City of Richmond

Agenda

Development Permit Panel

Council Chambers, City Hall
6911 No. 3 Road

Wednesday, January 27, 2016
3:30 p.m.

Minutes

Motion to adopt the minutes of the Development Permit Panel meeting held on January 13, 2016.

1. Development Permit 13-647517
(REDMS No. 4595032 v. 4)

APPLICANT:	Eric Law Architects Inc.
PROPERTY LOCATION:	9728 Alberta Road (formerly 9720, 9740 and 9760 Alberta Road)

Director's Recommendations

That a Development Permit be issued which would:

1. ***permit the construction of six (6) two-storey and fourteen (14) three-storey townhouse dwellings on 9728 Alberta Road (formerly 9720, 9740 and 9760 Alberta Road) and zoned "Medium Density Townhouses (RTM3);" and***
2. ***vary the provisions of Richmond Zoning Bylaw 8500 to:***
   - ***(a) allow site coverage increase from 40% to 42%; and***
   - ***(b) allow an increase in tandem residential parking spaces from 50% to 70% (i.e. 28 of 40 spaces).***

ITEM

2. Development Variance 15-708883

(REDMS No. 4741772 v. 2)

APPLICANT: 0983101 BC Ltd.

PROPERTY LOCATION: 12208, 12222 and 12228 Trites Road

Director's Recommendations

That a Development Variance Permit be issued which would vary sections 4.18.2.a. and 8.1.7.4.a. of Richmond Zoning Bylaw 8500 to permit maximum building height "residential vertical lot width envelope" and "residential vertical lot depth envelope" to be measured from the required Flood Construction Level (2.9 m GSC) in order to allow construction of new single detached houses at 12208, 12222 and 12228 Trites Road on sites zoned "Single Detached (RS2/A)."

3. New Business

4. Date of Next Meeting: February 10, 2016

5. Adjournment

City of Richmond

Minutes

Development Permit Panel
Wednesday, January 13, 2016

Time:	3:30 p.m.
Place:	Council Chambers Richmond City Hall
Present:	Joe Erceg, Chair Cecilia Achiam, Director, Administration and Compliance Victor Wei, Director, Transportation

The meeting was called to order at 3:30 p.m.

1. Minutes

It was moved and seconded
That the minutes of the meeting of the Development Permit Panel held on December 16, 2015, be adopted.

CARRIED

2. Development Permit 13-629399
(File Ref. No.: DP 13-629399) (REDMS No. 4677777)

APPLICANT: Yamamoto Architecture Inc.

PROPERTY LOCATION: 9040 and 9060/9080 No. 2 Road

INTENT OF PERMIT:

1. Permit the construction of nine (9) townhouse units at 9040 and 9060/9080 No. 2 Road on a site zoned "Low Density Townhouses (RTL4)"; and
2. Vary the provisions of Richmond Zoning Bylaw 8500 to:
   a) reduce the front yard setback from 6.0 m to 5.0 m;
   b) allow a total of ten (10) tandem parking spaces in five (5) three-storey townhouse units; and
   c) replace three (3) standard residential parking spaces with small car spaces.

Applicant's Comments

Karen Ma, Yamamoto Architecture Inc., briefed the Panel on the proposed development noting that (i) the form and character of the development is consistent with the adjacent neighbourhood, (ii) a cedar hedge row will be planted along the north and south property lines, (iii) windows on the north elevation of Building 2 have been minimized to reduce the overlook potential (iv) two Douglas Fir trees have been identified for retention, (v) three visitor parking spaces have been provided, and (vi) sustainability features and energy efficient appliances will be incorporated into the development.

Meredith Mitchell, M2 Landscape Architecture, briefed the Panel on the landscaping plan, noting that (i) trees behind Building 1 will be retained, (ii) site grades were determined for the internal road with staff, (iii) the plant bed at the driveway edge was widened to enable more landscaping, (iv) the internal road will include planting at each driveway entry, (v) cedar trees along the east property line will be retained, and (vii) bollards will be installed between the drive aisle and the outdoor amenity area.

Panel Discussion

In reply to queries from the Panel, Ms. Mitchell confirmed that (i) the neighbour to the south consented to the removal of two trees situated on the property line, (ii) an electrical room will be situated between the proposed development's two buildings, (iii) low growing shrubs will be planted where visibility is to be maintained, and (iv) the outdoor amenity space, garbage/organic waste/recycling collection facilities, and mailbox are situated and sized appropriately to facilitate shared use with residents of a future development at 6008 and 6028 Francis Road, should they redevelop in the future.

Staff Comments

Wayne Craig, Director, Development, confirmed that three variances related to the proposed application were identified at the time of rezoning. He noted that the setback variances are dictated by the location of the drive aisle and the trees being retained. He further noted that three of the four side-by-side double car garages will have one full size space and one small car space.

Panel Discussion

None.

Correspondence

None.

Gallery Comments

Harvey Yee, owner of 6008 and 6028 Francis Road, questioned how the project would impact the existing fence on the north side of the subject property and in reply to queries from the Panel, Ms. Mitchell clarified that the plan identified a retaining wall at that location, and the inclusion of a fence. She added that the existing fence will likely be replaced, if the fence is in poor condition.

Donna Wong, 9100 No. 2 Road, questioned if the existing street lighting would be relocated on No. 2 Road, as a result of the proposed development, and in reply to queries from the Panel, Mr. Craig clarified that a servicing agreement is required for infrastructure changes on No. 2 Road, and that the street light location will be determined through the Servicing Agreement design. It was further noted that the Servicing Agreement design can be reviewed with Ms. Wong.

Panel Decision

It was moved and seconded
That a Development Permit be issued which would:

1. ***permit the construction of nine (9) townhouse units at 9040 and 9060/9080 No. 2 Road on a site zoned "Low Density Townhouses (RTL4)"; and***
2. ***vary the provisions of Richmond Zoning Bylaw 8500 to:***
   - ***a) reduce the front yard setback from 6.0 m to 5.0 m;***
   - ***b) allow a total of ten (10) tandem parking spaces in five (5) three-storey townhouse units; and***
   - ***c) replace three (3) standard residential parking spaces with small car spaces.***

CARRIED

3. Development Permit 14-660885

(File Ref. No.: DP 14-660885) (REDMS No. 4843459 v. 6)

APPLICANT:	Rafii Architects Inc. and DYS Architecture on behalf of Kebet Holdings Ltd., Inc. No. BC0712200
PROPERTY LOCATION:	5580 No. 3 Road

INTENT OF PERMIT:

1. Permit the construction of approximately 132 residential units, which includes 128 units within a residential tower and four (4) two-storey townhouse units above the parking podium, and grade level commercial units along No. 3 Road at 5580 No. 3 Road on a site zoned "Downtown Commercial (CDT1);" and
2. Vary the provisions of Richmond Zoning Bylaw 8500 to reduce the residential parking rate from the standard City wide parking rate to the City Centre Zone 1 parking rate.

Applicant's Comments

Foad Raffii, Rafii Architects Inc., accompanied by Norm Chin, DYS Architecture, briefed the Panel on the proposed development noting that (i) the project was mainly residential and was situated on No. 3 Road in front of the Canada Line Station, (ii) access to the proposed development (and to any future development on the adjacent property) was reliant on the neighbouring site's pre-existing lane right-of-way, (iii) the limited commercial component of the project is justified for the location, (iv) four villas are included in the project, located at the top of the parking podium, (v) a green roof is provided on these podium units for visual interest, and (vi) the units proposed at the same elevation as the Canada Line have been designed so they are not oriented towards the Canada Line guide way.

Bruce Hemstock, PWL Partnership, briefed the Panel on the proposed landscaping plan for the proposed development, noting that (i) the landscaping design provided a seamless transition from the concrete public realm of No. 3 Road to the private realm of the development, (ii) a hedge will provide visual screening from the Canada Line guide way, (iii) the residential patio area includes a barbeque area and a children's play area, and (iv) the buffer zone between the townhouses and the amenity patio will be heavily planted.

Panel Discussion

In reply to queries from the Panel, Mr. Rafii and his colleagues noted that:

- the top two levels on the west side of the commercial component of the proposed development, will be amenities and low landscaping will provide screening from the Canada Line guide way;
- the rear lane right-of-way includes a landscaped area, which the strata will maintain;
- a planter will be located between the entrance doors accessing the laneway;
- nine affordable housing units designed to the City's basic universal housing standards (one-bedroom, two-bedroom and studios) are scattered throughout the building; and
- future development on the adjacent property to the north, and its potential parking and access requirements were considered.

Staff Comments

Mr. Craig commented on the proposed development, noting that (i) the nine affordable housing units meet the basic universal guidelines, (ii) a servicing agreement will be required for improvements to No. 3 Road and the rear lane, (iii) a legal agreement will detail the maintenance of the rear lane planting area, (iv) noise attenuation studies considered the proposed development's interface with the Canada Line and aircraft noise, (v) the project will be LEED Silver equivalent, (vi) a Public Art Plan is provided, and (vii) staff support the application of the City Centre Parking rates, given the applicants provision of the affordable housing units.

Correspondence

None.

Gallery Comments

Louise Uy, 9100 Blundell Road, expressed concern regarding the proposed development's use of the adjacent development's right-of-way, for vehicle access.

The Chair clarified that a prior agreement achieved with the Prada development provided for full vehicle access for the proposed development, along the right-of-way.

Panel Decision

It was moved and seconded
That a Development Permit be issued which would:

1. ***permit the construction of approximately 132 residential units, which includes 128 units within a residential tower and four (4) two-storey townhouse units above the parking podium, and grade level commercial units along No. 3 Road at 5580 No. 3 Road on a site zoned "Downtown Commercial (CDT1);" and***

2. ***vary the provisions of Richmond Zoning Bylaw 8500 to reduce the residential parking rate from the standard City wide parking rate to the City Centre Zone 1 parking rate.***

CARRIED

4. New Business

5. Date of Next Meeting: January 27, 2016

6. Adjournment

It was moved and seconded
That the meeting be adjourned at 4:25 p.m.

CARRIED

Certified a true and correct copy of the Minutes of the meeting of the Development Permit Panel of the Council of the City of Richmond held on Wednesday, January 13, 2016.

Joe Erceg
Chair

Carrie Peacock,
Recording Secretary

City of Richmond

Report to Development Permit Panel

To:	Development Permit Panel	**Date:**	January 6, 2016
From:	Wayne Craig Director of Development	**File:**	DP 13-647517
Re:	**Application by Eric Law Architects Inc. for a Development Permit at 9728 Alberta Road (formerly 9720, 9740 and 9760 Alberta Road)**		

Staff Recommendation

That a Development Permit be issued which would:

1. Permit the construction of six (6) two-storey and fourteen (14) three-storey townhouse dwellings on 9728 Alberta Road (formerly 9720, 9740 and 9760 Alberta Road) and zoned "Medium Density Townhouses (RTM3)";

2. Vary the provisions of Richmond Zoning Bylaw 8500 to:
   a. To allow site coverage increase from 40% to 42%.
   b. To allow an increase in tandem residential parking spaces from 50% to 70% (i.e. 28 of 40 spaces).

Wayne Craig
Director of Development

WC:dcb
Att.

Staff Report

Origin

Eric Law Architects Inc. has applied to the City of Richmond for permission to develop six (6) two-storey and fourteen (14) three-storey townhouse dwellings on 9728 Alberta Road (formerly 9720, 9740 and 9760 Alberta Road) and zoned "Medium Density Townhouses (RTM3)".

To accommodate this development a work order will be required at Building Permit stage to close off old driveway accesses, establish a new driveway access to the site and address any utility service adjustments for the project.

Development Information

The site contained three single-family homes which have recently been demolished.

The site is being rezoned from "Single Detached (RS1/F)" to "Medium Density Townhouses (RTM3)" for this project under pending Bylaw 9014 (RZ 12-615601 – third reading received on May 21, 2013).

Please refer to attached Development Application Data Sheet (Attachment 1) for a comparison of the proposed development data with the relevant Bylaw requirements.

Surrounding Development

Development surrounding the subject site is as follows:

To the North: Across Alberta Road:

- A single detached dwelling on land zoned "Single Detached (RS1/F)" at 9671 Alberta Road;
- A 24 unit, three-storey townhouse development currently under construction at 9691 Alberta Road, on land zoned "Low Density Townhouses (RTL4)";
- A single detached dwelling on land zoned "Single Detached (RS1/F)" at 9731 Alberta Road; and
- A 98 unit, two-storey townhouse development zoned "Town Housing (ZT32) – North McLennan (City Centre)" at 6300 Birch Street.

To the East: A vacant property at 9780 Alberta Road, zoned "Single Detached (RS1/F)". Under an active development application for a six unit, three-storey townhouse project (RZ 11-566870). Bylaw 8812 to rezone the site received third reading on March 19, 2012. The Development Permit (DP 11-584805) was endorsed by Development Permit Panel in December, 2015.

To the South: A parking lot associated with McNeil Secondary School zoned "School and Institutional Use (SI)".

To the West: A Single Detached Dwelling on land zoned "Single Detached (RS1/F)" at 9700 Alberta Road.

Related Policies and Studies

Official Community Plan (OCP)

The subject properties are designated as "Neighbourhood Residential" in the Official Community Plan. The development proposal is complies with the OCP designated use.

McLennan North Sub-Area Plan

The site is also located within the City Centre Area, McLennan North Sub-Area Plan, Schedule 2.10C. The McLennan North Sub-Area Plan designates the subject properties as "Residential Area 3. Two Family Dwelling / 2 & 3-storey Townhouses". This designation permits a 0.65 base FAR with increased density to 0.70 with a contribution to affordable housing. The applicant's proposal is consistent with the Sub-Area Plan designation as it provides for a density of 0.70 FAR and a contribution to affordable housing. The affordable housing contribution was secured via Rezoning RZ 12-615601.

Rezoning and Public Hearing Results

During the rezoning process, staff identified the following design issues to be resolved at the Development Permit stage. The italicized text indicates the design response to each of these issues:

a) Design of the outdoor amenity area, including the design of a children's play area. *Provided as shown on the landscape plan. The amenity space was reviewed and accepted by both the Advisory Design Panel and staff. Details of the amenity space components are outlined in the "Design Response" section of this report.*

b) Submit a site plan to show the manoeuvrability of larger vehicles (i.e. SU-9) within the site to the satisfaction of the Director of Transportation. *SU-9 radii are shown on the site plans. Both Transportation staff and Garbage and Recycling staff have reviewed and signed off on the site plan.*

c) Submit a site plan to show pedestrian access to the interior townhouse units. *Patterned pavers provide a pedestrian path leading to the interior of the site as shown on the landscape plan.*

d) Verification of parking stall clearances when abutted against a solid wall greater than 0.3 meters high. *The required clearances are shown on the site plan. The spaces conform to the Zoning Bylaw requirements.*

e) Identify and design for units that can be easily converted to universal access. *A single accessible unit is provided in unit type C1.*

f) An Acoustic Engineer's report, to identify noise mitigation measures to be taken to lessen aircraft noise (doors and windows closed), to the following criteria:

Portions of Dwelling Units	Noise Levels in decibels (dB)
Bedrooms	35 dB
Living, dining, and recreation rooms	40 dB
Kitchen, bath, hallways and utility rooms	45 dB

Brown Strachan Associates Acoustical Evaluation Report dated July 24, 2014 has confirmed that the criteria will be achieved.

g) A thermal report to ensure indoor comfort levels are maintained to ensure the above noise criteria is met using the ASHRAE 55-2004 "Thermal Environmental Conditions for Human Occupancy" standard and any subsequent updates as they occur. *An Enersolv Design & Build Ltd. Occupancy Thermal Comfort Analysis & Simulation Results report dated Sept. 3, 2015, indicates that indoor comfort levels can be maintained subject to certain measure as outlined in the Analysis section of this staff report.*

The Public Hearing for the rezoning of this site was held on May 21, 2013. No concerns were identified at the Public Hearing.

Zoning Compliance

The proposed scheme attached to this report has satisfactorily addressed the significant urban design issues and other staff comments identified as part of the review of the subject Development Permit application. In addition, it complies with the intent of the applicable sections of the Official Community Plan and is generally in compliance with the "Medium Density Townhouses (RTM3)" zone except for the zoning variances noted below.

The applicant requests to vary the provisions of Richmond Zoning Bylaw 8500 to:

1) To allow site coverage increase from 40% to 42%;

(Staff supports the proposed variance as the applicant has undertaken a number of measures to improve the appearance and function of the site in response to the Advisory Design Panel and staff requests. These measures include:

- ***Reducing the height of six units from three-storeys to two-storeys;***
- ***Pulling the two-storey units further north and away from the interface with the school;***
- ***Reducing the site grading and fencing height along the southern property boundary to lessen the visual impact from the school;***
- ***Reducing the amount of impermeable surface to 60% (The RTM3 zone only requires 65%); and***
- ***Taken measures to reduce fill along a portion of the site's western boundary to preserve trees on a neighbouring property.)***

2) To allow an increase in tandem residential parking spaces from 50% to 70% (i.e. 28 of 40 spaces).

(The variance to increase the number of tandem residential parking spaces was identified in the Rezoning report (RZ 12-615601 – report from the Director of Development dated April 4, 2013). No concerns were identified through the May 21st, 2013 Public Hearing. Staff note that the proponent has agreed that all spaces in a tandem configuration will be standard sized spaces. It is further noted that the rezoning application was received prior

to the 2013 Zoning Bylaw amendment which established the maximum 50% tandem parking ratio.)

Urban Design Response

Advisory Design Panel Comments

The Advisory Design Panel was supportive of the application. A copy of the relevant excerpt from the Advisory Design Panel Minutes from May 21, 2015 is attached for reference (Attachment 2).

Several issues identified by the Advisory Design Panel included the following:

- Reducing the recession of the entry doors to the two-storey units (CEPTD and a visual concern);
- Expanding the area of the fish scale shingles used on some of the units;
- Provision of private outdoor spaces for Units 12 and 13;
- Enhancing the outdoor amenity area with additional landscaping;
- Adjusting the interior design of the convertible unit for possible addition of an elevator.

The applicant has responded to each of the Panel's comments and made modifications to the design where possible to address the concerns. The applicant's responses are included in '***bold italics***' immediately following the specific Design Panel comments in Attachment 2.

Conditions of Adjacency

- Dwelling units fronting onto Alberta Road will be constructed with their front entrance doors oriented to the street thereby contributing to a more pedestrian friendly streetscape.
- The development should interface well with the site immediately to the east as it is currently in the design stages for a similar type of townhouse development. Grade levels between the two (2) projects will be approximately the same.
- Along most of the southern edge of the site the grade will be reduced to keep the height of the retaining wall to a maximum of 0.6 m (2 ft.). Fencing on top of the retaining wall will be no greater than 1.2 m (4 ft.) so that it does not appear as an overwhelming wall when viewed from the school site to the south. The only area of exception will be at the end of the drive aisle and where the vehicle spaces are located – the grade in these areas will be higher to match the grade of the internal drive aisle.
- Through the Rezoning application a Statutory Right of Way is to be registered to ensure that any future multi-family redevelopment on the lots to the west (9640, 9660 and 9770 Alberta Road) will access through the subject site.
- Wood fencing will be employed between adjacent properties maintaining backyard privacy between properties.

Public Realm

- Frontage improvements have already been completed along the subject site. Only minor access adjustments and utility connections will be needed to service the site.

Site and Functional Planning

- The internal road layout provides for SU-9 turning movements on-site and will accommodate garbage collection vehicles.
- A new fire hydrant will be located on the property allowing fire vehicles to establish a staging area should it be needed.
- Garbage collection facilities are centrally located affording easy access for residents and pickup services.
- A 120.4 m^2 (1,296 ft^2) outdoor amenity space is centrally located within easy access by all the dwelling unit residents. This space fully meets the Zoning Bylaw requirements.
- Outside bicycle racks are located in the central amenity space within easy walking distance from all the dwelling units.
- Indoor amenity space is addressed through cash-in-lieu as part of the site's rezoning.

Landscape Form and Character

- The Development Permit Considerations include a requirement for proof of a contract with a registered Arborist to be present for works in the vicinity of five trees (1 Grand fir, 2 Hemlock, 1 Douglas fir and 1 Cherry tree) to be retained on an adjacent property near the south west corner of the subject site.
- Fill adjacent to the retained trees on the adjacent property will be set back and tapered down under the supervision of an Arborist to ensure survival.
- Landscaping along the interior of the site has been enhanced in response to the Advisory Design Panel's comments providing a softer appearance to the internal drive aisles.
- The mail kiosk in the amenity space will include an overhead roof feature providing shelter to residents in inclement weather as they access their mail.
- A variety of trees and shrubs are located around the periphery of the site to both soften and enhance the edges of the site.
- A total of 27 trees are proposed for the site – more than compensating for the two trees that have to be removed from the lot. Tree selections include Fraser Fir, Japanese Maple, Autumn Purple Ash, Japanese Snowbell, etc. The proposed tree replacements fully satisfy the Official Community Plan (OCP) 2 for 1 replacement requirements.
- The landscaping plan includes a reasonable selection of shrubs, vines, perennials, ground covers and grasses which are to be distributed around the site.
- A pedestrian pathway is delineated from the site's entrance way to the interior of the development using coloured concrete paving stones.
- The children's play equipment includes an "arch rock climber", "walking the plank" and four (4) mini pod toad stools. Recycled plastic seating structures are also included in proximity to the play area.
- Non-porous surfaces have been reduced to 60% through a combination of vegetated planting areas, grass surfaces and permeable pavers. This is better than the 65% required under the RTM3 zoning schedule.
- Submission of a landscape security in the amount of $69,823.05 is included in the Development Permit considerations.

Architectural Form and Character

- The massing of six units along the southern property boundary are proposed to be reduced to two-storeys in height creating more variety and allowing greater sun penetration into the development's interior space.
- Variations in the roof forms incorporating gables help to provide visual interest to the structures.
- Special attention has been paid to the southern exposure toward the adjacent school grounds to avoid the appearance of a blank wall.
- The building mass of the two-storey units was pulled back from the rear property boundary to provide more private open space and avoid the appearance of a building mass along the southern exposure of the lot.
- The project has been designed with 8 different design types with 7 of these accommodating 3 bedrooms each and the remaining type accommodating 2 bedrooms each. Dwelling units sizes range from approximately 92.5 m^2 to 130.6 m^2 (996 ft^2 to 1,406 ft^2).
- Each unit includes private outdoor amenity space typically in back yards or balconies.
- Color will be used to accentuate the building facades (the color palette is shown on Plan #11A and includes Bitter Chocolate, Night Owl, Cordovan, Ecru and white colors based on Sherwin Williams paints.
- Roofing material is proposed to be asphalt shingles.
- Siding material is proposed to be hardi siding near grade and vinyl siding for upper floors.
- Fish scale pattern shingle siding with trims and accent colors are proposed for the walls just under the gable ends.
- Stone veneers will be added to column supports for the units with front doors toward Alberta Road.

Accessible Housing

- The proposed development includes one convertible unit that is designed with the potential to be easily renovated to accommodate a future resident in a wheelchair. The potential conversion of these units will require the installation of an elevator or a stair lift. Adjustments to counter heights may be required however all the plumbing and gas pipes will be located clear of under counter spaces.
- All of the proposed units incorporate aging in place features to accommodate mobility constraints associated with aging. These features include:
  - stairwell hand rails;
  - lever-type handles for plumbing fixtures and door handles; and
  - solid blocking in washroom walls to facilitate future grab bar installation beside toilets, bathtubs and showers.

Crime Prevention through Environmental Design (CPTED)

- In response to the Advisory Panel's comments recessed entry doors have been pulled forward making them more visible to the internal drive aisle and reducing any potential CPTED concerns related to concealed doorways.
- The children's play space and the mail box kiosk have been centrally located providing high visibility from neighbouring units and the drive aisle.

Sustainability

- A Thermal Comfort Analysis report prepared by Enersolv Design & Build Ltd. *(Occupancy Thermal Comfort Analysis & Simulation Results report dated Sept. 3, 2015)* has been submitted by the applicant for compliance with the EnerGuide 82 and aircraft noise requirements. The report outlines a series of elements that will need to be incorporated into the final design for the project to achieve year round thermal comfort. These elements include:

    - Low glazing to wall ratio of 20% minimize solar heat gain and improve thermal comfort
    - Installation of air conditioning (heat pump) to aid thermal comfort during summer periods.
    - Gas furnace forced air system controlled via wall mounted thermostats.
    - Ventilation via three washroom exhaust fans.
    - Operable windows in each unit to allow occupants to adjust air flow rates.

- The development will also meet the requirements for EnerGuide 82 and pre-ducting for solar hot water heating. The applicant has submitted an EnerGuide 82 analysis report prepared by Capture Energy (report dated November 2, 2015) indicating the conditions to be incorporated into the design to ensure that the EnerGuide 82 criteria are met. The report notes that the design will achieve EnerGuide 82 provided the following conditions are met:

    Home complies with all provisions of the 2012 BC Building Code, the BC Energy Efficiency Act, and other applicable codes;

    - Insulation below slab: R-12
    - Main Walls: 2x6 @ 6: OC R-20 batt
    - Exposed floor: 2x10 @ 16 OC R28
    - Attics: R-40 blown loose fill fiber glass
    - Windows: Double-glazed, Low-E, Argon fill, insulated spacers USI 1.8
    - Air tightness: 7 ACH@50 Pa
    - Ventilation: exhaust fan, forced air system as principal ventilation
    - Heat: Air Source Heat Pump with NG, Force air Furnace – minimum 92% as a backup.
    - How Water: Natural Gas, direct vent tank

The Development Permit Consideration (see Attachment 3) includes requirements that the proposed development must be designed and constructed to meet or exceed EnerGuide 82 criteria for energy efficiency and that all dwellings are pre-ducted for solar hot water heating prior to permit issuance.

The main construction elements identified through the Energuide 82 report, the aircraft noise response and the thermal comfort analysis will be secured through a legal agreement to be registered on title.

Conclusions

The Developer and the design team have made significant modifications to their project in order to address the comments made by the Advisory Design Panel and staff improving both the functionality and liveability of the design and making adjustments to the interface with the adjacent properties. Staff recommend support for this development proposal.

David Brownlee
Planner 2

DCB:rg

List of Attachments
Attachment 1: Development Application Data Sheet
Attachment 2: Advisory Design Panel Meeting Minutes May 21, 2015 (Excerpt Only)
Attachment 3: Development Permit Considerations

City of Richmond

Development Application Data Sheet

Development Applications Division

DP 13-647517 **Attachment 1**

Address: 9728 Alberta Road (formerly 9720, 9740 and 9760 Alberta Road)

Applicant: Eric Law Architects Owner: Sian Group Investments

Planning Area(s): City Centre – McLennan North Sub-Area (Schedule 2.10C)

Floor Area: 2,123.8 m^2 (22,860 ft^2)

	Existing	Proposed
Site Area:	3,034 m^2 (32,657 ft^2)	No Change
Land Uses:	Single Family Residential	Multiple Family Residential
OCP Designation:	Residential Area 3 0.65 base F.A.R. Two-Family Dwelling / 2 & 3-storey Townhouses	No Change
Zoning:	Residential Single Detached, Subdivision F (RS1/F)	Medium Density Townhouses (RTM3) Townhouses at 0.70 F.A.R. with a contribution to the Affordable Housing Reserve Fund
Number of Units:	3 SFD (1 per lot)	20 Townhouse Units on a consolidated lot.

	Bylaw Requirement	Proposed	Variance
Floor Area Ratio:	0.65 base, 0.70 with contribution to affordable housing Site Area =3,034.00m² (0.70) = 2,123.80m² Max.	0.70	none permitted
Lot Coverage:	Max. 40%	42%	**Variance Required**
Setback – Front Yard:	Min. 6.0 m	6.02 m	None
Setback – East Side Yard:	Min. 3.0 m	4.52 m	None
Setback – West Side Yard:	Min. 3.0 m	3.14 m	None
Setback – Rear Yard:	Min. 3.0 m	3.28 m	None
Height (m):	Max. 12 m and no more than 3 stories	11.91 m	None
Lot Size:	No Requirements	3,034 m^2	None

Off-street Parking Spaces – Regular/Visitor:	40 R and 4 V Rate: 2.0 R and 0.2 V	40 R and 4 V	None
Off-street Parking Spaces – Accessible:	1	1	None
Total off-street Spaces:	44	44	None
Tandem Parking Spaces	Max. 50% of units for townhouses	70% of units to provide tandem parking	**Variance required to permit 8 additional spaces in tandem. (i.e. 28 of 40 total spaces)**
Amenity Space – Indoor:	Min. 70 m^2	Cash-in-lieu payment totalling $21,000.00 – addressed via RZ 12-615601	None
Amenity Space – Outdoor:	6 m^2 minimum per unit x 20 units = 120m^2	120.4m^2 (1,296 ft^2)	None
Non-Porous Surface Area	65%	60%	None

Attachment 2

Excerpt from the Minutes from
The Design Panel Meeting

Thursday, May 21, 2015 – 4:00 p.m.
Rm. M.1.003
Richmond City Hall

2. DP 13-647517 - 20-UNIT TWO AND THREE STOREY TOWNHOUSES

APPLICANT: Eric Law Architect

PROPERTY LOCATION: 9720 – 9760 Alberta Road

Applicant's Presentation

Eric Law, Eric Law Architect, and Denitsa Dimitrova, PMG Landscape Architects, presented the project and answered queries from the Panel on behalf of the applicant.

Panel Discussion

Comments from the Panel were as follows:

- support the project; appreciate the applicant's efforts to ensure that the proposed project is compatible with its site context; ***Noted***
- suggest that the applicant identify public art opportunities at this stage in the project and consult with the City's public art planner; ***Public Art will be pay-in-lieu***
- provide private outdoor spaces for Units 12 and 13 as per the City's requirement; ***Balcony and deck are provided to Units 12 and 13***
- recessed front entrances for two-storey units at the back as well as for three-storey units along Alberta Road are excessive; applicant should consider alternative approaches to meet the required floor area ratio as the recessed front entrances are not visually appealing and pose a safety issue; also, the applicant needs to look at the recessed overhangs on the third floor of townhouse units along Alberta Road; The ***front door of 2 storeys units are moved out towards the drive aisle. The 2/F layout and roof are adjusted so that the overhangs are reduced on the third floor***
- consider design development to the side elevations with double roof line as it amplifies rather than breaks up the flat façade; ***We consider to retain the double roof line on the side elevations as an architectural feature for this project***

- fish scale pattern shingle siding is interesting but used only in small and inconspicuous areas; consider using this material in more prominent and bigger areas to generate more interest; ***Additional fish scale pattern shingle are proposed on the entrance porch gable roof along Alberta Road. This is more prominent from the street view***
- huge three-storey building faces along the internal drive aisle need articulation; We ***consider that the three-storey building facing the internal drive aisle is in fact articulated with roof and recess. The facade will also be finished with different material and colour***
- private backyards of townhouse units along the east side of the development can only be accessed through the parking garage; look at the possibility of connecting the upper floor to the outdoor space; ***Access to the private backyard will be provided through the garage***
- consider relocating garbage and recycling from the centre of the development to a less prominent area; We ***consider the garbage and recycling is centrally located and serve the dwelling units efficiently.***
- agree with comments regarding the access to the private backyard through the parking garage; ***Access to the private backyard will be provided through the garage***
- also agree with comments regarding the recessed front entrances of two-storey units; consider design development and adjust the spaces; ***The recessed front entrances are pulled out closer to the drive aisle***
- not concerned with the scale and massing of the proposed development; ***Noted***
- the size and location of the outdoor amenity space between two three-storey blocks may allow only limited sunlight exposure even during peak summer periods; enhance the landscaping through additional planting; ***Additional planting is provided to the outdoor amenity space***
- appreciate the provision for future internal elevator in the convertible unit; note that a storage closet is initially proposed in the allotted space at the ground level; also consider a similar use at the upper level adjacent to the washroom; ***A space is allowed at 2/F and the structure will be designed to allow for future conversion of elevator.***
- consider introducing a pocket door to the wall of the future elevator shaft to provide more manoeuvring space to the washroom on the second floor; ***Pocket door is provided to the washroom***
- consider introducing adequate weather protection to the mailbox area to address the needs of people with disabilities; A ***mail box roof cover is provided.***
- note that the project is moving in the right direction from a sustainability point of view; appreciate the sustainability features of the project; ***Noted***
- not too concerned with the grade change on the south side of the proposed development adjacent to the school; ***Noted***

- note that only a few units have planting adjacent to the internal drive aisle; consider introducing planting along the internal drive aisle for all units; ***Additional planting is provided along the internal drive aisle***
- shared walkway for adjacent units is problematic; consider design development; ***The paver pattern has highlighted the walkway path.***
- consider introducing vines on the trellis structures; ***Vines are provided to the south and outdoor amenity trellis***
- consider enhancing the planting on the building foundation side in the internal driveway; and ***more planting are added along the internal driveway***
- consider moving the hydro kiosks away from the entrance to the proposed development. ***Hydro kiosks are relocated to the east and west side of the property line.***

Panel Decision

It was moved and seconded
That DP 13-647517 be supported to move forward to the Development Permit Panel subject to the applicant giving consideration to the comments of the Panel and ensuring that the following specific concerns of the Panel are addressed by the applicant: (i) recessed overhangs on the third floor, (ii) depth of the entry doors at ground level, (iii) provision of additional plant materials adjacent to the internal drive aisle, and (iv) simplification of some of the rooflines.

CARRIED

Development Permit Considerations

Development Applications Department
6911 No. 3 Road, Richmond, BC V6Y 2C1

Address: 9728 Alberta Road (formerly 9720-9760 Alberta Road) **File No.:** DP 13-647517

Prior to approval of the Development Permit, the developer is required to complete the following:

1. Final adoption of the Zoning Amendment Bylaw 9014.
2. Receipt of a Letter of Credit for landscaping in the amount of $69,823.05 (based on the costs estimate provided by a CSLA registered landscape Architect including 10% contingency).
3. Submission of a Contract entered into between the applicant and a Certified Arborist for supervision of any on-site works conducted within the tree protection zone of the trees to be retained or on adjacent properties that could be impacted by the project. The Contract should include the scope of work to be undertaken, including: the proposed number of site monitoring inspections, and a provision for the Arborist to submit a post-construction assessment report to the City for review.
4. Registration of a legal agreement on title identifying that the proposed development must be designed and constructed to meet or exceed EnerGuide 82 criteria for energy efficiency and that all dwellings are pre-ducted for solar hot water heating.
5. Registration of a legal agreement on title identifying that the proposed development must be designed and constructed in a manner that mitigates potential aircraft noise within the proposed dwelling units. Dwelling units must be designed and constructed to achieve:
   a) CMHC guidelines for interior noise levels as indicated in the chart below:

Portions of Dwelling Units	Noise Levels (decibels)
Bedrooms	35 decibels
Living, dining, recreation rooms	40 decibels
Kitchen, bathrooms, hallways, and utility rooms	45 decibels

   b) the ASHRAE 55-2004 "Thermal Environmental Conditions for Human Occupancy" standard for interior living spaces.

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

1. Incorporation of accessibility measures in Building Permit (BP) plans* as determined via the Rezoning and/or Development Permit processes.

Note:

* This requires a separate application.

- Where the Director of Development deems appropriate, the preceding agreements are to be drawn not only as personal covenants of the property owner but also as covenants pursuant to Section 219 of the Land Title Act.

  All agreements to be registered in the Land Title Office shall have priority over all such liens, charges and encumbrances as is considered advisable by the Director of Development. All agreements to be registered in the Land Title Office shall, unless the Director of Development determines otherwise, be fully registered in the Land Title Office prior to enactment of the appropriate bylaw.

The preceding agreements shall provide security to the City including indemnities, warranties, equitable/rent charges, letters of credit and withholding permits, as deemed necessary or advisable by the Director of Development. All agreements shall be in a form and content satisfactory to the Director of Development.

- Additional legal agreements, as determined via the subject development's Servicing Agreement(s) and/or Development Permit(s), and/or Building Permit(s) to the satisfaction of the Director of Engineering may be required including, but not limited to, site investigation, testing, monitoring, site preparation, de-watering, drilling, underpinning, anchoring, shoring, piling, pre-loading, ground densification or other activities that may result in settlement, displacement, subsidence, damage or nuisance to City and private utility infrastructure.
- Applicants for all City Permits are required to comply at all times with the conditions of the Provincial *Wildlife Act* and Federal *Migratory Birds Convention Act*, which contains prohibitions on the removal or disturbance of both birds and their nests. Issuance of Municipal permits does not give an individual authority to contravene these legislations. The City of Richmond recommends that where significant trees or vegetation exists on site, the services of a Qualified Environmental Professional (QEP) be secured to perform a survey and ensure that development activities are in compliance with all relevant legislation.

[*Signed original on file*]

Signed	Date

City of Richmond

Development Permit

No. DP 13-647517

To the Holder:	Eric Law Architect Inc.
Property Address:	9728 Alberta Road (formerly 9720, 9740 and 9760 Alberta Road)
Address:	#216-288 West 8th Avenue, Vancouver BC V5Y1N5

1. This Development Permit is issued subject to compliance with all of the Bylaws of the City applicable thereto, except as specifically varied or supplemented by this Permit.
2. This Development Permit applies to and only to those lands shown cross-hatched on the attached Schedule "A" and any and all buildings, structures and other development thereon.
3. The "Richmond Zoning Bylaw 8500" is hereby varied to:
   a) To allow site coverage increase from 40% to 42%, and;
   b) To allow an increase in tandem residential parking spaces from 50% to 70% (i.e. 28 of 40 spaces).
4. Subject to Section 692 of the Local Government Act, R.S.B.C.: buildings and structures; off-street parking and loading facilities; roads and parking areas; and landscaping and screening shall be constructed generally in accordance with Plans #1 to #15 attached hereto.
5. Sanitary sewers, water, drainage, highways, street lighting, underground wiring, and sidewalks, shall be provided as required.
6. As a condition of the issuance of this Permit, the City is holding the security in the amount of $69,823.05 to ensure that development is carried out in accordance with the terms and conditions of this Permit. Should any interest be earned upon the security, it shall accrue to the Holder if the security is returned. The condition of the posting of the security is that should the Holder fail to carry out the development hereby authorized, according to the terms and conditions of this Permit within the time provided, the City may use the security to carry out the work by its servants, agents or contractors, and any surplus shall be paid over to the Holder. Should the Holder carry out the development permitted by this permit within the time set out herein, the security shall be returned to the Holder. The City may retain the security for up to one year after inspection of the completed landscaping in order to ensure that plant material has survived.
7. If the Holder does not commence the construction permitted by this Permit within 24 months of the date of this Permit, this Permit shall lapse and the security shall be returned in full.

Development Permit
No. DP 13-647517

To the Holder:	Eric Law Architect Inc.
Property Address:	9728 Alberta Road (formerly 9720, 9740 and 9760 Alberta Road)
Address:	#216-288 West 8th Avenue, Vancouver BC V5Y1N5

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8. The land described herein shall be developed generally in accordance with the terms and conditions and provisions of this Permit and any plans and specifications attached to this Permit which shall form a part hereof.

   This Permit is not a Building Permit.

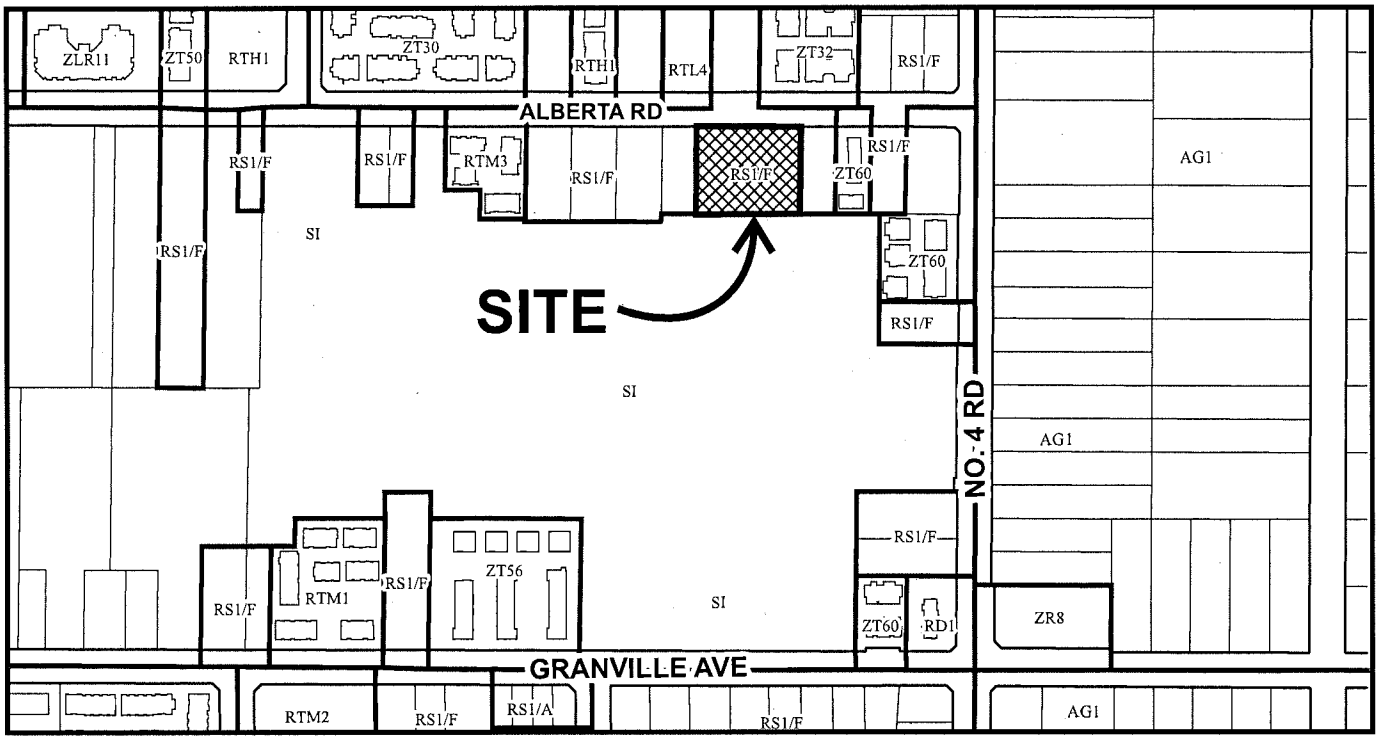
AUTHORIZING RESOLUTION NO. ISSUED BY THE COUNCIL THE DAY OF , .

