

FOURPLEX DEVELOPMENT

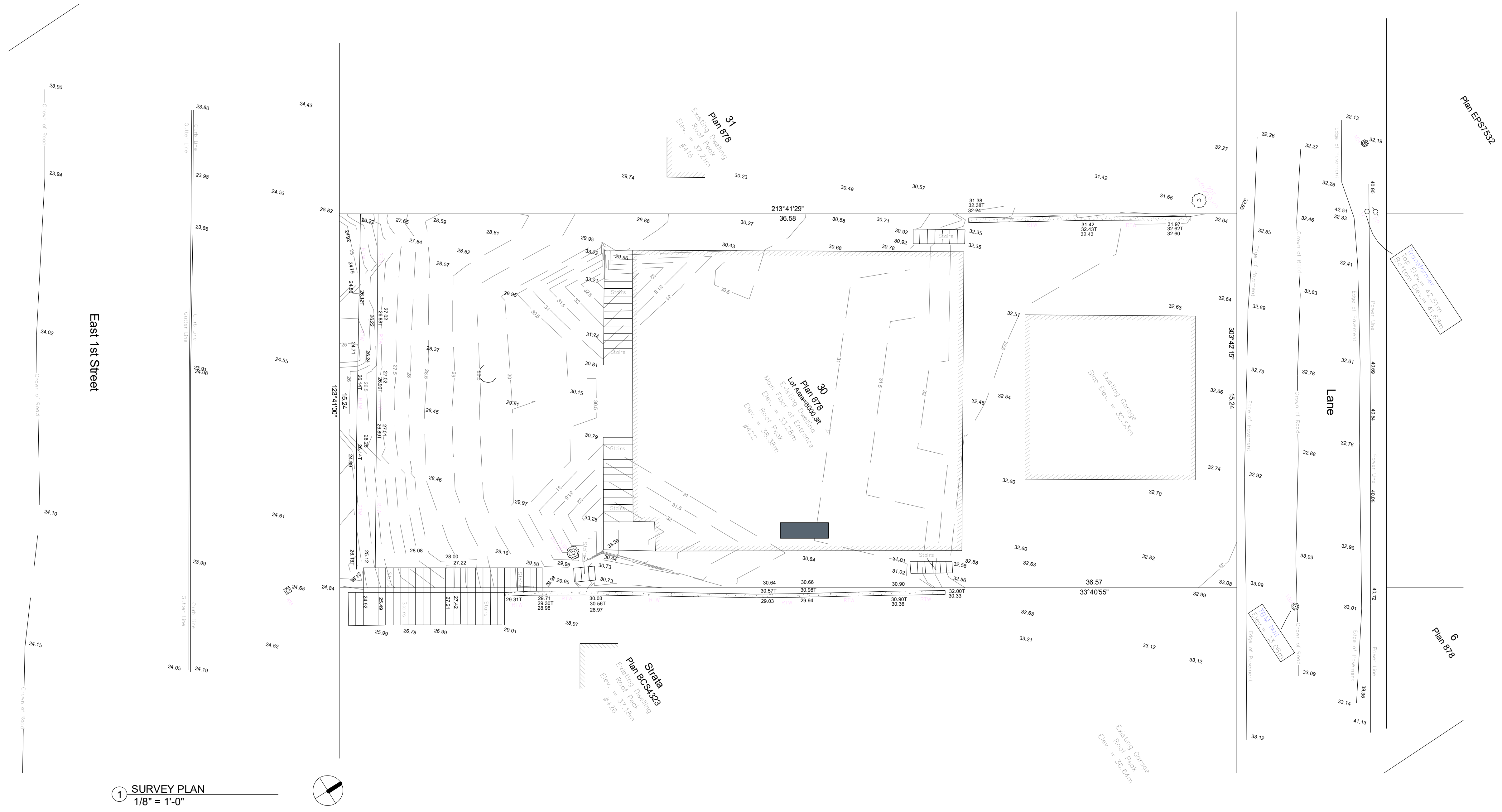
422 E. 1ST STERREET



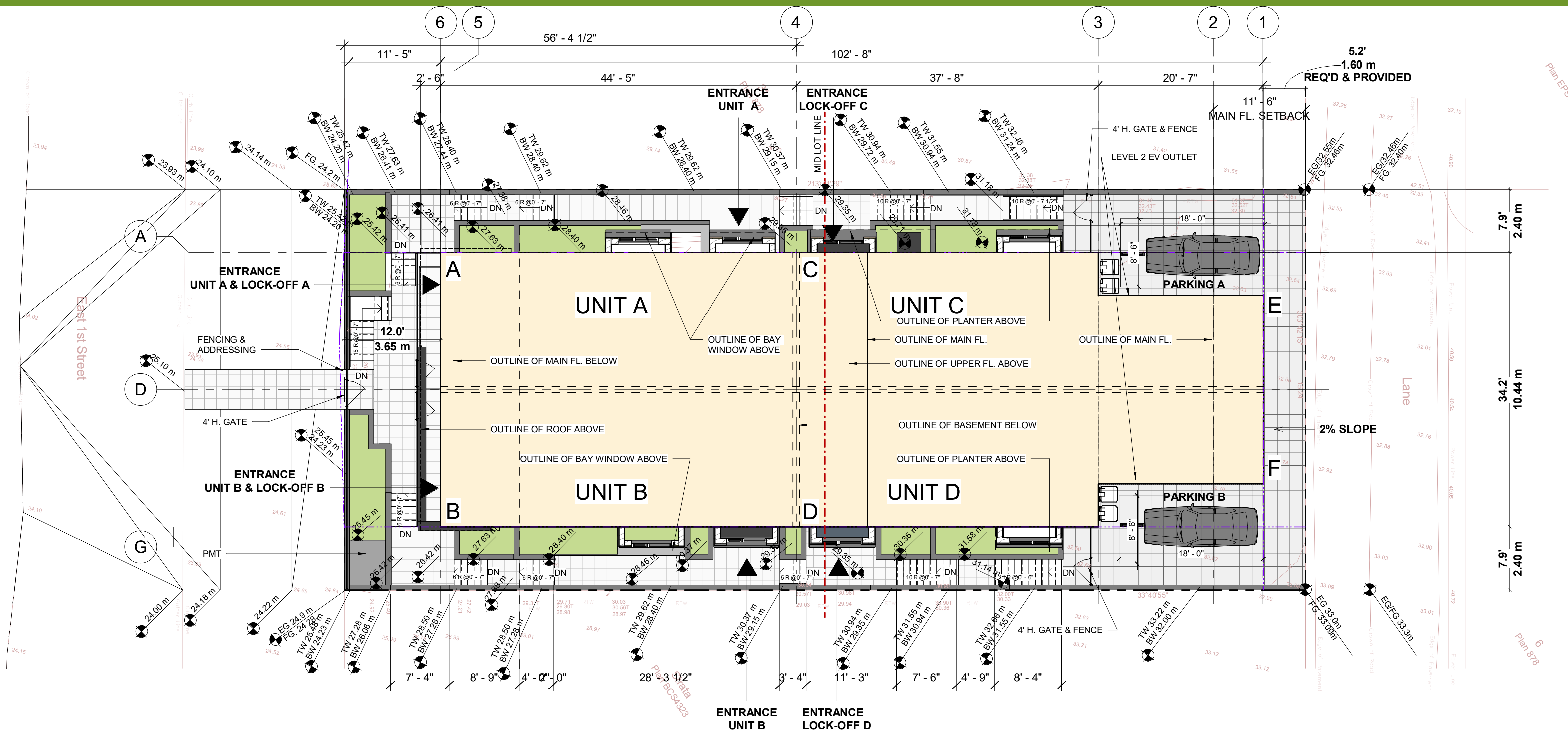
