

FOTENN



BIOSIS DESIGNS

917 Merivale Road
Urban Design Review Panel
May 3, 2024



Site Context



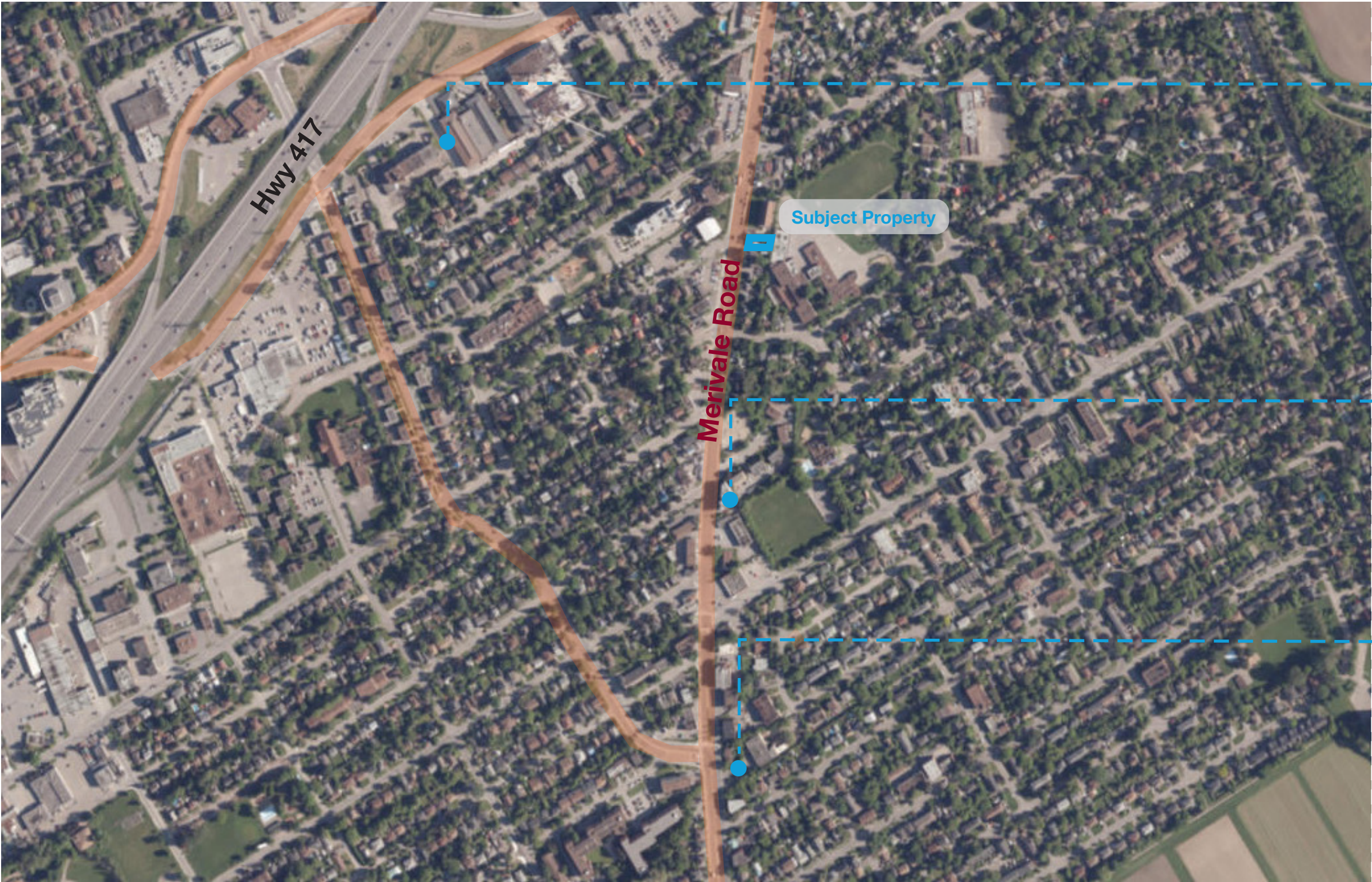
Mainstreet Corridor

St. Tekle Haimanot Ethiopian Orthodox Church

St. Elisabeth Catholic Church

WE Gowling Public School

Development Context



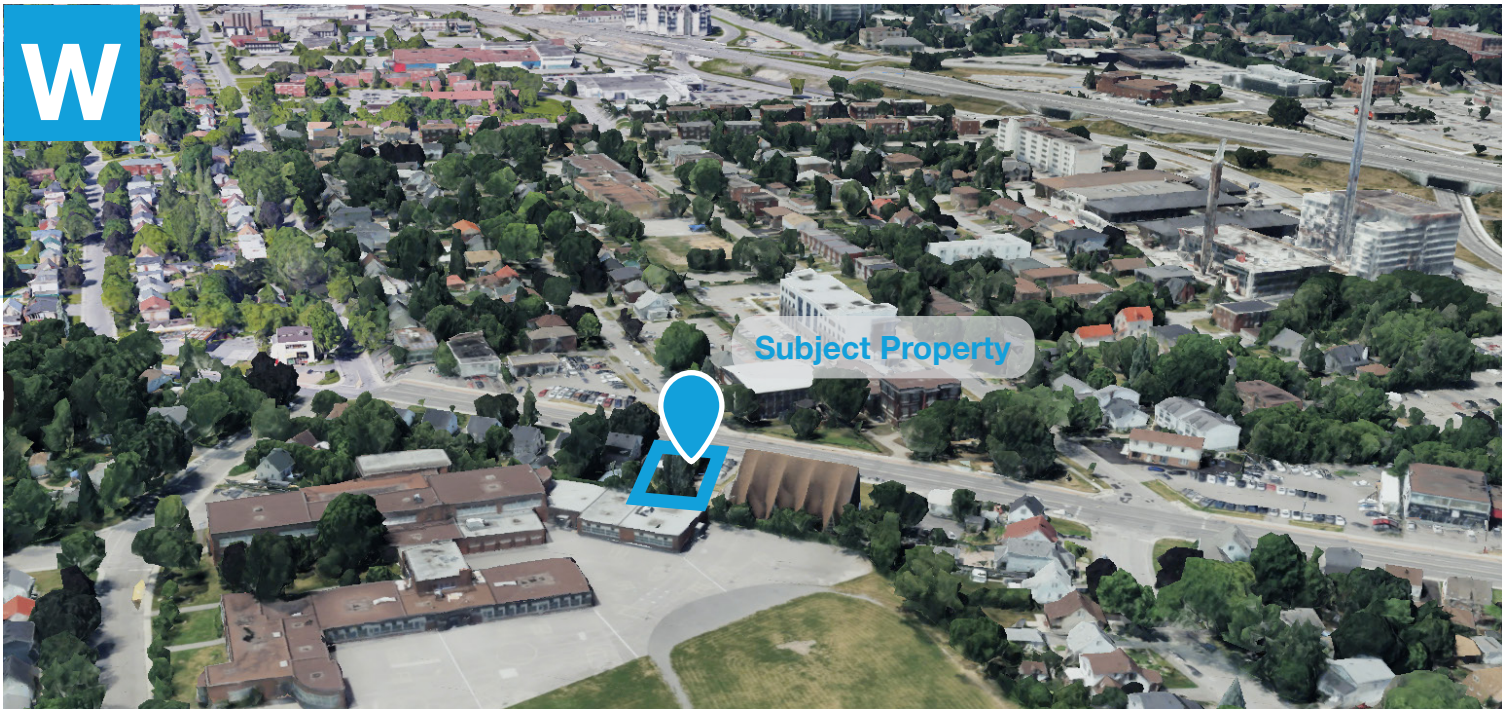
Mainstreet Corridor

1354 Carling Avenue
Approved 22 storey
high-rise building (under
construction)

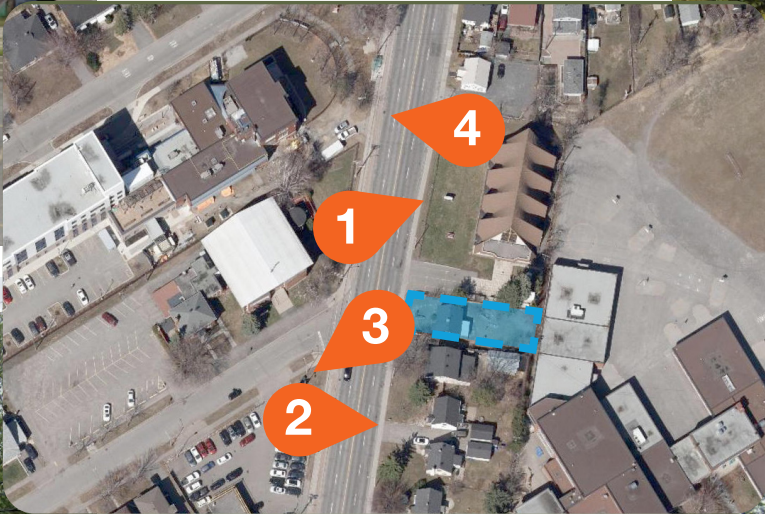
999 Merivale Road
Recent infill development
(low-rise apartment
building)

1095 Merivale Road
Proposed 70 unit six-
storey residential care
facility

Site Context



Site Context

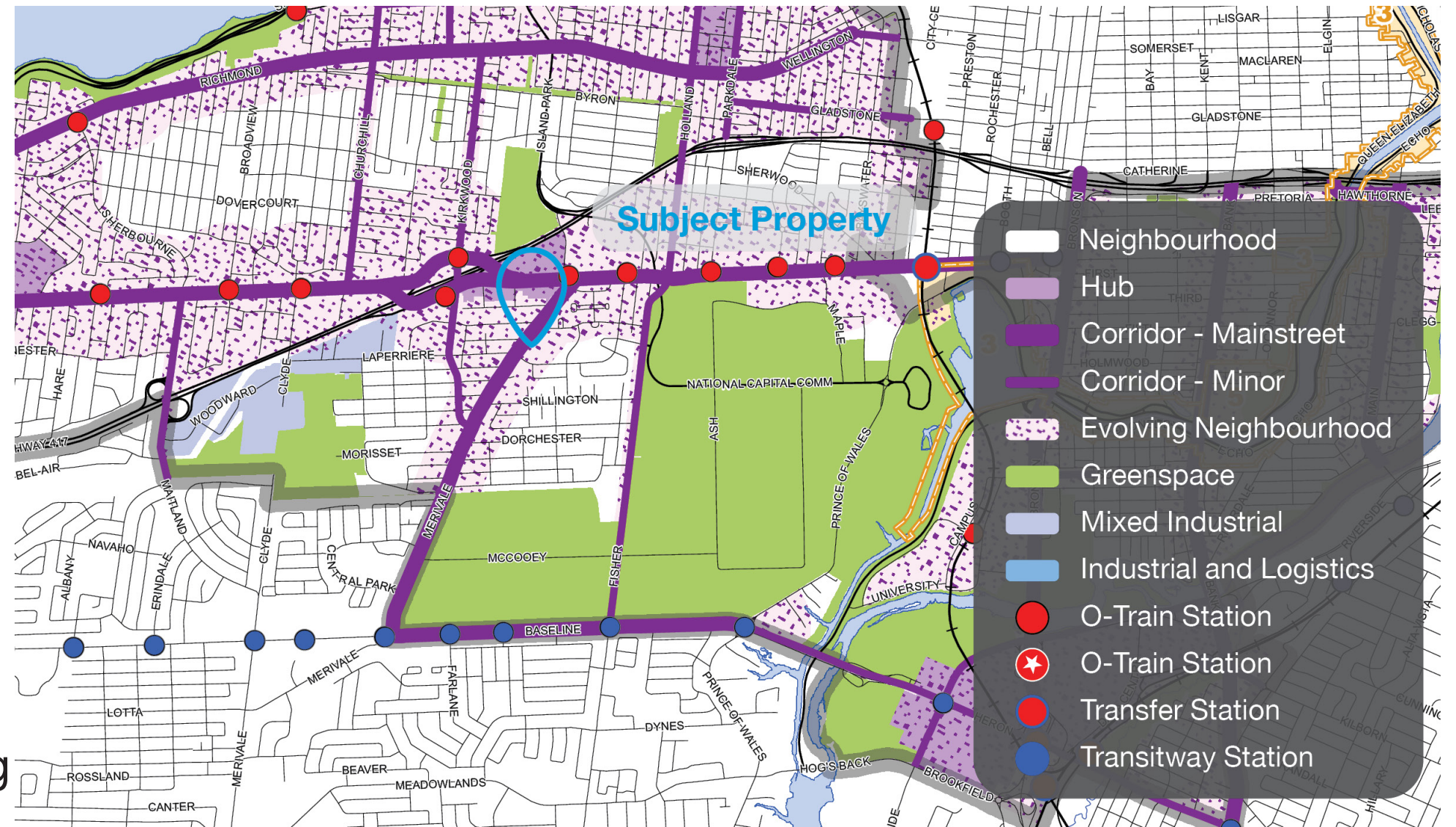


City of Ottawa Official Plan (2022)

The subject property is located in the Outer Urban Transect and is designated Mainstreet Corridor in the City of Ottawa's Official Plan.

