

BCR EVOLVE

Development Permit Application
October 1, 2019



UBC PROPERTIES TRUST

P+A ZGF

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01

SUBMISSION REQUIREMENTS

PROJECT DESCRIPTION

Site + Context

BCR8 'Evolve' is located within Wesbrook Place Neighbourhood at the South East corner of Wesbrook Mall and Gray Avenue. The site and adjacent lots are zoned for future residential developments varying in scale and density.

Proposed Project

As per the zoning and density allocation within the Neighbourhood Plan, this project is a six storey Faculty and Staff rental residential building. The project is orientated per the neighbourhood plan and designed to provide strong frontage and passive security to both the street facing facades and to the inner courtyard space. The residential unit mix includes studio, 1-bedroom, 2-bedroom, 3-bedroom and 4-bedroom single level units. All resident and visitor parking stalls are provided within an underground single level parkade.

The project is pursuing Passive House certification and seeks to serve as model high performance project for future developments at Wesbrook.



PROJECT TEAM

Client

UBC PROPERTIES TRUST

Sean Ang

200 - 3313 Shrum Lane, Vancouver, BC V6S 0C8

sang@ubcproperties.com | 604 731 3103

Architect

ZGF ARCHITECTS INC.

Patrick Cotter / Liam Davis / Ashleigh Fischer

350 - 355 Burrard Street, Vancouver, BC V6C 2G8

patrick.cotter@zgf.com / liam.davis@zgf.com /

ashleigh.fischer@zgf.com

604 558 8476 / 604 558 8405 / 604 558 8420

Landscape

PERRY + ASSOCIATES

Michael Patterson

112 East Broadway, Vancouver BC V5T 1V9

mp@perryandassociates.ca | 604 738 4118

PROJECT INFORMATION

Civic Address

3508 Wesbrook Mall, Vancouver, BC
Wesbrook Village, University of British Columbia

Legal Description

BCR Lot 8, District Lot 6494, Group 1,
New Westminster District, Plan EPP86350

Total Site Area

35,014 sq.ft / 3,253 sq.m

Development Area

SC2A Medium Density Residential (6 Storeys)

DESIGN POLICY COMPLIANCE

Neighbourhood Context

As a development within Wesbrook Neighbourhood, BCR8 'Evolve' will be subject to the objectives of the UBC Land Use Plan, the Wesbrook Neighbourhood Plan and the UBC Development Handbook. The design intends to compliment the existing build environment of Wesbrook, while maintaining a unique presence as a Passive House building.

The project provides a range of unit types from studio to 4 bedroom, and incorporates indoor and outdoor amenity spaces.

Larger units are provided with balcony and patio spaces which are protected from weather and street traffic with landscape features and operable shading elements.

Architecture & Sustainability

In alignment with Passive House design principles, the team has developed a simple massing concept, refraining from horizontal steps and minimizing vertical shifts to maintain a low form factor and improve efficiency of the building envelope.

Building façade materials intend to compliment the simple massing with a clean, minimal palette. Operable and fixed shading elements, which contribute to optimizing occupant thermal comfort, become the prominent façade features.

Renewable energy will be utilized to offset building energy demand with the use of photovoltaic panels on the roof.

Evolve will be a part of UBC's Living Laboratory as a research opportunity for academics at UBC and for the building industry in the lower mainland.

Amenity & Open Space

The project's indoor amenity allocation will be provided through two separate spaces. First, a 1-bedroom guest suite amenity on the ground floor. Second, an open lounge area within a large multi-use lobby area. This lobby area sits central in the buildings footprint and intends to provide both a visual and circulation connection from the entry through to the courtyard. Within this lobby, an area has been set aside and programmed as an open lounge amenity space that will feature open work spaces and serve as an educational space to share info about the energy performance and key sustainability features of the project.

Additional outdoor amenity area will be provided through a shared central landscaped courtyard.



Pre-AUDP Comments:

- 1 Remove five storey street-wall datum and simplify facade
- 2 Reduce emphasis of corner and increase attention to building entrance
- 3 Simplify building massing
- 4 Simplify material palette
- 5 Relocate entrance to align with route to courtyard

Proposed Response:

- 1 Building massing simplified further to support Passive House principles and to maximize FSR
- 2 Entrance emphasized by articulation in massing, separating the building into two halves. Relocated entrance creates stronger link through the building to the courtyard
- 3 Solar shading as prominent facade element with simple massing and material palette

REAP CHECKLIST

UBC Residential Environmental Assessment Program REAP 3.1

Project Information

Developer: UBCPT

Architect: ZGF Architects

REAP Consultant: E3 Eco Group Inc.

Project Name: Evolve

Neighbourhood:

Lot No.: BCR 8

Street Address: 3508 Wesbrook Mall, Vancouver, BC

Project Stage: DP

UBC DP Reference No.:

Date of Review:

Date of Submission:

Date of Complete Submission:

CREDITS	Mandatory	Max	Score
Sustainable Sites (SS)	complete	10	4
Water Efficiency (WE)	-	18	11
Energy & Atmosphere (EA)	-	52	45
Materials & Resources (MR)	-	18	1
Indoor Environmental Quality (IEQ)	-	8	2
Construction (CON)	-	4	2
Innovation & Design Process (ID)	-	24	14
Subtotal		134	79
TOTAL		134	79

REAP Rating: 79 PLATINUM (76-100 pts)

45-60 pts	Gold
61-75 pts	Gold Plus
76-100pts	Platinum
101-134 pts	Platinum Plus

Performance Category: Sustainable Sites (SS)		10 Points			
The intent of the Sustainable Sites category is to reduce the negative impacts of development, maintain the natural landscape, vegetation and environmental attributes of the site and provide new landscaping that enhances the microclimate.					
		Score: 4		Mandatory points achieved	
SS	MANDATORY	Points	Submission		
SS UBCPT	M1 Storm Water Management Plan Require all new construction projects detain the 10-year, 24-hour storm volume and discharge at the 2-year, 40-hour pre-development rate on site or at a designated centralized facility using low-impact development and green infrastructure strategies.	M	M	BP	
ZGF Architects	M2 Adapted and Ecologically Sound Planting Demonstrate that landscape design has minimized the need for pesticides and irrigation through the selection of adaptive and drought-tolerant plants and consideration of the principles of Integrated Pest Management and xeriscaping.	M	M	BP	
Evolve	M3 Bicycle Storage Provide covered bicycle storage facilities including 1.5 parking spaces per dwelling unit or individual parking garages for Class I use, and 0.5 bicycle parking spaces per dwelling unit for Class II use in accordance with The UBC Development Handbook.	M	M	BP	
BCR 8 3508 Wesbrook Mall	M4 Contribution to Community Car Sharing Contribute to the development of a community car-sharing network by funding the equivalent of one community vehicle per 100 residential units.	M	M		OP
DP	M5 Electric Vehicle Charging - Resident Provide a minimum of one energized level 2 outlet per residential unit for non-rental developments or provide energized outlets for 50% of resident parking stalls for rental developments. Level 2 charging capacity that provides a minimum of 40A service and a minimum performance level of 12 kWh per stall, over an eight (8) hour period must be provided. Load sharing (up to four-way) and load management systems may be utilized. Exceptions may be granted in cases where utility mandated transformer upgrades are required.	2	2	BP	
	M6 Light Pollution Reduction Do not exceed the current Illuminating Engineering Society (IES) illuminance requirements as stated in Lighting for Exterior Environments.	M	M	BP	
	M7 Recycling Collection Provide for collection of domestic paper, plastic, glass and metal recyclables by contracting with a waste management company for the service. Recycling storage space shall be designed in accordance with Metro Vancouver's Technical Specifications for Recycling Amenities.	M	M	BP	OP
	M8 Compost Collection Provide a space in the building for the collection compost and provide for the compost collection through a contract with UBC Waste Management or another waste management service provider. Design the space in the building in accordance with Metro Vancouver's Technical Specifications for Recycling Amenities.	M	M	BP	OP
SS OPTIONAL					
SS	1.1 In-Suite Recycling and Compost Separation Provide a space and system for simplified separation and collection of recycling and compostables in each suite or unit.	2	2	BP	
SS 2 ALTERNATIVE TRANSPORTATION					
	2.1 Additional Bicycle Facilities In addition to the requirements for bicycle parking in the UBC Development Handbook, provide an additional 0.25 Class I bicycle storage/bedroom and a bicycle repair station within the	2	X	BP	
	2.2 Electric Vehicle Charging - Visitor Provide one dedicated parking spot per 100 residential units for visitors of residents/owners, fully equipped with Level 2 charging station	2	X	BP	
	2.3 Electric Vehicle Charging Stations - Resident Install Level 2 charging stations for the following percentage of owners'/residents' parking: 5% of owners'/residents' parking - 1 Points 10% of owners'/residents' parking - 1 Points	2	X	BP	
Performance Category: Water Performance Category: Water Efficiency (WE)		18 Points			
The intent of the Water Efficiency category is to encourage strategies that reduce the amount of potable water used for landscape irrigation and building operations.					
		Score: 11		Mandatory points achieved	
WE	MANDATORY	Points	Submission		
	M1 Efficient Irrigation Technology Design and install a water-efficient irrigation system that includes an automated controller, rain or soil sensors and pressure regulator and for non-grass areas use a micro- or drip-feed irrigation or install a temporary irrigation system.	M	M	BP	
	M2 Low-Flow Faucet Aerators Specify and install low-flow faucets with aerators in all bathroom sinks (max. 3.8 L per minute) and in all kitchen sinks (max. 6.8 L per minute).	M	M	BP	
	M3 Low-Flow Showerheads Specify and install water-saving showerheads with a maximum flow rate of 8.5 L per minute in each shower.	M	M	BP	
	M4 Energy Star Clothes Washers Specify and install Energy Star-labelled clothes washers and dishwashers in each unit, or specify and offer only Energy Star models if these appliances are optional.	M	M		OP

REAP CHECKLIST

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WE	OPTIONAL					
WE	1	WATER EFFICIENT LANDSCAPING				
	1.1	Reduce Potable Water Use Reduce potable water use for site irrigation needs by 50% from the calculated mid-summer baseline.	3	3	BP	
	1.2	Eliminate Potable Water Use Eliminate potable water use for site irrigation needs.	3	X	BP	
WE	2	WATER USE REDUCTION				
	2.1	Low-Flow Showerheads Specify and install water-saving showerheads (maximum of 5.7 L per minute) in each shower	2	2	BP	
	2.2	Water Efficient Dishwasher Specify and install water-efficient dishwashers that use ≤ 11 L (2.91 gal) per normal wash cycle or if dishwashers are available only as an option, specify and offer only models complying with this credit	1	1		OP
	2.3	Most Efficient Clothes Washers Specify and install Energy Star clothes washers listed as "Most Efficient" (for the year in which the Building Permit is received), or if washers are available only as an option, specify and offer only models complying to this standard	2	X		OP
	2.4	Water Use Reduction Package Additional credit for achieving credits: WE 1.1, WE 2.1, WE 2.2 and WE 2.3.	2	X		OP
WE	3	WATER METERING				
	3.1	Domestic Hot Water metering In units with central hot water, provide individual hot water metering.	3	3	BP	
	3.2	Domestic Cold-Water metering Provide for individual cold water meters for all units.	2	2	BP	
Performance Category: Energy & Atmosphere (EA)			52 Points			
The intention of the energy and atmosphere category are to reduce depletion of non-renewable energy resources and to reduce the environmental impacts of energy use, particularly emissions of local, regional and global air pollutants and greenhouse gases.						
			Score: 45	Mandatory points achieved		
EA	MANDATORY					
EA	M1	Minimum Roof Insulation Design the roof assembly with a minimum insulation value of R-40 h-ft ² ·°F/Btu (7.04 °K·m ² /W) for buildings with attic space and R-28 h-ft ² ·°F/Btu (4.93 °K·m ² /W) for cathedral ceilings/flat roofs.	M	M	BP	
	M2	Minimum Exterior Wall Insulation Design the exterior insulated wall area with a minimum thermal resistance of effective (overall) R-15.6 h-ft ² ·°F/Btu (2.75 °K·m ² /W) for above grade non-glazed wall areas, and R-7.5 h-ft ² ·°F/Btu (1.32 °K·m ² /W) "continuous insulation" for below grade walls.	M	M	BP	
	M3	Minimum Floor Insulation Design floors above non-heated parkade areas with a minimum insulation value of R-30 h-ft ² ·°F/Btu (5.28 °K·m ² /W) for framed floors and R-15.6 h-ft ² ·°F/Btu (2.75 °K·m ² /W) for slab floors.	M	M	BP	
	M4	Energy Efficient Windows Specify and install Energy Star-rated windows or windows with a maximum overall U-value of 0.35 Btu/hr·ft ² ·°F (2.0 W/m ² ·°K) for non-metal framed windows or a maximum overall U-value of 0.45 Btu/hr·ft ² ·°F (2.55 W/m ² ·°K) for metal framed windows.	M	M	BP	
	M5	Minimum Boiler Efficiency Specify and install boilers with a minimum thermal efficiency of 84% /AFUE of minimum 90%.	M	M	BP	
	M6	Domestic Hot Water Specify and install gas DHW boilers with a minimum efficiency of 84% (mid-efficiency boiler).	M	M	BP	
	M7	Energy Star Dishwashers and Refrigerators Specify and install Energy Star-labelled dishwashers and refrigerators in each unit.	M	M		OP
	M8	Programmable Thermostats Specify and install programmable thermostats for at least the largest heating zone in each unit.	M	M	BP	
	M9	Common Area Lighting Specify and install only non-incandescent lighting, such as fluorescent, compact fluorescent or LED, in common areas.	M	M	BP	
	M10	Parkade and Corridor Lighting Controls Specify and install parkade and corridor lighting controls to automatically reduce the overall lighting level by at least 30% in a lighting zone when the zone is unoccupied.	M	M	BP	
	M11	Energy Modeling Workshop Model the energy performance of the building and hold a workshop with the design team, a representative from UBC Sustainability and Engineering, Campus & Community Planning and contractor to evaluate the results and optimize the design of the building.	2	2	BP	
	M12	Commissioning Contract a third party Commissioning Authority to develop and implement a commissioning plan for all major building energy systems and verify they are installed, calibrated and perform according to design intent.	4	4	BP	OP

