



To: Development Permit Panel

Date: March 24, 2021

From: Wayne Craig
Director of Development

File: DP 18-828900

Re: **Application by 1082009 BC Ltd. for a Development Permit at 10760, 10780
Bridgeport Road and 3033, 3091, 3111 Shell Road**

Staff Recommendation

That a Development Permit be issued which would:

1. Permit the construction of 19 townhouse units at 10760, 10780 Bridgeport Road and 3033, 3091, 3111 Shell Road with vehicle access from Shell Road on a site zoned "Medium Density Townhouses (RTM3)"; and
2. Vary the provisions of Richmond Zoning Bylaw 8500 to reduce:
 - a) the minimum lot width on major arterial road from 50.0 m to 43.3 m;
 - b) the minimum front yard setback to Bridgeport Road from 6.0 m to 3.3 m; and
 - c) the minimum exterior side yard setback to Shell Road from 6.0 m to 4.5 m.

Wayne Craig
Director of Development

WC:el
Att. 3

Staff Report

Origin

1082009 BC Ltd. (Director: Syed Khalid Hasan) has applied to the City of Richmond for permission to develop 19 townhouse units at 10760, 10780 Bridgeport Road and 3033, 3091, 3111 Shell Road. Two of the 19 townhouse units are proposed to contain a ground-level secondary suite.

The site is being rezoned from “Single Detached (RS1/F)” zone to “Medium Density Townhouses (RTM3)” under Bylaw 9834 (RZ 16-754158), which received Third Reading following the Public Hearing on September 4, 2018. The site is currently vacant.

Frontage improvements were secured through the rezoning process and will be constructed through a separate Servicing Agreement (SA 18-803580); works include but not limited to:

- pavement widening, new curb, new grass and treed boulevard, and new sidewalk along both Bridgeport Road and Shell Road frontages;
- traffic signal enhancements at the Bridgeport Road/ Shell Road intersection; and
- watermain, storm sewer and sanitary sewer upgrades.

The Servicing Agreement must be entered into prior to final adoption of the rezoning bylaw.

Development Information

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

Background

Development surrounding the subject site is as follows:

- To the north, across Bridgeport Road, single-family homes on lots zoned “Single Detached (RS1/D)”. Development applications for a 24 unit townhouse development at 10671, 10691 and 10751 Bridgeport Road (RZ 17-771592 and DP 18-829233) have been received. The Rezoning Bylaw has received Third Reading on December 17, 2018; the Development Permit application is under staff review and will be brought forward for consideration in a separate report to Development Permit Panel;
- To the east, across Shell Road, a railway corridor, and further east, large industrial lots zoned “Industrial Retail (IR1)”; and
- To the south and west, an 84-unit two-storey townhouse complex on a lot zoned “Town Housing (ZT17) – Bridgeport Road (Bridgeport Area)” with vehicle accesses from Airey Drive and Shell Road.

Rezoning and Public Hearing Results

The Public Hearing for the rezoning of this site was held on September 4, 2018. No concern regarding the rezoning application was expressed at the Public Hearing.

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 “Medium Density Townhouses (RTM3)” zone except for the zoning variances noted below.

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

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

- 1) reduce the minimum lot width on major arterial road (i.e., Bridgeport Road) from 50.0 m to 43.3 m;

(Staff supports this proposed variance since the subject site is an orphan lot located between Shell Road and an existing multiple-family development. The subject development would complete the development pattern established by the adjacent townhouse development to the west along Bridgeport Road. The variance was noted at time of rezoning, with no concerns identified at the Public Hearing.)

- 2) reduce the minimum front yard setback to Bridgeport Road from 6.0 m to 3.0 m; and

(Staff support this proposed variances recognizing that significant road dedication is required along Bridgeport Road (i.e., 3.34 m). The road dedication will enable the Bridgeport Road frontage to be improved to include a new grass and treed boulevard separating the new sidewalk from the vehicle travel lanes. The proposed building setback along Bridgeport Road is consistent to the Bridgeport Road setback provided by the existing adjacent townhouse development to the west.

The resulting distance from the back of curb to the building face would be approximately 6.77 m. The reduced front yard setback does not compromise tree planting opportunity along the site frontage. The proposed architectural design provides appropriate building articulation and interface with neighbouring properties.

To address the road traffic noise from Bridgeport Road, the project acoustical engineer confirmed that the proposed development is designed to meet the interior noise limits as per the CMHC standards. The variance was noted at time of rezoning, with no concerns identified at the Public Hearing.)

- 3) reduce the minimum exterior side yard setback to Shell Road) from 6.0 m to 4.5 m.

(Staff support this proposed variances recognizing that significant road dedication is required along Shell Road (i.e., 2.7 m). The road dedication will enable the Shell Road frontage to be improved to include a new grass and treed boulevard separating the new sidewalk from the vehicle travel lanes. The reduced road setback from Shell Road will also allow a larger building separation between the proposed development and existing adjacent 2-storey townhouse units to the west.

The resulting distance from the back of curb to the building face would be approximately 9.15 m. The livability of the proposed townhouse units along Shell Road would not be compromised as adequate landscaping opportunity will be provided in the reduced front yard setback, and additional private outdoor spaces will be provided along the internal drive aisle, on second and/or third floors.

To address the road traffic noise from Shell Road, the project acoustical engineer confirmed that the proposed development is designed to meet the interior noise limits as per the CMHC standards. The variance was noted at time of rezoning, with no concerns identified at the Public Hearing.)

Advisory Design Panel Comments

The Advisory Design Panel (ADP) has reviewed and supported the project. A copy of the relevant excerpt from the Advisory Design Panel Minutes from Thursday, September 5, 2019 is attached for reference (Attachment 2). 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 location and orientation of the proposed townhouse clusters are carefully considered to maximize building separations between existing adjacent development and townhouse clusters proposed on site.
- Building C is a three-storey townhouse cluster with yard spaces on the west side of the units. The proposed building setback to the west property line is 7.5 m, which exceeds the minimum side yard setback requirement under the “Medium Density Townhouses (RTM3)” zone.
- Building D is a two-storey townhouse cluster with yard spaces on the south side of the units. The proposed building setback to the west property line is 3.5 m. Adjacency to the neighbouring townhouse cluster to the west will be addressed by the proposed window placement on the west side elevation of Building D, where limited number of windows are proposed.
- Locations and orientations of all windows, decks and balconies have been carefully considered to minimize the opportunity of looking into the windows of existing adjacent development and units proposed on site.
- Grade changes along the west property line have been minimized to provide an appropriate interface between the subject site and the adjacent townhouse development. Various treatments including sloping planting beds and low retaining walls are proposed along the west property line to accommodate the grade changes:
 - within the first 9.5 m from the Bridgeport Road frontage, the grade difference will be accommodated by a planting bed sloping down to meet the grade of the adjacent property. The property line will be marked by a solid wood privacy fence 1.2 m in height;

- for the next 21 m along the west property line, a combination of retaining walls and sloped beds will be provided to accommodate the grade change. A retaining wall with a height of approx. 0.3 m will be installed at the edge of the proposed pathway on site and at the property line, with a sloped planting bed in between; the lower wall will be topped by a fence 1.07 m in height;
 - to the west of the proposed children's play area, a low retaining wall up to 0.5 m in height, topped with a 1.07 m tall privacy fence, will be provided;
 - to the south of the proposed children's play area, the maximum height of the retaining will be increased to approx. 1.2 m to accommodate the grade differences; topped with a 1.07 m tall privacy fence.
- Landscaping will be provided on site along the west property line to provide screening between the subject development and the adjacent townhouse development.
 - No grade changes is being proposed along the south property line.
 - The existing tall trees located on the adjacent property to the south, along the common property line, will be retained and protected as privacy screen.
 - Perimeter drainage will be required as part of the Building Permit to ensure storm water is managed and addressed through the development and will not impact the neighbouring property.

Urban Design and Site Planning

- The proposal consists of a mix of two-storey and three-storey townhouse units in four clusters. The layout of the townhouse units is oriented around a single driveway providing access to the site from Shell Road and a north-south internal manoeuvring aisle providing access to the unit garages. A hammer-head is also provided onsite to accommodate truck turnaround.
- Two blocks of three-storey clusters containing six units each are proposed along Shell Road with main unit entrances fronting onto Shell Road. One block of a three-storey cluster containing four units is proposed at the northwest corner of the site; where the units will front onto an internal walkway along the west property line. A two-storey cluster containing three units is proposed along the south property line with main unit entrances fronting onto the internal drive aisle.
- Two ground level secondary suites are proposed to be included in this development. These suites will be contained in the three-storey units proposed along Bridgeport Road. The total floor area of each of these units is approximately 153 m² (1,645 ft²) and the size of each secondary suite is approximately 25.7 m² (277 ft²) consistent with the minimum size prescribed in Zoning Bylaw 8500. A surface parking stall will be assigned to each of the secondary units.
- The proposal provides for a pedestrian-oriented streetscape fronting both Bridgeport Road and Shell Road with a landscaped edge treatment, low metal fencing, and metal gates to the street fronting units. A private pedestrian walkway from Bridgeport Road to the development site is proposed along the west property line.

- A voluntary contribution to the City's Public Art Reserve fund in the amount of \$20,867.31 has been secured at Rezoning in response to the City's Public Art Program. The City supports cash-in-lieu contribution for public art project contributions that are less than \$40,000.
- All townhouse units will have two vehicle parking spaces in a double car garage. The proposal will feature nine units with a tandem parking arrangement (47% of total residential parking spaces provided in enclosed garages), which is consistent with the maximum 50% of tandem parking provision of Richmond Zoning Bylaw 8500. A restrictive covenant to prohibit the conversion of the tandem garage area into habitable space has been secured at rezoning.
- A total of four visitor parking spaces, including an accessible visitor parking space, are proposed, which meets the minimum bylaw requirement. Both residential and visitor bicycle parking are provided in compliance with the Zoning Bylaw requirements.
- All units will have private outdoor spaces consisting of a front or rear yard and a balcony on the second and/or the third floor.
- Outdoor amenity space is proposed in the central area of the site, west of the visitor parking and hammer-head area for maximum casual surveillance opportunity and sun exposure. The size and location of the outdoor amenity space is appropriate in providing open landscape and amenity space convenient to all units.
- No indoor amenity space is proposed on site. A \$19,000 cash-in-lieu contribution has been secured as a condition of rezoning approval, consistent with the OCP.
- A covered mailbox kiosk and short-term bicycle parking spaces will be provided by the outdoor amenity area.
- The required shared/common garbage, recycling and organic waste storage enclosures have been incorporated into the design of two townhouse clusters to minimize the visual impact of these enclosures.

Architectural Form and Character

- A contemporary architectural design is proposed in response to the industrial context to the east of Shell Road.
- The massing and architectural rhythm of the proposed townhouse clusters are compatible with the neighbouring developments.
- The proposed townhouses will have varied mono-pitched roofs, which would create an interesting roofscape.
- Individuality of dwelling units will be expressed by individual cantilevered entry canopy.
- A pedestrian scale is generally achieved along the public streets and internal drive aisle through the inclusion of variation in building projections, recesses, entry porches, varying material/colour combinations, landscape features, and the use of individual unit entrances.
- The impact of blank garage doors has been mitigated with panel patterned doors, transom windows, unit entrances, and planting islands along the drive aisle.

- The proposed building materials (modified bitumen SBS roofing, hardie panels, bricks veneer, and wood trim/brackets) are generally consistent with the Official Community Plan (OCP) Guidelines and are compatible with the architectural character existing within the neighbourhood.
- A palette of bold colours with white accents and brick veneer is proposed. Some metal and glass elements are selected to enhance the contemporary architectural design.

Landscape Design and Open Space Design

- Tree preservation was reviewed at rezoning stage; all 14 bylaw-sized trees on-site were identified for removal due to poor condition. Based on the 2:1 tree replacement ratio goal stated in the Official Community Plan (OCP), 28 replacement trees are required. The applicant is proposing to plant 41 replacement trees on-site, including 17 conifers and 24 deciduous trees.
- One cedar hedge on City's boulevard along the Bridgeport Road will be in conflict with the required road widening. At Rezoning, Parks Operations staff agreed to the removal of the hedgerow based on its health and condition, as well as the required frontage improvement works along Bridgeport Road. No compensation is required.
- A pedestrian-oriented streetscape along both Bridgeport Road and Shell Road is proposed; the street edge along both frontages will be defined with landscaping including various trees, shrubs and ground covers. A low transparent aluminum fence with gates will be installed along the road frontage to accommodate visually interesting plant species.
- A private walkway from Bridgeport Road to the development site is proposed along the west property line to provide pedestrian access to the units in Building C.
- Each unit will have a private yard with landscaping and lawn area. Various hedges, shrubs and ground covers, as well as perennials and grasses have been selected to ensure the landscape treatment remains interesting throughout the year.
- The north end of the drive aisle will be marked by landscaping and a trellis. An ornamental steel ring will be affixed on the drive aisle side of the horizontal rails. From the Bridgeport Road frontage, the lower portions (and eventually all) of the trellis will be screened by the proposed conifers and other landscaping.
- Landscape pockets with shrubs and grasses will be provided along the main north-south internal drive aisle.
- An on-site irrigation system is proposed to ensure continued maintenance of live landscaping.
- The location of outdoor amenity space provides the easy access and visual transparency and surveillance for the townhouse residents.
- Two play structures are proposed within the outdoor amenity area. These play structures/elements are chosen to fit into the provided space and to allow multiple children to play at the same time. The equipment provides different play opportunities for the development of social, imagination, balance, and motor skills. Benches are also proposed near the children's play area for caregivers.

- Permeable pavers will be used at the vehicle entrance, at the ends of the internal drive aisle, hammerhead area to break up the expansive paved surface on-site. Surface parking stalls will also be treated with permeable pavers for better water infiltration and variety in paving surfaces.
- In order to ensure that the proposed landscaping works are completed, the applicant is required to provide a landscape security of \$177,195.00 in association with the Development Permit.

Crime Prevention Through Environmental Design

- The pedestrian entry and walkway are straight with direct sightline.
- Low level landscape path lighting is proposed along the pedestrian walkway and outdoor amenity area; wall mounted lights are provided along the building faces.
- The common public space are centralized with windows and balconies overlooking the public walkway and drive aisle.
- The private open yard spaces are defined by fence and shrubs. Fencing adjacent to the streets are low and transparent, providing visual connection over the street from the private yards.

Sustainability

- At the rezoning stage, the applicant committed to achieving an EnerGuide rating of 82 for the proposed town houses and to pre-ducting all units for solar hot water heating. The proposal meets the grandfathering provisions for Energy Step Code approved by Council.
- A Certified Energy Advisor has confirmed that the proposed townhouse units will be designed to achieve an EnerGuide rating of 82. The report prepared by the Energy Advisor is on file and will be utilized through the Building Permit review process to ensure these measures are incorporated in the Permit drawings.
- The following design/features will be incorporated into the development:
 - High efficiency equipment including air source heat pump and energy star appliance; and
 - low-flow toilets.

Accessible Housing

- The proposed development includes two convertible units that are designed with the potential to be easily renovated to accommodate a future resident in a wheelchair. The potential conversion of these units will require installation of a vertical lift in the stacked storage space (which has been dimensioned to allow for this in Units #14 and #15) in the future, if desired.
- All of the proposed units incorporate aging in place features to accommodate mobility constraints associated with aging. These features include:
 - stairwell hand rails;
 - lever-type handles for plumbing fixtures and door handles; and
 - solid blocking in washroom walls to facilitate future grab bar installation beside toilets, bathtubs and showers.

Conclusions

As the proposed development would meet applicable policies and Development Permit Guidelines, staff recommend that the Development Permit be endorsed, and issuance by Council be recommended.



Edwin Lee
Planner 2

EL:cas

Attachment 1: Development Application Data Sheet

Attachment 2: Excerpt from Advisory Design Panel Meeting Minutes (September 5, 2019)

Attachment 3: Development Permit Considerations



DP 18-828900

Attachment 1

Address: 10760, 10780 Bridgeport Road and 3033, 3091, 3111 Shell Road

Applicant: 1082009 BC Ltd.

Owner: 1082009 BC Ltd.

Planning Area(s): Bridgeport (Schedule 2.12)

Floor Area Gross: 3,386.7 m²

Floor Area Net: 2,393.3 m²

	Existing	Proposed
Site Area:	3,838 m ²	3,419 m ²
Land Uses:	Single-Family Residential	Multiple-Family Residential
OCP Designation:	Low-Density Residential	No Change
Area Plan Designation:	Residential (Townhouse)	No Change
Zoning:	Single Detached (RS1/F)	Low Density Townhouses (RTM3)
Number of Units:	5	19 townhouse units + 2 secondary suites

	Bylaw Requirement	Proposed	Variance
Floor Area Ratio:	Max. 0.70	0.70	none permitted
Lot Coverage – Building:	Max. 40%	38%	none
Lot Coverage – Non-porous Surfaces:	Max. 65%	57%	none
Lot Coverage – Landscaping:	Min. 25%	25%	none
Setback – Front Yard (north) – Bridgeport Road (m):	Min. 6.0 m	3.3 m	variance required
Setback – Exterior Side Yard (east) – Shell Road (m):	Min. 6.0 m	4.5 m	variance required
Setback – Side Yard (west) (m):	Min. 3.0 m	3.5 m	none
Setback – Rear Yard (South) (m):	Min. 3.0 m	4.6 m	none
Height (m):	Max. 12.0 m (3 storeys)	11.22 m (3 storeys)	none
Lot Width:	Min. 50.0 m	43.38 m	variance required
Lot Depth:	Min. 30.0 m	86.1 m	none
Site Area:	Min. 1,800 m ²	3,419 m ²	none

Off-street Parking Spaces – Regular (R) / Visitor (V):	2 (R) and 0.2 (V) per unit plus (1) R per secondary suite on lot fronting an arterial road	2 (R) and 0.21 (V) per unit plus (1) R per secondary suite	none
Off-street Parking Spaces – Total:	40 (R) and 4 (V)	40 (R) and 4 (V)	none
Tandem Parking Spaces:	Max. 50% of proposed residential spaces in enclosed garages (38 x Max. 50% = 19)	18	none
Small Car Parking Spaces	Max. 50% when 31 or more spaces are provided on-site (44 x Max. 50% = 22)	13	none
Handicap Parking Spaces:	Min. 2% when 11 or more spaces are required (44 x 2% = 1 spaces)	1	none
Bicycle Parking Spaces – Class 1 / Class 2:	1.25 (Class 1) and 0.2 (Class 2) per unit	1.52 (Class 1) and 0.21 (Class 2) per unit	none
Off-street Parking Spaces – Total:	24 (Class 1) and 4 (Class 2)	29 (Class 1) and 4 (Class 2)	none
Amenity Space – Indoor:	Min. 70 m ² or Cash-in-lieu	Cash-in-lieu	none
Amenity Space – Outdoor:	Min. 6 m ² x 19 units = 114 m ²	124 m ²	none

Excerpt from the Minutes from
The Design Panel Meeting

Thursday, September 5, 2019 – 4:00 p.m.
Rm. M.1.003
Richmond City Hall

1. **DP 18-828900 – 19-UNIT TOWNHOUSE DEVELOPMENT**

ARCHITECT: Eric Law Architect

LANDSCAPE ARCHITECT: Donald V. S. Duncan Landscape Architect

PROPERTY LOCATION: 10760, 10780 Bridgeport Road and 3033, 3091, 3111 Shell Road

Applicant's Presentation

Eric Law, Eric Law Architect, and Donald Duncan, Donald Duncan Development Consultant Landscape Architect, presented the project and answered queries from the Panel on behalf of the applicant.

Panel Discussion

Comments from Panel members were as follows:

- applicant has explained well the intention of the project through the drawings and the model presented to the Panel;
noted

- townhouse units along Bridgeport Road need further design development to better address their relationship to a busy street;
The elevation appearance and finishes along Bridgeport has been adjusted. The original design has a brick finish on the 1/F and 2/F of the unit. The 3/F is recessed and finished with white and grey finish Hardi panel. The revised design emphasis the presence of building corner at the intersection of the busy street. Instead of recessing 3/F, the 2/F and 3/F are projected out from the building mass and are finished with white solid. This treatment contrasts with the rest of the units in the building blocks. As a result, the white panel forms an anchor to the corner of the road intersection. The rest of the building facing Bridgeport Road has brick finishes on the 1/F and 2/F giving a solid base to the building. The 3/F hardi panel are painted in grey so that it contrast the white panels at the intersection of the road. Recessed balcony is then provided to articulate between the white panel anchor and the rest of the building.

- consider bringing the architectural language of the façades of Units 1 and 2 at the south end of Building A adjacent to the site entrance to the townhouse units along Shell Road close to Bridgeport Road;
The end of building A (unit 1 and 2) has a more solid appearance with white panels on 2/F and 3/F. The finish on the 1/F is different. This treatment is brought to the Unit 12 facing Shell in which the 2/F and 3/F is now provided with the same white solid panel treatment. The 1/F has a different brick finish. This arrangement echo treatment to the both ends of the building blocks.

- mono-pitched roofs of townhouse units appear segmented and thin and variations in roofline may not be necessary; consider simplifying the design of the roofs;
The mono-pitch roof is to express the individual unit from the exterior elevations.

- overall proportions of the two-storey and three-storey units are good; however, the roofs appear heavy particularly around the corner of Shell Road and Bridgeport Road;
The roof fascia depth is reduced so that it is looks lighter.

- consider relocating the balconies of the two-storey townhouse units (facing the internal drive aisle) in Building D to the opposite side (south side) facing the private gardens and the trees;
Addition south facing balconies are added to building D.

- the inspiration from the design of the industrial buildings to the east of the subject site as indicated by the applicant is not apparent in the architectural design of the townhouse buildings in the proposed development;
This is a response to provide a modern looking townhouse rather than resembling the neighbour traditional neighbour pitch roof house form.
- depth of fascia appears heavy relative to the expression that the architect is trying to achieve; consider minimizing the depth of the fascia;
The depth of roof fascia has been reduced.
- walls of buildings A and B abutting the gap between the two buildings appear blank; consider installing windows on these walls to provide daylighting to the stairs adjacent to these walls and to provide articulation to the blank walls;
additional windows are added to building A and B.
- investigate opportunities to increase the height of sloping ceilings;
The roof truss section is adjusted to create higher sloping ceiling inside the bedroom.
- consider extending the paving treatment for the truck turnaround area adjacent to the outdoor amenity area across the internal drive aisle to help anchor the centre of the subject site;
While we understand the desire of the panel to create a central anchor, we also feel that it is important to difference the more highly used drive aisle from the truck turn around. While the turn around will rarely see vehicular use, the drive aisle will have regular traffic. We feel that it is important to visual difference these two areas if we are to encourage residents to use the turn around area as an extension of the amenity plaza in a safe manner.
- the subject site is challenging to work on; however, the applicant has done a good job;
noted
- corner units (at the intersection of Bridgeport and Shell Road) appear “busy” compared to the other units; consider simplifying the design of these units; also investigate opportunities to increase the ceiling heights of the building interior;
the corner unit roof is simplified and to resemble the unit 1 and 2 as commented above. Interior ceiling height is increased as indicated in the section to provide higher ceiling inside the bedrooms.

- proposed number of conifer trees proposed to be installed on-site are too few;
The limited number of coniferous trees on site is a function of the limited yard area available. Given the conical habit of young conifers, it was felt that they were an unsuitable choice for most of the garden areas. However, conifers are represented in significant numbers by the Thuja and Taxus used for hedging.
- the tree at the north east corner of the site is overhanging the sidewalk and pedestrian walkway; could pose a potential CPTED issue;
The tree at the north east corner of the site has been move further west. The tree and canopy is now sufficiently away from the sight triangle.
- question the necessity for the proposed secondary pedestrian access at the end of the drive aisle dead end by Unit 12; consider removing this pedestrian access and adding a tree in this location; also consider installing a tree at the end of the access space for the accessible parking stall; landscape
The access has been removed.
- review the lay-out of the children's play area; overlapping the safety zones could create more play space;
The children's play area has been relocated and designed with a central structure offering may play opportunities.
- consider flipping the tower slide around to the north-east to minimize sun exposure;
The play structure has been relocated to an area providing shade to the slide.
- consider rearranging the location of the two benches at the outdoor amenity area to provide more space for children to move around and play;
The benches and amenity area have been relocated to provide more area and better opportunities for interactions between those seated on the benches.
- consider installing signage at the principal pedestrian entry from Bridgeport Road to the proposed townhouse development;
The pedestrian entry off Bridgeport has been supplied with widened paving, overhanging arbour and double gates to difference it from the private entry and create a more inviting access point. The view along the walkway makes is evident that this is not a private access to an individual unit.
- consider making the second floor bathroom of the convertible unit accessible as it is a positive feature from an accessibility and business point of view;
The second floor bathroom is adjusted to be accessible.

- ensure that there is sufficient space for the elevator door to swing out on the second floor of the convertible unit; should be indicated in the floor plans, e.g. an overlay drawing is suggested;
The future swing out door and turning circle are indicated on floor plan.
- support the proposed design of the third floor of units along Bridgeport Road as it is consistent with the expression of the roof, notwithstanding Panel comments regarding the design of the roof and soffit and the massing;
noted
- consider using a triple glazed window for the living room on the first floor of units facing Bridgeport Road to allow more daylight and at the same time achieve acoustical requirements;
Additional windows are added to provide more sunlight to the secondary suite and the addition is still within acceptable size in acoustical report
- understand the rationale for the different design of the façades of Units 1 and 2 at the south end of Building A; however, consider integrating bricks around the corner similar to the façade treatment to the northeast corner unit;
Additional brick added to the end of building A and turn around the building corner along the entrance drive aisle.
- consider relocating the electrical closet down south as its proposed location compromises the children's play area;
The children play area is adjusted and the location electrical closet is adjusted.
- consider removing the fence around the children's play area as concerns for safety and security of children could be addressed by the provision of benches for parents; eliminating the fence would also help achieve the integration of the children's play area and the truck turnaround area as a large amenity space;
The play area has been relocated. And the amenity are redesigned.
- the applicant has done a good job in a challenging site;
noted
- concern on the potential hazard to children of the proposed wobble bridge in the children's play area that has logs swinging back and forth;
The wobble bridge has been eliminated.
- appreciate the applicant contributing the City's Public Art Fund; however, the applicant is encouraged to incorporate public art into the project as it will enhance the public realm and helps identify the project in the area;
Client prefer to contribute to the public art fund.

- consider incorporating unique elements at the pedestrian entries to the project to further identify and differentiate them from the rest of the project, e.g. incorporating different landscaping and lighting;
It is felt that the use of a gate and proximity of the building entries provide good differentiation of the entries. The entry points are likewise identified by the rhythm of the plantings that bracket each front yard.
- support the use of different paving treatment for pedestrian circulation areas and visitor parking stalls; also consider introducing a different paving treatment for pedestrian ingress/egress to/from the garbage and recycling area;
The area between the recycling and refuse cabinets has been paved with broom finish concrete.
- support the different façade for the east elevations of Units 1 and 2 at the south end of Building A as it helps break the horizontal scale of the Shell Road elevation and enhance the pedestrian experience along the street; also support the different façade treatment for the unit at the corner of Shell Road and Bridgeport Road which could be further enhanced; and
The unit along Bridgeport has been revised to resemble unit 1 and 2 finish as commented above.
- reconsider the proposed paving pattern for the truck turnaround area; the paving pattern should extend into the outdoor amenity area with a focal point away from the truck turnaround area to better integrate the two outdoor spaces.
Elements of the amenity plaza paving design now extend out directly into the turnaround area.

Panel Decision

It was moved and seconded

That DP 18-828900 be supported to move forward to the Development Permit Panel subject to the applicant giving consideration to the comments of the Advisory Design Panel, particularly comments relating to proposed changes to the design of the outdoor amenity area.

CARRIED



City of
Richmond

Development Permit Considerations

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

Address: 10760 & 10780 Bridgeport Road and 3033, 3091 & 3111 Shell Road

File No.: DP 18-828900

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

1. Final adoption of the Zoning Amendment Bylaw 9834.
2. Registration of a legal agreement on Title identifying that the proposed development must be designed and constructed in a manner that mitigates potential traffic noise from Bridgeport Road and Shell Road to the proposed dwelling units. Dwelling units must be designed and constructed to achieve:
 - a) CMHC guidelines for interior noise levels as indicated in the chart below:

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

- b) The ASHRAE 55-2004 “Thermal Environmental Conditions for Human Occupancy” standard for interior living spaces.
3. Receipt of a Letter of Credit for landscaping in the amount of \$ 177,195.00 (based on the costs estimate provided by a CSLA registered landscape Architect including 10% contingency).

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

1. Submission of a Construction Parking and Traffic Management Plan to the Transportation Department. Management Plan shall include location for parking for services, deliveries, workers, loading, application for any lane closures, and proper construction traffic controls as per Traffic Control Manual for works on Roadways (by Ministry of Transportation) and MMCD Traffic Regulation Section 01570.
2. Incorporation of energy efficiency, CPTED, sustainability, and accessibility measures in Building Permit (BP) plans as determined via the Rezoning and/or Development Permit processes.
3. Obtain a Building Permit (BP) for any construction hoarding. If construction hoarding is required to temporarily occupy a public street, the air space above a public street, or any part thereof, additional City approvals and associated fees may be required as part of the Building Permit. For additional information, contact the Building Approvals Department at 604-276-4285.

Note:

- * This requires a separate application.
- Where the Director of Development deems appropriate, the preceding agreements are to be drawn not only as personal covenants of the property owner but also as covenants pursuant to Section 219 of the Land Title Act.
All agreements to be registered in the Land Title Office shall have priority over all such liens, charges and encumbrances as is considered advisable by the Director of Development. All agreements to be registered in the Land Title Office shall, unless the Director of Development determines otherwise, be fully registered in the Land Title Office prior to enactment of the appropriate bylaw.
The preceding agreements shall provide security to the City including indemnities, warranties, equitable/rent charges, letters of credit and withholding permits, as deemed necessary or advisable by the Director of Development. All agreements shall be in a form and content satisfactory to the Director of Development.
- Additional legal agreements, as determined via the subject development's Servicing Agreement(s) and/or Development Permit(s), and/or Building Permit(s) to the satisfaction of the Director of Engineering may be required including, but not limited to, site investigation, testing, monitoring, site preparation, de-watering, drilling, underpinning, anchoring, shoring, piling, pre-loading, ground densification or other activities that may result in settlement, displacement, subsidence, damage or nuisance to City and private utility infrastructure.

Initial: _____

- Applicants for all City Permits are required to comply at all times with the conditions of the Provincial *Wildlife Act* and Federal *Migratory Birds Convention Act*, which contains prohibitions on the removal or disturbance of both birds and their nests. Issuance of Municipal permits does not give an individual authority to contravene these legislations. The City of Richmond recommends that where significant trees or vegetation exists on site, the services of a Qualified Environmental Professional (QEP) be secured to perform a survey and ensure that development activities are in compliance with all relevant legislation.

Signed

Date



No. DP 18-828900

To the Holder: 1082009 BC Ltd.

Property Address: 10760, 10780 Bridgeport Road and 3033, 3091, 3111 Shell Road

Address: c/o Eric Law
Eric Law Architect Inc.
288 W 8th Avenue, Unit 216
Vancouver, BC V5Y 1N5

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 reduce:
 - a) the minimum lot width on major arterial road from 50.0 m to 43.3 m;
 - b) the minimum front yard setback to Bridgeport Road from 6.0 m to 3.3 m; and
 - c) the minimum exterior side yard setback to Shell Road from 6.0 m to 4.5 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 #33 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 \$177,195.00 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 18-828900

To the Holder: 1082009 BC Ltd.
Property Address: 10760, 10780 Bridgeport Road and 3033, 3091, 3111 Shell Road
Address: c/o Eric Law
Eric Law Architect Inc.
288 W 8th Avenue, Unit 216
Vancouver, BC V5Y 1N5

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.
DAY OF , .

