

# 1519-1525 BELLEVUE AVENUE RECONSTRUCTION WEST VANCOUVER, BC



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SUBMITTED FOR DEVELOPMENT PERMIT APPROVAL  
SEPTEMBER 29, 2011

RE-SUBMITTED FOR DEVELOPMENT PERMIT APPROVAL  
WITH INCLUSION OF DRC COMMENTS  
JANUARY 03, 2012

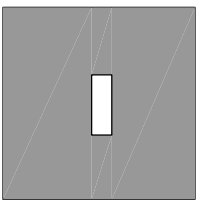
contact



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COVER



The proposed development of 1525 Bellevue Ave. consists of a reconstruction of the wood framed 2nd and 3rd residential floors and a renovation of the main floor concrete commercial structure.

The reconstruction will replicate the existing strata lots 1 & 2 that are designated commercial and are located on the main level, s.l. 3 - 8 are 2 storey residential suites occupying levels 2 & 3. While the entry lobby, elevator, exit stairs, vestibules and corridors will be refitted, their reconstruction will be in their present locations. The parking garage is on the main level and accessed from the north side laneway and will remain unchanged except for the replacement of the garage door.

The necessity for reconstruction of the 2 residential levels is required because of building waterproofing failure and moisture ingress has created serious problems associated with improper construction and poor workmanship.

The reconstruction is one of necessity, not one of luxury. The owners / residents of the existing building are faced with continuously increasing building performance issues such as; structural damage due to water leaks, dry rot, potential health issues from mould and mildew and unsightly visual staining on the building's interior and exterior. The current zoning would allow for a 3 story mixed use development which the existing structure is classified as. While current bylaws would allow additional height the redesign has not exceeded the maximum height of the existing building. the building will not change its footprint on the site or modify any of the existing setbacks.

This building was originally designed in 1988 and has since experienced significant Building envelope failures. The strata council has decided to demolish the top two floors and rebuild, leaving the main floor stairs, elevator, street retail and parking garage which are built in concrete intact.

The 'new' building takes into account the District of West Vancouver's Ambleside design guidelines and OCP policies. The design team has developed a concept that created a sophisticated, high quality building with a cutting edge appearance. The vocabulary of the building is in response to its low mass setting and extraordinary views of the Burrard Inlet and the activity within it.

The building envelope displays a uniformity of materials with the alucabond metal panel rainscreen system in 3 complimentary finishes: alabaster cool, down grey & cedar finish accents. the base level will be a local BC granite know as crystal white.

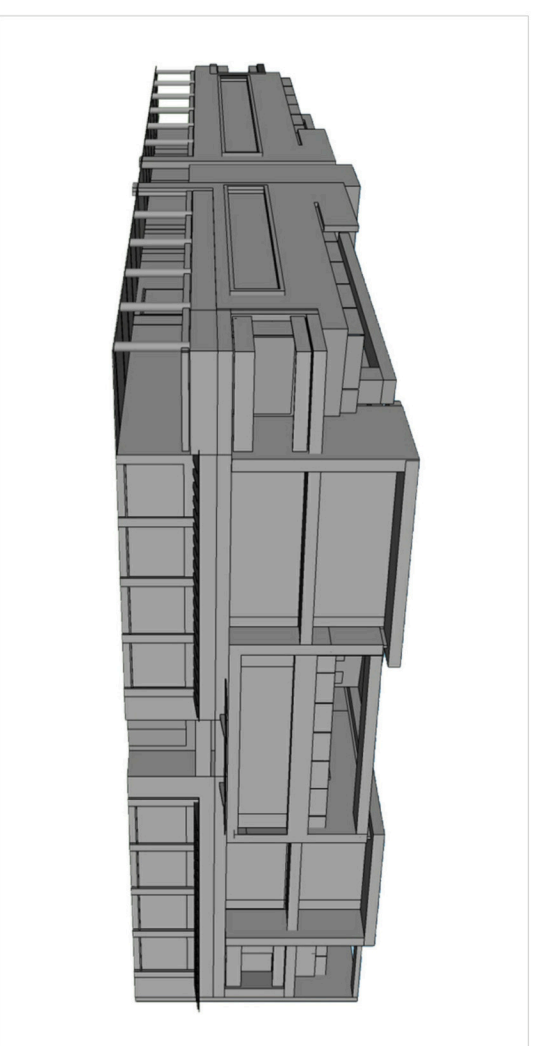
The building form and character will set the tone for the new look of the Ambleside community and seek to inspire a continuity in the revitalization of the district. Working closely with the Planning department and the strata council to provide street enhancement which is also under consideration for Bellevue Avenue.

The west side of the building's bordered glazing elements are punctuated by a strong entry that defines access for the residential units while the south facing commercial units with its granite facade and glass canopies make walking on Bellevue avenue a pleasant experience.

The rear of the building responds the concerns of the district that the lane is not just a service route. This building will set standards for future developments and has an equally strong design statement as the front, complete with low level planters and screening greenery that provides a contemporary expression to the laneway.



existing building



proposed building

municipality West Vancouver municipal hall  
750 - 17th street, West Vancouver

project description existing 3 storey mixed use building  
main floor - commercial and parking  
second / third - residential units  
reconstruction of existing residential strata lots on upper floors. renovation of main floor commercial and parkade area. renovation and upgrading of exterior facade.

legal description strata lots 1 - 8, district lot 237, strata plan vr2308

civic address 1519 - 1525 bellevue avenue, district of West Vancouver

referring regulation development permit No. 87-54

ocp guidelines as per Ambleside village centre design guidelines

site area 1.061sm (11,420 sf)

site dimensions as per survey

south 28.55m ( 93.66ft )  
north 28.64m ( 93.96ft )  
west 38.314m ( 125.70' )  
east 38.051m ( 124.84ft )

building setbacks existing + proposed

south 0 m (0ft)  
north 1.8m (5.9ft)  
west 1.7m (5.6ft)  
east 0 m (0ft)