EA	ENERGY STEP CODE					
		Design and construct the building to meet BC Energy Step Code (ESC). The building design must meet mandatory or optional ESC Step targets, below, and meet the requirements of Section 10.2.3 of the BC Energy Step Code Regulation. The Energy Step Code includes energy targets and an air tightness testing				
		Building Envelop Airtightness Testing An airtightness test meeting ASTM E779 or USACE Version 3 standard, as required by the Energy Step Code.	2	2	BP	OP
		Energy Step Code Step 2 130 kWh/m ² -yr (TEUI) and 45 kWh/m ² -yr (TEDI). This credit is mandatory for buildings seven storeys or higher.	6	6	BP	OP
EA	OPTIONAL					
		Energy Step Code Step 3 120 kWh/m ² -yr (TEUI) and 30 kWh/m ² -yr (TEDI). This credit is mandatory buildings six storeys or lower, and 10 meters or less from the innermost floor level of the innermost storey.	8	8	BP	OP
		Energy Step Code Step 4 100 kWh/m ² -yr (TEUI) and 15 kWh/m ² -yr (TEDI). This credit is optional.	15	15	BP	OP
		Passive House Energy Performance Design and construct the building to conform to the Passive House Planning Package, version 9 or newer, meeting the requirements of Section 10.2.3.3 (3) of the Energy Step Code Regulation. This credit is optional.	5	5	BP	OP
EA	1	ENERGY METERING				
	1.1	Thermal Energy Sub-Metering Provide separate metering in individual units for measuring thermal energy consumption used for space heating.	1	X	BP	
EA	2	RENEWABLE ENERGY				
	2.1	Future Renewable Electricity Pre-wire buildings and provide installation space for future use of photovoltaic technologies or other renewable electricity generation	1	X	BP	
	2.2	Renewable Electricity Utilization Utilize photovoltaic technologies or other renewable electricity generation for a portion of the building's electrical supply	3	3	BP	
	2.3	Low-Carbon District Energy Utilization Connect to the District Energy System for the building's thermal energy supply in preparation of transition to renewable energy in the future.	5	X	BP	
Performance Category: Materials & Resources (MR)			18 Points			
The intent of the Materials & Resources category is to encourage design strategies that reduce and reuse material resources, reduce construction waste, and to select building materials that are environmentally preferable.						
			Score: 1	Points		
MR	OPTIONAL					
MR	1	RECYCLED CONTENT AND REUSED MATERIALS				
	1.1	Reused Building Materials Use salvaged, refurbished, or reused materials for at least 5% of the total cost of building materials.	2	X		OP
	1.2	Reused Building Materials Use salvaged, refurbished, or reused materials for at least 10% of the total cost of building materials.	2	X		OP
	1.3	Recycled Content Materials Specify and use building materials with the following recycled content levels: Common area carpet with minimum 25% recycled content Drywall with minimum 15% recycled content Batt insulation with minimum 40% recycled content Doors contain minimum 15% recycled material Concrete with min. 20% fly ash content, excluding suspended slabs Concrete with min. 40% fly ash content, excluding suspended slabs Cabinetry with minimum 20% recycled content MDF products with minimum 50% recycled content • Minimum four recycled content items on list above 1 point • All eight recycled content items on list above 2 points	2	1		OP
MR	2	REGIONAL MATERIALS				
	2.1	Regionally Manufactured Building Materials Use a minimum of 20% (by value) of building materials and products that are manufactured within a radius of 800 km (500 miles).	1	X		OP
	2.2	Regionally Sourced Building Materials Of the materials from Credit MR 2.1, use a minimum of 50% (by value) of building materials and	1	X		OP

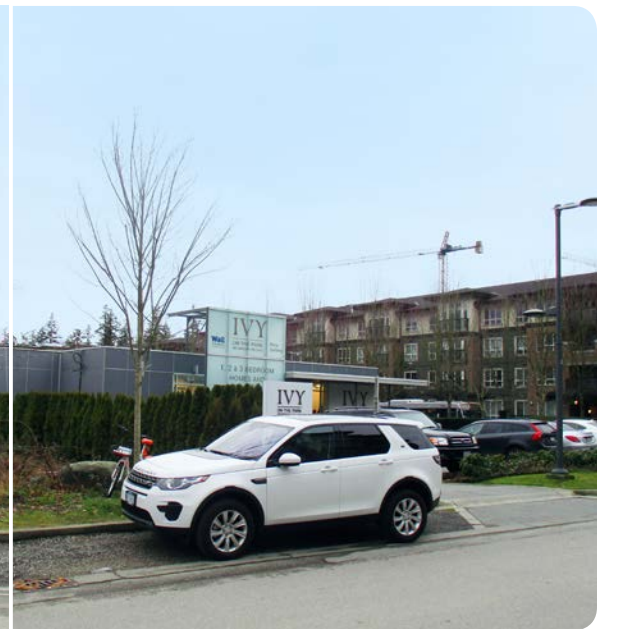
REAP CHECKLIST

01

MR	3	CERTIFIED AND NON-ENDANGERED FOREST PRODUCTS					
	3.1	Dimensional Lumber and Plywood Demonstrate that a minimum of 50% of the total value of dimensional lumber and plywood is certified in accordance with either: CSA Z809 – 2 Points <i>Or Forest Stewardship Council (FSC) – 3 Points</i>	3	?		OP	
	3.2	Hardwood Floors Specify and install bamboo floors or hardwood floors certified in accordance with the Forest Stewardship Council or CSA Z809. If floors are offered only as an option, specify and offer only bamboo or renewable products with third-party certification. CSA Z809 – 2 Points <i>Or Forest Stewardship Council (FSC) – 3 Points</i>	3	?		OP	
MR	4	BUILDING PRODUCT INGREDIENTS					
	4.1	Transparency of Ingredients Install ten different building products from three different manufacturers that evaluate and disclose the chemical inventory of the product to an accuracy of 0.1% for each product. For each product selected provide either: • Health Product Declaration • Manufacturer Inventory of all ingredients by CAS number, of • Declare Label (Living Building Institute)	2	?		OP	
	4.2	Optimization of Ingredients Demonstrate that a minimum of 10% (by value) of building materials are optimized for ingredient content by demonstrating optimization in one of the following ways: • GreenScreen v1.2 benchmark 4 minimum • Red List free	2	X		OP	
Performance Category: Indoor Environmental Quality (IEQ)			8 Points				
The intent of the Indoor Environmental Quality category is to achieve enhanced indoor environmental quality through the thoughtful selection and application of materials and effective ventilation strategies.							
Score: 2			Mandatory points achieved				
IEQ	MANDATORY		Points	Submission			
IEQ	M1	Adhesives and Sealants Specify and use adhesives, sealants and sealant primers that are EcoLogo certified or do not exceed the VOC limits in the South Coast Air Quality Management District (SCAQMD) Rule #1168 on the interior of the building.	M	M		OP	
	M2	Paints and Coatings Specify and use paints and coatings that carry an EcoLogo label or those rated at a minimum GPL-1 by the Master Painter's Institute on the interior of the building.	M	M		OP	
	M3	Floor Coverings Specify and install carpet and carpet cushion that carry the following certifications: Carpet and Rug Institute Green Label Plus.	M	M		OP	
	M4	Ventilation Effectiveness Prepare and implement an effective air management strategy that meets the requirements of the current versions of CAN/CSA F326 or ASHRAE-62.1 or 62.2 as applicable to the building ventilation.	M	M	BP		
IEQ	OPTIONAL						
IEQ	1	LOW-EMITTING MATERIALS					
	1.1	Low VOC Paints and Coatings Specify and use paints and coatings rated at a minimum GPS-2 by the Master Painter's Institute on the interior of the building.	2	2		OP	
	1.2	Low-Emitting Composite Wood Products Specify and install interior composite wood products, such as flooring, doors, trim, etc., that are low emitting or have no added urea formaldehyde. Cabinetry is excluded from this credit.	2	?		OP	
	1.3	Low-Emitting Insulation Specify and install formaldehyde-free insulation on the interior of the building.	2	?		OP	
	1.4	Low-Emitting Cabinetry Specify and install interior cabinetry doors and boxes that are low emitting or contain no added urea formaldehyde.	2	?		OP	
Performance Category: Construction (CON)			4 Points				
The construction process can impose significant and lasting impact on the ecology of both the site and beyond. The Construction credits acknowledge and reward contractors who have followed best practices.							
Score: 2			Mandatory points achieved				
CON	MANDATORY		Points	Submission			
	M1	Staging and Construction Prepare and implement a staging and construction plan, including alternate detour information and signage for pedestrians and cyclists.	M	M		OP	
	M2	Vegetation Safeguards and Land-Clearing Debris Prepare a site plan showing the sizes and locations of vegetation to be removed, retained and salvaged, including plants located on adjacent public rights-of-way (see reference guide) and develop a plan to effectively handle debris from land clearing and divert it from landfill disposal.	M	M		OP	
	M3	Truck Management Plan Prepare and implement a comprehensive truck management plan for the project that conforms to the UBC Strategic Transportation Plan and the Neighbourhood Plan Development Guidelines.	M	M		OP	
	M4	Wheel Wash Provide a wheel wash for vehicles leaving the site or a street cleaning program and catch basin protection.	M	M		OP	

	M5	Erosion and Sedimentation Control Prepare and implement a Sediment and Erosion Control Plan that conforms to the City of Vancouver Bulletin 2002-003-EV dated March 1, 2017.	M	M		OP	
	M6	Waste Management Plan Prepare and implement a waste management plan that diverts 75% (by weight) of construction, demolition and land clearing waste from landfill.	M	M		OP	
CON	OPTIONAL						
CON	1	CONSTRUCTION IAQ MANAGEMENT PLAN					
	1.1	Indoor Air Quality Management Plan Prepare and implement an Indoor Air Quality (IAQ) Management Plan for the construction and pre-occupancy phases of the building.	2	2		OP	
	1.2	Flushout / IAQ Test After construction ends and prior to occupancy conduct minimum two-week continuous building flushout with new filtration media at 100% outside air or conduct a Baseline Indoor Air Quality Test.	2	X		OP	
Performance Category: Innovation & Design Process (ID)			24 Points				
The intent of the Innovation & Design Process category is to provide incentive and credit for general design and other innovative practices that improve the overall sustainability and environmental performance of the project.							
Score: 14			Mandatory points achieved				
ID	MANDATORY		Points	Submission			
	M1	Goal-Setting Workshop Hold a goal setting workshop including the developer, design consultants and contractor to review the Residential Environmental Assessment Program, set goals for the project and assign responsibilities.	M	M	BP		
	M2	Educate the Homeowner Develop a homeowner's manual that promotes sustainable behavior and describes all of the sustainable features of the project instructing the homeowner on their proper use. This manual should be included in record drawings or some form that will be accessible beyond the first operation of the project.	M	M		OP	
ID	OPTIONAL						
ID	1	INNOVATION IN MATERIALS					
	1.1	Life-Cycle Assessment Perform a Life-Cycle Assessment of the project's structure and enclosure and demonstrate a minimum of 5% improvement from a reasonable baseline building for three environmental categories.	4	X		OP	
ID	2	INTEGRATIVE AND UNIVERSAL DESIGN					
	2.1	Green Building Specialist Engage an expert in green buildings and sustainable construction practices to provide advice on effective green building strategies to the design team.	1	1	BP		
	2.2	Design for Safety and Accessibility Demonstrate that at least 25% of the units in the building have been designed to meet the SAFERhome standards (http://www.saferhomesociety.com/), which address issues of accessibility, children's safety, seniors and aging in place.	1	X	BP		
	2.3	Design for Security and Crime Prevention Demonstrate that the design has been reviewed by an accredited Crime Prevention Through Environmental Design (CPTED) practitioner.	2	X	BP		
ID	3	MARKET TRANSFORMATION					
	3.1	Educate the Sales Staff Develop marketing materials based on the environmental performance of the project and ensure the sales staff is aware of and knowledgeable about the green building features.	1	?		OP	
ID	4	ACADEMIC LINKS					
	4.1	Enhance Research or Further Student Development Collaborate with UBC students and/or faculty on a research project or other opportunities to enhance the academic mission of the University and integrate it with the community. The research project should be concurrent with, and applicable to, the current project.	5	5	BP	OP	
	4.2	Energy Data Sharing Incorporate a data sharing agreement into the sales contracts or strata constitution that allows building aggregate energy data to be collected for use by the UBC Sustainability and Engineering, Campus & Community Planning.	4	4	BP	OP	
ID	5	INNOVATIVE DESIGN					
	5.1	Innovative Design or Exemplary Achievement Demonstrate exceptional performance above the requirements set by one of the existing credits or the implementation of an innovative design strategy not specifically addressed by any of the existing credits.	2	2		OP	
	5.2	Innovative Design or Exemplary Achievement Demonstrate exceptional performance above the requirements set by one of the existing credits or the implementation of an innovative design strategy not specifically addressed by any of the existing credits.	2	2		OP	
	5.3	Innovative Design or Exemplary Achievement Demonstrate exceptional performance above the requirements set by one of the existing credits or the implementation of an innovative design strategy not specifically addressed by any of the existing credits.	2	?		OP	

SITE PHOTOGRAPHS



02 DRAWING REQUIREMENTS

CONTEXT PLAN



PROJECT STATISTICS

02

DEVELOPMENT DATA

GROSS SITE AREA	35,014 SqFt	3,253 SqM
SITE COVERAGE	49.3%	(MAXIMUM 55%)
TOTAL RESIDENTIAL AREA	87,945 SqFt	8,170.33 SqM
COMMON STAIRWELLS, ELEVATOR SHAFT & LOBBY	14,095 SqFt	1,309.46 SqM
TOTAL AMENITY AREA (EXCL. FROM FSR)	1,042 SqFt	96.80 SqM
GROSS FLOOR AREA	103,081 SqFt	9,576.59 SqM
NET FLOOR AREA (MINUS EXCLUSIONS)	98,031 SqFt	9,107.43 SqM
F.S.R (FLOOR SPACE RATIO)	2.80 F.S.R	(2.80 F.S.R ALLOWABLE FOR THIS SITE)
NET RESIDENTIAL AREA	87,945 SqFt	8,170.33 SqM
NET RESIDENTIAL/GFA (OVERALL EFFICIENCY)	85.32%	

