City of Richmond

Agenda

Development Permit Panel

Council Chambers, City Hall
6911 No. 3 Road

Wednesday, October 25, 2017
3:30 p.m.

MINUTES

Motion to adopt the minutes of the Development Permit Panel meeting held on October 11, 2017.

1. DEVELOPMENT PERMIT 16-754735
(REDMS No. 5544568)

APPLICANT: 1037533 BC Ltd.

PROPERTY LOCATION: 8620 Railway Avenue

Director's Recommendations

That a Development Permit be issued which would permit the construction of 17 townhouses at 8620 Railway Avenue on a site zoned "Town Housing (ZT80) - Railway Avenue".

2. DEVELOPMENT VARIANCE 17-771661
(REDMS No. 5393224 v. 3)

APPLICANT: Matthew Cheng Architect Inc.

PROPERTY LOCATION: 8480 No. 5 Road

Director's Recommendations

That a Development Variance Permit be issued which would vary the provisions of Richmond Zoning Bylaw 8500 to increase the maximum height for buildings from 12m to 14.14m to permit the construction of a Buddhist Temple at 8480 No. 5 Road on a site zoned "Assembly (ASY)".

3. DEVELOPMENT PERMIT 17-785221

(REDMS No. 5563572)

APPLICANT: Arcus Consulting Ltd.

PROPERTY LOCATION: 10019 Granville Avenue

Director's Recommendations

That a Development Permit be issued which would:

1. ***permit the construction of a licensed child care facility for a maximum of 88 children with an accessory residential caretaker unit at 10019 Granville Avenue on a site zoned "Child Care (ZR8)- McLennan"; and***
2. ***vary the provision of Richmond Zoning Bylaw 8500 to reduce the required minimum width of a landscape buffer from a property line abutting a road from 3.0m to 1.7m.***

4. GENERAL COMPLIANCE – REQUEST BY SIAN GROUP INVESTMENTS (0846930 BC LTD.) FOR A GENERAL COMPLIANCE RULING AT 9560 ALEXANDRA ROAD

(File Ref. No.: DP 15-700370) (REDMS No. 5573187 v. 3)

APPLICANT: Sian Group Investments (0846930 BC Ltd.)

PROPERTY LOCATION: 9560 Alexandra Road

Director's Recommendations

That the attached plans involving changes to the design of the perimeter retaining wall and associated landscaping features along the western property boundary and adjacent to the east-west greenway at the north end of the subject site be considered to be in General Compliance with Development Permit (DP 15-700370).

5. New Business

6. Date of Next Meeting: November 16, 2017

ADJOURNMENT

City of Richmond

Minutes

Development Permit Panel
Wednesday, October 11, 2017

Time:	3:30 p.m.
Place:	Council Chambers Richmond City Hall
Present:	Joe Erceg, Chair Cathryn Volkering Carlile, General Manager, Community Services Robert Gonzalez, General Manager, Engineering and Public Works

The meeting was called to order at 3:31 p.m.

Minutes

It was moved and seconded
That the minutes of the meeting of the Development Permit Panel held on September 27, 2017, be adopted.

CARRIED

1. Development Permit 16-735007
(REDMS No. 5493885)

APPLICANT: Alex Sartori

PROPERTY LOCATION: 6020 No. 4 Road

INTENT OF PERMIT:

1. Permit the construction of a Single-Family Residential Dwelling at 6020 No. 4 Road on a site zoned "Agriculture (AG1)" and designated as an Environmentally Sensitive Area (ESA); and
2. Vary the provisions of Richmond Zoning Bylaw 8500 to increase the maximum area of the farm home plate from 1,000 m^2 to 1,342 m^2.

Panel Discussion

The Chair noted that the applicant had written to staff to request that the project design team be given more time to work on the revision of their plans in order to eliminate or reduce the proposed variance to the City's maximum farm home plate area in relation to the referral motion adopted at the September 27, 2017 meeting of the Panel.

Panel Decision

It was moved and seconded
That DP 16-735700 be referred back to staff to provide the project design team more time to work with staff for the purpose of investigating opportunities for further changes to the design of the proposed development to eliminate or reduce the proposed variance to the City's maximum farm home plate area and staff to report back at a future meeting of the Panel.

CARRIED

2. Development Permit 16-741741
(REDMS No. 5528835)

APPLICANT: Vancouver Airport Fuel Facilities Corporation (VAFFC)

PROPERTY LOCATION: 15040 Williams Road

INTENT OF PERMIT:

Permit the construction of a Marine Terminal Facility for aviation/jet fuel delivery at 15040 Williams Road on a site zoned "Industrial (I)" and partially designated as an Environmentally Sensitive Area (ESA).

Applicant's Comments

Adrian Pollard, FSM Management Group, provided background information on the proposed development and highlighted the following:

- the overall Vancouver Airport Fuel Delivery project started in 2007 and is intended to provide airlines operating at the Vancouver International Airport (YVR) with secure aviation fuel supply and accommodate and support the future growth of YVR;
- environmental assessment approvals have been granted to the project from the provincial and federal governments;
- construction permits have been granted for the construction of two of the three main components of the overall project: the fuel receiving facility to the north of the subject site and the underground pipeline to YVR;

- the other main component of the overall project is the subject development, the proposed Marine Terminal facility, which will accommodate one vessel arriving once a week or approximately three to four vessels arriving in a month;
- transfer of aviation fuel from the vessel directly to the underground pipeline to the fuel receiving facility takes approximately 18 to 36 hours;
- six small buildings or enclosures will be constructed to support the activities of the Marine Terminal;
- the existing dock will be completely removed and replaced with a new and re-graded foreshore area;
- new berthing and mooring structures will be constructed for the Marine Terminal;
- a pedestrian trail and a new relocated dike and an associated right-of-way will be constructed on-site;
- the Marine Terminal facility will be staffed 24 hours a day and will have up to 10 employees; and
- other site improvements will be done to stabilize the area and protect the dike and structures that support the offloading activity.

Angus Johnston, Hatfield Consultants, reviewed the proposed mitigation, compensation and enhancement scheme for the Environmentally Sensitive Area (ESA) on the subject site, noting that (i) qualified environmental professionals' assessment indicated that the subject site's intertidal ESA is a low productivity habitat and the shoreline ESA is mostly barren with scattered invasive plants and shrubs, (ii) removal of the existing bulkhead wharf, re-grading and replacement of the existing rip-rap, and other improvements on the riverbed and banks will enhance the intertidal ESA, and (iii) removal of a patch of native tree saplings in the shoreline ESA will be compensated by on-site and off-site habitat enhancements.

Mr. Johnston further noted that (i) both the on-site Riparian Management Area (RMA) and the "inferred" RMA along the Savage Road right-of-way adjacent to the subject site have been assessed by qualified environmental professionals to be in a highly disturbed state and have limited habitat features, and (ii) proposed compensation and enhancements for the RMA include establishing a new fence, re-grading the RMA, and re-vegetation of the new five-meter wide RMA with native planting.

Panel Discussion

In response to queries from the Panel, Mr. Pollard advised that (i) pumps for offloading the fuel cargo will be installed on board the vessel, (ii) fire truck access will be provided (iii) the site will be secured and must comply with Transport Canada security requirements, and (iv) dismantled on-site structures will be disposed in appropriate landfills.

In response to further queries from the Panel, Mr. Pollard stated that the entire RMAs along Williams Road and Savage Road will be completely replanted and significant landscaping will be installed on either side of the proposed pedestrian trail and on the adjacent slope.

In response to further queries from the Panel, Linda Dupuis, Hatfield Consultants, acknowledged that (i) site constraints determined the off-site location of a portion of RMA and ESA compensation/enhancement areas, (ii) the proposed pedestrian trail does not relate to the ESA but provides extra ecological networking in the subject site, (iii) the enhancements include removing the existing lock block fencing and fully restoring the 5-meter wide RMA, (iv) proposed ESA compensation/enhancement will be provided both on-site and off-site and will focus on high productivity areas identified by the Fraser River Estuary Management Program (FREMP).

Discussion ensued between the Panel and the project's design team regarding the proposed compensation/enhancement for the ESA and RMA and the Chair was of the opinion that the proposed compensation/enhancement scheme for the RMA appears to be more rigorous than for the shoreline ESA.

In response to further queries from the Panel, the design team acknowledged that (i) enhancement planting is not proposed in the intertidal ESA as the proposed modifications to the foreshore/intertidal area will in themselves improve habitat conditions at the subject site compared to existing conditions, (ii) intertidal areas are naturally productive and it is anticipated that the intertidal habitat conditions could establish naturally over a period of approximately one year, (iii) the proposed viewing platform is consistent with the master trail strategy in the City's Official Community Plan (OCP), and (iv) provision of signage interpreting on-site improvements could be incorporated into the project.

Staff Comments

Wayne Craig, Director, Development, noted that the proposed dike and public trail construction will be secured with separate registered right-of-way agreements.

Mr. Craig further noted that there will be multiple servicing agreements associated with the project including servicing agreements for (i) dike construction within the dike right-of-way, (ii) public trail construction within the trail right-of-way which includes connection to the trail on the City property to the west of the subject site, and (iii) site services and frontage improvements along Williams Road.

In addition, Mr. Craig mentioned that there will be cash-in-lieu contribution for the proposed pedestrian viewing platform.

In closing, Mr. Craig noted that ESA planting areas associated with the project will be subject to legal agreements to ensure that these areas will be retained and maintained in the long term.

In response to queries from the Panel related to the applicant's proposed ESA compensation and enhancements for the subject site, Mr. Craig acknowledged that (i) there is an opportunity for more mature planting in the ESA within the subject site, and (ii) while the ESA Guidelines in the City's OCP focus on ESA assessment of existing conditions and enhancement, they also include provisions encouraging additional planting to enhance the rehabilitation of degraded areas.

Gallery Comments

Anne Lerner, 12633 No. 2 Road, expressed concern regarding the potential adverse environmental impacts of the project to the Fraser River and queried whether dredging works would be done in the river to allow the passage of large vessels heading to the Marine Terminal. She also spoke of the potential negative impacts of increased traffic of vessels in the river on salmon run.

In response to Ms. Lerner's concern, Mr. Pollard advised that (i) dredging works in the river will not be necessary as vessels heading to the Marine Terminal could navigate the river under existing conditions, (ii) a minimal increase of six percent in large vessel traffic is anticipated in the South Arm Fraser River when the Marine Terminal becomes operational, and (iii) management plans include coordination with First Nations regarding the timing of vessels navigating the river in order not to disrupt their fishing activities.

Correspondence

None.

Panel Discussion

The Chair noted that the proposed RMA and ESA mitigation, compensation and enhancement scheme is a good start; however, he was of the opinion that more work could be done by the applicant and suggested that the subject development application be referred back to staff.

The Chair further noted that the applicant needs to (i) review the proposed ESA compensation and enhancement scheme that is based primarily on existing shoreline ESA condition in the subject site and consider a greater area of planting, (ii) review the proposed compensation and enhancement planting scheme for the shoreline ESA and consider installing more mature and substantive planting, (iii) consider introducing some planting on the intertidal ESA in addition to the proposed removal of existing and development/construction of new structures and shorelines within the shoreline and intertidal ESAs; (iv) consider ESA compensation and enhancements in areas within the subject site such as along the public trail and in the northern portion of the site in addition to proposed off-site ESA enhancements, and (v) consider installing on-site interpretation signage to inform the public regarding the works and enhancements done on the subject site to protect and preserve the natural environment in the area.

In addition, staff were directed to review the amount of proposed cash-in-lieu voluntary contribution for the design and future construction of a pedestrian viewing platform to determine whether the amount is adequate for the purpose.

Panel Decision

It was moved and seconded

1. ***That DP-16-741741 be referred back to staff for the applicant to work with staff to:***

   (a) review the proposed mitigation, compensation and enhancement scheme for shoreline ESA based primarily on existing ESA condition in the subject site and investigate opportunities for additional on-site ESA planting;

   (b) review the proposed compensation/enhancement planting scheme for the shoreline ESA and consider introducing more mature and substantive planting;

   (c) consider introducing some planting in the intertidal ESA in addition to the proposed removal of existing and development/construction of new structures and shoreline within the shoreline and intertidal ESA;

   (d) investigate opportunities for further on-site ESA compensation and enhancements especially within the shoreline ESA and other areas along the proposed public trail and in the northern portion of the site in addition to the proposed off-site ESA enhancements; and

   (e) consider installing on-site signage to inform and provide interpretation to the public regarding the works and enhancements done on the subject site to protect and preserve the natural environment; and

2. ***That staff review the adequacy of the pedestrian viewing platform cash-in-lieu contribution and report back.***

CARRIED

3. Date of Next Meeting: October 25, 2017

4. Adjournment

It was moved and seconded
That the meeting be adjourned at 4:35 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, October 11, 2017.

Joe Erceg
Chair

Rustico Agawin
Auxiliary Committee Clerk

City of Richmond

Report to Development Permit Panel

To:	Development Permit Panel	**Date:**	October 10, 2017
From:	Wayne Craig Director, Development	**File:**	DP 16-754735
Re:	**Application by 1037533 BC Ltd. for a Development Permit at 8620 Railway Avenue**		

Staff Recommendation

That a Development Permit be issued which would permit the construction of 17 townhouses at 8620 Railway Avenue on a site zoned "Town Housing (ZT80) – Railway Avenue".

Wayne Craig
Director, Development

CL:blg
Att. 3

Staff Report

Origin

1037533 BC Ltd. has applied to the City of Richmond for permission to develop 17 townhouses including three affordable housing units at 8620 Railway Avenue on a site proposed to be zoned "Town Housing (ZT80) – Railway Avenue", with vehicle access from an existing east-west vehicle lane off Railway Avenue (Attachment 1). The subject site currently contains an existing two-storey dwelling, which will be demolished at future development stage.

The site is being rezoned from the "Single Detached (RS1/E)" zone to the "Town Housing (ZT80) – Railway Avenue" zone for this project under Bylaw 9563 (RZ 15-709884). The Bylaw was given third reading at the Public Hearing held on September 16, 2016, and the applicant is working to resolve all of the conditions of rezoning adoption.

Off-site works required as part of the proposed development include boulevard improvements along Railway Avenue, widening of the east-west vehicle lane, and upgrading the east-west pedestrian walkway to the north of the site, and will be undertaken as part of a Servicing Agreement to be entered into prior to final adoption of the rezoning bylaw.

Development Information

Please refer to the attached Development Application Data Sheet for a comparison of the proposed development data with the relevant bylaw requirements (Attachment 2).

Background

Existing development immediately surrounding the subject site is as follows:

- To the North, immediately across a City-owned pedestrian walkway, are two vacant lots zoned "Single Detached (RS1/E)", that are owned by the Richmond Hospital Foundation (8540, 8560 Railway Avenue).
- To the South, immediately across the existing east-west lane that daylights to Railway Avenue, are four single-family dwellings on lots zoned "Compact Single Detached (RC1)" fronting onto Railway.Avenue, with vehicle access from an existing north-south rear lane.
- To the East, are three single-family dwellings on lots zoned "Single Detached (RS1/E)" and "Single Detached (RS1/B)", which front Calder Road.
- To the West, immediately across Railway Avenue, is the Railway Greenway and beyond that, are single-family dwellings on lots zoned "Single Detached (RS1/E)", which front Lancelot Drive.

Rezoning and Public Hearing Results

During the rezoning process, staff identified the following design issues to be resolved at the Development Permit stage:

- Review of the proposed colour palette and exterior building materials.

- Conceptual illustration of the required improvements to the east-west walkway along the north property line (showing both the off-site concept, as well as the concept within the statutory right-of-way that is to be granted on-site).
- Improvements to the Landscape Plan, including but not limited to: the required number of replacement trees, low-level landscaping/fencing along the north side yard, additional soft landscaping on-site including around the outdoor amenity space, and finalizing the design of the permeable paver banding treatment over the internal drive-aisle.
- Demonstrating that all of the relevant accessibility features are incorporated into the proposed Convertible Unit design, and that aging-in-place features will be incorporated into all units.
- Reviewing the applicant's design response to the principles of Crime Prevention Through Environmental Design (CPTED).

Through the review of this Development Permit application, staff have worked with the applicant to address these issues to staff satisfaction and to ensure that the proposed architectural form and character is of a high quality, consistent with the design guidelines contained within the Official Community Plan (OCP), and provides an appropriate interface to the adjacent single-family development. The applicant has made modifications to their proposal to address the urban design issues identified as follows:

- The proposed material and colour scheme, although slightly more contemporary in character, is of a high-quality and will be compatible with that of adjacent single-family development.
- The proposed treatment and grading of the off-site east-west walkway north of the property (including the on-site landscape concept within the statutory right-of-way that is to be granted) has been clarified and is acceptable to staff (note: the final off-site design is to be determined as part of the Servicing Agreement review process).
- Improvements have been made to the Landscape Plan as it relates to: the number of trees proposed on-site; the number and species of plants within the outdoor amenity space along with the addition of natural play features over a single play structure; and coordinating the permeable paver banding treatment with specific objectives on-site (e.g., highlighting the drive-aisle entry and end points and on-site pedestrian circulation).
- Aging-in-place features are proposed in all units, as noted on the plans, and one Convertible Unit is also proposed in the southeastern most unit in Building D, which will meet all of the Convertible Unit guidelines in the OCP.
- The applicant has provided statements on how their proposal responds to environmental sustainability and CPTED principles, which are summarized in the "Analysis" section below.

The Public Hearing for the rezoning of this site was held on September 16, 2016. At the Public Hearing, correspondence received from neighbouring residents was presented, citing concerns about:

- The introduction of townhouses in this block of Railway Avenue, adjacent to existing single-family development; and a preference to see a continuation of the existing redevelopment pattern of compact single-family development in the block.

- Increased population density, traffic, servicing capacity, and life safety concerns associated with the proposal.
- Disturbances to existing residents in the neighbourhood during and after construction, such as noise, potential damage to adjacent property, loss of privacy, etc.

In response to these concerns, staff note that:

- Densification through the introduction of townhouses in this block of Railway Avenue is supported by the Arterial Road Policy in the OCP as the site is in close proximity to existing transit service and is within walking distance of public amenities, such as a City Community Centre (e.g., West Richmond Community Centre playing fields and pitch'n'putt course) or a City park/open space (e.g., Railway Greenway).
- Life safety, traffic, and servicing considerations associated with the proposal were reviewed by Richmond Fire-Rescue staff and by the City's Transportation and Engineering divisions as part of the review of the subject Rezoning and Development Permit applications, with all significant issues being addressed in the proposed scheme attached to this report as well as in the required design and construction of off-site infrastructure improvements via the Servicing Agreement. Specifically, the scope of work required with redevelopment include:
  - The addition of a fire hydrant in the southwest corner of the subject site.
  - Improvements to the road and pedestrian system along the Railway Avenue frontage, the east-west vehicle lane providing access to the subject site, and the east-west pedestrian walkway to the north of the site, all of which will be completed to full City design standards.
  - New water, storm, and sanitary service connections and an upgrade to the drainage system along the Railway Avenue frontage.

  The widening and upgrading of the east-west lane, for example, will enable full two-way movements and provide improved capacity to accommodate existing traffic from the adjacent single-family lots to the south as well as traffic generated from the proposed development at the subject site. City staff expect the increase in traffic resulting from the proposal to be minimal and that Railway Avenue has the capacity to accommodate the increase. City staff do not anticipate that an additional bus stop would be required to serve the proposed development as there are existing northbound and southbound bus stops on Railway Avenue adjacent to the subject site. Transit usage is monitored by Translink and the frequency of service will be adjusted to reflect any increased ridership. Increased use of transit is consistent with the City's environmental and sustainability objectives as outlined in the OCP and results in fewer vehicles on the road.
- As it relates to concerns associated with construction on and off-site, the City promotes the Good Neighbour Program to minimize construction impacts to existing neighbourhoods by providing direction to builders on recommended construction practices and on notifying neighbours about planned construction activities. Damage to private property resulting from construction activity is a civil matter that must be addressed by the relevant property owners. For off-site works, City staff liaise with and monitor the required works constructed by applicants' contractors as part of the Servicing Agreement inspections process. This includes notification of nearby residents and businesses prior to beginning the required works and

submission of a Construction Traffic and Parking Management Plan to the City's Transportation Department for approval.

The Zoning Amendment Bylaw 9563 was given third reading at the Public Hearing.

Staff Comments

The proposed scheme attached to this report (Plans # 1.a to 4.b) 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 (OCP) and complies with the "Town Housing (ZT80) – Railway Avenue" zone, with no variances requested.

Advisory Design Panel Comments

The Advisory Design Panel review of the proposal was held on June 21, 2017, and was supported to move forward to the Development Permit Panel subject to the applicant giving consideration to the comments identified at the meeting. A copy of the relevant excerpt from the Advisory Design Panel Meeting minutes is attached for reference (Attachment 3). The design response from the applicant has been included immediately following the specific Design Panel comments and is identified in '***bold italics***'.

Analysis

Conditions of Adjacency

- The proposed townhouses at the subject site are designed with consideration of the adjacent single-family context immediately to the east and south.
- The two triplex buildings (Building C and D) proposed along the interface with the rear yards of adjacent single-family lots to the east are two-storeys in height, and are set back a minimum of 6.0 m from the east property line, with bay window projections on the ground level only (maximum of 1.5 m deep). The triplex form of these buildings enable a larger centrally-located Outdoor Amenity Area to be provided, and in turn enables a greater separation between the two buildings along the east side of the site.
- Façade articulation and placement of roof gable ends on the east elevation of Buildings C and D also act to break down the building massing into smaller components along the east adjacency.
- Building D is set back approximately 6.9 m from the new south property line along the east-west lane that is to be widened to a total of 6.0 m, which provides added physical separation from the adjacent single-family dwellings to the south.
- The three-storey buildings along Railway Avenue (Building A and B) step down to two storeys towards the north and south property lines, providing an appropriate interface to adjacent existing two-storey single-family dwellings to the south.

Urban Design and Site Planning (Plans # 1.a to 1.e)

- This proposal is to develop 17 townhouse units on a site that would be approximately 2,628 m^2 (28,287 ft^2) in area after the required road dedication to widen the east-west lane along the south property line.
- The proposed site layout consists of:
  - Two three-storey buildings containing a total of 11 units fronting Railway Avenue to the west of a proposed north-south drive-aisle that bisects the site (Building A and B).
  - Two triplex buildings to the east of the drive-aisle, which are two-storeys in height (Building C and D).
- Three affordable housing units are proposed within Building A, one of which is a single storey unit at grade, and the remainder of which are two-storey and are proposed to be stacked above.
- A central pedestrian access to the site is proposed between the two buildings along the Railway Avenue frontage, and will be clearly defined by a wood trellis structure in the front yard.
- Individual pedestrian entries to the west buildings are proposed from the Railway Avenue frontage, and are clearly defined by landscaped front yards, pathways and covered porches, while the pedestrian entries for the east buildings are proposed from defined pathways off the north-south drive aisle.
- A single vehicle access to the site is proposed from the east-west City-owned lane off Railway Avenue, which is required to be widened to a total of 6.0 m as part of this redevelopment proposal. The internal drive-aisle on the subject site, which extends north from the lane, has the potential to provide shared access to future developments to the north by means of a Statutory Right-of-Way (SRW) for public-right-of-passage (PROP), which must be registered on title prior to final adoption of the rezoning bylaw.
- The proposed development meets the minimum parking requirements of Richmond Zoning Bylaw 8500 for resident and visitor parking spaces: 31 resident vehicle parking spaces are proposed within the garages/carports of the units arranged along the internal drive aisle, 12 of which are proposed in a tandem arrangement (i.e., less than the 50% maximum). Five surface parking spaces are also proposed on-site for visitors, one of which is proposed in excess of the required parking, and one of which is an accessible visitor parking space. Prior to rezoning approval, a restrictive covenant preventing the conversion of tandem parking area into storage or habitable space is required to be registered on Title.
- Of the 31 resident vehicle parking spaces, one standard sized vehicle parking space is proposed for each affordable housing unit, which are to be located in a carport directly adjacent to the units, consistent with the requirements of Richmond Zoning Bylaw 8500.
- A total of 22 resident bicycle parking spaces (Class 1) are proposed, and a bicycle rack for four visitor bicycles (Class 2) is proposed to the north of the entrance to the Outdoor Amenity Area between the east buildings, consistent with the requirements of Richmond Zoning Bylaw 8500.

Landscape Design and Open Space Design (Plans # 2.a to 2.f)

Landscaping

- On-site tree retention and removal was assessed as part of the rezoning application, at which time the City's Tree Preservation Coordinator concurred with the applicant's proposal to remove eight bylaws-sized trees on-site due to poor condition. Consistent with the 2:1 tree replacement ratio in the OCP, the applicant is required to plant and maintain a minimum of 16 replacement trees on-site.
- Off-site tree retention and removal was also assessed at rezoning stage, at which time the City's Parks Department Arboriculture staff concurred with the applicant's proposal to retain and protect one bylaw-sized tree and to remove two bylaw-sized trees located in the boulevard on City-owned property along Railway Avenue. For the removal of the two trees in the boulevard along Railway Avenue, the applicant is required to provide a contribution to the City's Tree Compensation Fund in the amount of $2,600 prior to final adoption of the rezoning bylaw. To ensure that the tree along Railway Avenue is retained and protected, the applicant is required to submit a survival security and a contract with a Certified Arborist prior to rezoning for supervision of all works conducted in close proximity to the tree, including the required boulevard improvements to be undertaken as part of the Servicing Agreement. The City's Tree Preservation Coordinator also concurred with the applicant's proposal to retain and protect one off-site tree on the neighbouring property to the east at 8631 Calder Road. No special retention measures are required with respect to this tree as it is located at a sufficient distance from the subject site and is not anticipated to be impacted by the proposed development.
- The proposed Landscape Plan includes a mix of 17 deciduous and coniferous trees, as well as a variety of Evergreen and flowering perennials, shrubs, and grasses. The proposed tree and plant species include: Maple, Dogwood, Gingko, Magnolia, and Spruce trees, as well as Hydrangea, Viburnum, Skimmia, Meidiland Rose, Spiraea, Golden Sedge, and low Boxwood and Yew hedging.
- To define the street edge along the Railway Avenue frontage, staggered low stone post and aluminum rail fencing that incorporates plant material along the street side is proposed, with entry gates to the front yards of each unit in the west buildings.
- A variety of hardscape materials are proposed on-site to provide visual interest, increase on-site permeability, and to highlight the dual use of the internal drive-aisle by both vehicles and pedestrians. Specifically, two patterns of permeable pavers are proposed for pedestrian pathways, surface parking spaces, and the vehicle access and end points, while the remaining portions of the internal drive-aisle are proposed to be treated with asphalt.

Outdoor Amenity Space

- The common outdoor amenity space is proposed in a central location on the east side of the subject site, between the two triplex buildings. The size and shape of the proposed space (106.3 m^2) is consistent with the minimum size specified in the OCP guidelines (e.g., min. 6 m^2 per unit, totalling 102 m^2).

- The outdoor amenity space is proposed to contain natural features for children's play including a mounded lawn area, boulders, horizontal and upright logs, and bench seating, as well as a combination of grasses, shrubs, and trees.

Private Open Space

- Private outdoor space for the units in Buildings A and B along Railway Avenue is proposed primarily in the form of clearly defined west-facing front yards at grade, as well as in the form of west-facing balconies off the 2nd storey main living areas of each unit. Additional east-facing Juliet-style balconies are also proposed off the upper-storey master bedrooms of each unit. Care was taken to ensure that the front yard landscape treatment adjacent to the affordable housing units blends in well with that of the remaining units, despite the differences inherent in a stacked unit design.
- Private outdoor space for the units in Buildings C and D is proposed in the form of screened yards with patios at grade off the kitchen and living areas of each unit.
- The size and configuration of the private outdoor space proposed for each unit is consistent with the OCP guidelines for ensuring that the spaces are usable and livable (e.g., min. 30 m^2 per ground-oriented unit and 6 m^2 per stacked unit).

Indoor Amenity Space

- Consistent with Council Policy 5041, the applicant will be contributing $17,000 ($1,000/unit) prior to final adoption of the rezoning bylaw in-lieu of providing on-site indoor amenity space.

Architectural Form and Character (Plans # 3.a to 3.c, # 4.a to 4.b)

- Key building elements are used to create variation and articulation to the overall massing and scale of the buildings, and to provide a pedestrian-oriented character. For the primarily three-storey buildings along Railway Avenue (Buildings A and B), the lower storeys are defined by covered porches at grade with semi-recessed balconies off the main living areas above. The gable ends of upper roof dormers facing the street help to define individual units or clusters. Similarly, for the east buildings (Buildings C and D), the proposed placement of the roof dormer gable ends is a key element used to break up the buildings and to create a rhythm that mimics the character of single-family dwellings.
- Care was taken to ensure that the architectural character of the building cluster containing the three affordable housing units did not depart from that of the remaining units, while still using the opportunity offered by the stacked unit design to avoid an entirely repetitious building façade along the street front.
- Building facades are treated with a variety of exterior cladding materials that are used to define each storey, as well as to provide a distinct building base and top (e.g. brick veneer base, with upper-storey Hardie siding and panels/trim, aluminum and glass balcony handrails etc.).
- The proposed colour scheme is primarily light and monochromatic, contrasted with darker accents (charcoal and black), and is intended to blend in with the existing adjacent surroundings.

Affordable Housing

- Through the Rezoning application review process, the "Town Housing (ZT80) – Railway Avenue" zone was introduced for this project under Bylaw 9563, which includes a density bonus provision up to a maximum of 0.72 FAR provided that prior to first occupancy of the building, the applicant includes three affordable housing units on-site, comprising approximately 15% of the total building area, which are to be secured by way of a housing agreement registered on title prior to Development Permit issuance.
- This Development Permit application makes use of the density bonusing provision of the ZT80 zone by proposing three affordable housing units in Building A that include a mix of ground-level and family-oriented designs. One unit is proposed to be a single storey at grade, and the two other units are proposed to be two-storey and are stacked above the ground-level unit. Each unit is serviced with one parking space located in a carport directly adjacent to the unit. The type and size of each unit is as follows:

Number of Units	Unit Type	Minimum Unit Area as per Affordable Housing Strategy	Proposed Unit Size (net FAR)
1	1 Bdrm + Den (single-storey, at grade)	50 m^2 (535 ft^2)	58.45 m^2 (630 ft^2)
2	3 Bdrm (two-storey, stacked)	91 m^2 (980 ft^2)	116.59 m^2 (1,206 ft^2)
Total: 3			Total: 282.61 m^2 (3,042 ft^2) (approx. 15% of total floor area proposed)

- The City's standard housing agreement must be registered on title prior to issuance of the Development Permit.

Crime Prevention Through Environmental Design (CPTED)

- The applicant has identified that the proposal responds to the following principles of CPTED, as encouraged in the design guidelines contained within the OCP:

  Natural Access Control

  - A single formal pedestrian access point/pathway is proposed to the centre of the site from Railway Avenue. The pedestrian access is well-defined through the use of a trellis structure, and the linear pathway provides a direct sightline. Pathways and entries throughout the site are illuminated by light fixtures on building faces.

  Natural Surveillance

  - Windows are proposed on buildings overlooking the central pedestrian pathway and common outdoor amenity space. Private yards along the street front are defined with low transparent metal fencing.

  Territoriality/Defensible Space

  - Private rear yards are defined by a combination of low wood picket fences and gates and higher solid wood privacy fencing where appropriate.

Accessible Housing

- The proposed development includes one convertible unit in Building D that is designed with the potential to be easily renovated to accommodate a future resident in a wheelchair. The potential conversion of this unit will require the installation of a vertical lift.
- 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.
  - Solid blocking in washroom walls to facilitate future grab bar installation beside toilets, bathtubs and showers.

Sustainability

- At rezoning stage, the applicant committed to achieving an EnerGuide Rating System (ERS) score of 82 for the proposed townhouses and to pre-ducting all units for solar hot water heating. Prior to rezoning bylaw adoption, a restrictive covenant is required to be registered on Title, specifying that all units are to be built to ERS 82 or higher, and that all units are to be solar hot water-ready.
- A Certified Energy Advisor has confirmed that the proposed townhouse units are designed to achieve an EnerGuide rating of 82. The key technical elements that enable this rating to be achieved will be specified in the legal agreement registered on Title to ensure that they are included in the building design at Building Permit stage (i.e., Heat Recovery Ventilator, Air Source Heat Pump).

Site Servicing & Off-site Improvements

- Servicing requirements and off-site improvements to support the proposed development were identified as part of the rezoning application, and include:
  - A 2.0 m wide road dedication along the entire south property line for widening of the existing east-west lane that daylights out to Railway Avenue; for a total width of 6.0 m.
  - Entrance into a Servicing Agreement (SA) for the design and construction of the widened east-west lane south of the site, the upgrading of the east-west walkway to the north of the site, installation of a treed/grass boulevard and sidewalk along Railway Avenue, a storm drainage upgrade, as well as the required water, storm, and sanitary service connections.

Conclusion

This proposal is for a 17-unit townhouse development at 8620 Railway Avenue, including three affordable housing units; with vehicle access from an east-west lane off of Railway Avenue.

The applicant has addressed the design issues identified through the rezoning process, as well as additional staff comments regarding site planning, urban design, architectural form and character and landscape design identified as part of the Development Permit application review process.

The proposal provides an appropriate interface to the surrounding single-family context and conforms to the applicable design guidelines contained within the OCP.

The development proposal complies with the requirements of the "Town Housing (ZT80) – Railway Avenue" zone, with no variances requested.

On this basis, staff recommend that the Development Permit be endorsed, and issuance by Council be recommended.

Cynthia Lussier
Planner 1
(604-276-4108)
CL:blg

Attachment 1: Location Map
Attachment 2: Development Application Data Sheet
Attachment 3: Excerpt from the June 21, 2017 Advisory Design Panel Meeting Minutes

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

- Receipt of a Letter-of-Credit for landscaping in the amount of $154,703.14 (including a 10% contingency).
- Registration of the City's standard Housing Agreement on title to secure three (3) affordable housing units, the combined habitable floor area of which shall comprise approximately 15% of the subject development's total residential building area. Occupants of the affordable housing units subject to the Housing Agreement shall enjoy full and unlimited access to and use of all on-site indoor and outdoor amenity spaces. The terms of the Housing Agreement shall indicate that they apply in perpetuity and provide for the following:

Unit Type	Number of Units	Minimum Unit Area	Maximum Monthly Unit Rent**	Total Maximum Household Income**
1 Bdrm + Den	1	50 m^2 (535 ft^2)	$950	$38,000 or less
3 Bdrm	2	90 m^2 (980 ft^2)	$1,437	$57,500 or less

** May be adjusted periodically as provided for under adopted City policy.

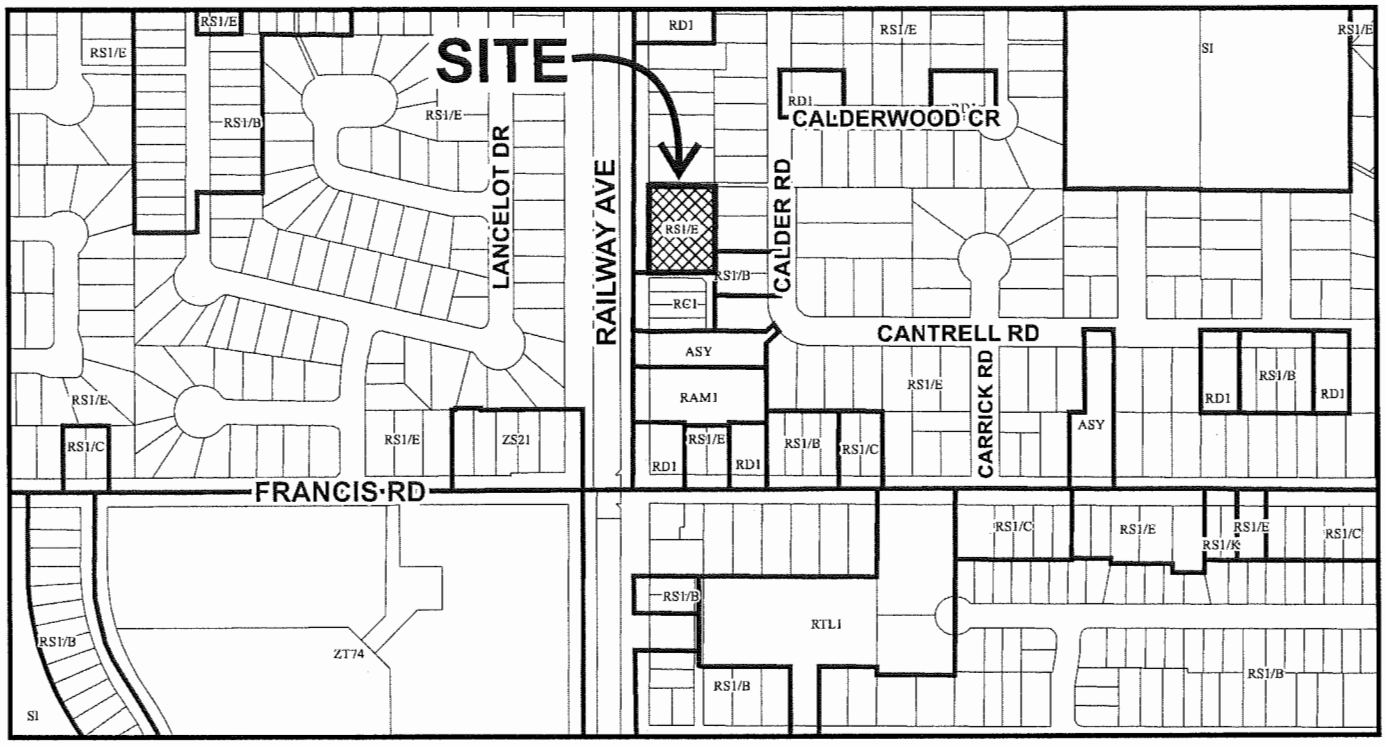
Prior to future Building Permit issuance, the applicant is required to complete the following:

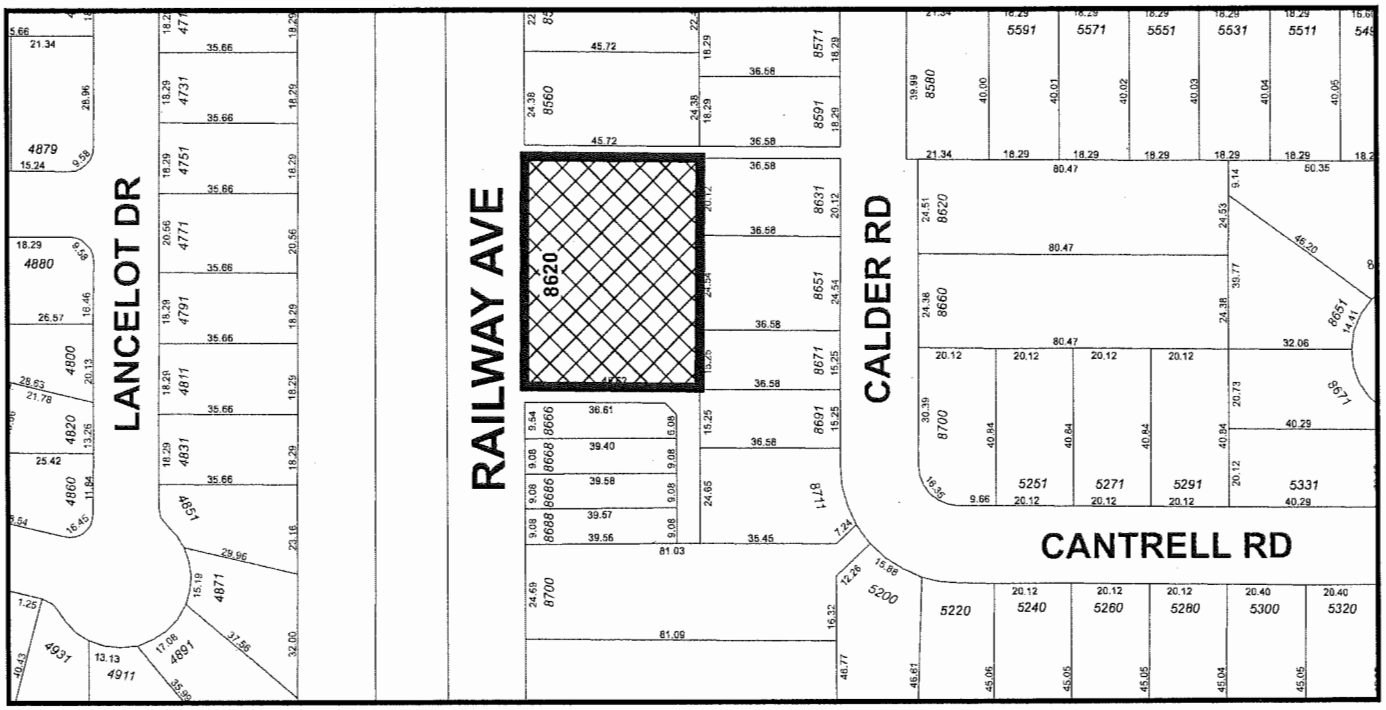
- Incorporation of three (3) affordable housing units in Building Permit plans, as specified in the Housing Agreement that is required via the Rezoning and Development Permit processes.
- Incorporation of accessibility measures (e.g. Convertible Unit features and Aging-in-place features) in Building Permit plans as determined via the Rezoning and Development Permit processes.
- Incorporation of energy efficiency measures and pre-ducting for solar hot water heating in Building Permit plans to achieve an EnerGuide rating of 82, as specified in the legal agreement that is required via the Rezoning process.

- Submission of a Construction Parking and Traffic Management Plan to the satisfaction of the City's Transportation Department (http://www.richmond.ca/services/ttp/special.htm). The Management Plan shall include location for parking for services, deliveries, workers, loading, application for any lane closures, and proper construction traffic controls as per Traffic Control Manual for works on Roadways (by Ministry of Transportation) and MMCD Traffic Regulation Section 01570.
- If applicable, payment of latecomer agreement charges, plus applicable interest associated with eligible latecomer works.
- Obtaining 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.*

ATTACHMENT 1

City of Richmond





DP 16-754735

Original Date: 01/12/17

Revision Date:

Note: Dimensions are in METRES

City of Richmond

Development Application Data Sheet

Development Applications Department

DP 16-754735 **Attachment 2**

Address: 8620 Railway Avenue

Applicant: 1037533 BC Ltd. Owner: Same

Planning Area(s): Blundell

	Existing	Proposed
Site Area:	2,720 m^2 (29,274 ft^2)	2,628 m^2 (28,287 ft^2) (after 2.0 m road dedication along south property line)
Land Uses:	One Single-family dwelling	17 townhouse units
2041 OCP Land Use Designation:	Neighbourhood Residential	No change
Arterial Road Housing Development Map Designation:	Arterial Road Townhouse	No change
Zoning:	Single Detached (RS1/E)	Town Housing (ZT80) – Railway Avenue
Number of Units:	1	17

	Bylaw Requirement	Proposed	Variance
Floor Area Ratio:	Max. 0.72	0.72	none permitted
Buildable Floor Area *:	1,892.16 m^2 (20,367.04 ft^2)	1,889 m^2 (20,333 ft^2)	none permitted
Lot Coverage:	Buildings: Max. 47% Non-porous surfaces (including buildings/ structures): Max. 65% Live plant material: Min. 25%	Buildings: 46% Non-porous surfaces (including buildings/ structures): 56.4% Live plant material: 26.3%	none
Min. Lot Area:	N/A	2,628 m^2	none
Min. Lot Width:	50 m	57.57 m (after 2.0 m road dedication along south property line)	none
Min. Lot Depth:	35 m	45.66 m (average)	none

* does not include areas that are excluded from FAR as per Richmond Zoning Bylaw 8500

	Bylaw Requirement		Proposed		Variance
Setback – Front Yard (west):	Min. 4.5 m		5.34 m		none
Setback – Side Yard (north):	Min. 3.0 m		3.20 m		none
Setback – Side Yard (south):	Min. 3.0 m		3.07 m		none
Setback – Rear Yard:	Min. 6.0 m		6.01 m		none
Height (m):	Max. 12.0 m (3 storeys)		11.63 m		none
On-Site Vehicle Parking Spaces – Regular (R):	Market housing	2 (R)/unit	Market housing	28 spaces (2 R x 14)	none
	Affordable housing	1 (R)/unit	Affordable housing	3 spaces (1 R x 3)	
On-Site Vehicle Parking Spaces – Regular (V):	0.2 (V) per unit = 4 spaces		5 spaces		none
On-Site Vehicle Parking Spaces – Total:			36 spaces		none
On-Site Vehicle Parking Spaces – Accessible:	0.02 of required visitor spaces (4) = 1 space		1 space		none
Tandem Parking Spaces:	Max. 50% = 14 spaces		12 spaces		none
Small Car Parking Spaces:	Max. 50% = 15 spaces		8 spaces		none
On-Site Bike Parking Spaces (Class 1 – Resident):	1.25 spaces/unit = 22		22		none
On-Site Bike Parking Spaces (Class 2 – Visitor):	0.2 spaces/unit = 4		4		none
	OCP Guideline		**Proposed**		
Amenity Space – Indoor:	Min. 70 m^2 or Cash-in-lieu ($1,000/unit)		Cash-in-lieu ($17,000)		
Amenity Space – Outdoor:	Min. 6 m^2/unit = 102 m^2		106.3 m^2		

Attachment 3

Annotated Excerpt from the Minutes to the
Advisory Design Panel Meeting

Wednesday, June 21, 2017 – 4:00 p.m.
Rm. M.1.003 / Richmond City Hall

1. DP 16-754735 - 17-UNIT TWO AND THREE-STOREY TOWNHOUSE DEVELOPMENT

ARCHITECT: Eric Law Architect Inc.

PROPERTY LOCATION: 8620 Railway Avenue

Applicant's Presentation

Eric Law, Eric Law Architect, Inc., and Denitsa Dimitrova, PMG Landscape Architects, presented the project and answered queries from the Panel.

Panel Discussion

Comments from the Panel were as follows:

- consider introducing additional colours for entry doors to provide colour variation and visual interest to the proposed development; ***Colours to the entry doors added on A14 and A15***
- consider installing a trellis over the mailboxes to mitigate their tacked on appearance on Building D; ***There is already a covered roof over the mail box and may not require a trellis***
- consider lowering the bulkheads of the carports for affordable housing units to soften their appearance; ***bulkhead lowered as shown on A8***
- consider aligning the walkway on the west parcel with the walkway on the east parcel to provide continuous pedestrian connectivity from the street to the outdoor amenity space; ***pattern aligned, please see L1***
- consider removing the extra small visitor parking space along the north property line to create a turnaround space for the other visitor parking space directly across the internal drive aisle; ***prefer to have extra visitor parking for the dwellers in this townhouse***
- support the provision for affordable housing rental units; ***noted***
- overall form and character of the proposed development is appropriate; ***noted***

- support the widening and upgrading of the east-west vehicle lane along the south property line and the existing east-west walkway along the north property line; ***noted***
- proposed colour scheme for the project is appropriate for its larger neighbourhood context; ***noted***
- also support the provision of affordable housing rental units; ***noted***
- appreciate the provision of affordable housing rental units and a convertible unit with future provision for an elevator; ***noted***
- convertible unit door from the garage to the hallway and door to the future elevator swing to the wrong direction; consider reversing the swing of these doors to enhance accessibility; ***door swing revised on A7***
- powder room door on the first level of the convertible unit should swing outward, not inward to enhance accessibility; ***door swing revised on A7***
- consider outward swinging doors for the two washrooms on the second level of the convertible unit; ***door swing revised on A7***
- applicant needs to clarify whether access to the convertible unit stairway from the garage is through a bi-fold door; ***Bi-fold is for the hot water tank room. Does not need to be accessible.***
- locating the convertible unit adjacent to garbage and recycling and electrical room is not appropriate due to potential noise; consider installing acoustic sound barriers on the walls of the convertible unit; ***acoustic insulation added on this demising wall on A7***
- commend the City and the applicant for accommodating additional density for the proposed townhouse development on Railway Avenue; hope to see higher densities for future residential developments in the area; ***noted***
- like the street treatment; support the relocation of the existing sidewalk at the curb to the west property line of the subject site to provide a deep treed and grassed boulevard; ***noted***
- support the retention of the existing horse chestnut tree along Railway Avenue; the applicant and the City need to ensure adequate tree protection for the retained tree as it provides a strong anchor to the subject site; ***noted***
- appreciate the proposed treatment of the end elevations, i.e. north and south elevations, which create visual interest; ***noted***
- consider the safety of future residents and visitors of the proposed development crossing Railway Avenue from the pedestrian walkway along the north property line to the bus stop directly across; City needs to coordinate with TransLink for possible relocation of the bus stop to a safer location; ***noted***
- support the retention and upgrading of the existing east-west pedestrian walkway along the north property line; also support matching existing grades wherever possible around the perimeter of the subject site; ***noted***

- support the tree selection for the project; proposed planting of deciduous trees on the front yards along Railway Avenue is appropriate; ***noted***
- not concerned with the proposed surface treatment of the internal drive aisle; support the shared use of the drive aisle for vehicles and pedestrians; ***noted***
- consider replacing *populous tremuloides ericta* trees in the backyards of townhouse units with a more appropriate species due to their aggressive roots and considering the small size of the backyards and the trees' proximity to the building; ***Populous tremuloides ericta trees in the backyards of townhouse units have been replaced with Magnolia kobus stellate (White Star Magnolia)***
- reconsider the planting of a pine tree at the north façade of Unit 11 as it is located in a shady area; consider replacing with a more shade tolerant species; ***Pine tree has been replaced with Picea omorika 'bruns' (Bruns Serbian Spruce)***
- reconsider the proposed small lawn areas along the east-west pedestrian walkway due to survivability concerns; consider introducing shade tolerant ground covers; ***Shade tolerant shrub species have been proposed on-site along the east-west pedestrian walkway. Please see L1 for your reference.***
- fencing or landscaping around the hydro kiosk at the back of the site is not necessary as it will make the area inaccessible; visibility of hydro kiosks to pedestrians is not a concern; ***noted***
- the project is on the right track from a sustainability perspective; support the proposed sustainability features, e.g. energy star appliances, high efficiency windows, walls and roof assemblies; ***noted***
- support the proposed heat pump and heat recovery mechanical systems which differentiate the subject development from similar developments; ***noted***
- massing is well handled considering the tightness of the site; ***noted***
- appreciate the mid-block breaks between buildings; outdoor amenity space provides a good break between buildings at the east parcel; ***noted***
- appreciate the proposed mid-block pedestrian walkway connection to the street; however, consider increasing its width by one-half to one meter to allow planting on one side and address potential CPTED concerns; also support the recommendation to align the walkway with the outdoor amenity space; ***The proposed mid-block pedestrian pathway from the street to the Outdoor Amenity Space is 1.5 m (5 ft) wide with a landscape strip on one side to address potential CPTED concerns, and it is aligned with the Outdoor Amenity Space.***
- support the proposed location of garbage and recycling, electrical room and hydro kiosk; the hydro kiosk is not very prominent and does not require screening; ***noted***
- support the comment to introduce punch colours to provide identity to individual townhouse units; ***Colours to the entry doors added on A14 and A15***

- support the proposed light and dark colour scheme which is a welcome departure from earthy tones in the area; however, consider toning down the dark colour of the panel which is close to the dark roof colour; ***prefer a stronger contrast of the black, grey and white tone.***
- proposed use of brick in the lower portions of the building works well; ***noted***
- recommend that City guidelines encourage contemporary or modern style for townhouse developments in the area as opposed to the English Tudor expression prevalent in the neighbourhood; ***noted***
- proposed landscaping works well; however, the application of colours for paving treatment appears arbitrary; consider variation in texture; ***Permeable pavers in two different colours have been proposed to distinguish drive-aisle and surface parking areas (Harvest Blend) from pedestrian pathways (Gray Blend)***
- consider a pedestrian strip across the internal drive connecting pedestrians from the west parcel to the outdoor amenity space, e.g. rumble strips as a traffic calming measure and for pedestrian safety; ***There is a pedestrian strip across the internal drive-aisle connecting pedestrians from the east-west pedestrian pathway to the Outdoor Amenity Space.***
- surface paving textures should be zone-specific and not randomized; ***The layout of surface paving has been proposed to serve the 3 functions of: defining the site entry off the lane, defining the end of the drive-aisle, and defining pedestrian routes on-site on both sides of the drive-aisle. The two separate asphalt areas on the internal drive-aisle can serve as informal play surfaces for children.***
- support the location of the outdoor amenity space; however, the proposed play equipment appears dominant and isolated in the space; consider a more natural and dynamic play structure for children; N***atural play elements have been incorporated to fit into the Outdoor Amenity Space to provide different play opportunities such as climbing, social, imagination, balance, motor skills.***
- consider eliminating the common pathway that runs along the front yards of the Affordable Housing units as it highlights the difference between the affordable housing units and regular market units; ***All affordable housing units extended individual path to the city sidewalk***
- documentation of the project is brief and legible; drawings are clear and readable; however, the applicant could have added diagrams to further explain the design rationale; ***noted***
- the project is challenging due to the large building footprint in a small site; support the increased density of the proposed development which is welcome in the area; overall, the applicant has done a good job; ***noted***
- support the proposed colour scheme which provides a suburban character to the project; ***noted***

- support the recommendation to add colour; variation in door colours could provide individuality and differentiation to townhouse units; ***Colours to the entry doors added on A14 and A15***
- consider incorporating more contemporary details to modernize the project and provide a more urban feel to it; ***We have a touch of contemporary feel by using glass railing, brick facing and black and grey color palettes,***
- rationale for surface paving treatment needs to be clarified; consider consolidating the two separate asphalt areas on the internal drive aisle and locating them adjacent to the outdoor amenity area to provide more play opportunities for children; ***The surface paving treatment has been revised and two separate asphalt areas on the internal drive-aisle can serve as informal play surfaces for children.***
- consider accentuating the small planting areas along the internal drive aisle; ***Small planting areas along the internal drive-aisle have been added.***
- design development is needed for the proposed landscaping; applicant needs to clarify the rationale for proposed landscaping on the outdoor amenity space, street frontage, and public space from a planting point of view; ***See above for landscape rationale in the Outdoor Amenity Space. The streetscape has been improved with low aluminum rail fencing with stone-faced columns set back on-site to accommodate visually interesting plant species and which jogs in every 15 m. Plant species along this frontage include Etna false spiraea (red), Dwarf fountain grass, Golden variegated Japanese sedge, scarlet meidiland rose, little-leaf box. The Arbour feature with vines has been proposed at the entrance point of the pedestrian pathway from the street to the interior of the site.***
- understand the rationale for the layout of the affordable housing units; however, the units appear contained; consider incorporating a lawn for Affordable Housing Unit 5 and a more "democratic" layout where the affordable townhouse units directly access the street as opposed to accessing the pedestrian walkway; ***Affordable units with extended individual path to the city sidewalk***
- support the proposed colour scheme; planting palette should add more colour to the proposed development; ***Colours to the entry doors added on A14 and A15***
- support the recommendation that the hydro kiosks do not require fencing; ***noted***
- support the recommendation to extend the individual pathways to each affordable housing unit entry up to the street sidewalk; ***Affordable units extended individual path to the city sidewalk***
- delete reference to gravel in the non-porous area diagram (Drawing A11) in the materials package provided by the applicant. ***deleted***

Panel Decision

It was moved and seconded

That DP 16-754735 be supported to move forward to the Development Permit Panel subject to the applicant giving consideration to the comments of the Advisory Design Panel.

CARRIED

City of Richmond

Development Permit

No. DP 16-754735

To the Holder: 1037533 BC LTD.

Property Address: 8620 RAILWAY AVENUE

Address: C/O ERIC LAW ARCHITECT INC.
#216 – 288 W 8TH AVENUE
VANCOUVER, BC V5Y 1N5

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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. 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.a to 4.b attached hereto.
4. Sanitary sewers, water, drainage, highways, street lighting, underground wiring, and sidewalks, shall be provided as required.
5. As a condition of the issuance of this Permit, the City is holding the security in the amount of $154,703.14 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.
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 and the security shall be returned in full.
7. 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.

Development Permit
No. DP 16-754735

To the Holder: 1037533 BC LTD.

Property Address: 8620 RAILWAY AVENUE

Address: C/O ERIC LAW ARCHITECT INC.
#216 – 288 W 8TH AVENUE
VANCOUVER, BC V5Y 1N5

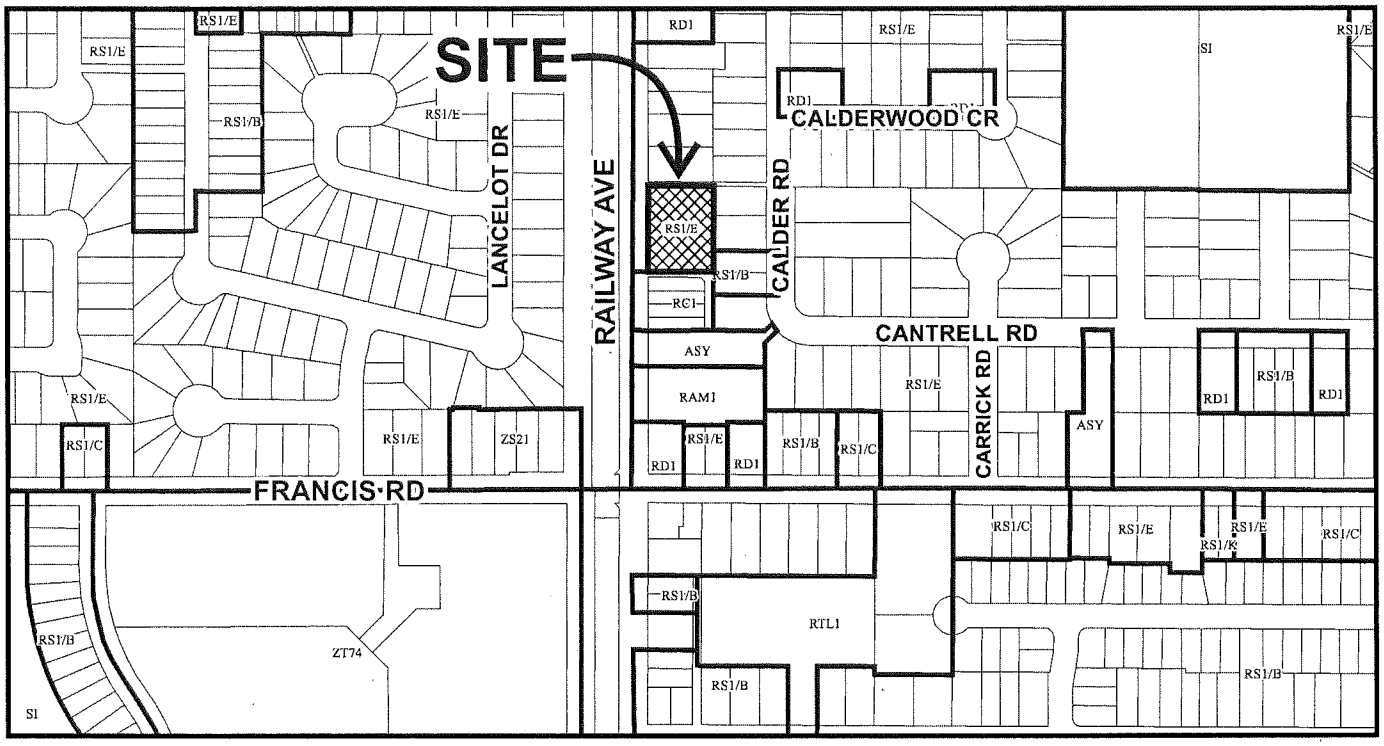
This Permit is not a Building Permit.

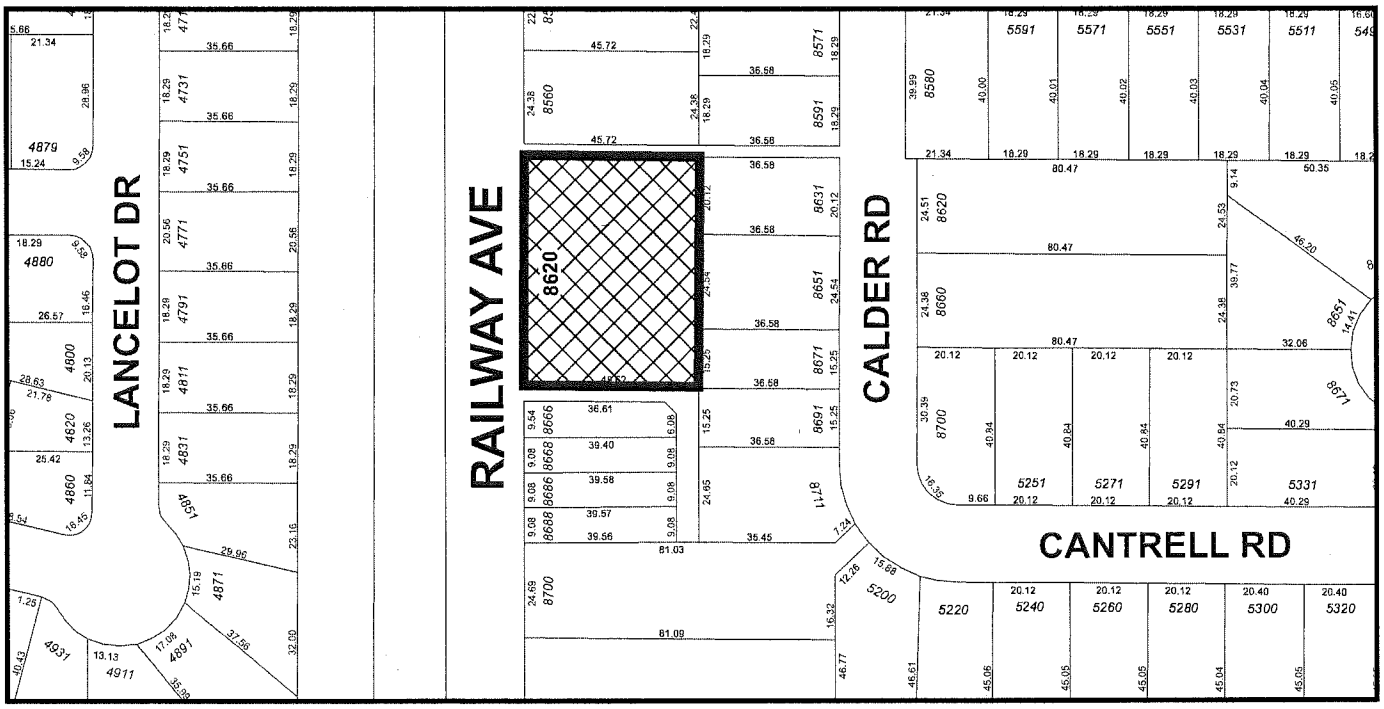
AUTHORIZING RESOLUTION NO. ISSUED BY THE COUNCIL THE DAY OF , .

DELIVERED THIS DAY OF , .

MAYOR

City of Richmond





DP 16-754735
SCHEDULE "A"

Original Date: 01/12/17

Revision Date:

Note: Dimensions are in METRES

PROPOSED TOWNHOUSE AT 8620 RAILWAY AVENUE, RICHMOND, BC

DEVELOPMENT DATA

(A) CIVIC ADDRESS:	8620 RAILWAY AVENUE, RICHMOND, BC		
(B) LEGAL DESCRIPTION:	LOT 16, SECTION 24, BLOCK 4 NORTH RANGE 7 WEST, NWD PLAN 3285		
(C) LOT AREA:	2,720 SM (29,274SF) BEFORE 2M ROAD DEDICATION APPROX 2,628 SM (APPROX 28,287SF) AFTER 2M ROAD DEDICATION		
(D) ZONING USE	CURRENT: RS1/E,		
	CURRENT ZONING (UNDER RS1 ZONING)	PROPOSED REZONING (ZT80–RAILWAY AVENUE)	PROPOSED
(E) FLOOR AREA RATIO	0.55 TO 454.5 SM 0.3 TO REST OF SITE AREA	0.72 TOTAL GROSS FLOOR AREA 0.72 X 2,628 SM = 1,892.16 SM (20,367 SF)	1,889SM (20,333 SF) GROSS FLOOR AREA 0.719 (AFTER ROAD DEDICATION)
(F) NUMBER OF UNIT:	1 PER LOT		17 UNITS INCLUDE [3 AFFORDABLE RENTAL UNITS: 2 TYPE A3 (GFA 1206SF) & 1 TYPE A4 UNIT (GFA 630 SF) TOTAL RENTAL GFA 3042 SF (APPROX 15%)
(G) BUILDING COVERAGE:	MAX – 45%	FOR BUILDING – MAX 47% FOR NON–POROUS AREA – MAX 65% FOR LIVE PLANT –MIN 25%	13023 SQ. FT. / 28287 SQ FT = 46.0% TOTAL NON POROUS AREA: 15959 SQ. FT / 28287 SQ. FT = 56.4% LIVE PLANT AREA: 7430 SQ. FT / 28287 SQ. FT = 26.3% PERMEABLE PAVERS 4897 SQ. FT. / 28287 SQ. FT= 17.3%
(H) BUILDING HEIGHT:	MAX HEIGHT – 9M	MAX MAIN BUILDING HEIGHT – 12M	BUILDING HEIGHT 11.63M
(I) SETBACK:	FRONTYARD – 6M SIDEYARD – 2M REARYARD – 6M	FRONTYARD FACING RAILWAY – 4.5M NORTH AND SOUTH SIDEYARD – 3M REAR YARD – 6M	FRONTYARD FACING RAILWAY – 5.34M (17'6") N. SIDEYARD – 3.20M (10'6") S. SIDEYARD – 3.07M (10'1") TO NEW PL REAR YARD – 6.01M (19'9")
(J) OUTDOOR AMENITY		6.0 SM (64.58 SF) PER UNIT 6SM X17 = 102 SM (1098 SF)	AMENITY 106.3 SQ.M. (1144.3 SQ. FT.)
(K) PARKING:	2 PER DWELLING UNIT	2 PER DWELLING UNITS X14 = 28 MAX TANDEM ARRANGEMENT =14 (28X50%) 1 PER RENTAL AFFORDABLE X3 = 3	RESIDENTIAL PARKING: 11 REGULAR 8 SMALL 12 REGULAR (IN TANDEM ARRANGEMENT)
		0.2 VISITOR PARKING / UNIT X17 = 4 (INCLUDE 1 HANDICAPPED PARKING 0.02X4=1)	VISITOR PARKING: 1 DISABLED 3 REGULAR 1 EXTRA SMALL PARKING
		VISITOR BICYCLE 0.2 PER DWELLING UNIT X17= 4 RESIDENTIAL BICYCLE STORAGE 1.25 PER DWELLING UNIT X17=22	BICYCLE VISITOR BIKE RACK 4 RESIDENTIAL 22 (INSIDE GARAGE)

NORTH

1 — LOCATION MAP
NTS

DRAWING LIST

A1 DEVELOPMENT SUMMARY
A2 SITE PLAN GF
A3 SITE PLAN 2F
A4 SITE PLAN 3F
A5 SITE PLAN ROOF
A6 UNIT LAYOUT
A7 UNIT LAYOUT
A8 ELEVATIONS
A9 ELEVATIONS
A10 ELEVATIONS AND SECTION
A11 AREA DIAGRAM
A12 AREA DIAGRAM
A13 FAR DIAGRAM
A14 EXTERIOR COLOR
A15 EXTERIOR COLOR

ONE CONVERTIBLE UNIT IS PROVIDED IN THIS DEVELOPMENT

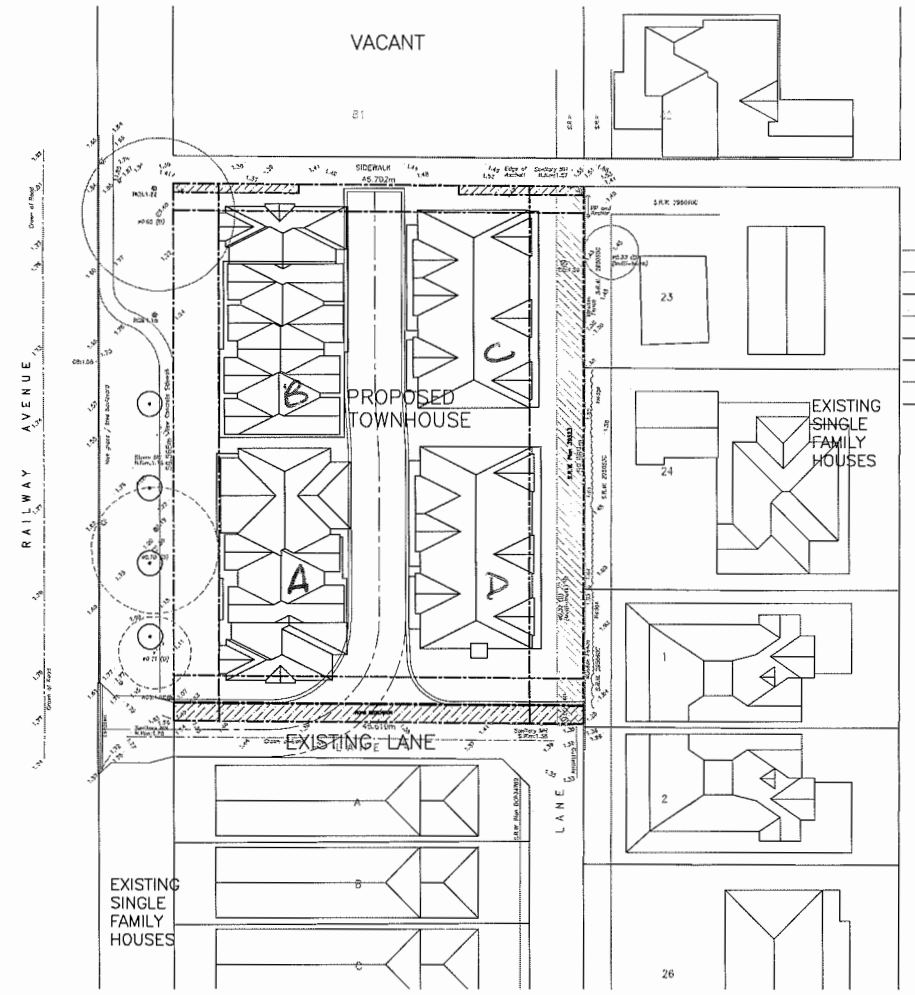
ALL THE UNITS IN THIS PROJECT SHALL INCORPORATE THE FOLLOWING FEATURES IN THE UNITS

(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

TOWNHOUSE SHALL MEET CITY'S ENERGUIDE 82 REQUIREMENTS AS PER ENERGUIDE REPORT PREPARED BY CAPTURE ENERGY AUGUST 31, 2017, AND ALL UNIT ARE TO BE PRE–DUCT FOR FUTURE HOT WATER HEATING

A MINIMUM OF 20% OF PARKING STALLS TO BE PROVIDED WITH A 120V RECEPTACLE TO ACCOMMODATE ELECTRIC VEHICLE CHARGING EQUIPMENT.