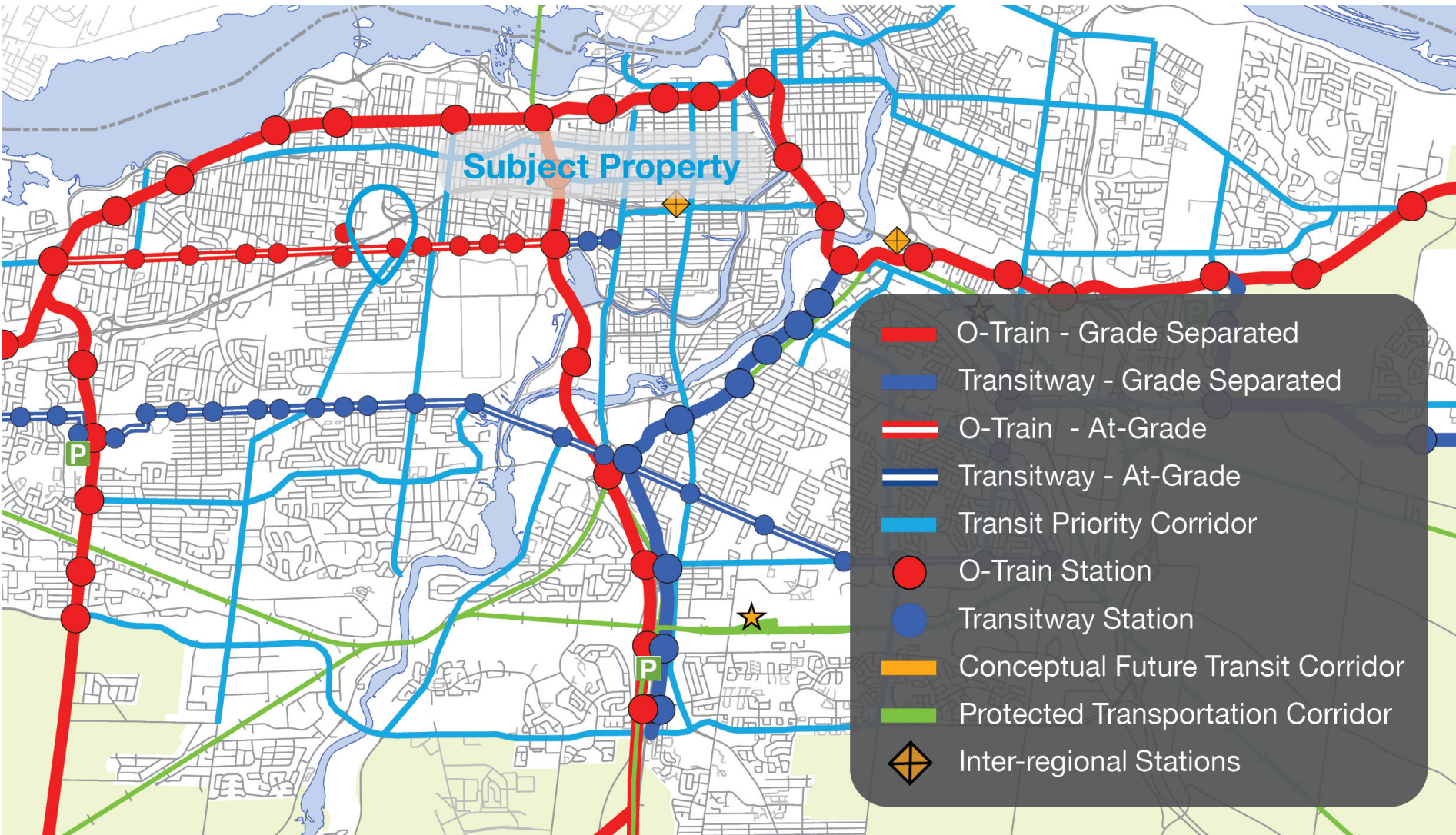
The goal of the **Inner Urban Transect** is to enhance or establish an urban pattern of built form, site design and mix of uses.

Mainstreet Corridors permits higher densities and a mix of land uses. The intent is to establish buildings that locate the maximum permitted building heights and highest densities close to the Corridor.



City of Ottawa Official Plan (2022)

Merivale Road is identified as a **Transit Priority Corridor** on Schedule C2 - Transit Network (Ultimate). Transit Priority Corridors are identified as providing frequent bus service and improved city-wide transit access to major employment, commercial and institutional land uses.



Schedule C2 - Transit Network (Ultimate)

Comprehensive Zoning By-law (2008-250)

The subject property is zoned Traditional Mainstreet, Urban Exception 2190 - TM[2190].

ZONING REQUIREMENTS - TM [2196]			
EXISTING ZOINING:	TM[2196]	Traditional Main Street Zone	
PROPOSED ZOINING:	TM[2196]	Traditional Main Street Zone	
PARKING	REQUIRED	PROVIDED	COMPLIES Y/N
OFF-STREET PARKING	4	4	Y
VISITOR PARKING	1	1	Y
BARRIER FREE PARKING	0	0	Y
BICYCLE PARKING	10	20	Y
SETBACKS			
FRONT YARD	MAX 2M	0.76M	Y
FRONT YARD ABOVE 15M	MIN 2M	2.6M	Y
REAR YARD	7.5M	8.3M	Y
SIDE YARD (NORTH)	1.2M	1.22M	Y
SIDE YARD (SOUTH)	1.2M	1.2M	Y
MAX HEIGHT TO ROOF MIDPOINT	20M	20M	Y
MINIMUM LOT WIDTH	0	13.73M	Y
BUILDING COVERAGE/AREA	N/A	50.5%	Y
TOTAL GFA	N/A	1,341 SM	Y
AMENITY SPACE AREA	6 SM PER UNIT = 120SM MIN 50% COMMON	BALCONY = 171 SM COMMON GF = 97 SM	Y
TOTAL NUMBER OF UNITS	N/A	20	Y
MIN LANDSCAPE BUFFER	0 - NOT ABUTTING A STREET	N/A	Y

SITE DATA		
ITEM	AREA	% TOTAL
LOT AREA	481.5 SM (5,183 SFT)	100%
BUILDING AREA	283 SM (3,054 SFT)	58.9%
GROSS FLOOR AREA	1,368 SM (14,725 SFT)	
ASPHALT/CONC. AREA	168.5 SM (1,813 SFT)	28.7%
LANDSCAPED AREA	REAR LOT AREA 60 SM (645 SFT)	12.4%



PARKING COUNT					
USAGE	COUNT	PARKING RATIO	PARKING REQUIRED	PARKING PROVIDED	COMPLIES (Y/N)
STUDIOS*	10	0-10 UNITS = 0	0	0	Y
1 BED*	9	10-12 UNITS = 0 13-19 UNITS = 0.5	3	3	Y
2 BED	1	19-20 UNITS = 0.5	1	1	Y
BF SPOTS			0	0	Y
VISITOR		0-12 UNITS = 0 13-20 UNITS = 0.1	1	1	Y
TOTAL	20		5	5	Y

Project Description

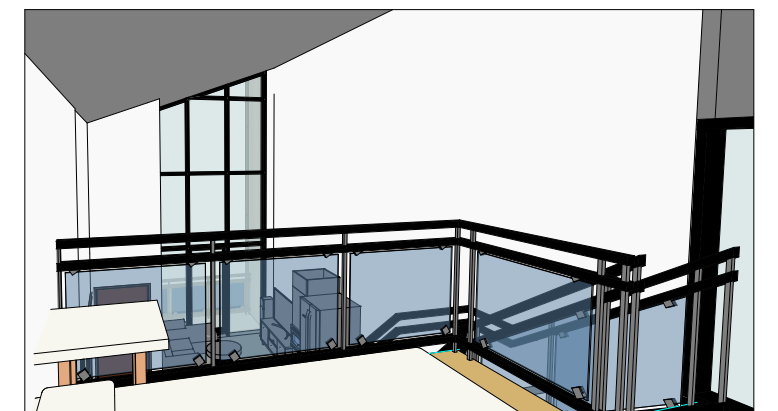
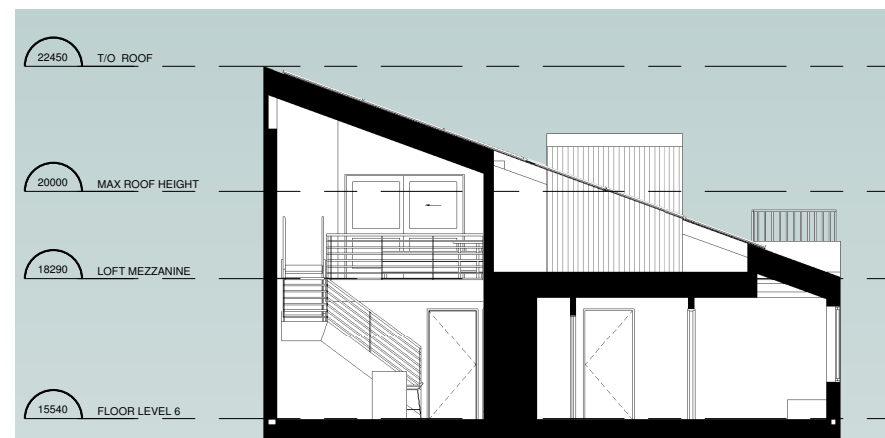
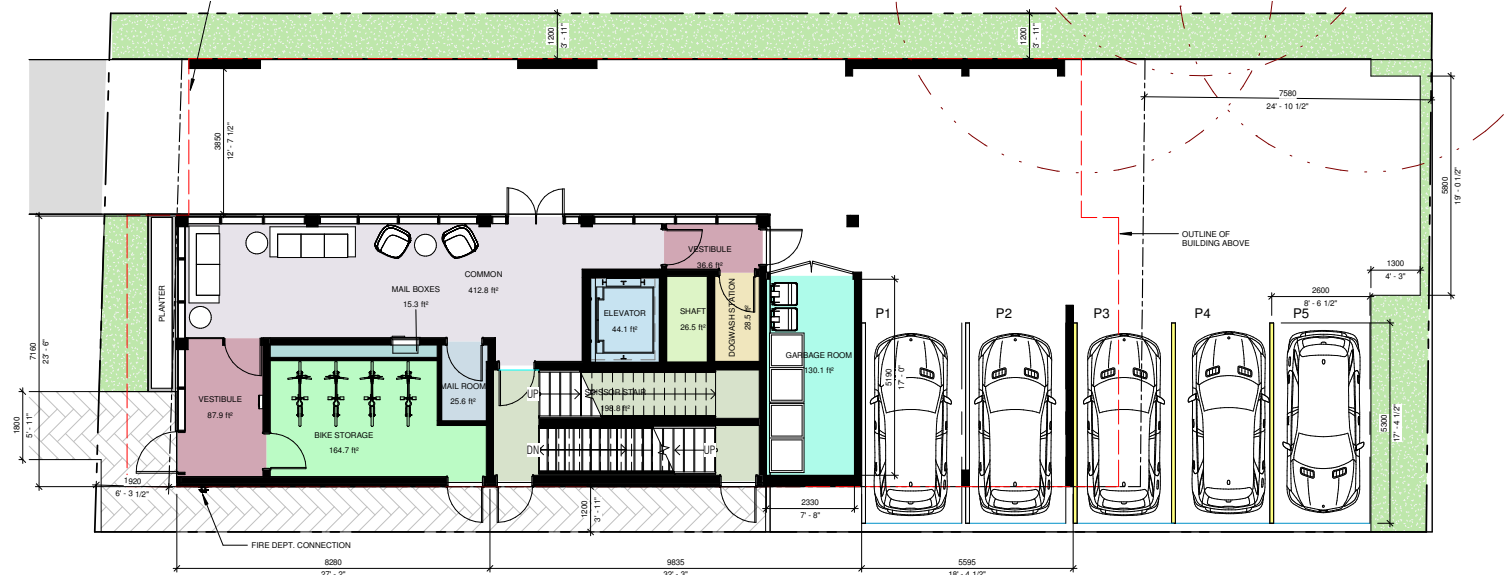
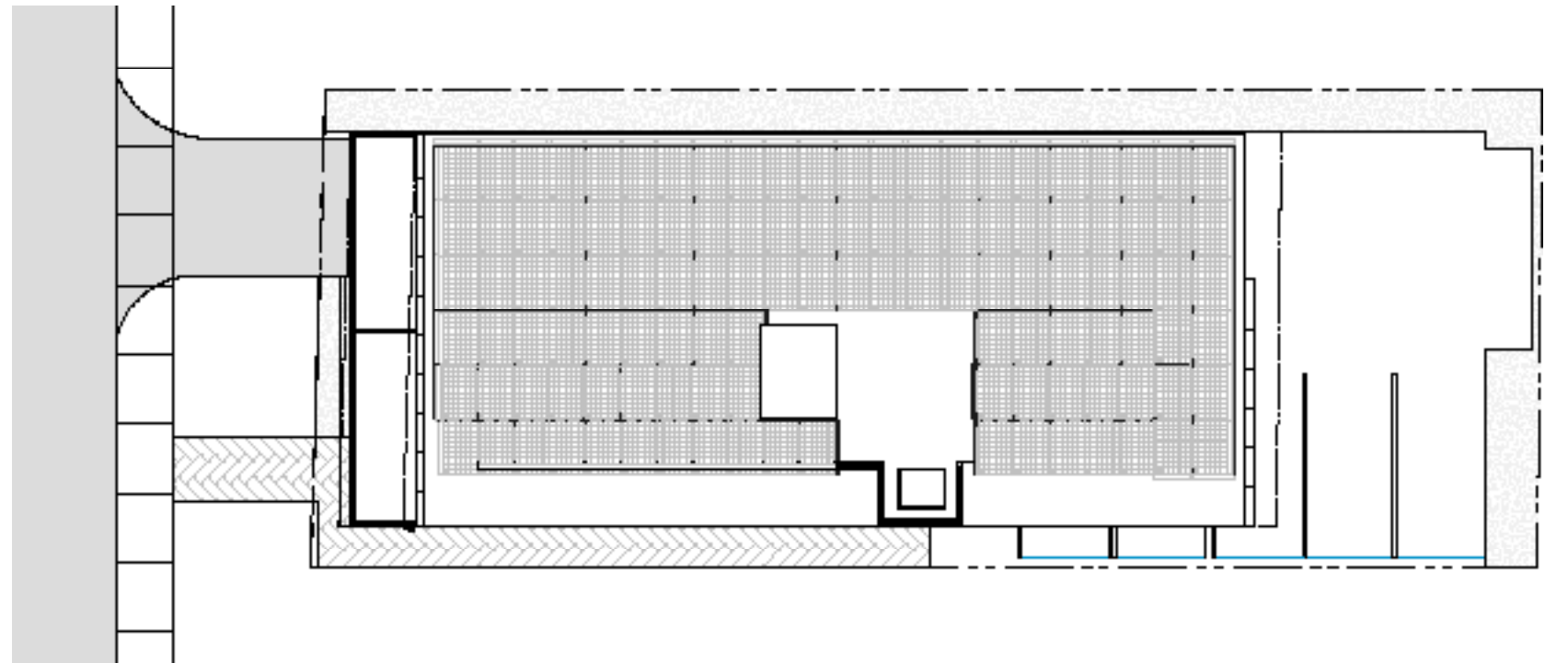
The proposed development is a six-story, 20 meter high residential apartment building located on a narrow rectangular lot along Merivale road. The entry point to the site includes a drive aisle for vehicular access and a main entrance vestibule at ground level. Five parking spaces are available at the rear of the building, surrounded by landscaping, with a planter box enhancing the entry doors.