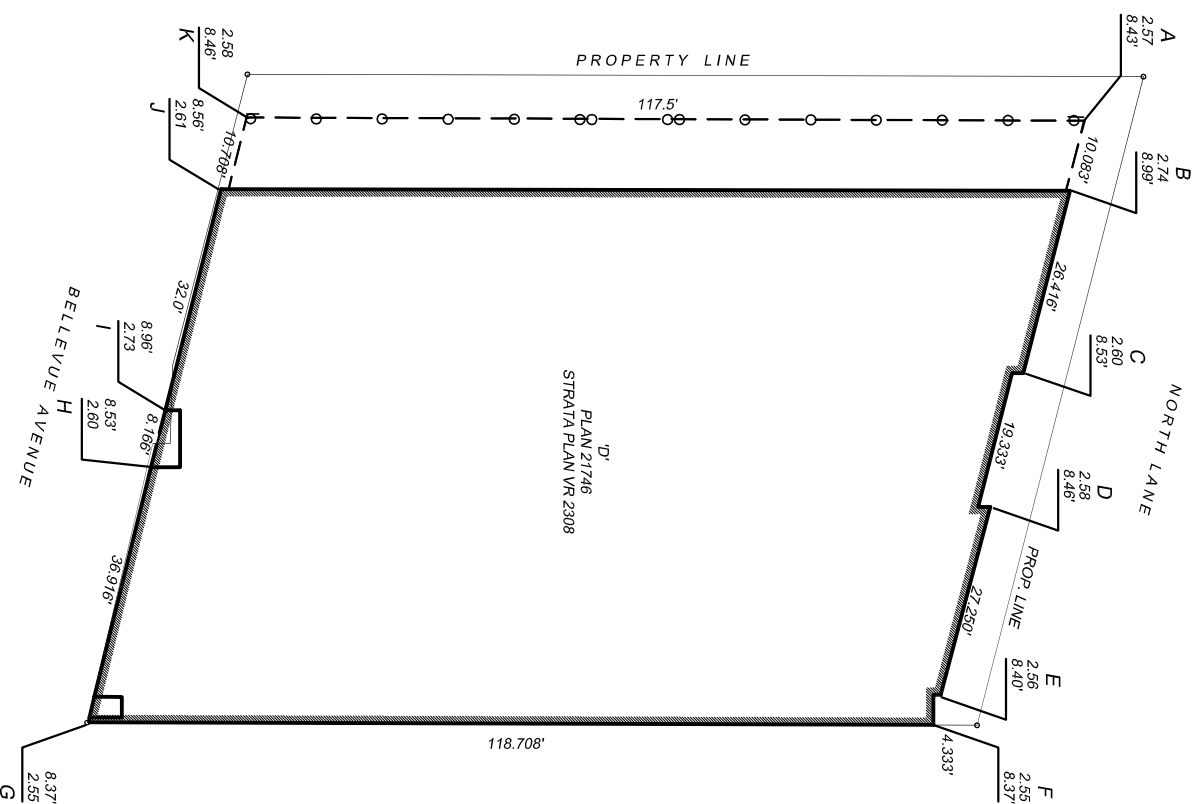
building height	existing + proposed 9.26m (30.38ft)		
floor area ratio	1.09*		
parking	existing + proposed 18 stalls		
level 1 - commercial	unit areas		
s.l. 1	207sm ( 2,229.3sf )		
s.l. 2	23.9sm ( 257.3sf )		
sub total	231.0sm (2,486.5sf)		
level 2 & 3 residential	unit area level 2	unit area level 3	totals
sl3	184.82sm ( 1,989.5sf )	23.27sm ( 250.5sf )	208.09sm ( 2,240.0sf )
sl4	107.07sm ( 1,152.6sf )	28.28sm ( 304.5sf )	135.36sm ( 1,457.1sf )
sl5	114.10sm ( 1,228.3sf )	17.99sm ( 193.7sf )	132.10sm ( 1,422.0sf )
sl6	99.78sm ( 1,074.1sf )	16.12sm ( 173.6sf )	115.91sm ( 1,247.7sf )
sl7	160.60sm ( 1,728.8sf )	24.82sm ( 267.2sf )	185.42sm ( 1,996.0sf )
sl8	137.71sm ( 1,482.4sf )	14.42sm ( 155.3sf )	152.14sm ( 1,637.7sf )
sub total	804.11sm ( 8,655.7sf )	124.93sm (1,344.8sf )	929.04sm ( 10,000.5sf )
total	-	-	1,160.04sm (12,487.0sf )

\* note:  
existing building was constructed under development permit No. 87-54

average finished grade:  
perimeter values taken from Chapman Land Surveying Ltd. drawing

zoning bylaw  
no. 4662, 2010  
District of  
West Vancouver

maximum building height 3 storeys or 11.3m (37.07')



ROOF = 11.10-11.30 AS NOTED

MEZZANINE FLOOR = 8.74



surveyed levels  
of existing building =  
8.75m (28.70')  
top of building  
elevation = 8.75m  
+ 2.55m = 11.30m  
(37.07')

AVERAGE FINISHED GRADE CALCULATIONS					
LEVEL A	LEVEL B	AVERAGE A+B	LENGTH AB	AV x LENGTH=	
A - B	8.43	8.99	8.71	10.08	87.82
B - C	8.99	8.53	8.76	26.42	231.40
C - D	8.53	8.46	8.50	19.33	164.23
D - E	8.46	8.40	8.43	27.25	229.72
E - F	8.40	8.37	8.39	4.33	36.33
F - G	8.37	8.37	8.37	118.71	993.59
G - H	8.37	8.53	8.45	36.92	311.94
H - I	8.53	8.96	8.75	8.17	71.41
I - J	8.96	8.56	8.76	32.00	280.32
J - K	8.56	8.46	8.51	10.71	91.13
K - A	8.46	8.43	8.45	117.50	992.29
			411.413	3490.18	
<b>AVERAGE GRADE= SUM OF COL F / SUM OF COL E=</b>				<b>8.48</b>	

