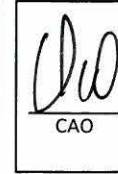
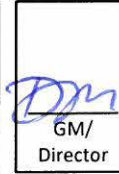
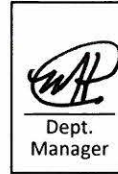


AGENDA INFORMATION	
<input checked="" type="checkbox"/> Regular Meeting	Date: <u>May 31, 2021</u>
<input type="checkbox"/> Other:	Date: _____



The District of North Vancouver REPORT TO COUNCIL

May 11, 2021
Case: PLN2020-00016
File: 08.3060.20/016.20

AUTHOR: Darren Veres, Development Planner

SUBJECT: Development Permit 16.20 - 267 Orwell Street

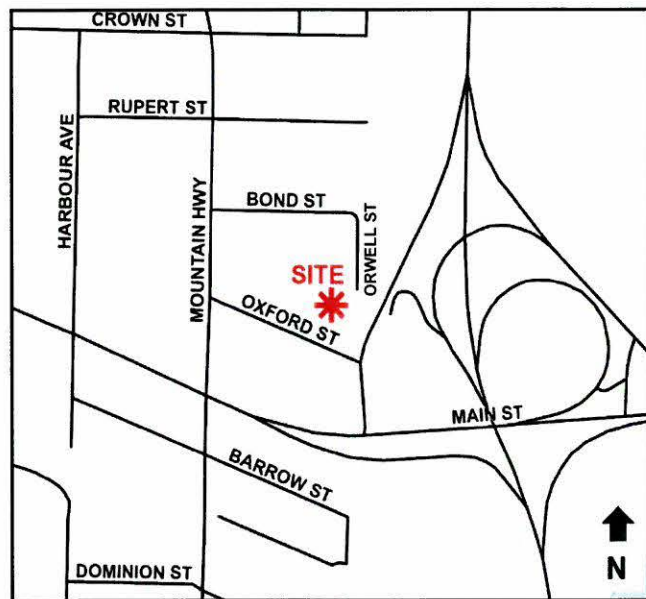
RECOMMENDATION:

THAT Development Permit 16.20 (Attachment 1) for a six-storey multi-family residential building at 267 Orwell Street be issued.

REASON FOR REPORT:

Terra Housing has applied on behalf of Sanford Affordable Housing Society to develop seven existing single-family lots on Orwell Street that are owned by the District of North Vancouver. The proposal is for a six-storey, 90-unit, non-market rental building.

The site is in Development Permit Areas for Form and Character for Multifamily Housing, Energy and Water Conservation and Greenhouse Gas Emission Reduction, and Protection from Hazardous Conditions (Creek Hazard). The proposed six-storey multi-family residential building requires issuance of a Development Permit by Council and variances to the parking and the building height regulations in the CD132 Zone.



Bylaw 8451, amending the site's Official Community Plan (OCP) designation from "Residential Level 5: Low Density Apartment" (RES5) to "Commercial Residential Mixed

Use Level 3" (CRMU3), Bylaw 8452, rezoning the site to the CD132 Zone, and Bylaw 8453, waiving the Development Cost Charges, were each adopted on January 25, 2021.

Changes since Consideration of Third Reading

The building and landscape design was fairly advanced at the time of the Public Hearing and have not changed significantly. In response to comments from the Advisory Design Panel, the applicant has provided an additional pedestrian and wheelchair access ramp to the secondary building entrance on Oxford Street and enhanced the landscaping in the courtyard and outdoor amenity space. As a non-market housing project, the rezoning process was advanced quickly, and design development since the Public Hearing has resulted in some minor refinements to the project that create the need for two variances to the CD132 zoning. In order to comply with BC Housing livability guidelines for ceiling heights, the overall building height is proposed to be increased slightly beyond the maximum in the CD132 Zone. In addition, finalizing the design of the underground parking garage and the building mechanical systems has resulted in the possibility that a reduction of two parking spaces may be required. Further details of project changes are provided later in the report.

The project is ready to be considered for the issuance of a Development Permit and this report recommends issuance of Development Permit 16.20 to accommodate re-development of the site under the CD132 zoning.

SUBJECT PROPERTY:

The development site is located at the south end of the Lynn Creek Town Centre and is currently occupied by two single-family houses on the north side of the site at 267 and 271 Orwell Street. The remainder of the site is undeveloped and is currently used for construction staging for the site to the west (Adera's market rental building). The property is approximately 2,522 m² (27,151 sq. ft.) in area.

Phibbs Exchange bus loop is located to the east of the site, an existing six-storey market rental building is to the south, a six-storey market rental building is to the west (under construction), and single-family houses with future development potential are to the north.



EXISTING POLICY:

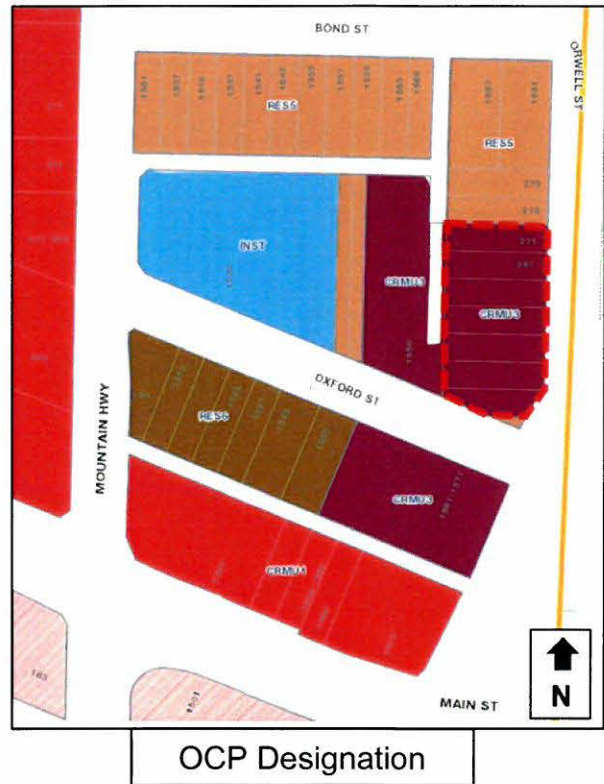
Official Community Plan

The site is located within the Lynn Creek Town Centre and designated “Commercial Residential Mixed Use Level 3” (CRMU3). This designation provides for development at a Floor Space Ratio (FSR) of up to approximately 3.5 FSR.

The proposed development helps to implement the objectives of the OCP housing goals and Lower Lynn Town Centre Implementation Plan (Lynn Creek) by increasing the number of rental units, and in particular, non-market rental units. It also implements the public realm vision on Oxford Street and Orwell Street including the provision of bicycle paths.

Zoning

The CD132 zoning allows for up to 90 rental units in one, six-storey building with an overall density of approximately 2.65 FSR.



The CD132 Zone regulates the density for the project, the permitted height, and the vehicle and bicycle parking requirements on the site.

Development Permit Areas

The property is designated in the OCP as Development Permit Areas for the following purposes:

- Form and Character of Multi-family Buildings;
- Energy and Water Conservation and Greenhouse Gas Emission Reduction; and
- Protection of Development from Hazardous Conditions (Creek Hazard).

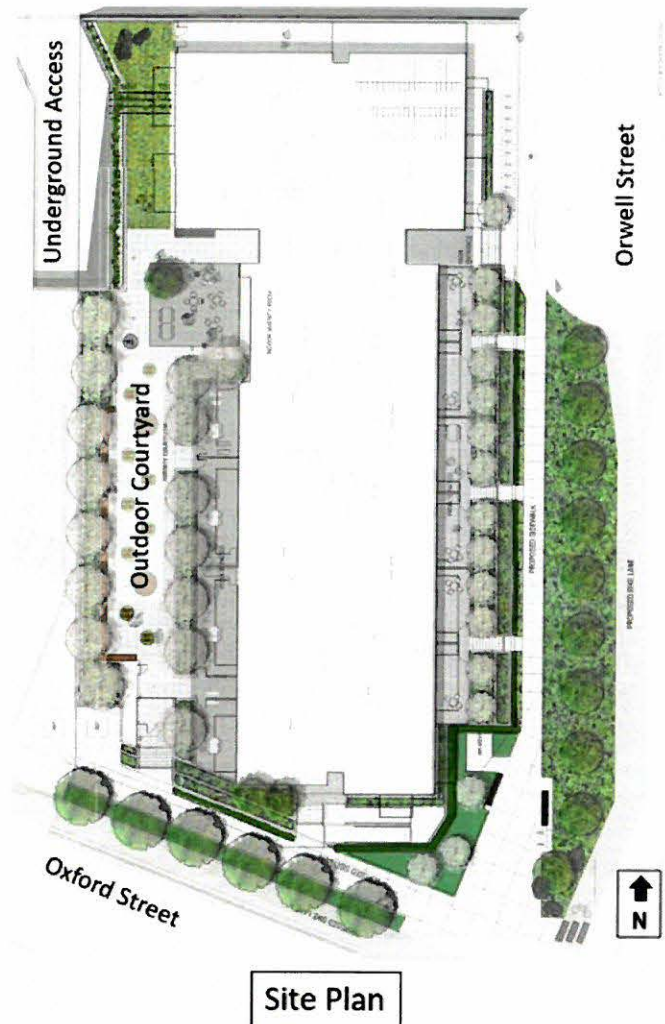
All new development within these Development Permit Areas is measured against the OCP’s Schedule B Development Permit Area Guidelines as well as the Lynn Creek Town Centre Public Realm Guidelines.

THE PROPOSAL:

The project consists of 90 non-market rental units in a six-storey residential building and is funded by BC Housing under the Community Housing Fund. The primary pedestrian entrance to the building is located on Orwell Street at the northeast corner of the site, with a secondary entrance on Oxford Street.

The units are a mix of one, two, and three bedroom units as detailed in the table to the right. Approximately 42% of the units consist of two and three bedroom layouts which are considered suitable for families. The units range in size from approximately 48 m² to 96 m² (516 sq. ft. to 1,033 sq. ft.).

The project includes an outdoor amenity space for residents on the west side of the site. The space can be accessed via a gate on Oxford Street, a pedestrian path from Orwell Street along the north side of the building, or through the building with access from the lobby, indoor amenity room, and laundry room.



Building Height

The maximum height permitted in the CD132 zoning is 19.5m (64 ft.). The applicant has requested a variance of 1.1 m (3.6 ft.) to allow an overall maximum height, measured to the top of the parapet, of 20.6 m (67.6 ft.). The variance is required to accommodate a larger space between each floor for the building's mechanical system while maintaining a liveable floor to ceiling height of 4 m (8 ft.) throughout each unit in accordance with BC Housing guidelines.

Staff are supportive of the height variance as it is the result of an expedited rezoning and design development process. The increased height facilitates the project's efficient mechanical system and energy proposal (see 'Energy Conservation' section later in report), and respects BC Housing's design guidelines.

Parking and Bicycle Storage

All vehicle parking is proposed in a one-level underground garage with access shared with the rental building under construction to the west, and accessed at the north-west corner of the site (see Site Map). An easement has been registered that secures the location and design details of the shared ramp. The ramp will be constructed by the adjacent developer.

The CD132 Zone requires the following parking rates for this development:

- 0.65 spaces per non-market rental unit for a total of 59 spaces; and
- 0.1 spaces per unit for visitors for a total of 9 spaces.

The applicant has requested a variance to allow for the option to reduce the resident parking provision by two spaces from 59 to 57 spaces or a ratio of 0.63 spaces per unit. This variance may be required to accommodate encroachments from the mechanical equipment in the underground parking structure that have emerged through design development of the building's mechanical system.

Staff are supportive of the variance to parking given the non-market rental housing units in the project, and the site's location adjacent to excellent transit facilities.

The proposal includes 117 bicycle spaces for residents (1.25 spaces per unit) and 18 bicycle spaces for visitors (0.2 spaces per unit).

Indoor bicycle parking spaces proposed include 49 spaces in the underground parkade and 68 spaces in an at-grade bicycle room with direct outdoor access (secured and weather-protected). Visitor bicycle parking spaces are proposed adjacent to the main building entrance on Orwell Street.

The bicycle parking proposed complies with the provisions of the CD132 Zone.

Development Permit for Form and Character of Multi-Family Housing

Building Design

The project has been reviewed against Guidelines for Multi-Family Housing. Notable highlights from the guidelines include:

B1.2: Connectivity: *The siting of new development should take into consideration how to enhance the pedestrian, bicycle and vehicle connections in the area.*

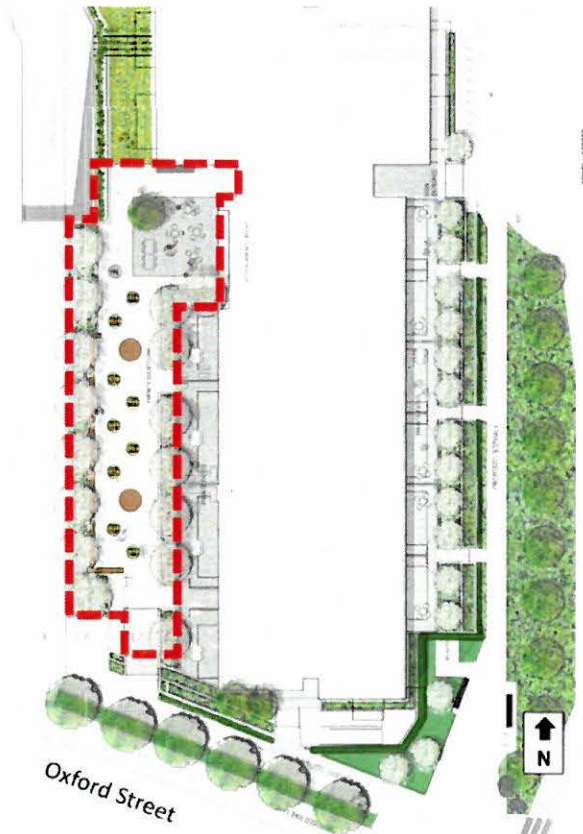
- This project will create new sidewalks and bicycle paths on Oxford Street and Orwell Street connecting the site and adjacent area to Phibbs Exchange, and the rest of Lynn Creek Town Centre.



New sidewalk and Bicycle Path – Orwell Street

B1.6: Common Outdoor Space: *Residential developments should consider providing communal outdoor space that is conveniently accessible and in a visible, sunny location with suitable wind protection.*

- This project includes a ground floor outdoor amenity space for use by residents. The outdoor space includes a variety of garden plots, social gathering areas and play features.



Outdoor Courtyard

B3.1: Variation in Building Design: *There should be subtle design variation between neighbouring buildings to avoid repetition while maintaining a harmony to the streetscape.*

- This project reflects similar scale and massing in adjacent developed projects, while introducing variety in colour and materials through the building siding and balcony guardrails.



Variation in Building Design – Rendering of Building Entrance on Orwell Street (conceptual)

Public Realm and Streetscape Elements

B2.2: Corner Sites: *On corner sites, both frontages should be designed to face the street and the building should address the corner with strong massing*

- The building massing and form have been arranged to create a strong presence on both Oxford and Orwell Streets, with pedestrian entrances onto both streets.



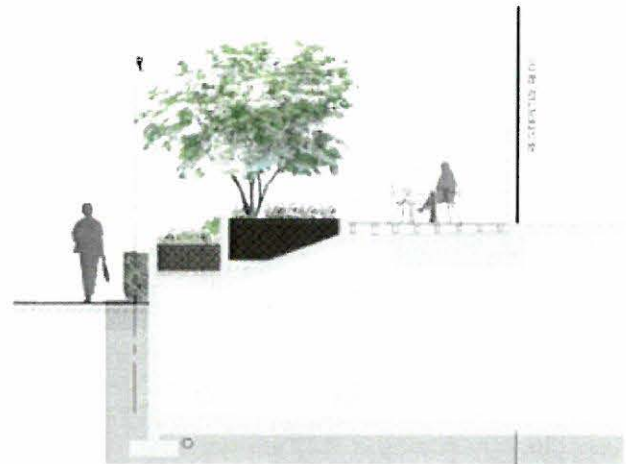
Corner Site – Rendering looking northwest (conceptual)

Landscaping

The landscape design is focused around the perimeter of the site and the exterior amenity area. Planting throughout the site includes a variety of shrubs and ornamental trees. Notable highlights from the guidelines include:

B3.17: Layered Landscaping: *Layered landscaping treatments and slightly elevated overlook of the public realm are encouraged to provide residential liveability.*

- Projects in the Lynn Creek Town Centre are required to raise living space on the ground floor to address the flood construction level. This project uses low retaining walls and landscaping to address this requirement while also providing privacy and improved liveability for the units.