AN ADDITIONAL 25% OF PARKING STALLS TO BE CONSTRUCTED TO ACCOMMODATE THE FUTURE INSTALLATION OF ELECTRIC VEHICLE CHARGING EQUIPMENT (E.G. PRE–DUCTED FOR FUTURE WIRING).



2 — CONTEXT PLAN
1/32" TO 1'–0"

ERIC LAW ARCHITECT

ericlaw.architect@gmail.com
216 288 16TH AVENUE VANCOUVER BC V5Y1N3

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FAX: (604) 909–2697

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	ISSUED
1	2016.12.22 FOR DEVELOPMENT PERMIT APPLICATION
2	2017.06.14 FOR ADP MEETING
3	2017.08.31 FOR CITY REVIEW
4	2017.10.05 FOR DP PANEL REVIEW

	REVISION
2	2017.10.04 REVISED DOOR COLOURS
1	2017.08.08 REVISED PER CITY & ADP COMMENTS

PROPOSED TOWNHOUSE AT 8620 RAILWAY AVENUE RICHMOND BC

-

DEVELOPMENT SUMMARY

PROJECT NUMBER:	15–19
ISSUED:	10/5/2017
DRAWN BY:	EL
CHECKED BY:	EL
FILENAME:	15–19_ERW_171005–DP.DWG

DP 16-754735

PLAN # 1.a

A1

DP 16–754735

DEVELOPMENT PERMIT

NOTE:

(1) THE OFF-SITE WORKS ALONG RAILWAY AVE AND ALONG THE NORTH PROPERTY LINE ARE TO BE AS PER THE SA DRAWINGS;

(2) THE LOT GRADING ALONG THE NORTH PROPERTY LINE IS TO MATCH THE GRADE OF THE OFF-SITE ADJACENT WALKWAY.

A MINIMUM OF 20% OF PARKING STALLS TO BE PROVIDED WITH A 120V RECEPTACLE TO ACCOMMODATE ELECTRIC VEHICLE CHARGING EQUIPMENT.

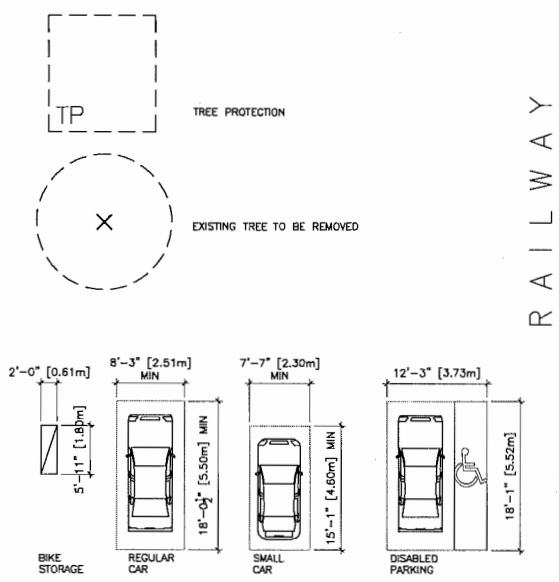
AN ADDITIONAL 25% OF PARKING STALLS TO BE CONSTRUCTED TO ACCOMMODATE THE FUTURE INSTALLATION OF ELECTRIC VEHICLE CHARGING EQUIPMENT (E.G. PRE-DUCTED FOR FUTURE WIRING).

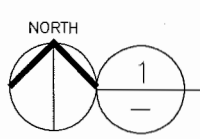
FINISH GRADE:

NW LOT CORNER:	1.30	NE HOUSE CORNER:	1.93
NE LOT CORNER:	1.39	SE HOUSE CORNER:	1.93
SW LOT CORNER:	1.28	SW HOUSE CORNER:	1.93
NW LOT CORNER:	1.56	NW HOUSE CORNER:	1.93
	1.38		1.93

AVERAGE GRADE: 1.655 M (5.43')
MAX CROWN OF THE ROAD: 1.81M

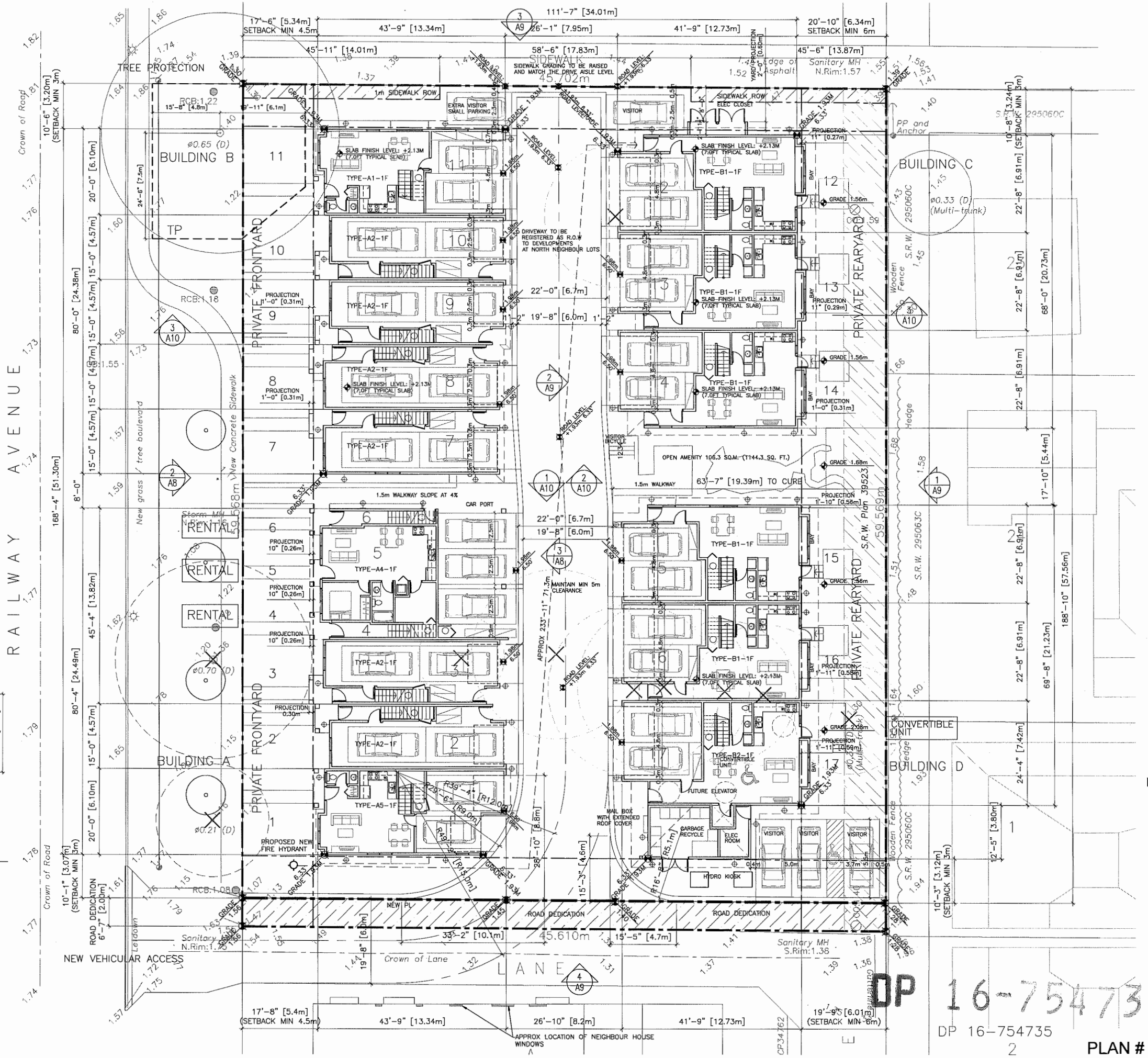
BUILDING HEIGHT: 13.17M −1.655= 11.51M





SITE PLAN G/F
3/32" TO 1'-0"
0 10' 20'

EXTERIOR WALL LIGHT



ERIC LAW ARCHITECT

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	REVISION

PROPOSED TOWNHOUSE AT 8620 RAILWAY AVENUE RICHMOND BC

-

SITE PLAN GF

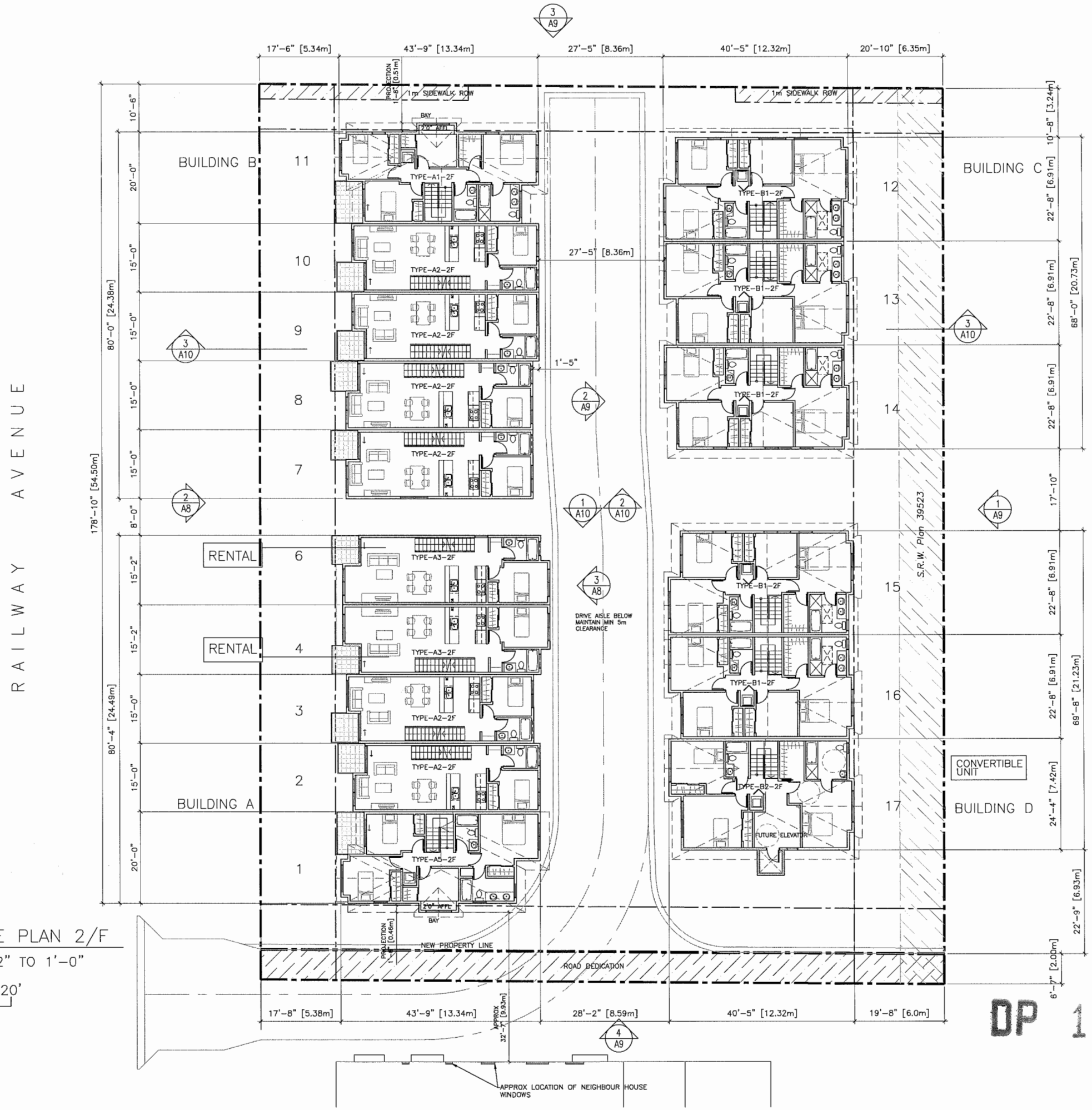
PROJECT NUMBER:	15-19
ISSUED:	10/5/2017
DRAWN BY:	EL
CHECKED BY:	EL
FILENAME:	15-19_ERW_171005-DP.DWG

DP 16-754735

DP 16-754735
2

A2

PLAN # 1.b DEVELOPMENT PERMIT



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

0 10' 20'

DP 16-754735

DP 16-754735 PLAN # 1.c

DEVELOPMENT PERMIT

ERIC LAW ARCHITECT

ericlaw.architect@gmail.com
215 288 W8TH AVENUE VANCOUVER BC
V5Y1N5

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FAX: (604) 909-2697

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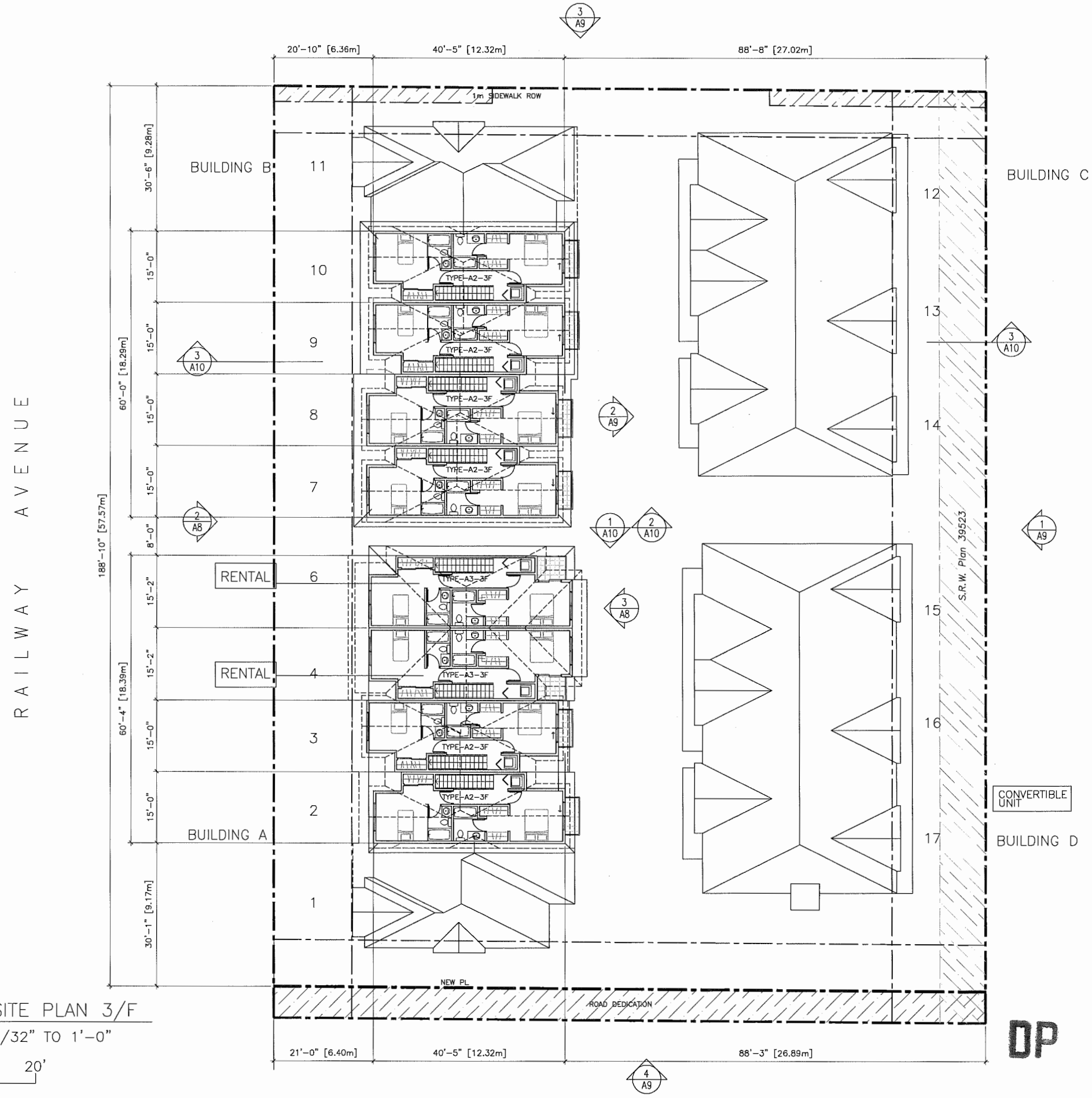
	REVISION
2	2017.10.04 REVISED DOOR COLOURS
1	2017.08.06 REVISED PER CITY & ADP COMMENTS

PROPOSED TOWNHOUSE AT
8620 RAILWAY AVENUE
RICHMOND BC
-

SITE PLAN 2/F

PROJECT NUMBER:	15-19
ISSUED:	10/5/2017
DRAWN BY:	EL
CHECKED BY:	EL
FILENAME:	15-19_ERW_171005-DP.DWG

A3



1 SITE PLAN 3/F
3/32" TO 1'-0"
0 10' 20'

DP 16-754735

PLAN # 1.d

DP 16-754735

DEVELOPMENT PERMIT

ERIC LAW ARCHITECT

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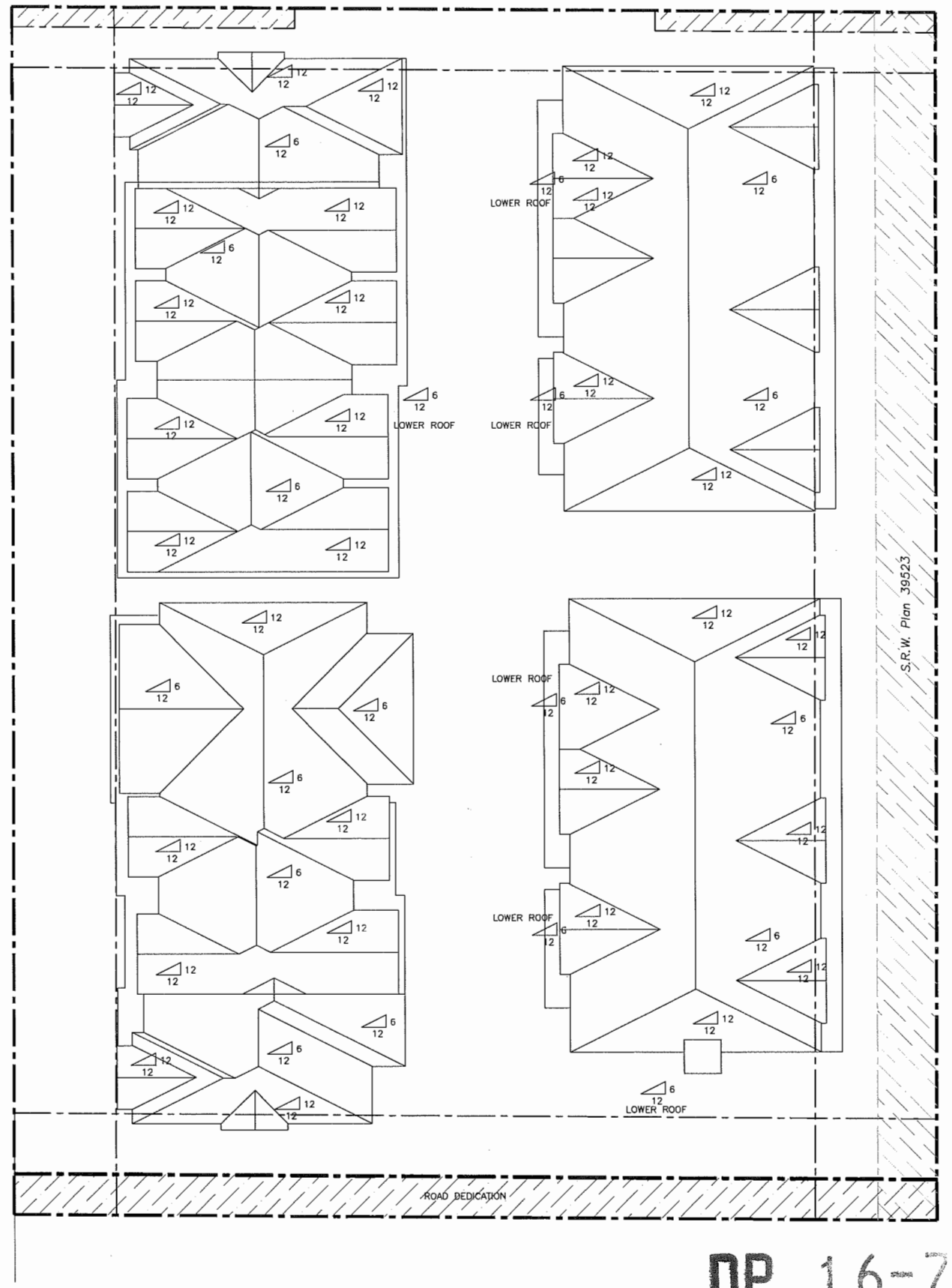
PROPOSED TOWNHOUSE AT
8620 RAILWAY AVENUE
RICHMOND BC
-
SITE PLAN 3/F

PROJECT NUMBER:	15-19
ISSUED:	10/5/2017
DRAWN BY:	EL
CHECKED BY:	EL
FILENAME:	15-19_ERW_171005-DP.DWG

A4



NORTH

1 ROOF PLAN
3/32" TO 1'-0"

0 10' 20'

DP 16-754735

PLAN # 1.e

DP 16-754735

DEVELOPMENT PERMIT

ERIC LAW ARCHITECT

ericlaw.architect@gmail.com
216 288 W8TH AVENUE VANCOUVER BC V5Y1N5

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FAX: (604) 909-2997

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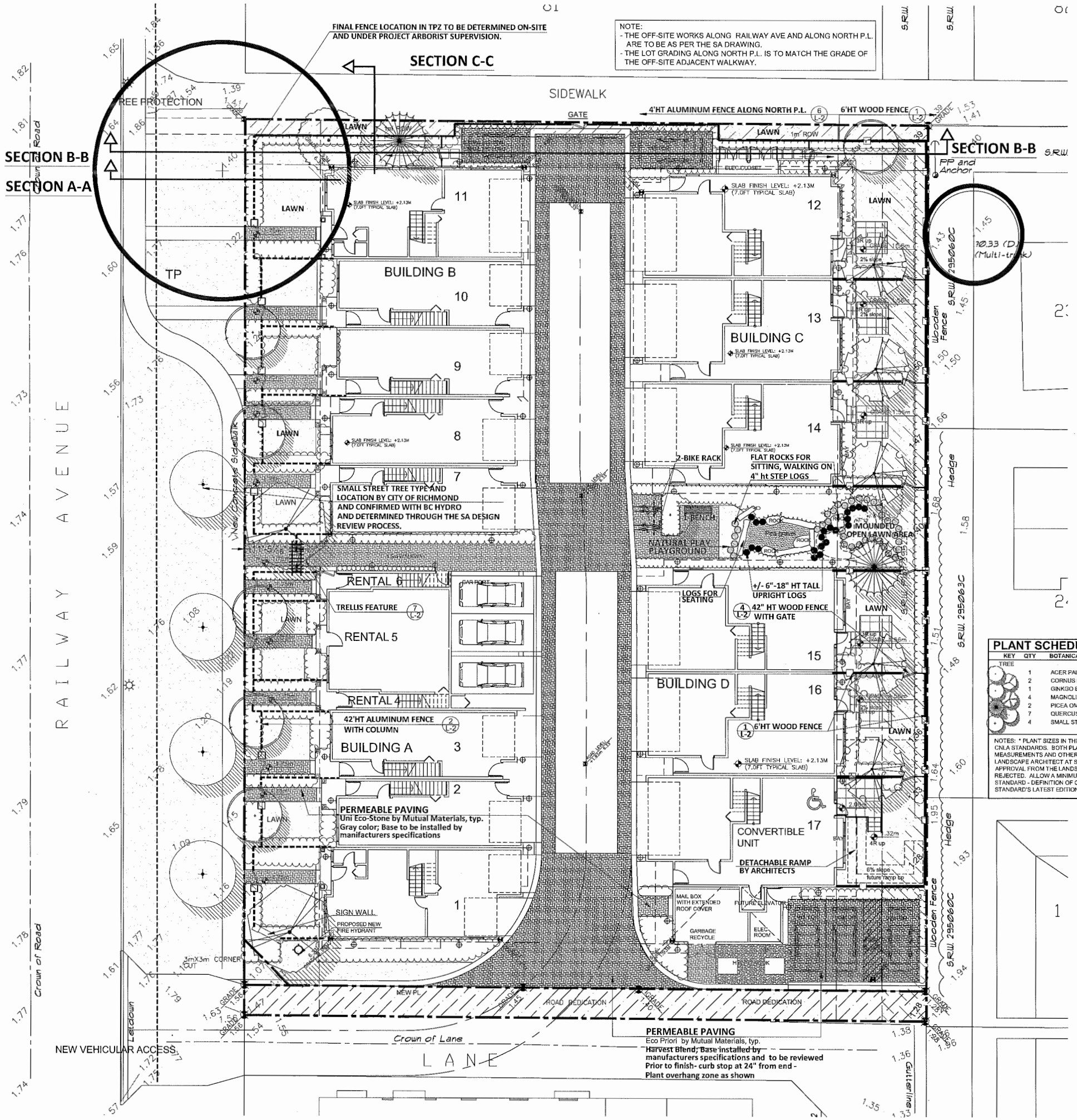
1	2017.08.08 REVISED PER CITY & ADP COMMENTS

PROPOSED TOWNHOUSE AT
8620 RAILWAY AVENUE
RICHMOND BC
-

SITE PLAN ROOF

PROJECT NUMBER:	15-19
ISSUED:	10/5/2017
DRAWN BY:	EL
CHECKED BY:	EL
FILENAME:	15-19_ERW_171005-DP.DWG

A5



Whishbone Turisno 2 Space Bike Rack
Model Number: TOBRGP-38 (Galvanized and Powder Coated)
Bengal Textured Silver;
Plastic Slats-Redwood color
Ph.: 604 626 0476

Whishbone MODENA PARK BENCH;
MODEL MWB-5;
Bengal Textured Silver;
Ultraplast Recycled
Plastic Slats-Redwood color

PLANT SCHEDULE

PMG PROJECT NUMBER: 16-107

KEY	QTY	BOTANICAL NAME	COMMON NAME	PLANTED SIZE / REMARKS
TREE				
	1	ACER PALMATUM	JAPANESE MAPLE	6CM CAL; B&B
	2	CORNUS KOUSA	KOUSA DOGWOOD	6CM CAL; 2M STD; B&B
	1	GINKGO BILOBA 'FASTIGIATA'	FASTIGIATA MAIDENHAIR	6CM CAL; 2M STD; B&B
	4	MAGNOLIA KOBUS STELLATA	STAR MAGNOLIA (WHITE)	6CM CAL; 2M STD; B&B
	2	PICEA OMORIKA 'BRUNS'	BRUNS SERBIAN SPRUCE	3.5M HT; B&B
	7	QUERCUS PALUSTRIS 'GREEN PILLAR'	GREEN PILLAR PIN AK	6CM CAL; 2M STD; B&B
	4	SMALL STREET TREE	TYPE AND LOCATION BY CITY	6CM CAL; B&B

NOTES: * PLANT SIZES IN THIS LIST ARE SPECIFIED ACCORDING TO THE BC LANDSCAPE STANDARD, LATEST EDITION. CONTAINER SIZES SPECIFIED AS PER CNLA 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

DP 16-754735

PLAN # 2.a

16107-7.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.
6	17.OCT.03	REVISION AS PER CITY COMMENTS	DD
5	17.AUG.08	REVISION AS PER CITY COMMENTS	DD
4	17.MAY.25	NEW SITE PLAN	DD
3	16.DEC.15	REVISED LIVE PLANT AREA TO MIN25%	DD
2	16.NOV.28	NEW SITE PLAN	DD
1	16.JUL.11	REVISION AS PER CITY COMMENTS	DD

CLIENT: 1037533 BC LTD.

PROJECT:

17 UNIT TOWNHOUSE DEVELOPMENT

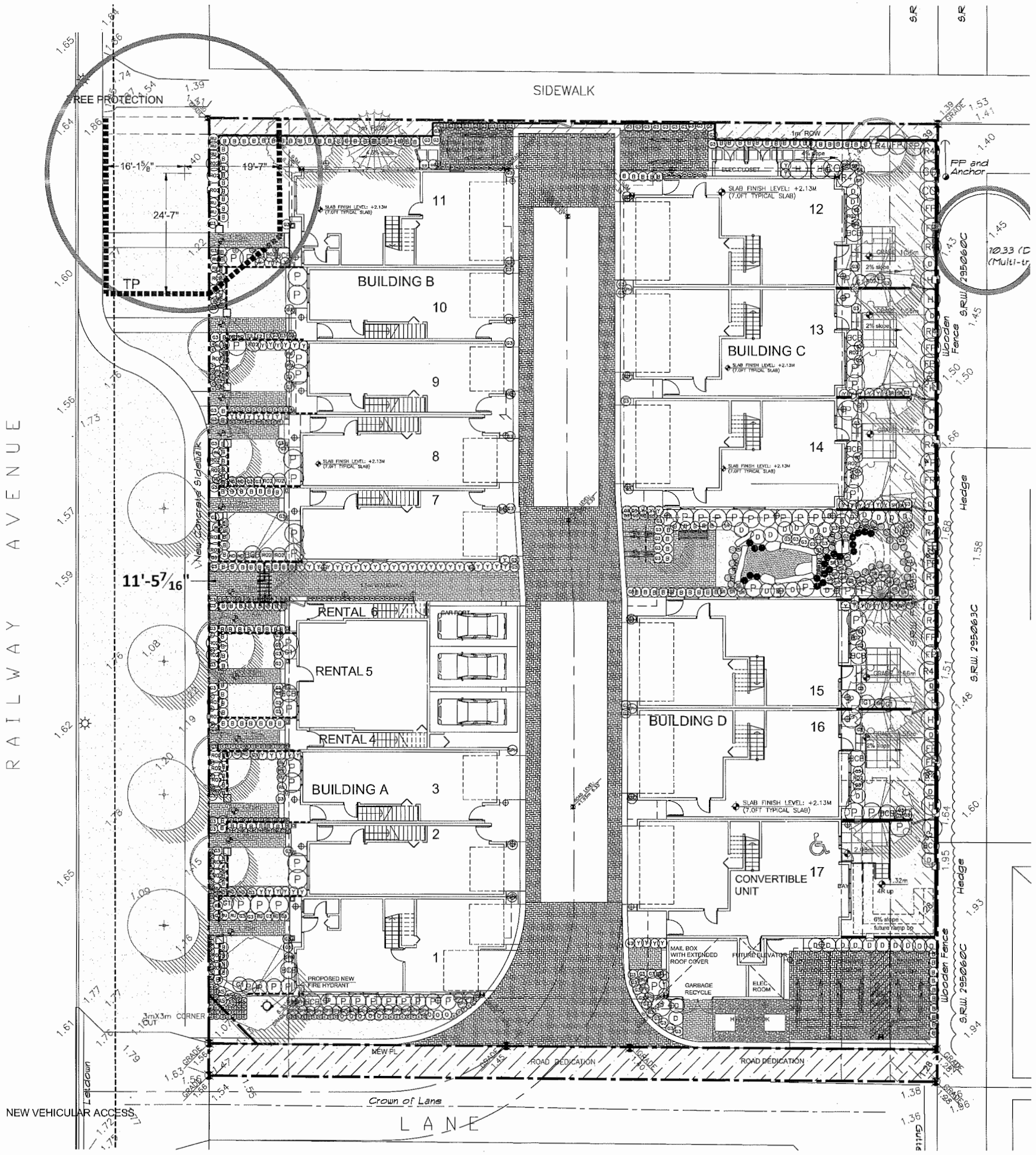
8620 RAILWAY AVENUE
RICHMOND

WITH : ERIC LAW ARCHITECT INC.
DRAWING TITLE:

LANDSCAPE PLAN

DATE: July 08, 2016
DRAWING NUMBER: **L1**
SCALE: 3/32"=1'-0"
DRAWN: DD
DESIGN: DD
CHK'D: PCM
OF 6

PMG PROJECT NUMBER: **16-107**



PLANT SCHEDULE

PMG PROJECT NUMBER: 16-107

KEY	QTY	BOTANICAL NAME	COMMON NAME	PLANTED SIZE / REMARKS
SHRUB				
AB	12	BERBERIS THUNGBERGII 'MONOMB'	CHERRY BOMB BARBERRY	#2 POT
BX	159	BUXUS MICROPHYLLA 'WINTER GEM'	LITTLE-LEAF BOX	#2 POT; 25CM
CS	3	CORNUS ALBA 'KELSEYII'	KELSEY DWARF DOGWOOD	#2 POT
HM	14	HYDRANGEA M. 'ENDLESS SUMMER'	ENDLESS SUMMER BIGLEAF HYDRANGEA	#3 POT; 60CM
IX	30	ILEX 'SKY PENCIL'	SKY PENCIL HOLLY	#3 POT
PX	14	PHOTINIA X FRASERI	FRASER PHOTINIA	1.0M HT
PJ	63	PIERIS JAPONICA 'VALLEY FIRE'	VALLEY FIRE PIERIS	#3 POT; 50CM
RC	13	RHODODENDRON 'CHRISTMAS CHEER'	CHRISTMAS CHEER RHODODENDRON	#3 POT; 50CM
RM	34	ROSA 'SCARLET MEIDILAND'	SCARLET MEIDILAND ROSE	#2 POT; 40CM
SR	42	SKIMMIA REEVESIANA	DWARF SKIMMIA	#1 POT
TH	81	TAXUS X MEDIA 'HICKSII'	HICKS YEW	1.0M B&B
VD	43	VIBURNUM DAVIDII	DAVID'S VIBURNUM	#2 POT; 30CM
GRASS				
CO	178	CAREX MORROWII 'AUREO VARIEGATA'	GOLDEN VARIGATED JAPANESE SEDGE	11 CM POT
MS	7	MISCANTHUS SINENSIS 'MORNING LIGHT'	MORNING LIGHT JAP.SILVER GRASS	#2 POT
OJ	8	OPHIOPOGON PLANISCAPUS 'NIGRESCENS'	BLACK MONDO GRASS	#1 POT
PA	157	PENNISETUM ALOPECUROIDES 'HAMLIN'	DWARF FOUNTAIN GRASS	#1 POT; HEAVY
PERENNIAL				
AS	5	ASTILBE X 'ETNA'	ETNA FALSE SPIRAEA (RED)	#2 POT; 5 EYE OR LARGER
RB	27	RUDBECKIA FULGIDA VAR SULLIVANTII 'GOLDILOCKS	RUDBECKIA; YELLOW-ORANGE	15CM POT
GC				
AU	2	ARCTOSTAPHYLOS UVA-URSI	KINNIKINNICK	10CM POT
EM	3	EUONYMUS JAPONICA 'EMERALD GAIETY'	EUONYMUS; SILVER VARIEGATED	#1 POT; 25CM
NH	12	NANDINA DOMESTICA 'HARBOUR DWARF'	HARBOUR DWARF NANDINA	#1 POT
PM	67	PACHYSANDRA TERMINALIS 'VARIEGATA'	JVARIEGATED JAPANESE SPURGE	9CM POT;

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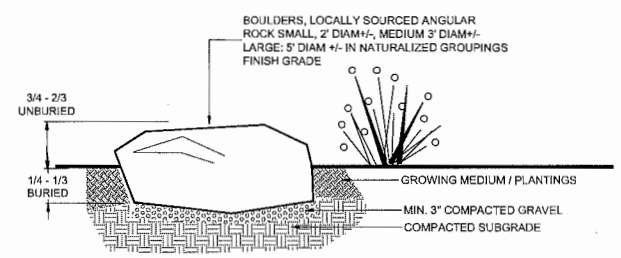
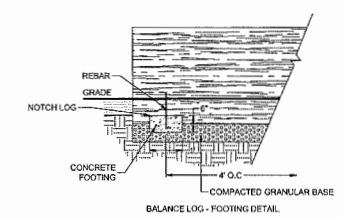
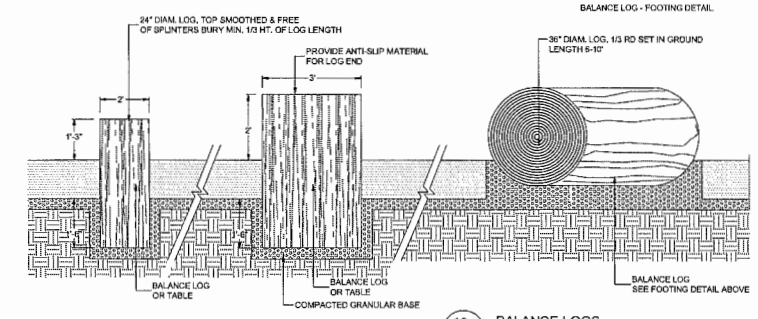


9 / L1 FLAT BOULDER 1/2" = 1'-0"



BALANCE LOG - FOOTING DETAIL

BALANCE LOG - CONCEPT IMAGE



10 / L1 BALANCE LOGS 3/ 8"= 1'-0"

DP 16-754735

PLAN # 2.b

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pmg LANDSCAPE ARCHITECTS
Suite C100 - 4185 Still Creek Drive
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p: 604 294-0011 ; f: 604 294-0022

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CLIENT: 1037533 BC LTD.

PROJECT:

17 UNIT TOWNHOUSE DEVELOPMENT

8620 RAILWAY AVENUE
RICHMOND

WITH : ERIC LAW ARCHITECT INC.
DRAWING TITLE:

SHRUB PLAN

DATE: July 08, 2016
SCALE: 3/32"=1'-0"
DRAWN: DD
DESIGN: DD
CHK'D: PCM

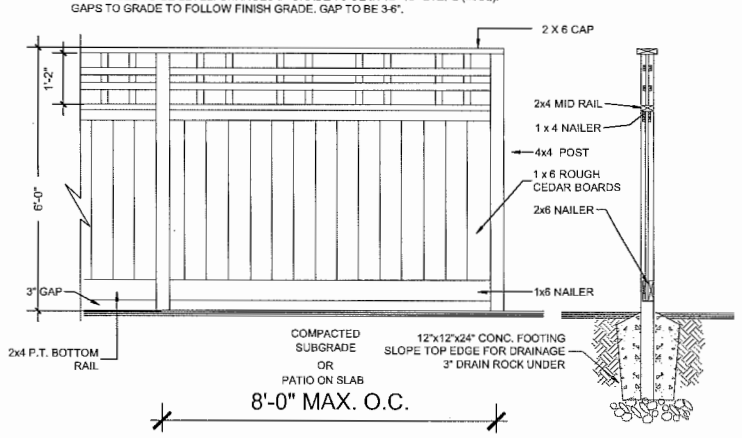
DRAWING NUMBER: **L2** OF 6

16107-7.ZIP

PMG PROJECT NUMBER: 16-107

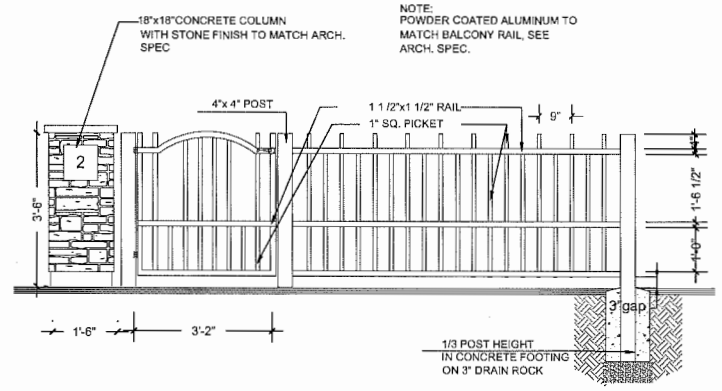
NOTES:

1. ALL POSTS PRESSURE TREATED TO CSA STANDARD AND END CUTS TREATED WITH PRESERVITIVE.
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. FENCE TO MATCH TRIM COLOUR, CONFIRM WITH 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".



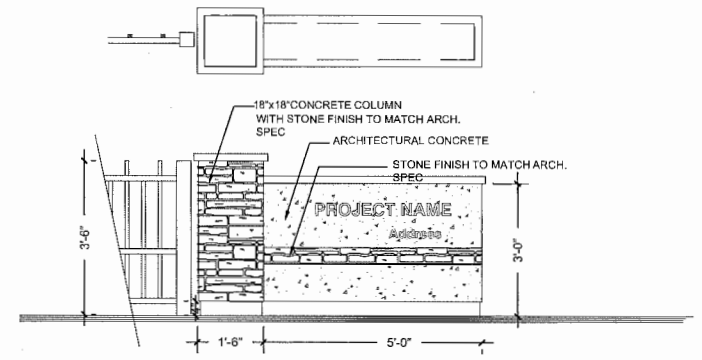
1 / L-1 6'-0" HEIGHT WOOD FENCE WITH LATTICE

1/2" = 1'-0"



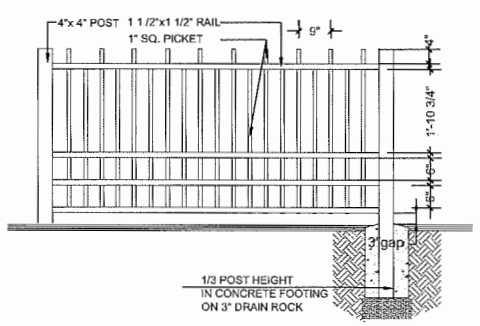
2 / L-1 42" HT ALUMINUM FENCE WITH COLUMN

1/2" = 1'-0"



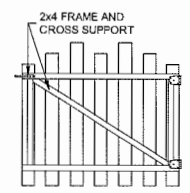
3 / L-1 SIGNAGE

1/2" = 1'-0"



6 / L-1 4'HT ALUMINUM FENCE

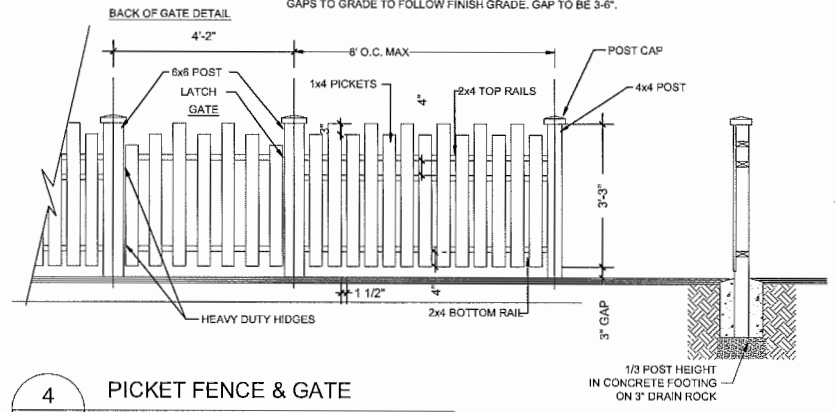
1/2" = 1'-0"



NOTE

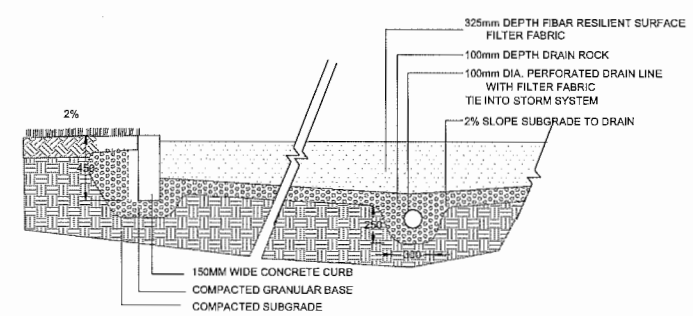
1. ALL POSTS PRESSURE TREATED TO CSA STANDARD AND END CUTS TREATED WITH PRESERVITIVE.
2. ALL OTHER MEMBERS TO BE CEDAR. #2 (CONSTRUCTION) GRADE MINIMUM.
3. ALL HARDWARE HOT DIPPED GALVANIZED.
4. APPLY 2 COATS EXTERIOR STAIN TO MANUFACTURERS SPECIFICATION. TO MATCH BLDG. TRIM; FINISH SELECTION AS APPROVED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

BACK OF GATE DETAIL



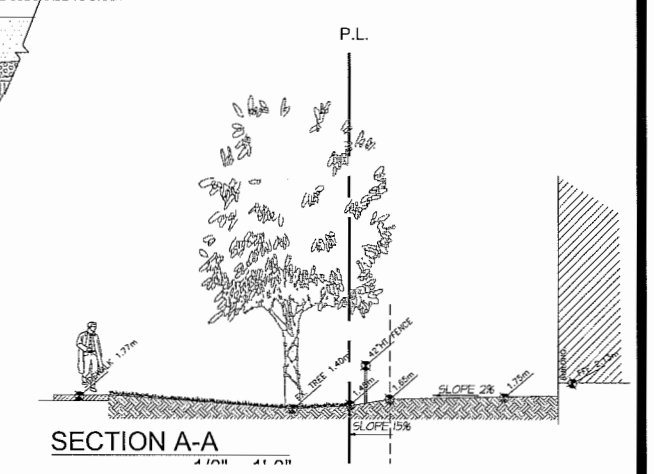
4 / L-1 PICKET FENCE & GATE

SCALE: 3/4"=1'-0"

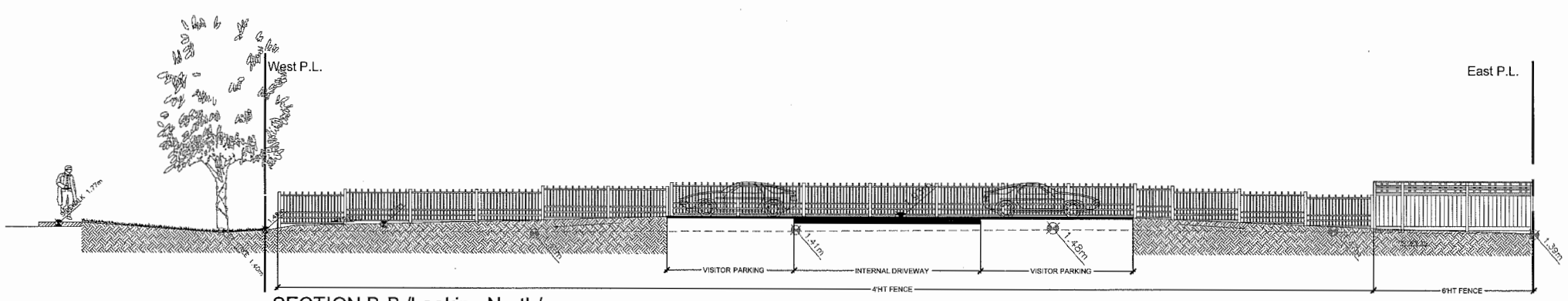


5 / L-1 PLAY AREA DETAIL

SCALE: 3/4"=1'-0"

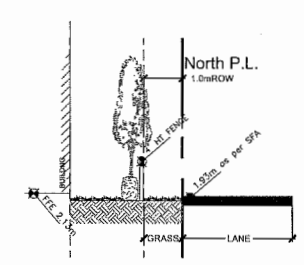


SECTION A-A



SECTION B-B /Looking North/

1/8" = 1'-0"



SECTION C-C /Looking West/

1/8" = 1

PLAN # 2.c

DP 16-754735

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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.
6	17.OCT.03	REVISION AS PER CITY COMMENTS	DD
5	17.AUG.08	REVISION AS PER CITY COMMENTS	DD
4	17.MAY.25	NEW SITE PLAN	DD
3	16.DEC.15	REVISED LIVE PLANT AREA TO MIN25%	DD
2	16.NOV.28	NEW SITE PLAN	DD
1	15.JUL.11	REVISION AS PER CITY COMMENTS	DD

CLIENT: 1037533 BC LTD.

PROJECT:

17 UNIT TOWNHOUSE DEVELOPMENT

8620 RAILWAY AVENUE RICHMOND

WITH : ERIC LAW ARCHITECT INC.

DRAWING TITLE:

LANDSCAPE DETAILS

DATE: July 08, 2016

SCALE:

DRAWN: DD

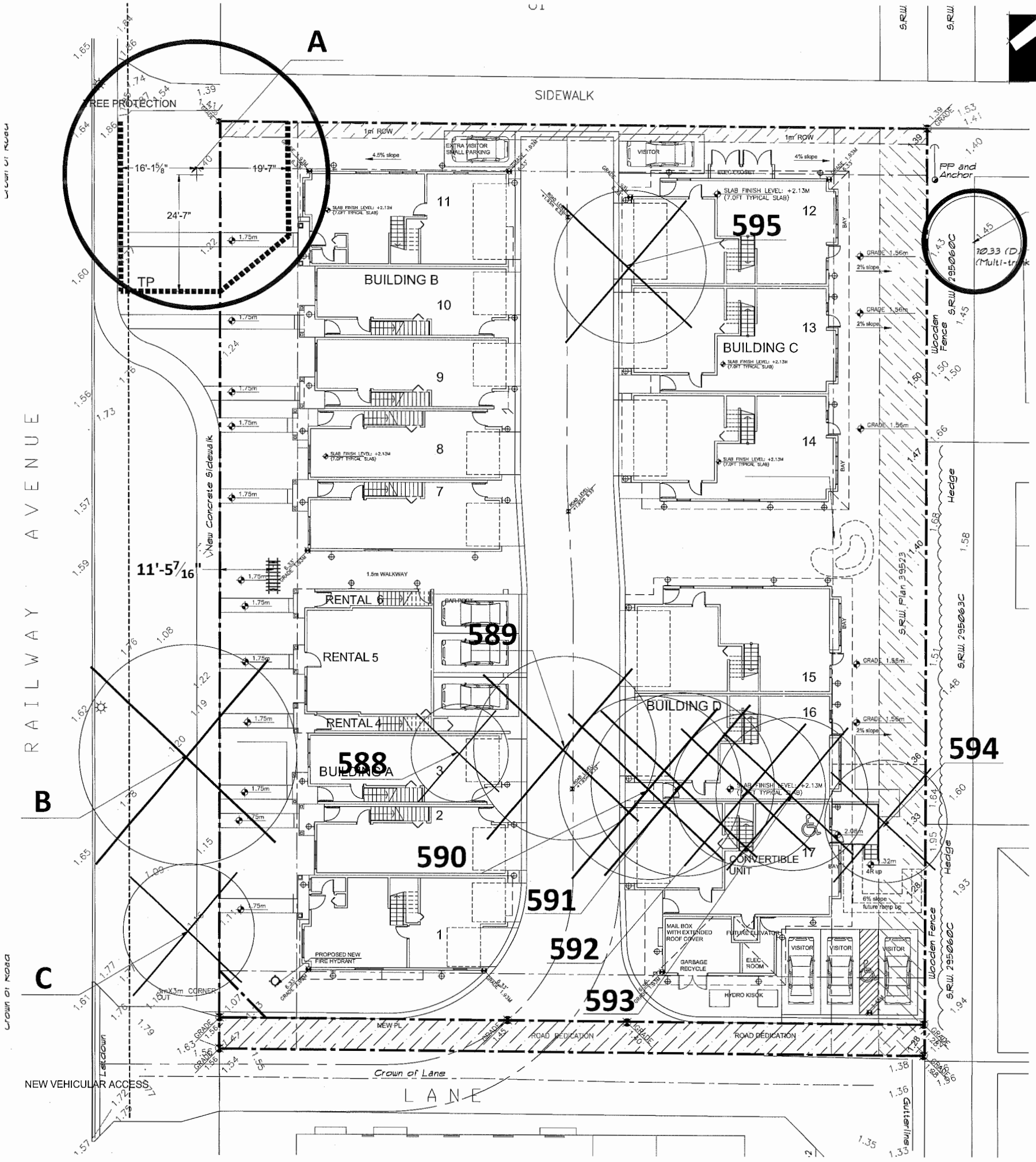
DESIGN: DD

CHKD: PCM

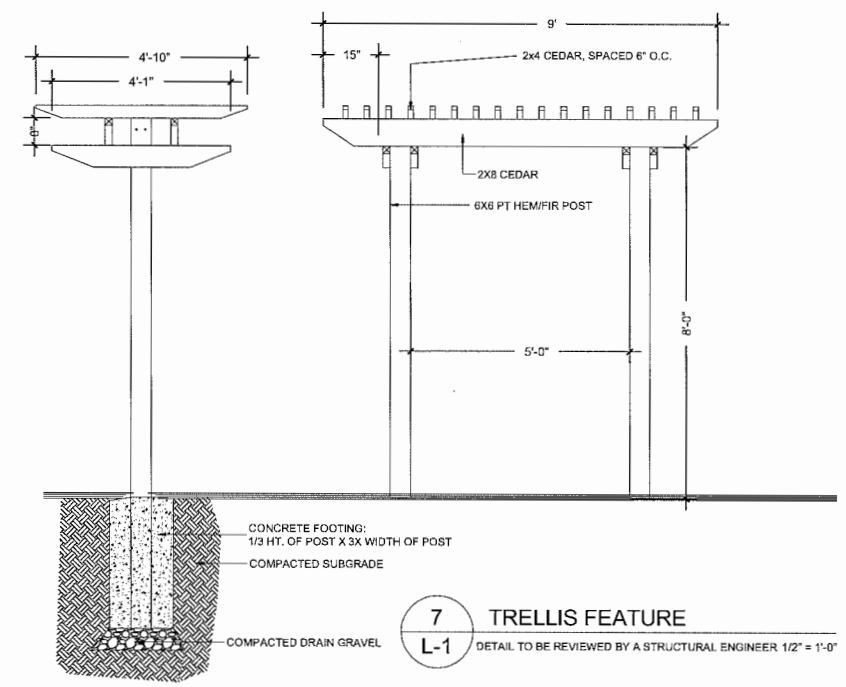
DRAWING NUMBER: **L3** OF 6

16107-7.ZIP

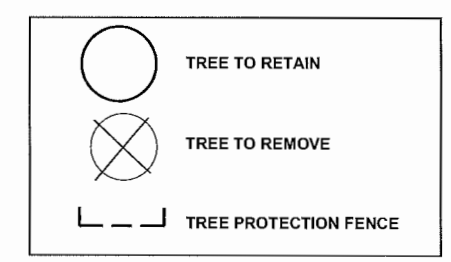
PMG PROJECT NUMBER: 16-107

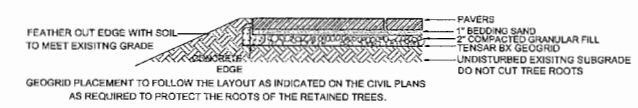


NOTES:
1. ALL WOOD CEDAR, WITH TWO COATS SOLID STAIN TO MATCH TRIM OF BLDG.
2. ALL HARDWARE GALVANIZED, HOTDIPPED
3. SEE PLAN FOR POST LAYOUT



7 / L-1 TRELLIS FEATURE
DETAIL TO BE REVIEWED BY A STRUCTURAL ENGINEER 1/2" = 1'-0"





MICHAEL J MILLS CONSULTING

NOTE:
1. IN THE EVENT ROOTS ARE EXPOSED, CONTACT PROJECT ARBORIST FOR ASSISTANCE PRIOR TO PROCEEDING.
2. PAVERS TO BE INSTALLED TO MANUFACTURERS SPECIFICATIONS

8 / L-1 PAVERS THROUGH ROOT ZONE
3 /4 "= 1'-0"

DP 16-754735

PLAN # 2.d

16107-7.ZIP

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SEAL:

NO.	DATE	REVISION DESCRIPTION	DR.
6	17.OCT.03	REVISION AS PER CITY COMMENTS	DD
5	17.AUG.08	REVISION AS PER CITY COMMENTS	DD
4	17.MAY.25	NEW SITE PLAN	DD
3	16.DEC.15	REVISED LIVE PLANT AREA TO MIN25%	DD
2	16.NOV.28	NEW SITE PLAN	DD
1	16.JUL.11	REVISION AS PER CITY COMMENTS	DD

CLIENT: 1037533 BC LTD.

PROJECT:

17 UNIT TOWNHOUSE DEVELOPMENT

8620 RAILWAY AVENUE RICHMOND

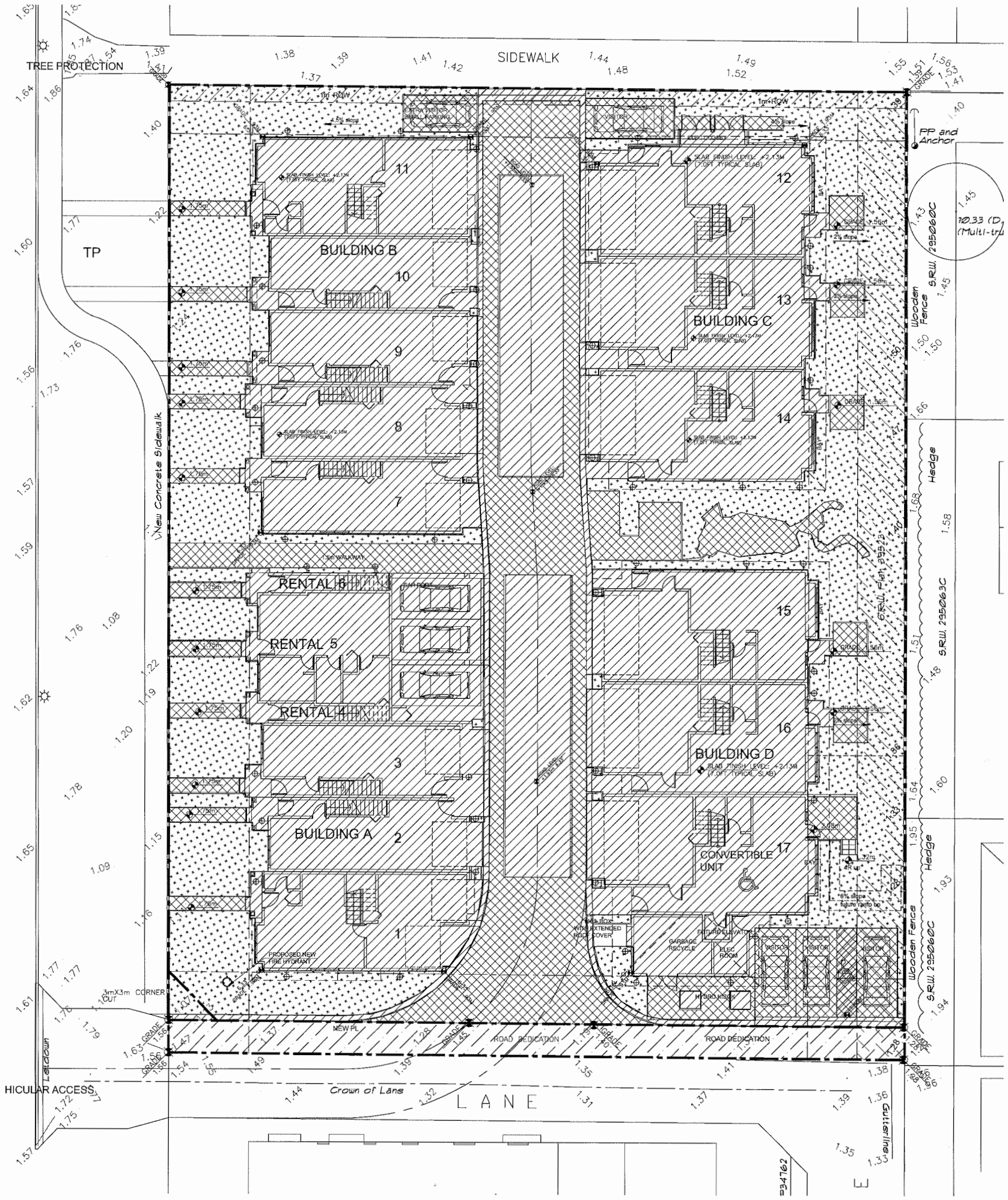
WITH : ERIC LAW ARCHITECT INC.
DRAWING TITLE:

TREE MANAGEMENT PLAN

DATE: July 08, 2016
SCALE: 3/32"=1'-0"
DRAWN: DD
DESIGN: DD
CHK'D: PCM

DRAWING NUMBER: **L4** OF 6

PMG PROJECT NUMBER: **16-107**



TOTAL NON POROUS AREA: 15959.10 SQ. FT.–56.40%

LIVE PLANT AREA: 7430.90 SQ. FT. – 26.30%

PERMEABLE PAVERS: 4897 SQ. FT.= 17.30%
OR OTHER PERMEABLE FINISH

DP 16-754735

PLAN # 2.e

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p: 604 294-0011 ; f: 604 294-0022

SEAL:

NO.	DATE	REVISION DESCRIPTION	DR.
6	17.OCT.03	REVISION AS PER CITY COMMENTS	DD
5	17.AUG.08	REVISION AS PER CITY COMMENTS	DD
4	17.MAY.25	NEW SITE PLAN	DD
3	16.DEC.15	REVISED LIVE PLANT AREA TO MIN25%	DD
2	16.NOV.28	NEW SITE PLAN	DD
1	16.JUL.11	REVISION AS PER CITY COMMENTS	DD

CLIENT: 1037533 BC LTD.

PROJECT:

17 UNIT TOWNHOUSE DEVELOPMENT

8620 RAILWAY AVENUE RICHMOND

WITH : ERIC LAW ARCHITECT INC.
DRAWING TITLE:

LOT COVERAGE PLAN

DATE: July 08, 2016
SCALE: 3/32"=1'-0"
DRAWN: DD
DESIGN: DD
CHK'D: PCM

DRAWING NUMBER: **L5** OF 6

PMG PROJECT NUMBER: 16-107

16107-7.ZIP

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, 2012 edition, 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, 2000 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, 2008: 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 3.4 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 specification

1.3 SUBMITTALS

.1 Any alternate products differing from that contained 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:
.1.1 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.
.1.2 Start Up Site Meeting, Landscape Contract (if separate): At the start of work with Owner's Representative, Site Superintendent and Landscape Contractor; a meeting is to be held to review expected work and to verify the acceptability of the subgrade and general site conditions to the Landscape Contractor. Provide growing medium test results for this meeting.
.1.3 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 sizes, 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, Unit Paving.
.1.4 Substantial Performance: Review of all work, accounting of all substitutions, deletions; plant counts, preparations of deficiency list, and recommendations for completion.
.1.5 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.
.1.6 Deficiency Review: Prior to the completion of the holdback period, check for completion of deficiencies. Once completed, a Schedule 'C' will be issed where required.
.1.7 Warranty Review: Prior to the completion of the waranty period (+/- 11 months after issuance of the Certificate of Completion), review all waranty material and report recommendations for waranty 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 superintendence 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 plans.

.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 work 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 sodding.
.2.9 Supply and placement of bark mulch.
.2.10 Maintenance of planted and seeded/sodded 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 BC Landscape Standard for definitions of imported and on-site topsoil. Refer to Table One below.

TABLE ONE: PROPERTIES OF GROWING MEDIUM FOR LEVEL 2 GROOMED 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 - 1%	0 - 1%	0 - 1%
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%	40 - 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 (coast):	3 - 10%	3 - 5%	10 - 20%
Organic Content (interior):	3 - 5%	3 - 5%	15 - 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), Phosphate (25), and Potash (soluble 2) 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. Appliers 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 1.2m, or combinations of walls collectively in excess of 1.2m. Installations must be reviewed and signed off by Certified Professional Engineer; inlcude 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.
.1.1 In some instances the Landscape Architect will tag 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 delineate 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 trash 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

.10 In municipalities with specific tree retention/replacement bylaws ensure compliance to bylaws.

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

3.2 GRADES

.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 1.5m (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 smoothly contoured 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 true to line and grade, smooth and free of sags or high points. Minimum slope 2%, maximum side slopes 10%. Assure positive drainage to collection points

.6 Slope not 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 seed, sod, 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 detailed on landscape plans. Note: Catch basins shown on landscape plans for coordination only, confirm scope of work prior to bid.
.2.1 Coordinate all landscape drainage work with rest of site drainage, Refer to engineering drawings and specifications for connections and other drainage work
.2.2 Determine exact location of all existing utilities and structures and underground utilities prior to commencing work, which may not be located on drawings 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.
.2.3 Planter drains on slab: Refer to Section 3.10, Installing Landscapes on Structures.

.3 Execution
.3.1 Do trenching and backfilling in accordance with engineering details and specifications.
.3.2 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.
.3.3 Commence laying pipe at outlet and proceed in upstream direction.
.3.4 Lay perforated pipes with perforations at 8pm and 4pm positions.
.3.5 Make joints tight in accordance with manufacturer's directions.
.3.6 Do not allow water to flow through the pipes during construction except as approved by Engineer.
.3.7 Make watertight connections to existing drains, new or existing manholes or catchbasins where indicated or as directed by Landscape Architect.
.3.8 Plug upstream ends of pipe with watertight clean out caps.
.3.9 Surround and cover pipe with drain rock in uniform 150mm layers to various depths as shown in details, minimum 100mm.
.3.10 Cover drain rock with non-woven filter cloth lap all edges and seams minimum 150mm.
.3.11 Assure positive drainage.
.3.12 Back fill remainder of trench as indicated.
.3.13 Protect subdrains from floatation 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:
.1.1 Physical properties, % content of gravel, sand, silt, clay and organics.
.1.2 Acidity PH and quantities of lime or sulphur required to bring within specified range
.1.3 Nutrient levels of principle and trace elements and recommendations for required soil amendments.
.1.4 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 admixtures as required by the soil test. Amended growing medium must meet the specification for growing medium as defined in Table One for the various areas.
.2.1 Thoroughly mix required amendments into the full depth of the growing medium.
.2.2 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 6" (150mm), over unfrozen subgrade free of standing water.

.4 Minimum depths of growing medium placed and compacted to 80%:
.4.1 On-grade:
.4.1.1 Seeded and sodded lawn.........6" (150mm)
.4.1.2 Mass planted shrubs & groundcovers.........15" (400mm)
.4.1.3 Groundcover only areas, if defined on plan.........9" (225mm)
.4.1.4 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:
.4.2.1 Irrigated lawn.........9" (210mm)
.4.2.2 Groundcover areas.........12" (300mm)
.4.2.3 Lawn without automatic irrigation.........12" (300mm)
.4.2.4 Shrub & groundcover areas.........15" (380mm)
.4.2.5 Trees and specimen shrubsx.........30" (760mm) over columns and/or edge of slab (verify column locations on-site for tree locations)
.4.2.6 Depth noted includes 1" to 2" (25-50mm) sand over filter fabric
.4.2.7 Maximum 18" depth growing medium except where mounded for trees over column points.

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

.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 7.1.1.3
.2.1 Clean existing soil by mechanical means of debris over 50mm in any dimension.
.2.2 Roughly grade surfaces to allow for maintenance specified and for positive drainage.

.3 Time of Seeding: Seed from 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 rated as strong performers in the Pacific Northwest and are subject to client approval.
70% Creeping Red Fescue
20% Annual Rye
5% Saturn Perennial Rye
5% Kentucky Bluegrass
For Wildflower Areas use a mixture of Wildflowers with Hard Fescues (Terralink 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 18-18-18 - 50% sulphur urea coated , 112 kg/ha(100lbs/acre) using a mechanical spreader.

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

.8 Acceptance: Provide adequete protection of the seeded areas until conditions of acceptance have been met. Comply with Section 3.7 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 prior to bidding.