A spacious common amenity lounge, featuring a striking accent wall, guides residents towards the rear elevator and stairs. The scissor staircase ensures occupants have two means of egress. A dog wash station and garbage room are situated at the back of the building, along with a privately accessed bicycle storage room.

The basement hosts a utility service room and 12 oversized storage lockers for residents.

Levels 2 to 5 comprise of two bachelor and two one-bedroom units per floor, each with private balconies. Units on the West side of level 5 enjoy access to an expansive terrace, large enough for a small garden, thanks to a 2-meter setback requirement in the zoning bylaw.

The top floor, level 6, capitalizes on the sloped roof with soaring ceilings and an upper loft space, facilitating the inclusion of a one and two-bedroom unit.



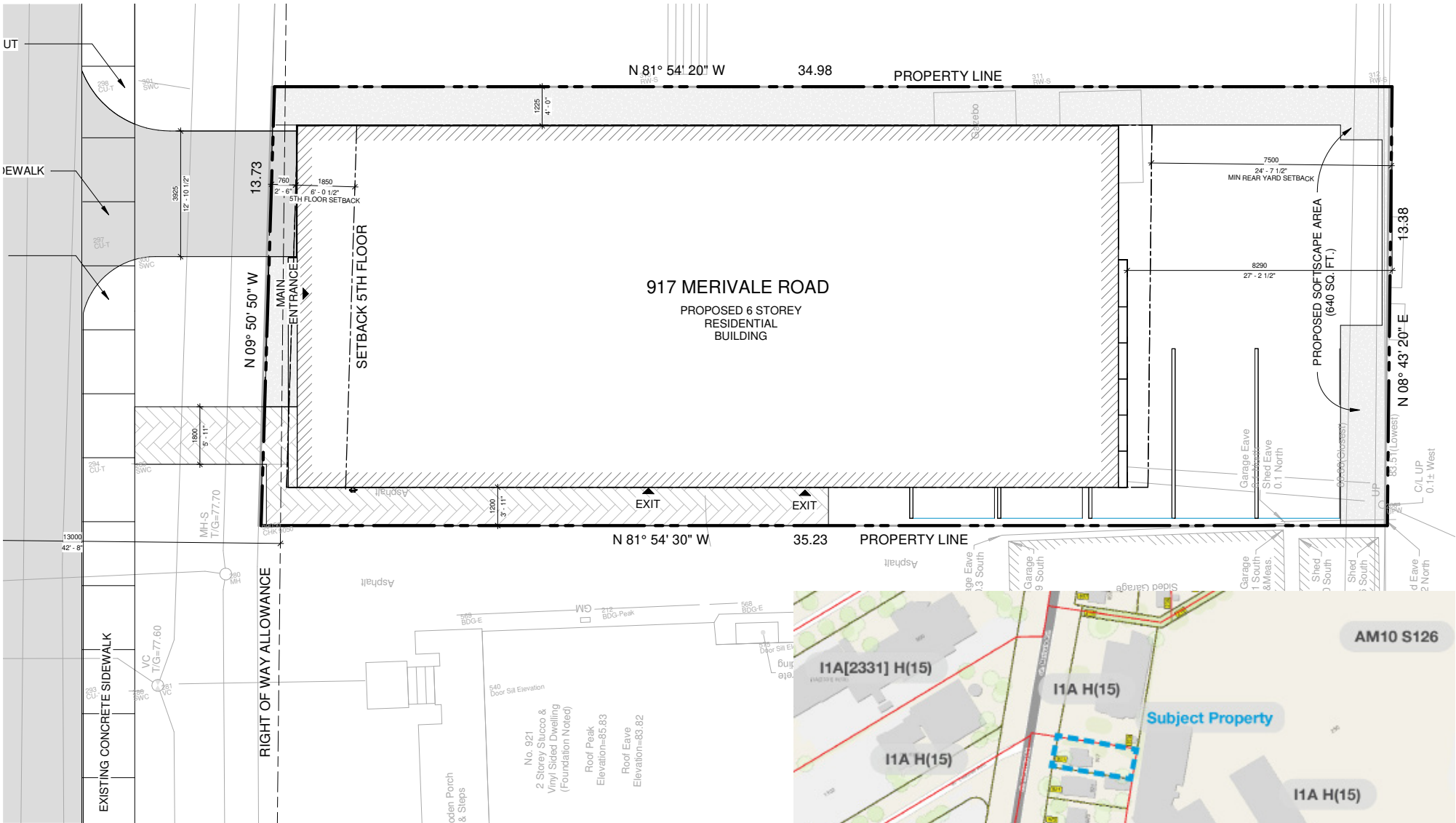
Project Statistics

The property is a narrow rectangular lot 481.5 sm in area, 35M deep by 13.7M wide. The access drive is single drive aisle with a clearance of 3.8M, due to the constraints of the site.

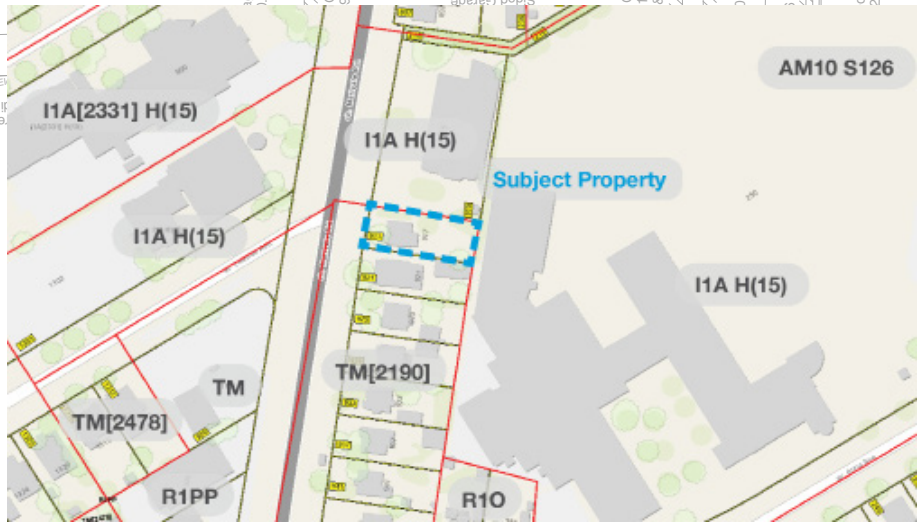
The topography of the site is flat with little mature growth. Existing trees grow along the property lines, the largest of which is the Emerald White Cedar on the church side, whose roots and canopy extend into the subject property.

The proposed building occupies 58.9% of the site and has a gross floor area of 1,398SM.

Five surface parking spaces plus the drive aisle and two pedestrian walks occupy 28.7% of the site area, with the remaining 12.4% being dedicated to landscaping.



UNIT DATA					
LEVEL	STUDIO	1 BED	2 BED	TOTAL	FLOOR AREA
BASEMENT	0	0	0	0	119 SM (1280 SFT)
MAIN FLOOR	0	0	0	0	127 SM (1364 SFT)
2ND FLOOR	2	2	0	4	243 SM (2616 SFT)
3RD FLOOR	2	2	0	4	243 SM (2616 SFT)
4TH FLOOR	2	2	0	4	243 SM (2616 SFT)
5TH FLOOR	2	2	0	4	239 SM (2573 SFT)
6TH FLOOR	2	1	1	4	239 SM (2573 SFT)
MEZZ.	0	0	0	0	34 SM (372 SFT)
TOTAL	10	9	1	20	1368 SM (14,725 SFT) A.G.



SITE DATA		
ITEM	AREA	% TOTAL
LOT AREA	481.5 SM (5,183 SFT)	100%
BUILDING AREA	283 SM (3,054 SFT)	58.9%
GROSS FLOOR AREA	1,368 SM (14,725 SFT)	
ASPHALT/CONC. AREA	168.5 SM (1,813 SFT)	28.7%
LANDSCAPED AREA	REAR LOT AREA 60 SM (645 SFT)	12.4%

Concept Evolution

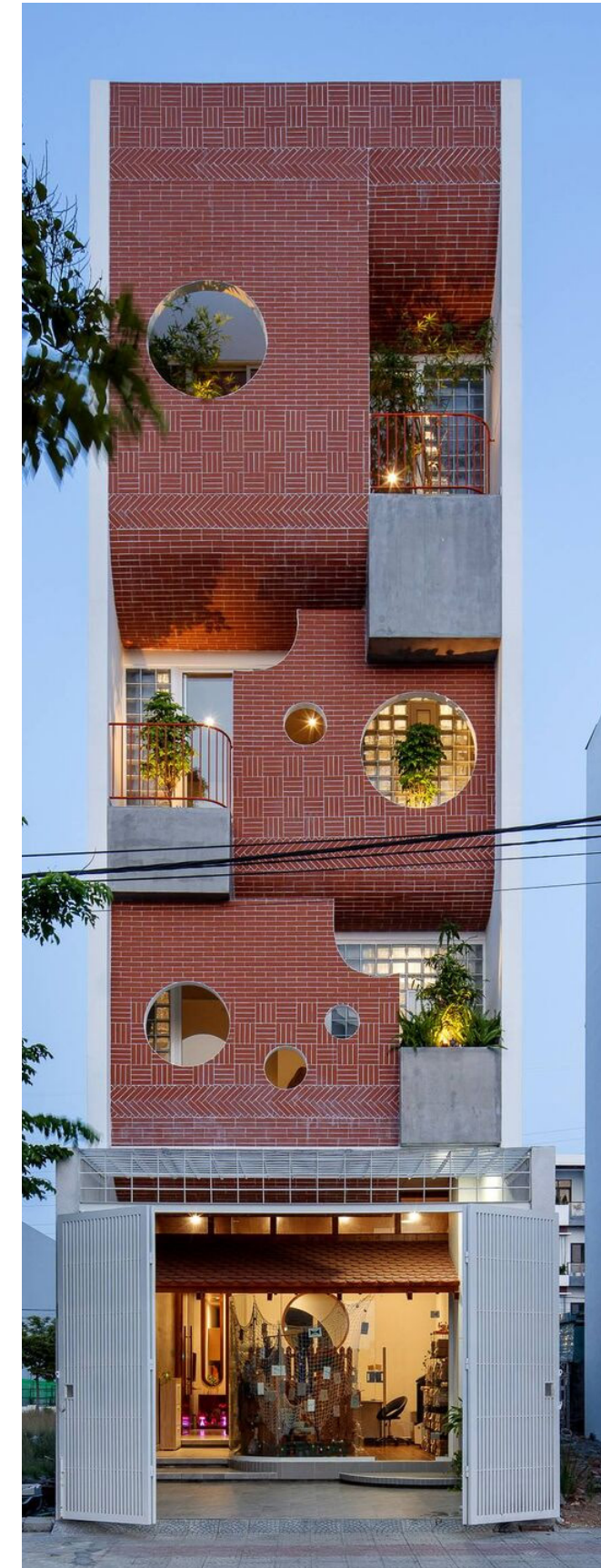
This six-story wood frame apartment building has been designed to establish a new standard and architectural style along Merivale Road. The project maximizes the buildable area on a narrow site, accommodating circulation at ground level and five levels of residential apartments above.