Layered Landscaping – Oxford Street

Acoustic Performance

Development Permit 16.20 includes the District's residential acoustic regulations for maximum noise levels in the bedrooms, living areas and other areas of the units. Prior to issuance of a Building Permit, the applicant will be required to submit a report from a qualified noise consultant demonstrating that the building will enable these standards to be met.

Accessible Units

In accordance with the District's Accessible Design Policy, all units will meet the 'basic' standard. A total of six units will provide 'enhanced accessible design' features, including three 1-bedroom suites, two 2-bedroom suites, and one 3-bedroom suite. The project includes six accessible parking spaces and provides for barrier-free access from the lobby to the indoor and outdoor amenity spaces.

Development Permit for Energy and Water Conservation and Greenhouse Gas Emission Reductions

In accordance with the Energy and Water Conservation and Greenhouse Gas Emission Reduction Development Permit Area Guidelines, the project is designed to reduce energy consumption and incorporate building performance measures that will result in reduced costs for future owners.

Notable highlights from the OCP guidelines include:

Energy Conservation: *An integrated design process should be utilized to identify opportunities to reduce a building's energy consumption.*

As the applicant anticipates submitting a Building Permit application prior to July 1, 2021 when the District's new Energy Step Code requirements come into effect, the project will be required to meet the District's current requirement of "Step 3" of the BC Step Code. To achieve Step 3 the project will include the following measures:

- Electric baseboard heating in residential suites;
- High-efficiency dedicated energy recovery ventilator in each unit providing continuous ventilation to all rooms;
- High-efficiency condensing gas-fired heater for domestic hot water at 94% thermal efficiency;
- High window thermal performance with a low window to wall ratio of 28%;
- Improved building envelope thermal performance;
- High-efficient lighting design; and
- Low-flow plumbing fixtures to reduce domestic hot water demand.

The project is also required to meet the BC Housing Technical Guidelines which include a double-glazing window system with performance criteria related to thermal and visible light transmittance as well as solar heat-gain and balcony placements to provide shading during the summer.

Water Conservation: *An integrated design process should be utilized to identify opportunities to reduce a building's water consumption.*

The project includes the following measures to reduce water consumption:

- Low flow plumbing fixtures to reduce water usage and energy consumption;
- On-site retention of rainwater from roofs and terraces with a slow release into the storm sewer network to reduce the impact on District infrastructure;
- Drought tolerant planting, soil types and planter products that retain moisture in the soil; and
- Low-flow water efficient irrigation systems.

Community Energy and Emissions Plan

In addition to the measures intended to meet the Energy and Water Conservation and Greenhouse Gas Emission Reduction Development Permit Area Guidelines outlined above, the project also addresses the intent of the District's Community Energy and Emissions Plan (CEEP) in the following additional ways:

- Provides non-market housing which contributes to the diversity of housing in the Lynn Creek Town Centre and reduces traffic in the neighbourhood.
- The project is located adjacent to Phibbs Exchange which offers connections to 16 bus routes providing an alternative to single-occupant vehicle travel;
- Provides upgrades to pedestrian and cycling infrastructure in the neighbourhood connecting residents to improved cycling networks and pedestrian routes;
- Includes fully-operational "Level 2" electric vehicle chargers in 20% of the parking stalls with conduits provided to accommodate future expansion of the electrical vehicle charging infrastructure to 100% of the parking stalls.
- 117 bicycle stalls with bicycle charging outlets.
- 32 new trees are proposed to be planted on the site with 19 new trees planted to the upgraded sidewalk and bicycle lane interface.

Development Permit for the Protection of Development from Hazardous Conditions – Creek Hazard

In accordance with the Development Permit Area guidelines for the Protection of Development from Hazardous Conditions for Creek Hazard, the project is designed to minimize the risk to people and property from creek hazards.

The project will be constructed in accordance with the flood protection measures indicated in the Flood Hazard Assessment prepared by Stirling Geoscience Ltd. and dated August 2, 2019. Of note is that all habitable space in the project will be located above the Flood Construction Level (FCL) of 6.7 m geodetic and the minimum elevation for external openings along the west, north, and northeast sides of the building must meet a 7.0 m geodetic. The report has been reviewed and accepted by the District's Environment Department, and compliance is included as a condition of Development Permit 16.20.

OFF-SITE IMPROVEMENTS:

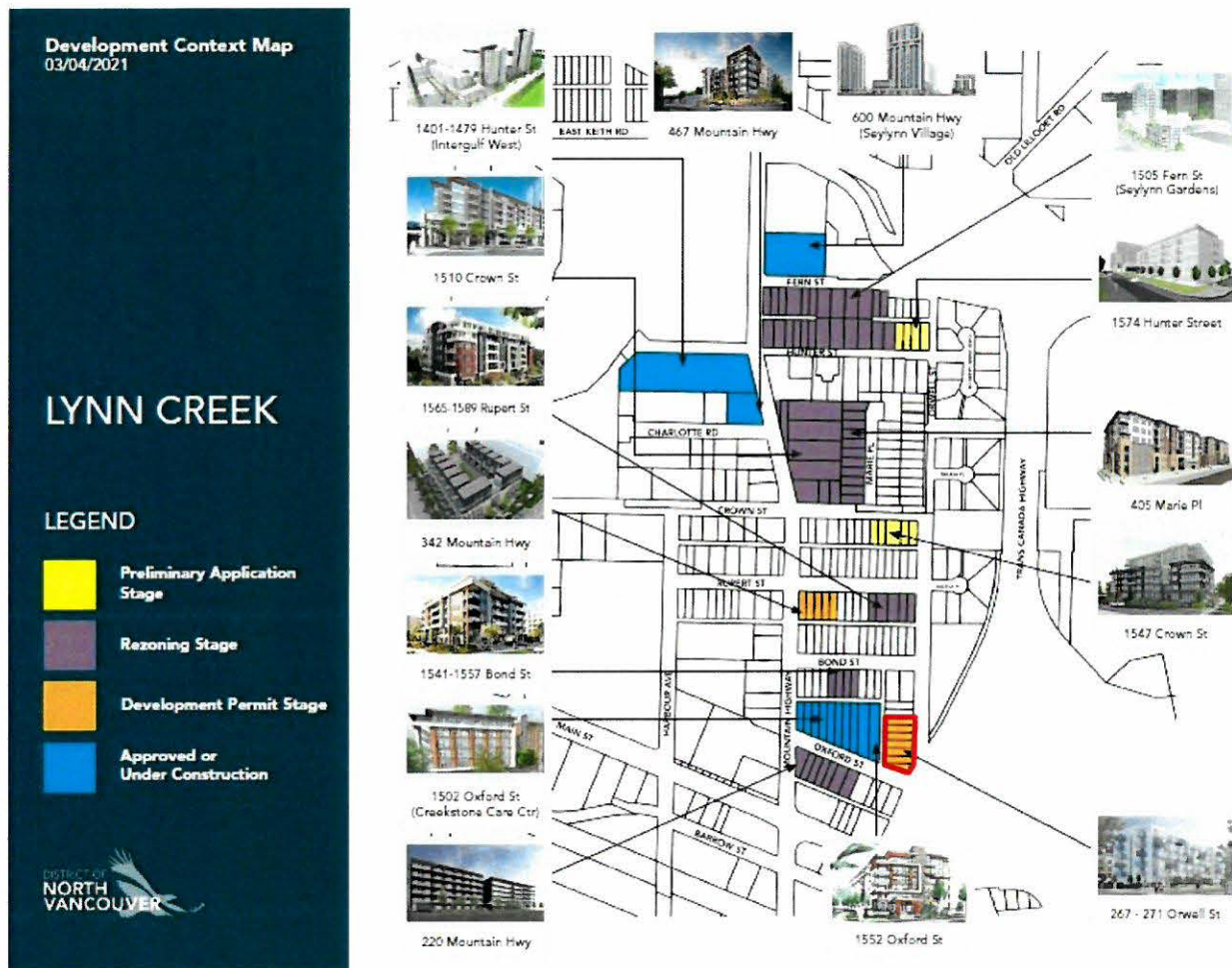
The application will extend the sidewalk, create a small plaza space on Orwell Street, construct a separated two-way cycle facility, and introduce boulevard improvements on Oxford Street to match what is currently being installed in front of the two developments to the west. In addition, Oxford Street will include new street trees, and curb, gutter and lighting improvements. The project will also provide a new cul-de sac on Orwell Street along with pedestrian and cycling infrastructure.

As review of the proposed civil works is still underway at this time, the estimated total value of off-site works (engineering and landscaping) is unknown. The full scope and value of required off-site construction will be determined through the detailed design work at the Building Permit stage.

Bylaw 8453 establishes the Development Cost Charges (DCC) at \$0 for the development of not-for-profit rental housing on the property. The value of the waived DCC is approximately \$849,000.

Construction Traffic Management Plan:

The site is shown in relation to other residential construction projects and potential development projects in the image below:



In order to reduce development's impact on pedestrian and vehicular movements, the applicant is required to provide a Construction Traffic Management Plan (CTMP). Staff are continuing to work with the applicant on the CTMP and a final accepted version will be required prior to issuance of any building permits and is secured as a condition of Development Permit 16.20.

The CTMP must outline how the applicant will coordinate with other projects in the area to minimize construction impacts on pedestrian and vehicle movement. It will also need to demonstrate integration with bus movements to ensure the ongoing transit efficiencies to and from Phibbs Exchange.

In particular, the Construction Traffic Management Plan must:

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

The requirement for an accepted Construction Traffic Management Plan is secured within the ground lease with the District and referenced in Development Permit 16.20.

CONCURRENCE:

Staff

The project has been reviewed by staff from the Environment, Building and Permits, Legal, Parks, Development Engineering, Community Planning, Urban Design, Finance, Real Estate and Properties, and the Fire Department.

Advisory Design Panel

The application was considered by the Advisory Design Panel (ADP) on June 11, 2020 with the Panel recommending approval of the project subject to resolution of the Panel's comments.

Of note, the Panel indicated support for the project and stated that the design appears well-balanced and represents a modern approach to affordable housing.

The Panel identified a number of opportunities for exploration by the design team including:

- A review of the secondary entrance on Oxford Street to improve accessibility;
- Enhancements to the outdoor amenity space; and
- A review of the colours for siding and balconies.

The project design team responded to the ADP comments in the following ways:

- The landscaping on the Oxford Street frontage has been reconfigured to provide an additional pedestrian and wheelchair access ramp to the secondary building entrance.
- The outdoor amenity space has been enhanced through the inclusion of an arbour to the entrance gate, a linear bench and working surface along the western boundary planters, a water pump play element for children, and a feature paved area with moveable tables and chairs to integrate the outdoor and indoor amenity spaces.
- Additional details have been provided on the materials and colours of the wall and soffit cladding, the balcony guards, and the doors and terrace edges.

Staff are satisfied with the resolution of these items.

Public Input:

The applicant held a virtual Public Information Meeting (PIM) between August 24 and September 21, 2020. A webpage was established including a video and display boards prepared by the applicant as well as information on the District's rezoning process and site context map. The virtual PIM allowed participants to ask questions and to submit comments.

A copy of the Q & A page from the webpage is attached. Questions were asked on a range of topics including:

- Definition of "below-market rental";
- Unit mix and the possibility of including 4-bedroom units;
- Clarification on what is included in the rent for the units; and
- District financial contributions.

Attachment 2 includes a copy of the questions and responses and a redacted set of comments.

The Public Hearing was held on November 20, 2020 and general support was expressed for the project.

Conclusion:

The project has been designed to reflect CD132 Zone regulations and the Development Permit Area Guidelines for Guidelines for Multi-Family Housing, Energy and Water Conservation and Greenhouse Gas Emission Reduction, and Protection of Development from Hazardous Conditions (Creek Hazard) in the OCP. It also addresses the policy directions in the OCP for the provision of non-market rental housing, and complies with the Design Guidelines for the Lynn Creek Town Centre. Development Permit 16.20 to accommodate the creation of this 90 unit, non-market rental building is now ready for Council's consideration.

Options:

The following options are available for Council's consideration:

1. Issue Development Permit 16.20 (Attachment 1) to allow for the proposed construction (staff recommendation); or
2. Deny Development Permit and provide direction to staff.


Darren Veres



Development Planner

Attachments:

1. Development Permit 16.20
2. Virtual PIM Summary

REVIEWED WITH:					
<input type="checkbox"/> Community Planning	_____	<input type="checkbox"/> Clerk's Office	_____	External Agencies:	
<input type="checkbox"/> Development Planning	_____	<input type="checkbox"/> Communications	_____	<input type="checkbox"/> Library Board	_____
<input type="checkbox"/> Development Engineering	_____	<input type="checkbox"/> Finance	_____	<input type="checkbox"/> NS Health	_____
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THE CORPORATION OF THE DISTRICT OF NORTH VANCOUVER

DEVELOPMENT PERMIT 16.20

This Development Permit 16.20 is hereby issued by The Corporation of the District of North Vancouver to the registered owner(s) for the development of a six-storey, multi-family development on the properties legally described as:

- Lot I Block 42 District Lot 204 Plan 18318 (PID: 007-194-170);
- Lot J Block 42 District Lot 204 Plan 18318 (PID: 007-194-196);
- Lot 20 Block 42 District Lot 204 Plan 1340 (PID: 014-742-284);
- Lot 21 Block 42 District Lot 204 Plan 1340 (PID: 014-742-292);
- Lot 22 Block 42 District Lot 204 Plan 1340 (PID: 014-742-306);
- Lot 23 Block 42 District Lot 204 Plan 1340 (PID: 014-742-314); and
- Lot 24, Except Part in Highway Plan 11, Block 42 District Lot 204 Plan 1340 (PID: 014-742-331).

subject to the following terms and conditions:

A. The following Zoning Bylaw regulations are varied under Part 14, Division 7, Subsection 490 (1) (a) of the Local Government Act:

1. The maximum permitted building height may be increased from 19.5 m to 20.6 m
2. The residential parking requirement (exclusive of visitor parking) is reduced from 0.65 spaces per unit to 0.63 spaces per unit.

B. The following requirement is imposed under Subsection 490 (1) (c) of the Local Government Act:

1. Substantial construction as determined by the Manager of Permits and Licenses shall commence within two years of the date of this permit or the permit shall lapse.
2. A Construction Management Plan is required prior to issuance of the Building Permit and Excavation Permit, and may require amendments during the course of construction to ensure that construction impacts are minimized.

C. The following requirements are imposed under Subsections 491 (2) of the Local Government Act:

1. No work shall take place except to the limited extent shown on the attached plans (DP 16.20 1-29) and in accordance with the following specifications:

- i. The site shall be developed in accordance with the recommendations of the Flood Hazard Assessment report prepared by Stirling Geoscience Ltd. dated August 2, 2019.
- ii. A qualified professional engineer shall confirm that the Building Permit drawings meet the recommendations of the Stirling Geoscience Ltd. report referenced above, or meets an equivalent or higher degree of protection and that mitigation measures are carried out in accordance with the recommendations of the qualified professional providing recommendations on the topic.
- iii. Confirmation is provided of registration of the required section 219 restrictive covenant for flood protection.

D. The following requirements are imposed under Subsections 491 (7) and (8) of the Local Government Act:

- 1. The site shall be developed in accordance with the attached plans DP 16.20 1 - 29
- 2. Prior to the issuance of a Building Permit, the following shall be submitted to:
 - i. Building Department:
 - a. A completed report prepared by a qualified acoustic professional outlining the measures to be incorporated in the building(s) to ensure:
 - compliance with District of North Vancouver Noise Regulation Bylaw for any rooftop mechanical equipment.
 - that noise levels for dwelling unit occupants will not exceed those listed below:

Portion of Dwelling Unit	Noise Level (Decibels)*
bedrooms	35
living, dining, recreation rooms	40
kitchen, bathrooms, hallways	45

*For the purpose of this section the noise level is the A-weighted 24-hour equivalent (Leq) sound level and will be defined simply as the noise level in decibels

- b. A summary of the accessible design measures that will be provided, consistent with the objectives of the District's Accessible Design Policy

for Multi-Family Housing to confirm that the project will include 100% of the units in compliance with the “basic” accessible design elements, and 6 of the units in compliance with the “enhanced” accessible design elements.