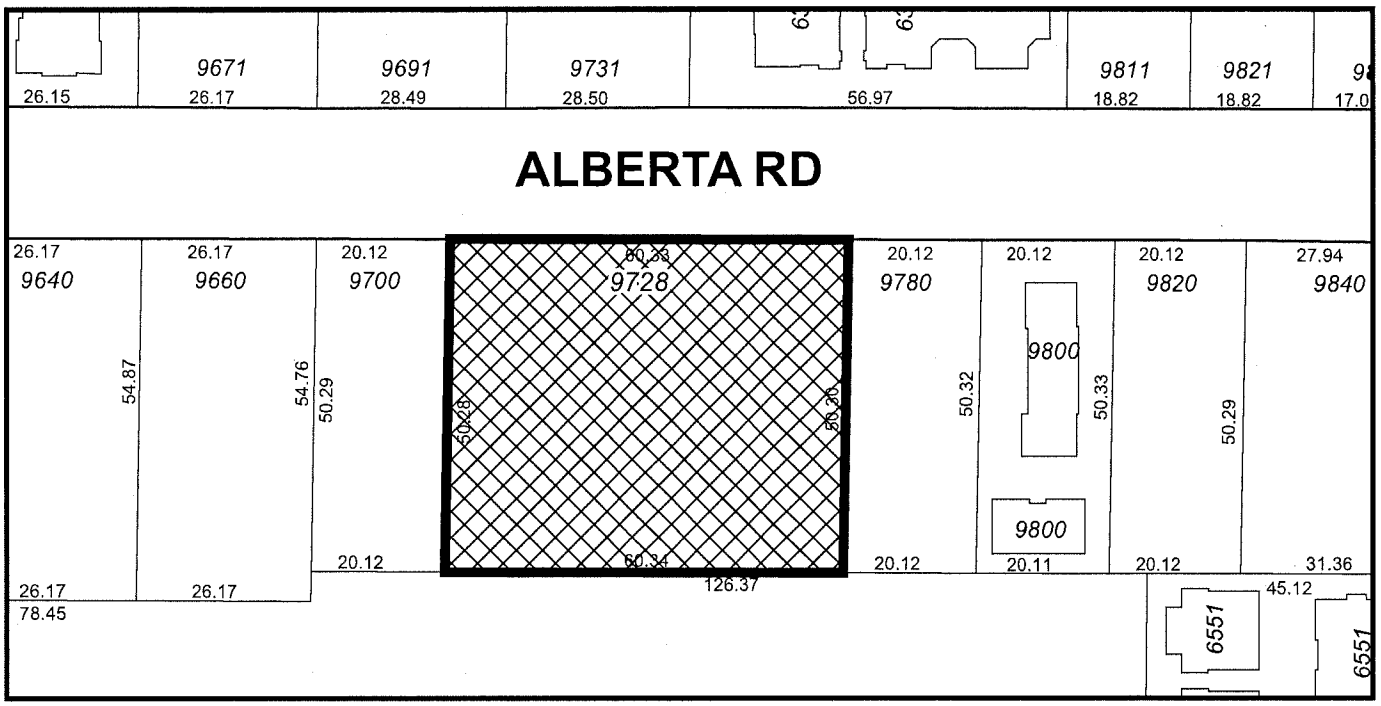
DELIVERED THIS DAY OF , .

_____

MAYOR

City of Richmond





DP 13-647517
SCHEDULE "A"

Original Date: 10/16/13

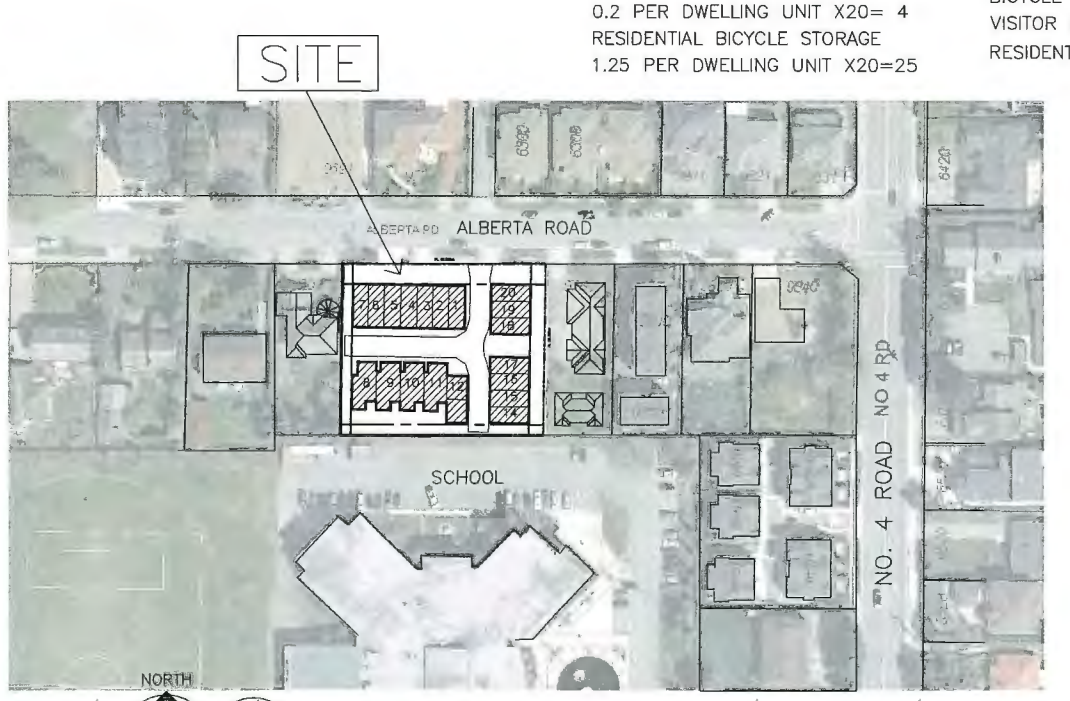
Revision Date: 12/12/15

Note: Dimensions are in METRES

PROPOSED TOWNHOUSE DEVELOPMENT AT 9720, 9740 & 9760 ALBERTA ROAD, RICHMOND, BC

DEVELOPMENT DATA

(A) CIVIC ADDRESS:	9720, 9740, 9760 ALBERTA ROAD, RICHMOND, BC		
(B) LEGAL DESCRIPTION:	LOTS 2, 3 AND 4 SECTION 10, BLOCK 4 NORTH RANGE 6 WEST NEW WESTMINSTER DISTRICT PLAN 1712		
(C) LOT AREA:	3,034 SM (32,657 SF)		
(D) ZONING USE	CURRENT: RS1/F, CURRENT ZONING (UNDER RS1/F ZONING)	REZONING (RTM3)	PROPOSED
(E) FLOOR AREA RATIO	0.55 TO 454.5 SM 0.3 TO REST OF SITE AREA	0.70 TOTAL GROSS FLOOR AREA 0.7 X3034 SM = 2123.8 SM (22,860 SF)	0.70 22,860 SF NET GROSS FLOOR AREA
(F) NUMBER OF UNIT:	1 PER LOT	20 UNITS	20 UNITS
(G) BUILDING COVERAGE:	MAX – 45%	MAX – 40%	41.2% (VARIANCE REQUIRED)
(H) BUILDING HEIGHT:	MAX HEIGHT – 9M	MAX MAIN BUILDING HEIGHT – 12M	BUILDING HEIGHT – 11.91M (39'1")
(I) SETBACK:	FRONTYARD – 6M SIDEYARD – 2M REARYARD – 6M	FRONTYARD FACING ALBERTA RD – 6M EAST AND WEST SIDEYARD – 3M REAR YARD – 3M	FRONTYARD FACING ALBERTA RD – 6.02M (19'9") EAST SIDEYARD – 4.52M (14'10") WEST SIDEYARD – 3.14M (10'4") REAR YARD – 3.28M (10'9")
(J) OUTDOOR AMENITY		6.0 SM (64.58 SF) PER UNIT 6SM X20 = 120 SM (1292 SF)	120.4 SM (1296 SQ. FT.)
(K) PARKING:	2 PER DWELLING UNIT	2 PER DWELLING UNITS X20 = 40 0.2 VISITOR PARKING / UNIT X20 = 4 TOTAL = 44 REQUIRED (MORE THAN 31 PARKING; 50% PARKING CAN BE SMALL CARS) VISITOR BICYCLE 0.2 PER DWELLING UNIT X20= 4 RESIDENTIAL BICYCLE STORAGE 1.25 PER DWELLING UNIT X20=25	RESIDENTIAL PARKING: 34 REGULAR 6 SMALL (TANDEM PARKING VARIANCE REQUIRED) VISITOR PARKING: 1 DISABLED 3 REGULAR BICYCLE VISITOR BIKE RACK 4 RESIDENTIAL 34 (INSIDE GARAGE)



1 LOCATION MAP
NTS

BUILDING VIEW FROM ALBERTA ROAD

BUILDING VIEW FROM ALBERTA ROAD

AERIAL VIEW FROM ALBERTA ROAD

AERIAL VIEW FROM SOUTH

ARCHITECTURAL DRAWING LIST

A1– DEVELOPMENT SUMMARY
A2– SITE PLAN (1/F)
A3– SITE PLAN (2/F)
A4– SITE PLAN (3/F)
A5– SITE PLAN (ROOF)
A6– UNIT PLANS
A7– UNIT PLANS
A8– BUILDING ELEVATIONS
A9– BUILDING ELEVATIONS
A10– BUILDING ELEVATIONS
A11– BUILDING SECTIONS

ERIC LAW ARCHITECT

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	ISSUED	
1	2013.10.08	FOR DEVELOPMENT PERMIT APPLICATION
2	2014.05.02	FOR CITY COMMENT
3	2014.04.24	FOR CITY COMMENT
4	2014.05.08	FOR ADP MEETING
5	2015.11.20	FOR CITY DP COMMENT
6	2015.12.09	FOR DP PANEL APPROVAL

	REVISION	
5	2015.12.03	ADD MAIL BOX ROOF DETAIL
4	2015.11.20	REVISED PER ADP COMMENTS
3	2015.04.24	ROOF FORM OF UNIT 12, 13
2	2015.03.30	LOWER UNIT 12, 13 ROOF
1	2014.01.22	REVISED PER CITY DP COMMENTS

PROPOSED TOWNHOUSE
9720-9760 ALBERTA RD
RICHMOND BC

DEVELOPMENT SUMMARY

PROJECT NUMBER:	12–12
ISSUED:	12/9/2015
DRAWN BY:	EL
CHECKED BY:	EL
FILENAME: 12–12_NAA_151209–DP.DWG	

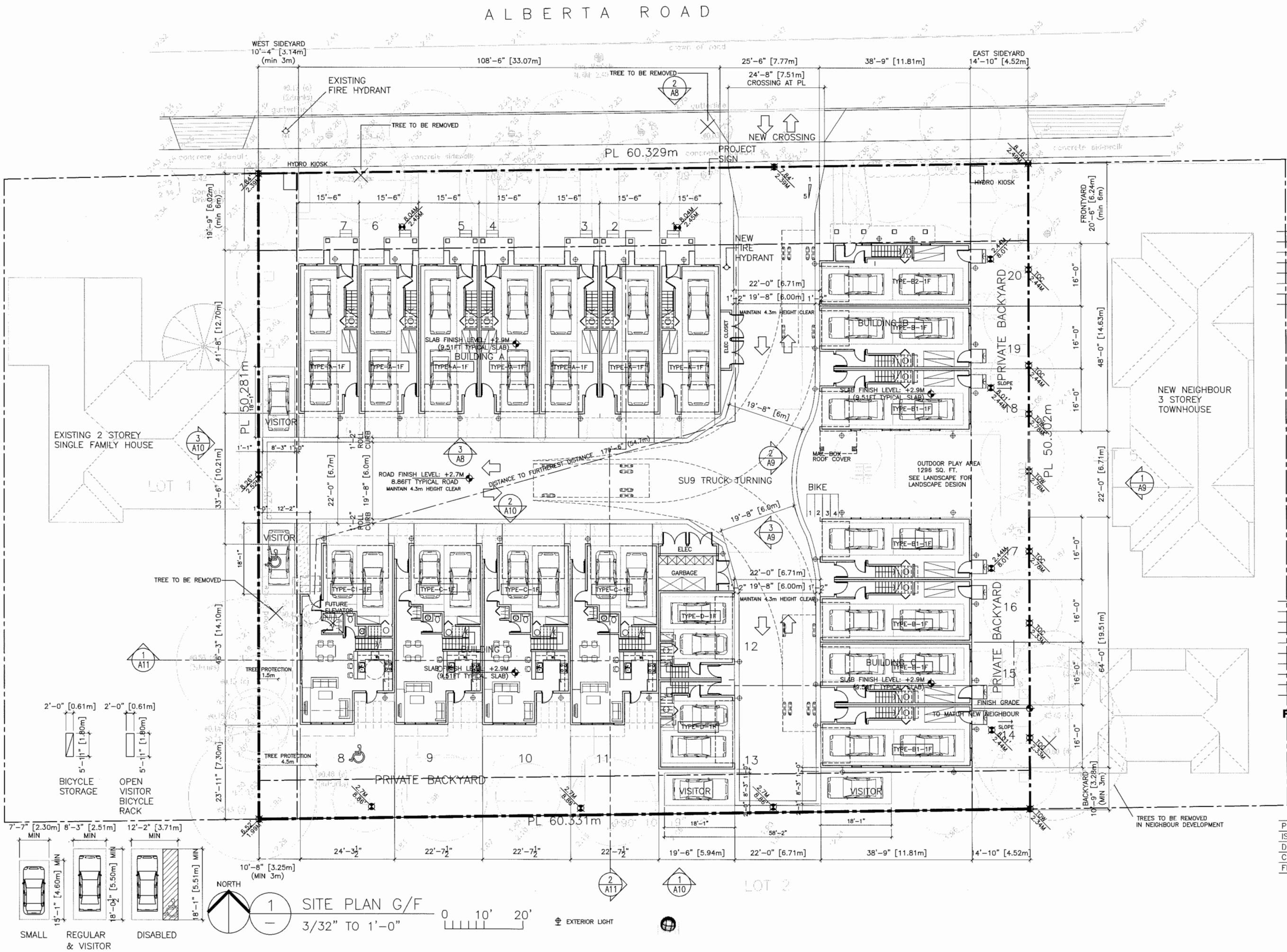
A1

DEVELOPMENT PERMIT

Plan #1

JAN 27 2016

DP 13-647517



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2	2015.03.30	LOWER UNIT 12, 13 ROOF
1	2014.01.22	REVISED PER CITY DP COMMENTS
	REVISION	

PROPOSED TOWNHOUSE
9720-9760 ALBERTA RD
RICHMOND BC
-
SITE PLAN (G/F)

PROJECT NUMBER:	12-12
ISSUED:	12/9/2015
DRAWN BY:	EL
CHECKED BY:	EL
FILENAME:	12-12_NAA_151209-DP.DWG

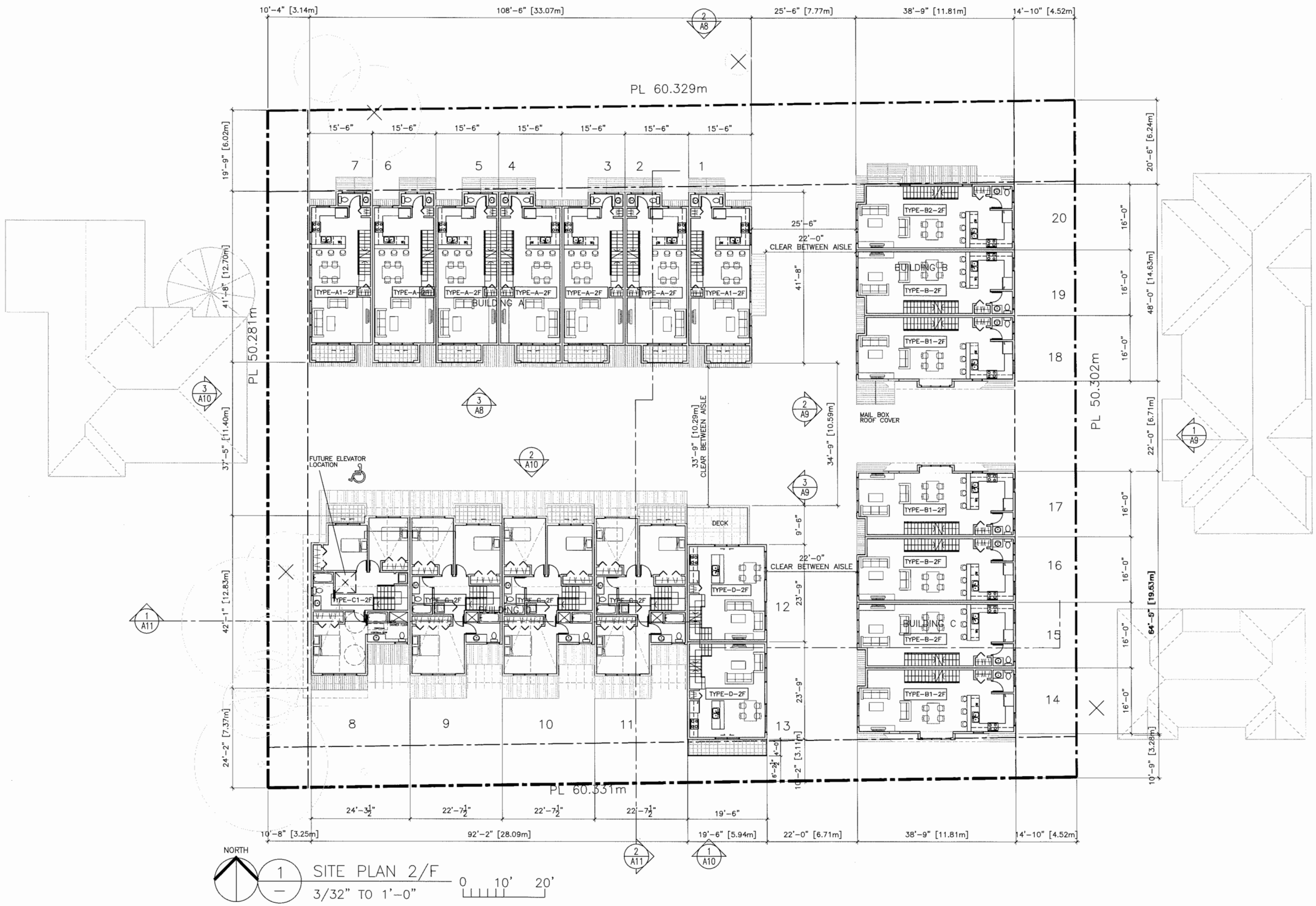
A2

DEVELOPMENT PERMIT

Plan #2

JAN 27 2016

DP 13-647517



1 SITE PLAN 2/F
3/32" TO 1'-0"

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1	2014.01.22	REVISED PER CITY DP COMMENTS
	REVISION	

PROPOSED TOWNHOUSE
9720-9760 ALBERTA RD
RICHMOND BC
-
SITE PLAN (2/F)

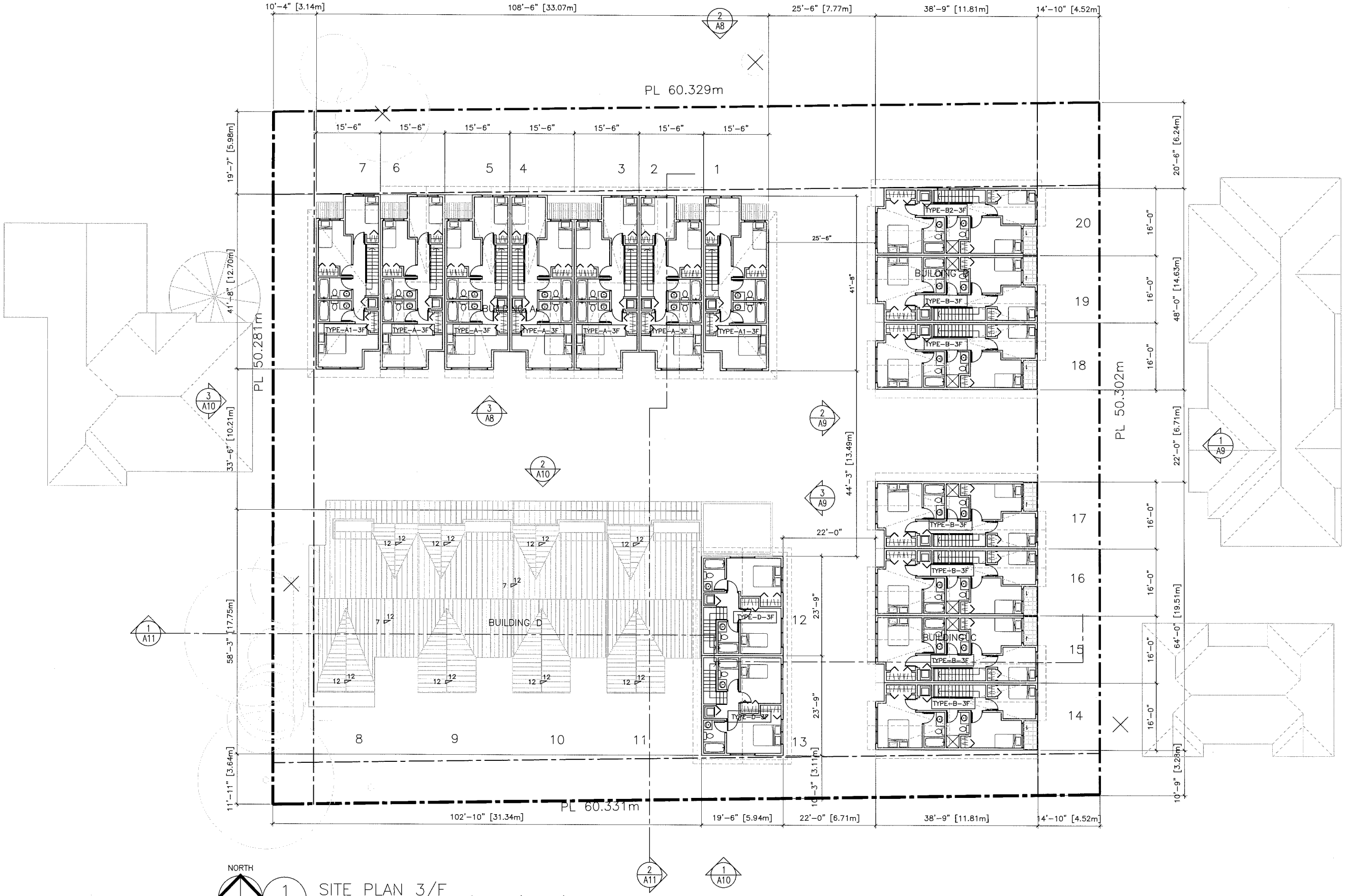
PROJECT NUMBER:	12-12
ISSUED:	12/9/2015
DRAWN BY:	EL
CHECKED BY:	EL
FILENAME:	12-12_NAA_151209-DP.DWG

A3

JAN 27 2016

DP 13-647517

DEVELOPMENT PERMIT
Plan #3



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PROPOSED TOWNHOUSE
9720-9760 ALBERTA RD
RICHMOND BC
-

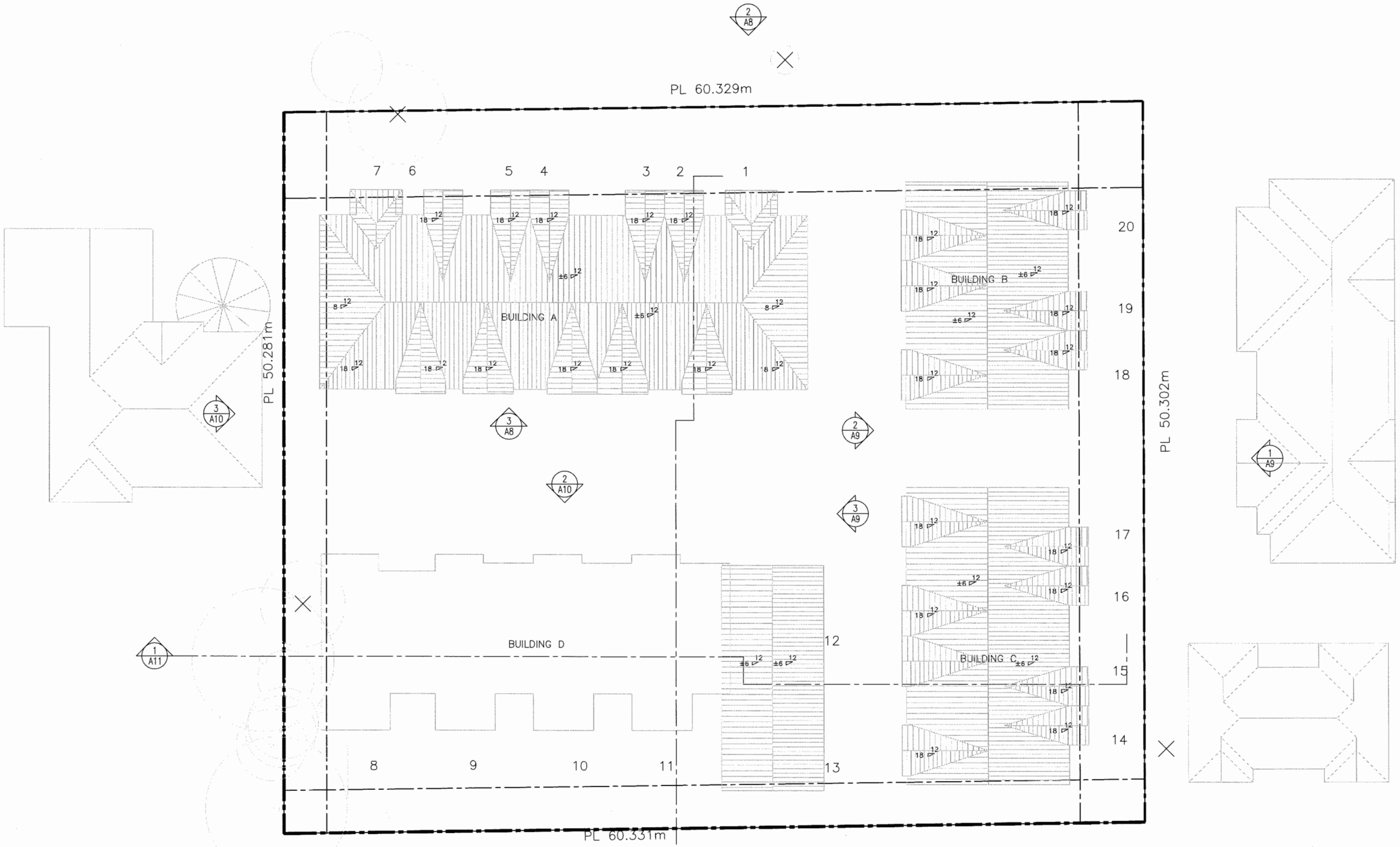
SITE PLAN (3/F)

PROJECT NUMBER:	12-12
ISSUED:	12/9/2015
DRAWN BY:	EL
CHECKED BY:	EL
FILENAME:	12-12_NAA_151209-DP.DWG

A4

DEVELOPMENT PERMIT
Plan #4

JAN 27 2016
DP 13-647517



NORTH

1 — SITE PLAN – ROOF PLAN
3/32" TO 1'-0"

0 10' 20'

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6	2015.12.09	FOR DP PANEL APPROVAL

JAN 2 7 2016

	REVISION	
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1	2014.01.22	REVISED PER CITY DP COMMENTS

PROPOSED TOWNHOUSE
9720-9760 ALBERTA RD
RICHMOND BC
-

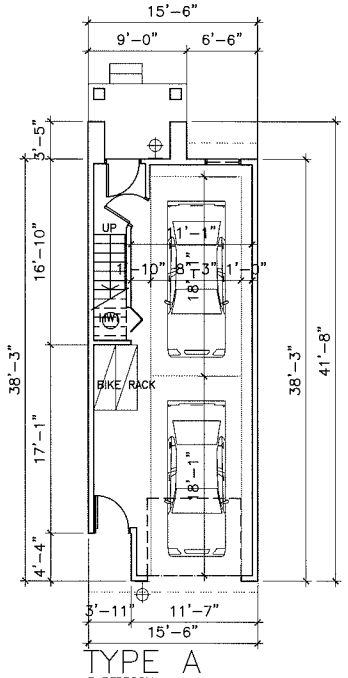
SITE PLAN (ROOF)

PROJECT NUMBER:	12-12
ISSUED:	12/9/2015
DRAWN BY:	EL
CHECKED BY:	EL
FILENAME:	12-12_NAA_151209-DP.DWG

DP 13-647517

A5

DEVELOPMENT PERMIT
Plan #5

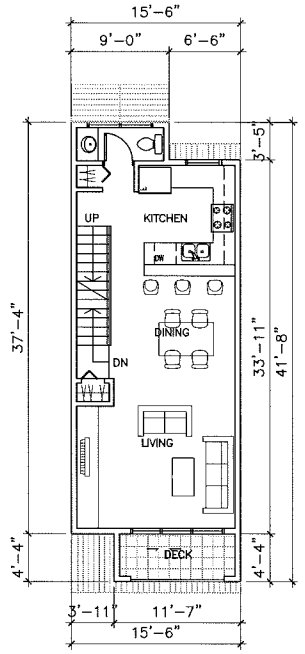


TYPE A
3 BEDROOM

1 LEVEL 1
1/8" TO 1'-0"

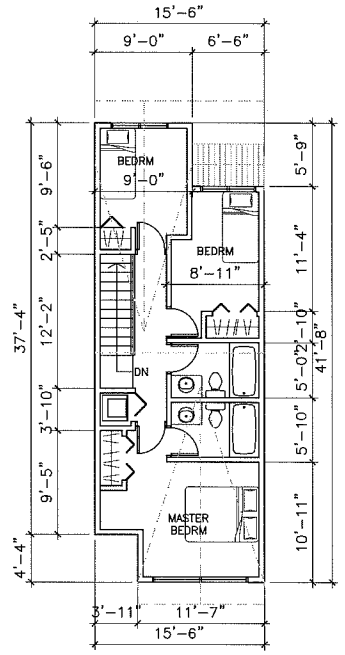
TYPE-A-1F

TOTAL UNIT AREA: ±1222.5 SQ. FT.
INCLUDING STAIR



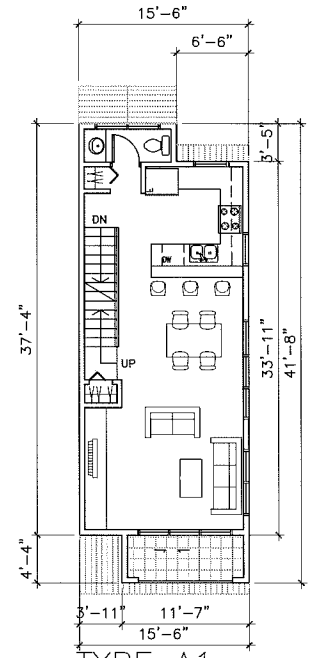
2 LEVEL 2
1/8" TO 1'-0"

TYPE-A-2F



3 LEVEL 3
1/8" TO 1'-0"

TYPE-A-3F



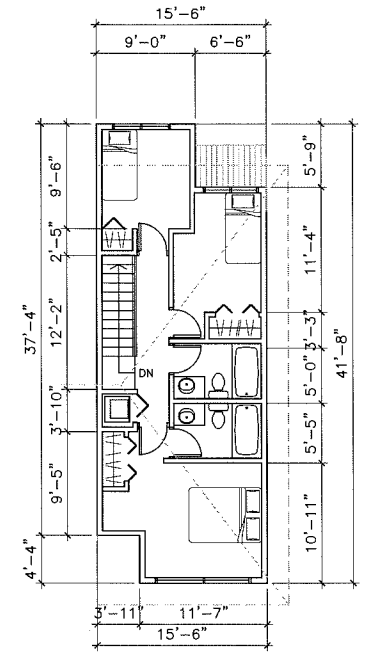
TYPE A1
3 BEDROOM

LEVEL 1 IS SAME AS TYPE A

4 LEVEL 2
1/8" TO 1'-0"

TYPE-A1-2F

SIZE SAME AS TYPE A



5 LEVEL 3
1/8" TO 1'-0"

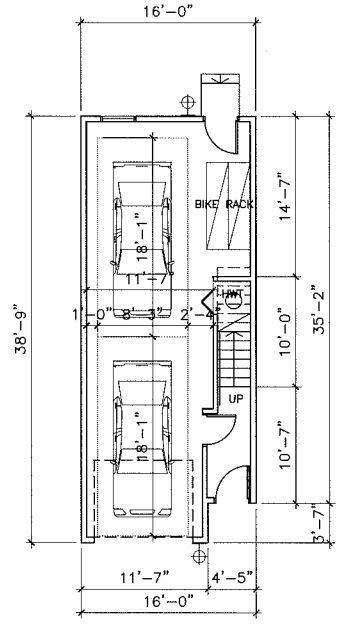
TYPE-A1-3F

ALL THE UNITS IN THIS PROJECT SHALL INCORPORATE THE FOLLOWING FEATURES IN THE UNITS

(1) PROVIDE PRE-DUCTING TO ACCOMMODATE FUTURE SOLAR HOT WATER HEATING

(2) AGING IN PLACE FEATURES SHALL BE PROVIDED TO ALL UNITS:
(a) STAIRWELL HANDRAILS
(b) LEVER TYPE HANDLES FOR PLUMBING FIXTURE AND DOOR HANDLES
(c) SOLID BLOCKING IN WASHROOM WALLS TO FACILITATE FUTURE GRAB BAR INSTALLATION BESIDE TOILETS, BATHTUBS AND SHOWERS

(3) INCORPORATE THE FEATURES AND MEET THE CRITERIA IDENTIFIED IN THE FOLLOWING REPORTS:
(a) ENERSOLV DESIGN & BUILD LTD OCCUPANCY COMFORT ANALYSIS & SIMULATION RESULTS REPORT DATED SEPTEMBER 3, 2015
(b) BROWN STRACHAN ASSOCIATES ACOUSTICAL EVALUATION REPORT DATED JULY 24, 2014
(c) CAPTURE ENERGY REPORT DATED NOVEMBER 10, 2015

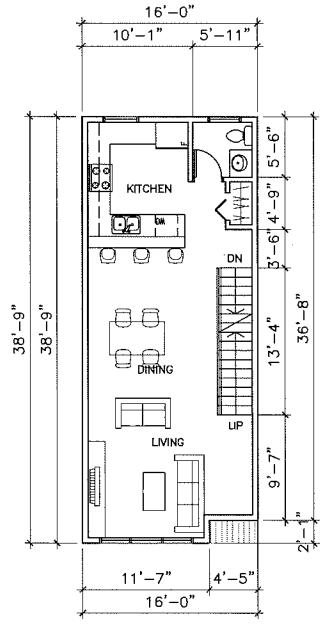


TYPE B
3 BEDROOM

6 LEVEL 1
1/8" TO 1'-0"

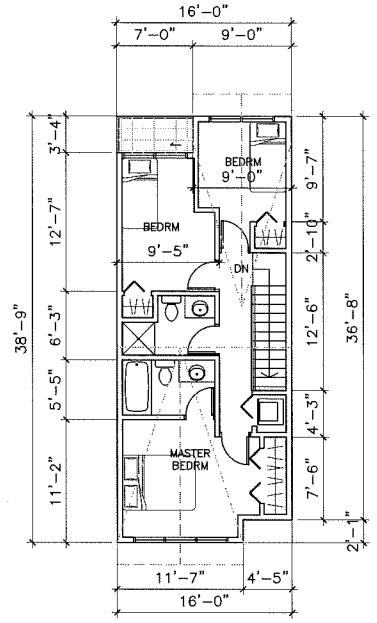
TYPE-B-1F

TOTAL UNIT AREA: ±1287.5 SQ. FT.
INCLUDING STAIR



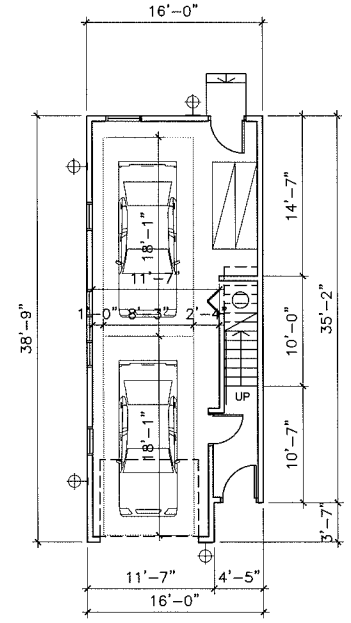
7 LEVEL 2
1/8" TO 1'-0"

TYPE-B-2F



8 LEVEL 3
1/8" TO 1'-0"

TYPE-B-3F

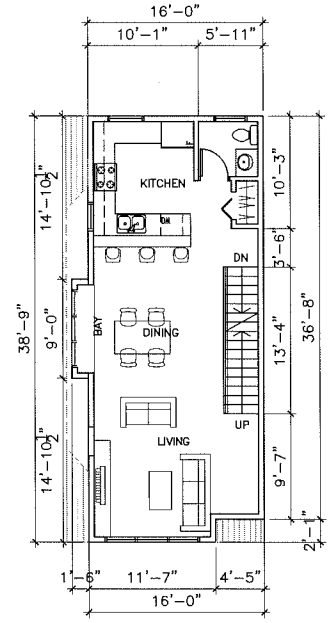


TYPE B1
3 BEDROOM

LEVEL 3 IS SAME AS TYPE B

9 LEVEL 1
1/8" TO 1'-0"

TYPE-B1-1F



10 LEVEL 2
1/8" TO 1'-0"

TYPE-B1-2F

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6	2015.12.09	FOR DP PANEL APPROVAL

5	2015.12.03	ADD MAIL BOX ROOF DETAIL
4	2015.11.20	REVISED PER ADP COMMENTS
3	2015.04.24	ROOF FORM OF UNIT 12, 13
2	2015.03.30	LOWER UNIT 12, 13 ROOF
1	2014.01.22	REVISED PER CITY DP COMMENTS
	REVISION	

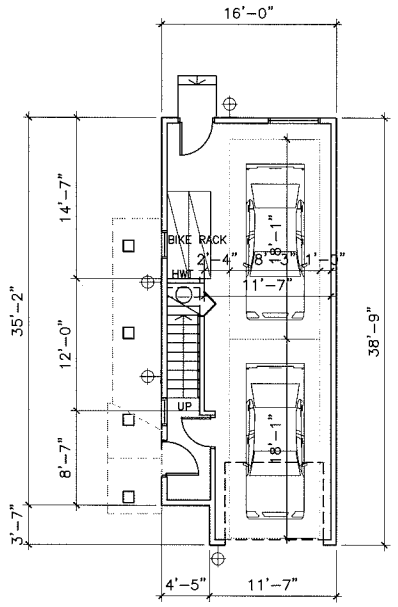
PROPOSED TOWNHOUSE
9720-9760 ALBERTA RD
RICHMOND BC
-
UNIT PLANS

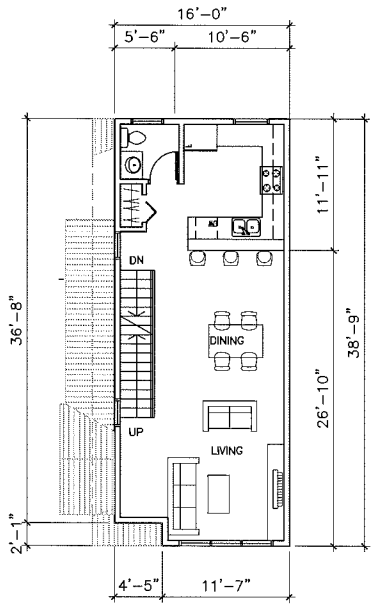
PROJECT NUMBER:	12-12
ISSUED:	12/9/2015
DRAWN BY:	EL
CHECKED BY:	EL
FILENAME:	12-12_NAA_151209-DP.DWG

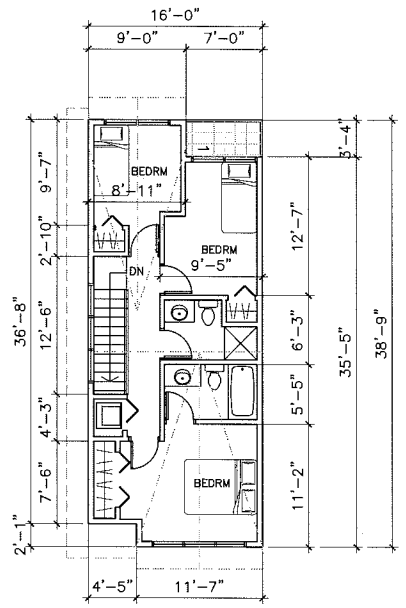
A6

DEVELOPMENT PERMIT
Plan #6

JAN 27 2016
DP 13-647517







TYPE B2
3 BEDROOM

(4) LEVEL 1
1/8" TO 1'-0"

TYPE-B2-1F

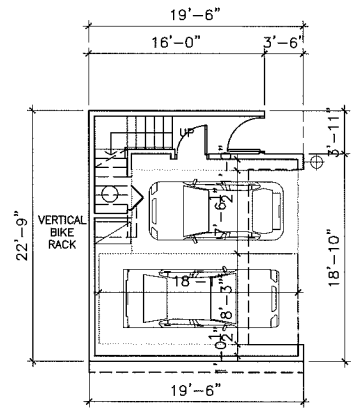
TOTAL UNIT AREA: ±1269.8 SQ. FT.
INCLUDING STAIR

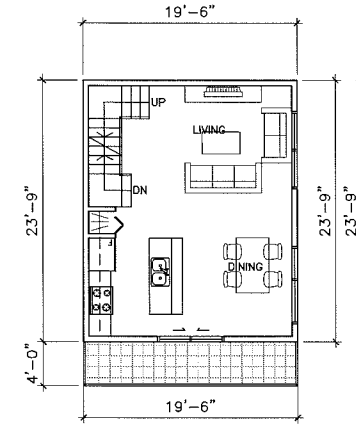
(5) LEVEL 2
1/8" TO 1'-0"