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1 SURVEY PLAN
1/8" = 1'-0"



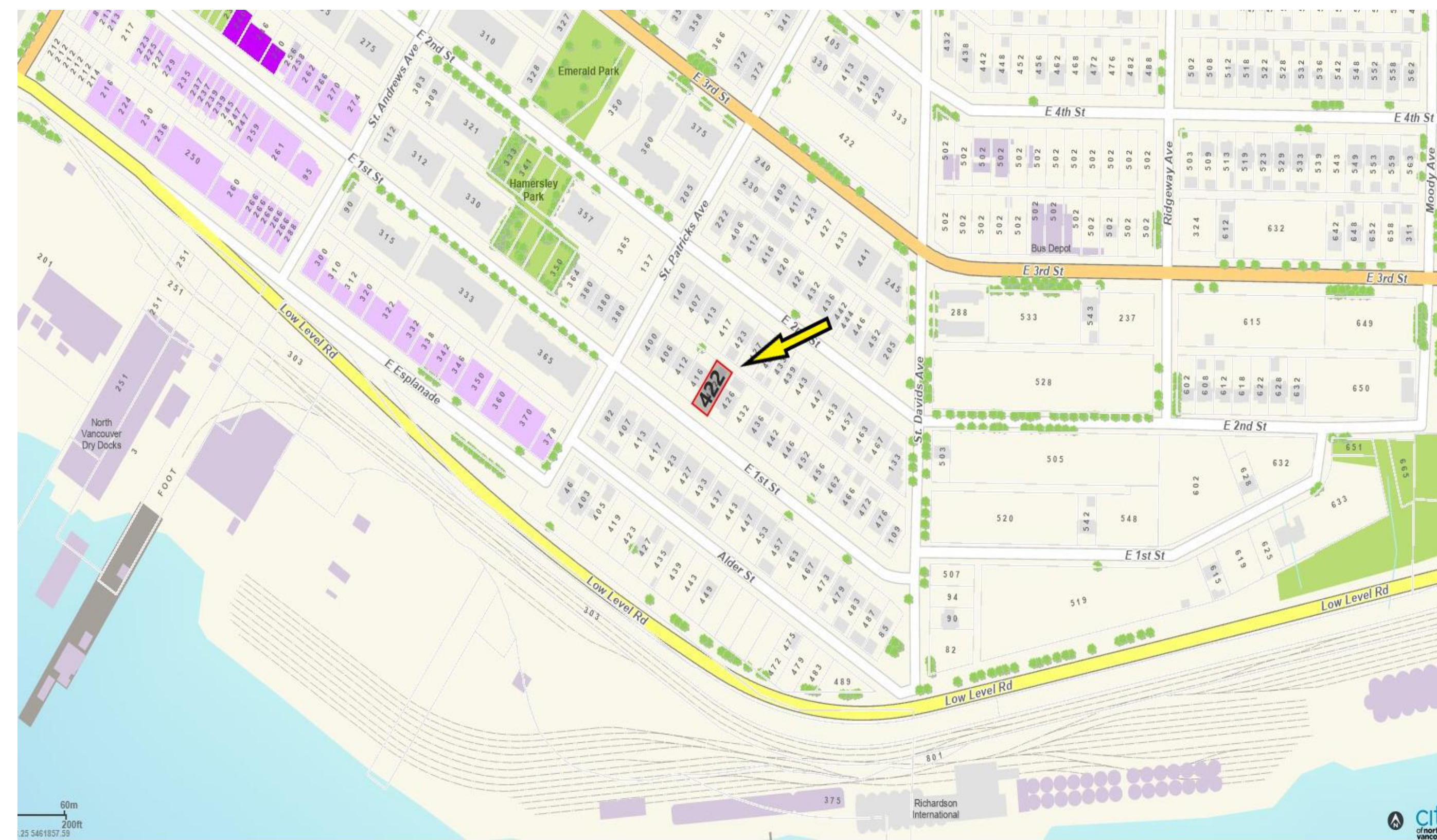
② SITE PLAN
1/8" = 1'-0"

