PUBLIC HEARING BINDER

905-959 Premier Street

Table of Contents:

NORTH VANCOUVER DISTRICT

10)	**Design** • Architectural Plans • Material Board illustrating proposed building materials for the project • Landscape Plans for the project • Civil Key Plan
11)	**Design** • Excerpt from the Advisory Design Panel's minutes for February 9, 2017, recording the review by the Design Panel of the proposal.
12)	**Tree Report** • Tree report for the trees and hedge on site and immediately adjacent to the site.
13)	**Green Building and Energy Conservation** • Green Building Commitment Letter and Checklist This checklist illustrates how the applicant's team intends to meet or exceed the District's Green Building Policy and address the Development Permit for Energy and Water Conservation and Greenhouse Gas Emission Reduction
14)	**Flood Hazard Report** • North West Hydraulic Consultants dated received May 11, 2017 This report assesses the flood hazards the may affect the safe development and use of this property.
Public Input	
15)	**Past Public Input** • Information Report on Public Information Meeting dated May 14, 2017 • Public Information Meeting Summary Report
16)	**Public Input** - Correspondence / submissions from the public since First Reading given May 29, 2017

AGENDA INFORMATION		Dept. Manager	GM/ Director	CAO
☑ Regular Meeting	Date: May 29, 2017			
☐ Workshop (open to public)	Date:			

The District of North Vancouver
REPORT TO COUNCIL

May 17, 2017
File: 08.3060.20/062. 16

AUTHOR: Darren Veres, Development Planner

SUBJECT: **BYLAWS 8236 AND 8237: REZONING AND HOUSING AGREEMENT FOR A 17 UNIT TOWNHOUSE PROJECT: 905 - 959 PREMIER STREET**

RECOMMENDATIONS:

THAT "District of North Vancouver Rezoning Bylaw 1353 (Bylaw 8236)" is given FIRST Reading;

AND THAT "Housing Agreement Bylaw 8237, 2017 (905-959 Premier Street)" is given FIRST Reading;

AND THAT Bylaw 8236 be referred to a public hearing.

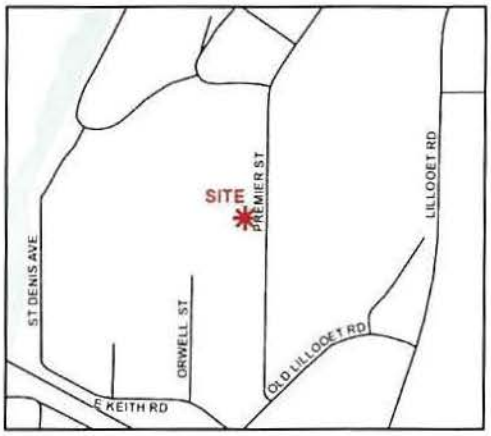
REASON FOR REPORT:

The proposed project requires Council's consideration of:

- Bylaw 8236 to rezone the subject properties; and
- Bylaw 8237 to authorize entry into a Housing Agreement to ensure that owners are not prevented from renting their units.

SUMMARY:

The applicant proposes to redevelop four single-family lots located at 905 – 959 Premier Street for a 17-unit townhouse project. The proposal requires rezoning and issuance of a development permit. The Rezoning Bylaw and Housing Agreement Bylaw are recommended for Introduction and the Rezoning Bylaw is recommended for referral to a Public Hearing.



BACKGROUND:

Official Community Plan

The subject properties are designated as *Residential Level 3: Attached Residential* in the District Official Community Plan (OCP), which envisions ground-oriented multifamily housing up to approximately 0.8 FSR.

The proposed townhouse units are all three bedroom units, which will be attractive to families, and as such, the proposal responds to Goal #2 of the OCP to "encourage and enable a diverse mix of housing types…to accommodate the lifestyles and needs of people at all stages of life." It also addresses the intent of the housing diversity policies in Section 7.1 of the OCP by providing units suitable for families (Policy 7.1.4).

The Lynnmour Inter-River Local Plan reference policy document designated this site as "Low Density Multi-Family Housing" up to 0.7 FSR. A plan goal of the Lynnmour Inter-River Local Plan reference policy document was "to support the primarily family orientation of the residential area, while ensuring any new development contributes directly to the overall improvement of the community".

The density of the proposal is 0.7 FSR with exclusions for parking, storage and balconies and therefore compliant with the Official Community Plan and the Lynnmour Inter-River Local Plan reference policy document. The Lynnmour Inter-River design guidelines support the proposed exemptions for storage areas and garages.

Zoning:

The subject properties are zoned Residential Single-Family 7200 Zone (RS3) and therefore require rezoning to permit this multi-family project. Bylaw 8236 proposes the establishment of a new Comprehensive Development Zone 102 (CD102) tailored specifically to this project.

Development Permit

The subject properties are located within Development Permit Areas for the following purposes:

- Form and Character of Multi-Family Development (Ground-Oriented Housing);
- Energy and Water Conservation and Greenhouse Gas Emission Reductions; and
- Protection from Natural Hazards (Creek Hazard).

A detailed development permit report, outlining the projects' compliance with the applicable DPA guidelines, will be provided for Council's consideration at the Development Permit stage should the rezoning advance.

Strata Rental Protection Policy

Corporate Policy 8-3300-2 "Strata Rental Protection Policy" applies to this project as the rezoning application would permit development of more than five units. The policy requires a Housing Agreement to ensure that future strata bylaws do not prevent owners from renting their units and Bylaw 8237 is provided to implement that Policy.

Housing Affordability and Diversity

In accordance with the Rental and Affordable Housing Strategy, this application is meeting goal number one of expanding the supply and diversity of housing through the provision of family oriented townhouse units which are in high demand and short supply in the District. These town homes offer ground oriented family alternatives to single detached home ownership and will be attractive to young couples who are part of the District's "missing generation." The Strata Rental Protection Policy will be applied through a Housing Agreement to ensure that no restrictions are placed on strata rentals. Community amenity contributions from the site can be used toward the District's affordable housing goals.

ANALYSIS

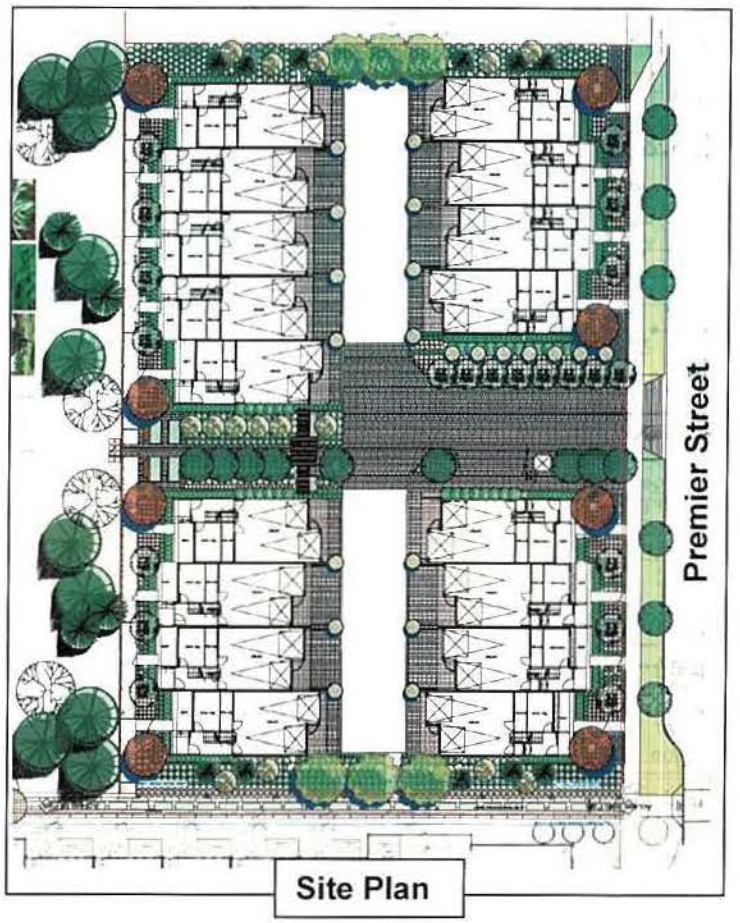
The Site and Surrounding Area:

The site consists of four single-family lots on the west side of Premier Street. Adjacent properties consist of townhouses to the north, east and south, and Inter River Park to the west. The OCP designates the surrounding multifamily properties as Residential Level 3: Attached Residential and Residential Level 4: Transitional Residential.

Project Description:

Site Plan/Building Description:

The project consists of 17 townhouses in four buildings. Two buildings front Premier Street while the other two face Inter River Park. A landscaped walkway connecting Premier St with Inter River Park is located at the south end of the site. The townhouses are each three storeys with their own ground level parking garage. The garages are accessed off a driveway from Premier Street. All the units have 3 bedrooms on the upper level and range in size from 104m² (1,129 sq ft) to 114m² (1,232 sq ft), excluding the garages and 9 m^2 (100 sq. ft) of storage. The individual buildings are approximately 10.7m (35 ft) in height. Renderings of the project are below.



Site Plan


Premier Street (looking west)


Internal Courtyard (looking east)

Inter-River Park Frontage (looking east from park)

Inter-River Sub-Area Transportation Study

This application was reviewed in context with Transportation Planning's Inter-River Sub-Area Transportation Study, provided to Council in September, 2016. This study, which involved local stakeholders and residents, determined locations for future road circulation improvements and pedestrian connections. This project is dedicating 1.1 m at the south portion of the site to achieve the enhanced pedestrian connection to Inter River Park (Digger Park) which is envisioned in the study.

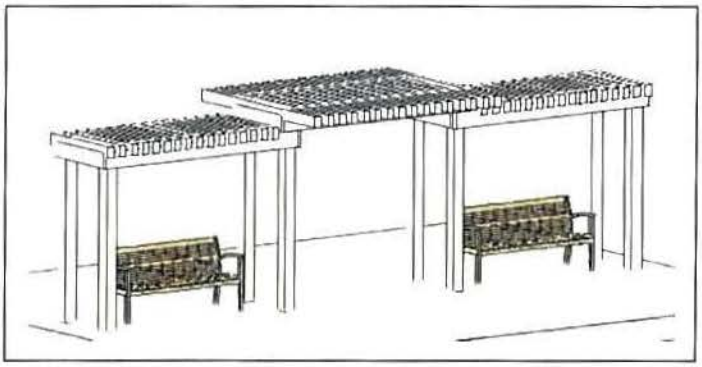
Parking

Vehicle access to the site is off Premier Street between the two front buildings and the proposal includes 35 parking stalls. Each of the units has a two-car garage and some driveways will accommodate visitor parking. One dedicated visitor space is provided along the south side of the driveway. All of the parking spaces including the visitor space are standard car spaces.

Landscaping

The landscaping is included at the perimeter of the site along the Premier Street frontage and on the interior drive aisles. Landscaping is also proposed along the pedestrian path at the south end of the property. This path provides public access to Inter River Park (Digger Park) from Premier Street.

A central feature of the landscape plan is a sitting and gathering area located between the two buildings on the west side of the property. This area includes benches, raised planters, an arbour, and a variety of trees and plantings creating a space for the residents to sit while overlooking the Inter River Park. A 1.3 m (4 ft) high wood fence is proposed along the western property line with a central gateway opening on to the park.



Trees

Twenty-nine onsite trees have been identified for removal to accommodate the proposed development. In addition, two hazardous District-owned Black Cottonwoods located in Inter River Park just outside the western boundary of the property have also been proposed for removal. In place of these trees, the applicant is planting 18 trees (including 10 Western Red Cedars) in the park just outside the western property line and 81 onsite trees. The onsite trees are a combination of deciduous and coniferous.

Engineering

The off-site engineering works include the installation of a new side walk, street lighting, a speed hump, and improvements to the sanitary network. The works also propose to install lighting bollards along the existing pedestrian pathway to the south of the site to improve visibility at night time.

The site is located within a Development Permit area for Creek Hazard and the applicant has submitted a report from Northwest Hydraulic Consultants that states that all habitable areas are set above the required flood construction level.

Acoustic Regulations

Bylaw 8138 includes the District's residential acoustic regulations for maximum noise levels in the bedrooms, living areas and other areas of the units. The applicant will be required to submit a report from a qualified noise consultant confirming the building design will enable these standards to be met. The Section Manager of Public Safety has reviewed and accepted the report.

Accessible Design

The applicant is proposing to provide basic design features to facilitate building access and usability for people of all ages and abilities, and enhanced features, where appropriate to facilitate ageing in place and support people with mobility and sensory impairments.

Reduced copies of site, architectural and landscaping plans are included as Attachment A for Council's reference.

IMPLEMENTATION:

Implementation of this project will require consideration of a rezoning bylaw, Bylaw 8236, and Housing Agreement Bylaw 8237, as well as issuance of a development permit and registration of legal agreements.

Bylaw 8236 (Attachment B) rezones the subject properties from Single Family Residential 7200 Zone (RS3) to a new Comprehensive Development 102 Zone (CD102) which:

- establishes the multi-family residential use;
- allows home occupations as an accessory use;
- establishes a base density FSR (Floor Space Ratio) of 0.45;
- establishes a density bonus to an FSR of 0.7 subject to payment of a $257,281 CAC and entering into a housing agreement to restrict future strata rental restrictions;
- establishes setback, height, building coverage and site coverage regulations;
- incorporates acoustic requirements; and
- establishes parking regulations specific to this project.

Bylaw 8237, (Attachment C) authorizes the District to enter into a Housing Agreement to ensure that the proposed units remain available as rental units.

A contribution of $48,732.42 will be required to the dyke infrastructure fund for future maintenance of the flood works installed in the Inter-River area. This contribution will be collected prior to adoption of Bylaw 8236. DNV DCCs are estimated at $284,589.

In addition, the following legal agreements will be required prior to zoning bylaw adoption to secure:

- a housing agreement to ensure that owners are not prevented from renting their units;
- a green building, accessible and acoustical covenant;
- a stormwater management covenant;
- a covenant to ensure that the project is built in accordance with the flood report;
- an engineering servicing agreement (including construction management plan); and
- a consolidation plan with road dedication.

COMMUNITY AMENITY CONTRIBUTION:

The District's Community Amenity Contribution (CAC) Policy requires an amenity contribution for projects including an increase in residential density. In this case, a CAC of $257,281 has been calculated and this amount is included in the proposed CD102 Zone. It is anticipated that the CACs from this development will include contributions toward public art; park, trail, environmental, pedestrian or other public realm, infrastructure improvements; municipal, recreation or social service facility or service / facility improvements; and/or the affordable housing fund.

GREEN BUILDING MEASURES:

Compliance with the Green Building Strategy is mandatory given the need for rezoning and the project is targeting an energy performance rating of Energuide 80 and will be required to meet a target equivalent to the "Gold" standard.

CONCURRENCE:

Staff

The project has been reviewed by staff from Environment, Permits, Parks, Engineering, Policy Planning, Urban Design, Transportation Planning, the Fire Department and the Arts Office.

Advisory Design Panel

The application was considered by the Advisory Design Panel (ADP) on February 9, 2017 and the panel recommended approval of the project subject to the review of the following items:

- further develop gathering area to provide more flexibility and better social interaction;
- Provide an internal connection between the courtyard and the pedestrian pathway;
- Provide wayfinding and unit identification; and
- Consider variation to garage door design to avoid repetition.

The applicant has provided the following revisions in response to the ADP's comments:

- Hardscaping around the arbour and entry/exit to the park, has been increased to accommodate additional space for gathering and improved social interaction;
- Exterior personnel doors in the garages have been revised to swing outwards to ensure their continuous functional use;
- New pedestrian connection to the southern pathway has been developed;
- Wayfinding sign with map has been added; and
- Garage door design has been refined to differentiate the units.

PUBLIC INPUT:

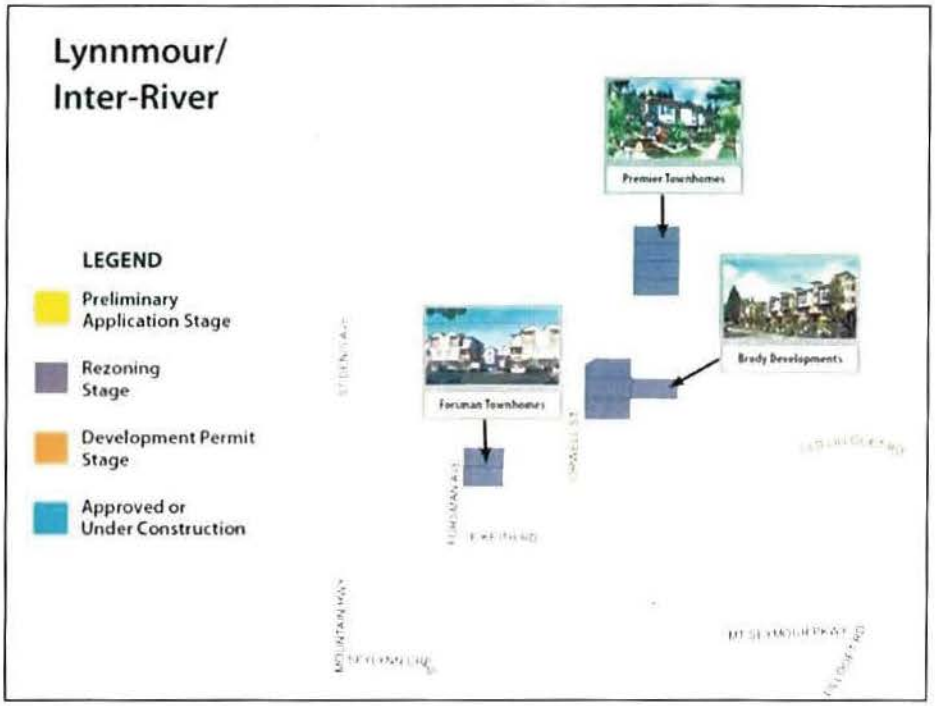
Public Information Meeting

The applicant held a facilitated Public Information Meeting on March 1, 2017. The meeting was attended by 10 residents. Written input has been provided by three neighbours. Input includes managing construction traffic, on-street parking and the need for visitor parking in this project. In addition lighting along the pedestrian pathway and onsite storage for garbage/recycling was noted.

The proposal has been revised to include lighting bollards along the pedestrian pathway to the south and garbage / recycling storage space inside the garages of each unit. Onsite parking complies with Part 10 of the zoning bylaw and the addition of an onsite visitor parking stall has been secured in the CD102 bylaw. The development covenant will require the construction traffic management plan in accordance with the direction of the District's construction traffic management office.

CONSTRUCTION MANAGEMENT PLAN:

This neighbourhood currently has three townhouse applications being processed. In order to reduce the development's impact on pedestrian and vehicular movements, the developer will be required to provide a construction traffic management plan as a condition of the development covenant and Development Permit. The Construction Management plan must minimize construction impacts on pedestrian and vehicle movement. The plan is required to be approved by the District prior to issuance of a building permit.



In particular, the 'construction traffic management' must:

1. Coordinate with other construction projects in the area;
2. Provide safe passage for pedestrians, cyclists, and vehicle traffic;
3. Outline roadway efficiencies (i.e. location of traffic management signs and flaggers);
4. Provide a point of contact for all calls and concerns;
5. Provide a sequence and schedule of construction activities;
6. Ascertain a location for truck marshalling and trade vehicle parking which is acceptable to the District and minimizes impacts to neighbourhoods;
7. Develop a plan for trade vehicle parking which is acceptable to the District and minimizes impacts to neighbourhoods;
8. Address silt/dust control and clean-up;
9. Provide a plan for litter clean-up and street sweeping adjacent to the site; and
10. Include a communication plan to notify surrounding school and residents.

Particular attention will be paid to maintaining vehicle access to properties located north of this site along Premier Street considering this road does not provide through access.

CONCLUSION:

This project is consistent with the directions established in the OCP and the Lynnmour Inter-River Local Plan. It addresses OCP housing policies related to the provision of a range of housing options, in this case, family housing in a townhouse format.

The project is now ready for Council's consideration.

Options:

The following options are available Council's consideration:

1) Introduce Bylaws 8236 and 8237 and refer Bylaw 8236 to a Public Hearing (staff recommendation); or

2) Defeat Bylaw 8236 and 8237 at First Reading.

Darren Veres
Development Planner

A – Reduced project plans
B – Bylaw 8236
C – Bylaw 8237

REVIEWED WITH:

❑ Sustainable Community Dev.	____	❑ Clerk's Office	____	External Agencies:	
❑ Development Services	____	❑ Communications	____	❑ Library Board	____
❑ Utilities	____	❑ Finance	____	❑ NS Health	____
❑ Engineering Operations	____	❑ Fire Services	____	❑ RCMP	____
❑ Parks & Environment	____	❑ ITS	____	❑ Recreation Com.	____
❑ Economic Development	____	❑ Solicitor	____	❑ Museum & Arch.	____
❑ Human resources	____	❑ GIS	____	❑ Other:	____

REZONING & DETAILED DP Update - April 26, 2017

DRAWING LIST

ARCHITECTURAL

A-0.00	COVER SHEET
A-0.01	CONTEXT MAPS/ PHOTOS
A-0.02	CONTEXT MAPS/ PHOTOS
A-0.10	PROJECT DATA, DESIGN RATIONALE & KEY PLAN
A-0.11	COLOUR ELEVATION & PERSPECTIVE RENDERINGS
A-0.12	COLOUR ELEVATION & PERSPECTIVE RENDERINGS
A-0.13	MATERIAL & COLOUR LEGEND
A-0.14	DIGITAL CONTEXT MODEL IMAGES
A-0.15	SHADOW STUDIES
A-0.16	FIRE ACCESS PLAN
A-1.00	SITE PLAN
A-1.11	1ST FLOOR PLAN
A-1.12	2ND FLOOR PLAN
A-1.13	3RD FLOOR PLAN
A-1.14	ROOF PLAN
A-3.11	B1-TYPE UNIT PLANS
A-3.12	B2-TYPE UNIT PLANS
A-4.00	SITE ELEVATIONS - BUILDINGS 1 & 3
A-4.10	SITE ELEVATIONS - BUILDINGS 1 & 2
A-4.20	SITE ELEVATIONS - BUILDINGS 2 & 4
A-4.30	SITE ELEVATIONS - BUILDINGS 3 & 4
A-5.01	SITE SECTIONS
A-5.02	SITE SECTIONS

LANDSCAPE

L1	SITE CONCEPT PLAN
L2	TREE REMOVAL/ RETENTION PLAN
L3	HARDSCAPE PLAN
L4	OVERALL PLANTING PLAN
L4.01	PLANTING PLAN
L4.02	PLANTING PLAN
L4.03	PLANTING PLAN
L4.04	PLANTING PLAN
L5	SECTIONS/ ELEVATIONS
L6	SECTIONS/ ELEVATIONS
L7	PERGOLA DETAILS

CIVIL

KEY	KEY PLAN
ESC	EROSION & SEDIMENT CONTROL
RW-1	ROADWORKS - PREMIER ST
RW-2	ROADWORKS - ON-SITE
LP-1	SIGNAGE & LINE PAINTING
GRAD-1	GRADING - ON-SITE
SERV-1	SERVICING - OFF-SITE
SERV-2	SERVICING - ON-SITE SAN / WATER
SERV-3	SERVICING - ON-SITE STORM
SMP	STORMWATER MANAGEMENT
DET-1	STANDARD DETAILS
DET-2	STANDARD DETAILS
DWG	STREET LIGHTING

PROPOSED RESIDENTIAL DEVELOPMENT - STRUCTURE DEVELOPMENT

INTEGRA ARCHITECTURE INC.

416 WEST PENDER STREET
VANCOUVER, BC V6B 1T5
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info@integra-arch.com
www.integra-arch.com

STRUCTURE DEVELOPMENT

17-Unit Townhouse Development

925 - 929 PREMIER STREET
NORTH VANCOUVER, BC

COVER PAGE

13325
NTS
April 26, 2017
5

ATTACHMENT A

A1-0.00

PREMIER STREET EAST ELEVATION (BUILDINGS 1 & 3)

899 PREMIER STREET (DEVELOPMENT TO SOUTH)

PATHWAY TO PARK

VIGNETTE ELEVATION

PREMIER STREET ENTRY PERSPECTIVE (BLDGS. 1 &3)

TYPICAL ELEVATION (UNIT 4) & EAST STREET ELEVATION - BUILDING 4

INTERNAL COURTYARD PERSPECTIVE (BUILDING 4)

INTEGRA ARCHITECTURE INC.
416 WEST PENDER STREET
VANCOUVER, BC V6B 1T5
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info@integra-arch.com
www.integra-arch.com

STRUCTURE DEVELOPMENT

17-Unit Townhouse Development

[illegible] - 959 PREMIER STREET
NORTH VANCOUVER, BC

Coloured Elevations & Perspectives

13325

NTS

April 26, 2017

A-0.11

INTERNAL (WEST) ELEVATION (BUILDINGS 1 & 3)

PUBLIC PATH (SOUTH) ELEVATION (BUILDINGS 1 & 2)

INTER RIVER PARK PERSPECTIVE FROM S.W. CORNER

INTER RIVER PARK (WEST) ELEVATION (BUILDINGS 2 & 4)

INTEGRA ARCHITECTURE INC.
416 WEST PENDER STREET
VANCOUVER, BC V6B 1T5
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www.integra-arch.com

STRUCTURE DEVELOPMENT

17-Unit Townhouse Development

[redacted] NORTH VANCOUVER, BC

Coloured Elevations & Perspective

13315

NTS

April 28, 2017

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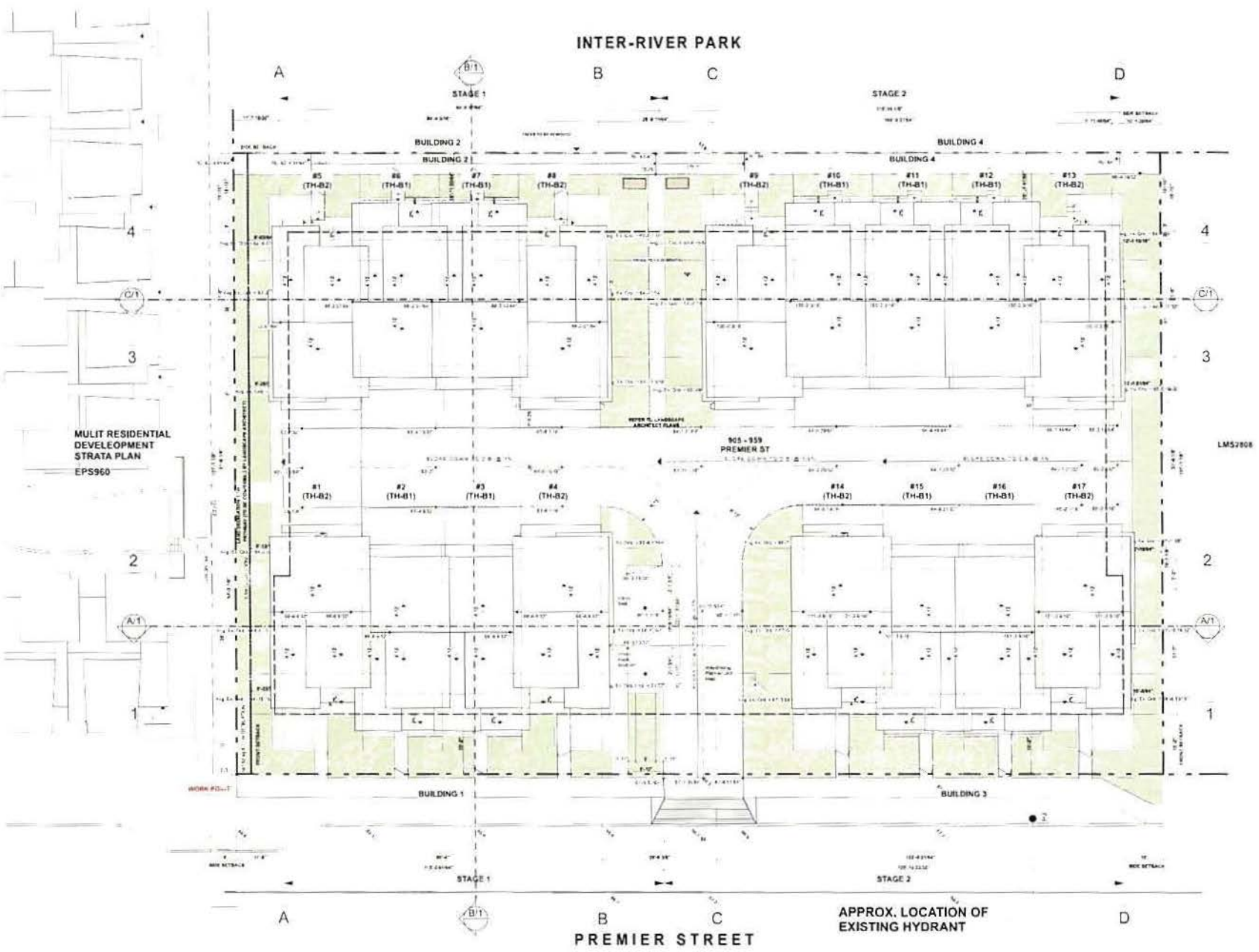

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N

STRUCTURE DEVELOPMENT

17-Unit Townhouse Development

905 - 959 PREMIER STREET
NORTH VANCOUVER, BC

Site Plan

13325
3/32" = 1'-0"
April 26, 2017
1

A-1.00

native planting

courtyard planting

CONTEXT MAP N.T.S.

FORMA DESIGN INC.
www.formadesign.ca

805-850 Premier Street
North Vancouver, BC

Layout / Conceptual Planting Plan

ATTACHMENT B

The Corporation of the District of North Vancouver

Bylaw 8236

A bylaw to amend District of North Vancouver Zoning Bylaw 3210, 1965

The Council for The Corporation of the District of North Vancouver enacts as follows:

1. Citation

This bylaw may be cited as the "District of North Vancouver Rezoning Bylaw 1353 (Bylaw 8236)".

2. Amendments

2.1 District of North Vancouver Zoning Bylaw 3210, 1965 is amended as follows:

a) Section 301 (2) by inserting the following zoning designation:

"Comprehensive Development Zone 102 CD102"

b) Part 4B Comprehensive Development Zone Regulations by inserting the following, inclusive of Schedule B.

"4B102 Comprehensive Development Zone 102 CD 102

The CD 102 zone is applied to:

905 Premier Street, LOT A BL 2 DL 612 PLAN 15462, PID: 007-637-781
923 Premier Street, LOT B BL 2 DL 612 PLAN 15462, PID: 007-637-811
939 Premier Street, LOT C BL 2 DL 612 PLAN 15462, PID: 007-637-837
959 Premier Street, LOT D BL 2 DL 612 PLAN 15642, PID: 007-637-861

4B 102-1 Intent

The purpose of the CD 102 Zone is to establish specific land use and development regulations for a seventeen-unit townhouse project.

4B 102- 2 Permitted Uses:

The following *principal* uses shall be permitted in the CD 102 Zone:

(a) Uses Permitted Without Conditions:

Not Applicable

(b) Conditional Uses:

(i) Residential building, multiple-family townhouse

4B 102-3 Conditions of Use

(a) Balcony enclosures not permitted

4B 102-4 Accessory Use

(a) *Accessory uses* are permitted and may include but are not necessarily limited to:

(i) Home occupations in accordance with the regulations in Section 405 of the Zoning Bylaw, 1965

4B 102-5 Density

(a) The maximum permitted density in the CD102 Zone is limited to a floor space ratio (FSR) of 0.45, inclusive of any density bonus for energy performance, and a maximum of 4 units;

(b) For the purposes of calculating floor space ratio, a maximum of 804.91 m² of individual parking garages (8,664.25 sq ft) in total on the lot and a maximum of 74.3 m² of individual unit storage (a maximum of 100 sq ft per unit) in total on the lot as well as balconies and landscape trellis are excluded.

(c) Balcony enclosures are not permitted.

4B 102-6 Amenities

(a) Despite subsection 4B102-5, density in the CD102 Zone is increased to a maximum floor space of 2,363.15m^2 (25,437 sq ft), inclusive of any density bonus for energy performance and a maximum of 17 units, if the owner:

1. Enters into a Housing Agreement prohibiting any restrictions preventing the owners in the project from renting their units; and

2. Contributes $257,281 to the municipality to be used for any or all of the following amenities (with allocation to be determined by the municipality in its sole discretion): public art; park, trail, environmental, pedestrian or other public realm, infrastructure improvements; municipal, recreation or social service facility or service / facility improvements; and/or the affordable housing fund.

4B 102-7 Maximum Principal Building Size:

Not applicable

4B 102-8 Setbacks:

a) Buildings shall be set back from property lines to the closest building face as established by development permit and in accordance with the following regulations:

Setback	Buildings (Min Setback)
Front (east property line)	4.57m (15 ft) to the building face
Rear (west property line)	5.11m (16.75 ft) to the building face
Side (north)	2.44m (8 ft) to the building face
Side (south)	1.83m (6 ft) to the building face

b) Balconies and trellises are excluded from any setback requirements.

4B 102-9 Building Orientation:

Not applicable

4B 102-10 Building Depth and Width:

Not applicable

4B 102-11 Coverage:

(a) Building Coverage shall not exceed 40%.

(b) Site Coverage shall not exceed 82%.

4B 102-12 Height:

The maximum permitted height for each building is 10.7m (35 ft);

4B 102-13 Acoustic Requirements:

In the case of residential purposes, a development permit application shall require evidence in the form of a report and recommendations prepared by persons trained in acoustics and current techniques of noise measurements, demonstrating that the noise levels in those portions of the dwelling listed below shall not exceed the noise levels expressed in decibels set opposite such portions of the dwelling units:

Portion of Dwelling Unit	Noise Level (Decibels)
Bedrooms	35
Living and Dining rooms	40
Kitchen, Bathrooms and Hallways	45

4B 102-14 Flood Construction Requirements:

No basement, or habitable floor space, other than garage and storage space, shall be constructed below the established flood construction levels as identified in a flood hazard report prepared by a qualified registered professional engineer.

4B 102-15 Landscaping:

(a) All land areas not occupied by buildings, structures, parking spaces, loading spaces, driveways, manoeuvring aisles and sidewalks shall be landscaped or finished in accordance with an approved landscape plan; and

(b) All electrical kiosks and garbage and recycling container pads not located underground or within a building shall be screened with landscaping.

4B 102-16 Subdivision Requirements:

Not applicable

4B 102-17 Additional Accessory Structure Regulations:

Not applicable.

4B 102-18 Parking and Loading Regulations:

(a) Parking spaces shall be provided on the basis of 2 spaces/unit plus 1 visitor space; and

(b) All parking spaces shall meet the minimum length and width standards established in Part 10 of the District of North Vancouver Zoning Bylaw."

2.2 The Zoning Map is amended in the case of the lands illustrated on the attached map (Schedule A) by rezoning the land from the Residential Single Family 7200 Zone (RS3) to Comprehensive Development Zone 102 (CD 102).

READ a first time May 29, 2017

PUBLIC HEARING held

READ a second time

READ a third time

Certified a true copy of "Rezoning Bylaw 1353 (Bylaw 8236)" as at Third Reading

_____
Municipal Clerk

APPROVED by the Ministry of Transportation and Infrastructure on

ADOPTED

_____ _____
Mayor Municipal Clerk

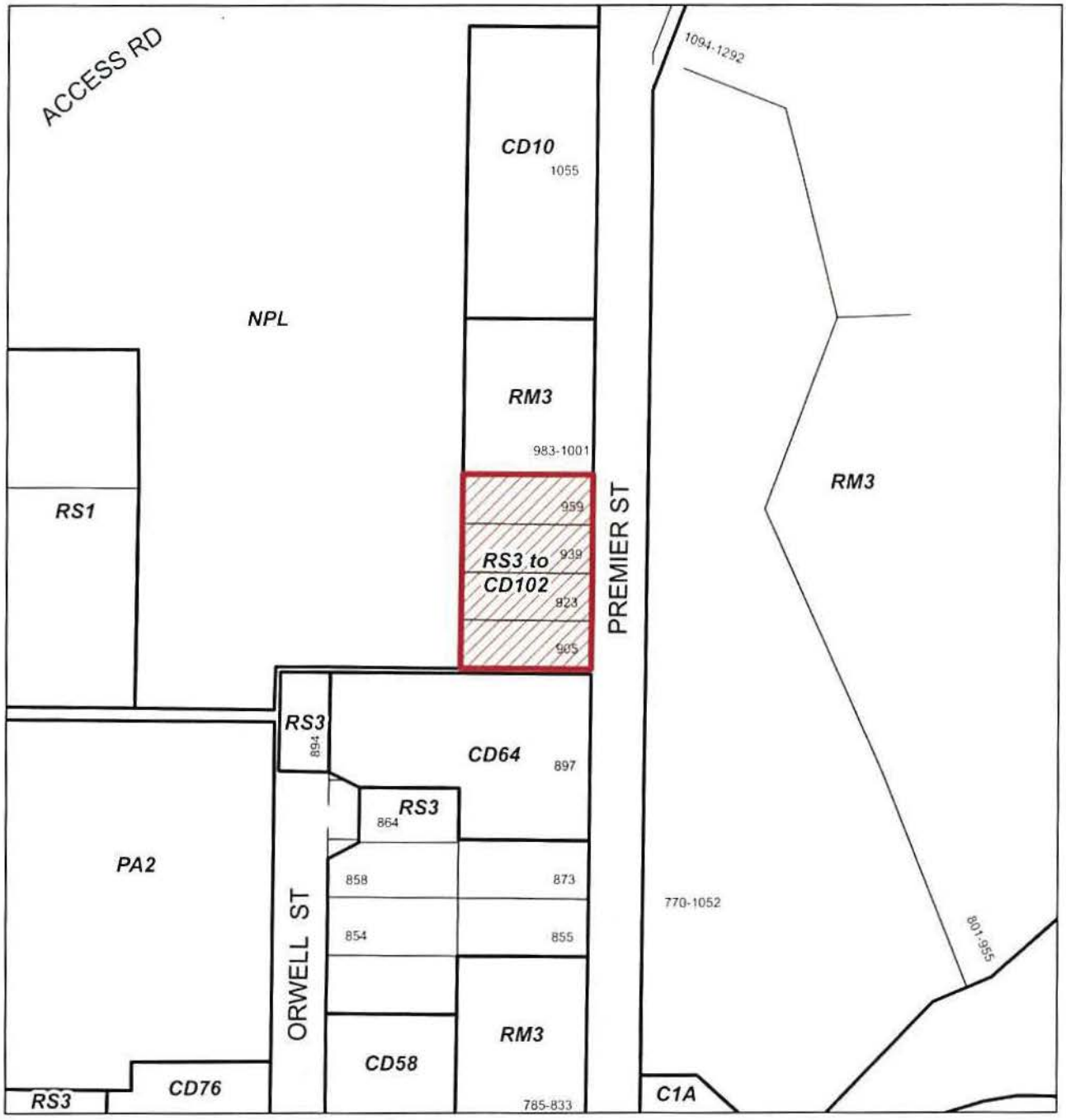
Certified a true copy

_____
Municipal Clerk

Schedule A to Bylaw 8236

BYLAW 8236

The District of North Vancouver Rezoning Bylaw 1353 (Bylaw 8236)



Document: 3151647

ATTACHMENT C

The Corporation of the District of North Vancouver

Bylaw 8237

A bylaw to enter into a Housing Agreement

The Council for The Corporation of the District of North Vancouver enacts as follows:

1. Citation

This bylaw may be cited as "Housing Agreement Bylaw 8237, 2017 (905-959 Premier Street)".

2. Authorization to Enter into Agreement

2.1 The Council hereby authorizes a housing agreement between The Corporation of the District of North Vancouver and Park Side Edge Developments Ltd., Inc. No. BC0999688 substantially in the form attached to this Bylaw as Schedule "A" with respect to the following lands:

a) PID: 007-637-781 LOT A BL 2 DL 612 PLAN 15462
b) PID: 007-637-811 LOT B BL 2 DL 612 PLAN 15462
c) PID: 007-637-837 LOT C BL 2 DL 612 PLAN 15462
d) PID: 007-637-861 LOT D BL 2 DL 612 PLAN 15642

3. Execution of Documents

The Mayor and Municipal Clerk are authorized to execute any documents required to give effect to the Housing Agreement.

READ a first time May 29, 2017

READ a second time

READ a third time

ADOPTED

Mayor

Municipal Clerk

Certified a true copy

Municipal Clerk

Schedule A to Bylaw 8237

SECTION 219 COVENANT – HOUSING AGREEMENT

This agreement is dated for reference the ____ day of _____, 20____

BETWEEN:

PARK SIDE EDGE DEVELOPMENTS LTD. (Inc. No. BC0999688), a company incorporated under the laws of the Province of British Columbia having an office at 1015 15th Avenue East, Vancouver, BC V5T 2S4

(the "Developer")

AND:

THE CORPORATION OF THE DISTRICT OF NORTH VANCOUVER, a municipality incorporated under the *Local Government Act*, RSBC 2015, c.1 and having its office at 355 West Queens Road, North Vancouver, BC V7N 4N5

(the "District")

WHEREAS:

1. The Developer is the registered owner of the Lands (as hereinafter defined);

2. The Developer wishes to obtain development permissions with respect to the Lands and wishes to create a condominium development which will contain residential strata units on the Lands;

3. Section 483 of the *Local Government Act* authorises the District, by bylaw, to enter into a housing agreement to provide for the prevention of rental restrictions on housing, and provides for the contents of the agreement; and

4. Section 219 of the *Land Title Act* (British Columbia) permits the registration in favour of the District of a covenant of a negative or positive nature relating to the use of land or a building thereon, or providing that land is to be built on in accordance with the covenant, or providing that land is not to be built on except in accordance with the covenant, or providing that land is not to be subdivided except in accordance with the covenant;

NOW THEREFORE in consideration of the mutual promises contained in it, and in consideration of the payment of $1.00 by the District to the Developer (the receipt and sufficiency of which are hereby acknowledged by the Developer), the parties covenant and agree with each other as follows, as a housing agreement under Section 483 of the *Local Government Act*, as a contract and a deed under seal between the parties, and as a covenant under Section 219 of the *Land Title Act*, and the Developer hereby further covenants and agrees that neither the Lands nor any building constructed thereon shall be used or built on except in accordance with this Agreement:

1. DEFINITIONS

1.01 Definitions

In this agreement:

(a) *"Development Permit"* means development permit No. _____ issued by the District;

(b) *"Lands"* means land described in Item 2 of the *Land Title Act* Form C to which this agreement is attached;

(c) *"Owner"* means the Developer and any other person or persons registered in the Lower Mainland Land Title Office as owner of the Lands from time to time, or of any parcel into which the Lands are consolidated or subdivided, whether in that person's own right or in a representative capacity or otherwise;

(d) *"Proposed Development"* means the proposed development containing not more than 17 units to be constructed on the Lands in accordance with the Development Permit;

(e) *"Short Term Rentals"* means any rental of a Unit for any period less than 30 days;

(f) *"Strata Corporation"* means the strata corporation formed upon the deposit of a plan to strata subdivide the Proposed Development pursuant to the *Strata Property Act*;

(g) *"Unit"* means a residential dwelling strata unit in the Proposed Development; and

(h) *"Unit Owner"* means the registered owner of a Dwelling Unit in the Proposed Development.

2. TERM

This Agreement will commence upon adoption by District Council of Bylaw 8237 and remain in effect until terminated by the District as set out in this Agreement.

3. RENTAL ACCOMODATION

3.01 Rental Disclosure Statement

No Unit in the Proposed Development may be occupied unless the Owner has:

(a) before the first Unit is offered for sale, or conveyed to a purchaser without being offered for sale, filed with the Superintendent of Real Estate a rental disclosure statement in the prescribed form (the "Rental Disclosure Statement") designating all of the Units as rental strata lots and imposing at least a 99 year rental period in relation to all of the Units pursuant to the *Strata Property Act* (or any successor or replacement legislation), except in relation to Short Term Rentals and, for greater certainty, stipulating specifically that the 99 year rental restriction does not apply to a Strata Corporation bylaw prohibiting or restricting Short Term Rentals; and

(b) given a copy of the Rental Disclosure Statement to each prospective purchaser of any Unit before the prospective purchaser enters into an agreement to purchase in respect of the Unit. For the purposes of this paragraph 3.01(b), the Owner is deemed to have given a copy of the Rental Disclosure Statement to each prospective purchaser of any Unit in the building if the Owner has included the Rental Disclosure Statement as an exhibit to the disclosure statement for the Proposed Development prepared by the Owner pursuant to the *Real Estate Development Marketing Act*.

3.02 Rental Accommodation

The Units constructed on the Lands from time to time may always be used to provide rental accommodation as the Owner or a Unit Owner may choose from time to time, except that this section 3.02 does not apply to Short Term Rentals which may be restricted by the Strata Corporation to the full extent permitted by law.

3.03 Binding on Strata Corporation

This agreement shall be binding upon all Strata Corporations created by the subdivision of the Lands or any part thereof (including the Units) pursuant to the *Strata Property Act,* and upon all Unit Owners.

3.04 Strata Bylaw Invalid

Any Strata Corporation bylaw which prevents, restricts or abridges the right to use any of the Units as rental accommodations (other than Short Term Rentals) shall have no force or effect.

3.05 No Bylaw

The Strata Corporation shall not pass any bylaws preventing, restricting or abridging the use of the Lands, the Proposed Development or the Units contained therein from time to time as rental accommodation (other than Short Term Rentals).

3.06 Vote

No Unit Owner, nor any tenant or mortgagee thereof, shall vote for any Strata Corporation bylaw purporting to prevent, restrict or abridge the use of the Lands, the Proposed Development or the Units contained therein from time to time as rental accommodation (other than Short Term Rentals).

3.07 Notice

The Owner will provide notice of this Agreement to any person or persons intending to purchase a Unit prior to any such person entering into an agreement of purchase and sale, agreement for sale, or option or similar right to purchase as part of the disclosure statement for any part of the Proposed Development prepared by the Owner pursuant to the *Real Estate Development Marketing Act*.

3.08 Release of Covenant [*optional clause*]

The District agrees that if the District of North Vancouver Rezoning Bylaw 3210 (Bylaw 8197), is not adopted by the District's Council before [*date*], the Owner is entitled to require the District to execute and deliver to the Owner a discharge, in registrable form, of this Agreement from title to the Land. The Owner is responsible for the preparation of the discharge under this section and for the cost of registration at the Land Title Office.

4. DEFAULT AND REMEDIES

4.01 Notice of Default

The District may, acting reasonably, give to the Owner written notice to cure a default under this Agreement within 30 days of delivery of the notice. The notice must specify the nature of the default. The Owner must act with diligence to correct the default within the time specified.

4.02 Costs

The Owner will pay to the District upon demand all the District's costs of exercising its rights or remedies under this Agreement, on a full indemnity basis.

4.03 Damages an Inadequate Remedy

The Owner acknowledges and agrees that in the case of a breach of this Agreement which is not fully remediable by the mere payment of money and promptly so remedied, the harm sustained by the District and to the public interest will be irreparable and not susceptible of adequate monetary compensation.

4.04 Equitable Remedies

Each party to this Agreement, in addition to its rights under this Agreement or at law, will be entitled to all equitable remedies including specific performance, injunction and declaratory relief, or any of them, to enforce its rights under this Agreement.

4.05 No Penalty or Forfeiture

The Owner acknowledges and agrees that it is entering into this Agreement to benefit the public interest in providing rental accommodation, and that the District's rights and remedies under this Agreement are necessary to ensure that this purpose is carried out, and the District's rights and remedies under this Agreement are fair and reasonable and ought not to be construed as a penalty or forfeiture.

4.06 Cumulative Remedies

No reference to nor exercise of any specific right or remedy under this Agreement or at law or at equity by any party will prejudice, limit or preclude that party from exercising any other right or remedy. No right or remedy will be exclusive or dependent upon any other right to remedy, but any party, from time to time, may exercise any one or more of such rights or remedies independently, successively, or in combination. The Owner acknowledges that specific

performance, injunctive relief (mandatory or otherwise) or other equitable relief may be the only adequate remedy for a default by the Owner under this Agreement.

5. LIABILITY

5.01 Indemnity

Except if arising directly from the negligence of the District or its employees, agents or contractors, the Owner will indemnify and save harmless each of the District and its board members, officers, directors, employees, agents, and elected or appointed officials,, and their heirs, executors, administrators, personal representatives, successors and assigns, from and against all claims, demands, actions, loss, damage, costs and liabilities that all or any of them will or may be liable for or suffer or incur or be put to any act or omission by the Owner or its officers, directors, employees, agents, contractors, or other persons for whom the Owner is at law responsible, or by reason of or arising out of the Owner's ownership, operation, management or financing of the Proposed Development or any part thereof.

5.02 Release

The Owner hereby releases and forever discharges the District, its elected officials, board members, officers, directors, employees and agents, and its and their heirs, executors, administrators, personal representatives, successors and assigns from and against all claims, demands, damages, actions or causes of action by reason of or arising out of advice or direction respecting the ownership, operation or management of the Proposed Development or any part thereof which has been or hereafter may be given to the Owner by all or any of them.

5.03 Survival

The covenants of the Owner set out in Sections 5.01 and 5.02 will survive termination of this Agreement and continue to apply to any breach of the Agreement or claim arising under this Agreement during the ownership by the Owner of the Lands or any Unit therein, as applicable.

6. GENERAL PROVISIONS

6.01 District's Power Unaffected

Nothing in this Agreement:

(a) affects or limits any discretion, rights, powers, duties or obligations of the District under any enactment or at common law, including in relation to the use or subdivision of land;

(b) affects or limits any enactment relating to the use of the Lands or any condition contained in any approval including any development permit concerning the development of the Lands; or

(c) relieves the Owner from complying with any enactment, including the District's bylaws in relation to the use of the Lands.

6.02 Agreement for Benefit of District Only

The Owner and District agree that:

(a) this Agreement is entered into only for the benefit of the District:

(b) this Agreement is not intended to protect the interests of the Owner, any Unit Owner, any occupant of any Unit or any future owner, occupier or user of any part of the Proposed Development, including any Unit, or the interests of any third party, and the District has no obligation to anyone to enforce the terms of this Agreement; and

(c) The District may at any time terminate this Agreement, in whole or in part, and execute a release and discharge of this Agreement in respect of the Proposed Development or any Unit therein, without liability to anyone for doing so.

6.03 Agreement Runs With the Lands

This Agreement burdens and runs with the Lands and any part into which any of them may be subdivided or consolidated, by strata plan or otherwise. All of the covenants and agreements contained in this Agreement are made by the Owner for itself, its successors and assigns, and all persons who acquire an interest in the Lands or in any Unit after the date of this Agreement.

6.04 Release

The covenants and agreements on the part of the Owner and any Unit Owner and herein set forth in this Agreement have been made by the Owner and any Unit Owner as contractual obligations as well as being made pursuant to Section 483 of the *Local Government Act* (British Columbia) and as such will be binding on the Owner and any Unit Owner, except that neither the Owner nor any Unit Owner shall be liable for any default in the performance or observance of this Agreement occurring after such party ceases to own the Lands or a Unit as the case may be.

6.05 Priority of This Agreement

The Owner will, at its expense, do or cause to be done all acts reasonably necessary to ensure this Agreement is registered against the title to each Unit in the Proposed Development, including any amendments to this Agreement as may be required by the Land Title Office or the District to effect such registration.

6.06 Agreement to Have Effect as Deed

The District and the Owner each intend by execution and delivery of this Agreement to create both a contract and a deed under seal.

6.07 Waiver

An alleged waiver by a party of any breach by another party of its obligations under this Agreement will be effective only if it is an express waiver of the breach in writing. No waiver of a

breach of this Agreement is deemed or construed to be a consent or waiver of any other breach of this Agreement.

6.08 Time

Time is of the essence in this Agreement. If any party waives this requirement, that party may reinstate it by delivering notice to another party.

6.09 Validity of Provisions

If a Court of competent jurisdiction finds that any part of this Agreement is invalid, illegal, or unenforceable, that part is to be considered to have been severed from the rest of this Agreement and the rest of this Agreement remains in force unaffected by that holding or by the severance of that part.

6.10 Extent of Obligations and Costs

Every obligation of a party which is set out in this Agreement will extend throughout the Term and, to the extent that any obligation ought to have been observed or performed prior to or upon the expiry or earlier termination of the Term, such obligation will survive the expiry or earlier termination of the Term until it has been observed or performed.

6.11 Notices

All notices, demands, or requests of any kind, which a party may be required or permitted to serve on another in connection with this Agreement, must be in writing and may be served on the other parties by registered mail or by personal service, to the following address for each party:

If to the District:

District Municipal Hall
355 West Queens Road
North Vancouver, BC V7N 4N5

Attention: Planning Department

If to the Owner:

Park Side Edge Developments Ltd.
1015 15th Avenue East
Vancouver, BC V5T 2S4

If to the Unit Owner:

The address of the registered owner which appears on title to the Unit at the time of notice.

Service of any such notice, demand, or request will be deemed complete, if made by registered mail, 72 hours after the date and hour of mailing, except where there is a postal service disruption during such period, in which case service will be deemed to be complete only upon actual delivery of the notice, demand or request and if made by personal service, upon personal service being effected. Any party, from time to time, by notice in writing served upon the other parties, may designate a different address or different or additional persons to which all notices, demands, or requests are to be addressed.

6.12 Further Assurances

Upon request by the District, the Owner will promptly do such acts and execute such documents as may be reasonably necessary, in the opinion of the District, to give effect to this Agreement.

6.13 Enuring Effect

This Agreement will enure to the benefit of and be binding upon each of the parties and their successors and permitted assigns.

7. INTERPRETATION

7.01 References

Gender specific terms include both genders and include corporations. Words in the singular include the plural, and words in the plural include the singular.

7.02 Construction

The division of this Agreement into sections and the use of headings are for convenience of reference only and are not intended to govern, limit or aid in the construction of any provision. In all cases, the language in this Agreement is to be construed simply according to its fair meaning, and not strictly for or against either party.

7.03 No Limitation

The word "including" when following any general statement or term is not to be construed to limit the general statement or term to the specific items which immediately follow the general statement or term similar items whether or not words such as "without limitation" or "but not limited to" are used, but rather the general statement or term is to be construed to refer to all other items that could reasonably fall within the broadest possible scope of the general statement or term.

7.04 Terms Mandatory

The words "must" and "will" and "shall" are to be construed as imperative.

7.05 Statutes

Any reference in this Agreement to any statute or bylaw includes any subsequent amendment, re-enactment, or replacement of that statute or bylaw.

7.06 Entire Agreement

(d) This is the entire agreement between the District and the Owner concerning its subject, and there are no warranties, representations, conditions or collateral agreements relating to this Agreement, except as included in this Agreement.

(e) This Agreement may be amended only by a document executed by the parties to this Agreement and by bylaw, such amendment to be effective only upon adoption by District Council of a bylaw to amend Bylaw 8237.

7.07 Governing Law

This Agreement is to be governed by and construed and enforced in accordance with the laws of British Columbia.

As evidence of their agreement to be bound by the terms of this instrument, the parties hereto have executed the *Land Title Act* Form C that is attached hereto and forms part of this Agreement.

GRANT OF PRIORITY

WHEREAS CANADIAN WESTERN BANK (the "**Chargeholder**") is the holder of the following charges which are registered in the Land Title Office:

(a) Mortgage CA4957792; and

(b) Assignment of Rents CA4957793 (together, the "**Charge**");

AND WHEREAS the Chargeholder agrees to allow the Section 219 Covenant herein to have priority over the Charge;

THIS PRIORITY AGREEMENT is evidence that in consideration of the sum of $1.00 paid by THE CORPORATION OF THE DISTRICT OF NORTH VANCOUVER (the "**District**") to the Chargeholder, the receipt and sufficiency of which are hereby acknowledged, the Chargeholder covenants and agrees to subordinate and postpone all its rights, title and interest in and to the lands described in the Form C to which this Agreement is attached (the "**Lands**") with the intent and with the effect that the interests of the District rank ahead of the Charge as though the Section 219 Covenant herein had been executed, delivered and registered against title to the Lands before registration of the Charge.

As evidence of its Agreement to be bound by the above terms, as a contract and as a deed executed and delivered under seal, the Chargeholder has executed the Form C to which this Agreement is attached and which forms part of this Agreement.

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The Corporation of the District of North Vancouver

Bylaw 8236

A bylaw to amend District of North Vancouver Zoning Bylaw 3210, 1965

The Council for The Corporation of the District of North Vancouver enacts as follows:

1. Citation

This bylaw may be cited as the "District of North Vancouver Rezoning Bylaw 1353 (Bylaw 8236)".

2. Amendments

2.1 District of North Vancouver Zoning Bylaw 3210, 1965 is amended as follows:

a) Section 301 (2) by inserting the following zoning designation:

"Comprehensive Development Zone 102 CD102"

b) Part 4B Comprehensive Development Zone Regulations by inserting the following, inclusive of Schedule B.

"4B102 Comprehensive Development Zone 102 CD 102

The CD 102 zone is applied to:

905 Premier Street, LOT A BL 2 DL 612 PLAN 15462, PID: 007-637-781
923 Premier Street, LOT B BL 2 DL 612 PLAN 15462, PID: 007-637-811
939 Premier Street, LOT C BL 2 DL 612 PLAN 15462, PID: 007-637-837
959 Premier Street, LOT D BL 2 DL 612 PLAN 15642, PID: 007-637-861

4B 102-1 Intent

The purpose of the CD 102 Zone is to establish specific land use and development regulations for a seventeen-unit townhouse project.

4B 102- 2 Permitted Uses:

The following *principal* uses shall be permitted in the CD 102 Zone:

(a) Uses Permitted Without Conditions:

Not Applicable

(b) Conditional Uses:

(i) Residential building, multiple-family townhouse

4B 102-3 Conditions of Use

(a) Balcony enclosures not permitted

4B 102-4 Accessory Use

(a) *Accessory uses* are permitted and may include but are not necessarily limited to:

(i) Home occupations in accordance with the regulations in Section 405 of the Zoning Bylaw, 1965

4B 102-5 Density

(a) The maximum permitted density in the CD102 Zone is limited to a floor space ratio (FSR) of 0.45, inclusive of any density bonus for energy performance, and a maximum of 4 units;

(b) For the purposes of calculating floor space ratio, a maximum of 804.91 m^2 of individual parking garages (8,664.25 sq ft) in total on the lot and a maximum of 74.3 m^2 of individual unit storage (a maximum of 100 sq ft per unit) in total on the lot as well as balconies and landscape trellis are excluded.

(c) Balcony enclosures are not permitted.

4B 102-6 Amenities

(a) Despite subsection 4B102-5, density in the CD102 Zone is increased to a maximum floor space of 2,363.15m^2 (25,437 sq ft), inclusive of any density bonus for energy performance and a maximum of 17 units, if the owner:

1. Enters into a Housing Agreement prohibiting any restrictions preventing the owners in the project from renting their units; and

2. Contributes $257,281 to the municipality to be used for any or all of the following amenities (with allocation to be determined by the municipality in its sole discretion): public art; park, trail, environmental, pedestrian or other public realm, infrastructure improvements; municipal, recreation or social service facility or service / facility improvements; and/or the affordable housing fund.

4B 102-7 Maximum Principal Building Size:

Not applicable

4B 102-8 Setbacks:

a) Buildings shall be set back from property lines to the closest building face as established by development permit and in accordance with the following regulations:

Setback	**Buildings (Min Setback)**
Front (east property line)	4.57m (15 ft) to the building face
Rear (west property line)	5.11m (16.75 ft) to the building face
Side (north)	2.44m (8 ft) to the building face
Side (south)	1.83m (6 ft) to the building face

b) Balconies and trellises are excluded from any setback requirements.

4B 102-9 Building Orientation:

Not applicable

4B 102-10 Building Depth and Width:

Not applicable

4B 102-11 Coverage:

(a) Building Coverage shall not exceed 40%.

(b) Site Coverage shall not exceed 82%.

4B 102-12 Height:

The maximum permitted height for each building is 10.7m (35 ft);

4B 102-13 Acoustic Requirements:

In the case of residential purposes, a development permit application shall require evidence in the form of a report and recommendations prepared by persons trained in acoustics and current techniques of noise measurements, demonstrating that the noise levels in those portions of the dwelling listed below shall not exceed the noise levels expressed in decibels set opposite such portions of the dwelling units:

Portion of Dwelling Unit	Noise Level (Decibels)
Bedrooms	35
Living and Dining rooms	40
Kitchen, Bathrooms and Hallways	45

4B 102-14 Flood Construction Requirements:

No basement, or habitable floor space, other than garage and storage space, shall be constructed below the established flood construction levels as identified in a flood hazard report prepared by a qualified registered professional engineer.

4B 102-15 Landscaping:

(a) All land areas not occupied by buildings, structures, parking spaces, loading spaces, driveways, manoeuvring aisles and sidewalks shall be landscaped or finished in accordance with an approved landscape plan; and

(b) All electrical kiosks and garbage and recycling container pads not located underground or within a building shall be screened with landscaping.

4B 102-16 Subdivision Requirements:

Not applicable

4B 102-17 Additional Accessory Structure Regulations:

Not applicable.

4B 102-18 Parking and Loading Regulations:

(a) Parking spaces shall be provided on the basis of 2 spaces/unit plus 1 visitor space; and

(b) All parking spaces shall meet the minimum length and width standards established in Part 10 of the District of North Vancouver Zoning Bylaw."

2.2 The Zoning Map is amended in the case of the lands illustrated on the attached map (Schedule A) by rezoning the land from the Residential Single Family 7200 Zone (RS3) to Comprehensive Development Zone 102 (CD 102).

READ a first time May 29th, 2017

PUBLIC HEARING held

READ a second time

READ a third time

Certified a true copy of "Rezoning Bylaw 1353 (Bylaw 8236)" as at Third Reading

_____
Municipal Clerk

APPROVED by the Ministry of Transportation and Infrastructure on

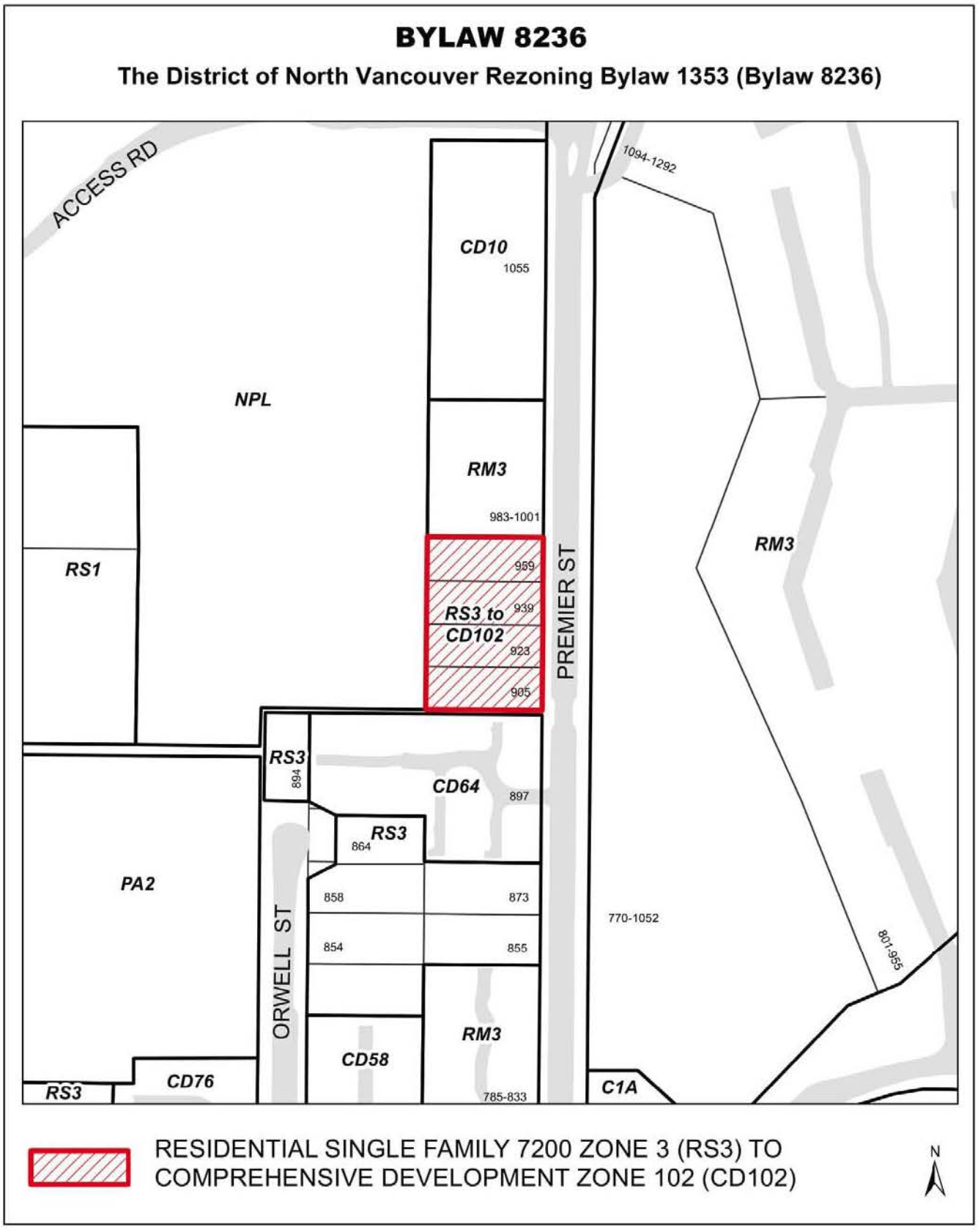
ADOPTED

_____ _____
Mayor Municipal Clerk

Certified a true copy

_____
Municipal Clerk

Schedule A to Bylaw 8236



DISTRICT OF NORTH VANCOUVER

PUBLIC HEARINGS

Tuesday, June 13, 2017, at 7 pm

District of North Vancouver Municipal Hall
355 West Queens Road, North Vancouver, BC

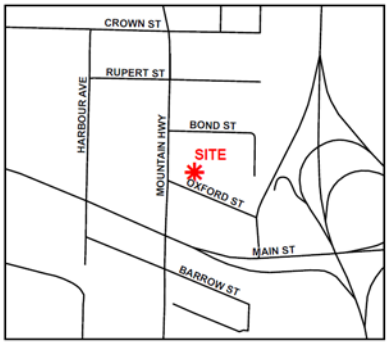
Two public hearings will occur consecutively in the order noted below.

1502-1546 Oxford Street
180 Bed Seniors Care Centre

What:
A Public Hearing for Bylaws 8240 and 8241, proposed amendments to the Official Community Plan and Zoning Bylaw, to permit the development of a six-storey 180 bed seniors residential care centre.

What changes?
Bylaw 8240 proposes to amend the OCP land use designation of eight properties from Residential Level 5: Low Density Apartment (RES5) to Institutional. Bylaw 8241 proposes to amend the District's Zoning Bylaw by creating a new Comprehensive Development Zone 105 (CD105) and rezone the subject site from Single-Family Residential 6000 Zone (RS4) to CD105 and to Neighbourhood Park Zone (NP). The CD105 Zone addresses use, density, height, setbacks, site coverage, landscaping and storm water management and parking, loading and servicing regulations.

Who can I speak to?
Casey Peters, Development Planner, at 604-990-2388 or petersc@dnv.org



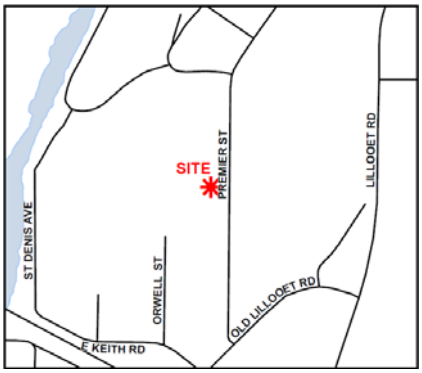
Proposed*

905-959 Premier Street
17 Unit Townhouse Project

What:
A Public Hearing for Bylaw 8236, a proposed amendment to the Zoning Bylaw, to permit the development of a 17 unit townhouse project.

What changes?
Bylaw 8236 proposes to amend the District's Zoning Bylaw by creating a new Comprehensive Development Zone 102 (CD102) and rezone the subject site from Residential Single-Family 7200 Zone (RS3) to CD102. The CD102 Zone addresses use, density, amenities, height, setbacks, site coverage, acoustic requirements, flood construction requirements, landscaping and parking and loading regulations.

Who can I speak to?
Darren Veres, Development Planner, at 604-990-2487 or veresd@dnv.org



Proposed*

*Provided by applicant for illustrative purposes only.
The actual development, if approved, may differ.

How can I provide input?
We welcome your input Tuesday, June 13, 2017, at 7 pm. You can speak in person by signing up at the hearing, or you can provide a written submission to the Municipal Clerk at input@dnv.org or by mail to Municipal Clerk, District of North Vancouver, 355 West Queens Road, North Vancouver, BC, V7N 4N5, before the conclusion of the hearing.

Please note that Council may not receive further submissions from the public concerning this application after the conclusion of the public hearing.

Need more info?
Relevant background material and copies of the bylaw are available for review at the Municipal Clerk's Office or online at dnv.org/public_hearing from May 30 to June 13. Office hours are Monday to Friday 8 am to 4:30 pm, except statutory holidays.

NVanDistrict

dnv.org/public_hearing

@NVanDistrict

The Corporation of the District of North Vancouver

Bylaw 8237

A bylaw to enter into a Housing Agreement

The Council for The Corporation of the District of North Vancouver enacts as follows:

1. Citation

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a) PID: 007-637-781 LOT A BLOCK 2 DISTRICT LOT 612 PLAN 15462
b) PID: 007-637-811 LOT B BLOCK 2 DISTRICT LOT 612 PLAN 15462
c) PID: 007-637-837 LOT C BLOCK 2 DISTRICT LOT 612 PLAN 15462
d) PID: 007-637-861 LOT D BLOCK 2 DISTRICT LOT 612 PLAN 15642

3. Execution of Documents

The Mayor and Municipal Clerk are authorized to execute any documents required to give effect to the Housing Agreement.

READ a first time May 29th, 2017

READ a second time

READ a third time

ADOPTED

Mayor

Municipal Clerk

Certified a true copy

_____

Municipal Clerk

Schedule A to Bylaw 8237

SECTION 219 COVENANT – HOUSING AGREEMENT

This agreement is dated for reference the ____ day of _____, 20____

BETWEEN:

PARK SIDE EDGE DEVELOPMENTS LTD. (Inc. No. BC0999688), a company incorporated under the laws of the Province of British Columbia having an office at 1015 15th Avenue East, Vancouver, BC V5T 2S4

(the "Developer")

AND:

THE CORPORATION OF THE DISTRICT OF NORTH VANCOUVER, a municipality incorporated under the *Local Government Act*, RSBC 2015, c.1 and having its office at 355 West Queens Road, North Vancouver, BC V7N 4N5

(the "District")

WHEREAS:

1. The Developer is the registered owner of the Lands (as hereinafter defined);

2. The Developer wishes to obtain development permissions with respect to the Lands and wishes to create a condominium development which will contain residential strata units on the Lands;

3. Section 483 of the *Local Government Act* authorises the District, by bylaw, to enter into a housing agreement to provide for the prevention of rental restrictions on housing, and provides for the contents of the agreement; and

4. Section 219 of the *Land Title Act* (British Columbia) permits the registration in favour of the District of a covenant of a negative or positive nature relating to the use of land or a building thereon, or providing that land is to be built on in accordance with the covenant, or providing that land is not to be built on except in accordance with the covenant, or providing that land is not to be subdivided except in accordance with the covenant;

NOW THEREFORE in consideration of the mutual promises contained in it, and in consideration of the payment of $1.00 by the District to the Developer (the receipt and sufficiency of which are hereby acknowledged by the Developer), the parties covenant and agree with each other as follows, as a housing agreement under Section 483 of the *Local Government Act*, as a contract and a deed under seal between the parties, and as a covenant under Section 219 of the *Land Title Act*, and the Developer hereby further covenants and agrees that neither the Lands nor any building constructed thereon shall be used or built on except in accordance with this Agreement:

1. DEFINITIONS

1.01 Definitions

In this agreement:

(a) *"Development Permit"* means development permit No. _____ issued by the District;

(b) *"Lands"* means land described in Item 2 of the *Land Title Act* Form C to which this agreement is attached;

(c) "*Owner*" means the Developer and any other person or persons registered in the Lower Mainland Land Title Office as owner of the Lands from time to time, or of any parcel into which the Lands are consolidated or subdivided, whether in that person's own right or in a representative capacity or otherwise;

(d) "*Proposed Development*" means the proposed development containing not more than 17 units to be constructed on the Lands in accordance with the Development Permit;

(e) *"Short Term Rentals"* means any rental of a Unit for any period less than 30 days;

(f) *"Strata Corporation"* means the strata corporation formed upon the deposit of a plan to strata subdivide the Proposed Development pursuant to the *Strata Property Act*;

(g) *"Unit"* means a residential dwelling strata unit in the Proposed Development; and

(h) *"Unit Owner"* means the registered owner of a Dwelling Unit in the Proposed Development.

2. TERM

This Agreement will commence upon adoption by District Council of Bylaw 8237 and remain in effect until terminated by the District as set out in this Agreement.

3. RENTAL ACCOMODATION

3.01 Rental Disclosure Statement

No Unit in the Proposed Development may be occupied unless the Owner has:

(a) before the first Unit is offered for sale, or conveyed to a purchaser without being offered for sale, filed with the Superintendent of Real Estate a rental disclosure statement in the prescribed form (the "Rental Disclosure Statement") designating all of the Units as rental strata lots and imposing at least a 99 year rental period in relation to all of the Units pursuant to the *Strata Property Act* (or any successor or replacement legislation), except in relation to Short Term Rentals and, for greater certainty, stipulating specifically that the 99 year rental restriction does not apply to a Strata Corporation bylaw prohibiting or restricting Short Term Rentals; and

(b) given a copy of the Rental Disclosure Statement to each prospective purchaser of any Unit before the prospective purchaser enters into an agreement to purchase in respect of the Unit. For the purposes of this paragraph 3.01(b), the Owner is deemed to have given a copy of the Rental Disclosure Statement to each prospective purchaser of any Unit in the building if the Owner has included the Rental Disclosure Statement as an exhibit to the disclosure statement for the Proposed Development prepared by the Owner pursuant to the *Real Estate Development Marketing Act*.

3.02 Rental Accommodation

The Units constructed on the Lands from time to time may always be used to provide rental accommodation as the Owner or a Unit Owner may choose from time to time, except that this section 3.02 does not apply to Short Term Rentals which may be restricted by the Strata Corporation to the full extent permitted by law.

3.03 Binding on Strata Corporation

This agreement shall be binding upon all Strata Corporations created by the subdivision of the Lands or any part thereof (including the Units) pursuant to the *Strata Property Act,* and upon all Unit Owners.

3.04 Strata Bylaw Invalid

Any Strata Corporation bylaw which prevents, restricts or abridges the right to use any of the Units as rental accommodations (other than Short Term Rentals) shall have no force or effect.

3.05 No Bylaw

The Strata Corporation shall not pass any bylaws preventing, restricting or abridging the use of the Lands, the Proposed Development or the Units contained therein from time to time as rental accommodation (other than Short Term Rentals).

3.06 Vote

No Unit Owner, nor any tenant or mortgagee thereof, shall vote for any Strata Corporation bylaw purporting to prevent, restrict or abridge the use of the Lands, the Proposed Development or the Units contained therein from time to time as rental accommodation (other than Short Term Rentals).

