

BY the BAY**1289 Nicola, Vancouver BC**

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DESIGN RATIONALE

This site is currently zoned RM-5A which permits a variety of residential developments. The intent of the zoning is to permit development compatible with neighbouring development with respect to streetscape, character, open spaces, view retention, sunlight access and privacy.

Site Description

The site is a corner site fronting on both Harwood and Nicola Street. It is not serviced by a lane. The site slopes upwards about 5' – 8' towards the north and also about 5' towards the east. There is a concrete wall along the north property line which encloses the parkade on the adjacent site that is about 10' above the existing grade on the site. An existing stone retaining wall straddles the property line between the lot and the street along Harwood which needs to be preserved to retain the existing cedar at the south-east corner of the site. The location has access to local services and is only one block away from English Bay.

Project Description

We are proposing to construct a five storey residential building with a mezzanine for the penthouse level to access a roof deck. There are a total of 13 residential units, 2x studio, 3x 1-bedroom, 7x 2-bedroom and 1x 3-bedroom, plus 894sf of amenity space located on the main floor. Eight of the units are 2 or 3 Bedroom family units and have usable outdoor balconies or patios.

The ground floor units, 2 studios and a 2 bedroom, are for rental tenancy replacing existing rental units on the property.

The Project is located on a corner site and forms a 5 storey street wall, which is in scale with the surroundings. The entry of the building faces Nicola Street, expressed with a classical canopy for rain protection and to provide an appropriate transition from the street into the building.

Common areas for the residential tenants, are located on the main level towards the south/east and north/west corner. They include an entrance lobby, a common room with access to a patio and a bike storage room.

Additional bike storage is located in the parkade, which can be accessed via the ramp. There are also storage lockers on the parkade level for each unit. In suite storage areas have also been provided.

The balance of the perimeter interface is landscaped to provide screening and privacy for the outdoor areas and decks.

We are planning to use non-combustible construction methods and are pursuing Passive House levels of energy efficiency

Context

A 9 storey hi-rise tower flanks the site to the west. It is positioned towards the front of the lot with the rear yard used for parking off the lane. It has minimal glazing on the side facing the site. Underground parking for this lot is accessed off of Harwood.

A 4 storey building is located on the lot immediately north/east of the site. It is located quite close to the lane and has a courtyard on the southwest portion of the site. Some living rooms and other spaces in this unique design look across the courtyard to the project site. The neighbouring building was not

originally designed to meet the Horizontal Angle of Daylight provisions in the current bylaw, which calls for 24m of unobstructed view, relaxable by the Director of Planning to 6.1m. It has many ground floor living rooms looking into very small courtyards that would not be approved today but are actually quite charming and very livable. The bylaw has the following definition of an obstruction for this provision:

4.10.5 An obstruction referred to in section 4.10.2 means:

- (a) any part of the same building including permitted projections; or
- (b) the largest building permitted under the zoning on any adjoining site.

This provision identifies that a design should not place undue hardship on an adjacent site with regard to meeting horizontal angle of daylight provisions. That being said we have increased the setback beyond the minimum of 2.1m to 3.4m, which gives an unobstructed upper courtyard with of 12.9m (42'4") and left a sizable gap of 10.8m (35'-6") to the west to improve the feeling of openness. We have also eliminated overlooking windows to protect privacy and landscaped the vertical wall face to improve its visual characteristics as the edge of the neighbouring courtyard.

The east portion of the neighbouring building fronting Nicola is set very close to the side abutting property line and has minimal windows on the south façade so the impact in this area is negligible.

Parking Access

The site is not serviced by a lane. We are proposing the parking access be off of Harwood towards the west end of the site. This is the low portion of the site, which reduces the ramp length and keeps it away from the intersection. The vehicular entrance has been carefully positioned to preserve the street trees.

Electrical Service

We want to avoid installing a PMT/LPT due to the efficient design of passive house projects. The feasibility of this strategy will be confirmed with City Staff and BC Hydro. Alternatively, we propose to install a private PMT in the northern corner of the site, this strategy is currently reflected on our drawings.

Massing and Building Organization

We have located the building towards the east end of the site to reinforce the corner and preserve as much light as possible into the neighbouring courtyard to the north/east.

