Potential for Occurrence	Comments ¹
<i>Bidens amplissima</i>	Vancouver Island beggaricks	Blue	Special Concern	Special Concern	Yes	Previously observed 1.7km from the site. Frequently found in wetlands in the lower Fraser Delta and on Vancouver Island. It occupies a variety of wetland habitats including ditches, willow wetlands, old riverbeds, pond margins, streambanks, and tidal or non-tidal river edges.
<i>Fissidens pauperculus</i>	poor pocket moss	Red	Endangered	Endangered	No	There are no detailed published accounts of habitat for the species in BC. A description of habitat in Lynn Canyon as was a silty outcrop within a stream and a silt cliff.
<i>Lupinus rivularis</i>	streambank lupine	Red	Endangered	Endangered	No	Wet to moist meadows and riverbanks in the lowland zone.

¹ Habitat requisites were extracted from the BC Ministry of the Environment, Species and Ecosystem Explorer and Conservation Data Centre website, BC Conservation Data Centre: Species Summary Reports unless otherwise cited (CDC 2011a).

Table 2-2 Provincially Red- and Blue-listed Ecological Plant Communities Potentially Occurring in the Study Area

Scientific Name	Common Name	Provincial Status	Potential Occurrence in Study Area
<i>Carex lasiocarpa</i> - <i>Rhynchospora alba</i>	slender sedge - white beak-rush	Red	No
<i>Carex sitchensis</i> - <i>Oenanthe sarmentosa</i>	Sitka sedge - Pacific water-parsley	Blue	No
<i>Distichlis spicata</i> var. <i>spicata</i> Herbaceous Vegetation	seashore saltgrass Herbaceous Vegetation	Red	No
<i>Leymus mollis</i> ssp. <i>mollis</i> - <i>Lathyrus japonicus</i>	dune wildrye - beach pea	Red	No
<i>Myrica gale</i> / <i>Carex sitchensis</i>	sweet gale / Sitka sedge	Red	No
<i>Picea sitchensis</i> / <i>Rubus spectabilis</i> Very Dry Maritime	Sitka spruce / salmonberry Very Dry Maritime	Red	No
<i>Pinus contorta</i> / <i>Sphagnum</i> spp. Very Dry Maritime	lodgepole pine / peat-mosses Very Dry Maritime	Blue	No
<i>Populus trichocarpa</i> - <i>Alnus rubra</i> / <i>Rubus spectabilis</i>	black cottonwood - red alder / salmonberry	Blue	Yes
<i>Populus trichocarpa</i> / <i>Salix sitchensis</i>	black cottonwood / Sitka willow	Blue	No
<i>Pseudotsuga menziesii</i> / <i>Mahonia nervosa</i>	Douglas-fir / dull Oregon-grape	Red	No
<i>Pseudotsuga menziesii</i> - <i>Pinus contorta</i> / <i>Racomitrium canescens</i>	Douglas-fir - lodgepole pine / grey rock-moss	Red	No
<i>Pseudotsuga menziesii</i> / <i>Polystichum munitum</i>	Douglas-fir / sword fern	Blue	Yes
<i>Pseudotsuga menziesii</i> - <i>Tsuga heterophylla</i> / <i>Gaultheria shallon</i> Dry Maritime	Douglas-fir - western hemlock / salal Dry Maritime	Blue	Yes
<i>Rhododendron groenlandicum</i> / <i>Kalmia microphylla</i> / <i>Sphagnum</i> spp.	Labrador tea / western bog-laurel / peat-mosses	Blue	No
<i>Schoenoplectus acutus</i> Deep Marsh	hard-stemmed bulrush Deep Marsh	Blue	No
<i>Selaginella wallacei</i> / <i>Cladina</i> spp.	Wallace's selaginella / reindeer lichens	Blue	Yes
<i>Sidalcea hendersonii</i> Tidal Marsh	Henderson's checker-mallow Tidal Marsh	Red	No
<i>Thuja plicata</i> / <i>Carex obnupta</i>	western redcedar / slough sedge	Blue	No
<i>Thuja plicata</i> / <i>Lonicera involucrata</i>	western redcedar / black twinberry	Red	Yes

Scientific Name	Common Name	Provincial Status	Potential Occurrence in Study Area
<i>Thuja plicata</i> - <i>Picea sitchensis</i> / <i>Lysichiton americanus</i>	western redcedar - Sitka spruce / skunk cabbage	Blue	Yes
<i>Thuja plicata</i> / <i>Polystichum munitum</i> Very Dry Maritime	western redcedar / sword fern Very Dry Maritime	Blue	Yes
<i>Thuja plicata</i> / <i>Rubus spectabilis</i>	western redcedar / salmonberry	Red	Yes
<i>Thuja plicata</i> / <i>Tiarella trifoliata</i> Very Dry Maritime	western redcedar / three-leaved foamflower Very Dry Maritime	Blue	No
<i>Tsuga heterophylla</i> - <i>Pseudotsuga menziesii</i> / <i>Eurhynchium oregonum</i>	western hemlock - Douglas-fir / Oregon beaked-moss	Red	No
<i>Tsuga heterophylla</i> - <i>Thuja plicata</i> / <i>Blechnum spicant</i>	western hemlock - western redcedar / deer fern	Red	No
<i>Typha latifolia</i> Marsh	common cattail Marsh	Blue	No

2.3 Wildlife Habitat Units

Wildlife habitat was identified and defined during the fieldwork on July 29, 2013. Table 2-3 lists the plant species observed in the wildlife habitat.

Table 2-3 Plant Species Observed in the Study Area

Scientific Name	Common Name
Tree species	
<i>Alnus rubra</i>	red alder
<i>Betula papyrifera</i>	paper birch
<i>Thuja plicata</i>	western redcedar
<i>Pinus spp.</i>	pine
<i>Prunus spp.</i>	cherry
<i>Malus spp.</i>	apple
<i>Pseudotsuga menziesii</i>	Douglas fir
<i>Acer spp.</i>	Maple (small)
Shrub species	
<i>Rubus discolor</i>	Himalayan blackberry
<i>Sorbus sitchensis</i>	Sitka mountain-ash
<i>Rubus ursinus</i>	trailing blackberry
<i>Oemeleria cerasiformis</i>	Indian-plum
<i>Vaccinium alaskanse</i>	Alaskan blueberry
<i>Vaccinium ovalifolium</i>	Oval-leaved blueberry
<i>Gaultheria shallon</i>	Salal
<i>Ilex aquifolium</i>	European holly
Herb species	
<i>Pteridium aquilinum</i>	bracken fern
<i>Ranunculus occidentalis</i>	Western buttercup
<i>Equisetum arvense</i>	common horsetail
<i>Hedera spp.</i>	Ivy
<i>Lonicera hispidula</i>	Hairy honeysuckle
<i>Lonicera ciliosa</i>	Western trumpet honeysuckle
Convolvulaceae	Morning glory
<i>Spiraea douglasii</i>	Hardhack
<i>Chamerion angustifolium</i>	Fireweed
Moss species	
<i>Homalothecium fulgescens</i>	yellow moss
Lichens	
n/a	Unidentified hair lichen
Fungus	
<i>Ganoderma applanatum</i>	Bracket fungus

The City of Richmond requirements (*Environmentally Sensitive Areas Guidelines* (1999)) for a biophysical study include a survey of all trees present on the site. This survey requires the measurement of the diameter of the tree trunk at breast height (dbh), determining the height, marking the coordinates of each tree and noting the elevation. Figure 1 (Appendix A) and Table 2-4 identifies the results of the tree survey conducted on July 29, 2013.

Table 2-4 Trees Present in Study Area – July 29, 2013

Tree Species			Diameter (dbh, cm)	Height (m)	Latitude (°)	Longitude (°)	Elevation* (masl)
1	<i>Betula papyrifera</i>	Birch (Dead)	23 & 27	9.5	49.1774	123.1164	13.584
2	<i>Pinus spp.</i>	Pine	28	10.1	49.1774	123.1164	11.662
3	<i>Betula papyrifera</i>	Birch	50	8.7	49.1776	123.1161	4.932
4	<i>Betula papyrifera</i>	Birch	21 & 38	11.4	49.1776	123.1162	7.336
5	<i>Betula papyrifera</i>	Birch	32 & 30	13.9	49.1776	123.1160	5.173
6	<i>Betula papyrifera</i>	Birch	36	10.7	49.1776	123.1160	5.173
7	<i>Betula papyrifera</i>	Birch	37	12.9	49.1776	123.1160	3.971
8	<i>Betula papyrifera</i>	Birch	38	6.0	49.1774	123.1160	2.289
9	<i>Betula papyrifera</i>	Birch	5 x 26	2.2	49.1775	123.1160	4.211
10	<i>Betula papyrifera</i>	Birch	36 & 30	19.3	49.1775	123.1159	3.25
11	<i>Betula papyrifera</i>	Birch	23	19.3	49.1775	123.1159	3.01
12	<i>Betula papyrifera</i>	Birch	28	6.2	49.1776	123.1160	9.739
13	<i>Betula papyrifera</i>	Birch	24 & 18	10.7	49.1776	123.1159	8.297
14	<i>Betula papyrifera</i>	Birch	36	13.0	49.1776	123.1159	3.25
15	<i>Betula papyrifera</i>	Birch	24	7.7	49.1776	123.1158	6.615
16	<i>Betula papyrifera</i>	Birch	36	9.6	49.1777	123.1157	6.615
17	<i>Betula papyrifera</i>	Birch	17	7.7	49.1776	123.1157	4.211
18	<i>Betula papyrifera</i>	Birch	21	4	49.1776	123.1157	4.692
19	<i>Betula papyrifera</i>	Birch	27	16.8	49.1775	123.1158	-0.114
20	<i>Betula papyrifera</i>	Birch	40	18.4	49.1774	123.1158	4.211
21	<i>Betula papyrifera</i>	Birch	32	28.6	49.1775	123.1159	-0.595
22	<i>Betula papyrifera</i>	Birch	46 & 2 x 19	12.3	49.1775	123.1158	4.211
23	<i>Betula papyrifera</i>	Birch	36	16.1	49.1775	123.1158	2.529
24	<i>Betula papyrifera</i>	Birch	21	3.6	49.1775	123.1157	0.607
25	<i>Betula papyrifera</i>	Birch	28	10.5	49.1775	123.1156	3.731
26	<i>Betula papyrifera</i>	Birch	33 & 30	23.1	49.1776	123.1156	10.22
27	<i>Betula papyrifera</i>	Birch	35	33.2	49.1775	123.1156	10.7
28	<i>Betula papyrifera</i>	Birch	26	13.0	49.1775	123.1157	1.808
29	<i>Betula papyrifera</i>	Birch	23	9.5	49.1774	123.1156	1.087

	Tree Species		Diameter (dbh, cm)	Height (m)	Latitude (°)	Longitude (°)	Elevation* (masl)
30	<i>Betula papyrifera</i>	Birch	48 & 24	12.8	49.1775	123.1154	2.049
31	<i>Betula papyrifera</i>	Birch	36	18.6	49.1776	123.1155	3.49
32	<i>Betula papyrifera</i>	Birch	30	5.3	49.1776	123.1156	2.77
33	<i>Betula papyrifera</i>	Birch	22	16.3	49.1776	123.1156	2.289
34	<i>Prunus spp.</i>	Cherry	27	10.5	49.1774	123.1152	2.529
35	<i>Prunus spp.</i>	Cherry	48	17.3	49.1776	123.1154	2.049
36	<i>Prunus spp.</i>	Cherry	26	12.5	49.1776	123.1155	4.932
37	<i>Betula papyrifera</i>	Birch	43	13.2	49.1777	123.1155	3.971
38	<i>Betula papyrifera</i>	Birch	25	13.3	49.1777	123.1154	7.095
39	<i>Betula papyrifera</i>	Birch	2 x 25	14.5	49.1779	123.1156	5.413
40	<i>Betula papyrifera</i>	Birch	30	15.5	49.1780	123.1156	-3.479
41	<i>Prunus spp.</i>	Cherry	29	16.3	49.1780	123.1154	-2.037
42	<i>Prunus spp.</i>	Cherry	46	17.0	49.1780	123.1153	n/a
43	<i>Pseudotsuga menziesii</i>	Douglas Fir	90	29.0	49.1787	123.1151	2.529
44	<i>Pseudotsuga menziesii</i>	Douglas Fir	80	11.7	49.1788	123.1152	-1.316
45	<i>Thuja plicata</i>	Cedar	60	21.6	49.1784	123.1152	0.126
46	<i>Malus spp.</i>	Apple	2 x 26, 3 x 14	11.0	49.1779	123.1153	3.731
47	<i>Prunus spp.</i>	Cherry	17 & 15 & 12	11.0	49.1779	123.1153	2.289
48	<i>Betula papyrifera</i>	Birch	30 & 14	9.5	49.1779	123.1153	3.731
49	<i>Betula papyrifera</i>	Birch	17	7.8	49.1778	123.1153	n/a
50	<i>Betula papyrifera</i>	Birch	22 & 13	10.6	49.1778	123.1153	10.22
51	<i>Prunus spp.</i>	Cherry	23	14.7	49.1778	123.1153	9.979
52	<i>Prunus spp.</i>	Cherry	22	19.1	49.1778	123.1153	10.22
53	<i>Prunus spp.</i>	Cherry	17 & 10	12.8	49.1777	123.1153	n/a
54	<i>Betula papyrifera</i>	Birch	29	13.0	49.1779	123.1156	n/a
55	<i>Betula papyrifera</i>	Birch	40	25.0	49.1778	123.1152	1.087
56	<i>Alnus rubra</i>	Alder	16	8.2	49.1778	123.1152	13.104
57	<i>Betula papyrifera</i>	Birch	28	12.9	49.1777	123.1153	13.344
58	<i>Betula papyrifera</i>	Birch	31	22.6	49.1776	123.1151	9.979
59	<i>Betula papyrifera</i>	Birch	24	9.4	49.1777	123.1150	12.623
60	<i>Betula papyrifera</i>	Birch	33	10.4	49.1776	123.1151	11.662
61	<i>Betula papyrifera</i>	Birch	21	12.3	49.1780	123.1160	8.778
62	<i>Betula papyrifera</i>	Birch	20	10.0	49.1780	123.1159	6.374
63	<i>Pseudotsuga menziesii</i>	Douglas Fir	34	18.8	49.1780	123.1158	2.049
64	<i>Betula papyrifera</i>	Birch	17	7.1	49.1778	123.1163	14.305
65	<i>Betula papyrifera</i>	Birch	21	10.2	49.1779	123.1161	13.104

*masl = metres above sea level

Note: For some trees, more than one trunk was assessed if the sum was greater than 15 cm.

2.3.1 Habitat Area 1 – Hardhack-Fireweed-Blackberry Open Habitat

The Hardhack-Fireweed-Blackberry vegetative area encompassed about one-sixth of the site, situated north of the deciduous forest, south of the edge of the residential area (lawn) as indicated on the Habitat Survey (Figure 1, Appendix A). Hardhack (*Spiraea douglasii*) and fireweed (*Chamerion angustifolium*) composed the dominant shrub layer in the central part of this area, with thick brambles of blackberries (*Rubus discolor*) on the edges. The absence of overstorey tree vegetation limits songbird nesting habitat, but the hardhack thickets may be used for cover and feeding by species such as flycatchers (Tyrannidae), bushtits (*Psaltiriparus minimus*), and black-capped chickadees (*Poecile atricapillus*). Where the over-storey opens and plant species diversity is higher under the tall shrubs, small mammals may find forage and cover habitat, however none were observed.

2.3.2 Habitat Area 2 – Deciduous-Dominated Mixed Community

This vegetative area encompassed about two-thirds of the site as indicated on the Habitat Survey (Figure 1, Appendix A). Vegetation was dominated by a mature tree canopy composed of paper birch (*Betula papyrifera*), with minor components of ornamentals such as cherry (*Prunus spp.*) and apple trees (*Malus spp.*). Coniferous trees were rare, including western red cedar (*Thuja plicata*), pine (*Pinus spp.*) and Douglas fir (*Pseudotsuga menziesii*) that were intentionally planted by homeowners. Epiphytes (mosses and lichens) were prominent on trunks and branches. Epiphytic growth on wildlife trees may also provide songbird shelter and thermal protection.

Numerous wildlife trees, including snags or dead stands, were scattered throughout the study area. Wildlife trees may provide nesting and perching locations for foraging raptors (including owls), while the cavities may provide roosting and nesting opportunities for secondary cavity nesters. The abundance of fruited vegetation in the understorey provided potential food for song birds and small mammal species.

The dominant shrub layer consisted of Himalayan blackberry (*Rubus discolor*) and Sitka mountain-ash (*Sorbus sitchensis*) throughout the forested area. The Himalayan blackberry, an invasive species, had formed thickets which precluded other native species from establishing. Also present in the shrub layer, Indian-plum (*Oemleria cerasiformis*) and salal (*Gaultheria shallon*) provide food for song-birds and small mammals. The herbaceous layer in the forested area (where breaks in the canopy allowed for sunlight penetration) was dominated by bracken fern (*Pteridium aquilinum*).

2.4 February 2014 Vegetation Survey

In order to augment our July 2013 Habitat Survey, detailed vegetation survey was conducted on February 5, 2014. Three quadrats (approximately 10m by 10m square) in Habitat 2 were randomly selected in the field (Figure 1, Appendix A). Once the quadrats were marked out, the quadrat was traversed in a systematic fashion, by walking parallel transects, roughly east to west, equally spaced across the quadrat. Plants on the south side of the transect line were identified and counted, and the quadrat was traversed in this manner until the north side of the quadrat was reached. Three quadrats, one generally in the center of Habitat 2 (102 m²), one in the west portion (85 m²) and one in the east portion (61 m²) were surveyed to represent the variations in vegetation in Habitat 2.

In order to generalize the vegetation present across Habitat 2, the results of the vegetation survey were extrapolated. Plant species counts were totaled across the three quadrats, then multiplied by a ratio of the total area of Habitat 2 (8,254 m²) over the total area surveyed (248 m²) to extrapolate the counts and represent the entire area of Habitat 2. Figure 1 (Appendix A) shows the location of the three quadrats sampled.

It is understood that February is not the preferred time of year to be conducting a vegetation survey. However, using bark, branching patterns, and leaf buds to identify plants, the results show that generally those plants that were present during the July 2013 survey were still present during the February 2014 survey.

The results of this vegetation survey are presented below in Table 2-5. These counts were then extrapolated to reflect the entire Habitat 2 (Deciduous-Dominated Mixed Community); see section 3.2 for further details.

Since Habitat 1 was generally impenetrable due to the dense growth of blackberries, a smaller area (1m by 1m) of hardhack and fireweed was counted, and the blackberry density was extrapolated assuming a maximum density of 525 canes/m² (California Invasive Plant Council, 2014) was present in nine-tenths of Habitat 1. It is understood that the blackberry is an invasive species, and is undesirable as vegetation cover and wildlife habitat.

Table 2-5 Vegetation Present in Study Quadrats – February 5, 2014

		Species Counts		
Common Name	Scientific Name	Quadrat 1 (centre) Area = 101.65 m	Quadrat 2 (East) Area = 85 m ²	Quadrat 2 (West) Area = 61 m ²
Trees				
Birch	<i>Betula papyrifera</i>	17	10	12
Western White Pine	<i>Pinus monticola</i>	1	-	-
Red Alder	<i>Alnus rubra</i>	1	-	-
Bitter Cherry	<i>Prunus emarginata</i>	1	2	10
Shrubs				
Himalayan blackberry	<i>Rubus discolor</i>	40025*	10	25620*
Oval-leaved blueberry	<i>Vaccinium ovalifolium</i>	98	-	-
Mountain Ash	<i>Sorbus sitchensis</i>	8	23	2
Alaskan Blueberry	<i>Vaccinium alaskanse</i>	31	-	-
Indian Plum	<i>Oemeleria cerasiformis</i>	5	10	-
Raspberry	<i>(Rubus idaeus / Rubus strigosus)</i>	4	31	11
Pacific yew	<i>Taxus brevifolia</i>	-	1	1
Un-identified Blueberry	<i>Vaccinium spp</i>	-	1	7
Holly	<i>Ilex aquifolium</i>	-	19	19
Groundcover				
Bracken Fern	<i>Pteridium aquilinum</i>	1	-	1
Ivy	<i>Hedera spp.</i>	1	319*	-

Note: Counts indicated with an asterisk are estimated from percent cover.

A secondary goal of the February 2014 Site visit was to investigate any current evidence of owls (barn owls (*Tyto alba*) and barred owls (*Strix varia*)) using the Site for roosting and hunting. Trees of a suitable size (>51 cm dbh [Allen, 1987]) required for owls to roost were not present on Site. Any evidence of habitat use by owls ("white-wash" i.e., feathers at the base of the tree, owl regurgitate i.e. pellets) was not noted on Site, nor were any small mammal burrows noted. Conversations with the resident indicated that they had seen owls flying between the residences on-Site in a north-south direction in the early mornings and evenings recently and frequently within the past year.

2.5 Wildlife

Wildlife utilization of a specific habitat area may be determined by a combination of field surveys (July 29, 2013 and February 5, 2014) and a review of the capability and suitability of habitat to support wildlife (RISC 1999). The BC Wildlife Habitat Rating Standards define “Habitat **Capability**” as the ability of a habitat, under the optimal natural (seral) conditions, to provide life requisites for a species irrespective of the current condition of the habitat. “Habitat **Suitability**” is defined as the ability of a habitat in its current condition to provide the life requisites of a species.

Two classification systems are used in conjunction to describe wildlife utilization within BC, the Ecoregion Classification System (ESC) and the Biogeoclimatic Ecosystem Classification (BEC) system (RISC 1999). The ESC is used to differentiate wildlife utilization within physiographically distinct units sustaining similar BEC components to complement the BEC system (Meidinger and Pojar, 1991).

Significant sampling effort would be required to ensure that all wildlife species within a study area are identified, therefore the assessment was limited to review of the habitat suitability to sustain wildlife based on an evaluation of habitat units (Meidinger and Pojar 1991). Site assessment used the known requirements of specific species of interest (RISC 1999) to evaluate suitability. The assessment of wildlife habitat values was undertaken primarily during transect sampling. Wildlife habitat attributes, direct observations, and incidental observations were recorded at the time of the field survey.

The application of direct and incidental observations to the assessment of wildlife suitability of the area was limited by the time of year during which the observations were made, providing only a qualitative “snap-shot” measure of wildlife species and diversity. The observations also enabled identification of habitats for critical life requirements (i.e., breeding) for various wildlife species. Other habitat attributes located within and adjacent to the Site were considered as they pertain to species of concern life requisites for breeding, such as canopy structure, percent cover, coarse woody debris and standing snags using methodology outlined in the MoF Handbook No. 25 (2010).

Habitat/vegetation units for the study area were defined and each unit was cross-referenced and rated for its value to potentially present wildlife species of concern using methodologies outlined in RISC 1999. Wildlife species were chosen based on each species’ life requirements

and the habitat available on or immediately surrounding the Site relative to the species of focus (i.e., plot-in-context). Species-specific surveys (i.e., trapping, electrofishing, or other population study methods or RISC sampling protocols) were not conducted at the time of the field survey.

Table 2-6 presents the wildlife species at risk that have the potential to occur in the study area. Potential breeding and/or forage habitat was found to be present for 6 of the 25 species on-Site.

2.5.1 Birds

Black-capped chickadee (*Poecile atricapillus*), flickers (*Colaptes auratus*), cedar waxwings (*Bombycilla cedrorum*), robins (*Turdus migratorius*), red-tailed hawk (*Buteo jamaicensis*) and goldfinches (*Carduelis spp.*) were sighted in the deciduous forest. During the July 29, 2013 field survey, two nests were sighted in birch trees in the central portion of the deciduous forest. They were observed for approximately 20 minutes with no birds observed using the nest, and no evidence nest being active was observed (i.e., white wash, feathers, etc.). An active flicker nest was observed within a dead birch hollow along the Alexandra Rd. right-of-way and adjacent to the west of the Site. No raptors, or evidence of, were observed during the field survey.

The presence of barn owls (*Tyto alba*) and barred owls (*Strix varia*) has been documented by owl specialist Sofi Hindmarch in 2010 on the Site utilizing the trees as roosts. While evidence of the presence of owls was not noted during the July 29, 2013 or the February 5, 2014, residents have spotted owls flying through the area recently.

2.5.2 Herpetofauna (Amphibians and Reptiles)

No amphibian or reptilian species were observed during the field surveys.

2.5.3 Small Mammals

Adult and juvenile muskrats (*Ondatra zibethicus*) were noted in the ditch immediately adjacent to 9740 Alexandra Rd. (Figure 1, North side), just beyond the property line, during the July 29, 2013 field survey. No small mammals were sighted on-Site during either field survey.

Table 2-6 Provincial Red- and Blue-listed Animal Species Potentially Occurring in the Study Area

Scientific Name	Common Name	Provincial Status	SARA Status	COSEWIC Status	Habitat Features Present	Comments ¹
<i>Accipiter gentilis laingi</i>	northern goshawk, laingi subsp.	Red	Threatened	Threatened	No	Occupies coastal western hemlock and coastal Douglas-fir forests with large stands of mature trees and dense canopies, but with open understoreys.
<i>Brachyramphus marmoratus</i>	marbled murrelet	Blue	Threatened	Threatened	No	Found in coastal areas, mainly in salt water within 2 km of shore, including bays and sounds; not uncommon up to 5 km offshore.
<i>Contopus cooperi</i>	olive-sided flycatcher	Blue	Threatened	Threatened	Yes	Most nesting sites contain dead standing trees. During the northern winter, this species occurs in a variety of forest, woodland, and open situations with scattered trees, especially where tall dead snags are present.
<i>Falco peregrinus anatum</i>	peregrine falcon, anatum subsp.	Red	Threatened	Special Concern	No	Typically nest on rock cliffs above lakes or river valleys where abundant prey is nearby.
<i>Megascops kennicottii kennicottii</i>	western screech-owl, kennicottii subsp.	Blue	Special Concern	Special Concern	Yes	Found in varied habitats including semi-open woodlands, treed suburban areas, and cactus desert. Generally found at lower elevation forested areas close to water.
<i>Patagioenas fasciata</i>	band-tailed pigeon	Blue	Special Concern	Special Concern	Yes	North American Coastal populations usually found below 1000 m in a variety of forest types, especially pine-oak, spruce, fir, Douglas-fir, redwood, cedar, hemlock and alder.
<i>Strix occidentalis</i>	spotted owl	Red	Endangered	Endangered	No	Dense forest and deep wooded canyons; generally in mature stands or old growth. Nests on broken tree tops, cliff ledges, and natural tree cavities/platforms.

Scientific Name	Common Name	Provincial Status	SARA Status	COSEWIC Status	Habitat Features Present	Comments ¹
<i>Tyto alba</i>	barn owl	Blue	Special Concern	Threatened	Yes	Prefers low elevation open country; especially agricultural areas, such as open fields, grasslands, farmsteads and orchards. Sometimes along edges of open woodlands and grassy estuaries and occasionally spotted in suburban areas. Use of suitable foraging habitat is limited by nest cavity requirements. Most often nests are located in human-made structures such as in wooden barns, concrete silos, church spires, airport hangers, water towers, bridges and nest boxes.
<i>Catostomus spp. 4</i>	Salish sucker	Red	Endangered	Endangered	No	Found in lakes, reservoirs, or small, lowland streams.
<i>Rhinichthys cataractae</i>	nooksack dace	Red	Endangered	Endangered	No	Riverine species. Adult habitat is riffles, typically with a loose coarse-gravel Substrate.
<i>Apelodontia rufa rufa</i>	mountain beaver, rufa subsp.	Blue	Special Concern	Special Concern	No	Associated with coniferous, mixed, and red alder forests on moist slopes or hillsides. It is commonly found near small streams or seeps.
<i>Sorex bendirii</i>	pacific water shrew	Red	Endangered	Endangered	No	Generally found in riparian and wetland habitats associated with skunk cabbage marshes, red alder riparian habitat, and dense wet forests of western red cedar.
<i>Danaus plexippus</i>	monarch	Blue	Special Concern	Special Concern	Yes	Utilises patches of milkweed for breeding in North America.
<i>Euphyes vestries</i>	dun skipper	Blue	Threatened	Threatened	No	Generally found in wetlands riparian zones, and grassland.
<i>Allogona townsendiana</i>	Oregon forestsnail	Red	Endangered	Endangered	Yes	Occupies mixed wood and deciduous forests, typically dominated by bigleaf maple.
<i>Chrysemys picta pop. 1</i>	western painted turtle - Pacific Coast pop. 1	Red	Endangered	Endangered	No	Aquatic species found in the shallow waters of ponds, lakes, marshes, and slow-moving stream reaches. Suitable wetlands have muddy substrates, an abundance of emergent vegetation, and numerous basking sites, such as logs and accessible banks.

Scientific Name	Common Name	Provincial Status	SARA Status	COSEWIC Status	Habitat Features Present	Comments ¹
<i>Rana pretiosa</i>	Oregon spotted frog	Red	Endangered	Endangered	No	Highly aquatic frog generally avoids dry uplands. It is rarely found far from permanent quiet water. Usually it occurs in vegetated shallows or grassy margins of streams, lakes, and ponds.
<i>Anaxyrus boreas</i>	Western Toad	Blue	Special Concern	Special Concern	No	Observed in a variety of aquatic and terrestrial habitats. They breed in shallow, littoral zones of lakes, temporary and permanent pools and wetlands, bogs and fens, and roadside ditches (i.e., toads may be found in all lacustrine and palustrine habitats).
<i>Ascaphus truei</i>	Coastal Tailed Frog	Blue	Special Concern	Special Concern	No	Clear, cold swift-moving mountain streams with coarse substrates. Primarily in older forest sites.
<i>Rana aurora</i>	Northern Red-legged Frog	Blue	Special Concern	Special Concern	No	Previously observed 2.2km from the site. Observed in a variety of aquatic and terrestrial habitats. They breed in shallow, littoral zones of lakes, temporary and permanent pools and wetlands, and bogs and fens regardless of size but in close proximity to forest.
<i>Aplodontia rufa rainieri</i>	mountain beaver, rainieri subsp.	Blue	Special Concern	Special Concern	No	Only common beavers have been observed in the surrounding wetlands and are trapped and removed where they create dams that may impinge stormwater flow.
<i>Ardea herodias fannini</i>	great blue heron, fannini subsp.	Blue	Special Concern	Special Concern	No	Observed in area foraging. The species is known to nest up to five kilometres from foraging grounds.
<i>Asio flammeus</i>	short eared owl	Blue	Special Concern	Special Concern	No	Broad expanses of open land with low vegetation for nesting and foraging are required.

¹ Habitat requisites were extracted from the BC Ministry of the Environment, Species and Ecosystem Explorer and Conservation Data Centre website, BC Conservation Data Centre: Species Summary Reports unless otherwise cited (CDC 2011a).

2.5.4 Large Mammals

No direct observations of large mammals occurred during the field surveys. Connectivity between the ESA on Site and the surrounding areas is limited to the south (Alderbridge Way is a busy, four-lane thoroughfare), the north (dense housing complex) and east (No. 4 Road is also a busy, multi-lane street); to the west, contiguous forest is broken by the open grass field on the next property. Due to the discontinuity of forest, the habitat range required by large mammals is not present on-Site.

2.5.5 Invertebrates

Flying insects such as dragonflies (Odonata) and butterflies (Lepidoptera) were observed in the study area during the July 29, 2013 field survey. One of the butterfly sightings was tentatively identified as a monarch butterfly (*Danaus plexippus*) or a viceroy butterfly (*Limenitis archippus*). Based on the area's habitat attributes, the Site has the potential to be butterfly habitat (open meadow), although it is not ideal monarch butterfly habitat (no milkweed present). Given that foraging opportunities for either the monarch or the viceroy butterfly are very limited in the area, this invertebrate species at risk are unlikely to be resident within the project footprint.

Table 2-7 lists all animal species observed during the field survey or on previous occasions in the study area.

Table 2-7 Animal Species Observed/Reported in the Study Area

Scientific Name	Common Name	Sign Observed
Mammals		
<i>Ondatra zibethicus</i>	Muskrat	Sighted in ditch in front of property
Birds		
<i>Parus atricapillus</i>	Black capped chickadee	Call /Sighted
<i>Colaptes auratus</i>	Flicker	Sighted
<i>Bombycilla cedrorum</i>	Cedar waxwing	Sighted
<i>Turdus migratorius</i>	Robin	Sighted
<i>Carduelis spp.</i>	Goldfinch	Sighted
Trochilidae	Hummingbird	Sighted
<i>Buteo jamaicensis</i>	Red-tailed hawk	Sighted

3. ENVIRONMENTAL BALANCE SHEET

3.1 Introduction

At the City of Richmond's request, an environmental balance sheet to parameterized the current habitat on Site, and compare it to the future habitat as designed by ETA landscape architecture (Figure 2, Appendix A), was conducted. While the City of Richmond does not have a structured environmental balance sheet in place with which to evaluate habitats, suggestions (pers. comm. Kaitlin Kazmierowski, January 22, 2014) included:

- area extent of habitat present, removed, replaced
- number trees present, removed, replaced
- area extent of enhancement
- comments on the intent of the enhancement (e.g. species selected to enhance use by birds for example)

In order to collect the data required for the environmental balance sheet, a vegetation survey was conducted on February 5, 2014 (Section 2.4).

3.2 Development of Environmental Balance Work Sheet

Based on the guidance provided by the City of Richmond, 20 parameters were selected for use in the Environmental Balance Sheet.

1. Percentage planted area/ total area

- For the current scenario, this was the sum of the areas of Habitat 1 and 2 (9,419 m²) over the total area (12,136 m²)
- For the future scenario, this was the sum of the Habitat buffer and Planted area throughout the Site (1,960 m²) over the total area (12,136 m²)
- For this parameter, if the future scenario was greater than the current scenario it scores a "+1"; if the future scenario is less than the current scenario, it scores a "-1"

2. Density of planting (plants/ total area)

- Either the extrapolated number of plants currently present on-Site or the total number of plants planned in the landscapers drawing, over the total area of the Site

- If the future scenario was greater than the current scenario it scores a “+1”; if the future scenario is less than the current scenario, it scores a “-1”

3. Density of planting (plants/ planted area)

- The extrapolated number of plants currently present or the total number of plants planned in the landscapers drawing, over the total planted area of the Site (9,419 m² currently, 1,960 m² in the future)
- If the future scenario was greater than the current scenario it scores a “+1”; if the future scenario is less than the current scenario, it scores a “-1”.

4. Number of habitats present

- Currently on-Site, two distinct habitats are present (Hardhack-Fireweed-Blackberry Open Habitat and Deciduous-Dominated Mixed Community)
- In the landscaper’s drawing, planned habitats include natural habitat buffers on the east, south and west sides of the Site, flowering gardens, and a rock garden/bioswale
- Lawns are not included as habitats
- If the future scenario was greater than the current scenario it scores a “+1”; if the future scenario is less than the current scenario, it scores a “-1”.

5. Number of desirable trees

- The total number of trees either present or planned that were not paper birch¹.
- If the future scenario was less than the current scenario it scores a “+1”; if the future scenario is greater than the current scenario, it scores a “-1”

6. Percentage of invasive species

- The total number of invasive plants (blackberry species, holly, ivy) over the total number of plants (current and future)
- If the future scenario was less than the current scenario it scores a “+1”; if the future scenario is greater than the current scenario, it scores a “-1”

¹ The paper birch is not considered to be a desirable tree due to its propensity to become infested with bronze birch borer beetle (*Agrilus anxius*), resulting in reduced health of the trees and possibly death.

7. Plant species diversity

- A count of the number of species present/planned
- If the future scenario was greater than the current scenario it scores a "+1"; if the future scenario is less than the current scenario, it scores a "-1"

8. Percentage of plants on City of Richmond's 'recommended' list

- As part of City of Richmond's *Criteria for the Protection of Environmentally Sensitive Areas* (2001) and the current guideline for assessing developments, 50% of the plants should be those listed under 'Native Plants Recommended for Planting'
- Current and future species lists scored "+1" for having greater than 50% of the listed plants, a score of "0" was rated if 50% to 20% of the plants present/listed were on the list, and "-1" if less than 20% of the plants were on recommended list

9. Percentage of native plants/total plants

- Native plants are important to sustaining BC's ecosystems, and hence are advantageous/recommended
- Current and future species lists scored "+1" for having greater than 50% native plants, a score of "0" was rated if 50% to 20% of the plants present/listed were native, and "-1" if less than 20% of the plants were native

10. Percentage of fruit bearing plants/total plants

- Fruit-bearing plants provide a food source for songbirds and other desirable wildlife
- Current and future species lists scored "+1" for having greater than 50% fruit-bearing plants, a score of "0" was rated if 50% to 20% of the plants present/listed were fruit-bearing, and "-1" if less than 20% of the plants were fruit-bearing

11. Percentage of flowering plants/total plants

- Flowering plants provide a food source for pollinators such as butterflies and bees
- Current and future species lists scored "+1" for having greater than 50% flowering plants, a score of "0" was rated if 50% to 20% of the plants present/listed were flowering, and "-1" if less than 20% of the plants were flowering

12. Average tree height

- The average height of all the trees was calculated (survey conducted July 2013)
- Tree height is an important component of suitable habitat for songbirds; an average tree height of 15 m or greater is required for the habitat to be suitable for black-capped chickadees (Schroeder, 1983)
- If the tree height average is 15 m or greater it scores a “+1”; if it’s less than 15 m, it scores a “0”

13. Number of trees

- A count of the number of trees was tallied (conducted July 2013)
- If the future scenario was greater than the current scenario it scores a “+1”; if the future scenario is less than the current scenario, the “-1”

14. Number of trees >51cm (diameter at breast height [dbh])/ planted area (ha)

- The diameter of all the trees was measured (survey conducted July 2013)
- Tree diameter is an important component of suitable habitat for owls; a tree diameter of 51 cm or greater is required for barred owls to roost in, and five or more tree of this size are required for the area to contain suitable habitat (Allen, 1987)
- If five or more trees have diameters of 51 cm or greater, the scenario scores a “+1”; if it’s less than the required criteria, it scores a “0”

15. Number of snags >51cm (at dbh)/ planted area (ha)

- Dead trees (snags) with a tree diameter of 51 cm or greater can also serve as habitat for barred owls (Allen, 1987). Note: barred owls were assumed to be a good surrogate species for barn owls
- If five or more trees have diameters of 51 cm or greater, the scenario scores a “+1”; if it’s less than the required criteria, it scores a “0”

16. Number of snags between 10 - 25cm (at dbh)/ planted area (ha)

- Tree diameter is an important component of suitable habitat for chickadee reproduction; an average tree diameter of 10 to 25 cm is required, and five or more trees of this size are required for the area to contain suitable habitat (Schroeder, 1983)

- If five or more trees have diameters of 10 to 25 cm, the scenario scores a "+1"; if it's less than the required criteria, it scores a "0"

17. Percentage of canopy closure (area/total area)

- Canopy cover was estimated from aerial photographs and landscapers drawings
- Adequate canopy cover provides for suitable feeding and refuge habitat for chickadees (Schroeder, 1983)
- If canopy cover was 50 to 75% it scored a "+1"; if it's less than 50%, it scores a "0"

18. Planted area vs robin home range

- The minimum home range of the American robin is 70 m² (Environment Canada, 2012)
- If the planted area was 70 m² or greater it scored a "+1"; if it's less than 70 m², it scores a "0"

19. Planted area vs chickadee home range

- The average home range of the chickadees is 20,000 m² (Schroeder, 1983)
- If the planted area was 20,000 m² or greater it scored a "+1"; if it's less than 20,000 m², it scores a "0"

20. Planted area vs barred owl home range (barred owls were assumed to be a good surrogate species for barn owls)

- The average home range of the barred owl is 2.3 km² (Allen, 1987)
- If the planted area was 2.3 km² or greater it scored a "+1"; if it's less than 2.3 km², it scores a "0"

Within each parameter, the scores were evaluated ("+"/-), and then (if applicable) the score from the future scenario was subtracted from the current scenario for all parameters. All parameters were weighted evenly.

3.3 Results and Recommendations

The comparison of the current vegetation and the future planned landscape is presented in Table 3-1.

Table 3-1 Environmental Balance Sheet

		Positive +1	Neutral 0	Negative -1	Current		Future	
					value	score	value	score
1	Percentage planted area/ total area	Future> Current	-	Future< Current	78%	-	16%	-
2	Density of planting (plants/ total area)	Future> Current	-	Future< Current	230	-	0.98	-
3	Density of planting (plants/ planted area)	Future> Current	-	Future< Current	296	-	6.0	-
4	Number of habitats present	Future> Current	-	Future< Current	2	-	3	-
5	Number of desirable trees (i.e. not birch)	Future< Current	-	Future> Current	49	-	0	-
6	Percentage of invasive species	Future< Current	-	Future> Current	99%	-	0%	-
7	Plant species diversity (i.e. number of species)	Future> Current	-	Future< Current	27	-	51	-
8	Percentage of plants on City of Richmond's 'recommended' list	> or = 50%		<50%	0.4%	-1	29%	-1
9	Percentage of native plants/total plants	>50%	50-20	<20	0.7%	-1	54%	+1
10	Percentage of fruit bearing plants/total plants	>50%	50-20	<20	99%	+1	31%	0
11	Percentage of flowering plants/total plants	>50%	50-20	<20	99%	+1	76%	+1
12	Average tree height (m)	15m	<15m	0	13.4	0	44.5	+1
13	Number of trees	Future> Current	Future< Current	-	65	-	118	-
14	Number of trees >51cm (at dbh)/ planted area (ha)	> or = 5	<5	-	3	0	0	0
15	Number of snags >51cm (at dbh)/ planted area (ha)	> or = 5	<5	-	0	0	0	0
16	Number of snags between 10 - 25cm (at dbh)/ planted area (ha)	> or = 5	<5	-	14	+1	0	0
17	Percentage of canopy closure (area/total area)	50-75%	1 - 49%	0%	~60%	+1	5%	0
18	Planted area vs robin home range	> 70m ²	< 70m ²	-	>	+1	>	+1
19	Planted area vs chickadee home range	> 20,000m ²	< 20,000m ²	-	<	0	<	0
20	Planted area vs barred owl home range	> 2.3km ²	< 2.3km ²	-	<	0	<	0
	SUM					3		5
	+/-							2

It is understood the proposed development will have a reduced vegetated area. Currently, 9,149 m² is vegetated, while future landscaping plans estimate 1,960 m² will be vegetated (these area totals do not include maintained lawn). Vegetated areas are currently dominated by Himalayan blackberry, an invasive species that prevents native species from spreading and flourishing, and birch trees that are prone to birch borer infestation. Replacement of these problematic plant species with native plants is considered a benefit to wildlife habitat on-Site and on surrounding areas.

Additional habitat benefits of the proposed landscape plan include:

- More diverse habitat types and vegetation species present.
- Vegetated buffers around Site provide wildlife habitat and maintain connectivity to adjacent properties.
- Invasive plant (i.e., Himalayan blackberries, ivy and holly) removal and management plan to prevent re-establishment of invasive plants.
- Increased number and variety of both fruiting and flowering plants in the area, and improved habitat values present.
- Planned stormwater management system to direct stormwater to dedicated areas on-Site, providing wetted areas and habitat diversity.

4. RECOMMENDATIONS

Based on the biophysical assessment conducted, the following are recommendations for future Site development planning to mitigate the effects associated with vegetation clearing:

- Fruit-bearing shrubs such as trailing blackberry (*Rubus ursinus*) provide songbird food source and habitat. Retention of these shrubs during development, or designing planting designs to include native species, such as thimbleberry/salmonberry (*Rubus spp.*) and red-osier dogwood (*Comus sericea*), rather than ornamentals would improve the likelihood of songbirds continuing to reside in this habitat.
- Since songbirds have been identified on-Site, it is recommended that the future planting plan focus on the enhancement of the landscaping as habitat for songbird and other pollinators (such as bees, butterflies and dragonflies). Increasing the size of the vegetation strip between this Site and the adjacent property to the west, 9580-9680 Alexandra Road (also currently planned for development), and at the southern edge of the properties (bordering Alderbridge Way), would increase the both the square area of habitat, as well as a habitat refuge corridor, where songbirds would be less likely to be disturbed by predators such as domestic cats. Pollinators such as mason bees (*Osmia spp.*) could also be encouraged to frequent the property and pollinate the flowers with the placement of mason bee homes.
- The Migratory Birds Convention Act (1994) protects songbirds, such as waxwings and flickers, from harm. Consideration for these species during construction must be given, including abstaining from removing trees during nesting period (so as not to kill nestlings) and not depositing substances that are harmful to migratory birds on-Site.
- Incorporating replacement wildlife tree snags amongst vegetated areas in the final development plan can replace the many birch trees and snags present on-Site that provide wildlife habitat.
- Recommendations for planting to provide food sources (seeds, insects, fruits) and roosting habitat for songbirds include the following vegetation species:

Scientific Name	Common Name
Deciduous Trees	
<i>Acer circinatum</i>	vine maple
<i>Acer macrophyllum</i>	big leaf maple
<i>Alnus rubra</i>	red alder
<i>Amelanchier canadensis</i>	serviceberry
<i>Betula papyrfera</i>	Paper birch
<i>Crataegus douglasii</i>	black hawthorn
<i>Malus fusca</i>	Pacific crabapple
Coniferous Trees	
<i>Picea sitchensis</i>	Sitka spruce
<i>Pseudotsuga menziesii</i>	Douglas fir
<i>Thuja plicata</i>	Western red cedar
Shrubs	
<i>Cornus sericea</i>	red-osier dogwood
<i>Cornus stolonifera</i>	red-twig dogwood
<i>Myrica pensylvanica</i>	bayberry
<i>Oemleria cerasiformis</i>	Indian plum
<i>Ribes sanguinem</i>	red flowering currant
<i>Rosa rugosa</i>	rose
<i>Rubus parviflorus</i>	thimbleberry
<i>Rubus spectabilis</i>	salmonberry
<i>Sambucus racemosa</i>	red elderberry
<i>Sorbus sitchensis</i>	Sitka mountain-ash
<i>Symphoricarpus albus</i>	snowberry
Herbaceous Cover	
<i>Epilobium angustifolium</i>	fireweed
<i>Mainantheum dilatatum</i>	false-lily -of the-valley
<i>Fritillaria camschatcensis</i>	black lily
<i>Fritillaria lanceolata</i>	chocolate lily
<i>Cornus canadensis</i>	bunchberry
<i>Fragaria chiloensis</i>	coastal strawberry
<i>Arctostaphylos uva-ursi</i>	kinnikinnick

- Plantings should be in accordance with the City of Richmond's *Criteria for the Protection of Environmentally Sensitive Areas* (2000). While this guidance is now out-dated, the City of Richmond still evaluates planning plans against the plant species listed in 'Native Plants Recommended for Planting', and requires that at least 50% of the proposed plant species be from that list.
- Retention of the mountain-ash/birch setback from Alderbridge Way as required by the City of Richmond. The City's *Criteria for the Protection of Environmentally Sensitive Areas* indicates that "All development across the road from sites designated as an agricultural land reserves must provide a minimum of 5 m (16.4 feet) landscaped strip as measured from the back of curb, or, in the case of an unopened road, from the property line abutting the road right of way."
- Retention or development of green space, particularly as corridors between adjacent green spaces, is recommended in order to improve connectivity of habitats. In addition, ideally plantings in these green spaces would include native plant species and be representative of the forest successional stages and current habitats present on Site (i.e., plantings of fireweed and hardhack for butterfly habitat, forested areas with understory for songbird and small mammal habitat). All planting is required to conform to "BCSLA/BCNTA planting standards," as per the City of Richmond (1999).
- Connectivity of vegetation corridors to allow for migration of birds and mammals, which in turn improves biodiversity, should be considered as part of the proposed landscaping plans. Since the Site and the neighbouring Site (9580-9680 Alexandra Road, adjacent to the west) are undergoing development at the same time, green space is planned to be maximized by abutting the vegetation perimeters of the two properties, doubling the vegetated square area and exponentially improving the wildlife habitat potential.
- In order to develop the Site into multi-family residences, the Site will require pre-load fill in order for the soil present to support the new development and elevate the grade. As such, much of the current vegetation on-Site will require removal; one Douglas fir in the centre of the Site will be retained (as per landscapers design) and is should be protected by establishing a perimeter about the trunk, preventing preload from damaging the roots. Prior to Site clearing, liaison with Richmond's Tree Preservation Coordinator should occur, with the aim of identifying other significant trees (especially healthy trees and those important for wildlife) for their preservation or future replacement.

- As barn owls and barred owls were previously documented as on-Site, and still use the corridor between residents as part of their flight path, considerations to create owl habitat during construction would improve the future habitat. These considerations could include the construction of one or more free standing barn owl nest boxes, (i.e. on top of telephone-type poles, 4 metres above the ground), preferably towards the south end of the Site, situated near an open area, and with a 15m buffer of rough vegetation to provide some minimal cover for the owl (and to help prevent vandalism). These nest boxes should be cleaned out every few years, in order to maintain the nesting area within the nest box. Also, the addition of more wild features in the landscaping, particularly in the vicinity of the nest box, such as undergrowth, rough grass and dead trees/brush, was also recommended to improve the habitat for owls in the area. If building nest boxes on the property are not possible, the possibility of constructing nest boxes off-Site in suitable habitat should be explored.
- A project invasive plant species management plan should be created to mitigate potential adverse effects to the park following Site clearing activities, with these areas re-seeded with native seed mixes and planted with native shrubs, as soon as possible after disturbance to discourage the re-establishment of invasive species. The Himalayan blackberry should be cleared from the Site, and prevented from re-establishing. Dense plantings of native species are another possible means of preventing re-introduction of invasive species. A management/ maintenance and monitoring plan should be implemented that covers the first three years after installation. The plan should incorporate sufficient instructions for the future land owners to continue appropriate monitoring and maintenance (trimming, removal of invasive species) of the landscaped areas.
- On-Site stormwater management is recommended, including bioswales, permeable sidewalks and water features that incorporate stormwater flow into water features. Current plans present a “natural element” that will have rain leaders that lead to a rock bed and provide habitat for animal species, as well as a bioswales in the border between this development and the proposed development adjacent (to the west). Incorporating bioswales and wetlands provide multiple benefits to the Site: (a) stormwater runoff is managed, which minimizes erosion and diminishes the “flash” of water influx into the stormwater system (as well as minimizing the total volume of water that enters the stormwater system), (b) the demand for irrigation is reduced, and (c) the diversity of the habitats present on the property increases, resulting in an increase in wildlife diversity.

5. PROFESSIONAL STATEMENT

This report has been prepared and reviewed by Keystone Environmental Ltd.² approved personnel who have the credentials and knowledge of the applicable public laws, regulations and/or policies which apply to this report.

Findings presented in this report are based upon (i) reviews of available documentation and discussions with available personnel and regulatory representatives, (ii) review of available records and the terms and conditions for the planned construction, and (iii) observations of the Site and surrounding lands. Consequently, while conclusions and recommendations documented in this report have been prepared in a manner consistent with that level of care and skill normally exercised by other members of the environmental science and engineering profession, practising under similar circumstances in the area at the time of the performance of the work, this report is intended to provide information and to suggest mitigative strategies to reduce, but not necessarily eliminate, the potential for environmental impacts to occur as a result of planned construction activities at the Site. This report is meant to be a living and flexible document that can be used to provide guidance in the environmental assessment process.

This report has been prepared solely for the internal use of Polygon Development pursuant to the agreement between Keystone Environmental Ltd. and the Polygon Development as its submittal to the City of Richmond for the use by its Environmental Review Committee. By using this report, Polygon Development and the City of Richmond agree that they will review and use the report in its entirety. Any use which other parties make of this report, or any reliance on or decisions made based on it, are the responsibility of such parties. Keystone Environmental Ltd. accepts no responsibility for damages, if any, suffered by other parties as a result of decisions made or actions based on this report.

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We certify that the work described herein fulfills standards acceptable of a Professional Biologist.

April 17, 2014
Date

DRAFT

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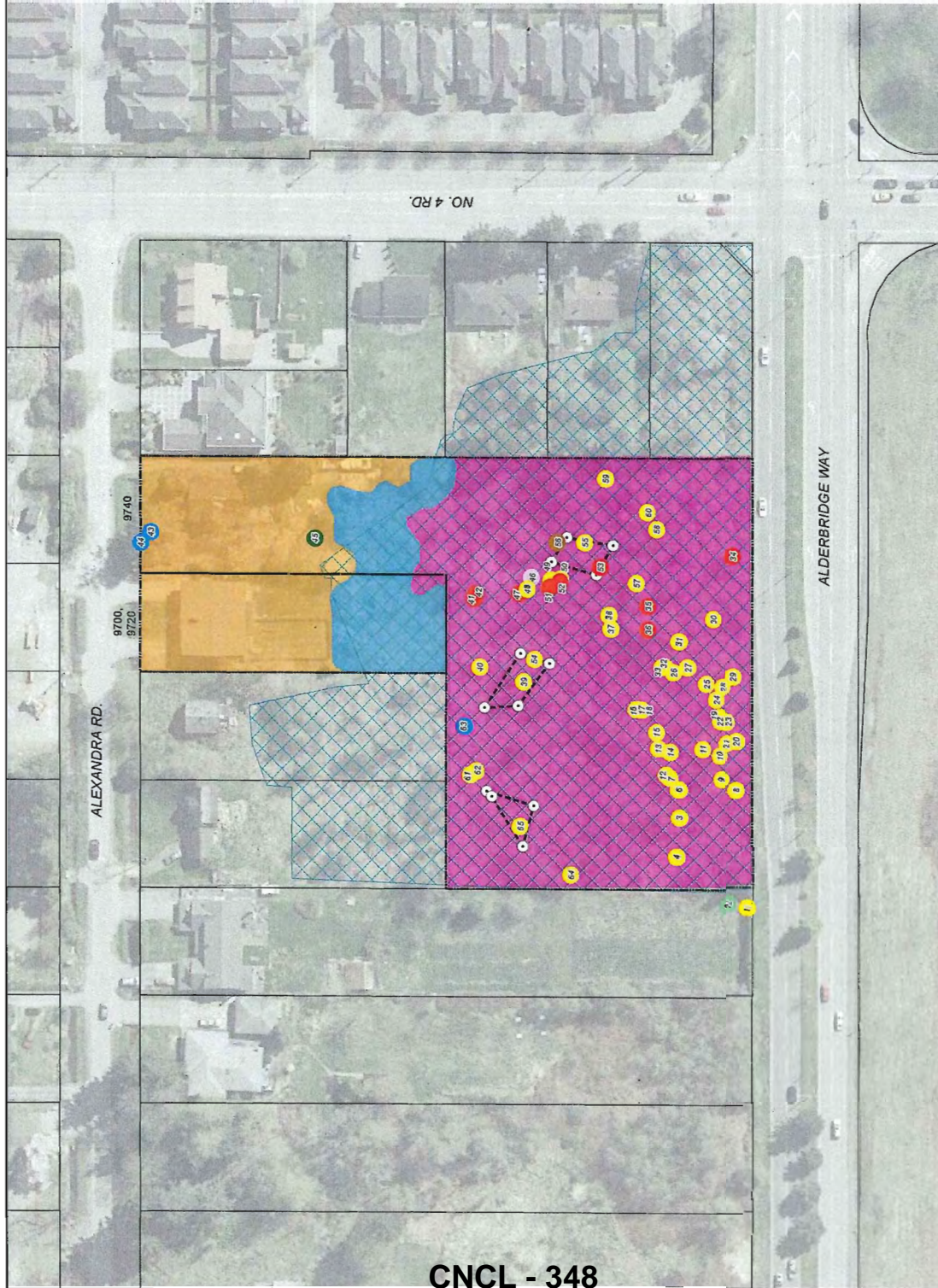
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APPENDIX A

FIGURES

DRAFT



CNCL - 348

- Legend**
- Site
 - Property Lines
 - Environmentally Sensitive Area
 - Habitat Survey
 - Residential
 - Habitat 1 - Hardhack & Fireweed
 - Habitat 2 - Deciduous Forest
 - Survey Quad - GPS Waypoints
 - Survey Quad Areas
 - Tree Survey - Species
- Birch
 - Pine
 - Cherry
 - Douglas Fir
 - Cedar
 - Apple
 - Alder



NOTES: THIS DRAWING IS FOR GENERAL INFORMATION ONLY.
LOT BOUNDARIES AND FEATURES ARE APPROXIMATE.

DRAWN BY: JM Document Path: I:\11800-11800\11800\Phase 000\04 - Biophysics Assmt\Figs\Jan. 2014\11800-104-Fig1-Habitat Survey Feb 2014 Update-RA.mxd

10 0 40 m
SCALE: 1:1,000

9700, 9720 & 9740 Alexandra Road
Richmond, BC
Polygon Development 296 Ltd.
REVISION No. A DATE Feb. 2014 PROJECT No. 11800-104

Figure 1
Habitat Survey
February 2014 Survey Quads



NOTE: A SERIES OF Boulders, LOGS AND STEPPING STONES WILL BE INSTALLED ALONG THE MEADOWS PATHWAY TO INCORPORATE ADDITIONAL PLAY ELEMENTS INTO THE LARGER AMENITY SPACE.

APPENDIX B

PHOTOGRAPHIC PLATES



Photograph 1: Mixed deciduous-dominant forest habitat composed predominately of birch.
A dense understorey of blackberries and mountain-ash is evident.



Photograph 2: Dense understory of Himalayan and Oval-leaved Blackberries present throughout Habitat 2.



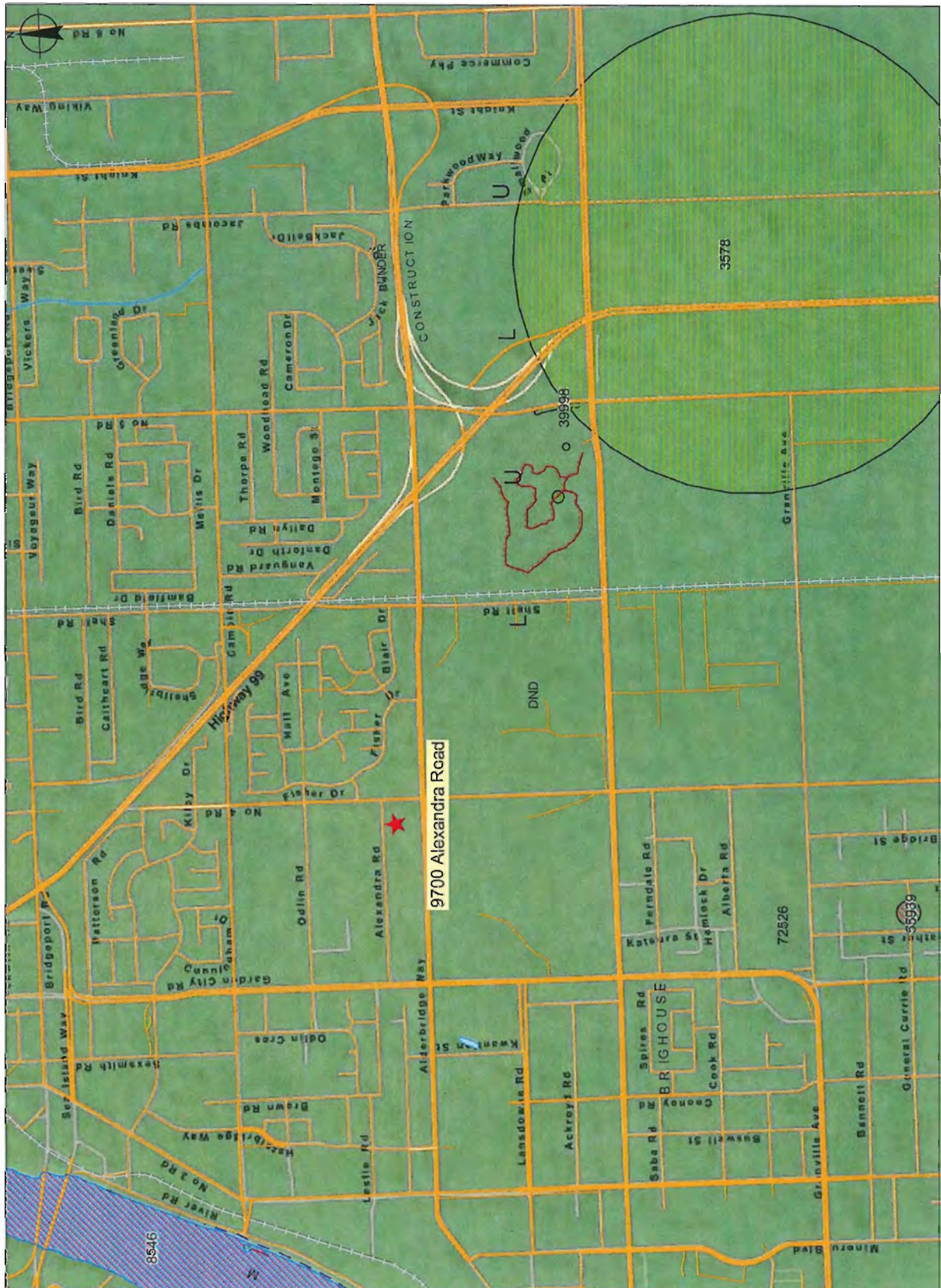
Photograph 3: Looking south from the Residential area (lawn) to Habitat 1 – fireweed/hardhack/blackberries (foreground) and Habitat 2 – Deciduous forest (background). Snags were present throughout Habitat 2, and nests were sighted in two trees.



Photograph 4: Snag along the adjacent property and road right of way to the west had two nesting cavities. A brood of flicker fledglings were sighted here during the field survey.

APPENDIX C

CONSERVATION DATA CENTRE SEARCH RESULTS



BC Species and Ecosystems Explorer Search Results

Status							
Scientific Name	English Name	Provincial	BC List	COSEWIC	SARA	Global	CF Priority
<i>Accipiter gentilis laingi</i>	Northern Goshawk, <i>laingi</i> subspecies	S2B (2010)	Red	T (2013)	1-T (2003)	G5T2 (2008)	1
<i>Acipenser medirostris</i>	Green Sturgeon	S1N (2004)	Red	SC (1987)	1-SC (2006)	G3 (2004)	2
<i>Allogona townsendiana</i>	Oregon Forestsnail	S1S2 (2008)	Red	E (2013)	1-E (2005)	G3G4 (2010)	1
<i>Anaxyrus boreas</i>	Western Toad	S3S4 (2010)	Blue	SC (2012)	1-SC (2005)	G4 (2008)	2
<i>Aplodontia rufa rainieri</i>	Mountain Beaver, <i>rainieri</i> subspecies	S3 (2006)	Blue	SC (2012)	1-SC (2003)	G5T4 (1996)	1
<i>Aplodontia rufa rufa</i>	Mountain Beaver, <i>rufa</i> subspecies	S3 (2006)	Blue	SC (2012)	1-SC (2003)	G5T4? (1996)	2
<i>Ardea herodias fannini</i>	Great Blue Heron, <i>fannini</i> subspecies	S2S3B,S4N (2009)	Blue	SC (2008)	1-SC (2010)	G5T4 (1997)	1
<i>Ascaphus truei</i>	Coastal Tailed Frog	S3S4 (2010)	Blue	SC (2011)	1-SC (2003)	G4 (2004)	1
<i>Asio flammeus</i>	Short-eared Owl	S3B,S2N (2009)	Blue	SC (2008)	1-SC (2012)	G5 (2008)	2
<i>Bidens amplissima</i>	Vancouver Island beggarticks	S3 (2008)	Blue	SC (2001)	1-SC (2003)	G3 (1988)	1
<i>Brachyramphus marmoratus</i>	Marbled Murrelet	S3B,S3N (2010)	Blue	T (2012)	1-T (2003)	G3 (2013)	1
<i>Catostomus</i> sp. 4	Salish Sucker	S1 (2010)	Red	T (2012)	1-E (2005)	G1 (2011)	1
<i>Chrysemys picta</i> pop. 1.	Painted Turtle - Pacific Coast Population	S2 (2012)	Red	E (2006)	1-E (2007)	G5T2 (2007)	2
<i>Contopus cooperi</i>	Olive-sided Flycatcher	S3S4B (2009)	Blue	T (2007)	1-T (2010)	G4 (2008)	2
<i>Danaus plexippus</i>	Monarch	S3B (2013)	Blue	SC (2010)	1-SC (2003)	G5 (2011)	2
<i>Euphyes vestris</i>	Dun Skipper	S2 (2013)	Red	T (2013)	1-T (2003)	G5 (2006)	2
<i>Falco peregrinus anatum</i>	Peregrine Falcon, <i>anatum</i> subspecies	S2?B (2010)	Red	SC (2007)	1-SC (2012)	G4T4 (2006)	2
<i>Fissidens pauperculus</i>	poor pocket moss	S1 (2011)	Red	E (2011)	1-E (2003)	G3? (2012)	2
<i>Haliotis kamtschatkana</i>	Northern Abalone	S2 (2002)	Red	T (2000)	1-T (2003)	G3G4 (2010)	2
<i>Lupinus rivularis</i>	streambank lupine	S1 (2009)	Red	E (2002)	1-E (2005)	G2G4 (2009)	1
<i>Megascops kennicottii</i>	Western Screech-Owl,	S3 (2009)	Blue	T (2012)	1-SC	G5T4	1

<i>kennicottii</i>	<i>kennicottii</i> subspecies				(2005)	(2003)	
<i>Patagioenas fasciata</i>	Band-tailed Pigeon	S3S4B (2009)	Blue	SC (2008)	1-SC (2011)	G4 (2000)	2
<i>Rana aurora</i>	Northern Red-legged Frog	S3S4 (2010)	Blue	SC (2004)	1-SC (2005)	G4 (2008)	1
<i>Rana pretiosa</i>	Oregon Spotted Frog	S1 (2010)	Red	E (2011)	1-E (2003)	G2 (2011)	1
<i>Rhinichthys cataractae</i> - <i>Chehalis lineage</i>	Nooksack Dace	S1 (2010)	Red	E (2007)	1-E (2003)	G3 (1996)	1
<i>Sorex bendirii</i>	Pacific Water Shrew	S1S2 (2010)	Red	E (2006)	1-E (2003)	G4 (2011)	1
<i>Strix occidentalis</i>	Spotted Owl	S1 (2009)	Red	E (2008)	1-E (2003)	G3 (2007)	2
<i>Tyto alba</i>	Barn Owl	S3 (2009)	Blue	T (2010)	1-SC (2003)	G5 (1996)	2

Search Summary

Time Performed Thu Jul 25 12:58:35 PDT 2013

Results 28 records.

Search Criteria Search Type: Plants & Animals
AND BC Conservation Status:Red (Extirpated, Endangered, or Threatened) OR Blue (Special Concern)
AND SARA Schedule 1 Status:True OR Provincial Wildlife Act Status:True
AND COSEWIC Status:Endangered OR Threatened OR Special Concern
AND Forest Districts:Chilliwack Forest District (DCK) (Restricted to Red, Blue, and Legally designated species)
AND MOE Regions:2- Lower Mainland (Restricted to Red, Blue, and Legally designated species)
AND Regional Districts: Metro Vancouver (MVRD) (Restricted to Red, Blue, and Legally designated species)
AND BGC Zone:CWH
Sort Order:Scientific Name Ascending

Notes 1. Citation: B.C. Conservation Data Centre. 2013. BC Species and Ecosystems Explorer. B.C. Minist. of Environ. Victoria, B.C. Available: <http://a100.gov.bc.ca/pub/eswp/> (accessed Jul 25, 2013).
2. Forest District, MoE Region, Regional District and habitat lists are restricted to species that breed in the Forest District, MoE Region, Regional District or habitat (i.e., species will not be placed on lists where they occur only as migrants).

BC Species and Ecosystems Explorer Search Results

Scientific Name	English Name	Biogeoclimatic Units	Status			Identified Wildlife	Land Use Objectives	CF Priority
			Provincial	BC List	Global			
<i>Carex lasiocarpa</i> - <i>Rhynchospora alba</i>	slender sedge - white beak-rush	CDFmm/Wf53 CWHmm1/Wf53 CWHmm2/Wf53 CWHxm1/Wf53 CWHxm2/Wf53	S2 (2004)	Red	G2			1
<i>Carex sitchensis</i> - <i>Oenanthe sarmentosa</i>	Sitka sedge - Pacific water-parsley	CWHvh2/Wm50 CWHwm/Wm50 CWHxm1/Wm50	S3 (2004)	Blue	G3		Haida Gwaii LUO	2
<i>Distichlis spicata</i> var. <i>spicata</i> Herbaceous Vegetation	seashore saltgrass Herbaceous Vegetation	CDFmm/Em03 CWHxm1/Em03	S2S3 (2008)	Red	GNR (2008)			2
<i>Leymus mollis</i> ssp. <i>mollis</i> - <i>Lathyrus japonicus</i>	dune wildrye - beach pea	CDFmm CWHdm CWHds1 CWHms2 CWHvh1 CWHvh2 CWHvm CWHvm1 CWHwh1 CWHwm CWHws1 CWHxm1 CWHxm2	S1S2 (2008)	Red	GNR			1
<i>Myrica gale</i> / <i>Carex sitchensis</i>	sweet gale / Sitka sedge	CDFmm/Wf52 CWHmm1/Wf52 CWHmm2/Wf52 CWHvh2/Wf52 CWHwm/Wf52 CWHxm1/Wf52 CWHxm2/Wf52	S2 (2004)	Red	G3		Haida Gwaii LUO	3
<i>Picea sitchensis</i> / <i>Rubus spectabilis</i> Very Dry Maritime	Sitka spruce / salmonberry Very Dry Maritime	CWHxm1/08 CWHxm2/08	S2 (2004)	Red	G3		Central and North Coast LUO South Central Coast LUO	2
<i>Pinus contorta</i> / <i>Sphagnum</i> spp. Very Dry Maritime	lodgepole pine / peat-mosses Very Dry Maritime	CWHxm1/11 CWHxm2/11	S3 (2004)	Blue	GNR			3
<i>Populus trichocarpa</i> - <i>Alnus rubra</i> / <i>Rubus spectabilis</i>	black cottonwood - red alder / salmonberry	CDFmm/08 CWHdm/09 CWHds1/09 CWHds2/09 CWHmm1/09 CWHms1/08 CWHms2/08 CWHvm1/10 CWHwm/06 CWHws1/08 CWHws2/08 CWHxm1/09 CWHxm2/09	S3 (2010)	Blue	GNR		Central and North Coast LUO South Central Coast LUO	2
<i>Populus trichocarpa</i> / <i>Salix sitchensis</i>	black cottonwood / Sitka willow	CWHdm/10 CWHxm1/10 CWHxm2/10	S2S3 (2004)	Blue	GNR		Central and North Coast LUO South Central Coast LUO	2

<i>Pseudotsuga menziesii</i> / <i>Mahonia nervosa</i>	Douglas-fir / dull Oregon-grape	CDFmm/01 CWHxm1	S2 (2010)	Red	G2	Y	1
<i>Pseudotsuga menziesii</i> - <i>Pinus contorta</i> / <i>Racomitrium canescens</i>	Douglas-fir - lodgepole pine / grey rock-moss	CWHxm1/02	S2 (2004)	Red	GNR		2
<i>Pseudotsuga menziesii</i> / <i>Polystichum munitum</i>	Douglas-fir / sword fern	CWHdm/04 CWHxm1/04 CWHxm2/04	S2S3 (2013)	Blue	G2G4	Central and North Coast LUO South Central Coast LUO	2
<i>Pseudotsuga menziesii</i> - <i>Tsuga heterophylla</i> / <i>Gaultheria shallon</i> Dry Maritime	Douglas-fir - western hemlock / salal Dry Maritime	CWHdm/03 CWHxm1/03 CWHxm2/03	S2S3 (2013)	Blue	G3G4	Central and North Coast LUO South Central Coast LUO	2
<i>Rhododendron groenlandicum</i> / <i>Kalmia microphylla</i> / <i>Sphagnum</i> spp.	Labrador tea / western bog-laurel / peat-mosses	CDFmm/Wb50 CWHdm/Wb50 CWHxm1/Wb50 CWHxm2/Wb50	S3 (2004)	Blue	G4		4
<i>Schoenoplectus acutus</i> Deep Marsh	hard-stemmed bulrush Deep Marsh	BGxh1/Wm06 BGxh2/Wm06 BGxw1/Wm06 BGxw2/Wm06 CDFmm/Wm06 CWHxm1/Wm06 ICHwk1/Wm06 IDFdk1/Wm06 IDFdk3/Wm06 IDFdk4/Wm06 IDFdk5/Wm06 IDFdm2/Wm06 IDFmw1/Wm06 IDFxm1/Wm06 IDFxm2/Wm06 IDFxm/Wm06 IDFxm/Wm06 MSdk/Wm06 MSdm2/Wm06 PPxh1/Wm06 PPxh2/Wm06 PPxh3/Wm06 SBPSmk/Wm06 SBPSxc/Wm06 SBSmk2/Wm06	S3 (2004)	Blue	G5		4
<i>Selaginella wallacei</i> / <i>Cladina</i> spp.	Wallace's selaginella / reindeer lichens	CDF CWHxm1 CWHxm2	S3	Blue	GNR		
<i>Sidalcea hendersonii</i> Tidal Marsh	Henderson's checker-mallow Tidal Marsh	CWHxm1/00	S1 (2004)	Red	G1		1
<i>Thuja plicata</i> / <i>Carex obnupta</i>	western redcedar / slough sedge	CWHdm/15 CWHxm1/15 CWHxm2/15	S2S3 (2013)	Blue	GNR		2
<i>Thuja plicata</i> / <i>Lonicera involucrata</i>	western redcedar / black twinberry	CWHdm/14 CWHxm1/14 CWHxm2/14	S1 (2010)	Red	GNR	Central and North Coast LUO South Central Coast LUO	1

<i>Thuja plicata</i> - <i>Picea sitchensis</i> / <i>Lysichiton americanus</i>	western redcedar - Sitka spruce / skunk cabbage	CWHdm/12 CWHds1/12 CWHds2/12 CWHmm1/12 CWHms1/11 CWHms2/11 CWHvh1/13 CWHvh2/13 CWHvm1/14 CWHwh1/12 CWHwh2/06 CWHws1/11 CWHxm1/12 CWHxm2/12	S3? (2004)	Blue	G3?	Central and North Coast LUO South Central Coast LUO	3
<i>Thuja plicata</i> / <i>Polystichum munitum</i> Very Dry Maritime	western redcedar / sword fern Very Dry Maritime	CWHxm1/05 CWHxm2/05	S2S3 (2009)	Blue	GNR	Central and North Coast LUO South Central Coast LUO	2
<i>Thuja plicata</i> / <i>Rubus spectabilis</i>	western redcedar / salmonberry	CWHdm/13 CWHxm1/13 CWHxm2/13	S1S2 (2009)	Red	GNR	Central and North Coast LUO South Central Coast LUO	1
<i>Thuja plicata</i> / <i>Tiarella trifoliata</i> Very Dry Maritime	western redcedar / three-leaved foamflower Very Dry Maritime	CWHxm1/07 CWHxm2/07	S2S3 (2013)	Blue	G3	Central and North Coast LUO South Central Coast LUO	2
<i>Tsuga heterophylla</i> - <i>Pseudotsuga menziesii</i> / <i>Eurhynchium oreganum</i>	western hemlock - Douglas-fir / Oregon beaked-moss	CWHxm1/01 CWHxm2/01	S2 (2013)	Red	G3G4	Central and North Coast LUO South Central Coast LUO	2
<i>Tsuga heterophylla</i> - <i>Thuja plicata</i> / <i>Blechnum spicant</i>	western hemlock - western redcedar / deer fern	CWHdm/06 CWHxm1/06 CWHxm2/06	S2 (2013)	Red	G2G3	Central and North Coast LUO South Central Coast LUO	2
<i>Typha latifolia</i> Marsh	common cattail Marsh	BGxh1/Wm05 BGxh2/Wm05 BGxw1/Wm05 BWBSmw/Wm05 CDFmm/Wm05 CWHdm/Wm05 CWHxm1/Wm05 CWHxm2/Wm05 IDFdk1/Wm05 IDFdk2/Wm05 IDFdk3/Wm05 IDFdk5/Wm05 IDFdm1/Wm05 IDFdm2/Wm05 IDFmw1/Wm05 IDFmw2/Wm05 IDFxh1/Wm05 IDFxh2/Wm05 IDFxm/Wm05 PPdh2/Wm05 PPxh1/Wm05 PPxh2/Wm05	S3 (2004)	Blue	G5		1

Search Summary

Time Performed Fri Jul 26 09:38:52 PDT 2013

Results 26 records.

Search Criteria Search Type: Ecological Communities
AND BC Conservation Status:Red (Extirpated, Endangered, or Threatened) OR Blue (Special Concern)
AND Forest Districts:Chilliwack Forest District (DCK)
AND MOE Regions:2- Lower Mainland
AND Municipalities: Richmond
AND BGC Zone, Subzone, Variant, Phase:CWHxm1
Sort Order:Scientific Name Ascending

Notes 1. Citation: B.C. Conservation Data Centre. 2013. BC Species and Ecosystems Explorer. B.C. Minist. of Environ. Victoria, B.C. Available: <http://a100.gov.bc.ca/pub/eswp/> (accessed Jul 26, 2013).

2. Biogeoclimatic Site Unit(s): This column indicates the BGC unit(s) on which each ecological community is known to occur (future inventories may indicate range extensions). The two digit number following the slash (01 and up) indicates that the ecological community occurs on a site series that is part of the B.C. Ministry of Forests (MOF) site series classification (see [MOF Regional Field Guides to Site Identification and Interpretation](#) for more information). A two digit number of '00' indicates that the ecological community occurs on a site unit that is not part of the MOF site series classification but is recognized from other vegetation and site classifications, and ecosystem mapping projects.

[Modify Search](#) | [New Search](#) | [Results](#)

APPENDIX D

KEYSTONE ENVIRONMENTAL LTD. GENERAL TERMS AND CONDITIONS FOR SERVICES

KEYSTONE ENVIRONMENTAL LTD.
GENERAL TERMS AND CONDITIONS FOR SERVICES

The terms and conditions set forth below govern all work or services requested by CLIENT as described and set forth in the Proposal of Keystone Environmental Ltd. ("Keystone") attached hereto, any Purchase Order issued by CLIENT or Agreement between Keystone and CLIENT. The provisions of said Proposal or Agreement govern the scope of services to be performed, including the time schedule, compensation, and any other special terms. The terms and conditions contained herein shall otherwise apply expressly stated to the contract or inconsistent with said Proposal or Agreement.

1. COMPENSATION

Unless otherwise stated in Keystone's Proposal, CLIENT agrees to compensate Keystone in accordance with Keystone's published rate schedules in effect on the date when the services are performed. Copies of the schedules currently in effect are attached hereto. Keystone's rate schedules are revised periodically; and Keystone will notify CLIENT of any such revisions and the effective date thereof which shall not be less than thirty (30) days after receipt of such notice. As to those services for which no schedule exists, Keystone shall be compensated on a time and materials basis as set forth in any change order executed pursuant to this Agreement.

2. PAYMENT

Unless otherwise agreed to in writing, invoices will be submitted monthly. Payment of invoices is due within thirty (30) days of receipt of the invoice. Invoices not paid within (30) days after date of receipt shall be deemed delinquent.

3. INDEPENDENT CONTRACTOR

Keystone shall be an independent contractor and shall be fully independent in performing the services of work and shall not act or hold themselves out as an agent, servant or employee of CLIENT.

4. KEYSTONE'S LIMITED WARRANTY

The sole and exclusive warranty which Keystone makes with respect to the services to be provided in the performance of the work is that they shall be performed in accordance with generally accepted professional practices and CLIENT's standards and specifications to the extent accepted by Keystone and shall be performed in a skillful manner.

In the event Keystone's performance of work, or any portion thereof, fails to conform with the above stated limited warranty, Keystone shall, at its discretion and its expense, proceed expeditiously to reperform the nonconforming, or upon the mutual agreement of the parties, refund the amount of compensation paid to Keystone for such nonconforming work. In no event shall Keystone be required to bear the cost of gaining access in order to perform its warranty obligations.

5. CLIENT WARRANTY

CLIENT warrants that: it will provide to Keystone all available information regarding the site, structures, facilities, buildings, and land involved with the work and that such information shall be true and correct; it will provide all licences and permits required for the work; that all work which it performs shall be in accordance with generally accepted professional practices; and it has title to or will provide right of entry or access to all property necessary to perform the work.

6. INDEMNITY

- a. Subject to the limitations of Section 7 below, Keystone agrees to indemnify, defend and hold harmless CLIENT (including its officers, directors, employees and agents) from and against any and all losses, damages, liabilities, claims, suits, and the costs and expenses incident thereto (including legal fees and reasonable costs of investigation) which any or all of them may hereafter incur, become responsible for or pay out as a result of death or bodily injuries to any person, destruction or damage to any property, private or public, contamination or adverse effects on the environment or any violation or alleged violation of governmental laws, regulations, or orders, to the extent caused by or arising out of: (i) Keystone's errors or omissions or (ii) negligence on the part of Keystone in performing services hereunder.
- b. CLIENT agrees to indemnify and hold harmless Keystone (including its officers, directors, employees and agents) from and against any and all losses, damages, liabilities, claims, suits and the costs and expenses incident thereto (including legal fees and reasonable costs of investigation) which any or all of them may hereafter incur, become responsible for or pay out as a result of death or bodily injuries to any person, destruction or damage to any property, private or public, contamination or adverse effects on the environment or any violation or alleged violation of governmental laws, regulations, or orders,

caused by, or arising out of in whole or in part: (i) any negligence or willful misconduct of CLIENT, (ii) any breach of CLIENT of any warranties or other provisions hereunder, (iii) any condition including, but not limited to, contamination existing at the site, or (iv) contamination of other property arising or alleged to arise from or be related to the site provided, however, that such indemnification shall not apply to the extent any losses, damages, liabilities or expenses result from or arise out of: (i) any negligence or willful misconduct of Keystone; or (ii) any breach of Keystone of any warranties hereunder.

7. **LIMITATION OF LIABILITY**

Keystone's total liability, whether arising from or based upon breach of warranty, breach of contract, tort, including Keystone's negligence, strict liability, indemnity or any other cause of basis whatsoever, is expressly limited to the limits of Keystone's insurance coverage. This provision limiting Keystone's liability shall survive the termination, cancellation or expiration of any contract resulting from this Proposal and the completion of services thereunder. After three (3) years of completion of Keystone's services, any legal costs arising to defend third party claims made against Keystone in connection with the project defined in the Proposal or Agreement will be paid in full by the CLIENT.

8. **INSURANCE**

Keystone, during performance of this Agreement, will at its own expense carry Worker's Compensation Insurance within limits required by law; Comprehensive General Liability Insurance for bodily injury and for property damage; Professional Liability Insurance for errors omissions and negligence; and Comprehensive Automobile Liability Insurance for bodily injury and property damage. At CLIENT'S request, Keystone shall provide a Certificate of Insurance demonstrating Keystone's compliance with this section. Such Certificate of Insurance shall provide that said insurance shall not be cancelled or materially altered until at least ten (10) days after written notice to CLIENT.

9. **CONFIDENTIALITY**

Each party shall retain as confidential all information and data furnished to it by the other party which relate to the other party's technologies, formulae, procedures, processes, methods, trade secrets, ideas, improvements, inventions and/or computer programs, which are designated in writing by such other party as confidential at the time of transmission and are obtained or acquired by the receiving party in connection with work or services performed subject to this Proposal or Agreement, and shall not disclose such information to any third party.

However, nothing herein is meant to prevent nor shall it be interpreted as preventing either Keystone or CLIENT from disclosing and/or using said information or data; (i) when the information or data is actually known to the receiving party before being obtained or derived from the transmitting party; or (ii) when the information or data is generally available to the public without the receiving party's fault; or (iii) where the information or data is obtained or acquired in good faith at any time by the receiving party from a third party who has the right to disclose such information or data; or (iv) where a written release is obtained by the receiving party from the transmitting party; or (v) as required by law.

10. **PROTECTION OF INFORMATION**

Keystone specifically disclaims any warranties expressed or implied and does not make any representations regarding whether any information associated with conducting the work, including the report, can be protected from disclosure in responses to a request by a federal, provincial or local government agency, or in response to discovery or other legal process during the course of any litigation involving Keystone or CLIENT. Should Keystone receive such request from a third party, it will immediately advise CLIENT.

11. **FORCE MAJEURE**

Neither party shall be responsible or liable to the other for default or delay in the performance of any of its obligations hereunder (other than the payment of money for services already rendered) caused in whole or in part by strikes or other labour difficulties or disputes; governmental orders or regulations; war, riot, fire, explosion; acts of God; acts of omissions of the other party; any other like causes; or any other unlike causes which are beyond the reasonable control of the respective party.

In the event of delay in performance due to any such cause, the time for completion will be extended by a period of time reasonably necessary to overcome the effect of the delay. The party so prevented from complying shall within a reasonable time of its knowledge of the disability advise the other party of the effective cause, the performance suspended or affected and the anticipated length of time during which performance will be prevented or delayed and shall make all reasonable efforts to remove such disability as soon as possible, except for labour disputes, which shall be solely within said party's discretion. The party prevented from complying shall advise the other party when the cause of the delay or default has ended, the number of days which will be reasonably required to compensate for the period of suspension and the date when performance will be resumed. Any additional costs or expense accruing or arising from the delaying event shall be solely for the account of the CLIENT.

12. **NOTICE**
Any notice, communication, or statement required or permitted to be given hereunder shall be in writing and deemed to have been sufficiently given when delivered in person or sent by facsimile, wire, or certified mail, return receipt requested, postage prepaid, to the address of the party set forth below, or to such address for either party as the party may be written notice designate.
13. **ASSIGNMENT/SUBCONTRACT**
Neither party hereto shall assign this Agreement or any part thereof or any interest therein without the prior written approval of the other party hereto except as herein otherwise provided. Keystone shall not subcontract the performance of any work hereunder without the written approval of CLIENT. Subject to the foregoing limitation, the Agreement shall inure to the benefit of and be binding upon the successors and permitted assigns of the parties hereto.
14. **ESTIMATES**
To the extent the work requires Keystone to prepare opinions of probable cost, for example, opinions of probable cost for the cost of construction, such opinions shall be prepared in accordance with generally accepted engineering practice and procedure. However, Keystone has no control over construction costs, competitive bidding and market conditions, costs of financing, acquisition of land or rights-of-way and Keystone does not guarantee the accuracy of such opinion of probable cost as compared to actual costs or contractor's bid.
15. **DELAYED AGREEMENTS AND OBLIGATIONS**
The performance by Keystone of its obligations under this Agreement depends upon the CLIENT performing its obligations in a timely manner and cooperating with Keystone to the extent reasonably required for completion of the Work. Delays by CLIENT in providing information or approvals or performing its obligations set forth in this Agreement may result in an appropriate adjustment of contract price and schedule.
16. **CONSTRUCTION PHASE**
To the extent the work is related to or shall be followed by construction work not performed by Keystone, Keystone shall not be responsible during the construction phase for the construction means, methods, techniques, sequences or procedures of construction contractors, or the safety precautions and programs incident thereto, and shall not be responsible for the construction contractor's failure to perform the work in accordance with the contract documents. Keystone will not direct, supervise or control the work of the CLIENT'S contractors or the CLIENT'S subcontractors.
17. **DOCUMENTATION, RECORDS, AUDIT**
Keystone when requested by CLIENT, shall provide CLIENT with copies of all documents relating to the service(s) of work performed. Keystone shall retain true and correct records in connection with each service and/or work performed and all transactions related thereto and shall retain all such records for twelve (12) months after the end of the calendar year in which the last service pursuant to this Agreement was performed. CLIENT, at its expense and upon reasonable notice, may from time to time during the term of this Agreement, and at any time after the date the service(s) were performed up to twelve (12) months after the end of the calendar year in which the last service(s) were performed, audit all records of Keystone in connection with all costs and expenses which it was invoiced.
18. **REPORTS, DOCUMENTS AND INFORMATION**
All field data, field notes, laboratory test data, calculations, estimates and other documents prepared by Keystone in performance of the work shall remain the property of Keystone. If required as part of the work, Keystone shall prepare a written report addressing the items in the work plan including the test results. Such report shall be the property of CLIENT, Keystone shall be entitled to retain three (3) copies of such report for its internal use and reference.

All drawings and documents produced under the terms of this Agreement are the property of Keystone, and cannot be used for any reason other than to bid and construct the project as described in the Proposal or Agreement.
19. **LIMITED USE OF REPORT**
Any report prepared as part of the work will be prepared solely for the internal use of CLIENT. Unless otherwise agreed by Keystone and CLIENT, parties agree that third parties are not to rely upon the report.
20. **SAMPLE MANAGEMENT**
Ownership of all samples obtained by Keystone from the project site is maintained by the CLIENT. Keystone will store such samples in a professional manner in a secure area for the period of time necessary to complete the project. Upon completion of the project, Keystone will return any unused samples or

portions thereof to the CLIENT or at Keystone's option dispose of the samples in a lawful manner and bill the CLIENT for all costs related thereto. Keystone will normally store samples for thirty (30) days. Written notice will be given to the CLIENT before finally disposing of samples.

21. **ACKNOWLEDGMENT AND RECOGNITION OF RISK**

CLIENT recognizes and accepts the work to be undertaken by Keystone may involve unknown undersurface conditions and hazards. CLIENT further recognizes that environmental, geologic, hydrological, and geotechnical conditions can and may vary from those encountered by Keystone at the times and locations where it obtained data and information and that limitations on available data may result in some uncertainty with respect to the interpretation of these conditions. CLIENT recognizes that the performance of services hereunder or the implementation of recommendations made by Keystone in completing the work required may alter the existing site conditions and affect the environment in the site area.

Unknown undersurface conditions, including underground utility services, tanks, pipes, cables and other works (Underground Works) may be present at the site. Keystone will conduct utility locates to obtain available information regarding the location of Underground Works in accordance with industry practice. Utility locates are not a guarantee of the location of, or existence of, Underground Works and as a result damage to Underground Works may occur. Keystone relies on utility locates and Client provided "as-built" and record drawings to determine the location and existence of Underground Works. CLIENT recognizes that the use of utility locates is not a guarantee or warranty that Underground Works may not be damaged and acknowledges that Keystone is not responsible for any damage caused to Underground Works or the repair of such damage or any resulting or related damage and any costs related to such damage.

22. **DISPOSAL OF CONTAMINATED MATERIAL**

It is understood and agreed that Keystone is not, and has no responsibility as, a generator, operator or storer of pre-existing hazardous substances or wastes found or identified at work sites. Keystone shall not directly or indirectly assume title to such hazardous or toxic substances and shall not be liable to third parties.

CLIENT will indemnify and hold harmless Keystone from and against all incurred losses, damages, costs and expenses, including but not limited to attorneys' fees, arising or resulting from actions brought by third parties alleging or identifying Keystone as a generator, operator, storer or owner of pre-existing hazardous substances or wastes found or identified at work sites.

23. **SUSPENSION OR TERMINATION**

In the event the work is terminated or suspended by CLIENT prior to the completion of the services contemplated hereunder, Keystone shall be paid for: (i) the services rendered to the date of termination or suspension, (ii) the demobilization costs, and (iii) the costs incurred with respect to noncancelable commitments.

24. **GOVERNING LAW**

This Agreement shall be governed by and interpreted pursuant to the laws of the Province of British Columbia.

25. **HEADINGS AND SEVERABILITY**

Any heading preceding the text of sections hereof is inserted solely for convenience or reference and shall not constitute a part of the Agreement and shall not effect the meanings, context, effect or construction of the Agreement. Every part, term or provision of this Agreement is severable from others. Notwithstanding any possible future finding by duly constituted authority that a particular part, term or provision is invalid, void or unenforceable, this Agreement has been made with the clear intention that the validity and enforceability of the remaining parts, terms and provision shall not be affected thereby.

26. **ENTIRE AGREEMENT**

The terms and conditions set forth herein constitute the entire Agreement and understanding or the parties relating to the provision of work or services by Keystone to CLIENT, and merges and supersedes all prior agreements, commitments, representation, writings, and discussions between them and shall be incorporated in all work orders, purchase orders and authorization unless otherwise so stated therein. The terms and conditions may be amended only by written instrument signed by both parties.



Keystone Environmental

Knowledge-Driven Results

June 3, 2014

Mr. David Brownlee
City of Richmond
6911 No. 3 Road
Richmond, BC
V6Y 2C1

Dear Mr. Brownlee:

**Re: Habitat Assessment in Environmentally Sensitive Area
9700 & 9740 Alexandra Road, Richmond, BC
Project No. 11800**

This letter summarizes *DRAFT Report of Findings – Biophysical Assessment*, Keystone Environmental, April 15, 2014, and provides details regarding our assessment of the site (9700 & 9740 Alexandra Road, Richmond).

Based on mapping layers provided by the City of Richmond Interactive Map¹ and the biophysical assessment conducted by Keystone Environmental in July 2013², the Environmentally Sensitive Area (ESA) present on site was split into two distinct Habitats. Habitat 1 consisted of 831 m² of 'Hardhack-Fireweed-Blackberry Open Habitat' contained within the ESA, while Habitat 2 consisted of 8,253m² of 'Deciduous-Dominated Mixed Community', also within the ESA (Table 1). It is our opinion that Habitat 1 and a 1,318 m² portion of Habitat 2 (Figure 1) do not meet the criteria for ESA Upland Forest as defined by the City of Richmond. Table 1 summarizes the habitat values present in both areas.

	Fish and Fish Habitat	Vegetation Diversity and Health	Wildlife Habitat Connectivity	Invasive Species Presence	Overall Rank
Habitat 1	N/A	Low	Low	High	Low
Habitat 2	N/A	Moderate	Low	High	Low

Table 1: Summary of Habitat Values - 9700 & 9740 Alexandra Road.

The remaining 6,935 m² area in Habitat 2 is considered low value habitat due to a high density of invasive Himalayan blackberries and die-back of paper birch (possibly due to birch borer infestation). This area has ornamental fruit trees interspersed throughout, and does not have significant representation of other tree species listed in the ESA definition of Upland Forest (i.e. western red cedar, western hemlock, black cottonwood, etc.). Based on the City of Richmond requirement to provide an

¹ <http://rim.richmond.ca/rim/Viewer.aspx?Site=RIM&ReloadKey=True>, accessed July 2013

² Keystone Environmental (2014) *DRAFT Report of Findings – Biophysical Assessment*. 9700 & 9740 Alexandra Road, Richmond, BC. Project No. 11800 (v2.0). April 15, 2014.

aerial based assessment and overall habitat balance for proposed development within an ESA, we are recommending a replacement habitat ratio of 1:0.25 (impact habitat to replacement habitat) to represent the low ESA habitat values or components present on-site. Using this calculation, 1,733 m² of habitat will be present at the completion of the proposed development.

The landscape plans, developed by ETA landscape architecture, are presented in Figure 2. Based on this figure, the total retained habitat, habitat buffer area and planted areas throughout the development is approximately 1,750 m². The planned landscaping includes enhanced habitat values (including a stormwater collection area for wetland species), including native species and fruiting species, and orients green spaces north and south to serve as potential wildlife corridors, allowing for connectivity with green spaces located to the northwest of the site across Alexandra Road and south of the site across Alderbridge Way.

Sincerely,

Keystone Environmental Ltd.

Original signed by

Original signed by

Craig S. Patterson, B.Sc.
Project Manager

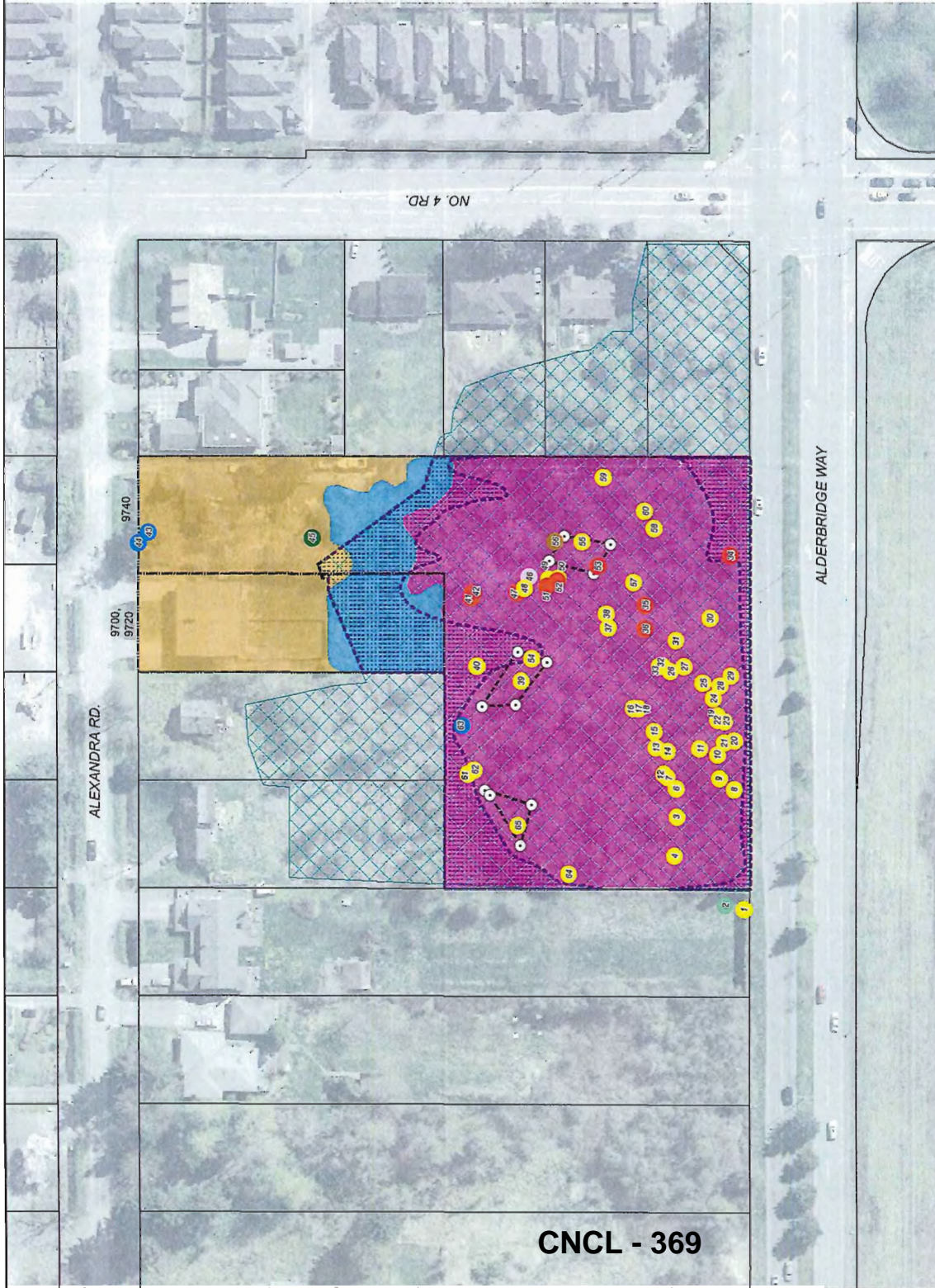
Jennifer Trowell, M.ET.
Risk Assessment and Biology Department

cc. Chris Ho, Polygon Development 296 Ltd.

I:\11800-11899\11800\Phase 000104 - Biophys Assmt\City Correspondence\11800 140603 Revised ESA Habitat Balance.docx

DRAFT

- Legend**
- Site
 - Property Lines
 - Environmentally Sensitive Area
 - Non-ESA Habitat
 - Habitat Survey
 - Residential
 - Habitat 1 - Hardhack & Fireweed
 - Habitat 2 - Deciduous Forest
 - Survey Quad - GPS Waypoints
 - Survey Quad Areas
 - Tree Survey - Species
 - Birch
 - Pine
 - Cherry
 - Douglas Fir
 - Cedar
 - Apple
 - Alder



NOTE: THIS DRAWING IS FOR GENERAL INFORMATION ONLY.
LOT BOUNDARIES AND FEATURES ARE APPROXIMATE.



DRAWN BY: JM Document Path: I:\11800-11895\11800\Phase 000104 - Biophys Assem\Fig1Jan. 2014\11800-104-Fig1-Habitat Survey June 2014-PA.mxd

10 0 40 m
SCALE: 1:1,000

9700, 9720 & 9740 Alexandra Road
Richmond, BC
Polygon Development 296 Ltd.
REVISION No. A
DATE June 2014
PROJECT No. 11800-104

Figure 1
Habitat Survey
February 2014 Survey Quads

Arborist Report

Client: Att: Chris Ho
Polygon Homes Ltd.
900-1333 West Broadway
Vancouver, B.C.
V6H 4C2
Tel: 604-871-4181

Subject Property: Jayden Mews
9700 – 9740 Alexandra Rd.
Richmond, B.C.

Prepared by: Pacific Sun Tree Services
1126 Stevens Street
White Rock, B.C. V4B 4X8
604-323-4270
andermatt.forest@shaw.ca
www.pacificsuntree.com

Dave Andermatt
ISA Certification: PN6285A
Certified Tree Risk Assessor: No. 364



Project Overview

Pacific Sun Tree Services has been retained by Polygon Homes Ltd. to conduct an assessment of the tree inventory on the subject property. Trees identified in the previous report prepared by Pacific Sun Tree Services, Preliminary Assessment Arborist Report, dated January 10, 2014, have been surveyed and have been fully assessed for inclusion within this report. The majority of the trees on site are in the currently undeveloped portion of the property (essentially the southern half). As requested by the city of Richmond, given the poor condition and large number of these trees, a survey of these trees and individual details is not required. Instead, the trees required tallying and grouping for general description by the project arborist. These findings are provided in this report in conjunction with the detailed assessment of the surveyed trees.

Pacific Sun Tree Services was provided with a site plan of the property including tree locations. A site visit was conducted on May 12 & 15, 2014.

Findings

Details of tree condition and recommendations for retention or removal are provided in the following table. Note that the 'Health' rating for the trees is based on the tree's growth history and vigour, and accounts for any disease or abiotic factors afflicting the health of the tree. A tree's 'Form' refers to its structural condition and includes identifying natural deformities as well as man-made defects such as poor/damaging pruning practices. Trees that are significantly compromised due to health and/or form are not recommended for retention.

As outlined above in the Project Overview, the trees in the undeveloped portion of the Jayden Mews property have been tallied. These trees have also been delineated into four different groups based on geographic distribution. These findings are listed in the table 'Non Surveyed Trees'. Note that some of the trees shown on the survey are under permit size and are accordingly not included in this report. Also, some of the surveyed trees are poor condition and consistent with the non surveyed tree category and have been tallied under and addressed in this section of the report. Below is a summary of all permit trees on site:

Tree Tally Summary

Tree Category	Number of Permit Size Trees
Surveyed Trees	19
Non Surveyed Trees (4 Groups)	68
Total	87

Also one tree (#312) is on city property to the west. Therefore a total of 88 trees addressed.



Surveyed Tree Findings

Tree I.D.	Species	DBH (cm)	Crown Radius (m)	Health	Form	Observations & Recommendations
149	Shore Pine (<i>Pinus contorta</i> var. <i>contorta</i>)	30	3	Poor	Very Poor	Southward lean. Very poor basal stem formation, particularly on the north side where some compression failure has occurred and significant decay is present. Column of decay extends 2+ metres on the west side. Significant stem deformation also at 3.5m. Very Low quality tree not suitable for retention. Recommendation: Remove Tree.
150	English Oak (<i>Quercus robur</i>)	27	3.8	Moderate – Good	Good	Narrow crown due to adjacent tree competition. Natural thinning (shading) resulting in raised crown to about 5m. Overall narrow and raised crown as well as uncommon species contribute toward being a candidate for retention. Recommendation: Retain Tree.
151	Birch (<i>Betula</i>)	23 x2 +17+19 +25	5	Good	Moderate – Good	Four of the five stems are growing southward (phototropic lean) with essentially their entire canopy south of the tree base. The exception is a northward growing stem with extensive decay in the lower 1.5m as well as top dieback in the crown. Given the orientation of the tree crown, this tree could be retained. Recommendation: Retain Tree.
304	Douglas-fir (<i>Pseudotsuga menziesii</i>)	80	7.5	Moderate	Moderate – Poor	Fairly poor crown formation. Low aesthetics. Not a good candidate for long term retention. This large tree is adjacent to the planned Building 1 and will not be possible to retain. Recommendation: Remove Tree.
305	Western Hemlock (<i>Tsuga heterophylla</i>)	80	6.5	Poor	Very Poor	Historically topped/broken @ 8m. Secondary stem broken off @ 4m on west side beside small, dead stem. Also a dead/broken stem on south side. Very poor aesthetics. Not a good candidate for long term retention. This large tree is too close to the planned Building 1 for retention to be possible. Low quality tree not suitable for retention. Recommendation: Remove Tree.
312	Birch (<i>Betula</i>)	56	5.5	Good	Moderate	Growing at south edge of open ditch with slight lean northward in lower half of crown. Some historical topping cuts to reduce branch length but overall crown is in fairly good condition. <u>City Tree</u> Recommendation: Retain Tree.



Tree I.D.	Species	DBH (cm)	Crown Radius (m)	Health	Form	Observations & Recommendations
329	Western Redcedar (<i>Thuja plicata</i>)	130	7	Moderate – Good	Moderate – Poor	Large codominant stems with attachment @ 1.5m. Eastern stem historically topped or broken @ 7m resulting in 2 stems regrowth with one dominant. The smaller, but still fairly large stem has a poorly structured vertical attachment. Not suitable for long term retention given risk level for failure. Too close to planned Building 3 for feasible retention. Recommendation: Remove Tree.
330	Western Redcedar (<i>Thuja plicata</i>)	68	5.5.	Moderate – Poor	Poor	Historically topped @ 5.5m Main stem has regrown on north side, another large stem on east side has been cut in years past @ about 2m from point of origin. Secondary stems, signs of low vigour. Not suitable for long term retention. Located just inside envelope of planned Building 3. Recommendation: Remove Tree.
336	Sycamore Maple (<i>Acer pseudoplatanus</i>)	27+28	5.4	Good	Moderate	Base of tree is growing against the foundation of the existing house. Codominant stems attached @ 1m. Not possible to retain during demolition of existing house. Tree is located within the planned Jayden Mews roadway. Recommendation: Remove Tree.
337	Sycamore Maple (<i>Acer pseudoplatanus</i>)	30+37	6	Moderate	Moderate – Good	Codominant stems attached @ ½ m. Advanced decay at point of attachment on east side and down into root crown and to north side. Hazardous tree. Located at foundation of planned Building 3. Recommendation: Remove Tree.
340	Cherry (<i>Prunus</i>)	25+30	6	Moderate	Moderate	Secondary stem attached @ 1m. Lower half of crown has died back from shading due to adjacent tree competition. Tree is located midway within the planned Jayden Mews roadway. Recommendation: Remove Tree.
341	Cherry (<i>Prunus</i>)	40	6	Moderate – Good	Moderate – Good	Multi-stemmed structure with attachment @ 1.5+m. Some dieback in shaded lower crown, particularly on north and east sides, otherwise fairly full crown. Tree is located midway within the planned Jayden Mews roadway. Recommendation: Remove Tree.



Tree I.D.	Species	DBH (cm)	Crown Radius (m)	Health	Form	Observations & Recommendations
342	Cherry (<i>Prunus</i>)	20 x2 +15	5	Moderate – Good	Moderate	Basal stem attachment; codominant @ 1m. Some inner crown dieback , lower north side due to shading from competition. Tree is located at edge of planned Jayden Mews roadway and within planned parking space. Recommendation: Remove Tree.
365	Sycamore Maple (<i>Acer pseudoplatanus</i>)	18+19+ 21+22+ 12 x2	5.8	Good	Moderate	Multi-stemmed tree with basal attachments. Across from outdoor play area. <u>Shared tree with Neighbour.</u> Recommendation: Retain Tree.
366	Sycamore Maple (<i>Acer pseudoplatanus</i>)	25+30	4	Moderate – Good	Poor	Basal attachment with union around old decaying stump, not structurally sound. Confined crown development due to adjacent trees' competition. Recommendation: Remove Tree.
367	Sycamore Maple (<i>Acer pseudoplatanus</i>)	28+43+ 31 x2	7	Good	Moderate – Poor	Four stems with basal attachment along a well defined north-south alignment. Fairly good structure except northern stem - significant included bark between the northern two stems. North stem is codominant @ 1.5m, with significant included bark. Recommendation: Remove Tree.
376	Cherry (<i>Prunus</i>)	45	5.5	Moderate – Good	Moderate – Good	Slight lean to southeast. Some vine growing into crown. Fairly good condition. Located close to the planned Building 9, Jayden Mews roadway and a parking stall. Not possible to retain. Recommendation: Remove Tree.
380	Douglas-fir (<i>Pseudotsuga menziesii</i>)	36	4.6	Good	Moderate – Good	Slight lean southeast. Lower 4m of crown has largely died back from shading. Nice condition, healthy young tree. Recommendation: Retain Tree.
386	Birch (<i>Betula</i>)	20+26	4	Moderate – Good	Moderate – Poor	Very pronounced lean southward and weak stem structure. Poor quality tree for retention. Recommendation: Remove Tree.
387	Birch (<i>Betula</i>)	18	2.7	Moderate – Good	Moderate	Significant lean southward with correction only near top. Leans out over Alderbridge, but generally fair condition. Adjacent to planned green space. Recommendation: Retain Tree.



Non Surveyed Tree Findings

Group	Species			Total Permit Size Trees
	Birch	Cherry	Other	
East	12	5	4	21
Alderbridge	32	2	1	35
Open	3	0	0	3
Northwest	9	0	0	9
Total	56	8	5	68

* See attached 'Tree Location Overview Plan' for delineation of Group areas.

Non Surveyed Tree Groups – Description

East Group

Predominantly Birch trees, this area also has a significant portion of Cherry. The remaining trees are Maple and Crab-apple. The birch are in varying degrees of decline with top dieback found on all and in some cases very extensive where the top half of the crown or more has died and often already broken apart. The Cherry trees are fairly numerous in the south central portion of this group, however, most are young, non-permit sized trees. The permit sized trees have poor crown development due to the high stand density.

Alderbridge Group

Slightly more than half the non-surveyed trees are found in this group. Almost entirely comprised of Birch trees, a number of which are of relatively large size (30 to 40 cm dbh). However, regardless of size, the Birch are again declining and in poor quality.

Open Group

It is expected that this area was previously occupied by predominantly Birch but the trees have already declined and failed leaving only dense underbrush that has prevented almost any new tree establishment – the one notable exception is the Douglas-fir (Tree #380) which has been selected for retention in the new development.

Northwest

Continuation of declining, poor quality Birch.



Tree Protection: Detailed Recommendations

The Tree Protection Zones (TPZ) are delineated by the location of the Tree Protection Barriers which are identified on the attached Tree Location & Protection Plan. No work is permitted within the TPZ as well as no access by machinery or storage of soil (including site loading), equipment or any other materials.

Any underground service installation must be done outside of the TPZ outlined by this report, or additional arborist assessment is required as directed by the city once utility service line locations are available. Retaining walls with continuous footings are prohibited within the TPZ. If a retaining wall is planned for installation within a TPZ, the specifications relating size and location of post footings is required for additional arborist assessment or as required by the city once this information is available.

Tree #150:

The Tree Protection Barrier is located 6m north and south of the tree. The east side of the Barrier is 4.2m from the property line. (See Tree Protection Plan #1)

Tree #151:

North stem removal

The north stem requires removal by the project arborist. This should be conducted concurrent with clearing activity on the site.

The Tree Protection Barrier begins 4m east of the tree and extends further east to 6.5m then turns south for 6.5m, then turns west for 13m. The Barrier then turns north 6.5m (directly west of the tree) and then angles to meet a point 4m north of the tree. The Barrier then turns at an angle to connect with the beginning point. (See Tree Protection Plan #1)

Tree #312:

The Tree Protection Barrier is located to protect roots within the area adjacent to the open ditch. The Barrier begins at the northwest corner of the property, extends north to the break-line (approximately 4.8m), then turns west parallel to the road then south alongside the end of the open ditch until just east of the tree. (See Tree Protection Plan #2)

Tree #365:

The Tree Protection Barrier is located at the property line both 6m north and south of the center of the tree, and extends at an angle to a point 7m east of the tree. (See Tree Protection Plan #2)



Tree #380:

The Tree Protection Barrier is located around the tree at a 5.5m radius. (See Tree Protection Plan #1)

Crown Pruning

The project arborist should conduct pruning to raise the crown to approximately 4m height to remove dead and poor quality branches due to natural shading dieback.

Tree #387:

The Tree Protection Barrier is located 3.5m west, north and east of the tree. The south side of the Barrier is 4m from the tree. (See Tree Protection Plan #1)

All Protected Trees**Tree #150, 151, 312, 365, 380 & 387:****Excavation Supervision**

Arborist supervision during the excavation in the area adjacent (within 10 feet) to the identified TPZ (Tree Protection Barriers) to reduce or eliminate fracturing along roots into the TPZ. Concurrently, the arborist will conduct an assessment of damaged roots near the TPZ boundary and implement root pruning as required to facilitate wound closure, and promote new root development. A summary of the impact on the tree, the mitigating treatments conducted and any further recommendations will be prepared and submitted to the client and/or city staff.

Root Zone Drainage

With the alteration of soil hydrology on the site surrounding the TPZ, and in particular the raised grades, it is critical for the tree's survival to ensure proper drainage. The tree well area, or at a minimum, the area identified as the TPZ, must have permanent installed drainage that maintains natural water table levels. If necessary, due to surrounding grade increases and location of available storm drain connections, the root zone area may require installation of a pump to remove excess water.

Ensure Adherence to Tree Protection Bylaw No. 8057.

Prior to undertaking any works on the site:

trees recommended for removal in this report must also be given approval and issued permitting for removal by the city;

all trees proposed for retention must be properly protected; and

protection measures must be inspected and approved by the City's Tree Protection Staff.



Attachments

Item	Pages
Tree Management Plan	1
Non-Surveyed Tree Groups	1
Tree Protection Plan #1	1
Tree Protection Plan #2	1
Total	4

Limitations

The arboricultural assessment of the trees discussed in this report has been conducted to determine their health and condition and consequently their viability for retention. The report and its recommendations are based on the field observations made on the date that they were assessed and on the plans received by Pacific Sun Tree Services. The inspection is limited to external signs and sounding within the lower portion of the trees.

All trees pose a risk and not all conditions can be accounted for. The recommendations and opinions outlined in this report are applicable to the conditions identified on the day of assessment only. Trees should be reassessed on a regular schedule. Pacific Sun Tree Services does not, unless specifically engaged to do so, have any inspection or supervisory responsibility for any trees discussed in this report. Inspections on the property are limited to those relevant to the proposed development described in this report, and are recorded, presented in this report, and submitted to the client.

If there are any questions regarding this report, please contact Pacific Sun Tree Services.

Dave Andermatt, RPF
ISA Certified Arborist


Signature



Tree Management

Plan - Jarden Mews

Retain Tree

Remove Tree

Crown
Dripline

100

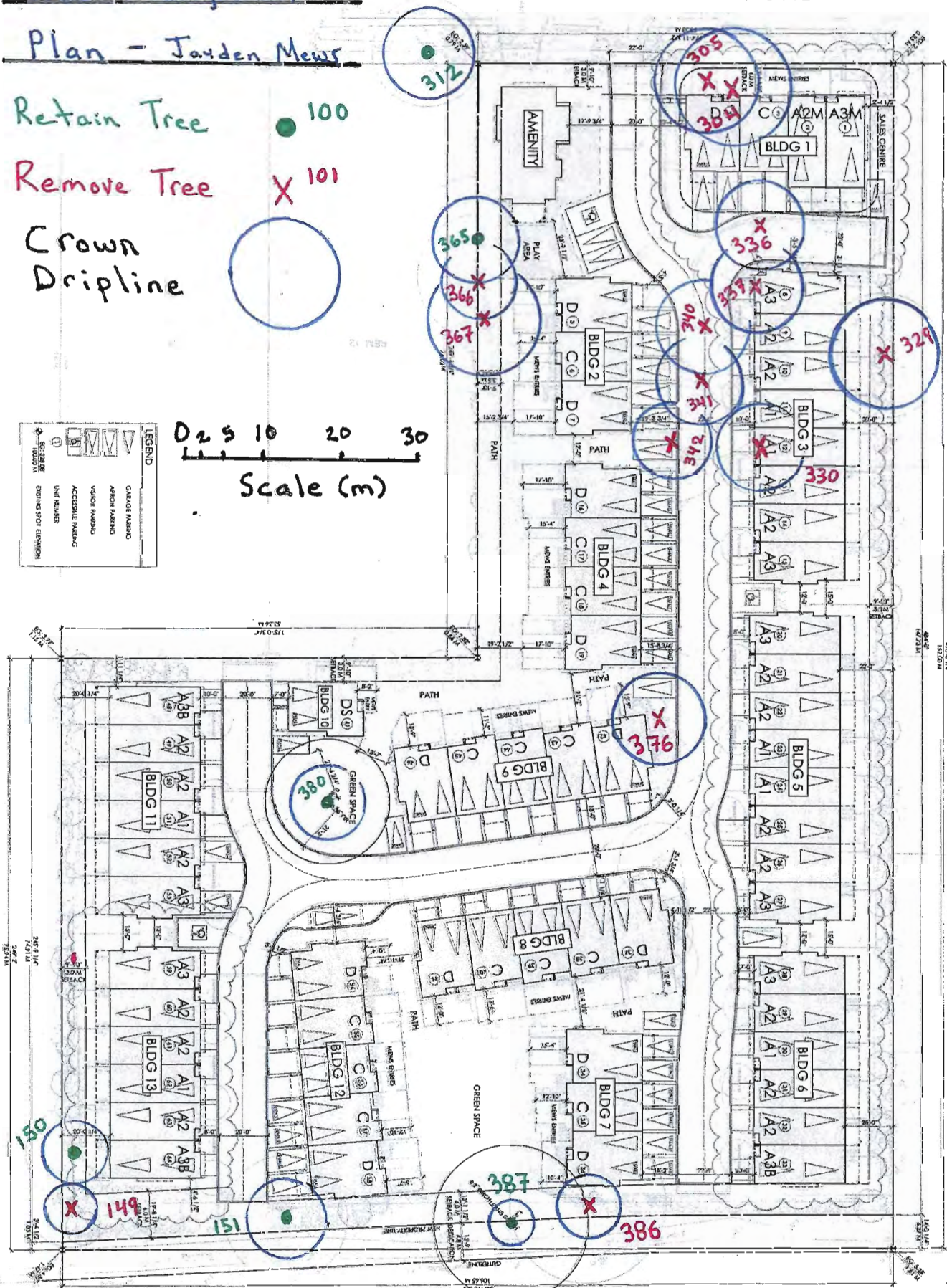
X 101

0 2 5 10 20 30

Scale (m)

LEGEND	
	CARRIAGE PARKING
	AMENITY PARKING
	VISITOR PARKING
	ACCESSIBLE PARKING
	UNIT NUMBER
	BUILDING FOOTPRINT
	ELEVATION

ALEXANDRA ROAD



MEDIAN TO BE PLANTED FOR CITY

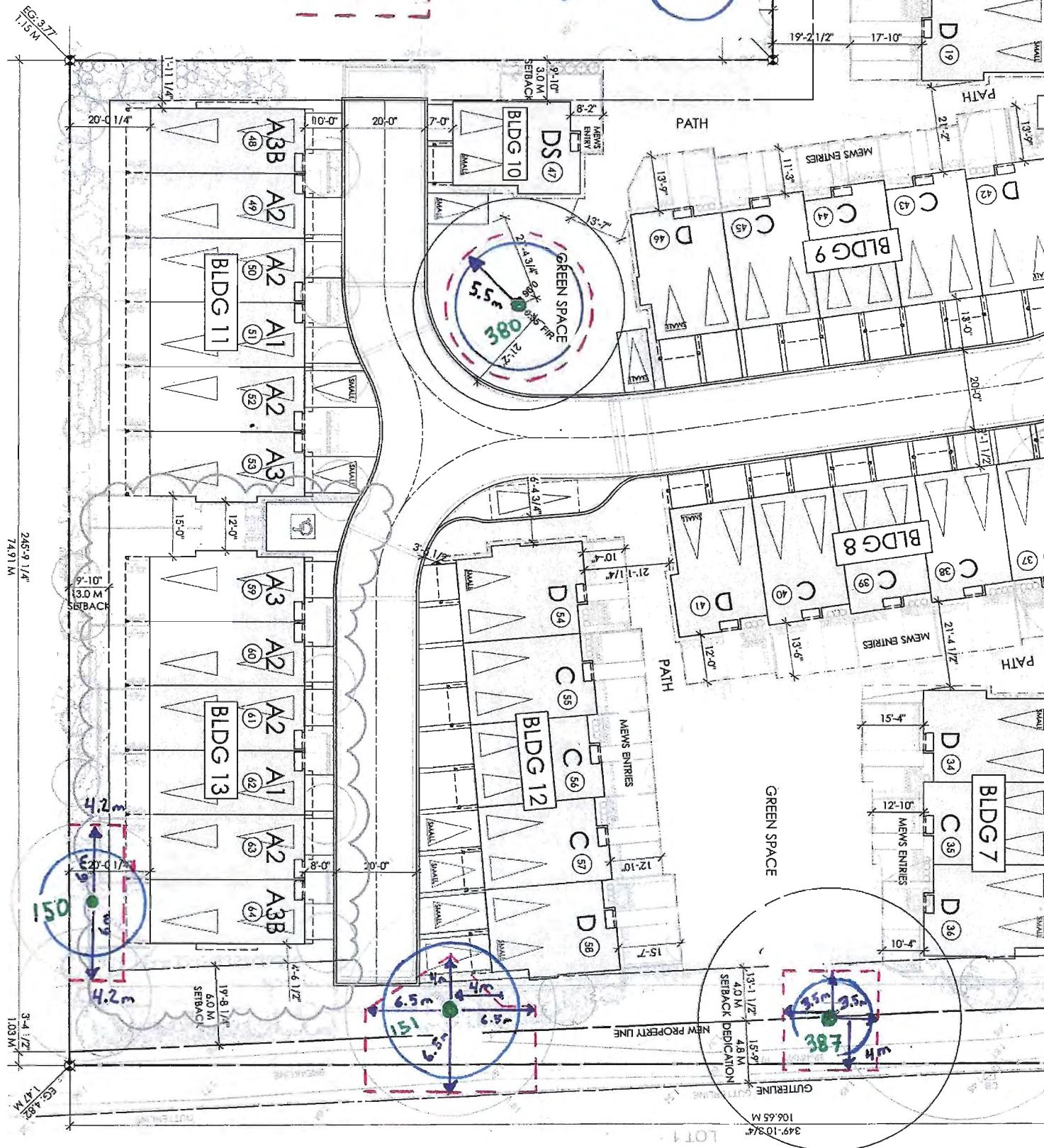
ALONCE ID 379 WAY

MEDIAN TO BE PLANTED FOR CITY

A horizontal scale bar with tick marks at 0, 2, 5, and 10. Below the bar is the label "Scale (m)".