3.07 Notice

The Owner will provide notice of this Agreement to any person or persons intending to purchase a Unit prior to any such person entering into an agreement of purchase and sale, agreement for sale, or option or similar right to purchase as part of the disclosure statement for any part of the Proposed Development prepared by the Owner pursuant to the *Real Estate Development Marketing Act*.

3.08 Release of Covenant [*optional clause*]

The District agrees that if the District of North Vancouver Rezoning Bylaw 3210 (Bylaw 8197), is not adopted by the District's Council before [*date*], the Owner is entitled to require the District to execute and deliver to the Owner a discharge, in registrable form, of this Agreement from title to the Land. The Owner is responsible for the preparation of the discharge under this section and for the cost of registration at the Land Title Office.

4. DEFAULT AND REMEDIES

4.01 Notice of Default

The District may, acting reasonably, give to the Owner written notice to cure a default under this Agreement within 30 days of delivery of the notice. The notice must specify the nature of the default. The Owner must act with diligence to correct the default within the time specified.

4.02 Costs

The Owner will pay to the District upon demand all the District's costs of exercising its rights or remedies under this Agreement, on a full indemnity basis.

4.03 Damages an Inadequate Remedy

The Owner acknowledges and agrees that in the case of a breach of this Agreement which is not fully remediable by the mere payment of money and promptly so remedied, the harm sustained by the District and to the public interest will be irreparable and not susceptible of adequate monetary compensation.

4.04 Equitable Remedies

Each party to this Agreement, in addition to its rights under this Agreement or at law, will be entitled to all equitable remedies including specific performance, injunction and declaratory relief, or any of them, to enforce its rights under this Agreement.

4.05 No Penalty or Forfeiture

The Owner acknowledges and agrees that it is entering into this Agreement to benefit the public interest in providing rental accommodation, and that the District's rights and remedies under this Agreement are necessary to ensure that this purpose is carried out, and the District's rights and remedies under this Agreement are fair and reasonable and ought not to be construed as a penalty or forfeiture.

4.06 Cumulative Remedies

No reference to nor exercise of any specific right or remedy under this Agreement or at law or at equity by any party will prejudice, limit or preclude that party from exercising any other right or remedy. No right or remedy will be exclusive or dependent upon any other right to remedy, but any party, from time to time, may exercise any one or more of such rights or remedies independently, successively, or in combination. The Owner acknowledges that specific

performance, injunctive relief (mandatory or otherwise) or other equitable relief may be the only adequate remedy for a default by the Owner under this Agreement.

5. LIABILITY

5.01 Indemnity

Except if arising directly from the negligence of the District or its employees, agents or contractors, the Owner will indemnify and save harmless each of the District and its board members, officers, directors, employees, agents, and elected or appointed officials,, and their heirs, executors, administrators, personal representatives, successors and assigns, from and against all claims, demands, actions, loss, damage, costs and liabilities that all or any of them will or may be liable for or suffer or incur or be put to any act or omission by the Owner or its officers, directors, employees, agents, contractors, or other persons for whom the Owner is at law responsible, or by reason of or arising out of the Owner's ownership, operation, management or financing of the Proposed Development or any part thereof.

5.02 Release

The Owner hereby releases and forever discharges the District, its elected officials, board members, officers, directors, employees and agents, and its and their heirs, executors, administrators, personal representatives, successors and assigns from and against all claims, demands, damages, actions or causes of action by reason of or arising out of advice or direction respecting the ownership, operation or management of the Proposed Development or any part thereof which has been or hereafter may be given to the Owner by all or any of them.

5.03 Survival

The covenants of the Owner set out in Sections 5.01 and 5.02 will survive termination of this Agreement and continue to apply to any breach of the Agreement or claim arising under this Agreement during the ownership by the Owner of the Lands or any Unit therein, as applicable.

6. GENERAL PROVISIONS

6.01 District's Power Unaffected

Nothing in this Agreement:

(a) affects or limits any discretion, rights, powers, duties or obligations of the District under any enactment or at common law, including in relation to the use or subdivision of land;

(b) affects or limits any enactment relating to the use of the Lands or any condition contained in any approval including any development permit concerning the development of the Lands; or

(c) relieves the Owner from complying with any enactment, including the District's bylaws in relation to the use of the Lands.

6.02 Agreement for Benefit of District Only

The Owner and District agree that:

(a) this Agreement is entered into only for the benefit of the District:

(b) this Agreement is not intended to protect the interests of the Owner, any Unit Owner, any occupant of any Unit or any future owner, occupier or user of any part of the Proposed Development, including any Unit, or the interests of any third party, and the District has no obligation to anyone to enforce the terms of this Agreement; and

(c) The District may at any time terminate this Agreement, in whole or in part, and execute a release and discharge of this Agreement in respect of the Proposed Development or any Unit therein, without liability to anyone for doing so.

6.03 Agreement Runs With the Lands

This Agreement burdens and runs with the Lands and any part into which any of them may be subdivided or consolidated, by strata plan or otherwise. All of the covenants and agreements contained in this Agreement are made by the Owner for itself, its successors and assigns, and all persons who acquire an interest in the Lands or in any Unit after the date of this Agreement.

6.04 Release

The covenants and agreements on the part of the Owner and any Unit Owner and herein set forth in this Agreement have been made by the Owner and any Unit Owner as contractual obligations as well as being made pursuant to Section 483 of the *Local Government Act* (British Columbia) and as such will be binding on the Owner and any Unit Owner, except that neither the Owner nor any Unit Owner shall be liable for any default in the performance or observance of this Agreement occurring after such party ceases to own the Lands or a Unit as the case may be.

6.05 Priority of This Agreement

The Owner will, at its expense, do or cause to be done all acts reasonably necessary to ensure this Agreement is registered against the title to each Unit in the Proposed Development, including any amendments to this Agreement as may be required by the Land Title Office or the District to effect such registration.

6.06 Agreement to Have Effect as Deed

The District and the Owner each intend by execution and delivery of this Agreement to create both a contract and a deed under seal.

6.07 Waiver

An alleged waiver by a party of any breach by another party of its obligations under this Agreement will be effective only if it is an express waiver of the breach in writing. No waiver of a

breach of this Agreement is deemed or construed to be a consent or waiver of any other breach of this Agreement.

6.08 Time

Time is of the essence in this Agreement. If any party waives this requirement, that party may reinstate it by delivering notice to another party.

6.09 Validity of Provisions

If a Court of competent jurisdiction finds that any part of this Agreement is invalid, illegal, or unenforceable, that part is to be considered to have been severed from the rest of this Agreement and the rest of this Agreement remains in force unaffected by that holding or by the severance of that part.

6.10 Extent of Obligations and Costs

Every obligation of a party which is set out in this Agreement will extend throughout the Term and, to the extent that any obligation ought to have been observed or performed prior to or upon the expiry or earlier termination of the Term, such obligation will survive the expiry or earlier termination of the Term until it has been observed or performed.

6.11 Notices

All notices, demands, or requests of any kind, which a party may be required or permitted to serve on another in connection with this Agreement, must be in writing and may be served on the other parties by registered mail or by personal service, to the following address for each party:

If to the District:

District Municipal Hall
355 West Queens Road
North Vancouver, BC V7N 4N5

Attention: Planning Department

If to the Owner:

Park Side Edge Developments Ltd.
1015 15th Avenue East
Vancouver, BC V5T 2S4

If to the Unit Owner:

The address of the registered owner which appears on title to the Unit at the time of notice.

Service of any such notice, demand, or request will be deemed complete, if made by registered mail, 72 hours after the date and hour of mailing, except where there is a postal service disruption during such period, in which case service will be deemed to be complete only upon actual delivery of the notice, demand or request and if made by personal service, upon personal service being effected. Any party, from time to time, by notice in writing served upon the other parties, may designate a different address or different or additional persons to which all notices, demands, or requests are to be addressed.

6.12 Further Assurances

Upon request by the District, the Owner will promptly do such acts and execute such documents as may be reasonably necessary, in the opinion of the District, to give effect to this Agreement.

6.13 Enuring Effect

This Agreement will enure to the benefit of and be binding upon each of the parties and their successors and permitted assigns.

7. INTERPRETATION

7.01 References

Gender specific terms include both genders and include corporations. Words in the singular include the plural, and words in the plural include the singular.

7.02 Construction

The division of this Agreement into sections and the use of headings are for convenience of reference only and are not intended to govern, limit or aid in the construction of any provision. In all cases, the language in this Agreement is to be construed simply according to its fair meaning, and not strictly for or against either party.

7.03 No Limitation

The word “including” when following any general statement or term is not to be construed to limit the general statement or term to the specific items which immediately follow the general statement or term similar items whether or not words such as “without limitation” or “but not limited to” are used, but rather the general statement or term is to be construed to refer to all other items that could reasonably fall within the broadest possible scope of the general statement or term.

7.04 Terms Mandatory

The words “must” and “will” and “shall” are to be construed as imperative.

7.05 Statutes

Any reference in this Agreement to any statute or bylaw includes any subsequent amendment, re-enactment, or replacement of that statute or bylaw.

7.06 Entire Agreement

(d) This is the entire agreement between the District and the Owner concerning its subject, and there are no warranties, representations, conditions or collateral agreements relating to this Agreement, except as included in this Agreement.

(e) This Agreement may be amended only by a document executed by the parties to this Agreement and by bylaw, such amendment to be effective only upon adoption by District Council of a bylaw to amend Bylaw 8237.

7.07 Governing Law

This Agreement is to be governed by and construed and enforced in accordance with the laws of British Columbia.

As evidence of their agreement to be bound by the terms of this instrument, the parties hereto have executed the *Land Title Act* Form C that is attached hereto and forms part of this Agreement.

GRANT OF PRIORITY

WHEREAS CANADIAN WESTERN BANK (the "**Chargeholder**") is the holder of the following charges which are registered in the Land Title Office:

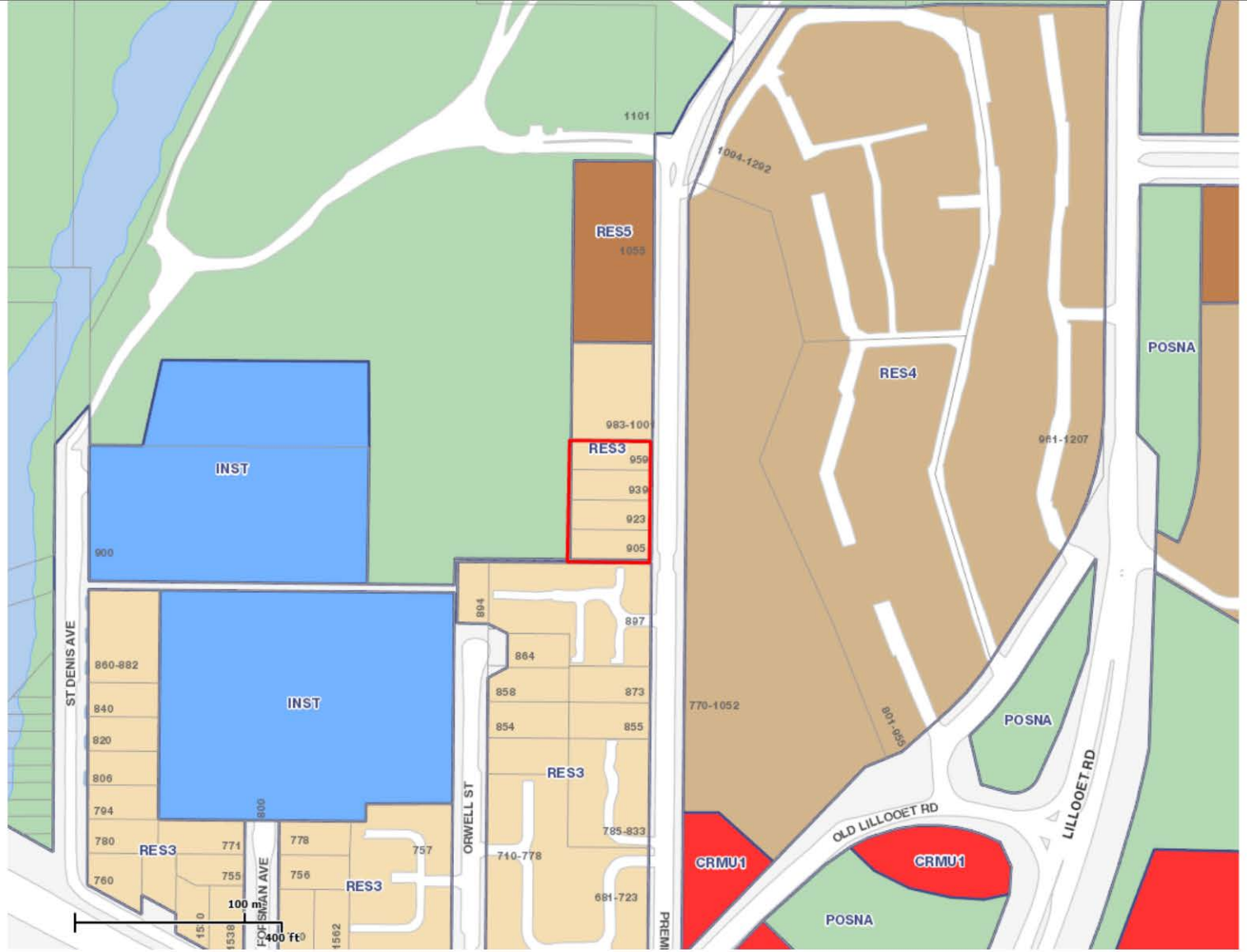
(a) Mortgage CA4957792; and

(b) Assignment of Rents CA4957793 (together, the "**Charge**");

AND WHEREAS the Chargeholder agrees to allow the Section 219 Covenant herein to have priority over the Charge;

THIS PRIORITY AGREEMENT is evidence that in consideration of the sum of $1.00 paid by THE CORPORATION OF THE DISTRICT OF NORTH VANCOUVER (the "**District**") to the Chargeholder, the receipt and sufficiency of which are hereby acknowledged, the Chargeholder covenants and agrees to subordinate and postpone all its rights, title and interest in and to the lands described in the Form C to which this Agreement is attached (the "**Lands**") with the intent and with the effect that the interests of the District rank ahead of the Charge as though the Section 219 Covenant herein had been executed, delivered and registered against title to the Lands before registration of the Charge.

As evidence of its Agreement to be bound by the above terms, as a contract and as a deed executed and delivered under seal, the Chargeholder has executed the Form C to which this Agreement is attached and which forms part of this Agreement.



OCP CLASS

- COMMERCIAL
- COMMERCIAL RESIDENTIAL MIXED USE ...
- COMMERCIAL RESIDENTIAL MIXED USE ...
- COMMERCIAL RESIDENTIAL MIXED USE ...
- INDUSTRIAL
- INSTITUTIONAL
- LIGHT INDUSTRIAL COMMERCIAL
- PARKS, OPEN SPACE, AND NATURAL ARE...
- RESIDENTIAL LEVEL 1: RURAL RESIDENTI...
- RESIDENTIAL LEVEL 2: DETACHED RESID...
- RESIDENTIAL LEVEL 3: ATTACHED RESID...
- RESIDENTIAL LEVEL 4: TRANSITION MUL...
- RESIDENTIAL LEVEL 5: LOW DENSITY AP...
- RESIDENTIAL LEVEL 6: MEDIUM DENSIT...

OCP PROPOSED ROADS

- PROPOSED ROADS IN CENTRES

OCP TOWN CENTRES

- TOWN CENTRE BOUNDARY

OCP URBAN CONTAINMENT

- URBAN CONTAINMENT BOUNDARY

GEOtools

905 - 959 Premier Street

Land Use Designation Map

Printed on: Thursday, May 25, 2017

NORTH VANCOUVER DISTRICT

The Lynnmour / Inter-River Local Plan Bylaw

1.0 INTRODUCTION

The Lynnmour / Inter-River Local Plan is intended to guide, enhance and protect the community's physical and social growth and development for approximately the next ten years. The Plan has been created through a partnership between the community residents, local public service providers and District staff representatives. It is expected that this local plan will be appended to the District Official Community Plan by bylaw and will replace the Central Inter-River Official Community Plan, adopted by Council on December 2, 1985.

The Official Community Plan is a municipal bylaw adopted by Council expressing the social, environmental and economic objectives and policies respecting the general form and character of future land use patterns and related servicing requirements. Sections 875 to 881 of the Local Government Act outline the contents of the Official Community Plan and Section 882 defines the adoption procedure for official community plans.

2.0 SCOPE OF PLAN

The Lynnmour / Inter-River Local Plan is intended to serve as a guide for all land use decisions and actions in the planning area. Map 1 identifies the planning area that is bounded by Lynn Creek to the west, the North Vancouver Cemetery to the north, Seymour River to the east and the Mount Seymour Parkway/Trans-Canada Highway to the south. It includes the two main residential communities of Lynnmour North and Riverside West.

Overall goals for the future of the planning area are set down in the section entitled Plan Goals. Broader planning objectives and specific policies and implementation or action statements to achieve these objectives are outlined in the five separate sections that make up the main body of the Plan.

3.0 PLANNING PROCESS

This Plan was undertaken in partnership with interested individual residents, community representatives, local service providers and District staff from Parks and Engineering Services and Community Planning. A Plan Steering Group was formed and community issues and views were

sought by taking a travelling display tent around to nine local housing complexes and public locations in June 1999. Several key community issues were identified and subsequently investigated by Capilano College student researchers or by staff or specific service providers. The draft plan was then developed with the Steering Group to address these issues and opportunities and a public review was undertaken in September, 2000 – again using a display tent at various community locations.

Approximately 600 to700 local residents participated in the planning process during this period. In addition, the draft plan was reviewed by various Council appointed advisory committees and local service providers before being presented to Council at a tour and workshop in early 2001.

At that time Council expressed the preference to resolve several issues of local concern prior to adopting the draft plan. A public involvement process was commenced to explore solutions to these issues, which included expansion of the Fire Training Centre, revisions to the Inter-River Park Master Plan and forest preservation. Almost simultaneously, the Jaycee House was turned over to District ownership and preparations begun to renovate the facility and negotiations started with the Lynnmour/Inter-River Community Association to operate the building as a community centre. In June and July, 2002 Council adopted a revised Master Plan for Inter-River Park and a comprehensive development plan for the Fire Training Centre. The result of these actions was to formally expand the size of Inter-River Park and to preserve the majority of the forested area at its south end.

The draft plan was then updated to reflect these and other smaller changes and reviewed by the Plan Steering Group before again being presented to Council at a workshop in October 2003.

At the second workshop Council felt it would be prudent for the community to meet with Ministry of Transportation officials before sending the draft plan on to a public hearing. Council was concerned about community impacts of possible changes to the highway system if the Squamish Nation decided to proceed with its proposed shopping centre.

Provincial staff was reluctant to meet with the pubic to discuss what improvements or changes they would make only if the Squamish proposal were to proceed (and no such decision had yet been made). They did however agree to meet community representatives to review the wording in the draft local plan in order to better understand the residents' long term goals and general concerns. The meeting took place in May 2004 and did not result in any changes needing to be made to the draft Plan. Since then the Ministry has announced a series of changes to the road and highway

network in order to provide improved access to the proposed shopping centre and has met with the local community to provide an opportunity for public comment on these changes. It is expected that construction of these changes will commence in late 2006 or early 2007.

Work on revised design guidelines for the proposed multipex and townhouse area surrounding Lynnmour School commenced and the draft Plan was prepared in bylaw format. Bylaw 7461 was subsequently introduced to Council on November 8th, 2004 and referred to a Public Hearing scheduled for February 22nd, 2005. In early January, 2005 a consulting engineering study of gravel removal in Lynn Creek was received (*The Lynn Creek Management Plan* prepared by Kerr Wood Leidal Consulting Engineers, December 2004). This study identified the proposed development area (Area 1) as a flood hazard zone. Staff then requested Council postpone the Public Hearing until further information was available. Subsequently, the consulting engineering firm was retained to provide a Flood Protection Assessment and the draft Plan and Area 1 Design Guidelines were revised to reflect the recommendations contained in the report, titled *Lynnmour / Inter-River Local Plan, Flood Protection Assessment – Final*, March 6, 2006.

With the incorporation of these changes and additional updating to keep the draft Plan current a final public review was undertaken with the Plan Steering Committee, a public open "tent" display arranged and Council advisory groups. Due to the number of changes made throughout this review stage Bylaw 7461 was abandoned and the Lynnmour/Inter-River Local Plan was re-introduced to Council as Bylaw 7623.

4.0 COMMUNITY HISTORY AND DEVELOPMENT

In the early days (1860 – 1900) there is little recorded history about most of the area included in this community plan. However, if one considers a slightly broader area by including all the lands between Lynn Creek and the Seymour River, then several items of interest come to light.
In 1864, Hugh Burr was given a Crown grant of 169 acres on the east side of Seymour Creek, which he began to farm. He was joined in 1867 by John Linn, who received a military land grant for 150 acres of land just east of the mouth of Lynn Creek. He began to farm this property to supply the mill at Moodyville.

In 1873, construction began on a trail to connect the Lower Mainland with the Cariboo to the north. When it was finished in 1877, Robert Carson and Richard Hoey used it, in the first (and only) cattle drive from Lillooet to the Vancouver market. A cairn was erected near the Trial's terminus on

East Keith and Lillooet Roads next to the Coach House Inn (now the Holiday Inn).

By 1893, the Municipality of North Vancouver had recognised the need to have a cemetery, and the Province granted District Lot 1020 (60 acres) for this purpose. In 1907, the Municipality split into City and District, and the District granted and conveyed to the City, for one dollar, the cemetery (and municipal hall, pound, stables and public parks), provided residents of both municipalities would have the same burial rights and were charged the same fees.

From the turn of the last century until the early 1950's not much development occurred in this area. The opening of the original Second Narrows Bridge in 1925 did generate some industrial and commercial activity at the bridgehead to the south of the planning area. This was curtailed in 1930, when a shipping accident closed the bridge for four years. When re-opened in 1934 the combined car-and-train bridge served the North Shore until 1960, when the existing Second Narrows (Ironworkers Memorial) Bridge was opened. Also, during this period, the Trans-Canada Highway was developed. This effectively divided the Inter-River area into two communities – Lynnmour South (now in the Lower Lynn Community Plan), and Lynnmour North (included in this Plan). With the new highway came the Coach House Motor Inn, which was located at the intersection of Keith and Lillooet Roads.

By the 1960's, there were 30 or 40 houses in this planning area, including a farm on Premier Street (now Edgewater Estates), and a turkey farm on Grantham Road (now Heritage-in-the-Woods). The availability of large parcels of land meant that, by the late 60's and early 70's, several large townhouse projects and construction of Capilano College had begun and the residential future of the area was firmly established. In the 80's use of the Premier Street landfill site, first opened in 1956, was beginning to wind down and its future uses were being considered. The area was studied for a municipal golf course but when another site in Seymour was chosen it became park space and eventually designed for additional playing fields. By the early 90's a political decision was made by the District Council not to continue allowing long term residential development in the area above the Cemetery. This allowed these "Urban Reserve " lands to be dedicated as park space and added to Lynn Canyon Park. As well, some of the older single-family housing began to be redeveloped as low-density townhousing on Premier Street and, over on the Seymour River, large new single-family houses began to be built, particularly on the riverfront.

Over the past 140 years the Lynnmour/Inter-River area has gone from a small agricultural area to one of mostly affordable medium density housing located at the centre of the District. Once an isolated area not well

connected to the rest of the Municipality, it is now at the centre of the District and is bearing the impacts of being so close to the busy major road network.

5.0 PLAN GOALS

Initial consultation with the Lynnmour/Inter-River community identified five topics of prime concern for the Plan to address. These topics are:

- Traffic and Transportation
- Community Services
- Parks and Open Spaces
- Managing Community Growth
- Protecting the Natural Environment

Planning Goals related to these topics are:

Goal: To create a safer, more convenient transportation network to better meet the needs of local residents and to better protect them from traffic and other impacts caused by major regional and District facilities located in the community.

Goal: To strengthen the sense of belonging and community by providing more services locally, increasing local use of existing facilities and better recognizing the area's natural resources and heritage.

Goal: To ensure existing park spaces better meet local needs, provide a more complete pathway system safely usable by all and preserve environmentally sensitive areas.

Goal: To support the primarily family orientation of the residential areas, while ensuring any new development contributes directly to the overall improvement of the community.

Goal: To protect the community from natural hazards such as flooding and landslides.

Goal: To recognize, preserve and enhance the bio-physical and cultural values of the community's natural environment.

6.0 TRANSPORTATION, CIRCULATION AND UTILITIES

Lynnmour/Inter-River is a community isolated by the Provincial and District transportation networks. The Seymour River constricts circulation eastward to the two crossings on Mt. Seymour Parkway and Grantham Road; the Trans Canada Highway blocks access south; and Lynn Creek, with one vehicle crossing on Keith Road and one pedestrian crossing in Inter-River Park, limits convenient access westward.

Every morning, traffic from both east and west converges near this community in order to access the 2nd Narrows Bridge and Capilano College. Every afternoon the reverse flow also causes long backups and lengthy delays for commuters and local residents trying to move around and through the community. The Bridge is at or near capacity for significant parts of the day presently.

Other major transportation difficulties in this area involve vehicle and pedestrian safety at the Lillooet Road and Mt. Seymour Parkway intersection due to volume, speed, short weave areas, lack of advance signage and poor or incomplete pedestrian facilities. In the future, additional traffic may be drawn to this area if the Squamish Nation's plans to develop additional big box retail come to fruition. Most of these issues need to be addressed by the Ministry of Transportation in consultation with District staff and local residents in order to be successfully resolved. Community representatives have already met once directly with Ministry officials to make them aware of local concerns regarding the existing transportation network and of what improvements they would like to see if and when the Ministry does any work in the area.

Recreation facilities and attractions such as the existing playing fields at Inter-River Park and the Lower Seymour Conservation Reserve draw non-resident traffic into and through the community, particularly during week-ends. In the future, this traffic is expected to increase substantially as the Park continues to be developed with additional fields and diamonds and use of the Reserve continues to grow (projected at 9% per annum). Additionally, due to waterworks-related projects in the LSCR and Seymour Watershed, significant heavy truck traffic will be drawn through the community on Lillooet Road for the next decade. A variety of actions to be taken by different authorities are recommended to address these issues.

The use of a residential street to access the College, pedestrian safety and improved connectivity are also neighbourhood issues, particularly for residents on Purcell Way and in the area around Lynnmour School where Keith Road and Forsman Avenue are only narrow strips of pavement without sidewalks. As well, a concern over speeding on Premier Street and the need to improve local transit connections to facilities and services

in Seymour (Parkgate) and to Capilano College have also been identified. Access to the rivers located in this community for emergency and life safety reasons was also identified as needing improvement, especially on the Seymour River. Solutions to these issues are found in actions recommended primarily for the District to pursue.

The Greater Vancouver Regional District is undertaking major upgrades to the regional drinking water supply, treatment and distribution systems within the Seymour watershed. The Plan supports these initiatives and the preservation of the BC Hydro right-of-way for long term expansion. Major upgrading of District utility systems is not expected as a result of this Plan.

LI Map 1 outlines the traffic, transportation and circulation issues and solutions identified or proposed in this section of the Plan.

SECTION GOALS

- To improve transit service to the community.
- To minimise impacts of non-local traffic and to improve vehicle access and egress for local residents.
- To improve pedestrian safety and circulation.
- To integrate Inter-River into the Bicycle Master Plan network.
- To retain and improve existing utility networks.

POLICY

6.1 Continue to improve accessibility to public transit services

IMPLEMENTATION

6.1.1 Integrate the provision of convenient, accessible, well-lit, and safe access to bus services in the design of new developments and in local improvements.

6.1.2 Encourage Capilano College to update its 1991 Lynnmour Campus Traffic Study with District and Translink staff and pursue any transit improvements identified.

6.1.3 Work with Capilano College and TransLink to improve transit ridership and enhance service to the College by supporting:

- the provision of the U-Pass program ;
- the extension of the #130 (Metrotown/Hastings/Kootenay Loop) route;
- the extension of the #255 (Dundarave/Lynn Valley route; and
- expansion or re-location of the on-campus bus facility to accommodate the removal of any temporary bus stop facilities provided on the public street.

6.1.4 Provide bus shelters and garbage bins at local stops without these facilities now.

6.1.5 Encourage TransLink to improve service between the Inter-River and Seymour Communities.

6.1.6 Work with Capilano College, TransLink, and the City of North Vancouver to investigate the feasibility of establishing transit to the North Vancouver Cemetery.

POLICY

6.2 Ensure all neighbourhoods are connected and well served by the pedestrian and bicycle circulation network and facilities in Inter-River

IMPLEMENTATION

6.2.1 Improve paving and lighting under the Highway #1 Bridge and in the vicinity of the Keith Road Bridge

6.2.2 Enhance pedestrian access and circulation from the main road system to major activity centres and recreation uses utilizing the District's Pedestrian Access Guidelines as appropriate.

6.2.3 Integrate trail marker signage with sidewalks.

6.2.4 Improve existing and identify new routes to better connect the Riverside West neighbourhood to the rest of the Lynnmour/Inter-River community.

6.2.5 Improve student pick-up and drop-off safety at Lynnmour School.

POLICY

6.3. Provide improved routes for cyclists accessing Capilano College and other parts of Inter-River.

IMPLEMENTATION

6.3.1 In the short term, formalise the trail connection from Lillooet Road to the College via the soccer field. In the longer term, improve access to this area and other District property by a new south service road.

6.3.2 Provide a minimum 4.3 metre wide lane (excluding curbing) on all major roads to accommodate cyclists' safety.

6.3.3 Implement safe cycling routes to Capilano College and other local destination in conjunction with the District Joint Bicycle Advisory Committee, Capilano College and the GVRD.

6.3.4 Consider provisions for cyclists in the development of any trail connection to Capilano College (e.g. V-grooves).

6.3.4 Request Ministry of Transportation improve the bicycle friendliness of the Highway 1/ Lillooet interchange and Keith Road.

POLICY

6.4 Protect local residential areas from impacts of traffic destined for District and Regional facilities located in Inter-River.

IMPLEMENTATION

6.4.1 Work with Capilano College to develop traffic and parking management strategies to minimise community impacts especially for residents along Purcell Way.

6.4.2 Consider provision of a new access road to Capilano College from Lillooet Road, south of Purcell Way, or other measures to reduce or eliminate a significant portion of College traffic from Purcell Way when considering the sale of District land on the northeast corner of Mt. Seymour Parkway and Lillooet Road.

6.4.3 Work with the Ministry of Transportation, Capilano College and TransLink to determine funding, design, and future operation of a south road connection between the College and Lillooet Road if this new road is built in the future.

6.4.4 Monitor and assess daily non-resident use of on-street parking near Capilano College and consider appropriate restrictions to ensure public safety.

6.4.5 Provide adequate enforcement of District “Resident Parking Only” zones and investigate alleged mis-uses of the parking system.

6.4.6 Retain the Grantham Street bridge crossing and continue to keep Seymour Boulevard closed south of Parkhurst Road unless the majority of local residents wish to consider changing this in the future.

6.4.7 Monitor and assess weekend non-resident use of on-street parking at access points to the Seymour River.

6.4.8 Monitor and assess impact of sports field development at Inter-River Park.

6.4.9 Encourage the Greater Vancouver Regional District to continue its impact mitigation plan and funding strategy to address local concerns throughout the final phases of the planned construction of the Seymour Watershed improvements (i.e., dam, filtration plant and watermain projects) and expansion of recreational uses in the Lower Seymour Conservation Reserve.

6.4.10 Encourage the Greater Vancouver Regional District to work in partnership with the District and City of North Vancouver, Capilano College and BC Hydro towards establishing a future staging area to the Lower Seymour Conservation Reserve, Seymour Watershed and City Cemetery at Capilano College and to develop a multi-use trail to the LSCR along the B.C. Hydro Right-of Way.

6.4.11 Encourage the Greater Vancouver Regional District to provide trail and / or sidewalk improvements on Lillooet Road, north of Purcell Way, to the main entry gate to the Lower Seymour Conservation Reserve.

POLICY

6.5. **Improve community access options and safety for local residents.**

IMPLEMENTATION

6.5.1 Investigate alternative access points to the community other than via Lillooet Road.

6.5.2 Examine the possibility of making access at the intersection of Keith Road, Old Lillooet Road and the Highway #1 access ramp a Right In /Right Out to improve neighbourhood access.

6.5.3 Reserve unopened road allowances for pedestrian and cycle route improvements and access to local watercourses.

6.5.4 Monitor speed of vehicles along Premier Street and make cross-walk or other safety improvements as required.

6.5.5 Work with Heritage-in-the-Woods and local neighbours to improve pedestrian and vehicular safety at the Grantham Place and Seymour Boulevard intersection and at the Heritage-in the-Woods north driveway and Seymour Boulevard.

POLICY

6.6 Improve local conditions through facilitating changes to the major road network.

IMPLEMENTATION

6.6.1 Work with Ministry of Transportation in the short term to improve pedestrian crossing safety at Mt. Seymour Parkway, Lillooet Road and Fern Street by:

- examining solutions to signalise dual northbound right turn with advance warning signs on the Highway #1 / Lillooet Road exit in the short term;
- providing a safer pedestrian route along Fern Street and its overpass; and
- pursuing a pedestrian overpass, intersection re-design or signal changes at the east leg of the Lillooet and Mt. Seymour Parkway intersection in conjunction with other major upgrades at this location in the medium to long term.

6.6.2 Work with Ministry of Transportation in the short term to provide signage at the Lillooet and Mt. Seymour intersection directing motorists to:

- access the Holiday Inn from Lillooet and Old Lillooet Road;
- egress that property via a right turn on to Old Lillooet Road and provide overhead lane signage on the northbound Highway #1 off-ramp and on the Fern Street /Highway #1 off-ramp to minimise vehicle weave; and
- the Lynnmour Jaycee House.

6.6.3 Support longer term upgrading of the Lillooet Road and Mount Seymour Parkway intersection and other road network improvements to service increasing area demands by working with Ministry of Transportation to ensure that:

- a traffic signal progression strategy is developed ;
- access to the Lynnmour/ Inter-River community is enhanced from its current operation; and
- impacts of any future development on Indian Reserve #2 are mitigated to provide least impact to the Lynnmour/ Inter- River community.

6.6.4 Address short-term needs at the intersection of Purcell and Lillooet Rd. by:

- improving timing and phasing for pedestrians;
- lighting the crosswalk; and
- improving paint markings (drip line).

6.6.5 Ensure the Ministry of Transportation provides noise abatement measures along Highway 1 in any re-development of the Lillooet Rd /Mt. Seymour Parkway / Keith Road interchange.

6.6.6 As an interim measure request Ministry of Transportation plant trees in those portions of the existing interchange and road allowance where driver safety would not be affected.

6.6.7 Work with the Greater Vancouver Regional District and City of North Vancouver on the possible re-alignment of the access route to the North Vancouver Cemetery, Lower Seymour Conservation Reserve and the Seymour watershed facilities to the proposed Selkirk and Monashee Drive route in order to limit impacts on the District and Capilano College road networks.

6.6.8 Investigate the feasibility of imposing latecomer charges in favour of the GVRD for the future re- development of the private properties fronting Monashee Drive which benefit from the construction of the Selkirk Road extension by the GVRD.

POLICY

6.7 Maintain services (water, roads, hydro, gas, telephone, sanitary, storm, garbage collection and storm water management) at their existing level of quality and provide for future upgrading.

IMPLEMENTATION

6.7.1 Review current and proposed developments and ensure that existing services can be maintained at their present levels.

6.7.2 Retain the opportunity to expand the B.C. Hydro right-of-way in the planning area.

6.7.3 Support the Greater Vancouver Regional District projects for seismic upgrades to the Seymour Falls Dam, to construct the Seymour-Capilano Drinking Water Filtration Project near Rice Lake and to install new water pipes for the Seymour Water Main from the Dam to tidewater.

POLICY

6.8 Services to new development should be as unobtrusive as possible.

IMPLEMENTATION

6.8.1 Electrical transformers, connection boxes, gas meters, and other utilities should be located or screened so as to minimize visibility.

6.8.2 Electrical services to new development will be placed underground.

POLICY

6.9 Improve emergency access points to the riverfronts.

IMPLEMENTATION

6.9.1 Provide regular emergency access points to the Lynn and Seymour watercourses.

7.0 COMMUNITY FACILITIES AND SERVICES

Lynnmour/Inter-River residents are not generally well or conveniently served by community services. Lynnmour Elementary School continues to provide K to 7 education for Lynnmour students living north and south of the Highway, while Riverside West elementary students now have to attend either Lynnmour School or travel to Blueridge or Seymour Heights Schools in Seymour as the Maplewood School is now closed and leased for private school use

Lynnmour School has completed the first of several planned construction phases to remove portable classrooms and rebuild other parts of the school but the continual decline in school age children in the District means school closures will likely continue and unless the local school population stabilizes or increases this building programme may be jeopardized. The school is also in the floodplain of Lynn Creek and the plan recommends certain protective measures be provided in the future.

Some local programs and services (e.g. Cubs and Brownies) are available at this school and all local high school age children must travel to Windsor Secondary in Seymour.

Before and after school care is available from Norvan Boys and Girls Club, who operate from a portable on the Lynnmour School grounds. Licensed daycare and a Moms and Tots Drop-in Program are also available at the Lynnmour Jaycee House. The Lynnmour/Inter-River Community Association has now successfully operated part of this facility for four years through a lease from the District. The building has been extensively renovated under direction of a special community management committee and is used for many local meetings, special community events, various recreational and social programs and commercial rentals. Currently, there are almost no services for young teens or seniors provided locally but with local control over this facility there is the opportunity for many more services and programs to be provided right in the community. The plan supports the continuation of these services and for additional resources to address unmet community service needs.

Other facilities or services in the community tend to serve primarily regional functions. There are two private funeral and crematoria operations on Lillooet Road that have recently been upgraded. The City of North Vancouver, which operates the North Vancouver Cemetery, has developed a long-term plan to upgrade and expand services at this facility and to provide improved access to the Lower Seymour Conservation Reserve and watershed.

Capilano College is located just east of Lillooet Road. Current enrolment is approximately 5200 full time equivalent (FTE) students, which translates into some 7,000 students when the part-time students are included. Current growth is in the order of 60 – 70 FTE's, or 100 total students per year. During the last ten years the College has undergone a major expansion phase, adding a 9,290 metre square (100,000 square foot) administration and classroom building, and separate library and theatre facilities. Further expansion will require that the College's Transportation Study to be updated to address any traffic, parking or transit-related issues identified. Current issues of concern from the community's perspective include campus access from Purcell Way, transit use of Purcell Way, overflow parking, and opportunities for local community use of College facilities jointly funded with the District (Sportsplex and weight room). The Plan provides several ways to realize improvements in these areas of concern.

The District's Fire Training Centre is also located in this community, just south of Inter-River Park. The future of the forested lands in this area, provision for the long term training needs of the Fire and Rescue Services and the need to revise the original development plan for Inter-River Park have recently been the subject of an extensive public process and has resulted in several recent Council actions being incorporated into this Plan. The Training Centre is also in the Lynn Creek floodplain and the provision of some flood protection measures is recommended.

The plan also suggests several ways to support the few local organisations that serve this community and recommend the use of local history and public art to strengthen community identity.

SECTION GOALS

- To define and promote community identity for Lynnmour/Inter-River neighbourhoods.

- To increase community accesses to District of North Vancouver facilities, other community facilities and programs for Lynnmour/Inter- River residents.

- To develop new local programming and services within the Lynnmour/ Inter –River community.

- To support families and those who provide care and other services to families, in developing and maintaining safe, quality environments and activities that promote healthy, active families.

- To ensure that Lynnmour/Inter- River children and youth have access to safe, appropriate programs at the local level.

- To support expansion of institutional uses where necessary so long as it is achieved with minimal environmental damage and tree loss and minimal disruption to the adjoining neighbourhoods.

POLICY

7.1 Through community consultation describe what defines Lynnmour/ Inter River and identify ways to incorporate these factors into gateways and other design elements to create a unique sense of place.

IMPLEMENTATION

7.1.1 Consult with community groups and individuals to identify and promote the defining characteristics of the Lynnmour / Inter- River neighbourhood, including its heritage.

7.1.2 Explore ways to incorporate identified neighbourhood characteristics through public art or other design with District staff and the arts community.

7.1.3 Re-instate the historic Lillooet Trail cairn marker as a focal point for the community.

7.1.4 Encourage and support volunteer efforts to establish a local community festival and/or other neighbourhood events.

7.1.5 Support local organizations in their community development efforts.

POLICY

7.2 Promote communication between and among people living in various Lynnmour/ Inter-River neighbourhoods.

IMPLEMENTATION

7.2.1 Use a range of communication tools to advise local residents about services and programs available in or near the community, (e.g. community newsletters, web sites and strata council minutes).

7.2.2 Identify other means of communicating with residents of Riverside West and further north on Lillooet Road, such as additional community bulletin boards.

7.2.3 Encourage the local community association to access the District Healthy Neighbourhood Fund and/or other funding to increase communication with all area residents.

POLICY

7.3 Preserve and enhance the natural river and forest settings of the Lynnmour/ Inter - River community.

IMPLEMENTATION

7.3.1 Encourage local environmental groups such as Morten Creek Salmon Enhancement Program and North Shore Streamkeepers to educate local residents and the broader community about local environmental assets and issues.

7.3.2 Promote community efforts to foster respect and stewardship for the local environment by supporting local environmental groups or initiatives.

POLICY

7.4 Through collaboration with public and private organizations, promote access to and full usage of existing facilities (including Capilano College, Jaycee House, Lynnmour School, Seylynn Hall & others) for local residents of all ages and pursue the development of new community space for meetings, activities or local service delivery.

IMPLEMENTATION

7.4.1 Retain District control of the Lynnmour Jaycee House, continue to provide financial support necessary to upgrade and have the local community operate the facility and work with community representatives, the RecCommission and local service providers to develop the facility as a local-serving community centre.

7.4.2 Explore partnership opportunities to enhance or improve operating and facility conditions and service possibilities for Norvan Boys & Girls Club possibly by utilizing the Lynnmour Jaycee House.

7.4.3 Encourage and support School District 44, Lynnmour Parent Advisory Committee and other efforts to keep Lynnmour Elementary School open and to improve it for the benefit of the whole community (e.g. investigate Joint Use Agreement possibilities).

7.4.4 Encourage School District No.44 to incorporate the recommendations found in the Kerr Wood Leidal report titled *Lynnmour / Inter-River Local Plan, Flood Protection Assessment – Final*, March 6, 2006 into any future renovations of Lynnmour School.

7.4.5 Improve community awareness of the availability of Capilano College facilities for community use.

7.4.6 Explore opportunities to improve local residents' access to Capilano College weight room facilities and for partnerships to enhance or expand this facility.

7.4.7 Request that the Recreation Commission, in consultation with the local community, identify and develop additional local recreation programs to be delivered at Capilano College and other community facilities.

7.4.8 Request that the District and Recreation Commission staff, in consultation with the local community, explore opportunities for increased use of Seylynn Hall by Lynnmour/Inter- River residents.

7.4.9 Work with School District No. 44 to upgrade and increase community use at Lynnmour School.

POLICY

7.5 Identify resources and encourage collaboration to support local providers of child and family services.

IMPLEMENTATION

7.5.1 Direct increased District resources to support Norvan Boys & Girls Club efforts to maintain and enhance service to elementary students in the Inter-River community.

7.5.2 Explore opportunities for collaboration among local childcare providers to enhance local childcare (e.g. access to facilities, information or expertise associated with Capilano College, Vancouver Coastal Health Authority, North Shore Childcare Resource Program, the Recreation Commission or others).

7.5.3 Continue to support use of a portion of Jaycee House for group day care, pre-school and out-of-school care.

7.5.4 Continue to encourage Vancouver Coastal Health Authority, in partnership with others, in maintaining and enhancing infant and toddler services to meet local needs.

7.5.5 Encourage strata councils to support efforts of Norvan Boys & Girls Club and others providing services to local children and youth.

POLICY

7.6 In collaboration with Youth Outreach programs and other partners, provide a continuum of local, age-appropriate programming for a range of children, youth and their families.

IMPLEMENTATION

7.6.1 Direct increased District resources to support Parkgate Community Services Society, Norvan Boys and Girls Club, or other agencies in improving community outreach services for Lynnmour/ Inter - River youth.

7.6.2 Encourage Seymour Community Services Society, Norvan Boys and Girls Club, RecCommission and other service providers to use Capilano College Sportsplex and weight room in programming for local youth, where these venues respond to local youth needs and interests.

7.6.3 Develop, in consultation with other service providers and community representatives, a Lynnmour/ Inter-River Children & Youth Services Strategy, beginning with an assessment of the current delivery of such services.

7.6.4 Develop an implementation plan to realise the Lynnmour/ Inter - River Children & Youth Services Strategy.

POLICY

7.7 Explicitly consider the needs of children, youth and families and people with disabilities in the design of new community facilities, traffic/pedestrian circulation and park facilities.

IMPLEMENTATION

7.7.1 Identify and seek improvements to transit service in Lynnmour/Inter River so that local youth can better access existing youth services and centres in Seymour and Lynn Valley.

7.7.2 With Seymour Community Services Society, the Recreation Commission, Vancouver Coastal Health Authority and other community partners, investigate the feasibility of improving local youth services through a mini-van/shuttle service to Seymour Youth Centre.

POLICY

7.8 Support expansion of existing institutional uses when demand warrants provided this is achieved with minimal disruption to nearby residents and contributes to the community's development objectives.

IMPLEMENTATION

7.8.1 Work with Capilano College and Fire Training Centre staff to reduce existing neighbourhood impacts before considering further development or expansion of this campus or facility.

7.8.2 Request Capilano College update its Lynnmour Campus Site Master Plan, consider providing on-site student housing and improve other student and community services as necessary.

7.8.3 With the provision of a southern access road or other changes to the road network to reduce College traffic use of Purcell Way, continue to support increased growth and development at Capilano College.

7.8.4 Ensure the treed buffer and natural landscaping at Capilano College is retained to buffer adjacent residential uses from campus activities and to provide an attractive area for local residents to walk through and enjoy.

7.8.5 Request District staff and others to continue working with College staff to explore options and methods to reduce student-parking demand as the campus enrolment increases.

7.8.6 Support the short term development plan for the Fire Training and Maintenance Centre as approved by District Council on July 8th,2002 and shown on Sketch A attached, and the re-allocation of District lands adjacent to this facility to provide for the long term training needs of Fire and Rescue Services as shown on Sketch B attached.

7.8.7 Encourage Fire and Rescue Services to minimize environmental impacts and consult with local residents and Council advisory groups as and when it needs to further develop its lands in the future.

7.8.8 Encourage Fire and Rescue Services to incorporate the recommendations found in the Kerr Wood Leidal report titled *Lynnmour / Inter-River Local Plan, Flood Protection Assessment – Final*, March 6, 2006 into any future renovations of the Fire Training Centre.

7.8.9 Encourage Fire and Rescue Services to consider local needs and opportunities for community use in any expansion of the Fire Training Centre (meeting rooms, lecture theatre, etc.)

8.0 PARKS AND OPEN SPACES

Lynnmour/Inter-River contains a variety of different types of park and open spaces. These are used and enjoyed by local residents and the many others who come to use the major District and Regional sport and recreation facilities located here. This community serves as the gateway to the Lower Seymour Conservation Reserve (LSCR) and to many of the Alpine Area hiking and biking trails. Larger volumes of recreational and weekend traffic are expected to be attracted to the area. Solutions to this issue are found in the recommendations that the District monitor local parking situations and in support for initiatives in the LSCR Management Plan. Figure 1 below illustrates how the preferred access to the LSCR relates to the Lynnmour/Inter-River area although it is now recognized that negative environmental impacts prevent development of the proposed trail between Bow Court and the Capilano College parking lot. An alternate connection is expected to be developed in conjunction with the south campus access road in the future and the trail network planning has now been extended all the way south to tidewater with the creation of the Seymour River Greenway.

While Inter-River Park will continue to be developed as a District-wide playing field centre, Council recently approved a revised conceptual design plan to guide the completion of this Park's re-development (see Figure 2). This Park is also in the Lynn Creek floodplain and the provision of some flood protection measures is recommended.

The community is lacking in some basic amenities generally found in neighbourhood parks and, while lands have already been designated to meet these shortcomings, funds to develop these spaces have not yet been made available. This is particularly relevant for the residents on the east side of Lillooet Road and in the Riverside West neighbourhood and the Plan recommends these deficiencies be addressed as a priority.

While access to Lynn Creek on the west is virtually unlimited, access to the Seymour River on the east is reduced to a very few opportunities related to existing streetends because all the land is developed as single-family housing. The Plan also seeks to improve access to the Seymour for rescue and recreation purposes by working co-operatively with the GVRD, Squamish Nation and City of North Vancouver, by selective acquisition of riverfront property and by opening up existing road allowances to the river.

Part of the unique attraction of this area stems from having the North Shore Equestrian Centre located there. The Plan supports retention of the Centre and the continuation of these types of activities.

Several issues and opportunities concerning the trails in the community were identified. The Plan envisions filling in some missing trail linkages to facilitate better circulation within and across the community and to resolve several conflicts and concerns between various trail users (dog-walkers, cyclists, equestrians, etc.) by working with those groups to develop trial-user protocols.

The Plan also recognises the need to protect the community's environmentally sensitive areas, to raise environmental awareness by supporting redesign of Inter-River Park, to retain its forested area and to protect Morton Creek, and by looking for partnership opportunities to provide interpretative nature and heritage signage throughout the area.

The need to strengthen the sense of identity in the community is also recognised in this part of the Plan. The creation of several planting and signage gateways are recommended, one involving the re-instatement of a historic cairn back to its original spot in the community.

Map LI-02 illustrates the Park and Open Space issues and solutions proposed in this section of the plan.

SECTION GOALS

- To improve facilities in existing parks or other locations so as to better meet local residents' park and recreation needs.

- To improve pathway and circulation routes between existing parks, open spaces, community facilities and services, and between neighbourhoods.

- To continue development of major parks and open spaces for the use and enjoyment of all users, while at the same time looking for opportunities to better serve local park and recreation needs.

- To retain the look and feel of a naturally forested environment within identifiable residential enclaves

- To recognize and protect environmentally sensitive areas such as the floodplains, escarpments and forested areas of our community.

POLICY

8.1 Design and develop existing park spaces to address needs of local residents.

IMPLEMENTATION

8.1.1 Undertake a design exercise with local residents (and particularly those living on the east side of Lillooet Road) to determine appropriate future uses and activities to be located in Lillooet Park. Include any costs in the District Capital Plan as a priority.

8.1.2 As a priority re-examine the needs of youth in determining future activities in existing parks. Specifically consider adding basketball and skateboard improvements at appropriate locations.

8.1.3 Subject to community initiation and neighbourhood consultation, consider feasibility of establishing a community garden site to be developed and operated by a non-profit society at Lillooet Park or other suitable location.

8.1.4 Identify a suitable location and design a tot-lot with provision fror children with disabilities in the Riverside West neighbourhood.

POLICY

8.2 Consider the involvement of other groups or organizations in developing opportunities to meet community recreation needs.

IMPLEMENTATION

8.2.1 Explore partnership opportunities with Capilano College or the Lynnmour Jaycee House to develop a community recreation facility on or near either of those properties.

8.2.2 Support any community initiative at Lynnmour School to improve the school playground by considering joint partnership funding with the District and participation of School District No.44.

8.2.3 Encourage the Capilano Landscape and Horticultural Program to become involved in the development and operation of a community garden if local residents initiate such a project.

8.2.4 Identify partnership opportunities with environmental or other groups and sponsors to provide interpretative nature and heritage signage in Inter-River.

POLICY

8.3 Continue development of the public trail and pathway system for the use and enjoyment of all users.

IMPLEMENTATION

8.3.1 In consultation with immediate neighbours and other community representatives consider developing the necessary links to complete the pedestrian pathway system shown on Map LI- 02, including:

- Connection from the GVRD Beach Yard to Capilano College and the Lower Seymour Conservation Reserve (Seymour River Greenway);
- Connection from Mount Seymour Parkway/Seymour Boulevard to the Baden Powell Trail or other local trail; and
- Formalising the pathway in park (PRO) strip along eastside of Lillooet Road,

in a safe and environmentally responsible manner.

8.3.2 Investigate routes and formalise trail access to improve connections between Lynn Creek and the Seymour River.

8.3.3 Retain and continue support for the commuter bike route connecting Arborlynn Drive and Capilano College.

8.3.4 Support improvements to the multi-use trail system in order to reduce user conflicts by developing new protocols, signage and other physical improvements.

8.3.5 Continue to support equestrian uses of local parks and encourage the District to work with those users to develop, designate and upgrade appropriate trails to ensure improved safety and signage for all users.

8.3.6 Support District efforts to maintain trails and encourage safe and responsible use through the establishment of a signage program.

8.3.7 Encourage the improvement of the trail on the eastside of the skateboard bowl in Seylynn Park as a means to improve connections to Lynnmour North.

8.3.8 Support in principle the North Vancouver Cemetery Master Plan Option 2-Monashee Drive Alternative Access (see Sketch C), subject to the continued use of the Lillooet Road alignment for pedestrian and cyclist uses if vehicle access to the City and Regional District ‘s facilities shifts to the Selkirk – Monashee alignment and an alternate route for equestrian users is provided.

8.3.9 Work with Capilano College, the City of North Vancouver and Greater Vancouver Regional District in order to formalise a safe equestrian corridor and other recreational pathways in implementing the City’s Cemetery Master Plan and the Region’s Lower Seymour Conservation Reserve Management Plan.

8.3.10 Improve directional and interpretative signage on the Lynn Creek Sea to Sky trail connections from Lynn Canyon Park south to Harbourview Park.

8.3.11 Provide signage with a distinctive Lynnmour/Inter-River motif and interpretative plaques along local trails.

8.3.12 Improve existing wheelchair accessible trails and provide additional facilities for people with physical challenges.

8.3.13 Ensure the local trail network links to trail systems in adjacent communities.

POLICY

8. 4 Continue to support broad community use of the major park, open spaces and special areas within this community.

IMPLEMENTATION

8.4.1 Support new open space zoning for the City Cemetery and private land on the west side of Lillooet Road as indicated on LI Map 02.

8.4.2 Retain equestrian uses at their current Lillooet Road location.

8.4.3 Encourage the retention of the dog kennel use on Monashee Drive but support only a limited range of public assembly or institutional uses so that peak period traffic flows are not added to significantly if re-development of the property is pursued in the future.

8.4.4 Support the revised Conceptual Plan for Inter-River Park (as adopted by District Council on July 8th, 2002) included as Figure 2 and the rezoned 0.53 hectares of land previously designated in the Central Inter-River Official Community Plan as RS1, and intended for Fire Training purposes to park zoning as outlined in Figure 3.

8.4.5 Ensure that Morten Creek is adequately protected from any impacts resulting from the addition of another playing field in the northern section of Inter-River Park.

8.4.6 Support the Greater Vancouver Regional District's Lower Seymour Conservation Reserve Management Plan and ensure that the Lynnmour Inter-River community is represented on the proposed Stewardship Forum or alternative public involvement program.

8.4.7 Establish an inter-jurisdictional planning process between the District, City of North Vancouver, Squamish Nation and GVRD to improve co-ordination and communication in developing each jurisdiction's respective lands for recreational purposes.

8.4.8 In the short term improve public access to Seymour River by providing minor improvements to existing streetends and other District property along this watercourse.

8.4.9 In the longer term, consider expanding these public riverfront spaces through the strategic acquisition of a limited number of adjacent private properties as they become available for sale or by bequest.

POLICY

8.5 Develop landscaped gateways or entry points to help identify the Inter-River community and major residential neighbourhoods.

IMPLEMENTATION

8.5.1 Retain and upgrade or enhance boulevard landscaping on both private and public lands at the corner of Mount Seymour Parkway and Lillooet Road to establish a community gateway.

8.5.2 Develop residential area gateways at Keith Road and Premier, Purcell Way and Lillooet and the north end of the Grantham Bridge and support residents' initiatives to take-over annual planting and maintenance of these neighbourhood gateways.

8.5.3 With the support of the Community Heritage Commission re-instate the Lillooet Trail cairn marker from Seylynn Park to a “Heritage Corner” in the vicinity of the original location at the corner of Old Lillooet and Keith Roads and install an interpretative sign.

8.5.4 Incorporate public art components into the community gateways projects and include community representatives in the project advisory development/steering group associated with the public art project.

POLICY

8. 6 Ensure that dykes, drainage and flood protection measures inside park areas are recognized as part of the flood prevention program.

IMPLEMENTATION

8.6.1 Encourage the Parks Department to incorporate the recommendations in Kerr Wood Leidal’s, *Lynn Creek Management Plan* (December 2004) and the *Lynnmour / Inter-River Local Plan, Flood Protection Assessment – Final*, March 6, 2006. into any future improvements to be made in Inter-River Park.

9.0 HOUSING AND GROWTH MANAGEMENT

Lynnmour/Inter-River is a community comprised of two distinct residential neighbourhoods – Lynnmour North and Riverside West. While both neighbourhoods share a family orientation, some factors that create these distinctions are vehicle access and elementary school catchment areas. Within these larger areas some additional differences can be noted (single family versus multi-family forms of development, topography, etc.) which has created enclaves of similar housing sharing similar circumstances. Overall there are approximately 1,100 households in the planning area.

The latest residential re-developments to occur in this neighbourhood have taken place on Premier Street, where an assisted family housing project and two low-density townhouse projects have been built, and on St. Denis Street where a 6-unit duplex project has been built since the last plan was adopted.

The other recent major developments in this part of the community have been the Holiday Inn project (1999), which replaced the Coach House Inn and the opening of a Real Canadian Superstore (1997) on the Squamish Nation Reserve.

In Lynnmour North most of the single-family housing is older stock in fair to reasonable condition and is located on lots that vary significantly in size and shape. This housing surrounds Lynnmour Elementary School, which has the capacity to accept increased enrolment that would help assure its continued operation. Given the community's expressed wish to " upgrade but retain its single family appearance" and to retain its school as a centre of community activity, a proposal to allow for duplex, triplex or townhouse built forms based on a sliding scale of density determined by lot size is recommended. This policy should encourage existing owners to add small units to their existing properties, address housing affordability issues, provide amenities such as sidewalks and street lights and allow a wider variety of housing types suitable for families with young children.

In March, 2006, the District of North Vancouver received a report entitled "Lynnmour/Inter-River Local Plan Flood Protection Assessment", prepared by the engineering consultants, Kerr Wood Leidal. This report pertains to proposed new development in Area 1, LI Map 4 specifically and outlines the potential flood risks from Lynn Creek, and methods of reducing those risks. Key recommendations include:

- It is not necessary to modify the proposed type or density of re-development proposed for this Area due to the identified flood risk; however

- It is necessary, as redevelopment begins , to make provisions so that in the long term the following protective measures are provided:
    - Establishing a Flood Construction Level and lot grading for all lots at the time of redevelopment;
    - Raising the height of St. Denis and Keith Road for dyke purposes;
    - Building a deflection berm at the Fire Training Centre;
    - Creating drainage channels and floodways; and
    - Building a berm at Lynnmour School.

See Sketch D in this Plan to view the proposed construction levels for new development and locations of proposed dyking, berming and other protective measures recommended by these consultants. Also, see the "Lynnmour/Inter-River Area One Design Guidelines for Multiplexes and Townhouses" for further details.

Provisions to obtain these protective measures have been included in the relevant sections of this Plan. The estimated cost to construct these flood protection and drainage works is $1,000,000 (in 2006 dollars). It is expected that the District will pay for the design of the recommended protective measures and will provide for the deflection berm at the Fire Training Centre and the floodway in Inter-River Park while the rest of the recommended measures will be provided over time through the redevelopment of the identified area.

The majority of the existing multi-family units were built in the late '70's and '80's, and are in reasonable to good condition. Widespread re-development of these properties is not generally foreseen within the term of this plan and owners are encouraged to maintain their properties to a high standard. The Plan does allow for some limited re-development of existing properties by amending the Plan Map's Land Use Designations (see LI Map 3) to permit modest increases in density over what has been developed through the existing zoning. This opportunity would be pursued though individual rezoning applications in the future. The community's intention in this matter is to ensure that most of the new housing is suitable for families with children, that the form of development does not change drastically and that adequate open space continues to be provided on these sites. The locations, types of housing and densities supported in this Local Plan are anticipated to meet the housing needs of this area for the planning period.

The Riverside West neighbourhood is a relatively isolated enclave comprised of approximately 120 single family and 145 multi-family dwellings. The older single-family houses, particularly those north of the Grantham Bridge where there are some large lots on the riverfront, are being re-built with very expensive homes. In recent years many new single- family houses have also been built on smaller lots south of the bridge. A few larger lots remain in this area, which the majority of local residents do not wish to see developed as a new multi-family development, because the traffic generated would severely impact the quiet nature of this cul-de-sac street. Due to the lot size, low density and site layout of the existing Heritage-in-the-Woods multi-family development, there may be a possibility that additional units could be built on this property in the future.

In the development of this Plan the local residents and staff considered many housing and development issues and opportunities. In recognition that this community lacks certain basic infrastructure, amenities and services needed to support additional development, the Plan proposes to adopt a philosophy that any new development can only be supported if it contributes directly to this community's overall improvement. The Plan outlines what the community's Development Objectives are and recommends a Public Benefits Strategy be developed to ensure that the few remaining development opportunities in Lynnmour/Inter-River contribute to the community's betterment. The Plan also proposes to apply the District's Mandatory Public Art policy so that the benefits of public art are focussed on achieving these Community Development Objectives.

In general the Plan supports the retention of several existing land uses in the community. The Plan recommends that a site on Monashee Drive now zoned for mausoleum use be rezoned to permit a limited range of public assembly or institutional uses that do not bring additional traffic into the community during peak traffic periods.

In discussing various housing issues with the community, it was recognised that the area is already well serviced by income assisted family housing which needs to be protected and that, due to its lack of services and congested transportation routes, it was not well-suited for new seniors independent housing. It might, however, be suitable for some sort of seniors institutional care facility and a need was recognised for some additional local serving commercial space. This might be combined with a limited number of small apartment units suitable for student housing at an appropriate location. However, the conversion of individual unit's living space into additional sleeping rooms in existing developments is not supported in the Plan and changes to the appropriate regulations to prevent this practice are recommended.

Perhaps the biggest growth management issue to face this community will come from the future development by the Squamish Nation of their Seymour Creek (I R # 2) Reserve. Located directly across Mount Seymour Parkway from this community the current scheme will see approximately 430,000 square feet of new retail development that includes several regional serving big box uses and associated commercial spaces. As development of this Reserve is outside the jurisdiction of the District's ability to control, it is hoped the Squamish Nation will be good neighbours and ensure that any negative impacts from its development on the Lynnmour / Inter-River community are minimised.

The District owns some undeveloped land in this community and the Plan establishes new land use designations to guide their future use and development.

During the course of developing the Plan, there was substantial support for allowing the future sale (or lease) of the eastern site (Area 3, LI Map 4) for a broad range of uses including some small apartments suitable for students over local serving commercial uses, local institutional or industrial uses like film studios, subject to this development also providing a new access road to the south parking lot of Capilano College.

The community had greater concerns and was less supportive of future development of the District land on the westside of Lillooet (Area 4, LI Map 4). This well treed land rises steeply from the Holiday Inn, would require extensive environmental and geo-technical studies and the provision of substantial setbacks from nearby residential housing before a new use could be supported. Suitable uses might include those ancillary to the adjacent hotel use or a small care facility of some type that does not generate substantial traffic. Any new development would also be expected to provide a public viewpoint on part of the site.

With policies to retain or expand existing institutional uses and provisions to allow new industrial, institutional and commercial uses in the future the needs of the community should be accommodated for this planning period.

SECTION GOALS

- To protect and enhance the essentially affordable family orientation of the existing residential neighbourhoods
- To meet residents' changing housing needs in a limited way
- To direct any new development to designated areas or sites only

- To manage new development to protect it from natural hazards such as flooding and landslides

- To beautify and make local streets safer

- To ensure any new development contributes to the overall improvement of the community

POLICY

9.1 Protect and enhance the character of all residential neighbourhoods while accommodating residents' changing housing needs.

IMPLEMENTATION

9.1.1 Except under conditions or locations specified in this Plan, no changes in uses, densities or zoning will be supported unless the new built form and type of housing proposed is compatible with the existing community, and a substantial local community benefit can be demonstrated.

9.1.2 Height, bulk and lot coverage characteristics of replacement single family homes must be compatible with the general neighbourhood context.

9.1.3 Maintain the character of the existing neighbourhood when considering subdivision approval of any new residential lots.

9.1.4 Consolidation of lots with road allowances or portions thereof for the purposes of subdivision will not be permitted unless there is a public benefit to be obtained.

9.1.5 Owners of small lots or lots with less than 40 foot frontages are encouraged to follow the "Design Principles for Small Lot Developments" (Appendix B to the Small Lot Infill Report) in re-development of their property. These provide guidance in the massing, height, window locations and facades for new dwellings.

9.1.6 The District, in consultation with seniors groups, developers, and the North Shore Advisory Committee on Disability Issues and other disability groups, will develop and promote use of voluntary Adaptable Building Design and Universal Access Guidelines to enable new construction to more easily meet a broader range of needs of persons with disabilities or by seniors.

9.1.7 Encourage local strata councils and other property owners to continue maintaining their properties to a high standard (e.g. participate in “Communities in Bloom”).

9.1.8 Direct District staff to develop regulations to prevent the conversion of shared living spaces (i.e. living or dining rooms) into additional bedrooms within individual units in existing multi-family developments.

9.1.8 Encourage the Ministry of Transportation, District of North Vancouver, and other owners of undeveloped lands to maintain them to community standards.

9.1.9 Utilize Development Cost Charge funding to design the drainage and flood control measures and to provide the Inter-River Park floodway recommended in the “Lynnmour/Inter-River Local Plan Flood Protection Assessment” report by Kerr Wood Leidal.

9.1.10 Include in future District capital budgeting funding to construct protective flood control measures (berm) for the Fire Training Centre.

9.1.11 Establish a Lynnmour/Inter-River Flood Protection Levy to be funded as a condition of redevelopment of properties in Area 1 in order to provide the other flood mitigation and drainage measures recommended in the “Lynnmour/Inter-River Local Plan Flood Protection Assessment” report by Kerr Wood Leidal.

9.1.12 Retain the development at 1055 Premier for income assisted housing indefinitely.

POLICY

9.2 Encourage new residential development to occur primarily through infill and small-scale redevelopment in identified areas.

IMPLEMENTATION

9.2.1 Designate the single family zoned lots on Premier and Orwell Streets, East Keith Road, Forsman and St. Denis Avenues shown as Area 1 on LI Map 4 as suitable for ground oriented multiple unit built forms having a range of permitted densities such that on **single lots** of record:

- of less than 5000 square feet single family houses are permitted;

- between 5001 and 7000 square feet duplexes to a maximum density of 0.4 floor space ratio are permitted;
- between 7001 and 8000 square feet duplexes to a maximum density of 0.5 floor space ratio are permitted; and
- greater than 8001 square feet triplexes to a maximum density of 0.5 floor space ratio are permitted, provided that :
- all multiple unit projects are designed to provide vehicle access for future development on an adjacent single lot;
- all multiple unit projects consider accessible design principles and provide for improved pedestrian circulation where appropriate;
- all multiple unit projects comply with the *Lynnmour/ Inter-River Area One Design Guidelines for Multiplexes and Townhouses*;;
- all multiple unit projects meet environmental standards and individual units meet acoustic standards;
- all multiple unit projects contribute to the achievement of the Community Development Objectives, and.
- all individual development meets prescribed standards for drainage and flood protection and contributes to the shared flood protection measures as described in the Kerr Wood Leidal study titled *Lynnmour / Inter-River Local Plan, Flood Protection Assessment – Final*, completed in March 2006.

9.2.2 Designate the single family zoned lots on Premier and Orwell Streets, East Keith Road, Forsman and St. Denis Avenues shown as Area 1 on LI Map 4 as suitable for ground oriented Townhouse development to a maximum density of 0.7 floor space ratio where **lots of record are consolidated** to provide development sites greater than 15,000 square feet and provided that:

- The number of units per project does not exceed 24 units per acre ;
- all multiple unit projects consider accessible design principles and provide for improved pedestrian circulation where appropriate;
- all multiple unit projects comply with the *Lynnmour/ Inter-River Area One Design Guidelines for Multiplexes and Townhouses*;
- all multiple unit projects minimize vehicle access points to the site;
- all multiple unit projects meet environmental standards and individual units in the vicinity of Highway #1 meet CMHC acoustic standards;
- all multiple unit projects contribute to the achievement of the Community Development Objectives; and

- all individual development meets prescribed standards for drainage and flood protection and contributes to the shared flood protection measures as described in the Kerr Wood Leidal study titled *Lynnmour / Inter-River Local Plan, Flood Protection Assessment – Final*, March 6, 2006.

9.2.3 Support in principle a replot of Ministry of Transportation lands to low density multi-family development in this area where an improved pedestrian and vehicle circulation pattern is achieved and the new development is better integrated into the existing community.

9.2.4 Apply Local Plan Development Guidelines as appropriate to ensure all new development achieves the goals and objectives set out in this community plan (see Schedule A, Section 4.3: Local Plan Guidelines)

9.2.5 Amend Development Permit Map 1 as necessary to incorporate new, or amend existing, Development Permit Areas as a result of this Local Plan.

POLICY

9.3 Improve streetscapes and provide safer streets

IMPLEMENTATION

9.3.1 Include in the design and upgrading of collector and arterial streets provision for sidewalks and pedestrian lighting wherever possible.

9.3.2 Encourage provision of a Street Tree Maintenance Program and fund it in the annual Municipal Budget.

9.3.3 Include the provision of street trees where feasible in the future road works in Lynnmour/ Inter-River.

9.3.4 Provide curb drops and other facilities to aid circulation of all residents.

POLICY

9.4 Control and manage development of the areas identified on LI Map 4 in the manner set out below.

IMPLEMENTATION

9.4.1 At the initiative of the owners, allow consideration of a limited increase in density in any redevelopment proposals for the Heritage-in-the-Woods and Edgewater Estates housing complexes provided that the new built forms and types of housing proposed are compatible with the community, conforms with the overall density specified in the Plan Map (LI Map 3) and such development contributes to the Community Development Objectives.

9.4.2 Retain the large single – family lots north of the Grantham Bridge.

9.4.3 Designate the large lots in the 600-Block Seymour Boulevard (Area 2, LI Map 4) for single family uses only.

9.4.4 Ensure that all new and infill residential development on the Seymour River and Lynn Creek flood plains meet current regulations pertaining to the District's Environmental Protection By-law and relevant design or development guidelines, the federal government's Land Development Guidelines for the Protection of Aquatic Habitat and any requirements as set by the Provincial Government for flood protection and riparian areas.

9.4.5 Retain the District owned lot adjacent to IR No. 2 on Seymour Boulevard as an open space buffer to any uses located on these Squamish Nation lands.

9.4.6 Discourage provision of seniors' independent housing in the Lynnmour/Inter-River area until such time as there are suitable support services available to sustain that type of housing.

9.4.7 Discourage the provision of any additional assisted family housing in Lynnmour/Inter-River.

9.4.8 Consider development of the District land on the north - east corner of Lillooet Rd and Mount Seymour Parkway (Area 3, LI Map 4) for any of the following uses:

- commercial with or without small residential units above;
- multi-tenant office or industrial flexi-space (where all uses are contained within the building and all industrial processes are compatible with the nearby residential and institutional uses;
- film studio;

- hotel and/or uses customarily ancillary to that use; or
- local serving church or institutional use;

Provided that:

- a new south access road to the playing field, neighbourhood park and College, is provided or other provisions are put in place to improve park access and significantly reduce future use of Purcell Way as the principal access to the College as part of this development,
- site access is taken off Lillooet Road and provides access and parking for the public park (to be developed) and the existing playing field ,
- a significant landscaped strip is retained along both Lillooet and Mt. Seymour Parkway,
- residual land north of the new access road is added to the existing neighbourhood park, and
- the development contributes to other Community Development Objectives.

9.4.9 Subject to environmental and geo-technical studies, consider part of the District land south of the intersection of Old Lillooet and Lillooet Roads (Area 4, LI Map 4) for uses ancillary to the adjacent commercial development or for a limited range of institutional uses such as seniors care facility;

Provided that:

- the proposed use is compatible with the existing residential developments;
- the proposed use does not generate significant traffic demand;
- a significant landscape buffer is retained or provided ;
- a public open space and viewpoint is provided; and
- the development contributes to other Community Development Objectives.

9.4.10 Rezone the portion of District land on the north side of Old Lillooet Road from I4 (Industrial) to PRO (Park Recreation and Open Space) or the appropriate new park zone.

9.4.11 Support rezoning of 1388 Monashee Drive from the existing Cemetery zoning (CM) to Public Assembly (PA) to permit vehicle parking as an accessory use to Capilano College.

9.4.12 Rezone the small triangular portion of District owned NPL (Natural Park) land immediately south of the new Selkirk Road and west of the existing

Capilano College parking lot to PA (Public Assembly) to rationalize the current parking use.

POLICY

9.5 Ensure new development in Lynnmour / Inter- River contributes to the following Community Development Objectives:

- **to improve community services or access to those services;**
- **to retain or enhance the natural environment;**
- **to improve the public trail and pathway system;**
- **to improve traffic management and pedestrian safety;**
- **to improve local park and open spaces;**
- **to increase or improve public access to the waterfront;**
- **to reduce impacts of growth or development on the community**
- **to enhance community identity through the provision of public art and other features or amenities; and**
- **to improve flood protection in the Lynn Creek flood plain.**

IMPLEMENTATION

9.5.1 Develop a detailed Public Benefits Strategy that considers community needs, project costs and funding strategies as a means to achieving the Community Development Objectives.

9.5.2 Consider the extent to which any re-development proposal meets the Community Development Objectives.

9.5.3 Accept community amenity contributions in the amount of up to 2% of the estimated cost of building construction, or the equivalent amount provided in-kind, as part of rezoning applications in order to meet Community Development Objectives. The nature and details of the community amenity projects and their priority will be determined in consultation with local community representatives, other District staff and the developer.

9.5.4 Accept contributions towards the construction of flood protection works, including dyke improvements, berms and floodways, and ensure that new construction is built to flood construction levels, as outlined in Kerr Wood Leidal's report titled *Lynnmour / Inter-River Local Plan, Flood Protection Assessment – Final*, March 6, 2006.

9.5.4 Allow the Lynnmour/Inter-River community to work with the developer to determine whether contributions from the Developer Public Art Program are made in cash and deposited into a Lynnmour/Inter-River Public Art Fund, are used for a specific community art project, or applied to an art project associated with the proposed new development.

9.5.5 Focus funding received from local redevelopment under the District's Developer Public Art Program to projects such as the development of Community Gateways, restoration and re-location of the Lillooet Trail historic cairn, and to other projects which enhance or develop a stronger sense of community identity or environmental stewardship as given priority in the Community Development Objectives.

9.5.6 Ensure the Lynnmour/Inter-River community is strongly represented on any management or steering group or committee formed for any project related to the Developer Public Art Contribution.

10.0 ENVIRONMENTAL PROTECTION

Two major watercourses – Lynn Creek, which forms the west boundary of the planning area, and the Seymour River, which forms the east boundary, dominate Lynnmour/Inter-River. These watercourses and their tributaries support both fresh water and salmonid fish species.