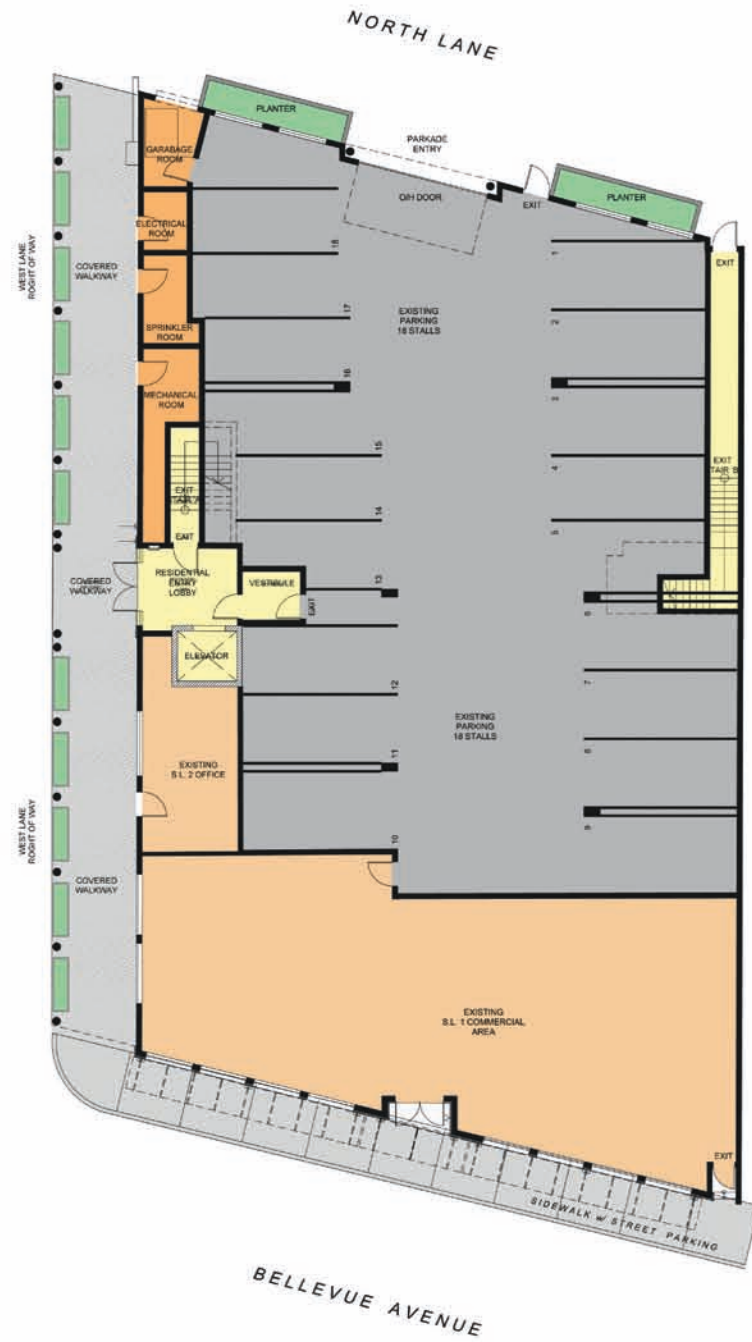
maximum building height of 3 storeys or 11.3m (37.07')  
+ 8.48' would allow a structure up to the elevation of  
13.88m high (45.55')  
new proposed building height elevation  
= 9.25m (30.375') + 2.55m (8.48') = 11.8m (38.74')

the new building does not exceed the height of the  
existing peaked skylight. refer to dwgs A4.0/1/2 &  
A5.1/2 for full datum strip information

