UBC PROPERTIES TRUST ZGF P+A

Development Permit Application Submission

September 14, 2018

4 WESBROOK

PROJECT NO: V24178 DRAWING NO: 001

Drawing List

Project Information

Civic Address

6038 Birney Avenue, Vancouver, BC

Wesbrook Village, University of British Columbia

Legal Description

Lot 4 District Lot 6494 Group 1

New Westminster District, Plan EPP29484

Parcel Identifier (PID)

029-436-681

Total Site Area

41,457 SF / 3,851 SqM

Development Area

SC2A Medium Density Residential

Project Team

Client

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Project Overview

Site + Context

Lot 4 is situated at the center of Wesbrook Place Neighbourhood. The site is bound by a main traffic route to the North - Birney Avenue, two pedestrian mews to the East and West - Shrum Lane and Webber Lane, and a pedestrian / cycle path to the South - Scholar's Greenway, overlooking Mundell Park.

Proposed Project

Per the zoning and density allocation within the Wesbrook Place Neighbourhood Plan, the project consists of a 6-storey wood frame structure for faculty and staff rental. The project breaks away from the traditional horseshoe shape to allow variety along Birney Avenue, and porosity through the site, permitting both physical and visual connection from the street and to the park beyond. A generous courtyard is provided with an open outlook pavilion anchoring on the south side, integrated with landscaping forming an animated edge along Scholar's Greenway.

Utilizing the existing grade change, the project provides direct bike and stroller access to the parkade from Scholar's Greenway, as well as a bike repair area. The proposal aims to allocate extra bike storage and reduce car parking on site in supporting UBC's goal of promoting a more sustainable environment for the community.

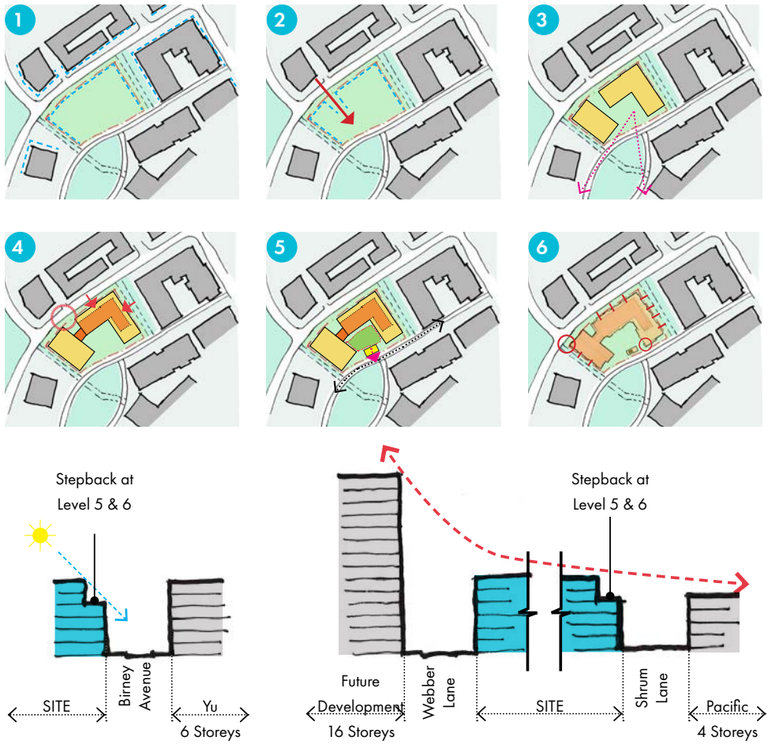
Residential units within the 6-storey faculty and staff housing offer a mixture of studio, 1-bedroom, 2-bedroom, 3-bedroom and 4-bedroom units. The project provides both indoor and outdoor amenity programs within the ground floor and in the courtyard.

Design Rationale & Design Policy Compliance

Neighbourhood Context

The finer detail and urban design being developed throughout this project is aiming to complement the existing built form, public realm and landscape design in Wesbrook Village.

The project is offering ground-orientated dwelling units throughout the scheme with unique unit addressing and lighting to create a strong identity and presence along Birney Avenue, Webber Lane and Shrum Lane, as well as in the courtyard. Outdoor living spaces associated to these ground-orientated units increase their livability and provide the neighbourhood with increased security through passive surveillance and an active street frontage.



Architecture & Materiality

To give the project a greater relationship to its surroundings, the design uses subtle cues to help shape its massing, orientation, materiality and detailing:

- The project offers a building that both maximizes the allowable density prescribed within the Wesbrook Place Neighbourhood Plan and a reduced mass that aligns with the existing context and urban grain. Stepping back the upper levels, breaking up the mass by notches and articulations are devices used to reduce the perceived size of the overall development.
- The project situates among the center of Wesbrook Village. The two linked buildings pay close attention to the surrounding urban context to enhance the vibrant village feel. The 6-storey west wing respond to the future 16-storey development on the adjacent site to the west. The 6-storey east wing steps back at Level 5 and 6 to create and continue the existing 4-storey street wall along Birney Avenue and Shrum Lane to the east. The stepback also reduces shadow impact on the existing 6-storey development along Birney Avenue and the 4-storey on Shrum Lane.
- Utilizing the special location in between the urban streets and park/ greenway, the opening created by the two linked masses allow variety along Birney Avenue, and porosity through the site, permitting both physical and visual connection from the street and to the park beyond. The layout aimed to maximize the number of ground related units along Birney Avenue, Webber Lane and Shrum Lane; whilst opening up the south edge to increase solar exposure in the courtyard and as well as providing views to the greenway and park beyond.
- The continuation of a simple, contextual material palette offers honest west coast textures and colours. The project utilizes three key contrasting tones to help highlight the breakdown of building mass:
  - White paneling is used as the main façade material to lighten up the mass (used on the lower level on the east wing, and a portion of the west wing);
  - Grey panel siding ties the building together (used on the receding upper levels on the east wing, the linking bridge, and part of the west wing);
  - Warm tones of wood accent siding is used to add interest to the recessed balconies and create focal points (entrance lobby, courtyard lookout, etc.)

Amenity

The development is providing an active and expansive amenity area adjoining interior spaces and outdoor spaces via the courtyard. The indoor amenity space is intending to be a bright and vibrant multi-use space for residents to both work and socialize, with a focus on encouraging a sense of community amongst all residents. A guest suite is also provided as a popular demand from UBCPT's previous rental developments.

The indoor amenity space is adjacent to an outdoor amenity area within the central courtyard, further encouraging continuous animation and activity of this space. An open pavilion anchoring on the south edge provides pleasant covered resting area overlooking Mundell Park and beyond. Integrated with the landscape, the pavilion separates the semi-private courtyard from the public realm, but at the same time provides an animated edge along Scholar's Greenway.

Utilizing the existing grade change, the project offers direct bike and stroller access to the parkade from Scholar's Greenway to enhance a safe and pleasant environment that separates pedestrian/cyclist from vehicular path. A bike repair area is also provided off Scholar's Greenway to add more variety to the amenity offered on site.

Building Performance

Project Performance Targets: Reap Gold (minimum) + BC Step Code Step 1

The Lot 4 multi-family residential building will serve as a model project for future UBCPT buildings to reach more ambitious energy targets than are currently required. These targets, driven by the BC Energy Step Code, will soon be required of all UBCPT projects via the REAP certification system. The project will target BC Energy Step Code Step 1. This target is equivalent to NECB 2011 requirements, with an additional requirement for air tightness testing. This goal will be an economical introduction to the processes and requirements of the Step Code, and serve as an example for future UBCPT projects. In addition to energy, site design will provide outdoor amenity spaces and enhanced bike facilities (changing rooms, showers, repair workshop, additional parking) to encourage a healthy campus lifestyle and connection to the outdoors.

Project Statistics

SITE INFORMATION

CIVIC ADDRESS	6038 BIRNEY AVENUE, VANCOUVER, BC
LEGAL DESCRIPTION	LOT 4 DISTRICT LOT 6494 GROUP 1 NEW WESTMINSTER DISTRICT, PLAN EPP29484
PARCEL IDENTIFIER (PID)	029-436-681
DEVELOPMENT AREA	SC2A MEDIUM DENSITY RESIDENTIAL
GROSS SITE AREA	**41,457 SF / 3,851 SqM**

SETBACK & BUILDING HEIGHT INFORMATION

SITE COVERAGE	**ALLOWED**	**PROPOSED**
	55% MAXIMUM	**53.1%**

SETBACKS	**ALLOWED**	**PROPOSED**
NORTH (BIRNEY AVENUE)	8.20 FT / 2.50 m	**8.27 FT to 9.25 FT / 2.52 m to 2.82 m**
SOUTH (SCHOLAR'S GREENWAY)	8.20 FT / 2.50 m	**9.12 FT to 15.68 FT / 2.78 m to 4.78 m**
WEST (WEBBER LANE)	8.20 FT / 2.50 m	**8.20 FT to 8.58 FT / 2.50 m to 2.62 m**
EAST (SHRUM LANE)	8.20 FT / 2.50 m	**8.21 FT to 8.75 FT / 2.50 m to 2.67 m**

BUILDING HEIGHT	**ALLOWED**	**PROPOSED**
	6 STOREYS	**6 STOREYS**
	75.46 FT / 23.00 m	**62.50 FT / 19.05 m TO TOP OF PARAPET, TYPICAL**
		64.50 FT / 19.66 m TO TOP OF PARAPET, WEST WING
		70.00 FT / 21.34 m TO TOP OF ELEVATOR OVERRUN

PARKING & LOADING CALCULATIONS

PARKING STALLS PERMITTED:		
FACULTY AND STAFF RENTAL (NON-MARKET HOUSING)	136 STALLS	1.0 STALL PER PRINCIPAL DWELLING UNIT
VISITOR	14 STALLS	0.1 STALL PER PRINCIPAL DWELLING UNIT
TOTAL PARKING SPACES PERMITTED:	**150 STALLS**	
OF WHICH:		
ACCESSIBLE STALLS	14 STALLS	0.1 STALL PER PRINCIPAL DWELLING UNIT

PARKING STALLS PROVIDED:		
RESIDENTIAL PARKING STALLS	57 STALLS	0.42 STALLS PER PRINCIPAL DWELLING UNIT
VISITOR STALLS	9 STALLS	14% OF TOTAL PROVIDED STALLS
TOTAL PARKING STALLS PROVIDED	**66 STALLS**	
OF WHICH:		
ACCESSIBLE STALLS	7 STALLS	10.6% OF TOTAL STALLS
SMALL STALLS	16 STALLS	24.2% OF TOTAL STALLS (MAXIMUM 25% ALLOWABLE)
STANDARD	43 STALLS	65.2% OF TOTAL STALLS

BICYCLE STORAGE CALCULATIONS

BICYCLE SPACES REQUIRED:		
FACULTY AND STAFF RENTAL (NON-MARKET HOUSING)	204 CLASS I STALLS	1.50 SPACES PER DWELLING
CLASS II	68 CLASS II STALLS	0.50 SPACES PER DWELLING
BICYCLE SPACES PROVIDED:		
TOTAL CLASS I BIKE STALLS	**313 CLASS I STALLS**	**2.30 SPACES PER DWELLING**
OF WHICH:		
HORIZONTAL BIKE STORAGE	184 CLASS I STALLS	INCLUDING 33 RESERVED BIKE LOCKERS
VERTICAL BIKE STORAGE	129 CLASS I STALLS	41.2% OF TOTAL STALLS
TOTAL CLASS II BIKE STALLS	**68 CLASS II STALLS**	**LOCATED IN THE COURTYARD**
OF WHICH:		
	58 STALLS	85.3% LOCATED ON-SITE
	10 STALLS	14.7% LOCATED OFF-SITE (OUTSIDE OF PROPERTY LINE)

STORAGE LOCKER CALCULATIONS

STORAGE LOCKER REQUIRED BY UBCPT		
FACULTY AND STAFF RENTAL (NON-MARKET HOUSING)	35 LOCKERS	1.00 LOCKER FOR EACH 3 BED, 3 BED+DEN, AND 4 BED DWELLING UNITS
STORAGE LOCKER PROVIDED		
4' x 6' LOCKERS (TWO HORIZONTAL BIKE STORGAE) (EQUIVALENT OF	110 LOCKERS 220 HORIZONTAL BIKE STORGAE)	0.81 LOCKERS PER DWELLING

REQUESTED VARIANCES

1	Reducing the number of vehicle parking stalls required for visitors from 0.1 stall per principal dwelling unit (14 stalls required) down to 10% of total vehicle parking stalls provided (7 stalls) for visitor use. Using recent projects as a precedent, this reduced parking ratio provides a sufficient number of stalls for its intended use within a minimal amount of parkade levels.
2	Reducing the number of accessible parking stalls required from 0.1 stall per principal dwelling unit (14 stalls required) down to allocating and sizing 10% of the provided vehicle parking stalls (7 stalls) for accessible use only. Using recent projects as a precedent, this reduced parking ratio provides a sufficient number of stalls for its intended use within a minimal amount of parkade levels.
3	14.7% of Class II bike stalls (10 stalls) are place outside of the property line. These offsite bike stalls are placed near the intersection of Webber Lane and Scholar's Greenway, where such placement provides easy access and better utilization.

AREA SUMMARY

TOTAL RESIDENTIAL AREA	(INCLUDED FROM FSR)		106,045 SF / 9,852 SqM
TOTAL INTERIOR CIRCULATION & LOBBY AREA	(INCLUDED FROM FSR)		14,704 SF / 1,366 SqM
TOTAL SERVICES	(INCLUDED FROM FSR)		810 SF / 75 SqM
TOTAL AMENITY AREA	(EXCLUDED FROM FSR)		870 SF / 81 SqM
TOTAL GROSS FLOOR AREA			**122,429 SF / 11,374 SqM**
DEDUCT: IN-SUITE UNIT STORAGE	(EXCLUDED FROM FSR)	(MAX. ALLOWABLE 40 SF / 3.72 SqM PER DWELLING UNIT)	5,440 SF / 505 SqM

FSR (FLOOR SPACE RATIO)	**ALLOWED**	**PROPOSED**
	2.80 FSR 116,080 SF / 10,784 SqM	**2.80 FSR 116,119 SF / 10,788 SqM**
		*WITH MAXIMUM ALLOWABLE IN-SUITE STORAGE EXCLUSION
		**FSR = TOTAL GROSS FLOOR AREA - TOTAL AMENITY AREA - IN-SUITE UNIT STORAGE

AMENITY SPACE CALCULATIONS

AMENITY	**ALLOWED**	**PROPOSED**
	12,243 SF / 1,137 SqM 10% OF TOTAL GFA	**870 SF / 81 SqM 0.71% OF TOTAL GFA**
		INDOOR AMENITY & GUEST SUITE

AREA BREAKDOWN BY FLOOR

			FSR INCLUSION				FSR EXCLUSION			
LEVEL	**GFA**	**RESIDENTIAL UNITS**	**CIRCULATION**	**SERVICES**	**AMENITY**	**IN-SUITE STORAGE**	**FLOOR AREA CONTRIBUTE TO FSR**
LEVEL 1	21,362 SF / 1,985 SqM	17,658 SF / 1,640 SqM	2,506 SF / 233 SqM	328 SF / 30 SqM	870 SF / 81 SqM	920 SF / 85 SqM	19,572 SF / 1,818 SqM
LEVEL 2	21,993 SF / 2,043 SqM	19,442 SF / 1,806 SqM	2,454 SF / 228 SqM	96 SF / 9 SqM	- / -	1,000 SF / 93 SqM	20,993 SF / 1,950 SqM
LEVEL 3	22,005 SF / 2,044 SqM	19,448 SF / 1,807 SqM	2,460 SF / 229 SqM	96 SF / 9 SqM	- / -	1,000 SF / 93 SqM	21,005 SF / 1,951 SqM
LEVEL 4	22,005 SF / 2,044 SqM	19,448 SF / 1,807 SqM	2,460 SF / 229 SqM	96 SF / 9 SqM	- / -	1,000 SF / 93 SqM	21,005 SF / 1,951 SqM
LEVEL 5	17,554 SF / 1,631 SqM	15,046 SF / 1,398 SqM	2,411 SF / 224 SqM	96 SF / 9 SqM	- / -	760 SF / 71 SqM	16,794 SF / 1,560 SqM
LEVEL 6	17,554 SF / 1,631 SqM	15,046 SF / 1,398 SqM	2,411 SF / 224 SqM	96 SF / 9 SqM	- / -	760 SF / 71 SqM	16,794 SF / 1,560 SqM
TOTAL	**122,472 SF / 11,378 SqM**	**106,088 SF / 9,856 SqM**	**14,704 SF / 1,366 SqM**	**810 SF / 75 SqM**	**870 SF / 81 SqM**	**5,440 SF / 505 SqM**	**116,162 SF / 10,792 SqM**