- c. A summary of design revisions to improve the character of the building entrance on Oxford Street, the courtyard gate and canopy, the location of the pad-mounted transformer, and the location of exterior bicycle parking.

ii. Parks Department:

- a. Three copies of a final detailed landscape plan prepared by a Landscape Architect registered in British Columbia for the approval of the General Manager of Engineering or their designate;
- b. A written landscape estimate in accordance with District format, submitted by the Landscape Architect for approval by the Parks and Engineering Services Department for the installation of all landscaping as shown on the final approved landscape plan; and,
- c. A completed “Permission to Enter” agreement to provide evidence that a Landscape Architect has been retained to supervise the installation of the landscape works and the written authorization for the District or its agents to enter the premises and expend any or all of the deposit monies to complete the landscape works in accordance with the approved landscape plan.

iii. Engineering Department:

- a. Finalized civil and electrical engineering plans designed by a Professional Engineer, for review and acceptance by the Engineering Department; and
- b. An executed Engineering Services Agreement between the property owner and the District related to the required upgrading of off-site facilities on Oxford Street and Orwell Street. Upgrades will include, but are not limited to: street lighting, sidewalk, curb gutter, street trees, and street improvements.

E. The following requirements are imposed under Subsections 491 (9) and (10) of the Local Government Act:

1. Prior to issuance of the Building Permit the following is required:

-
- i. Confirmation of the green building features included in the project to fulfil the Energy and Water Conservation and Greenhouse Gas Emission Reduction Development Permit area guidelines as shown on DP 16.20 - 28

F. The following requirements are imposed under Subsection 502 of the Local Government Act:

1. Prior to issuance of the Building Permit the following deposits are required:

- i. A security deposit equal to the greater of 125% of the estimated cost of all on-site landscaping, in accordance with the approved cost estimate or \$100,000. The deposit must be provided prior to issuance of a Building Permit for the development on the Land and will be held as security for landscaping, building, hazard mitigation, and environmental works.
- ii. Engineering security deposit(s), in an amount specified in the Engineering Services Agreement, to cover the construction and installation of all off-site engineering and landscaping requirements.

G. Nothing in this Development Permit alters or affects in any way any of the preconditions to issuance of a Building Permit as set out in section 219 Covenants, if any, registered against the Land in favour of the District.

Mayor

Municipal Clerk

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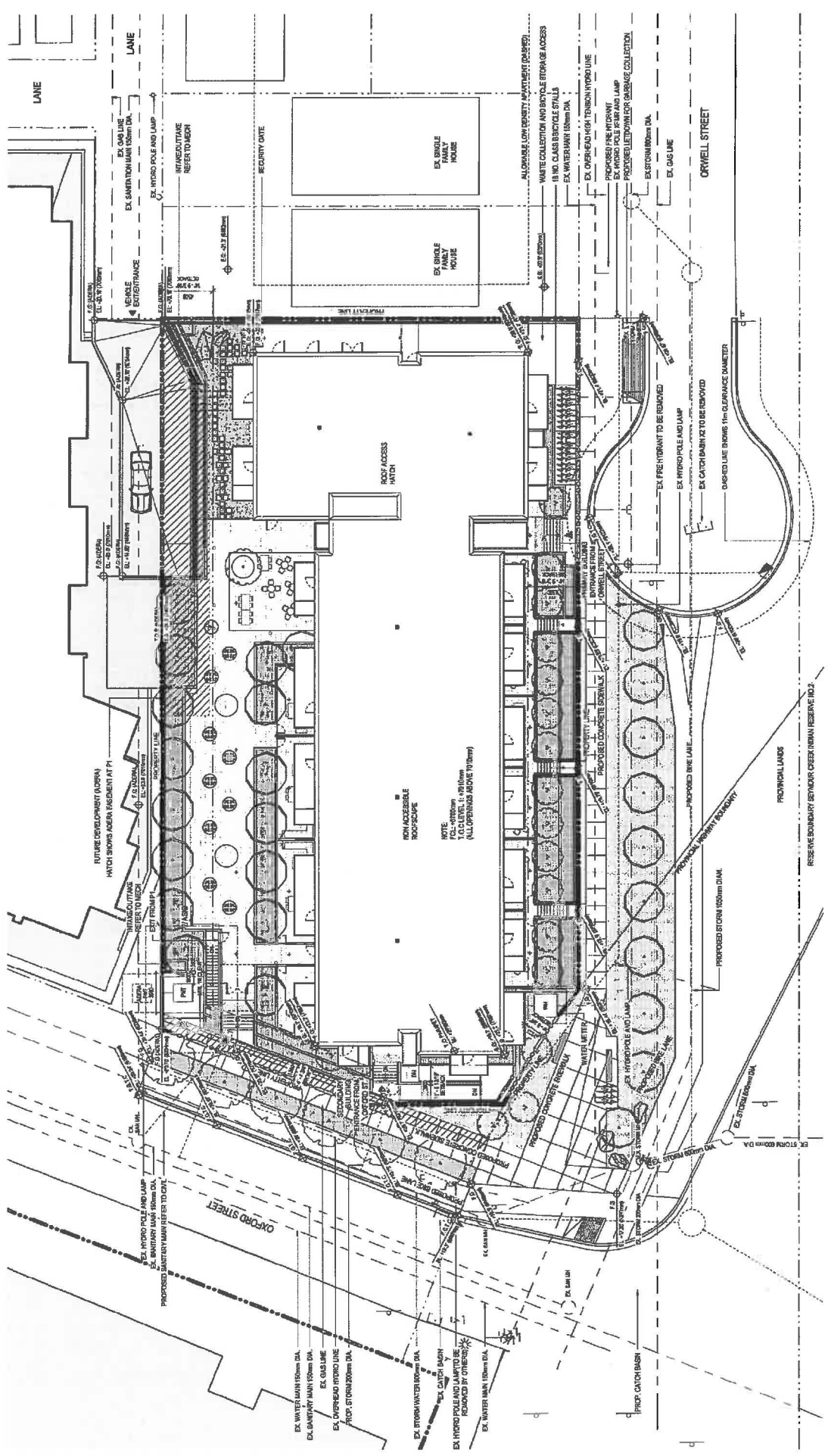
REFERENCE MATERIAL PERSPECTIVES



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REFERENCE MATERIAL PERSPECTIVES





SITE PLAN
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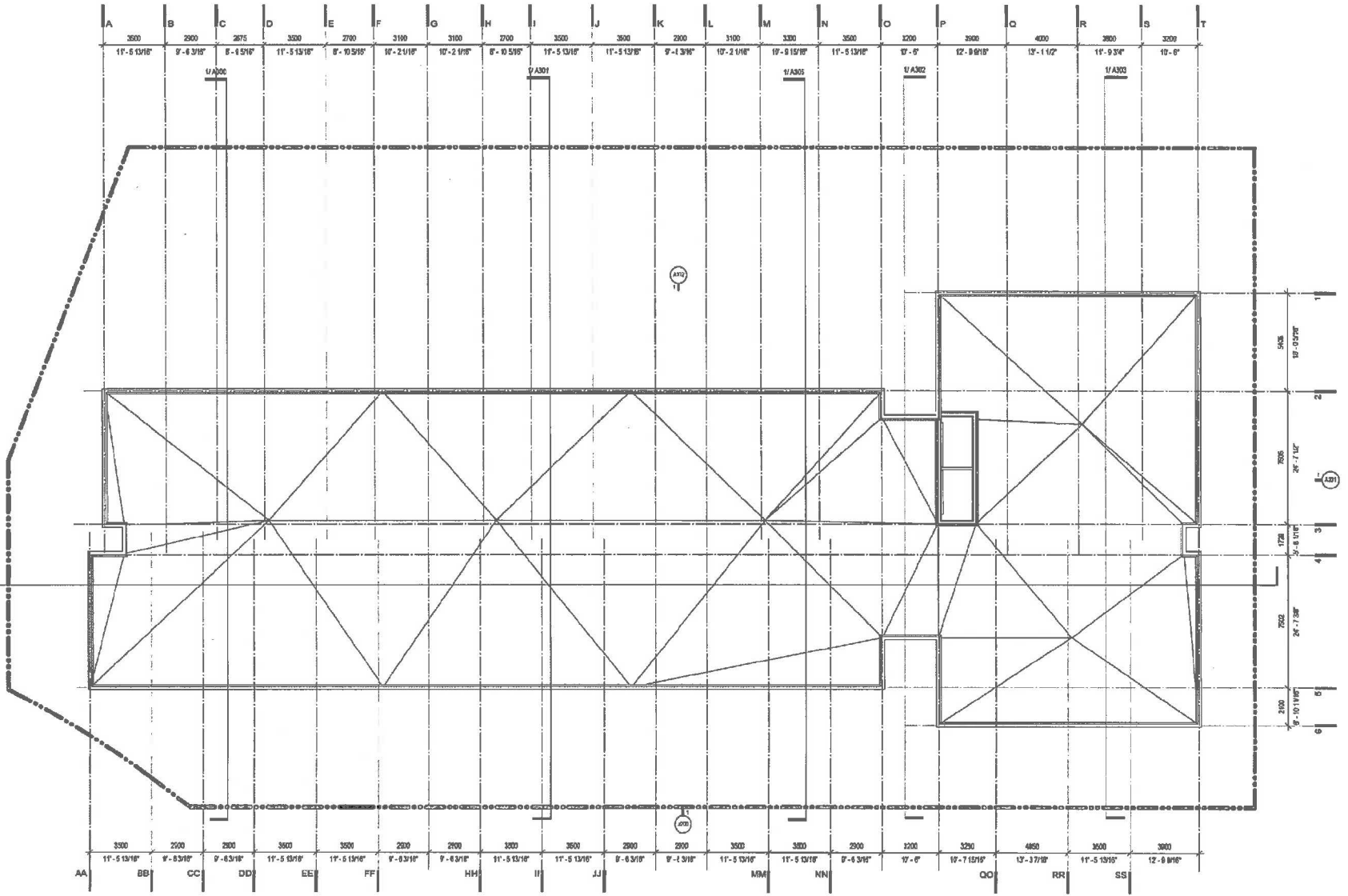
DATE: 15/12/2016
 DESCRIPTION: ORWELL NON-MARKET HOUSING
 207 Orwell Street - District of North Vancouver
 2017-007

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 207 Orwell Street - District of North Vancouver
 2017-007

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 office of melanie bigger
 architects + designers



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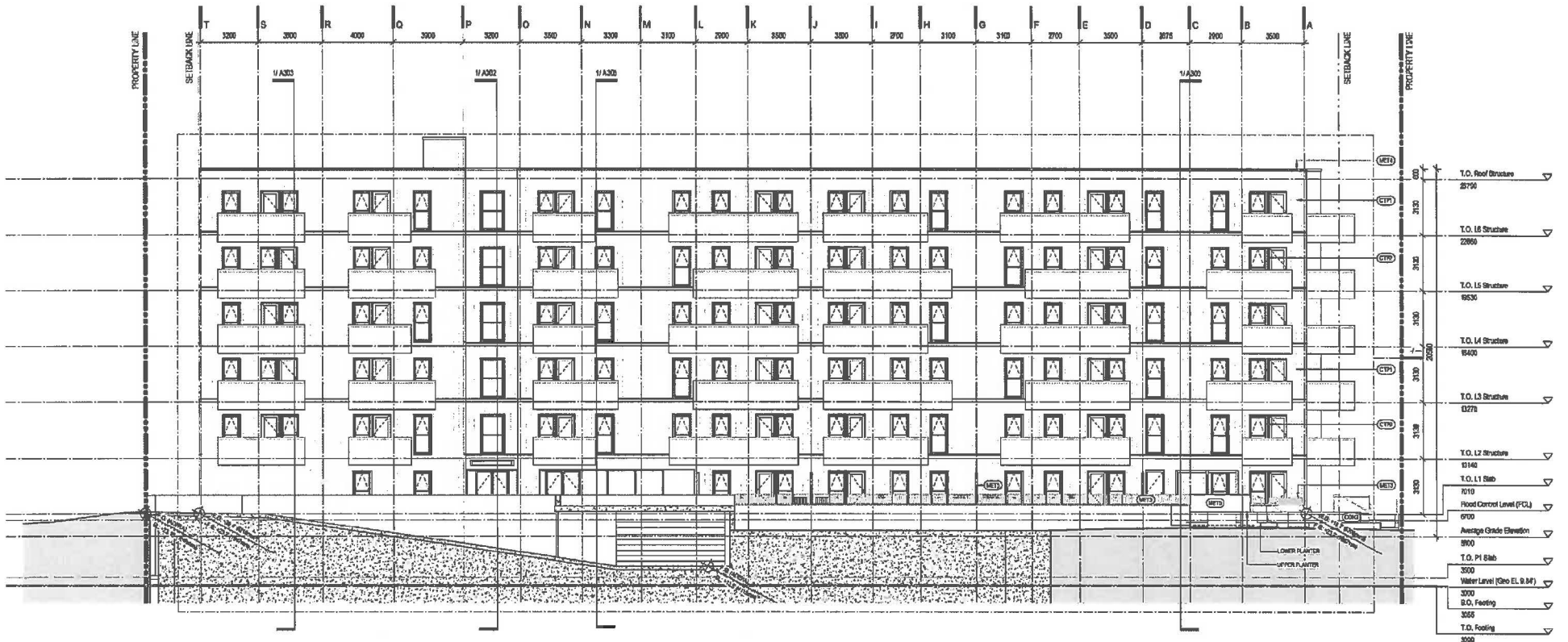
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DATE	REV	DESCRIPTION
A	2017-01-27	ISSUE FOR PERMITS

OMP TEMPLATE
ORWELL NON-MARKET HOUSING
257 Orwell Street - District of North Vancouver
2017-017

ROOF LEVEL
1:100

A107
DP 16.20-5



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omb office of mcfarlane biggar
architects + designers

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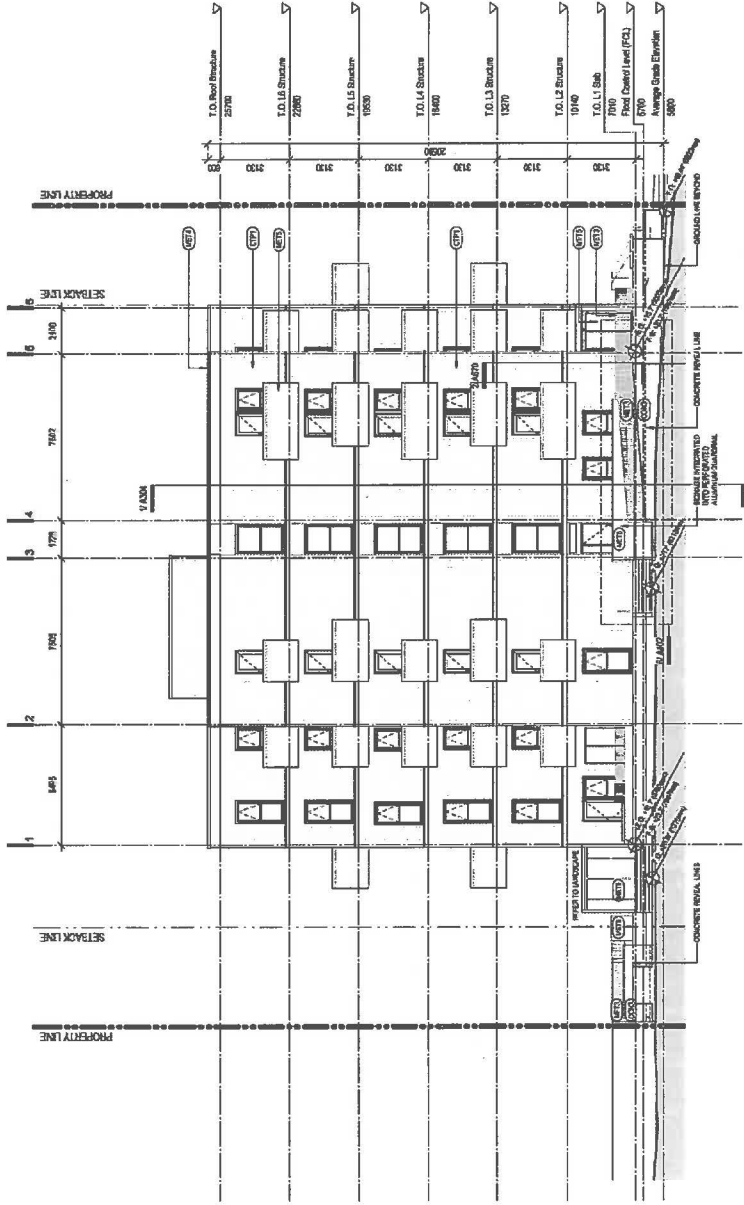
DATE	REV	DESCRIPTION
A	02/25/15	ISSUED FOR PERMITS
B	2/25/15	PERMITS FOR NON-MARKET HOUSING