PARKING CALCULATIONS

PARKING STALLS PERMITTED:		
APARTMENT HOUSING (MARKET RENTAL)	110 STALLS	1.0 STALL MAXIMUM PER PRINCIPAL DWELLING UNIT (FACULTY & STAFF)
VISITOR	11 STALLS	0.1 STALL MINIMUM PER PRINCIPAL DWELLING UNIT
TOTAL PARKING SPACES PERMITTED:	121 STALLS	
PARKING STALLS PROVIDED:		
RESIDENT PARKING STALLS	64 STALLS	0.58 STALLS PER PRINCIPAL DWELLING UNIT
VISITOR STALLS	7 STALLS	0.11 STALL MINIMUM PER PRINCIPAL DWELLING UNIT
TOTAL PARKING STALLS PROVIDED	71 STALLS	
OF WHICH:		
ACCESSIBLE STALLS	7 STALLS	0.10 STALL PER PRINCIPAL DWELLING UNIT (MINIMUM 0.1)
SMALL STALLS	13 STALLS	18.3% OF TOTAL STALLS (MAXIMUM 25% ALLOWABLE)
REFUSE AND RECYCLING SPACE:	575 SqFt REQUIRED	53.40 SqM REQUIRED
	581 SqFt PROVIDED	53.98 SqM PROVIDED

BICYCLE STORAGE CALCULATIONS

BICYCLE SPACES REQUIRED:		
CLASS I (LOCATED WITHIN PARKADE BICYCLE ROOMS)	165 CLASS I STALLS	1.50 SPACES MINIMUM PER DWELLING
CLASS II (LOCATED AT GRADE IN LANDSCAPE)	55 CLASS II STALLS	0.50 SPACES MINIMUM PER DWELLING
BICYCLE SPACES PROVIDED:		
CLASS I (LOCATED WITHIN PARKADE BICYCLE ROOMS)	187 CLASS I SPACES	1.70 SPACES PER DWELLING
	Of which: 155 are Horizontal Spaces	(82.89% of total provided spaces)
	32 are Vertical Spaces	(17.11% of total provided spaces)
CLASS II (LOCATED AT GRADE IN LANDSCAPE)	55 CLASS II SPACES	0.50 SPACES PER DWELLING (AS PER UPDATED DEVELOPMENT HANDBOOK)

SETBACK & BUILDING HEIGHT INFORMATION

REQUIRED SETBACKS:	ALLOWABLE BUILDING HEIGHT:
FRONT: 8.2' / 2.5m	6 storeys / 75.46' / 23m
SIDE: 8.2' / 2.5m	PROPOSED BUILDING HEIGHT:
REAR: 8.2' / 2.5m	6 STORIES - LESS THAN 75.46' / 23m FROM BASE PLANE

GFA SUMMARY

UNIT TYPE	% OF TOTAL	NO.	UNIT AREA	TOTAL AREA
STUDIO	14.5%	16 x UNITS	431 - 462 SqFt	7269 SqFt 675.31 SqM
ONE BED	9.1%	10 x UNITS	567 - 567 SqFt	5,670 SqFt 526.74 SqM
ONE BED + DEN	16.4%	18 x UNITS	625 - 625 SqFt	11,256 SqFt 1,045.72 SqM
TWO BEDROOM + DEN	32.7%	36 x UNITS	915 - 915 SqFt	32,935 SqFt 3,059.74 SqM
THREE BEDROOM	21.8%	24 x UNITS	920 - 1,112 SqFt	23,769 SqFt 2,208.22 SqM
FOUR BEDROOM	5.5%	6 x UNITS	1,171 - 1,192 SqFt	7,046 SqFt 654.59 SqM
TOTAL RESIDENTIAL AREA:	100%	110 x UNITS		87,945 SqFt 8,170.33 SqM
TOTAL CIRCULATION & LOBBY AREA				14,095 SqFt 1,309.46 SqM
TOTAL AMENITY AREA (EXCL. FROM FSR)				1,042 SqFt 96.80 SqM
TOTAL GFA				103,081 SqFt 9,576.59 SqM
INSUITE UNIT STORAGE (EXCL. FROM FSR - Max. 3.7SqM / 40SqFt allowable per dwelling unit)				4,008 SqFt 372.36 SqM

SUMMARY OF FLOOR AREA BY LEVEL AND EXCLUSIONS

EXCLUSIONS BY LEVEL:	AREA EXCLUDED
LEVEL 1	Amenity - 1042 SqFt 96.80 SqM In-suite Storage - 632 SqFt 58.71 SqM
LEVEL 2	In-suite Storage - 656 SqFt 60.94 SqM
LEVEL 3	In-suite Storage - 680 SqFt 63.17 SqM
LEVEL 4	In-suite Storage - 680 SqFt 63.17 SqM
LEVEL 5	In-suite Storage - 680 SqFt 63.17 SqM
LEVEL 6	In-suite Storage - 680 SqFt 63.17 SqM
TOTAL	5,050 SqFt 469.16 SqM

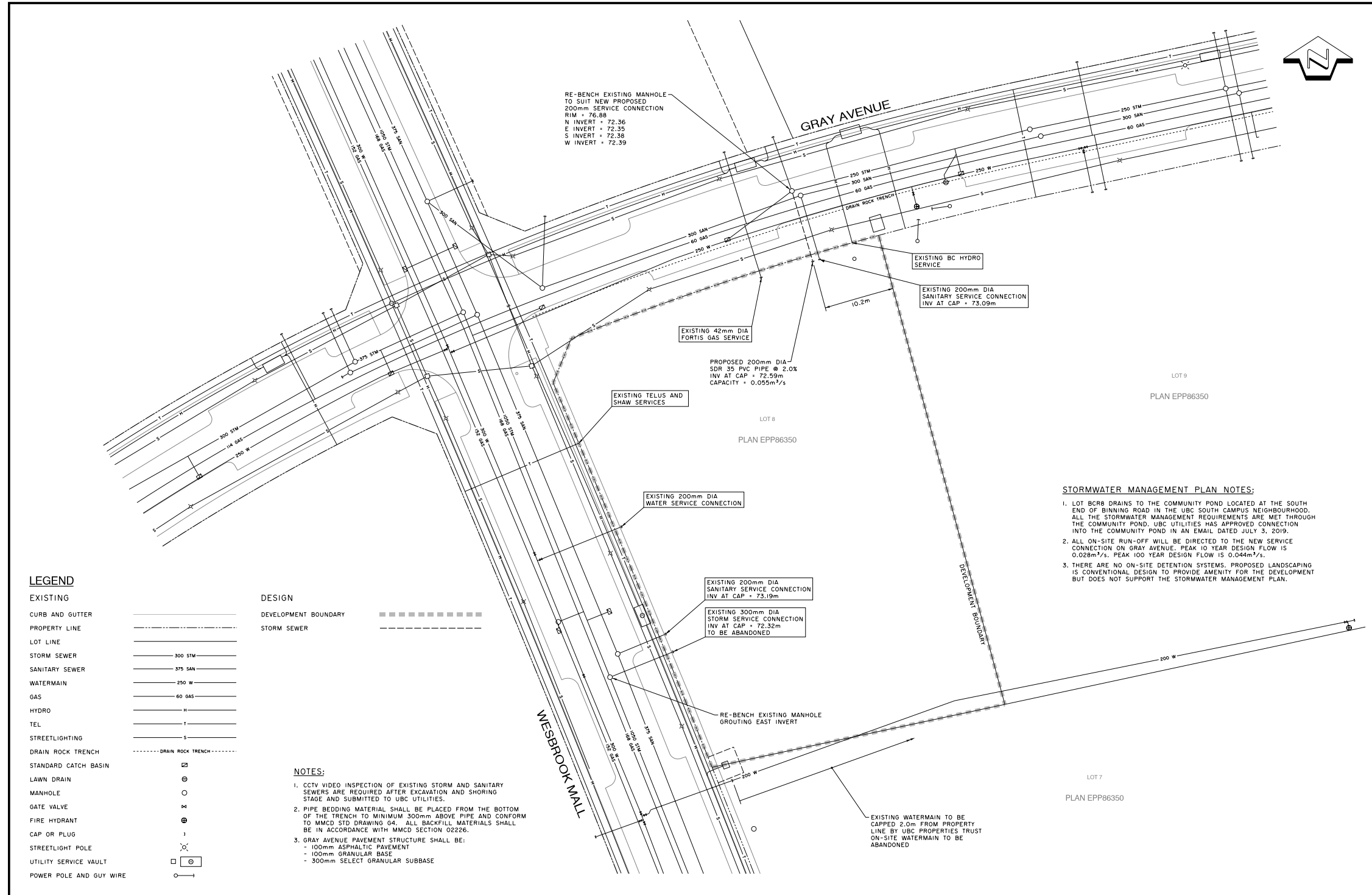
AMENITY SPACE CALCULATIONS

MAXIMUM ALLOWABLE AMENITY SPACE:	10,308 SqFt	957.66	SqM (10% OF TOTAL G.F.A)
AMENITY SPACE PROVIDED:	GUEST SUITE: 567 SqFt	53 SqM	0.6% OF TOTAL G.F.A
	OPEN LOUNGE: 475 SqFt	44 SqM	0.5% OF TOTAL G.F.A
TOTAL:	1,042 SqFt	97 SqM	1.1% OF TOTAL G.F.A



PROJECT ADDRESS

3508 Wesbrook Mall, Vancouver, BC
Wesbrook Village, University of British Columbia



LEGEND

EXISTING		DESIGN	
CURB AND GUTTER	---	DEVELOPMENT BOUNDARY	-----
PROPERTY LINE	---	STORM SEWER	-----
LOT LINE	---		
STORM SEWER	300 STM		
SANITARY SEWER	375 SAN		
WATERMAIN	250 W		
GAS	60 GAS		
HYDRO	H		
TEL	T		
STREETLIGHTING	S		
DRAIN ROCK TRENCH	-----		
STANDARD CATCH BASIN	⊠		
LAWN DRAIN	⊙		
MANHOLE	⊙		
GATE VALVE	⊗		
FIRE HYDRANT	⊕		
CAP OR PLUG	⊙		
STREETLIGHT POLE	⊙		
UTILITY SERVICE VAULT	⊠		
POWER POLE AND GUY WIRE	⊙		

NOTES:

- CCTV VIDEO INSPECTION OF EXISTING STORM AND SANITARY SEWERS ARE REQUIRED AFTER EXCAVATION AND SHORING STAGE AND SUBMITTED TO UBC UTILITIES.
- PIPE BEDDING MATERIAL SHALL BE PLACED FROM THE BOTTOM OF THE TRENCH TO MINIMUM 300mm ABOVE PIPE AND CONFORM TO MMCD STD DRAWING G4. ALL BACKFILL MATERIALS SHALL BE IN ACCORDANCE WITH MMCD SECTION O2226.
- GRAY AVENUE PAVEMENT STRUCTURE SHALL BE:
 - 100mm ASPHALTIC PAVEMENT
 - 100mm GRANULAR BASE
 - 300mm SELECT GRANULAR SUBBASE

STORMWATER MANAGEMENT PLAN NOTES:

- LOT BCR8 DRAINS TO THE COMMUNITY POND LOCATED AT THE SOUTH END OF BINNING ROAD IN THE UBC SOUTH CAMPUS NEIGHBOURHOOD. ALL THE STORMWATER MANAGEMENT REQUIREMENTS ARE MET THROUGH THE COMMUNITY POND. UBC UTILITIES HAS APPROVED CONNECTION INTO THE COMMUNITY POND IN AN EMAIL DATED JULY 3, 2019.
- ALL ON-SITE RUN-OFF WILL BE DIRECTED TO THE NEW SERVICE CONNECTION ON GRAY AVENUE. PEAK 10 YEAR DESIGN FLOW IS 0.028m³/s. PEAK 100 YEAR DESIGN FLOW IS 0.044m³/s.
- THERE ARE NO ON-SITE DETENTION SYSTEMS. PROPOSED LANDSCAPING IS CONVENTIONAL DESIGN TO PROVIDE AMENITY FOR THE DEVELOPMENT BUT DOES NOT SUPPORT THE STORMWATER MANAGEMENT PLAN.