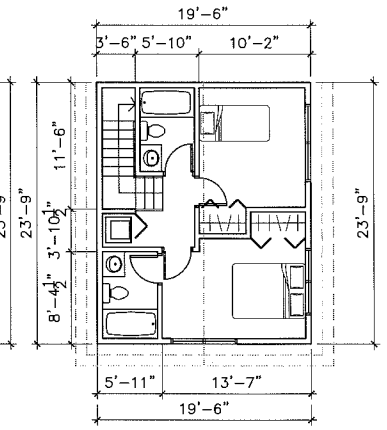
TYPE-B2-2F

(6) LEVEL 3
1/8" TO 1'-0"

TYPE-B2-3F







TYPE D
2 BEDROOM

(7) LEVEL 1
1/8" TO 1'-0"

TYPE-D-1F

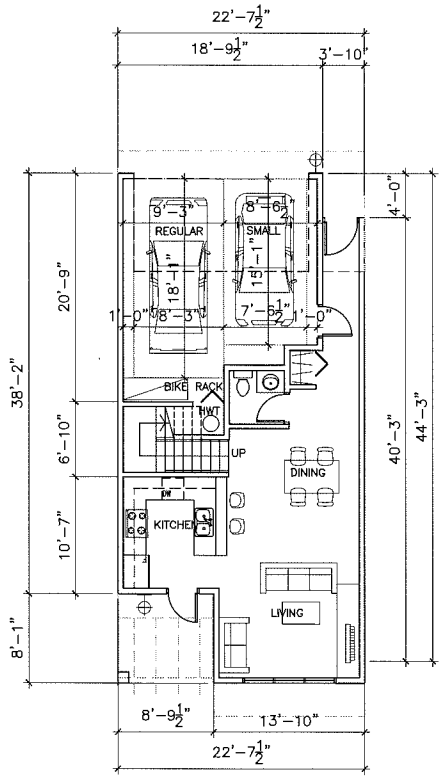
TOTAL UNIT AREA: ±996.4 SQ. FT.
INCLUDING STAIR

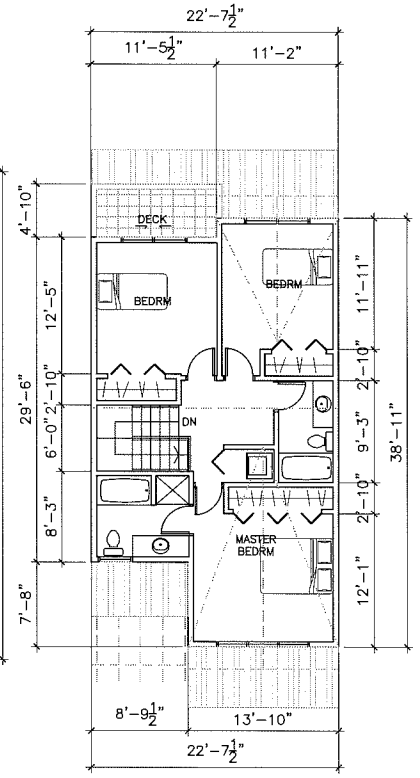
(8) LEVEL 2
1/8" TO 1'-0"

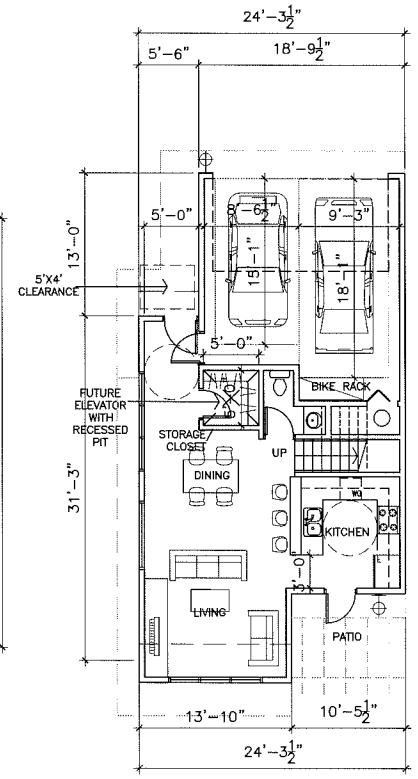
TYPE-D-2F

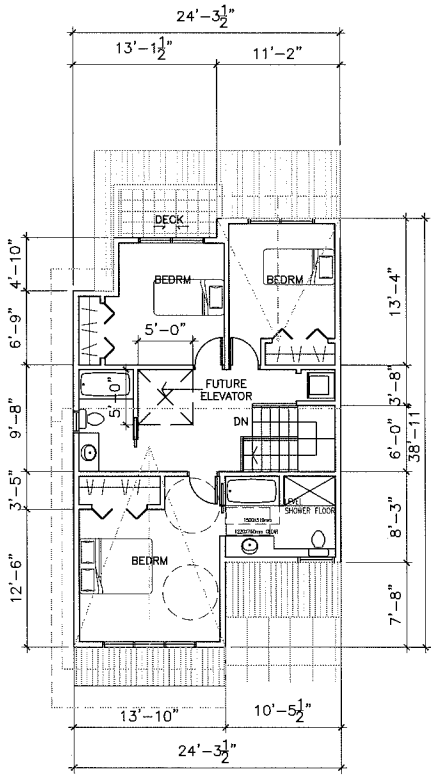
(9) LEVEL 2
1/8" TO 1'-0"

TYPE-D-3F









TYPE C
3 BEDROOM

(10) LEVEL 1
1/8" TO 1'-0"

TYPE-C-1F

UNIT AREA: ±1405.8 SQ. FT.
INCLUDING STAIR

(11) LEVEL 2
1/8" TO 1'-0"

TYPE-C-2F

TYPE C1
3 BEDROOM

(10) LEVEL 1
1/8" TO 1'-0"

TYPE-C1-1F

UNIT AREA: ±1402.7 SQ. FT.
INCLUDING STAIR

(11) LEVEL 2
1/8" TO 1'-0"

TYPE-C1-2F

5' TURING RADIUS

TYPE C1
TO BE DISABLE ACCESSIBLE SUITE

ACCESSIBLE UNIT

DOORS & DOORWAYS
-ENTRY DOORS WITH MINIMUM 863 MM AND HAVE CLEAR ACCESS.
-ENTRY DOOR CLEAR EXTERIOR FLOOR SPACE MIN. 1220 MM DEPTH BY DOOR WIDTH PLUS 600 MM ON LATCH SIDE.
-INTERIOR DOORS TO MAIN LIVING AREAS, 1 BATHROOM AND 1 BEDROOM, MIN. 800 MM CLEAR OPENING WITH FLUSH THRESHOLDS MAX. 13 MM HEIGHT.
-PATIO/BALCONY, IF PROVIDED, WITH MIN. 860 MM CLEAR OPENING.
-ALL INTERIOR THRESHOLDS WITHIN UNITS COMPLY WITH BC BUILDING CODE.
-LEVER-TYPE HANDLES FOR ALL DOORS.

VERTICAL CIRCULATION
-DEPRESSED SLAB AREA ARE NOTED ON FLOOR PLANS TO ALLOW FOR FUTURE ELEVATOR IN COMPLIANCE WITH MANUFACTURER SPECIFICATIONS. FRAMING TO ACCOMMODATE SHAFT CONSTRUCTION WITHOUT IMPACT TO SURROUNDING STRUCTURE.
-AT THE TOP OF ALL STAIRWAYS, WALLS ARE REINFORCED WITH 2" X 12" SOLID LUMBER AT 914 MM TO CENTRE.
-HALLWAYS MIN. 900 MM WIDTH.

GARAGE
-MIN. 1 ACCESSIBLE PARKING SPACE WITH MIN. 4M GARAGE WIDTH.
-ACCESS FROM GARAGE TO LIVING AREA MIN. 800 MM CLEAR OPENING.

BATHROOM (MIN. 1)
-TOILET CLEAR FLOOR SPACE MIN. 1020 MM AT SIDE AND IN FRONT.
-WALL BLOCKING FOR FUTURE GRAB BAR INSTALLATION AT TOILET, TUB AND SHOWER. REINFORCED WITH 2" X 12" SOLID LUMBER IN ALL BATHTUB, SHOWER, AND TOILET LOCATIONS.
-LEVER-TYPE HANDLES FOR PLUMBING FIXTURES.
-PRESSURE AND TEMPERATURE CONTROL VALVES ARE INSTALLED ON ALL SHOWER FAUCETS.
-CABINETS UNDERNEATH SINK(S) TO BE EASILY REMOVED.

KITCHEN
-CLEAR AREA NEEDED UNDER FUTURE WORK SPACE.
-PLUMBING AND GAS PIPES (IN-WALL AND IN-FLOOR) LOCATED CLEAR OF UNDER COUNTER AREA OF FUTURE WORK SPACE (STOVE, SINK & MIN. 810 MM WIDE COUNTER).
-ALL PIPES ARE BROUGHT IN NO HIGHER THAN 304 MM TO 355 MM TO THE CENTRE OF THE PIPE FROM FLOOR LEVEL.

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	REVISION	

PROPOSED TOWNHOUSE
9720-9760 ALBERTA RD
RICHMOND BC
-
UNIT PLANS

PROJECT NUMBER:	12-12
ISSUED:	12/9/2015
DRAWN BY:	EL
CHECKED BY:	EL
FILENAME:	12-12_NAA_151209-DP.DWG

A7

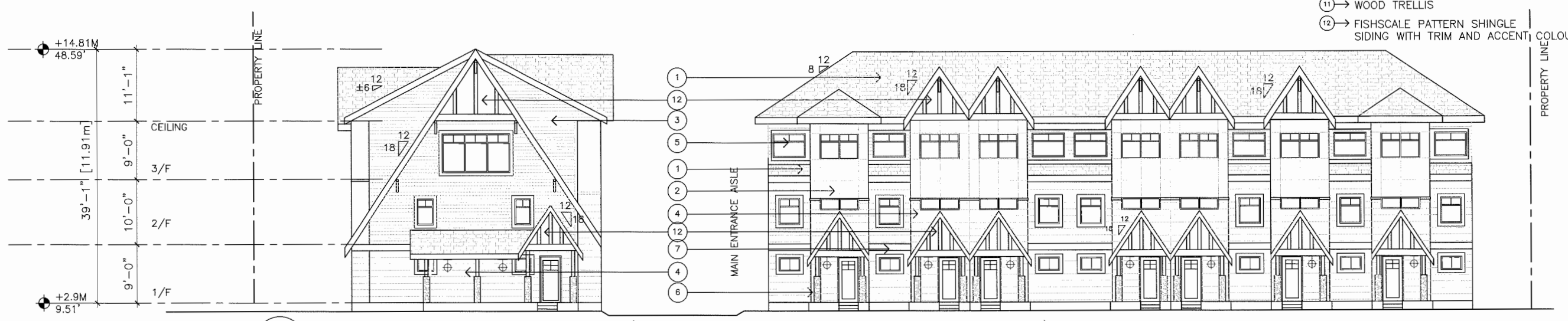
DEVELOPMENT PERMIT
Plan #7

JAN 27 2016
DP 13-647

1 / A8 CONTEXT ELEVATION (NORTH ELEVATION ALONG ALBERTA ROAD)
1/16" TO 1'-0"

EXTERIOR FINISH LEGEND

1. ASPHALT SHINGLE ROOFING
2. HARDI PANEL WITH WOOD 6" TRIMS
3. VINYL SIDING WITH TRIM
4. HARDI SIDING WITH 6" TRIM
5. WHITE VINYL WINDOW WITH 6" TRIM
6. DECORATIVE STONE VENEER
7. WOOD TRIM
8. CLEAR GLASS ALUMINUM HANDRAIL
9. OVERHEAD GARAGE DOOR WITH LITE PANEL
10. WOOD FENCE ON MAX 2'-0" LOW WOOD RETAINING WALL
11. WOOD TRELLIS
12. FISHSCALE PATTERN SHINGLE SIDING WITH TRIM AND ACCENT COLOUR



2 / A8 BUILDING ELEVATION TYPE-A (NORTH ELEVATION ALONG ALBERTA ROAD)
1/8" TO 1'-0"

3 / A8 BUILDING ELEVATION (TYPE A INTERNAL AISLE)
1/8" TO 1'-0"

EXTERIOR LIGHT

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1	2014.01.22	REVISED PER CITY DP COMMENTS
	REVISION	

PROPOSED TOWNHOUSE
9720-9760 ALBERTA RD
RICHMOND BC
-
BUILDING ELEVATIONS

PROJECT NUMBER:	12-12
ISSUED:	12/9/2015
DRAWN BY:	EL
CHECKED BY:	EL
FILENAME:	12-12_NAA_151209-DP.DWG

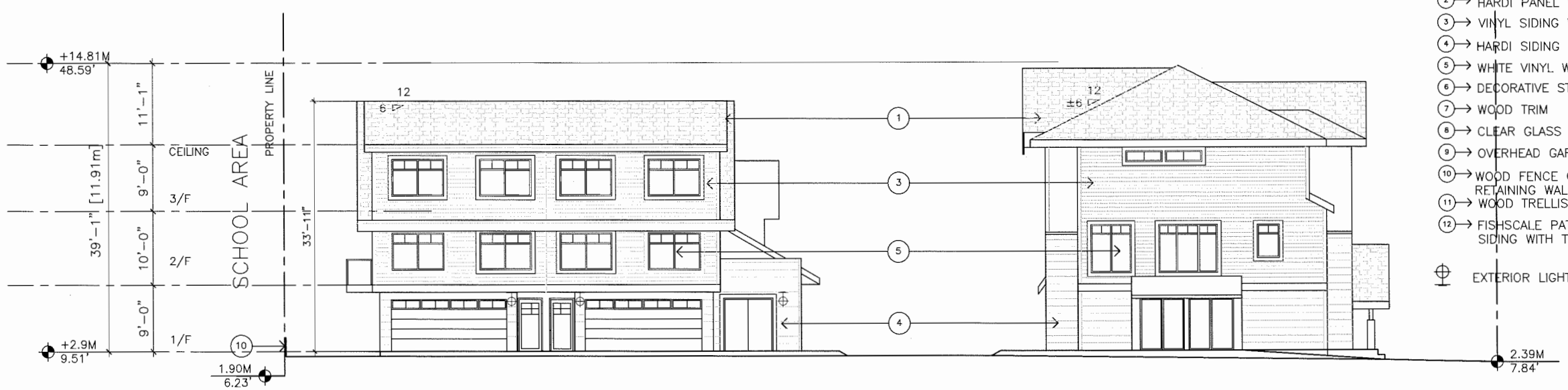
A8

DEVELOPMENT PERMIT
Plan # 8

JAN 27 2016
DP 13-647517

1 / A9 BUILDING ELEVATION (EAST ELEVATION)
1/8" TO 1'-0"

2 / A9 BUILDING ELEVATION (TYPE B INTERNAL AISLE)
1/8" TO 1'-0"



3 / A9 BUILDING ELEVATION (INTERNAL AISLE)
1/8" TO 1'-0"

EXTERIOR FINISH LEGEND

1. ASPHALT SHINGLE ROOFING
2. HARDI PANEL WITH WOOD 6" TRIMS
3. VINYL SIDING WITH TRIM
4. HARDI SIDING WITH 6" TRIM
5. WHITE VINYL WINDOW WITH 6" TRIM
6. DECORATIVE STONE VENEER
7. WOOD TRIM
8. CLEAR GLASS ALUMINUM HANDRAIL
9. OVERHEAD GARAGE DOOR WITH LITE PANEL
10. WOOD FENCE ON MAX 2'-0" LOW WOOD RETAINING WALL
11. WOOD TRELLIS
12. FISHSCALE PATTERN SHINGLE SIDING WITH TRIM AND ACCENT COLOUR

EXTERIOR LIGHT

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PROPOSED TOWNHOUSE
9720-9760 ALBERTA RD
RICHMOND BC
-
BUILDING ELEVATIONS

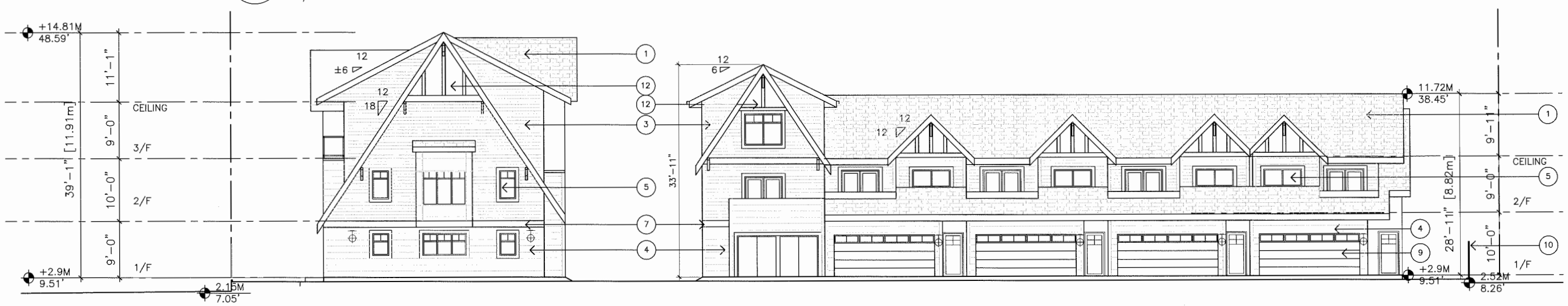
PROJECT NUMBER:	12-12
ISSUED:	12/9/2015
DRAWN BY:	EL
CHECKED BY:	EL
FILENAME:	12-12_NAA_151209-DP.DWG

A9

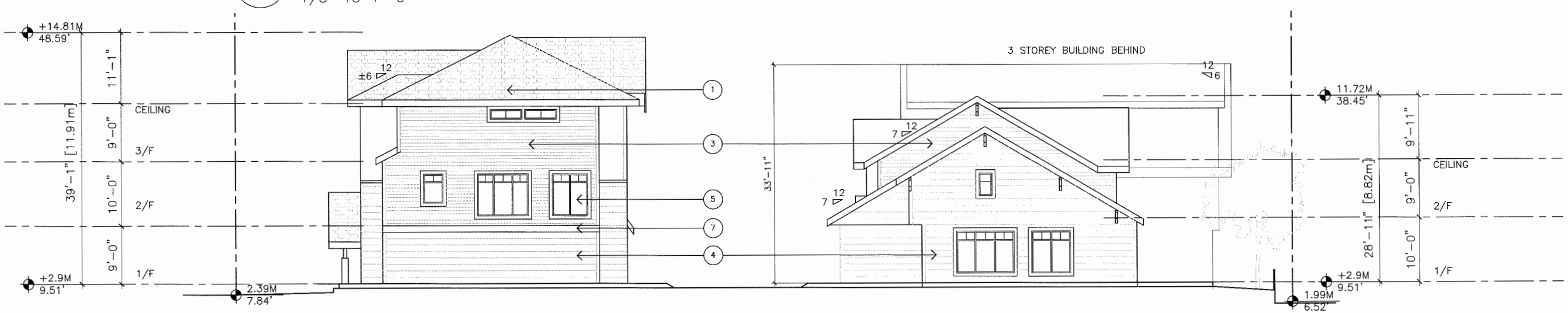
DEVELOPMENT PERMIT
Plan #9

JAN 27 2016
DP 13-647517

1 / A10 BUILDING ELEVATION (SOUTH PROPERTY LINE)
1/8" TO 1'-0"



2 / A10 BUILDING ELEVATION (INTERNAL AISLE)
1/8" TO 1'-0"



3 / A10 BUILDING ELEVATION (WEST PROPERTY LINE)
1/8" TO 1'-0"

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PROPOSED TOWNHOUSE
9720-9760 ALBERTA RD
RICHMOND BC

BUILDING ELEVATIONS

PROJECT NUMBER:	12-12
ISSUED:	12/9/2015
DRAWN BY:	EL
CHECKED BY:	EL
FILENAME:	12-12_NAA_151209-DP.DWG

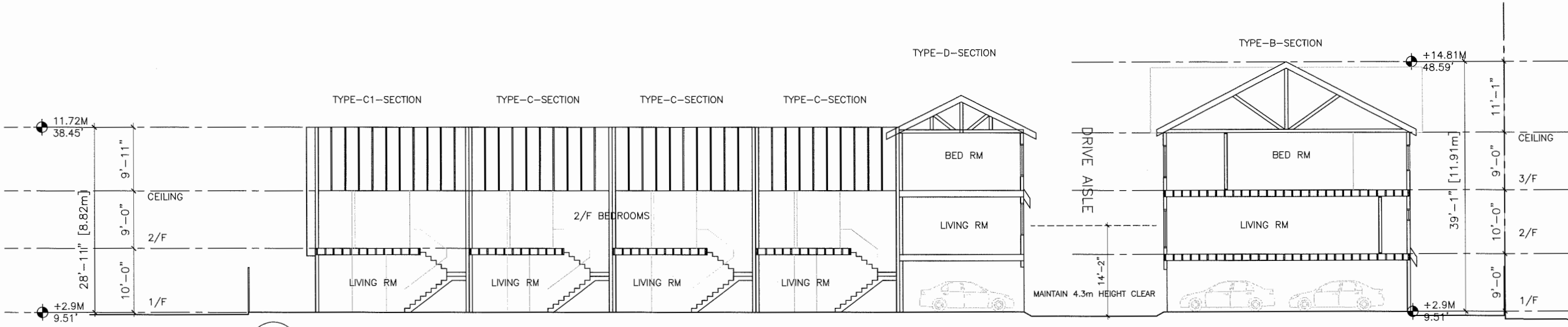
A10

DEVELOPMENT PERMIT

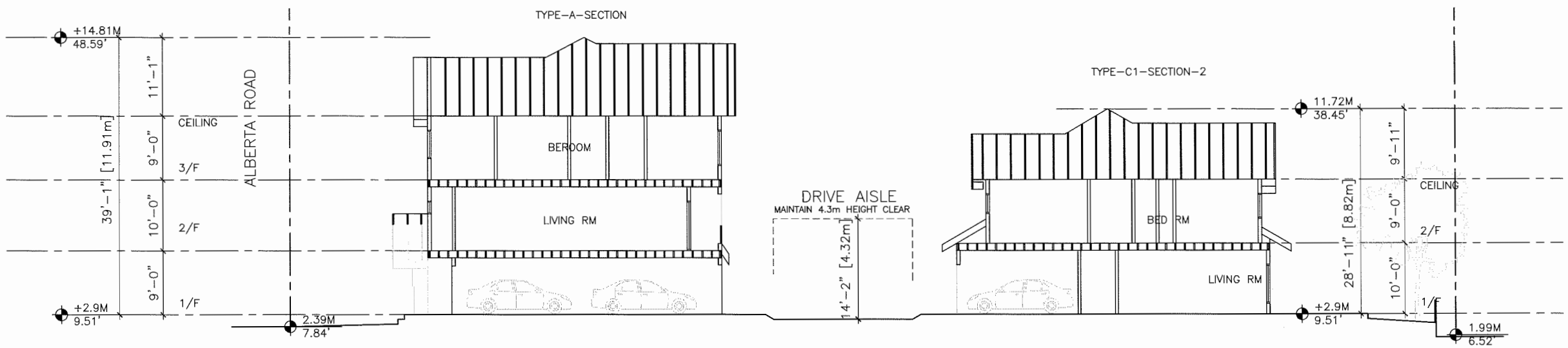
Plan #10

JAN 27 2016

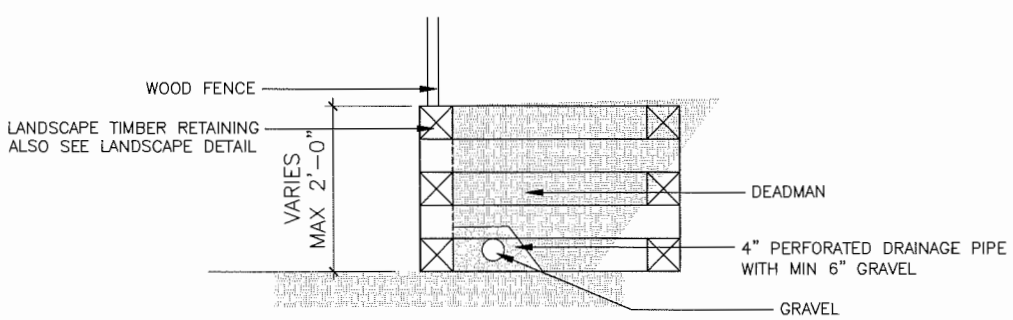
DP 13-647517



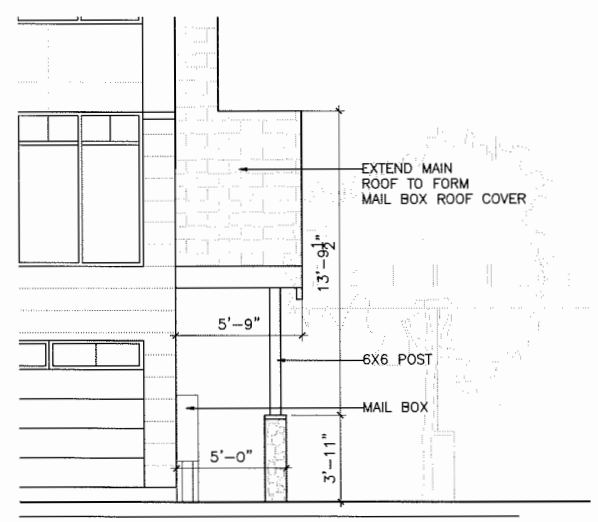
1 / A11 BUILDING SECTION
1/8" TO 1'-0"



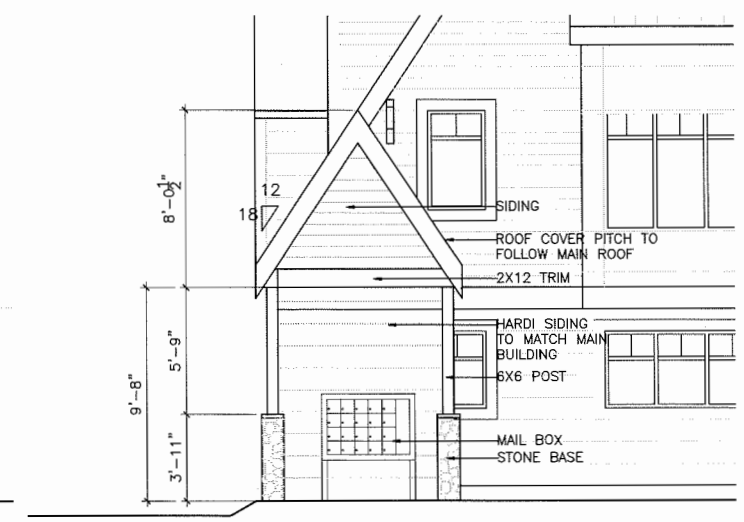
2 / A11 BUILDING SECTION
1/8" TO 1'-0"



3 / — LOW RETAINING TIMBER WALL
1/2" TO 1'-0"



4 / A11 MAIL BOX ROOF SIDE ELEV
1/4" TO 1'-0"



5 / A11 MAIL BOX ROOF ELEV
1/4" TO 1'-0"

ERIC LAW ARCHITECT

ericlaw.architect@gmail.com
210 288 W8TH AVENUE VANCOUVER BC
V5Y1N5

TEL: (604) 505-2099
FAX: (604) 909-2897

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	ISSUED	
1	2013.10.08	FOR DEVELOPMENT PERMIT APPLICATION
2	2014.05.02	FOR CITY COMMENT
3	2014.04.24	FOR CITY COMMENT
4	2014.05.06	FOR ADP MEETING
5	2015.11.20	FOR CITY DP COMMENT
6	2015.12.09	FOR DP PANEL APPROVAL

	REVISION	
5	2015.12.03	ADD MAIL BOX ROOF DETAIL
4	2015.11.20	REVISED PER ADP COMMENTS
3	2015.04.24	ROOF FORM OF UNIT 12, 13
2	2015.03.30	LOWER UNIT 12, 13 ROOF
1	2014.01.22	REVISED PER CITY DP COMMENTS

PROPOSED TOWNHOUSE
9720-9760 ALBERTA RD
RICHMOND BC
-
BUILDING ECTIONS

PROJECT NUMBER:	12-12
ISSUED:	12/9/2015
DRAWN BY:	EL
CHECKED BY:	EL
FILENAME:	12-12_NAA_151209-DP.DWG

A11

DEVELOPMENT PERMIT
Plan #11

JAN 27 2016
DP 13-647517

1 A12 NORTH ELEVATION (FACING ALBERTA ST)
NTS

2 A12 EAST ELEVATION
NTS

3 A12 SOUTH ELEVATION (FACING SCHOOL)
NTS

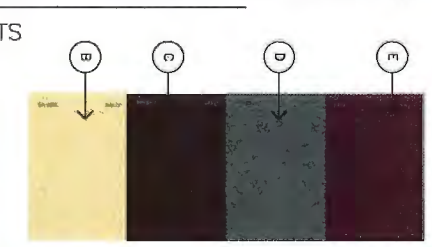
4 A12 WEST ELEVATION
NTS

5 A12 EAST INTERNAL ELEVATION
NTS

6 A12 SOUTH INTERNAL ELEVATION
NTS

7 A12 NORTH INTERNAL ELEVATION
NTS

8 A12 WEST INTERNAL ELEVATION
NTS



COLOUR LEGEND

- A → WHITE COLOUR
- B → SHERWIN-WILLIAMS SW 6135 – ECRU
- C → SHERWIN-WILLIAMS SW 6013 – BITTER CHOCOLATE
- D → (ACCENT) SHERWIN-WILLIAMS SW 7061 – NIGHT OWL
- E → (ACCENT) SHERWIN-WILLIAMS SW 6027 – CORDOVAN

ERIC LAW ARCHITECT

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	ISSUED	
1	2013.10.08	FOR DEVELOPMENT PERMIT APPLICATION
2	2014.05.02	FOR CITY COMMENT
3	2014.04.24	FOR CITY COMMENT
4	2014.05.08	FOR ADP MEETING
5	2015.11.20	FOR CITY DP COMMENT
6	2015.12.09	FOR DP PANEL APPROVAL

	REVISION	
5	2015.12.03	ADD MAIL BOX ROOF DETAIL
4	2015.11.20	REVISED PER ADP COMMENTS
3	2015.04.24	ROOF FORM OF UNIT 12, 13
2	2015.03.30	LOWER UNIT 12, 13 ROOF
1	2014.01.22	REVISED PER CITY DP COMMENTS

PROPOSED TOWNHOUSE
9720-9760 ALBERTA RD
RICHMOND BC

COLOUR

PROJECT NUMBER:	12-12
ISSUED:	1/7/2016
DRAWN BY:	EL
CHECKED BY:	EL
FILENAME:	12-12_NAA_160107-DP.DWG

A12

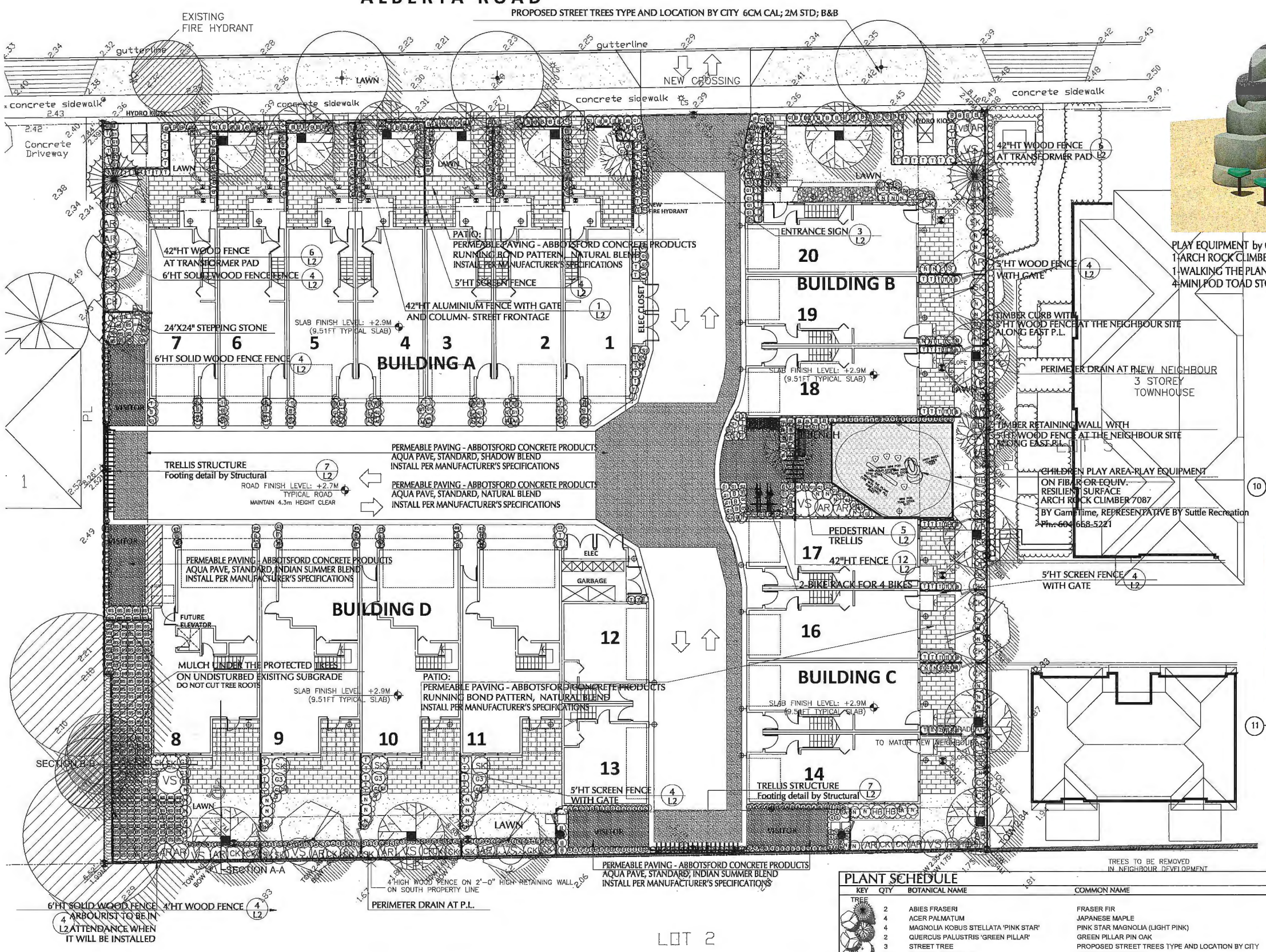
DEVELOPMENT PERMIT

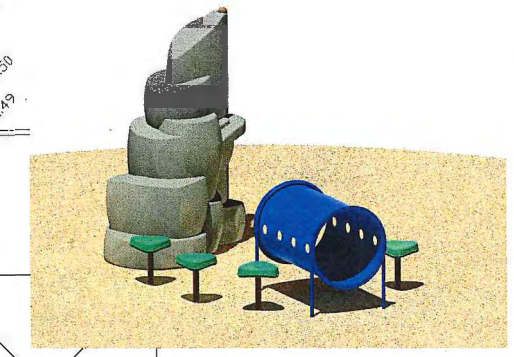
Plan #11A

JAN 27 2016

DP 13-647517

ALBERTA ROAD





PLAY EQUIPMENT by GameTime, REPRESENTATIVE BY Suttle Recreation
1-ARCH ROCK CLIMBER
1-WALKING THE PLANK
4-MINI POD TOAD STOOL

(10) Whishbone BIKE RACK
LOOP 2 Space Bike Rack
Model Number: LBRG-1 (Galvanized Steel)
BLACK COLOUR;
Ph.: 604 626 0476

(11) Modena Park Bench;Model Number: M-5
BY WISHBONE SITE FURNISHINGS
Ultraplast ™ Recycled Plastic Slats-Gray
Long Lasting Stainless Steel Hardware-Black
Ph.: 604 626 0476
ALL BENCHES AND BIKE RACKS TO BE INSTALLED TO MANUFACTURER'S SPECIFICATION ON 3" THICK CONCRETE PAD.

PLANT SCHEDULE

PMG PROJECT NUMBER: 13-124

KEY	QTY	BOTANICAL NAME	COMMON NAME	PLANTED SIZE / REMARKS
TREE	2	ABIES FRASERI	FRASER FIR	3M HT; B&B
	4	ACER PALMATUM	JAPANESE MAPLE	6CM CAL; 2M HT; B&B
	4	MAGNOLIA KOBUS STELLATA 'PINK STAR'	PINK STAR MAGNOLIA (LIGHT PINK)	3M HT; B&B
	2	QUERCUS PALUSTRIS 'GREEN PILLAR'	GREEN PILLAR PIN OAK	6CM CAL; 1.8M STD; B&B
	3	STREET TREE	PROPOSED STREET TREES TYPE AND LOCATION BY CITY	6CM CAL; B&B
	12	STYRAX JAPONICUS	JAPANESE SNOWBELL	3M; B&B

NOTES: * PLANT SIZES IN THIS LIST ARE SPECIFIED ACCORDING TO THE BC LANDSCAPE STANDARD, LATEST EDITION. CONTAINER SIZES SPECIFIED AS PER CNTA STANDARDS. BOTH PLANT SIZE AND CONTAINER SIZE ARE THE MINIMUM ACCEPTABLE SIZES. * REFER TO SPECIFICATIONS FOR DEFINED CONTAINER MEASUREMENTS AND OTHER PLANT MATERIAL REQUIREMENTS. * SEARCH AND REVIEW: MAKE PLANT MATERIAL AVAILABLE FOR OPTIONAL REVIEW BY LANDSCAPE ARCHITECT AT SOURCE OF SUPPLY. AREA OF SEARCH TO INCLUDE LOWER MAINLAND AND FRASER VALLEY. * SUBSTITUTIONS: OBTAIN WRITTEN APPROVAL FROM THE LANDSCAPE ARCHITECT PRIOR TO MAKING ANY SUBSTITUTIONS TO THE SPECIFIED MATERIAL. UNAPPROVED SUBSTITUTIONS WILL BE REJECTED. ALLOW A MINIMUM OF FIVE DAYS PRIOR TO DELIVERY FOR REQUEST TO SUBSTITUTE. SUBSTITUTIONS ARE SUBJECT TO BC LANDSCAPE STANDARD - DEFINITION OF CONDITIONS OF AVAILABILITY. ALL LANDSCAPE MATERIAL AND WORKMANSHIP MUST MEET OR EXCEED BC LANDSCAPE STANDARD'S LATEST EDITION. ALL PLANT MATERIAL MUST BE PROVIDED FROM CERTIFIED DISEASE FREE NURSERY

13124-5.ZIP

Plan #12

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pmg LANDSCAPE ARCHITECTS
Suite C100 - 4185 Still Creek Drive
Burnaby, British Columbia, V5C 6G9
p: 604 294-0011 ; f: 604 294-0022

SEAL:

NO.	DATE	REVISION DESCRIPTION	DR.
7	15.DEC.21	REVISION AS PER CITY REQUEST	DD
6	15.NOV.16	NEW SITE PLAN	DD
5	15.OCT.16	NEW SITE PLAN	DD
4	15.MAY.05	NEW SITE PLAN/GRADING	DD
3	14.FEB.17	NEW SITE PLAN/CITY COMMENTS	DD
2	13.OCT.08	DP SUBMISSION	
1	13.SEP.20	CLIENT REQUEST	DD

CLIENT:

PROJECT:

20 UNIT TOWNHOUSE

9720, 9740 and 9760 Alberta Road
RICHMOND

DRAWING TITLE:

LANDSCAPE PLAN

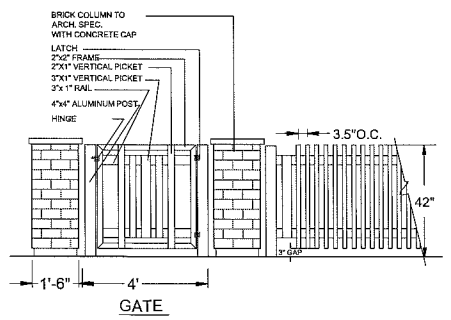
DATE: August 23, 2013
SCALE: 3 / 32"= 1'-0"
DRAWN: DD
DESIGN: DD
CHK'D: PCM

DRAWING NUMBER: **L1** OF 4

PMG PROJECT NUMBER: **13-124**

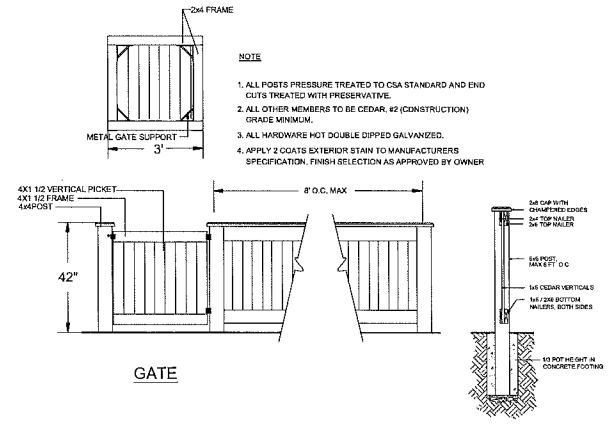
JAN 27 2016

DP 13-647517



1 / L2 42"HT ALUMINIUM FENCE WITH GATE AND COLUMN- STREET FRONTAGE

3/8" = 1'-0"

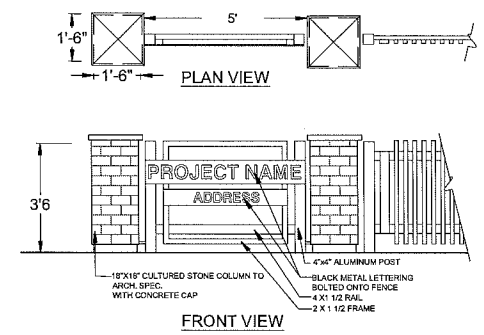


NOTE

1. ALL POSTS PRESSURE TREATED TO CSA STANDARD AND END CUTS TREATED WITH PRESERVATIVE.
2. ALL OTHER MEMBERS TO BE CEDAR. #2 (CONSTRUCTION) GRADE MINIMUM.
3. ALL HARDWARE HOT DOUBLE DIPPED GALVANIZED.
4. APPLY 2 COATS EXTERIOR STAIN TO MANUFACTURERS SPECIFICATION. FINISH SELECTION AS APPROVED BY OWNER

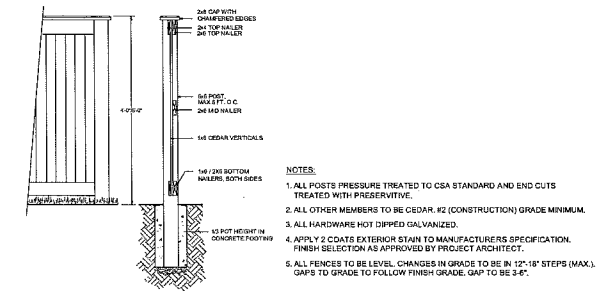
2 / L2 42"/5'HT WOOD FENCE WITH GATE

3/8" = 1'-0"



3 / L2 ENTRANCE SIGN

3/8" = 1'-0"

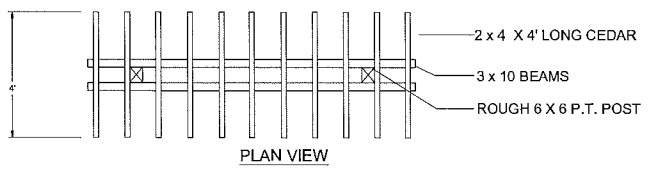


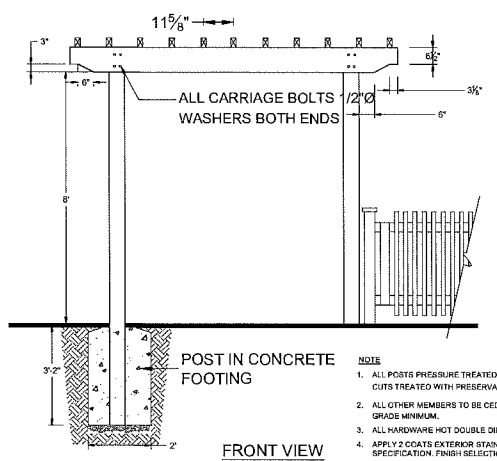
NOTES:

1. ALL POSTS PRESSURE TREATED TO CSA STANDARD AND END CUTS TREATED WITH PRESERVATIVE.
2. ALL OTHER MEMBERS TO BE CEDAR. #2 (CONSTRUCTION) GRADE MINIMUM.
3. ALL HARDWARE HOT DIPPED GALVANIZED.
4. APPLY 2 COATS EXTERIOR STAIN TO MANUFACTURERS SPECIFICATION. FINISH SELECTION AS APPROVED BY PROJECT ARCHITECT.
5. ALL FENCES TO BE LEVEL. CHANGES IN GRADE TO BE IN 12"-18" STEPS (MAX.). GAPS TO GRADE TO FOLLOW FINISH GRADE. GAP TO BE 3-6".