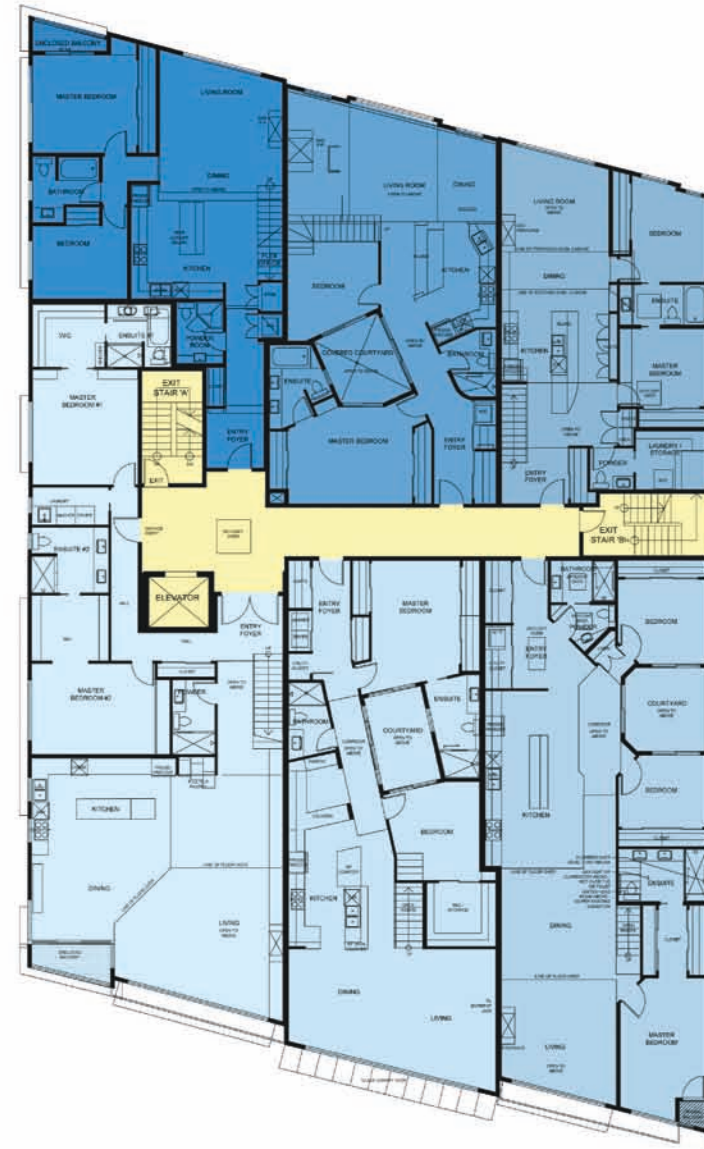
project statistics

4

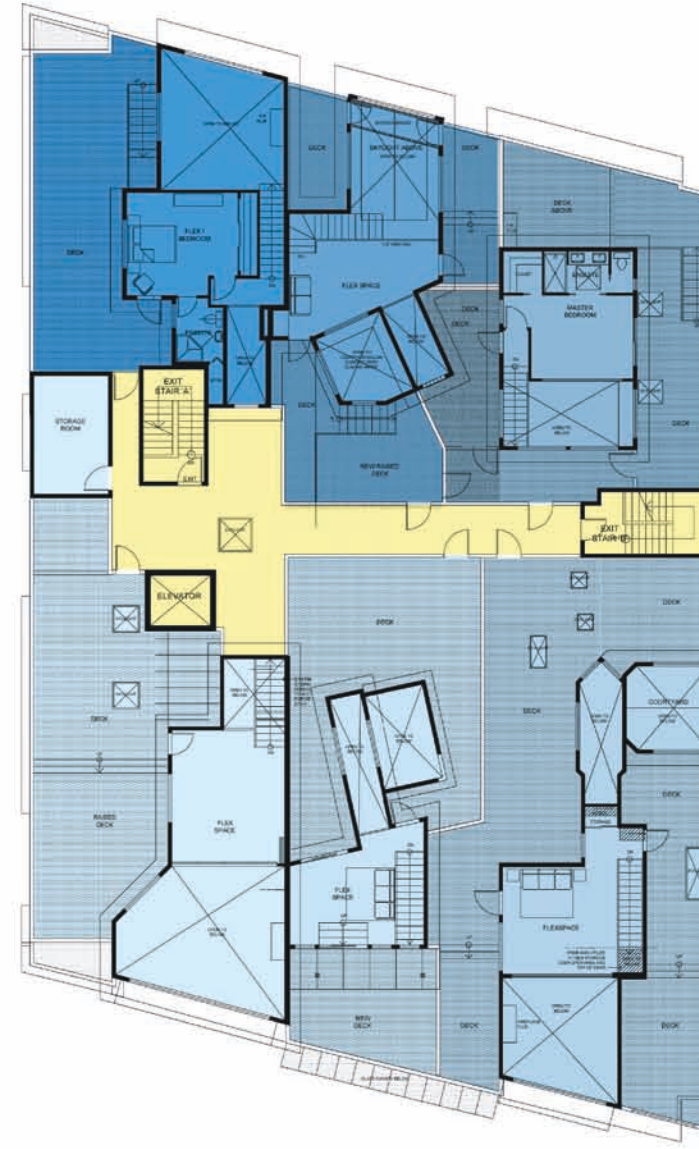
main level



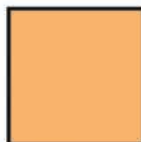


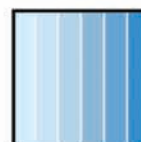


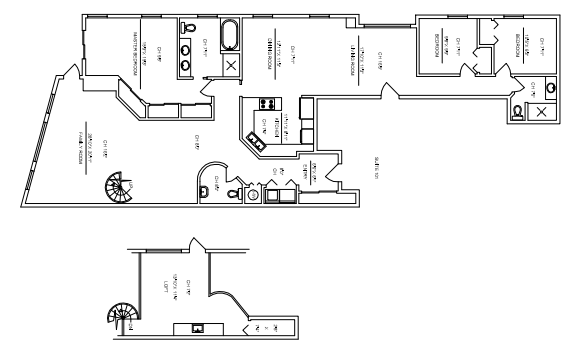
second level



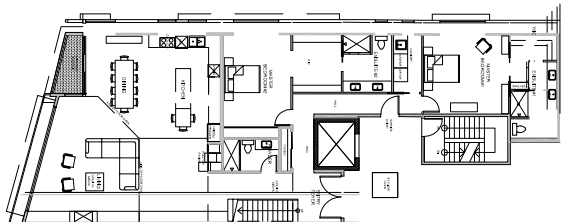
third level



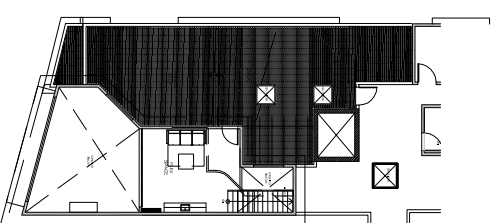
-  commercial / retail space
-  parkade
-  service and utilities
-  circulation and exiting
-  revitalized planters
-  residential suites



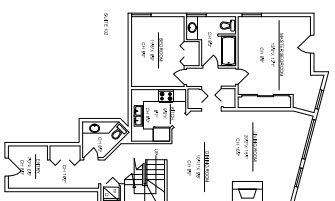
existing  
level 2 / 3



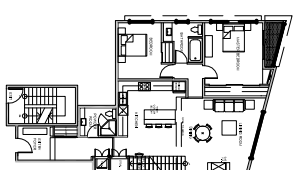
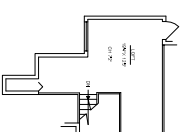
proposed  
level 2 / 3



strata lot 3 - #101



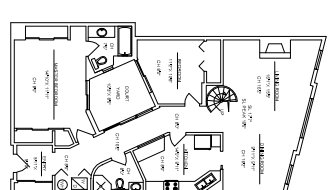
existing  
level 2 / 3



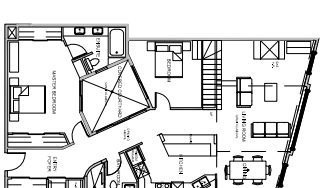
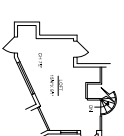
proposed  
level 2 / 3