ORWELL NON-MARKET HOUSING
287 Orwell Street - District of North Vancouver
2017-007

ELEVATION - WEST (LANE)

1:100

A202
DP 16.20 - 8



ELEVATION - SOUTH (ORWELL ST)
1:100

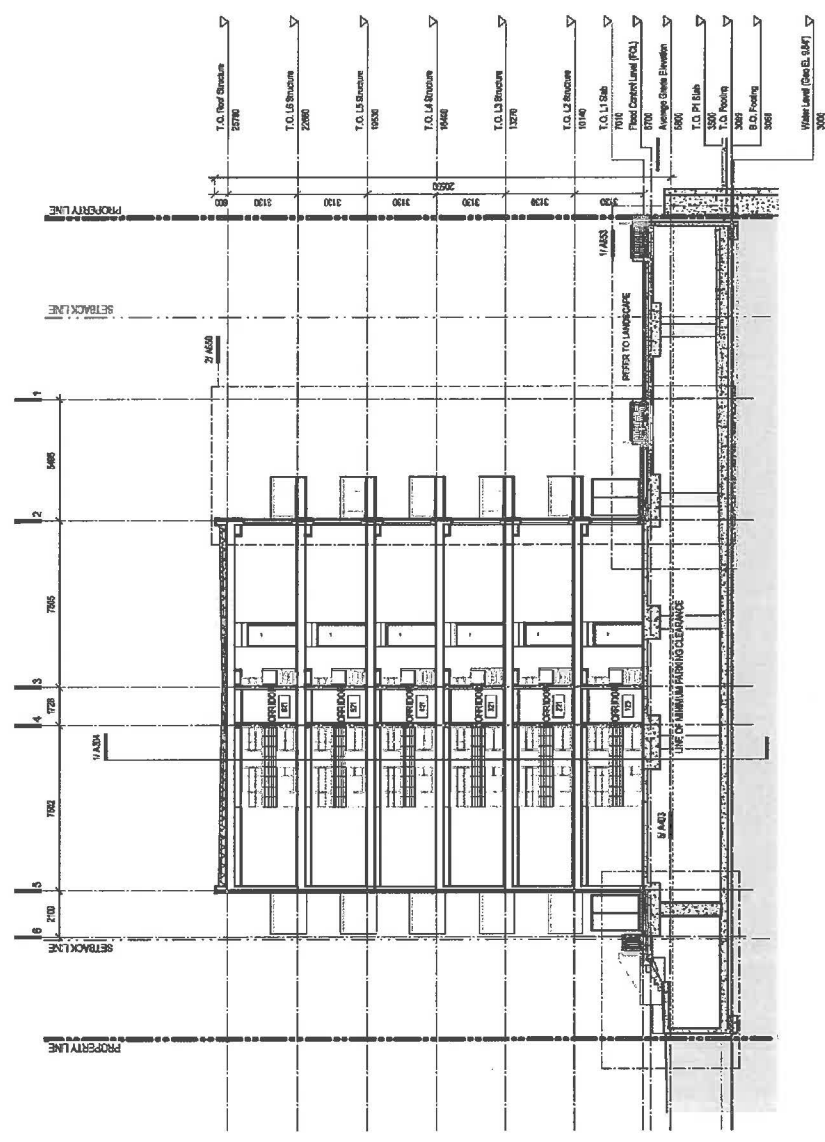
ORWELL
ORWELL NON-MARKET HOUSING
207 Orwell Street - District of North Vancouver
2017-007

DATE	REV	DESCRIPTION
2016-04-08	1	ISSUED FOR PERMIT
2016-04-08	4	ISSUED FOR PERMIT

2016-04-08: The design and construction of the proposed project is based on the information provided in the drawings and specifications. The design and construction of the proposed project is based on the information provided in the drawings and specifications. The design and construction of the proposed project is based on the information provided in the drawings and specifications.

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architects + designers

SECTIONS
1:100



DATE: 16.20.16
 ORWELL NON-MARKET HOUSING
 287 Owell Street - District of North Vancouver
 287-027

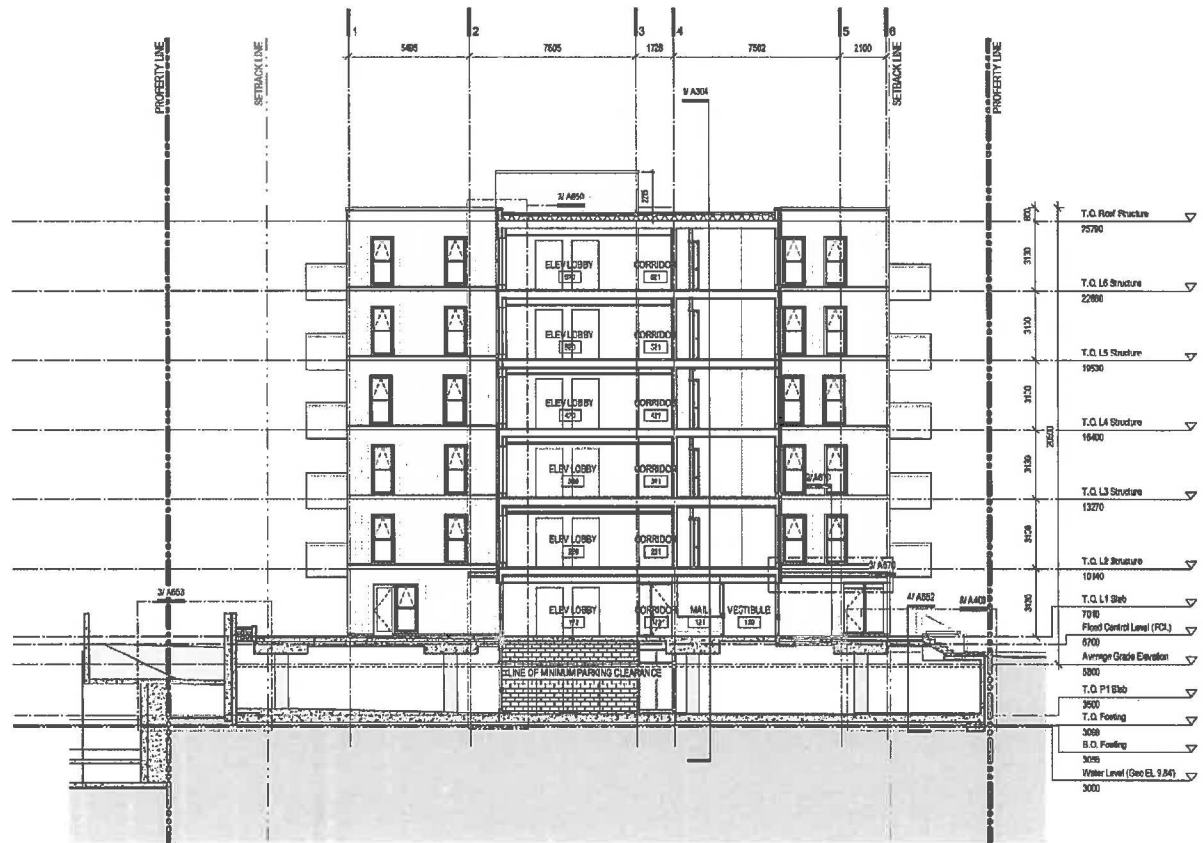
DATE	REV	DESCRIPTION
16.20.16	A	ISSUED FOR PERMIT REVIEW

Scale and dimensions: This drawing is prepared in accordance with the requirements of the British Columbia Building Code (BCBC) and the International Building Code (IBC). It is intended for use as a guide only and does not constitute a contract. The contractor shall be responsible for verifying all dimensions and conditions on site. The architect shall be responsible for providing all necessary information and documents for the permit application process.

1 Building Section - Typical
 A301 1:100

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2016.05.05.16.20.16



1 Building Section - Lobby
A302 1:100

201.05.10.14.20.00.A0

omb office of mcfarlane bigger
architects + designers

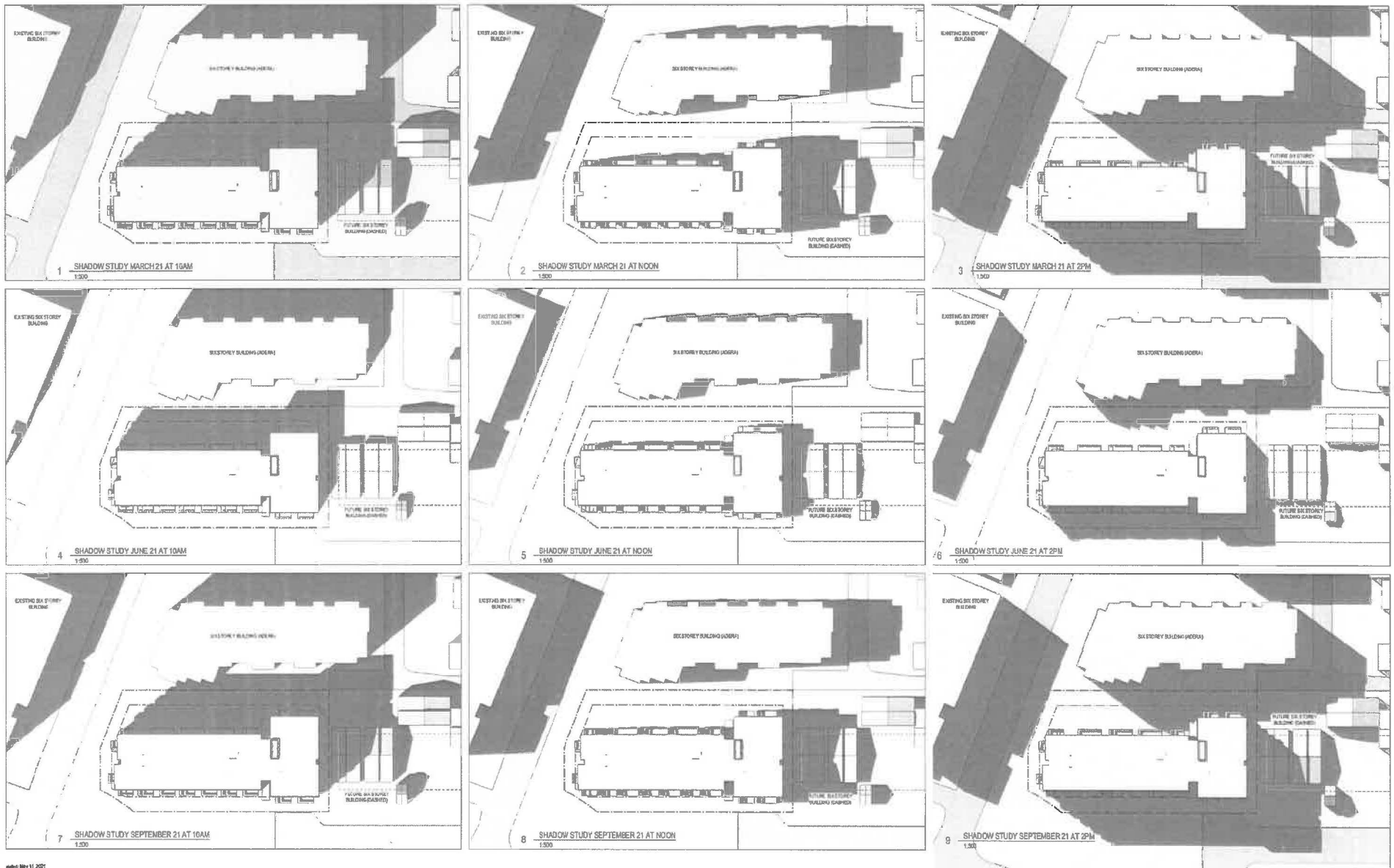
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DATE	REV	DESCRIPTION
A	220-240	ISSUED FOR PERMITS REVIEW
B	240-243	REVISED FOR RCM 10% PLAN READY

OMB 150414E
ORWELL NON-MARKET HOUSING
287 Orwell Street - District of North Vancouver
2017-007

SECTIONS
1:100

A302_{DP}
16.20-11



DATE: May 11 2017

omb office of mclerlane biggar architects + designers

331 - 1028 Quebec Street, Vancouver BC, Canada V6T 2Z6
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DATE DESCRIPTION

Orwell Non-Market Housing

287 Orwell Street - District of North Vancouver
 2017-007

Shadow Studies

1:500

A065

DP-16.20-12

02 MATERIALS CLADDING

DESCRIPTION

The materials are selected for their durability and simplicity. Cementitious cladding arranged in a vertical orientation and with a shiplap configuration is the primary facade cladding material. The vertical arrangement allows for minimal cladding joints and a scaled expression by virtue of only one panel per floor.

The balcony configuration, materiality and colour strategy is intended to convey the architectural expression. The building cladding is therefore treated as a recessive and refined element. Wall cladding and door and window frames are colour matched.

Wall Cladding

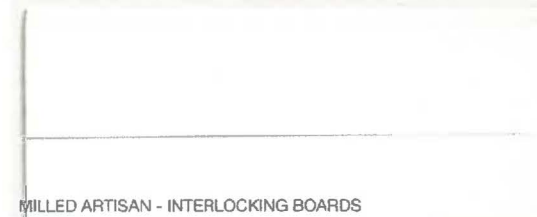
Milled Artisan siding in a shiplap configuration by James Hardie. Product details and benefits.

- 10.25" wide boards with 9" wide exposure.
- 5/8" thickness and up to 12' long boards.
- Supplied as smooth boards, which are primed and then painted on site with a matt finish to minimise reflection.
- Lock joint system and 'tongue and groove' system.
- Mitred corners.
- Ease of assembly.

Soffit Cladding

Reveal panels by James Hardie. Product details and benefits:

- 4' x 8' panels to minimize joints.
- Concealed fasteners.
- Supplied as smooth and primed boards, fasteners to be mudded over, skimmed and painted.
- Colour of the soffit panels to track with the colour of the balcony guards to ensure a homogenous element.



REVEAL - RECESSED PROFILE



MILLED ARTISAN - WALL CLADDING COLOUR PALETTE

02 MATERIALS GUARDS

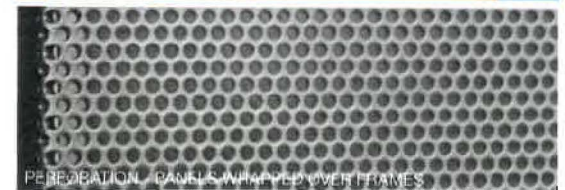
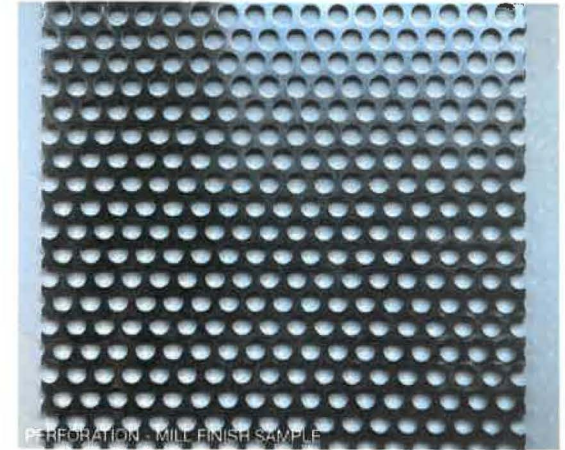
DESCRIPTION

The design intent of the balcony guards is to simplify the guard panel, railing and structural approach, to convey a singular architectural element. Perforated aluminum is used as a lightweight cladding material which overlaps the edges of the wood-framed balconies. The material offers visual and light transmittance as well as some privacy and screening.