InterCAD
CONSULTING ENGINEERS
1111 WEST 8TH AVENUE
VANCOUVER, BC V6H 1C5
Tel 604.739.7707 / Fax 604.739.7727

NO.	DATE	REVISIONS	BY	APPROVED
2	19-08-23	DEVELOPMENT PERMIT SUBMISSION	GW	
1	19-08-25	FIRST SUBMISSION	NH	



Client: **UBC PROPERTIES TRUST**

Project: **UBC SOUTH CAMPUS LOT BCR8**

Scale: 1:250

Design: G. WOOD
Drawn: N. HANDSCHUH

Plot Date: 19/08/22
Plot Time: 1:51:54 PM

SERVICING PLAN

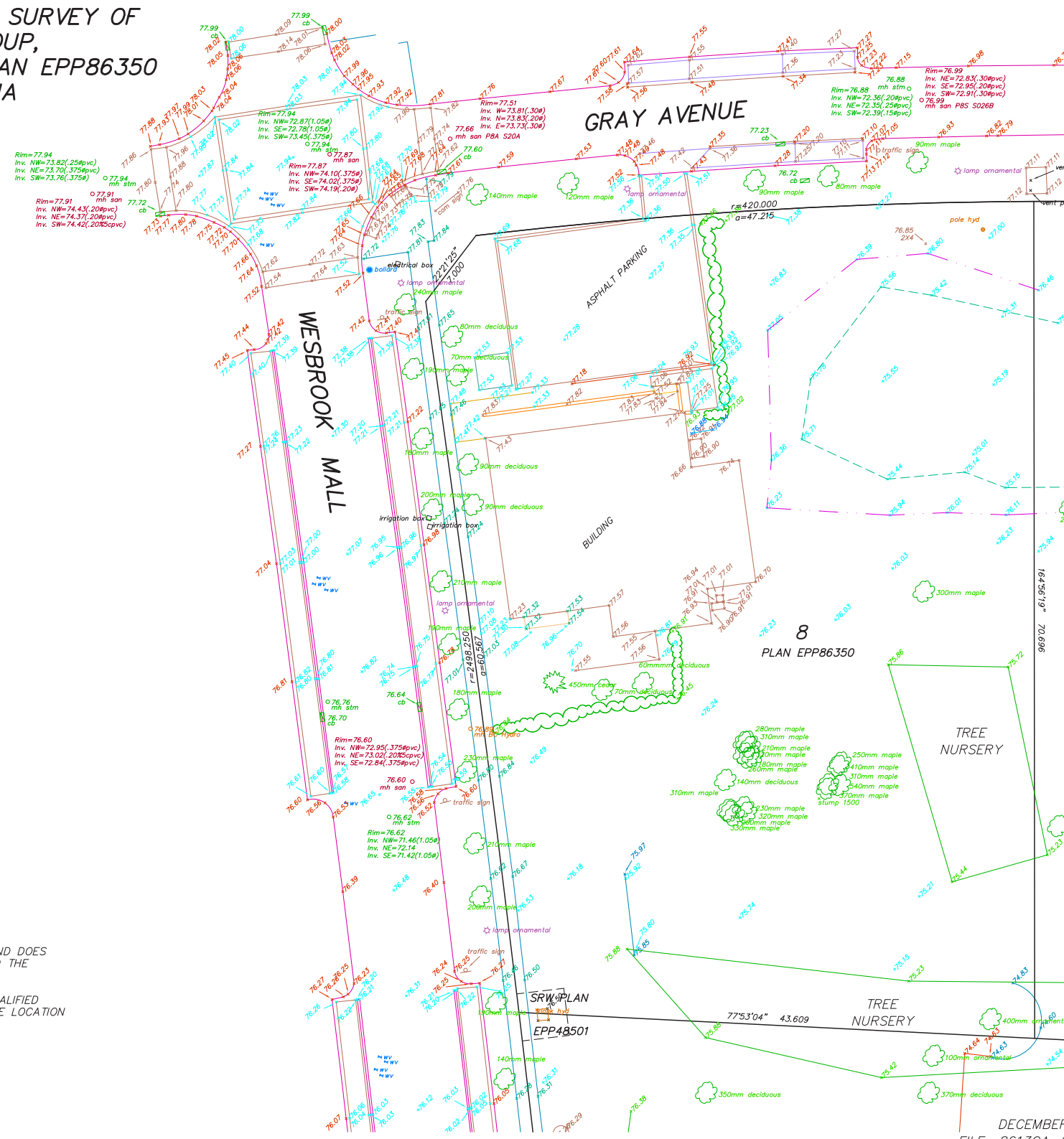
Drawing Number: **AE45-C-101**

Revision: **2**

SURVEY PLAN

SKETCH SHOWING TOPOGRAPHIC SURVEY OF
 LOT 8, DISTRICT LOT 6494, GROUP,
 NEW WESTMINSTER DISTRICT, PLAN EPP86350
 UNIVERSITY OF BRITISH COLUMBIA
 SOUTH CAMPUS

0 2 5 10 15
 SCALE 1 : 250
 ALL DISTANCES ARE IN METRES
 BCGS 926.037



NOTES :
 ALL ELEVATIONS AND DISTANCES SHOWN ARE IN METRES.
 ELEVATIONS ARE DERIVED FROM UBC MONUMENT W-W, LOCATED ON EAST MALL IN FRONT OF THE CEME BUILDING (BETWEEN AGRONOMY ROAD AND UNIVERSITY BOULEVARD) GEODETIC ELEVATION = 93.631
 THIS PLAN SHOWS THE LOCATION OF VISIBLE FEATURES ONLY, AND DOES NOT INDICATE BURIED SERVICES THAT MAY EXIST ON OR AROUND THE SUBJECT SITE
 TREE SPECIES AND DIMENSIONS SHOULD BE CONFIRMED BY A QUALIFIED ARBORIST. TREE SYMBOLS ARE NOT AN INDICATION OF DRIP LINE LOCATION UNLESS SPECIFICALLY LABELLED.

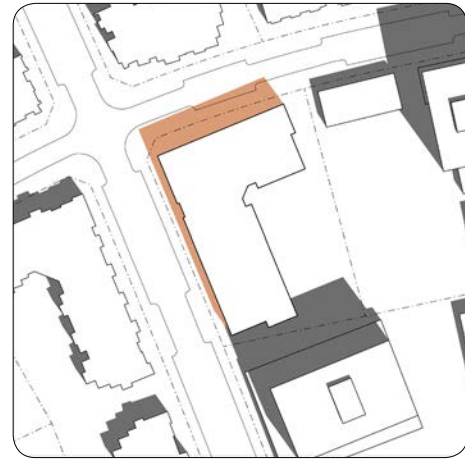
MURRAY & ASSOCIATES
 PROFESSIONAL LAND SURVEYORS
 201-12448 82nd AVENUE
 SURREY, BC V3W 3E9
 (604) 597-9189

DECEMBER 14, 2018
 FILE: 8613CA-282/LOT 8

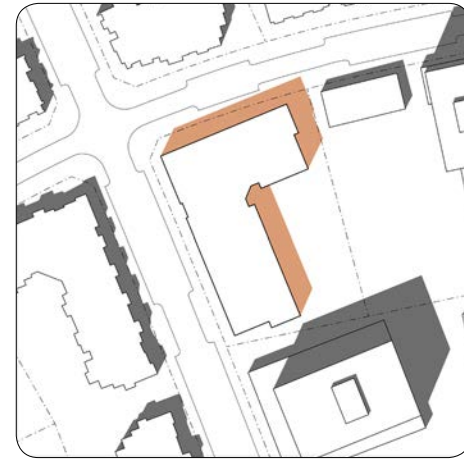
SHADOW ANALYSIS



SUMMER
10 am



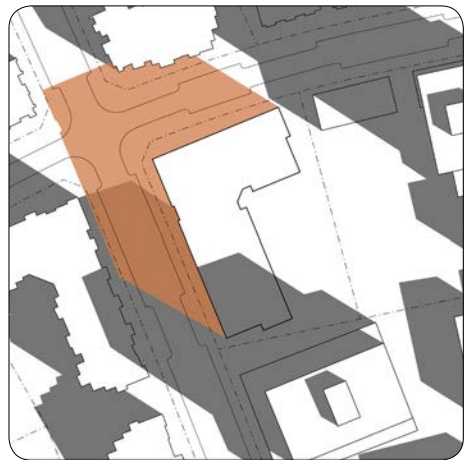
SUMMER
12 pm



SUMMER
2 pm



SUMMER
4 pm



EQUINOX
10 am



EQUINOX
12 pm



EQUINOX
2 pm



EQUINOX
4 pm



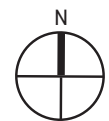
WINTER
10 am



WINTER
12 pm



WINTER
2 pm



GRAY AVENUE AND WESBROOK MALL PERSPECTIVE

02



VIEW OF ENTRANCE FROM WESBROOK MALL



WESBROOK MALL PERSPECTIVE

02



COURTYARD PERSPECTIVE

02



GRAY AVE PERSPECTIVE

02



LEVEL ONE



LEVEL TWO

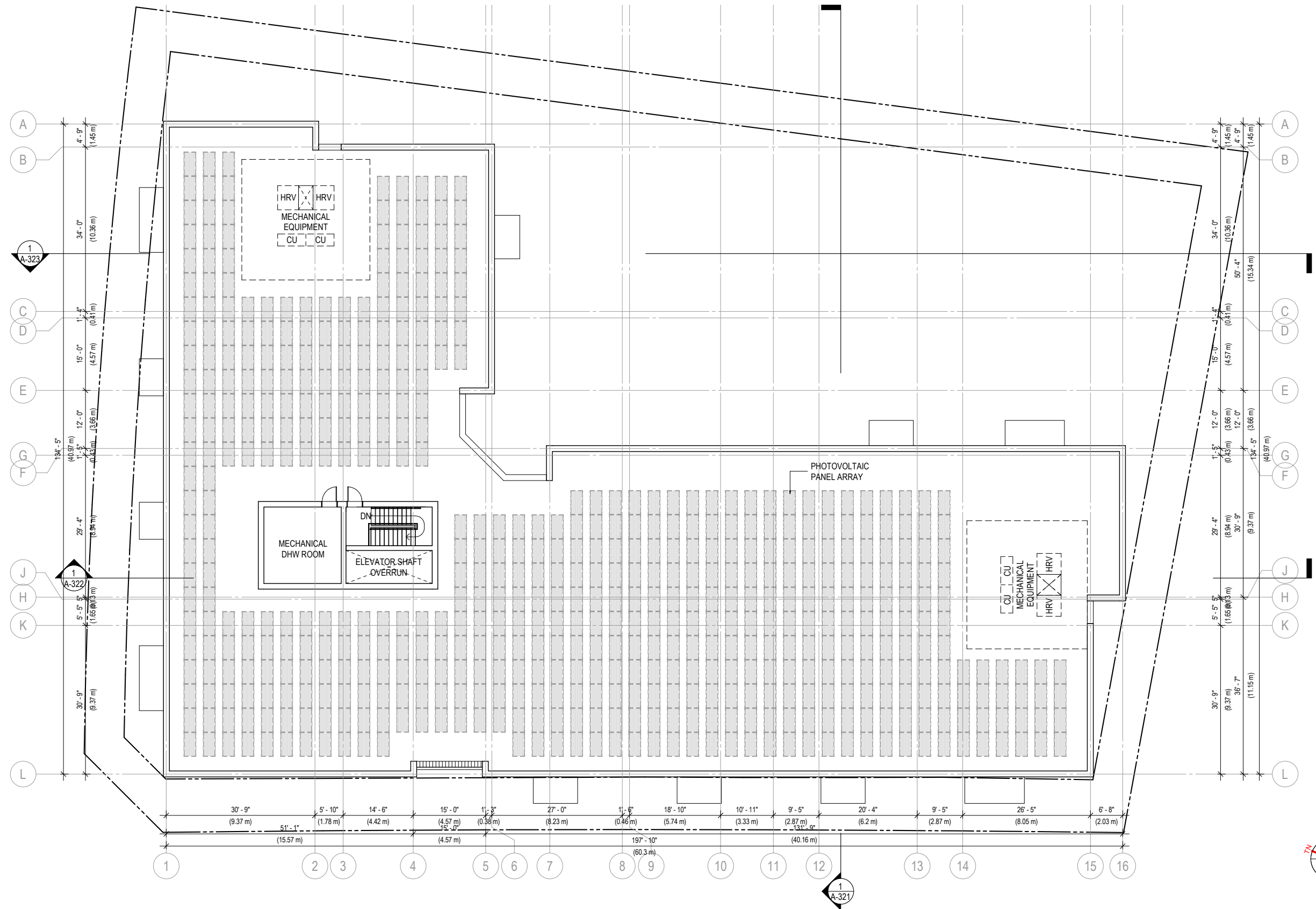


LEVELS THREE TO SIX

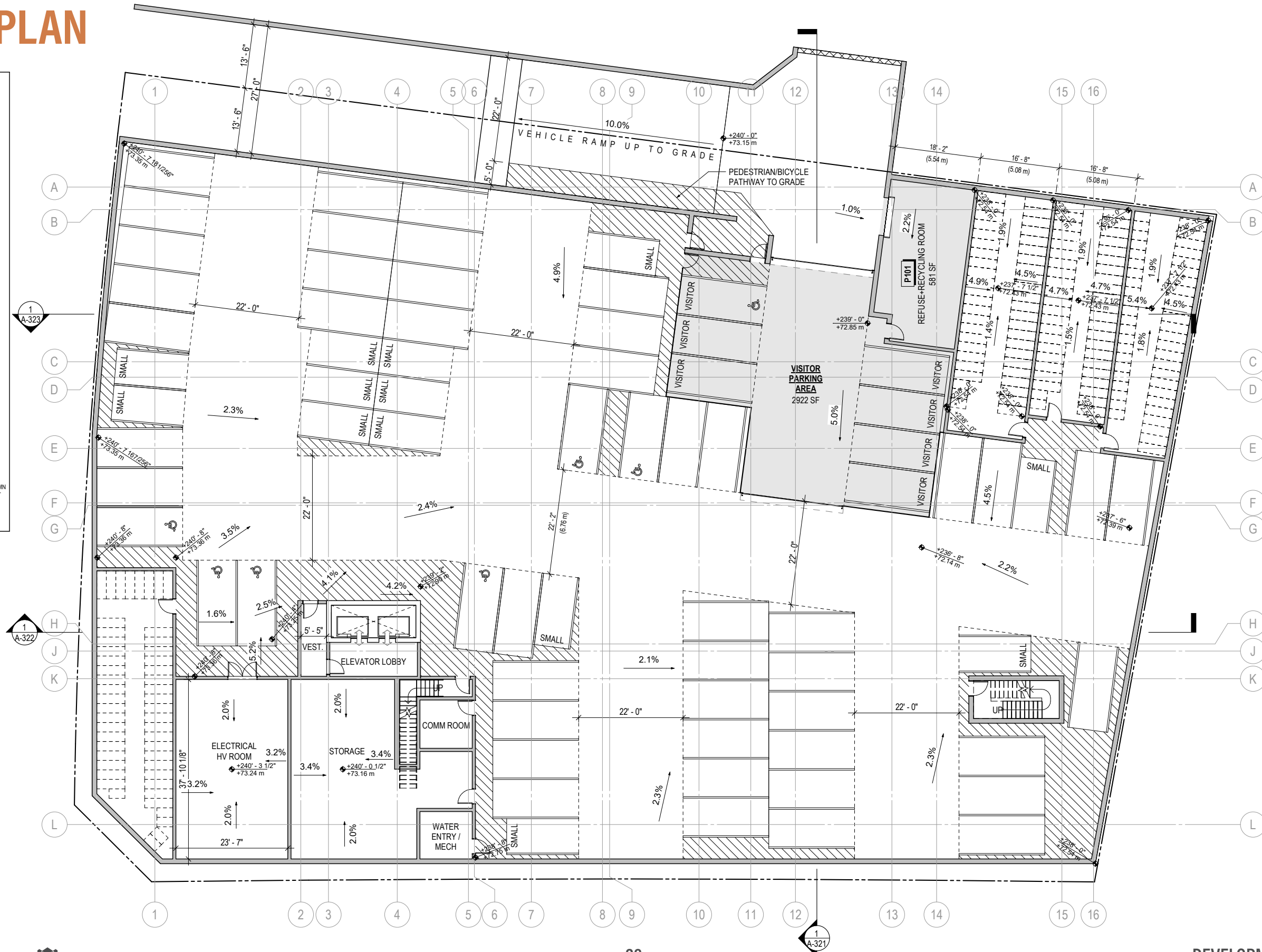
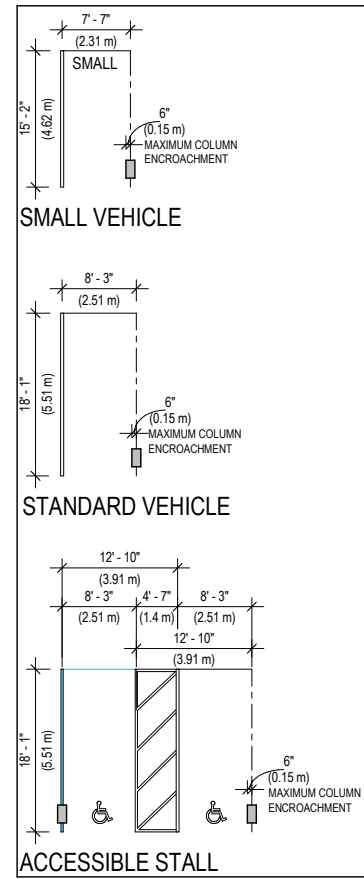