422-424 E. 1st Ave			
Legal Description	LOT 30, BLOCK 152, PLAN VAP878, DISTRICT LOT 274, GROUP 1, NEW WESTMINSTER LAND DISTRICT		
ZONING RG-3	ALLOWABLE/REQUIRED	PROVIDED	
LOT AREA	557.4 m2	6000.0 sqf	6000.0 sqf
LOT WIDTH	15.2 m	50.00 ft	50.00 ft
LOT DEPTH	36.6 m	120.01 ft	120.01 ft
LOT COVERAGE	334.5 m2	3600 sqf	6000 sqf
LOT COVERAGE %	60%	60.0%	100.0%
FSR (1.0)	557.4 m2	6000 sqf	732.0 sqf
MAIN FLOOR A&B			1480 sqf
SECOND FLOOR - UNIT A&B			1520 sqf
MAIN FLOOR - UNIT C&D			1480 sqf
SECOND FLOOR - UNIT C&D			1520 sqf
AMENITIES			732 sqf
UNIT C&D - BASEMENT			2568 sqf
GARAGE C&D			492 sqf
LOCK OFF			3232 sqf
TOTAL GROSS FLOOR AREA			13024 sqf
BUILDING HEIGHT	12.0 m	39.4 ft	25.0 ft
SETBACKS			
FRONT (FROM ROAD C.L.)	3.00 m	9.8 ft	ft
REAR	2.20 m	7.2 ft	31.90 ft
SIDE(EAST)	2.40 m	7.9 ft	5.00 ft
SIDE(WEST)	2.40 m	7.9 ft	11.8 ft
			47%
FRONT YARD AREA			1492.83 sqf
PERMEABEL AREA			706 sqf

Accessory Lock-Off Dwelling...	83.61 m2	900 sf
Adaptable Design-Level 2...	93.61 m2	1008 sf