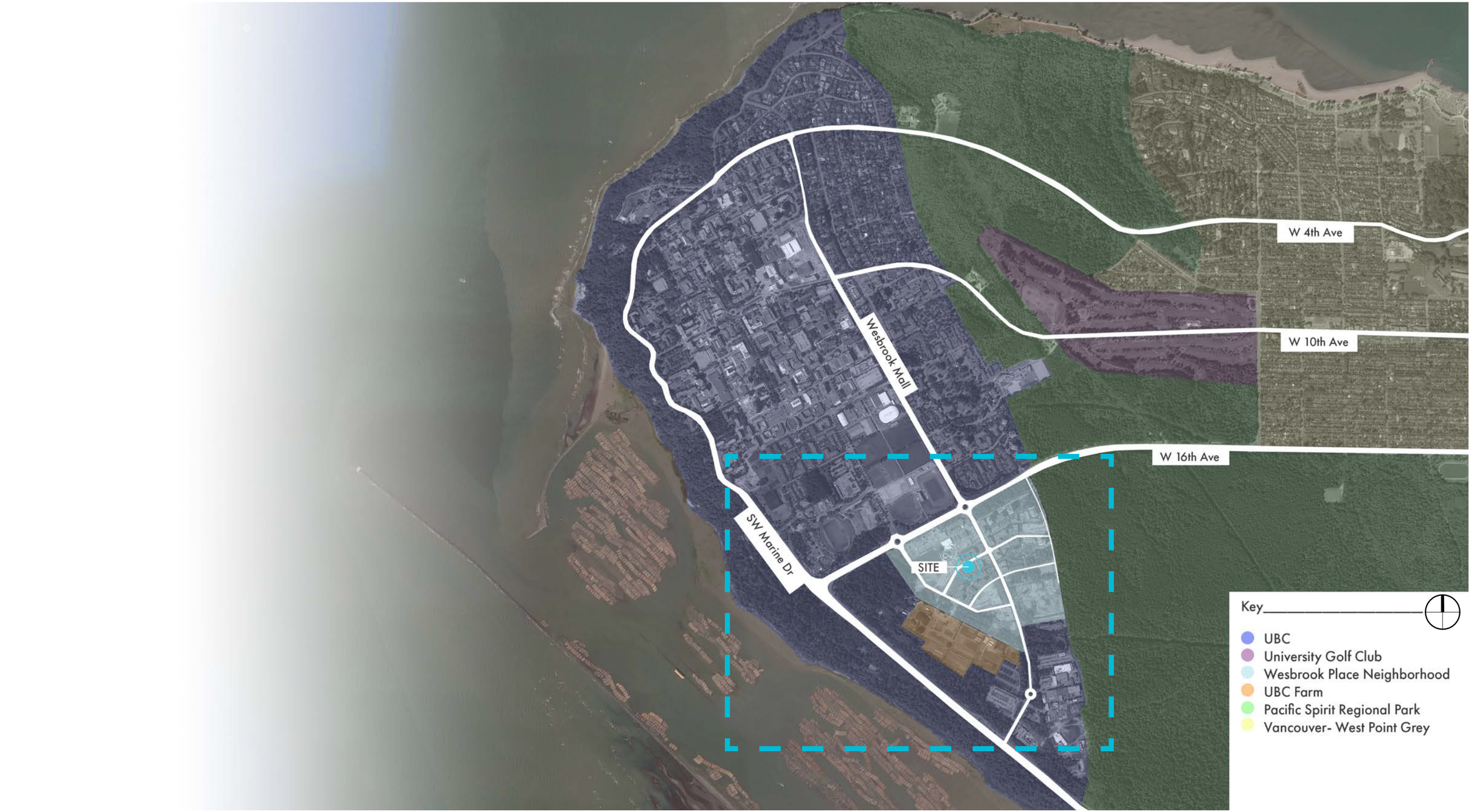
RESIDENTIAL AREA BREAKDOWN

UNIT MIX

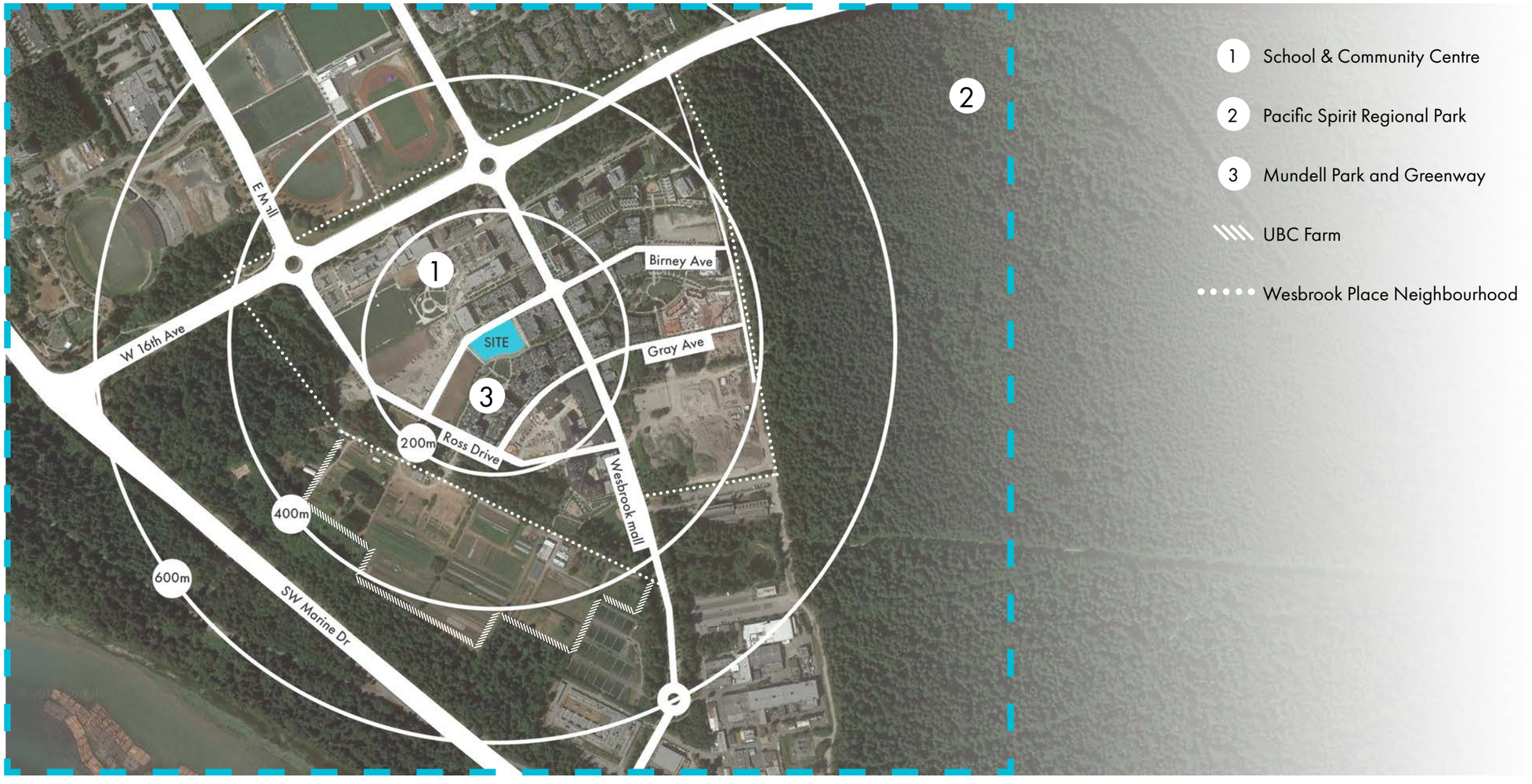
			NUMBER OF UNITS PER FLOOR						TOTAL UNITS IN		
UNIT TYPE	**UNIT AREA RANGE**	**AVG. UNIT SIZE**	**L1**	**L2**	**L3**	**L4**	**L5**	**L6**	**BUILDING**	**% OF TOTAL**	**TOTAL AREA**
STUDIO	366 SF - 502 SF	426 SF / 40 SqM	4	3	3	3	1	1	15	11.0%	6,385 SF / 593 SqM
ONE BED	476 SF - 578 SF	533 SF / 50 SqM	0	1	1	1	3	3	9	6.6%	4,797 SF / 446 SqM
ONE BED + DEN	552 SF - 700 SF	615 SF / 57 SqM	5	6	6	6	2	2	27	19.9%	16,592 SF / 1,541 SqM
TWO BED	632 SF - 829 SF	759 SF / 71 SqM	2	2	2	2	5	5	18	13.2%	13,664 SF / 1,269 SqM
TWO BED + DEN	774 SF - 870 SF	846 SF / 79 SqM	7	7	7	7	2	2	32	23.5%	27,076 SF / 2,515 SqM
THREE BED	906 SF - 1,020 SF	988 SF / 92 SqM	2	2	2	2	3	3	14	10.3%	13,828 SF / 1,285 SqM
THREE BED + DEN	1,000 SF - 1,120 SF	1,045 SF / 97 SqM	2	3	3	3	0	0	11	8.1%	11,491 SF / 1,068 SqM
FOUR BED	1,134 SF - 1,250 SF	1,221 SF / 113 SqM	1	1	1	1	3	3	10	7.4%	12,212 SF / 1,135 SqM
TOTAL			**23**	**25**	**25**	**25**	**19**	**19**	**136**	**100%**	**106,045 SF / 9,852 SqM**

Context Plan

UBC Campus Location Plan



Wesbrook Village Location Plan



1 School & Community Centre

2 Pacific Spirit Regional Park

3 Mundell Park and Greenway

UBC Farm

Wesbrook Place Neighbourhood

Site Context + Photos | Key Plan

Site Context + Photos

A CORNER OF BIRNEY AVENUE AND WEBBER LANE LOOKING EAST

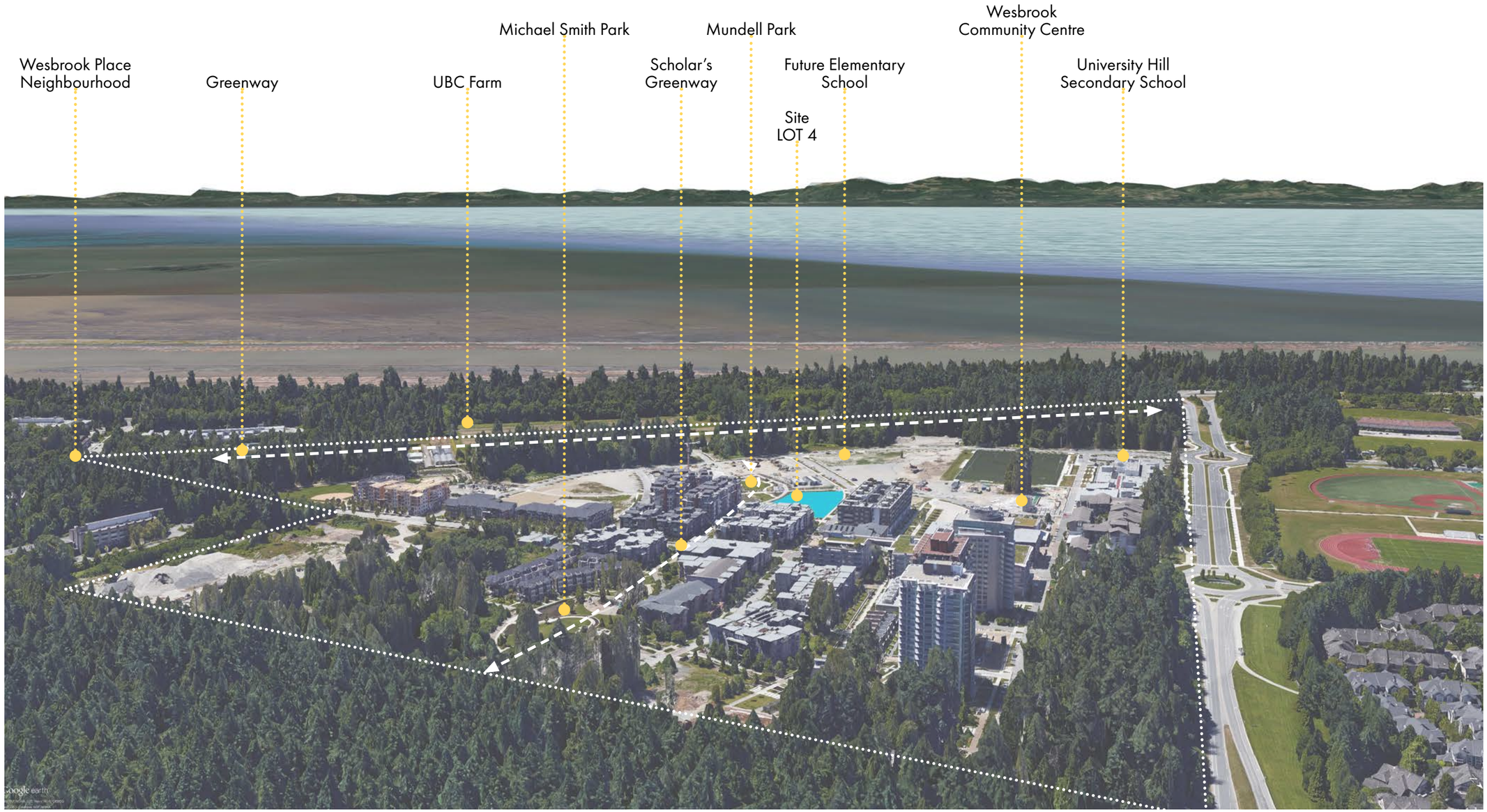
B BIRNEY AVENUE LOOKING SOUTH

Existing

C CORNER OF BIRNEY AVENUE AND SHRUM LANE LOOKING WEST

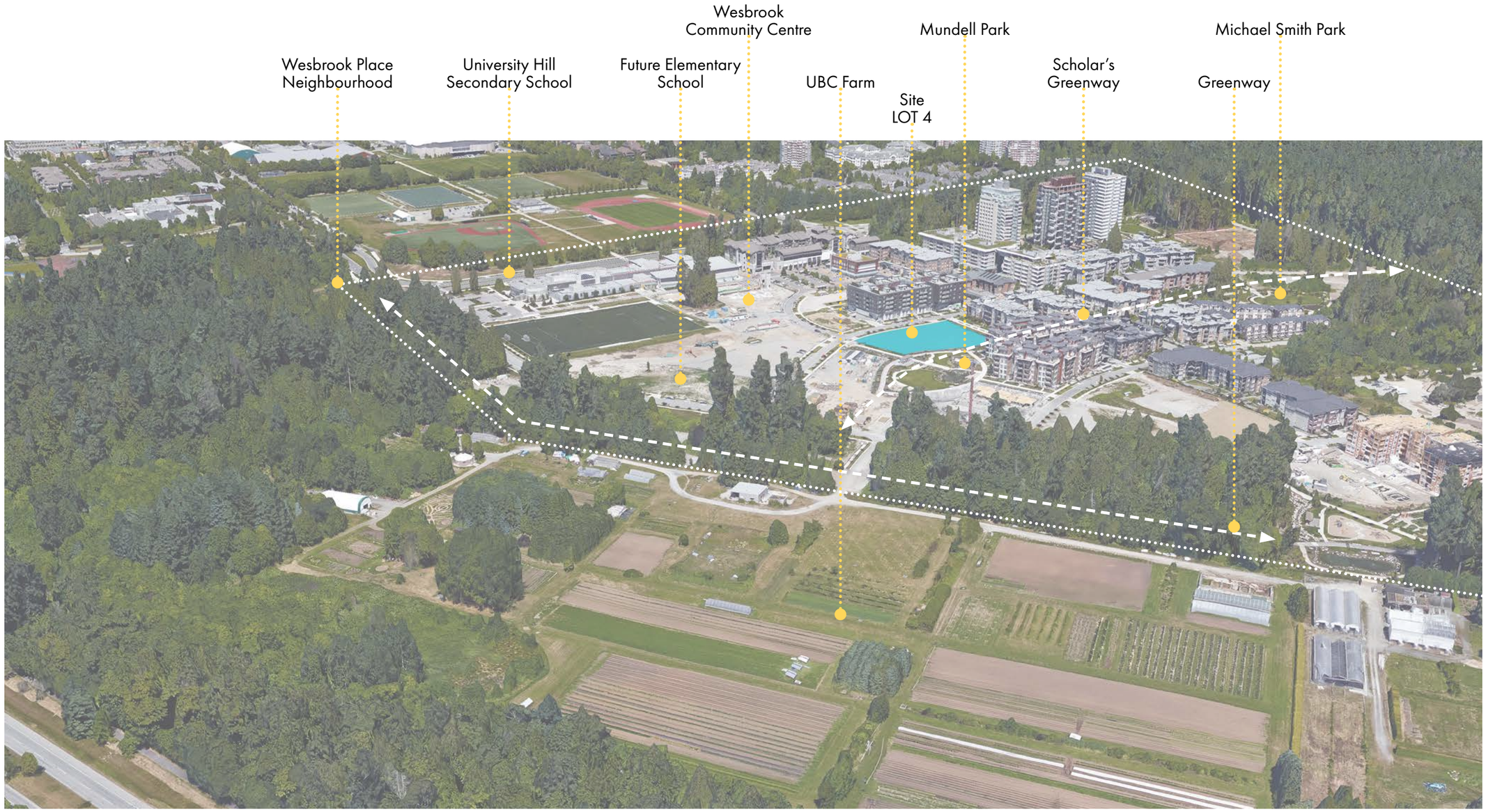
D MUNDELL PARK LOOKING NORTH

Wesbrook Village | Context Aerial



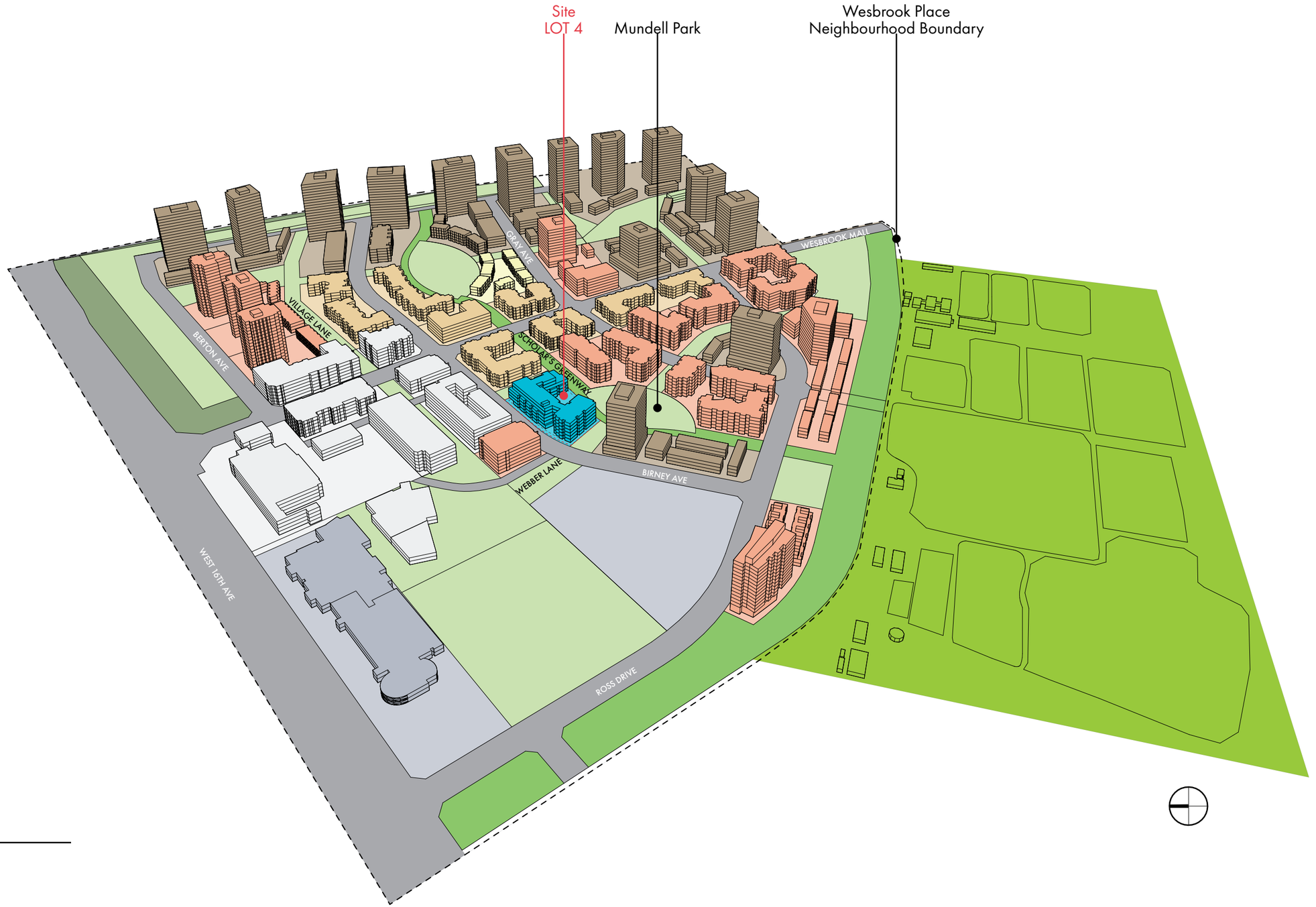
VIEW LOOKING WEST

Wesbrook Village | Context Aerial



VIEW LOOKING NORTH

Wesbrook Village | Density Plan



Maximum 3.5 FSR
High Rise (14 - 22 Storeys)
with Low Rise/Townhouses (3 - 5 Storeys)

Maximum 2.8 FSR
High Rise (14 - 18 Storeys)
with Low Rise/Townhouses (3 - 6 Storeys)

Maximum 2.0 FSR
Low Rise (4 Storeys)

Maximum 1.2 FSR
Low Rise (3 Storeys)

Mixed-Use Commercial Centre

Schools

Green Edge

Usable Neighbourhood Open Space (UNOS)

Greenway

UBC Farm

Site Maximum 2.8 FSR
Medium Density Residential (6 Storeys)

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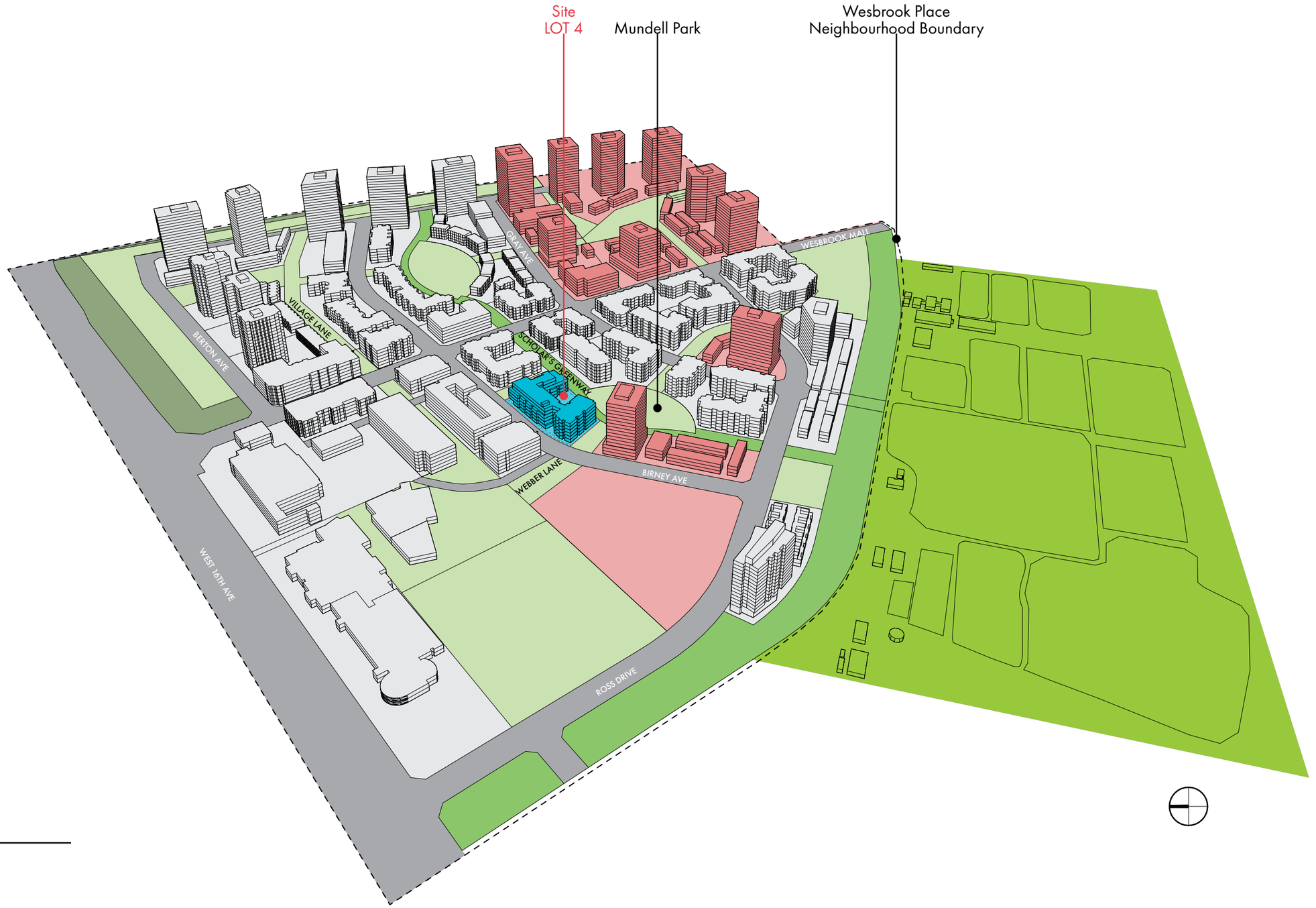
Wesbrook Village | Development Plan



- Built and Current Development
- Future Development
- Green Edge
- Usable Neighbourhood Open Space (UNOS)
- Greenway
- UBC Farm

- Site

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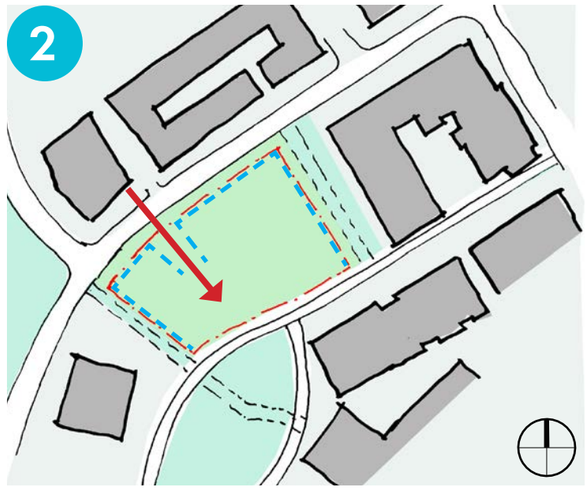
PROJECT NO: V24178 DRAWING NO: 015 DEVELOPMENT PERMIT APPLICATION SUBMISSION | SEPTEMBER 14, 2018

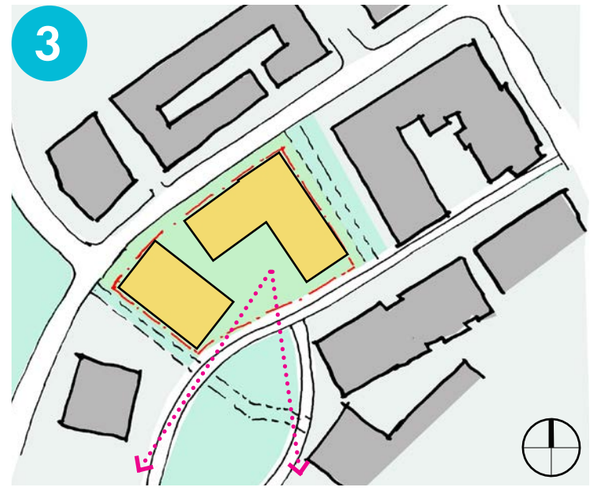
Concepts | Site Strategies

The final concept is expressed as two buildings masses connected by an upper level penthouse bridge pulled back along Birney Avenue. The pedestrian experience and neighbourhood scale is prioritized.