- We are proposing front yard setback (towards Nicola St.) to the east property line of 3.22m (10'-7"), which is in keeping with the setback of the existing building to the north. The front yard requirement in the zoning bylaw is 3.7m so we are requesting a slight relaxation.
- The south property line (along Harwood St.) is governed by the exterior side yard setback requirement of 20% of the lot width, which is 3.414m.
- The north property line (towards our neighbours at 1219 Nicola St.) is an interior side yard and has a setback of 2.1m. We have increased the setback to 3.4m (11'2") opposite the neighbouring courtyard.
- The building is set more than 8.4m (27'6") from the west property line towards 1555 Harwood St. to provide light to the neighbouring courtyard.

The organization within the building with service and circulation spaces to the north allows us to minimize privacy concerns related to overlooking as much as possible. There is one bedroom window set back behind a deck to screen the view into the neighbour's courtyard at the penthouse level. The

penthouse unit has a small mezzanine, to provide access to the roof deck. The elevator does not stop at the mezzanine level to allow us to reduce its impact on the massing.

Height

The maximum height in the bylaw is 18.3m (60ft). The director has the authority to relax this height to 58m (190ft), provided the environmental quality of the surrounding neighbourhood is not unduly harmed. We are requesting a relaxation of height to 20.1m (66ft) to accommodate the penthouse mezzanine roof access, which we have integrated into the roof. The height envelope in the bylaw has reduced heights at the south and north faces of lots extending from street to lane. We have shown this envelope on our plans but given the context we think the relaxations in the sloped part of the envelope, which we request to improve the relationship to the project to the north is reasonable.

Floor Space

R-M5A permits a Floor Space Ratio of 1.5 on sites of this size. The zoning anticipates greater densities on corner and larger sites. This is a corner site. Our client intends to exercise the Heritage Density Transfer provisions in the bylaw, which allow a density increase of up to 10% (applied to base zone FSR) as well as the passive house density increase of 5% (applied to base zone FSR) for a total max. floor space ration of 1.73 for this project.

Sustainability

We are proposing to design the building to the Passive House standard. Each unit will have its own HRV and overheating will be addressed through a combination of low solar heat gain glazing and exterior shading devices integral with the windows, if required. A heat pump will provide heating and cooling to each suite. Hot water will be provided using a central CO2 based heat pump system. Supply and recirculation lines will be highly insulated to increase efficiency and lessen the effects of overheating.

Water Efficiency

Toilets will be 1.3gpf or dual flush. Flow rates will be will 1.75gpm for showers and 1.5gpm for lavatory faucets. Dishwashers, clothes washers and dryers will be Energy star compliant..

Materials and Resources

We are exploring using insulated concrete forms (ICF), which consists of modular EPS panels of various thicknesses that are assembled with plastic ties to create a stay-in-place concrete form with continuous insulation. Waste will be minimized and 75% what is generated will be diverted from the landfill.

Exterior Materials

The aesthetic of the building merges classic and contemporary elements. We are using an urban material pallet combining the durability and visual permanence of cementitious finish and standing seam roofing with the contemporary aesthetic of dark grey windows and guards. The exterior insulation with the cementitious finish is used throughout the entire building. The standing seam metal roof cladding is angled to lower the visual scale of the building, improve the project proportions and create a classic French mansard style aesthetic, which is desired by our client. Window surrounds are highly articulated. Balconies break up the building massing, create visual interest and provide generous outdoor spaces. The lobby glazing has slightly heavier framed columns between panels to support the

higher spans of the windows. The main entrance door will be a highly detailed custom fabricated passive house quality wood door.

Landscaping

We have included a tree survey and Arborist Report. There are a number of trees just inside the retaining wall on the south side of the site. The arborist report has indicated they are a poor species for retention but did cite a mature cedar in the south-east corner which should be preserved. We have stepped the parkade back in this corner of the site to clear the drip line. All street trees on city property will be protected and preserved.

Perimeter fencing is a combination of concrete and picket fence in a powder coated charcoal colour. The majority of the landscaped ground plane is given to greenery and the outdoor decks.

Planting will be layered, with four-season interest. Safety and sightlines will be part of planting layout for hedging and trees. Landscape lighting will be integral to the scheme. Trees will be chosen for ornamental attributes, maintenance requirements and mature size/scale relative to narrow spaces and relatively confined root growth areas. To the front we will provide accent planters at the entries to make for a more pleasant streetscape. Rooftop planting features gardening boxes to reduce overlook to the neighbours.