AERIAL MAP



CONTEXT MAP



VIEW - A



VIEW - B



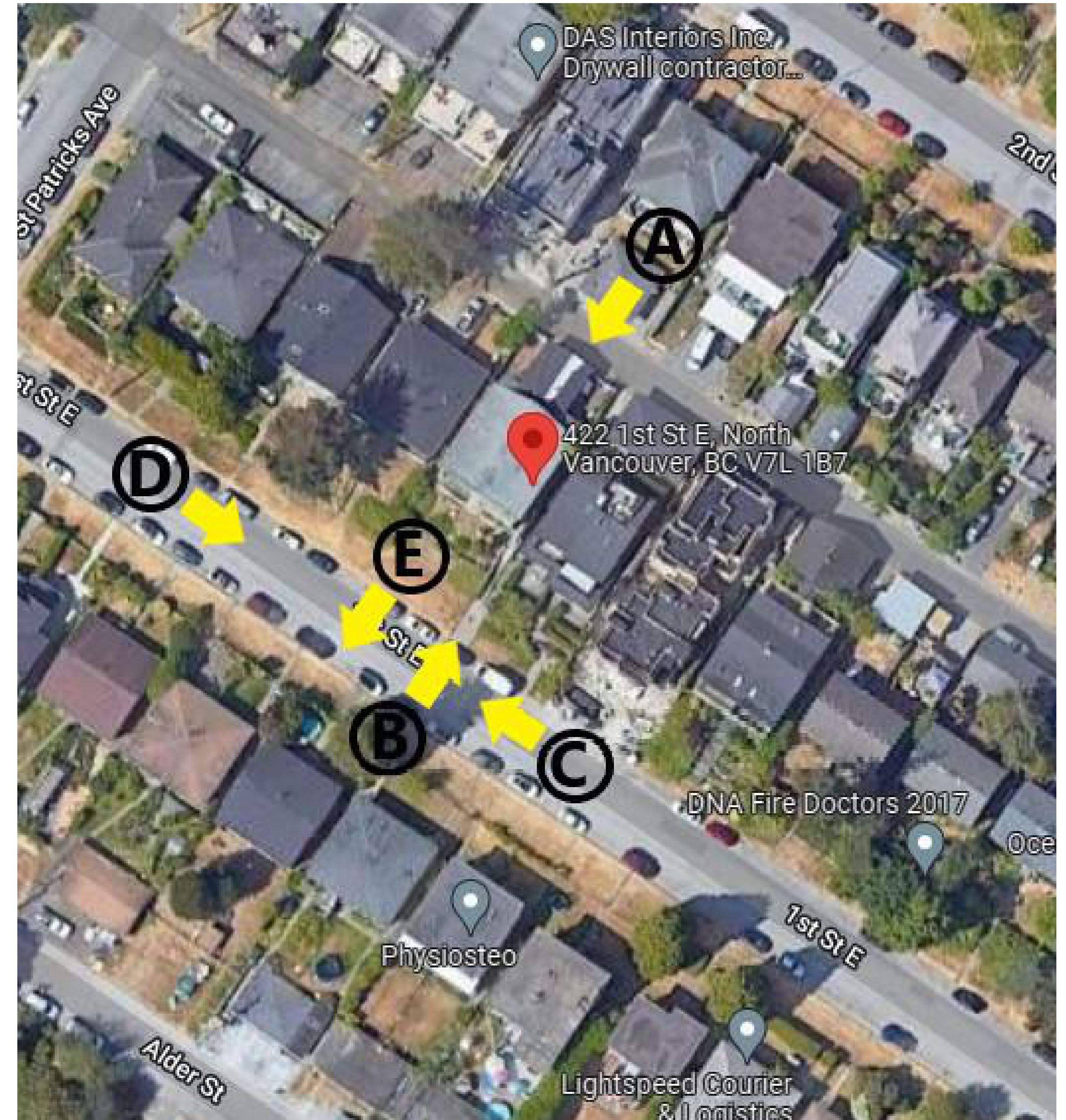
VIEW - C



VIEW - D



VIEW - E



CONTEXT PHOTO

Introduction

The subject property, located at 422 East 1st Street, boasts a lot area measuring 6,000 sqft, with a 6-meter lane positioned to the north. Since 1959, an existing two-story single-family house has occupied the site. Notably, there is a grade difference of approximately 7.6 meters between the street and the lane, presenting design challenges that were addressed through a step-down configuration of the building from north to south.

The proposed application includes four townhouse units with one lock-off suite each on the lower floor. Two of the lock-off suites are designed as adaptable units. The building's orientation carefully considers factors such as views, sunlight, exposure, neighboring privacies, and the distinctive characteristics of the street and lane.

Easily accessible through transit, bicycle routes, and walkable sidewalks, the location offers various alternative methods of movement. The proposed development is seeking rezoning from RS to RG3, with a suggested Floor Space Ratio (FSR) of 1.0, equivalent to a gross floor area of 6,000 sqft. The average size of the townhouses, including the lock-off suites, is approximately 2,600 sqft. Townhouses along E. 1st Street provide direct access to the street, while those at the rear gain access through the paved side yard.

Parking, located at the rear and accessed from the lane, includes one garage and one carport for each unit.

Massing, Form and Character

Situated within the 400-block transition zone, the proposed development seamlessly integrates with its surroundings, maintaining consistency in character as it transitions from higher-density areas to adjacent single-family homes.

The design concept, driven by significant grade changes and allowable setbacks, results in a thoughtful breakdown of the building mass facing both the street and the lane. Rear units on the main and upper floors feature an approximate 56' setback from the street, effectively breaking down the overall mass. Front units, oriented towards E. 1st Street, consisting of three floors, create a harmonious transition from single-family to multi-family structures, reflecting the pedestrian scale.

Drawing inspiration from contemporary developments in the neighborhood, the proposed design features an articulate, strong, and asymmetrical front elevation for both the front and rear units. Each side unit boasts a well-defined and well-lit entrance, contributing to a sense of home for the residents. Accent composite wood panels have been added on front balconies and between the bay windows to create a harmonious continuous material circle on all facades.

The contemporary aesthetic includes flat roofs, contrasting durable materials, and articulated bay windows, resulting in a modern, sharp, and clean appearance. Each unit maximizes ocean views, with natural light streaming into both the south- and north-facing spaces. Adequate overhangs on the south side effectively control light throughout the seasons.

The bay windows are framed within vertical boxes in contrasting colors, allowing natural light to permeate the interiors while ensuring privacy for neighboring units. This design element also serves as an effective response to light control from the east and west.

Rooftop access is provided for each unit directly from inside stairs. Overall, the orientation and design intelligently leverage grade changes and ocean views, contributing to a well-considered and aesthetically pleasing multi-family townhouse concept.

EXTERIOR FINISHES

The choice of exterior finishes has been guided by a commitment to enhanced durability and longevity, aligning with a sustainable approach to construction. A diverse selection of high-quality building materials has been made, focusing on non-combustible and durable options such as prefabricated cement board, composite wood panels, and metal. Additionally, low-emission adhesives, paint, and flooring will be utilized across all units.

Colors have been carefully chosen to achieve contrast, employing a blend of charcoal and white cement boards. To augment the material and colour palette, high-quality wood composite panels are proposed for both the front and rear facades as an accent material, as well as for privacy screens and soffits.

In maintaining a cohesive aesthetic, windows and railings are proposed in charcoal. The same top-tier materials utilized at the front of the structure extend seamlessly to the remaining sides. External window frames feature a charcoal exterior and a white interior, while railings boast matching frames with clear glass inserts, ensuring a harmonious and contemporary visual appeal.