Load site perimeter with buildings to create street wall / urban village feel.



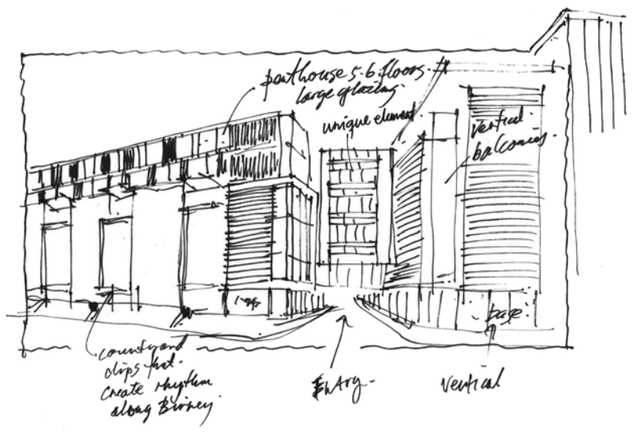
Create visual and physical connection from Birney Avenue to Mundell Park. Public access through Webber Lane and semi-public access through the courtyard.



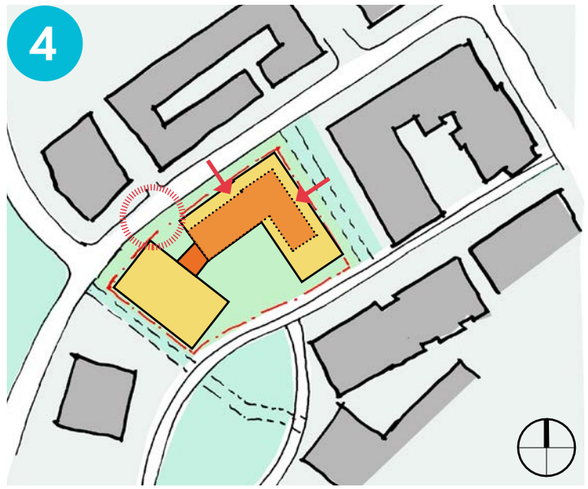
Maximize the efficiency of the two blocks allowing for views to the park and towards south.

The following are the design gestures that informed the final proposal.

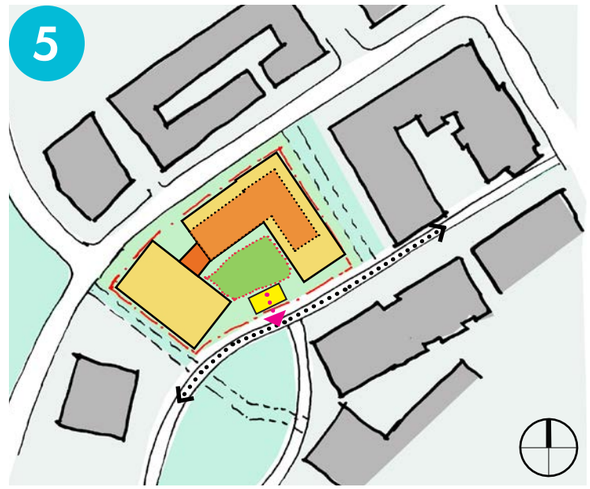
The indent massing over the ground floor opening breaks the continuity of a single facade, adding variety and texture to the streetscape along Birney Avenue.



Concepts | Site Strategies

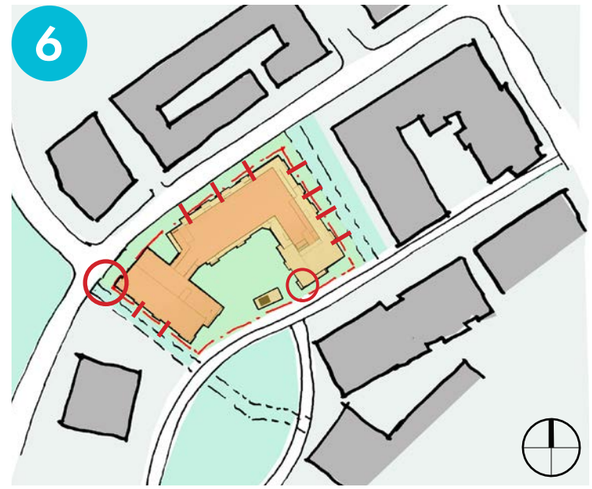


Create a 4-storey street wall by stepping back at Level 5 and 6 to minimize shadow impact and avoid tunnel effect along Birney Avenue. Transition in height from west to east to respond to the building height differences on adjacent sites. 6-storey massing along Webber Lane facing the 16-storey future development; stepback at Level 5 and 6 along Shrum Lane to create a 4-storey street wall facing the 4-storey Pacific Spirit Residence.



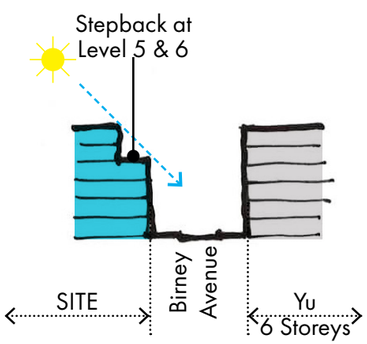
Add multipurpose area to frame the courtyard and allow views to the park.

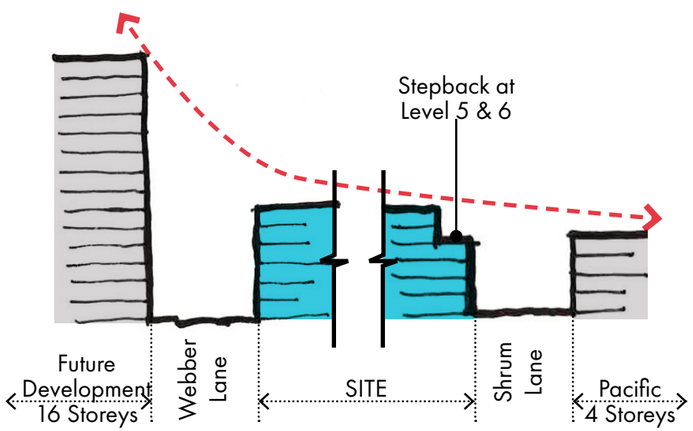
Connection to the bike path system with a direct bike storage entrance to the parkade.



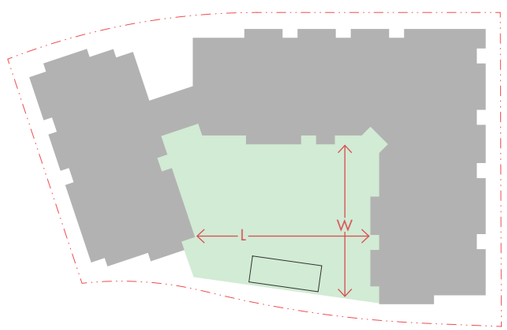
The final concept is expressed as two buildings connected by an upper level penthouse bridge. Pulled back along Birney Avenue, the pedestrian experience and neighbourhood scale is prioritized.

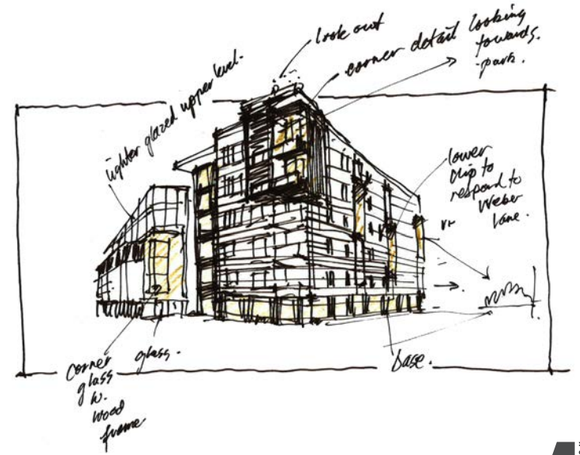
Articulate the facades and openings to create rhythm and sequence around the building to create scale and connect with the neighbourhood.





LOT 4	6 Storeys
Dimensions	L: 98′-9″ (30.1m)
	W: 90′-0″ (27.4m)
Courtyard Area	8,675 SF
Building : Courtyard	1 : 0.38





Wesbrook Village | Courtyard Comparison, Key Plan

Webber House (3388 Webber Lane)

1 Yu (5955 Birney Avenue)

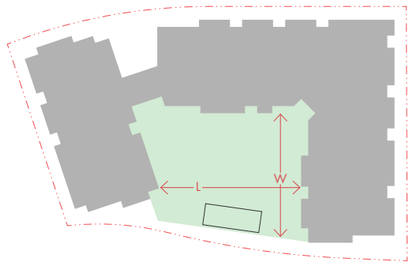
2 Pacific (5928 Birney Avenue)

3 Sail (5983 Gray Avenue)

4 Prodigy (6033 Gray Avenue)

Wesbrook Village | Courtyard Comparison

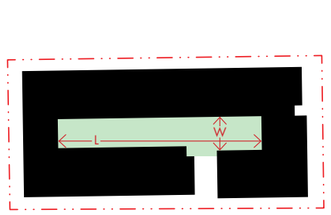
One of the key drivers is a courtyard with ample scale and light. The dimension and scale of surrounding building projects with courtyard are looked at closely to better inform the design proposal.



SITE

LOT 4 6 Storeys

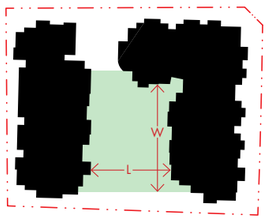
Dimensions	L: 98′-9″ (30.1m)
	W: 90′-0″ (27.4m)
Courtyard Area	8,675 SF
Building : Courtyard	1 : 0.38



1

YU 6 Storeys

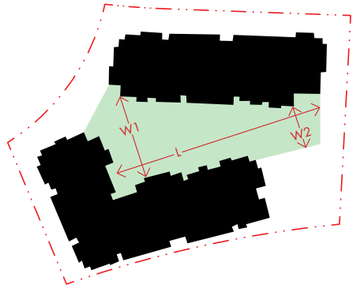
Dimensions	L: 184′-4″ (56.2m)
	W: 26′-3″ (8.0m)
Courtyard Area	4,840 SF
Building : Courtyard	1 : 0.21



2

PACIFIC 4 Storeys

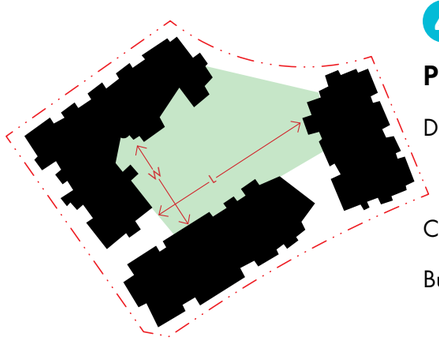
Dimensions	L: 71′-0″ (21.7m)
	W: 101′-8″ (31.0m)
Courtyard Area	7,400 SF
Building : Courtyard	1 : 0.32



3

SAIL 6 Storeys

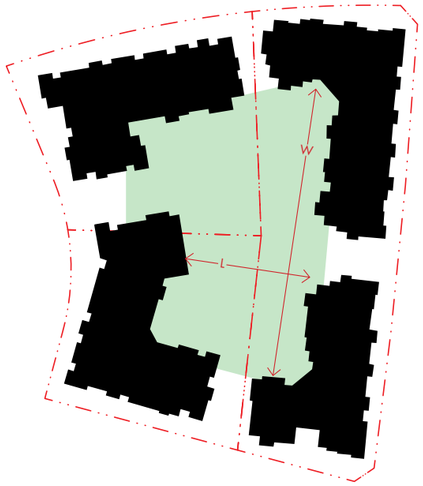
Dimensions	L: 162′-4″ (49.5m)
	W1: 84′-0″ (25.6m)
	W2: 31′-5″ (9.6m)
Courtyard Area	10,300 SF
Building : Courtyard	1 : 0.41



4

PRODIGY 6 Storeys

Dimensions	L: 148′-8″ (45.3m)
	W: 83′-6″ (25.5m)
Courtyard Area	13,170 SF
Building : Courtyard	1 : 0.43



5

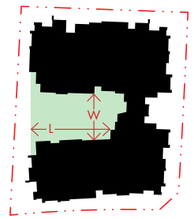
CYPRESS 6 Storeys

DAHLIA 4 Storeys

PINE 6 Storeys

MAGNOLIA 4 Storeys

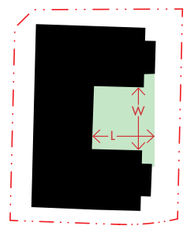
Dimensions	L: 126′-7″ (38.6m)
	W: 259′-2″ (79.0m)
Courtyard Area	33,280 SF
Building : Courtyard	1 : 0.62



6

ULTIMA 4 Storeys

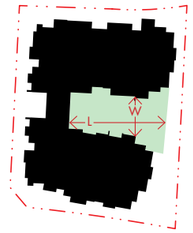
Dimensions	L: 74′-9″ (22.8m)
	W: 38′-1″ (11.6m)
Courtyard Area	3,150 SF
Building : Courtyard	1 : 0.21



7

LARKSPUR HOUSE 4 Storeys

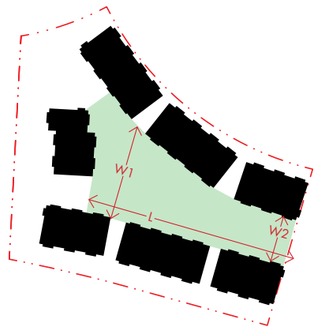
Dimensions	L: 45′-6″ (13.9m)
	W: 57′-0″ (17.4m)
Courtyard Area	2,585 SF
Building : Courtyard	1 : 0.18



8

SPIRIT 4 Storeys

Dimensions	L: 88′-6″ (27.0m)
	W: 33′-0″ (10.0m)
Courtyard Area	3,120 SF
Building : Courtyard	1 : 0.20



9

CRESCENT WEST 3 Storeys

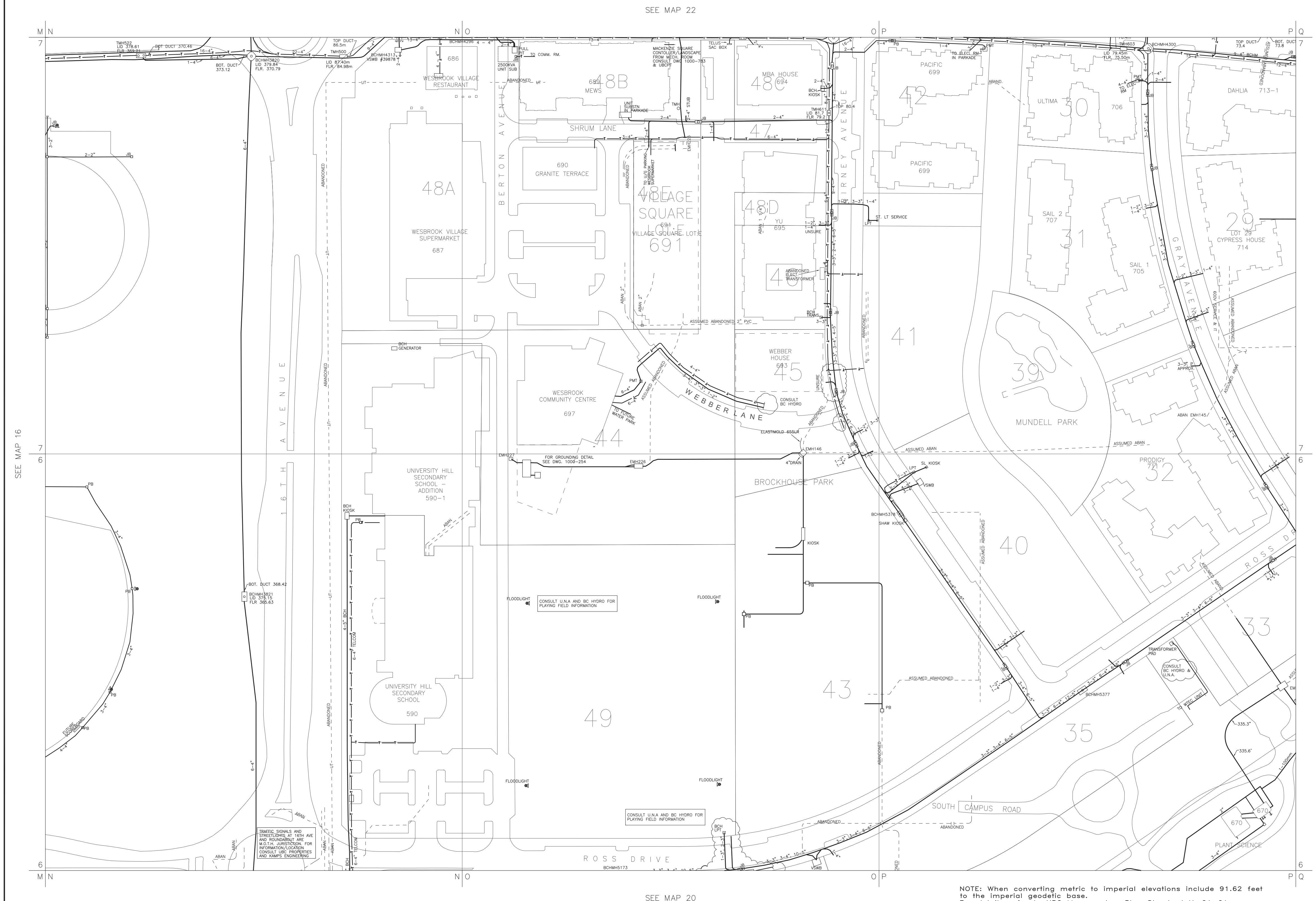
Dimensions	L: 181′-4″ (55.3m)
	W1: 90′-10″ (27.7m)
	W2: 43′-4″ (13.2m)
Courtyard Area	12,000 SF
Building : Courtyard	1 : 0.68

Site Plan

ZGF | UBC PROPERTIES TRUST | P+A

PROJECT NO: V24178 DRAWING NO: 020 DEVELOPMENT PERMIT APPLICATION SUBMISSION | SEPTEMBER 14, 2018

Utility Plan| Electrical



THE UNIVERSITY OF BRITISH COLUMBIA ASSUMES NO RESPONSIBILITY FOR CORRECTNESS OF INFORMATION SHOWN.