The design aims to create a modern and upscale structure with efficient units that offer abundant natural light. The incorporation of solar panels led to the development of a sloped roof to maximize Southern exposure. This shed-style roof also allows for a loft space on the sixth level, providing a luxurious two-bedroom apartment.

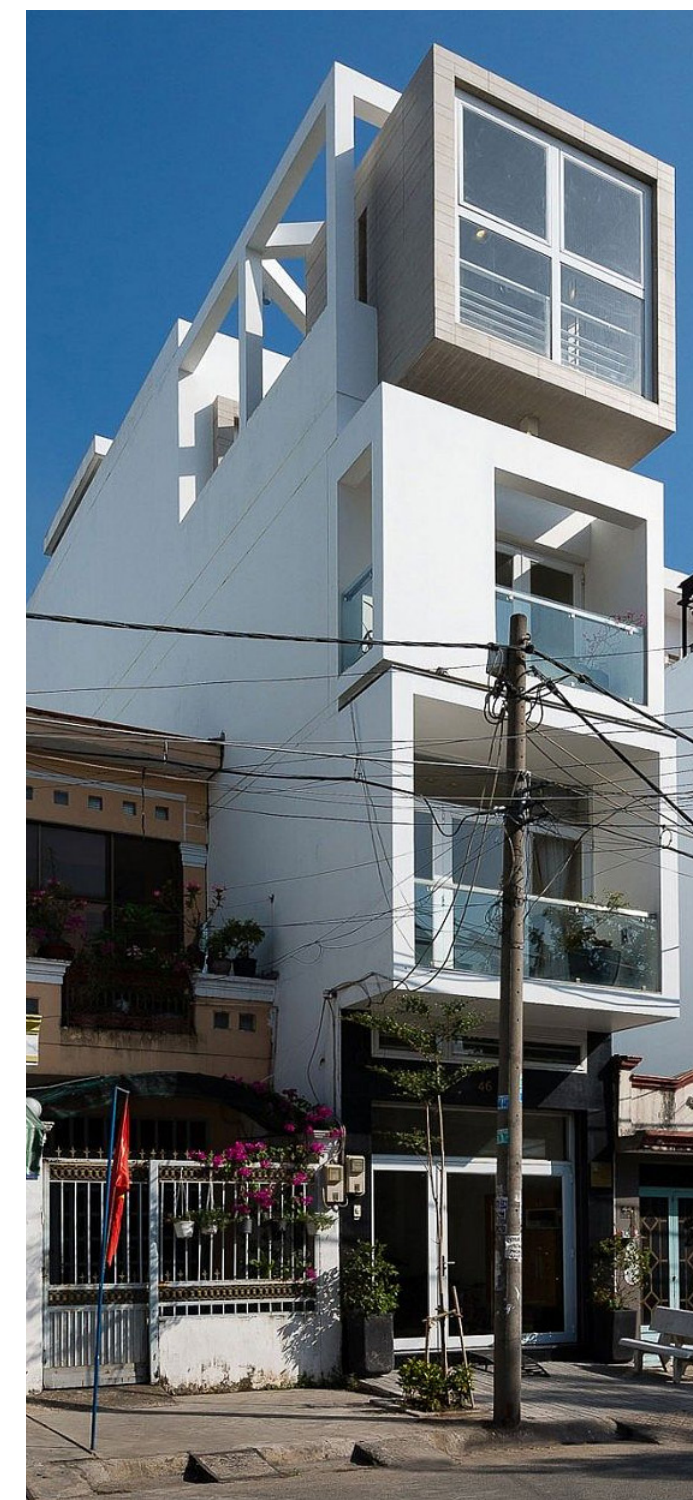
The building's form draws inspiration from similarly narrow mid-rise designs found in countries such as India, Thailand, and Vietnam. In these densely populated cities, tall and slender buildings are commonplace, reflecting the need to optimize space. By merging the slender house with a more traditional North American style vernacular and monosloped roof, the design brings a fresh take on modern living to the Carlington neighborhood.



Slender House, Hanoi, Vietnam



Da Nang House, Hoa Xuan, Vietnam



NA House, Ho Chi Minh, Vietnam

Concept Evolution

The genesis of the project emerged from Ottawa's pressing need for housing. Initial concepts focused on optimizing the site's efficiency and functionality for future tenants, drawing inspiration from the concept of the slender housing and evolving it into a denser residential structure.

The massing study began by taking the existing context, a wartime bungalow with a pitched roof, and extending this concept to a height of 20 meters. Changing the roof to a monoslope maximized the solar exposure making it ideal for solar panel integration, while the form took shape according to setbacks, balconies, and sightlines. This approach resulted in the various articulations and protrusions that define the building's design character.

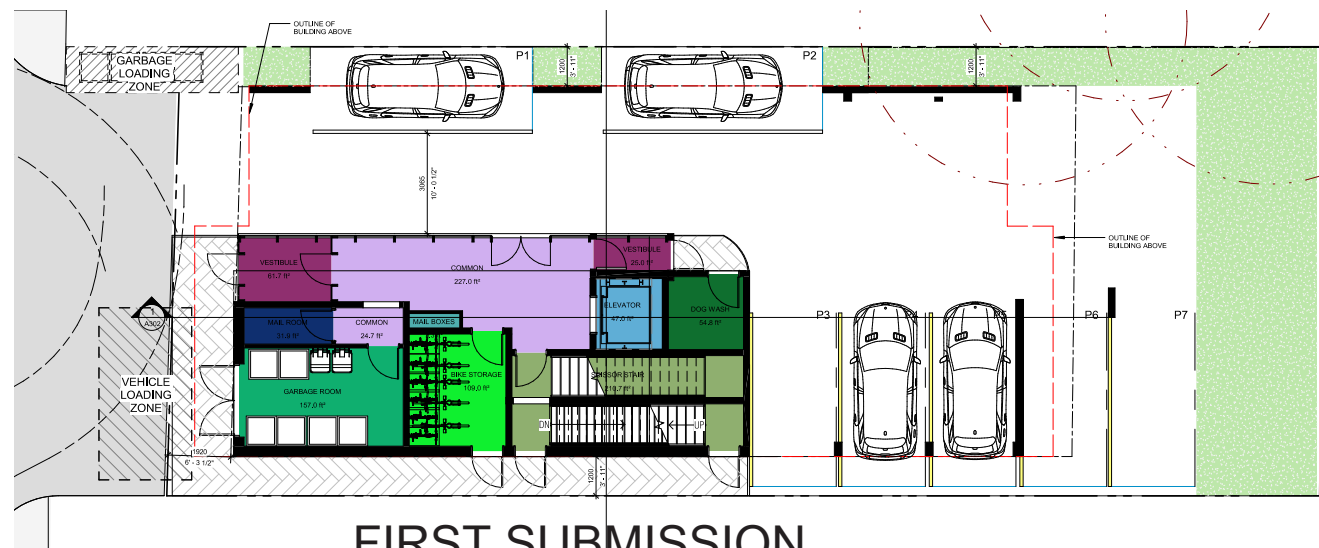
The aesthetic of the building aims to modernize the area rather than replicate its current style. As the City plans for Merivale to evolve into a main street equivalent to Bank Street or Richmond Road, this pioneering design sets a precedent for a shifting typology in the neighborhood.



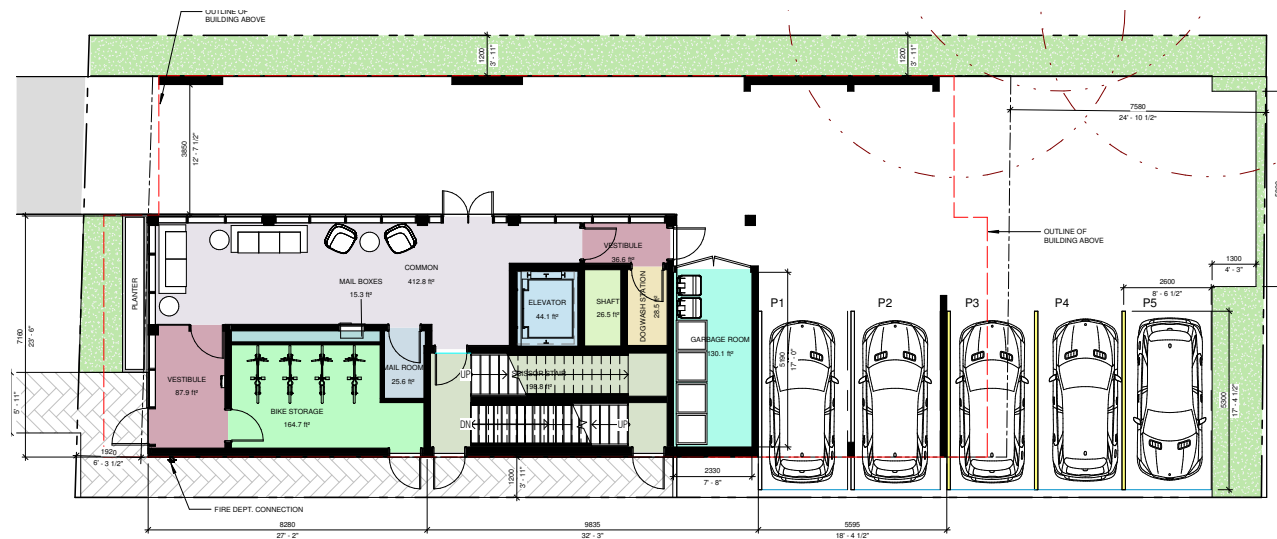
Concept Evolution

Response to City Pre-Consultation Comments:

1. Alternative ground floor layout provided based on City feedback.
2. Amenity area provided as a common area lounge next to the vestibule.
3. Garbage room was relocated to the rear of the building per city request, maximizing the frontage for public realm enhancement.
4. Vehicle lay-by removed and replaced with front yard landscaping.
5. Parallel parking spaces removed, drive aisle width revised to 3.6m.
6. North and South walls have been designed to provide greater visual appeal.



FIRST SUBMISSION



CURRENT DESIGN



FIRST SUBMISSION



CURRENT DESIGN

Design Brief

Context: the project's site was previously occupied by a single-family house converted into a coffee shop. The property is situated along Merivale road, which has been designated a Mainstreet Corridor in the City of Ottawa's Official Plan. The City's future plans to evolve Merivale into a "mainstreet" have not been reflected in the local context to this point as the neighborhood predominantly comprises single-family homes to the South, a Church to the North, and an Auto Repair & Sales Shop across the street. To the rear (East) of the property is a School.

The proposed design was crafted to seamlessly integrate into the surrounding low-rise neighborhood. By stepping back 2 meters from the street on the 5th and 6th levels, the building maintains harmony with the existing streetscape, preventing any overwhelming presence or overshadowing of neighboring structures. The addition of the sloped roof adds a touch of residential charm, softening the building's profile and further blending it into the fabric of the community. Moreover, landscaping features have been incorporated, and the frontage of the apartment's entrance along Merivale has been maximized, fostering a more welcoming and walkable public realm.

Parking has been deliberately limited on-site to encourage the use of public transit, and the relocation of the waste room to the rear promotes a more active entry experience. The North and South walls are clad with fiber cement panels arranged in an irregular checkered pattern, enhancing the visual appeal of the building, while articulations around the balconies and parapets lend it a distinctive form.



Design Brief

Arterial Main Street Design:

The proposal creates a pleasant pedestrian environments with streetscape defined by an inviting entrance and landscaping. Other additional features to be included:

- 2m wide sidewalk w/ plantings & landscaped area
- a bench, bicycle parking and decorative paving
- a potential mural along the interior lobby feature wall, visible from the street
- Cladding colours and textures designed to improve the visual appearance of the side walls
- Clear windows and doors along the pedestrian level façade of walls, facing the street, to accentuate the active lobby and common area along the street at grade.

Transit Oriented Design:

This project is a transit oriented design, through the reduced parking and efficient floor plate, but also:

- The step back of floors 5 and 6 in order to maintain a more human scale along the sidewalk and to reduce shadow and wind impacts on the public street.
- Provided architectural variety on the lower storeys with the building's balcony arrangement, trimwork and articulation

Lowrise & Infill Design:

This infill project is a contemporary design within a changing local context. Infill development should be a desirable addition to an existing neighbourhood, and this project creates a highly visible landmark through its distinctive design features. Additionally the design:

- Ensures that the new frontage faces and animates the public street.
- Reflects the desirable planned neighbourhood pattern of development in terms of building height, elevation and the location of primary entrances, the elevation of the first floor and yard encroachments as defined by the Official Plan and Zoning Bylaws.