Tree Protection Barrier

Crown
Dripline



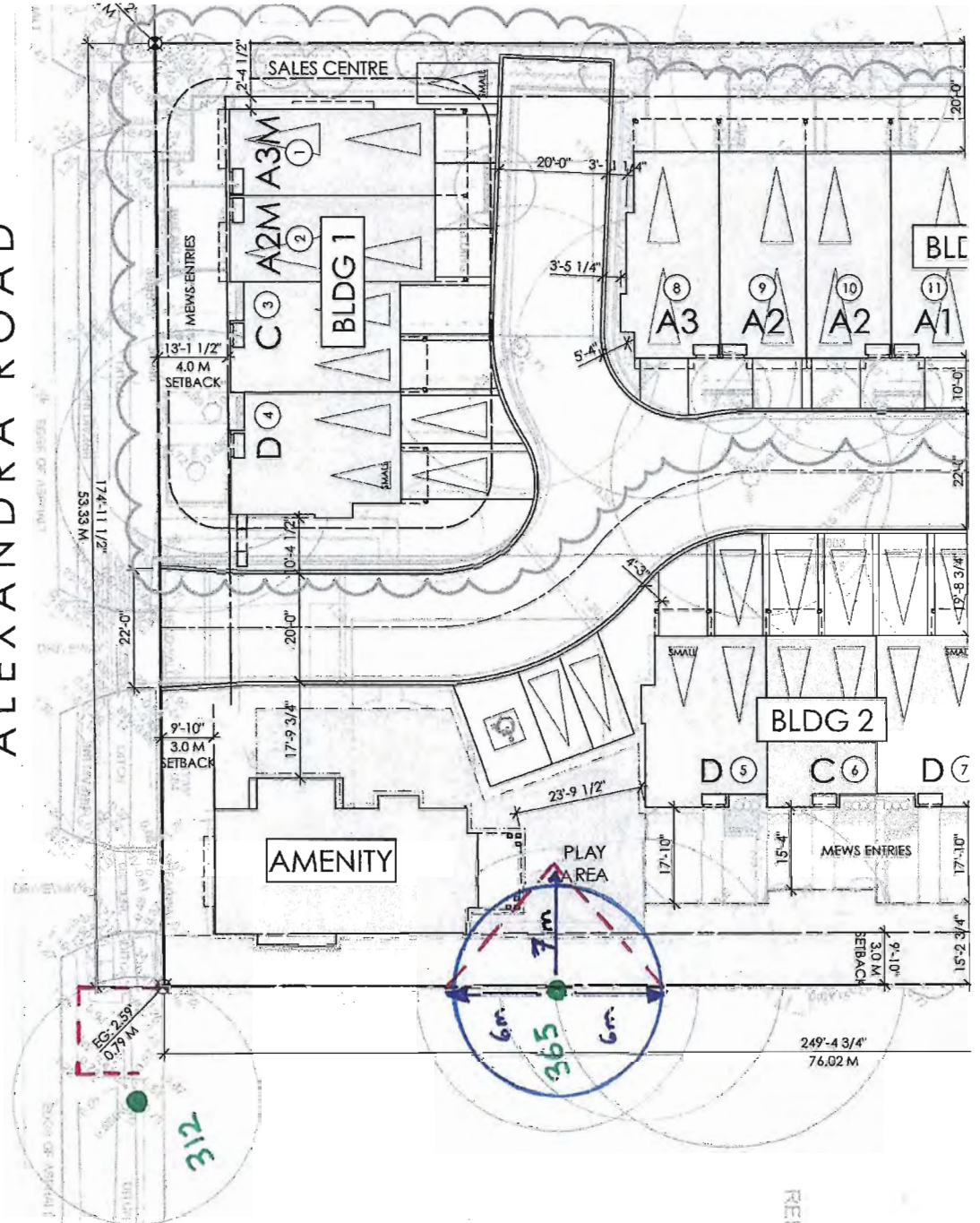
MEDIAN TO BE PLANTED PER CITY

ALDERBRIDGE WAY

CNCL - 380

Tree Protection Plan #2 - Jordan Mews

ALEXANDRA ROAD



0 2 5 10
Scale (m)

CNCL 381

Tree Protection
Barrier

Crown
Dripline

REM. 12



document shows the location of the trees and features with reference to the boundaries of the surveyed area. It is not to be used to define any lines or property corners, should be used in conjunction with a current title search to determine any changes that may affect land use.

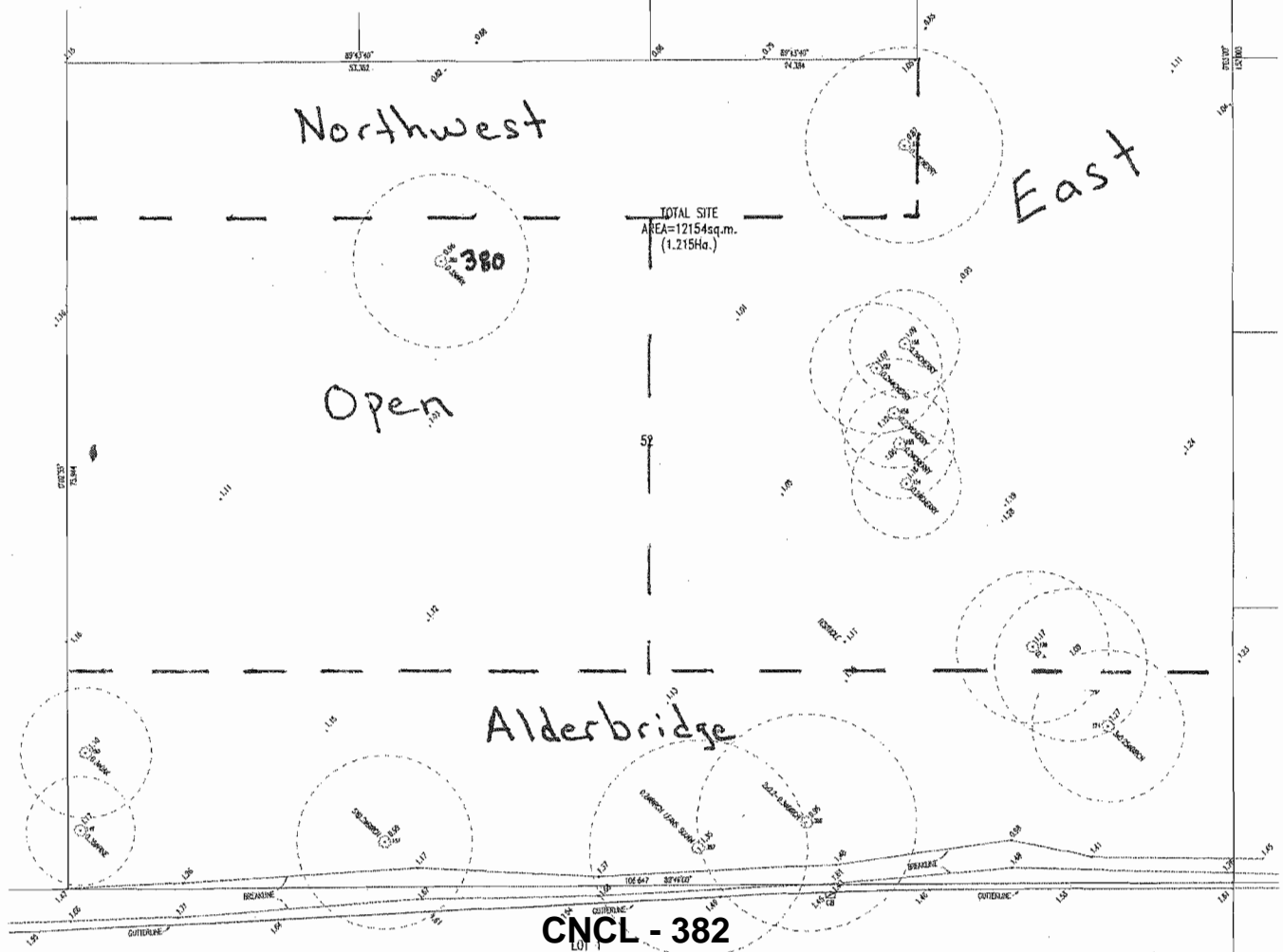
BOUNDARIES ARE FROM THE SURVEY

ALEXANDRA ROAD

Non-Surveyed Tree

Groups - Tarden Mews

Approximate Group Boundary Location





Rezoning Considerations

Development Applications Division
6911 No. 3 Road, Richmond, BC V6Y 2C1

Address: 9700 and 9740 Alexandra Road

File No.: RZ 13-649641

Prior to final adoption of Richmond Zoning Bylaw 8500, Amendment Bylaw 9159, the developer is required to complete the following:

1. Land dedication along the entire Alderbridge Way frontage (approximately 1.5 m wide at the eastern limit of the site and such width reduces to approximately 1.2 m wide at the western limit) in order to accommodate the road cross section inclusive of a 1.5 m wide treed boulevard and a 3.3 m wide shared cyclist/pedestrian path.
2. Consolidation of all the lots into one development parcel (which will require the demolition of all the existing dwellings).
3. 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.
4. Registration of an aircraft noise sensitive use covenant on title.
5. Registration of a legal agreement on title identifying that the proposed development must be designed and constructed to meet or exceed Ener-guide 82 criteria for energy efficiency and that the dwellings are pre-ducted for solar hot water heating. A report by a qualified professional prepared to the satisfaction of the Director of Development is to be submitted certifying that the units meet the Ener-guide 82 criteria and that the solar heating pre-ducting has been installed.
7. Registration of a flood plain covenant on title identifying a minimum habitable elevation of 2.6 m GSC.
8. Registration of a legal agreement on title ensuring that, with the exception of emergency vehicles, there will be no vehicle access to Alderbridge Way.
9. With the exception of specific hazard trees or trees preventing building demolitions, on-site trees within the designated ESA shall not be removed until a Development Permit has been issued.
10. City acceptance of the developer's offer to voluntarily contribute \$0.77 per buildable square foot (e.g. \$70,162.85) to the City's Public Art fund based on a buildable area of 91,120.59 ft².
11. City acceptance of the developer's offer to voluntarily contribute cash-in-lieu of built affordable housing units. The cash contribution in the amount of \$678,107.00 to be deposited entirely (100%) to the City's capital Affordable Housing Reserve.
12. City acceptance of the developer's offer to voluntarily contribute the following amounts for Community and Engineering Planning Costs of \$0.07 per buildable square foot (e.g. \$6,378.44 based on 91,120.59 ft²). (Account 3132-10-520-00000-0000). Contribution estimates will be recalculated through the Development Permit once the final buildable space has been refined.
13. City acceptance of the developer's offer to voluntarily contribute the following amounts for Child Care Contribution of \$0.60 per buildable square foot (e.g. \$54,672.35 based on 91,120.59 ft²) (Account 7600-80-060-90158-0000). Contribution estimates will be recalculated through the Development Permit once the final buildable space has been refined.
14. City acceptance of the developer's offer to voluntarily contribute the following amounts for City Beautification contribution of \$0.60 per buildable square foot (e.g. \$54,672.35 based on 91,120.59 ft²). Note that the amount of the City Beautification contribution may be reduced once the value of the frontage improvements have been determined through the Servicing Agreement (Account 2264-10-000-90582-000). Contribution estimates will be recalculated through the Development Permit once the final buildable space has been refined.
15. Registration of a legal agreement on title prohibiting the conversion of the tandem parking area into habitable space.

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16. Discharge of Covenant AD285974 from title (a covenant that restricts the use on 9700 Alexandra Road to Two Family Dwelling).
17. The submission and processing of a Development Permit* completed to a level deemed acceptable by the Director of Development.
18. Enter into a Servicing Agreement* for the design and construction of frontage improvements. Works include, but may not be limited to:

Sanitary

The developer is responsible for the following sanitary works:

1. Construct a 200 mm diameter gravity sanitary sewer at 0.40% (min) along Alexandra Road from the east property line of the development site to May Drive.
2. Construct a 375 mm diameter sanitary sewer along May Drive from Alexandra Road to Tomicki Avenue and connect to existing system on Tomicki Avenue.
 - a) Existing manhole SMH52070 will need to be shifted approximately 4 m to the south to accommodate the ultimate alignment of system on Tomicki Avenue.
 - b) A minimum 6.0 m wide Statutory Right of Way (SRW) for utility purposes is required for the proposed sanitary sewer within the future May Drive connecting Alexandra Road and Tomicki Avenue. The required SRW is located within 9451 and 9471 Alexandra Road and is to be measured 6.0 m from the east property lines of these two properties.

Water

1. Using the OCP Model, there is 212 L/s available at 20 psi residual on Alexandra Road and 522 L/s available at 20 psi residual on Alderbridge Way. Based on your proposed rezoning, your site requires a minimum fire flow of 220 L/s. Once you have confirmed your building design at the Building Permit stage, you must submit fire flow calculations signed and sealed by a professional engineer based on F.U.S or ISO to confirm that there is adequate available flow.
2. If adequate flow is not available, then upgrades beyond the development site frontage may be required, which could include constructing a 200 mm diameter watermain along May Drive from Alexandra Road to Tomicki Avenue or from Alexandra Road to Alderbridge Way.
3. Replacement of existing AC watermain is required from the west property line of the development site to No 4 Road; the replacement may need to extend west of the development site frontage due to the required off-site improvements.
4. Additional fire hydrants are required to achieve minimum spacing requirement for the mutli-family areas.

Additional Requirements

The developer is responsible for the under-grounding of the existing private utility pole line (subject to concurrence from the private utility companies) along Alexandra Road. Private utility companies will require rights-of-ways for their equipment (i.e. vistas, kiosks, transformers, etc.); the developer is required contact the private utility companies to learn of their requirements.

Developer responsible for the design and construction of the following:

- a) Alexandra Road frontage (from north to south):
 - Maintain the existing extruded curb on the north side;
 - Widen travel portion of the road to 8.5 m wide;
 - Construct a new 0.15 m wide curb/gutter;
 - Provide a minimum 1.2 m wide treed boulevard (Parks should be consulted on whether additional width is necessary, which would trigger a need for additional right-of-way to be secured from the subject development.);
 - Provide a 2.0 m wide sidewalk;
- Note:
- Above road cross-section is recommended based on maintaining the existing ditch on the north side of the road. Engineering should be consulted to confirm if alternate ditch treatment is required as part of this

development, which would change the location of the above road cross-section within the existing road right-of-way; and

- Outside the development frontage to No. 4 Road, 8.5 m wide pavement width and an interim 1.5m wide asphalt walkway should be provided.

b) Alderbridge Way frontage (from existing curb to north):

- Maintain the existing curb/gutter;
- Provide a 1.5 m wide treed boulevard; and
- Provide a 3.3 m wide shared cyclist/pedestrian path.

Required land dedication:

- a) Alderbridge Way: A strip of land required (approximately 4.8 m wide at eastern limit of the site and such width reduces towards west) in order to accommodate the road cross-section referenced in 1b) to the back of the 3.3 m wide shared cyclist/pedestrian path (applicant to confirm the exact size of land required); and
- b) Alexandra Road: None, based on the road cross-section noted above.

Prior to a Development Permit* being forwarded to the Development Permit Panel for consideration, the developer is required to:

1. Complete an acoustical and thermal report and recommendations prepared by an appropriate registered professional, which demonstrates that the interior noise levels and noise mitigation standards comply with the City's Official Community Plan and Noise Bylaw requirements. The standard required for air conditioning systems and their alternatives (e.g. ground source heat pumps, heat exchangers and acoustic ducting) is the ASHRAE 55-2004 "Thermal Environmental Conditions for Human Occupancy" standard and subsequent updates as they may occur. Maximum interior noise levels (decibels) within the dwelling units must achieve CMHC standards follows:

Portions of Dwelling Units	Noise Levels (decibels)
Bedrooms	35 decibels
Living, dining, recreation rooms	40 decibels
Kitchen, bathrooms, hallways, and utility rooms	45 decibels

2. A Qualified Environmental Professional to undertake a pre-clearing bird nest survey and submit a summary of the findings and recommendations to the City prior to site clearing activities.
3. Developer to contact City Parks Arboriculture staff to assess tree #387 for either retention or removal and replacement.

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

1. Submission of a Construction Parking and Traffic Management Plan to the Transportation Division. Management Plan shall include location for parking for services, deliveries, workers, loading, application for any lane closures, and proper construction traffic controls as per Traffic Control Manual for works on Roadways (by Ministry of Transportation) and MMCD Traffic Regulation Section 01570.
2. Incorporation of accessibility measures in Building Permit (BP) plans as determined via the Rezoning and/or Development Permit processes.
3. Payment of the Supplementary Local Area DCC for the Alexandra Neighbourhood.
4. Payment of the sanitary pump station latecomer fees, plus applicable interest, in accordance with the Alexandra Neighbourhood Development Agreement (i.e. multi-family rate \$3,307.47 per unit plus interest).
5. If applicable, payment of latecomer agreement charges associated with eligible latecomer works.
6. 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 Division at 604-276-4285.

Note:

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- * 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

ATTACHMENT 8
Letter from Mr. Sihota

Dated: 5th February 2014

To

Barry Konkin

REZONING DEPARTMENT

City of Richmond,

6911 No. 3 road, Richmond, BC

SUBJECT : 9700 -9740 ALEXANDRA ROAD REZONING APPLICATION (RZ-13649641)

Respected Sir,

As you know Polygon applied for subject property, I have big concern about this development and I want a single information city requirement and amendment by staff and copy of this file. Reason for this is I have interest in almost 50% of neighbour property. What things are going to affect to my property and as well future development of my property is also very important for me.

So I would require the file copy which I could study. Second I would request to mail me a letter when there is a meeting about subject property which possibility to attend.

It is so simple to see when a sewer line is passing and putting a pot and T to future development could cost to developer even not more than \$500. When I will be ready to pay for the costs and will be a bigger job in future. But city requirement is not there to provide sewer services to those residents. But staff should look at the public request to city council 5-6 years ago and I am surprised how the staff or council will ignore those health issues, because surrounding development their water table will be away higher than this area. So you will be forcing those residents to evict or force to sell at lower value.

So I hope you will accept my request. I shall be very thankful for this kindness.

Yours Sincerely,

Jagtar Singh Sihota

9800 Alexandra Road,

Richmond, BC

V6x 1c5

Phone ; 604 244 8881 Fax 604 273 8801 Mobile; 604 783 5491

File: city counsels.doc

CC. Polygon Development

CNCL - 387



**Richmond Zoning Bylaw 8500
Amendment Bylaw 9159 (RZ13-649641)
9700 and 9740 Alexandra Road**

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

1. Richmond Zoning Bylaw 8500 is amended by inserting Section 17.71 thereof the following:

“17.71 Town Housing (ZT71) – Alexandra Neighbourhood (West Cambie)”

17.71.1 Purpose

The **zone** provides for **town housing** with a **density bonus** for a monetary contribution to the City’s capital Affordable Housing Reserve Fund.

17.71.2 Permitted Uses

- **child care**
- **housing, town**

17.71.3 Secondary Uses

- **boarding and lodging**
- **home business**
- **community care facility, minor**

17.71.4 Permitted Density

1. The maximum **floor area ratio** (FAR) is 0.65, together with an additional:
 - a) 0.10 **floor area ratio** provided that is entirely used to accommodate **amenity space**; and
 - b) 10% of the **floor area** total calculated for the **lot** in question, which must be used exclusively for:
 - i. covered areas of the **principal building** which are open on one or more sides; or
 - ii. enclosed **balconies** provided that the total area of such enclosed **balconies** does not exceed 50% of the total area permitted by Section 17.71.4.1.b. i.
2. Notwithstanding Section 17.71.4.1, the reference to “0.65” in relation to the maximum **floor area ratio** is increased to a higher **density** of “0.72” if the **owner** has paid or secured to the satisfaction of the **City** a monetary contribution of \$678,107.00 to the **City’s** capital Affordable Housing Reserve Fund established pursuant to Reserve Fund Establishment Bylaw No. 7812.

17.71.5 Permitted Lot Coverage

1. The maximum **lot coverage** is 40% for **buildings**.

17.71.6 Yards & Setbacks

1. The minimum **front yard** is 3.0 m for the accessory amenity **building** and 4.0 m for all other **buildings**.
2. Portions of the **principal building** which are less than 5.0 m in **height** and are open on those sides which face a **road** may project into the **front yard** for a distance of not more than 1.5 m.
3. **Bay windows** may project into the **front yard** for a distance of not more than 0.6 m.
4. The minimum **side yard** is 3.0 m.
5. The minimum **rear yard** is 4.0 m.
6. **Balconies, bay windows**, enclosed and unenclosed fireplaces and chimneys may project into the **side yard** and the **rear yard** for a distance of not more than 0.6 m.

17.71.7 Permitted Heights

1. The maximum **height** for **buildings** is 12.2 m, but containing no more than 3 **storeys**.
2. The maximum **height** for **accessory buildings** is 5.0 m.
3. The maximum **height** for **accessory structures** is 9.0 m.

17.71.8 Subdivision Provisions/Minimum Lot Size

1. There are no minimum **lot width** or **lot depth** requirements.
2. The minimum **lot area** is 10,000 m².

17.71.9 Landscaping & Screening

1. **Landscaping** and **screening** shall be provided in accordance with the provisions of Section 6.0.

17.71.10 On-Site Parking and Loading

1. On-site **vehicle** and bicycle parking and loading according to the standards set out in Section 7.0, except that the basic on-site parking requirement shall be 1.5 spaces per **dwelling unit** for residents, together with 0.2 spaces per **dwelling unit** for visitor, for a total of 1.7 spaces per **dwelling unit**.

17.71.11 Other Regulations

1. In addition to the regulations listed above, the General Development Regulations in Section 4.0 and the Specific Use Regulations in Section 5.0 apply.”

2. Richmond Zoning Bylaw 8500 is amended by repealing the existing zoning designation of the following area and by designating it “**TOWN HOUSING (ZT71) – ALEXANDRA NEIGHBOURHOOD (WEST CAMBIE)**”;

 P.I.D. 003-874-117
 Lot 51 Section 34 Block 5 North Range 6 West New Westminster District Plan 35213

 P.I.D. 007-176-830
 Lot 52 Section 34 Block 5 North Range 6 West New Westminster District Plan 35213.

3. This Bylaw may be cited as “Richmond Zoning Bylaw 8500, Amendment Bylaw 9159”.

FIRST READING

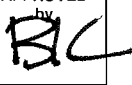

PUBLIC HEARING

SECOND READING

THIRD READING

OTHER CONDITIONS SATISFIED

ADOPTED

_____	CITY OF RICHMOND APPROVED by  APPROVED by Director or Solicitor 

MAYOR_____
CORPORATE OFFICER



To: Planning Committee
From: Wayne Craig
Director of Development

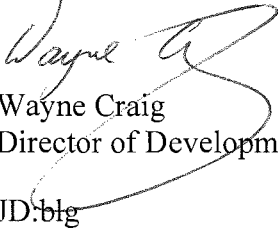
Date: July 15, 2014
File: RZ 14-656219


Re: **Application by S-8135 Holdings Ltd. for Rezoning at 9191 and
9231 Alexandra Road from RS1/F (Single-Detached) to ZMU28
(Residential/Limited Commercial)**

Staff Recommendation

1. That Richmond Official Community Plan Bylaw 7100, Amendment Bylaw 9164, to amend Schedule 2.11A of the Richmond Official Community Plan Bylaw 7100,:
 - to create a new “Residential Mixed Use” designation and change the land use designation on the Alexandra Neighbourhood Land Use Map for 9191 and 9231 Alexandra Road from “Mixed Use” to “Residential Mixed Use”; and
 - to incorporate related text and map changes to Section 8.2 of the Area Plan,be introduced and given first reading.
2. That Bylaw 9164, 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 882(3) (a) of the Local Government Act.
3. That Bylaw 9164, having been considered in accordance with OCP Bylaw Preparation Consultation Policy 5043, is hereby found not to require further consultation.

4. That Richmond Zoning Bylaw 8500, Amendment Bylaw 9163 to create the “Residential/Limited Commercial (ZMU28) - Alexandra Neighbourhood (West Cambie)” zone and to rezone 9191 and 9231 Alexandra Road from “Single-Detached (RS1/F)” to “Residential/Limited Commercial (ZMU28) - Alexandra Neighbourhood (West Cambie)” be introduced and given first reading.


Wayne Craig
Director of Development
JD:blg

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Affordable Housing	<input checked="" type="checkbox"/>	
Transportation	<input checked="" type="checkbox"/>	

Staff Report

Origin

S-8135 Holdings Ltd. has applied to the City of Richmond to rezone 9191 and 9231 Alexandra Road from “Single-Detached (RS1/F)” to a new site-specific zone, “Residential/Limited Commercial (ZMU28) - Alexandra Neighbourhood (West Cambie)”, in order to develop 49 three-storey townhouses; including nine (9) live/work units, with an overall floor area ratio (FAR) of 0.9. Amendments of the West Cambie Area Plan (WCAP) are also required.

Site Location and Surrounding Development

The proposed development is located in the Alexandra Neighbourhood on two (2) lots lying between Tomicki Avenue and Alexandra Road (Attachment 1). The lots are currently undeveloped.

The surrounding context includes:

To the North, across Tomicki Avenue: a recently constructed, three-storey and four-storey, 259-unit, apartment-residential development.

To the East, on the adjacent property and currently under Development Permit application: an anticipated four-storey, mixed-use retail and apartment-residential development (DP 12-613293).

To the South, across Alexandra Road and currently under Development Permit application: an anticipated three-storey, internally oriented, commercial development (Smart Centres), with approximately 387,000 ft² of retail space (DP 13-650988).

To the West, on the adjacent property: an existing undeveloped lot that is designated for “Business/office” uses at 1.25 FAR in the West Cambie Area Plan.

Background

The combined area of the development site is 8,104 m² (87,227 ft²). The developer will be required to dedicate land for a road along the west side of the site to extend Dubbert Street from Tomicki Street to Alexandra Road. Smaller land dedications will also be required on Tomicki Avenue and Alexandra Road. After dedications, the net site area will be approximately 6,135 m² (66,033 ft²).

Project Description

The proposed development includes 49 three-storey townhouses, of which nine (9) are live/work units located along the Alexandra Road frontage of the site. The townhouses are arranged in six (6) clusters, one (1) each facing Alexandra Road and Tomicki Avenue, two (2) facing the new Dubbert Street and two (2) aligned with the existing east property line.

The site has two (2) vehicle access points; both from Dubbert Street, which lead to an internal drive aisle. Parking is provided beneath each unit accessed from the drive aisle. Common open space is located toward the centre of the site fronting Dubbert Street (Attachment 3).

The proposed floor area is 5,465 m² (58,825 ft²), which approximates an FAR of 0.9. The proposed development includes two, three and four bedroom townhouse units that range in size from approximately 96.8 m² to 144 m² (1042 ft² to 1,551 ft²). One (1) unit is convertible.

Findings of Fact

A Development Application Data Sheet providing basic details about the development proposal is attached (Attachment 2).

Related Policies and Studies

Official Community Plan - Bylaw 9000 and West Cambie Area Plan - Bylaw 7100: The Official Community Plan (OCP) Land Use Map designates the subject properties for “Mixed Use” development. Further, the West Cambie Area Plan designates the properties for “Mixed Use” development defined as “... abutting the High Street, medium density residential over retail and, not abutting the High Street, medium density residential” (Attachment 4). The WCAP establishes a base FAR of 1.25 for this land use designation, with a possible increase to 1.5 FAR for provision of affordable housing. These designations were established to encourage development of a “complete”, medium-density neighbourhood with a combination of commercial and residential uses on a new High Street located along Alexandra Road and Dubbert Street. Amendments to the Area Plan are required to facilitate the proposed development. These amendments are discussed in detail in the Staff Comments and Analysis sections of the report.

Alexandra District Energy Utility - Bylaw 8641: The Alexandra District Energy Utility – Bylaw 8641 (ADEU) applies to the subject site. Development on this site is required to connect to the Alexandra District Energy Utility (ADEU) and to provide 70% of its thermal energy needs using the ADEU. Legal agreements to secure the ADEU connection are required prior to adoption of the rezoning by-law.

West Cambie - Alexandra Interim Amenity Guidelines - Policy 5044: As the development site is located within the West Cambie Planning Area, the project is subject to the “West Cambie-Alexandra Interim Amenity Guidelines Policy 5044”. The Policy establishes guidelines for voluntary developer contributions toward affordable housing, community and engineering planning costs, childcare and City beautification for new developments in the Alexandra area. The general details of the amenity proposal are discussed in the Analysis section of the report.

Additional Policies: Other policies that apply to rezoning or subsequent approvals for the subject site include: OCP Section 14.2.10 - Green Buildings and Sustainable Infrastructure; Flood Plain Designation and Protection - Bylaw 8204; Tree Protection – Bylaw 8057; Aircraft Noise Sensitive Development Policy (ANS DP); Cash In Lieu of Indoor Amenity Space - Policy 5041; Richmond Public Art Program Policy, Procedures Manual and Plans; and, WCAP Section 9.3 – Alexandra Neighbourhood Implementation Policy. An overview of these policies is provided in the Analysis section of this report, along with the proposed conformance strategies.

Consultation and Public Input

Adjustments of the West Cambie Area Plan land use descriptions are being proposed in conjunction with the application. A rezoning site sign has been installed at the site. Staff have received no verbal or written public input regarding the proposed rezoning.

School District

This application was not referred to School District No. 38 (Richmond) because it does not have the potential to generate 50 or more school-aged children. According to OCP Bylaw Preparation Consultation Policy 5043, which was adopted by Council and agreed to by the School District, residential developments which generate less than 50 school aged children do not need to be referred to the School District (e.g., typically around 295 multiple-family housing units). This application only involves 49 multiple-family housing units.

Staff Comments

West Cambie Area Plan Amendments: The application proposes land uses that differ from those anticipated by the WCAP. In lieu of medium density residential development with residential over retail along the High Streets, the applicant is proposing town housing along the Dubbert Street portion of the High Street and live/work dwellings along the Alexandra Road portion of the High Street. To accommodate these changes, a new Alexandra Land Use Map designation, “Residential Mixed Use”, is being proposed for the subject site. It adds live/work dwellings to the current use provisions and does not assign specific uses to the High Street. Staff support the proposed changes, as discussed under “Land Use” in the following section.

Analysis

Commentary is provided below with respect to land use, density, proposed zoning, proposed parking and loading, urban design, district energy, green buildings and sustainable infrastructure, flood control, tree protection, aircraft noise, indoor amenity space, community amenity contributions, affordable housing, public art and the neighbourhood implementation strategy.

Land Use: In lieu of providing retail along the High Street, which includes both the Alexandra Road and Dubbert Street frontages, the applicant has proposed town housing along Dubbert Street and live/work dwellings along Alexandra Road. The proposed WCAP amendments will support this arrangement. The live/work units proposed along the Alexandra Road portion of the High Street will provide for commercial uses at grade, in keeping with the intent of the Area Plan. Legal agreement registered on title will identify the work portion of these units and ensure the work portion is not converted to residential living quarters. Live/work uses are not proposed on Dubbert Street as the realignment of the High Street, as part of the Smart Centres application, focuses the retail activity towards Alexandra Road.

Density (FAR): The proposed FAR is 0.90, which is less than the Land Use Map medium density FAR range of 1.25 to 1.50 (with affordable housing). The applicant has explored various approaches to developing the site to higher densities than that proposed, but has concluded such a project would not be viable due to a mismatch between the size and configuration of the site, the inclusion of retail uses and the size and configuration of the related parking structure.

Proposed Zoning: The proposed zoning for this site includes: an FAR of 0.90, maximum 45% lot coverage for buildings, minimum setbacks from the street frontages of 3.0 m (9.8 ft.), a maximum height of the lesser of 12.0 m or three storeys, and a minimum site size of 0.60 ha (roughly based on the area of the subject site). Provisions of note that are supported by staff include:

- The 3.0 m (9.8 ft.) setback on all street frontages, because it is consistent with the 3.0 m build-to-line promoted by the Alexandra Character Area guidelines for the High Street and it will provide the applicant with flexibility to achieve larger usable private open space to the rear of street fronting units as well as more visual interest along the drive aisles.

Proposed Parking and Loading: The proposed development will conform to Section 7.0 of the Richmond Zoning Bylaw, with the following site-specific parking provisions proposed:

- 1.5 spaces/unit, which is the common standard for the West Cambie Neighbourhood given its proximity to the City Centre and transit; and
- A tandem parking ratio of 55% of the total number of residential units, given that this site does not abut single-family neighbourhoods and should not create overflow parking issues.

Urban Design: Except for issues that relate directly to the proposed new zoning schedule, detailed urban design review with respect to adjacencies, site planning, functional planning, architectural form and character, landscape form and character and liveability will occur at the Development Permit stage. The proposal also will be reviewed by the Advisory Design Panel at the Development Permit stage.

Alexandra District Energy Utility (ADEU): The proposed development will meet the requirements of the Alexandra District Energy Utility Bylaw and the developer is expecting to use the ADEU for space heating and cooling as well as domestic hot water pre-heating, noting that cooling is necessary to address the Aircraft Noise Development Requirements.

Green Buildings and Sustainable Infrastructure: OCP Section 14.2.10, Development Permit Guidelines – General, outlines expectations related to green buildings and sustainable infrastructure and includes provisions regarding energy efficiency, water conservation, building materials, health and air quality and urban agriculture. At the Development Permit stage, the project will be expected to address these guidelines.

Flood Construction Elevation and Road Elevation Requirements: The West Cambie Area Plan establishes a minimum Flood Construction Level within the Alexandra Neighbourhood of 2.6 m GSC and a minimum elevation of 2.0 m GSC for all new roads within the neighbourhood. Roads should be established at the highest possible elevations within the constraints of functional road design. Detailed design will occur at subsequent stages of the approval process

Tree Protection: The Tree Protection Bylaw addresses tree retention, protection and replacement on the subject site and the surrounding City property. The site has been assessed as follows:

- There are five (5) bylaw-size trees on site, none of which is a good candidate for retention. Replacement trees are provided in the landscape plan beyond the 2:1 replacement ratio established by the OCP.
- There is one (1) tree located on City property in poor condition and conflicting with proposed development. It is proposed to be removed a contribution of \$1,300 toward the City's Tree Compensation Fund is provided.

Aircraft Noise Policy: The subject property is located within “Area 2” of the Aircraft Noise Sensitive Development Policy Areas. All aircraft noise sensitive land uses except new single-family may be considered within Area 2. The proposed townhouse development conforms to this policy and rezoning adoption will require registration of restrictive covenants, submission of an acoustic report and incorporation of noise mitigation in construction such as mechanical ventilation and central air conditioning.

Indoor Amenity Space: Payment of cash, in-lieu of providing indoor amenity space for multi-family developments, may be provided as an option as part of the Development Permit process (Cash In Lieu of Indoor Amenity Space Policy 5041). The developer proposes to provide a cash-in-lieu contribution of \$80,000.00 to the Recreation Facility Reserve.

Community Amenity Contributions: The developer will contribute to community amenities, pursuant to the West Cambie-Alexandra Interim Amenity Policy 5044 and based on the proposed floor area ratio of 0.9, as follows:

- Community and engineering planning costs at \$0.07/ft² (i.e. at \$4,160.08).
- Child care at \$0.60/ft² (i.e. \$35,657.82).
- City beautification at \$0.60/ft² (i.e. \$35,657.82).

The project may qualify for a reduction in the City Beautification contribution, based on the cost of off-site beautification works included in the Servicing Agreement, as determined by the Director of Development.

Affordable Housing Contribution: The developer will contribute to affordable housing, pursuant to the West Cambie-Alexandra Interim Amenity Policy 5044 and based on the proposed floor area ratio of 0.9, as follows:

- Affordable Housing costs at \$5.10/ft² (i.e. \$303,091.47).

The affordable housing contribution will be added to the West Cambie Affordable Housing Reserve Fund.

Public Art: Richmond’s Public Art Policy requires that the developer submit a Public Art Plan or make a financial contribution for the provision of Public Art on the site or in the City. A voluntary contribution to the City’s Public Art fund, based on a maximum FAR of 0.9 and a contribution of \$0.77/ft² (\$45,302.95) is included in the rezoning considerations.

Neighbourhood Implementation Strategy: Neighbourhood infrastructure expectations are articulated in Section 9.3 of the WCAP. The requirements that apply to the subject site include frontage improvements on Tomicki Avenue, Dubbert Street and Alexandra Road as well as various water, sanitary and drainage works. These are described in more detail in the Rezoning Considerations (Attachment 5).

Financial Impact or Economic Impact

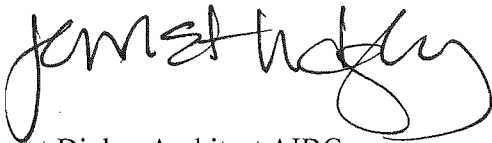
The Operating Budget Impact (OBI) for engineering and transportation works is \$5,000.

Conclusion

The proposed development provides for three-storey, ground-oriented town housing with live/work units fronting Alexandra Road. The proposed OCP amendments will support the addition of live/work dwellings to the current land uses and will permit residential uses fronting the High Street. The proposed site-specific zone, "Residential/Limited Commercial (ZMU28) - Alexandra Neighbourhood (West Cambie)" will provide for development with a FAR of 0.9, a height of 12.0 m (40 ft.), a residential parking ratio of 1.5 spaces per unit and a provision to allow for 55% of the units to incorporate a tandem parking arrangement.

Based on the information submitted, it is recommended that:

- a) Richmond Official Community Plan Bylaw 7100, Amendment Bylaw 9164, to revise the provisions of the West Cambie Area Plan, be introduced and given first reading; and
- b) Richmond Zoning Bylaw 8500, Amendment Bylaw 9163, to create the zone "Residential/Limited Commercial (ZMU28) - Alexandra Neighbourhood (West Cambie)" and to rezone 9191 and 9231 Alexandra Road from "RS1/F" to "ZMU28" be introduced and given first reading.



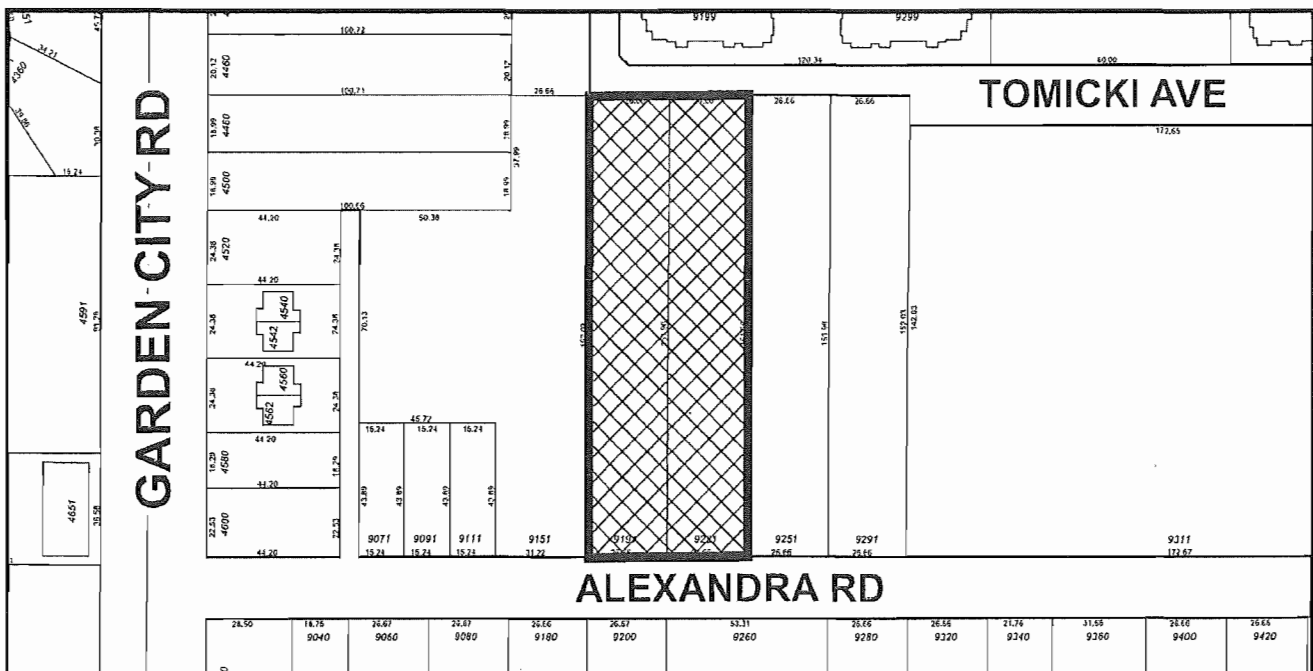
Janet Digby, Architect AIBC
Senior Planner 3-Urban Design
(604-276-4620)

JD:blg

Attachment 1: Aerial View and Location Map
Attachment 2: Development Application Data Sheet
Attachment 3: Conceptual Development Drawings
Attachment 4: Alexandra Neighbourhood Land Use Map
Attachment 5: Rezoning Considerations

The map displays a grid of land parcels with different zoning designations. Key features include:

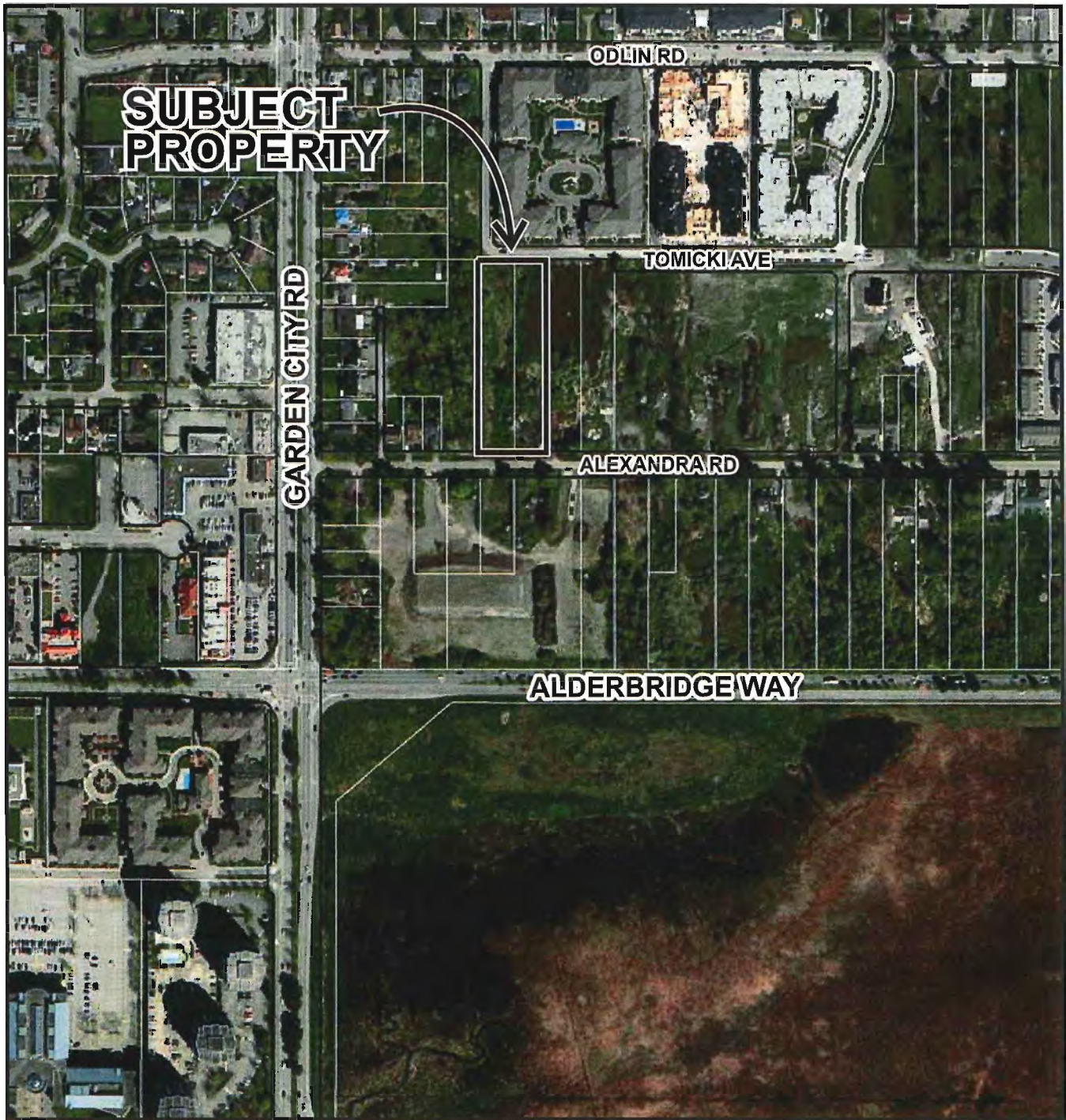
- Zoning Codes:** RS1/F, RD1, SI, ZLR25, ZN4, CG1, and ZT67.
- Streets:** TOMICKI AVE, ALEXANDRA RD, ALDERBRIDGE WAY, GARDEN CITY RD, and NO. 4 RD.
- Proposed Rezoning:** A parcel located between Garden City Rd and Alderbridge Way, east of Tomicki Ave, is shaded with a cross-hatch pattern and indicated by a large arrow from the text "PROPOSED REZONING".



Note: Dimensions are in METRES



City of
Richmond



RZ 14-656219

Original Date: 03/06/14

Revision Date:

Note: Dimensions are in METRES

CNCL - 400



**City of
Richmond**

Development Application Data Sheet
Development Applications Division

RZ 14-656219

Attachment 2

Address: 9191 and 9231 Alexandra Road

Applicant: S-8135 Holdings Ltd.

Planning Area(s): West Cambie Area Plan

	Existing	Proposed
Owner:	S-8135 Holdings Ltd.	S-8135 Holdings Ltd.
Site Size (m ²):	8,103.7 m ² (0.81 ha / 2.0 acres)	6,134.7 m ² (0.61 ha / 1.5 acres) after road dedications
Land Uses:	Single-Family	Mixed Use
OCP Designation:	Commercial / Mixed Use	Mixed Use
Area Plan Designation:	Mixed Use – (retail and residential)	Mixed Use – (live/work and residential)
Zoning:	Single-Detached (RS1/F)	Residential/Limited Commercial (ZMU28) - Alexandra Neighbourhood (West Cambie)
Number of Units:	0	49

On Future Subdivided Lots	Bylaw (ZMU28)	Proposed (Application)	Variance
Floor Area Ratio:	Max. 0.9	0.891	none permitted
Lot Coverage – Building:	Max. 45%	43.5%	none
Lot Size (min. area):	0.60 ha	0.61 ha	none
Setback – Front Yard / Road (m):	3.0 m Min.	3.0 m Min.	none
Setback – External Side (m):	3.0 m Min.	3.0 m Min.	none
Setback – Internal (m):	3.0 m Min.	3.0 m Min.	n/a
Setback – Rear (m):	3.0 m Min.	3.0 m Min.	none
Height (m):	12.0 m	10.67 m	none
Off-street Parking Spaces – Residential / Visitor / Live/Work:	$\frac{1.5(R)+0.2(V)+0.5(LW)}{\text{Unit}}$	$\frac{1.5(R)+0.2(V)+0.5(LW)}{\text{unit}}$	none
Off-street Parking Spaces – Total:	89	89	none
Tandem Parking Spaces:	55%	55%	none

June 27, 2014

- 2 -

RZ 14-656219

On Future Subdivided Lots	Recommendation (OCP)	Proposed (Application)	Variance
On-site	5 trees / 2:1 replacement	10 plus trees	n/a
Off-site	1 tree / 2:1 replacement	\$1,300	n/a

4287209

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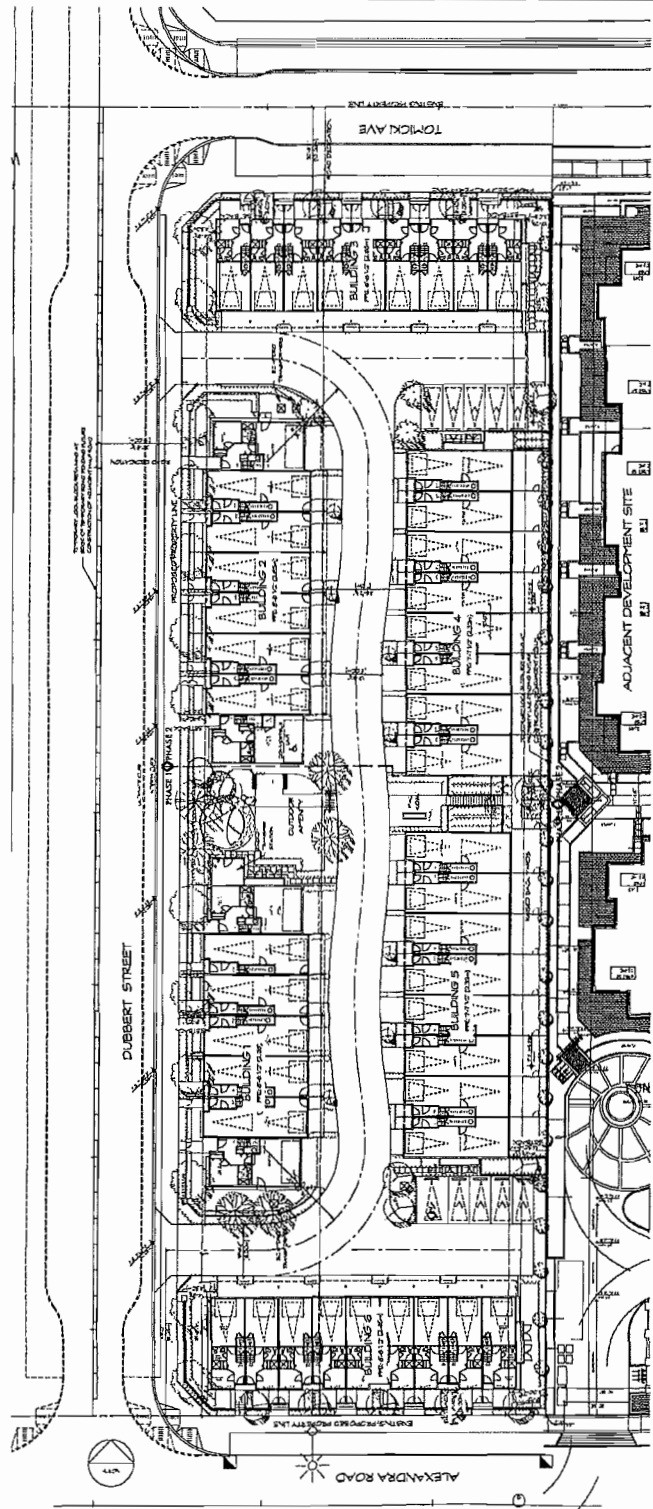
CONCEPTUAL ONLY

ALEXANDRA TOWNHOMES UNIT SUMMARY

UNIT	DESCRIPTION	UNIT AREA	UNIT COUNT	TOTAL AREA
A	3 BEDROOM INTERLOCK 1	1,325.7 sq ft	5	6,628.5 sq ft
A1	3 BEDROOM INTERLOCK 2	1,335.7 sq ft	5	6,678.5 sq ft
B	3 BEDROOM INTERLOCK 1	1,365.9 sq ft	6	7,995.4 sq ft
B1	3 BEDROOM INTERLOCK 2	1,375.9 sq ft	6	8,255.4 sq ft
B2	3 BEDROOM INTERLOCK 1	1,320.4 sq ft	2	2,640.8 sq ft
B3	3 BEDROOM INTERLOCK 2	1,319.9 sq ft	2	2,639.8 sq ft
D	3 BEDROOM	1,325.4 sq ft	1	1,325.4 sq ft
D1	3 BEDROOM	1,325.4 sq ft	1	1,325.4 sq ft
E	4 BEDROOM (Corner Unit)	1,684.2 sq ft	1	1,684.2 sq ft
E1	4 BEDROOM	1,624.8 sq ft	2	3,249.6 sq ft
F	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F1	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F2	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F3	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F4	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F5	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F6	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F7	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F8	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F9	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F10	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F11	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F12	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F13	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F14	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F15	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F16	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F17	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F18	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F19	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F20	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F21	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F22	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F23	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F24	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F25	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F26	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F27	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F28	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F29	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F30	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F31	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F32	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F33	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F34	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F35	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F36	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F37	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F38	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F39	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F40	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F41	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F42	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F43	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F44	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F45	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F46	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F47	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F48	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F49	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F50	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F51	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F52	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F53	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F54	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F55	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F56	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F57	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F58	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F59	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F60	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F61	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F62	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F63	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F64	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F65	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F66	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F67	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F68	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F69	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F70	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F71	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F72	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F73	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F74	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F75	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F76	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F77	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F78	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F79	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F80	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F81	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F82	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F83	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F84	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F85	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F86	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F87	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F88	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F89	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F90	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F91	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F92	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F93	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F94	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F95	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F96	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F97	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F98	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F99	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft
F100	2 BEDROOM - OFFICE	1,371.1 sq ft	7	9,597.7 sq ft

ALEXANDRA TOWNHOMES PROJECT STATISTICS

GROSS SITE AREA	87,029 sq ft	87,029 sq ft	0.61 ha
DEVELOPABLES	21,817 sq ft	21,817 sq ft	0.187 ha
NET SITE AREA	65,212 sq ft	65,212 sq ft	0.523 ha
PROPOSED FAR	1.5 FAR	97,818 sq ft	0.79 ha
PERMITTED FAR	0.96 FAR	62,602 sq ft	0.51 ha
COVERAGE	40 - 50%	26,081 sq ft	0.21 ha
FLOOR AREA	63,362 sq ft	63,362 sq ft	0.51 ha
UNIT COUNT	49	49	49
OUTDOOR AREA	64.8 sq ft	64.8 sq ft	0.0006 ha
RESIDENT PARKING	1.5/UNIT	73.5	73.5
5-YEAR CARSH ACCESSIBLE	4	4	4
VISITOR PARKING	MIN 2% RESID STALLS	2	2
TANDEM PARKING	0.2/UNIT	9.8	9.8
BIKE PARKING	54	54	54
STALLS	128 STALLS/UNIT	6,304	6,304
STALLS	63	63	63



RCA
Robert Clouston Architects Inc.
250 - 2337 Columbia Street
Vancouver, BC V6J 1Y1
Canada
Tel: (604) 687-4641
Fax: (604) 687-4641
admin@robertcloustonarchitects.com

ALEXANDRA TOWNHOMES

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Canada
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Fax: (604) 687-4641
admin@robertcloustonarchitects.com

Site Plan

Scale: 1" = 20'

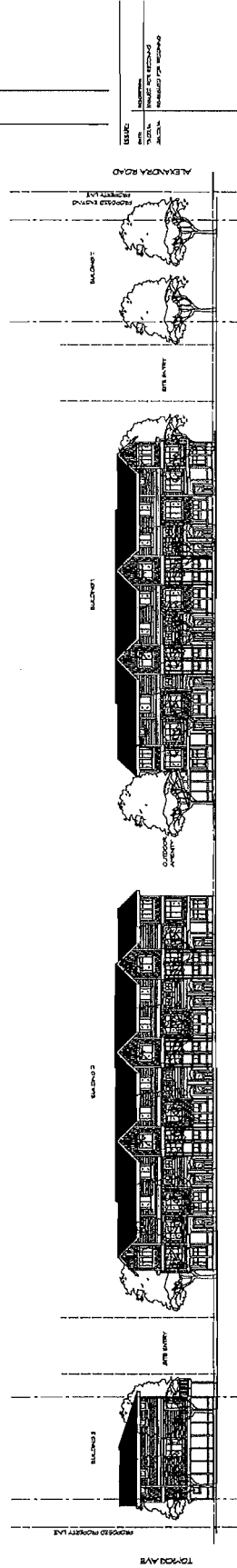
North Arrow

A1.0

CONCEPTUAL ONLY

CONCEPTUAL ONLY
 THIS DRAWING IS A CONCEPTUAL DESIGN AND IS NOT TO BE USED FOR CONSTRUCTION. IT IS THE PROPERTY OF RCA AND IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM. ANY REUSE OR MODIFICATION OF THIS DRAWING WITHOUT THE WRITTEN PERMISSION OF RCA IS STRICTLY PROHIBITED.

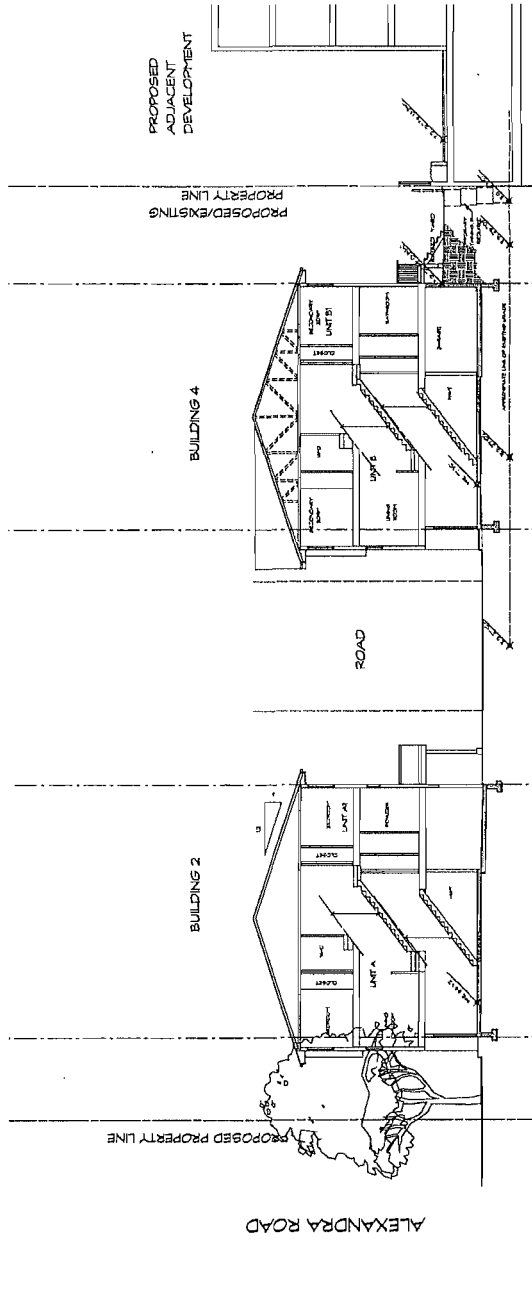
NO.	DATE	DESCRIPTION
1	10/1/2020	CONCEPTUAL DESIGN



1. STREETSCAPE (DUBBERT STREET)
 A1.1 ROAD VIEW



RCA
 Robert Ciozzaz Architecture Inc.
 200 - 2375 Columbia Street
 Vancouver, BC
 Canada V6J 1Y5
 Tel: (604) 687-4741
 Fax: (604) 687-4741
 admin@rcarchitecture.com



2. SITE SECTION
 A1.1 ROAD VIEW

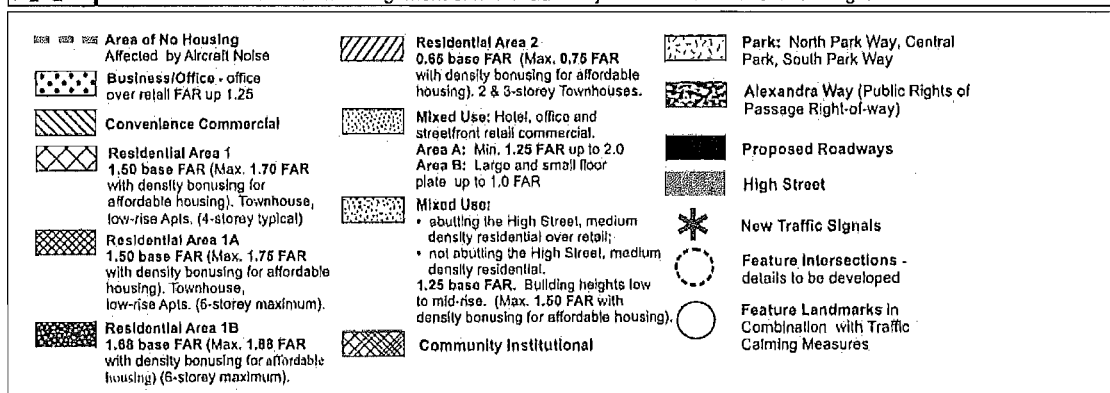
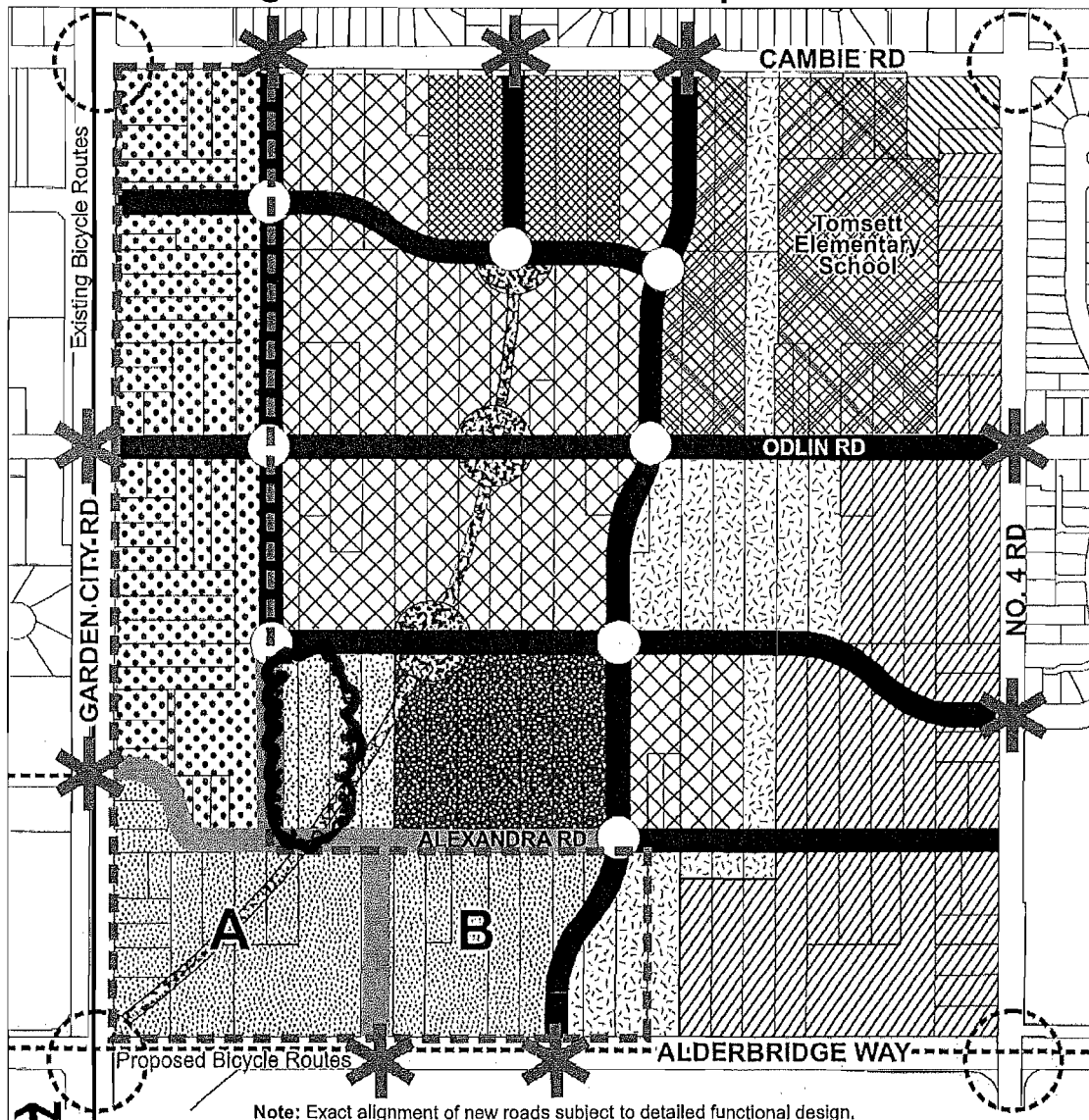
ALEXANDRA

NO.	DATE	DESCRIPTION
1	10/1/2020	CONCEPTUAL DESIGN

Streetscape and Site Section
 A1.1

City of Richmond

Alexandra Neighbourhood Land Use Map

Bylaw 9021
2013/10/15Original Adoption: September 12, 1988 / Plan Adoption: July 24, 2006
3186793

West Cambie Area Plan 50

SUBJECT SITE CNCL - 405



City of
Richmond

Rezoning Considerations

Development Applications Division
6911 No. 3 Road, Richmond, BC V6Y 2C1

Address: 9191 and 9231 Alexandra Road

File No.: RZ 14-656219

Prior to final adoption of Richmond Zoning Bylaw 8500, Amendment Bylaw 9163, the developer is required to complete the following:

1. Final Adoption of OCP Amendment Bylaw 9164.
2. Road dedications as follow:
 - a. Tomicki Avenue - 10 m wide strip along the full northern frontage.
 - b. Dubbert Street – 10 m wide strip along the full western frontage.
 - c. 4 m x 4 m corner cuts required at the Dubbert Street/Tomicki Avenue and Dubbert Street/Alexandra Road intersections, measured from new property lines.
3. Consolidation of all the lots into one (1) development parcel (which will require the demolition of any existing buildings).
4. Registration of a flood plain covenant on title identifying a minimum habitable elevation of 2.6 m GSC.
5. Registration of an aircraft noise sensitive use covenant on Title.
6. Registration of a legal agreement on Title prohibiting the conversion of the tandem parking area within a unit into habitable space.
7. Registration of a legal agreement(s) regarding the developer's commitment to connect to the West Cambie District Energy Utility (DEU), including the operation of and use of the DEU and all associated obligations and agreement as determined by the Director of Engineering.
8. Registration of a live/work dwelling covenant on Title identifying the portions of the live/work dwelling used for work and prohibiting the conversion of the identified portions to residential use.
9. City acceptance of the developer's offer to contribute voluntarily \$1,300 to the City's Tree Compensation Fund for the planting of replacement trees within the City.
10. City acceptance of the developer's offer to contribute voluntarily, per the West Cambie - Alexandra Interim Amenity Guidelines, \$5.10 per buildable square foot (e.g. \$303,091.47, to be recalculated through the Development Permit once the final floor area has been refined) to the West-Cambie Affordable Housing Capital Reserve (70%) and the Affordable Housing Operating Reserve Fund (30%) – Account # 7600-80-000-90151-0000 and Account # 7600-80-000-90152-0000 respectively.
11. City acceptance of the developer's offer to contribute voluntarily the following amounts per the West Cambie - Alexandra Interim Amenity Guidelines, \$0.07 per buildable square foot (e.g. \$4,160.08, to be recalculated through the Development Permit once the final floor area has been refined) toward community planning and engineering costs in the West Cambie area – Account # 3132-10-520-00000-0000.
12. City acceptance of the developer's offer to contribute voluntarily the following amounts per the West Cambie - Alexandra Interim Amenity Guidelines, \$0.60 per buildable square foot (e.g. \$35,657.82, to be recalculated through the Development Permit once the final floor area has been refined) toward childcare costs in the West Cambie area – Account # 7600-80-000-90158-0000.
13. City acceptance of the developer's offer to contribute voluntarily the following amounts per the West Cambie - Alexandra Interim Amenity Guidelines, \$0.60 per buildable square foot (e.g. \$35,657.82, to be recalculated through the Development Permit once the final floor area has been refined) toward City Beautification (High Street

Initial: _____

Streetscape Improvements) – Account # 2264-10-000-90582-0000 (which may be reduced at the discretion of the Director of Development).

14. City acceptance of a contribution of \$80,000.00 in-lieu of on-site indoor amenity space to be deposited in the Leisure Facility Reserve Fund – Account # 7600-80-90169-0000.
15. City acceptance of the developer's offer to contribute voluntarily \$0.77 per buildable square foot (e.g. \$45,302.95, to be recalculated through the Development Permit once the final floor area has been refined) to the City's Public Art fund – Account # 7600-80-000-90173-0000.
16. The submission and processing of a Development Permit* completed to a level deemed acceptable by the Director of Development.

Prior to a Development Permit* being forwarded to the Development Permit Panel for consideration, the developer is required to:

1. Complete an acoustical and thermal report and recommendations prepared by an appropriate registered professional, which demonstrates that the interior noise levels and noise mitigation standards comply with the City's Official Community Plan and Noise Bylaw requirements. The standard required for air conditioning systems and their alternatives (e.g. ground source heat pumps, heat exchangers and acoustic ducting) is the ASHRAE 55-2004 "Thermal Environmental Conditions for Human Occupancy" standard and subsequent updates as they may occur. Maximum interior noise levels (decibels) within the dwelling units must achieve CMHC standards follows:

Portions of Dwelling Units	Noise Levels (decibels)
Bedrooms	35 decibels
Living, dining, recreation rooms	40 decibels
Kitchen, bathrooms, hallways, and utility rooms	45 decibels

2. Submission of a Landscape Plan, prepared by a Registered Landscape Architect, to the satisfaction of the Director of Development, and deposit of a Landscaping Security based on 100% of the cost estimate provided by the Landscape Architect, including installation costs. The Landscape Plan should include:
 - a. A mix of coniferous and deciduous trees.
 - b. The 10 required replacement trees with the following minimum sizes:

No. of Replacement Trees	Minimum Caliper of Deciduous Tree	or	Minimum Height of Coniferous Tree
10	6 cm		3 m

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

1. Incorporation of sustainability measures in the Building Permit (BP) drawings as determined during the Rezoning and/or Development Permit processes.
2. Incorporation of accessibility measures in Building Permit (BP) plans as determined via the Rezoning and/or Development Permit processes.
3. Incorporation of CPTED measures in Building Permit (BP) plans as determined via the Rezoning and/or Development Permit processes.
4. Payment of the Supplementary Local Area DCC for the Alexandra Neighbourhood.
5. Payment of the sanitary pump station latecomer fees, plus applicable interest, in accordance with the Alexandra Neighbourhood Development Agreement (i.e. townhouse rate of \$3,307.47 per unit plus interest).
6. If applicable, payment of other latecomer agreement charges associated with eligible latecomer agreements.
7. Enter into a Servicing Agreement* for the design and construction of servicing infrastructure and frontage improvements. Works include, but may not be limited to:

[Water Works - Water analysis is not required. However, once you have confirmed your building design at the Building Permit stage, you must submit fire flow calculations signed and sealed by a professional engineer based on the Fire Underwriter Survey or ISO to confirm that there is adequate available flow.]

Initial: _____

- a. Alexandra Road frontage:
 - i. Upgrade the existing 200 mm diameter AC watermain to 200 mm diameter PVC watermain from the west property line of 9191 Alexandra Road to East property line of 9231 Alexandra Road.
- b. Dubbert Street frontage:
 - i. Provide a new 200 mm diameter PVC watermain from the proposed watermain required on Alexandra Road to Tomicki Avenue and two (2) hydrants at a maximum distance of 75 m apart.
 - ii. The required watermain at Dubbert Street shall be designed and constructed to the ultimate condition.
- c. Tomicki Avenue frontage:
 - i. Provide a new 200 mm diameter PVC watermain from the proposed watermain required on Dubbert Street to the east property line of 9231 Alexandra Road. It should be in line with the watermain on Tomicki Avenue at May Drive. Provide a temporary tie-in from the proposed watermain to the east property line of 9291 Alexandra Road. This temporary tie-in will be connected to the watermain along the northern frontage of 9311 Alexandra Road (to be constructed under SA13-634677). Install a hydrant at the Tomicki Avenue frontage at a maximum distance of 75 m from the proposed hydrant required on Dubbert Street.

[Drainage works - Storm sewer capacity analysis is not required; however, the following storm sewer works are required.]

- d. Alexandra Road frontage:
 - i. Provide a new storm manhole at the intersection of Dubbert Street and Alexandra Road. It should be aligned with the existing storm sewer at Dubbert Street (north of Tomicki Avenue).
 - ii. Upgrade the existing ditch to a 1050 mm storm sewer from the proposed storm manhole as required at the intersection of Dubbert Street and Alexandra Road to the east property line of 9231 Alexandra Road at an offset of approx. 10m from the south property line of 9291 Alexandra Road. Provide a new storm manhole at the east end this upgrade. Interim tie-ins to either sides of the existing ditch may be required. Upgrade length is approximately 52 m.
- e. Dubbert Street frontage:
 - i. Provide a new 600 mm diameter storm sewer from proposed storm manhole required at the intersection of Alexandra Road and Dubbert Street to STMH108256 located at the intersection of Tomicki Avenue and Dubbert Street. Length of new pipe is approximately 164 m. A new adequately sized manhole is required at a maximum distance of 100 m from the proposed manhole required at the intersection of Alexandra Road and Dubbert Street as per City of Richmond Engineering Design Specs.
 - ii. The required drainage works at Dubbert Street shall be designed and constructed to the ultimate condition.

[Sanitary works - Sanitary sewer capacity analysis is not required; however, the following sanitary sewer works are required.]

- f. Dubbert Street:
 - i. Provide a new sanitary 200 mm diameter PVC sanitary sewer from existing sanitary manhole SMH 51176 at the intersection of Tomicki Avenue and Dubbert Street to approx. 75 m south from the north property line of 9191 Alexandra Road. The length of new pipe is approximately 78 m. A new adequately sized manhole is required at a maximum distance of 100 m from the proposed manhole required at south end of the proposed pipe as per City of Richmond Engineering Design Specs.
 - ii. The required sanitary works at Dubbert Street shall be designed and constructed to the ultimate condition.
 - iii. Sanitary service connection for the proposed site shall be at Dubbert Street frontage.

Initial: _____

[Additional requirements.]

- g. The developer is responsible for the under-grounding of the existing private utility pole lines along the Alexandra Road frontage. The developer shall provide private utility companies with the required rights-of-ways for their equipment (e.g. Vista, PMT, LPT, SAC Pad, kiosks, etc.) and/or to accommodate the future under-grounding of the overhead lines. This equipment must be located on private property and not within City SROWs or Public Rights-of-Passage and not impact public amenities such as sidewalks, boulevards and bike paths. The developer is responsible for coordination with private utility companies.

[Transportation works.]

- h. Applicant responsible for the design and construction of the following frontage improvements:
- i. Tomicki Avenue: Coordinate with the offsite works via RZ 12-598503 & RZ 10-534751 to complete to the road to the following ultimate standards (from south to north):
 - (a) 2 m wide concrete sidewalk
 - (b) min. 1.5 m wide treed/grassed boulevard
 - (c) curb/gutter
 - (d) minimum 8.5 m pavement width (11.2 m desired to accommodate on-street parking)
 - (e) reconstruction of the existing curb and widen the existing boulevard along the north side
 - ii. Dubbert Street: Complete to the road to the following interim standards (from east to west):
 - (a) 2 m wide concrete sidewalk
 - (b) 0.75 m wide interim treed/grassed boulevard
 - (c) Interim concrete extruded curb
 - (d) minimum 6.0 m wide pavement
 - (e) minimum 1.0 m wide shoulder with no-post barriers
 - iii. Alexandra Road: widen the road to accommodate the following (from north to south):
 - (a) 2 m wide concrete sidewalk
 - (b) min 1.5 m wide treed/grassed boulevard
 - (c) curb and gutter
 - (d) min. 6.2 m wide road pavement
 - (e) min. 1 m wide shoulder
 - (f) appropriate side slope and tie-in to the properties to the south

[Note that above is the minimum frontage works along Alexandra Road required of the development. Applicant should coordinate works required via RZ 10-528877 (Smart Center) to complete the road to the ultimate standard, which would include the following minimum road elements (from north to south):

- 2 m wide concrete sidewalk
- min 1.5 m wide treed/grassed boulevard
- curb and gutter
- min. 11.2 m wide road pavement
- curb and gutter
- min 1.5 m wide treed/grassed boulevard
- 2 m wide concrete sidewalk]

8. Refer to approved service agreement design drawings for works to be done by the City at the developer's sole cost via City Work Order.
9. Submission of a Construction Parking and Traffic Management Plan to the Transportation Division. 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.
10. 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 Division at 604-276-4285.

Initial: _____

Notes:

- * 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 comply with all relevant legislation.

Signed _____

Date _____



Richmond Zoning Bylaw 8500
Amendment Bylaw 9163 (RZ 14-656219)
9191 and 9231 Alexandra Road

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

1. Richmond Zoning Bylaw 8500, as amended further by inserting Section 20.28 thereof the following:

**20.28 Residential /Limited Commercial (ZMU28) – Alexandra
Neighbourhood (West Cambie)**

20.28.1 Purpose

The **zone** provides for low **density town housing** and **live/work uses**.

20.28.2 Permitted Uses

- **housing, town**
- **live/work dwelling**

20.28.3 Secondary Uses

- **boarding and lodging**
- **child care**
- **community care facility, minor**
- **home business**

20.28.3 Permitted Density

1. The maximum **floor area ratio (FAR)** is 0.90.

20.28.4 Permitted Lot Coverage

1. The maximum **lot coverage** is 45% for **buildings**.
2. No more than 70% of the **lot** may be occupied by **buildings, structures** and **non-porous surfaces**.
3. 20% of the **lot area** is restricted to **landscaping** with live plant material.

20.28.5 Yards & Setbacks

1. The minimum **front yard, exterior side yard, interior side yard** and **rear yard** is 3.0 m.

20.28.6 Permitted Heights

1. The maximum **height** for **buildings** is the lesser of 12.0 m or 3 storeys.
2. The maximum **height** for **accessory buildings** and **accessory structures** is 5.0 m.

20.28.7 Subdivision Provisions/Minimum Lot Size

1. The minimum **lot** area is 0.60 ha.

20.28.8 Landscaping & Screening

1. **Landscaping** and **screening** shall be provided and maintained in accordance with Section 6.0 of this bylaw.

20.28.9 On-Site Parking and Loading

1. On-site **vehicle** parking and loading shall be provided according to the standards set out in Section 7.0, except that:
 - a. the minimum number of **parking spaces** per **dwelling unit** shall be 1.5; and
 - b. the maximum number of **dwelling units** that may utilize a **tandem arrangement** is 55% of the total number of **dwelling units**.

20.28.10 Other Regulations

1. In addition to the regulations listed above, the General Development Regulations in Section 4.0 and the Specific Use Regulations in Section 5.0 apply.

2. 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 areas and by designating them “Residential/Limited Commercial (ZMU28) - Alexandra Neighbourhood (West Cambie)”.

P.I.D. 012-032-441

East Half Lot 26 Block “B” Section 34 Block 5 North Range 6 West New Westminster District Plan 1224

P.I.D. 012-032-425

West Half Lot 25 Block “B” Section 34 Block 5 North Range 6 West New Westminster District Plan 1224

3. This Bylaw may be cited as “**Richmond Zoning Bylaw 8500, Amendment Bylaw 9163**”.

FIRST READING

PUBLIC HEARING

SECOND READING

THIRD READING

OTHER CONDITIONS SATISFIED

ADOPTED

MAYOR

CORPORATE OFFICER





**Richmond Official Community Plan Bylaw 7100,
Amendment Bylaw 9164 (West Cambie Area Plan)**

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

1. Richmond Official Community Plan Bylaw 7100 is amended in Schedule 2.11A by the following:

- a) Section 8.2 Alexandra's Character Areas: Amend the legend in the Alexandra Neighbourhood Character Areas Map by deleting the following text under the term Mixed Use:

- “• abutting the High Street, medium density residential over retail;
- not abutting the High Street, medium density residential.”

and replacing it with the following:

- “• a mix of low to medium density residential with low to medium density residential over retail or live/work uses.”;

- b) Section 8.2.3 Character Area 3 – The High Street: Amend the legend in the Character Area 3 – The High Street Map by deleting the following text under the term Mixed Use:

- “• abutting the High Street, medium density residential over retail;
- not abutting the High Street, medium density residential.”

and replacing it with the following:

- “• a mix of low to medium density residential with low to medium density residential over retail or live/work uses.”;

- c) Section 8.2.3 Character Area 3 – The High Street: Add the following immediately after the fifth bullet under the subsection Land Uses:

- “• Within the area designated Residential Mixed Use, a mix of low to medium density residential with low to medium density residential over retail or live/work uses. Live/work uses would include an occupation or profession carried out by an occupant and up to one non-resident employee that is conducted in a mixed commercial/residential unit, the commercial portion of which is clearly designated as being at grade with living space above. From the building exterior, it should

present an attractive mixed use image (e.g., retail display windows at grade with residential above) and the work use should be situated at grade fronting the street.”;

- d) Section 8.2.4 Character Area 4 – Medium Density Housing: Amend the legend in the Character Area 4 – Medium Density Housing Map by deleting the following text under the term Mixed Use:

- “• abutting the High Street, medium density residential over retail;
- not abutting the High Street, medium density residential.”

and replacing it with the following:

- “• a mix of low to medium density residential with low to medium density residential over retail or live/work uses.”;

- e) Section 8.2.4 Character Area 4 – Medium Density Housing: Add the following immediately after the third bullet under the subsection Land Uses:

“• Within the area designated Residential Mixed Use, a mix of low to medium density residential with low to medium density residential over retail or live/work uses. Live/work uses would include an occupation or profession carried out by an occupant and up to one non-resident employee that is conducted in a mixed commercial/residential unit, the commercial portion of which is clearly designated as being at grade with living space above. From the building exterior, it should present an attractive mixed use image (e.g., retail display windows at grade with residential above) and the work use should be situated at grade fronting the street.”;

- f) Section 9.3 Alexandra Neighbourhood Implementation Strategy: Amend the Alexandra Neighbourhood Land Use Map:

- i. by changing the land use designation from “Mixed Use” to “Residential Mixed Use” for the area that is hatched within the lands outlined in bold in Schedule A to this bylaw, and amending the Alexandra Neighbourhood Land Use Map accordingly; and
- ii. by adding the following to the legend:

“Residential Mixed Use:

- a mix of low to medium density residential with low to medium density residential over retail or live/work uses.

Max. 1.25 FAR. Building heights low to mid-rise. (Max. 1.50 FAR with density bonusing for affordable housing).”

2. This Bylaw may be cited as “**Richmond Official Community Plan Bylaw 7100, Amendment Bylaw 9164**”.

FIRST READING

PUBLIC HEARING

SECOND READING

THIRD READING

ADOPTED



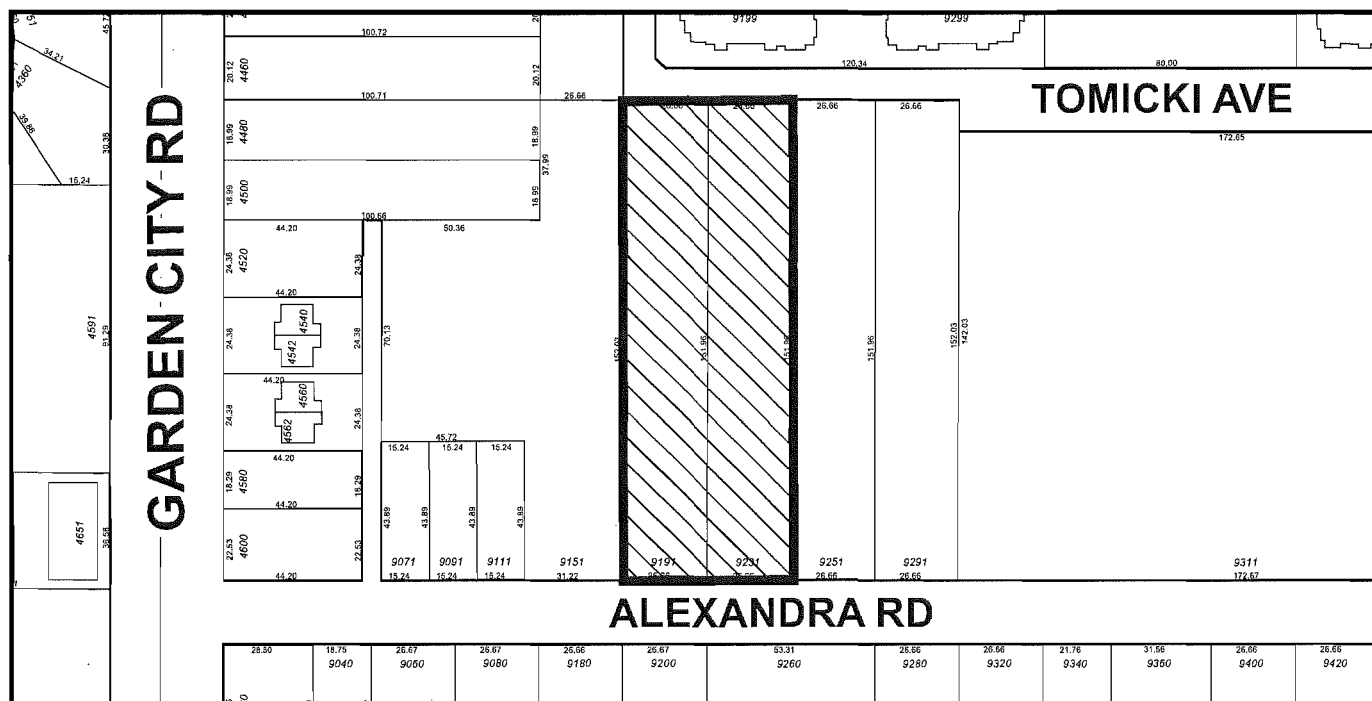
MAYOR

CORPORATE OFFICER



The map displays a grid of land parcels. Key features include:

- Streets:** GARDEN CITY RD (vertical), TOMICKI AVE (horizontal), ALEXANDRA RD (horizontal), ALDERBRIDGE WAY (horizontal), and NO. 4 RD (vertical).
- Zoning Codes:** Various codes are assigned to different areas, such as ZI4, RD1, RS1/F, ZLR25, ZT67, and CG1.
- Site Identification:** A parcel located between Garden City Rd and Tomicki Ave, bounded by Alexandra Rd to the south, is shaded with a cross-hatch pattern. An arrow points from the word "SITE" to this specific parcel.



Proposed OCP Amendment

(RZ 14-656219)

Note: Dimensions are in METRES

CNCL - 417



City of Richmond

Report to Committee

To: Public Works and Transportation Committee

Date: June 23, 2014

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

File: 10-6060-04-01/2014-
Vol 01

Re: Flood Protection Update 2014

Staff Recommendation

That the staff report titled, "Flood Protection Update 2014," dated June 23, 2014, from the Director, Engineering, be received for information.

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

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

Staff Report

Origin

The City of Richmond's topography is generally flat with a natural average elevation of 1m above mean sea level. Surrounded by the Fraser River and the Strait of Georgia, Richmond's flood protection system includes 49 km's of dikes, 622 km of drainage pipes, 178 km of ditches, and 41 drainage pumping stations. Many areas have been raised out of the flood plain through land development related land improvements.

Private and public land with improvements in Richmond are valued at approximately \$63 billion. To protect this investment, the City is focused on implementing and improving policies, practices and infrastructure to maintain and improve flood protection service levels and mitigate the effects of climate change. The *2008 – 2031 Richmond Flood Protection Strategy* is the City's guiding framework for continuing upgrading and improvement of the City's flood protection system.

Accepted science indicates that climate change will increase winter precipitation, increase summer storm intensity and raise sea levels. The City can expect a 0.2 m rise in sea level over the next 50 years and a further 0.8 m over the subsequent 50 years totalling 1.0 m over the next 100 years.

The City's Flood Protection Program supports Council's Term Goals for Financial Management, Managing Growth and Development, Sustainability, Municipal Infrastructure Improvement and Waterfront Enhancement.

Flood protection is a regular point of discussion at the Public Works and Transportation Committee meetings. This report updates Council on flood protection system planning efforts and improvements.

Findings of Fact

Weather

Rainfall

Rainfall highlights for 2013 include the following:

- Approximately 960 mm of rain fell on the City in 2013, which is 23% less than the average annual rainfall of 1,239 mm.
- September was the wettest month in 2013 with 131 mm of recorded precipitation.
- The rainiest day in 2013 was November 2, with 45 mm of rainfall in a 24 hour period, which is well below the single day precipitation record for Richmond of 74 mm on December 16, 1979.
- The most significant storm of 2013 was on September 16, which recorded a rainfall intensity of 7.3 mm / hour over two hours and has a statistical return period of 10 years.

In general, 2013 was a below average rainfall year, but there were two 10 year return period storms. All events were within the design limits for Richmond's drainage system and identified flooding issues were local in nature and unrelated to drainage system capacity. Climate change experts are predicting that storms will become more intense in the future and the occurrence of two 10 year return period storms in 2013 supports this hypothesis. Staff will continue to monitor changes in rainfall patterns due to climate change and update drainage system plans as required.

Freshet

The 2014 Fraser River freshet reached 5 year return period flows briefly in early June and has been lower since then. Less than average snow pack and lower than average rainfall have resulted in a relatively low Fraser River freshet in 2014 and the river is not expected to experience high water levels again this year. The City's diking system performed well and there were no flooding concerns related to this year's freshet.

Flood Protection Policy and Planning

The *Provincial Flood Hazards Statutes Amendments Act*, 2003, transferred responsibility for floodplain regulation from the Province to local municipalities. This has provided opportunities to strengthen Richmond's flood protection policies and create autonomous flood protection strategies. The *2008 – 2031 Richmond Flood Protection Strategy* is the overarching framework that guides Richmond in developing policy and strategy for overall improvement of the flood protection system. Highlights of the City's recent flood protection policy and planning achievements are provided in **Table 1**.

Table 1 - Highlights of the City's recent flood protection policy and planning achievements

Year	Achievement
2002	A Drainage Utility established to provide a dedicated funding source for drainage improvements
2002	A multi year project begins to hydraulically model West Richmond's drainage system and prioritise system improvements
2002	A multi year project begins to create Richmond's first Flood Protection Management Strategy
2005	The Tsunami Hazard at the Fraser River Delta Study is completed. No tsunami was found to impact Richmond in the last 4000 years (since geological records began)
2006	The 2006 – 2031 Flood Protection Management Strategy is finalised
2006	A Dike Utility is implemented to provide a dedicated funding source for dike improvements
2006	The East Richmond Agricultural Water Supply Study is finalised to prioritise area wide drainage and irrigation system improvements
2008	The 2008 – 2031 Flood Protection Management Strategy replaces the 2006 strategy
2008	The Flood Plain Designation and Protection Bylaw No. 8204 is enacted
2009	The Mid Island Dike Study concludes that it is more cost effective to upgrade Lulu Island's perimeter dike than to build a mid island dike
2011	Drainage Modelling is updated to support Bylaw 9000, The 2041 Official Community Plan
2013	City Council adopt recommendations of the Dike Master Plan – Phase 1 Report that includes

	endorsement of Steveston Island as the preferred long term diking solution in Steveston
2013	Richmond's Ageing Infrastructure Planning Report to Council was updated to identify drainage funding requirements and infrastructure targets
2014	Richmond's Integrated Rainwater Resource Management Strategy is being finalised
2014	The East Richmond Agricultural Water Supply Study Update was completed

Drainage System Planning

The City's drainage system improvement plan includes a number of integrated facets that support and guide the City's five year capital plan. Hydraulic models are utilized to identify required capacity based improvements for existing and future conditions, condition assessment identifies elements that are deteriorating and require repair or replacement, ageing infrastructure assessments identify deteriorating infrastructure for replacement and long term financial requirements, and the Integrated Rainwater Resource Management Strategy will identify potential strategies for reducing the overall flows in the drainage system, while improving water quality.

Hydraulic Modeling

Drainage system capacity improvements are based on the results of computer based hydraulic modeling. Drainage system water level monitoring is utilized to calibrate and validate computer models to ensure they are an accurate representation of field conditions. The City is divided into two areas for modeling purposes based on basic land use, West Richmond and East Richmond.

West Richmond is primarily a highly developed urban environment. The West Richmond hydraulic model was updated based on the 2041 OCP and is utilized to identify and forecast drainage system elements that are or will be undersized as a result of ongoing development.

East Richmond is primarily agricultural and the drainage system is utilized for both drainage and irrigation purposes. The 2013 East Richmond Agricultural Water Supply Update study updated the East Richmond hydraulic model to include drainage systems improvements implemented since the original study in 2006. Hydraulic model results were combined with anecdotal information from the farm community to update planned drainage system improvements in East Richmond.

Both of the hydraulic models have considered the impacts of climate change on the drainage system and updates will be required as the science of climate change evolves.

Hydraulic modeling results from the 2041 OCP study and the 2013 East Richmond Agricultural Water Supply Update generated a catalogue of prioritized capacity based drainage system improvements that will be brought forward for Council's consideration as part of the City's five year Capital Program.

Condition Assessment

The City has approximately 56 km of box culverts that are critical to the drainage system. Some of these box culverts are deteriorating and causing sink holes adjacent to them. Staff has reviewed the issue and identified a plan for remediation. Box culvert lining projects will be brought forward for Council's consideration as part of the City's five year capital plan.

Ageing Infrastructure

The ageing infrastructure assessment predicts short, medium and long term requirements for infrastructure replacement due to deterioration. The ageing infrastructure assessment for drainage infrastructure considers age, material, criticality, soil condition, and condition assessment to determine the useful life of the City's pipes, box culverts and drainage pump stations. Short term requirements are brought forward for Council's consideration as part of the City's five year capital plan and longer term requirements are reported to Council for consideration as part of the City's longer term financial strategy.

Integrated Rainwater Resource Management Strategy

The Integrated Rainwater Resource Management Strategy (IRRMS) is undergoing final revisions and will be brought forward to Council for consideration in the fall. The City is required to complete the IRRMS in 2014 as a municipal commitment in Metro Vancouver's Integrated Liquid Waste and Resource Management Plan. The Strategy reviews a broad scope of rainwater issues, including rainwater re-use, detention, green roofs, storm water quality and strategies to reduce the impact of development on the drainage system. It also identifies monitoring and tracking initiatives that support Riparian Management Areas (RMA's), which supports the City's ecological network. After the IRRMS is implemented, staff will incorporate impacts of the IRRMS in the hydraulic models and update the catalogue of capacity based improvements and their timing.

Ecological Network

Richmond's Ecological Network (EN) is the inter-connected system of natural areas across Richmond, of which the City's drainage infrastructure forms an important component. As such, Richmond's Ecological Network Management Strategy is integrated with the other drainage planning tools listed above in the development of drainage maintenance and improvement plans.

Dike Planning

The City's dikes are critical infrastructure that protect the City from inundation from the Fraser River and the Strait of Georgia. Climate change is causing sea levels to rise that must be accommodated by the City's diking system. The City is developing a master plan to address this issue. The City continues to pursue dike improvements through development that meet the long term sea level rise requirements. Seismic design of the City's dikes is an emerging issue based on guidelines released by the Province in 2011.

Climate Change

Sea levels are predicted to rise approximately 1.2 m in Richmond over the next 100 years due to climate change. The best predictions indicate that the City can expect 0.3 m of sea level rise over the next 50 years with 0.9 m of sea level rise in the subsequent 50 years. Based on the current science, the City has significant time to plan and prepare for this eventuality.

To address sea level rise, the City is developing a Dike Master Plan. To date, Phase 1 of the plan associated with Steveston Harbour and the West Dike has been adopted by Council. Staff is currently requesting permission from the Province to perform a preliminary survey and geotechnical work on Shady Island in preparation for feasibility level work to utilize the island as the primary dike. Staff are also in discussions with Port Metro Vancouver (PMV) to mitigate the erosion of Sturgeon Bank and potentially build barrier islands to protect the West Dike from waves. Development of the Dike Master Plan – Phase 2 will begin later this year.

In 2011 the BC Ministry of Environment published the *Climate Change Adaptation Guidelines for Sea Dikes and Coastal Flood Hazard Land Use Sea Dike Guidelines*. These guidelines recommend criteria for calculating the recommended height for sea dikes for existing and future conditions. These guidelines appear to recommend dike heights that are much higher than those required by current provincial regulation. Staff continues to work with the Provincial Dike Inspector to interpret the guideline and develop appropriate future dike heights for the City.

Seismic Guidelines

In 2011, the BC Ministry of Forests, Lands and Natural Resource Operations published the *Seismic Design Guidelines for Dikes*. The guideline is based on performance criteria that limits displacement of dike during a seismic event. There are alternate methods of providing adequate seismic protection for the dikes that fall outside of the provincial guidelines that are considerably less expensive and deserve exploration. Staff continue to work with the Provincial Dike Inspector to rationalize the seismic requirements for the City's dikes and develop alternate strategies that provide an appropriate level of cost effective seismic protection.

Development

Developments adjacent to the City's dike want to take advantage of the waterfront as an amenity. To do so, it is often desirable to raise the dike and the adjacent development to long term elevations. Developments often fill the area between the dike and private property which has the effect of creating a much wider effective dike, which benefits the City and the development. Richmond has ongoing success with dike raising through development.

Infrastructure Improvement

Richmond's Drainage and diking infrastructure is continually improving. This is achieved through the City's 5 Year Capital Plan (funded by the Drainage and Diking Utilities) and private development. Accomplishment highlights include:

- The City implemented \$45M of drainage and diking improvements since 2008, of which \$9.6 million was contributed by senior government grant funding. A further \$9.9M of drainage and diking improvements will be implemented in 2014.
- Ten drainage pump stations have been rebuilt to increase drainage system capacity, resiliency and meet long term drainage needs as well as locally improve dike elevation. Two additional stations have undergone significant mechanical refurbishment and 12 out of 31 major stations have backup generator power.
- 4.4 km of dike have been or are scheduled to be raised to a geodetic elevation of between 4.0 m and 4.7 m, which exceeds the Provincial requirement of 3.5 m to 3.9 m.
- Watercourse, drainage sewer and catch basin cleaning rates have been increased to a five year cycle.

The City's 2015 – 2019 Five Year Capital Plan is under development and will propose approximately \$50 M of drainage and dike upgrades, examples of which will include:

- 5 drainage pump station rebuilds.
- 10 laneway drainage upgrades.
- \$7 M of dike upgrades.

Staff continue to apply for senior government grants to fund these and other projects.

Financial Impact

None

Conclusion

Flood protection is the primary responsibility of the City of Richmond. The ongoing pressures of climate change, development and system aging require ongoing drainage and diking improvements to maintain the City's high flood protection standards. The City's drainage and diking utilities ensure there is dedicated funding available for improvements that are advanced through the City's capital planning process. Over \$45M of drainage and diking works have been completed by the City since 2008, and a further \$9.9M will be completed by the end of 2014.

Richmond's drainage infrastructure is well developed and complex. Computer based hydraulic models are used to identify existing capacity issues and forecast future capacity requirements. Capacity issues are merged with ageing infrastructure renewal needs in development of the City's Five Year Capital Plan. The Integrated Rainwater and Resource Management Strategy will be incorporated into this process, when it is finalized later this year.

Rising sea levels induced by climate change is a long term issue and staff are developing a long term master plan to that will address this issue. Phase 1 of the Dike Master Plan, which addresses Steveston and the West Dike, was completed and endorsed by Council in 2013. Staff is currently pursuing authorization from the province to access Shady Island to perform preliminary survey and geotechnical work required to develop Shady Island as a primary dike. Staff is also working

June 23, 2014

- 8 -

with PMV to stop the erosion of Sturgeon Bank and potentially build barrier islands identified in the Dike Master Plan – Phase 1.

A handwritten signature in blue ink, appearing to read 'L. Bie'.

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

LB:lb



City of Richmond

Report to Committee

To: Public Works and Transportation Committee

Date: June 27, 2014

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

File: 10-6060-04-01/2014-
Vol 01

Re: East Richmond Agricultural Water Supply

Staff Recommendation

That the report titled "East Richmond Agricultural Water Supply Update 2013" as attached to the staff report titled "East Richmond Agricultural Water Supply", dated June 27, 2014, from the Director, Engineering, be used as input in the five year capital program process.

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

Att. 3

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

Staff Report

Origin

In 2006, the City, in partnership with the Ministry of Agriculture and the Richmond Farmer's Institute (RFI), completed the original East Richmond Agricultural Water Supply Study (the Study) to address flood protection and irrigation needs for agricultural lands in East Richmond. Approximately \$4.7M of drainage upgrades identified in the Study have been implemented or are included in Council approved capital projects that are scheduled for completion by the end of 2014.

The Study's update was started in 2013 to review progress and build upon the original study. This report presents the 2013 Study Update report (attachment 1) to Council for consideration and endorsement.

Findings of Fact

East Richmond land use is primarily agricultural. Approximately 2,788 Ha is available for agriculture and approximately 1,994 Ha are in agricultural production. This represents a 210 Ha (12%) increase in land in agricultural production since the 2006 study.

The drainage system in East Richmond serves both flood protection and irrigation purposes. Planning and operating the system to serve both of these purposes is a balancing act as drainage is fundamentally the opposite of irrigation. The complexity of the system requires hydraulic models and creative planning work for ongoing improvements that reduce flooding and improve irrigation which is ultimately required to improve the agricultural viability of the ALR.

The 2006 Study was a comprehensive review of the drainage system in the East Richmond ALR with a focus on improvements required to improve conditions for farming. The study identified a catalogue of proposed drainage and irrigation improvements based on hydraulic modeling and input from the farm community. From this catalogue, \$4.7M of improvements have been implemented or are included in Council approved capital projects that are scheduled for completion by the end of 2014. They include:

- 7.3 km of new or re-profiled ditches on Granville, No. 7 Road, Westminster, Francis, and No. 8 Road (listed from longest to shortest improvements),
- Five control structures,
- Three pump station improvements,
- One new drainage pump station (currently under construction at No. 8 Road and Granville); and
- Remote salinity monitoring.

The goal of the 2013 Study Update was to review progress and build upon the original study. The 2013 Study Update report includes:

- A catalogue of infrastructure projects completed since the 2006 Study,
- Updated hydraulic model that includes infrastructure improvements completed since the 2006 Study,

- A stakeholder consultation process,
- An updated catalogue of proposed drainage and irrigation infrastructure improvements for East Richmond (Attachments 2 and 3); and
- A cost benefit analysis of proposed drainage and irrigation infrastructure improvements.

Stakeholder Consultation

The project team consulted with the Agricultural Advisory Committee (AAC), and hosted a public open house and hosted a workshop with City operations staff. The identified issues and concerns are documented in the 2013 Study Update report and were utilized in developing the recommended upgrade strategy.

On May 22, 2014, the completed 2013 Study Update report was presented to the Agricultural Advisory Committee. There was discussion regarding the hydraulic modeling work as well as some of the results. In particular, committee members were interested in the recommended Sidaway Road improvements and the impacts of a proposed development at No. 6 Road and Steveston Highway. The committee indicated general satisfaction with the update.

Improvement Strategy

The 2013 Study Update builds on the previous study and a number of the original recommendations are maintained in the update. The majority of the irrigation and flood protection problems identified by the farming community are south of Highway 91. As such, the majority of the recommended and completed improvements are south of Highway 91. Both the original 2006 study and the 2013 study update identify supplying water from the north arm of the Fraser River to the farm land south of Highway 91 as the preferred option. Primary reasons for this preference are:

- The water in the north arm of the Fraser River is of better quality for farming purposes than the water in the south arm,
- Topography and low ground elevations limit the distance water from the south arm of the Fraser can be pushed north; and
- It is the more cost effective option.

The update improves on the original study by:

- Adding detail to Sidaway and No. 6 Road ditch re-grading,
- Recommending additional ditch cleaning on No. 7 Road,
- Recommending new settings for No. 6 Road South Pump Station; and
- Recommending additional control structures in the south west quarter of the study area.

The additional control structures recommended at No. 7 Road and Westminster and No. 7 Road and Granville are key to accomplishing irrigation objectives in the south west area without flooding the south west area.

Recommended improvements for the next ten years are:

1. Ditch re-grading and culvert upgrades Sidaway Road south of Francis Road,
2. Ditch re-grading and culvert upgrades No. 6 Road south of Blundell Road,
3. New culvert on Blundell Road east of Sidaway Road,
4. New culvert on Burrows Road,
5. Clean ditches on No. 7 Road, No. 8 Road and Cambie Road,
6. Ditch re-grading and culvert upgrades on Westminster Highway west of No. 7 Road; and
7. Irrigation improvements including the addition of 2 flap gates, 5 gates with automated controls, re-grade ditch on Sidaway from north of Blundell Road to Westminster Highway, and new ditch on Granville Road from No. 6 Road to Sidaway.

Maps of recommended drainage and irrigation improvement projects are attached as Attachments 2 and 3 respectively. A benefit to cost ratio of 3 was calculated for the recommended improvements based on potential revenue for un-used agricultural land and the estimated cost of improvement projects.

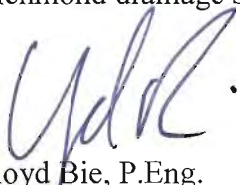
With Council's endorsement, staff will include recommended projects for Council's consideration in the five year capital program.

Financial Impact

None at this time. Recommended projects will be submitted for Council's consideration as part of the City's Five Year Capital Program.

Conclusion

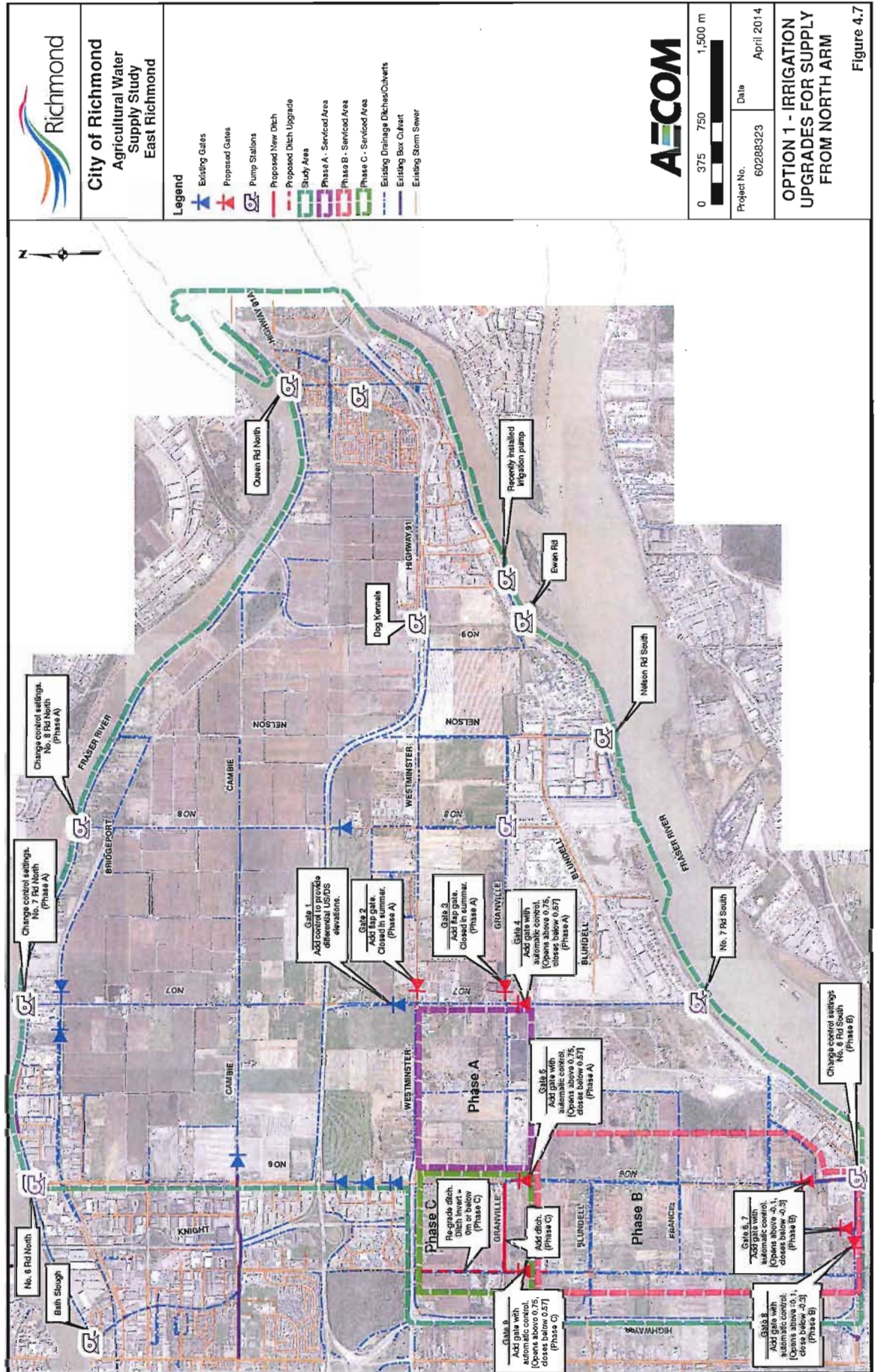
East Richmond land use is primarily agricultural and the drainage system provides both flood control and irrigation for local farms. The 2006 Study was a comprehensive review of demands on the system and recommended a number of improvements. Since 2006, approximately \$3.7M of drainage improvements have been implemented in East Richmond. The 2013 Study Update incorporates these improvements, reviews current stakeholder input, confirms the overall irrigation and drainage strategy and identifies an updated catalogue of improvements for the East Richmond drainage system.



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

LB:lb

- Att. 1: Plan Showing Proposed Drainage Upgrades
Att. 2: Plan Showing Proposed Irrigation Upgrades
Att. 3: 2013 East Richmond Agricultural Water Supply Update (REDMS 4226898)



Water



City of Richmond

FINAL REPORT

East Richmond Agricultural Water Supply Update 2013

Prepared by:

AECOM
3292 Production Way, Floor 4
Burnaby, BC, Canada V5A 4R4
www.aecom.com

604 444 6400 tel
604 294 8597 fax

Project Number:

60288323

Date:

April 2014

Statement of Qualifications and Limitations

The attached Report (the "Report") has been prepared by AECOM Canada Ltd. ("Consultant") for the benefit of the client ("Client") in accordance with the agreement between Consultant and Client, including the scope of work detailed therein (the "Agreement").

The information, data, recommendations and conclusions contained in the Report (collectively, the "Information"):

- is subject to the scope, schedule, and other constraints and limitations in the Agreement and the qualifications contained in the Report (the "Limitations");
- represents Consultant's professional judgement in light of the Limitations and industry standards for the preparation of similar reports;
- may be based on information provided to Consultant which has not been independently verified;
- has not been updated since the date of issuance of the Report and its accuracy is limited to the time period and circumstances in which it was collected, processed, made or issued;
- must be read as a whole and sections thereof should not be read out of such context;
- was prepared for the specific purposes described in the Report and the Agreement; and
- in the case of subsurface, environmental or geotechnical conditions, may be based on limited testing and on the assumption that such conditions are uniform and not variable either geographically or over time.

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This Statement of Qualifications and Limitations is attached to and forms part of the Report and any use of the Report is subject to the terms hereof.



AECOM
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Burnaby, BC, Canada V5A 4R4
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604 444 6400 tel
604 294 8597 fax

April 28, 2014

Mr. Andy Bell, M.Eng., P.Eng.
Engineering Planning
City of Richmond
6911 No. 3 Road
Richmond, BC
V6Y 2C1

Dear Andy:

Project No: 60288323
Regarding: FINAL REPORT
East Richmond Agricultural Water Supply Update 2013

Please find attached three copies of the Final Report for the East Richmond Agricultural Water Supply Update 2013. This report includes an assessment of the current and future drainage conveyance and irrigation water supply, as well as proposed recommendations for both the drainage and irrigation systems.

We have enjoyed working with City Staff on this project and we look forward to providing our continued services to the City of Richmond. If there are any questions or concerns please don't hesitate to contact me at 604.444.6400

Sincerely,
AECOM Canada Ltd.

Sumandeep Singh

Suman Shergill, P.Eng.
Project Engineer

Encl.
cc:
SB:ss

Distribution List

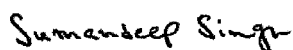
# of Hard Copies	PDF Required	Association / Company Name
1	Yes	City of Richmond
1	Yes	City of Richmond
3	Yes	City of Richmond

Revision Log

Revision #	Revised By	Date	Issue / Revision Description
0	SB	Sept 9, 2013	Draft Report – Drainage Only
1	SB/SS	Oct 2, 2013	Draft Final Report
2	SB/SS	Dec 18 2013	Final Report –Version1
3	SS	Jan 4,2014	Updated Final Report
4	SS	April 28, 2014	Final Report

AECOM Signatures

Report Prepared By:



Suman Shergill, P. Eng.
Project Engineer

Executive Summary

In the 2041 OCP the City of Richmond identified that it shall maintain and improve Agricultural Land Reserve (ALR) drainage and irrigation systems to support agriculture. To meet this objective, the City requested an update of its East Richmond Agriculture Water Supply Study that includes a hydraulic assessment for the drainage and irrigation system under existing agricultural land use conditions and future land use conditions (OCP 2041), and provides a prioritized list of recommended upgrades for Capital Planning purposes.

The City's objectives for drainage and irrigation in East Richmond are to:

- Continue to protect agricultural land in the Agricultural Land Reserve (ALR).
- Enhance the long term viability, opportunities for innovation, infrastructure and environmental impacts of the agricultural sector.
- Ensure prioritized drainage improvements are implemented according to Agricultural and Rural Development Subsidiary Agreement Criteria (ARDSA) performance standards and in consultation with the agricultural community and relevant City departments.
- Encourage sufficient notification to the agricultural sector of ditch cleaning plans to achieve beneficial, effective, timely drainage.
- Facilitate the improvement of irrigation and drainage infrastructure to provide secure and affordable water supplies that support the agricultural sector.

The study area is approximately 3,918 Hectares (Ha) and the portion of land for agricultural use is approximately 2,788 Ha (based on 2010 Land Use Inventory data) of which approximately 1,994 Ha is used for farming. Agricultural land uses include cranberries, blueberries, strawberries, raspberries, vegetables, fruit and nut trees and forage crops for livestock. Cranberries take up the majority of the land area and dominate the area north of Highway 91. A functional drainage and irrigation system is critical to successful crop production and the diverse crops have varying requirements and are sensitive to drainage patterns.

Project stakeholders include the City of Richmond, Agricultural Advisory Committee, Richmond Farmers' Institute, Ministry of Agriculture and Lands, and Fisheries and Oceans Canada. Feedback from individual farmers and AAC members was obtained at the AAC meeting and Open House and has been incorporated in this report. A workshop with City Operations Staff was also held where valuable information was obtained pertaining to known problem areas and previous works completed.

Design criteria for the Study area include the ARDSA criteria and irrigation growth, harvest and frost protection conditions. ARDSA criteria include removing runoff from the 10-Year 5-day winter storm event within 5 days in the dormant period (November 1 to February 28) and removing runoff from the 10-Year 2 day storm event within 2 days in the growing period (March 1 to October 31). Between storm events and in periods when drainage is required, the ARDSA criteria require that base flow in channels is maintained between 0.9m to 1.2m below field elevation where possible. Irrigation criteria that were applied include use of a uniform growth irrigation rate (determined to be 5.33mm/day as per the 2006 Study) across the study area as well as addition of known estimates for water discharged during cranberry harvest periods. Model analysis for the frost protection period has not been completed as no concerns were expressed for this scenario. Tidal information from stations at Nelson Road PS, No. 6 Road South PS and Queens Pump Station are also applied in the model to represent the boundary conditions at the Fraser River.

Once the design criteria were re-established and areas of concern identified, the hydraulic model was updated to DHI's Mike Urban software and infrastructure upgrades completed since 2006 were added. The next step was to review the drainage and irrigation pump operational parameters. This is particularly pertinent for No 7 Rd North and

No 8 Rd North pump stations as the operational settings for pumps and gravity intakes at these locations are changed from season to season to allow for irrigation water supply.

The existing system assessment included a review of conveyance and pump station capacities. The existing system peak HGLs for the dormant winter period (10-Year 5 day storm event with 7 day high tide) was determined using the model. Areas with hydraulic constraints were then determined and improvements were proposed. The pump station analysis indicates that five of nine pump stations have a peak inflow (10-Year 5 day) greater than the theoretical pump station capacity at high tide. With exception of No. 7 Road South PS, all of the flood box outlets have capacity to convey 10-Year 5 day peak flow during low tide. At No. 7 Road South the combined capacity of flood box and pump station is adequate to convey 10-Year 5 day peak inflow.

Two irrigation improvement options were considered to irrigate the southwest lands. Option 1 – Supply water from the Fraser River's North Arm using the existing river intakes and Option 2- Build a new irrigation pump station at the foot of No 6 Rd. Option 2 was rejected primarily because of high cost of construction. In addition, there are limitations on how far north irrigation water can be supplied based on the topography and low ground elevations, particularly along Sidaway Rd north of Blundell Rd.

Prioritized drainage and irrigation improvement projects for the ten year Capital Plan are provided in **Table E.1**. Additional information for each drainage and irrigation project is provided in **Section 4.3 and 4.4** respectively, which includes a discussion on the system improvements, before and after water level profiles, and detailed cost breakdowns. The projects generally include a combination of ditch cleaning and re-grading, culvert upgrades, and installation of new cross culverts to connect roadside ditches. A key component of upgrades in the Southwest (Sidaway Rd, Steveston Hwy and No 6 Rd areas) is the lowering of No 6 Rd South PS pump ON OFF levels.

Table E.1 Prioritized List of Upgrades

Priority	Project ID	Project Description	Cost Estimate	Time Horizon
1	D1	Sidaway Road South of Francis Alignment (Section 4.3.1)	\$1,176,000	1-2 years
2	D2	No 6 Road South of Blundell Road (Section 4.3.2)	\$693,000	3-5 years
3	D4	Blundell Road East of Sidaway (Section 4.3.4)	\$46,000	3-5 years
4	D7	Burrows Road (Section 4.3.7)	\$50,000	3-5 years
5	D6	Cambie Road East to No 8 Rd, No 7 Rd & No 8 Rd from Cambie to PS (Section 4.3.6)	\$1,595,000	5-10 years
6	D5	Westminster Highway West of No 7 Road (Section 4.3.5)	\$981,000	5-10 years
7	(I-1). Irrigation- Option 1 Upgrades for Supply	Phase A	\$647,000	5-10 years (or sooner if funds are available)
		Phase B	\$812,000	
		Phase C	\$722,000	
	Total Cost		\$6,722,000	

Note: "D" represents drainage projects and "I" represent irrigation projects.

A cost benefit analysis was completed to assess the economic, social and environmental impacts of the proposed drainage and irrigation improvements. The methodology applied is similar to the 2006 Study where the average potential revenue for un-used agricultural land was compared with the cost of infrastructure upgrades. Essentially, the net result is a benefit to cost ratio of approximately 3. Other factors that were explored include the potential savings to farmers for City supplied potable water, additional costs of drainage pump station maintenance and power, and potential reduced risk of economic impacts from flooding or loss of crops.

Further recommendations and improvements that were discussed at the Staff workshop and require additional investigation prior to inclusion in the current Capital Plan include the following items:

- Survey ground elevation (field elevations) along existing ditch on Cambie Rd (east and west of No 7 Rd). The ground elevation survey should also be completed for low lying areas along Sidaway and No 6 Rd south of Williams Road.
- Review capacity of the No. 7 Road South PS and flood box as it was identified as under capacity in **Table 4.1**
- Consider implementing the following projects identified in the 2006 Study as low priority works:
 - Construct 600m of ditch along Sidaway-East to connect the Blundell and Francis ditch systems
 - Upgrade ditch on east side of No 6 Rd between Granville Rd and Blundell Rd. This will further increase conveyance along No 6 Rd and facilitate supply of irrigation water from North Arm.
- Repair or replacement of the failing headwall at the south ditch box culvert inlet on Cambie Rd just east of No 6 Road
- Ditch cleaning and re-profiling along CN Rail corridor between No 7 Rd and No 8 Rd (City needs permission from the railway for access)
- Ditch cleaning and re-profiling for south side of River Rd from the CN box (Cambie Rd alignment) east to Queens PS
- Box culvert flushing and cleaning for No 6 Rd north drainage corridor and further investigation of the jet fuel pipeline elevations
- Review the need and methods to remove invasive species such as Japanese Knotweed and Parrot Feather.
- Review possibility of lowering the No 7 Rd North PS culvert and impact this would have on the downstream ditch systems
- Create a culvert inspection program for entire study area and in particular a review of who is responsible for maintenance of culverts crossing Hwy 91
- Consider implementing a procedure that requires farmers to identify when and where new outfalls from fields to municipal ditches are constructed
- Coordinate operation of the CN box gravity intake (River Rd and Cambie Rd alignment) between farmers and Operations staff
- Facilitate farmers to coordinate water use from No 7 Rd North PS during harvest

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Appendices

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Appendix B	Design Storm Hyetographs

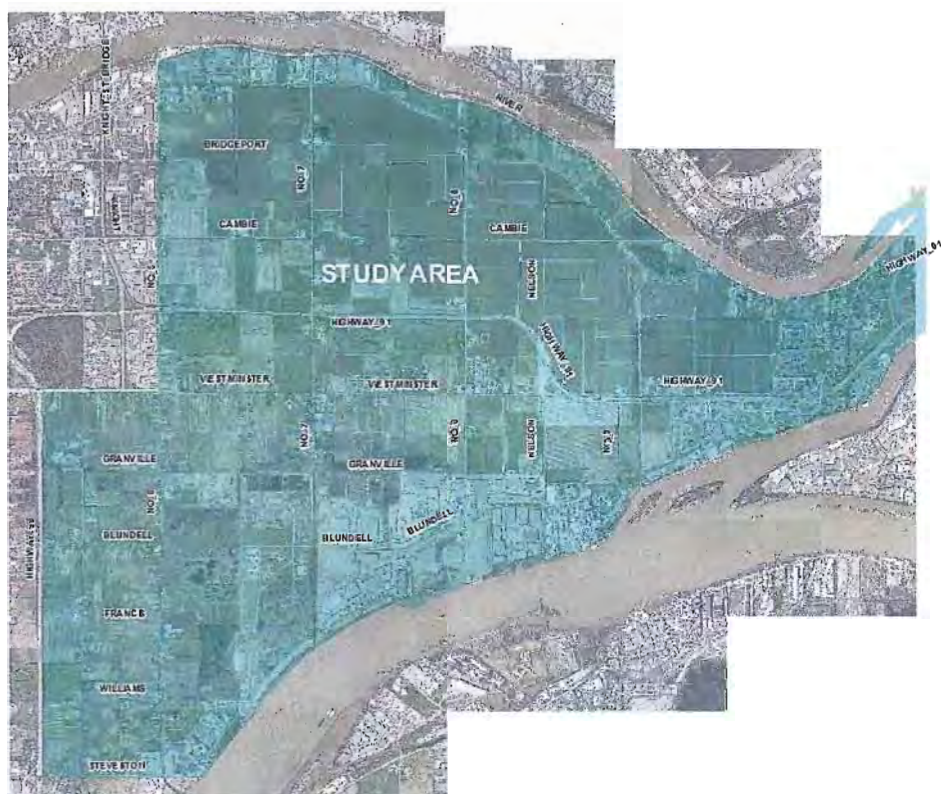
1. Introduction

The City of Richmond requested an update of its East Richmond Agriculture Water Supply Study that provides a prioritized list of recommended upgrades for Capital Planning purposes. To achieve this objective, a hydraulic assessment for the East Richmond drainage and irrigation system under existing agricultural land use conditions and future land use conditions (OCP 2041) was completed.