.3 Preparation and Growing Medium:
.3.1 In areas of Rough Grass: Comply with Section 3.6 Rough Grass.
.3.2 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, landscaping, 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 Mulch shall consist of virgin wood fibre or recycled paper fibre designed for hydraulic seeding and dyed for ease of monitoring application. If using recycled paper material for wood fibre substitute use 135% (by weight). Conform to B.C. Landscape Standard for mulch 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 plain 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:
.8.1 Seed Mixture: 136 kg/ha (125 lbs/acre)
.8.2 Fertilizer: 112 kg/ha (100 lbs/acre)
.8.3 Coastal Wildflower Mix: Where specified, apply (31 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, tackifier, water etc. Sloped sites require tackifier.
.8.4.2 Fertilizer:
.8.4.2.1 Rough Grass: If a soil analysis is available, 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 or other material to the mixture. Do not leave slurry 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 signage 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 (to B.C. Landscape Standard, Section 13 Maintenance Level 4 (Open space). 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 2.2.1, 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 defined 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 roll lightly. Water to obtain moisture penetration of 3" to 4" (7 - 10cm). 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 signage until lawn is taken over by the Owner. Water to obtain moisture penetration of 3" to 4" (7-10cm) at intervals necessary to maintain sufficient growth. Keep grass cut at height of between 1-1/2" (4cm) and 2" (5cm). Provide adequate protection of sodded areas against damage until 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 (to 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 2008, unless exceeded by drawing Plant Schedule or this specification.
.5.1.1 Refer to B.C. Landscape Standard, Section 9, Plants and Planting and in Section 12, BCLNA Standard for Container Grown Plants for minimum standards.
.5.1.2 Refer to Plant Schedule for specific plant and container sizes and comply with requirements.
.5.2 Plant material 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 extension of area.
.7.2 Supply proof of the availability of the specified plant material within 30 days of the award of the Contract.

.8 Substitution.
.8.1 Obtain written approval of the Landscape Architect prior ro 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 BC 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. Assure that finished grade is at 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, mound to raise 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 Fillthe 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 voids. When 2/3 of the topsoil has been placed, apply fertilizer as recommended by the required soil test at the specified rates.
.12.3 Where 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"x5' 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: ArborTie - available from DeepRoot.
.13.4 Coniferous Trees over 6 ft. height: Guy with three 2-strand wires (11 gauge). Drive three stakes equidistant around the tree completely below grade.
.13.5 Trees 6 ft.+ on Wood or Concrete Decks: Guy as above using three deadmen (min. 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 cut 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 combat 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. (Appearance 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 Those Plants, identified as hardy within one zone of the Canada Department of Agriculture tonal class 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 season. 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 positive drainage to roof drains is present prior to placing any drain rock or soil.

.3 Provide clean out at all through-slab drain locations . Use 300mm min. dia. PVC Pipe filled with drain rock unless specific drawing detail shown

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

.5 Cover drain rock (or alternate sheet drain if specified on drawing details) 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 filler 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 adaptation of plants to a new site in order to obtain the desired effect from the planting while reducing the rate of failure and unnecessary work associated with improper establishment. Establishment of maintenance procedures apply to all new and retained vegetation including cultivated turfgrass areas and new trees and shrubs.

.2 Maintenance Period: Provide maintenance of installed landscaping for 12 months following substantial completion.

.3 Related Standards and Legislation: B.C. Landscape Standard, latest edition; Fertilizer Code., B.C. Pesticide Control Act.

.4 Site Review: In addition to the inspections at substantial completion, at final progress draw application, and at the end of the guarantee period, there should be three other reviews during the 12 months attended by the Contractor and a designated representative of the Owner. Maintain a logbook and reporting procedures and submit to the designated representative.

.5 Scheduling. Prepare a schedule of anticipated visits and submit to designated representative at start-up. Maintenance operations shall be carried out predominately during the growing season between March 1st and November 30th, however visits at other times of the year may be required.

.6 Maintenance Level: Comply with B. C. Landscape Standard, Section 14, Table 14.2, Maintenance Level 2 "Groomed".

.7 Materials: Comply with Part Two of this specification.
7.1 Fertilizers: To the requirements of the B.C. Landscape Standard. Formulations and rates as required by soil testing.

.8 Plant Material Establishment:
.8.1 Watering: During the first growing season, water new plants at least every ten (10) days between April 1st and July 31st, and every twenty (20) days between August 1st and September 15th. Minimum 25 gallons per tree per application. During the second growing season, water new plants at least every twenty days between April 1 and July 31 and once between August 1st and September 31st. Apply water at a rate and duration such that the water content reaches field capacity to the full depth of the growing medium. Apply water again when the water content reaches 25% of field capacity. Provide and irrigate with water in the event that any automatic irrigation system malfunctions or has not been completely installed. Scheduled applications of water shall be missed only when rainfall has penetrated the soil fully as required.
8.2 Mulch: Maintain mulches in the original areas and to the original depths.
.8.3 Weed Control: Remove all weeds from all areas at least once per month during the growing season by hoeing or cultivation to a maximum depth of 80mm, hand-pulling, or, if necessary, by the use of herbicides.
.8.4 Pest and Disease Control: Inspect all planted areas for pests and diseases periodically and at least every two months during the growing season by an experienced person. Carry out treatment for pests or diseases promptly and consistently for maximum effectiveness. Comply with all B.C. Pesticide Control Act and municipal requirements.
.8.5 Tree Support: Maintain stakes, guy wires and ties one full growing season. Check ties at least every two months to ensure that they are not causing a depression in the bark. Loosen, repair or replace ties as necessary. Remove all stakes guy wires and ties after the first growing season except where large trees require continuing support in the opinion of the Landscape Architect. All flagging of guy wires shall be visible and in good repair.
.8.6 Pruning: Inspect all trees and shrubs at least every two months during the growing season; prune to remove all dead, weak or diseased wood. Maintain the natural shape of the plant. Carry out clipping or shaping only if required in the maintenance contract for specific varieties or conditions.
.8.7 Fertilizing: Once during the twelve month period of establishment maintenance fertilize shrubs, trees and groundcovers according to soil analysis requirements.

.9 Grass Areas Establishment:
.9.1 Watering: Use hoses and sprinklers, irrigation systems or other methods to apply water to Class 1 and Class 2 grassed areas (B.C. Landscape Standard, Section 7, Lawns and Grasses) such that the grass is maintained in a turgid condition. Supply and irrigate with water in the event of any irrigation system malfunction, or incomplete installation at no expense to the owner. Apply water to prevent packing or erosion of the soil. Apply water at a rate and duration so that the water content in the growing medium reaches field capacity to the full depth of the growing medium. Apply water again when the water content reaches 25% of field capacity.
.9.2 Weed, Insect and Disease Control: Inspect grass areas each time they are mowed for weeds, insect pests, and diseases and treat promptly when necessary by appropriate manual methods, or by the use of chemicals in compliance with the B.C.S.L.A./B.C.L.N.A. Landscape Standards latest edition. Kill broadleafed weeds in grassed areas by a general application of a suitable herbicide if the weed population exceeds 10 Broadleaf weeds or 50 annual weeds or weedy grasses per 40 square meters. This application shall reduce the weed population to zero.
.9.3 Fertilizing: According to soil analysis.
.9.4 Liming According to soil analysis
.9.5 Mowing and Trimming - All areas: The first four cuts shall be a sharp rotary type mower. Excess grass clipping shall be removed after each cut. Mow all grassed areas with a sharp reel or rotary mower when the grass reaches a height of 60mm. Mow to a height of 40mm. Edge with a mechanical vertical cutting edger once per year in March. Remove all grass clippings after each cut.
.9.6 Aeration: Aeration not required in the first growing season. If necessary, in the second growing season, aerate in early May with a suitable mechanical corer. Core to a depth of 100mm. (4"), and remove cores.
.9.7 Repairs: Re-grade, re-seed or re-sod when necessary to restore damaged or failing grass areas. Match the grass varieties in the surrounding area. Re-sod, if required, throughout the growing season. Re-seed between April 1st and April 15th or between September 1st and September 15th. Protect re-seeded areas and keep moist until the first mowing.

DP 16-754735

PLAN # 2.f

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SEAL:

NO.	DATE	REVISION DESCRIPTION	DR.
6	17.OCT.03	REVISION AS PER CITY COMMENTS	DD
5	17.AUG.08	REVISION AS PER CITY COMMENTS	DD
4	17.MAY.25	NEW SITE PLAN	DD
3	16.DEC.15	REVISED LIVE PLANT AREA TO MIN25%	DD
2	16.NOV.28	NEW SITE PLAN	DD
1	16.JUL.11	REVISION AS PER CITY COMMENTS	DD

CLIENT: 1037533 BC LTD.

PROJECT:
17 UNIT TOWNHOUSE DEVELOPMENT

8620 RAILWAY AVENUE RICHMOND

WITH : ERIC LAW ARCHITECT INC.
DRAWING TITLE:
LANDSCAPE SPECIFICATIONS

DATE: July 08, 2016
DRAWING NUMBER:
SCALE:
DRAWN: DD
L6
DESIGN: DD
CHK'D: PCM
OF 6

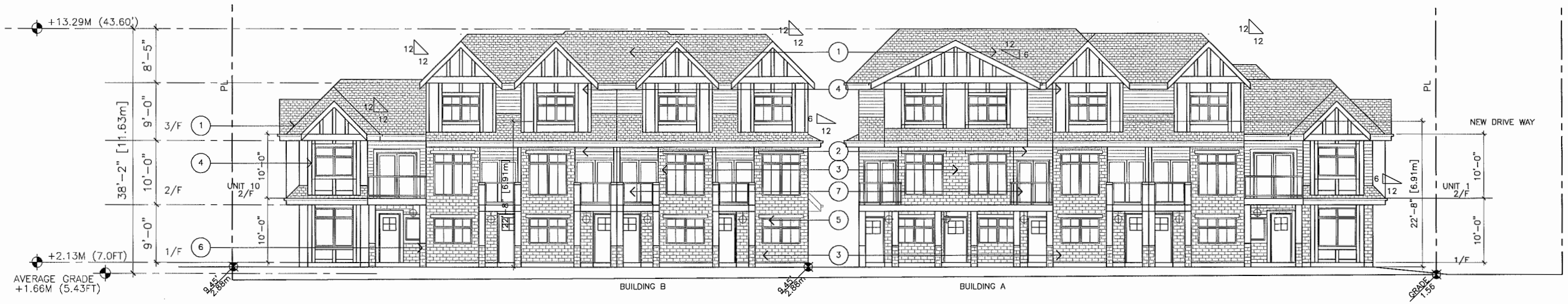
16107-7.ZIP
PMG PROJECT NUMBER: 16-107

1 / A8 WEST ELEVATION ALONG RAILWAY AVE (CONTEXT)
1/16" TO 1'-0"

EXTERIOR FINISH LEGEND

1 → ASPHALT SHINGLE ROOFING
2 → HARDI SIDING WITH TRIM
3 → BRICK VENEER FINISH
4 → HARDI PANEL WITH VERTICAL TRIM
5 → VINYL WINDOW BLACK FRAME WITH TRIM
6 → DECORATIVE BRICK COLUMN BASE
7 → SMOKE GLASS ALUMINUM HANDRAIL
8 → WOOD TRIM
9 → OVERHEAD GARAGE DOOR WITH LITE PANEL

EXTERIOR LIGHT



2 / A8 WEST ELEVATION ALONG RAILWAY AVE
1/8" TO 1'-0"

3 / A8 EAST INTERNAL ELEV
1/8" TO 1'-0"

DP 16-754735

DP 16-754735

PLAN # 3.a

DEVELOPMENT PERMIT

ERIC LAW ARCHITECT

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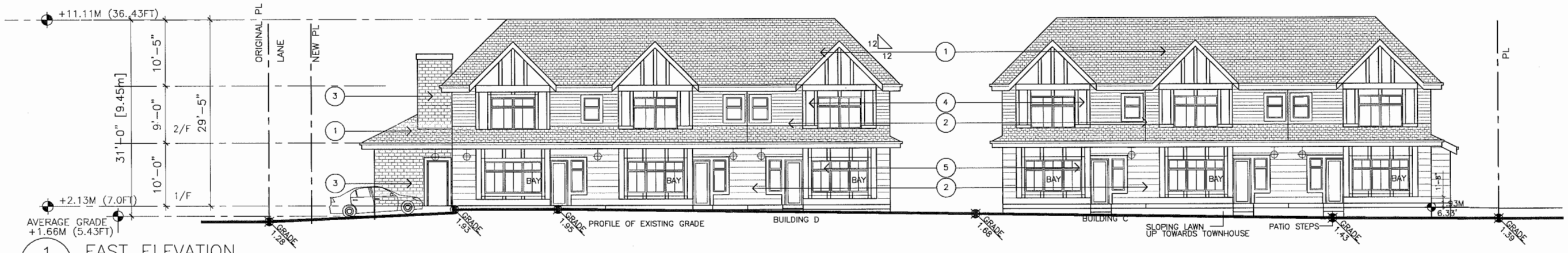
	ISSUED
1	2016.12.22 FOR DEVELOPMENT PERMIT APPLICATION
2	2017.06.14 FOR ADP MEETING
3	2017.08.31 FOR CITY REVIEW
4	2017.10.05 FOR DP PANEL REVIEW

	REVISION
2	2017.10.04 REVISED DOOR COLOURS
1	2017.08.06 REVISED PER CITY & ADP COMMENTS

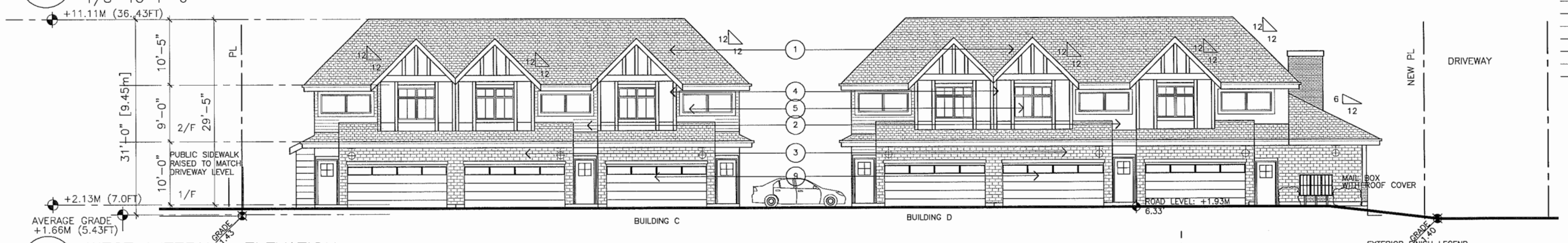
PROPOSED TOWNHOUSE AT
8620 RAILWAY AVENUE
RICHMOND BC
-
ELEVATIONS

PROJECT NUMBER: 15-19
ISSUED: 10/5/2017
DRAWN BY: EL
CHECKED BY: EL
FILENAME: 15-19_ERW_171005-DP.DWG

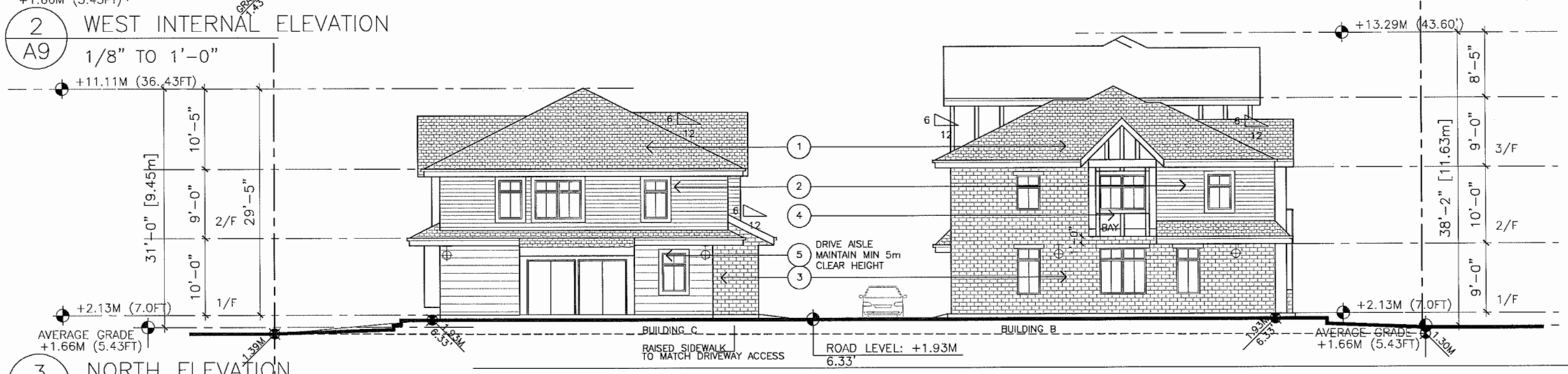
A8



1 A9 EAST ELEVATION
1/8" TO 1'-0"



2 A9 WEST INTERNAL ELEVATION
1/8" TO 1'-0"



3 A9 NORTH ELEVATION
1/8" TO 1'-0"

EXTERIOR FINISH LEGEND

1. ASPHALT SHINGLE ROOFING
2. HARDI SIDING WITH TRIM
3. BRICK VENEER FINISH
4. HARDI PANEL WITH VERTICAL TRIM
5. VINYL WINDOW BLACK FRAME WITH TRIM
6. DECORATIVE BRICK COLUMN BASE
7. SMOKE GLASS ALUMINUM HANDRAIL
8. WOOD TRIM
9. OVERHEAD GARAGE DOOR WITH LITE PANEL

EXTERIOR LIGHT

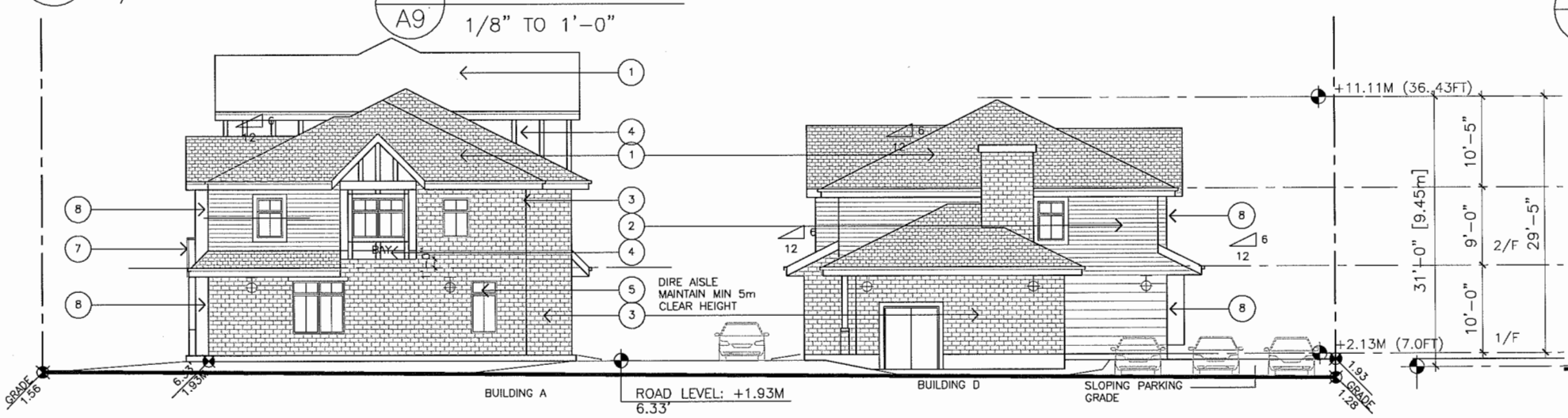
FINISH GRADE:

NW LOT CORNER:	1.30	NE HOUSE CORNER:	1.93
NE LOT CORNER:	1.39	SE HOUSE CORNER:	1.93
SW LOT CORNER:	1.28	SW HOUSE CORNER:	1.93
NW LOT CORNER:	1.56	NW HOUSE CORNER:	1.93
	1.38		1.93

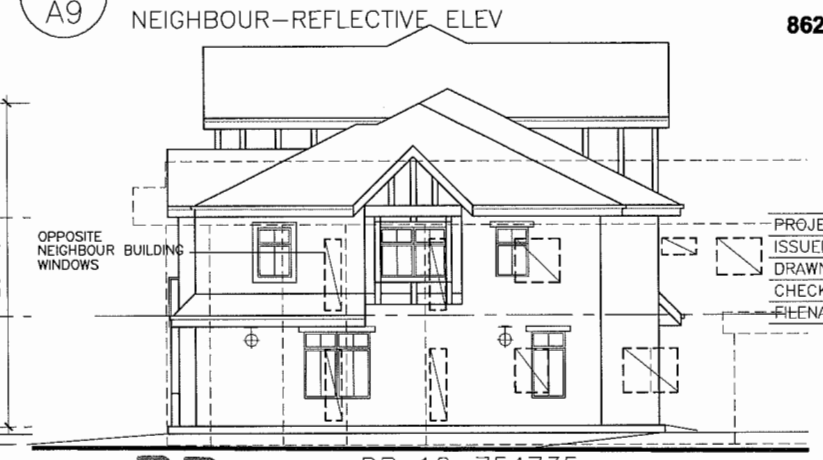
AVERAGE GRADE: 1.655 M (5.43')
MAX CROWN OF THE ROAD: 1.81M

BUILDING HEIGHT: 13.17M −1.655= 11.51M

4 A9 SOUTH ELEVATION
1/8" TO 1'-0"



5 A9 SOUTH ELEVATION
NEIGHBOUR-REFLECTIVE ELEV



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2	2017.06.14 FOR ADP MEETING
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4	2017.10.05 FOR DP PANEL REVIEW
2	2017.10.04 REVISED DOOR COLOURS
1	2017.08.06 REVISED PER CITY & ADP COMMENTS
	REVISION

PROPOSED TOWNHOUSE AT
8620 RAILWAY AVENUE
RICHMOND BC
-
ELEVATIONS

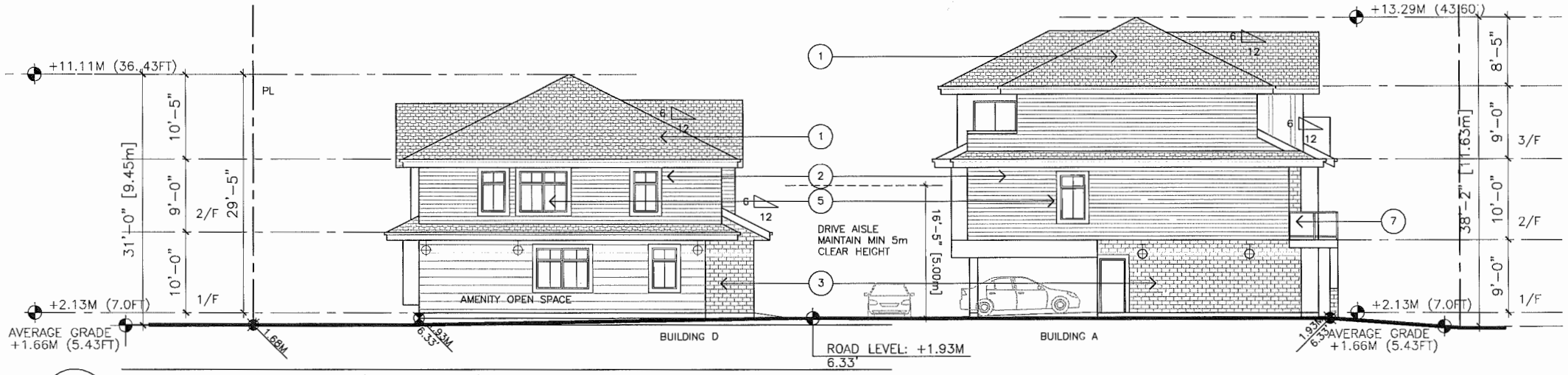
PROJECT NUMBER:	15-19
ISSUED:	10/5/2017
DRAWN BY:	EL
CHECKED BY:	EL
FILENAME:	15-19_ERW_171005-DP.DWG

A9

DP 16-754735

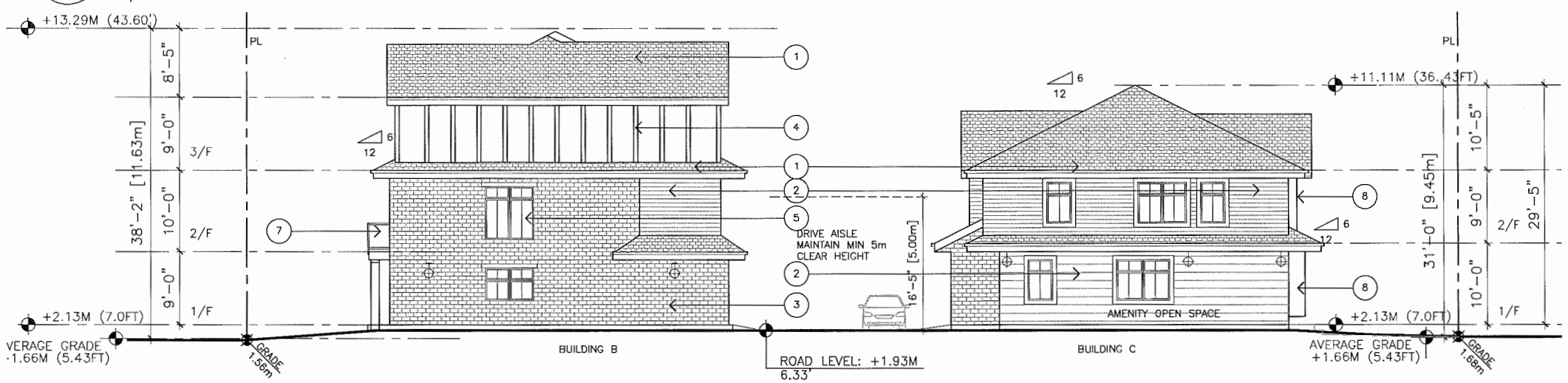
DP 16-754735 PLAN # 3.b

DEVELOPMENT PERMIT



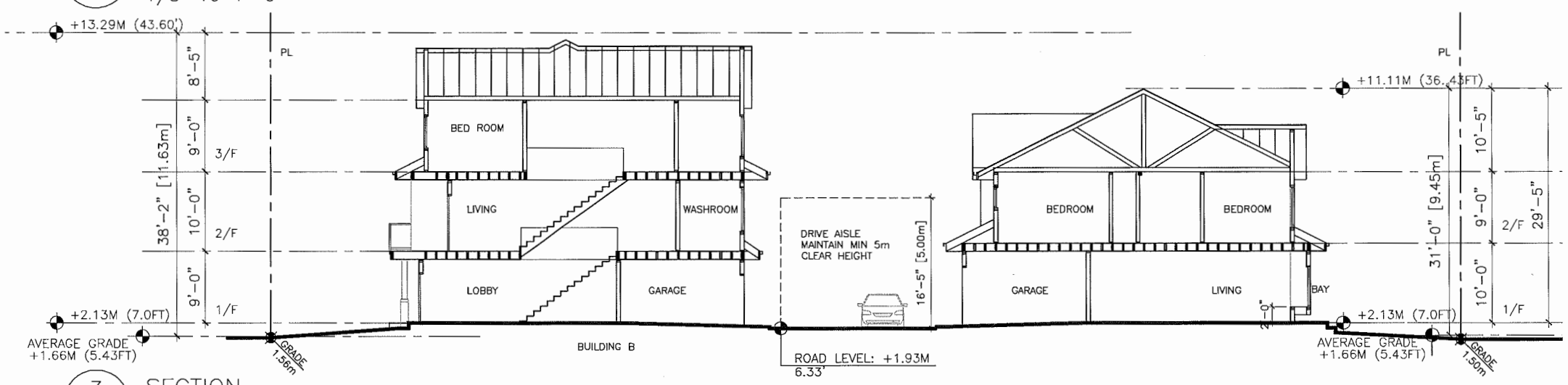
1 A10 NORTH ELEVATION (INTERNAL)

1/8" TO 1'-0"



2 A10 SOUTH ELEVATION (INTERNAL)

1/8" TO 1'-0"



3 A10 SECTION

1/8" TO 1'-0"

4 A10 MAIL BOX COVER

1/4" TO 1'-0"

EXTERIOR FINISH LEGEND

1. ASPHALT SHINGLE ROOFING
2. HARDI SIDING WITH TRIM
3. BRICK VENEER FINISH
4. HARDI PANEL WITH VERTICAL TRIM
5. VINYL WINDOW BLACK FRAME WITH TRIM
6. DECORATIVE BRICK COLUMN BASE
7. SMOKE GLASS ALUMINUM HANDRAIL
8. WOOD TRIM
9. OVERHEAD GARAGE DOOR WITH LITE PANEL

EXTERIOR LIGHT

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PROPOSED TOWNHOUSE AT
8620 RAILWAY AVENUE
RICHMOND BC
-
ELEVATIONS & SECTION

PROJECT NUMBER:	15-19
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CHECKED BY:	EL
FILENAME:	15-19_ERW_171005-DP.DWG

A10

DEVELOPMENT PERMIT

DP 16-754735

PLAN # 3.c

DP 16-754735

REFER TO:

2 / A8 WEST ELEVATION ALONG RAILWAY AVE

1/8" TO 1'-0"

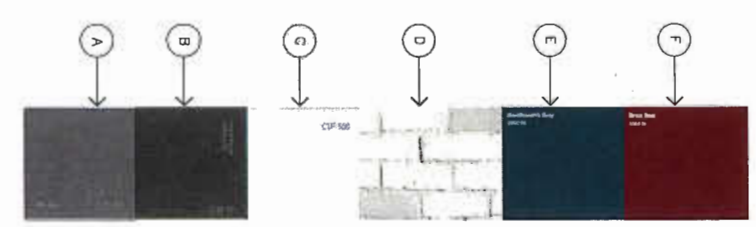
REFER TO:

3 / A8 EAST INTERNAL ELEV

1/8" TO 1'-0"

A → BENJAMIN MOORE HC166
B → BENJAMIN MOORE 2128-10
C → BENJAMIN MOORE CSP-500
D → BRICK – CHALK DUST TUNDRA BRICK
E → BENJAMIN MOORE 2062-20
F → BENJAMIN MOORE 2084-10

ALL WINDOW FRAME BLACK
ALL RAILING FRAME BLACK
ALL SOFFIT AND GUTTER BLACK



COLOUR LEGEND

DP 16-754735

DP 16-754735

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PROPOSED TOWNHOUSE AT
8620 RAILWAY AVENUE
RICHMOND BC
-

EXTERIOR COLOR

PROJECT NUMBER:	15-19
ISSUED:	10/5/2017
DRAWN BY:	EL
CHECKED BY:	EL
FILENAME:	15-19_ERW_171005-DP.DWG

PLAN # 4.a

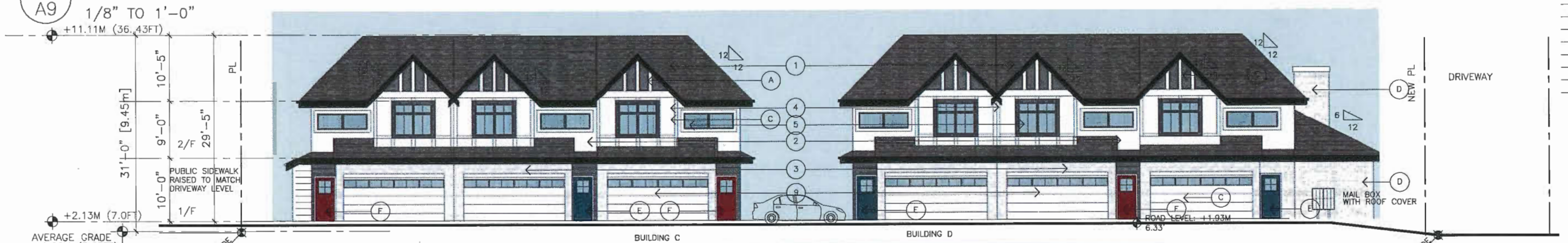
A14

DEVELOPMENT PERMIT

REFER TO: 1/A9

EAST ELEVATION

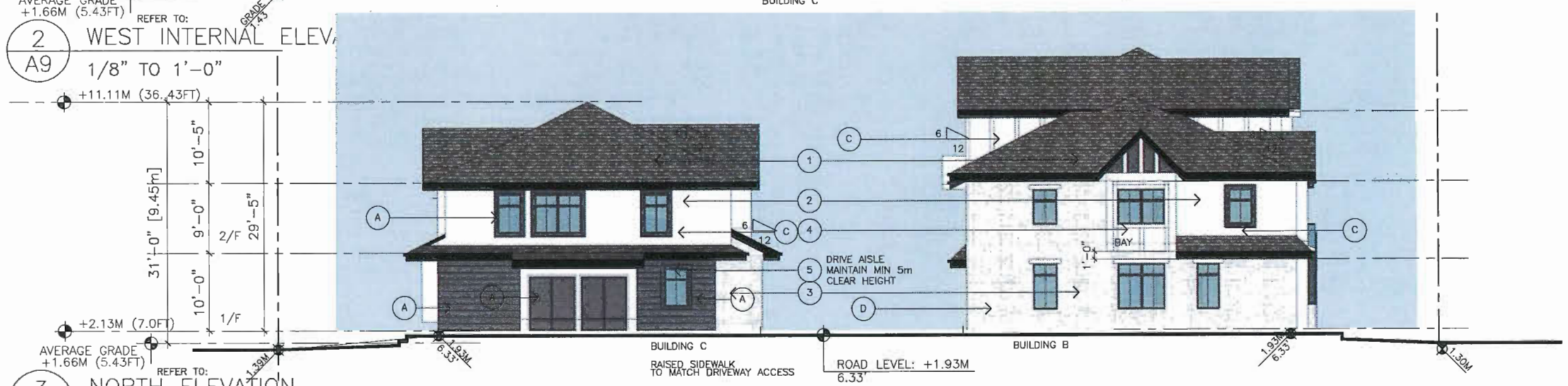
1/8" TO 1'-0"



REFER TO: 2/A9

WEST INTERNAL ELEVATION

1/8" TO 1'-0"



REFER TO: 3/A9

NORTH ELEVATION

1/8" TO 1'-0"

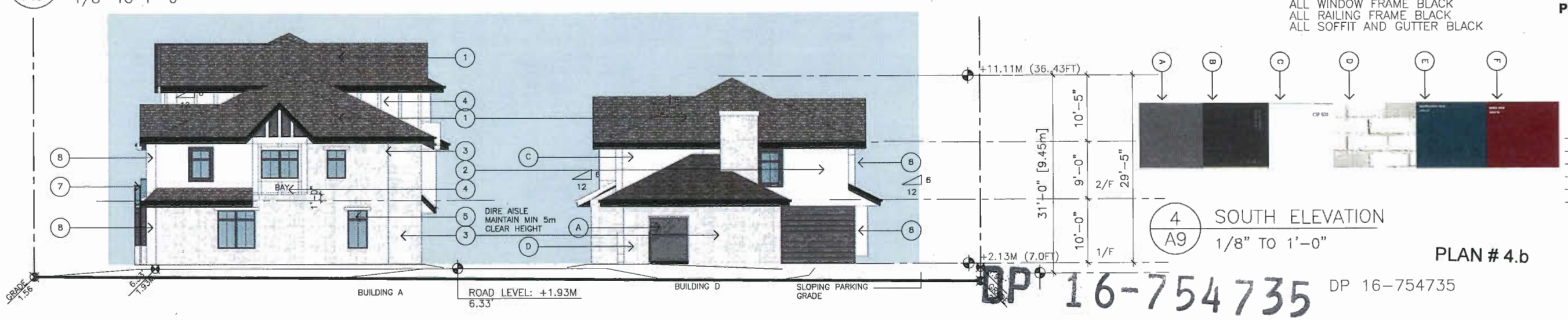
EXTERIOR FINISH LEGEND

1. ASPHALT SHINGLE ROOFING
2. HARDI SIDING WITH TRIM
3. BRICK VENEER FINISH
4. HARDI PANEL WITH VERTICAL TRIM
5. VINYL WINDOW BLACK FRAME WITH TRIM
6. DECORATIVE BRICK COLUMN BASE
7. SMOKE GLASS ALUMINUM HANDRAIL
8. WOOD TRIM
9. OVERHEAD GARAGE DOOR WITH LITE PANEL

EXTERIOR LIGHT

- A → BENJAMIN MOORE HC166
- B → BENJAMIN MOORE 2128-10
- C → BENJAMIN MOORE CSP-500
- D → BRICK – CHALK DUST TUNDRA BRICK
- E → BENJAMIN MOORE 2062-20
- F → BENJAMIN MOORE 2084-10

ALL WINDOW FRAME BLACK
ALL RAILING FRAME BLACK
ALL SOFFIT AND GUTTER BLACK



SOUTH ELEVATION

1/8" TO 1'-0"

PLAN # 4.b

DP 16-754735

DP 16-754735

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PROPOSED TOWNHOUSE AT
8620 RAILWAY AVENUE
RICHMOND BC
-
EXTERIOR COLOR

PROJECT NUMBER:	15-19
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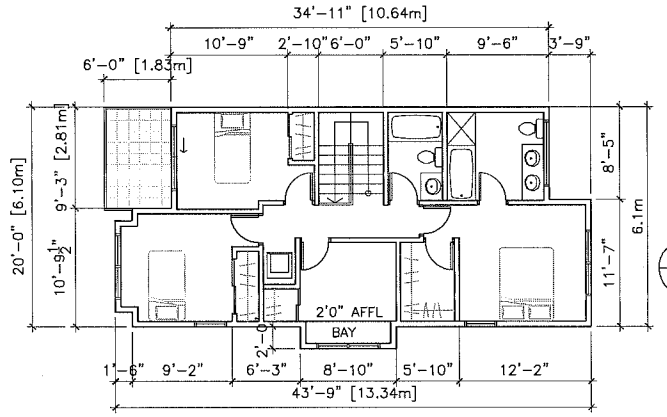
DRAWN BY:	EL
CHECKED BY:	EL
FILENAME:	15-19_ERW_171005-DP.DWG

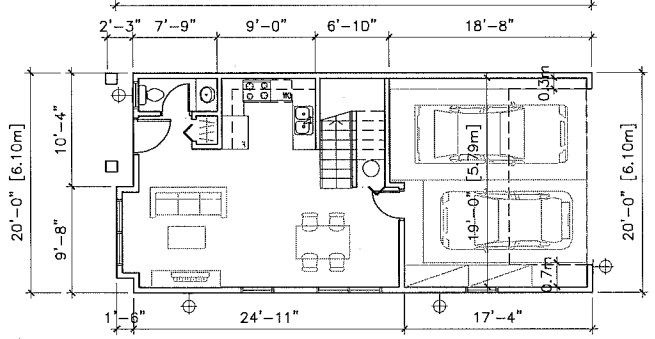
A15

DEVELOPMENT PERMIT

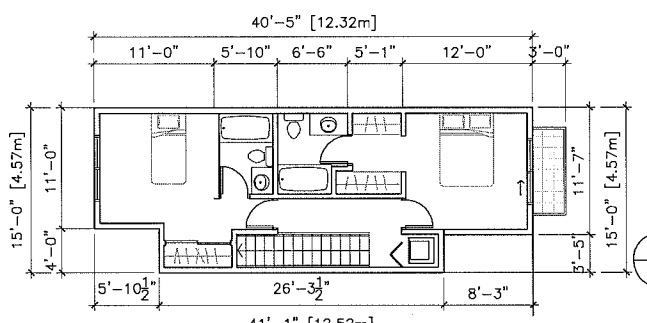


TYPE A1
3 BEDROOM + DEN
TOTAL UNIT AREA: ±1304 SQ. FT.
INCLUDING STAIR

1 / — LEVEL 2
1/8" TO 1'-0"
TYPE-A1-2F

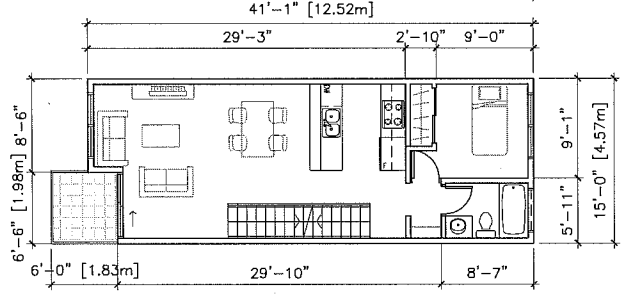


2 / — LEVEL 1
1/8" TO 1'-0"
TYPE-A1-1F

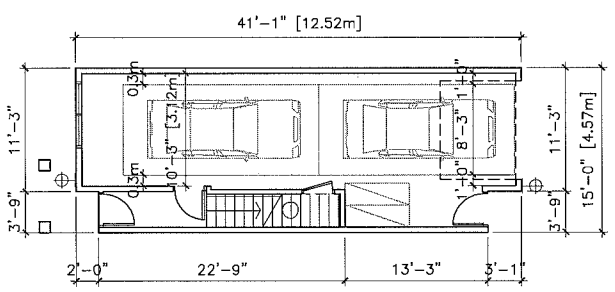


TYPE A2
3 BEDROOMS
TOTAL UNIT AREA: ±1235 SQ. FT.
INCLUDING STAIR

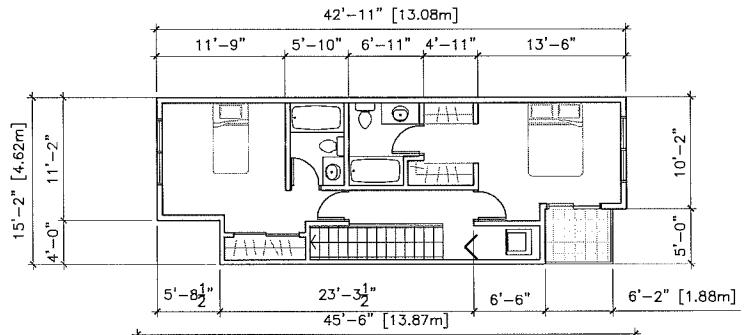
3 / — LEVEL 3
1/8" TO 1'-0"
TYPE-A2-3F



4 / — LEVEL 2
1/8" TO 1'-0"
TYPE-A2-2F



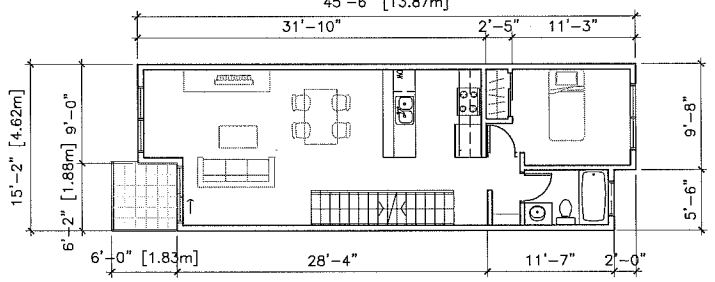
5 / — LEVEL 1
1/8" TO 1'-0"
TYPE-A2-1F



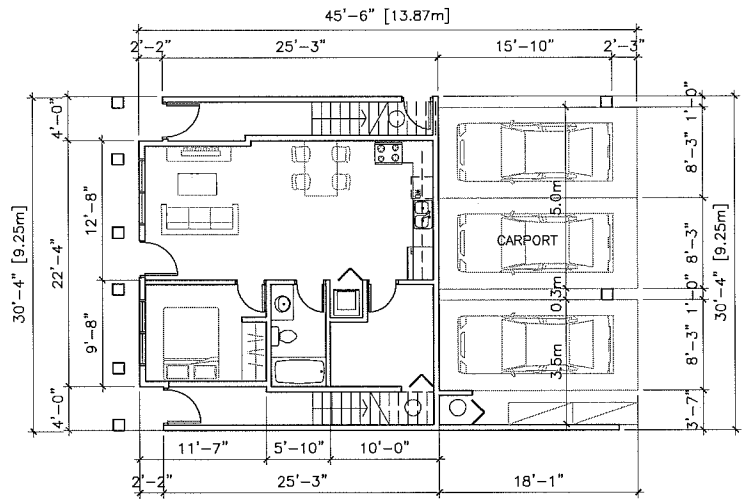
AFFORDABLE RENTAL

TYPE A3
3 BEDROOMS
TOTAL UNIT AREA: ±1314 SQ. FT.
INCLUDING STAIR

6 / — LEVEL 3
1/8" TO 1'-0"
TYPE-A3-3F



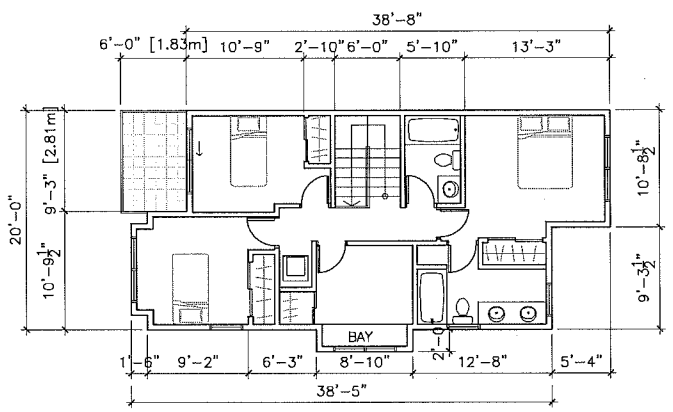
7 / — LEVEL 2
1/8" TO 1'-0"
TYPE-A3-2F



AFFORDABLE RENTAL

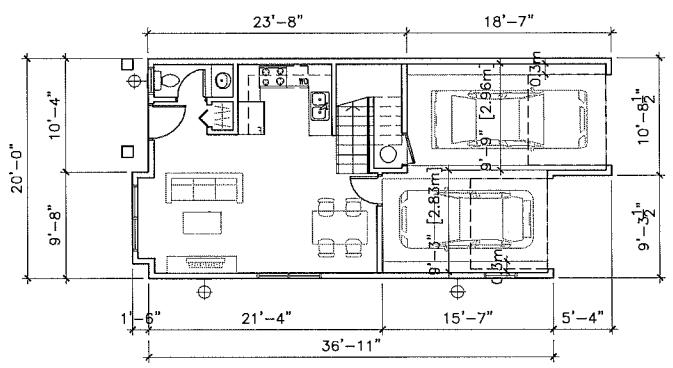
TYPE A4
1 BEDROOM + DEN
TOTAL UNIT AREA: ±629 SQ. FT.

8 / — LEVEL 1
1/8" TO 1'-0"
TYPE-A4-1F

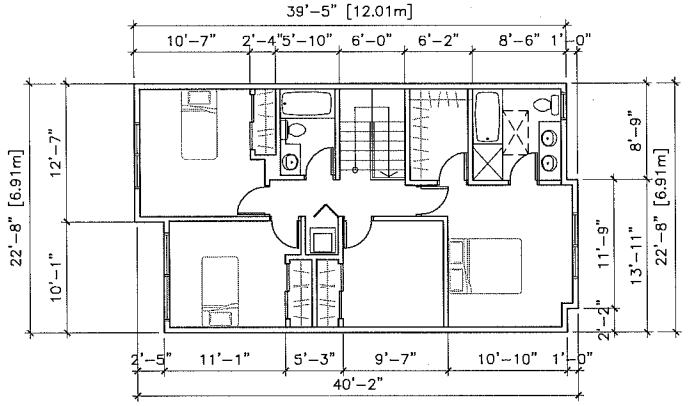


TYPE A5
3 BEDROOM +DEN
TOTAL UNIT AREA: ±1256 SQ. FT.
INCLUDING STAIR

9 / — LEVEL 2
1/8" TO 1'-0"
TYPE-A5-2F

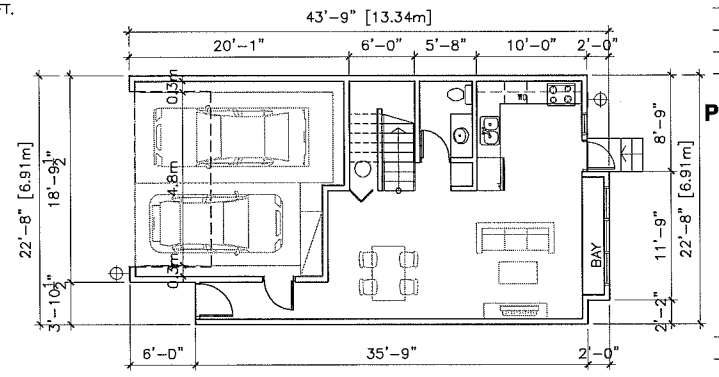


10 / — LEVEL 1
1/8" TO 1'-0"
TYPE-A5-1F



TYPE B1
4 BEDROOM
TOTAL UNIT AREA: ±1480 SQ. FT.
INCLUDING STAIR

11 / — LEVEL 2
1/8" TO 1'-0"
TYPE-B1-2F



12 / — LEVEL 1
1/8" TO 1'-0"
TYPE-B1-1F

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

TOWNHOUSE SHALL MEET CITY'S ENERGUIDE 82 REQUIREMENTS AS PER ENERGUIDE REPORT PREPARED BY CAPTURE ENERGY AUGUST 31, 2017, AND ALL UNIT ARE TO BE PRE-DUCT FOR FUTURE HOT WATER HEATING

A MINIMUM OF 20% OF PARKING STALLS TO BE PROVIDED WITH A 120V RECEPTACLE TO ACCOMMODATE ELECTRIC VEHICLE CHARGING EQUIPMENT.

AN ADDITIONAL 25% OF PARKING STALLS TO BE CONSTRUCTED TO ACCOMMODATE THE FUTURE INSTALLATION OF ELECTRIC VEHICLE CHARGING EQUIPMENT (E.G. PRE-DUCTED FOR FUTURE WIRING).

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PROPOSED TOWNHOUSE AT
8620 RAILWAY AVENUE
RICHMOND BC
-
UNIT LAYOUT

PROJECT NUMBER:	15-19
ISSUED:	10/5/2017
DRAWN BY:	EL
CHECKED BY:	EL
FILENAME:	15-19_ERW_171005-DP.DWG

DP 16-754735

A6

DP 16-754735
REFERENCE PLAN

DEVELOPMENT PERMIT

	CONVERTIBLE UNIT GUIDELINES
DOORS & DOORWAYS	– ENTRY DOORS ARE A MINIMUM 863 MM BUT IDEALLY 914 MM AND HAVE CLEAR ACCESS. – ENTRY DOOR CLEAR EXTERIOR FLOOR SPACE MIN. 1220 MM DEPTH BY DOOR WIDTH PLUS 600 MM ON LATCH SIDE (NOT NEEDED IF ROUGH IN WIRING PROVIDED FOR FUTURE AUTOMATIC DOOR OPENER). – INTERIOR DOORS TO MAIN LIVING AREAS, 1 BATHROOM AND 1 BEDROOM, MIN. 800 MM CLEAR OPENING WITH FLUSH THRESHOLDS MAX. 13 MM HEIGHT. DEMONSTRATE WHEELCHAIR ACCESS BETWEEN THE HALLWAY AND ROOMS AND WIDEN HALLWAY AND/OR DOORWAY(S) IF NECESSARY TO SECURE ACCESS. – PATIO/BALCONY MIN. 860 MM CLEAR OPENING. NOTE HOW ACCESSED. – – ALL INTERIOR THRESHOLDS WITHIN UNITS COMPLY WITH BC BUILDING CODE. – LEVER–TYPE HANDLES FOR ALL DOORS.
VERTICAL CIRCULATION	– STAIR LIFT, STAIRCASE WIDTH, FRAMING SUPPORT, AND LANDINGS, AS NOTED ON FLOOR PLANS IN COMPLIANCE WITH MANUFACTURER SPECIFICATIONS. OR VERTICAL LIFT, DEPRESSED SLAB AREA, AND LANDINGS, AS NOTED ON FLOOR PLANS 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. 4 M 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) ARE EASILY REMOVED. DEMONSTRATE BATH AND SHOWER CONTROLS ARE ACCESSIBLE (LAYOUT OR FIXTURE PLACEMENT).
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. – – CABINETS UNDERNEATH SINK ARE EASILY REMOVED. – 1500 MM TURNING DIAMETER OR TURNING PATH DIAGRAM. – LEVER–TYPE HANDLES FOR PLUMBING FIXTURES.
WINDOWS	– MIN. 1 WINDOW THAT CAN BE OPENED WITH A SINGLE HAND (BATHROOM, KITCHEN, LIVING ROOM)
OUTLETS & SWITCHES	– PLACEMENT LOCATIONS OF ELECTRICAL OUTLETS: BESIDE WINDOW, BOTTOM OF STAIRWAYS, BESIDE TOILET, ABOVE EXTERNAL DOORS (OUTSIDE AND INSIDE), ON FRONT FACE OF KITCHEN COUNTER, WITHIN PROXIMITY OF CONTROL CENTRE FOR SMART HOME OPTIONS. – UPGRADE TO FOUR–PLEX OUTLETS IN MASTER BEDROOM, HOME OFFICE, GARAGE, AND RECREATION ROOM.

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

TOWNHOUSE SHALL MEET CITY'S ENERGUIDE 82 REQUIREMENTS AS PER ENERGUIDE REPORT PREPARED BY CAPTURE ENERGY AUGUST 31, 2017, AND ALL UNIT ARE TO BE PRE–DUCT FOR FUTURE HOT WATER HEATING

Policy Compliance Case:

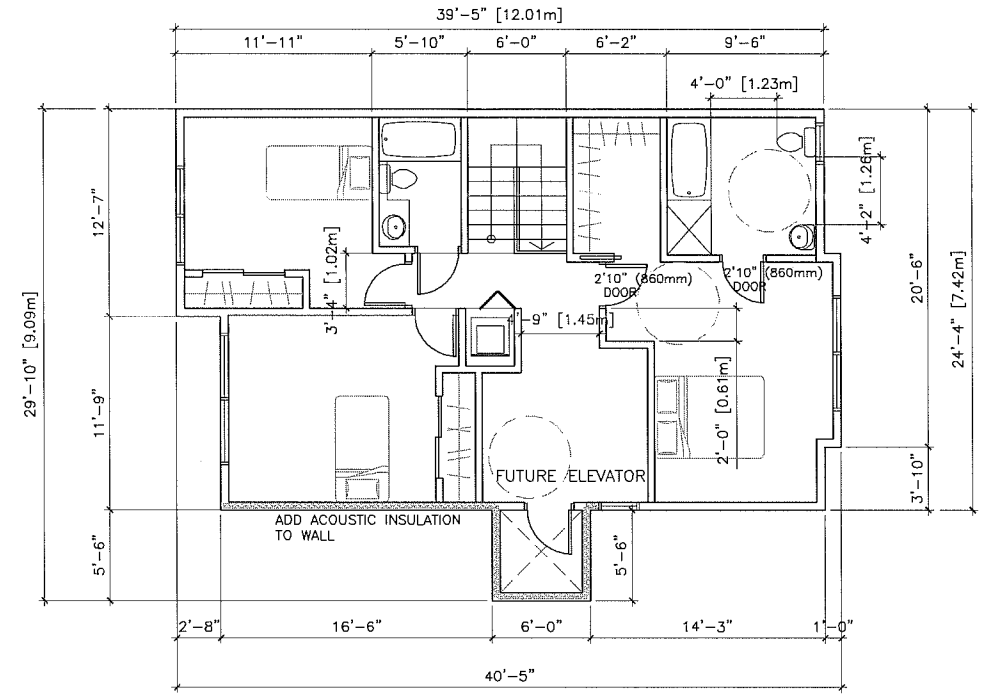
The policy compliance case models the upgrades which, shall improve the energy performance of all homes in the proposed development to an EnerGuide rating of 82 or better.

Table of upgrades and commitments:

All units: The following list of upgrades will be installed in all units

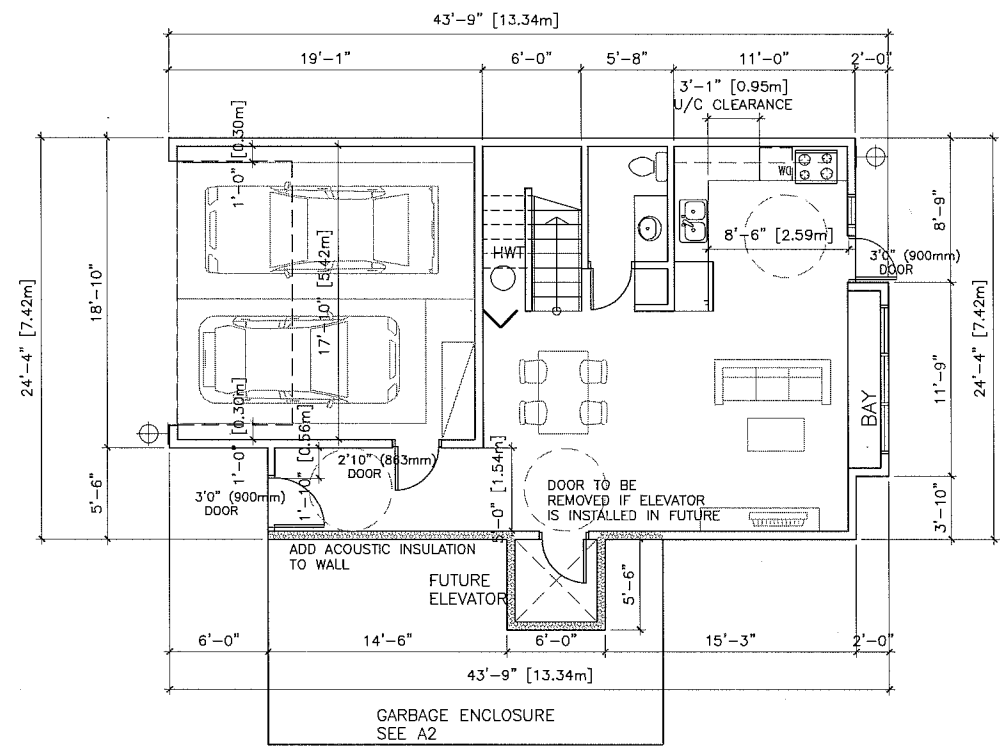
Component	Upgrade
Solar Hot Water Ready requirement	"Per the requirements of the BC Solar Hot Water Ready regulation".

Component	Upgrade	Commitment
Space Heating:	Heat Recovery Ventiator	Heat Recovery Ventilator (HRV) sized and installed per BCBC Section 9.32
Space Heating:	Air Source Heat Pump	Air Source Heat Pump (ASHP); Seer >14.5; HSPF > 7.5. This upgrade shall require the projects mechanical Professional Engineer to provide a letter to the City of Richmond which specifies the equipment, and confirms that the equipment complies with Noise Regulations Bylaw No. 8856.



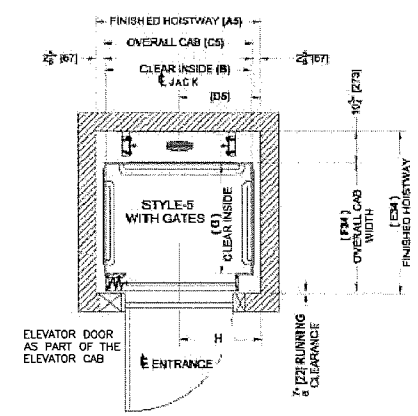
TYPE B2
3 BEDROOM + DEN
TOTAL UNIT AREA: ±1648 SQ. FT.
INCLUDING STAIR

1 — LEVEL 2
3/16" TO 1'-0"
TYPE–B2–2F



2 — LEVEL 1
3/16" TO 1'-0"
TYPE–B2–1F

On / Off Same Side Front Configuration Style 5:



Cab Size	A5	B	C5	D5	E34	F34	G	H
36" x 48"	54 1/4"	48"	49"	27 1/8"	53 7/8"	42 1/4"	36"	27 1/8"
36" x 54"	60 1/4"	54"	55"	30 1/8"	53 7/8"	42 1/4"	36"	30 1/8"

DP 16-754735

DP 16-754735
REFERENCE PLAN

ERIC LAW ARCHITECT

ericlaw.architect@gmail.com
216 288 W8TH AVENUE VANCOUVER BC V5Y1N5

TEL: (604) 505-2099
FAX: (604) 909-2697

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	ISSUED
1	2016.12.22 FOR DEVELOPMENT PERMIT APPLICATION
2	2017.06.14 FOR ADP MEETING
3	2017.08.31 FOR CITY REVIEW
4	2017.10.05 FOR DP PANEL REVIEW

	REVISION
2	2017.10.04 REVISED DOOR COLOURS
1	2017.08.08 REVISED PER CITY & ADP COMMENTS

PROPOSED TOWNHOUSE AT
8620 RAILWAY AVENUE
RICHMOND BC
-
UNIT LAYOUT

PROJECT NUMBER: 15–19
ISSUED: 10/5/2017
DRAWN BY: EL
CHECKED BY: EL
FILENAME: 15–19_ERW_171005–DP.DWG

A7

DEVELOPMENT PERMIT

City of Richmond

Report to Development Permit Panel

To:	Development Permit Panel	**Date:**	October 3, 2017
From:	Wayne Craig Director, Development	**File:**	DV 17-771661
Re:	**Application by Matthew Cheng Architect Inc. for a Development Variance Permit at 8480 No. 5 Road**		

Staff Recommendation

That a Development Variance Permit be issued which would vary the provisions of Richmond Zoning Bylaw 8500 to increase the maximum height for buildings from 12 m to 14.14 m to permit the construction of a Buddhist Temple at 8480 No. 5 Road on a site zoned "Assembly (ASY)".

Wayne Craig
Director, Development

DCB:blg
Att. 3

Staff Report

Origin

Matthew Cheng Architect Inc., on behalf of the Tung Cheng Yeun Buddhist Association,has applied to the City of Richmond for permission to vary the provisions of Richmond Zoning Bylaw 5800 to increase the "Assembly (ASY)" maximum permitted building height from 12 m to 14.14 m in order to permit a taller roof peak on a proposed Buddhist temple building at 8480 No. 5 Road. The 3,416.7 m^2 (36,777.46 ft^2) site is currently vacant.

The site was rezoned to "Assembly (ASY)" by Council on June 26, 2017.

Site servicing and frontage improvements will be secured prior to issuance of a Building Permit with works including the following:

- The design and construction of a 1.5 m wide treed and grassed boulevard and a new 1.5 m wide concrete sidewalk along No. 5 Road.
- Installation of a new water connection, complete with meter and meter box.
- Upgrading of approximately 75 m of routing storm sewer.
- Relocation of an existing storm inspection chamber on the west property boundary.
- Installation of new sanitary service connections and inspection chambers along the frontage.
- Completion of a street lighting assessment and recommended lighting upgrades along the site's frontage, etc.

Development Information

The Buddhist Association's original proposal was for a building that was approximately 6 m (19.68 ft.) over the 12 m maximum height allowed under the "Assembly (ASY)" zoning. In response to concerns regarding the building height and massing raised by the Shia Muslim Community of BC the adjacent property owners, the applicant made extensive revisions to their plans reducing the overall height of the building, altering the shape of the roof peak to reduce the extent of the area requiring a height variance and moving the building northward and closer to No. 5 Road – effectively moving further away from the adjacent Muslim building. Having subsequently reviewed the revised proposal indicating a building of approximately 14.09 m (46.23 ft.) in height for the site, the Shia Muslim Community representatives submitted a letter of support to Planning Committee on March 7, 2017 (see Attachment 1). The revised plans showing the slightly higher 14.14 m (46.39 ft.) elevation were provided to and reviewed by the Shia Muslim Community representatives on September 14, 2017. No further concerns were raised by the representatives. The additional height requested is to allow the building's appearance to more closely resemble the traditional character of a Chinese Buddhist Temple.

The proposed temple building will be a two-storey wood construction building, approximately 1,308.07 m^2 (14,080 ft^2) in floor area. The building will contain a kitchen and dining hall, administration offices, a library, and a dormitory containing two sleeping units on the main floor and a worship hall and two offices on the top floor. Parking is provided at ground level along

three sides of the building. The proposed uses are all permitted under the "Assembly (ASY)" zone.

Please refer to the attached Development Application Data Sheet (Attachment 2) for a comparison of the proposed development data with the relevant bylaw requirements.

Background

Development surrounding the subject site is as follows:

North:	A property owned by the Shia Muslim Community of BC at 8320 No. 5 Road on a split- zoned site "Assembly (ASY)" on the westerly 110 m and "Agriculture (AG1)" on the eastern portion, and located within the ALR and the No. 5 Road Backlands Policy area.
East and South:	A property owned by the Shia Muslim Community of BC at 8580 No. 5 Road on a split-zoned site, "Assembly (ASY)" on the westerly one-third of the property (approximately 1.3 ha) and "Agriculture (AG1)" on the eastern portion. The site is located within the ALR and the No. 5 Road Backlands Policy area.
West:	Directly across No. 5 Road at 8451 No. 5 Road is a split-zoned property with "Roadside Stand (CR)" on the front portion and "Agriculture (AG1)" on the back portion. The property is located within the ALR, but is not located within the No. 5 Road Backlands Policy area.

Staff Comments

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 Variance Permit application. In addition, it complies with the intent of the applicable sections of the Official Community Plan (OCP) and is generally in compliance with the "Assembly (ASY)" zone except for the zoning variance noted below.

Zoning Compliance/Variances (staff comments in **bold**)

The applicant requests to vary the provisions of Richmond Zoning Bylaw 8500, "Assembly (ASY)" zone, to increase the maximum height for buildings from 12.0 m to 14.14 m at 8480 No. 5 Road.

(Staff supports the proposed variance for the following reasons:

1. ***The proposed increase in height does not result in an increase in useable floor area or a change in use within the building.***

2. ***No significant increase in shadowing to neighbouring properties will result from the 2.14 m increase in height of the roof line. The submitted shadow study does indicate limited shadowing of the street frontage but only in the mid-winter morning hours. This is not anticipated to pose a significant concern.***

3. ***The most impacted neighbours as owners of lands on three sides of the subject site the Shia Muslim Community of BC, have indicated their support of the proposed development with the increased roof height. The project will significantly improved streetscape providing a new 1.5 m wide treed and grassed boulevard and a new 1.5 m wide concrete sidewalk. The installation of a managed Zen garden cultural landscape along the front of the building will further enhance the appearance from No. 5 Road.***

4. ***The additional height will allow the proposed building to take on the appearance that is more characteristic of a Buddhist Temple which would typically include a peaked and ornamental roof line. The proposed variance is less than other building height variances in the area (see the analysis section for comparisons).***

Advisory Design Panel Comments

The Advisory Design Panel initially reviewed the proposal on July 6, 2017, but did not support it primarily due to concerns over potential impacts of the mechanical systems on the exterior building design and the location and design of the handicapped parking spaces and the handicapped access to the building.

The Advisory Design Panel reviewed the revised application on August 2, 2017 and supported the application subject to consideration of their comments. A copy of the relevant excerpt from the Advisory Design Panel Minutes from July 6, 2017 and August 2, 2017 are attached for reference (Attachments 3 and 4). The design response from the applicant has been included immediately following the specific Design Panel comments and is identified in '***bold italics***' in each of the two attachments.

Analysis

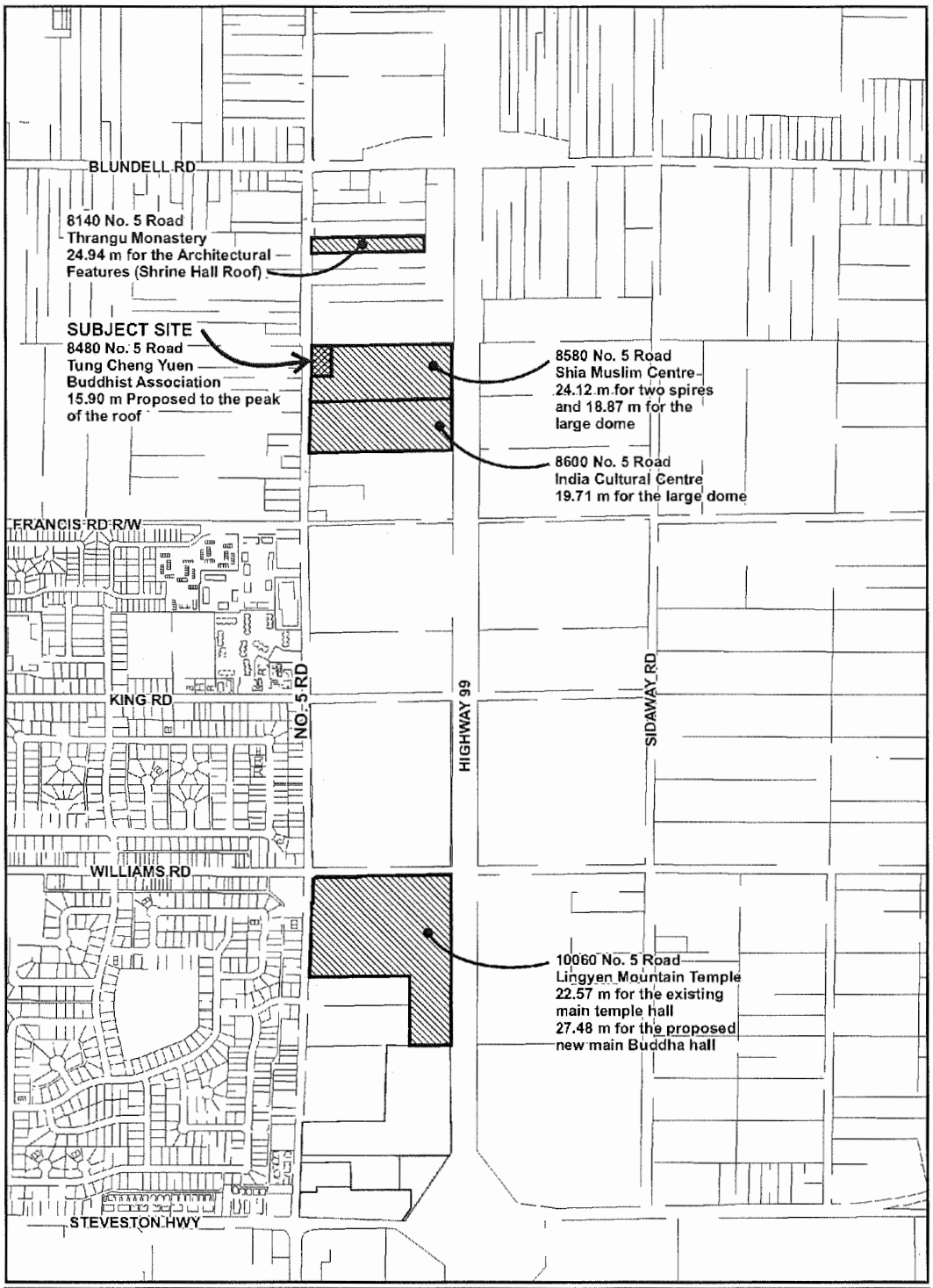
Staff researched maximum building heights for Assembly zoned parcels along No. 5 Road between Blundell Road and Steveston Highway as part of a recent application for the Lingyen Mountain Temple (DV 17-771661) and as part of the No. 5 Road Backlands study. Based on this research and information provided by the applicant, Table 1 below and the associated map on the following page shows approximate heights for "Assembly" zoned buildings in the vicinity of the subject site.