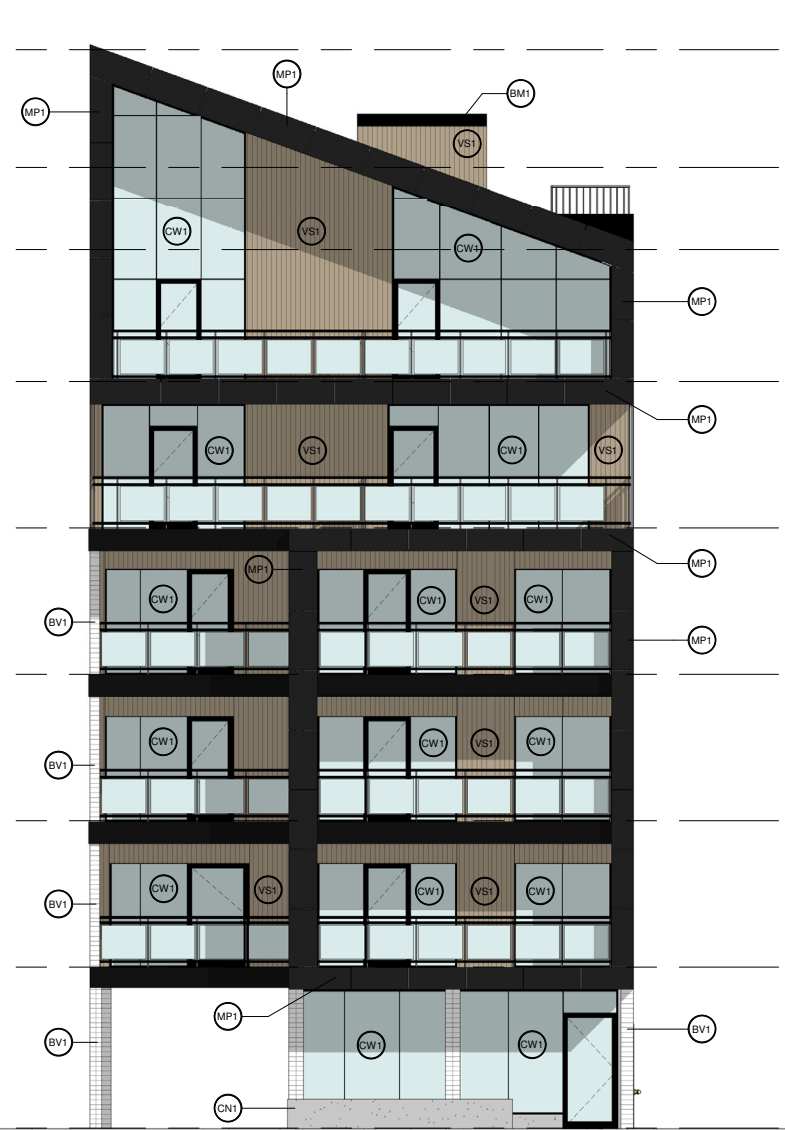
Design Brief

Evolving Main Street - Context Illustration

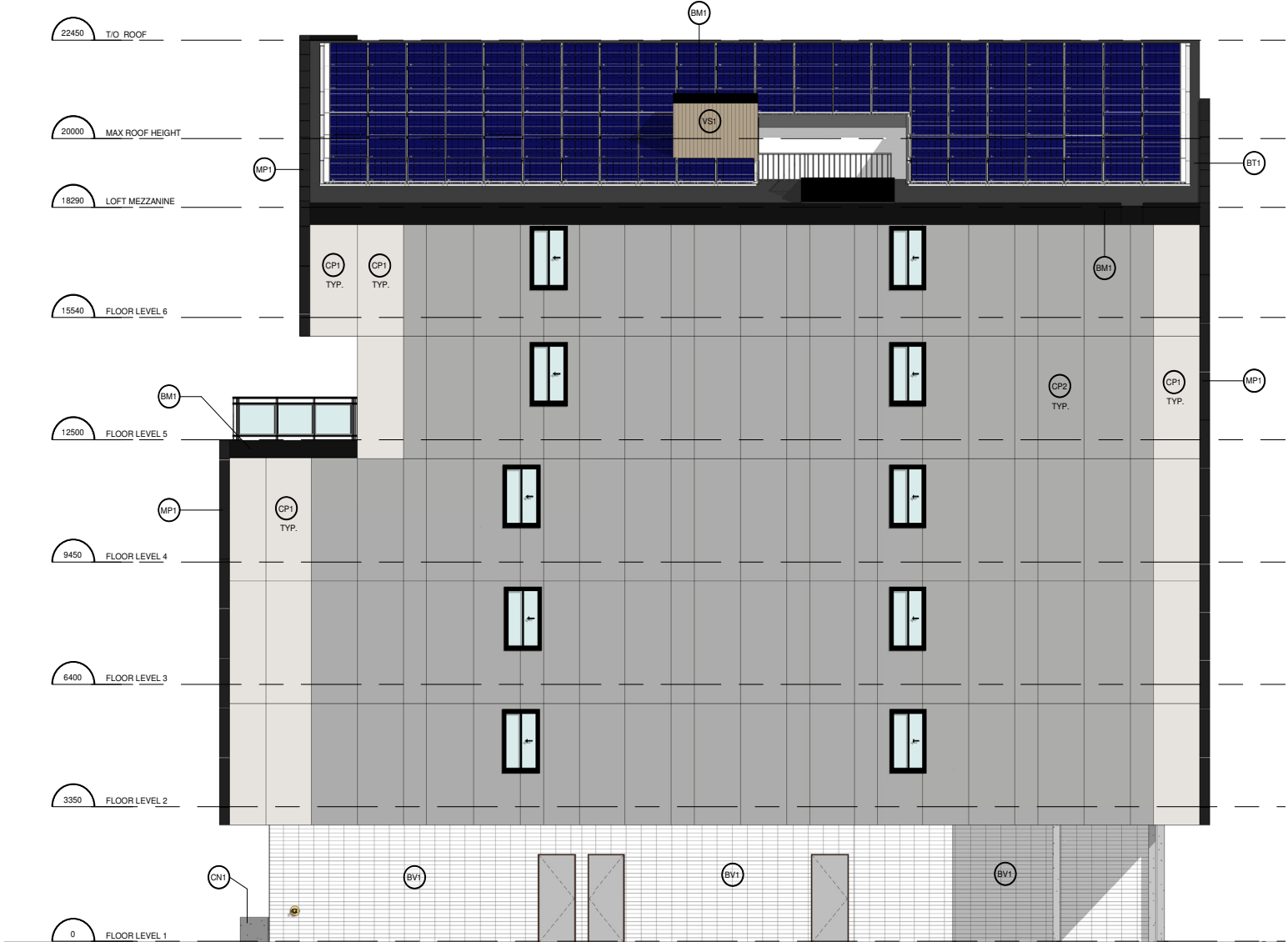
It is important to consider the design within the context of an evolving streetscape. The City's Official Plan and the intended direction for the future development of Merivale will see similarly sized, 6 storey buildings begin to replace the existing single story wartime bungalows that line the street. This proposed development will be the first of it's kind in the area, but not the last.



Building Elevations



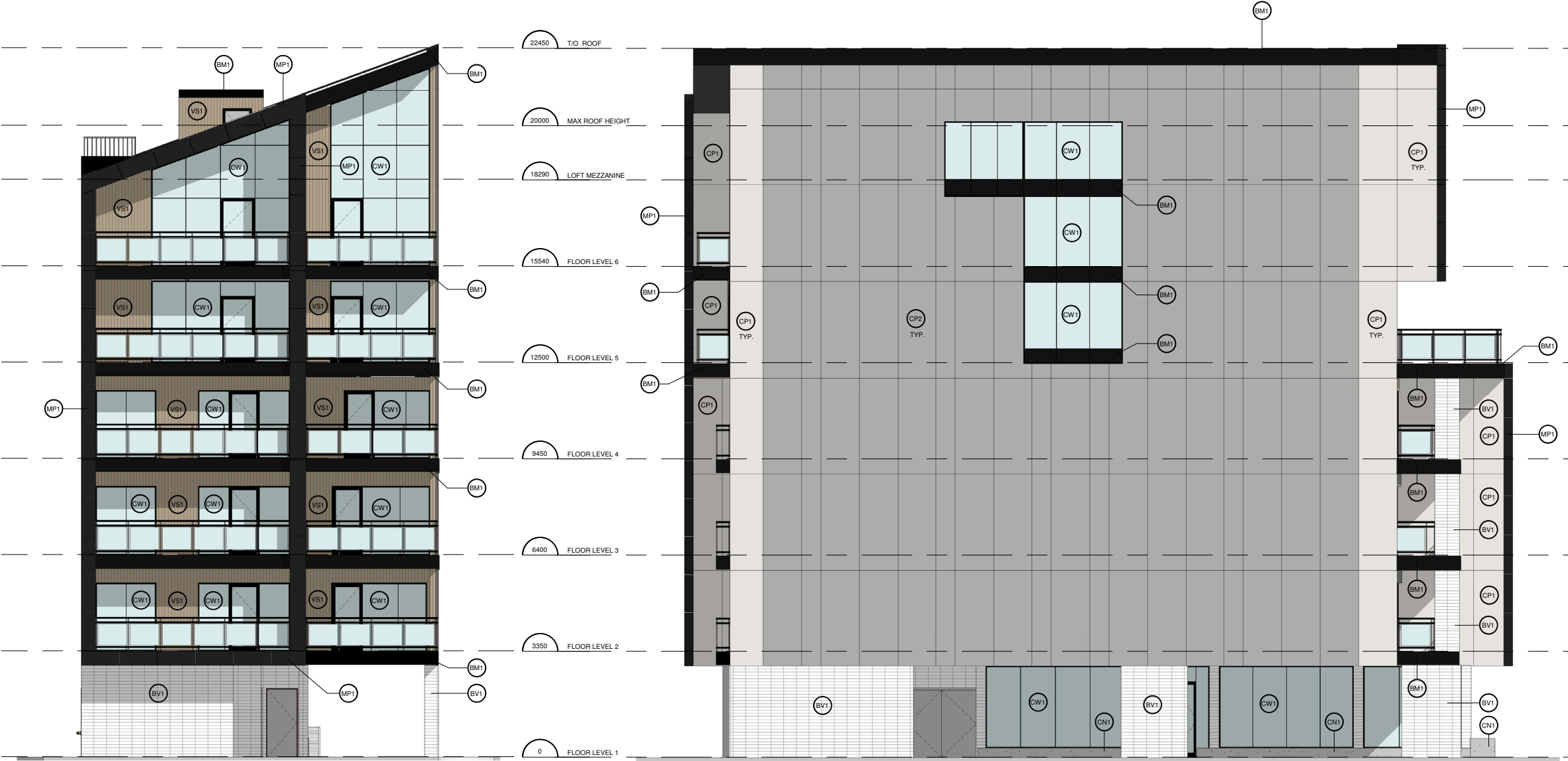
West Elevation



South Elevation

MATERIAL SCHEDULE	
MARK	DESCRIPTION
BM1	BENT METAL - POWDER COATED BLACK
BT1	BITUMEN ROOF MEMBRANE
BV1	BRICK VENEER - STACK BOND - WHITE
CP1	COMPOSITE PANELING - BONE WHITE
CP2	COMPOSITE PANELING - LIGHT GREY
CN1	CAST IN PLACE CONCRETE
CW1	CURTAIN WALL GLAZING
MP1	METAL PANEL - POWDER COATED BLACK
VS1	VERTICAL SIDING - ANTIQUE OAK