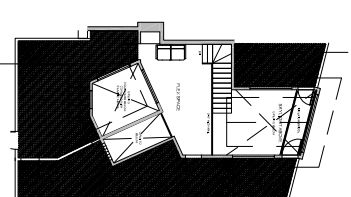
strata lot 4 - #102



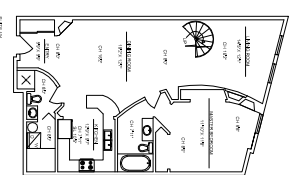
existing  
level 2 / 3



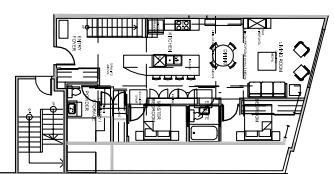
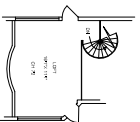
proposed  
level 2 / 3



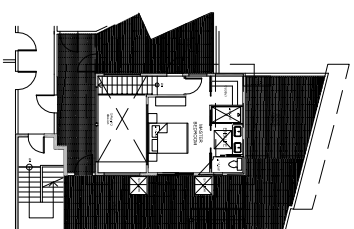
strata lot 5 - #103



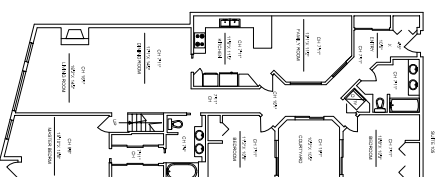
existing  
level 2 / 3



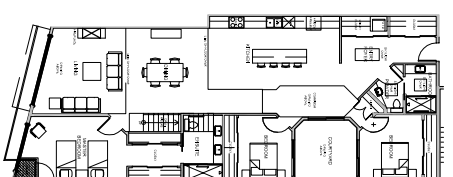
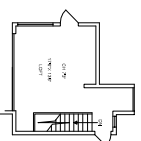
proposed  
level 2 / 3



strata lot 6 - #104



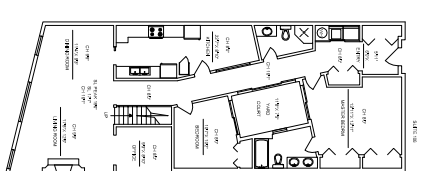
existing  
level 2 / 3



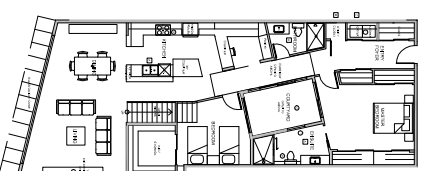
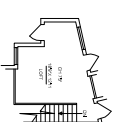
proposed  
level 2 / 3