4 / L2 4'/ 5' / 6' HEIGHT WOOD FENCE

3/8" = 1'-0"



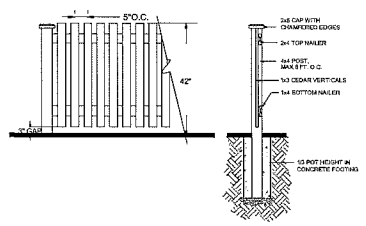


NOTE

1. ALL POSTS PRESSURE TREATED TO CSA STANDARD AND END CUTS TREATED WITH PRESERVATIVE.
2. ALL OTHER MEMBERS TO BE CEDAR. #2 (CONSTRUCTION) GRADE MINIMUM.
3. ALL HARDWARE HOT DOUBLE DIPPED GALVANIZED.
4. APPLY 2 COATS EXTERIOR STAIN TO MANUFACTURERS SPECIFICATION. FINISH SELECTION AS APPROVED BY OWNER

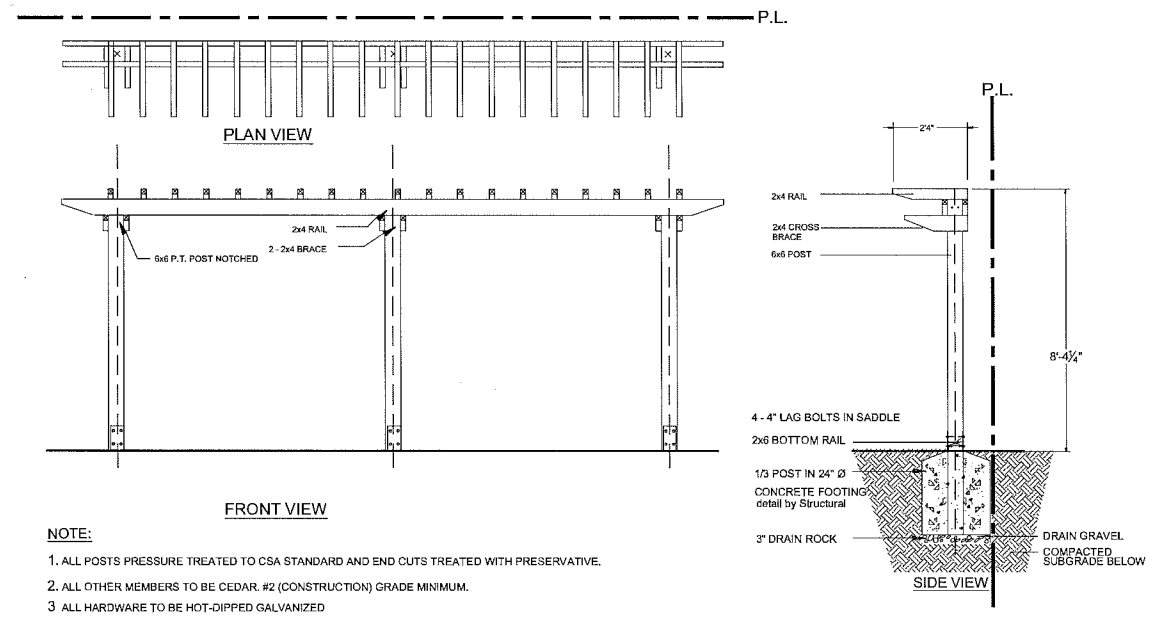
5 / L2 PEDESTRIAN TRELLIS AND FENCE

3/8" = 1'-0"



6 / L2 42"HT WOOD FENCE AT TRANSFORMER PAD

3/8" = 1'-0"

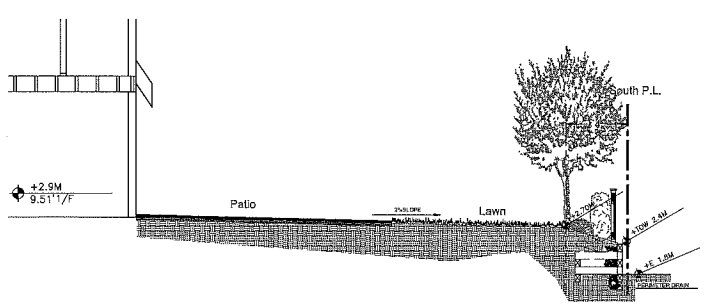


NOTE:

1. ALL POSTS PRESSURE TREATED TO CSA STANDARD AND END CUTS TREATED WITH PRESERVATIVE.
2. ALL OTHER MEMBERS TO BE CEDAR. #2 (CONSTRUCTION) GRADE MINIMUM.
3. ALL HARDWARE TO BE HOT-DIPPED GALVANIZED
4. APPLY 2 COATS EXTERIOR STAIN TO MANUFACTURERS SPECIFICATION. MATCH TRIM COLOUR PER ARCH SPEC, CONFIRM WITH ARCHITECT
5. COAT ALL CUT SURFACES WITH SIMILAR PRESERVATIVE AS ABOVE

7 / L2 TRELLIS STRUCTURE

3/8" = 1'-0"



8 / L2 SECTION A-A

3/16" = 1'-0"

9 / L2 SECTION B-B

3/16" = 1'-0"

PLANT SCHEDULE

PMG PROJECT NUMBER: 13-124

KEY	QTY	BOTANICAL NAME	COMMON NAME	PLANTED SIZE / REMARKS
SHRUB				
AB	22	ARBUTUS UNEDO COMPACTA	COMPACT STRAWBERRY BUSH	#3 POT; 80CM
B	155	BUXUS MICROPHYLLA 'WINTERGREEN'	LITTLE-LEAF BOX	#3 POT; 40CM
CX	23	CORNUS ALBA 'ELEGANTISSIMA'	VARIEGATED SHRUB DOGWOOD	#2 POT; 50CM
HB	10	HYDRANGEA SERRATA 'BLUEBIRD'	BLUEBIRD HYDRANGEA	#3 POT; 40CM
K	61	NANDINA DOMESTICA 'NANA'	DWARF HEAVENLY BAMBOO	#2 POT; 20CM
RS	7	ROSA EXPLORER 'FRONTENAC'	FRONTENAC ROSE; DEEP PINK	#2 POT; 40CM
SK	18	SKIMMIA JAPONICA (10% MALE)	JAPANESE SKIMMIA	#2 POT; 30CM
T	126	TAXUS X MEDIA 'HICKSII'	HICK'S YEW	1.00M HT
VD	4	VIBURNUM DAVIDII	DAVID'S VIBURNUM	#2 POT; 30CM
VS	9	VIBURNUM P.T. 'SUMMER SNOWFLAKE'	SUMMER SNOWFLAKE VIBURNUM	#7 POT; 1M HT
GRASS				
C1	134	HELICTOTRICHON SEMPERVIRENS	BLUE OAT GRASS	#1 POT
G1	22	PENNISETUM ORIENTALE 'KARLEY ROSE'	KARLEY ROSE FOUNTAIN GRASS	#1 POT
VINE				
CA	7	CLEMATIS ARMANDII	EVERGREEN CLEMATIS	#2 POT; 60CM ; STAKED
PERENNIAL				
IB	35	IBERIS SEMPERVIRENS	EVERGREEN CANDYTUFT	#1 POT
L	5	LAVENDULA ANGUSTIFOLIA	ENGLISH LAVENDER	#1 POT
S	13	SEDUM M ATUMN JOY	SEDUM	15 CM POT
GC				
AJ	10	AJUGA REPTANS 'ATROPURPUREA' .	CARPET BUGLE	9 CM POT
BS	235	BLECHNUM SPICANT	DEERFERN	#1 POT; 20CM
G	191	GAULTHERIA SHALLON	SALAL	#1 POT; 20CM; 60CM O.C.

NOTES: * PLANT SIZES IN THIS LIST ARE SPECIFIED ACCORDING TO THE BC LANDSCAPE STANDARD, LATEST EDITION. CONTAINER SIZES SPECIFIED AS PER CNTA STANDARDS. BOTH PLANT SIZE AND CONTAINER SIZE ARE THE MINIMUM ACCEPTABLE SIZES. * REFER TO SPECIFICATIONS FOR DEFINED CONTAINER MEASUREMENTS AND OTHER PLANT MATERIAL REQUIREMENTS. * SEARCH AND REVIEW: MAKE PLANT MATERIAL AVAILABLE FOR OPTIONAL REVIEW BY LANDSCAPE ARCHITECT AT SOURCE OF SUPPLY. AREA OF SEARCH TO INCLUDE LOWER MAINLAND AND FRASER VALLEY. * SUBSTITUTIONS: OBTAIN WRITTEN APPROVAL FROM THE LANDSCAPE ARCHITECT PRIOR TO MAKING ANY SUBSTITUTIONS TO THE SPECIFIED MATERIAL. UNAPPROVED SUBSTITUTIONS WILL BE REJECTED. ALLOW A MINIMUM OF FIVE DAYS PRIOR TO DELIVERY FOR REQUEST TO SUBSTITUTE. SUBSTITUTIONS ARE SUBJECT TO BC LANDSCAPE STANDARD - DEFINITION OF CONDITIONS OF AVAILABILITY. ALL LANDSCAPE MATERIAL AND WORKMANSHIP MUST MEET OR EXCEED BC LANDSCAPE STANDARD'S LATEST EDITION. ALL PLANT MATERIAL MUST BE PROVIDED FROM CERTIFIED DISEASE FREE NURSERY

13124-5.ZIP

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pmg LANDSCAPE ARCHITECTS
Suite C100 - 4185 Still Creek Drive
Burnaby, British Columbia, V5C 6G9
p: 604 294-0011 ; f: 604 294-0022

SEAL:

NO.	DATE	REVISION DESCRIPTION	DR.
7	15.DEC.21	REVISION AS PER CITY REQUEST	DD
6	15.NOV.16	NEW SITE PLAN	DD
5	15.OCT.16	NEW SITE PLAN	DD
4	15.MAY.05	NEW SITE PLAN/GRADING	DD
3	14.FEB.17	NEW SITE PLAN/CITY COMMENTS	DD
2	13.OCT.08	DP SUBMISSION	
1	13.SEP.20	CLIENT REQUEST	DD

CLIENT:

PROJECT:

20 UNIT TOWNHOUSE

9720, 9740 and 9760 Alberta Road
RICHMOND

DRAWING TITLE:

LANDSCAPE DETAILS

DATE: August 23, 2013

DRAWING NUMBER: **L2**

SCALE:

DRAWN: DD

DESIGN: DD

CHK'D: PCM

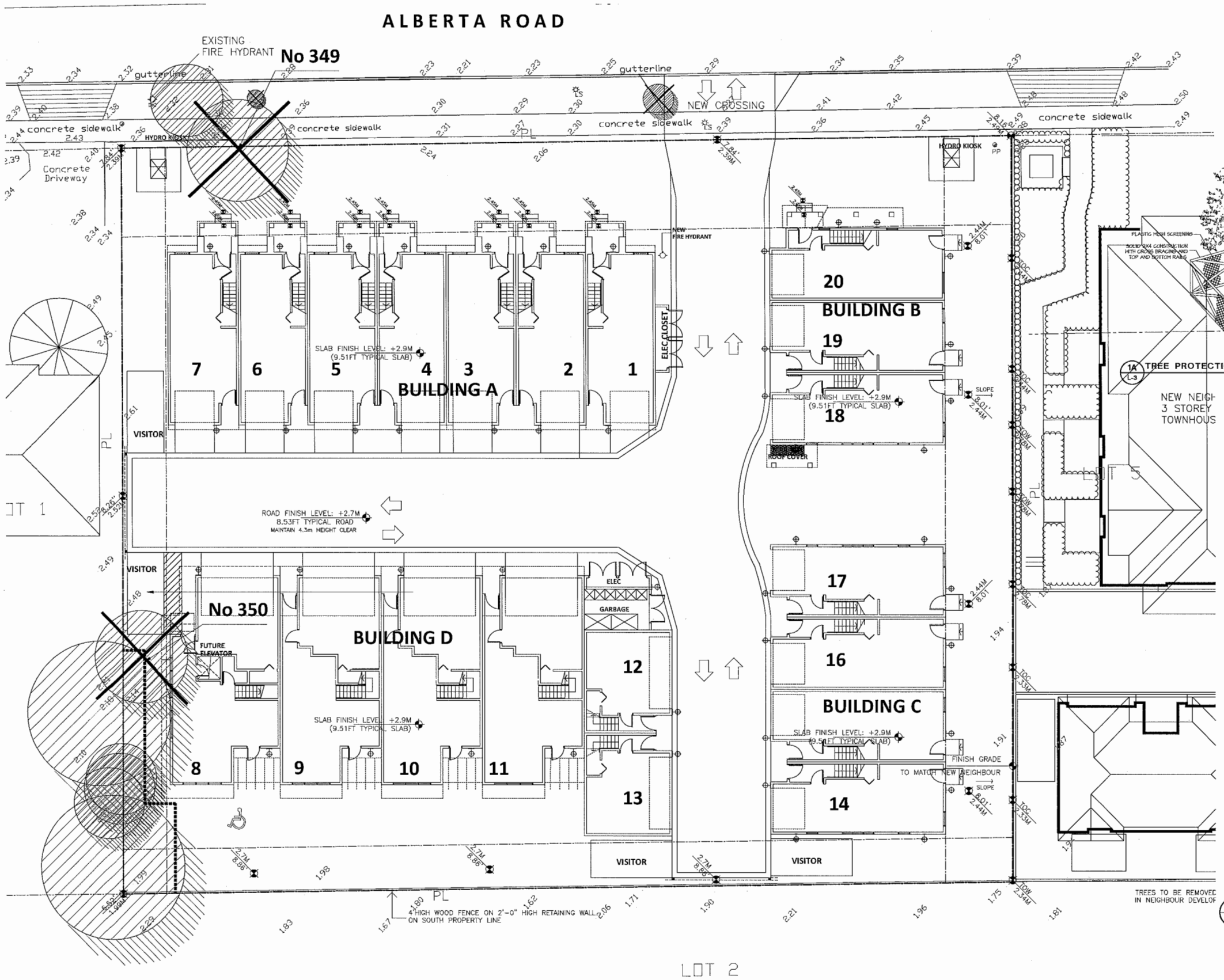
OF 4

PMG PROJECT NUMBER: **13-124**

JAN 2 7 2016

DP 15-697217

Plan #13



NOTE: ALL TREES REGARDLESS OF SIZE ARE PROTECTED IN HIGH ENVIRONMENTALLY SENSITIVE AREAS

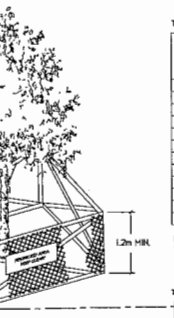
TREE PROTECTION DISTANCE TABLE

TRUNK DIAMETRE in cm. @ dbh.*	MINIMUM REQUIRED PROTECTION RADIUS DISTANCE FROM TRUNK IN METRES
20	1.2
25	1.5
30	1.8
35	2.1
40	2.4
45	2.7
50	3
55	3.3
60	3.6
75	4.5
90	5
100	6.0

EXTRAPOLATE PROTECTION RADIUS FOR TREES LARGER THAN 100CM dbh.
*DIAMETRE AT BREAST HEIGHT OR 1.4M FROM GRADE).

TREES PROTECTED BY SPECIES

ARBUTUS
GARRY OAK
PACIFIC DOGWOOD
PACIFIC YEW
WESTERN WHITE PINE
GRAND FIR
COAST REDWOOD
DAWN REDWOOD
GIANT SEQUOIA
GINKGO
MONKEY PUZZLE TREE

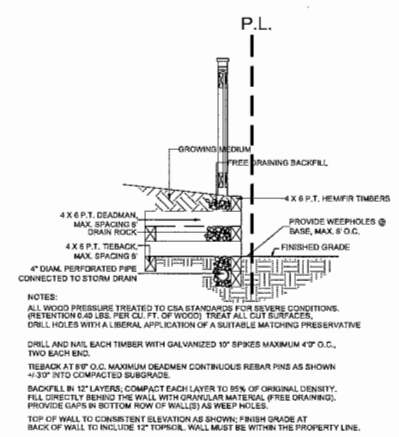


1A L-3 TREE PROTECTION BARRIER

TREE TO REMOVE

TREE TO RETAIN

TREE PROTECTION FENCE



NOTES:

ALL WOOD PRESSURE TREATED TO CSA STANDARDS FOR SEVERE CONDITIONS. (RETENTION 0.40 LBS. PER CU. FT. OF WOOD) TREAT ALL CUT SURFACES. DRILL HOLES WITH A LIBERAL APPLICATION OF A SUITABLE MATCHING PRESERVATIVE

DRILL AND NAIL EACH TIMBER WITH GALVANIZED 10" SPIKES MAXIMUM 4'0" O.C., TWO EACH END.

TIEBACK AT 8'0" O.C. MAXIMUM DEADMEN CONTINUOUS REBAR PINS AS SHOWN +/- 3'0" INTO COMPACTED SUBGRADE.

BACKFILL IN 12" LAYERS, COMPACT EACH LAYER TO 95% OF ORIGINAL DENSITY. FILL DIRECTLY BEHIND THE WALL WITH GRANULAR MATERIAL (FREE DRAINING). PROVIDE GAPS IN BOTTOM ROW OF WALL(S) AS WEEP HOLES.

TOP OF WALL TO CONSISTENT ELEVATION AS SHOWN; FINISH GRADE AT BACK OF WALL TO INCLUDE 12" TOPSOIL. WALL MUST BE WITHIN THE PROPERTY LINE.

15 L-3 TIMBER RETAINING WALL ON GRADE
3/8" = 1'-0"

13124-5.ZIP

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SEAL:

NO.	DATE	REVISION DESCRIPTION	DR.
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2	13.OCT.08	DP SUBMISSION	
1	13.SEP.20	CLIENT REQUEST	DD

CLIENT:

PROJECT:

20 UNIT TOWNHOUSE

9720, 9740 and 9760 Alberta Road RICHMOND

DRAWING TITLE:

TREE MANAGEMENT PLAN

DATE: August 23, 2013
SCALE: 3 / 32"= 1'-0"
DRAWN: DD
DESIGN: DD
CHK'D: PCM

DRAWING NUMBER: **L3** OF 4

PMG PROJECT NUMBER: 13-124

JAN 27 2016

DP 13-647517

Plan #14

City of Richmond

Report to Development Permit Panel

To:	Development Permit Panel	**Date:**	December 17, 2015
From:	Wayne Craig Director of Development	**File:**	DV 15-708883
Re:	**Application by 0983101 BC Ltd. for a Development Variance Permit at 12208, 12222 and 12228 Trites Road**		

Staff Recommendation

That a Development Variance Permit be issued which would vary sections 4.18.2.a. and 8.1.7.4.a. of Richmond Zoning Bylaw 8500 to permit maximum building height "residential vertical lot width envelope" and "residential vertical lot depth envelope" to be measured from the required Flood Construction Level (2.9 m GSC) in order to allow construction of new single detached houses at 12208, 12222 and 12228 Trites Road on sites zoned "Single Detached (RS2/A)".

Wayne Craig
Director of Development

WC:sb
Att.

Staff Report

Origin

0983101 BC Ltd. has applied to the City of Richmond to vary sections 4.18.2.a. and 8.1.7.4.a. of Richmond Zoning Bylaw 8500 to permit maximum building height "residential vertical lot width envelope" and "residential vertical lot depth envelope" to be measured from the required Flood Construction Level in order to construct new single detached houses at 12208, 12222 and 12228 Trites Road on sites zoned "Single Detached (RS2/A)".

Development Information

The site was recently rezoned from the "Single Detached (RS1/E)" zone to the "Single Detached (RS2/A)" zone under Richmond Zoning Bylaw 8500, Amendment Bylaw 9194 (RZ 14-666142), which was adopted by Council on March 9, 2015 and subsequently subdivided into three (3) separate lots.

Please refer to attached Development Application Data Sheet (Attachment 1) for a comparison of the proposed development data with the relevant Bylaw requirements.

Background

Development surrounding the subject site is as follows:

- To the north, immediately across Moncton Street, is the S.U.C.C.E.S.S. Austin Harris Residence, a multi-unit senior's assisted living residence on a large lot zoned "Congregate Housing (ZR4) – Steveston" at 5411 Moncton Street.
- To the east, are six (6) lots, which are currently the subject of an application (RZ 14-674749) to rezone the lots to a site specific "Single Detached (ZS23) – Steveston" zone to create 30 single detached lots. Richmond Zoning Bylaw 8500, Amendment Bylaw 9275 to rezone the site received Public Hearing on September 8, 2015.
- To the south, is a single detached house on a large lot zoned "Single Detached (RS1/E)", which fronts Trites Road.
- To the west, immediately across Trites Road, is a single detached house on a large lot zoned "Single Detached (RS1/B)".

Analysis

Consistent with the Flood Plain Designation and Protection Bylaw No. 8204, a restrictive covenant was registered on title of all three subject lots through the approved rezoning application, requiring that all new homes be constructed with a minimum flood construction level of 2.9 m GSC. There is a significant grade difference between the 2.9 m GSC required flood construction level and the lower existing site and road grades.

The Moncton Street and Trites Road frontages will be improved with new sidewalk, boulevard, curb and gutter through the Servicing Agreement that the developer entered into as part of the approved rezoning application. The Servicing Agreement also includes providing new sanitary sewer across the Trites Road frontage of the subject lots. The new sanitary sewer will tie into the

existing sanitary sewer located in the neighbouring front yard to the south and the neighbour will be provided with one month's notice before construction starts.

After the new sidewalks are constructed, the 2.9 m GSC required flood construction level is approximately 1.54 m to 1.62 m higher than the proposed final grade of the Moncton Street sidewalk and approximately 1.23 m to 1.42 m higher than the proposed final grade of the Trites Road sidewalk. To address the grade difference, the site grade is proposed to be raised to 2.2 m GSC at the corners of the homes and the main living areas would be constructed to comply with the 2.9 m GSC required flood construction level. Front entries would be accessed by stairs. The street fronting yards are proposed to be sloped down to the Trites Road sidewalk and tiered down to the Moncton Street sidewalk.

A Japanese themed tiered garden edge is proposed along Moncton Street and complementary sloped grass and shrub planting is proposed along Trites Road. In order to secure the detailed landscape design and grading information provided on the DV Plans (DV Plans 4, 8 and 12) provided along with this report, the applicant is required to provide security for site grading and landscaping interfaces on all four sides of each of the three subject lots as a condition of the Development Variance Permit.

Adjacency

The adjacent property to the east is proposed to be developed with 30 new single detached homes (RZ 14-674749) at the same required flood construction level of 2.9 m GSC and is being designed by the same Landscape Architect and building designer. The grading strategy proposed under this Development Variance Permit will meet the grading of the neighbouring development proposal to the east, with the exception of providing a low 0.3 m wood retaining wall at the southeast corner of the subject site. The neighbouring development includes a 1.7 m GSC permanent lane abutting the southeast corner of the subject site and temporary berming and a raised temporary fire access abutting most of the east edge of the subject site until a single family home is constructed in the future.

The adjacent single detached home property to the south is at a lower elevation. The grading proposal for the subject southern lot includes sloping the grade from the house down to perimeter drainage, privacy fencing and a retaining wall along the shared property line. Along the south property line the proposed retaining wall would be approximately 0.9 m higher than the neighbouring grade with a lower 1.2 m fence height on top.

Requested Variance

The applicant requests to vary Sections 4.18.2.a. and 8.1.7.4.a. of Richmond Zoning Bylaw 8500 to permit maximum building height "residential vertical lot width envelope" and "residential vertical lot depth envelope" to be measured from the required Flood Construction Level (2.9 m GSC), rather than from finished site grade.

The Zoning bylaw requires the envelopes to be measured from the finished site grade, which is an averaged calculation of the existing grades at the corners of the lot and the proposed grades at the corners of the building. The variance to measure the envelopes from the required Flood Construction Level is requested to accommodate the proposed desired house designs and still meet the required level for the area (Min. 2.9 m GSC) and Zoning bylaw.

As a result of the maximum permitted residential vertical envelopes, the lower existing grades, higher required flood construction level and minimum setbacks from property lines, the applicant is not able to construct the allowable floor area permitted under the RS2/A zone (approximately 2,000 sq.ft. per house). Without the requested variance, the applicant would not be able to construct a full two-storey house with traditional roof pitch consistent with the Trites sub-area neighbourhood character. Instead, the second floor would need to be significantly inset and shallow roof pitch constructed.

In support of the requested variance, the applicant has provided site plans, building design plans and landscape plans (DP Plans 1 to 12).

Staff support the proposed variance as it allows for single detached home development that: accommodates the higher required Flood Construction Level (Min. 2.9 m GSC) for the area; is consistent with the proposed neighbouring development to the east; and is mitigated through considered building and landscaping design.

The variance is consistent with the building height measurement requirements included in the "Single Detached (ZS23) – Steveston" zone for the rezoning (RZ 14-674749) proposal for a 30-lot subdivision in the neighbouring land assembly to the east.

Conclusion

The proposed variance will allow for the construction of three new single detached homes that accommodate the higher required Flood Construction Level (Min. 2.9 m GSC) for the area in a manner that would be consistent with the proposed neighbouring development to the east. The proposal includes considered building and landscaping design and should not negatively impact the Moncton Street and Trites Road streetscapes.

Staff recommend that the Development Variance Permit be issued.

Sara Badyal.

Sara Badyal
Planner 2

SB:rg

The following are to be met prior to forwarding this application to Council for approval:

- Receipt of a Letter-of-Credit for landscaping 12208 Trites Road in the amount of $17,296.13.
- Receipt of a Letter-of-Credit for landscaping 12222 Trites Road in the amount of $12,244.16.
- Receipt of a Letter-of-Credit for landscaping 12228 Trites Road in the amount of $16,686.29.

Prior to future Building Permit issuance, the developer is required to complete the following:

- The applicant is required to obtain a Building Permit for any construction hoarding associated with the proposed development. If construction hoarding is required to temporarily occupy a street, or any part thereof, or occupy the air space above a street or any part thereof, additional City approvals and associated fees may be required as part of the Building Permit. *For further information on the Building Permit, please contact Building Approvals Department at 604-276-4285.*
- Submission of a construction traffic and parking management plan to the satisfaction of the City's Transportation Department (http://www.richmond.ca/services/ttp/special.htm).

City of Richmond

Development Application Data Sheet

Development Applications Division

DV 15-708883 **Attachment 1**

Address: 12208, 12222 and 12228 Trites Road

Applicant: 0983101 BC Ltd. Owner: 0993289 BC Ltd.

Planning Area(s): Trites Sub Area (Steveston)

	Existing	Proposed
Site Area	12208 Trites Rd 342 m^2 12222 Trites Rd 334 m^2 12228 Trites Rd 334 m^2	No change
Land Uses	Vacant	Residential
OCP Designation	Neighbourhood Residential	Complies
Area Plan Designation	Single-Family Housing	Complies
Zoning	Single Detached (RS2/A)	Variance requested as noted below
Number of Units	None	3

	Bylaw Requirement	Proposed	Variance
Floor Area Ratio	Max. 0.55 FAR	0.55 FAR	None permitted
Building Lot Coverage: 12208 Trites Rd 12222 Trites Rd 12228 Trites Rd	Max. 45%	37.4% 44.95% 44.95%	None
Non-Porous Area: 12208 Trites Rd 12222 Trites Rd 12228 Trites Rd	Max. 70%	57% 63% 63%	None
Planted Area: 12208 Trites Rd 12222 Trites Rd 12228 Trites Rd	Min. 20%	42.8% 36.1% 36.1%	None
Setbacks: Moncton Street Trites Road Interior Side Yard Rear Yard	Min. 3 m Min. 6 m Min. 1.2 m Min. 6 m	3 m 6 m 1.2 m 6 m	None
Building Height	Max. 9 m & 2 ½ storeys Residential Vertical Envelopes Measured from Average Finished Site Grade (1.5 m to 1.55 m GSC)	9 m & two-storey Residential Vertical Envelopes Measured from Flood Construction Level (2.9 m GSC)	**Measured from Flood Construction Level (2.9 m GSC)**

City of Richmond

Development Variance Permit

No. DV 15-708883

To the Holder:	0983101 BC Ltd.
Property Address:	12208, 12222 and 12228 Trites Road
Address:	c/o Davinder Mander 101 - 5027 47A Avenue Delta, BC V4K 1T9

1. This Development Variance Permit is issued subject to compliance with all of the Bylaws of the City applicable thereto, except as specifically varied by this Permit.
2. This Development Variance Permit applies to and only to those lands shown cross-hatched on the attached Schedule "A" and any and all buildings, structures and other development thereon.
3. The "Richmond Zoning Bylaw 8500" is hereby varied in Sections 4.18.2.a. and 8.1.7.4.a. as follows:
   a) Maximum building height "residential vertical lot width envelope" and "residential vertical lot depth envelope" to be measured from the required Flood Construction Level (2.9m GSC).
4. The land described herein shall be developed generally in accordance with the terms and conditions and provisions of this Permit and Plans #1 to #12 attached to this Permit which shall form a part hereof.
5. As a condition of the issuance of this Permit, the City is holding security in the following amounts to ensure that development is carried out in accordance with the terms and conditions of this Permit:
   a) $17,296.13 for 12208 Trites Road;
   b) $12,244.16 for 12222 Trites Road; and
   c) $16,686.29 for 12228 Trites Road.

   Should any interest be earned upon the security, it shall accrue to the Holder if the security is returned. The condition of the posting of the security is that should the Holder fail to carry out the development hereby authorized, according to the terms and conditions of this Permit within the time provided, the City may use the security to carry out the work by its servants, agents or contractors, and any surplus shall be paid over to the Holder. Should the Holder carry out the development permitted by this permit within the time set out herein, the security shall be returned to the Holder. The City may retain the security for up to one year after inspection of the completed landscaping in order to ensure that plant material has survived.
6. If the Holder does not commence the construction permitted by this Permit within 24 months of the date of this Permit, this Permit shall lapse.

   This Permit is not a Building Permit.

Development Variance Permit
No. DV 15-708883

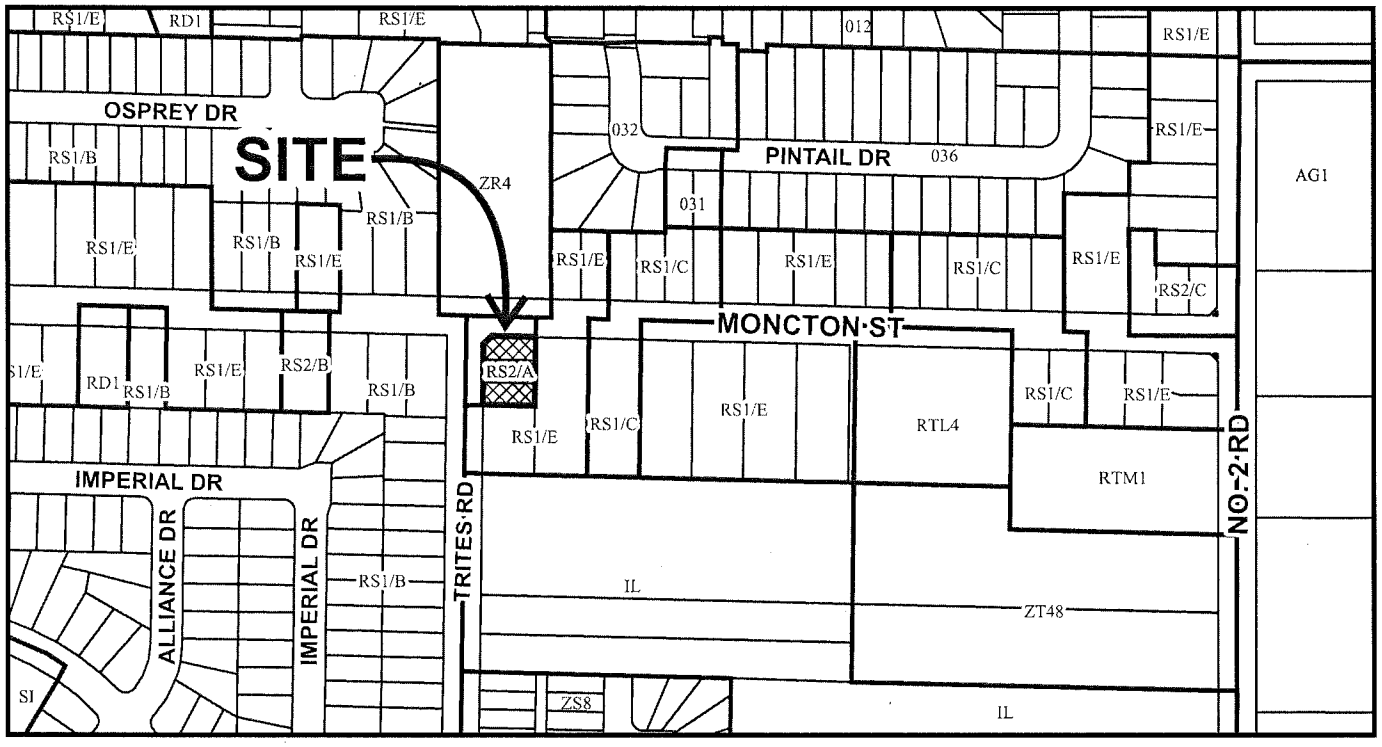
To the Holder:	0983101 BC Ltd.
Property Address:	12208, 12222 and 12228 Trites Road
Address:	c/o Davinder Mander 101 - 5027 47A Avenue Delta, BC V4K 1T9

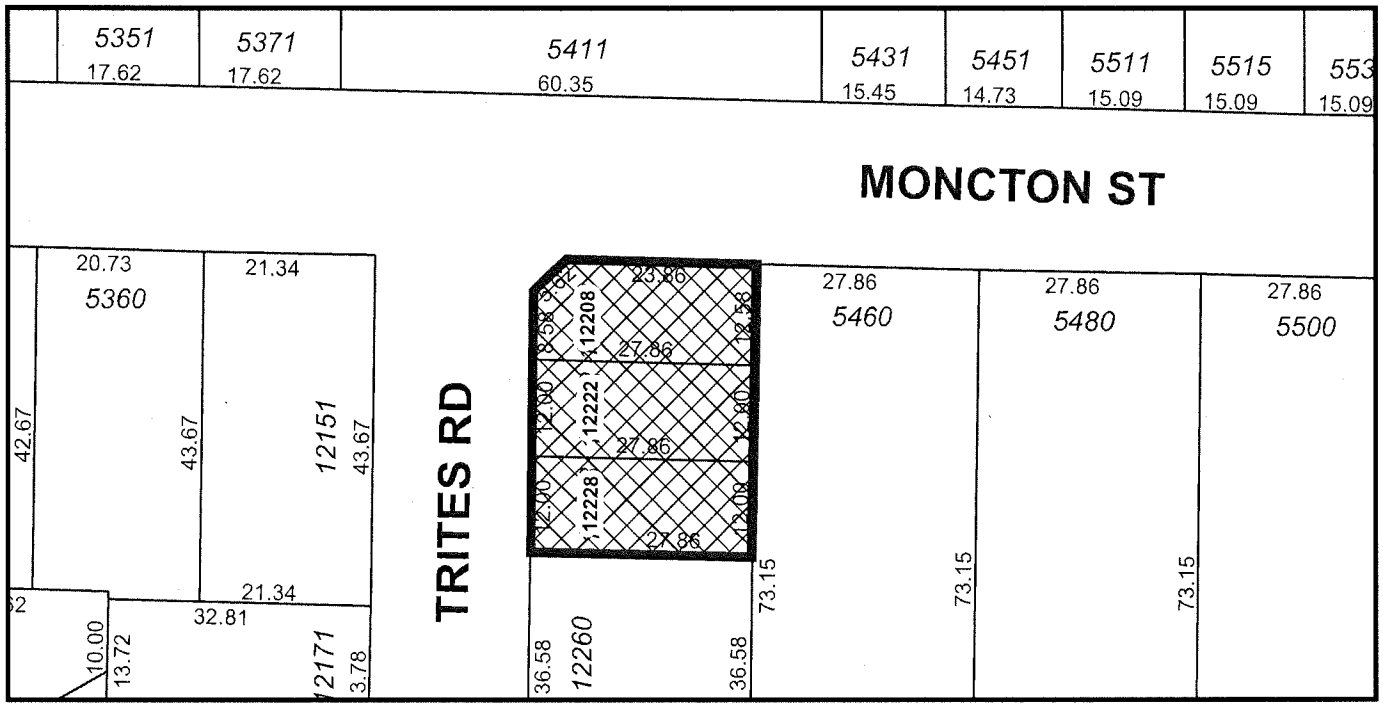
AUTHORIZING RESOLUTION NO. ISSUED BY THE COUNCIL THE DAY OF , .

DELIVERED THIS DAY OF , .

MAYOR

City of Richmond





DV 15-708883
SCHEDULE "A"

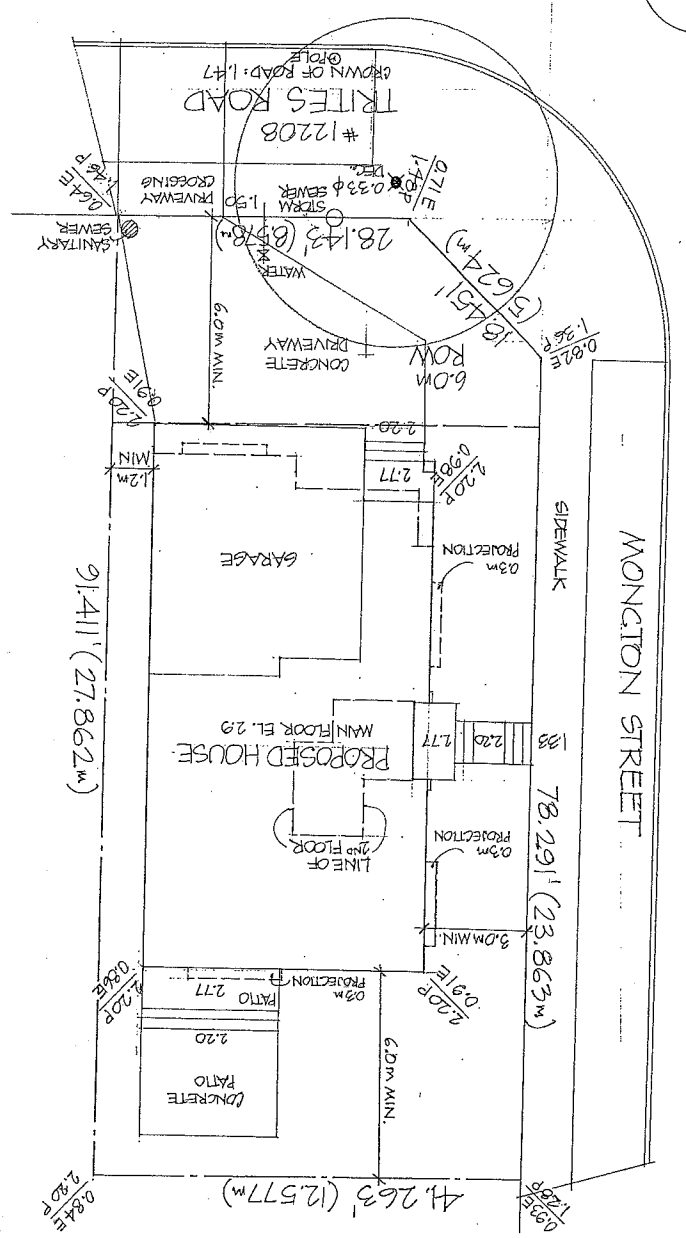
Original Date: 09/18/15

Revision Date:

Note: Dimensions are in METRES

Notes:

- Off-site works via separate required Servicing Agreement
- Flood Plain Restrictive Covenant registered on Title; Min. 2.9 m GSC Flood Construction Level required
- Variance included to permit Building Height "residential vertical lot width envelope" and "residential vertical lot depth envelope" to be measured from the required Flood Construction Level (2.9 m GSC).
- See Landscape Plans for grading information.