Building Elevations

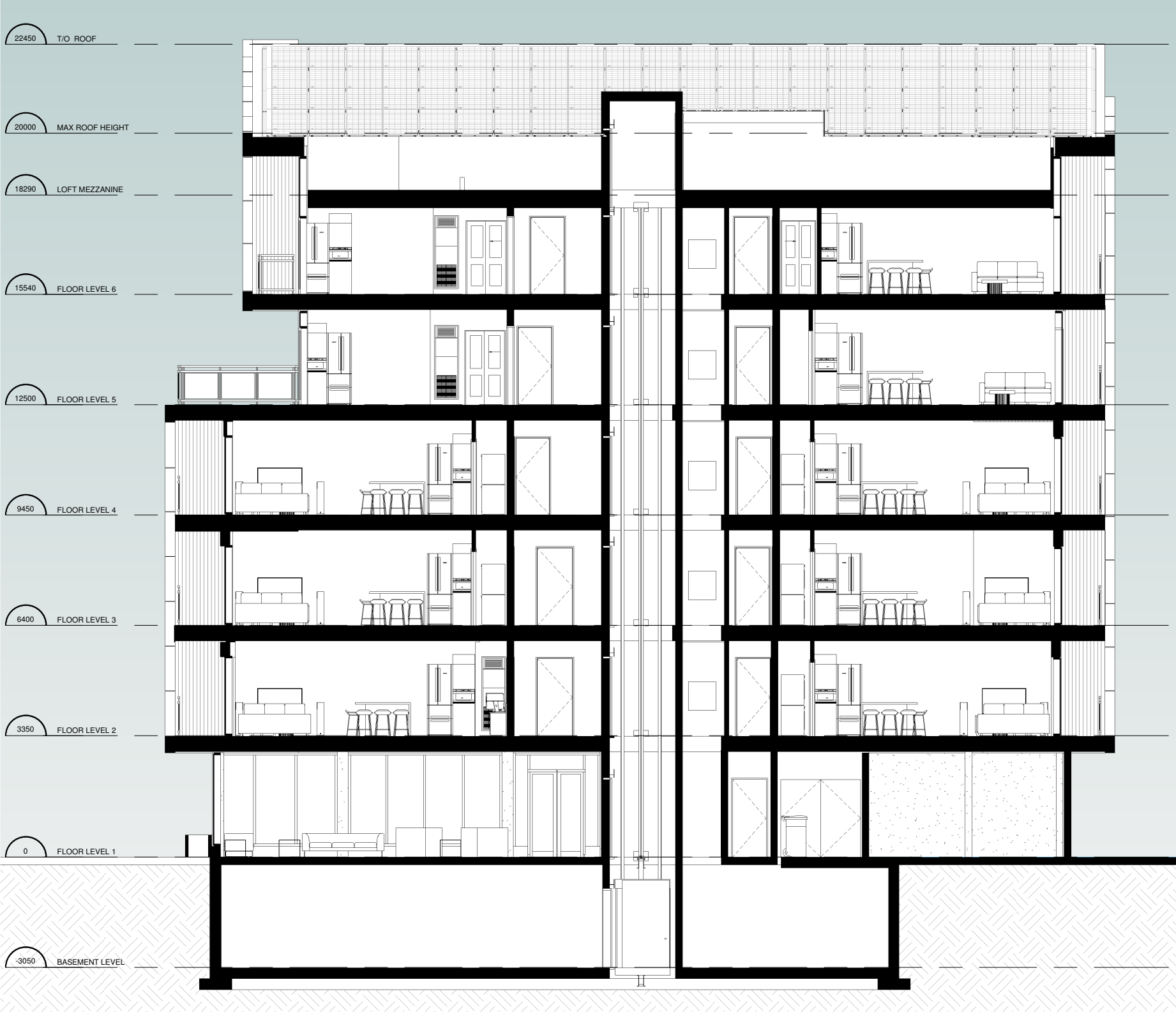
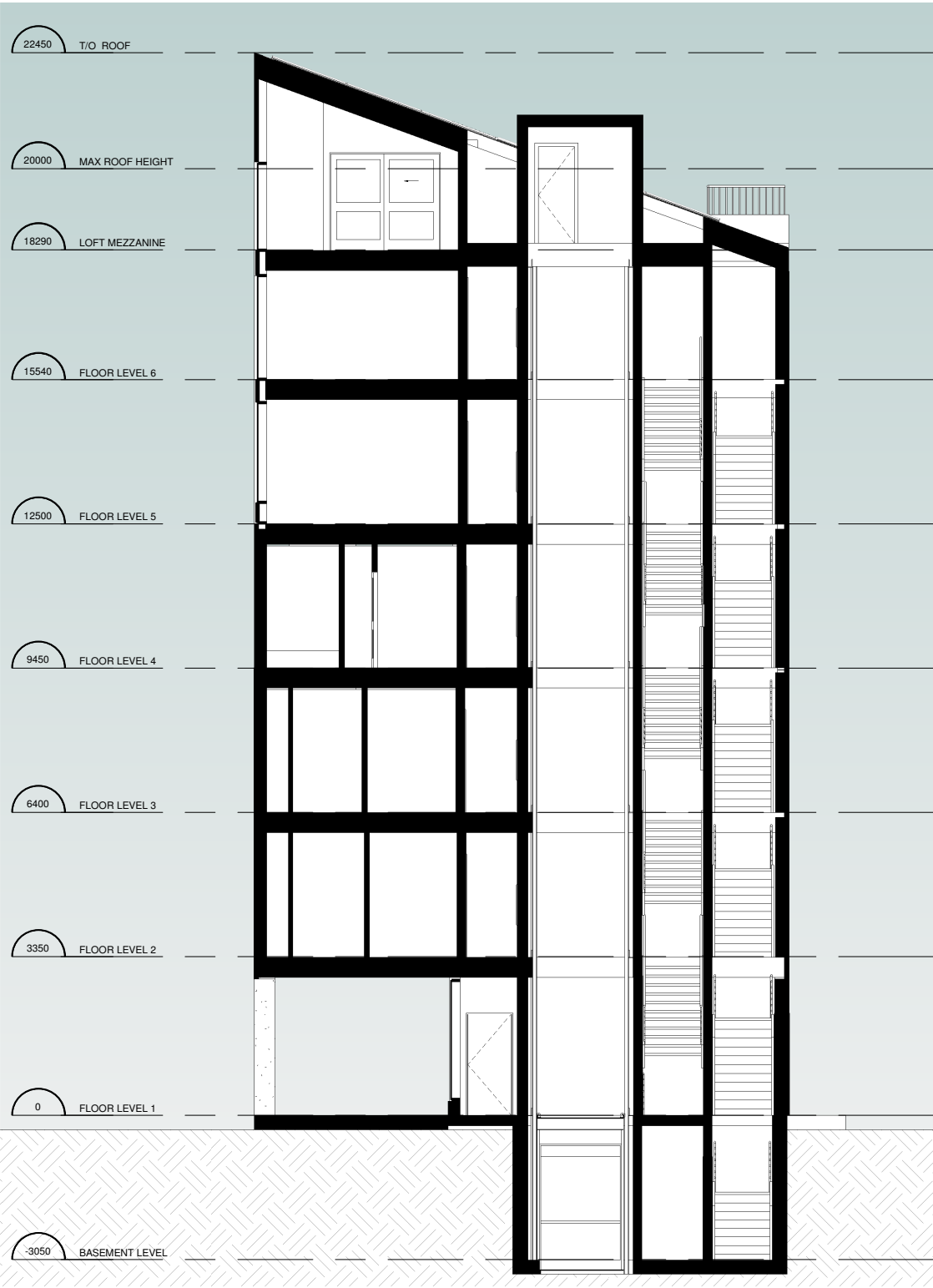


East Elevation

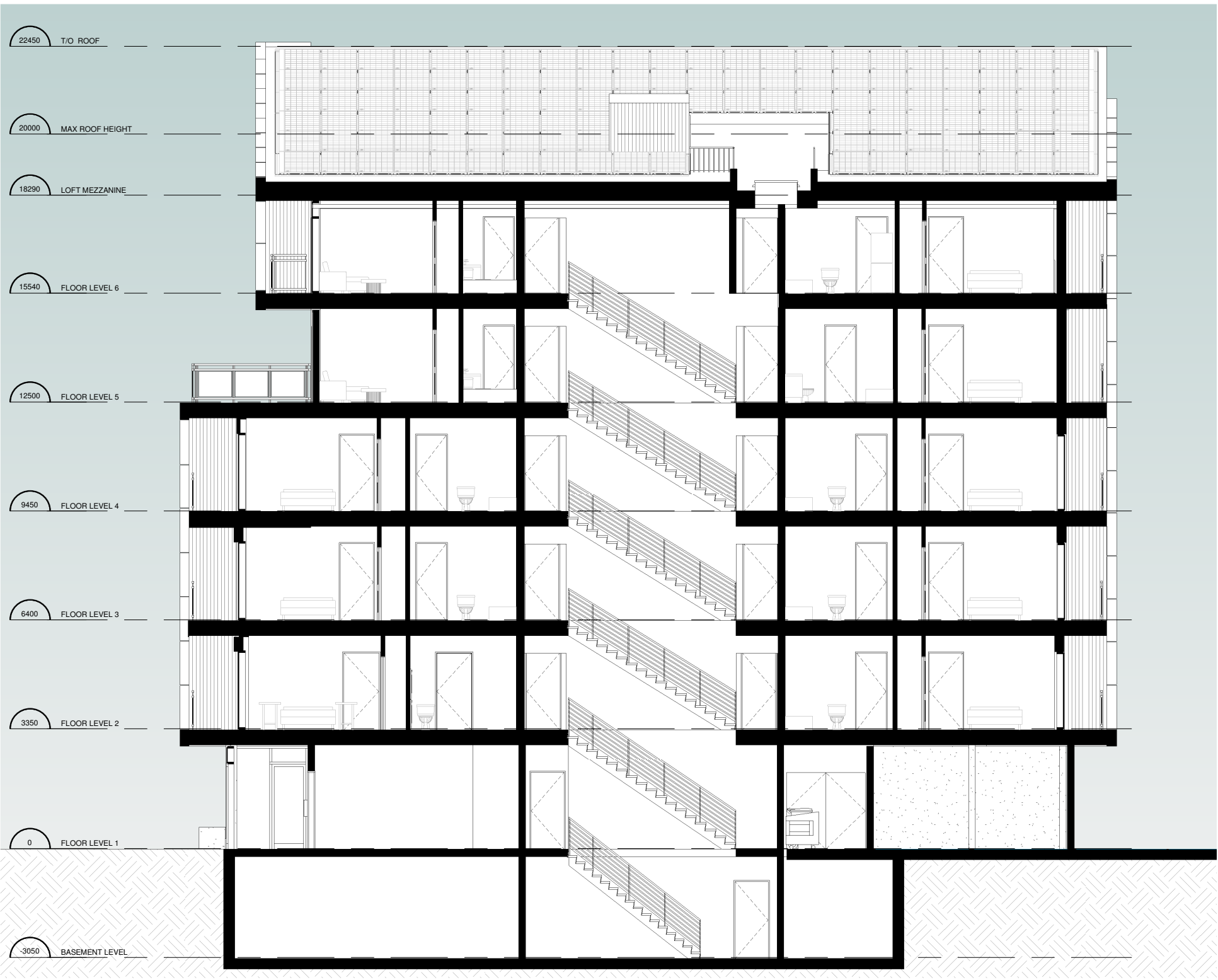
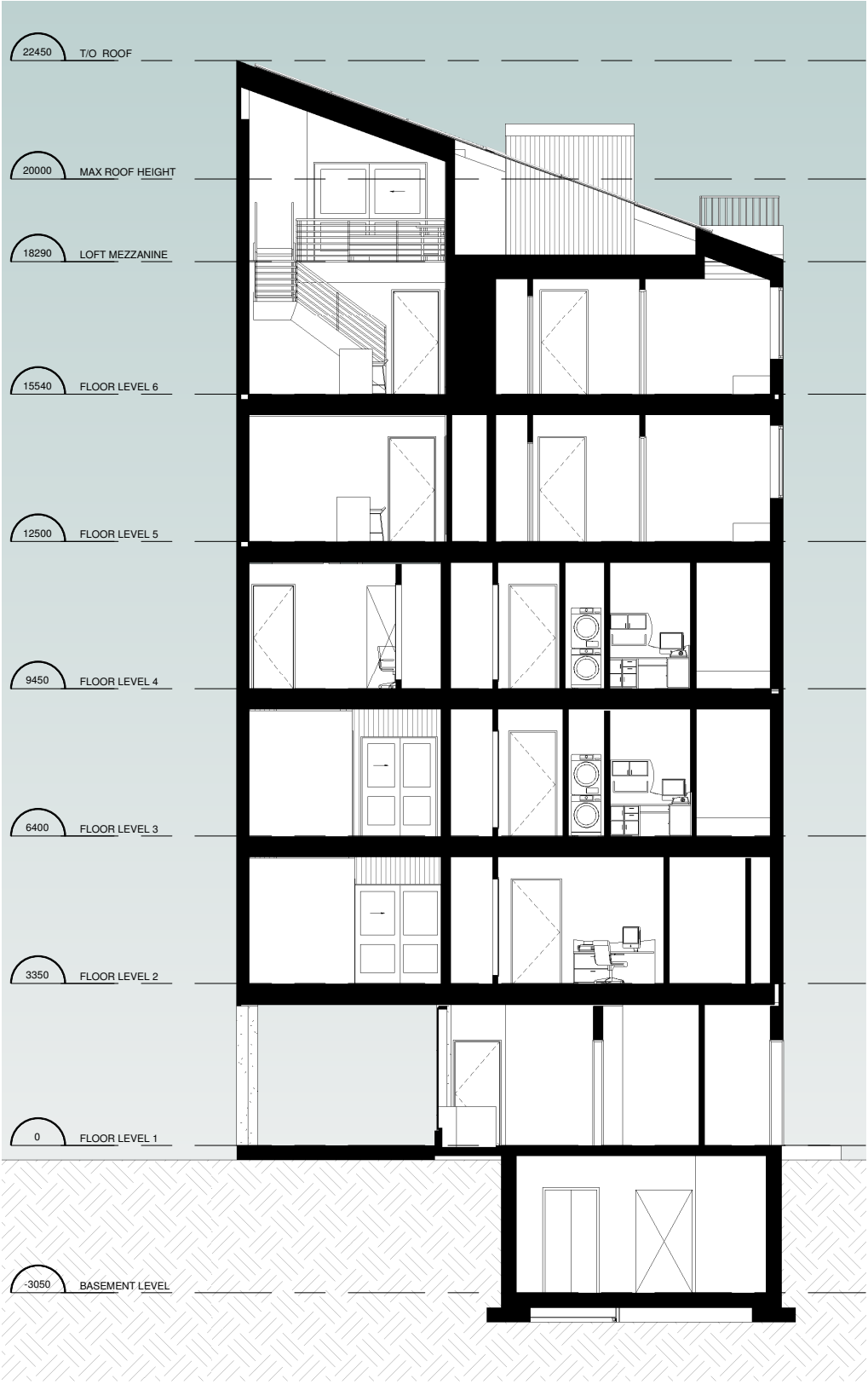
North Elevation

MATERIAL SCHEDULE	
MARK	DESCRIPTION
BM1	BENT METAL - POWDER COATED BLACK
BT1	BITUMEN ROOF MEMBRANE
BV1	BRICK VENEER - STACK BOND - WHITE
CP1	COMPOSITE PANELING - BONE WHITE
CP2	COMPOSITE PANELING - LIGHT GREY
CN1	CAST IN PLACE CONCRETE
CW1	CURTAIN WALL GLAZING
MP1	METAL PANEL - POWDER COATED BLACK
VS1	VERTICAL SIDING - ANTIQUE OAK

Building Sections



Building Sections



Project Renderings



Street Cross Section



Sustainability Statement

The design and construction of the project will pursue principals of energy efficiency to acheive a minimum of 40% improvements above the National Building Code. This will be achieved by increasing the continuous insulation along the exterior of the building and ensuring a properly installed air/vapor barrier inside of the walls. This will limit the amount of air leakage, and the continuous insulation will provide sufficient thermal breakage to maintain the building's optimal heating & cooling performance.