Aside from the now-closed landfill site that is developing as active play spaces, the community is generally well treed – even in its developed areas. The District has completed a Landfill Closure Plan and has installed a drainage and leachate collection system to contain run-off. The District also periodically collects and burns off the methane gas produced when the decomposition and settlement of the site permits.

The natural environment is an important reason why many residents live in this community as it provides an attractive backdrop view, treed character, and easy access to nature. The watercourses provide wildlife and recreation corridors that require protection and enhancement where possible. There is also the potential of destruction of both the natural and man-made environments by a variety of natural hazards such as flooding, landslides, and erosion of steep slopes that can be minimized in extent and in impact on development with appropriate human actions.

These concerns are shared generally by all District communities and as such are already managed through the District's Environmental Protection and Preservation Bylaw. This regulates stream corridors and protective setbacks, the safe use of soils and the placement/removal of contaminated soils, development standards on sloping terrain, and tree retention on slopes and of particular species and sizes. In addition, the District OCP contains designated Development Permit Areas (DPA) for the protection of the natural environment and protection of development from natural hazards. This Plan incorporates several changes to the DP maps to protect sensitive areas from new development and to protect new development from newly identified hazards such as flooding.

In 2002 the District hired consultants to undertake River Management Plans for the two major watercourses in the Plan Area and to develop a gravel removal program for Lynn Creek. This later study identified a potential flood risk to development in the Lynn Creek floodplain. In March 2006, a Flood Hazard Assessment of Lynn Creek was completed by Kerr

Wood Leidal Consulting Engineers. These studies identified flood risks from both watercourses and recommended that new development in these areas incorporate or provide various protective measures identified in the studies. These recommendations are reflected in Section 9: Housing and Growth Management, in the Design Guidelines for Area 1 and in the policies set out below.

SECTION GOALS

- to protect and enhance major watercourses as important bio-physical and cultural resources
- to protect, preserve and enhance tributary or minor streams and creeks in the area
- to protect and enhance unique natural and forested areas
- to improve air, land and water quality
- to ensure new development is environmentally sound
- to increase environmental stewardship

POLICY

10.1 Protect and enhance the Seymour River and Lynn Creek.

IMPLEMENTATION

10.1.1 Ensure that any development within the designated Seymour River floodplain and Lynn Creek floodplain areas comply with the current legislation and guidelines for environmental preservation and flood protection.

10.1.2 Support completion and implementation of the Lynn Creek and Seymour River Management Plans as these relate to the Lynnmour/Inter-River Planning Area.

10.1.3 Retain and enhance where possible or practical the natural riverbank vegetation on the Seymour River and enhance the riparian area to improve ecological functions.

10.1.4 Encourage Federal Fisheries, GVRD, Seymour Salmonid Society or others to document the fish bearing capacity of the Seymour River and Lynn Creek and develop a plan to increase their capacities over the next ten years for inclusion into the Seymour River and Lynn Creek Management Plans.

10.1.5 Encourage Park Services and others to enhance the riparian area of Lynn Creek in Inter-River, Lynn Canyon Park, Bridgman/Seylynn and Harbourview Parks by working toward integrated management plans for parks within the planning area.

10.1.6 Support Engineering Services' Premier Street Landfill Closure Plan and efforts to monitor leachate collection. Support any efforts that prevent leachate overflow discharge into Lynn Creek.

10.1.7 Encourage the completion of Integrated Stormwater Management Plans for the smaller tributary watersheds so as to reduce the effects on Seymour River and Lynn Creek.

POLICY

10.2 Preserve, protect and enhance local streams and creeks.

IMPLEMENTATION

10.2.1 Retain natural streamside or creekside vegetation and enhance the riparian areas. Ensure development complies with the District's Environmental Bylaw and meets the Riparian Area Regulation requirements.

10.2.2 Document the fish bearing capacity of all streams and creeks and put a plan in place to increase such capacity over the next ten years.

10.2.3 Place identification signs at prominent locations of all streams and creeks providing the stream/creek name and information about its environmental and habitat qualities.

10.2.4 Control access to Morten Creek from nearby playing fields and preserve its water quality.

10.2.5 Identify storm water discharge sources and develop a plan to protect natural waterways from harm caused by the quantity and quality of this discharge.

10.2.6 Protect both water quality and quantity in streams and creeks by utilising innovative engineering and stormwater management designs and by developing plans to maintain regional groundwater tables for all land development projects.

10.2.7 Ensure road and trail development is sensitive to the surrounding natural environment.

10.2.8 Ensure the Parks Department develops a fertilizer and pesticide management plan for Inter-River Park.

POLICY

10.3 Preserve and enhance the natural and vegetative qualities of the community to the greatest extent possible.

IMPLEMENTATION

10.3.1 Work with community representatives and park-user groups to ensure as much of the southern-forested area of Inter-River Park is preserved as is possible.

10.3.2 Work with Fire and Rescue Services to maximize the preservation of the forested area north and east of the Fire Training Centre currently designated for future training needs while ensuring that Fire and Rescue training needs are met.

10.3.3 Follow Ministry of Environment, Lands and Parks standards in replanting trees removed from this forested area.

10.3.4 Investigate with the Community Heritage Commission the possibility of designating at least a portion of this forested area as a preservation area under B.C. Heritage legislation.

10.3.5 Retain extensive landscape setbacks on the District properties in the vicinity of the Lillooet Road and Mt Seymour Parkway, and Lillooet Road and Old Lillooet Road intersections.

10.3.6 Prepare a forest protection and management plan for the urban and native forest of Lynnmour / Inter-River.

10.3.7 Promote proper management and maintenance of native trees through publications and display materials.

10.3.8 Require developers, tree work companies and contractors to conform to required standards for tree protection and preservation.

10.3.9 Ensure effective protection of trees during land development activities.

POLICY

10.4 Preserve and enhance local wildlife species to the greatest extent possible.

IMPLEMENTATION

10.4.1 Retain or develop “old field” habitat to support and enhance local raptor populations and ground nesting species.

10.4.2 Support the Bear Awareness Program, installation of interpretative signage, and protective fencing around identified nesting areas.

10.4.3 Design and improve local trails in such a manner as to encourage the preservation and isolation of concentrated nesting areas.

10.4.4 Encourage Park Rangers and others involved with bylaw enforcement to become knowledgeable about local nesting grounds and encourage stricter enforcement of relevant bylaws in these areas.

POLICY

10.5 Reduce the impacts on the community from the Trans-Canada Highway and from gaseous emissions from the landfill site.

IMPLEMENTATION

10.5.1 Encourage the Ministry of Transportation to increase plant materials in the landscaped areas adjacent to Highway 1.

10.5.2 Ensure the District’s Landfill Closure Plan meets current standards and is regularly monitored.

10.5.3 Ensure overflow from the leachate collection system at Inter-River Park does not flow into Lynn Creek.

10.5.4 Improve air quality at Inter-River Park by reducing or filtering landfill gas emissions.

POLICY

10.6 Consider support for new development only if it is based on principles of environmental sustainability.

IMPLEMENTATION

10.6.1 Require a tree inventory and site plan containing information on tree size and location, location of streams and creeks, and slope information prior to development or redevelopment of land.

10.6.2 Require a wildlife survey and bio-inventory of natural or forested areas being considered for alternative uses.

10.6.3 Examine surface and groundwater flow patterns on steep slopes when considering development applications.

10.6.4 Require adequate tree retention on steep slopes as a condition of development approval.

10.6.5 Require developers and construction workers to implement effective sediment and erosion control techniques for development on steep slopes.

10.6.6 Install oil and grit interceptors at all new and re-developed sites and require maintenance programs be developed for review by District staff.

10.6.7 Encourage the incorporation of on-site infiltration measures such as permeable surfaces and vegetation swales into construction plan to reduce urban run-off.

10.6.8 Install catch basin sediment traps in the vicinity of all new development activities.

10.6.9 Ensure landscaping of development parcels reflects and complements the community's natural setting.

10.6.10 Encourage the development of Green Buildings which conserve energy, water and other resources and uses recycled and environmentally responsible materials.

POLICY

10.7 Promote and support local efforts to increase environmental stewardship.

IMPLEMENTATION

10.7.1 Support efforts of North Shore Streamkeepers and other groups to enhance streams and rivers in Lynnmour / Inter-River and continue public education efforts on proper streamside protection and management.

10.7.2 Promote community stewardship through park volunteer projects (garbage pickup, stream cleanup, etc.)

10.7.3 Provide educational materials on proper sediment and erosion control techniques for land development.

10.7.4 Replant damaged or historically lost riparian areas.

10.7.5 Survey streams to ensure adequate gravel for spawning and woody debris for rearing salmonid.

11.0 PLAN IMPLEMENTATION

There are a number of specific major steps that need to be taken following the completion of this Local Plan and its incorporation into the District Official Community Plan. These steps are separate from and additional to the many Policy and Implementation Statements needed to realize the benefits of this plan. These are:

1. **Annual Monitoring of Plan -** staff need to establish an on-going liaison with the community and should undertake an annual audit to assess what steps have been taken to implement this Plan and to consider it in the context of the ever changing priorities and needs of the community.

2. **Public Benefits Strategy -** such Community Development Objectives as listed in Part 9 and articulated throughout this Plan shall be the measure against which all new development requiring rezoning is considered. Achieving maximum density provisions shall be based, at least in part, on contributions new development makes to achieving these Community Development Objectives. The Public Benefits Strategy will be developed in consultation with local community representatives and will identify appropriate community improvements needed, the costs associated with these projects and their priority for the community.

3. **Flood Protection Contributions** - Area 1 is within the Lynn Creek Flood Plain and will therefore need to address flood protection and mitigation measures as part of any redevelopment. This will include a cash contribution towards the construction of flood protection works (dyke improvements, berms and floodways) and construction to flood construction levels (FCLs). Cash donations are estimated to be in the order of $14.31 per square metre ($1.33 per square foot) of land area.

4. **Community Involvement and Participation** - special provisions and care needs to be taken to ensure that the views of this community are taken into account in the planning and development of the several major regional recreational, commercial and institutional facilities located in this community.

Inter-River Sub-Area

Transportation Study

NORTH VANCOUVER DISTRICT

August, 2016

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EXECUTIVE SUMMARY

STUDY PURPOSE

Recent development interest and design work on the Ministry of Transportation and Infrastructure (MOTI)'s nearby Highway 1 Lillooet Interchange Improvement Project has prompted District staff to reconsider the transportation network in the Inter-River neighbourhood. These recent initiatives have provided the District of North Vancouver (District) with an opportunity to develop a plan that provides a network that addresses redundancy, circulation, and permeability for people walking, bicycling, driving, or taking transit in this neighbourhood.

The study provides an overview of the range of options considered and provides recommendations that address the study's goals.

METHODS

Using feedback obtained from stakeholder groups consulted, District staff developed a range of potential options to serve the collective goals and needs for the area. Each option was evaluated as a segment using a set of refined criteria designed to help achieve the study's objectives. Options were formulated to improve the network with key study goals in mind, as found in the green box to the right.

STUDY GOALS

- Provide safe & efficient access to all key destinations within and outside of the neighbourhood;
- Minimize neighbourhood traffic impacts & improve livability;
- Provide secondary access were feasible to provide redundancy, better circulation, better emergency access and ability to disperse vehicle traffic;
- Further develop formal and informal walking and cycling networks;
- Provide improved safety and connectivity of commuter & recreational routes & trail networks;
- Preserve and enhance existing natural areas;
- Provide alternative access to St. Denis Avenue; and
- Provide flexibility with ongoing development and highway interchange design work.

RECOMMENDATIONS

New connections identified through the planning process include facilities for people walking, biking and driving and will be local streets that will carry relatively low volumes of vehicular traffic (less than 1,500 vehicles per day).

The following new connections are recommended:

- St. Denis Avenue to Forsman Avenue (south of Lynnmour Elementary School);
- Forsman Avenue to Orwell Street (proximate to the south of Lynnmour Elementary School); and
- St. Denis Avenue to Orwell Street (proximate to the north of Lynnmour Elementary School).

ADDITIONAL RECOMMENDATIONS

- Continue to meet the needs of people who walk and cycle to and through the sub area by enhancing and/or formalizing informal trails throughout the site;

- Enhance the existing pathway from Premier Street to Orwell Street, south of 'Digger Park' and dedicate space for a utility corridor;
- Support a Drive-to-Five program to encourage physical activity to and from school; and
- Improve circulation for pick-up and drop-off at Lynnmour Elementary.

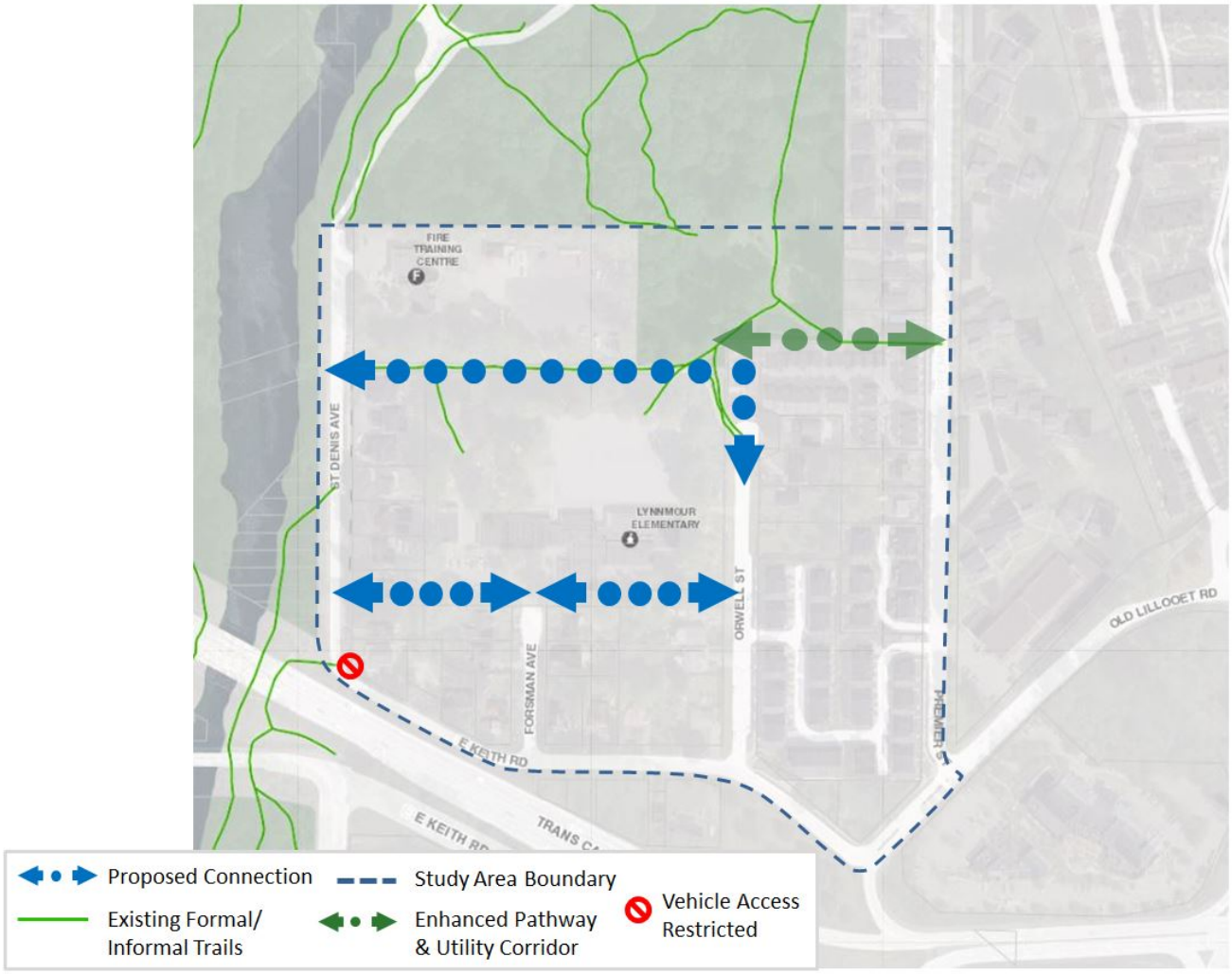


FIGURE I: Summary map of proposed connections.

NOTE: Proposed connections are consolidated for convenience purposes only. Each connection may be implemented individually or collectively. Exact alignment is subject to further study.

LIMITATIONS OF THE STUDY

The study recognizes that due to adjacent unknowns, the timing of each individual segment will vary. While some segments may be realized through development, other segments may be completed in conjunction with District initiatives. Although new connections have been identified, further study is required to determine the exact alignment of each connection. Lastly, each segment is contingent upon successful partnerships with the stakeholders in this community.

Table of Contents

I. STUDY PURPOSE

In recent months, the District of North Vancouver (District) has received notice of further development interest in the Inter-River neighbourhood. It is timely to consider opportunities to improve the transportation network in the neighbourhood since options for providing additional connection(s) may become limited as redevelopment proceeds. Occurring simultaneously, recent design work being undertaken by the Ministry of Transportation and Infrastructure (MOTI) on the nearby Highway 1 Lillooet Interchange is expected to have an impact on the existing road network.

II. CONTEXT

a. LOCAL CONTEXT

The Inter-River sub-area is defined as being north of Highway 1, east of Lynn Creek, south of Inter-River Park and west of Premier Street, as shown in **Figure 1** below. This sub-area has been undergoing re-development characterized primarily from low-density single family to newer low density multi-family housing. Ongoing guidance for change in the area has been in accordance with the 2011 Official Community Plan and the 2006 Lynnmour/Inter-River Local Plan.

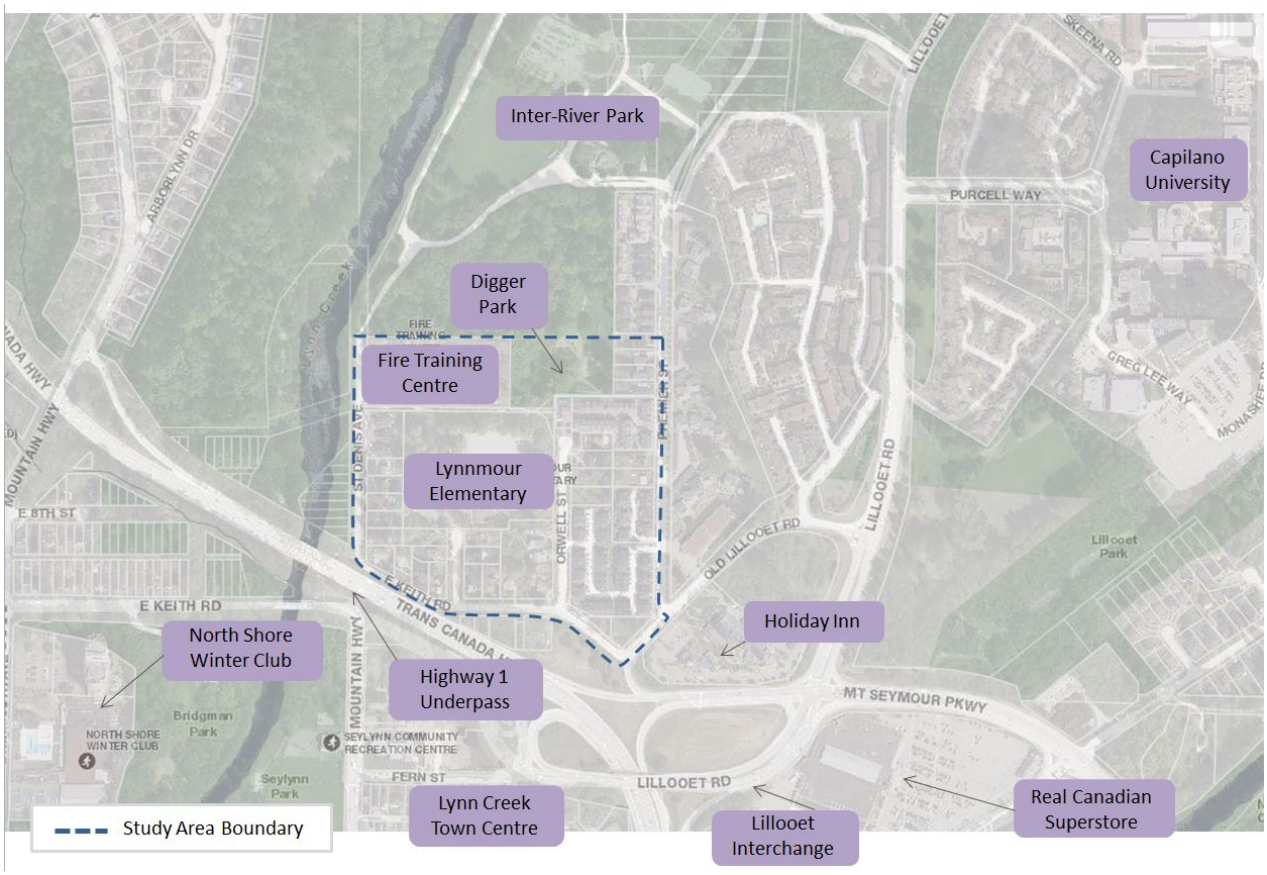


FIGURE 1: Inter-River Sub-area Map

b. KEY DESTINATIONS

The Inter-River sub-area is within close proximity to a range of destinations and amenities, as shown above in **Figure 1**. Lynnmour Elementary is at the heart of the sub-area, with the fire training centre and Inter-River Park located just north of the school. The southern portion of the park, known locally as 'Digger Park', is characterized by play structures and picnic tables. The northern and western portions of Inter-River Park consist of a series of recreational trails, an off-leash dog park, a bike skills park, and sports fields, which often host sports tournaments. Traffic generated by tournaments in the park are encouraged to enter and leave from the park's main access on Lillooet Road. People driving to the lower fields can either enter from the park's main entrance on Lillooet Road or from Premier Street.

One of the key destinations within this sub-area is Lynnmour Elementary School, serving a catchment area of families generally residing between Lynn Creek and Seymour River, as far north as Lynnmour North and as far south as Lynnmour South. It also serves families east of Seymour River toward the Maplewood Conservation Area and south of Mount Seymour Parkway. The school's primary pick-up and drop-off is located at the end of Forsman Avenue, with people walking, cycling, driving, and taking transit to access the school. Circulation is poor for parents who drive to this primary entrance on Forsman Avenue, with minimal space to turn around at the end of the street for travel back to E Keith Road.

Outside of the sub-area boundaries, residents have access to Real Canadian Superstore, Capilano University and the Lynn Creek Town Centre. Phibbs Exchange, the key transit hub in North Vancouver, is located approximately 1.5 kilometres south, or a 15 minute walk from Lynnmour Elementary School. Residents maintain access to these amenities by either by foot, bicycle, transit or vehicle.

c. EXISTING PEDESTRIAN, CYCLING, TRANSIT & VEHICULAR NETWORK

Passage to and through the Inter-River sub-area from the south can be accessed by foot or bicycle using a highway underpass south of East Keith Road and St. Denis Avenue (see **Figure 1**). People cycling and walking often travel up St. Denis Avenue through the park and further north, or east along East Keith Road to other destinations.

Several informal east-west pathways exist for people walking and cycling from St. Denis Avenue to Premier Street and from Premier Street to internal street networks off of Lillooet Road (see **Figure 2** below). Students of Lynnmour Elementary often access 'Digger Park' using an informal path behind the school's gravel field, while all other users access 'Digger Park' either from Orwell Street or along the informal powerline trail that runs between St. Denis Avenue and Premier Street. Dog walkers often access the off-leash dog park from St. Denis Avenue or through the park's internal network.

In 2009, Council endorsed the Spirit Trail Route Planning Report. The Spirit Trail is envisioned as a 35-kilometre long, accessible, lowing trail that will link Horseshoe Bay and Deep Cove. In June of 2016, Council indicated general agreement with a route that would travel north through Seylynn Park and along E Keith Road before moving onto Mount Seymour Parkway, as shown in Figure 2 below.

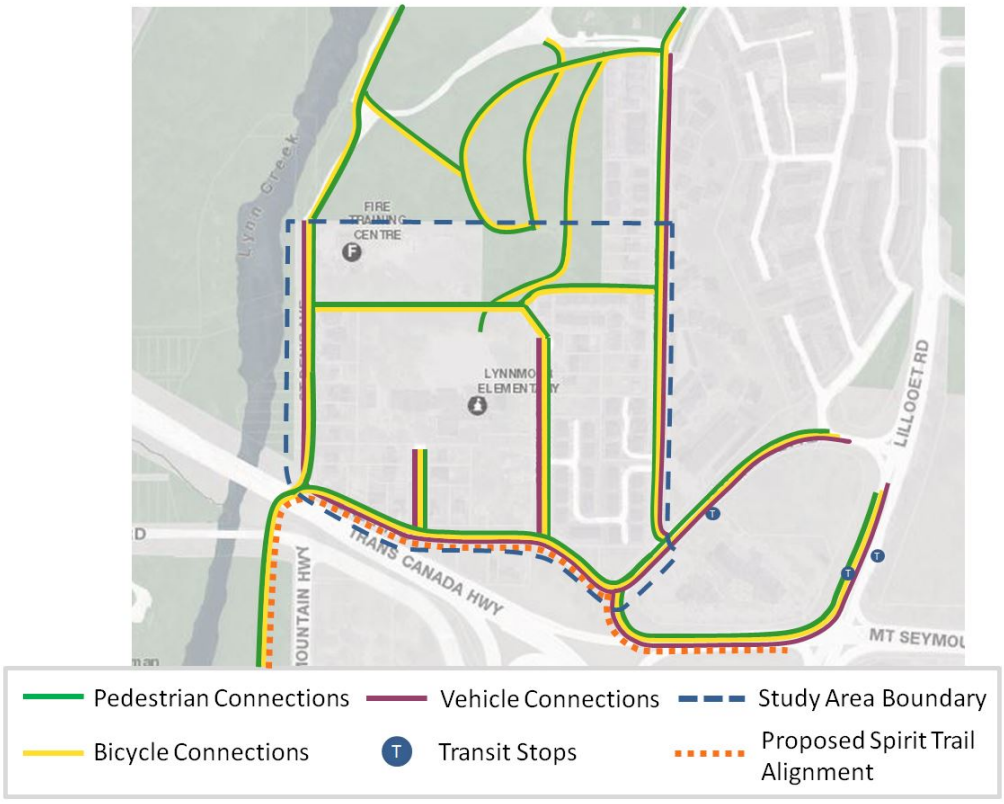


FIGURE 2: Existing Walking, Cycling, Driving and Transit Connections and Spirit Trail Alignment

There are currently two bus stops within walking distance on the eastern side of the site (see **Figure 2** above). The stop located on Old Lillooet Road services route 239 to Capilano University, while the stop located on Lillooet Road at Mount Seymour Parkway (west side) services routes 239 and 255 to Park Royal and Dundarave via Capilano University respectively. The stop on the east side of Lillooet Road services the 255 route to Dundarave. Access to the bus stop on Lillooet Road is taken from south of the site along the road to the Highway 1 Westbound off-ramp or through the Holiday Inn parking lot.

The existing street network in the sub-area is comprised of mostly north-south public roads, with the exception of East Keith Road and Old Lillooet Road. This street configuration does not provide any redundancy[1] for vehicles trying to access key destinations and residences on St Denis Avenue, Forsman Avenue, Orwell Street, and Premier Street, providing only one access in and out within the sub-area. Minimal connectivity with the surrounding street network limits access into the sub-area from Old Lillooet Road and the E Keith Road ramp.

c. EXISTING GUIDING POLICY

Key goals and recommendations from this study received general direction from Council-approved documents that outline overarching District priorities. The following policies and documents were used to inform the parameters of this study:

[1] 'Redundancy' – refers to the provision of alternative access in and out of a street (i.e. two ways in and out of a street)

- **Official Community Plan (OCP) (2011)** aims to increase the mode share of walking and cycling by 2020.
- **Zoning Bylaws** provide information on existing and intended land uses for the Inter-River sub-area and District as a whole.
- **Form & Character Development Permit Area (DPA) Guidelines** are contained within Schedule B of the 2011 OCP and address the need for improved pedestrian connectivity through and around developments.
- **Transportation Plan (2012)** outlines the need to manage the existing road network to optimize safety and efficiency, while ensuring the integration of sustainable travel modes into the system.
- **Pedestrian Master Plan (2009)** emphasizes a need to provide a well-connected network of pedestrian facilities to encourage active modes of travel throughout the District.
- **Bicycle Master Plan (2012)** identifies one of its key goals as establishing a bicycle network that strengthens community connections and improves safety. Additional supporting goals and objectives include: promoting cycling as a key part of a sustainable transportation system and making all municipal streets more appealing to cyclists in addition to accommodating pedestrians and vehicles.
- **Road Network Study (2011)** addresses the need to identify opportunities for roadway reconfiguration to accommodate other modes and points to the benefits in circulation when improvements to road networks are effective.

III. ASSUMPTIONS

The following assumptions provide parameters for this study. These assumptions are guided by Council approved documents like the Official Community Plan and Zoning Bylaw, where applicable. Due to adjacent uncertainties with regard to existing land uses and ongoing development, these assumptions allow District staff to plan for network improvements under the following conditions:

- **St. Denis**
  Due to ongoing MOTI work on the Lillooet Highway Interchange, it is assumed that access to St. Denis Avenue would no longer be provided from E. Keith Road, as per preliminary highway improvement designs.

- **Lynnmour Elementary School**
  It is assumed that Lynnmour Elementary School would remain open and on this site.

- **Fire Training Centre**
  It is assumed that access to the fire training centre site would continue to be provided.

- **Park Access**
  It is assumed that primary access to Inter-River Park would continue to be from Lillooet Road.

- **Property Access**
  It is assumed that access to all properties must be maintained.

- **Existing Pedestrian and Cycling Commuter Routes**
  It is assumed that existing commuter and recreational routes that go through and to the Inter-River neighbourhood would be maintained and/or enhanced where appropriate.

- **Additional Connections**
  It is assumed that staff will continue to look for viable proximate connection options as opportunities arise and where such connections provide increased benefit to the community.

IV. STUDY GOALS

The following goals have been developed to guide the study. These goals have been reviewed and refined using feedback and input from internal and external stakeholders:

- Provide safe and efficient access to all key destinations within and outside of the neighbourhood;
- Minimize neighbourhood traffic impacts and improve livability;
- Provide secondary access where feasible to provide the following: redundancy, better circulation, better emergency access and ability to disperse vehicle traffic;
- Further develop formal and informal walking and cycling networks;
- Provide improved safety and connectivity of commuter and recreational routes as well as trail networks;
- Preserve and enhance existing natural areas;
- Provide alternative access to St. Denis Avenue; and
- Provide flexibility with ongoing development and highway interchange design work.

V. RECOMMENDATIONS

The following recommendations were based on discussions with stakeholders and meet the goals of the study.

NOTE: The alignments shown are schematic. Exact alignments for the proposed connections below are subject to additional detailed review. Each option has been evaluated individually due to timing and phasing, but can be implemented in isolation or together.

a. ROAD CONNECTIONS

Connections identified in this section include facilities for people walking, biking and driving. The road connections are classified as a local street and generally carry lower volumes of vehicular traffic. The form of the road connection should be designed to reflect the classification and volume. Conceptual road configurations as shown **in Figures 3** and **4** may be considered.

FIGURE 3: Olympic Village, Vancouver

FIGURE 4: Henry Hudson Elementary School, Kitsilano

Connection A: St. Denis Avenue – Forsman Avenue

- Purpose: Provides direct access to St. Denis Avenue from E. Keith Road.
- Benefit
  - Provides users with options for accessing St. Denis Avenue; and
  - Can occur independently or in conjunction with other proposed segments.
- Impact
  - Depending on final alignment, school and assembled properties would need to accommodate the new connection.
- Timing: Would coincide with development of residential housing south of the proposed connection and/or renewal of the school.
- Collaboration: School District 44, residents and developers.

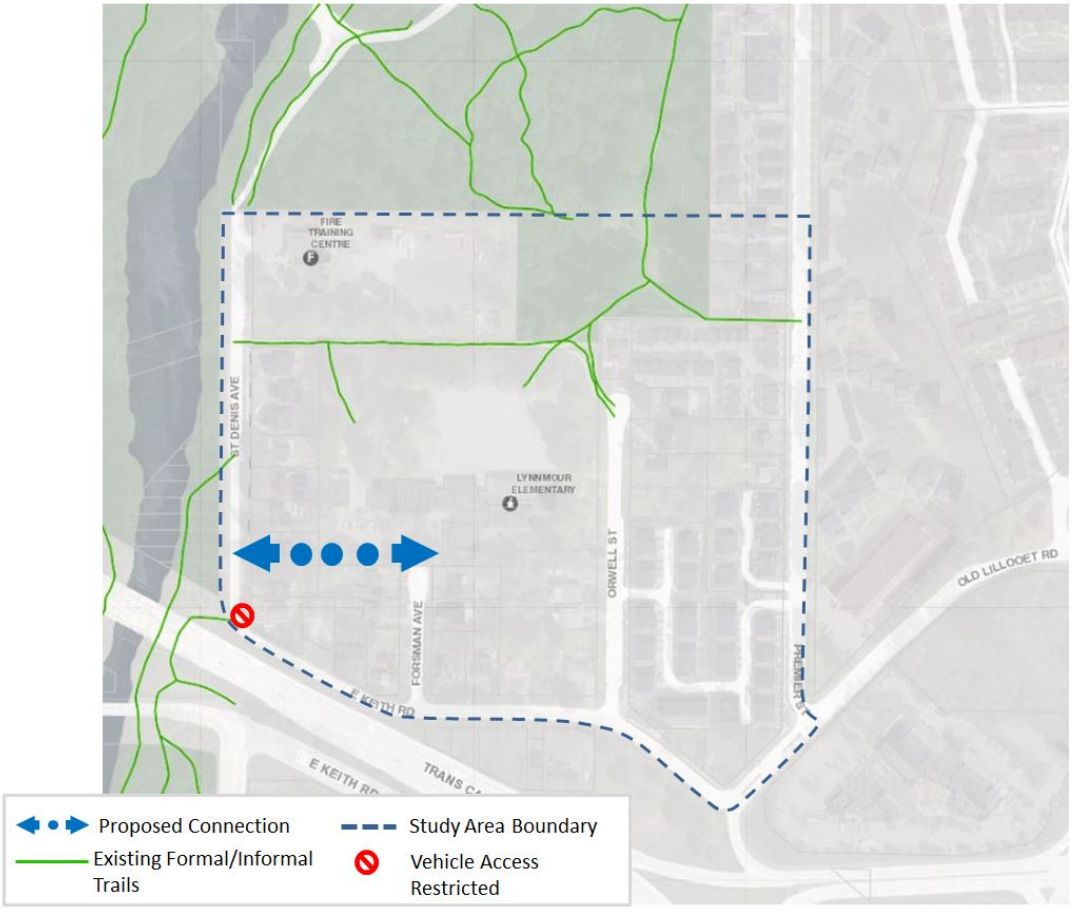


FIGURE 5: St. Denis Avenue to Forsman Avenue Segment

Connection B: Forsman Avenue – Orwell Street

- Purpose: Provides redundancy to the road network, specifically to Forsman Avenue.
- Benefit:
  - Provides users with options for accessing the school (and to St. Denis Avenue if connected).
- Impact:
  - Requires coordination between the school and DNV to develop the segment.
- Timing: Would occur when the school renews.
- Collaboration: School District 44 and residents.

FIGURE 6: Forsman Avenue to Orwell Street

Connection C: St. Denis Avenue – Orwell Street

- Purpose: Provides access and/or redundancy to St. Denis Avenue users and fire training site.
- Benefit
  - Provides users with options for accessing St. Denis Avenue and Orwell Street;
  - In conjunction with the southern connection, enables ease of traffic flow through the site for parents picking up/dropping off their child(ren) at school while minimizing impact on residents along Forsman Avenue;
  - If the fire training site is redeveloped per the land-use zoning designation, this connection may provide a more direct access to the site; and
  - Can occur independently or in conjunction with other proposed segments.
- Impact
  - Would intersect the existing informal pathway that exists between Lynnmour Elementary School and 'Digger Park'; and
  - Would require DNV to purchase property located at the northern end of Orwell Street or from the school district.
- Timing: Would occur when the DNV is able to acquire property.
- Collaboration: School District 44, Fire Training Centre site operators and residents.

FIGURE 7: St. Denis Avenue to Orwell Street

b. WALKING & BICYCLING CONNECTIONS

Connection D: Maintain and Improve Existing Walking and Cycling Connections

- Purpose: To continue to meet the needs of people who walk and cycle to and through the sub-area.
- Benefit:
  - Allows users to use existing routes for recreational and commuter purposes; and
  - Encourages continued active travel through the site;
  - Encourages linkages with the proposed Spirit Trail route, which provides an important East-West connection through the District of North Vancouver and other North Shore Municipalities
- Impact: Minimal/none.
- Timing: As opportunities arise.
- Collaboration: Residents.

FIGURE 8: Pathway on Cardero Street, West End

FIGURE 9: Pathway on Guildford Street, West End

FIGURE 10: Trails and Pathways

c. ADDITIONAL RECOMMENDATIONS: OTHER ELEMENTS

Enhanced Pathway & Utility Corridor

- Purpose: To ensure space is available for pathway enhancements and to reserve additional land required for a utility corridor.
- Benefit:
  - Provides an improved walking space for pedestrians and users of 'Digger Park';
  - Provides additional space for those who walk, cycle and require mobility aids with minimal competition for space; and
  - Provides the required space for maintaining and storing underground utilities.
- Impact: Minimal/none.
- Timing: Space to be reserved immediately, with enhancement occurring when opportunities arise.
- Collaboration: Residents.

FIGURE 11: Enhanced Pathway & Utility Corridor

Support Drive-to-Five Program

- Purpose: This program is aimed at encouraging students to use more active modes of travel to school. Parents are encouraged to drop their children off a five-minute walk away from school, allowing students to get physical exercise and to learn how to become more safe and aware as pedestrians.
- Benefit:
  - Encourages parents and students to incorporate limited physical activity to and from school; and
  - Reduces traffic in and around the school drop-off/pick-up zone.
- Impact: Minimal/none.
- Timing: Would be contingent upon interest of the Parent Advisory Committee (PAC) to work on this issue.
- Collaboration: PAC possibly in collaboration with local businesses.

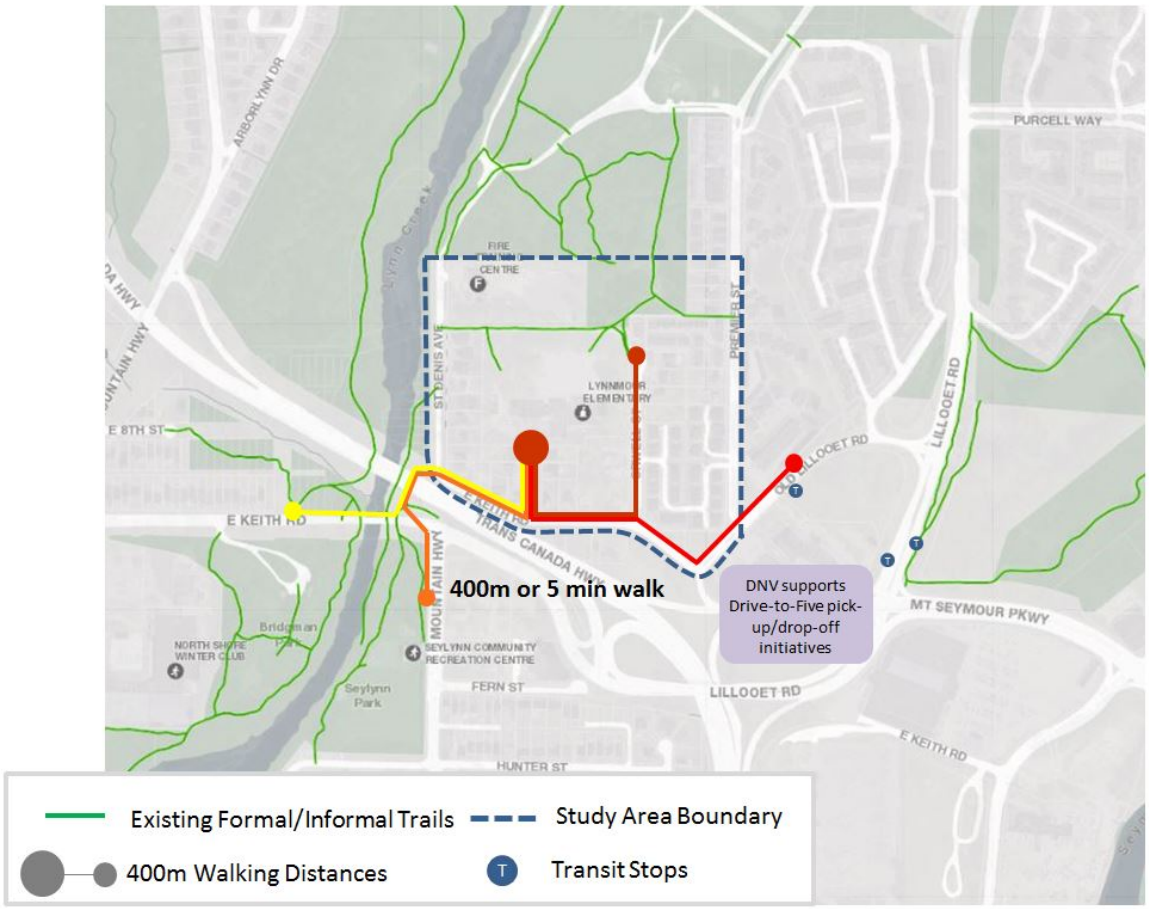


FIGURE 12: Drive-to-Five Walking Distances

Lynnmour Elementary Internal Circulation

- Purpose: Improve circulation of parents dropping off and picking up students during peak times.
- Benefit:
  - Improves neighbourhood livability for nearby residents; and
  - Allows for efficient and safe circulation near the school.
- Impact: May impact site design for the school's future development.
- Timing: When the school renews.
- Collaboration: School District 44, PAC, students, residents.

FIGURE 13: Example of Internal Circulation: Highlands Elementary School

FIGURE 14: Example of Internal Circulation: Highlands Elementary School

d. ADDITIONAL RECOMMENDATIONS: OUTSIDE STUDY AREA

Formalize Walking and Pedestrian Connections between Lillooet Road and Premier Street

- Purpose: Provides formal indication of a trail from Lillooet Road to Premier Street.
- Benefit
  - Provides improved access from Premier Street to Lillooet Road for users trying to access the transit stop on Lillooet Road;
  - Provides improved access for students walking to Lynnmour Elementary School from the east; and
  - Formalizes an already existing informal route through a residential complex to serve the greater neighbourhood, as well as the complex's residents, using wayfinding signage.
- Impact
  - Some residents may not support users from neighbouring areas using a path through private development.
- Timing: As opportunities arise.
- Collaboration: School District 44, Edgewater Estate residents and property managers, and Lynnmour West residents and property managers.

Vehicle Connection from Lillooet Road to Premier Street

- Purpose: Provides access and redundancy for Premier Street and the neighbourhood.
- Benefit
  - Currently, there are two ways into the neighbourhood and one way out. This segment provides improved redundancy and egress from the site.
- Impact
  - Would be designed with redevelopment to have a minimal impact to future residents.
  - Further studies need to be completed to determine alignment with grade and development.
- Timing: Would occur if and when the existing developments between Lillooet Road and Premier Street redevelop. (possible 10-20 year timeframe)
- Collaboration: Edgewater Estate residents and property managers, Lynnmour West Estate residents and property managers, future developers.

V. LIMITATIONS

The study recognizes that due to adjacent unknowns, the timing of each individual segment will vary. While some segments may be recognized through development, others can be completed in conjunction with District initiatives (i.e. property acquisition). Although specific segments have been identified, further study is required to determine the exact alignment of each connection. The proposed connections outlined in this Study are intended solely to show through connections in a general area. Lastly, each segment is contingent upon successful partnerships with stakeholders in this community. Ensuring that local residents and development interests have an opportunity to influence positive changes in this community is a priority.

VI. CONCLUSION

As communities in the District continue to grow and densify, the existing street network needs to advance in order to meet current and future needs for improved access and redundancy. Due to development interest in the Inter-River neighbourhood, the District has identified key opportunities to improve the quality of life of its existing and future residents.

The District recognizes that streets in the Inter-River sub-area should be designed to ensure that they are safe, comfortable, and welcoming for all users, including people walking, cycling, driving or taking transit. New streets that are introduced into the area need to be sensitive to the existing neighbourhood, and should reflect the other local streets. In addition, the new connections need to improve vehicular access through the site as well as increase permeability and access for all users.

In order to reflect the interests of the neighbourhood's residents, the District further recognizes the need to maintain the neighbourhood character in all improvements to the existing network. This work will be done in consultation with local residents and developers to ensure key stakeholders are involved throughout this process.

The proposed recommendations require further studies to determine the most appropriate and cost effective alignment with the least impact to current residents. The proposed connections identified in this report were developed using stakeholder feedback. Each connection serves the purpose of improving circulation and redundancy in the neighbourhood, while providing required access to St. Denis Avenue.

These proposed connections, whether taken individually or collectively, serve to create a more complete and finer grained network in the neighbourhood. These connections intend to address a range of ongoing transportation related issues and help improve the quality of life of local residents, school-goers, and recreational trail users in the Inter-River sub-area.

APPENDIX

APENNDIX A: PLANNING PROCESS

Planning Process

As part of the transportation review process, District staff consulted a total of 12 internal and external stakeholders, listed below in Table 1. Stakeholders from group #1 were chosen from internal departments to provide input on ongoing issues in the neighbourhood. Stakeholders from group #2 were chosen to represent the varying interests in the neighbourhood.

TABLE 1: Stakeholder Consultation Groups

Stakeholder Group #1	Stakeholder Group #2
Engineering	Fire
Environment	Neighbourhood Representatives (2)
Parks (2)	School District #44
Planning	Transportation Consultation Committee
Public Safety	Vancouver Coastal Health

In the first set of meetings, stakeholders were requested to review the goals, assumptions, and criteria used to evaluate the options proposed for the study area. Stakeholders were also asked to collectively identify opportunities and barriers with the existing transportation network. Stakeholder input also played a key role in refining criteria to meet the needs of all representatives and identifying key priorities in the neighbourhood.

District staff reviewed the feedback and input of both stakeholder groups and worked to develop potential transportation options that best met the goals outlined for the study. These options were evaluated to determine the highest-ranking options. The criteria included below were used to evaluate a total of seven options.

TABLE 2: Evaluation Criteria

Category	Criteria Description	Rating	Option 1a	Option 1b	Option 2	Option 3	Option 4a	Option 4b	Option 5	Comments
Public Safety	• Improves safety for all users walking, cycling and driving. • Minor or no impact on safety for all users walking, cycling and driving. • Reduced safety for all users walking, cycling and driving.	● ● ○								
	• Improves ease of access for emergencies throughout whole site. • Improves ease of access for emergencies to part of the site. • Does not improve ease of access for emergencies for most of the site.	● ● ○								
Mobility and Connectivity	• Improves access and circulation of all modes • Has a minimal impact on access and circulation of all modes. • Reduces ease of access and circulation of all modes	● ● ○								
	• Provides improved access for all users to key destinations (e.g. natural areas, school etc). • Provides improved access for only some users to key destinations (e.g. natural areas, school etc). • Reduces ease of access for all users to key destinations (e.g. natural areas, school etc)	● ● ○								
Natural Areas	• No impact on parkland/natural areas. • Minimal impact on parkland/natural areas. • Negative impact on parkland/natural areas.	● ● ○								
Livability	• Positively enhances neighbourhood livability. • Has minimal to no impact on neighbourhood liveability. • Negatively impacts neighbourhood livability.	● ● ○								

TABLE 2: Evaluation Criteria

Ca	Criteria Description	Rat			Opti	Opti			Opti	Comments
Costs	• The cost of implementation is low. • The cost of implementation is medium. • The cost of implementation is high.	● ● ○								
Private Interests	• Has a positive impact on existing landowners and/or the development potential of land. • Has a neutral impact existing landowners and/or the development potential of land. • Has a negative impact on existing landowners and/or the development potential of land.	● ● ○								

The second set of stakeholder meetings was used to confirm the revised goals and assumptions. District staff shared draft options and draft recommendations informed by an evaluation of each option. Stakeholders provided feedback on the preferred set of transportation improvements in the neighbourhood. The options that best reflect stakeholder input and analysis completed by staff are summarized in Chapter V: Recommendations. In September, 2016, District staff consulted the Inter-River Community Association with proposed recommendations. The results and minutes of this consultation are provided in Appendix C.

APPENDIX B: METHODOLOGY

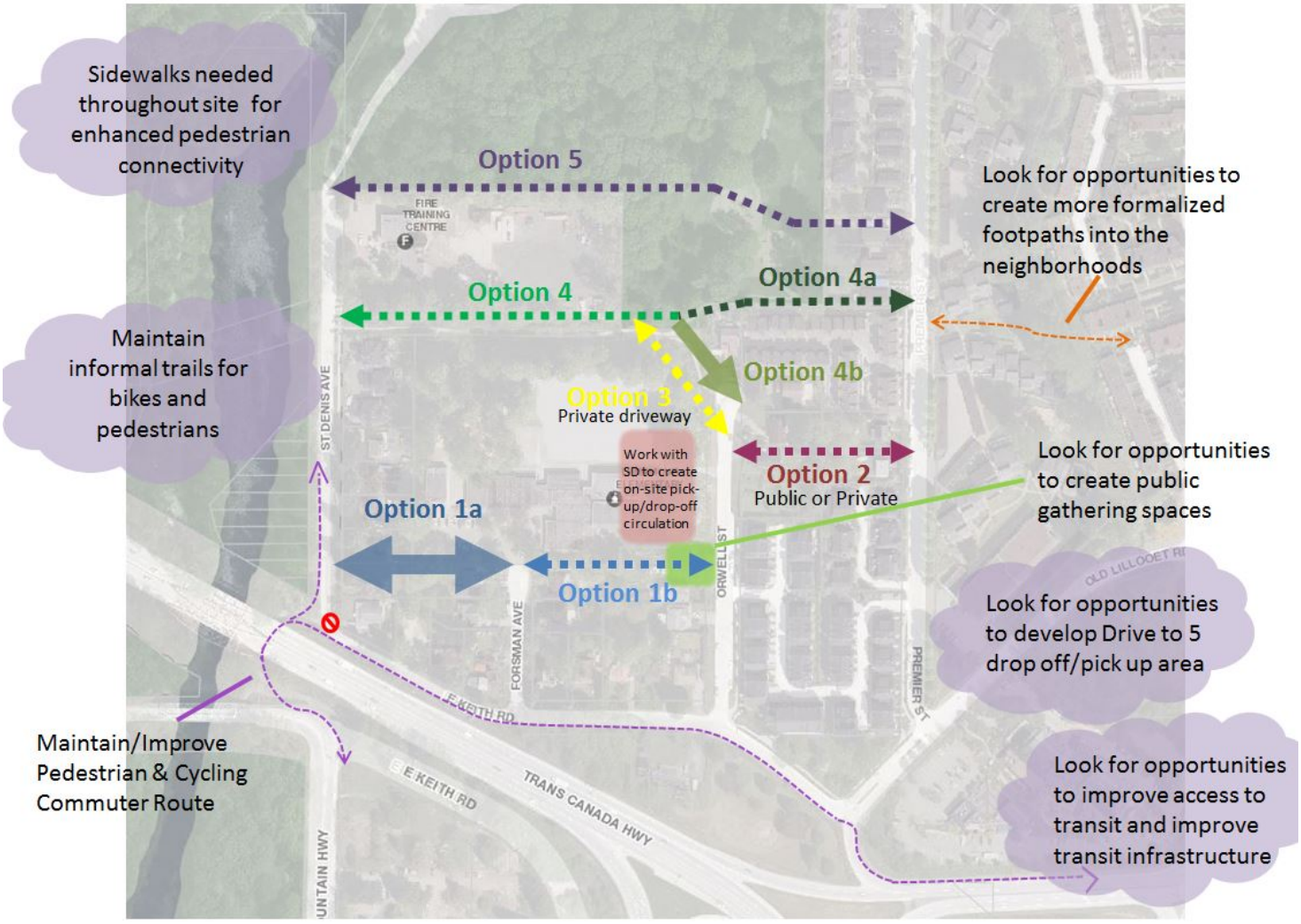
Options for Consideration

Using stakeholder feedback as the foundation for further analysis, District staff developed a range of potential options to serve the goals and needs for the area. Each option was evaluated as a segment, with the understanding that combined options would serve to better improve the network as a whole. Staff presented options with two key objectives in mind:

1. Better connect and improve the existing network for current and future transportation needs; and
2. Provide required access to St. Denis Avenue.

The range of proposed options considered for further analysis and evaluation are shown below in **Figure 15**. These options are intended to delineate a general location for a proposed east-west connection. Further details on the exact alignment will need to be discussed with relevant property owners and upon Council's direction.

Although the options presented in **Figure 15** serve the purpose of providing vehicular access, the District supports creating streets that are safe for all users that walk, cycle, use transit, and drive to and through the site. Stakeholder feedback further highlighted the need to maintain and enhance existing formal and informal walking and cycling routes through the site. This study does not aim to detract from the existing walking and cycling network, but rather aims to highlight opportunities that improve the range of options for accessing various destinations in and adjacent to the sub-area.



5: Map of Options Considered

EVALUATION

VEHICLE ACCESS

Stakeholders were asked to consider each option individually to determine which options best served the most needs in the neighbourhood. Although this study assumes Lynnmour Elementary School will remain open on site, the School Facilities Plan highlights the possibility that Lynnmour Elementary School may renew. The District believes access should be maintained, as a decision on its final location, whether on- or off-site, is still undecided.

Using the goals and assumptions as parameters for this study, stakeholders generally agreed with the following:

- Option 1b plays a key role in providing improved circulation and access to the school's existing entrance, should the school remain in its current location. Combining option 1a is a logical connection through to St. Denis Avenue;
- A combination of options 1a and 1b with 2 will provide a similar connection to 4a and 4b with less impact on the park;
- Option 4b is a favourable option but, option 4a will have an impact on the southern portion of Inter-River Park, otherwise known as 'Digger Park';
- Options 3 and 5 have minimal support due to their impact on existing parkland and their minimal impact to overall network improvement; and

The meeting minutes that document the discussion can be found in **Appendix C**.

District staff used the feedback collected from both sets of stakeholder meetings to refine the options and present the most widely recommended 'scenarios'. These scenarios are presented in **Chapter V: Recommendations.**

Scenarios that provided redundancy within the street network and improved circulation were ranked more favourably than those that had fewer overall benefits to the network. Scenarios that had the biggest impact to Inter-River Park and to existing development were not ranked favourably amongst stakeholders.

The highest ranking scenario from this evaluation was Scenario 4, which recommends a combination of options 1a, 1b, 2 and 4b. This scenario was preferred because it provides redundancy for access to St. Denis road while providing improved circulation and additional alternatives into/out the site. Option 2 provides a second option for users into and out of the sub-area by providing access via Premier Street or Orwell Street, and has a lower impact on the park than option 4a. It was however recognized that option 2 would place greater pressure on existing traffic patterns along Premier St. Option 2 was subsequently removed from the final recommendations.

A range of additional transportation needs were highlighted by stakeholders during the consultation process. These needs were not highlighted in any of the presented scenarios, but are addressed below.

PEDESTRIAN, CYCLING, AND TRANSIT ACCESS

Maintain and Enhance Existing Pedestrian and Cycling Commuter and Recreational Networks

- Stakeholders highlighted the importance of formal and informal pedestrian and cycling trails that travel to and through the site.
- Commuter and recreational trails that run through the site should be maintained to provide opportunities for active travel.

Improved Connections to Transit

- Stakeholders identified barriers to accessing the existing transit stops located southeast of the sub-area on Old Lillooet Road and Lillooet Road.

- District staff recommend exploring opportunities to put in more formalized paths that provide improved access to the existing bus stop locations.
- Stakeholders also identified opportunities to improve transit stop infrastructure for all abilities and for all weather conditions.

SCHOOL CONGESTION

Drive to Five Program

- The intent of Drive-to-Five programs is to provide locations where parents can park approximately a 5 minute walk away from school and encourage their children to engage in active modes to school.
- Stakeholders requested that opportunities for Drive-to-Five locations at existing parking lots in the adjacent area be explored.
- The Holiday Inn parking lot or existing Ministry land were recommended as two potential locations for this use.
- The District recommends that the Lynnmour Elementary PAC work with the local businesses to identify potential locations for short term-parking in support of Drive-to-Five.

ADDITIONAL CONSIDERATIONS

PROPERTY ACQUISITION

- The District understands that as part of this transportation review, network improvements will likely be timed with redevelopment opportunities. Where redevelopment opportunities do not exist, the District would need to consider acquiring properties to help create a complete network.

TABLE 3: Evaluation of Options

Category	Criteria Description	Rating	Option 1a	Option 1b	Option 2	Option 3	Option 4a	Option 4b	Option 5	Comments
Public Safety	• Improves safety for all users walking, cycling and driving. • Minor or no impact on safety for all users walking, cycling and driving. • Reduced safety for all users walking, cycling and driving.	● ● ○	●	●	●	○	○	○	○	• All options being considered will be low-volume, low-speed streets, and will therefore have reasonably safe traveling conditions. • None of the options 'reduce' safety however, Options 3-5 present more opportunity for conflicts between users than Options 1-2.
	• Improves ease of access for emergencies throughout whole site. • Improves ease of access for emergencies to part of the site. • Does not improve ease of access for emergencies for most of the site.	● ● ○	●	●	●	○	●	●	○	• Options 1a &1b collectively provide the best access and circulation for emergency vehicles through the site. • Option 2 as well as 4a & 4b collectively also provide good access and circulation but may not be the most efficient route for emergency access. • Option 3 and 5 provide access for emergency vehicles but provide the least circulation and efficiency of travel through the site.
Mobility and Connectivity	• Provides required access to St. Denis • Does not provide required access to St. Denis	● ○	●	○	○	○	●	●	●	• Providing access to St. Denis is a required component of this study. • At a minimum, the chosen scenario must include an option that provides this required access.
	• Improves access and circulation of all modes • Has a minimal impact on access and circulation of all modes. • Reduces ease of access and circulation of all modes	● ● ○	●	●	●	●	●	●	●	• All options, with the exception of 1b, provide access and connectivity to other streets but do not provide improved circulation. • Option 1b improves both access and ease of circulation for all modes as well for parents dropping off/picking up children at school.
	• Provides improved access for all users to key destinations (e.g. natural areas, school etc). • Provides improved access for only some users to key destinations (e.g. natural areas, school etc). • Reduces ease of access for all users to key destinations (e.g. natural areas, school etc).	● ● ○	●	●	●	●	●	●	●	• This criterion is not an effective indicator.
Natural Areas	• No impact on parkland/natural areas. • Minimal impact on parkland/natural areas. • Negative impact on parkland/natural areas.	● ● ○	●	●	●	●	●	●	○	• Option 1 a/b and 2 do not impact parkland or natural areas. • Option Options 3 and 4a/b would require removal of some park trees. • Option 5 would impact the Riverine Forest.

Category	Criteria Description	Rating	Option 1a	Option 1b	Option 2	Option 3	Option 4a	Option 4b	Option 5	Comments
Livability	• Positively enhances neighbourhood livability. • Has minimal to no impact on neighbourhood liveability. • Negatively impacts neighbourhood livability.	● ● ○	●	●	○	●	○	●	○	• Options 1a and 1b provide improved circulation and flow of traffic for school pick-up/drop-off • Option 2 would divert traffic from any new development onto Premier St and negatively impact residents who take access off of Premier St. • Options 3 and 4b provide no benefit to the community. • Options 4a and 5 would have an impact on the park and the quality of the park as a public space.
Costs	• The cost of implementation is low. • The cost of implementation is medium. • The cost of implementation is high.	● ● ○	●	●	●	○	○	○	●	• The cost of implementing options 1-2 are considered low because of the narrow road widths and no impact to utilities. • Options 3-4 are considered high because of utility costs and the length of the segment. • Option 5 would be costly due to the length of the segment.
Private Interests	• Has a positive impact on existing landowners and/or the development potential of land. • Has a neutral impact existing landowners and/or the development potential of land. • Has a negative impact on existing landowners and/or the development potential of land.	● ● ○	○	●	○	●	○	●	○	• Options 1a & 2 may impact the size of developable land. • Option 1b may have a minor impact depending on size and location of public meeting place/square. • Option 4a would have a negative impact on existing landowners. • Option 5 would impact existing landowners and may have an impact if properties were redeveloped.

APPENDIX C: MEETING MINUTES & ATTACHMENTS

NOTE: A total of four meetings were held with internal and external stakeholders. All participants were given the same reference material, consisting of the study area map, study goals, assumptions, and criteria for evaluation. These study components were refined using stakeholder feedback and are presented in this report to provide context for the proposed recommendations.

Inter-River Sub-area Transportation Study

District of North Vancouver
Stakeholder Meeting #1a
Meeting Minutes & Attachments

Held at:	Municipal Hall - Meeting Room 'C'	
Date/Time:	May 17th at 2:00 pm	**Adjourned**: 3:05 pm
Attended By:	Douglas Rose – Parks Fiona Dercole – Public Safety Pouya Behzadi – Engineering Richard Boase – Environment Susan Rogers – Parks Tamsin Guppy – Planning Ingrid Weisenbach - Transportation Shazeen Tejani – Transportation	
Minutes taken by:	Shazeen Tejani	

Meeting Agenda Topics:

1) Introductions
2) Review Study Purpose
3) Discussion of Goals, Assumptions, Criteria
4) Existing Conditions & Issues
5) Wrap-Up & Next Steps

❖ **REVIEW STUDY PURPOSE**

- Weisenbach spoke about the purpose of the transportation study, which included a need to clarify the transportation needs for this area in advance of future development proposals.
- The boundaries of the study area were discussed. Weisenbach went over the study area and the tight timeframe. Group discussed that the boundary may not be an exact line as the study should also consider users that pass through the study area or people within the neighbourhood that need to access key destinations outside the study area.

❖ **DISCSUSSION OF ASSUMPTIONS, GOALS & CRITERIA**

- Assumptions
  - Weisenbach shared the draft assumptions with the group.
  - The group discussed the assumptions and provided additional suggestions that should be considered: a) park access, b) property access and c) commuter routes and active travel networks.
- Goals
  - Weisenbach shared the draft goals and asked for feedback.
  - Group suggested adding in goals that addressed protection of active travel networks and preservation of natural areas and recreational space.
- Criteria
  - Tejani reviewed the draft criteria to be used for options evaluation.
  - Group recommended additional criteria about protection of natural areas, flood protection, connection of trail networks, impact on utilities, and cost of option implementation.

❖ **EXISTING CONDITIONS & ISSUES**

- Group recorded strengths and weaknesses of the existing transportation network on the study area map.
- Group then summarized issues into key themes. (See Attachment A on page 29)

❖ **Wrap Up & Next Steps**

- Meeting minutes to be dispersed for confirmation of understanding
- Draft evaluation of options for presentation at next meeting, and layout of May 30th meeting provided.

NEXT MEETING: Monday, May 30th at 10:30 am in Meeting Room 'C'

Inter-River Sub-area Transportation Study

District of North Vancouver
Stakeholder Meeting #1b
Meeting Minutes

Held at:	Municipal Hall - Meeting Room 'A'
Date/Time:	May 17th at 7:00 pm **Adjourned**: 8:00 pm
Attended By:	Antje Wahl – Transportation Consultation Committee Brenda Barrick – Neighbourhood Representative Erin Black – Vancouver Coastal Health Mark Thomson – School District 44 Victor Penman – Fire Ingrid Weisenbach – Transportation Shazeen Tejani – Transportation
Regrets:	Elise Roberts – Neighbourhood Representative
Minutes taken by:	Shazeen Tejani

Meeting Agenda Topics:

1) Introductions
2) Review Study Purpose
3) Discussion of Goals, Assumptions, Criteria
4) Existing Conditions & Issues
5) Wrap-Up & Next Steps

❖ **INTRODUCTIONS**

- Participants introduced themselves and their roles relevant to this meeting.

❖ **REVIEW STUDY PURPOSE**

- Weisenbach spoke about the purpose of the transportation study, which included a need to clarify the transportation needs for this area in advance of future development proposals.
- The boundaries of the study area were discussed. Weisenbach went over the study area and the tight timeframe. Group discussed that the boundary may not be an exact line as the study should also consider users that pass through the study area or people within the neighbourhood that need to access key destinations outside the study area.

❖ **DISCSUSSION OF ASSUMPTIONS, GOALS & CRITERIA**

- Assumptions
  - Weisenbach shared the draft assumptions with the group.

  - The group discussed the assumptions and provided additional suggestions that should be considered: a) park access, b) property access and c) commuter routes and active travel networks.
- Goals
  - Weisenbach shared the draft goals and asked for feedback.
  - Group suggested adding in goals that addressed protection of active travel networks and preservation of natural areas and recreational space.
- Criteria
  - Tejani reviewed the draft criteria to be used for options evaluation.
  - Group recommended additional criteria about protection of natural areas, livability of the neighbourhood to enhance social cohesion and sense of community, and health indicators.

❖ **EXISTING CONDITIONS & ISSUES**

- Group recorded strengths and weaknesses of the existing transportation network on the study area map.
- Group then summarized issues into key themes. (See Attachment A on page 29)

❖ **Wrap Up & Next Steps**

- Meeting minutes to be dispersed for confirmation of understanding
- Draft evaluation of options for presentation at next meeting, and layout of June 2nd meeting provided.

NEXT MEETING: Thursday, June 2nd at 7:00 pm in Meeting Room 'A'

ATTACHMENT 'A': KEY THEMES IDENTIFIED BY TEAM

Summary of Existing Conditions & Opportunities (Both Groups):

- Study area not bound by the sub-area boundaries; issues like bike commuter routes and pedestrian paths outside and through the site seen as being important
- **Congestion:** Seen as potentially worsening with new development near Lynnmour Elementary school.
- **Transit accessibility:** Seen as being in 'poor' condition – walking distances to transit stops seem too far, with no transit connections in the internal network.
- **Cycling Routes:** Seen as being effective near the southern portion of the site, under the highway, but being very poor along Old Lillooet Road and crossing Keith Road. There was also a need for improved connections leading into and out of the sub-area.
- **Pedestrian connections:** Generally, the trail and footpath network through the site was seen as being excellent. There was an expressed need for continued maintenance of these trails and a desire for improved pedestrian connections immediately outside of the sub-area. Pedestrian connections should be emphasized for key destinations throughout the site.
- **Environmental Assets:** Both Inter-River and 'Digger Park' play a huge role in establishing a sense of community for residents – an assumption should be that both parks will be protected from disturbance. Lynn Creek is also a recreational and ecologically valued asset. The environmental & ecosystem health of the Riverine Forest should also be maintained.
- **Parking:** Seen primarily as an issue closer to Inter-River Park.

Inter-River Sub-area Transportation Study
District of North Vancouver
Stakeholder Meeting #2a
Final Meeting Minutes

Held at:	Municipal Hall - Meeting Room 'C'	
Date/Time:	May 30th at 10:30am	**Adjourned**: 11:30am
Attended By:	Pouya Behzadi – Engineering Richard Boase – Environment Tamsin Guppy – Planning Ingrid Weisenbach - Transportation Shazeen Tejani – Transportation	
Regrets:	Fiona Dercole – Public Safety Douglas Rose – Parks	
Minutes taken by:	Shazeen Tejani	

Meeting Agenda Topics:

1) Meeting #1 Recap & Approval of Minutes
2) Review Revised Goals & Assumptions
3) Review Options & Criteria Evaluation
4) Recommendations
5) Wrap-Up & Next Steps

❖ **MEETING RECAP & APPROVAL OF MINUTES**

- Weisenbach summarized key ideas that arose in the previous May 17th Stakeholder meeting and confirmed feedback received by the group.
- Group added that improved transit facilities and connections to transit were needed.
- Weisenbach addressed the potential for a pedestrian bridge on Crown Street to provide improved connections from Lynn Creek to Park and Tilford Centre.

❖ **DISCUSSION OF GOALS & ASSUMPTIONS**

- Goals
  - Weisenbach shared the revised goals; making note of new additions based on feedback.
- Assumptions
  - Weisenbach shared the revised assumptions with the group.
  - Group recommended a change of wording regarding the Fire Training Site.
  - Group also recommended adding the assumption that 'recreational' routes would be maintained.

❖ **OPTIONS & CRITERIA EVALUATION**

- Options
  i. Weisenbach shared each of the draft options and rationales with the group.
  ii. Group discussed the opportunities for utilizing existing parking facilities to accommodate 'Drive to Five' locations, with the Holiday Inn Parking Lot, Premier Street, and Ministry Land being potential options.
- Criteria Evaluation
  i. Weisenbach & Tejani shared the draft evaluation of the proposed options, providing rationale for scoring on several criteria.
  ii. Group recommended:
    1. Adding utility impacts as a separate category; and
    2. Revisiting scoring regarding improved safety for all users for options 1a and 1b; Recognizing that the introduction of cars by way of street, where none travelled before, has implications for the safety of pedestrians and cyclists.

❖ **RECOMMENDATIONS**

- Weisenbach summarized key recommendations produced using the evaluation criteria.
- Group discussed the potential of combining options and the benefits of each.
- Group recommended:
  i. Placing 4a and 4b at a higher priority than currently ranked;
  ii. Creating a hybrid option out of 4a and 4b that forms a 'T' junction;
  iii. If selected, implementing 1a and 1b together;
  iv. Beginning a discussion with the School District about options 1a, 1b and 4b;
  v. Factoring impacts to utilities at an earlier stage.
  vi. (By general agreement from all participants) that option 5 not be pursued, since it provided the least benefit and at the highest social and environmental cost;

❖ **WRAP-UP & NEXT STEPS**

- Draft meeting minutes to be dispersed for confirmation of understanding.
- Transportation to present recommendations for Council's consideration this July*.

***NOTE: Presentation of recommendations to Council was delayed to the fall of 2016. Date of presentation to be decided.**

District of North Vancouver
Stakeholder Meeting #2b
Meeting Minutes

Held at:	Municipal Hall - Meeting Room 'A'
Date/Time:	June 2nd 2016 at 7:00pm **Adjourned**: 8:30pm
Attended By:	Antje Wahl – Transportation Consultation Committee Brenda Barrick – Neighbourhood Representative Elise Roberts – Neighbourhood Representative Mark Thomson – School District #44 Victor Penman – Fire Department Ingrid Weisenbach - Transportation Shazeen Tejani – Transportation
Regrets:	Erin Black – Vancouver Coastal Health
Minutes taken by:	Shazeen Tejani

Meeting Agenda Topics:

1) Meeting #1 Recap & Approval of Minutes
2) Review Revised Goals & Assumptions
3) Review Options & Criteria Evaluation
4) Recommendations
5) Wrap-Up & Next Steps

❖ **MEETING RECAP & APPROVAL OF MINUTES**

- Weisenbach summarized key ideas that arose in the previous May 17th Stakeholder meeting and confirmed feedback received from Antje Wahl.

❖ **DISCUSSION OF GOALS & ASSUMPTIONS**

- Goals
  - Tejani shared the revised goals; making note of new additions based on feedback.
- Assumptions
  - Tejani shared the revised assumptions with the group.
  - Group recommended a change of wording to include 'Inter-River' with regard to the bullet on park access. Group further recommended specifying that access to the park will be maintained from "Inter-River Road".
  - Group also recommended revising the word 'commuter' to make it more clear that these routes are used for people accessing key destinations, not just those who commute to work.

- Group also required further clarification on assumptions related to park use. Weisenbach informed the group that the District's Parks Department was currently reviewing any future uses.
- School District Facilities Plan indicates redevelopment potential for Lynnmour Elementary. The final location, whether on- or off-site, is still undecided.

❖ **OPTIONS & CRITERIA EVALUATION**

- Options
  i. Weisenbach shared each of the draft options and rationales with the group.
  ii. Group expressed concern about the impacts to the park with options 4a & 5, and for new residents that front the park, south of option 4a.
  iii. Group was also concerned that option 1b would provide direct vehicular access to the school, thereby reducing the likelihood that children will walk or bike to school.
  iv. Group further expressed concern with Option 1a as potentially increasing access and traffic along St. Denis Ave, a road currently used heavily by pedestrians and cyclists.
- Criteria Evaluation
  i. Weisenbach shared the draft evaluation of the proposed options.

❖ **RECOMMENDATIONS**

- Weisenbach summarized key recommendations produced using the evaluation criteria.
- Group discussed the potential of combining options and the benefits/impacts of each.
- Group recommendations:
  i. 1a + 1b provides circulation for school pick up/drop off and direct access to St. Denis;
  ii. Doing a combination of options 1a + 1b, 4b, and 2, all as public roads was most preferred;
  iii. 4a provides improved access if the school were to have primary pick up/drop off on Orwell;
  iv. 4a would be considered feasible if designed to reduce speeds and road widths;
  v. Group agreed option 5 was not reasonable; and
  vi. Group suggested considering a 6th option that bisects the school site from Forsman through to Option 4b, if the school relocates.
- Group acknowledged that improved connectivity to transit stops and improved transit infrastructure were needed adjacent to the sub-area.

❖ **WRAP-UP & NEXT STEPS**

- Draft meeting minutes to be dispersed for confirmation of understanding.
- Transportation to present recommendations for Council's consideration this July.

***NOTE: Presentation of recommendations to Council was delayed to the fall of 2016. Date of presentation to be decided.**

APPENDIX D: DISTRICT OF NORTH VANCOUVER E-DOCS REFERENCE LIST

Lynnmour/Inter-River Local Plan: 836865

Internal Stakeholder Meeting Minutes & Attachments – Meeting 1: 2896702

External Stakeholder Meeting Minutes & Attachments – Meeting 1: 2896686

Internal Stakeholder Meeting Minutes & Attachments – Meeting 2: 2906517

External Stakeholder Meeting Minutes & Attachments – Meeting 2: 2906422

905-959 Premier Street
Construction Traffic Management Plan

File No. 14211
APRIL 2016
REVISION 0

CREUS Engineering Ltd

200 – 901 W16TH ST NORTH VANCOUVER, BC V7P 1R2
P: 604-987-9070 F: 604-987-9071 www.creus.ca

Civil Engineers & Project Managers

1. PROJECT DETAILS

1.1. INTRODUCTION AND BACKGROUND

Structure Development is proposing to redevelop the existing residential property at 905-959 Premier Street in North Vancouver. The existing sites currently contain 4 2 story residences, one detached shed, and one detached garage. The proposed development consists of 4 3 story residential buildings and a new access road.

Creus Engineering Ltd. has been retained by Structure Development to prepare a traffic management plan that addresses the offsite civil construction, the onsite civil construction and the building construction. The traffic management plan will cover:

- Construction Overview: scope of construction, phasing
- Schedule: start of works and construction schedule
- Mobility Impact: impacts to road users including pedestrians, cyclists, transit and general traffic. Truck volumes and routing.
- Community Impact: impacts to area parking, construction parking.
- Work Zone Traffic Control: specific details of traffic control devices and plans.
- Communication Plan: how information is distributed to the general public, area residents, businesses and neighbors who are directly affected by construction activity.

The Traffic Management Plan covers the complete onsite and offsite civil / landscape and building demolition/construction. Deviations from this plan will result in the special highways use fee per DNV bylaw 7125 section 706. Refer to Schedule F of the Fees and Charges Bylaw 6481 for rates. Requests for changes to this plan are to be submitted to Creus Engineering for approval with the district prior to any implementation.