Privacy and Interface with Neighbours

- To enhance natural light and provide views from the sides, maximum allowable openings per the current applicable building code have been proposed.
- To avoid direct overlook, bay windows are introduced with a 2' depth and raised about 3'-6" from the floor.
- Privacy measures for roof decks and between balconies are ensured through the use of opaque, durable wood composite panels with a height of 5'-6".

Sustainability & Energy Conservation

Enhanced energy standard

- The energy efficiency target is to achieve step 4 code requirements.

Renewable Energy Generation

- Provision will be made for solar panels in each unit.

Permeability

- Both on-site and off-site Stormwater management strategies have been integrated into the project's design.

- Various planters are intruded along the property to minimize the hard surfaces pathways.

Rainwater retention

- A storm tank to be located at the edge of the property beneath the driveway area. The tank is designed to gather water from the roof located on the northern section of the roof.

Reduction of Greenhouse Gas Emission

- Level 2 electric vehicle chargers are provided for all units.

Service Infrastructure

- Two dedicated enclosed garbage disposal storage areas have been provided at ground level, adjacent to the parking spaces. Garbage collection will take place in the lane on designated dates.
- A secure bike room is available to encourage the use of bicycles.
- To decrease indoor water demand, the project will incorporate high-efficiency fixtures, energy-efficient appliances, and drought-tolerant plants, thereby minimizing the reliance on potable water.
- The mechanical system is equipped with a heat pump providing both cooling and heating, along with a heat recovery system (HRV) to recycle heat energy.

Safety - Crime Prevention Through Environmental Design. "CPTED"

The building's design places a high priority on safety considerations, contributing to the vibrancy of the area and fostering an active environment with numerous observers on the streets and lanes.

The CPTED strategy applied here incorporates standard measures along with elements tailored to this specific proposal, aiming to elevate safety levels and enhance the perceived sense of security.

NATURAL SURVEILLANCE:

- Windows, patios, and terraces ensure the continual outdoor presence of people, creating "eyes on the street" and enhancing security for both private and public spaces.

NATURAL ACCESS CONTROL:

- Entrances are clearly identified and visible as part of the building massing, overlooked by windows and balconies.
- The layout of trees, shrubs, and hedges is designed to increase visibility and prevent the creation of concealed spaces.

TERRITORIAL REINFORCEMENT:

- Gates and fences will be installed along the street, lane, and property lines to secure the site.
- Lighting fixtures will be strategically placed on both sides of townhouse entries and garage doors, illuminating entire buildings and internal pathways.

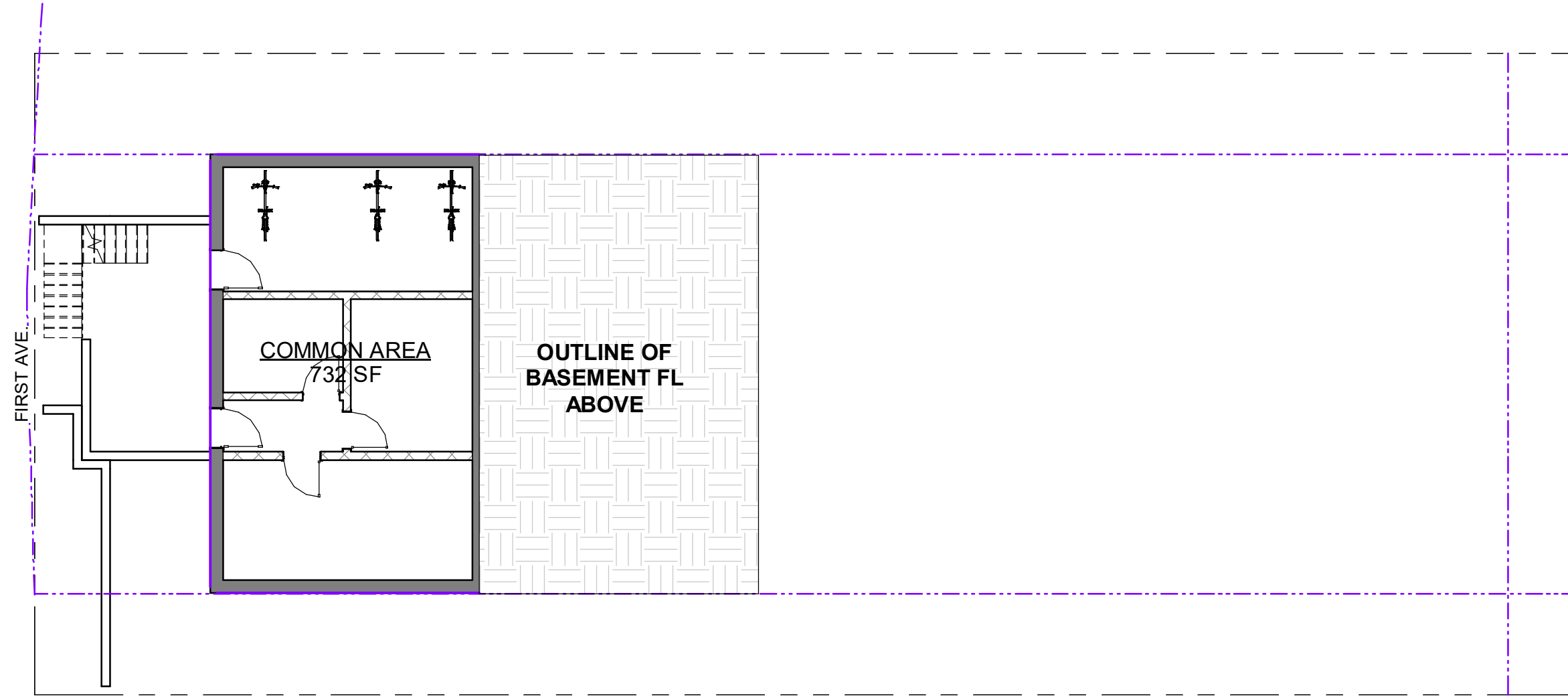
Affordability

Transforming a single-family house into four townhouse units with lock-offs represents a strategic approach to providing more cost-effective accommodation, addressing the challenge of affordability. Additionally, the incorporation of various unit types, sizes, and bedroom numbers enhances the range of options available to couples and young families seeking more affordable housing solutions.