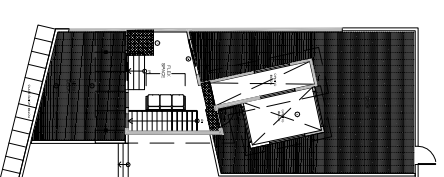
strata lot 7 - #105



existing  
level 2 / 3



proposed  
level 2 / 3



strata lot 8 - #106

south side



west side



built form + design

**FNDA**  
architecture | planning | interiors

8

north side



**FNDA**  
architecture | planning | interiors

built form + design

9

south side



existing

north side



existing

northwest corner



existing



proposed

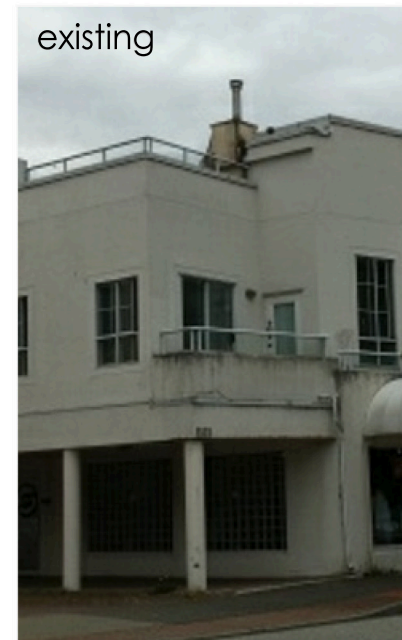
proposed



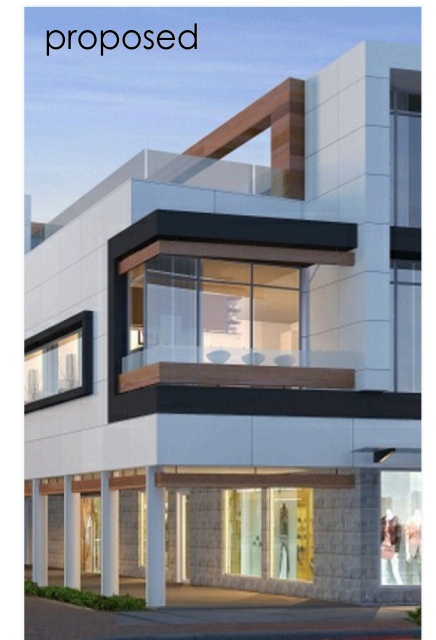
proposed



southwest corner



existing



proposed

west side



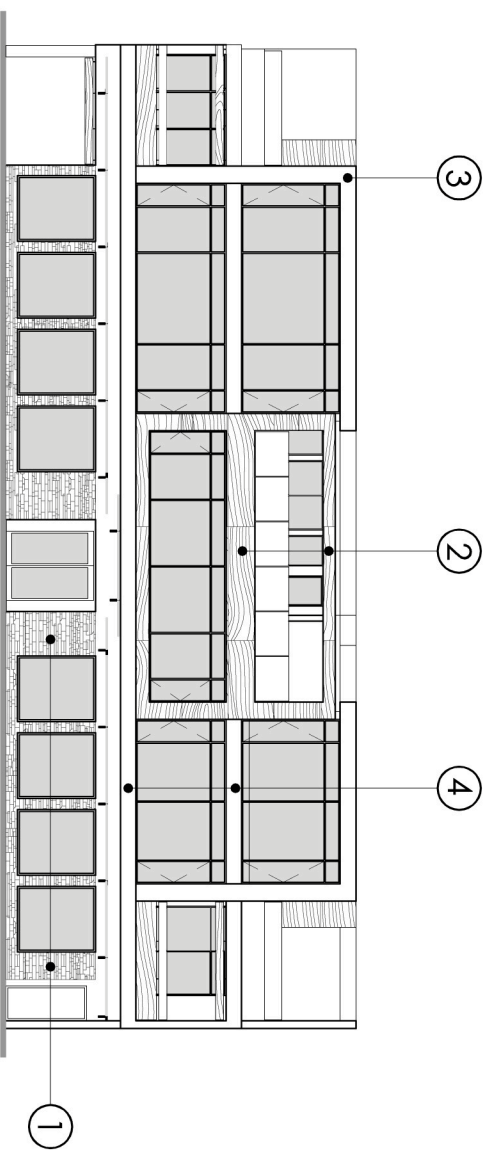
existing



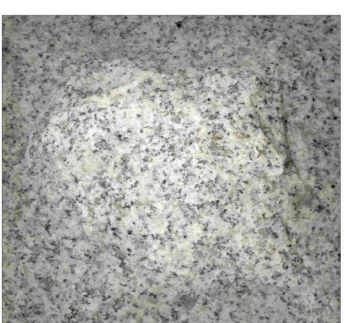
proposed

In keeping with West Vancouver's OCP and Ambleside Village Centre guidelines FNDA has proposed an architecturally distinct solution that has to utilize the existing base form. The strata lots are defined and confirmed thru surveying so the envelope for each unit is fixed. To provide each owner with a rebuilt suite that is identical in square footage as the original unit they purchased, FNDA has taken care to best accommodate both the owner and regulatory requirements with their design. With a "give and take" strategy within each suite, minor area adjustments have been utilized. this provides owners their entitled space, minimized street side building mass and introduces articulation and setbacks to the building faces.

south face - belleve avenue



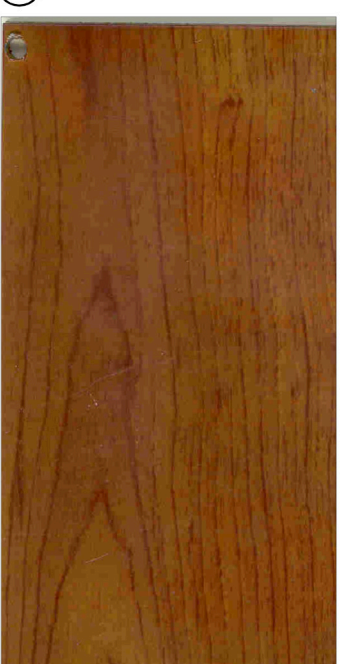
\*refer to material board for actual material colour



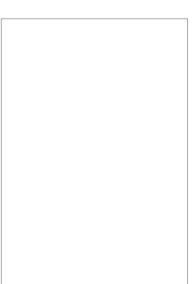
①

②

granite ( crystal white )



dark cedar



③

Albaster cool

④



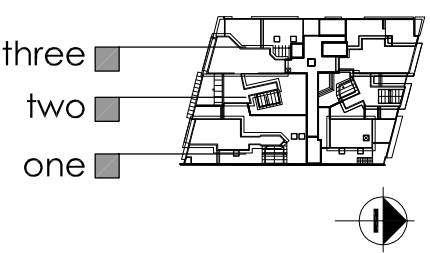
down gray

The size of the site and the existing building footprint leave minimal space for additional landscaping other than what was originally incorporated. There are existing in ground planters along the building face on the north lane side which will be upgraded and planted with non-evasive bamboo. The covered walkway will incorporate a planting strip along the exterior column side. As the building is primarily a residence, public and amenity space is limited to the covered walkway connecting Ambleside lane to Bellevue

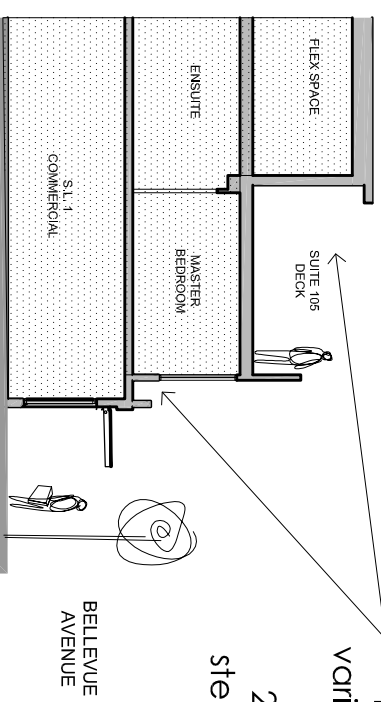
Ave. The commercial storefront will have continuous coverage from a glass and metal canopy. Exterior finish materials will be restricted to 2 types. The first will be a BC granite ( crystal white ) that will be applied to the perimeter of the main floor level. The second material will be a hi-end metal rainscreen panel system in 3 different finishes

- Albaster cool
- down gray
- dark cedar

building face sections  
thru each Bellevue Ave.  
south facing suite

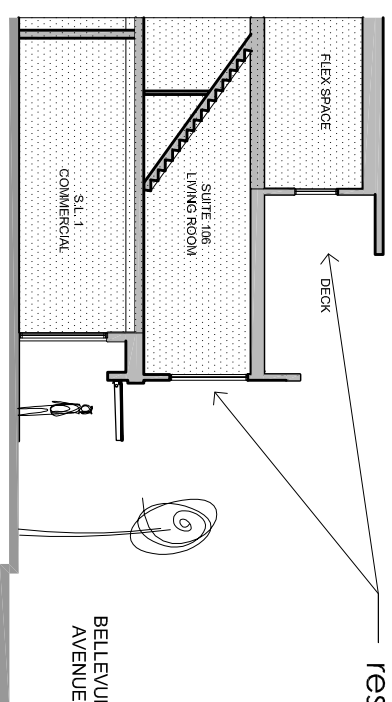


recessing and  
varied expression  
2nd + 3rd floor  
stepping parallel  
to main street