1.2. CONSTRUCTION OVERVIEW

Construction activity at 905-959 Premier Street comprises many different aspects. The scope of work includes existing building demolition, new building excavation, building construction above grade, onsite civil works, and offsite civil works. The construction process will comprise five distinct phases as outlined below:

Phase 1: Demolition (0.5 month)

Removal of existing structures

Phase 2: Building Excavation (1.0 month)

Site preparation including removal of existing structures and excavation for new 3 story building.

Phase 3: Building Construction (12 months)

Construction of the new building including foundations, structure and finishing.

Phase 4: Onsite Civil (0.5 months)

Includes construction of storm infiltration tanks. Onsite civil works are to be coordinated with the construction of the building to minimize impacts to construction activities and neighboring properties. This phase may occur during phase 3.

Phase 5: Offsite Civil (2.5 months)

Includes construction of a sidewalk, boulevard and gutter pan on the west side of Premier Street. A lane through the site from Premier Street will also be constructed, connecting Premier Street to the proposed buildings along the west side of the property. This phase may occur during phase 3.

2. SCHEDULE

2.1. CONSTRUCTION SCHEDULE

A preliminary construction schedule has been developed in coordination with Structure Development Limited. The works are planned to commence ***START DATE*** with building construction ongoing until ***END DATE***. See Appendix A for the detailed construction schedule.

2.2. HOURS OF WORK

The District of North Vancouver Noise Bylaw 7188 prohibits any noise or sound which disturbs or tends to disturb the quiet, peace, rest, enjoyment, comfort, or convenience of the neighborhood or of the persons in the vicinity; or exceeds the Sound Levels prescribed in the bylaw. For construction activity, the maximum Sound Level is 80dB or the maximum Daytime Average Sound Level is 65dB (at the point of reception). Hours of work are:

- Monday to Friday: 07:00 to 20:00
- Saturday: 09:00 to 17:00
- Sunday and Statutory Holidays: No work allowed

Night work is only possible with specific resolution of District of North Vancouver council. If night work is required, a written request to staff is required minimum 1 month in advance of the required night work.

3. MOBILITY IMPACT

This section is intended to describe how the project will impact road users including pedestrians, cyclists, transit service, emergency vehicles, heavy vehicles (trucks) and general road traffic. For each phase of work we have estimated construction truck volumes.

The immediate area surrounding 905-959 Premier Street consists of residential buildings to the north, east and south, with a park to the west. Access to the site will be via Lillooet Road, which is the main access to the Upper Levels Highway from Lynn Valley. The proximity to Highway 99 will allow trucking traffic to spend minimal time on district roads. Traffic to and from the site will be generally outside of peak volume hours (7am to 9am and 3pm to 6pm).

Pedestrians travelling along Premier Street will be directed to use the east sidewalk when construction activities are taking place on the west side of the road. Pedestrians on Premier

Street will be directed around any offsite works by flag persons on site. Sidewalks will remain open when no construction activities are taken place.

Closure and detour plans have been provided in Appendix C.

3.1. TRUCK ROUTES

The Premier Street site is located near Lillooet Road. The proximity of the site to this major road will minimize the time required on District of North Vancouver roads.

- Truck access is from exit 22 east of Highway 1, a left turn on Old Lillooet Road (signalized),a right turn onto Premier Street, and a left turn to the site. From the site, a right turn onto Premier Street, a left turn onto Old Lillooet Road, a right turn onto Lillooet Road that becomes Fern St, and onto Highway 1 via exit 22.

The proposed truck route is shown in Appendix B.

3.2. TRUCK VOLUMES

Based on the proposed construction schedule and scope of work, the heavy vehicle (truck) volumes have been estimated as follows:

Phase of Work	Typical Vehicles per Day	Maximum Vehicles per Hour
Phase 1: Demolition	10 trucks/day	3-5 trucks/hour
Phase 2: Building Excavation	10 trucks/day	2-3 trucks/hour
Phase 3: Building Construction	5 trucks/day	1-3 trucks/hour
Phase 4: Onsite Civil	4-5 trucks/day	2-3 trucks/hour
Phase 5: Offsite Civil	5-10 trucks/day	3-4 trucks/hour

3.3. MITIGATION MEASURES

The proposed works has the potential to impact road users including pedestrians, cyclists, transit service, emergency vehicles, heavy vehicles (trucks) and general road traffic. The proposed construction activities have been reviewed against existing road users. In general, the following mitigation measures should be implemented to mitigate the potential impacts:

- The general public is to be protected from construction activities at all times by appropriate fencing, hoarding and communication.
- Existing pedestrian routes (sidewalks, trails) to remain clear and open at all times unless specifically noted in the TMP.
- Bike routes are to remain clear and open at all times unless specifically noted in the TMP.
- Transit service and access to bus stops to remain available at all times unless specifically noted in the TMP. Temporary relocation of bus stops, as required, to be coordinated with Coast Mountain Bus Company with notification to District of North Vancouver transportation department.
- There are to be no restrictions to emergency vehicles at any time. Emergency vehicles to be given priority access at all times. Emergency services (police, fire, ambulance) to

be notified in advance of any construction activities with the potential to cause delays or detours (ie intersection construction, road paving).

- Truck marshaling is only available on site. No marshaling on District of North Vancouver (or City of North Vancouver, or District of West Vancouver) roads. Construction will be scheduled to have zero marshalling required. The contractor will maintain enough space to hold at least 8 trucks on site at all times.
- A copy of the TMP including enter / exit procedures and truck routes is to be sent to the trucking contractor prior to starting construction.
- All heavy vehicle drivers will be given a copy of the site construction traffic procedures and truck routes. The flag person should have additional copies available on the site.
- Heavy vehicles are to be equipped with radios so that trucks can be delayed, diverted or cancelled as required by current site conditions. The general contractor will be responsible for communicating with the heavy vehicles.
- An important part of heavy vehicle management is the mitigation of silt, mud, dust, debris, and litter.
    - All trucks are to be covered while in transit.
    - The trucking contractor will ensure that adjacent streets and truck routes are kept clean and free of dust and debris on a daily basis.
    - The general contractor is also responsible for installing and maintaining a site sediment & erosion control system including mud and dust control and a wheel wash during trucking. See drawing ESC for details of the site sediment control requirements.
- Provide enough on-site queue space to hold at least ½ an hour of truck traffic (for both inbound and outbound trucks). The contractor plans to schedule deliveries to avoid having more than one truck on site at any time. Space for 2 vehicles will be maintained in the event of an unplanned overlap in deliveries.
- Construction traffic exiting the site (right turn) is to be operated by certified flag persons from 07:00 to 18:00
- Large tractor trailer type vehicle (other than dump trucks) should be limited to the hours of 09:00 to 15:00.

Additional specific mitigation measures, per phase, are as follows:

Phase 1: Building Demolition

This phase consists primarily of dump truck traffic to and from the site. Trucks will arrive empty and leave fully loaded. See TMP-1 for details. Additional specific mobility impact mitigation measures include:

- All truck traffic to be routed per the aforementioned truck routes.
- Construction truck traffic exiting the site (right turn) is to be operated by certified flag persons from 07:00 to 18:00
- In order to maintain minimal impacts to Lillooet Road traffic, all other deliveries to/from the site are to be avoided during peak hours (other than the already discussed dump trucks) and are to be made after 9:00 a.m. and before 3:00 p.m. In the event any vehicle comes to or leaves the site during peak periods they will follow the same flagging procedure as the dump trucks.
- Workers generally arrive before 8:00 a.m. (about 5 vehicles) therefore there will be minimal impact on peak hour.

- Workers generally leave after 4:00 p.m. (about 5 vehicles). Truck hauling generally completed at 3:00 pm.

Phase 2: Building Excavation

This phase consists primarily of dump truck traffic to and from the site. As this site has no basement there will not be major excavation works. Trucks will arrive empty and leave fully loaded. See TMP-1 for details. Additional specific mobility impact mitigation measures include:

- All truck traffic to be routed per the aforementioned truck routes.
- Construction truck traffic exiting the site (left turn) is to be operated by certified flag persons from 07:00 to 18:00
- In order to maintain minimal impacts to Lillooet Road traffic, all other deliveries to/from the site are to be avoided during peak hours (other than the already discussed dump trucks) and are to be made after 9:00 a.m. and before 3:00 p.m. In the event any vehicle comes to or leaves the site during peak periods they will follow the same flagging procedure as the dump trucks.
- Workers generally arrive before 8:00 a.m. (about 4 vehicles) therefore there will be minimal impact on peak hour.
- Workers generally leave after 4:00 p.m. (about 4 vehicles). Truck hauling generally completed at 3:00 pm.

Phase 3: Building Construction

This phase consists of concrete truck and lumber delivery truck traffic. Trucks will arrive fully loaded and leave empty. See TMP-1 for details. Additional specific mobility impact mitigation measures include:

- All truck traffic to be routed per the aforementioned truck routes.
- Construction truck traffic exiting the site (left turn) is to be operated by certified flag persons from 07:00 to 18:00
- In order to maintain minimal impacts to Lillooet Road traffic, all other deliveries to/from the site are to be avoided during peak hours (other than the already discussed concrete trucks) and are to be made after 9:00 a.m. and before 3:00 p.m. In the event any vehicle comes to or leaves the site during peak periods they will follow the same flagging procedure as the concrete trucks.
- Workers generally arrive before 8:00 a.m. (about 8 vehicles) therefore there will be a small impact on peak hour.
- Workers generally leave after 4:00 p.m. (about 8 vehicles). Trucking generally completed at 3:00 pm.

Phase 4: Onsite Civil

This phase consists primarily of dump truck/machinery traffic to and from the site. Traffic for the onsite civil works are for the construction of the onsite auto-court and the internal site servicing. Trucks will generally be arriving full and leaving empty. See TMP-1 for details. Additional specific mobility impact mitigation measures include:

- All truck traffic to be routed per the aforementioned truck routes.

- Construction truck traffic exiting the site is to be operated by certified flag persons from 07:00 to 18:00
- In order to maintain minimal impacts to Lillooet Road traffic, all other deliveries to/from the site are to be avoided during peak hours (other than the already discussed concrete trucks) and are to be made after 9:00 a.m. and before 3:00 p.m. In the event any vehicle comes to or leaves the site during peak periods they will follow the same flagging procedure as the concrete trucks.
- Workers generally arrive before 8:00 a.m. (about 5 vehicles) therefore there will be a small impact on peak hour.
- Workers generally leave after 4:00p.m. (about 5 vehicles). Trucking generally completed at 3:00 pm.

Phase 5: Offsite Civil

This phase consists primarily of heavy truck traffic and machinery. Trucks will arrive fully loaded and leave empty. See TMP drawings TMP-2, TMP-3 and TMP-4 details. Additional specific mobility impact mitigation measures include:

- All truck traffic to be routed per the aforementioned truck routes.
- Civil contractor staging and storage areas are to be located within the 905-959 Premier Street construction area. All site truck traffic to be routed per the aforementioned truck routes plan
- Construction truck traffic exiting the site is to be operated by certified flag persons from 07:00 to 18:00
- In order to maintain minimal impacts due to detouring vehicles, all works requiring a road closure are to be between 9:00 a.m. and 3:00 p.m. In the event any vehicle comes to or leaves the site during peak periods they will follow the same flagging procedure as the concrete trucks.
- Workers generally arrive before 8:00 a.m. (about 6-9 vehicles) therefore there will be minimal impact on peak hour.
- Workers generally leave after 4:00 p.m. (about 6-9 vehicles). Trucking generally completed at 3:00 pm.

4. COMMUNITY IMPACT

This section is intended to describe how construction activities will impact parking and includes existing parking availability, estimated construction parking requirements and estimated construction parking availability.

4.1. EXISTING PARKING

The existing site consists of a commercial building and car park that are to be removed. The site is private property and there is no public parking available. Premier Street has on-street parking for residents, however there are nearby commercial buildings with large parking areas that may be available for contractor parking.

4.2. CONSTRUCTION PARKING

Estimated construction parking requirements have been reviewed with Structure Development Limited. 2 construction parking spaces are available on-site. 10 additional parking will be provided at St Clements Anglican Church as per the attached agreement with Structure Development Limited.

5. WORK ZONE TRAFFIC CONTROL DEVICES

This section is intended to describe the specific traffic control devices and plans required and include pavement markings, signage, delineation devices, traffic control persons, building zones, and site access points. All traffic control devices are to be installed and used in accordance with the BC Workers Compensation Board *Section 18*, the BC MOT *Traffic Control Manual for Work on Roadways* and the TAC *Canadian Manual of Uniform Traffic Control Devices*. All construction signage to be in place prior to any closures and removed or covered when lanes are re-opened. Contractor to plan for daily management of all traffic control devices including signs.

5.1. TRAFFIC CONTROL PLANS

Separate drawings have been prepared for each phase of the work (sometimes multiple drawings per phase). The plans are generally described below and reduced size copies are included in Appendix C. Full size copies of the plans are also included in CREUS Engineering's civil design package.

Phase 1: Demolition

Traffic management plan TMP -1 have been developed for the demolition phase for the building and is shown in Appendix C. The traffic management plan has been developed to show the proposed site arrangements and traffic control systems that are to be installed for this phase of the development. For this phase, the site exit is to be operated by certified flag persons from 7 a.m. to 6 p.m. when necessary. The plan has provided an arrangement for onsite storage of at least 2 trucks. The onsite storage is to be used to ensure there will not be any street staging for trucks coming to the site and will provide a queuing area for trucks leaving the site so that they meet the requirements for exiting the site under the control of the flag person. No on-street staging or queuing will be permitted.

Phase 2: Building Excavation

Traffic management plan TMP-1 will also have been developed for the excavation phase for the building and is shown in Appendix C. The traffic management plan has been developed to show the proposed site arrangements and traffic control systems that are to be installed for this phase of the development. For this phase, the site exit is to be operated by certified flag persons from 7 a.m. to 6 p.m. when necessary. The plan has provided an arrangement for onsite storage of at least 2 trucks. The onsite storage is to be used to ensure there will not be any street staging for trucks coming to the site and will provide a queuing area for trucks leaving the site so that they meet the requirements for exiting the site under the control of the flag person. No on-street staging or queuing will be permitted.

Phase 3: Building Construction

The traffic management plan TMP- 1 has been developed for the building construction and is shown in Appendix C. The traffic management plan has been developed to show the proposed site arrangements and traffic control systems that are to be installed for this phase of the development. For this phase, the site exit is to be operated by certified flag persons from 7 a.m. to 6 p.m when necessary. The plan has provided an arrangement for onsite storage of at least 1 truck. The onsite storage is to be used to ensure there will not be any street staging for trucks coming to the site and will provide a queuing area for trucks leaving the site so that they meet the requirements for exiting the site under the control of the flag person. No on-street staging or queuing will be permitted.

Phase 4: Onsite Civil

Traffic management plan TMP-1 has been developed for the installation of the onsite civil works. See Appendix C for details. The traffic management plans have been developed to show the proposed site arrangements and traffic control systems that are to be installed for this phase of the development. For this phase, the site exit will continue to be operated by certified flag persons from 7 a.m. to 6 p.m when necessary. The plan has provided an arrangement for onsite storage of at least 1 truck, same as during Phase 1 & 2. No on-street staging or queuing will be permitted for the building construction. This phase may occur simultaneously with phase 3.

Phase 5: Offsite Civil

Traffic management plan TMP-2, TMP-3 and TMP-4 and TMP-DET have been developed for the offsite civil works. See Appendix C. Premier St will be closed for installation of storm and

sanitary connections and a detour as per drawing TMP – DET will be in place. The traffic management plans have been developed to show the proposed site arrangements and traffic control systems that are to be installed for this phase of the development. For this phase, the site exit will continue to be operated by certified flag persons from 7 a.m. to 6 pm when necessary. Additionally, any vehicles entering or exiting the offsite works zone will be flag controlled. No on-street staging or queuing will be permitted. This phase may occur simultaneously with phase 3 or phase 4.

5.2. MONITORING STRATEGY

Traffic conditions and noise levels will be monitored by the project traffic consultant to confirm satisfactory performance and what modifications may be required. Once the traffic management plans have been implemented, periodic site inspections will be performed to confirm performance. Refer to the CTMP and the District of North Vancouver Noise Regulation Bylaw (No. 7188) for details. If deemed necessary by the District of North Vancouver, PTZ (Pan-Tilt-Zoom) cameras may be required.

6. COMMUNICATIONS PLAN

A number of residents and through traffic (commuters) have the potential to be impacted by the proposed construction activities. The following Communications Plan has been prepared to provide notifications and updates to all affected parties as well as the general public. It also provides contacts for unforeseen issues, complaints, coordination and emergencies.

6.1. PUBLIC NOTIFICATION

For neighbors with the potential to be directly affected by the proposed construction, written notifications are to be delivered prior to the commencement of general construction and before certain specific works. Included in Appendix D is a map identifying all the neighboring residents to be notified of construction activities and a sample notification letter. Copies of all notifications will be cc'd to the District of North Vancouver.

There will be a sign posted in front of the site with the main contact number listed for any public comments or concerns.

6.2. COORDINATION WITH NEIGHBOURING DEVELOPMENTS

Approved plans will be available from Creus Engineering for neighboring developments. The works involving a road closures on Premier Street and the access lane will need to be coordinated with neighboring developments. District of North Vancouver will be required to provide approved plans and schedules for neighboring developments when requested.

6.3. CONTACT INFORMATION

Project Contacts

Main Contact Number: Taresh Sachithanandan 604 7821431

Owner / Structure Development Limited: Structure Development Limited (Premier Street) Limited Partnership / Structure Development Limited (Premier Street) GP Ltd.

General Contractor: Structure Development Limited Inc

Coast Mountain Bus Company:
Harjit Sidhu-Kambo, Transit Engineering Manager
(604)-953-3051

District of North Vancouver:
TBD, Engineering Administration Technician
604-990-2337

Daniel Cifarelli, Transportation Technologist
604-990-2396

North Shore Chamber of Commerce
102 – 124 West 1st St, North Vancouver, BC
604-987-4488

Police (RCMP):
147 East 14th St, North Vancouver, BC
604-985-1311

District of North Vancouver Fire Services:
1110 Lynn Valley Rd, North Vancouver, BC
604-980-7575

District Operations Centre:
1370 Crown St, North Vancouver, BC
604-990-3831

CREUS Engineering:
Fred Ciambrelli, Senior Project Engineer
604-987-9070

Emergency Contacts

RCMP: 911

Fire Department: 911

BC Ambulance: 911

7. REPORT SUBMISSION

Yours Sincerely,

CREUS Engineering Ltd

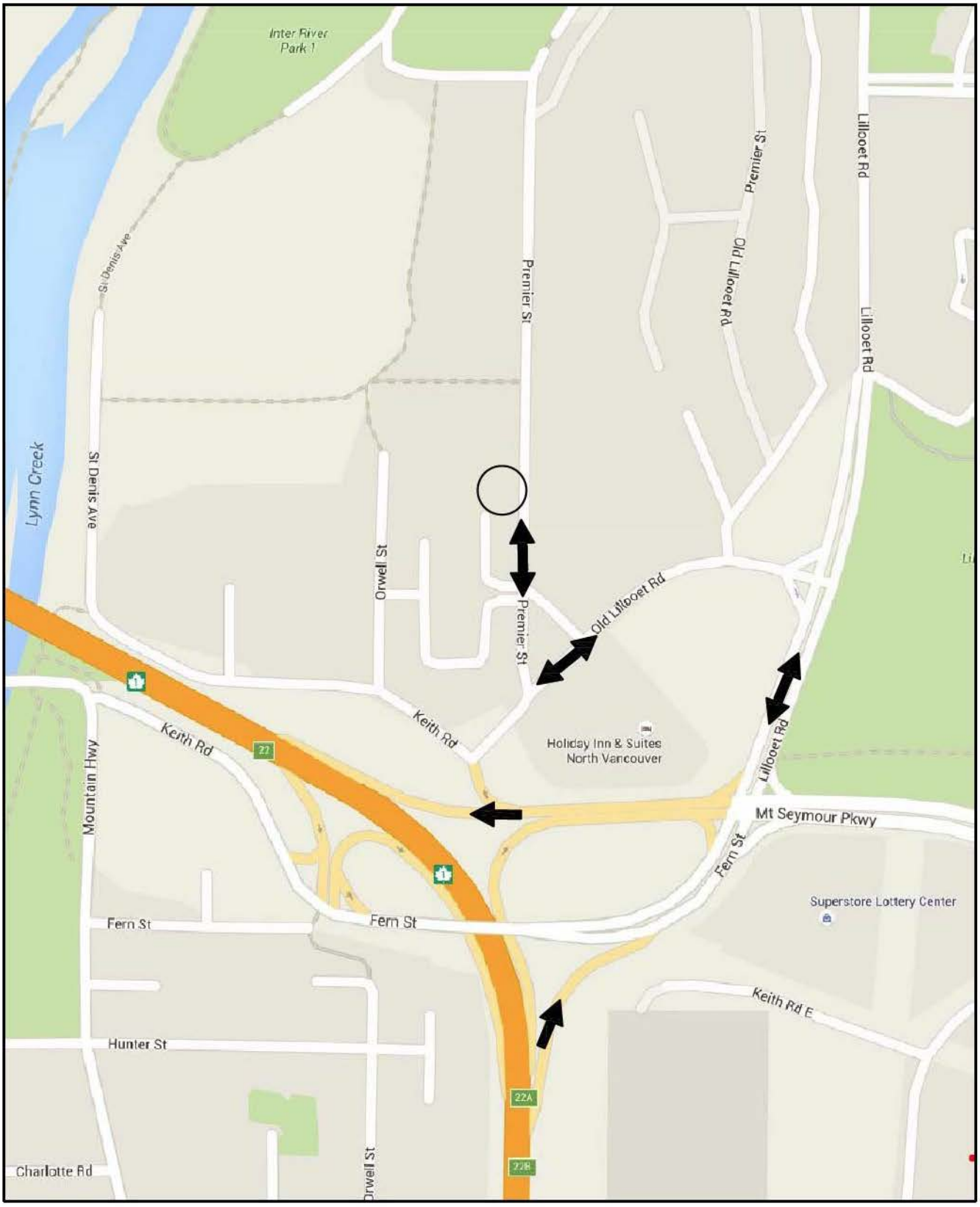
Niall Byrne, EIT

Reviewed By: Fred Ciambrelli, P.Eng.

APPENDIX A: SCHEDULE

APPENDIX B: TRUCK ROUTES

CREUS Engineering Ltd



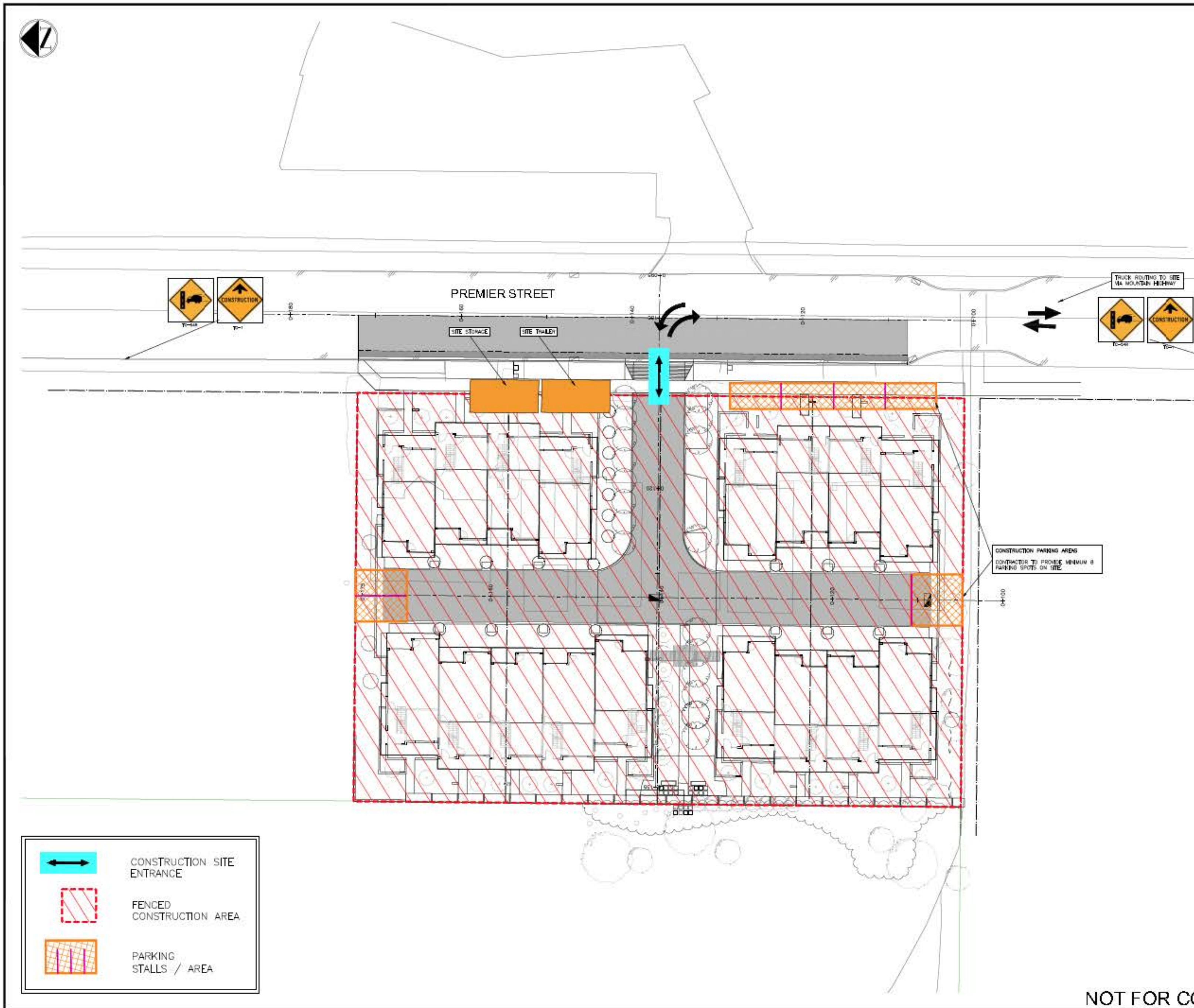
title

905 - 959 PREMIER ST. TRUCK ROUTE

scale NTS

drawing no. APP-C1

APPENDIX C: TRAFFIC CONTROL PLANS



CONSTRUCTION MANAGEMENT PLAN

AMBULANCE	911
FIRE	911
POLICE	911
BC HYDRO	1-888-769-3766
FORTIS BC	1-800-663-9911
DISTRICT OF N. VANCOUVER	604-990-2311
POISON CONTROL	604-682-5050
SEWER EMERG.	604-326-4680
WATER EMERG.	604-326-4800
WEEKEND	604-326-4650
WORK SAFE BC	604-276-3100
AFTER HOURS AND WEEKENDS	604-273-7711
CIVIL ENGINEER	604-983-0070

CREUS Engineering

Civil Engineers & Project Managers

STRUCTURE DEVELOPMENT LTD.

905-959 PREMIER STREET
NORTH VANCOUVER, BC

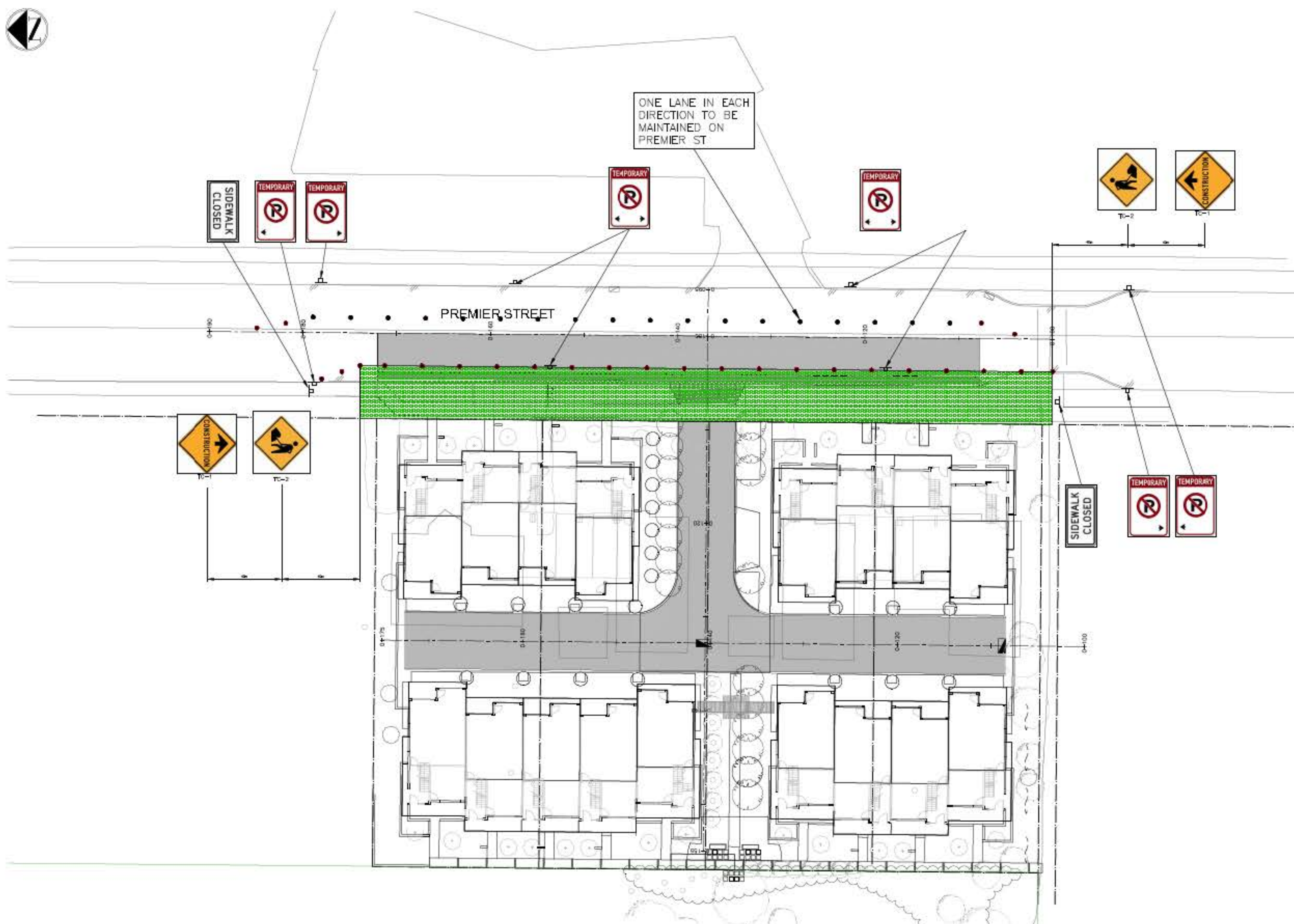
CONSTRUCTION MANAGEMENT

14211

TMP-1

3

NOT FOR CONSTRUCTION



CONSTRUCTION MANAGEMENT PLAN

AMBULANCE	911
FIRE	911
POLICE	911
BC HYDRO	1-888-769-3766
FORTIS BC	1-800-663-9911
DISTRICT OF N. VANCOUVER	604-990-2311
POISON CONTROL	604-682-5050
SEWER EMERG.	604-326-4680
WATER EMERG.	604-326-4800
WEEKEND	604-326-4650
WORK SAFE BC	604-276-3100
AFTER HOURS AND WEEKENDS	604-273-7711
CIVIL ENGINEER	604-983-8070

CREUS Engineering
Civil Engineers & Project Managers

TRAFFIC CONTROL SIGN	ROAD WORKS ZONE
TRAFFIC CONTROL SIGN (SHORT DURATION)	ROAD WORKS ZONE (SHORT DURATION)
DELINEATOR	
DELINEATOR (SHORT DURATION)	ROAD WORKS ZONE (NIGHT WORK 7pm–6am ONLY PERMIT REQUIRED)
TRAFFIC CONTROL PERSON	

WORKS SCHEDULE

TYPE OF CONSTRUCTION: SIDEWALK & CURB
WORK TO BE COMPLETED: TBD
DAYS REQ'D: TBD
DAYS OF WORK: MONDAY THROUGH FRIDAY
WORKING HOURS: 7:00AM TO 8:00PM

NOT FOR CONSTRUCTION

client
STRUCTURE DEVELOPMENT LTD.

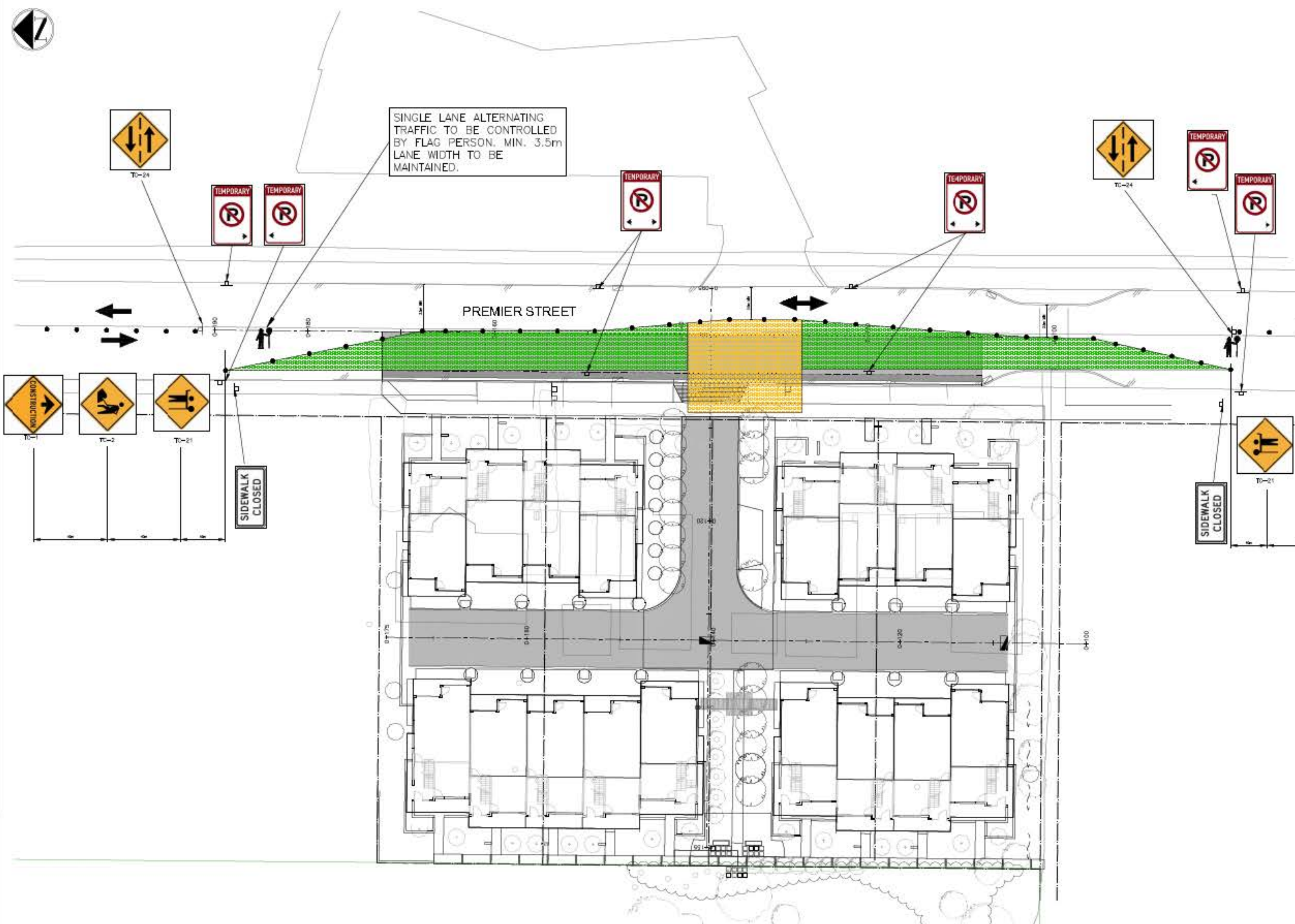
project
955-959 PREMIER STREET
NORTH VANCOUVER, BC

title
TRAFFIC MANAGEMENT
PREMIER STREET
CURB & SIDEWALK

sheet no. 3

job no. 14211

drawing no. TMP-2



CONSTRUCTION MANAGEMENT PLAN

AMBULANCE	911
FIRE	911
POLICE	911
BC HYDRO	1-888-769-3766
FORTIS BC	1-800-663-9911
DISTRICT OF N. VANCOUVER	604-990-2311
POISON CONTROL	604-682-5050
SEWER EMERG.	604-326-4680
WATER EMERG.	604-326-4800
WEEKEND	604-326-4650
WORK SAFE BC	604-276-3100
AFTER HOURS AND WEEKENDS	604-273-7711
CIVIL ENGINEER	604-983-8070

CREUS Engineering

Civil Engineers & Project Managers

TRAFFIC CONTROL SIGN			ROAD WORKS ZONE
TRAFFIC CONTROL SIGN (SHORT DURATION)			ROAD WORKS ZONE (SHORT DURATION)
DELINEATOR			ROAD WORKS ZONE (NIGHT WORK 7pm–6am ONLY PERMIT REQUIRED)
DELINEATOR (SHORT DURATION)			
TRAFFIC CONTROL PERSON			

WORKS SCHEDULE

TYPE OF CONSTRUCTION: PAVING & SEWERS
WORK TO BE COMPLETED: TBD
DAYS REQ'D: TBD
DAYS OF WORK: MONDAY THROUGH FRIDAY
WORKING HOURS: 7:00AM TO 8:00PM

NOT FOR CONSTRUCTION

STRUCTURE DEVELOPMENT LTD.

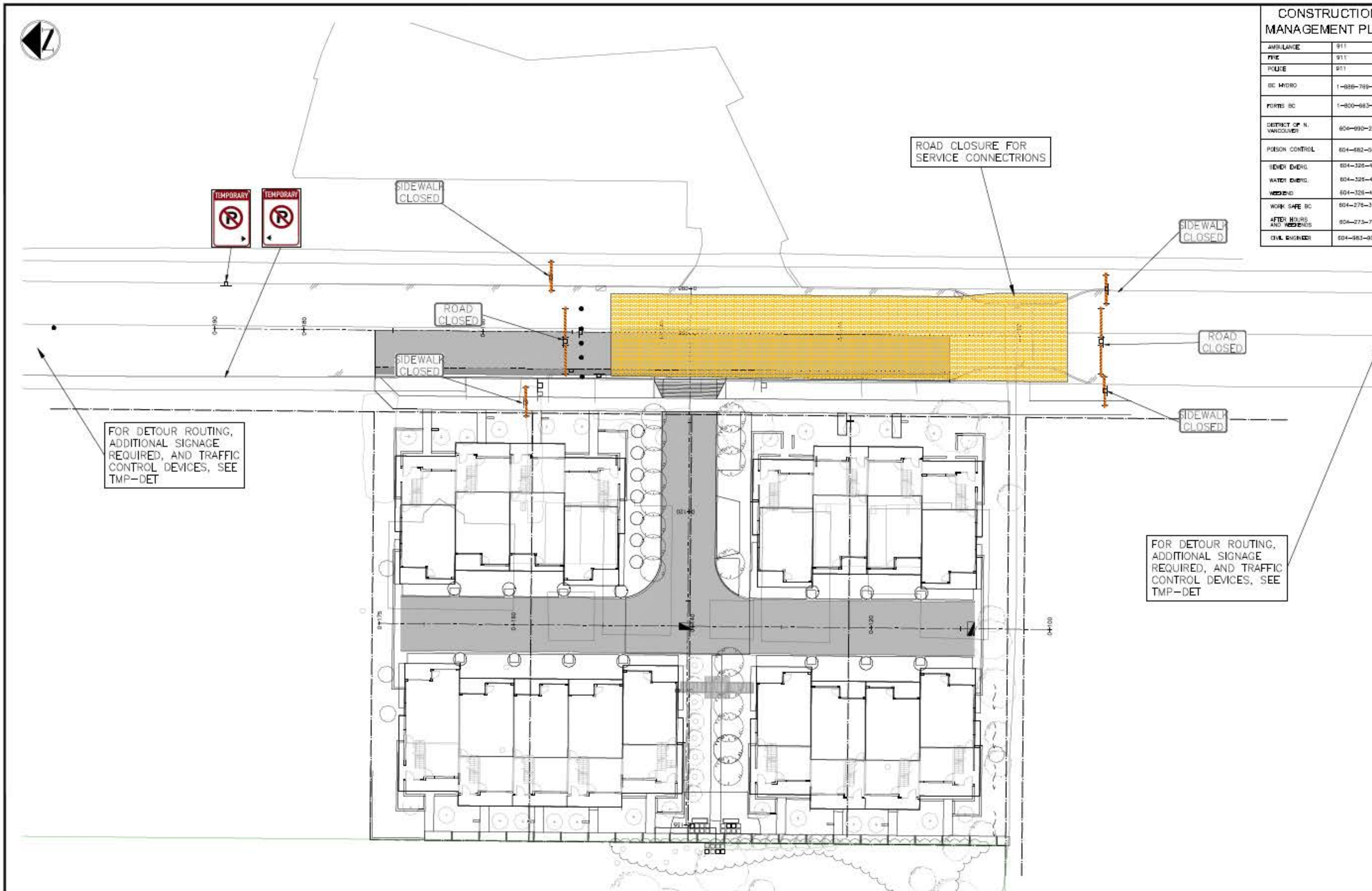
905-959 PREMIER STREET
NORTH VANCOUVER, BC

TRAFFIC MANAGEMENT
PREMIER STREET ROADWORKS

3

14211

TMP-3



TRAFFIC CONTROL SIGN			ROAD WORKS ZONE
TRAFFIC CONTROL SIGN (SHORT DURATION)			ROAD WORKS ZONE (SHORT DURATION)
DELINEATOR			ROAD WORKS ZONE (NIGHT WORK 7pm-6am DNV PERMIT REQUIRED)
DELINEATOR (SHORT DURATION)			
TRAFFIC CONTROL PERSON			

WORKS SCHEDULE

TYPE OF CONSTRUCTION: PAVING & SEWERS
WORK TO BE COMPLETED: TBD
DAYS REQ'D: TBD
DAYS OF WORK: MONDAY THROUGH FRIDAY
WORKING HOURS: 7:00AM TO 8:00PM

TO BE USED IN CONJUNCTION WITH TMP-DET

NOT FOR CONSTRUCTION

CONSTRUCTION MANAGEMENT PLAN

AMBULANCE	911
FIRE	911
POLICE	911
BC HYDRO	1-888-769-3766
FORTIS BC	1-800-663-9911
DISTRICT OF N. VANCOUVER	604-990-2311
POISON CONTROL	604-682-5050
SEWER EMERG.	604-326-4680
WATER EMERG.	604-326-4800
WEEKEND	604-326-4650
WORK SAFE BC	604-276-3100
AFTER HOURS AND WEEKENDS	604-273-7711
CIVIL ENGINEER	604-983-8070

CREUS Engineering
Civil Engineers & Project Managers

DRAWING LEGEND

client
STRUCTURE DEVELOPMENT LTD.

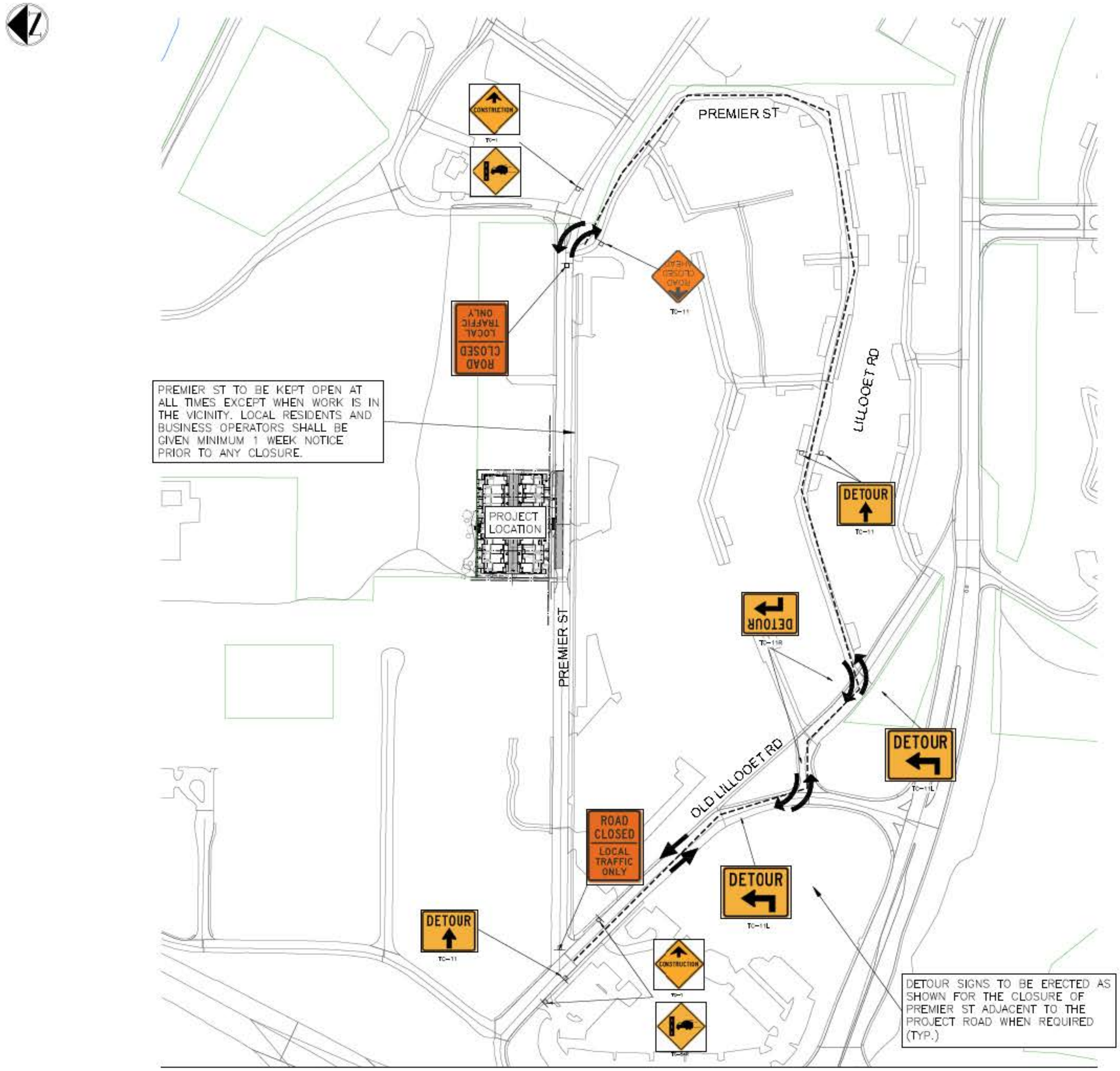
project
925-959 PREMIER STREET
NORTH VANCOUVER, BC

title
TRAFFIC MANAGMENT PLAN
PREMIER ST SERVICING

job no.
14211

drawing no.
TMP-4

3



TO BE USED IN CONJUNCTION WITH TMP–4

NOT FOR CONSTRUCTION

CREUS Engineering

Civil Engineers & Project Managers

DRAWING LEGEND

client: STRUCTURE DEVELOPMENT LTD.

project: 905-959 PREMIER STREET NORTH VANCOUVER, BC

title: TRAFFIC MANAGMENT PLAN DETOUR

3

14211

TMP-DET

APPENDIX D: NOTIFICATIONS

SAMPLE NOTICE TO RESIDENTS AND BUSINESS OPERATORS

Temporary Street Closure/Building Zone
Location
Time and Dates

Date

Dear Residents and Business Operators:

We are writing to notify you that …

This is necessary to install/repair the <underground utilities, road, sidewalk, landscaping, lighting etc.> adjacent to the <Address>.

The closure will be required during week day business hours from <> to <>.

During construction there will be traffic diversions, parking restrictions and road closures. The actual work site will be kept as compact and tidy as reasonably possible. The workers will cooperate with the businesses to try and minimize the impact the work will have on day-to-day business operations.

We apologize for any inconvenience the work may cause and thank you for your understanding and cooperation. Please contact the undersigned at
<> or by e-mail at <> if you would like to discuss this matter in further detail.

Please also refer to project web site at < > for on-going construction updates.

Yours truly,

<Applicant>

cc: North Shore Chamber of Commerce
RCMP
District of North Vancouver Fire Services
District Operations Centre
District Hall – Transportation Department
Coast Mountain Bus Company

C Guidelines for Ground-Oriented Housing

The built-form of ground-oriented multi-family *development* should be integrated with existing neighbourhoods.

1. Public Realm, Streetscape Elements and Neighbourhood Fit

Discussion:

The built-form of ground-oriented multi-family *development* should be integrated with existing neighbourhoods, while enhancing architectural variety. *Development* should reflect the streetscape character of the neighbourhood in which it is located, or in the case of larger *developments*, it should create its own successful streetscape character.

Ground-oriented housing should be designed so that it complements the neighbourhood character, with minimum impact on adjacent properties. *Development* will often occur incrementally as pre-existing lots on record are assembled and consolidated. Accordingly, the design must carefully consider both the existing and future relationships to surrounding properties.

Figure 81

C1.1: Height and Massing: The height and massing of buildings should be in keeping with a single family dwelling or townhouse height, which is typically less than 12 metres. Architectural treatments that reduce apparent building height such as the use of trim, colour accents, secondary roof elements, building recesses and stepped building forms are encouraged (see Figure 81).

C1.2: Roof Treatment: The gable orientation and roof pitch should be sympathetic to the design of neighbouring buildings and help to maximize the space and light between buildings (see Figure 81).

C1.3: Street Orientation: Units are encouraged to be oriented towards, and have a visual connection to the street (see Figure 82).

C1.4: Corner Lots: Buildings on corner lots should "wrap the corner" providing an opportunity to have units facing both streets (see Figures 83).

C1.5: Minimum Frontage: Generally, *development* parcels should have a minimum frontage of 20 metres.

C1.6: Setbacks: The front yard setback should relate to, or appropriately transition from, the established pattern in the area.

Figure 82

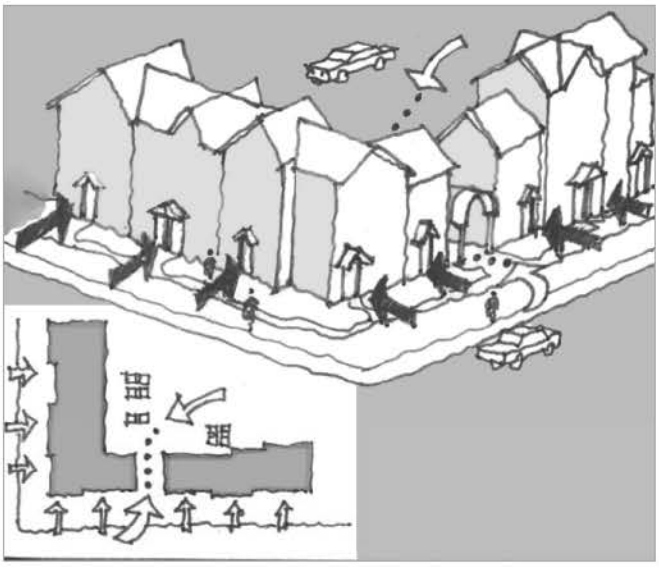


Figure 83

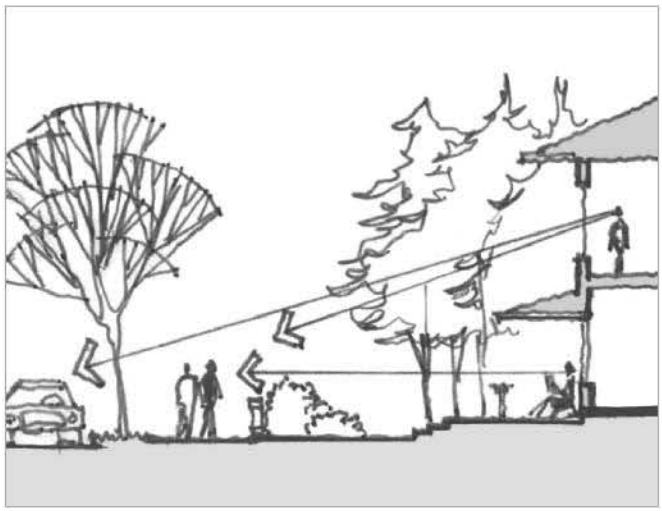


Figure 84

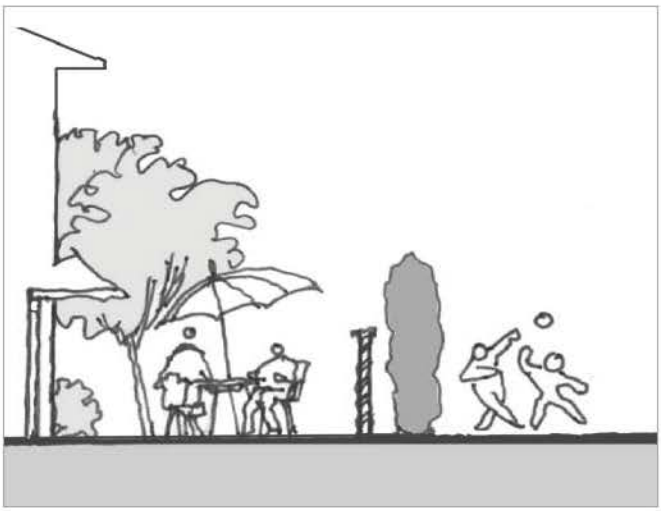


Figure 85

2. Site Planning and Landscaping

Discussion:

Good site planning and landscaping contribute to neighbourhood character and aesthetics, resident livability and environmental sustainability. In principle, site planning should strive to minimize building coverage, preserve natural features and minimize rainwater run-off. Mature trees shade and cool homes in the summer and absorb carbon dioxide and trap dust particles. Trees and other landscaping provide habitat, aid with energy conservation and absorb rain water, reducing stormwater run-off into creeks. Landscape plans should complement the building design and harmonize with the local setting and be prepared by a BC Registered Landscape Architect.

C2.1: Tree Retention: Healthy mature trees and natural features should be retained where possible.

C2.2: Sustainable Landscape Design: Sustainable landscape design should incorporate best practices for tree planting, rainwater management, accessibility and feature native and drought tolerant species. Sustainable landscape design should also be coordinated with building design, site servicing and utility placement.

C2.3: Street Interface: Landscaping and fencing should be kept low and open in the front yard to foster a strong relationship to the street and maintain visibility through to the front of the building (see Figure 84).

C2.4: Privacy: Incorporate planting and fencing to maximize privacy between dwelling units and neighbouring sites (see Figure 85).

C2.5: Shared Outdoor Space: Units should be clustered to create interesting shared outdoor spaces as well as usable and accessible private outdoor spaces. Encourage/integrate informal gathering, play and urban gardening opportunities (see Figure 86).

C2.6: Private Outdoor Space: At least 9 square metres of usable private outdoor space should be provided for all units (see Figure 87).

C2.7: Outward Facing Aspect: Units should be oriented such that windows from the principle living space of each unit are separated by a minimum of 9 metres from those of any other unit (see Figure 88)

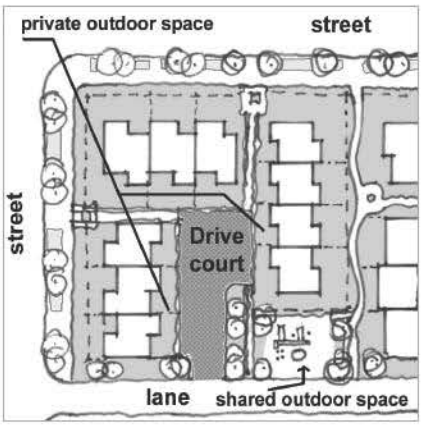


Figure 86

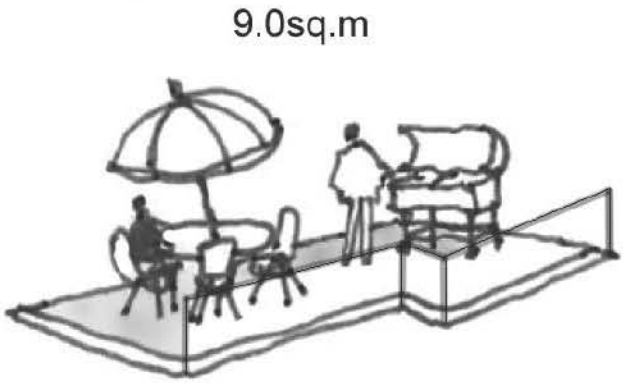


Figure 87

C2.8: Rear Yard Setbacks: Rear yard setbacks should be at least 6 metres, with some variation so that a visual wall is not created along the rear property line.

C2.9: Side Yard Setbacks: Side yard setbacks should be a minimum of 1.2 metres, and up to 3 metres when facing a side street or a single family home.

C2.10: Pedestrian Access: The main pedestrian access route should be from the street rather than the lane or parking area.

C2.11: Parking: Parking spaces should be located off a private driveway, and should not be visible from the street (see Figure 89) .

C2.12: Parking access: When parking is accessed from the front street the number of driveways should be kept to a minimum (see Figure 89).

C2.13: Shared Driveways: Where adjacent to another potential redevelopment site, the driveway should be designed so that it could in future be shared with the adjacent property (see Figure 89).

C2.14: Oil and Grit Separators: Oil and grit separators are required in all parking areas.

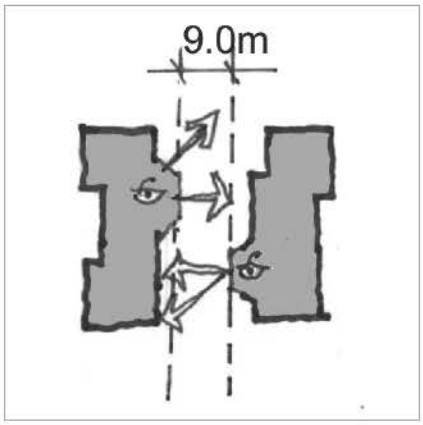


Figure 88

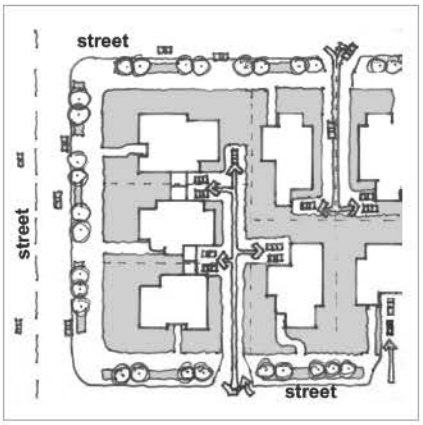


Figure 89

3. Architectural Character

Discussion:

The built form and character of new ground-oriented multi-family *development* should be consistent with and in harmony with the general rhythm, scale and height of the existing buildings in the neighbourhood. Ground-oriented housing is usually located in or adjacent to single family neighbourhoods. Building design therefore should generally have a single family character and incorporate west coast references while responding to local conditions such as topography, vegetation and heritage resources.

Consideration should be given to unit identity, roofscape, and other architectural elements, including fenestration, materials, and colour. Dormers and similar roof projections should read as subordinate or secondary architectural elements.

Ground-oriented housing should be designed in consideration of the needs of all residents regardless of their state of health, mobility or disabilities. Units should incorporate basic features that allow the units to be adapted to accommodate special needs without expensive retrofitting.

C3.1: Massing: The front façade of buildings should be broken up and portions stepped back to reduce the impression of bulk (see Figure 90).

C3.2: Variations in Design: Subtle design variations should be incorporated between neighbouring buildings to avoid a repetitive appearance.

C3.3: Cladding: Buildings should be clad primarily in natural materials although stucco accents may be used as a subordinate finish.

C3.4: Varied Rooflines: Varied roof lines with overhangs are encouraged.

C3.5: Roofing Materials: Laminated asphalt shingles or fire retardant treated cedar shakes are recommended as roofing materials. Tile roofing is discouraged.

Figure 90

C3.6: Noise Levels: Designs should demonstrate that the noise levels (A-weighted 24-hour equivalent LEQ sound level (the average sound level over the period of the measurement) in those portions of the dwelling listed below should not exceed the noise levels expressed in decibels set opposite such portions of the dwelling units. Examples include use of triple glazing, improved insulation etc.

PORTION OF DWELLING UNIT	NOISE LEVEL (DECIBELS)
bedrooms	35
living, dining, recreation rooms	40
kitchen, bathrooms, hallways	45

C3.7: Heating and Ventilation Systems: Ventilation, heating and cooling systems should be designed and insulated to minimize noise and located to be visually unobtrusive to neighbouring *developments.*

C3.8: Accessible Entrance: A level, no step entrance should be provided to each dwelling. If not possible, then platform areas should be provided at the top and bottom of ramps to facilitate the turning of wheelchairs, strollers and other mobility devices (see Figure 91).

C3.9: Weather Protection: A canopy should be provided over the front entrance.

C3.10: Front Door Width: The front door opening should be no less than 0.9 metre in width.

C3.11: Accessible Doorbell: The front doorbell should be no higher than 1 metre above the entry way

C3.12: Legible Address: The address should be indicated in easy-to-read, 10 centimetre or taller numbers, shown in a clearly contrasting colour.

Figure 91

LYNNMOUR / INTER-RIVER
AREA ONE
DESIGN GUIDELINES FOR MULTIPLEXES AND TOWNHOUSES

ADOPTED NOV.20/06

DESIGN GUIDELINES

Contents **pages**

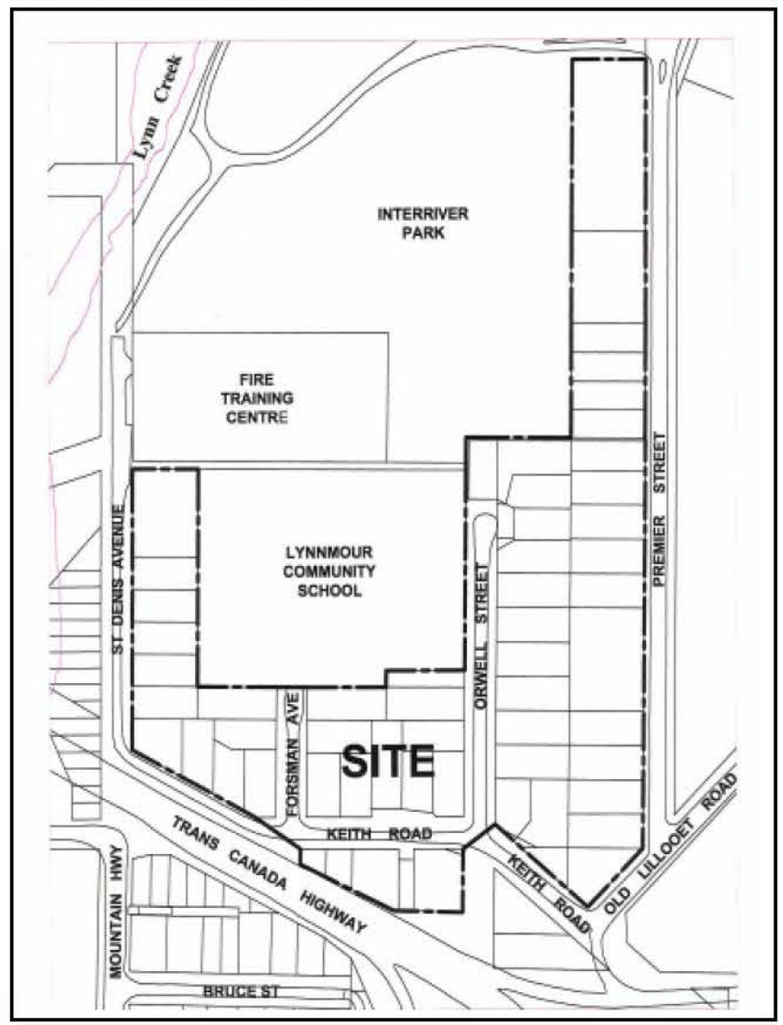
INTENT

The Lynnmour / Inter-River Plan broadens the housing choices for the area around Lynnmour Community School enabling the neighbourhood to renew the single family character while providing a greater mix of family oriented housing. These housing choices will include garden suites behind existing homes, building new duplexes and triplexes on single family lots, or combining properties to build townhouses, like those on Premier Street.

The Design Guidelines are intended for use with every redevelopment application in this area, to help ensure good quality design that maintains the charm and liveability of the area. This package also provides some reference material on the engineering services in the area, and the anticipated changes for the neighbourhood.

If you are anticipating redeveloping your lot, please read this document, and review it with your consultants (architects, landscape architects and engineers) to ensure that their work is also in line with the requirements discussed here.

MAP 1 - GUIDELINE AREA



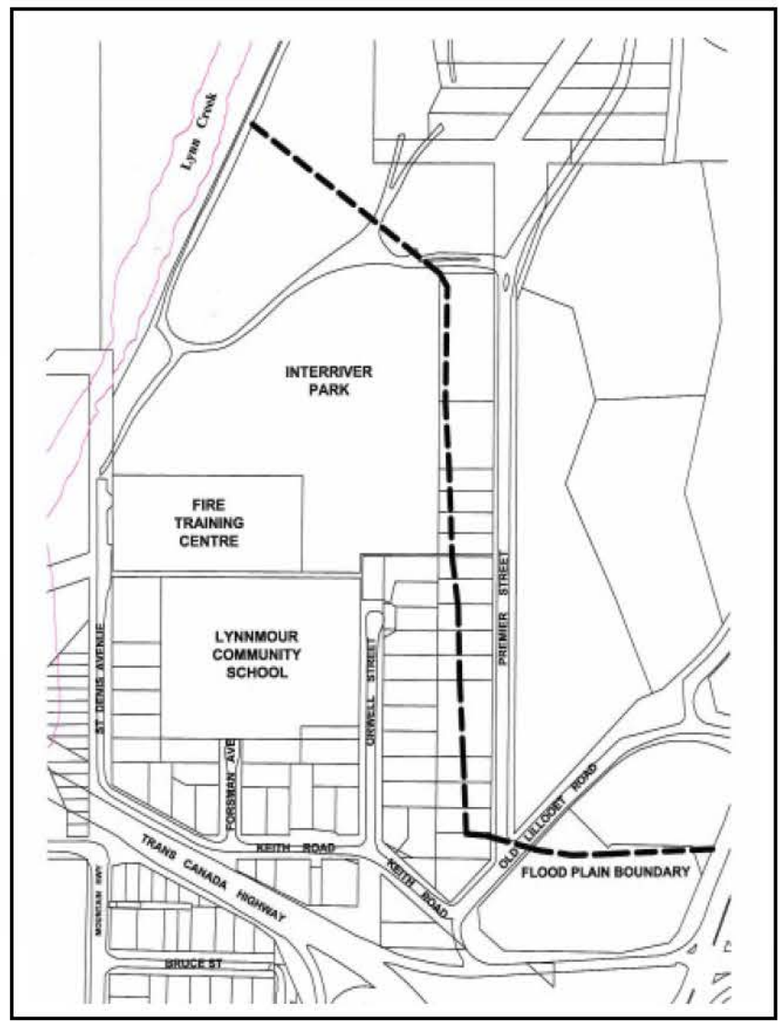
BUILDING IN A FLOOD PLAIN

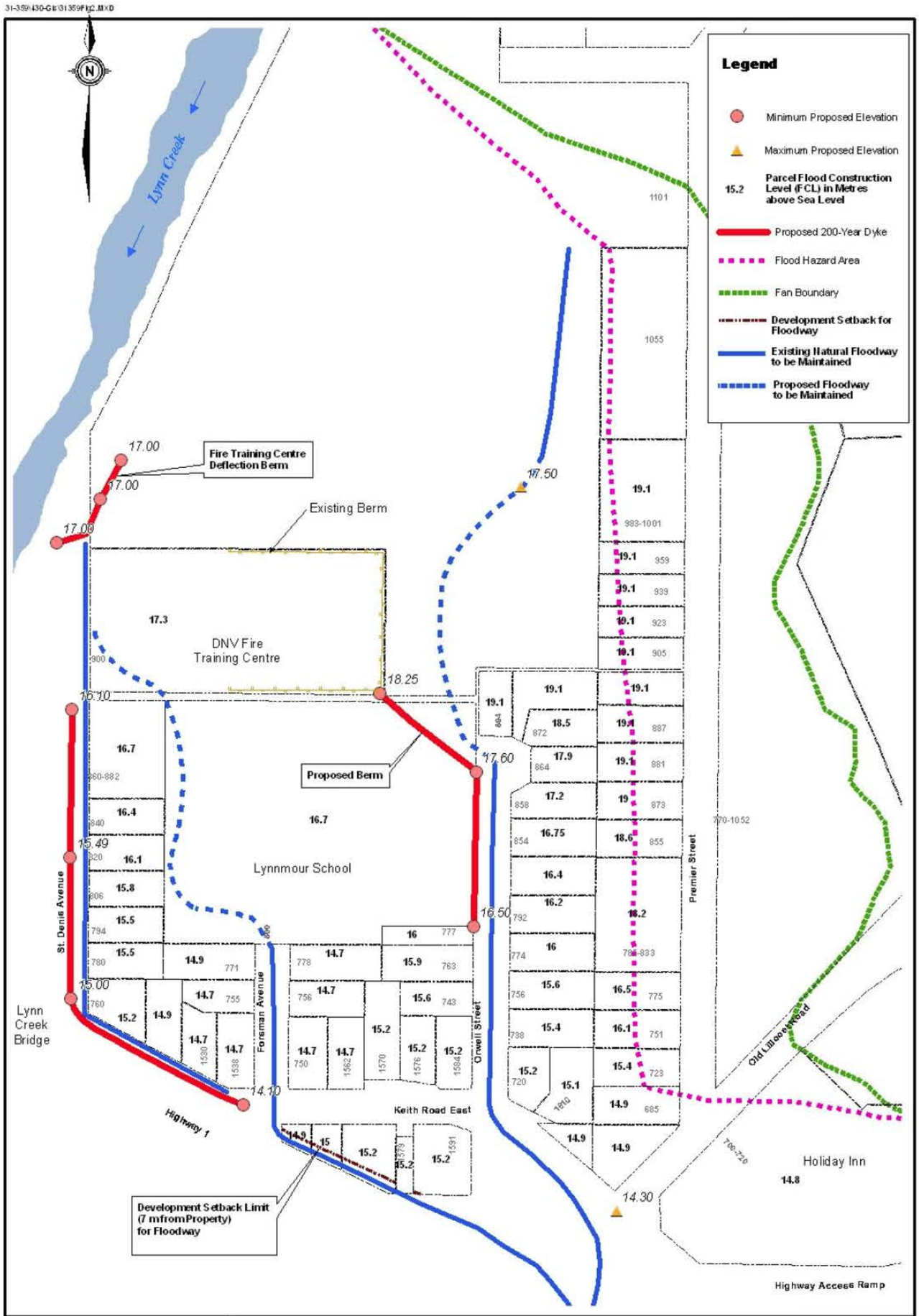
The neighbourhood surrounding Lynnmour Community School (shown on the attached map) lies within the river valley for Lynn Creek. Historically the creek meandered through this area. In more recent times, modifications to the creek banks including rip rap, and raising the level of the bank, have helped ensure the creek maintains its course. Furthermore, the District of North Vancouver maintains a program of regular gravel removal from the creek bed, which reduces the risk of flooding. None the less, a recent study by Kerr Wood Leidal Engineering Consultants demonstrated that in an extreme rain event (the 200 year storm event) there is the potential for some flooding in this neighbourhood. The Province recommends that renovations or new construction within flood plains be built to *flood construction levels* so that all living space is above the potential height of any flood waters. In this neighbourhood, this would mean raising the living space approximately 2 feet above the height of the adjacent roadway.

As there is no insurance for damage from flood waters, it is best for all new construction to be designed in a way that reduces the risk of flood damage, even though that risk is very low, and is something that may not happen in our lifetime.

To ensure that homes are not at risk of flood damage the following should be considered:

- All living space must be constructed above the *flood construction level* assigned to each property.
- Basements will not be permitted (unless tanked).
- Homes should step up from the grade.
- Lots should be regraded so that the finished grade is higher than the street.
- Driveways should not cut into the grade in such a way that flood water would be directed towards living space.





District of North Vancouver
Lynnmour / Inter - River Local Plan

Project No.	Date
31-359	March 2006

0 25 50 100
Scale in Metres

Area 1 Flood Construction Level Plan

Figure 2

GOOD NEIGHBOUR POLICY

All new projects need to consider their neighbours and design in a manner that fits with the harmony, scale and character of the area. We recommend that designers meet with the neighbours early in the process so that new designs can balance community objectives with neighbours' concerns about such things as privacy, views and sunlight.

Neighbourly development should:

- Retain trees and mature vegetation where possible, to minimise the impacts of change.
- Maximise the sunlight to both the development's own outdoor garden areas, and the neighbours' garden areas.
- Minimise over-viewing, and reduce loss of privacy from side windows, through the use of skylights, translucent glass, and stepping back portions of the building.
- Use landscaping and fences to enhance backyard privacy, and privacy between developments.
- Use wider side yard setbacks next to single family zoned land, particularly if the proposed building height at the side yard exceeds the height of the adjacent single family house.
- Carefully site and enclose garbage and recycling containers to reduce the impact of noise and smell on adjacent properties.
- Design lot grading so that there is no run-off onto the adjacent properties.

This is the garbage area for a triplex on Fromme Road, it is boxed in and screened so as to minimise its impact on both the project and the neighbours.

MAXIMUM UNITS AND BUILDING SIZE

In the Lynnmour / Inter-River Local Plan, the maximum number of units and size of building is established for lot redevelopment as follows:

- **With a lot size of less than 5000 square feet single family houses are permitted;**
- **With a lot size between 5001 and 7000 square feet a single family lot may be in-filled with a second unit or redeveloped as a duplex with a maximum density of 0.4 floor space ratio;**
- **With a lot size between 7001 and 8000 square feet a single family lot may be in-filled with a second unit or redeveloped as a duplex to a maximum density of 0.5 floor space ratio; and**
- **With a lot size between 8001 and 12000 square feet single family lot may be in-filled with a second and third unit or redeveloped as a duplex or triplex to a maximum density of 0.5 floor space ratio.**

Where property owners choose to redevelop as a group in a consolidated fashion to create a **redevelopment parcel of 15,000 square feet or greater, then the potential for townhouses exists with a maximum density of 0.7 floor space ratio and 24 units per acre.**

Though the plan establishes maximum building potential, not everyone may wish to build to either the maximum number of units or the maximum size of building. For example, a single family home owner on an 8,500 square foot lot has the potential for a triplex, but may prefer to retain their home and construct a single garden suite in the rear.

BUILDING COVERAGE

To help ensure designs maximise open space on the lot, building coverage for all buildings and structures proposed on the lot is limited to 40%.

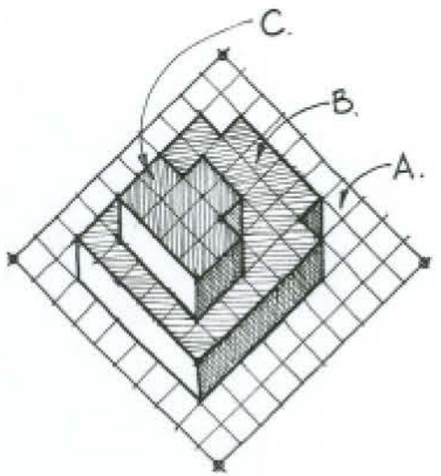
What are Floor Space Ratio and Building Coverage?