Energy efficient heat pumps will be installed in each of the residential suites, along with LED lighting, energy star appliances and state of the art temperature monitoring & building system automations. This will dramatically reduce electricity and gas consumption, while operable windows will permit natural ventilation to living and sleeping areas. Within the corridors, dedicated supply air connected to a heat recovery ventilator on the roof will feed fresh, conditioned air into the building. To offset any more electrical loads, it is planned to install solar panels on the sloped roof, conveniently oriented to the South to maximize solar exposure.

Water consumption is also being addressed, through storm water management practices. Excess runoff will be collected within an underground cistern. The water will be filtered and treated with UV prior to being released into the City sewers. The option to introduce a rainwater harvesting system that could feed collected runoff, treat it and re-circulate the water into the greywater systems is also being explored.

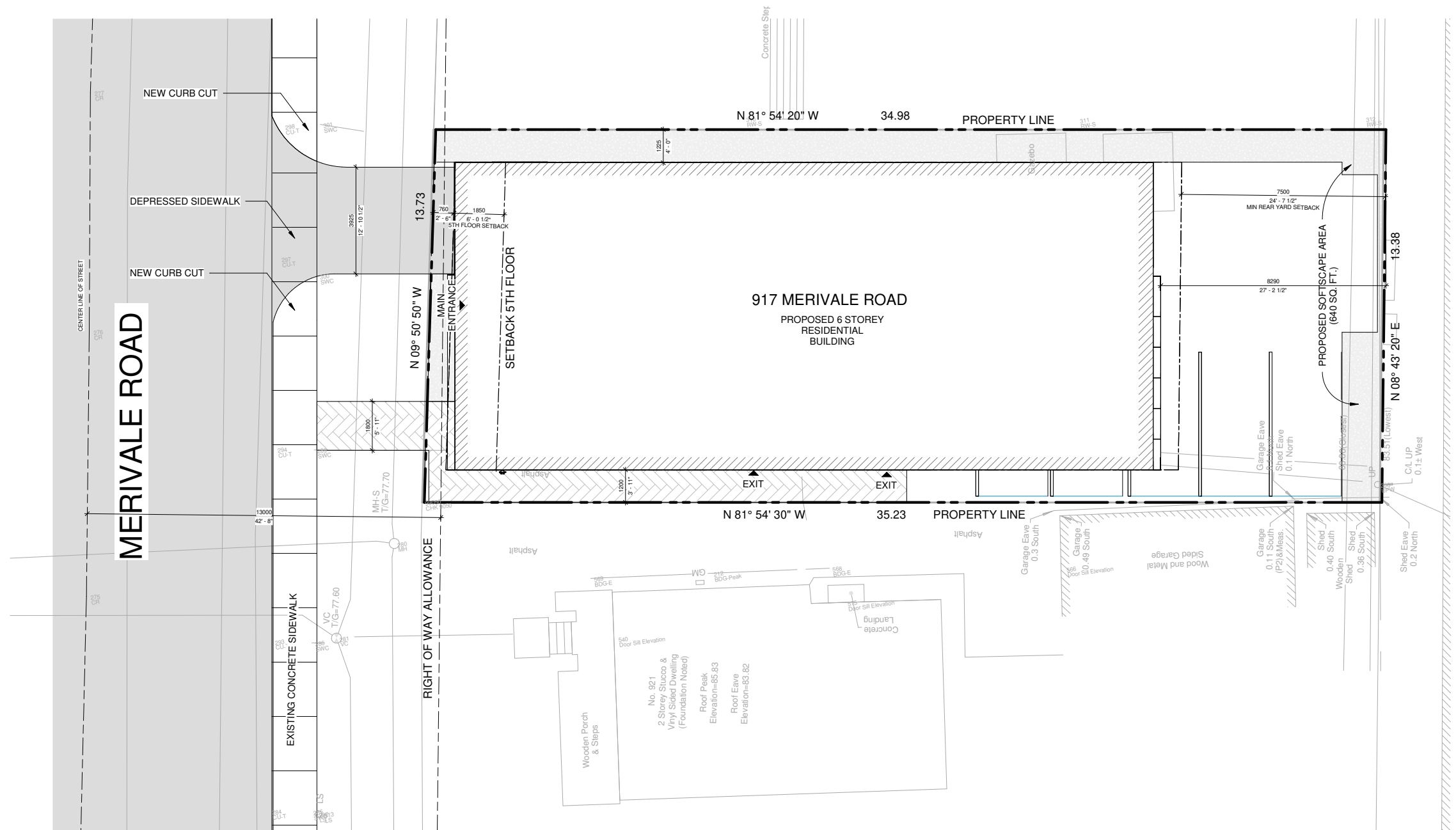
Construction will further favor locally sourced, durable materials with recycled contents. Contractors will be required to follow best waste-management principles. Interior finishes will be selected for durability and low-emissivity.

Bird-Safe Design measures have been planned to limit the danger to birds caused by expansive glazed surfaces. The proposed design has larger glazed walls on the East and West facades. Bird-friendly glass will be used on all ground floor windows and doors, and on curtain walls and balconies from level 2 through 6.

Site Plan

ZONING REQUIREMENTS - TM [2196]			
EXISTING ZONING:	TM[2196]	Traditional Main Street Zone	
PROPOSED ZONING:	TM[2196]	Traditional Main Street Zone	
PARKING	REQUIRED	PROVIDED	COMPLIES Y/N
OFF-STREET PARKING	4	4	Y
VISITOR PARKING	1	1	Y
BARRIER FREE PARKING	0	0	Y
BICYCLE PARKING	10	20	Y
SETBACKS			
FRONT YARD	MAX 2M	0.76M	Y
FRONT YARD ABOVE 15M	MIN 2M	2.6M	Y
REAR YARD	7.5M	8.3M	Y
SIDE YARD (NORTH)	1.2M	1.22M	Y
SIDE YARD (SOUTH)	1.2M	1.2M	Y
MAX HEIGHT TO ROOF MIDPOINT	20M	20M	Y
MINIMUM LOT WIDTH	0	13.73M	Y
BUILDING COVERAGE/AREA	N/A	50.5%	Y
TOTAL GFA	N/A	1,341 SM	Y
AMENITY SPACE AREA	6 SM PER UNIT = 120SM MIN 50% COMMON	BALCONY = 171 SM COMMON GF = 97 SM	Y
TOTAL NUMBER OF UNITS	N/A	20	Y
MIN LANDSCAPE BUFFER	0 - NOT ABUTTING A STREET	N/A	Y

SITE DATA		
ITEM	AREA	% TOTAL
LOT AREA	481.5 SM (5,183 SFT)	100%
BUILDING AREA	283 SM (3,054 SFT)	58.9%
GROSS FLOOR AREA	1,368 SM (14,725 SFT)	
ASPHALT/CONC. AREA	168.5 SM (1,813 SFT)	28.7%
LANDSCAPED AREA	REAR LOT AREA 60 SM (645 SFT)	12.4%