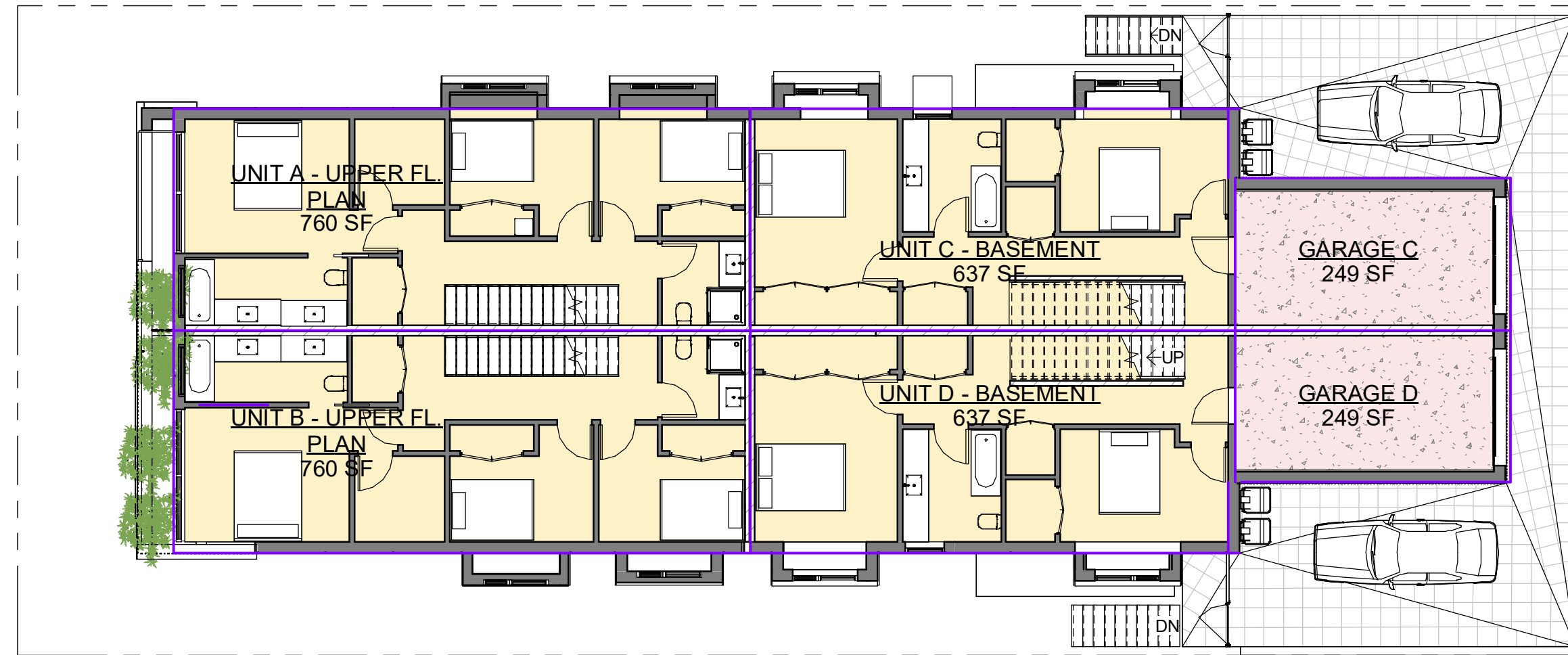
Landscaping:

The design incorporates ground-oriented vegetation and high-branched trees to create a welcoming atmosphere and mark the arrival to the building. In side yard areas, a variety of low-growing, shade-tolerant, and low-maintenance species have been planted to establish a landscape buffer between the new development and existing adjacent properties.

To meet stormwater retention requirements, permeable paving has been employed in the rear yard parking areas. The private rooftop landscape consists of a blend of ornamental grasses, shrubs, and colorful perennials, forming a visually pleasing buffer between each unit. In essence, the overarching objective of the landscape design is to create an aesthetically pleasing and functional environment that seamlessly integrates into the North Vancouver community.