The tool that is traditionally used to measure building size is floor space (also called floor area). This is the measurement from wall to wall of all above ground floors. The floor space is then compared with the lot size to determine the floor space ratio. Floor space ratios are usually written as decimals eg. 0.5 = 50%.

By comparison building coverage represents the percentage of the lot that is covered in buildings and structures, including the dwelling units, garages, garden sheds and garden structures like gazebos.

This diagram shows a site area (A) or lot size of 100 squares (100%). The lower block (B) or main floor of the diagram covers 40 squares, equal to 40% building coverage. The second floor (C) covers another 10 squares. Combined the main floor (B) and upper floor (C) add up to 50 squares or 50% of the total, or a floor space ratio of 0.5.

In most residential zones, including single family homes and town houses, some parts of the building are excluded from floor space area calculations. Typically, these exclusions include the basement areas, garages, and garden sheds. In this neighbourhood basements are not recommended (because of the flood risk) but exclusions for single car garages with some storage space will be considered. Since new development will not include basement space, some designers may wish to make use of the attics for additional living space. Attic floor space is excluded where the floor- to-ceiling height is less than 7 feet.



The figure above represents a site area (A) of 100 squares (100%)

The main lower block (B) represents a building coverage of 40 squares (40%)

The upper and lower blocks (B+C) combine to represent 50 squares (50% of site area) typically referred to as a Floor Space Ratio (FSR) of 0.5

LOT CONSOLIDATION

The Lynnmour / Inter River-Plan was written with a flexible density so that properties could develop independently. However, there are some locations within Inter-River where lot consolidation is recommended in order to best address other types of design issues:

Noise Abatement:

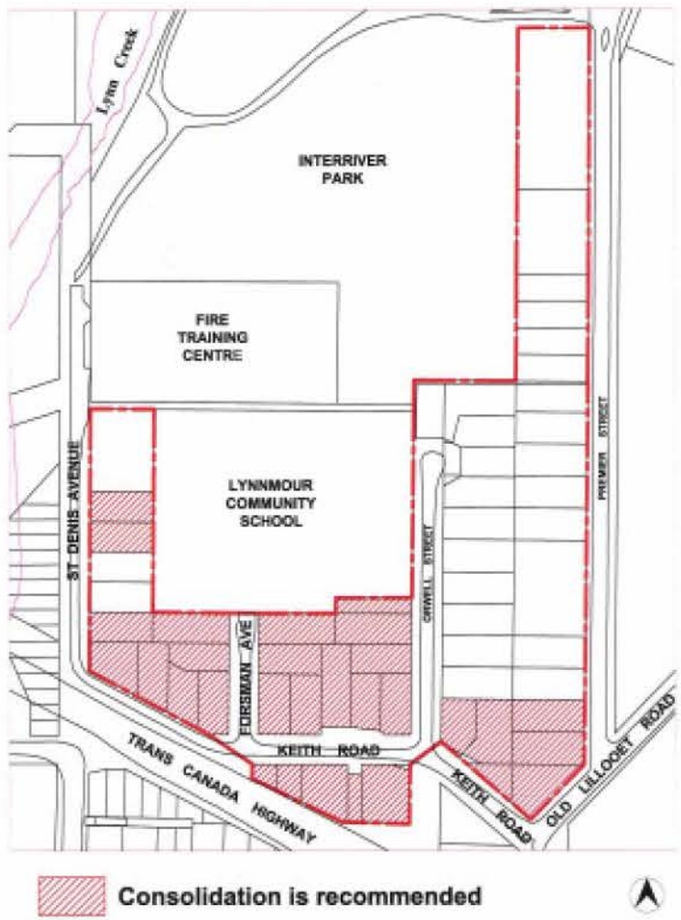
One method of reducing the noise that spills into this community from the highway, is to design row housing along Keith Road so that there is a continual wall of residential buildings blocking the noise from spreading into the community. This would be more easily accomplished if properties along Keith Road redeveloped two or more at a time.

Lot Grading, Storm Water and Flood Water:

Every time a lot is redeveloped, there is a requirement that all grading and landscaping is done in a manner that does not cause storm water from the typical rain fall to flow onto adjacent lots. When building in a flood plain, the need to ensure rainwater doesn't run onto other properties must be carefully balanced against the desire to raise level of the lot so that floodwater is directed away from the buildings. Careful drainage and landscape plans ensure that a proper balance is met. However, in the south east portion of the Inter-River neighbourhood, along Forsman and between Forsman and Saint Denis, there is a low lying area where it will prove more difficult to meet this balance on individual lots, and therefore lot consolidation is recommended.

Flood Protection Works:

Saint Denis Avenue functions as a dyke, helping protect the neighbourhood against the risk of flooding. The recent study completed by Kerr Wood Leidal Consulting Engineers, recommends modest improvements along Saint Denis that would raise the roadway above its existing elevations. For 820 and 840 Saint Denis Avenue, where the road improvements will be the most dramatic, consolidation is recommended so that together the lots can find the most appropriate means of accessing their site.



SETBACKS AND SITING

When considering where to place a building on a site it is important to consider the potential impacts on neighbours and the street. Setback regulations are aimed at protecting and enhancing the neighbourhood, but all designers should consider the impacts of their designs in terms of privacy, over-viewing, and shading, as well the potential for enhancing the streetscape, and look of the site.

Front Yard Setbacks

To fit into the existing neighbourhood, a minimum front yard setback of 15 feet should be considered, unless an alternative pattern of setbacks already exists, like that found along Premier Street.

Rear Yard Setbacks

A minimum rear yard setback of 20 feet from the rear property line to building face is recommended to ensure that some area be set aside for rear gardens and open space.

Where townhouse sites are proposed a staggered setback combined with a varied design should be considered so that the project does not create a visual wall along the rear property, and so that successive townhouse projects do not create a feeling of a canyon running down the middle of the block.

Side Yard Setbacks

Side yards are used to provide access to the site, landscaping around the site, and provide a buffer to the adjacent properties. A larger building will tend to need a larger setback, especially if it is placed further back on the lot, where the impact of over-shadowing, and over-viewing may need to be reduced. The following table sets out recommendations for side yard setbacks.

This photo of 989 Premier Street has the setbacks and property line marked on to illustrate how front yard setbacks are measured

2 or 2 ½ Storey Buildings	
Side yard setback, in the front 50 feet of the lot	Minimum 6 foot side yard
Side yard setback, after the front 50 feet of the lot	Minimum 10 foot side yard
Side yard setback for a side yard facing a road	Minimum of 15 foot, as it would function as a second front yard.
1 Storey Building Elements	
Side yard Setback	Minimum 4 foot side yard
Side yard Setback, for a side yard facing a street (corner lots)	Minimum of 15 foot side yard, as it would function as a second front yard.

This photograph of some row housing in the City of North Vancouver, illustrates how low density homes can be placed side by side, to form a wall of housing.

Keith Road – Setbacks

Careful design along Keith Road can help reduce the highway noise impacting both the properties along Keith Road and the larger neighbourhood. Row house design with no side yard setback is encouraged to create a residential wall that will block the noise from the highway, and help create more liveable outdoor space in the rear.

Varying Setbacks

The setbacks listed above may be varied if:

a) Different setbacks will fit with established pattern of development, like that found along Premier Street with the existing townhouses;
b) Tree preservation or other environmentally benefits can clearly be demonstrated with the use of an alternative setback; or
c) Noise reduction from the highway can be enhanced.

RELATIONSHIP TO THE STREET

Streets feel safe and look great when buildings and landscaping are designed to relate to the street; allowing a passer-by to wave hello or chat with a neighbour. The following guidelines offer suggestions for ways to ensure new development "faces" the street.

- At least one unit's front door should be directly oriented towards the street. High visibility of the front doors and paths to the rear units is also recommended.
- Prominent pathways should lead from the sidewalk to the front door of at least one unit to emphasize the building face. (Though pathways are required to each unit, designers must be careful not to clutter the open space with excessive pathways.)
- Buildings constructed on corner lots should "wrap the corner" providing an opportunity for multiplexes to have each unit face the street.
- Design details such as the use of verandas, porches, arbours, and decorative gates, should be considered to ensure each development has a visual connection to the street.
- On wide lots, or those lots that do not have to provide a driveway, designing either a wider front unit, or fitting additional units at the front of the development should be considered in order to maximise the street presence.
- Ensure living space at the front of the building is directed towards the street.
- New developments may choose to copy roof lines, building materials, or other design elements in order to blend with the harmony and scale of the street, however, "cookie cutter" and mirror-image design, is discouraged.
- In the front yard landscaping and fences should ensure openness and visibility through to the front of the building.

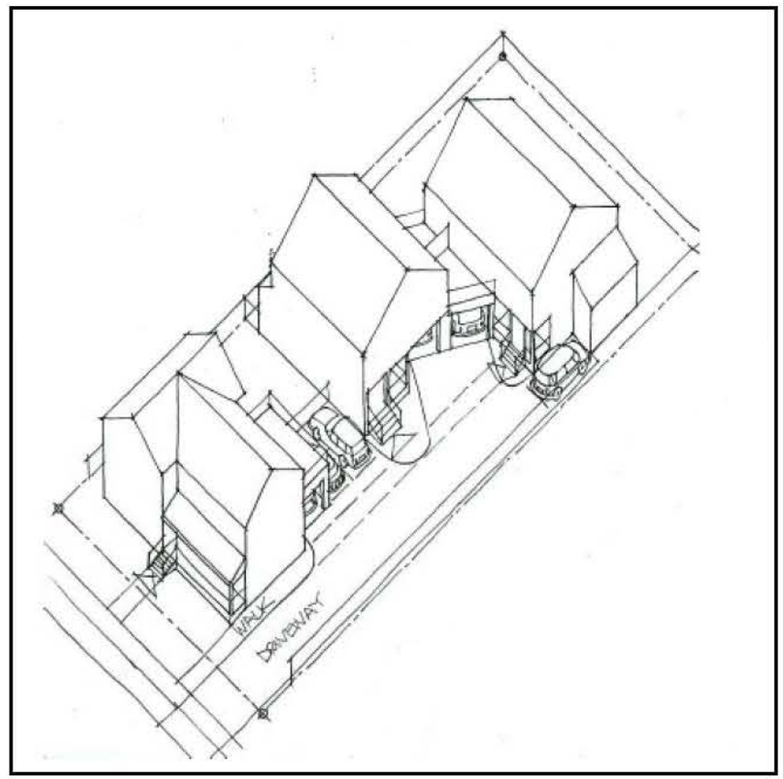
Front porches, doorways, window style, roof lines with gables facing the street, and pathways all help make the building appear to face and watch over the street.

DRIVEWAYS

In this neighbourhood there are no back lanes, and therefore all parking is accessed from driveways leading off the street. It is beneficial to reduce the numbers of driveways because:

- The sidewalk becomes safer with fewer driveway crossings;
- More emphasis is placed on people and buildings and less on cars and garages, with more room at the front of the lot given to buildings and front gardens, making for a pleasant looking street; and
- There is more room for on street parking.

A lot choosing to redevelop by itself must design the driveway so that it may be shared with the adjacent property. However, no driveway need be shared with more than three units from a neighbouring property, as larger townhouse developments combining two or more lots, may have one driveway for their own development.



The parking for the units is located behind the front unit, to reduce itsvisibility from the street.

PARKING

Two parking spaces per unit is the recommended requirement. Parking spaces must be located off the private driveway, and should be located behind the front unit so they are not as visible from the street.

Though visitors may park on site, there is no formal requirement for additional visitor parking spaces, and most visitors will park on the street as they do now in the single-family areas.

Driveways and Parking Areas

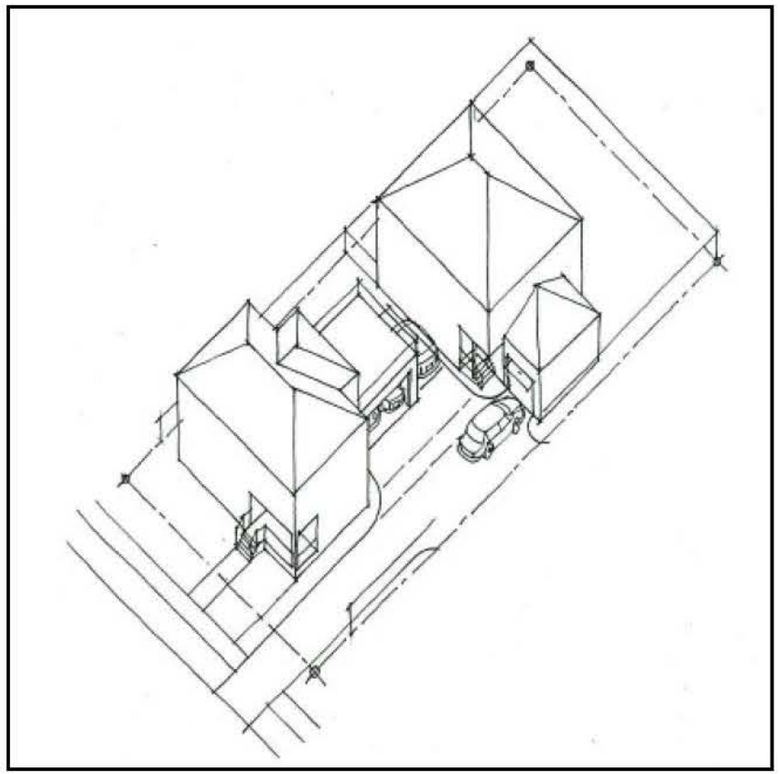
- Driveways and parking areas should be designed in a manner that minimises their impact on the street and the development.

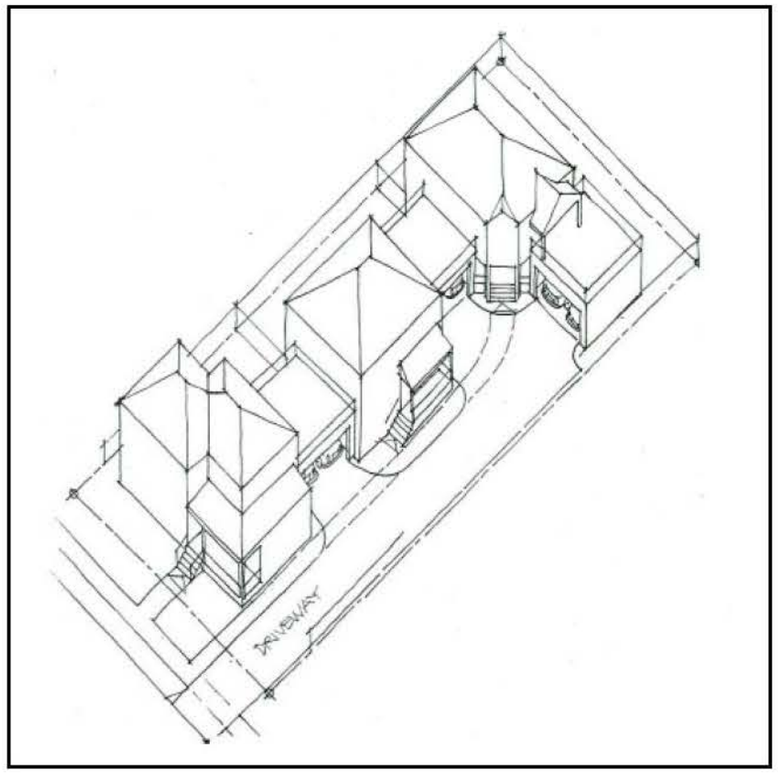
- Paved areas for driveways and parking have a significant impact on storm water run-off and therefore, paving methods that reduce the impact of the hard surface should be considered.

- As many rear units will require pathways along side or through the driveway, pavers may also serve to delineate the pathway system.

- Where developments are sharing a driveway, every effort should be made to match and coordinate with the materials and design of the existing driveway.

In these sketches the parking for the units is located behind the front unit, to reduce its visibility from the street.





REDUCING THE IMPACT OF DEVELOPMENT ON THE ENVIRONMENT

With careful planning, development can occur in a manner that is more environmentally sustainable.

Construction and Design

New development should consider ways of ensuring that is energy efficient. Where appropriate guidelines and ideas outlined in the LEED and REAP and other sustainable building programs should be considered.

Rain Water

In order to develop more sustainably, new projects should consider ways of landscaping and grading so that rain water has a chance to soak into the ground, and is diverted away from the storm sewer system, where it would otherwise add to the erosion of the creeks.

Tree Preservation

Trees provide a number of environmental benefits beyond their aesthetic value including their role in shading homes in the summer, providing habitat for birds, absorbing rain water, absorbing carbon dioxide (a green house gas) and producing oxygen, trapping dust particles and pollutants from the air, and modestly reducing noise. For all these reasons, the preservation of mature trees, and planting of new trees is encouraged in North Vancouver. However, in some cases where flood protection measures require the grade to be changed, it may not always be possible to preserve a mature tree and replacement planting should be considered instead.

It is therefore recommended that new development:

- Retain as many healthy mature trees as possible.
- Plant new trees.
- Add a thicker layer of gardening quality soil, to the ground prior to landscaping, to increase water retention.
- Introduce “rain gardens” where appropriate so that garden areas can help soak up rain water and reduce storm water run-off.
- Consider using permeable paving material for pathways, driveways and parking areas, or grading the area so that the water can run-off into suitable garden areas.
- If water from the driveway and parking areas is not able to percolate through to the ground, include an oil and grit separator, and / or establish a car washing area to reduce the pollutants that are directed into the storm water system.

These multiplexes were built around existing trees.

LANDSCAPING

Each redevelopment proposal is required to provide a landscaping plan that will compliment the building design and harmonize with the local setting. Landscape plans must be prepared by a BC Registered Landscape Architect. Landscape plans are to show how each site will be designed and landscaped once the construction is completed. In preparing landscape plans the following criteria should be considered:

- Use landscaping to soften the impacts of new development and help new development harmonize with the area.
- Ensure that landscape plans are prepared in conjunction with the project team, with input from the arborist, engineer and building designer.
- Ensure that the lot grading is consistent with flood proofing measures.
- Include street trees and boulevard planting on the landscape plan.
- Keep the landscaping and fencing low and open in the front yard to foster a strong relationship to the street.
- Preserve healthy trees where possible, and plant new trees where reasonable.
- Design each unit with private outdoor space that is large enough for barbequing and dining outside (100 square feet or larger).
- Use planting and fences to create a buffer, and maximise privacy between on-site units, and between the subject property and neighbouring sites.
- Use low maintenance “xeriscaping” landscaping practices, with native plant materials suited to the local climate.
- Provide a grading and drainage plan which will assist in the safe on-site management of surface water and rain water (storm water).
- Use porous materials on pathways, patios, and parking spaces to maximise rain-water infiltration.

- Minimise the amount of land used for pathways through careful building and landscape design.
- Consider roof decks or “green roofs” over top of parking structures where privacy will not be adversely impacted.
- Provide details for the method of screening the garbage containers and any other service structures.
- Implementation is to use current BCSLA/BCNTA standards for landscaping.

DEALING WITH NOISE

Finding methods of blocking the noise from the highway is a key issue for improving the liveability of this neighbourhood.

The impacts of noise may be reduced by:

a) Incorporating noise standards into the design and construction of new development to ensure a quiet interior environment for residents as follows:

   Designs must demonstrate that the noise levels in those portions of the dwelling listed below shall not exceed the noise levels expressed in decibels set opposite such portions of the dwelling units. For the purpose of this section the noise level is the A-weighted 24-hour equivalent (Leq) sound level and will be defined simply as the noise level in decibels:

	Portion of Dwelling Unit	Noise Level (Decibels)
2.	bedrooms	35
3.	living, dining, recreations rooms	40
4.	kitchen, bathrooms, hallways	45

b) Using building design to create noise buffers in certain locations; and

c) By encouraging the Provincial Ministry of Transportation to provide noise fencing along Highway #1.

New development should also consider the impacts of their own ventilation and heating systems on neighbouring developments and ensure that design, style, and placement eliminate any additional noise pollution.

Buildings as Buffers

Designing row housing along Keith Road could serve as a barrier to noise from the highway.

PRIVACY

It is recommended that all new development consider maximising the privacy between units, and between new and existing developments. To this end the following items should be considered:

- Use building setbacks, landscaping, building design, and window placement to maximise privacy and reduce over-viewing.

- Use translucent frosted or stained glass in side windows, or replace windows with glass block, or skylights where privacy will be impacted.

This elegant fence provides a pleasent privacy screen.

The careful location of windows makes this patio area in the middle of a triplex project feel private.

BUILDING HEIGHT

In order to harmonize with the existing single family and townhouse character of the area, building height should be limited to **two and half storeys**.

Building height is measured from the lesser of natural or finished grade to the peak of the roof. In this area where all new development will be raised up to meet flood construction levels, house heights may be 1-2 feet taller than would normally be anticipated for a two and half storey building, and therefore heights may range from 22 feet for a flat roofed two storey home to 35 feet for a steeply pitched roofed two and half storey home.

Roof Pitch

Steeply sloped roofs are recommended but not mandatory. Roof pitches of 8:12 (rise over run) for the main structure of the roof are widely popular in North Vancouver and work well with the wet climate. However, alternative roof pitches are acceptable provided that flatter roofs have a lower height and compliment the architectural style of the building.

Building height is measured to the roof peak.

ADAPTABLE DESIGN

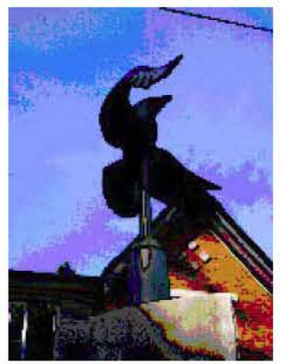
Many residents of North Vancouver have expressed a desire to stay in their homes regardless of the onset of illness, frailty or disabilities. It is therefore beneficial when designing new homes to ensure that they are built with basic features that allow the units to be adapted to help residents deal with disabilities without expensive retrofitting. To this end, redevelopment must comply with the District of North Vancouver 's Adaptable Design Guidelines.

PUBLIC ART

Since 2003 the District's Public Art Program has encouraged developers to commission works of public art as part of their development application. The District policy applies to applications that require rezoning, and is for residential building proposals with five or more units.

In Lynnmour/Inter-River, District staff undertook a public art mapping exercise with local residents to identify and prioritize potential sites, and to record themes that the community considers appropriate for future public art. The results can be seen on the following map.

Several clear community priorities emerge. For example, residents have identified the corner of Old Lillooet and East Keith Roads as the key location for a community gateway feature. Other clear priorities include art features integrated with the park and pathways, possibly as an enhancement to the Highway underpass, possibly as interpretive route-markers for the extensive net of park trails. As a whole, the map reveals a number of exciting and innovative projects-in-waiting — a loose "master plan" of possible projects of different type and scope. As applicants come forward with different proposals, they will be encouraged to work through the project options and possible themes endorsed through this community process, and to develop a project-specific public art plan that respects community priorities.



Public Art Map

1 Mt. Seymour Pkwy Intersection
Located on the outskirts of residential Lynnmour/Inter River, this important traffic corridor presents a number of challenges for pedestrians, especially for those crossing to the local super market. Public Art could play an interesting role, integrated as an attractive and functional component as part of a traffic safety solution.

2 Mt. Seymour Pkwy & Old Lillooet
An opportunity to site a gateway or garden feature.

3 E.Keith/Old Lillooet Triangle
At this historic intersection of Lillooet and Keith Roads, an interesting opportunity emerges to acknowledge and to interpret the diverse histories that have shaped the North Shore. Today, this site is the "gateway" to a thriving residential community, and local residents have expressed the desire to: "clean up and develop this green space into something we can use and be proud of."

4 Trans-Canada Bridge Underpass
Much used by local residents, this currently neglected underpass could incorporate public art to create a pleasant "gateway" to the community.

5 Lynnmour School
Residents have suggested creating a "Welcome Carving" in a project that would involve students in expressing ownership & pride in the community.

6 Lynnmour School
Public Art could play an effective role in the re-design of this outdoor refuge/play area for the students.

7 Lillooet Shopping Plaza
A highly visible retail area with potential to create an interesting community space.

8 Shortcut Footpath to Old Lillooet
Community trails and pathways provide many interesting opportunities to integrate interpretive markers.

9 Premier Street
Residents have expressed an interest in seeing traffic calming measures on this busy residential street.

10 Premier Street Pathway
Gateway and path improvement at East and West sides of Premier Street. Creative public art treatments can provide a functional and innovative response to community infrastructure needs.

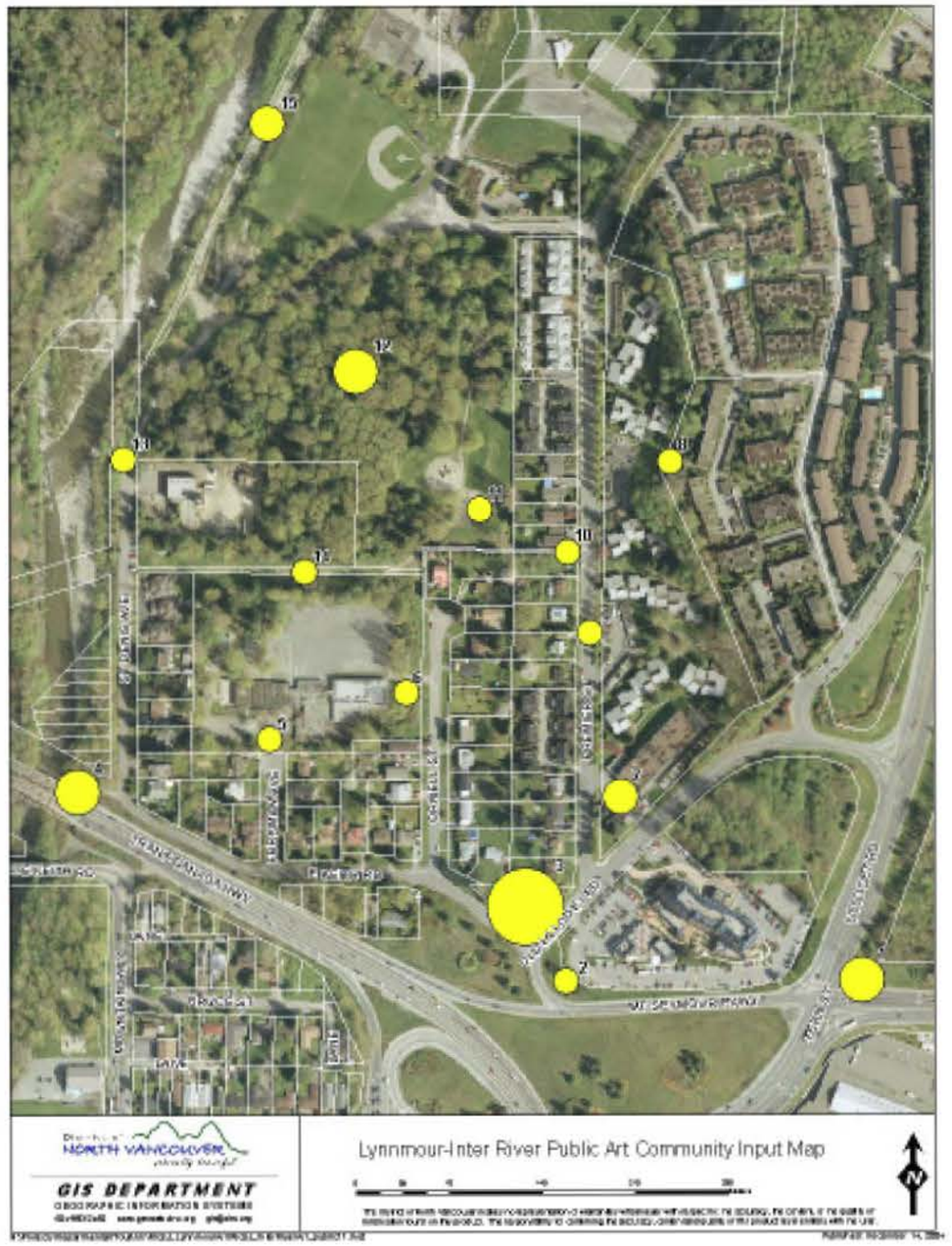
11 Inter River Park Playground
Playgrounds provide an interesting opportunity to integrate public art in the design of the park space and/or playground amenities.

12 Inter River Park
Residents like the existing simple parkscape, describing it as "a magical area to walk and explore." Opportunities for public art could be integrated with the trail network and reflect multiple uses.

13 Inter River Park - St Denis Entrance
An important entry or "gateway" to Inter-River Park and to the trail network.

14 Pathway: St Denis to Orwell
Community trails and pathways provide many interesting opportunities to integrate interpretive markers.

15 River Pathway
River path improvements and amenities: public art with picnic tables, benches, BBQ areas.



ENGINEERING SERVICES

Throughout the District of North Vancouver, as properties redevelop, they are required to upgrade the services in front of their property to modern standards. This work normally includes:

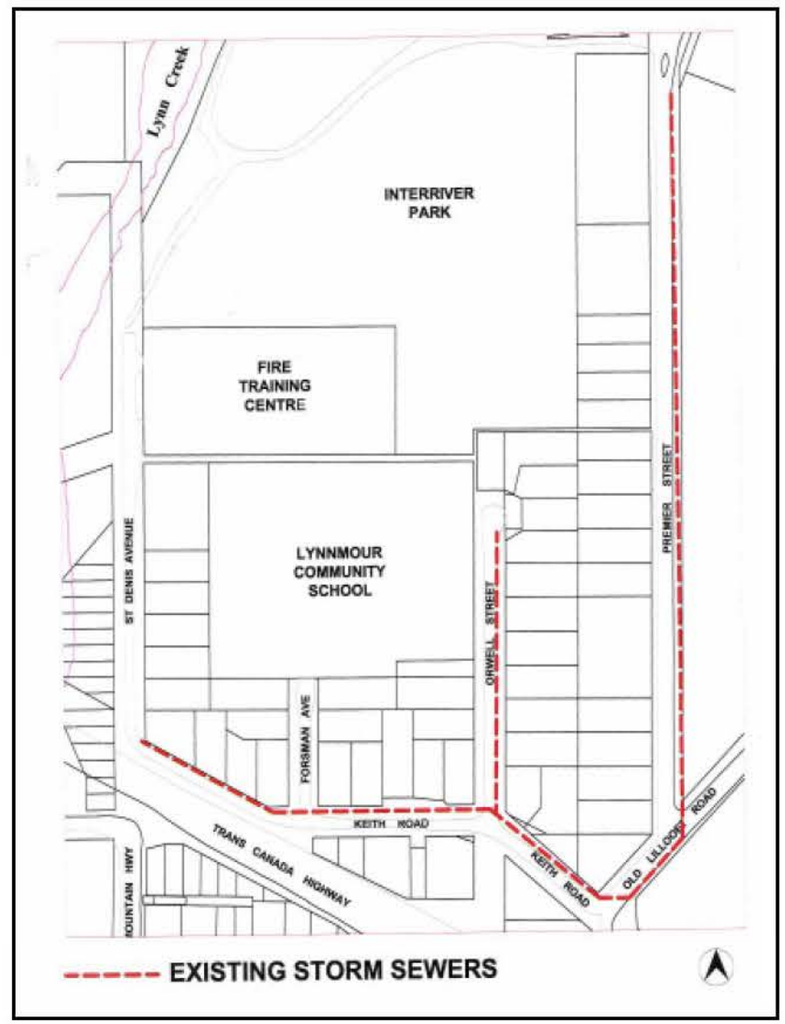
- Upgrading to the centre of the road all aspects of the roadway including pavement, curb and gutter;
- Constructing sidewalks;
- Planting street trees;
- Installing street lights; and
- Extending services to the subject site; including water, and sanitary & storm lines.

Water and Sanitary Sewer

In anticipation of redevelopment in this neighbourhood, staff undertook an analysis of the water supply and sanitary sewer capacity, which showed that there is sufficient supply and capacity to meet the demands of the school, existing development and all potential redevelopment that could be considered in this area under the Lynnmour / Inter-River Community Plan.

Storm Sewer

Storm sewers do not exist on all streets in the study area. For anyone considering redeveloping the storm line may need extending to your property. If you are interested in redeveloping, please discuss the need for storm sewer upgrades with the District's engineering staff.



ROADWAY IMPROVEMENTS

Each development will be responsible for upgrading the road, sidewalk, curb and gutter, and planting in the boulevard in front of their own site. Over time, this has the potential to add sidewalks, and street trees throughout the neighbourhood.

This section details the road standards currently anticipated for each road.

Saint Denis Avenue	Design Standards
Saint Denis Avenue functions as a dyke providing flood protection to the adjacent neighbourhood. In the March 2006, Kerr Wood Leidal report on flood protection, the engineering consultants recommended further improvements to Saint Denis, including a slight change in grade, and the construction of a floodway. These improvements may cause some of the design work originally anticipated and described below to be undertaken a little differently.	
Road Width	8 metres / 26 feet Two travel lanes and one parking lane
Sidewalk Width and Location	Boulevard sidewalk, 1.5 – 2.0 metres wide on east side. Gravel path at curb, on west side, next to the top of the riverbank.
Hydro and Tel	Underground
Additional Features	Provides connection under the bridge and to the park.

Forsman Avenue	Design Standards
Road Width	8 metres / 26 feet two travel lanes and one parking lane
Sidewalk width and location	Boulevard sidewalks, 1.5 – 2.0 metres wide on both sides.
Hydro and Tel	Underground
Additional Features	To enhance pedestrian safety, the street will narrow at the entrance, and the sidewalk will bulge out on either side.

Orwell Street	Design Standards
Road Width	8 metres / 26 feet. Two travel lanes and a parking lane
Sidewalk width and location	Boulevard sidewalks, 1.5 – 2.0 metres wide on both sides.
Hydro and Tel	Underground to each unit, but poles will remain as the upper tier of wires carries service beyond the neighbourhood.
Additional Features	To enhance pedestrian safety, the street will narrow at the entrance, and the sidewalk will bulge out on either side. The potential for an improved school drop off area exists, and could be considered should Lynnmour Community School be further renovated.

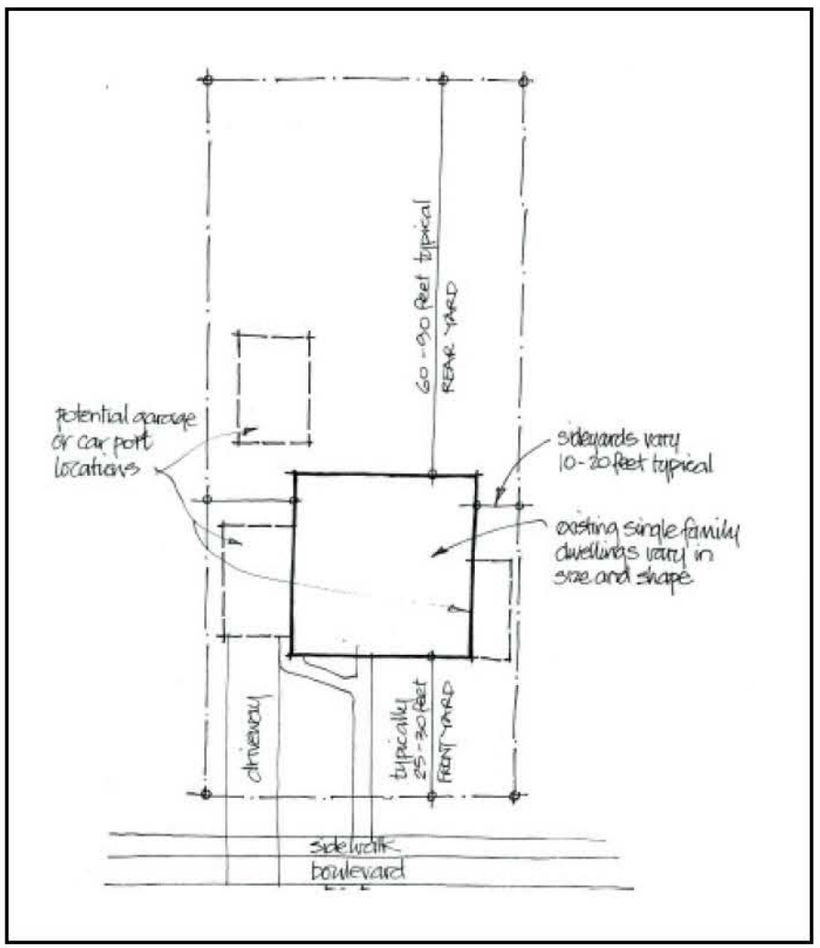
Premier Street	Design Standards
Road Width	10 metres / 33 feet Two travel lanes and two parking lanes
Sidewalk width and location	Boulevard sidewalks, 1.5 – 2.0 metres wide on both sides.
Hydro and Tel	Underground to each unit, and eventually poles will be shifted to the east side, if not removed completely.
Additional Features	To enhance pedestrian safety, the street will narrow at the entrance and the alignment be shifted so that traffic must slow down when turning into the street. Possible improvements to the pedestrian crossing at mid block are also under consideration.

Keith Road	Design Standards
Road Width	8 metres / 26 feet Two travel lanes, one parking lane on the north side.
Sidewalk width and location	Boulevard sidewalk, 1.5 – 2.0 metres wide on north side
Hydro and Tel	Underground to each unit, and eventually poles will be shifted removed.
Additional Features	Potential road realignment at intersection with Old Lillooet Road

SAMPLE LAYOUTS

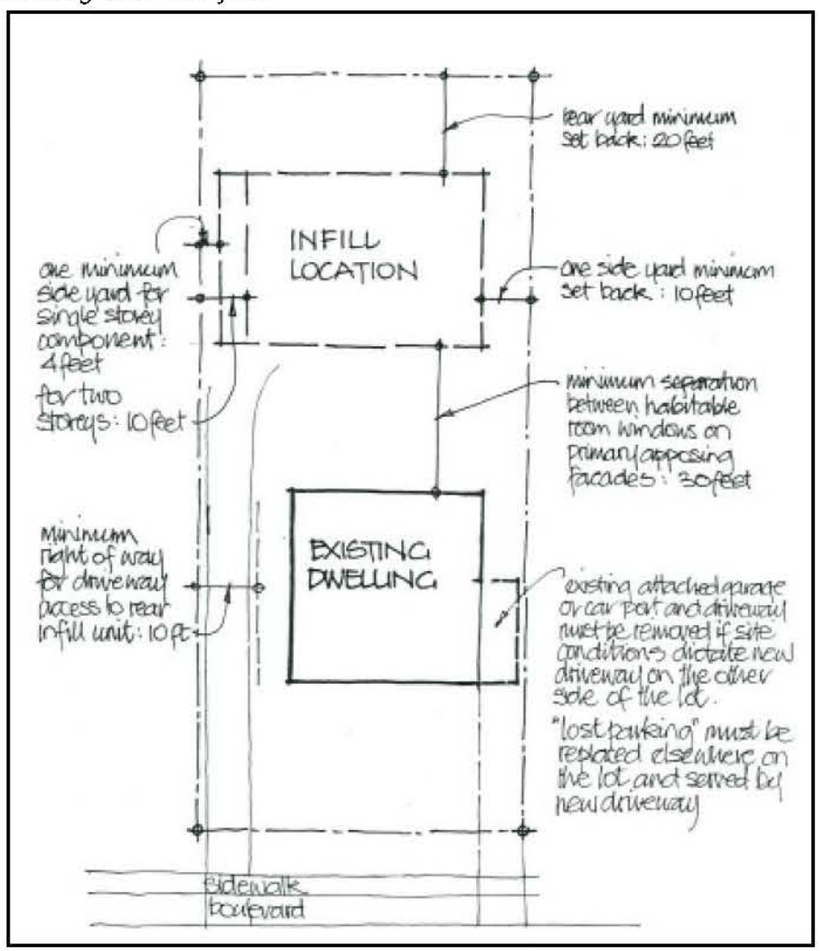
In order to ensure that these guidelines are feasible, staff worked closely with Mr. R. A. Spencer a local designer who provided the following sketches to show how development on different size lots could be achieved. The following sketches do not show the details and ornamentation that is necessary, but do show the potential massing, layout and parking for different redevelopment options including rear yard infill, duplex and triplex development.

Examples of an Existing Single Family Home



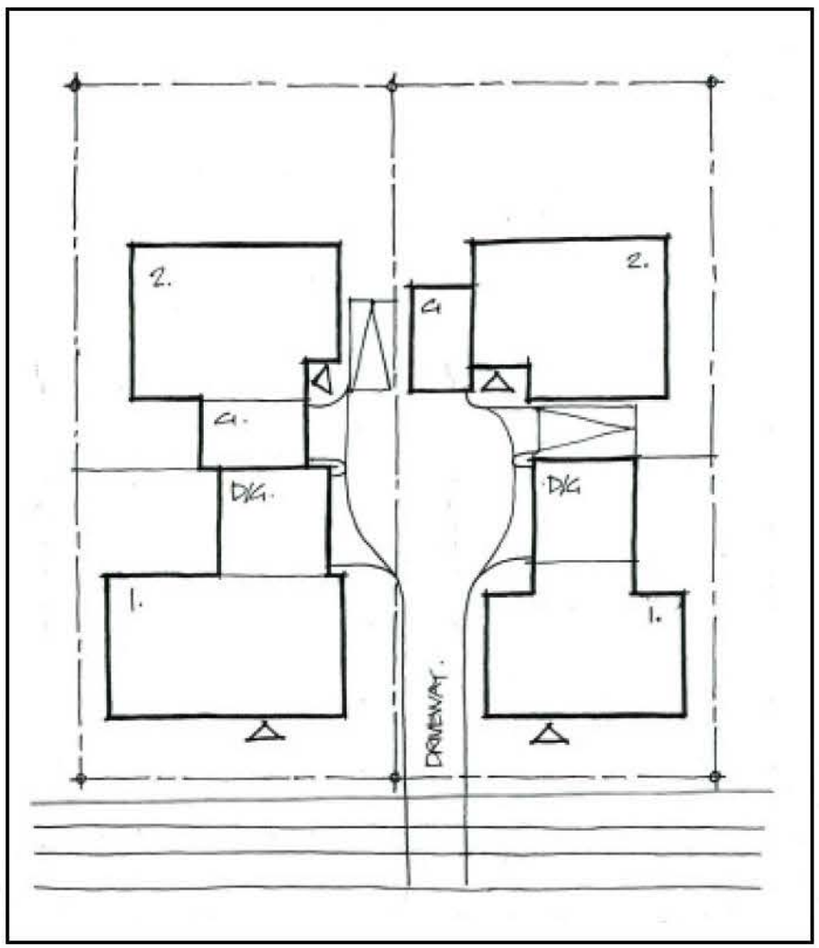
Infilling the Backyard

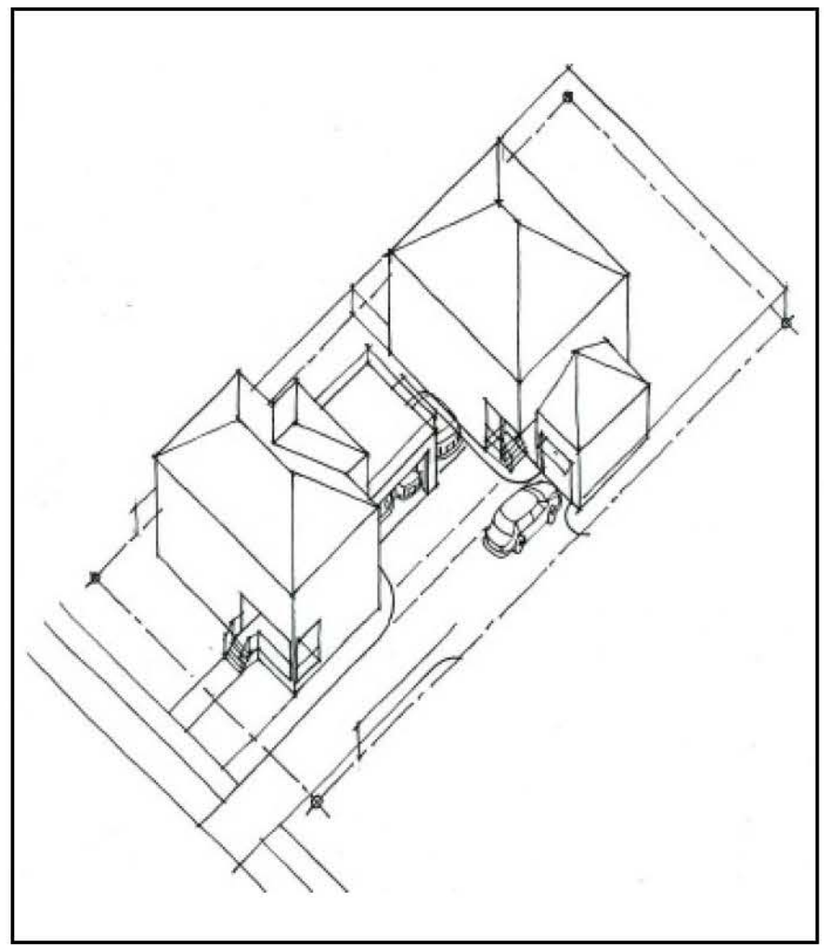
This drawing shows how some homes could accommodate an additional building in the rear yard.



Duplexes

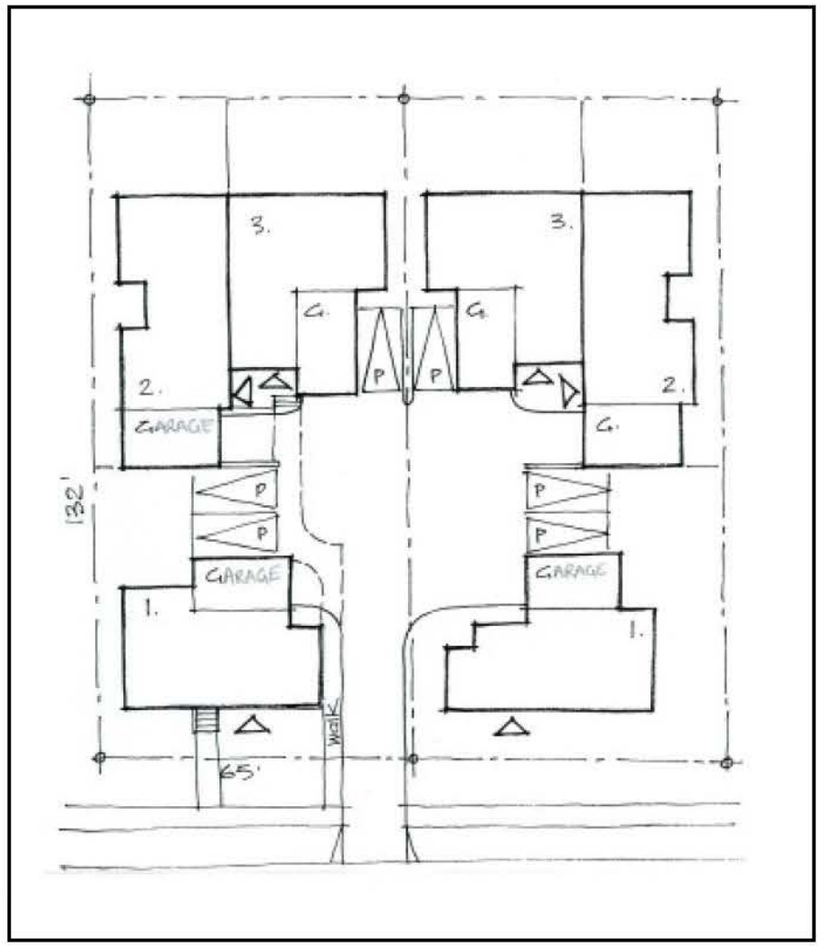
For smaller lots between 5,000 and 8,000 square feet in size, this illustration shows a potential duplex design.

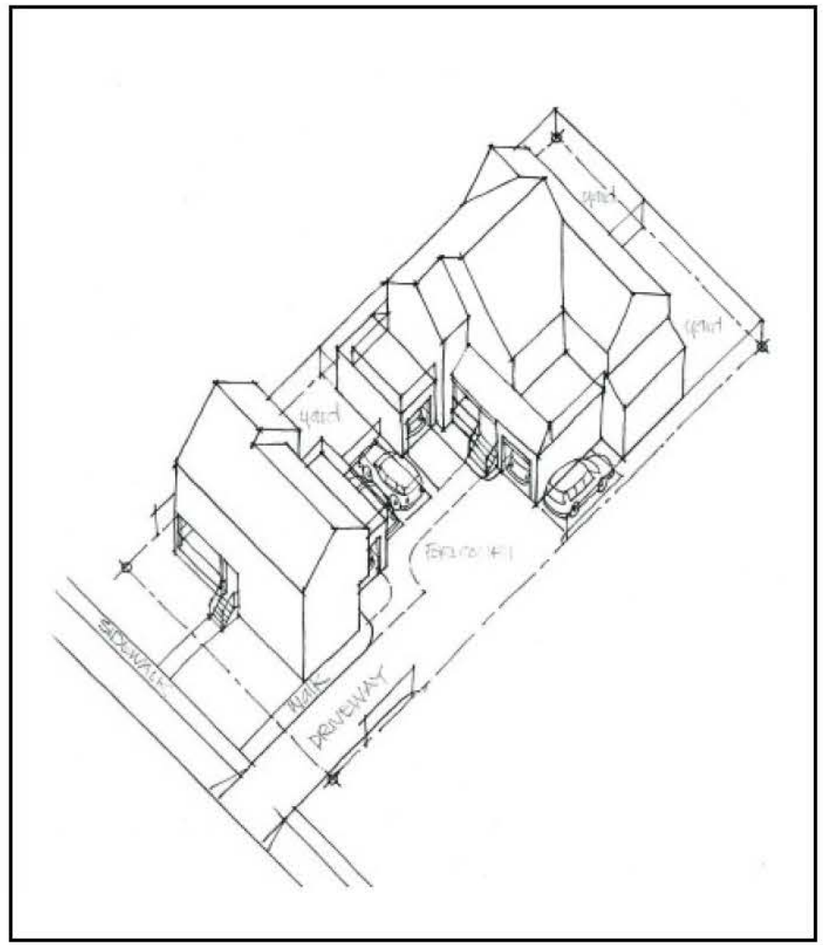




Layouts for Triplexes on 8,500 square foot lots

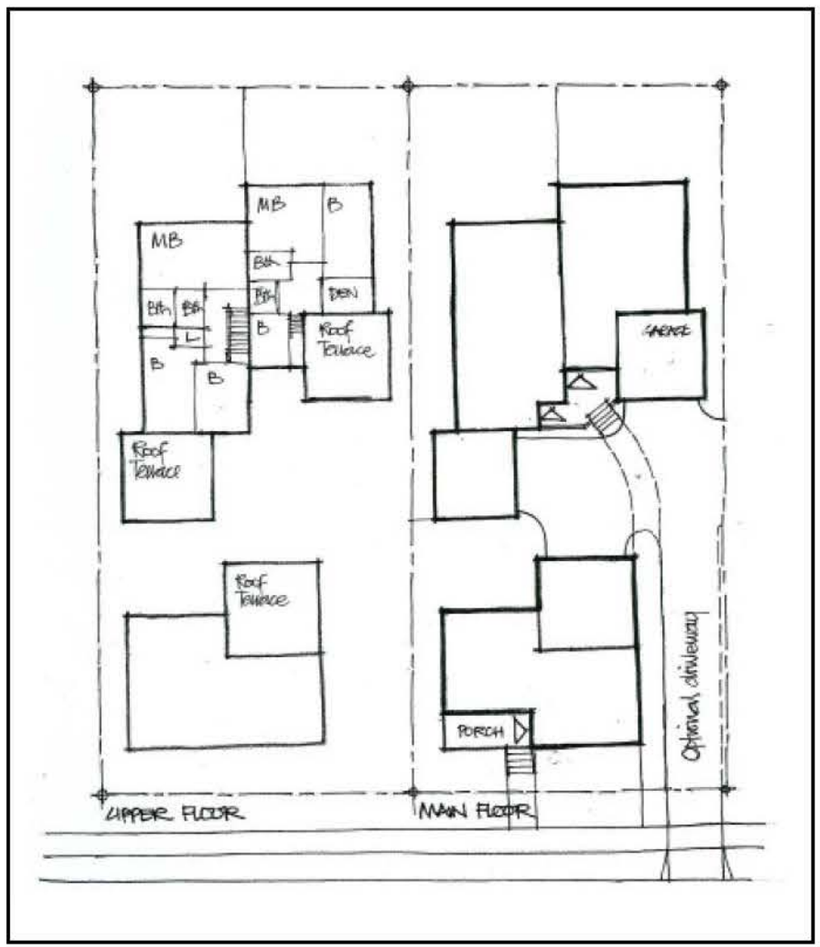
For lots between 8,000 and 12,000 square feet triplexes are permitted at a density of 0.5 floor space ratio. The first illustration shows the potential for a smaller triplex on a 8,500 square foot lot.

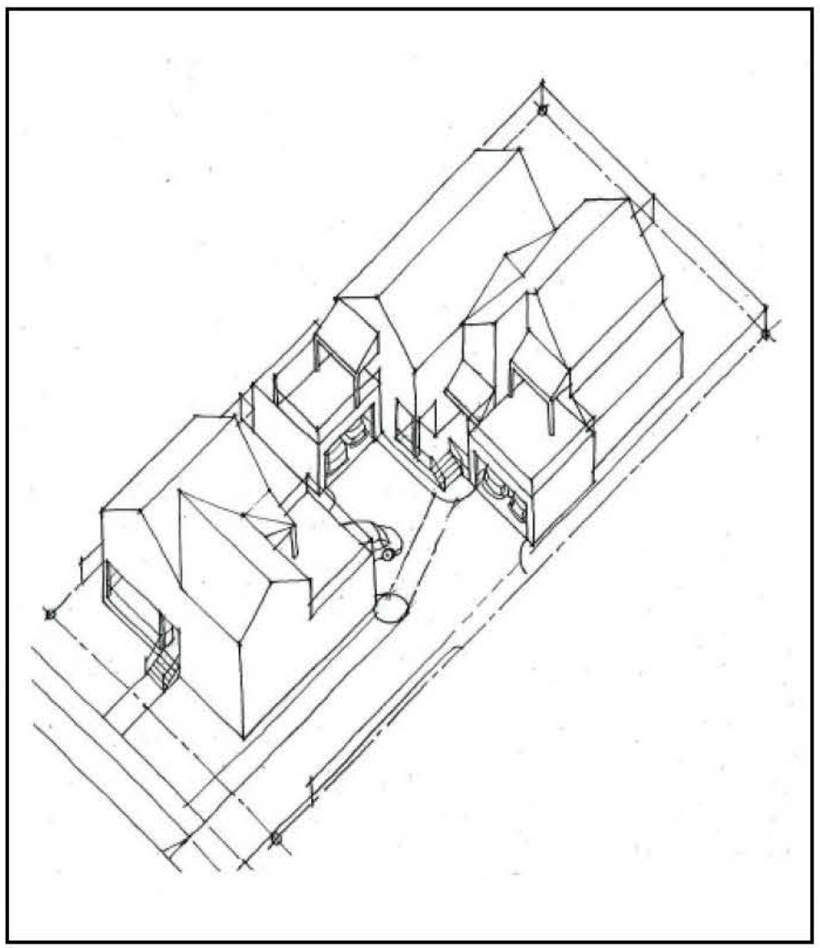


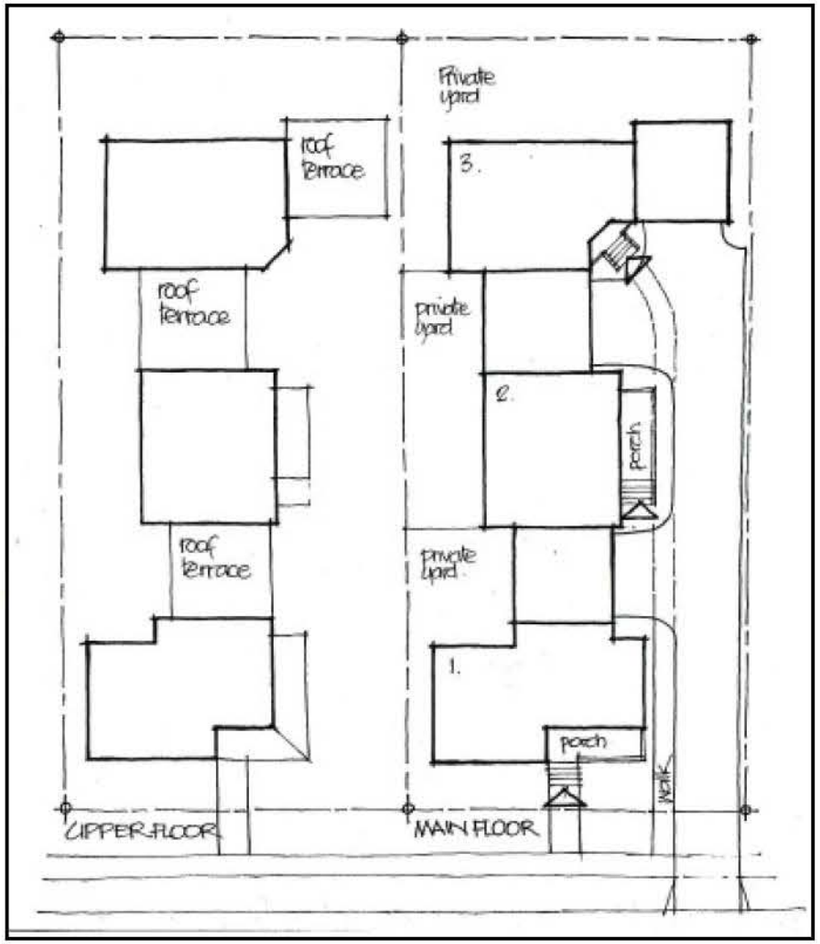


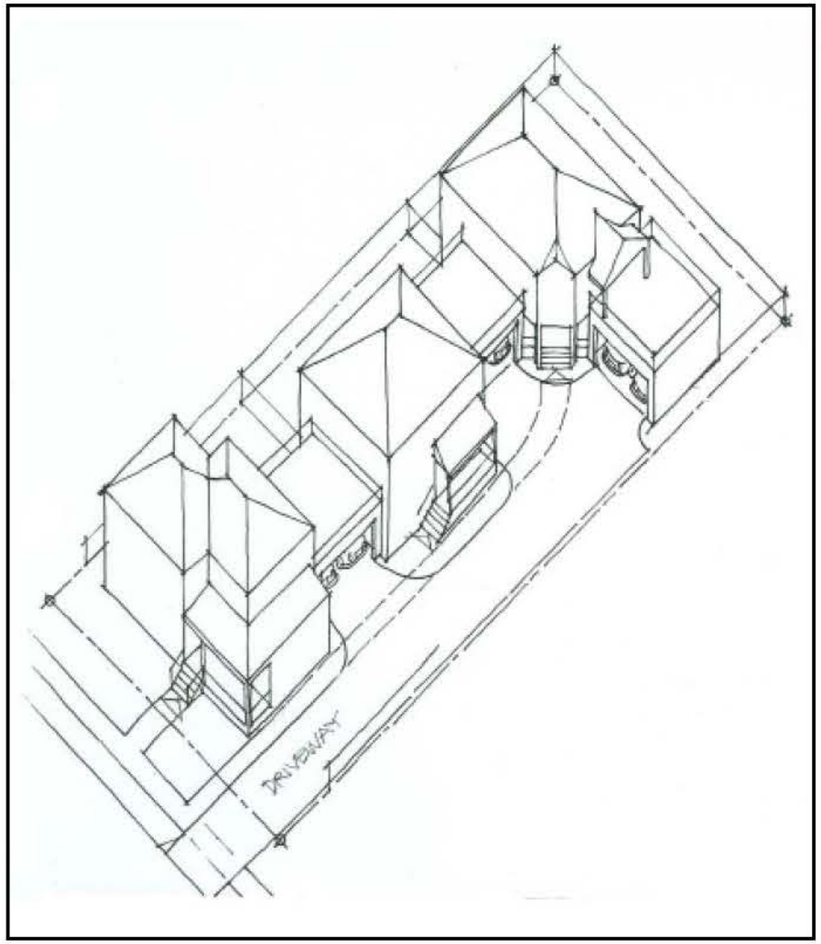
Layouts for Triplexes on 10,000 square foot Lots

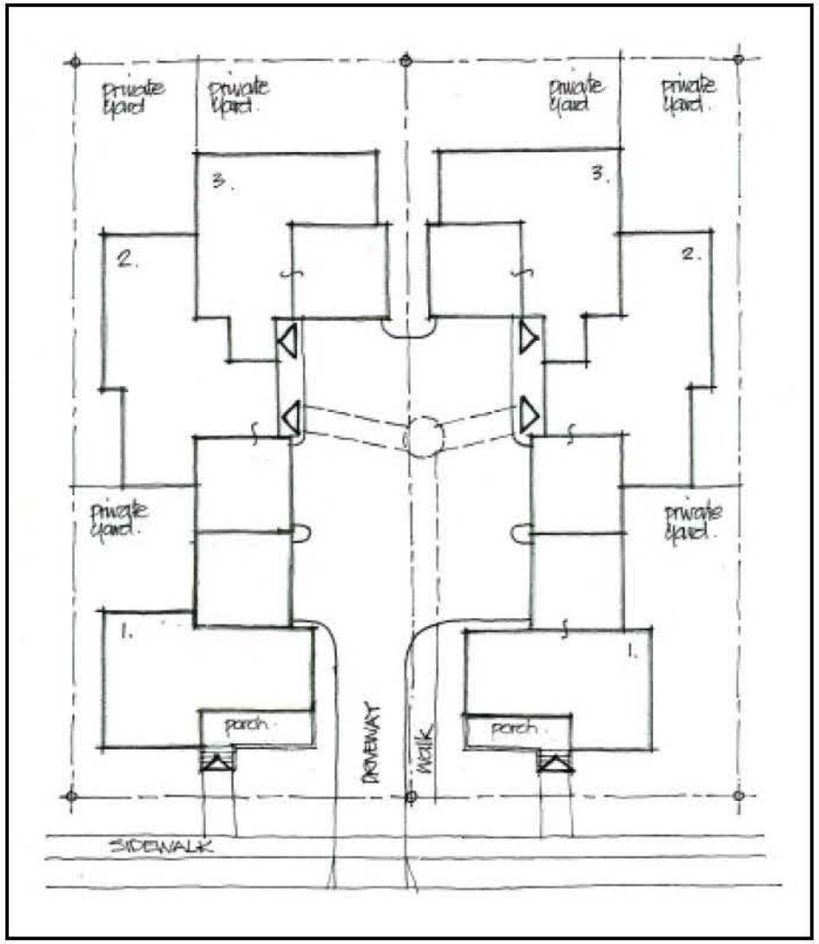
Here are four alternative designs for triplexes on 10,000 square foot lots. Each one is shown in the bird's eye view, and the site plan.

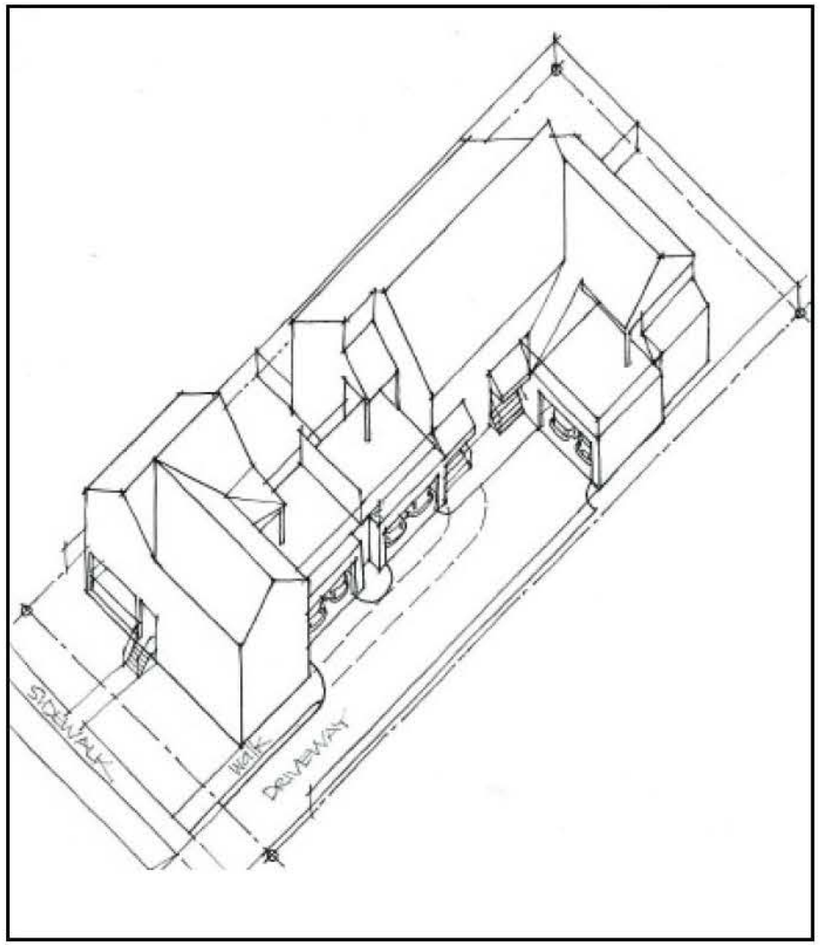


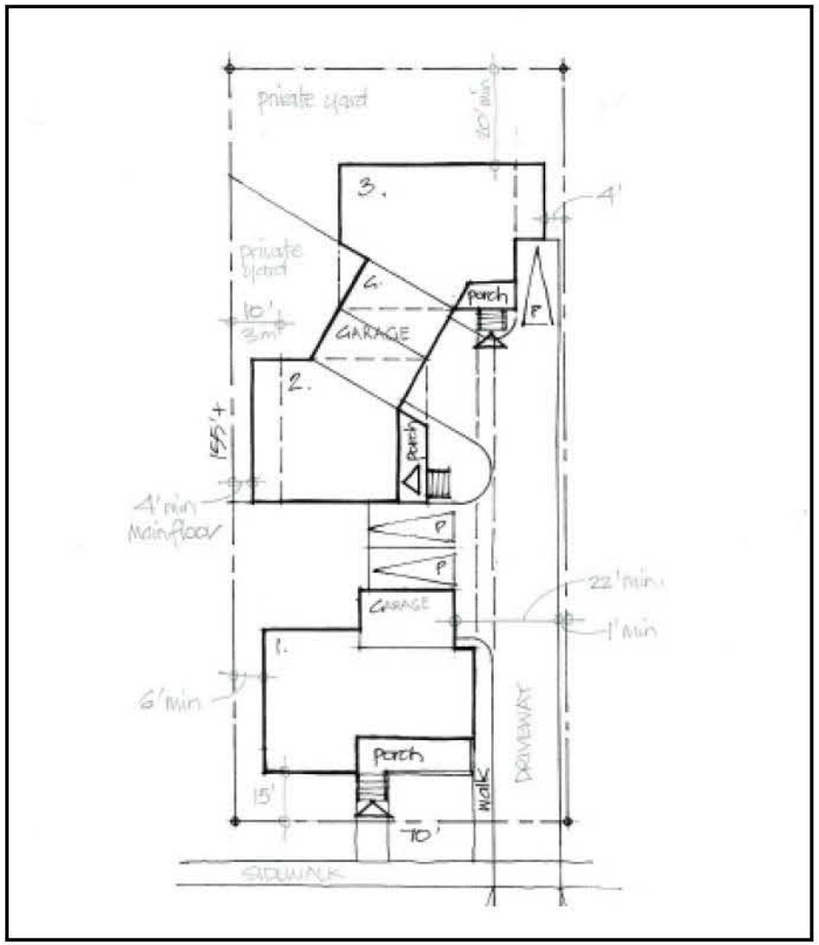


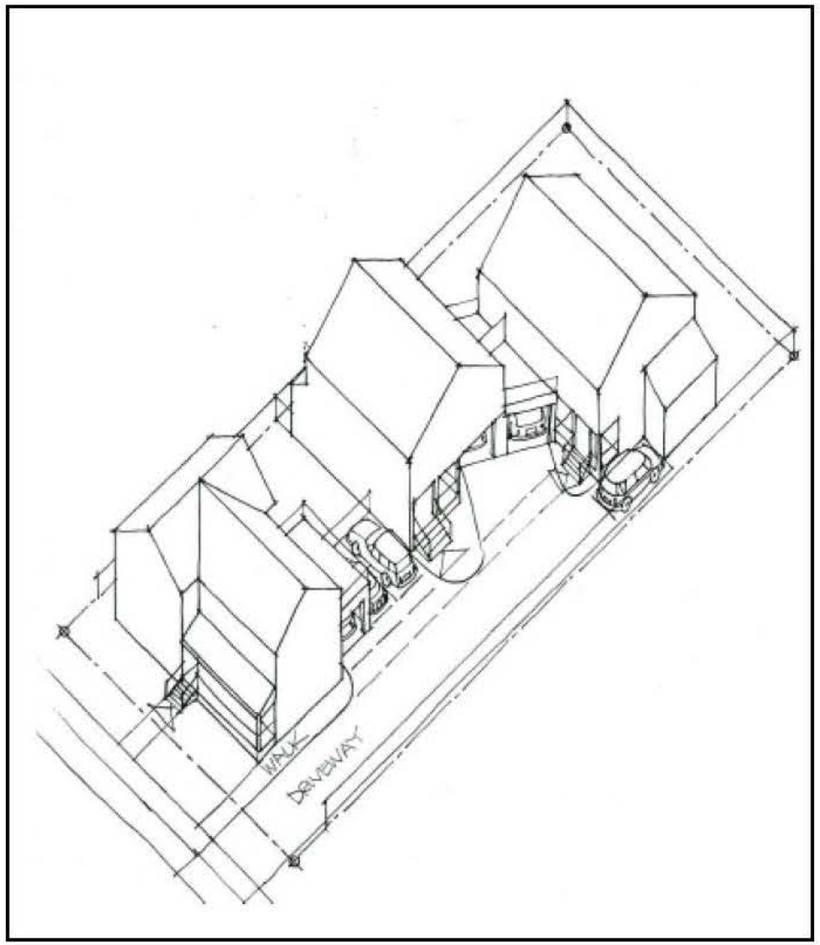

Private yard
roof terrace
roof terrace
roof terrace
3.
private yard
2.
porch
private yard
1.
porch
walk
UPPER FLOOR
MAIN FLOOR


DRIVEWAY


private yard
private yard
private yard
private yard
3.
3.
2.
2.
private yard
private yard
1.
1.
porch
porch
DRIVEWAY
walk
SIDEWALK


SIDEWALK
walk
DRIVEWAY


private yard
20' min
3.
4'
private yard
4.
Porch
P
10'
3m
GARAGE
2.
15'+
Porch
4' min
Main floor
P
P
22' min.
GARAGE
1' min
1.
6' min
DRIVEWAY
Porch
walk
15'
10'
SIDEWALK


WALK
DRIVEWAY





REZONING & DETAILED DP Update - April 26, 2017

DRAWING LIST

ARCHITECTURAL

A-0.00	COVER SHEET
A-0.01	CONTEXT MAPS/ PHOTOS
A-0.02	CONTEXT MAPS/ PHOTOS
A-0.10	PROJECT DATA, DESIGN RATIONALE & KEY PLAN
A-0.11	COLOUR ELEVATION & PERSPECTVE RENDERINGS
A-0.12	COLOUR ELEVATION & PERSPECTVE RENDERINGS
A-0.13	MATERIALS & COLOUR LEGEND
A-0.14	DIGITAL CONTEXT MODEL IMAGES
A-0.15	SHADOW STUDIES
A-0.16	FIRE ACCESS PLAN
A-1.00	SITE PLAN
A-1.11	1ST FLOOR PLAN
A-1.12	2ND FLOOR PLAN
A-1.13	3RD FLOOR PLAN
A-1.14	ROOF PLAN
A-3.11	B1-TYPE UNIT PLANS
A-3.12	B2-TYPE UNIT PLANS
A-4.00	SITE ELEVATIONS - BUILDINGS 1 & 3
A-4.10	SITE ELEVATIONS - BUILDINGS 1 & 2
A-4.20	SITE ELEVATIONS - BUILDINGS 2 & 4
A-4.30	SITE ELEVATIONS - BUILDINGS 3 & 4
A-5.01	SITE SECTIONS
A-5.02	SITE SECTIONS

LANDSCAPE

L1	SITE CONCEPT PLAN
L2	TREE REMOVEL/ RETENTION PLAN
L3	HARDSCAPE PLAN
L4	OVERALL PLANTING PLAN
L4.01	PLANTING PLAN
L4.02	PLANTING PLAN
L4.03	PLANTING PLAN
L4.04	PLANTING PLAN
L5	SECTIONS/ ELEVATIONS
L6	SECTIONS/ ELEVATIONS
L7	PERGOLA DETAILS

CIVIL

KEY	KEY PLAN
ESC	EROSION & SEDIMENT CONTROL
R-1	ROADWORKS - PREMIER ST.
R-2	ROADWORKS - ON-STE
LP-1	SIGNAGE & LINE-PAINTING
GRAD-1	GRADING - ON-SITE
SERV-1	SERVICING - OFF-SITE
SERV-2	SERVICING - ON-SITE SAN./ WATER
SERV-3	SERVICING - ON-SITE STORM
SMP	STORM-WATER MANAGEMENT
DET-1	STANDARD DETAILS
DET-2	STANDARD DETAILS
DMD	STREET-LIGHTING

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STRUCTURE DEVELOPMENT

[PROJECT]

17-Unit Townhouse Development

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NORTH VANCOUVER, BC

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COVER PAGE

13325	[PROJECT]
NTS	[SCALE]
April 26, 2017	[DATE]
5	[ISSUE]

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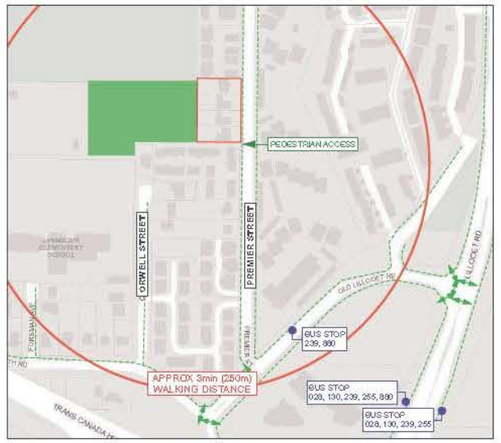
PROPOSED RESIDENTIAL DEVELOPMENT - STRUCTURE DEVELOPMENT

CONTEXT MAP
1:20,000

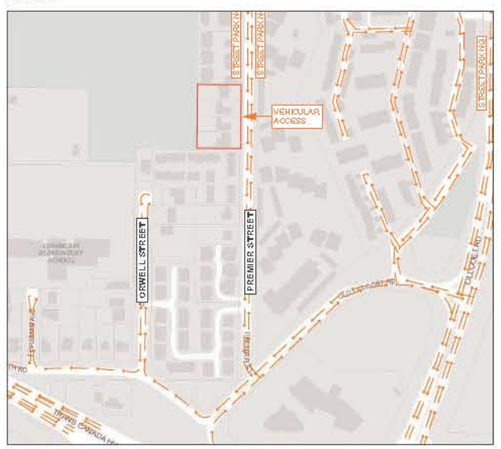
INTER RIVER PARK

SITE AERIAL PHOTO



TRANSIT, PEDESTRIAN AND BIKE ANALYSIS
1:3000

OPEN / GREEN SPACE ANALYSIS
1:3000



VEHICULAR ANALYSIS
1:3000

NATURAL SITE CONDITIONS ANALYSIS
1:3000

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1 SITE PHOTO

3 SITE PHOTO

2 SITE PHOTO

4 CONTEXT PHOTO

PHOTO REFERENCE SITE MAP
1:1000

REFERENCE ZONING MAP

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CONTEXT Photographs

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Project Name: Townhome Development
Client: Structure Development

Project No. 13325
Date: April 11, 2017

PROJECT DATA - DP APPLICATION

CIVIC ADDRESS:	905-959 Premier Street, North Vancouver, BC
LEGAL DESCRIPTION:	Lot 1 (formerly Lots A, B, C & D), District Lot 612, NWD1, Plan 15642
PROJECT OWNER:	Structure Development, 1015 East 15th Avenue Vancouver, BC V5T 2S4, 604.78.329.2274
PROJECT ARCHITECT:	Dale Staples, Integra Architecture Inc., 416 W.Pender St., Vancouver, BC, V6B 1T5, 604.688.4220

ZONING:
Proposed Zoning: CD
OCP Designation: Residential 3 - Lynnmour/Inter-River Area One - Townhouses

GROSS SITE AREA:	0.84 acres		36,658 sq.ft.	3,405.48 m2
DEDICATIONS:	0.01 acres		567 sq.ft.	52.70 m2
NET SITE AREA:	0.83 acres		36,090 sq.ft.	3,352.78 m2
(as per survey by Gary N. Holma dated Sept 11, 2014)				
DENSITY:				
Maximum	0.70 FAR	24 UPA	25,263 sq.ft.	2,347.00 m2
Proposed	0.70 FAR	20 UPA	25,437 sq.ft.	2,363.15 m2
LOT COVERAGE - BUILDINGS	39%		13,943 sq.ft.	1,295 m2
ROADS & DRIVEWAYS	28%		10,026 sq.ft.	931 m2
TOTAL OPEN SPACE	89%		32,173 sq.ft.	2,989 m2

	PROPOSED		
ZONING	CD		
DENSITY	0.70 FAR 21 UPA	2,363 m2 17 units	
BUILDING HEIGHT	36.00 ft.	10.97 m	
SETBACKS			
FRONT - EAST (Premier St)	15.00 ft.	4.57 m	
SIDE - NORTH (1st 50' from Premier St) SIDE - NORTH	8.00 ft. 10.00 ft.	2.44 m 3.05 m	
SIDE - SOUTH (1st 50' from Premier St) SIDE - SOUTH	9.67 ft. 9.70 ft.	2.95 m 2.96 m	
REAR YARD - WEST	16.83 ft.	5.13 m	
3 BED UNITS	17 units	100%	
USEABLE OPEN SPACE 45m2 per 3 bed unit	8,234 sq.ft.	765.00 m2	
COMMON ACTIVITY AREA 5m2 per unit	915 sq.ft.	85.00 m2	
PARKING 2 per dwelling unit (including visitors) Visitor parking not required as per Lynnmour/Inter-River Guidelines Disabled parking (where less than 22 spaces are provided) SMALL CARS	2 per unit 35%	34 spaces 1 spaces 0 spaces 12 spaces	

Townhouse Unit Summary

Unit Type	Number of Units	Garage Exclusion (sq.ft.)	Storage Exclusion (sq.ft.)	1st Floor (sq.ft.)	2nd Floor (sq.ft.)	3rd Floor (sq.ft.)	Total Area/Unit (sq.ft.)	Total Area (sq.ft.)	Total Area (m2)	Total Area Excluding Garage & Storage (sq.ft.)	Total Area Excluding Garage & Storage (m2)
B1 (3 Bed+2.5 Bath)	9	512.17	98.33	177.08	635.89	662.33	2,085.80	18,772.20	1,743.98	13,277.70	1,233.53
B2 (3 Bed+2.5 Bath)	8	506.84	97.71	177.61	659.85	682.45	2,124.46	16,995.68	1,578.94	12,159.28	1,129.62
Total	17							35,767.88	3,322.92	25,436.98	2,363.15

PARKING DIMENSIONS	ft.	m
REGULAR CARS		
Width	8.86	2.70
Length	18.70	5.70
Height	6.89	2.10
SMALL CARS (max 35%)		
Width	8.53	2.60
Length	16.08	4.90
Height	6.89	2.10
DISABLED PARKING	12.14	3.70
PARKING STALL ENTRANCE	9.02	2.75
ADDITIONAL WIDTH AT WALLS	0.98	0.30

ADP MEETING - January 23, 2016

DESIGN RATIONALE

RE: Design Rationale for Premier St, North Vancouver (Lynnmour / Inter-River Area)

The Lynnmour / Inter-River Local Plan is intended to guide, enhance and protect the community's physical and social growth and development for approximately the next ten years. The plan recommends the area in which this site sits, be redeveloped to provide low density ground orientated multiple units.