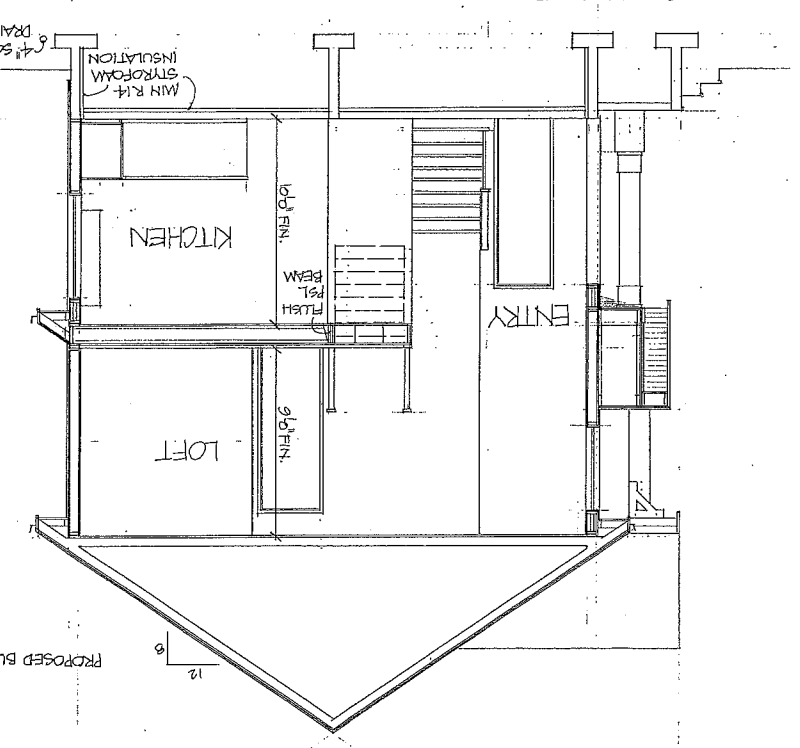


LEGAL DESCRIPTION
LOT 1
SECTION 12 R5N R7W
PLAN: EPP 50105

ANALYSIS (R52/A)
LOT AREA: 3681.4+(342m²)
MAX. SITE COV. @ 45%: 1656.7+(153.9m²)
THIS PLAN: 1377+(127.9m²)
MAX. FLOOR AREA @ 55%: 2024.8+(188.1m²)
THIS PLAN: MAIN FLOOR 886+
UPPER FLOOR 1144+
2009+(186.6m²)
MAX. COVERED AREA: 202.5+(18.8m²)
THIS PLAN: 42+(3.9m²)

LANDSCAPED AREA
WEST YARD 300+
NORTH YARD 460+
EAST YARD 612+
SOUTH YARD 206+
TOTAL 1578+(146.6m²) 42.8%

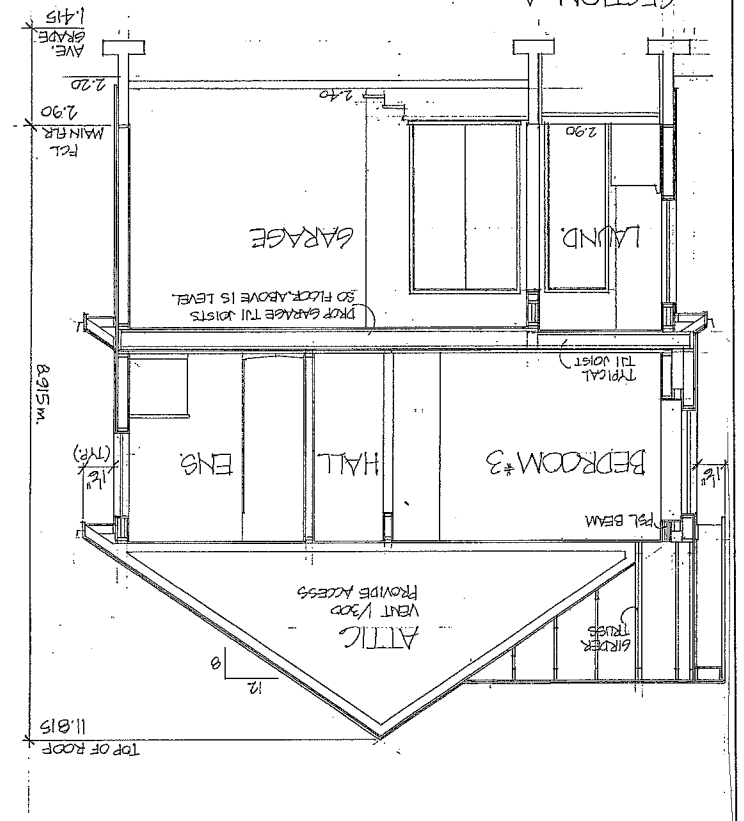
SITE PLAN
SCALE 1/8"=1'0"

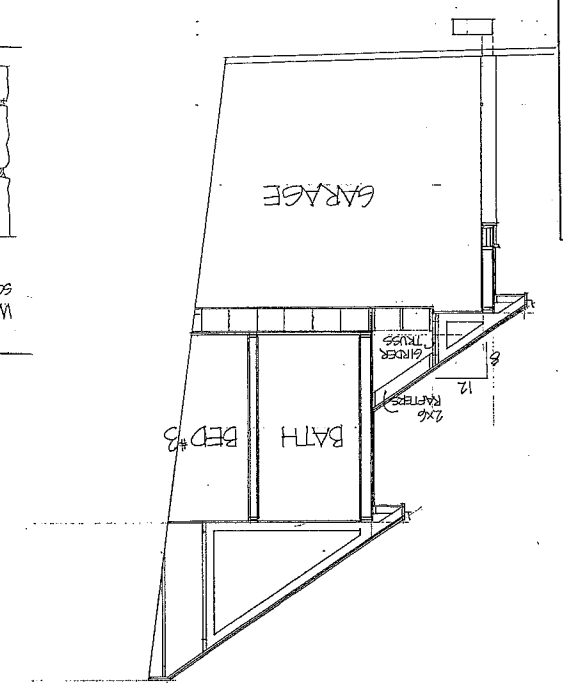


FINISHED SITE GRADE CALCULATIONS:

EXISTING LOT CORNERS-	N/W#1	0.82
	N/W#2	0.71
	S/W	0.64
	S/E	0.84
	N/E	0.93
PROPOSED BLDG. CORNERS	N/W	2.20
	S/W	2.20
	S/E	2.20
	N/E	2.20

12.74÷9=1.415





Roof:
Asphalt shingles on 1/2" plywood sheathing on certified trusses @ 24" o.c. with minimum R 50 insulation on 6 mil poly vapour barrier on 5/8" drywall

Exterior Walls:
Exterior siding on building paper applied using approved rain screen method on 1/2" plywood sheathing on 2x6 studs @ 16" o.c. with minimum R 20 insulation batts on 6 mil poly vapour barrier on 5/8" drywall

Interior Walls:
2x4 or 2x6 studs @ 16" o.c. with 1/2" drywall both sides

Upper Floor:
Finished floor on 1 1/2" concrete topping on 5/8" plywood sub floor on TJI joists to P. Eng. spec's with minimum R 12 insulation batts on 5/8" drywall

Main Floor:
Finished floor on 3 1/2" concrete slab with 6" x 6" w. w. mesh on 6 mil poly vapour barrier on minimum R14 styrofoam insulation on minimum 5" compacted sand or gravel

Foundation:
6" concrete wall minimum 12" high with 5/8" anchor bolts @ 4'-0" o.c. on 8"x24" continuous concrete footing

TYPICAL EXTERIOR WALL

WALL TYPE	DESCRIPTION
RAINSCREEN WALL	EXTERIOR CLADDING 3/4" x 2" OR 3/8"x 2" BORATE TREATED EXTERIOR GRADE PLYWOOD STRAPPING AT 8" OR 16" o.c. 2 LAYERS OF 30 MIN. RATED BUILDING PAPER OR 1 LAYER OF BUILDING PAPER (TYVEK COMMERCIAL WRAP) OR EQUIVALENT PLYWOOD SHEATHING R20 FIBREGLASS BATT INSULATION 2X4 OR 2X6 WOOD STUDS @ 16" o.c. POLY VAPOUR BARRIER GYPSUM WALLBOARD

WALL SECTION
SCALE: 1"=1'0"

INSTALLATION DETAIL FOR CULTURED STONE FACING

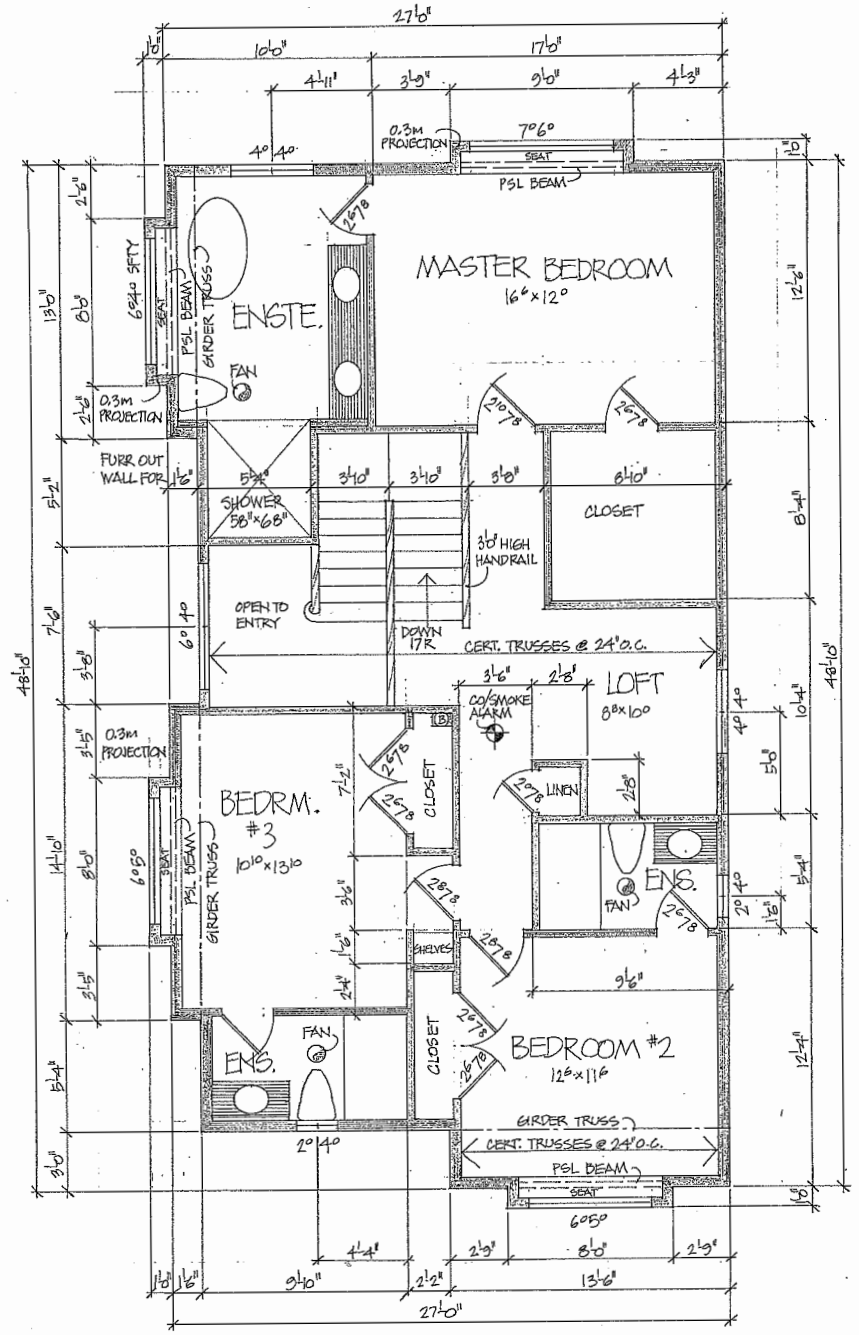
CULTURED STONE WITH MORTARED JOINTS ON STUCCO SCRATCH COAT WITH METAL LATH ON BUILDING PAPER ON 3/8" x 2" SPACED BORATE TREATED PLYWOOD STRIP STRAPPING ON BUILDING PAPER ON 1/2" EXT. PLYWOOD SHEATHING ON 2x6 STUDS @ 16" O.C. WITH R. 20 INSULATION BATTS ON 6 MIL POLY VAPOUR BARRIER ON 1/2" GYPSUM WALL BOARD.

Lynde Designs ltd.
11-7000 Westminster Road
Richmond, B.C.
V7C 2E3
(604) 275-6095

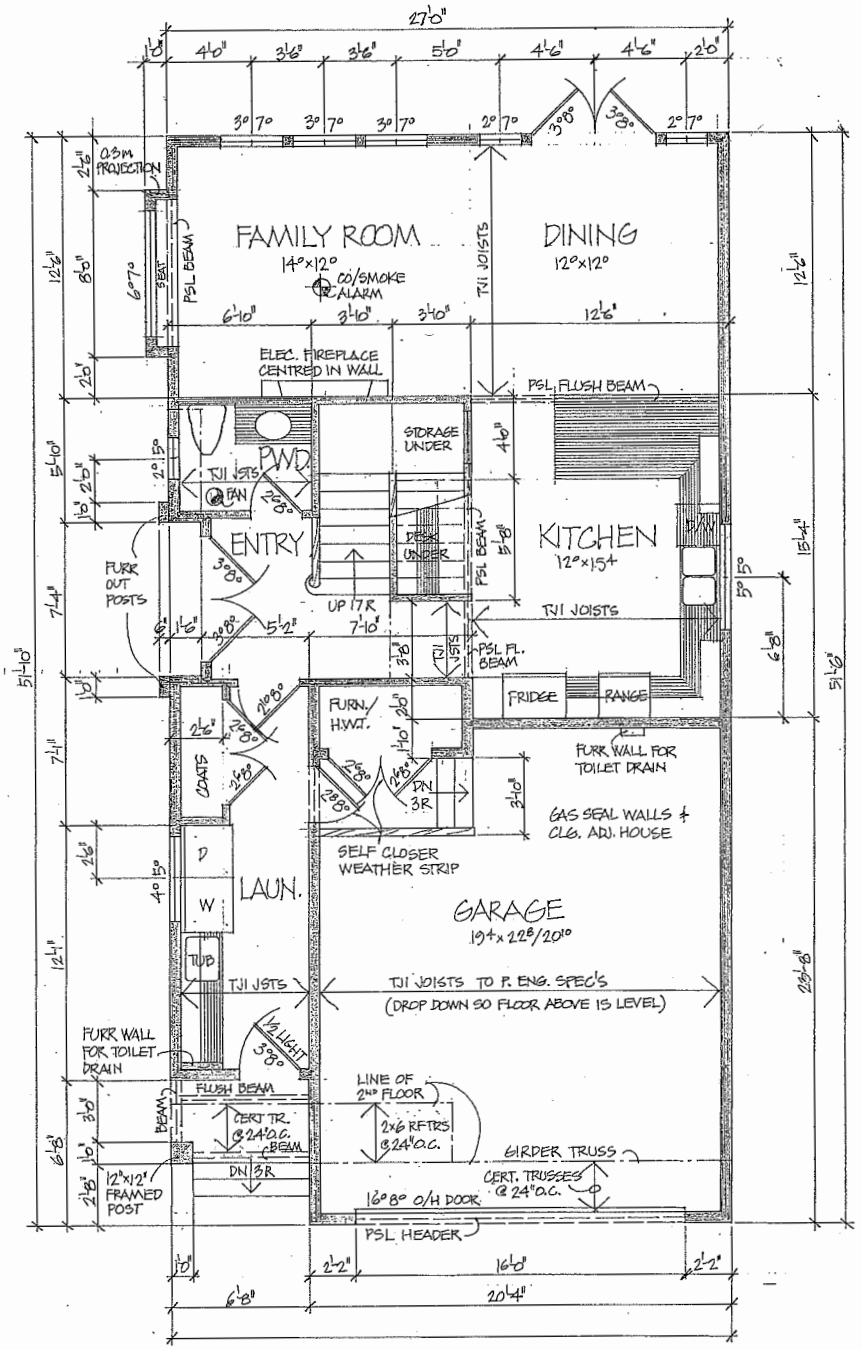
TITLE:
HOUSE FOR 0983101 B.C. LTD
AT # 12208 TRITES ROAD, RICHMOND B.C.

Plan 1 Dec 16, 2015
DV 15-708883

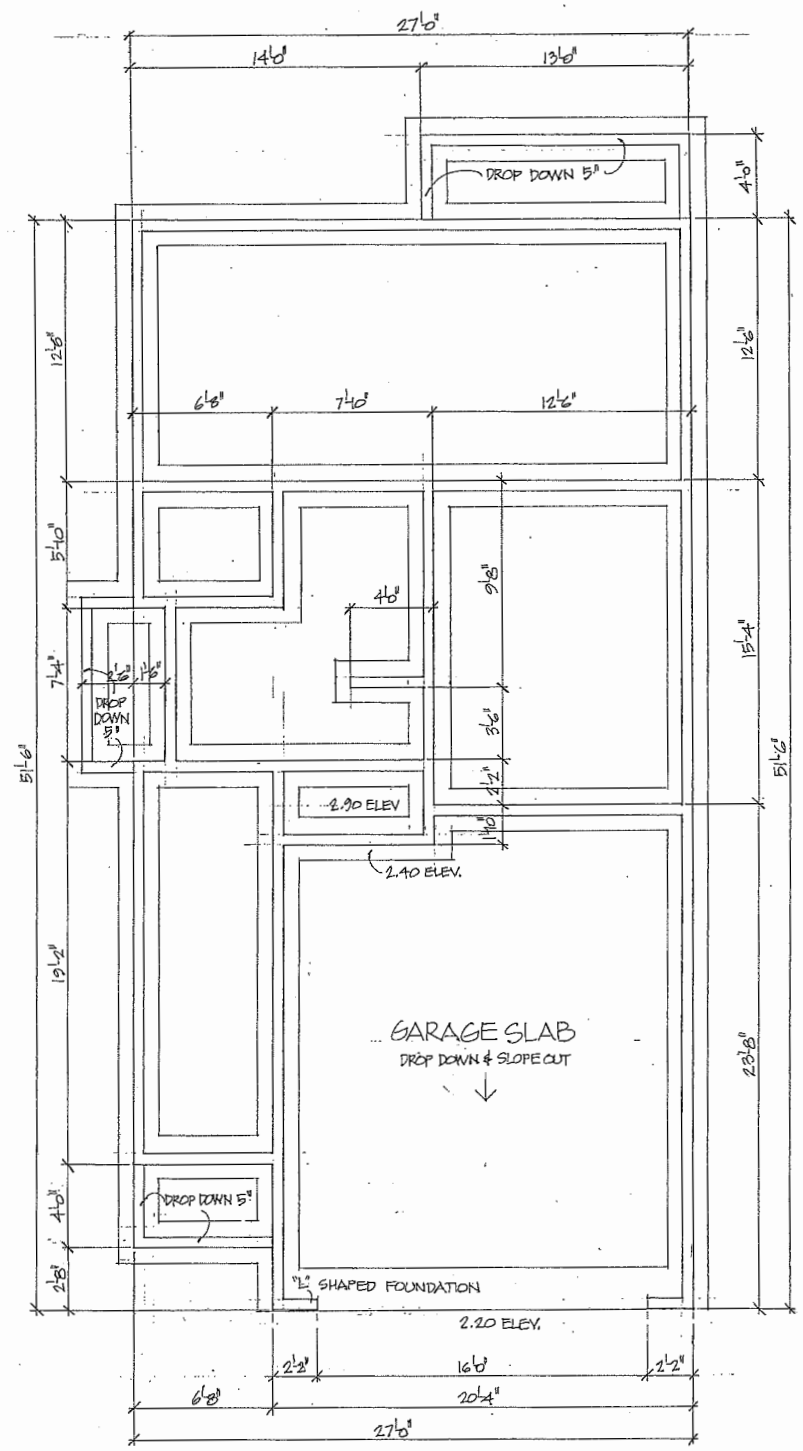
Plan 2 Dec 16, 2015
DV 15-708883



UPPER FLOOR PLAN TOTAL AREA 1251+
LESS STAIRS (-107+)
CALCULATED 1144+



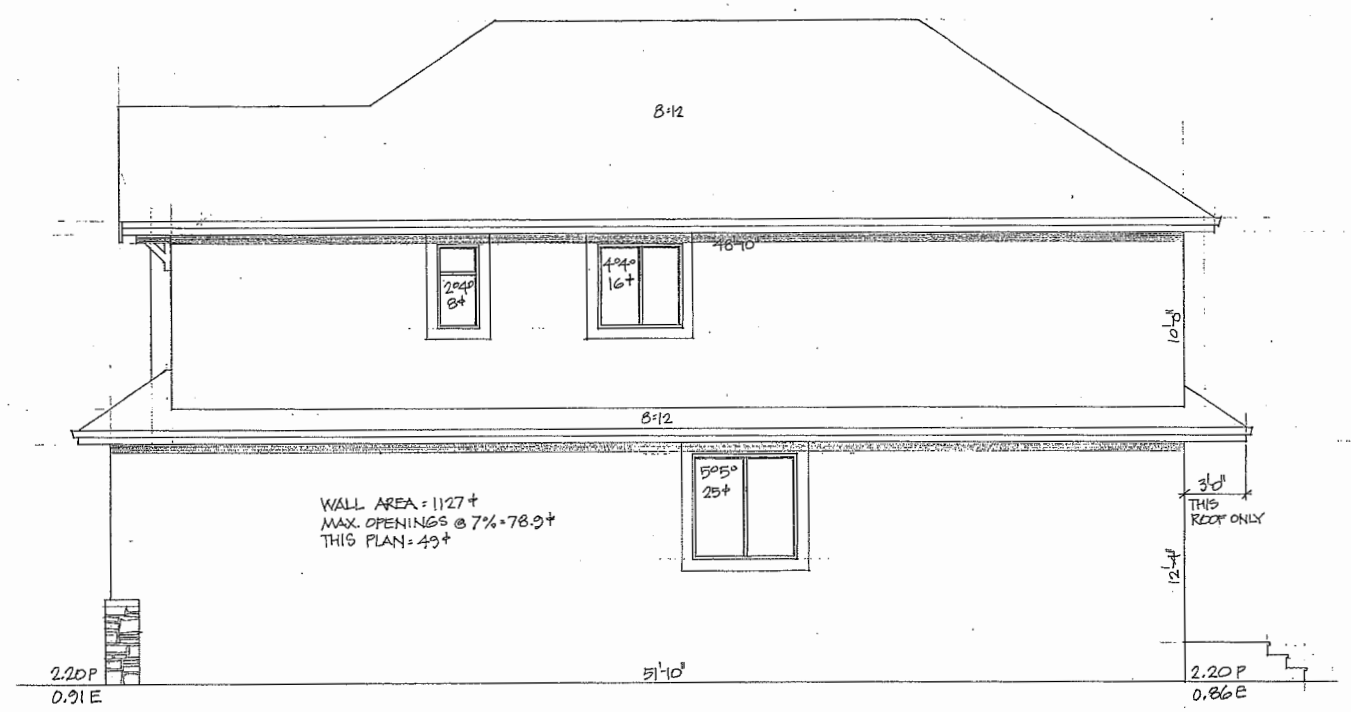
MAIN FLOOR PLAN FINISHED AREA 865+
GARAGE AREA 470+
COVERED AREA 42+
TOTAL 1377+



FOUNDATION PLAN
SCALE: 1/4"=1'0"

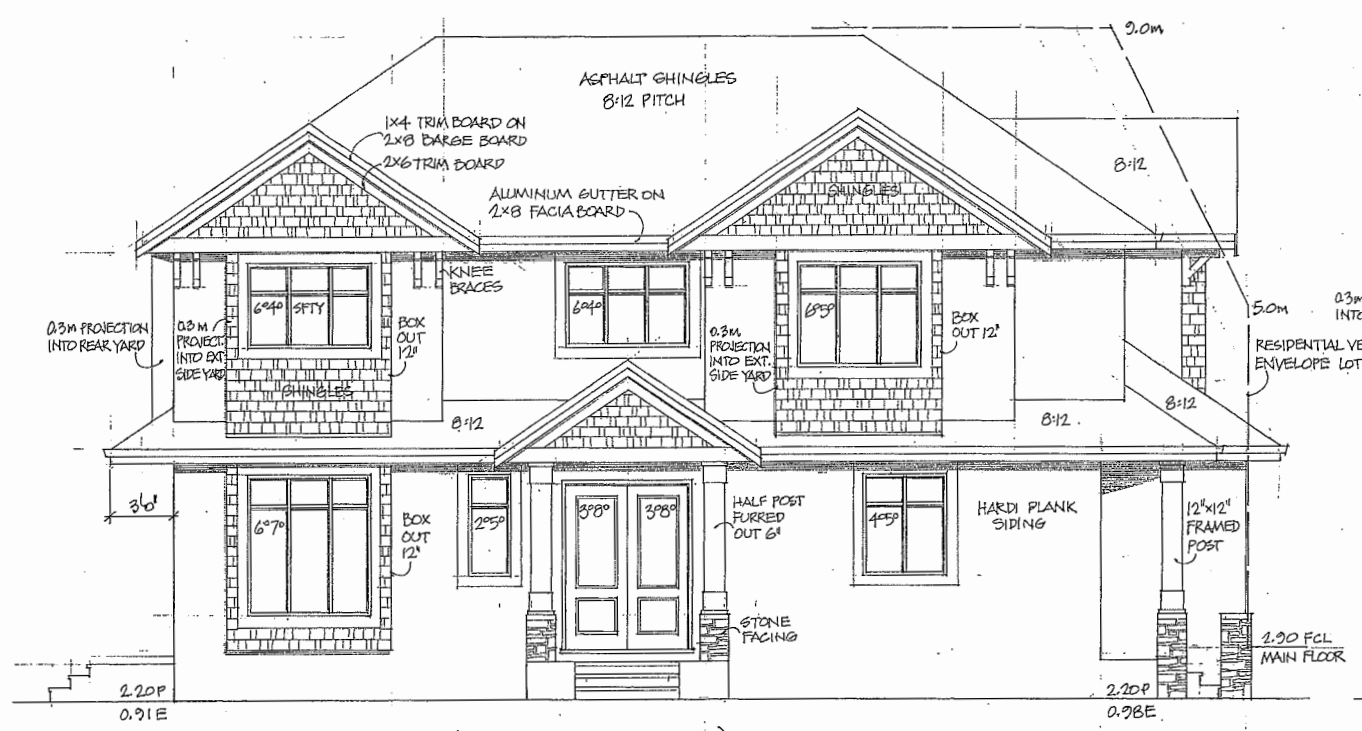
SHEET 2 OF 3

Plan 3 Dec 16, 2015
DV 15-708883

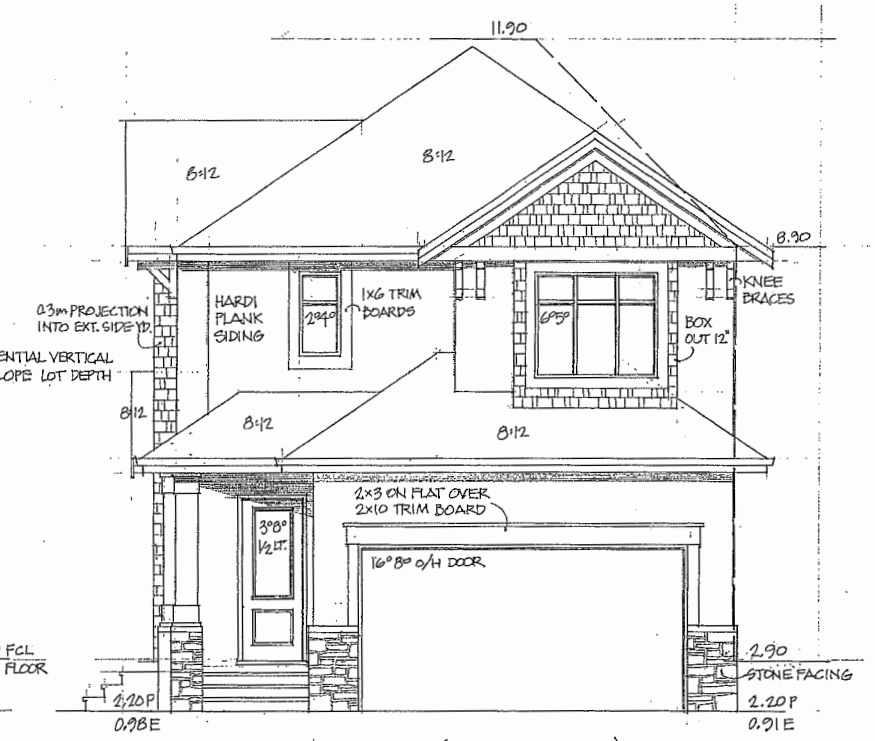


SOUTH ELEVATION

EAST ELEVATION

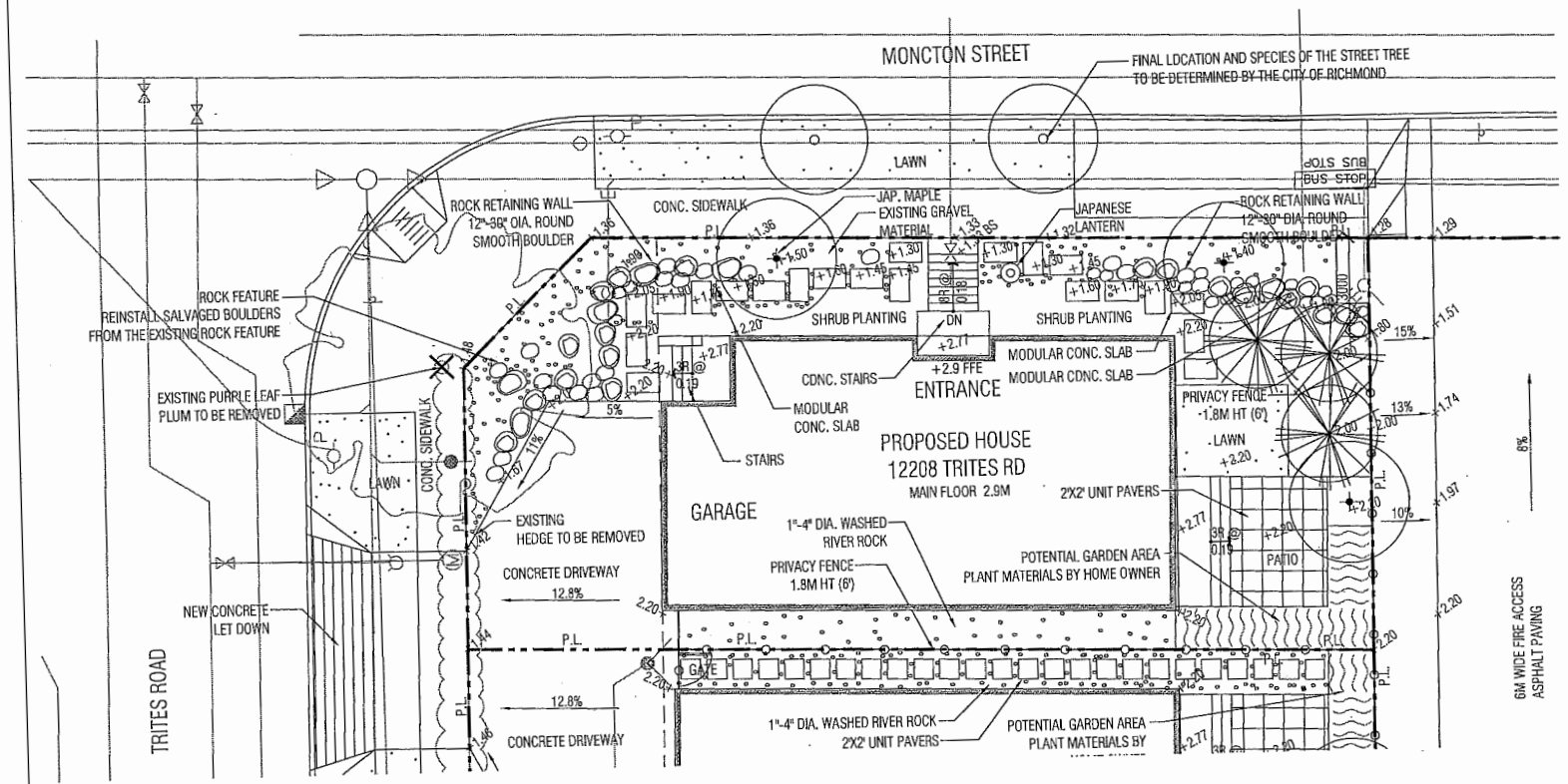


NORTH ELEVATION (MONCTON STREET)

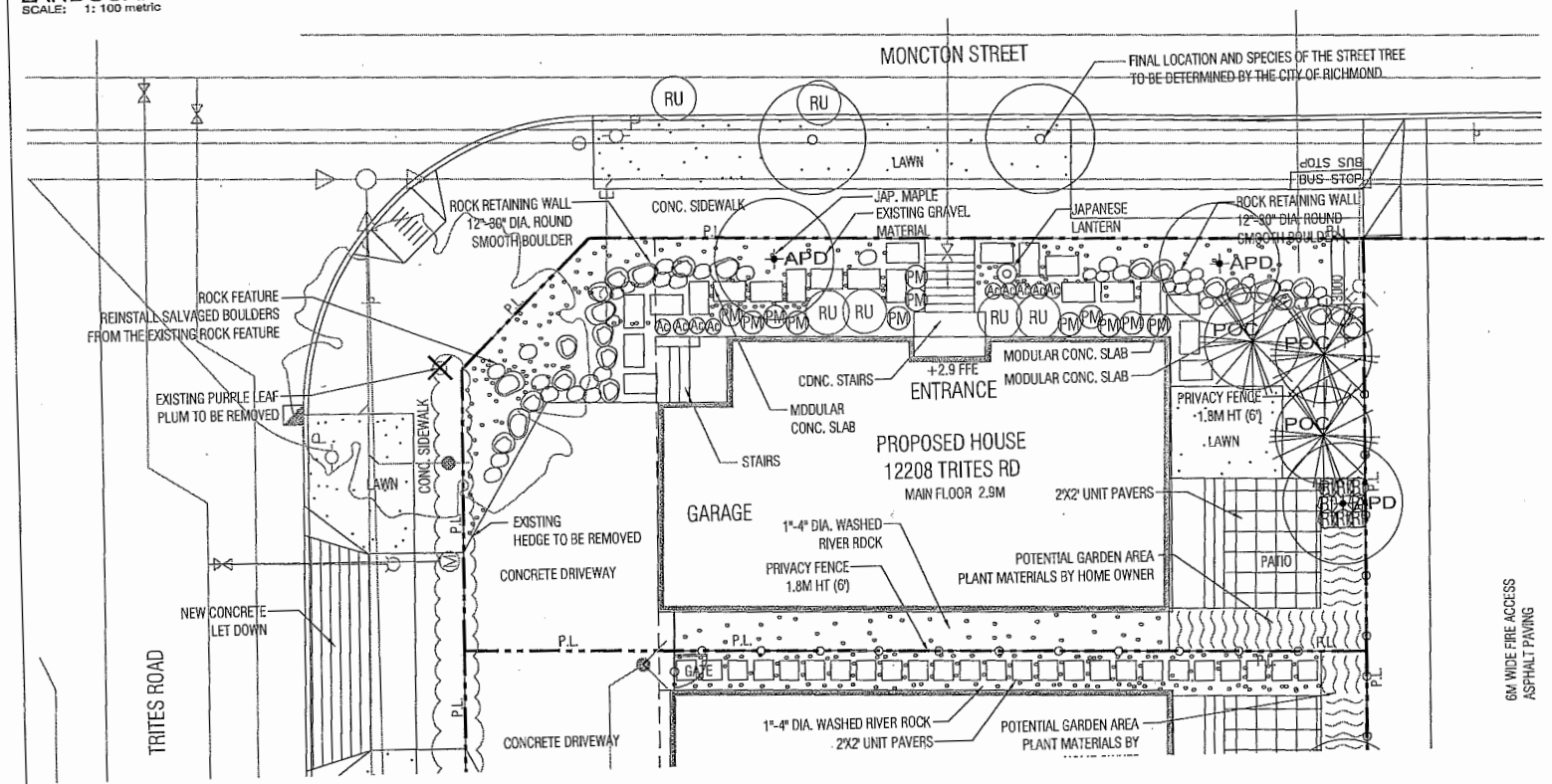


WEST ELEVATION (TRITES ROAD)
SCALE 1/4" = 1'0"

SHEET 3 OF 3



LANDSCAPE PLAN
SCALE: 1: 100 metric



PLANTING PLAN
SCALE: 1: 100 metric

GENERAL LANDSCAPE NOTES:

1. ALL LANDSCAPE MATERIAL SHALL MEET OR EXCEED STANDARDS REQUIRED BY BCLNA OR BCSLA GUIDELINES.
2. TOPSOIL SUPPLIED SHALL BE FROM A REPUTABLE SOURCE. A FULL ANALYSIS OF THE TOPSOIL WILL BE REQUIRED AT THE CONTRACTOR'S EXPENSE, SUBMIT TO LANDSCAPE CONSULTANT FOR APPROVAL.
3. AMEND TOPSOIL PER SOIL ANALYSIS RECOMMENDATIONS PRIOR TO SPREADING ON SITE. REJECTED TOPSOIL SHALL BE REMOVED OFF SITE IMMEDIATELY AT THE LANDSCAPE CONTRACTORS EXPENSE.
4. TOPSOIL DEPTHS FOR PLANTING AS FOLLOWS:
   A. GRASSED AREAS: 6" (150MM) ON GRADE
   B. GROUND COVERS: 12" (300MM)
   C. SHRUBS: 18" (450MM)
   D. TREE PITS: 36" (1000MM) WITH 12" (300MM) BELOW ROOT BALL
5. LAWN AREAS SHALL BE SODDED WITH #1 PREMIUM RESIDENTIAL SOD NON-MESHED.
6. 2" DEPTH OF 1" MINUS COMPOST MULCH TO BE INSTALLED IN ALL SHRUB PLANTING AREAS.
9. ROAD GRADING AND OVERALL SITE GRADING BY CIVIL ENGINEERING/OR ARCHITECTURAL.
10. NEW DRIVEWAY AND STREET LET DOWN BY OTHERS. SEE ARCH. OR CIVIL DWGS.

PLANT LIST:

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	COND.
APD	3	ACER PALMATUM	JAPANESE MAPLE	6CM CAL.	B & B
POC	3	PICEA OMORIKA	SERBIAN SPRUCE	3.0M HT.	B & B
PM	12	POLYSTICHUM MUNITEM	WESTERN SWORD FERN	#2	CONTAINER
RU	4	RHODODEDRON UNIQUE	UNIQUE RHODO.	#3	CONTAINER
AC	9	ASTILBE CHINENSIS 'VISIONS'	ASTILBE	#1	CONTAINER
RF	8	RUDBECKIA FULGIDA var 'GOLDSTRUM'	BLACK EYED SUSAN	#1	CONTAINER

NORTH

REVISIONS/ISSUED
1. OCT. 29/2015 ISSUED FOR D.P.
2. DEC. 01/2015 REISSUED FOR D.P.
3. DEC. 11/2015 REISSUED FOR D.P.