Perforated Aluminum Guards

Milled Artisan siding in a shiplap configuration by James Hardie. Product details and benefits.

- 0.5" / 12mm diameter holes at .687" / 17mm spacing
- 8 gauge / 0.17" / 4mm thickness (to be confirmed by subcontractor)
- 48% open area.
- Colour matched substructure and hand rails behind.
- Countersunk and colour-matched fasteners.
- Panels to wrap edges of substructure to conceal frames.
- Colour of the soffit panels below to track with the colour of the balcony guards to ensure a homogenous element.



02 MATERIALS

DOORS AND TERRACE EDGES

DESCRIPTION

The door and window openings are required to meet the Step Code 3 and BC Housing building envelope requirements. Double-glazed vinyl window and door frames are proposed. The installation details are mindful towards ensuring air-tightness and improving the performance of the envelope.

Performance Criteria

The vinyl window frames will be tendered, but the specifications will need to adhere with the below criteria:

- Maximum U-Value - $\leq 1.4 \text{ W/m}^2 \text{ }^\circ\text{K}$ (0.25 Btu/h ft² °F)
- Maximum SHGC - 0.27-0.33
- Minimum Visible Light Transmittance - 60%
- Awning opening profile.

Terraces

The ground floor elements aim to connect the building with the upgraded sidewalk interfaces; allowing the landscape to be terraced up towards the building, providing screening and tree canopies adjacent to the sidewalk. Concrete planter walls vary in height, from guardrail height to seating height and curb height. The screens along the terrace edges are proposed as aluminum picket guards fixed to the concrete planter walls. The details aim to ensure the safety and security of residents, in line with the CPTED principles, as well as provide robust and maintenance-free fixing conditions.



VINYL WINDOW AND DOOR FRAMES

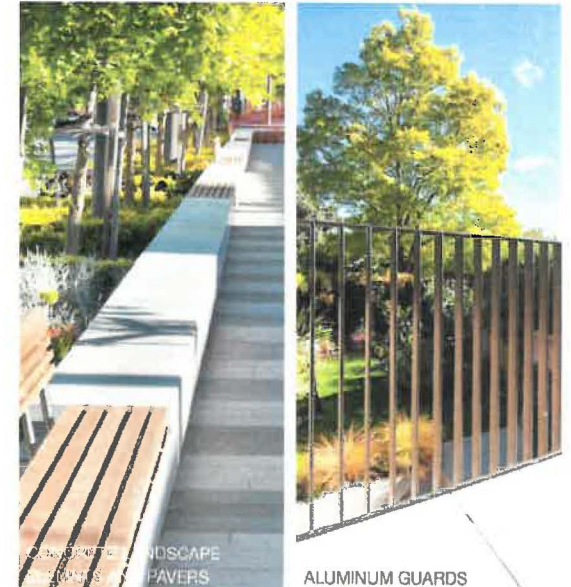


VINYL SWING DOORS

VINYL WINDOW FRAMES

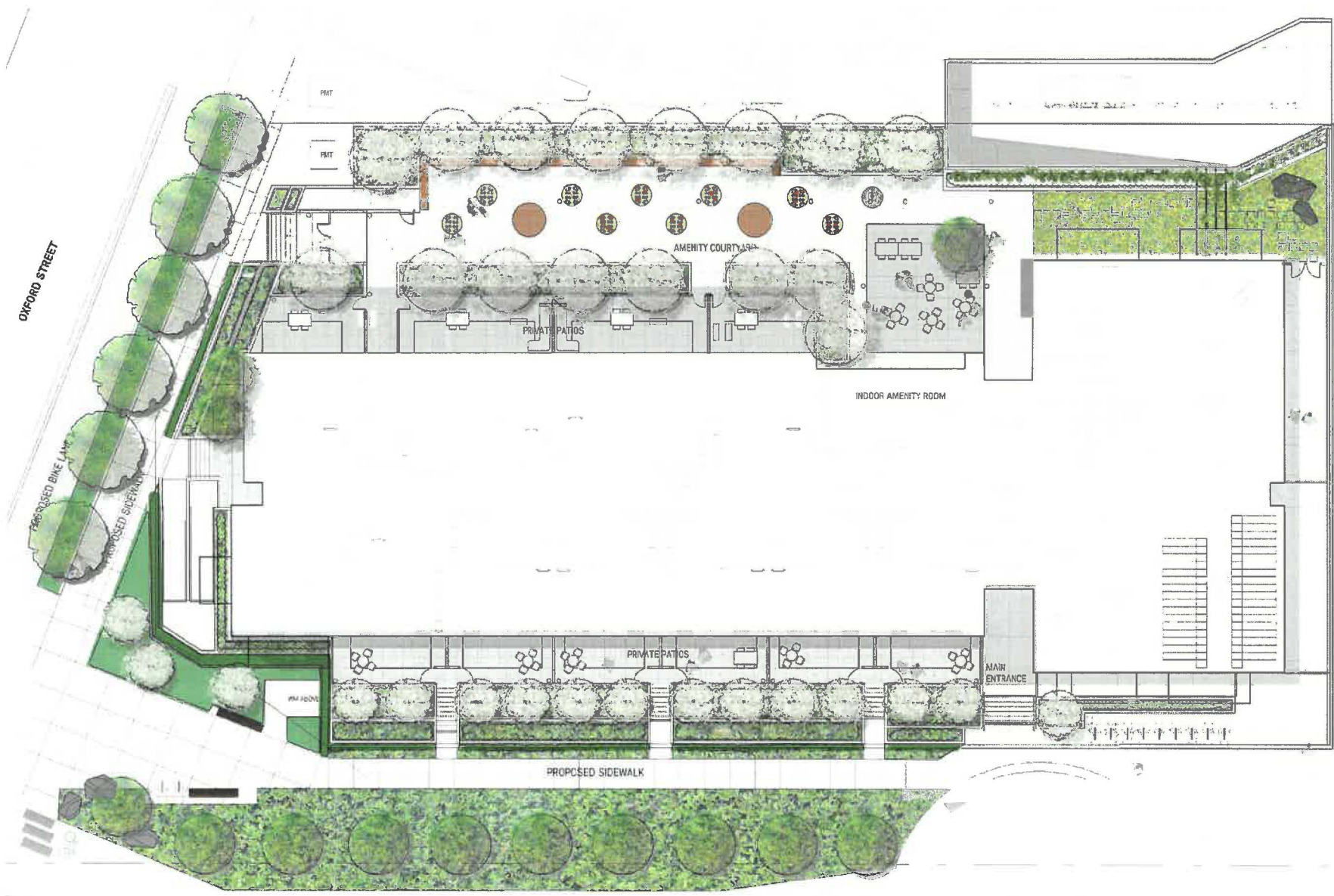


CONCRETE LANDSCAPE ELEMENTS



CONCRETE LANDSCAPE ELEMENTS

ALUMINUM GUARDS



HAPA COLLABORATIVE

CONSULTANTS
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 VANCOUVER BC V6X 2M7
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 WWW.HAPACOLLABORATIVE.COM

Information on this Concept Drawing regarding the location of features and trees is preliminary and subject to change. Changes to the location of features and trees may occur after the final design is approved by the City of Vancouver. This drawing is for informational purposes only and is not for construction.

2. Issued for Revised OMA Review 23 Apr 2021
 1. Issued for OMA Review 30 Apr 2020

Issue #18 Reviewed. This issue is not marked as a final issue as it is a preliminary drawing and is subject to change. It is not for construction.

ORWELL NON-MARKET HOUSING 257 Orwell St District of North Vancouver

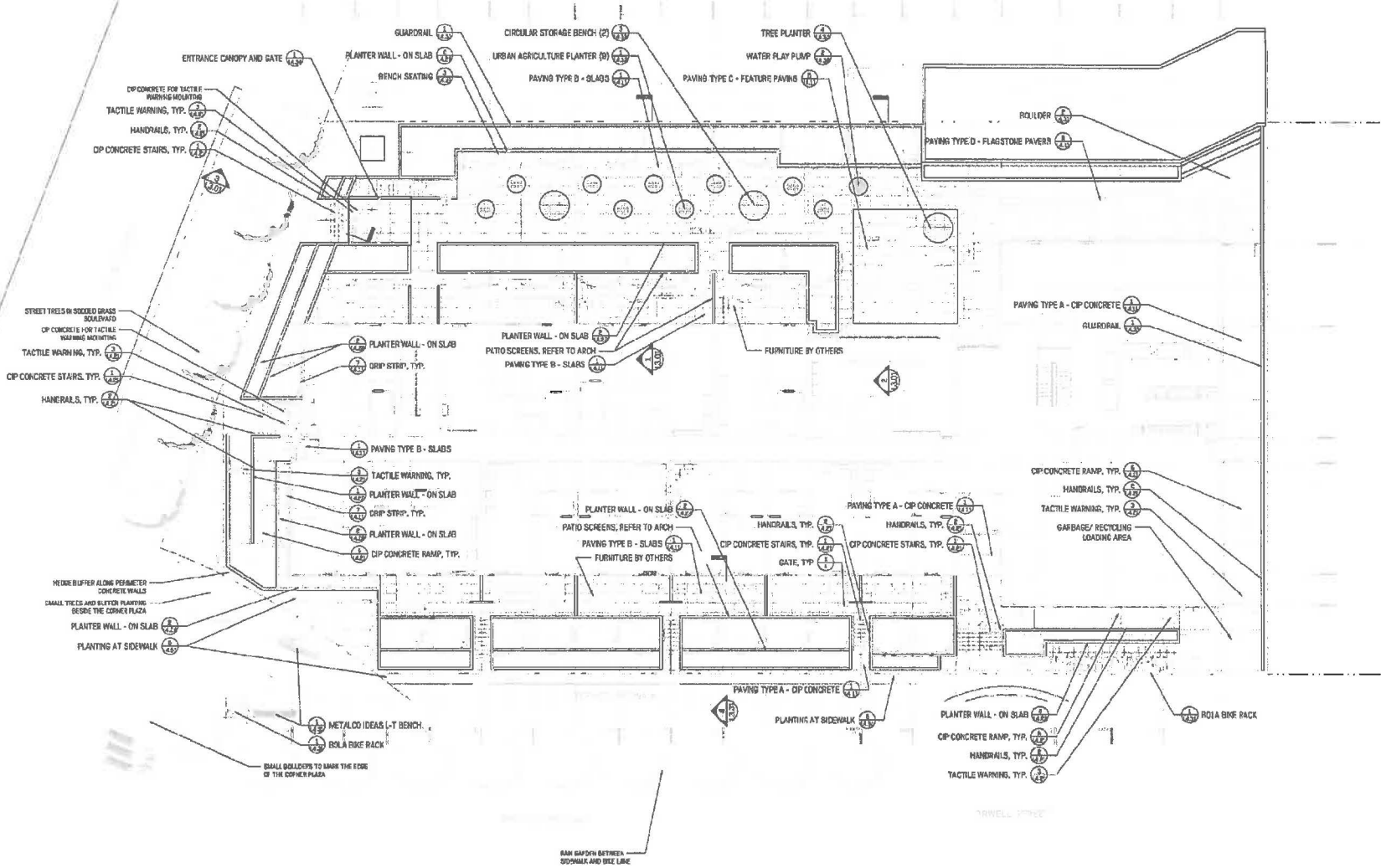
Landscape Concept Plan

Date: Feb. 20/20
 Project No: 1833
 Title: 1833
 Drawn/Checked: jpm/BM

L1.01

NOT FOR CONSTRUCTION

DP 16.20-16



- NOTES**
1. FINAL APPROVAL/SELECTION OF ANY OFF-SITE SITE FURNITURE WILL BE MADE BY DNV STAFF. THE FURNITURE TYPES SPECIFIED ON THIS PLAN COULD BE SUBJECT TO CHANGE. PLEASE CONTACT DNV PARK & URBAN DESIGNER DIMITRI SAMARIS (SAMARIS@DNV.ORG OR 604-690-2495) TO CONFIRM SITE FURNITURE TYPES PRIOR TO PURCHASE.
 2. THE PROJECT LANDSCAPE CONTRACTOR, THE PROJECT LANDSCAPE ARCHITECT AND A DISTRICT OF NORTH VANCOUVER PARKS (DNV PARKS) REPRESENTATIVE MUST BE PRESENT AT THE PROJECT PRE-CONSTRUCTION MEETING. IF THIS IS NOT POSSIBLE, THE DEVELOPER MUST MAKE SURE THAT ALL THREE GROUPS MEET BEFORE ANY LANDSCAPE CONSTRUCTION WORK TAKES PLACE ONSITE.

3 Issues for Review DPU Meeting: 04 May 2021
 2 Issues for Review DPU Meeting: 23 Apr 2021
 1 Issue for DNV Meeting: 03 Apr 2020

Rev: 01/20/20 Date: 01/20/20
 Scale: 1:100

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**ORWELL
 NON-MARKET HOUSING**
 267 Orwell St
 District of North Vancouver

Materials Plan

REV	DATE	DESCRIPTION
1	Jan 20/20	ISSUED FOR PERMIT

Project No: 1803
 Title: 01/20
 Scale: 1:100
 Date: 01/20/20

DP-16-20-17

Project Number: 1.4.1
 Date: 2.13.15
 Drawn by: [Name]
 Checked by: [Name]

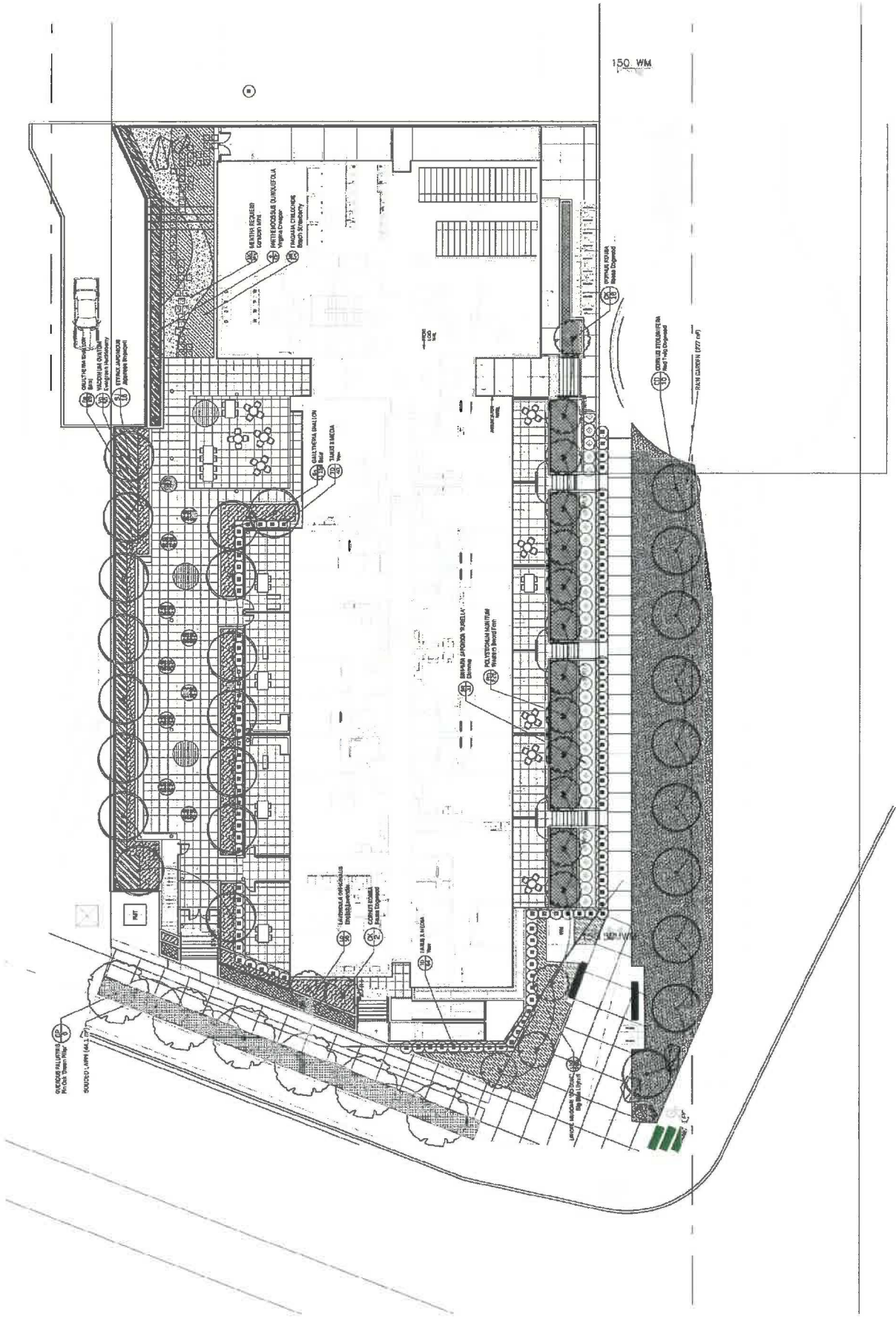
Planting Plan

ORWELL
NON-MARKET HOUSING
 287 Orwell St
 District of North Vancouver

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No.	Description	Date
1.	Issue for Final City Approval	01.14.15
2.	Issue for 3rd Review	02.13.15