1.1 Background

The study area as shown in **Figure 1.1** is approximately 3,918 Hectares (Ha) and the portion of land for agricultural use is approximately 2,788 Ha (based on 2010 Land Use Inventory data) of which approximately 1,994 Ha is used for farming. Agricultural land uses include cranberries, blueberries, strawberries, raspberries, vegetables, fruit and nut trees and forage crops for livestock. Cranberries take up the majority of the land area and dominate the area north of Highway 91. A functional drainage and irrigation system is critical to successful crop production. The diverse crops have varying requirements and are sensitive to drainage patterns.

Figure 1.1 Study Area



In 2006, the previous East Richmond Agricultural Water Supply Study was completed by UMA/AECOM (referred to as "2006 study" in this report) and included a list of proposed irrigation and drainage projects within the Agricultural Land Reserve (ALR) east of Highway 99. Since the 2006 study was completed, approximately \$3.5M in capital projects have been implemented and were added to the hydraulic model as part of this study. Projects recommended in the 2006 Study and their completion status is provided in **Tables 1.1** and **1.2**. **Tables 1.1** also include projects identified and completed subsequent to the 2006 study. Projects are shown in the same priority order as in the 2006 study.

Table 1.1 Drainage & Irrigation Upgrade Projects Completed Since 2006

YEAR	LOCATION	SCOPE OF WORK
2007	Granville Avenue Alignment (No. 6 Road to Kartner Road)	1600m of ditch constructed and/or upgraded
	No. 7 Rd (Granville to No. 7 Rd Pump Station South)	1700m of ditch re-profiled
2008	Westminster Hwy (No. 8 Rd to Nelson Road)	800m of ditch re-profiled (scope revised from No. 7 Rd to No. 8 Rd due to environmental restrictions)
	No. 6 Rd	Flap gates installed at 3 locations: <ul style="list-style-type: none"> • Commerce Parkway • Wireless Way • International Place
	No. 7 Rd	Temporary flap gate installed at No. 7 Rd and Westminster Hwy to prevent cranberry water from discharging to the south
	No. 8 Rd	Temporary flap gate installed at No. 8 Rd south of HWY 91 to prevent cranberry water from discharging to the south
	No. 8 Rd (south of Westminster Hwy)	Culvert installed in No. 8 Rd's east ditch (south of Westminster Hwy) to increase ditch connectivity
	No. 8 Road Pump Station North	New Programmable Logic Controller (PLC) & sonar installed
2009	Granville Alignment (Kartner Road to Nelson Road)	1600m of ditch constructed and re-profiled (scope modified slightly due to Terason gas main conflict between No. 8 Rd and Nelson Rd causing the City to construct on either side of the conflict)
	No. 8 Rd (Westminster Hwy to Granville Avenue Alignment)	800m of ditch re-profiled (original project scope revised from Highway 91 to Westminster Hwy due to most of the area between Highway 91 and Westminster Hwy being culverted)
	No. 6 Rd Pump Station South	New Programmable Logic Controller (PLC), sonar, salinity meter, and automated irrigation system installed
2010	Francis Rd Alignment (Sidaway Rd to No. 6 Rd)	800m of ditch constructed
	Sidaway (west side from Francis Rd to Steveston HWY)	1600m of major ditch maintenance (original project scope revised from upgrading ditch to major ditch maintenance due to existing culverts)
2011	No. 7 Rd Pump Station South	1 pump replaced to improve reliability and reduce low level water elevations & new Programmable Logic Controller (PLC) and control cell installed
2012	Sidaway Road (at Francis Road Alignment)	New culvert installed to connect Sidaway Road's east and west drainage ditches
	Ewen Road Irrigation Pump Station	New irrigation pump station and piping to supply irrigation water to a local farm in the vicinity of pump station.
2013	No. 8 Road and Granville Avenue Alignment	New 25 HP drainage pump station (planned for summer 2013)
	No. 6 Rd Pump Station North	1 pump replaced to improve reliability and reduce low level water elevations (Summer 2013)

Note:

Drainage Projects

Irrigation Projects

Table 1.2 Drainage & Irrigation Upgrade Projects Under Review

LOCATION	SCOPE OF WORK
Sidaway (Blundell to Francis)	Construct 600m of ditch along Sidaway-east to connect the Blundell and Francis ditch systems
No. 6 Rd (Highway 91 to No. 6 Rd Pump Station North)	Re-profile and smooth inverts through 2650m of ditches and storm sewers (delayed due to Kinder Morgan jet fuel pipeline conflicts and scope issues)
Cambie Rd	Re-profile 4000m of ditches
Blundell Rd (No. 6 Rd to No. 7 Rd)	Construct 1600m of ditch
West Boundary	Install an additional 6 flap gates with manual override along Highway 99 and No. 6 Rd. (1 of the initial 7 proposed was installed in 2008)
No. 7 Rd (south of Granville)	Install 1 drop leaf gate to prevent potential irrigation water discharging at the No. 7 Rd South Pump Station
No. 8 Rd (east side between Highway 91 and Westminster Highway)	Upgrade 400m of storm sewers
Westminster Highway (No. 6 Rd to ditch near Kartner)	Upgrade / realign 2400m of storm sewers
No. 6 Rd (Westminster to Granville)	Upgrade / realign 800m of storm sewers
No. 6 Rd (Granville to No. 6 Rd Pump Station South)	Upgrade 3200m of ditches and storm sewers
Williams, Blundell, & Francis	Upgrade ditches (scope undetermined)
Granville Avenue Alignment (Sidaway to No. 6 Road)	Construct 800m of ditch to connect Sidaway to No. 6 Rd.
Granville & No. 6 Rd	Install screw pump and 2 drop leaf gates (to irrigate Sidaway Rd)
No. 7 Road North	Install irrigation pump
Blundell Rd (east of No. 6 Rd)	Install 1 drop leaf gate
General Study Wide Upgrades	<p>These upgrades had a low priority in the 2006 Study:</p> <ul style="list-style-type: none"> • Culvert connecting Nelson to Ewen • Culvert connecting ditches on the west side of No. 6 Rd to Granville Avenue Alignment • Flap gates with manual override at No. 8 Rd and Westminster Hwy • Manually operated gate at Nelson-east and Westminster Hwy • Drop-leaf gate at No. 6 Rd, north of Bridgeport Rd • Drop-leaf gates at No. 7 Rd and Cambie (both sides of No. 7 Rd) • Drop-leaf gate at No. 8 Rd and Cambie (on west side of No. 8 Rd) • Deepen ditch along Westminster Hwy between Nelson Rd and Ewen Rd

Note

Drainage Projects

Irrigation Projects

In addition to individual farm owners and their specific requirements, there are a number of stakeholders including the City of Richmond, Agricultural Advisory Committee, Richmond Farmers' Institute, Ministry of Agriculture and Lands, and Fisheries and Oceans Canada. Feedback from individual farmers and AAC members was obtained at the AAC meeting and open house and is incorporated in the study. A workshop with City operations staff was also held and resulted in additional valuable information for input into the overall development of a prioritized list of recommendations.

1.2 Goals and Objectives

In Section 7.1 of its 2041 OCP, the City recognizes the importance of agriculture as a food source, environmental resource, a heritage asset and important contributor to the local economy. Most of the ALR in Richmond is outside of Greater Vancouver Regional District's (GVRD) servicing boundary.

It is the City's objective to maintain and improve ALR drainage and irrigation systems to support agriculture (Section 12.6, 2041 OCP). Goals and objectives identified in Section 7 of the 2041 OCP that relate to drainage and irrigation have been incorporated into this study and include the following statements:

Drainage:

- Continue to protect agricultural land in the ALR
- Enhance all aspects of the agricultural sector including long term viability, opportunities for innovation, infrastructure and environmental impacts
- Ensure drainage improvements to the ALR occur in a prioritized order and according to Agricultural and Rural Development Subsidiary Agreement Criteria (ARDSA) performance standards
- Ensure drainage improvements are considered in a comprehensive manner in consultation with the agricultural community and relevant City departments
- Encourage sufficient notification to the agricultural sector of ditch cleaning plans to achieve beneficial, effective, timely drainage

Irrigation:

- Facilitate the improvement of irrigation and drainage infrastructure to provide secure and affordable water supplies that support the agricultural sector

The scope for the 2013 East Richmond Water Supply Update are as follows:

- Review all current information available from the City and Ministry of Agriculture pertaining to water supply and land use changes in the study area;
- Complete a field reconnaissance to verify current irrigation and drainage infrastructure and locations for proposed upgrades;
- Gather first-hand information from farming community stakeholders through an open house and attendance at an AAC meeting;
- Update the current East Richmond hydraulic model with drainage and irrigation infrastructure constructed since 2006 and identify ways to optimize the model performance;
- Complete a comprehensive assessment with the updated model and develop a prioritized list of drainage and irrigation system improvements;
- Review feasibility of irrigation water supply transfer from the north to the south; and
- Develop cost estimates for the proposed upgrades based on current market conditions.



1.3 Land Use

1.3.1 Agricultural Land Use

A comprehensive review of current agricultural land uses was completed by the Ministry of Agriculture in 2010 and is provided in the Ministry's Draft Land Use Inventory (LUI) Report (January 2013). Information presented in the LUI report was collected by completing drive-by surveys for all properties in the Agricultural Land Reserve.

During the LUI survey, data was collected on general land use and land cover including agricultural practices, irrigation, crop production methods, livestock, agricultural support (e.g. storage, compost and waste), and activities which add value to raw agricultural products. General land cover information collected in the LUI is presented in **Table 1.3** and **Figure 1.2**. Agricultural land uses include berry cultivation (including cranberries, blueberries, strawberries, and raspberries), vegetables (including greenhouses), fruit and nut trees, and forage crops for livestock. **Figure 1.3** shows the location of various cultivated crops in the area.

Cultivation of cranberries is the major land use for the area north of Highway 91. Cranberry production involves significant investment by farmers in infrastructure such as ditches, reservoirs, control structures, and pumping irrigation equipment. Most of the cranberry crops in the north are supplied to Ocean Spray for the juice and canned cranberry market, and farming tends to be cooperative and organized with farmer's coordinating their schedules and sharing water resources.

South of Hwy 91 the most significant crops are blueberry, vegetable and forage along with nurseries and greenhouses. In the southwest portion of the study area, west of No 6 Road, there are numerous small urban lot developments and the area has a high amount of un-used farmland and land used for non-agricultural uses.

Table 1.3 Crop Coverage & Irrigation Area

Cultivated Field Crops	Area* (Ha)	% of Cultivated Land	% of Crop Area Irrigated
Berries	1,433	54	71
(cranberries)	(873)	(61)	(98)
(blueberries)	(492)	(34)	(31)
(strawberries)	(62)	(4)	(30)
(raspberries)	(7)	(<1)	(na)
Vegetables	647	24	54
Forage & Pasture	402	15	24
Nursery & Tree Plantations	64	2	84
Grains, Cereals, Oilseeds	37	1	na
Other**	73	19	na
Total	2656 Ha* (Includes land outside the study area)		

Notes:

- Area based on the Ministry of Agriculture 2010 survey data that includes ALR in west Richmond. 1994 ha are located in east Richmond

** Other includes tree fruits, turf, vines, floriculture, nut trees, bare cultivated land, fallow land, land in crop transition

Source: 2010 Land Use Inventory

In addition, the LUI report includes data on irrigation water use recorded by crop type and irrigation system type (e.g. sprinkler, trickle, giant gun or sub-surface). The report notes that sprinkler systems are the most common type of irrigation system and are used on a broad range of crops, while trickle systems are the next most common and used

exclusively on berry, vegetable, nursery and vine crops. Subsurface systems were third and used on several types of crops. The coverage for each irrigation type as per the data collected for the LUI report is presented in **Figure 1.4** and **Table 1.1**. As shown in the table, 71% of all berry crops and 54% of all vegetable field crops are irrigated.

1.3.2 Other Land Uses

Other land uses in the study area include golf courses, large rural residential lots, industrial properties and the Hamilton residential area. At present there are five golf courses and driving ranges in East Richmond that use surface water for irrigation supplemented with City supplied water. Several of the large residential lots have hobby farms on the property that also draw water for irrigation and require drainage.

Industrial areas are located along the North and South Arm's of the Fraser River in East Richmond and are generally not included in the hydraulic model as they have their own drainage systems and do not draw water for irrigation purposes. Larger industrial properties located along the South Arm of the Fraser are occupied by Lafarge (concrete production) and Port Metro Vancouver. Each of these areas drain surface water directly into the Fraser River.

The Hamilton area is serviced by a local drainage system and only the major ditches and trunk sewers are included in the East Richmond hydraulic model. The area is serviced by the gravity outlets to the Fraser River during low tide and the Queen Road North Pump Station during high water levels, as well as a smaller pump station inland at 22740 Westminster Hwy.

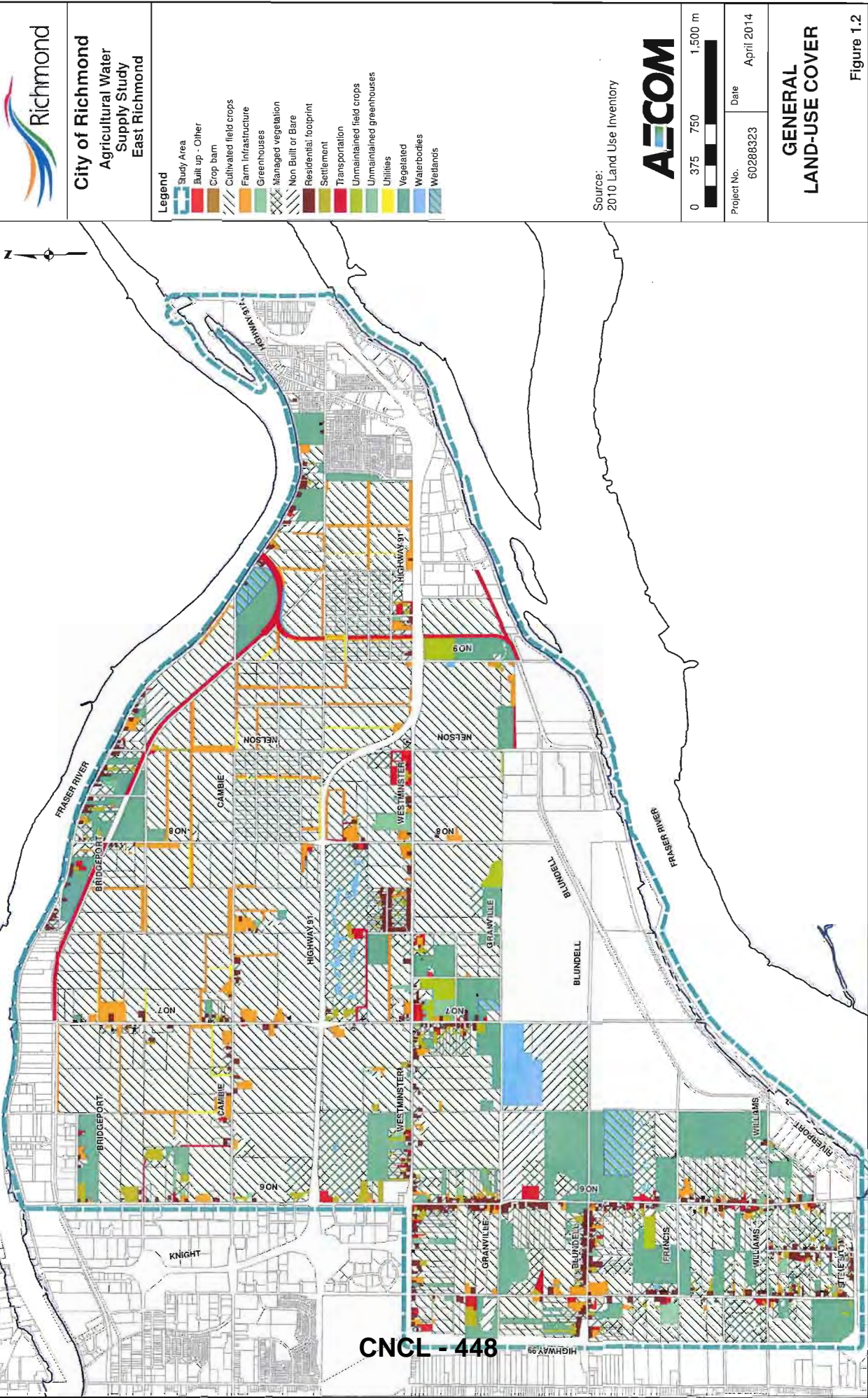
1.3.3 OCP Future Land Use

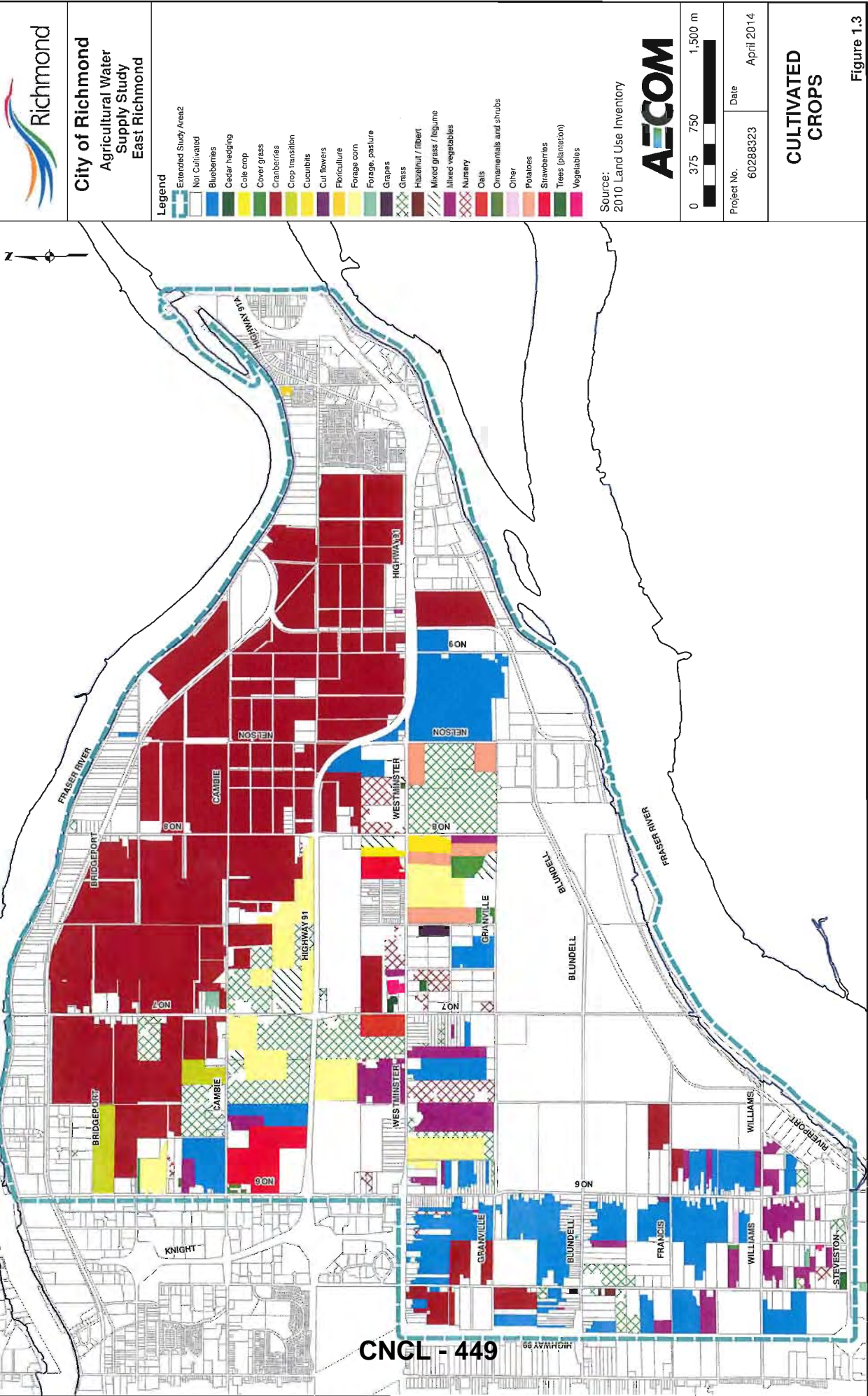
The 2041 OCP future land use information was obtained from the City and is shown in **Figure 1.5**. There are no major changes from the current land use in the study area and the primary land use remains agricultural meaning that land imperviousness is unlikely to significantly change.

An additional land use plan is currently being developed for the Hamilton area; however, its findings are not expected to significantly impact the outcome of this study.

1.3.4 Integrated Rainfall Resource Management Strategy (IRRMS)

The City's IRRMS is being completed in parallel to this study, and it makes recommendations to protect and enhance Riparian Management Areas (RMA's) to protect and improve water quality. Many of the East Richmond's watercourses have designated RMA's. The detailed design of drainage and irrigation capacity upgrades recommended through the East Richmond Agricultural Water Supply Update should aim to incorporate relevant IRRMS recommendations, such as protecting RMA setbacks and enhancing RMA's.



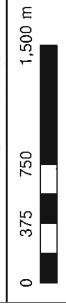




City of Richmond
Agricultural Water
Supply Study
East Richmond

- Legend**
- Study Area
 - Not Irrigated
 - Gravel Gun
 - Sprinkler
 - Sub-surface
 - Trickle

Source:
2010 Land Use Inventory

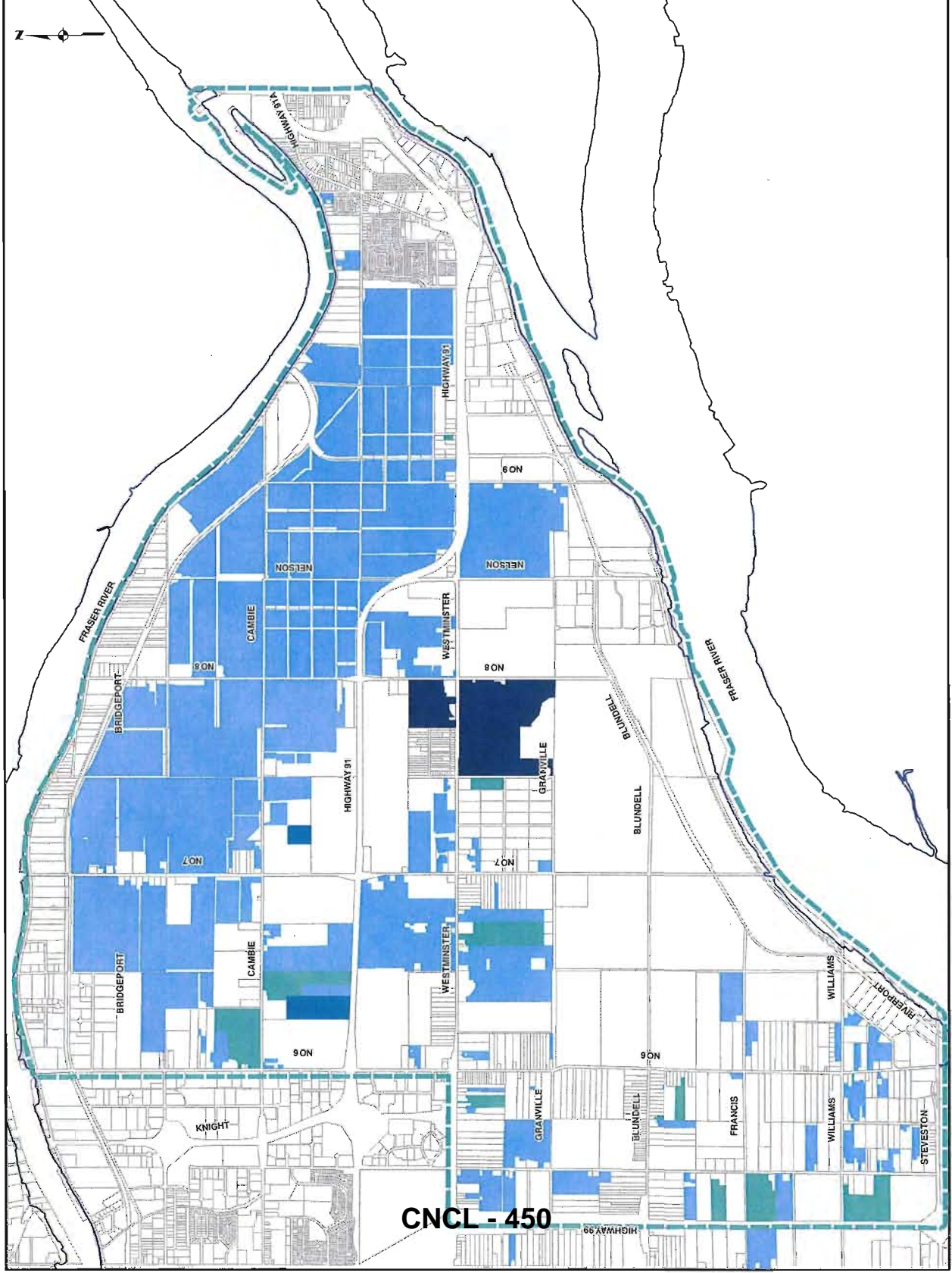


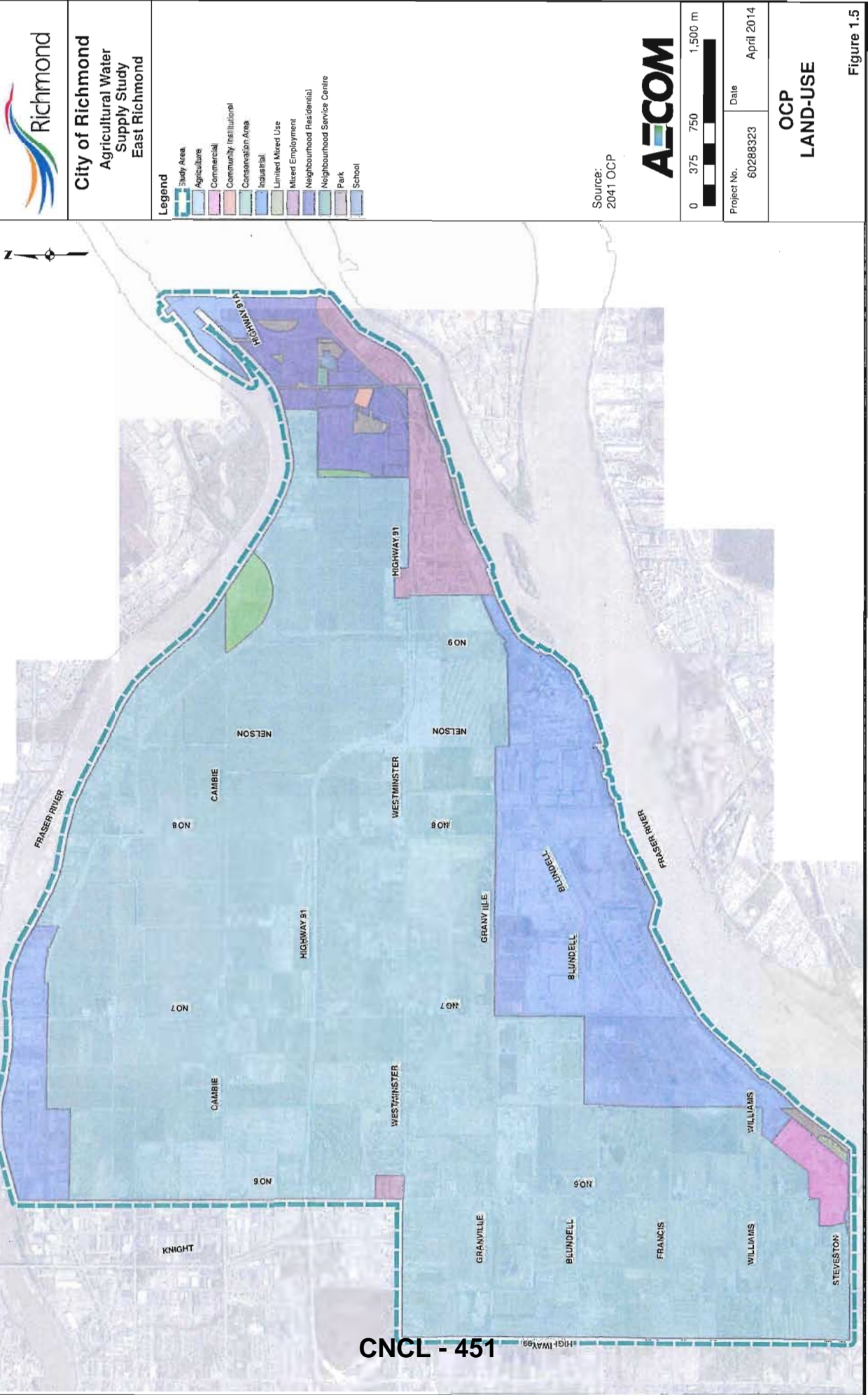
Project No.
60288323

Date
April 2014

**IRRIGATION
TYPE/SYSTEM**

Figure 1.4





CNCL - 451

1.4 Irrigation and Drainage Infrastructure Overview

1.4.1 Current Drainage and Irrigation Infrastructure

Figure 1.6 shows the current drainage and irrigation infrastructure in East Richmond. Major pump station catchments are also shown in the above figure. These are approximate boundaries as the ditches may be interconnected at some locations. The majority of the water supply for the area north of Highway 91 is provided through three gravity intakes at No 7 Road North PS and No 8 Road North PS and the CN Box on the North Arm of the Fraser River. During low tide periods water is also pumped into the drainage canals at No 8 Road Pump Station. Inland, there is a network of canals/ditches and control gates that convey drainage and irrigation water and are generally well maintained. In addition, there are two other drainage pump stations on the North Arm of the Fraser River, No 6 Rd North PS and Queens North PS, that do not provide irrigation water supply.

Irrigation and drainage infrastructure in the north is primarily geared towards cranberry production and water supply for frost protection and harvesting. The majority of the infrastructure was constructed in the 1990s as a result of an ARDSA funding program.

Water supply in the south is more challenging, particularly for the western region where there are known issues with a lack of fresh water supply and water quality. The primary source of irrigation water is from the No 6 Road South PS gravity intake and is limited due to the presence of salt water. Salt water is a particular concern in late summer and early fall when river flows are at their lowest level. There is a conductivity meter in place at the pump station that automatically closes the intake when salinity levels reach 700 micro Siemens. In addition, during summer months there is less rainfall and river water available to flush the system which can lead to water stagnation. Also there are a series of hold back structures that keep the water in the system during summer. Farmers have reported elevated iron levels in this area. As a result, many of the farmers in the southwestern portion of the study area use City supplied potable water.

There are three other drainage pump stations on the South Arm of the Fraser, No 7 Road South PS, Nelson Road South PS, and Ewen PS. None of these pump stations are able to supply irrigation water. In 2012 a low capacity irrigation pump and piping system was built near Ewen PS to service farms local to that area. There are two existing drainage pump stations inland: Dog Kennels at Dhillon Way and Westminster Highway that serves a small low lying area, and one at 22740 Westminster Highway. Both these station do not provide irrigation water supply. The City is also constructing a new drainage pump station at No 8 Road and the Granville Avenue alignment that will discharge into the Port Metro Vancouver drainage system to the south. A summary of the major drainage infrastructure is provided in **Table 1.4**.

It should be noted that farmers typically have private pumps and canals within their properties that have not been included in this study. This is particularly prevalent for cranberry farmers that have extensive private ditches and reservoirs to balance water requirements.

In addition to the pump stations and gravity/irrigation intakes listed above there are several flap gates and slide gates that are used to retain water in the ditch system. These exist at the following locations:

- Manual slide gates at the intersection of No 6 Rd and Triangle Rd as well as Westminster Hwy and Palmberg Rd;
- Flap gates along No. 6 Rd at Commerce Parkway, Wireless Way and International Place to stop water from flowing west;
- A flap gate at No. 7 Rd and Westminster Hwy to prevent cranberry water from discharging to the south; and
- A flap gate at No. 8 Rd south of HWY 91 to prevent cranberry water from discharging to the south.



Table 1.4 Summary of Major Drainage Infrastructure

Structure & Name	Theoretical PS Capacity (see note below)	Intake/ Flood Box Dimensions	Description
No. 6 Road North PS	1.14 m ³ /s	Flood Box 2.8m X 1.5m	No change to pump start/stop levels between seasons, flap gates on river side for gravity outflows during low tides
No. 7 Road North PS & Irrigation Intake at No. 7 Rd North	2.09 m ³ /s	Flood Box 3.4m X 2.0m Intake dia. 1200mm	Fully automated with controls for low tide outflow slide gate & drainage PS for high tide, plus inflow slide gate for irrigation water during high tide events. Gravity inflow pipe reported to be installed too high but cannot be lowered due to ditch elevation.
No. 8 Road North PS & Irrigation Intake at No. 8 Rd North	2.41 m ³ /s	Flood Box 3.7m X 2.3m Intake dia. 1200mm	Drainage PS with integrated drainage flood box and separate irrigation PS
Queens PS (North)	3.07 m ³ /s	Flood Box 2.7m X 2.0m	No change to pump start/stop levels between seasons, flap gates on river side for gravity outflows during low tides
CN Drainage Flood Box (No. 9 North)		3.7m X 2.3m	Provides irrigation water and drainage for No 9 Rd ditch system and is manually controlled
Ewen PS (South) & Drainage Flood Box at Ewen	2.35 m ³ /s -	Flood Box dia. 900mm	No change to pump start/stop levels between seasons, separate flood box structure with flap gates on river side for gravity outflows during low tides 50m away
Nelson Road South PS	1.62 m ³ /s	Flood Box dia. 1600mm	No change to pump start/stop levels between seasons, flap gates on river side for gravity outflows during low tides
No. 7 Road South PS	2.90 m ³ /s	Flood Box 1.37m X 1.0m (Twin Box)	No change to pump start/stop levels between seasons, flap gates on river side for gravity outflows during low tides
No. 6 Road South PS	2.16 m ³ /s	Flood Box 3.4m X 1.5m	Drainage by gravity outflow during low tide and pumped flows for high tide events. Irrigation water supplied by 200mm valve structure.
Dog Kennels PS (Westminster Hwy)	0.17 m ³ /s	NA	Drainage for a small low lying area

Note: Theoretical pump rates as provided by the City based on previous studies

1.4.2 Connectivity with West Richmond

There are three locations where the model is hydraulically connected to West Richmond; however, it is assumed that there is no flow entering the East model. The connections are modelled as a set boundary condition that was determined during the model development phase in 2006 and based on the 10-year 2 day event peak HGL.



City of Richmond
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East Richmond

Legend

- Study Area
- Existing Drainage Ditches/Culverts
- Existing Box Culvert
- Existing Storm Sewer
- Pump Station Catchment Areas

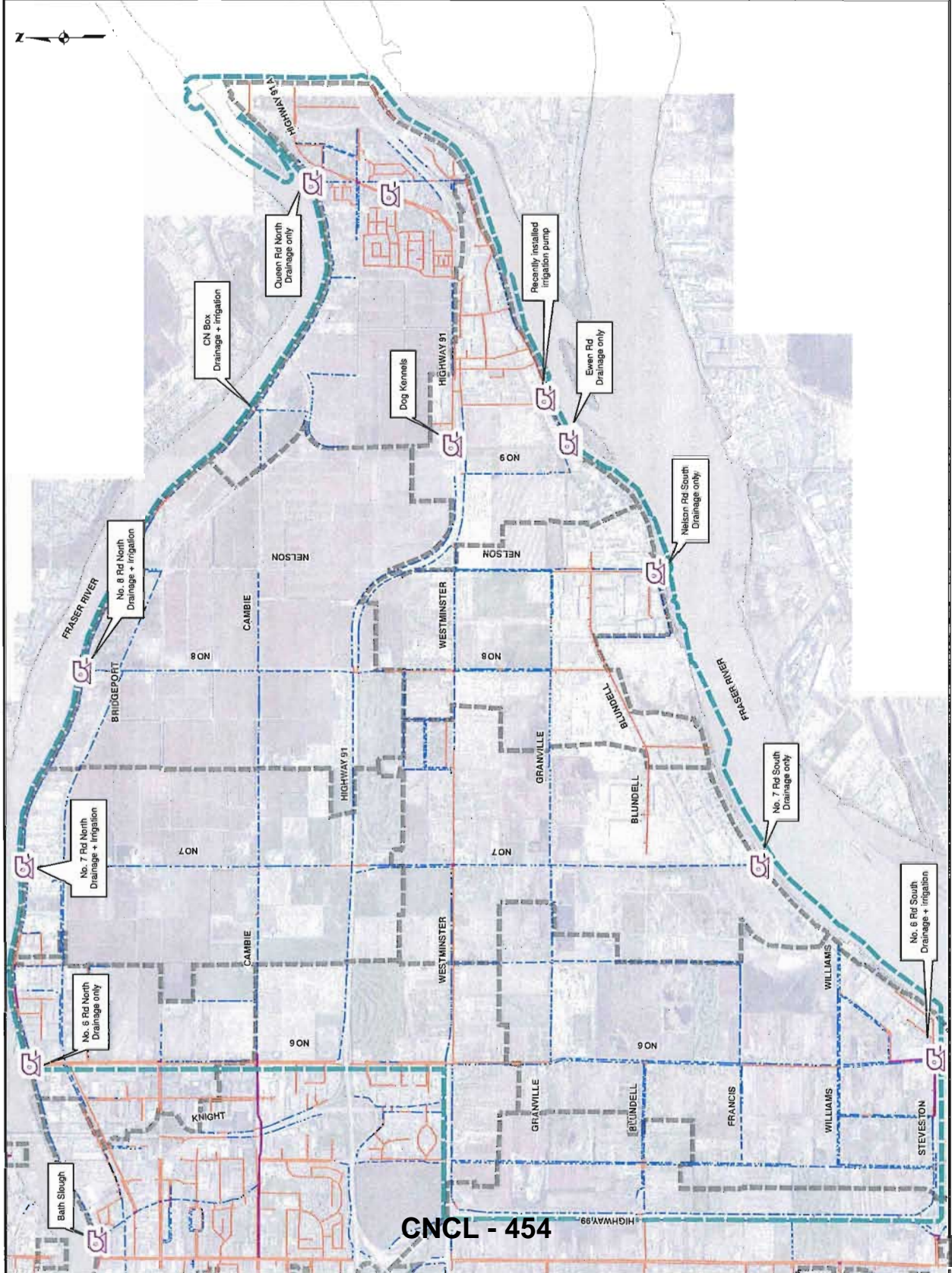
AECOM



Project No. 60288323
Date April 2014

EXISTING
DRAINAGE/IRRIGATION
NETWORK

Figure 1.6



1.5 Design Criteria

1.5.1 Drainage Design Criteria

The City's Engineering Design Criteria includes design storms that are geared towards urban areas and not suitable for agricultural areas. Drainage Criteria defined by the Ministry of Agriculture was used for the model assessment in the 2006 Study and has also been used in this update.

All ALR lands follow the Agricultural and Rural Development Subsidiary Agreement Criteria (ARDSA). The BC Agricultural Drainage Manual provides information on the design of farmland drainage systems. This manual looks at crop types to be planted, soil types, water table depth, and local climate conditions. For farmers, an important issue for managing agricultural stormwater is the duration it takes for land to drain. The length of time in which crops are saturated in water is much more critical to farmers than flooding. Different crops are sensitive to different flood periods; therefore, it is important that any changes implemented to upland areas also take into consideration the impacts to downstream farm areas.

The ARDSA criteria are as follows:

- Remove runoff from the 10-year, 5-day storm, within 5 days in the dormant period (November 1 to February 28);
- Remove runoff from the 10-year, 2 day storm, within 2 days in the growing period (March 1 to October 31);
- Between storm events and in periods when drainage is required, the base flow in channels must be maintained at 1.2m below field elevation; and,
- The conveyance system must be sized appropriately for both base flow and design storm flow.

It is also important to note that the freeboard, which is the elevation difference between the base flow water level in the channel and the field elevation, should be 1.2m as noted above; however, a freeboard of 0.9m may be acceptable in some areas depending on the crop usage because drainage of the plant/ crop root zone may still be viable.

ARDSA design hyetographs for the 10-Year Winter (Harvest) and 10-Year growing season storm events were developed in the 2006 study and have been used for this study update. The hyetograph plots are shown in **Appendix B**.

In the hydraulic model the roughness coefficient (Manning's n value) used for all ditches cleaned since 2006 was 0.04, while for all others a value of 0.06 was used.

1.5.2 Irrigation Design Criteria

Due to the diversity of crops grown, irrigation requirements vary within the study area. **Figure 1.3** (previously referred to) shows various cultivated crops and was used to verify the locations of irrigation demands in the hydraulic model. As a part of the LUI, information about type of irrigation used in the area was also collected and is discussed in **Section 1.3.1**. **Figure 1.4** (previously referred to) shows various irrigation systems used in the area.

Irrigation demands can be separated into three different categories as follows-

- I. **Growth Irrigation:** Irrigation water is mainly required for crop growth. The 2006 study assumed growth irrigation rate of 5.33mm/day throughout the area. This study adopted the same rate for growth irrigation.
- II. **Frost Irrigation:** Cranberry growers, mainly north of Hwy 91, require irrigation for frost protection. Majority of cranberry farmers in this area rely on sprinkler irrigation system as shown in **Figure 1.4**. Freezing

temperature in the early spring or late fall can result in considerable damage to cranberries. The guidelines for frost protection of cranberries (BC Frost Protection guide published by B.C. Ministry of Agriculture and Fisheries-1988) are summarized in the following paragraph:

Low growing plants such as cranberries generally require approximately 1.5mm/hr to 2.0mm/hr of water to be applied by overhead irrigation system. Dew point temperatures, wind velocity and sprinkler rotation speed have an effect on the level of protection achieved. To effectively protect against frost with an irrigation system, the system must be operated continuously from onset of frost until the ice encasement has sufficiently begun to melt. A large amount of water is required to provide this protection. Assuming an application rate of 2.0mm/hr, the flow rate required is 90gpm/hectare (or 5.7 L/s/ha). That means a 10hectare farm will require a flow rate of 900gpm (or 57 L/s/ha). It is difficult to achieve these high flowrates.

Most farmers in this area have built private storage ponds to supply water for frost irrigation. Ideally, the storage reservoir should be large enough to allow for 3 nights of frost protection at 10hours per night. Based on the information provided in 2006 study, no shortage of water for frost irrigation was reported by farmers. Farmers use the same pumps for growth irrigation and frost irrigation to withdraw water from ditches. So even though more intense rate is required for frost protection, for modelling purposes it is the same. Farmers extract water over extended period to fill local reservoirs. The stored water is then used for frost protection when required.

- III. *Harvest Irrigation:* The most widely-known use of flooding in cranberry cultivation is for harvest. Approximately 90 percent of the crop is harvested this way. Flood harvesting occurs after the berries are well colored and the flood waters have lost their summer heat. The bogs are flooded with up to one foot of water. In order to conserve water, harvest is managed so water is reused to harvest as many sections of bog as possible before the water is released from the system. Flood water is recycled in the cranberry bog system, passed from bog to bog through canals and flume holding ponds and reused, often shared by several growers.

As a part of 2006 study, UMA completed an *ad hoc* survey of farmers. This survey gathered information about farmers schedule for flooding the fields. Please refer to Section 4.0 of 2006 Study for details about harvest water demands. Similar to frost irrigation, it is assumed that farmers fill local reservoirs over extended period and use stored water to flood the fields.



1.5.3 Tides

As a part of 2006 Study tidal information was acquired from three recording stations located at Nelson Road Pump Station, No. 6 Road South Pump Station and Queens Pump Station. Representative tides were developed for each station. For stations where no tidal data is available, representative tide from the nearest station is used for the following modelling scenarios:

- *Scenario 1* - To model winter drainage conditions during dormant period, a 7 day high tide cycle was developed and used with 10-year 5 day winter storm
- *Scenario 2* - To model summer drainage during growing period, a 4 day high tide cycle was developed and used with 10-year 2 day summer storm.
- *Scenario 3* - To model irrigation during growing period, a 3 day low tide cycle was developed to represent worst case scenario.

Please refer to section 4.2.1 of 2006 study for detailed tide information.

2. Data Collection & Review

2.1 Background Information Review

In the 2006 study, a number of issues were identified:

- Poor drainage and ditch maintenance south of Highway 91
- Concerns over competition for irrigation water and high cost of City supplied water
- Stagnant water and poor water quality, particularly the Sidaway / No. 6 Road area
- Limited options for increasing ditch capacity due to topography, high ground water levels, private property limitations, and traffic safety considerations
- Balance between ditches providing both irrigation and positive drainage
- High cost for system upgrades

To alleviate some of these concerns the City has implemented several infrastructure improvements, some of which were recommended based on the previous analysis of the system under winter and summer conditions. The model scenarios corresponded with the water intensive cranberry growing and harvesting seasons as this is a primary land use in the study area. Infrastructure improvements that were implemented include installation of flow control structures, ditch re-grading, construction of new ditches and new pump station upgrades. A summary of the works completed since 2007 is provided in Section 3 **Table 3.1**.

In order to evaluate whether these same issues are still valid or if there are new concerns with the drainage and irrigation water supply the project team initiated meetings with the AAC and Operations Staff as well as an Open House to garner input from the general public.

2.2 Agricultural Advisory Committee Meeting, Open House and Staff Workshop

2.2.1 AAC Meeting

AECOM and City staff attended the Richmond AAC meeting on March 14, 2013. The AAC is appointed by City Council and there are ten voting members on the Committee, five of whom are nominated by the Richmond Farmer's Institute.

Background information on the project was presented along with the City's primary objective of identifying a prioritized list of drainage and irrigation upgrades within the ALR east of Highway 99. The goal for meeting with the AAC was to seek assistance from committee members and ultimately the farming community to identify drainage and irrigation issues, crop catalogue changes and any other pertinent information.

During the March 14, 2013 meeting, a Ministry of Agriculture representative gave a presentation on the latest Richmond Land Use Inventory (LUI) report (issued in 2013 and based on 2010 roadside survey). A brief description of the LUI report is provided in **Section 1.3.1**.

During the AAC meeting, several members provided comments on known drainage and irrigation issues. A summary of the comments recorded include the following items:

- Review ditch profile and survey for Sidaway Rd between Williams and Steveston as conveyance is not good
- Water quantity and quality in vicinity of Westminster Hwy and No 6 Rd needs to be improved
- Review proposed upgrades from 2006 that have not yet been completed
- Review ditch capacity improvements on No 6 Rd north of Cambie as it is already wide with steep side slopes
- Confirm plans for re-profiling Cambie Rd ditch between No 6 Rd and No 7 Rd

2.2.2 Open House

An Open House was held on April 18, 2013 at City Hall to educate residents and farmers and encourage the community to voice their drainage and irrigation concerns. Poster boards including maps of the study area showing the Agricultural Land Use Inventory findings and East Richmond drainage and irrigation system upgrades, as well as descriptions for upgrade projects completed since 2006, were presented at the Open House. Attendees were asked to complete feedback forms or go to LetsTalkRichmond.ca to provide comments online.

A few drainage and irrigation concerns were raised at the Open House and are summarized below. The completed questionnaire forms that were received are included in **Appendix A**.

- Drainage ditches located on north and south sides of Westminster Hwy east of No 6 Rd are not effective in winter and spring and the ditches have been observed to flow in both directions. In summer there is no water for irrigation and City water is used by local area farmers. One vegetable farmer stated that City water is too cold and chlorinated such that vegetable quality is reduced and adds operational cost to buy water.
- Concern over increased impervious areas due to development of large houses on Blundell Rd between Sidaway Rd and No 6 Rd. The increased runoff may cause drainage problems in the area.

2.2.3 Workshop with Operations Staff

A workshop was held with City Operations Staff on May 1, 2013 to discuss known drainage and irrigation issues in the study area. The workshop was followed by a field trip with Operations Staff to visit several of the problem areas as well gain a further understanding of the system operation.

During the workshop it was noted that several of the cranberry farmers are increasing the size of their fields by amalgamating smaller plots into larger plots putting increased pressure on the drainage and irrigation systems. This is occurring at a number of locations north of Hwy 91 and one location in particular is west of No 6 Road between Bridgeport Rd and Cambie Rd.

The following locations were discussed as areas where maintenance works are required:

- Ditch cleaning and re-profiling on the south side of the Cambie Rd ditch between No 6 Rd and No 8 Rd. It was noted that east of No 8 Rd the ditch is on private land
- Repair or replacement of the failing headwall at the south ditch box culvert inlet on Cambie Rd just east of No 6 Road
- Ditch cleaning and re-profiling along CN Rail corridor between No 7 Rd and No 8 Rd (City needs permission from the railway for access)
- Ditch cleaning and re-profiling for south side of River Rd from the CN box (Cambie Rd alignment) east to Queens PS
- Box culvert flushing and cleaning for No 6 Rd north drainage corridor
- Removal of invasive species (Japanese Knotweed) and training for staff to do this (areas to be determined based on further field inspection)

In addition to the areas identified above, other known problem areas and concerns include:

- Sidaway Rd from Steveston Hwy to Granville Ave is prone to flooding due to low topography. Solutions discussed include removal (or lowering) of culverts, additional ditch re-profiling and combination of automated gate structures and level sensors.
- The area between Nelson Rd at Hwy 91 to Westminster Hwy is prone to flooding due to fields from the north draining south.
- A lack of irrigation water in the south west area between Steveston Hwy and Highway 99. Concerns include:
 - Water quality and quantity-Farmers are currently supplementing ditch flows with City water which has chlorine, temperature and cost implications; and
 - Salinity at the No 6 Rd irrigation intake during periods when the salt wedge is present in the Fraser River South Arm.
- Limited ditch and box culvert capacity in No 6 Rd between Cambie Rd and No 6 Road North PS, including the known obstruction of the Kinder Morgan jet fuel pipeline crossing on No 6 Road between Cambie Rd and Bridgeport Rd.
- Sloughing in ditch along No 8 Road north of CN railway tracks to River Road.

Other items discussed that are to be reviewed and may be potential study recommendations include:

- Lowering the No 7 Rd North PS culvert and the impact this would have on the downstream ditch systems
- A culvert inspection program of the entire study area and in particular a review of who is responsible for maintenance of culverts crossing Hwy 91
- Procedures that requires farmers to identify when and where new outfalls from fields to municipal ditches are constructed
- Coordination of operation for CN box gravity intake (River Rd and Cambie Rd alignment) with farmers and Operations staff
- Coordinated water use by farmers from No 7 Rd North gravity intake and No 8 Rd North PS during harvest

2.3 Field Reconnaissance

At the onset of the project AECOM staff completed a site reconnaissance of the study area on March 12, 2013. A second site visit was completed on May 1, 2013 with City Staff. During the site visits further anecdotal information about the system's operation was recorded and has been incorporated into this report.

3. Model Update

3.1 Conversion from DHI's Mouse to Mike Urban

The 2005 version of DHI's (Danish Hydraulic Institute's) MOUSE software was used for modelling in the 2006 study. This software is no longer available nor is it supported by DHI. The existing scenario model files from the 2006 study were converted from MOUSE into MIKE URBAN 2012.

3.2 Infrastructure Updates Completed after 2006

The model network was then updated based on the upgrades completed since 2006 as shown in **Table 1.1** (previously referred to in **Section 1.1**). Record drawings and survey information for the infrastructure improvements listed in the table were provided by the City and incorporated into the updated model. **Figure 3.1** shows the location of completed upgrades. Many were recommended in the 2006 East Richmond Agricultural Water Supply Study as high priority upgrades while other additional projects have also been completed based on input from Operations Staff. The upgrades were entered into the hydraulic model for both the drainage and irrigation scenarios.

3.3 Pump Station Operations

Details for the pump models and seasonal settings at each pump station are provided in **Table 3.1** below. The information summarized in the table was provided by the City and also extracted from the 2006 Study.

To assist with meeting water requirements for different seasons, City Operations Staff alter the drainage pump start/stop levels at two northern pump stations: No 7 Rd North and No 8 Rd North. In addition, operational settings of the irrigation gate at No 7 Rd North and No 8 Rd North irrigation pump station are also changed from season to season. These two pump stations are the only stations where settings are altered from season to season to allow for irrigation water supply. Settings at all other pump stations are not changed over the course of the year unless Operations Staff are conducting routine maintenance or ditch cleaning works.

The alternate irrigation season pump start and stop settings for No 7 Rd North and No 8 Rd North pump stations are in place so that target water level elevations in the irrigation ditches can be achieved. The target levels for No 7 Rd North and No 8 Rd North Pump Stations are currently 0.217m and 0.575m geodetic elevations respectively (as shown in **Figure 3.2 and Figure 3.3**).

Control logic for the No 8 Rd North irrigation pump station is as follows:

- Under normal irrigation mode when the ditch water level drops 0.25m below the target water level (elevation 0.575m) the gravity inlet gate will open, but only if the tide is high enough to provide water. However, if at this time the tide is too low to deliver water then the irrigation pump will start.
- If the gravity inlet is delivering water and the tide drops then the gate will close. After the gate has closed the pump will not start unless the ditch water level reaches an elevation of 0.25m or more below the target level.
- Typically gravity inflows are sufficient to maintain water levels above the start level (0.25 m below target) and the pump rarely turns on through the summer. However, the gravity inflow typically cannot maintain the upper water level (0.5m above target) required during cranberry harvest and frost protection periods when farmers are drawing heavily on the ditch water.
- To maintain a consistent water level of 0.5m above the target both the gravity gate and pump controls are overridden. The pump start and stop levels are increased by 0.5m (pump start 0.825 and stop at 1.575).

At No 8 Rd North the irrigation pump has been noted to pump continuously for a week such that the upper water level is not attained or only attained intermittently. At this time the gravity inlet gate elevations are also set higher so that the pump operates before the gate has an opportunity to open. This could possibly be caused by short circuiting of flow back to the river at No 7 Rd North PS as existing drainage pumps at No 7 Rd North start at 0.4m elevation which is lower than No 8 Rd North target level (0.575m).

There is no dedicated irrigation pump at No 7 Rd North so inflows via the 1200mm diameter gravity irrigation intake pipe are controlled by the tides and the gate structure on the intake pipe. During the irrigation season the gate is set to be open between elevation 0.14m and 0.37m geodetic.

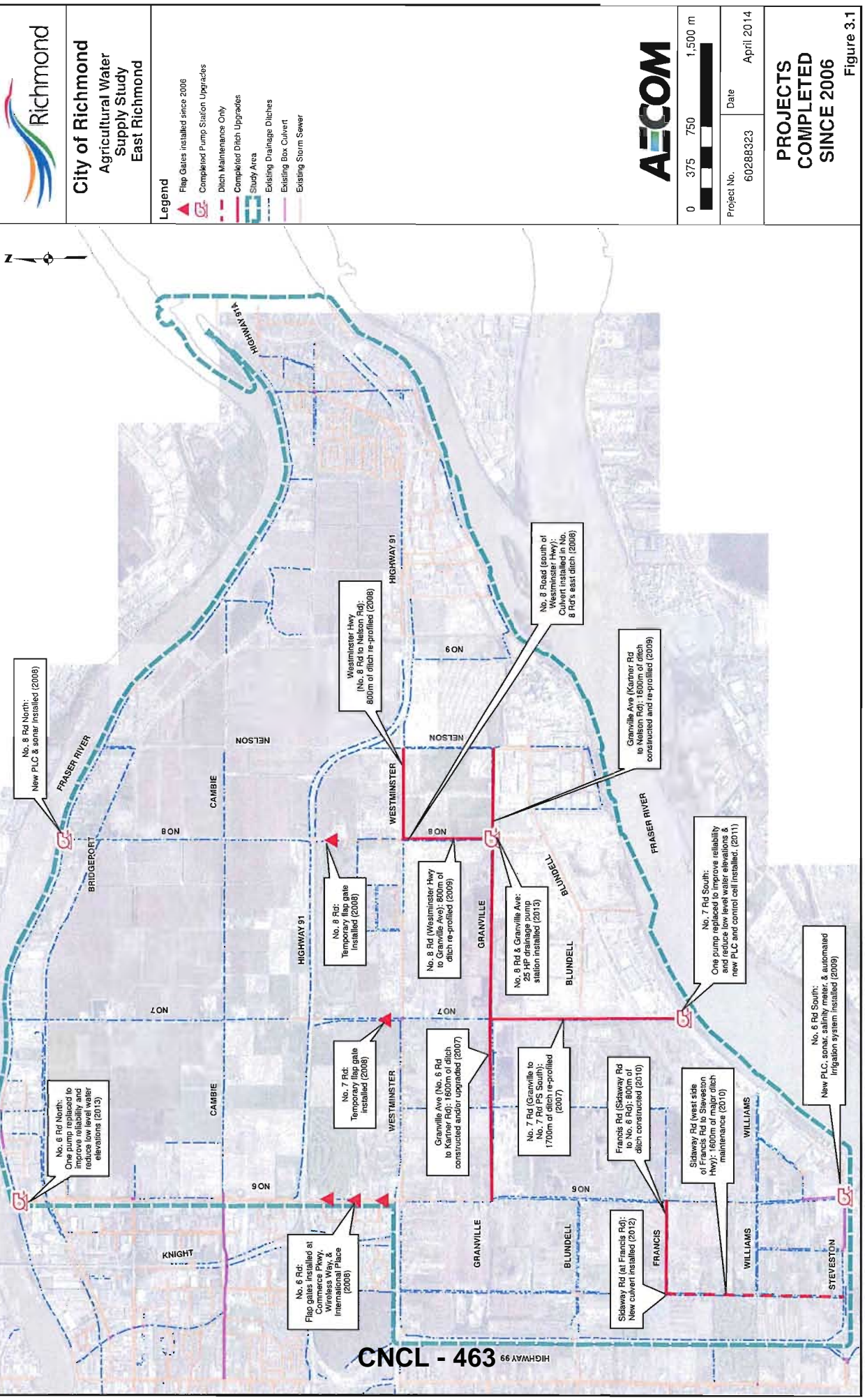
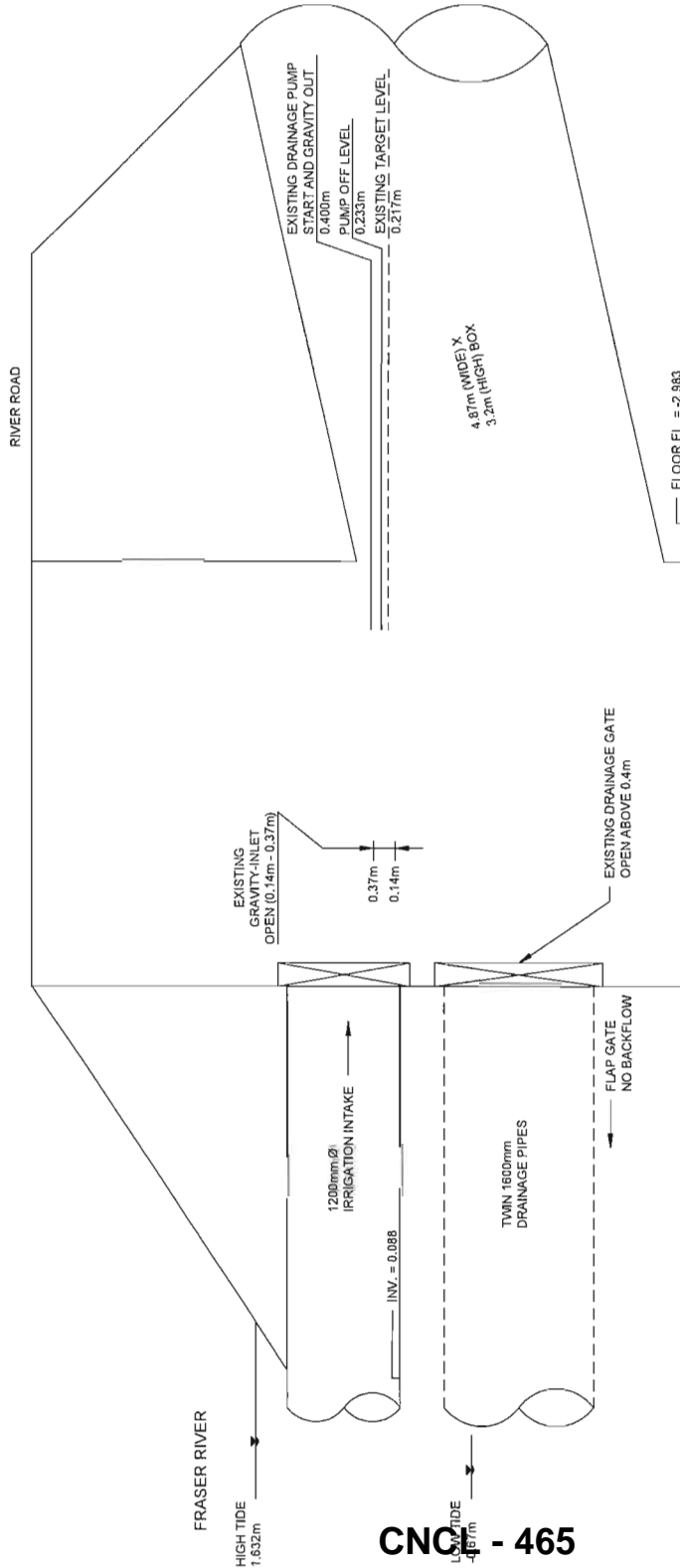


Table 3.1 Pump Station Information

Station	Pump Model	Impeller #	Pump Unit	Power (Hp)	Pumping Levels (m – geodetic)			
					Drainage		Irrigation	
					On	Off	On	Off
No. 6 Road North PS	Flygt 7050-680	15	P1	60	-0.04	-0.26	No Change	
	Flygt 7050-680	15	P2	60	0.13	-0.26		
	Flygt CP3152-120	614	P3 (jockey)	20	-0.22	-0.47		
No. 7 Road North PS	Flygt 7060-770	16	P1	84	-0.10	-0.41	0.42	0.23
	Flygt 7060-770	16	P2	84	-0.07	-0.41	0.45	0.23
	Flygt CP3300-180	814	P3 (jockey)	77	-0.10	-0.41	0.40	0.23
No. 8 Road North PS	Flygt 7060-760	16	P1	60	0.08	-0.52	1.11	0.65
	Flygt 7060-760	16	P2	60	0.24	-0.52	1.14	0.65
	Flygt 7060-760	16	P3	60	0.38	-0.52	1.17	0.65
	Flygt CP3300-180	814	P4 (jockey)	32	-0.32	-0.61	1.19	0.65
Queens PS (North)	Flygt 7080-820	16	P1	70	-0.53	-0.72	No Change	
	Flygt 7080-820	814	P2	70	-0.26	-0.72		
	Flygt 7080-820	16	P3	70	0.01	-0.72		
	Flygt CS3300-180	814	P4 (jockey)	35	-0.56	-0.87		
Ewen PS	Gen Elec	N/A	P1	60	0.15	-0.16	No Change	
	Gen Elec	N/A	P2	60	0.21	-0.09		
	Gen Elec	N/A	P3	60	0.30	0.00		
	Flygt 3300	N/A	P4 (jockey)	20	0.07	-0.16		
Nelson Road South PS	Flygt 7060-760	16	P1	60	0.04	-0.54	No Change	
	Flygt 7060-760	16	P2	60	0.21	-0.54		
	Flygt CP3201-120	614	P3 (jockey)	35	-0.17	-0.47		
No. 7 Road South PS	KSB	N/A	P1	130	-0.08	-0.38	No Change	
	Westinghouse	N/A	P2	125	0.22	-0.38		
	Flygt CP3300	N/A	P3 (jockey)	60	-0.39	-0.69		
No. 6 Road South PS	Flygt 7060	20	P1	84	-0.46	-0.80	No Change	
	Flygt 7060	20	P2	84	-0.28	-0.80		
	Flygt CP3300	804	P3 (jockey)	32	-0.64	-1.00		

No. 7 ROAD NORTH SCHEMATIC FOR IRRIGATION SETTINGS

NOT TO SCALE



WET-WELL SECTION

NOTES:

- ALL ELEVATIONS ARE GEODETIC
- LOW TIDE AND HIGH TIDE BASED ON DESIGN TIDE USED IN MODEL
- ABOVE SKETCH IS SCHEMATIC TO SHOW ELEVATIONS ONLY

EXISTING SETTINGS:

- TARGET LEVEL IS 0.217m
- IRRIGATION INTAKE OPENS AT 0.14m AND CLOSES AT 0.37m
- DRAINAGE PUMPS START AND GRAVITY-OUT FALLS OPEN AT 0.4m OR ABOVE (TO PREVENT FLOODING DURING SUMMER STORMS)



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Project No. 60286323
Date April 2014

**No. 7 Rd. North
Schematic for
Existing Irrigation
Settings**

Figure 3.2

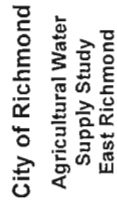
CNO - 465

NOT TO SCALE



4. ABOVE SKETCH IS SCHEMATIC TO SHOW ELEVATIONS ONLY

4. GRAVITY INTAKE GATE OPENS AT 0.325m AND CLOSES AT 1.075m



**No. 8 Rd. North
Schematic for
Existing Irrigation
Settings**

Figure 3.3

4. Existing System Assessment

4.1 Drainage System Assessment Scenarios

Assessment of existing drainage system was completed for the following two worst case scenarios:

4.1.1 *Scenario 1- Dormant Winter Period*

For this scenario 10-Year 5-day design storm (as shown in Appendix B) and 7-day winter high tide (boundary condition) was used to evaluate the performance of drainage network.

In addition to storm runoff, cranberry harvest discharges were added as constant inflow into the model. Cranberry discharges vary from year to year depending upon the schedule developed between Ocean Spray and farmers. For modelling purposes, the volume and schedule of discharges was assumed to be same as per the 2006 Study. The model was set to run for 7 days with start date of November 1. A total cranberry harvest discharge volume of 308,447 m³ was added at two separate locations in the model for this scenario. This is equivalent to discharge from a 68.5 hectare farm with 0.45m of standing water. Since all the cranberry farmers do not discharge water on the same day and tend to coordinate water supply for reuse during harvest periods, this is a conservative assumption.

4.1.2 *Scenario 2- Summer Growth Period*

For this scenario 10-Year 2-day design storm (as shown in Appendix B) and 4-day summer high tide (boundary condition) was used to evaluate the performance of drainage network. The two day storm has higher peak rainfall intensity but lower total rain (volume) than the five day storm.

Since the cranberry harvest is at the cusp of the growing and dormant period, harvest discharges were added as constant inflow into the model. Based on the schedule assumed in the 2006 study, a total discharge of 252,678 m³ was added at two separate locations. For this scenario, the model was run for a period of 5-days to evaluate system performance after the storm is over.

4.2 Drainage Model Results

Analysis of the existing system indicates that there are several different factors that affect the maximum HGL at any location. The East Richmond drainage network is similar to the West Richmond drainage system as there are a lot of interconnected ditches but differs in that it serves the dual purposes of irrigation water supply and drainage conveyance.

4.2.1 System Conveyance

Several factors that contribute to conveyance problems and lack of irrigation water supply include capacity constraints, reliance on tide elevations, back water effects from pump stations and gravity outlets, and localized low ground elevations. For instance, at several locations the ground elevations in the hydraulic model were found to be very low when compared to neighbouring ground elevations (or attributes of adjacent ditch/culvert conduits), resulting in localized flooding. Locations where localized flooding was reported due to major discrepancies in ground elevations were often resolved by reviewing the digital elevation model (DEM) data for the study area as shown in **Figure 4.1** and information available on Google Street View. The DEM raster image was generated using data supplied by the City for the 2006 Study. It should also be noted that the elevation data does not take into account infill areas since the topographic data was recorded.

To better understand if flooding in a certain area is caused by capacity constraints or back water from a pump station, the model was simulated with no boundary conditions (i.e. no tide at outfalls) to allow the system to drain

freely. Subsequently all ditch improvements discussed in the following section were first analysed with no boundary conditions prior to running the model with high tides. This also assisted in gaining a better understanding of pump station operation, capacities and on-off levels.

The existing model results for the dormant winter period (10-Year 5 day storm event) with tides are shown in **Figure 4.2a**. Flooding is predicted at several locations and is color coded based on the height of the maximum HGL above and below existing ground elevation. **Figure 4.2b** shows existing systems HGL after the 10-Year 5 day storm event has passed (on day 5).

All model nodes were set to allow ponding in Mike Urban, which means even though the maximum HGL goes above the existing ground elevation, no water is lost in the model. This helps in keeping the total volume within the system to review the downstream capacity. The HGL results are conservative as no flood cells were modelled (in the 2006 study as well as this study) due to lack of detailed survey of adjoining fields. Flooding at each location was analysed in further detail to identify the cause of flooding and determine if ditch upgrades are required. In **Section 4.3**, various problem areas are identified and improvement options are recommended.

4.2.2 Drainage Pump Station Capacity Review

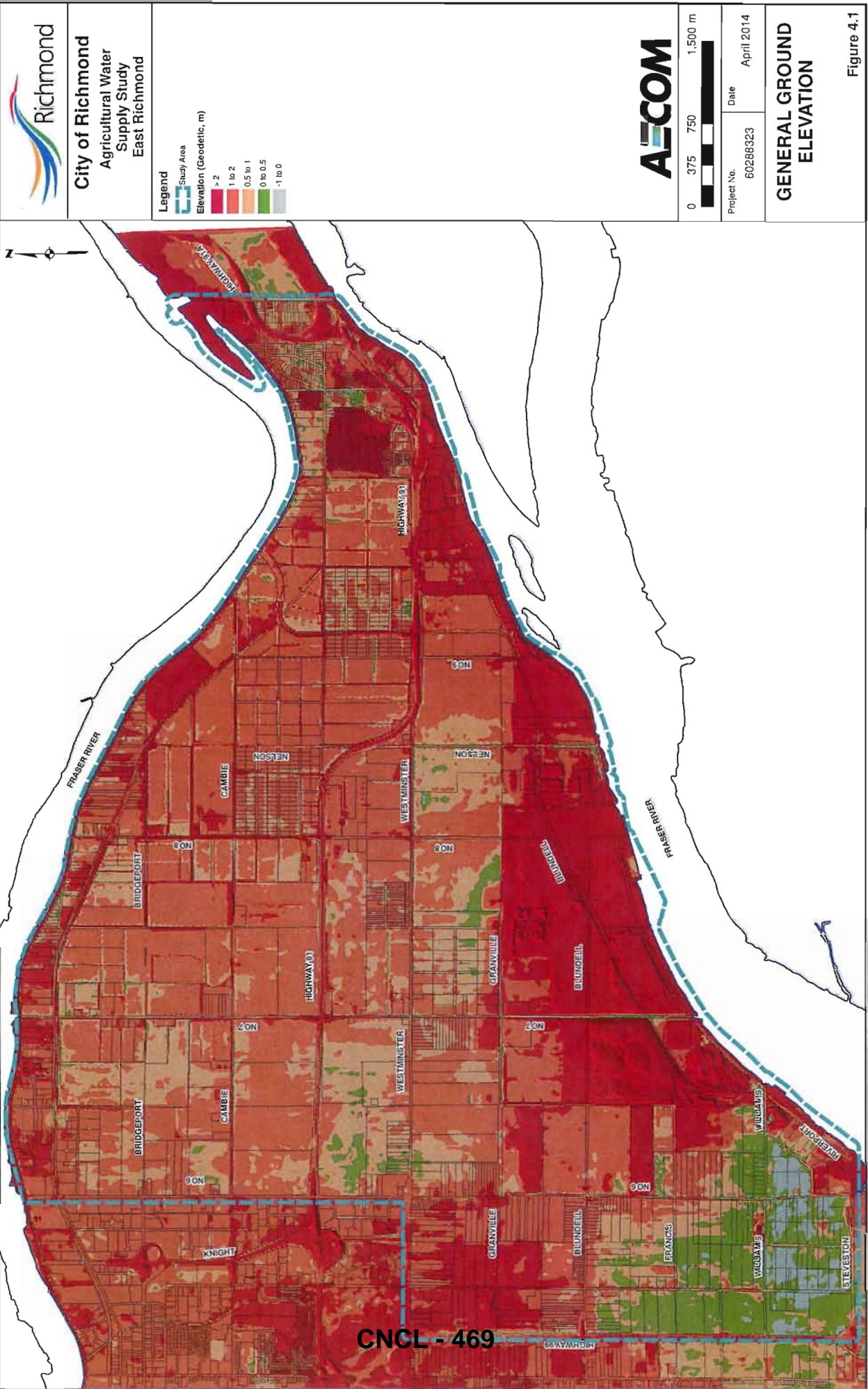
Drainage pump station capacities under Scenario 1 for the dormant winter period (10-Year 5-day design storm and 7-day winter high tide) were reviewed and the results are summarized in **Table 4.1**. For all locations where there is a flood box outlet, the capacity will vary as the tide level changes such that ultimately no flow occurs when the tide is higher than the wet well or upstream ditch water level.

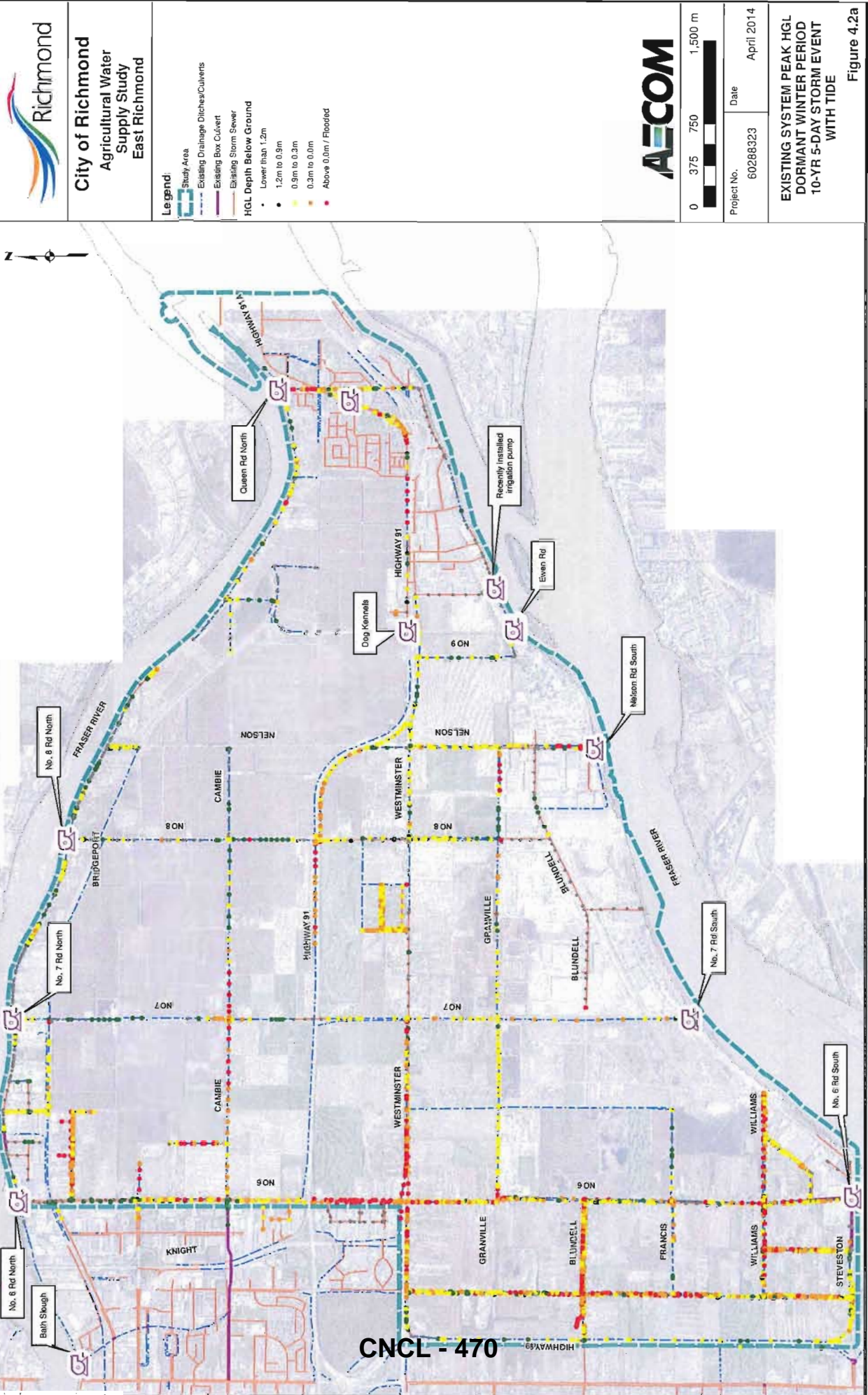
Table 4.1 Summary of Pump Station Capacities

Structure & Name	Theoretical PS Capacity m ³ /s	Flood Box Size	Flood Box Capacity* m ³ /s	10-Year 5 day Peak Inflow m ³ /s	Comments
No. 6 Road North PS	1.14	2.8m X 1.5m	6.4	2.35	PS under capacity during high tide periods
No. 7 Road North PS	2.09	3.4m X 2.0m	12.0	3.35	Pump station under capacity during high tide periods
No. 8 Road North PS	2.41	3.7m X 2.3m	16.0	2.0	PS capacity is adequate
Queens PS	3.07	2.7m X 2.0m	9.0	3.05	PS capacity is adequate
Ewen PS	2.35	NA	NA	1.80	PS capacity is adequate
Nelson Road South PS	1.62	1600mm dia.	2.6	2.55	Pump station under capacity during high tide periods
No. 7 Road South PS	2.90	1.37m X 1.0m (Twin Box)	3.3	4.10	PS and flood box individually under capacity. Combined capacity is adequate.
No. 6 Road South PS	2.16	3.4m X 1.5m	8.0	3.65	Pump station under capacity during high tide periods
Dog Kennels PS (Westminster Hwy)	0.17	NA	NA	0.10	PS capacity is adequate

Note: * Flood box capacity stated is calculated assuming HGL slope of 0.1%

As shown in **Table 4.1**, there are several pump stations where the capacity is less than the model predicted 10-Year 5 day inflow. With exception of No. 7 Road South PS, all of the flood box outlets have capacity to convey 10-Year 5 day peak flow during low tide. At No. 7 Road South the combined capacity of flood box and pump station is adequate to convey 10-Year 5 day peak flow.





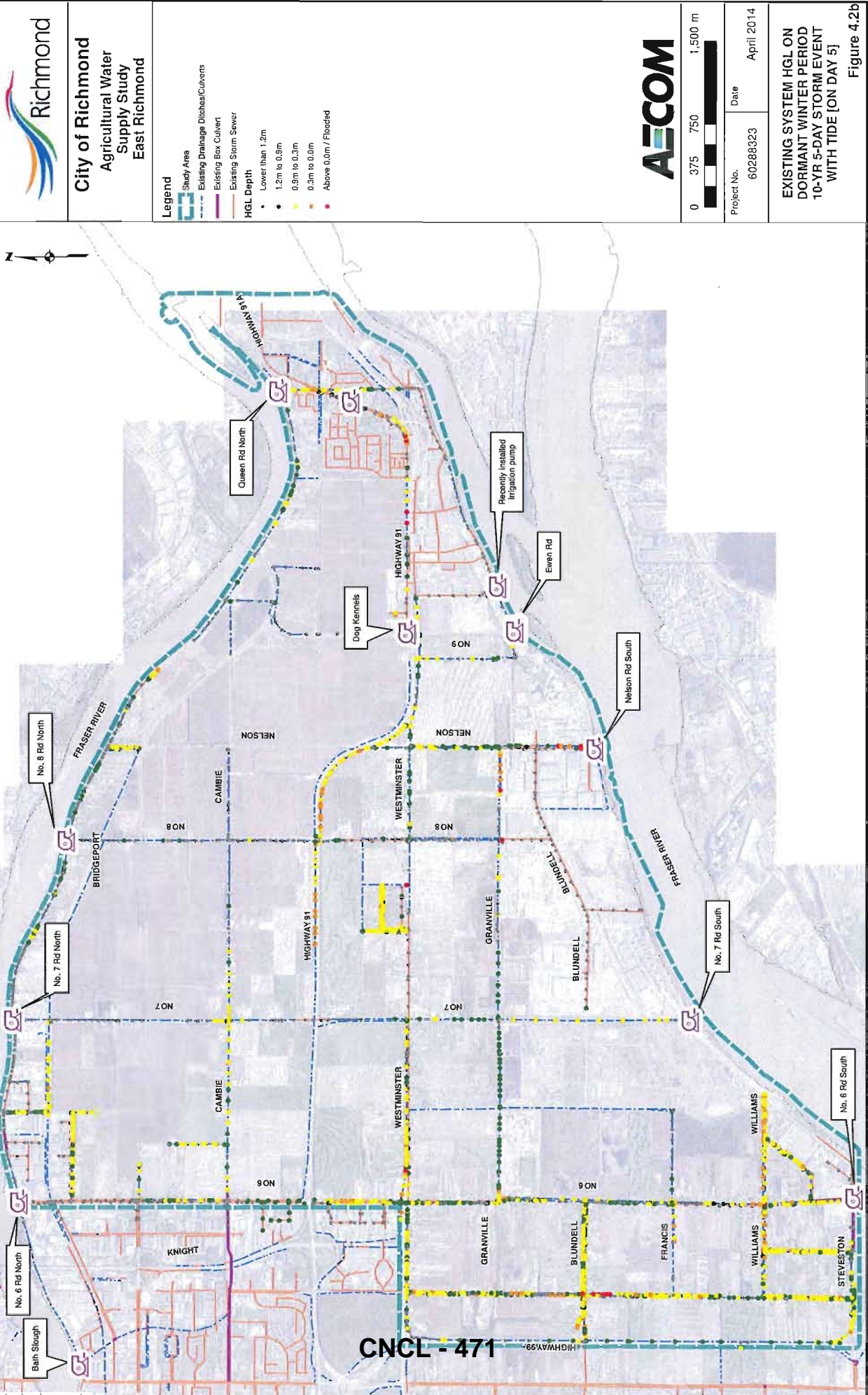


Figure 4.2b

4.3 Proposed Drainage Improvements

The following sections highlight the problems areas identified using the existing model and proposed upgrades for each area. In each case the hydraulic model was simulated for the winter (10-Year 5 day storm) and summer (10-Year 2 day storm with maximum summer tide) events to confirm the proposed upgrades have the desired effects. An overview of the proposed drainage upgrades is shown in **Figure 4.3**.

Please note that the ditch inverts as shown in the profiles in this section are conceptual elevations for modelling purposes. Elevations should be surveyed and verified during the detail design stage prior to construction. Additionally the areas identified on Figure 4.3 should be surveyed and data verified against current model elevations to confirm potential flood issues.

ARDSA criteria (discussed in **Section 1.5.1**) requires that in periods when drainage is required, the base flows should generally be maintained at 1.2 m below field elevation, although a freeboard of 0.9 m may also be acceptable. The criteria further requires that drainage ditches remove runoff from the 10-Year 5-day storm within 5 days in the dormant period and remove runoff from 10-Year 2 day storm within 2 days in the growing period. The purpose of these criteria is to allow for the free-drainage of outlets of local field drainage systems.

As discussed in the 2006 Study (Section 5.3) there are several issues to consider when reviewing these criteria. The first is that the areas dominated by cranberries are well established and successful under current drainage and irrigation conditions. In such case, minimal changes are proposed for these areas regardless of the ditch water levels being able to meet the ARDSA criteria. Only ditch cleaning is proposed as part of the drainage infrastructure upgrades.

Ditches in the study area serve the dual purpose of supplying irrigation water and removing drainage water. Meeting the 1.2 m freeboard requirement (or even 0.9m) is a challenge as the ditches are generally full supplying irrigation water throughout most of the area or conveying stormwater runoff that is backed up in the system due to high tide conditions. Model results for the drainage system with improvements following the 10-Year 5 day storm event are shown in **Figure 4.6**. The model predicted ditch HGLs are shown using 0.3m increments from ground level to represent the freeboard from the top of ditch level, which is assumed to correspond closely with the surrounding field elevations in most cases.

There are several locations where the 1.2m (or 0.9m) ARDSA freeboard criteria are not met. These include the Sidaway Rd west side ditches from Steveston Hwy to Westminster Hwy, Williams Rd east of No 6 Rd, Kartner Rd and Fedoruk Rd (which is a residential area), along Hwy 91 near No 8 Rd, and Granville Ave East of Neslon Rd, Nelson Rd South to the pump station, as well other isolated locations. Rationale for why these areas are not able to meet the freeboard criteria five days after the storm event is primarily due to the fact that the existing ditches are shallow and have a maximum depth of 1.2 m in many areas (even after improvement measures are implemented).

One option would be to construct deeper ditches; however, in the 2006 Study farmers reported the groundwater table to be approximately 300 mm to 900 mm (average of 700 mm) below ground level, so deeper ditches would potentially result in more pumping requirements and in areas with high iron content, possibly iron-affected water quality. The structural integrity of soils in East Richmond, which are predominantly silt and clay with silty and sandy loams, is also limiting factor such that steepening side slopes of the existing ditches is not possible in most areas. Furthermore, most of the area is already developed up to existing property lines, roadways, and ditches such that deeper ditches could require property acquisition, which is an expensive proposition.

4.3.1 Sidaway Road South of Francis Road Alignment (D1)

Figure 4.3.1 shows the existing ditch profile along the west side of Sidaway Rd from the Francis alignment to its entry point into the box culvert at Steveston Hwy. This ditch has large variation in bottom invert and shallow culverts

at several locations. As shown in the figure, the area south of Williams Rd is generally lower in elevation as compared to surrounding areas which is reflected in the ditch profile.

In order to reduce flooding in this area the following improvements are recommended:

- Re-grade the existing ditch along Steveston Hwy and Sidaway Rd with uniform slope starting from its entry point into box culvert at Steveston Hwy to Francis Rd alignment. This includes clearing and re-grading of 350m of existing ditch along North side of Steveston Hwy from Palmberg Rd to Sidaway Rd and 1,450m along West Side of Sidaway Rd from Steveston Hwy to Francis Rd alignment.
- Upgrade five existing 900mm diameter culverts along the North side of Steveston Hwy from Palmberg Rd to Sidaway Rd to 1050mm diameter (for a total length of 55m of pipe) and match proposed ditch inverts
- Upgrade 15 existing culverts (ranging in diameter from 600mm to 750mm) along the West Side of Sidaway Rd from Steveston Hwy to Francis Rd alignment to 900mm diameter (for a total length of 120m of pipe) and match proposed ditch inverts

It was noted that lowering the No.6 Rd South PS ON/OFF elevation had a significant impact on the maximum HGL upstream. Given that the wet well floor is -2.9m geodetic elevation (based on information from the City), it was assumed that the jockey pump ON elevation could be adjusted to -0.9m (from -0.64m currently) and OFF elevation to -1.3m (from -1.0m currently). Similarly the ON/OFF elevations of lead and lag pump was lowered by 0.3m.

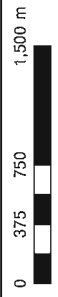
Figure 4.3.2 shows the maximum HGL after the system improvements were incorporated. Under the 10-Year 2 day storm with maximum summer tide the maximum HGL with improvements was found to be slightly lower than the winter 5 day storm.



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Legend

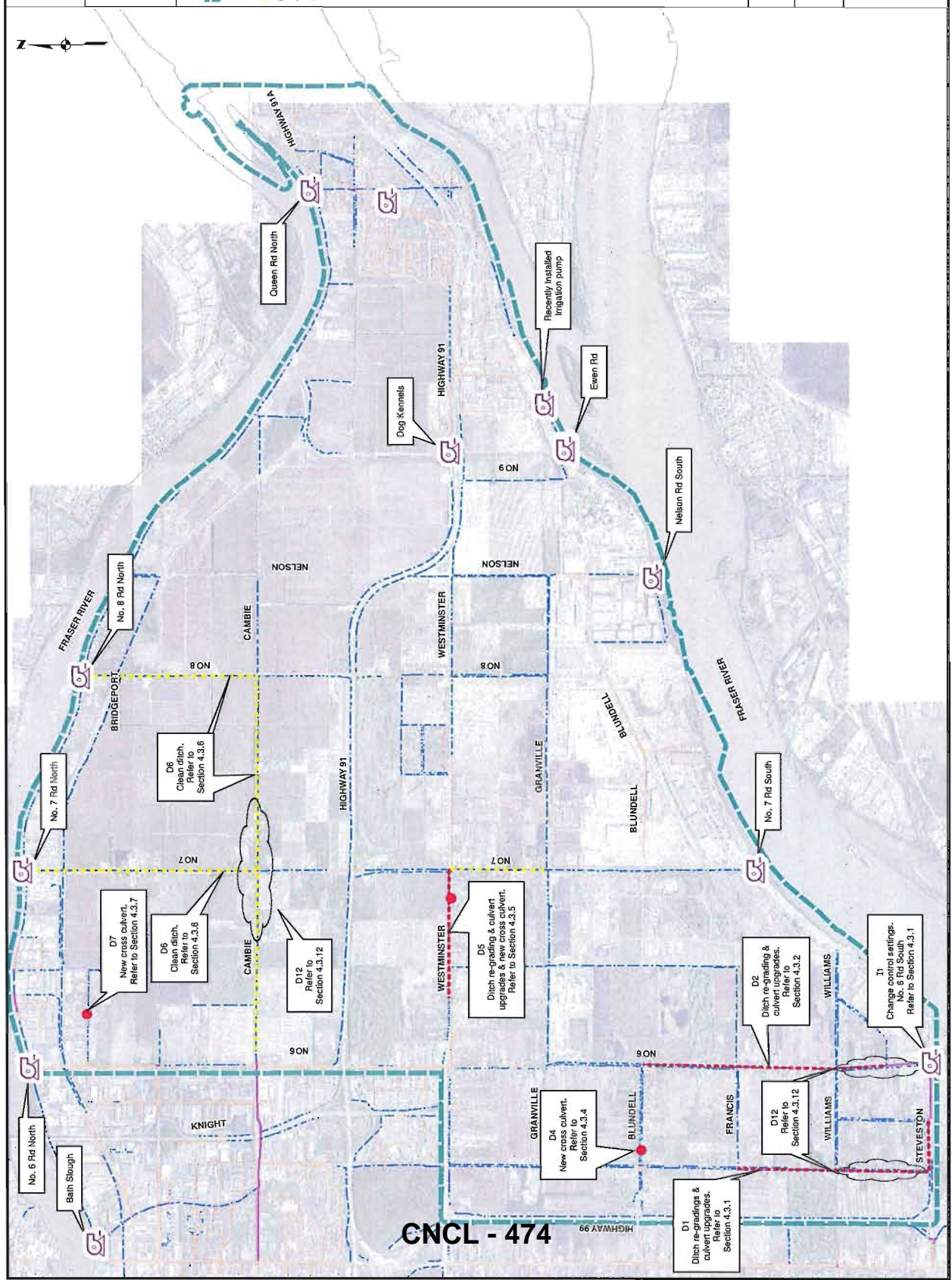
- Study Area
- Proposed Cross Culverts
- Proposed Ditch Upgrades
- Cleaning
- Upgrade
- Existing Drainage Ditches
- Existing Box Culvert
- Existing Storm Sewer



Project No. 60288323
Date April 2014

PROPOSED DRAINAGE
UPGRADES AND GROUND
SURVEY VERIFICATION

Figure 4.3



CNCL - 474

Figure 4.3.1 Existing Ditch HGL: Sidaway Rd West Side from Francis Rd Alignment to Box Culvert at Steveston Hwy
(10-Year 5 day storm with winter tide)

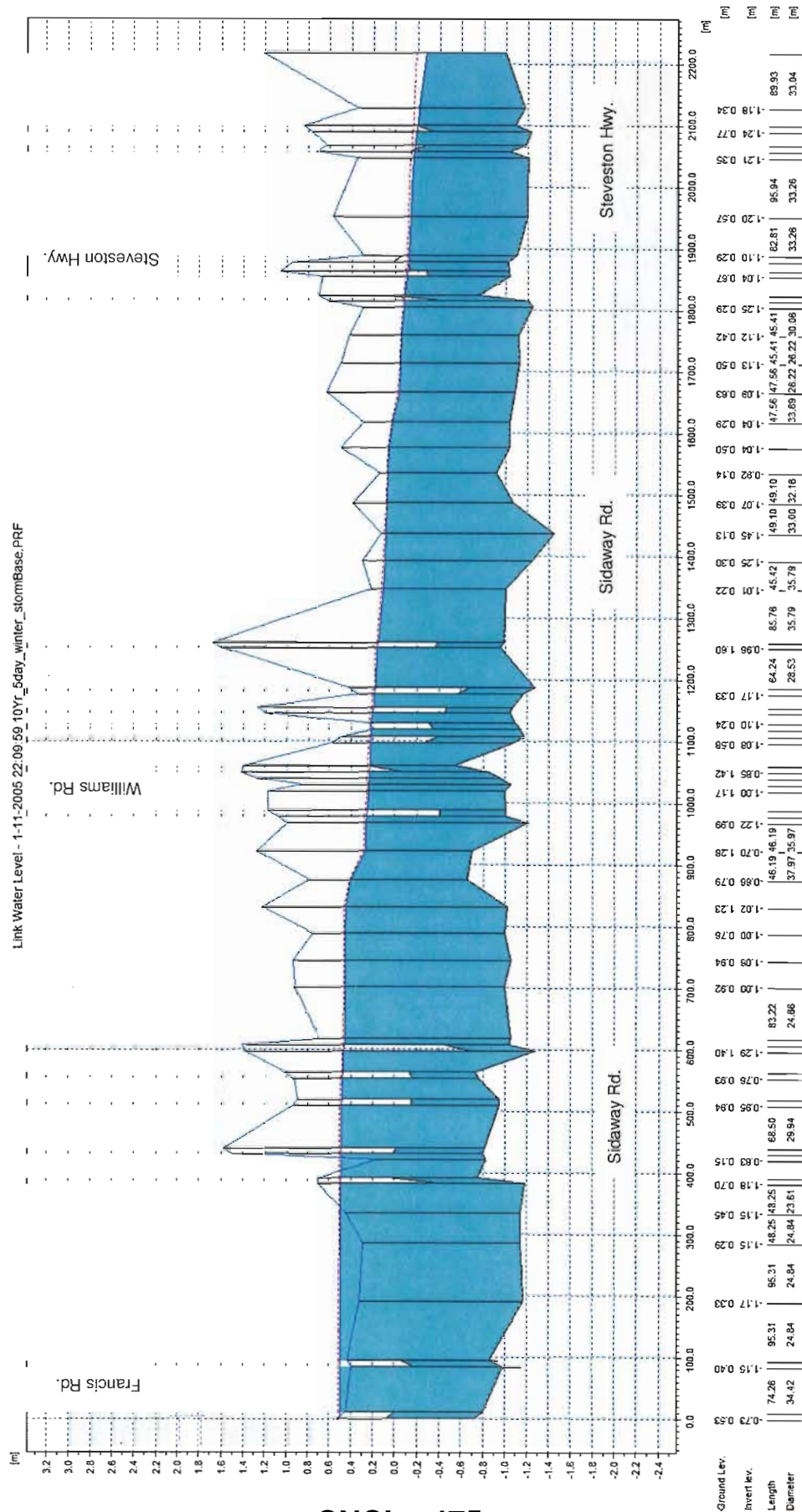
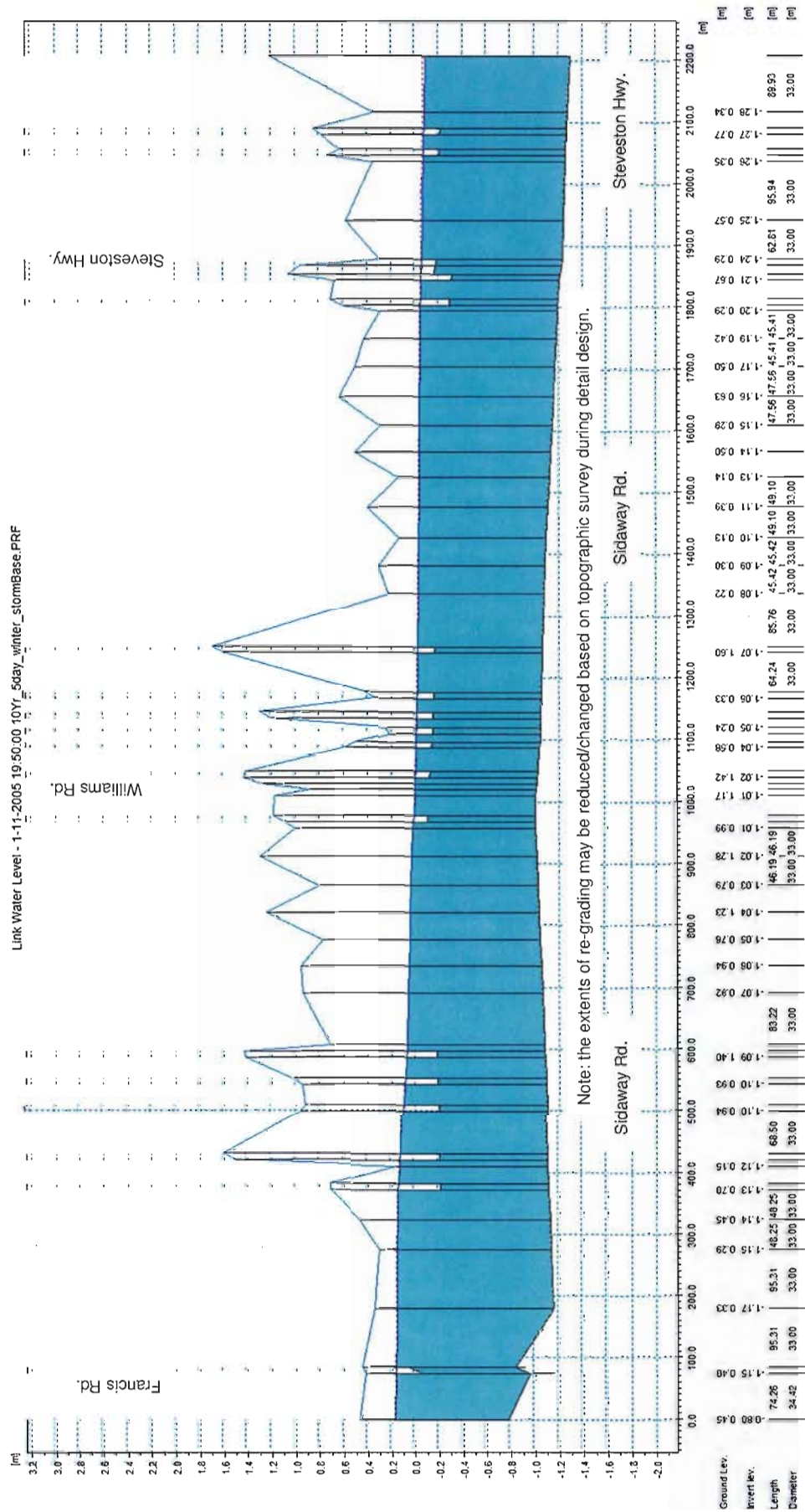


Figure 4.3.2 HGL After Improvements: Sidaway Rd West Side from Francis Rd Alignment to Box Culvert at Steveston Hwy
(10-Year 5 day storm with winter tide)



4.3.2 No. 6 Road South of Blundell Road (D2)

Figure 4.3.3 shows the existing ditch profile along the East side of No.6 Rd from Blundell Rd to its entry point into the box culvert near Triangle Rd. Similar to the Sidaway Rd ditch, this ditch has a large variation in bottom invert and has shallow culverts at few locations.

In order to reduce flooding in this area the following improvements are recommended:

- Re-grade the existing ditch assuming a uniform slope starting from its entry point into the box culvert near Triangle Rd to Blundell Rd. This includes a total of 2,000m of clearing and re-grading of the existing ditch along East side of No.6 Rd
- Upgrade two existing 600mm diameter culverts along the above alignment to 1050mm diameter (total length of 25m of pipe) and match proposed ditch inverts.
- Modifying the No.6 Rd South PS ON/OFF levels as described in **Section 4.3.1** above.

Figure 4.3.4 shows the maximum HGL after the system improvements were incorporated.

4.3.3 Williams Road Right of Way East and West of No 6 Road (D3)

Upgrades of existing ditches along Sidaway Rd and No 6 Rd as described in the above two sections will lower the maximum HGL in connected ditches including ditches along Williams Rd. The model shows significant improvement in flooding along Williams Rd after the above improvements were incorporated. So, no further ditch upgrades may be required along Williams Rd alignment.

4.3.4 Blundell Road East of Sidaway (D4)

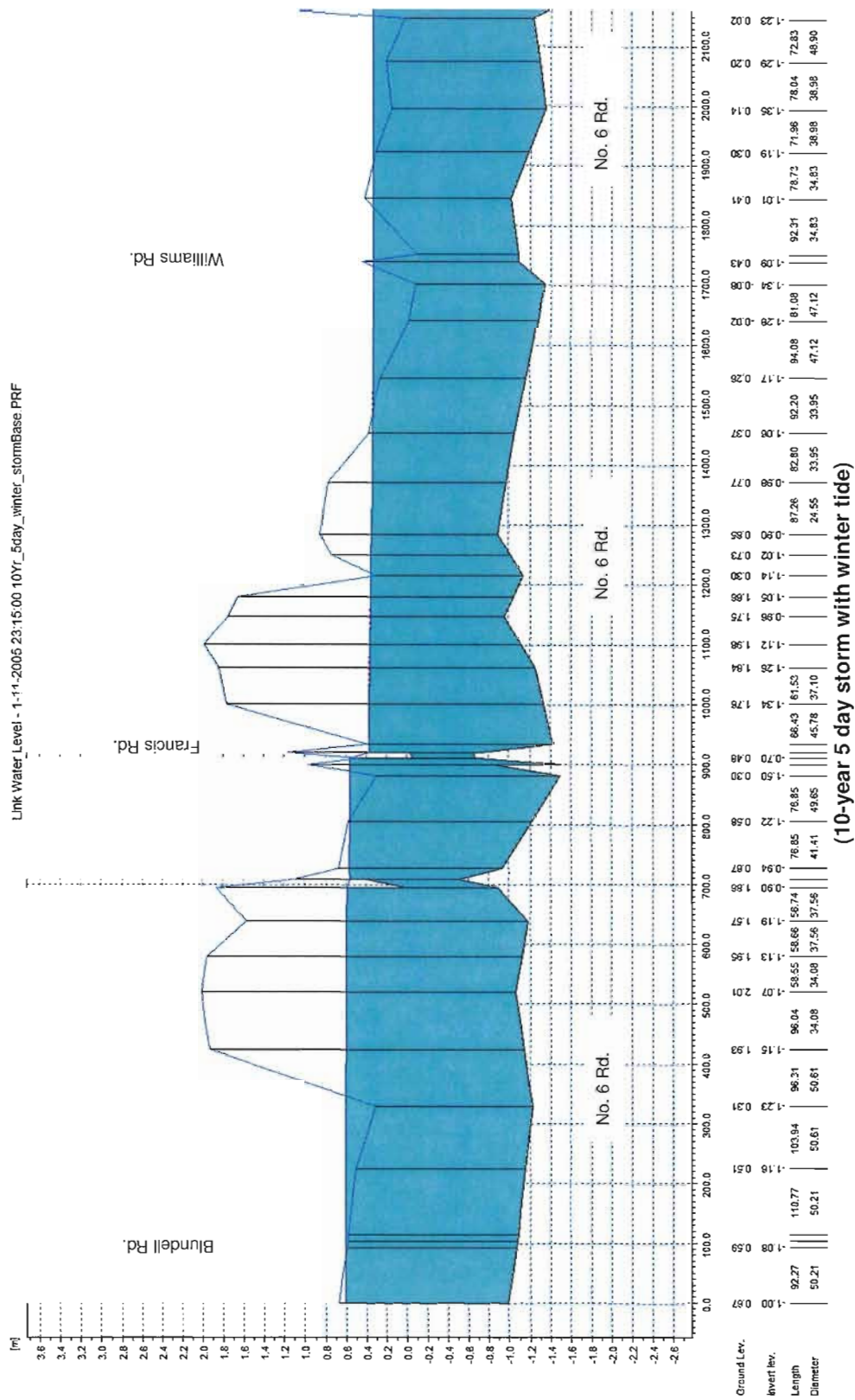
Flows from the existing ditch on the East side of Sidaway Rd (north of Blundell) are currently diverted east along Blundell Rd. The model results show flooding along this ditch on the north side of Blundell Rd, East of Sidaway Rd. This ditch crosses a lot of driveways with varying culvert diameters.

The existing network does not show any cross connection between North side and South side ditch along Blundell Road. To reduce flooding in this area the following improvements are recommended:

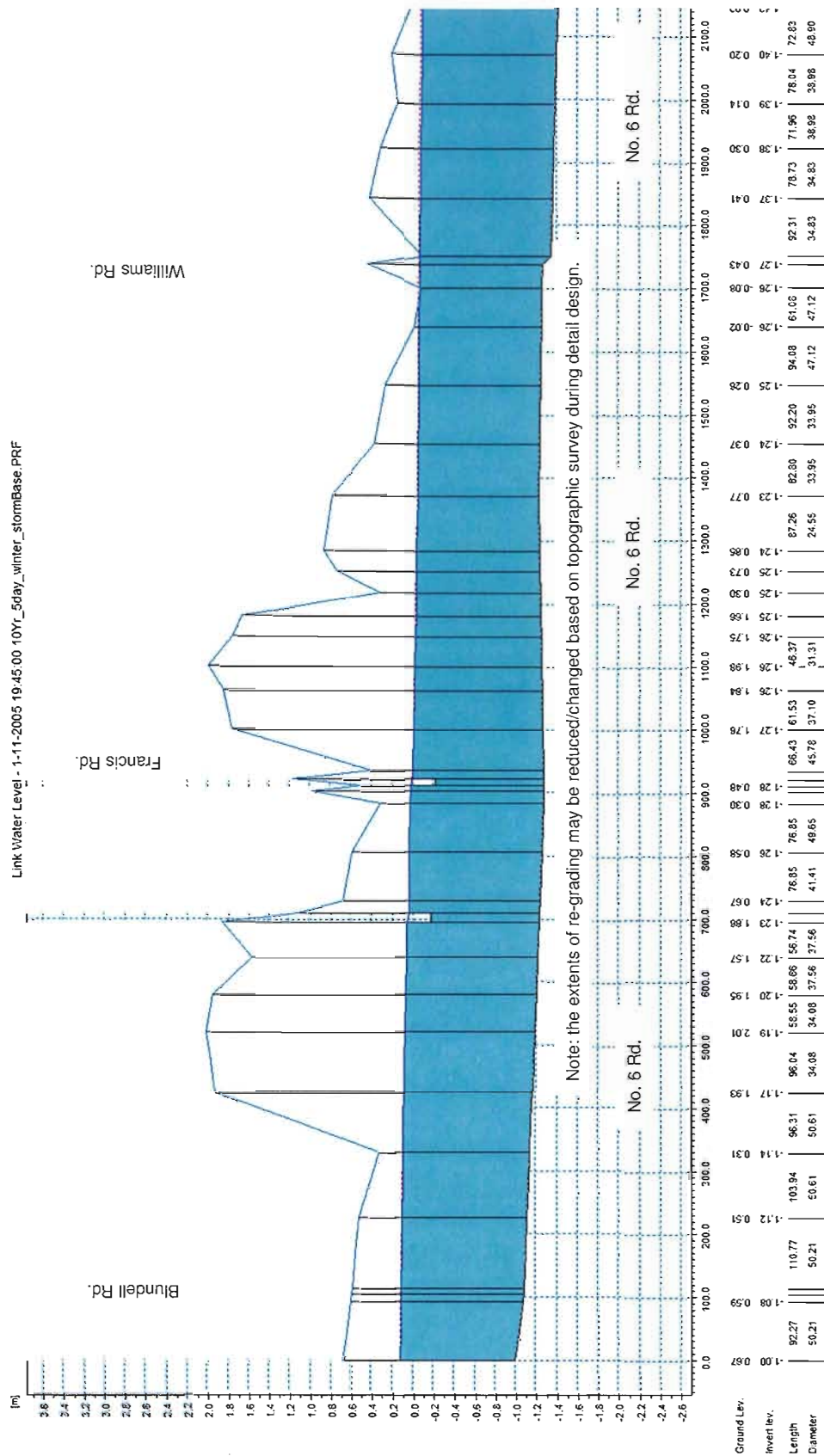
- Install a new 15m long 600mm diameter cross culvert on Blundell Road, 100m east of Sidaway

After this upgrade was incorporated into the improvements model, the results show significant reduction in flooding along this ditch.

Figure 4.3.3 Existing Ditch HGL: No.6 Rd from Blundell Rd to Box Culvert near Triangle Rd



**Figure 4.3.4 HGL After Improvements: No.6 Rd from Blundell Rd to Box Culvert near Triangle Rd
(10-year 5 day storm with winter tide)**



4.3.5 Westminster Highway West of No. 7 Road (D5)

Figure 4.3.5 shows the existing ditch profile along the North side of Westminster Hwy from No 6 Rd to No 7 Rd. The model shows flooding in the low lying areas East of No. 6 Rd. Two homeowners in this area have reported drainage problems during the open house (please refer to **Appendix A** for property locations and issues).

To reduce flooding in this area the following improvements are recommended:

- Re-grade the existing ditch for 1400m
- Upgrade all existing culverts (ranging from 600 to 900mm) to a minimum 900mm diameter (total length of 153m of pipe)
- Install a new 16m long 900mm diameter cross culvert connecting the North side ditch with the existing 900mm storm sewer in street.

Once these improvements were incorporated into the model the peak HGL was lowered by 0.6m. **Figure 4.3.6** shows the maximum HGL after the system improvements were incorporated.

4.3.6 Cambie Road East and West of No 7(D6)

Under existing conditions, there is significant flooding along the Cambie Rd ditch. When the roughness coefficient is reduced in the model to simulate ditch cleaning the flooding in this area is greatly reduced. Cleaning works are recommended for following ditches:

- Cambie Road from the box culvert east of No 6 Road to No 8 Road for a length of 3200m
- No 7 Road from Cambie Road to No 7 Road North Pump Station for a length of 1965m
- No 8 Road from Cambie Road to No 8 Road North Pump Station for a length of 1461m

Once these maintenance works were incorporated into the model the HGL was lowered by 0.6m to 0.9m five days after the 10-Year 5 day storm event as shown in **Figure 4.6**. There is still flooding predicted during the peak of the storm due to localized low elevations in the vicinity of Cambie Rd and No 7 Rd.

4.3.7 Burrows Road (D7)

The existing storm sewer along Burrows Rd East of No. 6 Rd shows flooding during a 10-Year 5 day event. The HGL in this section can be reduced by implementing the following upgrade:

- Installing a 15m long 600mm cross culvert connecting the storm manhole located East of Victory Street with existing ditch on South side of Burrows Street

4.3.8 CN Rail corridor between No 7 Rd and No 8 Rd (D8)

In addition to the above drainage upgrades, the City's operations staff has indicated the need for ditch cleaning and re-profiling along CN Rail corridor between No 7 Rd and No 8 Rd. Since this ditch is located in CN ROW, the City will need permission from the railway for access.

4.3.9 South Side of River Rd from the CN box (Cambie Rd alignment) east to Queens PS (D9)

The City's operations staff has also indicated the need for ditch cleaning and re-profiling for south side of River Rd from the CN box (Cambie Rd alignment) east to Queens PS.

4.3.10 Sidaway-East from Francis to Blundell (D10)

The 2006 study recommended construction of 600m of ditch along Sidaway-East to connect the Blundell and Francis ditch systems. This is a low priority project that should be completed after the proposed downstream ditch upgrades along Sidaway are completed (downstream of Francis Alignment –see section 4.3.1 above)

4.3.11 Storm sewers on No 6 Rd between Granville Rd to Blundell Rd (D11)

This project was also recommended as a part of 2006 study. This is a low priority project that should be completed after the proposed downstream ditch upgrades along No 6 Rd are completed (downstream of Blundell Alignment – see section 4.3.2 above)

4.3.12 Areas with Localized Low Ground Elevations in Model (D12)

Figures 4.4 and **4.5** show the model results for peak HGLs with all of the improvements incorporated with no tide or high tide, respectively. **Figure 4.6** shows the model results with improvements after the 10-Year 5 day storm event. Minor flooding is shown to occur at a few locations and is attributed due to localized low ground elevations. These elevations should be verified in the field. To prevent local flooding it may be necessary to build soil berms at these locations.

Further recommendations and improvements that are low priority and require additional investigation prior to inclusion in the current Capital Plan include the following items:

- Review the pump station and flood box capacity at No 7 Rd South as well as Nelson Rd as it may be impacting the water level elevations in upstream ditches
- Install a manually operated flap gate at Nelson-east and Westminster Hwy (as identified in the 2006 Study)
- Box culvert flushing and cleaning for No 6 Rd north drainage corridor and further investigation of the jet fuel pipeline elevations

Figure 4.3.5 Existing Ditch HGL: Westminster Hwy from No. 6 Rd to No.7 Rd
(10-year 5 day storm with winter tide)

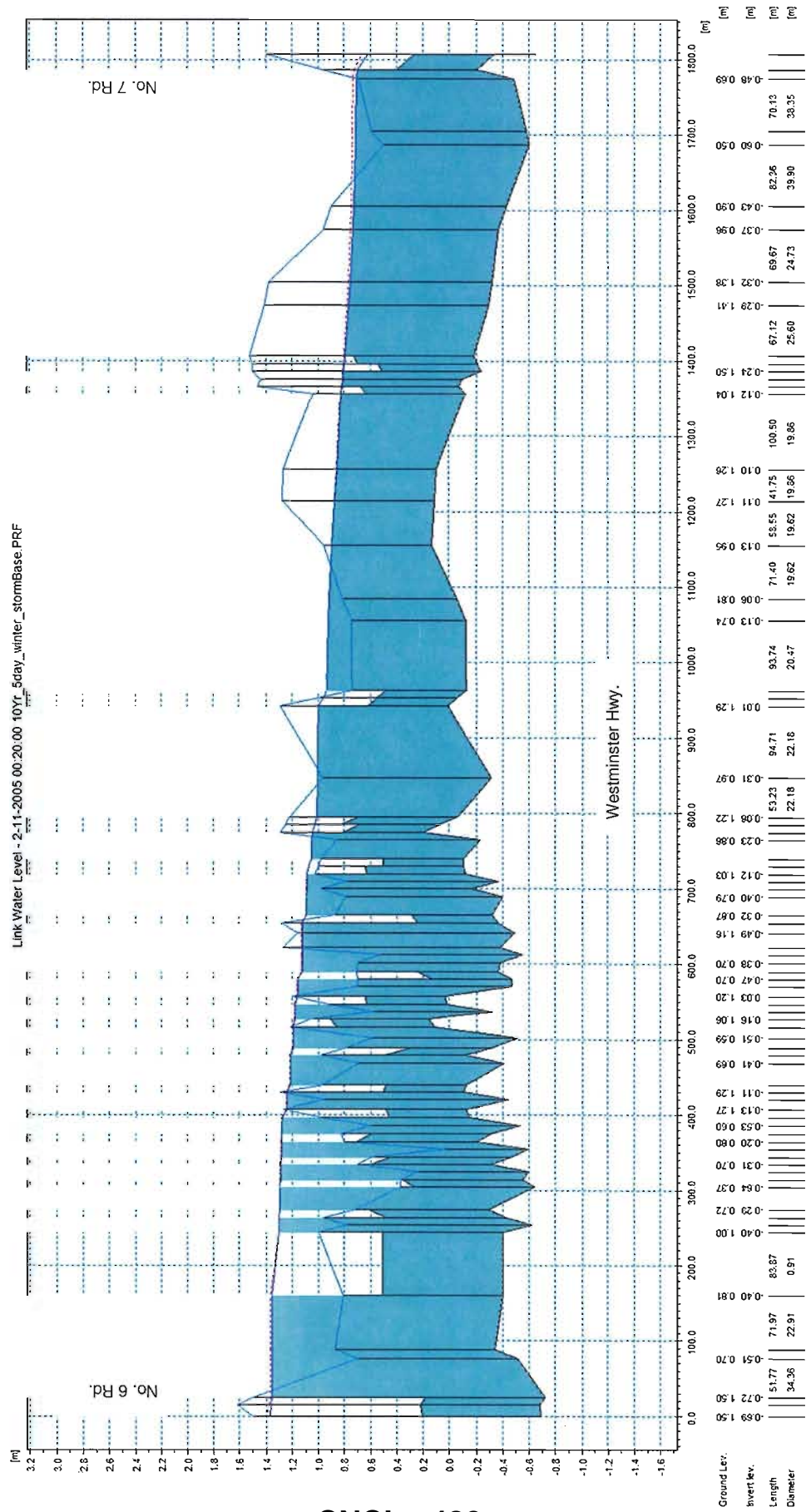
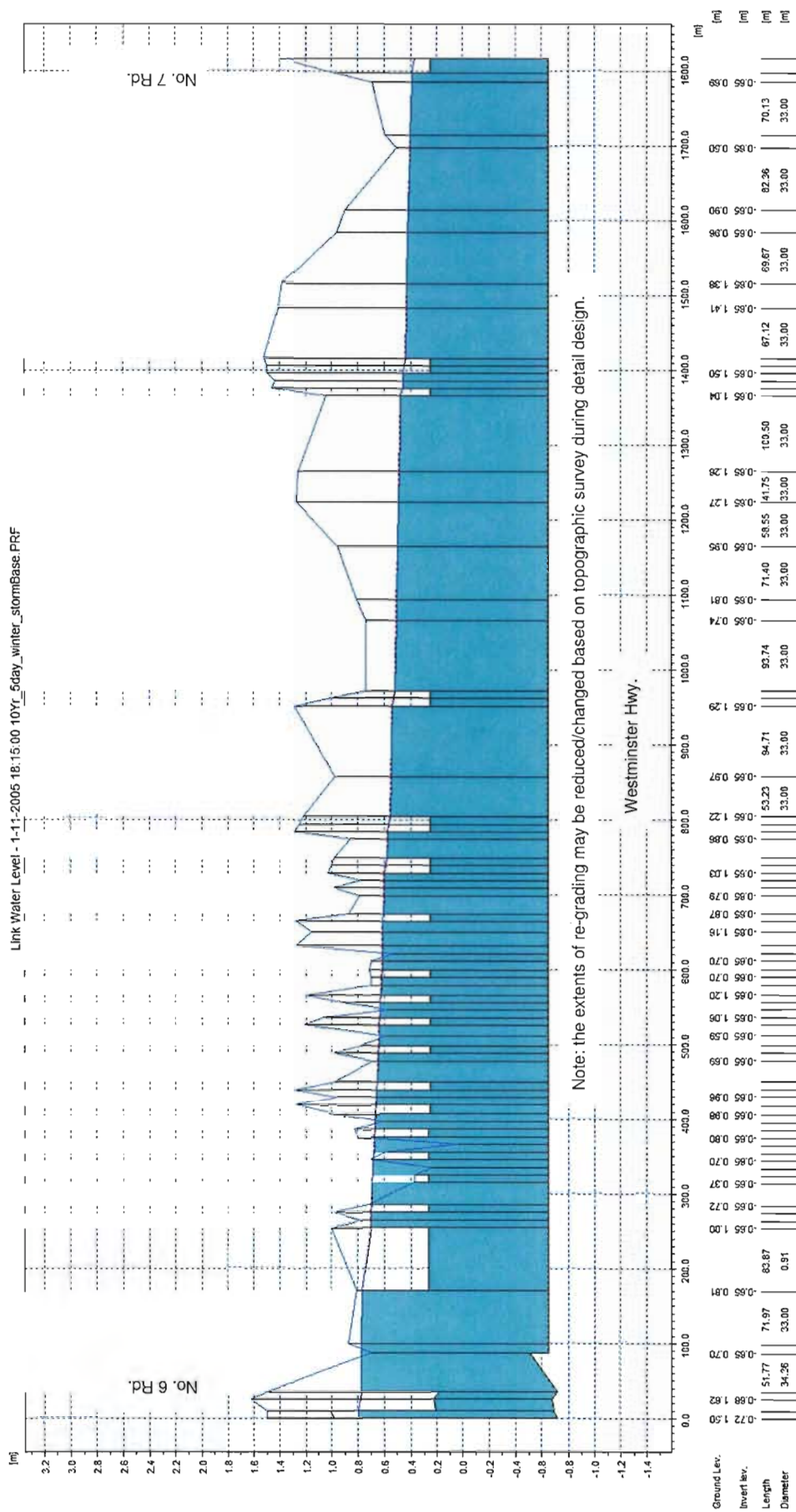


Figure 4.3.6 HGL After Improvements: Westminster Hwy from No. 6 Rd to No.7 Rd
(10-year 5 day storm with winter tide)





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- Legend**
- Study Area
 - Existing Drainage Ditches/Culverts
 - Existing Box Culvert
 - Existing Storm Sewer
 - HGL Depth Below Ground
 - Lower than 1.2m
 - 1.2m to 0.9m
 - 0.9m to 0.3m
 - 0.3m to 0.0m
 - Above 0.0m / Flooded

AECOM

0 375 750 1,500 m

Project No.