The development proposes a three-story town house design, orientated parallel to Premier Street, adjacent to the Inter-River Park. The development aims to provide a standard of design and amenity comparable to the adjacent development at 897 Premier St.

The project provides an internal street for access to garages and a landscaped green-space between the four buildings. Two buildings will front onto Premier street and the remaining other two buildings will front onto the adjacent Inter River park via a landscaped walkway. The driveway provides a visual link from Premier street to the park behind the development whilst encouraging the public to use the existing physical link to the south of the site.

Measurable sustainability targets will be developed and assessed for the project. Features such as storm-water retention are to be finalized in the detail design phase to confirm practical implementation of these objectives. The project is intended to contribute to the Lynnmour area, according to the District of North Vancouver's guidelines, by creating a more sustainable and livable community, in a practical and cost efficient manner.

In addition to the physical built-form of the site, the development will also provide a financial contribution to an off-site art installation project - intended to aid in the social growth of the Lynnmour/ Inter-River Area.

KEY SITE PLAN

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STRUCTURE DEVELOPMENT

[PROJECT]
17-Unit Townhouse Development
905 - 959 PREMIER STREET
NORTH VANCOUVER, BC

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Project Data

13325	[PROJECT]
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PREMIER STREET EAST ELEVATION (BUILDINGS 1 & 3)

899 PREMIER STREET (DEVELOPMENT TO SOUTH) PATHWAY TO PARK

VIGNETTE ELEVATION

PREMIER STREET ENTRY PERSPECTIVE (BLDGS. 1 &3)

TYPICAL ELEVATION (UNIT #1/ #2 EAST STREET ELEVATION - BUILDING 4)

INTERNAL COURTYARD PERSPECTIVE (BUILDING 4)

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[PROJECT] 17-Unit Townhouse Development
905 - 899 PREMIER STREET
NORTH VANCOUVER, BC

[TITLE] Coloured Elevations & Perspectives

13325	[PROJECT]
NTS	[SCALE]
April 26, 2017	[DATE]
5	[ISSUE]
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INTERNAL (WEST) ELEVATION (BUILDINGS 1 & 3)

PUBLIC PATH (SOUTH) ELEVATION (BUILDINGS 1 & 2)

INTER RIVER PARK PERSPECTIVE FROM S.W. CORNER

INTER RIVER PARK (WEST) ELEVATION (BUILDINGS 2 & 4)

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13325	[PROJECT]
NTS	[SCALE]
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5	[ISSUE]

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A-0.12

L - WOOD COLUMNS
Stained or Painted - Fir

M - COLUMN BASE
ARCHITECTURAL CONCRETE

Wood columns at Entry

Entry door w/ frosted glass

HardiePlank Lap-Siding @ Siding Change and @ Window Sill

JAMES HARDIE
HARDIE PANEL - ARCTIC WHITE

LAP SIDING
JAMES HARDIE - EVENING BLUE

ROYAL BUILDING PRODUCTS
IRONSTONE

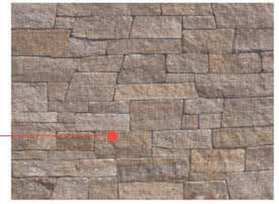
Material and System Interfaces at Windows and Siding Material Changes

MATERIAL AND COLOUR LEGEND

	Project Reference Colour	Manufacturer (to match)	Manufacturer's Product (to match)	Manufacturer's Product Finish (to match)	Element(s)/ Location
A	Grey/ Brown	Malarkey Roofing Products	Windsor XL	Colour: Storm Grey	Asphalt Shingled Roofing @ Sloped Roofs
B	Blue	James Hardie	HardiPlank Lap siding 5 1/2" Exposure	Colour: Evening Blue Texture: Select Cedarmill	Exterior Walls
G	White	James Hardie and EasyTrim Reveals Inc.	HardiPanel Siding and Fiber Cement Trim System	Colour: James Hardie "Arctic White" Texture: James Hardie "Smooth"	Select Exterior Wall Panel and Reveal System. Tower Entry Masses, Garages, Bay Windows, etc. c/w matching EasyTrim Reveal's Fiber Cement Trim System
D	Dark Brown/ Black	James Hardie and Benjamin Moore & Co. Ltd.	HardiTrim	Colour: Benjamin Moore Black (2132 10) Texture: James Hardie "Rustic Grain"	Horizontal/ Sloped Trim Boards at Balconies, Decks and Roof Fascias
F	Stained Cedar	Allura USA	Cedar Ventilated Soffit	Colour: Cedar Texture: Cedar	Roof, Deck and Balcony Soffits/ Eaves
G	White	Starline Windows	Nail/ Screw on Vinyl Windows	Colour: Standard White	Vinyl windows and sliding doors w/matching flashing and trim

MATERIAL AND COLOUR LEGEND

	Project Reference Colour	Manufacturer (to match)	Manufacturer's Product (to match)	Manufacturer's Product Finish (to match)	Element(s)/ Location
H	Dark Brown/ Black	Makin Metals Inc.	SMP SD RP Silicone Modified Polyester Super Durable Poly.	Colour: Dark Brown (SR 12)	Pre finished/ fabricated aluminum railing w/ clear safety glass @ balconies. Pre finished aluminum frame w/ obscured safety glass @ privacy screens
J	Dark Brown/ Black	Makin Metals Inc.	SMP SD RP Silicone Modified Polyester Super Durable Poly.	Colour: Dark Brown (SR 12)	Flashings at Balcony and Roof edges and roof gutters/ downspouts
K	Stone Grey/ Brown	Cultured Stone	Country Ledgestone Manufactured Stone Veneer	Colour/ Finish: Echo Ridge	Select locations entry accents at column bases for corner units and entry gates
L	Stained Cedar	Sikkens Stain	Cetol SRD	Colour: 605 Natural Oak	Solid timber (Fir) at main entry columns / posts / beams
M	Grey	Bumco/ Benjamin Moore & Co. Ltd.		Colour: Natural Grey (Iced Cube Silver 2121 50) Texture: Smooth	Architectural, pre cast and cast in place exposed concrete elements exterior walls, retaining walls, landscape planters, etc.
N	White	Amarr	Stratford Series	Colour: True White Design: Flush Panel	Metal Overhead Doors



K - STONE VENEER
CULTURED STONE AT SELECT LOCATIONS - ACCENT WALLS

H - METAL & GLASS GUARD & RAILING
DARK BROWN/ BLACK

J - METAL DRIP FLASHING
DARK BROWN/ BLACK

D - FASCIA
WOOD/ FIBER-CEMENT TRIM

F - SOFFIT
WOOD/ FIBER-CEMENT PERFORATED SOFFIT

A - SLOPED ROOF
LAMINATED ASPHELT SHINGLES - STORM GREY

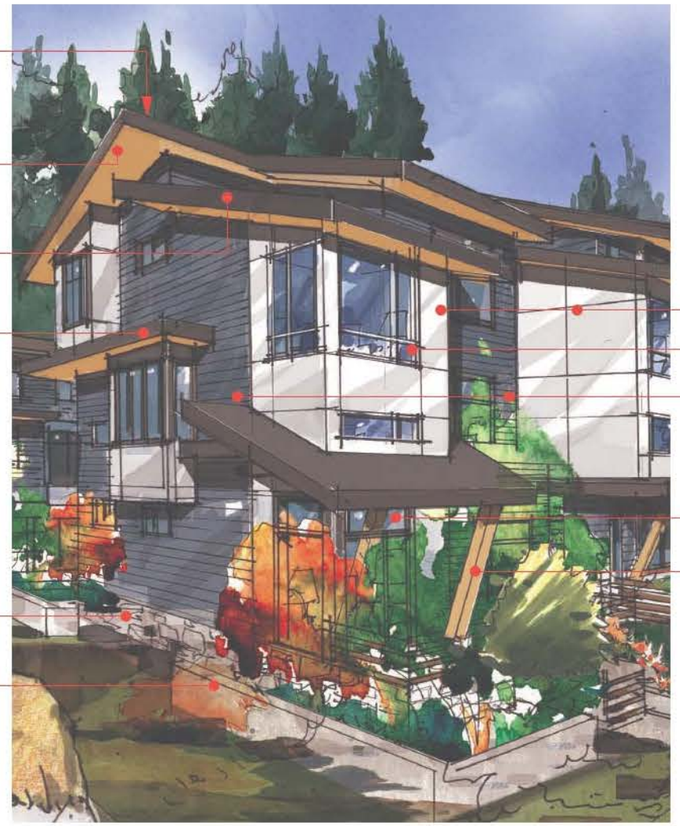
F - SOFFIT
WOOD/ FIBER-CEMENT PERFORATED SOFFIT

D - FASCIA
WOOD/ FIBER-CEMENT TRIM

D- FASCIA & TRIM BOARDS
DARK GREY/BROWN

K - STONE VENEER
CULTURED STONE AT SELECT LOCATIONS - ACCENT WALLS

M - LANDSCAPE WALLS
ARCHITECTURAL CONCRETE SINAGE WITH RECESSED LIGHT FIXTURES



C - HARDIE PANEL
ARCTIC WHITE

G - VINYL WINDOWS
WHITE

B - HARDIEPLANK SIDING
EXTERIOR WALLS - Evening Blue

FRONT DOOR
PRE-FINISHED WOOD DOOR W/ SIDELIGHT + TRANSOM WINDOWS

L - WOOD COLUMNS
Stained or Painted - Fir

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Context Model of South-East Site - Looking NW

Context Model of North-East Site - Looking SW

South-East Site Street-Level View - Looking NW

North-East Site Street-Level View - Looking WSW

Central Entry Street-Level View - Looking NW

South-West Site Street-Level View - Looking East

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Digital Context Model Images

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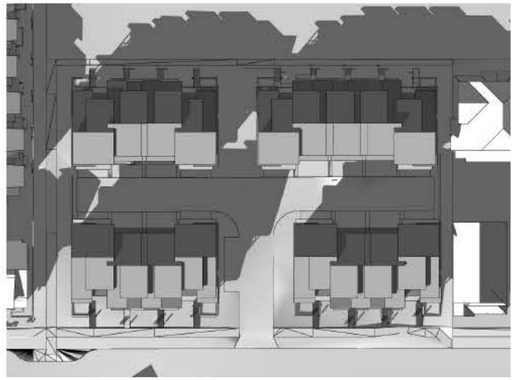
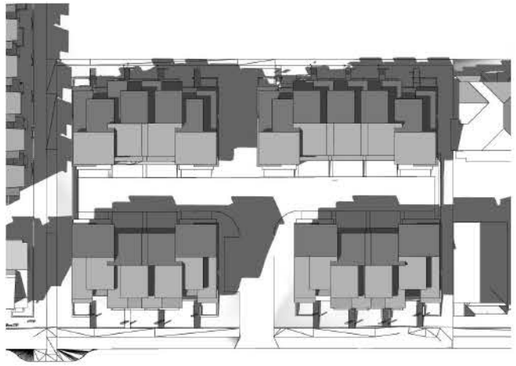
5	[ISSUE]

[DRAWING]

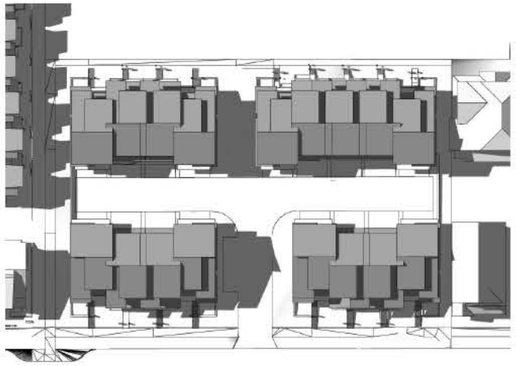
A-0.14



March 21st - 10am



March 21st - Noon



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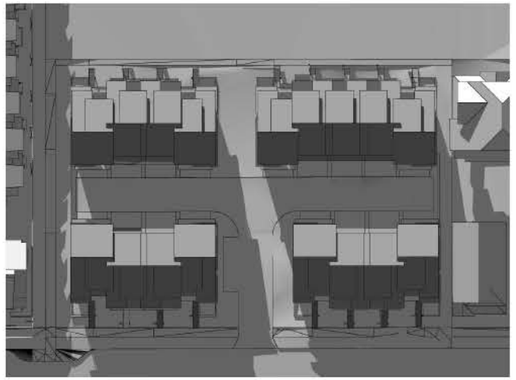
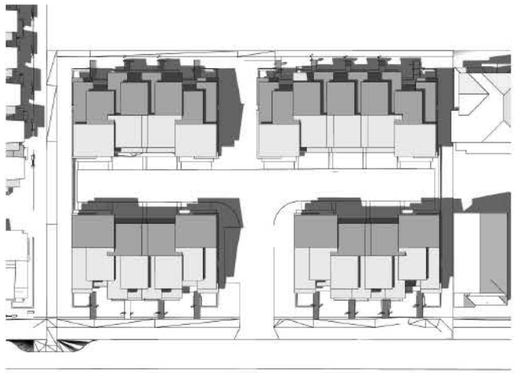


March 21st - 6pm

June 21st - 10am



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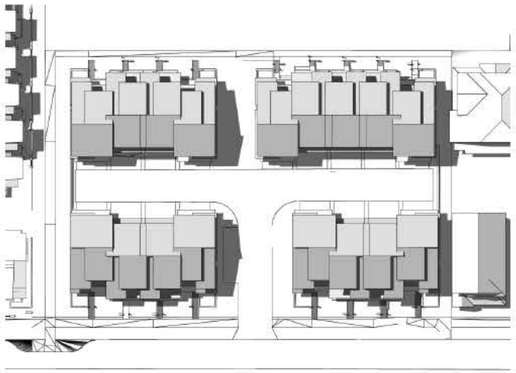
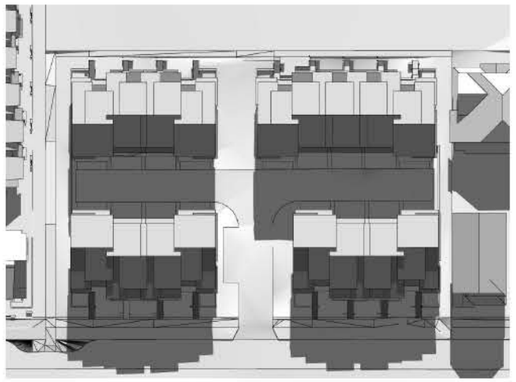


June 21st - 2pm



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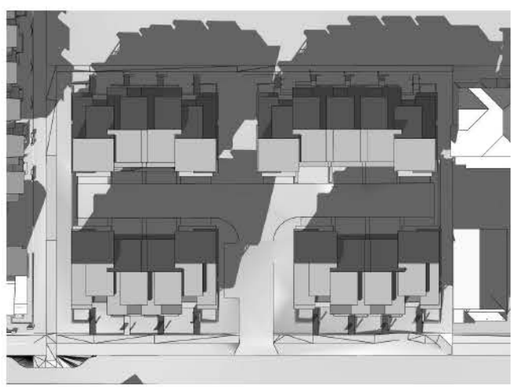
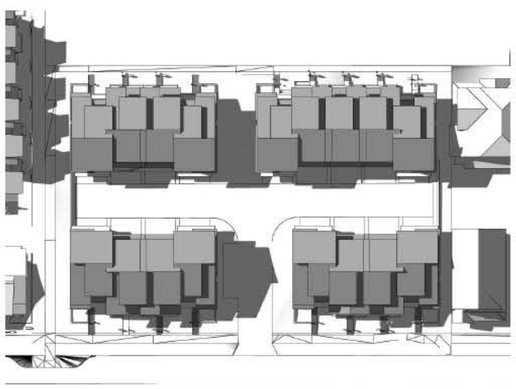


September 21st - 10am

September 21st - Noon



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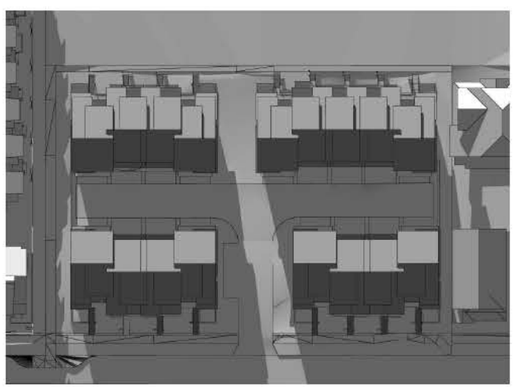

September 21st - 6pm

INTEGRA ARCHITECTURE INC.

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[CLIENT]

STRUCTURE DEVELOPMENT

[PROJECT]

17-Unit Townhouse Development

905 - 929 PREMIER STREET
NORTH VANCOUVER, BC

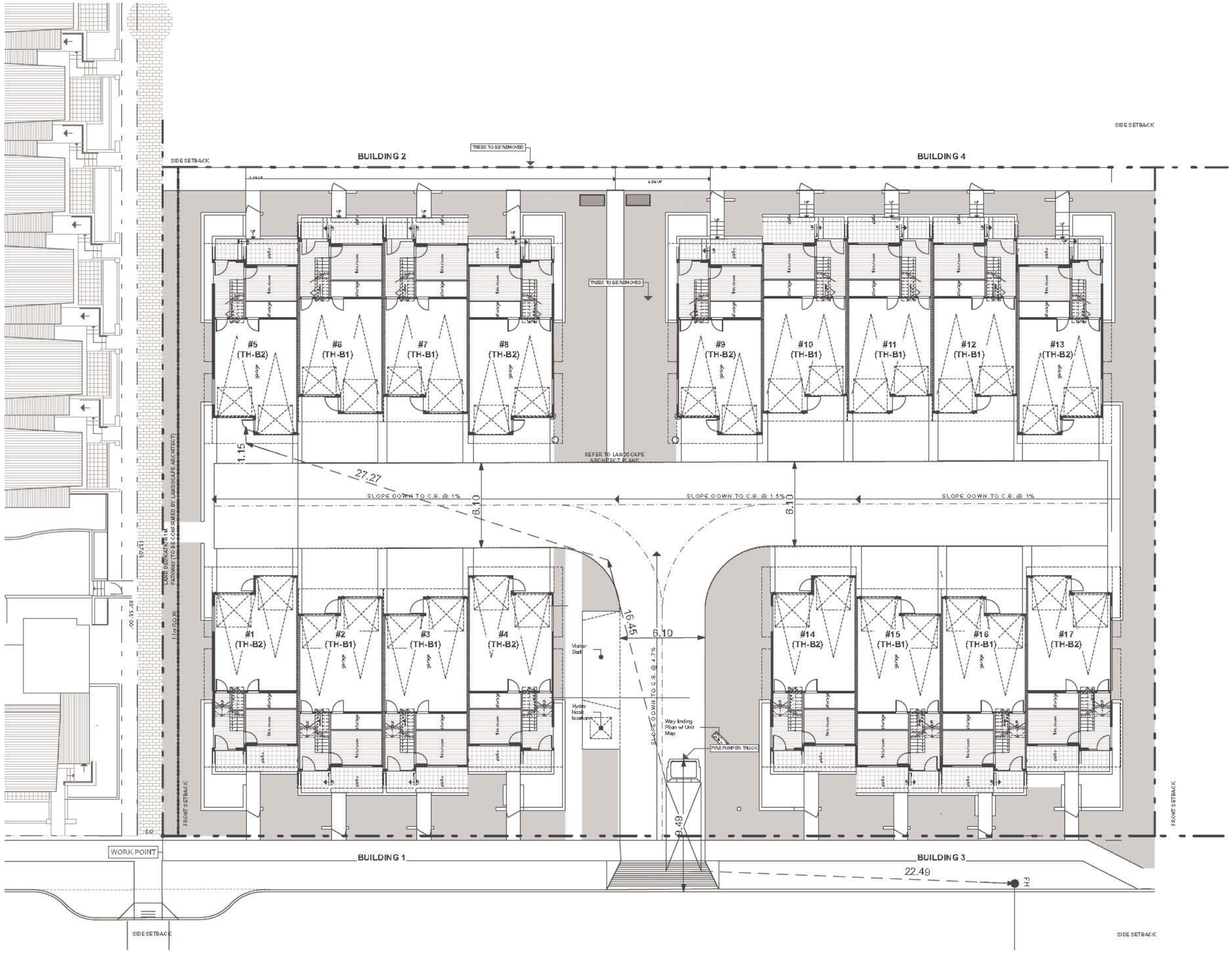
[TITLE]

Shadow Studies

13325	[PROJECT]
1:100	[SCALE]
April 26, 2017	[DATE]
5	[ISSUE]

[DRAWING]

A-0.15



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STRUCTURE DEVELOPMENT

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17-Unit Townhouse Development

905 - 959 PREMIER STREET
NORTH VANCOUVER, BC

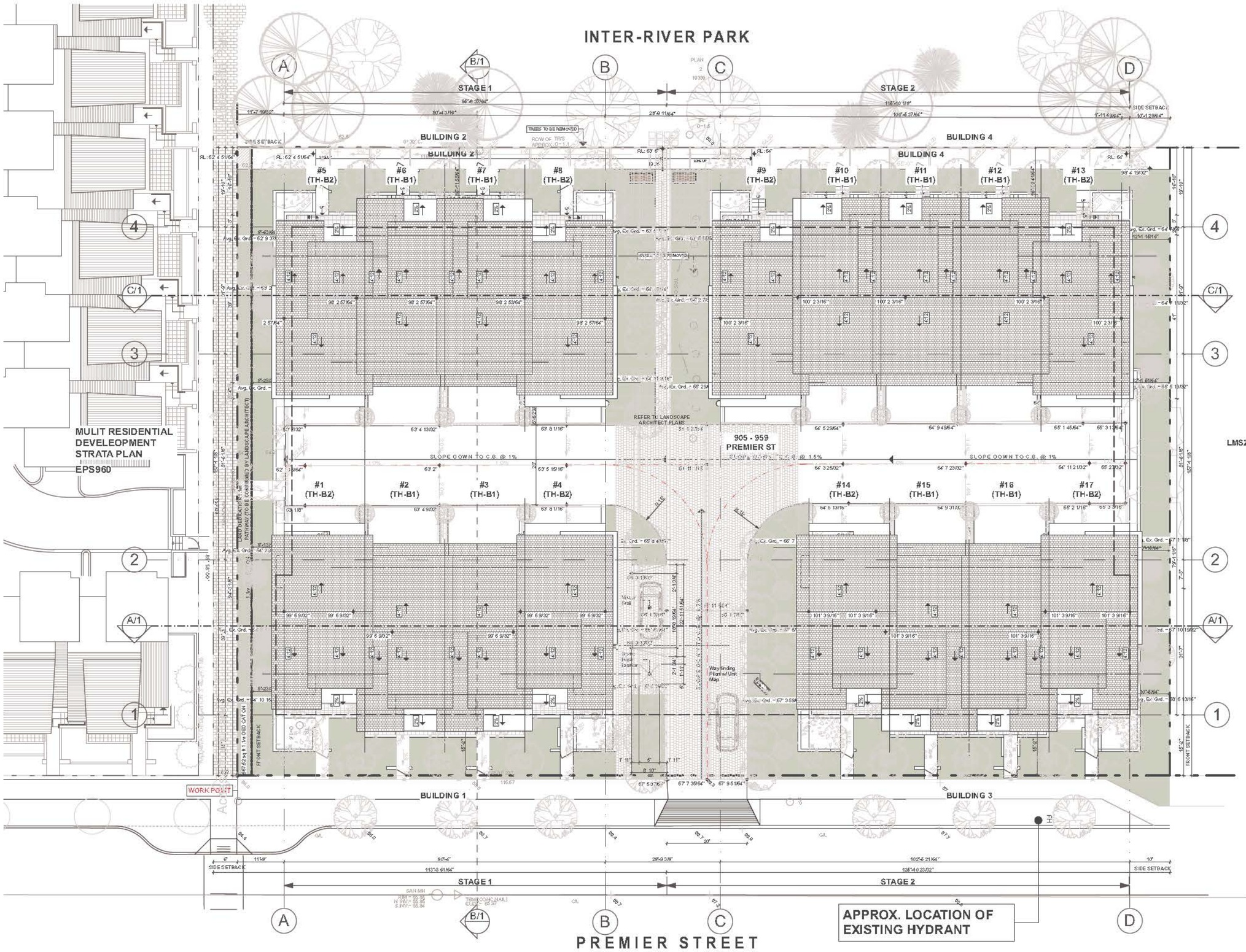
[TITLE]

Fire Access Plan

13325	[PROJECT]
3/32" = 1'-0"	[SCALE]
April 26, 2017	[DATE]
5	[ISSUE]

[DRAWING]

A-0.16



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[PROJECT]

17-Unit Townhouse Development

905 - 959 PREMIER STREET
NORTH VANCOUVER, BC

[TITLE]

Site Plan

13325	[PROJECT]
3/32" = 1'-0"	[SCALE]
April 26, 2017	[DATE]
5	[ISSUE]

[DRAWING]

A-1.00

INTER-RIVER PARK

STAGE 1

STAGE 2

BUILDING 2

BUILDING 4

BUILDING 1

BUILDING 3

#1 (TH-B2)
#2 (TH-B1)
#3 (TH-B1)
#4 (TH-B2)
#5 (TH-B2)
#6 (TH-B1)
#7 (TH-B1)
#8 (TH-B2)
#9 (TH-B2)
#10 (TH-B1)
#11 (TH-B1)
#12 (TH-B1)
#13 (TH-B2)
#14 (TH-B2)
#15 (TH-B1)
#16 (TH-B1)
#17 (TH-B2)

905 - 959 PREMIER ST

REFER TO LANDSCAPE ARCHITECT PLANS

SLOPE DOWN TO C.O.B. @ 1%

SLOPE DOWN TO C.O.B. @ 1.5%

SLOPE DOWN TO C.O.B. @ 1%

WORK POINT

SIDE SETBACK

FRONT SETBACK

APPROX. LOCATION OF EXISTING HYDRANT

PREMIER STREET

MULIT RESIDENTIAL DEVELEOPMENT STRATA PLAN EPS960

LMS2808

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STRUCTURE DEVELOPMENT

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17-Unit Townhouse Development

905 - 959 PREMIER STREET
NORTH VANCOUVER, BC

[TITLE]

1st STOREY

13325	[PROJECT]
3/32" = 1'-0"	[SCALE]
April 26, 2017	[DATE]
5	[ISSUE]

[DRAWING]

A-1.11

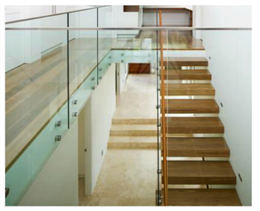
L - WOOD COLUMNS
Stained or Painted - Fir

M - COLUMN BASE
ARCHITECTURAL CONCRETE

Wood columns at Entry

Entry door w/ frosted glass

HardiePlank Lap-Siding @ Siding Change and @ Window Sill



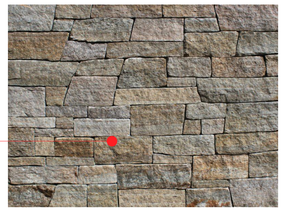
Material and System Interfaces at Windows and Siding Material Changes

MATERIAL AND COLOUR LEGEND

	Project Reference Colour	Manufacturer (to match)	Manufacturer's Product (to match)	Manufacturer's Product Finish (to match)	Element(s)/ Location
A	Grey/ Brown	*Malarkey Roofing Products*	*Windsor XL*	Colour: *Storm Grey*	Asphalt Shingled Roofing @ Sloped Roofs
B	Blue	*James Hardie*	*HardiPlank* Lap-siding - 5-1/2" Exposure	Colour: *Evening Blue* Texture: *Select Cedarmill*	Exterior Walls
C	White	*James Hardie and EasyTrim Reveals Inc.*	*HardiPanel Siding and Fiber Cement Trim System*	Colour: *James Hardie "Arctic White"* Texture: *James Hardie "Smooth"*	Select Exterior WallPanel and Reveal System - Tower Entry Masses, Garages, Bay Windows, etc. c/w matching *EasyTrim Reveal's Fiber Cement Trim System*
D	Dark Brown/ Black	*James Hardie and Benjamin Moore & Co. Ltd.*	*HardiTrim*	Colour: *Benjamin Moore Black (2132-10)* Texture: *James Hardie "Rustic Grain"*	Horizontal/ Sloped Trim Boards at Balconies, Decks and Roof Fascias
F	Stained Cedar	*Allura USA*	*Cedar Ventilated Soffit*	Colour: *Cedar* Texture: *Cedar*	Roof, Deck and Balcony Soffits/ Eaves
G	White	*Starline Windows*	Nail/ Screw-on Vinyl Windows	Colour: *Standard White*	Vinyl windows and sliding doors w/matching flashing and trim

MATERIAL AND COLOUR LEGEND

	Project Reference Colour	Manufacturer (to match)	Manufacturer's Product (to match)	Manufacturer's Product Finish (to match)	Element(s)/ Location
H	Dark Brown/ Black	*Makin Metals Inc.*	*SMP-SD-RP Silicone Modified Polyester - Super Durable Poly.*	Colour: *Dark Brown (SRI 12)*	Pre-finished/ fabricated aluminum railing w/ clear safety glass @ balconies, Pre-finished aluminum frame w/ obscured safety glass @ privacy screens
J	Dark Brown/ Black	*Makin Metals Inc.*	*SMP-SD-RP Silicone Modified Polyester - Super Durable Poly.*	Colour: *Dark Brown (SRI 12)*	Flashings at Balcony and Roof edges and roof gutters/ downspouts
K	Stone - Grey/ Brown	*Cultured Stone*	*Country Ledgestone* Manufactured Stone Veneer	Colour/ Finish: *Echo Ridge*	Select locations - entry accents at column bases for corner units and entry gates
L	Stained Cedar	*Sikkens* Stain	*Cetol SRD*	Colour: *005 Natural Oak*	Solid timber (Fir) at main entry - columns / posts / beams
M	Grey	*Burnco/ Benjamin Moore & Co. Ltd.*		Colour: Natural Grey *(Iced Cube Silver - 2121-50)* Texture: Smooth	Architectural, pre-cast and cast In-place exposed concrete elements - exterior walls, retaining walls, landscape planters, etc.
N	White	*Amarr*	*Stratford* Series	Colour: *True White* Design: *Flush Panel*	Metal Overhead Doors



K - STONE VENEER
CULTURED STONE AT SELECT LOCATIONS - ACCENT WALLS

H - METAL & GLASS GUARD & RAILING
DARK BROWN/ BLACK

J - METAL DRIP FLASHING
DARK BROWN/ BLACK

D - FASCIA
WOOD/ FIBER-CEMENT TRIM

F - SOFFIT
WOOD/ FIBER-CEMENT PERFORATED SOFFIT

A - SLOPED ROOF
LAMINATED ASPHELT SHINGLES - STORM GREY

F - SOFFIT
WOOD/ FIBER-CEMENT PERFORATED SOFFIT

D - FASCIA
WOOD/ FIBER-CEMENT TRIM

D- FASCIA & TRIM BOARDS
DARK GREY/BROWN

K - STONE VENEER
CULTURED STONE AT SELECT LOCATIONS - ACCENT WALLS

M - LANDSCAPE WALLS
ARCHITECTURAL CONCRETE SINAGE WITH RECESSED LIGHT FIXTURES

C - HARDIE PANEL
ARCTIC WHITE

G - VINYL WINDOWS
WHITE

B - HARDIEPLANK SIDING
EXTERIOR WALLS - Evening Blue

FRONT DOOR
PRE-FINISHED WOOD DOOR W/ SIDELIGHT + TRANSOM WINDOWS

L - WOOD COLUMNS
Stained or Painted - Fir

JAMES HARDIE
HARDIE PANEL - ARCTIC WHITE

LAP SIDING
JAMES HARDIE - EVENING BLUE

ROYAL BUILDING PRODUCTS
IRONSTONE

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STRUCTURE DEVELOPMENT

[PROJECT]

17-Unit Townhouse Development

905 - 959 PREMIER STREET
NORTH VANCOUVER, BC

[TITLE]

Materials Legend/ Images

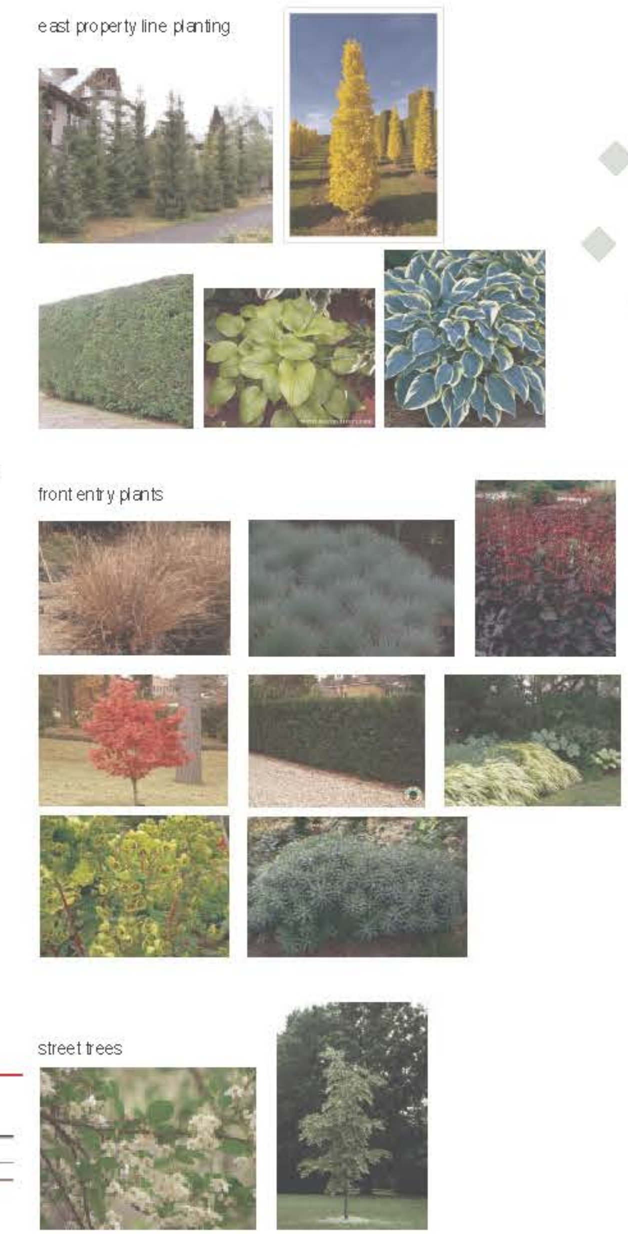
13325	[PROJECT]
NTS	[SCALE]
April 26, 2017	[DATE]
5	[ISSUE]

[DRAWING]

A-0.13

native planting
courtyard planting
central gateway opening (typ.) - self-closing or self-latching
raised timber planter
18" x 18" concrete pavers (typ.)
4' ht. wood fence along west PL (typ.)
proposed grading to be elevated where required to maintain a maximum drop of < 600mm
Access to Park
bollard light along pathway
concrete banding
arbour
asphalt
concrete pavers
concrete walkway connection to public path
PMT - see Mechanical for details
way-finding pilon w/ unit map - see Arch for details
cip concrete curb (typ.)
Access from Park
cip concrete upstand wall (typ.)
entry gate w/ address sign (typ.)
street trees (typ.) - final location & species selection will be to the satisfaction of DNV
18" x 18" concrete pavers (typ.)
concrete sidewalk - DNV standard
turf
proposed location for fire hydrant - see civil
EX. 200 WM

CONTEXT MAP N.T.S.



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fax 604-986-7320

1. issued for DP - July 3, 2016
2. issued as per DNV request - Jan 12, 2017
3. issued for ADP - Jan 20, 2017
4. revised as per DNV comments - Apr 28, 2017

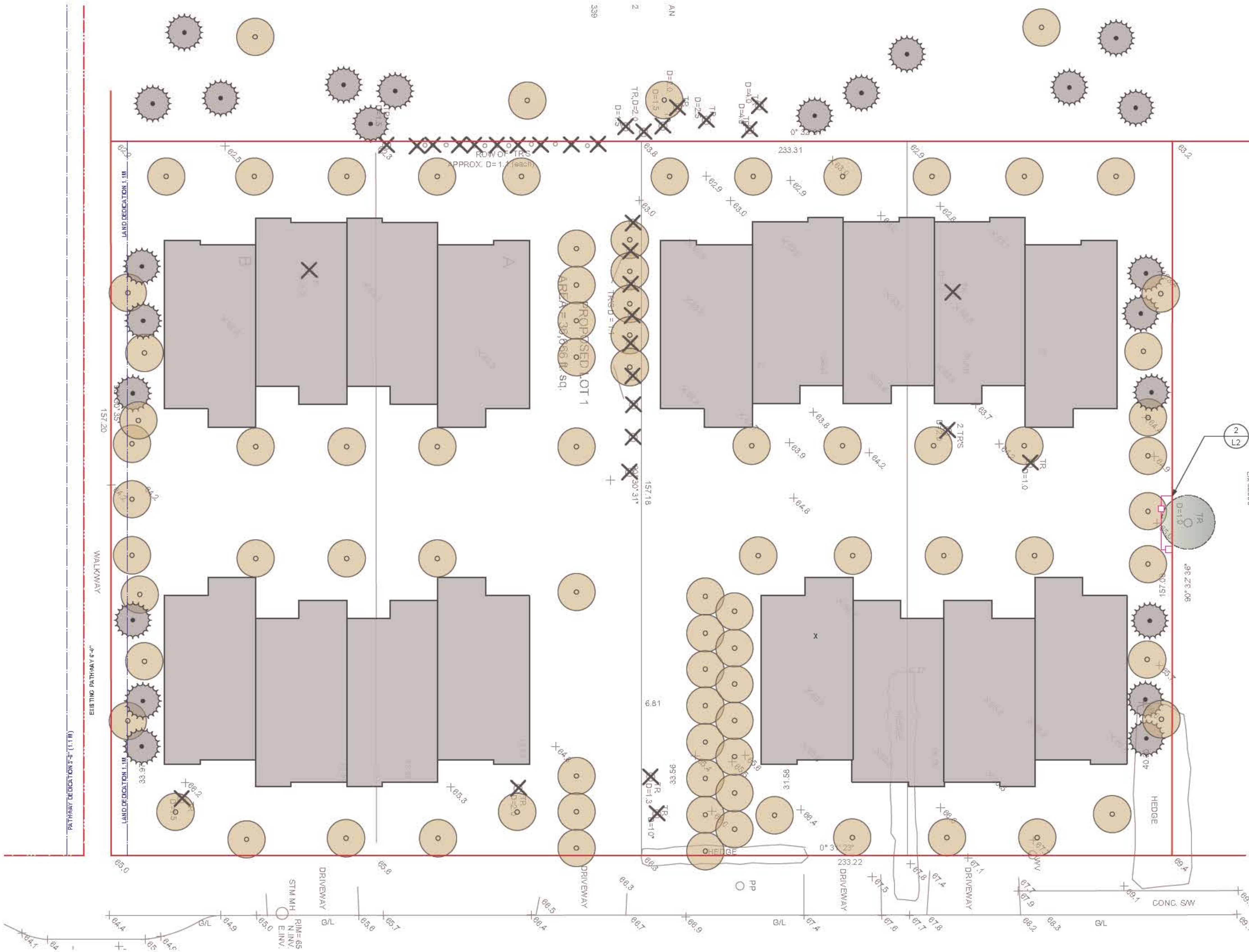
905-959 Premier Street
North Vancouver, BC

Layout / Conceptual Planting Plan

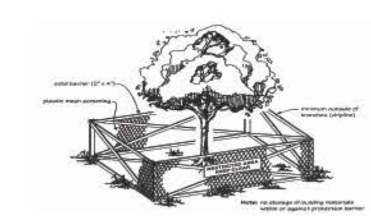
3/32"=1'-0"

14.013

L1 of 7



1 Tree Removal/Retention Plan
Scale: 3/32" = 1'-0"



Trunk Diameter			Minimum Protection Required Around Trees (Distance from Trunk)
cm	in	ft	
20	8	0.6	1.2 m. A.S
25	10	0.8	1.5 m. A.S
30	12	1.0	1.8 m. A.S
35	14	1.2	2.1 m. A.S
40	16	[illegible]	2.4 m. A.S
45	18	[illegible]	2.7 m. A.S
50	20	[illegible]	3.0 m. A.S
55	22	[illegible]	[illegible] m. A.S
60	24	2.0	[illegible] m. A.S
75	30	[illegible]	[illegible] m. A.S
90	36	[illegible]	[illegible] m. A.S
100	40	[illegible]	[illegible] m. A.S

2 Tree Protection Fence

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905-959 Premier Street
North Vancouver, BC

Tree Removal / Retention

As Noted

14.013 L2 of 7

1 Grading and Layout Plan
Scale: 3/32" = 1'-0"

Legend

- 63.84 — Architecture Grading
- fg 63.50 — Landscape Architecture Grading
- Catch Basin
- Bollard Light
- Root Barrier UB 24-2
- Structure Soil (Veratec Sure BASE)

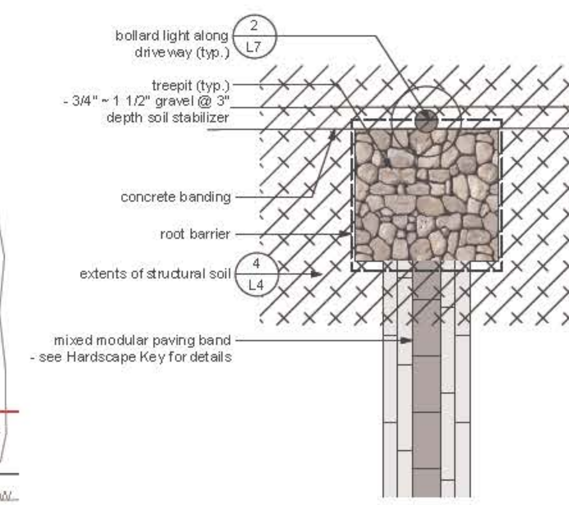
Hardscape Selections / Key

8"x8" concrete pavers: Metropolitan - Type 2, 8"x8"x4" typ.

mixed Modular Paving Band: Metropolitan - Type 1, 16"x8"x 4" typ. (center band)
AND
Piazza Series - Type 1, 24"x4"x4" (either side)

18"x18" concrete pavers: Texada - 18"x18"x2" typ.

concrete paving: Standard concrete sidewalk and pedestrian entrance ways.



2 treepit w/ bollard (typ.)
Scale: 1/2" = 1'-0"

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4. revised as per DNV comments - Apr 28, 2017

905-959 Premier Street
North Vancouver, BC

Hardscape Plan

As Noted

14013 L3 of 7

General Notes

1. All materials and execution of landscape works shall conform to the B.C.S.L.A./B.C.N.T.A. Landscape standard. Refer to written specifications for complete landscape documentation.

2. All landscape works (including boulevard) to be automatically irrigated.

3. The Landscape Contractor shall ensure that the on-site planting medium/soil meets the specification & recommendations of the soil analysis taken at the time of Substantial Completion. All recommendations of the soil analysis shall be executed prior to Final Acceptance of the landscape works by the Consultant and the municipal authorities.

4. Minimum planting medium depths:

lawn - 6"/150mm
groundcover - 12"/300 mm
shrubs - 18"/450 mm
trees - 12"/300 mm (around & beneath rootball)

5. All plant material shall meet minimum size requirements as indicated in plant list. Quality of plant material and grading of site to conform to the B.C.N.T.A. standard for container grown stock.

6. All plant material to be supplied on the job site must be obtained from a nursery participating in the BCLNA Phytophthora ramorum Certificaiton Program. Plant material provided by the contractor found to be carrying Pr will be removed, disposed of and replaced at the contractor's expense.

7. Tree Protection Measures
Where construction, demolition, or excavation is to take place within 4m of the drip line of a tree to be retained, a protection barrier at least 4'0" (1.2m) in height must be installed around the tree or group of trees to be retained. The diameter of the barrier shall be no smaller than the drip line of the tree(s). The barrier must be constructed of snow fencing staked every 3' (1m), plywood sheets fastened to wooden stakes or of another form approved by the municipality. The barrier shall be constructed prior to any site work and remain intact until all construction is complete. The barrier shall clearly display all-weather signage indicating that the area is a protected zone. Any work which must be done within the protection zone is to be done by hand. No burning is to take place close enough for the flames or heat to damage any tree to be retained.

DNV Notes

1. All garbage receptacles maintenance, (on site) is the responsibility of the Property Management Company. DNV will not be responsible for servicing these receptacles at any time.

2. Growing Medium Trees. Provide 15 cu metres of high quality growing medium per tree.

3. **Maintenance of Boulevards**: It is recommended that landscape maintenance of the boulevards occur for a period of two years prior to being turned over to the District. After two years, the District will maintain off site street trees while the property owner will maintain all other offsite landscaping around the property.

It is the responsibility of the adjacent landowner / strata to maintain the boulevards by:

a. Watering the trees
b. Watering the boulevard plant material (i.e. shrubs, perennials and groundcovers)
c. Maintaining (e.g. weeding) plant material other than trees

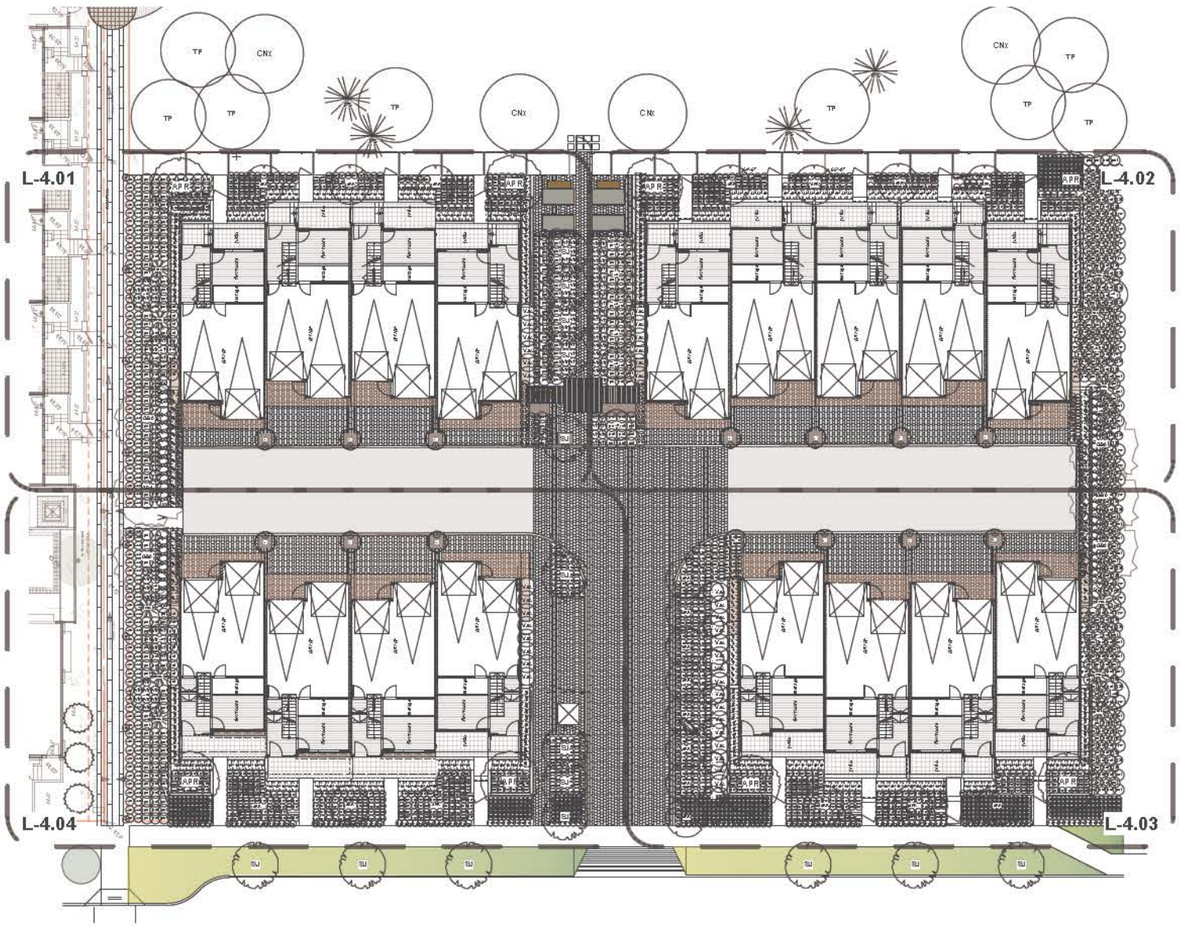
Any pruning, thinning, or maintenance required on the street trees must be completed only by the District of North Vancouver. Private property owners are responsible for their own trees and landscape unless subject to an agreement under 219 covenant.

4. *The District of North Vancouver is responsible for the on-going maintenance of street trees on off-site areas: after an initial two year maintenance period by the owner. Please ensure that the developer is aware that on-going maintenance of shrubs/groundcover on off-site areas (i.e., boulevards) after the two year owner maintenance period is the responsibility of the future property owner.*

5. *The project landscape contractor, the project landscape architect and a District of North Vancouver Parks (DNV Parks) representative must be present at the project pre-construction meeting. If this is not possible, the developer must make sure that all three groups meet before any landscape construction work takes place onsite.*

6. *ALL plants/trees used in this project must first be inspected by a representative of the District of North Vancouver parks department (DNV Parks) before installation. The District of North Vancouver has the right to refuse any or all of the selected plant material if it does not meet current BCLNA guidelines.*

*NOTE: OFFSITE TREE PLANTING & LAYOUT ALONG NORTH PL TO BE REVIEWED AND APPROVED BY DNV.



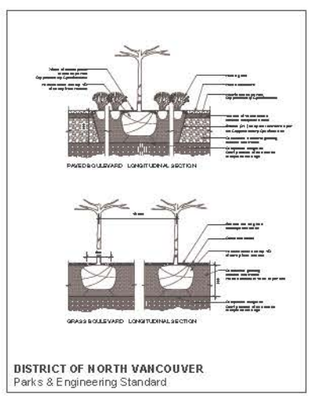
1 Overall Planting Plan
Scale: 1/16" = 1'-0"

*NOTE: THE FINAL LOCATION AND SPECIES SELECTION WILL BE TO THE SATISFACTION OF THE DEISTRICT OF NORTH VANCOUVER

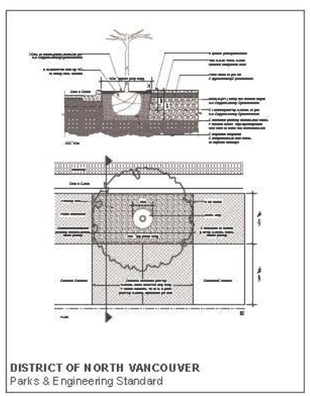
PLANT SCHEDULE

PLANT LIST				
ID	Latin Name	Common Name	Quantity	Scheduled Size
TREES (DECIDUOUS & CONIFEROUS)				
APR	Acer palmatum Red	Japanese Maple	8	3m ht.
ARR	Acer rubrum 'Red Rocket'	Fastigiate Red Maple	21	6cm cal.
GBA	Ginkgo biloba 'Autumn Gold'	Autumn Gold Maidenhair Tree	9	5cm cal.
POM	Picea omorika	Serbian Spruce	12	3.0m
QF	Quercus robur 'Fastigiata'	Columnar English Oak	21	6cm cal.
SJ	Styrax japonicus	Japanese Snowbell Tree	9	5cm cal.
Tph	Thuja plicata hedge	Western Red Cedar hedge	73	#5 pot, B&B
SHRUBS				
gs	Gaultheria shallon	Salal	25	#1 pot
Mn	Mahonia nervosa	Dwarf Oregon Grape	123	#1 pot
Sbd	Spirea douglasii	Douglas Spirea	61	#3 pot
Sym	Symphoricarpos alba	Snowberry	44	#2 pot
Txh	Taxus x media 'Hicksii'	Hick's Yew	325	1.2m ht. B&B
Vac	Vaccinium parvifolium	Red Huckleberry	37	#3 pot
PERENNIALS & GROUNDCOVERS				
ble	Blechnum spicant	Deer fern	25	#1 pot
em	Euphorbia x martinii	Martin's Spurge	486	#1 pot
hm	Heuchera micrantha obsidian	Small-flowered Alumroot	374	#1 pot
pola	Polystichum acrostichoides	Christmas fern	147	#1 pot
pol	Polystichum munitum	Western sword fern	515	#1 pot
ORNAMENTAL GRASSES & BAMBOOS				
cab	Carex buchananii	Fox Red Curly Sedge	426	#1 pot
feg	Festuca glauca 'Elijah Blue'	Elijah Blue Fescue	533	#1 pot
ha	Hakonechloa macra `Aureola`	Golden Japanese Forest Grass	172	#1 pot
VINES				

OFF-SITE PLANT LIST				
ID	Latin Name	Common Name	Quantity	Scheduled Size
TREES (DECIDUOUS & CONIFEROUS)				
CNx	Cornus nuttallii 'Eddie's White Wonder'	'Eddie's White Wonder' Dogwood	4	3.0m ht.
PS	Picea stichensis	Sitka spruce	4	3.0m
SJ	Styrax japonicus	Japanese Snowbell Tree	6	5cm cal.
TP	Thuja plicata	Western Red Cedar	8	15' ht. min.
SHRUBS				
PERENNIALS & GROUNDCOVERS				
ORNAMENTAL GRASSES & BAMBOOS				
ha	Hakonechloa macra `Aureola`	Golden Japanese Forest Grass	135	#1 pot
VINES				

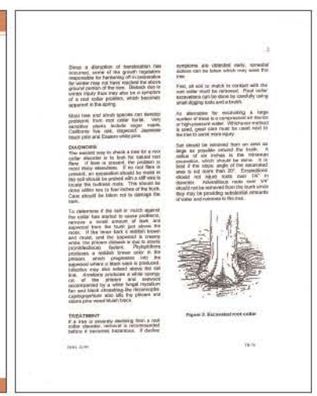


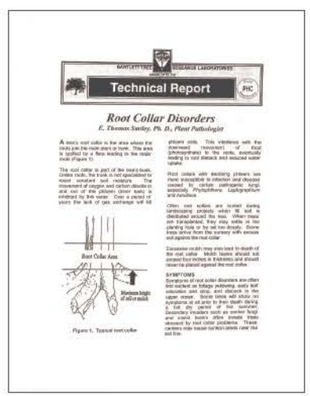
2 Tree Planting Detail



3 Tree Planting W/ Structural Soil For Soft Surface Blvds. (W/ Sidewalk)

4 Structural Soil





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issued:
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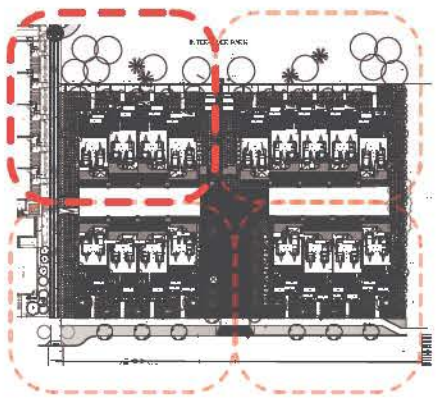
revisions:

project:
905-959 Premier Street
North Vancouver, BC

title:
OVERALL PLANTING PLAN

date: 14.013
drawing: L4 of 7

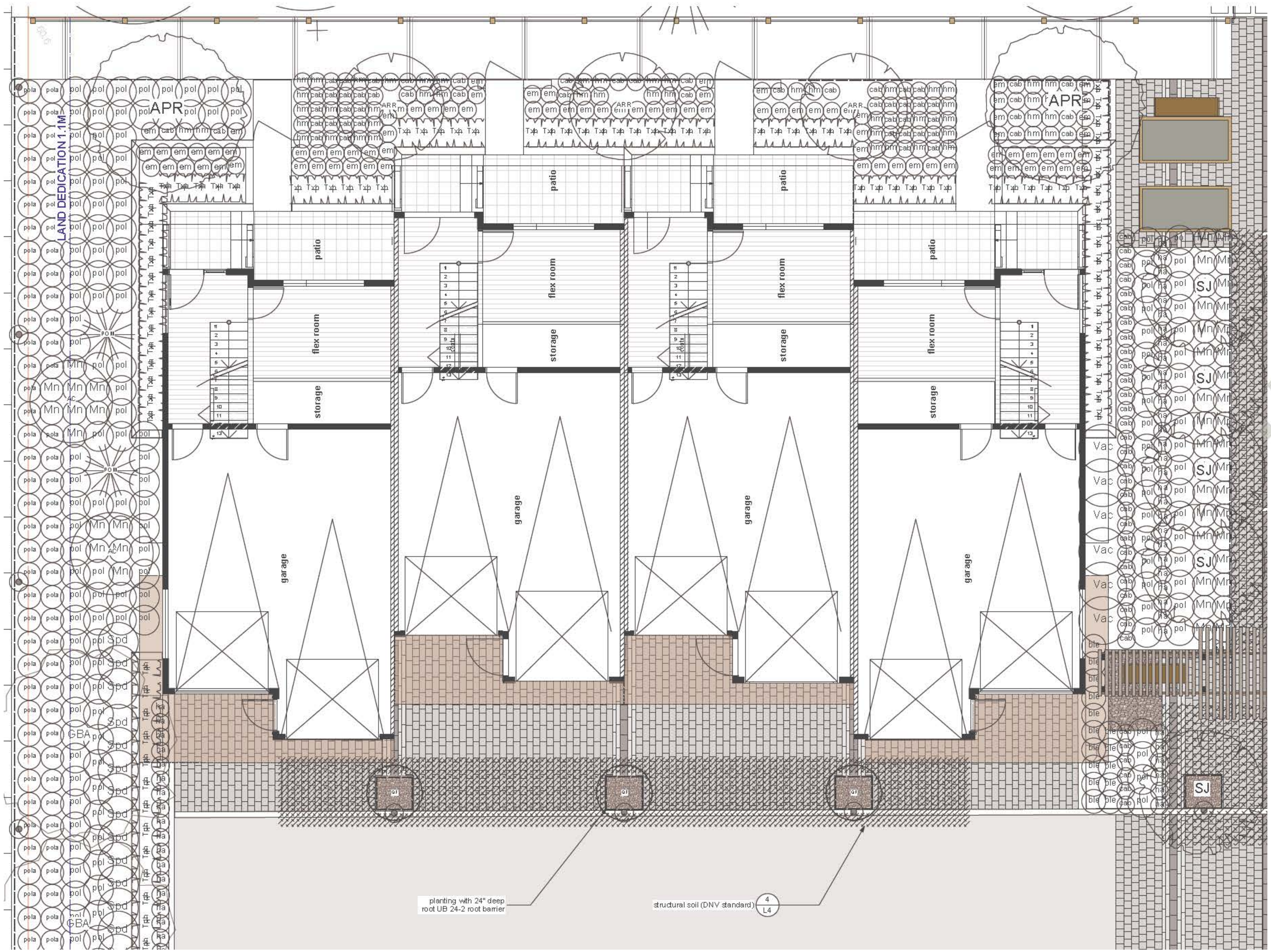
KEY PLAN



PLANT SCHEDULE

Refer L4 Overall Planting Plan for technical planting specifications, typical details, detailed plant schedule and onsite tree protection requirements.

PLANT LIST		
ID	Latin Name	Common Name
TREES (DECIDUOUS & CONIFEROUS)		
APR	Acer palmatum Red	Japanese Maple
ARR	Acer rubrum 'Red Rocket'	Fastigiate Red Maple
GBA	Ginkgo biloba 'Autumn Gold'	Autumn Gold Maidenhair Tree
POM	Picea omorika	Serbian Spruce
QF	Quercus robur 'Fastigiata'	Columnar English Oak
SJ	Styrax japonicus	Japanese Snowbell Tree
Tpn	Thuja plicata hedge	Western Red Cedar hedge
SHRUBS		
gs	Gaultheria shallon	Salal
Mn	Mahonia nervosa	Dwarf Oregon Grape
Spd	Spirea douglasii	Douglas Spirea
Sym	Symphoricarpos alba	Snowberry
Txh	Taxus x media 'Hicksii'	Hick's Yew
Vac	Vaccinium parvifolium	Red Huckleberry
PERENNIALS & GROUNDCOVERS		
ble	Blechnum spicant	Deer Fern
em	Euphorbia x martinii	Martin's Spurge
hm	Heuchera micrantha obsidian	Small-flowered Alumroot
pola	Polystichum acrostichoides	Christmas fern
pol	Polystichum munitum	Western sword fern
ORNAMENTAL GRASSES & BAMBOOS		
cab	Carex buchananii	Fox Red Curly Sedge
feg	Festuca glauca 'Elijah Blue'	Elijah Blue Fescue
ha	Hakonechloa macra 'Aureola'	Golden Japanese Forest Grass
VINES		



1 Planting Plan
Scale: 1/4" = 1'-0"

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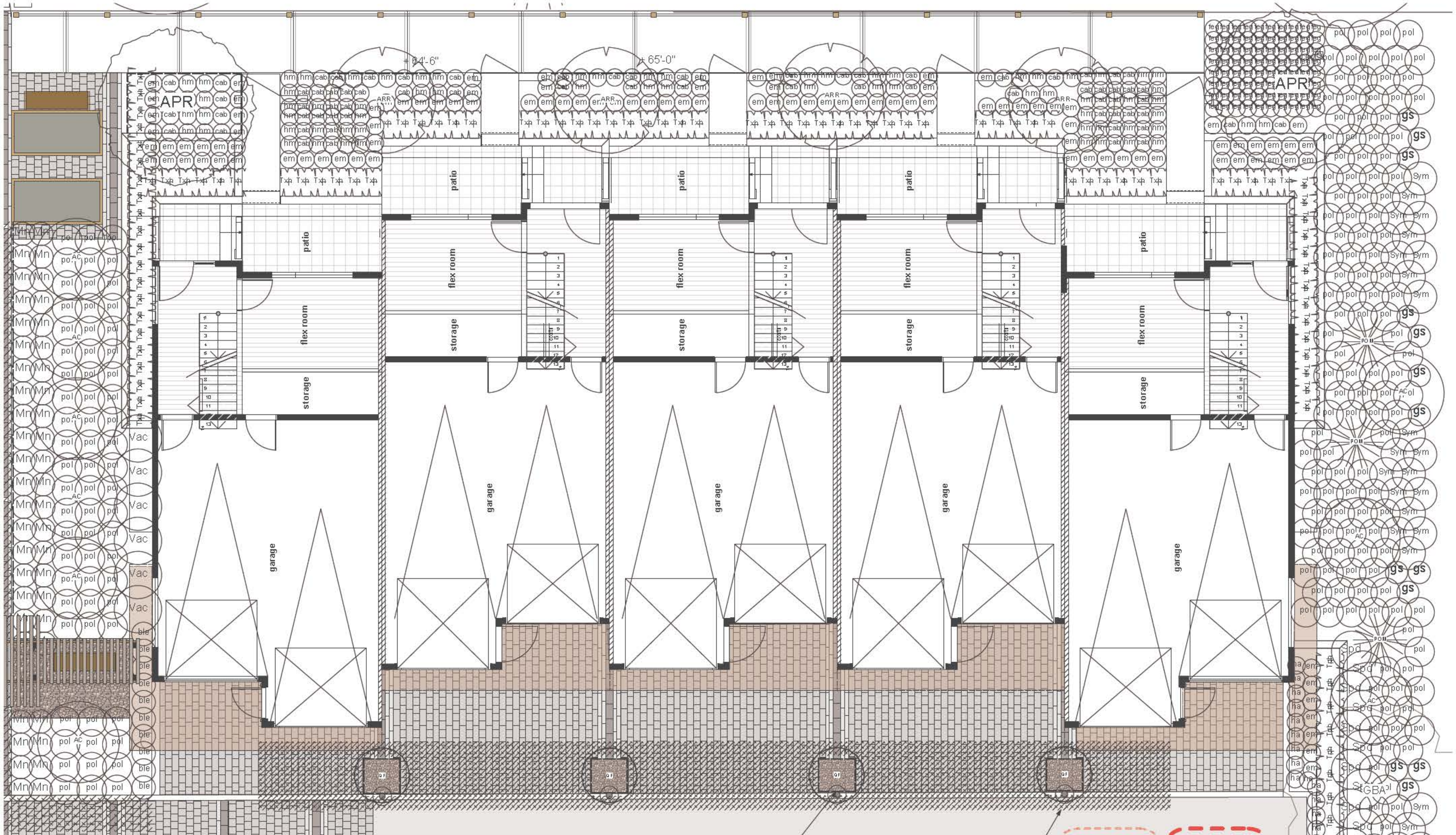
905-959 Premier Street
North Vancouver, BC

PLANTING PLAN

scale 1/4" = 1'0"

14.013 L4.01



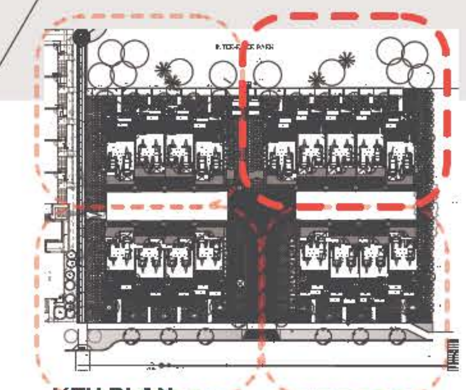
1 Planting Plan
Scale: 1/4" = 1'-0"

PLANT SCHEDULE

Refer L4 Overall Planting Plan for technical planting specifications, typical details, detailed plant schedule and onsite tree protection requirements.

PLANT LIST		
ID	Latin Name	Common Name
TREES (DECIDUOUS & CONIFEROUS)		
APR	Acer palmatum Red	Japanese Maple
ARR	Acer rubrum 'Red Rocket'	Fastigiate Red Maple
GBA	Ginkgo biloba 'Autumn Gold'	Autumn Gold Maidenhair Tree
POM	Picea omorika	Serbian Spruce
QF	Quercus robur 'Fastigiata'	Columnar English Oak
SJ	Styrax japonicus	Japanese Snowbell Tree
Tph	Thuja plicata hedge	Western Red Cedar hedge
SHRUBS		
gs	Gaultheria shallon	Salal
Mn	Mahonia nervosa	Dwarf Oregon Grape
Spd	Spirea douglasii	Douglas Spirea
Sym	Symphoricarpos alba	Snowberry
Txh	Taxus x media 'Hicksii'	Hick's Yew

PERENNIALS & GROUNDCOVERS		
ble	Blechnum spicant	Deer Fern
em	Euphorbia x martinii	Martin's Spurge
hm	Heuchera micrantha ossidian	Small-flowered Alumroot
pola	Polystichum acrostichoides	Christmas fern
pol	Polystichum munitum	Western sword fern
ORNAMENTAL GRASSES & BAMBOOS		
cab	Carex buchananii	Fox Red Curly Sedge
feg	Festuca glauca 'Elijah Blue'	Elijah Blue Fescue
ha	Hakonechloa macra 'Aureola'	Golden Japanese Forest Grass
VINES		



KEY PLAN

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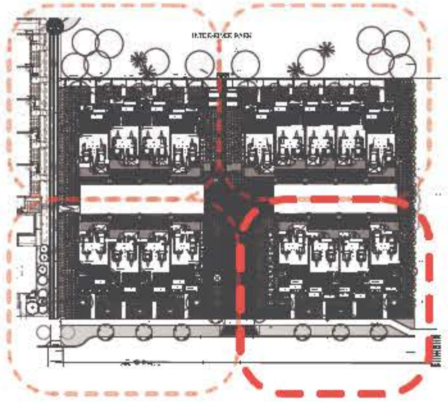
905-959 Premier Street
North Vancouver, BC

PLANTING PLAN

scale: 1/4" = 1'-0"

14.013 L4.02

KEY PLAN



PLANT SCHEDULE

Refer L4 Overall Planting Plan for technical planting specifications, typical details, detailed plant schedule and onsite tree protection requirements.

PLANT LIST		
ID	Latin Name	Common Name
TREES (DECIDUOUS & CONIFEROUS)		
APR	Acer palmatum Red	Japanese Maple
ARR	Acer rubrum 'Red Rocket'	Fastigiate Red Maple
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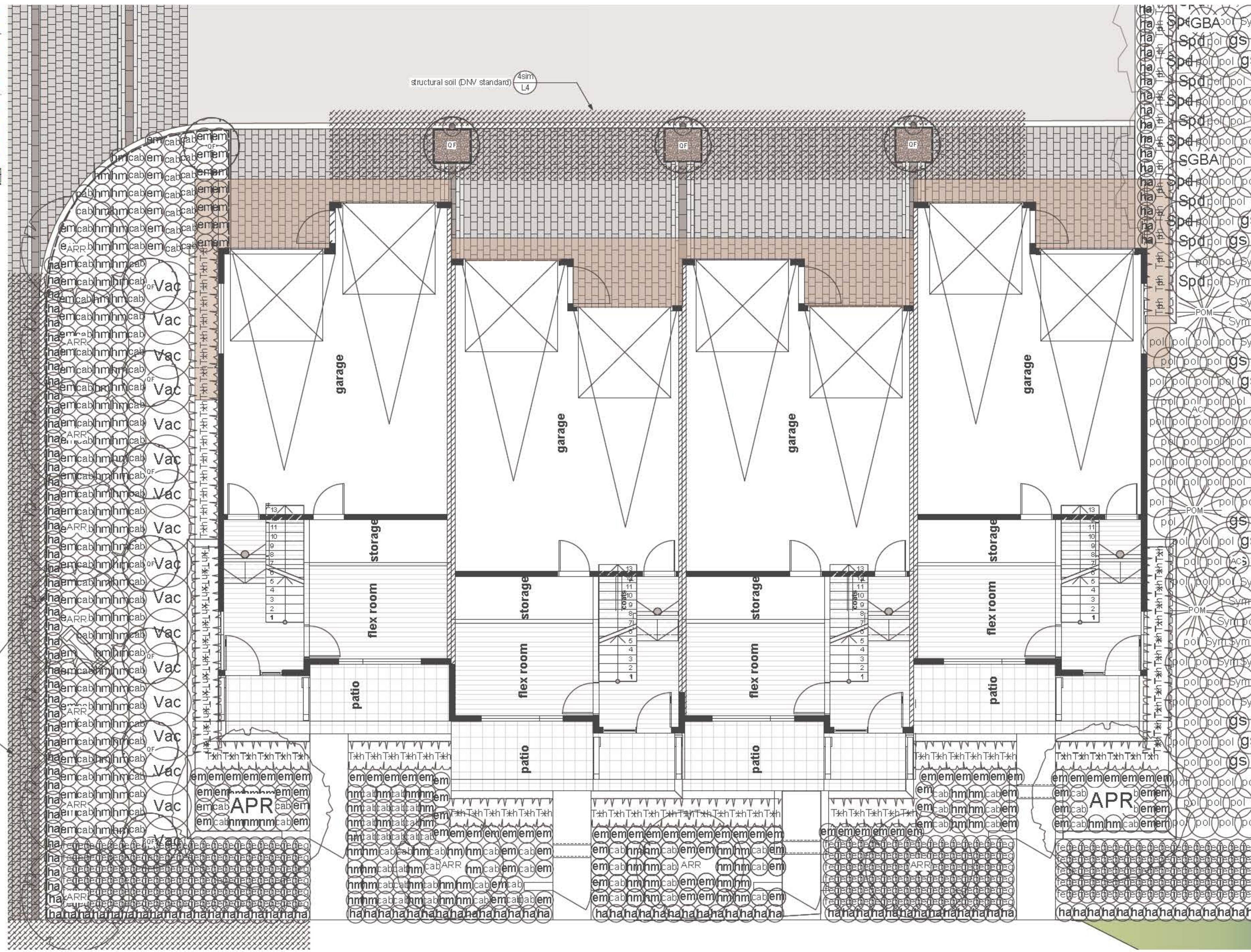
QF	Quercus robur 'Fastigiata'	Columnar English Oak
SJ	Styrax japonicus	Japanese Snowbell Tree
Tph	Thuja plicata hedge	Western Red Cedar hedge
SHRUBS		
gs	Gaultheria shallon	Salal
Mn	Mahonia nervosa	Dwarf Oregon Grape
Spd	Spirea douglasii	Douglas Spirea
Sym	Symphoricarpos alba	Snowberry
Txh	Taxus x media 'Hicksii'	Hick's Yew
Vac	Vaccinium parvifolium	Red Huckleberry
PERENNIALS & GROUNDCOVERS		
ble	Blechnum spicant	Deer Fern
em	Euphorbia x martinii	Martin's Spurge
hm	Heuchera micrantha Obsidian	Smallflowered Alumroot
pola	Polystichum acrostichoides	Christmas fern
pol	Polystichum munitum	Western sword fern
ORNAMENTAL GRASSES & BAMBOOS		
cab	Carex buchananii	Fox Red Curly Sedge
feg	Festuca glauca 'Elijah Blue'	Elijah Blue Fescue
ha	Hakonechloa macra 'Aureola'	Golden Japanese Forest Grass
VINES		



1 Planting Plan
Scale: 1/4" = 1'-0"

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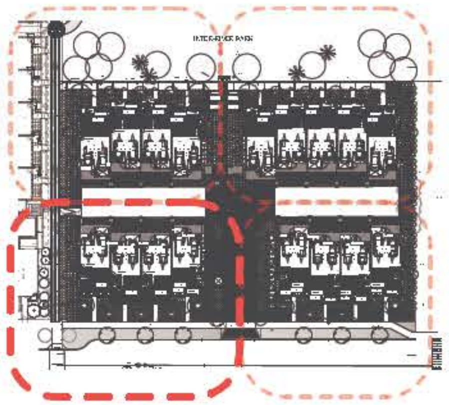
905-959 Premier Street
North Vancouver, BC

PLANTING PLAN

1/4" = 1'0"

14.013 L4.03

KEY PLAN



PLANT SCHEDULE

Refer L4 Overall Planting Plan for technical planting specifications, typical details, detailed plant schedule and onsite tree protection requirements.