Plan 4 Dec 16, 2015
DV 15-708883

PROJECT
SINGLE FAMILY RESIDENTIAL
12208 TRITES ROAD, RICHMOND. B.C.
FOR: IMPERIAL SECURITY GROUP

MARUYAMA & ASSOCIATES 695 C, LEG IN BOOT SQUARE, VANCOUVER, B.C. V6Z-1B1A. PH: (604)-874-0927 FX: (604)-874-0931 EM: maruyamas@telus.net

MARUYAMA LANDSCAPE ARCHITECTS

DATE	AUG. 18, 2014
DESIGN	RMM
DRAWN	RMM
CHECKED	RMM
SCALE	1:100
JOB NO.	M14-12

SHEET TITLE
LANDSCAPE PLAN

SHEET NO.
L-1

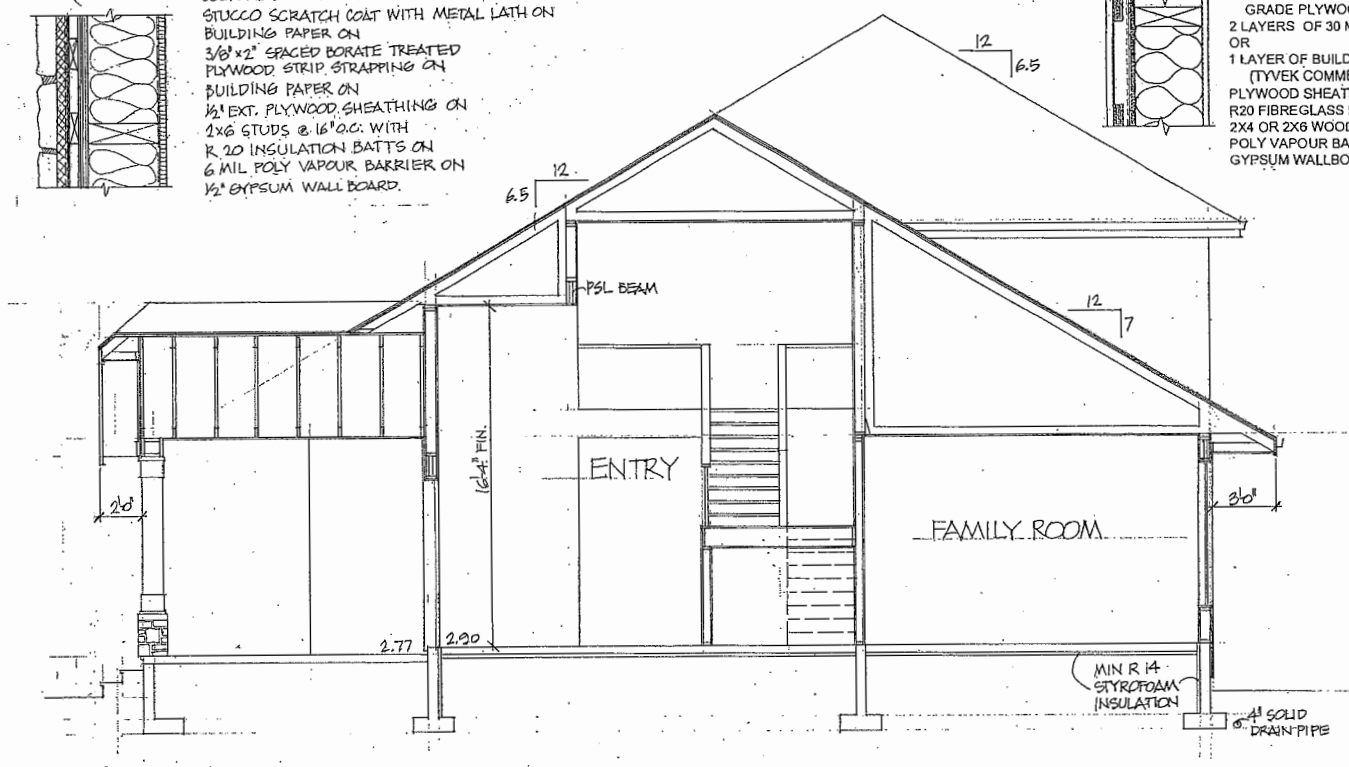
TYPICAL EXTERIOR WALL

WALL TYPE	DESCRIPTION
RAINSCREEN WALL	EXTERIOR CLADDING 3/4" x 2" OR 3/8"x 2" BORATE TREATED EXTERIOR GRADE PLYWOOD STRAPPING AT 8" OR 16" o.c. 2 LAYERS OF 30 MIN. RATED BUILDING PAPER OR 1 LAYER OF BUILDING PAPER (TYVEK COMMERCIAL WRAP) OR EQUIVALENT PLYWOOD SHEATHING R20 FIBREGLASS BATT INSULATION 2X4 OR 2X6 WOOD STUDS @ 16" o.c. POLY VAPOUR BARRIER GYPSUM WALLBOARD

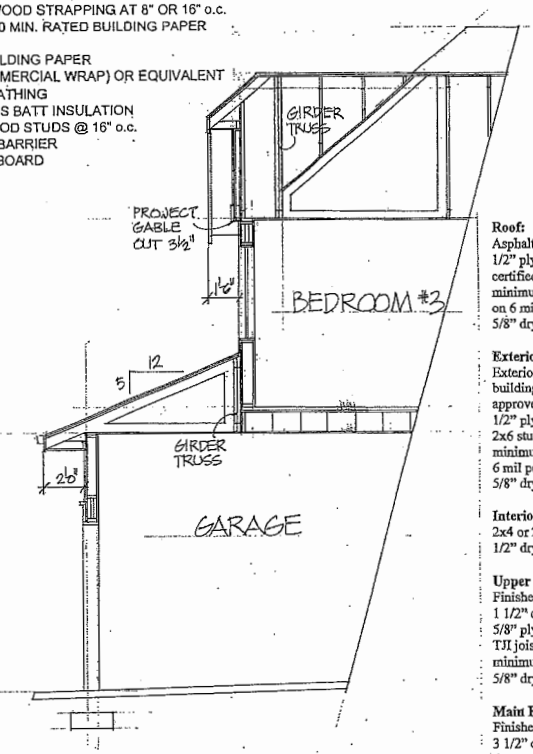
WALL SECTION
SCALE 1/4" = 1'0"

INSTALLATION DETAIL FOR CULTURED STONE FACING

CULTURED STONE WITH MORTARED JOINTS ON STUCCO SCRATCH COAT WITH METAL LATH ON BUILDING PAPER ON 3/8" x 2" SPACED BORATE TREATED PLYWOOD STRIP STRAPPING ON BUILDING PAPER ON 1/2" EXT. PLYWOOD SHEATHING ON 2x6 STUDS @ 16" O.C. WITH R 20 INSULATION BATTS ON 6 MIL POLY VAPOUR BARRIER ON 1/2" GYPSUM WALL BOARD.



SECTION A



SECTION B

Roof:
Asphalt shingles on 1/2" plywood sheathing on certified trusses @ 24" o.c. with minimum R 50 insulation on 6 mil poly vapour barrier on 5/8" drywall

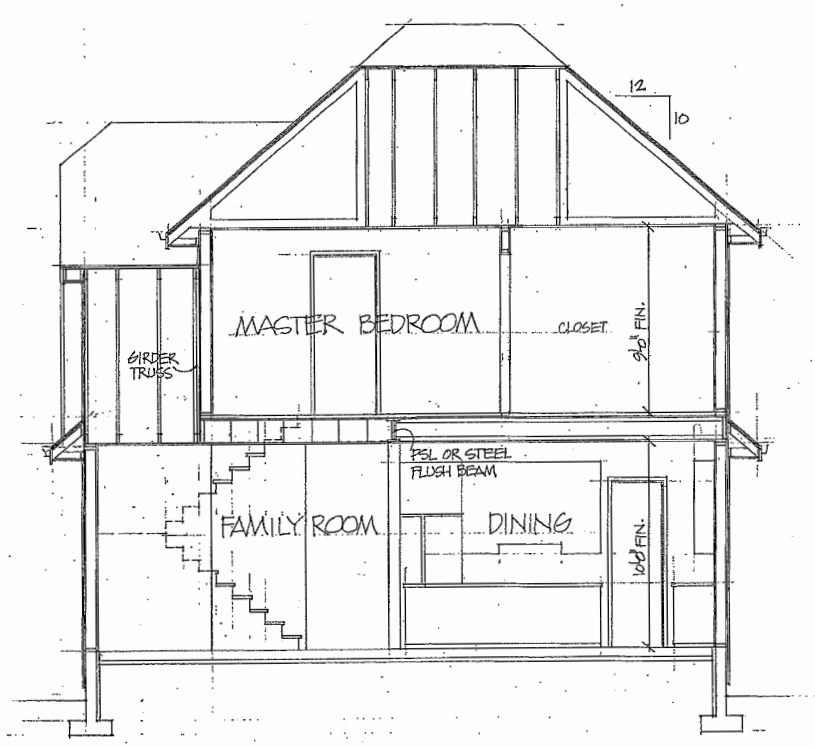
Exterior Walls:
Exterior siding on building paper applied using approved rain screen method on 1/2" plywood sheathing on 2x6 studs @ 16" o.c. with minimum R 20 insulation batts on 6 mil poly vapour barrier on 5/8" drywall

Interior Walls:
2x4 or 2x6 studs @ 16" o.c. with 1/2" drywall both sides

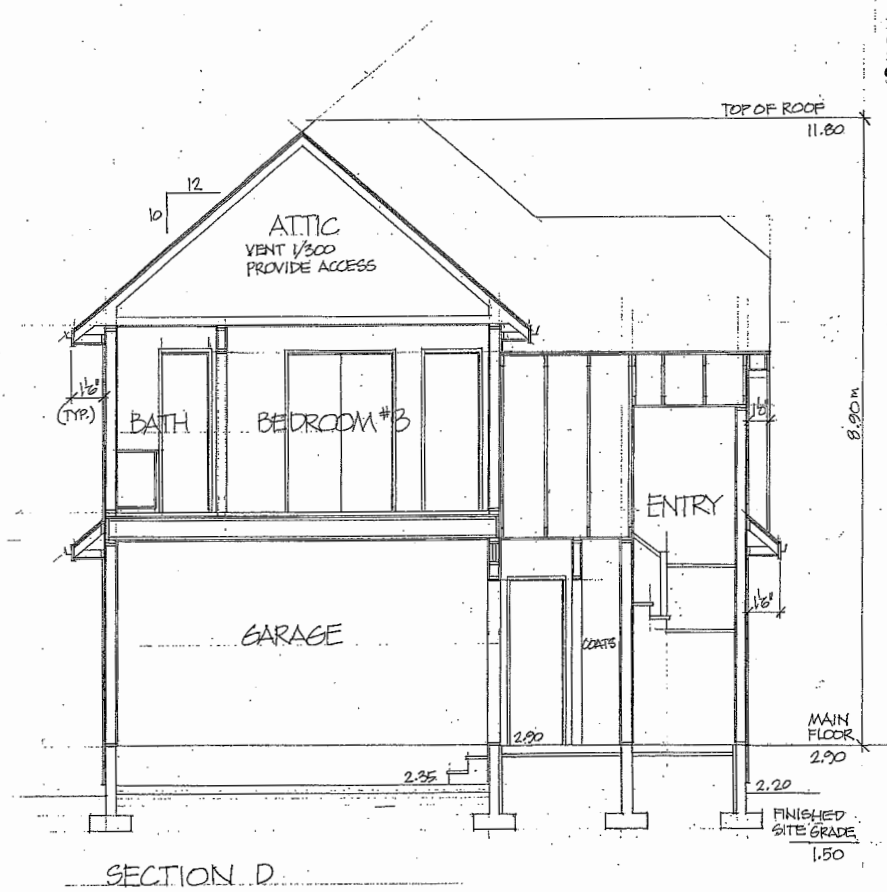
Upper Floor:
Finished floor on 1 1/2" concrete topping on 5/8" plywood sub floor on TJI joists to P. Eng. spec's with minimum R 12 insulation batts on 5/8" drywall

Main Floor:
Finished floor on 3 1/2" concrete slab with 6" x 6" w. w. mesh on 6 mil poly vapour barrier on minimum R14 styrofoam insulation on minimum 5" compacted sand or gravel

Foundation:
6" concrete wall minimum 12" high with 5/8" anchor bolts @ 4'-0" o.c. on 6"x24" continuous concrete footing



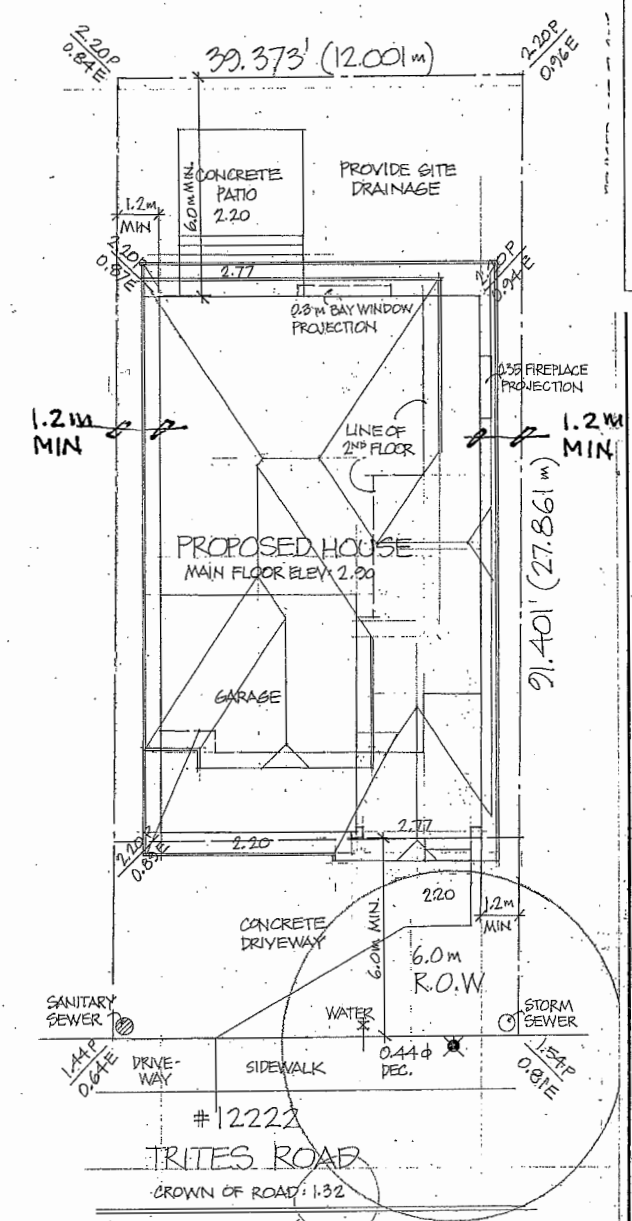
SECTION C

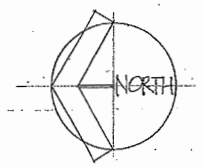


SECTION D
SCALE 1/4" = 1'0"

FINISHED SITE GRADE CALCULATION:

EXISTING LOT CORNERS	N/W	0.64
	S/W	0.81
	S/E	0.96
	N/E	0.84
PROPOSED BLDG CORNERS	N/W	2.20
	S/W	2.20
	S/E	2.20
	N/E	2.20
		12.05 ÷ 8 = 1.506





SITE PLAN
SCALE 1/8" = 1'0"

LEGAL DESCRIPTION:
LOT 2
SECTION 12 B3N R7W
PLAN EPP 50105

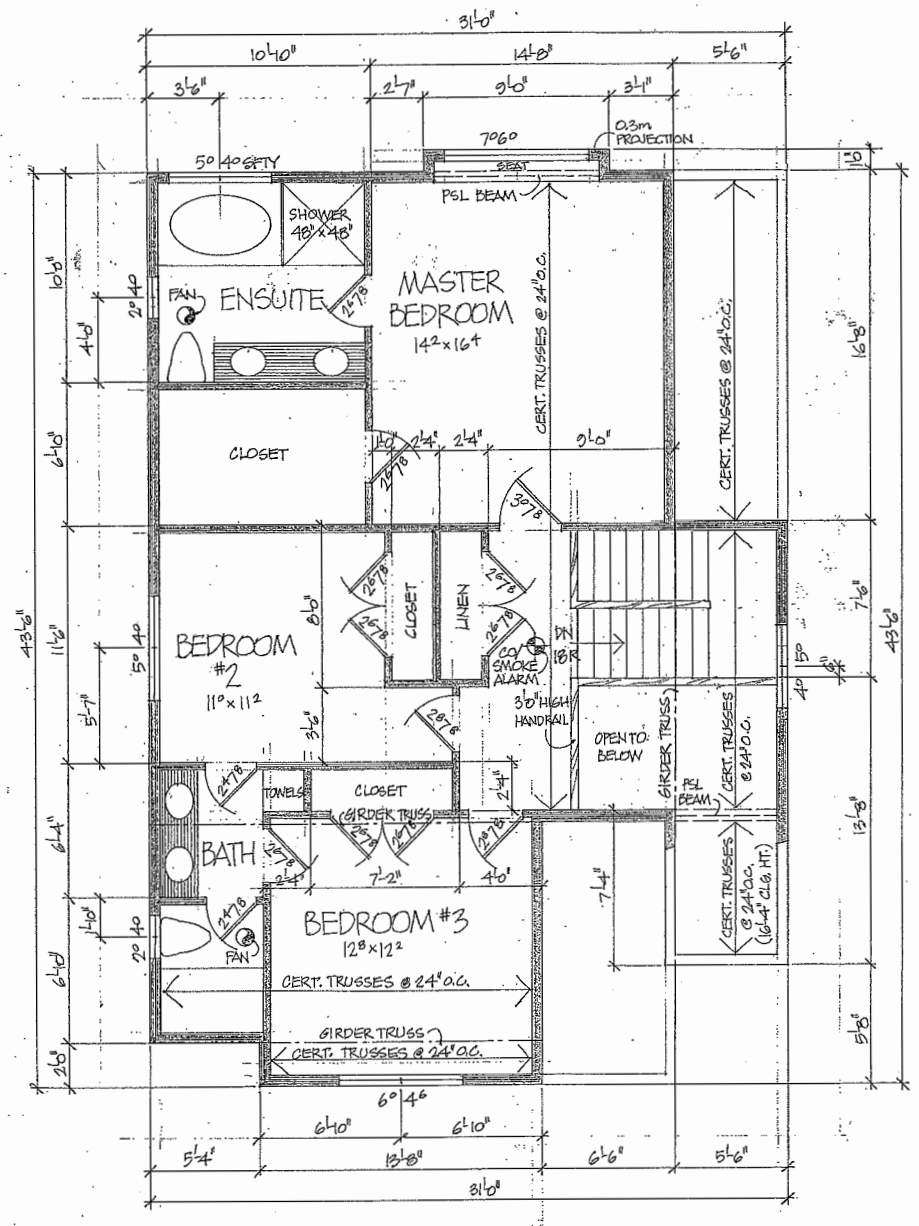
ANALYSIS:
LOT AREA: 3595.3+ (334.0 m²)
MAX SITE COV. @ 45% = 1617.9+ (150.3 m²)
THIS PLAN: 1616+ (150.1 m²)
MAX FLOOR AREA @ 55% = 1977.4+ (183.7 m²)
THIS PLAN = MAIN FLOOR 1032+
UPPER FLOOR 944+
TOTAL 1976+ (183.6 m²)
MAX. COVERED AREA: 197.7+ (18.4 m²)
THIS PLAN: 127+ (11.9 m²)
LANDSCAPED AREA:
FRONT YARD 273+
RIGHT SIDE 214+
REAR YARD 588+
LEFT SIDE 225+
TOTAL 1298+ (120.6 m²) 36%

Plan 5 Dec 16, 2015
DV 15-708883

TITLE: HOUSE FOR 0983101 B.C. LTD
AT # 12222 TRITES ROAD, RICHMOND B.C.

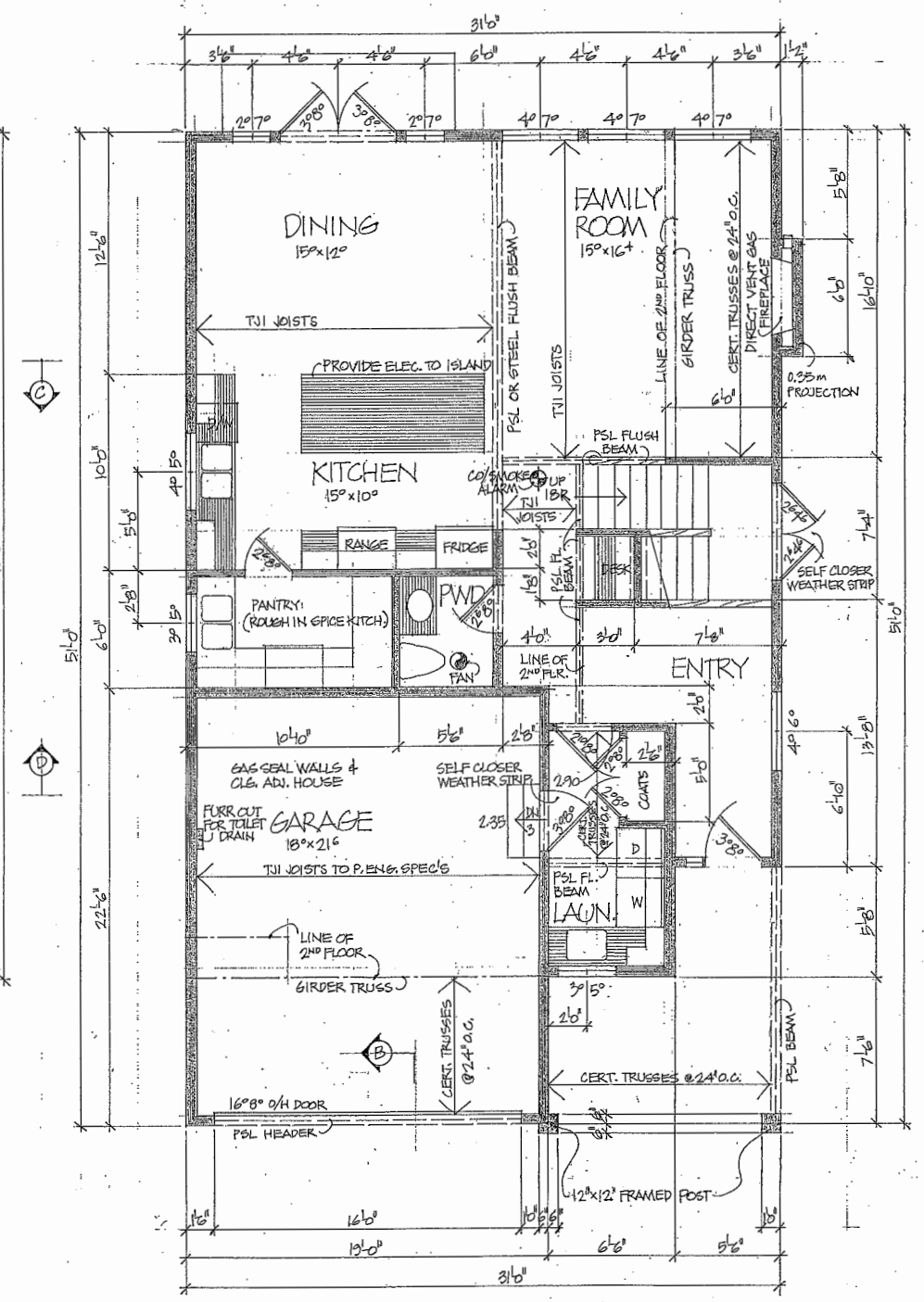
Lynde Designs ltd.
8171 Cheyenish Road
Richmond, B.C.
V7C 2E9
(604) 272-8085

Plan 6 Dec 16, 2015
DV 15-708883



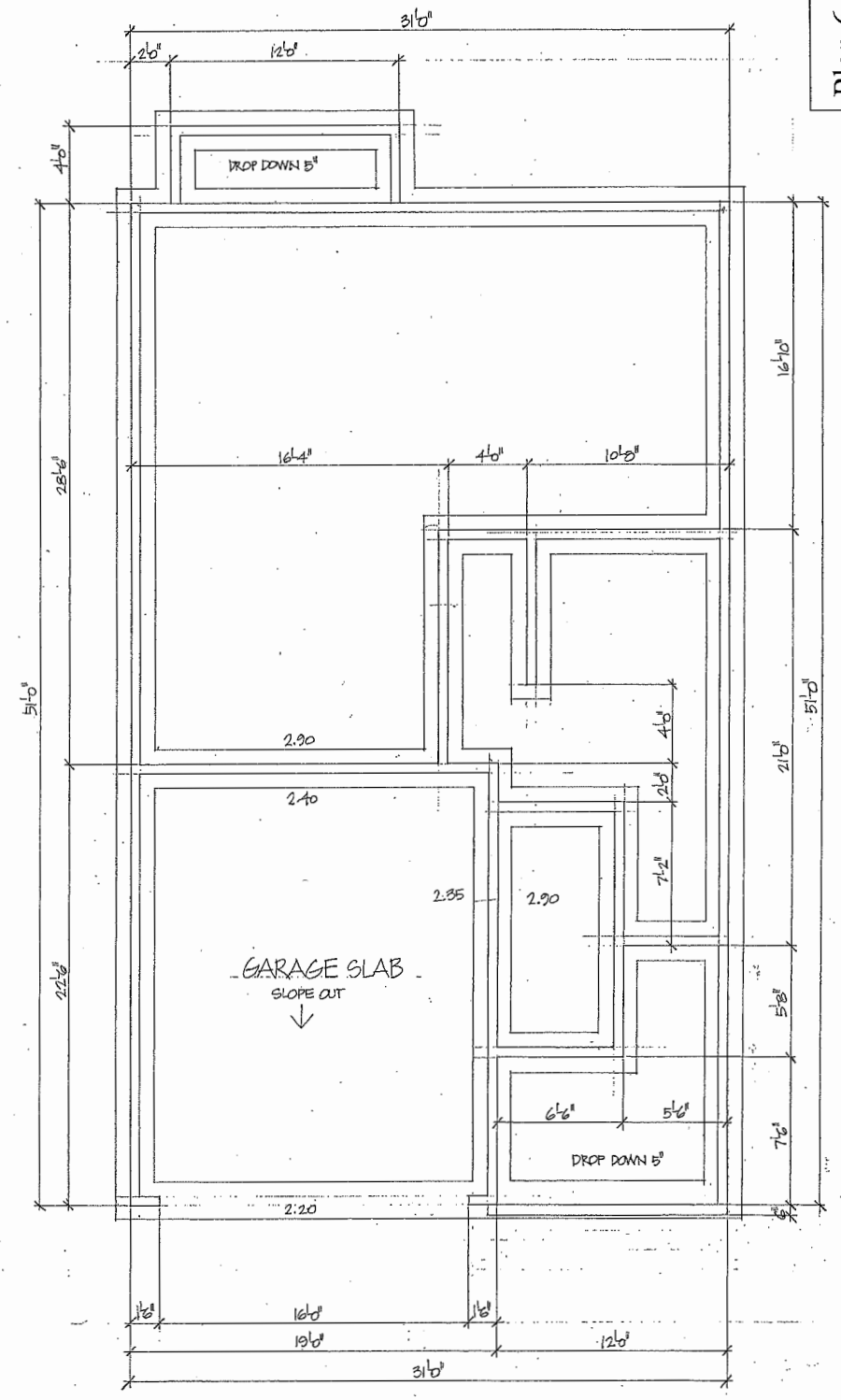
UPPER FLOOR PLAN

TOTAL AREA:	1137 ft
LESS STAIRS:	(-107 ft)
LESS CLG ≤ 5m:	(-24 ft)
CALCULATED:	946 ft



MAIN FLOOR PLAN

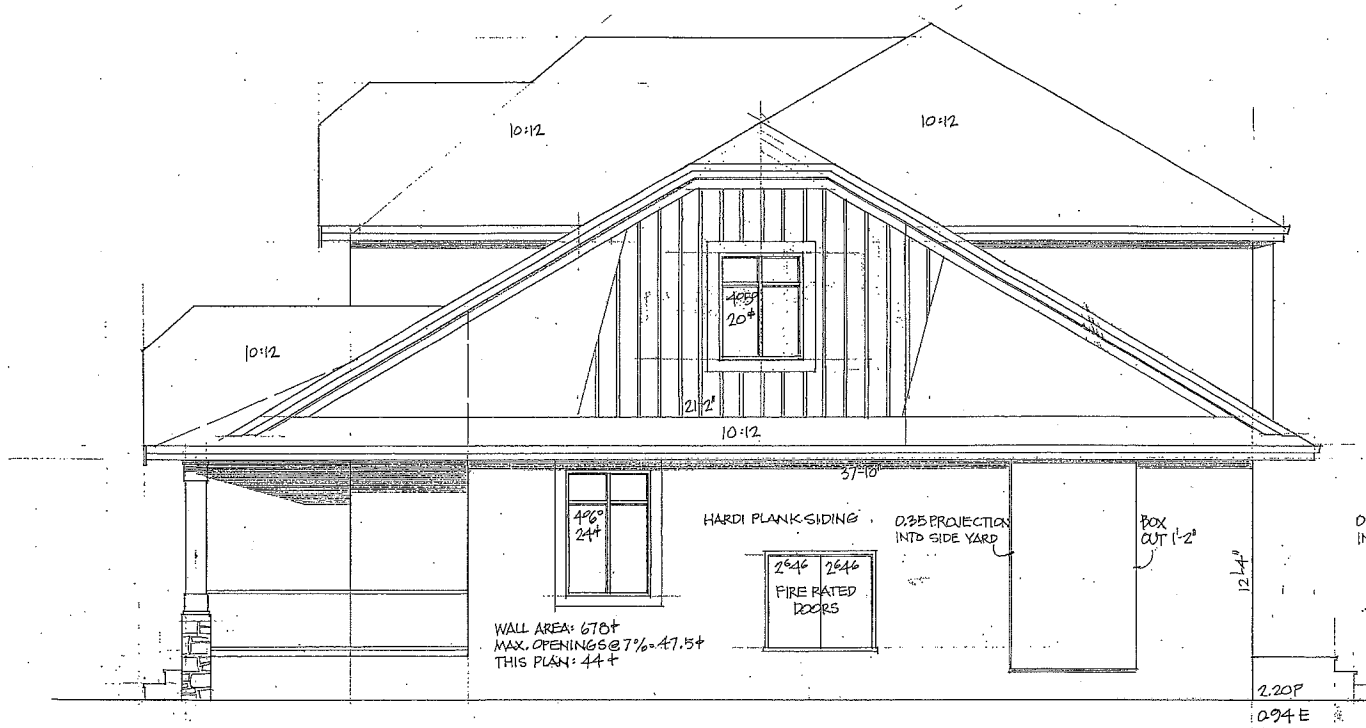
FINISHED AREA	1032 ft
GARAGE AREA	427 ft
COVERED AREA	128 ft
TOTAL SITE COV.	1587 ft



FOUNDATION PLAN
SCALE 1/4" = 1'-0"

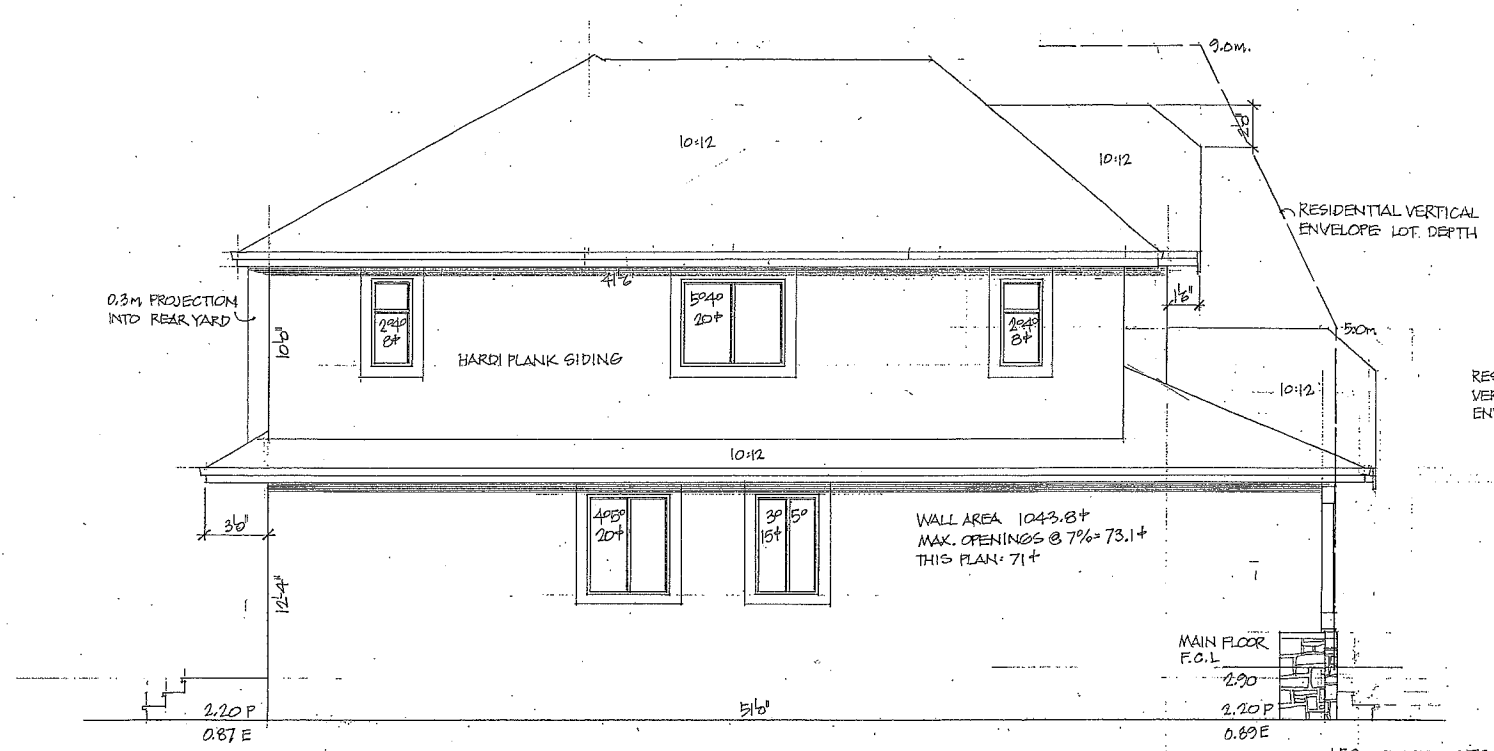
SHEET 2 OF 3
15-25

Plan 7 Dec 16, 2015
DV 15-708883

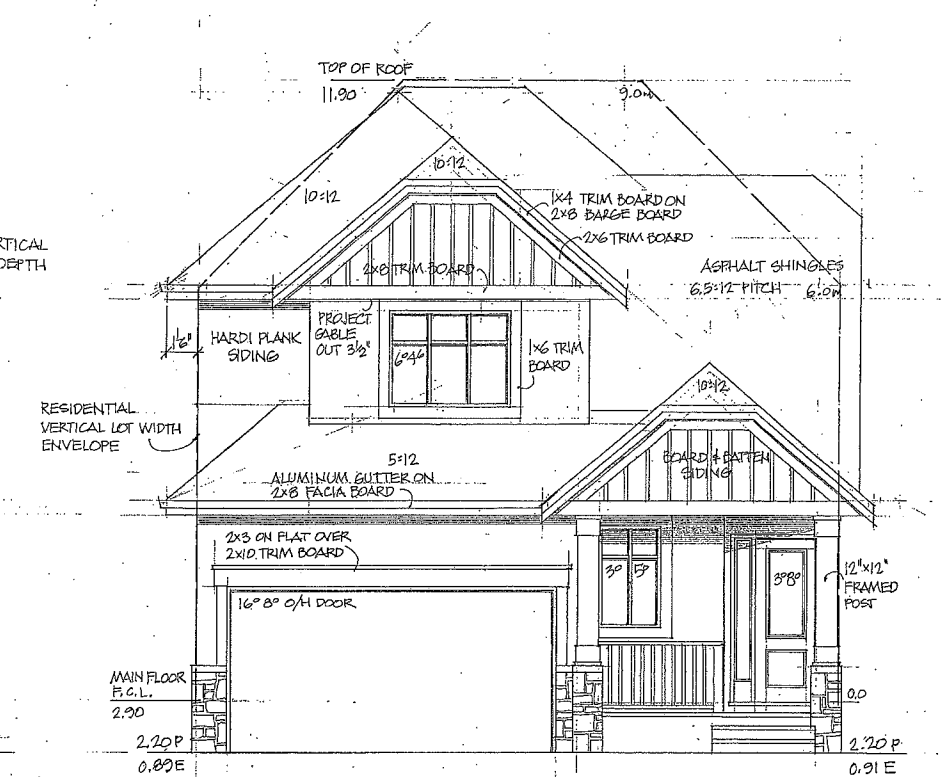


RIGHT SIDE ELEVATION

REAR ELEVATION



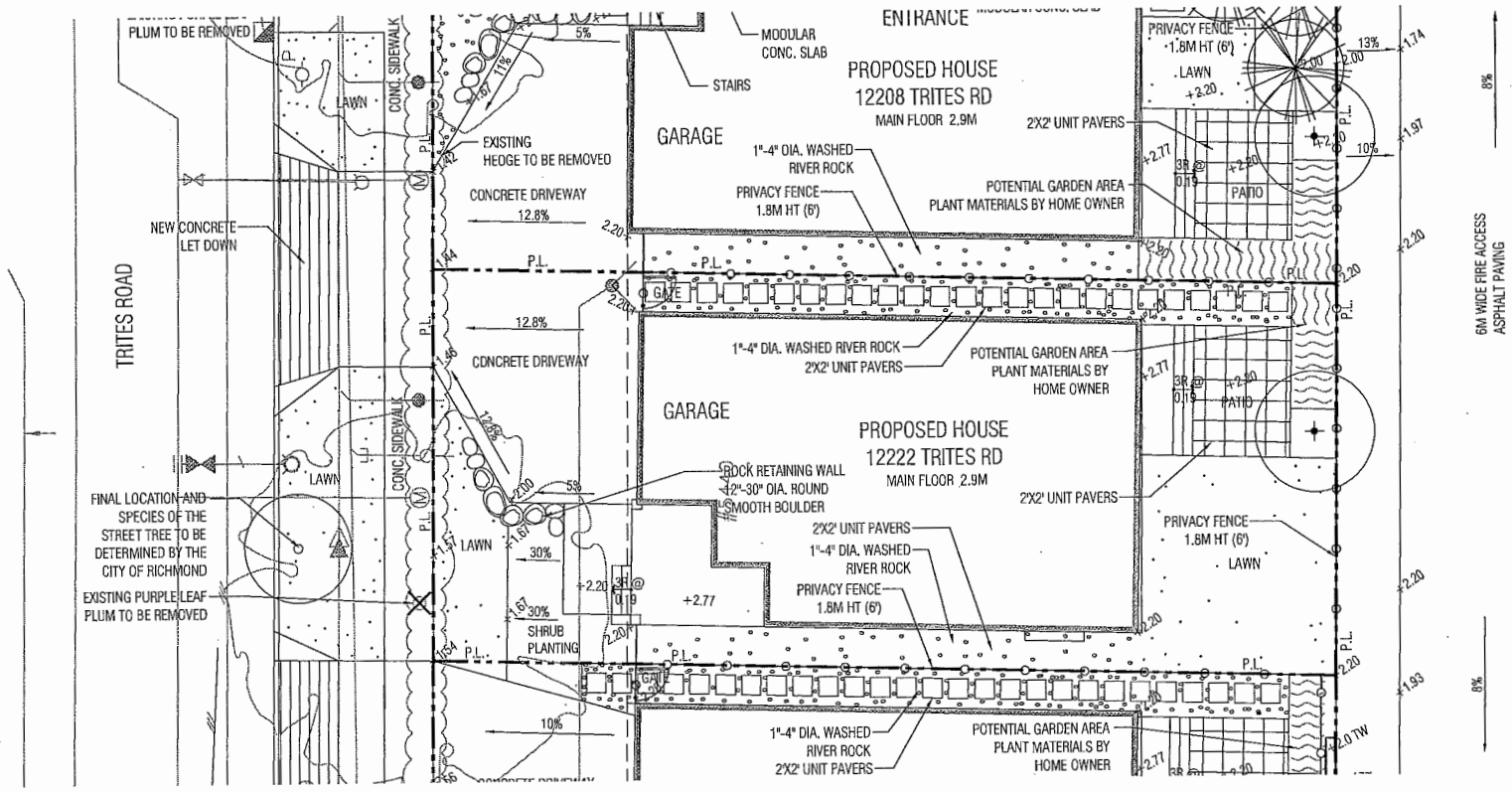
LEFT SIDE ELEVATION



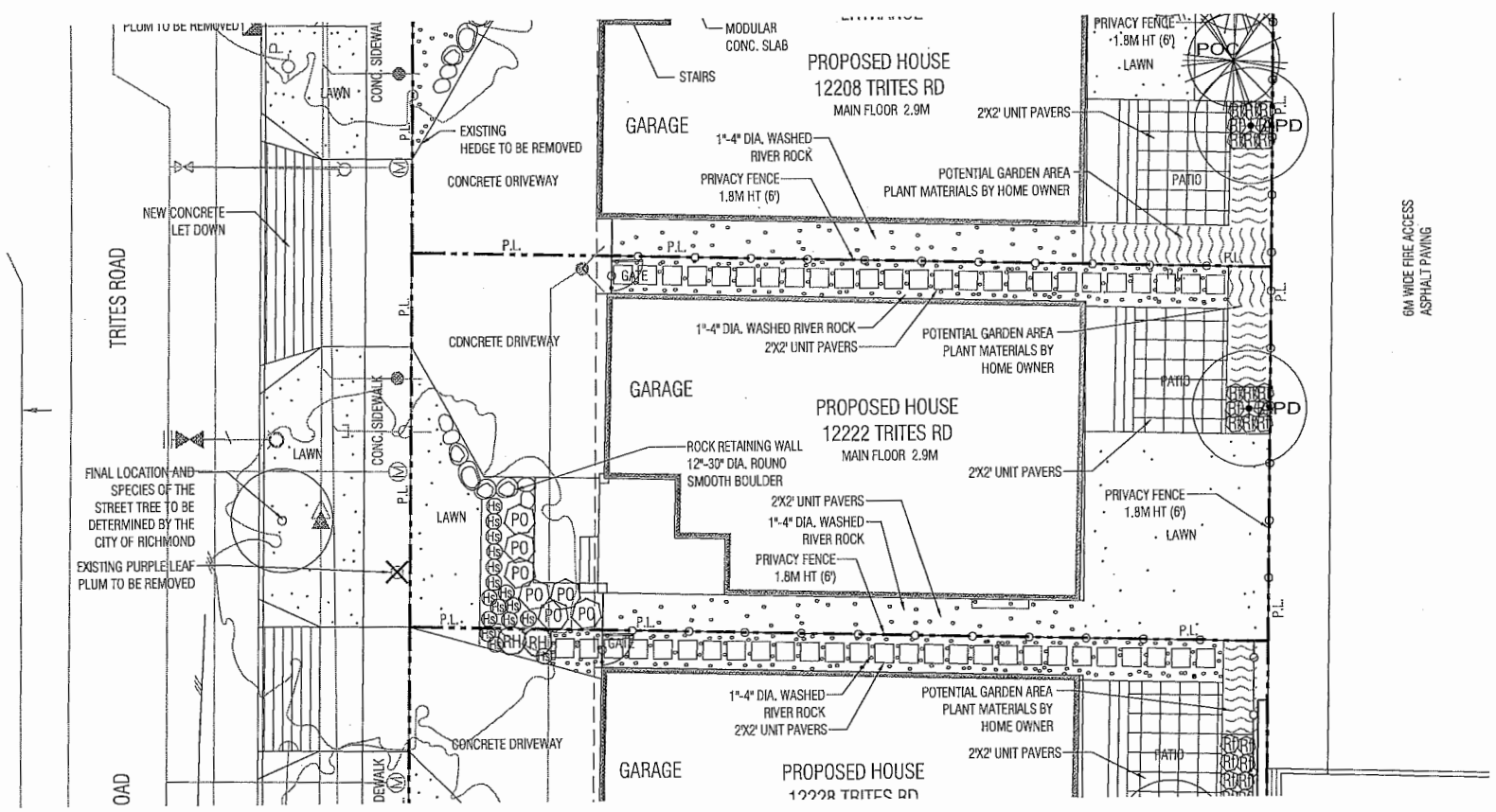
1.50 FINISHED SITE GRADE 1.50

FRONT ELEVATION
SCALE 1/4" = 1'0"

SHEET 3 OF 3
15-25



LANDSCAPE PLAN
SCALE: 1:100 metric



PLANTING PLAN
SCALE: 1:100 metric

GENERAL LANDSCAPE NOTES:

1. ALL LANDSCAPE MATERIAL SHALL MEET OR EXCEED STANDARDS REQUIRED BY BCLNA OR BCSLA GUIDELINES.
2. TOPSOIL SUPPLIED SHALL BE FROM A REPUTABLE SOURCE. A FULL ANALYSIS OF THE TOPSOIL WILL BE REQUIRED AT THE CONTRACTOR'S EXPENSE, SUBMIT TO LANDSCAPE CONSULTANT FOR APPROVAL.
3. AMEND TOPSOIL PER SOIL ANALYSIS RECOMMENDATIONS PRIOR TO SPREADING ON SITE. REJECTED TOPSOIL SHALL BE REMOVED OFF SITE IMMEDIATELY AT THE LANDSCAPE CONTRACTORS EXPENSE.
4. TOPSOIL DEPTHS FOR PLANTING AS FOLLOWS:
   A. GRASSED AREAS: 6" (150MM) ON GRADE
   B. GROUND COVERS: 12" (300MM)
   C. SHRUBS: 18" (450MM)
   D. TREE PITS: 36" (1000MM) WITH 12" (300MM) BELOW ROOT BALL
5. LAWN AREAS SHALL BE SODDED WITH #1 PREMIUM RESIDENTIAL SOD NON-MESHED.
6. 2" DEPTH OF 1" MINUS COMPOST MULCH TO BE INSTALLED IN ALL SHRUB PLANTING AREAS.
9. ROAD GRADING AND OVERALL SITE GRADING BY CIVIL ENGINEERING/OR ARCHITECTURAL.
10. NEW DRIVEWAY AND STREET LET DOWN BY OTHERS. SEE ARCH. OR CIVIL DWGS.