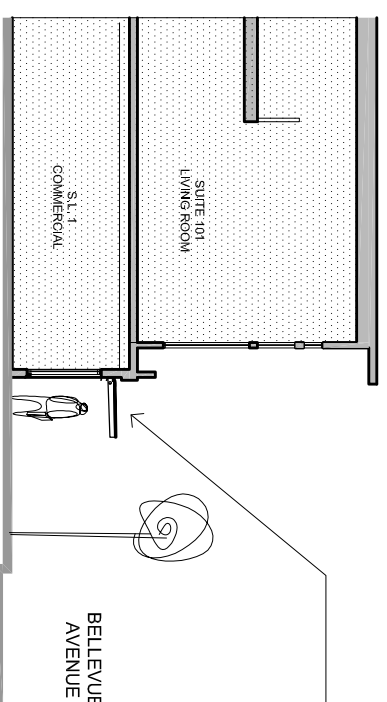
one

residential levels



two

continuous  
coverage



three

Commercial and Mixed use guidelines incorporated into design:

- upper floors step back from property line
- architecturally distinct features
- varied expressions with recessing and overhangs
- commercial and residential spaces are handicap accessible
- main floor exterior to be BC granite with 2nd + 3rd levels light toned metal panels by North Vancouver manufacturer
- parkade access at north side lane
- rear of building articulated similar to front
- full and continuous coverage with glazed canopy along Bellevue Ave.
- garbage and recycling located on north side lane
- small scale retail
- recessed rooftop equipment
- integrated signage
- covered public thoroughfare from amble side lane to Bellevue
- balcony and rooftop garden space provided

## GREENING YOUR HOME & PROPERTY: CHECKLIST

Please attach any additional comments and/or documentation if pertinent.

What is your target ENERGYGUIDE rating?

Have you scheduled your ENERGY AUDIT?  If YES, Indicate Date Here: \_\_\_\_\_

**PLEASE CHECK YES OR NO:**

BUILDING ENVELOPE	YES	NO
<b>INSULATION:</b> 2 x 6 wall construction and high-density batt insulation to achieve In-wall-cavity insulation value of RSI 3.85 (R22)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>WINDOW PERFORMANCE:</b> Maximum thermal conductance (U value) of 2.00 W/K•m <sup>2</sup> [Energy Star labelled]	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>ENERGY EFFICIENCY</b>		
<b>LIGHT FIXTURES</b> Install fixtures that do not accept incandescent or halogen bulbs in all non-living spaces (e.g. hallways, storage areas, patios, etc).	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>ENERGY CONSUMPTION DISPLAY</b> Energy usage display meter capable of calculating & displaying electrical consumption on at least a monthly basis.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>FIREPLACES</b> [No wood burning fireplaces.] Gas-fuelled fire places have electronic ignitions; are direct vented.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>HOT WATER</b> Electronically powered hot water tanks are insulated to provide min RSI 1.75 <b>OR</b> on-demand hot water heater is installed.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>BUILDING ORIENTATION</b> Building is oriented for solar design and/or supports passive solar heating. See Ideas Sheet for details.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>WATER CONSERVATION</b>		
<b>FIXTURES &amp; TOILETS</b> Low flow water fixtures, including dual flush design toilets, with max single flush consumption of 6 Litres.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>INDOOR ENVIRONMENTAL QUALITY</b>		
<b>HEAT RECOVERY VENTILATOR</b> Installation of a heat recovery ventilator. (Certified by a HRAI or HVC certified installer to meet CSA standards.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>CONSTRUCTION WASTE MANAGEMENT</b>		
<b>WASTE MANAGEMENT PLAN</b> Construction waste mgmt plan prepared and submitted. Target min 50% waste reduction; diversion rate to be documented, with disposal receipts.	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Document # 425985v1

"FUTURE PROOFING" YOUR HOME	YES	NO
<b>PRE-PIPE FOR ROOF MOUNTED SOLAR</b> Vertical service shaft extends from water heater room to attic space (min 2 50mm pvc pipes, capped at both ends, 220° angle.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>PRE-WIRE FOR ELECTRIC VEHICLES</b> Cable raceway leading from electricity circuit panel to enclosed outlet box in garage or carport.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>SENSITIVE SITE DEVELOPMENT</b>		
<b>STORMWATER MANAGEMENT</b> Permanent, low-impact development (LID) measures installed to manage stormwater run-off at pre-development rates.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
No invasive <sup>1</sup> plant species are introduced to the landscape	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Established plant materials to have low water requirements <sup>2</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Storage tank or rain barrels for retaining rainwater for irrigation	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tree Preservation Plan prepared and submitted <sup>3</sup>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>MINIMIZE SITE DISTURBANCE</b> 1 tree; four 5 gal (or equiv) shrubs; or 4.6m <sup>2</sup> groundcover per 46m <sup>2</sup> of unimpervied lot area.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Drought tolerant turf and/or landscaping species	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Mulch <sup>4</sup> or soil amendments added as appropriate	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Topsoil maintained or enhanced to a minimum depth of 12inches	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>REDUCE LOCAL HEAT ISLAND EFFECTS</b> One or both of the following: - Trees or other plantings provide shade to ≥50% of hard surfaces within 15m of home - Light coloured materials for ≥50% of hard surfaces (e.g. white/grey concrete; open pavers; vegetated roof to cover garage and/or accessory buildings.	<input type="checkbox"/>	<input checked="" type="checkbox"/>



West Vancouver Climate Action



<sup>1</sup> Invasive plant species vary by region. Consult the Canadian Botanical Conservation Network Invasive plants list for your area: [http://www.abca.ca/canbcr/projects/invasives/1\\_list.html](http://www.abca.ca/canbcr/projects/invasives/1_list.html)

<sup>2</sup> Visit [www.getwatermart.com](http://www.getwatermart.com) for water-conserving landscaping tips

<sup>3</sup> A sample Tree Preservation Plan can be found at: <http://www.westvanclimateaction.com/files/index.cfm?c=22537>

<sup>4</sup> Mulch is as a covering placed around plants to reduce erosion and water loss and to help regulate soil temperature. Upon decomposition, organic mulches serve as soil amendments.

sustainable design

**W**est Vancouver's progressive and strong policy stance on environmental protection and sustainability will be respected by FNDA Architecture. Our goal will be to provide an energy efficient and responsible home through the use of resource and environmentally friendly construction practices and products.