REVISED TO LATEST DATE

NO	DESCRIPTION	DATE	BY
21	THUNDERBIRD PARK PLAYING FIELDS	MAY 22/12	DCB
22	BC HYDRO ON BIRNEY AVE, GRAY AVE, ROSS DR.	FEB 14/13	DCB
23	ROSS ROUND & DEL OLD SIGNALS, SERVICE MEWS/MBA/PACIFIC	NOV 6/14	DCB
24	U. HILL SECONDARY POWER AND TELECOM	JUNE 3/15	DCB
25	WESBROOK COMMUN. CENTRE & PLAYING FIELD, WTEC D.E.S. UNIT	NOV 2/16	DCB

SECTOR INDEX

			13	14	23			
4NORTH	4	5	12	15	22	24	30	
3NORTH	3	6	11	16	21	25	29	31
2NORTH	2	7	10	17	20	26	28	
	1	8	9	18	19	27		
	1WEST	8WEST						

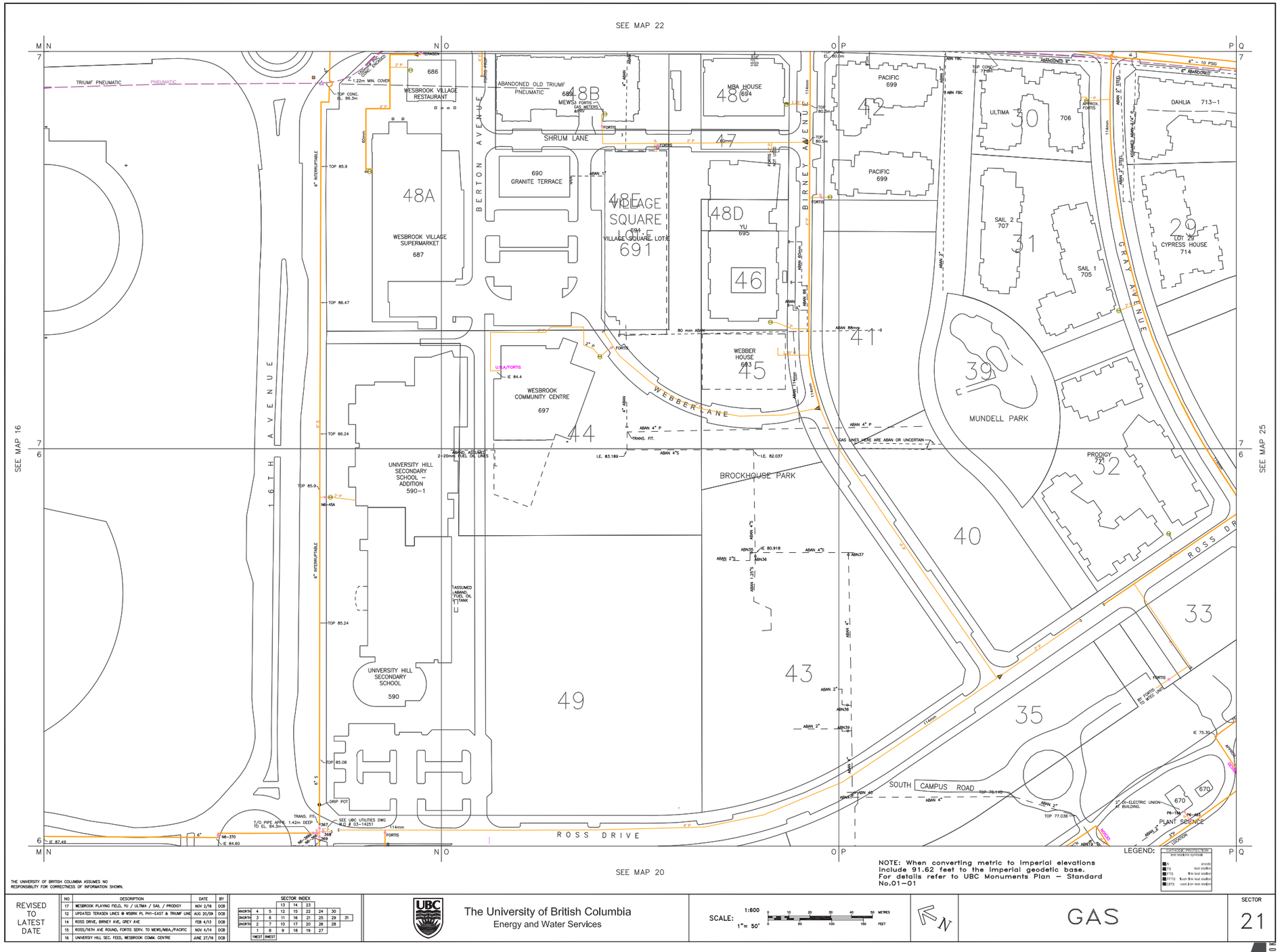
The University of British Columbia
Energy and Water Services

SCALE: 1:600 1"= 50'

ELECTRICAL
(EXCLUDING STREET LIGHTS)

SECTOR 21

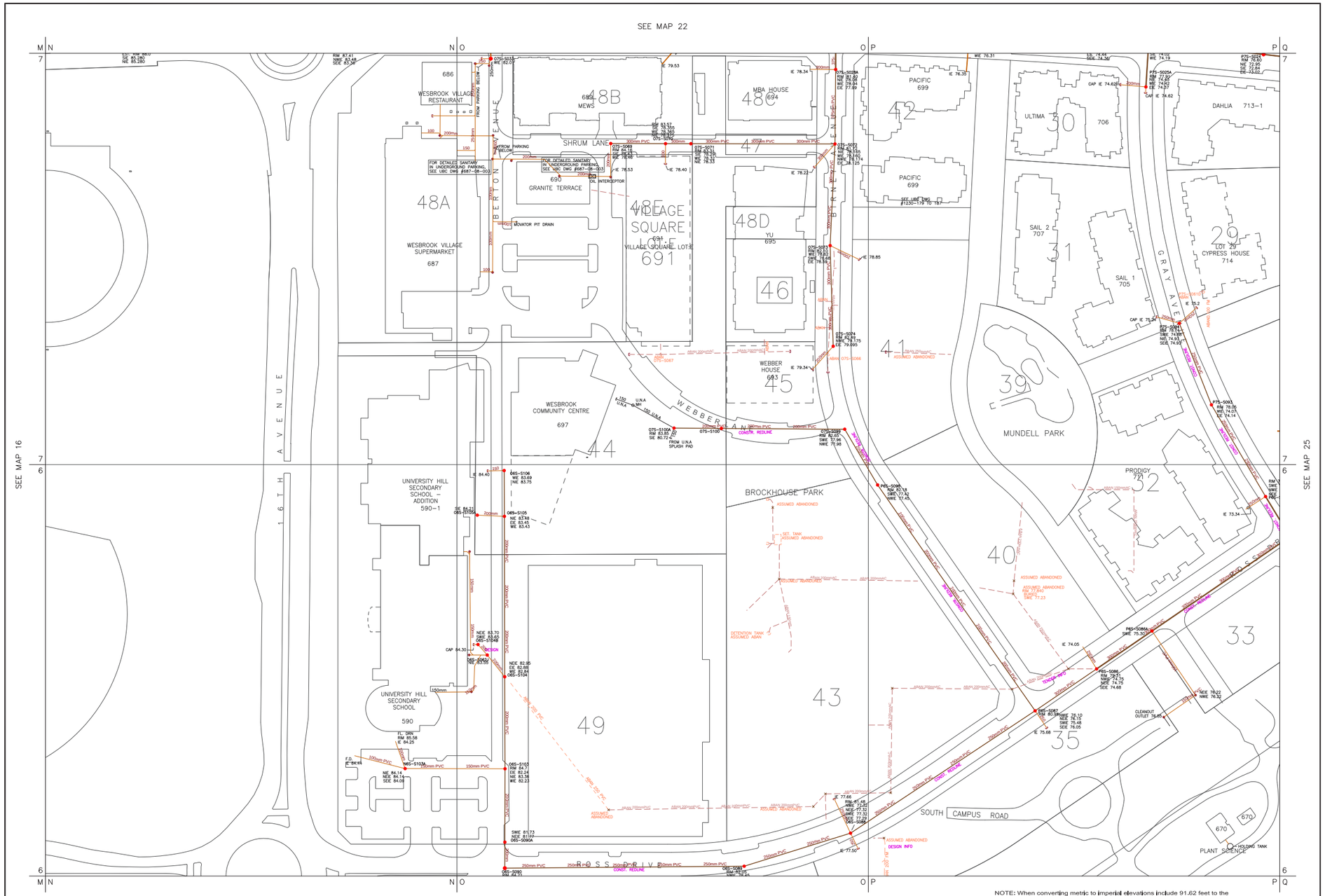
Utility Plan| Gas



REVISED TO LATEST DATE	NO.	DESCRIPTION	DATE	BY
	17	WESBROOK PLAYING FIELD, YU / ULTIMA / SAIL / PRODIGY	NOV 2/16	DCB
	12	UPDATED TERASEN LINES @ WSBRK PL, FHI-EAST & TRIUMF LINE	AUG 20/09	DCB
	14	ROSS DRIVE, BIRNEY AVE, GREY AVE.	FEB 4/13	DCB
	15	ROSS/16TH AVE ROUND, FORTIS SERV. TO MEWS/MBA,/PACIFIC	NOV 4/14	DCB
	16	UNIVERSITY HILL SEC. FEED, WESBROOK COMM. CENTRE	JUNE 27/16	DCB

The University of British Columbia
Energy and Water Services

Utility Plan| Sanitary



THE UNIVERSITY OF BRITISH COLUMBIA ASSUMES NO RESPONSIBILITY FOR CORRECTNESS OF INFORMATION SHOWN.

REVISED TO LATEST DATE

NO	DESCRIPTION	DATE	BY
16	WESBROOK COMMUNITY CENTRE & PLAYING FIELD	OCT 31/16	DCB
12	ANIMAL CARE CENTRE SANITARY BACK FLOW PREVETION	JUNE 23/11	DCB
13	WESBROOK PLACE WEST TENDER INFO	FEB 10/12	DCB
14	16TH/ROSS ROUND, WESBROOK WEST BLDGS 689/694/699	OCT 29/14	DCB
15	UNIVERSITY HILL SECONDARY	MAY 14/15	DCB

SECTOR INDEX

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	1	8	9	18	19	27		
	1WEST	4WEST						

The University of British Columbia
Energy and Water Services

SCALE: 1:600 / 1"= 50'

SANITARY

SECTOR 21

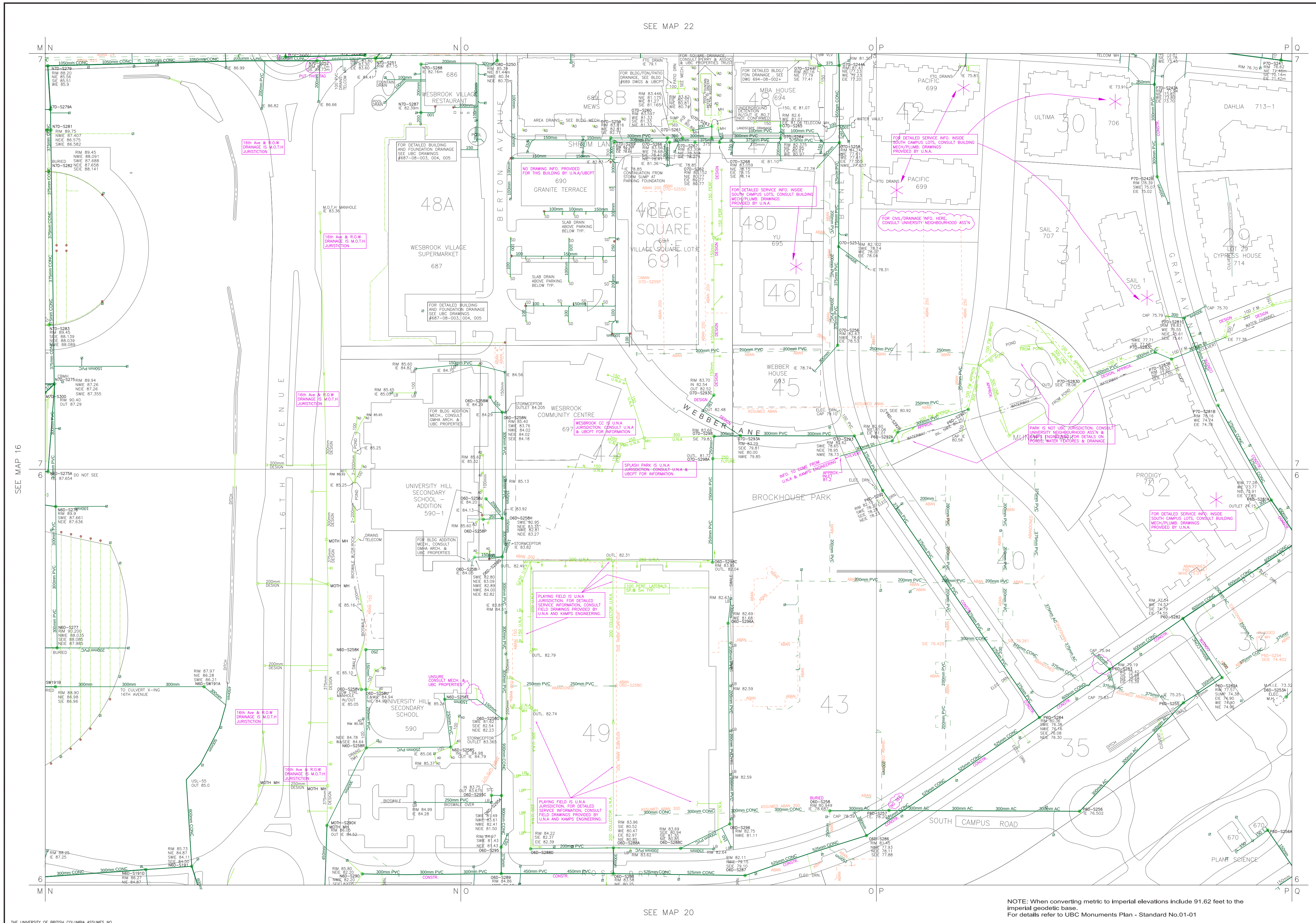
ZGF | UBC PROPERTIES TRUST | P+A

PROJECT NO: V24178 DRAWING NO: 023

DEVELOPMENT PERMIT APPLICATION SUBMISSION | SEPTEMBER 14, 2018

4 WESBROOK

Utility Plan| Storm



REVISED TO LATEST DATE	NO	DESCRIPTION	DATE	BY
	16	WESBROOK COMMUNITY FIELD, YU / ULTIMA / SAIL / PRODIGY	OCT 27/16	DCB
	12	16TH AVE/ROSS ROUNDAB, WESBK WEST BLDGS 689/ 694/ 669	OCT 27/14	DCB
	13	UNIVERSITY HILL SEC. ADDN. & ACCESS, MUNDELL PARK PRELIM.	MAY 13/15	DCB
	14	MUNDEL PARK GREEWAY LOT 39 REVISED, VILLAGE SQ. GREENWAY	APRIL 28/16	DCB
	15	WEBROOK COMMUNITY. CTR., WTEC AT UBC FARM ROAD	JULY 7/16	DCB

SECTOR INDEX

		13	14	23			
4NORTH	4	5	12	15	22	24	30
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	1	8	9	18	19	27	
	1WEST	8WEST					

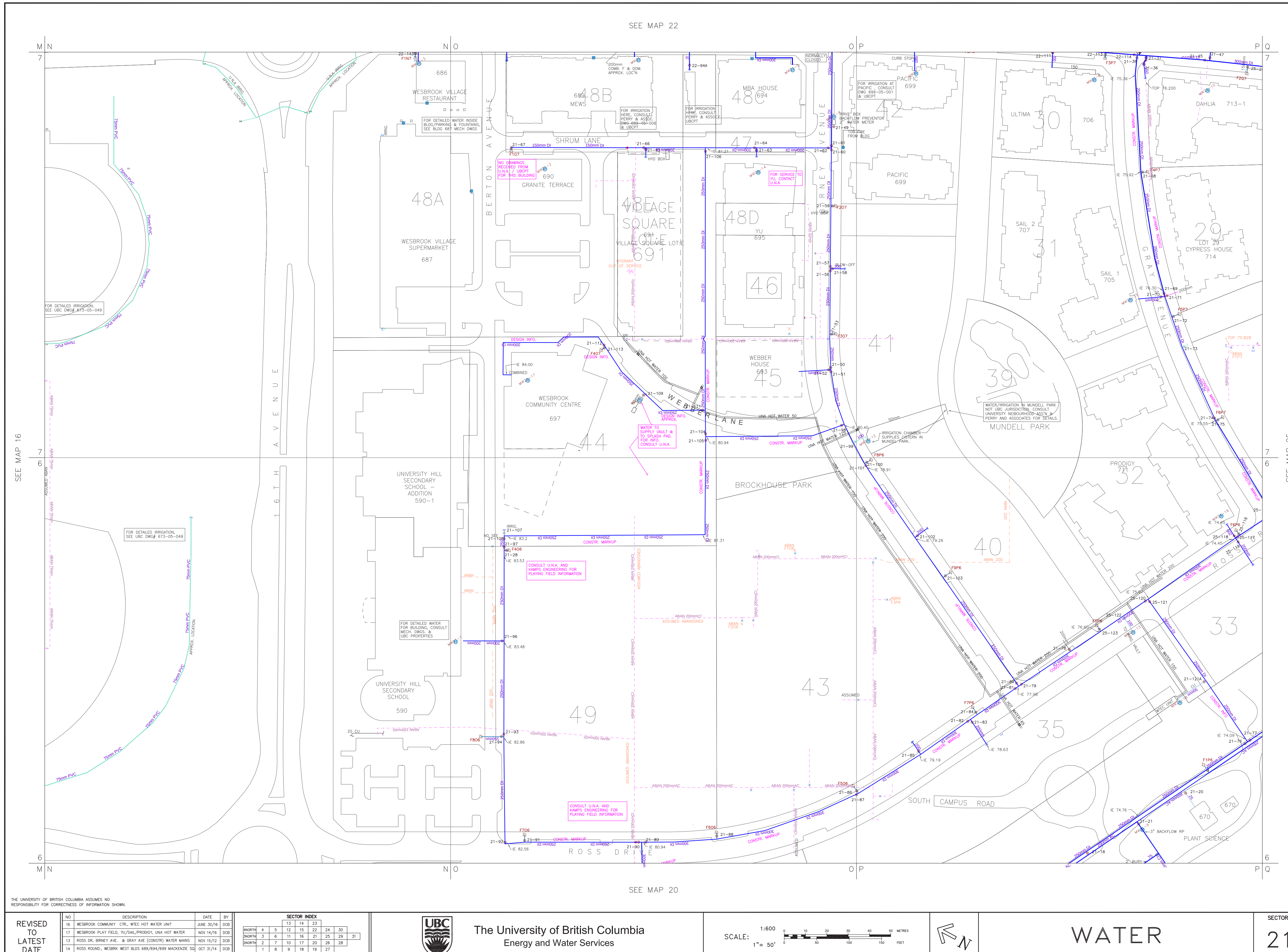
The University of British Columbia
Energy and Water Services

SCALE: 1:600 1"= 50'

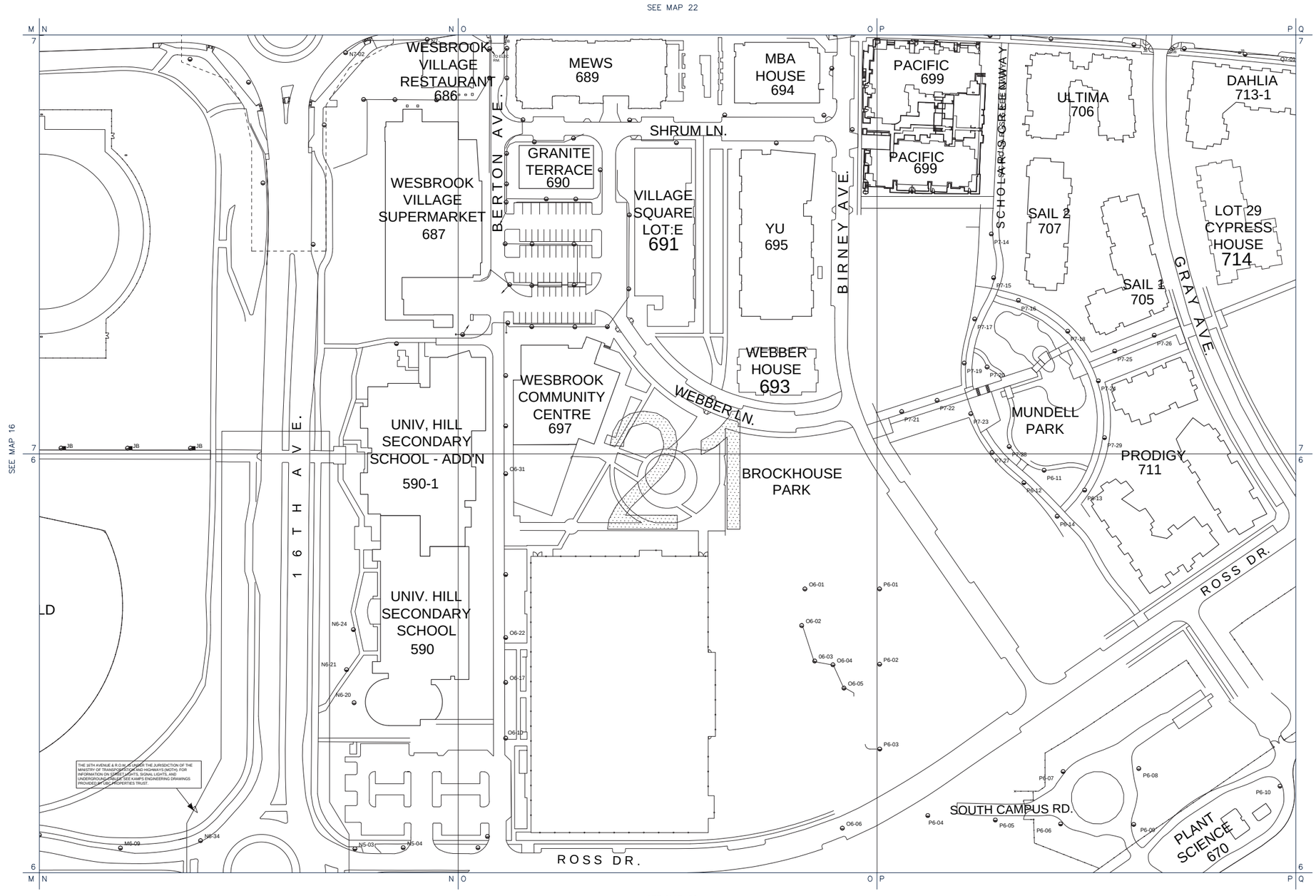
STORM

SECTOR 21

Utility Plan| Water



Utility Plan| Street Light



THE UNIVERSITY OF BRITISH COLUMBIA ASSUMES NO RESPONSIBILITY FOR CORRECTNESS OF INFORMATION SHOWN.