ROOF PLAN

02

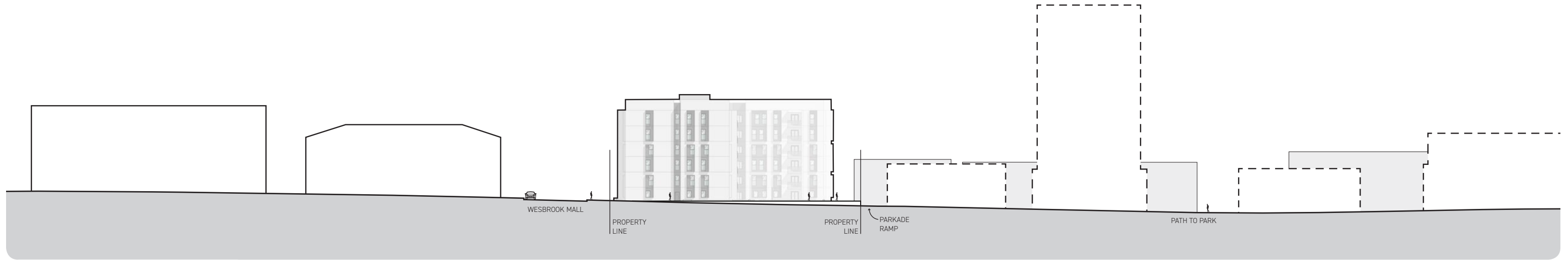


PARKING PLAN

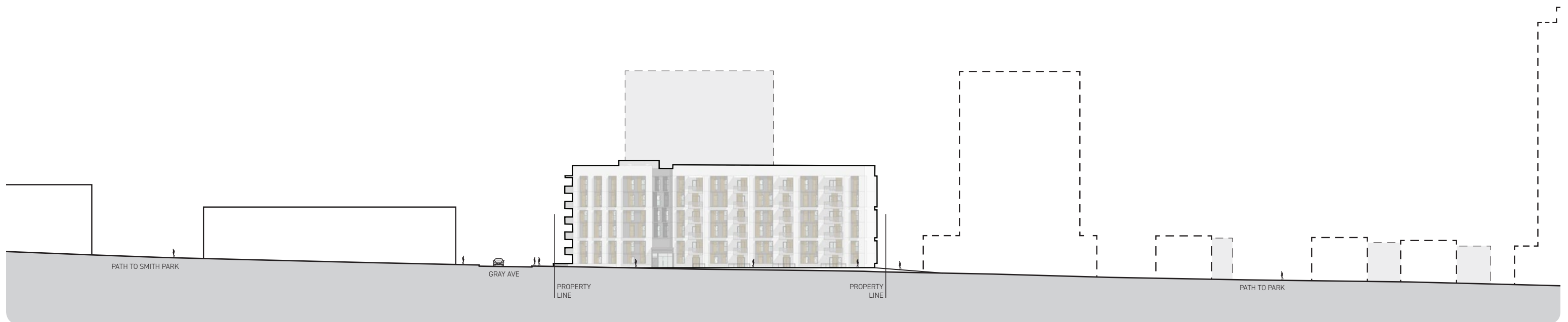


SITE SECTIONS

02



SITE SECTION EAST/WEST

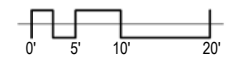


SITE SECTION NORTH/SOUTH

NORTH ELEVATION

MATERIAL LEGEND

- 1. FIBER CEMENT PANEL - EARTH GREY
- 2. FIBER CEMENT PANEL - CHARCOAL
- 3. FIBER CEMENT PANEL - BONE WHITE
- 4. CORRUGATED METAL PANEL - CHARCOAL
- 5. PERFORATED METAL PANEL - WHITE
- 6. PERFORATED METAL PANEL - BRONZE
- 7. PERFORATED METAL PANEL - CHARCOAL
- 8. VISION GLASS



WEST ELEVATION

02



SOUTH ELEVATION

MATERIAL LEGEND

- 1. FIBER CEMENT PANEL - EARTH GREY
- 2. FIBER CEMENT PANEL - CHARCOAL
- 3. FIBER CEMENT PANEL - BONE WHITE
- 4. CORRUGATED METAL PANEL - CHARCOAL
- 5. PERFORATED METAL PANEL - WHITE
- 6. PERFORATED METAL PANEL - BRONZE
- 7. PERFORATED METAL PANEL - CHARCOAL
- 8. VISION GLASS



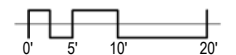
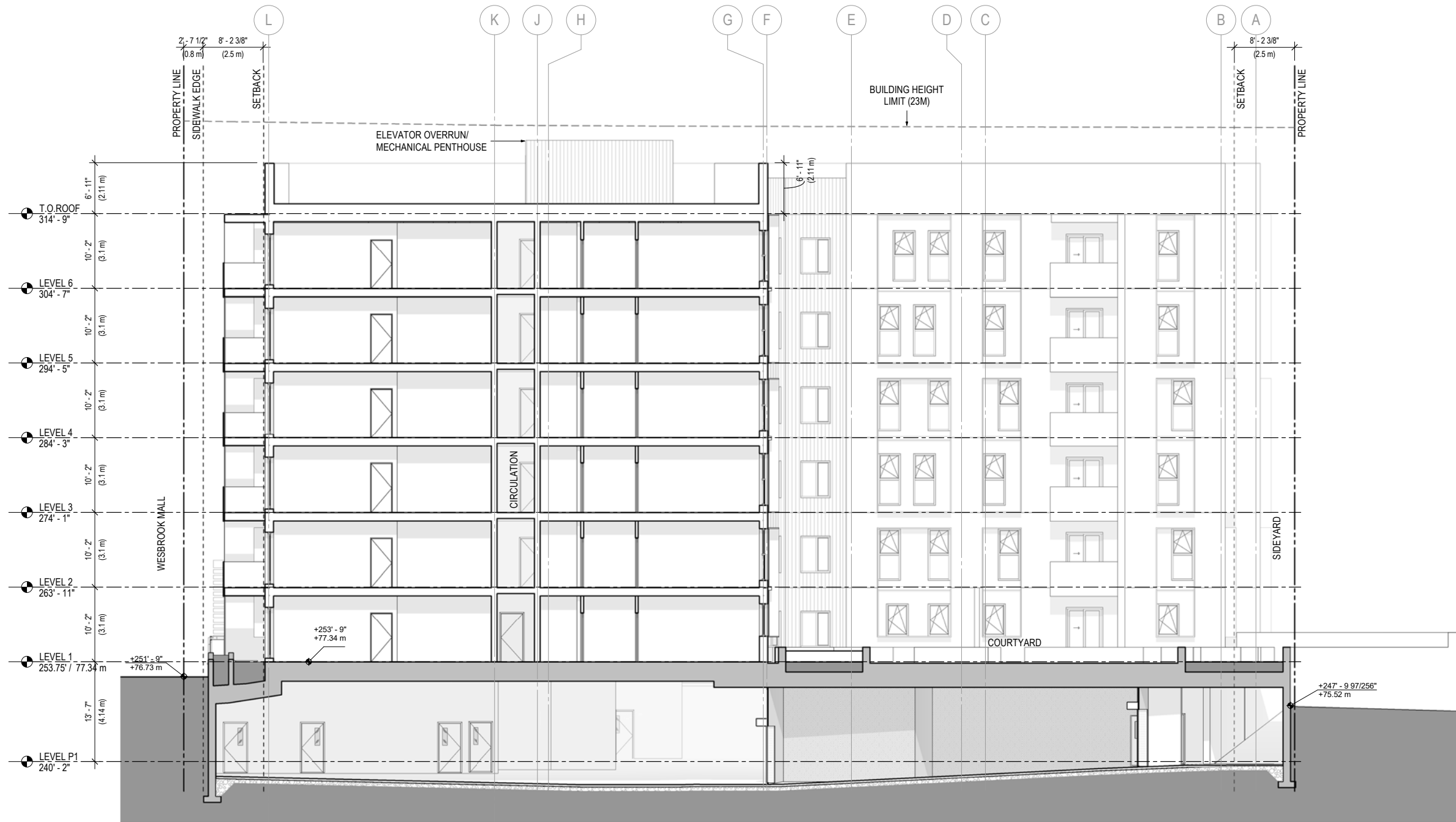
EAST ELEVATION

02

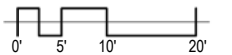


EAST - WEST SECTION

02



NORTH - SOUTH SECTION



PASSIVE HOUSE AND BUILDING PERFORMANCE STRATEGY



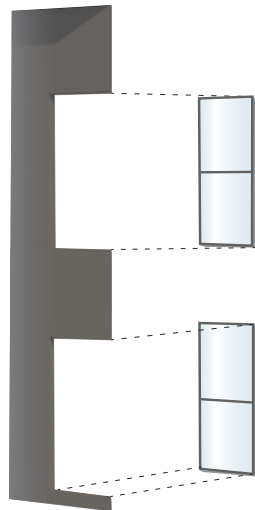
THERMAL COMFORT STRATEGY



SHADING STRATEGY

1 NORTH WINDOW

THE NORTH ELEVATION DOES NOT HAVE SHADING REQUIREMENTS FOR SOLAR GAINS. WINDOWS ARE UNSHADED TO OPTIMIZE DAYLIGHTING



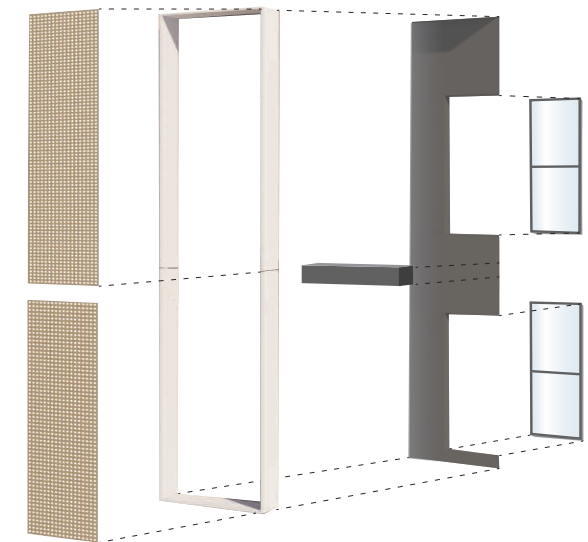
2 NORTH BALCONY

THE NORTH ELEVATION DOES NOT HAVE SHADING REQUIREMENTS FOR SOLAR GAINS. BALCONIES ARE UNSHADED BUT INCLUDE WEATHER PROTECTION



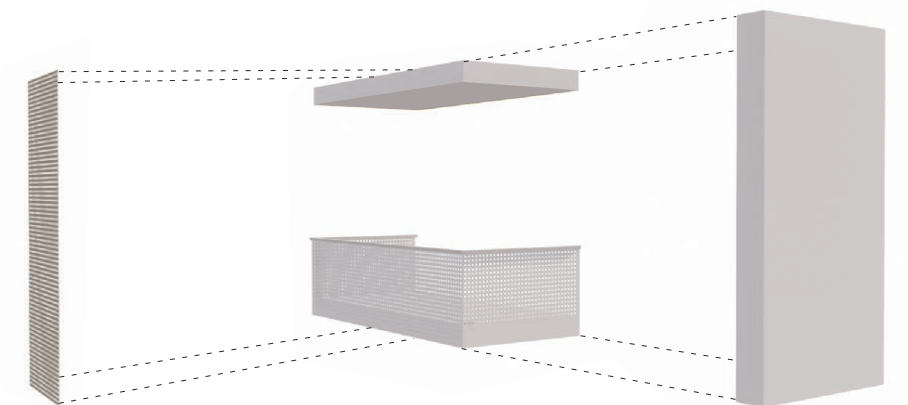
3 WEST WINDOW

THE WEST FACADE EXPERIENCES THE MOST HARSH SOLAR CONDITION. FIXED VERTICAL + HORIZONTAL SHADING PROTECTS FROM EXCESSIVE SOUTH AND WEST SOLAR GAINS. OPERABLE ELEMENTS SERVE TO OPTIMIZE OCCUPANT COMFORT



4 WEST BALCONY

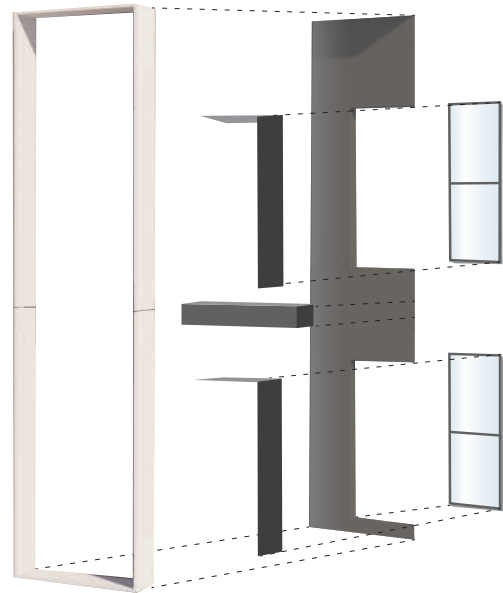
THE WEST BALCONIES HAVE AN OPAQUE WHITE SCREEN BLOCKING SUN FROM THE SOUTH AND A SEMI-TRANSPARENT OPERABLE SCREEN BLOCKING LATE AFTERNOON SUN FROM THE WEST.