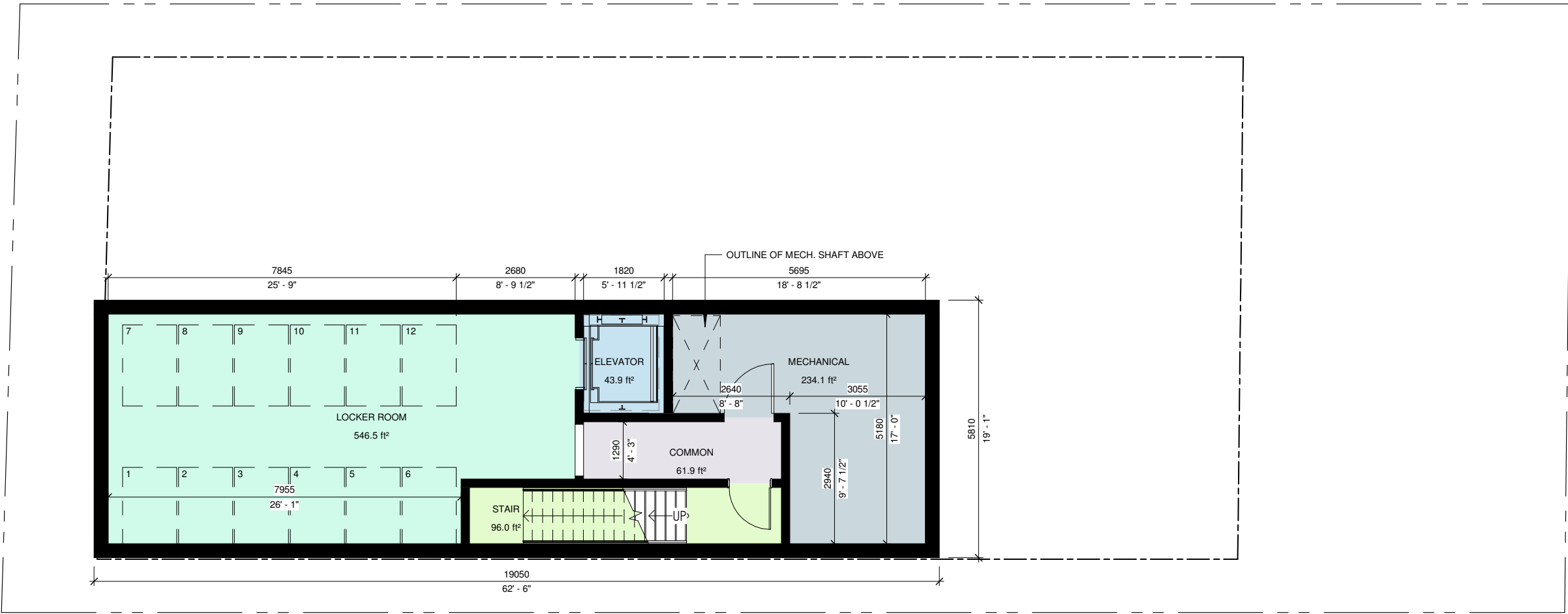
Floor Plans | Basement

Room Legend

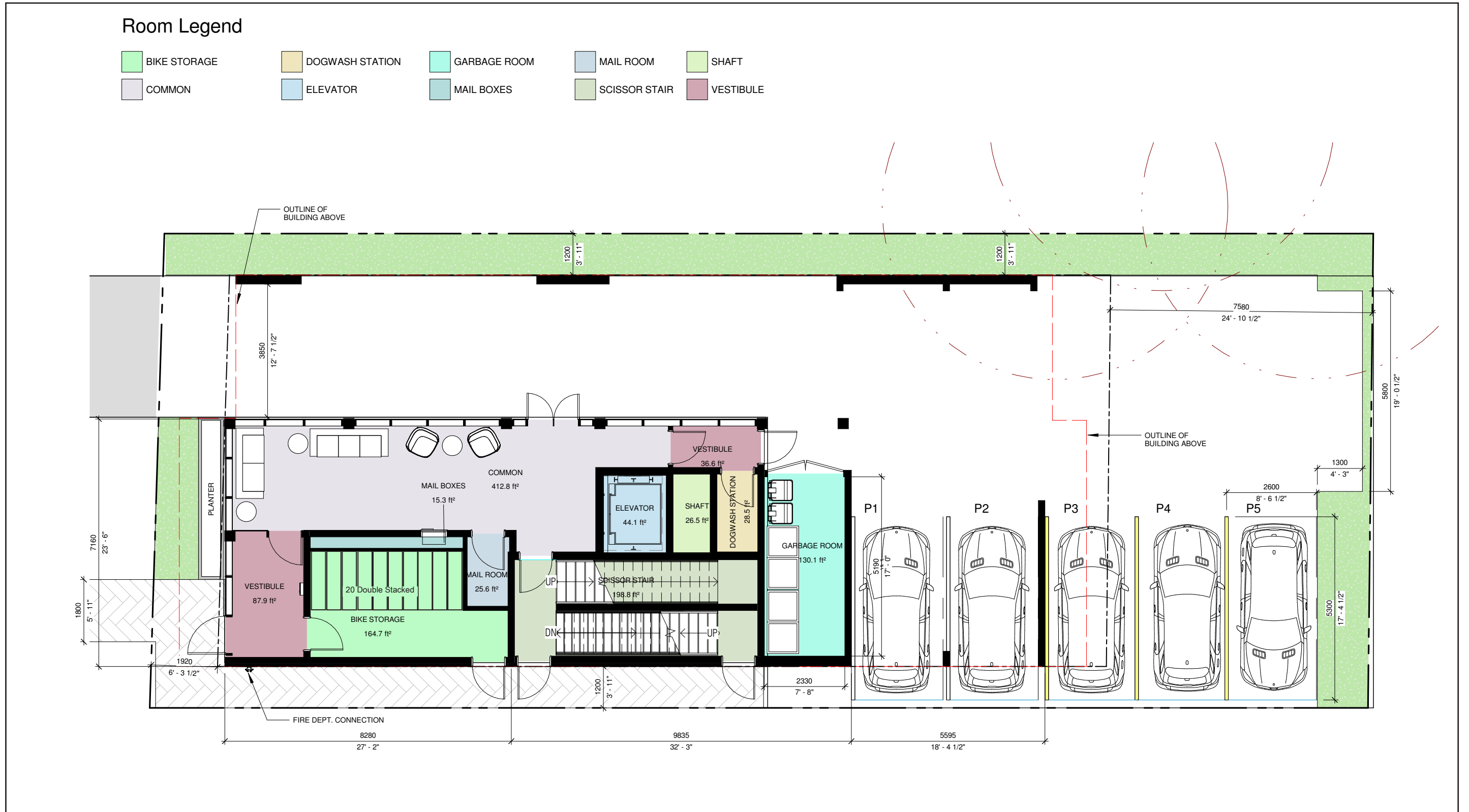
- COMMON

ELEVATOR
- LOCKER ROOM

MECHANICAL
- STAIR



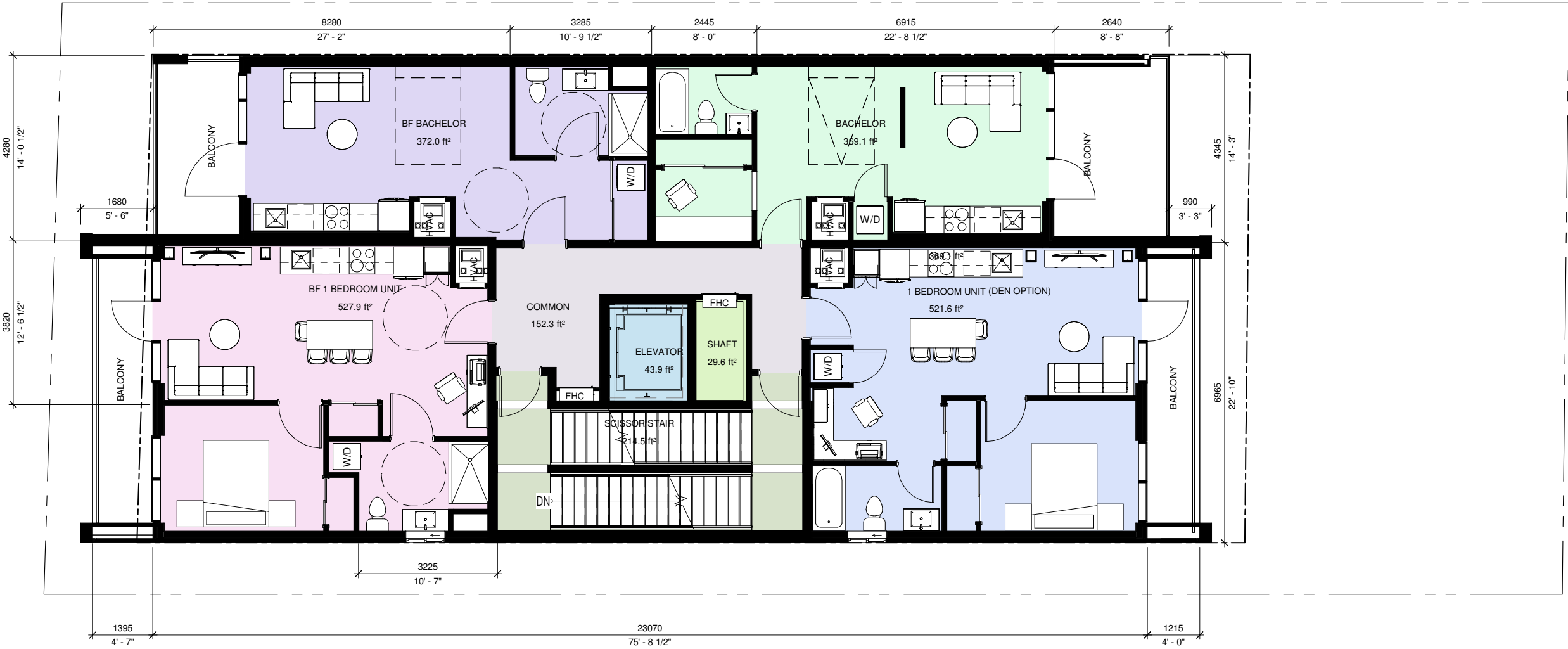
Floor Plans | Level 1



Floor Plans | Level 2

Room Legend

 1 BEDROOM UNIT	 BF 1 BEDROOM UNIT	 COMMON	 SCISSOR STAIR
 BACHELOR	 BF BACHELOR	 ELEVATOR	 SHAFT



Floor Plans | Level 3

Room Legend

- 1 BEDROOM UNIT

BACHELOR
- BF BACHELOR

COMMON
- ELEVATOR

SCISSOR STAIR
- SHAFT



Floor Plans | Level 4

Room Legend

- 1 BEDROOM UNIT

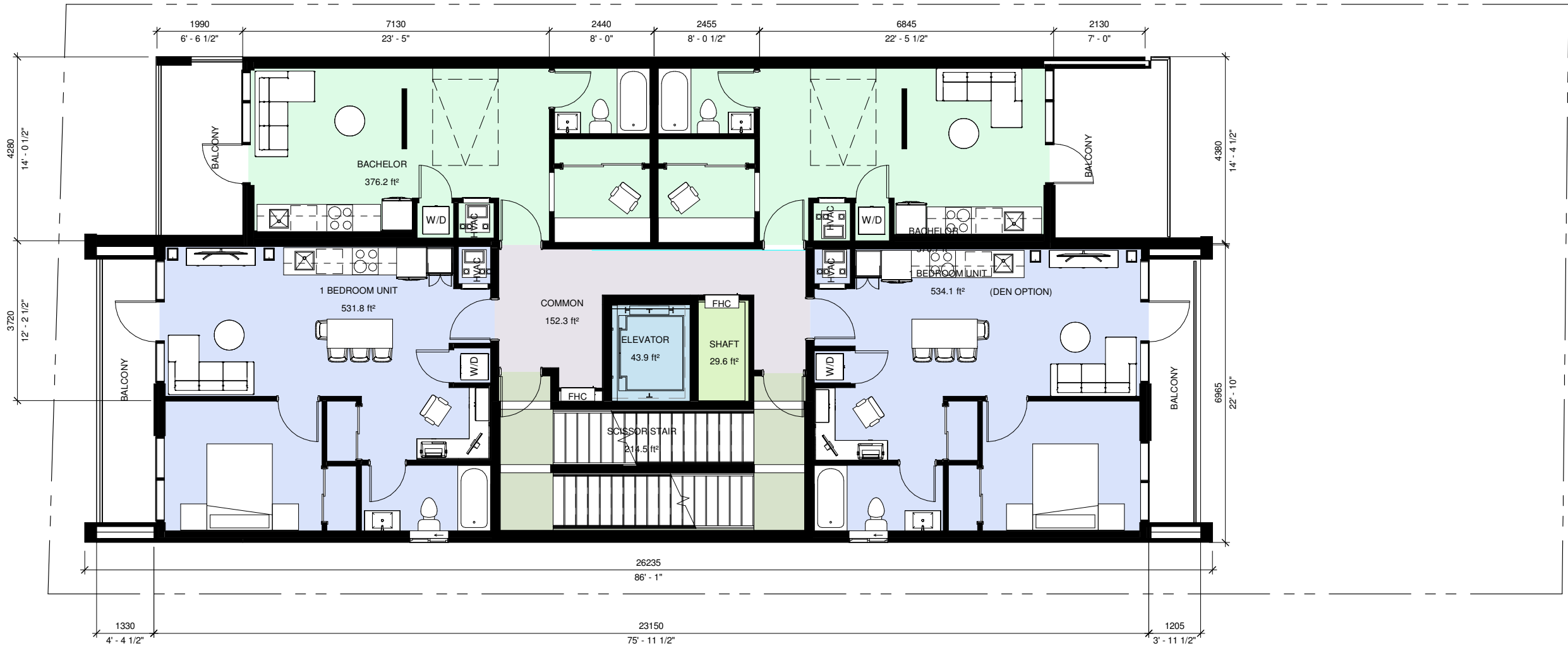
BACHELOR

COMMON

ELEVATOR

SCISSOR STAIR

SHAFT



Floor Plans | Level 5

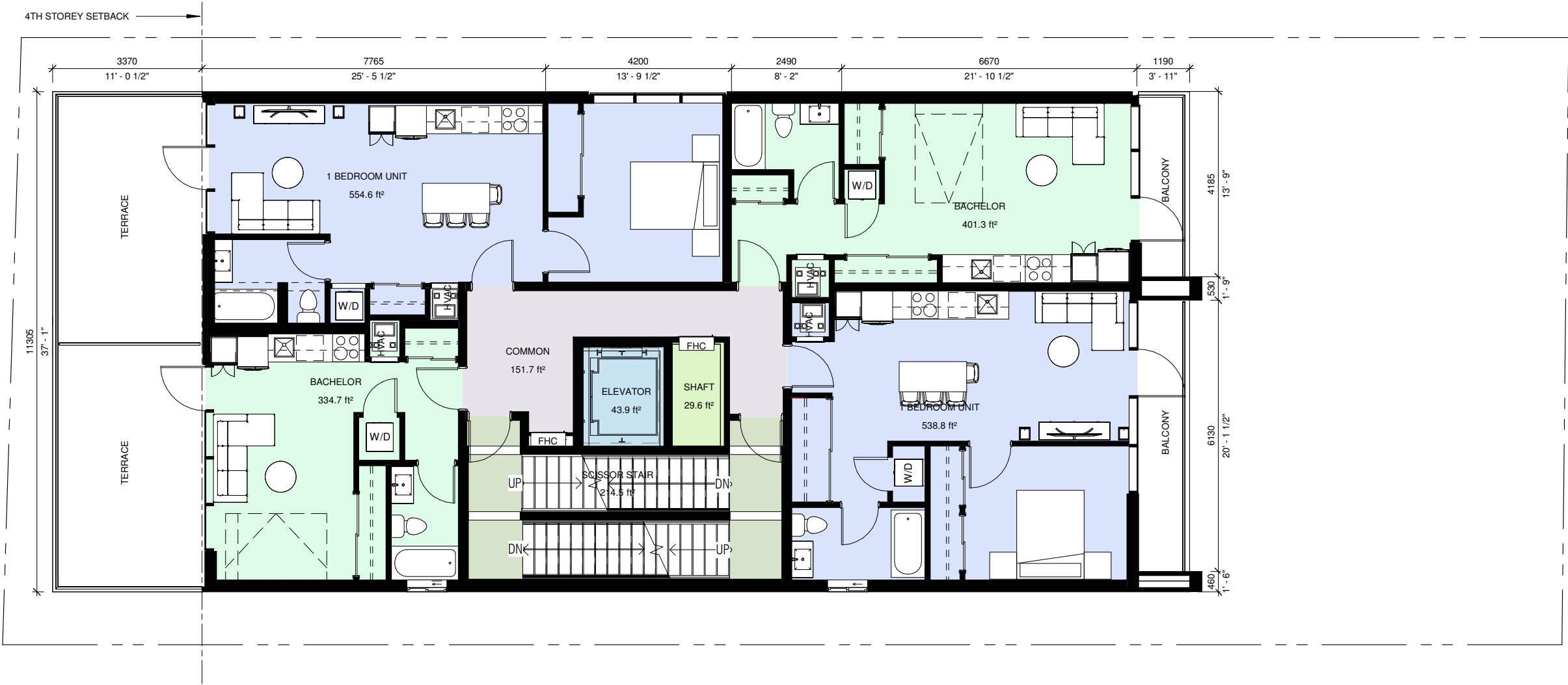
Room Legend

- 1 BEDROOM UNIT

BACHELOR
- COMMON

ELEVATOR
- SCISSOR STAIR

SHAFT



Floor Plans | Level 6

Room Legend

- 1 BEDROOM LOFT

1 BEDROOM UNIT

2 BEDROOM LOFT

BACHELOR

COMMON

ELEVATOR

SCISSOR STAIR

SHAFT



Floor Plans | Loft

Room Legend

- 1 BEDROOM LOFT
- 2 BEDROOM LOFT
- MACHINE