HAPA COLLABORATIVE
 Landscape Architecture
 Urban Design
 403 - 275 West 27th Avenue
 Vancouver, BC, V5T 1J8
 604 681 4570
 info@hapa.com



150 WM

PLANT SCHEDULE

TREES	CODE	QTY	BOTANICAL / COMMON NAME	SIZE	SPACING	COMMENTS
OFF SITE	CK	18	Cornus kousa / Kousa Dogwood	1.2m ht.	As Shown	B&B, Dense Tree, Good Branching within 0.8m of Ground
OFF SITE	CD	10	Cornus stolonifera / Red Twig Dogwood	1.5m ht.		
	QP	6	Quercus palustris "Pringreen" TM / Greenpillar Pin Oak	1.2m ht.	As Shown	B&B, Dense Tree, Good Branching within 0.8m of Ground
	SJ	16	Styrax japonicus / Japanese Snowbell	1.2m ht.	As Shown	B&B, Dense, Uniform Tree
SHRUBS	CODE	QTY	BOTANICAL / COMMON NAME	SIZE	SPACING	COMMENTS
	SK	34	Skimmia japonica "Rubella" / Skimmia	#3 Pot	90cm	Full, Well Established
	TD	105	Taxus x media / Dense Yew	#2 Pot	900mm	Full, Well Established
SHRUB AREAS	CODE	QTY	BOTANICAL / COMMON NAME	SIZE	SPACING	COMMENTS
	Vo	50	Vaccinium ovatum / Evergreen Huckleberry	#2 Pot		
GROUND COVERS	CODE	QTY	BOTANICAL / COMMON NAME	SIZE	SPACING	COMMENTS
	Fc	12 941	Fragaria chiloensis / Beach Strawberry	#1 Pot	60cm	Full
	Gs	22 941	Gaillardia xallan / Salsal	#2 Pot	60cm	Full
	Lo	56	Lavandula officinalis / English Lavender	#1 Pot	45 cm	Full
OFF SITE	Lb3	228	Liriope muscaris "Big Blue" / Big Blue Lilyturf	#1 Pot	45 cm	Full
	Mr	9 325	Mentha requienii / Corsican Mint	#1 Pot	60cm	Full
	Pn	5 381	Parthenocissus quinquefolia var. engelmannii / Virginia Creeper	#1 Pot	60cm	Full
	Pm	225	Polystichum muritum / Western Sword Fern	#2 Pot	90cm	Full

CONCEPT PLANT SCHEDULE

OFF SITE		RAIN GARDEN	278.6 m ²
OFF SITE		BODDED LAWN	44.1 m ²

PLANTING NOTES

- ALL PLANT MATERIAL TO CLNA STANDARDS. REFER TO THE BC SLA LANDSCAPE STANDARD, LATEST EDITION.
- AREA OF SEARCH FOR PLANT MATERIAL: PACIFIC NORTHWEST INCLUDING BRITISH COLUMBIA, WASHINGTON AND OREGON
- REFER TO SPECIFICATION FOR GENERAL CONDITIONS, MATERIALS AND INSTALLATION REQUIREMENTS.
- ALL ORSITE PLANTED AREAS TO HAVE AUTOMATIC IRRIGATION.
- THE FINAL LOCATION AND SPECIES SELECTION WILL BE TO THE SATISFACTION OF THE DISTRICT OF NORTH VANCOUVER.
- THE DISTRICT OF NORTH VANCOUVER IS RESPONSIBLE FOR THE ON-GOING MAINTENANCE OF STREET TREES ON OFF-SITE AREAS. PLEASE ENSURE THAT THE DEVELOPER IS AWARE THAT ON-GOING MAINTENANCE OF SHRUBS/SHRUB COVERS ON OFF-SITE AREAS (IF BULK EWARDS) IS THE RESPONSIBILITY OF THE FUTURE PROPERTY OWNER.
- ALL PLANT MATERIAL MUST FIRST BE INSPECTED BY A REPRESENTATIVE OF THE DISTRICT OF NORTH VANCOUVER PARK DEPARTMENT (DNY PARK) BEFORE INSTALLATION. THE DISTRICT OF NORTH VANCOUVER HAS THE RIGHT TO REFUSE ANY OR ALL OF THE SELECTED PLANT MATERIAL IF IT DOES NOT MEET CURRENT CLNA STANDARDS.
- FINAL APPROVAL/SELECTION OF ANY OFF-SITE STREET TREES WILL BE MADE BY DNY STAFF. THE TREE SPECIES SPECIFIED ON THIS PLAN COULD BE SUBJECT TO CHANGE. PLEASE CONTACT DNY PARK & URBAN DESIGNER (EMITH.SAMAROS@SMARTCSDENYV.ORG OR 604-900-2495) TO CONFIRM TREE SPECIES PRIOR TO PURCHASE.



OFF-SITE



Red Twig Dogwood

Quercus bicolor 'Green Pillar'

English Dogwood

Lily Turf



Evergreen Huckleberry



Japanese Snowbell



Yew



Red Flowered Japanese Skimmia



Beach Strawberry



Virginia Creeper



Corsican Mint



Western Swordfern



English Lavender



Salsal

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2. Issued for Revised DPW Review 21 Apr 2021
1. Issued for DPW Review 30 Apr 2020

Rev. Description Date

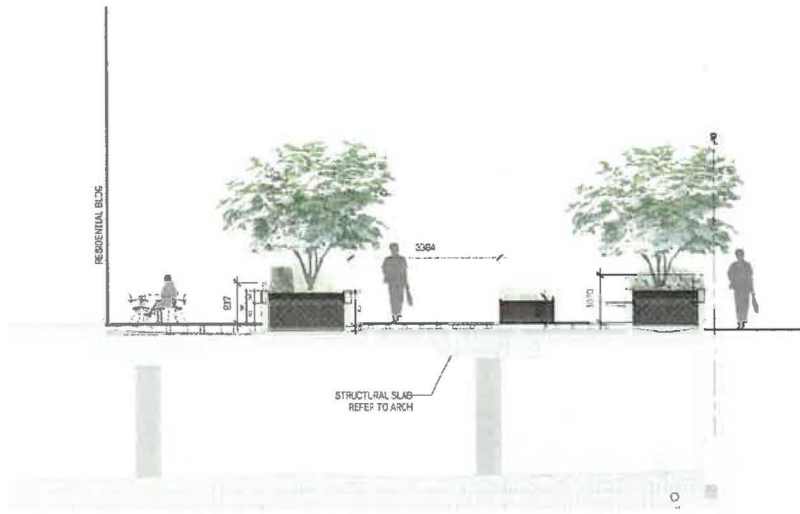
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**ORWELL
NON-MARKET HOUSING**
267 Orwell St
District of North Vancouver

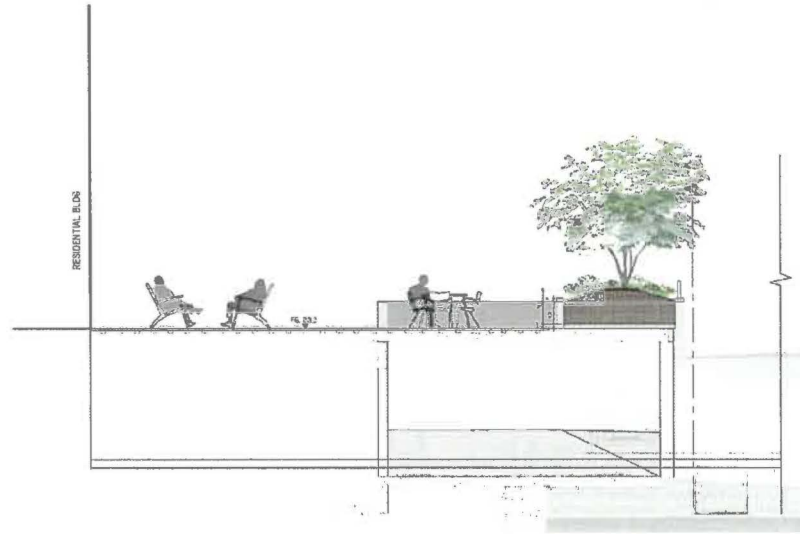
Planting Schedule

Date: **July 2020** Drawing Number:
Project No: **2033**
Scale:
Sheet/Sheet pair: **JRM**

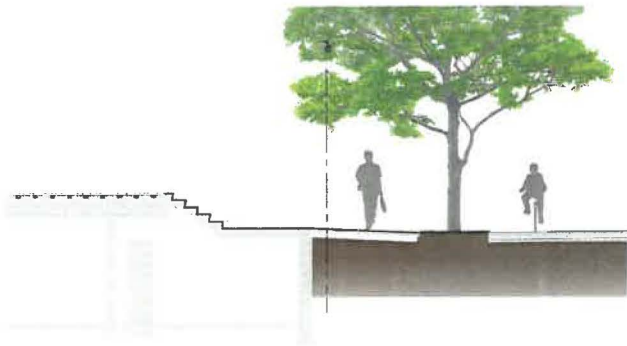
DP-10-20-19



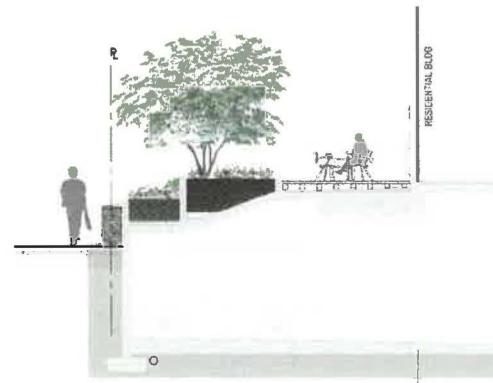
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L3.01 1:50



2 BACK AMENITY PATIO SECTION THROUGH SHARED PLANTER
L3.01 1:50



3 SECTION THROUGH ORWELL STREET
L3.01 1:50



4 OXFORD STREET FRONTAGE
L3.01 1:50

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2 Issued for Pre-Seed DMV Issuance 21 Apr 2021
1 Issued for DMV Issuance 30 Apr 2020

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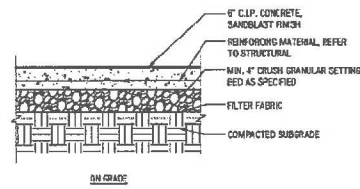
**ORWELL
NON-MARKET HOUSING**
257 Orwell St
District of North Vancouver

Landscape Sections

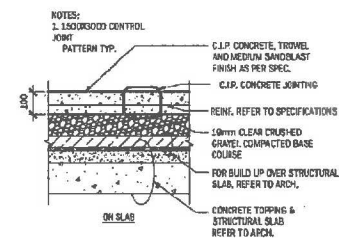
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Project No: 2553
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Drawn/checked by: [signature]

DP 16.20-20
L3.01

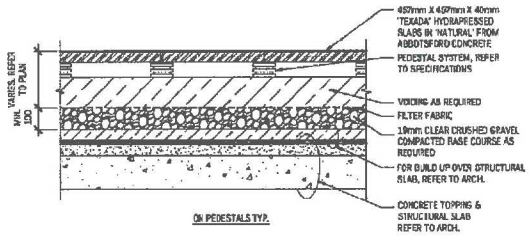
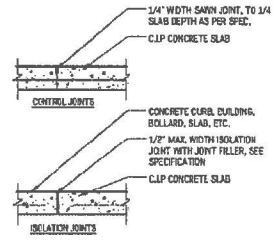
- NOTES:
1. REFER TO SPECIFICATION FOR GENERAL CONDITIONS;
 2. CONSTRUCT ALL CONTROL JOINTS AT CONSISTENT WIDTH; CUT JOINTS BEFORE RANDOM CRACKING OCCURS.



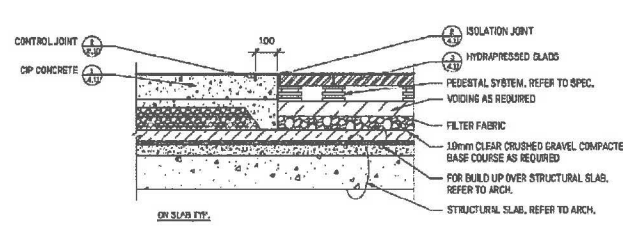
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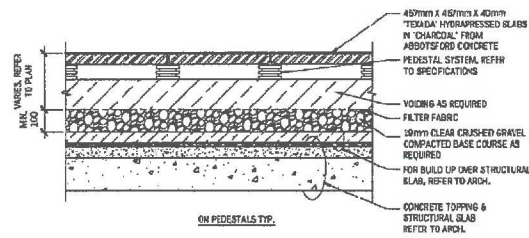
2 CIP CONCRETE PAVING JOINTS
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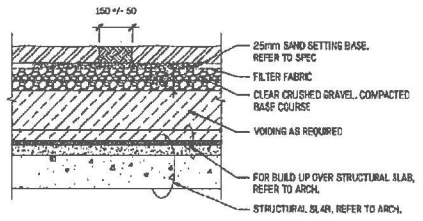
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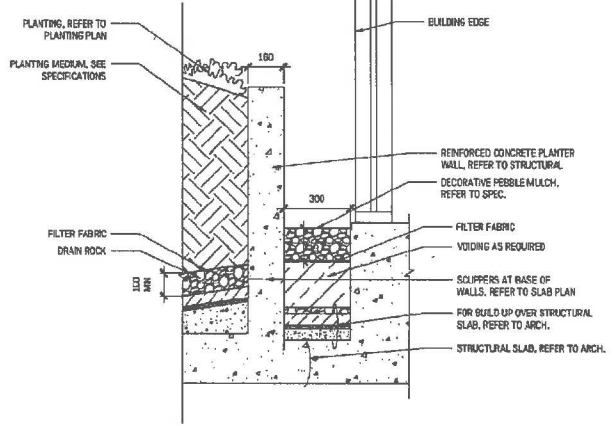
4 PAVING TRANSITION
1:10



5 PAVING TYPE C - FEATURE PAVING
1:10



6 PAVING TYPE D - FLAGSTONE PAVERS
1:10



7 DRIP STRIP, TYP.
1:10



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Vancouver, BC V6R 1J6
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2	Issued for Reviewing Only	21 Apr 2021
1	Issued for RPA Reviewing	20 Apr 2020
0	Issued for Review	16 Apr 2020

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ORWELL NON-MARKET HOUSING
2577 Orwell St
District of North Vancouver

Landscape Details
PAVING

DATE	DATE	REVISION
2020	2020	1
2020	2020	2

DP-19-20-21

2	Issued for Revised OPA/Recovery	21 Apr 2021
1	Issued for OPA/Recovery	20 Apr 2020
0	Issue	Date

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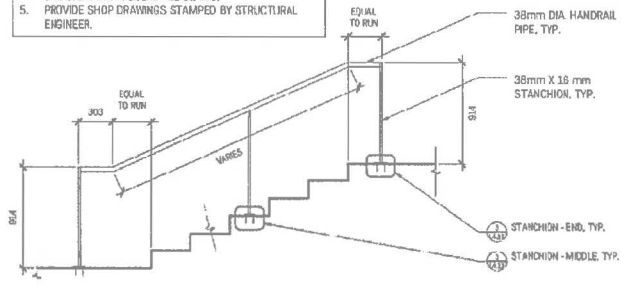
ORWELL NON-MARKET HOUSING
 267 Orwell St
 District of North Vancouver

Landscape Details
WALLS AND STAIRS

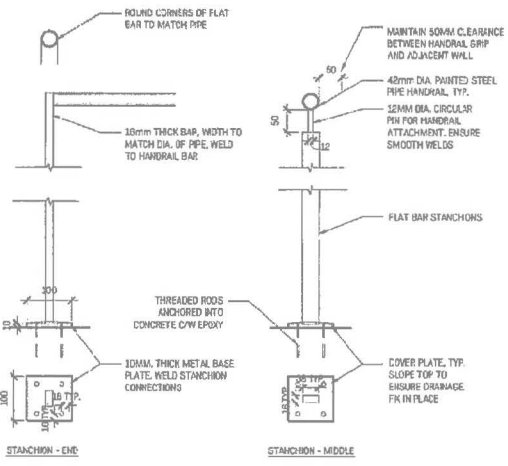
Date:	June 20/20	Drawn by:	
Project No:	1802	Scale:	as noted
Sheet:	44 of 47	Drawn/checked:	pm BM

DP 19-20-22

- NOTES:
1. REFER TO GRADING AND LAYOUT PLAN FOR TOP/BOTTOM OF STAIR ELEVATIONS AND HANDRAIL LENGTHS;
 2. FIELD VERIFY ALL DIMENSIONS PRIOR TO FABRICATION OF HANDRAILS & STANCHIONS;
 3. STAINLESS STEEL WITH SATIN FINISH THROUGHOUT;
 4. GRIND ALL CUT/WELDED SURFACES TO SMOOTH UNIFORM FINISH. BLEND ALL SEAMS;
 5. PROVIDE SHOP DRAWINGS STAMPED BY STRUCTURAL ENGINEER.