NOTE: WHEN CONVERTING METRIC TO IMPERIAL ELEVATIONS INCLUDE 91.62 FEET TO THE IMPERIAL GEODETIC BASE. FOR DETAILS REFER TO UBC MONUMENT – PLAN STANDARD NO.01–01

NO	DESCRIPTION	DATE	BY
06	ROUNDABOUT INFORMATION DWG. 1070-162	20 JAN 10	DCB
07	STREET LIGHTS AROUND BLDG. 687 (SAVE ON FOODS)	22 DEC 10	HGH
08	SHRUM LANE NEW LIGHTING	07 JAN 11	HGH
09	STREET LIGHTING AS PER D. BENSON	29 JUN 15	EL
05	WESBROOK PLACE PHASE 1 EAST	14 OCT 09	HGW

SECTOR INDEX

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	1WEST	2WEST						

THE UNIVERSITY OF BRITISH COLUMBIA
INFRASTRUCTURE DEVELOPMENT

FOR REFERENCE ONLY

STREET LIGHT

SECTOR 21

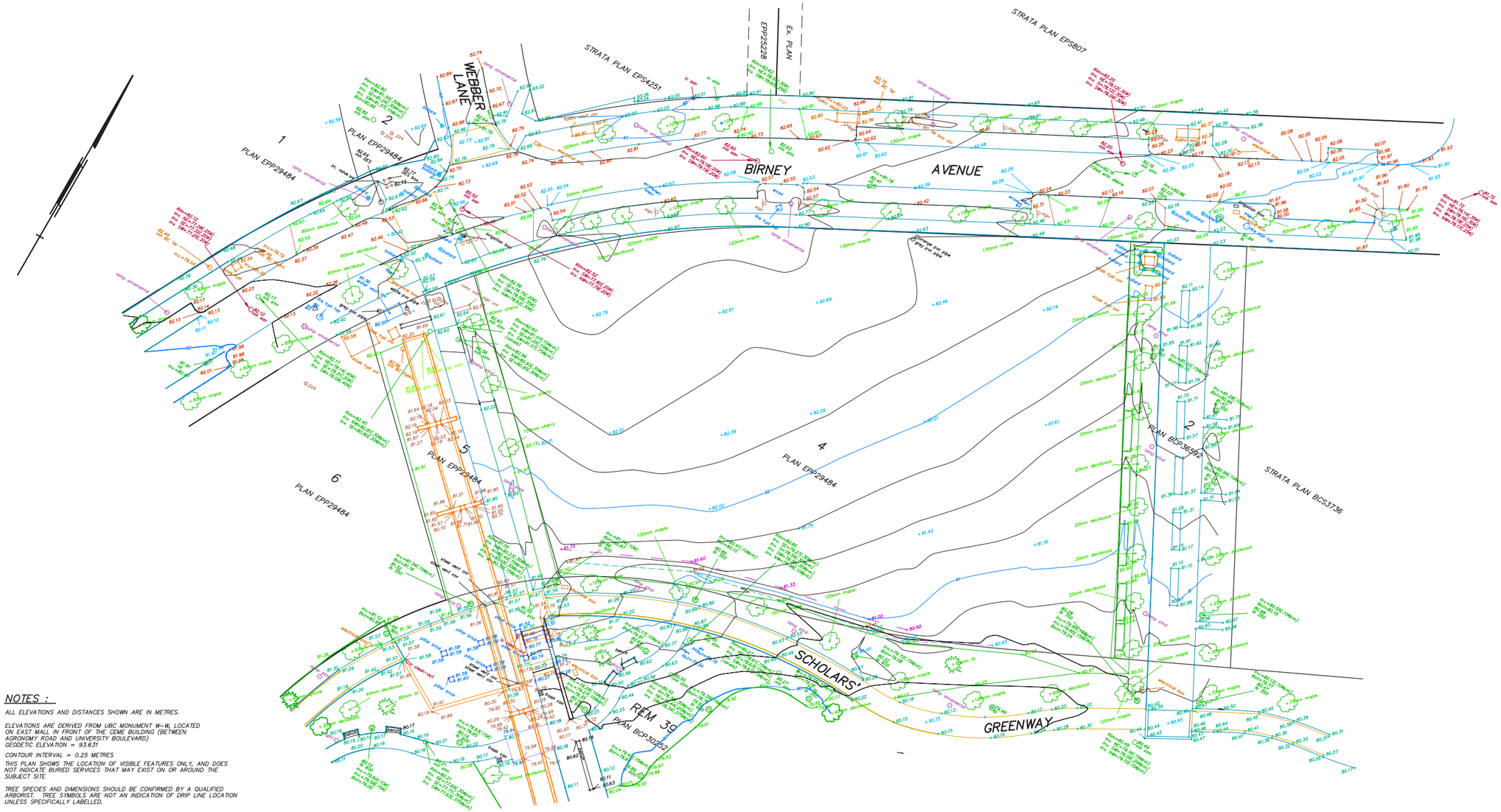
Acad 21.0s (LMS Tech) R:\UBC_Maps\base\streetlight\dwg\street light-base.dwg [21], Sep 11, 2017 - 8:47am

ZGF UBC PROPERTIES TRUST P+A

Survey Plan

TOPOGRAPHIC SURVEY OF
LOT 4, DISTRICT LOT 6494, GROUP 1,
NEW WESTMINSTER DISTRICT, PLAN EPP29484

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



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

CONTOUR INTERVAL = 0.25 METRES

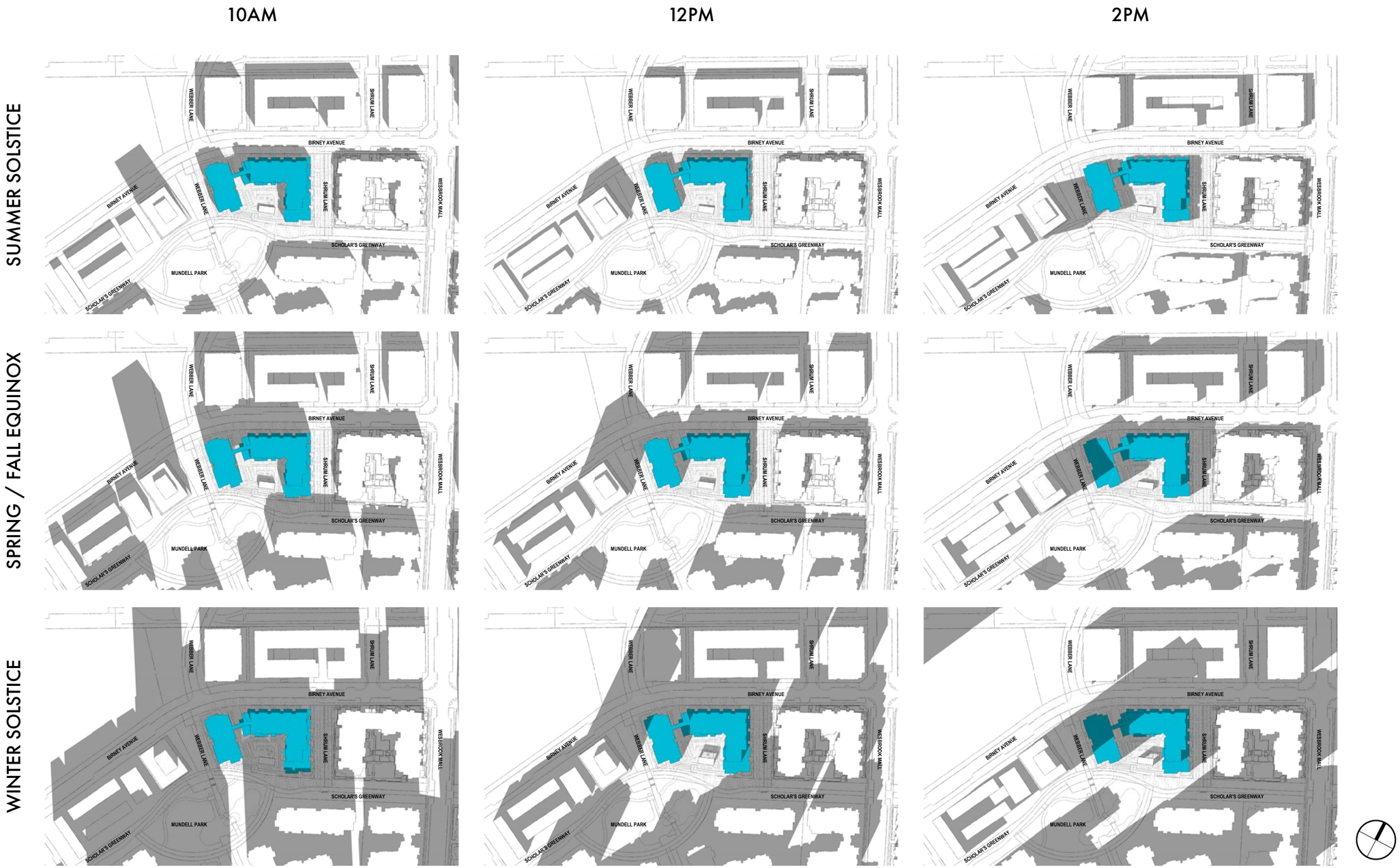
THIS PLAN SHOWS THE LOCATION OF VISIBLE FEATURES ONLY, AND DOES NOT INDICATE BURIED SERVICES THAT MAY EXIST ON OR AROUND THE SUBJECT SITE

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

SURVEY COMPLETED: DECEMBER 15, 2017
FILE 8613CA–267

Shadow Analysis



Perspective View | From Mundell Park Looking North

6-storey west wing facing the 16-storey future development

Stepback at Level 5 and Level 6 along Birney Avenue to minimize shadow impact

Open outlook pavilion integrated with landscaping, forming an animated edge along Scholar's Greenway

Stepback at Level 5 and Level 6 along Shrum Lane and Scholar's Greenway to create a 4-storey street wall facing the 4-storey Pacific Residence.
Individual decks for each unit are provided on the roof area created by the stepbacks.

Bike and storage direct access to P1 from Scholar's Greenway. The entry is pulled back to create generous space and overhead cover for people with bike and/or stroller, etc. Clerestory windows provided in the bike repair room brings light into the parkade

Vertical planting along the bike amenity wall to create a softer interface between the development and Mundell Park

Tiered landscaping to create gradual transition from the courtyard to Mundell Park

Perspective View | From Corner of Birney Ave and Webber Lane

Stepback at Level 5 and Level 6 along Birney Avenue to minimize shadow impact

6-storey west wing facing the 16-storey future development

Parkade Entry at Existing Let-down

Building Entry Lobby

Pedestrian Access to Courtyard

Perspective View | Courtyard Entry Along Birney Ave

Stepback at Level 5 and Level 6 along Birney Avenue to minimize shadow impact

The indent massing over the ground floor opening breaks the continuity of a single facade, adding variety and texture to the streetscape along Birney Avenue

The connection bridge forms a picture frame. The infill glazing with translucent panels that are offset on each side is used to add some opaqueness and to create an interesting motif

6-storey west wing facing the 16-storey future development

Class II Bike Racks

Building Entry Lobby

Pedestrian Access to Courtyard
(Visual and physical connection between Birney Avenue and Mundell Park)

Perspective View | From Corner of Birney Ave and Shrum Lane

Stepback at Level 5 and Level 6 along Shrum Lane to create a 4-storey street wall facing the 4-storey Pacific Residence

Stepback at Level 5 and Level 6 along Birney Avenue to minimize shadow impact

Class II Bike Racks

Existing PMT

Parkade Entry at Existing Let-down

Perspective View | From Scholar's Greenway Looking East

6-storey west wing facing the 16-storey future development

Tiered seating steps leading up to the courtyard space, creating nice resting area overlooking the park

Open outlook pavilion integrated with landscaping, forming an animated edge along Scholar's Greenway

Class II Bike Racks

Bike and storage direct access to P1 from Scholar's Greenway. The entry is pulled back to create generous space and overhead cover for people with bike and/or stroller, etc.

Vertical planting along the bike amenity wall to create a softer interface between the development and Mundell Park

Tiered landscaping to create gradual transition from the courtyard to Mundell Park

Floor Plan | Parkade Level

66

CAR PARKING

9 Visitor Parking Stalls
57 Resident Parking Stalls

313

BICYCLE PARKING

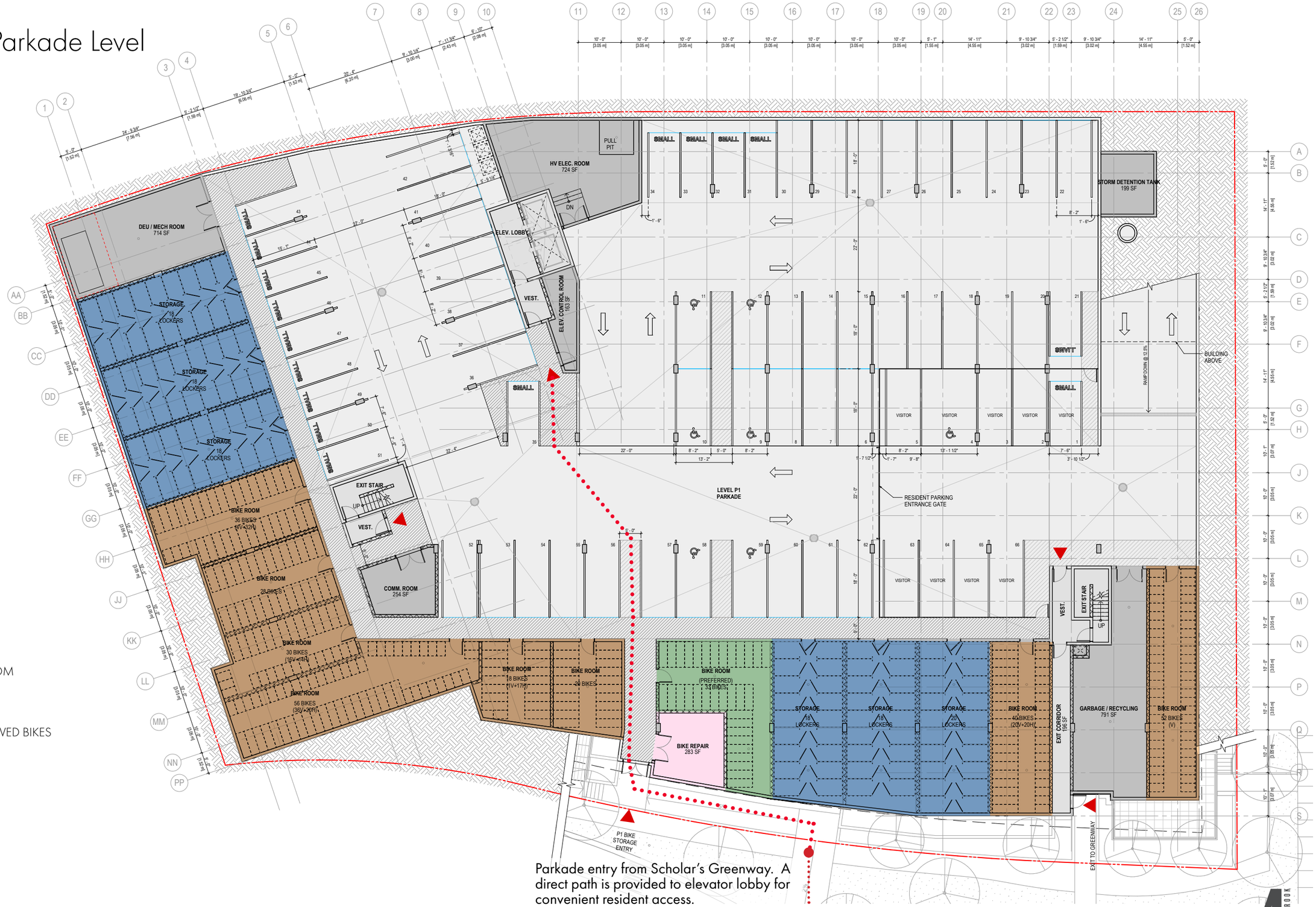
(2.30 Stalls / Units)

129 Vertical Bike Storage
151 Horizontal Bike Storage
33 Reserved Bike Lockers

110

STORAGE LOCKERS

(0.81 Lockers / Units)



0' 2' 4' 8' 16'

LEGEND

- STORAGE LOCKER ROOM
- BIKE ROOM
- BIKE ROOM FOR RESERVED BIKES
- AMENITY
- CIRCULATION
- SERVICE
- PARKADE

Parkade entry from Scholar's Greenway. A direct path is provided to elevator lobby for convenient resident access.

Floor Plan | Ground Floor

23 /23 UNITS
with direct street access and patio spaces

14 /23 UNITS
with in-suite flexible storage area for bikes/strollers/misc. Noted with ●

0' 2' 4' 8' 16'

LEGEND

- STUDIO
- 1 BED / 1 BED + DEN
- 2 BED / 2 BED + DEN
- 3 BED / 3 BED + DEN
- 4 BED
- AMENITY
- CIRCULATION
- STORAGE / SERVICE
- PARKADE

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PROJECT NO: V24178 DRAWING NO: 035 DEVELOPMENT PERMIT APPLICATION SUBMISSION | SEPTEMBER 14, 2018

4 WESBROOK

Floor Plan | Level 2

22 /25 UNITS
with balconies

LEGEND

- STUDIO
- 1 BED / 1 BED + DEN
- 2 BED / 2 BED + DEN
- 3 BED / 3 BED + DEN
- 4 BED
- AMENITY
- CIRCULATION
- STORAGE / SERVICE
- PARKADE

ZGF UBC PROPERTIES TRUST P+A

PROJECT NO: V24178 DRAWING NO: 036 DEVELOPMENT PERMIT APPLICATION SUBMISSION | SEPTEMBER 14, 2018

4 WESBROOK

Floor Plan | Level 3

22 /25 UNITS
with balconies

0' 2' 4' 8' 16'

LEGEND

- STUDIO
- 1 BED / 1 BED + DEN
- 2 BED / 2 BED + DEN
- 3 BED / 3 BED + DEN
- 4 BED
- AMENITY
- CIRCULATION
- STORAGE / SERVICE
- PARKADE

Floor Plan | Level 4

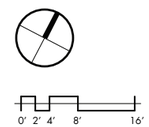
22 /25 UNITS
with balconies

LEGEND

- STUDIO
- 1 BED / 1 BED + DEN
- 2 BED / 2 BED + DEN
- 3 BED / 3 BED + DEN
- 4 BED
- AMENITY
- CIRCULATION
- STORAGE / SERVICE
- PARKADE

Floor Plan | Level 5

19 / 19 UNITS
with balconies / deck



LEGEND

- STUDIO
- 1 BED / 1 BED + DEN
- 2 BED / 2 BED + DEN
- 3 BED / 3 BED + DEN
- 4 BED
- AMENITY
- CIRCULATION
- STORAGE / SERVICE
- PARKADE

ZGF | UBC PROPERTIES TRUST | P+A

Floor Plan | Level 6

19 / 19 UNITS
with balconies

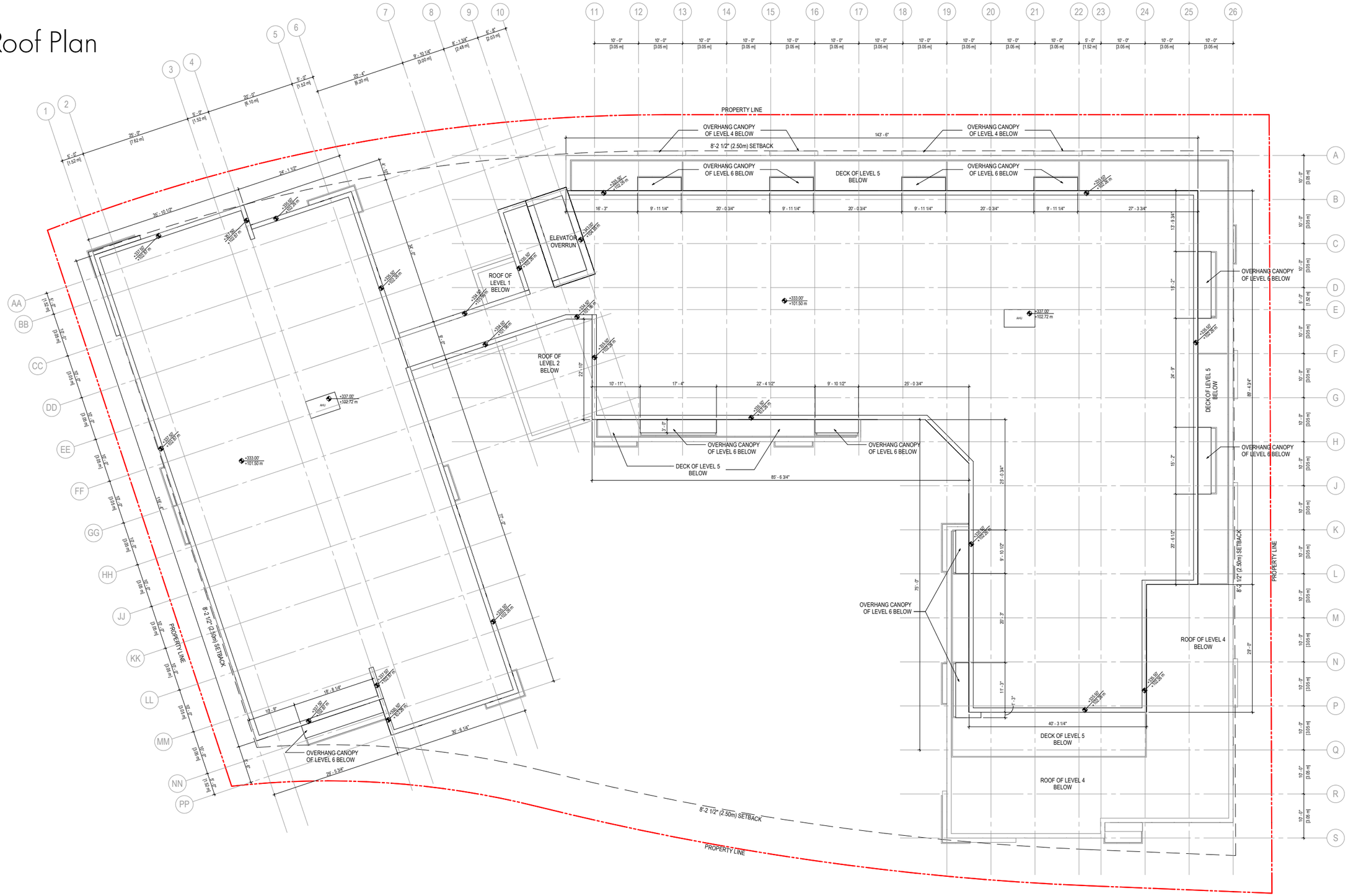
LEGEND

- STUDIO
- 1 BED / 1 BED + DEN
- 2 BED / 2 BED + DEN
- 3 BED / 3 BED + DEN
- 4 BED
- AMENITY
- CIRCULATION
- STORAGE / SERVICE
- PARKADE