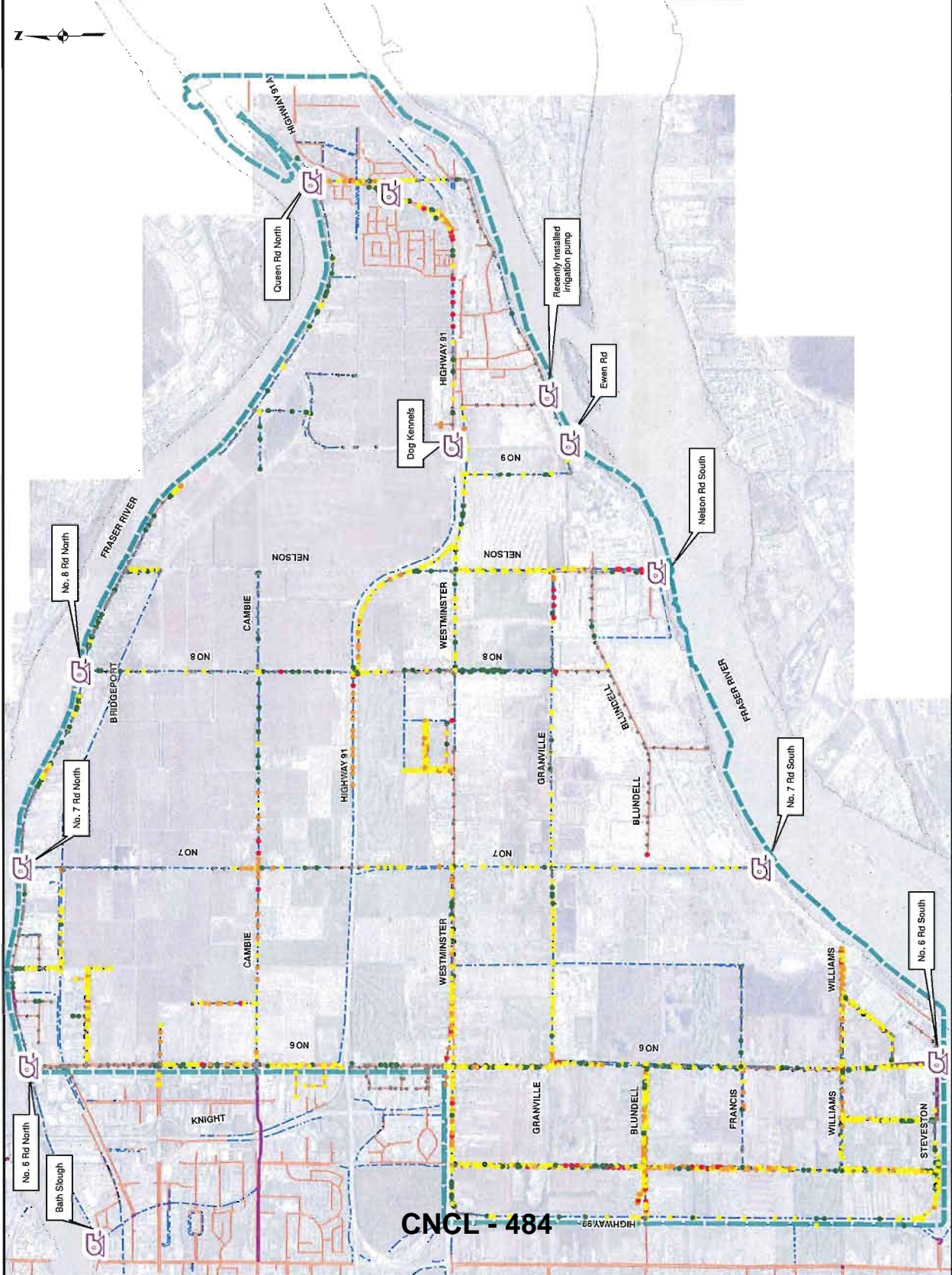
60285323

Date

April 2014

DRAINAGE SYSTEM PEAK
HGL WITH IMPROVEMENTS
10-YR 5-DAY STORM EVENT
NO TIDE

Figure 4.4





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Agricultural Water
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East Richmond

Legend

- Study Area
- Existing Drainage Ditches/Culverts
- Existing Box Culvert
- Existing Storm Sewer
- HGL Depth Below Ground
 - Lower than 1.2m
 - 1.2m to 0.9m
 - 0.9m to 0.3m
 - 0.3m to 0.0m
 - Above 0.0m / Flooded

AECOM

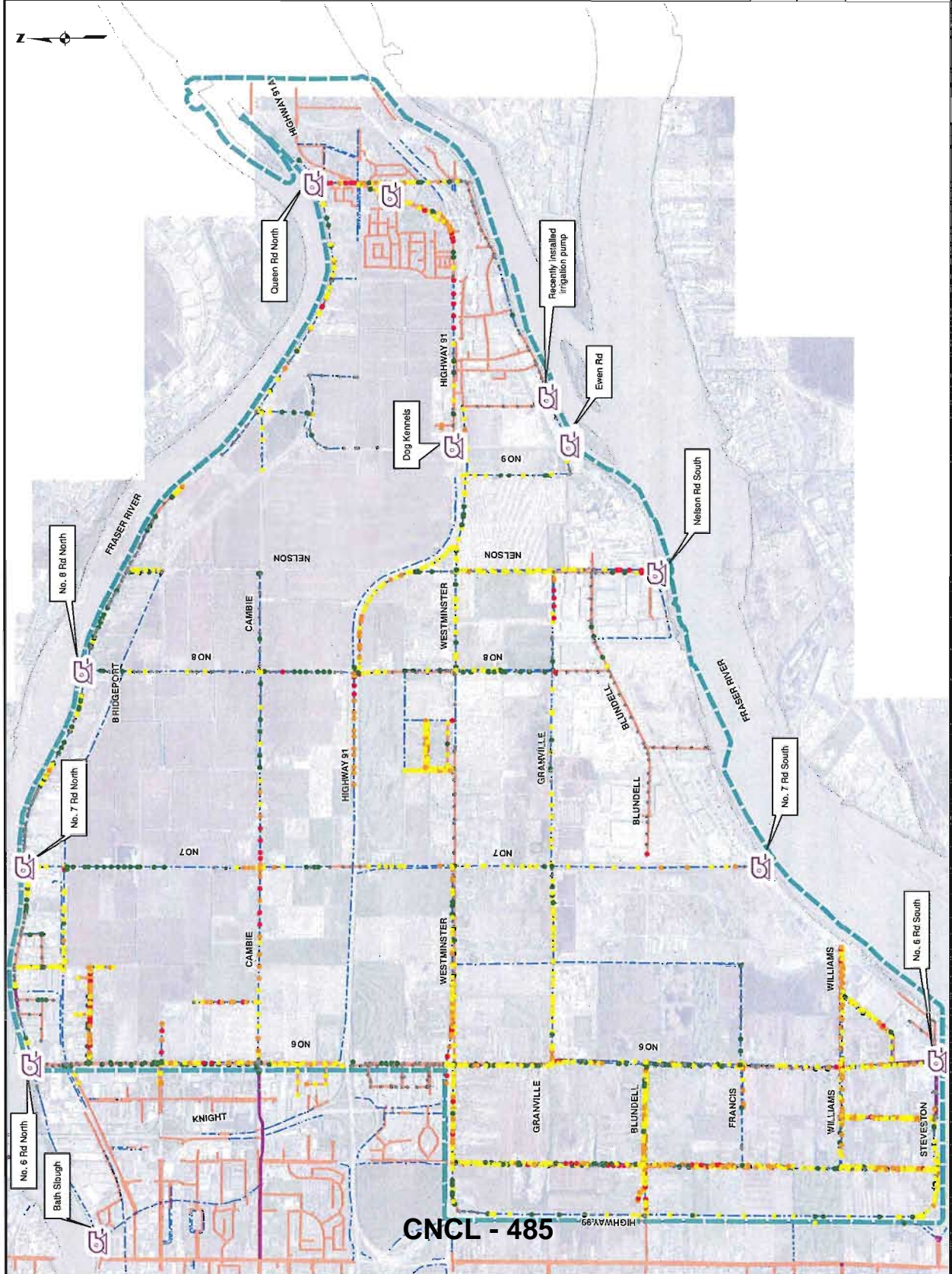
0 375 750 1,500 m

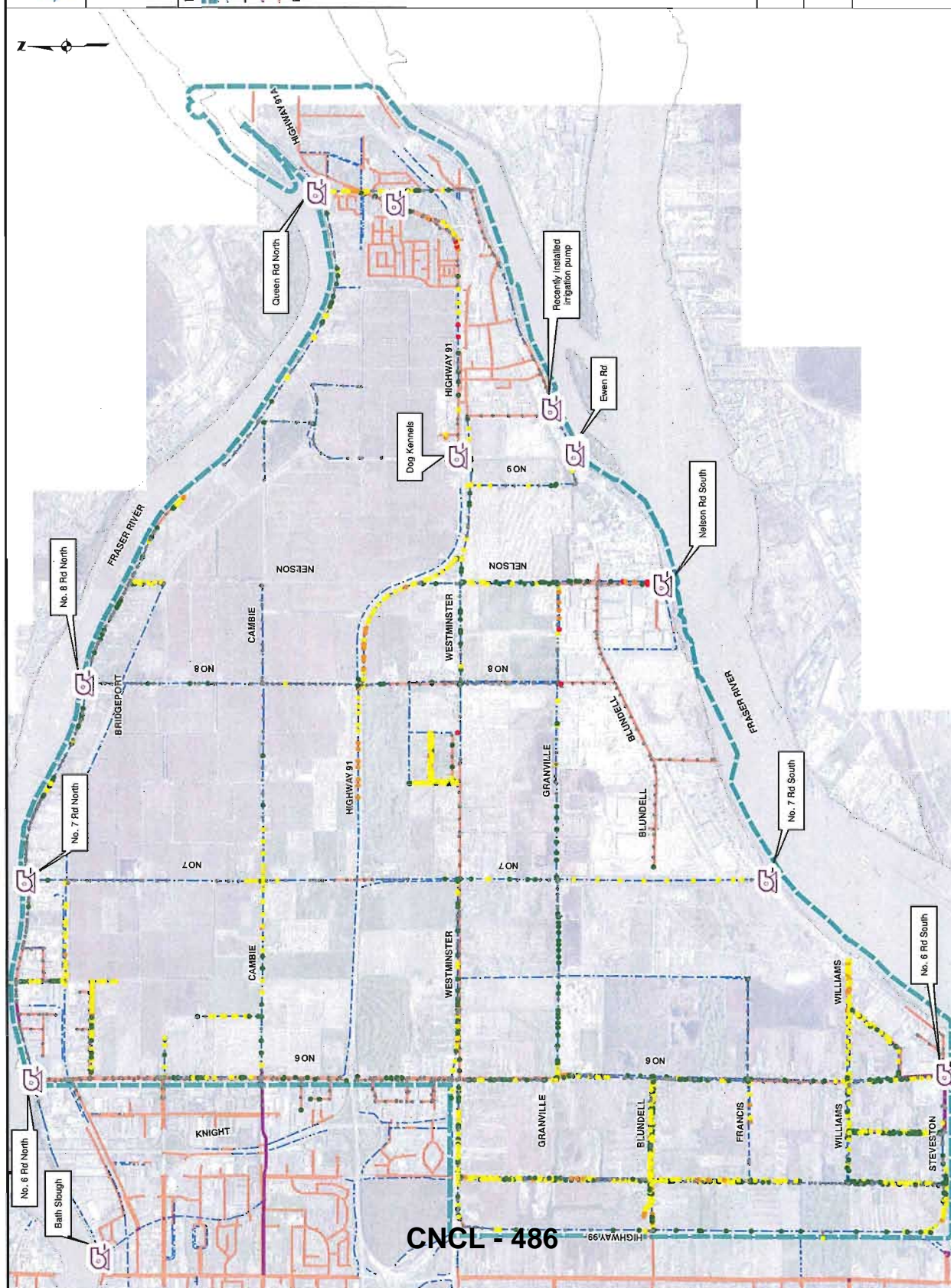
Project No.
60288323

Date
April 2014

DRAINAGE SYSTEM PEAK
HGL WITH IMPROVEMENTS
10-YR 5-DAY STORM EVENT
WITH TIDE

Figure 4.5





4.3.13 Cost Estimates for High Priority Drainage Improvements

Cost estimates for the high priority drainage improvements discussed above are provided in **Table 4.2**. All estimates are in 2013 CAD dollars. Cost estimate for low priority projects is not included in the above table.

All culvert upgrade project costs include an allowance for driveway restoration, headwalls and bypass pumping. Utility conflicts have not been investigated in this study. For ditch cleaning and re-grading projects, it is assumed that the existing ditch cross sections will be reinstated. An allowance for engineering design and construction contingency of 25% is also added for each project area.

Table 4.2 Cost Estimates for Drainage Upgrades

ITEM NO.	Name (Ref Section)	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT	
D1	Sidaway Road South of Francis Alignment (Section 4.3.1)	Upgrade 5 culverts to 1050mm dia. along North side of Steveston Highway from Palmberg to Sidaway	lin m	55	\$2,625	\$144,375	
		Clean and re-grade existing ditch along North side of Steveston Highway from Palmberg to Sidaway	lin m	350	\$219	\$76,650	
		Upgrade 15 culverts to 900mm dia. along West side of Sidaway from Steveston Highway to Francis Alignment	lin m	120	\$2,363	\$283,560	
		Clean and re-grade existing ditch along West side of Sidaway from Steveston Highway to Francis Alignment	lin m	1450	\$219	\$317,550	
		Install new 600mm dia. cross culvert on Sidaway Rd at Francis Alignment	lin m	15	\$2,188	\$32,820	
							\$855,000
		Design (6%)					\$51,300
		Eng. Satff Charges (4%)					\$34,200
		Subtotal					\$940,500
		Contingency (25%)					\$235,125
Project Total						\$1,176,000	
D2	No 6 Road South of Blundell Road (Section 4.3.2)	Clean and re-grade existing ditch along East side of No 6 Rd from Triangle Rd to Blundell Rd	lin m	2000	\$219	\$438,000	
		Upgrade 2 culverts to 1050mm dia. along East side of No 6 Rd	lin m	25	\$2,625	\$65,625	
							\$504,000
		Design (6%)					\$30,240
		Eng. Satff Charges (4%)					\$20,160
		Subtotal					\$554,400
		Contingency (25%)					\$138,600
		Project Total					\$693,000
D4	Blundell Road East of Sidaway (Section 4.3.4)	Install 1 new 600mm dia. cross culvert connecting the North and South side ditches along Blundell Rd	lin m	15	\$2,188	\$32,820	
							\$33,000
		Design (6%)					\$1,980
		Eng. Satff Charges (4%)					\$1,320
		Subtotal					\$36,300
		Contingency (25%)					\$9,075
Project Total						\$46,000	
D5	Westminster Highway West of No 7 Road (Section 4.3.5)	Clean and re-grade existing ditch along North side of Westminster Hwy from No 6 Rd to No 7 Rd	lin m	1400	\$219	\$306,600	
		Upgrade all existing culverts to 900mm dia.	lin m	153	\$2,363	\$361,539	
		Install 1 new 900mm dia. cross culvert connecting the North side ditch with the 900mm storm sewer	lin m	16	\$2,800	\$44,800	
							\$713,000
		Design (6%)					\$42,780
		Eng. Satff Charges (4%)					\$28,520
		Subtotal					\$784,300
		Contingency (25%)					\$196,075
Project Total						\$981,000	
D6	Cambie Road East and West of No 7 (Section 4.3.6)	Clean existing ditch on Cambie from the box culvert East of No 6 Road to No 8 Road	lin m	3200	\$175	\$560,000	
		Clean existing ditch on No 7 Rd from Cambie Rd to No 7 Rd North PS	lin m	1965	\$175	\$343,875	
		Clean existing ditch on No 8 Rd from Cambie Rd to No 8 Rd North PS	lin m	1461	\$175	\$255,675	
							\$1,160,000
		Design (6%)					\$69,600
		Eng. Satff Charges (4%)					\$46,400
		Subtotal					\$1,276,000
		Contingency (25%)					\$319,000
Project Total						\$1,595,000	
D7	Burrows Road (Section 4.3.7)	Install 1 new 600mm dia. cross culvert to connect the storm sewer East of Victory Street with existing ditch on South side of Burrows Street	lin m	15	\$2,363	\$35,445	
							\$36,000
		Design (6%)					\$2,160
		Eng. Satff Charges (4%)					\$1,440
		Subtotal					\$39,600
		Contingency (25%)					\$9,900
Project Total						\$50,000	
Grand Total						\$4,641,000	

Note: Items D3 and D8-D12 either have no associated project or are low priority projects and therefore not costed

4.4 Irrigation Improvement Options

Irrigation options were analysed keeping in mind that irrigation deficiencies are of a biggest concern in the study areas south west portion. Although no major irrigation concern was reported in the area north of Hwy 91, the proposed ditch cleaning along No 7 Rd, No 8 Rd and Cambie will improve irrigation water flows in this area. The south-east portion of study area (south of Westminster Hwy and east of No 7 Rd) may warrant more detailed analysis in subsequent studies.

Two options were reviewed for the recommended irrigation system upgrades: Option 1 – Irrigation Upgrades for water supply from the Fraser River's North Arm and Option 2 – New Irrigation Pump Station near No 6 Rd South PS for water supply from the Fraser River's Main Arm. Details for these Options are summarized below.

4.4.1 Option 1 – Irrigation Upgrades for Supply from North Arm (I-1)

Option 1 includes a combination of items to facilitate the transfer of irrigation water from the North Arm of the Fraser River to the Southwest portion of the study area that do not have sufficient water supply during irrigation periods. The upgrades proposed are such that only surplus water from the area north of Westminster Hwy can be transferred south. The differential controls on the proposed automatic gate on No 7 Rd north of Westminster Hwy should be set in such a way that this gate only opens when the water level on north side exceeds the target level. This will make sure that the irrigation water supply for the north side is not affected by the proposed upgrades. It is assumed that all the proposed drainage upgrades North of Granville Ave are complete prior to implementing this option. Option 1 upgrades are divided into 3 phases. The following list of items are included in each phase of Option 1 and shown in **Figure 4.7**. The control settings for automatic gates as shown in **Figure 4.7** are preliminary elevations and can be easily adjusted based on field conditions and water demands.

Phase -1A

- Adjust settings at No 7 North irrigation intake and drainage pump station as shown in **Figure 4.7.1** and described below:
 - Increase target water level elevation from 0.217m to 0.575m (to match existing No 8 Rd North PS target level)
 - Modify irrigation gate settings such that it closes at elevation of 0.75m (gate open elevation to remain as is at 0.14m)
 - Set irrigation gate to only open if tide level is higher than wetwell/ditch water level
 - Apply a 20 minute delay before irrigation gate reopens to reduce frequency of unintended opening and closing due to fluctuating water levels
 - Modify drainage pump start level and gravity outlet elevation to 0.8m
- Adjust settings at No 8 North drainage pump stations as shown in **Figure 4.7.2** and described below:
 - Target water level elevation remains at 0.575m
 - Modify irrigation pump ON elevation to 0.575m if tide level is lower than wetwell/ditch elevation
 - Modify irrigation pump OFF elevation to 0.8m
 - Set the gravity gate to open only if the tide level is greater the wetwell/ditch water level
 - Set the gravity intake irrigation gate to close at 0.8m or above
 - Apply a 20 minute delay before irrigation gate reopens to reduce frequency of unintended opening and closing due to fluctuating water levels
- Install two new seasonal flap gates
 - East of No 7 Rd on Westminster Hwy
 - East of No 7 Rd on Granville Ave Alignment
- Install two new gates with automated controls
 - No 7 Rd south of Granville Ave
 - No 6 Rd south of Granville Ave
- Add controls to existing gate on No 7 Rd (North of Westminster) to provide differential upstream/downstream elevations such that area south of Westminster Hwy does not flood.

When the water level in No 7 Rd ditch north of Westminster Hwy exceeds the target water level, the automatic gate north of Westminster Hwy (Gate-1 in **Figure 4.7**) opens to facilitate supply of surplus water to the south side. Gate-2 and Gate-3 will stay closed in summer to prevent flow towards east side. Automatic gates (4&5) will detain water in the ditches and prevent water from flowing south to the pump stations. These gates will stay closed until the water level in ditches rise to 0.75 (in case of a summer storm). Once the high level is reached they will automatically open to prevent flooding in upstream area. High level open setting is selected such that it is close to maximum level that can be achieved when No 7 Rd North gravity inlet is open. This will make sure there is no water flow to pump stations during dry irrigation period.

Phase -1B

Phase-1B should be initiated only after the successful completion of phase-1A. Following is the list of items included in this phase:

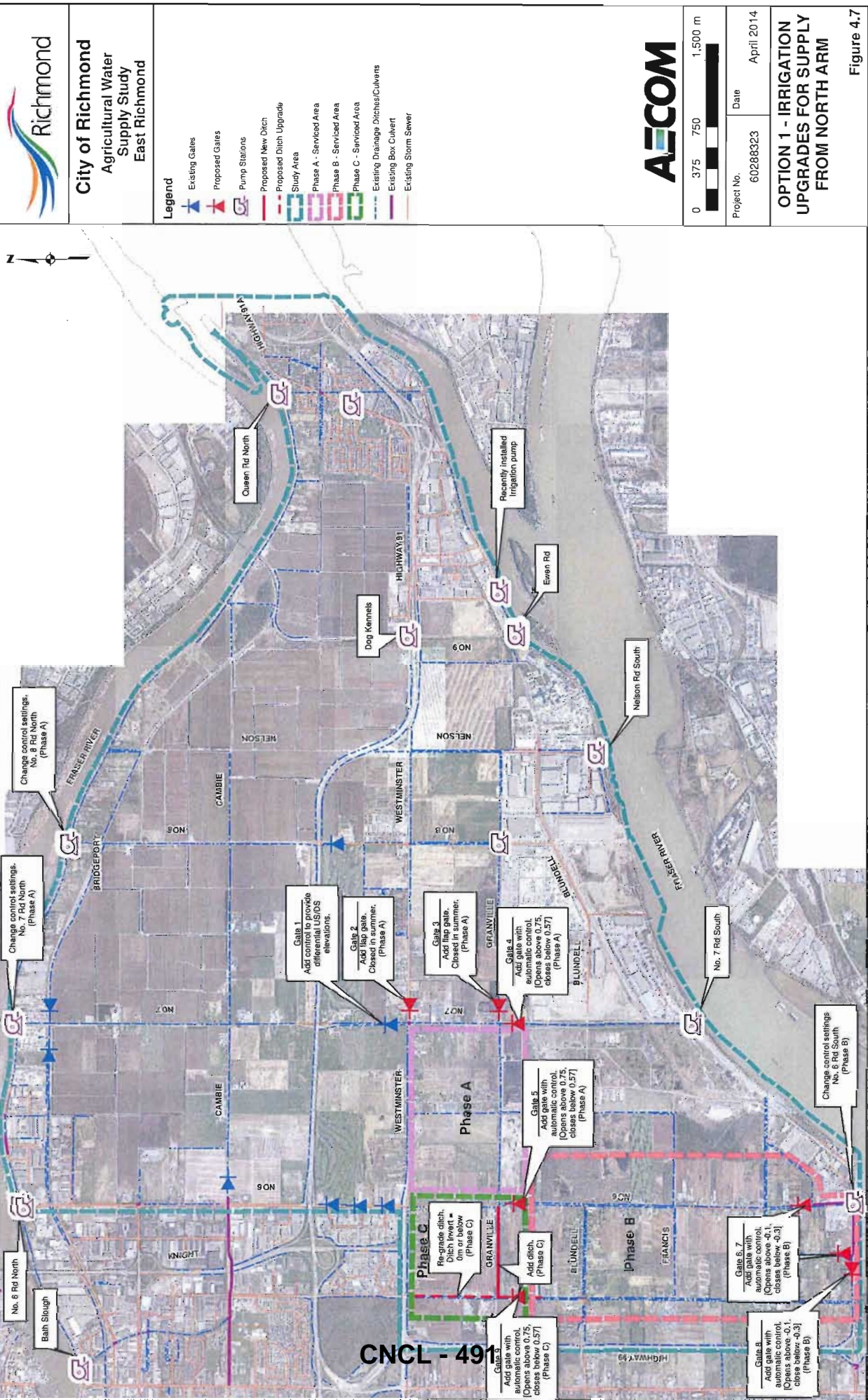
- Install three new gates with automated controls
 - Palmberg Road upstream of box culvert (Gate-6)
 - No 6 Rd and Triangle Road upstream of box culvert (Gate-7)
 - Steveston Hwy upstream of box culvert (Gate-8)

In phase-1B, the settings of Gate-5 can be adjusted such that it opens when the water level in Granville ditch exceeds its target level. Gates-6, 7 & 8 will detain water in the No 6 Rd and No 7 Rd ditches and prevent water from flowing south to the pump stations. Preliminary control settings are shown in **Figure 4.7** based on ground profile.

Phase -1C

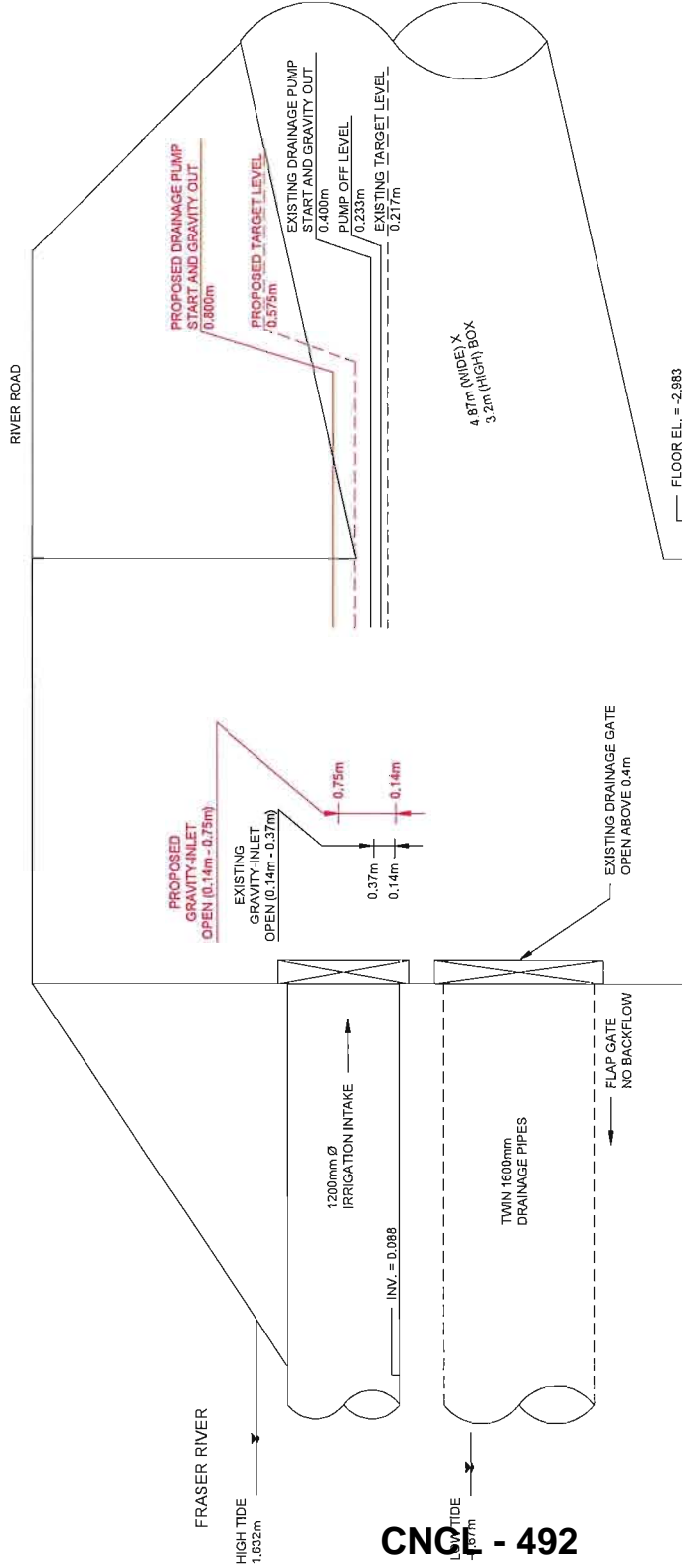
This final phase will require construction of new ditch along Granville alignment between No 6 Rd and Sidaway. Prior to initiating this phase, we recommend that the City should look at the available right of way along this alignment. Following is the list of items included in this phase:

- Construct a new ditch along the Granville Alignment connecting No 6 Rd with Sidaway Rd (assuming 1m base width with 1.5H:1V side slopes and average depth of 1.5).
- Re-grade the existing ditch on the East side of Sidaway Rd for 1400m from North of Blundell Rd to Westminster Hwy
- Install a new gate (Gate-9) with automated control on Sidaway south of the proposed ditch.



No. 7 ROAD NORTH SCHEMATIC FOR IRRIGATION SETTINGS

NOT TO SCALE



WET-WELL SECTION

NOTES:

1. ALL ELEVATIONS ARE GEODETIC
2. LOW TIDE AND HIGH TIDE BASED ON DESIGN TIDE USED IN MODEL
3. ABOVE SKETCH IS SCHEMATIC TO SHOW ELEVATIONS ONLY

EXISTING SETTINGS:

1. TARGET LEVEL IS 0.217m
2. IRRIGATION INTAKE OPENS AT 0.14m AND CLOSSES AT 0.37m
3. EXISTING DRAINAGE PUMPS START AND GRAVITY-OUT FALLS OPEN AT 0.4m OR ABOVE (TO PREVENT FLOODING DURING SUMMER STORMS)

PROPOSED SETTINGS:

1. THE PROPOSED TARGET LEVEL AT No. 7 ROAD IS 0.575m WHICH IS THE SAME AS THE EXISTING No. 8 TARGET LEVEL
2. IRRIGATION GATE OPENS AT 0.14m (NO CHANGE) AND GATE CLOSURES AT 0.75m GEODETIC
3. IRRIGATION GATE OPENS ONLY IF TIDE IS HIGHER THAN WET-WELL/DITCH LEVEL
4. PROPOSED DRAINAGE PUMPS START AND GRAVITY OUT FALLS OPEN AT 0.8m OR ABOVE



City of Richmond
Agricultural Water
Supply Study
East Richmond



Project No. 60288323
Date April 2014

**No. 7 Rd. North
Schematic for
Proposed Irrigation
Settings**

Figure 4.7.1

NOT TO SCALE



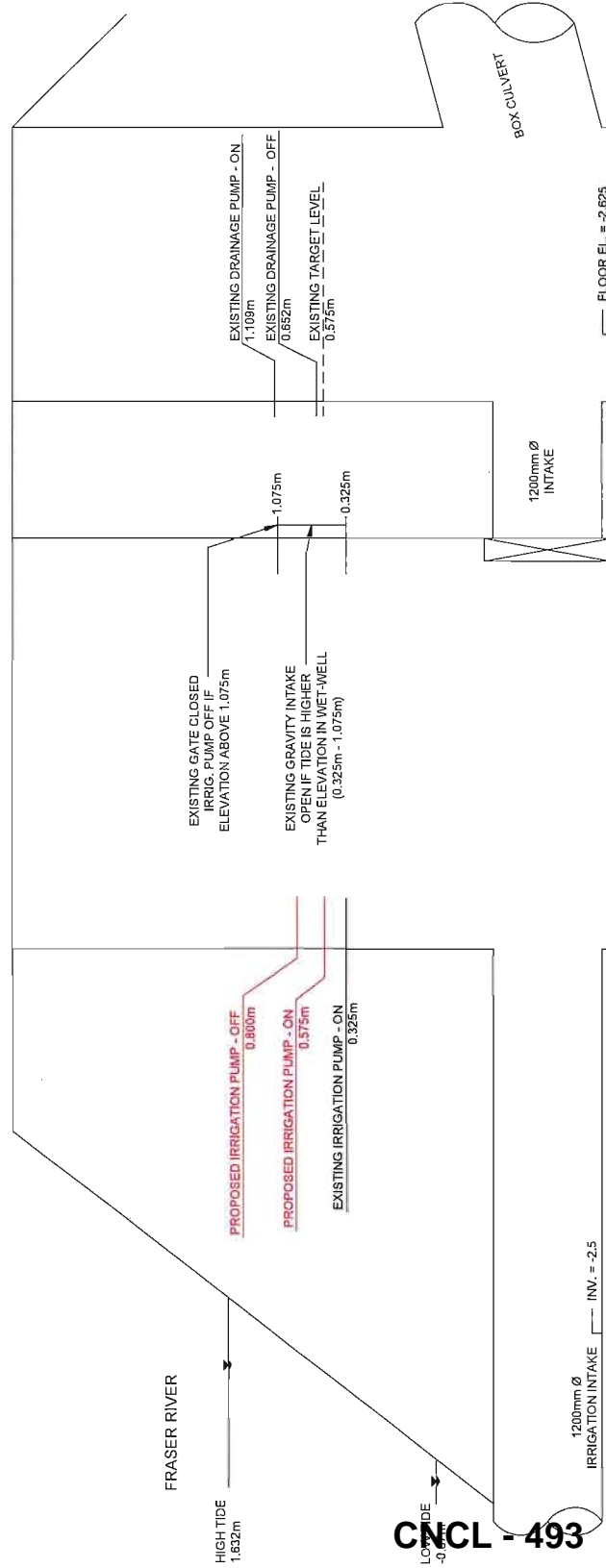
City of Richmond
Agricultural Water
Supply Study
East Richmond



Project No.	Date
60288323	April 2014

**No. 8 Rd. North
Schematic for
Proposed Irrigation
Settings**

Figure 4.7.2



**No. 8 ROAD DRAINAGE
PUMP STATION
WET-WELL**

IRRIGATION
PUMP STATION
CHAMBER

NOTES:

EXISTING SETTINGS:

PROPOSED SETTINGS:

- | | | | | | |
|----|--|----|---|----|---|
| 1. | ALL ELEVATIONS ARE GEODETIC | 1. | TARGET LEVEL IS 0.575m | 1. | NO CHANGE IN TARGET LEVEL (0.575m) |
| 2. | ONLY ONE IRRIGATION-INFLOW TAKES PLACE (PUMP OR GRAVITY) AT ONE TIME | 2. | IRRIGATION PUMP TURNS ON ONLY IF LEVEL DROPS BELOW 0.325m. ONCE IT TURNS ON THEN IT TURNS OFF AT 1.075m | 2. | IRRIGATION PUMP ON IF LEVEL DROPS BELOW 0.575m AND TIDE IS LOWER THAN WET-WELODITCH LEVEL |
| 3. | LOW TIDE AND HIGH TIDE BASED ON DESIGN TIDE USED IN MODEL | 3. | PUMP/GATE CONTROLS ARE MANUALLY OVERRIDDEN WITH A TEMPORARY SETTING TO MAINTAIN A HIGHER WATER LEVEL (START 0.825, STOP 1.575) DURING CRANBERRY HARVEST & SPRING FROST PROTECTION | 3. | IRRIGATION PUMP OFF AT 0.8m GEODETIC |
| 4. | ABOVE SKETCH IS SCHEMATIC TO SHOW ELEVATIONS ONLY | 4. | GRAVITY INTAKE GATE OPENS AT 0.325m AND CLOSSES AT 1.075m | 4. | GRAVITY IRRIGATION GATE OPENS ONLY IF TIDE IS HIGHER THAN WET-WELODITCH LEVEL |
| | | 4. | GRAVITY INTAKE GATE OPENS AT 0.325m AND CLOSSES AT 1.075m | 5. | GRAVITY INTAKE IRRIGATION GATE CLOSED AT 0.8m OR ABOVE |

4.4.2 Option 2 – New Irrigation Pump Station near No 6 Rd South PS (I-2).

Option 2 includes construction of a new irrigation pump station in the south to supply water to the southwest part of the study area as shown in **Figures 4.8**.

To provide water supply for growth irrigation (assuming an average rate of 5.33mm/day) for a 300hectare area, an irrigation pump station with a capacity of approximately 0.2 m³/s (200L/s) is required. One possible option is to build a new pump station at the foot of No 6 Rd. Based on the surrounding existing ground elevations the maximum possible target water level for the pump station and ditches is approximately 0m geodetic.

A feasibility study for such a pump station and intake would need to be completed prior to initiating any conceptual design for this Option. The current location is preliminary and depended on available land. An alternative location may be the foot of Willams Rd as the Fraser River depth may be deeper in this area.

For Option 2, it is assumed that the drainage upgrades in the vicinity on Steveston Hwy, Sidaway Rd and No 6 Rd have been implemented. Costs for these items have not been included on the irrigation cost estimates.

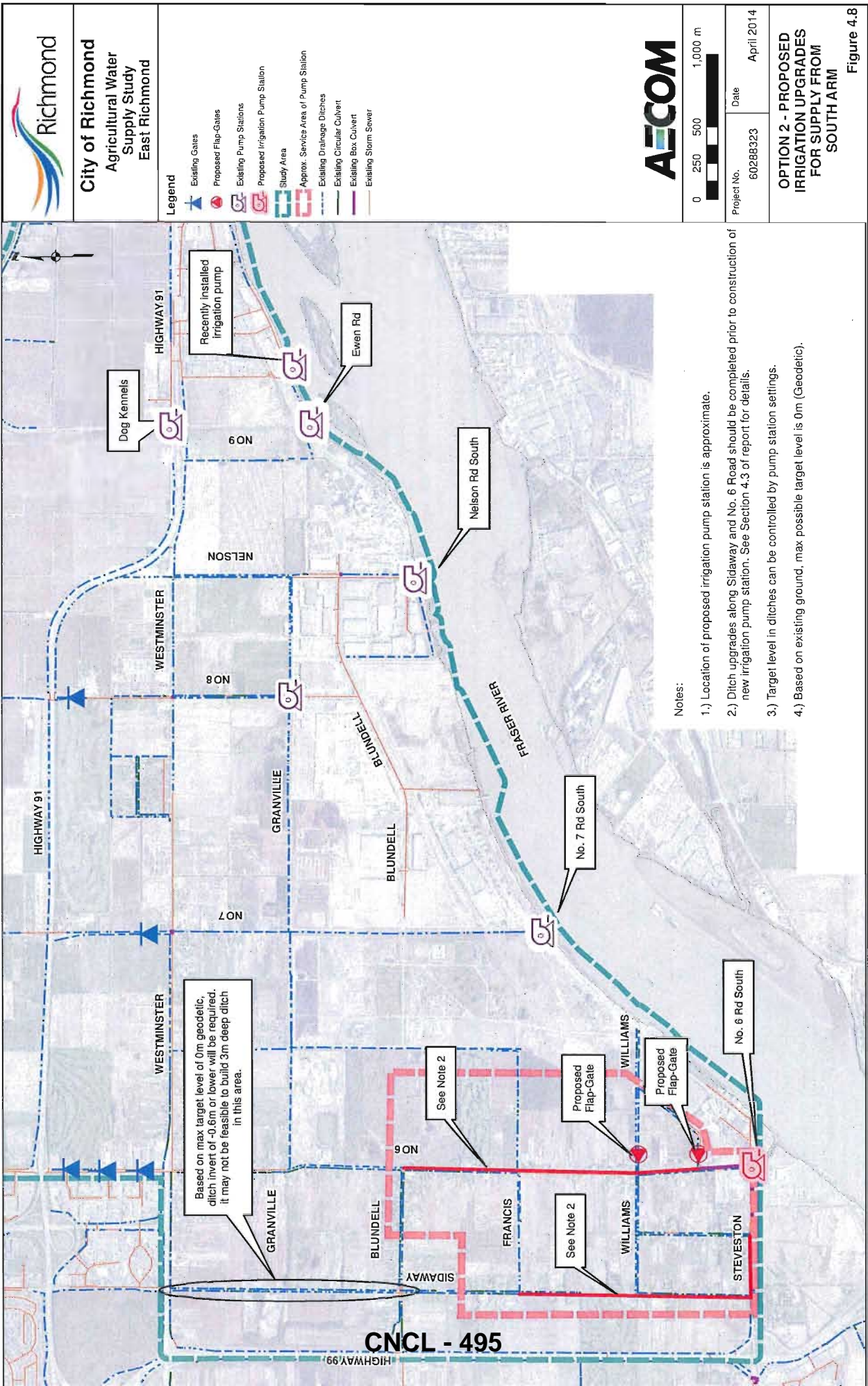
As shown in **Figure 4.8**, the ditch along Sidaway Rd north of Blundell would need to have an invert of -0.6m elevation to facilitate the supply water from the new PS to this area. Based on the existing ground elevations, an approximately 3m deep ditch would be required, which may not be feasible.

4.4.3 Cost Estimate for Irrigation Options

Cost estimates for irrigation improvement Options 1 and 2 are presented in **Table 4.3**. As noted in **Section 4.3.9**, all estimates are in 2013 CAD dollars and an allowance for engineering design and construction contingency of 25% has been added to each Option.

Table 4.3 Cost Estimate for Irrigation Options

ITEM NO.	Name (Ref Section)	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
I-1	Option 1 – Irrigation Upgrades for Supply from North Arm (Section 4.4.1)	Modify settings at No 7 North PS and No 8 North PS	LS	2	\$0	\$0
		Install two new seasonal flap gates	LS	2	\$60,000	\$120,000
		Install two new gates with automated controls	LS	2	\$175,000	\$350,000
		Re-grade existing ditch on East side of Sidaway Rd from North of Blundell Rd to Westminster Hwy	Lin m	1400	\$219	\$306,600
		Construct a new ditch along the Granville Alignment connecting No 6 Rd with Sidaway Rd	Lin m	835	\$340	\$283,900
		Install three new gates with automated controls	LS	3	\$175,000	\$525,000
						\$1,586,000
					Design (6%)	\$95,160
					Eng. Satff Charges (4%)	\$63,440
					Subtotal	\$1,744,600
					Contingency (25%)	\$436,150
I-2	Option 2 - New Irrigation Pump Station near No 6 Rd South PS (Section 4.4.2)				Project Total	\$2,181,000
		Irrigation Pump Station	LS	1	\$1,400,000	\$1,400,000
		Intake piping	LS	1	\$500,000	\$500,000
		Power supply	LS	1	\$110,000	\$110,000
		Install three new seasonal flap gates	LS	3	\$60,000	\$180,000
						\$2,190,000
					Design (6%)	\$131,400
					Eng. Satff Charges (4%)	\$87,600
					Subtotal	\$2,409,000
					Contingency (25%)	\$602,250
					Project Total	\$3,012,000



5. Cost Benefit Analysis

A cost benefit analysis typically includes a review of the costs and savings that can be realized in terms of the economic, social and environmental components resulting from implementation of a project. The analysis completed here is primarily economic in nature as the social and environmental costs and benefits are challenging to quantify. However, it is evident that there is motivation from stakeholders (including the farming community and the City) to maintain the viability of agricultural production in East Richmond's ALR areas such that the social impact of drainage and irrigation improvement projects are viewed as benefits. In terms of the environmental components, such as water quality and habitat enhancement, there are also benefits to be realized from the improvements.

In 2010, cranberries (33%), blueberries (19%), mixed vegetables (11%) and potatoes (5%) were the main irrigated field crops grown in Richmond, accounting for 67% of the cultivated farmland (2010 LUI report). Irrigation is a critical input for crop production with irrigation of about 71% of the berry area and 56% of the vegetables area.

In **Table 5.1**, target yields, average prices and gross revenue per hectare are indicated for the various crops. Target yields are yields attainable for mature crops using good agricultural practices. Cranberry yields range widely, with the newer higher yielding strains capable of producing yields in excess of 34,000 kgs per hectare. While newer varieties of blueberries are higher yielding, yields also vary depending upon the harvest method with hand harvesting resulting in somewhat higher yields than machine harvesting.

Average prices are the farm gate prices received over the last 5 years. Over 90% of BC cranberries are marketed to the Ocean Spray cooperative under a schedule of Pool A pricing. Future prices are expected to be pressured somewhat by increasing production.

In the case of blueberries, the average price is the blended price of product going to the fresh and processed markets. The average farm gate price of blueberries is anticipated to decline over the near term future, compared to prices received historically, due to a significant increase in blueberry crop coming into mature production.

As **Table 5.1** shows, conventional mixed vegetable cropping, including potatoes, does not generate the returns per hectare that cranberries and blueberries do. However, organic vegetable production does occur in the area and farm gate pricing is considerably more favourable.

Table 5.1 Estimated Average Yields, Prices and Gross Revenues Associated with Main Irrigated Crop Types

Crop	Cranberries	Blueberries	Potatoes	Mixed Vegetables
Target Yield – Full Production (kgs/ha)	22,414- 33,600	14,569 – 18,000	33,621	5,940
Average Price (\$/kg)	1.32	1.76	0.55	0.86
Gross Revenue per Hectare	29,640 – 44,460	25,688 – 35,568	18,525	5,105

For the purposes of this updated study, an average crop value of \$30,000 per hectare has been selected, which is based on the anticipated conversion of un-used farmland to berries. An estimate of un-used land is provided in the 2010 LUI data (Map 6), which indicates that there is approximately 520 ha of additional land available or that has potential for farming in East Richmond, with potential average annual revenue from irrigated production of \$15.6 million (Table 5.2).

It should also be noted that the crop value estimates do not reflect other economic and financial benefits that farmers may realize from improved drainage and irrigation such as improved crop yields or ability to growing higher value crops. Furthermore, the analysis presented herein assumes that all un-used farm lands will be under full production.

When comparing the cost estimates for the drainage upgrades and irrigation improvement options, as per **Tables 4.2** and **4.3** respectively, the potential revenue for un-used land is greater (as shown below in **Table 5.2**) resulting in a positive benefit cost ratio.

Table 5.2 Average Annual Potential Revenue Vs. Cost of Infrastructure

Area of Un-used Agricultural Land for East Richmond	Average Annual Potential Revenue (based on \$30,000 / Ha)	Cost of Infrastructure (drainage upgrades & irrigation options)
520 Ha	\$15.6M	\$6.0M to \$7.0M

A few additional costs and savings that may influence the analysis include the following items:

- **Water Purchase Cost:** Savings for farmers that are currently irrigating with potable water supplied by the City. Based on an average irrigation rate of 5.33 mm/day (growth irrigation rate from **Section 1.5.2**) this equates to a cost per Hectare of \$63.83 / Ha / day using the City's current water rates (Schedule B to Bylaw 5637). Several farmers in the vicinity of Westminster Hwy and Sidaway Rd are currently using City supplied potable water for irrigation of vegetable farms such that implementation of Option 1 for the irrigation upgrades for water supply from the North Arm of the Fraser River would be a significant savings for these individuals.
- **Irrigation Pump Station Cost:** Cost of additional pump station maintenance and fuel due to longer pump run times for supplying more irrigation water from No 8 Rd North PS (or from a new irrigation pump station in the South). An estimate for pump station operations and maintenance cost per year can be made from data obtained through AECOM's National Stormwater Benchmarking Initiative. 2011 benchmarking data for thirteen major cities across Canada for pump station O&M costs per total pump station horsepower indicate that the average cost is \$150 / PS Hp. For the No 8 Rd North PS (at 134 Hp) this equates to approximately \$20,000 / year. The portion of annual expense due to additional pump run time combined with extra power costs is significant.

It is also recommended that the City should contact DFO to determine potential environment concerns resulting from increased pumping from Fraser River.

- **Crop Failure:** Potential savings and reduced risk of economic impacts from flooding or loss of crops. This is difficult to quantify and would vary greatly across the study area. North for Hwy 91 for example, the primary crop is cranberries for which the farmers rely on the ability to flood the fields such that they typically have capability to drain there fields as well when required. In the Southwest where more vegetable crops are grown, there are typically water shortage issues during the growing season such that flooding is not a concern.
- **Right of Way:** Additional costs for purchase of rights-of-way for ditch enlargement or larger infrastructure would also increase the capital costs for infrastructure improvements. With exception of Irrigation improvement Option 1, there are no new ditches or rights-of-way recommended.

In summary, the cost benefit ratio for implementing the drainage and irrigation upgrades is positive when viewed from the perspective of the farming community. Improvements to system conveyance and irrigation water supply will increase the amount of land potentially available for farming and is likely to increase current crop yields.

From the City's perspective, the economics are not favourable given the farmers reap the benefits but the social and environmental gains are positive. In addition, the City has committed to maintaining and improving ALR drainage and irrigation systems to support agriculture as per the 2041 OCP. This commitment includes facilitating the improvement of irrigation and drainage infrastructure to provide secure and affordable water supplies that support the agricultural sector.

6. Recommendations

6.1 Review of 2006 Study Upgrades not Completed

At the onset of the project, a review of the drainage and irrigation upgrade recommendations from the 2006 Study was completed. **Table 6.1** provides a summary of the projects and the rationale for why they are either not included, no longer required or if the project has been included as a low priority for completion when funds are available.

There are four drainage upgrade projects on the list (projects 6.1 to 6.4). Project 6.1 is listed as low priority as proposed upgrades along Sidaway from Francis to Steveston will reduce this projects need. Project 6.2 is not feasible due to construction constraints resulting from jet fuel pipeline. The majority of project 6.3 is already included in the proposed drainage upgrades (with the remainder deemed not required) and project 6.4 is not required partly due to the proposed Ecowaste Facility that will change drainage pattern in this area.

Projects 6.5 to 6.23 are irrigation upgrade projects. Projects 6.6 & 6.12 are already included as part of the proposed Option 1 irrigation upgrades and four projects (6.9, 6.10, 6.19 & 6.23) are included as low priority. The remaining projects are not required based on the updated assessment and shift in strategy, particularly the previously recommended screw pump at Granville Ave and No 6 Rd, and No 7 Rd North irrigation pump station and associated ditch, culvert and flap gates.

6.2 Recommended Capital Projects

Drainage and irrigation upgrades recommended under the current study are listed in order of priority in **Table 6.2**. Cost estimates include a 25% engineering design and construction contingency and all costs are in 2013 dollars.

Table 6.2 Prioritized List of Upgrades

Project ID	Project Description	Cost Estimate	Time Horizon
D1	Sidaway Road South of Francis Alignment (Section 4.3.1)	\$1,176,000	1-2 years
D2	No 6 Road South of Blundell Road (Section 4.3.2)	\$693,000	3-5 years
D4	Blundell Road East of Sidaway (Section 4.3.4)	\$46,000	3-5 years
D7	Burrows Road (Section 4.3.7)	\$50,000	3-5 years
D6	Cambie Road East to No 8 Rd, No 7 Rd & No 8 Rd from Cambie to PS (Section 4.3.6)	\$1,595,000	5-10 years
D5	Westminster Highway West of No 7 Road (Section 4.3.5)	\$981,000	5-10 years
(I-1). Irrigation- Option 1 Upgrades for Supply from	Phase A	\$647,000	5-10 years (or sooner if funds are available)
	Phase B	\$812,000	
	Phase C	\$722,000	
Total Cost		\$6,722,000	

Note: "D" represents drainage projects and "I" represent irrigation projects.

As discussed in section 1.3.4, each projects detailed design should protect and enhance RMA's to protect and improve water quality.

Table 6.1 – Future Upgrades Recommended by the 2006 Study

Project ID	LOCATION	SCOPE OF WORK (AS PER 2006 STUDY)	RATIONALE IF EXCLUDED
6.1	Sidaway Rd (Blundell Rd to Francis Rd)	Construct 600m of ditch along Sidaway-East to connect the Blundell and Francis ditch systems	Upgrades proposed for Sidaway on Francis to Steveston will reduce the HGL such that this project is not required. Included as low priority project.
6.2	No 6 Rd (Highway 91 to No. 6 Rd Pump Station North)	Re-profile and smooth inverts through 2650m of ditches and storm sewers (delayed due to Kinder Morgan jet fuel pipeline conflicts and scope issues)	Not feasible due to jet fuel pipeline. Also of limited benefit and construction constraints present along No 6 Rd.
6.3	Cambie Rd	Re-profile 4000m of ditches	Approx. 3,200m of cleaning proposed for Cambie ditch. Additional length East of No 8 Rd deemed not required as no flooding is predicted after improvements to Cambie ditch as well as No 7 Rd and No 8 Rd ditches.
6.4	Blundell Rd (No 6 Rd to No 7 Rd)	Construct 1600m of ditch	Not required due to proposed upgrades on Sidaway and No 6 Rd. Proposed Ecovast facility to drain south to Fraser which makes up significant portion of catchment area.
6.5	West Boundary	Install an additional 6 flap gates with manual override along Highway 99 and No. 6 Rd, (1 of the initial 7 proposed was installed in 2008)	Existing gate on Cambie ditch East of No 6 is closed during harvest to prevent water from agricultural areas draining to industrial lots west of No 6 Rd so additional gates are not required.
6.6	No 7 Rd (South of Granville Rd)	Install 1 drop leaf gate to prevent potential irrigation water discharging at the No. 7 Rd South Pump Station	Included as part of irrigation upgrades Option 1
6.7	No 8 Rd (East side between Hwy 91 and Westminster Hwy)	Upgrade 400m of storm sewers (existing sewer is 900mm)	Cannot find rationale for this project in 2006 Study. Irrigation water can be supplied by the temporary flap gate at Hwy 91 and No 8 Rd.
6.8	Westminster Hwy (No 6 Rd to ditch near Karner Rd)	Upgrade / realign 2400m of storm sewers (existing sewer is 600mm increasing to 900mm)	Proposed drainage ditch upgrade in North side of Westminster Hwy between No 6 Rd and No 7 Rd will increase conveyance such that storm sewer upgrade is not required.
6.9	No 6 Rd (Westminster Hwy to Granville Ave)	Upgrade / realign 800m of storm sewers (existing sewer is 800mm)	Proposed drainage upgrade on No 6 Rd south of Blundell Rd to increase conveyance. Included as low priority project.
6.10	No 6 Rd (Granville Rd to No 6 Rd Pump Station South)	Upgrade 3200m of ditches and storm sewers	Proposed drainage upgrade on No 6 Rd South of Blundell Rd to No 6 Rd PS South increase conveyance. Granville Rd to Blundell Rd included as low priority.
6.11	Williams, Blundell & Francis Roads	Upgrade ditches (scope undetermined)	Proposed drainage upgrades on Sidaway Rd and No 6 Rd to improve conveyance such that Williams, Blundell and Francis ditch upgrades are not required.
6.12	Granville Ave Alignment (Sidaway Rd to No 6 Road)	Construct 800m of ditch to connect Sidaway to No. 6 Rd.	Included as part of irrigation upgrades Option 1
6.13	Granville Ave & No 6 Rd	Install screw pump and 2 drop leaf gates (to irrigate Sidaway Rd)	Not feasible or cost effective. See irrigation upgrades Option 1 as alternative solution
6.14	No 7 Rd North PS	Install irrigation pump	See irrigation upgrades Option 1 for alternative solution to adjust gravity intake settings and target irrigation water elevation level
6.15	Blundell Rd (East of No 6 Rd)	Install 1 drop leaf gate	Not required as project was related to new ditch between No 6 Rd and No 7 Rd that is not recommended
6.16		Culvert connecting Nelson Rd to Ewen Rd	Not required due to Westminster Hwy improvements and modifications to surface drainage in the area
6.17		Culvert connecting ditches on the West side of No 6 Rd to Granville Ave Alignment	Not required as Granville Ave alignment ditch upgrades improved conveyance in area
6.18		Flap gates with manual override at No 8 Rd and Westminster Hwy	Existing gate at Hwy 91 serves same purpose and proposed irrigation Option 1 includes 8 gate at No 7 and Granville Ave for area isolation
6.19	General study wide upgrades with low priority in the 2006 Study	Manually operated gate at Nelson-east and Westminster Hwy	Low priority and no concerns raised from local area farmers at time of study
6.20		Drop-leaf gate at No 6 Rd, North of Bridgeport Rd	Not required as existing gate on Cambie Rd ditch controls flow
6.21		Drop-leaf gates at No. 7 Rd and Cambie Rd ditch (both sides of No 7 Rd)	Not required as Cambie Rd ditch cleaning reduced HGL and increased conveyance
6.22		Drop-leaf gate at No 8 Rd and Cambie Rd ditch (on West side of No. 8 Rd)	Not required as Cambie Rd ditch cleaning reduced HGL and increased conveyance
6.23		Deepen ditch along Westminster Hwy between Nelson Rd and Ewen Rd	Low priority and no concerns raised from local area farmers at time of study

Drainage Projects
Irrigation Projects

6.3 Additional Recommendations

Further recommendations and improvements that were discussed at the Staff workshop and require additional investigation prior to inclusion in the current Capital Plan include the following items:

- Survey ground elevation (field elevations) along existing ditch on Cambie Rd (east and west of No 7 Rd). The ground elevation survey should also be completed for low lying areas along Sidaway and No 6 Rd south of Williams Road.
- Review capacity of the No. 7 Road South PS and flood box as it was identified as under capacity in **Table 4.1**
- Consider implementing the following projects identified in the 2006 Study as low priority works:
 - Construct 600m of ditch along Sidaway-East to connect the Blundell and Francis ditch systems
 - Upgrade ditch on east side of No 6 Rd between Granville Rd and Blundell Rd. This will further increase conveyance along No 6 Rd and facilitate supply of irrigation water from North Arm.
- Repair or replacement of the failing headwall at the south ditch box culvert inlet on Cambie Rd just east of No 6 Road
- Ditch cleaning and re-profiling along CN Rail corridor between No 7 Rd and No 8 Rd (City needs permission from the railway for access)
- Ditch cleaning and re-profiling for south side of River Rd from the CN box (Cambie Rd alignment) east to Queens PS
- Box culvert flushing and cleaning for No 6 Rd north drainage corridor and further investigation of the jet fuel pipeline elevations
- Review the need and methods to remove invasive species such as Japanese Knotweed and Parrot Feather.
- Review possibility of lowering the No 7 Rd North PS culvert and impact this would have on the downstream ditch systems
- Create a culvert inspection program for entire study area and in particular a review of who is responsible for maintenance of culverts crossing Hwy 91
- Consider implementing a procedure that requires farmers to identify when and where new outfalls from fields to municipal ditches are constructed
- Coordinate operation of the CN box gravity intake (River Rd and Cambie Rd alignment) between farmers and Operations staff
- Facilitate farmers to coordinate water use from No 7 Rd North PS during harvest

APPENDIX A

Feedback from Open House



City of Richmond

East Richmond Agricultural Water Supply Study Update Public Feedback Form

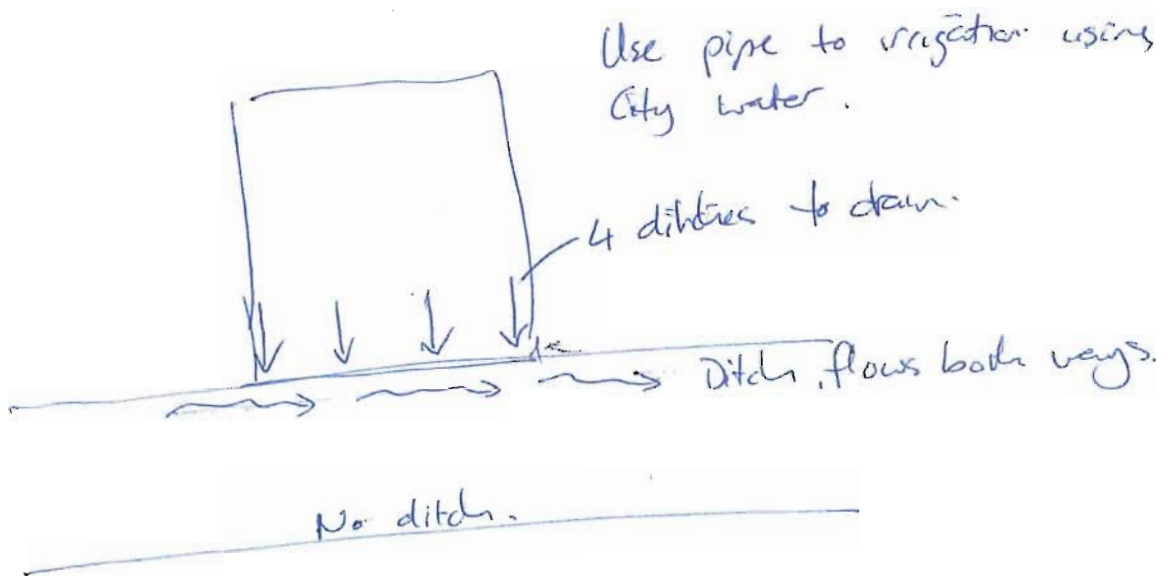
Thank you for taking the time to provide feedback on East Richmond's drainage and irrigation system. Please describe below, successes, concerns or other relevant feedback relating to the City's irrigation and drainage system:

Feedback (Please provide specific information and the property addresses of where it relates to):

15391 Westminster Hwy
- Drainage not effective enough thru winter & spring (Ditch observed to flow in both directions)
- Summer - NO irrigation water
↳ use City water
Water temp too cold
Chlorine is not good for plants - limits vegetable quality.
Cost concerns
Grow Daikun, Bok Choy, Tong Choy, Yau Choy
Chlorine makes Daikun crack
Cold water on ~~Daikun~~ ^{planting} in hot weather damages inside of plant.
Ditch water too high / field too low for City drainage to work well.
Better drainage will allow earlier + better production.
- If water was available in fronting ditch they would use for irrigation.
- hot line ditch not draining into Westminster Hwy ditch (northside)
Please provide your contact details should City staff wish to further discuss your feedback:
Name: Jason Huang Zhi Gang Farm LTD farm owner
Contact Telephone Number: 604 374 0287 / 604-782-8320 (Mr. Su)
Email: karlove2000@hotmail.com
↓
NOT land owner

Your input is important to us and will be compiled and considered within the East Richmond Agricultural Water Supply Study Update. Please submit your comments by **Friday, May 3, 2013 at 5:00 p.m.**

- Fax: 604-276-4197
- Email: andy.bell@richmond.ca
- Mail or drop off at City Hall: 6911 No. 3 Road, Richmond, BC V6Y 2C1
- Online: www.LetsTalkRichmond.ca





City of Richmond

East Richmond Agricultural Water Supply Study Update Public Feedback Form

Thank you for taking the time to provide feedback on East Richmond's drainage and irrigation system. Please describe below, successes, concerns or other relevant feedback relating to the City's irrigation and drainage system:

Feedback (Please provide specific information and the property addresses of where it relates to):

14780 Westminster Hwy

Re 14540

Mr Chan

South ditch - not enough irrigation water (it's there, but low)

No. 6 Rd

Sept. Rain starts. Internal drainage stops working as city ditch water level to high.

bottom ditch not draining

Please provide your contact details should City staff wish to further discuss your feedback:

Name: Mr Chan

Contact Telephone Number: _____

Email: _____

Your input is important to us and will be compiled and considered within the East Richmond Agricultural Water Supply Study Update. Please submit your comments by **Friday, May 3, 2013 at 5:00 p.m.**

- **Fax:** 604-276-4197
- **Email:** andy.bell@richmond.ca
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City of Richmond

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Feedback (Please provide specific information and the property addresses of where it relates to):

15391 Westminster
No. 7 road north of Westminster
perhaps a culvert to cross road to provide
water to farm land on west side of
No. 7 road in summer
discharge/drainage along Westminster Hwy.
Granville ditch maybe too high of mount
~~some~~ red water in summer (14780 Westminster)
Westminster / infilled not
draining properly

Please provide your contact details should City staff wish to further discuss your feedback:

Name: _____

Contact Telephone Number: _____

Email: _____

Your input is important to us and will be compiled and considered within the East Richmond Agricultural Water Supply Study Update. Please submit your comments by **Friday, May 3, 2013 at 5:00 p.m.**

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City of Richmond

East Richmond Agricultural Water Supply Study Update Public Feedback Form

Thank you for taking the time to provide feedback on East Richmond's drainage and irrigation system. Please describe below, successes, concerns or other relevant feedback relating to the City's irrigation and drainage system:

Feedback (Please provide specific information and the property addresses of where it relates to):

I live on Blundell between Sideway & W²⁶ Road. It appears no drainage projects are planned for our area & that is ok with me. We have no ditch drainage problems. However we are seeing more large homes being built on old farm properties & then they build a guest house & tennis court/pool, etc & have everything in between. I can see that if enough homeowners do this, there could be drainage problems in the future as pavement & concrete do not perk.

Please provide your contact details should City staff wish to further discuss your feedback:

Name: D. Whalen
Contact Telephone Number: 604. 230. 3158
Email: de-Whalen@hotmail.com

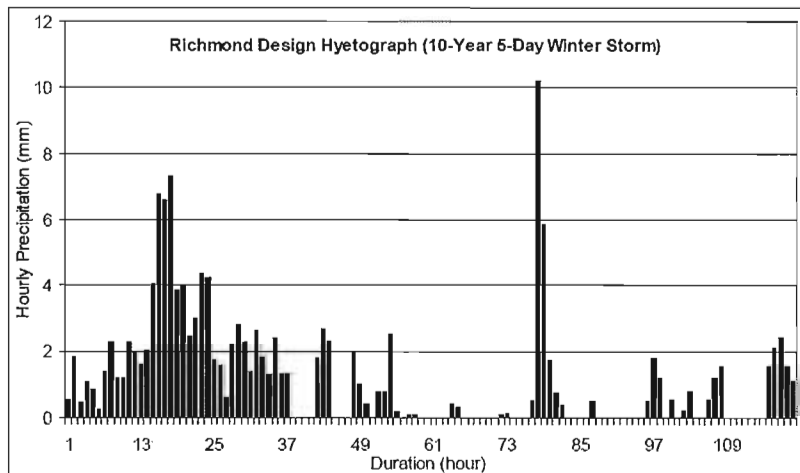
Your input is important to us and will be compiled and considered within the East Richmond Agricultural Water Supply Study Update. Please submit your comments by **Friday, May 3, 2013 at 5:00 p.m.**

- Fax: 604-276-4197
- Email: andy.bell@richmond.ca
- Mail or drop off at City Hall: 6911 No. 3 Road, Richmond, BC V6Y 2C1
- Online: www.LetsTalkRichmond.ca

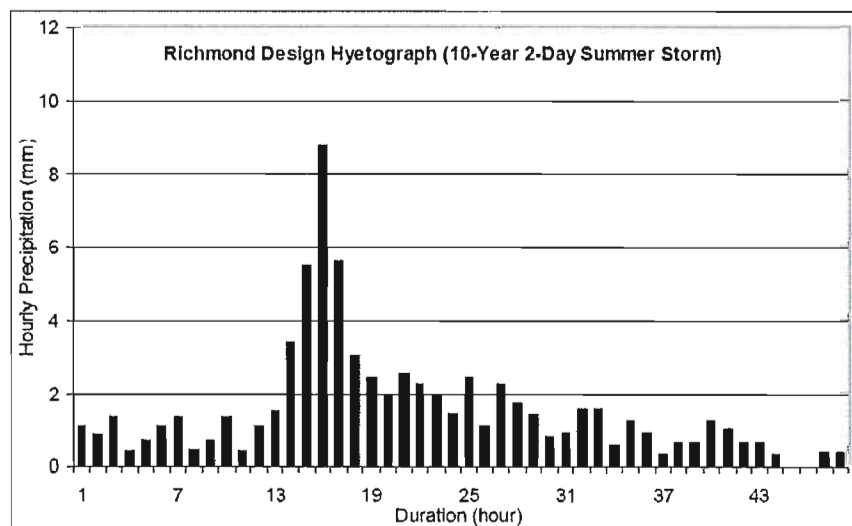
APPENDIX B

Design Storm Hyetographs

Duration (hr)	1	2	6	12	24	48	72	96	120
Intensity (mm/hr)	10.19	8.03	5.43	4.21	3.05	2.05	1.60	1.32	1.18



Duration (hr)	1	2	6	12	24	48
Intensity (mm/hr)	8.80	7.20	4.80	3.45	2.38	1.55





City of Richmond

Report to Committee

To: Public Works and Transportation Committee **Date:** June 30, 2014
From: John Irving, P.Eng. MPA **File:** 10-6150-01/2014-Vol
Director, Engineering 01
Re: Fraser River Dredging and Environmental Considerations for Steveston
Harbour and Sturgeon Bank

Staff Recommendation

That the report titled "Fraser River Dredging and Environmental Considerations for Steveston Harbour and Sturgeon Bank," dated June 30, 2014, from the Director, Engineering, be received for information.

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

Att. 1

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

Staff Report

Origin

Council referred:

1. on April 22, 2014, the article titled *Plan for deeper dredging in Fraser River could have high environmental price* (published April 22, 2014 in Business In Vancouver) to staff for analysis.
2. on February 17, 2014, that staff provide a historical background on the dredging of the Fraser River and report back to Council.
3. and on May 23, 2013, that the matter concerning the Dyke right-of-way at Steveston Harbour be referred to staff to provide information regarding the following:
 1. Ownership of the City owned property east of the rock berm at Steveston Island; and
 2. That Port Metro planning include the potential for a Dyke along the rock berm and Steveston Island.

Background

Staff are actively engaged on several projects and issues around Steveston Harbour and Sturgeon Bank that are interrelated to varying degrees.

This report responds to the above referrals, discusses these issues, identifies significant initiatives in these areas and synergies between these initiatives and staff efforts to ensure the City's interests are addressed.

Analysis

History of Dredging in the Fraser River Main and Secondary Channels

Financial Responsibility for Dredging

Fraser River dredging was initially assigned as a federal responsibility by the *British North America Act*. Maintenance dredging on the river began in the 1880's and Public Works and Government Services Canada (PWGSC) started regular maintenance dredging in 1901. In 1982 the responsibility for maintenance dredging was passed from PWGSC to the Canadian Coast Guard (CCG). The CCG continued maintenance dredging until the 1998 *Canada Marine Act* transferred responsibility for dredging to commercial users and the commercial ports. Subsequent to implementation of the Act, the Fraser River Port Authority chose to conduct maintenance dredging in the main channel of the Fraser River and received a one-time compensation of \$14.5 million from the Federal Government. The Vancouver Fraser Port Authority Historical Review of Lower Fraser River report (EBA, April 2013) indicates that "the

settlement does not obligate the Port to dredge, although they continue to do so. Secondary channels are not included in this framework unless the cost of dredging is fully recovered.”

Local Channel Dredging and Ladner Steveston Local Channel Dredging Contribution Agreement

The CCG dredged secondary channels that had significant commercial vessel utilization until the 1998 *Canada Marine Act* was implemented. There has not been any federal government funding for the secondary channels since 1998.

In 2008, the Fraser River Port Authority, the North Fraser Port Authority and the Vancouver Port Authority combined to become the Fraser River Port Authority which is known as Port Metro Vancouver (PMV). PMV launched the Local Channel Dredging Contribution Program in 2009. This program allocates \$7 million over 10 years for long-term community-based dredging plans. PMV has limited contributions to \$500,000 per local channel over a 10 year period.

In 2013, the Province, PMV, the Corporation of Delta and the City of Richmond entered into the Ladner Steveston Local Channel Dredging Contribution Agreement to provide one-time cost sharing and immediate dredging in Ladner and Steveston under PMV’s management.

Dredging of the western end of Steveston Harbour was completed in early 2014 at a cost of approximately \$1 million. The east end of the harbour still requires dredging. There is further Provincial and City funding available under the contribution agreement, however, PMV has exhausted its dredging funding for Steveston Harbour. Approximately \$4 million of PMV’s \$7 million allocated to secondary channel dredging has been spent or is committed to be spent by the end of 2014.

In February 2014, the Mayor sent a letter to the Provincial Attorney General and Minister of Justice explaining the situation and identifying Steveston Harbour as critical infrastructure. While a long term solution to dredging funding is required, there is a mechanism through PMV’s Habitat Enhancement Program to dredge the east end of Steveston Harbour in the near future.

Staff will continue to work with the Province and PMV to develop a long term funding strategy for dredging Steveston Harbour and other secondary channels.

Main Channel Dredging Depth

Over the last century shipping vessels have grown in size considerably and infrastructure that supports shipping has developed to accommodate larger vessels with deeper drafts. By 1960, PWGSC construction and dredging had developed a main channel profile that accommodated vessels with an 8.7 m draft. In the 1960’s, the depth of the channel was increased to a 9.1 m draft channel and by 1976 PWGSC was committed to maintaining a 10.7 m draft channel. Today, PMV maintains an 11.5 m draft channel.

With the announced the George Massey Tunnel Replacement Project, Fraser Surrey Docks has requested that depth of the Fraser River main channel be increased to accommodate 13.2 m draft ships once the tunnel is removed from service. If such a request were to be realized, other

significant infrastructure under the main channel, including Metro Vancouver water pipelines and Fortis gas pipelines, would require consideration. Additionally, further dredging would exacerbate long term erosion issues at Sturgeon Bank. Recognized Fraser River expert Dr. Michael Church's comments in an April 22, 2014, article in "Business in Vancouver" support the Dike Master Plan's finding regarding the impacts of dredging on Sturgeon Bank erosion and supports Staff's opinion that the proposed additional dredging will exacerbate this existing issue.

While the proposed additional dredging will not alter Fraser River water levels adjacent to Richmond, the erosion of Sturgeon Bank will impact the west dikes flood protection capacity in the long run. Any proposed work related to deeper dredging must be linked to the stabilization of Sturgeon Bank.

PMV Habitat Enhancement Program

PMV has been creating and enhancing habitat in advance of port development projects since 1991. Their program aims to ensure the viability and sustainability of new and enhanced habitat to benefit fish and wildlife. These projects are intended to maintain a balance between the environment and future port development projects.

Steveston Harbour

As part of their Habitat Enhancement Program, PMV is proposing to build a tidal marsh at the east end of Shady Island as environmental compensation for future projects. PMV's proposal includes utilizing previously dredged material deposited on Shady Island and new material resulting from dredging the east end of Steveston Harbour to construct the tidal marsh habitat (Attachment 1). This plan will allow utilization of dry dredgeate material for marsh construction and replacement with fresh dredgeate resulting in no net loss of material on Shady Island. This proposal has the following benefits:

- facilitates one-time dredging of the east end of Steveston Harbour;
- has potential to reduce long term dredging costs by reducing sediment infill via marsh construction; and
- creates tidal marsh habitat, which is essential for juvenile salmon.

The City is working in cooperation with PMV, Small Craft Harbours and the Steveston Harbour Authority under a memorandum of understanding to ensure that any works performed in and around Steveston Harbour, including the proposed marsh, benefit all parties. In particular, reducing sediment deposition and required dredging is a key interest shared by all parties.

The City's Dike Master Plan – Phase 1 proposes to utilize Shady Island as the long-term diking solution for the Steveston area. The plan includes connecting Shady Island to Lulu Island with dikes at each end, maintaining water levels in Steveston Harbour that accommodate existing heritage buildings and harbour infrastructure. The planned dike will include sea gates that will allow water and vessels into the harbour most of the time and will be closed during periods of extreme high water levels. While the Dike Master Plan and the proposed marsh have some common elements, care must be taken to ensure the long-term diking plan is accommodated by any works developed in and around Steveston Harbour, including PMV's proposed marsh lands.

Staff have applied to the Province for access to Steveston Island to perform survey and geotechnical work as part of preliminary engineering work to develop Steveston Island as a dike.

The City owns all of the property on Lulu Island that borders the proposed marsh and has riparian rights associated with this ownership. One of the riparian rights protects the City's access to navigable waters from its upland property. Therefore, if the proposed marsh interferes with this right, the City's permission may be required prior to any development of the proposed marsh.

Staff will continue to work with PMV, Small Craft Harbours and the Steveston Harbour Commission to develop plans that improve Steveston Harbour.

Sturgeon Bank

As identified in the City's Ecological Network Management Plan and the Dike Master Plan – Phase 1, both recently endorsed by Council, Sturgeon Bank is an environmental asset that also provides significant flood protection by dissipating wave energy in front of the west dike. Recent research indicates that the leading edge of the foreshore marsh habitat is receding rapidly (as much as 15 to 20 meters per year over the past 20 years). River training structures and channel dredging have greatly reduced the amount of sediment naturally deposited on Sturgeon Bank and play a large role in this erosion.

The City's Dike Master Plan – Phase 1 identifies potential flood protection issues associated with sea level rise with respect to the west dike. A primary concern is increased wave action on the dike facilitated by deeper water. The Master Plan identifies building barrier islands and strategically placing fill on sections of Sturgeon Bank as a potential long-term response to minimizing the impact of predicted sea level rise on the west dike.

In early 2014, City staff were invited by PMV to participate in a series of discussions to investigate potential habitat restoration works at Sturgeon Bank. The discussions have focused on establishing appropriate baseline reporting, goals, objectives, and next steps required to determine the feasibility of restoration at Sturgeon Bank. Preliminary restoration strategies have been discussed, including the deposit of dredge materials in the Sturgeon Bank tidal flats, with the intention to abate erosion of both the mudflats and the foreshore marsh leading edge (Attachment 1). This approach is congruent with the City's objectives regarding climate change adaptation for the foreshore habitats off of the West Dike as well as the City's Dike Master Plan – Phase 1.

In the late 1970's and again in the 1980's, the Fraser River Port Authority established a tidal marsh on the southern edge of Sturgeon Bank, on the north side of the Steveston Jetty at the mouth of the South Arm. This marsh was initially successful, however, storms caused significant damage to the marsh and it did not recover. PMV is proposing to re-establish and increase the footprint of this marsh with increased storm protection as part of the Sturgeon Bank restoration program (Attachment 1).

Staff will continue to participate in discussions with PMV and other stakeholders regarding the restoration of Sturgeon Bank.

Financial Impact

None at this time.

Conclusion

Funding for dredging operations in Steveston Harbour and other secondary channels has been problematic since 1998 when the Federal Government discontinued funding for dredging operations on the lower Fraser River. The western half of the harbour was dredged earlier this year through a three-way funding agreement between the Province, PMV and the City. PMV is proposing that the remainder of the harbour be dredged as part of a proposal to create marsh land at the east end of the harbour as part of PMV's Habitat Enhancement Program. This proposal has synergy with the City's Dike Master Plan – Phase 1 and could be constructed in a manner that supports both flood management and environmental objectives. PMV may require the City's permission to construct the marsh as the City has riparian rights associated with adjacent property.

Sturgeon Bank provides both environmental and flood protection benefits for the City. There is evidence that the habitat along the leading edge of the foreshore marsh is receding. These issues are influenced by river training structures and dredging that has reduced the transport and volume of sediment that would be naturally deposited on the bank. PMV is exploring habitat enhancement on Sturgeon Bank as part of their Habitat Enhancement Program. PMV has been receptive to staff's efforts to steering the process toward solutions that benefit both environmental and flood protection objectives.



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



Lesley Douglas, B.Sc., R.P.Bio.
Manager, Environmental Sustainability
(604-247-4672)

LD/LB:ld/lb

Att. 1: Map of Proposed Enhancement Projects, Sturgeon Bank and Fraser River South Arm

Attachment 1: Map of Proposed Enhancement Projects, Sturgeon Bank and Steveston Harbour





City of Richmond

Report to Committee

To: Public Works and Transportation Committee

Date: June 25, 2014

From: Tom Stewart, ASCT.
Director, Public Works

File: 10-6370-01/2014-Vol
01

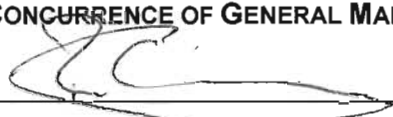


Re: Cigarette Butt Recycling Program

Staff Recommendation

1. That the report titled "Cigarette Butt Recycling Program", from the Director, Public Works, dated June 25, 2014, be received for information.
2. That staff work with Vancouver Coastal Health Authority on strategies to reduce cigarette butt litter at the locations identified in this report.

Tom Stewart, ASCT.
Director, Public Works
(604-233-3301)

Att. 2

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

Staff Report

Origin

At their November 20, 2013 meeting, the Public Works and Transportation Committee referred the issue of cigarette butt recycling to staff, as follows:

That Cigarette Butt Recycling Program be referred to staff to examine:

- i) Whether the City has a cigarette butt problem,*
- ii) The details of the City of Vancouver's program, and*
- iii) If there are cigarette butt recycling programs other than that launched by the City of Vancouver.*

This report responds to this referral and recommends engaging with Vancouver Coastal Health on strategies to reduce cigarette butt litter.

Analysis

Cigarette butts are generally considered the single highest item of discarded litter. According to the Great Canadian Shoreline Cleanup website, over 217,000 cigarette butts were removed through their 2012 clean up programs in British Columbia. Food wrappers and containers were the next highest at over 41,000 items.

In Richmond, there are isolated locations where larger quantities of butts may accumulate; however, the problem is not substantive on a large scale. Locations where larger quantities of cigarette butts will accumulate include:

- the Skytrain stations (Brighthouse, Lansdowne, Aberdeen)
- the Richmond Centre bus stop
- the Chatham Street bus stop (south side, between 2nd Avenue and 3rd Avenue)
- northeast corner of No. 1 Road and Bayview Street

These are typical locations where larger groups of people congregate for somewhat longer periods of time. Currently, the City has installed cigarette butt disposal containers at the Skytrain stations (four at Brighthouse, two at Lansdowne and one at Aberdeen). Staff are currently working to identify more durable containers as replacements due to vandalism issues. It is estimated that 25% of smokers will use these designated butt disposal containers.

Staff's current approach to address cigarette butt litter is on a site-specific basis, however, in a measured manner as part of discouraging the practice of smoking overall. In addition, identifying suitable locations for containers can be challenging given the need to balance City bylaw requirements with those locations where people will typically smoke and how far they will reasonably walk to dispose of their cigarette butts. City Public Health Protection Bylaw 6989 regulates where individuals may smoke, which includes restrictions within 6 metres of building openings or public transit, and 25 meters of any outdoor sport facility or playground (Attachment

1). Operational considerations include selecting a style of cigarette butt disposal container that will minimize vandalism (those attempting to gain access to the butts in the containers), and ensuring containers will minimize rainwater entry to make servicing containers easier.

Vancouver Program for Cigarette Butt Recycling

In November 2013, the City of Vancouver launched a pilot cigarette butt recycling program with TerraCycle. Through this program, TerraCycle provided 110 aluminum canisters and contracted Embers (a charity organization, which helps people living on low incomes to become economically self-sufficient) to assemble and install the canisters. TerraCycle owns the containers and is responsible for their maintenance, although there appear to be some challenges with how the maintenance aspect is being addressed due to a number of broken canisters, etc. The container design also permits some rainwater entry, which makes emptying the containers more difficult. Maintenance challenges are further compounded by vandalism from those who are trying to break into the bins to obtain the butts. These types of issues can present cost and resource implications.

In Vancouver, canisters are emptied by United We Can, a not-for-profit Vancouver-based agency which hires individuals from the downtown east side exclusively. United We Can is responsible for servicing the containers, and attempt to use plunger-type equipment to get all ashes out, use a strainer to drain water, and pick out any garbage, which has been placed in the canisters. This requires dedicated resource effort to service, empty and wipe down containers every two weeks (takes 1-2 employees between 5-9 hours to empty all 110 canisters). Butts must then be packaged and shipped to TerraCycle who pay United We Can an amount per pound (traditionally \$1/lb of cigarette butts), plus \$5/lb is donated to their organization by TerraCycle. As with container maintenance, the cost and resource implications of servicing canisters would need to be evaluated.

Collected cigarette butts are shipped to TerraCycle's head office in Toronto. TerraCycle has indicated that they aggregate and then ship the butts to processors in Pennsylvania or New Jersey for recycling. TerraCycle advises that the cigarette butts are mechanically shredded and separated into paper, tobacco and plastics. The tobacco, paper and ash are composted, and plastics are blended and recycled into plastic items such as plastic pallets, plastic decking and plastic lumber. They gamma radiate the plastics to kill contaminants before being recycled. This recycling process is as described by TerraCycle and has not been verified by staff through cross-party checks, etc.

Some challenges with the program include:

- The need to ensure canisters are in locations which comply with smoking bylaw requirements;
- The marginal effects the canisters have had on cigarette butt litter as noted in media reports;
- Vancouver Coastal Health concerns regarding potential negative public health consequences (e.g. increased second hand smoke exposure, etc.). Vancouver Coastal

Health has advised that the City of Vancouver is scaling down deployment of cigarette butt canisters.

- Staff have been unable to identify any other available recycling processes for cigarette butts. While the recycling process used by TerraCycle has not yet been verified, it is suggested practice to ensure broader access to alternative recycling markets before embarking on any recycling initiative to ensure a fallback approach is available in the event the intended market ceases to exist.

In consultations with Vancouver Coastal Health, they have indicated potential concerns that the presence of recycling containers may create de-facto smoking areas which could increase exposure to second-hand smoke, and could make smoking more socially acceptable. They also have concerns that a partnership with TerraCycle could lend unintended positive exposure and support to the tobacco industry overall, given they are the funding partner for TerraCycle's cigarette butt recycling program. While supportive of initiatives to remove cigarette butts from the environment, Vancouver Coastal Health wants to ensure the focus remains at actions designed to discourage smoking. They have provided the attached letter, Attachment 2, which includes their comments and recommendations on this issue.

Summary Comments

Staff do not recommend implementing a cigarette butt recycling program. It is not clear how effective this program has been overall in reducing cigarette butt litter, and there are important considerations relating to Vancouver Coastal Health concerns respecting unintended consequences such a program could potentially cause, i.e. potential back-peddling on the gains made to reduce smoking and exposure to second-hand smoke.

A collaborative approach with Vancouver Coastal Health which helps to formulate strategies to reduce cigarette butt litter, while at the same time ensuring continued focus on efforts designed to reduce smoking rates overall, may result in greater overall benefit and longer term gains.

Financial Impact

None.

If a similar initiative were implemented in Richmond, estimated cost impacts would include the provision of durable/vandalism-resistant containers, program coordination, and for maintenance and servicing (depending on the scale of the program/number of containers installed).

Conclusion

There are some isolated areas in Richmond where larger quantities of cigarette butts will accumulate; however, the problem is not significant on a broader city-wide scale. The current strategy is to evaluate the level of cigarette butt litter and install designated disposal containers, where required, on a selective basis. This approach helps to reduce cigarette butt litter yet maintain balance with environmental health considerations.

While Vancouver has initiated a cigarette butt recycling program, it is not clear the program has been successful in addressing the issue of cigarette butt litter. In addition, Vancouver Coastal Health has concerns that these types of programs could have unintended consequences in creating greater social acceptance of smoking and negatively impact the significant gains made in the region on smoking reduction programs.

Staff suggest working with Vancouver Coastal Health on strategies to address the cigarette butt litter concerns at the locations noted in this report, and in a manner which continues to support reduced smoking rates and second-hand smoke exposure.



Suzanne Bycraft
Manager, Fleet & Environmental Programs
(604-233-3338)

- Att. 1: Bylaw 6989, Part 6.1 – Areas of Smoking Prohibition
2: Letter from Vancouver Coastal Health Authority dated June 10, 2014

Attachment 1

Bylaw No. 6989

9.

- 5.1.3.2 In the event the order given under the authority of subsection 5.1.3.1 is not complied with, the **Medical Health Officer** is further authorized to enter the property in order to carry out terms of the order to control **rodents** or **mosquitoes**, and in the event the costs are not paid within 30 days after being invoiced, the amount outstanding may be added to and form part of the taxes payable on the property as taxes in arrears."

SUBDIVISION SIX: SMOKING CONTROL AND REGULATION

PART 6.1: AREAS OF SMOKING PROHIBITION

6.1.1 A person must not **smoke**:

- (a) in a **building**, other than:
 - (i) a **dwelling unit**;
 - (ii) a hotel or motel room or suite designated for **smoking** by an **operator**; or
 - (iii) enclosed **premises**:
 - A. that are not open to the public; and
 - B. where the only occupants of the **building** are the owner or owners of the **business** carried on in the **building**;
- (b) in a **vehicle for hire**, other than in Class J (rental vehicles) and Class M (tow trucks);
- (c) in a **vehicle** when any other occupant of the **vehicle** is under the age of nineteen (19) years of age;
- (d) in, or within three (3) metres of, an enclosed or partially enclosed shelter where persons wait to board a **vehicle for hire** or public transit;
- (e) within six (6) metres of a sign post or sign indicating where persons wait to board a **vehicle for hire** or public transit;
- (f) within six (6) metres measured on the ground from a point directly below any point of any opening into any **building** including any door or window that opens or any air intake;
- (g) in a **customer service area**; or
- (h) within six (6) metres of the perimeter of a **customer service area**.

February 27, 2012

3482053

Attachment 1 (Cont'd)

Bylaw No. 6989

10.

6.1.2 Except as permitted in section 6.1.1, a **responsible person** for any of the following:

- (a) a **business** which occupies a **building** or **premises**;
 - (b) a hospital or health clinic;
 - (c) a **place of public assembly**;
 - (d) a **customer service area**;
 - (e) the **common area** of a **building**;
 - (f) a **building, premises** or facility that is owned or leased by the **City**, other than a rented one-family dwelling or **dwelling unit**; or
 - (g) a **vehicle for hire**, other than Class J (rental vehicles) and Class M (tow trucks)
- must not permit, suffer or allow a person to **smoke** while the person is:
- (h) within any such **building, premises, place, common area, customer service area** or **vehicle for hire**; or
 - (i) within any area described in subsections 6.1.1 (e) and 6.1.1 (g), except to the extent that all or part of such area is not part of the parcel on which the **building** or **customer service area** is situated and is not an area over which the **responsible person** has possession or control; and

in accordance with Part 6.2, must post and maintain a sign indicating that **smoking** is prohibited within that **building, premises, place, common area, customer service area** or **vehicle for hire**.

PART 6.2: SIGN REQUIREMENTS

6.2.1 A person who is required to post and maintain a sign under this Subdivision must ensure that each required sign:

- (a) is **prominently** displayed and maintained at the **location** where the sign is required;
- (b) carries the text "No Smoking", in either capital or lower case letters or a combination of both;
- (c) consists of two contrasting colours, or if the lettering is to be applied directly to a surface or to be mounted on a clear panel, the lettering must contrast with the background colour;

February 27, 2012

3482053

Attachment 2



Office of the Medical Health Officer
Vancouver Coastal Health – Richmond
9th Floor - 8100 Granville Ave.
Richmond, BC V6Y 3T6

June 11, 2014

Ms. Suzanne Bycraft
Manager, Fleet and Environmental Programs
City of Richmond
6911 No. 3 Road
Richmond, BC V6Y 2C1

Dear Ms. Bycraft,

Re: Cigarette Butt Recycling

Thank you very much for contacting VCH Public Health regarding cigarette waste. We understand that the City is exploring options to reduce cigarette butt litter in public spaces. We also understand that one of the options the City is considering is a project similar to TerraCycle's Cigarette Waste Brigadeⁱ. We offer the following comments as the City's public health agency.

While we do recognize the need to reduce cigarette litter, Vancouver Coastal Health does not support the TerraCycle Cigarette Waste Brigade program or anything similar. Cigarette butt receptacles often become unofficial designated smoking areas and create a higher concentration of secondhand smoke wherever they are placedⁱⁱ. Moreover, TerraCycle's Cigarette Waste Brigade is funded by Imperial Tobacco^{iii iv}, the largest tobacco company in Canada, a company whose product will kill up to 50% of long-term users^v.

With less than 8% of the residents currently smoke (Healthy Richmond Survey 2012), the City of Richmond has one of the lowest smoking rates in BC, an achievement that I am sure the City would like to see sustained. However, installing cigarette waste receptacles throughout the City is an unproven method^{vi} with potential unintended negative public health consequences^{vii}.

In communities where they have been installed, these receptacles are often placed within designated no-smoking zones in front of doors, windows and air intakes. This kind of a placement has the potential to undermine the City of Richmond's Public Health Protection bylaw, skirt efforts to de-normalize public smoking, and contribute to an increased concentration of toxic secondhand smoke in the area when tobacco users congregate around the waste receptacle^{viii}. As the City Staff Report indicates, 75% of the smokers simply choose to ignore the receptacle; therefore installation of receptacles is inadequate in addressing the cigarette butt litter issue.

The Cigarette Waste Brigade, while seeming well intentioned, is a tobacco industry funded initiative. A review of the tobacco industry documents released through court order demonstrated that "the tobacco industry's cigarette butt litter programs had three goals: (1) to 'prevent' cigarette litter from

Attachment 2 (Cont'd)

impacting the social acceptability of smoking ; (2) to 'remove' cigarette litter as an issue leading to bans/restrictions and (3) to ensure that the tobacco industry was not held practically or financially responsible for cigarette litter (the industry argues that 'the responsibility for proper disposal lies with the user of the product').^{ix} The World Health Organization considers such programs as tobacco industry interference with tobacco control activities^x. Cigarette butts currently being made in Canada are non-biodegradable and are the number one littered item in our country^{xi} and the world^{xii}. Programs such as TerraCycle's Cigarette Waste Brigade gives the false impression to environmentally conscious consumers and members of the public that the solution to cigarette litter is cigarette butt recycling rather decreasing tobacco consumption^{xiii}.

There are solutions for addressing cigarette butt litter that align with positive public health outcomes. A comprehensive solution developed in partnership with Vancouver Coastal Health could include social marketing strategies to shift public attitudes on littering, litter clean up strategies including a deposit return program, fines for littering, strengthen existing city bylaws to further reduce smoking in public places, and implementation of a waste tax to fund these efforts. An example of a successful program is the City of Edmonton's Capital Cleanup Program which could serve as a model^{xiv}. Another example is a cigarette waste tax that has been implemented in municipal jurisdictions such as San Francisco to fund cigarette litter clean-up programs.

In finding a solution to cigarette waste, we encourage the City to be wary of being unwittingly co-opted into being part of the tobacco industry's marketing strategy. The City of Vancouver unfortunately made the decision to engage TerraCycle Cigarette Waste Brigade last year without Vancouver Coastal Health's prior knowledge. Vancouver is currently scaling down the deployment of the TerraCycle receptacles. The City of North Vancouver recently decided not to engage the TerraCycle Cigarette Waste Brigade after being made aware of the link to the tobacco industry. Vancouver Coastal Health would be more than happy to work with the City to develop a comprehensive approach to decreasing cigarette butt litter in Richmond.

Yours truly,



Dr. James Lu MD, MHSc
Medical Health Officer, Richmond
Vancouver Coastal Health

CC Claudia Kurzac, Manager Health Protection Richmond, VCH
Dalton Cross, Senior Environmental Health Officer, VCH

Attachment 2 (Cont'd)

**Office of the Medical Health Officer**

Vancouver Coastal Health – Richmond
9th Floor - 8100 Granville Ave.
Richmond, BC V6Y 3T6

- ⁱ Canadian Press. (2013, December 11). TerraCycle's Vancouver cigarette recycling project is world's first. Retrieved from http://www.huffingtonpost.ca/2013/11/12/terracycle-cigarette-waste-brigade-vancouver_n_4262352.html
- ⁱⁱ Wilson, N., Edwards, R., & Parry, R. (2011). A persisting secondhand smoke hazard in urban public places: results from fine particulate (PM_{2.5}) air sampling. *Journal of the New Zealand Medical Association*, 124 (1330).
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City of Richmond

Report to Committee

To: Public Works and Transportation Committee

Date: June 26, 2014

From: Tom Stewart, AScT.
Director, Public Works Operations

File: 10-6375-05/2014-Vol
01

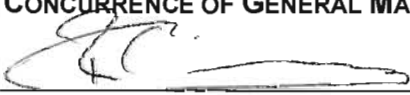


Re: Report 2013: Achieving Goals Through Community Engagement

Staff Recommendation

That the annual report titled, "Report 2013: Achieving Goals Through Community Engagement" be endorsed and made available to the community through the City's website and through various communication tools including social media channels and as part of community outreach initiatives.

Tom Stewart, AScT.
Director, Public Works Operations
(604-233-3301)

Att. 1

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

Staff Report

Origin

The City has established a waste diversion target of 70% by 2015, aspiring to 80% by 2020 in accordance with the regional Integrated Solid Waste and Resource Management Plan (ISWRMP). As well, the City's vision for sustainability includes a key goal to be a Recycling Smart City. The City offers a number of waste reduction and recycling programs to the community in working toward these targets. To help support full utilization of recycling programs and services in Richmond, the City also implements a range of communication and outreach programs to ensure residents are aware of the services available and understand how to use them.

The annual "Report 2013: Achieving Goals Through Community Engagement" (The Report) is presented (Attachment 1) to track progress on these programs and report back to the community. This report summarizes Richmond's comprehensive programs, highlights results achieved in 2013, provides insights into upcoming initiatives, and includes tips and resources to support recycling and sustainable waste management.

This report supports Council's Term Goal #8 Sustainability:

8.1: Continued implementation and significant progress towards achieving the City's Sustainability Framework, and associated targets. A key component of the sustainability framework is the Solid Waste Strategic Program within the goal area of Sustainable Resource Use.

Analysis

The Report highlights outcomes from the expanded services, introduced in 2013, and the importance of communication, outreach and community engagement as key to supporting residents in their recycling. The City continues to expand its services to provide convenient recycling programs that are easy to use, and each year increases the range of products accepted at the Richmond Recycling Depot. At the same time, the City has remained committed to ensuring residents are informed about the progressive suite of recycling services available to them, including details on how to use each program. Success with this combination of service delivery and outreach is measured by the continued increase in recycling and waste diversion along with continued low contamination levels thanks to residents sorting their recycling properly.

The most notable success measure for 2013 is the achievement of 70% waste diversion for single-family residents – two years ahead of the goal for 2015. This is an increase of 9% over 2012 levels. With the launch of the new Green Cart program, increasing amounts of food scraps and yard trimmings were collected curbside in 2013, i.e. nearly 4,000 tonnes more than the prior year. The new Large Item Pick Up program launched in June 2013 increased access to residents for disposing of large items from the convenience of their curbside. In 2013, over 8,235 items were collected with approximately 200 tonnes recycled.

The Report features outreach and community engagement as a key contributor to increased recycling at home and while at community events thanks to hosted recycling stations by Richmond's Green Ambassadors. City staff reach out to the community by hosting recycling displays at local shopping centres to share information and educational materials, answer questions and engage community members in fun activities that emphasize how to use recycling programs. Richmond's outreach also includes connecting with students who share their commitment to recycling at school and at home. Richmond's partnership with schools provides important recycling and litter management information to students using fun and engaging shows, and then reinforces those behaviours through contests that turn the new ideas and tips into action.

The "Report 2013: Achieving Goals Through Community Engagement" highlights key accomplishments, which included the:

- Achieved 70% waste diversion from single-family homes.
- Recognized with a Golden Shovel Award for excellence in environmental leadership and stewardship.
- Launched the new and enhanced Green Cart program to single-family homes and expanded the program to include townhomes who also receive City garbage and/or Blue Box Recycling services.
- Launched the new Large Item Pick Up program.
- Initiated a multi-family food scraps recycling program to test options for Green Cart recycling.
- Expanded collection services including Styrofoam, batteries, cell phones and plastic bags, as well as completed surface improvements at the Richmond Recycling Depot.
- Expanded communication and community outreach, including student engagement through the Green Ambassador program along with educational shows and contests for elementary school students.
- Assisted with more than 20,000 calls on the Environmental Programs Information Line and completed updates to the Integrated Voice Response (IVR) system tailored to customer information priorities.
- Expanded on-line tools and resources through the City's website including on-line purchase of extra garbage tags for curbside pickup, and garbage disposal vouchers for use at the Vancouver Landfill.

Proposed Communication

Subject to Council's approval, the annual "Report 2013: Achieving Goals Through Community Engagement" will be posted on the City's website and made available through various communication tools including social media channels and as part of community outreach initiatives.

Report 2013 Overview

The 2013 report contains four chapters that summarize outcomes and accomplishments in current waste management and recycling services, and highlights the variety of public education/community outreach programs delivered across the city. The report also includes a

comprehensive tips and resources section. The report content features information to raise awareness about how recycled materials are used as a new resource, and tips for residents to help them connect with City and product stewardship programs for disposing of a variety of items.

A summary overview of each chapter follows.

Chapter 1: Annual Outlook – Community Engagement to Increase Recycling highlights the importance of communication and outreach to increase awareness about programs and how to use them, as well as community engagement to gain insight into what residents want in their recycling programs. The Annual Outlook features the achievements from the past year, including the valuable contributions by Green Ambassadors, and the continued success of partnership with schools. This section also provides a brief summary of the new initiatives and service targets for the upcoming year.

Chapter 2: Programs and Services – Expanding Services to Make Recycling Easy and Convenient describes the City's comprehensive recycling and waste reduction initiatives and highlights how each program contributes to overall diversion targets and sustainability goals. Details on the quantities collected through programs such as Blue Box, Blue Cart, the Recycling Depot, Yard Trimmings Drop Off, Green Cart, the Multi-family Green Cart Pilot Program and litter collection services are provided. This section also includes helpful information on tipping fee trends, materials that are banned or prohibited from disposal, and measures the City takes to promote recycling space in commercial and multi-family buildings.

Chapter 3: Outreach and Customer Service – Connecting with Community for Shared Success presents the City's commitment to support waste reduction and reuse by providing residents information and education through workshops and displays. Our extensive public education and community outreach initiatives aim to raise awareness and foster sustainable behaviours where recycling and waste reduction practices become a way of life. Free workshops on composting, waste reduction, eco-cleaning, reuse and more are offered throughout the year, as are outreach displays at various events and in local shopping centres. City staff partner with the Richmond School District to engage both high school and elementary school students to promote sustainable stewardship behaviours. They learn about how to recycle and reduce litter, and then they practice those skills through school contests. City staff members also mentor the high school Green Ambassadors by hosting information-sharing meetings and coordinating these volunteers as they assist with public spaces recycling centres at community events.

Chapter 4: Tips and Resources – This section provides a comprehensive guide to recycling. It includes specific information on how and what to recycle in the City's Blue Box, Blue Cart and Green Cart programs. There is information on how to compost at home, the items accepted for recycling at Richmond's Recycling Depot, and what to do with many household items ranging from flower pots to recyclable mattresses and box-springs. The resources section also includes information on what to do with special waste items and banned materials, including recycling and disposal options through take-back programs. There is also contact information and locations for Richmond services and community partners involved in stewardship programs.

Moving Forward

As the City continues to grow and expand our services to further advance toward 70% waste diversion for all residents, key focus areas going forward include:

- Expand Blue Box and Blue Cart recycling through partnership with Multi-Material BC (MMBC),
- Explore initiatives to increase recycling in multi-family, mixed use and potentially the commercial sector,
- Expand food scraps recycling for residents in multi-family developments,
- Build on enhanced community outreach to increase participation in existing and emerging recycling programs,
- Expand organics recycling at City facilities,
- Conduct a building demolition waste recycling pilot project,
- Adopt a policy with recycling targets for waste reduction and recycling of materials from demolition and construction activities at City facilities,
- Continue to expand and broaden the City's public spaces recycling program,
- Explore Eco-Centre concept, including possible expansion of services at the Richmond Recycling Depot; and
- Continue involvement in regional planning and implementation efforts for the ISWRMP.

Financial Impact

None. Programs related to solid waste that impact service levels are brought to Council for review and consideration throughout the year.

Conclusion

Through the annual "Report 2013: Achieving Goals Through Community Engagement", the City is providing its residents with a progress report of the many recycling and waste management programs and activities delivered in the community. The report also serves as a comprehensive resource and guide that supports recycling, reuse and reduction activities throughout the year. By tracking progress towards its goals for waste diversion and reporting this to the community, the City is demonstrating Richmond's commitment to responsive services, responsible government and accessible information and communication.

It is through residents' participation and commitment to recycling that those living in single-family homes have achieved 70% waste diversion in 2013 – two years ahead of the 2015 target. Future years will see continued efforts to expand recycling services to residents in multi-family homes as part of helping all residents work toward achieving the 70% waste diversion target.



Suzanne Bycraft
Manager, Fleet & Environmental Programs
(604-233-3338)



ACHIEVING GOALS THROUGH COMMUNITY ENGAGEMENT

Let's trim our waste!





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Let's trim our waste!

RICHMOND IS A RECYCLING SMART CITY
WE'RE MAKING IT EASY
CONVENIENT TO RECYCLE

1

GREENCART

MIXED P

**EXPANDING
OUTREACH
TO ACHIEVE
OUR GOALS**

2

2013 REPORT • ACHIEVING GOALS THROUGH COMMUNITY ENGAGEMENT

ANNUAL OUTLOOK

COMMUNITY ENGAGEMENT TO INCREASE RECYCLING

AWARENESS ABOUT RECYCLING IS INTEGRAL TO ACHIEVING GOALS

With its extensive array of programs and services, the City of Richmond makes it easy and convenient for residents and visitors to recycle, but its ultimate success lies with the community. Thanks to residents who use the City's recycling programs, those living in single-family homes are now diverting 70% of their waste from the landfill – two years ahead of schedule.

This resounding success is due to the City's formula of implementing recycling programs and services tailored to residents' needs and interests, combined with effective communication and community outreach. The City intends to build on recycling services available to residents in multi-family homes to also help them reach the 70% waste diversion target by 2015. Richmond recognizes that simply providing services is not enough. It's equally important to raise awareness about why recycling is needed, provide details on the programs available, and provide instructions on how to use each program. Community engagement is the essential link to maximize the benefits of City recycling programs by prompting increased participation in recycling. Residents not only have access to services, they understand how to use each program and take personal ownership of their household recycling and waste management. Their commitment to recycling translates into Richmond's success as it strives to be a Recycling Smart City.

Community engagement and outreach are particularly important when introducing new programs. In 2013, Richmond launched its new and enhanced Green Cart program, which involved more than 29,000 single-family homes and 11,000 townhomes. The Green Cart program was an enhanced service for single-family homes and a new service for townhomes. To reach residents and the community overall, Richmond applied multiple communication tactics ranging from direct communication to homeowners to broader community information campaigns. Richmond designed its communication materials to address barriers such as resistance to food scraps recycling, and reinforced key messages about the upcoming ban on food scraps disposal and the easy steps to use Green Carts. The success of its communication outreach and operational planning was evident during the seamless launch of the new program followed by extensive use of Green Cart recycling throughout the community.

In addition to the Green Cart program roll out, Richmond continued to expand its recycling services in 2013 through both its curbside collection programs and drop-off options at the Richmond Recycling Depot. Richmond's Recycling Depot expanded the materials accepted to include Styrofoam, used books, batteries, cellphones and plastic bags. The City's new Large Item Pick Up program was also launched in 2013, making it easier for residents to recycle and safely dispose of larger household items like appliances and furniture.

To help ensure residents can maximize the benefits of these programs, Richmond created new information materials and hosted information displays to raise awareness about how to recycle. The redesign of the Richmond Collection Calendar for 2013 provided a more user-friendly reference guide to the many City services available, along with tips and information on the most recent program enhancements. Residents learned about the new programs and initiatives through information kits delivered to their homes, newspaper advertising, transit shelter ads and online via the City's website and Facebook page. Richmond also provided helpful seasonal reminders, such as tips for recycling pumpkins following Halloween and ideas for reducing waste and increasing recycling during the Christmas holidays.

CITY OF RICHMOND

Residents in single-family homes achieved 70% waste diversion in 2013 – two years ahead of schedule!

In addition to these communication methods, Richmond goes out into the community to share information and provide tips and resources residents can use at home. Staff reach out to residents at hosted displays in local malls, including Richmond Centre, Aberdeen Mall and Yaohan Centre and through information sessions with residents and townhome stratas. Staff and volunteers help with recycling at community festivals and other events, and engage people through games and other activities. These event recycling centres and information displays help to raise awareness about recycling in Richmond.

Richmond's youth are integral to generating awareness and understanding about how to recycle and why it's important to our future. As members of Richmond's Green Ambassador program, these youth volunteers dedicate hundreds of hours to help at events, share their expertise in recycling and demonstrate leadership in the community. Their energy, enthusiasm and commitment to environmental stewardship are a tremendous asset in the community. In 2013, more than 185 students volunteered as Green Ambassadors to support community outreach.

As well, the City's outreach includes educational programs. Working with the school district, the City funds entertaining theatrical programs at elementary schools to promote the importance of recycling and keeping the City litter free. As well, Richmond offers free workshops that promote recycling and waste reduction using simple tactics that can easily be applied at home. More details on these programs are highlighted in the Outreach and Customer Service section of this report.

Together, the combination of effective, responsive services and proactive community engagement and outreach have helped Richmond achieve its goals to reduce waste and increase recycling as a more sustainable approach to waste management. With residents in single-family homes now recycling 70% of their waste, the City is well-positioned to move forward towards the aspirational goal for 80% reduction by 2020 for these residents. The City also intends to review added recycling services for residents in multi-family complexes to help them achieve stated recycling objectives. The City remains committed to achieving excellence in its recycling services to benefit all residents today and in the future.

THREE EASY STEPS

Richmond can achieve its targets with the help of community commitment to these three easy steps to reduce waste:

RECYCLE

RAMP UP RECYCLING – EXPAND YOUR RECYCLING TO INCLUDE FOOD SCRAPS AND OTHER MATERIALS ACCEPTED THROUGH CITY COLLECTION SERVICES, THE RECYCLING DEPOT AND TAKE-BACK PROGRAMS.



REDUCE

BE CHOOSY WHEN YOU SHOP – SELECT PRODUCTS WITH MINIMAL OR NO PACKAGING, LIKE USING A MUG INSTEAD OF A PAPER CUP.



REUSE

DONATE BEFORE YOU DISPOSE – CONSIDER DONATING OR SELLING GENTLY USED PRODUCTS.



2013 REPORT • ACHIEVING GOALS THROUGH COMMUNITY ENGAGEMENT

OUR GOALS

Richmond has set its long-term goal to be a Recycling Smart City and has established annual goals to help achieve this target. Each goal is designed to provide easy and convenient services for residents, along with creating opportunities for innovation, partnership and continuous improvement.



CITY OF RICHMOND

OUR TOP ACCOMPLISHMENTS IN 2013

The following are some of the key accomplishments in 2013:

GREEN CART PROGRAM

Implemented the new and enhanced Green Cart program for recycling food scraps and yard trimmings to reach approximately 41,000 single-family homes and townhomes. In the first four months, single-family residents were recycling 68% of their garbage – up 7% from the prior year.

COMMUNITY OUTREACH

Hosted 18 Information displays and coordinated 14 adult workshops about composting, harvesting compost, eco-cleaning and how to make used items new again.

GOLDEN SHOVEL AWARD

Recognized for environmental leadership and stewardship with the "Golden Shovel Award" presented by Harvest Power.

RECYCLING DEPOT IMPROVEMENTS

Upgraded the Richmond Recycling Depot through paving to improve surfaces and reduce dust, and expanded accepted materials to include Styrofoam, books, batteries, cell phones and plastic bags.

LARGE ITEM PICK UP PROGRAM

Introduced a new Large Item Pick Up program to approximately 41,000 single-family homes and townhomes as an added level of service to make it easier for residents to recycle and safely dispose of large household items. Over 325 tonnes of materials have been collected in 2013 for proper disposal and recycling.

CUSTOMER SERVICE

Updated the Integrated Voice Response service and assisted with more than 20,000 customer calls to the Environmental Programs Information Line. Sold 68 compost bins, 9,261 Garbage Tags and 853 Garbage Disposal Vouchers out of the City's Recycling Depot and other City facilities.

MULTI-FAMILY FOOD SCRAPS PILOT

Launched a 15-month pilot program for food scraps recycling in apartments and condominiums involving approximately 5,500 units to test options for effective Green Cart recycling in these complexes.

STUDENT ENGAGEMENT

Sponsored the second annual Richmond Earth Day Youth (REaDY) Summit, involving more than 400 delegates from eight high schools with leadership by 120 Green Ambassadors who assisted at the event. Engaged students and staff through theatrical productions to raise awareness about recycling, litter problems and reducing waste and reinforced benefits through two school contests: "My School Sparkles" and "Zero Heros" involving more than 3,800 students and 200 teachers.



THANK YOU RICHMOND RESIDENTS

70% waste diversion goal achieved by single-family residents in 2013!

Richmond's goals to reduce waste are being achieved through the dedication of Richmond residents, and 2013 is a year to celebrate thanks to their commitment to recycling. This past year, residents in single-family homes achieved the City's goal to keep 70% of household waste out of the landfill. This important target has been achieved two years ahead of schedule, and the credit for this achievement goes to the residents who make it a priority to recycle using the City's Blue Box program, Green Cart program and Richmond Recycling Depot. The City will continue to work with all residents to increase recycling, including expanding services and engaging residents living in multi-family complexes like condominiums, townhomes and apartments.

Residents are also integral to the design and implementation of new programs and services. Thanks to their feedback through pilot programs, surveys and input at community displays, Richmond is gaining insight into opportunities for enhancing services tailored to the needs and interests of residents. Through community engagement and outreach, Richmond is proud to connect with residents to increase awareness of the many recycling and take-back programs and services available, as well as provide tips and resources to ensure that recycling in Richmond remains easy and convenient for all residents.

Working together, residents, community, industry partners and the City of Richmond can achieve targets to reduce garbage and create a more sustainable approach to waste management. Thank you for recycling, for reducing waste and for sharing ideas and feedback that contribute to this continuous improvement.

DID YOU KNOW?

It's more expensive to dispose of garbage than it is to recycle. Garbage disposal costs are currently about 40% higher than recycling costs, and landfill fees continue to increase. This means recycling is not only good for the environment, it's also more cost effective too.

CITY OF RICHMOND

2

FIRST TARGET ACHIEVED IN 2013

*****8

2013 REPORT • ACHIEVING GOALS THROUGH COMMUNITY ENGAGEMENT

PROGRAMS AND SERVICES

EXPANDING SERVICES TO MAKE RECYCLING EASY AND CONVENIENT

Richmond residents in single-family homes are now diverting 70% of their waste, and recycling is increasing in townhomes and other multi-family complexes. To support residents and their commitment to recycling, Richmond continues to expand opportunities for residents to recycle by creating new and enhanced programs for recycling at home and when on the go in the community. To support use of new programs, Richmond makes communication and community engagement a priority to encourage and assist residents as they expand their household recycling. Residents can also drop off a growing list of recyclable items at the City's Recycling Depot and other drop-off facilities.

Richmond works with residents, industry partners, product stewardship groups and businesses to achieve its goal to be a Recycling Smart City and implement sustainable waste management.



Residents in single-family homes are now diverting 70% of their waste.



RICHMOND RECYCLING AND WASTE MANAGEMENT

Richmond delivers a wide range of recycling and waste management services for residents to ensure that all waste is managed effectively and efficiently, and adheres to sustainability principles. In 2013, Richmond began work with industry partners to explore opportunities to expand Blue Box and Blue Cart recycling. The following are the key recycling and waste management services offered through the City of Richmond.

BLUE BOX

Weekly curbside collection for recycling paper and newsprint, glass, plastic containers, and tin and aluminium containers. This program is provided to more than 40,220 residential units in single-family homes and townhomes. For details on this program, see page 32.

BLUE CART

Weekly recycling collection for paper and newsprint, glass, plastic containers, and tin and aluminium containers. This program is provided to more than 29,545 multi-family units. For details on this program, see page 34.

GREEN CART

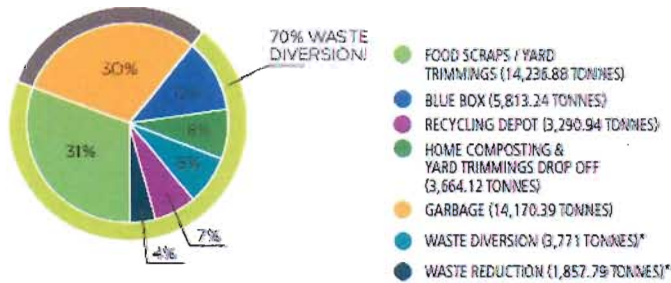
Curbside collection for recycling foods scraps and yard trimmings. This program is provided to residents in single-family homes and some townhomes. For details on this program, see page 36.

RECYCLING DEPOT

Drop-off service for products ranging from yard trimmings and household items, to hazardous materials and take-back program products. This service is available to all residents and in limited quantities for commercial operators. The Depot also sells compost bins, rain barrels, Garbage Tags and Garbage Disposal Vouchers for use at the Vancouver Landfill. For details on this program, see page 40.



SINGLE-FAMILY RECYCLING



Residents in single-family homes recycled or reduced nearly 32,633.97 tonnes in 2013 – 70% of total estimated waste generated – through a number of recycling and waste reduction opportunities, including curbside and Recycling Depot collection, as well as composting programs.

* Estimated

GO! RECYCLE PUBLIC SPACES AND EVENT RECYCLING

Recycling bins in the community make it easy to recycle on the go, such as in parks, at community centres, in the Steveston business district and at the Canada Line stations and Richmond central bus stop.

COMPOSTING AT HOME

Support for residential composting includes the sale of compost bins, a composting demonstration garden and related workshops. These services are available to all residents. For details, see page 37.

CURBSIDE GARBAGE COLLECTION

Curbside collection of garbage, not including banned items such as hazardous waste and materials that can be recycled, is available to residents in single-family homes and some townhomes. For details, see page 38.

EXTRA GARBAGE DISPOSAL

Garbage disposal tags and vouchers for the Vancouver Landfill provide options for residents when they need to dispose of additional garbage or large items. For details, see page 38.

LARGE ITEM PICK-UP PROGRAM

Residents in single-family homes and some townhomes can arrange for curbside collection of four large household items per year. For details, see page 39.

COMMUNITY AND SCHOOL ENGAGEMENT

Through partnerships with students, teachers and the School District, Richmond sponsors educational shows, awareness programs and volunteer opportunities to increase understanding of recycling and the benefits of reducing waste. For details see the Outreach and Customer Service section on page 25.

DID YOU KNOW?

Plastic takes one million years to break down in a landfill, whereas recycled plastic can be used to make bottles, clothing, carpet, picnic tables, drainage pipes, bags, trash cans, paneling, flower pots and pallets.



RESIDENTIAL RECYCLING PROGRAMS

With weekly collection services, drop-off programs, public spaces recycling and community take back programs, it's easy and convenient to recycle in Richmond. Richmond offers residents a range of services to support recycling at home and on the go.

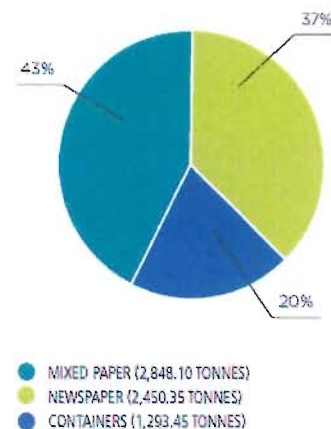
BLUE BOX RECYCLING PROGRAM

The Blue Box Recycling program provides convenient collection services in the community. Residents in single-family homes and some townhome complexes use the City's Blue Box program to recycle newspaper, paper products and cardboard along with tin, aluminium, glass bottles and jars, and plastic containers. More than 40,220 residential units are serviced with weekly collection under this program.

In 2013, more than 6,590 tonnes of materials were recycled in the Blue Box program. Of this, 43% was mixed paper, 37% was newspaper and 20% was co-mingled containers.

Items that can be recycled through this program are listed in the Tips and Resources section of this publication and at www.richmond.ca/recycle.

BLUE BOX RECYCLING MIX



BLUE CART RECYCLING PROGRAM

People who live in multi-family complexes can recycle the same products as residents who use the Blue Box program through the City's Blue Cart recycling program. The City provides recycling carts for a mini-recycling depot at each complex, which is generally located in the garbage enclosure or other convenient location. This service is currently available to over 29,545 multi-family units, and the City has information tools such as Blue Cart decals, posters and brochures that are offered to stratas and property managers to help raise awareness and increase participation.

In 2013, more than 2,220 tonnes of materials were recycled through the Blue Cart recycling program.

For a detailed list of items that can be recycled through the Blue Cart recycling program, see the Tips and Resources section or visit www.richmond.ca/recycle.



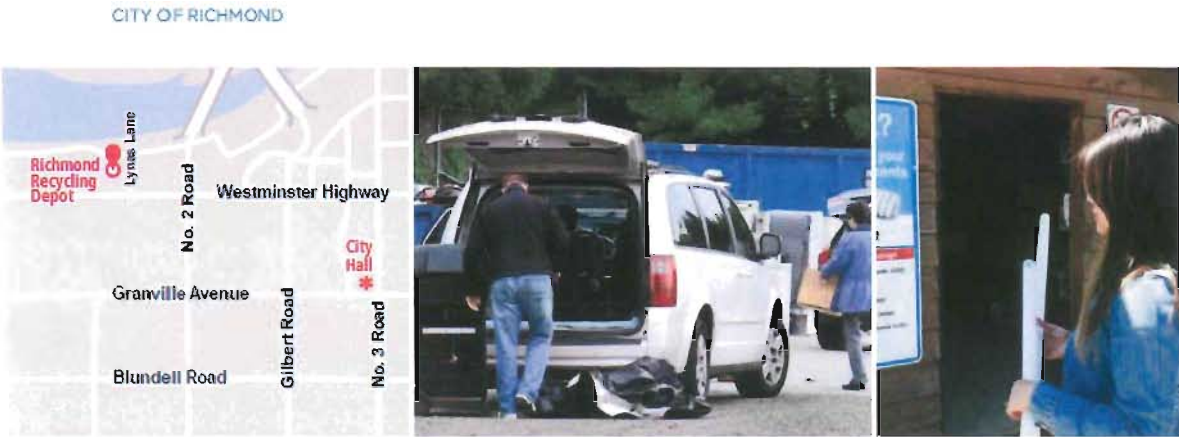
TIP FOR RESIDENTS

Residents in single-family homes and some townhomes can pick up complimentary Blue Box supplies at the Richmond Recycling Depot and City Hall, or order them online at www.richmond.ca/recycle.

Residents in multi-family complexes with Blue Cart service can pick up an indoor collection bag at Richmond Recycling Depot or order a bag online at www.richmond.ca/recycle.