Table 1: Religious Assembly Maximum Building Heights

Site	Maximum Building Height (Above Finished Grade)	Maximum Building Height (Geodetic)
Shia Muslim at 8580 No. 5 Road	20.1 m (66 ft.) for 2 spires and 15.4 m (51 ft.) for large dome **	24.12 m (79 ft.) for 2 spires and 18.87 m (62 ft.) for large dome *
India Cultural Centre at 8600 No. 5 Road	17.12 m (56.2 ft.) for Onion dome **	19.71 m (64.7 ft.) for Onion dome **
Thrangu Monastery at 8140 No. 5 Road	21.44 m (70.34 ft.) to top of the shrine hall **	24.94 m (81.84 ft.) to top of the shrine hall **
Existing LMT at 10060 No. 5 Road	21 m (69 ft.) for the existing Main Buddha Hall **	22.57 m (74 ft.) for the existing Main Buddha Hall **
Proposed LMT Expansion at 10060 No. 5 Road	25.9 m (85 ft.) for the proposed new Main Buddha Hall **	27.48 m (90 ft.) for the proposed new Main Buddha Hall **
Buddhist Temple at 8480 No. 5 Road (Subject Site)	14.14 m (46.41ft.) to proposed roof peak *	15.9 m (52.17 ft.) to proposed roof peak *

* Data based on survey information provided by the applicant. ** Data based on Building Permit records.

As noted in the above table, the maximum building height requested for the subject site's temple is 14.14 m (46.41ft.) above finished site grade. The geodetic height will be approximately 15.9 m. The area proposed to be higher than 12 m in height will be approximately 17.44 m long by 3.42 m deep (57.2 ft. long by 11.23 ft. deep) for a total area of approximately 59.64 m^2 (642 ft^2) at the base. The proposed ridge becomes slightly smaller as it rises upward to the 14.14 m proposed height above finished grade.



	Height Comparisons (all values are geodetic)	Original Date: 05/18/17 Amended Date: 05/23/17 Note: Dimensions are in METRES

Conditions of Adjacency

- Sun shading analysis (included in the submission) has been undertaken indicating minimal impact upon adjacent properties as a result of the proposed 2.14 m roof peak addition.
- The proposed Buddhist temple building will be set back almost 19 m from the southern property boundary and over 20 m from the eastern property boundary to ensure good separation from the existing Muslim temple on the adjacent property at 8580 No. 5 Road.
- Perimeter landscaping and fencing on three sides of the site will be used to screen and separate the adjacent uses.
- The proposed Buddhist temple building will be setback almost 8 m from No 5 Road allowing for additional landscaping to create a softer interface with the fronting street.

Urban Design and Site Planning

- Vehicle access will be provided by a single driveway access from No. 5 Road at the northwestern corner of the property, but will not encroach into the ESA/tree protection area along the northern property boundary. This driveway location was recommended by the Advisory Design Panel and is supported by Transportation staff.
- At grade parking will be provided along the perimeter of three sides of the site and will be well set back and partially screened from No. 5 Road by landscaping.
- 74 parking spaces including two handicapped spaces, are proposed, along with one medium sized loading stall located in the northeastern corner of the property fully addressing the Zoning Bylaw requirements for parking.
- The handicapped parking stalls will be located near the front entrance – one to the north side of the building and one to the south side of the building – again as recommended by the Advisory Design Panel. Both spaces will be in close proximity to accessible ramps leading to the front door of the building.
- Three Class 1 and eight Class 2 bicycle spaces are proposed which will address the Zoning Bylaw requirements for the provision of bicycle spaces.
- Turning radii have been submitted showing that trucks will be able to adequately access and service the site for garbage/recycling pickup and deliveries.
- The main building entrance will be oriented toward No. 5 Road with accessible ramp structures leading to both the north and southern side of the building. Two additional building entrances will be provided at the eastern side (rear) of the building providing service delivery access and access to the interior of the building.

Architectural Form and Character

- The building's design is proposed to be reflective of a traditional Buddhist architectural style incorporating symmetry, various traditional ornamental features, and a modified version of the traditional Chinese temple roof design.
- The proposed two storey building will have a traditional two-tiered orange-yellow glazed ceramic tile roof with roof ridges and corner flares.
- The upper storey exterior is proposed to be an off-white ("vintage taupe") painted smooth texture stucco with red decorative beams, columns and window frames/trims.
- The lower storey is proposed to be red painted stucco with red decorative beams, columns, window frames/trim and doors.
- Windows will be typically double paned with munting and clerestorey windows.

- Decorative panels will be mounted on the lower storey exterior walls to match the window style.
- A stone rail with relief sculptures/engraving will line the two accessibility ramps leading from the main entrance to both the north and south parking areas.
- A maroon brick cladding will line the base of the accessibility ramps.
- Steps will lead down from the main entrance which fronts onto No. 5 Road connecting to a bench lined walkway that joins to the public sidewalk along No. 5 Road.
- Special attention has been made to the mechanical systems to ensure that they do not penetrate the iconic roof line or seriously impact the building design. Mechanical venting and intakes are to be located in selected clerestorey window areas and will be designed to blend into the overall design.
- A custom lattice frame will be used to screen the exterior ventilation/energy recovery (VRV/ERV) units at the rear of the building.

Landscape Design and Open Space Design

- The property has a small (approximately 25 m^2) Environmentally Sensitive Area (ESA) designation along the north and west property lines which includes trees on the adjacent property to the north at 8320 No. 5 Road. This area is not be impacted by the proposed development, as the parking and vehicle access will be set back from the driplines of these trees. The setback requirements have been reviewed by the City's Tree Protection staff.
- Protective fencing will be in place to ensure retention of 11 off-site trees located on the neighbouring property to the north at 8320 No. 5 Road and one tree jointly owned with 8320 No 5 Road.
- 57 replacement trees will be planted on-site – fully addressing the requirement for 56 replacement trees permitted to be removed through the Rezoning application (RZ 14-674068).
- In response to the Advisory Design Panel, the landscaping at the front of the site was redesigned to "introduce cultural specific elements such as Zen garden arrangements to compliment the Buddhist temple design. The Zen garden symbolically represents nature or Yin/Yang concept by using man made elements such as stone paver path and stone ornament in a harmonious arrangement with the natural landscape design. Areas of paver stone rearranged in linear pattern to reflect the solemn Buddhist temple design which is commonly seen in Asian Buddhist temple." A walkway around the landscaped area complete with benches have also been added to the front of the site.
- The perimeter of the site will be landscaped with various trees and shrubs providing a visual relief from the adjacent properties.
- Permeable pavers are used for all the parking spaces adjacent to the property boundaries and at the main driveway entry to reduce impermeable surface areas/act as a visual cue to the site's entrance way.
- Garbage and recycling facilities have been relocated to the north-eastern corner of the site away from the adjacent Shia Muslim temple.
- Landscape Securities in the amount of $167,107.38 were submitted through the previously approved Rezoning application (RZ 14-674068). No additional landscape securities are required with this application.

Crime Prevention Through Environmental Design

- The primary building entrances will be visible to the street.
- Perimeter fencing will be maintained along three sides of the site.
- The at-grade parking will be generally visible and open to visual scanning.

Energy and Sustainability

- The applicant indicates that, although no LEED target has been established, the building will be designed as a sustainable project using efficient HVAC and plumbing systems to the extent possible. Their objective in terms of energy use will be to have the project beat the required ASHRAE 90.1.2010 code requirements by approximately 10 to 15%.
- Domestic hot water will be provided via a high efficiency gas fired hot water tank serving the kitchen, guest rooms and washrooms.
- Variable refrigerant volume (VRV) and energy recovery ventilator (ERV) systems will provide ventilation, heating and cooling to the main floor and two VRV units will address the needs of the worship area on the second floor. The ERV systems will be equipped with a variable speed drive to maximize energy efficiency by reducing its capacity when the building has low occupancies.
- High efficiency plumbing fixtures proposed are anticipated to reduce water use by 20 to 30% over the LEED 2009 baseline standard.

Conclusions

The applicant made significant modifications to the overall building and site design in response to both the Advisory Design Panel and staff. The modifications have helped to improve the functionality of the project and address the concerns raised. As the proposed development would meet applicable policies and Development Permit Guidelines, staff recommend that the Development Variance Permit to increase the maximum height for buildings to 14.14 m at 8480 No. 5 Road be endorsed, and issuance by Council be recommended.

David Brownlee
Planner 2
(604-276-4200)

DCB:blg

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).

List of Attachments:

Attachment 1 Shia Muslim Community letter of support to Planning Committee (March 7, 2017)

Attachment 2 Development Application Data Sheet

Attachment 3 Advisory Design Panel Comments and Applicant Responses – August 2, 2017

ATTACHMENT 1

Schedule 1 to the Minutes of the Planning Committee meeting of Richmond City Council held on Tuesday, March 7, 2017.

To: Planning Committee
March 7, 2017
re: Item # 2 (RZ 14-674068)

Az-Zahraa ISLAMIC CENTRE
SHIA MUSLIM COMMUNITY OF BRITISH COLUMBIA
8580 #5 ROAD RICHMOND BC CANADA V6Y 2V4 TEL: 604.274.7869 www.az-zahraa.org

March 4, 2017

Planning Committee
City of Richmond
Richmond, BC

RE: RZ 14-674068 8480 No 5 Road Temple Rezoning Application

Dear Sir/Madam,

We are writing in appreciation of the information recently provided to us by Mr. David Brownlee, with regards to the rezoning application for the proposed Buddhist Temple at 8480 Number 5 Road.

We really appreciate all the efforts that Mr. Brownlee and the Members of the Buddhist Community along with their architect, have made to address the concerns we brought forward. While it is not perfect with the height being over the permissible limit, our Community is sympathetic to the needs of the Buddhist Community.

With these changes, we are now in a position to support their application. Being their neighbours on both sides of the property (8580 and 8320 No. 5 Rd), we look forward to a mutually supportive and fruitful relationship.

Best regards,

Shaheen Rashid

Shaheen Rashid
Secretary, The Shia Muslim Community of BC
secretary@az-zahraa.org

CC: Mr. David Brownlee

CITY OF RICHMOND
DATE
MAR 07 2017
RECEIVED
CITY CLERK'S OFFICE

City of Richmond

Development Application Data Sheet

Development Applications Division

DV 17-771661 **Attachment 2**

Address: 8480 No. 5 Road

Applicant: Matthew Cheng Architect Inc. Owner: Tung Cheng Yuen Buddhist Association

Planning Area(s): East Richmond – McLennan Sub-Area

Floor Area Gross: 1,308.07 m^2

	Existing	Proposed
Site Area:	3,416.7 m^2	No Change
Land Uses:	Vacant	Institutional
OCP Designation:	Community Institutional	No Change
Zoning:	Agriculture (AG1)	Assembly (ASY)
Other Designations:	ESA	ESA DP not required

On Future Subdivided Lots	Bylaw Requirement	Proposed	Variance
Floor Area Ratio:	Max. 0.5	0.4	none permitted
Lot Coverage – Building:	Max. 35 %	19 %	none
Setback – Front Yard (m):	Min. 6 m	7.7 m	none
Setback – North Side Yard (m):	Min. 7.5 m	17.95 m	none
Setback – South Side Yard (m)	Min. 7.5 m	18.58 m	none
Setback – Rear Yard (m)	Min. 7.5 m	20.24 m	none
Height (m):	12 m	14.14 m	Variance
Off-street Parking Spaces – Total:	74	74	none
Accessible Parking Spaces	2	2	none
Loading Spaces	1 medium	1 medium	none
Bicycle Spaces	Class 1: 3 Class 2: 8	Class 1: 3 Class 2: 8	none

Excerpt from the Minutes from

The Design Panel Meeting

Wednesday, August 2, 2017 – 4:00 p.m.
Rm. M.1.003
Richmond City Hall

1. DV 17-771661 (RESUBMISSION) - TWO-STOREY 1,308 S.M. BUDDHIST TEMPLE WITH HEIGHT VARIANCE FOR ROOF DESIGN

ARCHITECT: Matthew Cheng Architect Inc.

PROPERTY LOCATION: 8480 No. 5 Road

Applicant's Presentation

Roy Kuo, Matthew Cheng Architect Inc., and Caelan Griffifths, PMG Landscape Architects, presented the project and answered queries from the Panel. Matthew Cheng, Matthew Cheng Architect, Inc. responded to the comments of the Panel.

Panel Discussion

Comments from the Panel were as follows:

- appreciate the mechanical engineer for the project providing the Panel with mechanical plans, although not required at this stage of the project;
- mechanical and sustainability features for the project have not been integrated into the building's architecture; e.g. location of louvers indicated in the building's façade, but not integrated into the architecture of the building;

  Clerestory portion will be utilized for air intake/exhaust ventilation. Detail in larger scale is provided to illustrate the integration of architectural panel and mechanical ducting. Reference Page: Architectural 3 /A2.2

- freezer and cooler mechanical systems will also impact the building's shape and form enclosure needs to be expanded to accommodate these mechanical systems;

  All air intake / exhaust ventilation will be accommodated through clerestory portion of window frame. Detail ducting layout and air intake / exhaust location to be determined and to be integrated with architectural design.

- proposed kitchen exhaust system may not meet National Fire Protection Association (NFPA) 96 standards louvers for venting kitchen exhaust have potential maintenance problems, e.g. will accumulate grease over time;

  Grease trap is proposed to be installed in mechanical room for kitchen exhaust to filter most grease before kitchen ventilation exhaust through clerestory portion of window frame.

- support the building frontage sited adjacent to No. 5 Road as it will create opportunities for landscaping however, proposed landscaping needs clarity and design development, e.g. clarify whether the sod lawns fronting the building could be accessed by pedestrians;

  Revised landscape proposed a walkway around landscaping area for visitor to enjoying the landscape design. Reference Page: Landscape L1

- applicant could have provided an Arborist's Report to provide information to the Panel regarding the condition of the trees to be removed;

  Arborist report was submitted as part of rezoning application package. All tree removals are based on recommendation of arborist report.

- proposed ramps could be further articulated through incorporating relief sculpture as mentioned by the applicant;

  Details of relief sculpture or engraving to be further studied and incorporated at construction stage

- consider increasing the width of the ramps to accommodate two people walking side-by-side as the ramps will be accessed more than the front stairs to enter the building increasing the width of the ramps may necessitate going beyond the setback line but would be justifiable;

  Ramps are widen to 5'-7 ½" with 4'-7 ½" wide interior path clearance to accommodate two people walking side by side. Reference Page: Architectural 1/A1.0

- consider incorporating elements below the ramps to provide a more inviting experience for users;

  Space under proposed ramps to be blocked by brick wall on exterior side. Reference Page: Architectural A2.5

- appreciate the proposed architectural details presented by the applicant hope that they will be incorporated into the building as the project moves forward as they will enhance the architecture of the building;

  All architectural elements shall follow and be executed traditional Chinese temple detail and aesthetics.

- consider relocating the pad-mounted transformer (PMT) at the northwest corner of the site to a less prominent location;

  PMT is place at location where it is easily accessed for installation and maintenance. Although PMT is visible to pedestrian on public sidewalk, 3 sides surround PMT are landscaped to provide partial visual blockage. Reference Page: Architectural 1/A0.1

- support the siting of the building adjacent to No. 5 Road which creates opportunities for tree planting around the perimeter of the site however, information is lacking from the arborist regarding the condition of on-site trees to be removed;

  Arborist report was submitted as part of rezoning application package. All tree removals are based on recommendation of arborist report.

- relationship between landscaping and architecture is not clearly presented landscaping could have been integrated into the architectural drawings;

  Revised landscape plans introduce cultural specific elements such as Zen garden arrangements to compliment the Buddhist temple design. The Zen garden symbolically represents nature or Yin/Yang concept by using man made elements such as stone paver path and stone ornament in a harmonious arrangement with the natural landscape design. Areas of paver stone rearranged in linear pattern to reflect the solemn Buddhist temple design which is commonly seen in Asian Buddhist temple. Reference Page: Landscape L1

- proposed width and depth of the continuous soil trenches along the south property line would be inadequate due to size of trees to be planted and their proximity of the curb;

  Proposed soil trench is industry standard and shall provide adequate area for proposed trees to grow. Reference Page: Landscape L1

- support the proposed permeable pavers on site however, the applicant could have explained how the proposed landscaping relates to the overall design of the project;

  Revised landscape plans introduce cultural specific elements such as Zen garden arrangements to compliment the Buddhist temple design. The Zen garden symbolically represents nature or Yin/Yang concept by using man made elements such as stone paver path and stone ornament in a harmonious arrangement with the natural landscape design. Areas of paver stone rearranged in linear pattern to reflect the solemn Buddhist temple design which is commonly seen in Asian Buddhist temple. Reference Page: Landscape L1

- consider design development to the kitchen exhaust fan venting through the side of the building consider installing a significant overhang over the vent;

  All air intake / exhaust ventilation will be accommodated through clerestory portion of window frame. Detail ducting layout and air intake / exhaust location to be determined and to be integrated with architectural design.

- provision of parking spaces should not be to the detriment of pedestrian access around the site pedestrian circulation should not conflict with vehicular circulation on site;

  Pedestrian circulation along north and south of the building is not provided due to site restriction and vehicular circulation / parking spaces requirements. Nevertheless, various entry and exit routes and points reduce risk of vehicular / pedestrian inference. Reference Page: Architectural 1/A0.1

- consider relocating the loading and garbage and recycling areas closer to the site entry;

  Site entry is relocated to north end of the site for shorter route to access garbage and recycling area. Reference Page: Architectural 1/A0.1

- consider providing loading access directly to the back of the building near the kitchen area;

  Kitchen location is relocated to North East portion of the building for shorter access to the loading space. Reference Page: Architectural 1/A0.1

- consider at least a five-foot width for the ramps on both sides of the building entrance;

  Ramps are widen to 5'-7 ½" with 4'-7 ½" wide interior path clearance to accommodate two people walking side by side. Reference Page: Architectural 1/A1.0

- paved walkway at the east side of the building is redundant consider converting the parking spaces at the north side of the building into a pedestrian space and relocating the VRV units on the paved walkway at the east side of the building to this area to make the walkway more functional;

  It is unlikely to provide additional pedestrian walkway on the north side of the building due to the parking layout and site restriction.

- consider providing an access to the elevator off the main lobby on the main floor and off the upper lobby on the upper floor;

  Main and upper elevator lobbies are revised as per panel suggestion. Reference Page: Architectural 1/A1.0 & A1.1

- consider pushing back the entrance doors to the dining hall into the dining hall area to provide a corridor space to access other areas in the building and provide privacy to the dining hall area;

  Provision of continuous corridor to separate dining hall from public pedestrian circulation. Reference Page: Architectural 1/A1.0

- appreciate the applicant for providing two ramps which add interest to the front of the building;

- consider increasing the width of the ramps up to the full width of the front entrance landing to provide adequate space for users, e.g. enable a user to pass by another user and allow users to walk side-by-side;

  Ramps are widen to 5'-7 ½" with 4'-7 ½" wide interior path clearance to accommodate two people walking side by side. Reference Page: Architectural 1/A1.0

- appreciate the relocation of one handicapped parking space to the northwest corner of the site;

  Two handicapped parking spaces are provided, one (#46) at NW corner of the site by vehicular entrance and the other one (#1) at SW corner. Reference Page: Architectural 1/A0.1

- consider relocating the cross hatched access area beside the handicapped parking stall at the northwest corner between the subject handicapped parking stall and the adjacent regular parking stall to provide a common access area for the two parking stalls;

  Handicapped parking space (#1) at SW corner share common access area with regular parking space (#2). Reference Page: Architectural 1/A0.1

- appreciate the applicant incorporating public art into the project the applicant is encouraged to investigate further opportunities to integrate public art in other locations on the project, e.g. near the sidewalk;

  In addition to stone railing relief sculpture, further opportunity for art will be investigated and incorporated into architectural and landscape design.

- consider introducing an additional pedestrian sidewalk at the north parking area to connect with the paved walkway at the east side of the building consider differentiating the treatment for the additional pedestrian sidewalk through variation in colour;

  It is unlikely to provide additional pedestrian walkway on the north side of the building due to the parking layout and site restriction.

- consider cutting back two regular parking stalls at the southeast corner to provide a ramp to the kitchen;

  Although the kitchen will incorporate commercial kitchen layout and equipment, it is likely the kitchen will not operate like a regular commercial kitchen of which constant re-stocking large quantity of food and supplies is required. Therefore, a ramp specifically serves kitchen loading activities will not be practical.

- support the recommendation to increase the width of the ramps will make them appear grand and more appropriate to the context to the building;

  Ramps are widen to 5'-7 ½" with 4'-7 ½" wide interior path clearance to accommodate two people walking side by side. Reference Page: Architectural 1/A1.0

- appreciate the design of the temple City staff is encouraged to ensure the high quality of detailing for the temple and at par with the standards of other temples in the area;

  All architectural elements shall follow and be executed traditional Chinese temple detail and aesthetics.

- programming of landscape needs more integration with the architecture perspectives could have integrated the landscaping to enable the Panel to properly review the project;

  Revised landscape plans introduce cultural specific elements such as Zen garden arrangements to compliment the Buddhist temple design. The Zen garden symbolically represents nature or Yin/Yang concept by using man made elements such as stone paver path and stone ornament in a harmonious arrangement with the natural landscape design. Areas of paver stone rearranged in linear pattern to reflect the solemn Buddhist temple design which is commonly seen in Asian Buddhist temple. Reference Page: Landscape L1

- consider flipping the driveway from the south side to the north side to locate the loading and garbage and recycling areas further away from the neighbouring mosque also, the southwest corner of the site could have more opportunities for landscaping, e.g. could incorporate a park/gathering place;

  Site entry is relocated to north end of the site for shorter route to access garbage and recycling area. Reference Page: Architectural 1/A0.1

- investigate opportunities for providing public access to the sod lawns in front of the building;

  Revised landscape proposed a walkway around the landscaping area for visitor to enjoying the landscape design. Reference Page: Landscape L1

- consider a pedestrian access into the site from the sidewalk near the PMT;

  Revised landscape design will incorporate pedestrian experience by provision of pedestrian circulation throughout yard spaces. Reference Page: Landscape L1

- support the recommendation to provide elevator access off the main lobby and

  Main and upper elevator lobbies are revised as per panel suggestion. Reference Page: Architectural 1/A1.0 & A1.1

- consider flipping the kitchen and the function room to reduce the distance of the kitchen from the loading area.

  Kitchen location is relocated to North East portion of the building for shorter access to the loading space. Reference Page: Architectural 1/A0.1

Panel Decision

It was moved and seconded
That DV 17-771661 be supported to move forward to the Development Permit Panel subject to the applicant giving consideration to the comments of the Advisory Design Panel.

CARRIED

Opposed: Jubin Jalili and Amber Paul

City of Richmond

Development Variance Permit

No. DV 17-771661

To the Holder:	MATTHEW CHENG ARCHITECT INC.
Property Address:	8480 NO. 5 ROAD
Address:	C/O #202 - 670 EVANS AVENUE VANCOUVER, BC V6A 2K9

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 as follows:
   a) The maximum height for buildings is increased from 12.0 m to 14.14 m at 8480 No. 5 Road.
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 #19 attached hereto.
5. Sanitary sewers, water, drainage, highways, street lighting, underground wiring, and sidewalks, shall be provided as required.
6. 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.
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.

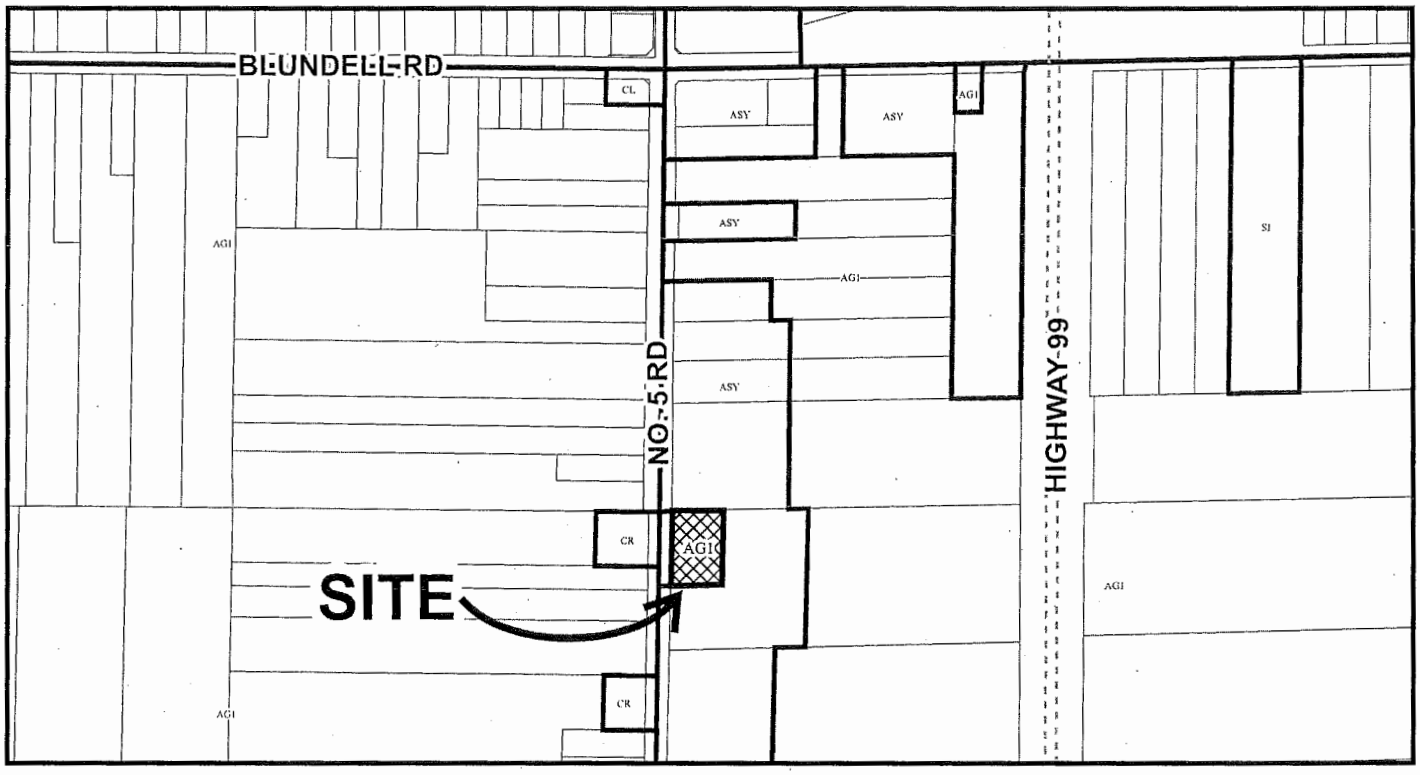
This Permit is not a Building Permit.

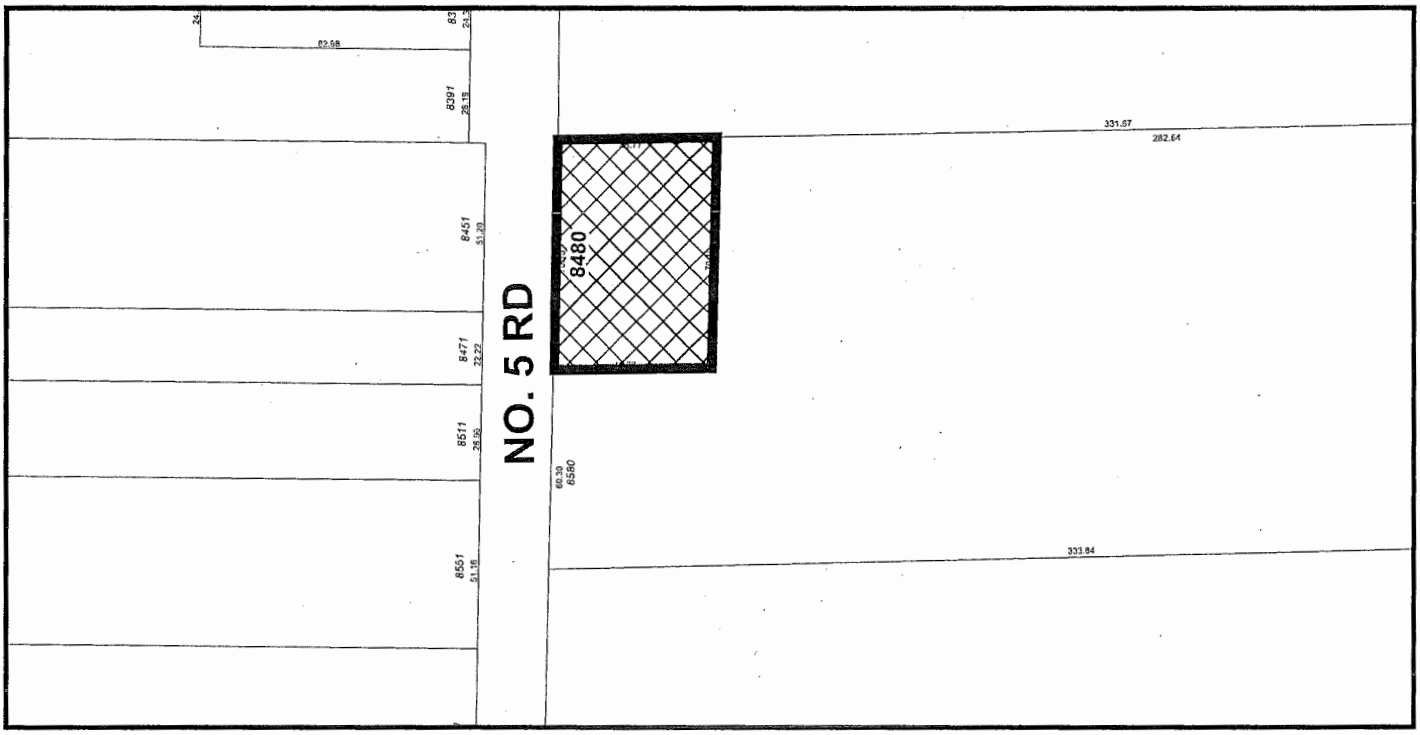
AUTHORIZING RESOLUTION NO. ISSUED BY THE COUNCIL THE DAY OF , .

DELIVERED THIS DAY OF , .

MAYOR

City of Richmond





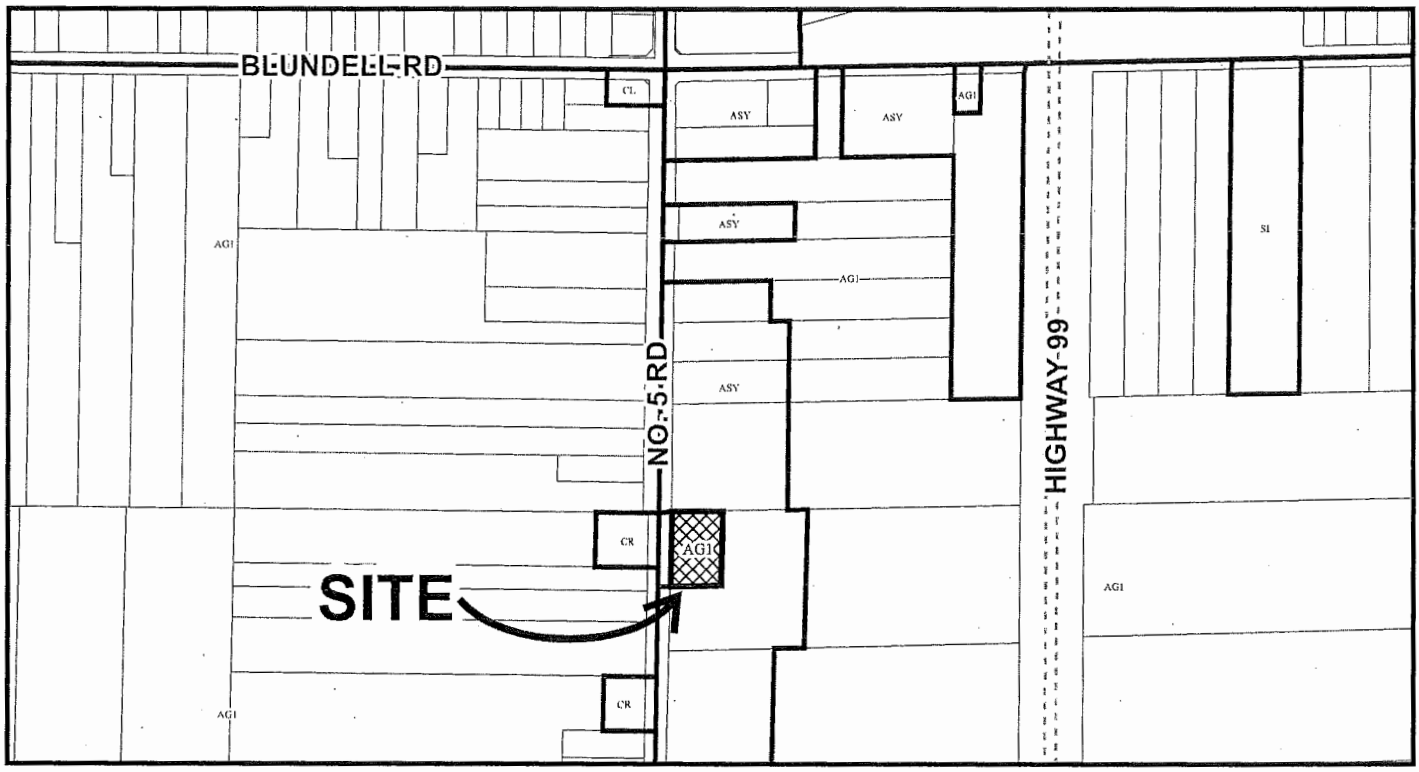
DV 17-771661
SCHEDULE "A"

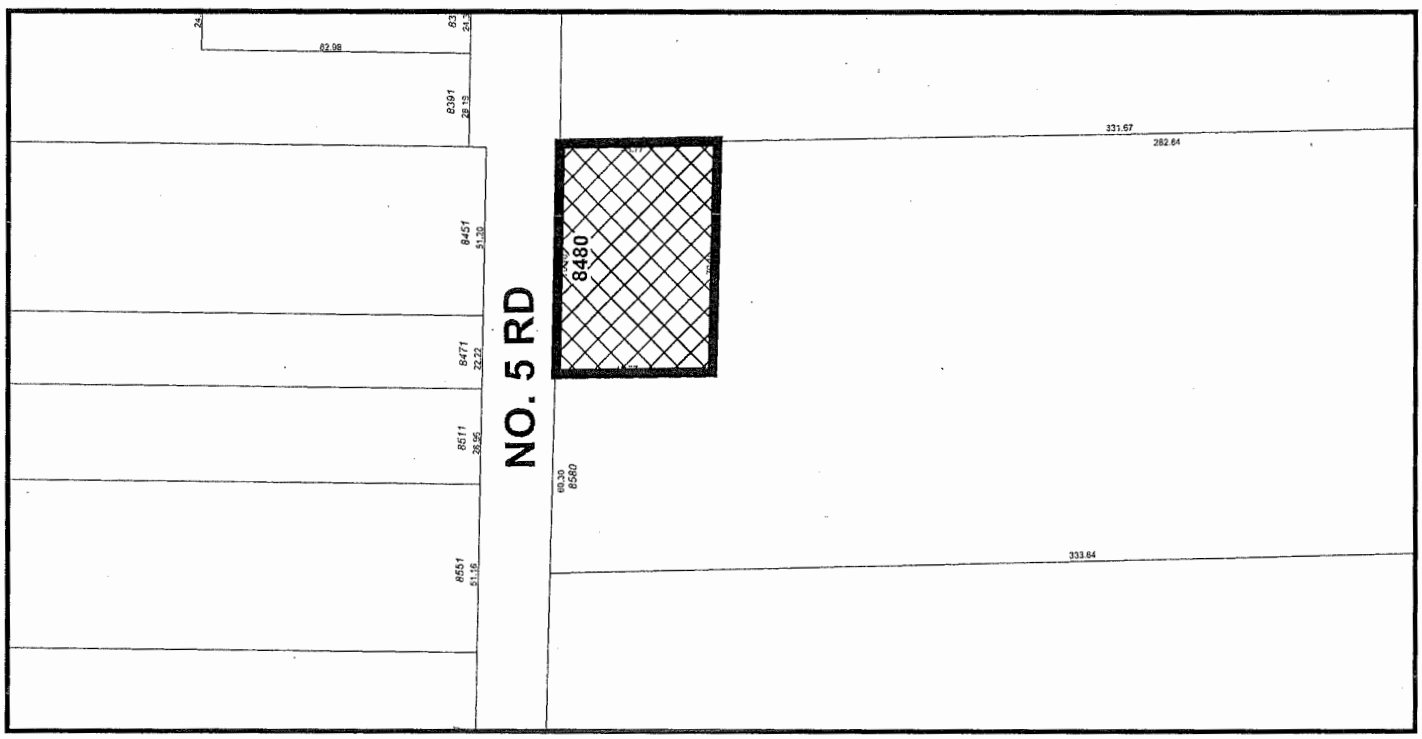
Original Date: 05/24/17

Revision Date:

Note: Dimensions are in METRES

City of Richmond



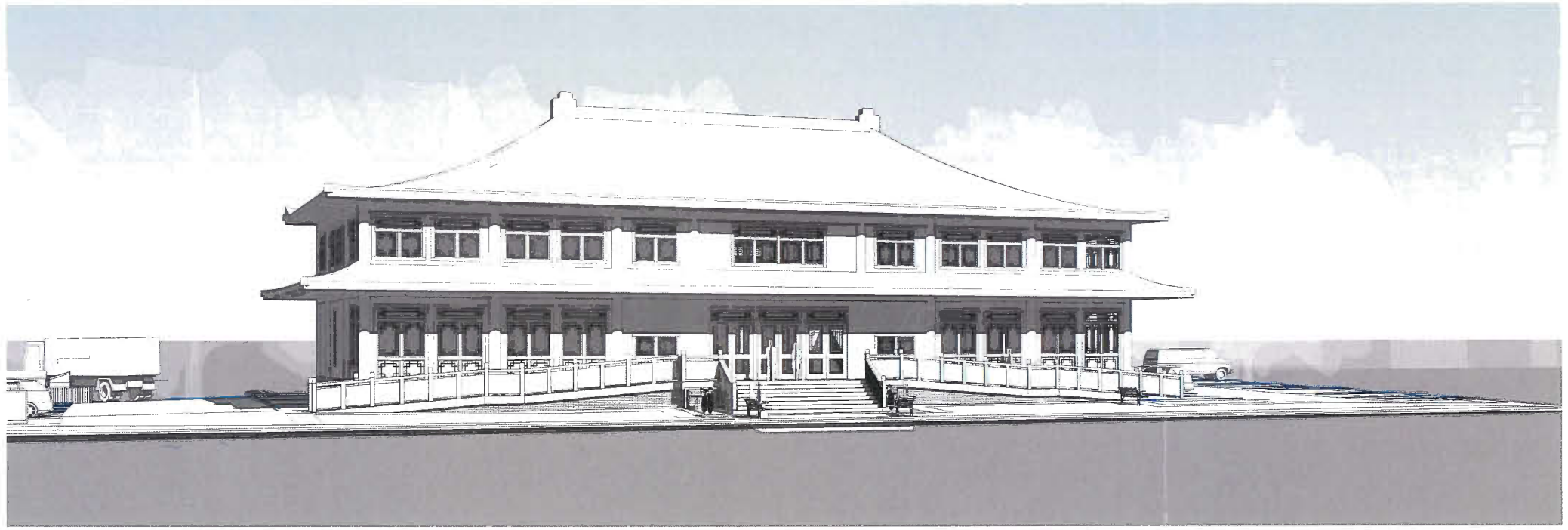


DV 17-771661

Original Date: 05/24/17

Revision Date:

Note: Dimensions are in METRES



Sheet List	
Sheet Number	Sheet Name
A0.0	COVER PAGE
A0.1	SITE PLAN
A0.2	TURCK TURNING RADIUS PLAN
A0.3	SHADOW STUDY
A1.0	MAIN FLOOR PLAN
A1.1	UPPER FLOOR PLAN
A1.2	ROOF PLAN
A1.3	PARKING CALCULATION OVERLAY
A2.0	WEST & EAST ELEVATIONS
A2.1	NORTH & SOUTH ELEVATION
A2.2	SECTIONS
A2.3	COLOURED ELEVATIONS
A2.4	MATERIALS & DETAILS
A2.5	PERSPECTIVES

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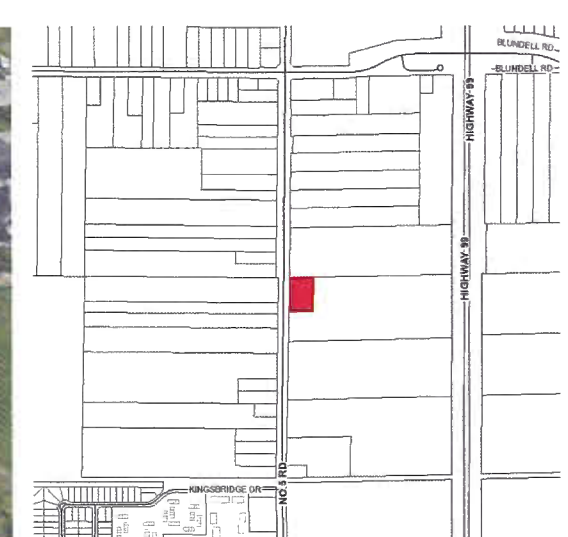
JI-GONG BUDDHIST TEMPLE
8480 NO.5 ROAD, RICHMOND B.C.

ISSUED FOR DEVELOPMENT PERMIT PANEL

PROJECT DATA

	EXISTING		PROPOSED	
	METRIC (M/SM)	IMPERIAL (F/SF)	METRIC (M/SM)	IMPERIAL (F/SF)
ADDRESS	8480 NO.5 ROAD		8480 NO.5 ROAD	
LEGAL DESCRITPTION	SURVEY PLAN OF LOT 14, SECTION 19, BLOCK 4 NORTH, RANGE 5 WEST, NEW WESTMINSTER DISTRICT, PLAN 29706			
PID	009-177-884			
SITE AREA	3,416.7	36,777.46	3,416.7	36,777.46
LAND USE	SINGLE FAMILY HOUSE & AGRICULTURE		ASSEMBLY	
OCP DESIGNATION	RESIDENTIAL & AGRICULTURE		ASY	
ZONING	AG1		ASY	

	REQUIRED / ALLOWED		PROPOSED	
	METRIC (M/SM)	IMPERIAL (F/SF)	METRIC (M/SM)	IMPERIAL (F/SF)
FLOOR AREA RATIO (FAR)	0.5		0.38	
FLOOR AREA TOTAL	1,708.37	18,388.73	1,308.07	14,080.00
LOT COVERAGE RATIO	0.35		0.19	
LOT COVERAGE	1,195.86	12872.11	654.04	7040
SETBACK-FRONT YARD	6	19.69	7.77	25.49
			9.08	29.79
SETBACK-SIDE YARD (NORTH)	7.5	24.61	17.95	58.90
SETBACK-SIDE YARD (SOUTH)	7.5	24.61	18.58	60.97
SETBACK-REAR YARD	7.5	24.61	21.49	70.51
			20.24	66.40
HEIGHT	12	39.37	14.14	46.41
LOT SIZE	3,416.7	36,777.46	3,416.7	36,777.46
OFF-STREET PARKING TOTAL	73.88		74	
OFF-STREET PARKING ACCESSIBLE (2% OF TOTAL)	1.48		2	
OFF STREET LOADING	1 MEDIUM SIZE		1 MEDIUM SIZE	
CLASS 1 BICYCLE SPACE	2.44		3	
CLASS 2 BICYCLE SPACE	7.04		8	



Project
8480 NO.5 ROAD RICHMOND

Sheet
COVER PAGE

Drawn: RK

Checked: MC

Scale:

Project Number: 14 R RE 02

Revision

Dwg. No.:

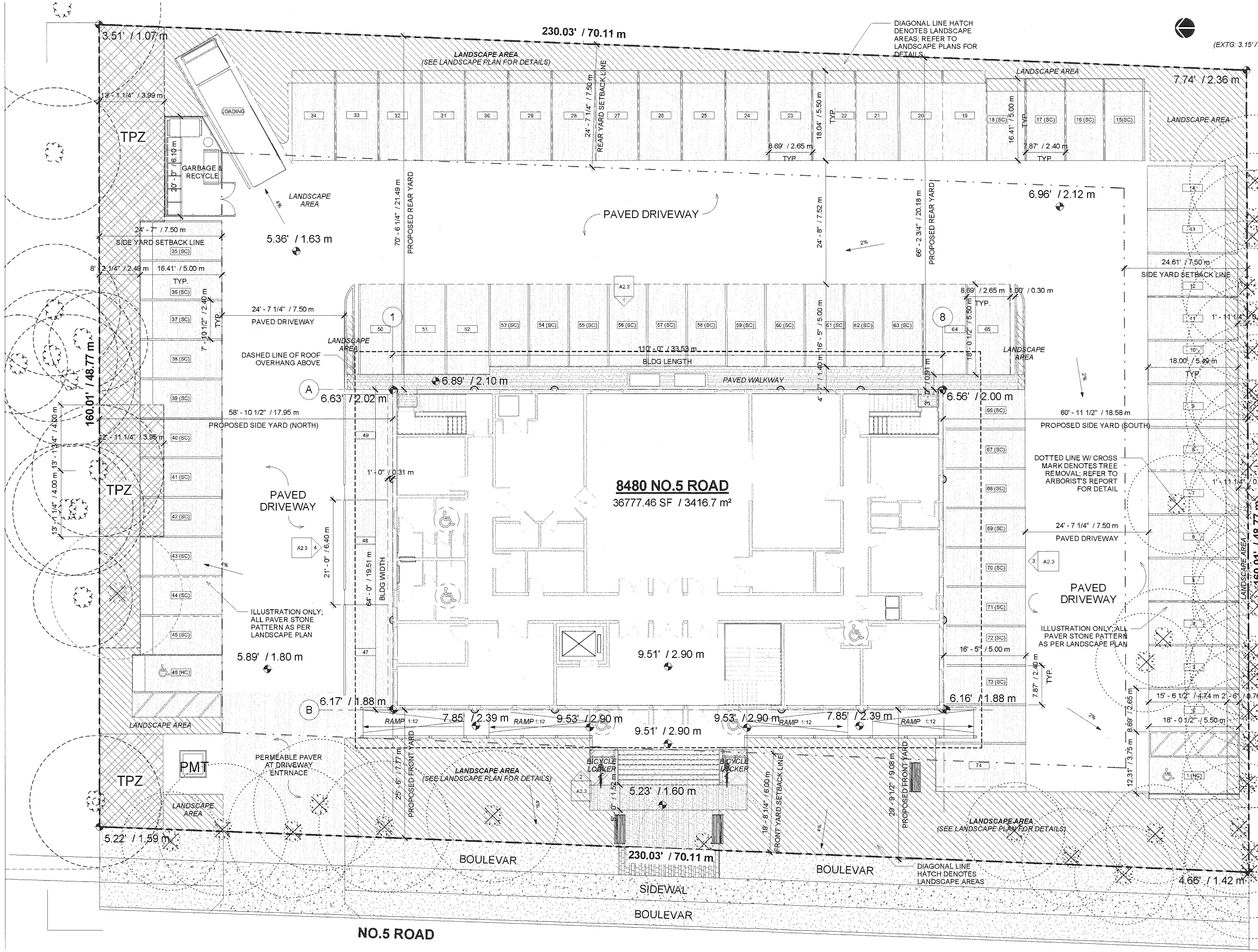
Print
2017/09/11

A0.0

Plan #1

OCT 2 5 2017

DP 17-797



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Revision

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Project
8480 NO.5 ROAD RICHMOND

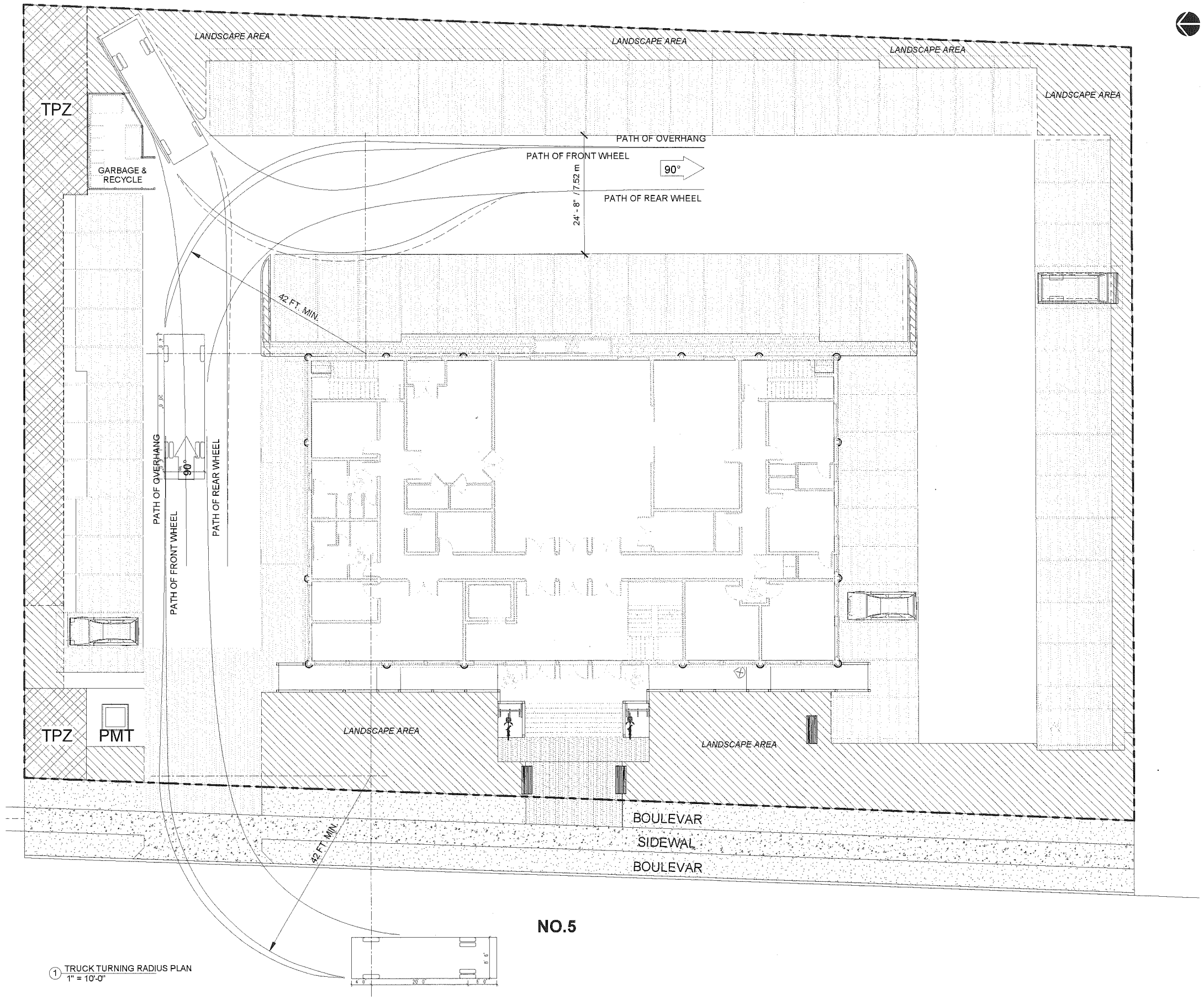
Sheet
SITE PLAN

Drawn: RK
Checked: MC
Scale: 1/8" = 1'-0"
Project Number: 14 R RE 02
Revision
Dwg. No.: A0.1
Print 2017/09/11

Plan #2

OCT 2 5 2017

DP 17-791



1 TRUCK TURNING RADIUS PLAN
1" = 10'-0"

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Project
8480 NO.5 ROAD
RICHMOND

Sheet
TURCK TURNING RADIUS PLAN

Drawn: RK

Checked: MC

Scale: 1" = 10'-0"

Project Number: 14 R RE 02

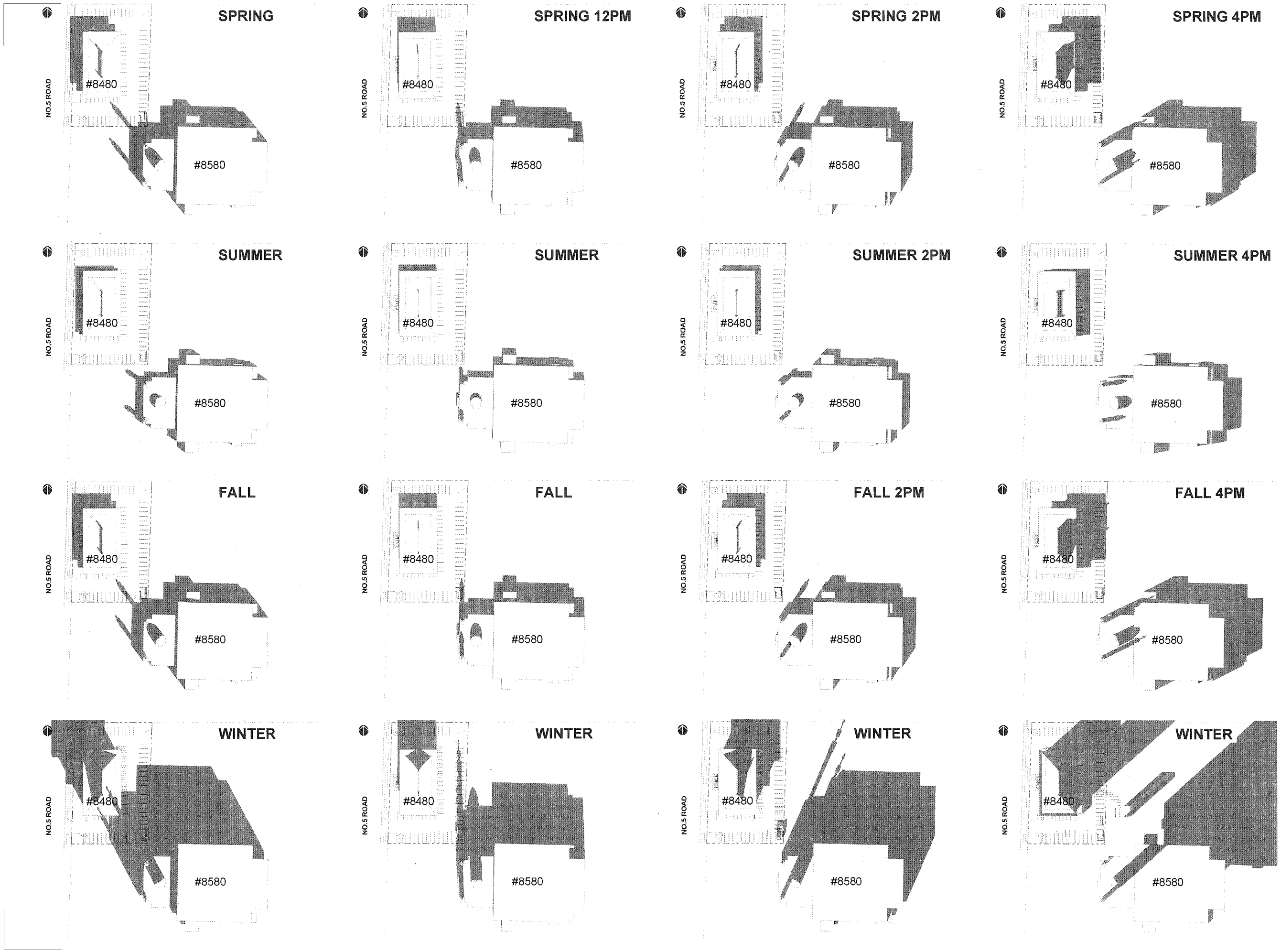
Revision

Dwg. No.:

Print 2017/09/11

A0.2

Plan #3



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Project
8480 NO.5 ROAD
RICHMOND

Sheet
SHADOW STUDY

DP 17-771661

Drawn: RK

Checked: MC

Scale:

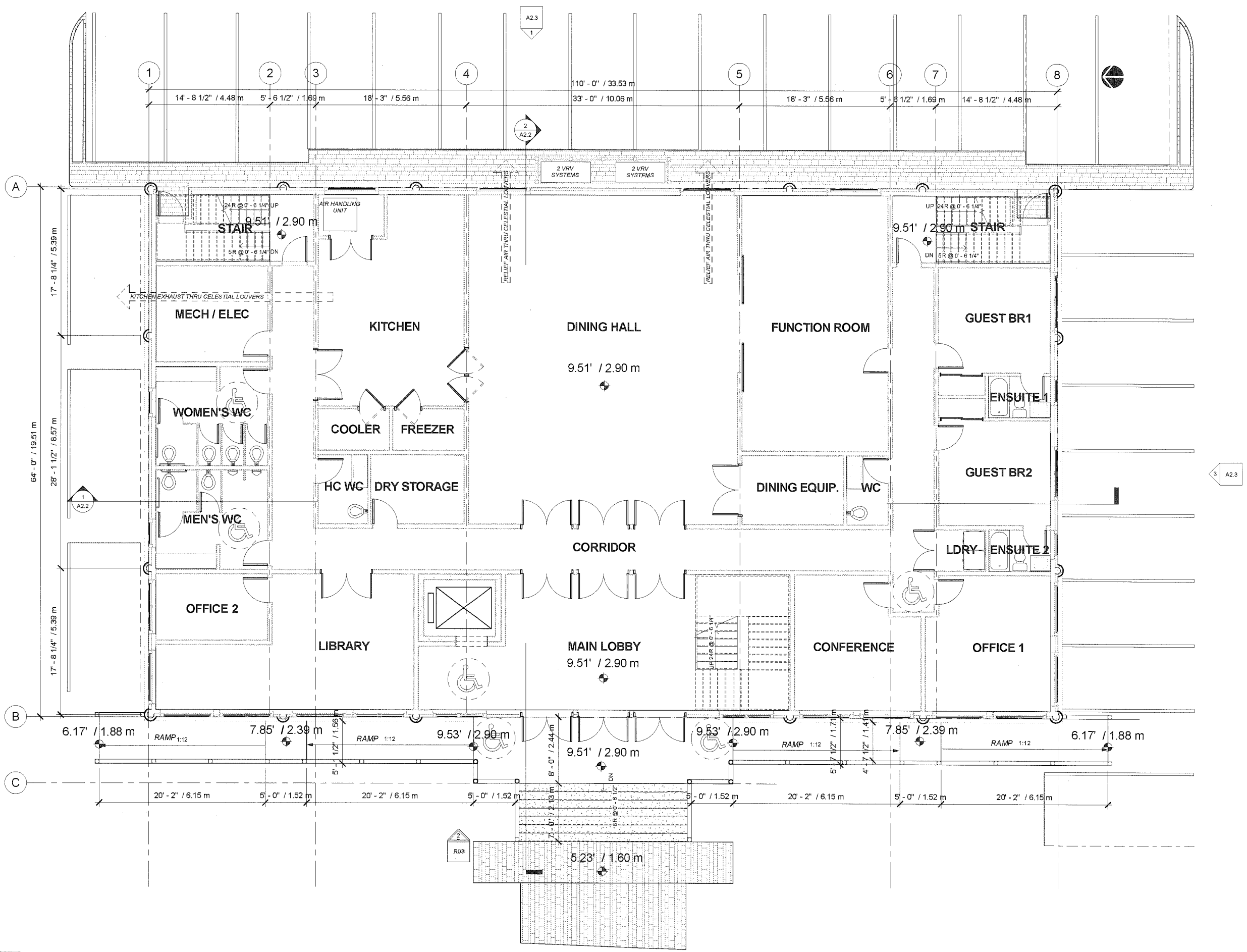
Project Number: 14 R RE 02

Revision

Dwg. No.: A0.3

Print 2017/09/11

Plan #4



1 MAIN FLOOR PLAN
3/16" = 1'-0"

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Project
8480 NO.5 ROAD RICHMOND

Sheet
MAIN FLOOR PLAN

DP 17-791

Drawn: RK

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Scale: 3/16" = 1'-0"

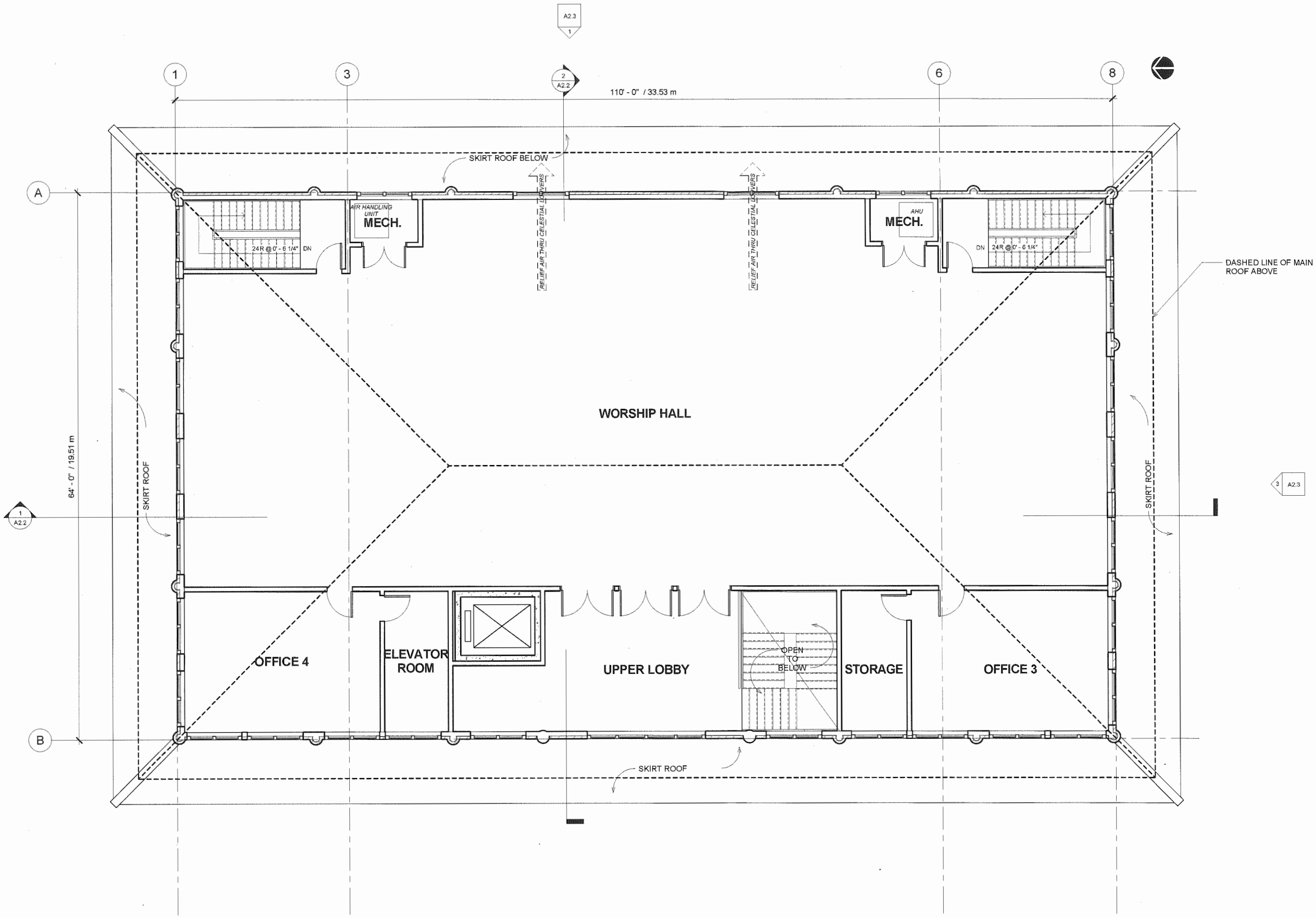
Project Number: 14 R RE 02

Revision

Dwg. No.: A1.0

Print 2017/09/11

Plan #5



1 UPPER FLOOR PLAN
3/16" = 1'-0"

MATTHEW CHENG
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Project
8480 NO.5 ROAD RICHMOND

Sheet
UPPER FLOOR PLAN

DP 17-771961

Drawn: RK

Checked: MC

Scale: 3/16" = 1'-0"

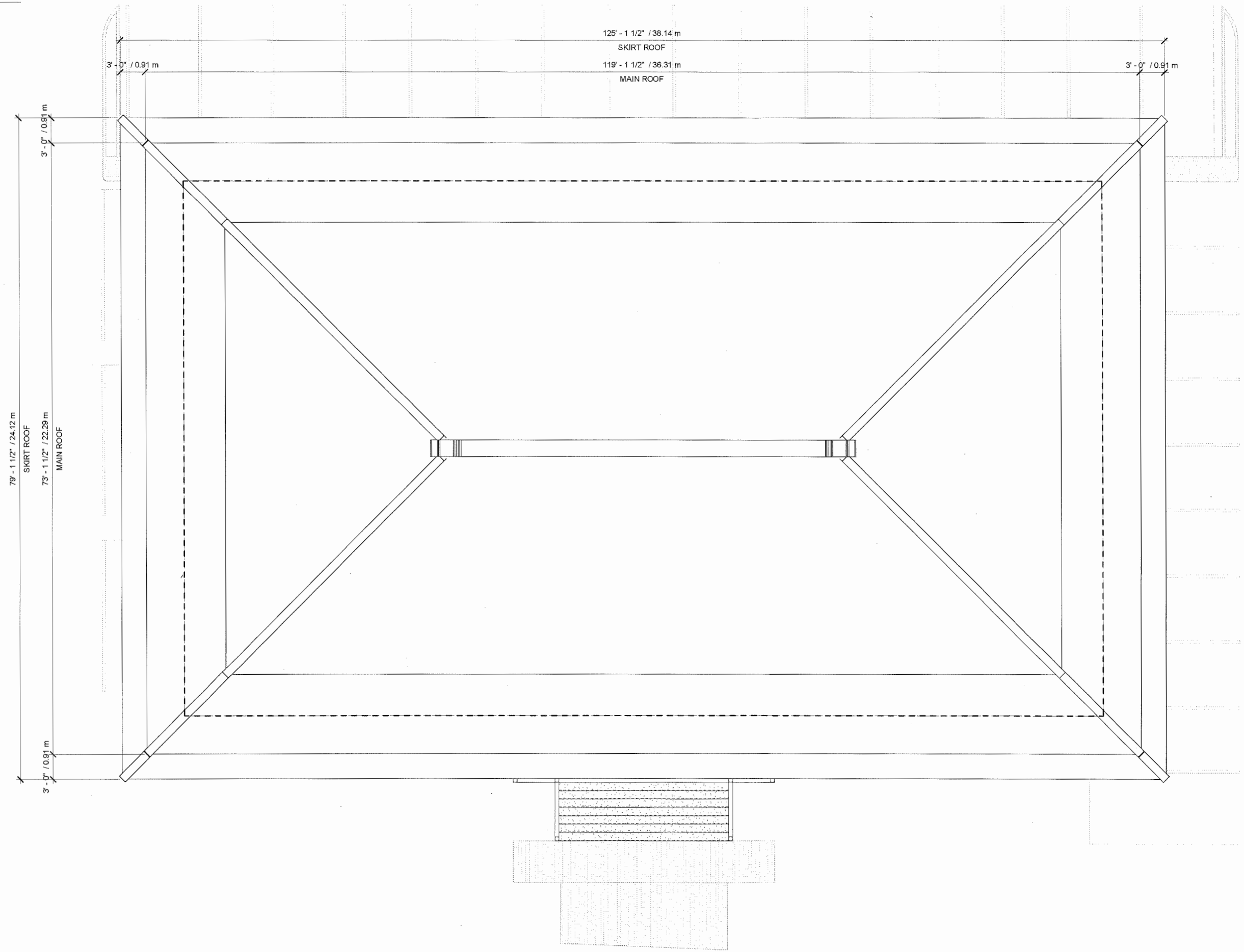
Project Number: 14 R RE 02

Revision

Dwg. No.: A1.1

Print 2017/09/11

Plan #6



1 ROOF PLAN
3/16" = 1'-0"

MATTHEW
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Project
8480 NO.5
ROAD
RICHMOND

Sheet
ROOF PLAN

DP 17 771661

Drawn: RK

Checked: MC

Scale: 3/16" = 1'-0"