SHADING STRATEGY

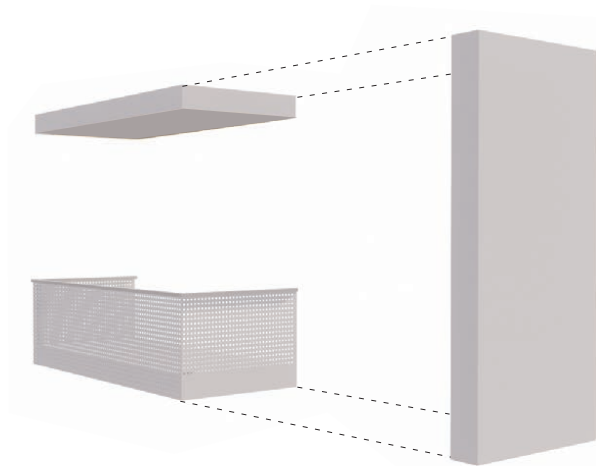
5 SOUTH WINDOW

THE SOUTH FACADE HAS FIXED AND OPERABLE SHADING DEVICES TO COMBAT SOLAR GAINS IN THE SUMMER AND ALLOW FOR DAYLIGHTING IN WINTER.



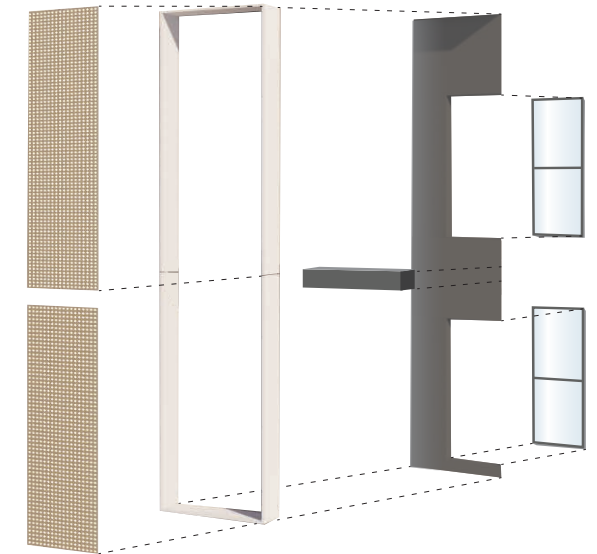
6 SOUTH BALCONY

THE BALCONIES HAVE AN OPAQUE WHITE SCREEN BLOCKING SUN FROM THE EAST IN EARLY MORNINGS. HORIZONTAL SHADING BLOCKS SUMMER SUN FROM THE SOUTH AND ALLOWS DAYLIGHT TO ENTER THE SPACE IN THE WINTER.



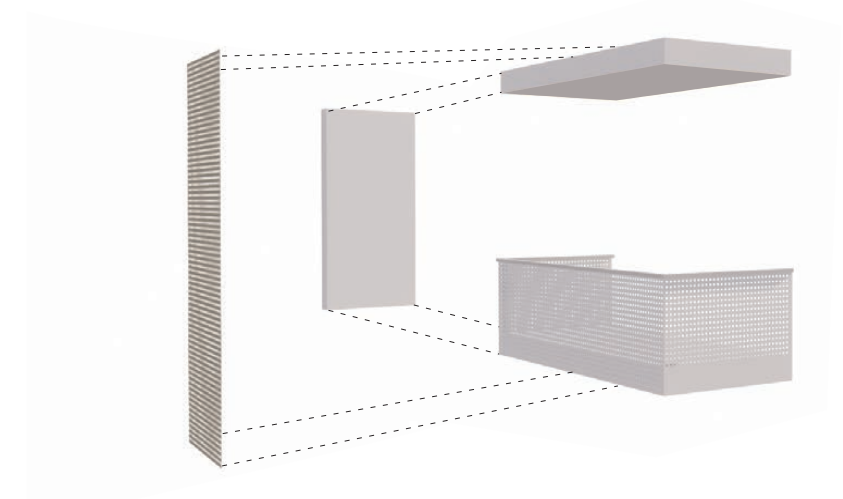
7 EAST WINDOW

THE EAST FACADE EXPERIENCES THE MOST HARSH SOLAR CONDITION. FIXED VERTICAL + HORIZONTAL SHADING PROTECTS FROM EXCESSIVE SOUTH AND EAST SOLAR GAINS. OPERABLE SHADING SERVES TO OPTIMIZE OCCUPANT COMFORT



8 EAST BALCONY

THE EAST BALCONIES HAVE AN OPAQUE WHITE SCREEN BLOCKING SUN FROM THE SOUTH AND A SEMI-TRANSPARENT OPERABLE SCREEN BLOCKING EARLY MORNING SUN FROM THE EAST.



03

LANDSCAPE DESIGN

CONTEXT AND CIRCULATION PLAN



FUTURE CONNECTION TO RESEARCH PARK



CONCEPT PLAN

03



28

44

GROUND FLOOR UNITS

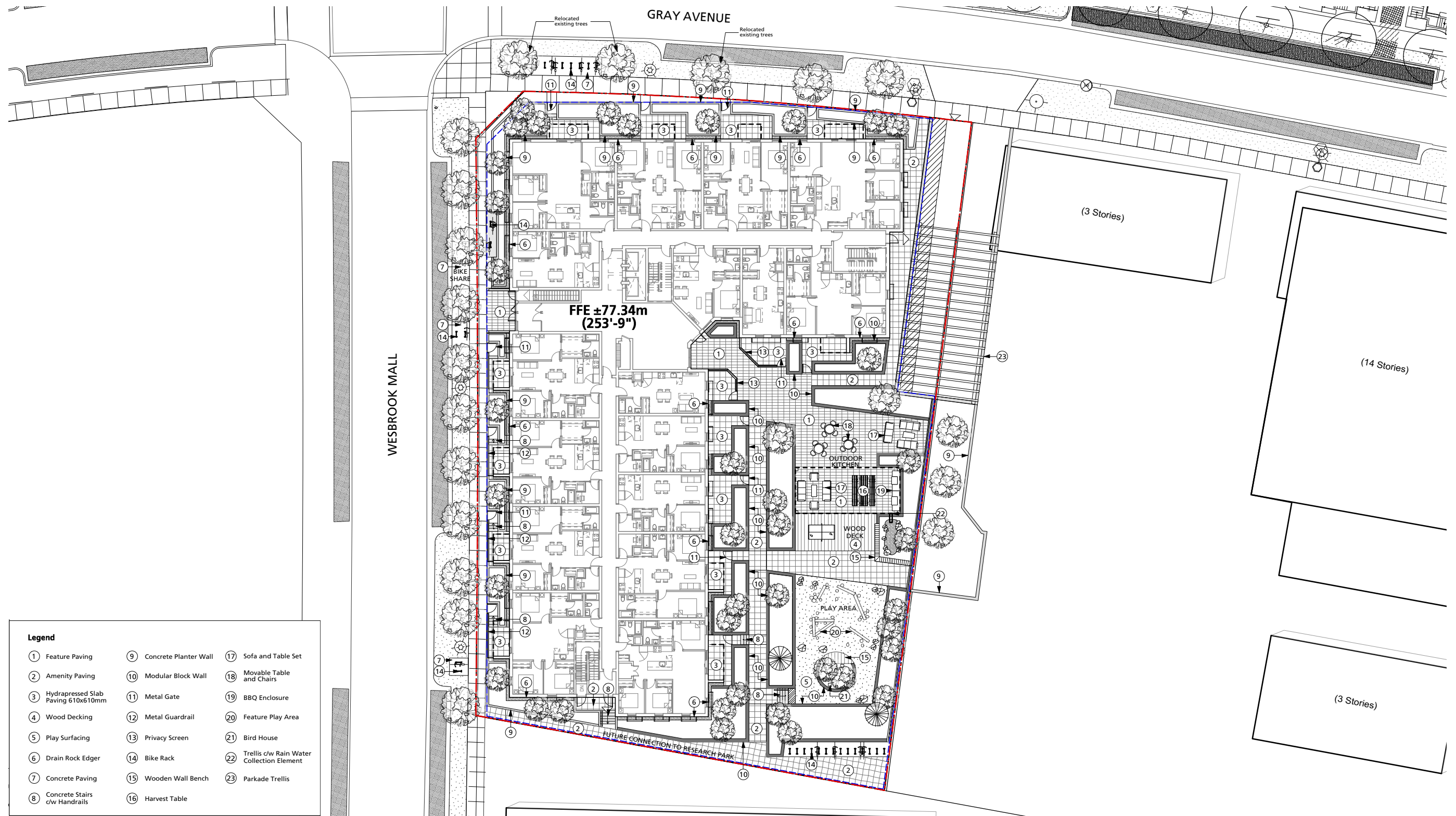
UNITS ALONG WESBROOK MALL



UNITS ALONG GRAY AVENUE



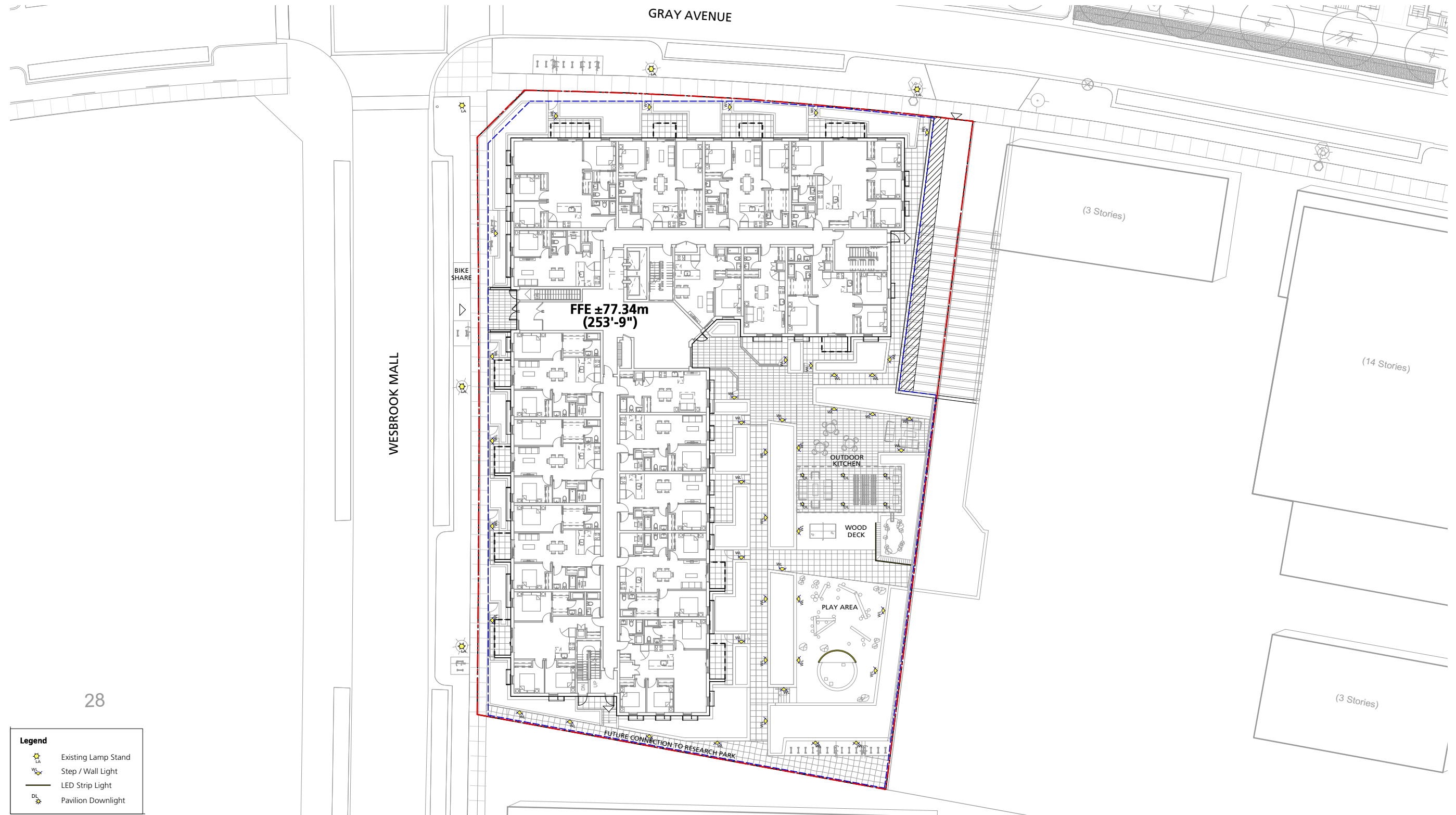
KEY PLAN



Legend

- | | | |
|--------------------------------------|-------------------------|---|
| ① Feature Paving | ⑨ Concrete Planter Wall | ⑰ Sofa and Table Set |
| ② Amenity Paving | ⑩ Modular Block Wall | ⑱ Movable Table and Chairs |
| ③ Hydrapressed Slab Paving 610x610mm | ⑪ Metal Gate | ⑲ BBQ Enclosure |
| ④ Wood Decking | ⑫ Metal Guardrail | ⑳ Feature Play Area |
| ⑤ Play Surfacing | ⑬ Privacy Screen | ㉑ Bird House |
| ⑥ Drain Rock Edger | ⑭ Bike Rack | ㉒ Trellis c/w Rain Water Collection Element |
| ⑦ Concrete Paving | ⑮ Wooden Wall Bench | ㉓ Parkade Trellis |
| ⑧ Concrete Stairs c/w Handrails | ⑯ Harvest Table | |

LIGHTING PLAN



28

Legend	
	Existing Lamp Stand
	Step / Wall Light
	LED Strip Light
	Pavilion Downlight