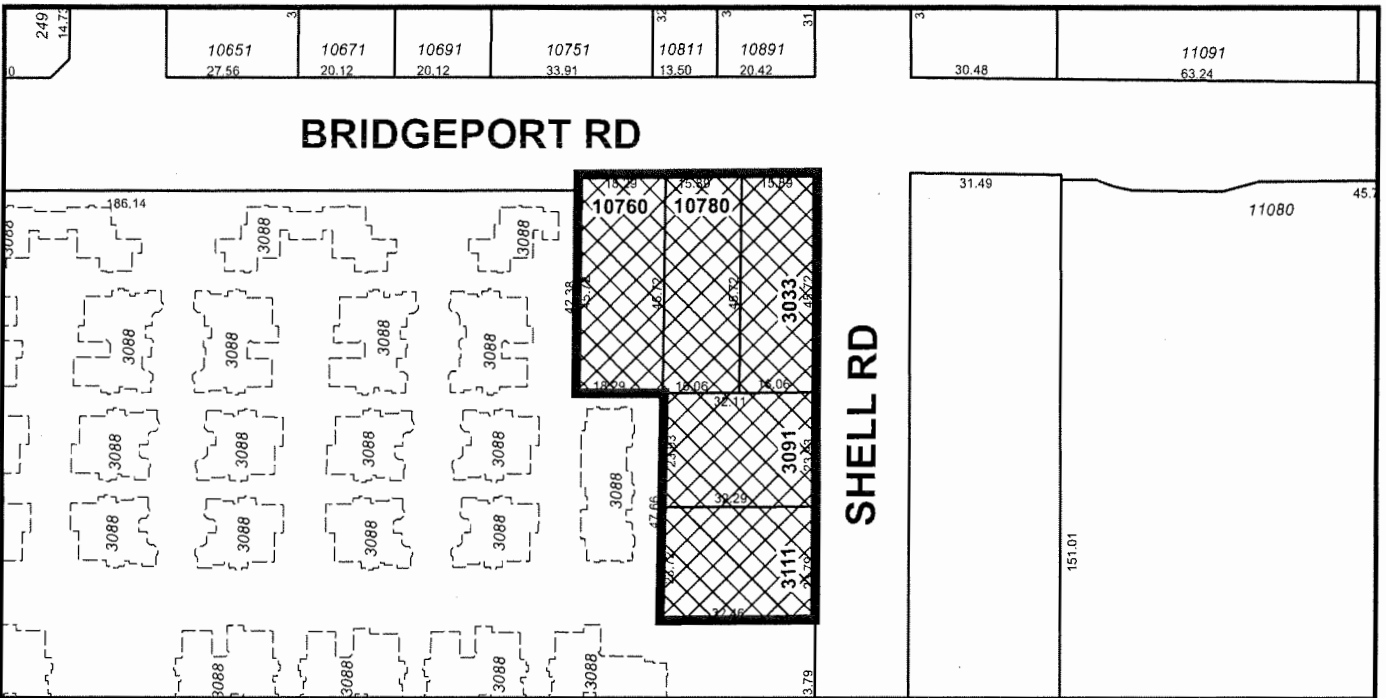
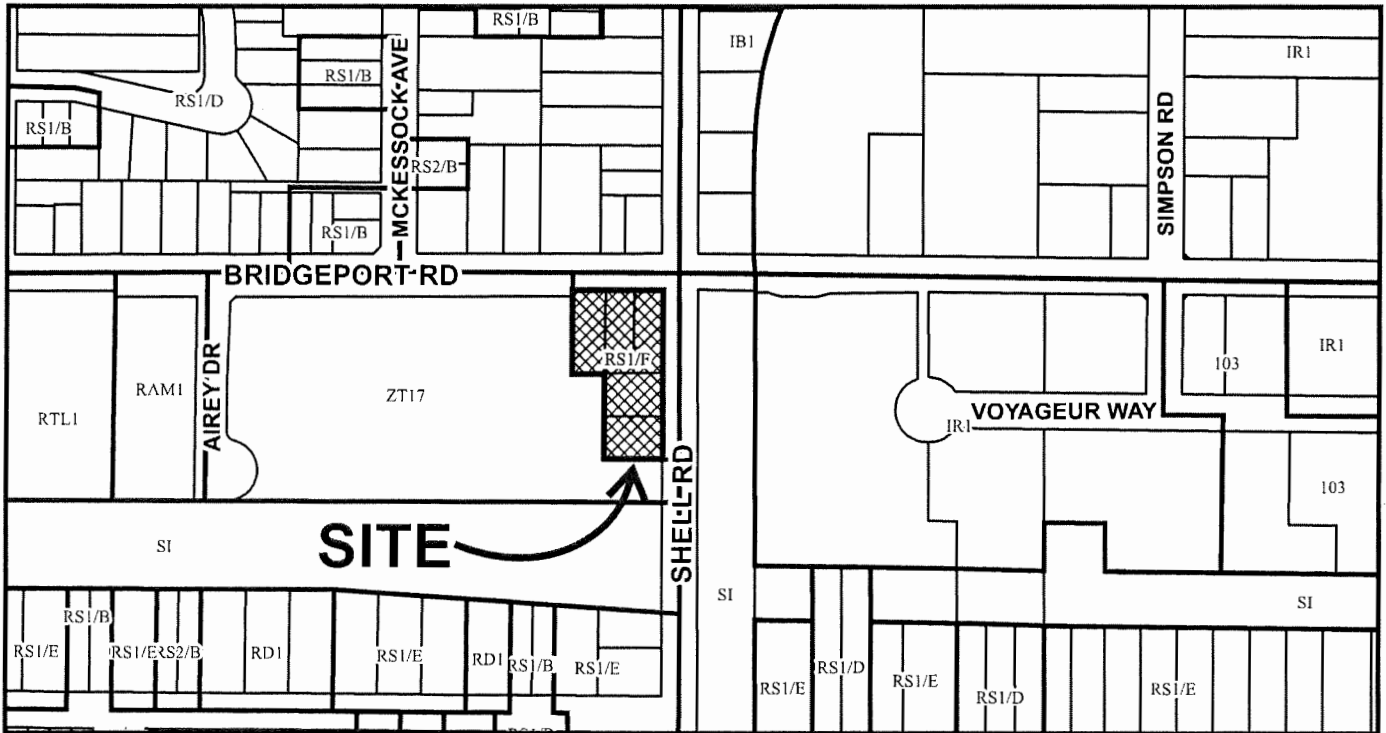
ISSUED BY THE COUNCIL THE

DELIVERED THIS DAY OF , .

MAYOR



City of Richmond



DP 18-828900 SCHEDULE "A"

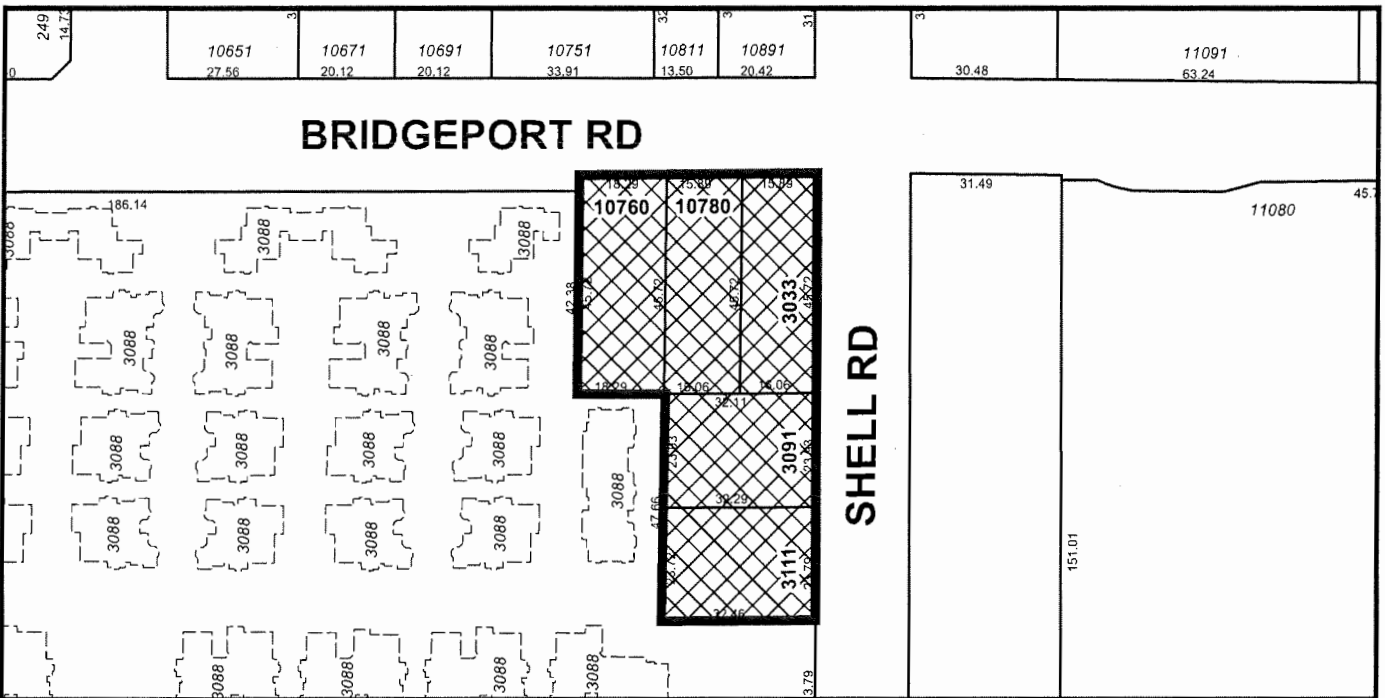
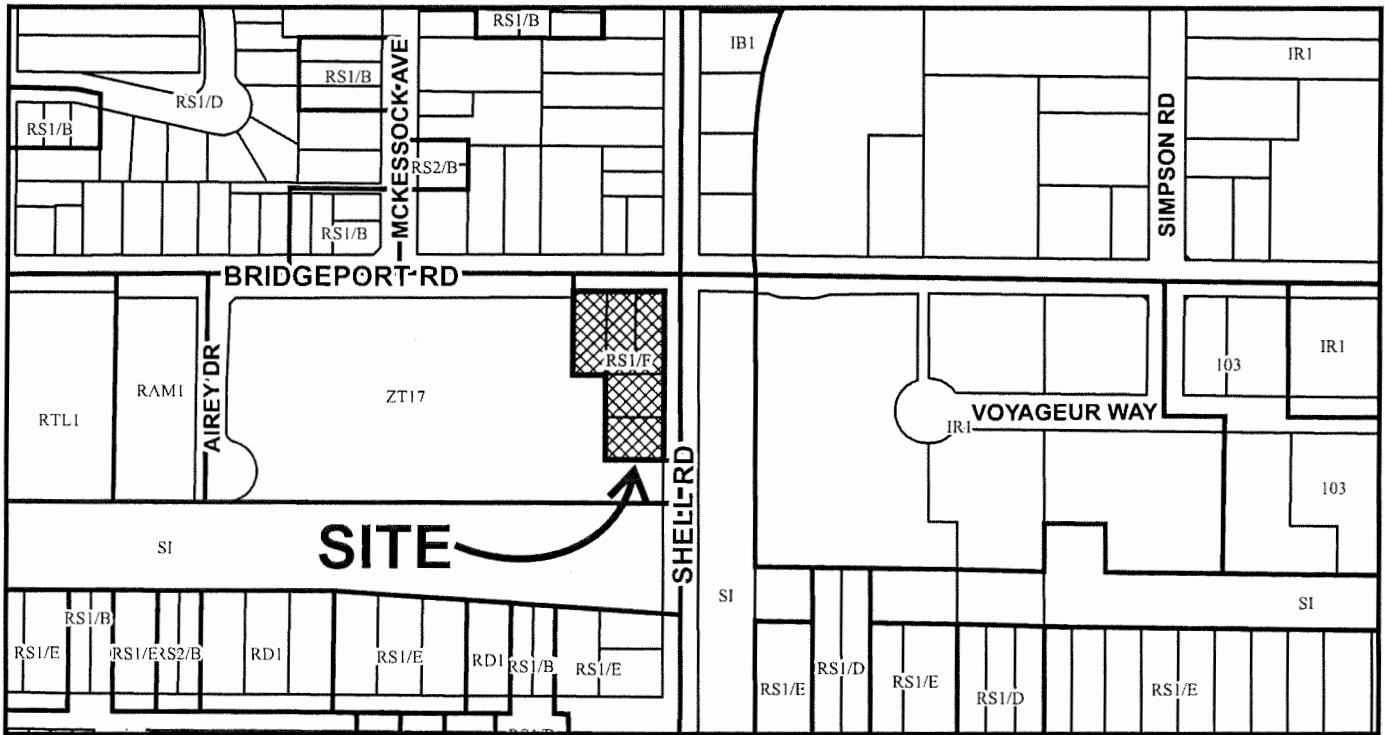
Original Date: 08/07/18

Revision Date:

Note: Dimensions are in METRES



City of Richmond



DP 18-828900

Original Date: 08/07/18

Revision Date:

Note: Dimensions are in METRES

PROPOSED TOWNHOUSE DEVELOPMENT AT 3033, SHELL RD RICHMOND BC

(3033, 3091 & 3111 SHELL RD. AND 10760, 10780 BRIDGEPORT RD)

DEVELOPMENT DATA

- (A) CIVIC ADDRESS: 3033, 3091 AND 3111 SHELL ROAD AND 10760, 10780 BRIDGEPORT RD
- (B) LEGAL DESCRIPTION: LOT 102 PLAN 34293 AND LOT 104 TO 106 AND PARCEL "B"(682835E) PLAN 36053 ALL OF SECTION 26 BLOCK 5 NORTH RANGE 6 WEST NEW WESTMINSTER DISTRICT
- (C) LOT AREA: BEFORE ROAD DEDICATION 3838 SM (41311 SF)
AFTER ROAD DEDICATION ALONG BRIDGEPORT AND SHELL RD 3419SM (36,801SF)
- (D) ZONING USE CURRENT: RS1/F,

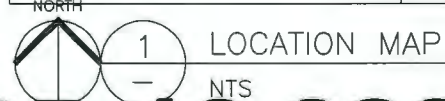
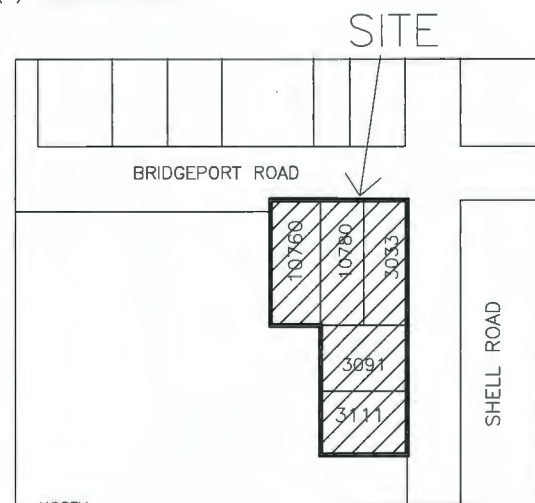
CURRENT ZONING (UNDER RS1/F ZONING)	PROPOSED REZONING RTM3	PROPOSED DEVELOPMENT
--	---------------------------	----------------------

- | | | | |
|------------------------|--|--|---|
| (E) FLOOR AREA RATIO | 0.55 TO 454.5 SM
0.3 TO REST OF SITE AREA | 0.7
TOTAL FAR FLOOR AREA
0.7 X3419 SM= 2393.3 SM (25761 SF) | 0.7
2393.3 SM (25,759 SF) FLOOR AREA |
| (F) NUMBER OF UNIT: | 1 PER LOT | 19 UNITS | 19 UNITS |
| (G) BUILDING COVERAGE: | MAX - 45% | MAX - 40% (1367 SM 14720 SQ FT)
NON-POROUS AREA - 65% MAX
LIVE PLANT AREA - 25% MIN | SITE COVERAGE: 13993 SQ. FT. / 36801 SQ. FT = 38.0%
NON-POROUS AREA: 57% (SEE LANDSCAPE)
LIVE PLANT AREA: 25% (SEE LANDSCAPE) |
| (H) BUILDING HEIGHT: | MAX HEIGHT - 9M | MAX MAIN BUILDING HEIGHT - 12M | BUILDING HEIGHT - 11.22M |
| (I) SETBACK: | FRONTYARD - 6M
SIDEYARD - 2M
REARYARD - 6M | FRONT YARD FACING BRIDGEPORT - 6.0M
FRONT YARD FACING SHELL - 6.0M
SIDE YARD - 3.0M
REAR YARD - 3.0M | FRONT YARD FACING BRIDGEPORT RD - 3.3M (10'9") [VARIANCE REQUIRED]
FACING SHELL RD - 4.5M (14'9") [VARIANCE REQUIRED]
WEST SIDE YARD - 7.3M (23'9") AT BUILDING C
- 3.5M (11'5") AT BUILDING D
SOUTH REAR YARD - 4.6M (15'0") AT BUILDING D |
| (J) PARKING: | 2 PER DWELLING UNIT | 2 PER DWELLING UNITS X19 = 38
1 PER KNOCK OFF UNIT X2 = 2
0.2 VISITOR PARKING / UNIT X19 = 4
TOTAL = 44 REQUIRED
(50% PARKING CAN BE SMALL PARKING)

VISITOR BICYCLE
0.2 PER DWELLING UNIT X19= 4
RESIDENTIAL BICYCLE SPACE
1.25 PER DWELLING UNIT X19=24 | RESIDENTIAL PARKING: 10 REGULAR
12 SMALL
18 REGULAR IN TANDEM ARRANGEMENT
VISITOR PARKING: 1 DISABLED
2 REGULAR
1 SMALL
TOTAL PARKING PROVIDED: 44

VISITOR BIKE RACK 4
RESIDENTIAL BICYCLE SPACE 29

OUTDOOR AMENITY AND:
CHILDREN PLAYGROUND: 124.7 SM (1343 SQ. FT.) |
| (K) OPENING SPACE | | OPEN AMENITY SPACE = 6 SM PER UNIT
X19= 114 SM (1227 SF) | |



LOCATION MAP

NTS



ERIC LAW
ARCHITECT

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7. 2020.12.03 FOR CITY DPP REVIEW
8. 2021.02.18 FOR CITY DPP REVIEW

6. 2020.02.18 AS PER CITY COMMENT
5. 2020.10.31 INCREASE HEIGHT AS PER CLIENT
4. 2019.11.05 AS PER CITY AND ADP REVIEW COMMENT
3. 2019.08.08 AS PER CITY REVIEW COMMENT
2. 2019.08.20 AS PER CITY REVIEW COMMENT
1. 2019.05.14 AS PER CITY REVIEW COMMENT LETTER
REVISION

PROPOSED TOWNHOUSE
3033, 3091 & 3111 SHELL ROAD
10760, 10780 BRIDGEPORT
RICHMOND, BC

DEVELOPMENT SUMMARY

PROJECT NUMBER:16-25
ISSUED: 2/18/2021
DRAWN BY: EL
CHECKED BY: EL
FILENAME: 16-25_OBP_210218-DPP.DWG

DP 18-828900

A1

DEVELOPMENT PERMIT

PLAN # 1

March 24, 2021

DP 18-828900

ISSUED

- 2018.07.11 FOR DEVELOPMENT PERMIT SUBMISSION
- 2019.05.14 FOR CITY DP REVIEW
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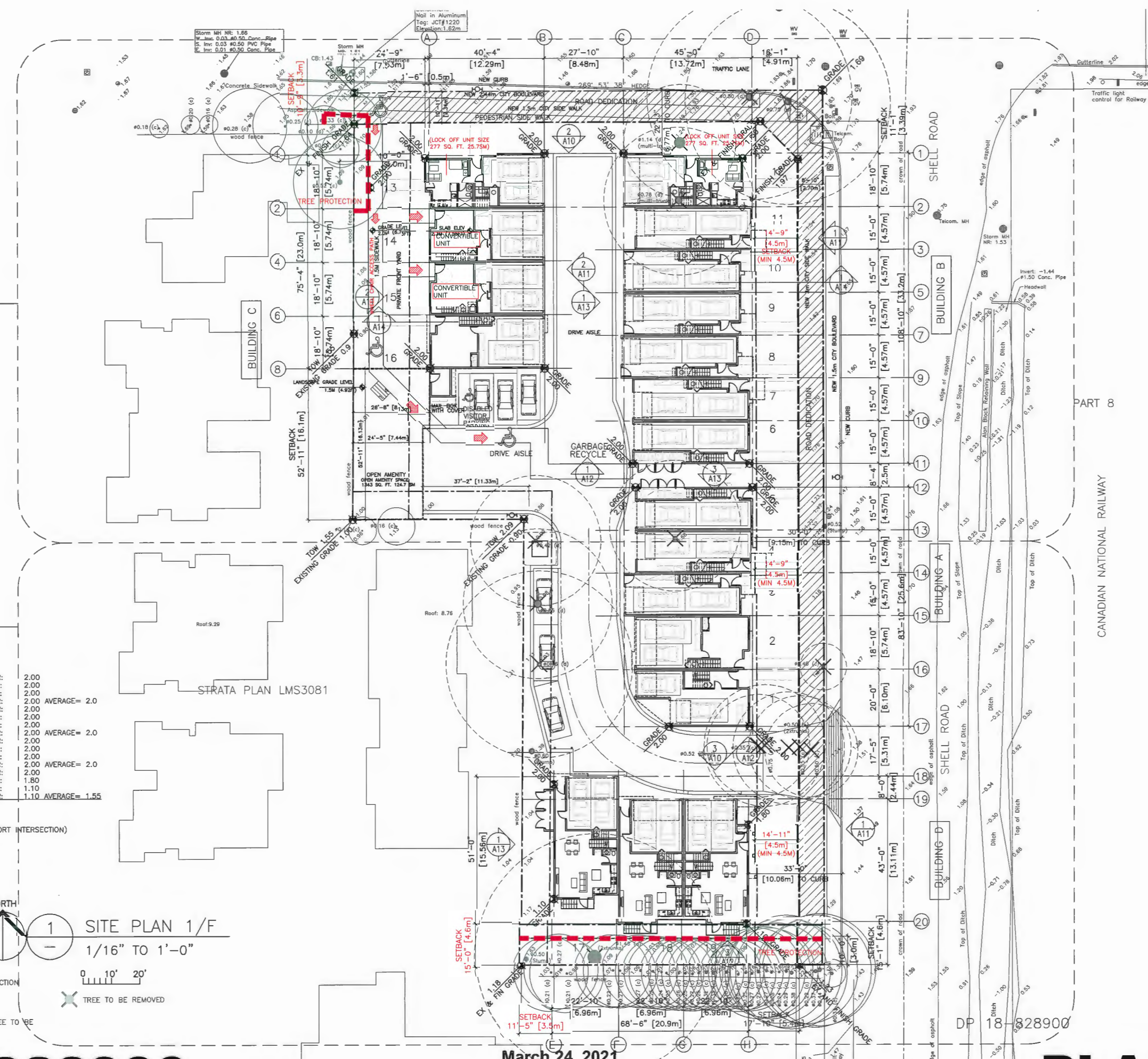
PROPOSED TOWNHOUSE
3033, 3091 & 3111 SHELL ROAD
10760, 10780 BRIDGEPORT
RICHMOND, BC
SITE PLAN G/F

PROJECT NUMBER: 16-25
ISSUED: 2/18/2021
DRAWN BY: EL
CHECKED BY: EL
FILENAME: 16-25_0BP_210218-DPP.DWG

A2

DEVELOPMENT PERMIT

PLAN # 2



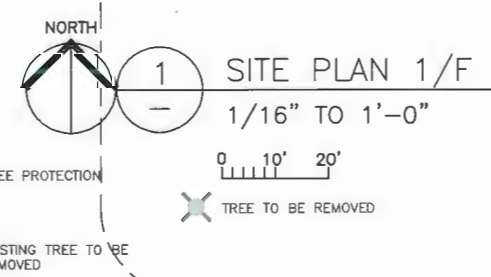
SEE DRAWING A2.1

SEE DRAWING A2.2

FINISH GRADE:			
NW LOT CORNER:	1.65	BLDG A: NW HOUSE CORNER:	2.00
NE LOT CORNER:	1.80	NE HOUSE CORNER:	2.00
SE LOT CORNER:	1.97	SE HOUSE CORNER:	2.00
SW LOT CORNER:	1.23	SW HOUSE CORNER:	2.00
MID LOT:	0.90	NE HOUSE CORNER:	2.00
MID W CORNER:	1.00	SE HOUSE CORNER:	2.00
AVERAGE:	1.39	SW HOUSE CORNER:	2.00
		AVERAGE=	2.0
		BLDG B: NW HOUSE CORNER:	2.00
		NE HOUSE CORNER:	2.00
		SE HOUSE CORNER:	2.00
		SW HOUSE CORNER:	2.00
		AVERAGE=	2.0
		BLDG C: NW HOUSE CORNER:	2.00
		NE HOUSE CORNER:	2.00
		SE HOUSE CORNER:	2.00
		SW HOUSE CORNER:	2.00
		AVERAGE=	2.0
		BLDG D: NW HOUSE CORNER:	2.00
		NE HOUSE CORNER:	1.80
		SE HOUSE CORNER:	1.10
		SW HOUSE CORNER:	1.10
		AVERAGE=	1.55
		AVERAGE	=1.88

AVERAGE GRADE: 1.63 M (5.35')
MAX CROWN OF THE ROAD: 1.97M (SHELL & BRIDGEPORT INTERSECTION)
SLAB LEVEL OF HOUSE: 2.3M

MAX BUILDING HEIGHT:
(BLDG C) 12.85M -1.63= 11.22M



March 24, 2021

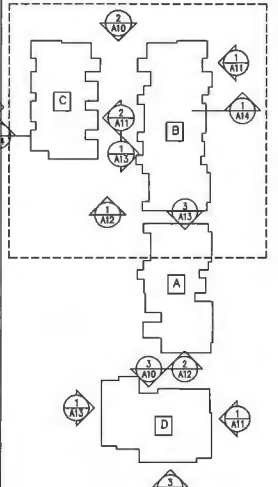
DP 18-828900

BRIDGEPORT ROAD

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 V6T 1V1
 TEL: (604) 505-2888
 FAX: (604) 909-2887

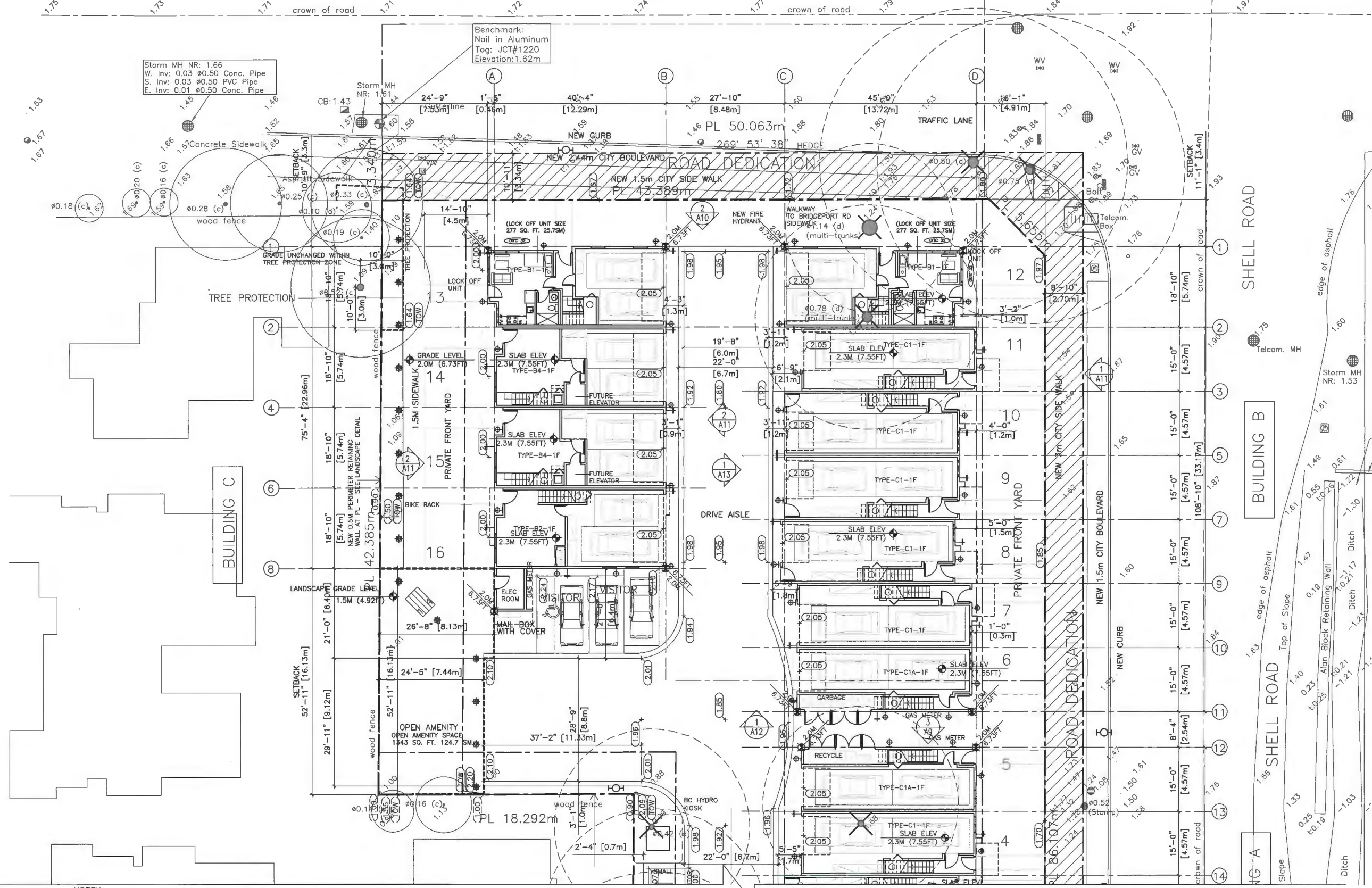
- ISSUED
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 - 2019.11.05 FOR CITY DP REVIEW
 - 2020.12.03 FOR CITY DPP REVIEW
 - 2021.02.18 FOR CITY DPP REVIEW
 - 2021.03.21 FOR CITY DPP REVIEW



- 2021.03.21 ADD LANDSCAPE LIGHT AS PER CITY COMMENT
- 2020.02.18 AS PER CITY COMMENT
- 2020.10.31 INCREASE HEIGHT AS PER CLIENT
- 2019.11.05 AS RER CITY AND ADP REVIEW COMMENT
- 2019.08.08 AS RER CITY REVIEW COMMENT
- 2019.08.20 AS RER CITY REVIEW COMMENT
- 2019.05.14 AS RER CITY REVIEW COMMENT LETTER

PROPOSED TOWNHOUSE
 3033, 3091 & 3111 SHELL ROAD
 10760, 10780 BRIDGEPORT
 RICHMOND, BC
SITE PLAN (ENLARGED)

PROJECT NUMBER: 16-25
 ISSUED: 3/21/2021
 DRAWN BY: EL
 CHECKED BY: EL
 FILENAME: 16-25_OBP_210321-DPP-W-LIGHT



1 SITE PLAN 1/F (ENLARGED)
 3/32" TO 1'-0"
 SEE A2 FOR OVERALL SITE PLAN
 + EXTERIOR LIGHT
 + HOSE BIB

SEE DRAWING A2.2 FOR CONTINUATION

★ PATH LANDSCAPE LIGHT



DP 18-828900

March 24, 2021

DP 18-828900

PLAN # 3

DEVELOPMENT PERMIT

**ERIC LAW
ARCHITECT**

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8. 2021.02.18 FOR CITY DPP REVIEW
9. 2021.03.21 FOR CITY DPP REVIEW

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6. 2020.02.18 AS PER CITY COMMENT
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REVISION

**PROPOSED TOWNHOUSE
3033, 3091 & 3111 SHELL ROAD
10760, 10780 BRIDGEPORT
RICHMOND, BC**

SHADOW STUDY

PROJECT NUMBER:16-25
ISSUED: 3/23/2021
DRAWN BY: EL
CHECKED BY: EL
FILENAME: 16-25_OBP_210323-DPP.DWG

SHADOW

DEVELOPMENT PERMIT



SHADOW STUDY
MARCH 21-10:00AM

SHADOW STUDY
MARCH 21-12:00PM

SHADOW STUDY
MARCH 21-3:00PM



SHADOW STUDY
JUNE 22-10:00AM

SHADOW STUDY
JUNE 22-12:00PM

SHADOW STUDY
JUNE 22-3:00PM

DP 18-828900

March 24, 2021

DP 18-828900

PLAN # 5

SUMMARY OF ENERGUIDE 82 REPORT: REFER DETAIL TO ENERGUIDE RATING REPORT PREPARED BY CAPTURE ENERGY DATED DECEMBER 17, 2018

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".

Unit 15: The following list of upgrades have been identified for Unit 12. If all of these upgrades are installed in Unit 12, and in other units assessed to have similar or better energy performance, energy modelling indicates the units will achieve or exceed an EnerGuide 82 rating.

Component	Upgrade	Commitment
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.
Insulation:	R22 nominal above grade walls	R22 insulation will be specified on the building plans. Should this increase in insulation level require changes to building assemblies, these will be shown on the building plans.

SUMMARY OF THERMAL REPORT: REFER DETAIL TO THERMAL COMFORT REPORT PREPARED BY ENERSOLV DATED NOVEMBER 22, 2018

EXECUTIVE SUMMARY

A thermal comfort analysis was completed for a townhouse development located at 10760 Bridgeport Road, Richmond B.C. To mitigate the amount of aircraft noise infiltrating local buildings, the city of Richmond's Official Community Plan (OCP) requires a thermal comfort during the development permit process to ensure comfort levels for future occupants will be achieved during peak summer design conditions and when doors and windows are closed.

In order to assess the thermal comfort and thermal dynamic simulation model was completed using IES Virtual Environment simulation software. Two separate scenarios were modeled, the proposed building with air conditioning and the proposed building without air conditioning. It was determined that air conditioning for all homes would be required to ensure thermal comfort compliance with the American Society of Heating, Refrigeration and Air-conditioning Engineers (ASHRAE) 55 standard during peak summer conditions with the windows closed.

The results obtained in this thermal comfort model, scenario 2 – addition of mechanical cooling indicate a Predicted Mean Vote (PMV) of 0.2-0.4 and a Predicted Percentage Dissatisfied (PPD) of 8/9%. It can be concluded from the analysis that mechanical cooling will be required in this developments design to adequately satisfy the cooling requirements during peak summer conditions with windows closed as required by the City of Richmond and maintain human comfort levels in accordance with ASHRAE 55 and International Standards Organization (ISO) 7730

SUMMARY OF ACOUSTIC REQUIREMENT ON HEAT PUMP ACOUSTICAL REPORT PREPARED BY BKL CONSULTANTS DATED OCTOBER 29, 2020

Re: 10760, 10780 Bridgeport Road and 3033, 3091, 3111 Shell Road, Richmond Heat Pump Noise Limit Assessment

The 10760, 10780 Bridgeport Road and 3033, 3091, 3111 Shell Road development comprises four three-storey townhouse buildings. This report provides our analysis and recommendations to address the noise impact on nearby residents from the mechanical equipment proposed. The noise-emitting equipment is comprised of exterior heat pump units. The closest residents are to the west, south, and north of the project site. We have used the drawings dated November 19, 2019 to inform our analysis.