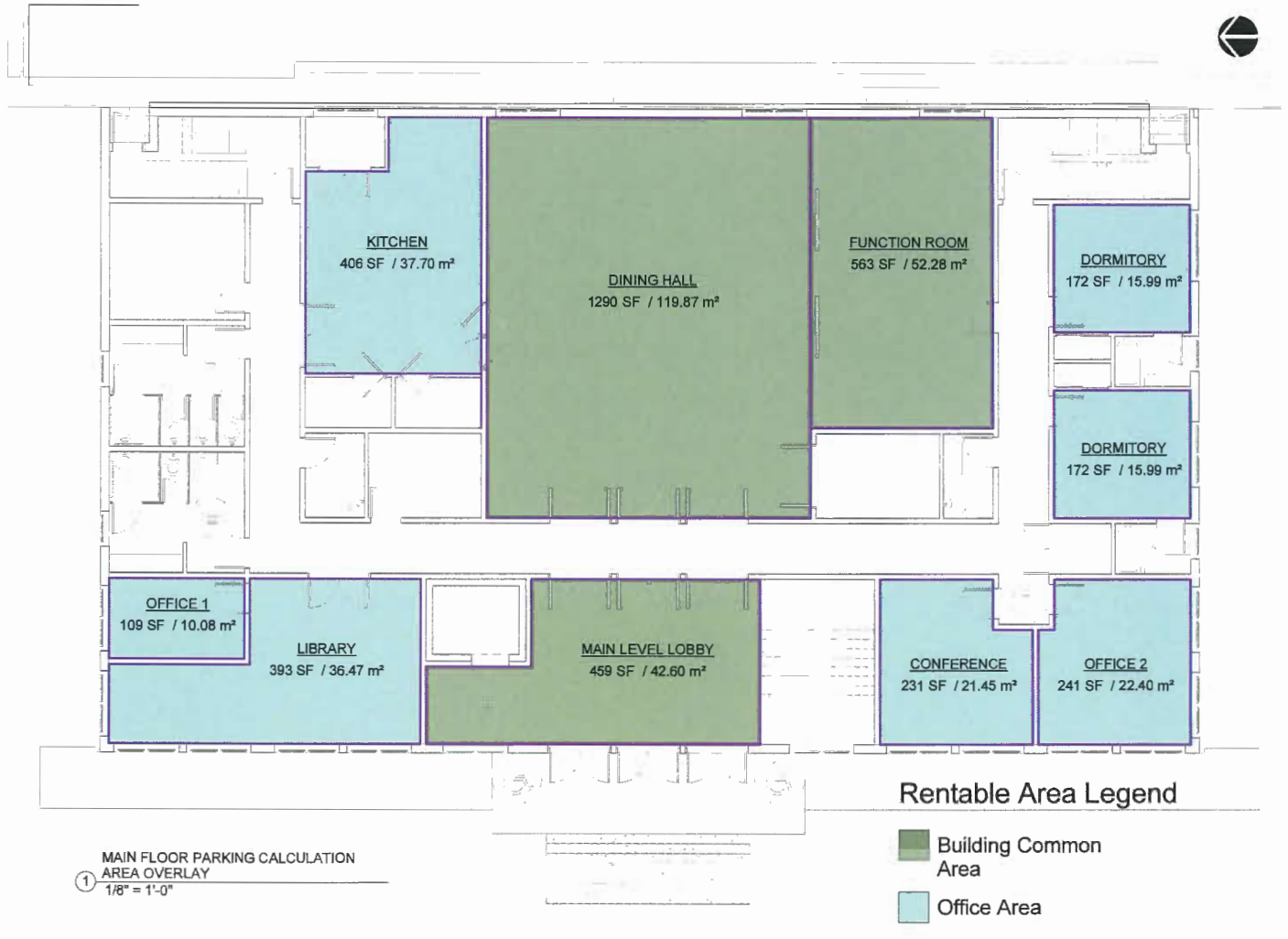
Project Number: 14 R RE 02

Revision

Dwg. No.: A1.2

Print 2017/09/11

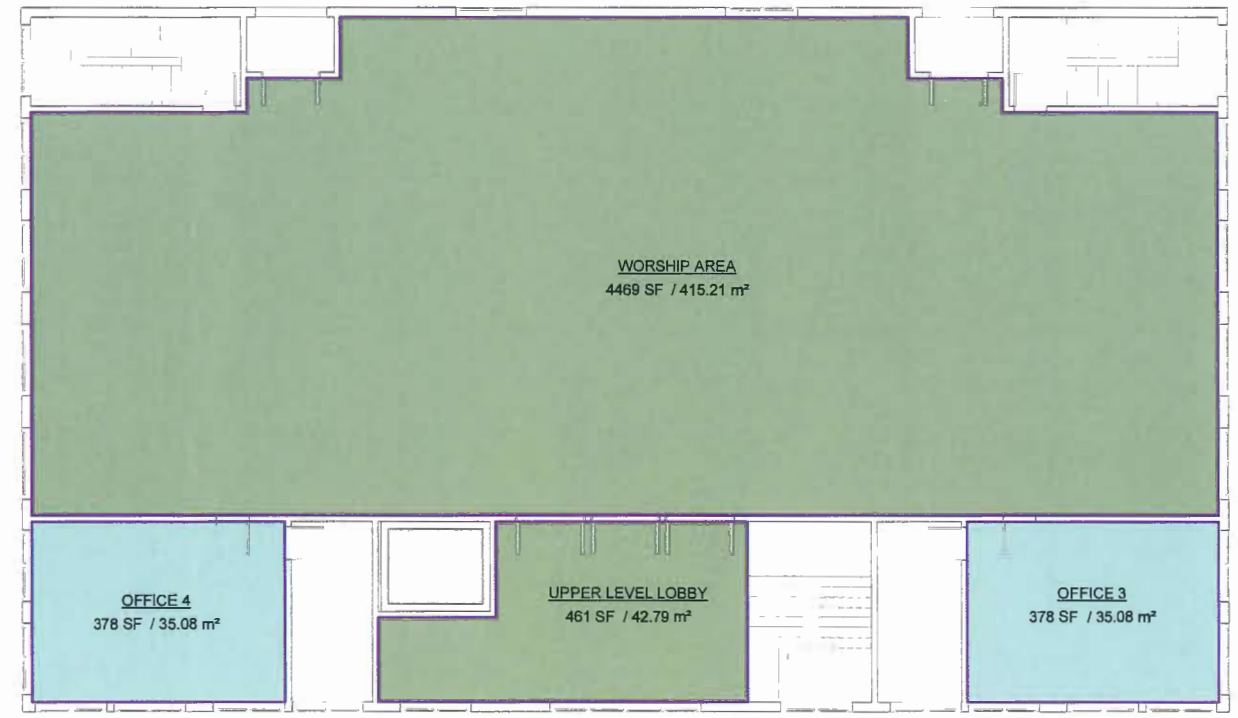
Plan #7



Rentable Area Legend

- Building Common Area
- Office Area

1 MAIN FLOOR PARKING CALCULATION AREA OVERLAY
1/8" = 1'-0"



2 UPPER FLOOR PARKING CALCULATION AREA OVERLAY
1/8" = 1'-0"

Rentable Area Legend

- Building Common Area
- Office Area

PARKING CALCULATION

COMMON AREA

ROOM NAME	AREA		OCCUPANCY OF ROOM	NUMBER OF PARKING SPACE REQUIRED (10 SPACE PER 100 SM LEASABLE AREA)	NUMBER OF BICYCLE PARKING SPACE REQUIRED		
	IMPERIAL	*METRIC*			Class 1 (0.27/100sm)	Class 2 (0.78/100sm)	
WORSHIP HALL	4,469	415.21	ASY	41.52	1.12	3.24	
MAIN LEVEL LOBBY	459	42.60	ASY	4.26	0.12	0.33	
UPPER LEVEL LOBBY	461	42.79	ASY	4.28	0.12	0.33	
DINING HALL	1,290	119.87	ASY	11.99	0.32	0.93	
FUNCTION ROOM	563	52.28	ASY	5.23	0.14	0.41	
				67.28	**1.82**	**5.25**	**SUBTOTAL**

OFFICE AERA

ROOM NAME	AREA		OCCUPANCY OF ROOM	NUMBER OF PARKING SPACE REQUIRED (3 SPACE PER 100 SM LEASABLE AREA)	NUMBER OF BICYCLE PARKING SPACE REQUIRED		
	IMPERIAL	*METRIC*			Class 1 (0.27/100sm)	Class 2 (0.78/100sm)	
KITCHEN	406	37.70	OFFICE	1.13	0.10	0.29	
LIBRARY	393	36.47	OFFICE	1.09	0.10	0.28	
CONFERENCE ROOM	231	21.45	OFFICE	0.64	0.06	0.17	
OFFICE 1	109	10.08	OFFICE	0.30	0.03	0.08	
OFFICE 2	241	22.40	OFFICE	0.67	0.06	0.17	
OFFICE 3	378	35.08	OFFICE	1.05	0.09	0.27	
OFFICE 4	378	35.08	OFFICE	1.05	0.09	0.27	
DORMITORY	344	31.96	0.33 / DORM	0.66	0.09	0.25	
				6.61	**0.62**	**1.80**	**SUBTOTAL**

ON-SITE PARKING SPACES

REQUIRED	**73.88**	**TOTAL**
PROPOSED	**74**	
STANDARD	***38***	
SMALL CAR	***34***	
H/C	***2***	
MED. SIZE LOADING	*1*	

ON-SITE BICYCLE PARKING SPACES

CLASS 1

REQUIRED	**2.44**
PROPOSED	**3**

CLASS 2

REQUIRED	**7.04**
PROPOSED	**8**

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OCT 2 5 2017

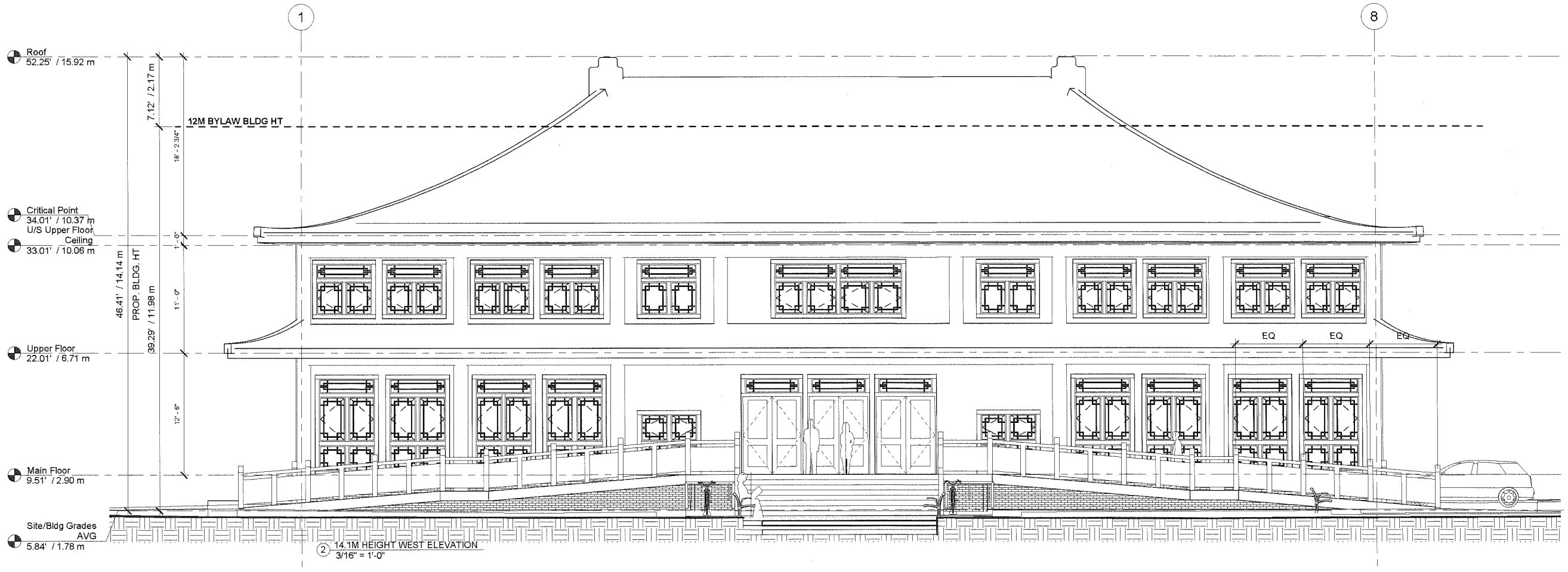
Project
8480 NO.5 ROAD RICHMOND

Sheet
PARKING CALCULATION OVERLAY

DP 17-771661

Drawn: RK
Checked: MC
Scale: 1/8" = 1'-0"
Project Number: 14 R RE 02
Revision
Dwg. No.: A1.3
Print 2017/09/11

Plan #8



2 14.1M HEIGHT WEST ELEVATION
3/16" = 1'-0"

1 14.1M EAST ELEVATION
3/16" = 1'-0"

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Revision:

Consultants

OCT 2 5 2017

Project
8480 NO.5 ROAD RICHMOND

Sheet
WEST & EAST ELEVATIONS

Drawn: RK

Checked: MC

Scale: 3/16" = 1'-0"

Project Number: 14 R RE 02

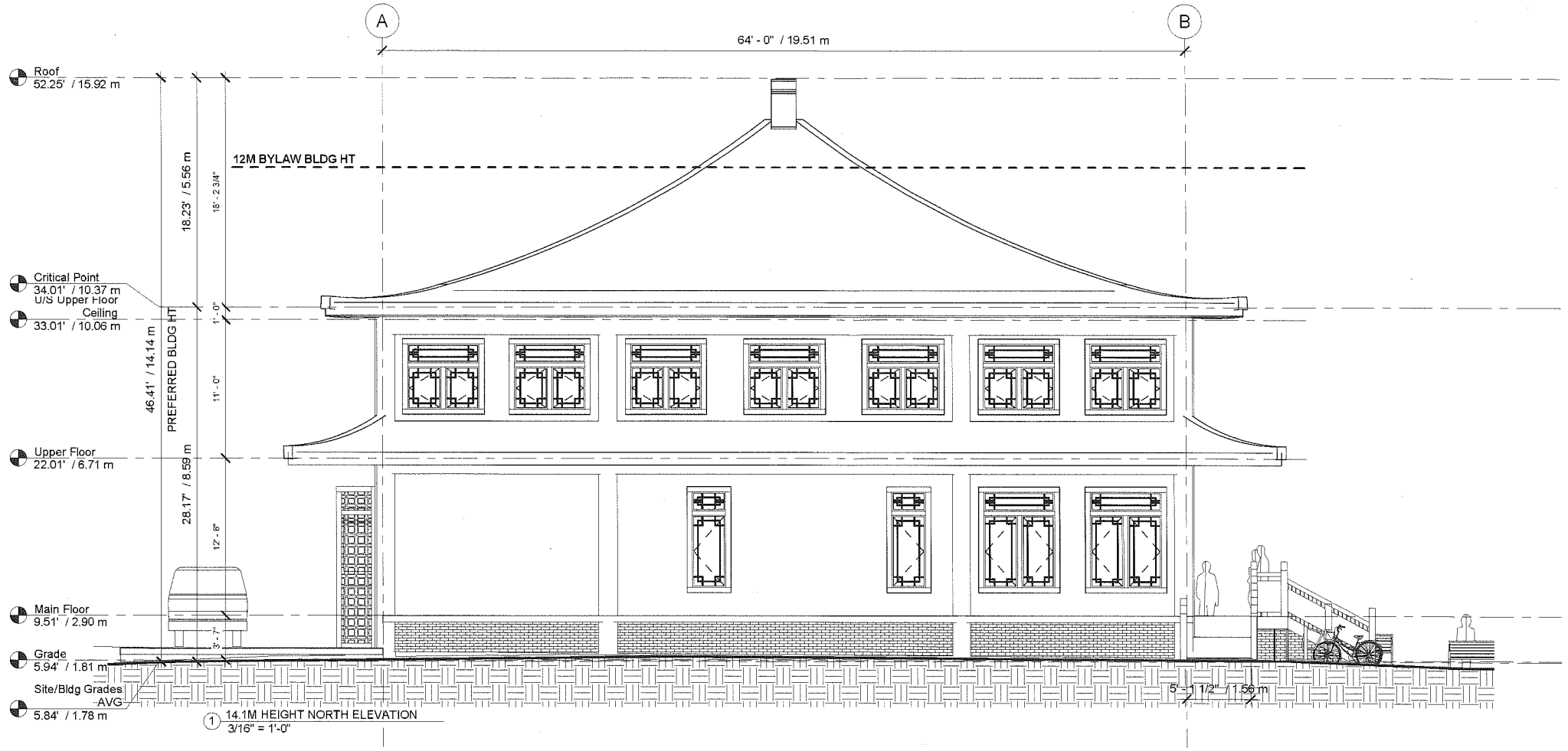
Revision

Dwg. No.: A2.0

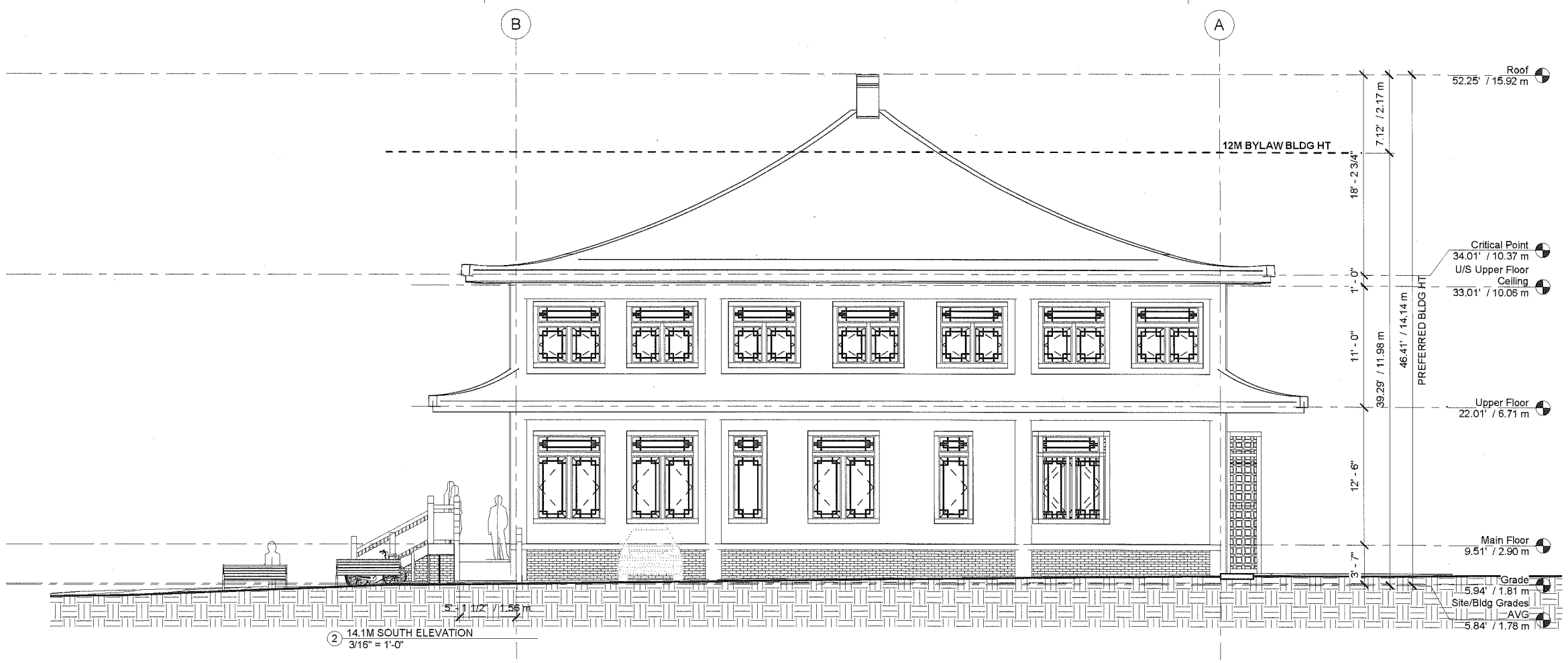
Print 2017/09/11

Plan #9

DP 17-797



1 14.1M HEIGHT NORTH ELEVATION
3/16" = 1'-0"



2 14.1M SOUTH ELEVATION
3/16" = 1'-0"

MATTHEW CHENG
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VANCOUVER, BC V6A 2K9
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Revision:

OCT 2 5 2017

Consultant
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Project
8480 NO.5 ROAD RICHMOND

Sheet
NORTH & SOUTH ELEVATION

Drawn: RK

Checked: MC

Scale: 3/16" = 1'-0"

Project Number: 14 R RE 02

Revision

Dwg. No.:

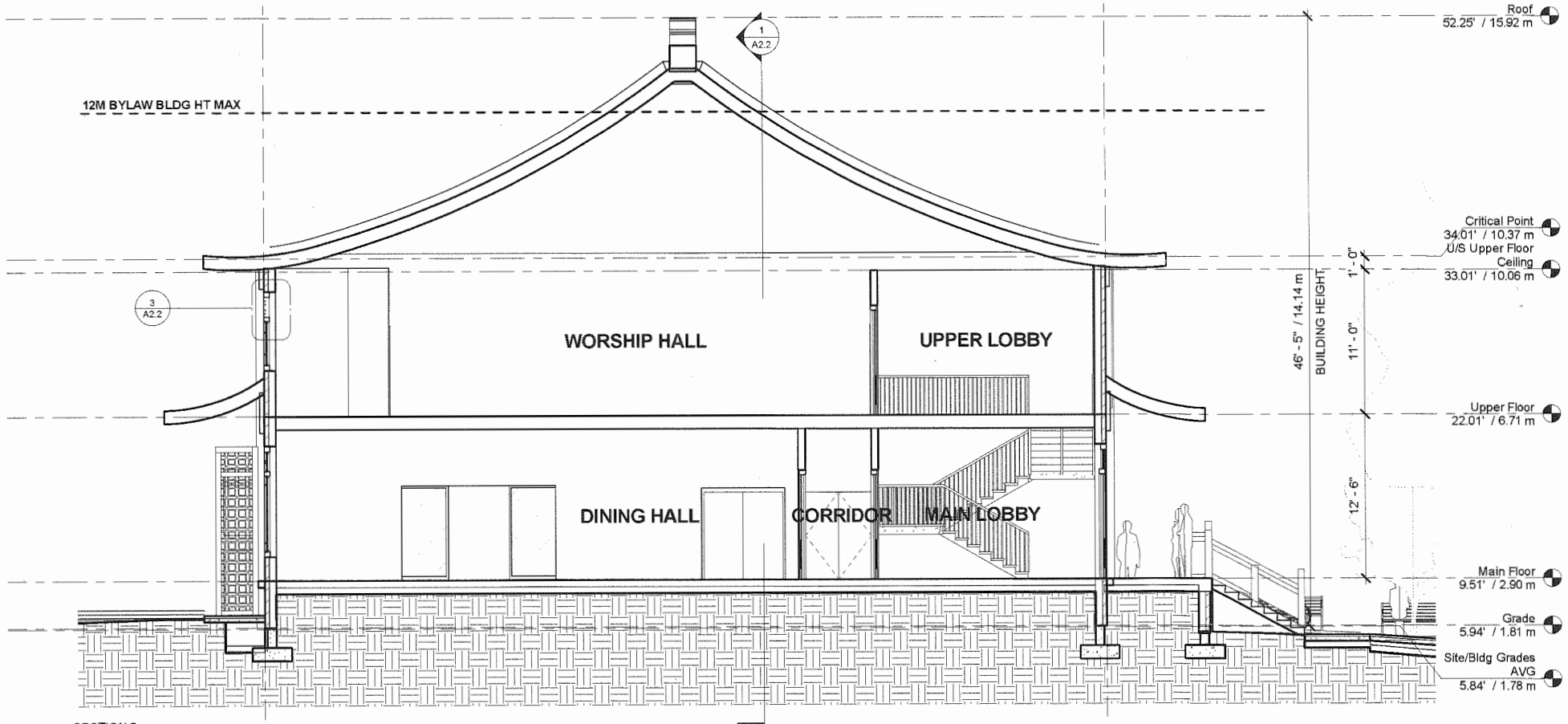
Print 2017/09/11

A2.1

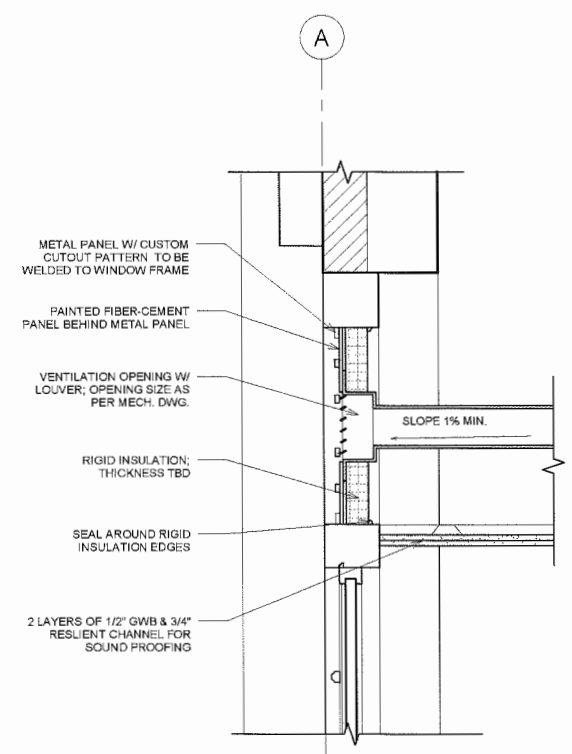
Plan #10

DP 17-791

1 SECTION 1
3/16" = 1'-0"



2 SECTION 2
3/16" = 1'-0"



3 TYPICAL VENTILATION DETAIL AT CELESTORY OPENING
1 1/2" = 1'-0"

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OCT 2 5 2017

DP 17-771691

Project
8480 NO.5 ROAD RICHMOND

Sheet
SECTIONS

Drawn: RK

Checked: MC

Scale: As indicated

Project Number: 14 R RE 02

Revision

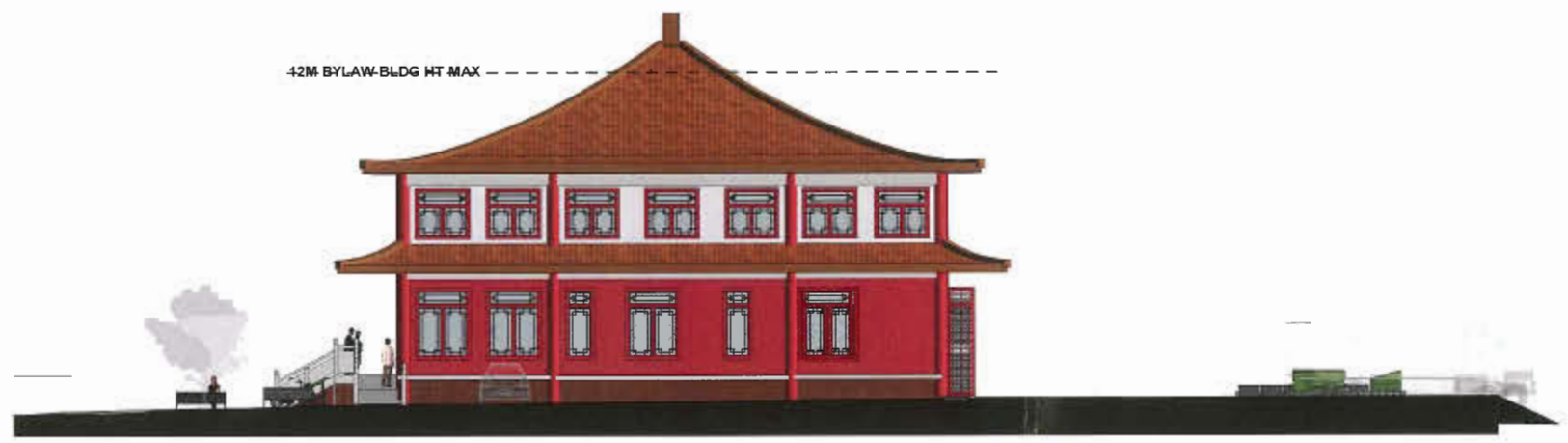
Dwg. No.: A2.2

Print
2017/09/11

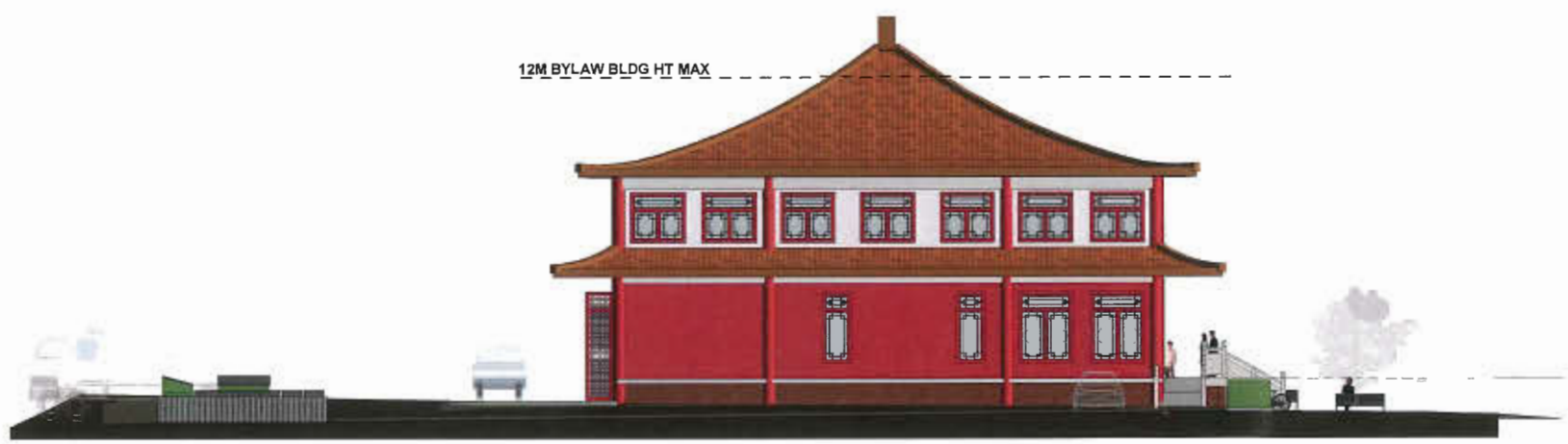
Plan #11

2 WEST ELEVATION (NO.5 ROAD)
1" = 10'-0"

1 EAST ELEVATION
1" = 10'-0"



3 SOUTH ELEVATION
1" = 10'-0"



4 NORTH ELEVATION
1" = 10'-0"

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Project
8480 NO.5 ROAD
RICHMOND

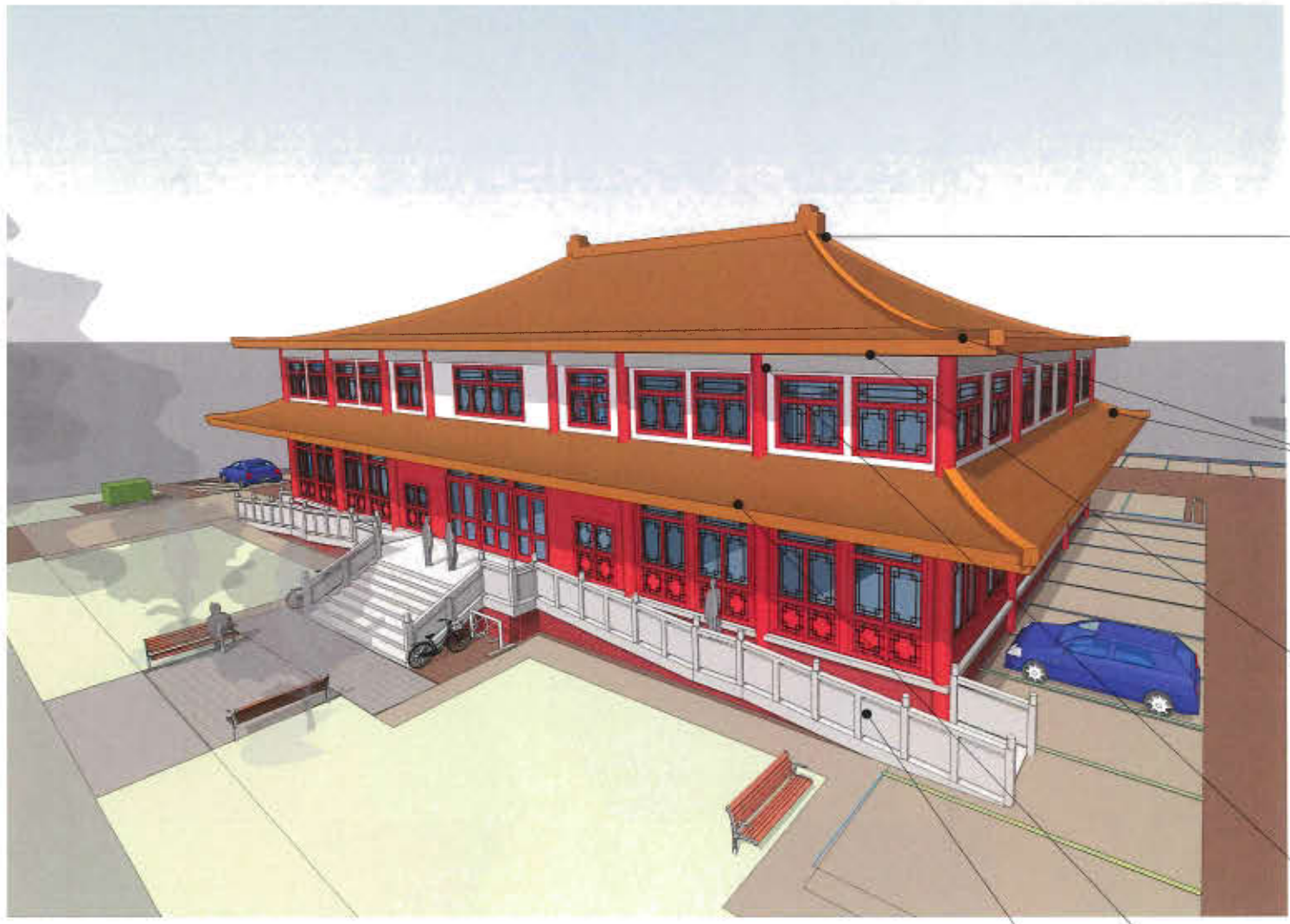
Sheet
COLOURED ELEVATIONS

Drawn: RK
Checked: MC
Scale: 1" = 10'-0"
Project Number: 14 R RE 02
Revision
Dwg. No.: A2.3
Print 2017/09/11

Plan #12

OCT 2 5 2017
DP 17-771661

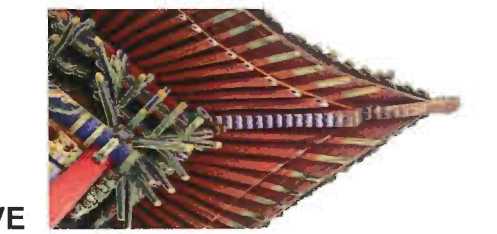
ARCHITECTURAL



ROOF RIDGES

ROOF CORNER FLARE

DECORATIVE EAVE



DECORATIVE BEAM & COLUMN

GLAZED CERAMIC ROOF TILE

STONE RAIL w/ RELIEF SCULPTURE /ENGRAVING

MATERIALS

PAINTED STUCCO
WHITE
BENJAMIN MOORE / VINTAGE TAUPE 2110-70

PAINTED STUCCO, DOOR & WINDOW FRAME / TRIM
RED
BENJAMIN MOORE / VINTAGE TAUPE 2110-70

TRUE DIMENSIONAL BRICK
I-XL MASONRY / MAROON BRICK

MATTHEW CHENG
Unit 202 - 670 EVANS AVENUE
VANCOUVER, BC V6A 2K9
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Project
8480 NO.5 ROAD
RICHMOND

Sheet
MATERIALS & DETAILS

Drawn: RK

Checked: MC

Scale:

Project Number: 14 R RE 02

Revision Dwg. No.:

Print 2017/09/11 A2.4

Plan #13

OCT 2 5 2017
DP 17-771661

STREET VIEW - FRONT

REAR VIEW

SIDEWALK VIEW

STREET VIEW - LOOKING NORTH EAST

MATTHEW
CHENG
Unit 202 - 670 EVANS AVENUE
VANCOUVER, BC V6A 2K9
Tel: (604) 731-3021 / Fax: (604) 731-3908
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Revision:

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Project
8480 NO.5
ROAD
RICHMOND

Sheet
PERSPECTIVES

Drawn: RK

Checked: MC

Scale:

Project Number:
14 R RE 02

Revision

Dwg. No.:

Print
2017/09/11

A2.5

Plan #14

OCT 2 5 2017

DP 17-771661

CALIPER REPLACEMENT TREES	REQUIRED TOTALS IN EACH CALIPER	PROPOSED TOTALS IN EACH CALIPER
6CM/3.5M	18	18
8CM/4.0M	20	20
9CM	6	7
10CM	8	8
11CM	4	4
TOTAL	56	57

REPLACEMENT TREES:

1	ACER RUBRUM 'OCTOBER GLORY'
4	CERCIDIPHYLLUM JAPONICUM 'RED FOX'
2	CHAMAECYPARIS OBTUSA 'GRACILIS'
8	GINKGO BILOBA 'PRINCETON SENTRY'
12	LIQUIDAMBAR STYRACIFLUA 'SLENDER SILHOUETTE
2	NYSSA SYLVATICA
16	PICEA OMORIKA 'BRUNS PENDULA'
8	QUERCUS PALUSTRIS 'GREEN PILLAR'
4	QUERCUS ROBUR 'FASTIGIATA'
1	THUJA PLICATA 'EXCELSA'
57	TOTAL

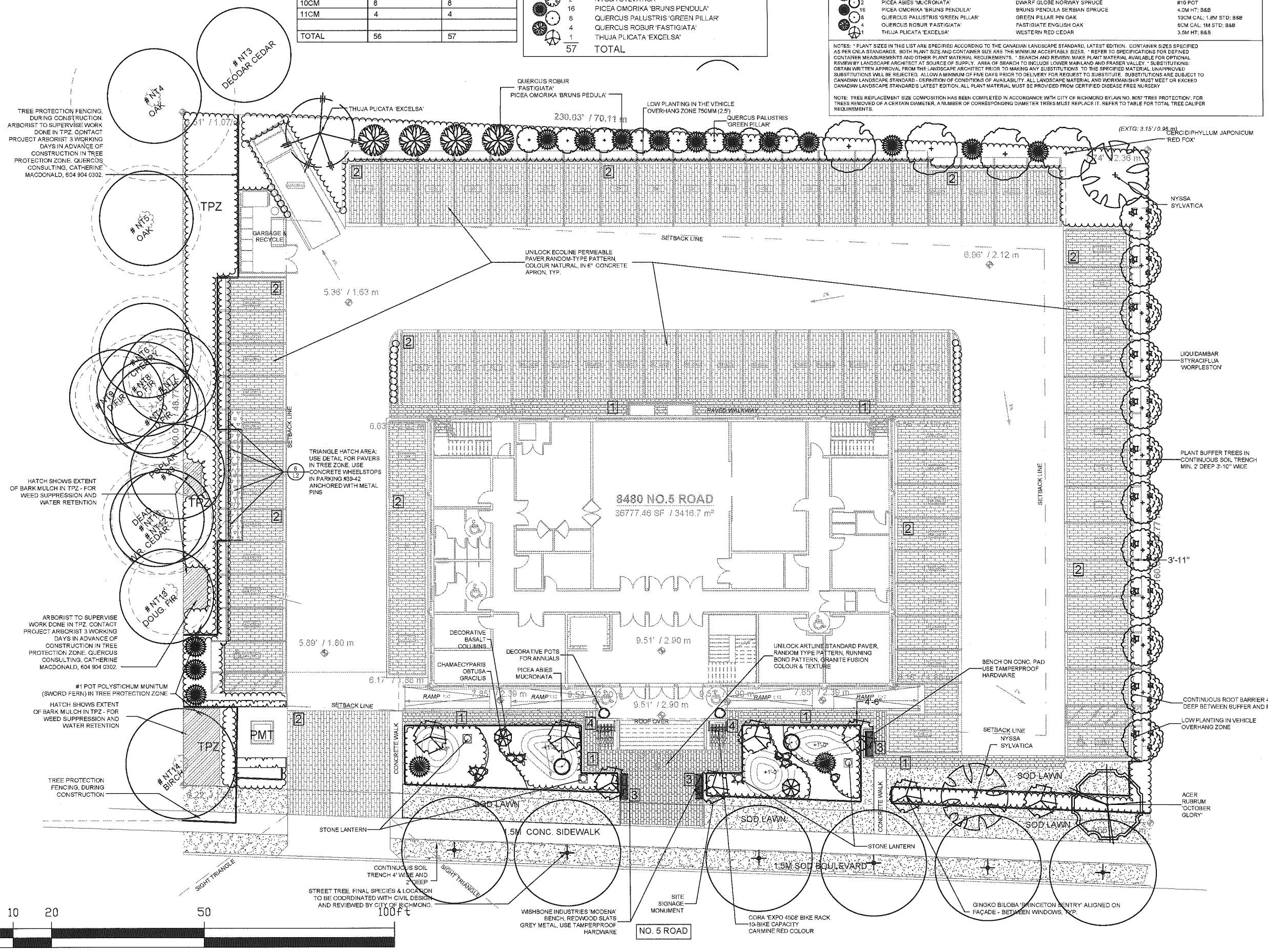
TREE SCHEDULE

PMG PROJECT NUMBER: 15-112

KEY	QTY	BOTANICAL NAME	COMMON NAME	PLANTED SIZE / REMARKS
TREE				
	1	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY MAPLE	6CM CAL; 2M STD; B&B
	4	CERCIDIPHYLLUM JAPONICUM 'RED FOX'	RED FOX KATSURA	11CM CAL; 1.8M HT; B&B
	2	CHAMAECYPARIS OBTUSA 'GRACILIS'	SLENDER HINOKI FALSE CYPRESS	4.0M HT; B&B
	8	GINKGO BILOBA 'PRINCETON SENTRY'	PRINCETON SENTRY MAIDENHAIR	9CM CAL; 2M STD; B&B
	12	LIQUIDAMBAR STYRACIFLUA 'WORPLESDON'	WORPLESDON SWEET GUM	6CM CAL; 2M STD; B&B
	2	NYSSA SYLVATICA	BLACK TUPELO	8CM CAL; 1.8M STD; B&B
	2	PICEA ABIES 'MUCRONATA'	DWARF GLOBE NORWAY SPRUCE	#10 POT
	16	PICEA OMORIKA 'BRUNS PENDULA'	BRUNS PENDULA SERBIAN SPRUCE	4.0M HT; B&B
	8	QUERCUS PALUSTRIS 'GREEN PILLAR'	GREEN PILLAR PIN OAK	10CM CAL; 1.8M STD; B&B
	4	QUERCUS ROBUR 'FASTIGIATA'	FASTIGIATE ENGLISH OAK	9CM CAL; 1M STD; B&B
	1	THUJA PLICATA 'EXCELSA'	WESTERN RED CEDAR	3.5M HT; B&B

NOTES: * PLANT SIZES IN THIS LIST ARE SPECIFIED ACCORDING TO THE CANADIAN LANDSCAPE STANDARD, LATEST EDITION. CONTAINER SIZES SPECIFIED AS PER CNLA 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 CANADIAN LANDSCAPE STANDARD - DEFINITION OF CONDITIONS OF AVAILABILITY. ALL LANDSCAPE MATERIAL AND WORKMANSHIP MUST MEET OR EXCEED CANADIAN LANDSCAPE STANDARD'S LATEST EDITION. ALL PLANT MATERIAL MUST BE PROVIDED FROM CERTIFIED DISEASE FREE NURSERY.

NOTE: TREE REPLACEMENT SIZE COMPOSITION HAS BEEN COMPLETED IN ACCORDANCE WITH CITY OF RICHMOND BYLAW NO. 8057 'TREE PROTECTION'. FOR TREES REMOVED OF A CERTAIN DIAMETER, A NUMBER OF CORRESPONDING DIAMETER TREES MUST REPLACE IT. REFER TO TABLE FOR TOTAL TREE CALIPER REQUIREMENTS.



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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.
19	17.SEP.15	UPDATE PER COMMENTS / REISSUE	CLG
18	17.AUG.03	INCORPORATE ADP COMMENTS	CLG
17	17.JUL.25	UPDATE PER CITY COMMENTS/REISSUE	CLG
16	17.JUL.19	REISSUE FOR ADP	CLG
15	17.JUN.19	ISSUE FOR ADP	CLG
14	17.FEB.06	UPDATE PER CITY ARBORIST COMMENTS	CLG
13	17.FEB.02	UPDATE PER SITE PLAN/TREE REPL. CMTS	CLG
12	16.DEC.16	UPDATE PER NEW SITE PLAN	CLG
11	16.DEC.06	UPDATE PER NEW SITE PLAN	CLG
10	16.NOV.28	UPDATE PER CITY COMMENTS - TREES	CLG
9	16.NOV.18	UPDATE PER NEW SITE PLAN/CITY CMNTS	CLG
8	16.NOV.03	UPDATE PER CITY COMMENTS	CLG
7	16.SEP.08	UPDATE PER NEW SITE PLAN	CLG
6	16.AUG.22	UPDATE PER NEW SITE PLAN	CLG
5	16.APR.26	UPDATE PER CITY/ARCH COMMENTS	CLG
4	16.JAN.04	UPDATE TO NEW SITE PLAN	CLG
3	15.DEC.23	UPDATE TO NEW SITE PLAN	CLG
2	15.AUG.05	FOR DP ISSUE	PC
1	15.JUL.06	NEW SITE PLAN	CLG

CLIENT:

PROJECT:

BUDDHIST TEMPLE

8480 NO. 5 ROAD
RICHMOND, BC

DRAWING TITLE:

LANDSCAPE PLAN

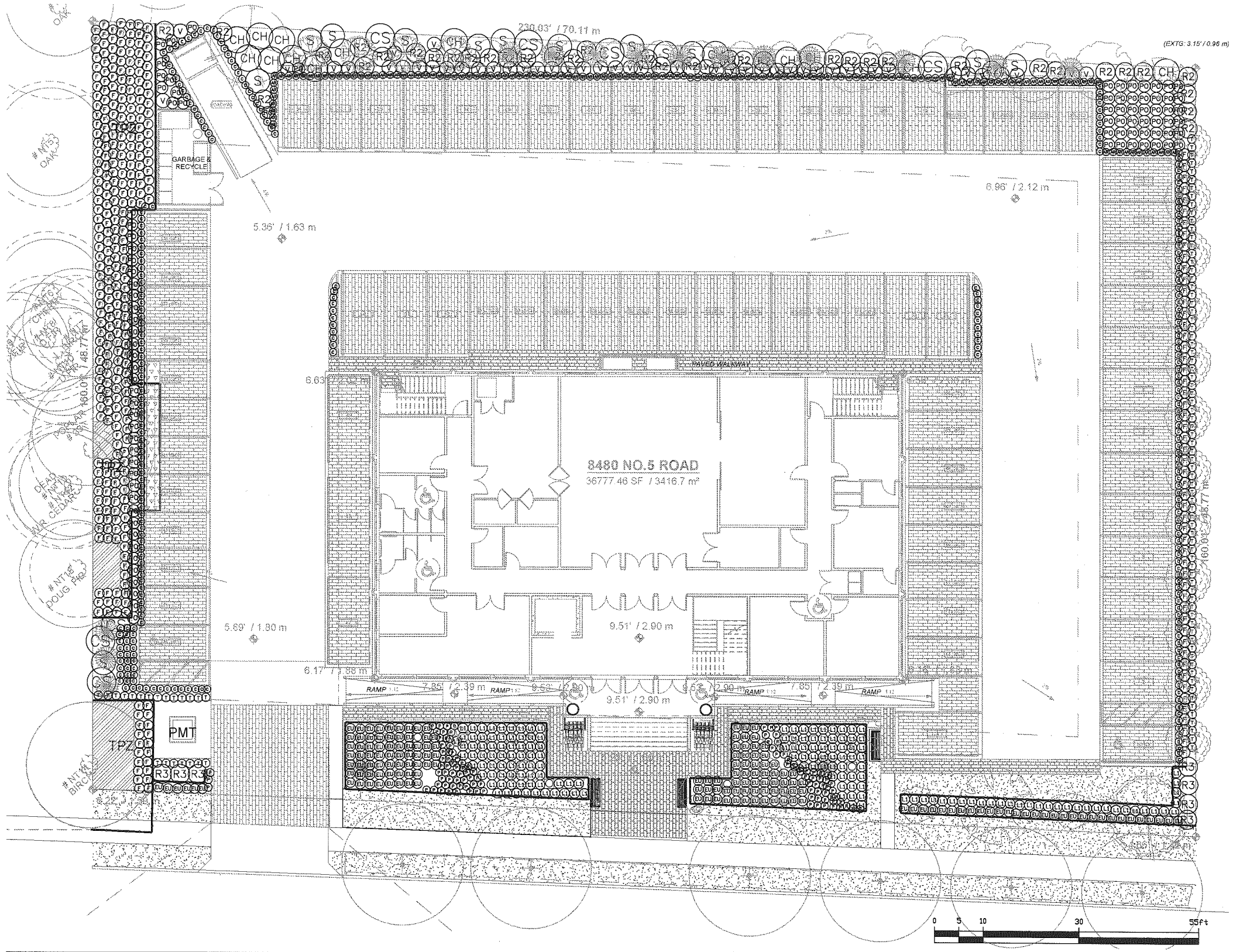
DATE:	15.JUL.06	DRAWING NUMBER:	L1
SCALE:	3/32"=1'-0"		
DRAWN:	CLG		
DESIGN:	CLG		
CHK'D:	PCM		OF 5

PMG PROJECT NUMBER: 15-112

OCT 25 2017

Plan #15

17-799



PLANT SCHEDULE

PMG PROJECT NUMBER: 15-112

KEY	QTY	BOTANICAL NAME	COMMON NAME	PLANTED SIZE / REMARKS
SHRUB				
CH	14	CHOISYA TERNATA	MEXICAN MOCK ORANGE	#3 POT; 50CM
CS	7	CORNUS ALBA 'ELEGANTISSIMA'	VARIEGATED SHRUB DOGWOOD	#2 POT; 50CM
EL	157	L1	BOXLEAF HONEYSUCKLE	#2 POT; 30CM
LC	89	PRUNUS LAUROCERASUS 'OTTO LUYKEN'	OTTO LUYKEN LAUREL	#3 POT; 50CM
R2	38	RHODODENDRON 'BOW BELLS'	RHODODENDRON; PINK, MEDIUM SCALE	#3 POT; 50CM
R3	7	RHODODENDRON 'VULCAN'	RHODODENDRON; RED	#3 POT; 50CM
S	13	SYMPHORICARPOS ALBUS	SNOWBERRY	#2 POT; 40CM
T	96	TAXUS X MEDIA 'HICKSII'	HICK'S YEW	1.5M
V	47	VACCINIUM REKA & NORTHERN VARS	BLUEBERRY (ALTERNATE)	#2 POT; 50CM

KEY	QTY	BOTANICAL NAME	COMMON NAME	PLANTED SIZE / REMARKS
GRASS				
C	267	CAREX CARYOPHYLLEA 'BEATLEMANIA'	'BEATLEMANIA' SEDGE	#1 POT
P	104	PENNISETUM ALOPECUROIDES	FOUNTAIN GRASS	#1 POT
GC				
AR	134	ARCTOSTAPHYLOS UVA-URSI	KINNIKINNICK	#1 POT; 20CM
EU	161	EUONYMUS JAPONICA 'EMERALD 'N GOLD'	EUONYMUS; GOLD VARIEGATED	#1 POT; 25CM
F	363	POLYSTICHUM MUNITUM	WESTERN SWORD FERN	#1 POT; 20CM

NOTES: * PLANT SIZES IN THIS LIST ARE SPECIFIED ACCORDING TO THE CANADIAN LANDSCAPE STANDARD, LATEST EDITION. CONTAINER SIZES SPECIFIED AS PER CNLA 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 CANADIAN LANDSCAPE STANDARD - DEFINITION OF CONDITIONS OF AVAILABILITY. ALL LANDSCAPE MATERIAL AND WORKMANSHIP MUST MEET OR EXCEED CANADIAN LANDSCAPE STANDARD'S LATEST EDITION. ALL PLANT MATERIAL MUST BE PROVIDED FROM CERTIFIED DISEASE FREE NURSERY.

NOTE: IRRIGATION SYSTEM TO BE DESIGN-BUILD BY LANDSCAPE CONTRACTOR. PROVIDE SHOP DRAWINGS FOR REVIEW BY LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION.

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2	15.AUG.06	FOR DP ISSUE	PCM
1	15.JUL.06	NEW SITE PLAN	CLG

CLIENT:

PROJECT:

BUDDHIST TEMPLE

8480 NO. 5 ROAD
RICHMOND, BC

DRAWING TITLE:

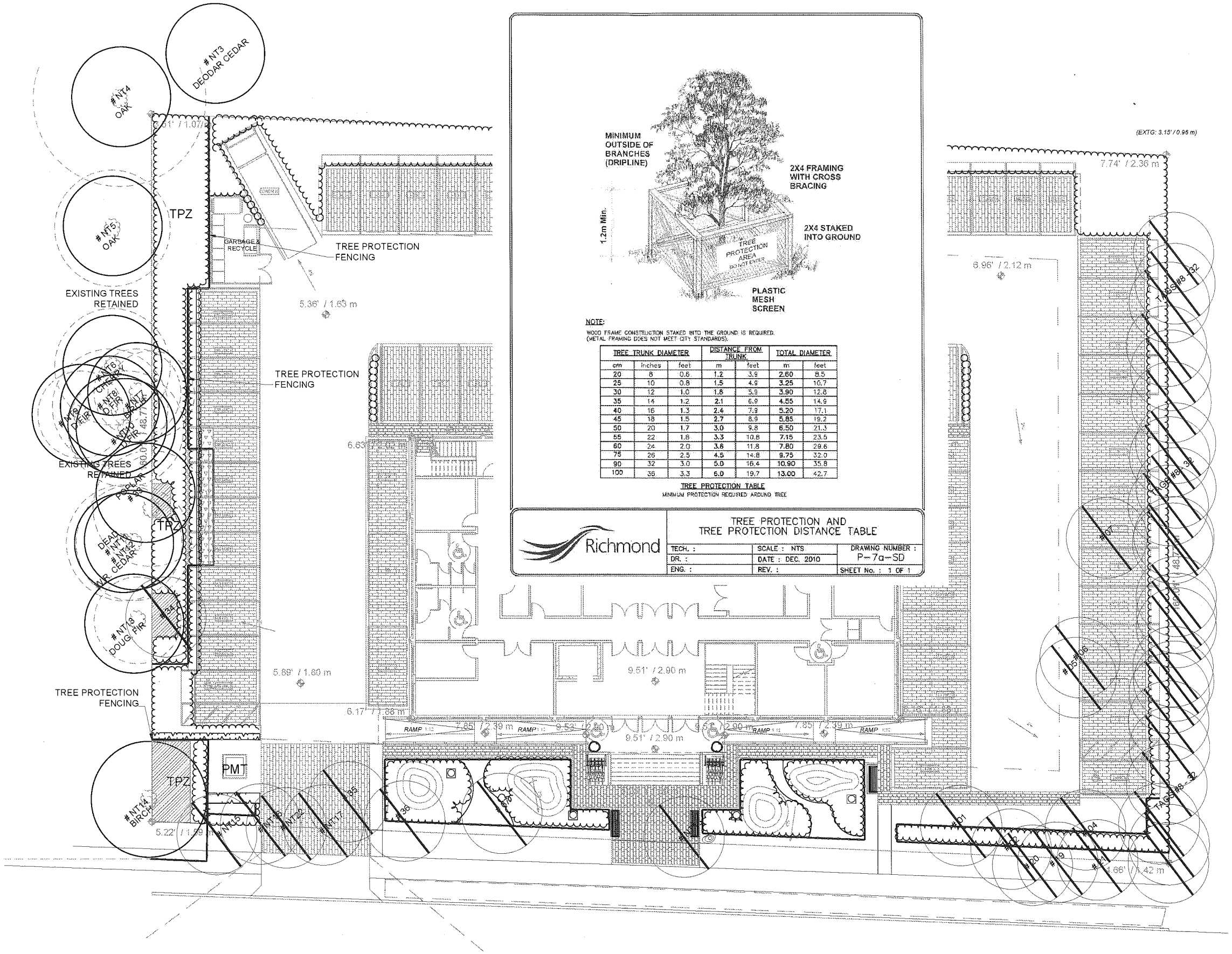
SHRUB PLAN

DATE:	15.JUL.06	DRAWING NUMBER:	
SCALE:	3/32"=1'-0"		**L2**
DRAWN:	CLG		
DESIGN:	CLG		
CHK'D:	PCM		OF 5

PMG PROJECT NUMBER: 15-112

Plan #16

OCT 2 5 2017



NOTE:
WOOD FRAME CONSTRUCTION STAKED INTO THE GROUND IS REQUIRED.
(METAL FRAMING DOES NOT MEET CITY STANDARDS).

TREE TRUNK DIAMETER			DISTANCE FROM TRUNK		TOTAL DIAMETER	
cm	inches	feet	m	feet	m	feet
20	8	0.6	1.2	3.9	2.60	8.5
25	10	0.8	1.5	4.9	3.25	10.7
30	12	1.0	1.8	5.9	3.90	12.8
35	14	1.2	2.1	6.9	4.55	14.9
40	16	1.3	2.4	7.9	5.20	17.1
45	18	1.5	2.7	8.9	5.85	19.2
50	20	1.7	3.0	9.8	6.50	21.3
55	22	1.8	3.3	10.8	7.15	23.5
60	24	2.0	3.6	11.8	7.80	25.6
75	26	2.5	4.5	14.8	9.75	32.0
90	32	3.0	5.0	16.4	10.90	35.8
100	36	3.3	6.0	19.7	13.00	42.7

TREE PROTECTION TABLE
MINIMUM PROTECTION REQUIRED AROUND TREE

Richmond

TREE PROTECTION AND
TREE PROTECTION DISTANCE TABLE

TECH. :	SCALE : NTS	DRAWING NUMBER : P-7a-SD
DR. :	DATE : DEC. 2010	
ENG. :	REV. :	SHEET No. : 1 OF 1

0 10 20 50 100ft

REFER TO ARBORIST REPORT BY CATHERINE MACDONALD CONTACT AT 604 904-0302 WITH 3 DAYS NOTICE WHEN WORKING IN TREE RETENTION ZONE

RETAINED EXISTING TREE

EXISTING TREE REMOVED

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15	17.JUN.19	ISSUE FOR ADP	CLG
14	17.FEB.06	UPDATE PER CITY ARBORIST COMMENTS	CLG
13	17.FEB.02	UPDATE PER SITE PLAN/TREE REPL. CMTS	CLG
12	16.DEC.16	UPDATE PER NEW SITE PLAN	CLG
11	16.DEC.06	UPDATE PER NEW SITE PLAN	CLG
10	16.NOV.28	UPDATE PER CITY COMMENTS - TREES	CLG
9	16.NOV.18	UPDATE PER NEW SITE PLAN/CITY CMNTS	CLG
8	16.NOV.03	UPDATE PER CITY COMMENTS	CLG
7	16.SEP.08	UPDATE PER NEW SITE PLAN	CLG
6	16.AUG.22	UPDATE PER NEW SITE PLAN	CLG
5	16.APR.26	UPDATE PER CITY/ARCH COMMENTS	CLG
4	16.JAN.04	UPDATE TO NEW SITE PLAN	CLG
3	15.DEC.23	UPDATE TO NEW SITE PLAN	CLG
2	15.AUG.06	FOR DP ISSUE	PC
1	15.JUL.06	NEW SITE PLAN	CLG

CLIENT:

PROJECT:

BUDDHIST TEMPLE

8480 NO. 5 ROAD
RICHMOND, BC

DRAWING TITLE:

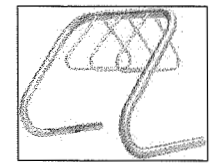
EXISTING TREE MANAGEMENT PLAN

DATE:	15.JUL.06	DRAWING NUMBER:
SCALE:	3/32"=1'-0"	**L3**
DRAWN:	CLG	
DESIGN:	CLG	
CHKD:	PCM	OF 5

PMG PROJECT NUMBER: **15-112**

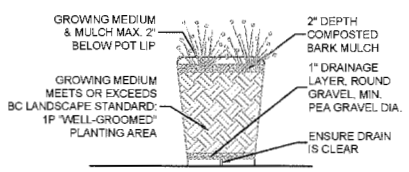
Plan #17

DP 17-777

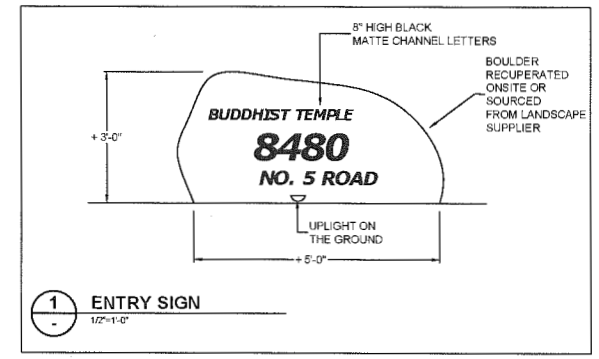


EXPO BIKE RACK - MODEL 2704
4 BIKE CAPACITY, COLOUR: RED
POWDERCOAT.

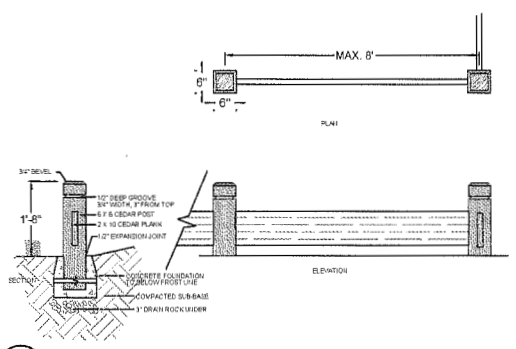
MODENA BENCH, WISHBONE
INDUSTRIES, REDWOOD SLATS
& GREY POWDERCOAT. USE
TAMPERPROOF HARDWARE



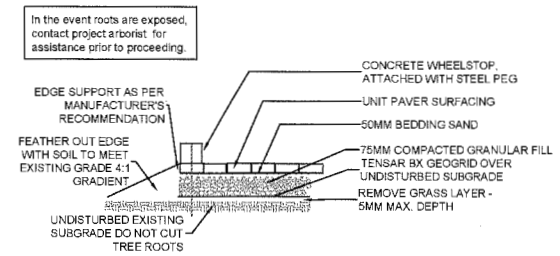
4 PLANTING IN POTS
1/2"=1'-0"



1 ENTRY SIGN
1/2"=1'-0"

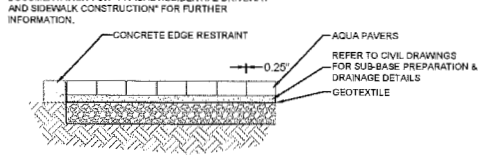


8 LOW FENCING
1/2"=1'-0"

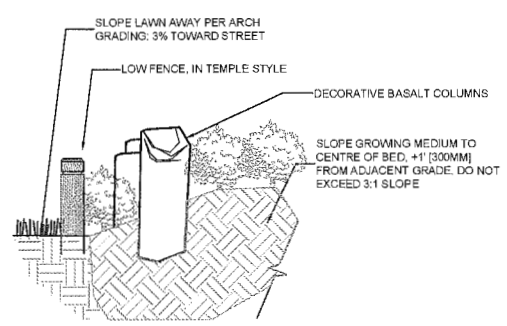


5 UNIT PAVER DETAIL THROUGH ROOT ZONE
1/2"=1'-0"

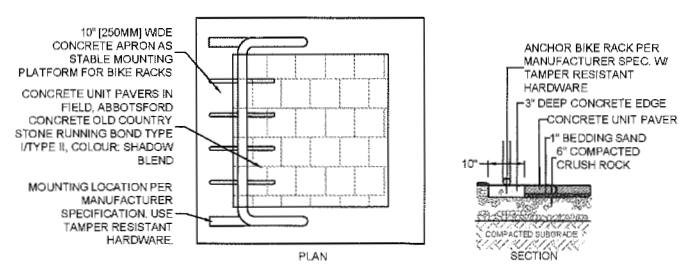
NOTE:
REFER TO MANUFACTURERS INSTALLATION
DOCUMENTATION FOR "TYPICAL RESIDENTIAL DRIVEWAY
AND SIDEWALK CONSTRUCTION" FOR FURTHER
INFORMATION.



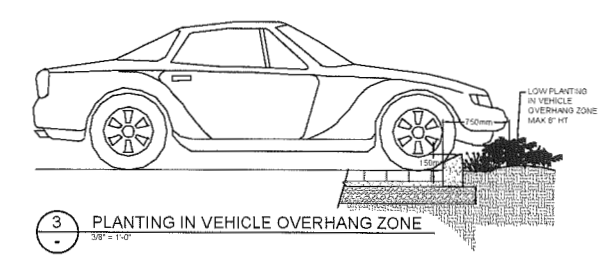
2 PERMEABLE PAVERS
1/2" = 1'-0"



7 MOUNDS IN LANDSCAPE BEDS
1/2"=1'-0"



6 BIKE RACK MOUNTING DETAIL
1/2"=1'-0"



3 PLANTING IN VEHICLE OVERHANG ZONE
3/8"=1'-0"

15112-18.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	BY
19	17.SEP.15	UPDATE PER COMMENTS / REISSUE	
18	17.AUG.03	INCORPORATE ADP COMMENTS	
17	17.JUL.25	UPDATE PER CITY COMMENTS/REISSUE	
16	17.JUL.19	REISSUE FOR ADP	CLG
15	17.JUN.19	ISSUE FOR ADP	CLG
14	17.FEB.06	UPDATE PER CITY ARBORIST COMMENTS	CLG
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3	15.DEC.23	UPDATE TO NEW SITE PLAN	CLG
2	15.AUG.06	FOR DP ISSUE	PC
1	15.JUL.06	NEW SITE PLAN	CLG

CLIENT:

PROJECT:

BUDDHIST TEMPLE

8480 NO. 5 ROAD
RICHMOND, BC

DRAWING TITLE:

LANDSCAPE DETAILS

DATE:	15.JUL.06	DRAWING NUMBER:
SCALE:	AS NOTED	**L4**
DRAWN:	CLG	
DESIGN:	CLG	
CHK'D:	PCM	OF 5

PMG PROJECT NUMBER: **15-112**

OCT 25 2017

Plan #18

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, 2012 edition, 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, 2008: 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 3.4 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 specification.

1.3 SUBMITTALS
.1 Any alternate products differing from that contained 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 is to be held to review expected work and to verify the acceptability of the subgrade and general site conditions to 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 sizes, 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, Unit 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 superintendence 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 plans.

.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 work in accordance with the drawings and specifications and generally consists of the following:

.21 Retention of Existing Trees where shown on drawings.
.22 Finish Grading and Landscape Drainage.
.23 Supply and placement of growing medium.
.24 Testing of imported growing medium and/or site topsoil.
.25 Supply and incorporation of additives to meet requirements of soil test and Table One.
.26 Preparation of planting beds, supply of plant material and planting.
.27 Preparation of rough grass areas, supply of materials and seeding.
.28 Preparation of lawn areas, supply of materials and sodding.
.29 Supply and placement of bark mulch.
.210 Maintenance of planted and seeded/sodded areas until accepted by Owner.
.211 SEPARATE PRICE: Establishment Maintenance, Section 3.11.
.212 Other work: Work other than this list, not specified by Landscape Architect.

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

TABLE ONE: PROPERTIES OF GROWING MEDIUM FOR LEVEL 2 GROOMED 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 - 1%	0 - 1%	0 - 1%
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%	40 - 60%
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 (Loss-On-Ignition)	3 - 10%	3 - 5%	10 - 20%
Organic Content (Interior)	3 - 5%	3 - 5%	15 - 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), Phosphate (P2), and Potash (soluble 2) 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: 19mm (3/4") 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. Appliers 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, hard, 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 1.2m, or combinations of walls collectively in excess of 1.2m. Installations must be reviewed and signed off by Certified Professional Engineer, include 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 tag 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 delineate 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 trash 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.
.91 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 personal responsible for the disturbance.

.10 In municipalities with specific tree retention/replacement bylaws ensure compliance to bylaws.

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

3.2 GRADES
.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 French subgrade across slope to 150mm (6") minimum at 1.5m (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 smoothly contoured after 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 true to line and grade, smooth and free of sags or high points. Minimum slope 2%, maximum side slopes 10%. Ensure positive drainage to collection points.

.6 Slope not 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 detailed 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, which may not be located on drawings 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 3.10, Installing Landscapes on Structures.