PLANT LIST:

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	COND.
APD	1	ACER PALMATUM	JAPANESE MAPLE	6CM CAL.	B & B
PO	7	PRUNUS L. OTTO LUYKENS	OTTO LUYKEN LAUREL	#3	CONTAINER
HS	13	HEMEROCALIS STELLA D'ORO	DAY LILY	#1	CONTAINER
RF	8	RUDBECKIA FULGIDA var 'GOLDSTRUM'	BLACK EYED SUSAN	#1	CONTAINER

NORTH

REVISIONS/ISSUED
1. OCT. 22/ 2015 ISSUED FOR D.P.

Plan 8 Dec 16, 2015
DV 15-708883

PROJECT
SINGLE FAMILY RESIDENTIAL
12222 TRITES ROAD, RICHMOND. B.C.
FOR: IMPERIAL SECURITY GROUP

MARUYAMA & ASSOCIATES 680 C, LEG IN BOOT SQUARE, VANCOUVER, B.C. V6Z-4B4, PH: (604)-874-0931 FX: (604)-874-0937 EM: maruyamas@telus.net

MARUYAMA LANDSCAPE ARCHITECTS

DATE	AUG. 12, 2014
DESIGN	RMM
DRAWN	RMM
CHECKED	RMM
SCALE	1:100
JOB NO.	M1412

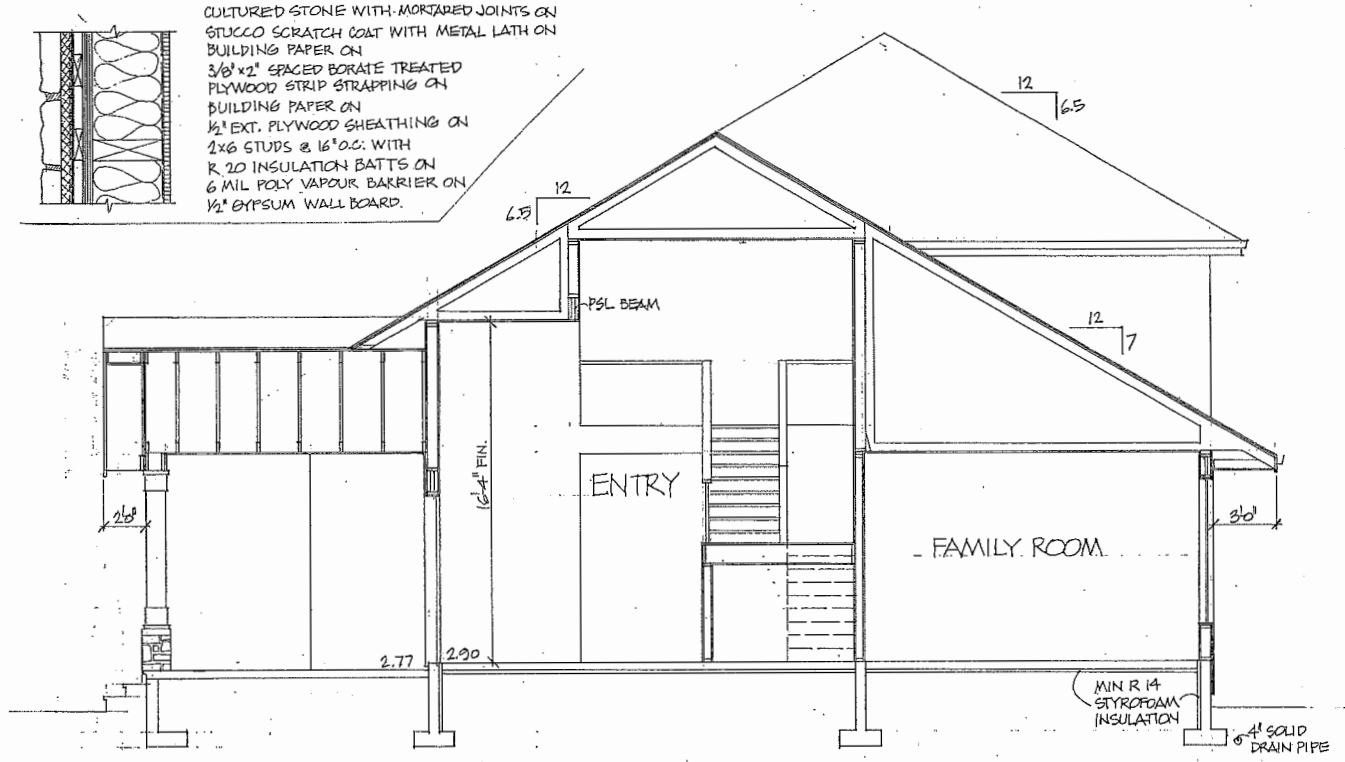
SHEET TITLE
LANDSCAPE PLAN

SHEET NO.
L-1

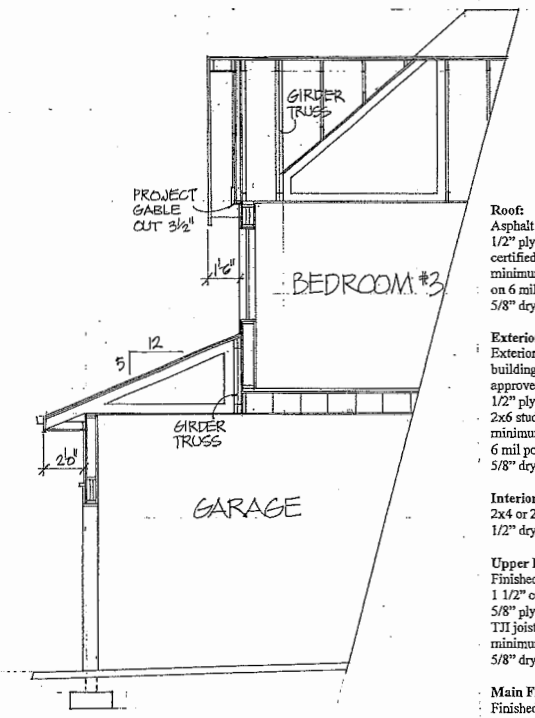
WALL SECTION
SCALE: 1" = 1'0"

INSTALLATION DETAIL FOR CULTURED STONE FACING

CULTURED STONE WITH MORTARED JOINTS ON
STUCCO SCRATCH COAT WITH METAL LATH ON
BUILDING PAPER ON
3/8" x 2" SPACED BORATE TREATED
PLYWOOD STRIP STRAPPING ON
BUILDING PAPER ON
1/2" EXT. PLYWOOD SHEATHING ON
2x6 STUDS @ 16" O.C. WITH
R 20 INSULATION BATTS ON
6 MIL POLY VAPOUR BARRIER ON
1/2" GYPSUM WALL BOARD.



SECTION A



SECTION B

Roof:
Asphalt shingles on
1/2" plywood sheathing on
certified trusses @ 24" o.c. with
minimum R 50 insulation
on 6 mil poly vapour barrier on
5/8" drywall

Exterior Walls:
Exterior siding on
building paper applied using
approved rain screen method on
1/2" plywood sheathing on
2x6 studs @ 16" o.c. with
minimum R 20 insulation batts on
6 mil poly vapour barrier on
5/8" drywall

Interior Walls:
2x4 or 2x6 studs @ 16" o.c. with
1/2" drywall both sides

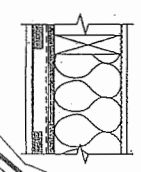
Upper Floor:
Finished floor on
1 1/2" concrete topping on
5/8" plywood sub floor on
TJI Joists to P. Eng. spec's with
minimum R 12 insulation batts on
5/8" drywall

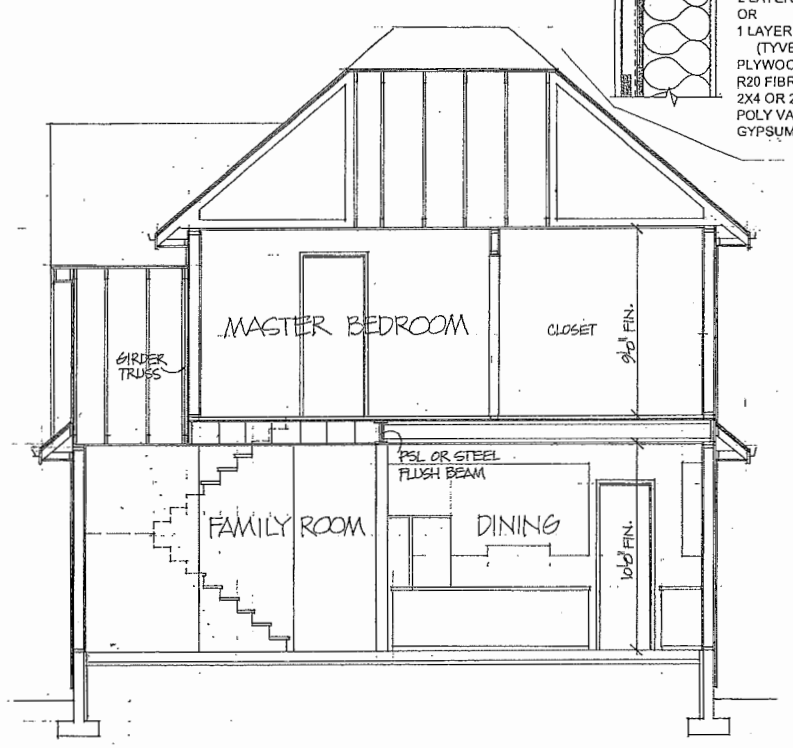
Main Floor:
Finished floor on
3 1/2" concrete slab with
6" x 6" w. w. mesh on
6 mil poly vapour barrier on
minimum R14 styrofoam insulation on
minimum 5" compacted sand or gravel

Foundation:
6" concrete wall minimum 12" high with
5/8" anchor bolts @ 4'-0" o.c. on
8"x24" continuous concrete footing

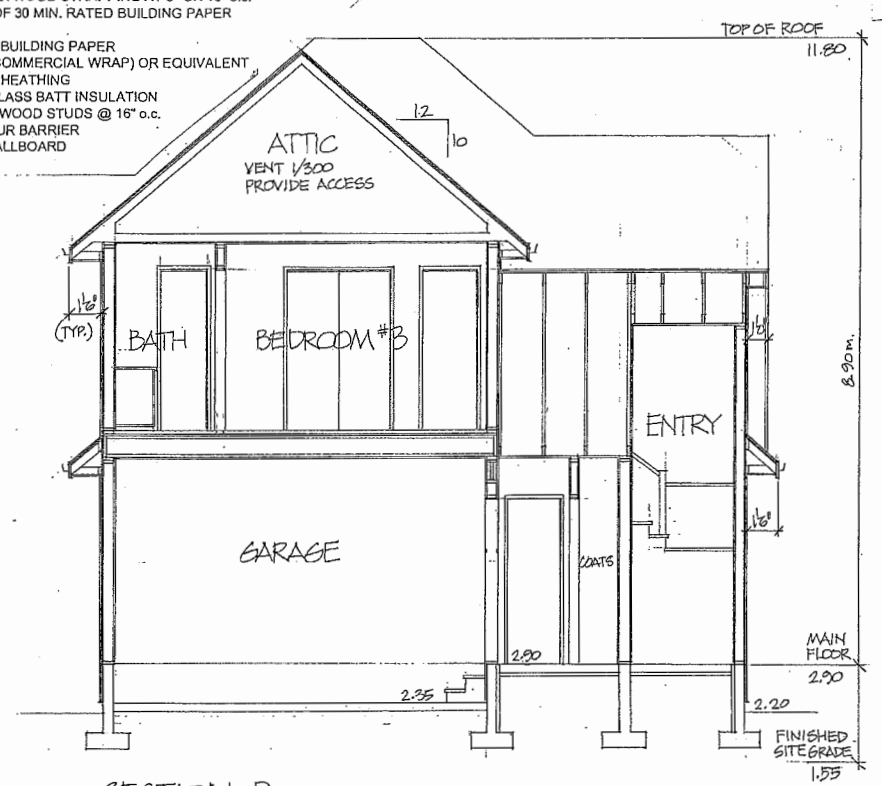
TYPICAL EXTERIOR WALL

WALL TYPE	DESCRIPTION
	RAINSCREEN WALL
	EXTERIOR CLADDING
	3/4" x 2" OR 3/8"x 2" BORATE TREATED EXTERIOR GRADE PLYWOOD STRAPPING AT 8" OR 16" o.c.
	2 LAYERS OF 30 MIN. RATED BUILDING PAPER
	OR
	1 LAYER OF BUILDING PAPER (TYVEK COMMERCIAL WRAP) OR EQUIVALENT
	PLYWOOD SHEATHING
	R20 FIBREGLASS BATT INSULATION
	2X4 OR 2X6 WOOD STUDS @ 16" o.c.
	POLY VAPOUR BARRIER
	GYPSUM WALLBOARD

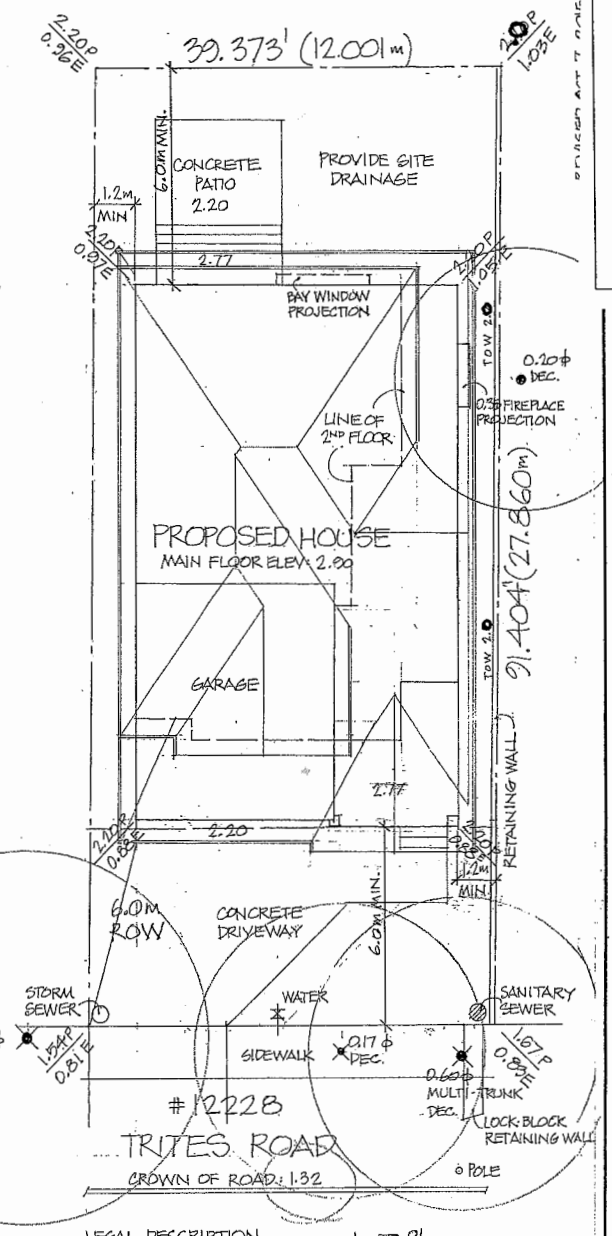




SECTION C



SECTION D
SCALE 1/4" = 1'0"



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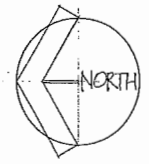


SITE PLAN
SCALE 1/8" = 1'0"

LEGAL DESCRIPTION
LOT 3
SECTION 12 B3N R7W
PLAN EPP 30105

ANALYSIS:
LOT AREA: 3595.3+ (334.0m²)
MAX SITE COV. @ 45% = 1617.9+ (150.3m²)
THIS PLAN: 1616+ (150.1m²)
MAX FLOOR AREA @ 55% = 1977.4+ (183.7m²)
THIS PLAN = MAIN FLOOR 1032+
UPPER FLOOR 944+
TOTAL 1976+ (183.6m²)

MAX. COVERED AREA: 197.7+ (18.4m²)
THIS PLAN: 128+ (11.9m²)

LANDSCAPED AREA:
FRONT YARD 273+
RIGHT SIDE 214+
REAR YARD 588+
LEFT SIDE 223+
TOTAL 1298+ (120.6m²) 36%

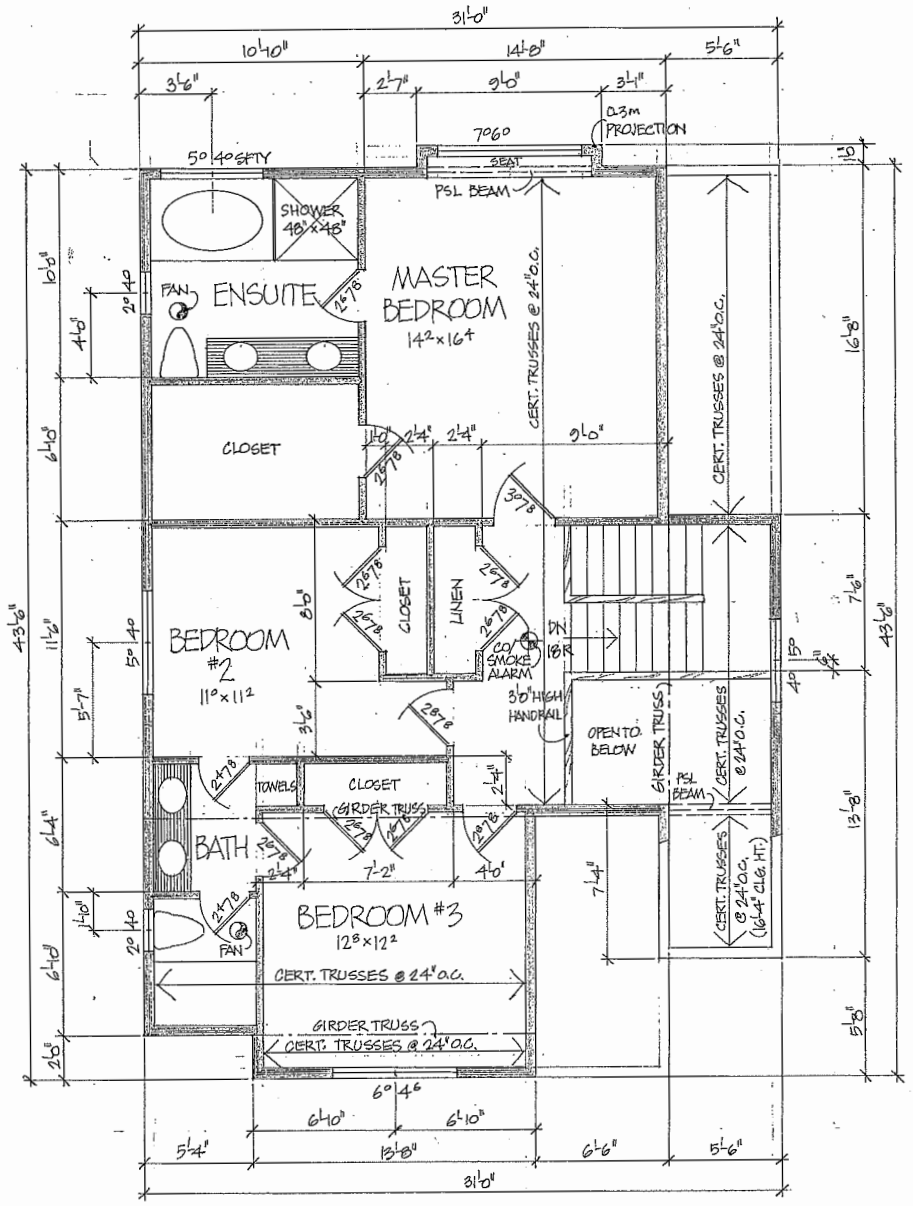
FINISHED SITE GRADE CALCULATIONS:
EXISTING LOT CORNERS: N/W 0.81
S/W 0.83
S/E 1.03
N/E 0.96
PROPOSED BLDG. CORNERS N/W 2.20
S/W 2.20
S/E 2.20
N/E 2.20
12.43 ÷ 8 = 1.55

Plan 9 Dec 16, 2015
DV 15-708883

TITLE: HOUSE FOR 0983101 B.C. LTD
AT # 12228 TRITES ROAD, RICHMOND B.C.

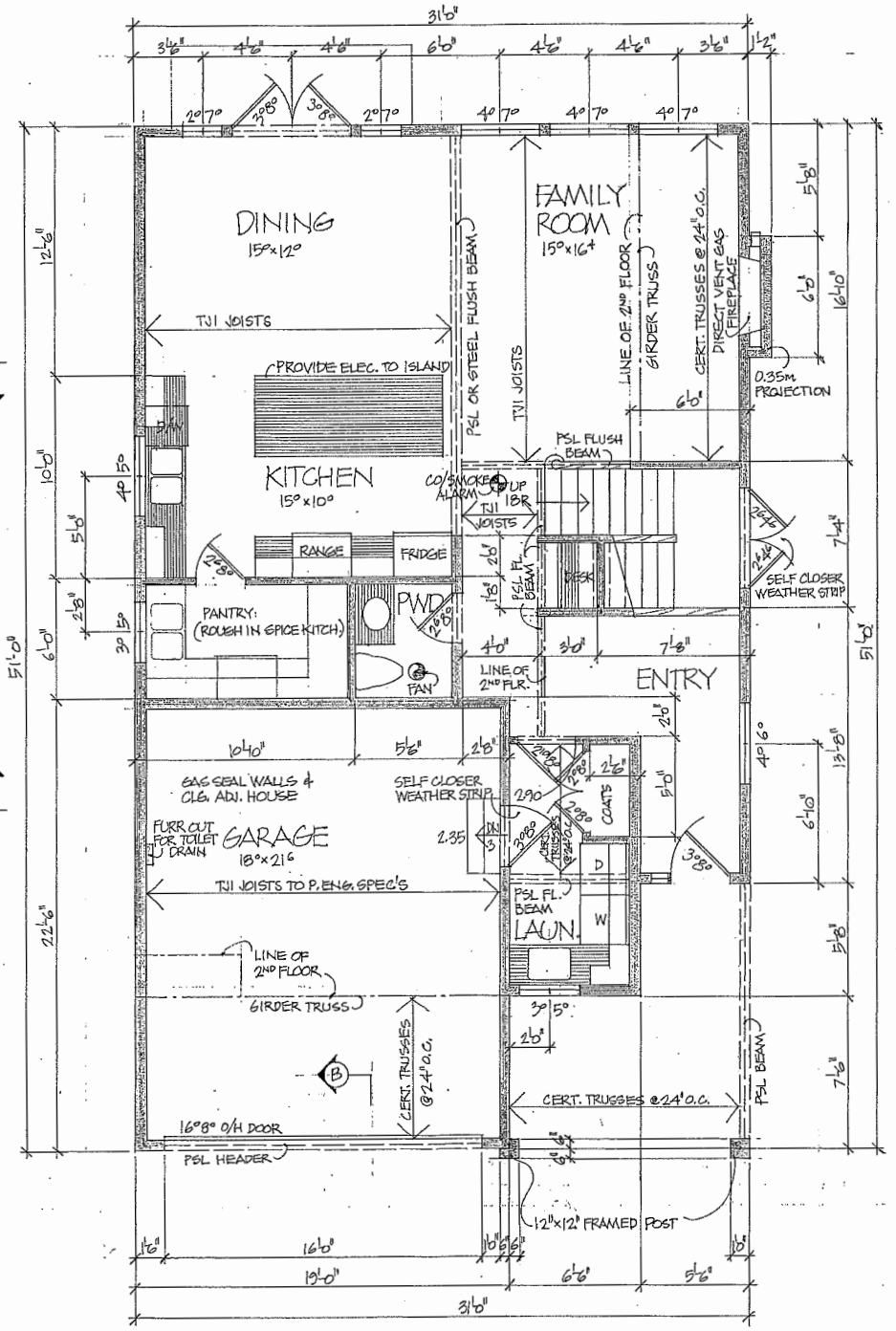
Lynde Designs ltd.
8171 Claymith Road
Delta, B.C.
V4C 2X9
(604) 276-6085

Plan 10 Dec 16, 2015
DV 15-708883



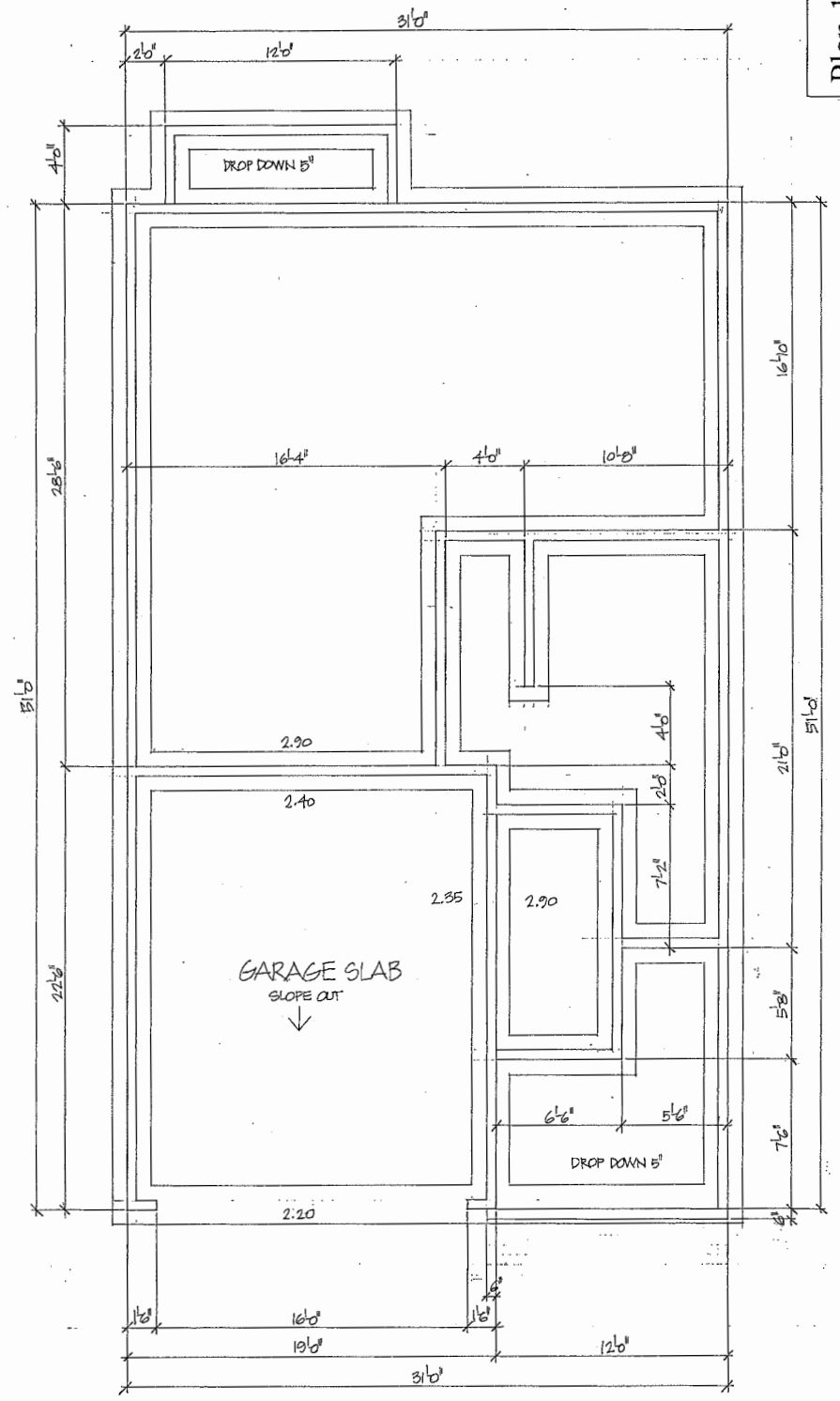
UPPER FLOOR PLAN

TOTAL AREA:	1137+
LESS STAIRS:	(-107+)
LESS CLG. < 5M:	(-84+)
CALCULATED	946+



MAIN FLOOR PLAN

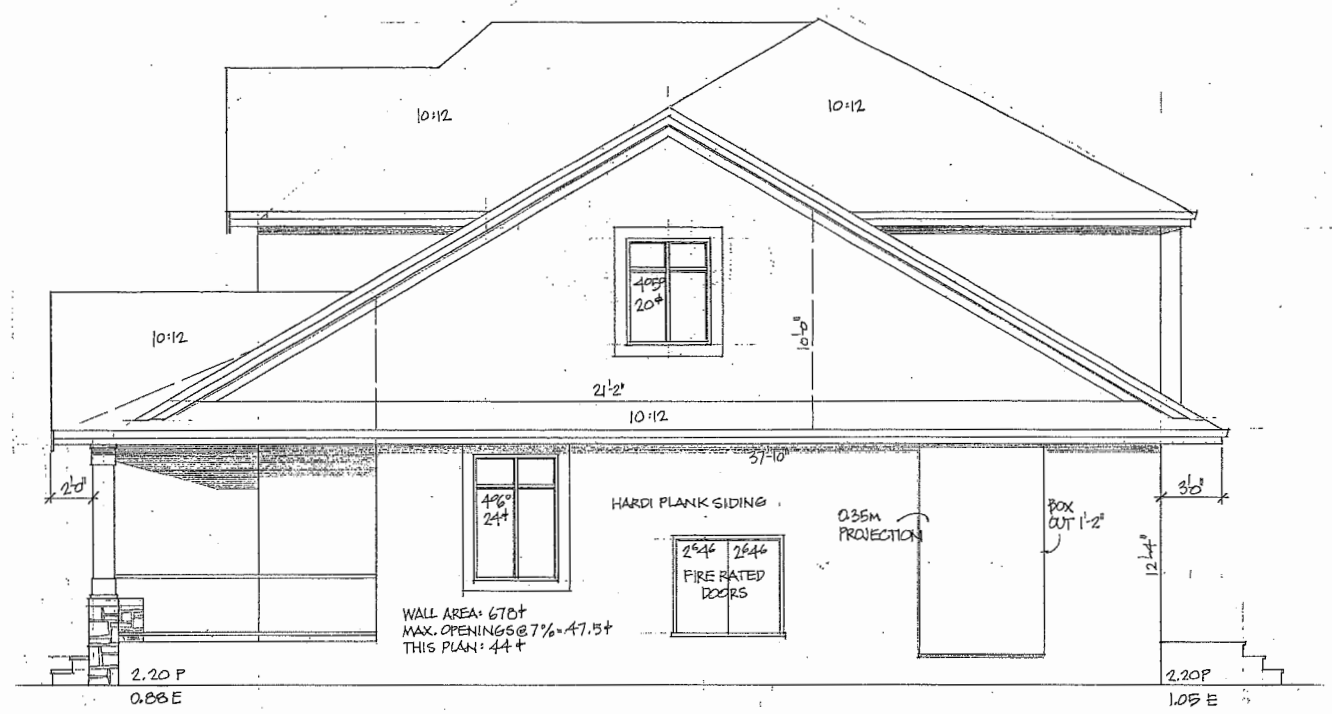
FINISHED AREA	1032+
GARAGE AREA	427+
COVERED AREA	128+
TOTAL SITE COV.	1587+



FOUNDATION PLAN
SCALE 1/4" = 1'-0"

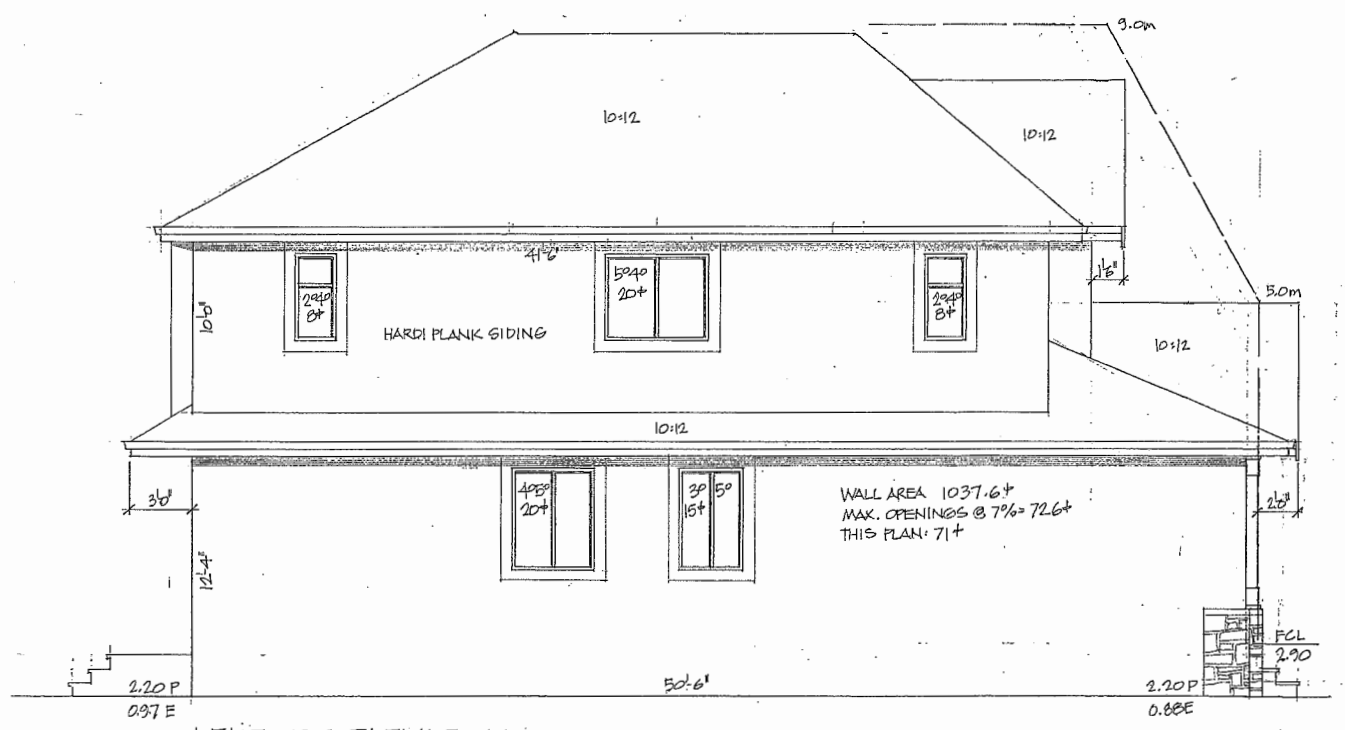
SHEET 2 OF 3
15-26

Plan 11 Dec 16, 2015
DV 15-708883

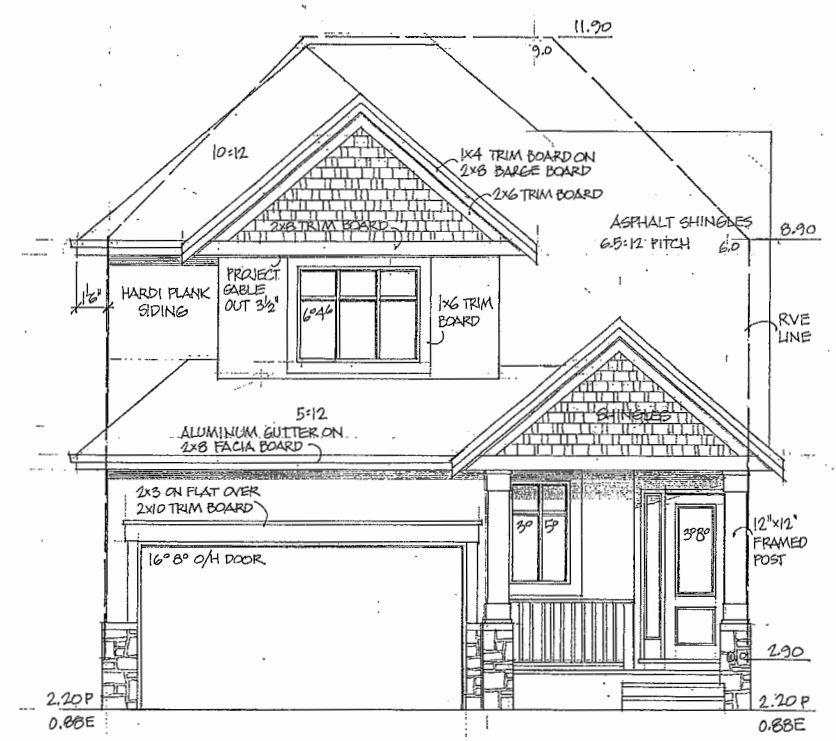


RIGHT SIDE ELEVATION

REAR ELEVATION

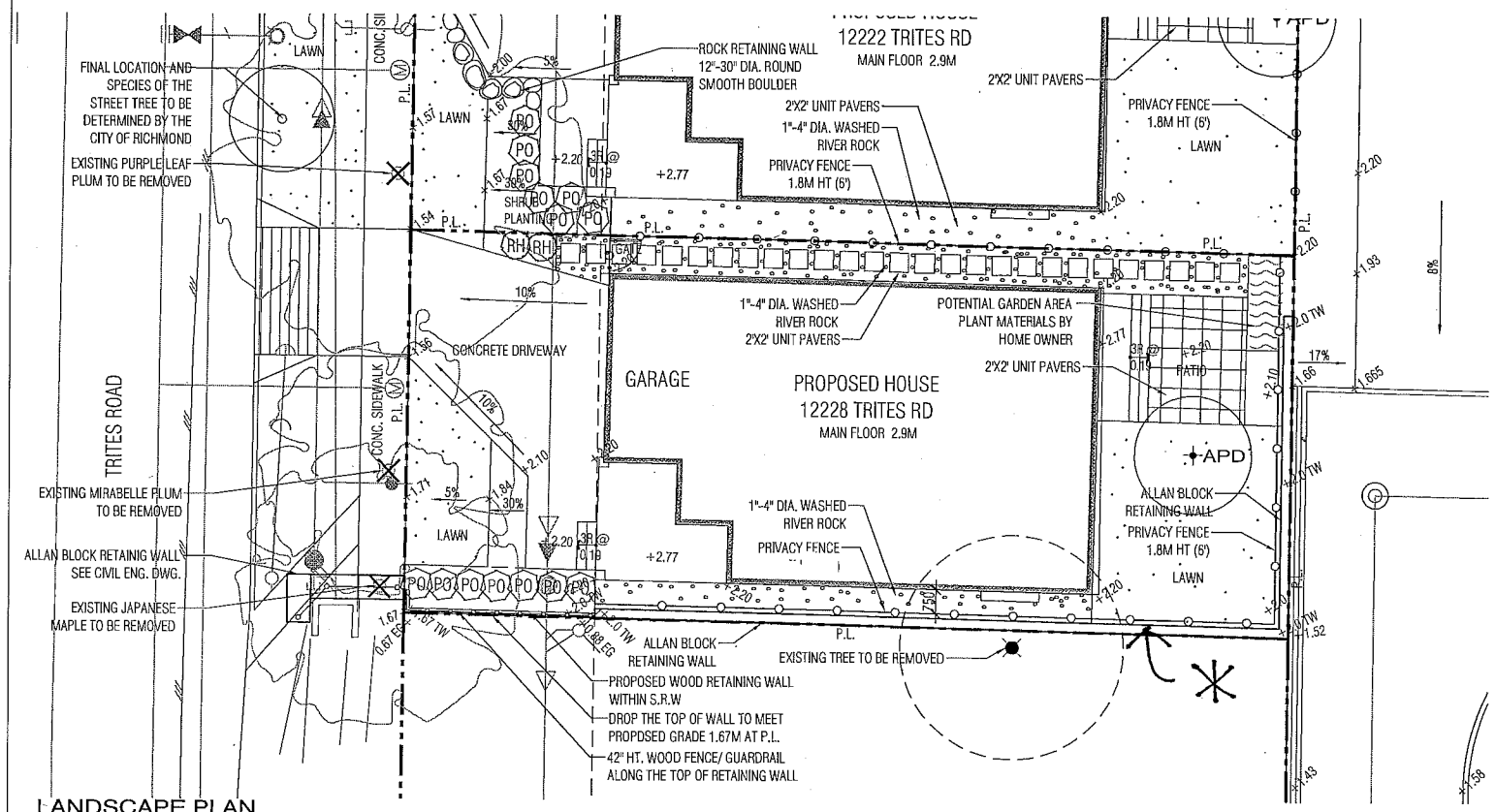


LEFT SIDE ELEVATION

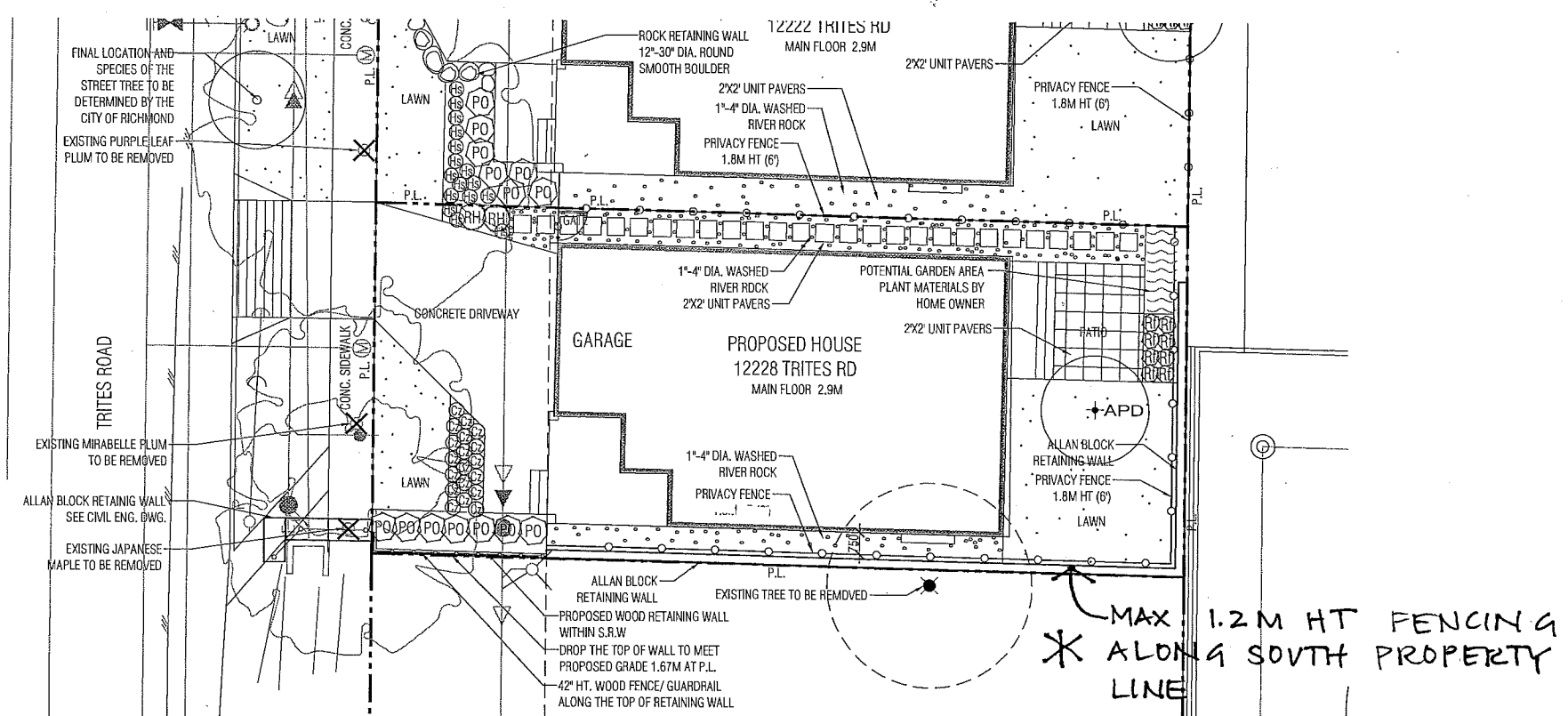


FRONT ELEVATION
SCALE 1/4" = 1'0"

SHEET 3 OF 3
15-26



LANDSCAPE PLAN
SCALE: 1: 100 metric



PLANTING PLAN
SCALE: 1: 100 metric

GENERAL LANDSCAPE NOTES:

1. ALL LANDSCAPE MATERIAL SHALL MEET OR EXCEED STANDARDS REQUIRED BY BCLNA OR BCSLA GUIDELINES.
2. TOPSOIL SUPPLIED SHALL BE FROM A REPUTABLE SOURCE. A FULL ANALYSIS OF THE TOPSOIL WILL BE REQUIRED AT THE CONTRACTOR'S EXPENSE, SUBMIT TO LANDSCAPE CONSULTANT FOR APPROVAL.
3. AMEND TOPSOIL PER SOIL ANALYSIS RECOMMENDATIONS PRIOR TO SPREADING ON SITE. REJECTED TOPSOIL SHALL BE REMOVED OFF SITE IMMEDIATELY AT THE LANDSCAPE CONTRACTORS EXPENSE.
4. TOPSOIL DEPTHS FOR PLANTING AS FOLLOWS:
   A. GRASSED AREAS: 6" (150MM) ON GRADE
   B. GROUND COVERS: 12" (300MM)
   C. SHRUBS: 18" (450MM)
   D. TREE PITS: 36" (1000MM) WITH 12" (300MM) BELOW ROOT BALL
5. LAWN AREAS SHALL BE SODDED WITH #1 PREMIUM RESIDENTIAL SOD NON-MESHED.
6. 2" DEPTH OF 1" MINUS COMPOST MULCH TO BE INSTALLED IN ALL SHRUB PLANTING AREAS.
9. ROAD GRADING AND OVERALL SITE GRADING BY CIVIL ENGINEERING/OR ARCHITECTURAL.
10. NEW DRIVEWAY AND STREET LET DOWN BY OTHERS. SEE ARCH. OR CIVIL DWGS.