0' 2' 4' 8' 16'

ZGF | UBC PROPERTIES TRUST | P+A

Floor Plan | Roof Plan



0' 2' 4' 8' 16'

LEGEND

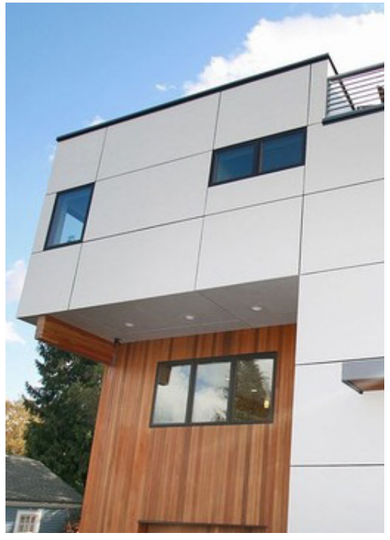
- STUDIO
- 1 BED / 1 BED + DEN
- 2 BED / 2 BED + DEN
- 3 BED / 3 BED + DEN
- 4 BED
- AMENITY
- CIRCULATION
- STORAGE / SERVICE
- PARKADE

ZGF | UBC PROPERTIES TRUST | P+A

Material Palette

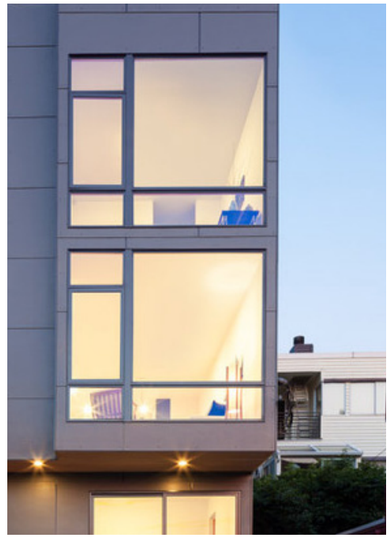
F1
Fiber Cement Board, White

F2
Fiber Cement Board, Grey

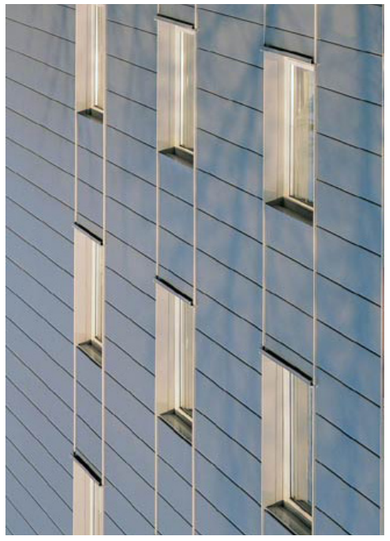


W1
Wood Textured Board

G1
Window and Doors, Grey Frames

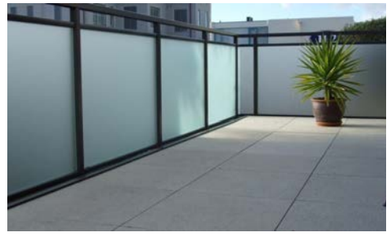


M1
Metal Panel Siding, Grey

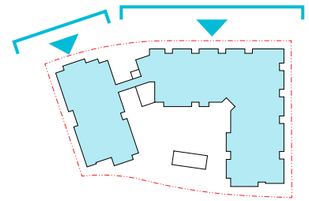


W2
Wood Textured Siding

G2
Glass Guardrail, Frosted Panel with Black Frame



North Elevation | Along Birney Avenue



MATERIAL PALETTE

F1 Fiber Cement Board, White

F2 Fiber Cement Board, Grey

M1 Metal Panel Siding, Grey

W1 Wood Textured Board

W2 Wood Textured Siding

G1 Clear Glazing

G2 Glass Guardrail, Frosted

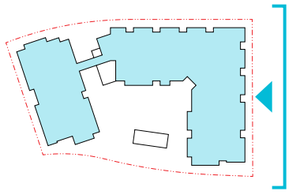
G3 Glass Guardrail, Clear

G4 Glass Spandrel, White (Bridge)

G5 Frosted Glazing (Bridge)

C1 Finished Concrete (Planters)

East Elevation | Along Shrum Lane



0' 2' 4' 8' 16'

MATERIAL PALETTE

F1 Fiber Cement Board, White

F2 Fiber Cement Board, Grey

M1 Metal Panel Siding, Grey

W1 Wood Textured Board

W2 Wood Textured Siding

G1 Clear Glazing

G2 Glass Guardrail, Frosted

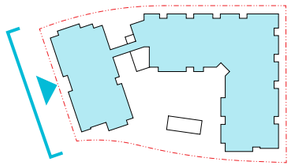
G3 Glass Guardrail, Clear

G4 Glass Spandrel, White (Bridge)

G5 Frosted Glazing (Bridge)

C1 Finished Concrete (Planters)

West Elevation | Along Webber Lane



0' 2' 4' 8' 16'

MATERIAL PALETTE

F1 Fiber Cement Board, White

F2 Fiber Cement Board, Grey

M1 Metal Panel Siding, Grey

W1 Wood Textured Board

W2 Wood Textured Siding

G1 Clear Glazing

G2 Glass Guardrail, Frosted

G3 Glass Guardrail, Clear

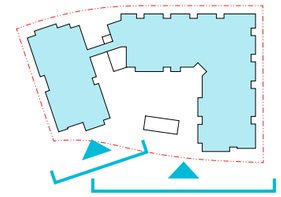
G4 Glass Spandrel, White (Bridge)

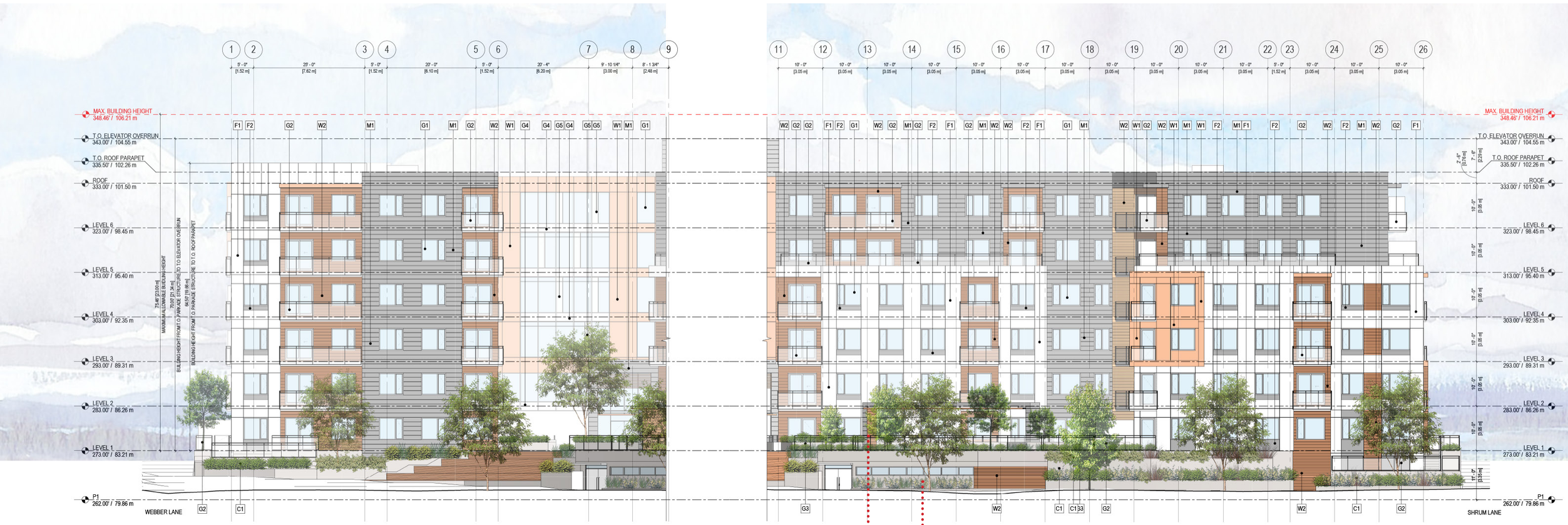
G5 Frosted Glazing (Bridge)

C1 Finished Concrete (Planters)

ZGF | UBC PROPERTIES TRUST | P+A

South Elevation | Along Scholar's Greenway





0' 2' 4' 8' 16'

Bike and storage direct access to P1 from Scholar's Greenway. The entry is pulled back to create generous space and overhead cover for people with bike and/or stroller, etc.

Vertical planting along the bike amenity wall to create a softer interface between the development and Mundell Park

MATERIAL PALETTE

F1 Fiber Cement Board, White

F2 Fiber Cement Board, Grey

M1 Metal Panel Siding, Grey

W1 Wood Textured Board

W2 Wood Textured Siding

G1 Clear Glazing

G2 Glass Guardrail, Frosted

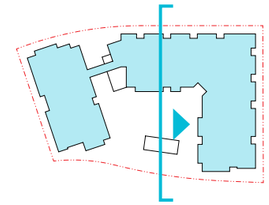
G3 Glass Guardrail, Clear

G4 Glass Spandrel, White (Bridge)

G5 Frosted Glazing (Bridge)

C1 Finished Concrete (Planters)

Courtyard Elevation | Looking East



MATERIAL PALETTE

F1 Fiber Cement Board, White

F2 Fiber Cement Board, Grey

M1 Metal Panel Siding, Grey

W1 Wood Textured Board

W2 Wood Textured Siding

G1 Clear Glazing

G2 Glass Guardrail, Frosted

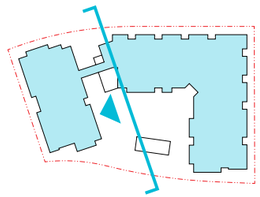
G3 Glass Guardrail, Clear

G4 Glass Spandrel, White (Bridge)

G5 Frosted Glazing (Bridge)

C1 Finished Concrete (Planters)

Courtyard Elevation | Looking West



0' 2' 4' 8' 16'

MATERIAL PALETTE

F1 Fiber Cement Board, White

F2 Fiber Cement Board, Grey

M1 Metal Panel Siding, Grey

W1 Wood Textured Board

W2 Wood Textured Siding

G1 Clear Glazing

G2 Glass Guardrail, Frosted

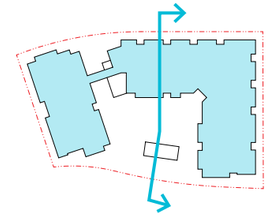
G3 Glass Guardrail, Clear

G4 Glass Spandrel, White (Bridge)

G5 Frosted Glazing (Bridge)

C1 Finished Concrete (Planters)

Site Section | A



Open outlook pavilion

0' 2' 4' 8' 16'

Bike repair amenity and storage

Bike and storage direct access to P1 from Scholar's Greenway

MATERIAL PALETTE

F1 Fiber Cement Board, White

F2 Fiber Cement Board, Grey

M1 Metal Panel Siding, Grey

W1 Wood Textured Board

W2 Wood Textured Siding

G1 Clear Glazing

G2 Glass Guardrail, Frosted

G3 Glass Guardrail, Clear

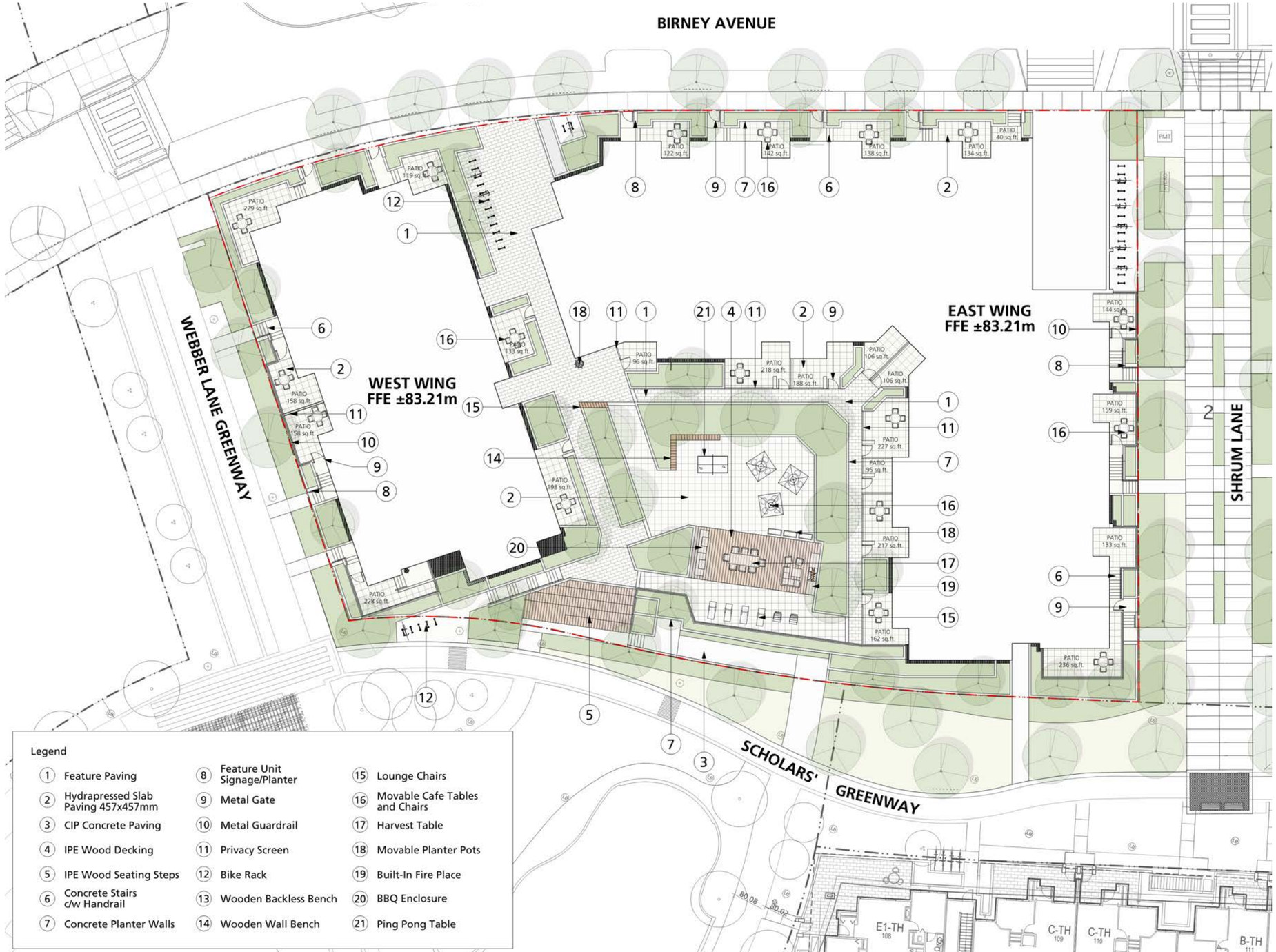
G4 Glass Spandrel, White (Bridge)

G5 Frosted Glazing (Bridge)

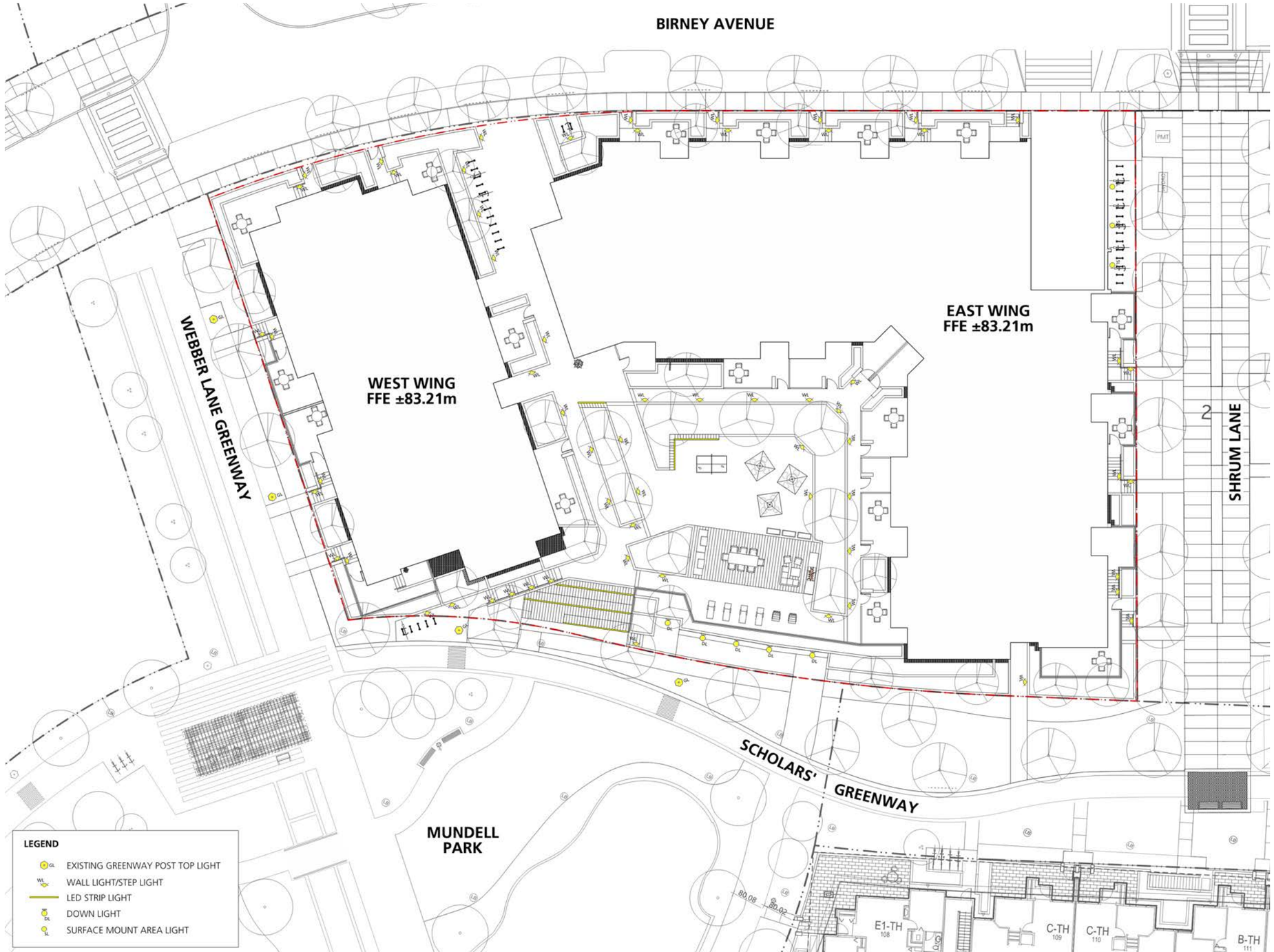
C1 Finished Concrete (Planters)