GRADING PLAN

03

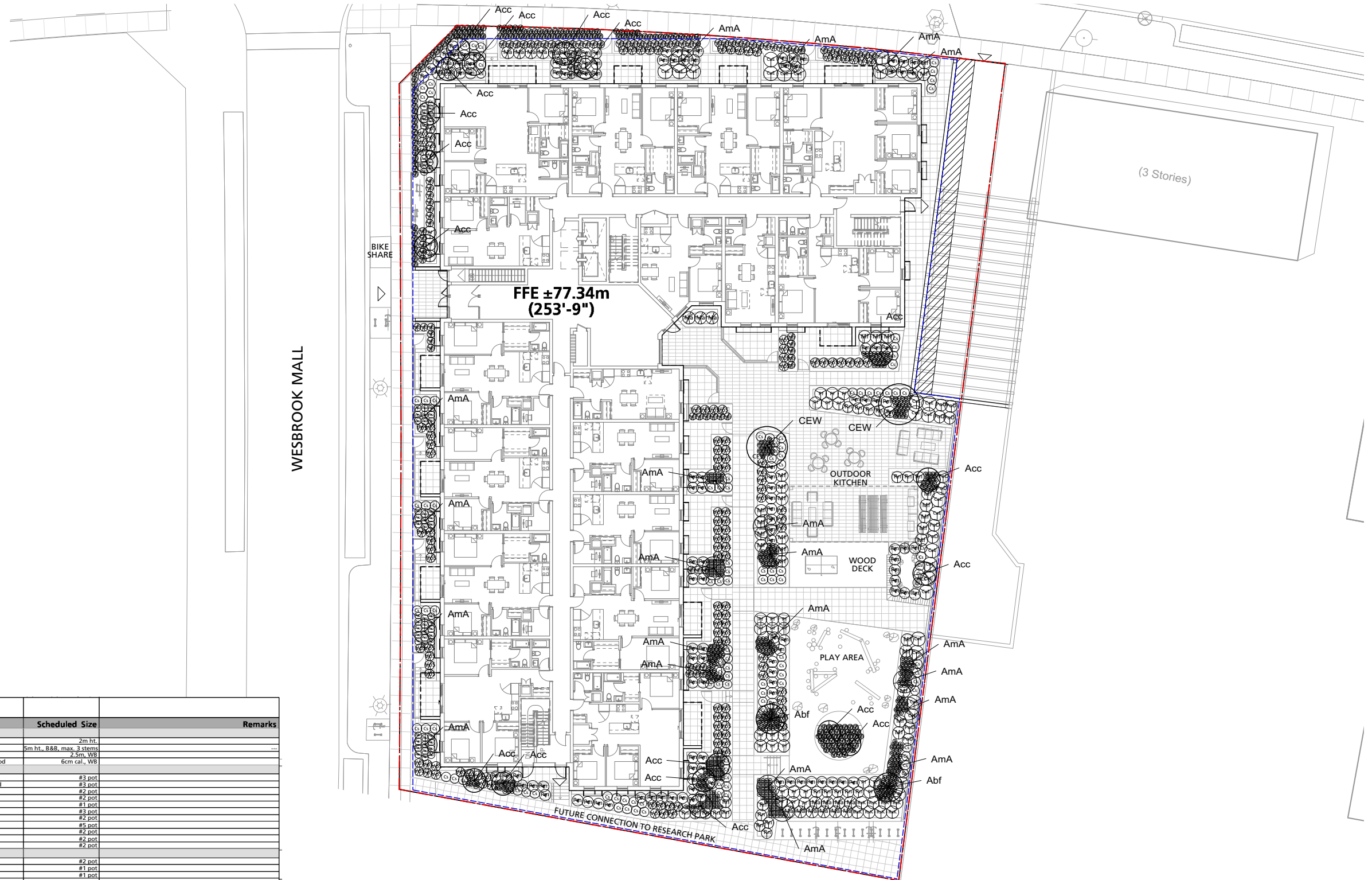


Legend

FFE +83.21	Finish Floor Elevation	AD	Area Drain
+FG 83.16	Finish Grade Elevation	AD ₂	Bi-Level Area Drain
+TW 83.66	Top of Wall Elevation	PD	Planter Drain
+BW 83.06	Bottom of Wall Elevation	-----	Perforated Pipe
+TC 83.30	Top of Curb Elevation		
+EX 81.22	Existing Survey Elevation		
+LB 81.20	Lawn Basin Elevation		

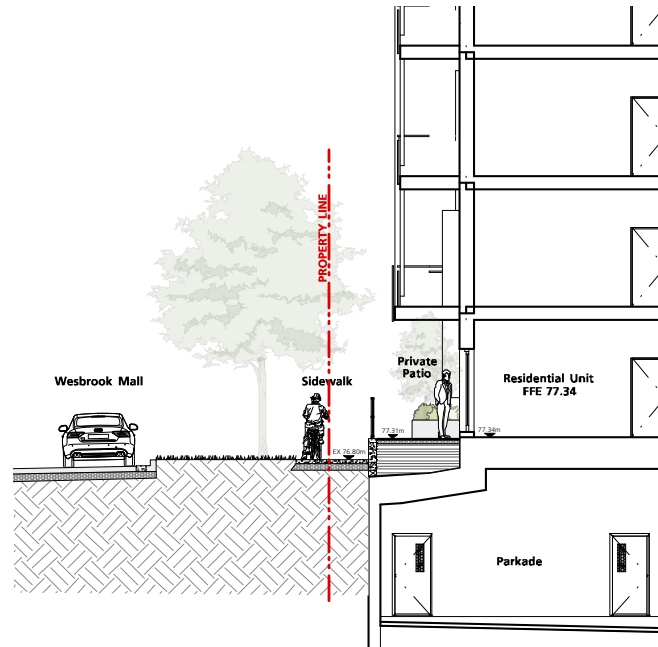
PLANTING PLAN

03



Symbol	Qty.	Botanical Name	Common Name	Scheduled Size	Remarks
Plant List					
Trees					
Abf	2	<i>Abies fraseri</i>	Fraser Fir	2m ht.	
Acc	18	<i>Acer circinatum</i>	Vine Maple	5m ht., B&B, max. 3 stems	
AmA	21	<i>Amelanchier alnifolia</i>	Saskatoon Serviceberry	2.3m WB	
CEW	2	<i>Cornus 'Eddie's White Wonder'</i>	Eddie's White Wonder Dogwood	6cm cal., WB	
Shrubs					
CaE	23	<i>Cornus alba 'Elegantissima'</i>	Variiegated Dogwood	#3 pot	
Ca	114	<i>Cornus sericea 'Arctic Fire'</i>	'Arctic Fire' Red Twig Dogwood	#3 pot	
Gs	169	<i>Gaultheria shallon</i>	Salal	#2 pot	
Ma	21	<i>Mahonia aquifolium</i>	Oregon Grape	#2 pot	
DF	25	<i>Menziesia ferruginea</i>	False Azalea	#1 pot	
PoD	10	<i>Physocarpus opulifolius 'Diablo'</i>	Diablo Ninebark	#3 pot	
PF	32	<i>Potentilla fruticosa</i>	Cinquefoil	#2 pot	
RK	8	<i>Ribes sanguineum 'Kino Edward VII'</i>	Flowering Currant	#5 pot	
Rn	29	<i>Rosa nutkana</i>	Nootka Rose	#2 pot	
Vo	94	<i>Vaccinium ovatum</i>	Evergreen Huckleberry	#2 pot	
VoS	130	<i>Vaccinium ovatum 'Scarlet Ovation'</i>	Evergreen Huckleberry	#2 pot	
Groundcovers, Vines, Ferns, Perennials and Grasses					
Ku	57	<i>Arctostaphylos uva-ursi</i>	Kinnikinnick	#2 pot	
Fc	576	<i>Fragaria chiloensis</i>	Coastal Strawberry	#1 pot	
Pm	116	<i>Polystichum munitum</i>	Western Sword Fern	#1 pot	

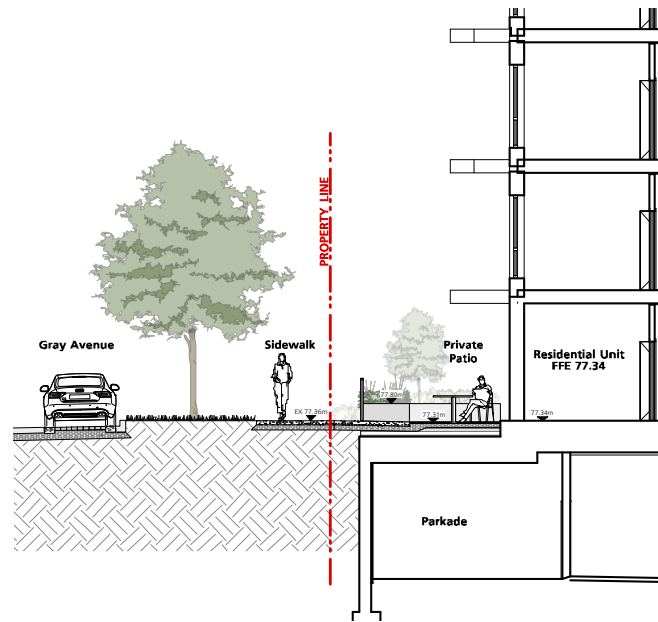
ILLUSTRATIVE SECTIONS



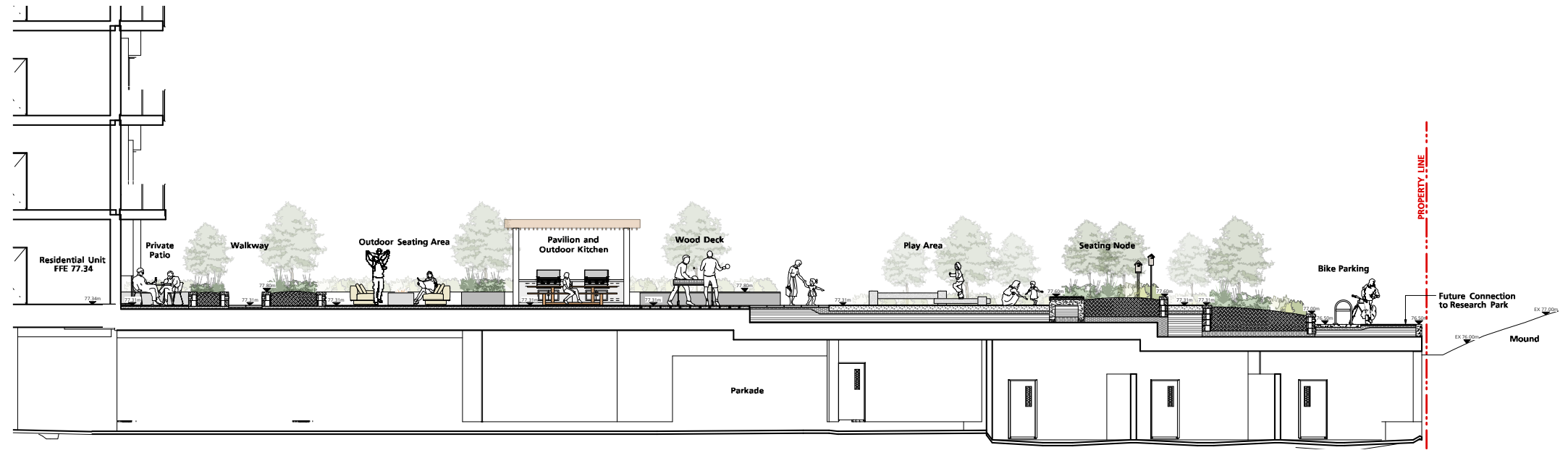
SECTION 1 - PRIVATE PATIO ON WESBROOK MALL (TYP.)



SECTION 2 - PRIVATE PATIO, WALKWAY AND PLAY AREA IN COURTYARD

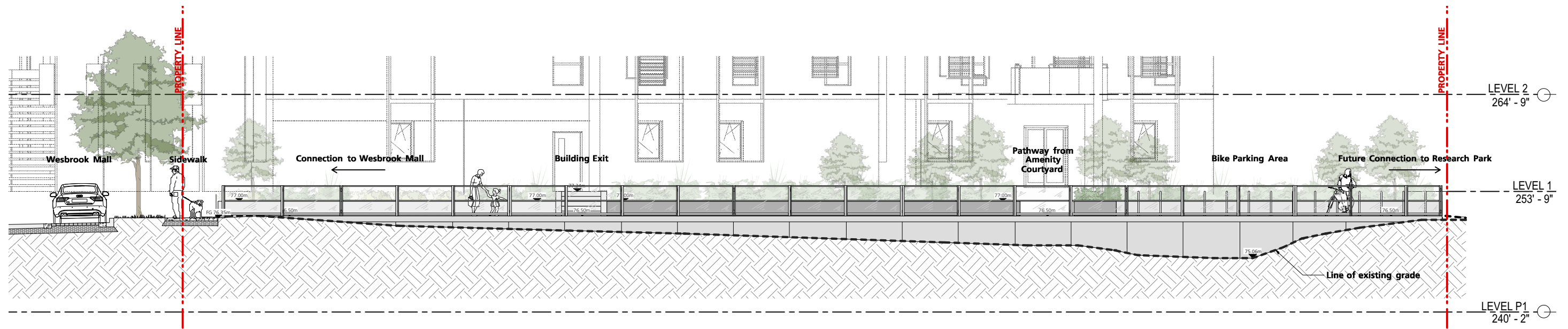


SECTION 3 - PRIVATE PATIO ON GRAY AVENUE (TYP.)