Noise Bylaw Criteria

The City of Richmond Noise Regulation Bylaw 8856 (the Bylaw) defines daytime as the hours from 7 am to 8 pm, except on weekends and public holidays when it is defined as the hours from 10 am to 6 pm. Nighttime is defined as the remaining hours. The Richmond Zoning map shows that the Bridgeport Rd and Shell Rd Project location is in a "RS1/F" zone and the residential properties surrounding the property to be on "ZT17" and "RS1/D" zones. Per the Bylaw, all listed zones are considered residential zones. Therefore, clause 2.1.1 of the Noise Bylaw 8856 is applicable.

Clause 2.1.1 specifies the maximum permitted noise levels generated from a Quiet Zone as follows:

- Daytime - "55 dBA or 65 dBC when received at a point of reception in a Quiet Zone"
- Nighttime - "45 dBA or 55 dBC when received at a point of reception in a Quiet Zone"

The "point of reception" is defined in the City of Richmond Noise Regulation Bylaw 8856 as follows:

"... a position within the property line of the real property occupied by the recipient of a sound that best represents the location at which that specific sound, emanating from another property, is received and the resulting disturbance is experienced..."

We have considered the residential properties to the west, south, and north of the project site in our analysis.

Results and Recommendations

We performed predictions of the maximum permitted noise levels at the nearest point of reception based on the drawings provided.

The heat pumps most likely to exceed the noise bylaw limits are the proposed heat pump units on the west side of Buildings A and C and heat pump units on the south side of Building D. The closest point of reception for these heat pump units are the residential properties across the west and south property lines, respectively.

In order to maintain compliance with the Bylaw, Table 1 below summarizes the maximum broadband sound power level of the heat pumps. Should the sound power levels of the installed heat pumps exceed those detailed in Table 1, then additional measures may be required to limit noise emissions to maintain Bylaw compliance.

Table 1: Maximum Mechanical Equipment Sound Power Level

Equipment	Sound Power Level (dBA)
Heat Pump - Outdoor Unit	60

Conclusions

We predict that the City of Richmond noise bylaw criteria would be met if the installed heat pumps have a sound power level no greater than 60 dBA. If the sound power levels of selected mechanical equipment exceed this value, additional noise mitigation measures may be required.

ERIC LAW ARCHITECT

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FAX: (604) 909-2987

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REVISION

**PROPOSED TOWNHOUSE
3033, 3091 & 3111 SHELL ROAD
10760, 10780 BRIDGEPORT
RICHMOND, BC**

NOTES

PROJECT NUMBER: 16-25
ISSUED: 2/18/2021
DRAWN BY: EL
CHECKED BY: EL
FILENAME: 16-25_OBP_210218-DPP.DWG

A1.1

DP 18-828900

March 24, 2021

DP 18-828900

PLAN # 6

DEVELOPMENT PERMIT

SUMMARY OF ACOUSTIC UPGRADE. REFER DETAILS TO ACOUSTICAL REPORT PREPARED BY BKL CONSULTANTS DATED FEBRUARY 5, 2019

Detailed Review and Recommendations

We have calculated sound insulation according to ISO 12354 and utilized a source spectrum which is representative of the road and aircraft noise that the site is exposed to. Interior A-weighted 24-hour equivalent sound levels ($L_{eq,24}$) for individual rooms were calculated based on the areas and constructions of the exterior facade elements and the size and type of the room.

The detailed review of the project design was based on the above criteria and on project drawings received. We offer the following comments to satisfy the development requirements of the City:

1. Roof Assembly

The proposed roof construction of:

- 2 ply SBS water proofing membrane
- 1/2" plywood sheathing
- strapping for cross ventilation
- roof truss or wood joist slope to fall
- R28 Batt insulation
- 6 mil poly vapour barrier
- 5/8" gypsum board ceiling

will provide adequate noise isolation to all interior spaces. Any further increase in material thickness or density is acceptable. Roof assemblies are assumed to be vented. Not installing any roof vents is also acceptable acoustically.

2. Exterior Wall

The proposed exterior wall construction of:

- Hardie panel/siding, or facing brick
- 1x3 p.t. strapping
- Tyvek membrane
- 1/2" plywood sheathing
- 2x6 wood stud at 16" o.c.
- R-22 batt insulation
- 6 mil poly vapour barrier
- 1/2" gypsum board

will not provide adequate noise isolation to all interior spaces. We recommend that specific walls for Buildings B and C be upgraded by using 2x4 staggered wood studs (SWS) and/or adding one extra layer of 5/8" Type X gypsum wall board. The appended floor plans show where exterior wall upgrades are required and which upgrades are required.

These upgrades would improve the sound insulation to an adequate level. Any further increase in material thickness or density is acceptable.

3. Exterior Windows and Balcony/Patio Doors

Windows with a standard glazing detail, assumed to be two layers of 3 mm glass separated by a 13 mm airspace (OITC 24), and sliding glass doors with a standard glazing detail, assumed to be one layer of 5 mm glass and one layer of 3 mm glass separated by a 13 mm airspace (OITC 26), will provide adequate noise isolation to all interior spaces with the exception of certain bedroom and living room windows for all buildings. The following table summarizes the required minimum Outdoor Indoor Transmission Class (OITC) ratings, including example window glazing, for all locations which require upgrading. The locations of required window upgrades have been indicated on the architectural plan as shown in Figure 6 to 10.

Minimum OITC Rating	Example Window Glazing
30	8-10-6 (one pane of 8 mm glass and one pane of 6 mm glass separated by a 10 mm airspace)
32	8-13-8 (two panes of 8 mm glass by a 13 mm airspace)

In addition, bedroom windows of the north units in Buildings B and C should have their areas reduced and limited as indicated in the appended floor plan drawings.

All of the windows should be specified to meet the A3 performance rating for Air Tightness found in the CSA standard CAN/CSA-A440-08, or latest revision. Any other windows meeting the required OITC ratings are acceptable. Note that the OITC rating varies with panel dimensions. As such, any test data or predicted OITC performance must reasonably reflect the panel dimensions adopted for this project.

Any increase in window pane thickness or separating airspace thickness beyond that shown above is also acceptable. Effective weatherstripping should be installed on the exterior doors.

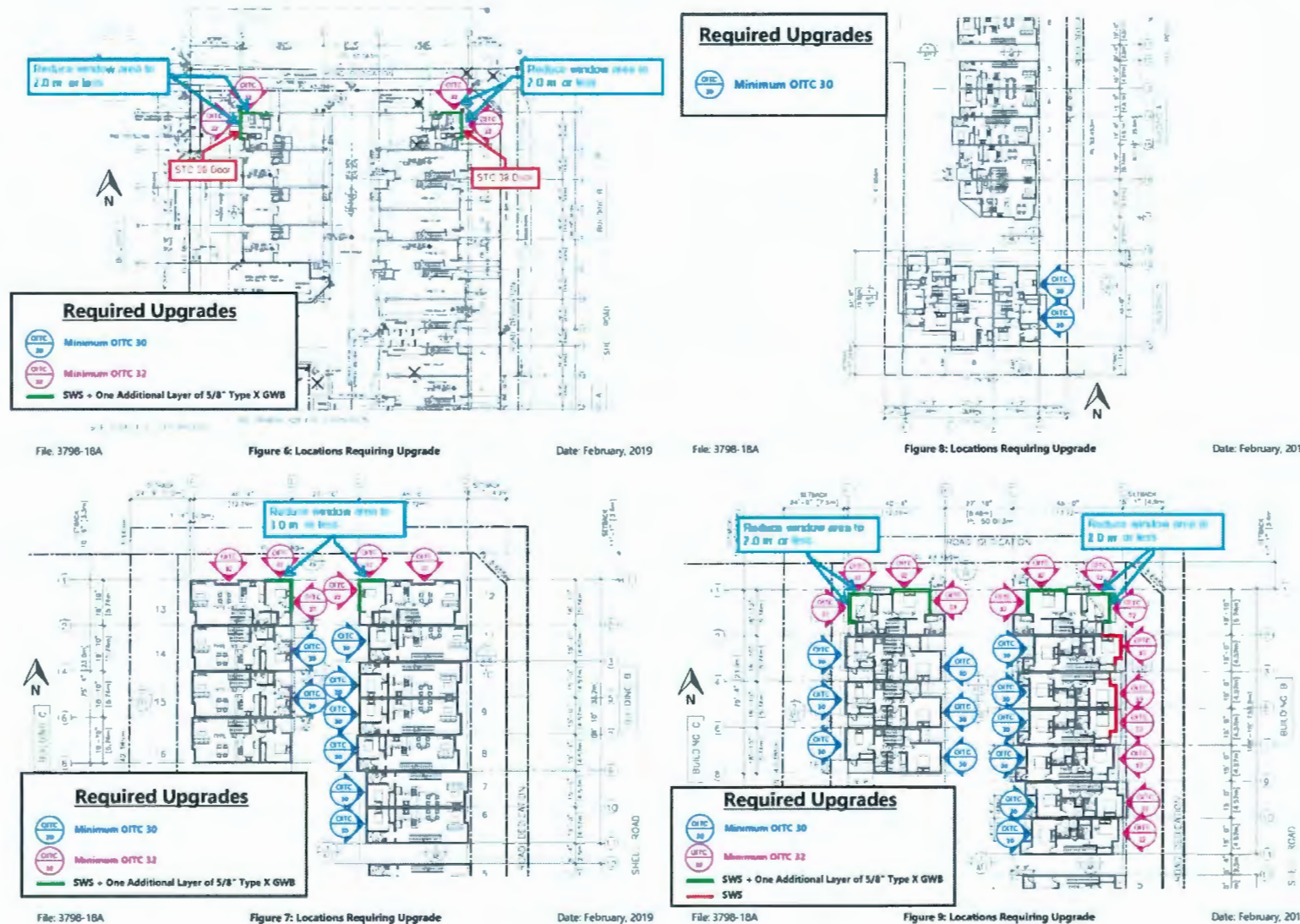
4. Exterior Doors

The main exterior door that provides access to the knock-off unit on the first floor in Type B1 Unit for buildings B and C will require an acoustic door which achieves a minimum sound transmission class (STC) of STC 38. This requirement is indicated in the appended floor plan drawings.

5. Certification of Installation

There is also a requirement in Richmond's Restrictive Covenant that the building can not be occupied until a Registered Professional approved by Richmond's Planning and Development Manager certifies that the building has been constructed in accordance with the design reviewed and the recommendations of the approved acoustic report. As stated in our proposal dated February 2, 2018, it is our understanding that a registered professional has been retained for this project who will be responsible for certifying that the building has been constructed in accordance with the noise insulation measures recommended in this letter.

This report completes our work for this project. Please note that recommendations contained herein address only the acoustical requirements with respect to exterior noise ingress. Other requirements, such as wind loading on windows, should be examined for compatibility with our recommendations. Please let us know if you have any questions regarding this report.



ERIC LAW ARCHITECT

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216 288 WEST AVENUE VANCOUVER BC
V5Y1N5
TEL: (604) 505-2099
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ISSUED

1. 2018.07.11 FOR DEVELOPMENT PERMIT SUBMISSION
2. 2019.05.14 FOR CITY DP REVIEW
3. 2019.07.23 FOR CITY DP REVIEW
4. 2019.08.13 FOR CITY DP REVIEW
5. 2019.09.05 FOR ADP MEETING
6. 2019.11.05 FOR CITY DP REVIEW
7. 2020.12.03 FOR CITY DPP REVIEW
8. 2021.02.18 FOR CITY DPP REVIEW

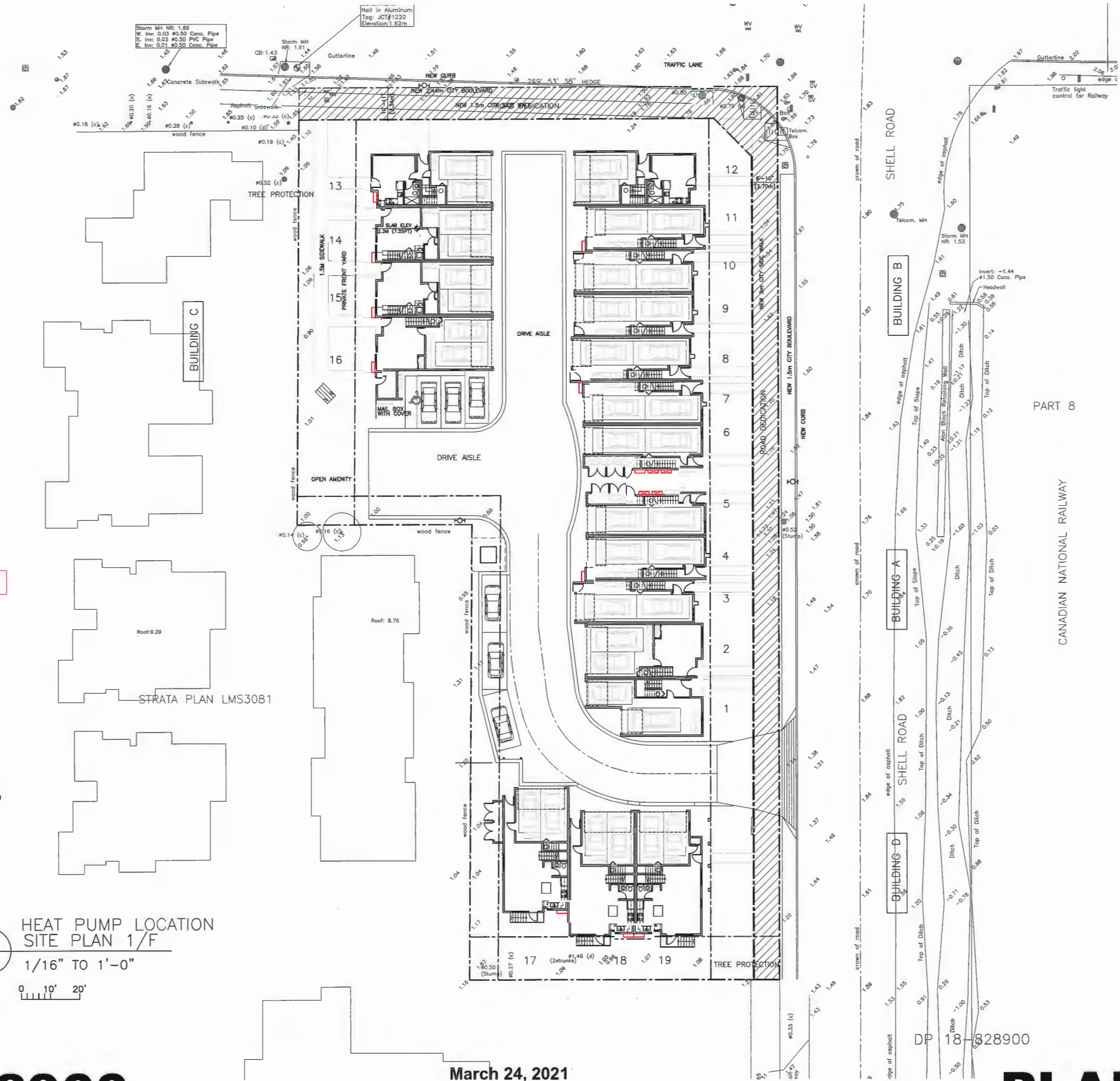
REVISION

6. 2020.02.18 AS PER CITY COMMENT
5. 2020.10.31 INCREASE HEIGHT AS PER CLIENT
4. 2019.11.05 AS RER CITY AND ADP REVIEW COMMENT
3. 2019.08.08 AS RER CITY REVIEW COMMENT
2. 2019.06.20 AS RER CITY REVIEW COMMENT
1. 2019.05.14 AS RER CITY REVIEW COMMENT LETTER

PROPOSED TOWNHOUSE
133, 3091 & 3111 SHELL ROAD
10760, 10780 BRIDGEPORT
RICHMOND, BC

NOTES

PROJECT NUMBER: 16-25
ISSUED: 2/18/2021
DRAWN BY: EL
CHECKED BY: EL
FILENAME: 16-25_OBP_210218-DPP.DWG



HEAT PUMP EQUIPMENT SHALL HAVE A MAXIMUM SOUND POWER LEVEL OF 60 (dBA) TO MEET THE CITY BYLAW CRITERIA

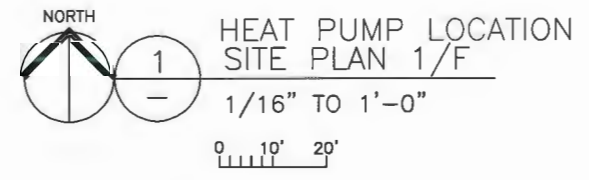
ALL HEAT PUMP SHALL BE SCREENED



HEAT PUMP OUTDOOR SCREEN

- HEAT PUMP OUTDOOR UNIT COVER
- LOCATION OF HEAT PUMP OUTDOOR UNIT (OUTDOOR UNIT SIZE 30" (H) X35" (W) X12" (D) COMPLETE WITH WOOD SCREEN
- 2: UNITS VERTICALLY STACKING

HEAT PUMP SHALL HAVE A MAXIMUM SOUND POWER LEVEL OF 60 dBA REFER TO BKL LETTER DATED OCTOBER 29, 2020



HEAT PUMP LOCATION SITE PLAN 1/F
1/16" TO 1'-0"

ERIC LAW ARCHITECT

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FAX: (604) 999-2667

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REVISION	
6.	2020.02.18 AS PER CITY COMMENT
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4.	2019.11.05 AS PER CITY AND ADP REVIEW COMMENT
3.	2019.08.08 AS PER CITY REVIEW COMMENT
2.	2019.08.20 AS PER CITY REVIEW COMMENT
1.	2019.05.14 AS PER CITY REVIEW COMMENT LETTER

PROPOSED TOWNHOUSE
3033, 3091 & 3111 SHELL ROAD
10760, 10780 BRIDGEPORT
RICHMOND, BC
HEAT PUMP LOCATION

PROJECT NUMBER: 16-25
ISSUED: 2/18/2021
DRAWN BY: EL
CHECKED BY: EL
FILENAME: 16-25_OBP_210218-DPP.DWG

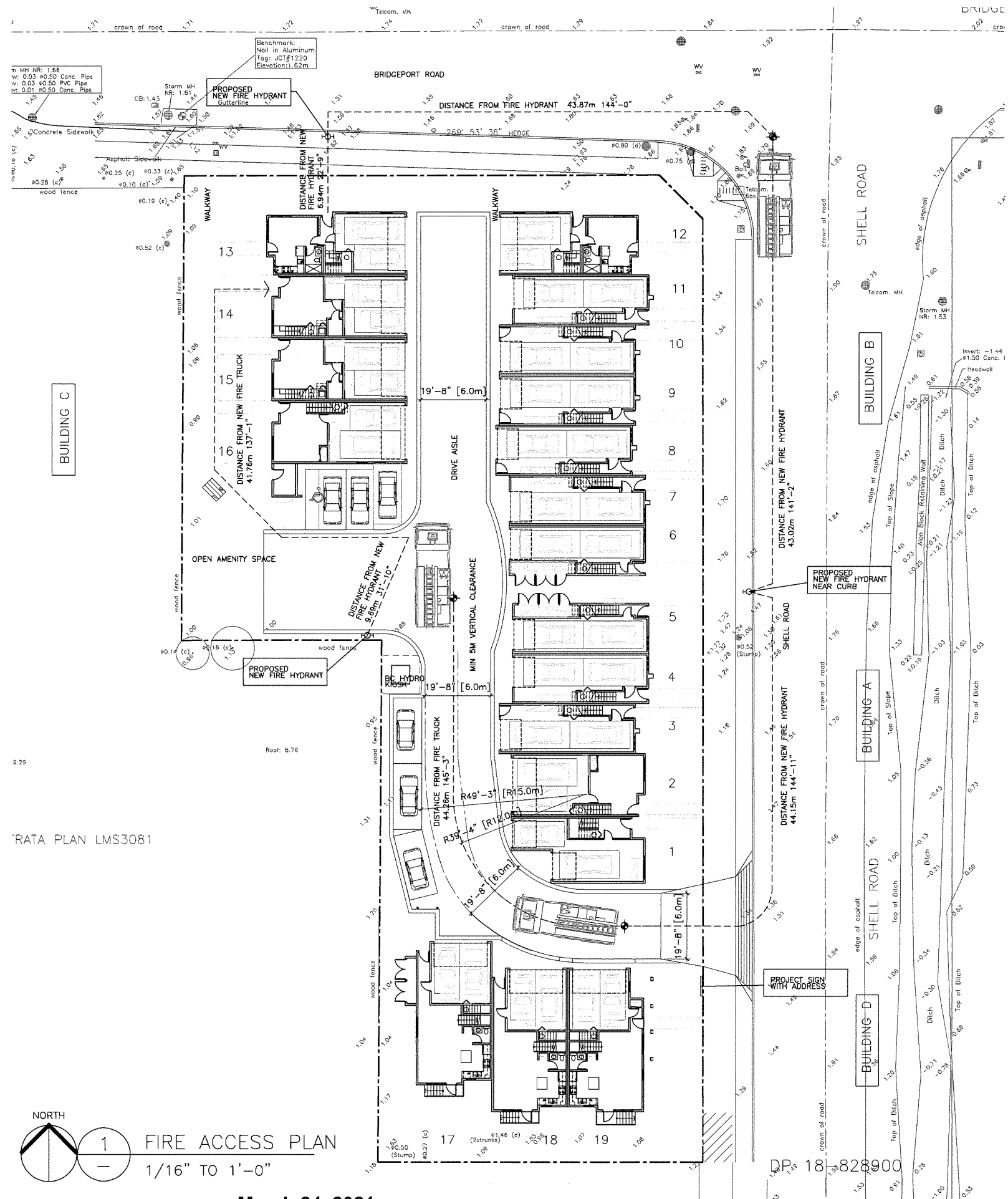
A3.3

DEVELOPMENT PERMIT

DP 18-828900

March 24, 2021

PLAN # 8



ERIC LAW ARCHITECT

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 V5Y1N5
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8. 2021.02.18 FOR CITY DPP REVIEW

6. 2020.02.18 AS PER CITY COMMENT
5. 2020.10.31 INCREASE HEIGHT AS PER CLIENT
4. 2019.11.05 AS PER CITY AND ADP REVIEW COMMENT
3. 2019.08.08 AS PER CITY REVIEW COMMENT
2. 2019.08.20 AS PER CITY REVIEW COMMENT
1. 2019.05.14 AS PER CITY REVIEW COMMENT LETTER
REVISION

**PROPOSED TOWNHOUSE
 3033, 3091 & 3111 SHELL ROAD
 10760, 10780 BRIDGEPORT
 RICHMOND, BC
 FIRE FIGHTING PROVISION**

PROJECT NUMBER: 16-25
 ISSUED: 2/18/2021
 DRAWN BY: EL
 CHECKED BY: EL
 FILENAME: 16-25_OBP_210218-DPP.DWG

NORTH

1 FIRE ACCESS PLAN
 1/16" TO 1'-0"

March 24, 2021

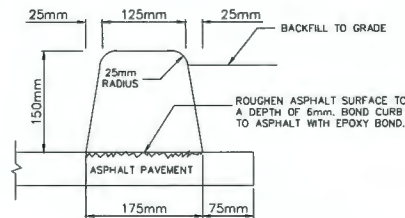
DP 18-828900

PLAN # 9

DEVELOPMENT PERMIT

ROADWORKS NOTES:

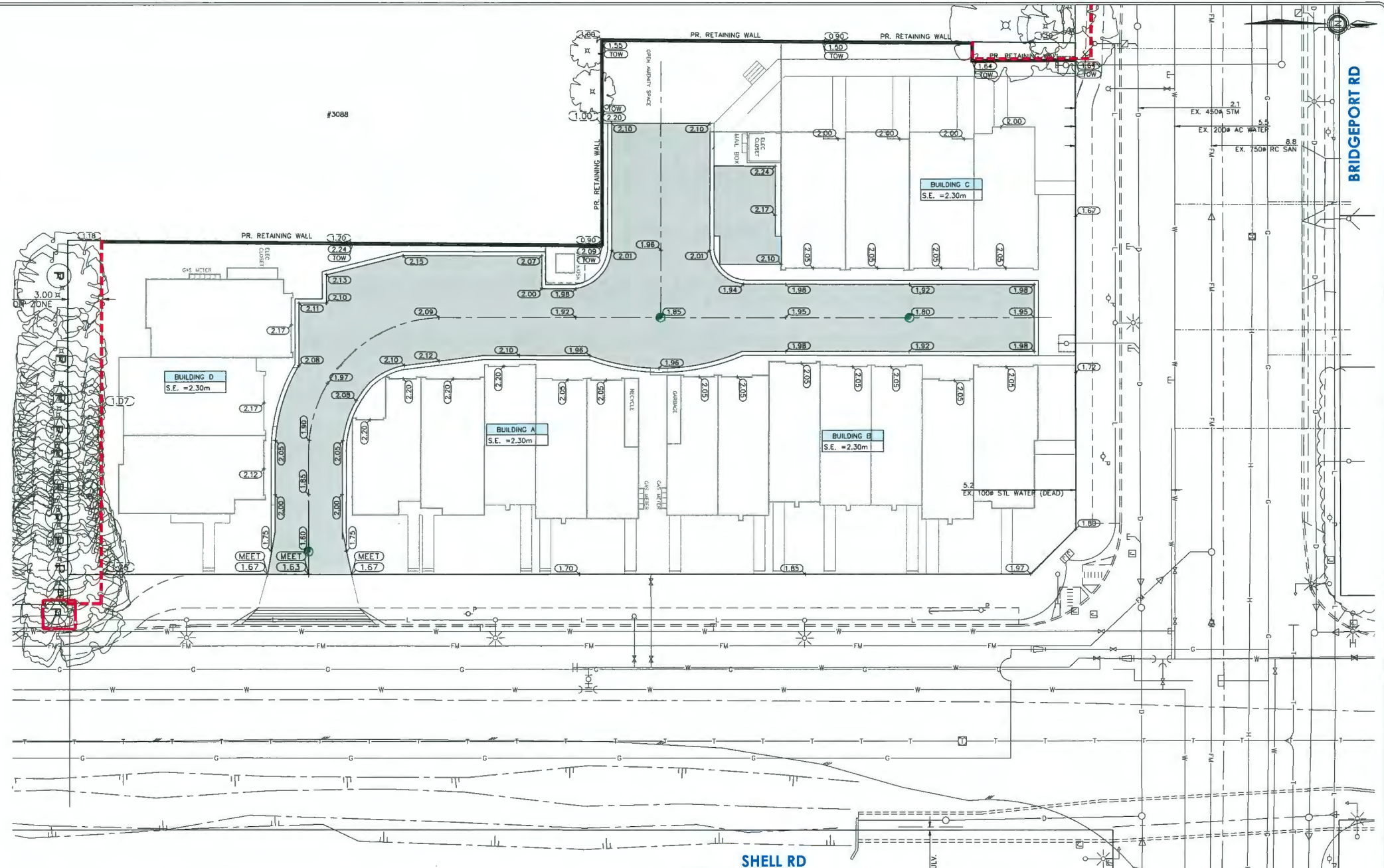
- ROADWORKS TO BE CONSTRUCTED IN ACCORDANCE WITH RICHMOND ENGINEERING DEPARTMENT STANDARDS AND SPECIFICATIONS UNLESS OTHERWISE NOTED.
- ASPHALT AND ROAD STRUCTURE TO BE CONSTRUCTED IN ACCORDANCE WITH GEOTECHNICAL REPORT.
- SUBGRADE TO BE APPROVED BY GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF SUBBASE MATERIAL.
- ALL SUBBASE AND BASE COURSE MATERIALS TO BE COMPACTED TO 95% MODIFIED PROCTOR DENSITY (MIN.) OR AS SPECIFIED BY THE GEOTECHNICAL ENGINEER.
- ALL ROAD ELEVATIONS ARE PAVEMENT AND GUTTER ELEVATIONS.
- ALL ROADWAY CURBS ARE ROLLED CURBS AS PER MASTER MUNICIPAL CONSTRUCTION DRAWING NO. C4.
- ALL PARKING CURBS ARE AS PER DETAIL THIS SHEET. WHERE PARKING CURBS CONNECT TO ROADWAY CURBS THE PARKING CURB SHALL BE ADJUSTED TO PROVIDE A SMOOTH TRANSITION.
- CURBS MUST BE INSTALLED WITHIN A VERTICAL TOLERANCE OF 5mm OR ARE SUBJECT TO REPLACEMENT AT THE CONTRACTOR'S COST.
- GEOMETRIC CURB DATA REFERS TO THE BACK OF CURB.
- FOR CONCRETE PAVING AND ROAD PAVERS LOCATIONS AND DETAILS REFER TO LANDSCAPE ARCHITECT'S DRAWINGS.
- ELEVATIONS SHOWN AS THIS [ELEVATION] ARE EXISTING ELEVATIONS.
- ELEVATIONS SHOWN AS THIS [ELEVATION] ARE PROPOSED FINISHED SURFACE ELEVATIONS.
- ELEVATIONS SHOWN AS THIS [ELEVATION] ARE PROPOSED FINISHED TOP OF RETAINING WALL ELEVATIONS.
- COORDINATES (IF SHOWN ON THIS PLAN) MAY NOT MATCH THOSE SHOWN ON PLANS PREPARED BY OTHERS.



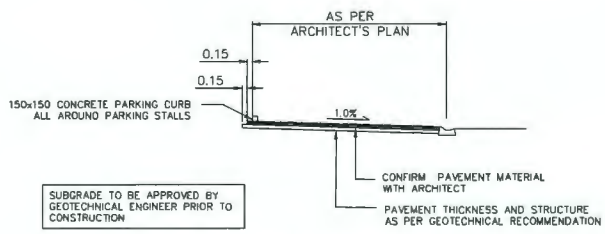
PARKING CURB DETAIL
SCALE: N.T.S.

LEGEND

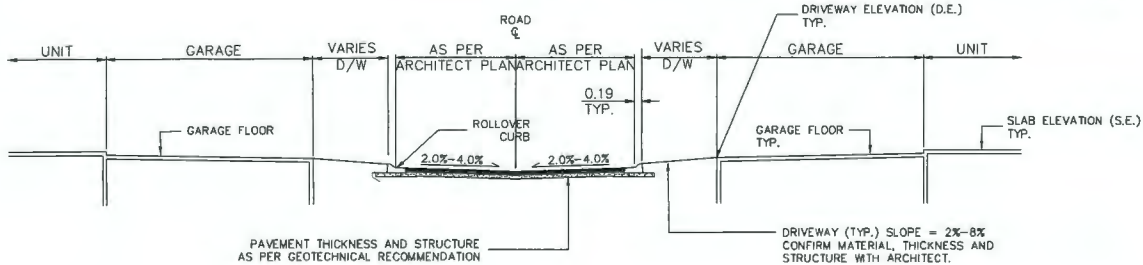
- PROPOSED STORM PVC CLEANOUT (SEE STORM NOTE 11)
- PROPOSED 1050# CONCRETE MANHOLE (UNLESS NOTED OTHERWISE)
- PROPOSED LAINDRAIN AS PER CITY RICHMOND DWG. RMD DRAWING P105 AND STORM SEWER NOTE 21.
- PROPOSED 600# CB C/W B268 FRAME AND GRATE SUITABLE FOR H2O LOADING.
- PROPOSED DIRECTION OF STORM PIPE FLOW
- PROPOSED 600# STORM BUILDING SUMP (SEE STORM SEWER NOTE 20)
- PROPOSED 150MM# PERFORATED PVC PERIMETER DRAIN AS PER CITY OF RICHMOND DRAWING P105
- PROPOSED STORM SEWER MAIN (DIAMETER AND MATERIAL AS NOTED ON PLAN)
- PROPOSED WATERMAIN MAIN (DIAMETER AND MATERIAL AS NOTED ON PLAN)
- PROPOSED 25MM# WATER SERVICE AND CURB STOP VALVE
- PROPOSED WATER CAP (DIAMETER AND MATERIAL AS NOTED ON PLAN)
- PROPOSED WATER METER CHAMBER (SPECIFICATION AS NOTED ON PLAN)
- PROPOSED STORM SEWER MAIN (DIAMETER AND MATERIAL AS NOTED ON PLAN)
- PROPOSED DIRECTION OF SANITARY PIPE FLOW
- PROPOSED SANITARY PVC CLEANOUT (SEE SANITARY NOTE 8)
- PROPOSED ROADWAY SURFACE FINISH AS PER LANDSCAPE ARCHITECT/ARCHITECT AS APPLICABLE
- PROPOSED PARKING STALL/DRIVEWAY SURFACE FINISH AS PER LANDSCAPE ARCHITECT/ARCHITECT AS APPLICABLE
- EXISTING TREE/SHRUB TO BE REMOVED IN ACCORDANCE WITH CITY BYLAWS/PERMITS AND ARBORIST REPORT
- EXISTING TREE/SHRUB TO BE RETAINED. REFER TO ARBORIST REPORT
- TEMPORARY TREE PROTECTION FENCING TO BE INSTALLED DURING CONSTRUCTION



PLAN
SCALE: 1:200



PARKING STALL DETAIL
SCALE: 1:100 HOR., N.T.S. VERT.



TYPICAL ROADWAY CROSS-SECTION
SCALE: 1:100 HOR., N.T.S. VERT.

THIS DESIGN DRAWING SHOWS PROPOSED ROADS AND SERVICES WORKS BASED ON THE FOLLOWING:
 1. ALL OFFSITE WORKS REQUIRED UNDER SERVICING AGREEMENT (S.A.) HAVE BEEN CONSTRUCTED AS PER S.A. DESIGN DRAWINGS.
 2. SITE DEMOLITION AND SITE PREPARATION IS COMPLETED INCLUDING GEOTECHNICAL TREATMENT (IF REQUIRED) AND REMOVAL OF TREES, STRUCTURES, AND EXISTING DRIVEWAYS IN ACCORDANCE WITH CITY BYLAWS AND PERMITS AND ASSOCIATED GEOTECHNICAL AND ARBORIST REPORTS (IF PRESENT).