Landscape | Concept Plan

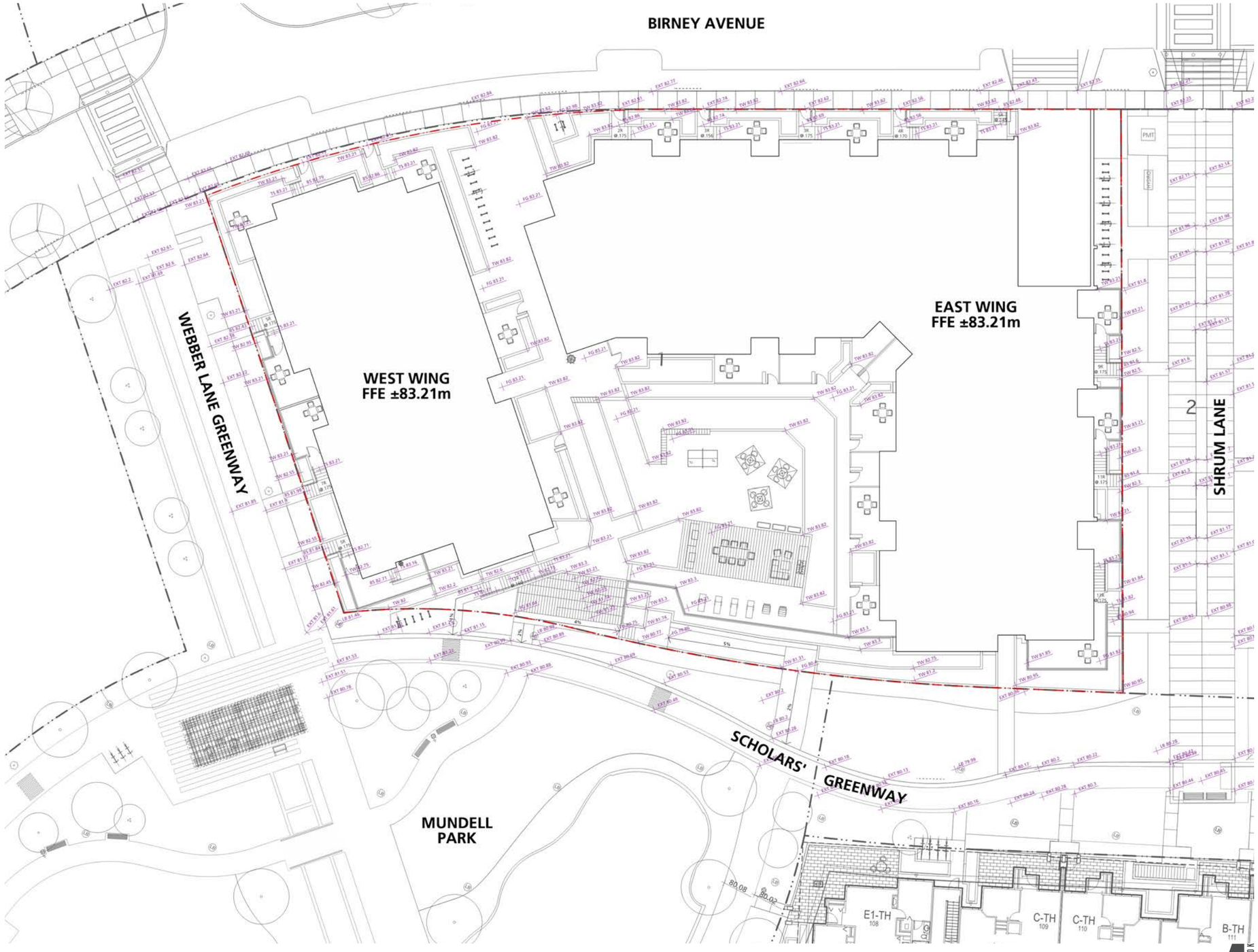
Landscape | Key Plan



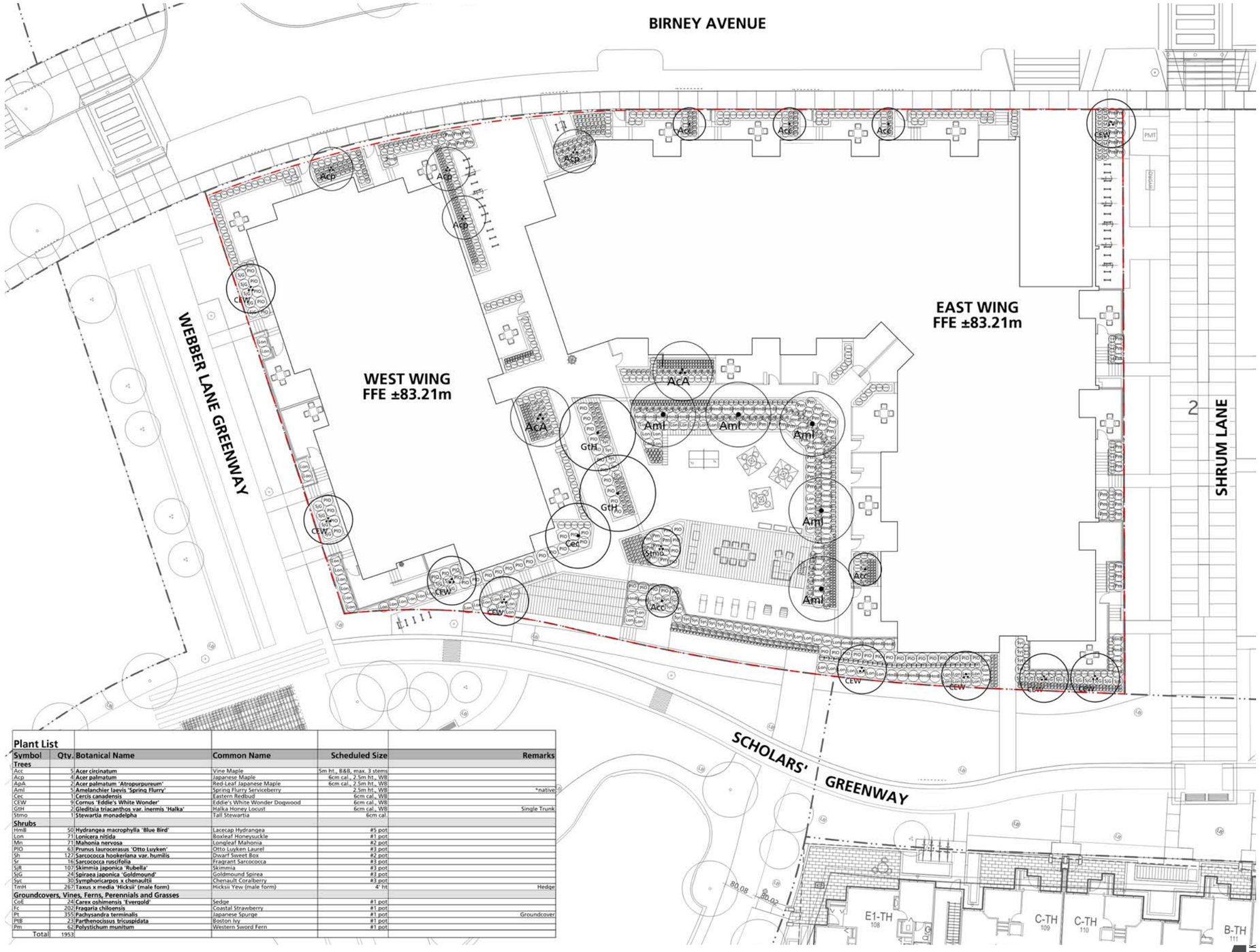
Landscape | Lighting Plan



Landscape | Grading Plan



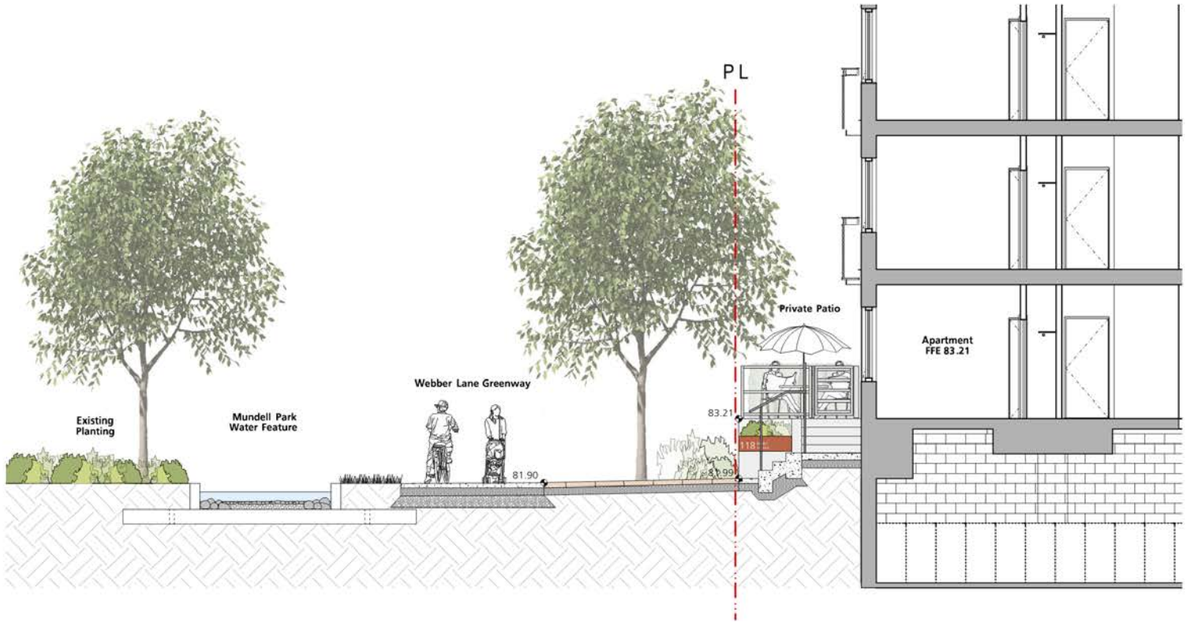
Landscape | Planting Plan



Plant List

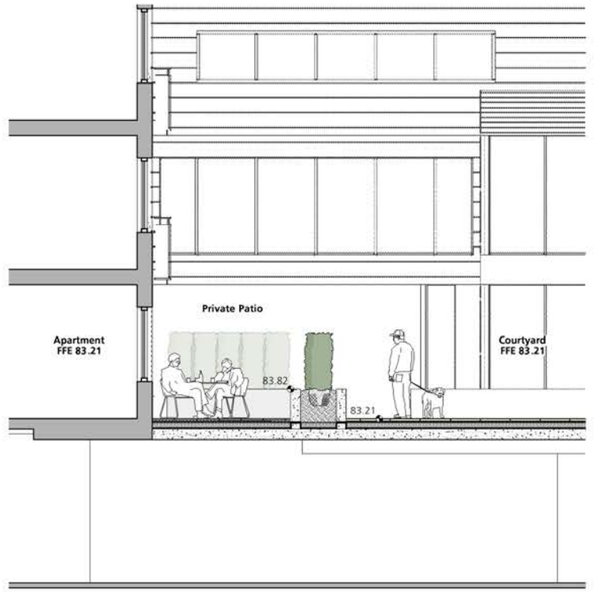
Symbol	Qty.	Botanical Name	Common Name	Scheduled Size	Remarks
Trees					
Acc	5	**Acer circinatum**	Vine Maple	5m ht., B&B, max. 3 stems	
Acp	4	**Acer palmatum**	Japanese Maple	6cm cal., 2.5m ht., WB	
ApA	2	**Acer palmatum 'Atropurpureum'**	Red-Leaf Japanese Maple	6cm cal., 2.5m ht., WB	
Aml	5	**Amelanchier laevis 'Spring Flurry'**	Spring Flurry Serviceberry	2.5m ht., WB	*native
Cec	1	**Cercis canadensis**	Eastern Redbud	6cm cal., WB	
CEW	9	**Cornus 'Eddie's White Wonder'**	Eddie's White Wonder Dogwood	6cm cal., WB	
GtH	2	**Gleditsia triacanthos var. inermis 'Halka'**	Halka Honey Locust	6cm cal., WB	Single Trunk
Stmo	1	**Stewartia monadelpha**	Tall Stewartia	6cm cal.	
Shrubs					
HmB	50	**Hydrangea macrophylla 'Blue Bird'**	Lacecap Hydrangea	#5 pot	
Lon	71	**Lonicera nitida**	Boxleaf Honeysuckle	#1 pot	
Mn	71	**Mahonia nervosa**	Longleaf Mahonia	#2 pot	
PlO	63	**Prunus laurocerasus 'Otto Luyken'**	Otto Luyken Laurel	#3 pot	
Sh	127	**Sarcococca hookeriana var. humilis**	Dwarf Sweet Box	#2 pot	
Sr	16	**Sarcococca ruscifolia**	Fragrant Sarcococca	#3 pot	
SjR	107	**Skimmia japonica 'Rubella'**	Skimmia	#3 pot	
SjG	24	**Spiraea japonica 'Goldmound'**	Goldmound Spirea	#3 pot	
Syr	30	**Symphoricarpos x chenaultii**	Chenault Coralberry	#3 pot	
TmH	267	**Taxus x media 'Hicksii' (male form)**	Hicksii Yew (male form)	4' ht	Hedge
Groundcovers, Vines, Ferns, Perennials and Grasses					
CoE	24	**Carex oshimensis 'Evergold'**	Sedge	#1 pot	
Fc	202	**Fragaria chiloensis**	Coastal Strawberry	#1 pot	
Pt	355	**Pachysandra terminalis**	Japanese Spurge	#1 pot	Groundcover
PtB	23	**Parthenocissus tricuspidata**	Boston Ivy	#1 pot	
Pm	62	**Polystichum munitum**	Western Sword Fern	#1 pot	
Total:	1953				

Landscape | Sections



Section 1

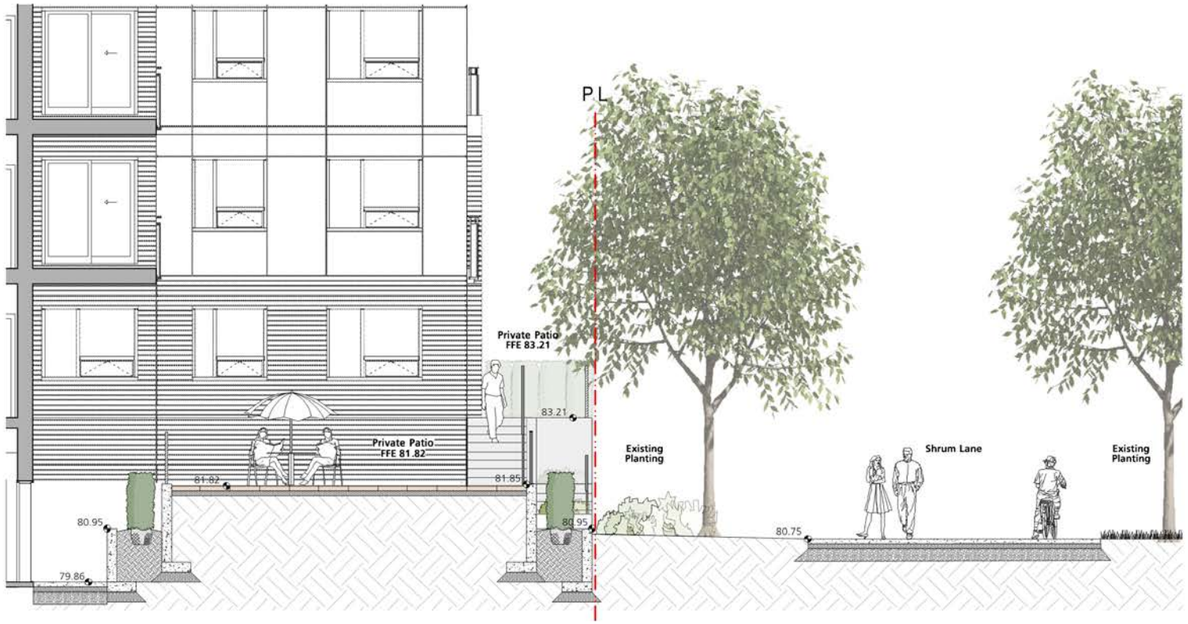
West Wing Units and Connection to Webber Lane Greenway



Section 2

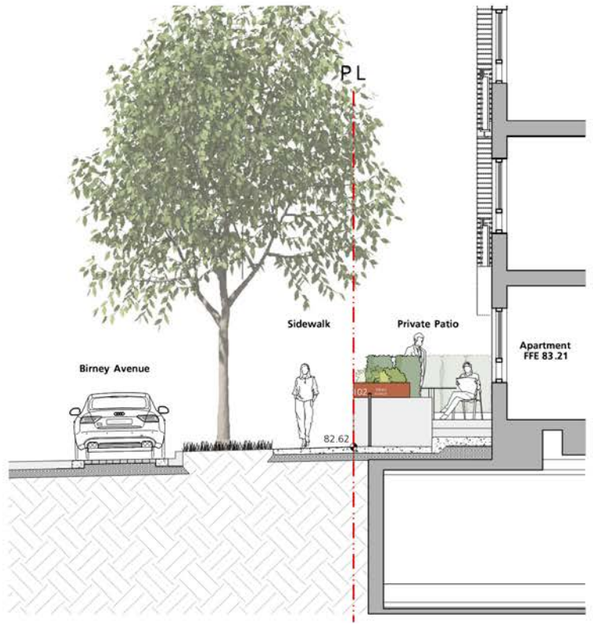
West Wing Units and Landscape Corridor

Landscape | Sections



Section 3

East Wing Unit, Patio and Shrum Lane



Section 4

East Wing Unit and Connection to Birney Avenue

Section 5

Shrum Lane and East Wing Units

Section 6

East Wing Units, Courtyard, Outdoor Lounge and Connection to Scholar's Greenway

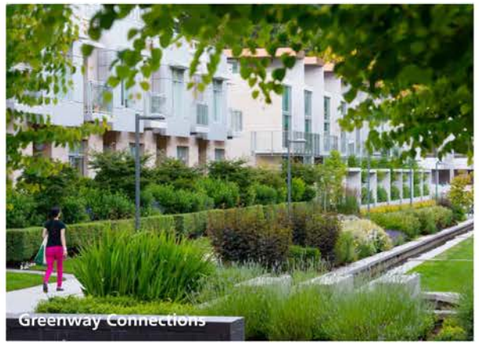
Landscape | Precedent Images


Stepped Seating


Harvest Table


Eddie's White Wonder Dogwood


Honey Locust


Greenway Connections


Courtyard


Redbud


Oregon Grape


Barbeque


Open Lawn


Open Lawn

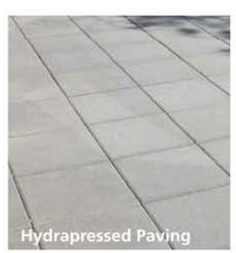

Concrete Pavers


Decking


Sword Fern

Entry Feature/Signages


Deck Area


Hydrapressed Paving


Bike Racks


Entry Feature Metal Planter


Honeysuckle

CPTED Strategies

Automobile Theft

- Residential and visitor parking stalls are provided in a monitored, fully enclosed, in a well-lit one-level below grade parkade.
- Vehicular access into the parkade is provided through a secure overhead door at the entry to the vehicular ramp and controlled by fob access.

Natural Surveillance

- The ground orientated units of the proposed development will significantly improve the surveillance of Birney Avenue, Webber Lane, Shrum Lane and Scholar's Greenway.
- Doors, door hardware and framing will be durable and vandal resistant.
- Operable windows are located in visible areas minimizing any potential for concealed attempts at breaking and entering.

High Visibility

- The building has been designed with a clean simple footprint that minimizes the number of obstructed views and blind spots at grade.
- The residential garbage / recycling area and mail room are completely enclosed within the building footprint and accessible only to residents and service providers.

Safe Lighting Levels

- Lighting surrounding the development, throughout all public access pathways and at all external unit entries provides a safe and well-lit environment for both residents and adjacent public alike for this development.
- Parkade walls and columns will be painted light colours.

Security

- The entrances into the residential lobby, stairs and parkade will be outfitted with a keypad and a swipe card reader. No public access will be permitted.
- Camera surveillance will be provided in the parkade and in all bike / storage rooms.
- A monitored fire alarm system combined with annunciator will be installed. Each unit and the parking garage will be its own fire detection and suppression system.

UBC Residential Environmental Assessment Program
REAP 3.0

Project Information

Developer:	UBCPT
Architect:	ZGF Architects
REAP consultant	E3 Eco Group Inc.
Project Name:	Lot 4
Neighbourhood:	Wesbrook Village
Lot No.:	4
Street Address:	Not Yet Assigned
Project Stage:	Development Permit
UBC DP Reference No.:	
Date:	2018-M06-20

CREDITS	Mandatory	Max	Score
Sustainable Sites (SS)	complete	10	4
Water Efficiency (WE)	complete	18	10
Energy & Atmosphere (EA)	complete	52	15
Materials & Resources (MR)	N/A	18	1
Indoor Environmental Quality (IEQ)	complete	8	6
Construction (CON)	complete	4	0
Innovation & Design Process (ID)	complete	24	13
Subtotal		**134**	49
TOTAL		**134**	**49**

REAP Rating:	GOLD(45-60 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			
			Score:	4	Mandatory points achieved
SS		MANDATORY			
SS	M1	**Storm Water Management Plan** Develop a plan that integrates the on-site stormwater management system with the neighbourhood-wide stormwater management principles and strategies, including controlling of rate and/or quantity of run-off as required.	M	M	
SS	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	
SS	M3	**Bicycle Storage** Provide covered storage facilities for securing bicycles in accordance with the UBC Development Handbook.	M	M	
SS	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	
SS	M5	**Light Pollution Reduction** Do not exceed Illuminating Engineering Society of North America (IESNA) illuminance requirements as stated in the Recommended Practice Manual: Lighting for Exterior Environments.	M	M	
SS	M6	**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	
SS	M7	**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	
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	0	
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 building.	2	2	
	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	0	
	2.3	**Electric Vehicle Charging - Resident** Install necessary conduit and transformer capacity to accommodate Level 2 Charging Stations for the following percentage of owners'/residents' parking (Max = 4 Points): ▯ 10% of owners'/residents' parking – 2 Points ▯ 20% of owners'/residents' parking – 2 Points	4	2	Additional 2 marked as "Maybe"

Sustainability | REAP Checklist - 2/4

		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:	10	Mandatory points achieved
WE		MANDATORY			
WE	M1	**Efficient Irrigation Technology and Rainwater Use** 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	
	M2	**Low-Flush Toilets** Specify and install high efficiency 4.8 L per flush (1.28 gal) single flush toilets or 3.4/6 L per flush (0.9gal/1.6gal) dual flush toilets for all water closets.	M	M	
	M3	**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	
	M4	**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	
	M5	**Energy Star Clothes Washers and Dishwashers** 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	
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	
	1.2	**Eliminate Potable Water Use** Eliminate potable water use for site irrigation needs.	3	0	
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	
	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	0	
	2.3	**Most Efficient Clothes Washers** Specify and install Energy Star clothes washers listed as “Most Efficient” for current year, or if washers are available only as an option, specify and offer only models complying to this standard.	2	0	
	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	0	
WE	3	WATER METERING			
	3.1	**Domestic Hot Water metering** In units with central hot water, provide individual hot water metering.	3	3	
	3.2	**Domestic Cold-Water metering** Provide for individual cold water meters for all units.	2	2	