**8,820.68 TONNES
RECYCLED IN 2013**



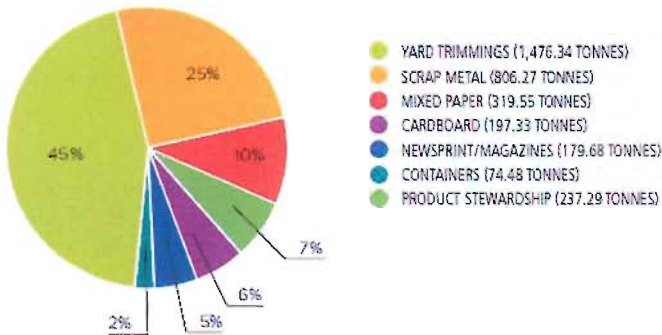
RECYCLING DEPOT PROGRAM

The Richmond Recycling Depot is located at 5555 Lynas Lane and is open from 9:00 a.m. – 6:15 p.m., Wednesday to Sunday for drop off of a broad range of materials. The Depot also sells compost bins, rain barrels, Garbage Tags and Garbage Disposal Vouchers. The Recycling Depot is a Product Stewardship (Take Back) collection site for small appliances, paints, solvents, flammable liquids, pesticides, lights and lighting fixtures.

RECYCLING DEPOT SERVICES

This facility accepts a wide range of materials including cardboard, yard and garden trimmings, mixed paper and newspapers, and now also accepts Styrofoam, used books, cell phones, household batteries and plastic bags. The facility also accepts large appliances (e.g. fridges, stoves, washing machines), metal items (e.g. bike frames, barbecues, lawn mowers), glass bottles, jars, tin and aluminium cans, paints, pesticides and solvents. For a detailed list of items see page 41. The Recycling Depot is owned and operated by the City of Richmond, with two full-time staff and additional staff support in the summer months to manage increased recycling volumes. Staff on site are available to answer questions and provide assistance with unloading awkward or heavy items.

DEPOT RECYCLING: BREAKDOWN OF MATERIALS COLLECTED IN 2013



TOTAL TONNAGE = 3,290.94

In 2013, 3,290.94 tonnes of recyclable materials were collected at the Recycling Depot. This includes yard trimmings, scrap metal, mixed paper products and rigid plastic containers. For more information on drop-off programs for yard trimmings, see page 17.

2013 REPORT • ACHIEVING GOALS THROUGH COMMUNITY ENGAGEMENT

DEPOT RECYCLING: MATERIALS AND AMOUNTS COLLECTED THROUGH TAKE BACK PROGRAMS IN 2013

PAINT
207,360 EQUIVALENT LITRES



AEROSOLS
1,400 EQUIVALENT LITRES



SOLVENTS & PESTICIDES
10,800 EQUIVALENT LITRES



SMALL APPLIANCES
79.69 TONNES



CFLS
136 BOXES



4' TUBES
253 BOXES
8' TUBES
35 BOXES

**FOR SALE AT THE RECYCLING DEPOT**

Residents can purchase the following items from the Depot:

- Compost bins - \$25 each
- Rain barrels - \$30 each
- Extra Garbage Tags - \$2 each
- Garbage Disposal Vouchers - \$5 each for Richmond residents and it is worth \$20 at the Vancouver Landfill

NEW IN 2013

In 2013, Richmond expanded its free drop-off program to include:

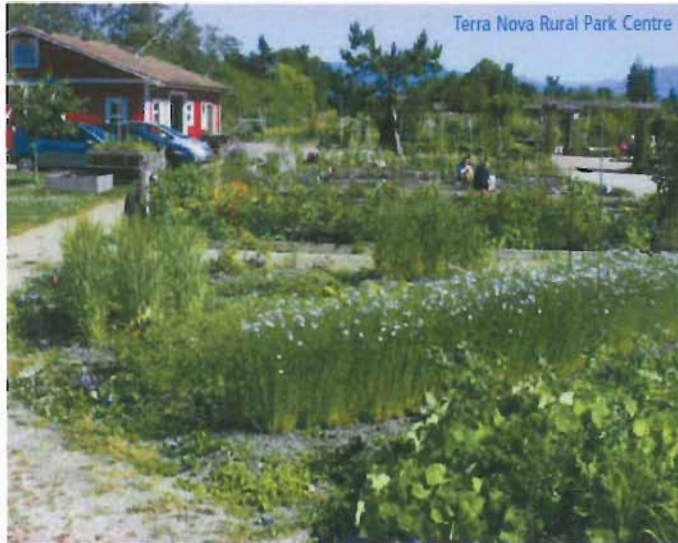
- Styrofoam;
- Batteries (household batteries 5 kg or under);
- Cell phones;
- Used books; and
- Plastic bags.

For a full list of items that can be recycled at the Recycling Depot, see page 41.

TIP FOR RESIDENTS

Fats, oils and grease should never be disposed down sinks, drains or garburators as the material hardens and builds up on the inside of sewage lines, causing blockages. This can lead to breaks and sewage spills or overflows. Recycle food scraps and grease in your Green Cart, and take used cooking oils and liquid fats in a sealed container to the Recycling Depot (5555 Lynas Lane, open Wednesday to Sunday from 9:00 a.m. to 6:15 p.m.) for free disposal.

CITY OF RICHMOND



Terra Nova Rural Park Centre



COMPOSTING PROGRAMS

Composting is a simple and organic process that can reduce household waste by up to 40%—significantly reducing the amount of waste that goes to the landfill. Fruit and vegetable peelings, along with grass, leaves and other yard trimmings, can be added to a compost bin. In addition, composted matter produces a very nutrient-rich soil to keep lawns and gardens healthy.

BACKYARD COMPOST BIN DISTRIBUTION PROGRAM

The City of Richmond supports composting by providing free composting workshops from January to November, which include information on backyard and worm composting and how to harvest compost. The City offers compost bins for sale at the Recycling Depot for \$25 each. Backyard composting is the most effective way to dispose of fruit and vegetable peelings, eggshells, coffee grounds, filters, tea bags and yard trimming materials. Since this program started in 1992, 10,538 compost bins have been distributed.

Additional tips and information on composting are provided in the Tips and Resources section and at www.richmond.ca/recycle.

COMPOST DEMONSTRATION GARDEN

To help residents learn about backyard composting, the City offers a Compost Demonstration area in the Terra Nova Rural Park Centre located at 2631 Westminster Highway just west of No.1 Road. It is open from dawn to dusk year-round, and is supplemented by workshops. Residents are encouraged to take a self-guided tour to learn about different types of compost bins and the benefits of composting.



TIP FOR RESIDENTS

The Compost Hotline at 604-736-2250 offers tips and advice on how to compost and use the nutrient-rich soil produced for home gardens. Compost from yard trimmings drop-off programs and through the Green Cart and Green Can collection programs are sold for residential use and for use in the landscaping industry.

Richmond residents are generating their own compost to enrich their garden soil. With 10,538 bins sold, home composting is an excellent way to help keep recyclable organic materials out of the garbage.

YARD TRIMMINGS DROP-OFF PROGRAMS

ECOWASTE INDUSTRIES

The City offers residents the option to drop off unlimited quantities of yard and garden trimmings for free at Ecowaste Industries located at 15111 Triangle Road. Proof of Richmond residency is required.

Visit ecowaste.com or call 604-277-1410 for hours of operation and directions.

RECYCLING DEPOT

Residents may drop off limited quantities of yard and garden trimmings (up to 1 cubic yard) at the City's Recycling Depot. A fee of \$20 applies for each additional cubic yard. Commercial operators may also use the Recycling Depot for dropping off of trimmings for a fee of \$20 per each cubic yard. The Recycling Depot is located at 5555 Lynas Lane and is open from 9:00 a.m. – 6:15 p.m., Wednesday to Sunday.

For a detailed list of all items that can be recycled at the Depot, please refer to the Tips and Resources section on page 41.

DID YOU KNOW?

Richmond residents can take free workshops to learn how to compost at home. For details, see page 37.

DROP OFF TONNAGE IN 2013

In 2013, more than 3,093 tonnes of yard trimmings were collected at the Recycling Depot and through the Ecowaste residential and commercial drop-off service.

**1,476.34
TONNES**

RECYCLING DEPOT

+

**1,617.21
TONNES**

ECOWASTE INDUSTRIES

=

**3,093.55
TONNES**

TOTAL TONNAGE DIVERTED
FROM LANDFILL

CITY OF RICHMOND



GREEN CART PROGRAM

In June 2013, Richmond introduced Green Cart recycling for food scraps and yard trimmings as a new service for townhomes and an enhanced program for single-family homes. The Green Cart program expanded on the existing Green Can service that was previously provided to single-family homes. Green Cart recycling totaled approximately 14,237 tonnes in 2013 – a 35% increase over 2012.

Food scraps and yard trimmings represent about 40% of household waste, and the increase in Green Cart recycling along with Richmond's other recycling services has contributed to Richmond residents in single-family homes reducing their garbage by 70%. The Green Cart program is also an important service to support residents with an easy and convenient recycling option prior to the anticipated disposal ban on food scraps in 2015.

Richmond was recognized by Harvest Power with a Golden Shovel Award for environmental leadership and stewardship, including its commitment to programs like Green Cart, which was designed based on residents' preferences and is aligned with sustainable waste management.



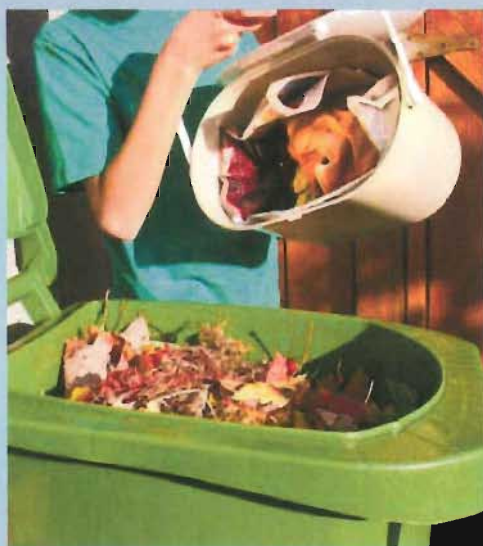
TIPPING FEES, CURRENT AND PROJECTED, PER TONNE

Recycling food scraps and yard trimmings is becoming increasingly important as the cost of tipping fees at the landfill continue to rise. Regional tipping fees are expected to increase to more than \$157/tonne in 2018 – more than double the cost since 2008.

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GREEN CART SIZE OPTIONS AND BENEFITS

Richmond's Green Cart program currently serves approximately 41,000 homes – 60% of all Richmond residents – to provide convenient access to yard trimmings and food scraps recycling. Green Carts are easy to use thanks to wheels and attached lids. As well, Green Carts are available in a range of sizes.

**MULTI-FAMILY GREEN CART PILOT PROGRAM**

Building on the success of the Green Cart program launched in 2013, the City of Richmond received approval from Council to initiate a pilot program to assess options for expanding the Green Cart program to multi-family complexes such as multi-level townhomes, condominiums and apartments. The pilot program will be completed in 2014.

PILOT PROGRAM HIGHLIGHTS:

- The pilot program is in place from October 2013 to December 2014.
- There is very low contamination (non-organic materials in the carts) with 0.01-0.25% thanks to extensive communication and outreach with residents to inform them about how to use the Green Carts.
- There are approximately 5,500 units involved in the pilot program.

CITY OF RICHMOND



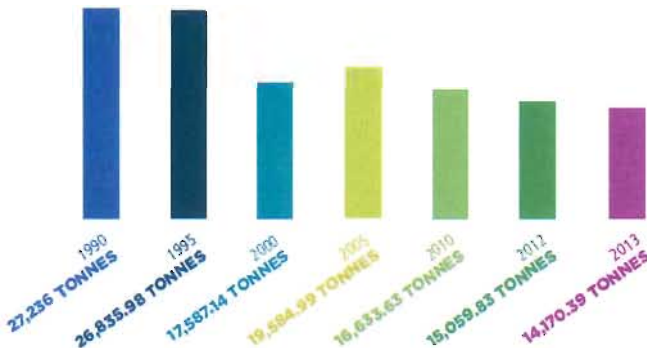
GARBAGE COLLECTION SERVICES

Weekly curbside collection of garbage provides residents with a convenient service for waste disposal. This includes the Large Item Pick Up program to provide curbside collection of up to four large household items each year.

GARBAGE COLLECTION

The City of Richmond provides weekly garbage collection services for all single-family homes and some townhome developments. In providing these services, the City has aimed to strike a realistic balance between meeting its recycling goals while enabling residents to have reasonable means to dispose of garbage by implementing a two-can limit each week for curbside collection. Additional garbage cans may be put out, but each extra container or bag must display a tag that can be purchased at City facilities for \$2 each. Certain items, such as hazardous waste materials and those items that can be recycled, are prohibited from garbage bins (see the chart on page 46 for more information on prohibited items).

GARBAGE DISPOSAL OVER THE YEARS



As conscientious recyclers, residents have drastically reduced the amount of garbage disposed since 1990. The City is reviewing options to help reduce garbage, such as incentives to decrease garbage and possible use of City-provided garbage carts.

2013 REPORT • ACHIEVING GOALS THROUGH COMMUNITY ENGAGEMENT

**LARGE ITEM PICK UP PROGRAM**

Richmond's Large Item Pick Up program provides curbside collection of up to four large items per year. This program is provided to residents in single-family homes and townhomes with the City's garbage collection and/or Blue Box program. Curbside collection makes it easier for residents who do not have access to a vehicle to dispose of large items. Residents contact the City's service provider at 604-270-4722 to arrange for collection of up to four large items per year. All four large items can be picked up at the same time, or in varying bundles for a total of four items annually.

Items accepted in this program include furniture, appliances and small household goods. Restrictions apply to ensure items can be handled safely from the curbside and mattresses must be covered in plastic to keep them dry. If residents have more than four large items to dispose of, they can purchase a Garbage Disposal Voucher for \$5 from any City facility and use the voucher to dispose of up to \$20 worth of garbage items at the Vancouver Landfill.

For more information on this program, see page 39 or visit www.richmond.ca/recycle.

COMMON MATERIALS AND AMOUNTS COLLECTED THROUGH LARGE ITEM PICK UP PROGRAM FROM JUNE TO DECEMBER 2013

MATTRESSES
47% OF REQUESTS



TELEVISIONS
12% OF REQUESTS



WASHERS & DRYERS
12% OF REQUESTS



FRIDGES & FREEZERS
8% OF REQUESTS



BARBECUES
7% OF REQUESTS



DISHWASHERS & TOILETS
7% OF REQUESTS



STOVES
5% OF REQUESTS



MICROWAVES
2% OF REQUESTS

OVER 5,100 REQUESTS FOR SERVICE **8,237 ITEMS COLLECTED**
325 TONNES WERE COLLECTED
AND OF THIS, 200 TONNES WERE RECYCLED

CITY OF RICHMOND



LITTER COLLECTION SERVICES

Maintaining a litter-free city is a key focus area to ensure residents can enjoy clean parks and public spaces. The City of Richmond has made efforts to ensure that there are garbage cans, and in many cases recycling options, in public spaces throughout the city.

In addition, City crews work seven days a week to collect litter from parks, school grounds, roadsides, sidewalks and boulevards. They empty garbage and recycling from approximately 4,500 City litter and recycling receptacles in the community each week, and assist with removing graffiti from City garbage cans. As well, they collect illegally-dumped materials found on City property and provide safe disposal and recycling of these items. Together, these measures help to support a safe and appealing community.

DID YOU KNOW?

In 2013, the Great Canadian Shoreline Clean Up removed 429,798 pieces of litter and close to half of the litter items were cigarettes and cigarette filters.

4,008 LOADS OF LITTER & RECYCLABLES COLLECTED
FROM APPROXIMATELY **4,500** CITY LITTER & RECYCLING RECEPTACLES

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Commercial buildings and multi-family complexes share a responsibility for recycling. Property owners and managers can facilitate recycling with well-designed recycling and garbage centres. Richmond has developed guidelines to help ensure commercial buildings and multi-family complexes are designed with accessible, centralized and well-organized recycling facilities. Increasing recycling in these buildings is integral to achieving the City's goals for reducing garbage going to landfills.

COMMERCIAL BUILDING GUIDELINES

Effective garbage and recycling management at commercial buildings is most successful when these facilities are integrated into the design and operations of the building or site. To support this, the City of Richmond has developed commercial building guidelines that are outlined in the City of Richmond Design Considerations for Commercial Properties: Recycling and Garbage. These guidelines assist designers and developers of commercial buildings in three key areas:

- the design of storage facilities for garbage and recycling;
- selection of containers for garbage and recycling; and
- planning of access for both tenants and collection service providers.

These guidelines help commercial property owners by giving general advice for meeting City regulations and suggesting goals for effective garbage and recycling programs. This information is provided as a resource and should be used with, not in place of, all applicable building codes, City standards and other relevant legislation.

For more information, visit www.richmond.ca/recycle.

MULTI-FAMILY BUILDING GUIDELINES

All multi-family residential and mixed-use buildings in Richmond require adequate storage for garbage and recycling, and these storage areas must meet Building Code Regulations. At the same time, garbage and recycling collection at multi-family and mixed-use buildings is an area where there is potential for future expansion and improvement.

As an important foundation, the City of Richmond has developed Multi-family Building Guidelines to help support consistent standards at all buildings. The guidelines include information such as basic service requirements, container access for residents and collection, and maximum container size. The information is provided as a convenient source of information, and property owners are responsible for ensuring they meet all applicable building codes, City standards and other relevant legislation.

For more information, visit www.richmond.ca/recycle.

DID YOU KNOW?

In 2015, it is anticipated that there will be a disposal ban on food scraps which means they will not be accepted in the garbage. This affects multi-family complexes and commercial buildings.

CITY OF RICHMOND

3

CONNECTING WITH COMMUNITY FOR SHARED SUCCESS

***** 24

2013 REPORT • ACHIEVING GOALS THROUGH COMMUNITY OUTREACH

OUTREACH AND CUSTOMER SERVICE

SUPPORTING AWARENESS AND EDUCATION

Richmond recognizes that providing recycling services is the first important step in reducing waste; however, the second critical step is communication and community engagement. This includes informing residents about City and partner programs and services available in the community, educated them on how to use the programs, raising awareness about why recycling and reducing waste is important, and engaging the community to help design programs that fit their needs and priorities. The third essential step is providing excellent customer service. With its commitment to community outreach and customer service, the City goes beyond providing services – it supports residents so they can be successful in reducing their waste.



In 2013, approximately 185 youth volunteered in Richmond's Green Ambassador program to support recycling awareness at events and outreach displays.



CUSTOMER SERVICE

Richmond's successful outreach and customer service programs are designed to help turn information and education into action. By working with children and youth through school programs and the Green Ambassadors, Richmond creates a learning environment where students gain a better understanding about recycling and sustainable waste management, and then apply their skills as volunteers and through school activities. Providing outreach, customer support services and information materials also assists residents by increasing their understanding of how to recycle along with new tools and services to promote recycling at home and on the go.

The Environmental Programs Information Line staff assisted customers with more than 20,000 calls in 2013, answering questions, assisting with requests relating to garbage and recycling and providing guidance on where to go for additional information and resources. Staff completed updates to the Integrated Voice Response (IVR) system tailored to customer information priorities. Richmond also assists customers directly at the Recycling Depot, and through its outreach programs in the community.

At the Depot, staff provide assistance with where and how to recycle using its drop-off options, answer questions about City programs and services and sell products such as compost bins and rain barrels as well as Garbage Tags and Garbage Disposal Vouchers. Through outreach, Richmond goes into the community to connect with residents to share information and respond to questions.

20,000
CUSTOMER SERVICE
CALLS SUPPORTED

9,261
GARBAGE TAGS SOLD

853
GARBAGE DISPOSAL
VOUCHERS SOLD

68 COMPOST
BINS SOLD

2013 REPORT • ACHIEVING GOALS THROUGH COMMUNITY ENGAGEMENT

Richmond measures the success of its programs, customer service and community engagement by monitoring a number of performance indicators, such as continued progress towards its goals for reducing waste, the community's impressive track record for using programs properly to keep banned recyclables out of the garbage, and low contamination levels thanks to residents sorting recyclable materials into the correct containers.

2013 HIGHLIGHTS

RICHMOND HOSTS SECOND ANNUAL EARTH DAY SUMMIT

The Richmond Earth Day Youth (REaDY) Summit was a resounding success again in 2013 thanks to volunteer support and community partnerships, City staff, the Richmond School Board, the David Suzuki Foundation, and the Richmond Green Ambassadors.

The summit was again successful in increasing awareness of environmental sustainability, fostering continual interest in recycling and reducing waste, and raising awareness on sustainability issues identified by local youth. Approximately 12 workshops including recycling and waste reduction, a climate change showdown, and energy and water conservation were offered. The Green Ambassadors spent approximately 1,750 hours to support this successful outreach initiative. Over 400 delegates attended, including 120 Richmond Green Ambassadors from eight Richmond high schools.

SCHOOL SHOWS AND CONTESTS

In 2013, the City hosted Clean Up Your Act and Zero Heroes shows at elementary schools to promote responsible actions to avoid littering, graffiti and vandalism. The shows reached 3,801 elementary school students and 200 teachers. To reinforce what they learned, these schools participated in the My School Sparkles Contest, which has two categories, and the Zero Heroes Contest. For the My School Sparkles Contest, schools are evaluated on levels of littering before and after the show. The winners of the "My School Always Sparkles" category for the school with the least amount of litter on its school grounds and adjacent public space were DeBeck Elementary School and Thomas Kidd Elementary School. The winner of the "My School is Sparkling" category for the school that demonstrated the most improvement was awarded to Daniel Woodward Elementary School. The Zero Heroes Contest is based on collecting pledges to reduce and recycle waste. The winners of the Zero Heroes Contest were Sea Island Elementary School in the small school category and James McKinney Elementary School in the large school category.

ENHANCED COMMUNITY ENGAGEMENT

As part of its continued commitment to communication, Richmond is increasing its outreach by going out into the community to host information displays at local shopping centres, community centres and multi-family complexes. The City also continues to ensure residents are kept informed about expanded and enhanced programs as well as seasonal recycling priorities through its "Let's trim our waste!" campaign. The City also engages residents through surveys to collect input on programs to support continuous improvement of the City's recycling and garbage programs.

CITY OF RICHMOND

**GREAT CANADIAN SHORELINE CLEAN-UP**

The Great Canadian Shoreline Clean-Up doubled in 2013, with more than 600 volunteers at 18 community clean-up events on the City's waterfront. Jointly led by the Vancouver Aquarium and World Wildlife Foundation, the Great Canadian Shoreline Clean-Up focuses on educating and empowering people to make a difference through community clean-up events. As part of this initiative, Environmental Programs partnered with Parks to support the volunteers.

RICHMOND GREEN AMBASSADORS

Richmond's Green Ambassadors are dedicated high school students who participate in monthly workshops to learn about environmental sustainability and apply what they have learned as volunteers at City events and activities. In 2013, approximately 185 students in the program contributed about 3,250 volunteer hours to promote recycling at community events and organize the REaDY Summit. These energetic and environmentally conscious individuals also manage green initiatives in their school. In 2013, they helped divert 83% of waste at Ships to Shore, 75% at the Steveston Salmon Festival and 86% at Richmond Maritime Festival.

CHRISTMAS TREE RECYCLING

The City hosted its annual Christmas Tree Recycling service at Garry Point and the South Arm Community Centre. Thanks to the participation of residents who brought their trees in for recycling, Richmond collected and chipped 14 tonnes of chips and sent them to Harvest Power and Ecowaste for composting.

2013 REPORT • ACHIEVING GOALS THROUGH COMMUNITY ENGAGEMENT



COMMUNITY WORKSHOPS

Richmond's free community workshops provide education and tips that support recycling and waste reduction techniques. In 2013, the City hosted 9 community workshops. A summary of workshops that focus on helping residents towards the City's goal for 70% waste diversion is provided below.

For information on the workshops, email esoutreach@richmond.ca. To attend free workshops offered by the City, visit richmond.ca/register or call 604-276-4300 and press "2" at the prompt (Monday to Friday from 8:30 a.m. to 5:30 p.m.) to register.

COMMUNITY WORKSHOPS	
Backyard and Worm Composting	Whether a novice or an experienced compost creator, participants learn how to effectively convert organic food and yard waste into an organic soil conditioner.
Second Hand to First Rate	Turn second hand items into amazing treasures. Participants learn party ideas, how to make great kids products and decorating items, and tricks and tips to dress from head to toe all for under \$30.
Harvest Compost	Participants learn some simple compost harvesting techniques and how to use compost to increase the health of soil and plants. A composting expert also provides an assessment of finished composting samples provided by participants.
Eco-cleaning	Homemade household cleaners work well, save money and are less harmful to people, animals and the environment. With a few easy steps, participants learn to make and use eco-friendly cleaners. Eco-cleaning reduces the use of toxic household items, and the course includes tips on how to recycle and safely dispose of these harmful materials.



TIPS AND RESOURCES

EASY STEPS TO INCREASE RECYCLING AND REDUCE WASTE

In Richmond, we care about our community, and we are working together to trim our waste. The City works with residents and community partners to make it easy and convenient to reuse and recycle at home and on the go. It's all about making recycling a way of life. This at-a-glance resource on the various types of recycling programs and services available through the City of Richmond is a valuable guide to support being recycling smart in Richmond. The Tips and Resources include highlights such as how and where to recycle, what to do with hazardous waste and where to find additional information.

Resources also include contact information and locations for Richmond services and community partners involved in take back collection through product stewardship programs. Together these Tips and Resources help to support maximum recycling with minimum contamination in the waste going to the landfill.



Richmond's Environmental Program staff share information on tips and resources by phone, through outreach events and on the website.

CITY OF RICHMOND



BLUE BOX

Starting the week of May 19, 2014, Richmond expanded its Blue Box program to include more types of plastic containers plus milk cartons, paper and plastic drink cups, flower pots and spiral wound tins like frozen juice concentrate containers.

Recyclable materials from the Blue Box program are collected from single-family homes and some townhome complexes on the same day that garbage is collected. Containers are placed into the Blue Box, glass bottles and jars are placed in the grey Glass Recycling Bin and all paper products, including newspaper and cardboard are placed in the yellow Mixed Paper Recycling Bag.

For a list of items accepted in Blue Box recycling, see page 33 or visit www.richmond.ca/recycle.

Set Out Time

Before 7:30 a.m. on collection day.

Report a Missed Collection

Call 604-276-4010 or email garbageandrecycling@richmond.ca.

How to Get a Mixed Paper Recycling Bag, Glass Recycling Bin or Blue Box

There is no charge for new or replacement Blue Boxes, Glass Recycling Bins or Mixed Paper Recycling Bags.

For additional Blue Box supplies call 604-276-4010, order them online at www.richmond.ca/recycle, or pick them up at the following locations:

City Recycling Depot

5555 Lynas Lane
Wednesday to Sunday (Closed on Mondays, Tuesdays & Statutory Holidays)
9:00 a.m. to 6:15 p.m.

City Hall

6911 No. 3 Road
Monday to Friday (Closed on Saturdays, Sundays & Statutory Holidays)
8:15 a.m. to 5:00 p.m.

2013 REPORT • ACHIEVING GOALS THROUGH COMMUNITY ENGAGEMENT

WHAT GOES WHERE:



MIXED PAPER RECYCLING BAG

ACCEPTED	HOW TO RECYCLE	NOT ACCEPTED
<ul style="list-style-type: none"> ✓ Newspapers, inserts & flyers ✓ Flattened cardboard boxes ✓ Catalogues & magazines ✓ Cereal boxes ✓ Clean pizza boxes ✓ Corrugated cardboard (small pieces) ✓ Envelopes ✓ Junk mail ✓ Paper bags ✓ Paper egg cartons ✓ Paper gift wrap & greeting cards ✓ Telephone books ✓ Writing paper (notepads, loose leaf paper, white or coloured paper, printed paper, shredded paper) 	<ul style="list-style-type: none"> • Remove plastic liners/covers. • Remove any food residue. • Flatten boxes. • Place in Mixed Paper Recycling Bag. • Cardboard is limited to one bundle per week. Bundle size: 3 ft x 2 ft x 4 in (90 cm x 60 cm x 10 cm) <p><i>Note:</i> Oversized/excessive amounts of cardboard can be dropped off at the City's Recycling Depot at 5555 Lynas Lane.</p>	<ul style="list-style-type: none"> x Cardboard boxes with wax coating x Plastic bags used to cover newspapers/flyers x Metallic wrapping paper x Ribbons or bows x Musical greeting cards with batteries x Padded envelopes x Plastic or foil candy wrappers

GLASS RECYCLING BIN

ACCEPTED	HOW TO RECYCLE	NOT ACCEPTED
<ul style="list-style-type: none"> ✓ Clear or coloured glass bottles & jars (pickle jars, jam jars, spaghetti sauce jars, soy sauce bottles) 	<ul style="list-style-type: none"> • Remove lids & caps. • Remove food residue. • Empty & rinse. • Place in Glass Recycling Bin. 	<ul style="list-style-type: none"> x Glasses, dishes, cookware, window glass or mirrors x Ceramic products x Lids & caps (place in Blue Box)

BLUE BOX FOR CONTAINERS

ACCEPTED	HOW TO RECYCLE	NOT ACCEPTED
<ul style="list-style-type: none"> ✓ New! Aerosol cans & caps (food items, air fresheners, shaving cream, deodorant, hairspray) ✓ New! Microwavable bowls, cups & lids ✓ New! Paper food containers & cartons (ice-cream, milk, liquid whipping cream) ✓ New! Paper & plastic drink cups with lids ✓ New! Plastic containers, trays & caps (bakery containers & deli trays) ✓ New! Plastic and paper garden pots & trays ✓ New! Spiral wound paper cans & lids (frozen juice, potato chips, cookie dough, coffee, nuts, baby formula) ✓ Aluminium cans & lids ✓ Aluminium foil & foil containers (foil wrap, pie plates, food trays) ✓ Plastic bottles & caps (food items, condiments such as ketchup, mustard & relish, dish soap, mouthwash, shampoos, conditioners) ✓ Plastic jars & lids ✓ Plastic tubs & lids (margarine, spreads, dairy products such as yogurt, cottage cheese, sour cream, ice cream) ✓ Tin cans & lids 	<ul style="list-style-type: none"> • Remove food residue. • Remove caps or lids; place loose in the Blue Box. • Empty and rinse. • Place in Blue Box. <p><i>Note:</i> Flatten and/or stack containers where possible.</p>	<ul style="list-style-type: none"> x Ceramic plant pots x Compostable/biodegradable plastic bags & containers x Containers for motor oil, or vehicle lubricant or wax products x Foil-lined cardboard lids from take-out containers x Garden hoses x Plastic bags & over wrap (take to Recycling Depot) x Plastic string or rope x Spray paint cans (take to Recycling Depot) x Styrofoam materials (take to Recycling Depot)

CITY OF RICHMOND



BLUE CART

All multi-level multi-family complexes like apartments and condominiums and some townhomes have a recycling depot with Blue Carts for recycling mixed paper, containers and glass. They are generally located in the garbage room or other convenient location.

Starting the week of May 19, 2014, Richmond expanded its Blue Cart program to include more types of plastic containers plus milk cartons, paper and plastic drink cups, flower pots and spiral wound tins like frozen juice concentrate containers.

For sorting recycling, containers are placed in the Containers Recycling Cart, glass bottles and jars are placed in the Glass Recycling Cart and paper products including newspaper and cardboard are placed in the Mixed Paper Recycling Cart. These recyclable materials are banned from landfill.

The carts are emptied once a week. Statutory holidays do not generally affect the collection; however, Christmas Day may delay collection by one day if it falls on a weekday. For information about the recycling depot location in your building, contact your building manager or property manager.

For a list of items accepted in Blue Cart recycling, see page 35 or visit www.richmond.ca/recycle.

Cart Emptying

Some carts are retrieved from their site, however, some are brought out to a collection area.

Carts brought out must be at the collection area before 7:30 a.m.

Report a Missed Collection

Call 604-276-4010 or email garbageandrecycling@richmond.ca.

How to Get an Indoor Collection Bag for Blue Cart Recycling

There is no charge for new or replacement Blue Cart recycling bags. For additional bags call 604-276-4010, order them online at www.richmond.ca/recycle, or pick them up at the following locations:

City Recycling Depot

5555 Lynas Lane
Wednesday to Sunday (Closed on Mondays, Tuesdays & Statutory Holidays)
9:00 a.m. to 6:15 p.m.

City Hall

6911 No. 3 Road
Monday to Friday (Closed on Saturdays, Sundays & Statutory Holidays)
8:15 a.m. to 5:00 p.m.

2013 REPORT • ACHIEVING GOALS THROUGH COMMUNITY ENGAGEMENT

WHAT GOES WHERE:



MIXED PAPER RECYCLING CART

ACCEPTED

- ✓ Newspapers, inserts & flyers
- ✓ Flattened cardboard boxes
- ✓ Catalogues & magazines
- ✓ Cereal boxes
- ✓ Clean pizza boxes
- ✓ Corrugated cardboard (small pieces)
- ✓ Envelopes
- ✓ Junk mail
- ✓ Paper bags
- ✓ Paper egg cartons
- ✓ Paper gift wrap & greeting cards
- ✓ Telephone books
- ✓ Writing paper (notepads, loose leaf paper, white or coloured paper, printed paper, shredded paper)

HOW TO RECYCLE

- Remove plastic liners/covers.
- Remove any food residue.
- Flatten boxes.

• Place in **Mixed Paper Recycling Cart**.

Note: Oversized/excessive amounts of cardboard can be dropped off at the City's Recycling Depot at 5555 Lynas Lane.

NOT ACCEPTED

- ✗ Cardboard boxes with wax coating
- ✗ Plastic bags used to cover newspapers/flyers
- ✗ Metallic wrapping paper
- ✗ Ribbons or bows
- ✗ Musical greeting cards with batteries
- ✗ Padded envelopes
- ✗ Plastic or foil candy wrappers

GLASS RECYCLING CART

ACCEPTED

- ✓ Clear or coloured glass bottles & jars (pickle jars, jam jars, spaghetti sauce jars, soy sauce bottles)

HOW TO RECYCLE

- Remove lids & caps.
- Remove food residue.
- Empty & rinse.
- Place in **Glass Recycling Cart**.

NOT ACCEPTED

- ✗ Glasses, dishes, cookware, window glass or mirrors
- ✗ Ceramic products
- ✗ Lids & caps (place in Blue Box)

CONTAINERS RECYCLING CART

ACCEPTED

- ✓ **New!** Aerosol cans & caps (food items, air fresheners, shaving cream, deodorant, hairspray)
- ✓ **New!** Microwavable bowls, cups & lids
- ✓ **New!** Paper food containers & cartons (ice-cream, milk, liquid whipping cream)
- ✓ **New!** Paper & plastic drink cups with lids
- ✓ **New!** Plastic containers, trays & caps (bakery containers & deli trays)
- ✓ **New!** Plastic and paper garden pots & trays
- ✓ **New!** Spiral wound paper cans & lids (frozen juice, potato chips, cookie dough, coffee, nuts, baby formula)
- ✓ Aluminium cans & lids
- ✓ Aluminium foil & foil containers (foil wrap, pie plates, food trays)
- ✓ Plastic bottles & caps (food items, condiments such as ketchup, mustard & relish, dish soap, mouthwash, shampoos, conditioners)
- ✓ Plastic jars & lids
- ✓ Plastic tubs & lids (margarine, spreads, dairy products such as yogurt, cottage cheese, sour cream, ice cream)
- ✓ Tin cans & lids

HOW TO RECYCLE

- Remove food residue.
- Remove caps or lids; place loose in the Blue Box.
- Empty and rinse.
- Place in **Containers Recycling Cart**.

Note: Flatten and/or stack containers where possible.

NOT ACCEPTED

- ✗ Ceramic plant pots
- ✗ Compostable/biodegradable plastic bags & containers
- ✗ Containers for motor oil, or vehicle lubricant or wax products
- ✗ Foil-lined cardboard lids from take-out containers
- ✗ Garden hoses
- ✗ Plastic bags & over wrap (take to Recycling Depot)
- ✗ Plastic string or rope
- ✗ Spray paint cans (take to Recycling Depot)
- ✗ Styrofoam materials (take to Recycling Depot)

CITY OF RICHMOND

GREEN CART

Residents in single-family homes and townhomes with City garbage and/or Blue Box service have Green Carts to recycle food scraps and yard trimmings. When you recycle with Green Cart, you are helping turn food scraps and yard trimmings into compost for nutrient-rich soil.

Residents may continue to use Green Cans for excess food scraps and yard trimmings. Paper yard waste bags and tied bundles of yard trimmings are also accepted. Please visit www.richmond.ca/recycle for more information.

Please note that Green Carts stay with the property. If residents move to another house in Richmond, they will have a Green Cart at that location. If there is no cart, please call 604-276-4010.

WHAT GOES IN THE GREEN CART:



FOOD SCRAPS

ACCEPTED

- ✓ Fruit
- ✓ Breads, pasta, rice & noodles
- ✓ Coffee grounds & filters
- ✓ Table scraps & food scrapings
- ✓ Meat, poultry, fish, shellfish & bones
- ✓ Eggshells

- ✓ Paper towels/napkin/plates
- ✓ Pizza delivery boxes
- ✓ Vegetables
- ✓ Tea bags
- ✓ Dairy products
- ✓ Solid grease

HOW TO RECYCLE

- Collect food scraps in your kitchen container.
- Empty materials from your kitchen container into your **Green Cart**.
- Place your Green Cart at the curb along with unlimited paper yard trimmings bags and/or Green Cans, Blue Box recycling and garbage by 7:30 a.m. on your regular collection day.

NOT ACCEPTED

- ✗ Coffee cups
- ✗ Cork or Styrofoam cups, meat trays or takeout containers
- ✗ Liquid grease
- ✗ Pet feces or kitty litter
- ✗ Plastic bags, biodegradable or compostable bags
- ✗ Plastic wraps

YARD TRIMMINGS

ACCEPTED

- ✓ Flowers
- ✓ Grass clippings
- ✓ Leaves
- ✓ Other organic yard materials
- ✓ Plants (living or dead/dried)
- ✓ Plant trimmings
- ✓ Tree & hedge prunings

HOW TO RECYCLE

- Place yard trimmings into **Green Cart** along with your food scraps.
- Extra yard trimmings can go in large paper bags or additional labeled Green Cans.
- Place your Green Cart at the curb along with unlimited paper yard trimmings bags and/or Green Cans, Blue Box recycling and garbage by 7:30 a.m. on your regular collection day.

NOT ACCEPTED

- ✗ Plastic bags, biodegradable or compostable bags
- ✗ Diseased plants
- ✗ Garden hoses or flower pots
- ✗ Prunings over 4 inches (10 cm) in diameter
- ✗ Rocks, dirt or sod
- ✗ Wood products

Yard Trimmings

Drop-off Locations

Richmond residents can drop off yard trimmings (see above for materials accepted) at the following locations, free of charge with proof of residency.

Ecowaste Industries

15111 Triangle Road
Open Monday to Friday from 7:00 a.m. to 5:30 p.m.
(last load in at 4:30 p.m.)
Open Saturday and Sunday from 8:00 a.m. to 4:00 p.m.
(last load in at 4:00 p.m.)
Visit ecowaste.com or call 604-277-1410 for detailed information.

City Recycling Depot

5555 Lynas Lane
Wednesday to Sunday (Closed on Mondays, Tuesdays & Statutory Holidays)
9:00 a.m. to 6:15 p.m.

There is no charge for dropping off amounts less than one cubic yard (a car, station wagon or minivan load). Large loads are charged a fee of \$20 per cubic yard. Commercial operators will be charged a fee of \$20 per cubic yard.



HOME COMPOSTING

Home composting turns your food scraps and yard trimmings into nutrient-rich soil that can be spread on lawns and flowerbeds.

BACKYARD COMPOST BIN

"Garden Gourmet" compost bins are available to Richmond residents at the Recycling Depot for \$25 plus tax. The bin dimensions are 36 inches (90 cm) high, 22 inches (56 cm) wide and 22 inches (56 cm) deep. They are suitable for residential backyard composting of grass, leaves, vegetable trimmings, fruit trimmings and other miscellaneous organic garden trimmings.

COMPOSTING WORKSHOPS

To learn about composting, attend a Richmond composting workshop, held from January to November. Visit www.richmond.ca/register for workshop dates and locations or call Parks & Recreation at 604-276-4300 and press '2' from Monday to Friday between 8:30 a.m. to 5:30 p.m.

COMPOST HOTLINE

The Compost Hotline offers support and tips for best practices in home composting. It is operated by City Farmer, which has researched and promoted the best methods of urban composting since 1978.

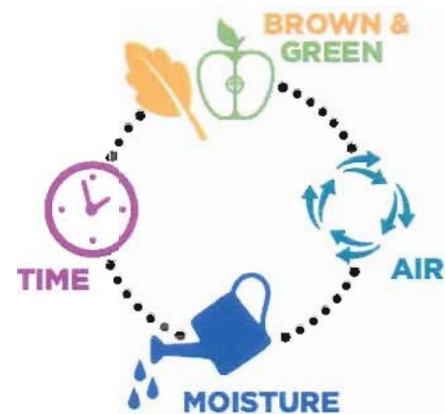
Compost Hotline

Phone: 604-736-2250

Email: composthotline@telus.net

COMPOST DEMONSTRATION GARDEN

A compost demonstration garden is located at 2631 Westminster Highway in the Terra Nova Rural Park. Composting demonstration units are on display for viewing year-round, from dawn to dusk.



Nitrogen Rich Green Materials:

- PLANT TRIMMINGS
- FRUIT & VEGETABLE PEELINGS
- FRESH GRASS CLIPPINGS
- COFFEE GROUNDS & TEA LEAVES

Carbon Rich Brown Materials:

- DRY LEAVES
- SAWDUST
- STRAW
- SHREDDED NEWSPAPER CLIPPINGS

HOW TO COMPOST

- 1 USING A BACKYARD COMPOST BIN, START WITH A GOOD LAYER OF COARSE ORGANIC MATERIAL, SUCH AS STRAW, LEAVES OR PRUNING AT THE BOTTOM TO ALLOW AIR TO CIRCULATE.
- 2 ADD A GOOD LAYER OF NITROGEN-RICH GREEN MATERIAL FOLLOWED BY ONE LAYER OF CARBON-RICH BROWN MATERIAL, UNTIL THE BIN IS FULL.
- 3 COMPOST REQUIRES AIR. TURN AND STIR YOUR COMPOST WEEKLY SO THE ORGANISMS GET NECESSARY OXYGEN.
- 4 COMPOST REQUIRES MOISTURE. WATER YOUR COMPOST BIN FREQUENTLY TO ENSURE IT STAYS AS MOIST AS A WRING-OUT SPONGE.
- 5 GIVE IT TIME - IN 12-18 MONTHS, MATERIAL AT THE BOTTOM AND MIDDLE OF THE BIN SHOULD BE COMPOSTED. USE THIS THROUGHOUT YOUR GARDEN. USE THE UN-COMPOSTED MATERIAL TO START A NEW BATCH. CHIPPING OR CHOPPING THE MATERIAL CAN INCREASE THE SPEED OF THE PROCESS. REGULAR AERATION IS KEY TO SUCCESSFUL COMPOSTING.

CITY OF RICHMOND

GARBAGE COLLECTION**CURBSIDE COLLECTION SERVICE****Two Can Limit**

Garbage is collected weekly for all single-family residents and some townhome complexes.

Garbage pickup in Richmond is limited to two containers (cans or bags) per week for each address or service. A \$2 Garbage Tag is required for each additional container or equivalent.

How Big is a "Can"?

For the purposes of garbage pickup in Richmond, each of the following represents one can:

- A garbage can with lid
- Standard size: 19 inches x 22 inches (48 cm x 56 cm)
- Maximum size allowed: 24 inches x 32 inches (61 cm x 81 cm)
- An equivalent container should not exceed 3 cubic feet (100 L)

How Big is a "Bag"?

- Standard size: 24 inches x 36 inches (61 cm x 91 cm)
- Maximum size allowed: 30 inches x 48 inches (76 cm x 120 cm)
- Any other container being used should not exceed 3 feet x 2 feet (91 cm x 60 cm)

Preparing Garbage for Collection

Loose garbage must be securely packed in plastic bags. This includes ashes, kitty litter, disposal diapers, vacuum cleaner sweepings and other loose household garbage.

To reduce litter and damage by animals, place bags and other garbage in plastic cans wherever possible. Garbage must be packed in plastic bags and then placed in cans with secure lids. Loose plastic bags must not rip when lifted.

All garbage must be placed at curbside before 7:30 a.m. on collection day but no earlier than 8:00 p.m. the day before. Do not place receptacles or other items on the road.

Residents are responsible for cleaning up any loose materials that have been scattered over the ground by animals, wind or vandalism.

Extra Item Disposal Options

Purchase Garbage Tags or Garbage Disposal Vouchers to dispose of extra garbage.

\$2 Garbage Tags

Garbage Tags are available for purchase at all City facilities. One Garbage Tag is good for an additional garbage bag or can.

Garbage Disposal Vouchers

Richmond residents may purchase a Garbage Disposal Voucher for \$5 at all City facilities. These vouchers are good for \$20 at the Vancouver Landfill, and are valid anytime. They are limited to one per household. Visit www.richmond.ca/recycle for a list of City facilities selling Garbage Tags and Garbage Disposal Vouchers.

Large Item Pick-Up Program

Residents in single-family homes and some townhomes can arrange for curbside collection of four large household items each year.

The following items are **not** accepted in the garbage:

MATERIAL	HOW TO RECYCLE OR DISPOSE
X DEMOLITION WASTE	• Take to Ecowaste Industries at 15111 Triangle Road, or call the RCBC Recycling hotline at 604-RECYCLE (732-9253).
X DIRT, ROCK, CONCRETE OR BRICKS	• Take to Ecowaste Industries. Visit ecowaste.com or call 604-277-1410 for accepted items & hours.
X DRYWALL (GYPSUM, SHEETROCK PLASTERBOARD, GYPROC & WALLBOARD)	• Take to the Vancouver Landfill at 5400 72nd Street, Delta or Ecowaste Industries. Visit ecowaste.com or call 604-277-1410 for accepted items & hours.
X GARBAGE BEYOND THE TWO CAN LIMIT	• Purchase a \$2 Garbage Tag at City facilities and put on can or bag. See Extra Item Disposal Options.
X HAZARDOUS WASTE	• Call RCBC Recycling Hotline at 604-RECYCLE, visit www.metrovancouverrecycles.org or see page 46 for drop-off locations.
X MATERIALS THAT ARE TOO BIG OR MAY DAMAGE GARBAGE TRUCK	• See Large Item Pick Up program on page 39 for disposal options.
X PROVINCIAL PRODUCT STEWARDSHIP COLLECTION (TAKE-BACK) ITEMS	• Visit bcstewards.com or call 604-RECYCLE.
X RECYCLABLES (BLUE BOX & BLUE CART)	• Place in appropriate recycling receptacle unless it is contaminated by food or other waste.
X UNWRAPPED OR LOOSE GARBAGE	• Must be in garbage bag or can.
X YARD TRIMMINGS	<ul style="list-style-type: none"> • Place in Green Carts or paper yard waste bags. • If one cubic yard or less, drop off at Recycling Depot. Unlimited amounts can be dropped off at Ecowaste Industries with proof of residency. • Check Green Cart section for restrictions and accepted materials on page 36.

CURBSIDE COLLECTION FOR LARGE HOUSEHOLD ITEMS

Richmond's Large Item Pick Up program provides a convenient curbside collection service for up to four large household items per year, including mattresses, furniture and appliances. The program is available to residents in single-family homes and townhomes with the City's garbage collection service and/or Blue Box program.

This program is designed to make it more convenient for residents to dispose of large household items and to help reduce illegal dumping. As well, through this program, large household items that can be recycled will be diverted from the landfill, which will help Richmond achieve its goal for 70% waste diversion from the landfill by 2015.

STEPS ON HOW THE PROGRAM WORKS:

- 1** To schedule collection of up to four items per year, residents can contact the City's service provider, Sierra Waste Services at 604-270-4722 or schedule online at www.richmond.ca/recycle.
- 2** Sierra Waste Services will contact you to provide a pick up date and confirmation number.
- 3** On your scheduled pick up date only, place items at the curb before 7:30 a.m. or no earlier than 8:00 p.m. the night before.

Safety Consideration: If the large item is a freezer, refrigerator, icebox or other container that is equipped with a latch or locking device, the door/latch must be removed and placed beside the large item for safety reasons.



DID YOU KNOW?

Wet mattresses cannot be recycled and pose safety hazards for lifting. Please ensure the mattress stays dry and mould-free by covering it in a plastic bag. Reuse the bag from newly purchased mattresses or purchase bags from home hardware and supply stores. Mattresses not wrapped in plastic will not be picked up.

LIST OF ITEMS ACCEPTED



ACCEPTED

- ✓ Furniture (e.g. couches, coffee tables, chairs, desks, dressers, TV stands, cabinets, drawers, tables, hutches, cribs, high chairs, entertainment centres)
- ✓ Appliances (e.g. stoves, dishwashers, washers and/or dryers, hot water tanks, refrigerators, freezers, microwaves, coolers)
- ✓ Small household goods, which must be in boxes or bundled and are a reasonable size (one box or bundle is equal to one of the resident's four allotted items)
- ✓ Barbecues (remove propane tank and/or lava rock briquettes)
- ✓ Outdoor furniture (e.g. chairs, patio tables, patio umbrellas)
- ✓ Weight training equipment (e.g. treadmills, ellipticals, stationary bikes, stair masters, weight sets)
- ✓ Electric lawnmowers
- ✓ Mattresses (including headboard and frame) – please cover your mattress with a plastic bag.

NOT ACCEPTED

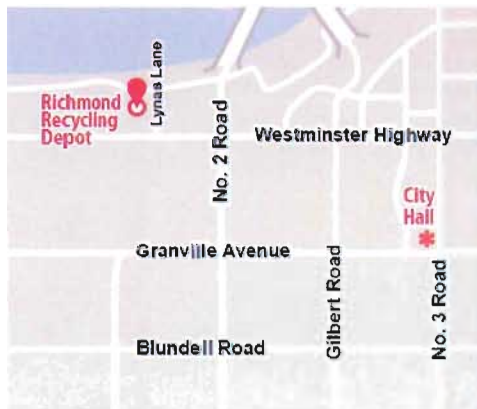
- ✗ Car bodies or parts
- ✗ Tree stumps
- ✗ Carpets
- ✗ Lumber, demolition or home renovation materials
- ✗ Hazardous waste
- ✗ Propane tanks
- ✗ Tires
- ✗ Gas mowers
- ✗ Construction materials

Note: Items that contain any hazardous liquids such as gas, oil, etc. will not be accepted.

See page 46 - 52 for disposal locations.

Note: The item(s) must be able to be safely handled from the curbside in order to qualify for collection.

CITY OF RICHMOND



RECYCLING DEPOT

The Richmond Recycling Depot is located at 5555 Lynas Lane and is open from Wednesday through Sunday from 9:00 a.m. to 6:15 p.m. The Depot accepts Styrofoam, batteries, cell phones, used cooking oil, large appliances, large metal items and yard trimmings, as well as recyclables normally placed at curbside.

Residents are encouraged to use the curbside recyclables collection for glass bottles and jars, rigid plastic containers, newsprint and mixed paper. Businesses are encouraged to subscribe to onsite collection services if a large quantity of recyclables is produced. Residents and small business operators can drop off one cubic yard of recyclables and three large appliances at the Depot per day.

In addition, the Depot is a Product Stewardship (Take Back) Collection site for paint, solvents, flammable liquids, pesticides, lights, lighting fixtures and small appliances.

FOR SALE AT THE RECYCLING DEPOT

Residents can purchase the following items from the Depot:

- Compost bins - \$25 each
- Rain barrels - \$30 each
- Extra Garbage Tags - \$2 each
- Garbage Disposal Vouchers (cost is \$5 for Richmond residents and value is \$20 at the Vancouver Landfill)



TIP FOR RESIDENTS

Residents can purchase compost bins from the Richmond Recycling Depot. To learn more about how to compost, see page 37, or visit the Compost Demonstration Garden located at 2631 Westminster Highway in the Terra Nova Rural Park.

2013 REPORT • ACHIEVING GOALS THROUGH COMMUNITY ENGAGEMENT

**MATERIALS ACCEPTED AT THE RICHMOND RECYCLING DEPOT**

Please note: All materials must be sorted into different containers at the Recycling Depot. Please visit www.richmond.ca/recycle for drop-off details.

- | | | |
|---|---|--|
| ✓ Aluminium materials (aluminium foil, pie plates) | ✓ Flammable aerosols | ✓ Newspaper |
| ✓ Appliances (small and large electrical/battery operated appliances including Dishwashers, washing machines, stoves, barbecues, ovens, microwaves, fridges, freezers, vacuums, hair dryers, toaster ovens, etc.) | ✓ Flammable liquids | ✓ Paints (household paints) |
| ✓ Batteries (small household batteries less than 5 kg) | ✓ Flower pots (paper/plastic garden pots) | ✓ Paint aerosols |
| ✓ Books | ✓ Gasoline | ✓ Pesticides (domestic pesticides) |
| ✓ Cell phones (including batteries) | ✓ Glass bottles and jars (clear and coloured) | ✓ Plastic containers |
| ✓ Cooking oil and animal fat | ✓ Lights (fluorescent tubes, compact fluorescent lights, light emitting diodes, halogen and incandescent lights, high intensity discharge and other mercury containing lamps) | ✓ Plastic grocery shopping bags and film plastics |
| ✓ Corrugated cardboard (flattened, clean corrugated boxes) | ✓ Lighting fixtures | ✓ Sewing, knitting and textile machines |
| ✓ Exercise and hobby machines (treadmills, elliptical / cross trainers, cycling machines) | ✓ Magazines | ✓ Styrofoam packaging |
| | ✓ Metal items (bike frames, clean 45 gallon drums, clean automotive parts, lawn chairs, steel coat hangers, steel or lead piping) | ✓ Tin cans |
| | ✓ Paper (mixed paper products including flattened boxboards, envelopes, junk mail, flyers, inserts, office paper, paper egg cartons, telephone books, etc.) | ✓ Tools (power tools such as angle saws, jigsaws, trimmers, drum machines, etc.) |
| | | ✓ Yard and garden trimmings |

CITY OF RICHMOND



TIP FOR RESIDENTS

Many electronics products can be reused by others and there are convenient services to sell them or give them away. You can also give them to a number of organizations who accept donated equipment to redistribute in the community. Please contact these agencies in advance to ensure they will accept specific items for donation.

BC Electronics Material Exchange: bcmex.ca
Free Geek Vancouver: freegeekvancouver.org

COMMUNITY RESOURCES AND PARTNERS

METRO VANCOUVER RECYCLES — REUSE AND RECYCLE IN THE REGION

A convenient web tool called Metro Vancouver Recycles makes it easy to connect with people who could use products you don't need, or to find options for recycling products that cannot be included in your curbside collection, visit metrovanancouverrecycles.org.

There are also convenient links to online services if you want to sell or give away goods. The following are just a few examples in the Metro Vancouver region:

weRecycle

iPhone app (available from iPhone App Store and at metrovanancouverrecycles.org)

Metro Vancouver Recycling Directory
metrovanancouverrecycles.org

MetroVan Reuses
bc.reuses.com

Richmond Shares
richmondshares.bc.ca

RCBC COMMUNITY RESOURCES

Recycling Hotline

Monday to Friday, 9 a.m. to 4 p.m.

Phone: 604-RECYCLE (604-732-9253)

Email: hotline@rcbc.bc.ca

RCBC Recyclepedia at rcbc.bc.ca/recyclepedia

Smart Phone App: BC Recyclepedia App
(available at iPhone App Store and Android Market)

RCBC MATERIALS EXCHANGE PROGRAM (MEX)

The RCBC MEX program is a completely self-serve web-based program comprised of Residential Reuse Programs and the BC Industrial Materials Exchange (BC IMEX) and is available at bc.reuses.com

DID YOU KNOW?

Four, 2-litre plastic bottles can be recycled into one t-shirt, filling for a ski jacket and two ball caps.



PRODUCT STEWARDSHIP PROGRAMS

The City of Richmond works with local companies and organizations like Product Care and Encorp to support BC's Product Stewardship Programs.

These programs are often called take back programs or Extended Producer Responsibility (EPR) programs, and they are based on the principle that whoever designs, produces, sells or uses a product is also responsible for minimizing that product's environmental impact. The key participants in these programs are the BC government, local governments, producers, retailers and consumers who bring their products to designated collection sites when they are at their end of life. The cost of these programs is covered by consumers and producers, sometimes in the form of a deposit or levy that is charged at the time of purchase. In the case of beverage containers, there are refunds available when they are returned at a collection site.

Take back programs are important as they expand the opportunities for recycling beyond the curbside collection services. There are many household items that can be recycled through businesses and organizations in the community who participate in BC's Product Stewardship Program. Many of these items are also considered hazardous waste, and they are restricted from garbage as they are not accepted at the landfill. The take back programs help to ensure that these expired or end-of-life products will be disposed of safely, and recycled where possible.



CITY OF RICHMOND

PRODUCT STEWARDSHIP PROGRAM CATEGORIES

The following categories highlight the products that can be returned to retailers and other community partners. For a list of drop-off locations for each category, please see pages 47 to 52.

TAKE BACK PROGRAMS	WHAT IS INCLUDED	STEWARDSHIP AGENCY
BATTERIES	Household batteries	Call2Recycle Contact call2recycle.ca 1-888-224-9764 info@call2recycle.ca Drop off site locator 1-877-273-2925
BEVERAGE CONTAINERS	Almost all types of beverage containers	Encorp Pacific (Canada) Contact return-it.ca/locations 1-800-330-9767 or 604-473-2400 returnit@returnit.ca Note: Beverage containers like pop and juice cans and bottles can be recycled with the Blue Box or Blue Cart or can be dropped off at Richmond's Recycling Depot as part of the City's recycling services. Beverage containers can also be returned for a refund on the deposit at a number of Return-It Depot locations in Richmond.
CELL PHONES	Mobile/wireless devices that connect to a cellular or paging network, including all cell phones, smart phones, wireless personal digital assistants (PDAs), external air cards and pagers, as well as cell phone batteries and accessories, including headsets and chargers	Canadian Wireless Telecommunications Association Contact RecycleMyCell.ca 1-888-797-1740 info@recyclemycell.ca
ELECTRONICS	Televisions and computer and printer products such as desktop computers, display devices, portable (laptop) computers, desktop printers and fax machines and computer accessories like keyboards, pointing devices, track balls and mice	Encorp Pacific (Canada) Contact return-it.ca/electronics 1-800-330-9767 or 604-473-2400 returnit@returnit.ca
MEDICATION	All expired or leftover prescription medication, non-prescription medication and mineral supplements, anti-fungal and anti-bacterial creams	Health Products Stewardship Association Contact healthsteward.ca/returns/british-columbia 613-723-7262 info@healthsteward.ca

DID YOU KNOW?

100% of brewer packaging is either reusable or recyclable, and in addition to standard beer cans and bottles, brewers reuse or recycle their aluminum kegs and their secondary packaging including plastic shrink wrap, cardboard and wooden pallets.

**DID YOU KNOW?**

A littered aluminum can takes 500 years to disintegrate, but it only takes six weeks to be manufactured, filled, sold, recycling, remanufactured, refilled and be back out on the marketplace.

TAKE BACK PROGRAMS	WHAT IS INCLUDED	STEWARDSHIP AGENCY
PACKAGING AND PRINTED PAPER	Aerosol cans, microwavable bowls/cups/lids, paper food containers & cartons, plastic & paper drink cups with lids, plastic containers/jars/tubs/trays, aluminium cans, tin cans, etc. Visit recyclinginbc.ca for a complete list	Multi Material British Columbia (MMBC) Contact Twitter: @recyclemorebc www.multimaterialbc.ca
PAINTS, SOLVENTS, PESTICIDES AND GASOLINE	Paints, solvents, pesticides and gasoline	Product Care Association Contact productcare.org/BC-Paint-Program
SMALL APPLIANCES AND POWER TOOLS	Kitchen countertop appliances (e.g. toasters, microwaves, coffee makers and food processors), electric bathroom scales, hair dryers, carpet cleaners, vacuum cleaners, portable fans, power tools, sewing and exercise machines	ElectroRecycle is a non-profit, province-wide, small electrical appliance recycling program in B.C. and the first of its kind in Canada through the Canadian Electrical Stewardship Association (CESA) with the help of BC's Product Care Association Contact electrorecycle.ca 1-800-667-4321
TIRES	Car tires, truck tires and some agricultural and logger/skidder tires	Tire Stewardship BC (TSBC) Contact tsbc.ca 1-866-759-0488
THERMOSTATS	Mercury-containing and electronic thermostats	Heating, Refrigeration and Air Conditioning Institute of Canada in partnership with the Canadian Institute of Plumbing and Heating, and delivered by Summerhill Impact. Contact switchthestat.ca 416-922-2448 (ext 232) jcourt@summerhillgroup.ca
USED OIL AND ANTIFREEZE	Motor oil, oil filters, empty oil containers, antifreeze and used antifreeze containers	BC Used Oil Management Association Contact usedoilrecycling.com/bc 1-866-254-0555 reception@usedoilrecycling.ca

CITY OF RICHMOND

HAZARDOUS WASTE AND OTHER DISPOSAL ITEMS

The careless handling of hazardous products can cause serious injury as well as damage to the environment. Hazardous products that are dumped in sewers or green spaces can injure livestock, wildlife and plant life. Careful and often specialized disposal is essential for these materials.

There are certain materials that Metro Vancouver disposal facilities do not accept, either because there are already disposal programs set up for these items, or because they are hazardous to waste collection workers, the public and the environment.

At disposal sites, garbage loads are inspected for banned and prohibited materials. Loads that arrive at the disposal sites containing prohibited materials are assessed a \$50 minimum surcharge, plus the cost of removal, clean-up or remediation. Loads containing banned materials are assessed a 50% tipping fee surcharge.

Many common hazardous household and automotive products must be recycled or disposed through special depots. Disposal sites and take back collection options for hazardous and banned materials are listed on the following pages. Please note that this information is provided as a reference for your convenience; however, it is not guaranteed. Please call first to confirm that the site is still open to accept these take-back products and to check hours of operation.

Please visit www.richmond.ca/recycle for more information.



BANNED/PROHIBITED FROM LANDFILL


EXAMPLES OF MATERIALS

Please refer to the Tips and Resources section for ways to safely dispose of these materials or call RCBC at 604-RECYCLE (732-9253).

<ul style="list-style-type: none"> x Asbestos x Automobile bodies and parts x Batteries x Barrels or drums in excess of 205 litres (45 gallons) x Clean or treated wood exceeding 2.5 metres in length x Electronics and electrical products (limited) x Fluorescent lights 	<ul style="list-style-type: none"> x Gypsum x Hazardous waste x Inert fill materials including soil, sod, gravel, concrete and asphalt in quantities exceeding 0.5 cubic metres per load x Lead acid batteries x Liquids and sludge x Mattresses x Oil containers, oil filters, paint products, solvents and flammable liquids 	<ul style="list-style-type: none"> x Household or commercial appliances x Pesticide products x Pharmaceuticals x Propane tanks x Thermostats x Tires x Any material in new or expanded product categories for the Recycling Regulation that comes into effect while the 2013 Tipping Fee Bylaw No. 281 is in effect.
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BANNED MATERIALS THAT CAN BE RECYCLED

<ul style="list-style-type: none"> x Corrugated cardboard x Recyclable paper 	<ul style="list-style-type: none"> x Containers made of glass, metal or banned recycled plastic  	<ul style="list-style-type: none"> x Beverage containers (all except milk cartons) x Yard and garden trimmings
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For a list of Banned and Prohibited Materials, please visit www.metrovancouver.org/services/solidwaste/disposal/Pages/bannedmaterials.aspx



TIP FOR RESIDENTS

To spot hazardous waste, look for the words Danger, Warning, or Caution on the product label, and any of the symbols shown above.



ANTIFREEZE AND EMPTY CONTAINERS ^{DB}

DROP-OFF LOCATION	ADDRESS	PHONE
Richmond Audi	5680 Parkwood Way	604-279-9663
Canadian Tire	3500 No. 3 Road	604-273-2970
Certigard Petro-Canada	4011 Francis Road	604-277-3620
Cowell Motors Ltd. - Volkswagen	13611 Smallwood Place	604-273-3922
Esso Service	7991 No. 1 Road	604-277-1105
Jaguar Land Rover of Richmond	5660 Parkwood Way	604-273-6068
Lubeworld	10991 No. 4 Road	604-951-6662
Metron Auto Service Ltd.	104 - 8077 Alexandra Road	604-270-1668
Mr. Lube	9120 Westminster Highway	604-273-5823
Rainbow Auto Service	142 - 11788 River Road	604-276-2820

For a complete list of antifreeze or containers accepted, visit <http://usedoilrecycling.com/en/bc> or call 604-RECYCLE.

APPLIANCES - SMALL ^{DB}

DROP-OFF LOCATION	ADDRESS	PHONE
City's Recycling Depot	5555 Lynas Lane	604-276-4010
Ironwood Bottle & Return-It Depot	110 - 11020 Horseshoe Way	604-275-0585
OK Bottle Depot	7960 River Road	604-244-0008
Regional Recycling	13300 Vulcan Way	604-276-8270
Steveston Return-It Depot	2 - 12320 Trites Road	604-241-9177

For a complete list of small appliances accepted, visit electrorecycle.ca or call 604-RECYCLE.

AUTOMOTIVE BATTERIES ^{DB}

DROP-OFF LOCATION	ADDRESS	PHONE
Canadian Tire	3500 No. 3 Road	604-273-2970
	11388 Steveston Highway	604-271-6651
Kal Tire	6551 No. 3 Road	604-207-1203
	2633 No. 5 Road	604-278-9181
Regional Recycling *	13300 Vulcan Way	604-276-8270
Sota Battery Canada	11871 Horseshoe Way	604-271-9727

Note: All retail locations accept a used car battery for each new one purchased. For a list of collection sites, please visit www.recyclemybattery.ca

DB: Disposal ban] * A fee is charged

Please note: Drop-off locations may change without notice. Please call individual locations to confirm address and hours of operation.

CITY OF RICHMOND



BABY CAR SEATS		
DROP-OFF LOCATION	ADDRESS	PHONE
City of Vancouver Landfill *	5400 72nd Street, Delta	604-873-7000

BATTERIES AND MOBILE PHONES ^{DB}		
Batteries weighing five kilograms or less.		
DROP-OFF LOCATION	ADDRESS	PHONE
Batteries Included	319 - 5300 No. 3 Road	604-270-9989
City's Recycling Depot	5555 Lynas Lane	604-276-4010
Canadian Tire	11388 Steveston Highway	604-271-6651
Dr Battery	135 - 13900 Maycrest Way	604-273-8248
Future Shop	102 - 5300 No. 3 Road	604-232-9772
	150 - 2780 Sweden Way	604-207-0199
Home Depot	2700 Sweden Way	604-303-7360
London Drugs	5971 No. 3 Road	604-448-4811
	3200 - 11666 Steveston Highway	604-448-4852
Pharmasave	116 - 10151 No. 3 Road	604-241-2898
Rona	7111 Elmbridge Way	604-273-4606
Staples	1 - 6390 No. 3 Road	604-270-9599
	110 - 2780 Sweden Way	604-303-7850
For a complete list of batteries accepted, please visit call2recycle.ca or call 1-888-224-9764.		
For a complete list of mobile phones drop off locations, visit call2recycle.ca/locator		
All cellular/mobile phone stores accept used cellular/mobile phones for refurbishing or recycling.		
To erase information from your device, including text messages, contacts and personal files, use Cell Phone Data Erasers by recyclemycell.ca/recycling-your-device available for free.		

CARBON MONOXIDE (CO), SMOKE AND COMBINATION SMOKE AND CO ALARMS ^{DB}		
DROP-OFF LOCATION	ADDRESS	PHONE
London Drugs	5971 No. 3 Road	604-448-4811
	3200 - 11666 Steveston Highway	604-448-4852
Regional Recycling	13300 Vulcan Way	604-276-8270
Steveston Return-It Depot	2 - 12320 Trites Road	604-241-9177
For a complete list of alarms accepted, please visit productcare.org/Smoke-Alarms or call 604-RECYCLE.		

DB: Disposal ban | * A fee is charged

Please note: Drop-off locations may change without notice. Please call individual locations to confirm address and hours of operation.



ELECTRONICS: AUDIO VISUAL EQUIPMENT, COMPUTERS, MONITORS, TVs, PRINTERS, FAX MACHINES, SCANNERS, VIDEO GAMES & ACCESSORIES		
DROP-OFF LOCATION	ADDRESS	PHONE
Best Buy	700 - 5300 No. 3 Road	604-273-7335
Future Shop	102 - 5300 No. 3 Road	604-232-9772
	150 - 2780 Sweden Way	604-207-0199
Ironwood Bottle & Return-It Depot	110 - 11020 Horseshoe Way	604-275-0585
OK Bottle Depot	7960 River Road	604-244-0008
Regional Recycling	13300 Vulcan Way	604-276-8270
Staples	1 - 6390 No. 3 Road	604-270-9599
	110 - 2780 Sweden Way	604-303-7850
Steveston Return-It Depot	2 - 12320 Trites Road	604-241-9177
For a complete list of materials accepted, please visit return-it.ca/electronics or call 604-473-2400.		

EXERCISE & HOBBY MACHINES ^{DB}		
DROP-OFF LOCATION	ADDRESS	PHONE
City's Recycling Depot	5555 Lynas Lane	604-276-4010
Ironwood Bottle & Return-It Depot	110-11020 Horseshoe Way	604-275-0585
Regional Recycling	13300 Vulcan Way	604-276-8270

EYEGLASSES		
DROP-OFF LOCATION	ADDRESS	PHONE
Drop off at a local optometrist or eye care professional.		

FIRE EXTINGUISHERS		
DROP-OFF LOCATION	ADDRESS	PHONE
Contact Recycling Council of BC at 604-RECYCLE for more information.		

2013 REPORT • ACHIEVING GOALS THROUGH COMMUNITY ENGAGEMENT

DID YOU KNOW?

The Product Stewardship Program helps with take back of many recyclable materials and is guided by the principle that whoever designs, produces, sells or uses a product takes responsibility for minimizing that product's environmental impact. The costs for

recycling these products are covered through environmental handling fees that are charged on the sale of products and through refundable deposits on items like beverage containers.

**FLAMMABLE LIQUIDS ^{DB}, PESTICIDES ^{DB}, SOLVENTS ^{DB}, GASOLINE ^{DB}**

(Gasoline must be in approved U.C. container)

DROP-OFF LOCATION	ADDRESS	PHONE
City's Recycling Depot	5555 Lynas Lane	604-276-4010
Regional Recycling	13300 Vulcan Way	604-276-8270

For a complete list of flammable liquids, gasoline, pesticides and solvents accepted, please visit productcare.org/BC-Paint-Program or call 604-RECYCLE.

GENERAL HAZARDOUS MATERIALS

DROP-OFF LOCATION	ADDRESS	PHONE
Hazco Environmental (Tervita)*	160 - 13511 Vulcan Way	604-214-7000
Newalta Corporation *	9 - 7483 Progress Way, Delta	604-952-1220 604-940-9655

GYPSUM DRYWALL ^{DB}

No other materials attached to or on drywall

DROP-OFF LOCATION	ADDRESS	PHONE
City of Vancouver Landfill *	5400 72nd Street, Delta	604-873-7000
Ecowaste Industries Ltd. *	15111 Triangle Road	604-277-1410
New West Gypsum Recycling *	38 Vulcan Street, New Westminster	604-534-9925
Vancouver Transfer Station (Maximum: 1/2 sheet with a paid load of garbage)	377 W. Kent Avenue N.	604-873-7000

HYPODERMIC NEEDLES

Purchase a "Sharps Container" from a pharmacy and return the container to same pharmacy when full.

**LIGHTS & LIGHTING FIXTURES ^{DB}**

DROP-OFF LOCATION	ADDRESS	PHONE
City's Recycling Depot	5555 Lynas Lane	604-276-4010
Canadian Tire	11388 Steveston Highway	604-271-6651
Home Depot	2700 Sweden Way	604-303-7360
London Drugs	5971 No. 3 Road	604-448-4811
	3200 - 11666 Steveston Highway	604-448-4852

For a complete list of lighting products accepted, please visit productcare.org/rights or call 604-RECYCLE.

LUBRICATING (USED) OIL ^{DB}, OIL FILTERS ^{DB}, PLASTIC OIL CONTAINERS ^{DB}

DROP-OFF LOCATION	ADDRESS	PHONE
Audi of Richmond	5660 Parkwood Way	604-279-9663
Canadian Tire	3500 No. 3 Road	604-273-2939
	11388 Steveston Highway	604-271-6651
Certigard Petro-Canada	4011 Francis Road	604-277-3620
Cowell Motors Ltd - Volkswagen	13611 Smallwood Place	604-273-3922
Esso Service Station (Blundell)	7991 No. 1 Road	604-277-1105
Jaguar Land Rover of Richmond	5660 Parkwood Way	604-273-6068
Jiffy Lube	10991 No. 4 Road	604-951-6662
Metron Auto Service Ltd.	104 - 8077 Alexandra Road	604-270-1668
Mr. Lube	9120 Westminster Highway	604-273-5823
Sky Auto Services	110 - 5791 Minoru Boulevard	604-233-1828

For a complete list of lubricating oil, oil filters and plastic oil containers accepted, visit www.usedoilrecycling.com or call 604-RECYCLE.

DB: Disposal ban | * A fee is charged

Please note: Drop-off locations may change without notice. Please call individual locations to confirm address and hours of operation.

CITY OF RICHMOND

Working together with the City of Richmond, producers, retailers and residents can divert hazardous waste and other special disposal items from the landfill. Producers and retailers who support product stewardship and related take back programs assist with recycling and proper disposal, and residents can use these programs to help turn waste into resources.

**MATTRESSES AND BOXSPRINGS ^{DB}**

DROP-OFF LOCATION	ADDRESS	PHONE
Canadian Mattress Recycling*	1210 Cliveden Avenue, Delta	604-777-0324
City of Vancouver Landfill*	5400 72nd Street, Delta	604-873-7000
MattressRecycling.ca*	8275 Sherbrooke Street, Vancouver	604-961-1534

Richmond's Large Item Pick Up Program: Contact Sierra Waste at 604-270-4722. Please note some restrictions apply. See page 39.

MEDICAL DEVICES & EQUIPMENT ^{DB}

DROP-OFF LOCATION	ADDRESS	PHONE
Best Buy	700 - 5300 No. 3 Road	604-273-7335
Future Shop	102 - 5300 No. 3 Road	604-232-9772
	150 - 2780 Sweden Way	604-207-0199
Ironwood Bottle & Return-It Depot	110 - 11020 Horseshoe Way	604-275-0585
OK Bottle Depot	7960 River Road	604-244-0008
Regional Recycling	13300 Vulcan Way	604-276-8270
Staples	1 - 6390 No. 3 Road	604-270-9599
	110 - 2780 Sweden Way	604-303-7850
Steveston Return-It Depot	2 - 12320 Trites Road	604-241-9177

**MUSICAL INSTRUMENTS ^{DB}**

DROP-OFF LOCATION	ADDRESS	PHONE
Best Buy	700 - 5300 No. 3 Road	604-273-7335
Future Shop	102 - 5300 No. 3 Road	604-232-9772
	150 - 2780 Sweden Way	604-207-0199
Ironwood Bottle & Return-It Depot	110 - 11020 Horseshoe Way	604-275-0585
OK Bottle Depot	7960 River Road	604-244-0008
Regional Recycling	13300 Vulcan Way	604-276-8270
Staples	1 - 6390 No. 3 Road	604-270-9599
	110 - 2780 Sweden Way	604-303-7850

PAINT & PAINT AEROSOL CONTAINERS ^{DB}

DROP-OFF LOCATION	ADDRESS	PHONE
City's Recycling Depot	5555 Lynas Lane	604-276-4010
Regional Recycling	13300 Vulcan Way	604-276-8270
Rona	7111 Elmbridge Way	604-273-4606
Steveston Return-It Depot	2-12320 Trites Road	604-241-9177

For a complete list of paint & paint aerosol containers accepted, please visit productcare.org/BC-Paint-Program or call 604-RECYCLE.

DB: Disposal ban | * A fee is charged

Please note: Drop-off locations may change without notice. Please call individual locations to confirm address and hours of operation.

CITY OF RICHMOND

Working together with the City of Richmond, producers, retailers and residents can divert hazardous waste and other special disposal items from the landfill. Producers and retailers who support product stewardship and related take back programs assist with recycling and proper disposal, and residents can use these programs to help turn waste into resources.

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MATTRESSES AND BOXSPRINGS ^{DB}

DROP-OFF LOCATION	ADDRESS	PHONE
Canadian Mattress Recycling*	1210 Cliveden Avenue, Delta	604-777-0324
City of Vancouver Landfill*	5400 72nd Street, Delta	604-873-7000
MattressRecycling.ca*	8275 Sherbrooke Street, Vancouver	604-961-1534

Richmond's Large Item Pick Up Program: Contact Sierra Waste at 604-270-4722. Please note some restrictions apply. See page 39.

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Best Buy	700 - 5300 No. 3 Road	604-273-7335
Future Shop	102 - 5300 No. 3 Road	604-232-9772
	150 - 2780 Sweden Way	604-207-0199
Ironwood Bottle & Return-It Depot	110 - 11020 Horseshoe Way	604-275-0585
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Steveston Return-It Depot	2 - 12320 Trites Road	604-241-9177



MUSICAL INSTRUMENTS ^{DB}

DROP-OFF LOCATION	ADDRESS	PHONE
Best Buy	700 - 5300 No. 3 Road	604-273-7335
Future Shop	102 - 5300 No. 3 Road	604-232-9772
	150 - 2780 Sweden Way	604-207-0199
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Regional Recycling	13300 Vulcan Way	604-276-8270
Staples	1 - 6390 No. 3 Road	604-270-9599
	110 - 2780 Sweden Way	604-303-7850

PAINT & PAINT AEROSOL CONTAINERS ^{DB}

DROP-OFF LOCATION	ADDRESS	PHONE
City's Recycling Depot	5555 Lynas Lane	604-276-4010
Regional Recycling	13300 Vulcan Way	604-276-8270
Rona	7111 Elmbridge Way	604-273-4606
Steveston Return-It Depot	2-12320 Trites Road	604-241-9177

For a complete list of paint & paint aerosol containers accepted, please visit productcare.org/BC-Paint-Program or call 604-RECYCLE.

DB: Disposal ban | * A fee is charged

Please note: Drop-off locations may change without notice. Please call individual locations to confirm address and hours of operation.



CITY OF RICHMOND

**THERMOSTATS ^{DB}**

DROP-OFF LOCATION	ADDRESS	PHONE
Andrew Sheret Ltd.	4500 Vanguard Road	604-278-3766

For more information, visit switchthestat.ca or call 1-416-922-2448 ext. 232.

TIRES ^{DB}

DROP-OFF LOCATION	ADDRESS	PHONE
A & D Workshop Inc	180 - 12871 Clarke Place	604-351-7696
Big-O Tires	102-5651 No. 3 Road	604-247-1555
	11251 Bridgeport Road	604-244-0464
Canadian Tire	3500 No. 3 Road	604-273-2939
	11388 Steveston Highway	604-271-6651
Chariot Tire	404 - 5940 No. 6 Road	604-276-2966
Costco Wholesale	9151 Bridgeport Road	604-270-3647
Express Lube & Tune Centre	2840 No. 3 Road	604-278-1018
Kal Tire	6551 No. 3 Road	604-207-1203
	2633 No. 5 Road	604-278-9181
Metro Tires Ltd.	12311 Mitchell Road	604-783-4435
Midas Auto & Tire Service	4660 No. 3 Road	604-273-9664
OK Tire Store	5831 Minoru Boulevard	604-278-5171
Redline Automotive Ltd.	1 - 11711 No. 5 Road	604-277-4269
Richmond Country Tire	11880 Macrina Way	604-241-5555
Roadrunners Dial A Tire Ltd.	125 - 11780 River Road	604-274-8473
Shortstop Auto Service	11251 Bridgeport Road	604-244-0464
Signature Mazda	13800 Smallwood Place	604-278-3185
Vancouver Landfill (Passenger/light truck, with/ without rims limit of 10)	5400 72nd Street, Delta	604-873-7000

Note: All retail locations accept a used tire for a new one purchased.

For a complete list of tires accepted, visit tsbc.ca or call 1-866-759-0488.

DB: Disposal ban | * A fee is charged

Please note: Drop-off locations may change without notice. Please call individual locations to confirm address and hours of operation.

DID YOU KNOW?

Recycled tires are used in products such as athletic tracks, playground safety surfaces, synthetic turf fields and roofing products.

**TIRES AND TUBES - BICYCLE**

DROP-OFF LOCATION	ADDRESS	PHONE
Village Bikes	3891 Moncton Street	604-274-3865

For more information, visit tsbc.ca/bike.php or call 1-866-759-0488.

TOOLS - POWER (ELECTRONIC & ELECTRICAL) ^{DB}

DROP-OFF LOCATION	ADDRESS	PHONE
City's Recycling Depot	5555 Lynas Lane	604-276-4010
Ironwood Bottle & Return-It Depot	110-11020 Horseshoe Way	604-275-0585
OK Bottle Depot	7960 River Road	604-244-0008
Regional Recycling	13300 Vulcan Way	604-276-8270
Steveston Return-It Depot	2 - 12320 Trites Road	604-241-9177

TOYS (ELECTRONIC & ELECTRICAL) INCLUDING VIDEO GAMING SYSTEMS & ACCESSORIES ^{DB}

DROP-OFF LOCATION	ADDRESS	PHONE
Best Buy	700 - 5300 No. 3 Road	604-273-7335
Future Shop	102 - 5300 No. 3 Road	604-232-9722
	150 - 2780 Sweden Way	604-207-0199
Ironwood Bottle & Return-It Depot	110-11020 Horseshoe Way	604-275-0585
OK Bottle Depot	7960 River Road	604-244-0008
Regional Recycling	13300 Vulcan Way	604-276-8270

NON HAZARDOUS MISCELLANEOUS ITEMS

Vancouver Landfill **	5400 72nd Street, Delta	604-873-7000
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CITY OF RICHMOND

Environmental Programs Information Line:

604-276-4010

www.richmond.ca/recycle

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recycled fibre, is FSC Certified and
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City of Richmond

Report to Committee

To: Public Works and Transportation Committee **Date:** June 13, 2014
From: John Irving, P.Eng. MPA **File:** 10-6000-01/2014-Vol
Director, Engineering 01
Re: **Graybar Road Drainage and Sanitary Main Replacement**

Staff Recommendation

That funding of \$325,000 from the Sanitary Utility Reserve and \$275,000 from the Drainage Utility Reserve be included as an amendment to the 5 Year Financial Plan (2014-2018) to complete the Graybar Road Drainage and Sanitary Main Replacement Project.

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

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

Staff Report

Origin

In May 2014, staff were advised that ground settlement was occurring on City and private property along the northern portion of Graybar Road near Westminster Highway. Further investigation has indicated that the settlement is likely due to infiltration into the sanitary and drainage mains. While the system is still operational, it is necessary to replace these sections of sewer main to prevent further ground settlement and property damage.

The purpose of this report is to seek Council's support for the replacement of the Graybar Road Sanitary and Drainage Mains under the 2014 Capital Program, with funding from the Sanitary and Drainage Utility Reserves.

Analysis

There are approximately 620km of drainage mains and 565km of sanitary mains owned and maintained by the City. The drainage network collects stormwater throughout the City, and the sanitary network collects wastewater from City residents and businesses. Stormwater is discharged directly to the Fraser River, and wastewater is treated at the Metro Vancouver Lulu Island Wastewater Treatment Plant before it is ultimately discharged to the Fraser River.

The City has a proactive program of utility infrastructure upgrades funded through the appropriate utility. Upgrades are planned utilizing asset management and capacity models developed for Richmond's extensive water, sanitary, drainage and roadway systems. The Graybar Road drainage and sewer mains were not included in the current 5 Year Capital Plan because they are not nearing the end of their original design life.

In May 2014, ground settlement on the western side of Graybar Road was reported to staff. The settlement is affecting the boulevard as well as portions of a paved parking lot on private property. Subsequent inspection of the adjacent drainage and sanitary mains revealed settlement of the pipes and infiltration to both systems.

While the drainage and sanitary systems remain operational, the replacement of approximately 95m of 600mm diameter drainage main and 75m of 200mm diameter sanitary main is necessary to address the settlement issues and prevent further property damage. The estimated cost to complete this work is \$600,000.

Financial Impact

The total capital cost is \$600,000. Funding of \$325,000 for the sanitary portion of the work is available from the Sanitary Utility Reserve. Funding of \$275,000 for the drainage portion of the work is available from the Drainage Utility Reserve.

The 5 year Financial Plan (2014-2018) will be amended to reflect these changes.

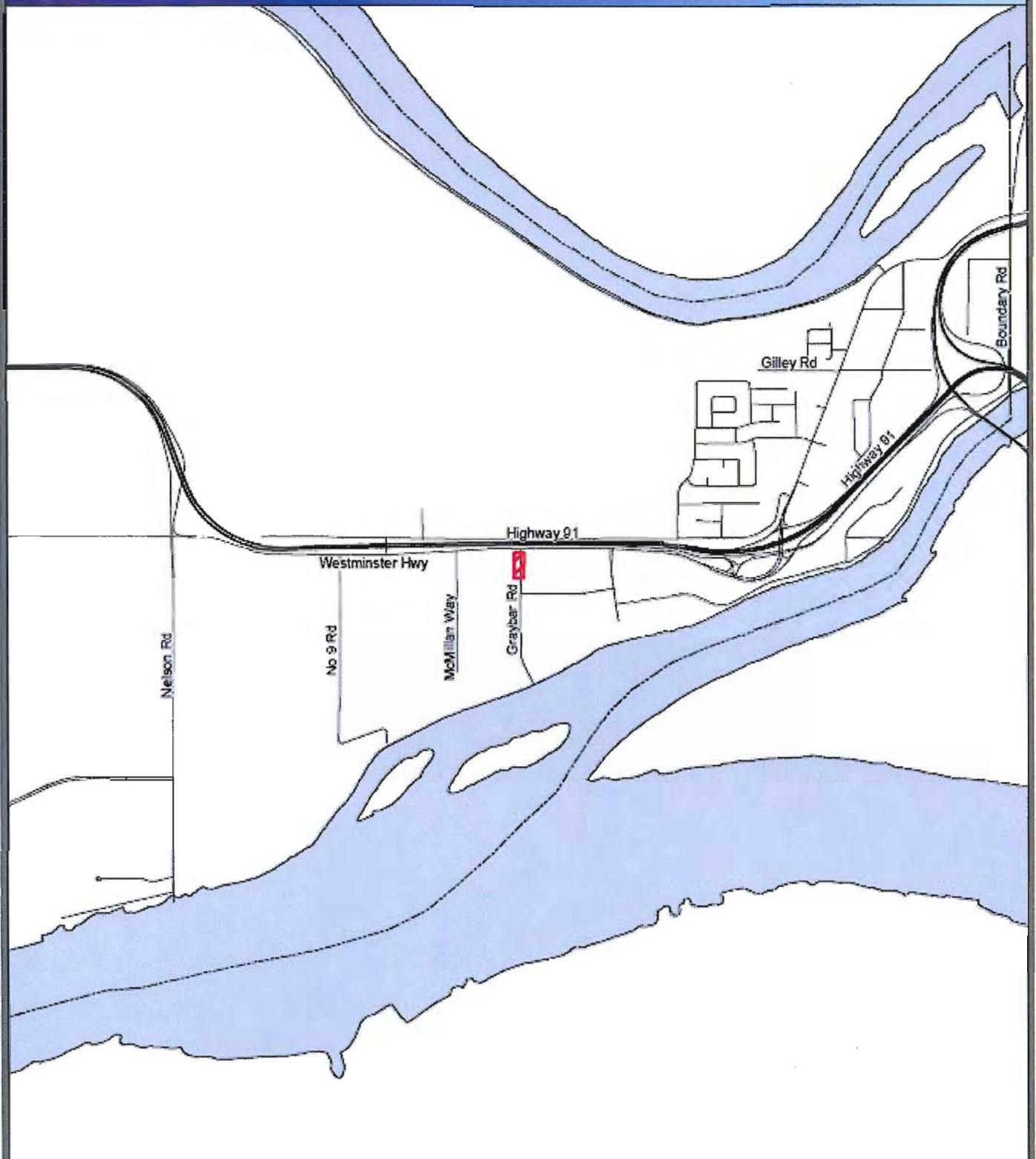
Conclusion

The drainage and sanitary mains at the north end of Graybar Road have settled and there is infiltration into these pipes. It is necessary to replace these sections of sewer to prevent further ground settlement and damage to private property.





Milton Chan, P.Eng
Manager, Engineering Design & Construction
(604-276-4377)

MC:mc



Legend

-  Mains To Be Replaced
 City of Richmond Boundary

Notes
The information shown on this map is compiled from a variety of sources and the City makes no warranties, expressed or implied, as to the accuracy or completeness of the information. Users are reminded that all state and local descriptions must be confirmed at the land title office in New Weston before they obtain a legal document, and a legal document for information and other income purposes only.
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City of Richmond

Report to Committee

To: Public Works and Transportation Committee

Date: June 16, 2014

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

File: 10-6000-01/2014-
Vol 01

Re: Electric Vehicle Promotion at Community Events

Staff Recommendation

That the City's participation in the Emotive electric vehicle initiative, as described in the attached report titled "Electric Vehicle Promotion at Community Events", dated June 16, 2014, from the Director, Engineering, be endorsed.

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

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

Staff Report

Origin

Richmond's 2041 Official Community Plan (OCP) establishes community greenhouse gas (GHG) reduction targets of 33% by 2020, and 80% by 2050, below 2007 levels. Richmond's Community Energy and Emissions Plan (CEEP) identifies that vehicle transportation accounted for 53% of the community's GHG emissions in 2010. By increasing the use of electric vehicles (EVs) Richmond can more rapidly achieve the targeted GHG reductions.

Promoting EVs supports Council's Term Goal #8 Sustainability:

#8.1 Continued implementation and significant progress towards achieving the City's Sustainability Framework.

Background

In January 2014, City Council adopted Richmond's Community Energy and Emissions Plan (CEEP), which sets strategies to manage energy use and reduce carbon emissions. A widespread shift to zero carbon vehicles is identified in the CEEP as a "Big Breakthrough" strategy necessary for Richmond to achieve its emissions targets in the coming decades. Strategy 7 in the CEEP identifies that the City will "promote low carbon personal vehicles".

The City has taken a variety of actions to facilitate the transition to EVs. In 2012, Council approved a cost sharing project with the Province that allowed the installation of EV charging stations at Steveston, Thompson, and Cambie Community Centres, as well as City Hall. The stations have been used 967 separate times in the first 9 months of their activation, helping to build consumer confidence in EVs. There are also two electrical charging stations at the Works Yard and City Hall for City vehicles to use, and the City has four EVs in its fleet.

The City has also supported EV charging stations in private development. The 2041 OCP requires that at least 45% of parking stalls in multi-family developments be constructed to accommodate future installation of EV charging equipment. Larger commercial developments such as the recent SmartCentres development have included provisions for EV charging infrastructure.

Analysis

Program Overview

"Emotive" is a new joint outreach campaign developed by Plug In BC, a collaborative initiative that works to promote EVs and related electric charging infrastructure in British Columbia. The Emotive campaign was developed with support from Metro Vancouver, some regional municipalities, the Fraser Basin Council, the Province of BC and BC Hydro.

The Emotive campaign is designed to raise awareness of EVs, and create more opportunities to experience driving an EV. A recent study by the World Wildlife Foundations found that 47% of Canadians had no awareness of EVs, while only 7% of the population report experience traveling

in or even seeing an EV. Such research suggests that building the public's awareness of EVs is crucial to facilitate their uptake.

Plug In BC conducted market research to identify likely "early adopter" populations that may purchase electric vehicles in the near term. This research suggests that higher income populations with an interest in technology and/or environmental values are appropriate target markets. This research also surveyed current owners on what they most appreciated about their EV. Interestingly, EV owners mostly cite vehicle performance as their favourite feature – 59% of owners cite power and speed, 30% that vehicles are quiet, and only 11% most appreciate vehicles' environmental attributes.

The Emotive campaign includes a branded identity (see Attachment 1) and various forms of media (website, billboards, etc.) that seek to increase peoples' knowledge of electric vehicles. The campaign includes "Community Event Kits", which can be deployed at major community events. The kits include usage of the Emotive identity, promotional materials (t-shirts, tattoos, and other collateral), and the participation of 1-2 volunteer EV owners who serve as "EV Ambassadors".

Promotion in Richmond


The City has the opportunity to deploy the Emotive campaign at major events, such as the Richmond Maritime Festival, Night Market, Summer Night Market, Steveston Dragon Boat Festival, and other events. City staff will attend these events, accompanying volunteer EV Ambassadors. Staff anticipate implementing Emotive engagements at a minimum of 5 events during 2014. Staff will also promote other sustainable energy opportunities, such as home energy improvement programs, during these events.

Financial Impact

None. Any minor costs related to Richmond-specific promotional materials and events can be accommodated within existing budgets.

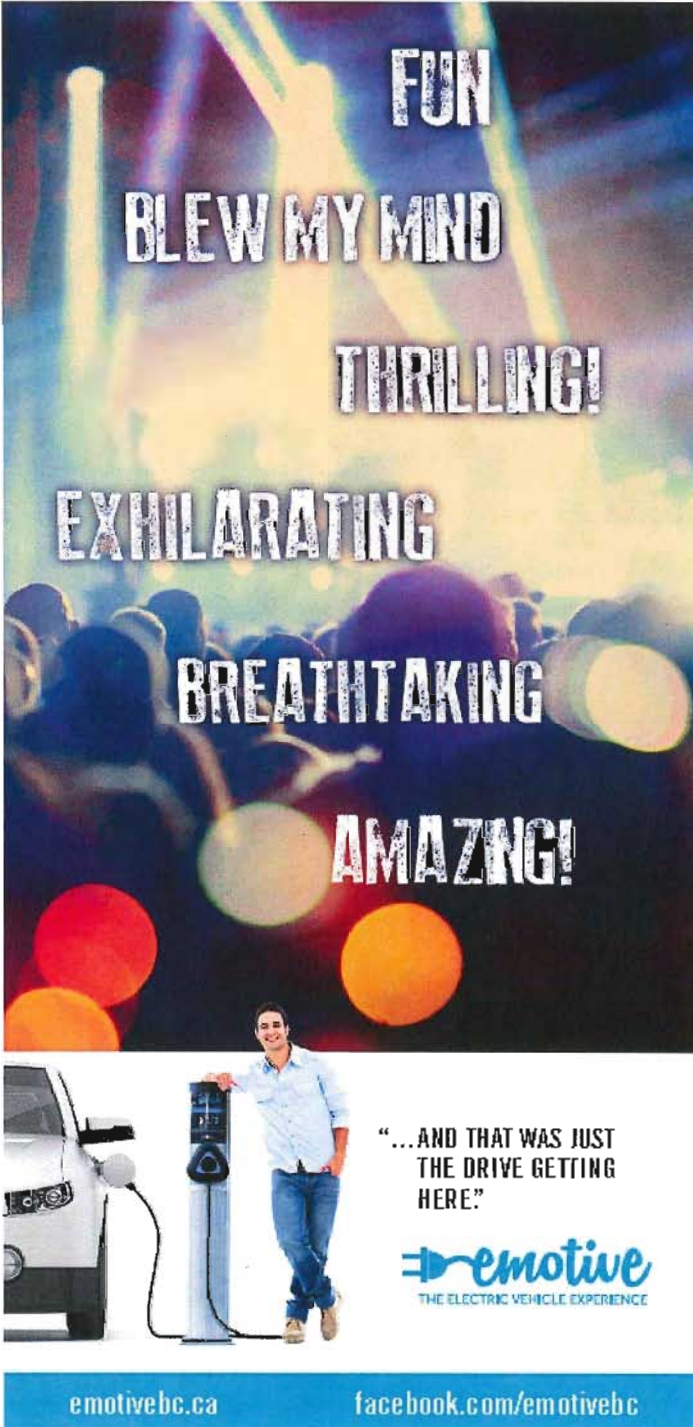
Conclusion

The Emotive campaign is an opportunity to encourage Richmond's residents to experience EVs, and will assist the City in meeting its energy and emissions goals. Staff will also use the opportunity to promote the City's actions and energy related programs.



Brendan McEwen
Manager, Sustainability
(604-247-4676)

Emotive Campaign Branding & Promotions



The poster features a vibrant, abstract background with streaks of yellow, orange, and blue light. Overlaid on this background are several words in a bold, white, distressed font: "FUN", "BLEW MY MIND", "THRILLING!", "EXHILARATING", "BREATHTAKING", and "AMAZING!". Below this text, a man in a light blue shirt and jeans stands next to a white electric car plugged into a charging station. To the right of the man, a quote reads: "...AND THAT WAS JUST THE DRIVE GETTING HERE." Below the quote is the Emotive logo, which consists of a stylized plug icon followed by the word "emotive" in a lowercase, rounded font, and the tagline "THE ELECTRIC VEHICLE EXPERIENCE" in a smaller, sans-serif font. At the bottom of the poster, a blue banner contains the website "emotivebc.ca" and the Facebook page "facebook.com/emotivebc".

FUN
BLEW MY MIND
THRILLING!
EXHILARATING
BREATHTAKING
AMAZING!

...AND THAT WAS JUST
THE DRIVE GETTING
HERE."

emotive
THE ELECTRIC VEHICLE EXPERIENCE

emotivebc.ca facebook.com/emotivebc



To: Public Works and Transportation Committee **Date:** July 3, 2014
From: John Irving, P.Eng. MPA **File:** 10-6600-10-02/2014-
Director, Engineering Vol 01
Re: **Alexandra District Energy Utility Expansion Phase 3**

Staff Recommendation

That:

1. The expansion of the Alexandra District Energy Utility include additional geoechange fields in the West Cambie Neighbourhood Park, with supplemental conventional energy systems for back up, as presented in the report titled "Alexandra District Energy Utility Expansion Phase 3", dated July 3, 2014, from the Director, Engineering, be endorsed; and
2. Capital submissions totalling \$12.3M for design, construction and commissioning of the ADEU Phase 3 be submitted for Council's consideration as part of the City's Five Year Financial Plan (2015-2019).

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

Att. 2

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

Staff Report

Origin

At the December 10, 2012, Council meeting, Council supported the Alexandra District Energy Utility (ADEU) the following recommendations:

1. *Authorize staff to incorporate a wholly owned local government corporation including:*
 - a. *naming the corporation Lulu Island Energy Company (pending name availability) (LIEC) with the City of Richmond as the sole share holder to own and operate the Alexandra District Energy Utility (ADEU);*
 - b. *authorizing the Chief Administrative Officer and the General Manager, Engineering and Public Works to execute legal agreements and documentation related to the incorporation.*
2. *Authorize staff to explore the merits of external borrowing of up to \$6M to finance phase 3 of the ADEU and report to Council through Committee on the budget impacts to future capital projects.*
3. *Re-classify the District Energy Manager position from Temporary Full Time (TFT) to Regular Full Time (RFT); and*
4. *Approve the creation of a Position Control Complement (PCC) for the District Energy Manager position.*

This report responds to item #2, a referral by Council for staff to explore the merits of external borrowing to finance Phase 3 of the ADEU expansion and its impacts to future capital projects, and includes a recommended plan for the ADEU Phase 3 expansion.

This initiative aligns with Council's Term Goal #8 Sustainability:

8.1 Continued implementation and significant progress towards achieving the City's Sustainability Framework, and associated targets.

Background

Phases 1 and 2 of ADEU were established in partnership with Oris Geo Energy Ltd. The partnering agreement was limited to providing heating and cooling services to Oris Developments' two projects, Alexandra Gate and Remy.

Council subsequently adopted the Alexandra District Energy Utility Bylaw No. 8641 and Amendment Bylaw No. 8688 on January 24, 2011, which expanded the service area to include the western portion of the Alexandra neighbourhood. This gave ADEU the potential to encompass 3100 units and 1.1 million sq. ft. of commercial space at build out over an estimated 10 to 15 year period.

To date, Council approved \$6M of borrowing from the City's Water Utility Reserve to fund the design and construction of ADEU Phases 1 and 2. These funds will be repaid with interest from customer service fees.

ADEU Phases 1 and 2 were commissioned in July 2012; the system currently provides energy to two developments (Mayfair Place and Remy) with over 600 residential units. The third development, Omega by Concord Pacific, is scheduled to be connected in mid 2014. It is estimated that the current ADEU system capacity is adequate to service this development as well. For its first year of operations and in the context of a small customer base, the financial, operational and environmental results show a better than expected performance of the ADEU system.

Lulu Island Energy Company

The Lulu Island Energy Company (LIEC) was established as a wholly-owned corporation of the City for the purposes of managing district energy utilities on the City's behalf. ADEU is currently not an asset of LIEC. Staff intend to bring forward a report with recommendations to transfer ADEU assets and operations to LIEC within the next year.

Analysis

ADEU Expansion Potential

The current system is estimated to be sufficient to service the two existing connected sites, Remy and Mayfair, and the Omega development which is scheduled to be connected in mid 2014. In order to service more buildings, both heating and cooling capacity and associated infrastructure will need to expand. The ADEU concept and design work completed to date identifies the highest return on energy efficiency and capital occurs with higher density development and high demand users.

Based on the most current construction schedules provided by developers, the City anticipates the need to expand ADEU to provide energy services within the next year. The most advanced project is Polygon's development, Alexandra Court, planned for the first occupancy in the summer of 2015. In addition, more developments, including SmartCentres, are projected to be completed in years 2016 to 2018. Timelines and building sizes are summarized in Table 1 and mapped in Attachment 1.

Table 1: Development Timing in the ADEU Service Area

	Floor Area (ft²)	Use	Occupancy Date*
Alexandra Court	515,000	Residential	2015 Q2
Jamatkhana Temple	26,500	Institutional	2015
9500 Cambie	108,000	Residential	2015
Alexandra Gate	194,000	Residential	2015
SmartCentres	286,000	Commercial	2016
Jingon	132,000	Residential	2016
Polygon East	262,000	Residential	2018

* Note: Occupancy typically occurs over the course of several months after occupancy is issued.

Originally, it was estimated that Phase 3 will include three developments with 560,000 sq.ft. of floor area. The expanded Phase 3 includes seven developments with total of 1,530,000 sq.ft. of

floor area given the pace of development in the neighbourhood. This results in Phase 3 capital funding requirements greater than the originally estimated \$6M. Including seven developments in Phase 3 results in overall greater efficiency, however, it would require capital investments sooner than expected.

ADEU Expansion Plan

ADEU was established on the concept that all capital and operating costs will be recovered through revenues from user fees. Council adopted an objective to provide end users with annual energy costs that are competitive with conventional system energy costs based on the same level of service. The primary strategy for construction phasing of ADEU is to match service capacity closely with demand at any given stage. In this way, capital expenditures that don't immediately generate revenue are minimized, and payback periods are reduced. Since the existing ADEU and the proposed expansion are located on City owned park land, no land costs have been included in the capital costs.

A load profiling analysis was completed for the expansion of the ADEU system based on the development schedule identified above. The analysis included a review of the following available local energy resources to best meet the project demand:

- open loop geoexchange in a West Cambie Neighbourhood Park,
- closed loop geoexchange in a West Cambie Neighbourhood Park, south greenway corridor, road right of ways, disturbed area of the Garden City Lands,
- sewer heat recovery from the sewer pump station on Odlin Road,
- solar thermal on the private building roof,
- natural gas fired boilers,
- cooling towers and fluid coolers; and
- air source heat pumps.

The analysis identified the following two viable options for Phase 3 that would supply the majority of energy for the ADEU system expansion, which are presented below for consideration by Council. Other energy technologies may be required to supplement the main energy sources.

Option 1 (Not recommended) – Delayed Implementation of Additional Geoexchange Field

Under this option, all energy required to service new customers connected up until year 2021 (except large format retail) would be supplied by natural gas fired boilers for space heating and domestic water heating, and cooling towers for space cooling. Large format retail buildings would receive heating and cooling services from air source heat pump system with excess heat delivered to buildings connected to ADEU.

Beginning in 2021 onwards, after the customer base has grown, additional renewable energy sources will be implemented including potentially geoexchange fields in the West Cambie Neighbourhood Park and south greenway corridor.

The existing energy centre, located in the West Cambie Neighbourhood Park on Odlin Rd east of Garden City Rd, will be expanded to accommodate all equipment necessary for the full build out of the ADEU system. A preliminary design for the building shows that the total area requirement

will be approximately 350 m² in the form of an addition to the existing building. This would approximately double the size of the existing energy centre building, which was designed and constructed to easily accommodate expansion. The addition will also be a taller building, approximately 8 m in height, as it will include cooling towers installed on the roof. The cooling towers will be screened to the maximum extent possible with visual and sound barriers. There will be opportunity to incorporate public art features into these barriers.

It is estimated that with this option, the total estimated greenhouse gas (GHG) emissions reduction by the ADEU system over the 12 years (until full build out) will be approximately 2500 tonnes (equal to 775 cars) with 671 tonnes (equal to 208 cars) reduction per annum at full build out.

This option is not recommended because the projected financial return is almost identical to Option 2 but the estimated GHG emissions reduction over the 12 years is one quarter of that for the Option 2 (Table 2).

Option 2 (Recommended) – Immediate Implementation of Geoeexchange Fields

Under this option, the portion of the energy required to service new customers will be provided by an additional geoeexchange field in the West Cambie Neighbourhood Park, with commencement of construction in 2015. This option includes additional natural gas boilers and cooling towers for supplement and back up. Similar to Option 1, large format retail customers would receive heating and cooling from an air source heat pump system with excess heat delivered to buildings connected to ADEU. In 2019, this option includes a potential plan to add an additional geoeexchange field in the future south greenway corridor. At this time, additional natural gas boilers and cooling towers for top up and back up will be required.

The existing energy centre, located in the park, will be expanded to accommodate all equipment necessary for the full build out of the ADEU system. A preliminary design for the building shows that the total area requirement will be approximately 350 m² in the form of an addition to the existing building. This would approximately double the size of the existing energy centre building, which was designed and constructed to easily accommodate expansion. The addition will also be a taller building, approximately 8 m in height, as it will include cooling towers installed on the roof. The cooling towers will be screened to the maximum extent possible with visual and sound barriers. There will be opportunity to incorporate public art features into these barriers.

This option includes underground wells for the geoeexchange field along the eastern edges of the West Cambie Neighbourhood Park. However, once the park design is completed, staff will explore opportunities to expand the geoeexchange wells also under the other parts of the park where possible, without compromising the park's functionality.

The potential impacts to the West Cambie Neighbourhood Park and the future South Greenway will be minimized so as to ensure the function and use of them is not compromised. In the neighbourhood park, a few trees may need to be removed for the geoeexchange field and several more for the addition to the energy centre. The expansion will be coordinated with the park and greenway designs to ensure good integration within the landscape.

It is estimated that with this approach, the total estimated GHG emissions reduction by the ADEU system over the 12 years (until full build out) will be over 9500 tonnes (equal to 2950 cars) with 671 tonnes (equal to 208 cars) reduction per annum after full build out. There exists the potential to increase these reductions with implementation of additional renewable/waste energy sources such as sewer heat recovery from Odlin Road sewer pump station. The best technology and configuration will be defined through analysis at future expansion phases.

Business Case¹

The comparison of the business cases for the two options is summarized in the Table 2 below. Financial calculations for the payback periods are detailed in Attachment 2.

Table 2: Financial Summary

	Business Case as reported to Council Dec 10, 2012	Updated Business Case	
		Option 1 (Delayed implementation of additional geoeexchange fields)	Option 2 (Recommended) (Immediate implementation of additional geoeexchange fields)
Capital Cost (Phase 3)	N/A	\$11.0M	\$12.3M
Capital Cost (full build-out)	\$24.3M	\$23.3M	\$23.3M
NPV (discounted at 6.0%)	\$1.35M	\$4.82M	\$4.76M
IRR	6.54%	8.2%	8.01%
Payback	21 years	19 years	19 years
Estimated GHG Savings		2500 tonnes over 12 years	9500 tonnes over 12 years

Note: No land costs have been attributed to the costs of the project since it is located on City owned park land or as part of private developments

Funding

It is estimated that \$12.3 million (inclusive of design, project management and contingency) would be required for ADEU expansion, which will include:

- expansion of the energy centre (to accommodate equipment requirements for the full build out);
- extension of the distribution piping to service new customers south of Odlin Rd;

¹ The projections are based on prospective results based on assumptions about future conditions and courses of action.

- installation of heat pumps or natural gas boiler system to service new large format retail customers, with connection to ADEU such that energy sharing can occur;
- increasing the heating and cooling capacity to service new customers in the north and south loop via geexchange field along the eastern edge of the West Cambie Neighbourhood Park; and
- increasing the heating and cooling capacity to service new customers in the north and south loop via boilers and cooling towers.

This funding will be needed over the next 3-5 years to complete the Phase 3 expansion (see Table 3 below). Funding for this expansion will provide infrastructure to service an additional seven developments and 1,530,000 square feet floor area. Once this expansion is completed, ADEU will be servicing 2,280,000 square feet floor area that represents 65% of the planned serviced floor area. Phase 1 and 2 funding of \$4.8M provided infrastructure to service three developments and 750,000 square feet floor area.

Table 3: Funding Requirement Timing

	Estimated Occupancy Date	Estimated Capital Requirement	
Alexandra Court	2015	\$7.2M	2015
Jamatkhana Temple	2015		
9500 Cambie	2015		
Alexandra Gate	2015		
SmartCentres	2016	\$2.5M	2016
Jingon	2016	\$2.6M	2016-2018
Polygon East	2018		

Financing Strategy

ADEU was approved on the basis that it would be financially self-sustaining. As a new system, the incremental cost to connect a new customer is high due to the need for new energy generation and distribution facilities. Over time, capital costs on a per building basis will decrease as the same infrastructure can be used to connect new buildings. The City has the option to fund capital costs internally or externally. Over the course of the full build out of ADEU, the City will have numerous decision points for optimizing financing strategies to achieve its objectives.

For the Phase 3 expansion, staff have considered the following financing alternatives:

- Alternative 1: Obtain external financing
- Alternative 2: Borrow internally from Utility Surplus

Alternative 1 (Not Recommended) – Obtain External Financing

The City may obtain external financing for capital purposes in accordance with 179(1)(a) of the *Community Charter*. Further, under Section 7 of the *Municipal Liabilities Regulation* states that, “Approval of the electors is not required under section 180(1) [loan authorization bylaws] of the *Community Charter* if: (a) at the time it proposes to incur the liability, (i) the annual cost of servicing the aggregate liabilities of the municipality for the year ... does not exceed (ii) 5% of the annual calculation revenue of the municipality for the previous year ... and (b) incurring the liability would not cause the annual cost referred to in paragraph (a) (i) to exceed the limit established by paragraph (a) (ii).”

External debt financing in the amount of \$12.3M contributes to the total debt balance held by the City and the associated servicing costs are included when evaluating the requirement for elector approval for external borrowing. The following shows the calculation of the City’s “approval-free liability zone” if borrowing takes place in 2014:

Calculation of the “approval-free liability zone”

2013 Annual Calculation Revenue	\$350M
5% limit	<u>5%</u>
2014 Total Approval-Free Liability Zone	<u>\$17.5M</u>
Existing 2014 Annual Liability Servicing Costs	<u>\$7M</u>
Remaining Annual Liability Servicing for 2014	\$10.5M
ADEU Phase 3 Expansion Annual Servicing Costs (\$12.3M at 5% for 15 years)	\$1.2M

The remaining annual liability servicing of \$10.5M is the current available balance prior to any additional external debt related to the Phase 3 expansion or new commitments/agreements that the City may enter into that would increase the total liabilities serviced by the City.

Interest on external borrowing of \$12.3M is estimated at \$9.3M over the duration of the loan (based on 5% for 15 years). The interest rate can only be locked in for the first 10 years, the rate will be reset after the initial 10 year period to the applicable rate at the time.

External debt would also add additional complications for the process of transferring ADEU assets to LIEC.

Alternative 2 (Recommended) – Borrow internally from Utility General Surplus

The cost of the Phase 3 expansion may be funded by the City’s existing Utility General Surplus which has a current balance of \$24.4M. The Utility General Surplus balance is comprised of Water and Sanitary Sewer General Surplus balances of \$15.2M and \$9.2M respectively. The Utility General Surplus is not restricted in use (like Reserves) or directed for a specific purpose (like Appropriated Surplus). Any internal borrowing from existing surplus funds is required to be repaid with interest.

The timing of the internally borrowed funds can be adjusted to match the timing of construction over the next 3-5 years. The repayments will be funded by revenues generated from the customer rates. The repayment terms can be arranged to correspond to the timing of revenues received. The revenues will increase over the first three years of the Phase 3 expansion as the additional developments are completed. Table 4 summarizes both alternatives.

Table 4: Comparison of the Financing Alternatives

	Alternative 1: External Borrowing	Alternative 2: Internal Borrowing
Financing Threshold	No elector approval required: Up to an additional borrowing of \$125M ("approval-free liability zone")	Up to \$24.4M of Utility Surplus available for borrowing.
Advantages	Internal funds remain available for other initiatives First 10 years of borrowing can be locked in at low rates (approximately 3.3% July 2014), but the rate is unknown after 10 years	Internal borrowing does not require elector approval External interest charges will be avoided Internal funds are general and not directed for capital purposes Payment terms can be arranged to match timing of revenues from operations
Disadvantages	Reduction of the Approval-Free Liability Zone Elector approval required if Approval-Free Liability Zone limits are surpassed Payment terms are inflexible Timing of construction would require amounts to be borrowed in advance of capital construction Increased complexity for the ADEU assets transfer to LIEC	Opportunity cost of utilizing these funds
Costs	Total interest payment of \$9.3M or approximately 75% of the amount borrowed (over a term of 15 years at 5 %)	None – all borrowing will be repaid with interest (current business model estimates 5%)

When compared to how DE is being funded for City Centre, Alexandra DEU and City Centre DEU have two very different business models. The difference is that the City finances, builds, operates and maintains the ADEU and collects all revenues. The City Centre DEU on the other hand, is built, maintained, operated and financed by City partner; City collects the revenue, but pays partner their portion. Also, estimated total capital investment at the full build out for the ADEU is \$23.3M, while the total capital investment at the full build out for the City Centre DEU can be up to \$142M. Due to the scale difference between ADEU and City Centre DEU, internal financing is the preferred option.

Based on the above analysis, staff recommend that up to \$12.3M in funding be approved from the Water Utility General Surplus for the Phase 3 capital costs. All borrowed amounts will be repaid with interest and are incorporated into the financial model. Internal borrowing is recommended due to many variables including the time-span of construction, servicing requirements, and the availability of funding.

Financial Impact

Staff recommend that \$12.3 million be submitted for Council consideration as part of the Five Year Financial Plan (2015-2019) with funding approved through borrowing from the Water Utility General Surplus. The cash flows scheduled for this borrowing and payback are detailed in Attachment 2.

Conclusion

Preliminary design concepts for the expansion of the Alexandra DEU system have been completed to service four new developments starting in 2015 and three more developments by 2018. It is recommended to include additional geoexchange fields in the West Cambie Neighbourhood Park for thermal energy, with supplemental conventional energy systems for back up. It is recommended that \$12.3M in funding be provided from the Water Utility General Surplus for design, construction and commissioning of Phase 3 system expansion to service new ADEU customers.

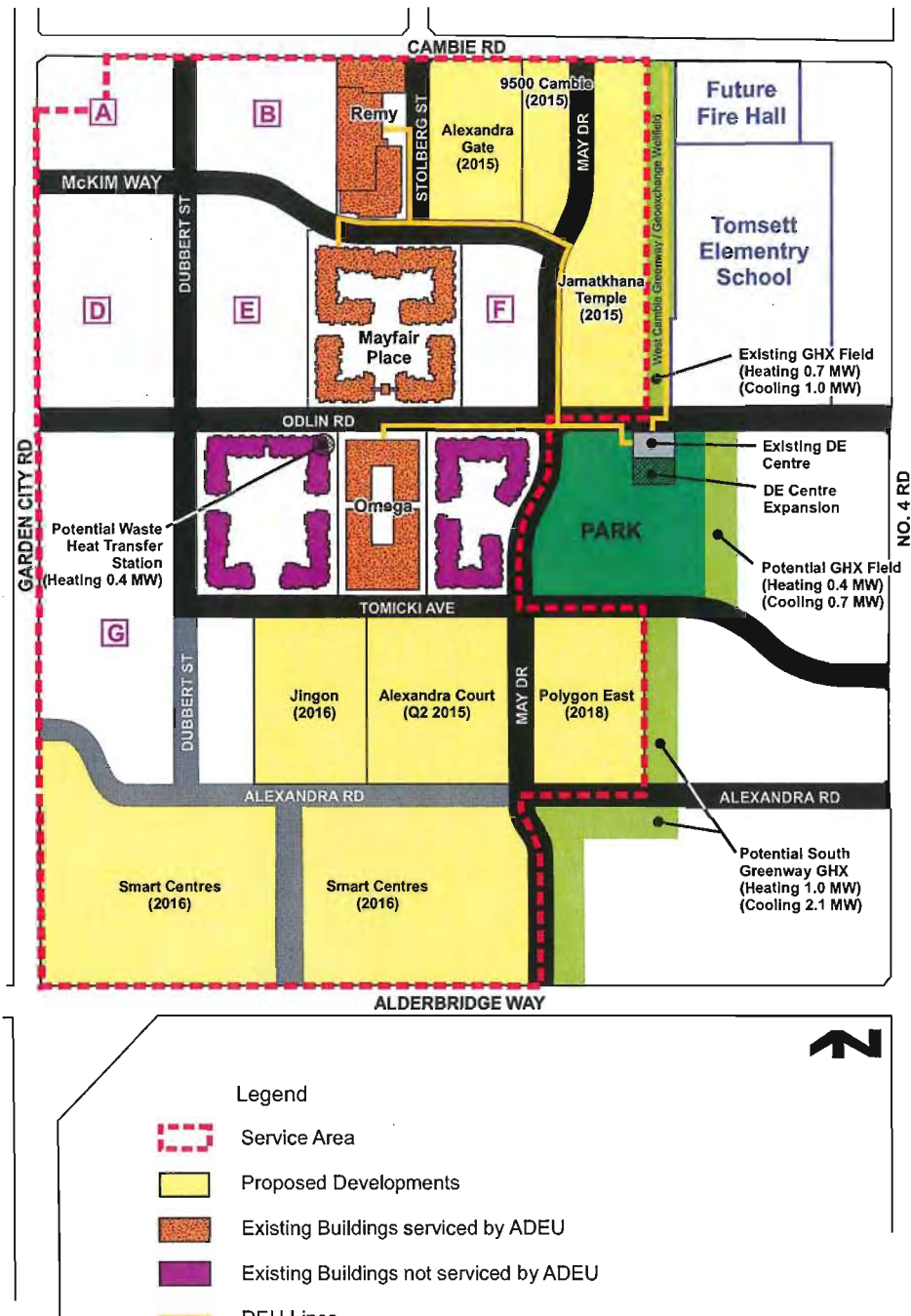


Alen Postolka, P.Eng., CP, CEM
District Energy Manager
(604-276-4283)

AP:ap

Att. 1: Alexandra Neighbourhood and ADEU Service Area Development
2: ADEU Financial Analysis Model

Attachment 1 – Alexandra Neighbourhood and ADEU Service Area Development



(Preliminary draft based on current assumptions. Financial Model is subject to change as these facts and assumptions change.)

The projections are based on prospective results based on assumptions about future conditions and courses of action. The current model assumes internal borrowing for Phase 3 at an interest rate of 5% over 15 years.
*Includes an estimation of the remaining value of capital equipment.

Nikkei Stories of Steveston

Summary Sheet

What:

- *Nikkei Stories* is an interactive, new media project consisting of ten short videos, 3- to 4-minutes in length, about people and places important to the social, economic and cultural life of the Japanese Canadian community in Steveston
- The video stories will be presented by professional performers and will combine storytelling with rarely seen archival photographs and film
- *Nikkei Stories* will be similar in functionality and design to *BlackStrathcona*, a project recently completed by Gordon McLennan (www.blackstrathcona.com)

Where:

- The completed films will be available to as many people and in as many venues as possible including:
 - a purpose-built website
 - via mobile devices and street signage in historic Steveston
 - permanent displays at cultural institutions in Steveston, such as the Japanese Canadian Cultural Centre and the Steveston Museum
 - school classrooms in Richmond and across British Columbia

When:

- Project completion and launch will be in May, 2015, during Asian Heritage Month

Who:

- Award-winning filmmakers Gordon McLennan and Greg Masuda

How Much

- Total Project Budget: \$125,000 / Request from City of Richmond: \$50,000

Nikkei Stories of Steveston

An Interactive New Media Project

Organization

Nikkei Stories of Steveston is being produced by Orbit Films Inc., a Vancouver-based film and new media production company. Incorporated in 2002, Orbit Films Inc. covers the work of principle Gordon McLennan who has had an internationally award-winning career producing feature films, documentaries and new media.

Background

The first known Japanese immigrant to British Columbia, Manzo Nagano, arrived in 1877 hoping to escape a life of poverty. A decade later, Gihei Kuno, a fisherman from the Wakayama prefecture in southern Japan, recruited fellow fishermen to settle in the village of Steveston, one of BC's oldest communities at the mouth of the Fraser River.

By the early 1900s, thousands of Japanese Canadian immigrants, also known as Nikkei, had formed a large part of the population of Steveston. Fishing the BC coast became a way of life for Nikkei families and it allowed them to build and maintain a flourishing community.

But the history of the Nikkei in Steveston is filled with drama and violence, pitting individuals and the community in epic struggles against discrimination and injustice. Other fishermen and governments used racist policies in an attempt to exclude them from the fishery entirely.

During World War II, 22,000 Japanese Canadians were forcibly relocated from the coast, their property confiscated and their livelihoods taken away. Their internment was a massive injustice and a severe blow to the community. After the war some Japanese Canadians returned to the coast and today a sizeable and active community lives in Steveston.