FORTIS BC 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:
 BC ONE CALL SERVICE RECORDS DEPARTMENT
 TELEPHONE: (604) 257-1900

NOTES:
 ALL ELEVATIONS ARE TO GEODETIC DATUM AND REFER TO RICHMOND BENCHMARK NUMBER:
 HPN #196, CONTROL MONUMENT 77H4970
 ELEVATION = 1.793m
 ALL MATERIALS AND CONSTRUCTION TO BE IN ACCORDANCE WITH THE CURRENT MASTER MUNICIPAL CONSTRUCTION DOCUMENTS (MCCD) AND ARRANGED FOR THEIR RELOCATION IN ORDER TO FACILITATE INSTALLATION OF THE WORKS SHOWN ON THESE PLANS. RICHMOND SUPPLEMENTARY SPECIFICATIONS AND OTHERWISE NOTED.

CoreConcept CONSULTING LTD.
 tel: 604.249.5040
 fax: 604.249.5041
 #220-2639 Viking Way, Richmond, BC V6V 3B7
 www.coreconceptconsulting.com
1082009 BC LTD
March 24, 2021
 Core Concept Consulting Project No. 17022
 DWG. 2 OF 6

REV#	DATE	BY	CH.	ISSUED FOR BUILDING PERMIT	DESCRIPTION
0.	12 DEC 2019	DRK	TS	ISSUED FOR BUILDING PERMIT	
1.		CH.	CH.		

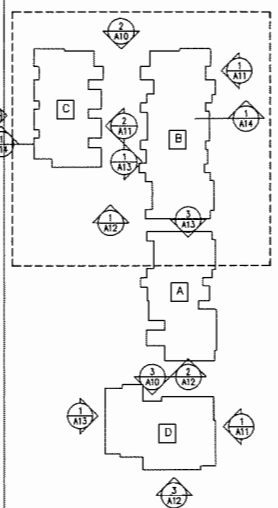
City of Richmond
 6911 No. 3 Road, Richmond, B.C. V6Y 2C1
ROADWAY GRADING PLAN
 10760,10780 BRIDGEPORT RD & 3033-3111 SHELL RD
 CITY FILE: ---
 DESIGN: DRK
 DRAWN: DRK
 DATE: 1 : 200
 SHEET: 26-5-6 OF 1

DP 18-828900

PLAN # 10

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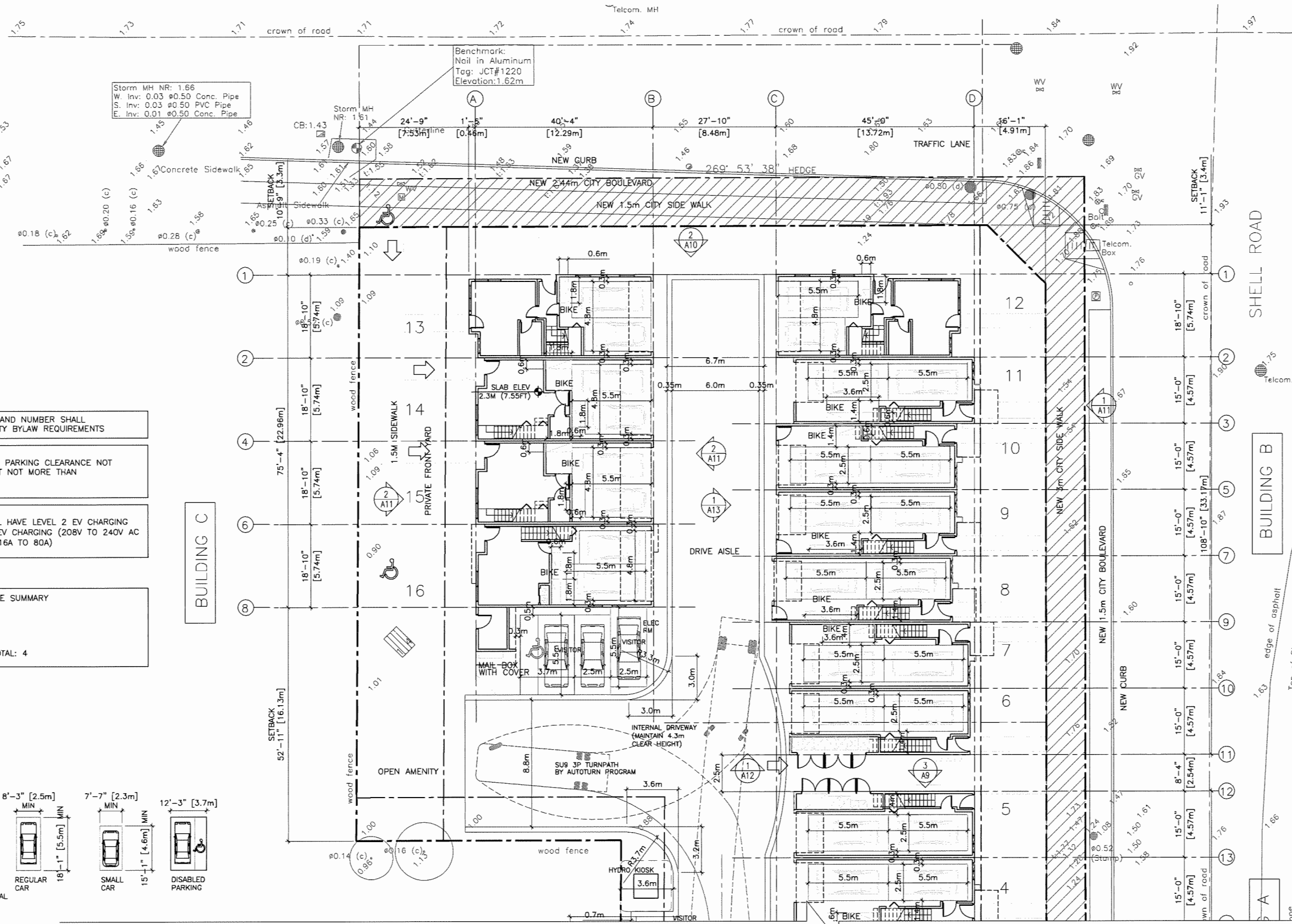
- ISSUED
- 2018.07.11 FOR DEVELOPMENT PERMIT SUBMISSION
 - 2019.05.14 FOR CITY DP REVIEW
 - 2019.07.23 FOR CITY DP REVIEW
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 - 2021.02.18 FOR CITY DPP REVIEW



- 2020.02.18 AS PER CITY COMMENT
- 2020.10.31 INCREASE HEIGHT AS PER CLIENT
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- 2019.06.20 AS PER CITY REVIEW COMMENT
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PROPOSED TOWNHOUSE
3033, 3091 & 3111 SHELL ROAD
10760, 10780 BRIDGEPORT
RICHMOND, BC
PARKING PLAN

PROJECT NUMBER: 16-25
ISSUED: 2/18/2021
DRAWN BY: EL
CHECKED BY: EL
FILENAME: 16-25_OBP_210218-DPP.DWG



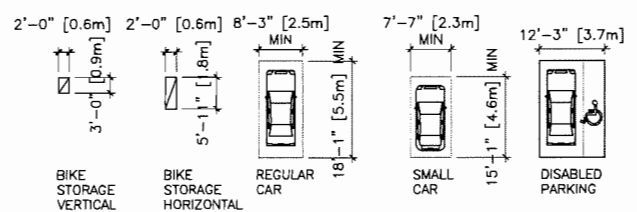
ALL PARKING SIZE AND NUMBER SHALL MEET RICHMOND CITY BYLAW REQUIREMENTS

NOTE:
ADDITIONAL TANDEM PARKING CLEARANCE NOT REQUIRED FOR UNIT NOT MORE THAN 4.57M WIDE

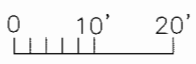
ALL PARKING SHALL HAVE LEVEL 2 EV CHARGING (208V TO 240V AC AND CURRENT OF 16A TO 80A)

RESIDENTIAL BICYCLE SUMMARY
TOTAL 29

HORIZONTAL:	25
VERTICAL:	4
VISITOR BICYCLE TOTAL:	4



1 SITE PLAN 1/F (ENLARGED)
3/32" TO 1'-0"
SEE A2 FOR OVERALL SITE PLAN
☀ EXTERIOR LIGHT
→ HOSE BIB
⊙ OITC 32 WINDOW UPGRADE



SEE DRAWING A3.2 FOR CONTINUATION

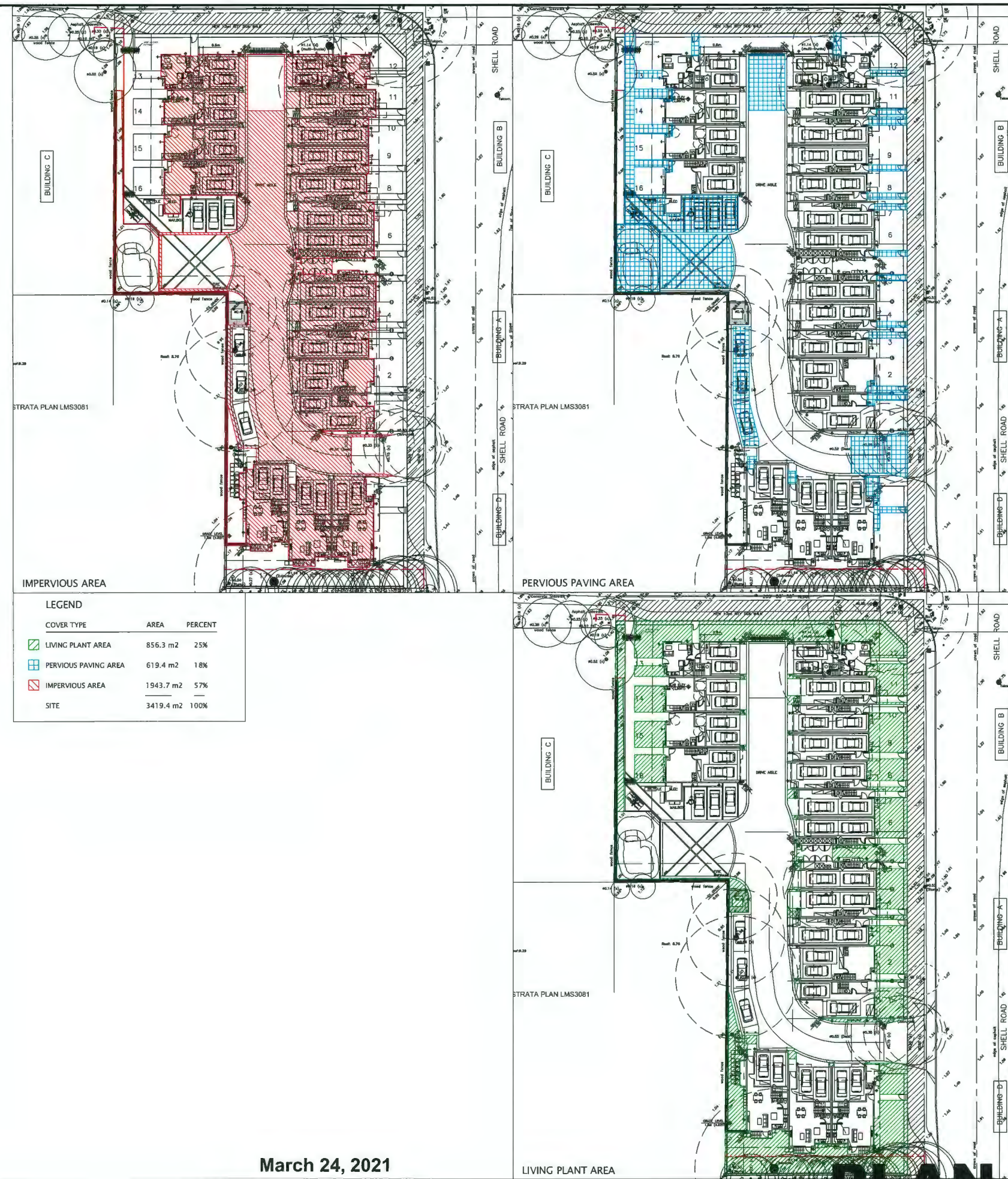
PLOT DATE: February 16, 2021. TIME: 2:31 PM. FULL PATH AND FILENAME: D:\PROJECTS\18-0038\107650 BRIDGEPORT\500-DELIV\LAND\02-DD\LO-1-LDWC PLOTS\TABLE

GENERAL NOTES:

1. COMPLIANCE, GOVERNMENT - ALL WORK SHALL BE COMPLETED TO THE SATISFACTION OF THE CITY OF RICHMOND AND SHALL COMPLY WITH ALL STANDARDS AND REGULATIONS OF THE SAME. CONTRACTORS SHALL ENSURE COMPLIANCE OF ALL WORK PRIOR TO INSTALLATION.
 2. COMPLIANCE, BCNTA/BCSLA - ALL MATERIAL, SHIPPING PROCEDURES, AND INSTALLATION OF LANDSCAPE ELEMENTS SHALL CONFORM TO LATEST EDITION OF BCNTA/BCSLA LANDSCAPE STANDARD AVAILABLE AT COMMENCEMENT OF WORK.
 3. COMPLIANCE, MMCD - ALL WORKS SHALL CONFORM TO THE LATEST MMCD DETAILS AND SPECIFICATIONS AVAILABLE AT COMMENCEMENT OF WORK WHERE NO SPECIFIC DETAIL, NOTE OR SPECIFICATION IS PROVIDED IN THE DRAWING SET OR ATTACHED MATERIALS.
 4. CONCRETE, FORMS - THE CONTRACTOR SHALL COMPARE DIMENSIONS PROVIDED WITH SITE CONDITIONS AND IMMEDIATELY REPORT ANY DISCREPANCIES TO THE LANDSCAPE ARCHITECT AND THE ENGINEER. ONCE COMPLETED THE CONTRACTOR SHALL CALL FOR INSPECTION OF THE FORMS PRIOR TO PLACING STEEL REINFORCEMENT. CONTACT LANDSCAPE ARCHITECT A MINIMUM OF 48 HOURS PRIOR TO DESIRED INSPECTION TIME.
 5. CONCRETE, REINFORCEMENT - ALL CONCRETE REINFORCEMENT SHALL BE INSPECTED AND APPROVED BY THE STRUCTURAL ENGINEER PRIOR TO POURING OF CONCRETE. CONTACT STRUCTURAL ENGINEER A MINIMUM OF 48 HOURS PRIOR TO DESIRED INSPECTION TIME.
 6. GRADING, GENERAL - THE CONTRACTOR SHALL ESTABLISH GRADES SUCH THAT THERE IS, IN ALL AREAS, POSITIVE DRAINAGE TO AN ADJACENT DRAIN. MINIMUM SLOPES SHALL BE AS FOLLOWS:

PEDESTRIAN PAVED AREAS	1%
VEHICULAR PAVED AREAS	1%
LAWN AREAS	2%
PLANTED BEDS	5%
 7. GRADING, ALLOWANCES AND TOPSOIL PLACEMENT - DEPTH OF PLANTING MEDIUM AFTER SETTLEMENT SHALL BE:

	ON GRADE	
GRASS AREAS	- 150 mm	
SHRUB BEDS	- 450 mm	MIN. 0.2 M3 PER SHRUB
TREES	- MIN 300 mm ALL AROUND ROOTBALL	MIN. 10 M3 PER TREE
- N.B. ALL SOIL SHALL BE TESTED NOT MORE THAN 14 DAYS PRIOR TO INSTALLATION ON SITE. TESTING SHALL BE SPECIFIC TO THIS WORK. CONTRACTOR SHALL AMEND THE SOIL ACCORDING TO THE RECOMMENDATIONS OF THE SOILS TESTING LAB.
8. PLANT MATERIAL, QUANTITIES - CONTRACTOR SHALL CONFIRM ALL PLANT MATERIAL QUANTITIES. ANY DISCREPANCIES BETWEEN THE PLANT LIST AND THE DRAWING SHALL BE REPORTED TO THE CONSULTANT. IN CASE OF DISCREPANCY CONTRACTOR SHALL INSTALL PLANT MATERIAL AS PER DRAWING. IN CIRCUMSTANCES WHERE THERE IS A DISCREPANCY BETWEEN GROUND COVER QUANTITY AND SPACING THE SPACING REQUIREMENT WILL PREVAIL.
 9. PLANT MATERIAL, SUBSTITUTIONS - NO SUBSTITUTIONS TO PLANT LIST SHALL BE MADE BY CONTRACTOR WITHOUT PRIOR WRITTEN AUTHORIZATION FROM CONSULTANT.
 10. PLANT MATERIAL - ALL PLANT MATERIAL SHALL MEET MINIMUM SIZE REQUIREMENTS AS INDICATED IN THE PLANT LIST.
 11. TREE LOCATIONS - TREES SHALL NOT BE PLANTED WITHIN 9 METRES OF BUILDING FOUNDATIONS, RETAINING WALLS OR FENCES EXCEPT AS SPECIFICALLY NOTED ON THE PLANTING PLAN. TREES IN LAWN AREAS SHALL BE LOCATED WITHIN A MINIMUM 1 METRE DIAMETER MULCHED RING.
 12. SODDING, BOULEVARD - CONTRACTOR SHALL INSTALL TOP SOIL AND TURF WITHIN ALL STREET BOULEVARDS. SODDING SHALL CONTINUE ALONG SUCH BOULEVARDS TO THE EDGE OF DISTURBANCE OR TO THE BOUNDARY OF THE WORK AS DEFINED ON SITE BY THE LANDSCAPE ARCHITECT.
 13. MULCH - PLANTING AREAS SHALL BE MULCHED WITH 50 MM OF HEM/FIR BARK MULCH. THE USE OF CEDAR MULCH OR ANY MIX CONTAINING CEDAR IS NOT PERMITTED.
 14. IRRIGATION - AN IRRIGATION SYSTEM SHALL BE INSTALLED AS A DESIGN/BUILD BY AN ACCREDITED IRRIGATION CONTRACTOR. THE SYSTEM SHALL PROVIDE FULL COVERAGE. THE GENERAL CONTRACTOR SHALL PROVIDE SLEEVES AND CORING AS NECESSARY. A PLAN OF THE PROPOSED SYSTEM SHALL BE PROVIDED TO THE LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO INSTALLATION.



Quantity	Symbol	Botanical Name	Common Name	Size	Spacing
Trees					
4B		Prunus serotina 'Amanogawa'	Amanogawa Cherry	8cm cal B&B	as shown
4C		Cornus mas	Cornelian Cherry Dogwood	8cm cal B&B	as shown
13D		Fagus sylvatica 'Dawyckii'	Dawyck Beech	8cm cal B&B	as shown
1E		Robinia pseudoacacia 'Friska'	Golden Leaf Black Locust	8cm cal B&B	as shown
2F		Pyrus calleryana 'Chantecleer'	Chantecleer Pear	8cm cal B&B	as shown
17H		Pinus nigra	Austrian Black Pine	3m High, B&B	as shown
Shrubs, Perennials & Grasses					
26a		Azalea japonica 'Hino Crimson'	Evergreen Azalea	# 2 pot	500mm o.c.
41c		Azalea japonica 'Ward's Ruby'	Evergreen Azalea	# 2 pot	650mm o.c.
31e		Calamagrostis x acutiflora 'Karl Foerster'	Foerster's Reed Grass	# 3 pot	750mm o.c.
176f		Carex flacca	Blue Sedge	# 1 pot	400mm o.c.
96g		Erica x darleyensis 'Mediterranean Pink'	Mediterranean Pink Heather	# 1 pot	550mm o.c.
91h		Buxus microphylla 'Winter Gem'	Asian Boxwood	# 3 pot	600mm o.c.
98i		Carex morrowii 'Aureovariegata'	Variegated Sedge	# 1 pot	500mm o.c.
26j		Euphorbia myrsinites	Dorkey-tail Spurge	# 1 pot	500mm o.c.
132k		Polystichum munifolium	Western Sword Fern	# 1 pot	500mm o.c.
52l		Helictotrichon sempervirens	Blue Oat Grass	# 2 pot	600mm o.c.
49m		Iris sibirica 'Richt of Butterflies'	Siberian Iris	# 1 pot	500mm o.c.
15n		Hemerocallis 'Black-eyed Stella'	Daylily	# 1 pot	500mm o.c.
39o		Colonsaster horizontalis	Rockspray	# 3 pot	600mm o.c.
39p		Cornus sericea	Redtwig Dogwood	# 3 pot	1000mm o.c.
14q		Rhododendron 'Elizabeth'	Rhododendron	# 2 pot	1000mm o.c.
14r		Rhododendron 'Mary Fleming'	Rhododendron	# 3 pot	1000mm o.c.
36s		Rose meiland 'La Sevillana'	Rose	# 2 pot	800mm o.c.
15t		Skimmia japonica 'Reevesiana'	Skimmia Fortunei	# 2 pot	800mm o.c.
195u		Taxus x media 'Hicksii'	Hick's Yew	4' high	550mm o.c.
32v		Thuja occidentalis 'Smaragd'	Emerald Green Cedar	6' high, B & B, trim top flat	550mm o.c.
15x		Azalea northern lights 'Golden Lights'	Deciduous Nothem Lights Azalea	# 3 pot	750mm o.c.

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2021-02-16	BUILDING PERMIT	H

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 Ecology: Eric Law Architect Inc.
 Architectural: Eric Law Architect Inc.
 Structural:
 Mechanical:
 Electrical:

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H Project Leader
 D.Duncan
 Drawn by
 D.Duncan

Revision

19 UNIT TOWNHOUSE
 3033 Shell Road
 Richmond, British Columbia
 Canada

Drawing Title
INFORMATION

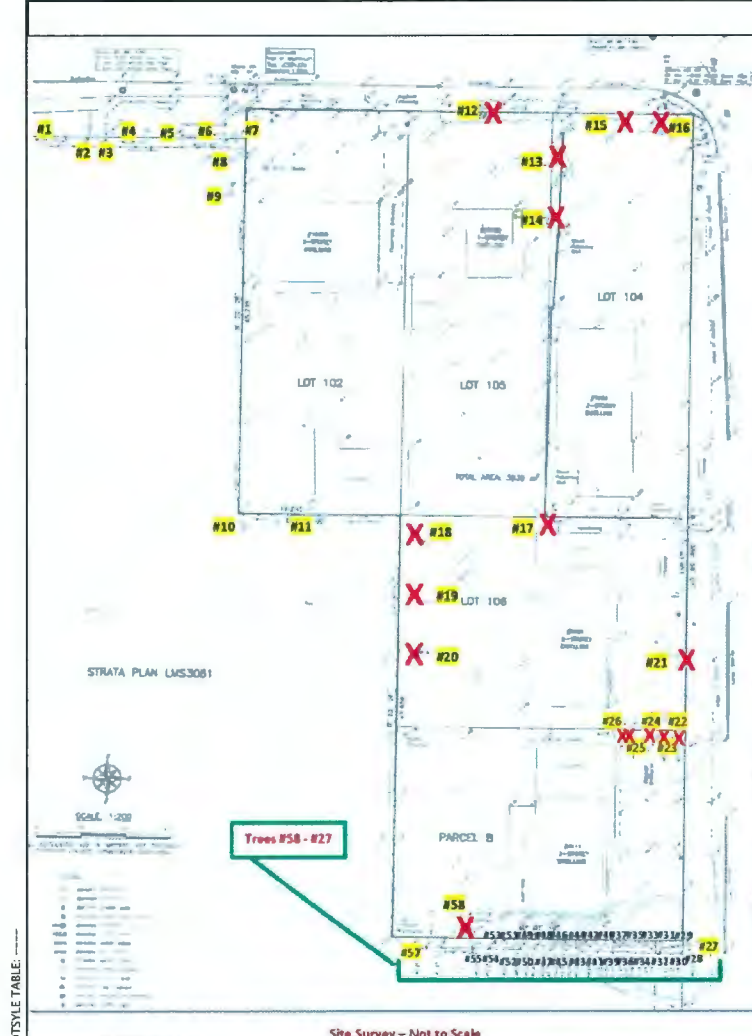
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Project No. 18-0035
 Drawing No. LQ

DP 18-828900

March 24, 2021

PLAN # 13



TREE PROTECTION GUIDELINES:

1. TREE PROTECTION ZONE (TPZ) ESTABLISHMENT:
The Tree Protection Zone (TPZ) alignments are established as directed by this office to provide a suitable setback to ensure adequate root protection to maintain tree health and tree stability. These alignments are based on site and tree conditions as determined by the project arborist, and they supersede any other tree protection setbacks provided by others (including setbacks derived from municipal guidelines), and may be conditional to certain mitigation measures being undertaken (i.e. root pruning, compensatory treatment to remaining root zone). The tree protection guidelines also apply to the overhead portions of the tree (trunk, branches and foliage), even if these tree parts extend outside of the TPZ setback.

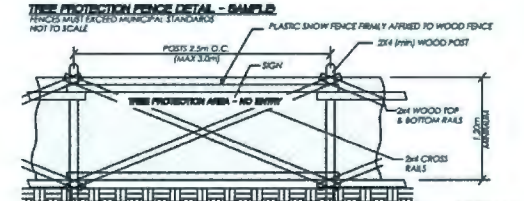
2. TREE PROTECTION FENCES (BARRIERS):
Barriers must be erected of the specified alignments and setbacks, maintained in good condition until the project reaches substantial completion, and the restrictions and guidelines implemented as detailed herein through to the completion of the landscaping phase. The materials and installation of the fence must meet or exceed the municipal standards. Signs stating TREE PROTECTION ZONE - NO ENTRY must be placed on the tree protection fence of a suitable frequency of the direction of the project arborist. ArborTech will install signs in cases that we are retained to provide field services for compliance during construction. The owner, contractors, subcontractors and trades should be made aware of the restrictions therein, and counsel with this office for any access or restriction. Tree protection fencing must be inspected and approved by the municipality and/or the project arborist prior to commencement of any demolition, site preparation or construction work.

3. SURVEY OF FENCES:
If any tree protection fences are aligned with or within close proximity to a restrictive covenant, a property line, and/or an environmentally sensitive or protected area, the contractor must undertake a survey of the location of those property lines such that the tree protection fence can be installed and inspected accurately.

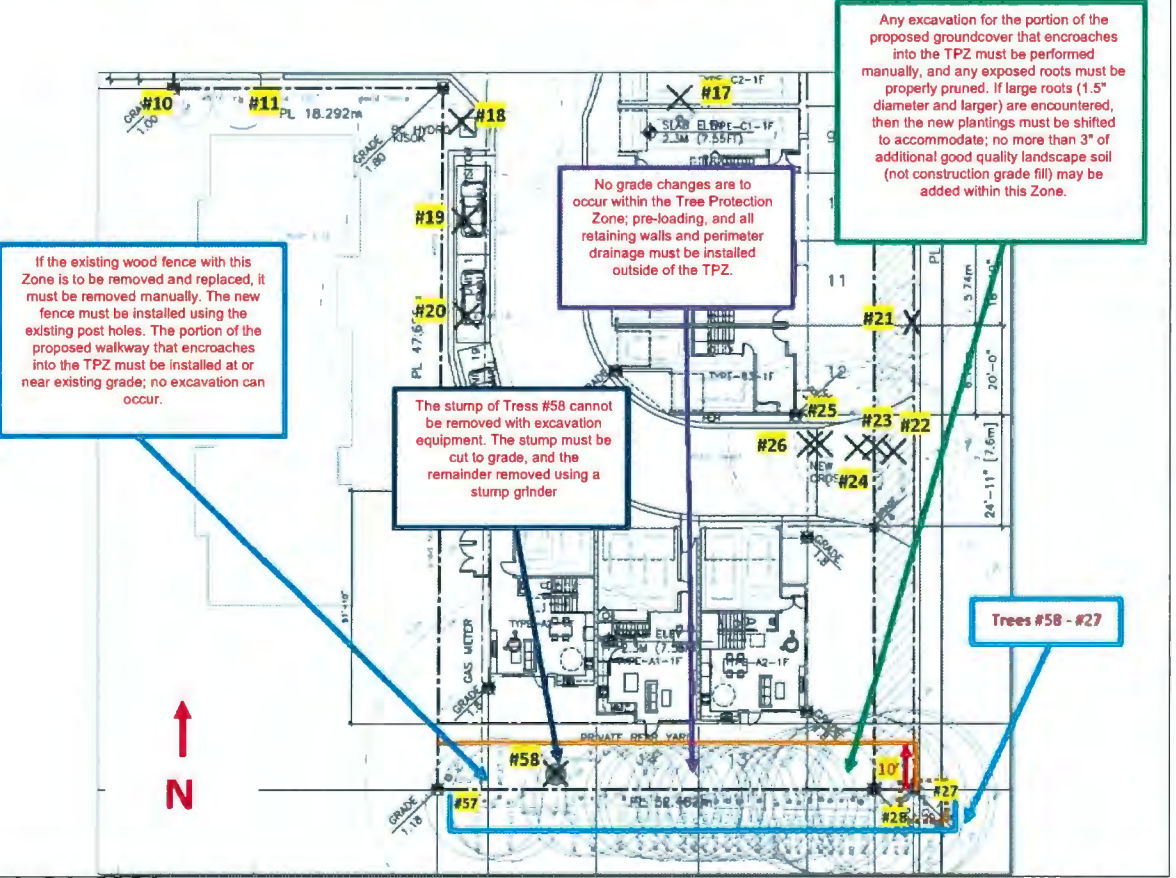
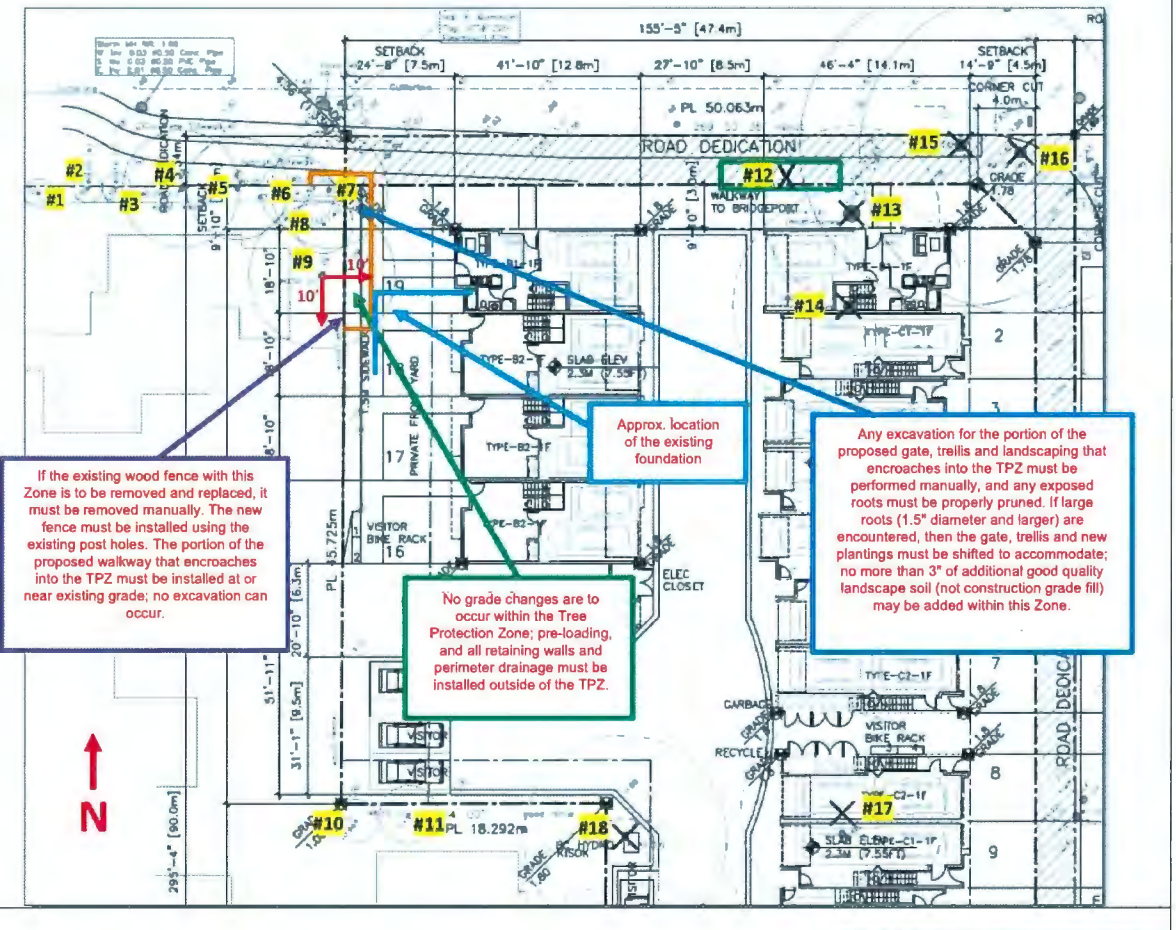
4. TREE PROTECTION AND LAND CLEARING OPERATIONS:
If large scale land clearing areas contain a TPZ and/or there is windfirming treatments required in new forest edge interfaces along the perimeter of the land clearing areas, and/or when certain trees within a TPZ are specified for removal, it is strongly recommended that the land clearing contractor should coordinate with the project arborist in advance to review their work plan and to identify retained trees and the protection measures for them, as well as during the clearing process to improve compliance and to assess new forest edges and provide tree failure risk mitigation prescriptions. For landscaping purposes, the proponents should be required to provide unit costs for the following treatments (including disposal of waste) in the forest interface zones:
- Removal of defective trees in size categories of small (dbh up to 20 cm dbh), medium (dbh 21 cm to 45 cm), large (dbh 46 to 75 cm) and very large (76 cm dbh and greater); and
- Pruning services (heavy). Note that approvals for leaving chips or large woody debris created by the waste of these operations on the site will be investigated with affected property owners upon request. In certain cases, and subject to municipal approval, interim tree protection measures instead of standard tree protection fence installation may be acceptable, such as but not limited to:
- Retaining the services of the project arborist to attend and direct the compliance to protection measures during the clearing scope that is in proximity to the TPZ, or
- Installing alternative demarcation of the TPZ such as survey stakes, painting lines on the ground, and/or placing rope and flagging.