.3 Execution:
.31 De 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 pipes with perforations at 6pm and 4pm 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 watertight 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 out caps.
.39 Surround and cover pipe with drain rock in uniform 150mm layers in various depths as shown in details, minimum 300mm.
.310 Cover drain rock with non-woven filter cloth lap all edges and seams minimum 150mm.
.311 Assure positive drainage.
.312 Back fill remainder of trench as indicated.
.313 Protect subdrains from floatation 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 admixtures as required by 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 6" (150mm), over unfrozen subgrade free of standing water.

.4 Minimum depths of growing medium placed and compacted to 85%:
.41 On-grade:
.411 Seeded and sodded lawn.....6" (150mm)
.412 Mass planted shrubs & groundcovers.....15" (450mm)
.413 Groundcover only areas, if defined on plan.....9" (225mm)
.414 Trees & 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.
.42 On-Slab:
.421 Irrigated lawn.....9" (230mm)
.422 Groundcover areas.....12" (300mm)
.423 Lawn without automatic irrigation.....12" (300mm)
.424 Shrub & groundcover areas.....15" (380mm)
.425 Trees and specimen shrubs.....30" (760mm) over columns and/or edge of slab (verify column locations on-site for tree locations.)
.426 Depth noted includes 1" to 2" (25-50mm) sand over filter fabric
.427 Maximum 18" depth growing medium except where mounded for trees over column points.

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

.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 7.1.1.3
.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 from 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:
.41 Analysis of the seed mixture
.42 Percentage of each seed type

.5 Seed Mixture: All varieties shall be rated as strong performers in the Pacific Northwest and are subject to client approval.
70% Creeping Red Fescue
20% Annual Rye
5% Salinas Perennial Rye
5% Kentucky Bluegrass
For Wildflower Areas use a mixture of Wildflowers with Hard Fescue (Terralink 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 15-15-15 - 50% sulphur area coated , 112 kg/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 3.7 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 prior to 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, lamposts, 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 Mulch shall consist of virgin wood fibre or recycled paper fibre designed for hydraulic seeding and dyed the same of contrasting application. If using recycled paper material for wood fibre substitute one 125K (by weight). Conform to B.C. Landscape Standard for mulch 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 plain view on the equipment. The hydraulic seeder/mulcher shall be capable of sufficient agitation to mix the material into a homogeneous slurry and to maintain the slurry in a homogeneous 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:
.81 Seed Mixture: 134 kg/ha (125 lbs/acre)
.82 Fertilizer: 112 kg/ha (100 lbs/acre)
.83 Coastal Wildflower Mix: Where specified, apply (31 lbs/acre) (1/4 lb.: 1 lb. of grass seed)
.84 Notes:
.84.1 At the time of Tender provide a complete chart of all components of the mix proposed including mulch, tackifier, water etc. Sloped sites require tackifier.
.84.2 Fertilizer:
.84.2.1 Rough Grass: If a soil analysis is available, comply with results.
.84.2.2 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 or other material to the mixture. Do not leave slurry 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 signage 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 (to B.C. Landscape Standard, Section 13 Maintenance Level 4 (typo?) mowing). 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 2.2.1, 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 defined 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 roll lightly. Water to obtain moisture penetration of 3" to 4" (7 - 10cm). 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 signage until lawn is taken over by the Owner. Water to obtain moisture penetration of 3" to 4" (7-10cm) at intervals necessary to maintain sufficient growth. Keep grass cut at height of between 1-1/2" (4cm) and 2" (5cm). Provide adequate protection of seeded areas against damage until 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 (to 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:
.41 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:
.51 All plant material shall conform to the requirements of the B.C. Landscape Standard, 7th edition 2008, unless exceeded by drawing Plant Schedule or this specification.
.511 Refer to B.C. Landscape Standard, Section 1, Plants and Planting and in Section 12, BCLNA Standard for Container Grown Plants for minimum standards.
.512 Refer to Plant Schedule for specific plant and container sizes and comply with requirements.
.52 Plant material obtained from areas with less severe climatic conditions shall be grown to withstand this site climate.

.6 Review:
.61 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:
.71 Area of search includes the Lower Mainland and Fraser Valley. Refer to Plant Schedule for any extension of area.
.72 Supply proof of the availability of the specified plant material within 30 days of the award of the Contract.

.8 Substitution:
.81 Obtain written approval of the Landscape Architect prior to making any substitutions to the specified material. Non-approved substitutions will be rejected.
.82 Allow a minimum of 5 days prior to delivery for request to substitute.
.83 Substitutions are subject to BC Landscape Standard - definition of Conditions of Availability.

.9 Plant Species & Location:
.91 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.
.92 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.
.93 Deviation of given planting location will only be allowed after review of the proposed deviation by the Landscape Architect.

.10 Excavation:
.101 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. Assure that finished grade is at the original grade the tree was grown at.

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

.12 Planting and Fertilizing Procedures:
.121 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.
.122 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 voids. When 2/3 of the topsoil has been placed, apply fertilizer as recommended by the required soil test at the specified rates.
.123 Where planting is indicated adjacent to existing trees, use special care to avoid disturbance of the root system or natural grades of such trees.
.124 Where trees are in lawn areas, provide a clean cut mulched 900mm (3 ft.) diameter circle centered on the tree.

.13 Staking of Trees:
.131 Use two 2"x2"x5' stakes, unless superseded by municipal requirements. Set stakes minimum 2 ft. in soil. Do not drive stake through rootball.
.132 Leave the tree carefully vertical.
.133 Tie with pre-approved commercial, flat woven polypropylene fabric belt, minimum width 19mm (3/4"). Approved product: ArborTie - available from Deepblue.
.134 Coniferous Trees over 6 ft. height: Guy with three 2-strand wires (11 gauge). Drive three stakes equidistant around the tree completely below grade.
.135 Trees 6 ft.+ on level or Concrete Decks: Guy as above using three deadman (min. 2"x2"x4") buried to the maximum possible depth instead of stakes.
.136 Mark all guy wires with visible flagging material.

.14 Pruning:
.141 Limit pruning to the minimum necessary to remove dead or injured branches. Preserve the natural character of the plants, do not cut 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:
.151 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:
.161 The establishment of all plant material is the responsibility of the Landscape Contractor.

.17 Plant Material Maintenance:
.171 Maintain all plant material for 60 days after landscape work has received a Certificate of Completion.
.172 Watering: Conform to B.C. Landscape Standard, Section 13.3.2 - Watering and generally as follows:
.172.1 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.
.173 Use appropriate measures to combat pests or diseases damaging plant material. Comply with all local governing statutes and guidelines for chemical control.
.174 Plant material which fails to survive shall be replaced in the next appropriate season as determined by the Landscape Architect.
.175 Repair tree guards, stakes, and guy wires, when necessary.
.176 Maintain areas relatively weed free. (Appearance level 2, B.C. Landscape Standard, Chapter 13).
.177 Maintain mulch to specified depths.

.18 Plant Warranty:
.181 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.
.182 These Plants, identified as hardy within one zone of the Canada Department of Agriculture hardiness zone 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.
.183 A review may be requested during the latter part of the warranty growing season. All plant material showing well developed foliage, healthy growth and bud forming, will then be taken over.

PART THREE SOFT LANDSCAPE DEVELOPMENT - CONT

.184 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.
.185 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.
.186 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.
.187 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.
.21 Verify that planter drains are in place and positive drainage to roof drains is present prior to placing any drain rock or soil.

.3 Provide clean out at all through-slab drain locations. Use 300mm min. dia. PVC Pipe filled with drain rock unless specific drawing detail shown.

.4 Install drain rock evenly to a minimum depth of 6" (150mm)or 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 detail) 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 filter required to other 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 separating 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 adaptation of plants to a new site in order to obtain the desired effect from the planting while reducing the rate of failure and unnecessary work associated with improper establishment. Establishment of maintenance procedures apply to all new and retained vegetation including cultivated turfgrass areas and new trees and shrubs.

.2 Maintenance Period: Provide maintenance of installed landscaping for 12 months following substantial completion.

.3 Related Standards and Legislation: B.C. Landscape Standard, latest edition; Fertilizer Code., B.C. Pesticide Control Act.

.4 Site Review: In addition to the inspections at substantial completion, at final progress draw application, and at the end of the guarantee period, there should be three other reviews during the 12 months attended by the Contractor and a designated representative of the Owner. Maintain a logbook and reporting procedures and submit to the designated representative.

.5 Scheduling: Prepare a schedule of anticipated visits and submit to designated representative at start-up. Maintenance operations shall be carried out predominately during the growing season between March 1st and November 30th, however visits of other times of the year may be required.

.6 Maintenance Levels: Comply with B. C. Landscape Standard, Section 14, Table 14.2, Maintenance Level 2 "Groomed".

.7 Materials: Comply with Part Two of this specification.
.71 Fertilizers: To the requirements of the B.C. Landscape Standard. Formulations and rates as required by soil testing.

.8 Plant Material Establishment:
.81 Watering: During the first growing season, water new plants at least every ten (10) days between April 1st and July 31st, and every twenty (20) days between August 1st and September 15th. Minimum 25 gallons per tree per application. During the second growing season, water new plants at least every twenty days between April 1 and July 31 and once between August 1st and September 31st. Apply water at a rate and duration such that the water content reaches field capacity to the full depth of the growing medium. Apply water again when the water content reaches 25% of field capacity. Provide and irrigate with water in the event that automatic irrigation systems malfunctions or has not been completely installed. Scheduled applications of water shall be missed only when rainfall has penetrated the soil fully as required.
.82 Mulch: Maintain mulches in the original areas and to the original depths.
.83 Weed Control: Remove all weeds from all areas at least once per month during the growing season by hoeing or cultivation to a maximum depth of 50mm, hand-pulling, or, if necessary, by the use of herbicides.
.84 Pest and Disease Control: Inspect all planted areas for pests and diseases periodically and at least every two months in the growing season by an experienced person. Carry out treatment for pests or diseases promptly and consistently for maximum effectiveness. Comply with all B.C. Pesticide Control Act and municipal requirements.
.85 Tree Support: Maintain stakes, guy wires and ties one full growing season. Check ties at least every two months to ensure that they are not causing a depression in the bark. Loosen, repair or replace ties as necessary. Remove all stakes guy wires and ties after the first growing season except where large trees require continuing support in the opinion of the Landscape Architect. All flagging of guy wires shall be visible and in good repair.
.86 Pruning: Inspect all trees and shrubs at least every two months during the growing season; prune to remove all dead, weak or diseased wood. Maintain the natural shape of the plant. Carry out clipping or shaping only if required in the maintenance contract for specific varieties or conditions.
.87 Fertilizing: Once during the twelve month period of establishment maintenance fertilize shrubs, trees and groundcovers according to soil analysis requirements.

.9 Grass Areas Establishment:
.91 Watering: Use hoses and sprinklers, irrigation systems or other methods to apply water to Class 1 and Class 2 grassed areas (B.C. Landscape Standard, Section 7, Lawns and Grasses) such that the grass is maintained in a turgid condition. Supply and irrigate with water in the event of any irrigation system malfunction, or incomplete installation at no expense to the owner. Apply water to prevent parking or erosion of the soil. Apply water at a rate and duration so that the water content in the growing medium reaches field capacity to the full depth of the growing medium. Apply water again when the water content reaches 25% of field capacity.
.92 Weed, Insect and Disease Control: Inspect grass areas each time they are mowed for weeds, insect pests, and diseases and treat promptly when necessary by appropriate manual methods, or by the use of chemicals in compliance with the B.C.S.L.A./B.C.L.N.A. Landscape Standards latest edition. Kill broadleaved weeds in grassed areas by a general application of a suitable herbicide if the weed population exceeds 10 Broadleaf weeds or 50 annual weeds or weedy grasses per 40 square meters. This application shall reduce the weed population to zero.
.93 Fertilizing: According to soil analysis.
.94 Liming: According to soil analysis
.95 Mowing and Trimming - All areas: The first four cuts shall be a sharp rotary type mower. Excess grass clipping shall be removed after each cut. Mow all grassed areas with a sharp reel or rotary mower when the grass reaches a height of 60mm. Mow to a height of 40mm. Edge with a mechanical vertical cutting edger once per year in March. Remove all grass clippings after each cut.
.96 Aeration: Aeration not required in the first growing season. If necessary, in the second growing season, aerate in early May with a suitable mechanical corer. Core to a depth of

City of Richmond

Report to Development Permit Panel

To:	Development Permit Panel	**Date:**	October 3, 2017
From:	Wayne Craig Director of Development	**File:**	DP 17-785221
Re:	**Application by Arcus Consulting Ltd. for a Development Permit at 10019 Granville Avenue**		

Staff Recommendation

That a Development Permit be issued which would:

1. permit the construction of a licensed child care facility for a maximum of 88 children with an accessory residential caretaker unit at 10019 Granville Avenue on a site zoned "Child Care (ZR8) – McLennan"; and
2. vary the provision of Richmond Zoning Bylaw 8500 to reduce the required minimum width of a landscape buffer from a property line abutting a road from 3.0 m to 1.7 m.

Wayne Craig
Director of Development

WC:mp
Att.

Staff Report

Origin

Arcus Consulting Ltd. has applied to the City of Richmond for permission to develop a licensed child care facility for a maximum of 88 children with an accessory residential caretaker unit at 10019 Granville Avenue on a site zoned "Child Care (ZR8) – McLennan"(Attachment 1). The site is currently vacant.

Background

Previous Applications

On September 10, 2012, the subject site was rezoned from "Local Commercial (CL)" to "Congregate Housing and Child Care (ZR8) – McLennan" to allow the development of a 10-bed congregate housing care facility with full-time medical care, a child care facility for a maximum of 37 children, and residential security/operator's unit (RZ10-552527). A development permit was issued at the same time (DP11-589490), but the owner did not proceed with the proposal as he could not secure funding for the congregate housing facility, and the permit lapsed in 2014.

In 2014, a zoning text amendment application was submitted to remove "congregate housing" from the permitted uses and increase the maximum number of children permitted in a child care facility from 37 to 88. On November 23, 2015, Bylaw 9209 (RZ14-671974) to amend the "Child Care (ZR8) – McLennan" was adopted, and a Development Permit (DP14-672830) for the child care facility was issued.

Since then, the property has been sold to the current owner, Pacific Star Education Ltd. The owner has proposed substantial changes to the approved Development Permit plans, including changes to the vehicle access and parking layout, changes to the building footprint as a result of modified floor plans, and alterations to the landscape plan to accommodate the program requirements.

A Servicing Agreement (SA14-678576) was secured through the rezoning application (RZ14-671974) for the design and construction of required off-site works, including:

- a new sidewalk and landscaped boulevard along No. 4 Road;
- widening on the north side of Granville Avenue and a new sidewalk and landscaped boulevard along Granville Avenue; and
- an upgrade of the existing traffic signal at the No. 4 Road and Granville Avenue intersection.

Submission and approval of revised drawings for the Servicing Agreement is required to reflect the changes made to the site design prior to Development Permit issuance. Also, the previously issued Development Permits that are currently registered on title (Document No. BB4051291, BX28278 and CA4869041) will be discharged to clean up the title.

Exemptions from the Agricultural Land Commission Regulations

The subject site is contained in the Agricultural Land Reserve (ALR); however, it is exempt from the Agricultural Land commission (ALC) regulations because the property was on separate certificate of title and was less than 2 acres in size as of December 21, 1972.

On-Site Sanitary Sewer System

The subject site is located outside of the City's sanitary sewer boundary and is not serviced by City sanitary sewer system. A sanitary sewer covenant was registered on title through the previous rezoning application to ensure that the proposed on-site sewage treatment system is designed and maintained properly, and it has been replaced with the new sanitary sewer covenant to reflect the proposed uses. As the original sanitary sewer covenant filed under CA2713857 is no longer valid, it will be discharged prior to the Development Permit issuance.

Vancouver Coastal Health Review

The applicant has been working with the Vancouver Coastal Health staff to ensure that the application meets the child care licensing requirements. Through the Building Permit application process, detailed drawings will be forwarded to the Vancouver Costal Health for review and final approval.

Development Information

Please refer to attached Development Application Data Sheet (Attachment 2) 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: a single detached dwelling on a small "Agriculture (AG1)" zoned parcel (less than 0.5 acres) contained in the ALR.

To the east: a single detached dwelling on a small "Agriculture (AG1)" zoned parcel (less than 0.5 acres) contained in the ALR.

To the south: across Granville Avenue, single detached dwellings on small "Agriculture (AG1)" zoned parcels (less than 0.5 acres) contained in the ALR.

To the west: across No. 4 Road, a duplex on a property zoned "Two-Unit Dwelling (RD1)" located outside of the ALR. The property is located in the City Centre Area McLennan North Sub-Area, and the Plan designated the property for two family dwellings or 2 & 3 storey townhouses.

None of the immediately neighbouring sites in the ALR are currently farmed.

Rezoning and Public Hearing Results

A Rezoning is not required for this Development Permit application.

Staff Comments

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 Zoning Bylaw except for the variance noted below.

Zoning Compliance/Variances (staff comments in *bold italics*)

Richmond Zoning Bylaw 8500 section 6.5.3 requires a minimum of 3 m wide landscape buffer from a property line abutting a road. The site plan shows that a small portion of the landscape buffer (5.5 m in length) adjacent to the proposed driveway on Granville Avenue will be 1.7 m wide.

Staff supports the requested variance for the following reason:

- ***The proposed variance is minor in nature as only a small portion of the site will have a reduced landscape buffer. A significant amount of landscaping is proposed along No.4 Road and Granville Avenue.***
- ***Staff recognizes the site design challenges due the small size of the property and its corner location. The site is carefully designed to provide a functional layout for the proposed child care facility and an attractive streetscape, and meet the parking requirement.***
- ***A layer of landscaping with shrubs and a fence is proposed to effectively screen the parking area from Granville Avenue. Also, a grassed boulevard immediately adjacent to the on-site landscape buffer (note: the boulevard width to be confirmed through a review of the revised SA plan) will provide an additional buffer along Granville Avenue.***

Advisory Design Panel Comments

The previously approved Development Permit drawings were reviewed and supported by the Advisory Design Panel. As the architectural form and character remains unchanged, staff has determined that a review by the Advisory Design Panel is not required.

Analysis

Conditions of Adjacency

- The height, siting and orientation of the proposed two storey building respects the existing single family homes immediately adjacent to the site.
- The building is proposed to be located at the southwest corner of the site to minimize potential privacy and overlook concerns for the immediate neighbours to the north and east.
- A landscape buffer strip with a 2 m high solid wooden fence, hedge, shrubs and columnar trees is proposed along the north and east property lines for screening.
- The garbage and recycling area proposed at the northeast corner will be enclosed in a structure and will be further screened from the immediate neighbours by the wooden fence and hedge.

Urban Design and Site Planning

- The location of the building will create a strong street presence through architecturally interesting building facades, varied rooflines and high-quality landscape treatment, which will contribute to the pedestrian experience along No. 4 Road and Granville Avenue.
- A full access driveway (i.e., left and right turns allowed for inbound and outbound vehicles) will be provided on Granville Avenue.
- The previous Development Permit site plan included a right-out only exit on No. 4 Road to facilitate on-site traffic circulation, but it has been removed. As part of the previous rezoning application, a covenant was registered on title to restrict the No. 4 Road exit to right-out only. As this covenant is no longer necessary, discharge of the covenant (document # CA2713856) is required prior to the issuance of Development Permit.
- The proposal will provide 24 parking stalls and a loading space which meets the zoning requirement. One accessible parking stall will be located close to the main entrance of the child care facility for ease of access.
- A pedestrian access will be provided from Granville Avenue adjacent to the driveway and will be connected to the entrances to the child care facility and the residential suite. A pedestrian pathway is also provided from No. 4 Road and will be connected to the exit doors on the north side of the building.
- A garbage and recycling enclosure is proposed at the northeast corner where it can be easily accessed by a collection vehicle.
- A bicycle storage room and bicycle racks are provided next to the main entrance to the child care facility.
- Children's outdoor play areas are proposed along Granville Avenue and the north property line, and on the second floor deck at the north of the building. The landscaped area on the west side of the building will provide a buffer from fast moving traffic along No. 4 Road.
- Each outdoor play area is located and designed to be contiguous from the indoor classroom for a specific age group.

Architectural Form and Character

- The building provides a playful, dynamic and colourful design, which is appropriate for the proposed use.
- The building is articulated with variation in roof form, height, materials, colours and architectural details including gable roof elements, trellis, canopies and wood trims.
- The proposed building features high quality cladding materials including fiber-cement siding, shingles and board and batten.
- The proposed colour scheme consists of a grey tone with bright/bold colour accents for contrast.
- Various colours and building materials will be used to differentiate individual classrooms for different age groups and help break the massing of the building.
- Vertical lattice with climbing vines is proposed on the north side of the building to add visual interest and avoid a large blank wall.

Landscape Design and Open Space Design

- The landscaping and open space design focuses on mitigating site impacts along the public road frontage and providing security for children. To soften the impact of the required

protective fence for the child care, a row of hedge is provided in front of the metal picket fence along the streets.

- The proposed perimeter landscaping meets the zoning requirements except for the small portion previously noted in the "Zoning Compliance/Variances" section of this report.
- A landscape buffer along the north and east property lines (1 m on the north side and 1.7 m on the east side) with a wooden fence, hedge, shrubs, columnar trees is proposed along the north and east property lines. Structural soil will be incorporated under parking stalls to ensure that the trees survive. The trees will provide shadow, colour and rhythm and privacy to neighbours.
- The children's outdoor play area is designed to provide a range of opportunities for the social, physical and emotional development of children while providing an attractive urban face to the public realm. Design details are as follows:
  - The outdoor play areas are designed to be flexible to respond to any future changes in programming while supporting a variety of physical and social activities.
  - Each outdoor play area is designed to serve a different age group, and is contiguous with the age group's indoor classroom.
  - Canopies will be provided for the entrances to the indoor classrooms to act as a transition zone from the indoors to the outside.
  - The outdoor play areas feature a mix of soft landscaping, rubberized play surface, grass mounds, sand boxes and play equipment. All outdoor play areas include both covered and uncovered areas, and an open area to encourage physical movement and group activities.
  - The roof top outdoor play area is screened with metal guardrail and fence, and a covered deck area will provide shade for children. Planters including small trees and shrubs are proposed to provide an experience of nature.
  - The proposed on-site trees along the north and south property lines will also provide natural shade and cooling during the summer months.
- For children's safety, the children's outdoor play area is completely fenced with a metal fence and hedging. The height of the fence along the streets will be 5' and will have hedging in front of the fence to provide additional screening. In addition, wooden trellis and lockable gates are proposed to add visual interest.
- A Letter-of-Credit for landscaping in the amount of $86,106.41 inclusive of a 10% contingency cost has been provided as part of the previous Development Permit application. This Letter-of-Credit is required to be replaced to reflect the revised amount of $97,454 prior to the Development Permit issuance.

Crime Prevention Through Environmental Design

The proposed development includes the following design elements that support CPTED principles:

- The corner site has good visibility from the streets.
- The children's outdoor play area will be fenced completely for the safety of children.
- The accessory residential unit on the second floor provides natural surveillance of the streets and surrounding areas.
- Vandal resistant hardware to all doors, restricted opening to all windows and selected purpose-driven lighting to all access and egress doors will be provided.

Accessible Housing

The proposed development includes the following accessibility features for a future resident with mobility challenges.

- The accessible parking stall will be located close to the main entrance of the building.
- All bedroom doorways in the accessory residential unit will be 3' wide to ensure wheelchair accessibility.
- One of the bedrooms is designed to be an accessible unit; a closet and bathroom are designed to ensure universal accessibility.
- Manoeuvring space in the kitchen will accommodate wheelchair accessibility.

Additional accessibility features may be incorporated once further design work is completed for a building permit.

Energy and Sustainability

The applicant has indicated that the following sustainability measures will be incorporated into the development.

- Use low-flow plumbing fixtures to reduce water consumption.
- LED lighting where practicable to minimize energy consumption.
- All appliances and fixtures will be selected based on ENERGY STAR ratings.
- Increased thermal insulation and high-quality windows with Low E glass.
- Mechanical and electrical loads will meet the ASHREA 90.1-2010 standards.
- Using the BC Building Code as a base reference, insulation levels will meet the ASHREA 90.1-2010 standards.

Conclusions

The proposed development is carefully designed to respond to the needs of the programming proposed by the child care operator, and would meet applicable policies and Development Permit Guidelines.

Staff recommend that the Development Permit be endorsed, and issuance by Council be recommended.

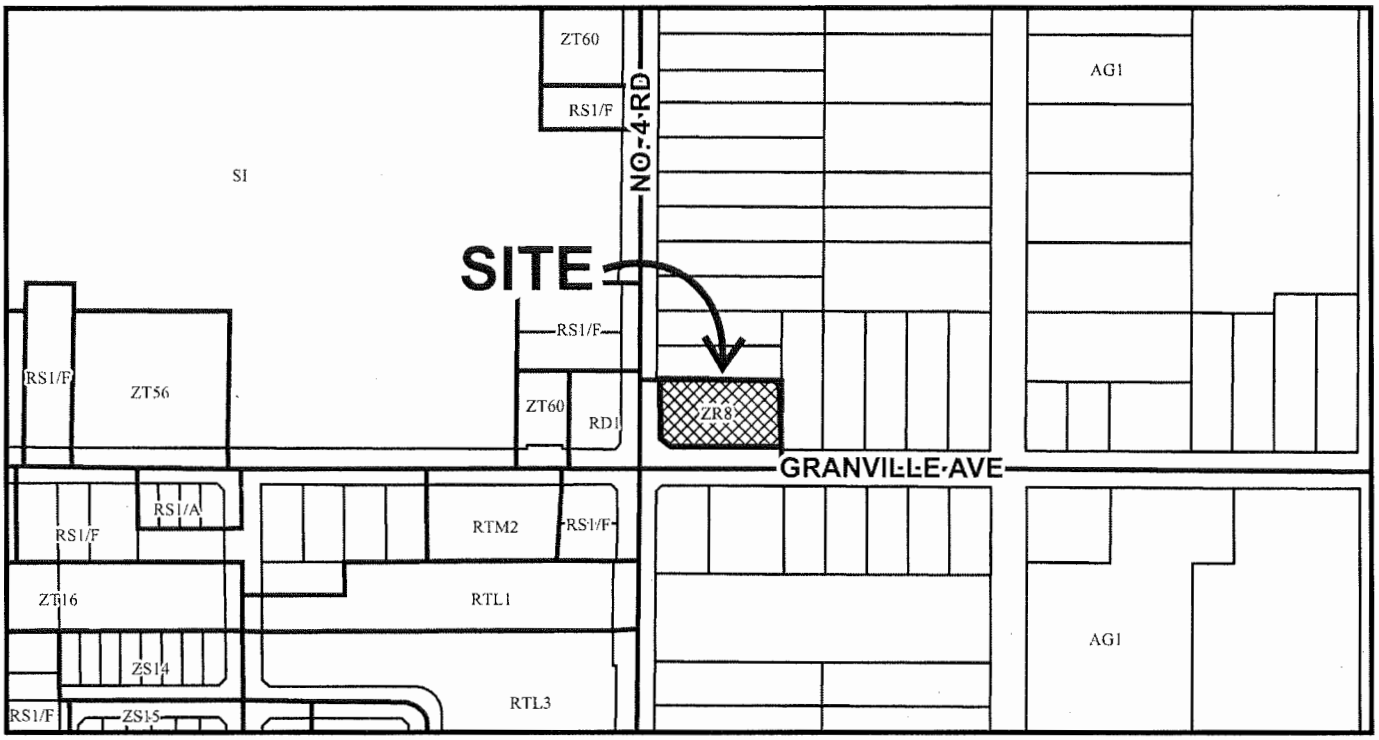
Minhee Park
Planner 1

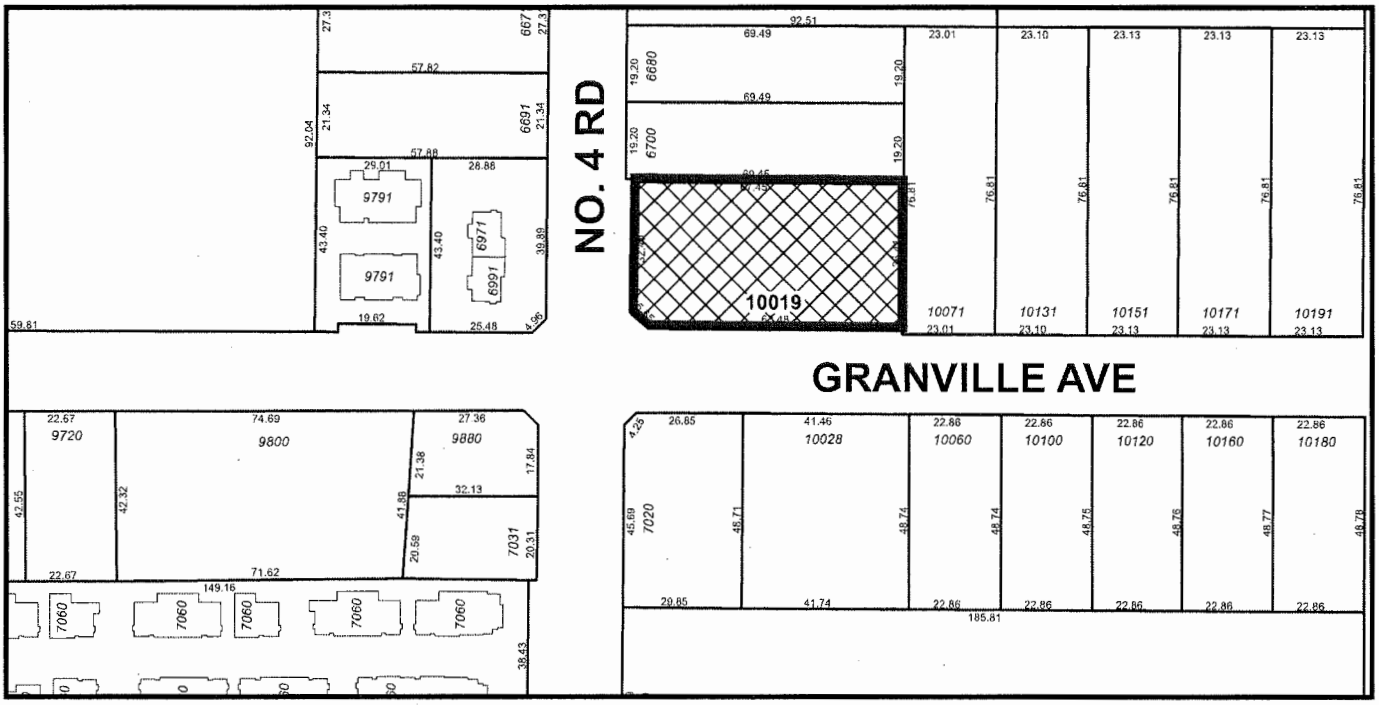
MP:cas

Attachments
Attachment 1: Location Map
Attachment 2: Development Application Data Sheet
Attachment 3: Development Permit Considerations

ATTACHMENT 1

City of Richmond





DP 17-785221

Original Date: 10/02/17

Revision Date:

Note: Dimensions are in METRES

City of Richmond

Development Application Data Sheet

Development Applications Department

DP 17-785221 **Attachment 2**

Address: 10019 Granville Avenue

Applicant: Arcus Consulting Ltd. Owner: Pacific Star Education Ltd.

Planning Area(s): East Richmond McLennan Sub Area

Total Floor Area: 1,193 m^2

	Existing	Proposed
Site Area:	2,448 m^2	No Change
Land Uses:	Vacant	88 space child care facility + residential security/operator unit
OCP Designation:	Agriculture	No Change
Zoning:	Child Care (ZR8)	No Change

	Bylaw Requirement	Proposed	Variance
Floor Area Ratio:	Max. 0.5 FAR	0.48	none permitted
Lot Coverage:	Max. 40%	30%	none
Setback – Public Road:	Min. 3 m	4.85 m (No. 4 Rd) & 3 m (to the posts supporting covered entry on Granville Ave)	none
Setback –North:	Min. 5 m to building Min. 0.9 m to garbage and recycling enclosure	5.8 m	none
Setback – East:	Min. 9 m to building Min. 0.9 m to garbage and recycling enclosure	25.7 m	none
Landscape Buffer Width adjacent to a Road	Min. 3 m	1.7 m	1.3 m
Height :	Max. 12.5 m	10.3 m	none
Off-street Parking Spaces – Regular	23	23	none
Off-street Parking Spaces – Accessible:	1	1	none
Total off-street Spaces:	24	24	none

City of Richmond

Attachment 3

Development Permit Considerations

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

Address: 10019 Granville Avenue **File No.:** DP 17-785221

Prior to the Development Permit being forwarded to Council for approval, the developer is required to complete the following:

- Submission and approval of revised drawings for Servicing Agreement (SA14-678576) for the design and construction of public road frontage works and any necessary upgrades as a result of the required road widening in order to reflect the changes to the site design. Works include but may not be limited to the following:
  - a new sidewalk and landscaped boulevard along No. 4 Road;
  - widening on the north side of Granville Avenue and a new sidewalk and landscaped boulevard along Granville Avenue; and
  - an upgrade of the existing traffic signal at the No. 4 Road and Granville Avenue intersection.
- Discharge of the original sanitary sewer covenant filed under CA2713857
- Discharge of the road access covenant filed under CA2713856
- Discharge of the legal notations regarding previously issued Development Permits filed under BB4051291, BX28278 and CA4869041
- Replacement of the landscape security on file to reflect the revised amount of $97,454

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).
- If applicable, payment of latecomer agreement charges, plus applicable interest associated with eligible latecomer works.

City of Richmond

Development Permit

No. DP 17-785221

To the Holder:	Arcus Consulting Ltd.
Property Address:	10019 Granville Avenue
Address:	120 - 1200 West 73rd Avenue Vancouver, BC V6P 6G5

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) Reduce the required minimum width of a landscape buffer along a property line abutting a road from 3.0 m to 1.7 m.
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 #16 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 $97,454 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 17-785221

To the Holder:	Arcus Consulting Ltd.
Property Address:	10019 Granville Avenue
Address:	120 - 1200 West 73rd Avenue Vancouver, BC V6P 6G5

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.

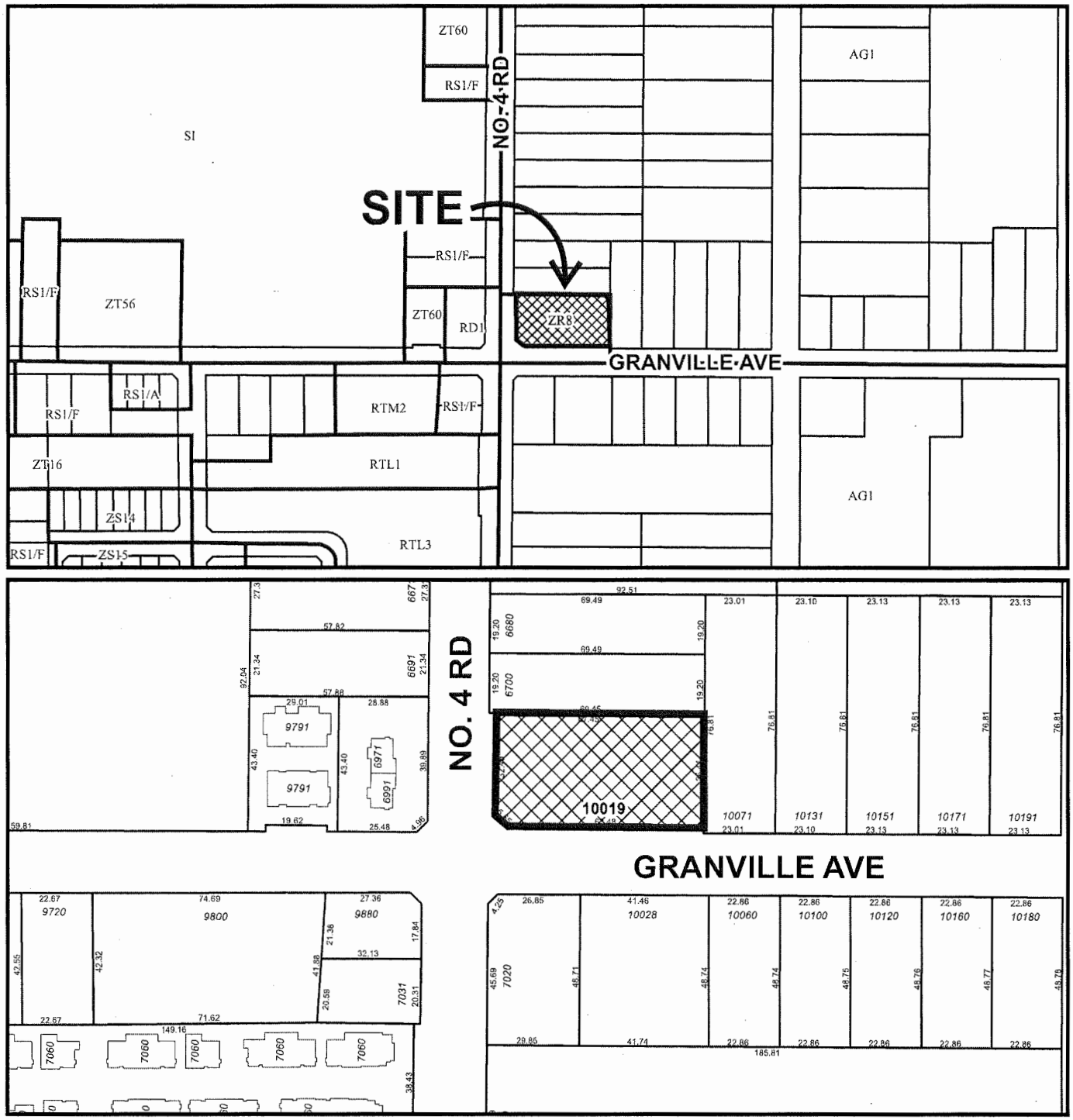
AUTHORIZING RESOLUTION NO. ISSUED BY THE COUNCIL THE DAY OF , .

DELIVERED THIS DAY OF , .

_____

MAYOR

City of Richmond



DP 17-785221
SCHEDULE "A"

Original Date: 10/02/17

Revision Date:

Note: Dimensions are in METRES

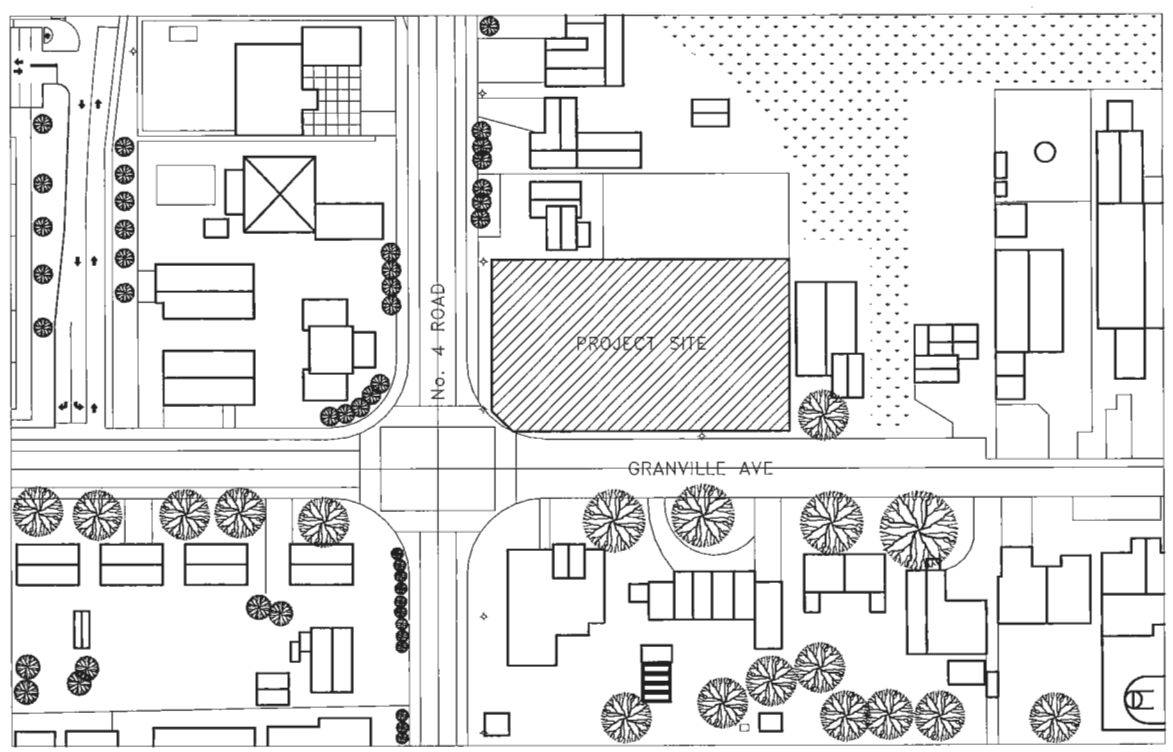
MIXED USE RICHMOND

City of Richmond, BC
10019 Granville Avenue
Richmond, BC

DP SUBMISSION

RENDERING–SNAP SHOTS

SITE MAP



Contact

OWNER PACIFIC STAR

8851 Heather Street
RICHMOND, B.C.
TEL: 604 359 9000
EMAIL: zinniaguan2003@gmail.com

Ms. ZINNIA GUAN

ARCHITECT CHERCOVER MASSIE & ASSOCIATES

#120– 1200 West 73rd Avenue
VANCOUVER, B.C. V6P 6G5
TEL: 604 264 1450
FAX: 604 264 1462
EMAIL: cma@showlink.ca

CONTACT: DOUG MASSIE, maibc

SURVEYOR MATSON PECK & TOPLISS SURVEYORS & ENGINEERS

#320–11120 Horseshoe Way
RICHMOND, B.C. V7A 5H7
TEL: 604 270 9331
FAX: 604 270 4137

LANDSCAPE ARCHITECT C.KAVOLINAS & ASSOCIATES INC

2462 Jonquil Court
ABBOTSFORD, B.C. V3G 3E8
TEL: 604 857 2378
FAX: 604 850 2369
EMAIL: KAVOLINA@SHAW.CA

CONTACT: CLARK KAVOLINA, bcslo, cslp

CIVIL ENGINEERING CORE CONCEPT CONSULTING LTD.

#1268–13351 Commerce Parkway

RICHMOND, B.C. V6V 2x7
TEL: 604 249 5040
FAX: 604 249 5041
EMAIL: dkozak@coreconceptconsulting.com

CONTACT: DAVID KOZAK, ASCT

Drawing List

ARCHITECTURAL

DRAWING No.	DRAWING TITLE
A–1	COVER SHEET
A–2	SITE CONTEXT AND RECONCILIATION
A–3	SITE PLAN
A–4	STREET SCAPE AND CONTEXT MAP
A–5	SITE DETAILS
A–6	MAIN FLOOR PLAN
A–7	2ND FLOOR PLAN
A–8	ROOF PLAN
A–9	ELEVATIONS
A–10	ELEVATIONS
A–11	PERSPECTIVES
A–12	PERSPECTIVES

SURVEY

DRAWING No.	DRAWING TITLE
1	SITE SURVEY

LANDSCAPE

DRAWING No.	DRAWING TITLE
1	LANDSCAPE PLAN

DP 17-785221

Plan #1

PACIFIC STAR, 10019 GRANVILLE AVE., RICHMOND, BC

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REVISION	SUBJECT	DATE
1	ISSUED FOR DP REVISION	16 11 25

	ISSUED	DATE
DP	ISSUED FOR DP	
BP	ISSUED FOR BP	
IFC		

CONSULTANT

CHERCOVER MASSIE & ASSOCIATES LTD.
ARCHITECTURE & ENGINEERING
#120 - 1200 West 73rd Ave. Vancouver, B.C. Canada V6P 6G5
Ph. 604 - 264 - 1450 Fax. 604 - 264 - 1462 Email cma@showlink.ca

PROJECT:
PACIFIC STAR

10019 Granville Avenue
Richmond, B.C.

DRAWING TITLE:
COVER SHEET

DRAWN: JC
DATE: JULY. 2016
SCALE: AS NOTED
PROJECT No: 216–14B

A1
OF
REV.

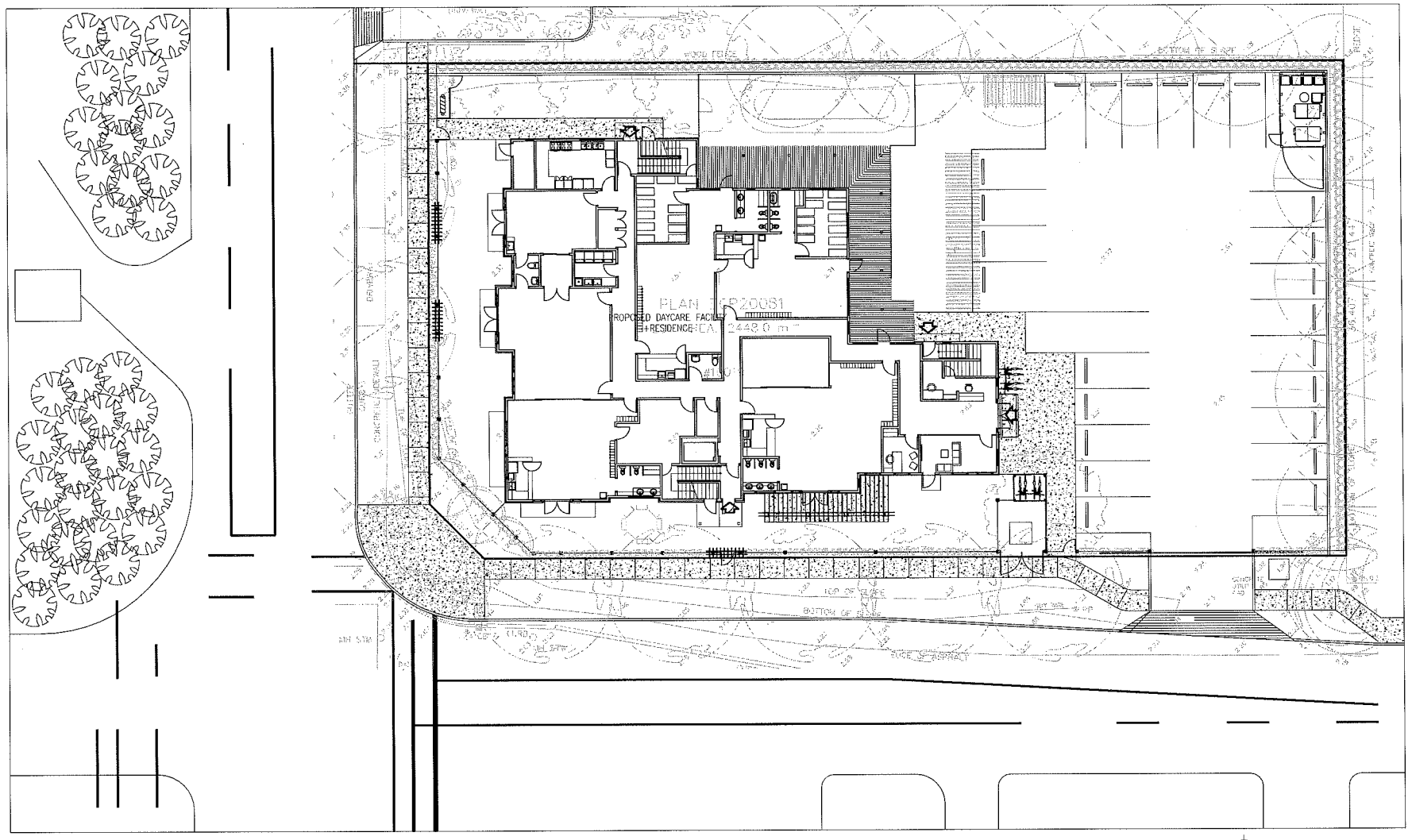
ZONING RECONCILIATION

CIVIC ADDRESS		10019 Granville Avenue, Richmond, BC	
LEGAL ADDRESS		Lot 1, Sec 11, Block 4 North, Range 6 West, NWD, PIL BCP 20081. PID:026-483-734	
EXISTING ZONE		CL	Local Commercial
PROPOSED ZONE		CD	Comprehensive Development
BASED ON RICHMOND ZONING BY LAW	REQUIRED	PROVIDED	
LOT AREA			
GROSS SITE AREA	N/A	2448m²	(26351 SF.)
DENSITY			
GROSS DENSITY	N/A	1193m²/2448m² = 0.48	
LOT COVERAGE			
GROSS LOT COVERAGE	N/A	740.9m²/2448m² = 30.2%	
YARD SET BACK			
FRONT SET BACK (NO. 4 ROAD)		4.92M	(16'-1 3/4")
FRONT SET BACK (GRANVILLE AVENUE)		4.2M	(13'-9 9/16")
SIDE YARD SET BACK		25.57M	(83'-10 3/4")
REAR YARD SET BACK		5.55M	(18'-2 9/16")
HEIGHT BUILDING			
HEIGHT OF BUILDING TO AVERAGE GRADE (1.92)	N/A	10.33m	(33'-10 1/8")
OFF-STREET PARKING			
CHILDCARE			
GROUP 1			
30 MONTHS TO SCHOOL AGE (16 CHLD'N)	16		
REQUIRED: 1 EDUCATOR & 1 ASSISTANT = 2 EMPLOYEES	2		
GROUP 2-UNDER 36 MONTHS (12 CHLD'N)-	12		
STAFF REQUIRED: 1 INFANT EDUCATOR & 1 OTHER			
EDUCATOR & 1 ASSISTANT = 3 EMPLOYEES	3		
GROUP 3-UNDER 36 MONTHS (12 CHLD'N)-	12		
STAFF REQUIRED: 1 INFANT EDUCATOR & 1 OTHER			
EDUCATOR & 1 ASSISTANT = 3 EMPLOYEES	3		
GROUP 4			
30 MONTHS TO SCHOOL AGE (24 CHLD'N)	24		
REQUIRED: 1 EDUCATOR & 2 ASSISTANTS = 3 EMPLOYEES	3		
GROUP 5			
30 MONTHS TO SCHOOL AGE (24 CHLD'N)	24		
REQUIRED: 1 EDUCATOR & 2 ASSISTANTS = 3 EMPLOYEES	3		
MANAGER = 1 EMPLOYEE	1		
ADMINISTRATION ASSISTANT + RECEPTIONIST= 2 EMPLOYEE	2		
17 EMPLOYEESx0.75	12.75	13	
1 PER 10 CHILDREN (88) CHLD'N)	8.8	9	
OWNERS RESIDENCE	2	2	
TOTAL REQUIRED PARKING SPACES	24		
TOTAL PROVIDED PARKING SPACES		24	
BICYCLE STORAGE			
CLASS 1 LONG TERM SECURED BIKE LOCKERS			
1.25 SPACES PER DWELLING UNIT	2	4	
CLASS 2 SHORT TERM BICYCLE RACKS			
0.2 SPACES PER DWELLING UNIT	1	4	

PART 3-CHILDCARE LISCENSING REGULATION

GROUP CHILDCARE, 30 MONTHS-SCHOOL AGE-GROUP 1 -16 CHILDREN (MAIN FLOOR)				
3.7m² OF FLOOR AREA PER CHILD	REQUIRED		PROVIDED	
	3.70m²x16			
	59.2m²	(637.2 SF.)	72.9m²	(785.1 SF.)
GROUP CHILDCARE, INFANT-UNDER 36 MONTHS-GROUP 2- 12 CHILDREN (MAIN FLOOR)				
3.7m² OF FLOOR AREA PER CHILD	REQUIRED		PROVIDED	
	3.70m² x12			
	44.4m²	(477.9 SF.)	57.4m²	(618.8 SF.)
GROUP CHILDCARE, INFANT-UNDER 36 MONTHS-GROUP 3- 12 CHILDREN (MAIN FLOOR)				
3.7m² OF FLOOR AREA PER CHILD	REQUIRED		PROVIDED	
	3.70m²x12			
	44.4m²	(477.9 SF.)	45.5m²	(490.0 SF.)
GROUP CHILDCARE, 30 MONTHS-SCHOOL AGE-GROUP 4 -24 CHILDREN (MAIN FLOOR)				
3.7m² OF FLOOR AREA PER CHILD	REQUIRED		PROVIDED	
	3.70m²x24			
	88.8m²	(955.8 SF.)	94.1m²	(1013.0 SF.)
GROUP CHILDCARE, 30 MONTHS-SCHOOL AGE-GROUP 5 -24 CHILDREN (SECOND FLOOR)				
3.7m² OF FLOOR AREA PER CHILD	REQUIRED		PROVIDED	
	3.70m²x24			
	88.8m²	(955.8 SF.)	98.6m²	(1062.2 SF.)

OUTDOOR PLAY AREA				
6.0m² OF OUTDOOR PLAY AREA PER CHILD	CHILDREN	REQUIRED	PROVIDED	
GROUP 1- 3-5 YEARS OLD	16	16x6m² = 96m²	168.2m²	(1810.6 SF.)
GROUP 2-INFANT AND TODDLER-UNDER 36 MONTHS	12	12x6m² = 72m²	73.5m²	(792.0 SF.)
GROUP 3-INFANT AND TODDLER-UNDER 36 MONTHS	12	12x6m² = 72m²	73.5m²	(792.0 SF.)
GROUP 4- 3-5 YEARS OLD	24	24x6m² = 144m²	156.0m²	(1680.0 SF.)
GROUP 5- 3-5 YEARS OLD	24	24x6m² = 144m²	257.9m²	(2776.1 SF.)
TOTAL	88		TOTAL	
6.0m²x88	528m²	5683.3 SF.	729.1m²	(7847.9 SF.)



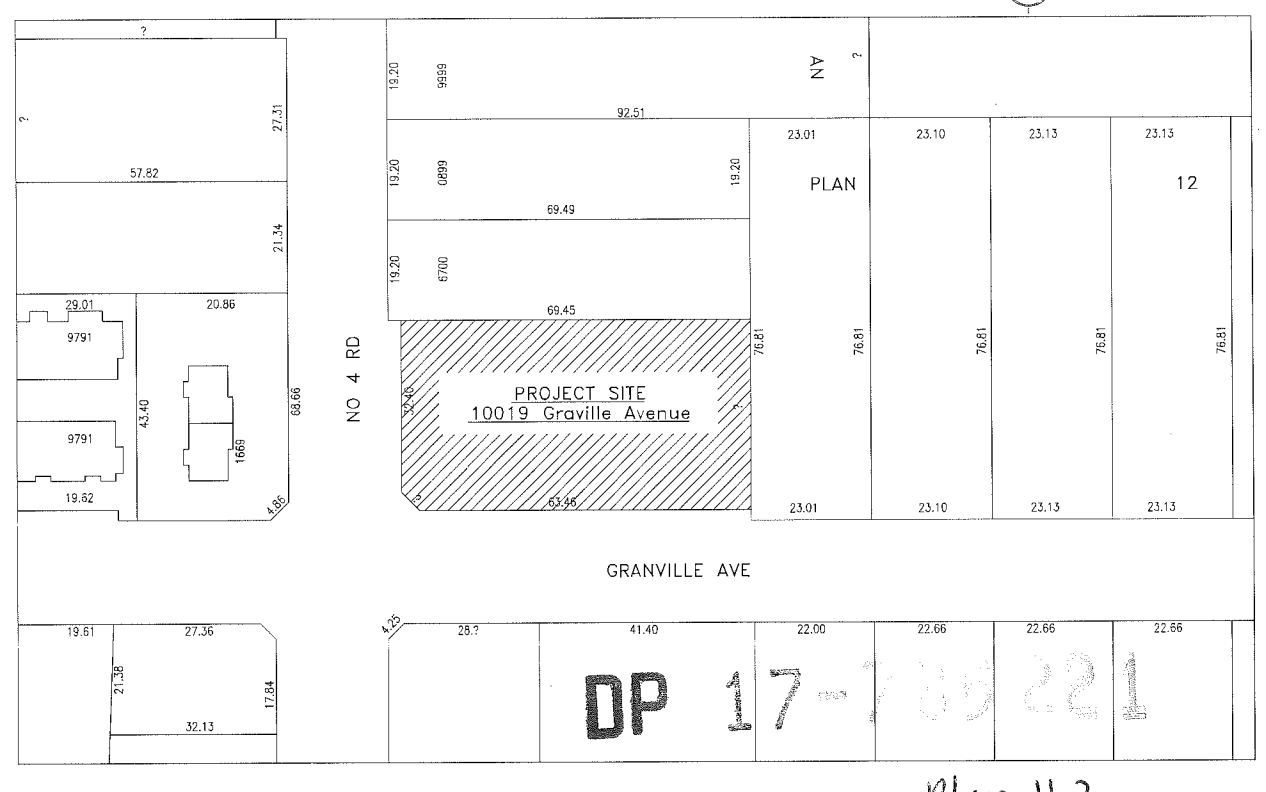
SITE CONTEXT PLAN
SCALE: 1/16" = 1'-0"

LEGAL DESCRIPTION

LOT 1, SEC 11, BLOCK 4 NORTH, RANGE 6 WEST, NWD, PL BCP20081. PID:026-483-734

AREAS:

CHILDCARE FACILITY	
MAIN FLOOR	7920.5sf.
SECOND FLOOR	2855.7sf.
TOTAL	10776.2sf.
OWNER'S RESIDENCE	
MAIN FLOOR	54.5sf.
SECOND FLOOR	2010.8sf.
TOTAL	2065.3sf.
TOTAL FLOOR AREA	12841.5sf.



Plan #2

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BP	ISSUED FOR BP	
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CONSULTANT

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ARCHITECTURE & ENGINEERING
#129-1200 West 73rd Ave. Vancouver, B.C. Canada V6P 6G5
Ph. 604-264-1450 Fax. 604-264-1462 Email cma@shawlink.ca

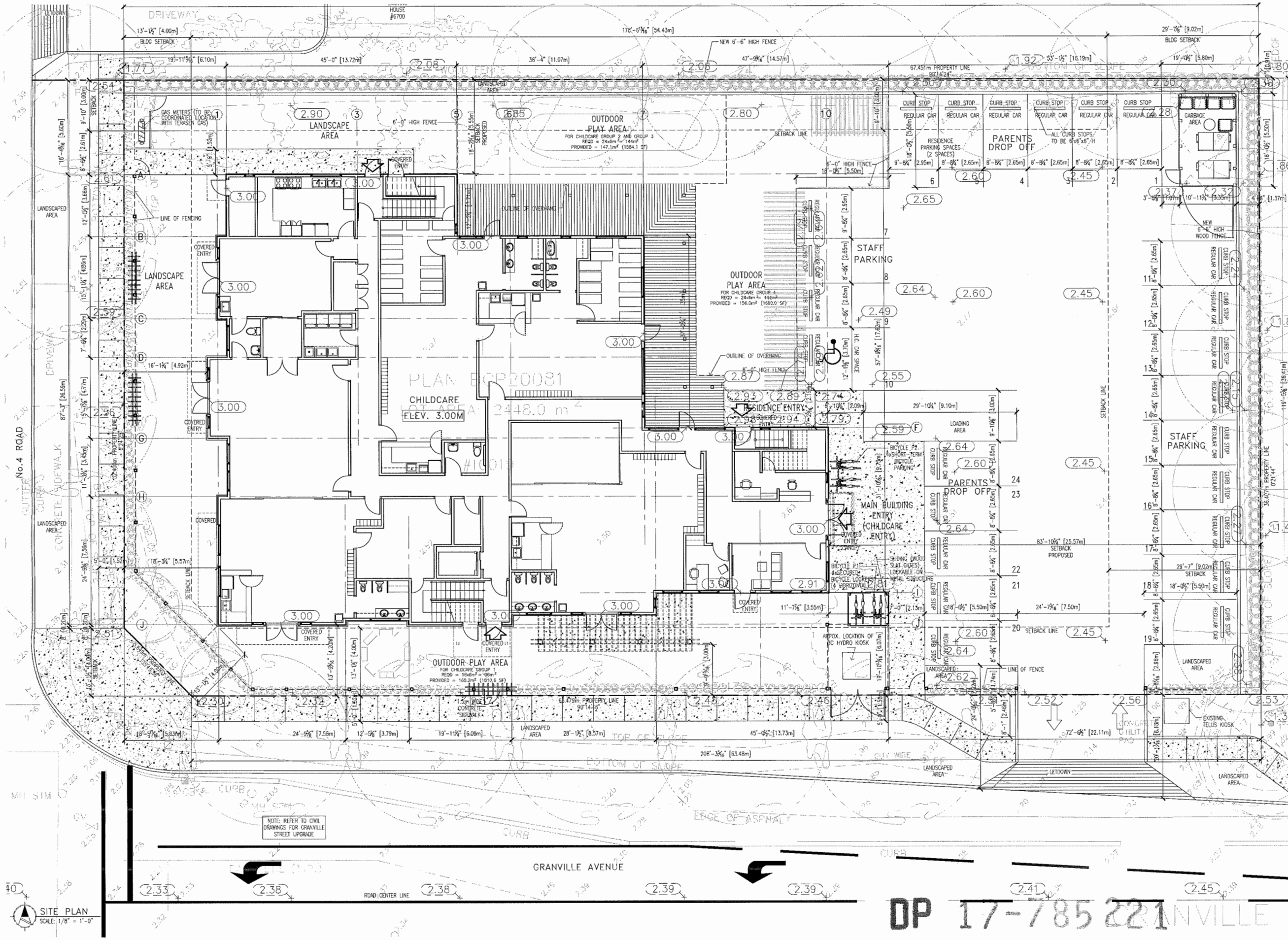
PROJECT:
PACIFIC STAR

10019 Granville Avenue
Richmond, B.C.

DRAWING TITLE:
SITE CONTEXT & ZONING RECONCILIATION

DRAWN: JC
DATE: JULY. 2016
SCALE: AS NOTED
PROJECT No: 216-148

A2
OF
REV.



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	ISSUED	DATE
DP	ISSUED FOR DP	
BP	ISSUED FOR BP	
IFC		

CONSULTANT

SHEET NOTES:
1. SURVEY NOTE:
THIS DRAWING HAS BEEN PREPARED BASED ON INFORMATION OBTAINED FROM A SURVEY PREPARED BY MASSON PECK & TOPLISS SURVEYORS & ENGINEERS CERTIFIED IN THE RICHMOND, BC AREA AND DATE NOVEMBER 2016. WHILE A REASONABLE EFFORT HAS BEEN MADE TO VERIFY THE INFORMATION IT REMAINS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL LOT DIMENSIONS AND TOPOGRAPHIC INFORMATION PRIOR TO START OF CONSTRUCTION. SHOULD ANY DISCREPANCIES BECOME EVIDENT NOTIFY THE ARCHITECT IMMEDIATELY.
2. FOR LANDSCAPED AREAS, REFER TO LANDSCAPE PLANS.
3. SITE ENTRY/EXIT GATES TO MATCH PERIMETER FENCE OF CARE FACILITY
4. DESIGN OF OFFSITE WORKS TO BE DETERMINED AND FINALIZED THROUGHOUT THE SERVICING AGREEMENT FOR FRONTAGE WORKS
5. REFER TO LANDSCAPE PLAN FOR PLANTING AND SPECIFICATIONS

CHERCOVER MASSIE & ASSOCIATES LTD.
ARCHITECTURE & ENGINEERING
#120 - 1200 West 73rd Ave, Vancouver, B.C. Canada V6P 6G5
Ph. 604-264-1450 Fax. 604-264-1462 Email cma@shawlink.ca

PROJECT:
PACIFIC STAR
10019 Granville Avenue
Richmond, B.C.

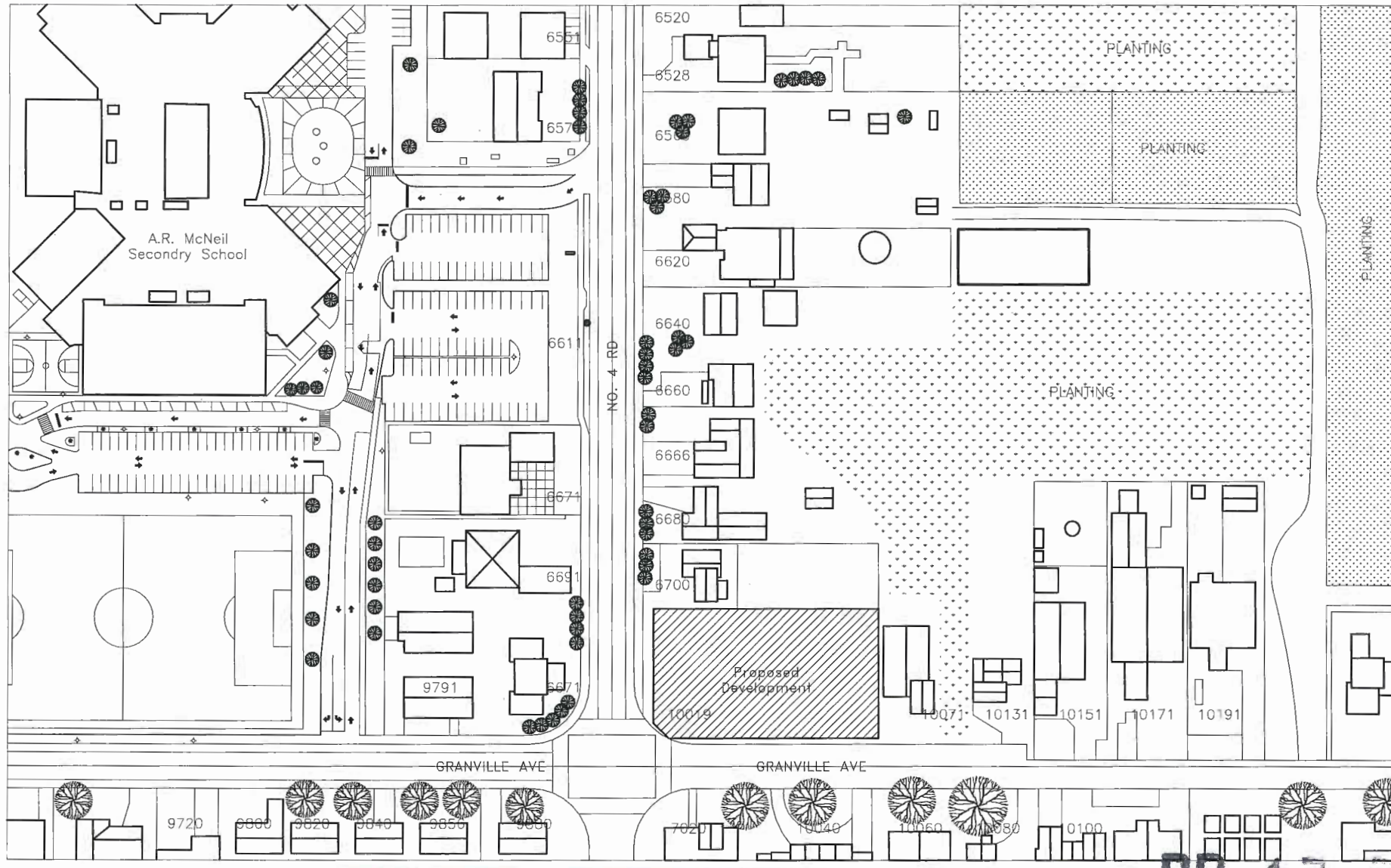
DRAWING TITLE:
SITE PLAN

DRAWN: JC
DATE: JULY. 2016
SCALE: AS NOTED
PROJECT No: 216-148

A3 OF
REV.

DP 17-785221

Plan #3



DP 17-785221

Plan #4

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REVISION	SUBJECT	DATE
1	ISSUED FOR DP REVISION	16 11 25

	ISSUED	DATE
DP	ISSUED FOR DP	
BP	ISSUED FOR BP	
IFC		

CONSULTANT

CHERCOVER MASSIE & ASSOCIATES LTD.
ARCHITECTURE & ENGINEERING
#120 - 1200 West 73rd Ave. Vancouver, B.C. Canada V6P 6G5
Ph. 604 - 264 - 1450 Fax. 604 - 264 - 1462 Email cma@shawlink.ca

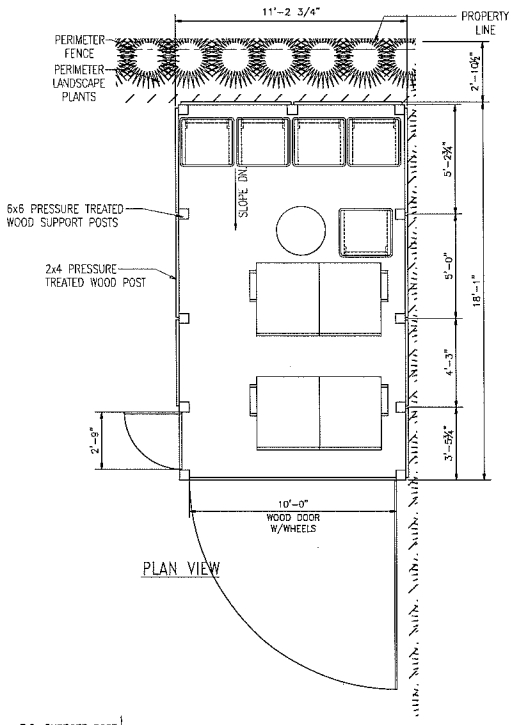
PROJECT:
PACIFIC STAR

10019 Granville Avenue
Richmond, B.C.

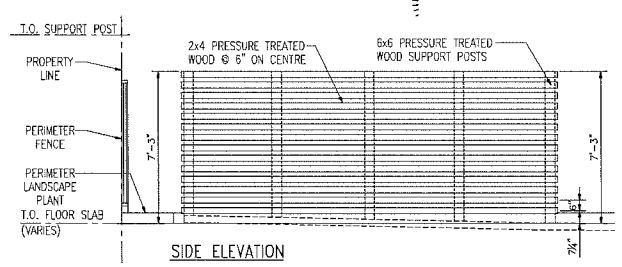
DRAWING TITLE:
STREET SCAPE
CONTEXT PLAN

DRAWN: JC
DATE: JULY. 2016
SCALE: AS NOTED
PROJECT No: 216-148

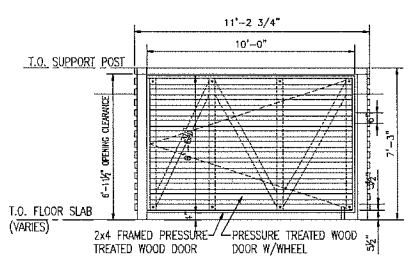
A4
OF
REV.