The post-war years brought new challenges for Nikkei, but also major triumphs like the achievement of redress in 1988. Japanese Canadians have shown that even in the face of inequity and prejudice, ordinary people can possess an indomitable spirit and accomplish the extraordinary.

Project Description

Nikkei Stories of Steveston will celebrate remarkable Japanese Canadians who, against difficult circumstances, created a successful and thriving community. The project will consist of ten stories, in the form of short videos, about people and places important to the social, economic and cultural life of the community. The video stories will be presented by professional performers and will combine storytelling with rarely seen archival photographs and film.

Upon completion, ***Nikkei Stories of Steveston*** will be accessible four ways:

- 1) a purpose-built website where users from anywhere in the world can take a virtual tour of the culture, history and personalities of Japanese Canadians in Steveston,
- 2) interactively via mobile devices in historic Steveston. As users approach purpose-built street signage, they will use their mobile devices to scan QR Codes, which will in turn download video stories to the screens of their devices,
- 3) through permanent displays or kiosks at major cultural institutions in Steveston, such as the Japanese Canadian Cultural Centre and the Steveston Museum,
- 4) in classrooms in Richmond and across British Columbia. With the aid of Teacher's Study Guides students will be able to access the project by the website as well as interactively on field trips to Steveston.

Two sample stories are "*Japanese Fishermen's Hospital*", a cherished and storied institution built by Japanese Canadians in 1897, and "*Otokichi Murakami*", a master boat builder who used simple tools to construct fishing vessels that were "guaranteed for life."

A marketing campaign will use the major social media tools – YouTube, FaceBook, Twitter and others – to launch and promote the project across the city, across the country and across the world.

A similar project on which Gordon McLennan was the creative lead is <http://blackstrathcona.com/>. The ***BlackStrathcona*** project was completed and launched during Black History Month in February, 2014. ***Nikkei Stories*** will be comparable in design and function.

Timeline

Research/Writing	- September/October, 2014
Filming	- November, 2014
Post Production	- Decemeber, 2014 to February, 2015
Website Development and Execution	- March/April, 2015
Launch, Promotions and Marketing	- May, 2015

Creative and Management Team

The creative and management leads for ***Nikkei Stories of Steveston*** will be award-winning filmmakers Gordon McLennan and Greg Masuda.

Gordon McLennan - Producer, Writer, Director

Gordon McLennan has been writing, directing and producing internationally renowned feature films, documentaries and new media projects for over twenty-five years.

Nikkei Stories of Steveston

May 13, 2014

Contact: Gordon McLennan / 604.761.5515 / gmcclennan@telus.net

After attending the American Film Institute in Los Angeles, Gordon formed Naked Eye Films in New York and produced the critically acclaimed independent feature **Risk**. The film was nominated for the Grand Jury Prize at the Sundance Film Festival.

In Canada, Gordon produced **My Life Without Me**, a Canada/Spain coproduction with Spanish film icon Pedro Almodovar. The film starred Mark Ruffalo, Sarah Polley, Alfred Molina and Amanda Plummer and won several awards world wide including the Guild of Art House Cinemas at the Berlin Film Festival, and Best Actress at the Genie Awards. The film was also nominated for Best Film and Best Director at the European Film Awards. Other feature films were **Skipped Parts**, with Drew Barrymore, Jennifer Jason Leigh and Brad Renfro, and **Paris or Somewhere**, with Molly Parker and Callum Keith Rennie, which received three Gemini Award nominations.

Gordon has won numerous awards for writing, directing and producing documentaries. The innovative arts documentary, **The Trickster**, was nominated for the prestigious Chalmers Documentarian Award and for Best Photography at the Hot Docs Festival in Toronto. His documentary for the National Film Board of Canada, **In the Flesh**, won the Bronze Plaque at the Columbus International Film and Video Festival. Other documentaries include **Death in the Forest** for Global Television, **The Life and Times of Arthur Erickson** for the Canadian Broadcasting Corporation, winner of the Gold Medal at the New York Festivals, **Psychedelic Pioneers** for History Channel, and **In Her Eyes** for the National Film Board.

For the past few years, Gordon has been working on interactive web-based projects that use mobile devices to receive content at specific geographical locations. One project completed recently is BlackStrathcona (www.blackstrathcona.com), an innovative film and new media project celebrating Vancouver's first and last black community. Another completed project is **The Gullah of Saint Helena** (www.gullahcommunity.org), a collection of stories told by a unique group of African Americans who live on the Sea Islands of South Carolina. Currently in production is **Springfield Stories**, a youth-driven narrative about the rich civic and community life of Springfield, MA, designed to improve the perception of the city as a place to live and work.

Greg Masuda – Producer, Cinematographer, Editor

In 2009 Greg Masuda left a successful career as a corporate manager to become a documentary filmmaker. Since then he has produced, directed, shot, and edited four documentaries that have seen international exhibition: two in international film festivals, and two for broadcast on Canadian and US television.

Cue The Muse (2012), his third piece, is nominated for a 2014 Emmy, won the 2013 Leo award for Best Documentary under 60 minutes, and was nominated for Leos for best direction and best editing. His most recent piece, **Children of Redress (2013)**, was the beneficiary of a successful two-week Kickstarter campaign and was shown at the Nikkei National Museum in Burnaby and the Japanese Embassy in Ottawa on the 25th anniversary the Japanese Canadian Redress settlement. His first two films, **Surviving In The Cracks (2010)** and **The Spirit of Nihonmachi (2011)**, received 4/4 star reviews from the Canadian Review of Materials, an educational materials resource publication, and have been invited to film festivals from as far away as Sweden.

Nikkei Stories of Steveston

May 13, 2014

Contact: Gordon McLennan / 604.761.5515 / gmclennan@telus.net

Greg's roots run deep in the Japanese Canadian community but his involvement began in earnest only after he moved to Vancouver in 2007. Greg volunteers with and has sat on the Advocacy Committee of the Powell Street Festival Society for over five years. In 2011, he was the Operations Coordinator for the BC Japan Earthquake Relief Fund who sent moral and financial relief to Japan in the wake of the 3/11 triple disaster. In 2013 he was the British Columbia representative for the Japanese Canadian Leadership Delegation to Japan and this year he became a board member of the Greater Vancouver Japanese Canadian Citizen's Association. Greg is a descendent of an interned Japanese Canadian family: his paternal grandfather immigrated to Powell Street from Japan in 1915 and raised a family there until the internment of 1942 forced them to Alberta, where Greg was eventually born and raised.

Nikkei Stories of Steveston - Production Budget

Budget

Prepared by: Gordon McLennan - Date: May 13, 2014

Acct	Description	Amt	Units	x	Rate	Subtotal	Total
"A" ADMINISTRATION							
A1	PRODUCER						
		1	Allow	1	20000	\$20,000.00	
	Total						\$20,000.00
"A" TOTAL ADMINISTRATION							\$20,000.00
"B" PRODUCTION							
B1	PRESENTERS HONORARIA						
	10 Presenters	1	Allow	10	500	\$5,000.00	
	Total						\$5,000.00
B2	DIRECTOR						
		20	Days	1	500	\$10,000.00	
	Total						\$10,000.00
B3	WRITERS						
		10	Stories	1	1000	\$10,000.00	
	Total						\$10,000.00
B4	RESEARCHERS						
		30	Days	1	400	\$12,000.00	
	Total						\$12,000.00
B5	CINEMATOGRAPHER						
		5	Days	1	500	\$2,500.00	
	Total						\$2,500.00
B6	CAMERA PACKAGE						
		5	Days	1	300	\$1,500.00	
	Total						\$1,500.00
B7	STILLS PHOTOGRAPHER						
		10	Days	1	500	\$5,000.00	
	Total						\$5,000.00
B8	PHOTOSHOPPING						
		1	Allow	1	1500	\$1,500.00	
	Total						\$1,500.00
"B" TOTAL PRODUCTION							\$47,500.00
"C" POST PRODUCTION							
C1	EDITORIAL LABOR						
		30	Days	1	400	\$12,000.00	
	Total						\$12,000.00
C2	EDITORIAL EQUIPMENT						
		30	Days	1	200	\$6,000.00	
	Total						\$6,000.00
C3	RAID DATA STORAGE						
		1	Allow	1	500	\$500.00	
	Total						\$500.00
C4	MUSIC						
		1	Allow	1	4500	\$4,500.00	
	Total						\$4,500.00

Acct	Description	Amt	Units	x	Rate	Subtotal	Total
C5	AUDIO POST						
		10	Days	1	500	\$5,000.00	
	Total						\$5,000.00
"C" TOTAL POST PRODUCTION							\$28,000.00
"D" WEBSITE DEVELOPMENT							
D1	MAIN WEBSITE						
	Design and Development	1	Allow	1		\$5,000.00	
	Hosting	1	Allow	1		\$500.00	
	Total						\$5,500.00
"D WEBSITE DEVELOPMENT							\$5,500.00
"E" SOCIAL MEDIA PUBLIC ENGAGEMENT CAMPAIGN							
E1	SOCIAL MEDIA CAMPAIGN						
	Design and Delivery of Campaign	1	Allow	1		\$8,000.00	
	Total						\$8,000.00
"E SOCIAL MEDIA PUBLIC ENGAGEMENT CAMPAIGN							\$8,000.00
"F" INTERACTIVE STORY DELIVERY							
F1	INTERACTIVE DELIVERY						
	Design, QR Codes, Graphics	1	Allow	10	\$400.00	\$4,000.00	\$4,000.00
	Fabrication/Printing/Installation	1	Allow	10	\$200.00	\$2,000.00	\$2,000.00
	Total						
"F" INTERACTIVE STORY DELIVERY							\$6,000.00
"G" OTHER COSTS							
G1	LEGAL FEES						
		1	Allow	1	1000	\$1,000.00	
	Total						\$1,000.00
G2	RIGHTS TO ARCHIVAL MATERIALS						
		1	Allow	1	4000	\$4,000.00	
	Total						\$4,000.00
G3	OFFICE EXPENSES						
	Book Keeping, WCB, Copying, etc.	1	Allow	1	1500	\$1,500.00	
	Reporting				1000	\$1,000.00	
	Total						\$2,500.00
G4	MEALS / TRANSPORTATION						
		1	Allow	1	1500	\$1,500.00	
	Total						\$1,500.00
G5	INSURANCE						
		1	Allow	1	1000	\$1,000.00	
	Total						\$1,000.00
"G" TOTAL OTHER COSTS							\$10,000.00
GRAND TOTAL							\$125,000.00

Mystic Seaport: The Museum of America and the Sea

Overview and History

Mission: Mystic Seaport is a museum that strives to inspire an enduring connection to the American maritime experience.

- Many similarities with Britannia including that the site was developed around a former shipyards; there was never an actual “seaport” on the site
- 19 Acre site receives over 400,000 visitors annually; mystic is the largest tourist destination in CN
- 22,000 members, 140 full-time, over 100 part –time staff and 1,000 volunteers
- Society incorporated in 1929 by 3 individuals with a passion for preserving maritime heritage – a lawyer, a doctor and a local silk manufacturer
- They began recruiting members and collecting artifacts and the site opened to the public in 1934
- It grew over time with the various buildings brought in (or recreated) from throughout new England; designed to be a typically 19th century New England seafaring village

Operating Model

- Operated by a non-profit society and registered charity; received project based grants from time to time from government and government agencies but no ongoing operational funding
- Have a national board – many members from NYC – primarily a fundraising board where members are expected to contribute \$25,000 minimum annually to the organization
- Operating budget is about \$20 M
- Funding is essentially 1/3 each endowment fund disbursements (\$ 42 M), 1/3 annual fundraising and 1/3 self generated revenue(admission, program fees, day moorage, photo licensing)
- Gift Shop and two restaurants that are operated by private companies under contract

Collections

- Collections Policy; Mystic Seaport acquires, preserves, and utilizes materials and items relating to American maritime history to create a broad public understanding of the relationship of America and the sea.
- In addition to the policy, they have a Five Year Collections Plan (2011-2016) – grew out of strategic plan.
- The Collection Plan actively supports the Mission and Vision by guiding the staff in acquiring, preserving and utilizing collections – dealing with collections challenges – ie: what was collected before not the same as what they may want to collect now. Four collections categories:
 - The General Collections
 - The Photography Collection

- The Library Collection
- The Watercraft Collection (largest watercraft collection in the US)

Major Content concentrations:

- Whaling
- Fisheries
- Voyages of exploration
- Maritime national expansion
- International trade
- Coastal trade
- Ports
- Inland waterways
- Maritime communities
- Native peoples and the sea
- Yachting and boating
- Maritime art (including contemporary, decorative and folk art).
- Music of the sea
- Marine folklore
- Popular culture
- Shipbuilding
- Boatbuilding
- Naval architecture
- Navigation
- Marine salvage
- Naval history primarily through the 19th century
- The people involved in all the above activities
- Nineteenth-century social life and customs where they pertain to interpretation and activities in the Museum village.
- Local history (CT, RI, MA)

Current collections priorities are:

- Accept only the best examples into our collecting areas to maintain integrity and maximize space utilization. Provenance of materials shall be an important consideration.
- Strategically borrow pieces, rather than purchase, for exhibit and research, when appropriate, to safeguard scarce financial resources
- Increase access to, and understanding of, the collections through the Internet, digital and print publication as well as film and television

Exhibits

The Shipyard:

- Working Shipyard – 17 full-time shipwrights actively restoring their own fleet of vessels

- Have also built reproductions (most famous is the Amastad)

Historic Vessels

- Largest collection of historic vessels in the US
- The Schooner “Australia” is an interesting use of a ship exhibited as a “relic” – the decay of the vessel can actually demonstrate how it was constructed
- Most recent significant restoration project is the Charles W. Morgan
- 1841 Whale ship ; arrived in Mystic in 1941 and declared a national historic landmark
- Restoration project took 5 years and \$1.8 M ; completed using as many traditional materials and techniques as possible
- Staff estimate that she is ¼ original and ¾ new
- The whaleship was re-launched July 21, 2013 and left Mystic Seaport May 17, 2014 to embark on her 38th Voyage to historic ports of New England.
- The nearly three-month long journey seeks to engage communities with their maritime heritage.
- When the vessel returns to Mystic Seaport in August 2014, she will resume her role as an exhibit and the flagship of the Museum.

19th Century Seafaring Village

- Life in Typical New England Seaport; rope-making factory, blacksmith shop, and other businesses, various residencies, etc.
- Some buildings moved to the site, while others are recreations
- Interested modification on the rope factory – reduced to 1/3 of its original length

Exhibit Galleries

- Variety of permanent and temporary exhibits on maritime themes including small boat collection, maritime art, masthead collection
- Temporary exhibits (current one was Neptune’s Orchestra – Music and the Sea)

Children’s Museum and Playground

- Integrated throughout the site

Programs

- Daily schedule of programs includes
 - Hands-on activities, demonstrations including sail rigging, sea-shanties, short dramatic plays, build a boat, make a candle, and more
- Full range of educational programs for school groups
- Water-Based
 - Tours on several historic vessels including a coal fired steamboat, sail boats, power yacht
 - Hourly rental of small rowboats and sailboats (\$10-\$15 per hour)
- Day moorage
- Special events and seasonal programs include; wooden boat show, plein air painting, sea music festival, lobster days, antique motor show, model yacht regatta, Halloween, Christmas programs

Retail and Restaurants

- Gift Shop and two restaurants that are operated by private companies under contract

Shoreline Trolley Museum and other Attractions

- Took the opportunity to visit other sites including the Shore Line Museum and USS Nautilus
- Volume of heritage sites in the area provide a draw for everyone
- Richmond as a whole is part of a wider tourism region that provides a variety of unique attractions within an hour drive
- Opportunity exists to retain, build on and package our West Coast history

Outcomes

- Site was developed into what it is over 80 years; nothing like this is built over night
- Outcomes for Britannia Shipyards and Steveston Waterfront:
 - Best practices from Mystic have been integrated into the Britannia Shipyards strategic plan including:
 - Working with other groups in program and exhibit development and delivery (Including not just the BHSS, but also recently SS Master Society, private companies like Canfisco with the Western Star, Holocaust Education Centre with travelling exhibit)
 - Restoration of Britannia Shipyard Ways to make the shipyard functional again
 - Unique mix of exhibits, programs and special events
 - Increase in Water-based programming (including this year Paddle wheeler tours from New Westminster)
 - Working with post-secondary education institutions – including using Mystic's resources to build courses and programs around



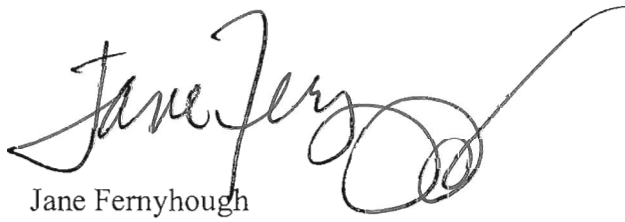
City of Richmond

Report to Committee

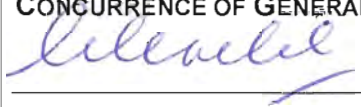

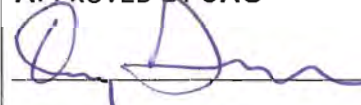
To: Parks, Recreation and Cultural Services Committee
From: Jane Fernyhough
Director, Arts, Culture and Heritage Services
Date: July 2, 2014
File: 11-7000-09-20-101/Vol 01
Re: City of Richmond Utility Box Art Wrap Program

Staff Recommendation

That the opportunity to integrate public artwork on City of Richmond utility boxes, as outlined in the report from the Director, Arts, Culture and Heritage Services dated July 2, 2014, be endorsed.


Jane Fernyhough
Director, Arts, Culture and Heritage Services
(604-276-4288)

Att. 1

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

Staff Report

Origin

On July 27, 2010, Council endorsed the Public Art Program Policy 8703, which identifies strategies to fully integrate artwork into the planning, design and construction of civic works.

On October 11, 2011, Council endorsed the City Centre Public Art Plan identifying and prioritizing public art opportunities in the City Centre. Integrating public art into infrastructure design, including pump station and traffic control utility boxes, was identified as an immediate priority.

The purpose of this report is to provide Council with information regarding the Terms of Reference for the City of Richmond Utility Box Art Wrap Program (Attachment 1) and the request for qualifications for an artist roster to engage artists with a wide range of expertise to prepare artwork for utility box wraps.

This initiative is in line with Council's Term Goal 9.1 Arts and Culture:

9.1 Build culturally rich public spaces across Richmond through a commitment to strong urban design, investment in public art and place making.

Analysis

Background

There are many ordinary looking utility boxes throughout the City, many in highly visible public locations adjacent to sidewalks in urban areas or in natural settings beside trails and in parks. The utility boxes for sanitary pump station equipment and traffic controls are utilitarian in design; however, inexpensive vinyl wraps can be applied to improve their appearance. As well, art wraps are effective in reducing graffiti. By incorporating art into the design of utility boxes there is an opportunity to make these undistinguished civic utility boxes a unique source of beauty and civic pride.

City staff have been working across departmental sections, including Engineering, Public Works, Environmental Programs, Arts, Culture & Heritage Services, Planning, and Production in the development of this program. The Richmond Heritage Commission and the Richmond Public Art Advisory Committee have been consulted on this project and recommend its support.

Terms of Reference – City of Richmond Utility Box Art Wrap Program

The public art Terms of Reference for the City of Richmond Utility Box Art Wrap Program describes the art opportunity, project themes, entry requirements, and selection process.

Themes

The designs for the utility box wraps will be as diverse as their locations. Artists will need to consider the historical, geographical and cultural heritage of each specific site, whether it is located along No.3 Road in the City Centre, or in Steveston Village. In addition to urban

locations, utility boxes located within natural areas should consider themes related to the environment and support the City-wide Ecological Network.

Artist Selection Process

Following the administrative procedures for artist selection for civic public art projects, a five person selection panel will convene to review the artist submissions. It is intended that up to thirty (30) artists will be recommended for the Art Wrap Artist Roster. The artists will be ranked for consideration for upcoming wrap projects, with the highest ranked artists selected first. Artists will also be identified for specific themes, i.e., heritage, nature, culture, or general. Placement on the roster does not guarantee that an artist will be selected for a wrap project.

Appropriate pre-qualified artists will be selected from the roster for each project opportunity by an interdepartmental staff team, including representatives from Engineering, Parks, Planning and Arts, Culture & Heritage, as suitable to each circumstance. Selection will be based on a ranking established by the Selection Panel, availability of the artist, appropriateness of the artist's media and past work, and their experience with specific project requirements. The selected artist will ultimately be commissioned for the project on the combined strength of a concept proposal, interview and references.

Implementation

Staff will obtain competitive quotes from companies that supply and install digital graphic wraps with anti-graffiti coatings, and work with the artist to translate their design to the utility box surface. Costs per box for fabrication and installation typically range from under \$1,000 for medium sized boxes up to \$2,000 for large boxes.

The focus of the initial program will be to wrap boxes in high visibility locations in pedestrian oriented areas throughout the city including trails and parks, the City Centre and in Steveston.

Financial Impact

The total project budget is estimated at up to \$20,000 over two years, to be cost shared between Engineering & Public Works and Community Services. This will include selection panel honorariums, artist fees, fabrication and installation. Public Works has allocated up to \$10,000 over two years for this project from Public Works Minor Capital. The Public Art Program will provide the remaining \$10,000 from the approved 2014 Capital Budget to support public art programs for City streets and public works for this two year period.

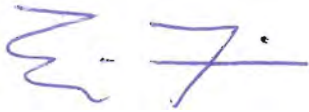
Conclusion

The City of Richmond Box Art Wrap Program represents an opportunity to artists from a variety of creative practices. Incorporating art into functional objects is an affordable, high-impact method of integrating the arts into everyday life by making art accessible to the public and benefitting the city through beautification of the public realm.

The utility box art wrap project builds on other programs for successfully integrating art with civic infrastructure, such as drainage pumps stations and the district energy utility, and is a low

cost opportunity to continue this practice. Integration of public art with utility boxes is consistent with the vision and strategic directions of the Richmond Arts Strategy, to broaden the diversity of arts experiences and opportunities; and expand public awareness and understanding of the arts through continued City support.

This program supports Council's Term Goal to build culturally rich public spaces across Richmond through a commitment to strong urban design, investment in public art and place making.

A handwritten signature in blue ink, appearing to read 'Eric Fiss'.

Eric Fiss
Public Art Planner
(604-247-4612)

LB:ef

Att. 1: Terms of Reference Document



**City of Richmond Art Wraps Program
Terms of Reference for Artist Call**

Request for Qualifications – Artist Roster for Richmond Utility Box Art Wraps

The Richmond Public Art Program invites artists residing in Metro Vancouver and the BC Lower Mainland to submit applications to be considered for a thirty (30) member artist roster for 2014-2015. The artists on the roster will be automatically considered for commissions to provide one original artwork in a digital format for a series of art wraps on utility boxes located in and around Richmond. Artist may be selected for one or more utility boxes.

All information about the project is contained herein.

Artist remuneration for use of artwork: Up to \$1,200 per design based on size and number of utility boxes per commission (reproduction and installation costs paid by the City of Richmond)

Deadline for Submissions:

Friday, September 1st, 2014 at 5:00 pm

Background

While large utility boxes are a necessity in today's world, they do not have to mar the landscape or become urban eyesores and targets for graffiti. In many municipalities, they are now frequently transformed into artistic objects that enhance the public realm.

The City of Richmond wishes to wrap several City-owned utility boxes throughout 2014 to 2015. The artists will be expected to work with the City's printing specialist contractor to cover the boxes with an image on film that will be adhered to the box and last for approximately three (3) or more years.

Themes

How can these ordinary and anonymous objects we encounter on our daily walks and commutes in Richmond be transformed into a work of art? This is an opportunity for artists to look at these boxes through a different lens. Could they be imagined as precious sculptures, fragile ornaments or iconic place markers? We are looking for artwork that is mindful of the historical, geographical and cultural heritage of the site or community. Heritage considerations are particularly relevant for Steveston Village wrap opportunities.

In addition to urban locations, many of the utility boxes are situated in terrestrial and marine shoreline natural areas, and may be themed to enhance the City-wide Ecological Network.

Artists will be expected to consider scale, color, material and subject matter in creating the artwork. The artwork shall not promote goods and services of any businesses.

Locations

Priority will be given to utility boxes located in highly visible pedestrian areas in Richmond. They will include the urban villages that make up Richmond's City Centre and Steveston Village.

The utility boxes vary in dimensions, ranging from 45cm x 75cm x 150cm to 60cm x 250cm x 130cm, depending on each boxes' specifications and their locations.

Consideration

The artwork must be a digital file, but can be an image of any medium, for example an image of an original painting, sculpture or installation would be equally acceptable as an original photographic image or graphic design. The work should enhance the existing character of the site by taking into account scale, colour, material, texture, content and the social dynamics of the location while dealing with themes important to Richmond, such as multiculturalism, history, and environment.

The artwork shall not promote goods and services of any businesses and shall not violate any federal, provincial or local laws. Additionally, the artwork shall not reflect partisan politics, negative imagery, religion and sexual content.

When preparing designs please keep in mind that busier designs are more successful in deterring graffiti and vandalism, while open spaces in the design are targets for tagging by graffiti artists.

Roster Selection Process and Criteria

- The artists will be chosen for inclusion on the Artist Roster through a one-stage selection process under the mandate of the Richmond Public Art Committee.
- A five person Selection Panel will review all artist packages and recommend up to thirty (30) artists for the Artist Roster based on a number of criteria, including:
 - Aesthetic merit of past projects and artistic concepts
 - Technical capabilities
 - Experience and interest in creating public artworks
- Through subsequent artist Selection Panels, commissions will be awarded to artists through 2014 to 2015

Upon approval, the Roster will remain in effect for two (2) years. Artists selected for the Roster will be notified prior to being placed into consideration for specific projects

Project Selection Process

Selection for the Roster does not guarantee selection for a project commission.

Qualified artists will be evaluated for each project opportunity by an interdepartmental staff team, based on a ranking established by the Selection Panel, availability, appropriateness of the artist's media and experience for specific project requirements. The selected artist will ultimately be commissioned for the project on the combined strength of a proposal, interview and references.

Submission Requirements

- Five (5) low resolution image pages of previous work. This work should not be the proposed design for utility wraps but provide examples of artist's style and variety of work, not necessarily public artworks. Name, title, year, location and medium information to be included on each image

page (Note: Multiple images of a work may be shown on each page to provide context and details, if desired)

- One (1) page written Letter of Interest, explaining artistic practice and approach to the project
- One (1) page artist CV or Resume

Only PDF files under 5MB will be accepted. Please e-mail your submission packages to:

publicart@richmond.ca

Questions?

publicart@richmond.ca

Examples of Richmond Art Wraps:



Richmond School Board



Steveston Fire Hall



Ackroyd Pump Station



No 2 Rd Pump Station

Potential opportunities for Art Wraps:



Van Horne Pump Station (9031 Bridgeport Rd.)



Moncton St and No. 1 Rd (NW)



3800 Chatham St



No. 1 Rd (Steveston Tram)



City of Richmond

Report to Committee

To: Parks, Recreation and Cultural Services Committee
Date: July 3, 2014

From: Serena Lusk
Senior Manager, Recreation and Sport Services
File: 11-7125-01/2014

Re: **City Centre Community Centre – Service Levels**

Staff Recommendation

That:

1. The service levels associated with Option 1 for the City Centre Community Centre, as described in the attached Business Plan of the report, "City Centre Community Centre – Service Levels," dated July 3, 2014 from the Senior Manager, Recreation and Sport Services, be endorsed for consideration in the 2015 Operating Budget;
2. The material terms for an operating agreement, as described in the attached Business Plan of the report, "City Centre Community Centre – Service Levels," dated July 3, 2014 from the Senior Manager, Recreation and Sport Services, be negotiated with the City Centre Community Association and brought back to Council for approval in early 2015;
3. The Position Complement Controls for the six positions included in the OBI Option 1 for the City Centre Community Centre, as described in the attached Business Plan of the report, "City Centre Community Centre – Service Levels," dated July 3, 2014 from the Senior Manager, Recreation and Sport Services be endorsed for consideration in the 2015 Operating Budget; and
4. Lang Centre continue to operate as a community facility as part of the delivery of recreation services in City Centre.

Serena Lusk
Senior Manager, Recreation and Sport Services
(604-233-3344)

Att. 1

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Human Resources	<input checked="" type="checkbox"/>	
Finance Division	<input checked="" type="checkbox"/>	
Facility Services	<input checked="" type="checkbox"/>	
Law & Community Safety Administration	<input checked="" type="checkbox"/>	
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS: 	APPROVED BY CAO

Staff Report

Origin

On December 9, 2013, Council made the following resolution:

That the 2014 Operating Budget, as presented under Budget Option 1 in the staff report dated November 29, 2013 from the Director Finance, be approved.

While the 2014 Operating Budget included \$3.56 million for Operating Budget Impact (OBI) related to the Major Corporate Facilities – Phase I, as well as a multi-year phase in for this OBI, the report specified that this amount, “...is based on preliminary estimates and the details of programming and service levels will be presented to Council for approval at a future date by Community Services staff.”

This preliminary OBI estimate included \$1.608 million for the new City Centre Community Centre and a phase in plan commenced with the 2014 budget.

The base building for the City Centre Community Centre is nearing completion. Tenant improvements are expected to begin in the fall of 2014, and the facility is expected to open to the public in 2015. As directed, staff have prepared a Business Plan for the City Centre Community Centre (Attachment 1).

The purpose of this report is to seek Council’s endorsement for the service levels and operating model for the City Centre Community Centre. As well, staff are seeking endorsement of the Position Complement Controls outlined in the Business Plan.

Background

On September 13, 2010, Council adopted Richmond Zoning and Development Bylaw No. 5300, Amendment Bylaw No. 8428 (ZMU15) in connection with the parcel of land between N-S lane, Ackroyd Road, Firbridge Way, and No. 3 Road, for what has become known as the Quintet Development. A Rezoning Consideration was that the City would have an option to lease approximately 33,340.7 square feet of community centre space to the City. Twenty thousand square feet would be leased to the City at a rate of \$1 per year base rent for 25 years, with the balance of approximately 13,340.7 square feet, being leased at a rate agreed to by the City and the Developer.

Also, on September 13, 2010, Council approved further details of the lease including:

- Regarding the 13,347 square feet portion, annual base rent of approximately \$255,244 (to be adjusted based on a rate of 6.5% of the total costs to develop, construct and complete the improvements within this area) with rental escalations every five years.
- One 25-year renewal option.

The registered lease provides for the City to pay its proportionate share of operating costs and taxes.

In March of 2012, Council approved the City Centre Community Centre program as outlined in the report “City Centre Community Centre Revised Program and Project Update.” The approved program includes: a community living room; multipurpose program spaces; fitness area and change rooms; aerobic and dance studio; meeting rooms; games room and lounge; arts studio; and music rooms.

Since then staff have continued to work with the architect to refine the program and confirm the detailed design of the facility. Negotiations with Ledcor are almost complete and the City is ready to begin the tenant improvements when the base building is turned over in October of 2014.

The City Centre Community Association currently partners with the City to offer programs and services to the City Centre community at the Lang Centre and schools throughout the area. The Association has been a partner in the development of the Community Centre program and has provided their endorsement for each recommendation, regarding the facility, which has come to Council for a decision.

Analysis

The new City Centre Community Centre is anticipated to open to the public in the summer of 2015. The new two-storey, 30,000 square foot facility is designed to meet the diverse needs of a dynamic urban community, including all ages, with varied interests and abilities.

The Community Centre will play a key role in creating an inclusive, safe, and accessible community. The facility will help to promote community livability and individual well being by encouraging healthy lifestyles. It will also encourage social inclusion through the provision of community spaces and affordable programs and services. It will be a key place for social interaction and meeting new people, which is especially important for new immigrants (many of which live in City Centre). The City Centre Community Centre will be the hub of community life in central Richmond.

The Community Centre will be co-located with a satellite campus of Trinity Western University (TWU) and it is expected that the students in the TWU programs will also be users of the Centre.

Operating Model

The City Centre Community Association has been partnering with the City since 1993 to offer programs and services in the City Centre in a similar manner to that at all community centres in the city. In this operating model, the City has financial responsibility for the facility operations, key staff and other infrastructure such as information technology systems. The Association is responsible for the expenses and revenues related to direct program delivery in areas such as fitness, youth and older adults.

The City Centre Community Association has been integral to the development of the program plan for the new facility and is committed to continuing to provide programs and services at Lang Centre and the new City Centre Community Centre, as well as in schools throughout the community.

Building on the success of the current relationship based approach for the delivery of community recreation services, staff are recommending that Council endorse a continuation of the existing partnership with the City Centre Community Association, and that Council direct staff to work with the Board to develop material terms for an operating agreement for Council's approval. The terms will address:

- term
- staffing
- service levels and performance measurements
- governance
- finances
- liability
- facility maintenance
- compliance with City by-laws and policies
- dispute resolution mechanism
- operational reviews and annual reporting requirements

Proposed Service Levels

Lang Centre

Lang Centre is an approximately 3,200 square foot facility owned by the City in a strata-titled mixed residential and retail development. It opened in 1994 and has been serving the city centre community with a variety of both drop-in and registered programs.

As outlined in the attached Business Plan, both the City Centre Community Association and staff recommend that the Lang Centre continue to operate, as it serves an important role in the most densely populated area of the City. Over 50,000 people currently live in City Centre and this number is expected to increase to 78,000 by 2021.

The proposed operating budgets for both the City's operation and the City Centre Community Association programs include both facilities as well as the outreach programs offered through the schools.

Should Council wish to consider not continuing to operate Lang Centre, other options for consideration include the following:

1. Use of the space by other City departments;
2. Rental of the space to another service provider or business; or
3. Disposition of the asset.

Any one of these options would require additional research and could be the subject of a future report for Council's consideration.

Proposed Service Levels for City Centre

Staff have reviewed the lease agreement, program plan, and service levels and prepared three service level options for Council's consideration.

The OBI amounts identified for each option include the impact of each of the service level recommendations as well as non-discretionary items such as lease payments and management fees negotiated in the original lease agreement. Each of the options is less than the \$1.608 million OBI included in the preliminary OBI estimate.

Following is a summary of the three service level options outlined in the attached Business Plan.

Option 1 – Recommended *\$1.40 million*

- Continued operation of Lang Centre with efficiencies realized from the coordination and combined supervision of the two facilities;
- Core staff* includes 2 Regular Full Time (RFT) Community Facility Coordinators, 1 RFT Recreation Leader, 1 RFT Recreation Facility Clerk, and 2 RFT Building Service Workers; and
- Hours of operation, Sunday to Thursday 6:00 a.m. to 11:00 p.m., and Friday and Saturday 6:00 a.m. to midnight.

**One (1) Area Coordinator position is already funded in the existing operating budget for Lang Centre.*

As an urban Community Centre in the heart of the City, this facility is anticipated to be very different from the neighbourhood facilities currently found in Richmond. This facility is very program intensive as it has many diverse and specialized program spaces, and no large gymnasium. In order to fully program the facility to its capacity and potential, and serve the community, this level of program staff is recommended.

This represents the same core staff level as the Minoru Place Activity Centre, Steveston Community Centre and the Thompson Community Centre.

Option 2 – Not Recommended *\$1.20 million*

- Continued operation of Lang Centre with efficiencies realized from the coordination and combined supervision of the two facilities;
- Core staff* includes, 2 RFT Community Facility Coordinators, 1 RFT Recreation Facility Clerk, 1 RFT Building Service Worker;
- Janitorial contract for evening cleaning; and

- Hours of operation, Monday to Friday, 8:00 a.m. to 8:00 p.m., and Saturday and Sunday 9:00 a.m. to 5:00 p.m.

**One (1) Area Coordinator position is already funded in the existing operating budget for Lang Centre.*

This option has fewer operating hours than Option 1 and fewer operating hours than other existing facilities. It also eliminates one program position, a Recreation Leader. In addition, it includes only one daytime Building Service Worker (BSW) and utilizes contract janitorial services for evening cleaning. This option is not recommended as the hours of operation are reduced below the current standard of service, and less than what the urban community is anticipated to require. As an example, the Richmond Olympic Oval is open from 6:00 a.m. to 11:00 p.m. daily.

The standard for janitorial services at the Community Centres is one full time daytime BSW as well as full time evening and weekend coverage commensurate with the size and complexity of the building. Using contract janitorial services may limit flexibility in duties such as event and room set-up and take down.

Option 3 – Not Recommended \$1.35 million

- Continued operation of Lang Centre with efficiencies realized from the coordination and combined supervision of the two facilities;
- Core staff* includes 2 RFT Community Facility Coordinators, 1 RFT Recreation Leader, 1 RFT Recreation Facility Clerk, and 2 RFT Building Service Workers; and
- Hours of operation, Monday to Sunday 7:00 a.m. to 9:00 p.m.

**One (1) Area Coordinator position is already funded in the existing operating budget for Lang Centre.*

This option includes the same level of core staffing as Option 1, but reduces the operating hours by two hours per day (three hours on weekends). With the large and growing population in City Centre, its urban nature, and diverse program needs the demand for extended hours is anticipated to be great. As a result, this option is also not recommended.

While other configurations of staffing are possible than the three presented above, the combined hours of operation and supervision levels presented are commensurate with each other. Reducing programming staff will reduce the number and variety of programs that can be offered, reducing service levels to the clients. Utilizing staff BSW's rather than contract service providers will allow more flexibility in terms of other facility duties such as room set-up and event support. The current BSW Supervisor can accommodate this facility and supervision of the additional staff within their portfolio.

Table 1 on the next page summarizes the three service level options presented in the Business Plan:

Table 1: Comparison of City Centre Community Centre Service Level Options

	Option 1 – \$1.4 M *Recommended	Option 2 - \$1.2 M	Option 3 – 1.35M
Lang Centre	Continue to operate	Continue to operate	Continue to operate
RFT Area Coordinator (existing funding)	1	1	1
RFT Community Facilities Coordinator	2	2	2
RFT Recreation Leader	1	0	1
RFT Recreation Facilities Clerk	1	1	1
Building Services Worker	2	1	2
Janitorial Contract	0	1 (evening)	0
Hours of Operation	6am – 11pm (Sunday – Thursday) 6am – 12pm (Friday, Saturday)	8am – 8pm (Monday – Friday) 9am – 5pm (Saturday, Sunday)	7am – 9pm daily

Position Complement Controls

In order to be ready for opening in the summer of 2015, staff are required several months in advance to prepare the building and program plan. As outlined in the attached Business Plan the following **new** positions are included in OBI Option 1 for the Community Centre:

Position	Anticipated Start Date
2 – Community Facility Coordinators (RFT)	January 2015
1 – Recreation Facility Clerk (RFT)	May 2015
1 – Recreation Leader (RFT)	April 2015
2 – Building Service Workers (RFT)	May 2015

Financial Impact

There is no financial impact of approving the recommendations presented in this report.

The Operating Budget Impact of the proposed service level options for the City Centre Community Centre are within the original estimate included in the 2014 Operating Budget report. The OBI phase-in plan will be revised in accordance with the service level option endorsed by Council for consideration in the 2015–2019 financial plan.

Conclusion

The service level outlined in Option 1 in the City Centre Business Plan for Community Recreation Services will maintain Richmond's record of providing an excellent level of service to the City Centre community and support the fulfillment of Council Term Goals that enhance overall quality of life. Negotiation of material terms for an operating agreement support the implementation of the program plans outlined in the Business Plan.

July 3, 2014

- 8 -

A handwritten signature in black ink, appearing to read 'BAyers'.

Elizabeth Ayers
Manager, Community Recreation Services
(604-247-4669)

Att. 1: Business Plan for City Centre Community Recreation Services

City Centre – Business Plan for Community Recreation Services

City Vision

Programs and services offered through the Community Services Department are an integral part of Richmond reaching its vision of being the “most appealing, liveable, and well managed community in Canada.” Community Recreation programs, services and facilities provide life-long opportunities for residents to engage in healthy, social and physical activities, and contribute to building a healthy and vibrant community for all.

The City Centre Community Centre was considered by Council in 2008, as part of the Rezoning at 5891 No. 3 Road, 5931 No. 3 Road, and 5900 Minoru Boulevard, to “Comprehensive Development District.” The site, more commonly known as the Quintet Development is a five tower development with a sixth, 4-storey building that will house both the City Centre Community Centre and a post secondary institution, Trinity Western University. (See Appendix 1 for a complete list of reports to Council.)

The addition of the Community Centre to the south portion of the City Centre supports the following Council 2011-2014 Term Goal 4:

To ensure provision of quality public facilities and amenities in Richmond that keep pace with the rate of growth, through implementation of an updated comprehensive Facility Development Plan that includes an analysis of existing facilities, the identification of required new facilities, and the recommended timing, financial strategies and public process for implementing the plan.

As well as Council 2011-2014 Term Goal 10.3:

Create urban environments that support wellness and encourage physical activity.

City Centre Community Association Mission and Vision

The City Centre Community Associations’ mission supports the City’s vision and the goals of the Community Services Department in the delivery of community recreation services.

Richmond City Centre Community Association (RCCCA) Mission Statement:

We engage our community by providing accessible quality of life programs and facilitating opportunities where we can connect, learn and grow together.

Community Need – Role of the Community Centre

As identified in the OCP–City Centre Area Plan, the City Centre population is forecast to increase from 50,000 to 78,000 by 2021 and 100,000 by 2041. City Centre residents are currently underserved in terms of community recreation services. The City Centre Community Centre is one of two facilities identified in both the Official Community Plan

(OCP)–City Centre Area Plan and the Parks, Recreation and Cultural Services (PRCS) Facilities Strategic Plan. This facility was identified as a high priority Phase I Capital Development project by Council. Development of the facility directly supports the Community Wellness Strategy 2010-2015, Sport for Life Strategy 2010-2015, and the Parks, Recreation and Cultural Services Master Plan for 2005-2015.

The Community Centre plays a key role in creating an inclusive, safe, and accessible community. The facility will help to promote community livability and individual well being through encouraging healthy lifestyles. It will also encourage social inclusion through the provision of community spaces and affordable programs and services. It will be a key place for social interaction and meeting new people, which is especially important for new immigrants (many of which live in City Centre). The City Centre Community Centre will be the hub of community life!

City Centre Community Centre will be a vibrant two-storey community centre located in the heart of Richmond. The facility is scheduled to open summer of 2015, and will provide a range of recreation programs and services, tailored to residents of all ages.

Since its inception, the Community Centre program has evolved and now includes the following spaces: a community living room; multipurpose program spaces; fitness area and changerooms; aerobic and dance studio; meeting rooms; games room and lounge; kitchen; arts studio and music rooms. (See Appendix 1.)

Operating Model

Staff recommends that the City continue its relationship with the City Centre Community Association for the continued operation of the Lang Centre and the new operation at the City Centre Community Centre starting in 2015.

City Council adopted two guiding principles related to the City working with others. They stated that the Parks, Recreation and Cultural Services delivery system must:

- Value and encourage community involvement; and
- Value effective partnerships.

These principles have lead to a relationship based approach in the delivery of parks, recreation and cultural services as outlined in the City's Parks, Recreation and Cultural Services Masterplan for 2005–2015. Building relationships between quality of life service providers is critical to the sustainable success of the system. These relationships will help ensure effective and efficient use of scarce resources.

In keeping with a relationship based approach, Community Associations have become integral to the delivery of community recreation services in Richmond. Every community centre has an Association that works with the City to deliver programs and services that serve the diverse needs of their community.

The City Centre Community Association has been working with the City since 1993 to offer programs and services in the City Centre. Currently the programs are primarily offered out of Lang Centre, on Saba Road. However due to the small size of the facility and the large demand for programs, a variety of programs are offered in schools in the City Centre area.

While Council has not explicitly approved a relationship with the City Centre Community Association for the operation of the new City Centre Community Centre, it has been implied by the continued emphasis on joint planning and the desire to have endorsement from the Association before recommendations are endorsed by Council. This precedent was set with the first report to Council in 2008 regarding the rezoning of the properties where the report states:

The City Centre Community Association has been consulted in regard to the proposed community facility included in the proposed development and have indicated their support, especially in terms of the location and the range of opportunities for programming and services that the proposed facility can provide.

Similarly, the City Centre Community Centre Revised Program and Project Update report dated February 14, 2012, included the following statement regarding the Associations support:

This space allocation was unanimously endorsed by the Board of Directors of the City Centre Community Association on February 7, 2012.

Operating Agreement

Building on the success of the current relationship based approach to community recreation services, staff are recommending that Council endorse a continuation of the existing partnership with the City Centre Community Association for the operation of the City Centre Community Centre.

With this endorsement, staff will work with the Board of the Community Association to develop material terms for an operating agreement and bring it back to Council for approval.

The terms will address:

- Term;
- Staffing;
- Service levels and performance measurements;
- Governance;
- Finances;
- Liability;
- Facility maintenance;
- Compliance with City by-laws and policies;
- Dispute resolution mechanism; and
- Operational reviews and annual reporting requirements.

Environmental Analysis

The City Centre area is a dynamic and evolving area in which to operate. It is the fastest growing area of the City, and is envisioned to be a “world class centre and the centerpiece of Richmond.”

Staff and the Community Association, recognize that they will need to be adaptable and flexible to be successful in serving the City Centre community. An analysis for the Community Centre operations follows:

Strengths

- City Centre Community Association has a positive and strong reputation for providing quality programs and services.
- Strong relationship between City and the City Centre Community Association.
- Strong and dedicated Board of Directors.
- Skilled, qualified, and caring staff team.
- Solid knowledge of the community, its diversity and needs for recreation services and programs.

Weaknesses

- Limited financial resources (City Centre Community Association).
- Limited parking.

Opportunities

- New facility in a largely underserved area of the City.
- High density development in area with many apartment and townhouse dwellings.
- Co-location with Trinity Western University, opportunity to tap into student population.
- Growing population (the fastest in Richmond).
- Close to Canada Line.
- Partnerships with other service providers.

Threats

- Safety and security in the facility.
- Significant amount of population is not aware of community recreation opportunities, and therefore it will require more effort and energy to engage them.

Trends

The facility was designed to address current trends in recreation. Recognizing that needs and trends change over time, the facility spaces have been designed to be adaptable and flexible.

As outlined in both the National Recreation Agenda and the OCP–City Centre Area Plan, industry trends that will impact the programming of this facility are as follows:

1. Continued inactivity, sedentary living and increasing obesity.
2. Baby boomers are retiring and have unique needs and interests, and many have more disposable income.
3. Older adults are tending to age in place.
4. Increasing ethnic diversity.
5. Decreased contact with nature.
6. Growing child and youth population.

Impact on Other Facilities

There are a variety of other service providers in the City Centre area and neighboring communities, for example, the Oval, Fitness World, private dance studios and Thompson Community Centre.

While existing City facilities may initially be impacted by the opening of the City Centre Community Centre staff believes that overall participation will increase within a short period of time. As an example, when the Oval first opened Thompson Community Centre experienced a decrease in participation. However, within a year participation had surpassed previous levels and the Oval was also extremely busy. With the increasing population, particularly in City Centre, and the current lack of facilities there is a high need for services in this area.

Demographics

The City Centre population is the fastest growing area in Richmond, and also the most culturally diverse. The City Centre area is the largest service area in Richmond, with 50,000 residents as of 2011. The City Centre will double its population between 2011 and 2041, and increase its share of the City's population from 25 per cent to 36 per cent. While the population is currently concentrated south of Westminster Highway, the development is shifting northward, and the majority of these new residents will be located north of Westminster Highway. The population in City Centre is also increasingly older overall, with a projected 23,000 older adults or 29.5 per cent of the population being older adults by 2031. However, the number of children aged 0 to 19 years is also increasing overall; there will be a projected 12,000 children by 2031.

The growth in housing in the area is largely apartment type dwellings. City Centre will accommodate 75 per cent of the City's apartment growth. It is also of interest that the City Centre has more renters, 30 per cent versus 23 per cent for Richmond as a whole. City centre also has a higher portion of residents with a 5 year mobility status, 56 per cent versus the rest of Richmond which averages 38 per cent.

Closely related to housing are income levels. Not surprisingly incomes in the City Centre are approximately 20 per cent lower than the rest of Richmond. Finally, while Richmond overall is a highly diverse community, City Centre has the highest proportion of visible minorities. Only 19 per cent of City Centre residents are non-visible minorities compared with 33 per cent for the rest of Richmond. Sixty one per cent of the City Centre population is of Chinese decent. The next most common cultures are South Asian and Filipino.

Program Plan

The Community Centre has been designed to meet the diverse needs of a dynamic, urban community, including all ages and varied interests. (See Appendix 2.)

Lang Centre

It is recommended by both the City Centre Community Association and staff that the Lang Centre continue to operate and as such, the program plan and operating budgets include both facilities as well as the outreach programs offered through the schools.

Lang Centre will continue to offer preschool programs, homework clubs, birthday parties, youth meetings and seniors' wellness programs. Due to the high density of the City Centre area it is believed that there will be continued demand for programs at Lang Centre.

Should Council wish to consider the option of not operating Lang Centre, staff could further research options including use by other City departments as well as disposition of the asset.

A seasonal program plan is provided in Appendix 3 as an example of what the detailed programming for the City Centre Community will look like.

An important component of the program at the Community Centre that is not captured in the schedules below are the special events, the informal or passive programming that is planned, as well as the significant community arts program including ongoing public art displays, and artist in residences. During the consultation phase staff heard over and over again the importance of providing space for community to meet, to interact, and to simply be. People told staff they want to be welcome and comfortable in the facility and not feel like they have to pay to participate to enjoy the facility. As a result, the facility includes a community living room, and significant lobby space, including computer counters (café style) so that people can enjoy the facility without formally participating. This is where community will happen!

Marketing

A detailed marketing and promotional plan will be developed in partnership with the Community Association as we lead up to the completion and grand opening of the new facility in the spring/summer of 2015.

The Plan will consider the following factors:

Product – as outlined above the City Centre Community Centre program elements have been designed based on extensive community consultation. Staff will be preparing the first season of program offerings this fall in anticipation of the opening. Programs are being designed to meet the diverse needs of the community, including sports, health and wellness, fitness, social activities, cooking, music, arts, and dance. A sample season of programs was provided earlier in this plan.

Pricing – community recreation services has a standard set of fees and charges that are applied across the City. This helps to ensure equitable access to programs for residents. Staff is mindful that there is particularly high need for low cost programming in the City Centre and will be working to provide low cost and no cost options for participants. This includes the ongoing pursuit of grants and program sponsorship.

Place – the community centre is centrally located in the Lansdowne Village of City Centre. It's within a short walk of the Canada Line and many high rise developments. In addition to serving the residences of City Centre, staff believes there is a real opportunity to work with both Trinity Western University and Kwantlen College to serve the health and wellness needs to their students.

Promotion – a broad awareness and information campaign has been in place since the design of the community centre started. There is an active website for the Community Centre at citycentrerichmond.ca. This site was used to gather input and feedback on the design of the facility and provides updates on the progress of the building. It will continue to be used as the project evolves.

On site signage has been used to create awareness of the new community centre. As soon as construction starts (fall of 2014) this signage will be updated and re-installed. A ground breaking event, in early fall of 2014, will re-energize interest in the new building.

Finally, as already outlined, a comprehensive promotional plan will be developed and cover the period from ground breaking through to the first season of programs.

People – the current Lang Centre team will also be responsible for the operation of the new Community Centre. Additional staff, both City and Association, will be required as outlined in the budget plan for the Community Centre. Within the reality of our collective agreement and Human Rights Laws, it is staffs intent to hire a team more reflective of the community.

Community Centre – Service Levels

Council approved a preliminary Operating Budget Impact (OBI) for City Centre Community Centre in the fall of 2013. This business plan, combined with the budget plans and options below provide the rationale for Council to make a decision regarding the service levels for the City Centre Community Centre. The revised OBI estimates are all within the estimates included in the 2014 operating budget report.

Lease Agreement

As outlined above in the summary of Council reports in September of 2010, Council approved the key terms of the lease for City Centre, including the rent payments for the space. The lease payments are \$1 base rent for the 20,000 square feet and 6.5 per cent of the building cost base rent on the remaining 13,347 square feet of space. This is currently estimated to be \$214,500 per year, based on building cost of \$300 per square foot and on the 11,000 square feet of the remaining space that has actually been built. There is an additional \$42,000 allowed for the renting of parking stalls in nearby parking structures.

Under the lease, the City is responsible for paying its proportionate share of operating costs for the building and taxes. These building operating costs include utilities, janitorial services and facility maintenance and repair. These costs are estimated to be \$9 per square foot. It should be noted that an application for tax exemption has been submitted for the City's portion of the building. The OBI presented assumes that the City will be successful in its request for tax exemption. The owner currently has an air space parcel subdivision application in to the City, and there may be additional operating costs passed onto the City as a tenant as a result of this subdivision.

Service Level Considerations and Assumptions

As an urban community centre in the heart of the City, the facility is anticipated to be very different from the neighborhood based facilities currently found in Richmond. The Centre will be Richmond's first full service downtown community centre. In addition to serving the needs of the rapidly expanding urban population the Centre will help to animate the City core.

The Centre's unique location – near the Canada Line, close to the Lansdowne corridor, and surrounded by high-density development means that services will be different. The centre will need to respond to a population that expects recreation services at late hours, as well as creating an urban environment where the streets are active and alive after the evening rush hour. To help build a vibrant community the Centre will need to be a community meeting place – a place where people don't just workout listening to their iPods, and leave quickly after a workout – but a place where people can gather informally. To accomplish this, residents should be able to drop into the centre at a variety of hours, and most importantly have a set of programs that focus on building community. Since there will be such a range of diverse people using the facility including, a wide range of incomes, ethnicities, interests, and lifestyles-think skateboarders, wealthy condo owners, and homeless people, the supervision issues in the centre will be intensive and challenging.

Core Staff Options

Option 1 – Recommended

- One – Area Coordinator (AC) (existing position)
- Two – RFT Community Facility Coordinators (CFC)
- One – RFT Recreation Leader (RL)
- One – RFT Recreation Facility Clerk (RFC)
- Two – RFT Building Service Workers (BSW) (1 day, 1 night)

This facility is particularly program intensive, due to the large number of program spaces, the diversity and specialized nature of these spaces, and the expected needs of the community. In order to fully program the facility to its capacity and potential, and therefore serve the community, this level of program staff is recommended.

It is important to note that the Area Coordinator also retains responsibility for the Lang Centre operation as well as significant outreach programming in the schools. This staffing level will allow there to be a supervisor working seven days of the week, and several evenings throughout the week.

This represents the same staffing level as the Minoru Place Activity Centre, Stevenson Community Centre, and Thompson Community Centre.

Option 2 – Not Recommended

- One – Area Coordinator (AC) (existing)
- Two – RFT Community Facility Coordinators (CFC)
- One – RFT Recreation Facility Clerk (RFC)
- One – RFT Building Service Worker (BSW) and Janitorial Contract Services

This represents the same level of program staff as Cambie Community Centre, but a lower service level than other centers of similar size or scope. As outlined above this facility is program intensive as it has many specialized program spaces, and no large gymnasium. Staff recommends that the Recreation Leader is a vital component of the program team for this facility.

The janitorial standard at the community centers is one full time daytime BSW as well as full time evening and weekend coverage, the exact number of evening staff varies with the size and complexity of the building. With the recent hiring of a BSW Supervisor, and the elimination of “team clean” the quality and quantity of janitorial services has improved greatly in community recreation. It is recommended that this model be expanded into the new Centre. The current supervisor can assume the additional staff within their portfolio.

The exceptions to this cleaning model are Lang Centre and Hamilton Community Centre, where the time required to clean is less than four hours per evening. As a result, utilizing a janitorial service is less expensive. The level of service provided is varied and the contract requires intensive supervision.

Hours of Operation and Associated Staffing

Three levels of operating hours are presented for consideration; both staff and the Association recommend Option 1.

Option 1 – Recommended

Sunday to Thursday	6:00 a.m. to 11:00 p.m.
Friday and Saturday	6:00 a.m. to midnight

Option 2 – Not Recommended

Monday to Sunday	7:00 a.m. to 9:00 p.m.
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Option 3 – Not Recommended

Monday to Friday	8:00 a.m. to 8:00 p.m.
Saturday and Sunday	9:00 a.m. to 5:00 p.m.

The City is responsible for front line staff under the current operating model and for the larger facilities the City generally funds the core hours of 7:00 a.m. to 9:00 p.m. The associations fund operating hours before 7:00 a.m. and after 9:00 p.m.

As outlined throughout this report, this facility will serve a larger, more urban and diverse community. Residents in the area will live in relatively compact spaces, with limited access to green space. As a result, demand for recreational space, especially workout facilities is expected to be great. Therefore the recommendation is to have slightly longer hours of operation. Due to the limited financial resources of the Association it is also recommended that the City fund these completely, at least for the first two to three years, while the Association grows its program base and is able to share in a portion of these costs.

Growth and Phasing Considerations

The facility is anticipated to be complete in the summer of 2015. In order to be ready for opening, staff is required several months in advance to prepare the building and program plan. Examples of the preparation work include: development of emergency procedures; acquisition and installation of equipment (\$1.4 million); facility set up; staff hiring and training; and program development. This requires a minimum of six months lead time to ensure the facility is fully ready for opening day.

The proposed phasing of staff is as follows:

- January 2015 – Hire two Community Facility Coordinators;
- April 2015 (or 3 months in advance of opening) – Hire Recreation Facility Clerk; and
- May 2015 (or 1 month in advance of opening) – Hire Recreation Leader and two BSWs.

Service Level Options for Consideration

Three service levels have been prepared for Council's review and consideration.

Option 1 – Recommended \$1.40 million

- Continued operation of Lang Centre with reduced staffing from 2014 levels.
- Core Staff Options as outlined in Option 1 above, two CFCs, one Recreation Leader, one Recreation Facility Clerk, two BSWs.
- Hours of operation, Sunday to Thursday 6:00 a.m. to 11:00 p.m., and Friday and Saturday 6:00 a.m. to midnight.

Option 2 – Not Recommended \$1.20 million

- Continued operation of Lang Centre with reduced staffing from 2014 levels.
- Core Staff Options as outlined in Option 2 above, two CFCs, one Recreation Facility Clerk, one BSW.
- Janitorial contract for evening cleaning.
- Hours of operation, Monday to Friday, 8:00 a.m. to 8:00 p.m., and Saturday and Sunday 9:00 a.m. to 5:00 p.m.

Option 3 – Not Recommended \$1.35 million

- Continued operation of Lang Centre with reduced staffing from 2014 levels.
- Core Staff Options as outlined in Option 1 above, two CFCs, one Recreation Leader, one Recreation Facility Clerk, two BSWs.
- Hours of operation, Monday to Sunday 7:00 a.m. to 9:00 p.m.

Community Association Budget



**City of
Richmond**

Memorandum

Community Services Department
City Centre Community Centre

To: Elizabeth Ayers,
Manager Community Recreation

Date: June 24, 2014

From: David Ince
Coordinator

File: 98-10-01/Vol 01

Re: City Centre Community Association 3 Year Budget

The Association projected budget was developed by reviewing comparable Community Associations' budgets and staffing. The Community Association, working in partnership with the City delivers programs and services to a large and growing population of over 50,000 residents. The area is being developed with numerous high density residences.

The Centre, by virtue of its location will be the first urban community centre in Richmond. Features of urban life include more evening and late night opportunities (such as the number of restaurants on No. 3 Road that stay open very late) and also the presence of transit hubs, (such as Lansdowne and Brighthouse) that draw residents and visitors from a wider area.

A three year budget projection has been developed to meet the Association's objectives: to deliver the high quality recreation services that residents expect, to nurture the sense of community in the area, and to ensure that recreation services are accessible to all residents in the area.

The Association is facing two challenges: to keep operating the full complement of outreach programs that meet the challenging needs of City Centre's diverse community, while at the same time providing programs and services in the new centre. As well, the Association wants to as much as possible have a full program operational when the new centre opens.



Since 1997 Lang Centre has operated in a partnership between the City of Richmond and City Centre Community Association. The Association is committed to operating programs now and in the future from Lang Centre. Given its location – in the heart of the Northeast quadrant of City Centre, adjacent to the Richmond Public Market, and beside popular Lang Park – a unique park in the centre of the City – Lang Centre provides services to residents in the new developments surrounding the facility. Because the Centre is within walking distance for so many residents and especially newcomers to Richmond it often serves as a bridge for new residents to access City Services. For example, the popular licensed preschools attract families who are often using City services for the first time. The Association believes that continued programming in Lang Centre will be needed for the foreseeable future to meet the unique needs in the City Centre Area.

The prime revenue source that funds other programs, the fitness centre, will be planned to have a complete staff complement when the centre opens to maximize awareness in the community. To respond to the ever growing seniors' population, a part time Seniors Coordinator will be hired in the first year of operation as well as a part time Arts and Music Facilitator.

As the Association's finances improve there will be more Association staff hired, such as a Volunteer Coordinator.

The challenge for the Association will focus on carrying the proposed short term deficit and the need to have an adequate equipment replacement fund in place.

David Ince
Coordinator
(604-233-8913)

City Centre Community Association - Budget Projections

	2015-2016	2016-2017	2017-2018
Revenue	809,000	912,100	1,022,282
Expenses	841,037	914,484	988,082
Net Income	-\$32,037	-\$2,384	\$34,200

Appendix 1 – Summary of Reports to Council Regarding Program Related Reports for City Centre Community Centre

September 2008

In September of 2008, Council first received a report regarding the rezoning of the parcel between N-S lane, Ackroyd Road, Firbridge Way, and No. 3 Road. A Rezoning Consideration was that the Developer would lease approximately 33340.7 square feet of community centre space to the City. Twenty thousand square feet would be leased to the City at a rate of \$1 per year base rent for 25 years, with the balance of the space, approximately 13,340.7 square feet, being leased at a rate agreed to by the City and the Developer. The Community Centre is part of a common development with Trinity Western University, which will occupy the third and fourth floors of the building, and share a common entrance and lobby.

This combined space will provide a community centre for the growing City Centre community. Council adopted the applicable rezoning bylaw on September 13, 2010.

September 2010

At a closed meeting, Council approved the lease of the Community Centre space as follows:

(1) the lease of the additional 13,347 square feet for the future community centre, known as Firbridge Community Centre, to be part of an air space parcel at the property known as **5900 Minoru** Boulevard, legally described as Parcel Identifier 004-910-826, Lot 23 except: Parcel "C" (reference plan 34061), Section 5 Block 4 North Range 6 West New Westminster District Plan 31512, from Phileo Developments (Richmond) Ltd., or its designate, to the City of Richmond be approved for a 25 year term at an annual rental of approximately \$255,244 (to be adjusted based on a rate of 6.5% of actual costs) with rental escalations every 5 years, plus one 25 year renewal option at market rental rates, which shall include the material terms and conditions as outlined in the staff report dated August 23, 2010; and

(2) staff be authorized to take all necessary steps to complete the matters detailed in the staff reports dated April 24, 2008 and August 23, 2010 including authorizing the Manager, Real Estate Services to negotiate and execute all documentation to effect the transaction, including lease and Land Title Office documentation.

In March of 2011, this information was released to the Public.

July 2011

On July 25, 2011 Council approved the development permit for Phase 2 of the "Quintet Development," the portion that includes both the Community Centre and Trinity Western University.

March 2012

On March 12, 2012, Council approved the City Centre Community Centre program as outlined in the report “City Centre Community Centre Revised Program and Project Update.” This report included the program spaces for the facility and a draft layout of the spaces.

December 2013

On December 9, 2013, Council approved the 2014 Operating Budget. This budget included a preliminary estimate of \$3.56 million in OBI for the Corporate Facilities Implementation Plan – Phase 1. The City Centre Community Centre OBI was \$1,608,000 of this total OBI estimate, and was planned to be phased in over three years.

March 2014

On March 10, 2014, Council approved the name of the facility to be the City Centre Community Centre.

Appendix 2 – Program Development for City Centre Community Centre

In May of 2011, the City retained CEI Architecture Planning Interiors (CEI) to lead the design and development of the tenant improvements for the City Centre Community Centre. A Project team was established, including City staff, representatives from the City Centre Community Association, and CEI. Shortly thereafter the project team began an extensive public consultation process to confirm the program requirements for the Community Centre. Consultation included the following actions:

- Eleven focus group meetings with stakeholder groups such as the School District No. 38 Settlement Workers in Schools (SWIS), Richmond Centre for Disability, Richmond Chinese Community Society, Arts Groups, and youth;
- A website was developed for the community centre, www.citycentrerichmond.ca, and continues to be updated with information on the development;
- A survey was distributed in person and was available on line requesting input from the community. Over 150 completed surveys were received;
- An Open House was held at the Cultural Centre on September 17, 2011. This was an opportunity for the public to view the work done to date and provide input as to what they felt the Community Centre should include; and
- All marketing to the community was provided in Chinese and English.

The project team was very pleased with the community input, responses from the community indicated that spaces for the following types of programs are desirable (listed in order of preference):

- Activities such as dance, yoga or tai chi;
- Physical activity such as weight training or cardio;
- Reading, doing homework, internet browsing or other computer use;
- Activities such as drawing, sculpture, or painting;
- Music or acting activities;
- Activities such as cooking classes or catered events;
- Meetings, club events, or card playing;
- Playing table tennis or billiards; and
- Watching movies or television, listening to music.

Following the open house in September of 2011, and compilation of feedback from the community, CEI hosted a 3-day design charrette where the allocation of program spaces was developed based on the community input. The program spaces identified for the facility were: a community living room; multipurpose program spaces; fitness area and changerooms; aerobic and dance studio; meeting rooms; games room and lounge; kitchen; and arts studio and music rooms. CEI worked with the project team to allocate

the program spaces and refine the layout of the facility. At the end of each day, the stakeholder groups and community at large were invited to come and provide feedback on the facility layout. Overall, the feedback from stakeholders was very positive throughout the process.

This program plan was further refined over the next several months and then submitted to Council in February of 2012, where it was approved.

Appendix 3 – City Centre Community Program Overview

NEW CITY CENTRE COMMUNITY CENTRE - FACILITY CHART - Weekday

NEW CENTRE															
TIME	LARGE MULTIPR. ROOM 1	FITNESS CENTRE	COMMUN. LIVING ROOM	MULTIPR. ROOM 2	ACTIVITY STUDIO	ART STUDIO	SOCIAL ROOM	MULTIPR. ROOM 3 PRESCHOOL	KITCHEN	MULTIPR. ROOM 4	MUSIC 1	MUSIC 2	MUSIC 3	MEETING ROOM 1	MEETING ROOM 2
6:00 AM TO 9:00 AM	Seniors Tai Chi Room Set Up	Open for Drop-in	Coffee with Sally	Luk Tung Kuen	Group Exercise Aerobics					Seniors Table Tennis					
9:00 AM TO 12:00 PM	Parent and Tot Gym Family Place Drop-in	In addition there will be workshops and Orient for	Centre Tours for new residents	LGBT Seniors Group Carpet Bowling	Morning Yoga Cardio Strength Seniors	Chinese Brush Painting Parent & Tot Art	Senior News and Views	Licensed Preschool * * * *	Licensed Preschool * * * *	Gentle Fitness Licensed Preschool Activity Time	Preschool Off Music Preschool Off Music	Parent and Tot Music Preschool Drumming		Minds in Motion Seniors New Immigrant Support	City of Richmond Meetings
1:00 PM TO 5:00 PM	Seniors Theatre Childrens Drama	Seniors, Youth, Special Needs Women & Personal Training	Open for Drop-in	Bridge Club Cribbage Drop-in	Preschool Ballet Childrens Ballet	Preschool Painting Cartooning Mixed Media	Seniors Yoga Youth Drop-in Centre	Licensed Preschool * * *	Seniors Cooking Class Childrens Cooking	Licensed Preschool Activity Time Youth Drop-in	Opera Course Children Guitar	Adult Group Clarinet Private Adult Piano and Guitar		City of Richmond Meetings	Community Rentals Community Rentals
5:00 PM TO 7:00 PM	Children Takwondo Women Self Defence	Open for Drop-in	Open for Drop-in	Parkinson Group Pre Natal Workshop	Youth Hip Hop Adult Zumba	Acrylic Painting Movie Making	Chess Lessons Youth Home Work Club		Adult Cooking Workshops	Youth Drop-in Stretch and Strength	Drum Circle Practice Adult Guitar	Youth Leader ship: 1 C Change 2 Holla Back Beta U Green	Private Children Piano Private Children Piano	Special Services e.g. LGBT Youth	
7:00 PM TO 11:00 PM	Community Film Club	Open for Drop-in	Open for Drop-in	Philosophers Café	Latin Funk Ballroom Dance	Intro to Drawing	Youth-Team - Footprint Art and Music			Meditation workshops	Jazz Studio		Private Children Piano	City Centre Comm. Assoc. Meetings	Community Rentals

OUTREACH FACILITIES - CITY CENTRE - FACILITY CHART - Weekday

	LANG CENTRE		SCHOOLS					
TIME	ROOM 1	ROOM 2	ANDERSON ELEMENT. SCHOOL	COOK ELEMENT. SCHOOL	FERRIS ELEMENT. SCHOOL	GENERAL CURRIE SCHOOL	MCNEILL SECOND. SCHOOL	RICHMOND SECOND. SCHOOL
6:00 AM TO 9:00 AM	Elders Tai Chi							
9:00 AM TO 12:00 PM	Two's Time Preschool Two's Time Preschool	Circle of Friends Preschool Circle of Friends Preschool		Preschool in Cook Portable * * * *				
12:00 PM TO 5:00 PM	Two's Time Preschool Table Tennis Lessons	Circle of Friends Preschool Spanish Lessons Special Need Homework	Early Dismissal Fridays Homework Club	Early Dismissal Friday Homework Club		Homework Club Basketball Skills	Games Drop-in After School	Lunch Hour Basketball
5:00 PM TO 7:00 PM	Table Tennis Stretch and Strength in Cantonese	Special Population Services e.g. N.A. Meetings	Basketball Skills Badminton Lessons	Science and Leadership				
7:00 PM TO 11:00 PM			Badminton Lessons Badminton Lessons			Karate Kung-Fu		

NEW CITY CENTRE COMMUNITY CENTRE - FACILITY CHART - Weekend

NEW CENTRE															
TIME	LARGE MULTIPR. ROOM 1	FITNESS CENTRE	COMMUN. LIVING ROOM	MULTIPR. ROOM 2	ACTIVITY STUDIO	ART STUDIO	SOCIAL ROOM	MULTIPR. ROOM 3 PRESCHOOL	KITCHEN	MULTIPR. ROOM 4	MUSIC 1	MUSIC 2	MUSIC 3	MEETING ROOM 1	MEETING ROOM 2
6:00 AM TO 9:00 AM	Seniors Tai Chi Room Set Up	Open for Drop-in		Tai Chi	Boot Camp Zumba										
9:00 AM TO 12:00 PM	Parent and Tot Gym	In addition there will be workshops and Orient for	Local Food Sampling	Tot Story Time	Morning Aerobics Jazz Classes	Felting Paint + Play Preschoolers	Gaming Lab	Preschool Workshop for Parents and Kids		55+ Better Backs	Weekend ORFF/ Kodaly (tot music)	Parent + Tot Drumming Pre-Teen Guitar	Private Guitar + Private Piano Lessons *	Baby Sitting Basics * *	Maker Craft Workshop
1:00 PM TO 5:00 PM	Children Birthday Parties	Seniors, Youth, Special Needs Women & Personal Training		Chair Yoga Street Self Defence	Hip Hop Class Ballet 1 Ballet 2	Children 3d workshop Paper Mache	Pre Teen Hangout	Preschool Cooking (+Kitchen)	Preschool Cooking (+Kitchen)	Table Tennis Lessons	Youth Guitar Lessons Group Piano Lessons	Adult Drum Workshop	* * * * *	* * * * *	Pre-Teen Exploration Staging Area
5:00 PM TO 7:00 PM	Special Event Set up	Open for Drop-in			Banghra/ Bollywood Dance	Guided Art Projects for Adults	Youth Drop In	Youth Movies		Youth Setup			* * * * *		
7:00 PM TO 12:00 AM	Community Theatre Music Event	Open for Drop-in			Youth Hip Hop	Youth Art Expression * * *	Youth Coffee House * * *			Youth Special Event Murder Mystery	Youth Drop-in Jam * *				

OUTREACH FACILITIES - CITY CENTRE - FACILITY CHART - Weekend								
	LANG CENTRE		SCHOOLS					
TIME	ROOM 1	ROOM 2	ANDERSON ELEMENT. SCHOOL	COOK ELEMENT. SCHOOL	FERRIS ELEMENT. SCHOOL	GENERAL CURRIE SCHOOL	MCNEILL SECOND. SCHOOL	RICHMOND SECOND. SCHOOL
6:00 AM TO 9:00 AM	Yoga in Mandarin							
9:00 AM TO 12:00 PM	Grand Parent and Child Drop-in Reading Club	Grand Parent & Child Drop-in Crav Maga Self Defense	Basketball Lessons Indoor Soccer	Active Start Physical Literacy Preschool Children				
12:00 PM TO 5:00 PM	Preschool Birthday Parties Barre Adult Classes	Preschool Birthday Parties Scooter Fitness	Badminton Lessons Badminton Lessons					
5:00 PM TO 7:00 PM			Badminton Lessons Badminton Lessons					
7:00 PM TO 12:00 AM			Youth Drop-in Basket Ball	Adult Indoor Tennis			Youth Drop-in Basket Ball	



City of Richmond

Report to Committee

To: Planning Committee **Date:** May 27, 2014
From: Joe Erceg, General Manager
Planning and Development **File:** 08-4375-01/2014-Vol
01
Re: **Referral: West Cambie Alexandra Neighbourhood Business Office Area
Review**

Staff Recommendation

That the report titled: "Referral: West Cambie Alexandra Neighbourhood Business Office Area Review", which provides comments from the Economic Advisory Committee (EAC) and additional clarification regarding the Alexandra Neighbourhood Business Office Area development options which were presented in the report dated April 4, 2014 report, be received for information.

Joe Erceg,
General Manager, Planning and Development

Att: 2

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

Staff Report

Origin

This report responds to the following referral from April 23, 2014 Planning Committee:

It was moved and seconded

That the staff report titled, West Cambie: Alexandra Neighbourhood Business/Office Area Review, dated April 4, 2014 be referred back to staff so that it may be:

- (1) deferred to a subsequent Planning Committee meeting to receive comment from the City's economic land consultant regarding the land use proposals; and*
- (2) referred to the Economic Advisory Committee for feedback.*

Background

At the April 23, 2014, Planning Committee meeting, the report dated April 4, 2014 and titled, "*West Cambie: Alexandra Neighbourhood Business / Office Area Review*" was presented and discussed (Attachment 1).

This report is to be read in conjunction with the original April 4, 2014 report, as it provides the requested feedback from the Economic Advisory Committee (EAC) and clarification on assumptions made in the analysis of the four Development Scenarios from the City's real estate consultant, *Site Economics Ltd.* Additional office market information and detailed statistics have also been provided to address the viability of Business Office development in the West Cambie Study Area.

Analysis

1.0 Referral Feedback – Economic Advisory Committee (EAC)

The Economic Advisory Committee (EAC) has reviewed this matter twice, first time in early 2013 and, as requested by the Planning Committee, again at its May 15, 2014 meeting.

In May 2013, the EAC reviewed the report titled, *West Cambie-Alexandra Neighbourhood Business Office Area Review* which supported retaining the existing Area Plan *Business Office* designation, as it was consistent with the Employment Land Strategy 2010 and the 2041 OCP. The EAC supported retaining the Business Office designation.

On May 26, 2014, as requested by Planning Committee, the EAC once again considered the report to Committee which provided an analysis of the following Development Scenarios:

- Development Scenario 1 - 100% Mixed Employment,
- Development Scenario 2 - 60% Employment: 40% Residential (Staff recommendation),
- Development Scenario 3 - 30% Employment: 70% Residential (Westmark Proposal #2),
- Development Scenario 4 - 20% Employment: 80% Residential (Westmark Proposal #1).

The EAC reviewed the report and provides the following comments for consideration:

After a broad discussion and given the Committee's mandate and perspective, the EAC upholds its initial position and supports Scenario 1 Retain 100% Employment Uses for the Study area. The reasons remain unchanged from the EAC's 2013 initial position to retain 100% employment in the Study Area, including:

- Keep employment lands as such, per the City's recently adopted 2041 Employment Lands Strategy and 2041 OCP;*
- Don't give in to market pressure to convert employment land to residential use because the capacity of the existing residential zone is virtually limitless, while the capacity of office and industrial is limited;*
- Avoid setting a precedent of converting employment land to residential, just because the immediate market opportunity is suggesting residential uses, when the underlying principle is need [sic] to be a long term overall City economic benefit to the community;*
- Constraints (e.g., appropriate zoning) will encourage creativity for the development of the employment lands and current zoning and Area Plan requirements should not be ignored, due to current market conditions; and*
- Respect the process and Council-approved outcomes of the 2041 OCP, the 2014 Resilient Economy Strategy and the 2041 Employment Lands Strategy and the effort of staff, volunteers and the larger community who participated in those processes to maintain the credibility and integrity of the work completed to date.*

2.0 Clarification of Assumptions

At the April 23, 2014 Planning Committee meeting, there were questions with regards to the term "industry standard" for mixed use commercial-residential developments. The information below provides further clarification with regards to this matter.

"Industry Standard"

The reference to industry standard by *Site Economics Ltd.*, the City's real estate consultant, reflects development ratios where mixed use commercial-residential uses are permitted into an area designated as "employment lands". The consultant's position is that when the percentage of employment space is diminished to below 60% of the total floor area, then the area is seen by commercial office developers as being a "residential" area that has some mixed uses that may or may not include needed office space.

As these lands are identified in the *2041 OCP* and *Employment Lands Strategy* as protected employment lands, then employment space should maintain a dominant role. The consultant indicates that commercial office developers would not likely view this location as a viable employment area in which to invest in building new commercial office space, if residential is the dominant use of the site.

3.0 Office Locations throughout the City

Since the April 23, 2014, Planning Committee meeting, staff have reviewed additional information and more detailed statistics regarding the City's office market to better address Committee's questions.

Since office tenants have different requirements, they locate in different areas to meet their individual needs and budgets. Office space is generally identified by the *Building Owners and Managers Association* (BOMA) *Building Classification* system and by proximity to rapid transit stations. These are usually major factors in a company's decision to locate in a particular area and building, and are explained in further detail below.

BOMA Office Building Classification

The BOMA Office Building Classification system provides a general description of various types of office buildings which characterize the building's prestige based on the building's level of exterior and interior finishes including infrastructure, the types of clients and the relative market lease rates for the area. In Richmond, the main office building classifications are outlined below along with the recent reported vacancy rates and average asking gross rental rates for comparison purposes.

- **“Class A” Buildings:** Prestigious buildings competing for premier office users with rents above average. Characterized by buildings that have high-quality standard finishes, state-of-the-art systems, exceptional accessibility and a definite market presence.
 - *Percentage of Richmond Office Inventory:* **48%**
 - *Asking gross rental rates (Richmond, BC):* **\$ 29.39**
- **“Class B” Buildings:** Characterized by new buildings in non-prime locations and older buildings with good quality tenant improvements, competing for a wider range of users with average rents. Finishes are fair to good for the area and systems are adequate, but the building does not compete with Class A at the same price.
 - *Percentage of Richmond Office Inventory:* **44%**
 - *Asking gross rental rates (Richmond, BC):* **\$ 21.23**
- **“Class C” Buildings:** Characterized by older structures, poor-to-average quality of tenant improvements and may not have elevators and air conditioning. Competes for tenants requiring functional space at rents below average.
 - *Percentage of Richmond Office Inventory:* **8%**
 - *Asking gross rental rates (Richmond, BC):* **\$ 14.35**

The office building classifications and net asking rents illustrate how there are different office spaces to meet different needs and budgets.

Proximity to Rapid Transit

Not everyone wants or needs to be located within 500m of a Rapid Transit Station. An employment (e.g., office) building's proximity to rapid transit can contribute to its market attractiveness and thus can often demand higher rents than comparable buildings elsewhere.

However, this trend towards offices within 500m of rapid transit is not a guarantee for landlords, as seen in Burnaby and Surrey, where large blocks of office space were recently vacated, as the tenants moved to other transit serviced spaces in New Westminster (*Jones Lang LaSalle, Rapid Transit Index, Q3, 2013*).

4.0 Office Vacancy Rates

A Healthy Office Vacancy Rate

When reviewing office vacancy rates, it should also be noted that a “healthy office vacancy rate” is considered to be around 8% (*DTZ-Barnicke Real Estate Advisors, 2014*). The consultants advise that an 8% vacancy rate is healthy, as it enables office tenants to relocate from one area to another area to better meet their changing needs and circumstances. As well, an office vacancy rate above 8% generally indicates an oversupply of office space, while a vacancy rate under 8% suggests that there is an undersupply and additional office space is welcomed. For these reasons, it is suggested that office space in the West Cambie Study Area will be viable

Comparable West Cambie Office Vacancy Rates

Since the April 23, 2014, Planning Committee meeting, staff have further researched office vacancy rate statistics and confirmed that the office vacancy rate that would be most comparable to the West Cambie Study Area is 6.3%. In Richmond, a comparable office area is located within 800m of a Canada Line rapid transit station which has comparable Class A and B office vacancy rates. Class C office space which involves existing older structures, as described in Section 3.0 above, is not included in the comparison, as in the West Cambie Study Area, those types older buildings do not exist and are not proposed for the Study Area. For these reasons, the Class C Office vacancy rate is not relevant to the comparison.

Table 1 - Detailed Office Statistics

Office Location and Class	Class A		Class B		Class C		Total
	Inventory	Vacancy Rate	Inventory	Vacancy Rate	Inventory	Vacancy Rate	Vacancy Rate
Transit Oriented (<500m)	163,000	< 1.0 % (undersupply)	Stats not available	Stats not available	Stats not available	Stats not available	5.3 %
Near Transit (<800 m)	755,028	5.8% (undersupply)	75,640	10.9%	269,332	22.5%	10.8%
West Cambie Comparable*) 800 m of rapid transit*	Class A+B (near transit) Inventory: 830,668 sq. ft Vacancy Rate: 6.3% (undersupply)				-	-	6.3%
City Centre	711,385	7.5% (undersupply)	105,765	9.3%	367,633	19.2%	11.2%
Note: A Healthy (ideal) Vacancy Rate is 8%							
Crestwood	964,165	34.3 %	87,304	73.7 %	60,000	4.3 %	35.8% (oversupply)
Richmond	2,507,839	26.3 %	916,508	26.4 %	724,037	17.1 %	24.7% (oversupply)

Source: Coriolis Consulting Group, *Richmond Resilient Economy Strategy*

* Jones Lang LaSalle *Rapid Transit Index (RTI) Q3-2013*

** Based on Class and proximity to transit; Statistics derived from Coriolis report for this table

Table 1 above emphasises that there is a viable demand for Class A and B office space in the Study Area.

Interpreting Office Vacancy Rate Statistics

One way that office vacancy rates are often misinterpreted is that they are generally reported as an average across all office classes throughout the City which is inappropriate for comparison to the Study Area. The recently approved *2014 Richmond Resilient Economy Strategy, Technical Report #3: Richmond's Role as a Regional Office Centre*, prepared by *Coriolis Consulting Ltd.* for the Richmond Economic Development Division, provides more detailed and in-depth statistics that differentiate office vacancies by Building Class and proximity to Transit (Table 1).

As well, the study reveals that the city wide office vacancy rate for all building classes in Richmond is 18.8%, as reported by *Colliers International* in their *Q1, 2014 Office Statistics*; however, the most relevant office vacancy rate for comparison to the West Cambie Study Area is 6.3%, as it includes only Class A and B office buildings and is near rapid transit.

5.0 Quality of Jobs and Annual Salaries*Quality of Jobs*

The April 4, 2014 Report to Committee (Attachment 1) indicated that the proposed Class A and B office jobs in the Study Area under the recommended Scenario (60% Employment: 40% Residential) would enable excellent, higher paying jobs. This evaluation was based on the amount of projected jobs, since in each of the scenarios, retail space would be limited to the ground floor only and oriented towards the arterial roads. Retail floor space and the associated jobs would remain the same in each scenario, therefore any change in the amount of commercial floor space has direct correlation to the amount of projected office jobs (more commercial space = better quality jobs).

Since the recommended Scenario (60% Employment: 40% Residential) retains 84% of the existing allowable commercial (employment) floor space found in Development Scenario 1 (100% Employment), it was ranked as excellent. Scenarios 3 and 4 would retain only 42% and 28% of the commercial space, respectively, therefore they were ranked lower quality jobs.

Annual Salary

Site Economics Ltd. estimated an average annual salary of \$60,000 for projected jobs in the West Cambie Study Area. Statistics Canada reports that the average hourly wage of a permanent job in BC is \$25 in 2014 and the average annual base salary for office type occupations was over \$57,000 with total compensation packages at approximately \$72,000 (Table 2 below).

As incomes are generally higher in the Greater Vancouver area and development completion in the Study Area is at least 4 years from the present, the figures are confidently estimated to be \$60,000 or approximately 10% higher than the current rate.

The consultant's assumption used in the analysis, that the average salary would be approximately \$60,000 per year, is consistent with the statistics outlined below in Table 2.

Table 2 Examples of 'Office Type' Occupations to be attracted to West Cambie

Occupation	Base Salary	Benefits (25%)	Total Compensation
Management	\$ 75,358	\$ 18,840	\$ 94,198
Business, finance and administrative	\$ 46,301	\$ 11,575	\$ 57,876
Natural and applied sciences and related	\$ 66,539	\$ 16,635	\$ 83,174
Health	\$ 60,320	\$ 15,080	\$ 75,400
Social science, education, government service and religion	\$ 60,507	\$ 15,127	\$ 75,634
Sales and service	\$ 35,173	\$ 8,793	\$ 43,966
Average	\$ 57,366	\$ 14,342	\$ 71,708

Source: Statistics Canada, CANSIM Tables 282-0069 and 282-0073 (Last Modified Jan 1, 2013)

6.0 Future Office Development - Is there a Glut?

Since April 23, 2014, staff have verified that there is currently 1.3M sq. ft. of office space proposed in developments that are underway in the City Centre, with an anticipated completion over the next 15 years (2029). More specifically, there is 290,000 sq. ft. of proposed office space in Capstan Village and 1,000,000 sq. ft. in Bridgeport Village (e.g., Duck Island).

The 2009 City Centre Area Plan reported an existing 80 acres of zoned land for office uses, with a projected demand of 119 acres required by 2041 to accommodate the estimated 17.0 M square feet of new office space. So while the 1.3M sq. ft. may initially seem to be a large amount of office space development, it is only 13% of the 2041 OCP forecasted average yearly growth required to meet the *2041 OCP Employment Land Strategy* objectives. Thus, staff consider the proposed 1.3M sq. ft. of office space to be an undersupply of office space and not a "glut".

7.0 Summary

The West Cambie Study Area is a competitive and viable location for office space for the following reasons:

- Comparable Class A and B office space near transit has only a 6.3% vacancy rate (Coriolis, 2013) which means that there is an undersupply, since a healthy office vacancy rate is 8% (DTZ-Barnicke, 2014).
- As not all office space needs to be in the City Centre, the Study Area is very viable for Class A and B offices.
- 82% of Richmond's workforce are in positions that require office space.
- As approximately 92,000 Richmond workers travel to work by various methods: 76% by private vehicle, 18% take public transit, and 6% walk, bike or use other means, the Study Area is viable as:
 - The Aberdeen (Rapid Transit) Station is only 810m away and is easily walkable,
 - It is currently well served by six bus routes within 200m of the Study Area, and
 - It has excellent vehicle access, as it is located on a major arterial road network with highway access.

- Future planned/in process office development in the City Centre is still considered an undersupply as it is below the average growth rate to meet the City's Employment Land Strategy (i.e., no glut).

Financial Impact

None

Conclusion

Staff has responded to Planning Committee's request to provide Economic Advisory Committee comments and to clarify certain Study Area topics.



Terry Crowe
Manager, Policy Planning (4139)



Patrick Burke
Senior Planning Coordinator (4164)

- Att. 1: RTC: *West Cambie-Alexandra Neighbourhood Business Office Area Review* dated April 4, 2014
Att. 2: Map: *Transit Proximity: Major Office Areas*



City of Richmond

Report to Committee

To: Planning Committee

Date: April 4, 2014

From: Joe Erceg, General Manager
Planning and Development

File:

Re: West Cambie: Alexandra Neighbourhood Business/Office Area Review

Staff Recommendation

1. That Official Community Plan Bylaw 7100 and 9000, Amendment Bylaw 9121 to amend Schedule 2.11A in the 2041 Official Community Plan Bylaw 7100, to change the existing Business Office designation to Mixed Use (60% Employment:40% Residential) designation, be introduced and given first reading.
2. That Official Community Plan Bylaw 7100 and 9000, Amendment Bylaw 9121, having been considered in conjunction with:

- a) the City's Financial Plan and Capital Program;
- 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 882(3)(a) of the Local Government Act.


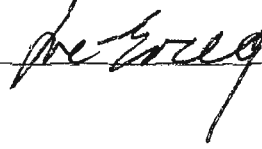


3. That, in accordance with section 879 (2)(b) of the *Local Government Act* and OCP Bylaw Preparation Consultation Policy 5043, Official Community Plan Bylaw 7100 and 9000, Amendment Bylaw 9121, be referred to the following bodies for comment for the Public Hearing:
 - a) Vancouver International Airport Authority (VIAA) (Federal Government Agency), and
 - b) The Board of Education of School District No. 38 (Richmond).
4. That City staff be directed to consult with VIAA staff regarding the proposed recommendation, prior to the Public Hearing.

Joe Erceg
General Manager, Planning and Development

JE:ttc
Att. 13

April 4, 2014

- 2 -

REPORT CONCURRENCE		
ROUTED TO: Finance Division Community Social Development Parks Services Engineering Development Applications Transportation	CONCURRENCE 	CONCURRENCE OF GENERAL MANAGER 
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS: 	APPROVED BY CAO 

Staff Report

Origin

On July 8, 2013, Council passed the following resolution:

That the report from the General Manager, Planning and Development, dated June 24, 2013, titled: West Cambie – Alexandra Neighbourhood Business/ Office Area Review be referred back to staff to further consider mixed use including commercial, residential and office use and the appropriate proportion and number of units for each use.

The purpose of this staff report is to address this referral.

2011 – 2014 Council Term Goals

The report addresses the following 2011 - 2014 Council Term Goal 7:

- *Managing Growth and Development.*

Background

1. West Cambie Area Plan - Alexandra Quarter

The West Cambie Area Plan was adopted in 2006. At the time of approval, the Alexandra quarter section of the Area Plan (approx. 160 acres) was estimated to enable 6,000 people and 2,000 jobs at build out in 2041. Since the Area Plan was approved, development in the Alexandra quarter has proceeded as intended (e.g., as multi-family residential projects, the Smart Centres project which includes a Walmart retail outlet, a child care facility, a district energy utility, parks and trails).

2. The Study Area - Alexandra Mixed Employment (Business/Office) Area

Of the 160 acre Alexandra quarter, approximately 16 acres (15.9 acres) is designated as a Business/Office Area which occupies the north west corner of the quarter and is bounded by Alexandra Road to the south, Garden City Road to the west, Cambie Road to the north and Dubbert Street to the east: this is the Study Area (Attachments 1 & 2). The Area Plan currently allows the following uses in the Business/Office Area:

Business and Office Uses over Retail up to 1.25 FAR including office commercial, restaurants, neighbourhood pubs, retail and retail services commercial - small floor plate only including service station, educational facilities, recreational facilities, enclosed commercial parking, preferably structured and neighbourhood commercial, at the southeast corner of Garden City Road and Cambie Road.

3. Summary of the January 2014 Westmark Proposal

Initially in 2013 and later revised in January 2014, the Westmark Development Group (Westmark) applied to rezone one third (5.1 acres) of the Alexandra Neighbourhood Business/ Office Area which they have assembled along the west portion of the Alexandra quarter and which fronts onto Garden City Road, north of Odlin Road and south of McKim Way, to enable a 20% Mixed Employment (e.g., office, commercial) and 80% Residential development (Attachment 2). The developer has been advised that their rezoning application will not be processed, until Council has decided upon an updated land use policy for the area.

Relevant Policies and Considerations

1. Planning Policies

Policy Planning staff established a review team involving Transportation, Engineering, Community Services and Parks staff, to address the referral. Staff were guided by the *2041 Official Community Plan* (e.g., *2041 OCP Population*, *2041 Housing and Employment Projections Study*, *2041 OCP Employment Lands Strategy*, *2041 City OCP Aircraft Noise Sensitive Development [ANSD] Policies*), the *2006 West Cambie Area Plan (WCAP)*, the *2007 Affordable Housing Strategy*, the *2022 Parks and Open Space Strategy*, the *Metro Vancouver – 2040 Regional Growth Strategy* and recent market trend considerations. As well, staff sought the advice from *Site Economics Ltd.* an economic land consultant to assist in evaluating the economic, employment and property tax impacts of the Development Scenarios. *Site Economics Ltd.* helped prepare the *2041 OCP Employment Lands Strategy*.

2. Study Area Characteristics

The Business Office Use Area, in the Alexandra Quarter is intended to assist the City in meeting its long term 2041 OCP employment land needs. The characteristics of the Study Area are summarized in Table 1 below:

Table 1: Study Area Characteristics Business Office Use, Alexandra Quarter, West Cambie	
Topic	Summary
Study Area - Size	<ul style="list-style-type: none"> - 16 acres: (15.89 acres, or 6.43 ha - 692,601 ft²) - Approximately 10% of the whole Alexandra Quarter Section
Total Buildable Area	<ul style="list-style-type: none"> - 865,755 ft² (at 1.25 FAR)
2041 OCP Land Use Designation	<p>Mixed Employment</p> <p>Those areas of the City where the principal uses are industrial and stand-alone office development, with a limited range of support services. In certain areas, a limited range of commercial uses are permitted such as the retail sale of building and garden supplies, household furnishings, and similar warehouse goods.</p>
2041 OCP Noise Sensitive Development Area (ANSO) Designation	<ul style="list-style-type: none"> - Designation - Area 1A (35 - 40 NEF) - New Aircraft Noise Sensitive Land Uses (residential, school, hospital, day care) are prohibited
West Cambie Area Plan, Alexandra Quarter Land Use, Density, Height:	<p>Business Office Uses (non residential)</p> <ul style="list-style-type: none"> - Office commercial - Restaurants and neighbourhood pub - Retail and retail services commercial — small floor plate only - Educational facilities - Recreational facilities - Enclosed commercial parking, preferably structured. - A service station and neighbourhood commercial uses, at the southeast corner of Garden City Road and Cambie Road. - Maximum FAR 1.25 - Maximum Height: 2 to 4 storeys (8 metres – 15 metres); 5 storeys (20 metres) of non-combustible construction can be considered.
Existing Zoning	<p>Mainly Single Family - RS1/F (1x CG2 lot and 1x RD1 lot)</p> <p>Width = 18 m (60 ft)</p> <p>Minimum Area 828 m² (8,913 ft²)</p>
Existing Uses	Single Family Residential
Transit Services	<ul style="list-style-type: none"> - The Study Area is well serviced by public transit with two current bus routes fronting Garden City Road (407 and 430), bus service along Cambie Road and there are direct bus connections to the Richmond-Brighouse and Bridgeport Canada Line stations.

Table 1: Study Area Characteristics Business Office Use, Alexandra Quarter, West Cambie	
Topic	Summary
	<ul style="list-style-type: none"> - The Canada Line is about 1 km (about a 15 minute walk) from the area. - The City is working with TransLink to monitor service levels and seek service improvements over time.
Water	System
Sanitary	Septic Tank: Sanitary Sewer System connection required with development
Drainage	Yes
Alexandra District Energy Utility (ADEU)	New development will be required to connect to the ADEU

3. Criteria to Evaluate the Development Scenarios

The Study Area's Business/Office designation was established to meet the City's short and long term needs by having an ample supply of employment lands to enable job creation, a range of high paying jobs, a healthy tax base and a mini Complete Community. The 2041 OCP indicates that Mixed Employment (Business Office) areas are to be protected, retained and densified to ensure the City has sufficient mixed employment land to meet its long term needs.

As the West Cambie Area Plan also emphasizes office jobs in this location, the loss of the Study Area's Business Office lands to residential use would have negative implications for the City's economy and job creation. With this in mind the following criteria to assess and evaluate a range of development scenarios was used:

a) *Jobs*

- Maximize potential jobs through the protection and development of designated employment lands.
- Maximize high paying jobs and total jobs.
- Avoid creating employment land challenges which must be addressed later (e.g., replacing employment lands for needed jobs).
- If introducing residential uses into the Study Area ensure that the long term viability of the employment uses and their jobs, are not jeopardized by the residential use.

b) *Conformity with City Policies*

- Comply with City policies including land use, density, urban design, building, parking, transportation, infrastructure, social (e.g. affordable housing) and parks.

c) *City-VIAA Relations*

- Avoid jeopardizing the City's relationships with the VIAA.

d) *Property Taxes*

- Maximize property tax revenues.

e) *Precedent*

- Avoid creating an undesirable precedent (e.g. converting employment lands to other uses).
- Generate more positive benefits than the negative implications.

4. Considerations in Applying the Criteria

a) *Jobs*

Advice from *Site Economics Ltd.* indicates that high paying, long-term jobs are best achieved where the majority of the employment is in an office environment. These jobs are anticipated to be full-time, permanent and pay an average of \$60,000 annually, while

retail and service jobs tend to be less secure and pay much less. Higher paying jobs could be achieved by managing office and retail uses as follows:

- Restrict retail uses to the ground floor as this will allow more office height & density above and thus the potential for more higher-paying office jobs.
- Retail uses can likely pay more than office for ground floor space due to the arterial road exposure.
- Retail uses on the ground floor make office space above more attractive for office workers.

By restricting retail uses, office space marketability is increased and more viable, as people can live and work in the same neighbourhood.

b) Conformity with City Policies

- *Land Use, Density and Urban Design* - Planning staff have reviewed the Study Area in the context of the adjacent land use designations which limit the base density to 1.25 FAR. A maximum building height of 6 storeys (25 m) is proposed for Mixed Use Employment-Residential use, as the height is consistent with adjacent designations, and would maximize the employment floor area in each scenario.
- *Transportation Services* – Transportation staff advise they have no issues, as transportation improvements would be provided at the time of redevelopment based on required developer studies and City requirements (e.g., City Wide & Local Area DCCs, on and off site contributions).
- *Infrastructure Services (water, sanitary sewer, drainage)* - Engineering staff advise that they have no issues, as infrastructure improvements would be provided at the time of redevelopment based on required developer studies, and City requirements (e.g., City Wide & Local Area DCCs, on and off site contributions).
- *Affordable Housing* – to encourage the provision of built affordable housing, staff recommend offering a total 0.5 FAR Bonus Density, to be split proportionately between the Employment and Residential uses. This would have an added benefit of providing additional employment space.
- *Park Space* - Park staff advise that they have no issues as additional parks are not required in the Alexandra Neighbourhood as there is already sufficient space in the area. The existing DCC charges will apply to contribute to park land acquisition and improvements.

c) City-VIAA Relations

Establishing and maintaining good relations with other governments and organizations is an integral part of running a City. The introduction of residential uses in this location would require changing the 2041 OCP Aircraft Noise Sensitive Development Area (ANSND) designation from Category 1A (which prohibits residential uses) to Category 2 (which permits residential uses subject to aircraft noise mitigation measures). In response to the possibility of allowing residential uses in the Study Area, on March 27, 2013, Vancouver International Airport Authority (VIAA) staff provided the following comments:

With regards to the position of the Vancouver Airport Authority, the ANSD designation should stand and we do not support changes to the OCP to allow the proposed development. The property in question is located within the 35 Noise

Exposure Forecast (NEF) planning contour, where Transport Canada does not recommend residential development per their land use guidelines. The property is also directly under the flight path of the 24-hour south runway and is one of the most severely noise affected areas of the City.

We also do not support the concept of 'swapping' land within other areas of the City's ANSD Policy to offset the proposed development. However, if the City wishes to undertake this option, the new offset lands to be protected should be located within the West Cambie area and have an equivalent exposure to noise and aircraft over-flights.

In summary, the VIAA does not support allowing residential uses in the Study Area to avoid the possibility of aircraft noise complaints. While Council can make OCP ANSD decisions to allow residential uses in the study area unilaterally, it runs the risk of jeopardizing City-VIAA relations.

d) Property Taxes

Commercial/ employment properties are taxed at a higher mill rate than residential uses thus producing much more tax revenue for the City. Residential uses also tend to place more demands on City services and therefore they are more costly to tax payers. From a tax perspective, arrangements which have a higher proportion of employment uses are more desirable.

e) Precedent

Any introduction of residential uses into the Study Area has the potential to set an undesirable precedent. Owners of employment lands across the street to the west of the Study Area have already indicated that they also want their lands to be redesignated for residential use to attract higher real estate prices.

If residential uses are permitted, strict parameters for land use development ratios, density and phasing are needed to limit the negative impact of residential speculation and use. Strict and clear requirements for managing residential and employment uses will ensure that employment uses are not jeopardized by residential uses and may deter the wide spread land speculation throughout other employment areas in the City.

Analysis

1. Review of Development Scenarios

To address the referral, staff identified the following Development Scenarios for the Study Area:

- Development Scenario 1: An Enhanced 100% Mixed Employment Scenario: retain the existing Business / Office designation and clarify employment uses (Attachment 3),
- Development Scenario 2: A 60% Mixed Employment and 40% Residential Mixed Use Scenario: based on consultant advice and industry norms (Attachment 4),
- Development Scenario 3: A 30% % Mixed Employment and 70% Residential Option to provide an additional possibility (Attachment 5), and
- Development Scenario 4: A 20% Mixed Employment and 80% Residential Mixed Use Scenario based Westmark's January 2014 proposal: this Scenario was evaluated both for the 5 acre Westmark site and the 16 acre Study area (Attachment 6).

With the assistance of *Site Economics Ltd.*, each of the Development Scenarios are described and evaluated below, illustrated in Attachment 7 and summarized in Table 2.

Table 2 Summary of Land Use Implications for the Four Development Scenarios				
	Scenario 1	Scenario 2	Scenario 3	Scenario 4 Westmark Proposal
Land Use Ratio Employment Residential	Emp: 100% Res: 0%	Emp: 60% Res: 40%	Emp: 30% Res: 70%	Emp: 20% Res: 80%
Base and Bonus Density (FAR)	Base: 1.25 (Employ) Bonus: None Max: 1.25 FAR	Base: 1.25 (0.75 Employ + 0.50 Res) Bonus*: 0.5 (0.3 Employ + 0.2 Res) Max: 1.75 FAR	Base: 1.25 (0.375 Employ + 0.875 Res) Bonus*: 0.5 (0.15 Employ + 0.35 Res) Max: 1.75 FAR	Developer proposes 1.77 FAR, did not propose a density bonus
Floor Area @ Max FAR (Base + Bonus)	865,238 ft ²	1,212,057 ft ²	1,212,057 ft ²	1,226,084 ft ²
Commercial floor	865,238 ft ²	726,800 ft ²	363,617 ft ²	245,217 ft ²
Residential floor	n/a	485,257 ft ²	848,440 ft ²	980,867 ft ²
Ongoing Employment Completed Project (jobs)**	3,502	3,047	1,656	1,220
Quality of Jobs	Excellent	Excellent (Higher paying office)	Good (Less office)	Good (Low paying retail)
Total Estimated Annual Salaries	\$210 million	\$183 million	\$99 million	\$73 million
Est. Residential Units	0	606	1,061	1,226
Est. Additional Residents	0	1,300	2,200	2,600
Total Projected Alexandra Population	6,700	8,000	9,000	9,300
Annual Property Taxes	\$4,297,595	\$4,516,000	\$3,397,177	\$3,057,435

* Bonus FAR requires that 5% of total residential area is built affordable housing and that Bonus Employment FAR also be built.

**Jobs are calculated based on 1 job per 220ft² of commercial space plus 1 job per 4000ft² of residential space

a) *Development Scenario 1 - 100% Mixed Employment*

With this Scenario, employment uses are protected by continuing to exclude residential uses. The implications of this Scenario are summarized below.

- The Alexandra quarter's Mixed Employment (Business Office) uses are required to achieve the City's long term 2041 employment objectives.
- Employment uses for this area are suitable and should prove to be technically and economically feasible over the long-term.
- Not all offices should go in the City Centre, nor be on a rapid transit line.
- Community-wide office vacancies have been declining in Richmond over the last year, dropping by 20% in one year and ending at 16.3% at the end of 2013, compared to 20.3% at the end of 2012. Declining office vacancy rates, with no growth in inventory over the

last 3 years, signal a potential growing demand for office development in Richmond in the near-term.

- According to the Rapid Transit Index (RTI) Study published regularly by John Lang LaSalle, Richmond's transit oriented office vacancy rate is at 5.3% (for buildings within 500 metres of a rapid transit station). This is the lowest among all suburban markets and has created some interest in the development community towards adding product along the Canada Line. However, the uptake has been slow, given prohibitive land prices in the immediate proximity to rapid transit. This may signal a more immediate opportunity for office development in areas such as the Study Area – areas that are still within a walking distance of the Canada Line, yet far enough to allow more reasonable land prices.
- Employment uses cannot compete for land in this area without municipal protection, as residential demand drives up land prices making employment uses less financially viable.
- Sudden surges in the demand for employment land, such as a single major office tenant may occur and thus the lands should remain available for such employment uses as intended.
- Single-use office buildings are easiest and most efficient to build, however when located on an arterial road (e.g., Garden City Road), then mixed employment buildings with ground floor retail are warranted, as the retail uses can benefit from good exposure on an arterial road.
- The Study Area was also established to accommodate similar uses which may be displaced from other redeveloping areas of the City (e.g., the City Centre), an important long term City economic re-development objective. In this regard, the range of such displaced opportunities include: Retail and Related Uses: furniture, mattress, food catering, private security uses and Office Uses: property management, holding and investment, consulting, printing, assembly, education, import/ export, travel agency, book making and binding uses. The Richmond Economic Advisory Committee acknowledges this opportunity.
- The potential long term employment and tax revenue benefits of maintaining the existing Study Area's uses outweigh the benefits of adding residential uses and reducing the Study Area's employment potential.
- When the Area Plan was prepared in 2006, it was estimated that the Alexandra quarter would generate 2,000 jobs (1,000 in the Study Area: 1,000 in the Mixed Use where SmartCentres is located). The recent analysis reveals that the Study Area may generate an estimated 3,500 jobs, which is an increase of 2,500 jobs over the original estimate. The 2041 OCP employment policies encourage such increases here and throughout the City as a high priority is placed on using land effectively and generating as many jobs as possible to maintain the City's high job to labour force ratio.
- This Scenario avoids the possibility of generating more similar requests which would jeopardize the long term availability of needed employment lands.
- While service industries (e.g. business management, financing, accounting, insurance uses) are allowed in the area, to enhance the viability of the Development Scenario 1, staff suggest amending the Area Plan to clarify that the following employment uses are permitted in the Study Area: bio-tech, research, lab uses, information technology (IT), media/software, private and public institutions such as medical facilities.

In financial terms, office uses generate significant direct and indirect economic benefits, which exceed those of residential use. Employment development pays more in property taxes annually, creates more ongoing jobs and generates fewer costs to the City than

residential uses. The estimated number of ongoing jobs would be almost three times as high in Development Scenario 4 put forth by the developer. Based on the economic analysis, it is clear that Development Scenario 1 - 100% Mixed Employment has the greatest overall positive economic, social, and planning benefits of all the Development Scenarios.

To enhance *Development Scenario 1 - 100% Mixed Employment*, staff suggest that an Amendment Bylaw be considered to clarify that the following uses are allowed in the Study Area: Bio-tech, research, lab uses, Information technology (IT), media/software, and Institutional (private and public) uses including medical facilities.

- b) *Development Scenario 2 – 60 % Employment: 40% Residential Use (Recommended)*
If residential uses are to be introduced into the Study Area, the economic land consultant recommends Development Scenario 2 (60% Employment: 40% Residential Use), as it best reflects the industry's recommended level of two thirds employment and one third residential use (Attachment 4). This preferred ratio is intended to stimulate the development of needed employment uses including highly desired office space by enticing developers with multi-family residential development potential. The inclusion of multi-family residential uses provides an incentive to landowners to sell or develop their lands, as it would increase their market value from the existing employment only use. The developer/builder is also provided an incentive to develop the employment space as a condition of building residential uses which provide much higher returns due to the strong residential market. The higher percentage of employment use in a mixed use development (60% Employment: 40% Residential) is believed necessary by the commercial land industry to protect the long term viability of the employment lands.

Also *Development Scenario 2* is preferred as it includes the following benefits:

- Provides 87% of the potential jobs of Scenario 1 (100% Employment) and almost twice as many jobs and \$110 million more in annual salaries than if Scenario 3 (30% Employment) was selected.
- Is the most representative of industry standards for mixed use employment-residential development which better protects the long-term viability of employment uses and higher paying office jobs.
- Is estimated to accommodate approximately 600 new residential multi-family units (1,300 residents) which assist in offsetting the costs to the developer for providing needed employment space for new jobs.
- Provides the highest potential property tax revenues (\$4.5M) and over \$1 million more annually than the other mixed use employment-residential scenarios.

- c. *Development Scenario 3 – 30 % Mixed Employment: 70% Residential Use*
This Scenario is proposed to provide an alternate land use arrangement to the recommended industry standard that is represented by Scenario 2. It would involve allowing the Study Area to develop up to 70% Residential and 30% Employment uses (Attachment 5). However, as the industry standard for Mixed Use areas involves a floor area ratio of 66% employment and 33% residential use, this Option may not be appropriate.

d. Development Scenario 4 – 20% Employment:80% Residential Use (Westmark Proposal)

Staff reviewed the most recent Westmark proposal from January 2014, which proposes 20% Employment and 80% Residential uses (Attachment 8). While the Westmark proposal involves only 30% of the 16 acre Study Area, the following comments apply to the both the Westmark site and the whole Study Area.

The proposal as submitted was forwarded onto *Site Economics Ltd.*, the City's economic land consultant, who provided the following comments:

- Based on market conditions, there is clearly room to allocate a larger share of the proposal to office space, which would better support the City's long term needs and the 2041 OCP Mixed Employment designation.
- The retail component is problematic, as it is at the grade level of the proposed office building making the proposed parking difficult and limited.
- The proposed supermarket and drug store could find it very difficult to attract tenants, as the site lacks easily accessible surface parking and is not on a corner.
- The ideal situation is for ground floor retail to be located on Garden City Road frontage with good access and exposure.
- The proposed office space layout is optimal in terms of floor plate, height, and overall configuration.
- The only real issue with proposed office area is the limited scale.
- The 80% residential use reduces the viability and amount of employment space.
- Developer could be required to make a significant contribution from the residential component to subsidize employment space in the area.

From a City perspective, the Westmark proposal is not considered to be a viable Development Scenario, as:

- 1) The proposed density of 1.77 FAR exceeds the existing maximum density of 1.25 FAR and consists of only 0.36 FAR for employment uses (1.41 FAR for residential use), greatly reducing the potential number and quality of jobs.
- 2) The proposed realignment of Dubbert Street further west would unacceptably reduce available employment lands from 5.1 acres to 4.59 acres, further reducing potential jobs while increasing residential use of lands to the east.
- 3) The realignment unacceptably changes the future land use of the site to a roadway and unacceptably proposes to relocate the intersection of Dubbert Street and Cambie Road closer to Garden City Road which does not conform to the Area Plan, negatively affects other property owners and enables Westmark to reduce their road costs and place them on other developers.
- 4) The 1.77 FAR is the base density and therefore does not have any bonus density and therefore does not provide for affordable housing.
- 5) The proposed density is not consistent with the form and character of adjacent lands that have maximum densities of 1.5 FAR along High Street and 1.5 FAR (with density bonus for affordable housing up to a maximum 1.7 FAR) to the east of the Study Area, and;
- 6) Four isolated "orphan" sites remain at the southwest corner and one orphan site at the northeast corner of the block, which are too small to develop and are not permitted under the Area Plan (Attachment 2).

Overall, for economic, planning and urban development reasons staff recommend that Westmark's proposal, *Development Scenario 4*, be eliminated from further consideration as it is not a viable mixed use Development Scenario.

2. Managing Mixed Use Employment-Residential Uses.

a) *General*

The introduction of residential uses into the Study Area has its benefits and challenges. Residential uses on these lands represent a significant change and require special consideration. The goal is to ensure that the proposed land use ratios help stimulate the development of desirable employment space by allowing some development of higher demand residential uses.

The ratio of employment to residential use must be carefully managed. The industry standard to protect the viability of employment uses indicates that employment uses should be the majority use and residential use the minority use (i.e. 66% Employment: 33% Residential).

Allowing residential (multi-family) uses into the Study Area may speed up the development of the employment uses, as the developer would be able to subsidize the development of employment space (e.g., lower construction and lease costs). As well, the developer would install necessary roads and services for the residential uses which would simultaneously benefit the development of employment and office space.

To prevent only residential uses being developed and no employment uses, staff recommend that all Rezoning, Development Permit and Building Permit applications must meet the selected Development Scenario land use ratio (e.g. 60% E:40% R) that restricts the maximum percentage of residential floor (e.g. maximum 40% residential) area and ensures that the employment space is built.

b) *2041 OCP and Area Plan Policy Implications*

Introducing residential use in the Study Area would require amendments to the *2041 OCP Mixed Employment* designation and to the *2041 OCP Aircraft Noise Sensitive Development Area* (ANSD) designation to remove the residential use prohibition. As well, the *West Cambie Area Plan* would require amendment to re-designate the "Business Office" area to "Mixed Use Employment-Residential" to allow multifamily uses. A mixed-use proposal would not affect the *Metro Vancouver 2040 Regional Growth Strategy* (RGS), as the RGS designates the Study Area "Urban" which accommodates employment and residential uses.

c) *City-VIAA Relations*

As indicated above, the introduction of residential uses in this location would require changing the *2041 OCP Aircraft Noise Sensitive Development Area* (ANSD) designation from Category 1A (which prohibits residential uses) to Category 2 (which permits residential uses subject to aircraft noise mitigation measures).

The *Vancouver International Airport Authority* (VIAA) does not support allowing residential uses in the Study Area to avoid the possibility of aircraft noise complaints, as they regard the policy as very important and may oppose any new residential uses in the

Study Area. In this regard the VIAA would not likely support Development Scenario 2, 3 or 4 which allow residential uses.

While not typically done, Planning Policy staff intend to meet with VIAA staff regarding the proposed report and recommendation, prior to the Public Hearing, to ensure that VIAA staff understand the City's rationale for the proposed recommendation.

d) Density

As there may be a desire by the City to introduce residential uses in the Study Area to encourage the development of employment uses, the existing maximum 1.25 FAR was reviewed to ensure that employment uses occur along with the required subsidizing residential uses and to allow for building affordable housing.

An additional 0.5 FAR density enables market residential development to subsidize employment space and includes the provision for built affordable housing raising the maximum density to 1.75 FAR. This bonus FAR will be split according to the approved development scenario ratio (e.g. 60% Employment:40% Residential), which for this example, would equate to a 0.2 FAR bonus for residential space. For the developer to take advantage of this additional FAR, they would be required to also provide the additional employment floor space at 0.3 FAR. The combination of the available density and the applicable ratio (e.g. 60% Employment:40% Residential) would ensure that residential development does not deter the development of needed employment space.

e) Affordable Housing

Where residential uses are allowed, as Council has indicated that built affordable housing is needed, staff recommend that all residential developments are to provide at least 5% of the total residential building area (a minimum of 4 units) as built affordable housing units. Cash-in-lieu contributions are not acceptable. This approach is to be applied instead of the older, 2006 *West Cambie Affordable Housing Density Bonusing* policies.

The proposed OCP Amendment Bylaw includes a policy change to require that built affordable housing units are required.

f) Building Height

The introduction of residential uses in the Study Area also necessitates the reconsideration of the maximum height of buildings. As there remains a desire and need to attract and accommodate employment uses in this location, the Study Area height needs to be attractive to developers and builders. Along with increasing the maximum FAR, the maximum building height is proposed to be increased from 5 storeys (20m) to 6 storeys (25m). This allows the applicant greater flexibility in accommodating the employment uses along with the residential uses on their sites. The proposed height limit is consistent lands to the west of Garden City Road which are located in the City Centre Area Plan and lands to the east within the Alexandra Neighbourhood (Attachment 9).

g) General Development Requirements for Mixed Use Employment -Residential

It is recommended that any mixed use employment-residential Development Scenario approved by Council, be required to comply with the following provisions:

- The commercial and office components of mixed use buildings should be oriented towards the arterial road network (Garden City Road and Cambie Road) to provide a consistent and complementary streetscape with future development on the west side of Garden City Road.
- Residential and ancillary uses should be inward oriented or towards the collector roads (e.g. Dubbert Street) in accordance with existing WCAP Development Permit Guidelines.
- Residential and associated accessory uses may comprise a maximum of 40% (or 70%) of the total floor area within Study Area Development Blocks 1, 2 and 3, as identified in the proposed amended Alexandra map (Attachment 10).
- To prevent only residential uses being developed and no employment uses, all Rezoning, Development Permit and Building Permit applications must meet the selected Development Scenario (e.g. 60% E:40% R) that restricts the maximum percentage of residential floor space.
- Stand alone retail buildings should not be permitted.
- Notwithstanding the clause above, stand alone single-use buildings and/or mixed-use buildings may be considered, provided that they form part of the comprehensively planned Development Blocks, 1, 2 and 3, as identified in the proposed amended Alexandra map (Attachment 10).

A summary of the OCP amendment requirements for introducing Mixed Use Employment Residential uses to the Study Area (Development Scenarios 2, 3 and 4) are outlined in Attachment 11.

3. Summary of Analysis

In summary, staff recommend Development Scenario 2 – 60% Employment: 40% Residential for the following reasons: it:

- potentially provides almost as many jobs as the existing Area Plan and almost twice as many jobs and over \$110 million more in annual salaries than if Scenarios 3 or 4 were selected,
- is the most representative of industry standards for mixed use commercial-residential development that better protects the long-term viability of higher paying office jobs,
- potentially provides the highest property tax revenues (\$4.5M) and over \$1 million more annually than the other mixed use commercial-residential scenarios, and;
- is estimated to accommodate more than 600 new residential multi-family units (1,300 residents), offsetting the costs to the developer for providing needed employment space.

Whichever Development Scenario is selected, staff will continue to monitor the City's long term employment land needs and co-operate with Metro Vancouver staff as they undertake long term employment land studies. As these studies are brought forward, staff will update Council regarding any changes in the City's employment land needs.

If the recommended Development Scenario 2 is chosen, the necessary OCP and Area Plan amendments are in proposed Official Community Plan Bylaw 7100, Amendment Bylaw 9121 to amend Schedule 2.11A in the 2041 Official Community Plan Bylaw 7100.

Alternatively, if Development Scenario 3: A 30% Mixed Employment and 70% Residential Option is preferred, Attachment 12 contains the necessary OCP amendment Bylaw, draft Bylaw 9122.

Should Council decide to protect and enhance the employment uses in the Study Area and not allow residential uses Staff suggest Development Scenario 1- 100% Enhanced Employment be implemented. Attachment 13 contains the necessary OCP amendment Bylaw, draft Bylaw 9120.

4. Next Steps

Staff recommend the purposed OCP Bylaw 7100, Amendment Bylaw 9121 be referred to the Vancouver International Airport Authority (VIAA) and the Board of Education of School District No. 38 (Richmond) for comment, prior to the Public Hearing (e.g., anticipated to be held on May 20, 2014). In addition, while not usually done, City staff recommend that they meet with VIAA staff prior to the Public Hearing to explain the report and recommendation.

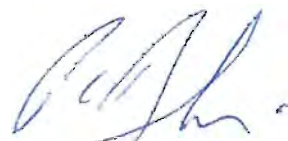
Financial Impact

As noted in report.

Conclusion

Staff's evaluation shows that, based on criteria such as the potential for creating high quality full-time jobs, maintaining good government relations, maximizing property tax revenue and avoiding an undesirable precedent, *Development Scenario 1 – 100% Employment* (existing Area Plan) is the best option. As it is staff's understanding that Council may wish to introduce residential uses into the Study Area, the second best option would be *Development Scenario 2 – 60% Employment: 40% Residential*, as it is considerably superior to Scenario 3 and Scenario 4.

The necessary OCP and Area Plan amendments are in proposed Official Community Plan Bylaw 7100, Amendment Bylaw 9121 to amend Schedule 2.11A in the 2041 Official Community Plan Bylaw 7100.