5. TREE PROTECTION GUIDELINES:
Any construction related work or activities within or directly adjacent to a TPZ requires advance approval and the on-site direction of the project arborist. The trunks, branches, foliage and roots of retained trees, as well as the soil within the tree protection zones, must not be damaged by construction activities. Except as approved and directed by the project arborist, activities within and access to the TPZ are restricted during the site preparation, construction and landscape installation phases of the project as follows:
- Restricted low impact methods for the removal of trees and stumps adjacent to TPZ.
- No soil disturbance, including trenching for underground services or utilities, shipping of organic soil for hard landscape installation, excavation for building foundations, fill placement, or trenching for irrigation or conduit installation.
- No storage or transport of soil, spoil, construction materials, waste materials, etc.
- No waste or washing of concrete, stucco, drywall, paint, or other materials that may adversely impact the soil or roots.
- No passage or operation of vehicles or equipment.
- No placement of temporary structures or services.
- No off-site lights, signs, cables or any other device to retained trees.
- No unauthorized pruning or cutting of retained trees. Any pruning or other treatment of a retained tree must be completed by a qualified arborist or tree service firm employing ISA Certified Arborists and in conformance with ANSI A300 Standards, and/or under the direction of the Project Arborist from this office, and
- Any excavations adjacent to the TPZ will require the attendance of the project arborist and root pruning to be undertaken as necessary.
- The use of aerial lifts, cranes or other overhead equipment is restricted in proximity to retained trees and should be planned with the size and height of the crown of the tree accordingly.
It is recognized that certain unpredictable construction conflicts with a TPZ may arise that could interfere with the protection of the selected trees. However, any encroachment into a TPZ and/or changes to the tree retention scheme are subject to approval in advance by the project arborist and the municipality. Certain TPZ restrictions or guidelines noted herein may be waived if they are considered by the project arborist to be tolerable impacts, and/or if the impacts to the trees can be successfully mitigated by implementing special measures, protection systems, compensatory treatments, and/or follow-up work, as specified and directed by this office.

6. LANDSCAPING:
The landscaping phase is when retained trees can be severely damaged. The operation of equipment, the placement of growing medium, grading and sub-base preparation for hard landscape features (i.e. sidewalks and patios), site preparation for retaining walls and footings, excavation for fences, signs and other landscape features, digging of planting holes for new plants and trees, the digging of trenches for irrigation, drainage and lighting, and the placement of turf and other finishing works, all have a very high potential for tree and root damage. It is vital that the landscape works respect the limitations on activities within the TPZ therefore the landscape installation staff should be advised. On-site direction by the project arborist is strongly recommended.



TREE #	SPECIES (Botanical name)	DBH (cm)	SFRL HD radius (ft.) est.	TREE #	SPECIES (Botanical name)	DBH (cm)	SFRL HD radius (ft.) est.
1	Douglas Fir (Pseudotsuga menziesii)	31	3'	26	Cedar (Thuja plicata)	35	22'
2	Cedar (Thuja plicata)	14	2'	27	Cedar (Thuja plicata)	34	4'
3	Cedar (Thuja plicata)	10	2'	28	Cedar (Thuja plicata)	53	12' est.
4	Cedar (Thuja sp.)	15	2'	29	Cedar (Thuja plicata)	39	12' est.
5	Douglas Fir (Pseudotsuga menziesii)	23	10'	30	Cedar (Thuja plicata)	26	12' est.
6	Douglas Fir (Pseudotsuga menziesii)	26	8'	31	Cedar (Thuja plicata)	40	12' est.
7	Douglas Fir (Pseudotsuga menziesii)	40	12'	32	Cedar (Thuja plicata)	30	12' est.
8	Cedar (Thuja sp.)	19 per survey	6'	33	Cedar (Thuja plicata)	25	12' est.
9	Douglas Fir (Pseudotsuga menziesii)	52 per survey	16'	34	Cedar (Thuja plicata)	31	12' est.
10	Cedar (Thuja plicata)	14 per survey	4'	35	Cedar (Thuja plicata)	31	12' est.
11	Cedar (Thuja plicata)	16 per survey	6'	36	Cedar (Thuja plicata)	20	12' est.
12	Cedar (Thuja plicata)		8'	37	Cedar (Thuja plicata)	30	12' est.
13	Hazelnut (Corylus sp.)	35 per survey	18'	38	Cedar (Thuja plicata)	26	12' est.
14	Hazelnut (Corylus sp.)	38 per survey	24'	39	Cedar (Thuja plicata)	26	12' est.
15	Horse Chestnut (Aesculus hippocastanum)	85	35'	40	Cedar (Thuja plicata)	29	12' est.
16	Horse Chestnut (Aesculus hippocastanum)	90	35'	41	Cedar (Thuja plicata)	33	12' est.
17	Cherry (Prunus sp.)	48 per survey	21'	42	Cedar (Thuja plicata)	35	12' est.
18	Apple (Malus sp.)	44	21'	43	Cedar (Thuja plicata)	27	12' est.
19	Willow (Salix sp.)	98 combined	35'	44	Cedar (Thuja plicata)	30	12' est.
20	Apple (Malus sp.)	108 combined	32'	45	Cedar (Thuja plicata)	27	12' est.
21	Cedar (Thuja occidentalis)	40 per survey	7'	46	Cedar (Thuja plicata)	29	12' est.
22	Cedar (Thuja plicata)	50 per survey	16'	47	Cedar (Thuja plicata)	31	12' est.
23	Cedar (Thuja plicata)	55 per survey	16'	48	Cedar (Thuja plicata)	24	12' est.
24	Cedar (Thuja plicata)	60 combined	19'	49	Cedar (Thuja plicata)	26	12' est.
25	Cedar (Thuja plicata)	99 combined	19'	50	Cedar (Thuja plicata)	28	12' est.
				51	Cedar (Thuja plicata)	28	12' est.
				52	Cedar (Thuja plicata)	32	12' est.
				53	Cedar (Thuja plicata)	29	12' est.



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Consultants

Civil: Core Concept Consulting Ltd.
Ecology: Eric Law Architect Inc.
Architectural:
Structural:
Mechanical:
Electrical:

Revision

H Project Leader
D.Duncan
Drawn by
D.Duncan

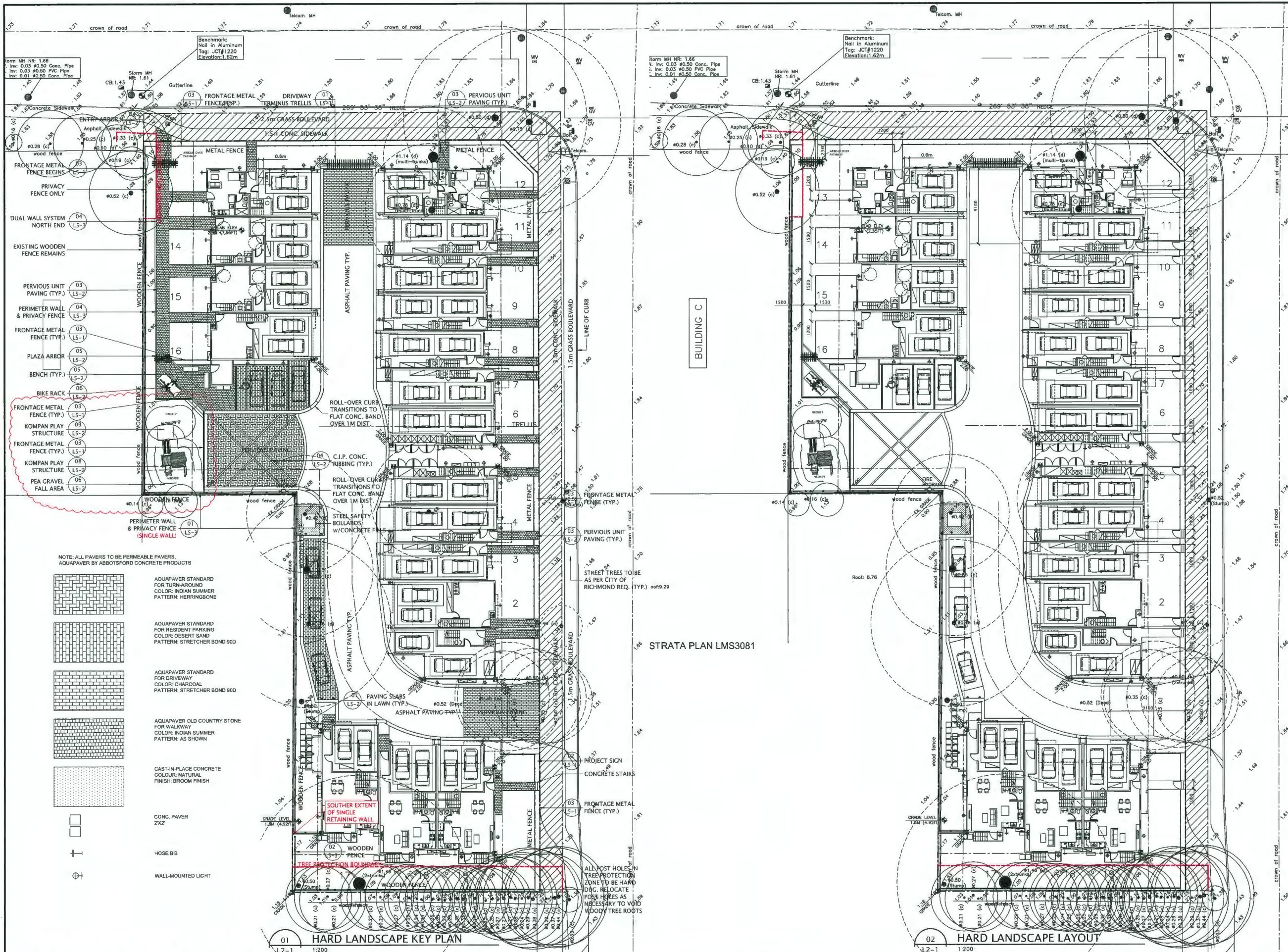
19 UNIT TOWNHOUSE
3033 Shell Road
Richmond, British Columbia
Canada

Drawing Title
TREE RETENTION

Check Scale (may be photo reduced)
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Project No. 18-0035
Drawing No. L0

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DVSD Donald V. S. Duncan
DEVELOPMENT CONSULTANT
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H	Project Leader D. Duncan
	Drawn by D. Duncan
Revision	

19 UNIT TOWNHOUSE
3033 Shell Road
Richmond, British Columbia
Canada

Drawing Title
HARD LANDSCAPE

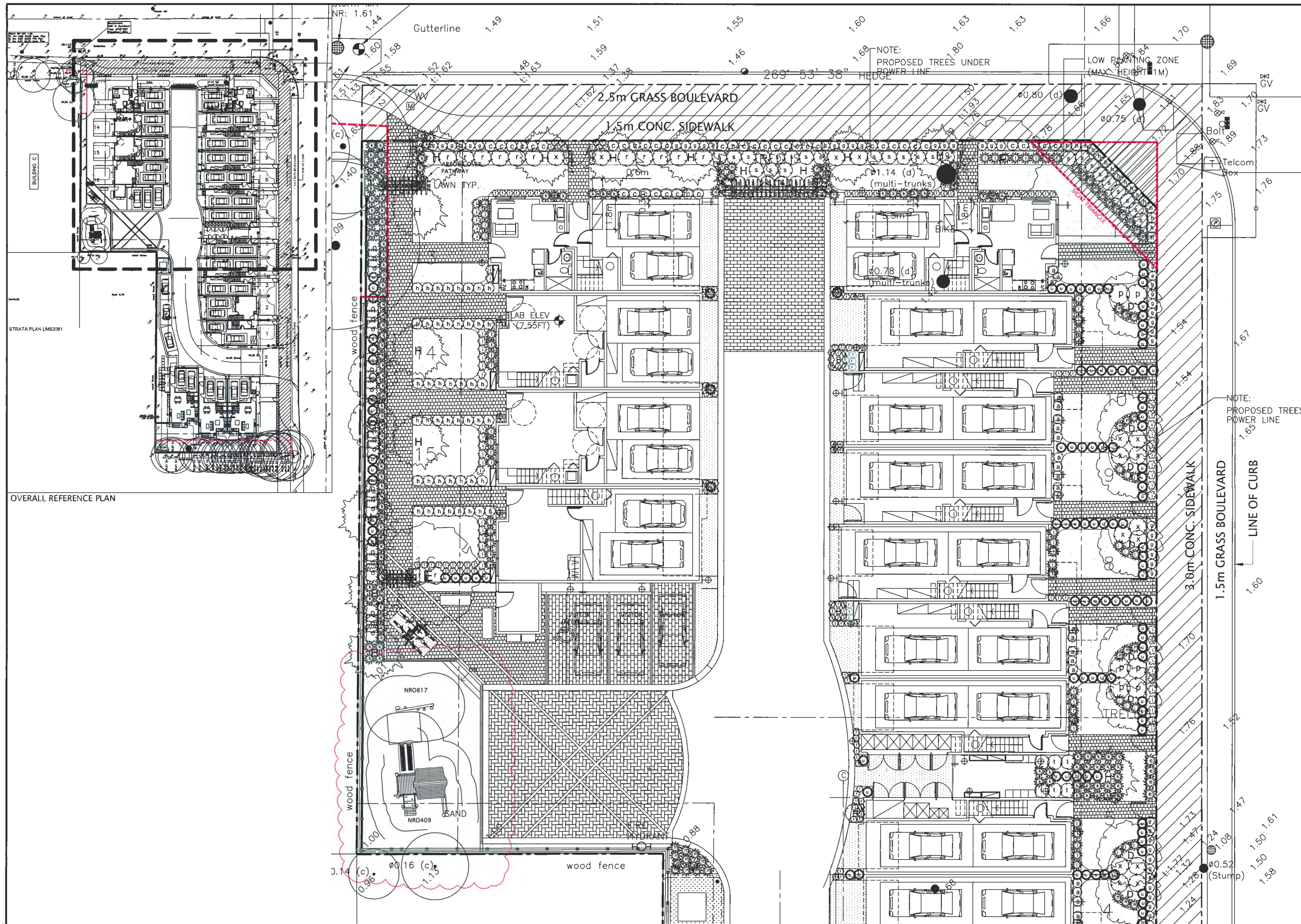
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Project No. 18-0035
Drawing No. L2-15

DP 18-828900

March 24, 2021

PLAN # 15



OVERALL REFERENCE PLAN

02 SOFT LANDSCAPE LAYOUT - NORTH
L3-1 1:100

March 24, 2021

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2018-12-06	DP	0
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H	D. Duncan
	Drawn by D. Duncan

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Canada

Drawing Title
SOFT LANDSCAPE

Check Scale (may be photo reduced)
0 1 inch 0 10mm

Project No. 18-0035

Drawing No. L3-1

DP 18-828900

PLAN # 16


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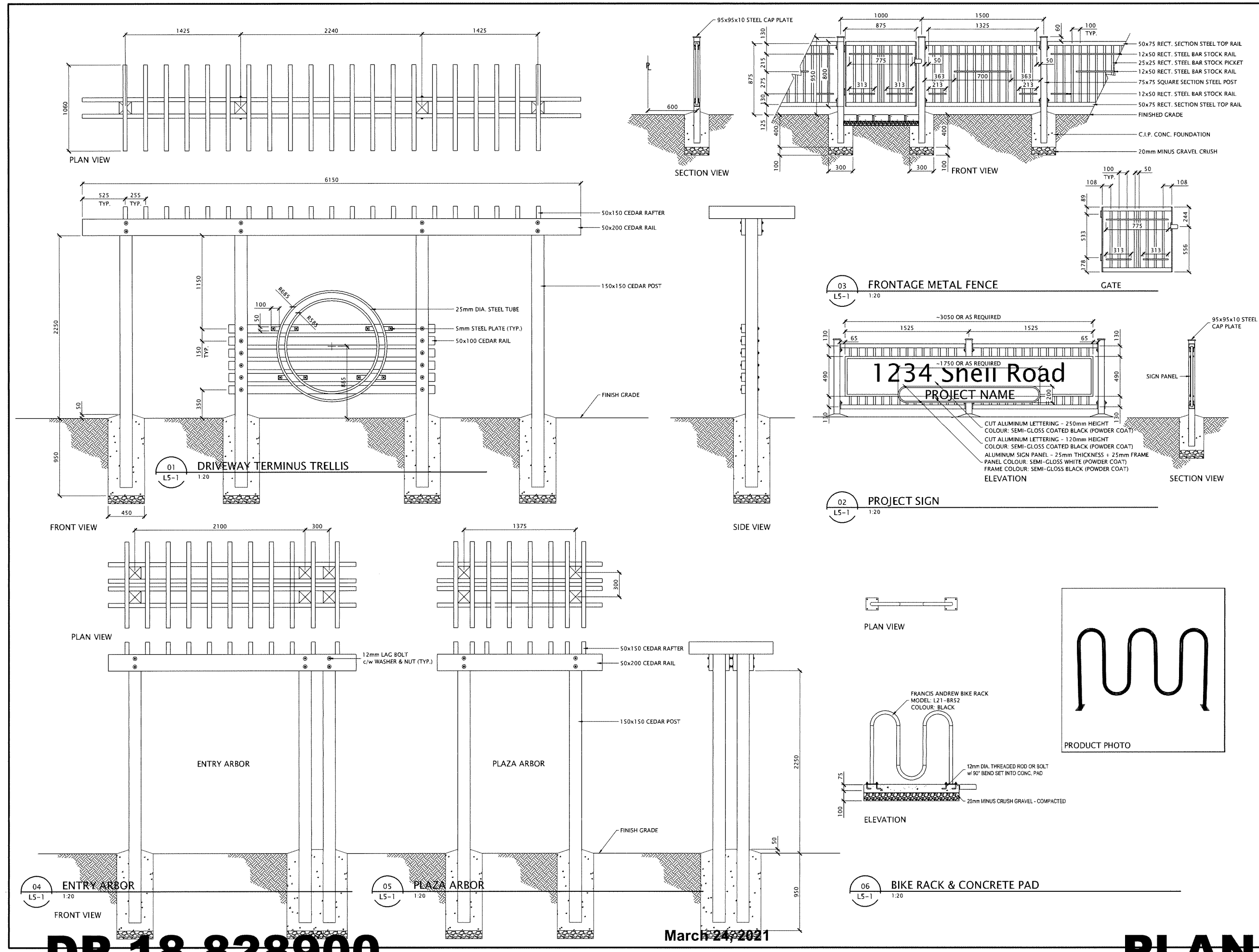




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Revision	H	Project Leader D. Duncan Drawn by D. Duncan
19 UNIT TOWNHOUSE 3033 Shell Road Richmond, British Columbia Canada		
Drawing Title HARD LANDSCAPE		
Check Scale (may be photo reduced) 		
Project No. 18-0035		
Drawing No. L5-1		

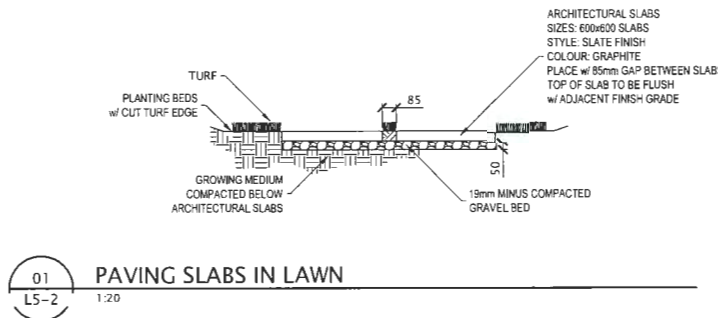
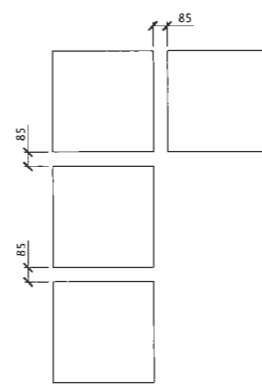


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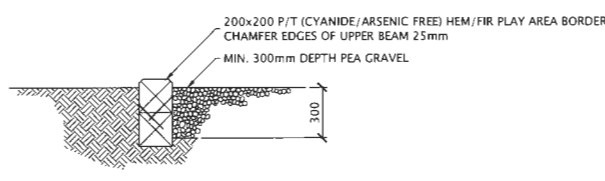
March 24, 2021

PLAN # 18

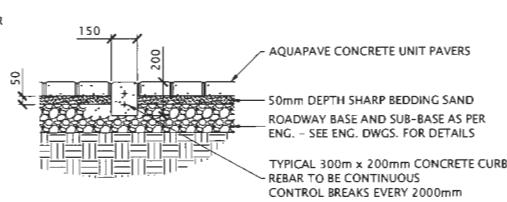
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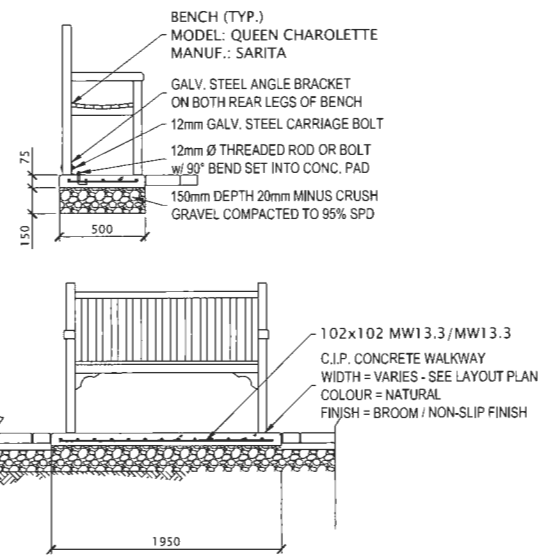
01 PAVING SLABS IN LAWN
L5-2 1:20



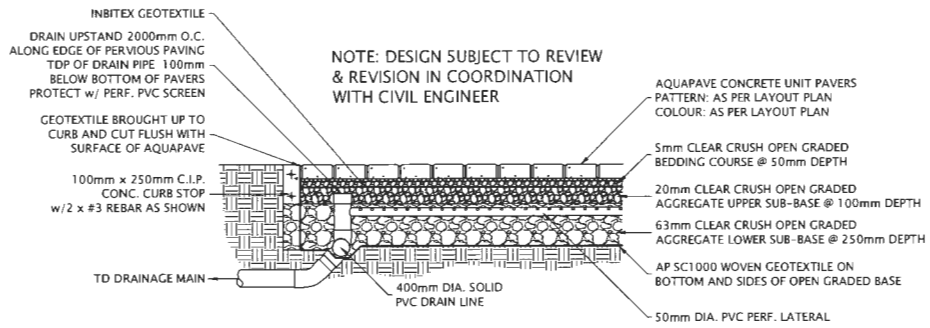
06 PLAY AREA EDGE & FALL AREA
L5-2 1:20



04 C.I.P. CONCRETE RIBBING
L5-2 1:20



05 PLAY AREA BENCH
L5-2 1:20



03 PERVIOUS UNIT PAVING
L5-2 1:20

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Revision	Project Leader
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	Drawn by D. Duncan

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Drawing Title
HARD LANDSCAPE



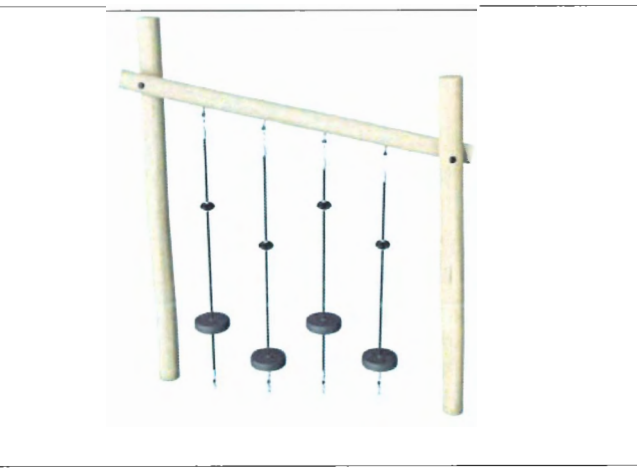
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Project No. 18-0035
Drawing No. L5-2



08 KOMPAN NRO409 WIZARD'S HIDE-AWAY
L5-2 N.T.S.



09 KOMPAN NRO817 BALANCE POLES
L5-2 N.T.S.



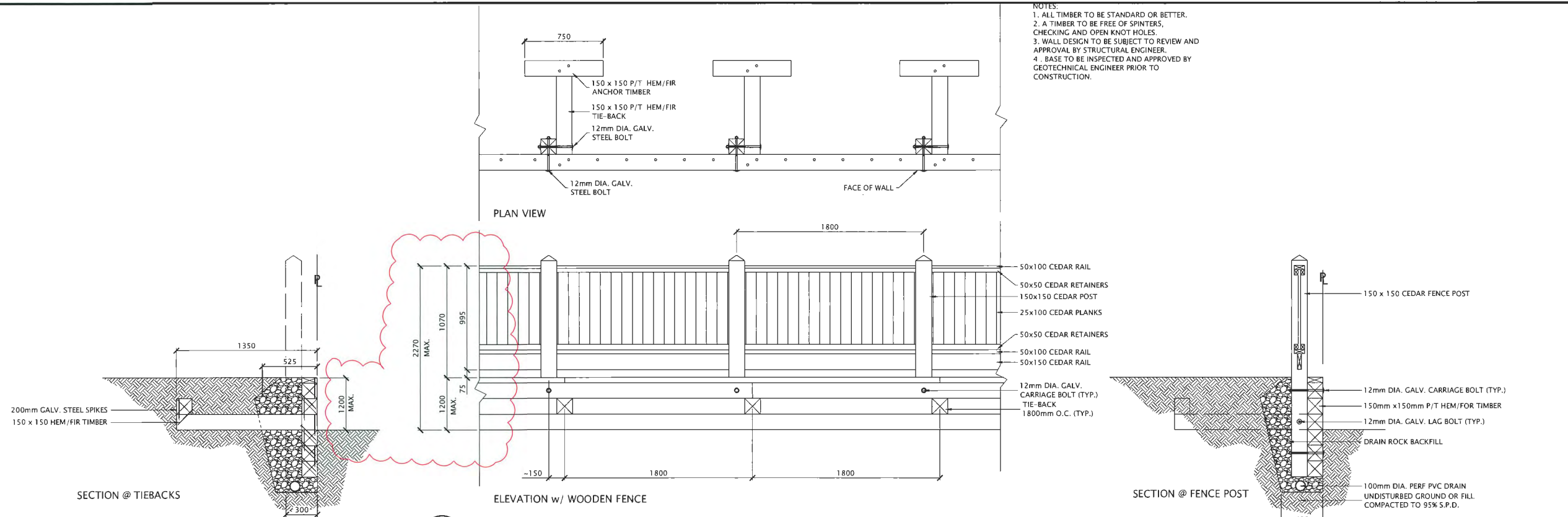
DP 18-828900

March 24, 2021

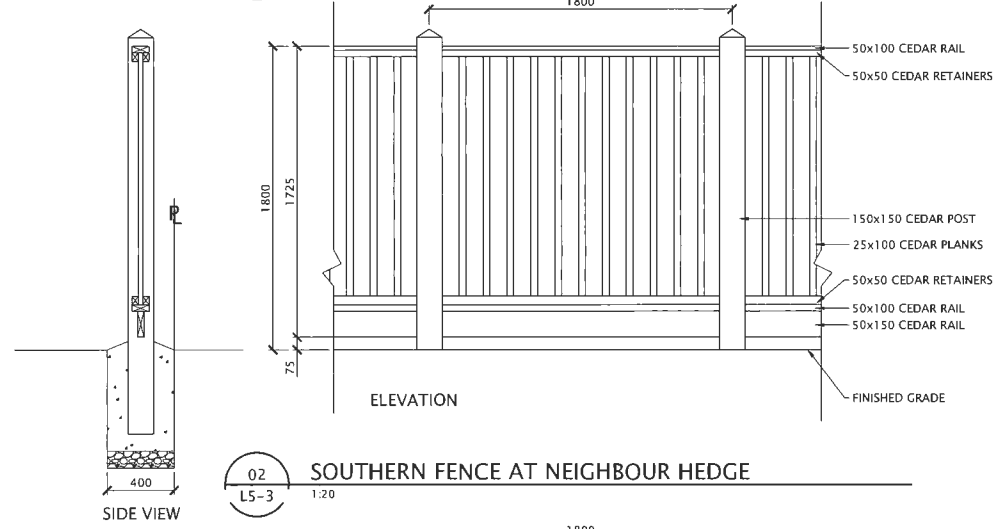
PLAN # 19

NOTES:
 1. ALL TIMBER TO BE STANDARD OR BETTER.
 2. A TIMBER TO BE FREE OF SPINTERS, CHECKING AND OPEN KNOT HOLES.
 3. WALL DESIGN TO BE SUBJECT TO REVIEW AND APPROVAL BY STRUCTURAL ENGINEER.
 4. BASE TO BE INSPECTED AND APPROVED BY GEOTECHNICAL ENGINEER PRIOR TO CONSTRUCTION.