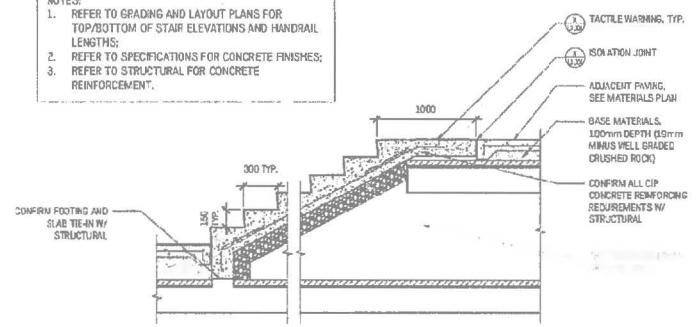


2 HANDRAILS, TYP.
1:4.21 1:20

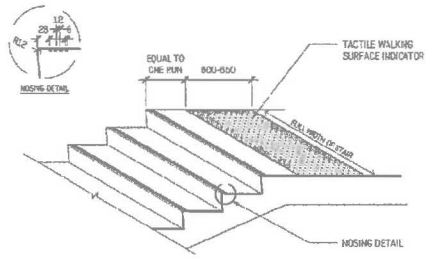


2 STANCHION, TYP.
1:4.21 1:20

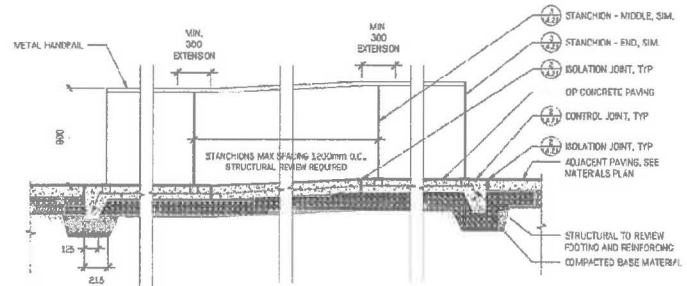
- NOTES:
1. REFER TO GRADING AND LAYOUT PLANS FOR TOP/BOTTOM OF STAIR ELEVATIONS AND HANDRAIL LENGTHS;
 2. REFER TO SPECIFICATIONS FOR CONCRETE FINISHES;
 3. REFER TO STRUCTURAL FOR CONCRETE REINFORCEMENT.



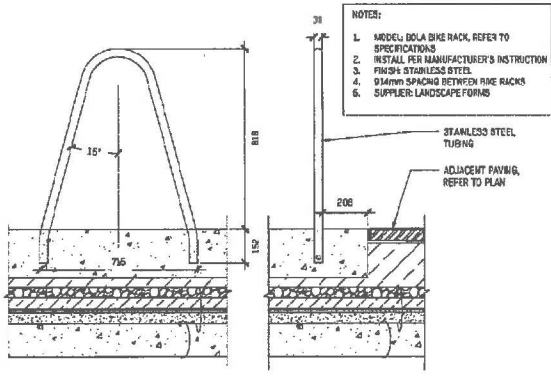
1 CIP CONCRETE STAIRS, TYP.
1:4.21 1:20



3 TACTILE WARNING, TYP.
1:4.21 1:20

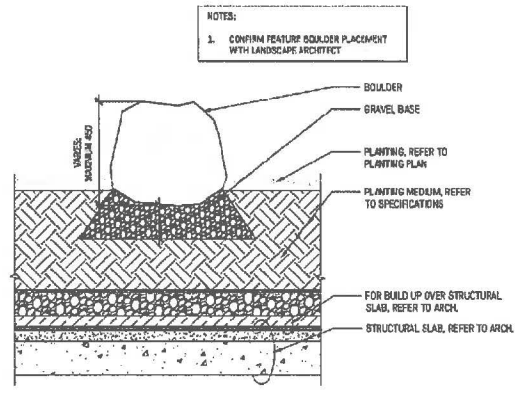


6 CIP CONCRETE RAMP, TYP.
1:4.21 1:20



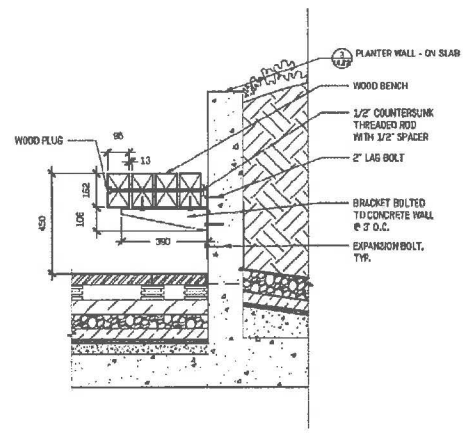
- NOTES:
1. MODEL: BOLA BIKE RACK, REFER TO SPECIFICATIONS
 2. INSTALL PER MANUFACTURER'S INSTRUCTION
 3. FINISH: STAINLESS STEEL
 4. STAINLESS SPACERS BETWEEN BIKE RACKS
 5. SUPPLIER: LANDSCAPE FORMS

1 BOLA BIKE RACK
1:10

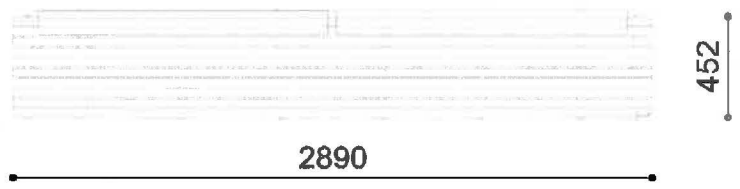


- NOTES:
1. CONFIRM FEATURE BOULDER PLACEMENT WITH LANDSCAPE ARCHITECT

2 BOULDER
1:10



3 BENCH SEATING
1:10



4 METALCO BENCH
1:10

2	Issued for Review (DPA) Reviewing	21 Apr 2023
1	Issued for DPA/ Planning	30 Apr 2023
0	Designation	09A

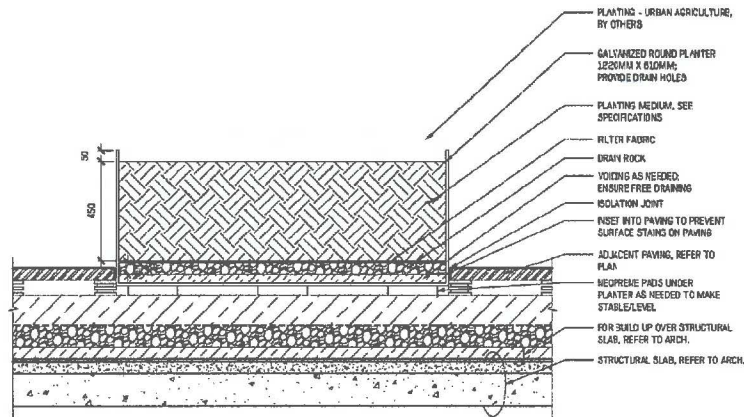
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ORWELL NON-MARKET HOUSING
287 Orwell St
District of North Vancouver

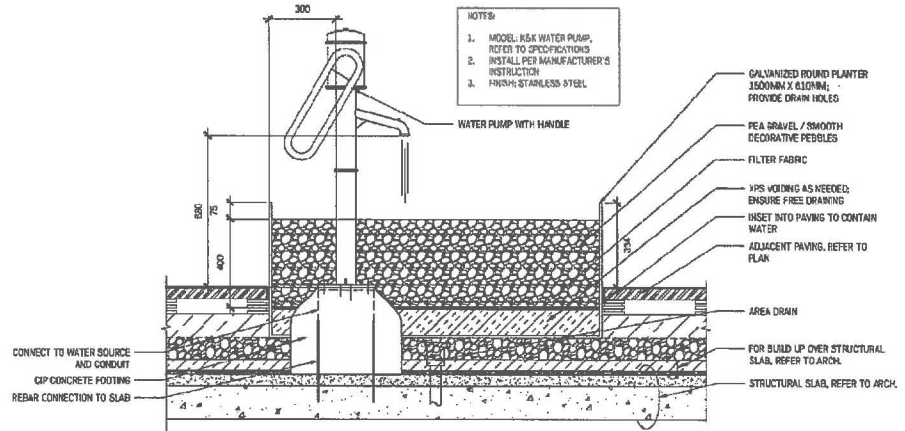
Landscape Details
SITE FURNISHINGS

Date	Jan, 2023	Drawing Number
Project No.	1823	
Issue	04 10/2023	
Drawn/Checked by	JRM	

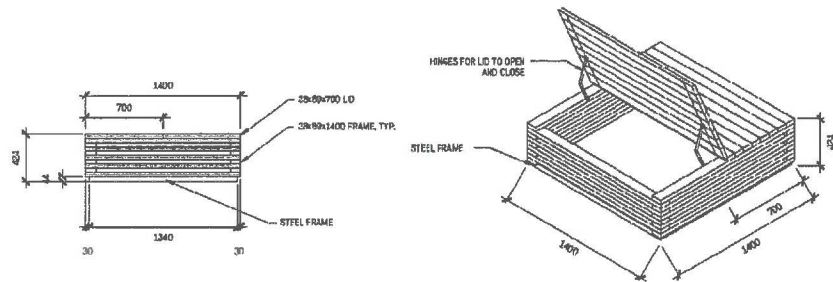
DP 16.20-24



1 URBAN AGRICULTURE PLANTER
L4.32 1:10



2 WATER PLAY PUMP
L4.32 1:10



3 CIRCULAR STORAGE BENCH
L4.32 1:20



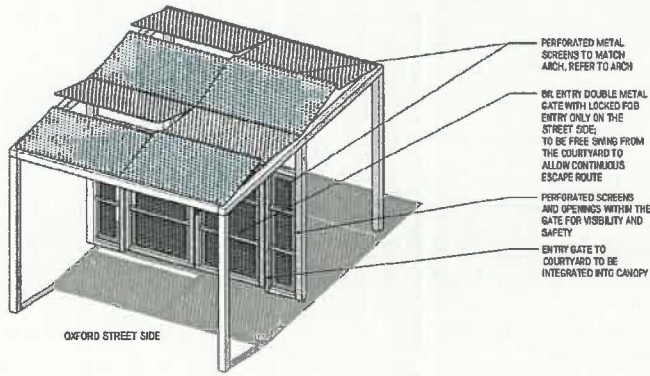
2 Issued for Revised DPA Issuing 21 Apr 2021
1 Issued for DPA Issuing 28 Apr 2020
No. Description Date

Client: Orwell Housing
Project No.: 1823
Scale: as noted
Drawn/Checked: par / BB

ORWELL
NON-MARKET HOUSING
287 Orwell St
District of North Vancouver

Landscape Details
SITE FURNISHINGS

Date: Jan, 2020
Project No.: 1823
Scale: as noted
Drawn/Checked: par / BB



1.4.33 ENTRANCE CANOPY AND GATE
1:20

- NOTES ON ALL METAL GATES, CANOPIES AND GUARDRAILS:
1. REFER TO SPECIFICATIONS FOR GENERAL CONDITIONS, MATERIALS AND INSTALLATION;
 2. FIELD CONFIRM ALL GATE AND FENCE FITS BEFORE FABRICATION;
 3. ALL METAL COMPONENTS TO BE POWDER COATED ALUMINUM, UNLESS OTHERWISE NOTED;
 4. RAL COLOR AND FINISH TO MATCH ARCH. TRIM. PROVIDE SAMPLE FOR APPROVAL BY LANDSCAPE ARCHITECT;
 5. PROVIDE SIZED AND SEALED SHOP DRAWINGS BY STRUCTURAL ENGINEER REGISTERED IN B.C. FOR ALL METAL FENCES, GUARDS AND GATES;
 6. GRIND TO DISURE NO SHARP EDGES;
 7. REINFORCE AS REQUIRED;
 8. GUARDRAIL AND GATE TO BE MOUNTED TO STANCHIONS. DO NOT MOUNT TO ADJACENT WALLS OR ARCHITECTURAL ELEMENTS. ENSURE A MAXIMUM SPACING OF JOINTS BETWEEN THE TWO STANCHION AND BUILDING FACE;
 9. ALL HOLES TO BE DRILLED PRIOR TO POWDER COATING.

E. Issued for Revised DPM/Insuring 04 May 2021
I. Issued for DPM/Insuring 30 Apr 2021
No. 0000/000 2021

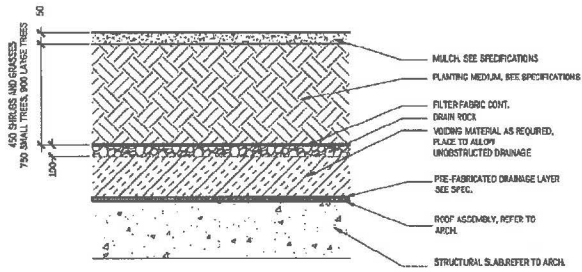
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ORWELL
NON-MARKET HOUSING
287 Orwell St
District of North Vancouver

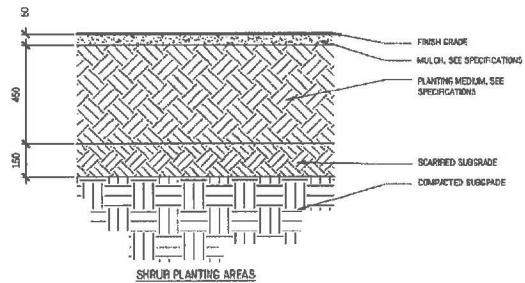
Landscape Details
SITE FURNISHINGS

Date:	Jan, 2021	Drawing Number:
Project No.:	1433	
Site:	see notes	
Drawn/Checked:	pas BM	