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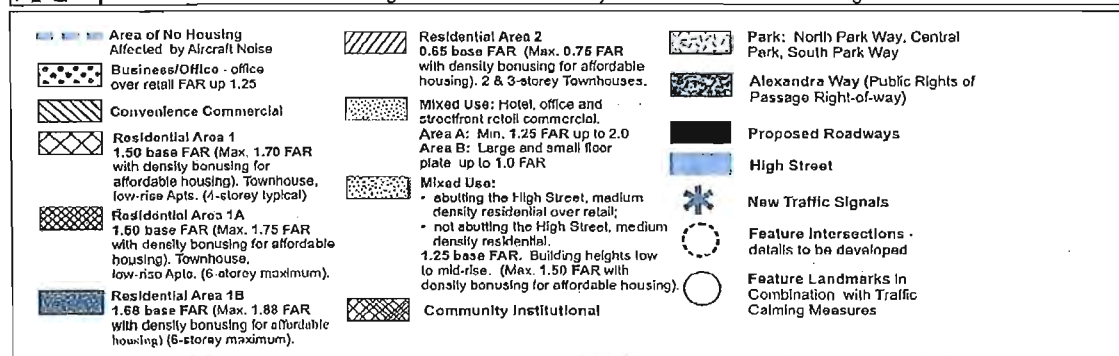
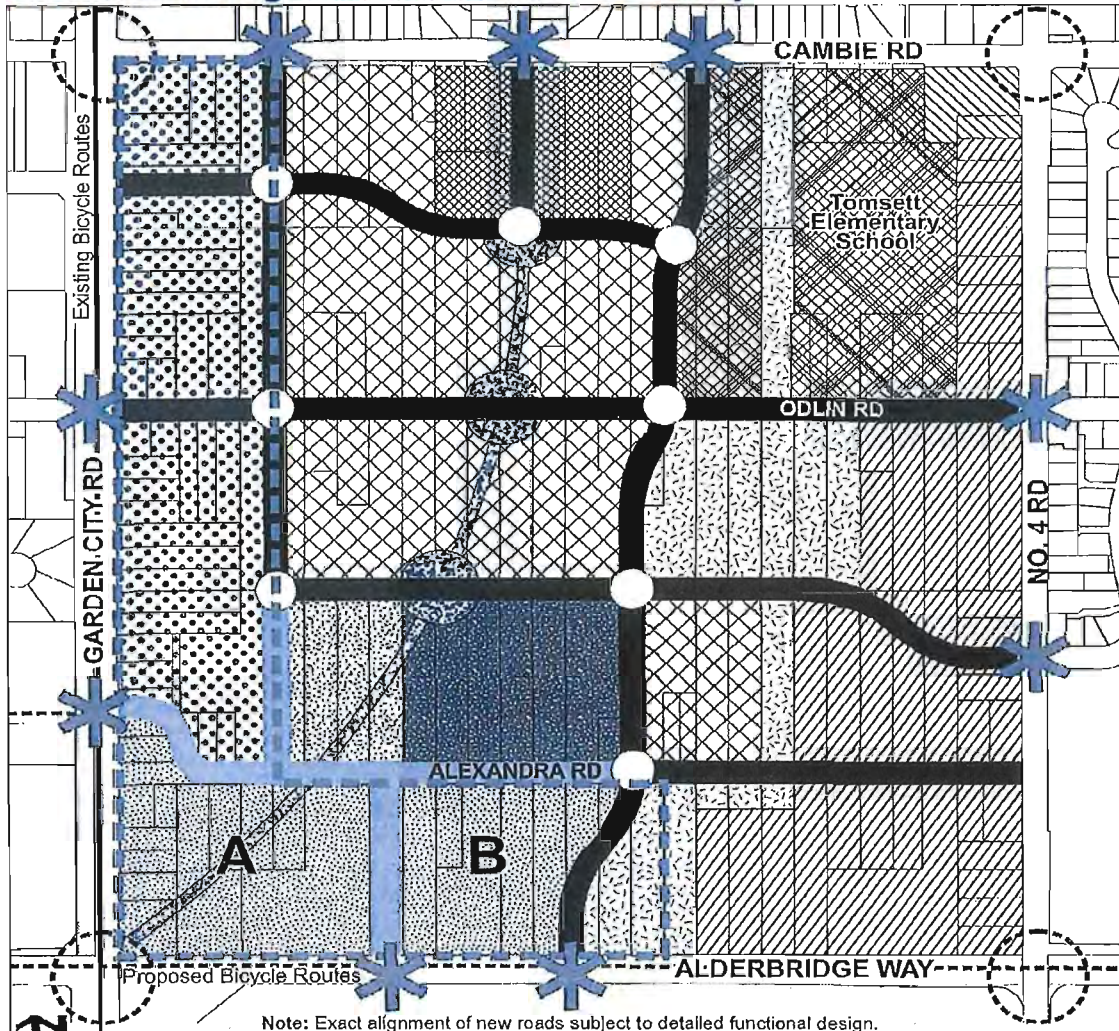


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PB:cas

Attachment 1	Alexandra Neighbourhood Land Use Map
Attachment 2	Context Plan of Study Area and Westmark Lands
Attachment 3	Development Scenario 1- Enhanced 100% Mixed Employment (Business Office Use)
Attachment 4	Development Scenario 2 - 60% Mixed Employment:40% Residential
Attachment 5	Development Scenario 3 - 30% Mixed Employment:70% Residential
Attachment 6	Development Scenario 4 - 20% Mixed Employment:80% Residential (Westmark)
Attachment 7	Example Illustrations of Development Scenarios
Attachment 8	Proposed Westmark Site Plan – (20% Mixed Employment:80% Residential)
Attachment 9	Context Plan of Adjacent Density and Maximum Building Heights
Attachment 10	Proposed Revised Alexandra Neighbourhood Land Use Map with Development Blocks
Attachment 11	Summary of OCP Amendments for Introducing Mixed Use Employment-Residential Uses
Attachment 12	Draft Bylaw Number 9122 - 30% Mixed Employment:70% Residential
Attachment 13	Draft Bylaw 9120 – (100% Employment) Enhancement of Uses

City of Richmond

Alexandra Neighbourhood Land Use MapBylaw 9021
2013/10/15

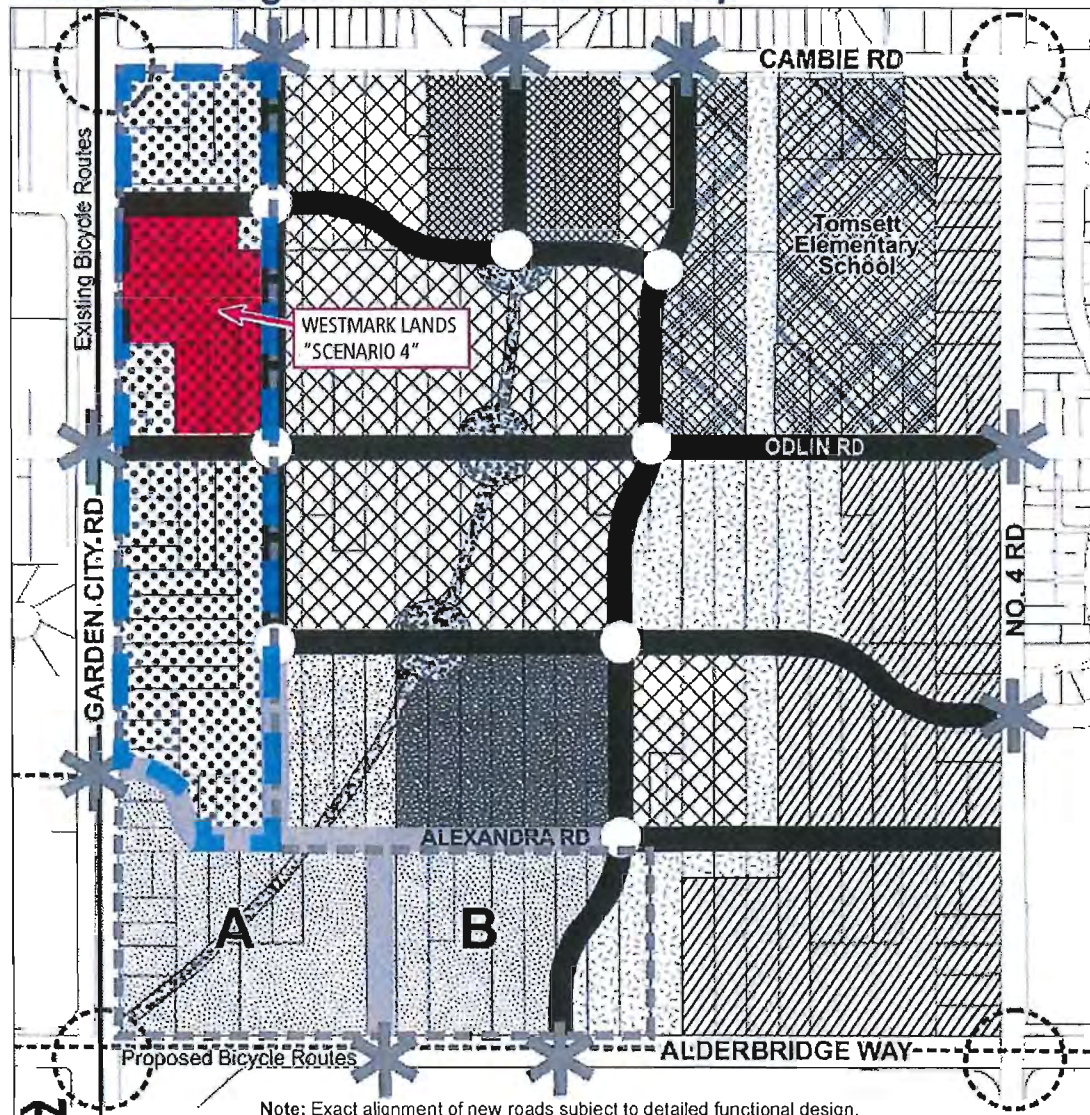
Also refer to Section 8.4.5 – Alexandra District Energy Unit regarding district energy density bonusing policies.

Original Adoption: September 12, 1988 / Plan Adoption: July 24, 2006
3186793

West Cambie Area Plan 50

City of Richmond

STUDY AREA

Alexandra Neighbourhood Land Use MapBylaw 9021
2013/10/15

Note: Exact alignment of new roads subject to detailed functional design.

	Area of No Housing Affected by Aircraft Noise		Residential Area 2 0.65 base FAR (Max. 0.75 FAR with density bonusing for affordable housing); 2-6 3-storey Townhouses		Park: North Park Way, Central Park, South Park Way
	Business/Office - office over retail FAR up to 1.25		Mixed Use: Hotel, office and streetfront retail commercial		Alexandra Way (Public Right of Passage Right-of-way)
	Convenience Commercial		Area A: Min. 1.25 FAR up to 2.0		Proposed Roadways
	Residential Area 1 1.50 base FAR (Max. 1.70 FAR with density bonusing for affordable housing); Townhouse, low-rise Apts. (4-storey typical)		Area B: Large and small floor plate up to 1.0 FAR		High Street
	Residential Area 1A 1.50 base FAR (Max. 1.75 FAR with density bonusing for affordable housing); Townhouse, low-rise Apts. (6-storey maximum)		Mixed Use: • abutting the High Street, medium density residential over retail, • not abutting the High Street, medium density residential		New Traffic Signals
	Residential Area 1B 1.68 base FAR (Max. 1.88 FAR with density bonusing for affordable housing); (6-storey maximum)		Community Institutional		Feature Intersections - details to be developed
					Feature Landmarks in Combination with Traffic Calming Measures

Also refer to Section 8.4.5 – Alexandra District Energy Unit regarding district energy density bonusing policies.

Development Scenario 1
Enhanced 100% Mixed Employment (Business Office Use)

General Description

The following Table summarizes the characteristics of Development Scenario 1 – 100% Mixed Employment (Business Office Use, with land use enhancements):

Development Scenario 1 100% Business Office Use Scenario	
Topic	Summary
Study Area - Size	16 acres: (15.89 acres, or 6.43 ha) Approximately 10% of the whole Alexandra Quarter Section
Maximum Density	1.25 FAR
Total Gross Buildable Area	865,755 ft ² (Net 770,522 ft ²)
2041 OCP Land Use Designation	100% Mixed Employment: Those areas of the City where the principal uses are industrial and stand-alone office development, with a limited range of support services. In certain areas, a limited range of commercial uses are permitted such as the retail sale of building and garden supplies, household furnishings, and similar warehouse goods.
2041 OCP Noise Sensitive Development Area (ANSO) Designation	<ul style="list-style-type: none"> - Designation - Area 1A (35 - 40 NEF) - New Aircraft Noise Sensitive Land Uses (residential, school, hospital, day care) are prohibited
West Cambie Area Plan, Alexandra Quarter Land Use	Business Office Uses (non residential) <ul style="list-style-type: none"> - Office commercial - Restaurants and neighbourhood pub - Retail and retail services commercial — small floor plate only - Educational facilities - Recreational facilities - Enclosed commercial parking, preferably structured. - A service station and neighbourhood commercial uses, at the southeast corner of Garden City Road and Cambie Road
Retail Uses	<ul style="list-style-type: none"> - Retail uses can pay more for ground floor space due to arterial road exposure. - Retail uses make office space more attractive for workers (not isolated in suburbs) - Retail uses subsidize the development of office space
Height	Maximum Height: <ul style="list-style-type: none"> - 2 to 4 storeys (8 metres – 15 metres) - 5 storeys (20 metres) of non-combustible construction can be considered The more height & density enables more office & likely higher paying jobs.
Existing Zoning	<ul style="list-style-type: none"> - Mainly Single Family - RS1/F - Width = 18 m (60 ft) - Minimum Area 828 m² (8,913 ft²)
Existing Uses	Single Family Residential
Transit Services	<ul style="list-style-type: none"> - Promote the Study Area as transit oriented, as the 800 m distance to station which is not long. - The Study Area is well serviced by public transit with two current bus routes fronting Garden City Road (407 and 430), bus service along Cambie Road and there are direct bus connections to the Richmond-Brighouse and Bridgeport Canada Line stations. - The Canada Line is about 1 km (about a 15 minute walk) from the

Development Scenario 1 100% Business Office Use Scenario	
Topic	Summary
	<ul style="list-style-type: none"> area. The City is working with TransLink to monitor service levels and seek service improvements over time.
Water	System
Sanitary	Septic Tank: Sanitary Sewer System to be provided with development
Drainage	Yes
Alexandra District Energy Utility (ADEU)	New development will be required to connect to the ADEU
Enhanced Land Uses: Adding the Following Land Uses For Clarity	<ul style="list-style-type: none"> Bio-tech, research, labs, information technology (IT), media/software, private and public institutions such as medical facilities.
Built Out Features	<ul style="list-style-type: none"> Buildings may be stand alone or mixed employment uses, as the flexibility increases likelihood of getting office built May want to restrict retail from being in standalone buildings, as this would negatively the planned character of Study Area Workers may opt to live & work in same neighbourhood Nearby amenities such as retail encourage more and better tenants
Parking	<ul style="list-style-type: none"> Excellent, surface parking, as uses cannot support the cost of structured parking at this time.
Visual Examples	<ul style="list-style-type: none"> The proposed urban design look will not be a suburban look and will ensure a high quality local design Retail most likely to form the ground floor of any employment use
Managing Nuisances (Noise, Odour Vibration)	<ul style="list-style-type: none"> Apply the same mitigation requirements, as in other parts of the city Focus commercial on and close to arterial roads minimizes the impact of commercial on residential Have separate accesses and apply existing industry design standards
Number and Quality of Jobs* Ranking	<ul style="list-style-type: none"> Excellent: Highest: the most & highest paying jobs (e.g., \$60,000 per year) Number of Jobs (includes multiplier) – 3,502 jobs Annual Salaries = \$210 million
Maximum Alexandra Jobs* at Build Out	$3,502 + 1,000 = 4,235$ jobs
Study Area Build Out Population	0
Total Alexandra build Out Population	6,700 people
Annual Taxes Generated	\$4,297,595

General Pros	General Cons
<ul style="list-style-type: none"> Clarify that bio-tech, research, labs, information technology (IT), media/software, private and public institutions such as medical facilities and private schools are allowed A range of non residential mixed employment 	<ul style="list-style-type: none"> In the short term, may see slow Business / Office use redevelopment, as anticipated May continue to receive requests from developers to convert Business / Office uses to other uses (e.g., residential)

General Pros	General Cons
<p>uses is continued to support needed local employment opportunities</p> <ul style="list-style-type: none">- The important Complete Community (Live, Work, Play) Concept is retained- Avoids reducing the OCP ANSD Area 1A designation- Avoids setting an undesirable land use change precedent- Continues to achieve the 2041 OCP and Employment Lands Strategy- It was always anticipated that the build out of Study Area employment uses would take time and that it is not strategic or practical to allow them to be replaced with residential uses for short term developer gain- Enables City priorities and positive relationship with YVR to continue- Supported by YVR, the Richmond Economic Advisory Committee (REAC) and Mr. R. Wozny, the City's real estate consultant	

*Jobs are calculated based on 1 job per 220ft² of commercial space plus 1 job per 4000ft² of residential space

Development Scenario 2
60% Mixed Employment:40% Residential Scenario

General Description

The following Table summarizes the characteristics of Development Scenario 2 - 60% Mixed Employment:40% Residential:

Development Scenario 2 A Mixed Use (60% Employment:40% Residential) Scenario	
Item	General Description
Study Area	<ul style="list-style-type: none"> - 16 acres: (15.9 acres) - Approximately 10% of the whole Alexandra Quarter Section
Base and Density Bonus FAR	<ul style="list-style-type: none"> - Base Density= 0.75 FAR (Employ) + 0.50 FAR (Res) = 1.25 FAR - Bonus Density= 0.30 FAR* (Employ) +0.20 FAR (Res) = 0.50 FAR - * Bonus Residential FAR requires Bonus Employment FAR to also be built
Maximum FAR	1.75 FAR maximum
Total Buildable Floor Area	At 1.75 FAR, total proposed gross floor area = 1,212,057 ft ² <ul style="list-style-type: none"> - 60% Employment Uses = 727,234 ft² Gross - 40% Residential Uses = 484,823 ft² Gross
Maximum Height	6 storeys (25 metres) of non-combustible construction may be considered for non-combustible or concrete construction, increased open space, and no additional overshadowing of neighbouring properties.
Alexandra District Energy Utility (ADEU)	Will connect to ADEU
OCP ANSD Designations In Study Area: Replace ANSD Area 1A with an Area 2 designation to allow ANSD uses	<ul style="list-style-type: none"> - Existing ANSD Designation is: Area 1A (35 - 40 NEF) which prohibits new Aircraft Noise Sensitive Land Uses (residential, school, hospital, day care) - With Development Scenario 2, to allow multifamily residential uses, the existing ANSD Designation would need to be replaced with the Area 2 Designation - The 2041 OCP does not require an equivalent Area 1 replacement area to achieve a No Net Loss arrangement and no such replacement area has been found, - YVR does not wish to see the residential prohibiting policy to be removed, to ensure that there will not be any residential complaints regarding aircraft noise.
Number and Quality of Jobs*	<ul style="list-style-type: none"> - 3,047 jobs, Excellent Quality (e.g., avg. \$60,000 per year) - Annual Salaries \$183 million
Maximum Alexandra Jobs*	- 3,047 + 1,000 in the remainder of the Quarter = 4,047 jobs
Estimated Residential Units	<ul style="list-style-type: none"> - Built Affordable Residential Units = 40 units (@ 600 ft²) - Market Residential Units = 566 units (@ 814 ft²) - Total units = 606 units - Residential Uses = 484,823 ft² (Gross)
Affordable Housing	- At least 5% of total maximum buildable sq. ft. of residential area to be provided as Built Affordable units (minimum of 4 units)

Development Scenario 2 A Mixed Use (60% Employment:40% Residential) Scenario	
Item	General Description
Additional Residents	- 1,300 people
Total Alexandra population	- 1,300 + 6,700 in the remainder of the Quarter = 8,000 people
Built Out Features	<ul style="list-style-type: none"> - Buildings may be stand alone or mixed employment uses, as the flexibility increases likelihood of getting office built - May want to restrict retail from being in standalone buildings, as this would negatively the planned character of Study Area - Workers may opt to live & work in same neighbourhood - Nearby amenities such as retail encourage more and better tenants
Parking	- Good, surface and underground parking
Visual Examples	<ul style="list-style-type: none"> - See Attachment 7, the proposed urban design look will not be a suburban look and will ensure a high quality local design - Retail most likely to form the ground floor of any employment use
Managing Nuisances (Noise, Odour Vibration)	<ul style="list-style-type: none"> - Apply the same mitigation requirements, as in other parts of the city - Focus commercial on and close to arterial roads minimizes the impact of commercial on residential - Have separate accesses and apply existing industry design standards
Parking	- Good, mixed surface and structured
Annual Taxes Generated (Highest)	- \$4,516,000
Pros	Cons
<ul style="list-style-type: none"> - Could possibly accelerate redevelopment in the Study Area - Majority of space is for employment, for a variety of employment uses. - Affordable housing is provided 	<ul style="list-style-type: none"> - Removes large amount of commercial and office floor area compared to Option 1. - Any redesignation of land from office or other employment uses may later require them to be replaced elsewhere in North Richmond not in the City Centre, in order to meet the City's long term 2041 employment land targets - Reduces the OCP ANSD Area 1A designation. - Sets an undesirable land use change precedent - May generate similar undesirable requests - May damage City relationships with YVR - Not supported by YVR, the Richmond Economic Advisory Committee (REAC) and Mr. R. Wozny, the City's real estate consultant

*Jobs are calculated based on 1 job per 220ft² of commercial space plus 1 job per 4000ft² of residential space

Development Scenario 3
30% Mixed Employment:70% Residential Scenarios

General Description

The following Table summarizes the characteristics of a Development Scenario 3 - 30% Mixed Employment:70% Residential:

Development Scenario 3 30% Employment:70% Residential Scenario	
Item	General Description
Study Area	<ul style="list-style-type: none"> - 16 acres: (15.9 acres) (1,212,057 ft²) - Approximately 10% of the whole Alexandra Quarter Section
Base and Density FAR	<ul style="list-style-type: none"> - Base Density= 0.375 FAR (Employ) + 0.875 FAR (Res) = 1.25 FAR - Bonus Density= 0.15 FAR* (Employ) +0.35 FAR (Res) = 0.50 FAR - * Bonus Residential FAR requires Bonus Employment FAR to also be built
Maximum FAR	1.75 FAR maximum
Total Buildable Floor Area	At 1.75 FAR, Gross Total (BFA) is: 1,212,057 ft ² <ul style="list-style-type: none"> - Using 30% for Employment Use = 363,617 ft² (Gross) - Using 70% Residential Use = 848,440 ft² (Gross)
Maximum Height	Up to 6 storeys
Alexandra District Energy Utility (ADEU)	Will connect to ADEU
OCP ANSD Designations In Study Area: Replace ANSD Area 1A with an Area 2 designation to allow ANSD uses	<ul style="list-style-type: none"> - Existing ANSD Designation is: Area 1A (35 - 40 NEF) which prohibits new Aircraft Noise Sensitive Land Uses (residential, school, hospital, day care) - With Development Scenario 2, to allow multifamily residential uses, the existing ANSD Designation would need to be replaced with the Area 2 Designation - The 2041 OCP does not require an equivalent Area 1 replacement area to achieve a No Net Loss arrangement and no such replacement area has been found, - YVR does not wish to see the residential prohibiting policy to be removed, to ensure that there will not be any residential complaints regarding aircraft noise.
Number and Quality of Jobs*	<ul style="list-style-type: none"> - 1,665 jobs, Good quality, less than \$60,000 per year salary - Annual Salaries \$99 million
Maximum Alexandra Jobs*	- 1,665 jobs + 1,000 in the remainder of the Quarter = 2,665 jobs
Estimated Residential Units	<ul style="list-style-type: none"> - Built Affordable Residential Units = 71 units (@ 600 ft²) - Market Residential Units = 990 units (@ 814 ft²) - Total units = 1061 units - Residential Uses = 848,440 ft² (Gross)
Affordable Housing	- At least 5% of total maximum buildable sq. ft. of residential area to be provided as Built Affordable units (minimum of 4 units)
Additional Residents	- 2,250 people
Total Alexandra population	- 2,250 + 6,700 in the remainder of the Quarter = 8,950 people
Built Out Features	- Buildings may be stand alone or mixed employment uses, as

	<p>the flexibility increases likelihood of getting office built</p> <ul style="list-style-type: none"> - May want to restrict retail from being in standalone buildings, as this would negatively the planned character of Study Area - Workers may opt to live & work in same neighbourhood - Nearby amenities such as retail encourage more and better tenants
Parking	<ul style="list-style-type: none"> - Moderate, mixed surface and structured parking
Visual Examples	<ul style="list-style-type: none"> - See Attachment 7, the proposed urban design look will not be a suburban look and will ensure a high quality local design - Retail most likely to form the ground floor of any employment use
Managing Nuisances (Noise, Odour Vibration)	<ul style="list-style-type: none"> - Apply the same mitigation requirements, as in other parts of the city - Focus commercial on and close to arterial roads minimizes the impact of commercial on residential - Have separate accesses and apply existing industry design standards
Annual Taxes Generated	<ul style="list-style-type: none"> - \$3,397,177

Pros	Cons
<ul style="list-style-type: none"> - Could possibly accelerate redevelopment in the Study Area - Would retain some floor space for a variety of employment uses. - Affordable housing is provided 	<ul style="list-style-type: none"> - Removes 70% of the commercial/office floor area compared to Option 1 - Any redesignation of land from office or other employment uses may later require their replacement elsewhere in North Richmond not in the City Centre, in order to meet the City's long term 2041 employment land targets - Reduces the OCP ANSD Area 1A designation - Sets an undesirable land use change precedent - Will likely generate similar undesirable requests - May damage City relationships with YVR - Not supported by YVR, the Richmond Economic Advisory Committee (REAC) and Mr. R. Wozny, the City's real estate consultant

*Jobs are calculated based on 1 job per 220ft² of commercial space plus 1 job per 4000ft² of residential space

Development Scenario 4
20% Mixed Employment:80% Residential Scenarios

General Description

The following Table summarizes the characteristics of Development Scenario 4 - 20% Mixed Employment:80% Residential:

Development Scenario 4 20% Mixed Employment:80% Residential Scenario	
Item	General Description
Study Area	<ul style="list-style-type: none"> - 16 acres: (15.9 acres) (1,212,057 ft²) - Approximately 10% of the whole Alexandra Quarter Section
Base and Density FAR	<ul style="list-style-type: none"> - Base Density= 0.25 FAR (Employ) + 1.0 FAR (Res) = 1.25 FAR - Bonus Density= 0.1 FAR (Employ) +0.40 FAR (Res) = 0.50 FAR
Maximum FAR	<ul style="list-style-type: none"> - 1.75 FAR maximum - Note while Westmark proposes 1.77 FAR, the calculations in this table use 1.75 FAR
Total Buildable Floor Area	At 1.75 FAR, Gross Total (BFA) is: 1,212,057 ft ² <ul style="list-style-type: none"> - Using 20% for Employment Use = 242,410 ft² (Gross) - Using 80% Residential Use = 969,645 ft² (Gross)
Maximum Height	Up to 6 storeys
Alexandra District Energy Utility (ADEU)	Will connect to ADEU
OCP ANSD Designations In Study Area: Replace ANSD Area 1A with an Area 2 designation to allow ANSD uses	<ul style="list-style-type: none"> - Existing ANSD Designation is: Area 1A (35 - 40 NEF) which prohibits new Aircraft Noise Sensitive Land Uses (residential, school, hospital, day care) - The existing ANSD Designation would need to be replaced with the Area 2 Designation - The 2041 OCP does not require an equivalent Area 1 replacement area to achieve a No Net Loss arrangement and no such replacement area has been found, - YVR does not wish to see the residential prohibiting policy to be removed, to ensure that there will not be any residential complaints regarding aircraft noise.
Number and Quality of Jobs*	<ul style="list-style-type: none"> - 1,220 jobs, Good, low paying retail - Annual Salaries - \$73 million
Maximum Alexandra Jobs*	- 1,220 jobs + 1,000 in the remainder of the Quarter = 2,220 jobs
Estimated Residential Units	<ul style="list-style-type: none"> - Built Affordable Residential Units = 81 units (@ 600 ft²) - Market Residential Units = 1132 units (@ 814 ft²) - Total units = 1213 units - Residential Uses = 969,645 ft² (Gross)
Additional Residents	- 2,600 people
Total Alexandra population	- 2,600 + 6,700 in the remainder of the Quarter = 9,300 people
Built Out Features	<ul style="list-style-type: none"> - Buildings may be stand alone or mixed employment uses, as the flexibility increases likelihood of getting office built - May want to restrict retail from being in standalone buildings, as this would negatively the planned character of Study Area - Workers may opt to live & work in same neighbourhood - Nearby amenities such as retail encourage more and better

Development Scenario 4 20% Mixed Employment:80% Residential Scenario	
Item	General Description
	tenants
Parking	- Moderate, underground
Visual Examples	<ul style="list-style-type: none"> - See Attachment 7, the proposed urban design look will not be a suburban look and will ensure a high quality local design - Retail most likely to form the ground floor of any employment use
Managing Nuisances (Noise, Odour Vibration)	<ul style="list-style-type: none"> - Apply the same mitigation requirements, as in other parts of the city - Focus commercial on and close to arterial roads minimizes the impact of commercial on residential - Have separate accesses and apply existing industry design standards
Annual Taxes Generated	- \$3,057,435

Pros	Cons
<ul style="list-style-type: none"> - Could possibly accelerate redevelopment in the Study Area - Would retain some floor space for a variety of employment uses. 	<ul style="list-style-type: none"> - Removes 80% of employment /office floor area compared to Option 1 - Does not conform the Area Plan (e.g., excessive density, excessive building height, unacceptable road layout, unacceptably proposes orphaned lots, avoids applicant costs while shifting them to others - Stand alone residential buildings would likely develop first and possibly still leave the office and other employment land undeveloped in the short term - Any redesignation of land from office or other employment uses will likely require them to be replaced elsewhere in North Richmond not in the City Centre, in order to meet the City's long term 2041 employment land targets - Reduces the OCP ANSD Area 1A designation - Sets an undesirable land use change precedent - Will likely generate similar undesirable requests - May damage City relationships with YVR - Not supported by YVR, the Richmond Economic Advisory Committee (REAC) and Mr. R. Wozny, the City's real estate consultant

*Jobs are calculated based on 1 job per 220ft² of commercial space plus 1 job per 4000ft² of residential space

**Example Illustrations of Development Scenarios
Alexandra Study Area**

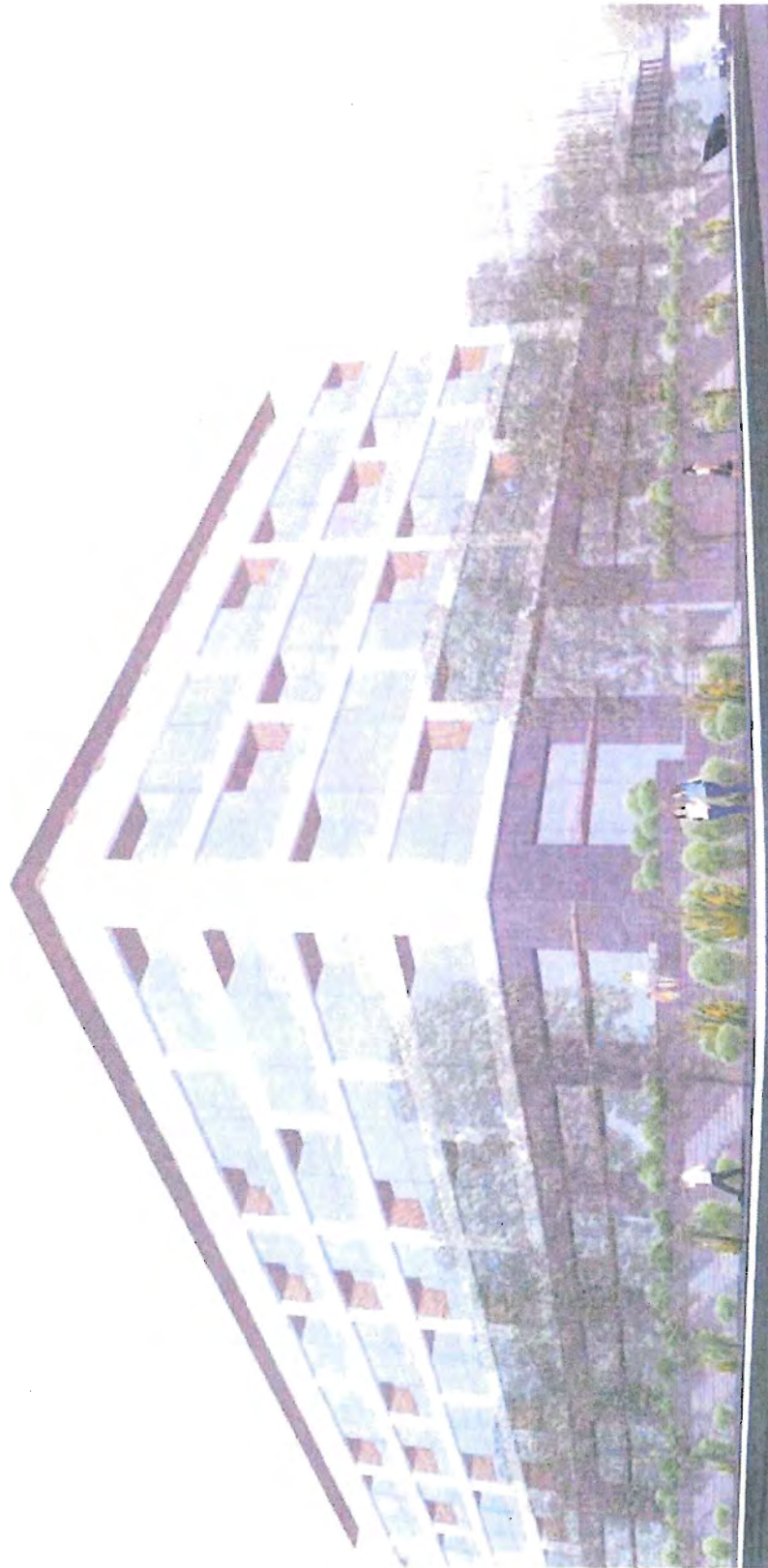
Illustration A is a standalone Employment Building with ground floor retail and office space above, which would be appropriate in any of the proposed Development Scenarios 1-4

Illustrations B to H represents various examples of Mixed Use Employment Residential buildings that would be appropriate in Development Scenarios 2, 3 or 4 only. Some of these building forms could also be 100% Employment use.

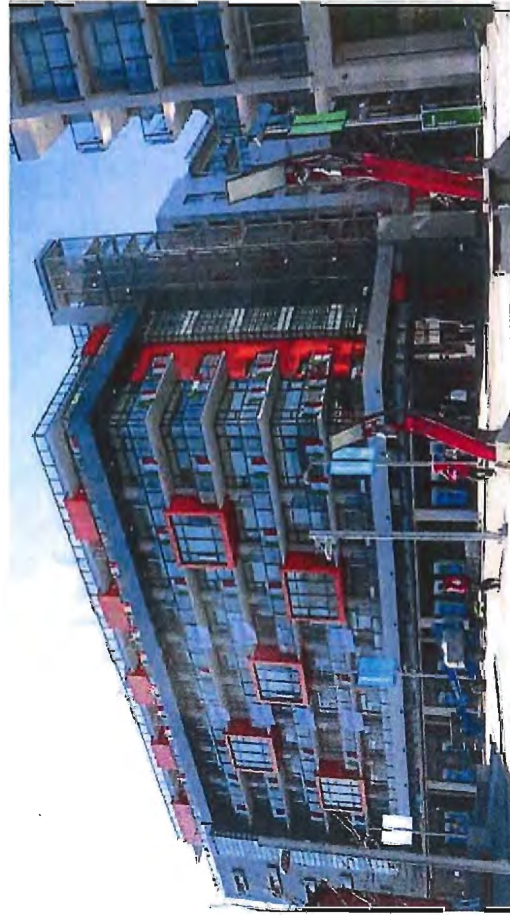
Illustration A



Garden City Commercial Frontage



Corner of McKim Way and Dubbert Street



Olympic Village

*Mixed Use:
Residential
Commercial*

Olympic Village
Vancouver

GBL Architects

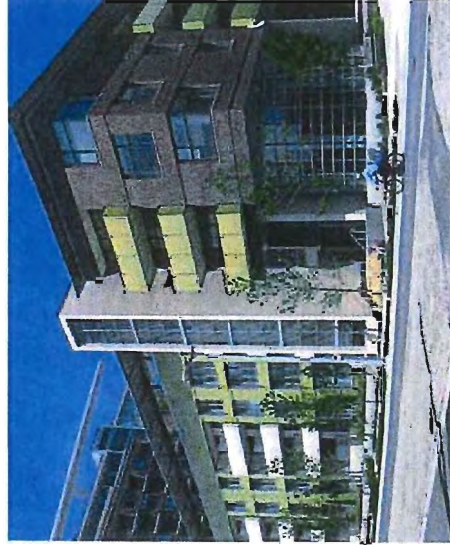


Olympic Village

*Mixed Use:
Residential
Commercial*

Olympic Village
Vancouver

GBL Architects



Olympic Village

*Mixed Use:
Residential
Commercial*

Olympic Village
Vancouver

GBL Architects

Precedent Mixed Use Developments | GBL Architects

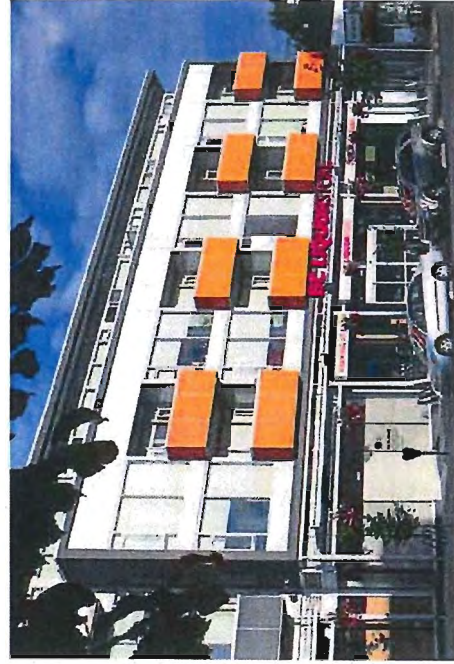
Illustration C



The Luzon
*Mixed Use:
Residential
Commercial*
Arbutus & 12th
Vancouver
GBL Architects



Collection 45
*Mixed Use:
Residential
Commercial*
Main & 8th
Vancouver
GBL Architects



The District
*Mixed Use:
Residential
Commercial*
Main & 29th
Vancouver
GBL Architects

Illustration D

Precedent Mixed Use Developments | GBL Architects



Illustration E

CAPELLA MIXED-USE DEVELOPMENT

CAPELLA HOLDINGS, LLC

Retail at Washington Street P

Steinberg Architects

Illustration F

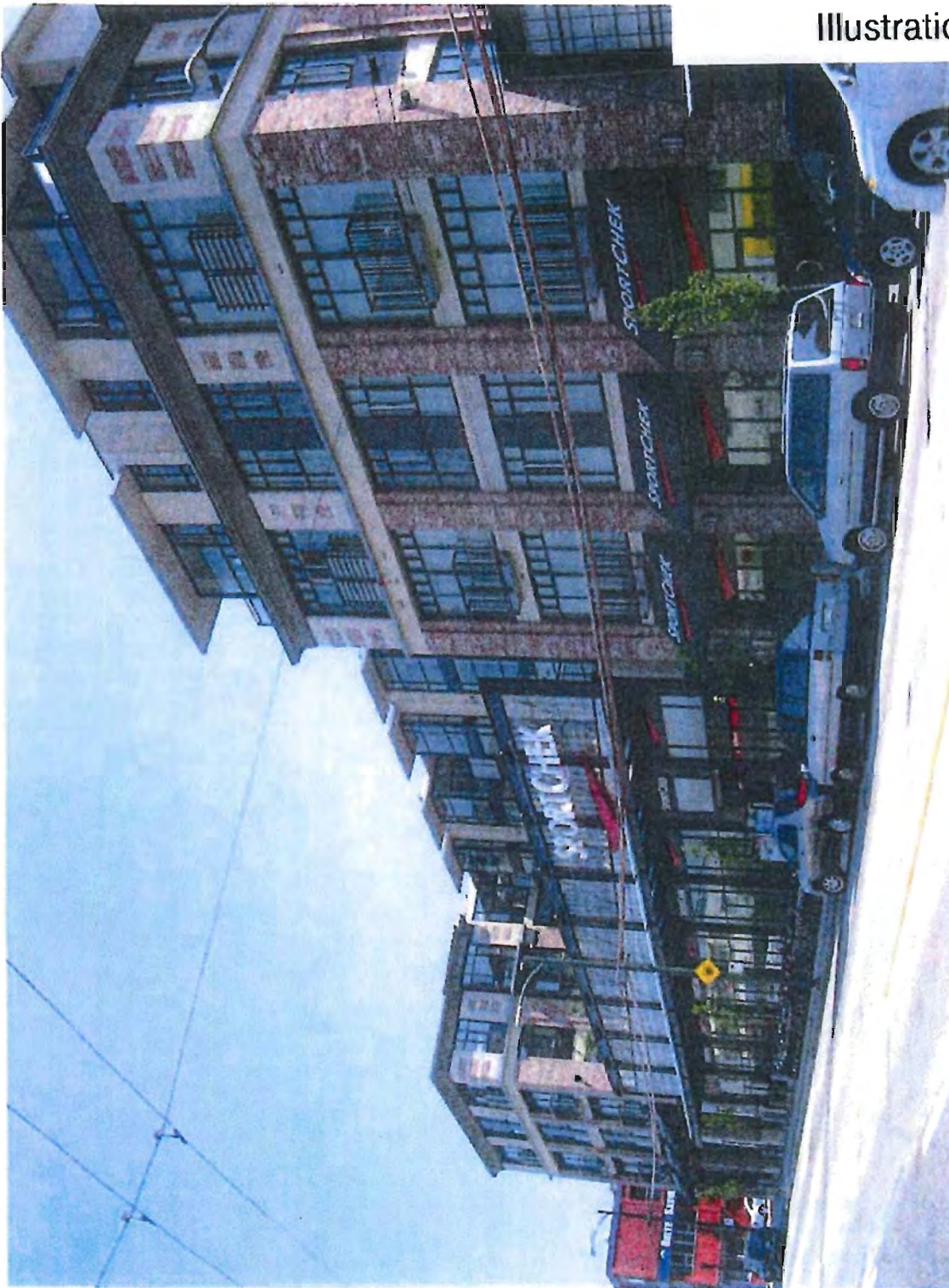
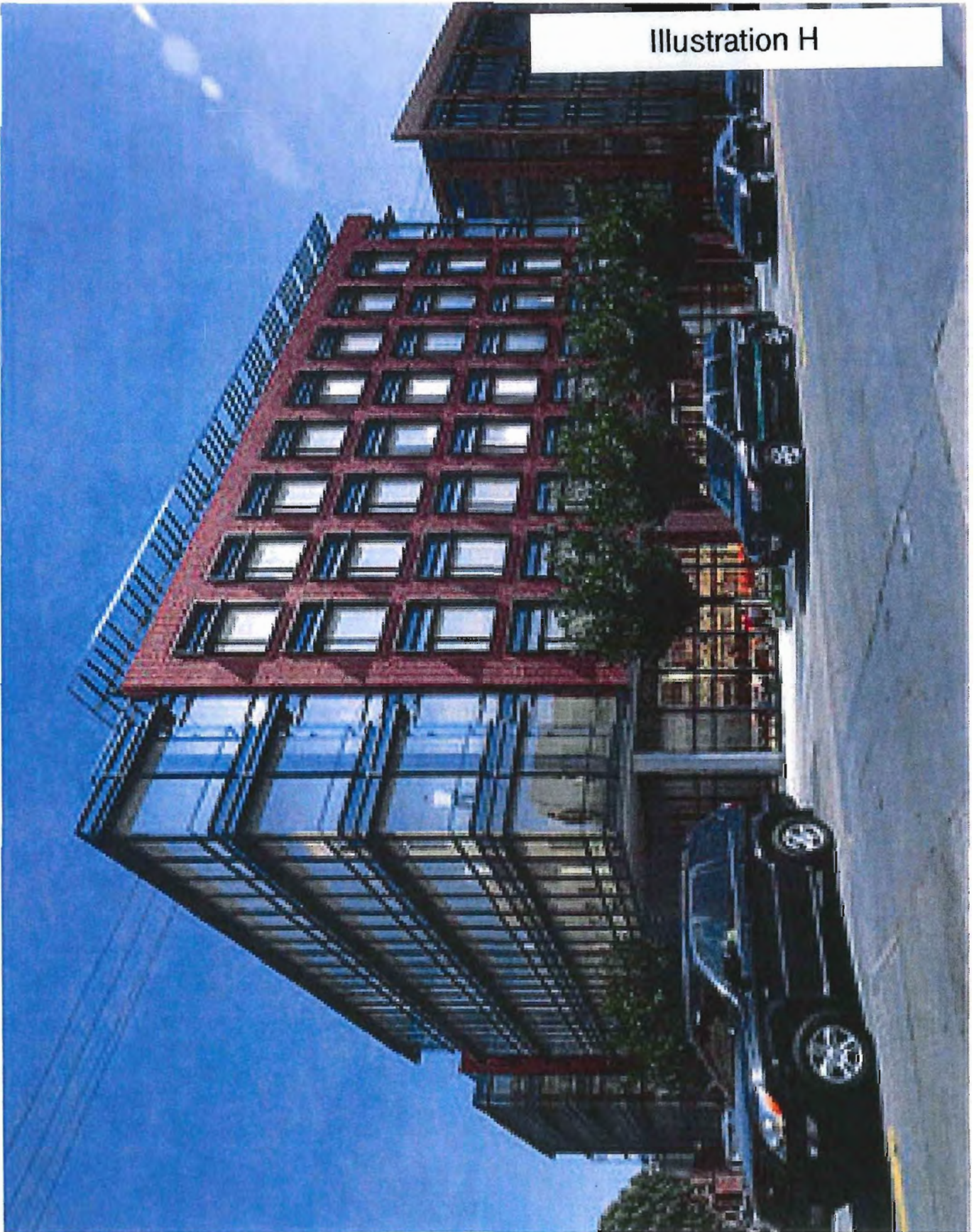


Illustration G



Illustration H



CNCL - 700

CNCL - 701



Level 1

CAMBIE RD

Maximum 1.2 FAR,
Maximum 7.5 Storey/25m

GARDEN CITY RD

1

2

1.50 Base FAR,
Maximum 1.70 FAR,
Maximum 6 Storey/25m

1.25 Base FAR,
Maximum 1.75 FAR,
Maximum 6 Storey/25m

3

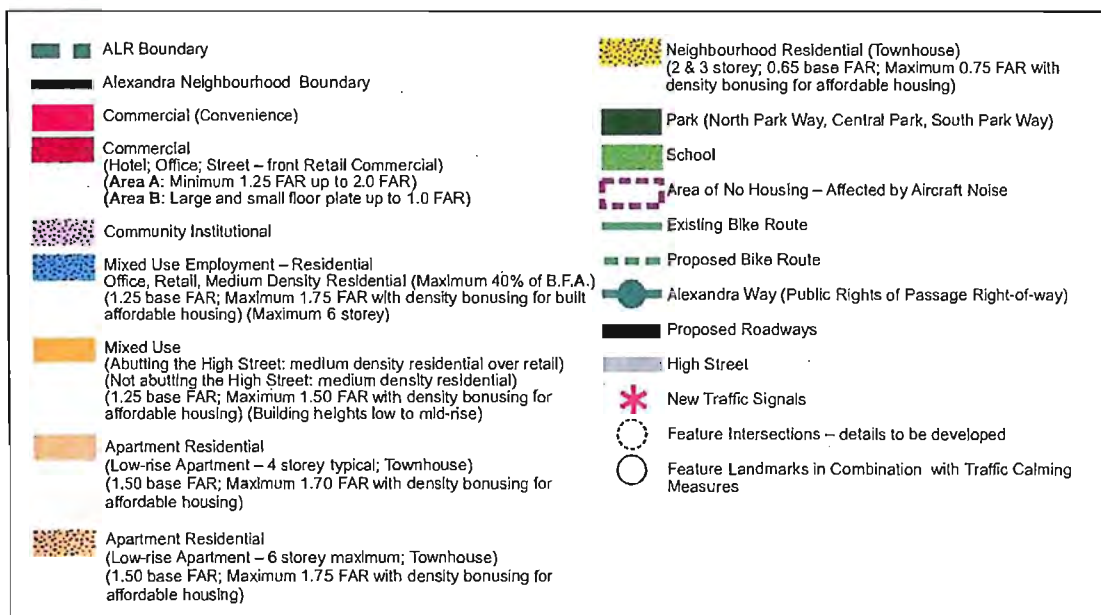
1.25 Base FAR,
Maximum 1.50 FAR,
Maximum 3.5 Storey/12m

ALEXANDRA RD

Legend

- Aberdeen Village: General Urban T4
- Alexandra Neighbourhood: Mixed Use Commercial - Residential
- Alexandra Neighbourhood: Apartment Residential
- Alexandra Neighbourhood: Mixed Use

Alexandra Neighbourhood Land Use Map



Summary of Proposed OCP Amendment Bylaw Development Requirements For Mixed Use Employment-Residential Development Scenarios

Purpose

To summarize the OCP and Area Plan amendments, if Council pursues Development Scenarios 2, 3 or 4:

- (1) Section 8.2.1 Character Area 1 – should be renamed from Business Office to Mixed-Use Employment-Residential in the West Cambie Area Plan.
- (2) Mixed-Use Employment-Residential designations and ratios should be applied to the entire 6.4 ha (15.9 ac) employment lands, not just on Westmark's 2.1 ha (5.1 ac) parcel.
- (3) The Mixed-Use Employment-Residential area should be further segmented into Development Blocks 1, 2, and 3 (**Attachment 10**) as formed by the collector and arterial road network. Each block would form its own comprehensive planning development area required to meet the target mixed-use employment-residential ratios. Development proposals would have to demonstrate how the mixed-use targets (e.g. 60:40 or 30:70) would be met within their respective Development Blocks. Development lot assemblies forming a separate application for rezoning, should be no less than the size of Block 1, or 1.0 ha (2.47 ac), unless it constitutes the completion of that Block.
- (4) Mixed-Use Employment-Residential developments should limit the percentage of residential uses to a maximum of the total floor space built within each development and its respective residential FAR identified (e.g. 40% residential and max .70 FAR) in the bylaw; this would allow greater percentages of employment to be built if market improves.
- (5) A base density of 1.25 FAR shall continue, as per the current designation. A bonus density of up to an additional 0.5 FAR may be permitted if built affordable housing is provided. The bonus FAR must be split as per the ratios provided in the Amendment Bylaw (e.g. 40% Residential use may have a base residential FAR of 0.5 and bonus residential density of 0.2 FAR if built affordable housing is provided). The additional employment floor area must also be built, if the bonus residential area is developed, to ensure compliance with the approved ratio of employment: residential use.
- (6) To prevent only residential uses being developed and no employment uses, all Rezoning, Development Permit and Building Permit applications must meet the selected Development Scenario land use ratio that restricts the maximum percentage of residential floor space.
- (7) Development fronting along Garden City Road should be restricted to Employment and Institutional (not residential) uses only.
- (8) Development fronting along Odlin Road and Dubbert Street, south of Tomicki Avenue, should continue to conform to Section 8.2.3 Character Area 3 – The High Street, in the +Area Plan.
- (9) The maximum height of 6 storeys (25 m) should be limited to westerly portions of the Development Blocks. The height is made available to accommodate the base density of 1.25 FAR + 0.5 FAR bonus density (Max 1.75 FAR) within each development block. This is to provide a transition to the City Centre to the west and to stimulate development of employment generating commercial space.
- (10) Minimum lot size and orphaned properties of 0.4 ha (1.0 ac) or less, should not be permitted, in order to facilitate development as anticipated in the WCAP and not to perpetuate non-conforming uses (e.g. single detached homes).
- (11) Development of Live-Work spaces should be prohibited to protect the viability of the office and commercial developments, as they are regarded as residential uses and detract from employment spaces.
- (12) Developers should be expected to provide at time of rezoning, a voluntary Community Amenity contribution in addition to the Local DCC's to help pay for local and city-wide amenities.

- (13) Notwithstanding the amendments to allow residential uses within the existing Mixed Employment area identified in the WCAP, development shall be required to conform to the above restrictions in addition to the Area Plan policies, including the ANSD policies.
- (14) Section 9.3, Implementation Strategy the initial 2006 affordable housing requirements will be replaced by requiring that at least 5% of total maximum buildable sq. ft. of residential floor area is provided as built affordable housing units (minimum of 4 units).



**City of
Richmond**

30% E:70% R (NOT RECOMMENDED)

Bylaw 9122

Richmond Official Community Plan Bylaw 7100 and 9000 Amendment Bylaw 9122 (West Cambie Area Plan)

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

1. Richmond Official Community Plan Bylaw 7100 is amended in Schedule 2.11A by the following:
 - a) Section 8.1.6 - under sub-heading “Lessening the Impact of Aircraft Noise”, delete the paragraph in the second bullet, and insert:
 - “There shall be no new lots for single detached housing within the Alexandra Neighbourhood (as identified on the 2041 OCP Aircraft Noise Sensitive Development Map).”
 - b) Section 8.1.6 – under the sub-heading “Building Relationship with Streets” insert a bulleted paragraph as follows:
 - “The employment components of mixed use buildings should be oriented towards the arterial road network (Garden City Road and Cambie Road) to provide a consistent and complementary streetscape with future development on the west side of Garden City Road. Residential and ancillary uses should be inward oriented towards the collector roads (e.g. Dubbert Street).”
 - c) Section 8.2 – for the map titled “Alexandra Neighbourhood Character Areas Map” – in the Legend delete: “Business Office” and insert: “Mixed Use Employment-Residential”.
 - d) Section 8.2.1 – for the map titled “Neighbourhood Character Area 1- Business Office Map” - insert labelling as follows:
 - The development block formed by Cambie Road to the north, Garden City Road to the west, the McKim Way alignment to the south and the Dubbert Street alignment to the east shall be labelled as “Block 1”.
 - The development block formed by the McKim Way alignment to the north, Garden City Road to the west, Odlin Road to the south and the Dubbert Street alignment to the east shall be labelled as “Block 2”.
 - The development block formed by Odlin Road to the north, Garden City Road to the west, Alexandra Road to the south and the Dubbert Street alignment to the east shall be labelled as “Block 3”.

- e) Section 8.2.1 – Delete the title of this section,
“CHARACTER AREA 1 – BUSINESS OFFICE”
and insert:
“CHARACTER AREA 1 – MIXED USE EMPLOYMENT-RESIDENTIAL”
- f) Section 8.2.1 – Delete the title of the map,
“Character Area 1 – Business Office Map”
and insert:
“Character Area 1 – Mixed Use Employment-Residential Map”
- g) Section 8.2.1- Delete last sentence of paragraph 1,
“No residential uses are permitted in this area, due to the City’s OCP Aircraft Noise Sensitive Development Policy”
and insert:
“Multi-family residential uses may be permitted, subject to the applicable provisions of this Area Plan, Section 8.1.6 Architectural Elements - Lessening the Impact of Aircraft Noise, and the 2041 OCP Aircraft Noise Sensitive Development Policy.”
- h) Section 8.2.1 – under sub-heading “Land Uses”, and after the bullet “Office commercial”, insert the following,
 - “Bio-tech, research, and labs
 - Information technology (IT), media/software
 - Institutional (private and public) including medical facilities”
- i) Section 8.2.1 – under sub-heading “Land Uses” insert bullet:
 - “**Multi-family housing** with accessory uses, amenities and community facilities. Residential and associated accessory uses shall be comprised of a maximum of 70% of the total floor area within Development Blocks 1, 2 and 3, as identified in the Character Area 1 – Mixed Use Employment-Residential Map”.
- j) Section 8.2.1 – under sub-heading “Floor Area Ratio” delete the bullet
and insert:
 - The total building area within each Development Block 1, 2 and 3, excluding underground parking, shall be no greater than a total of 1.25 FAR (excluding bonus density of 0.5 FAR for built affordable housing).
 - The maximum FAR for residential use, based a minimum of 30% Employment space, shall be 0.875 Base FAR with up to 0.35 Bonus FAR if at least 5% of the residential building area (minimum of 4 units) is provided as built Affordable Housing units.
- k) Section 8.2.1 – After sub-heading “Site Coverage” insert new sub-heading and text:
“**Phasing of Development**”
 - All Rezoning, Development Permit and Building Permit applications shall ensure that a minimum of 30% employment floor area and maximum 70% residential

floor area (and associated residential accessory uses) is maintained throughout each phase within the applicable Development Block.”

- l) Section 8.2.1 – In sub-heading “Height” insert after the first bullet:
 - Minimum of two storeys (8m) and up to six storeys (25m) adjacent to the west boundary of each Development Block along Garden City Road.
 - m) Section 8.2.1 – In sub-heading “Site Coverage”, delete bullet and insert:
 - Depends on uses and configuration.
 - n) Section 8.2.1 – In sub-heading “Additional Building Design Considerations” insert bullet:
 - “Stand alone, single-use buildings and/or mixed-use buildings may be considered, provided that they form part of a comprehensive plan for each Development Block, 1, 2 and 3.”
 - o) Section 8.2.3 - **Character Area 3 - The High Street Map** - in the “Legend” delete: “Business Office”
and insert:
“Mixed Use Employment-Residential”
 - p) Section 9.3 – **Alexandra Neighbourhood Land Use Map** – in the “Legend” delete: “Business/Office - office over retail FAR up to 1.25”
and insert:
“Mixed Use Employment-Residential (Maximum 70% Residential) – base FAR of 1.25 (Max. 1.75 FAR with density bonus for built affordable housing)”.
 - q) Section 9.3.2 – **Alexandra Development Framework – in Objective 3, Policies, and after “Developer Contributions – Public Amenities”,**
insert new sub-heading and paragraph after paragraph g):
“Affordable Housing in the Mixed Use Employment-Residential Area
h) At least 5% of the total residential building area (a minimum of 4 units) is required in the form of built affordable housing units. Cash-in-lieu contributions are not acceptable and the 2006 *West Cambie - Alexandra Interim Amenity Guidelines* as they relate to affordable housing contributions will not apply”.
2. Richmond Official Community Plan Schedule 1 of Bylaw 9000 is amended as follows:
- a) *Attachment 1* – revise the “City of Richmond 2041 OCP Land Use Map” for the designated lands, changing the Land Use and the light blue shading from: “Mixed Employment” to: “Mixed Use” with the corresponding orange shading.
 - b) Section 3.6.3 – Under sub-heading “Aircraft Noise Sensitive Development Management”, revise the “Aircraft Noise Sensitive Development Map” (pg 3-71) as follows:

Revise the map to repeal the designation of the “Business Office” lands, as identified in OCP Schedule 2 of Bylaw 7100, 2.11A West Cambie Area Plan, Section 8.2.1 of the Alexandra Neighbourhood Character Areas Map from: “Area 1A”
and insert:
“Area 2” designation.

3. This Bylaw may be cited as “**Richmond Official Community Plan Bylaw 7100 and 9000, Amendment Bylaw 9122**”.

FIRST READING

PUBLIC HEARING

SECOND READING

THIRD READING

ADOPTED

CITY OF RICHMOND
APPROVED by
APPROVED by Manager or Solicitor

MAYOR

CORPORATE OFFICER



City of
Richmond

100% EMPLOY (NOT RECOMMENDED)

Bylaw 9120

Richmond Official Community Plan Bylaw 7100

Amendment Bylaw 9120 (West Cambie Area Plan)

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

1. Richmond Official Community Plan Bylaw 7100 is amended by inserting the following text amendment to Schedule 2.11A, Section 8.2.1 – under sub-heading “Land Uses”, and after the bullet “Office commercial.”,
 - Bio-tech, research, and labs
 - Information technology (IT), media/software
 - Institutional (private and public) including medical facilities”
2. This Bylaw may be cited as “**Richmond Official Community Plan Bylaw 7100, Amendment Bylaw 9120**”.

FIRST READING

PUBLIC HEARING

SECOND READING

THIRD READING

ADOPTED

_____	CITY OF RICHMOND APPROVED by

_____	APPROVED by Manager or Solicitor

MAYOR

CORPORATE OFFICER



**Richmond Official Community Plan Bylaw 7100 and 9000
Amendment Bylaw 9121 (West Cambie Area Plan)**

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

1. Richmond Official Community Plan Bylaw 7100 is amended in Schedule 2.11A by the following:
 - a) Section 8.1.6 - under sub-heading “Lessening the Impact of Aircraft Noise”, delete the paragraph in the second bullet,
and insert:
 - “There shall be no new lots for single detached housing within the Alexandra Neighbourhood (as identified on the 2041 OCP Aircraft Noise Sensitive Development Map).”
 - b) Section 8.1.6 – under the sub-heading “Building Relationship with Streets” insert a bulleted paragraph as follows:
 - “The employment components of mixed use buildings should be oriented towards the arterial road network (Garden City Road and Cambie Road) to provide a consistent and complementary streetscape with future development on the west side of Garden City Road. Residential and ancillary uses should be inward oriented towards the collector roads (e.g. Dubbert Street).”
 - c) Section 8.2 – for the map titled “Alexandra Neighbourhood Character Areas Map” – in the Legend delete “Business Office”
and insert:
“Mixed Use Employment-Residential”.
 - d) Section 8.2.1 – for the map titled “Neighbourhood Character Area 1- Business Office Map” - insert labelling as follows:
 - The development block formed by Cambie Road to the north, Garden City Road to the west, the McKim Way alignment to the south and the Dubbert Street alignment to the east shall be labelled as “Block 1”.
 - The development block formed by the McKim Way alignment to the north, Garden City Road to the west, Odlin Road to the south and the Dubbert Street alignment to the east shall be labelled as “Block 2”.

- The development block formed by Odlin Road to the north, Garden City Road to the west, Alexandra Road to the south and the Dubbert Street alignment to the east shall be labelled as “Block 3”.
- e) Section 8.2.1 – Delete the title of this section,
“CHARACTER AREA 1- BUSINESS OFFICE”
and insert:
“CHARACTER AREA 1 – MIXED USE EMPLOYMENT-RESIDENTIAL”
- f) Section 8.2.1 – Delete the title of the map,
“Character Area 1- Business Office Map”
and insert:
“Character Area 1 – Mixed Use Employment-Residential Map”
- g) Section 8.2.1- Delete last sentence of paragraph 1,
“No residential uses are permitted in this area, due to the City’s OCP Aircraft Noise Sensitive Development Policy.”
and insert:
“Multi-family residential uses may be permitted, subject to the applicable provisions of this Area Plan, Section 8.1.6 Architectural Elements - Lessening the Impact of Aircraft Noise, and the 2041 OCP Aircraft Noise Sensitive Development Policy.”
- h) Section 8.2.1 – under sub-heading “Land Uses”, and after the bullet “Office commercial”, insert the following,
- “Bio-tech, research, and labs
 - Information technology (IT), media/software
 - Institutional (private and public) including medical facilities”
- i) Section 8.2.1 – under sub-heading “Land Uses” insert bullet:
- “**Multi-family housing** with accessory uses, amenities and community facilities. Residential and associated accessory uses shall be comprised of a maximum of 40% of the total floor area within Development Blocks 1, 2 and 3, as identified in the Character Area 1 – Mixed Use Employment-Residential Map”.
- j) Section 8.2.1 – under sub-heading “Floor Area Ratio” delete the bullet and insert:
- The total building area within each Development Block 1, 2 and 3, excluding underground parking, shall be no greater than a total of 1.25 FAR (excluding bonus density of 0.5 FAR for affordable housing).
 - The maximum FAR for residential use, based a minimum of 60% Employment space, shall be 0.5 Base FAR with up to 0.2 Bonus FAR if Affordable Housing is provided as built Affordable Housing units.
 - A minimum of 0.75 FAR of Employment Space shall be completed prior to developing residential space above the first 0.25 FAR
- k) Section 8.2.1 – After sub-heading “Site Coverage” insert new sub-heading and text:

“Phasing of Development

- All Rezoning, Development Permit and Building Permit applications shall ensure that a minimum of 60% employment floor area and maximum 40% residential floor area (and associated residential accessory uses) is maintained throughout each phase within the applicable Development Block.”
- l) Section 8.2.1 – In sub-heading “Height” insert after the first bullet:
- Minimum of two storeys (8m) and up to six storeys (25m) adjacent to the west boundary of each Development Block along Garden City Road.
- m) Section 8.2.1 – In sub-heading “Site Coverage”, delete bullet and insert:
- Depends on uses and configuration.
- n) Section 8.2.1 – In sub-heading “Additional Building Design Considerations” insert bullet:
- “Stand alone, single-use buildings and/or mixed-use buildings may be considered, provided that they form part of a comprehensive plan for each Development Block, 1, 2 and 3.”
- o) Section 8.2.3 - **Character Area 3 - The High Street Map** - in the “Legend” delete: “Business Office”
and insert:
“Mixed Use Employment-Residential”
- p) Section 9.3 – **Alexandra Neighbourhood Land Use Map** – in the “Legend” delete: “Business/Office - office over retail FAR up to 1.25”
and insert:
“Mixed Use Employment-Residential (Maximum 40% Residential) – base FAR of 1.25 (Max. 1.75 FAR with density bonus for built affordable housing)”.
- q) Section 9.3.2 – **Alexandra Development Framework** – in **Objective 3, Policies** and after “**Developer Contributions – Public Amenities**”,
insert new sub-heading and paragraph after paragraph g);
“**Affordable Housing in the Mixed Use Employment-Residential Area**”
- h) At least 5% of the total residential building area (a minimum of 4 units) is required in the form of built affordable housing units. Cash-in-lieu contributions are not acceptable and the 2006 *West Cambie - Alexandra Interim Amenity Guidelines* as they relate to affordable housing contributions will not apply”.
2. Richmond Official Community Plan Schedule 1 of Bylaw 9000 is amended as follows:
- a) *Attachment 1* – revise the “City of Richmond 2041 OCP Land Use Map” for the designated lands, changing the Land Use and the light blue shading from: “Mixed Employment” to: “Mixed Use” with the corresponding orange shading.

- b) Section 3.6.3 – Under sub-heading “Aircraft Noise Sensitive Development Management”, revise the “Aircraft Noise Sensitive Development Map” (pg 3-71) as follows:
- Revise the map to repeal the designation of the “Business Office” lands, as identified in OCP Schedule 2 of Bylaw 7100, 2.11A West Cambie Area Plan, Section 8.2.1 of the Alexandra Neighbourhood Character Areas Map from: “Area 1A”
and insert:
“Area 2” designation.
3. This Bylaw may be cited as “**Richmond Official Community Plan Bylaw 7100 and 9000, Amendment Bylaw 9121**”.

FIRST READING

PUBLIC HEARING

SECOND READING

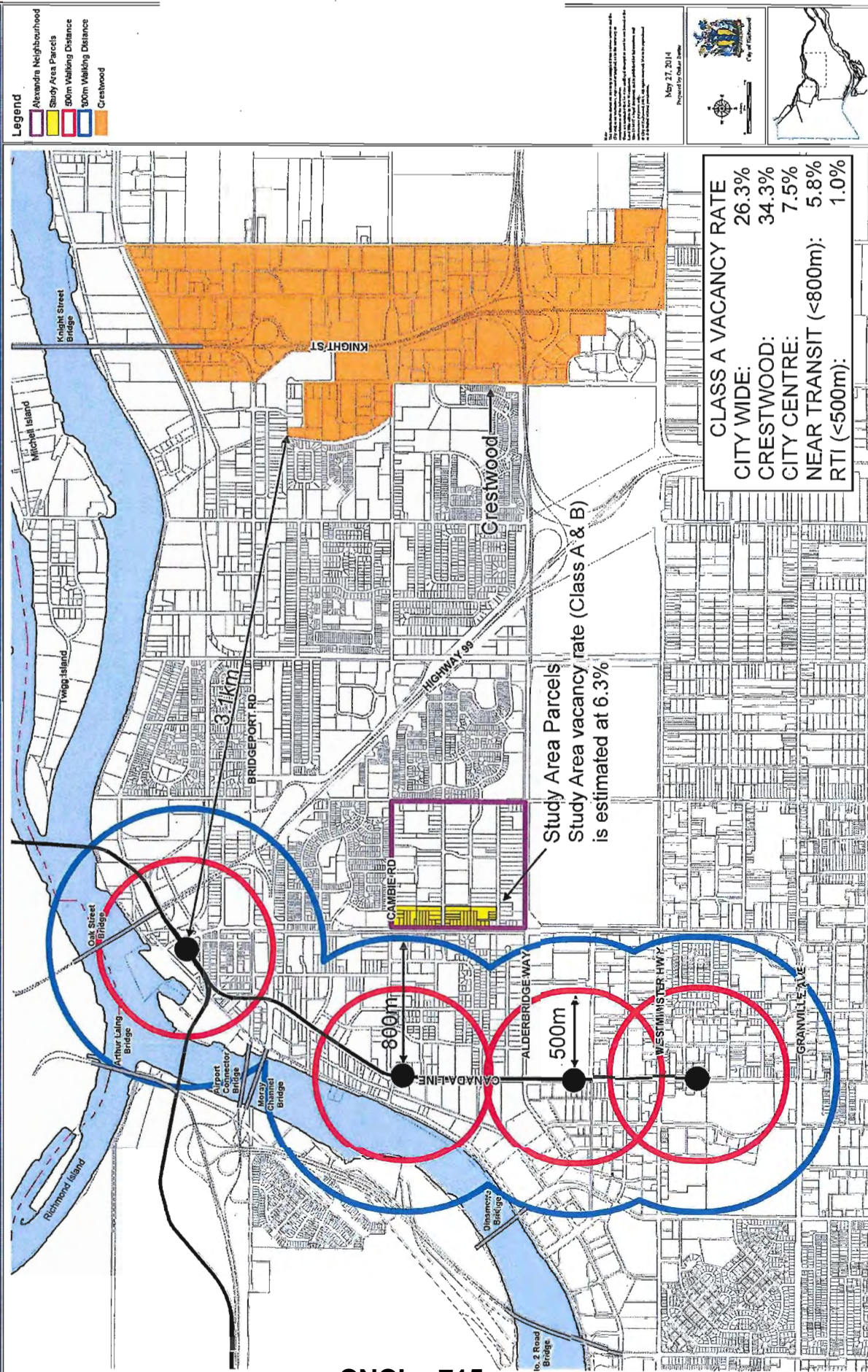
THIRD READING

ADOPTED



MAYOR

CORPORATE OFFICER



CityClerk

From: CityClerk
Subject: RE: Re:

From: Bonnie Rae [<mailto:bonnierheaume1@gmail.com>]
Sent: Tuesday, 15 July 2014 22:37
To: CityClerk
Subject: Re:

Hi my name is Bonnie Morley and I am writing to you because I would like to be put on the agenda for the next city council meeting. I would like to discuss the removal of the Dover Park fenced dog area. I and many other supporters of the park would like the opportunity to share the merits of the park and ask the city to reconsider its position on the matter. We feel that we were never given a forum to defend the negative reviews as well as show our support. Please let me know if we can be put on the agenda. I am not sure if it is the 21 or the 28th. I look forward to hearing from you. Sincerely Bonnie Morley

CityClerk

From: Rye Brook [missming99@gmail.com]
Sent: Tuesday, 22 July 2014 14:43
To: CityClerk
Subject: dover dog park

Categories: 11-7200-20-DPAR1-02 - Dogs in Parks - Dogs Off Leash

to whom it may concern,

May I please be put on the agenda for the July 28,2014 meeting to speak on behalf of the dover dog park and solutions.

thank you,
Audra Harajda
604 805 8044

CityClerk

From: Emily Baptiste [shiva96@shaw.ca]
Sent: Tuesday, 22 July 2014 16:33
To: CityClerk
Subject: Speaker on Agenda July 28, 2014

Importance: High

Categories: 11-7200-20-DPAR1-02 - Dogs in Parks - Dogs Off Leash

Hello,

My name is Emily Baptiste and my address is #407-5900 Dover Crescent, Richmond, BC V7C5R4 and I would like to be listed on the Agenda for July 28, 2014 to speak on behalf of the Dover Dog Park and solutions. Thank you.

Emily

CityClerk

From: Connie Ho [connie1102@hotmail.com]
Sent: Tuesday, 22 July 2014 16:53
To: CityClerk
Subject: Ask to be put one the agenda for July 28, 2015
Categories: 11-7200-20-DPAR1-02 - Dogs in Parks - Dogs Off Leash

May I please ask to be put on the Agenda for the July 28, 2014 meeting to speak on behalf of the Dover Dog Park and solutions.

Thank you and have a nice day!
Connie☐

CityClerk

From: Sylvia C [sylviachiu92@gmail.com]
Sent: Wednesday, 23 July 2014 00:26
To: CityClerk
Subject: Dover dog park appeal

Categories: 11-7200-20-DPAR1-02 - Dogs in Parks - Dogs Off Leash

To whom it may concern,

I would like to speak in the city hall meeting on July 28th. However, I will only be able to make it at around 815 as I have work until that time. Thank you for your time.

--

Sylvia Chiu
BA Candidate | Faculty of Arts & Social Sciences | Simon Fraser University
p: 778-899-3312 | e: sylviachiu92@gmail.com

CityClerk

From: Paris Rosa [kiwiparis@gmail.com]
Sent: Wednesday, 23 July 2014 16:50
To: CityClerk

Categories: 01-0105-01 - Council - General

May I please ask to be put on the Agenda for the July 28, 2014 meeting to speak on behalf of the Dover Dog Park and solutions.

-Paris Rosa



**Alexandra District Energy Utility Bylaw No. 8641
Amendment Bylaw No. 9160**

The Council of the City of Richmond enacts as follows:

1. The **Alexandra District Energy Utility Bylaw No. 8641**, as amended, is further amended:

- (a) by amending the definition of Designated Building in Section 1.2(j) such that Section 1.2(j) now reads as follows:

“Designated Property” means the Site(s) and/or building(s) to which this Bylaw applies pursuant to Section 3 of this Bylaw;

- (b) by re-numbering the previous Section 1.2(bb) as Section 1.2(cc) and adding a new definition in Section 1.2(bb) as follows:

1.1(bb) “Site” means a parcel of real property upon which one or more buildings are constructed or are to be constructed;

- (c) by deleting the existing Section 3.1 and replacing it with a new Section 3.1 to read as follows:

3.1 Mandatory Use of DEU

Subject to the Service Provider providing Services pursuant to this Bylaw, and subject to Section 3.3 of this Bylaw, each Owner of a Site or new building or buildings proposed for construction or under construction within the Service Area after the date of enactment of this Bylaw, for which the City's Building Regulation Bylaw requires submission of a building permit application or issuance of final inspection notice permitting occupancy, to any one of which the Owner, as at the date of enactment of this Bylaw, is not yet entitled, will connect such buildings to and utilise the DEU for internal space heating and cooling and domestic hot water in accordance with the terms and conditions of this Bylaw.

- (d) by adding a new Section 3.3 after Section 3.2 as follows:

3.3 *Exemption from Mandatory Use of DEU for all buildings on Site*

Each Owner of a Site proposed for construction or under construction within the Service Area upon which more than one building is to be constructed, may apply to the City Engineer for an exemption from Section 3.1 of this Bylaw for one or more buildings on the Site, and the City Engineer may approve the application if the Owner provides to the City Engineer such energy modelling reports and other reports as required by the City Engineer, demonstrating that the other buildings on the Site will, collectively, utilize the DEU for not less than 70% of the collective annual space heating and cooling and domestic hot water requirements of all the buildings on the Site, in which case the Owner must connect all non-exempt buildings on the Site to and utilize the DEU in accordance with the terms and conditions of this Bylaw.

- (e) by deleting Schedule A (Service Area) in its entirety and replacing with a new Schedule A as attached as Schedule A to this Amendment Bylaw.
- (f) by inserting a new third row into the table in Schedule B Fees of the Bylaw as follows:

3.3	<i>Application for exemption of some buildings on a Site from use of energy utility system</i>	<i>By estimate</i>
-----	--	--------------------

- (g) by adding the words “PART 1” before the sub-heading “RATES FOR SERVICES” in Schedule C Rates and Charges such that the first sub-heading in Schedule C now reads as follows:

PART 1 - RATES FOR SERVICES

- (h) by adding the words “excluding shaded Area A as shown in Schedule A to this Bylaw” after the words “The following charges, as amended from time to time, will constitute the Rates for Services” such that the first sentence in Part 1 of Schedule C now reads as follows:

The following charges will constitute the Rates for Services for the Service Area excluding shaded Area A as shown in Schedule A to this Bylaw:

- (i) by adding a new sub-heading to Schedule C Rates and Charges as follows:

PART 2 - RATES FOR SERVICES APPLICABLE TO AREA A

The following charges will constitute the Rates for Services applicable only to the Designated Properties identified within the shaded area (Area A) shown in Schedule A to this bylaw:

- (a) Capacity charge -- a monthly charge of \$0.0435 per square foot of gross floor area; and*
- (b) Volumetric charge -- a charge of \$0.00 per megawatt hour of Energy returned from the Heat Exchangers and Meter Sets at the Designated Property.*
- (j) by re-numbering all subsequent and other Parts and Sections as necessary so that they maintain sequential numerical order.
- 2. This Bylaw will come into force and take effect on the date of adoption shown below.
- 3. This Bylaw is cited as "**Alexandra District Energy Utility Bylaw No. 8641, Amendment Bylaw No. 9160**".

FIRST READING

JUL 14 2014

SECOND READING

JUL 14 2014

THIRD READING

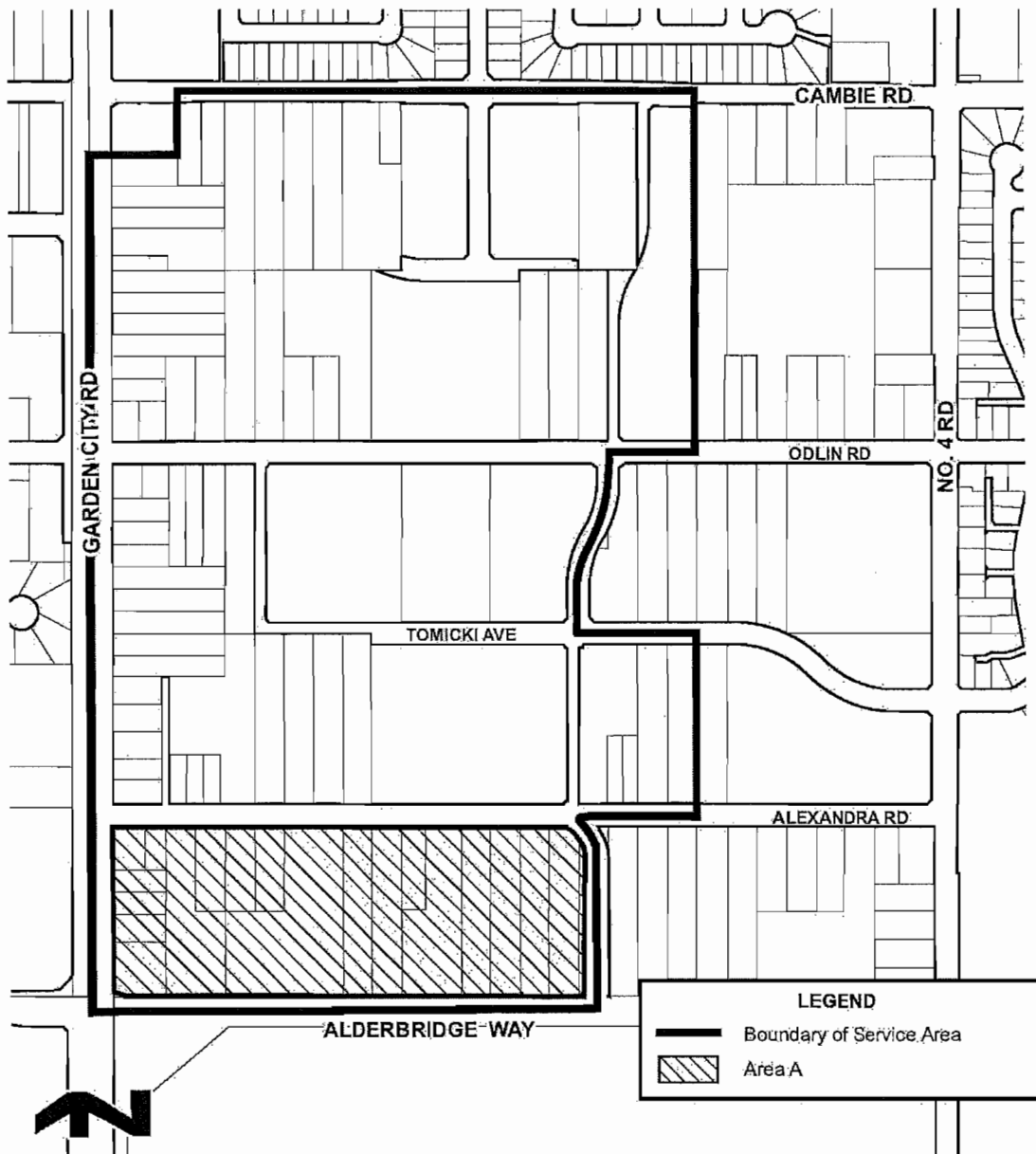
JUL 14 2014

ADOPTED

MAYOR_____
CORPORATE OFFICER

City of Richmond
APPROVED for content by originating dept.
Legal Advice External
DATE OF COUNCIL APPROVED (if applicable)

Schedule A





**Richmond Official Community Plan Bylaw 7100
Amendment Bylaw 8865 (RZ 10-528877)**

**4660, 4680, 4700, 4720, 4740 Garden City Road and 9040, 9060, 9080,
9180, 9200, 9260, 9280, 9320, 9340, 9360, 9400, 9420, 9440, 9480, 9500
Alexandra Road**

The Council of the City of Richmond enacts as follows:

1. That Richmond Official Community Plan Bylaw 7100 is amended by repealing the area bounded by Alderbridge Road, Garden City Road, Alexandra Road and the proposed May Drive Extension on the existing Alexandra Neighbourhood Land Use Map in the Richmond Official Plan Bylaw 7100, Schedule 2.11A - West Cambie Area Plan and replacing it with the attached Schedule A to Amendment Bylaw 8865, in order to:
 - a) reduce the minimum density permitted from 1.25 to 0.60 FAR in the Mixed Use Area A on 4660, 4680, 4700, 4720, 4740 Garden City Road and 9040, 9060, 9080, 9180, 9200, 9260, 9280, 9320 Alexandra Road;
 - b) adjust the alignment of May Drive within the development lands over portions of 9440, 9480 and 9500 Alexandra Road; and
 - c) reduce the "Park" designation over portions of 9440, 9480 and 9500 Alexandra Road, be introduced and given first reading.
2. This Bylaw is cited as **"Richmond Official Community Plan Bylaw 7100, Amendment Bylaw 8865"**.

FIRST READING

A PUBLIC HEARING WAS HELD ON

SECOND READING

THIRD READING

OTHER REQUIREMENTS SATISFIED

ADOPTED

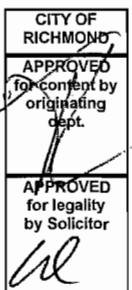
OCT 15 2013

NOV 18 2013

NOV 18 2013

NOV 18 2013

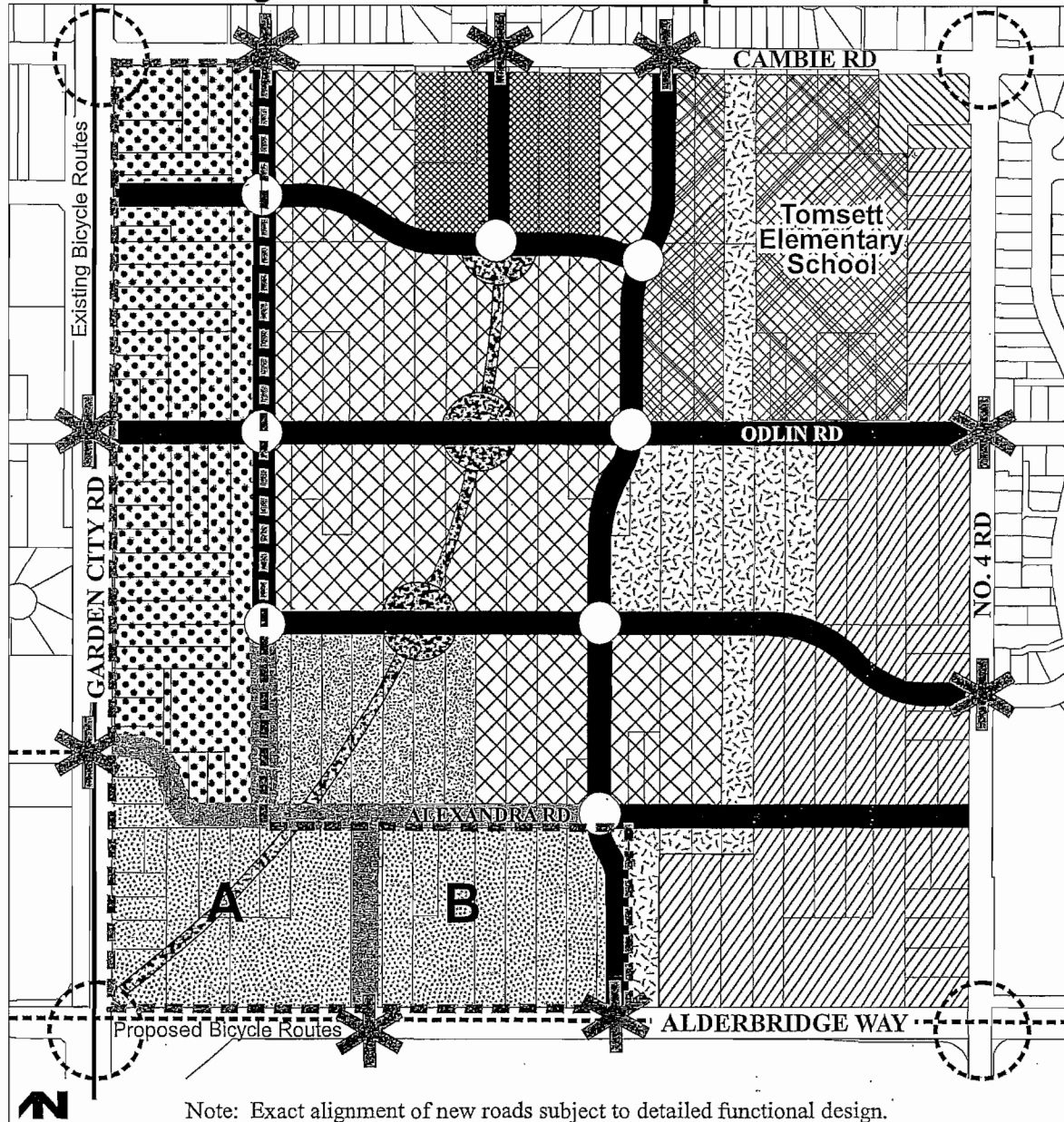
JUL 22 2014



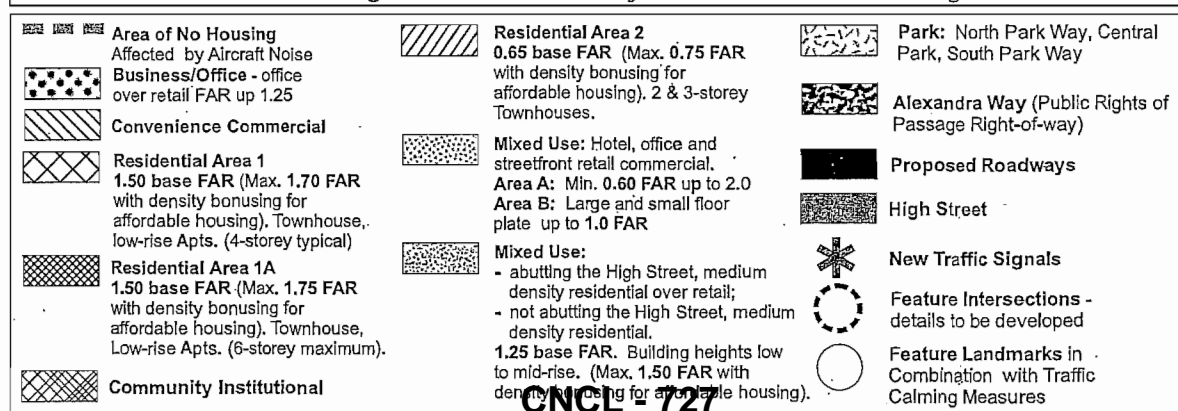
MAYOR

CORPORATE OFFICER

Alexandra Neighbourhood Land Use Map



Note: Exact alignment of new roads subject to detailed functional design.



CNCL - 727



**Richmond Zoning Bylaw 8500
Amendment Bylaw No. 8864 (RZ 10-528877)
4660, 4680, 4700, 4720, 4740 Garden City Road and 9040, 9060, 9080,
9180, 9200, 9260, 9280, 9320, 9340, 9360, 9400, 9420, 9440, 9480, 9500
Alexandra Road**

The Council of the City of Richmond enacts as follows:

1. Richmond Zoning Bylaw 8500, as amended, is further amended by inserting Section 32.0 thereof the following:

“32.0 Neighbourhood Commercial (ZC32) – West Cambie Area

32.1 Purpose

The **zone** provides for a mix of commercial and related **uses** oriented to vehicular access.

32.2 Permitted Uses

- amusement centre
- animal grooming
- building or garden supply
- broadcasting studio
- child care
- education, commercial
- education, university
- entertainment, spectator
- government service
- greenhouse & plant nursery
- health service, minor
- manufacturing, custom indoor
- office
- parking, non-accessory
- recreation, indoor
- recycling depot
- restaurant
- retail, convenience
- retail, general
- retail, second hand
- service, business support
- service, financial
- service, household repair
- service, personal
- studio

32.3 Secondary Uses

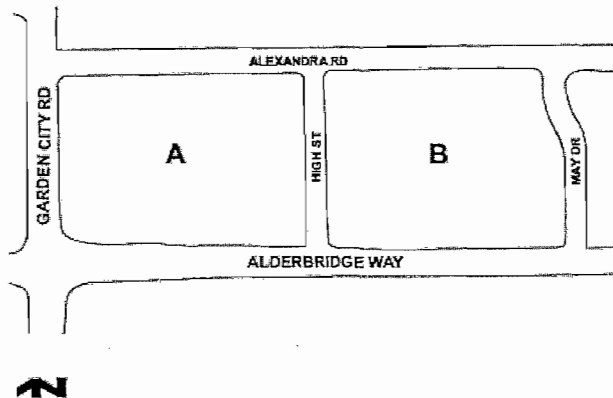
- amenity space, community

32.2 Permitted Uses

- **veterinary service**
- **vehicle repair**

32.3 Secondary Uses

Diagram 1



32.4 Permitted Density

1. The maximum **floor area ratio** is 2.0 FAR for the area identified as "A" in Diagram 1, Section 32.2.
2. The minimum **floor area ratio** is 0.60 for the area identified as "A" in Diagram 1, Section 32.2.
3. The maximum **floor area ratio** is 1.0 FAR for the area identified as "B" in Diagram 1, Section 32.2.

32.5 Permitted Lot Coverage

1. The maximum **lot coverage** is 60% for **buildings**.

32.6 Yards & Setbacks

1. The minimum **setbacks** to a public **road** shall be:
 - a. 2.0 m for Alderbridge Way;
 - b. 3.0 m for Garden City Road;
 - c. 1.0 m for Alexandra Road;
 - d. 5.0 m for May Drive; and
 - e. 3.0 m for High Street.

32.7 Permitted Heights

1. The maximum **height** for all **buildings** is 22.0 m.
2. The maximum **height** for **accessory structures** is 12.0 m.

32.8 Subdivision Provisions/Minimum Lot Size

1. The minimum **lot area** is 2 ha (4.94 ac.).

32.9 Landscaping & Screening

1. **Landscaping** and **screening** shall be provided according to the provisions of Section 6.0.

32.10 On-Site Parking and Loading

1. On-site **vehicle** loading and bicycle parking and loading shall be provided according to the standards set out in Section 7.0, except that:
 - a. On-site **vehicle** parking shall be provided at a minimum rate of 3.0 parking stalls per 100 m² of **gross leasable floor area** of a building in the areas identified as "A" and "B" separately, in Diagram 1, Section 32.2.

32.11 Other Regulations

1. The maximum **gross leasable floor area** for each individual **business** shall not exceed:
 - a. 9,900 m² for the area identified as "A" in Diagram 1, Section 32.2; and
 - b. 15,100 m² for the area identified as "B" in Diagram 1, Section 32.2.
 2. **Telecommunication antenna** must be located a minimum of 20.0 m above the ground (i.e. on a roof of a building).
 3. The overnight parking of **recreational vehicles** is prohibited.
 4. In addition to the regulations listed above, the General Development Regulations in Section 4.0 and the Specific Use Regulations in Section 5.0 apply.
2. 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 and by designating it "**Neighbourhood Commercial (ZC32) - West Cambie Area**":
- That area shown as Area 'A' on "Schedule A attached to and forming Part of Bylaw 8864"
3. 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 and by designating it "**School & Institutional (SI)**":
- That area shown as Area 'B' on "Schedule A attached to and forming Part of Bylaw 8864"

4. This Bylaw is cited as “**Richmond Zoning Bylaw 8500 Amendment Bylaw 8864**”.

FIRST READING

OCT 15 2013

A PUBLIC HEARING WAS HELD ON

NOV 18 2013

SECOND READING

NOV 18 2013

THIRD READING

NOV 18 2013

OTHER REQUIREMENTS SATISFIED

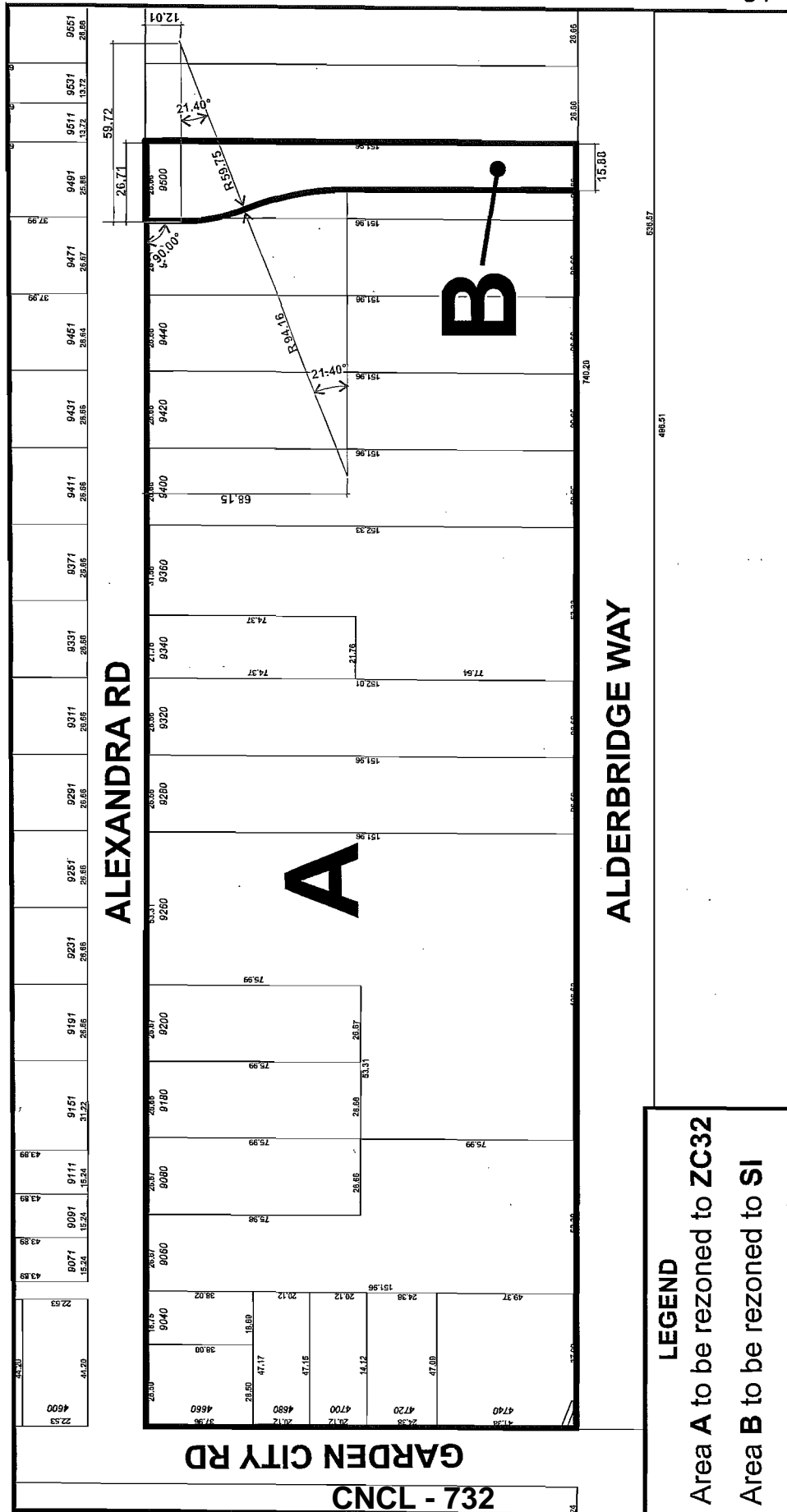
JUL 22 2014

ADOPTED

MAYOR

CORPORATE OFFICER

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



Note: Dimensions are in METRES

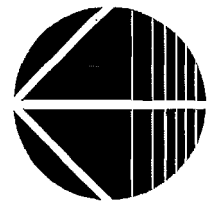
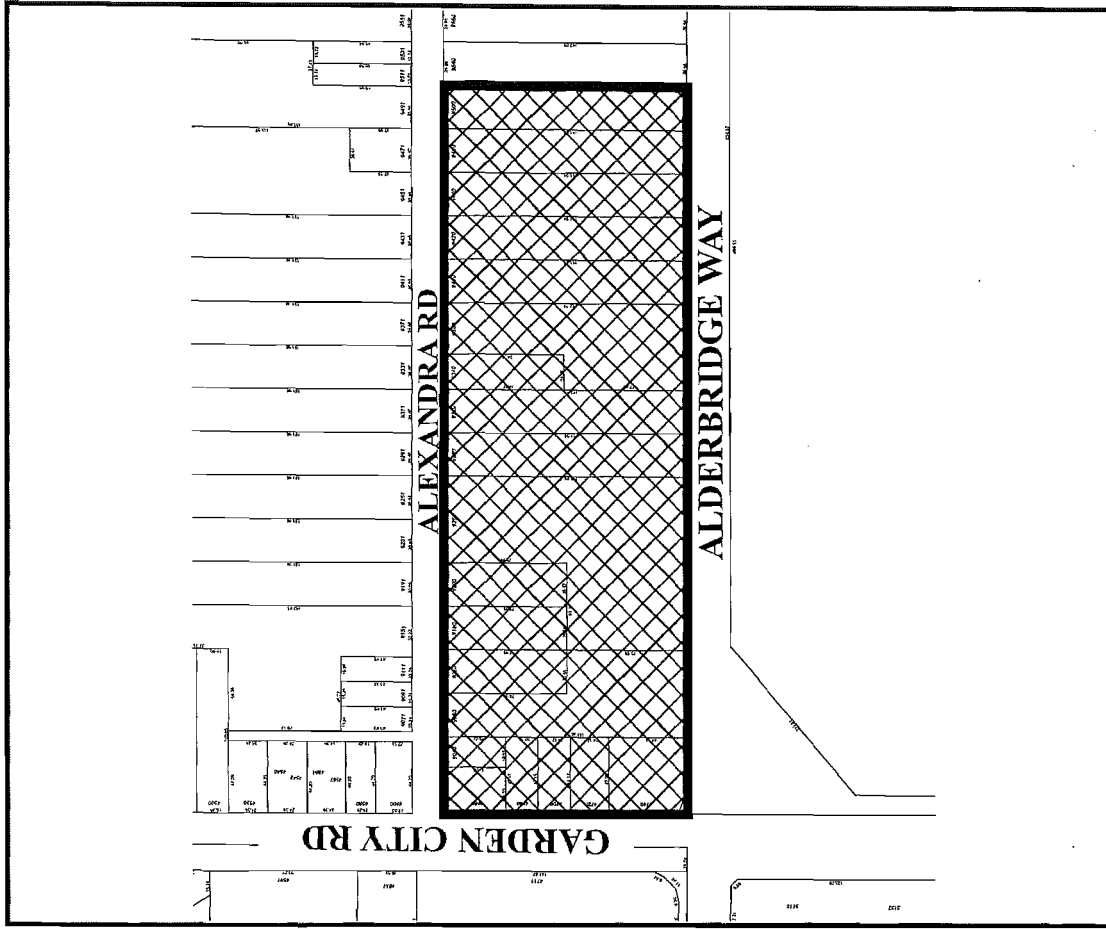
RZ 10-528877



City of Richmond



CNCL - 733



RZ 10-528877

Original Date: 05/10/10
Revision Date: 10/30/13
Note: Dimensions are in METRES



**Richmond Official Community Plan Bylaw 9000
Amendment Bylaw 8973 (10-528877)
9440, 9480 and 9500 Alexandra Road**

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

1. Richmond Official Community Plan Bylaw 9000 is amended by repealing the existing **"Environmentally Sensitive Area (ESA)"** designation in Attachment 2 to Schedule 1 from 9440, 9480 and 9500 Alexandra Road with the following legal addresses:

P.I.D. 012-032-581

West Half Lot 8 Block "C" Section 34 Block 5 North Range 6 West New Westminster
District Plan 1224

P.I.D. 001-084-372

East Half of Lot 8 Block "C" Section 34 Block 5 North Range 6 West New Westminster
District Plan 1224

P.I.D. 008-130-990

West Half Lot 9 Block "C" Section 34 Block 5 North Range 6 West New Westminster
District Plan 1224

2. This Bylaw may be cited as **"Richmond Official Community Plan Bylaw 9000, Amendment Bylaw 8973"**.

FIRST READING

OCT 15 2013

PUBLIC HEARING

NOV 18 2013

SECOND READING

NOV 18 2013

THIRD READING

NOV 18 2013

OTHER REQUIREMENTS SATISFIED

JUL 22 2014

ADOPTED



MAYOR

CORPORATE OFFICER



**Richmond Zoning Bylaw 8500
Amendment Bylaw 8890 (RZ 11-586782)
6471, 6491, AND 6511 NO. 2 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. 003-301-222

Lot 775 Except: Part Subdivided by Plan 65414 Section 12 Block 4 North Range 7 West New Westminster District Plan 63264

P.I.D. 004-248-287

North half of the south 133.5 feet Lot 5 Except: Part Subdivided by Plan 65414 Section 12 Block 4 North Range 7 West New Westminster District Plan 1506

P.I.D. 002-684-535

South half of the south 133.5 feet Lot 5 Except: Firstly: Part Subdivided by Plan 63005 and Secondly: Part Subdivided by Plan 70767; Section 12 Block 4 North Range 7 West New Westminster District Plan 1506

2. This Bylaw may be cited as "**Richmond Zoning Bylaw 8500, Amendment Bylaw 8890**".

FIRST READING

APR 23 2012

A PUBLIC HEARING WAS HELD ON

JUN 18 2012

SECOND READING

JUN 18 2012

THIRD READING

JUN 18 2012

DEVELOPMENT REQUIREMENTS SATISFIED

JUL 18 2014

ADOPTED



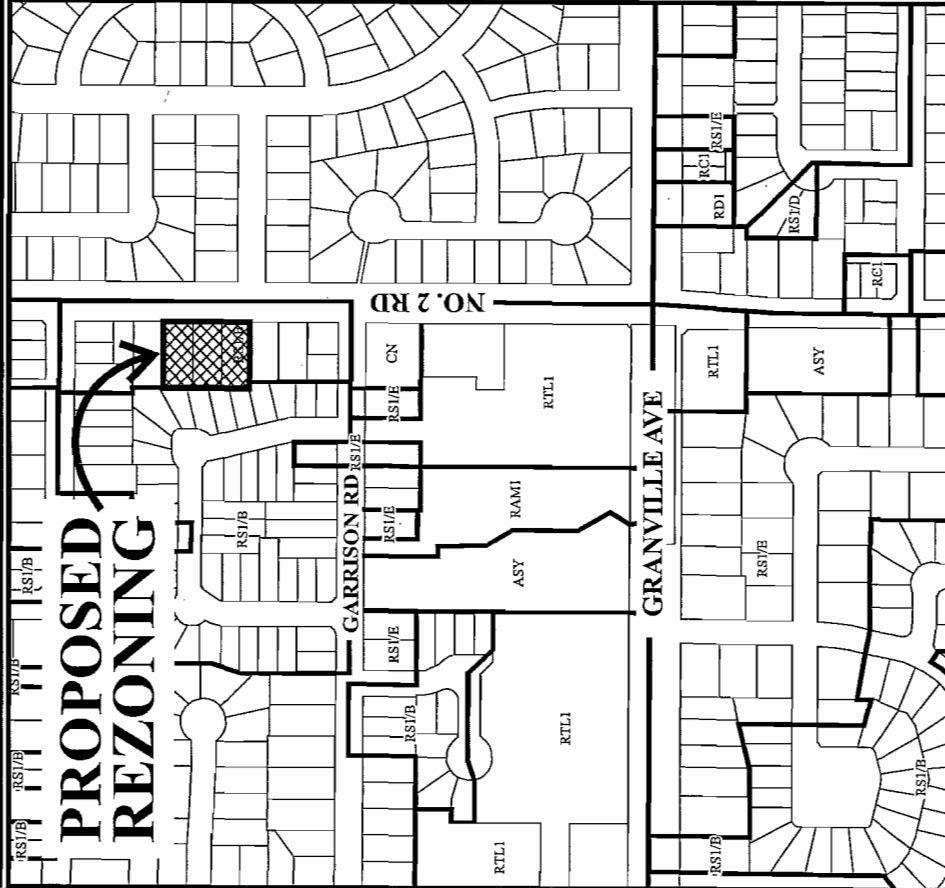
MAYOR

CORPORATE OFFICER

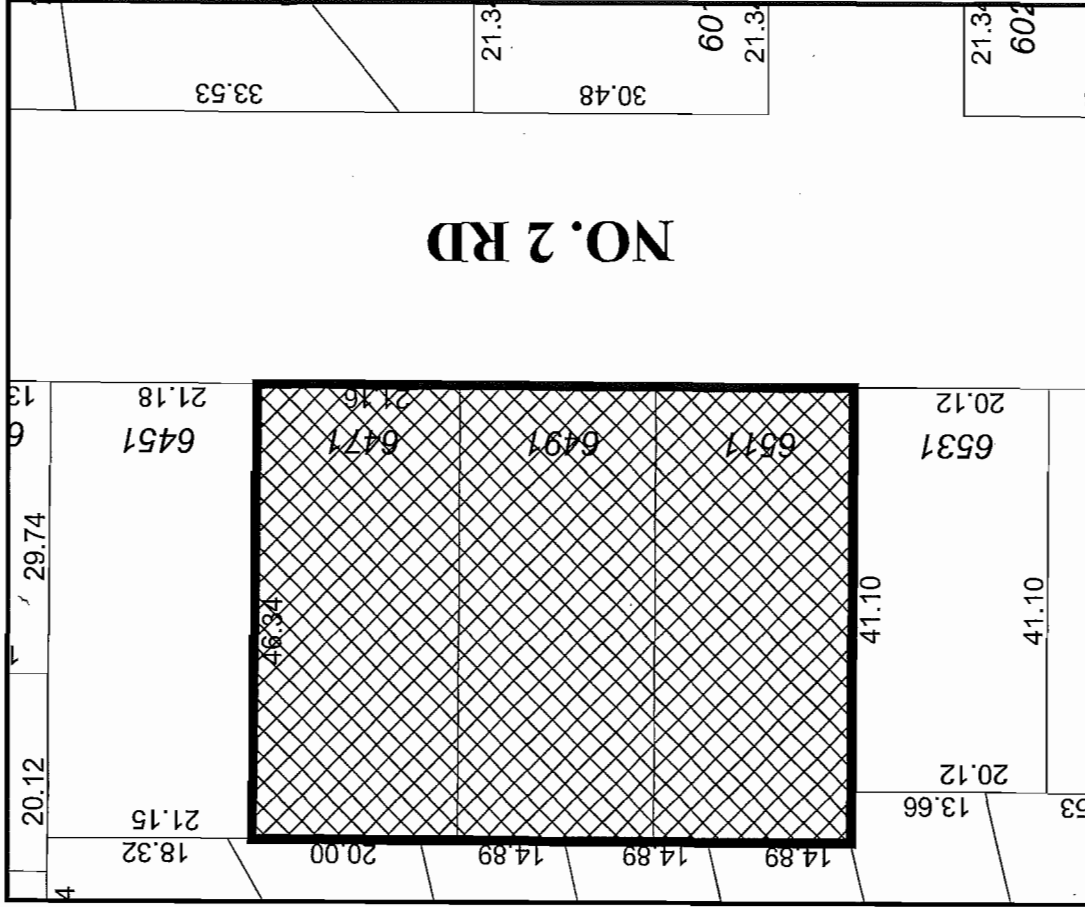


City of Richmond

PROPOSED REZONING



CNCL - 736



RZ 11-586782

Original Date: 08/17/11
Revision Date: 05/15/12
Note: Dimensions are in METRES



**Richmond Zoning Bylaw 8500
Amendment Bylaw 8972 (RZ 11-586280)
9431, 9451, 9471 and 9491 Williams 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 **MEDIUM DENSITY TOWNHOUSES (RTM2)**.

P.I.D. 004-874-587

Lot 11 Block "G" Section 27 Block 4 North Range 6 West New Westminster District Plan 18110

P.I.D. 004-305-817

Lot 12 Block "G" Section 27 Block 4 North Range 6 West New Westminster District Plan 18110

P.I.D. 008-835-241

Lot 13 Block "G" Section 27 Block 4 North Range 6 West New Westminster District Plan 18110

P.I.D. 004-295-056

Lot 14 Block "G" Section 27 Block 4 North Range 6 West New Westminster District Plan 18110

2. This Bylaw may be cited as "**Richmond Zoning Bylaw 8500, Amendment Bylaw 8972**".

FIRST READING

DEC 10 2012

A PUBLIC HEARING WAS HELD ON

JAN 21 2013

SECOND READING

JAN 21 2013

THIRD READING

JAN 21 2013

OTHER REQUIREMENTS SATISFIED

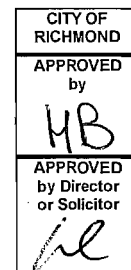
JUL 22 2014

ADOPTED

MAYOR

CNCL - 737

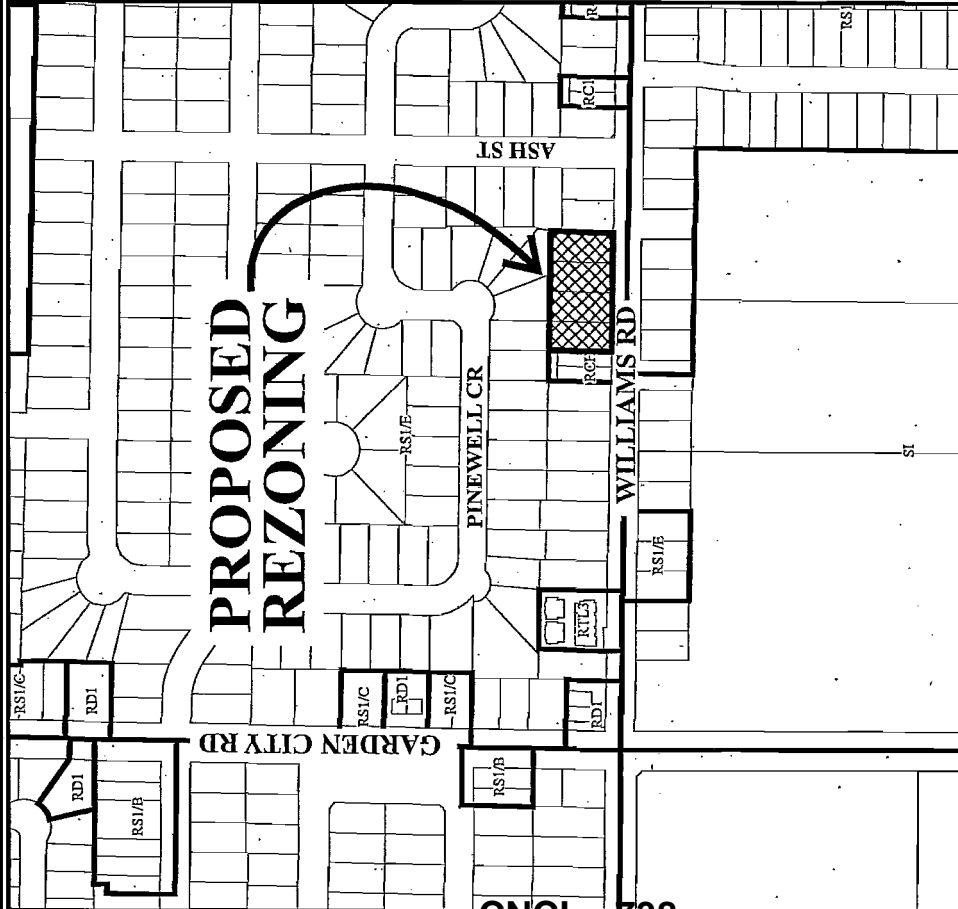
CORPORATE OFFICER



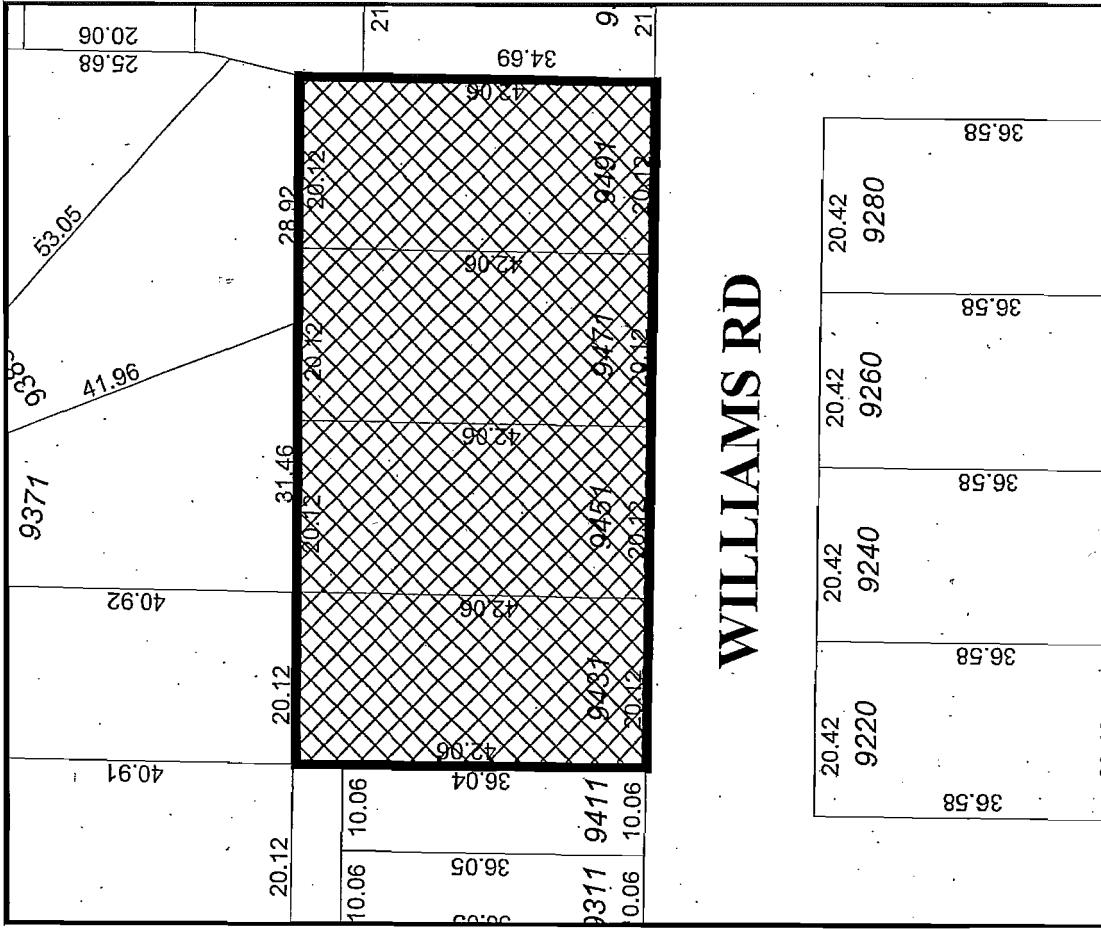


City of Richmond

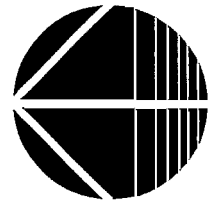
PROPOSED REZONING



638 - 177 CNCL



WILLIAMS RD



RZ 11-586280

Original Date: 08/08/11

Revision Date:

Note: Dimensions are in METRES



**Richmond Zoning Bylaw 8500
Amendment Bylaw 9112 (ZT 14-656053)
10820 No. 5 Road**

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

1. Richmond Zoning Bylaw 8500 is amended by repealing section 20.18.4.2. a) – Permitted Density in the “Commercial Mixed Use (ZMU18) - The Gardens (Shellmont)” zone and replacing it with the following:

“20.18.4.2. a) provides on the **site** not less than four **affordable housing units** having the combined **habitable space** of at least 5% of the total **floor area ratio** used for residential **use** but specifically excludes PID 028-631-561, Lot C, Section 31, Block 4 North, Range 5 West, New Westminster District Plan EPP12978 (“Lot C”) from this requirement provided that the owner has entered into a **Market Rental Housing Agreement** for 144 secured market rental **dwelling units** with the City and registered the **Market Rental Housing Agreement** against the title to Lot C and filed a notice of the same in the Land Title Office; and”

2. Richmond Zoning Bylaw 8500 is amended by inserting the following text after Section 20.18.11.9. in the “Commercial Mixed Use (ZMU18) - The Gardens (Shellmont)” zone:

“20.18.11.10 For the purpose of this **zone** only, **Market Rental Housing Agreement** means an agreement in a form satisfactory to the City that restricts the occupancy of the **dwelling unit** to rental tenure.”

“20.18.11.11 For the purpose of this **zone** only, **Market Rent** means the amount of rent that a willing tenant would pay to a willing landlord for the rental of a comparable unit with comparable amenities in a comparable location for a comparable period of time.”

3. This Bylaw may be cited as “Richmond Zoning Bylaw 8500, Amendment Bylaw 9112”.

FIRST READING

MAR 24 2014

PUBLIC HEARING

APR 22 2014

SECOND READING

APR 22 2014

THIRD READING

APR 22 2014

OTHER CONDITIONS SATISFIED

JUL 21 2014

ADOPTED



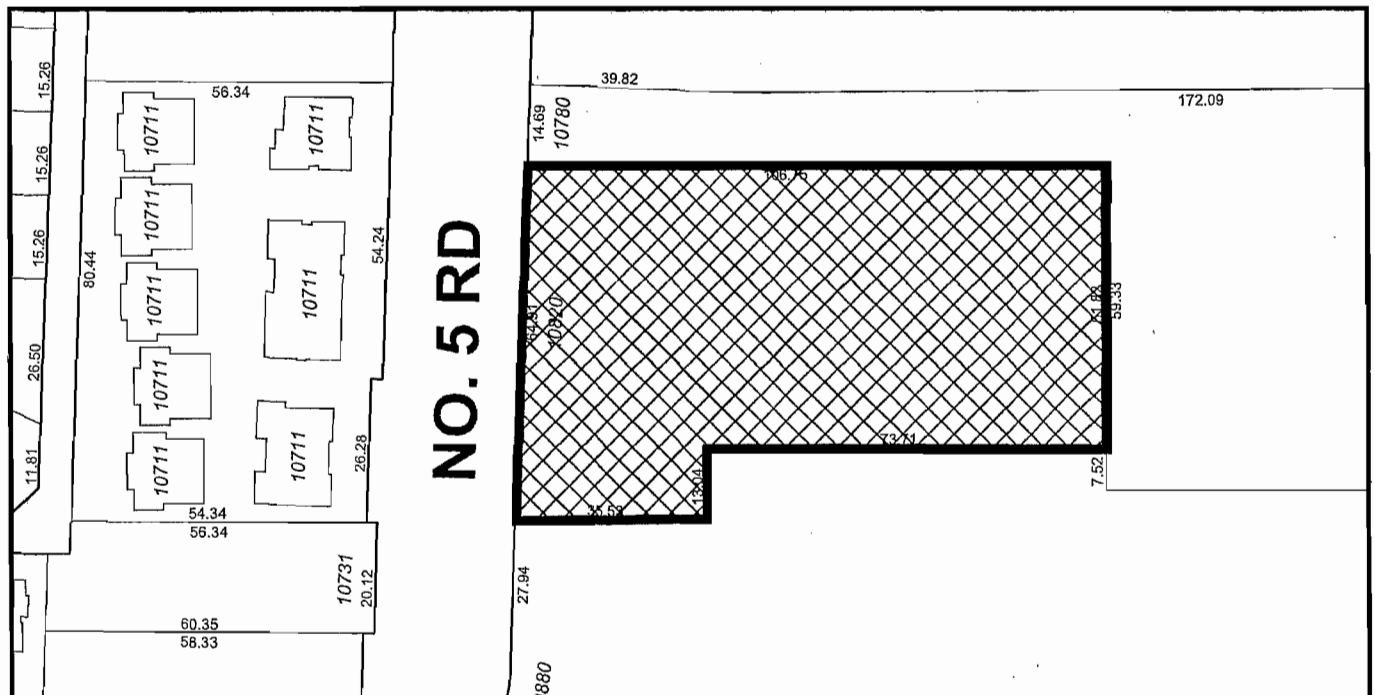
MAYOR

CNCL - 739

CORPORATE OFFICER



City of Richmond



ZT 14-656053
CNCL - 740

Original Date: 03/04/14

Revision Date:

Note: Dimensions are in METRES



**Development Permit Panel
Wednesday, June 25, 2014**

Time: 3:30 p.m.

Place: Council Chambers
Richmond City Hall

Present: Joe Erceg, Chair
Robert Gonzalez, General Manager, Engineering and Public Works
Dave Semple, General Manager, Community Services

The meeting was called to order at 3:30 p.m.

1. Minutes

It was moved and seconded

That the minutes of the meeting of the Development Permit Panel held on Wednesday, June 11, 2014, be adopted.

CARRIED

2. Development Permit 13-650988

(File Ref. No.: DP 13-650988) (REDMS No. 4144693)

APPLICANT: First Richmond North Shopping Centres Ltd., (SmartCentres)

PROPERTY LOCATION: 4660, 4680, 4700, 4720, 4740 Garden City Road and 9040, 9060, 9080, 9180, 9200, 9260, 9280, 9320, 9340, 9360, 9400, 9420, 9440, 9480, 9500 Alexandra Road

INTENT OF PERMIT:

1. To permit the construction of a neighbourhood commercial centre at 4660, 4680, 4700, 4720, 4740 Garden City Road and 9040, 9060, 9080, 9180, 9200, 9260, 9280, 9320, 9340, 9360, 9400, 9420, 9440, 9480, 9500 Alexandra Road on a site zoned "Neighbourhood Commercial (ZC32) – West Cambie Area"; and
2. To vary the provisions of Richmond Zoning Bylaw 8500 to reduce the building setback for Building N on May Drive from 5.0 m to 1.5 m.