PLAN VIEW

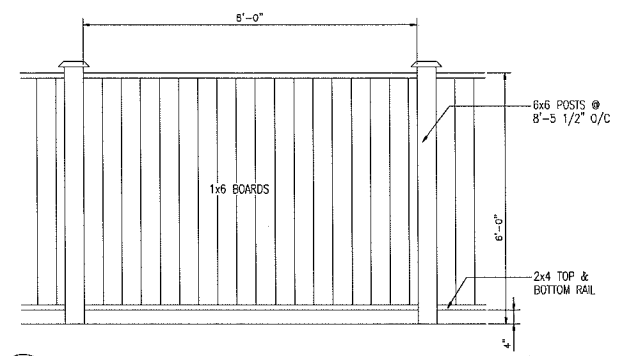


SIDE ELEVATION

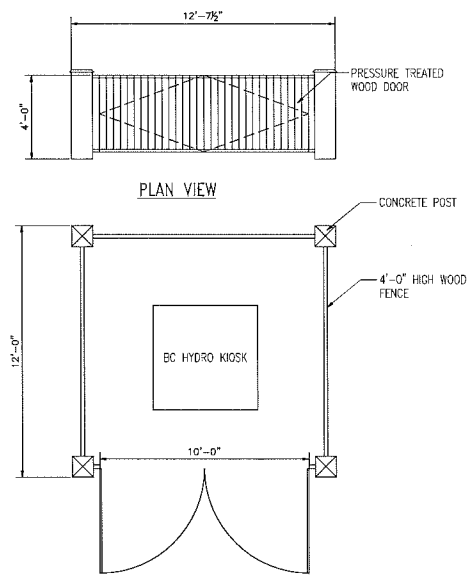


FRONT ELEVATION

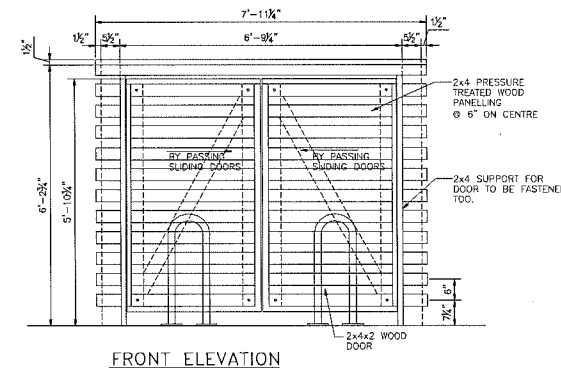
1 GARBAGE ENCLOSURE DETAIL
SCALE: 1/4" = 1'-0"



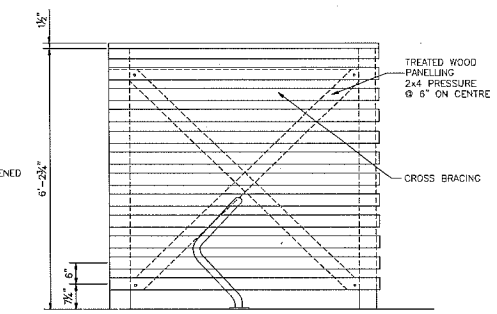
3 PERIMETER SOLID FENCE DETAILS (NORTH & EAST SITE BDRY)
SCALE: 1/2" = 1'-0"



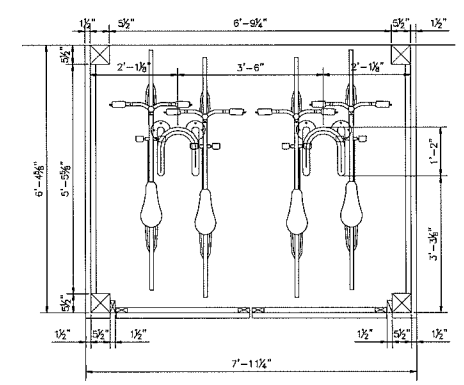
8 BC HYDRO PAD MOUNTED TRANSFORMER
SCALE: 1/4" = 1'-0"



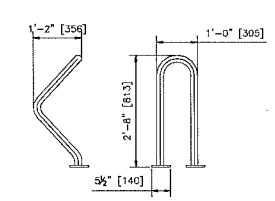
FRONT ELEVATION



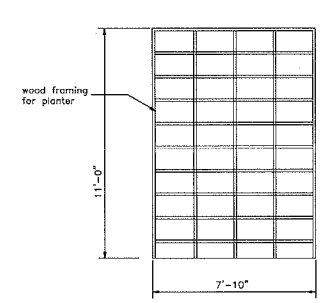
SIDE ELEVATION



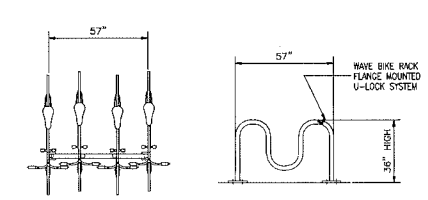
5 SECURED BICYCLE ENCLOSURE DETAIL
SCALE: 1/2" = 1'-0"



BICYCLE RACK DETAIL



9 GREEN WALL DETAIL
SCALE: 1/4" = 1'-0"



PLAN ELEVATION

7 BICYCLE RACK DETAIL
SCALE: 1/4" = 1'-0"

DP 17-785221

Plan #5

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REVISION	SUBJECT	DATE
1	ISSUED FOR DP REVISION	16 11 25

	ISSUED	DATE
DP	ISSUED FOR DP	
BP	ISSUED FOR BP	
IFC		

CONSULTANT

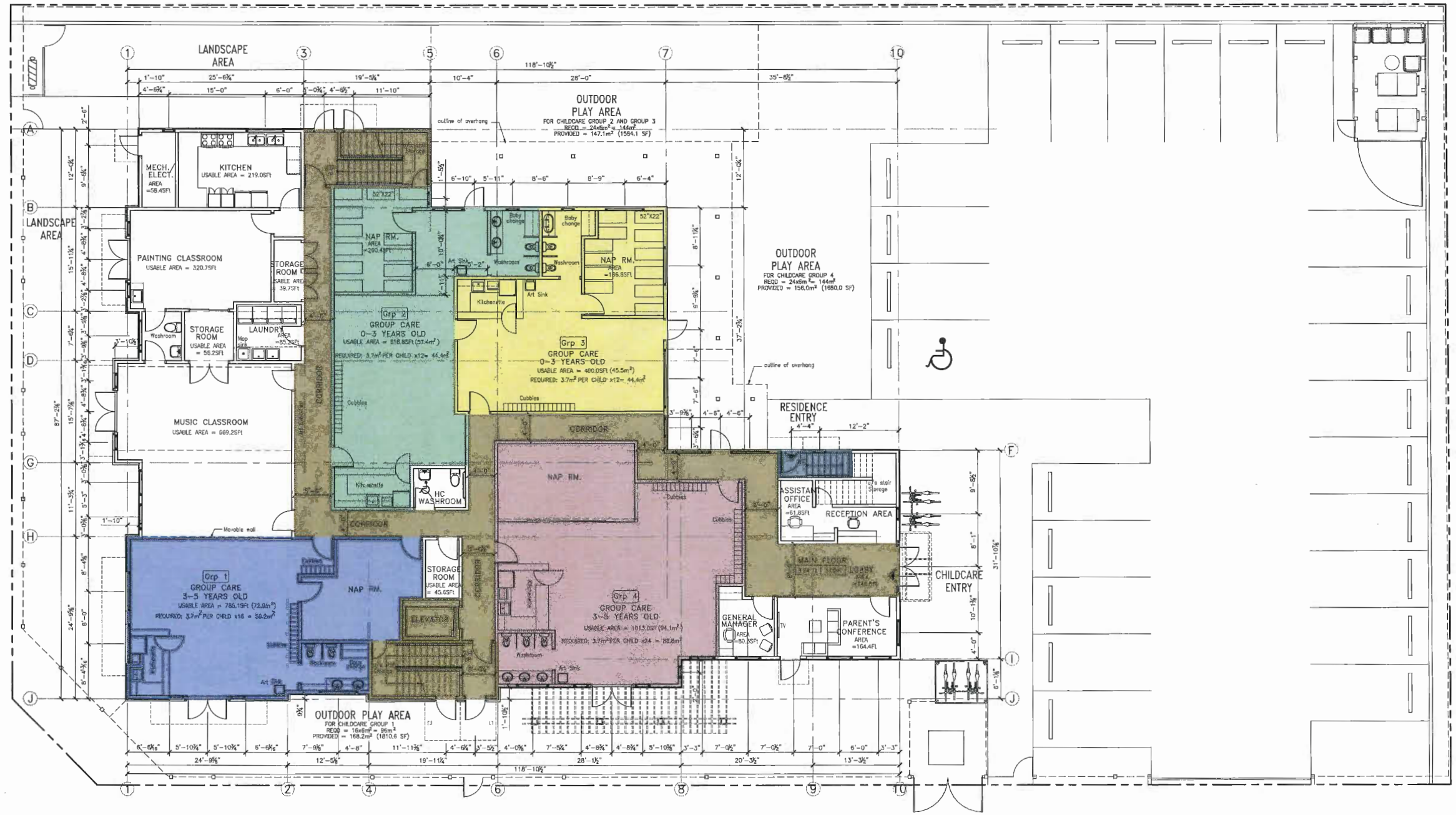
CHERCOVER MASSIE & ASSOCIATES LTD.
ARCHITECTURE & ENGINEERING
120 - 1200 West 73rd Ave. Vancouver, B.C. Canada V6P 6G5
Ph. 604 - 264 - 1450 Fax. 604 - 264 - 1462 Email cmai@shawlink.ca

PROJECT:
PACIFIC STAR

10019 Granville Avenue
Richmond, B.C.

DRAWING TITLE:
SITE DETAILS

DRAWN: JC	A5 OF
DATE: JULY. 2016	
SCALE: AS NOTED	
PROJECT No: 216-148	REV.



MAIN FLOOR PLAN
SCALE: 1/8" = 1'-0"

DP 17-795221

Plan #6

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REVISION	SUBJECT	DATE
1	ISSUED FOR DP REVISION	16 11 25

	ISSUED	DATE
DP	ISSUED FOR DP	
BP	ISSUED FOR BP	
IFC		

CONSULTANT

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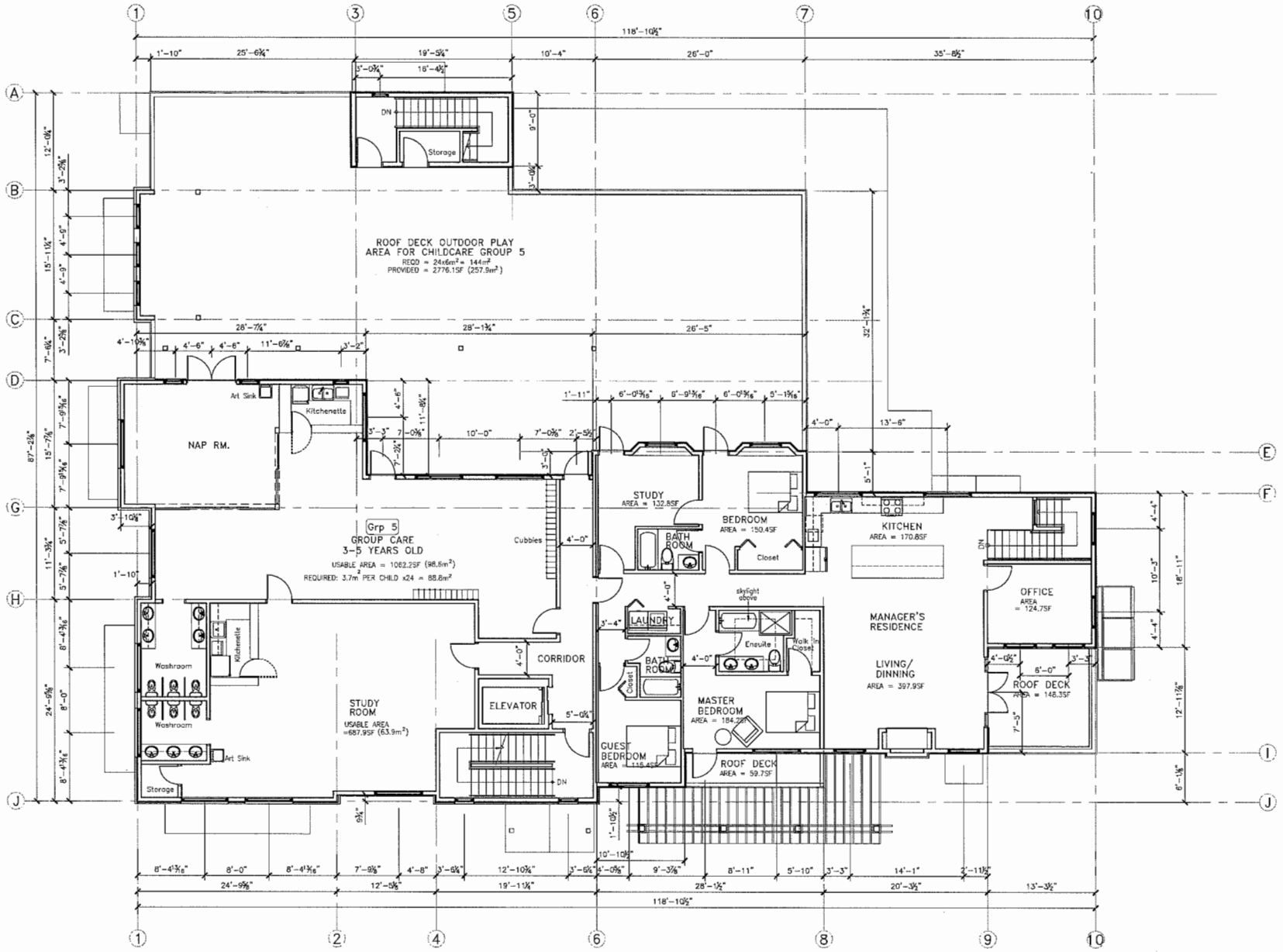
Ph. 604-264-1450 Fax. 604-264-1402 Email cma@shawlink.ca

PROJECT:
PACIFIC STAR

10019 Granville Avenue
Richmond, B.C.

DRAWING TITLE:
MAIN FLOOR PLAN

DRAWN: JC	A6 OF
DATE: JULY. 2016	
SCALE: AS NOTED	
PROJECT No: 216-148	REV.



2nd FLOOR PLAN
SCALE: 1/8" = 1'-0"

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REVISION	SUBJECT	DATE
1	ISSUED FOR DP REVISION	16 11 25

	ISSUED	DATE
DP	ISSUED FOR DP	
BP	ISSUED FOR BP	
IFC		

CONSULTANT

CHERCOVER MASSIE & ASSOCIATES LTD.
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Ph. 604 - 264 - 1450 Fax. 604 - 264 - 1452 Email cma@shawlink.ca

PROJECT:
PACIFIC STAR

10019 Granville Avenue
Richmond, B.C.

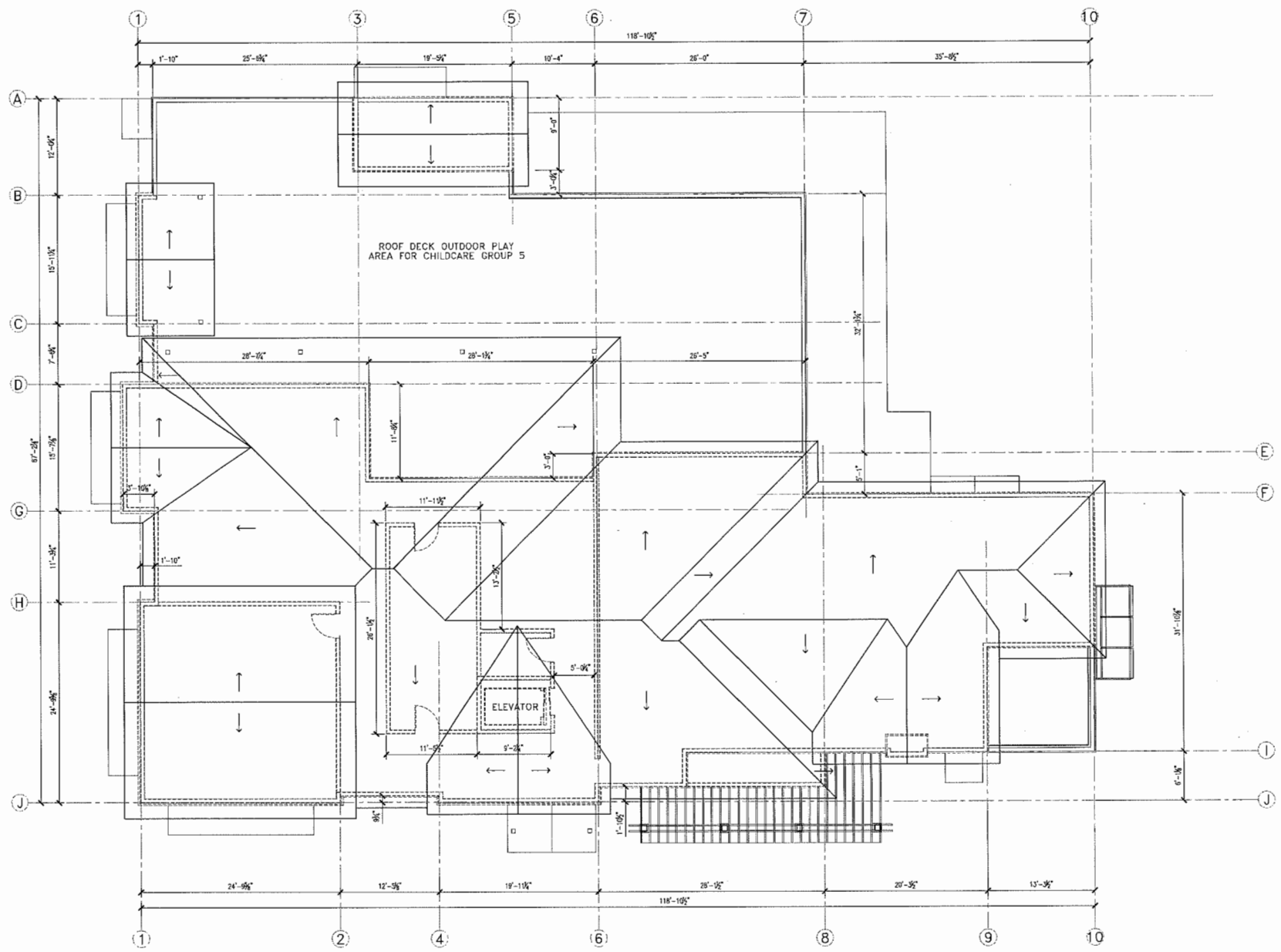
DRAWING TITLE:
2ND FLOOR PLAN

DRAWN: JC
DATE: JULY. 2016
SCALE: AS NOTED
PROJECT No: 216-148

A7
OF
REV.

DP 17-785221

Plan #7



ROOF PLAN
SCALE 1/8" = 1'-0"

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REVISION	SUBJECT	DATE
1	ISSUED FOR DP REVISION	16 11 25

	ISSUED	DATE
DP	ISSUED FOR DP	
BP	ISSUED FOR BP	
IFC		

CONSULTANT

CHERCOVER MASSIE & ASSOCIATES LTD.
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PROJECT:
PACIFIC STAR

10019 Granville Avenue
Richmond, B.C.

DRAWING TITLE:
ROOF PLAN

DRAWN: JC
DATE: JULY. 2016
SCALE: AS NOTED
PROJECT No: 216-148

A8
OF
REV.

DP 17-785221

Plan #8

SOUTH ELEVATION (GRANVILLE AVENUE)

SCALE: 3/16" = 1'-0"

WEST ELEVATION (No.4 ROAD)

SCALE: 3/16" = 1'-0"

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REVISION	SUBJECT	DATE
1	ISSUED FOR DP REVISION	16 11 25

	ISSUED	DATE
DP	ISSUED FOR DP	
BP	ISSUED FOR BP	
IFC		

CONSULTANT

MATERIAL/COLOR SELECTION

	BUILDING MATERIALS	FINISH	COLOUR
A	ASPHALT SHINGLES	INTEGRAL	ROYAL ESTATE HARVEST SLATE
B	HARDIESHINGLE SIDING	PAINTED	GENERAL PAINT VIGILANTE CL 1517N
C	HARDIESHINGLE SIDING	PAINTED	GENERAL PAINT PRAIRIE WHEAT CLC 1242D
D	HARDIEPANEL SIDING	INTEGRAL	IRON GRAY
E	HARDIEPLANK SIDING-HORIZONTAL	INTEGRAL	IRON GRAY
F	HARDIEPLNEL SIDING-BOARD & BATTEN	INTEGRAL	IRON GRAY & NAVAJO BEIGE
G	WOOD TRIM	PAINTED	GENERAL PAINT DEER FEATHER CLW 1047W
H	WOOD TRIM	PAINTED	GENERAL PAINT 1-COURTESAN CL 1367N 2-PRAIRIE WHEAT CLC 1242D 3-VIGILANTE CL 1517N 4-HOMORE CL 2187N 5-TRACING PAPER CL 2862W
I	TIMBER SLATS	PAINTED	GENERAL PAINT TRACING PAPER CL 2862W
J	METAL GUARDRAILS & FENCE	PAINTED	GENERAL PAINT TRACING PAPER CL 2862W
K	PRE FINISHED METAL AWNING	INTEGRAL	IRON MOUNTAIN GREY
L	OVERHANG	PAINTED	GENERAL PAINT DEER FEATHER CLW 1047W

NOTE:

FOR FENCING AND RELATED LANDSCAPE DETAILS REFER TO LANDSCAPE DRAWINGS.

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ARCHITECTURE & ENGINEERING
#120-1200 West 73rd Ave, Vancouver, B.C. Canada V6P 6G5
Ph. 604-264-1450 Fax. 604-264-1462 Email cma@shaw.ca

PROJECT:
PACIFIC STAR

10019 Granville Avenue
Richmond, B.C.

DRAWING TITLE:
ELEVATIONS

DRAWN: JC
DATE: JULY. 2016
SCALE: AS NOTED
PROJECT No: 216-148

A9
OF
REV.

DP 17-785221

Plan #9

NORTH ELEVATION
SCALE: 3/16" = 1'-0"

EAST ELEVATION
SCALE: 3/16" = 1'-0"

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REVISION	SUBJECT	DATE
1	ISSUED FOR DP REVISION	16 11 25

	ISSUED	DATE
DP	ISSUED FOR DP	
BP	ISSUED FOR BP	
IFC		

CONSULTANT

MATERIAL/COLOR SELECTION

	BUILDING MATERIALS	FINISH	COLOUR
A	ASPHALT SHINGLES	INTEGRAL	ROYAL ESTATE HARVEST SLATE
B	HARDIESHINGLE SIDING	PAINTED	GENERAL PAINT VIGILANTE CL 1517N
C	HARDIESHINGLE SIDING	PAINTED	GENERAL PAINT PRAIRIE WHEAT CLC 1242D
D	HARDIEPANEL SIDING	INTEGRAL	IRON GRAY
E	HARDIEPLANK SIDING-HORIZONTAL	INTEGRAL	IRON GRAY
F	HARDIEPLNEL SIDING-BOARD & BATTEN	INTEGRAL	IRON GRAY & NAVAJO BEIGE
G	WOOD TRIM	PAINTED	GENERAL PAINT DEER FEATHER CLW 1047W
H	WOOD TRIM	PAINTED	GENERAL PAINT 1-COURTESAN CL 1357N 2-PRAIRIE WHEAT CLC 1242D 3-VIGILANTE CL 1517N 4-HONDRE CL 2187N 5-TRACING PAPER CL 2862W
I	TIMBER SLATS	PAINTED	GENERAL PAINT TRACING PAPER CL 2862W
J	METAL GUARDRAILS & FENCE	PAINTED	GENERAL PAINT TRACING PAPER CL 2862W
K	PRE FINISHED METAL AWNING	INTEGRAL	IRON MOUNTAIN GREY
L	OVERHANG	PAINTED	GENERAL PAINT DEER FEATHER CLW 1047W

NOTE:

FOR FENCING AND RELATED LANDSCAPE DETAILS REFER TO LANDSCAPE DRAWINGS.

CHERCOVER MASSIE & ASSOCIATES LTD.
ARCHITECTURE & ENGINEERING
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Ph. 604-264-1450 Fax. 604-264-1462 Email cma@shawlink.ca

PROJECT:
PACIFIC STAR

10019 Granville Avenue
Richmond, B.C.

DRAWING TITLE:
ELEVATIONS

DRAWN: JC
DATE: JULY. 2016
SCALE: AS NOTED
PROJECT No: 216-148

A10
OF
REV.

DP 17-785221

Plan #10

DP 17-785221

Plan #11

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REVISION	SUBJECT	DATE
1	ISSUED FOR DP REVISION	16 11 25

	ISSUED	DATE
DP	ISSUED FOR DP	
BP	ISSUED FOR BP	
IFC		

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ARCHITECTURE & ENGINEERING
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PROJECT:
PACIFIC STAR

10019 Granville Avenue
Richmond, B.C.

DRAWING TITLE:
3D

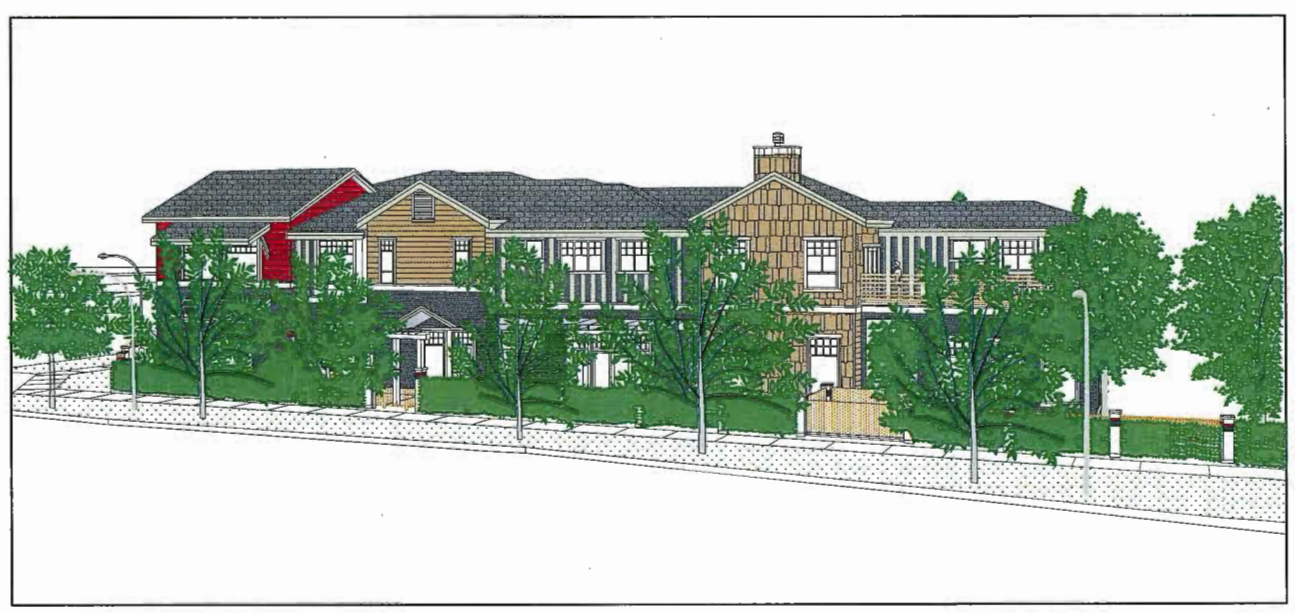
DRAWN: JC

DATE: JULY. 2016

SCALE: AS NOTED

PROJECT No: 216-148

A11
OF
REV.



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REVISION	SUBJECT	DATE
1	ISSUED FOR DP REVISION	16 11 25

	ISSUED	DATE
DP	ISSUED FOR DP	
BP	ISSUED FOR BP	
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Ph. 604 - 264 - 1450 Fax. 604 - 264 - 1462 Email cma@shaw.ca

PROJECT:
PACIFIC STAR

10019 Granville Avenue
Richmond, B.C.

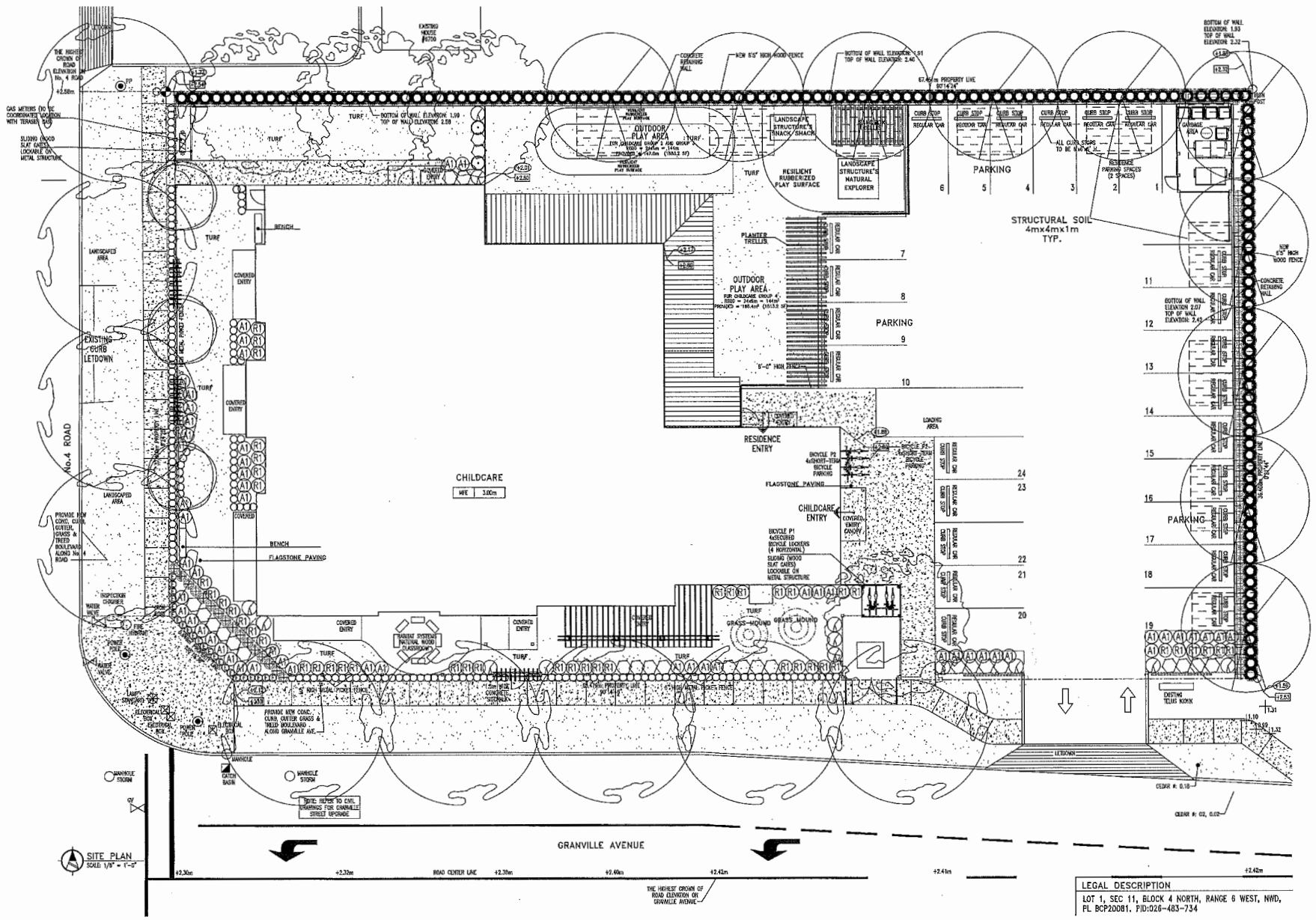
DRAWING TITLE:
3D

DRAWN: JC
DATE: JULY. 2016
SCALE: AS NOTED
PROJECT No: 216-148

A12
OF
REV.

DP 17-785221

Plan #12



PLANT LIST

KEY	BOTANICAL NAME	COMMON NAME	QTY.	SIZE	SPACING	REMARKS
	STREET TREE	SPECIES BY CITY OF RICHMOND	9	8 CM. CAL.	AS SHOWN	B. & B.
	ACER RUBRUM 'AUTUMN FLAME	AUTUMN FLAME MAPLE	4	8 CM. CAL.	AS SHOWN	B. & B.
	PRUNUS SERRULATTA AMANAGAWA	AMANAGAWA CHERRY	3	6 CM. CAL.	AS SHOWN	B. & B.
	ACER RUBRUM 'BOWHALL'	BOWHALL RED MAPLE	10	6 CM. CAL.	AS SHOWN	B. & B.
A1	AZALEA JAPONICA (VARIOUS)	AZALEA	49	#3 POT	90 CM. O.C.	
	ABELIA 'EDWARD GOWCHER'	EDWARD GOUCHER ABELIA	26	#3 POT	90 CM. O.C.	
	THUJA OCCIDENTALIS SMARAGD	EMERALD ARBORVITAE	160	1.00 METERS	45 CM. O.C.	
	HYDRANGEA MACROPHYLLA 'NIKKO BLUE'	HYDRANGEA	2	#3 POT	90 CM. O.C.	
R1	MEDIUM RHODODENDRON (VARIOUS)	RHODODENDRON	47	#3 POT	90 CM. O.C.	
	SYRINGA VULGARIS 'MICHEL BUCHNER'	LILAC	13	#3 POT	90 CM. O.C.	
	PRUNUS LAUROCERASUS 'OTTO LUYKEN'	OTTO LUYKEN LAUREL	64	#3 POT	90 CM. O.C.	
	THUJA OCCIDENTALIS 'SMARAGD'	EMERALD ARBORVITAE	146	1.00 METERS	65 M. O.C.	
	ERICA CARNEA 'MYRETOUN PINK	HEATHER	23	#1 POT	30 CM. O.C.	

LEGAL DESCRIPTION

LOT 1, SEC 11, BLOCK 4 NORTH, RANGE 6 WEST, NWD, PL BCP20081. PID:026-403-734

NOTES / GENERAL

1) PLANT SIZES IN THIS LIST ARE SPECIFIED ACCORDING TO BC LANDSCAPE STANDARD "LATEST EDITION". CONTAINER SIZES ARE SPECIFIED AS PER "CNTA STANDARDS".BOTH PLANT SIZE AND CONTAINER SIZE ARE THE MINIMUM ACCEPTABLE SIZES. SEARCH AND REVIEW MARKET PLANT MATERIAL AVAILABLE FOR OPTIONAL REVIEW BY "LANDSCAPE ARCHITECT" AT SOURCE OF SUPPLY. AREA OF SEARCH TO INCLUDE LOWER MAINLAND AND FRASER VALLEY. "SUBSTITUTIONS" MUST OBTAIN WRITTEN APPROVAL FROM THE "LANDSCAPE ARCHITECT" PRIOR TO MAKING ANY SUBSTITUTIONS TO SPECIFIED MATERIAL. UNAPPROVED SUBSTITUTIONS WILL BE REJECTED. ALLOW A MINIMUM OF FIVE WORKING DAYS PRIOR TO DELIVERY FOR REQUEST TO SUBSTITUTE. SUBSTITUTIONS ARE SUBJECT TO "B.C. LANDSCAPE STANDARD"

ALL PLANT MATERIAL MUST BE PROVIDED FROM CERTIFIED "DISEASE FREE" NURSERY. ALL PLANT MATERIAL MUST CONFORM TO THE LATEST EDITION OF THE "BC LANDSCAPE STANDARD". PROVIDE CERTIFICATION UPON REQUEST. ALL LANDSCAPING AND LANDSCAPE MATERIALS TO CONFORM TO THE LATEST EDITION OF THE BCNLA/BCSLA "LANDSCAPE STANDARDS"

2) MIN. GROWING MEDIUM DEPTHS OVER PREPARED SUBGRADE SHALL BE :

LAWN AREAS	450 mm
GROUND COVER AREAS	450 mm
SHRUB AREAS	450 mm
TREE PITS	300 mm AROUND ROOT BALL

3) GROWING MEDIUM SHALL HAVE PHYSICAL AND CHEMICAL PROPERTIES AS DESCRIBED IN THE STANDARDS FOR LEVEL 2 AND LEVEL 3 AREAS, EXCEPT FOR AREAS OVER STRUCTURES WHERE THE MEDIUM SHALL CONFORM TO THE REQUIREMENTS FOR LEVEL 1 APPLICATIONS. PROCESSING AND MIXING OF GROWING MEDIUM COMPONENTS SHALL BE DONE OFF-SITE USING A MECHANIZED SCREENING PROCESS. PROPOSED GROWING MEDIUM SHALL BE TESTED BY A RECOGNIZED LABORATORY. THE CONTRACTOR SHALL GUARANTEE THAT THE SOIL SUBMITTED FOR TESTING IS A REPRESENTATIVE SAMPLE TAKEN FROM THE SOIL THAT WILL BE USED AT THE SITE.

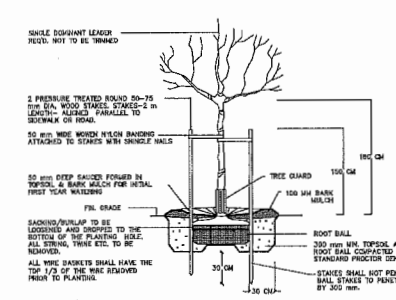
4) ON-SITE OR IMPORTED SOILS SHALL SATISFY THE REQUIREMENTS OF THE STANDARDS FOR GROWING MEDIUM. SOILS SHALL BE VIRTUALLY FREE FROM SUBSOIL, WOOD INCL. WOODY PLANT PARTS, WEED OR REPRODUCTIVE PARTS OF WEEDS, PLANT PATHOGENS CHEMICALS, TOXIC MATERIALS, STONES OVER 30 MM AND FOREIGN OBJECTS.

5) ALL PLANTING BEDS SHALL RECEIVE MIN. 50 MM BARK MULCH.

6) PLANT SPECIES AND VARIETIES MAY NOT BE SUBSTITUTED WITHOUT THE APPROVAL OF THE LANDSCAPE ARCHITECT.

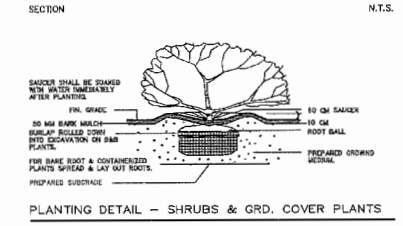
7) THE CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE (1) FULL YEAR FROM THE DATE OF FINAL ACCEPTANCE, UNLESS OTHERWISE SPECIFIED. ALL PLANT MATERIAL NOT SURVIVING, OR IN POOR CONDITION DURING THE GUARANTEE PERIOD SHALL BE REPLACED BY THE CONTRACTOR AT NO EXTRA COST TO THE OWNER.

8) THE CONTRACTOR SHALL CLEAR AWAY FROM THE SITE ALL RUBBISH AS IT ACCUMULATES, AND SHALL, AT THE COMPLETION OF THE WORK, LEAVE THE WORK AND THE SITE THEREOF IN A CLEAN AND PRESENTABLE CONDITION, FREE FROM ALL OBSTRUCTIONS.



TREE PLANTING DETAIL

SECTION N.T.S.



PLANTING DETAIL – SHRUBS & GRD. COVER PLANTS

SECTION N.T.S.

DATE	REMARKS	NO.
OCT/17	CITY OF RICHMOND COMMENTS	5
SEP/17	CITY OF RICHMOND COMMENTS	4
SEP/17	CITY OF RICHMOND COMMENTS	3
JULY/17	PLAY EQUIPMENT ADDED	2
FEB/17	CITY OF RICHMOND COMMENTS	1

REVISIONS

C.KAVOLINAS & ASSOCIATES INC.
BCSLA CSLA
2462 JONQUIL COURT
ABBOTSFORD, B.C.
V3G 3E8
PHONE (604) 857-2376

CLIENT

PACIFIC STAR
c/o JENNIFER CHEN
CHERCOVER MASSIE & ASSOCIATES
SUITE "120 – 1200 WEST 73rd AVENUE
VANCOUVER, B.C.
V6P 6G5
604-264-1450

TITLE

PLAN VIEW

LANDSCAPE PLAN
PACIFIC STAR
DAYCARE CENTRE
10019 GRANVILLE AVENUE
RICHMOND, B.C.

SCALE 1:150	DATE OCT/16
DRAFT	CHK'D
ENG.	CHK'D
APPR'D	AS BUILT

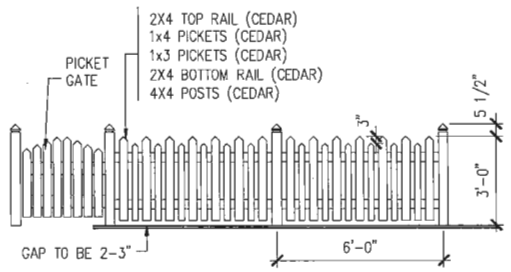
PRINTED

JOB No.

DRAWING No. L-1 (5)

DP 17-785221

Plan #13

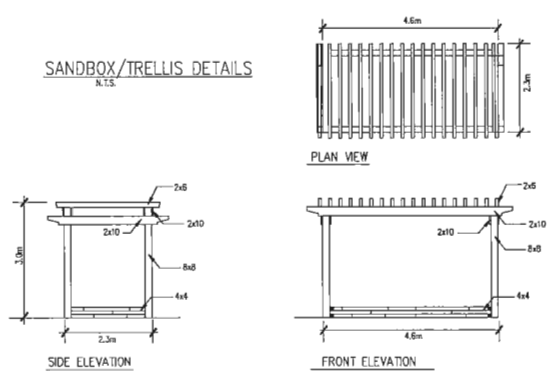


Posts to extend minimum of 1/2 into ground or anchored onto slab.

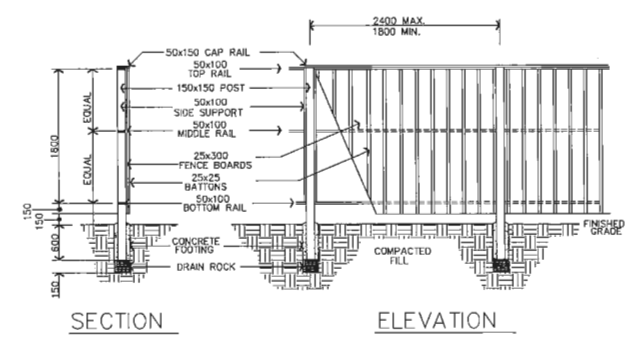
TYPICAL DETAIL FOR PICKET FENCE

HABITAT SYSTEMS NATURAL WOOD CLASSROOM

SANDBOX/TRELLIS DETAILS
N.T.S.

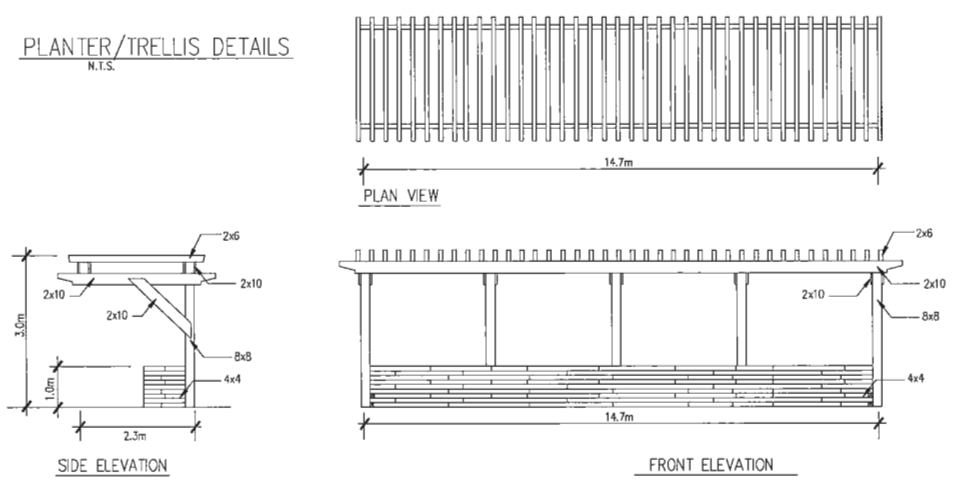


NEW 6'-0" HIGH WOOD FENCE
FENCE DETAIL
(DIMENSIONS IN mm)
N.T.S.



SECTION ELEVATION

PLANTER/TRELLIS DETAILS
N.T.S.



5' HIGH METAL PICKET FENCE

DATE	REMARKS	NO.
OCT/17	CITY OF RICHMOND COMMENTS	5
SEP/17	CITY OF RICHMOND COMMENTS	4
SEP/17	CITY OF RICHMOND COMMENTS	3
JULY/17	PLAY EQUIPMENT ADDED	2
FEB/17	CITY OF RICHMOND COMMENTS	1

REVISIONS

C.KAVOLINAS & ASSOCIATES INC.
BCSLA CSLA

2462 JONQUIL COURT
ABBOTSFORD, B.C.
V3G 3E8

PHONE (604) 857-2378

CLIENT

PACIFIC STAR
c/o JENNIFER CHEN

CHERCOVER MASSIE & ASSOCIATES
SUITE 1120 – 1200 WEST 73rd AVENUE
VANCOUVER, B.C.
V6P 6G5

604-264-1450

TITLE

PLAN VIEW

LANDSCAPE DETAILS
PACIFIC STAR
DAYCARE CENTRE
10019 GRANVILLE AVENUE
RICHMOND, B.C.

SCALE N.T.S.	DATE OCT/16
DRAFT	CHK'D
ENG.	CHK'D
APPV'D	AS BUILT

PRINTED

JOB No.

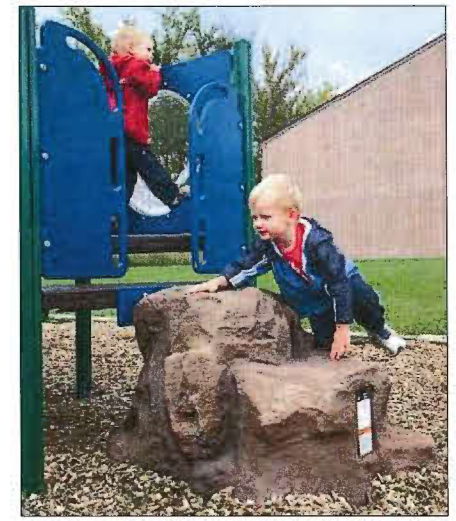
DRAWING No. L-1A 5

DP 17-[illegible]

Plan # 14

LOG STEPPERS

LOG BEAM



NATURAL EXPLORER

MUSHROOM STEPPERS

LOG CRAWL

DP 17-785221

DATE	REMARKS	NO.
OCT/17	CITY OF RICHMOND COMMENTS	5
SEP/17	CITY OF RICHMOND COMMENTS	4
SEP/17	CITY OF RICHMOND COMMENTS	3
JULY/17	PLAY EQUIPMENT ADDED	2
FEB/17	CITY OF RICHMOND COMMENTS	1

REVISIONS

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V3G 3E8

PHONE (604) 857-2376

CLIENT

PACIFIC STAR
c/o JENNIFER CHEN

CHERCOVER MASSIE & ASSOCIATES
SUITE 1120 – 1200 WEST 73rd AVENUE
VANCOUVER, B.C.
V6P 6G5

604-264-1450

TITLE

PLAN VIEW

LANDSCAPE DETAILS
PACIFIC STAR
DAYCARE CENTRE

10019 GRANVILLE AVENUE
RICHMOND, B.C.

SCALE N.T.S.	DATE OCT/16
DRAFT	CHK'D
ENG.	CHK'D
APPR'D	AS BUILT

PRINTED	JOB No.
	DRAWING No. L-1B (5)

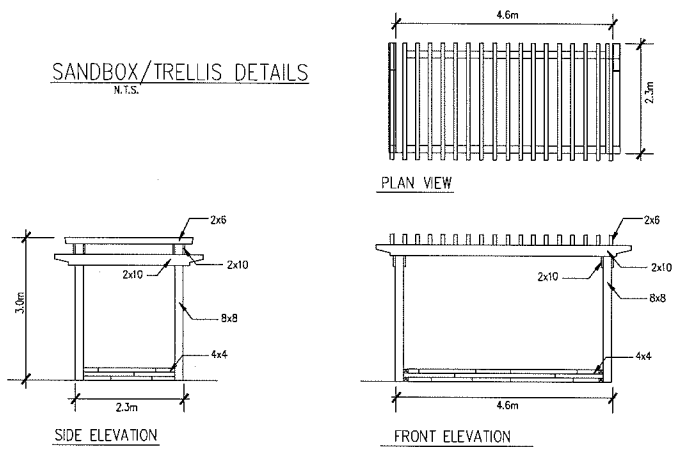
Plan #15

PLANT LIST

KEY	BOTANICAL NAME	COMMON NAME	QTY.	SIZE	SPACING	REMARKS
	ACER PALMATUM OSAKAZUKI	GREEN JAPANESE MAPLE	3	2.50 METERS	AS SHOWN	B. & B.
	ABELIA 'EDWARD GOWCHER'	EDWARD GOUCHER ABELIA	4	#3 POT	90 CM. O.C.	
E	ECHINACEA PURPUREA	PURPLE CONE FLOWER	11	#3 POT	45 CM. O.C.	
C	CALAMAGROSTIS ACUTIFLORA 'KARL FOSTER'	FEATHER REED GRASS	11	#3 POT	45 CM. O.C.	

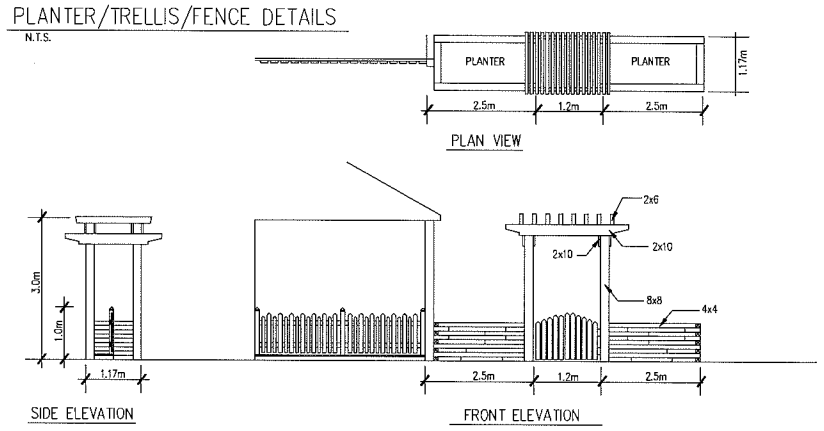
SANDBOX/TRELLIS DETAILS

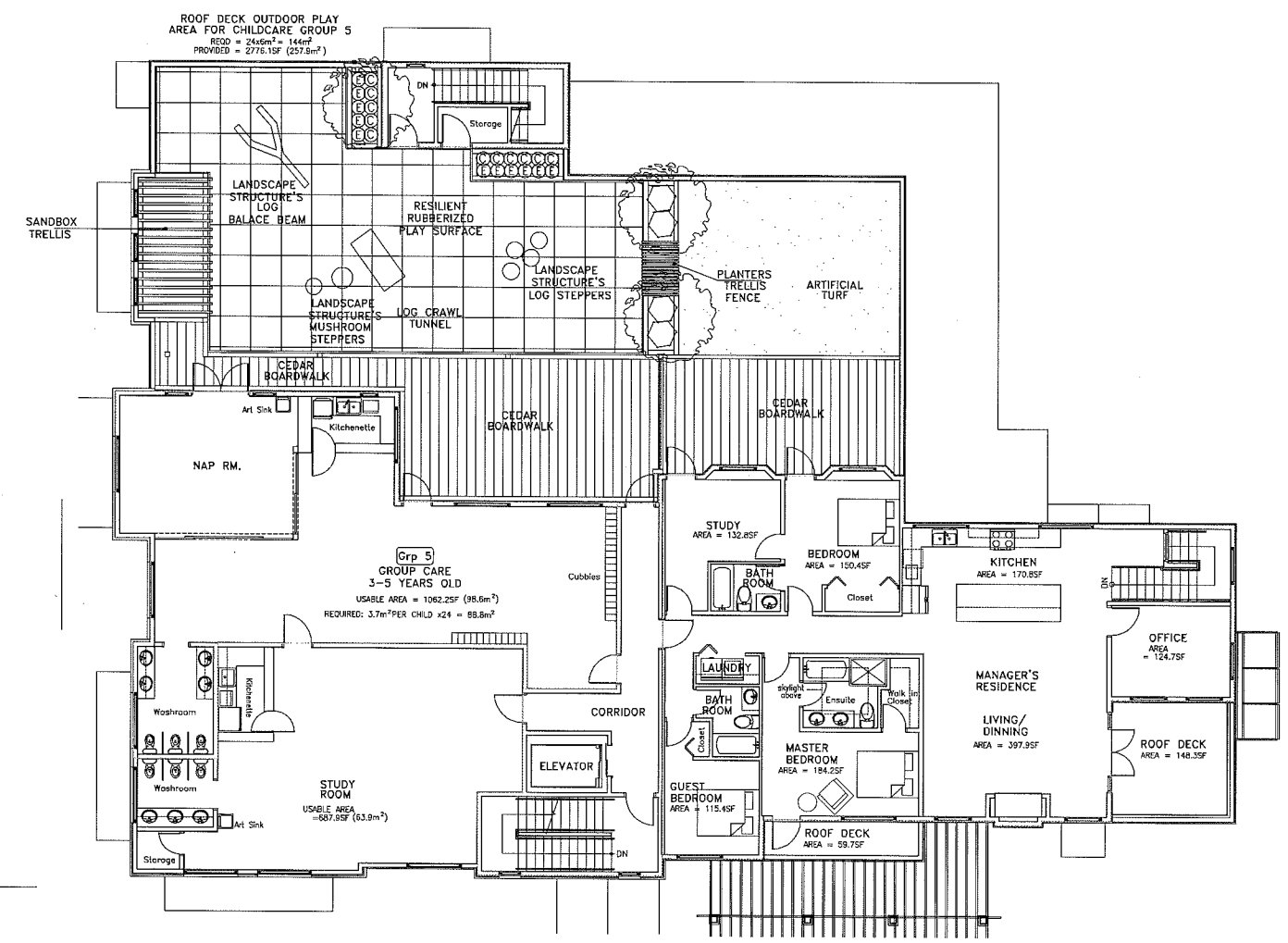
N.T.S.



PLANTER/TRELLIS/FENCE DETAILS

N.T.S.





DP 17-785221

DATE	REMARKS	NO.
OCT/17	CITY OF RICHMOND COMMENTS	5
SEP/17	CITY OF RICHMOND COMMENTS	4
SEP/17	CITY OF RICHMOND COMMENTS	3
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CLIENT

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SUITE 1120 – 1200 WEST 73rd AVENUE
VANCOUVER, B.C.
V6P 6G5

604-264-1450

TITLE

PLAN VIEW

LANDSCAPE PLAN
2nd FLOOR
PACIFIC STAR DAYCARE
10019 GRANVILLE AVENUE
RICHMOND, B.C.

SCALE	1:100	DATE	OCT/16
DRAW'T		CHK'D	
ENG.		CHK'D	
APPR'D		AS BUILT	

PRINTED	JOB No.	
	DRAWING No.	L-2

Plan # 16

City of Richmond

Report to Development Permit Panel

To:	Development Permit Panel	**Date:**	October 5, 2017
From:	Wayne Craig Director, Development	**File:**	DP 15-700370
Re:	**Application by Sian Group Investments (0846930 BC Ltd.) for a General Compliance to Development Permit (DP 15-700370) at 9560 Alexandra Road**		

Staff Recommendation

That the attached plans involving changes to the design of the perimeter retaining wall and associated landscaping features along the western property boundary and adjacent to the east-west greenway at the north end of the subject site be considered to be in General Compliance with Development Permit (DP 15-700370).

Wayne Craig
Director, Development

DCB:blg
Att. 4

Staff Report

Origin

Sian Group Investments (0846930 BC Ltd.) has requested a General Compliance ruling regarding perimeter landscaping changes to Development Permit (DP 15-700370) issued on July 11, 2016, for 20 three-storey townhouse units at 9560 Alexandra Road. This Development Permit was endorsed by the Development Permit Panel at its meeting held on April 27, 2016. The rezoning for the project (RZ 14-669511) was adopted by Council on July 11, 2016.

The General Compliance is necessitated due to ongoing grade and greenway/park design changes being made by the City's Parks Department to the May Drive greenway which runs along the property immediately to the west of the subject lot (9540 Alexandra Road) and across the northern 20 m of the subject property within a Statutory Right of Way (SRW) with Public Rights-of-Passage (PROP).

Background

Development surrounding the subject site is as follows:

To the north: A large 1.37 ha. lot (9500 Tomicki Avenue) owned and under development by Polygon Development into two four-storey wood frame residential apartment buildings over a single level parkade. The development will contain 263 dwelling units. (RZ 16-734204 adopted June 26, 2017).

To the east: A 4 acre lot under redevelopment to construct 96 three-storey townhouse units on a site zoned "Town Housing (ZT67)" (RZ 13-649999 adopted June 22, 2015).

To the south: Alderbridge Way and the Garden City Lands (55.18 ha zoned "AG1").

To the west: Two City-owned park/trail lots (future May Drive greenway), the future alignment for the extension of May Drive and a 2.8 ha. (7 ac.) lot owned by First Richmond North Shopping Centres Ltd., which will include a new Walmart outlet. The shopping centre lot is currently under construction and is zoned "Neighbourhood Commercial (ZC32) – West Cambie Area".

Staff Comments

The proposed changes to the scheme attached to this report are in General Compliance with the original Development Permit considered by the Development Permit Panel (Attachment 2). In addition, the modified proposal (Attachment 3) complies with the intent of the applicable sections of the Official Community Plan (OCP) and is generally in compliance with the "Town Housing (ZT67) – Alexandra Neighbourhood (West Cambie)" zone.

Approved Landscape Features Affected at the Subject Site

Under the approved Development Permit plans, a series of structures and landscape features are required to provide an acceptable visual interface between the higher grade elevations of the development site and the lower grade elevations of the adjacent greenway. These include the following:

- A 0.6 m high wood retaining wall along the majority of the west property line and a second 0.6 m high wood retaining wall setback approximately 0.7 m (2.3 ft.) from the west property line and screened with planting in the lower terrace. A similar terraced wall is to be placed along the northern interface with the east-west portion of the greenway.

- A 12 m wide section of vertical retaining wall constructed with a mix of stone face lock blocks and utility grade lock blocks was to be located adjacent to the northwest visitor parking space and drive aisle end for structural support.

- A guardrail height picket fence (approximately 1.07 m high) is to be located adjacent to the walkway in front of the amenity area and buildings 2 and 3. A 1.2 m high fence is to be located in front of buildings 1 and 4.

Under the approved plans, the development's internal walkway would not have any direct connection to the May Drive greenway. All of these structures and landscape features are shown in Attachment 2.

Grade Changes to the May Drive Greenway

In order to retain as many of the existing, mature coniferous trees as possible, the objectives were to avoid changing the grade of the May Drive greenway as little as possible and to introduce storm drainage to protect the long term health of the trees. After development of the surrounding roadways and the adjacent development properties, the greenway is substantially lower at between 0.49 m and 0.96 m GSC. Excessive rains in the past year, a high water table and poor drainage conditions within the May Drive greenway resulted in the remaining trees dying and needing to be removed by Parks Department staff for health and safety reasons.

To prevent a similar situation from occurring in the future with any replacement tree planting, the Parks Department has been working to bring in clean soil fill to raise the May Drive greenway site up to approximately the same elevation as the adjacent lands. A storm drainage system will also be installed once the greenway is fully constructed. Along the property boundary with the subject property at 9560 Alexandra Road, the greenway will be raised to approximately 1.99 m GSC (6.52 ft.).

Parks Department staff have prepared a preliminary plan for the greenway (Attachment 4) which they anticipate implementing in 2018, after the site has been raised. In the interim, the greenway will be grass seeded. Given the grade changes to the greenway, the greenway design proposes three pathway connections to the development site at 9560 Alexandra Road if the terraced retaining wall structures can be removed and the interface area raised to match the proposed future grade of the greenway and the development site. Should the terraced retaining wall not be filled in there is a significant likelihood that it will accumulate water and drowning any vegetation in the lower level of the retaining structure.

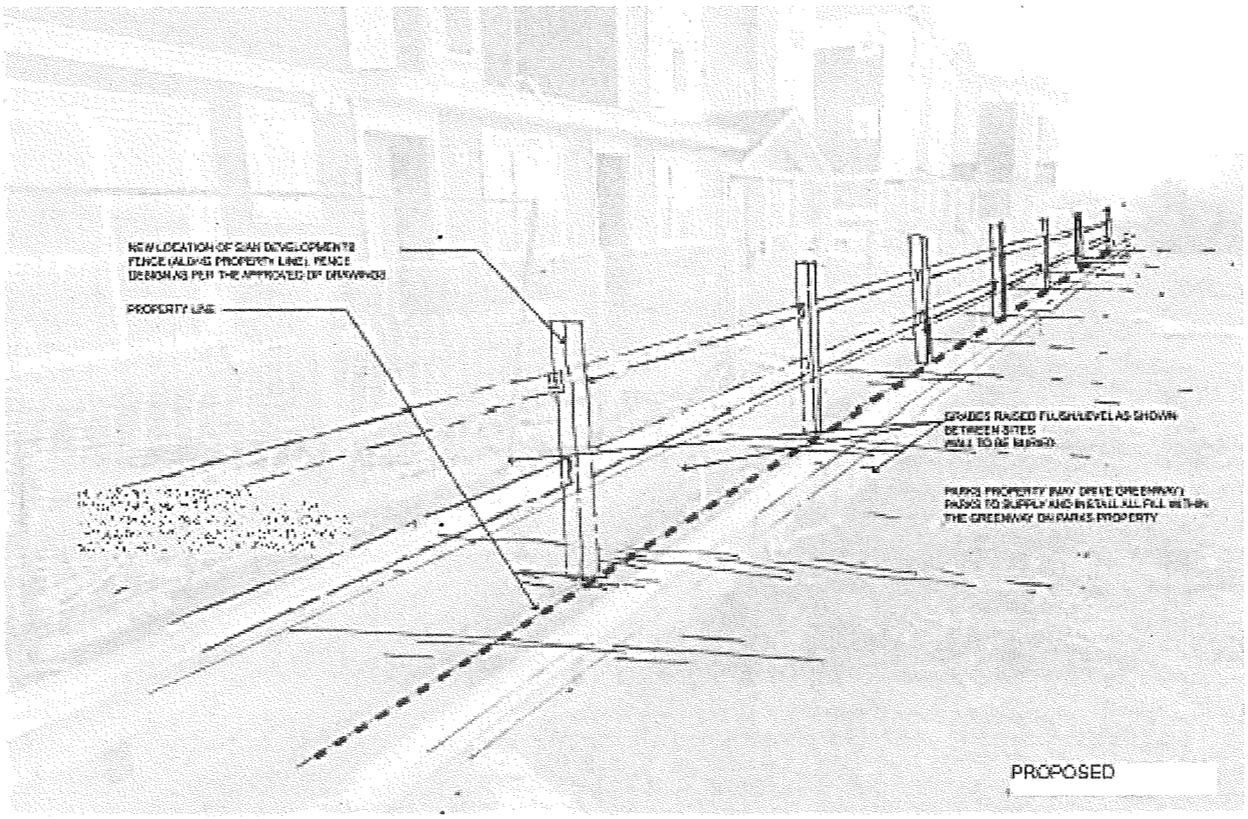
Proposed Changes to the Subject Site's Landscape Features

In consultation with City staff, the developer of the subject site (9560 Alexandra Road) prepared the plans (Attachment 3) submitted for this General Compliance request that, if approved, will result in a number of modifications to the landscape features at the interface with the adjacent greenway. The main objective of these modifications is to remove the previously approved terraced retaining wall and fill in the grade at the interface between the subject site and the adjacent greenway so that there will be a level transition between the two properties.

The modifications proposed as part of the General Compliance request are as follows:

1. Removal/burying of the terraced wood retaining wall along both the western and northern sides of the site adjacent to the City's greenway (the plan is to remove the top two beams from the taller retaining wall and to bury the lower retaining wall entirely).
2. Removal of the top one or two layers of the vertical concrete block retaining wall adjacent to the parking space and the road end.
3. The lower terrace and the area with the concrete blocks removed would be filled in up to the grade of the overall development and the proposed future grade of the adjacent May Drive greenway.
4. The stepped back guardrail picket fencing will be relocated to the western property boundary.
5. The stepped back fencing north of building one would be relocated to the boundary with the 20 m wide greenway across the north end of the site.
6. A narrow vegetation strip would be installed on the subject property adjacent to the relocated guardrail picket fence along the western property boundary.
7. The pedestrian walkway in front of the amenity area and buildings 2 and 3 would be shifted westward adjacent to the relocated picket fence and the associated vegetation strip.
8. Moving the fencing and pedestrian walkway outward will result in slightly larger rear yard spaces for the amenity area and units in buildings 1, 2 and 3.
9. Three new pedestrian connections will be added between the subject property and future walkways planned within the May Drive greenway; one located at the road end; one located near the amenity building and one adjacent to the gap between buildings 2 and 3. Gates will be added at each of these locations.
10. Refinement of the landscape shrub and groundcover selections to accommodate the proposed interface changes. No changes are proposed to the originally approved tree selections/quantities.

The proposed changes are highlighted in Attachment 3 plans. A visual characterization of the change is provided in the diagrams below.


NEW LOCATION OF SIAN DEVELOPMENTS FENCE (ALONG PROPERTY LINE). FENCE DESIGN AS PER THE APPROVED DP DRAWINGS
PROPERTY LINE
GRADES RAISED FLUSH/LEVEL AS SHOWN BETWEEN SITES (WILL TO BE MARKED)
PARKS PROPERTY (WAY DRIVE GREENWAY) PARKS TO SUPPLY AND INSTALL ALL FILL WITHIN THE GREENWAY ON PARKS PROPERTY
PROPOSED

Analysis

The existing terraced retaining wall was intended to provide a softer transition to, and better interface with the adjacent greenway, and was in response to comments by Development Permit Panel (DPP meeting April 13, 2016) which was concerned with the visual abruptness of the grade changes between the greenway and the subject site. With the filling of the greenway site by the Parks Department, the need for the retaining wall structures is negated from both a structural perspective and a visual impact perspective. Removal of the retaining wall affords several improvements to both the greenway and the subject site. Notably:

- It allows for new 'at grade' pedestrian connections from the development to the greenway.
- Residents would now not have to go outside their property to get to the greenway.
- It will result in a better visual interface by removing/burying the retaining wall structure entirely.
- It allows for slightly expanded backyard space for three of the subject site's townhouse buildings and its amenity space, as the subject site's walkway and landscaping shift westward.
- It eliminates the potential for water pooling within the lower terrace level of the retaining wall structure a concern if these structures are now retained.

Conclusions

Sian Group Investments (0846930 BC Ltd.) has requested a General Compliance ruling for proposed changes to the interface conditions with the adjacent May Drive greenway at 9540 Alexandra Road which is currently in the process of being raised by the City Parks Department to alleviate water accumulation concerns and improve the growing conditions for trees to be planted within the greenway.