DP 19.20-26

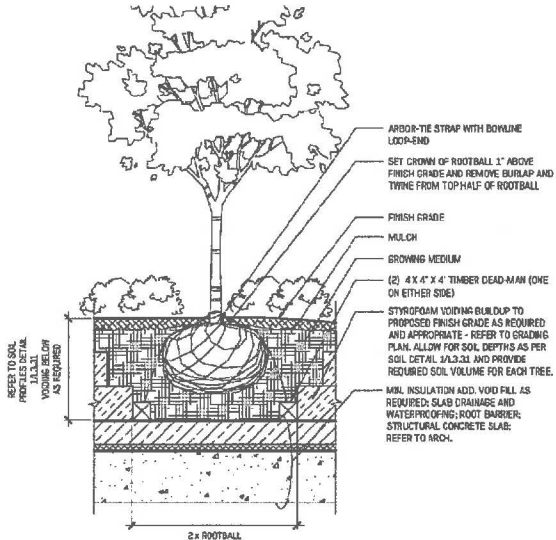


SHRUB AND TREE PLANTING ON SLAB

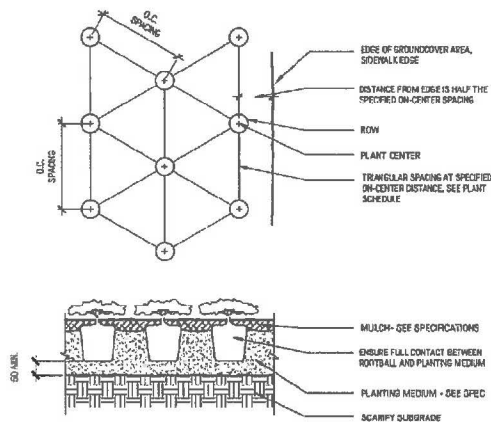


SHRUB PLANTING AREAS

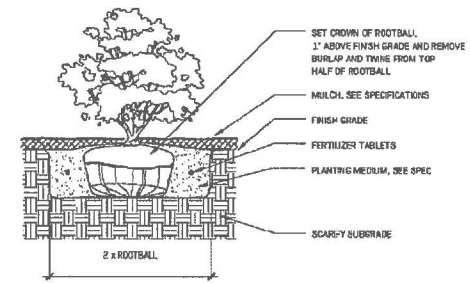
1 SOIL PROFILES
NTS



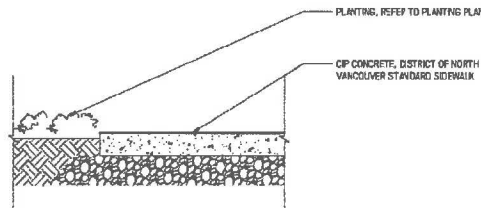
4 TREE PLANTING ON SLAB
NTS



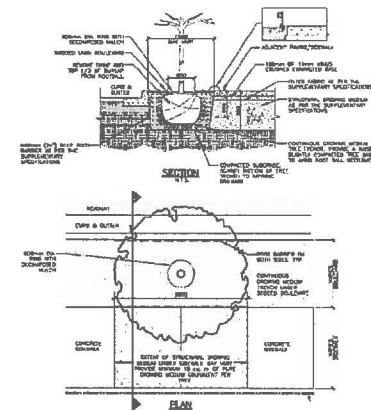
2 GROUNDCOVER PLANTING
NTS



3 SHRUB PLANTING
NTS



5 PLANTING AT SIDEWALK
1:10



6 TREE IN SODDED GRASS BOULEVARD
NTS

2 based on Revised CPM Meeting 21 Apr 2021
1 based on CPM Meeting 28 Apr 2020
No. 0400000000 Date

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ORWELL NON-MARKET HOUSING
267 Orwell St
District of North Vancouver

Landscape Details
PLANTING

Date: JUN. 20/20 Drawing Number:
Project No: 2822
Scale: as noted
Client: ORWELL HOUSING CO-OP

April 22, 2021

Darren Veres
District of North Vancouver Development Planning
355 West Queens Road
North Vancouver, BC
V7N 4N5

Re: Development Permit Issuance Requirements: 267 Orwell Street Affordable Housing Project

Energy and Water Conservation and Greenhouse Gas Emission Reduction Development Permit Area

Dear Darren,

Below please the description of proposed measures to ensure the compliance of the above-mentioned project with the Energy and Water Conservation and Greenhouse Gas Emission Reduction Development Permit Area guidelines. The project team is committed to delivering a project which ensures efficient use of materials and resources, and addresses occupant comfort and health.

Impact 2050

In line with 'Impact 2050: Community Energy and Efficiency Plan', the proposed Orwell Non-Market Housing project addresses the goals of the District in a variety of manners. This is underscored by the affordable housing typology which contributes the diverse housing mix, reducing the traffic into the neighbourhood, and by promoting the density and walkable targets of the Implementation Plan. The below-mentioned concepts result in a project which, in our opinion, meets the intent of the Emissions Plan in terms of energy reduction, achieves a low impact in terms of greenhouse gas emissions and is focussed on the health and mobility of residents.

Transportation

The project benefits from the proximity to the Phibbs Exchange which affords the residents easy alternatives to single-occupant vehicle travel. The walk to Phibbs Exchange is less than 5 minutes and offers connection to a range of bus routes. The infrastructural upgrades of the neighbourhood further connect the residents to improved cycling networks and pedestrian routes. In line with achieving 'denser and complete communities', the focus on the Lower Lynn Town Centre enables a walkable and engaged community.

The infrastructure of the building includes 68 parking stalls (adequate for the site location as informed by the Transportation Impact Assessment), which includes 6 accessible stalls. 20% of the stalls are designed with fully operational electric vehicle chargers and conduit infrastructure will be installed to provide for future expansion to 100%. 117 bicycle stalls are provided within the project and both levels of bicycle storage accommodate bicycle charging outlets.

Building and Energy Conservation

The mechanical systems for the project have been conceived to follow sustainability principles while delivering an affordable project for the community. These systems use renewable energy, electricity, for space heating and for most of the corridor ventilation needs. High efficiency gas-fired equipment is only used for domestic hot water generation. Each of the suites in this complex is provided with a high efficiency dedicated energy recovery ventilator that provides continuous ventilation to all the rooms in one suite. The combination of these features, plus a robust building envelope design, helps create a project that meets Step 3 of the Energy Step Code and uses only 6.4 kg of CO₂ per square meter per year.

The project is also required to meet the BC Housing Technical Guidelines which require the building to provide a comfortable environment for the users to avoid overheating of suites. This is achieved by selecting an appropriate double-glazing system (with performance criteria related thermal and visible light transmittance as well as solar heat-gain), in conjunction with the positioning of balconies, to provide

shading during summertime. The building openings allow maximum flexibility to users and the design promotes improved indoor air quality. The building envelope also includes external insulation and through the parameters of Step Code 3 minimises air leakage.

Step Code 3

The following statistics and considerations outline the approach which the team has taken in order to comply with Step Code 3.

- TEDI 84 achieved. 120 maximum required.
- TEUI 25 achieved. 30 maximum required.
- GHGI 6.4 achieved. N/A required.
- High window thermal performance. Window to wall ratio of 28%.
- Improved envelope thermal performance.
- Reduced lighting power density (LPD) in parking garage and non-residential area.
- Individual energy recovery unit (ERV) per residential suite.
- High efficiency condensing gas-fired heater for DHW (94% thermal efficiency).
- Low flow plumbing fixture to reduce domestic hot water demand.
- Electric baseboard for heating in residential suites.

Water Efficiency

- All plumbing fixtures throughout the building are proposed as low flow, to reduce water usage and energy consumption. Rainwater from roofs and terraces is retained on-site and slowly released to the District storm sewer, which reduces the impact on the District infrastructure.
- Potential Re-use of Rainwater

The project team has reviewed the request to reduce the demand on potable water by means of rainwater recycling for the irrigation system. Further to the items listed above in the approach to water efficiency, we do not recommend tying the irrigation system to the stormwater management system. In our experience this results in the creation of a separate irrigation water tank that remains full in the summer months when the rainwater tank is not full. It also requires a volume of water that is sized for an extended period of drought that often results in a tank size of approximately one parking stall and is therefore cost prohibitive. As the project is limited by the groundwater to a single level basement and the parking rate of 0.75 has already rationalised, it is not feasible to reduce the parking numbers further. The team recommends that the water management be addressed through drought tolerant planting, soil types and planter products that retain moisture in the soil and low-flow water efficient irrigation systems that reduce demand.

Solid Waste

The project is supportive of the solid waste strategies as outlined in the Emissions Plan. The recycling accommodation allows the new development to be tied into the District network to support waste diversion through bi-weekly collection and other initiatives.

Urban Forestry

The landscape design integrates into the Implementation Plan and contributes to the community wide urban tree canopy. By maximising the green space on the site, exterior amenities are located within a cool environment, allowing suites to look onto trees and a green space and reducing the heat sink typically produced by hardscape environments. 32 new trees are proposed to be planted on the site and 19 new trees planted to the upgraded sidewalk and bicycle lane interface.

We trust that this provides sufficient response to the energy, water and greenhouse gas reduction aspects of the project.

Sincerely,



Steve McFarlane Architect AIBC AAA FRAIC LEED® AP
Principal

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Virtual PIM: Q&A**When and how can we put our name on the list for low income senior rental housing in these buildings?**

We would expect that the waitlist would be open about 6 months prior to the anticipated completion of the building. This building is not designated specifically for low income seniors, but all applicants will be able to apply through BC Housing.

Please fully define what is meant by "below market rental."

The District uses the term "below market rental" to refer to a rental unit that is secured (by bylaw or legal agreement) to be rented at rates lower than what the same unit would cost in a traditional (market) rental building.

Specifically for this building, below market rental rates will be allocated as follows:

- 20% of units will be rented to people on social assistance, who will pay rent at "shelter rates" (which range from \$375 to \$660 per month, depending on family size).
- 50% of units will be rented to people whose annual income is below the Housing Income Limits (HILs) for the applicable unit size. In 2019, the HILs were \$51,500 for a 1-bedroom unit, \$63,000 for a 2-bedroom unit, and \$90,500 for a 3-bedroom unit. Rents in this category will be geared-to-income, so that tenants pay 30% of gross annual income on rent.
- 30% of units will be rented to people with annual incomes up to \$71,200 for 1-bedroom units, or up to \$104,440 for 2- and 3-bedroom units. These tenants will pay a flat rent ranging from about \$1,650 per month for a 1-bedroom unit to \$2,450 per month for a 3-bedroom unit.* (*Numbers are based on 2019 figures)

Could consideration be given to adding some 4-bedroom units for larger families whose income is below housing income levels?

The development team has looked carefully at different scenarios for including 4-bedroom units. All scenarios result in a decrease in building efficiency due to higher construction costs per unit and / or the loss of overall number of units, resulting in increased operating and capital costs. In a project where affordability for tenants is paramount, we need to maximize efficiency to keep rents down.

What financial contribution is required by the District of North Vancouver at the start and on an annual basis?

The District of North Vancouver anticipates supporting this project in the following ways:

- DNV is providing the land at a nominal fee of \$10/year
- DNV is funding a portion of the required professional reports to support the project including an arborist report, environmental assessment, and geotechnical report
- DNV has waived the typical application fees for the OCP Amendment, Rezoning, and Development Permit
- DNV will consider waiving the Building Permit fee should the rezoning be supported by District Council

- District Council will consider a waiver of the applicable Development Cost Charges at the time of consideration of the OCP amendment and Rezoning Bylaw
- The non-profit society operating the units may apply for a property tax exemption, which would apply on an annual basis

How much allowance will be in place on the north side of your building, between the actual wall and the fence presently separating the buildings in place?

The setback on the north side of the building is proposed to be 3m (9.84 ft). The architect has considered the relationship with the property to the north and has designed the building without balconies on the north side and focused the views from those units to the east and west.

What are the hours and days of operation?

The District's Noise Bylaw regulates construction noise and is permitted from 7am-8pm, Monday to Friday, 9am-8pm on Saturdays, and not permitted on Sunday. <https://www.dnv.org/bylaws/noise-regulation-bylaw>

When would construction start?

It is anticipated that the project will be brought to Council for Bylaw consideration in late 2020. If the Bylaws are adopted and a Development Permit issued, then the project would proceed to a Building Permit. It is expected that construction would begin mid-2021.

What are the plans for construction parking? There's already an issue with parking in the area from construction workers.

The applicant has submitted a construction management plan with their application which is under staff review. This plan notes that Construction parking is currently being arranged by their contractor who are exploring opportunities with local businesses and churches to accommodate construction parking. Workers will be shuttled to and from parking locations.

What is the mix of apartments, 1-bedroom, 2-bedroom etc.?

The unit mix is 52 one-bedroom, 27 two-bedroom, and 11 3-bedroom

What additional fees apply, e.g. for parking, storage and utilities?

Additional fees will apply to the following:

- Parking – currently proposed to be \$60 per month for those tenants who require parking
- Hydro - to be paid by tenant (exception is for social assistance tenants, in which case hydro is included in the rent as required by BC Housing)
- Internet, phone, cable, etc. - to be paid directly by tenants to communications service companies
- Laundry - pay per load in shared facility (amount to be determined). It is anticipated that three-bedroom units will have in-suite washer/dryer

There will be no additional charges for:

- storage or bike storage
- hot water

What is the rationale for balconies? The building is located metres from a bus terminus which generates a huge amount of dust, diesel fumes, other exhaust etc. In addition, concrete balconies have another problem which is that they are a conduit for energy escape from the building increasing operating costs.

Balconies are generally considered a desirable design feature and are encouraged in the District's development permit guidelines as they provide people access to outdoor space from their own units. Neighbouring buildings in the area, including the Lynn Creek Apartment on the south side of Oxford Street have balconies. Balconies on the east side of the building are approximately 45 metres from the nearest bus bay, and while there may be some impacts arising from Phibbs Exchange for the proposed east-facing balconies, these impacts would be expected to vary during the day and all tenants will have the option to take advantage of access to a private balcony space.

In regard to the concern of dust, the bus loop is paved so the applicant team and staff are not overly concerned regarding this impact on these balconies. The applicant team acknowledges there may some impacts arising from transit vehicle exhaust which would be true on any project built adjacent to a major road

Regarding the concern around energy escape and operating costs, the building is wood frame construction and the applicant team notes that properly detailed balconies in wood framed buildings do not have a large impact on the energy performance of the building. Any heat loss through the balcony would be made up elsewhere in the design to ensure the project is still meeting energy modeling targets, which will be the same whether or not balconies are included. The balconies also act as shading for the glazing in the units below, thereby reducing heat gain in the summer.

Will the District be covering the costs for the adjacent pedestrian and bike way improvements? I've heard that typically developers pay for the cost of sidewalk and bike path upgrades in the immediate area, so if this is a non-profit venture, how do the improvements get funded, or do they just not happen?

Typically BC Housing projects include improvements to the area the immediately adjacent to the site. In this case, it is anticipated that a pedestrian connection, lighting, and bicycle path in the immediate area would be constructed as part of the project. BC Housing would not typically pay for improvements beyond the immediate area as any additional costs end up reflected in the rents and the ongoing operating subsidy.

I'd like to see included in the application the District's plan for Orwell Street in the immediate area, and the pedestrian and cycling infrastructure planned for making this block accessible and safe for its residents to get to and from, especially if they aren't driving.

Improvements in the Lynn Creek Town Centre are set out in the Lower Lynn Implementation Plan and Lynn Creek Town Centre Public Realm Guidelines (available here: <https://www.dnv.org/property-and-development/lynn-creek-town-centre>) and further details in the District's Development Servicing Bylaw.

Virtual PIM: Comments

1. We strongly support this project. It creates direly needed non-market and affordable housing through a strong partnership. Given the local area context, its development capacity and the strong demand and need for affordable housing on the north shore, the City should entertain providing greater density to the proponent.
2. Great project, but it's missing the \$105k-\$200k spectrum, and has no 4 beds, and I suspect the units are very small. This falls significantly short of the quality of life enjoyed by home owners.
3. Will there be other parks proposed in the area? I know there is Seylynn Park but it is difficult to access since the sidewalks especially on the East side of Mountain hwy between Rupert and Crown are not stroller or wheelchair friendly.

From: [REDACTED]
Sent: September 11, 2020 8:50 PM
To: Casey Peters
Subject: 267 & 271 Orwell Street

Follow Up Flag: Follow up
Due By: September 15, 2020 4:00 PM
Flag Status: Flagged

Dear Casey,

I wanted to send you a letter of support for 267 & 271 Orwell Street.

OMB is a fantastic choice by the applicant team, and they have put together an excellent, attractive proposal for a project that will have very tight budgetary constraints. This is a good, highly accessible location for transit oriented development, and an opportunity to increase the housing stock on the north shore for residents who desperately need it. The north shore has a disproportionate number of great people that don't have access to housing and this project fulfills that need in a location that does not have any adverse impacts to adjacent neighbourhoods or sensitive areas. I hope the District will approve in a timely manner so that housing dollars will be spent on the north shore in our community instead of across the water. This is a huge opportunity for mayor and council to reinvigorate this neighbourhood and bring in more jobs and tax dollars to the district while doing the right thing by providing below market housing.

Please approve this one!

Regards,

[REDACTED]

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