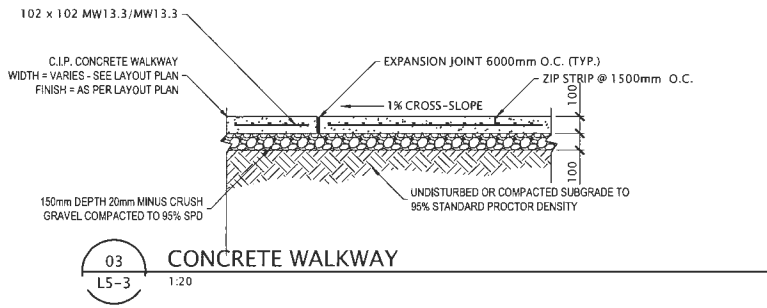
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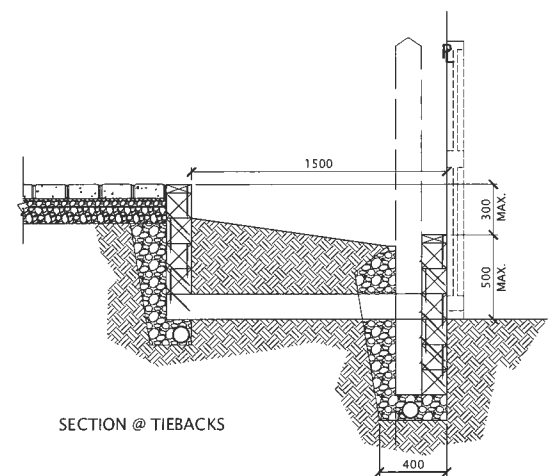
01 PERIMETER WALL & PRIVACY FENCE @ SOUTHWEST PL
 L5-3 1:20



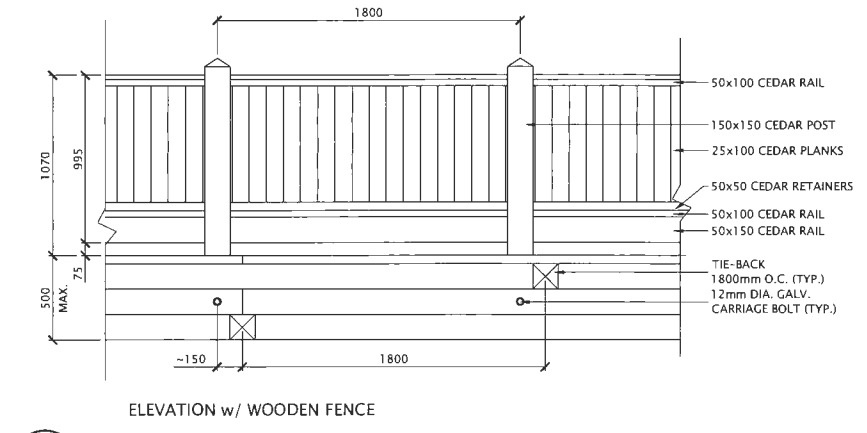
02 SOUTHERN FENCE AT NEIGHBOUR HEDGE
 L5-3 1:20



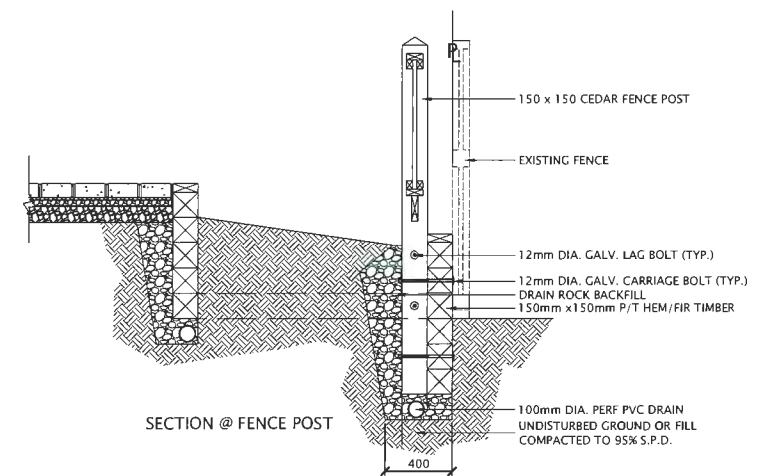
03 CONCRETE WALKWAY
 L5-3 1:20



SECTION @ TIEBACKS



04 PERIMETER WALL & PRIVACY FENCE @ NORTHWEST PL
 L5-3 1:20



SECTION @ FENCE POST

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Consultants	
Civil:	Core Concept Consulting Ltd.
Ecology:	Eric Law Architect Inc.
Architectural:	
Structural:	
Mechanical:	
Electrical:	



DVSD Donald V. S. Duncan
 DEVELOPMENT CONSULTANT
 LANDSCAPE ARCHITECT
 603 - 220 Eleventh Street
 New Westminster BC
 Canada V3M 6N9
 778-791-4323
 dvsduncan@gmail.com

Revision	Project Leader
H	D. Duncan
	Drawn by D. Duncan
	Revision D. Duncan

19 UNIT TOWNHOUSE
 3033 Shell Road
 Richmond, British Columbia
 Canada

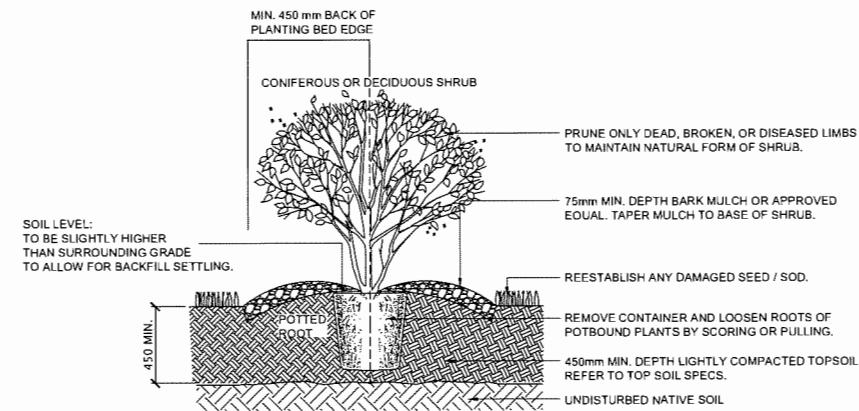
Drawing Title
HARD LANDSCAPE

Check Scale (may be photo reduced)
 0 1 inch 0 10mm

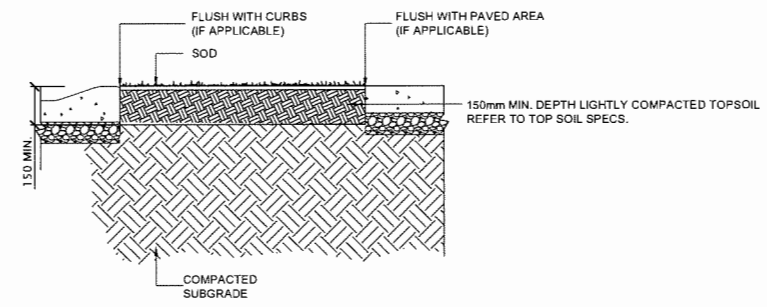
Project No. 18-0035

Drawing No. L5-3

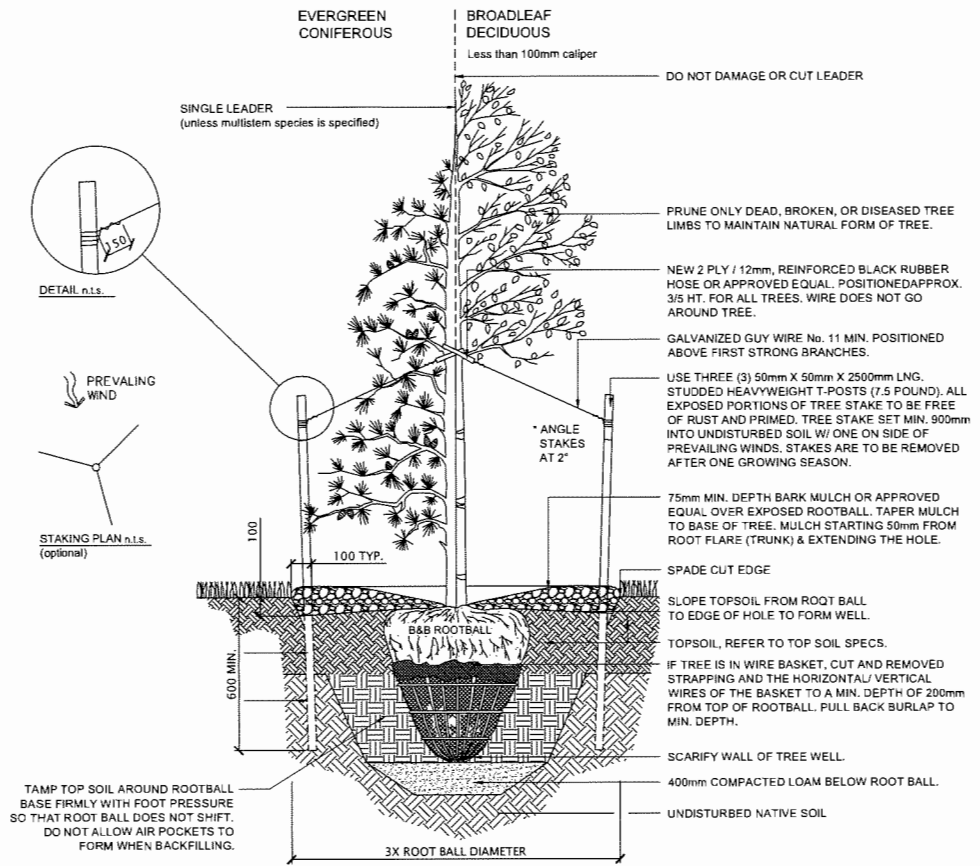
DATE	ISSUED FOR	REV
2018-12-06	DP	0
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2019-07-19	DP RE-SUBMISSION	B
2019-08-15	DP RE-SUBMISSION	C
2019-10-30	DP RE-SUBMISSION	D
2019-12-04	BUILDING PERMIT	E
2020-10-15	BUILDING PERMIT	F
2020-12-03	BUILDING PERMIT	G
2021-02-16	BUILDING PERMIT	H



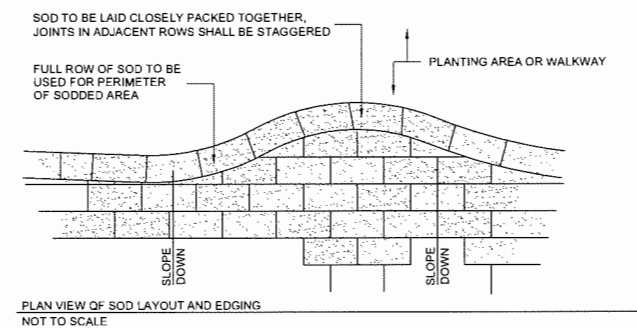
01 SHRUB INSTALLATION
L5-4 N.T.S.



SECTION THROUGH SOD



02 TREE INSTALLATION
L5-4 N.T.S.



03 LAWN INSTALLATION
L5-4 N.T.S.

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Consultants	
Civil:	Core Concept Consulting Ltd.
Ecology:	
Architectural:	Eric Law Architect Inc.
Mechanical:	
Electrical:	

N

DVSD Donald V. S. Duncan
DEVELOPMENT CONSULTANT
LANDSCAPE ARCHITECT

603 - 220 Eleventh Street
New Westminster BC
Canada V3M 6N9
778-791-4323
dvsduncan@gmail.com

H Project Leader
D. Duncan
Revision Drawn by
D. Duncan

19 UNIT TOWNHOUSE
3033 Shell Road
Richmond, British Columbia
Canada

Drawing Title
SOFT LANDSCAPE

Check Scale (may be photo reduced)
0 1 inch 0 10mm

Project No. 18-0035

Drawing No. L5-4

**ERIC LAW
ARCHITECT**

eric.law.architect@gmail.com
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1.	2018.07.11 FOR DEVELOPMENT PERMIT SUBMISSION
2.	2019.05.14 FOR CITY DP REVIEW
3.	2019.07.23 FOR CITY DP REVIEW
4.	2019.08.13 FOR CITY DP REVIEW
5.	2019.09.05 FOR ADP MEETING
6.	2019.11.05 FOR CITY DP REVIEW
7.	2020.12.03 FOR CITY DPP REVIEW
8.	2021.02.18 FOR CITY DPP REVIEW



PROPOSED TOWNHOUSE CONTEXT IMAGE ALONG SHELL ROAD



PROPOSED TOWNHOUSE CONTEXT IMAGE ALONG BRIDGEPORT ROAD

4.	2020.02.18 AS PER CITY COMMENT
5.	2020.10.31 INCREASE HEIGHT AS PER CLIENT
4.	2019.11.05 AS RER CITY AND ADP REVIEW COMMENT
3.	2019.08.08 AS RER CITY REVIEW COMMENT
2.	2019.08.20 AS RER CITY REVIEW COMMENT
1.	2019.05.14 AS RER CITY REVIEW COMMENT LETTER
REVISION	

**PROPOSED TOWNHOUSE
3033, 3091 & 3111 SHELL ROAD
10760, 10780 BRIDGEPORT
RICHMOND, BC**

CONTEXT IMAGES

PROJECT NUMBER:	16-25
ISSUED:	2/18/2021
DRAWN BY:	EL
CHECKED BY:	EL
FILENAME:	16-25_OBP_210218--DPP.DWG

A20

DP 18-828900

DEVELOPMENT PERMIT

DP 18-828900

March 24, 2021

PLAN # 22

PERSPECTIVE IMAGE ALONG BRIDGEPORT ROAD AND SHELL ROAD INTERSECTION



PROPOSED TOWNHOUSE CONTEXT IMAGE ALONG BRIDGEPORT ROAD

ISSUED	
1.	2018.07.11 FOR DEVELOPMENT PERMIT SUBMISSION
2.	2019.05.14 FOR CITY DP REVIEW
3.	2019.07.23 FOR CITY DP REVIEW
4.	2019.08.13 FOR CITY DP REVIEW
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8.	2021.02.18 FOR CITY DPP REVIEW

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2.	2019.08.20 AS RER CITY REVIEW COMMENT
1.	2019.05.14 AS RER CITY REVIEW COMMENT LETTER
REVISION	

**PROPOSED TOWNHOUSE
3033, 3091 & 3111 SHELL ROAD
10760, 10780 BRIDGEPORT
RICHMOND, BC**

IMAGE

PROJECT NUMBER:	16-25
ISSUED:	2/18/2021
DRAWN BY:	EL
CHECKED BY:	EL
FILENAME:	16-25_OBP_210218-DPP.DWG

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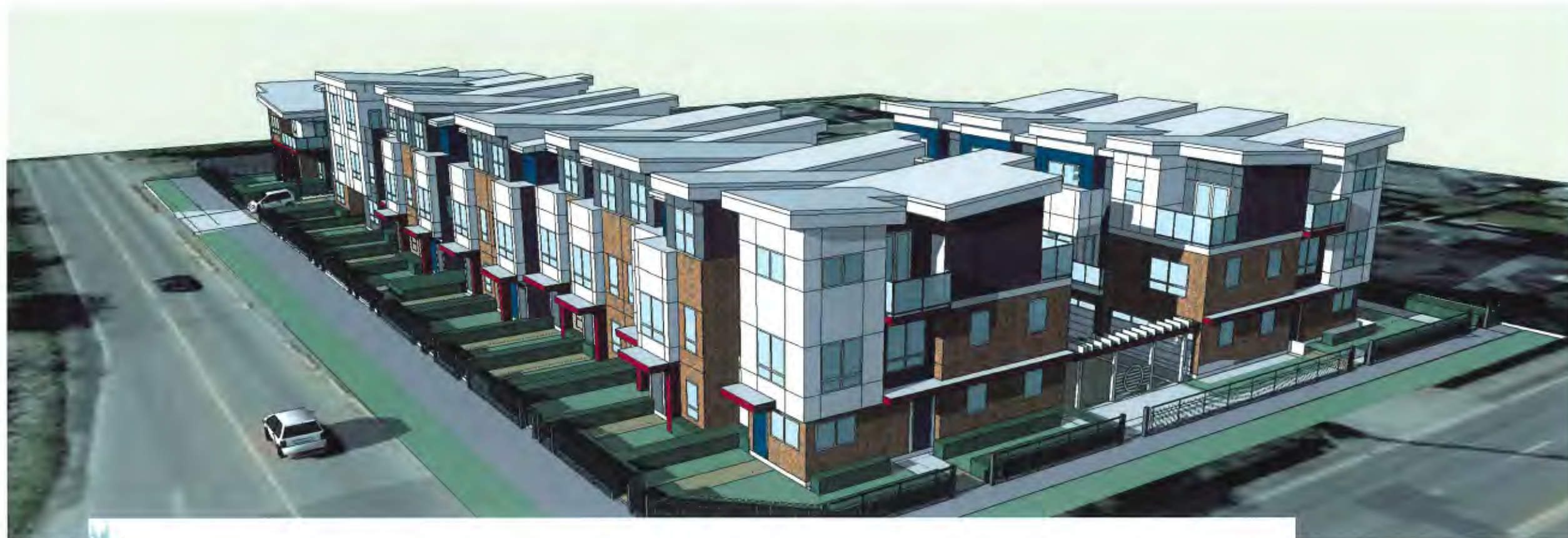
DP 18-828900

DP 18-828900

March 24, 2021

PLAN # 23

DEVELOPMENT PERMIT



PROPOSED TOWNHOUSE CONTEXT IMAGE ALONG SHELL ROAD

**ERIC LAW
ARCHITECT**

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2.	2019.08.20 AS PER CITY REVIEW COMMENT
1.	2019.05.14 AS PER CITY REVIEW COMMENT LETTER
REVISION	

**PROPOSED TOWNHOUSE
3033, 3091 & 3111 SHELL ROAD
10760, 10780 BRIDGEPORT
RICHMOND, BC**

IMAGE

PROJECT NUMBER: 16--25
ISSUED: 2/18/2021
DRAWN BY: EL
CHECKED BY: EL
FILENAME: 16--25_OBP_210218-DPP.DWG

A22

DP 18-828900

DP 18-828900

March 24, 2021

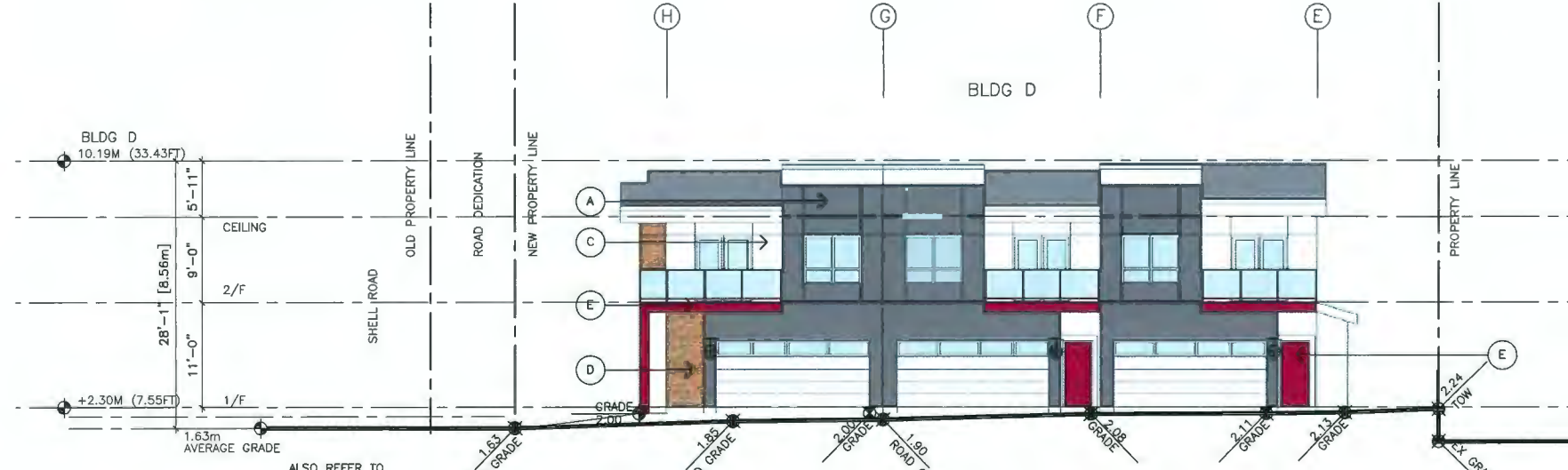
PLAN # 24

DEVELOPMENT PERMIT

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3.	2019.07.23 FOR CITY DP REVIEW
4.	2019.08.13 FOR CITY DP REVIEW
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6.	2019.11.05 FOR CITY DP REVIEW
7.	2020.12.03 FOR CITY DP REVIEW
8.	2021.02.18 FOR CITY DPP REVIEW



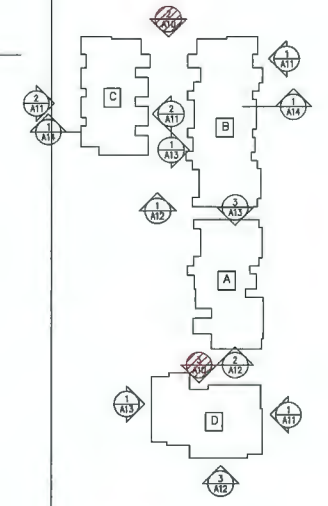
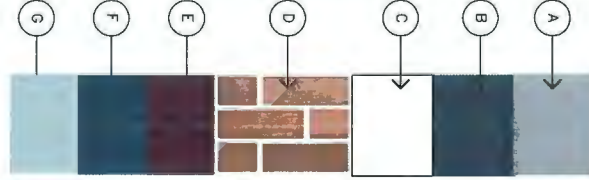
2 ALSO REFER TO NORTH ELEVATION (FACING BRIDGEPORT)
A10 1/8" TO 1'-0"



3 ALSO REFER TO NORTH ELEVATION (BLDG D)
A10 1/8" TO 1'-0"

- EXTERIOR COLOUR**
- (A) → HARDIE COLOUR PLUS PREFINISH PEARL GREY
 - (B) → HARDIE COLOUR PLUS PREFINISH EVENING BLUE
 - (C) → HARDIE COLOUR PLUS PREFINISH ARCTIC WHITE
 - (D) → INCA MUTUAL BRICK
 - (E) → PAINT COLOUR SHERWIN WILLIAMS SW6027 CORDOVAN
 - (F) → PAINT COLOUR SHERWIN WILLIAMS SW6250 GRANITE PEAK
 - (G) → PAINT COLOUR SHERWIN WILLIAMS SW7650 ELLIE GRAY

ALL ROOFING TRIM SHALL BE WHITE
ALL HARDIE TRIM OR CORNER TRIM SHALL BE WHITE
ALL WINDOW TRIM COLOUR SHALL BE WHITE
ALL GARAGE DOOR SHALL BE WHITE
ALL SECONDARY DOOR SHALL BE WHITE



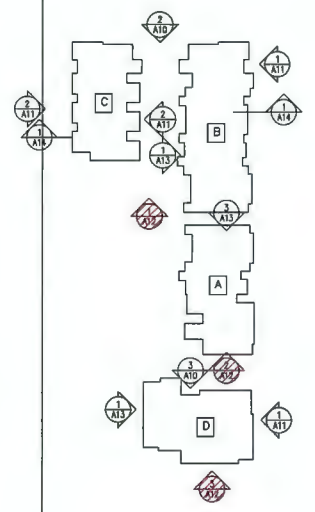
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5.	2020.10.31 INCREASE HEIGHT AS PER CLIENT
4.	2019.11.05 AS RER CITY AND ADP REVIEW COMMENT
3.	2019.08.08 AS RER CITY REVIEW COMMENT
2.	2019.06.20 AS RER CITY REVIEW COMMENT
1.	2019.05.14 AS RER CITY REVIEW COMMENT LETTER

PROPOSED TOWNHOUSE
3033, 3091 & 3111 SHELL ROAD
10760, 10780 BRIDGEPORT
RICHMOND, BC
ELEVATIONS-COLOUR

PROJECT NUMBER:	16-25
ISSUED:	2/18/2021
DRAWN BY:	EL
CHECKED BY:	EL
FILENAME:	16-25_OBP_210218-DPP.DWG

ISSUED

- 2018.07.11 FOR DEVELOPMENT PERMIT SUBMISSION
- 2019.05.14 FOR CITY DP REVIEW
- 2019.07.23 FOR CITY DP REVIEW
- 2019.08.13 FOR CITY DP REVIEW
- 2019.09.05 FOR ADP MEETING
- 2019.11.05 FOR CITY DP REVIEW
- 2020.12.03 FOR CITY DPP REVIEW
- 2021.02.18 FOR CITY DPP REVIEW



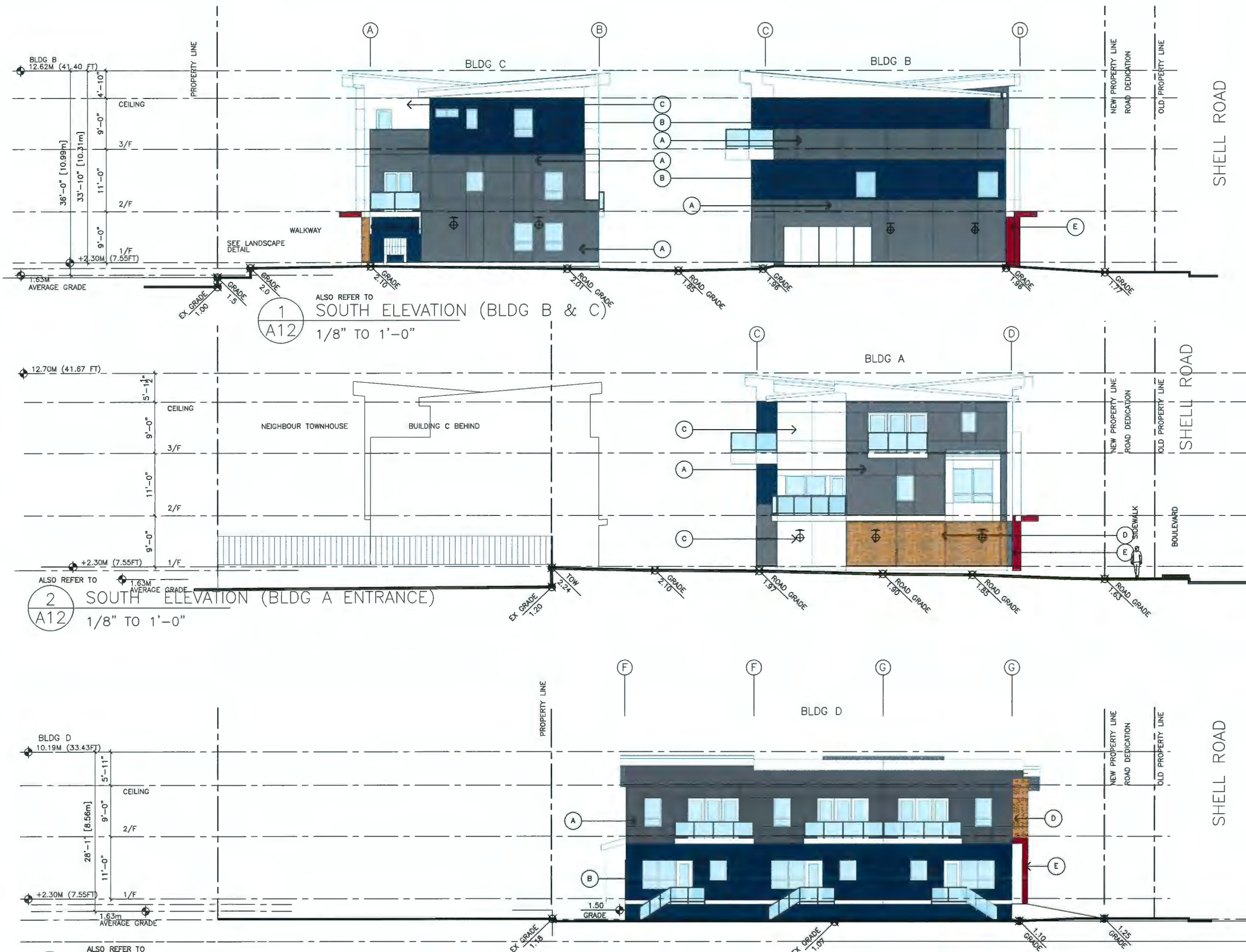
REVISION

- 2020.02.18 AS PER CITY COMMENT
- 2020.10.31 INCREASE HEIGHT AS PER CLIENT
- 2019.11.05 AS PER CITY AND ADP REVIEW COMMENT
- 2019.08.08 AS PER CITY REVIEW COMMENT
- 2019.08.20 AS PER CITY REVIEW COMMENT
- 2019.05.14 AS PER CITY REVIEW COMMENT LETTER

PROPOSED TOWNHOUSE
3033, 3091 & 3111 SHELL ROAD
10760, 10780 BRIDGEPORT
RICHMOND, BC

ELEVATIONS-COLOUR

PROJECT NUMBER: 16-25
ISSUED: 2/18/2021
DRAWN BY: EL
CHECKED BY: EL
FILENAME: 16-25_OBP_210218-DPP.DWG



ALSO REFER TO
3 SOUTH ELEVATION (BLDG D)
A12 1/8" TO 1'-0"

DP 18-828900

March 24, 2021

DP 18-828900

PLAN # 27

DEVELOPMENT PERMIT

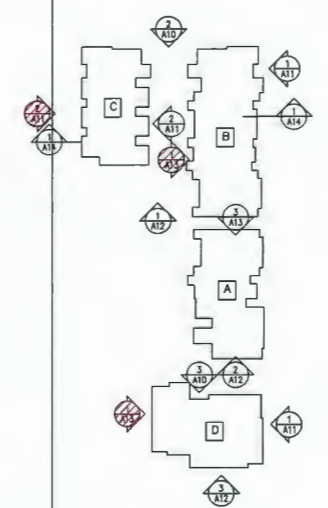
A17

ericlawarchitect@gmail.com
 218 288 WEST AVENUE VANCOUVER BC
 V5Y1N5
 TEL: (604) 505-2099
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ISSUED

- 2018.07.11 FOR DEVELOPMENT PERMIT SUBMISSION
- 2019.05.14 FOR CITY DP REVIEW
- 2019.07.23 FOR CITY DP REVIEW
- 2019.08.13 FOR CITY DP REVIEW
- 2019.09.05 FOR ADP MEETING
- 2019.11.05 FOR CITY DP REVIEW
- 2020.12.03 FOR CITY DPP REVIEW
- 2021.02.18 FOR CITY DPP REVIEW



- 2020.02.18 AS PER CITY COMMENT
- 2020.10.31 INCREASE HEIGHT AS PER CLIENT
- 2019.11.05 AS PER CITY AND ADP REVIEW COMMENT
- 2019.08.08 AS PER CITY REVIEW COMMENT
- 2019.05.20 AS PER CITY REVIEW COMMENT
- 2019.05.14 AS PER CITY REVIEW COMMENT LETTER REVISION

PROPOSED TOWNHOUSE
 3033, 3091 & 3111 SHELL ROAD
 10760, 10780 BRIDGEPORT
 RICHMOND, BC
ELEVATIONS COLOUR

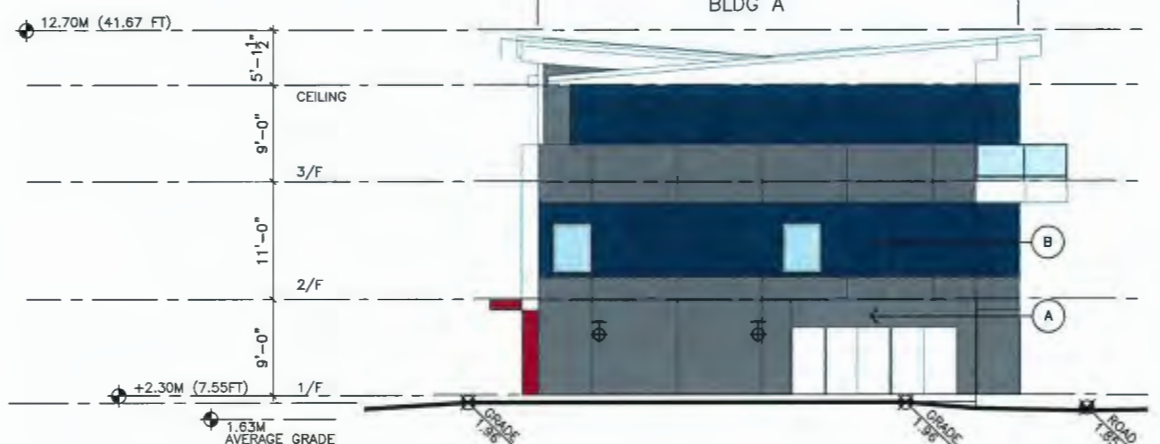
PROJECT NUMBER: 16-25
 ISSUED: 2/18/2021
 DRAWN BY: EL
 CHECKED BY: EL
 FILENAME: 16-25_OBP_210218-DPP.DWG



1 WEST ELEVATION (INTERNAL AISLE)
 A13 1/8" TO 1'-0"



2 WEST ELEVATION (BLDG C)
 A13 1/8" TO 1'-0"

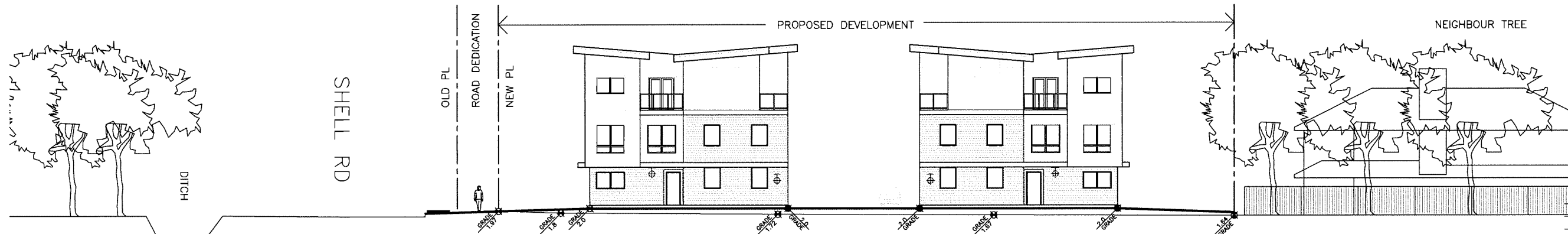


3 NORTH ELEVATION (BLDG A)
 A13 1/8" TO 1'-0"

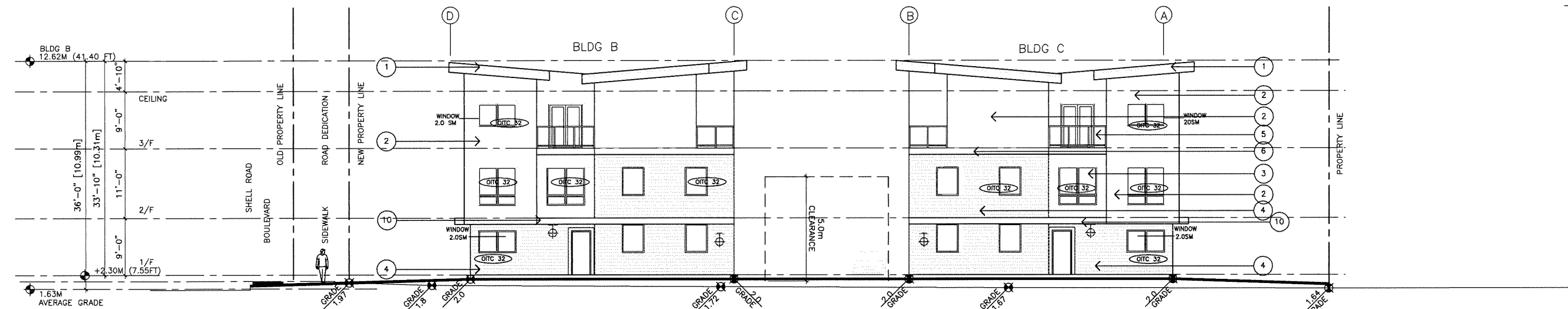


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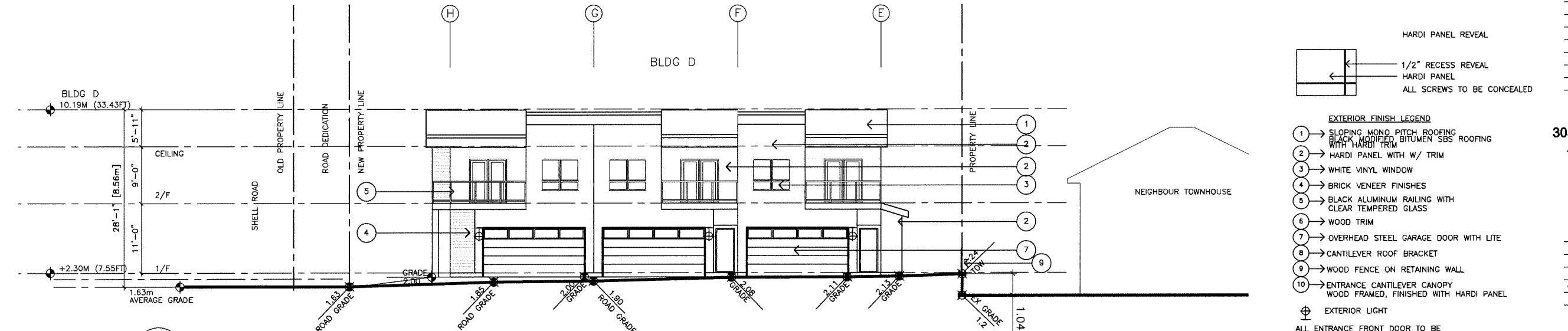
- 2018.07.11 FOR DEVELOPMENT PERMIT SUBMISSION
- 2019.05.14 FOR CITY DP REVIEW
- 2019.07.23 FOR CITY DP REVIEW
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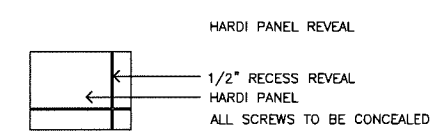
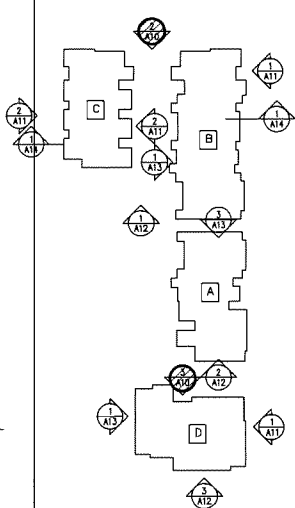
1 CONTEXT ELEVATION (BRIDGEPORT)
A9 3/32" TO 1'-0"