PLANT LIST:

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	COND.
APD	1	ACER PALMATUM	JAPANESE MAPLE	6CM CAL.	B & B
PO	7	PRUNUS L. OTTO LUYKENS	OTTO LUYKEN LAUREL	#3	CONTAINER
RH	2	RHODODENDRON HACHMANN'S FANTASTICA	FANTASTIC RHODODENDRON	#3	CONTAINER
CZ	19	HEMEROCALIS STELLA D'ORO	DAY LILY	#1	CONTAINER
HS	3	HEMEROCALIS STELLA D'ORO	DAY LILY	#1	CONTAINER
RF	8	RUDBECKIA FULGIDA var 'GOLDSTRUM'	BLACK EYED SUSAN	#1	CONTAINER

REVISIONS/ISSUED
1. OCT. 29/2015 ISSUED FOR DP.
2. DEC. 17/2015 REISSUED FOR D.P.

Plan 12 Dec 16, 2015
DV 15-708883

PROJECT
SINGLE FAMILY RESIDENTIAL
12228 TRITES ROAD, RICHMOND, B.C.
FOR: IMPERIAL SECURITY GROUP

MARUYAMA & ASSOCIATES 6th C, LEG IN BOOT SQUARE, VANCOUVER, B.C. V5Z-4B4. PH: (604)-872-5927 FX: (604)-874-0931 EM: maruyama@mlaa.net

MARUYAMA LANDSCAPE ARCHITECTS

DATE	AUG. 12, 2014
DESIGN	RMM
DRAWN	RMM
CHECKED	RMM
SCALE	1:100
JOB NO.	M1412

SHEET TITLE
LANDSCAPE PLAN

SHEET NO.
L-1

PART ONE GENERAL REQUIREMENTS

1.1 REFERENCES

.1 CCDC Doc 2 2008
Comply with all articles in the General Conditions of Contract in conjunction with this section unless superseded by other Contract Documents.

.2 B.C. Landscape Standard, 7th edition 2009, prepared by the B.C. Society of Landscape Architects and the B.C. Landscape & Nursery Association, jointly. All work and materials shall meet standards as set out in the B.C. Landscape Standard unless superseded by this specification or as directed by Landscape Architect with written instruction.

.3 MASTER MUNICIPAL SPECIFICATIONS & STANDARD DETAILS, 2009 edition, prepared by the Consulting Engineers of British Columbia, Roadbuilders and Heavy Construction Association, and the Municipal Engineers Division

.4 STANDARD FOR LANDSCAPE IRRIGATION SYSTEM, 2009. Prepared by the Irrigation Industry Association of British Columbia.

.5 MUNICIPAL BYLAWS AND ENGINEERING SPECIFICATIONS WHERE NOTED.

1.2 TESTING

.1 A current (not more than one month) test for all growing medium to be used on this site is required. Provide and pay for testing by an independent testing facility pre-approved by the Landscape Architect. Deliver growing medium test results to Landscape Architect for review and approval prior to placement. Refer to Section 3.6 Growing Medium Testing for procedure.

.2 Owner reserves the right to test or re-test materials. Contractor responsible to pay for testing if materials do not meet specifications.

1.3 SUBMITTALS

.1 Any alternate products differing from that considered in the contract documents must be pre-approved by the Landscape Architect.

.2 Submittals to consist of product sample or manufacturer's product description.

1.4 SITE REVIEW

.1 Under the terms of the Landscape Architect's Contract with the Owner and where the Landscape Architect is the designated reviewer, the Landscape Architect will observe construction as is necessary in their opinion to confirm conformance to the plans and specifications. Contact Owners Representative to arrange for site observation at the appropriate times. Allow two days notice. Observation schedule may include but will not be limited to the following:

.11 Start Up Site Meeting, General Contract: Prior to any site disturbance, a meeting with the general contractor to review tree preservation issues, general landscape issues and municipal requirements.

.12 Start Up Site Meeting, Landscape Contract (if separate): At the start of work with Owner's Representative, Site Superintendent and Landscape Contractor; a meeting to be held to review expected work and to verify the acceptability of the subgrade and general site conditions for the Landscape Contractor. Provide growing medium test results for this meeting.

.13 Progress Site Visits: To observe materials and workmanship as necessary through the course of the work. Review of different aspects of the work may be dealt with on any single visit. Such elements may include: Site Layout, Rough Grading, Growing Medium - quality, depths, finish grading; Drainage and Drainage Materials; Lawns or Grass areas; Planting - plant material including negotiations with suppliers, nursery inspections, plant selections, quality, quantity, planting practice and layout, tree support; Mulch; Irrigation Systems; Play Equipment; Site Furniture; and other elements of the site development where the Landscape Architect is the designated reviewer such as: Pedestrian Paving, Fencing, Non-structural walls and slabs, Wall Paving.

.14 Substantial Performance: Review of all work, accounting of all substitutions, deletions; plant counts, preparations of deficiency list, and recommendations for completion.

.15 Certificate of Completion: Upon the declaration of Substantial Performance, a recommendation for the issuance of the Certificate of Completion will be made to the Payment Certifier as defined in the contract.

.16 Deficiency Review: Prior to the completion of the holdback period, check for completion of deficiencies. Once completed, a Schedule 'C' will be issued where required.

.17 Warranty Review: Prior to the completion of the warranty period (+/- 11 months after issuance of the Certificate of Completion), review all warranty material and report recommendations for warranty replacement.

1.5 WORKMANSHIP

.1 Unless otherwise instructed in the Contract Documents, the preparation of the subgrade shall be the responsibility of the General Contractor. Placement of growing medium constitutes acceptance of the subgrade by the Landscape Contractor. Any subsequent corrections to the subgrade required are the responsibility of the Landscape Contractor.

.2 All work and supervisionnce shall be performed by personnel skilled in landscape contracting. In addition, all personnel applying herbicides and/or pesticides shall hold a current license issued by the appropriate authorities.

.3 A site visit is required to become familiar with site conditions before bidding and before start of work.

.4 Confirm location of all services before proceeding with any work.

.5 Notify Landscape Architect of any discrepancies. Obtain approval from Landscape Architect prior to deviating from the plan.

.6 Take appropriate measures to avoid environmental damage. Do not dump any waste materials into water bodies. Conform with all federal, provincial and local statutes and guidelines.

.7 Collect and dispose of all debris and/or excess material from landscape operations. Keep paved surfaces clean and repair damage resulting from landscape work. Repairs are to be completed prior to final acceptance.

.8 Where new work connects with existing, and where existing work is altered, make good to match existing undisturbed condition.

1.6 WARRANTIES

.1 Guarantee all materials and workmanship for a minimum period of one full year from the date of Certificate of Completion.

.2 Refer to individual sections for specific warranties.

PART TWO SCOPE OF WORK

2.1 SCOPE OF WORK

.1 Other conditions of Contract may apply. Confirm Scope of Work at time of tender.

.2 Work includes supply of all related items and performing all operations necessary to complete the works in accordance with the drawings and specifications and generally consists of the following:

.2.1 Retention of Existing Trees where shown on drawings.
.2.2 Finish Grading and Landscape Drainage.
.2.3 Supply and placement of growing medium.
.2.4 Testing of imported growing medium and/or site topsoil.
.2.5 Supply and incorporation of additives to meet requirements of soil Test and Table One.
.2.6 Preparation of planting beds, supply of plant material and planting.
.2.7 Preparation of rough grass areas, supply of materials and seeding.
.2.8 Preparation of lawn areas, supply of materials and seeding.
.2.9 Supply and placement of bark mulch.
.2.10 Maintenance of planted and seeded areas until accepted by Owner.
.2.11 SEPARATE PRICE: Establishment Maintenance, Section 3.11.
.2.12 Other work: Work other than this list, not specified by Landscape Architect.

2.2 MATERIALS

.1 Growing Medium: Conform to B.C Landscape Standard for definitions of imported and on-site topsoil. Refer to Table One below.

TABLE ONE: PROPERTIES OF GROWING MEDIUM FOR LEVEL 2 GROWING AND LEVEL 3 MODERATE AREAS
Canadian System of Soil Classification Textural Class: "Loamy Sand" to "Sandy Loam".

Applications	Low Traffic Areas, Trees and Large Shrubs	High Traffic Lawn Areas	Planting Areas and Planters
Growing Medium Types	2L	2H	2P
Texture	Percent Of Dry Weight of Total Growing Medium		
Coarse Gravel: larger than 25mm	0 - 5%	0 - 5%	0 - 5%
All Gravel: larger than 2mm	0 - 5%	0 - 5%	0 - 5%
	Percent Of Dry Weight of Growing Medium Excluding Gravel		
Sand: larger than 0.05mm smaller than 2.0mm	50 - 80%	70 - 90%	60 - 80%
Silt: larger than 0.002mm smaller than 0.05mm	10 - 25%	0 - 15%	10 - 25%
Clay: smaller than 0.002mm	0 - 25%	0 - 15%	0 - 25%
Clay and Silt Combined	maximum 35%	maximum 15%	maximum 35%
Organic Content (visual)	3 - 10%	1 - 5%	10 - 20%
Organic Content (laboratory)	3 - 10%	1 - 5%	5 - 20%
Acidity (pH)	6.0 - 7.0	6.0 - 7.0	4.5 - 6.5
Drainage	Percolation shall be such that no standing water is visible 60 minutes after at least 10 minutes of moderate to heavy rain or irrigation.		

.2 Fertilizer: An organic and/or inorganic compound containing Nitrogen (N), Phosphorus (P2O5), and Potash (soluble (P) in proportions required by soil test.

.3 Lime: Ground agricultural limestone. Meet requirements of the B.C. Landscape Standard.

.4 Organic Additive: Commercial compost product to the requirements of the B.C. Landscape Standard, 6th edition and pre-approved by the Landscape Architect. Recommended suppliers: The Answer Garden Products, Fraser Richmond Soils & Fibre, Stream Organics Management.

.5 Sand: Clean, washed pump sand to meet requirements of the B.C. Landscape Standard.

.6 Composted Bark Mulch: 10mm (3/8") minus Fir/Hemlock bark chips and fines, free of chunks and sticks, dark brown in colour and free of all soil, stones, roots or other extraneous matter. Fresh orange in colour bark will be rejected.

.7 Herbicides and Pesticides: If used, must conform to all federal, provincial and local statutes. Applicators must hold current licenses issued by the appropriate authorities in the area.

.8 Filter Fabric: A non biodegradable blanket or other filtering membrane that will allow the passage of water but not fine soil particles. (Such as MIRAFI 140 NL, GEOLON N40 OR AMOCO 4545 or alternate product pre-approved by the Landscape Architect.)

.9 Drainage Piping if required: Schedule 40 PVC nominal sizes.

.10 Drain Rock: Clean, round, inert, durable, and have a maximum size of 19mm and containing no material smaller than 10mm.

.11 Plant Material: To the requirements of the B.C. Landscape Standard. Refer to 3.9, Plants and Planting. All plant material must be provided from a certified disease free nursery. Provide proof of certification.

.12 Sod: Refer to individual sections in this specification.

.13 Supplier and installers of segmental block walls to provide engineered drawings for all walls signed and sealed drawings for all walls, individually, in excess of 12m, or combinations of walls collectively in excess of 12m. Installations must be reviewed and signed off by Certified Professional Engineer, indicate cost of engineering services in Tender price.

.14 Miscellaneous: Any other material necessary to complete the project as shown on the drawings and described herein.

PART THREE SOFT LANDSCAPE DEVELOPMENT

3.1 RETENTION OF EXISTING TREES

.1 Prior to any work on site - protect individual trees or plant groupings indicated as retained on landscape plans as vegetation retention areas.
.11 In some instances the Landscape Architect will flag trees or areas to remain. Discuss tree retention areas at a start-up meeting with the Landscape Architect.

.2 A physical barrier must be installed to defensible clearing boundaries. Refer to physical barrier detail. If detail not provided, comply with local municipal requirements.

.3 No machine travel through or within vegetation retention areas or under crowns of trees to be retained is allowed.

.4 Do not stockpile soil, construction materials, or excavated materials within vegetation retention areas.

.5 Do not park, fuel or service vehicles within vegetation retention areas.

.6 No debris, fires, clearing, fires or brush burning shall be permitted within vegetation retention areas.

.7 No excavations, drain or service trenches nor any other disruption shall be permitted within vegetation retention areas without a review of the proposed encroachment by the Landscape Architect.

.8 Do not cut branches or roots of retained trees without the approval of the Landscape Architect.

.9 Any damage to existing vegetation intended for preservation will be subject to evaluation by an I.S.A. Certified Arborist using the "Guide for Plant Appraisal", Eighth Edition, 1992.
.9.1 Replacement planting of equivalent value to the disturbance will be required. The cost of the evaluation and of the replacement planting will be the responsibility of the General Contractor and or the person(s) responsible for the disturbance.

.9.2 In municipalities with specific tree protection/replacement bylaws ensure compliance to bylaws.

.9.3 In situations where required construction may disturb existing vegetation intended for preservation, contact Landscape Architect for review prior to commencing construction.

3.2 ISSUES

.1 Ensure subgrade is prepared to conform to depths specified in Section 3.5, Growing Medium Supply, below. Where planting is indicated close to existing trees, prepare suitable planting pockets for material indicated on the planting plan. Shape subgrade to eliminate free standing water and conform to the site grading and drainage plan.

.2 On slopes in excess of 3:1 trench subgrade across slope to 150mm (6") minimum at 15m (5 ft) intervals minimum.

.3 Scarify the entire subgrade immediately prior to placing growing medium. Re-cultivate where vehicular traffic results in compaction during the construction procedures. Ensure that all planting areas are thoroughly cultivated after light compaction to finished grades.

.4 Eliminate standing water from all finished grades. Provide a smooth, firm and even surface and conform to grades shown on the Landscape Drawings. Do not exceed maximum and minimum gradients defined by the B.C. Landscape Standard.

.5 Construct swales free from line and grade, smooth and free of sags or high points. Maximum slope 2%, maximum side slopes 15%. Assure positive drainage to collection points.

.6 Slope sod to exceed the following maximums: Rough Grass 3:1, Lawn 4:1, Landscape plantings 2:1.

.7 Finished soil/mulch elevation at building to comply with municipal requirements.

.8 Inform Landscape Architect of completion of finish grade prior to placement of sod, seed, plants or mulch.

3.3 LANDSCAPE DRAINAGE

.1 Related Work: Growing medium and Finish Grading, Grass areas, Trees Shrubs and Groundcovers, Planters, Crib Walls.

.2 Work included: Site finish grading and surface drainage. Installation of any drainage systems outlined on landscape plans. Note: Catch basins shown on landscape plans for coordination only, confirm scope of work prior to bid.
.21 Coordinate all landscape drainage work with rest of site drainage. Refer to engineering drawings and specifications for connections and other drainage work.
.22 Determine exact location of all existing utilities and structures and underground utilities prior to commencing work. Locations shown on drawings are approximate and conduct work so as to prevent interruption of service or damage to them. Protect existing structures and utility services and be responsible for damage caused.
.23 Plantar drains on slab: Refer to Section 3.78, including Landscapes on Structures.

.3 Execution
.31 On trenching and backfilling in accordance with engineering details and specifications.
.32 Lay drains on prepared bed, true to line and grade with inverts smooth and free of sags or high points. Ensure barrel of each pipe is in contact with bed throughout full length.
.33 Commence laying pipe at outlet and proceed in upstream direction.
.34 Lay perforated pipe with perforations at 8pm and spin positions.
.35 Make joints tight in accordance with manufacturer's directions.
.36 Do not allow water to flow through the pipes during construction except as approved by Engineer.
.37 Make water tight connections to existing drains, new or existing manholes or catchbasins where indicated or as directed by Landscape Architect.
.38 Plug upstream ends of pipe with watertight clean end caps.
.39 Surround and cover pipe with drain rock to uniform 150mm layers in various depths as shown in details, minimum 150mm.
.310 Cover drain rock with non-woven filter cloth lap all edges and seams minimum 150mm.
.311 Ensure positive drainage.
.312 Back fill remainder of trench as indicated.
.313 Protect subdrains from flooding during installation.

3.4 GROWING MEDIUM TESTING

.1 Submit representative sample of growing medium proposed for use on this project to an independent laboratory. Provide test results to Landscape Architect prior to placing. Test results to include:
.11 Physical properties, % content of gravel, sand, silt, clay and organics.
.12 Acidity PH and quantities of lime or sulphur required to bring within specified range.
.13 Nutrient levels of principle and trace elements and recommendations for required soil amendments.
.14 Carbon/Nitrogen level.

3.5 GROWING MEDIUM SUPPLY AND PLACEMENT

.1 Supply all growing medium required for the performance of the Contract. Do not load, transport or spread growing medium when it is so wet that its structure is likely to be damaged.

.2 Supply all growing medium a minimum of 6 weeks prior to the soil test. Amended growing medium must meet the specification for growing medium as defined in Table One for the various areas.
.21 Thoroughly mix required amendments into the full depth of the growing medium.
.22 Special mixes may be required for various situations. Refer to drawing notes for instructions.

.3 Place the amended growing medium in all grass and planting areas. Spread growing medium in uniform layers not exceeding 4" (150mm), over unfrozen subgrade free of standing water.

.4 Minimum depths of growing medium placed and compacted to 95%
.4.1 On-grade:
.4.11 Seeded and sodded lawn.....4" (100mm)
.4.12 Mass planted shrubs & groundcovers.....15" (400mm)
.4.13 Groundcover only areas, if defined on plan.....9" (225mm)
.4.14 Tree & large shrub pits.....depth to conform to depth of rootball - width shall be at least twice the width of the root ball with saucer shaped sides.
.4.2 On-Slab:
.4.21 Irrigated lawn.....9" (230mm)
.4.22 Groundcover areas.....12" (300mm)
.4.23 Lawn without automatic irrigation.....12" (300mm)
.4.24 Shrub & groundcover areas.....15" (380mm)
.4.25 Trees and specimen shrubs.....30" (760mm) over columns and/or edge of slab (evenly column locations on-site for tree locations.)
.4.26 Depth noted includes 1" to 2" (25-50mm) sand over filter fabric
.4.27 Maximum 18" depth growing medium except where mounded for trees over column pads.

.5 Manually spread growing medium/planting soil around existing trees, shrubs and ground cover.

.6 In perimeter seeded grass areas, feather growing medium out to nothing at edges and blend into existing grades.

.7 Finished grades shall conform to the elevations shown on landscape and site plans.

3.6 ROUGH GRASS AREA - SEEDING

.1 General: Rough grass areas are noted on the drawings as "Rough Grass". Treat all areas defined as rough grass between all property lines of the project including all boulevards to edge of roads and lanes.

.2 Preparation of Surfaces: To B.C. Landscape Standard Class 3 Areas (Rough grass) Section 7.11.3
.21 Clean existing soil by mechanical means of debris over 50mm in any dimension.
.22 Roughly grade surfaces to allow for maintenance specified and for positive drainage.

.3 Time of Seeding: Seed free early spring (generally April 1st) to late fall (September 15th) of each year. Further extensions may be obtained on concurrence of the Landscape Architect.

.4 Seed Supply & Testing: All seed must be obtained from a recognized seed supplier and shall be No. 1 grass mixture delivered in containers bearing the following information:
.4.1 Analysis of the seed mixture
.4.2 Percentage of each seed type

.5 Seed Mixture: All varieties shall be ranked as strong performers in the Pacific Northwest and are subject to client approval.
70% Creeping Red Fescue
30% Annual Rye
5% Salome Perennial Rye
5% Kentucky Bluegrass
For Wildflower Areas: use a mixture of Wildflowers with Hard Fescues (Terrablink Coastal Wildflowers) with Hard Fescue or pre-approved alternate.

.6 Fertilizer: Mechanical seeding: Apply a complete synthetic slow-release fertilizer with maximum 35% water soluble nitrogen and a formulation ratio of 16-16-16 - 50% sulphur urea coated, 112 lbs/ha (100lbs/acre) using a mechanical spreader.

.7 Seeding: Apply seed at a rate of 112kg/ha (100lbs /acre) with a mechanical spreader. Incorporate seed into the top 1/4" (6mm) of soil and lightly compact.

.8 Acceptance: Provide adequate protection of the seeded areas until conditions of acceptance have been met. Comply with Section 3.3 Hydroseeding.

3.7 HYDROSEEDING

.1 May be used as an alternate to mechanical seeding in rough grass areas.

.2 May not be used in areas of lawn unless pre-approved by the Landscape Architect in bidding.

.3 Preparation and Growing Medium
.31 In areas of Rough Grass: Comply with Section 3.6 Rough Grass
.32 Where approved for use in areas of lawn, comply with Section 3.8 Lawn Areas- Sodding.

.4 Protection: Ensure that fertilizer in solution does not come in contact with the foliage of any trees, shrubs, or other susceptible vegetation. Do not spray seed or mulch on objects not expected to grow grass. Protect existing site equipment, roadways, sidewalks, reference points, monuments, markers and structures from damage. Where contamination occurs, remove seeding slurry to satisfaction of and by means approved by the Landscape Architect

.5 Match shall consist of virgin wood fibre or recycled paper fibre designed for hydraulic seeding and free of any of manufacturing applications. If using recycled paper material for wood fibre substitute use 20% by weight. Confirm to B.C. Landscape Standard for match requirements.

.6 Water: Shall be free of any impurities that may have an injurious effect on the success of seeding or may be harmful to the environment.

.7 Equipment: Use industry standard hydraulic seeder/mulcher equipment with the tank volume certified by an identification plate or sticker affixed in a clear view on the equipment. The hydraulic seeder/mulcher shall be capable of sufficient agitation to mix the material into a homogenous slurry and to maintain the slurry in a homogenous state until it is applied. The discharge pumps and gun nozzles shall be capable of applying the materials uniformly over the designated area.

PART THREE SOFT LANDSCAPE DEVELOPMENT - CONT

.8 Application Rate:
.8.2 Wood Mulch: 134 kg/ha (125 lbs/acre)
.8.3 Fertilizer: 112 kg/ha (100 lbs/acre)
.8.3 Coastal Wildflower Mix: Where specified, apply (37 lbs/acre) (1/4 lb.: 1 lb. of grass seed)
.8.4 Notes:
.8.4.1 At the time of Tender provide a complete chart of all components of the mix proposed including mulch, fertilizer, water etc. Shaped sites require fertilizer.
.8.4.2 Fertilizer:
.8.4.2.1 Rough Grass: If a soil analysis is unknown, comply with results.
.8.4.2.2 Lawn: Where hydroseeding is approved, comply with soil analysis recommendations.

.9 Accurately measure the quantities of each of the materials to be charged into the tank either by mass or by a commonly accepted system of mass-calibrated volume measurements. The materials shall be added to the tank while it is being filled with water, in the following sequence: seed, Fertilizer. Thoroughly mix into a homogenous slurry. After charging, add no water nor other material to the mixture. Do not leave these in the tank for more than four (4) hours.

.10 Distribute slurry uniformly over the surface of the area to be hydroseeded. Blend application into previous applications and existing grass areas to form uniform surfaces.

.11 Clean up: Remove all materials and other debris resulting from seeding operations from the job site.

.12 Maintenance: Begin maintenance immediately after seeding and continue for 60 days after Substantial Completion and until accepted by the Owner. Re-seed at three week intervals where germination has failed. Protect seeded areas from damage with temporary wire or twine fences complete with warning signs until grass area is taken over by the Owner. Water in sufficient quantities to ensure deep penetration and at frequent intervals to maintain vigorous growth until grass is taken over by the Owner. It is the Owner's responsibility to supply water at no extra cost to the Contract.

.13 Acceptance of the Rough Grass Areas: Proper germination of all specified grass species is the responsibility of the Landscape Contractor. The grass shall be reasonably well established, with no apparent dead or bare spots and shall be reasonably free of weeds the B.C. Landscape Standard, Section 13 Maintenance Level 4 Grass Areas. Sixty days after substantial completion, areas meeting the conditions above will be taken over by the Owner. Areas seeded in Fall will be accepted in Spring one month after start of growing season, provided that the above conditions for acceptance are fulfilled.

3.8 LAWN AREAS - SODDING

.1 General: Treat all areas defined as lawn areas on the Landscape plan between all property lines of the project including all boulevards to edge of roads and lanes.

.2 Growing Medium: Comply with Section 2.2.3, Growing Medium. Prior to sodding, request an inspection of the finished grade, and depth and condition of growing medium by the Landscape Architect.

.3 Time of Sodding: Sod from April 1st to October 1st. Further extensions may be obtained on concurrence of the Landscape Architect.

.4 Sod Supply: Conform to all conditions of B.C. Landscape Standard, Section 8, B.C. Standard for Turfgrass Sod.

.5 Specified Turfgrass by area: Refer to Table 2 below.

TABLE 2 SPECIFIED TURFGRASS BY AREA

Area	Description	Quality Grade	Major Species
CLASS 1	Lawn, all areas noted on drawings as lawn in urban development sites including boulevard grass	No. 1 Premium	Kentucky Blue for sun, Fescues for shade
CLASS 2	Grass - public parks, industrial and institutional sites	No. 2 Standard	same
CLASS 3	Rough Grass	see hydroseeding	
SPECIAL			

.6 Lime: The lime shall be as described in Section 2.2.3, Materials. Apply at rates recommended in required soil test. Refer to Section 3.4 for method.

.7 Fertilizer: Refer to Section 2.2.2 Materials. Apply specified fertilizer at rates shown in the required soil test. Apply with a mechanical spreader. Cultivate into growing medium 48 hours prior to sodding. Apply separately from lime.

.8 Sodding: Prepare a smooth, firm, even surface for laying sod. Lay sod staggered with sections closely butted, without overlapping or gaps, smooth and even with adjoining areas and neat lighting. Water to obtain moisture penetration of 7" to 6" (3 - 150mm). Comply with requirements of BC Landscape Standard Section 8, BC Standard for Turfgrass Sod.

.9 Maintenance: Begin maintenance immediately after sodding and continue for 60 days after Substantial Completion and until accepted by the Owner. Protect sodded areas from damage with temporary wire or twine fences complete with warning signs until Lawn is taken over by the Owner. Water to obtain moisture penetration of 7" to 6" (3-150mm) at intervals necessary to maintain sufficient growth. Keep grass cut at height of between 5-6½" (13cm). Avoid cutting wet grass. Remove one-third of blade at each cut. Remove clippings if required to prevent smothering of sodded areas against damage which the turf has been taken over by Owner. Repair any damaged areas, re-grade as necessary. Aeration may be required if in the Landscape Architect's opinion, drainage through the sod base medium is impaired.

.10 Acceptance of Lawn Areas: The turf shall be reasonably well established, with no apparent dead spots or bare spots and shall be reasonably free of weeds the B.C. Landscape Standard, Section 13 Maintenance Level 2 Appearance. Use herbicides if necessary for weed removal unless other conditions of contract forbid their use. After the lawn has been cut at least twice, areas meeting the conditions above will be taken over by the Owner.

3.9 PLANTS AND PLANTING

.1 Conform to planting layout as shown on Landscape Plans.

.2 Obtain approval of Landscape Architect for layout and preparation of planting prior to commencement of planting operations.

.3 Make edge of beds with smooth clean defined lines.

.4 Time of Planting:
.4.1 Plant trees, shrubs and groundcovers only during periods that are normal for such work as determined by local weather conditions when seasonal conditions are likely to ensure successful adaptation of plants to their new location.

.5 Standards:
.5.1 All plant material shall conform to the requirements of the B.C. Landscape Standard, 7th edition 2009, unless exceeded by drawing Plant Schedule or this specification.
.5.11 Refer to B.C. Landscape Standard, Section 9, Plants and Planting and or Section 12, BCLNA Standard for Container Grown Plants for minimum standards.
.5.12 Refer to Plant Schedule for specific plant and container sizes and comply with requirements.
.5.2 Plant materials obtained from areas with less severe climatic conditions shall be grown to withstand the site climate.

.6 Review:
.6.1 Review at the source of supply and/or collection point does not prevent subsequent rejection of any or all planting stock at the site.

.7 Availability:
.7.1 Area of search includes the Lower Mainland and Fraser Valley. Refer to Plant Schedule for any extensions of area.
.7.2 Supply proof of the availability of the specified plant material within 30 days of the award of the Contract.

.8 Substitutions:
.8.1 Obtain written approval of the Landscape Architect prior to making any substitutions to the specified material. Non-approved substitutions will be rejected.
.8.2 Allow a minimum of 5 days prior to delivery for request to substitute.
.8.3 Substitutions are subject to B.C Landscape Standard - definition of Conditions of Availability.

.9 Plant Species & Location:
.9.1 Plants shall be true to name and of the height, caliper and size of root ball as shown on the landscape/site plan plant schedule. Caliper of trees is to be taken 6" (15cm) above grade.
.9.2 Plant all specified species in the location as shown on the landscape drawings. Notify Landscape Architect if conflicting rock or underground/overhead services are encountered.
.9.3 Deviation of given planting location will only be allowed after review of the proposed deviation by the Landscape Architect.

.10 Excavation:
.10.1 Trees and large shrubs: Excavate a saucer shaped tree pit to the depth of the rootball and to at least twice the width of the rootball. Ensure that finished grade in all the original grade the tree was grown at.

.11 Drainage of Planting Holes:
.11.1 Provide drainage of planting pits where required ie. on sloped conditions, break out the side of the planting pit to allow drainage down slope; and in flat conditions, around the rootball the rootball above impervious layer. Notify the Landscape Architect where the drainage of planting holes is limited.

.12 Planting and Fertilizing Procedures:
.12.1 Plant all trees and shrubs with the roots placed in their natural growing position. If burlapped, loosen around the top of the ball and cut away or fold under. Do not pull burlap from under the ball. Carefully remove containers without injuring the rootballs. After settled in place, cut twine. For wire baskets, clip and remove top three rows of wire.
.12.2 Fill the planting holes by gently firming the growing medium around the root system in 6" (15cm) layers. Settle the soil with water. Add soil as required to meet finish grade. Leave no air pocks. When 2/3 of the topsoil has been placed, apply fertilizer as recommended by the required soil test at the specified rates.
.12.3 When planting is indicated adjacent to existing trees, use special care to avoid disturbance of the root system or natural grades of such trees.
.12.4 Where trees are in lawn areas, provide a clean cut mulched 900mm (3 ft.) diameter circle centered on the tree.

.13 Staking of Trees:
.13.1 Use two 2"x2"x6" stakes, unless superseded by municipal requirements. Set stakes minimum 2 ft. in soil. Do not drive stake through rootball.
.13.2 Leave the tree carefully vertical.
.13.3 Tie with pre-approved commercial, flat woven polypropylene fabric belt, minimum width 19mm (3/4"). Approved product: Arbor Tie - available from DeepRoot.
.13.4 Conifer trees over 4 ft. height: Guy with three 2-strand wires (12 gauge). Drive three stakes equidistant around the tree completely below grade.
.13.5 Trees 6 ft. - in Wood or Concrete Decks: Guy as above using three deadman lock, 2"x2"x4" buried to the maximum possible depth instead of stakes.
.13.6 Mark all guy wires with visible flagging material.

.14 Pruning:
.14.1 Limit pruning to the minimum necessary to remove dead or injured branches. Preserve the natural character of the plants. Do not roll the leader. Use only clean, sharp tools. Make all cuts clean and cut to the branch collar leaving no stubs. Shape affected areas so as not to retain water. Remove damaged material.

.15 Mulching:
.15.1 Mulch all planting areas with an even layer of mulch to 2-1/2 - 3" (65 - 75mm) depth. Confirm placement of mulch in areas labeled "Groundcover Area" on drawings. Mulch a 3 ft. (900mm) diameter circle around trees in lawn areas, leave a clean edge.

.16 Acceptance:
.16.1 The establishment of all plant material is the responsibility of the Landscape Contractor.

.17 Plant Material Maintenance
.17.1 Maintain all plant material for 60 days after landscape work has received a Certificate of Completion.
.17.2 Watering: Conform to B.C. Landscape Standard, Section 13.3.2 - Watering and generally as follows:
.17.2.1 Water to supplement natural rainfall such that the soil moisture content is kept to 50% to 100% of field capacity. Water to the full depth of the root zone each time. The Owner is responsible to supply water at no extra cost to the Contract. Confirm source of water prior to beginning work.
.17.3 Use appropriate measures to control pests or diseases damaging plant material. Comply with all local governing statutes and guidelines for chemical control.
.17.4 Plant material which fails to survive shall be replaced in the next appropriate season as determined by the Landscape Architect.
.17.5 Repair tree guards, stakes, and guy wires, when necessary.
.17.6 Maintain areas relatively weed free. Improvement level 2, B.C. Landscape Standard, Chapter 13.
.17.7 Maintain mulch to specified depths.

.18 Plant Warranty:
.18.1 Replace all unsatisfactory plant material except those designated "Specimen" for a period of one (1) year after the Certificate of Completion. Replace all unsatisfactory plant material designated "Specimen" for a period of two (2) years after the Certificate of Completion. Replace all unsatisfactory trees and shrubs and continue to replace these until the specified number is complete and satisfactory to the Landscape Architect. Such replacement shall be subject to the notification, inspection and approval as specified for the original planting, and shall not constitute an extra to the Contract.
.18.2 These Plants, identified as hardy within one zone of the Canada Department of Agriculture hardiness for the area, specified by the Landscape Architect and installed by the Landscape Contractor which are killed through below normal temperatures (below the average of the extreme minimum temperatures officially recorded in the area concerned, in the last 10 years), will not be replaced without cost of replacement borne by the Owner.
.18.3 A review may be requested during the latter part of the warranty growing seasons. All plant material showing well developed foliage, healthy growth and bud forming, will then be taken over.

PART THREE SOFT LANDSCAPE DEVELOPMENT - CONT

.18.4 For all plant material, the Landscape Architect reserves the right to extend the Contractor's responsibility for another growing season if, in his opinion, leaf development and growth is not sufficient to ensure future satisfactory growth.
.18.5 Where the Owner is responsible for plant maintenance and has not provided adequate maintenance, the plant replacement section of the contract may be declared void. The Landscape Architect shall determine whether maintenance has been satisfactory using the B.C. Landscape Standard, Section 13, Maintenance as the guide. The required maintenance standard is a minimum of Level Three - Medium. Refer to Section 3.11, Establishment Maintenance.
.18.6 The Landscape Contractor is responsible to replace any plant material or repair any construction included in the Contract that is damaged or stolen until the issuance of the Certificate of Completion.
.18.7 Deviation from the specifications may require extension of the Warranty Period as determined by the Landscape Architect.

3.10 INSTALLING LANDSCAPE ON STRUCTURES

.1 Verify that drainage and protection material is completely installed and acceptable before beginning work. Contact Landscape Architect for instructions if not in place.

.2 Coordinate work with construction of planters and planter drainage.

.2.1 Verify that planter drains are in place and that sufficient drainage for roof drains is present prior to placing any drain rock or soil.

.3 Provide clean cut at all through-slab drain locations. Use 100mm dia. PVC Pipe filled with drain rock unless specific drawing detail shown.

.4 Install drain rock evenly to a minimum depth of 4" (100mm) alternate sheet drain if specified. Install sheet drain as per manufacturer's recommendations.

.5 Cover drain rock for alternate sheet drain if specified on drawing detailed with filter fabric lapping 6" (150mm) at all edges. Obtain approval of drainage system prior to placing growing medium.

.6 Place an even layer of 25 - 50mm clean washed pump sand over filter fabric.

.7 Place growing medium to depths specified in Section 3.5 above for various surface treatments. Refer to Drawing details for any light weight fills required to alter grade. Use Styrofoam block over drain rock shaped to provide smooth surface transition at edges. Butt each piece tightly together and cover with filter fabric to prevent soil from migrating downward.

3.11 ESTABLISHMENT MAINTENANCE (Provide a separate price for this section)

.1 Intent: The intent of "establishment" maintenance is to provide sufficient care to newly installed plant material for a relatively short period of time to ensure or increase the long term success of the planting. The objective is the adjustment of plants to a new site in order that they may adapt without undue stress resulting from the shock of transplan