PLANT LIST		
ID	Latin Name	Common Name
TREES (DECIDUOUS & CONIFEROUS)		
APR	Acer palmatum Red	Japanese Maple
ARR	Acer rubrum 'Red Rocket'	Fastigiate Red Maple
GBA	Ginkgo biloba 'Autumn Gold'	Autumn Gold Maidenhair Tree
POM	Picea omorika	Serbian Spruce
QF	Quercus robur 'Fastigiata'	Columnar English Oak
SJ	Styrax japonicus	Japanese Snowbell Tree
Tph	Thuja plicata hedge	Western Red Cedar hedge
SHRUBS		
gs	Gaultheria shallon	Salal
Mn	Mahonia nervosa	Dwarf Oregon Grape
Spd	Spirea douglasii	Douglas Spirea
Sym	Symphoricarpos alba	Snowberry
Txh	Taxus x media 'Hicksii'	Hick's Yew
Vac	Vaccinium parvifolium	Red Huckleberry
PERENNIALS & GROUNDCOVERS		
ble	Blechnum spicant	Deer Fern
em	Euphorbia x martinii	Martin's Spurge
hm	Heuchera micrantha obsidian	Smallflowered Alumroot
pola	Polystichum acrostichoides	Christmas fern
pol	Polystichum munitum	Western sword fern
ORNAMENTAL GRASSES & BAMBOOS		
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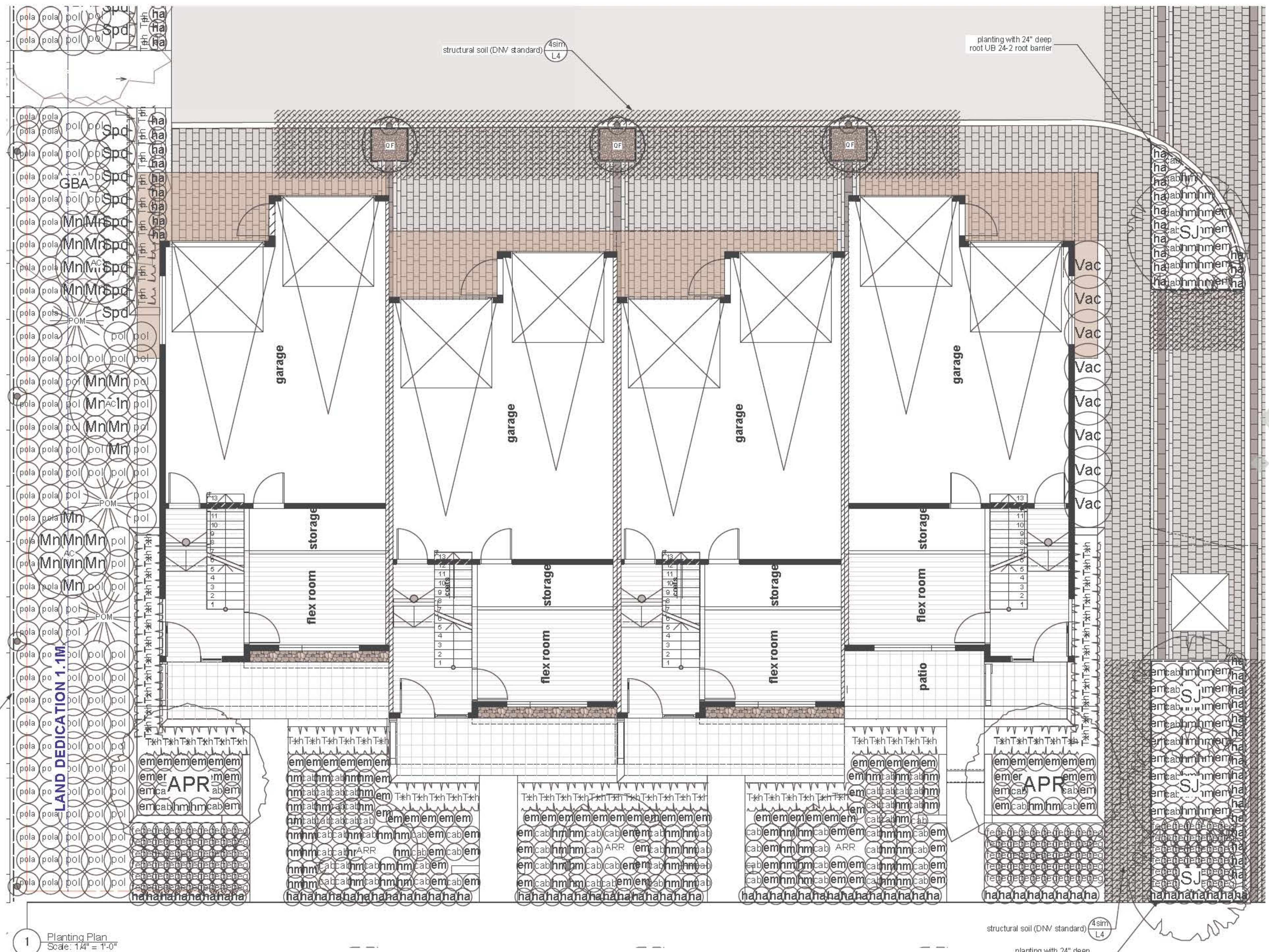
feg	Festuca glauca 'Elijah Blue'	Elijah Blue Fescue
ha	Hakonechloa macra 'Aureola'	Golden Japanese Forest Grass
VINES		



1 Planting Plan
Scale: 1/4" = 1'-0"

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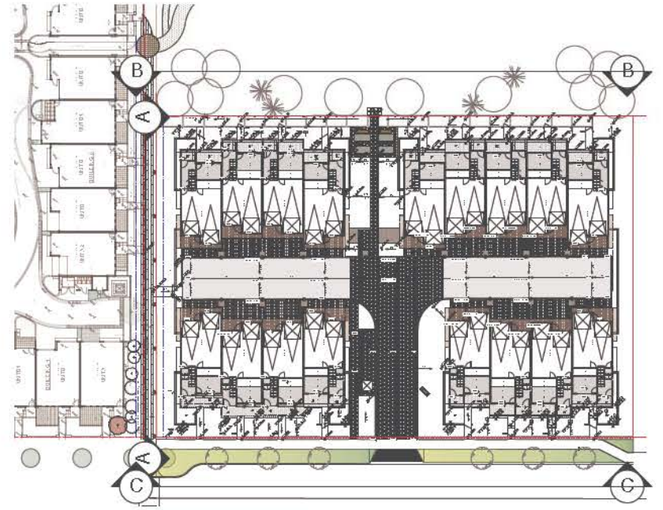
905-959 Premier Street
North Vancouver, BC

PLANTING PLAN

1/4" = 1'0"

14.013 L4.04

A-A Elevation through Walkway
Scale: 3/32" = 1'-0"



KEY PLAN N.T.S.

B-B Park-side Elevation
Scale: 3/32" = 1'-0"

C-C Street Elevation
Scale: 3/32" = 1'-0"

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3. issued for ADP - Jan 26, 2017
4. revised as per DMV comments - Apr 26, 2017

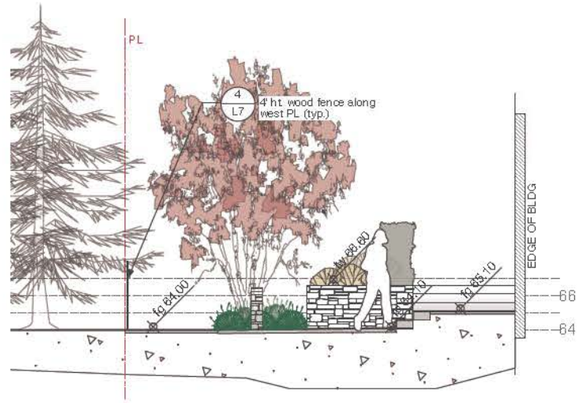
project
905-959 Premier Street
North Vancouver, BC

title
Section / Elevations

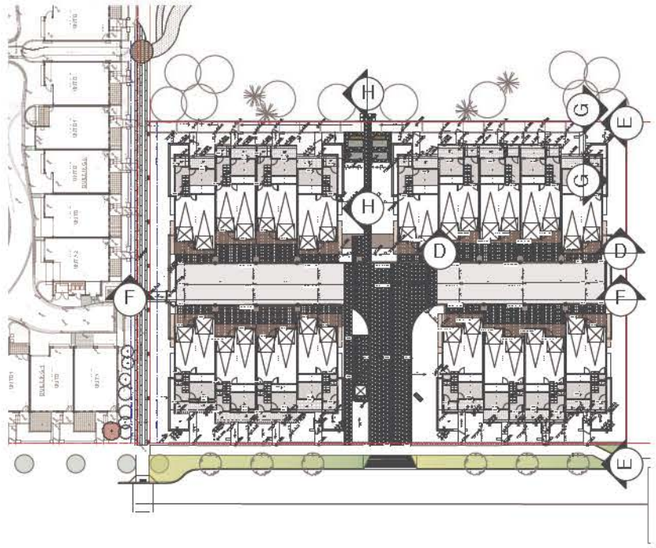
scale: As Noted

project no.: 14.013
sheet no.: L5 of 7

D-D Elevation
Scale: 1/8" = 1'-0"

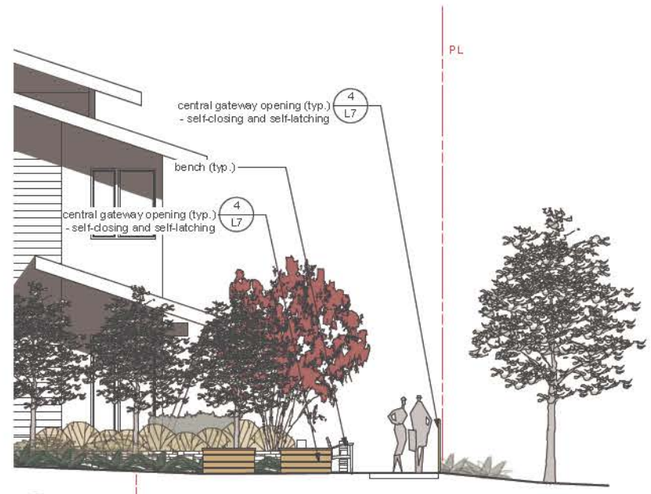


G-G Unit Entry Section
Scale: 1/4" = 1'-0"



KEY PLAN N.T.S.

E-E North Elevation
Scale: 3/32" = 1'-0"



H-H Elevation Through Internal Walkway
Scale: 3/16" = 1'-0"

F-F Elevation
Scale: 3/32" = 1'-0"

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4. revised as per DRW comments - Apr 28, 2017

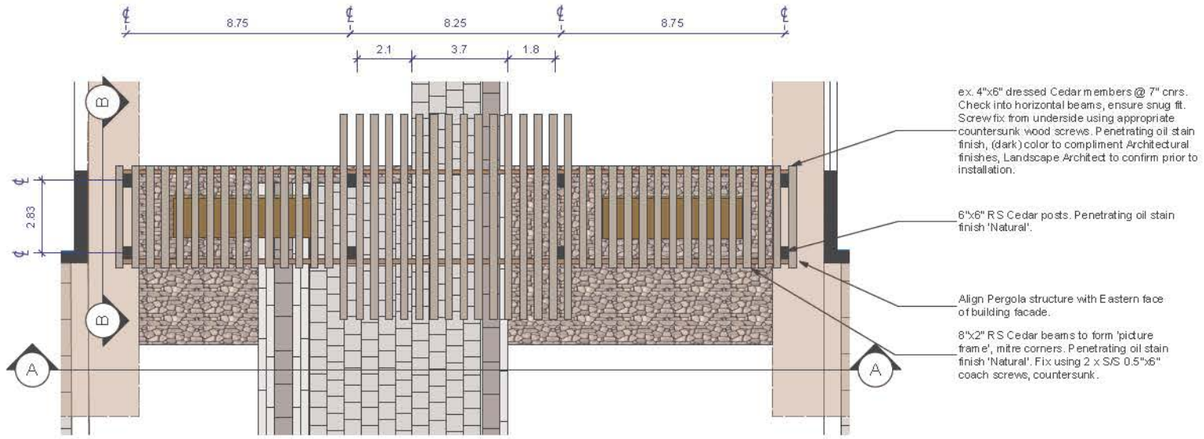
consultants

project
905-959 Premier Street
North Vancouver, BC

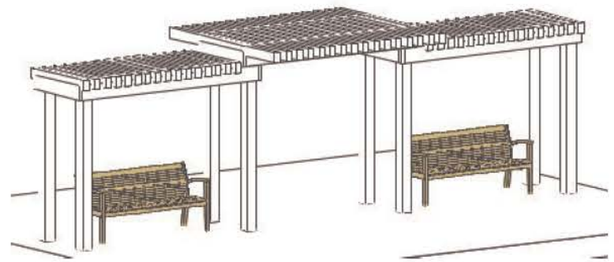
title
Section / Elevations

scale: As Noted

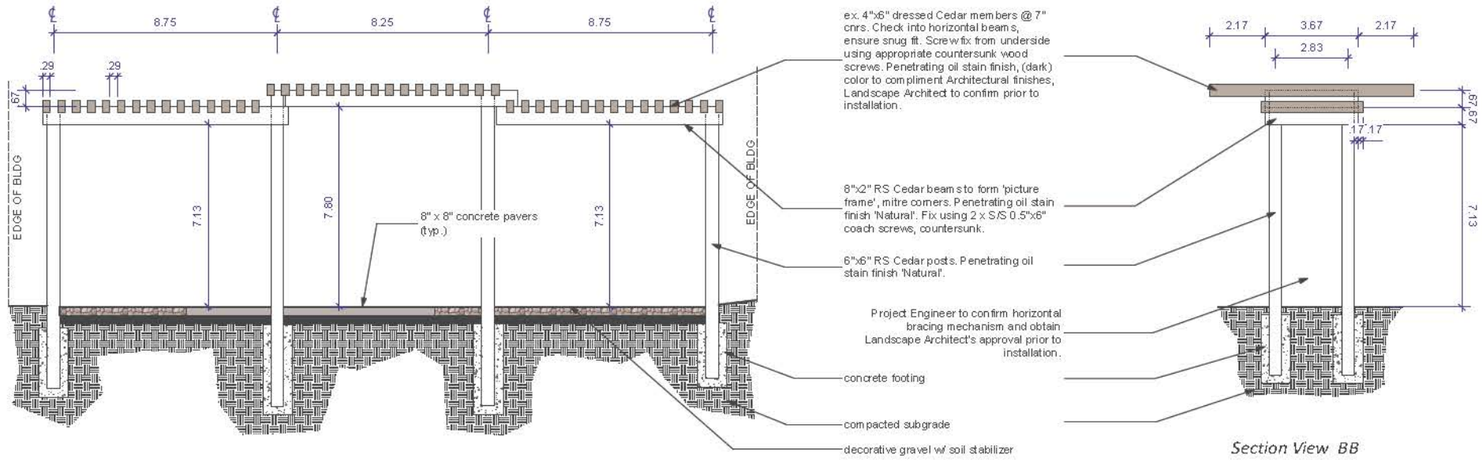
project no. 14.013
sheet no. L6 of 7



Plan View



Perspective View



Elevation View AA

Section View BB

1 Arbour
Scale: 3/8" = 1'-0"

*NOTE: INSTALL AS PER MANUFACTURER SPECS. CONCRETE FOOTING TO BE ENGINEERED IF REQUIRED

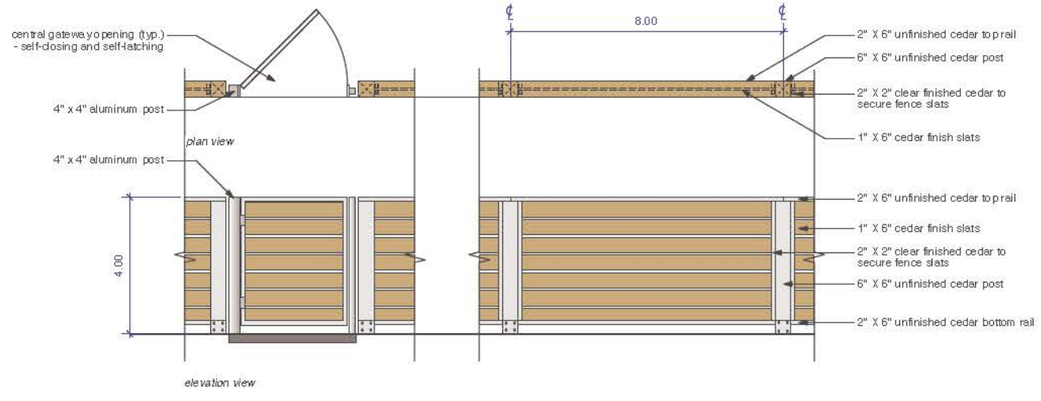
2 Bollard Light

*Note: Shop drawings to be provided by installers.

Raised Timber Planters from Lifespace Projects (or equivalent)
www.lifespaceprojects.com

-quantity, size & layout: see plan
-depth: 2'-0"
-finish: as per image or approved equivalent
-hardware: non-corrosive, galvanized / ss
- LifeSpace Garden Wells System

3 Raised Timber Planter



elevation view

4 4' ht. Wood Fence (Along West PL)
Scale: 1/2" = 1'-0"

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2. Issued as per DMV request - Jan 12, 2017
3. Issued for A.D.P. - Jan 30, 2017
4. Revised as per D.M.V comments - Apr 28, 2017

project
905-959 Premier Street North Vancouver, BC

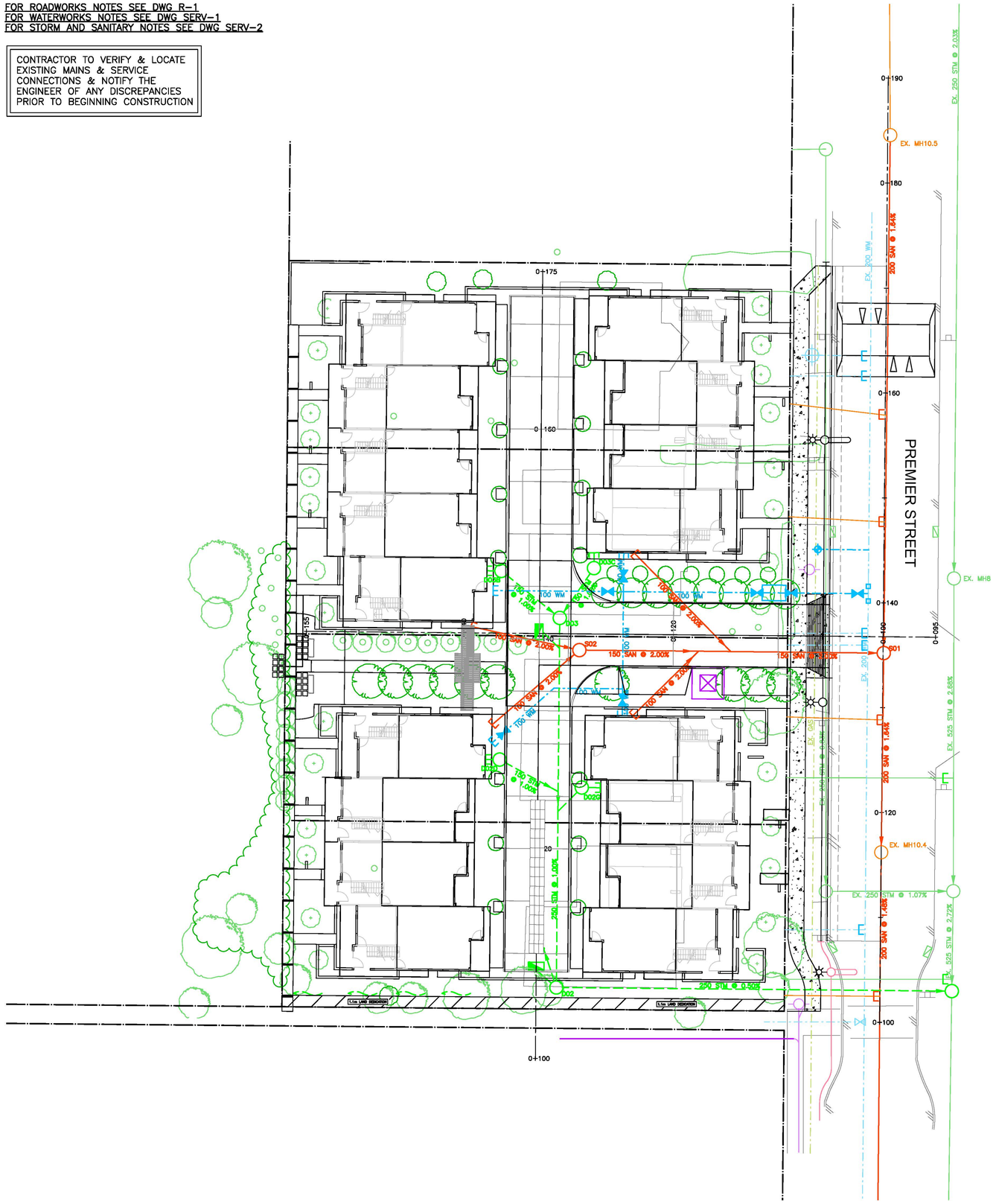
title
Pergola Details

scale: As Noted

project no.: 14.013
drawing no.: L7 of 7

FOR ROADWORKS NOTES SEE DWG R-1
FOR WATERWORKS NOTES SEE DWG SERV-1
FOR STORM AND SANITARY NOTES SEE DWG SERV-2

CONTRACTOR TO VERIFY & LOCATE EXISTING MAINS & SERVICE CONNECTIONS & NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO BEGINNING CONSTRUCTION



LEGAL DESCRIPTION

LOTS A,B,C,D, DL 612, G.1, NWD, PLAN 15642; NEW WESTMINSTER DISTRICT

BENCHMARK CONTROL

ELEVATIONS ARE TO GEODETIC CONTROL MONUMENT 73H1105
ELEVATION: 63.87 FEET (19.47 m)

SEE DWG ESC-1 FOR SILTATION CONTROL
SEE DWG R-1 FOR ROADWORKS NOTES
SEE DWG SERV-1 FOR WATERWORKS NOTES
SEE DWG SERV-3 FOR STORM & SANITARY NOTES

GENERAL NOTES

1. THE CONTRACTOR SHALL ENSURE THAT ALL APPROVALS REQUIRED FOR THE PROPOSED WORK HAVE BEEN OBTAINED PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION.
2. A PRE-CONSTRUCTION MEETING BETWEEN ENGINEER, THE CONTRACTOR, AND DISTRICT OF NORTH VANCOUVER IS REQUIRED PRIOR TO COMMENCEMENT OF CONSTRUCTION. TO BE COORDINATED BY THE CONTRACTOR.
3. CONTRACTOR TO PROVIDE EMERGENCY CONTACT LIST, INSURANCE AND SURETY DOCUMENTATION AND PROPOSED SCHEDULE OF WORK TO THE DNV AND THE ENGINEER AT THE PRE-CONSTRUCTION MEETING.
4. THE CONTRACTOR IS TO OBTAIN A DISTRICT OF NORTH VANCOUVER HIGHWAY USE PERMIT PRIOR TO COMMENCING WORKS.
5. THE CONTRACTOR MUST NOTIFY ENGINEER THEN THE DISTRICT OF NORTH VANCOUVER'S CONSTRUCTION OFFICE @ 604-990-3886, 48 HOURS PRIOR TO STARTING CONSTRUCTION TO ESTABLISH AN INSPECTION SCHEDULE.
6. ALL CONSTRUCTION IN DISTRICT OF NORTH VANCOUVER (DNV) ROAD R.O.W. MUST CONFORM TO THE MASTER MUNICIPAL CONSTRUCTION DOCUMENTS (MMCD) AND DISTRICT OF NORTH VANCOUVER DEVELOPMENT SERVICING BYLAW #7388 SCHEDULE D.2, SUPPLEMENTARY SPECIFICATIONS AND STANDARD DETAIL DRAWINGS. ALL MATERIALS AND PRODUCTS TO BE IN ACCORDANCE WITH DNV ACCEPTED MATERIAL AND PRODUCTS LIST.
7. ALL CONSTRUCTION WITHIN THE PROPERTY MUST CONFORM TO THE MASTER MUNICIPAL SPECIFICATIONS, B.C. BUILDING CODE & B.C. PLUMBING CODE.
8. THE CONTRACTOR WILL CONSTRUCT ALL WORKS TO THE SATISFACTION OF THE INSPECTORS FROM THE ENGINEER AND THE REGULATORY AUTHORITY. IF APPLICABLE ADDITIONALLY, THE TELUS WORKS UNDER THE DIRECTION AND TO THE SATISFACTION OF THE TELUS INSPECTOR, HYDRO WORKS TO SATISFACTION OF THE BC HYDRO INSPECTOR, TERASEN WORKS TO SATISFACTION OF THE TERASEN INSPECTOR, SHAW WORKS TO SATISFACTION OF THE SHAW INSPECTOR. THE CONTRACTOR WILL FORWARD TO THE ENGINEER CERTIFICATION OF ACCEPTANCE OR APPROVAL FROM THE ABOVE NOTED INSPECTORS ON COMPLETION OF THE WORK. ELECTRICAL WORKS, IF APPLICABLE TO ALSO BE UNDER PERMIT WITH BC ELECTRICAL SAFETY BRANCH WITH A COPY OF PERMIT AND SIGN OFF TO BE FORWARDED TO THE ENGINEER BY THE CONTRACTOR. CONTRACTOR TO GIVE MINIMUM 48 HOURS NOTICE TO RELEVANT INSPECTOR TO ALLOW FOR INSPECTION ON WORKS AND UPDATE ENGINEER ON SAME.
9. THE CONTRACTOR WILL PERFORM AT HIS OWN COST ALL TESTING REQUIRED BY THE REGULATORY AUTHORITY, MMCD AND THE ENGINEER. TESTING SHALL BE DONE BY AN INDEPENDENT SPECIALTY TESTING FIRM. CONTRACTOR TO GIVE ENGINEER 48 HOURS' NOTICE ON ALL TESTING. COPIES OF TESTS TO BE FORWARDED DIRECTLY BY THE TESTING FIRM TO ENGINEER AND GEOTECHNICAL ENGINEER BY EMAIL.
10. LOCATIONS OF EXISTING UNDERGROUND SERVICES HAVE BEEN DETERMINED FROM UTILITY AS-CONSTRUCTED DRAWINGS AND THIRD PARTY SURVEY. CONTRACTOR TO CONTACT BC ONE CALL AND PROVIDE COPIES TO ENGINEER AND VERIFY THE LOCATION OF ALL EXISTING SERVICES AND TO NOTIFY ENGINEER OF ANY DISCREPANCIES, CONFLICTS OR OMISSIONS PRIOR TO BEGINNING OF CONSTRUCTION.
11. THE CONTRACTOR SHALL USE EXTREME CARE WHEN WORKING NEAR EXISTING SERVICES AND ANY SERVICES DISTURBED ARE TO BE REPLACED TO THE SATISFACTION OF THE APPROVING AUTHORITY, THE ENGINEER AND/OR APPROPRIATE UTILITY CORPORATION.
12. ALL CUTS IN EXISTING ASPHALT REQUIRED FOR TRENCHING SHALL BE VERTICAL, MINIMUM 80 MM DEEP, WITH A DIAMOND SAW & REPLACED WITH MINIMUM 80 MM ASPHALT OR MATCHING EXISTING WHICHEVER IS GREATER UNLESS OTHERWISE NOTED, AFTER BACKFILL AND COMPACTION. ALL PAVEMENTS, BOULEVARDS, DRIVEWAYS, FENCES ETC. ARE TO BE RESTORED TO ORIGINAL OR BETTER CONDITION WHEN NO IMPROVEMENT IS PROPOSED UNDER THIS CONTRACT.
13. WHEN NO IMPROVEMENTS ARE PROPOSED UNDER THIS CONTRACT, THE EXISTING SECTION(S) OF ROADWAY, BOULEVARD OR LANDSCAPE SHALL BE KEPT CLEAN AND CLEAR FOR THE DURATION OF CONSTRUCTION AND LEFT IN SAME CONDITION AS PRIOR TO CONSTRUCTION.
14. THE CONTRACTOR'S SURVEYOR WILL RECORD AND CERTIFY ALL INFORMATION REQUIRED FOR THE ENGINEER TO PROVIDE A COMPLETE SET OF AS-CONSTRUCTED DRAWINGS INCLUDING CENTERLINE, FOG LINE, EDGE OF ASPHALT, SIGNS, INVERTS, RIMS, PIPE SIZES AND ALL APPURTENANCES. SEE SUPPLEMENTAL SPECIFICATION FOR DETAILS.
15. TRAFFIC CONTROL PER APPROVED TRAFFIC MANAGEMENT PLAN & THE MINISTRY OF TRANSPORTATION 'TRAFFIC MANUAL FOR WORK ON ROADWAYS'/TRANSPORTATION ASSOCIATION OF CANADA 'MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES'. CONTRACTOR TO INFORM ENGINEER AND DNV IMMEDIATELY OF ANY FORESEEN OR UNFORESEEN CHANGES TO THE SCHEDULE.
16. VEHICULAR ACCESS TO EXISTING DWELLINGS AND BUSINESS' TO BE MAINTAINED BY THE CONTRACTOR FOR THE DURATION OF THE CONTRACT.
17. PEDESTRIANS SHALL BE PROTECTED AT ALL TIMES. ANY CLOSURES OF THE SIDEWALK OR LANES TO BE COORDINATED WITH AND APPROVED BY THE ENGINEER AND A PERMIT FROM REGULATORY AUTHORITY OBTAINED BY THE CONTRACTOR AND FORWARDED TO ENGINEER. CONTRACTOR TO PROVIDE REQUIRED NOTICES.
18. RESIDENTS AND BUSINESSES DIRECTLY AFFECTED BY CONSTRUCTION OF THIS PROJECT SHALL BE GIVEN 48 HOURS WRITTEN NOTICE OF THE PROPOSED START OF CONSTRUCTION. IF CONSTRUCTION ENTERS ONTO PRIVATE PROPERTY, THE CONTRACTOR OR DEVELOPER'S AGENT WILL REQUIRED WRITTEN AUTHORIZATION FROM THE PRIVATE PROPERTY OWNER. ENGINEER TO BE FORWARDED COPY OF AUTHORISATION.
19. RETAINING DESIGNATED TREES IS OF PRIME IMPORTANCE. WHEN WORKING IN PROXIMITY TO A DESIGNATED TREE OR WHEN ROOTS ARE ENCOUNTERED, THE CONTRACTOR SHALL CONSULT A CERTIFIED ARBORIST BEFORE PROCEEDING TO PREVENT DAMAGE TO TREES.
20. THE CONTRACTOR SHALL TAKE ALL STEPS NECESSARY TO ENSURE THAT NO SILT IS DISCHARGED TO THE STORM DRAINAGE SYSTEM, ROADWAYS OR ADJACENT PROPERTIES DURING THE COURSE OF CONSTRUCTION IN ACCORDANCE WITH DFO/MOELP'S "LAND DEVELOPMENT GUIDELINES FOR THE PROTECTION OF AQUATIC HABITAT". IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INSTALL & MAINTAIN ALL EROSION & SEDIMENT CONTROL WORKS.
21. FOR BC HYDRO, TELUS, AND FORTIS INSTALLATION, SEE APPROPRIATE UTILITY COMPANY DRAWINGS AND SPECIFICATIONS. CONTRACTOR TO NOTIFY ENGINEER IMMEDIATELY SHOULD SITE CONDITIONS BECOME ALTERED FROM EXPECTATION.
22. SEE LANDSCAPE DRAWINGS FOR PLANTING, SOFTSCAPE AND DECORATIVE PAVEMENT DETAILS.
23. SEE ELECTRICAL ENGINEER DRAWINGS FOR STREETLIGHT & TRAFFIC SIGNAL DETAILS.
24. ONSITE SERVICING WORKS TO COMMENCE ONLY AFTER OFFSITE SERVICE CONNECTION HAS BEEN INSTALLED & VERIFIED.
25. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSURE THEY ARE WORKING FROM THE MOST UP TO DATE DESIGN PACKAGE INCLUDING DRAWINGS AND REPORTS.
26. A PORTION OF THE CONTRACT DOCUMENTS IS INCLUDED BY REFERENCE. COPIES OF THESE DOCUMENTS HAVE BEEN REFERENCED IN THE TENDER PACKAGE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT CURRENT RELEVANT COPIES OF ALL DRAWINGS AND CONTRACT DOCUMENTS ARE FORWARDED TO SURVEYORS, TESTING AGENCIES, SUBCONTRACTORS, SUPERINTENDENTS, ESTIMATORS, PROJECT MANAGERS, SITE STAFF AND ANY OTHER RELEVANT PARTIES. CONTRACTOR CONFIRMS THEY HAVE REVIEWED SAME PRIOR TO SUBMITTING TENDER.
27. SUB-CONTRACTORS SHALL NOT COMMUNICATE WITH THE ENGINEERS OR OWNER DIRECTLY ON ANY CONTRACTUAL OR TECHNICAL ISSUE. THEY SHALL DIRECT THEIR ISSUES TO THE CONTRACTOR DIRECTLY WHOSE RESPONSIBILITY IT TO DEAL WITH THESE ISSUES ON THEIR BEHALF WITH THE ENGINEER. REVIEW AND APPROVAL OF ANY CONTRACTUAL MATTER INCLUDING PROGRESS PAYMENT, CHANGE ORDER, PAYMENT OF HOLDBACK, FINAL PAYMENT, INSURANCE AND WARRANTY, ETC. SHALL DIRECTED TO THE ENGINEER. CONTRACTOR MUST ONLY TAKE DIRECTION FROM THE ENGINEER IN REGARDS TO CHANGES TO DESIGN OR EXTRA WORKS.
28. UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS OR NOTIFIED TO THE CONTRARY BY THE ENGINEER, THE CONTRACTOR IS THE 'PRIME CONTRACTOR' FOR THE PURPOSE OF ALL APPLICABLE LAWS RELATIVE TO OCCUPATIONAL HEALTH AND SAFETY, INCLUDING THE DISCHARGE OF ALL DUTIES OF THE 'PRIME CONTRACTOR' UNDER THE WORKERS COMPENSATION ACT (BRITISH COLUMBIA), NOTWITHSTANDING THAT THE ENGINEER, THE OWNER OR ANOTHER CONTRACTOR MAY PROVIDE FROM TIME TO TIME SOME OF THE SERVICES NORMALLY PROVIDED BY SUCH 'PRIME CONTRACTOR'. IN THIS SECTION 'PRIME CONTRACTOR' MEANS THE CONTRACTOR SO DEFINED UNDER THE WORKERS COMPENSATION ACT (BRITISH COLUMBIA).

CREUS Engineering
Civil Engineers & Project Managers
SUITE 200-901 16TH ST WEST, NORTH VANCOUVER BC, V7P1R2
PH: 604-987-9070 WEBSITE: www.creus.ca

DRAWING LEGEND

	EXISTING	PROP.	TO BE REMOVED
LEGAL LINE			
EASMENT			
WATERMAIN			
SANITARY			
STORM			
HYDRO			
TEL			
STREETLIGHT			
GAS			

	EXISTING	PROP.	TO BE REMOVED
FIRE HYDRANT			
GATE VALVE			
AIR VALVE			
REDUCER			
INSPECTION CHAMBER			
CATCHBASIN (STD/SI)			
CAP			
MANHOLE			
POWER POLE			
STREETLIGHT			

approved

client
STRUCTURE DEVELOPMENT LTD.

project
905-959 PREMIER STREET
NORTH VANCOUVER, BC

title
KEYPLAN

no.	(y/m/d)	revision	chk'd
4	17-04-26	REVISED PER DNV COMMENTS	CAS
3	16-08-22	ISSUED FOR REZONING & DP	NGB
2	16-06-08	ISSUED FOR DETAILED DEVELOPMENT PERMIT	NGB
1	15-04-15	ISSUED FOR APPROVAL	NGB

current rev. # 4

engineer of record: FMC	scales: hor: 1:200 vert: -
designed by: NGB	file no.: 14211
drawn by: NGB	drawing no.: KEY
date: 2014-09-25	

EXCERPT FROM MINUTES OF THE ADVISORY DESIGN PANEL MEETING HELD ON FEBRUARY 9, 2017 AT THE DISTRICT OF NORTH VANCOUVER

Mr. Darren Veres, Community Planner, introduced the project and explained that the site is located on the west side of Premier Street in the Lynnmour Inter-River neighbourhood and is comprised of four single family residential lots. The site is zoned RS3, for single family uses, and the OCP designation for the site is "RES3: Attached Residential." The proposed multifamily development includes 17 three-storey townhouse units in four buildings for a total FSR of 0.69 and is in accordance with the OCP designation. The project requires rezoning to allow for the proposed increase in density, as well as a development permit. The applicable development permit guidelines for the site include Ground-Oriented Multi-Family Housing and Energy and Water Conservation and Greenhouse Gas Emission Reduction.

The Chair welcomed the applicant team and Mr. Michael Scantland of Integra Architecture introduced the project. Mr. Scantland noted the following points in the presentation:

- The objective for the project is to enhance the physical and visual connections throughout the site and to the adjacent park, and to build on greenspace integration
- The design highlights rooflines inspired by westcoast architecture and finishes includes durable finish materials such as high quality prefinished "Hardi panel"
- Communication with the neighbourhood has been key to shaping the site layout so that private areas are not directly aligned with those of the neighbouring properties
- Accessibility to and from the site is important so a gate at the centre of the property will allow a connection to the adjacent park space at the west property line
- The need for stairs on the site has been minimized
- Mr. Ron Smith of Forma Design Landscape Architecture reviewed the landscape approach for the project, include the use of "green fingers" to connect the site to the park and to the landscaped boulevard
- Streetscape and on-site plantings were noted as featuring native species
- A mix of pavers has been proposed to create some vibrancy in the hardscape
- Hedges are used to create privacy
- Cultured stone retaining walls and iron gates and fences are proposed as components of the landscape design.

The Chair thanked the applicant team for their presentation and asked if there were any questions of clarification from the Panel. Questions were asked and answered as follows:

- How are front yards facing the street landscaped? Turf, trees, a hedge, low fence, with cultured stone facing on low concrete retaining walls, and glass gates
- What is the differentiation between private and common outdoor space on the property? The project includes a variety of techniques to establish differentiation between common spaces and private spaces - a central walkway is proposed as a common space, as well as gathering space with a pergola feature
- Is there a common walkway on the west side of project and is there an unlocked gate to the property in this location? Yes, on both counts.

- Is there access from the property to the existing south walkway? No, not proposed
- Are there any significant trees on the site? There is a large hedge on the west side of the property but no other trees or vegetation on the site worthy of retention. Tree removals on the site will be replaced with new plantings with native species along the north, west, and south edges
- Are the soffits wood? No, wood-look paneling for greater durability
- Will the garages have exterior lighting? Haven't worked that through yet but definitely something to consider for CPTED purposes
- Given that the pathway through the site is accessed through an unlocked gate, how will territoriality be established? The gate will help establish the change from the public space to the semi-public space and it is not expected there would be much traffic through the site
- Have unit identification and wayfinding to rear units been considered? Unit numbers will be posted at each entrance door. The approach to a directory for the project has not yet been resolved
- What is the grade change from the sidewalk to unit entries? Some of the units are level, but the majority require 1 or 2 steps to access
- How was the driveway alignment selected - why is the orientation asymmetrical? Original site plan included an additional townhouse unit so instead of revising the driveway location, it was left unchanged to allow for more privacy from the street.

Mr. Alfonso Tejada, District Urban Design Planner, provided a number of comments and questions for consideration. It was noted that he main issues relate to the site plan of the project including:

- Visitor parking seems to be on the wrong side of the driveway, given the normal approach for vehicles accessing the property
- South boundary of site needs more attention – the project to the south includes entrance gates and front yards to the walkway, and there would be merit in having some access from the walkway to this property
- Would be beneficial to see some more details regarding grade changes at entrances to the townhouse units
- There may be a benefit to removing some of the proposed trees from the pergola area and allow for a more open gathering space
- The relationship of timber feature elements with their concrete bases seems awkward as shown in the design drawings
- There could be a benefit to more manoeuvring space for vehicles at the north and south ends of the driveway areas

The Chair invited comments from the Panel members, and the following comments and items for consideration were provided:

- The materials and shape of the rooflines are generally positive, but consideration should be given to the use of real wood soffits
- Given that the focus of the development is on families the gathering space should be developed further to provide better social interaction opportunities and it was suggested

that changes could include more articulation of building facades fronting the gathering space, reconsideration of the location of the pergola in the space, and different paving surfaces in this area

- The asymmetrical layout of the driveway works well and seems to help enhance safety and privacy of the family-oriented development
- Overlapping roofs with minimal separations seem like they could be a maintenance challenge and gutters and downspouts need to be carefully detailed especially on knee braces at front entrances
- Waste and recycling areas need to be clearly defined and well planned out for easy access
- The planting plan works well with a mix of native and ornamental selections but could use some work to provide integrative connection features for the residents
- Would like to see connection from interior of site to the south pathway at the edge of the project
- Need to resolve exiting from personnel doors in garages to ensure this is safe and workable
- Wayfinding and unit identification need to be resolved for the project
- A different approach to the garage doors could be an improvement as the current approach is somewhat relentless – this could be addressed with changes in colour or some architectural features above some of them

The Chair invited the project team to respond. Mr. Scantland, project architect, acknowledged the Panel's suggestions, and clarified some of the comments including the intent that the waste and recycle bins would be stored in the deep garages, that trees at the south end of the driveway are there to address glare concerns from neighbours to the south, and that the inclusion of more on-site amenity spaces for residents can be considered.

Mr. Ron Smith noted that some regrading will take place along the west side of the site to allow for a positive relationship to the park, and that options can be explored for adjustments to the common resident spaces in the project.

The Chair invited the Panel to compose a motion:

MOVED by Tieg Martin and **SECONDED** by Steve Wong:

> **THAT** the ADP has reviewed the proposal and recommends **APPROVAL** of the project **SUBJECT** to addressing to the satisfaction of staff the items noted by the Panel in its review of the project.

CARRIED

DUNSTER & ASSOCIATES
Environmental Consultants Ltd.

April 12, 2016

Michael Scantland
Integra Architecture Inc.
416 West Pender Street,
Vancouver, BC
V6B 1T5

Dear Sir:

RE: Existing Trees on Site at 905, 923, 939, and 957 Premier Street, North Vancouver, B.C.

As requested I have revisited the site in order to update my report prepared on May 11, 2015. As far as I can tell all of the trees identified in the May 2015 report are still in place. I did notice one spruce tree at 923 Premier Place, which I think would be tree 14, had been seriously damaged in a recent storm. Much of the top part has snapped off. Similarly, in the back of 905 Premier Place, the top of one tree (#19 or 21) has been snapped off.

In the park area adjacent (west) to these properties there are 2 black cottonwood trees still standing. Seven have been removed. I do not recommend trying to retain these last two cottonwood trees. They are already isolated trees and will become increasingly unstable once the trees have been removed on private property. It would be more sensible to remove these last two trees and replant the entire buffer area with new trees. I would suggest working with the parks department and perhaps establishing a new forest edge that is say 10 metres wide. That would reflect other areas of forest to the north.

If there are any other questions please call.

Yours truly,
On Behalf of Dunster & Associates Environmental Consultants Ltd.

Julian Dunster

Dr. Julian A. Dunster, R.P.F., R.P.P., ISA Certified Arborist
ASCA Registered Consulting Arborist # 378
ISA Tree Risk Assessment Qualified
BC Wildlife Danger Tree Assessor
Honourary Life Member ISA + PNWISA

DUNSTER & ASSOCIATES
Environmental Consultants Ltd.

A Review of Existing Trees on Site at: 905, 923, 939, and 957 Premier Street North Vancouver, B.C.

Prepared for

Rhys Leitch M Arch,
Integra Architecture Inc.
416 West Pender Street,
Vancouver, BC
V6B 1T5

May 11, 2015

4621 Cliffwood Place, Victoria, B.C. Canada V8Y 1B6 Tel: 778 433 8465 email: jd@dunster.ca www.dunster.ca

A Review of Existing Trees on Site at: 905, 923, 939, and 957 Premier Street North Vancouver, B.C.

Background

The four existing houses identified as 905, 923, 938, and 957 Premier Street are proposed for redevelopment. Dunster & Associates Environmental Consultants Ltd. Has been asked to review the condition of the trees currently on these four lots. The site was visited on May 6th 2015 and trees were documented working with a survey plan dated September 11th 2014, prepared by supplied by Gary N. Holme BCLS.

Conditions of Site

Table 1 shows the data collected. Figure 2 shows the survey plan with tree locations noted in Table 1, added in as a reference for locations.

Table 1. Tree data collected

Tree #	Species	Trunk diameter (cm)	Comment
1	Birch	25	Fair condition
2	Hemlock	36 + 37	codominant stems
3	Hazel	< 17	seven small stems
4	Lawson cypress	58	forks at 2 metres, part of row of straggly trees, topped, mutilated, poor condition
5	Lawson cypress	25	forks at 1.5 metres, east end of hedge area
6	Norway spruce	35	
7	Norway spruce	41	
8	Norway spruce	33	
9	Norway spruce	34	
10	Norway spruce	40	
11	Norway spruce	42	
12	Norway spruce	34	
13	Norway spruce	38	
14	Norway spruce	50	
15	Cherry	56	poor condition

16	Norway spruce	55	row of trees along the west edge of 923 Premier St. Some multiple stemmed trunks.
17	Norway spruce	30	
18	Norway spruce	21	
19	Norway spruce	46	
20	Norway spruce	45	
21	Norway spruce	36	
22	Norway spruce	40	
23	Norway spruce	33	
24	Norway spruce	20	
25	Norway spruce	27	
26	Western redcedar	28	Part of hedge, both trees topped and mutilated.
27	Western redcedar	24	
28	Cherry	42	Leans west, poor condition
29	Cherry	58	Fair condition

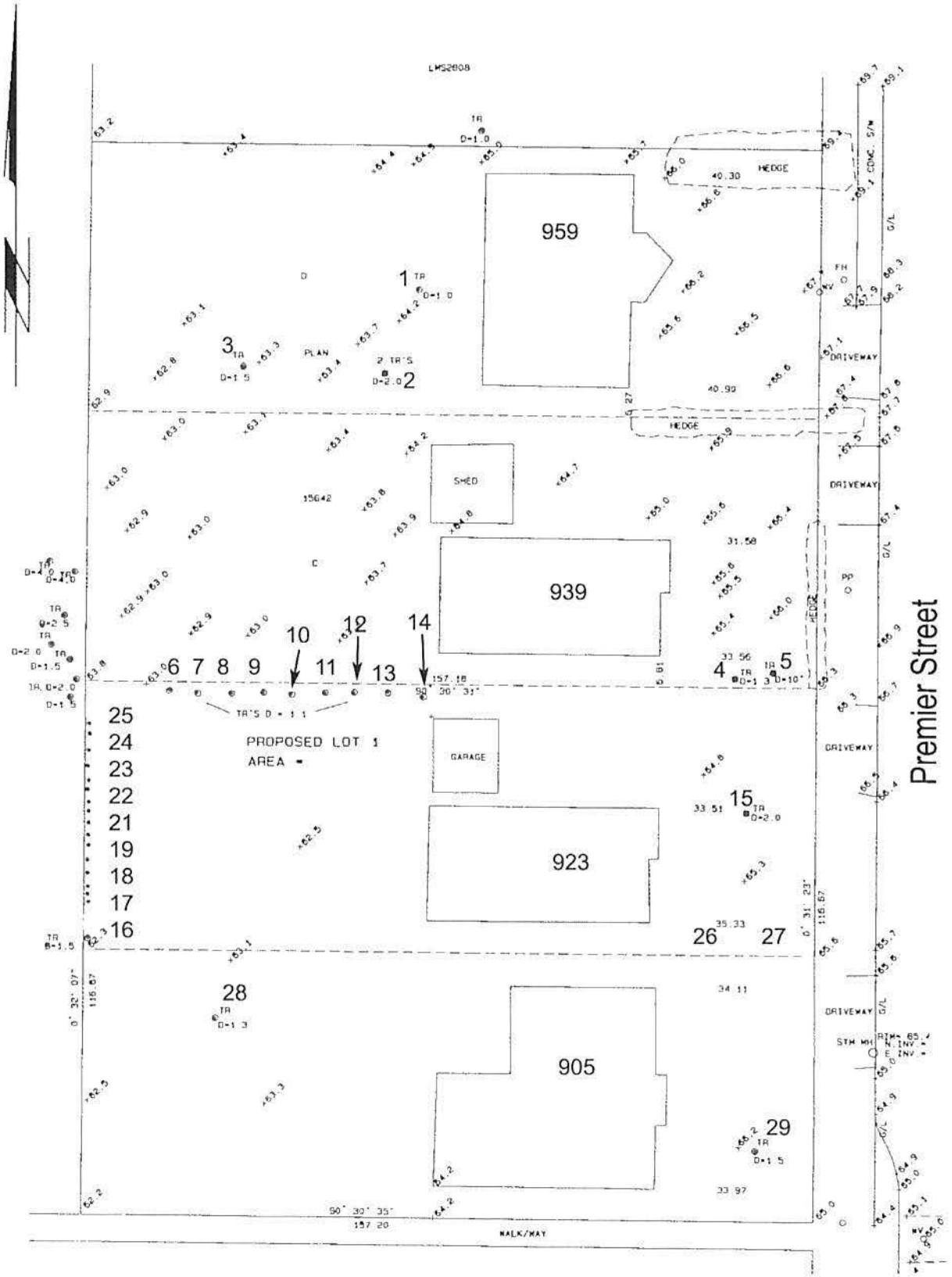


Figure 1. Location of trees by number.

Discussion

The proposed development is shown in Figure 2. I have superimposed the approximate location of the existing boundaries.

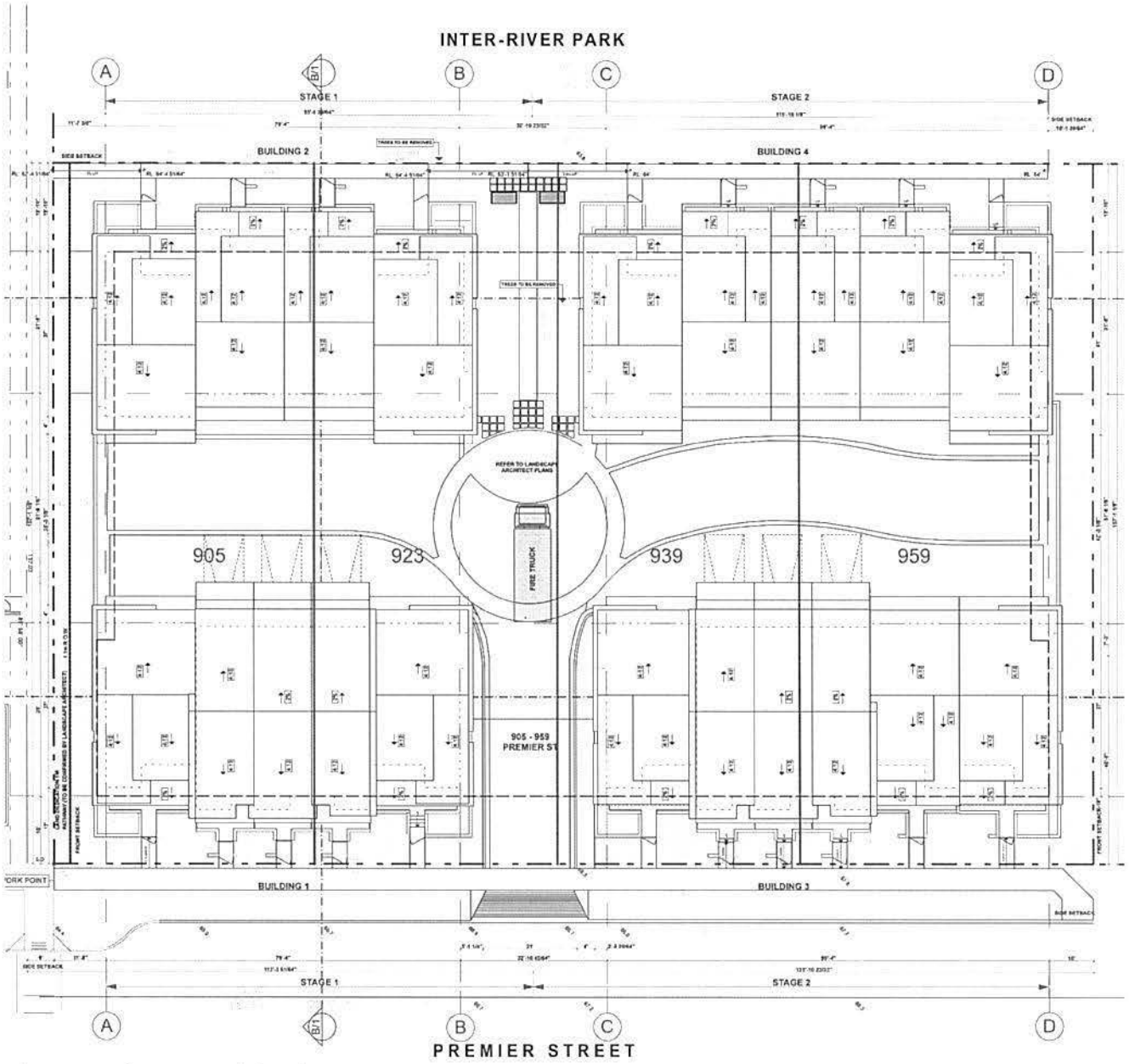


Figure 2. The proposed development.

The new footprint will eliminate all of the existing trees. None of the existing trees are in really good condition, and none of them are rare or special trees that would warrant a change in design to retain them.

Conclusion

Twenty nine trees were located, though some may be off site. The proposed development will eliminate all trees on site. I have not assessed any trees off site with regard to possible impacts of development. That would mainly be trees located along the west boundary and beyond. None of the trees on site are deemed worthy of retention.

E3 ECO GROUP

2nd Floor

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12 May 2016

To: District of North Vancouver
Re: Green Building Strategy for Townhouse Development at 905-959 Premier Street

Structure Development is working with E3 Eco Group energy advisors to review the energy, resource and environmental efficiency of its townhouse development at 905-959 Premier Street in the District of North Vancouver. The intention is to ensure that the development will meet a building standard equivalent to BuiltGreen™ Gold on the 2011 Single Family Checklist and a minimum Energuide rating of 80.

E3 Eco Group will perform the following:

1) Complete computer modeling of each of the unique plan types to be built at the development
2) Consult with Structure Development regarding the checklist items to ensure that at least 100 points are achievable
3) Provide an Energuide Rating, including air-leakage testing, on each of the homes built in the development

To achieve a minimum Energuide rating of 80 Structure Development is considering the following :

1) Advanced air tightness measures
2) Heat recovery ventilator
3) Drain water heat recovery
4) EnergyStar windows
5) EnergyStar appliances
6) Low flow faucets and toilets

The completion of the above steps will allow all homes in the development to meet the BuiltGreen™ Gold level and achieve an Energuide rating of 80.

Kind Regards,

Einar Halbig
CEO, Eco Group Inc.

BUILT GREEN™ CHECKLIST 2011

Effective January 1, 2011

To select points, click on boxes and select point value from drop-down list

Builder: Structure Development House Address: 905-959 Premier Street

Section 1: 16 Section 2: 15 Section 3: 14 Section 4: 17 Section 5: 11 Section 6: 10 Section 7: 9
Section 8: 8 = TOTAL POINTS: 100

I. OPERATIONAL SYSTEMS

This section awards points for construction methods and types of products that contribute toward lower energy consumption, as well as alternative heating and electrical systems.
Minimum 10 Points Required

1-1 Install a zoned heating system. Either, from a single HVAC source utilizing two or more, programable, thermostatically controlled zones or zoning separate systems through separate programable thermostats. (2 Zones = 2 points, 3 = points, 4 = points)

3 — 2, 3 or 4

Efficiency can be significantly improved by only heating or cooling when occupants are present and by only heating/cooling to the exact desired temperature. Different desired temperatures can be set in each room or space and an individual zone can be turned off when not occupied. This type of system results in a dramatic reduction of energy consumption and operating costs.

1-2 Install high efficiency, sealed combustion heating appliance, with a minimum 94% AFUE (2 points) or 95% AFUE and above (3 points).

2 or 3

(Not for electric heat.) High efficiency furnaces or boilers, such as condensing systems, reduce energy consumption and consequently fossil fuel reliance. Because AFUE takes into account efficiency losses during start-up and cool down it's rating is slightly lower.

1-3 Install ground or water source heat pumps (10 points) or air source heat pumps (6 points) for heating and cooling.

6 to 10

Heat pumps can significantly reduce primary energy use for building heating and cooling. The renewable component displaces the need for primary fuels, which, when burned, produce greenhouse gases and contribute to global warming. Please Note: Cool climate heat pump systems are often more efficient due to the costs of electricity. However, cold climate heat pump systems are often not as efficient as typical boiler/furnace natural gas systems.

1-4 Programmable thermostat with dual set back & continuous fan setting.

2

A set back thermostat regulates the heating/cooling system to provide optimum comfort when the house is occupied and to conserve energy when it is not.

1-5 Install HVAC appliance with variable speed fan (ECM).

3

A variable speed fan motor (ECM or DC powered) is designed to vary its speed based on the homes heating and air conditioning requirements. Working in conjunction with the thermostat, it keeps the appropriate air temperature circulating through the home, reducing temperature variances in the home. It also provides greater air circulation and filtration, better temperature distribution, humidity control, higher efficiency and quiet performance.

1-6 Install sealed combustion 2 pipe tank system (2 points), or condensing DHW tank system (3 points)

2 or 3

Hot water heater is direct vented with a closed combustion system. All air for combustion is taken directly from the outside. A direct system utilizes a co-axial vent pipe (pipe inside a pipe) draws combustion air in through the outer pipe, and exhausts the products of combustion through the inner pipe. A power vented heater exhausts air out of the building via a positive exhaust during main burner operation. Both systems eliminate the need for conventional chimneys or flue systems.

1-7 Install instantaneous “tankless” hot water heater.

4

A tankless water heater does not have a storage tank to keep heated all day, or a pilot light; it burns gas only when you need hot water. This eliminates standby heat loss and its higher efficiency will save on utility costs.

1-8 Install high efficiency (AFUE 90 or better) boiler domestic hot water system.

4

1-9 Install Ground Source Heat Pump DHW heating system to supply a minimum of 25% of the peak DHW heating load and 70% of the total DHW energy load.

4

A Ground Source Heat Pump system uses the earths constant temperature to heat water for the home.

1-10	Install drain water heat recovery units on the main drainage stack. 3 foot stack (1 point), 6 foot stack (2 points) Drain water heat recovery units transfer the heat from waste water to incoming water. This reduces the amount of energy needed for the DHW system.	2	1 or 2
1-11	Sealed combustion fireplace with electronic ignition if gas fueled. Sealed combustion fireplaces involve a double-walled special vent supplied by the manufacturer that normally vents through a sidewall in a horizontal position. The unit must be Sealed Combustion, meaning that combustion gasses can not enter the home even if the home becomes depressurized.		2
1-12	Install an EPA or CSA certified high-efficiency wood stove or pellet stove with a minimum efficiency of 72% (1 point) or 85% (2 points). State-of-the-art wood and pellet stoves are among the cleanest burning heating appliances and deliver a high overall efficiency. EPA and CSA certified stoves ensure reduced emissions.		1 or 2
1-13	Install fireplace fan kit to circulate warm air into room (1 point per fan, maximum 2 points). A fan kit allows the heat generated by a fireplace to be transferred into the home more effectively.		1 or 2
1-14	All windows in home are ENERGY STAR labeled or equivalent for the climatic zone of home. ENERGY STAR labeled windows save energy by insulating better than standard windows, making the home more comfortable all year round, reducing outside noise and can result in less condensation forming on the window in cold weather.	2	2
1-15	Electric range is self cleaning and/or Convection based Ranges that self clean or have convection are better insulated and sealed, performing at or less than 500 kwh (520 kwh for convection) when rated by EnerGuide.		1
1-16	Refrigerator is an ENERGY STAR labeled product. An ENERGY STAR label for refrigerator indicates the product has met strict requirements to reduce energy consumption.	2	2
1-17	Dishwasher is an ENERGY STAR labeled product. An ENERGY STAR label for a dishwasher indicates the product has met strict requirements to reduce energy consumption.	1	1
1-18	Clothes washer or combo washer dryer is an ENERGY STAR labeled product. An ENERGY STAR label for a clothes washer indicates the product has met strict requirements to reduce energy consumption.	1	1
1-19	Clothes dryer has an energy performance "auto sense" dry setting which utilizes a humidity sensor for energy efficiency.		1
1-20	Home is built "Solar Ready" following Canadian Solar Industries Association (CANSIA) guidelines. Designing a home to be solar ready will make the addition of panels in the future much easier. Contact the Canadian Solar Industries Association for more info: www.cansia.ca.		2
1-21	Install active solar hot water heating system. Sized for 30% of DHW load (4 points), 50% (6 points), 80% (8 Points) System capacity must be verified by professional installer or engineer using modeling software such as RETScreen or better, data provided to Built Green Energy Advisor at time of modeling		4, 6,8
1-22	Install photovoltaic electrical generation system. Sized for 30% of electric load (4 points), 50% (6 points), 80% (8 points). A photovoltaic system will greatly reduce the reliance on fossil fuel energy and reduce greenhouse gas emissions. System capacity must be verified by professional installer or engineer.		4, 6, 8
1-23	50% (2 points) or 100% (4 points) of electricity used during construction of home is generated by wind power or equivalent green power certificate.		2 or 4
1-24	50% (2 points) or 100% (4 points) of electricity used by homeowner during first year of occupancy is generated by wind power or equivalent green power certificate. (prepaid by builder)		2 or 4
1-25	A properly supported and wired ceiling fan and a wall mounted switch roughed in for future installation. Intended to allow for future temperature equalization.	1	1
1-26	Install interior motion sensor light switches. 1 point per switch to a maximum of 3 points. Motion sensor switches prevent lights from remaining on in rooms that are unoccupied. This helps reduce electricity consumption. Switches on closet doors and pantries are also acceptable.		1 to 3
1-27	Install central, computerized control systems capable of unified automation control of lighting loads. Lighting and automation control systems prevent lights from remaining on in rooms without occupants, thereby reducing electricity consumption.		4
1-28	Minimum 25% (1 point), 50% (2 points), 75% (3 points) or 100% (4 points) of interior and exterior light fixtures are fluorescent, compact fluorescent light bulbs or LEDs. Fluorescent, compact fluorescent and LED lamps use 50% less energy than standard lamps and last up to ten times longer.	2	1 to 4

1-29	Minimum 50% of recessed lights use halogen bulbs. Halogen bulbs are slightly more energy efficient, last longer and provide a more effective task light than conventional bulbs.	1	1
1-30	Air tight, insulation contact-rated recessed lights are used in all insulated ceilings, or insulated ceilings have no recessed lights. Prevents heated air from exhausting through ceiling. Air tight light fixtures lead to a more airtight, energy efficient home.	1	1
	TOTAL SECTION POINTS	**16**	

II. BUILDING MATERIALS

This section deals with building components that make up the structure of the home. Items involve alternatives to using large dimensional lumber, products with a recycled component, utilizing wood products that come from sustainably managed forests and reducing the overall amount of lumber used. Many Building Material items also improve thermal performance and EnerGuide scores

Minimum 15 Points Required

2-1	Insulated Concrete Form (ICF) system used for foundation walls. Insulating Concrete Forms (ICF) are hollow building elements made of plastic foam that are assembled, often like building blocks, into the shape of a buildings exterior walls. The ICFs are filled with reinforced concrete to create structural walls. Unlike traditional forms, the ICFs are left in place to provide insulation and a surface for finishes.		2
2-2	Insulated Concrete Form (ICF) system used for 75% of above grade house walls. See description in 2.1. Use of modest a amount of stick framing is allowable, i.e. at bay windows, pony walls and walk out walls.		3
2-3	Non-solvent based damp proofing (seasonal application). Water based damp proofing products use water as a thinner. Oil based damp proofing gives off a number of volatile organic compounds (VOCs) as the solvent evaporates after application. These VOCs can be a strong irritant and can add to air pollution.		1
2-4	Exterior and interior wall stud spacing at 19.2” on-center (1 point) or 24" on-center (2 points) . Increasing stud spacing reduced the thermal performance of homes while saving materials.		1 or 2
2-5	Use of insulated headers / lintels (either manufactured or site built insulated headers) with minimum insulation value of R10. Headers can either be insulated on site or can be a pre-manufactured product (often insulated with a foamed plastic).		1
2-6	Install manufactured insulated rim/band joist, or build on-site built header wrap detail for continuous air barrier. Rim and band joists can either be insulated on site or can be pre-manufactured (often insulated with a foamed insulation).		1
2-7	Elimination of headers at non-bearing interior and exterior walls. It is not necessary to use the additional wood involved in header construction if the opening is less than 4' wide and is non-load bearing. For more details on Optimum Value Engineering framing principles see www.buildingscience.com.	1	1
2-8	Use of header hangers instead of jack studs. Using metal header hangers instead of jack studs allows for savings in wood use. For more details on Optimum Value Engineering framing principles see www.buildingscience.com.		1
2-9	Elimination of cripples on hung windows. For hung window openings, cripples are only necessary for siding or gypsum board attachment. For more details on Optimum Value Engineering framing principles see www.buildingscience.com.		1
2-10	Elimination of double plates, using single plates with connectors by lining up roof framing with wall and floor framing. Stack framing principles will allow for reduced wood usage. For more details on Optimum Value Engineering framing principles see www.buildingscience.com.		1
2-11	Use of two stud corner framing with drywall clips or scrap lumber for drywall backing instead of studs. Drywall clips can be used instead of a third corner stud allowing for reduced wood usage. For more details on Optimum Value Engineering framing principles see www.buildingscience.com.		1
2-12	Deck or veranda surfaces (1 point) and/or structure (1 point) made from a third-party certified sustainably harvested wood source. Wood must come from a sustainably harvested source with certification from Forest Stewardship Council (FSC), Sustainable Forestry Initiative (SFI), or Canadian Standards Association's Sustainable Forest Management Standard (CAN/CSA-Z809-02).	1	1 or 2
2-13	Deck or veranda surfaces (1 point) and/or structure (1 point) made from a third-party certified sustainable concrete. Concrete produced from aggregates derived from a pit or quarry with a valid reclamation plan approved by Materials and Resources Canada or the governing provincial body.		1 or 2
2-14	Structural insulated panel system used for at least 75% of roof/ceiling (4 points), 75% of walls (6 points), exposed floors (2 points) and/or Foundation (2 points). Factory built Stressed-skin Insulating Panels (SIPS) can reduce thermal migration and control air leakage – keeps heating and cooling costs to a minimum and can use less framing material compared to a conventionally framed wall.		2 to 14
2-15	Dimensional lumber from a third-party certified sustainably harvested source used for floor framing. See 2-12		1

2-16	Dimensional lumber from a third-party certified sustainably harvested source used for wall framing. See 2-12		2
2-17	Dimensional lumber from a third-party certified sustainably harvested source used for roof framing. See 2-12		1
2-18	Use manufactured wood products for floor systems instead of dimensional lumber (1 point), from third party certified sustainably harvested sources (2 points). Engineered wood floor systems saves old growth forests by using components from second generation forests and the use of recycled materials. See 2-12		1 or 2
2-19	Reduce dimensional lumber use by using engineered product for all load bearing beams & columns (1 point), from third party certified sustainable sources (2 points). Engineered products include wood products, concrete and recycled steel.		1 or 2
2-20	Reduce dimensional lumber use by using engineered products for all exterior window and door headers. Engineered products include wood products, concrete and recycled steel.	1	1
2-21	Finger-jointed plate material and/or engineered plate material used for all framing plates. Use of recycled materials saves old growth forests.		1
2-22	Reduce dimensional lumber use by using engineered stud material for 10% of structural stud wall framing. Use of engineered lumber products saves old growth forests by using components from second generation forests and the use of recycled materials.		1
2-23	Finger-jointed studs for 90% of non-structural (1 point) and/or 90% of structural (1 point) wall framing. Use of recycled materials saves old growth forests.	1	1 or 2
2-24	Recycled and/or recovered content gypsum wallboard, minimum of 15% recycled content.	1	1
2-25	Recycled content exterior wall sheathing (minimum 50% pre- or post-consumer).		2
2-26	Use rain screen system separating cladding from the wall sheathing with a drainage plane (2 point), 60% or more recycled content (additional 1 point). Use of recycled content polypropylene, steel or aluminum rain screen strapping may replace the traditional use of wood strapping on rain screen systems.	2	1 or 3
2-27	Advanced sealing package, non HCFC expanding foam around window and door openings and all exterior wall penetrations. Controls air leakage and keeps heating and cooling costs to a minimum.	2	2
2-28	All sill plates sealed with foam sill gaskets or a continuous sandwiched bead of acoustical sealant. Controls air leakage and keeps heating and cooling costs to a minimum.	1	1
2-29	All insulation used in home is certified by a third-party to contain a minimum recycled content: 40% (1 point) or 50% (2 points).	1	1 or 2
2-30	Install site applied spray foam to insulate entire rim joist area (1 point), Exposed floors (2 points) and/or house walls (4 points) and/or entire roof (3 points). Spray insulations provide excellent air sealing and insulation value. Spray foam must be fire protected and some types cannot come in contact with heating ducts or lines. Some foams meet requirements for vapour barriers. Consult supplier or installer for further information.		1 to 10
2-31	Replace exterior wood sheathing with insulating sheathing and structurally required metal bracing. Using less materials when possible saves the forest reserves, reduces thermal migration and controls air leakage and keeps heating and cooling costs to a minimum compared to a conventional wall.		2
2-32	Install R5 (1 point), R8 (2 points) or R12 (3 points) above building code required under entire basement slab. Insulation installed under the basement slab will reduce the downward heat transfer into the ground below the slab, especially when hydronic in-slab heating is installed. Insulation under the slab can reduce temperature swings in the heated space and respond quicker to new changes in thermostat settings.	1	1,2 or 3
2-33	Install additional rigid insulation on exterior of above grade walls, above code required framing cavity insulation. 1.5" (1 point) or 2" (3 points). Exterior insulation can greatly reduce thermal bridging, improving thermal performance. Care must be taken to ensure the wall cavity remains permeable to the outside and foam must be fully protected from UV damage during and after construction. Refer to CHBA Builder Manual or Local Code Officals for additional information.		1 or 3
2-34	Install additional exterior insulations system on exterior of foundation, R Value of 7.5 (1 point), R10 (2 points), or R15 (3 points), above code required interior insulation level Insulation on the outside of a foundation system reduced energy loss		1, 2 or 3
2-35	Overhead garage door is made of 75% or greater recycled material.		1
2-36	Attached garage overhead door is insulated with R8 to R12 (1 point) or greater than R12 (2 points).		1 or 2
2-37	Attached garage is fully insulated. A fully insulated garage serves an additional insulating capacity for any walls encapsulated by it, further slowing heat loss through those walls.	1	1

2-38	Builder uses passive solar design shading devices for home. Permanent horizontal and/or vertical exterior shading devices for glazing (2 points), computer controlled devices (additional 1 point). Excludes interior blinds.		2 or 3
2-39	Install 100% recycled content carpet underlayment.	1	1
2-40	Install finished concrete interior floors instead of other types of finished floors (tile, carpet, hardwood, etc). For 300-500 ft² (1 point), 501-1000 ft² (2 points), 1001-1500 ft² (3 points), 1501+ ft² (4 points). Not applicable in unfinished basement areas. Using the concrete itself as a finished floor where concrete is being used regardless (for in floor heat or basement slabs) provides a durable floor with less material usage.		1 to 4
2-41	Install weather-stripped and insulated (R15 minimum) manufactured interior attic hatch (1 point), or no interior attic access (1 point)	1	1
	TOTAL SECTION POINTS	**15**	

III. EXTERIOR and INTERIOR FINISHES

This section focuses on the finish materials used both inside and outside of the home. The items listed include using longer lasting products, products with recycled content and products that are harvested from third-party certified sustainably managed forests.