		Performance Category: Energy & Atmosphere (EA)	50 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:	15	Mandatory points achieved
EA		MANDATORY			
EA	M1	**Minimum Roof Insulation** Design the roof assembly with a minimum insulation value of R-40 h·ft²·°F/Btu (7.04 °K-m2/W) for buildings with attic space and R-28 h·ft²·°F/Btu (4.93 °K-m2/W) for cathedral ceilings/flat roofs.	M	M	
	M2	**Minimum Exterior Wall Insulation** Design the exterior insulated wall area with a minimum thermal resistance of effective (overall) R-15.6 h·ft²·°F/Btu (2.75 °K-m2/W) for above grade non-glazed wall areas, and R-7.5 h·ft²·°F/Btu (1.32 °K-m2/W) “continuous insulation” for below grade walls.	M	M	
	M3	**Minimum Floor Insulation** Design floors above non-heated parkade areas with a minimum insulation value of R-30 h·ft²·°F/Btu (5.28 °K-m2/W) for framed floors and R-15.6 h·ft²·°F/Btu (2.75 °K-m2/W) for slab floors.	M	M	
	M4	**Energy Efficient Windows** Specify and install Energy Star-rated windows or windows with a maximum overall U-value of 0.35 Btu/hr-ft2-°F (2.0 W/m2-°K for non-metal framed windows or a maximum overall U-value of 0.45 Btu/hr-ft2-°F (2.55 W/m2-°K) for metal framed windows.	M	M	
	M5	**Minimum Boiler Efficiency** Specify and install boilers with a minimum thermal efficiency of 84% /AFUE of minimum 90% or heat using District Energy.	M	M	
	M6	**Domestic Hot Water** Specify and install gas DHW boilers with a minimum efficiency of 84% (mid-efficiency boiler) or heat domestic hot water using District Energy.	M	M	
	M7	**Energy Star Dishwashers and Refrigerators** Specify and install Energy Star-labelled dishwashers and refrigerators in each unit.	M	M	
	M8	**Programmable Thermostats** Specify and install programmable thermostats for at least the largest heating zone in each unit.	M	M	
	M9	**Common Area Lighting** Specify and install only non-incandescent lighting, such as fluorescent, compact fluorescent or LED, in common areas.	M	M	
	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	
EA		MANDATORY			
		ENERGY EFFICIENCY TARGETS			
		EA GOLD-Mandatory Design the building to meet a maximum EUI of 160 kwh/m2/yr, demonstrated using the UBC Energy Modeling Guidelines. This credit is mandatory and required for achievement of REAP Gold.	6	6	
		EA Gold Plus Design the building to meet a maximum EUI of 140 kwh/m2/yr, demonstrated using the UBC Energy Modeling Guidelines. This credit is mandatory and required for achievement of REAP Gold Plus.	8	0	Maybe
		EA Platinum Design the building to meet a maximum EUI of 120 kwh/m2/yr, demonstrated using the UBC Energy Modeling Guidelines. This credit is mandatory and required for achievement of REAP Platinum.	10	0	Maybe
		EA Platinum Plus Design the building to meet a maximum EUI of 105 kwh/m2/yr, demonstrated using the UBC Energy Modeling Guidelines. This credit is mandatory and required for achievement of REAP Platinum Plus.	10	0	
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	1	

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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	1	
	2.1	**Renewable Electricity Utilization** Utilize photovoltaic technologies or other renewable electricity generation for a portion of the building's electrical supply	3	0	Maybe Exploring Leasing Option
	2.3	**Low-Carbon District Energy Utilization** Utilize low carbon, renewable energy through connect to the District Energy System for the building's thermal energy supply (or be District Energy compatible).	5	5	
EA	3	**COMMISSIONING**			
	3.1	**Comissioning** 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	0	
EA	4	**AIRTIGHTNESS**			
	4.1	**Airtightness** The building envelope shall be constructed so that the air change rate is not greater than 3.5ACH50 when measured in accordance with CAN/CGSB-149.15-M86 (Determination of the airtightness of Building envelopes by the Fan Depressurization Method.)	2	0	
EA	5	**ENERGY MODELLING WORKSHOP**			
	5.1	**Energy Modelling Workshop**	2	2	
		Model the energy performance of the building and hold a workshop with the design team, a representative from Campus sustainability and contractor to evaluate the results and optimize the design of the building.			
		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	No Mandatory Items
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	0	
	1.2	**Reused Building Materials** Use salvaged, refurbished, or reused materials for at least 10% of the total cost of building materials.	2	0	
	1.3	**Recycled Content Materials** Specify and use building materials with the following recycled content levels:	2	1	
		Common area carpet with minimum 25% recycled content		Y	
		Drywall with minimum 15% recycled content		Y	
		Batt insulation with minimum 40% recycled content		Y	
		Doors contain minimum 15% recycled material		Y	
		Concrete with min. 20% fly ash content, excluding suspended slabs		N	
		Concrete with min. 40% fly ash content, excluding suspended slabs		N	
		Cabinetry with minimum 20% recycled content		N	
		MDF products with minimum 50% recycled content		Y	
		Minimum four recycled content items on list above 1 point All eight recycled content items on list above 2 points			
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	0	
	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 products that are extracted, harvested or recovered (as well as manufactured) within a radius of 800 km (500 miles).	1	0	
MR	3	**CERTIFIED AND NON-ENDANGERED FOREST PRODUCTS**			
	3.1	**Dimensional Lumber** 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 Or Forest Stewardship Council (FSC) – 3 Points	3	0	2 points marked as "Maybe"
	3.2	**Or Forest Stewardship Council (FSC) 3 points** 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 Or Forest Stewardship Council (FSC) – 3 Points	3	0	
MR	4	**BUILDING PRODUCT INGREDIENTS**			
	4.1	**Transparency of Ingredients** Install ten different building products from three different manufacturers that demonstrate the chemical inventory of the product to and 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	0	"Maybe"
	4.2	**Optimization of Ingredients**	2	0	
		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 • Free of ingredients listed on REACH Authorization and Candidate List			
		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:	6	Mandatory points achieved
IEQ		**MANDATORY**			
	M1	**Adhesives and Sealants** Specify and use adhesives, sealants and sealant primers that do not exceed the VOC limits of the Canadian Environmental Choice/EcoLogo program or do not exceed the VOC limits specified in the State of California's South Coast Air Management District Rule #1168.	M	M	
	M2	**Paints and Coatings** Specify and use paints and coatings that carry an EcoLogo label or those rated at a minimum GPI-1 by the Master Painter's Institute on the interior of the building.	M	M	
	M3	**Floor Coverings** Specify and install carpet and carpet cushion that carry the following certifications: Carpet and Rug Institute Green Label Plus or the Ecologo.	M	M	
	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 configuration.	M	M	
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	
	1.2	**Low-Emitting Composite Wood Products** Specify and install interior composite wood products, such as flooring, doors, trim, etc., that have no added urea formaldehyde. Cabinetry is excluded from this credit.	2	2	
	1.3	**Low-Emitting Insulation** Specify and install formaldehyde-free insulation on the interior of the building.	2	2	
	1.4	**Low -Emitting Cabinetry** Specify and install interior cabinetry doors and boxes that are urea formaldehyde-free.	2	0	Maybe

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		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:	0	Mandatory points achieved
CON		MANDATORY			
	M1	**Staging and Construction** Prepare and implement a staging and construction plan, including alternate detour information and signage for pedestrians and cyclists.	M	M	
	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	
	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	
	M4	**Wheel Wash** Provide a wheel wash for vehicles leaving the site or a street cleaning program and catch basin protection.	M	M	
	M5	**Erosion and Sedimentation Control** Prepare and implement a site sediment and erosion control plan that conforms to Best Management Practices Guide for Stormwater: Appendix H – Construction Site Erosion and Sediment Control Guide (GVS&DD, October 1999).	M	M	
	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	
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	0	Maybe
	1.2	**Flushout** Conduct a minimum two-week continuous building flushout with new filtration media at 100% outside air after construction ends and prior to occupancy or conduct a baseline indoor air quality test.	2	0	

		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			
			Score:	13	Mandatory points achieved
ID		MANDATORY			
	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	
	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 generation of owner/resident.	M	M	
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	0	
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	
	2.3	**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	0	
	2.2	**Design for Security and Crime Prevention** Demonstrate that the design has been reviewed by an accredited Crime Prevention Through Environmental Design (CPTED) practitioner .	2	0	
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	1	
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	
	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 Campus Sustainability.	4	4	
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	0	Maybe Exterior Residents Courtyard
	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	Bike Access Ramp
	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	0	Maybe Minimized Car Parking

Itemized Responses to Development Application AUDP Comments

Item	Staff Comments / Recommendations	Applicant Response
1	**Form, Articulation, Materiality, Colour**	
1.1	There is still too much complexity in the use of colours and materials and the random application of them. Use colour to reinforce the building's form. One panel member felt the idea of the dark colour being up top and light colour below needs further consideration. Question having white fibre-cement panel as the dominate material, as it might make the building feel industrial or of lower quality. The proportions of fibre-cement panel to windows should be further considered.	The application of colours and materials is used with the following rationale: • White fibre cement panels are used for the majority of the building façade. The neutral background brings out other colour accents and textures, creating a simple yet strong scheme. • Grey fibre cement panels are used under the windows to balance the proportions of white panels to the darker window openings. The effect is to reduce the industrial/institutional feeling of the façade. • Grey metal siding is used on the top two levels on the east wing, the elevator lobby and a portion of the west wing to create continuity. • Wood textured sidings are used throughout the development to add interests to the soffit, balcony notches, inside face of the clips, and window surrounds. • Wood textured panel is used on the bridge element to create a picture frame to lighten up the connection piece. The infill glazing with translucent panels that are offset on each side is used to add some opaqueness and to create an interesting motif. The panel is also used for the clip faces.
1.2	Simplify and rationalize the east wing massing. A panel member felt clarity is needed whether massing is being layered from a vertical or horizontal perspective.	The east wing massing on Level 5 and Level 6 has been reconfigured and simplified to better align with structure. The revised massing steps back to emphasize the 4-storey street datum created by the adjacent development to the east. The east wing massing also uses similar design approaches as the west wing portion to tie the entire development together.

1.3	Wood is not consistently used. Focus and simplification is needed. The random use of wood on the ground floor is not successful. Consider utilizing the wood balcony surrounds for solar shading.	Wood accent materials are applied only at the following locations:
		• Wood textured sidings are applied to the soffits, balcony notches, inside face of the clips, and window surrounds. There are two approaches to where the siding is applied in the balcony notches:
		  • Massing with white fibre cement panels: the wood textured sidings are applied to the front face of the balcony notch and the soffit of the top level.
		  • Massing with grey metal siding: the wood texture sidings are applied to all three wall faces of the balcony notch and the soffit of the top level.
		  • Wood textured panel is used on the bridge and on the clip faces.

1.4	Explore using solar management features on the south facing windows as a functional way to provide texture.	Shading device is added to the south face of the bridge element and the double-storey amenity space to minimize solar exposure.

Item	Staff Comments / Recommendations	Applicant Response
1.5	The vestibule facing the street is effective at semi-privatizing the entrance but looks stuck on. Stronger rationale and clarity is needed.	The continuation of material is used to tie the entrance facing the street together with the rest of the development. The directional hint of the horizontal wood accent siding applied along the entry creates a welcoming feeling for the pedestrians.
1.6	The ground plane experience at the units has an institutional feel the way it has been articulated.	Window openings are grouped using grey fibre cement panels and wood accent sidings to add more interest to the ground plane experience.
2	**Bridge Expression**	
2.1	Design development is needed on the bridge feature. Consider an artful expression such as a translucent glass pattern to increase the porosity of the space by making it open visually and lighter. Overlooking issues from the bridge to adjacent living spaces need to be addressed.	Wood textured panel is used on the bridge element to create a picture frame to lighten up the connection piece. The frame also reduces overlooking issues to the adjacent living spaces. The infill glazing with translucent panels that are offset on each side is used to add some opaqueness and to create an interesting motif.
3	**South Edge Interface**	
3.1	The interface with Mundell Park has been well addressed. Consider pulling over the wooden seating area to align with the pathway down so there is more of a rationale for movement through and connectivity to the park. The amenity feels more like a civic-scaled development than a neighbourhood amenity.	The current design reflects our response to comments arising from the Pre-application AUDP presentation and concerns expressed by Campus Planning. We have pulled the stairs to the side of the seating steps to down play connectivity through the site. The current design also takes better advantage of the grade allowing less risers on this connection.
4	**Interior Layout / Livability**	
4.1	A panel member questioned whether two elevators were sufficient for the number of units especially on move in/out days.	Based on previous developments, two (2) elevators are sufficient for the number of units. The internal bridge connection creates weather protection and further convenience for residents living on the west wing, without feeling separate from the rest of the development. UBCPT has engaged with an elevator consultant and has confirmed two (2) elevators is sufficient.

Item	Staff Comments / Recommendations	Applicant Response
4.2	Some of the larger units have small/narrow living rooms for the number of people they will service.	From the survey result, feedback of larger bedrooms and smaller living spaces were received. UBCPT is exploring with a few unit types to address the feedback. Unit layouts will be further explored and developed.
4.3	The ground floor vestibule, amenity, and guest suite space could be further resolved.	The layout of ground floor amenity and guest suite space has been explored and refined.
5	**Family Oriented Amenities / Features, Landscape**	
5.1	The bike racks located near the ground floor amenities room off the courtyard is a concern because of potential obstruction.	Bike rack location has been reviewed and relocated to less obstructed areas (along the courtyard entry, by the parkade ramp wall, and the courtyard steps at the southwest corner of the site).
5.2	Ensure the bike repair room has adequate daylighting, has a presence on the public realm and feels like a destination.	Clerestory window is provided in the bike repair room. The parkade entry along Scholar's Greenway is pulled back to create generous space and overhead cover for people with bike and/or stroller, etc.
5.3	For privacy, ensure all ground floor units (e.g. #117) have a green buffer and unit windows overlooking the bridge feature are private.	Green buffer is added for all ground floor units. The bridge element is refined to minimize overlooking issues to adjacent units.
5.4	Maximize social gathering opportunities on the roof decks.	The proposal provides both indoor and outdoor amenity spaces on the ground floor. Given the costs associated with providing roof area amenity, the project would need to forego both indoor and outdoor amenity spaces on the ground floor to provide a roof area amenity. In the current proposal, the level 5 and level 6 massing is reconfigured to create a better stepback form of the east wing. On the roof area created by the stepback, individual decks are provided for every residential unit on Level 5. In addition, adding a roof top patio on the 7th floor will classify the building as a high rise as per Ed Lin's comments at the initial C+CP pre-application meeting.
5.5	Some of the balconies are too small; appropriately sized balconies are needed, especially for larger units. Ensure the patio spaces on the ground floor are appropriately sized. Studio units #111 and #112 on the east wing ground floor do not have an equal allocation of outdoor space.	Balconies and patios are refined to provide generous outdoor living for each unit. A 6'-0" depth is ensured for all balconies/decks.
5.6	The public realm between the west wing on Weber Lane and the future 16-storey development needs further development. Consider the edge treatment and circulation in that space.	The public realm hard surface areas are already constructed. Further planting of the public realm adjacent the project will be designed and implemented at the completion of this project.

Item	Staff Comments / Recommendations	Applicant Response
5.7	Add a trellis to the pavilion to create a transition between covered and uncovered social spaces.	Outdoor pavilion is further refined to reflect the panel comments. A trellis is integrated into the pavilion design to create transition and shading.
5.8	To increase privacy for the private outdoor spaces, consider removing the secondary walkway between the ground floor units and common outdoor social area. Provide unit access through a series of pathways directly from the outdoor social area.	The current design is in response to Pre-application AUDP comments to provide for larger trees in the courtyard. An option where larger planters against the patios exiting out into the common space were explored. However, this created smaller planters that did not allow adequate soil volumes for larger trees and limited the overall number of trees. This option also created a long corridor connection between the unit and the courtyard space. The current proposal provides a better separation between the unit and the courtyard, and at the same time provides more trees and various planting within the courtyard. The secondary walkway is minimized to 4'-0", which allows residents easy access to their units when the courtyard is being used by larger groups.
5.9	Simplify the circulation in the courtyard so there are fewer jogs in the plantings and the sightlines are more aligned.	The courtyard has been adjusted to accommodate responses to architectural changes and to simplify the layout.
5.10	Maximize opportunities for a playful landscape. Consider edible landscaping to bring interest and help create the feeling of being in the forest.	The landscape has been created with the intent to provide for a number of flexible uses. Planting design has been revised to include more variety of plantings and to incorporate a ground cover strawberry plant in areas of greater sun.
5.11	The planters are fairly shallow and tight. Consider using a drop slab to get more soil volume. Ensure all plantings have adequate soil volume for growth.	The planters have been designed to provide adequate soil volumes for the trees. Minimum 28" depth has been provided for the majority of the planters.
5.12	Consider adding more diverse plant materials at the edge of the site to increase the sense of place and identity being close to Pacific Spirit Regional Park.	More native plantings will be added into the public realm around the project. The planting design has been changes to incorporate a greater diversity of plant type.
6	**Chair Summary**	
6.1	SUPPORT on the basis of applicant taking note of the panel's comments and resolving to the satisfaction of staff.	Acknowledged.
6.2	The panel acknowledged the budgetary challenges of creating faculty and staff housing below market rental.	Acknowledged.
6.3	Concerns about massing, simplification of secondary and tertiary expression and materials, and discipline in the use of colour.	Please review response to item 1.1, 1.2, and 1.3.
6.4	General support for the treatment of the south park wall.	Acknowledged.

Item	Staff Comments / Recommendations	Applicant Response
6.5	Some suggestions regarding the courtyard design; including the value of the secondary pathway to suites, and using a trellis to better integrate the open pavilion.	Please review response to item 5.7 and 5.8.
6.6	Ensure the units are livable and comfortable. Some living spaces are small. The balconies need to be appropriately sized.	Please review response to item 4.2 and 5.5.
6.7	The panel felt the proposal to allow self-expression for some tenants was not convincing.	Acknowledge. UBCPT to further explore self-expression through interior design process.
6.8	Consider opportunities for roof top access and maximize social gathering spaces.	Please review response to item 5.4.

Itemized Responses to Development Review Committee (DRC) Comments

Item	Staff Comments / Recommendations	Applicant Response
1	**DRC supports the project, subject to:**	
1.1	Applicant to review the REAP credit for car share with the Green Building Manager.	Acknowledge. UBCPT has initiated conversations with UBC Sustainability.
1.2	Applicant to focus on educating the home owners (which is a REAP credit) to teach them how to recycle and to let them know that they are living in a sustainable designed building.	Acknowledge. UBCPT has initiated conversations with UBC Sustainability.
1.3	Applicant to confirm the sanitary peak flow numbers with Utilities.	Revised preliminary Utility Service Connection Application was sent to Jenny Liu on July 16, 2018, and the sanitary peak flow numbers were confirmed.
1.4	Applicant to work with the University Landscape Architect to finalize the location of outdoor bicycle racks.	The outdoor bike racks have been relocated within the property line, with the exception of 10 bikes near the intersection of Webber Lane and Scholar's greenway. This location was reviewed with the University Landscape Architect for preliminary approval, however the design team will continue to consult with the University Landscape Architect to finalize the locations of these Class II bike racks.
1.5	The site will need to provide detention for the 1:10 year storm at a 1:2 year release rate because the Birney Storm Sewer flows directly to Wesbrook Mall.	Acknowledged. This has been reviewed with the consultant team. Stormwater detention within the building parkade will be provided. Doug Doyle confirmed this will work.

Itemized Responses to Development Permit Board Comments

Item	Staff Comments / Recommendations	Applicant Response
1	**The Board approves the application with the conditions noted adding the following considerations for follow up with staff:**	
1.1	Provide some covered bicycle parking.	UBCPT has reviewed the costs of adding a covered bike parking amenity. Due to the overall increase in construction costs, adding the covered bike amenity for the Class 2 stalls would mean foregoing some of the other more desirable amenity spaces within the development.

1.2	Encourage as much storage and flexibility of storage as necessary.	Flexible storage spaces for bikes, strollers and other miscellaneous items are explored and allocated in majority of the ground-related units. The ground floor corridor walls and floors will use more durable finish to allow residents to bring bikes directly into their units.
		In the parkade, the bike room and storage locker room allocation has been revised as following (please refer to the parkade plan for location):
		• 110 storage lockers (4' x 6' lockers) = 0.81 lockers per unit.
		• 313 total bike storage = 2.30 stalls per unit, including:
		  • 129 vertical bike storage
		  • 151 horizontal bike storage
		  • 33 reserved bike lockers for rent on a monthly basis

1.3	Improve access from Scholars Way / Mundell Park to the courtyard for strollers and wheeled items. It was recognized that a ramp might not meet building code requirements but even a steeper ramp would be an asset to the development.	This has been reviewed with landscape and building code. Due to the steep grade between Scholar's Greenway and the courtyard, an accessible ramp is not feasible within the development. The ramp would take up too much public realm and the tiered seating /social gathering area will be removed to accommodate a circulation path only. Since there are alternative accessible routes from Webber Lane, Shrum Lane, and through the direct parkade elevator access to the courtyard, the team felt the accessible ramp is not necessary.
1.4	Encourage multi-generational utilization of the courtyard to include use by younger and older kids/teenagers	The courtyard has been designed to provide flexible open space to accommodate a variety of needs and activities for younger and older children. Children are able to utilize the space for informal play or games. In order to mitigate noise impacts on the residents it is preferred to keep structured children's activities away from the buildings. These services are provided in the adjacent Mundell Park.
1.5	Concerns on Development Permit Boards in the region that there is not enough parking. Big notice from the development permit board that we are concerned about the adequacy of parking for both tenants and visitors. While approving the parking provision in this application, the Development Permit Board expressed concerns about the significantly reduced parking for both visitors and residents and the longer term impact on the Wesbrook Neighbourhood.	Nine visitor parking stalls are provided in the current proposal. Please refer to the attached parkade plan.

Item	Staff Comments / Recommendations	Applicant Response
1.6	The bike activity room is a recreational amenity whose use should be encouraged. Ensure that overlook into it by adjacent developments is mitigated by adding landscape treatment and/or ensuring the lighting in the bike room does not negatively impact adjacent developments.	Clerestory window is provided in the bike repair room to avoid overlooking issue, but at the same time providing adequate daylighting into the space. A combination of wood-accent cladding and landscape treatment on the exterior façade at the bike repair room was included in the original proposal to minimize the amount of concrete parkade wall.
1.7	Roof overhangs are strongly recommended to enhance the long term weather-ability and to reduce life cycle costs over time.	All the doors and access points to the exterior decks and balconies are inset with additional projecting elements for weather protection. The team will work carefully when detailing the building envelope to maximize protection.
1.8	Designated garbage / recycling on Birney Avenue.	This has been coordinated with Krista Falkner. A reserved location is provided next to the parkade letdown. Please refer to the site plan.