2 NORTH ELEVATION (FACING BRIDGEPORT)
A10 1/8" TO 1'-0"



3 NORTH ELEVATION (BLDG D)
A10 1/8" TO 1'-0"



- EXTERIOR FINISH LEGEND**
- 1 - SLOPING MONO PITCH ROOFING
 - 2 - BLACK MODIFIED BITUMEN SBS ROOFING WITH HARDI TRIM
 - 3 - HARDI PANEL WITH W/ TRIM
 - 4 - WHITE VINYL WINDOW
 - 5 - BRICK VENEER FINISHES
 - 6 - BLACK ALUMINUM RAILING WITH CLEAR TEMPERED GLASS
 - 7 - WOOD TRIM
 - 8 - OVERHEAD STEEL GARAGE DOOR WITH LITE
 - 9 - CANTILEVER ROOF BRACKET
 - 10 - WOOD FENCE ON RETAINING WALL
 - 11 - ENTRANCE CANTILEVER CANOPY WOOD FRAMED, FINISHED WITH HARDI PANEL
- ⊕ EXTERIOR LIGHT
ALL ENTRANCE FRONT DOOR TO BE WOOD DOOR

- 2020.02.18 AS PER CITY COMMENT
- 2020.10.31 INCREASE HEIGHT AS PER CLIENT
- 2019.11.05 AS RER CITY AND ADP REVIEW COMMENT
- 2019.08.08 AS RER CITY REVIEW COMMENT
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PROPOSED TOWNHOUSE
3033, 3091 & 3111 SHELL ROAD
10760, 10780 BRIDGEPORT
RICHMOND, BC
ELEVATIONS

PROJECT NUMBER: 16-25
ISSUED: 2/18/2021
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CHECKED BY: EL
FILENAME: 16-25_OBP_210218-DPP.DWG

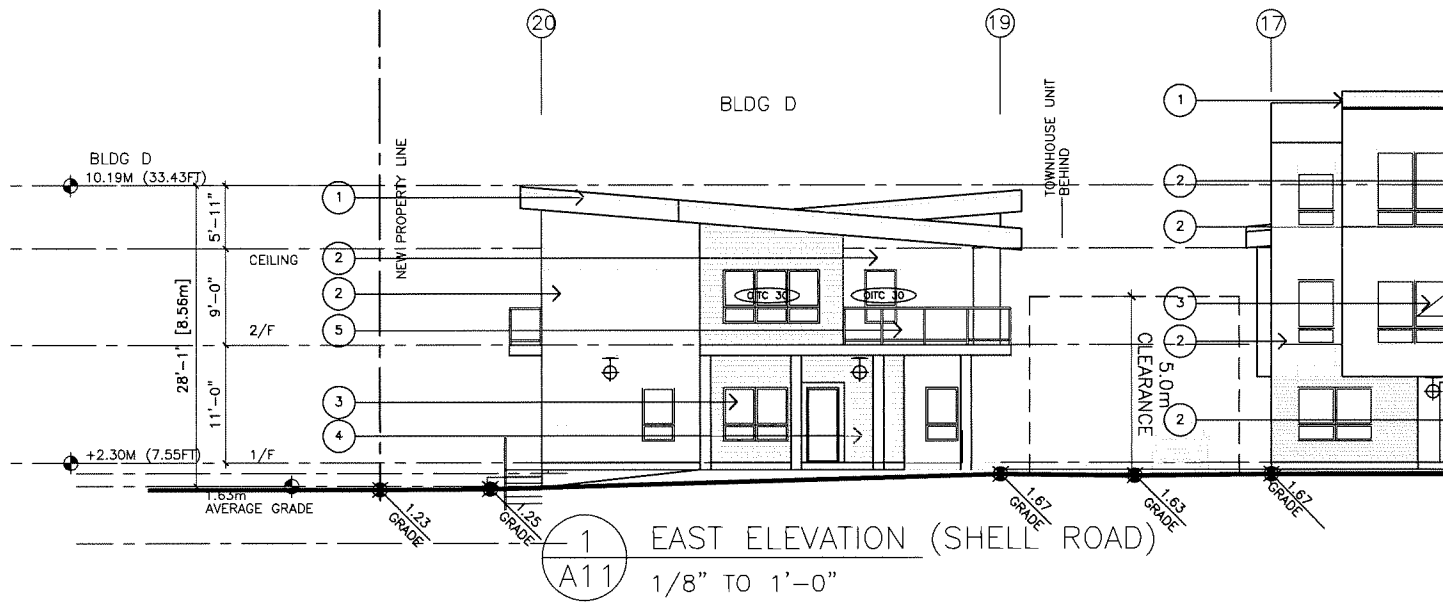
DP 18-828900

A10

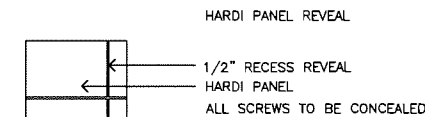
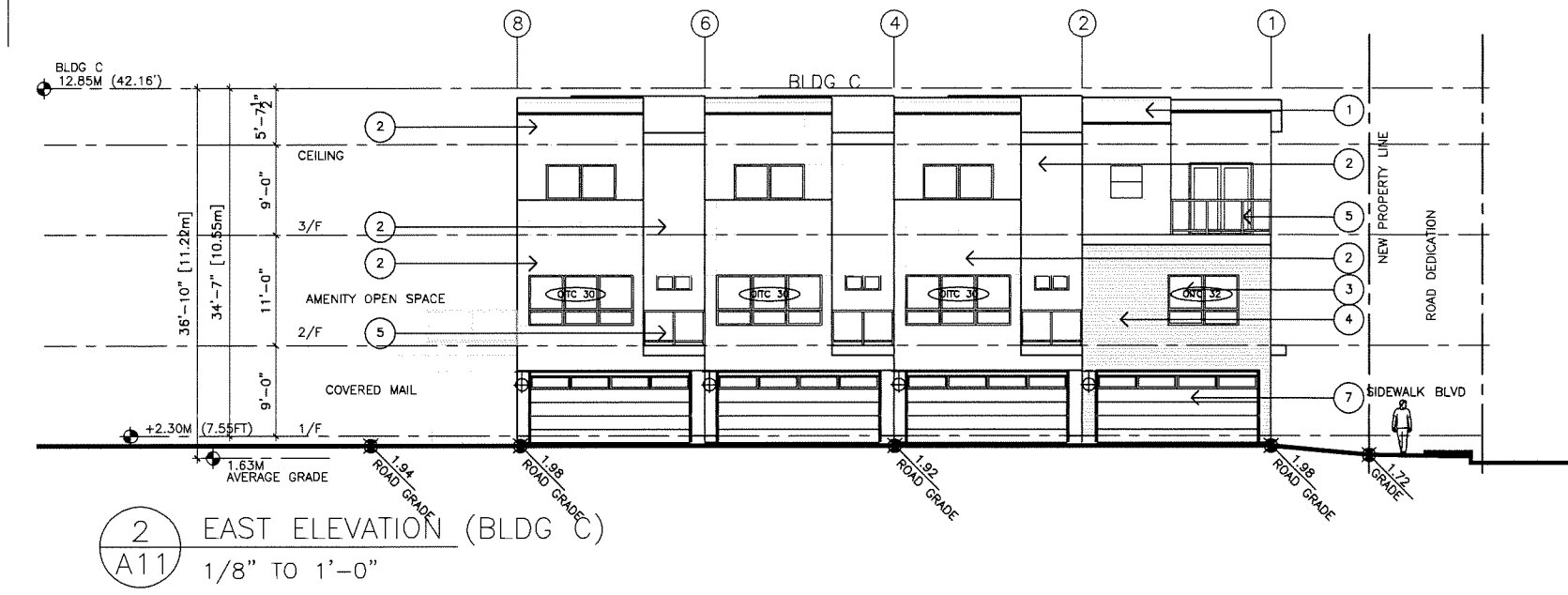
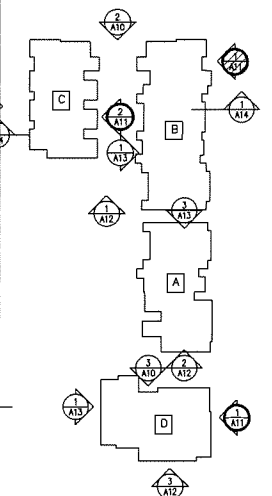
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ISSUED	REVISION
1. 2018.07.11 FOR DEVELOPMENT PERMIT SUBMISSION	
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7. 2020.12.03 FOR CITY DPP REVIEW	
8. 2021.02.18 FOR CITY DPP REVIEW	



SEE BELOW FOR CONTINUATION



- EXTERIOR FINISH LEGEND**
- 1 → SLOPING MONO PITCH ROOFING
 - 2 → BLACK MODIFIED BITUMEN SBS ROOFING WITH HARDI TRIM
 - 3 → HARDI PANEL WITH W/ TRIM
 - 4 → WHITE VINYL WINDOW
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- ⊕ EXTERIOR LIGHT
ALL ENTRANCE FRONT DOOR TO BE WOOD DOOR

REVISION	DATE	DESCRIPTION
1.	2019.05.14	AS RER CITY REVIEW COMMENT LETTER
2.	2019.06.20	AS RER CITY REVIEW COMMENT
3.	2019.08.08	AS RER CITY REVIEW COMMENT
4.	2019.11.05	AS RER CITY AND ADP REVIEW COMMENT
5.	2020.10.31	INCREASE HEIGHT AS PER CLIENT
6.	2020.02.18	AS PER CITY COMMENT

PROPOSED TOWNHOUSE
3033, 3091 & 3111 SHELL ROAD
10760, 10780 BRIDGEPORT
RICHMOND, BC
ELEVATIONS

PROJECT NUMBER: 16-25
ISSUED: 2/18/2021
DRAWN BY: EL
CHECKED BY: EL
FILENAME: 16-25_OBP_210218-DPP.DWG

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DP 18-828900

DEVELOPMENT PERMIT

March 24, 2021

DP 18-828900

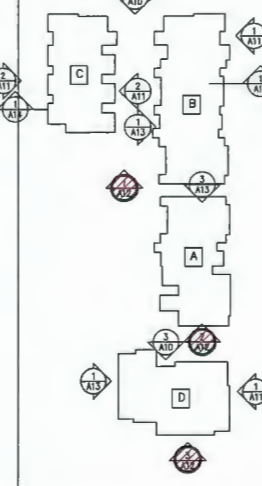
PLAN # 30

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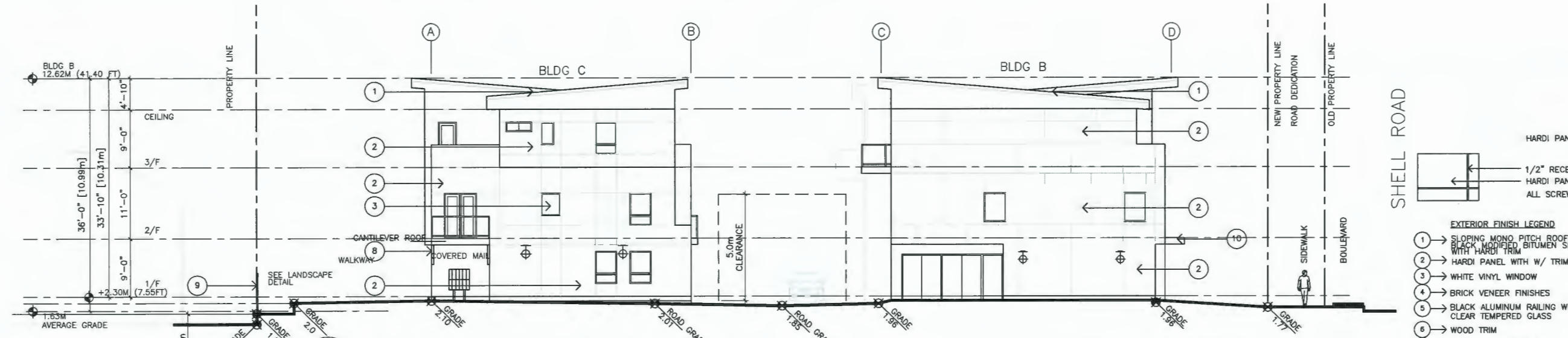
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- 2019.11.05 FOR CITY DP REVIEW
- 2020.12.03 FOR CITY DPP REVIEW
- 2021.02.18 FOR CITY DPP REVIEW



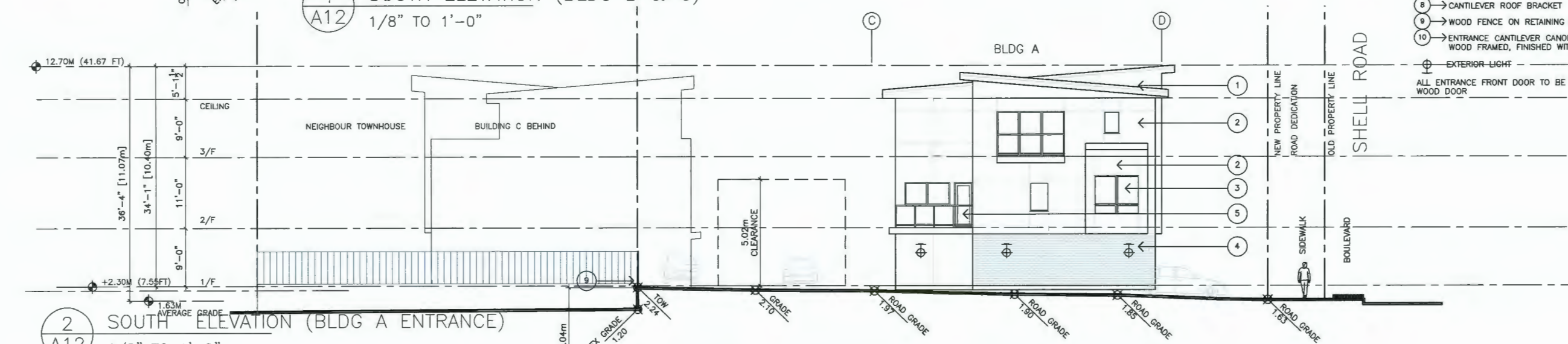
- | REVISION |
|--|
| 6. 2020.02.18 AS PER CITY COMMENT |
| 5. 2020.10.31 INCREASE HEIGHT AS PER CLIENT |
| 4. 2019.11.05 AS RER CITY AND ADP REVIEW COMMENT |
| 3. 2019.08.08 AS RER CITY REVIEW COMMENT |
| 2. 2019.08.20 AS RER CITY REVIEW COMMENT |
| 1. 2019.05.14 AS RER CITY REVIEW COMMENT LETTER |

PROPOSED TOWNHOUSE
 3033, 3091 & 3111 SHELL ROAD
 10760, 10780 BRIDGEPORT
 RICHMOND, BC
ELEVATIONS

PROJECT NUMBER: 16-25
 ISSUED: 2/18/2021
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1 SOUTH ELEVATION (BLDG B & C)
 1/8" TO 1'-0"



2 SOUTH ELEVATION (BLDG A ENTRANCE)
 1/8" TO 1'-0"



3 SOUTH ELEVATION (BLDG D)
 1/8" TO 1'-0"

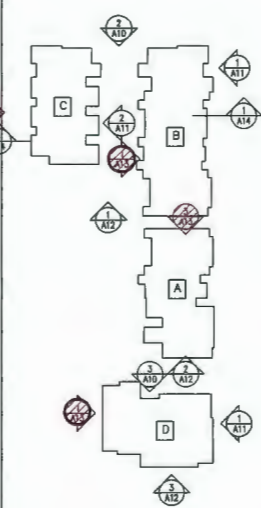
- EXTERIOR FINISH LEGEND**
- SLOPING MONO PITCH ROOFING WITH HARDI TRIM
 - HARDI PANEL WITH W/ TRIM
 - WHITE VINYL WINDOW
 - BRICK VENEER FINISHES
 - BLACK ALUMINUM RAILING WITH CLEAR TEMPERED GLASS
 - WOOD TRIM
 - OVERHEAD STEEL GARAGE DOOR WITH LITE
 - CANTILEVER ROOF BRACKET
 - WOOD FENCE ON RETAINING WALL
 - ENTRANCE CANTILEVER CANOPY WOOD FRAMED, FINISHED WITH HARDI PANEL
 - EXTERIOR LIGHT
- HARDI PANEL REVEAL
 1/2" RECESS REVEAL
 HARDI PANEL
 ALL SCREWS TO BE CONCEALED
- ALL ENTRANCE FRONT DOOR TO BE WOOD DOOR

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 FAX: (604) 909-2897

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- 2020.02.18 AS PER CITY COMMENT
- 2020.10.31 INCREASE HEIGHT AS PER CLIENT
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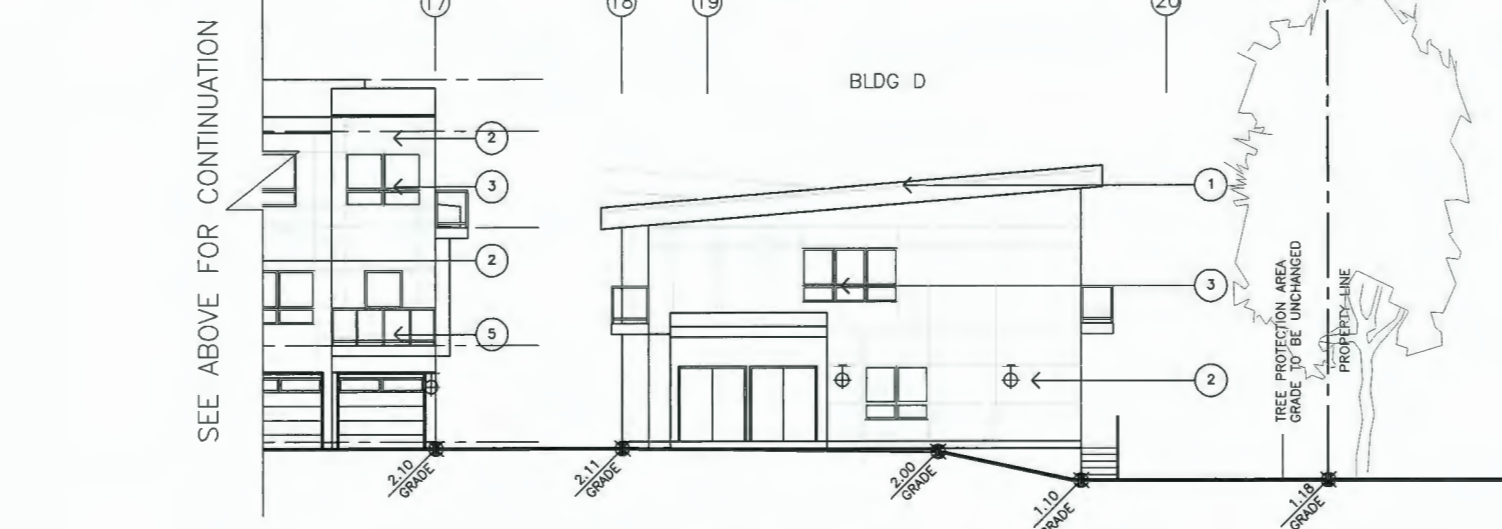
REVISION

PROPOSED TOWNHOUSE
 3033, 3091 & 3111 SHELL ROAD
 10760, 10780 BRIDGEPORT
 RICHMOND, BC
ELEVATIONS

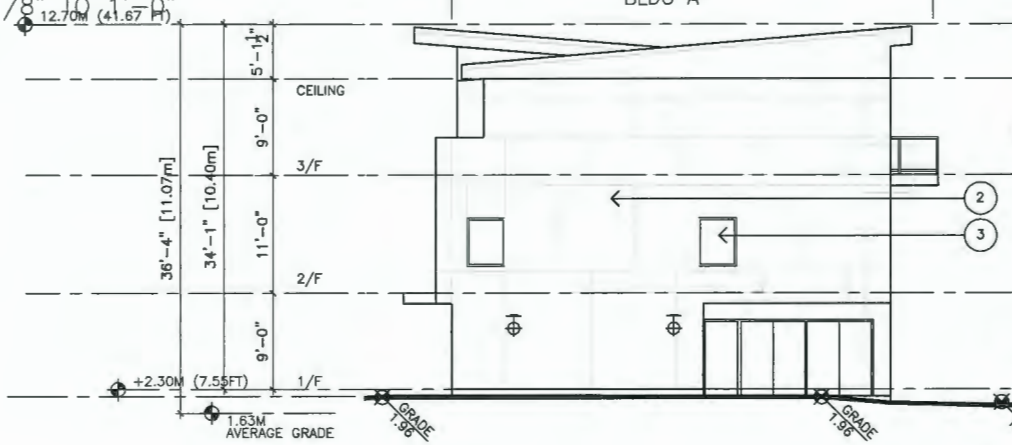
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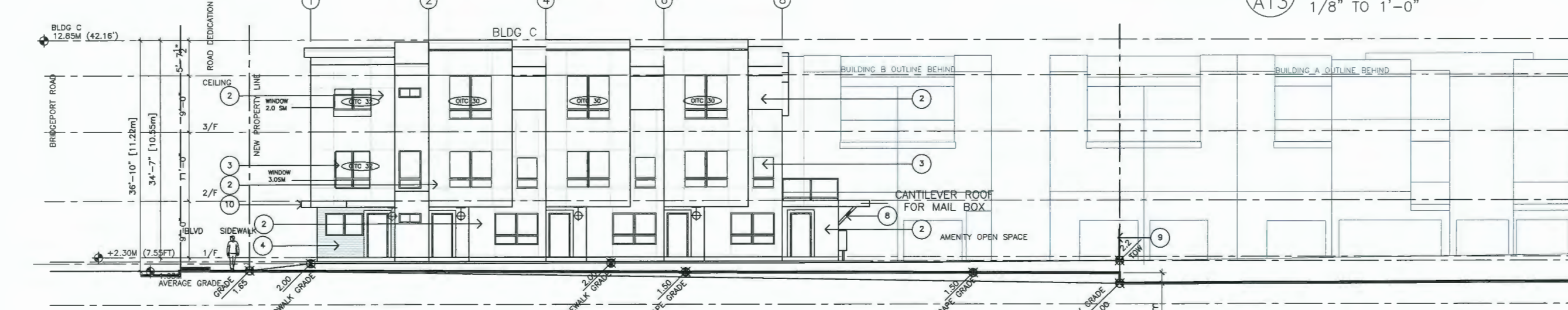
1 WEST ELEVATION (INTERNAL AISLE)
 1/8" TO 1'-0"



2 WEST ELEVATION (BLDG C)
 1/8" TO 1'-0"

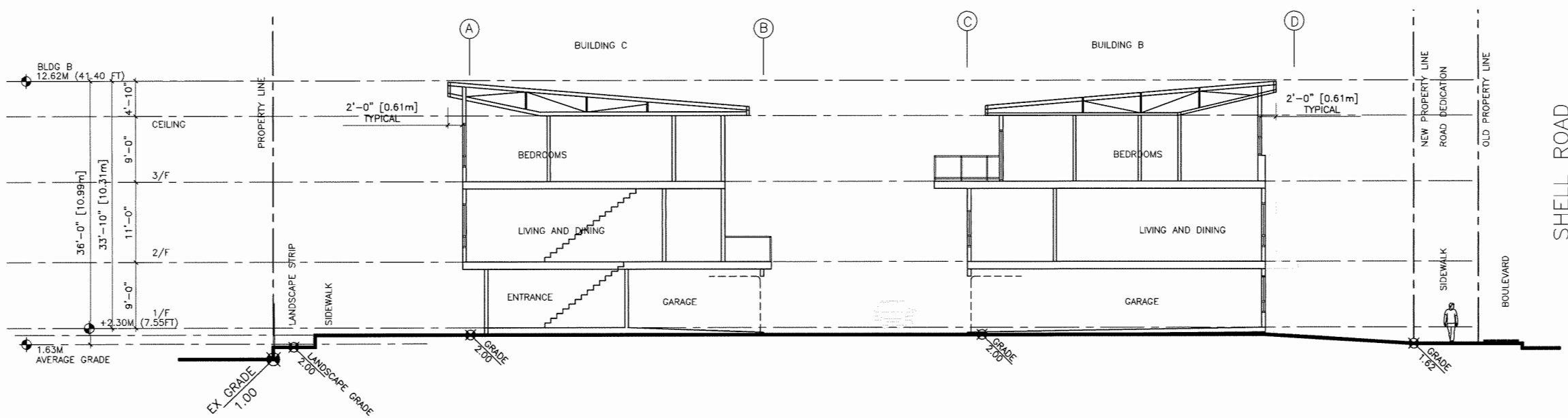


3 NORTH ELEVATION (BLDG A)
 1/8" TO 1'-0"



2 WEST ELEVATION (BLDG C)
 1/8" TO 1'-0"

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8. 2021.02.18 FOR CITY DPP REVIEW



1 SITE SECTION
A14 1/8" TO 1'-0"

REVISION
6. 2020.02.18 AS PER CITY COMMENT
5. 2020.10.31 INCREASE HEIGHT AS PER CLIENT
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PROPOSED TOWNHOUSE
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RICHMOND, BC

SECTION

PROJECT NUMBER: 16-25
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A14

DP 18-828900

March 24, 2021

DP 18-828900

PLAN # 33

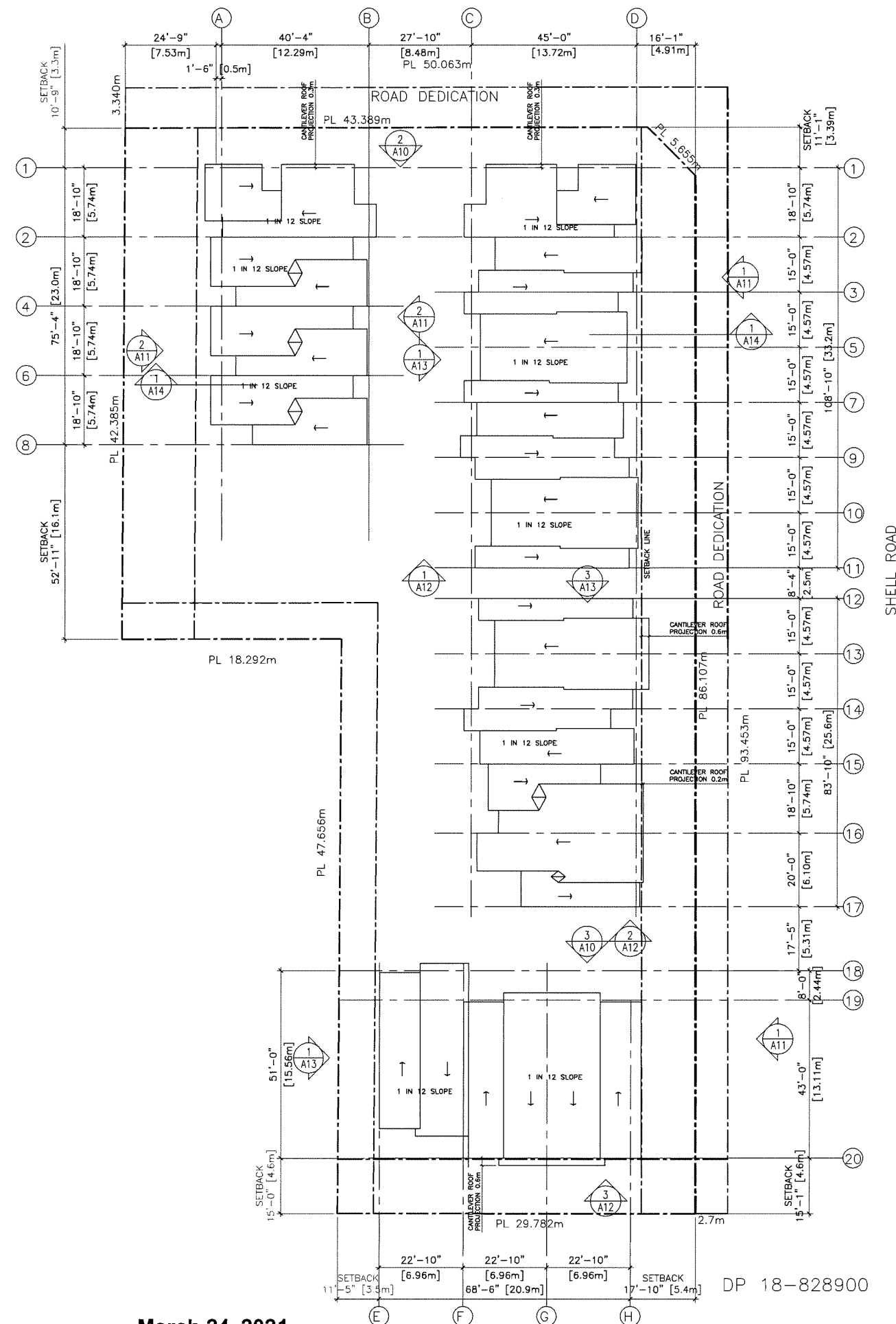
DEVELOPMENT PERMIT

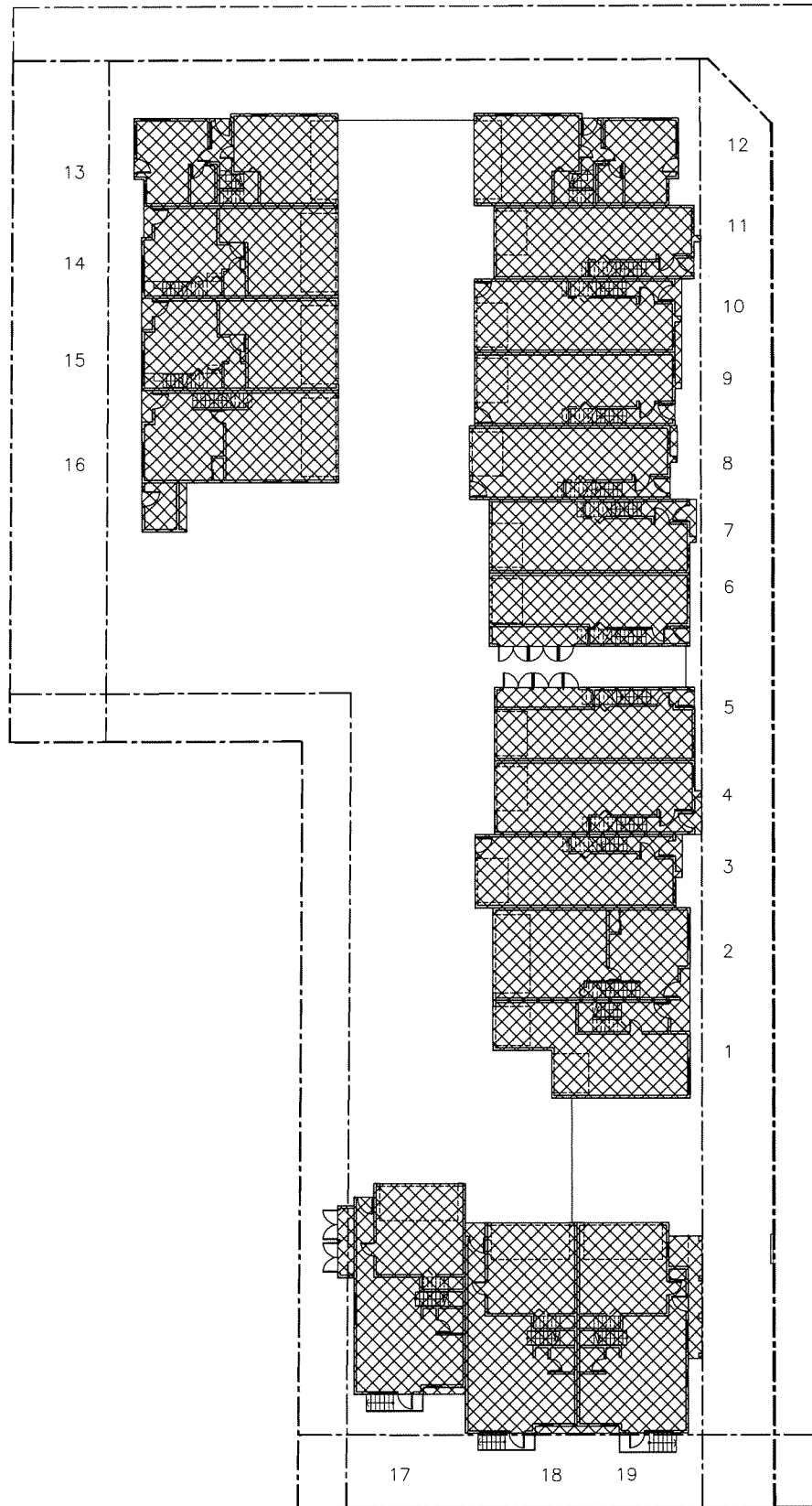
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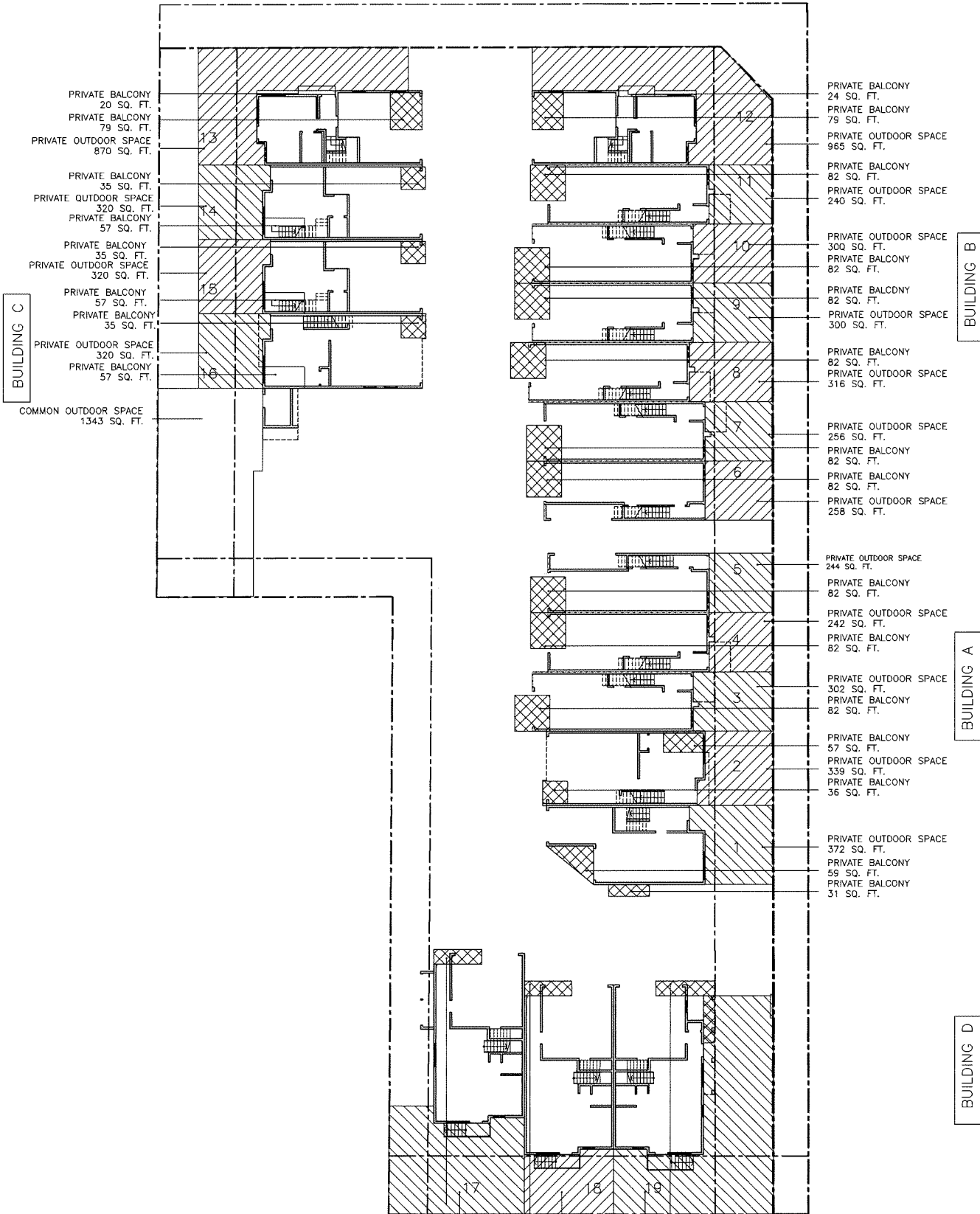
**PROPOSED TOWNHOUSE
3033, 3091 & 3111 SHELL ROAD
10760, 10780 BRIDGEPORT
RICHMOND, BC
SITE PLAN ROOF**