Development Permit Panel

Wednesday, June 25, 2014

Applicant's Comments

With the aid of a visual presentation, (attached to and forming part of these minutes as **Schedule 1**) Christopher Block, Architect, Chandler Associates Architecture Inc., and Mary Chan Yip, Landscape Architect, PMG Landscape Architects, gave a brief overview of the revisions made on the proposed development with respect to (i) urban design; (ii) architectural form and character; and (iii) landscaping and open space design.

Mr. Block spoke of the proposed design enhancements on buildings A, B and L. He commented on the added glazing, improved lighting elements and the upgraded materials that will be incorporated into the design.

Mr. Block then commented on the loading bay and noted of the proposed design enhancements such as increasing the screening wall height and trellis sizing to deflect noise and provide visual screening.

Discussion ensued with regard to the location of the District Energy Utility (DEU) infrastructure to be located on-site. Mr. Block noted that possible locations for the DEU structure could include the edge of the green deck, the roof of building B, or the roof of building C.

Discussion ensued regarding the elevation of the proposed development in relation to other developments in the area.

In reply to queries from the Panel, Mr. Block advised that the location of the DEU structure will be finalized in later stages of the design process.

Discussion ensued about the preferred location for the DEU structure within the proposed development.

Ms. Yip commented on the features of the proposed green deck above the surface parking area. She noted that the proposed green deck will replicate features of a shoreline and will incorporate elements such as logs and boulders. Also, she spoke of incorporating native plant species onto the green deck. She added that thorny plants will be planted along the perimeter of the green deck as a safety feature to encourage children to stay away from the edges.

Ms. Yip then commented on the different native species of plants incorporated in the proposed development and the further refinement of the proposed planting list since the last meeting.

Staff Comments

Wayne Craig, Director, Development, spoke of the potential sites for the DEU structure and noted that a general compliance may be needed in the future, pending on the proposed location and design.

Correspondence

None.

Development Permit Panel
Wednesday, June 25, 2014

Gallery Comments

None.

Panel Discussion

Panel expressed their appreciation for the revisions made on the proposed development.

Panel Decision

It was moved and seconded

That a Development Permit be issued which would:

1. *Permit the construction of a neighbourhood commercial centre at 4660, 4680, 4700, 4720, 4740 Garden City Road and 9040, 9060, 9080, 9180, 9200, 9260, 9280, 9320, 9340, 9360, 9400, 9420, 9440, 9480, 9500 Alexandra Road on a site zoned "Neighbourhood Commercial (ZC32) – West Cambie Area"; and*
2. *Vary the provisions of Richmond Zoning Bylaw 8500 to reduce the building setback for Building N on May Drive from 5.0 m to 1.5 m.*

CARRIED

3. New Business

None.

4. Date Of Next Meeting: Wednesday, July 16, 2014

5. Adjournment

It was moved and seconded

That the meeting be adjourned at 3:51 p.m.

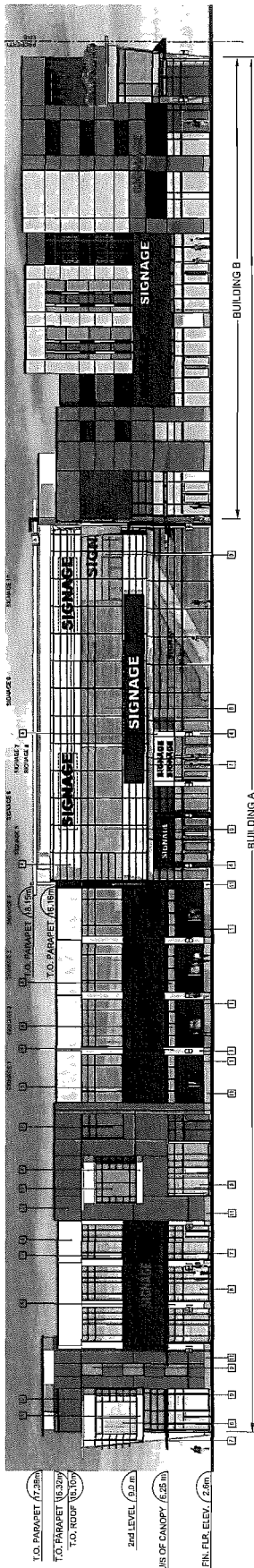
CARRIED

Development Permit Panel
Wednesday, June 25, 2014

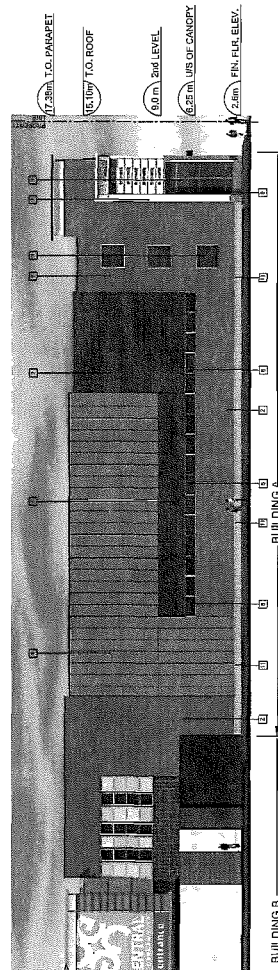
Certified a true and correct copy of the Minutes of the meeting of the Development Permit Panel of the Council of the City of Richmond held on Wednesday, June 25, 2014.

Joe Erceg
Chair

Evangel Biason
Auxiliary Committee Clerk



EAST ELEVATION
SCALE: 1:150



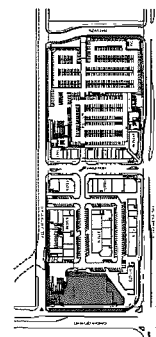
NORTH ELEVATION
SCALE: 1:150

FINISH LEGEND AND COLOUR SCHEDULE:

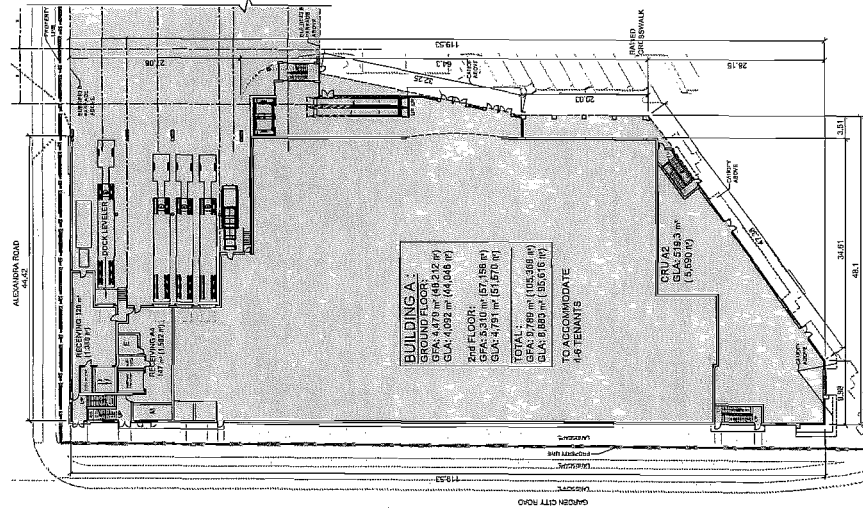
- 1 - EPS
- 2 - BRICK VENEER
- 3 - CORRUGATED METAL
- 4 - METAL PANELS
- 5 - METAL EYEBROW
- 6 - CANVAS AWNING
- 7 - METAL & GLASS CANOPY
- 8 - CLADDING IN UNFINISHED ALUMINUM FRAME
- 9 - SPANDREL GLASS IN ALUMINUM FRAME
- 10 - METAL DOOR
- 11 - CONCRETE UPSTAND
- 12 - PREFINISHED WOOD PANELS

PRELIMINARY SIGNAGE ANALYSIS

EAST ELEVATION				NORTH ELEVATION																																																																							
REQUIRED:				REQUIRED:																																																																							
ELEV.	PERMITTED LINEAR FRONTAGE	TOTAL SIGN AREA	PERMITTED	BLDG. WIDTH	PERMITTED LINEAR FRONTAGE	TOTAL SIGN AREA	PERMITTED																																																																				
52.28 m	1 m	62.28 m ²		44.72 m	1 m	43.72 m ²																																																																					
<table><tr><td>PROPOSED 1:</td><td>SIGNAGE 1</td><td>1.3 x 1.2</td><td>1.8 m²</td></tr><tr><td></td><td>SIGNAGE 2</td><td>1.3 x 1.2</td><td>1.8 m²</td></tr><tr><td></td><td>SIGNAGE 3</td><td>1.3 x 1.2</td><td>1.8 m²</td></tr><tr><td></td><td>SIGNAGE 4</td><td>1.3 x 1.2</td><td>1.8 m²</td></tr><tr><td></td><td>SIGNAGE 5</td><td>1.3 x 1.2</td><td>1.8 m²</td></tr><tr><td></td><td>SIGNAGE 6</td><td>1.3 x 1.2</td><td>1.8 m²</td></tr><tr><td></td><td>SIGNAGE 7</td><td>0.8 x 2.2</td><td>1.3 m²</td></tr><tr><td></td><td>SIGNAGE 8</td><td>0.8 x 2.2</td><td>1.3 m²</td></tr><tr><td></td><td>SIGNAGE 9</td><td>1.5 x 1.0</td><td>1.5 m²</td></tr><tr><td></td><td>SIGNAGE 10</td><td>1.5 x 1.0</td><td>1.5 m²</td></tr><tr><td></td><td>SIGNAGE 11</td><td>1.5 x 1.0</td><td>1.5 m²</td></tr><tr><td></td><td>SIGNAGE 12</td><td>1.5 x 1.0</td><td>1.5 m²</td></tr><tr><td></td><td>TOTAL</td><td>16.6 m²</td><td>10.6 m²</td></tr></table>				PROPOSED 1:	SIGNAGE 1	1.3 x 1.2	1.8 m ²		SIGNAGE 2	1.3 x 1.2	1.8 m ²		SIGNAGE 3	1.3 x 1.2	1.8 m ²		SIGNAGE 4	1.3 x 1.2	1.8 m ²		SIGNAGE 5	1.3 x 1.2	1.8 m ²		SIGNAGE 6	1.3 x 1.2	1.8 m ²		SIGNAGE 7	0.8 x 2.2	1.3 m ²		SIGNAGE 8	0.8 x 2.2	1.3 m ²		SIGNAGE 9	1.5 x 1.0	1.5 m ²		SIGNAGE 10	1.5 x 1.0	1.5 m ²		SIGNAGE 11	1.5 x 1.0	1.5 m ²		SIGNAGE 12	1.5 x 1.0	1.5 m ²		TOTAL	16.6 m ²	10.6 m ²	<table><tr><td>PROPOSED 1:</td><td>SIGNAGE 1</td><td>3.2 x 4.0</td><td>12.8 m²</td></tr><tr><td></td><td>SIGNAGE 2</td><td>3.2 x 4.0</td><td>12.8 m²</td></tr><tr><td></td><td>SIGNAGE 3</td><td>3.2 x 4.0</td><td>12.8 m²</td></tr><tr><td></td><td>TOTAL</td><td>38.4 m²</td><td></td></tr></table>				PROPOSED 1:	SIGNAGE 1	3.2 x 4.0	12.8 m ²		SIGNAGE 2	3.2 x 4.0	12.8 m ²		SIGNAGE 3	3.2 x 4.0	12.8 m ²		TOTAL	38.4 m ²	
PROPOSED 1:	SIGNAGE 1	1.3 x 1.2	1.8 m ²																																																																								
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	SIGNAGE 3	3.2 x 4.0	12.8 m ²																																																																								
	TOTAL	38.4 m ²																																																																									



KEY PLAN
SCALE: 1:150

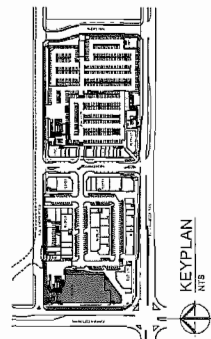
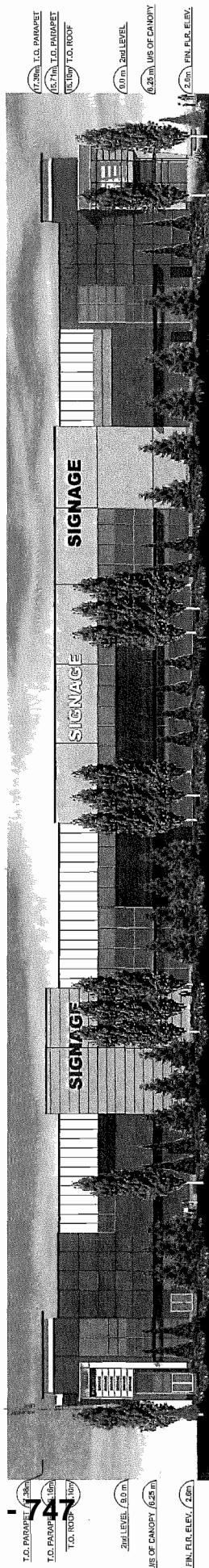
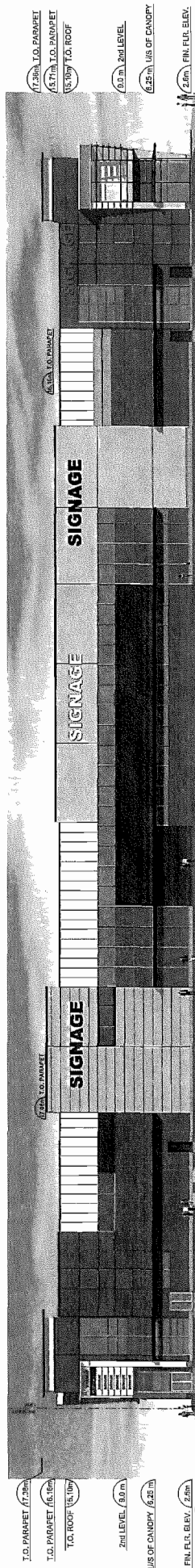
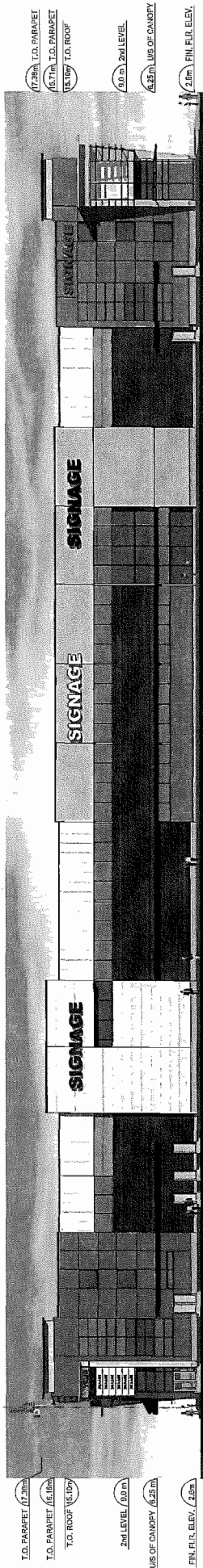


GROUND FLOOR PLAN
SCALE: 1:200

BUILDING A PLANS AND ELEVATIONS

CENTRAL AT GARDEN CITY

RICHMOND, BC



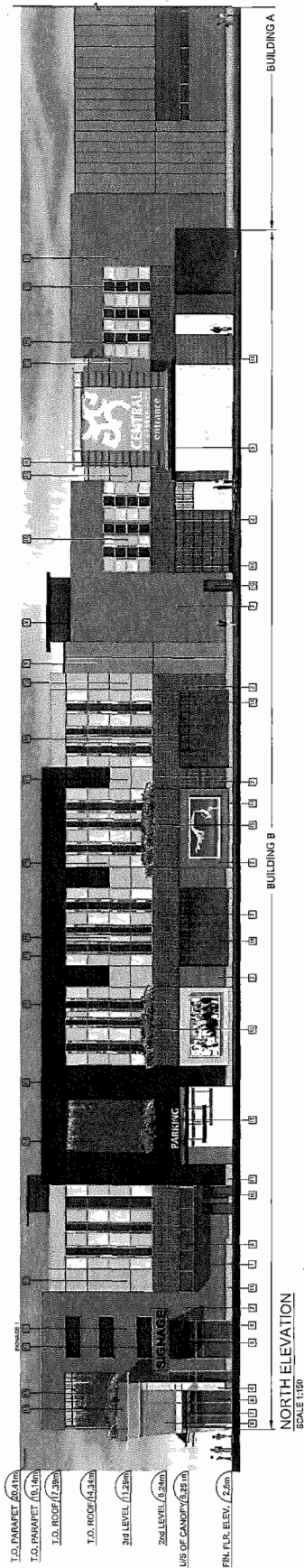
Chandler Associates
Architects Inc.
2710 - 601 W. Cordova St.
Vancouver BC, V6B 1G1
Fax: 604 681 3035
office@chandler-associates.com

BUILDING A ELEVATIONS
CENTRAL AT GARDEN CITY
RICHMOND, BC



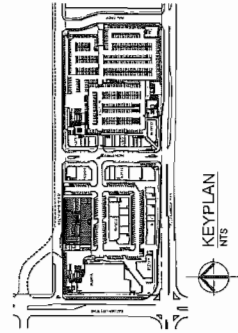
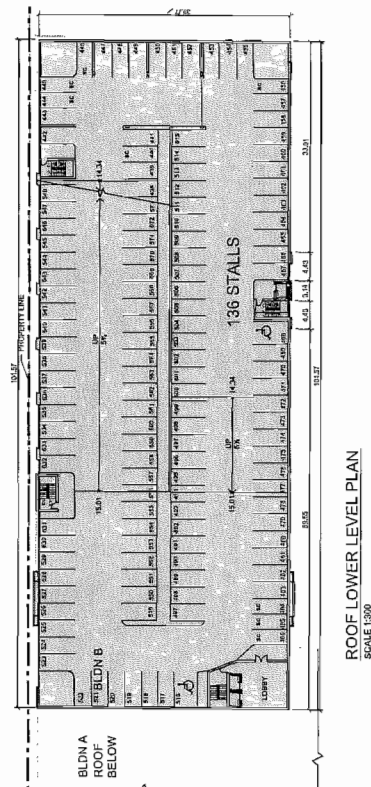
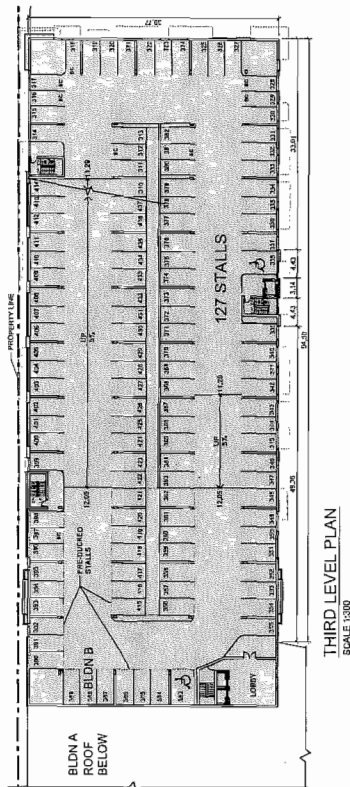
DATE: JUNE 10, 2014
AS NOTED
PROJECT #:
A-3-2sup

CNCL - 747



FINISH LEGEND AND COLOUR SCHEDULE:

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2	- BRICK VENEER	6	- CANVAS AWNING	10	- METAL DOOR	14	- METAL SCREEN
3	- CORRUGATED METAL	7	- METAL & GLASS CANOPY	11	- CONCRETE UPSTAND	15	- PLANTER
4	- METAL PANELS	8	- GLAZING IN BRUSHED ALUMINUM FRAME	12	- PRESFINISHED WOOD PANELS	16	- PAINTED GLASS / PERFORATED MESH DECORATIVE SCREEN
						17	- PERFORATED MESH SCREEN

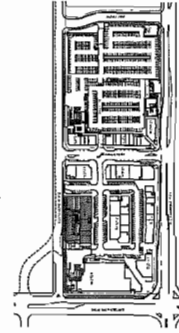
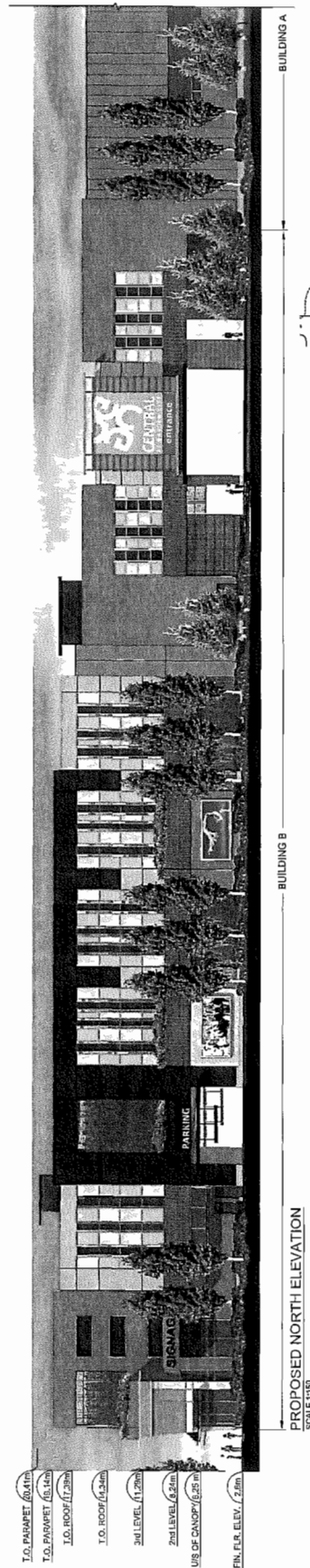
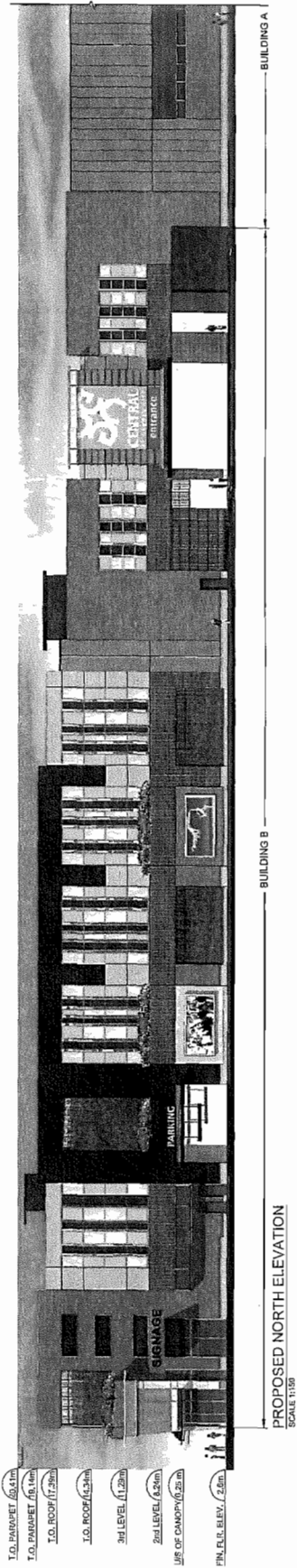
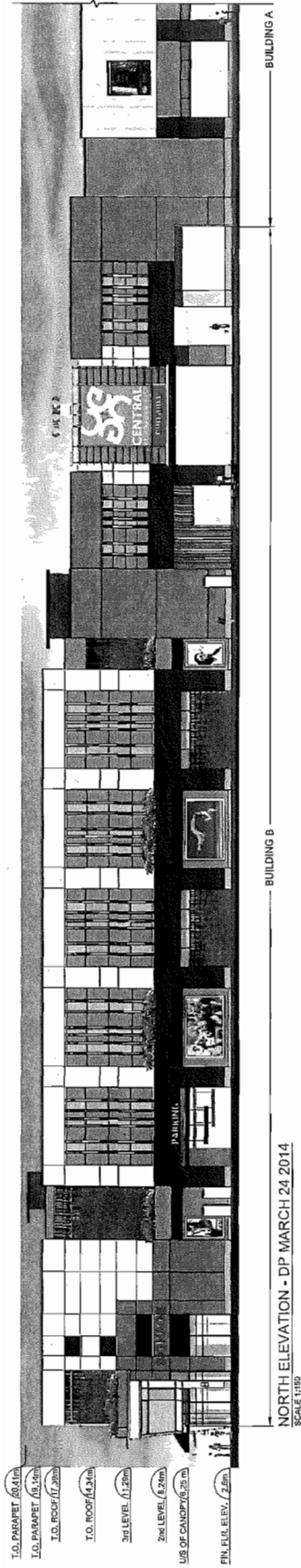


Chandler Associates
Architects Inc.
The Station
270 - 451 W. Cordova St.
Vancouver, BC V6C 1G1
Tel: 604.687.2320
Fax: 604.687.2325
chandler@chandler.com

DATE: JUNE 10, 2014
SCALE: AS NOTED
PROJECT #: A-3.4

BUILDING B PLANS AND ELEVATIONS CENTRAL AT GARDEN CITY RICHMOND, BC





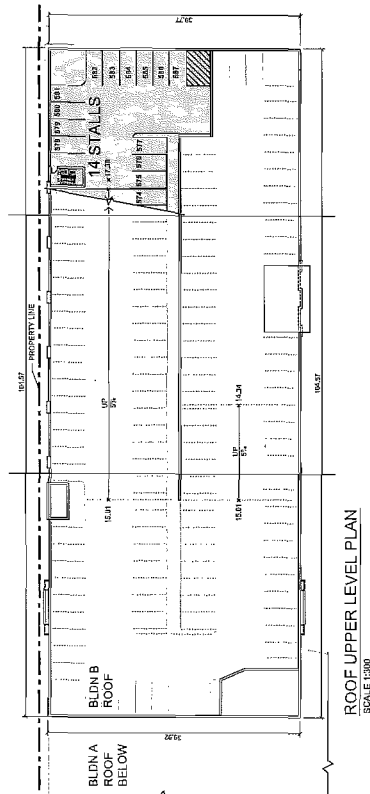
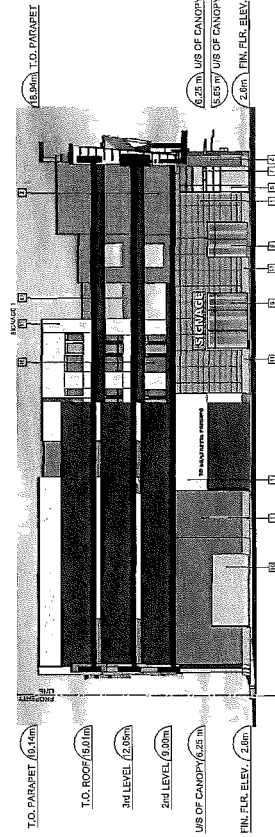
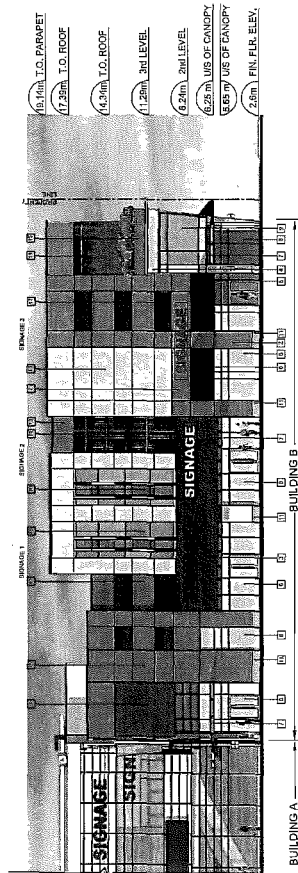
Chandler Associates
Architects Inc.
The Station
1000 West 10th Avenue
Vancouver BC V6H 1G1
Tel: 604 681 3300
info@chandler-associates.com

DATE: JUNE 18, 2014
SCALE: AS NOTED
PROJECT #: 4029

A-3.4sup

BUILDING B ELEVATIONS CENTRAL AT GARDEN CITY RICHMOND, BC





PRELIMINARY SIGNAGE ANALYSIS

EAST ELEVATION	PERMITTING SIGN AREA LINEAR FRONTAGE	20.77 5.63
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PROPOSED:		
SIGNAGE 1	1.0 x 6.0	6.0 m ²
SIGNAGE 2	1.0 x 6.0	6.0 m ²
SIGNAGE 3	1.0 x 6.0	6.0 m ²
TOTAL		18.0 m ²

WEST ELEVATION	BLDG. LENGTH	PERMIT SIGN AREA LINEAR FRONTAGE
REQUIRED:		


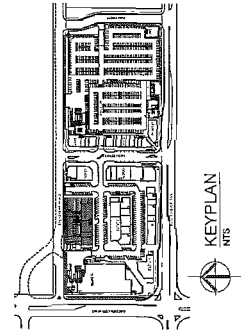
PROPOSED:	
SIGNAGE 1	1 x 4.5
	4.5 m ²
TOTAL	
	4.5 m ²



BUILDING B PLANS AND ELEVATIONS

CENTRAL AT GARDEN CITY

RICHMOND, BC

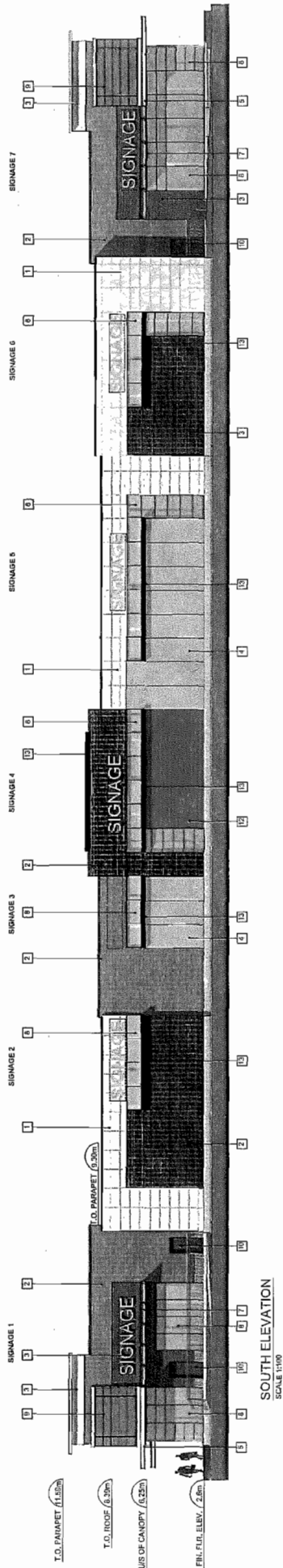


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Architecture Inc.

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Tel 604 677 3160
Fax 604 677 3325
callea@caa-architects.com

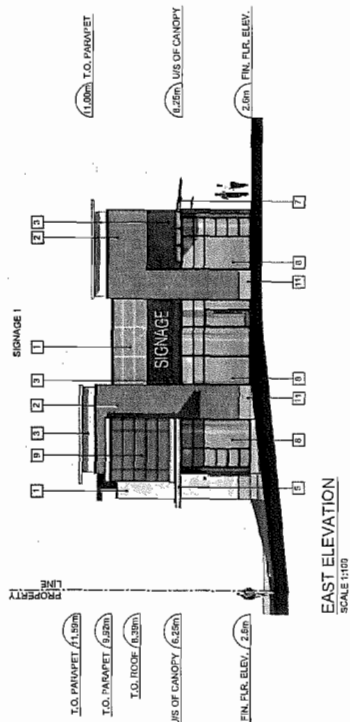
DATE: JUNE 18, 2014
SCALE: AS NOTED
PROJECT #: 402B

A-335



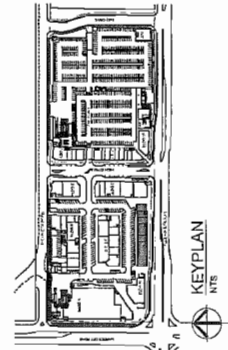
PRELIMINARY SIGNAGE ANALYSIS

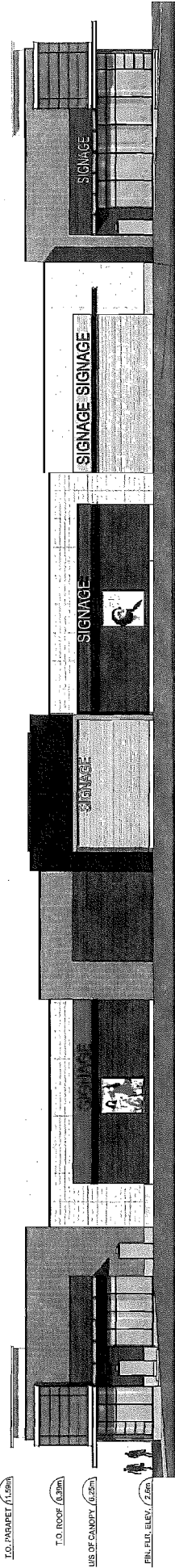
SOUTH ELEVATION				EAST ELEVATION			
REQUIRED:				FASTENED:			
BLDG.	LENGTH	SIGN AREA / LINEAR PERMIT	TOTAL SIGN AREA / LINEAR PERMIT	BLDG.	WIDTH	SIGN AREA / LINEAR PERMIT	TOTAL SIGN AREA / LINEAR PERMIT
85.37 m	1 m	89.37 m ²	89.37 m ²	15.15 m	1 m	15.15 m ²	15.15 m ²
PROPOSED:				PROPOSED:			
SIGNAGE 1				SIGNAGE 1			
1 x 4.5				1 x 4.5			
SIGNAGE 2				SIGNAGE 2			
1 x 4.5				1 x 4.5			
SIGNAGE 3				SIGNAGE 3			
1 x 4.5				1 x 4.5			
SIGNAGE 4				SIGNAGE 4			
1 x 4.5				1 x 4.5			
SIGNAGE 5				SIGNAGE 5			
1 x 4.5				SIGNAGE 6			
SIGNAGE 6				SIGNAGE 7			
1 x 4.5				SIGNAGE 7			
SIGNAGE 7				TOTAL			
1 x 4.5				31.5 m ²			



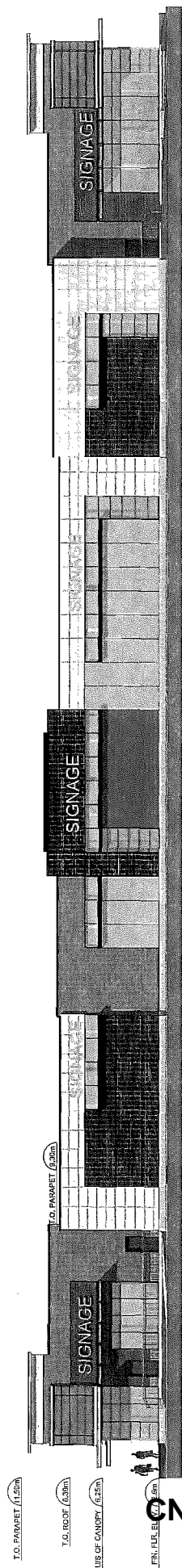
FINISH LEGEND AND COLOUR SCHEDULE:

- | | | | | | |
|---|--------------------|---|--------------------------------------|----|------------------------------------|
| 1 | - EIPS | 6 | - METAL CANOPY | 11 | - METAL EYEBROW |
| 2 | - BRICK VENEER | 8 | - CANVAS AWNING | 10 | - METAL DOOR |
| 3 | - CORRUGATED METAL | 7 | - METAL & GLASS CANOPY | 11 | - CONCRETE UPSTAND |
| 4 | - METAL PANELS | 8 | - GLAZING IN POLISHED ALUMINUM FRAME | 17 | - PREFINISHED WOOD PANELS |
| | | | | 8 | - SPANGLER GLASS IN ALUMINUM FRAME |

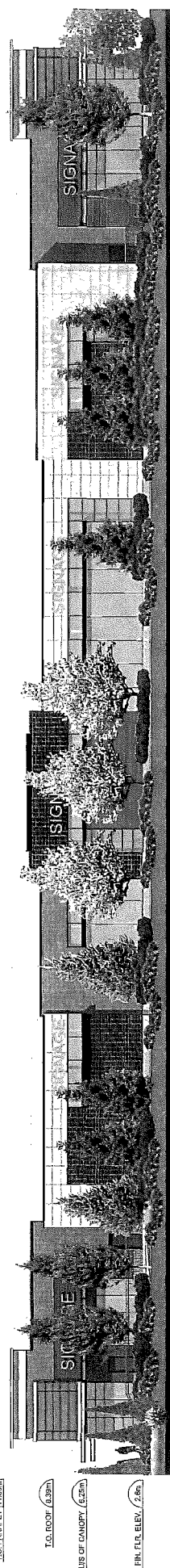




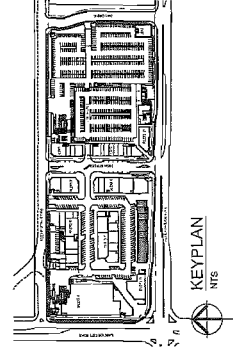
SOUTH ELEVATION - DP MARCH 24 2014
SCALE 1/100



PROPOSED SOUTH ELEVATION
SCALE 1/100



PROPOSED SOUTH ELEVATION WITH LANDSCAPE
SCALE 1/100



Chandler Associates
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1000-1000, Columbia St.
Vancouver, BC V6B 1G1
Tel: 604.681.1111
Fax: 604.681.1111
info@chandlerassociates.com

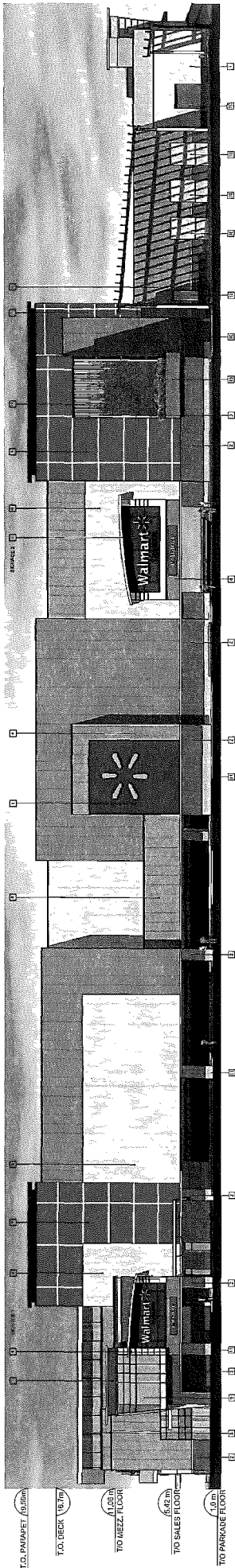
DATE: JUNE 19, 2014
SCALE: AS NOTED
PROJECT #: 4000

A-3.19sup

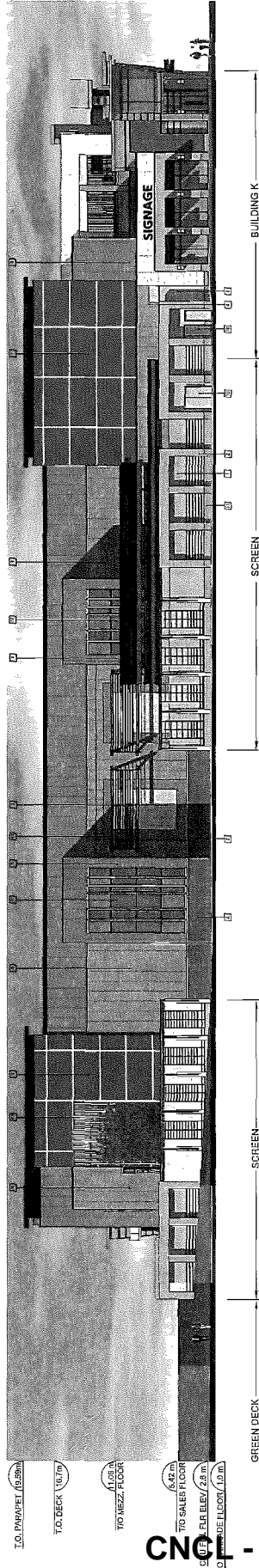
BUILDING L PLANS AND ELEVATIONS CENTRAL AT GARDEN CITY RICHMOND, BC



CNCL - 752



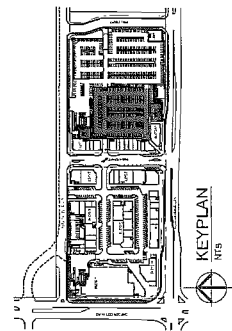
EAST ELEVATION
SCALE 1:150



NORTH ELEVATION
SCALE 1:150

FINISH LEGEND AND COLOUR SCHEDULE:

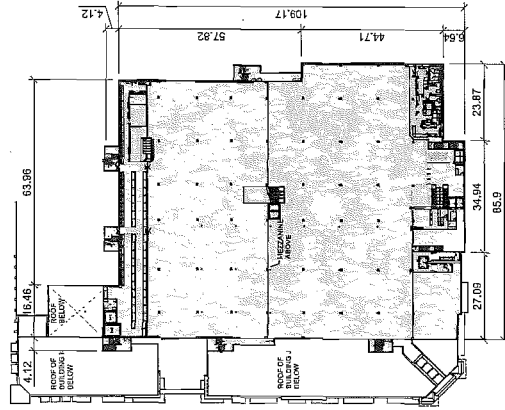
- | | | |
|----------------------|--|-----------------------|
| 1 - EPS | 5 - METAL EYEBROW | 13 - PAINTED CONCRETE |
| 2 - BRICK VENEER | 6 - SPANDREL GLASS IN ALUMINUM FRAME | 14 - METAL SCREEN |
| 3 - CORRUGATED METAL | 7 - METAL & GLASS CANOPY | 15 - METAL PLANTER |
| 4 - METAL PANELS | 8 - GLASSING IN BRUSHED ALUMINUM FRAME | 16 - METAL SPANDREL |
| | 9 - CANVAS AWNING | |
| | 10 - METAL DOOR | |
| | 11 - CONCRETE UPSTAND | |
| | 12 - UNFINISHED WOOD PANELS | |



KEY PLAN
1:150

PRELIMINARY SIGNAGE ANALYSIS

EAST ELEVATION	
REQUIRED:	PROPOSED:
PERMITTED SIGN AREA: 115.8 m ²	SIGNAGE 1: 7.5 x 2.5 = 18.8 m ²
PERMITTED LINEAR FRONTAGE: 1 m	SIGNAGE 2: 7.5 x 2.5 = 18.8 m ²
	TOTAL: 37.6 m ²



SALES LEVEL PLAN
SCALE 1:600

EAST ANCHOR PLANS AND ELEVATIONS

CENTRAL AT GARDEN CITY

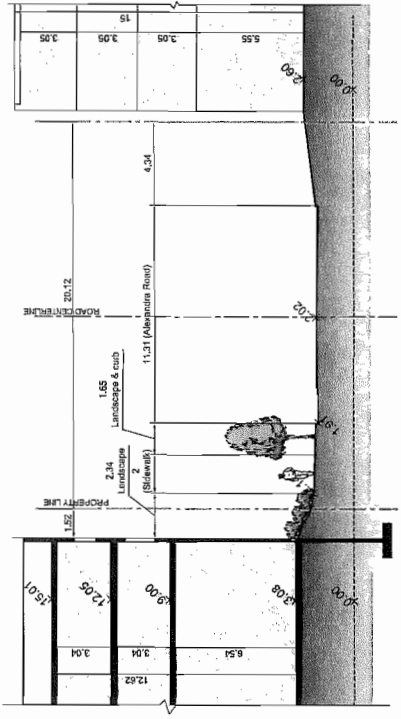
RICHMOND, BC



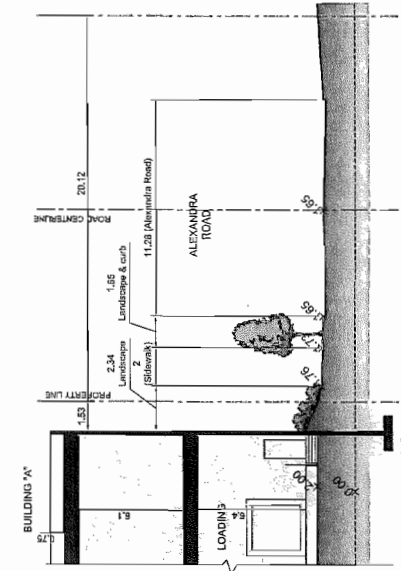
Chandler Associates
Architecture Inc.
The Office
775 - 401 W. Cordova St.
Richmond, BC V6V 1Y1
Tel: 604 697 3300
Fax: 604 697 3326
info@chandlerassociates.com

DATE: JUNE 16, 2014
SCALE: AS SHOWN
PROJECT #: A-3-22

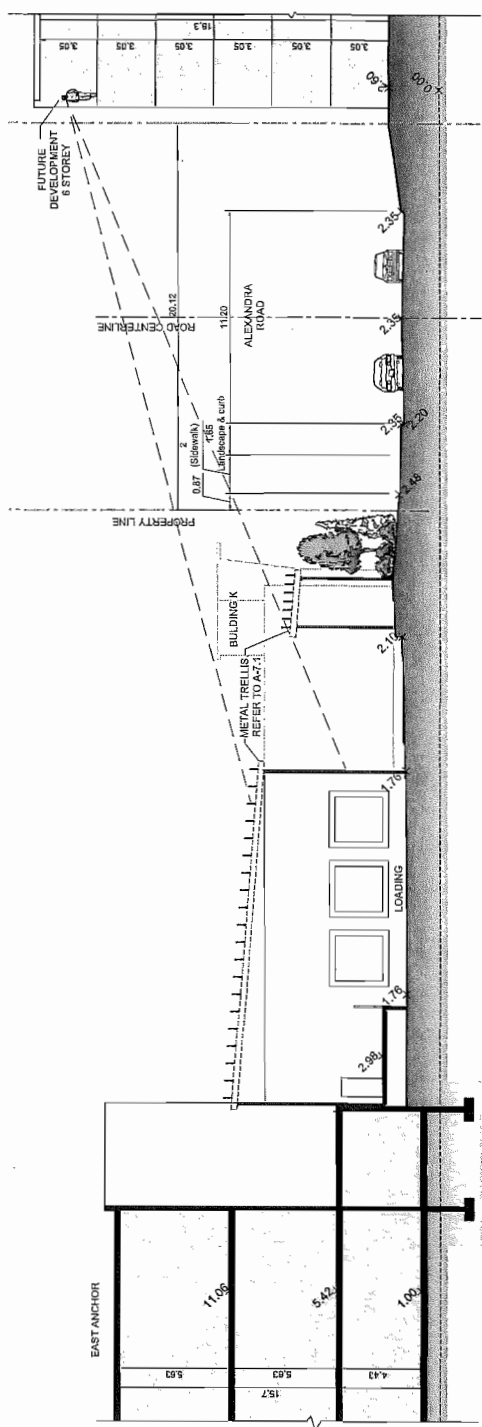
CNCL - 753



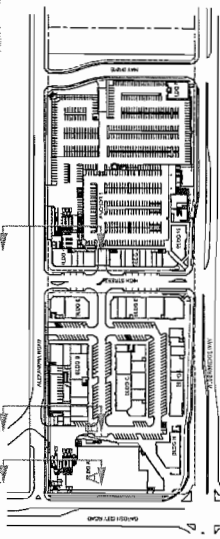
SECTION B-B
SCALE 1/8" = 1'-0"



SECTION A-A
SCALE 1/8" = 1'-0"



SECTION C-C
SCALE 1/8" = 1'-0"



KEY PLAN
SCALE 1/8" = 1'-0"

SITE SECTIONS

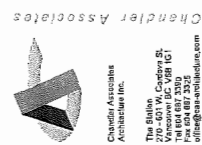
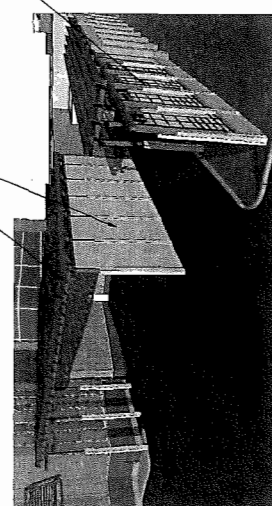
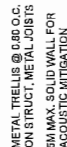
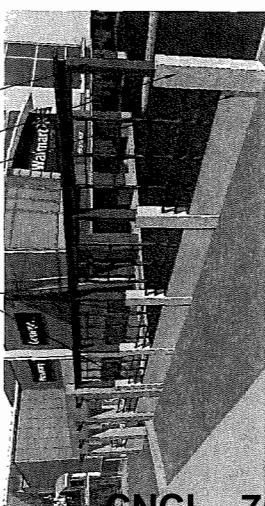
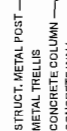
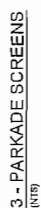
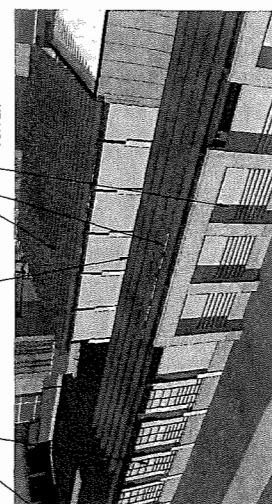
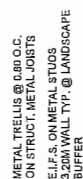
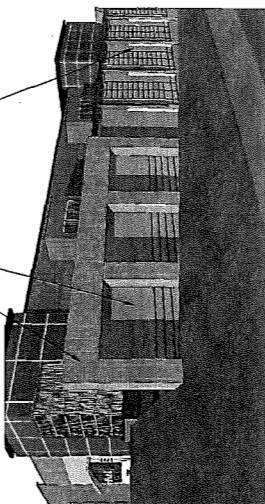
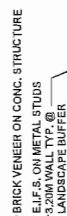
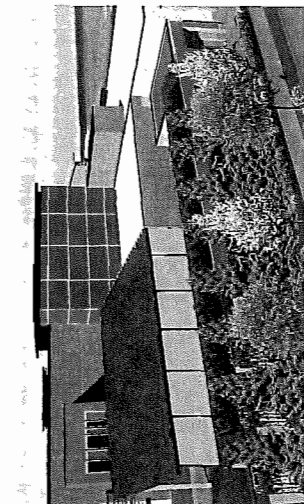
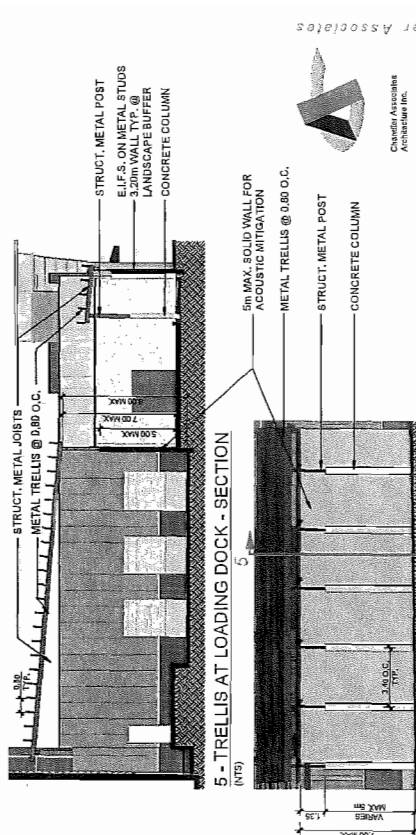
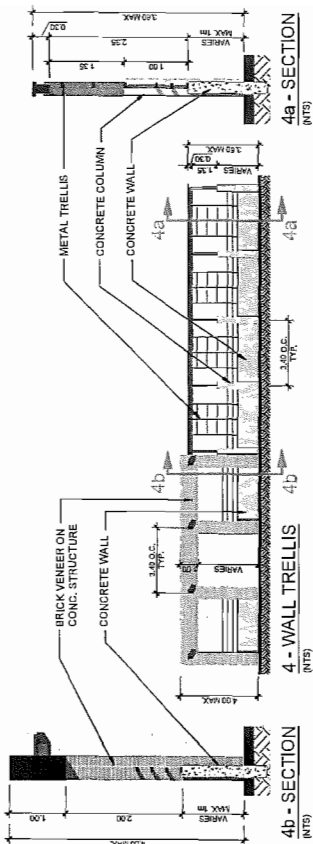
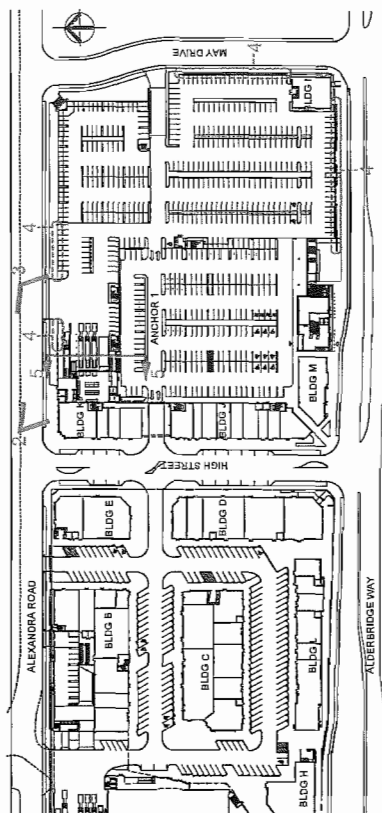
CENTRAL AT GARDEN CITY

RICHMOND, BC

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Tel: 604 681 2300
Fax: 604 681 2305
office@chandlerassociates.com

DATE: JUNE 18, 2014
SCALE: 1/8" = 1'-0"
PROJECT #:
SHEET #

A-5.1

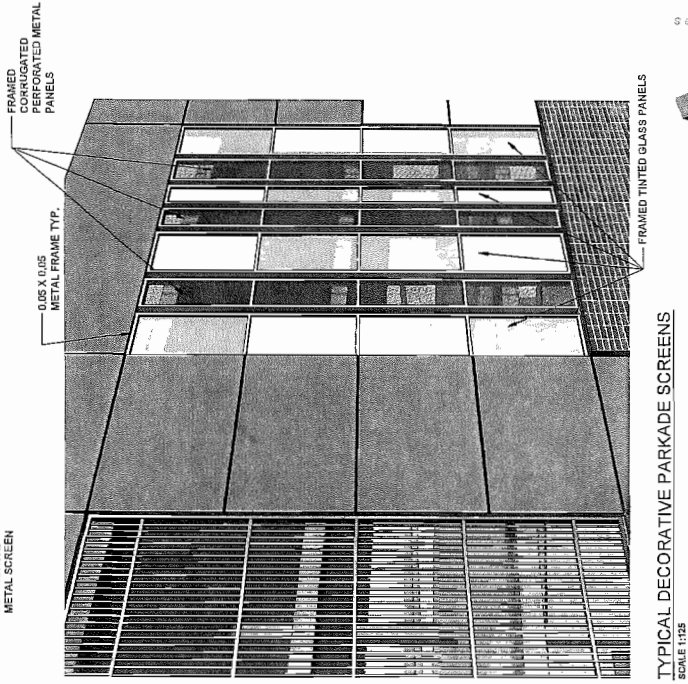
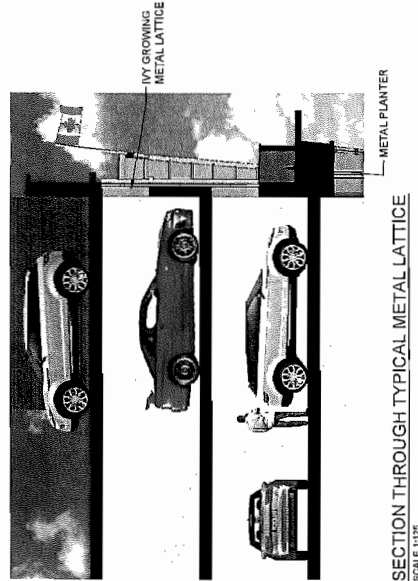
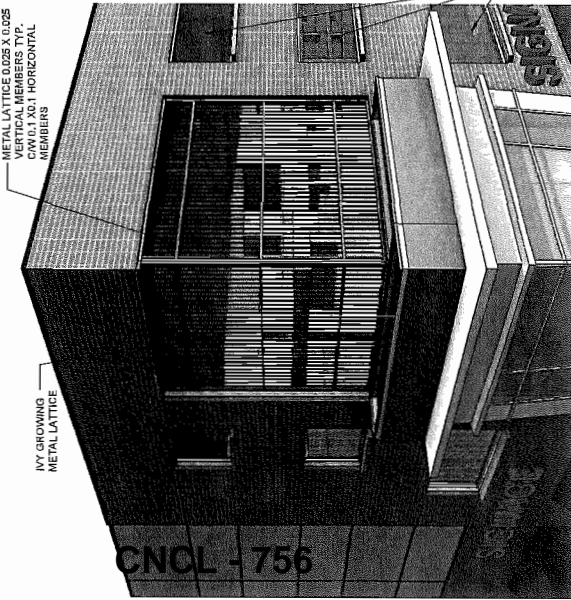
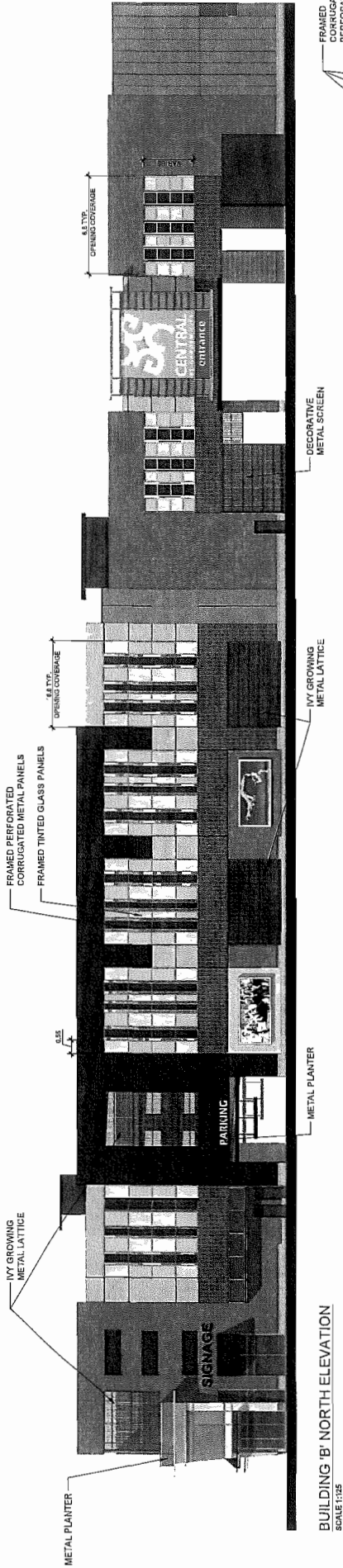


DATE: JUNE 18, 2014
SCALE: AS NOTED
PROJECT #: 4029

TRELLIS ELEVATIONS, PERSPECTIVES AND DETAILS

CENTRAL AT GARDEN CITY

RICHMOND, BC



PERSPECTIVE AT TYPICAL METAL LATTICE (PARKADE SCREEN)
SCALE 1:125

TYPICAL DECORATIVE PARKADE SCREENS
SCALE 1:125

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studio@chandler-associates.com



PARKADE SCREEN ELEVATIONS, PERSPECTIVES AND DETAILS
CENTRAL AT GARDEN CITY
RICHMOND, BC

DATE: JUNE 10, 2014
SCALE: AS NOTED
PROJECT #: 4028

A-7.2

RICHMOND, BC



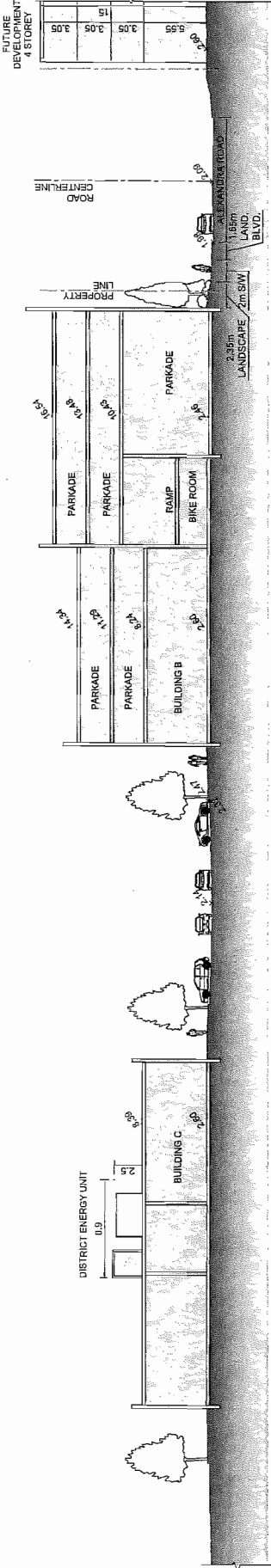
SmartCentres



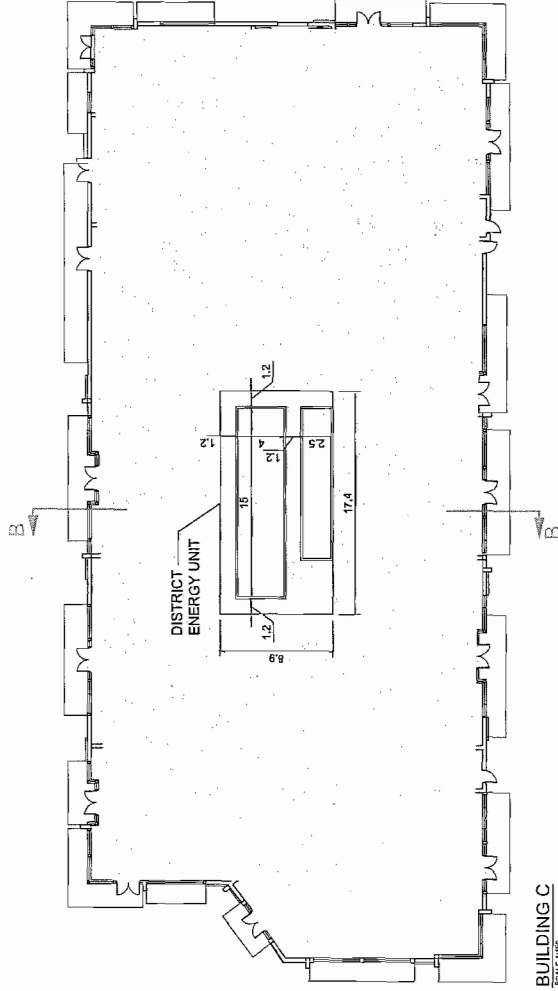
Architectural drawing of Building B - Partial Roof Plan. The plan shows a rectangular building footprint with a 'PROPERTY LINE' indicated on the left. Key dimensions include a total width of 104.57, a central section width of 17.39, and a right-side section width of 14.34. A 'DISTRICT ENERGY UNIT' is located on the right side. The drawing includes various structural details, walls, and a north arrow pointing towards the top right.

BUILDING B - PARTIAL ROOF PLAN
SCALE 1:150

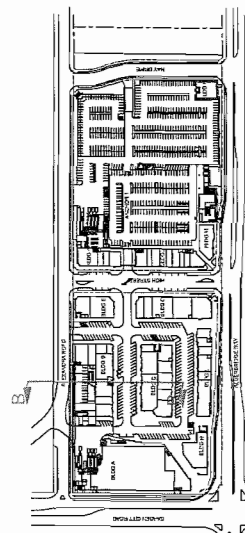
SCALE 1:150



SECTION B-B
SCALE 1:100



CNCL - 758



CENTRAL AT GARDEN CITY

RICHMOND, BC

SECTION & PLAN - PROPOSED DEU LOCATIONS

DEU-2

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Fax: 604 681 2301
info@chandlerassociates.com

THE STATION
270 - 601 W. Cordova St.
Vancouver, BC V6C 1G1
Tel: 604 681 2300
Fax: 604 681 2301
info@chandlerassociates.com

DATE: JUNE 18, 2014
SCALE: AS NOTED
PROJECT #: 4029



Development Permit Panel Wednesday, July 16, 2014

Time: 3:30 p.m.
Place: Council Chambers
Richmond City Hall
Present: Joe Erceg, Chair
Robert Gonzalez, General Manager, Engineering and Public Works
John Irving, Director, Engineering

The meeting was called to order at 3:30 p.m.

1. Minutes

It was moved and seconded

That the minutes of the meeting of the Development Permit Panel held on Wednesday, June 25, 2014, be adopted.

CARRIED

2. Development Permit 14-662568

(File Ref. No.: DP 14-662568) (REDMS No. 4266509)

APPLICANT: 616147 BC Ltd.

PROPERTY LOCATION: 4220 Vanguard Road

INTENT OF PERMIT:

To permit the construction of a 283 m² industrial storage warehouse building with mezzanine level at 4220 Vanguard Road on a site zoned "Industrial Retail (IR1)."

Applicant's Comments

Wendy Andrews and Reiner Siperko, 616147 BC Ltd., gave a brief overview of the proposed industrial storage warehouse building with respect to (i) urban design, (ii) architectural form and character, (iii) landscape and open space design, and (iv) vehicle accessibility.

Development Permit Panel

Wednesday, July 16, 2014

Panel Discussion

Discussion ensued with regard to the proximity of the proposed structure to residential areas and the potential for excessive noise. Ms. Andrews advised that she anticipates that the building will mainly be used for storage and no external mechanical equipment will be used.

Discussion then ensued regarding pedestrian access to the site and in reply to queries from the Panel, Ms. Andrews advised that no new crossings are planned and she anticipates low pedestrian traffic to the site. She added that she anticipates that the existing driveway will be maintained and that a sidewalk along the side of the building will be added.

Staff Comments

Wayne Craig, Director, Development, noted that additional landscaping will be added on site to provide additional buffering.

Correspondence

None.

Gallery Comments

None.

Panel Decision

It was moved and seconded

That a Development Permit be issued which would permit the construction of a 283 m² industrial storage warehouse building with mezzanine level at 4220 Vanguard Road on a site zoned "Industrial Retail (IR1)."

CARRIED

3. Development Permit 14-657502 (File Ref. No.: DP 14-657502) (REDMS No. 4254762)

APPLICANT: Kasian Architecture Interior Design and Planning Ltd.

PROPERTY LOCATION: 11380 Steveston Hwy.

INTENT OF PERMIT:

To permit the construction of an 882 m² addition and exterior renovation to the building at 11380 Steveston Hwy on a site zoned "Industrial Community Commercial (ZC6) – Ironwood Area."

Development Permit Panel

Wednesday, July 16, 2014

Applicant's Comments

Andrew Gordon, Architect, Kasian Architecture Interior Design and Planning Ltd. and Florian Fisch, Landscape Architect, Durante Kreuk Ltd., provided an overview of the proposed site addition and renovation with respect to architectural form and character and landscape and open space design. Mr. Gordon noted that parking stalls will be updated to include small car spaces and that an electric vehicle recharging station will be included in the proposed development.

Discussion ensued regarding the renovation components included in the application. In reply to queries from the Panel, Mr. Gordon advised that renovation of other buildings in the site will be completed in stages and that the proposed renovations will be fully integrated with the original structure.

Mr. Fisch gave an overview of the proposed landscaping and tree retention plan. He added that a wide walkway with seating elements will be included.

Panel Discussion

Discussion ensued with regard to the addition of parking spaces. Mr. Gordon noted that parking space lines will be repainted to accommodate new parking spaces.

In reply to queries from the Panel, Mr. Fisch commented on the placement of the proposed landscaping features and noted that there will be a net gain of landscaping elements in the proposed renovation.

In reply to queries from the Panel, Mr. Gordon advised that renovations to the structure will include updates to the façade and overhang as well the addition of glazing.

Discussion ensued regarding the access points to the site and Mr. Gordon advised that accessibility and sustainability features will include (i) widening of the sidewalk, (ii) increasing planting in the area, and (iii) installing an electric vehicle recharging station.

Farouk Babul, Westbank, suggested modifying the conditions of the development permit in order to expedite the application process. The Chair advised that the application would need to be referred back to staff in order to modify the development permit conditions.

Staff Comments

Mr. Craig advised that staff have worked with the applicant on aspects of (i) pedestrian and mobility access to the site, (ii) landscaping upgrades, and (iii) adding an electric vehicle charging station.

In reply to queries from the Panel, Mr. Craig noted that the proposed application meets the requirements for the total number of parking spaces as well as the ratio of small vehicle and regular vehicle parking spaces.

Development Permit Panel

Wednesday, July 16, 2014

Correspondence

None.

Gallery Comments

Referring to letters from businesses in the area, (attached to and forming part of these minutes as **Schedule 1**) and images of the site, (attached to and forming part of these minutes as **Schedule 2**) David Porte and Daniel Bar-Dayana, Porte Realty Ltd., expressed concerns with regard to the proposed application and was of the opinion that:

- the size and location of the proposed application may restrict visibility of and connectivity to the adjacent buildings;
- the design of the proposed application does not reflect the retail nature of the adjacent buildings;
- visibility restrictions may negatively affect tenants of the adjacent building;
- the proposed design may restrict access and lead to traffic congestion; and
- the proposed design may restrict access to the adjacent loading bay and compromise pedestrian safety.

Alex Cairns, Cushman and Wakefield, expressed concerns with regard to the proposed application and was of the opinion that the proposed application may restrict access to adjacent buildings and negatively impact traffic.

Panel Discussion

Discussion ensued with regard to further design enhancements to the proposed application that would address concerns related to (i) accessibility to the neighbouring site, (ii) the ratio of small vehicle and regular vehicle parking spaces, and (iii) possible traffic congestion.

The Chair encouraged that the applicant examine the option of including the renovation of the entire site into the permit application. He also encouraged the applicant to undertake further consultation with neighbouring businesses to address concerns related to design.

Development Permit Panel
Wednesday, July 16, 2014

Panel Decision

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

It was moved and seconded

That the staff report titled Application by Kasian Architecture Interior Design and Planning Ltd. For a Development Permit at 11380 Steveston Hwy, dated June 20, 2014, from the Director, Development, be referred back to staff to examine:

- (1) enhancements to urban design and architectural form and character that would improve integration with other buildings on the site and accessibility to neighbouring sites;*
- (2) changes to the location and ratio of small vehicle and regular vehicle parking spaces;*
- (3) options to include the renovation of the entire site in the development permit; and report back.*

CARRIED

4. Development Variance 13-634940

(File Ref. No.: DV 13-634940) (REDMS No. 4245844)

APPLICANT: Onni 7731 Alderbridge Holding Corp.

PROPERTY LOCATION: 5311 and 5399 Cedarbridge Way

INTENT OF PERMIT:

To vary the provisions of Richmond Zoning Bylaw 8500 to further reduce the visitor parking requirement from 0.15 spaces/unit, as per Development Permit (DP 12-615424), to 0.10 spaces/unit for a portion of the development located at 5311 and 5399 Cedarbridge Way on a site zoned "High Density Low Rise Apartments (RAH2)."

Applicant's Comments

Eric Hughes, Onni 7731 Alderbridge Holding Corp., gave a brief overview of the methodologies of the traffic and parking study related to the proposed application to reduce visitor parking on the proposed development. Mr. Hughes noted that the study compared parking rates of other developments in proximity to the site and the Canada Line. Also, Mr. Hughes advised that the overall parking rate between the two sites would be approximately 0.125 spaces/unit and that there will be interim visitor parking available during the construction phase of the east lot.

Development Permit Panel

Wednesday, July 16, 2014

Panel Discussion

In reply to queries from the Panel, Mr. Hughes advised that the parking rate on the east lot would remain at 0.15 spaces/unit and that any future reduction to parking rates would be based on market demand.

Staff Comments

Mr. Craig noted that visitors will have access to both parking lots which will provide an average parking rate of 0.125 spaces/unit.

Panel Discussion

Discussion ensued with respect to pedestrian access to the Canada Line. Victor Wei, Director, Transportation, noted that sidewalk enhancements along Landsdowne Road will provide a continuous connection to Canada Line.

Discussion then ensued with regard to the development contributions to sidewalk enhancements.

Correspondence

None.

Gallery Comments

None.

Panel Decision

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

It was moved and seconded

That the staff report titled Application by Onni 7731 Alderbridge Holding Corp. for a Development Variance Permit at 5311 and 5399 Cedarbridge Way, dated June 27, 2014, from the Director, Development, be referred to staff to examine options to reduce the visitor parking requirement from 0.15 spaces/unit to 0.125 spaces/unit and report back to the Development Permit Panel meeting on July 30, 2014.

CARRIED

5. New Business

6. Date Of Next Meeting: July 30, 2014

Development Permit Panel
Wednesday, July 16, 2014

7. Adjournment

It was moved and seconded

That the meeting be adjourned at 5:02 p.m.

CARRIED

Certified a true and correct copy of the
Minutes of the meeting of the
Development Permit Panel of the Council
of the City of Richmond held on
Wednesday, July 16, 2014.

Joe Erceg
Chair

Evangel Biason
Auxiliary Committee Clerk

**Schedule 1 to the Minutes of the
Development Permit Panel
meeting held on Wednesday, July
16, 2014.**

To : Porte Realty Ltd

Attn: Mr.David Porte

July 7, 2014

Dear Mr. David Porte,

I would like to inform you that I have received the "Notice of Application for a Development Permit" DP 14-657502 from City of Richmond as attached for your reference.

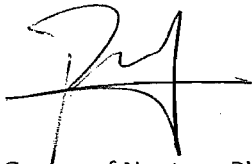
I am uncertain as to what is going to happen later on, as there will be an extended 882 m² of space which would block off the view of my business. I have informed your office about the development permit sign that was placed at the front of the soon to be site of construction. My business has already been dwindling because of "Biz" closing down for over 3 months, as well as the upper offices that were occupied before by BC Assessment being empty for almost 2 years. With this new addition to 11380 Steveston Hwy, my business would take another big hit. And it is very difficult for such small business to survive due to potential customers cannot see my restaurant clearly.

Is there any way to either stop or lessen the space of the addition? I heard that even the traffic that leads to my business will be hindered. The passage from Coppersmith Farm Market to our business would be cut off (North to South). I will send a letter to the City Hall that explains why I do not agree with this addition. I would like to keep my business here at your property, and this is all I can do to protect my business.

Thank you so much for your kind attention and I am looking forward to hear your good news.

Best Regards

Eric Pun



Owner of Neptune Bistro

(604-277-6647)

c.c. Mr.Misha Ratner / Ms Tracy Gu

July 1, 2014

To whom it may concern,

I would like to inform you that I have received the "Notice of Application for a Development Permit" DP 14-657502 from City of Richmond.

During lunch time in the weekdays, you can see that some big trucks park in the middle of the coppersmith corner parking lot. Now some long trailers park at the West side of our building, even though the driver is going to coppersmith corner. The load area at the back of Canadian Tire is already very busy, when the truck arrives it sometimes blocks the whole road. Once the parking area is reduced due to the new extension, the congestion will be even worse than before. In addition, not only will the new building block our vision, it will block the emergency vehicles that would come from the north side. Lastly, our existing customers all come from the north side, which means from the back of the main building.

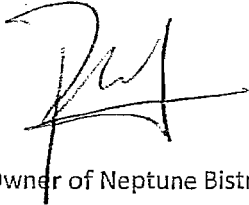
Is there any way to either stop or lessen the space of the addition? I am afraid that even the traffic that leads to my business will be hindered. The passage from Coppersmith Farm Market to our business would be cut off (North to South).

By approving this extension, the City Hall will be creating business at the cost of making us lose business. Please consider these factors before approving the development application.

Thank you so much for your kind attention and I am looking forward to hear your good news.

Best Regards

Eric Pun

A handwritten signature in black ink, appearing to be 'Eric Pun', written over a horizontal line.

Owner of Neptune Bistro

(604-277-6647)

July 14th, 2014

Development Applications Division
City of Richmond

Re: Development Permit at Ironwood

To whom it may concern,

I am the owner of Steveston Medi-Spa, a business at 11331 Coppersmith Way. This letter concerns the notice of application for DP 14-657502. The proposed extended 882 m² of space is unreasonable considering the amount of traffic congestion we already have in our parking lot.

Everyday, there are big trucks in the parking lot for various retailers. The supermarket, Cora, Nando's, and especially Canadian Tire all have large trucks for their inventory. There are also various truck drivers who park their vehicles in the parking lot while they get lunch. This congestion already blocks our view to the Ironwood plaza, if the extension is approved, the situation will get even worse.

Most of our customers approach our shop from the North side of Ironwood Plaza, the extension will not only block their view of our store, it will make vehicle access a lot more difficult for our customers -> please see diagram below.

The City will really negatively impact all businesses at 11331 Coppersmith Way by approving this application. I strongly implore the development panel to consider rejecting this application. It doesn't make sense to create more business for only one retailer while taking away business from 6 or 7 other stores.

Sincerely,

Jun Gu
Steveston Medi-Spa
#130 - 11331 Coppersmith Way





RICHMOND MARTIAL ARTS

To City of Richmond

Re: Development in Ironwood Mall

I own Richmond Martial Arts in the Coppersmith Mall area and I oppose the development in Ironwood mall because the loss of visibility will decrease our walk in traffic as well hinder people coming for the first time if they can't find the location and since we have competitors in the back of us they may end up going there instead.

Regards,

Johnny Ahmed
Richmond Martial Arts
604-780-4001

Fairholm & Company

Suite 270-11331 Coppersmith Way
Richmond, BC V7A 5J9
Tel: (604) 214-7706
Fax: (604) 214-7736

July 15, 2014

Director, City Clerk's Office
City of Richmond
6911 No. 3 Road
Richmond, BC
V6Y 2C1

Dear Madam/Sir:

Re: Application for a Development Permit DP 14-657502

This letter is to express our concerns with regards to the proposed Development Permit DP 14-657502 – 11380 Steveston Highway, Richmond, BC.

Our concerns relate to the following:

Impact on Existing Tenants – 11380 Steveston Highway.

The proposed development will eliminate much needed and used customer parking to existing businesses such as Coppersmith Farm Market and Cora's Restaurant.

Additional retail space will increase the demand for customer and staff parking, whereas the proposed development plans will in fact reduce the available parking spaces for both new and existing businesses.

The proposed development will reduce the access for the delivery of goods to the existing businesses. In particular, vehicle access of semi-trailer trucks and sanitation trucks will create significant problems for the truck drivers, creating significant possibilities for accidents with parked vehicles as well as with pedestrians, customers.

Impact on Tenants and Landlord – 11331 Coppersmith Way.

The proposed development will have significant negative impact on the retail customers of the north side of 11331 Coppersmith Way. The visibility of these retail shops and services will be greatly reduced. Similarly the vehicle access from 11380 Steveston Highway will be significantly difficult to maneuver. The landlord will also experience significant rental value devaluation as a result of the negative impact of the proposed development application.

Thank you for giving us the opportunity to express our concerns in this regards.

Yours very truly,
FAIRHOLM & COMPANY
Chartered Accountants



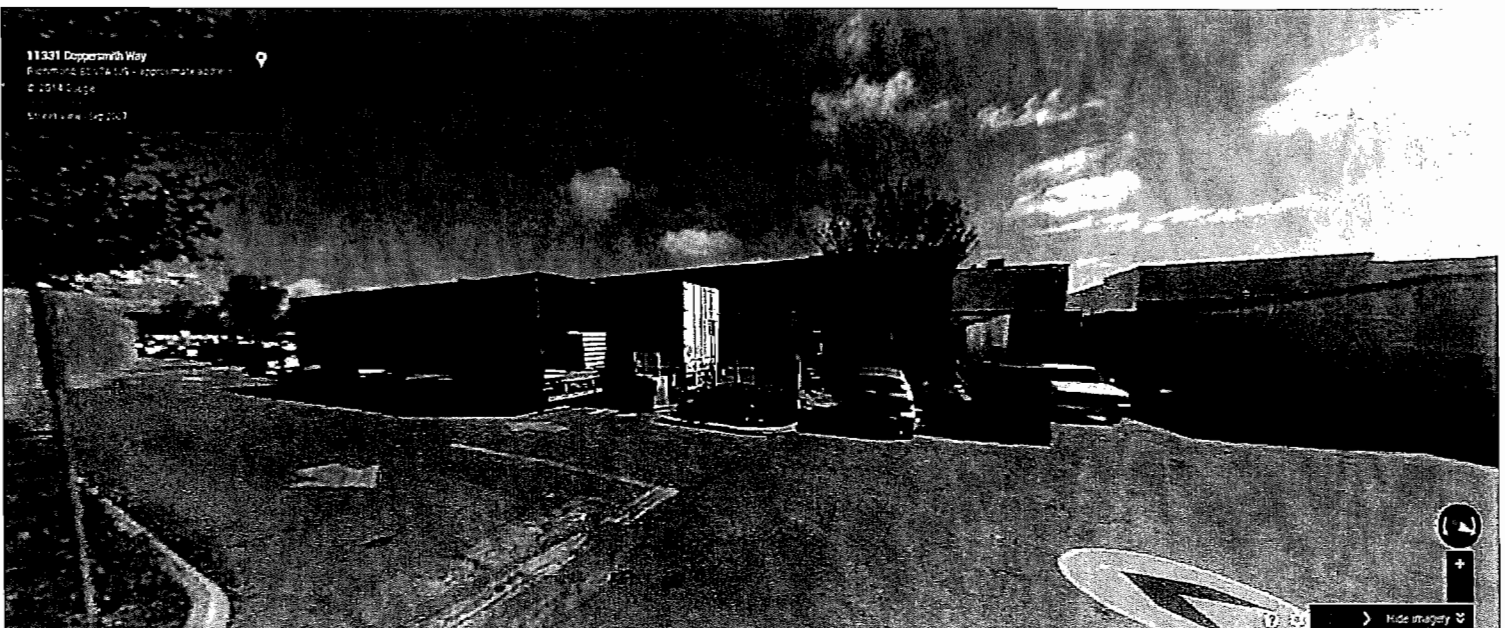
D. FAIRHOLM & COMPANY INC. CNCL - 770
/ao

Schedule 2 to the Minutes of the
Development Permit Panel
meeting held on Wednesday, July
16, 2014.

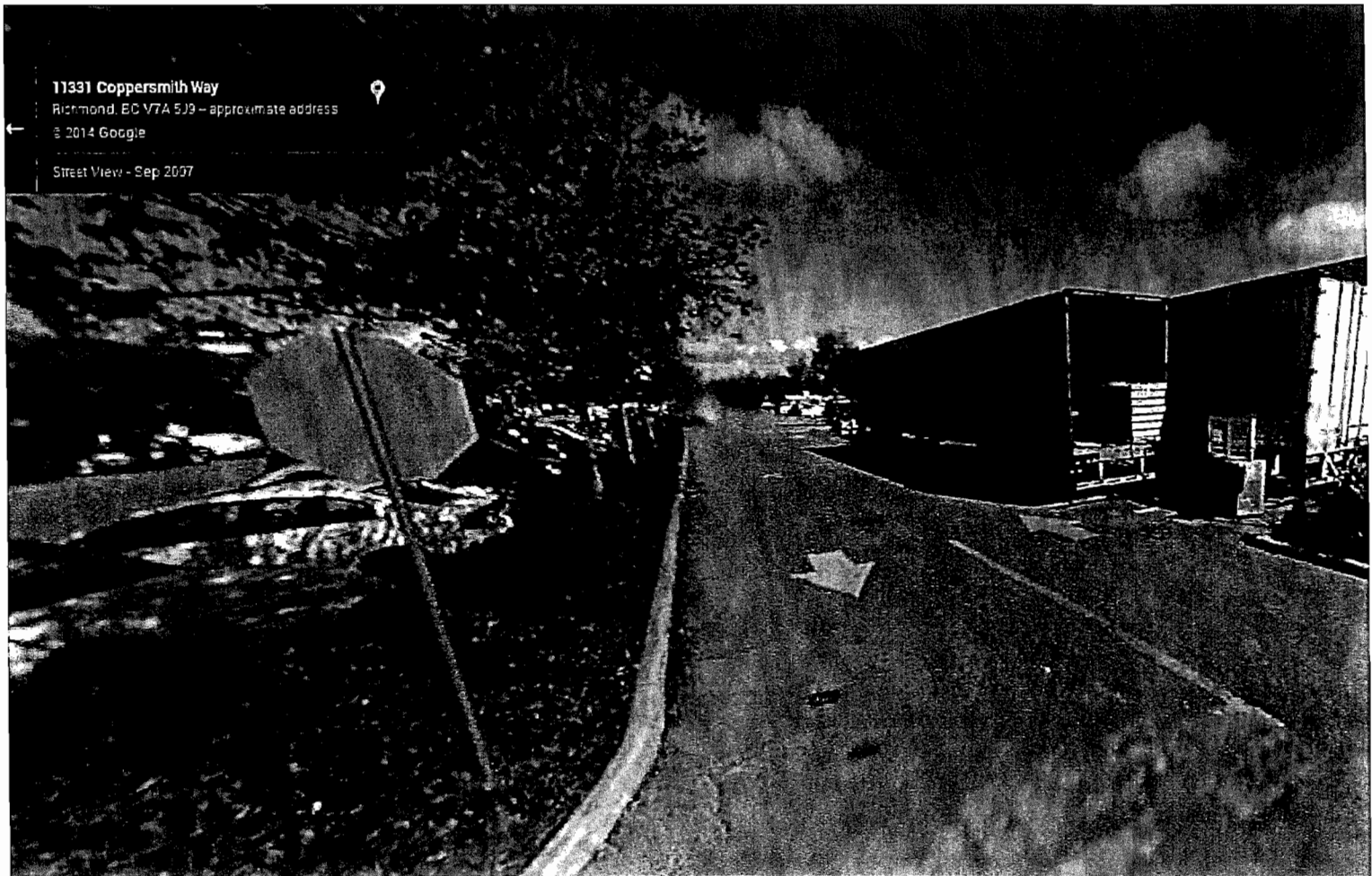
Daniel Bar-Dayon

From: Daniel Bar-Dayon
Sent: Friday, July 04, 2014 11:18 AM
To: Daniel Bar-Dayon
Subject: pics of Coppersmith - issues with proposal

Issues with having one lane next to Canadian Tire (Google maps – not purposely chosen time by us)
No way anyone is parking around the side of Cdn Tire



CNCL - 771



These are left there for extended periods of time – note no truck connected to the cargo. Clearly, very tight for Canadian Tire already.

CNCL-772



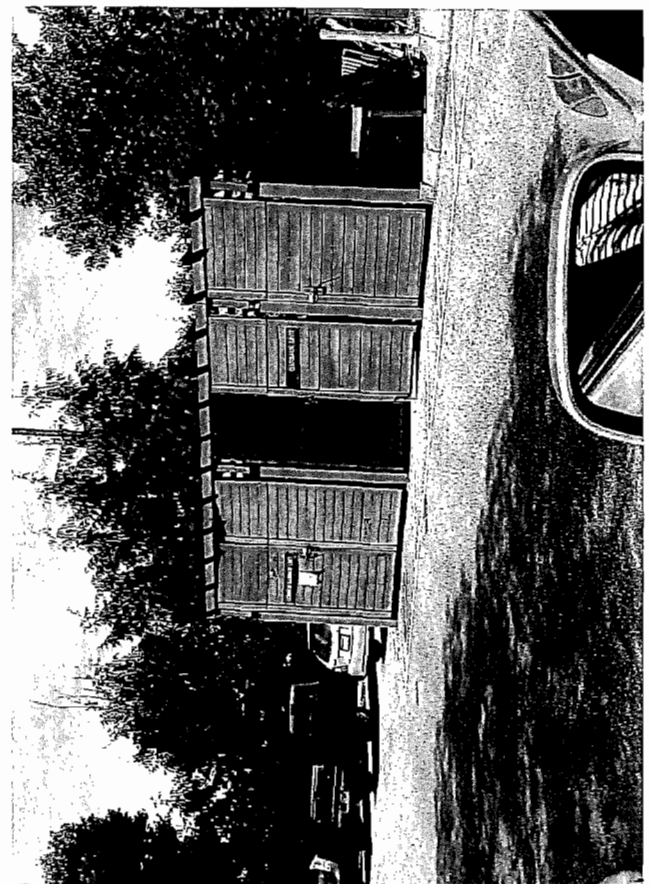
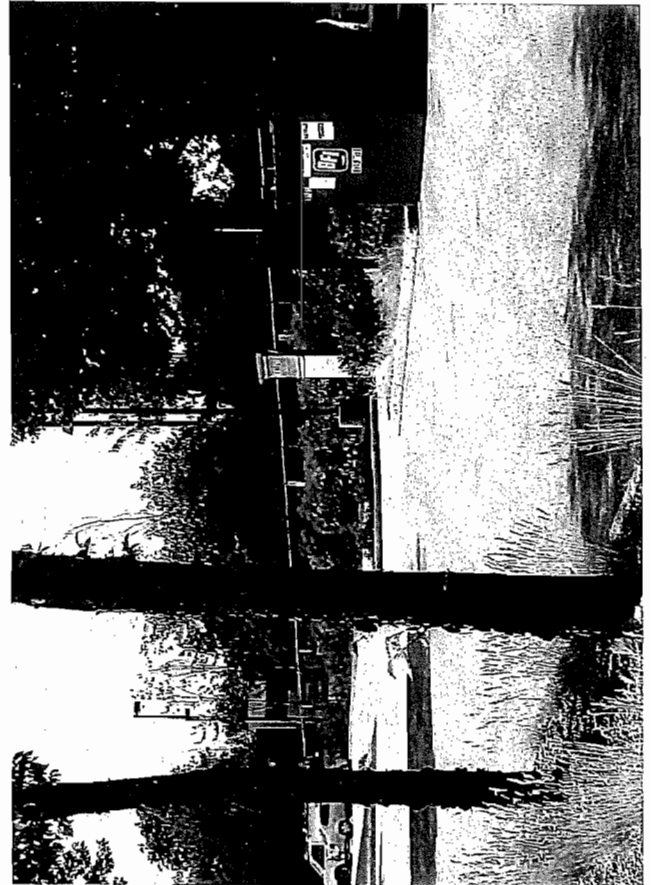
11331 Coppersmith Way
Richmond, BC V7A 5J9 — approximate address
© 2014 Google
Street View - Sep 2007

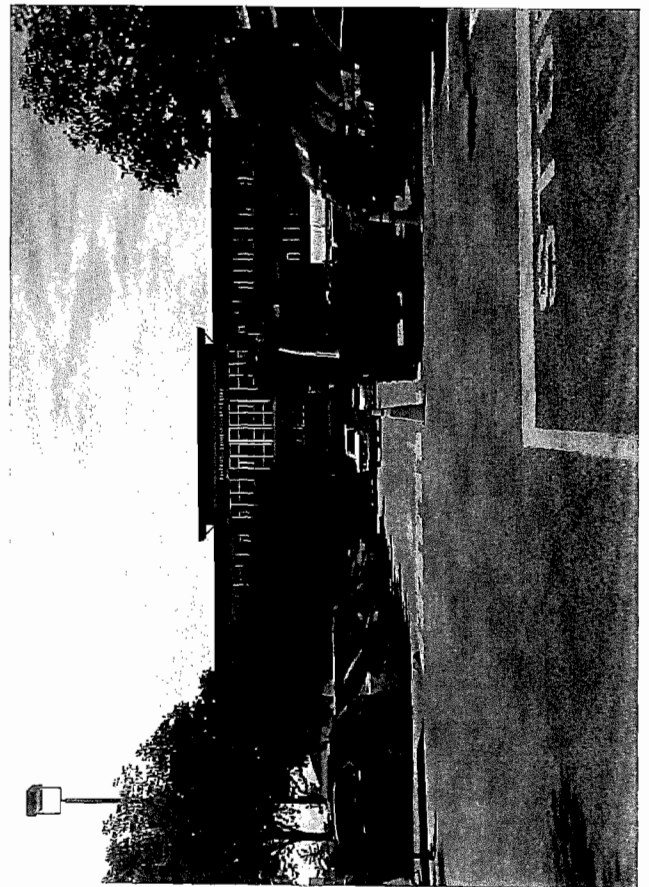
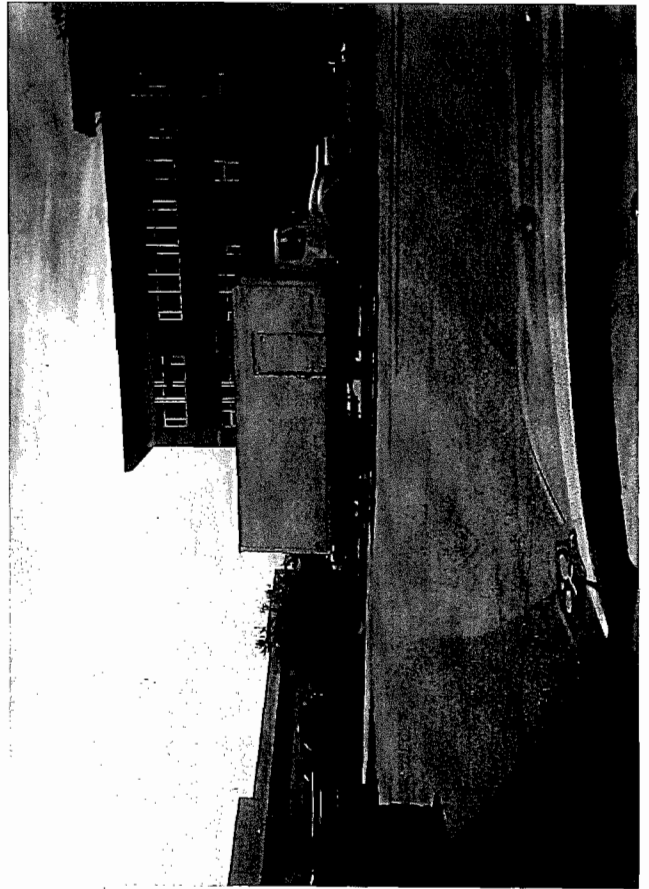
CNCL - 773

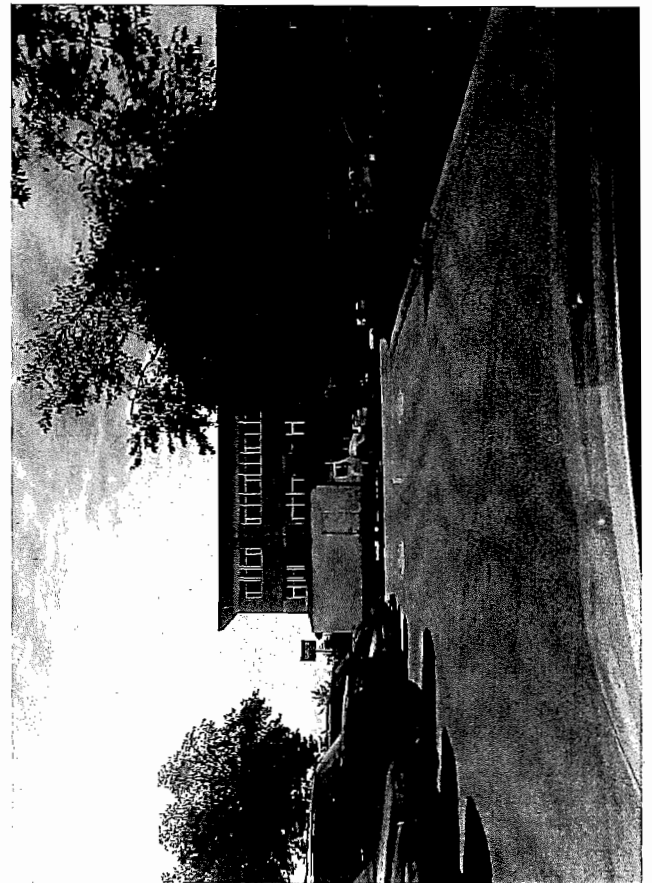
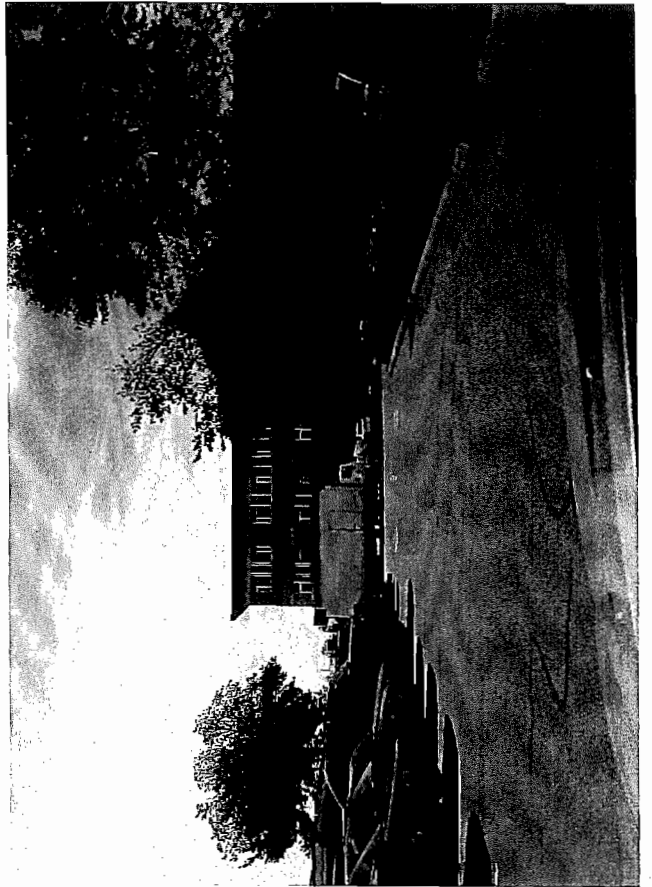
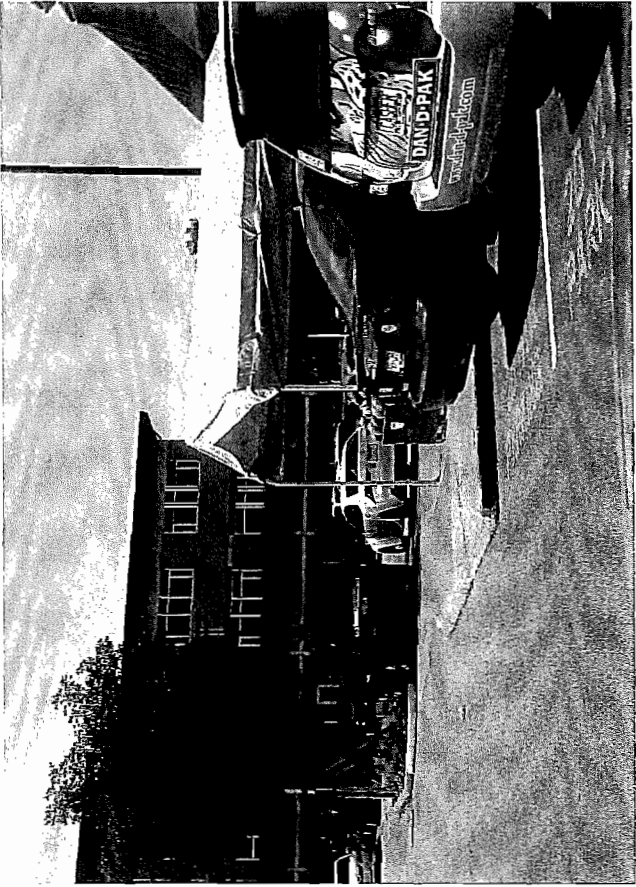
Proper Animated Corner



CNCL - 774









City of Richmond

Report to Council

To: Richmond City Council

Date: July 9, 2014

From: Robert Gonzalez, P. Eng.
Chair, Development Permit Panel

File: 01-0100-20-DPER1-
01/2014-Vol 01

Re: Development Permit Panel Meeting held on October 24, 2012

Staff Recommendation

That the recommendation of the Panel to authorize the issuance of:

- i. a Development Permit (DP 12-600815) for the property at 8380 Lansdowne Road;

be endorsed, and the Permit so issued.

Robert Gonzalez, P. Eng.
Chair, Development Permit Panel

SB:blg

Panel Report

The Development Permit Panel considered the following item at its meeting held on October 24, 2012.

DP 12-600815 – IBI-HB ARCHITECTS – 8380 LANSDOWNE ROAD

The Panel considered a Development Permit application to permit the construction of a 12-storey residential tower over a three-storey podium on a site zoned Downtown Commercial (CDT1). The proposal includes a total of 131 residential units (122 apartment units, two (2) live/work units and seven (7) affordable housing units); 270.80 m² (2,915 ft²) of retail commercial space and 654.38 m² (7,044 ft²) of restaurant commercial space. The proposal includes a variance to allow for City Centre reduced parking requirements for residential and commercial uses.

Architect, Martin Bruckner, and Landscape Architect, Cameron Owen, of IBI Group, provided a brief presentation regarding the proposal, including:

- The design was reviewed by Advisory Design Panel and refined.
- The project will include a Public Art component through the City's Public Art Program.
- Units would have their own outdoor space, there was a landscaped roof of the indoor amenity space above the parkade and there is allotted space for urban agriculture in the amenity area and the children's play area.
- The Lansdowne Road frontage has a wider sidewalk, placement of bike racks and planting areas have been adjusted to resolve any potential obstruction to pedestrian circulation.
- The proposed parking variances result from the podium having to be reduced, as no construction is permitted over the existing right-of way.
- The proposed materials include glass storefronts, metal perforated screen and glass canopies on the podium along street frontages and sealed painted concrete, blue-gray and green vision glass, spandrel glass, and aluminum-glass guardrails in the tower.

Staff supported the Development Permit application and requested variances and noted that the proposed development did not go to Public Hearing as there is no associated rezoning for the site. The proposed development would provide seven (7) affordable housing units, five (5) one-bedroom units, and two (2) two-bedroom units. Prior to the issuance of a Development Permit, the applicant would provide an acoustical report demonstrating that the proposed development satisfies the Noise Management standards set out in the Official Community Plan (OCP). The proposal's Transportation Demand Management measures include a cash contribution towards the provision of new pedestrian benches in the area and 20% of the proposed development's parking would be electric plug-in ready. The developer would be constructing frontage improvements along both Lansdowne Road and Cooney Road frontages through a Servicing Agreement. The requested parking variance was in accordance with the City Centre Area Plan.

In response to Panel queries, Mr. Bruckner and Mr. Owen provided the following information:

- Single-storey live-work units are located on the ground floor.
- The west wall will be treated with a textured pattern, stepping planters and cascading planting along the top edge.
- The parking cannot be lowered due to cost implications and the loss of parking spaces.
- With the aid of an artist rendering, Mr. Bruckner reviewed the shadowing implications of the proposed development throughout the year.

The Chair remarked that the shadow study rendering provided to the Panel did not reflect what was being presented and requested that the shadow study rendering be updated.

In response to Panel queries, staff advised that a Servicing Agreement to undertake the design and construction and full upgrading across Cooney Road and Lansdowne Road frontages of the site is required in association with this Development Permit. Also, that the separation between the proposed development and the existing residential building to the west is consistent with the Official Community Plan (OCP) for the City Centre area.

No correspondence was submitted to the Panel regarding the Development Permit application.

Discussion ensued and the Panel commented on: (i) the form and character of the proposed development; (ii) the thoughtful location of the proposed affordable housing units; and (iii) the number of electric plug-in ready parking stalls.

Subsequent to the Panel meeting, the applicant provided an updated shadow study for the application file. The earlier error in the shadow study rendering provided to the Panel was corrected to match the presentation made to the Panel and to accurately reflect the proposal.

The Panel recommends that the Permit be issued.



City of Richmond

Report to Council

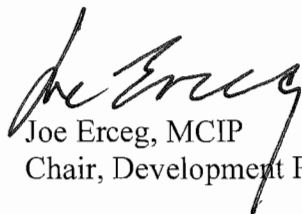
To:	Richmond City Council	Date:	July 22, 2014
From:	Joe Erceg, MCIP Chair, Development Permit Panel	File:	01-0100-20-DPER1- 01/2014-Vol 01
Re:	Development Permit Panel Meeting held on December 12, 2013, January 15, 2014, June 11, 2014, and June 25, 2014		

Staff Recommendation

That the recommendation of the Panel to authorize the issuance of:

- i. a Development Permit (DP 12-617455) for the property at 6511 No. 2 Road (formerly 6471, 6491 and 6511 No. 2 Road);
- ii. a Development Permit (DP 13-641796) for the property at 10820 No. 5 Road;
- iii. a Development Permit (DP 13-650988) for the property at 4660, 4680, 4700, 4720, 4740 Garden City Road and 9040, 9060, 9080, 9180, 9200, 9260, 9280, 9320, 9340, 9360, 9400, 9420, 9440, 9480, 9500 Alexandra Road;

be endorsed, and the Permits so issued.



Joe Erceg, MCIP
Chair, Development Permit Panel

SB:rg

Panel Report

The Development Permit Panel considered the following items at its meetings held on December 12, 2013, January 15, 2014, June 11, 2014, and June 25, 2014.

DP 12-617455 – MATTHEW CHENG ARCHITECT INC. – 6511 NO. 2 ROAD (FORMERLY 6471, 6491 AND 6511 NO. 2 ROAD)
(December 12, 2013 and January 15, 2014)

At their December 12, 2013 and January 15, 2014 meetings, the Panel considered a Development Permit application to permit the construction of 15 townhouses on a site zoned “Low Density Townhouses (RTL4)”. No variances are included in the proposal.

At the December 12, 2013 meeting, Architect Matthew Cheng, Matthew Cheng Architect, Inc., and Landscape Architect Denitsa Dimitrova, PMG Landscape Architects, provided a brief presentation of the proposal, including:

- The proposed rear yard setback exceeds the OCP Arterial Road Guidelines for Townhouses.
- The location of the internal drive aisle responds to the request of the neighbor to the north.
- 2 ½ storey end units step down the height of the three-storey buildings fronting No. 2 Road.
- The skirt roof at the second floor level fronting the street echoes the two-storey houses in the neighbourhood and the hip and gable roofs reflect the rhythm of the neighbouring roofs.
- Proposed neutral and warm colours harmonize with homes in the neighbourhood.
- The existing grade at the west property line will be maintained.
- The No. 2 Road frontage includes low aluminum fences with gates to individual townhouse unit yards with small shrub and grass planting and two (2) large trees.
- The outdoor amenity space features retention of the three (3) trees along the west property line; play equipment intended for children two (2) to five (5) years old; a bench for the children’s caregivers; and a rack for three (3) bikes.
- A hedge provides visual screening for the transformer along No. 2 Road.

In response to Panel queries, Mr. Cheng and Ms. Dimitrova provided the following information:

- The development permit application for the subject development was submitted prior to the adoption of the current Guidelines and was therefore based on the previous Guidelines (OCP Bylaw 7100) which allowed the end units to be stepped down to 2 ½ storeys instead of two- storeys.
- The outdoor amenity area features: (i) Fibar playground surface for the children’s play area, (ii) mulch for the area under the trees, and (iii) the proposed children’s play equipment is a spider web like climbing structure.

Staff supported the Development Permit application and advised that:

- Three (3) trees will be retained and incorporated in the outdoor amenity space.
- Two (2) specimen trees will be planted along the No. 2 Road frontage.
- One (1) convertible unit will be provided in the proposed townhouse development.

- A variance to increase the maximum ratio of tandem parking spaces from 50% to 60% was submitted prior to the adoption by Council of the Bylaw amendment on tandem parking. The proposed tandem parking variance comes with (i) the proposal to provide an additional visitor parking stall, and (ii) a restrictive covenant prohibiting the conversion of the garage area into habitable space.

Correspondence was submitted by the property owners of 6451 No. 2 Road expressing their concerns regarding (i) the requested variance on tandem parking, (ii) the potential conversion of the tandem parking space into habitable area, and (iii) the height of the proposed buildings fronting No. 2 Road, and (iv) the future development of their lot.

Neighbours Amy and Johnny Leung addressed the Panel, expressing their opposition to the proposed development and expressing concern regarding the requested variance on tandem parking spaces, noting the absence of justification for the proposed variance. The property owners were also concerned regarding the possibility that (i) the garage area might be converted into a habitable space, and (ii) the proposed buildings might cast shadows onto the south side of their property where their landscape plantings and house windows are located.

The Panel commented about the positive elements of the project such as the retention of some existing trees on-site; however, the Panel noted that (i) the massing of the two (2) buildings fronting No. 2 Road, i.e. Buildings A and B, need further design development, (ii) the design of the buildings is similar to the previous projects of the applicant, (iii) the end units of the two (2) street fronting buildings appear like three-storeys and do not comply with the current Guidelines, and (iv) the stairwells should be redesigned and relocated. Also, the Panel noted the need to review the size and location of the outdoor amenity space and investigate the potential for additional play equipment.

The application was referred back to staff to: (i) review the design and massing of the buildings fronting No. 2 Road to ensure compliance with the current Arterial Road Guidelines for Townhouses (OCP Bylaw 9000) relating to the two-storey maximum height of the end units of the buildings; (ii) examine the design and location of the stairwells; (iii) investigate the potential for additional play equipment on the outdoor amenity area; and to report back on the January 15, 2014 meeting of the Development Permit Panel.

At the January 15, 2014 meeting, Architect Matthew Cheng, Matthew Cheng Architect, Inc., and Landscape Architect Denitsa Dimitrova, PMG Landscape Architects, Inc., provided a brief presentation regarding the proposal, including:

- The design was revised in response to the concerns raised by the Panel and owners of neighbouring properties.
- The height of the end units of the two (2) street-fronting buildings was reduced to two-storeys.
- Two (2) residential units were redesigned to reduce the tandem parking ratio, therefore the tandem parking variance requested earlier was no longer required.
- The stairs at the end units of the buildings facing the street were relocated to allow additional articulation on the side elevations of the buildings.

- Transom windows above eye level were used and the proposed deck on the end unit was eliminated to respect the privacy of neighbouring homes.
- The impact of shadowing on the adjacent property to the north would be minimal since the end units of the two (2) buildings on the north side are limited to two-storeys and are set back 3.0 meters and 3.5 meters respectively from the north property line.
- The children's play equipment was replaced with "Mushrooms", Arch Climber and Vine Climber play equipment to provide more social interaction opportunities for children and to develop their motor skills.

Staff supported the Development Permit application.

Neighbouring resident, Moez Esmaili, submitted correspondence to the Panel regarding the Development Permit application. Staff advised that the resident of the property adjacent to the south of the subject development, expressed concern regarding (i) the end unit elevation along the south side of the proposed development and (ii) the tandem parking variance previously sought by the applicant.

In response to Panel queries, staff commented that based on the letter dated December 16, 2013 (i) the correspondent's concerns were based on the original design of the project, (ii) the design changes proposed by the applicant have adequately addressed the concerns of the Panel and residents of the neighbouring properties, and (iii) staff are satisfied with the applicant's proposed changes to the landscaping, the play equipment on the outdoor amenity area, and the form and character of the buildings.

The Panel expressed appreciation for the significant changes to the project, particularly the height reduction of the end units and the changes to the design elements which address the privacy concerns of the neighbouring homes. The Panel also noted that the proposed changes have significantly improved the project and adequately responded to the concerns of the Panel.

The Panel recommends that the Permit be issued.

DP 13-641796 – TOWNLINE GARDENS INC. – 10820 NO. 5 ROAD
(January 15, 2014)

The Panel considered a Development Permit application to permit the construction of a five-storey, mixed-use commercial and residential building (Building D – 'The Camellia') on a site zoned "Commercial Mixed Use (ZMU18) – The Gardens (Shellmont)". The proposal includes a variance for a reduced parking rate for rental residential units.

Al Johnson, of DA Architects + Planners, and Tiffany Duzita, of Townline Group of Companies, provided a brief presentation regarding the proposal, including:

- Phase 2 of the overall development includes the U-shaped building (Building D) on the north end of the site located close to the corner of No. 5 Road and Steveston Highway.
- The underground parking garage is accessed from No. 5 Road.

- The indoor amenities for Building D are provided in Building A (Phase 1 of the overall development) include a multi-purpose gym, a meeting/fitness room, washrooms and change rooms and is currently under construction.
- The building construction is a hybrid, with two (2) lower levels of concrete and two (2) upper levels of wood.

In response to Panel queries, Mr. Johnson and Ms. Duzita provided the following information:

- Balcony depth has been increased as recommended by the Advisory Design Panel.
- The current proposal has a greater number and variety of units than the previous proposal.
- There is more articulation on the north elevation of the building than is shown in the model.
- Entry points to the commercial area on the south side and to the residential units on the north side of the building are accessible.
- Internal Road "A" is a privately-owned road but open for public use and provides access to the proposed underground parking in Building D. Parking is not allowed on this road.
- Parking spaces for users and visitors of commercial units in Building D (Phase 2) are provided in the underground parking in Building A (Phase 1). All commercial parking spaces are provided in Phase 1 and 29 commercial parking stalls in Phase 2 have been allocated for residential parking.

Staff supported the Development Permit application and requested variance and advised:

- There are three (3) fully accessible units in the project.
- The applicant's participation in the Public Art Plan was secured at rezoning.
- Transportation Demand Management (TDM) measures secured at the time of rezoning include: (i) two (2) transit shelters, (ii) two (2) co-op parking stalls on the parking podium, and (iii) end-of-trip bike facilities in Building A.
- As an additional TDM measure, the applicant will provide 2-zone transit passes for all residential units in Building D for a period of one year.

In response to Panel queries, Staff provided the following information:

- The proposed residential parking rate variance has been supported by: (i) a parking study based on comparable existing rental housing projects in Richmond, and (ii) TDM measures.
- The rental tenure for both market and affordable housing units are secured by separate housing agreements with the City.
- There will be a covenant preventing the "stratification" of the proposed development.
- In response to a query from the Panel, Staff advised that so far, no service provider has expressed interest in the co-op parking.

Shellmont resident, Emily Emberson, submitted correspondence to the Panel regarding the Development Permit application expressing concern regarding the residential parking variance requested by the applicant to reduce the required parking for market rental housing of 1.5 stalls per unit to one (1) parking stall per unit. Staff advised that the parking study submitted by the applicant includes a detailed analysis of comparable rental housing projects in the City and demonstrates that the reduced parking rate is adequate.

The Panel agreed to support the proposed project, noting the significant number of proposed market rental and affordable housing units, the TDM measures proposed by the applicant, and the sustainability features of the proposed development.

The Panel recommends that the Permit be issued.

DP 13-650988 – FIRST RICHMOND NORTH SHOPPING CENTRES LTD.,
(SMARTCENTRES) – 4660, 4680, 4700, 4720, 4740 GARDEN CITY ROAD AND 9040,
9060, 9080, 9180, 9200, 9260, 9280, 9320, 9340, 9360, 9400, 9420, 9440, 9480, 9500
ALEXANDRA ROAD
(June 11, 2014 and June 25, 2014)

At their June 11, 2014 and June 25, 2014 meetings, the Panel considered a Development Permit application to permit the construction of a neighbourhood commercial centre on a site zoned "Neighbourhood Commercial (ZC32) – West Cambie Area". The proposal includes a variance for a reduced building setback to May Drive for Building N.

At the June 11, 2014 Development Permit Panel meeting, Architect Christopher Block, Chandler Associates Architecture Inc., and Landscape Architect Mary Chan Yip, PMG Landscape Architects, gave an extensive presentation of the proposal including:

- Incorporating a modern design of the buildings into the natural surroundings.
- Incorporating lantern elements into corner and entry locations and high quality materials.
- Using native plant cultivar species in the landscaping and providing an agricultural screen/buffer to the Garden City lands to the south.
- Installing a green deck above surface parking area for an open flex space.
- Incorporating a rain garden water feature that would detain and filter roof rain water from the proposed Walmart store.

In reply to Panel queries, Mr. Block and Ms. Yip provided the following information:

- Design features will include (i) additional glazing on the buildings; (ii) additional access to retail units; (iii) lantern elements along the entrance to the plaza; (iv) bicycle stalls; and (v) pedestrian access from the street.
- Building L will incorporate a similar design to other buildings in the proposed development, including the lantern elements. He added that the retail units will be single-sided.
- Recommendations from the Advisory Design Panel have been incorporated into the design.
- Building H could be occupied by a restaurant with glazing incorporated in the front and wrapped along the sides.
- Landscaping will help screen, but not completely restrict visibility of the buildings with a mix of evergreen and deciduous tree species. The landscaping will open up along the entrances to the plaza.
- The agricultural buffer landscaping will use native plant species and cultivars to prevent the spread of seeds and invasive plant species.
- The landscape design incorporates a natural design and complements the architectural design of the proposed development.

- There will be four (4) rows of plants and trees along the Garden City Road frontage, including the street tree and boulevard planting.
- A four-level parking garage along the Alexandra Road frontage will use tinted glass and perforated metal panels to screen the parking area, allowing for ventilation and feature softer lighting at night.
- A trellis structure will encapsulate the loading area of the proposed Walmart store, together with barriers to provide screening. There will be approximately 14 truck deliveries per week and staff will use hand carts to minimize noise. A solid roof was not feasible for the loading area due to fire suppression and ventilation equipment requirements.
- The planted deck flex space in the parking area will include (i) a graded slope; (ii) short plant species; (iii) irrigating elements; and (iv) parking under the deck. The deck could be used as a green space for shoppers and residents in the neighbourhood.
- The planted deck space will not include any natural play elements, however; it was noted that the planted deck will include lighting and will be maintained by the development.
- The bus stop will be located on the Garden City Road side of the site.
- The development will be rated as a Leed Silver equivalent development and will include (i) a district energy connection; (ii) a green roof system on the parking deck; (iii) reflective roofing surfaces; (iv) bicycle parking facilities; (v) accessible shower facilities; (vi) rain water recycling; (vii) permeable paving; (viii) low-flow washrooms; (ix) use of local building materials; and (x) use of low VOC paints.
- The location of the district energy connection on the subject site has not been finalized.

In reply to Panel queries, Mike Gilman, Senior Land Developer Manager, SmartCentres Inc., advised that he anticipates truck deliveries will occur during regular business hours.

Staff supported the Development Permit application and requested variance and advised:

- The western portion of the site will include a continuation of the Alexandra Road Greenway and will connect to other greenways in the area.
- There will be a 25% increase over the minimum bicycle parking space and storage requirement.
- A cash contribution for bus shelter upgrades in the area will be included.
- Four (4) electric vehicle charging stations will be included.
- Ten percent (10%) of the total parking spaces will have rough-in provisions for electric vehicle charging.

No correspondence was submitted to the Panel regarding the Development Permit application.

The application was referred to staff to examine: (i) design improvements to buildings A and L located along the Alderbridge Way and Garden City Road frontages, and the parking structure along Alexandra Road; (ii) design improvements and noise mitigation for the loading bay of the proposed Walmart store; (iii) the location for the district energy related infrastructure; and report back to the June 25, 2014 Development Permit Panel meeting.

At the June 25, 2014 Panel meeting, Architect Christopher Block, Architect, Chandler Associates Architecture Inc., and Landscape Architect Mary Chan Yip, PMG Landscape Architects, gave a brief presentation, including:

- The urban design, architectural form and character, and landscape design were improved.
- The design was enhanced for buildings A and L and the parking structure. Additional glazing, improved lighting elements and upgraded materials will be incorporated into the design.
- The loading bay design was enhanced by increasing the screening structure height to deflect noise and provide visual screening.

In reply to Panel queries, Mr. Block and Ms. Yip providing the following information:

- The DEU connection could possibly be placed on the (i) edge of the green deck; (ii) the roof of building B; or (iii) roof of building C. The design of the DEU connection is in the preliminary stages and that the location of the DEU will be finalized in later stages of the design process.
- The proposed green deck will replicate features of a shoreline and will incorporate elements such as logs and boulders. Also, native plant species will be incorporated onto the green deck. Thorny plants will be planted along the perimeter of the green deck as a safety feature to encourage children to stay away from the edges.
- The landscape plans were further refined to include more native species of plants in the proposed development.

Staff supported the Development Permit application and requested variance and advised that a general compliance may be needed in the future, pending on the proposed design for the DEU connection, although the potential DEU infrastructure locations will provide opportunities to ensure these facilities are integrated into the project design.

No correspondence was submitted to the Panel regarding the Development Permit application.

Panel expressed their appreciation for the revisions made on the proposed development.

The Panel recommends that the Permit be issued.



City of Richmond

Report to Council

To: Richmond City Council

Date: July 22, 2014

From: Victor Wei, P.Eng
Chair, Development Permit Panel

File: 01-0100-20-DPER1-
01/2014-Vol 01

Re: **Development Permit Panel Meeting held on February 12, 2014**

Staff Recommendation

That the recommendation of the Panel to authorize the issuance of:

- i. a Development Permit (DP 13-630413) for the property at 9431, 9451, 9471 and 9491 Williams Road;

be endorsed, and the Permit so issued.

Victor Wei, P. Eng.
Chair, Development Permit Panel

SB:rg

Panel Report

The Development Permit Panel considered the following item at its meeting February 12, 2014.

DP 13-630413 – YAMAMOTO ARCHITECTURE INC. – 9431, 9451, 9471 AND 9491
WILLIAMS ROAD
(February 12, 2014)

The Panel considered a Development Permit application to permit the construction of 20 townhouse units on a site zoned “Medium Density Townhouses (RTM2)”. No variances are included in the proposal.

Architect Yoshi Mikamo, Yamamoto Architecture Inc., and Landscape Architect Denitsa Dimitrova, PMG Landscape Architects, gave a brief overview of the proposed townhouse development with respect to (i) urban design, (ii) architectural form and character, (iii) landscaping and open space design, (iv) exterior colour scheme, and (v) the play equipment in the outdoor children’s play area.

Staff supported the Development Permit application and noted that: (i) the applicant is integrating four (4) existing trees into the development; (ii) staff are satisfied with the proposed revised children’s play equipment; and the applicant is working with the City on the demolition of the existing buildings and the recycling of the demolition materials.

In reply to Panel queries, Mr. Mikamo and Ms. Dimitrova provided the following information:

- The exterior colour scheme included lighter colours.
- The newly proposed play equipment has a smaller footprint compared to the previously proposed play equipment and would not overlap the tree protection area.
- The proposed trees planted adjacent to the outdoor amenity area would be small and columnar so that they would not act as a barrier when the amenity area is expanded in the future.
- There is not a tree proposed in front of unit C in order to keep the space open and welcoming. However, an additional tree could be planted in front of the unit to address privacy concerns.

The Panel supported the development with recommendations to plant an additional tree in front of unit C in order to address potential privacy concerns.

Subsequent to the Panel meeting, the landscape design was revised to include two (2) additional pear trees in front of unit C and a seating bench was added at the outdoor amenity area.

The Panel recommends that the Permit be issued.