Minimum 10 Points Required

3-1	Exterior doors with a minimum of 15% recycled and/or recovered content. Recycled or recovered content ensures we keep our landfill use to a minimum. Not including overhead garage doors (see 2-33).		1
3-2	Interior doors with a minimum of 15% recycled and/or recovered content.		1
3-3	Interior doors made from third-party certified sustainably harvested wood. Uses trees from forests managed sustainably, that prevent clear cutting and replant trees in areas from which they've been harvested.		2
3-4	All exterior doors manufactured from fiberglass. Fiberglass doors insulate better than steel skinned or wood doors, have a longer lifespan, do not warp, twist or crack, and therefore reduce landfill use.	1	1
3-5	Exterior window frames contain a minimum of 10% recycled content. Reusing materials such as plastics that may not be biodegradable reduces landfill usage.		1
3-6	Exterior window frames made from third-party certified sustainably harvested wood. Uses trees from responsible sources and forests certified to an independent third party forest certification program.		2
3-7	Natural cementitious stone/stucco/brick or fiber cement siding – complete or combination thereof for 100% of exterior cladding. Strong, long lasting, fireproof material.	4	4
3-8	Recycled or reclaimed exterior cladding material. 1/3 of exterior (1 point), 2/3 or more of home (2 points). Use of reclamined bricks, recycled content siding, etc. Intent is to replace siding materials, primarily exterior finish materials.		1 or 2
3-9	Fiber cement fascia and soffit. Fiber cement fascia and soffit, made with recycled content from sawmill waste and Portland cement, is a strong, long lasting and fireproof material.		2
3-10	Recycled and/or recovered-content fascia and soffit (minimum 50% pre- or post-consumer). Recycled and/or recovered-content fascia and soffit reduces the amount of new material used in production by gluing up mill scraps into large pieces, which conserves natural resources and reduces landfill usage.		1
3-11	Recycled and/or recovered-content siding (minimum 50% pre- or post-consumer). Recycled and/or recovered-content siding reduces the amount of new material used in production by gluing up mill scraps into large pieces, which conserves natural resources and reduces landfill usage.		4
3-12	Exterior trim materials are made from alternatives to solid lumber. Trim materials manufactured from OSB uses a laminating process to make larger pieces from smaller pieces or strands of wood. The process saves old growth forests by using trees from forests managed sustainably, that prevent clear cutting and replant trees in areas from which they've been harvested.		1
3-13	Exterior trim materials have recycled and/or recovered-content (minimum 50%). Recycled and/or recovered-content trim materials reduce the amount of new material used in production by gluing up mill scraps into large pieces, which conserves natural resources and reduces landfill usage.		3
3-14	All exterior trim is clad with pre-finished metal (1 point over wood backings, 2 points without wood backings). Trim clad with pre-finished metal is a durable long lasting product that requires no maintenance and reduces waste in landfills due to long life of product.		1 or 2
3-15	Deck or veranda surfaces made from low maintenance materials - deck surfaces do not need maintenance of any kind, including painting, for a minimum of 5 years. Materials that last longer reduce landfill usage and tend to require little to no maintenance, saving replacement costs and reducing energy use.	2	2

3-16	Minimum 25-year manufacturer warranty roofing material (2 points plus 1 point for each additional 5 years). A 25-year roof system saves homeowners money in replacement costs, and reduces the use of landfills due to the longevity of the product.	3	2 or more
3-17	Minimum 25% recycled-content roofing system (1 point underlay and 2 points roofing finish). Recycled content roofing material reduces the use of new resources and waste in landfills.		1 to 3
3-18	Domestic wood from reused/recovered or re-milled sources, 500 ft² minimum for flooring or all cabinets or all millwork. Reused, recovered or re-milled sources eliminate the need for new resources, saving energy, transportation costs, and forestry from depletion.		6
3-19	Natural or recycled-content carpet pad made from textile, carpet cushion or tire waste (rebond still qualifies). Natural or recycled-content carpet pad is a good use of reusable resources.	2	2
3-20	Install carpet that has a minimum of 50% recycled content. Recycled-content carpet is a good use of renewable resources, lessens off-gassing and improves air quality.		2
3-21	Install a minimum of 300 ft² of laminate flooring.		2
3-22	Bamboo, cork or hardwood flooring used in home, minimum of 300 ft² installed. Products must be third-party certified from sustainably managed forests or certified sustainable sources. Cork flooring comes from stripping the bark off cork oak, which regenerates itself. The cork tiles are moisture, rot and mould resistant, providing a floor that can last over 30 years. Bamboo flooring is a good use of natural resources because it is fast growing, durable and flexible. All hard floorings promote better indoor air quality by not trapping contaminates.		3
3-23	All ceramic tile installed in home has a minimum of 25% recycled-content. Reduces landfill usage.		2
3-24	MDF and/or finger jointed casing and baseboard used throughout home (1 point), and all jambs (1 point) Medium Density Fiberboard (MDF) casing is created from sawdust and glues, utilizing all wood waste to create usable product.	2	1 to 2
3-25	Solid hardwood trim from third-party certified sustainably harvested sources approved for millwork and/or cabinets (2 points per application – maximum of 4 points). Uses trees from responsible sources and forests certified to an independent third party forest certification program.		2 or 4
3-26	Paints or finishes with minimum of 20% recycled content. Paints or finishes made from recycled content are environmentally friendly because recycling paint reduces the hazardous waste in landfills.		1
3-27	Local natural stone or recycled content (30% of content) solid countertops for all kitchen counters (2 points), all other counter tops (1 point). Solid counter top product is more durable, easy to clean and maintain, resistant to heat and scoring. By quarrying and sourcing in Canada, the environmental cost of shipping is greatly reduced. Foreign stone cut or polished in Canada is not acceptable, quarry must be located within 800km of project, see item 8-1 for additinal point.		1 or 2
3-28	100% agricultural waste or 100% recycled wood particle board used for shelving. Products such as wheat board are made from agricultural waste.		2
3-29	PVD finish on all door hardware. Physical Vapour Disposition provides a more durable product. No toxic wastes are produced making it.		1
3-30	PVD finish on all faucets. Physical Vapour Disposition provides a more durable product. No toxic wastes are produced making it.		1
3-31	Install only Type 1 or 2 grade door hardware with lifetime mechanical and coating warranty. High quality, durable Type 1 and 2 hardware will not require replacing for life of home.		2
	TOTAL SECTION POINTS	**14**	

IV. INDOOR AIR QUALITY

This section focuses on the quality of the air within the finished home. Products listed here include materials that are low in VOC's, products made from all natural materials as well as various air cleaning and ventilation systems.
Minimum 15 Points Required

4-1	Install pleated media filter on HVAC system with minimum MERV 7 rating. MERV rating system specifies allowable amounts and practical sizes that a filter must catch. The higher the MERV rating, the smaller and greater number of particulates are caught, providing better indoor air quality.		1
4-2	Install electrostatic air cleaner on HVAC system. Permanent washable air filter that traps and removes airborne particles from the air before being circulated through the furnace and into the home.		2
4-3	Install air filter on all fresh air inlets. A filter installed on the fresh air inlet will reduce the particulate that can be transferred from outside into the home. All air intakes must be easily accessible for maintenance. Bug screens are not considered a "filter". Check with funace or HRV manufacture		1

4-4	Install electronic air cleaner on HVAC system. An electronic air cleaner offers a superior level of filtration by using advanced, 3-stage filtration technology to trap and filter airborne particles like dust, cat dander and smoke. It works by placing an electric charge on airborne particles, and then collecting the charged pollutants like a magnet. The air cleaner cells can be washed in your dishwasher or sink.		3
4-5	Install HEPA filtration system in conjunction with an HVAC system. HEPA stands for High-Efficiency Particle Arresting. HEPA filtration offers the highest particulate removal available - 99.97% of particles that pass through the system including dust, cat dander, certain bacteria, pollens and more. The system is connected to the cold air return of the forced air heating/cooling system which provides a whole house filtration system.		6
4-6	Install thermostat that indicates the need for the air filter to be changed or cleaned. This feature displays filter maintenance reminders on the thermostat. Regular furnace maintenance is required to keep your mechanical equipment running efficiently and problem free as well as ensuring a healthy indoor air environment.		1
4-7	Power vacuum all HVAC ducting prior to occupancy by homeowner. This process helps eliminate pollutants that drop into the HVAC ducting during the construction process from being circulated into the home.	2	2
4-8	Central vacuum system vented to exterior as recommended by the Carpet and Rug Institute. A central vacuum system collects dust centrally, while exhausting to the exterior so that dust mites and bacteria do not have the opportunity to re-circulate. The result is cleaner, healthier air. Note: install far enough from air intake areas. See manufacturer's installation guidelines.		1
4-9	All insulation in the home is third-party certified or certified with low or zero formaldehyde. Formaldehyde is colorless gaseous organic compound, water soluble, with a characteristic pungent and stifling smell. Products with low formaldehyde emission levels will improve indoor air quality of homes and long term owner health.	2	2
4-10	Low formaldehyde sub floor sheathing (less than 0.18 ppm). Formaldehyde is colorless gaseous organic compound, water soluble, with a characteristic pungent and stifling smell. Products with low formaldehyde emission levels will improve indoor air quality of homes and long term owner health. Industry Standard ANSI A208.1-1999 sets a 0.20 ppm limit. Built Green™ requires a 10% better level of performance at 0.18 ppm. Products using Phenol Formaldehyde, or PMDI or MDI will meet this standard without testing.	3	3
4-11	Low formaldehyde underlayment is used in home (less than 0.18 ppm). Low formaldehyde (phenol) and formaldehyde-free binders (PMDI) are available and becoming more common. FSC certified OSB is becoming more common, reducing environmental impacts on air, water, social quality.		1
4-12	Low formaldehyde particle board/MDF (less than 0.18 ppm) = 1 point, or zero formaldehyde particle board/MDF (2 points) used for cabinets. Urea formaldehyde-free fiberboard can be used in the same way as conventional fiberboard, but with the added caution of greater potential for water damage.		1 or 2
4-13	Low formaldehyde particle board/MDF (less than 0.18 ppm) = 1 point, or zero formaldehyde particle board/MDF (2 points) for shelving. Urea formaldehyde-free fiberboard can be used in the same way as conventional fiberboard, but with the added caution of greater potential for water damage.		1 or 2
4-14	All interior wire shelving is factory coated with low VOC / no off gassing coatings Vinyl coating on conventional shelving units and site built MDF shelving off gas VOCs.		2
4-15	Water-based urethane finishes used on all site-finished wood floors. Water-based epoxy finish (generally referred to as epoxy-modified finish) differs from its solvent-based counterpart in that the epoxy resin is itself the catalyst for an acrylic or urethane resin.		2
4-16	All wood or laminate flooring in home is factory finished. Installing a pre-finished floor eliminates the time, the dust and the odours associated with the on-site sanding and finishing of an unfinished product.	2	2
4-17	Water-based lacquer or paints are used on all site built and installed millwork, including doors, casing and baseboards. (less then 200 grams/litre of VOC's) Using water based interior finish products reduces VOC off-gassing which improves indoor air quality.	3	3
4-18	Interior paints used have low VOC content (less than 200 grams/litre of VOCs). Volatile Organic Compounds (VOCs) are a class of chemical compounds that can cause short or long-term health problems. A high level of VOCs in paints/finishes off-gas and can have detrimental effects to a buildings indoor air quality and occupant health.	2	2
4-19	Interior paints used have no VOC's in base paint prior to tint. Volatile Organic Compounds (VOCs) are a class of chemical compounds that can cause short or long-term health problems. A high level of VOCs in paints/finishes off-gas and can have detrimental effects to a buildings indoor air quality and occupant health.		3
4-20	All ceramic tiles are installed with low VOC adhesives and plasticizer-free grout (low VOC standard is less than 150 grams per litre). Most adhesives are still based on SB latex which releases large quantities of VOCs. The volatile solvents are used to emulsify (or liquefy) the resin that acts as the bonding agent. However, water-based adhesives emit far less VOCs than their conventional solvent based counterparts. There are three types of low-VOC formulas: water-based (latex and acrylics); reactive (silicone and polyurethane); and exempt solvent-based (VOC-compliant solvents). While all three technologies yield low- or zero-VOC caulks, sealants, and adhesives, their performance is slightly different.		1

4-21 All Vinyl flooring is replaced with natural linoleum installed with low VOC adhesives or other hard surface flooring — 2

(low VOC standard is less than 150 grams per litre). Hard surface flooring is generally more durable and improves the Indoor Air Quality within a building. Vinyl flooring typically releases VOC's as it ages and uses toxic glues in its application.

4-22 Carpet and Rug Institute (CRI) IAQ label on all carpet used in home. — 2 — 2

To identify carpet products that are truly low-VOC, CRI has established a labeling program. The CRI Indoor Air Quality Carpet Testing Program green and white logo displayed on carpet samples in showrooms informs the consumer that the product type has been tested by an independent laboratory and has met the criteria for very low emissions.

4-23 Carpet and Rug Institute (CRI) IAQ label on all underlay used in home. — 1 — 1

The adhesives used to install carpets and the latex rubber by some manufacturers to adhere face fibers to backing materials generate volatile organic compounds (VOCs). Carpets also cover large surfaces within an interior environment and can provide “sinks” for the absorption of VOCs from other sources.

4-24 Natural material based carpet in all living areas. — 2

Natural wool carpets are durable and use less secondary backing materials and chemicals. Off-gassing is typically caused by the secondary backings and chemical additives in synthetic carpets, for controlling mildew, fungus, fire and rot.

4-25 All carpet in home is replaced by hard surface flooring. — 4

Hard surface flooring is generally more durable and improves the Indoor Air Quality within a building. Carpets collect dust, dust mites and other allergens which when disturbed become airborne particulates- directly affecting the health of the occupants.

TOTAL SECTION POINTS — **17**

V. VENTILATION

This section covers the mechanical ventilation systems in the home, including filtrations and heat recovery.

Minimum 6 Points Required

*** Platinum Level Note* Platinum level homes must use item 5-7 " Ventilation system is installed according to CSA Standard F326, as recommended by the Heating, Refrigeration and Air Conditioning Institute of Canada (HRAI)." as well as 6 additional points from this section.**

5-1 All ductwork joints and penetrations sealed with low toxic mastic or aerosolized sealant system. — 3 — 3

Duct mastic is a preferred flexible sealant that can move with the expansion, contraction, and vibration of the duct system components. A high quality duct system greatly minimizes energy loss from ductwork. The system should be airtight, sized and designed to deliver the correct airflow to each room.

5-2 Install motorized damper on fresh air inlet (must be interlocked with furnace system). — 1

A constantly open fresh air supply (passive air) wastes energy. Positive control of this air will assure building comfort, safety and energy efficiency.

5-3 Install all ventilation fans (bath or in-line type) to meet or exceed the Energy Star requirements — 2 — 2

Energy Star fans have to meet standards for efficiency, and sound transmission, providing quiet and effective ventilation fans. www.oee.nrcan.gc.ca/energystar/english

5-4 Install a programmable timer or humidistat controlled ventilation fan meeting the Energy Star requirements for efficiency and sound level — 2

A programmable timer ensures necessary, regular, automatic mechanical ventilation of the home.

5-5 Install passive Heat Recovery Ventilator (HRV) and verify balanced installation. — 2

A Heat Recovery Ventilator (HRV) is an air exchanger that exhausts humid, stale, polluted air out of the home and draws in fresh, clean outdoor air into the home. Invisible pollutants produced by common household substances, plus dust and excess humidity that get trapped in today's houses, can increase your risk of chronic respiratory illness and your homes risk of serious structural damage. A passive HRV unit does not have its own internal fan and is 100% furnace assisted. It works by tying the exhaust side of the unit to the supply air plenum which forces air to exhaust from the home and at the same time fresh air enters from outside through the unit and into the cold air return duct work.

5-6 Install an active Heat Recovery Ventilator or Energy Recovery Ventilator (HRV or ERV) and verify balanced installation. — 4 — 4

A Heat Recovery Ventilator (HRV) is an air exchanger that exhausts humid, stale, polluted air out of the home and draws in fresh, clean outdoor air into the home. Invisible pollutants produced by common household substances, plus dust and excess humidity that get trapped in today's houses, can increase your risk of chronic respiratory illness and your homes risk of serious structural damage. Much like the HRV, the ERV recovers heat; however, it also recuperates the energy trapped in moisture, which greatly improves the overall recovery efficiency. In dry climates and humidified homes the ERV limits the amount of moisture expelled from the home. In humid climates and air conditioned homes, when it is more humid outside than inside, the ERV limits the amount of moisture coming into the home.

5-7 Ventilation system is installed according to CSA Standard F326, as recommended by the Heating, Refrigeration and Air Conditioning Institute of Canada (HRAI). — 5

www.hrai.ca

5-8	All bath fans used throughout home have a noise level of 1 sone or less Installing quiet fans will encourage use for home ventilation.	2	2

TOTAL SECTION POINTS 11

VI. WASTE MANAGEMENT

This section deals with the handling of waste materials on the construction site and encourages recycling.
Minimum 7 Points Required

6-1	Comprehensive recycling program for building site including education, site signage and bins. A comprehensive recycling program that is strictly followed significantly reduces the amount of waste ending up in landfills. Currently it is estimated that up to 50% of landfill waste is construction related.	2	2
6-2	Collection of waste materials from site by a waste management company that is a current member of a provincial recycling council or equivalent association and verifies that a minimum of 10% of the materials collected from the construction site have been recycled. Not only does this reduce overall waste of product, it ensures that as much product as possible is being utilized for the production of future resources.	4	4
6-3	Suppliers and trades recycle their own waste, including leftover material and packaging (1 point per trade - maximum 4 points). Trades being responsible for recycling and removal of waste not only reduces landfill waste, but also promotes a cleaner and safer working environment.	1	1 to 4
6-4	Minimum 15% (1 point) 25% (2 points) or 50% (6 points) by weight of waste materials collected from construction site is diverted from waste stream. Trades being responsible for recycling and removal of waste not only reduces landfill waste, but also promotes a cleaner and safer working environment.	2	1, 2 or 6
6-5	Use of recycled materials derived from local construction sites (1 point for each different product used, to max. of 3). Products recycled from the construction site, such as mulched clean dimentioal lumber free of metals, or mulched paperless gypsum are often useable as either clay/soil water retention additives.		1 to 3
6-6	Trees and natural features on site protected during construction. The protection of existing trees and other natural features such as streams, ponds and other vegetation reduces environmental and ecosystem impact. Many of these features can be protected simply by following good waste management procedures.	1	1
6-7	Metal or engineered durable form systems used for concrete foundation walls. The use of metal forming systems reduces the requirement of lumber, a limited resource.		1
6-8	Concrete used in home has a minimum supplementary cementing material of 25% (1 point) or 40% (2 points) within the scope of proper engineering practices. For every one ton of Portland cement generated, eighth tenths of a ton of carbon dioxide is produced. Supplementary cementations products include fly ash, blast furnace slag as well as metakaolin.		1 or 2
6-9	Install recycling center with two or more bins. By installing built in recycling centers, which can be as simple as labeled containers (paper, cardboard, cans, plastics, etc), homeowners are more likely to utilize the pre-existing facilities and thus contribute to the reduction in landfill waste.		3
6-10	Provide composter to homeowner. Providing a composter promotes a reduction in wastes heading to the landfill by giving homeowners an option for organic waste such as food leftovers.		2
6-11	Existing dwellings onsite are recycled or moved instead of demolished (recycled 2 points, moved 4 points).		2 or 4

TOTAL SECTION POINTS 10

VII. WATER CONSERVATION

This section encourages a reduction in the amount of water used in the home or in individual units within multi-story buildings.
Minimum 7 Points Required

7-1	Install a dual flush or pressure assisted toilet in one or more bathrooms (3 points for first, 1 additional point for each after) Dual flush toilets offer a choice between two water levels for every flush; at minimum should use, 1.6 GPF (6 LPF) or 0.8 GPF (3 LPF).		3 or more
7-2	Install a 1.28 GPF toilet in one or more bathrooms (2 points for first, 1 additional point for each after) 1.28 GPF (Gallon per Flush) is general considered the new standard in water efficiency	3	2 or more

7-3	Install manufactured non-electric composting toilet (3 points each, max of 6 points). A composting toilet uses no water and is odourless. It uses a biological processes to break down the waste into organic compost material.		3 or 6
7-4	Insulate the hot water lines with flexible pipe insulation, first three feet from hot water tank (1 point) or all hot water lines (2 points). Minimizing the heat loss in the water line will decrease the initial water wasted by delivering hot water faster.	1	1 or 2
7-5	Install hot water recirculation system with all hot water lines insulated (4 points), or point-of-use instant DHW system (1 point each, max. 4) Having the hot water re-circulated from the hot water source to the fixture points will decrease the initial water wasted by delivery the hot water faster. Pump must be on program or timer to reduce stand-by losses. Kitchen counter top "boiling water taps" are not credited.		1 to 4
7-6	Install low flow faucets for all kitchen faucets and lavatories (2 points), all showers & tub/showers (additional 1 point). Reduces water consumption by lowering the flow rate. Showers must use 9.8 L/min (2.2 imp. Gal/min) or less. Faucets, both kitchen and bath, must use 8.3 L/min (1.8 imp. Gal./min) or less.	3	2 or 3
7-7	Install hands free lavatory faucets. 1 point per faucet/unit. Battery powered electronic sensor minimizes the spread of germs and saves water.		1 per unit
7-8	Provide front loading clothes washer (3 points), or Condensing Combination wash/dry unit (4 points) Front loading clothes washers conserve water by design, as they are only required to fill up the washing compartment 1/3 full to effectively wash clothing. Additionally they use up to 75% less environmentally damaging laundry detergent, AND they also conserve electrical or gas energy by significantly reducing drying time for clothes with a more thorough spin cycle.		3 or 4
7-9	Install water saving dishwasher that uses less than 20.0 L/water per load. Water saving dishwasher use technology to reduce both the amount of water required as well as electrical energy requirements. The EnerGuide appliance directory put out by Natural Resources Canada has a comprehensive listing of all manufacturers and models of dishwashers and other appliances with water usage and energy efficiency ratings.		1
7-10	Install efficient irrigation technology that utilizes automatic soil moisture-based sensor technology at minimum Show storm water management plan & design; water efficient irrigation systems, sensors, regulators, micro drip feed systems etc.		3
7-11	Install permeable paving materials for all driveways and walkways. Permeable paving allows for storm water to flow back into the ground rather than into the storm sewers.		3
7-12	Provide a list of drought tolerant plants and a copy of the local municipality water usage guide to homebuyers with closing package. Most municipalities provide a guide that gives the water requirements of various plants and grasses. When properly designed, landscaping choices can significantly contribute to water conservation.		1
7-13	Builder supplies a minimum of 8” of topsoil or composted yard waste, as finish grading throughout site. Compared to subsoil materials, topsoil usually has higher aggregate stability, lower bulk density, and more favorable pore size distributions which leads to higher hydraulic conductivity, water holding capacity, and aeration porosity.	2	2
7-14	Builder incorporates water wise landscaping or xeriscaping in show home or customer home (customers 50% of lawn 2 points, 100% 4 points). Xeriscaping (or drought resistant landscaping) plans and options can be obtained from professional landscaping contractors, and once a xeriscaping landscape is in place, it requires no manual watering. (Rain barrel usage, astro turf ineligible.)		2 or 4
7-15	Builder attaches water barrel with insect screen to downspout. Water barrel should also have a drain spout and overflow spout (1 point per barrel - maximum of 3 barrels). Supplying a water barrel encourages homeowners to use rainwater for landscaping needs and therefore save on potable water.		1, 2 or 3
7-16	Install grey water system collecting waste from sinks, shower and/or kitchen to capture and treat for use in toilets or irrigation (6 pts), rough-in for future grey water system (3 points) By reusing waste water, consumption can be drastically reduced. Rough-in must include clearly identified grey water drain stack, separated from sewer line.		3 or 6
	TOTAL SECTION POINTS	**9**	

VIII. BUSINESS PRACTICE

This section deals more with manufacturers and builders office and business practices.
Minimum 6 Points Required

8-1	Products used for home are manufactured within 800 km (1 point for each product - maximum of 5). Transportation of building materials is a substantial energy use, local manufacture reduces this embodied energy. Distances are calculated by road, not as the crow flies. Manufacturing or assembly must take place in a plant or factory, not on-site. Distance to raw material source is not included.	5	1 to 5

8-2	Builder provides Built Green™ homeowner manual, completed Built Green™ checklist and educational walkthrough with sale or possession.		3
8-3	Builders office and show homes purchase a minimum of 50% (1 point) or 100% (2 points) solar, wind or renewable energy. Wind energy is a cleaner way to provide energy. Lower CO2 emissions will benefit the environment.		1 or 2
8-4	Manufacturers and/or suppliers purchase 50% or more solar, wind or renewable electricity. Wind energy is a cleaner way to provide energy. Lower CO2 emissions will benefit the environment.		1
8-5	Builder has written an environmental policy which defines their commitment (must include an office recycling program and energy efficient lighting). A statement of commitment helps to emphasize priority and ultimately define a corporate culture.	1	1
8-6	Manufacturer and/or supplier has written an environmental policy which defines their commitment (must include an office recycling program and energy efficient lighting). (1 point per supplier/manufacturer - maximum of 2 points).	2	1 or 2
8-7	Builder has written an environmental policy which prioritizes milestones for future net zero housing developments.		1
8-8	Builders' company vehicles are hybrid or bio-diesel vehicles (1 point per vehicle - maximum of 3 points). A commitment to the environment shouldn't stop at construction. Using a hybrid vehicle produces lower harmful emissions. Diesel construction vehicles converted to bio-diesel reduce fuel consumption by up to 75%.		1 to 3
8-9	Environmental certification for builders place of business (building, office, etc). Many commercial buildings have been rated with various energy efficiency standards. Does your company work within an ENERGY STAR, EnerGuide for Houses (ERS), EnerGuide for New Houses (EGNH), REAP or LEED (or other certification standard) certified office building?		3
8-10	Builder agrees to construct and label a minimum of 50% of all homes to the Built Green™ standard per calendar year. (3 points for 50%, 5 points for 100%).		3 or 5
8-11	Contracted trades and/or suppliers have successfully taken and maintained Built Green™ Builder Training status (1 point per trade organization, Max 5).		1 to 5
	TOTAL SECTION POINTS	8	
	TOTAL CHECKLIST POINTS	100	

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nhc
northwest hydraulic consultants

NHC Project No: 3002113

2016 July 25

(revised 2016 December 14)

PARK SIDE EDGE DEVELOPMENT LTD.
1015 E 15th Ave.
Vancouver, BC
V5T 2S4

Attention: **Taresh Sachithanandan**
Via email: taresh.sachi@gmail.com

Re: **905-959 Premier St. District of North Vancouver Subdivision**
Lot 1 (Formerly Lots A & B), District Lot 612, New Westminster District, LP 15642
Flood Hazard Assessment – *DRAFT REPORT*

1 INTRODUCTION

This report summarizes the flood hazard assessment conducted for the proposed subdivision at 905 to 959 Premier St. (west side of the street) within the District of North Vancouver (DNV). The property is located southeast of Inter-River Park, mid-way between Lynn Creek and Seymour River (**Figure 1**). The formal property description is:

Lot 1 (Formerly Lots A & B), District Lot 612, New Westminster District, LP 15642.

The objective of this assessment is to identify and assess the flood hazards that may affect the safe development and use of this property with respect to the proposed development. The subject property is within the DNV's Creek Hazard Development Permit Area (DPA) and consequently requires such assessment prior to obtaining building permits. The assessment is based on the criteria specified by DNV's SPE 106 Creek Hazard Report and SPE 107 Flood Hazard Report Master Requirements as well as the *Professional Practice Guidelines - Legislated Flood Assessments in a Changing Climate in BC* prepared by the Association of Professional Engineers and Geoscientists of BC (APEGBC, 2012).

Hydrotechnical hazards are defined as flooding, erosion, deposition, scour and avulsion typically due to channelized flow or coastal water levels. Lynn Creek flows from north to south approximately 300 m west of the property. Seymour River is less than 1 km east of the study property; however high ground separates the site from any reasonably expected hazards from the Seymour River. Burrard Inlet is roughly 1.5 km south of the site. The lowest current ground elevation of the study property is at El. 18.8 m (geodetic, metres above mean sea level), substantially higher than expected coastal flood levels even up to the year 2200 (KWL, 2014). Therefore, this hydrotechnical hazard analysis concentrates on the hazards associated with Lynn Creek.

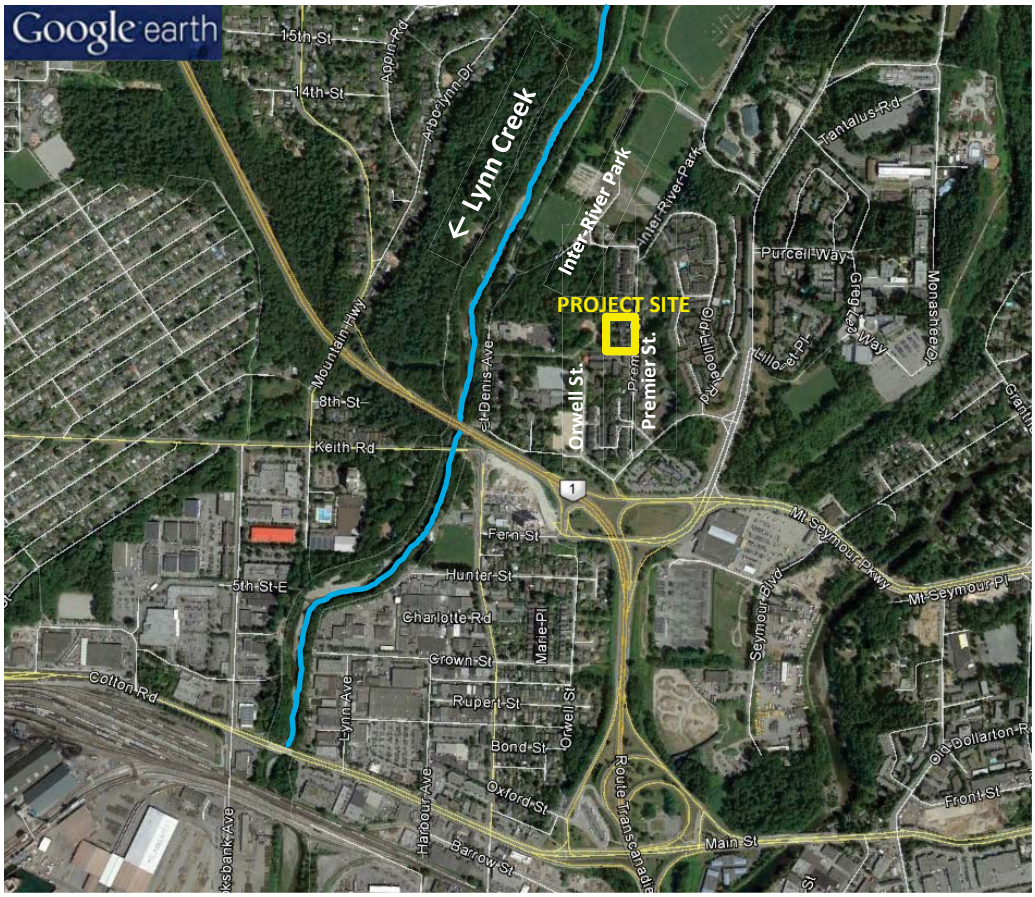


Figure 1. Project site overview map, north at top of page

2 SITE DESCRIPTION

A site inspection was conducted by Dan Maldoff (NHC) on July 13, 2016 to evaluate the current condition and flood hazard context of the site. In addition, a digital surface of the area was constructed using 2014 'bare-earth' LiDAR data at 1 m resolution obtained from DNV 's Open Data GIS. **Figure 2** shows a topographic map of the study area based on the digital surface. No site survey was conducted as part of this study.

The study site currently contains four two-story single-detached homes (**Photo 1** to **Photo 4**). The local community is an area of mixed development that includes playing fields, schools, multi-family, and single-family residences.

The proposed development, as per CREUS Engineering plans issued for detailed development permit (2016-06-08), is to have 3 complexes of 4 townhouse units and 1 complex with 5 townhouse units (total of 17 units). The site is to generally follow current grade with the northwest corner (Premier Street) at El. 20.93 m, sloping southwest with a slope of 1 to 5%; the southeast corner has an elevation of 19.33 m, the northwest corner at El. 19.02 m, and the southwest corner an elevation of 18.79 m.

Similar townhouse and apartment complexes surround the proposed development to the north, east, and south. Inter-River Park is located 200 m to the north and immediately west of the property. North of the site, the

ground slopes steeply up in the park to a plateau of playing fields. East of the site the ground slopes steeply up past the existing apartment complex and Lillooet Road to Capilano University. This high ground prevents flooding from Seymour River to the east. The grade of the ground sloping south and west to Lynn Creek is much more gradual at roughly 1% (**Photo 6** to **Photo 12**). The most likely flooding hazard to the property is from the Lynn Creek to the west. Overbank flow from the downstream edge (i.e. south end) of the Inter-River Park high plateau could potentially flow and pond west of the project site. This is the focus of this assessment.

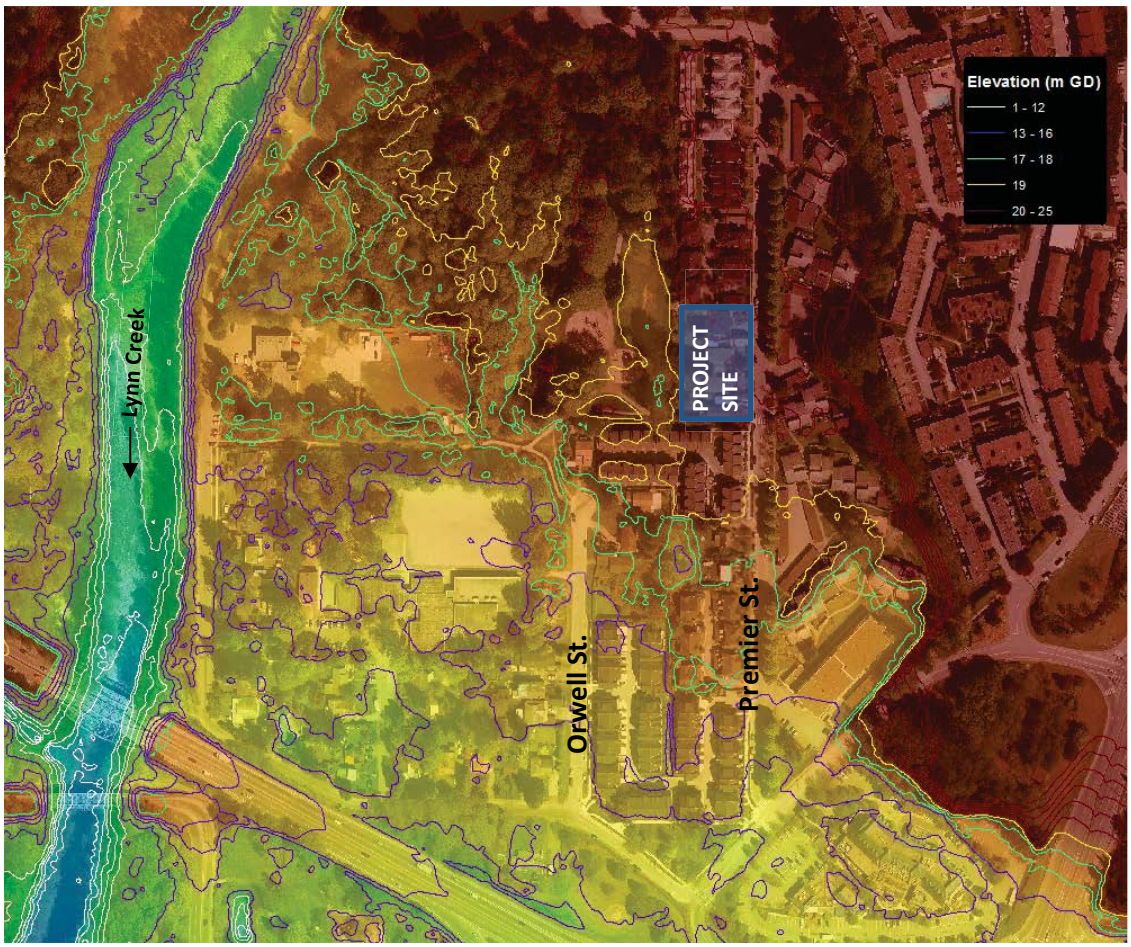


Figure 2. Topographic map of project study area, compiled using 2014 DNV LiDAR data, north at top of page

3 BACKGROUND REVIEW

The following set of information has been reviewed as part of our investigation of the possible hydraulic hazards located near the property site:

- *Flood Hazard Report – Section 219 Covenant, Master Requirement SPE 106* (DNV, 2011c)
- *Creek Hazard Report – Section 219 Covenant, Master Requirement SPE 107* (DNV, 2011c)
- *Creek Hazard Development Permit Area Map 2.2* (DNV, 2012b)
- *Schedule B Development Permit Areas* (DNV, 2012)

- *Lynnmour / Inter-River Local Plan, Flood Protection Assessment* (KWL, 2006)
- *Creek Hydrology, Floodplain Mapping and Bridge Hydraulic Assessment study, North Vancouver* (KWL, 2014)
- *Flood Assessment Report - Seylynn Village* (LaCas, 2012)
- *Orwell Street Flood Hazard Assessment, Draft Report* (NHC, 2016).

No provincial floodplain mappings exist for Lynn Creek. The most recent flood study conducted for the DNV relevant to this project appears to be KWL's 2014 creek hydrology floodplain report; superseding their 2006 report.

4 FLOOD HAZARD ASSESSMENT

The property is located a minimum of 300 m east of Lynn Creek, which could pose hydrotechnical hazards. Such hazards have been assessed based on site conditions, river hydrology (flood flow), and hydraulic modelling of scenarios of potential flood flow, deposition, and partial blockage as presented in the following subsections.

4.1 Lynn Creek Watershed and Reach Description

Lynn Creek has a drainage area of approximately 58 km^2 and is the largest unregulated watershed on the North Shore. The main stem of the creek originates at Lynn Lake (El.800 m) and flows in a southerly direction for 17 km before draining into Burrard Inlet.

The creek is often considered as three main reaches:

i) Upper reach - the reach roughly upstream of Rice Lake Bridge (KM 6.8+, Elev. 180 m+)

ii) Lynn Canyon reach - between Rice Lake Bridge and Inter-River Park (KM 3.8 to KM 6.8, Elev. 40 to 180 m)

iii) Downstream reach - the reach from Inter-River Park to Burrard Inlet (KM 0 to KM 3.8, Elev. 0 to 40 m).

The canyon reach consists of a series of cascading bedrock canyons separated with intermittent boulder, cobble, and gravel deposition zones within high steep banks of till. The channel is confined within the canyon. Natural dams can form within this reach from deposition or failed banks. Such dams can fail suddenly during high flows triggering a debris flood. The gradient is sufficiently steep initiate and transport large amounts of bedload, suspended sediment, and woody debris.

Downstream of the canyon the creek flows through a confined valley before it reaches the apex of its alluvial fan, roughly 3.5 km upstream from Burrard Inlet. The valley opens up at this point, exposing floodplain along the left bank - downstream portion of Inter-River Park. The channel gradient continues to decrease from roughly 2.5% to closer to 1% at the channel crosses under the Trans-Canada Highway with further flattening to Burrard Inlet. DNV periodically provides channel maintenance removing gravel from the lower reach. An informal search of historic removals suggested a gravel volume of 16,000 m^3 in 1984, 8,000 m^3 in 1985, 9,500 m^3 in 1995, 7,500 m^3 in 2004-2006, and 3,000 m^3 in 2013.

The study site is located roughly at river KM 3.4 on the historic left bank floodplain; susceptible to deposition within the main channel forcing flow across the floodplain towards and south-past the study property. In recent times, development, infilling of the floodplain, and removal of sediment and debris from the channel limits the frequency and likelihood of such overbank flow. Lynn Creek near the study site has bed and bars of cobble and gravel with occasional boulders and bars with riprap armoured banks and established riparian vegetation (**Photo 9** and **Photo 10**).

Keith Road (**Photo 15**) and Highway 1 (**Photo 16**) bridges cross Lynn Creek downstream of the study site (roughly KM 1.8). The channel is constrained as it passes under these bridge crossings, however the bridges are high and without piers, reducing the likelihood of debris blocking the channel due to the bridges.

4.2 Previous Studies

In 2006, KWL prepared a flood assessment of Lynnmour and Inter-River Park area. They reported the possibility of channel blockage within the lower reach could lead to overbank flooding off the left flooplain - towards our current study site - especially if extending the study to a less frequent event, such as 500 years event. The report further suggests that Orwell St. is a natural floodway and is likely to convey overbank floodwaters from Inter-River Park down to the Trans-Canada Highway. This flood path is shown in **Appendix B**. This report presents a flood construction level (FCL) for the current study properties of El. 19.1 m based on predicted Orwell Street floodway water elevation plus 0.6 m freeboard.

In 2014, KWL conducted a study of river and coastal hazards within DNV and the City of North Vancouver. This report presents flood water levels for a 200-year event, including climate change affects to flow and downstream coastal water levels to the year 2100 and 2200. Absent from this report is discussion on the inclusion or exclusion of debris bulking or channel blockage. This report does not indicate overbank flooding from Lynn Creek near the site of current interest.

DNV suggests a universal and nominal FCL of 0.6 m above surrounding grade. This translates to an elevation of 20.1 m for the current study site.

Previous flood assessment along this reach of Lynn Creek have considered design flows as large as 344 m^3/s. This flow estimate is based on a 200-year peak flow of 216 m^3/s, a 13 m^3/s increase for expected climate change effects by the year 2080, and a 50% increase to reflect bulking of flow due to debris (LaCas, 2012). NHC evaluated such a flow at the current study site using a rudimentary 1-D hydraulic model. From this evaluation we determined that with a complete channel blockage - forcing flow over the left bank - flow could be expected to flow near the current study property and down Orwell St. However, flow is not expected to exceed El. 18.5 m (0.6 m below the earlier suggested FCL).

The following table provides a summary of past design flow events:

Table 1 Comparison of past design flow events for Lynn Creek

Discharge (m^3/s)	Reference	Event Description
229	KWL 2014	200-yr, instantaneous, clear water, year 2100
344	LaCas 2012	200-yr, inst., climate change, debris, year 2100
216	KWL 2006	200-yr, instantaneous, clear water, year 2000

4.3 Lynn Creek Assessment of Hazards

Based on scale of the proposed development, the risk of exposure of vulnerable populations appears to be moderate to high and warrants design to a return flood period of 200-years and Class 2 flood hazard assessment as defined by the provincial flood assessment guidelines (APEGBC, 2012).

Erosion of river banks, scouring of the river bed potentially undermining and failing adjacent banks, and large scale channel migration of the river is not expected to directly affect the study property. Gradual migration of the river is expected to not be left unchecked between the current channel location and one that would directly impact the project site, as numerous other infrastructure would be severely impacted with such a channel progression. Sudden channel migration through avulsion is generally the result of blockage within the existing channel and or the presence of an adjacent flow path with similar or greater hydraulic transport efficiency to the main channel. Based on the current channel conditions and on-going channel maintenance the probability of channel blockage at a location and size sufficient to result in an avulsion towards the study site is considered low and the size and depth of alternative flow paths are limited in their ability to attract an avulsion towards the study property.

The expected hazard mode is high flow, debris and sediment blockage within lower Lynn Creek, and the subsequent overbank flooding of the left bank between the high ground of Inter-River Park and study site. Mitigation measures should be implemented to avoid extensive damage or danger from such an event.

4.2 Mitigation Measures

To mitigate the identified flood hazard it is recommended that a FCL be adopted for the study site based on the previously estimated water level for the over flow floodway towards and down Orwell Street (KWL, 2006). The proposed FCL has been calculated as:

Water Level:	18.5 m
Freeboard:	0.6 m
Flood Construction Level:	19.1 m

Based on the current assessment, it is expected that the FCL is conservative and further 2D modelling of the area could prove a lower FCL is warranted. However, similarly substantial infilling of adjacent property within Inter-River Park or raising of Orwell Street without providing alternative routes for downstream conveyance of overland flow or blockage of flow from upstream could limit or negate any potential reduction in FCL. This assessment and recommendation is consistent with previous study by NHC for this site (NHC, 2014).

5 SUMMARY AND RECOMMENDATIONS

A hydrotechnical hazard assessment was conducted based on 200-year flood (0.5% annual exceedance probability) for up to the Year 2100 including climate change projections. From the study it is recommended that a Flood Construction Level of El. 19.1 m be adopted for the project site.

This flood hazard assessment was conducted following APEGBC 2012 Class 2 flood hazard assessment guidelines. A summary of the APEGBC criteria for such an assessment is presented in **Table 3**.

Table 3. Summary of APEGBC Typical Class 2 Flood Hazard Assessment Methods and Deliverables

APEGBC Flood Hazard Assessment Component	Notes
Typical hazard assessment methods and climate/environmental change considerations	
Site inspection and qualitative assessment of flood hazard	Completed by NHC 2016
Identify any very low hazard surfaces in the consultation area (i.e., river terraces)	Completed by NHC 2016
Estimate erosion rates along river banks	Project site set back from the active river channel - any erosion is expected to be mitigated well before reaching the project site
1-D or possibly 2-D modelling, modelling of fluvial regime and future trends in river bed changes, erosion hazard maps, possibly paleoflood analysis	Relying on previous model studies for the most part. River changes considered (i.e. infilling and overflow), but generally considered actively maintained river reach.
Identify upstream or downstream mass movement processes that could change flood levels (e.g., landslides leading to partial channel blockages, diverting water into opposite banks)	Potential debris blockage is the design flood scenario. Sea level rise considered under future river conditions.
Conduct simple time series analysis of runoff data, review climate change predictions for study region, include in assessment if considered appropriate	Relying on previous studies.
Quantify erosion rates by comparative air photograph analysis	N/A – erosion risk deemed low
Typical deliverables	
Letter report or memorandum with at least water levels and consideration of scour and bank erosion	Completed
Cross-sections with water levels, flow velocity and qualitative description of recorded historic events, estimation of scour and erosion rates where appropriate with maps showing erosion over time	Not Required
Maps with area inundated at different return period, flow velocity, flow depth, delineation of areas prone to erosion and river bed elevation changes, estimates of erosion rates	Relying on previous studies.

6 SAFE CERTIFICATION

NHC has not assessed the property for hazards related to site drainage (local runoff), fire, debris flow, debris flood, landslide, or any other hazards besides those resulting directly from flood and/or river erosion emanating from Lynn Creek. With respect to flood and erosion hazard, for flood events less than or equal to the 200-year peak instantaneous flow of Lynn Creek NHC certifies that the subject property is considered safe for the use intended if:

1. All habitable space, infrastructure, and utilities are above the FCL;
2. All parking areas located below the FCL are designed such that the invert of any access points are above the FCL (i.e. preventing inflow and allowing safe egress for the design event) and the structure is designed to withstand the appropriate hydrostatic pressures;
3. Means of emergency egress is designed such that the invert of any egress routes of areas below the FCL (i.e. parkade) are above the FCL, and evacuation plan is created in consideration of FCL;
4. Any erosion, scour, conveyance, or flood proofing works for flood protection are designed by a qualified registered professional. Short and long term maintenance requirements for the flood protection works are outlined by a qualified registered professional and these requirements are followed by the owner/operator of the property; and
5. Final building plans and as-built conditions have been assessed and approved for compliance with the conditions specified herein by a qualified registered professional using BC Building Code Letters of Assurance of Professional Design and Commitment for Field Review (Schedule B) and Assurance of Professional Field Review and Compliance (Schedule C-B).
6. Any future flood works constructed by DNV or others between the project site and Lynn Creek does not impede existing flood paths.

7 CLOSURE

We hope this work and report meets your current needs. If you have any questions or would like to further discuss these findings, please contact Mr. Dale Muir or Mr. Edwin Wang at our North Vancouver office by email (dmuir@nhcweb.com | ewang@nhcweb.com) or by telephone (604) 980-6011.

Sincerely,

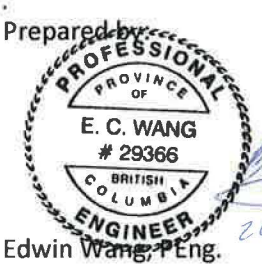
Northwest Hydraulic Consultants Ltd.

Prepared by:

signed on behalf of

Dan Maldoff

Prepared by:



2016 DEC 14

Edwin Wang, PEng.
Project Engineer

Reviewed by:

2016 DEC 14

Dale Muir, PEng.
Principal

DISCLAIMER

This document has been prepared by Northwest Hydraulic Consultants Ltd. in accordance with generally accepted engineering practices and is intended for the exclusive use and benefit of Park Side Edge Development Ltd., and their authorized representatives for specific application to the 2016 flood hazard assessment for the property at Lot 1 (Formerly Lots A & B), District Lot 612, New Westminster District, LP 15642. The contents of this document are not to be relied upon or used, in whole or in part, by or for the benefit of others without specific written authorization from Northwest Hydraulic Consultants Ltd. No other warranty, expressed or implied, is made. Northwest Hydraulic Consultants Inc. and its officers, directors, employees, and agents assume no responsibility for the reliance upon this document or any of its contents by any parties other than Park Side Edge Development Ltd.

8 REFERENCES

APEGBC (2012). Professional Practice Guidelines - Legislated Flood Assessments in a Changing Climate in BC. Prepared by Association of Professional Engineers and Geoscientists of BC. 2012 June.

District of North Vancouver (2011). Flood Hazard Report – Section 219 Covenant, Master Requirement SPE 106

District of North Vancouver (2011). Creek Hazard Report – Section 219 Covenant, Master Requirement SPE 107

District of North Vancouver (2012). Official Community Plan – Schedule B Development Permit Areas. Bylaw 7900. Adopted July 2012.

District of North Vancouver (2012b). Creek Hazard Development Permit Area Map 2.2.

District of North Vancouver (DNV) (2016). GIS web site: www.geoweb.dnv.org accessed May 18, 2016.

KWL (2004). Lynn Creek Management Plan. Report prepared for District of North Vancouver.

KWL (2006), "Lynnmour / Inter-River Local Plan – Flood Protection Assessment, Final". Report prepared for the District of North Vancouver (DNV) by Kerr Wood Leidal Associated Ltd.

KWL (2014). "Creek Hydrology, Floodplain Mapping and Bridge Hydraulic Assessment study, Final Report". Report prepared for City of North Vancouver by Kerr Wood Leidal Associated Ltd.

NHC (2014). "Premier St. Subdivision Draft Flood Hazard Assessment". Prepared for CREUS Engineering Ltd. by Northwest Hydraulic Consultants Ltd.

APPENDIX A: SITE PHOTOS

Photo 1 Current development at project site, 905 Premier St., facing west

Photo 2 Current development at project site, 923 Premier St., facing west

Photo 3 Current development at project site, 939 Premier St., facing west

Photo 4 Current development at project site, 959 Premier St., facing west

Photo 5 Premier St., adjacent to project site, facing south

Photo 6 Parking lot and steep slope fronting Premier St. opposite of project site, facing east

Photo 7 Inter-River Park grassy area and playground west of project site, facing south

Photo 8 Low area west of project site, facing south

Photo 9 Lynn creek, reach north of project site, facing south along left bank

Photo 10 Riprap bank protection along Lynn Creek left bank, facing west

Photo 11 Inter-River Park north of Premier St. terminus, facing north

Photo 12 Inter-River Park at Premier St. terminus, with playing fields in distance, facing west

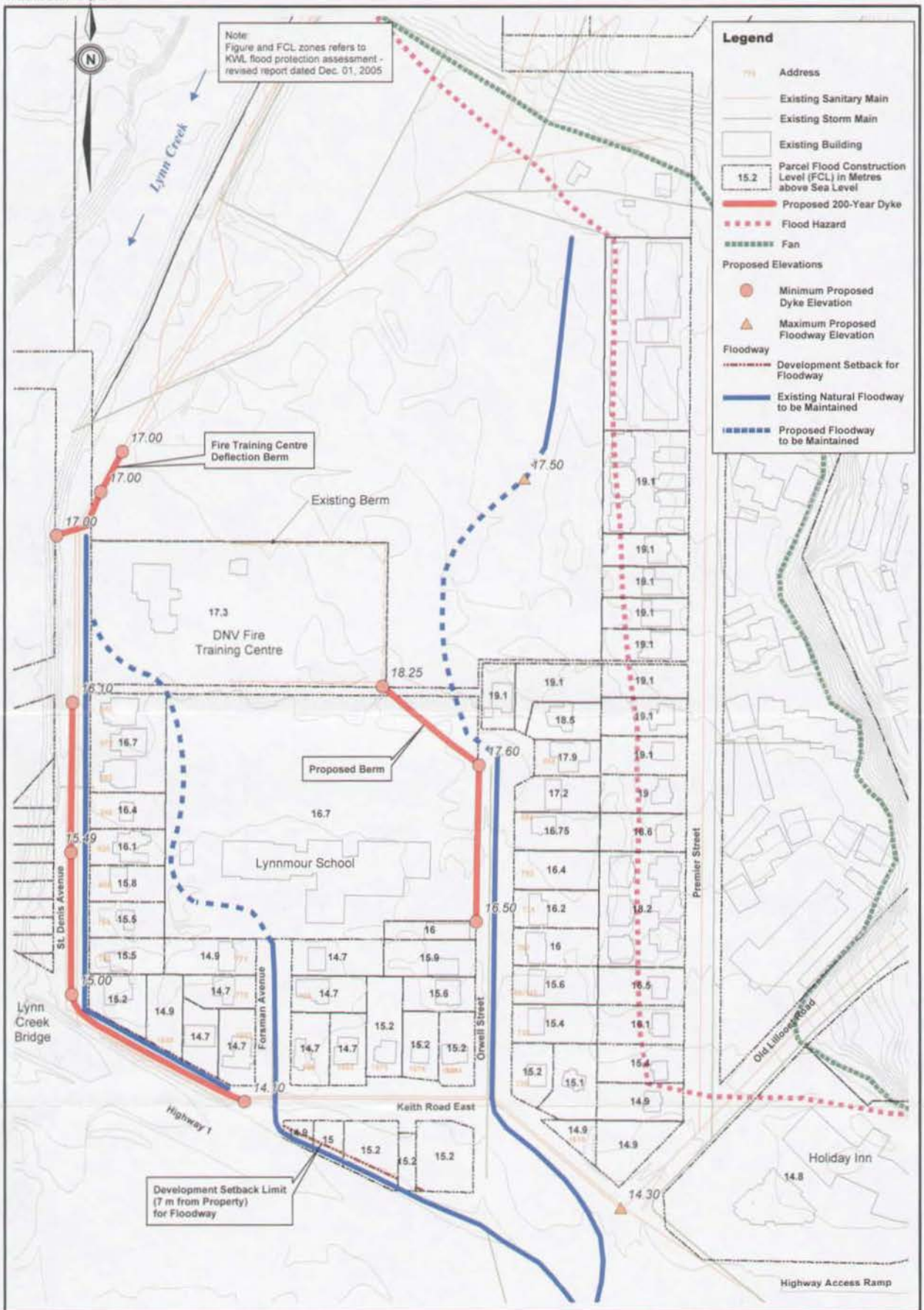
Photo 13 Townhouse development south of project site, facing west

Photo 14 Orwell St., facing south

Photo 15 Keith Rd. crossing, facing southwest

Photo 16 Highway 1 crossing and Lynn Creek beneath Keith Rd. crossing, facing south

APPENDIX B: FLOOD PATH MAP (KWL, 2006)


Note:
Figure and FCL zones refers to KWL flood protection assessment - revised report dated Dec. 01, 2005
Lynn Creek
Legend
Address
Existing Sanitary Main
Existing Storm Main
Existing Building
15.2 Parcel Flood Construction Level (FCL) in Metres above Sea Level
Proposed 200-Year Dyke
Flood Hazard
Fan
Proposed Elevations
Minimum Proposed Dyke Elevation
Maximum Proposed Floodway Elevation
Floodway
Development Setback for Floodway
Existing Natural Floodway to be Maintained
Proposed Floodway to be Maintained
Fire Training Centre Deflection Berm
Existing Berm
DNV Fire Training Centre
Proposed Berm
Lynnmour School
Lynn Creek Bridge
St. Denis Avenue
Forsman Avenue
Orwell Street
Premier Street
Old Lillooet Road
Keith Road East
Highway 1
Holiday Inn
Highway Access Ramp
Development Setback Limit (7 m from Property) for Floodway
17.00
17.00
17.00
17.50
18.25
16.30
17.60
15.49
16.50
15.00
14.30
14.30
17.3
16.7
19.1
18.5
17.9
17.2
16.75
16.6
16.4
16.2
16
15.6
15.5
15.4
15.2
15.1
14.9
14.8
16.1
15.8
14.7
15
KERR WOOD LEIDAL
CONSULTING ENGINEERS
District of North Vancouver
Lynnmour / Inter - River Local Plan
Project No.
31-359
Date
March 2006
0 25 50 100
Scale in Metres
Area 1 Flood Construction Level Plan
Figure 2

APPENDIX C: FLOOD HAZARD AND RISK ASSURANCE STATEMENT AND COVENANTS

Master Requirement SPE 106 — Flood Hazard Report – Section 219 Covenant

NORTH VANCOUVER DISTRICT

Purpose

The *Flood Hazard Report* assesses the impact of flood hazards on a proposed development and outlines such conditions as may be required to ensure that the proposed development is safe for the use intended.

Background

Development may be directly affected by surface water flooding or, indirectly, by elevated ground water levels. Development and properties not directly adjacent to a river or creek may be at risk as flooding represents a hazard to a wide area.

In order to avoid unnecessary delays, complications or expense applicants are advised to ask a Plan Checker early in the design stages if a *Flood Report* will be necessary. A *Pre-Application Request for Service* may be required to confirm the requirement for a *Flood Report*. A *Flood Report* will be required if;

- ☑ the development is located within the provincially designated Seymour River Floodplain,
- ☐ the development is located adjacent to the designated Seymour River Floodplain and proposes basements or finished space below Flood Construction Levels,
- ☐ the development proposes basements or finished space below the High Water Mark,
- ☐ pursuant to s. 56 of the Community Charter the Building Inspector considers that construction would be on land that is subject to flooding or elevated ground water levels.

A building permit application will be accepted on the condition that:

1) the *Flood Report* has been submitted by a specialist professional engineer and such engineer certifies, subject to conditions contained within the report, that the land may be used safely for the use intended,

2) the *Flood Report* MUST provide a response to all headings identified in the *Flood Report - Terms of Reference* identified below. Incomplete reports will not be found acceptable and will result in delays,

3) the Building Inspector has reviewed and accepted the report,

4) the owner of the land covenants with the District to:

   a) use the land only in the manner determined and certified by the engineer as enabling the safe use of the land for the use intended,

   b) the covenant contains conditions respecting reimbursement by the covenantor for any expenses that may be incurred by the covenantee as a result of a breach of the covenant,

   c) the covenant be registered under section 219 of the Land Title Act.

Prior to constructing work within 30 metres of the top of bank of a watercourse an applicant will require District of North Vancouver Environmental approval with respect to the removal and importation of soil, tree cutting and proximity to sensitive aquatic areas.

Requirements

Content: **Flood Report - Terms of Reference**

☑ **Credentials:** *Flood Reports* are to be performed by a specialist professional engineer or professional geoscientist with experience or training in geotechnical study and geohazard assessments.

☐ **Statutes:** Section 56 of the Community Charter is applicable where the study is undertaken for the purpose of addressing flooding issues for a Building Permit.

☑ **Background Information:** *Flood Reports* shall include a review of available background information.

☑ **Property Description:** *Flood Reports* shall include both legal and street addresses of the subject property, and also a plan showing the location of the property relative to the pertinent creek, river or coastal area. Any existing restrictive covenants relative to land use or natural hazards shall be identified and attached to the report.

☑ **Flood Hazards:** *Flood Reports* shall provide a clear assessment of hazards associated with floods including surface and subsurface water. ~~Uplift, hydrostatic pressure and the affects on perimeter drainage, storm water management and sanitary drainage must be addressed.~~ The design magnitude of

each of these processes will be assessed to a level of accuracy appropriate for the project.

☑ **Other Hazards:** For waterfront properties, the risk of flooding and erosion from the sea shall be addressed. Where other hazards, such as rockfall, are apparent, they shall be noted.

☑ **Design Criteria for Floods:** For floods, the design flow shall be the 200-year return period peak instantaneous flow. New culverts should be capable of passing this flow with no surcharging. New bridges should be capable of passing this flow with a minimum of 1 metre of freeboard.

☑ **Safe Certification:** A clear certification, subject to conditions contained in the report, that the land may be used safely for the use intended. The conditions shall be with respect to the siting, structural design and maintenance of buildings, structures and works, the maintenance of planting or vegetation, the placement of landfill and other such conditions respecting the safe use of the land, buildings, structures or works.

Any assumptions regarding future watershed conditions as they relate to the hazard assessments are to be clearly stated.

N/A ☐ **Building Setbacks:** Proposed building setbacks shall be clearly defined. In most cases, it would be appropriate to consult with the Environmental Protection Department in determining setbacks.

☑ **Flood Construction Levels:** Proposed FCL's for proposed building sites shall be clearly defined, preferably in Geodetic Survey of Canada datum. In general, FCL's will be base don the 200-year return period flood criteria, plus a minimum of 0.6m freeboard allowance, plus a reasonable allowance for sedimentation. Behind dykes or other flood protection works, determination of appropriate FCL's will be site-specific.

☑ **Proposed Mitigative Works:** Proposed mitigative works are to be permanent, and shall be designed to a conceptual level for the purpose of report submission. If the proposed works will result in transfer of risk to a third party, this will be clearly noted. The location and land ownership for proposed works is also to be noted. Following acceptance of the report, the requirements for design and construction of the works will be defined.

N/A ☐ **Environmental Approvals:** Where environmental approvals are required for construction of mitigative works, it may be necessary to obtain such approvals prior to acceptance of the report.

☑ **Maintenance Requirements:** *Flood Reports* shall fully outline short and long term maintenance requirements.

☑ **Report Submission:** *Flood Reports* shall be sealed by the engineer of record. Where required, engineering reports will be included within a restrictive covenant registered against the land title.

☐ **Peer Review:** The District regularly obtains a peer review of creek reports by independent engineering consultants. Any concerns resulting from a peer review will be directed to the engineer of record for consideration. Creek reports will not be accepted until concerns arising from a peer review are satisfactorily resolved.

Section 219 Covenant

☐ Per sample

Timing: The *Flood Report* must be found acceptable by the Building Inspector prior to a permit application being accepted. The *Section 219 Covenant* must be registered on title prior to permit issuance.

Owner: Retain appropriate professional(s) to prepare *Flood Reports*. Registered Section 219 Covenant on land title.

Related Requirements/Documents/Forms

Master Requirement SPE107 *Creek Hazard Report*

Contacts

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355 West Queens Road
North Vancouver, BC V7N 4N5

Tel 604-990-2480
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email building@dnv.org

Master Requirement SPE 107 Creek Hazard Report – Section 219 Covenant

NORTH VANCOUVER DISTRICT

Purpose

The *Creek Hazard Report* assesses the impact of creek hazards on a proposed development and outlines such conditions as may be required to ensure that the proposed development is safe for the use intended.

Background

Development may be adversely affected by creek hazards by a number of mechanisms including flooding, debris floods, debris flows, erosion and accretion. Development and properties not directly adjacent to a creek may be at risk as flooding, debris floods and debris flows represent a hazard to a wide area.

In 1999 the District of North Vancouver published *"Overview Report on Debris Flow Hazards"*. The report identified potential debris flow hazard ratings for creeks within the District. The report is a public document and is available for review at the Parks and Engineering Division and the Planning Building & Environment Division counters at the Municipal Hall. The report is also available through North Vancouver public libraries.

In order to avoid unnecessary delays, complications or expense applicants are advised to ask a Plan Checker early in the design stages if a Creek Hazard Report will be necessary. A *Pre-Application Request for Service* may be required to confirm the requirement for a *Creek Hazard Report*. A *Creek Hazard Report* will be required if:

☑ the development is located within a creek fan as designated in the *"Overview Report on Debris Flow Hazards"*. Property is shown within DPA Creek Hazard on DNV GEOweb

☐ the development is located below the top of bank of a creek designated in the *"Overview Report on Debris Flow Hazards"* as medium or higher risk.

☐ pursuant to s. 56 of the Community Charter the Building Inspector considers that construction would be on land that is subject to flooding, mud flows, debris flows, debris torrents, erosion, land or slip rock falls.

A building permit application will be accepted on the condition that:

1) the *Creek Hazard Report* has been submitted by a specialist professional engineer and such engineer certifies, subject to conditions contained within the report, that the land may be used safely for the use intended,

2) The *Creek Hazard Report* MUST provide a response to all headings identified in the *Creek Hazard Report - Terms of Reference* identified below. Incomplete reports will not be found acceptable and will result in delays,

3) the Building Inspector has reviewed and accepted the report,

4) the owner of the land covenants with the District to:

   a) use the land only in the manner determined and certified by the engineer as enabling the safe use of the land for the use intended,

   b) the covenant contains conditions respecting reimbursement by the covenantor for any expenses that may be incurred by the covenantee as a result of a breach of the covenant,

   c) the covenant be registered under section 219 of the Land Title Act.

Prior to construction work within 30 metres of the top of bank an applicant will require District of North Vancouver Environmental approval with respect to the removal and importation of soil, tree cutting and proximity to sensitive aquatic areas.

Requirements

Content: Creek Hazard Report - Terms of Reference

☑ **Credentials:** *Creek Hazard Reports* are to be performed by a specialist professional engineer or professional geoscientist with experience or training in river engineering, hydrology, and in some cases, debris flow processes

☐ **Statutes:** Section 56 of the Community Charter is applicable where the study is undertaken for the purpose of addressing creek hazard issues for a Building Permit.

☑ **Background Information:** Creek studies shall include a review of available background information. The District's *Overview Report on Debris Flow Hazards* (Kerr Wood Leidal Associates and EBA Engineering Consultants, April 1999) provides a preliminary assessment of debris flood and debris flow hazards on most creeks in the District and should be a starting point for background review. Hydrologic reports are also available for many of the creeks.

☑ **Property Description:** Creek reports shall include both legal and street addresses of the subject property, and also a plan showing the location of the property relative to the pertinent creek system. Any existing restrictive covenants relative to land use or natural hazards shall be identified and attached to the report.

☑ **Creek Hazards:** Creek reports shall provide a clear assessment of hazards associated with floods, debris floods, debris flows, erosion, landslip, rockfalls and accretion. The design magnitude of each of these processes will be assessed to a level of accuracy appropriate for the project.

☑ **Design Criteria for Floods:** For floods, the design flow shall be the 200-year return period peak instantaneous flow. New culverts should be capable of passing this flow with no surcharging. New bridges should be capable of passing this flow with a minimum of 1 metre of freeboard.

☑ **Design Criteria for Debris Floods:** Debris flood magnitudes is to be estimated to at least the 200-year return period level.

N/A ☐ **Design Criteria for Debris Flows:** Debris flow magnitude is to be estimated to at least the 500-year return period level.

☑ **Safe Certification:** A clear certification, subject to conditions contained in the report, that the land may be used safely for the use intended. The conditions shall be with respect to the siting, structural design and maintenance of buildings, structures and works, the maintenance of planting or vegetation, the placement of landfill and other such conditions respecting the safe use of the land, buildings, structures or works.

Any assumptions regarding future watershed conditions as they relate to the hazard assessments are to be clearly stated.

N/A ☐ **Building Setbacks:** Proposed building setbacks shall be clearly defined. In most cases, it would be appropriate to consult with the Environmental Protection Department in determining setbacks.

☑ **Flood Construction Levels:** Proposed FCL's for proposed building sites shall be clearly defined, preferably in Geodetic Survey of Canada datum. In general, FCL's will be base don the 200-year return period flood criteria, plus a minimum of 0.6m freeboard allowance, plus a reasonable allowance for sedimentation (in view of the debris flood assessment). Behind dykes or other flood protection works, determination of appropriate FCL's will be site-specific.

☑ **Proposed Mitigative Works:** Proposed mitigative works are to be permanent, and shall be designed to a conceptual level for the purpose of report submission. If the proposed works will result in transfer of risk to a third party, this will be clearly noted. The location and land ownership for proposed works is also to be noted. Following acceptance of the report, the requirements for design and construction of the works will be defined.

N/A ☐ **Environmental Approvals:** Where environmental approvals are required for construction of mitigative works, it may be necessary to obtain such approvals prior to acceptance of the report.

☑ **Maintenance Requirements:** Creek reports shall fully outline short and long term maintenance requirements of the creek channel and any works construction. For creek channels, this shall address ongoing bedload and debris deposition. For creek works, this shall include both regular maintenance and any special maintenance requirements following an extreme event.

☑ **Report Submission:** *Creek Hazard Reports* shall be sealed by the engineer of record. Where required, engineering reports will be included within a restrictive covenant registered against the land title.

☐ **Peer Review:** The District regularly obtains a peer review of creek reports by independent engineering consultants. Any concerns resulting from a peer review will be directed to the engineer of record for consideration. Creek reports will not be accepted until concerns arising from a peer review are satisfactorily resolved.

Section 219 Covenant

Per sample attached

Timing: The *Creek Hazard Report* must be found acceptable by the Building Inspector prior to a permit application being accepted. The *Section 219 Covenant* must be registered on title prior to permit issuance.

Owner: Retain appropriate professional(s) to prepare *Creek Hazard Report*. Registered Section 219 Covenant on land title.

Related Requirements/Documents/Forms

MASTER Requirement 2000-18: Flood Hazard Report

Contacts

Planning, Permits & Properties
District of North Vancouver
355 West Queens Road
North Vancouver, BC V7N 4N5

Tel 604-990-2480
Fax 604-984-9683
email building@dnv.org

APPENDIX J: *FLOOD HAZARD* AND *RISK* ASSURANCE STATEMENT

Note: This Statement is to be read and completed in conjunction with the "*APEGBC Professional Practice Guidelines - Legislated Flood Assessments in a Changing Climate*, March 2012 ("*APEGBC* Guidelines") and is to be provided for *flood assessments* for the purposes of the *Land Title Act*, Community Charter or the *Local Government Act*. Italicized words are defined in the *APEGBC* Guidelines.

To: The *Approving Authority* Date: 2016-Aug-02

Planning, Permits,and Properties, District of North Vancouver

355 West Queens Road, North Vancouver, BC V7N 4N5

Jurisdiction and address

With reference to (check one):

- ☐ Land Title Act (Section 86) – Subdivision Approval
- ☐ Local Government Act (Sections 919.1 and 920) – Development Permit
- ☑ Community Charter (Section 56) – Building Permit
- ☐ Local Government Act (Section 910) – Flood Plain Bylaw Variance
- ☐ Local Government Act (Section 910) – Flood Plain Bylaw Exemption

For the Property:

905-959 Premier St., North Vancouver (Lot 1 (Formerly Lots A & B), District Lot 612, New Westminster District, LP 15642)

Legal description and civic address of the Property

The undersigned hereby gives assurance that he/she is a *Qualified Professional* and is a *Professional Engineer* or *Professional Geoscientist*.

I have signed, sealed and dated, and thereby certified, the attached flood assessment report on the Property in accordance with the APEGBC Guidelines. That report must be read in conjunction with this Statement. In preparing that report I have:

Check to the left of applicable items

- ☑ 1. Collected and reviewed appropriate background information
- ☑ 2. Reviewed the proposed *residential development* on the Property
- ☑ 3. Conducted field work on and, if required, beyond the Property
- ☑ 4. Reported on the results of the field work on and, if required, beyond the Property
- ☑ 5. Considered any changed conditions on and, if required, beyond the Property
- 6. For a *flood hazard* analysis or *flood risk* analysis I have:
  - ☑ 6.1 reviewed and characterized, if appropriate, floods that may affect the Property
  - ☑ 6.2 estimated the *flood hazard* or *flood risk* on the property
  - ☑ 6.3 included (if appropriate) the effects of climate change and land use change
  - ☑ 6.4 identified existing and anticipated future *elements at risk* on and, if required, beyond the Property
  - ☑ 6.5 estimated the potential *consequences* to those *elements at risk*
- 7. Where the *Approving Authority* has adopted a specific level of *flood hazard* or *flood risk* tolerance or return period that is different from the standard 200-year return period design criteria[(1)], I have
  - ☑ 7.1 compared the level of *flood hazard* or *flood risk* tolerance adopted by the *Approving Authority* with the findings of my investigation
  - ☑ 7.2 made a finding on the level of *flood hazard* or *flood risk* tolerance on the Property based on the comparison
  - ☑ 7.3 made recommendations to reduce the *flood hazard* or *flood risk* on the Property

[(1)] *Flood Hazard Area Land Use Management Guidelines* published by the BC Ministry of Forests, Lands , and Natural Resource Operations and the 2009 publication *Subdivision Preliminary Layout Review – Natural Hazard Risk* published by the Ministry of Transportation and Public Infrastructure. It should be noted that the 200-year return period is a standard used typically for rivers and purely fluvial processes. For small creeks subject to debris floods and debris flows return periods are commonly applied that exceed 200 years. For life-threatening events including debris flows, the Ministry of Transportation and Public Infrastructure stipulates in their 2009 publication *Subdivision Preliminary Layout Review – Natural Hazard Risk* that a 10,000-year return period needs to be considered.

8. Where the *Approving Authority* has **not** adopted a level of *flood risk* or *flood hazard* tolerance I have:

N/A 8.1 described the method of *flood hazard* analysis or *flood risk analysis* used

N/A 8.2 referred to an appropriate and identified provincial or national guideline for level of *flood hazard* or *flood risk*

N/A 8.3 compared this guideline with the findings of my investigation

N/A 8.4 made a finding on the level of *flood hazard* of *flood risk* tolerance on the Property based on the comparison

N/A 8.5 made recommendations to reduce *flood risks*

✓ 9. Reported on the requirements for future inspections of the Property and recommended who should conduct those inspections.

Based on my comparison between

Check one

- ☑ the findings from the investigation and the adopted level of *flood hazard* or *flood risk* tolerance (item 7.2 above)
- ☐ the appropriate and identified provincial or national guideline for level of *flood hazard* or *flood risk* tolerance (item 8.4 above)

I hereby give my assurance that, based on the conditions contained in the attached flood assessment report,

Check one

- ☐ for subdivision approval, as required by the *Land Title Act* (Section 86), "that the land may be used safely for the use intended".

  Check one
  - ☐ with one or more recommended registered *covenants*.
  - ☐ without any registered *covenant*.

- ☐ for a development permit, as required by the *Local Government Act* (Sections 919.1 and 920), my report will "assist the local government in determining what conditions or requirements under [Section 920] subsection (7.1) it will impose in the permit".

- ☑ for a building permit, as required by the Community Charter (Section 56), "the land may be used safely for the use intended".

  Check one
  - ☑ with one or more recommended registered *covenants*.
  - ☐ without any registered *covenant*.

- ☐ for flood plain bylaw variance, as required by the *Flood Hazard Area Land Use Management Guidelines* associated with the *Local Government Act* (Section 910), "the development may occur safely".

- ☐ for flood plain bylaw exemption, as required by the *Local Government Act* (Section 910), "the land may be used safely for the use intended".

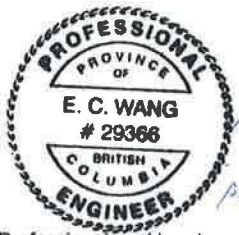
Edwin Wang
Name (print)

2016-Aug-02
Date

Signature

30 Gostick Place, North Vancouver, BC, V7M 3G3
Address

604-980-6011
Telephone



Aug 2, 2016

(Affix Professional seal here)

If the *Qualified Professional* is a member of a firm, complete the following.

I am a member of the firm Northwest Hydraulic Consultants Ltd. (NHC)
and I sign this letter on behalf of the firm. (Print name of firm)