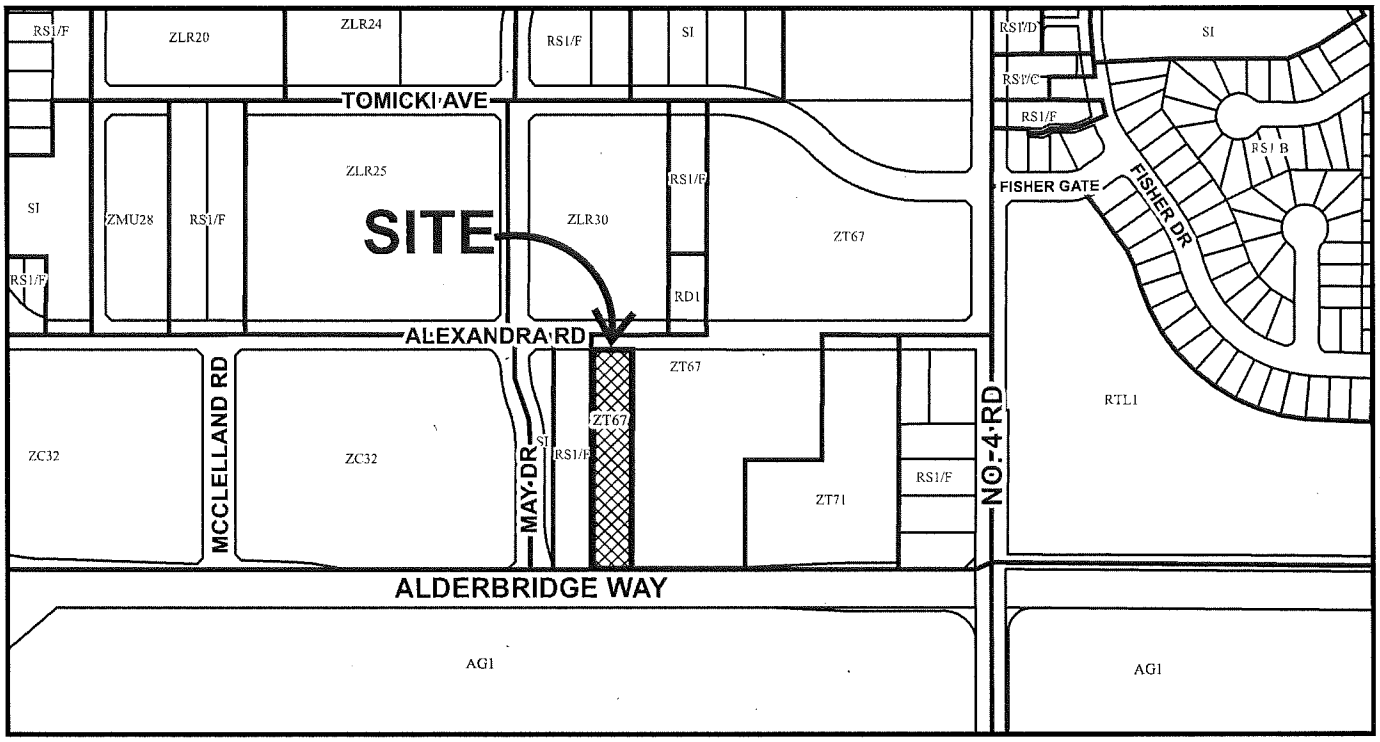
The proposed modifications identified in this report are within the scope of the General Compliance Guidelines as adopted by Council. Staff have no objection to the proposed revisions. Staff recommend support of this General Compliance request for the proposed changes to the approved Development Permit.

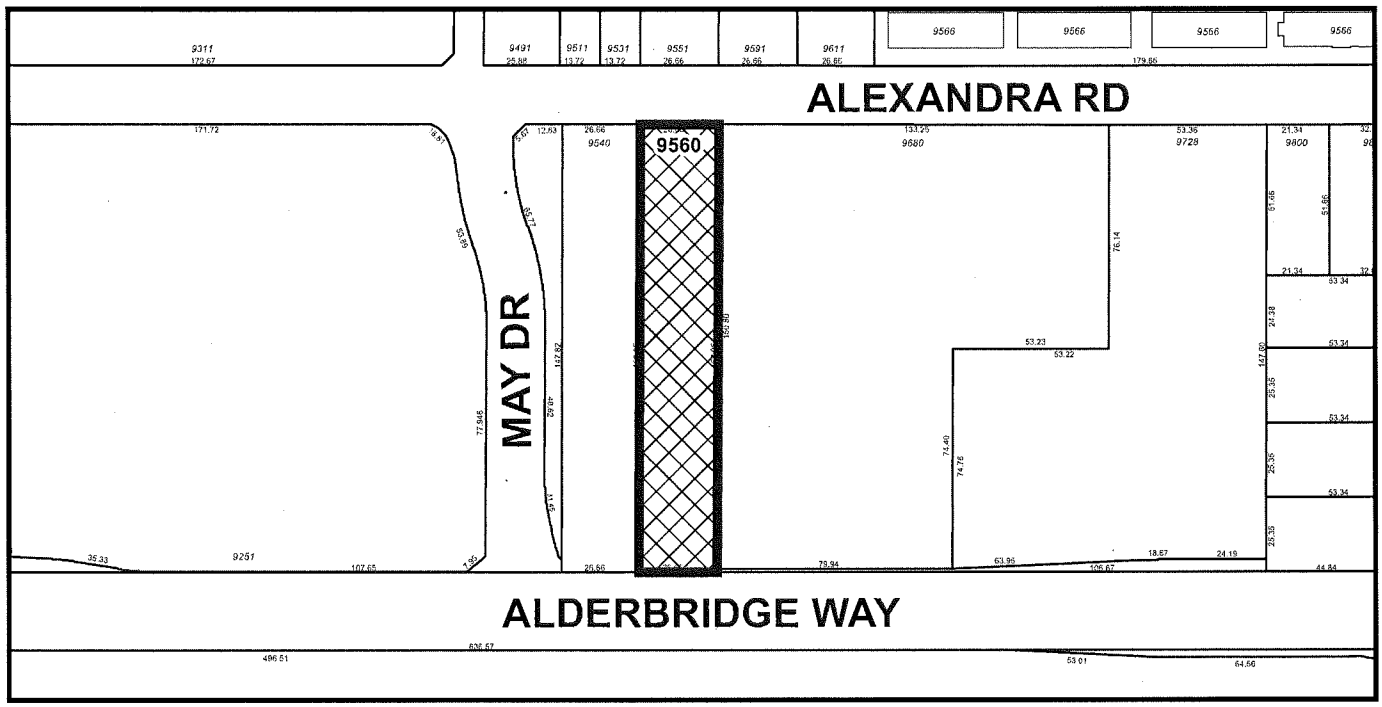
David Brownlee
Planner 2
(604-276-4200)

DCB:blg
Attachment 1: Context Map
Attachment 2: Relevant Approved Development Permit Plans
Attachment 3: Proposed Modifications to the Development Permit Plans
Attachment 4: Parks Department Plans for the May Drive Greenway

ATTACHMENT 1

City of Richmond



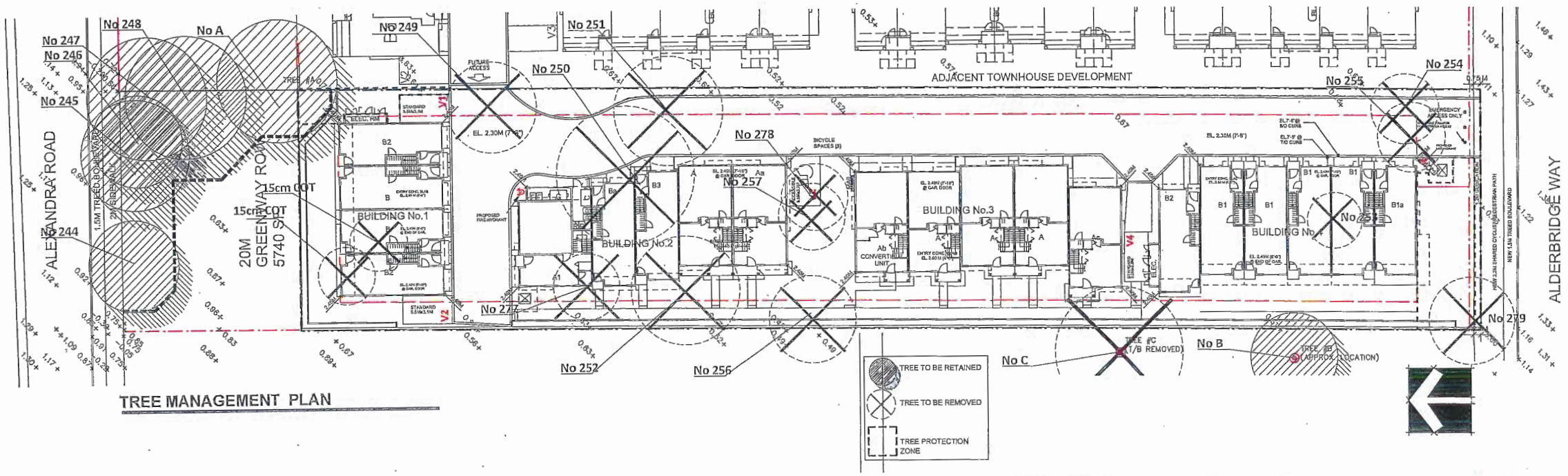


DP 15-700370

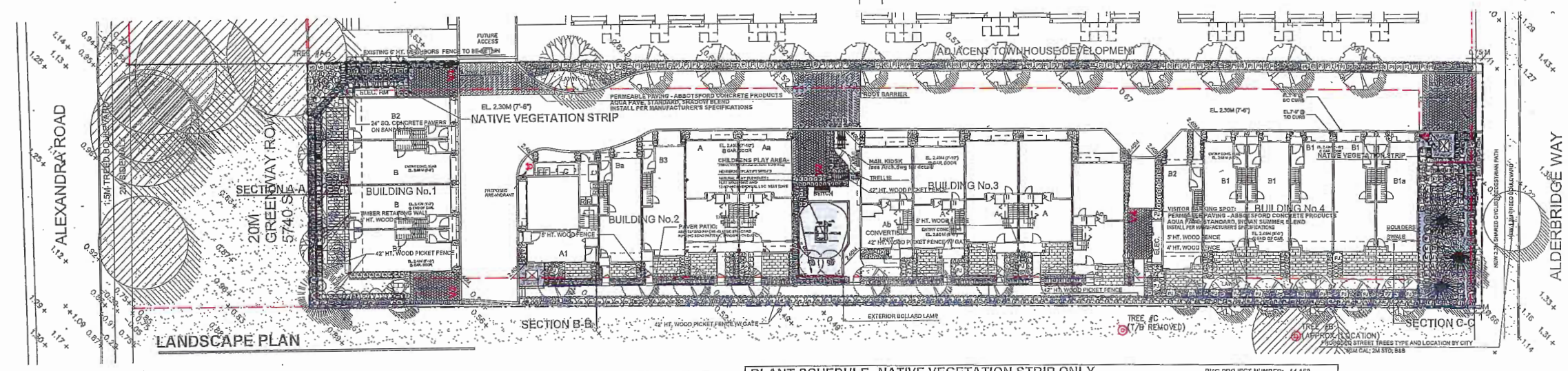
Original Date: 07/13/15

Revision Date: 09/29/17

Note: Dimensions are in METRES



TREE MANAGEMENT PLAN



LANDSCAPE PLAN

PLANT SCHEDULE

PMG PROJECT NUMBER: 14-150

KEY	QTY	BOTANICAL NAME	COMMON NAME	PLANTED SIZE / REMARKS
TREE				
(AR)	11	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY MAPLE	8CM CAL; 2M STD; B&B
(CJ)	1	CERCIDIPHYLLUM JAPONICUM	KATSURA TREE	6CM CAL; 2M STD; B&B
(MG)	15	MAGNOLIA SOULANGEANA 'RUSTICA RUBRA'	RUSTICA RED MAGNOLIA	6CM CAL; 1.2M STD; B&B
(PO)	1	PICEA OMORIKA	SERBIAN SPRUCE	3M HT; B&B
(SC)	1	STREET STREE LOCATION AND TYPE BY CITY		6CM CAL; B&B
(SJ)	5	STYRAX JAPONICUS 'PINK CHIMES'	PINK FLOWERED JAPANESE SNOWBELL	3M; B&B
SHRUB				
(B)	150	BUXUS MICROPHYLLA 'WINTER GEM'	LITTLE-LEAF BOX	#3 POT; 40CM
(CA)	128	CHOISYA TERNATA SUNDANCE	MEXICAN MOCK ORANGE	#3 POT; 60CM
(CS)	16	CORNUS SERICEA 'KELSEYI'	DWARF KELSEY DOGWOOD	#3 POT; 80CM
(HA)	8	HYDRANGEA MACROPHYLLA 'TELLER RED'	BIGLEAF HYDRANGEA; LACECAP RED	#3 POT; 80CM
(ND)	35	NANDINA DOMESTICA 'HARBOUR DWARF'	DWARF HEAVENLY BAMBOO	#2 POT; 40CM
(PJ)	35	PIERIS JAPONICA 'FOREST FLAME'	PIERIS; WHITE BLOOMS	#3 POT; 50CM
(PL)	71	PRUNUS LAUROCERASUS 'OTTO LUYKEN'	OTTO LUYKEN LAUREL	1M HT
(RE)	24	ROSA EXPLORER 'SIMON FRASER'	SIMON FRASER ROSE; MED. PINK	#2 POT; 40CM
(SJ)	96	SKIMMIA JAPONICA (10% MALE)	JAPANESE SKIMMIA	#3 POT; 50CM
(TB)	90	TAXUS BACCATA 'FASTIGIATA'	COLUMNAR IRISH YEW	1.2M B&B
(TO)	47	THUJA OCCIDENTALIS 'SMARAGD'	EMERALD GREEN CEDAR	1.25M HT; B&B
(VC)	24	VACCINIUM CORYMBOSUM 'BLUE CROP'	BLUE CROP EDIBLE BLUEBERRY	#2 POT; 50CM
(VO)	4	VIBURNUM P.T. 'SUMMER SNOWFLAKE'	SUMMER SNOWFLAKE VIBURNUM	#3 POT; 80CM
GRASS				
(HS)	118	HELICTOTRICHON SEMPERVIRENS	BLUE OAT GRASS	#1 POT
(OP)	146	OPHIOPOGON PLANISCAPUS 'NIGRESCENS'	BLACK MONDO GRASS	#1 POT
(PA)	5	PENNISETUM ALOPECUROIDES	FOUNTAIN GRASS	#1 POT
(PO)	176	PENNISETUM ALOPECUROIDES 'LITTLE BUNNY'	LITTLE BUNNY FOUNTAIN GRASS	#1 POT
PERENNIAL				
(HE)	29	HEMEROCALLIS 'RED MAGIC'	DAYLILY; RED AND YELLOW	15 CM POT
(HO)	5	HOSTA 'RED OCTOBER'	HOSTA; RED STEMS, 12" HT.	15 CM POT
(LA)	114	LAVENDULA ANGUSTIFOLIA 'HIDCOTE BLUE'	ENGLISH LAVENDER	#1 POT
GC				
(LI)	148	LONICERA PILEATA	PRIVET HONEYSUCKLE	#1 POT; 25CM
(PY)	25	POLYSTICHUM MUNITUM	WESTERN SWORD FERN	#1 POT; 20CM
(VV)	53	VACCINIUM VITIS-IDAEA	LINGONBERRY	#1 POT;25CM

NOTES: * PLANT SIZES IN THIS LIST ARE SPECIFIED ACCORDING TO THE BC LANDSCAPE STANDARD, LATEST EDITION. CONTAINER SIZES SPECIFIED AS PER CNLA 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

PLANT SCHEDULE -NATIVE VEGETATION STRIP ONLY

PMG PROJECT NUMBER: 14-150

KEY	QTY	BOTANICAL NAME	COMMON NAME	PLANTED SIZE / REMARKS
TREE				
(AC)	3	ACER CIRCINATUM	VINE MAPLE	3M HT; B&B; 3 STEM CLUMP
(CN)	2	CORNUS NUTTALLII	PACIFIC DOGWOOD	2M HT; B&B
(PM)	3	PSEUDOTSUGA MENZIESII	DOUGLAS FIR	3M HT; B&B
SHRUB				
(MA)	35	MAHONIA AQUIFOLIUM	OREGON GRAPE	#2 POT; 50CM
(RG)	3	ROSA GYMNOCARPA	BALDHIP ROSE	#2 POT; 40CM
(SD)	53	SPIRAEA DOUGLASII	DOUGLAS SPIREA	#2 POT; 40CM
(VO)	31	VACCINIUM OVATUM	EVERGREEN HUCKLEBERRY	#3 POT
GC				
(GS)	95	GAULTHERIA SHALLON	SALAL	#1 POT; 20CM
(MN)	16	MAHONIA NERVOSA	LONGLEAF MAHONIA	#2 POT; 25CM
(PM)	45	POLYSTICHUM MUNITUM	WESTERN SWORD FERN	#1 POT; 20CM

NOTES: * PLANT SIZES IN THIS LIST ARE SPECIFIED ACCORDING TO THE BC LANDSCAPE STANDARD, LATEST EDITION. CONTAINER SIZES SPECIFIED AS PER CNLA 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

PAVING LEGEND

- MONOCHROME PAVING - ABBOTSFORD CONCRETE PRODUCTS AQUA PAVE, STEEL GREY, BROWN SUMMER BLEND (BRAND LINE)
- PERMEABLE PAVING - ABBOTSFORD CONCRete PRODUCTS AQUA PAVE, STANDARD, MEADOWBROOK FOTTELER (NATURAL COLOUR FOR VARIOUS PAVING STYLES)
- PATIO PAVING - ABBOTSFORD CONCRETE PRODUCTS CLASSIC BRUSHED PAVING, PLANK BROKEN FOTTELER COLOUR SUMMER BLEND
- SURROUND CONCRETE EDGE RESTRAINT
- 6mm SOFT SURFACE PLAY AREA, SOFFPLAY OR SYNTHAPRO FOR RECOMMENDATIONS OF PLAY EQUIPMENT MANUFACTURER

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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.
10	16.APR.21	NEW SITE PLAN/CITY REQUEST	DD
9	16.APR.20	NEW SITE PLAN/CITY REQUEST	DD
8	16.MAR.15	REVISED PARKING VARIANCE VERS F.N.	DD
7	14.FEB.24	CITY COMMENTS	DD
6	14.FEB.03	AS PER REVISED ARBORIST REPORT	DD
5	13.DEC.18	NEW SITE PLAN/CITY COMMENTS	DD
4	13.OCT.18	NEW SITE PLAN	DD
3	13.SEP.30	NEW SITE PLAN	DD
2	13.MAR.13	NEW SITE PLAN/CITY COMMENTS	DD
1	13.MAR.08	NEW SITE PLAN	DD

CLIENT: SIAN GROUP INVESTMENTS INC

PROJECT:

20 UNIT TOWNHOUSE DEVELOPMENT

9560 ALEXANDRA ROAD
RICHMOND

WITH YAMAMOTO ARCHITECTURE INC.

DRAWING TITLE:

LANDSCAPE PLAN

DATE: November 2, 2014 DRAWING NUMBER:
SCALE: 1/16"=1'-0" **L1**
DRAWN: DD
DESIGN: DD
CHKD: PGM OF 3

14150-L1.ZIP PMG PROJECT NUMBER: 14-150

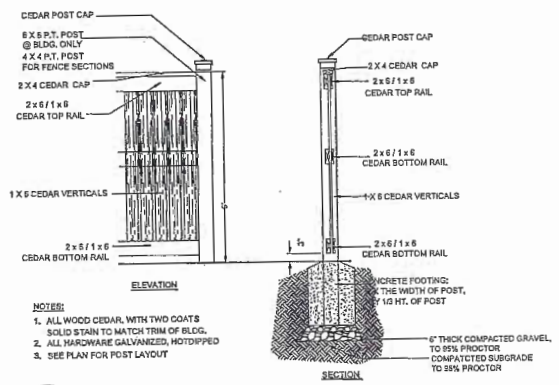
PLAN # 10

APR 21 2016

APPROVED PLAN

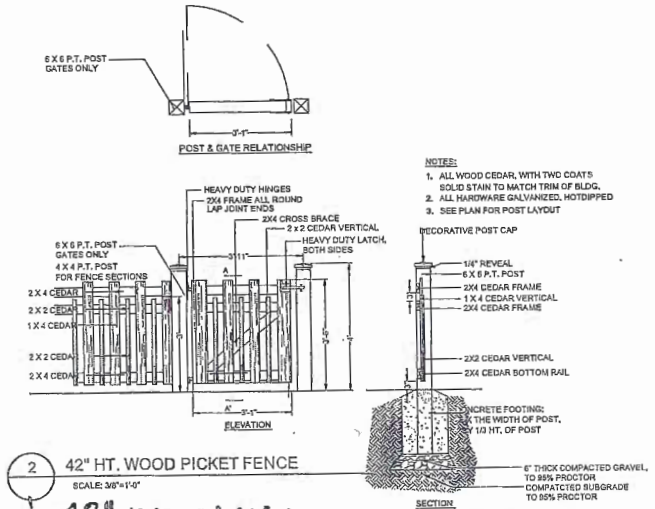
DP 15-700370

ATTACHMENT 2



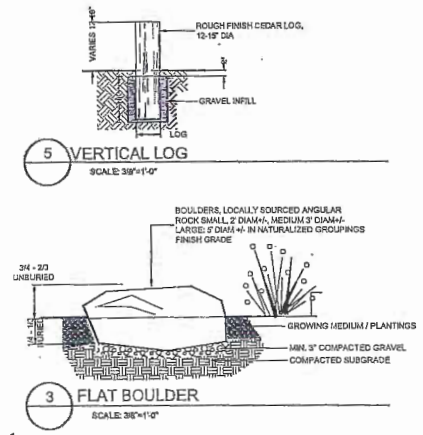
NOTES:
1. ALL WOOD CEDAR, WITH TWO COATS SOLID STAIN TO MATCH TRIM OF BLDG.
2. ALL HARDWARE GALVANIZED, HOTDIPPED
3. SEE PLAN FOR POST LAYOUT

1 4'/ 5' /6' HT WOOD FENCE
SCALE: 3/8"=1'-0"



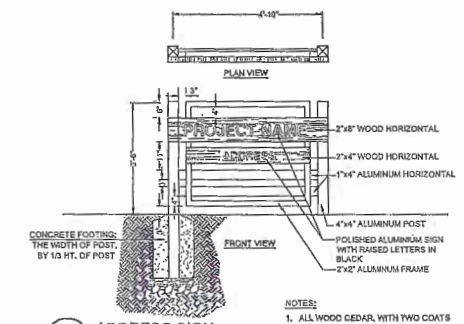
NOTES:
1. ALL WOOD CEDAR, WITH TWO COATS SOLID STAIN TO MATCH TRIM OF BLDG.
2. ALL HARDWARE GALVANIZED, HOTDIPPED
3. SEE PLAN FOR POST LAYOUT

2 42" HT. WOOD PICKET FENCE
SCALE: 3/8"=1'-0"



5 VERTICAL LOG
SCALE: 3/8"=1'-0"

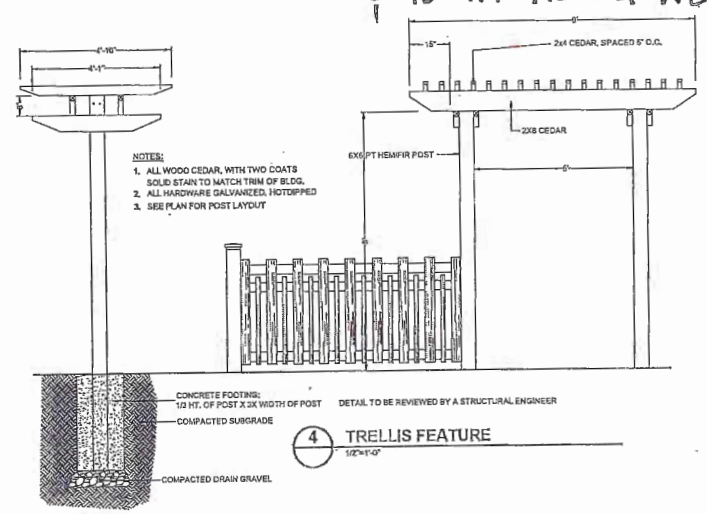
3 FLAT BOULDER
SCALE: 3/8"=1'-0"



NOTES:
1. ALL WOOD CEDAR, WITH TWO COATS SOLID STAIN.

5 ADDRESS SIGN
SCALE: 1/2"=1'-0"

≤ 48" HT ALONG WEST PROPERTY LINE (SEE PLAN #1)



NOTES:
1. ALL WOOD CEDAR, WITH TWO COATS SOLID STAIN TO MATCH TRIM OF BLDG.
2. ALL HARDWARE GALVANIZED, HOTDIPPED
3. SEE PLAN FOR POST LAYOUT

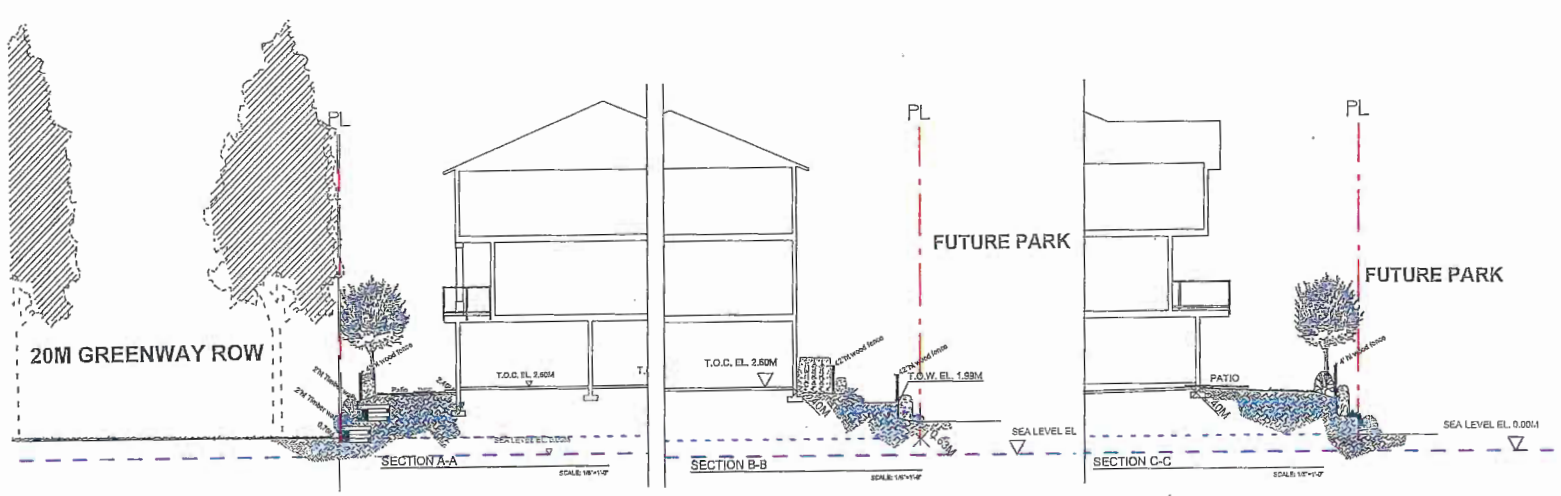
4 TRELLIS FEATURE
SCALE: 1/2"=1'-0"

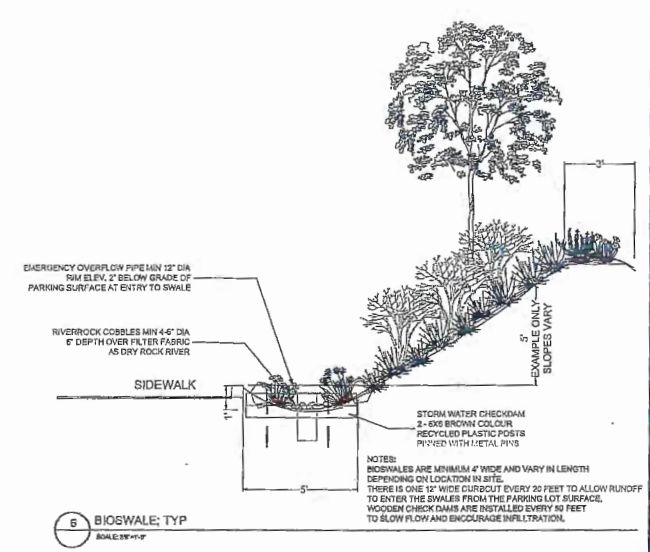
SURF BIKE RACK; MODEL SPBRGP-5 ; BLACK COLOUR
WISHBONE SITE FURNISHINGS Ph.:604 626 0476

PARKER BENCH PKB-8 ;
REDWOOD COLOR RECYCLED PLASTIC SLATS;
WISHBONE SITE FURNISHINGS Ph.:604 626 0476
BLACK FRAME

Henderson Protecting Playground Fun
PlayTots; Model PT5002
Ph.: 1-800-265-5462 ext.302

HADCO
ALUMINIUM BOLLARD LIGHT
DB30, BLACK COLOUR





6 BIOSWALE; TYP
SCALE: 3/8"=1'-0"

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Suite C100 - 4185 Still Creek Drive
Burnaby, British Columbia, V5C 6G9
pt 604 294-0011 | f: 604 294-0022

SEAL:

NO.	DATE	REVISION DESCRIPTION	DR.
19	14.APR.22	NEW SITE PLAN/OFF REQUEST	DO
18	14.APR.21	NEW SITE PLAN/OFF REQUEST	DO
17	14.FEB.24	OFF COMMENTS	DO
16	14.FEB.05	AS PER REVISED ARBORIST REPORT	DO
15	13.DEC.18	NEW SITE PLAN/OFF COMMENTS	DO
14	13.OCT.28	NEW SITE PLAN	DO
13	13.SEP.20	NEW SITE PLAN	DO
12	13.AUG.15	NEW SITE PLAN/OFF COMMENTS	DO
11	13.JUN.10	NEW SITE PLAN	DO

CLIENT: SIAN GROUP INVESTMENTS INC

PROJECT:
20 UNIT TOWNHOUSE DEVELOPMENT

9560 ALEXANDRA ROAD
RICHMOND

WITH YAMAMOTO ARCHITECTURE INC.

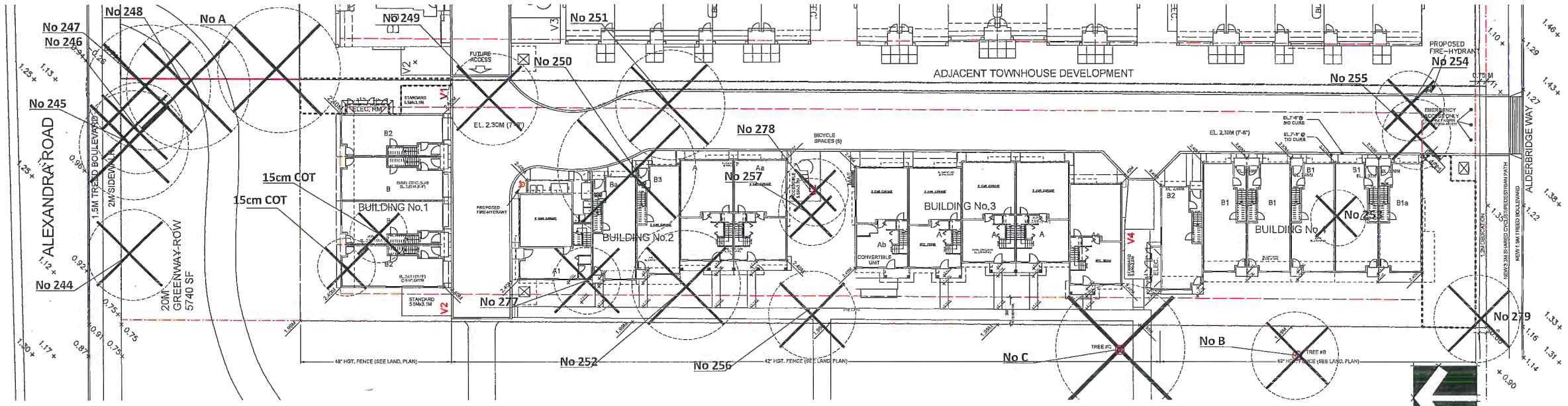
DRAWING TITLE:
LANDSCAPE DETAILS

DATE: November 2, 2014
DRAWING NUMBER:
SCALE:
DRAWN: DO
DESIGN: DO
CHKD: PCM
L2
OF 3

14150-11.ZIP
PMG PROJECT NUMBER: 14-150

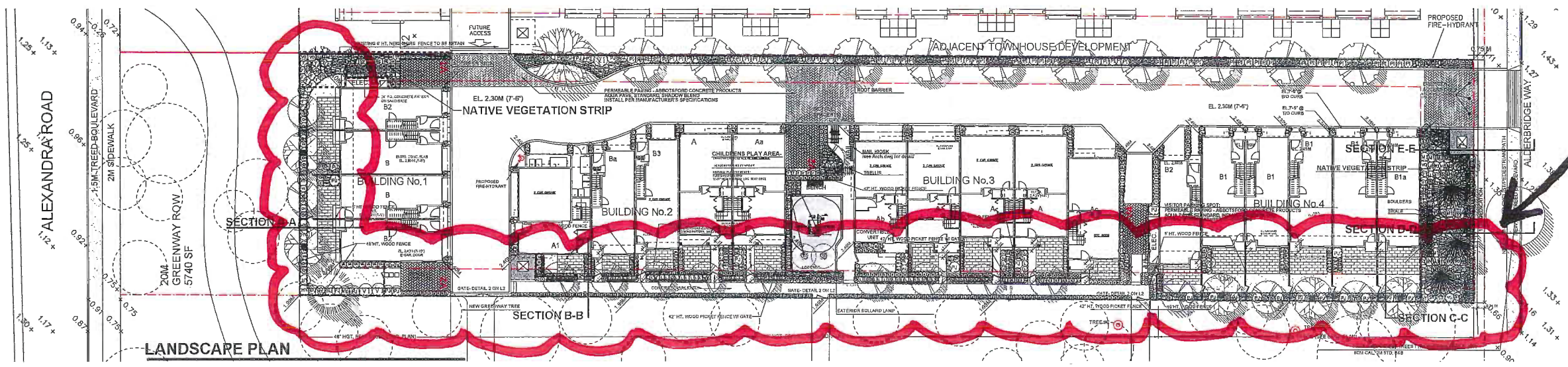
PLAN # 11

DP 15-700370 APR 21 2016
APPROVED PLAN



TREE MANAGEMENT PLAN

TREE TO BE REMOVED



LANDSCAPE PLAN

PLANT SCHEDULE

PMG PROJECT NUMBER: 14-150

KEY	QTY	BOTANICAL NAME	COMMON NAME	PLANTED SIZE / REMARKS
TREE				
	11	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY MAPLE	6CM CAL; 2M STD; B&B
	1	CERCIDIPHYLLUM JAPONICUM	KATSURA TREE	6CM CAL; 2M STD; B&B
	15	MAGNOLIA SOULANGEANA 'RUSTICA RUBRA'	RUSTICA RED MAGNOLIA	6CM CAL; 1.2M STD; B&B
	1	PICEA OMORIKA	SERBIAN SPRUCE	3M HT; B&B
	1	STREET STREE LOCATION AND TYPE BY CITY		6CM CAL; B&B
	5	STYRAX JAPONICUS 'PINK CHIMES'	PINK FLOWERED JAPANESE SNOWBELL	3M; B&B
SHRUB				
(B)	310	BUXUS MICROPHYLLA 'WINTER GEM'	LITTLE-LEAF BOX	#3 POT; 40CM
(C)	1	CHOISYA TERNATA SUNDANCE	MEXICAN MOCK ORANGE	#3 POT; 50CM
(D)	8	HYDRANGEA MACROPHYLLA 'TELLER RED'	BIGLEAF HYDRANGEA; LACECAP RED	#3 POT; 60CM
(E)	35	NANDINA DOMESTICA 'HARBOUR DWARF'	DWARF HEAVENLY BAMBOO	#2 POT; 40CM
(F)	37	PIERIS JAPONICA 'FOREST FLAME'	PIERIS; WHITE BLOOMS	#3 POT; 50CM
(G)	68	PRUNUS LAUROCERASUS 'OTTO LUYKEN'	OTTO LUYKEN LAUREL	1M HT
(H)	24	ROSA EXPLORER 'SIMON FRASER'	SIMON FRASER ROSE; MED. PINK	#2 POT; 40CM
(I)	92	SKIMMIA JAPONICA (10% MALE)	JAPANESE SKIMMIA	#3 POT; 50CM
(J)	91	TAXUS BACCATA 'FASTIGIATA'	COLUMNAR IRISH YEW	1.2M B&B
(K)	47	THUJA OCCIDENTALIS 'SMARAGD'	EMERALD GREEN CEDAR	1.25M HT; B&B
(L)	21	VACCINIUM CORYMBOSUM 'BLUE CROP'	BLUE CROP EDIBLE BLUEBERRY	#2 POT; 50CM
(M)	4	VIBURNUM P.T. 'SUMMER SNOWFLAKE'	SUMMER SNOWFLAKE VIBURNUM	#3 POT; 60CM
GRASS				
(N)	114	HELICTOTRICHON SEMPERVIRENS	BLUE OAT GRASS	#1 POT
(O)	149	OPHIOPOGON PLANISCAPUS 'NIGRESCENS'	BLACK MONDO GRASS	#1 POT
(P)	1	PENNISETUM ALOPECUROIDES	FOUNTAIN GRASS	#1 POT
(Q)	190	PENNISETUM ALOPECUROIDES 'LITTLE BUNNY'	LITTLE BUNNY FOUNTAIN GRASS	#1 POT
PERENNIAL				
(H)	29	HEMEROCALLIS 'RED MAGIC'	DAYLILY; RED AND YELLOW	15 CM POT
(R)	5	HOSTA 'RED OCTOBER'	HOSTA; RED STEMS, 12" HT.	15 CM POT
(S)	112	LAVENDULA ANGUSTIFOLIA 'HIDCOTE BLUE'	ENGLISH LAVENDER	#1 POT
GC				
(F)	25	POLYSTICHUM MUNITUM	WESTERN SWORD FERN	#1 POT; 20CM
(V)	51	VACCINIUM VITIS-IDAEA	LIGGONBERRY	#1 POT;25CM

NOTES: * PLANT SIZES IN THIS LIST ARE SPECIFIED ACCORDING TO THE BC LANDSCAPE STANDARD, LATEST EDITION. CONTAINER SIZES SPECIFIED AS PER CNLA 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

PLANT SCHEDULE -NATIVE VEGETATION STRIP ONLY

PMG PROJECT NUMBER: 14-150

KEY	QTY	BOTANICAL NAME	COMMON NAME	PLANTED SIZE / REMARKS
TREE				
	3	ACER CIRCINATUM	VINE MAPLE	3M HT; B&B; 3 STEM CLUMP
	2	CORNUS NUTTALLII	PACIFIC DOGWOOD	2M HT; B&B
	3	PSEUDOTSUGA MENZIESII	DOUGLAS FIR	3M HT; B&B
SHRUB				
(B)	35	MAHONIA AQUIFOLIUM	OREGON GRAPE	#2 POT; 50CM
(H)	3	ROSA GYMNOCARPA	BALDHIP ROSE	#2 POT; 40CM
(R)	53	SPIRAEA DOUGLASII	DOUGLAS SPIREA	#2 POT; 40CM
(G)	31	VACCINIUM OVATUM	EVERGREEN HUCKLEBERRY	#3 POT
GC				
(G)	95	GAULTHERIA SHALLON	SALAL	#1 POT; 20CM
(B)	15	MAHONIA NERVOSA	LONGLEAF MAHONIA	#2 POT; 25CM
(F)	46	POLYSTICHUM MUNITUM	WESTERN SWORD FERN	#1 POT; 20CM

NOTES: * PLANT SIZES IN THIS LIST ARE SPECIFIED ACCORDING TO THE BC LANDSCAPE STANDARD, LATEST EDITION. CONTAINER SIZES SPECIFIED AS PER CNLA 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

NOTE:
FOR ON-SITE GRADING PLAN REFER TO ARCHITECTURAL PLAN.
OFF-SITE GRADING AT NORTH AND WEST P.L. TO BE CONFIRMED BY CITY OF RICHMOND.

PAVING LEGEND

- PERMEABLE PAVERS - MANUFACTURED CONCRETE PRODUCTS ADJUSTABLE STACKING EDGE STONE BLEND OPPIDE FOLIO
- PERMEABLE PAVERS - MANUFACTURED CONCRETE PRODUCTS ADJUSTABLE STACKING EDGE STONE BLEND OPPIDE FOLIO NATURAL COLOUR FOR HARD SURFACE PLAYING SPACE
- PAVED PLAYING - MANUFACTURED CONCRETE PRODUCTS ADJUSTABLE STACKING EDGE STONE BLEND PATTERN COLOUR BEACH BY DESIGNS
- PLAYING POINTS - RUBBER PLAY AREA SURFACE DEPTH AS PER REPORTS REQUIREMENTS OF PLAY EQUIPMENT

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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.
17	17.OCT.20	REVISION AS PER NEW GREENWAY PLAN	DD
16	17.SEP.29	REVISION AS PER CLIENT REQUEST	DD
15	17.FEB.14	REVISION AS PER CLIENT REQUEST	DD
14	17.JUL.14	ISSUED FOR CONSTRUCTION	DD
13	16.JUL.18	ISSUED FOR BP	
12	16.JUN.29	NEW SITE PLAN	DD
11	16.MAR.17	NEW SITE PLAN	DD
10	16.APR.21	NEW SITE PLAN/CITY REQUEST	DD
9	16.APR.20	NEW SITE PLAN/CITY REQUEST	DD
8	16.MAR.31	REVISED RETAINING WALL ALONG WEST P.L.	DD
7	16.FEB.24	CITY COMMENTS	DD
6	16.FEB.03	AS PER REVISED ARBORIST REPORT	DD
5	15.DEC.18	NEW SITE PLAN/CITY COMMENTS	DD
4	15.OCT.28	NEW SITE PLAN	DD
3	15.SEP.28	NEW SITE PLAN	DD
2	15.MAR.15	NEW SITE PLAN/CITY COMMENTS	DD
1	15.MAR.10	NEW SITE PLAN	DD

CLIENT: SIAN GROUP INVESTMENTS INC

PROJECT:
20 UNIT TOWNHOUSE DEVELOPMENT

9560 ALEXANDRA ROAD
RICHMOND

WITH YAMAMOTO ARCHITECTURE INC.

DRAWING TITLE:
LANDSCAPE PLAN

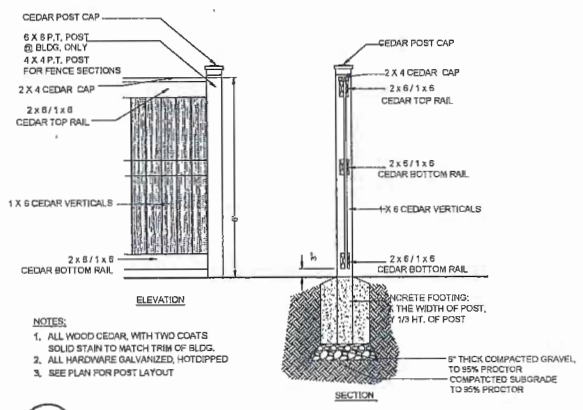
DATE: November 2, 2014
SCALE: 1/16"=1'-0"
DRAWN: DD
DESIGN: DD
CHKD: PCM

DRAWING NUMBER: **L1**
OF 3

14150-16.ZIP

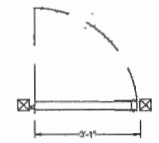
PMG PROJECT NUMBER: 14-150

ATTACHMENT 3
PROPOSED MODIFIED PLAN

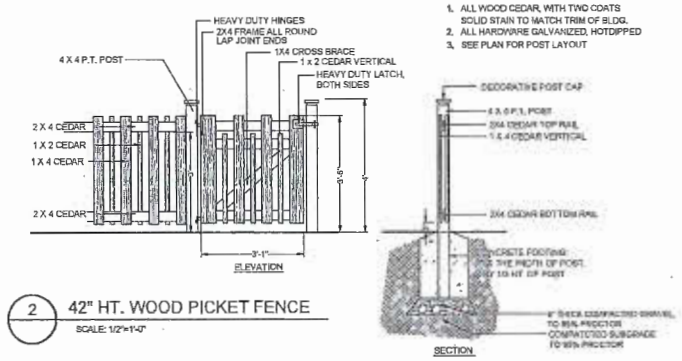


NOTES:
1. ALL WOOD CEDAR, WITH TWO COATS SOLID STAIN TO MATCH TRIM OF BLDG.
2. ALL HARDWARE GALVANIZED, HOTDIPPED
3. SEE PLAN FOR POST LAYOUT

1 4' / 5' / 6' HT WOOD FENCE
SCALE: 1/2"=1'-0"



POST & GATE RELATIONSHIP



NOTES:
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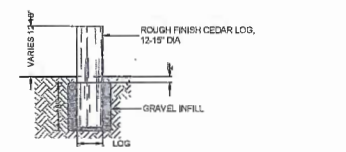
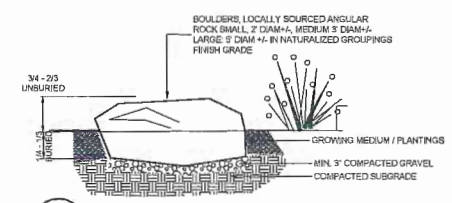
2. ALL HARDWARE GALVANIZED, HOTDIPPED
3. SEE PLAN FOR POST LAYOUT

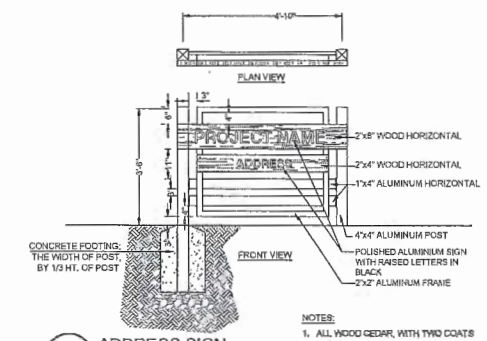
2 42" HT. WOOD PICKET FENCE
SCALE: 1/2"=1'-0"



5 VERTICAL LOG
SCALE: 1/2"=1'-0"



3 FLAT BOULDER
SCALE: 1/2"=1'-0"



NOTES:
1. ALL WOOD CEDAR, WITH TWO COATS SOLID STAIN.

5 ADDRESS SIGN
SCALE: 1/2"=1'-0"

NOTES:
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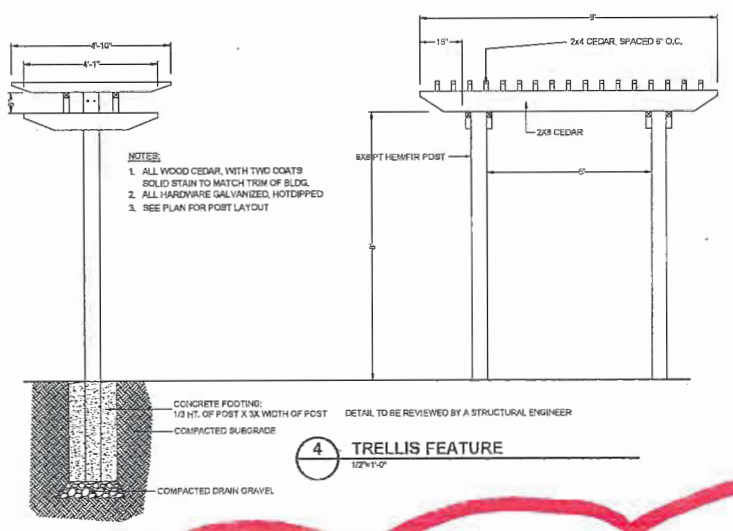

DETAIL TO BE REVIEWED BY A STRUCTURAL ENGINEER

4 TRELLIS FEATURE
1/2"=1'-0"

SURF BIKE RACK; MODEL SPBRGP-5 ; BLACK COLOUR
WISHBONE SITE FURNISHINGS Ph.:604 628 0476

PARKER BENCH PKB-8 ;
REDWOOD COLOR RECYCLED PLASTIC SLATS;
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Henderson Protecting Playground Fun
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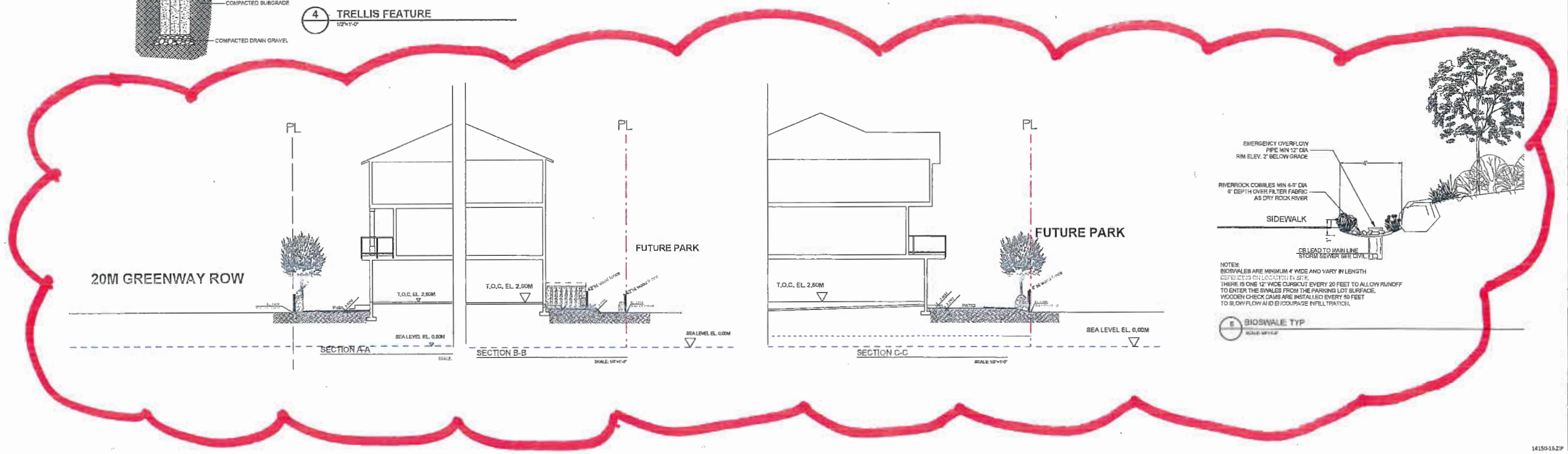
HADCO
ALUMINIUM BOLLARD LIGHT
DB30, BLACK COLOUR



14150-16.ZIP

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pmg LANDSCAPE ARCHITECTS
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SEAL:

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CLIENT: SIAN GROUP INVESTMENTS INC

PROJECT:
20 UNIT TOWNHOUSE DEVELOPMENT

9560 ALEXANDRA ROAD RICHMOND

WITH YAMAMOTO ARCHITECTURE INC.

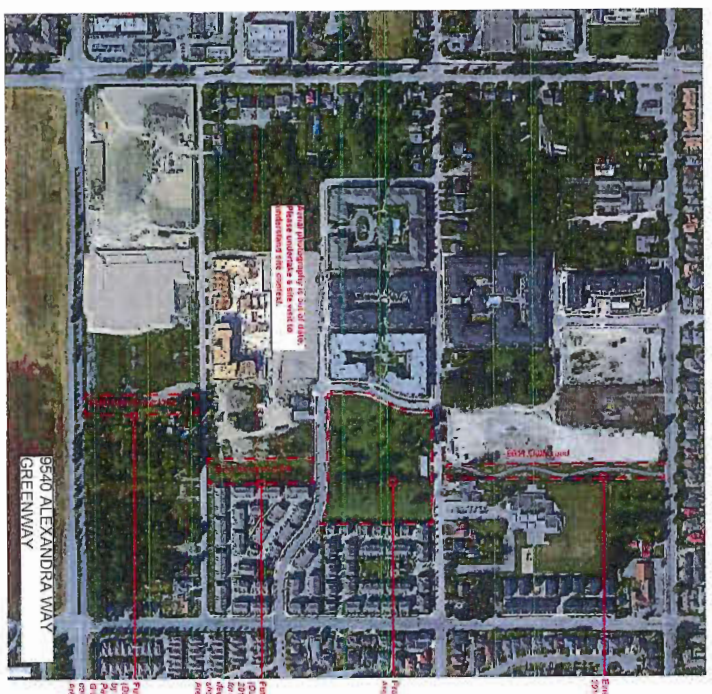
DRAWING TITLE:
LANDSCAPE DETAILS

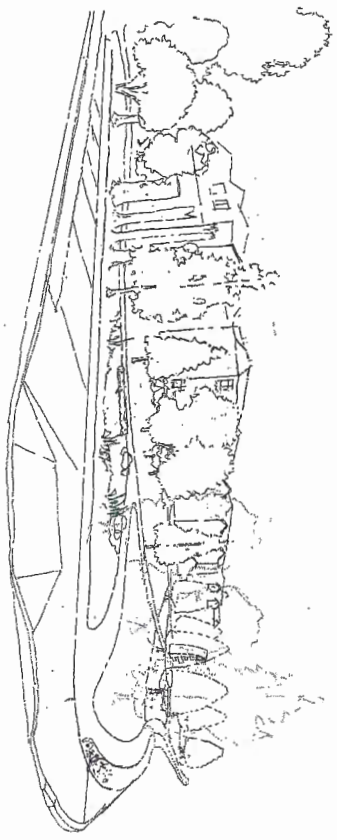
DATE: November 2, 2014
SCALE:
DRAWN: DD
DESIGN: DD
CHK'D: PCM

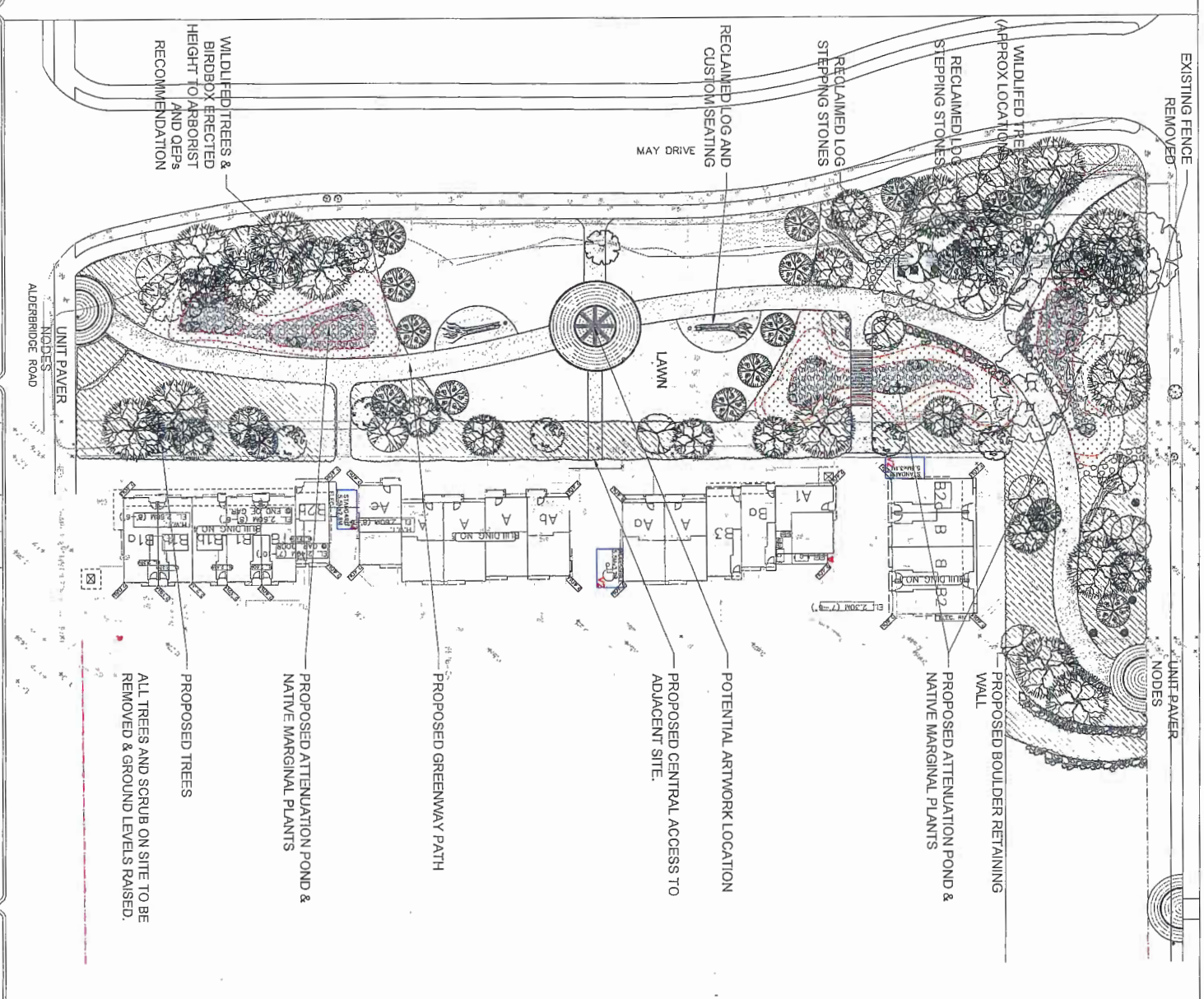
DRAWING NUMBER:
L2
OF 3

PMG PROJECT NUMBER: 14-150

PROPOSED MODIFIED PLAN







RICHMOND
Island City, by Nature
Parks, Recreation & Cultural Services
MAY DRIVE GREENWAY | 9540 Alexandra Way, Richmond BC.
9540 ALEXANDRA WAY GREENWAY
EXISTING FENCE REMOVED
WILDLIFED TREE (APPROX LOCATION)
RECLAIMED LOG STEPPING STONES
RECLAIMED LOG STEPPING STONES
RECLAIMED LOG AND CUSTOM SEATING
MAY DRIVE
WILDLIFED TREES & BIRDBOX ERECTED HEIGHT TO ARBORIST AND QEPs RECOMMENDATION
UNIT PAVER NODES
ALDERBRIDGE ROAD
LAWN
UNIT PAVER NODES
PROPOSED BOULDER RETAINING WALL
PROPOSED ATTENUATION POND & NATIVE MARGINAL PLANTS
POTENTIAL ARTWORK LOCATION
PROPOSED CENTRAL ACCESS TO ADJACENT SITE.
PROPOSED GREENWAY PATH
PROPOSED ATTENUATION POND & NATIVE MARGINAL PLANTS
PROPOSED TREES
ALL TREES AND SCRUB ON SITE TO BE REMOVED & GROUND LEVELS RAISED.
BUILDING NO.
B2
B
B
B2a
A1
Ba
B3
A
Aa
Ab
A
A
Ae
B2H
B1
B1b
B1a

LEGEND

HARDSCAPE .

KEY	REF.	DESCRIPTION
		PROPOSED PAVERS (QUANTITY 30m2) Recolored
		PROPOSED 20MM MINUS GRAVEL
		PROPOSED RECLAIMED LOGS 150-300mm upright logs, flat top, bark stripped/sandblasted to smooth finish.
		PROPOSED BOULDERS Basalt boulders 450mm-750mm
	No further detail	PROPOSED RIVER ROCK Standard rivertock, 100-150mm over 100mm 3/4in crushed gravel
		RECLAIMED LOGS Dimensions, size, and quantity shown on plan.

*Quantities shown are for reference only. Bidder/Contractor to provide all materials required to achieve extents shown on plan.

SITE FURNISHINGS/LIGHTING

KEY	REF.	DESCRIPTION
◆		PROPOSED SIGNAGE
		CUSTOM SEAT ON RECLAIMED LOG Dimensions, size, and quantity shown on plan.

*Quantities shown are for reference only. Bidder/Contractor to provide all materials required to achieve extents shown on plan.

SOFTSCAPE

KEY	REF.	DESCRIPTION
		PROPOSED TREES
		PROPOSED SHRUBS
		SEED (Quantity: [illegible]) See Critical Landscape Notes for Specifications
		PROPOSED RAINGARDEN & MARGINAL PLANTS

*Quantities shown are for reference only. Bidder/Contractor to provide all materials required to achieve extents shown on plan.

B.C. GAS SERVICES

THE DEVELOPER OR CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING EXISTING LOCATION OF GAS SERVICE LINES, AND WHERE NECESSARY ARRANGE FOR THEIR RELOCATION IN ORDER TO FACILITATE INSTALLATION OF THE WORKS SHOWN ON THESE PLANS. A LIST OF SERVICE LINE LOCATIONS MAY BE OBTAINED FROM:

B.C. GAS SERVICE RECORDS DEPARTMENT
TELEPHONE 293-8552

NOTE— B.C. GAS REQUIRES 10 DAYS NOTICE PRIOR TO THE COMMENCEMENT OF ANY WORK.

BENCHMARK

ALL ELEVATIONS ARE TO GEODETIC DATUM AND REFER TO METRO VANCOUVER HPN MONUMENTS:
SECONDARY BENCHMARK ____
SECONDARY BENCHMARK DERIVED FROM HPN # ____ AND HPN # ____
ELEVATION ____ FIELD BOOK Nº ____
CITY WORK ORDER Nº ____ TENDER / PROJECT Nº ____
CONTRACTOR WORK ORDER Nº ____ ACCOUNT Nº ____

REFERENCE DRAWINGS

PROPERTY ACQUISITION Aq ____
SURVEY PLAN & PROFILE PP ____
ROAD CONSTRUCTION Cr ____
STORM SEWER INSTALLATION Ls ____
WATERMAIN INSTALLATION Wa ____
ORNAMENTAL STREET LIGHTING Ts ____
TRAFFIC SIGNALS Es ____
SANITARY SEWER INSTALLATION ____
OTHER ____
NOTE— PROVE LOCATION OF ALL UTILITIES / SERVICES BEFORE STARTING CONSTRUCTION.

Nº	DATE	BY	CH.	DESCRIPTION
H				
G				
F				
E				
D				
C				
B	29th Sept 2017	MS	MS	DRAFT SUBMISSION
A	4th May 2017	MS	JE	DRAFT SUBMISSION

REVISIONS

City of Richmond
6911 No. 3 ROAD RICHMOND B.C. V6Y 2C1

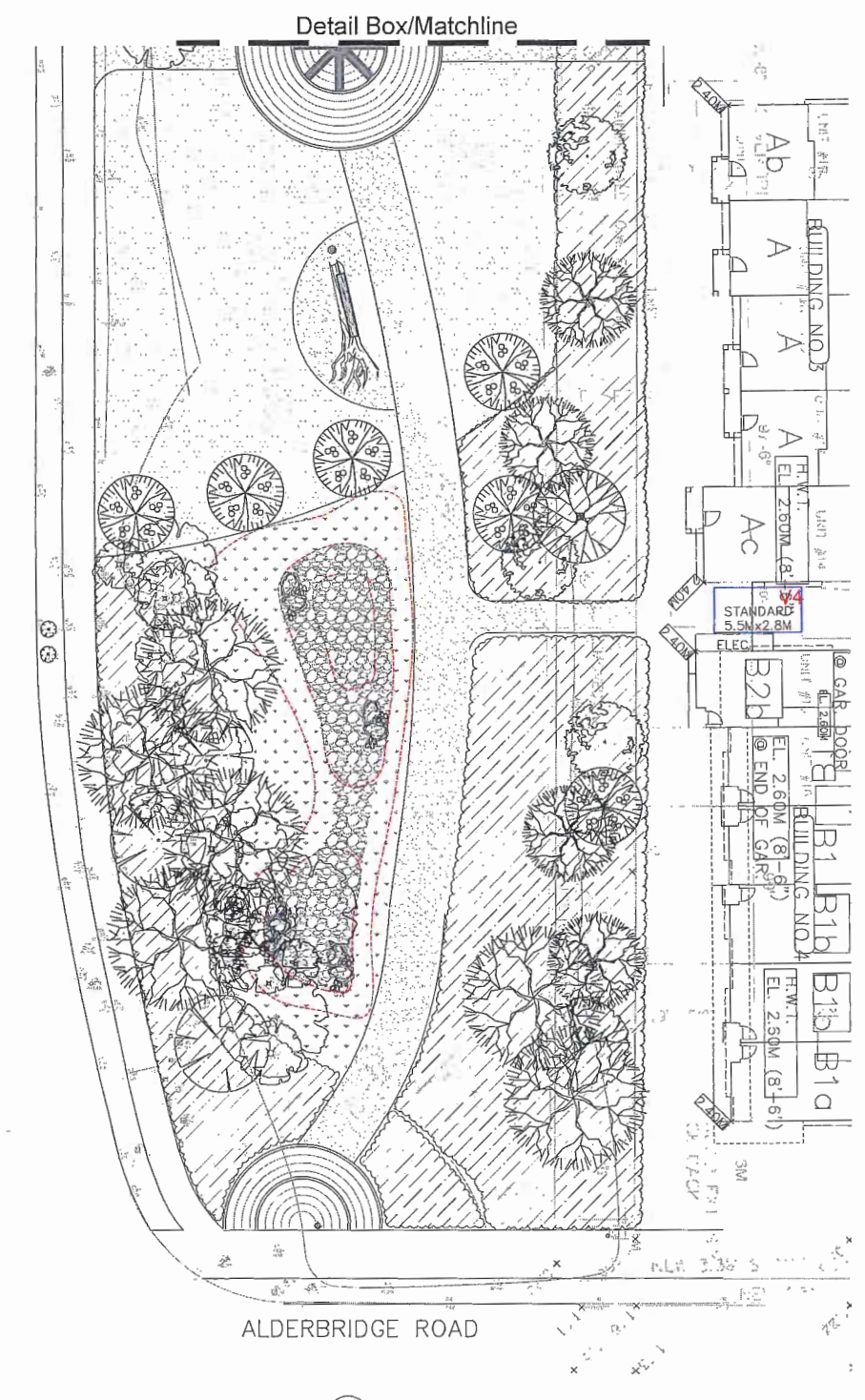
TITLE: MAY DRIVE GREENWAY COVER PAGE

DRAFT - FOR DISCUSSION ONLY

DESIGN: MS
DRAWN: MS
CHECKED: MS
ENGINEER:
DWG. Nº: L-01
SCALE: NTS
DATE: 15th May 2018
SEC. Nº: -
SHT. Nº: -

ATTACHMENT 4

MAY DRIVE GREENWAY DRAFT PLAN



LEGEND

HARDSCAPE .

KEY	REF.	DESCRIPTION
		PROPOSED PAVERS (QUANTITY:1500m2) Artisanal
		PROPOSED 21M MINUS GRAVEL
		PROPOSED RECLAIMED LOGS 150-300mm upright logs, flat top, bark stripped/sandblasted to smooth finish.
		PROPOSED BOULDERS Basalt boulders 450mm-700mm
	no further detail	PROPOSED RIVER ROCK Standard dimensions, 150-150mm x-or 100mm 2-inch crushed gravel
		RECLAIMED LOGS Dimensions, size, and quantity shown on plan.

*Quantities shown are for reference only. Bidder/Contractor to provide all materials required to achieve extents shown on plan.

SITE FURNISHINGS/LIGHTING

KEY	REF.	DESCRIPTION
		PROPOSED SIGNAGE
		CUSTOM SEAT ON RECLAIMED LOG Dimensions, size, and quantity shown on plan.

*Quantities shown are for reference only. Bidder/Contractor to provide all materials required to achieve extents shown on plan.

SOFTSCAPE

KEY	REF.	DESCRIPTION
		PROPOSED TREES
		PROPOSED SHRUBS
		SEED (QUANTITY: 1610m2 ewsks.02442-ehbks) See Critical Landscape Notes for Specifications
		PROPOSED RAINGARDEN & MARGINAL PLANTS

*Quantities shown are for reference only. Bidder/Contractor to provide all materials required to achieve extents shown on plan.

1:200 0 2m 4 6 8 10 12 14 16 18 20 22 24 26 28 30

City of Richmond
6911 No. 3 ROAD RICHMOND B.C. V6Y 2C1

B.C. GAS SERVICES

THE DEVELOPER OR CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING EXISTING LOCATION OF GAS SERVICE LINES, AND WHERE NECESSARY ARRANGE FOR THEIR RELOCATION IN ORDER TO FACILITATE INSTALLATION OF THE WORKS SHOWN ON THESE PLANS. A LIST OF SERVICE LINE LOCATIONS MAY BE OBTAINED FROM:

B.C. GAS SERVICE RECORDS DEPARTMENT
TELEPHONE 293-8502

NOTE– B.C. GAS REQUIRES 10 DAYS NOTICE PRIOR TO THE COMMENCEMENT OF ANY WORK.

BENCHMARK

ALL ELEVATIONS ARE TO GEODETIC DATUM AND REFER TO METRO VANCOUVER HPN MONUMENTS:

SECONDARY BENCHMARK _____

SECONDARY BENCHMARK DERIVED FROM HPN # _____ AND HPN # _____

ELEVATION _____ FIELD BOOK Nº _____

CITY WORK ORDER Nº _____ TENDER / PROJECT Nº _____

CONTRACTOR WORK ORDER Nº _____ ACCOUNT Nº _____

REFERENCE DRAWINGS

PROPERTY ACQUISITION	Aq
SURVEY PLAN & PROFILE	PP
ROAD CONSTRUCTION	Dc
STORM SEWER INSTALLATION	Lc
WATERMAIN INSTALLATION	Wc
ORNAMENTAL STREET LIGHTING	Tc
TRAFFIC SIGNALS	Sc
SANITARY SEWER INSTALLATION	
OTHER	

NOTE– PROVE LOCATION OF ALL UTILITIES / SERVICES BEFORE STARTING CONSTRUCTION.

REVISIONS

Nº	DATE	BY	CK.	DESCRIPTION
H				
G				
F				
E				
D				
C				
B				
A	29th Sept 2017	MS	MS	DRAFT SUBMISSION

TITLE: **MAY DRIVE GREENWAY LANDSCAPE SITE PLAN**

DESIGN: MS	DWG. Nº: L-02		
DRAWN: MS			
CHECKED: MS	SCALE: 1:200	DATE: 16th May 2018	
ENGINEER:	SEL. Nº: –	SHT. Nº: –	

MAY DRIVE GREENWAY DRAFT PLAN