PROJECT NUMBER: 16-25
ISSUED: 2/18/2021
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1 SITE COVERAGE DIAGRAM
 1/16" TO 1'-0"
 SITE COVERAGE: 13993 SQ. FT. / 36801 SQ. FT. = 38.0%



NORTH
 2 OPEN SPACE DIAGRAM
 1/16" TO 1'-0"

ERIC LAW ARCHITECT

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PROPOSED TOWNHOUSE
 3033, 3091 & 3111 SHELL ROAD
 10760, 10780 BRIDGEPORT
 RICHMOND, BC
OPEN SPACE DIAGRAM

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A19

DP 18-828900

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DP 18-828900

REFERENCE PLAN

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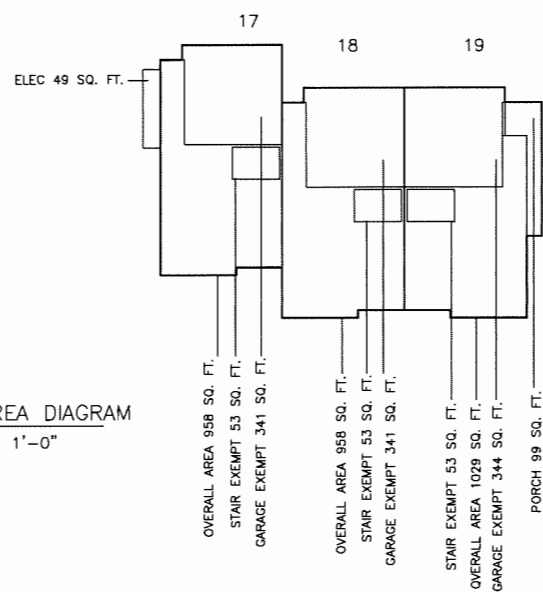
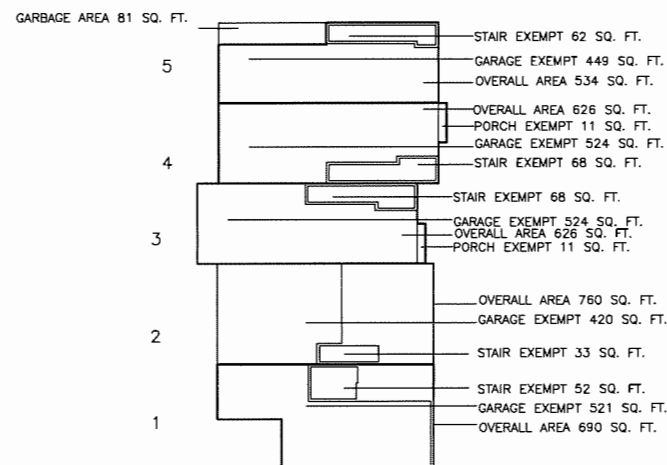
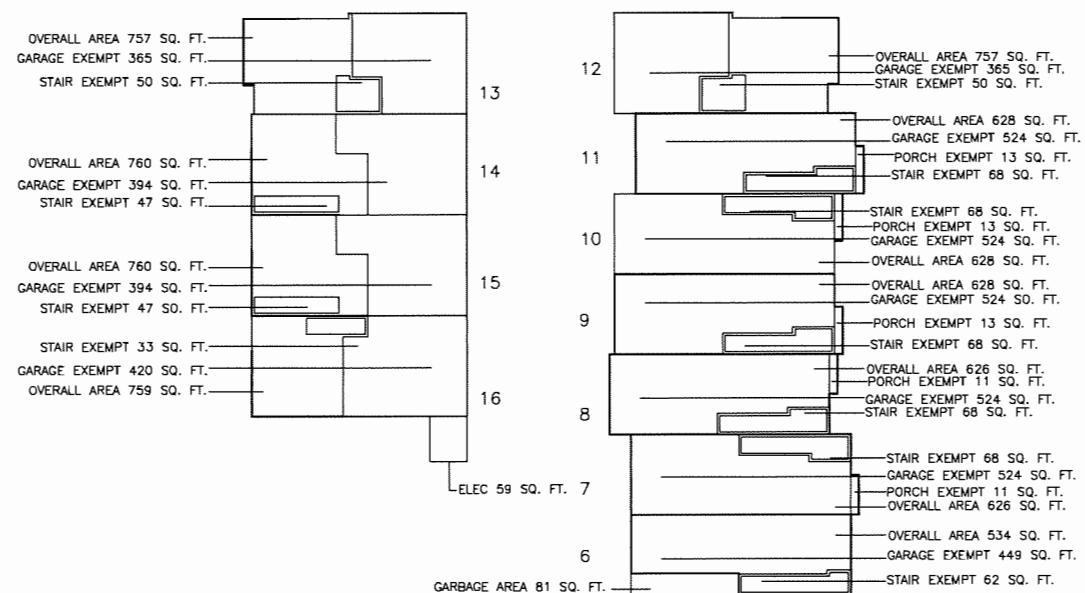
6.	2020.02.18 AS PER CITY COMMENT
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**PROPOSED TOWNHOUSE
3033, 3091 & 3111 SHELL ROAD
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RICHMOND, BC**

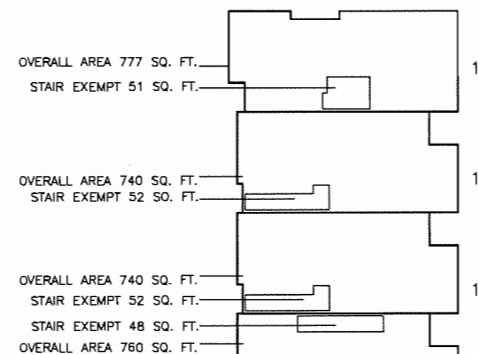
FAR DIAGRAM

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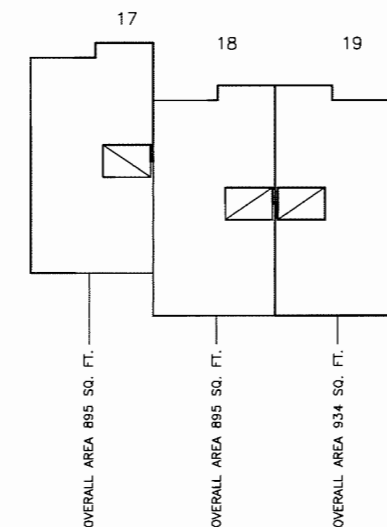
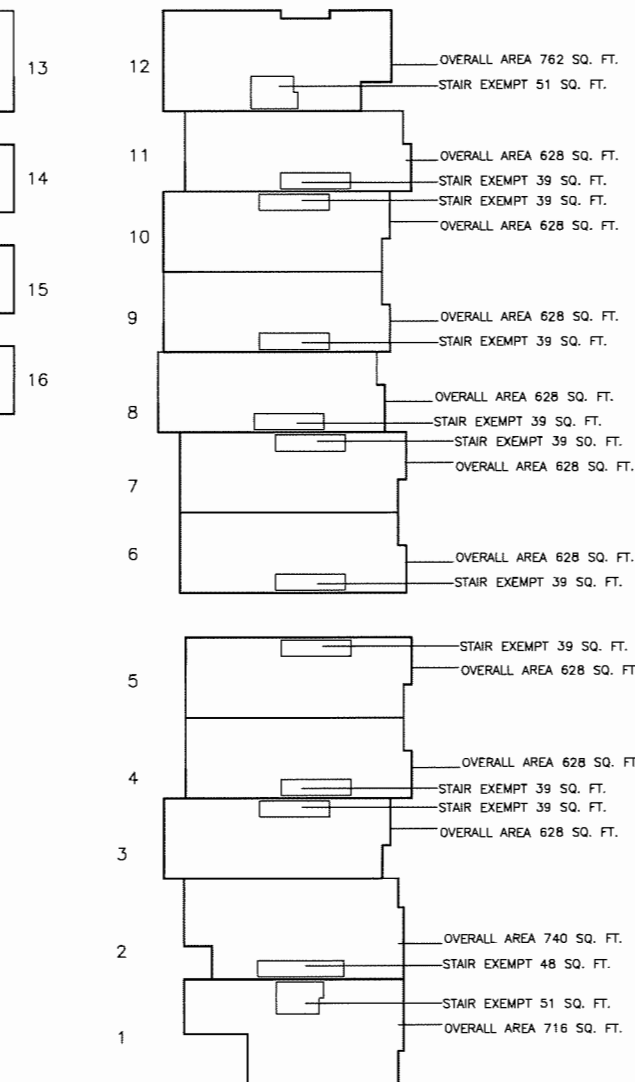
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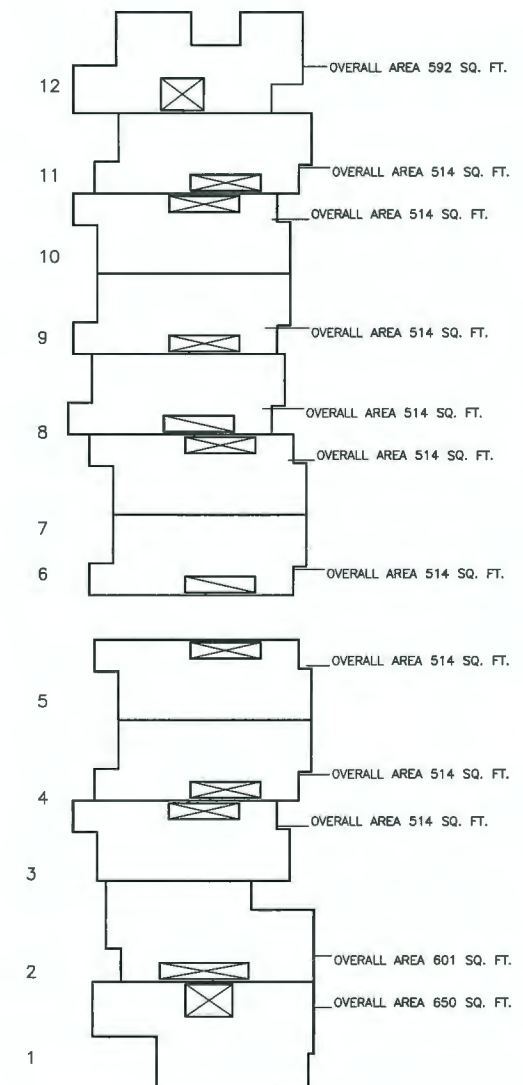
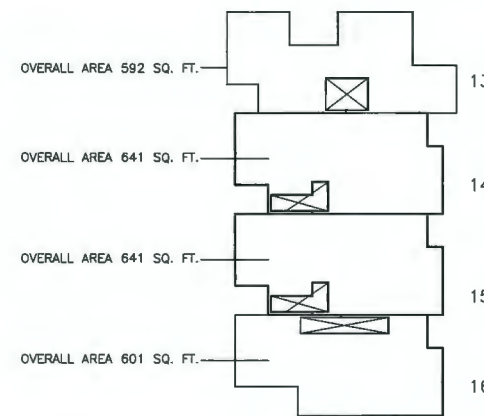
1 G/F AREA DIAGRAM
3/32" TO 1'-0"



2 2/F AREA DIAGRAM
3/32" TO 1'-0"



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UNIT	GF				2/F		3/F		TOTAL FAR AREA	TOTAL GROSS AREA
	TOTAL AREA	STAIR EXEMPT	GARAGE ENTRY EXEMPT	COVER EXEMPT	TOTAL AREA	STAIR EXEMPT	TOTAL AREA			
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(A)-(B)-(C)-(D)+(E)-(F)=(G)	(A)+(E)+(G)	
1	690	52	521		716	51	650	1432	2056	
2	760	33	420		740	48	601	1600	2101	
3	626	68	524	11	628	39	514	1126	1768	
4	626	68	524	11	628	39	514	1126	1768	
5	534	62	449		628	39	514	1126	1676	
6	534	62	449		628	39	514	1126	1676	
7	626	68	524	11	628	39	514	1126	1768	
8	626	68	524	11	628	39	514	1126	1768	
9	628	68	524	13	628	39	514	1126	1770	
10	628	68	524	13	628	39	514	1126	1770	
11	628	68	524	13	628	39	514	1126	1770	
12	757	50	365		762	51	592	1645	2111	
13	757	50	365		762	51	592	1645	2111	
14	760	47	394		740	52	641	1648	2141	
15	760	47	394		740	52	641	1648	2141	
16	759	33	420		760	48	601	1619	2120	
17	958	53	341		895			1459	1853	
18	958	53	341		895			1459	1853	
19	1029	53	344	96	934			1470	1963	
	13644	1071	8471	179	13596	704	8944	25759 SF	36184 SF	
				LESS THAN 10%						
								GARAGE 81		
								RECYCLE 81		
								ELEC RM 59		
								ELEC CLOSET 49		
								TOTAL AREA= 25759 SF	36454 SF	
								FAR= 0.700		

2 3/F AREA DIAGRAM
3/32" TO 1'-0"

DP 18-828900

PROPOSED TOWNHOUSE
3033, 3091 & 3111 SHELL ROAD
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RICHMOND, BC

FAR DIAGRAM

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FAR (2)

DEVELOPMENT PERMIT

REFERENCE PLAN

DP 18-828900

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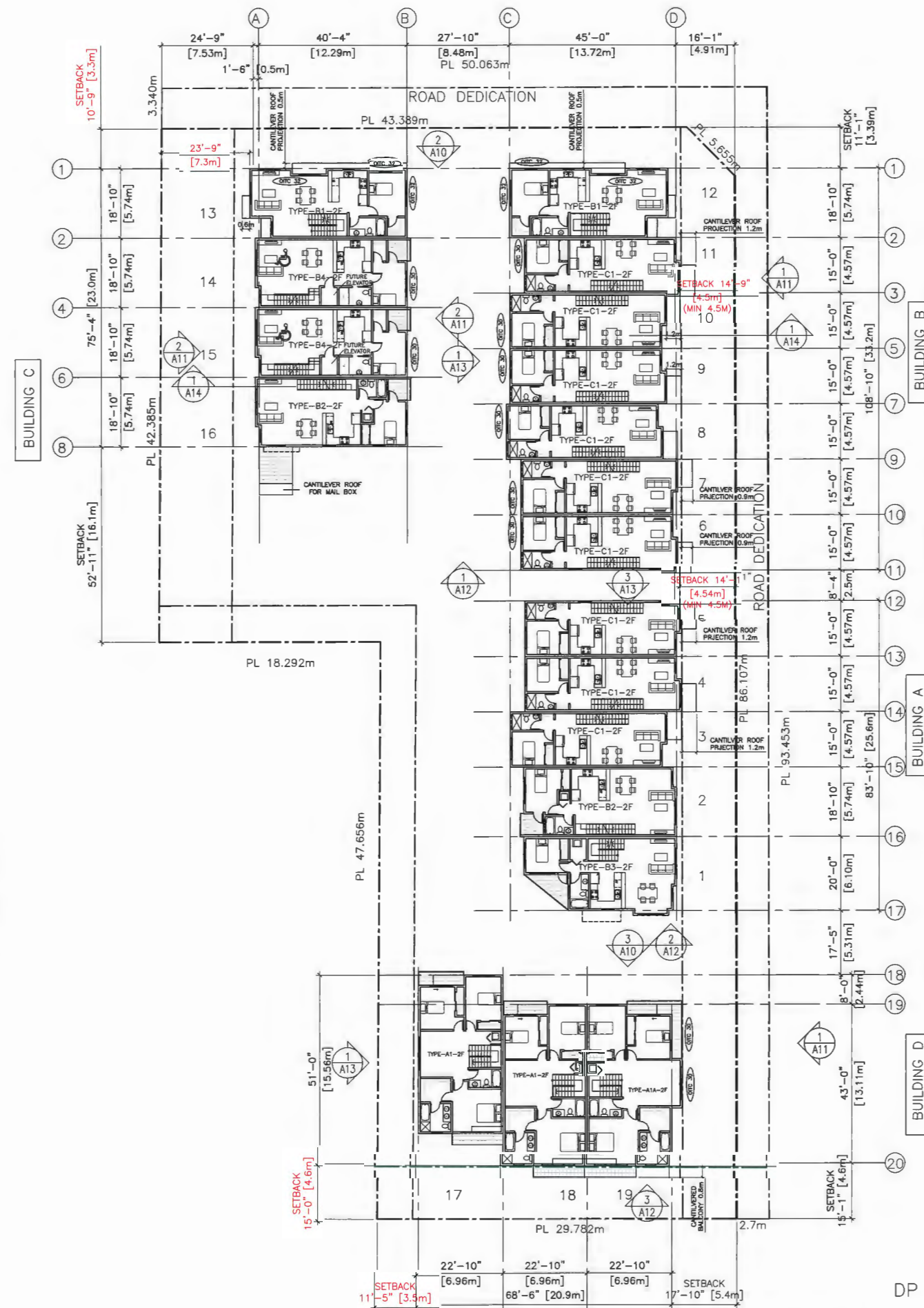
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PROPOSED TOWNHOUSE
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SITE PLAN 2/F

PROJECT NUMBER: 16-25
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FILENAME: 16-25_OBP_210218-DPP.DWG

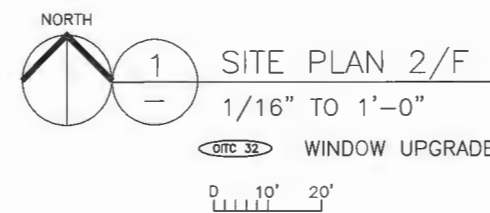


ALL THE UNITS IN THIS PROJECT SHALL INCORPORATE THE FOLLOWING FEATURES IN THE UNITS

- (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, AND ALL UNIT ARE TO BE PRE-DUCT FOR FUTURE HOT WATER HEATING

HEAT RECOVERY VENTILATION SYSTEM TO BE PROVIDED IN THE TOWNHOUSE UNITS



SITE PLAN 2/F
1/16" TO 1'-0"

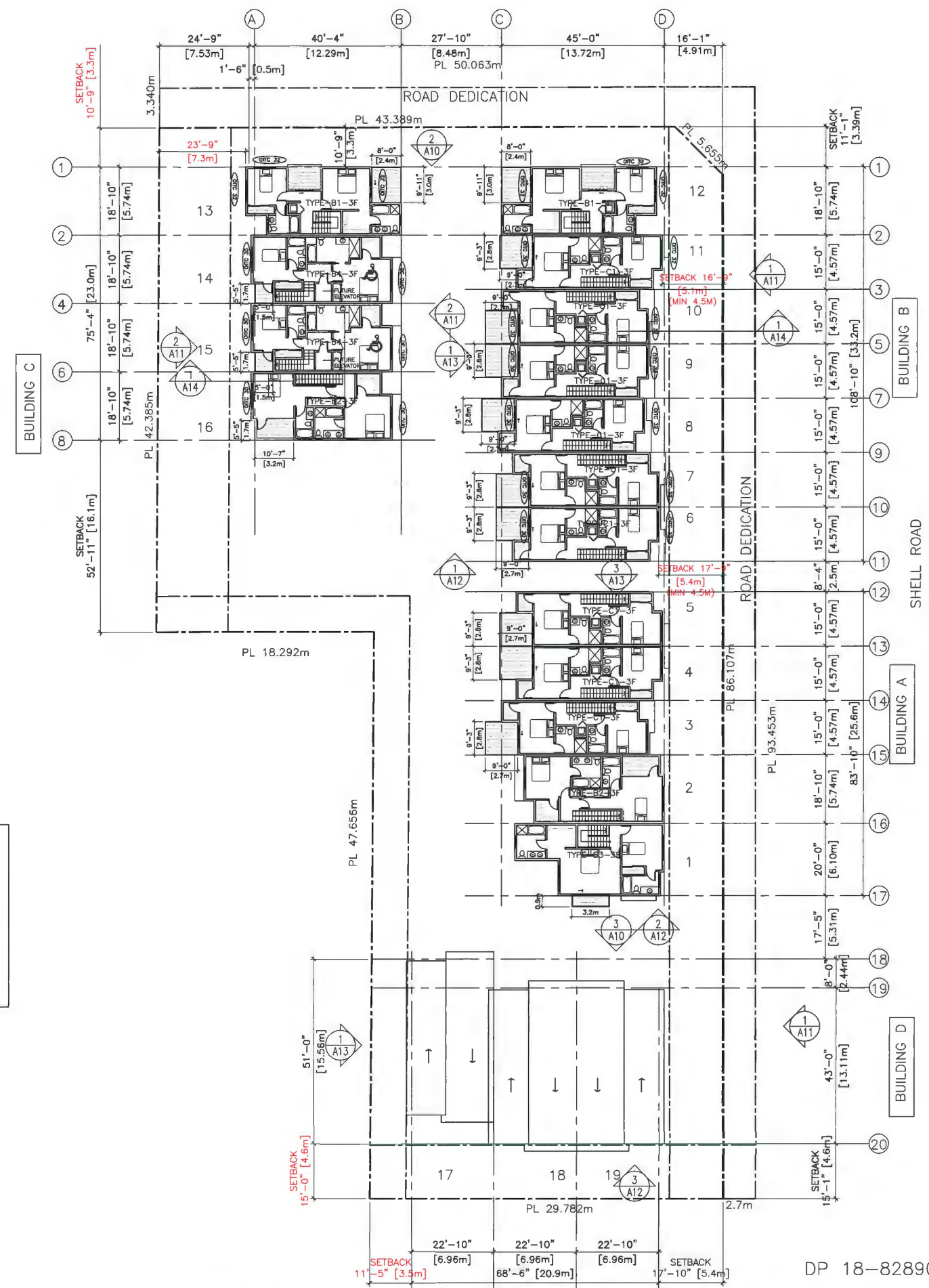
WINDOW UPGRADE

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PROPOSED TOWNHOUSE
3033, 3091 & 3111 SHELL ROAD
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RICHMOND, BC
SITE PLAN 3/F

PROJECT NUMBER: 16-25
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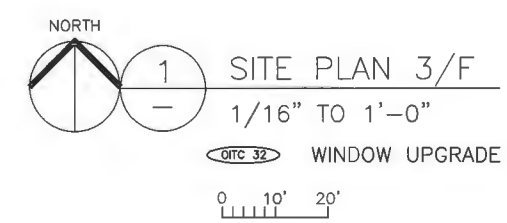


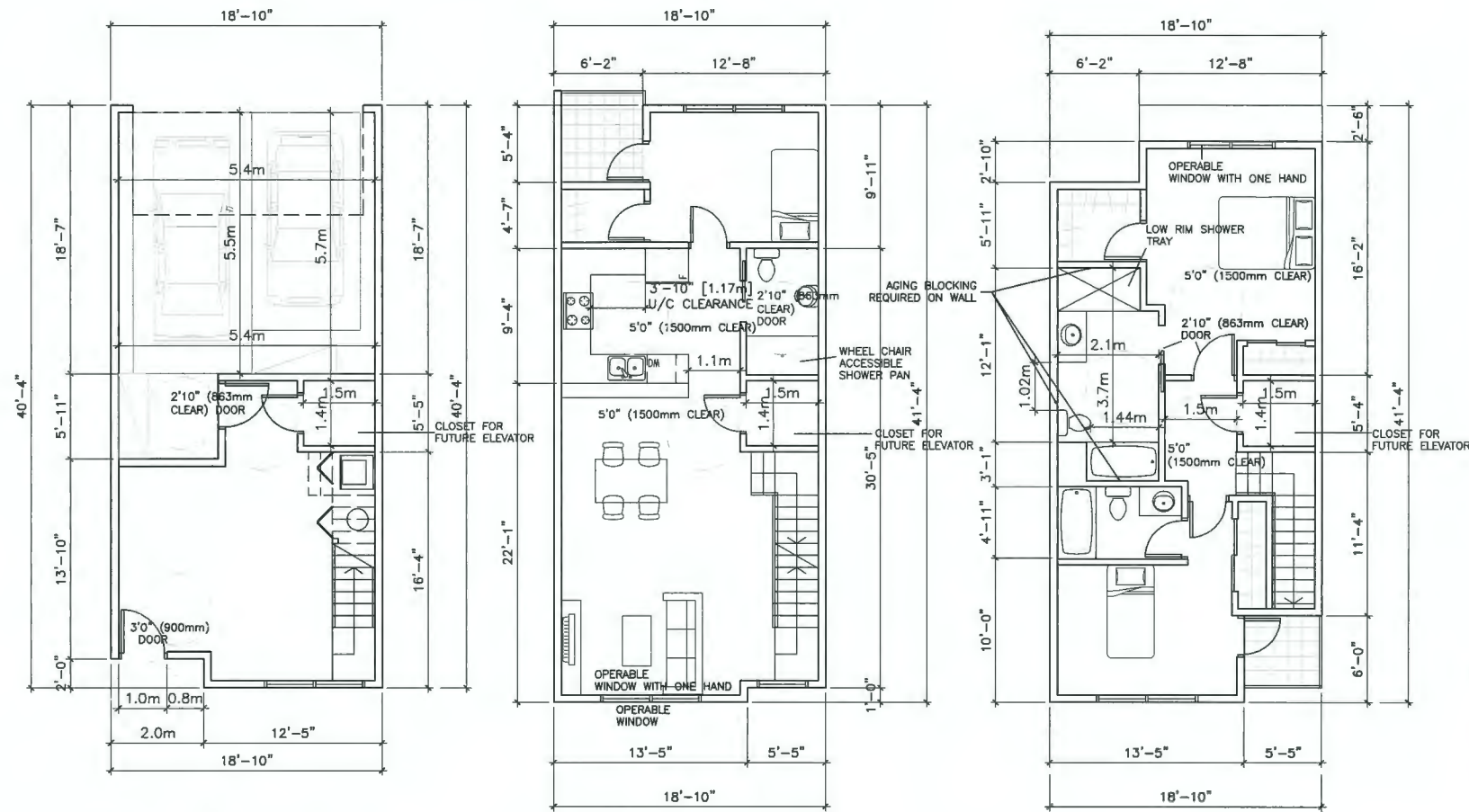
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HEAT RECOVERY VENTILATION SYSTEM TO BE PROVIDED IN THE TOWNHOUSE UNITS





TYPE B4 CONVERTIBLE UNIT
3 BEDROOM + FAMILY

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

TYPE-B4-1F

TOTAL UNIT AREA: ±1774 SQ. FT. INCLUDING STAIR

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

TYPE-B4-2F

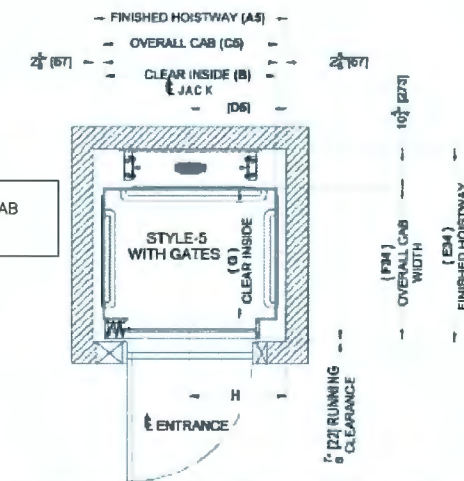
- 3 LEVEL 3
1/8" TO 1'-0"

TYPE-B4-3F

CLOSET FOR FUTURE ELEVATOR SIZE ALLOWED: 36"x48" CAB
SHAFT MINIMUM SIZE: 54.25" X 54" (1.38M X 1.37M)

FUTURE ELEVATOR

*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 1/2"	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"

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

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 (2) AGING IN PLACE FEATURES SHALL BE PROVIDED TO ALL UNITS:
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TOWNHOUSE SHALL MEET CITY'S ENERGUIDE 82 REQUIREMENTS, AND ALL UNIT ARE TO BE PRE-DUCT FOR FUTURE HOT WATER HEATING

HEAT RECOVERY VENTILATION SYSTEM TO BE PROVIDED IN THE TOWNHOUSE UNITS

	CONVERTIBLE UNIT GUIDELINES
DOORS & DOORWAYS	<ul style="list-style-type: none"> - 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. 863 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. 880 MM CLEAR OPENING. NOTE HOW ACCESSED. -- ALL INTERIOR THRESHOLDS WITHIN UNITS COMPLY WITH BC BUILDING CODE. - LEVER-TYPE HANDLES FOR ALL DOORS.
VERTICAL CIRCULATION	<ul style="list-style-type: none"> - 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	<ul style="list-style-type: none"> - 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)	<ul style="list-style-type: none"> - 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	<ul style="list-style-type: none"> - 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	<ul style="list-style-type: none"> - 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.

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- ISSUED
1. 2018.07.11 FOR DEVELOPMENT PERMIT SUBMISSION
 2. 2019.05.14 FOR CITY DP REVIEW
 3. 2019.07.23 FOR CITY DP REVIEW
 4. 2019.08.13 FOR CITY DP REVIEW
 5. 2019.09.05 FOR ADP MEETING
 6. 2019.11.05 FOR CITY DP REVIEW
 7. 2020.12.03 FOR CITY DPP REVIEW
 8. 2021.02.19 FOR CITY DPP REVIEW

6. 2020.02.18 AS PER CITY COMMENT
5. 2020.10.31 INCREASE HEIGHT AS PER CLIENT
4. 2019.11.05 AS PER CITY AND ADP REVIEW COMMENT
3. 2019.08.08 AS PER CITY REVIEW COMMENT
2. 2019.08.20 AS PER CITY REVIEW COMMENT
1. 2019.05.14 AS PER CITY REVIEW COMMENT LETTER

PROPOSED TOWNHOUSE
3033, 3091 & 3111 SHELL ROAD
10760, 10780 BRIDGEPORT
RICHMOND, BC

UNIT PLANS

PROJECT NUMBER: 16-25
ISSUED: 2/18/2021
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