Building Cladding:

#### **LEED aspects of Alucobond - Alucobond Paint Process**

The North American facility is among the top national performers in terms of emissions control and has been chosen as a benchmark in setting more stringent EPA standards. The painting process used in producing Alucobond and Alucobond Plus is called coil coating. During this process, 99.9% of all fugitive volatile organic compounds (VOCs) are captured. Excess paint is recovered and used to cover the non-visible side of Alucobond, so no excess paint is burned as waste. All solvents used to clean the machinery are collected and used again.

#### **Alucobond Waste Minimization**

All excess polyethylene core material is recycled back into the manufacturing process and all scrap aluminum is sent back to aluminum processing plants for recycling. In addition, 3A Composites saves landfill space by donating like materials to a variety of charitable organizations and school systems.

#### **Alucobond Recoverability**

Alucobond is fully recoverable. The polyethylene in its core is one of the most energy-efficient materials to recycle and can be reheated and reused indefinitely. The aluminum that comprises its skins is also one of the most recycled resources in the world. In fact, the aluminum used to manufacture Alucobond already contains, on average, nearly 85% recycled material - an attribute that can help earn points towards LEED® certification.

#### **Alucobond may help contribute up to two points within the LEED Materials and Resources section.**

MR Credit 4.1 awards one point if the sum of the post-consumer recycled content, plus one-half of the post-industrial content, constitutes at least 10% of the total value of the materials in the project.

MR Credit 4.2 awards an additional point if the total value is at least 20%. The percentage by weight of recycled aluminum content for 4mm Alucobond is 26%.

**BC Granite:**  
Using locally available and indigenous materials has several advantages for sustainability:

- 1- reduction of energy costs related to transportation
- 2 - reduction of material costs due to reduced transportation costs
- 3 - support of local businesses and resource bases

stone material is aesthetically pleasing eliminating the need for constant refinishing and sealing. Stone provides excellent thermal mass with it's properties for passive solar heating

#### **Roofing:**

SBS membrane roofing system- ie Soprema  
company statement regarding their principles of sustainable roof design:

Energy conservation, durability, consumption of raw materials and waste reduction should guide the design and specification of the roof assembly. Energy conservation not only relates to insulation, but to continuity of the air/vapour barrier at the roof and wall junction, durability relates to design, material selection and good initial installation for longevity and thus waste reduction.

\* note - due to the nature of the design the upper level deck areas will be accessible. The actual amount of roof area is approximately 35% of the floor plate and utilizing high emissivity roofing will reduce almost all and any heat islands.

#### **Glazing:**

Utilize Energy Star compliant thermally broken windows with low E glass

#### **Insulation:**

HFC free formulated 100% water blown recycled material foam insulation to meet and/or exceed BCBC insulation R value requirements.

## Sustainable Design continued:

### **Mechanical / Electrical:**

On demand hot water systems and energy star compliant appliances such as efficient clothes washer and dishwasher. Incorporate water conserving fixtures, shower heads faucets and dual flush low flow toilets.

A heat recovery system (HRS) will be utilized along with programmable thermostats. Supplementary cooling to be natural ventilation by use of operable windows and sliding doors.

While electric baseboards are the primary form of heating for the existing units the redesigned structure will look at the use of an electric radiant floor heating system supplemented by a heat pump and/or a hot water on demand radiant floor heating with a tie into a solar heated water system. FNDA will work with and consult Engineers for the most effective means available for Heating and Air Conditioning that meet current energy efficient standards.

Future design will incorporate roof space for potential future solar panels and connectivity by Mechanical / Electrical consultants if feasible. Solar panel locations are shown on the roof plan drawing A2.3.

### **Storm Water Management:**

As this project is a reconstruction utilizing the main floor structure a Storm Water management plan will not be necessary. FNDA will consult with the city to address any concerns and work to remedy a solution if requested or required.

Roof top gardens will be in the form of planter boxes within the suites rooftop accessible areas and will be provided with appropriate drainage. Completed Geotechnical report confirms that proposed design will be sufficient and not require any modifications or strengthening of existing base structure.

A stepped glass canopy providing continuous coverage along Bellevue avenue will collect water and tie into municipal storm system that will be designed at the Building Permit application stage

### **Construction Waste Management:**

Utilize recycling area for collection and separation of recyclable materials as well as salvage useable lumber and trim where feasible. work to initiate a waste management with the express purpose of reducing construction waste. Explore the feasibility of salvaging demolished material and reusing for new construction along with "rapidly renewable" building materials where practical.

### **Environmental Air Quality:**

Specify only low emitting adhesives, paints, coatings and floor covering systems. Building orientation maximizes natural daylight exposure to the interior and allows excellent natural ventilation. No cfc utilizing materials or equipment to be used.

### **Exterior Lighting:**

Accent lighting will be incorporated along the breezeway in a manner to respect the "night sky" philosophy, provide aesthetic definition to the structure and meet code requirements for vision lighting.

### **Cladding Colour:** re 'white panels'

While it was not a directive by the DRC, it was to be taken under advisement as a maintenance issue for the owners of the building that an alternate shade be considered. the original "Bone White" exterior cladding has been replaced with "Alabaster Cool". Material board includes the new sample which is less white than the originally specified ' Bone White'