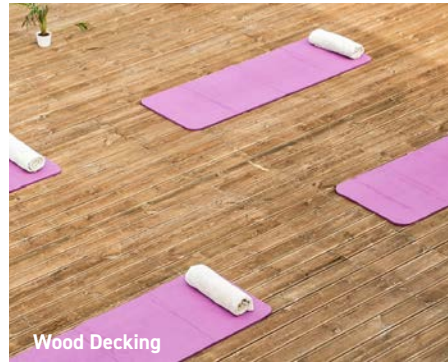
SECTION 4 - PATIO, AMENITY COURTYARD, PLAY AREA, BIKE PARKING AND FUTURE CONNECTION TO RESEARCH PARK

ILLUSTRATIVE SOUTH ELEVATION



ELEVATION 1 - SOUTH WALL TREATMENT

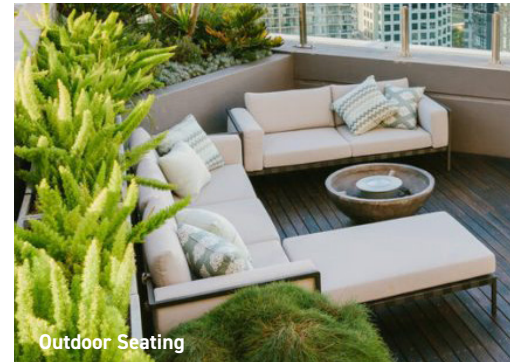
PRECEDENTS



Wood Decking



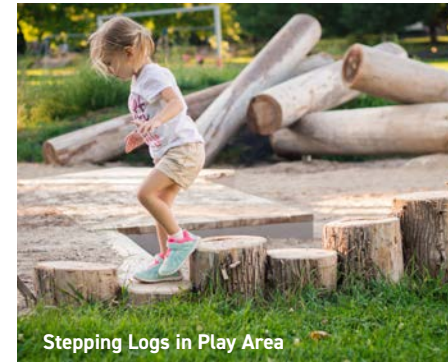
Bike Racks



Outdoor Seating



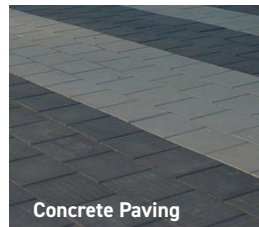
Natural Play in Play Area



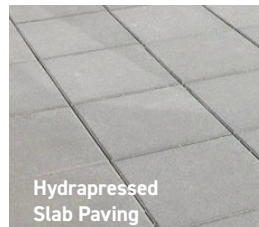
Stepping Logs in Play Area



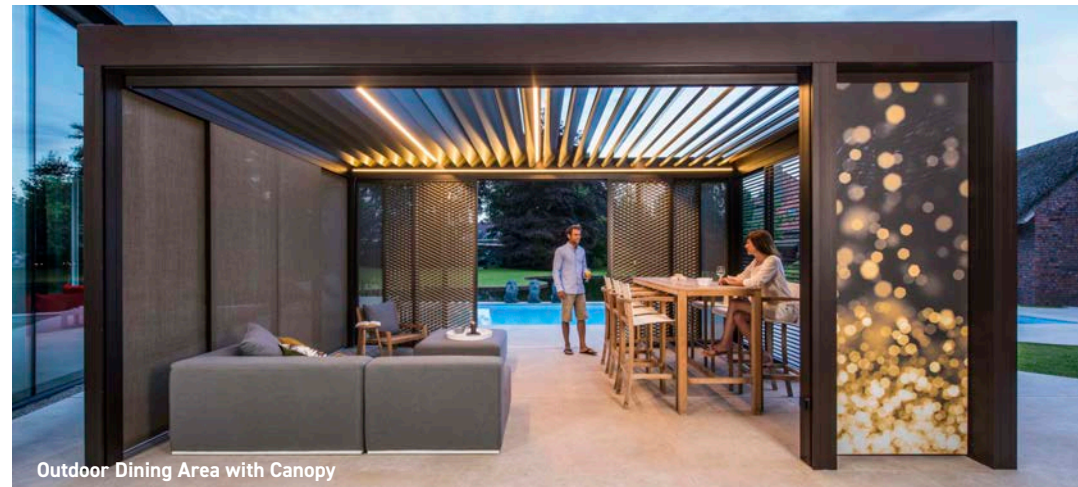
Vine Maple



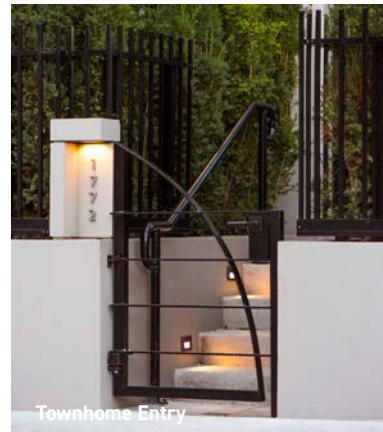
Concrete Paving



Hydrapressed Slab Paving



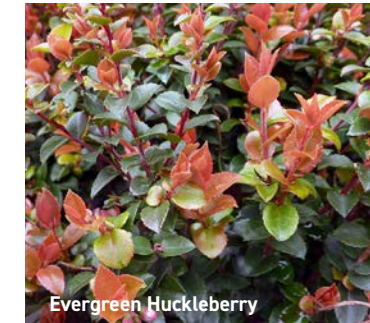
Outdoor Dining Area with Canopy



Townhome Entry



In-Ground Trampoline in Play Area



Evergreen Huckleberry



Coastal Strawberry



Outdoor Seating with Canopy



Rain Chain from Trellis/Canopy



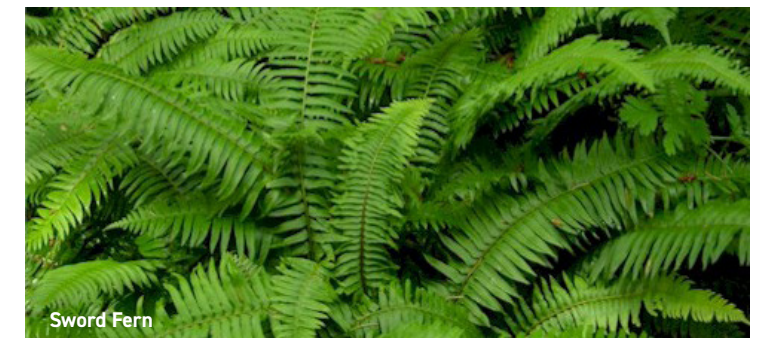
Custom Curved Bench in Play Area



Oregon Grape



Low Oregon Grape



Sword Fern

LANDSCAPE ELEMENTS

PLANTING

04

RESPONSES TO PANEL COMMENTARY

COMMENT

1.01

The simplified massing is moving in a good direction however the north facade should be more aligned with the rest of the building expression. Design development is needed by adding some filigree and vertical connection. Opportunity to introduce a screen as a visual barrier between the units to help to enclose and define the public space and relate to the building's signature eastern elevation. A panel member did not think changing materials in the same plane was successful.

1.02

Consider adding more glazing at the lobby for more impact and connection to the courtyard.

1.03

Consider the parkade door part of the glazing system perhaps make translucent and different than the entry.

1.04

The inside corner is successful. Consider expanding the glazing at the entry lobby to double height to give the entrance more presence an articulate differently than the units. The staggered entry is successful

RESPONSE

Our design team have provided further information to further explain and diagram the rationale to the North Elevation:

- Our team has pursued a very honest approach to the building design in respect to its high-performance goals. The simplified massing allows the solar shading devices to become the prominent features of the building. A combination of fixed and operable shading elements create a dynamic appearance on the façade that is responsive to the solar shading needs of each orientation. This strategy has been informed by a shading impact analysis performed by AME Group, the project's mechanical and energy consultant, to determine optimal energy savings. This study showed extreme solar gains on the East and West elevations. Therefore, the design response shows both fixed and operable shading elements to the windows and balconies; The South façade has fixed shading to the windows and to the balconies to combat predictable solar gains based on known winter and summer sun angles; The North façade does not have any requirement of shading so these added elements have been stripped back to allow for indirect daylight to penetrate the living spaces. Overall, our team believe this intentional façade differentiation highlights our analytical design approach and provides an education opportunity to demonstrate varying climatic conditions at each façade.
- Whilst we can agree changing panel materials in the same plane can be unnecessary in certain circumstances, we also believe the approach here on the North elevation is necessary to align with the rest of the building expression. Further to the new diagram titled 'Shading Strategies', there is an intention to have all elevations of the building tie together with similar detailing, even when the solar shading treatments vary. The window elements used across the scheme are all based on the same design, although made up of different solar shading components as required for each orientation. The East and West window treatments feature the operable shading panels and a fixed window frame projection surrounding a darker charcoal panel. For the South elevation, the operable shading elements are removed, and the fixed shading element and charcoal panel remain. The North elevation allows for all shading elements to be peeled back and the dark panel surrounding the window remains.
- Furthermore, whilst our team does want to express each elevation individually based on its solar orientation and shading requirements, there is also a strong intent to have each elevation tie together through homogenous materiality and continuous layout of cladding panel joints.

We have redesigned the glazing in the corner amenity space to increase the visual connectivity between the lobby and the courtyard. Although still provided within individual window units, these have been enlarged as much as possible.

This has been reviewed and glazing has been added to the parkade egress door at the entry lobby window system along the West Façade. This change can be viewed on the West Elevation and the rendering 'View of Entrance from Wesbrook Mall'.

The glazing to the entry lobby has been increased in height to capitalise on daylight entering the double height space. This change can be viewed on the West Elevation and the rendering 'View of entrance from Wesbrook Mall'.

COMMENT

RESPONSE

1.05 The two three-bedroom units that face the courtyard have small living room windows. Explore flipping the living space or adding another window to allow more cross ventilation within the units and keeping the lineal window aesthetic.

For all unit types that have living spaces at the building corners, we have provided windows on both sides of the corner.

1.06 Separation above grade for privacy at the terraces is successful. Planters with trees will add extra filigree to help create a screen. Including the movable screens to the grade level could create a dynamic streetscape and contribute to further privacy.

No response required.

1.07 Consider rotating the amenity room in the lobby 90 degrees to create a programmable space (or rotate mail room for similar effect).

We have rotated the mailroom – this change can be reviewed on the level 1 plan. Whilst the amenity lounge will remain an open space to the lobby, the rotated mailroom now provides an uninterrupted, more easily programmable space.

1.08 A panel member thought the parkade access provides a sense of security landing at the main entry.

No response required.

1.09 Explore if there is an opportunity to shift the parkade ramp to maximize green space. Consider adding vines over the parkade ramp to soften the view for the units overlooking the parkade.

- Appropriate detailing of the trellis will provide the required screening of the parkade ramp without the need to add vine plantings which would create a maintenance requirement.
- This parkade access ramp is intended to be shared between BCR8 and the neighbouring lot. Sharing parkade ramps amongst neighbouring lots will reduce the overall number of access ramps in the village and reduce the number of curb cuts along the public boulevards/sidewalks. The sharing of this parkade access ramp also reduces the maintenance commitment, space impact and any underutilisation a dedicated ramp would bring for any individual lot.
- The shared ramp proposed for this development is centred over the property line between this and the neighbouring lot. Our team is less inclined to move the parkade ramp further east as suggested. In addition to impeding development on the adjacent site, it would not be consistent with the objective of mutual cross-easements for access, with maintenance costs shared 50/50. Centering the parkade ramp on the property line

COMMENT

RESPONSE

1.10 Maximize the size of trees in the boulevard to help with screening of the facade and soil depth to maximize the tree canopy.

The existing boulevard trees along Wesbrook Boulevard are Acer Autumn Blaze species that are well established and will provide screening of the façade immediately upon completion of the project. Trees along Gray are proposed to be another cultivar of Red Maple and once established will provide adequate screening.

1.11 Generally, the urban realm is linked via routes and pathways creating connectivity between the development parcels. The courtyard in this parcel is somewhat self-contained. The planters along the east side are creating an introverted courtyard. Consider opportunities to have a courtyard that is more interconnected.

Adjustments to the courtyard are proposed to allow for future adaptability to provide more connectivity to adjacent sites. UBC Properties Trust are committed to the ongoing maintenance of this site – there is a history in the village of creating new connections and updates to the landscape of completed lots to suit newer developed adjacent lots.

1.12 More articulation is needed in the outdoor room on north side.

We have proposed a number of changes to the courtyard to provide more articulation help define the spaces on the north side of the courtyard.

1.13 Play equipment, trampolines are good. Consider a tricycle path around the playground for younger children.

A rubberized surface is proposed to border the play area that could provide the opportunity for a tricycle loop.

1.14 There are a lot of bike racks. Consider doubling up the bike racks to get more connectivity.

There are a large number of bike racks required for the site. C+CP has confirmed bike parking on the boulevard is allowed.

1.15 Related commentary for UBC Properties Trust: Consider opportunities for development over the parking ramp.

The parkade ramp has been designed to a generous width (to account for its future sharing with the neighbouring lot) plus additional width of the pedestrian/bicycle pathway. Because of this pedestrian/bicycle pathway, the building code requires this ramp to be no steeper than 10%. The ramp proposed, and location of the planter/header above this ramp as it lowers into the parkade, is sized and located to these parameters and the required head clearance. In addition, and as referenced in response to comment 1.09, a trellis will be provided over the exposed section of the ramp to provide further screening.

COMMENT

RESPONSE

2.01 Applicant to follow up with the Design Team regarding the detailing of the panel system on the north façade of the building.

The design team met with Matthew Roddis on September 24th, 2019. Our response to item 1.01 was discussed and understood to be acceptable. As stated in item 1.01, further documentation has been provided with this submission to further support the rationale of the north façade.

2.02 Applicant to follow up with Krista Falkner, Transportation Engineer for Detailing for

1. Bike Share

The Design Team (UBCPT, ZGF and P+A) have coordinated this item with Krista and will be dedicating some of the Class II bike storage allocation from this project to a bike share program. This will be further coordinated with Krista at C+CP.

2.03 Applicant to contact Penny Martyn, Green Building Manager,

1. Passive design strategies

The Design Team (UBCPT and ZGF) have contacted Penny and will continue to share passive design strategies at Building Permit when there is more detail.

2.04 Applicant to submit the following to Energy & Water Services

1. For sanitary service discharge use the existing sanitary stub out on Wesbrook Mall.
2. For the proposed storm service stub and discharge to Grey Ave, please confirm that the existing building storm service connection from Lot 16, north of Grey Ave. won't have flooding issues after adding Lot BCR 8 storm service discharge to the existing 250 mm dia sewers on Grey Ave. Confirm . and ensure that a backwater valve is in place on Lot 16 storm service connection.

The design team, lead by our Civil consultant, InterCAD, has coordinated revisions and provided further information to both the Storm and Sanitary connections with Jenny Liu, Energy & Water Services, as requested above.

1. Sanitary will be connected to the existing sanitary stub out on Wesbrook Mall.
2. Storm Service to Gray Ave. was reviewed between InterCAD and Jenny Liu, Energy & Water Services – An 'OK to proceed' was received from Jenny.

ZGF

PORTLAND

1223 SW Washington Street
Suite 200
Portland, OR 97205
T 503.224.3860

WASHINGTON, DC

1800 K Street NW
Suite 200
Washington, DC 20006
T 202.380.3120

SEATTLE

925 Fourth Avenue
Suite 2400
Seattle, WA 98104
T 206.623.9414

NEW YORK

419 Park Avenue South
20th Floor
New York, NY 10016
T 212.624.4754

LOS ANGELES

515 South Flower Street
Suite 3700
Los Angeles, CA 90071
T 213.617.1901

VANCOUVER BC

355 Burrard Street
Suite 350
Vancouver, BC V6C 2G8
Canada
T 604.558.8390

www.zgf.com