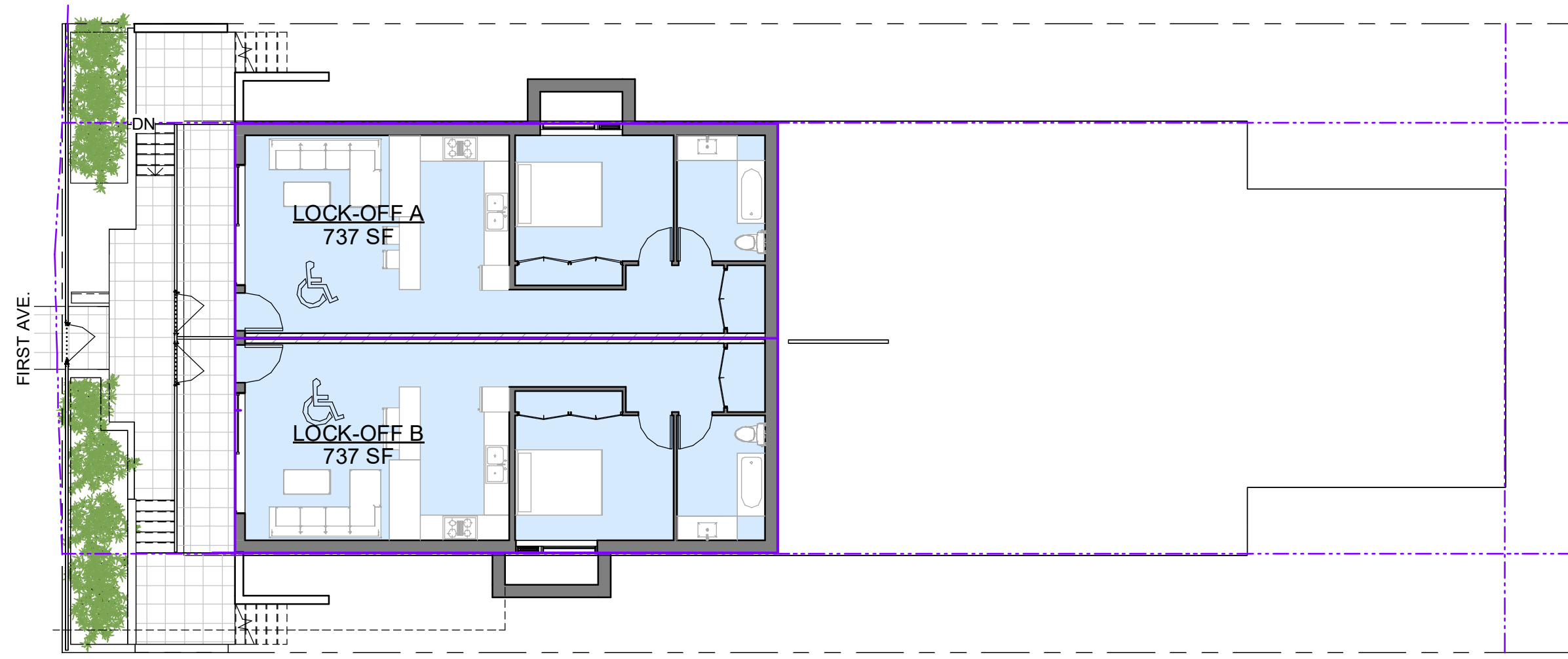


6 MECH. STORAGE LEVEL
1" = 10'-0"

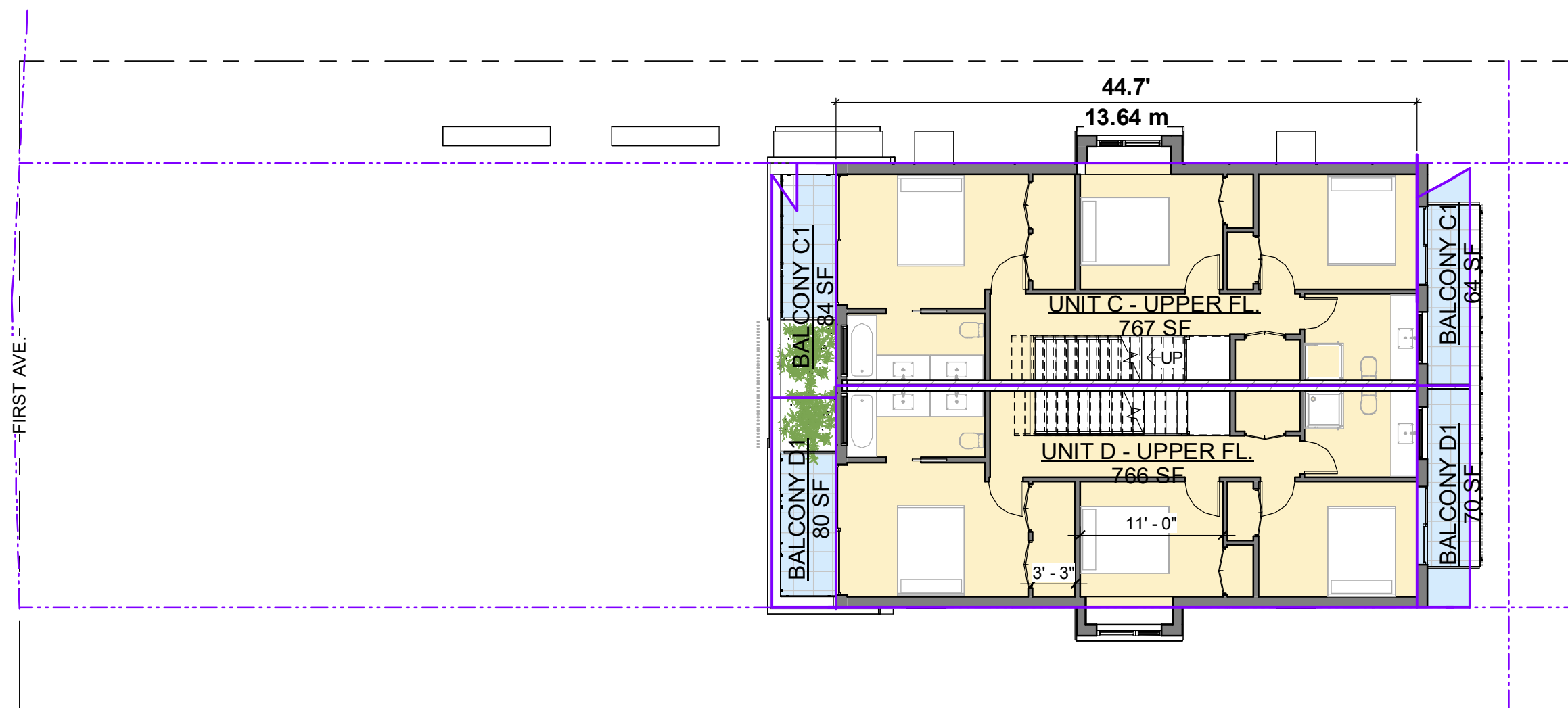


2 C&D BASEMENT FL.
1" = 10'-0"

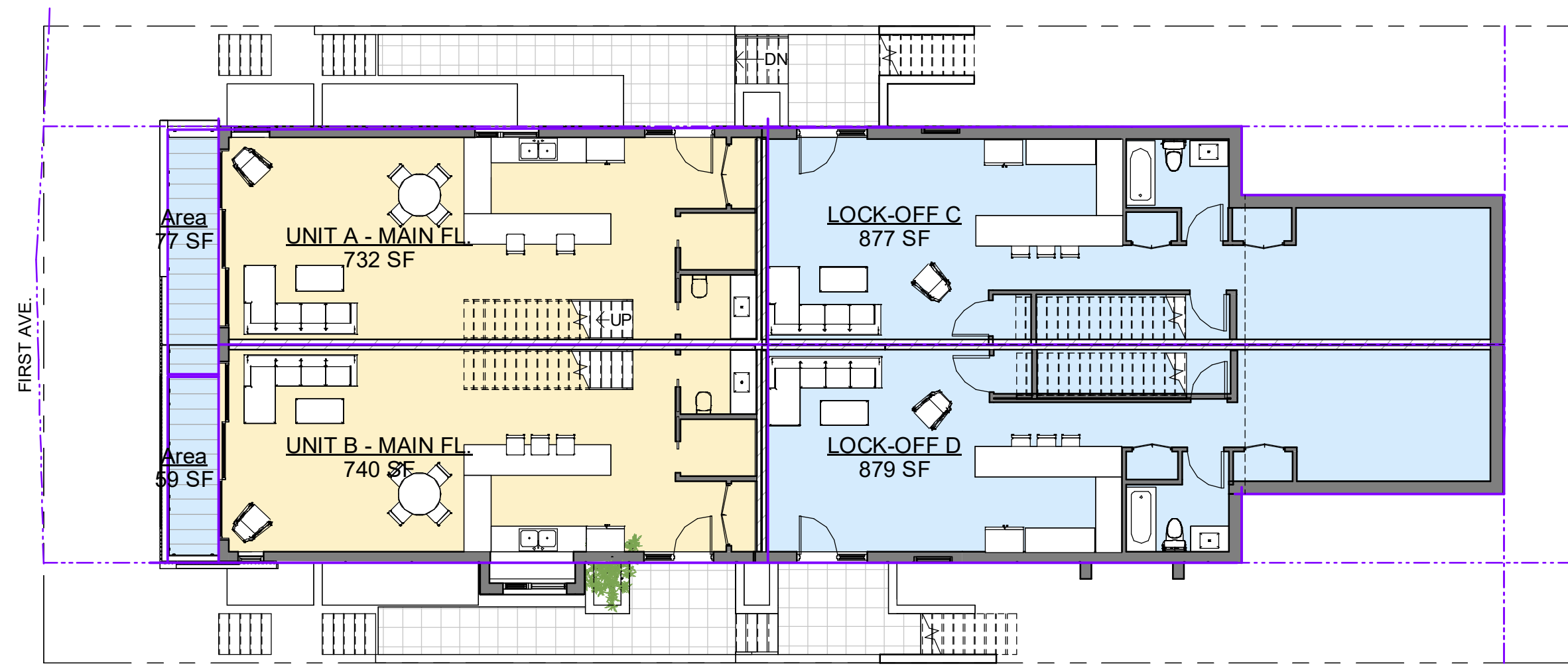
UNIT AREA A	
UNIT A - MAIN FL.	732 SF
UNIT A - UPPER FL. PLAN	760 SF
	1492 SF
UNIT AREA B	
UNIT B - MAIN FL.	740 SF
UNIT B - UPPER FL. PLAN	760 SF
	1500 SF
UNIT AREA C	
UNIT C - BASEMENT	637 SF
UNIT C - MAIN FL.	740 SF
UNIT C - UPPER FL.	767 SF
	2143 SF
UNIT AREA D	
UNIT D - BASEMENT	637 SF
UNIT D - MAIN FL.	740 SF
UNIT D - UPPER FL.	766 SF
	2142 SF
LOCK-OFF	
LOCK-OFF A	737 SF
LOCK-OFF B	737 SF
LOCK-OFF C	877 SF
LOCK-OFF D	879 SF
	3230 SF



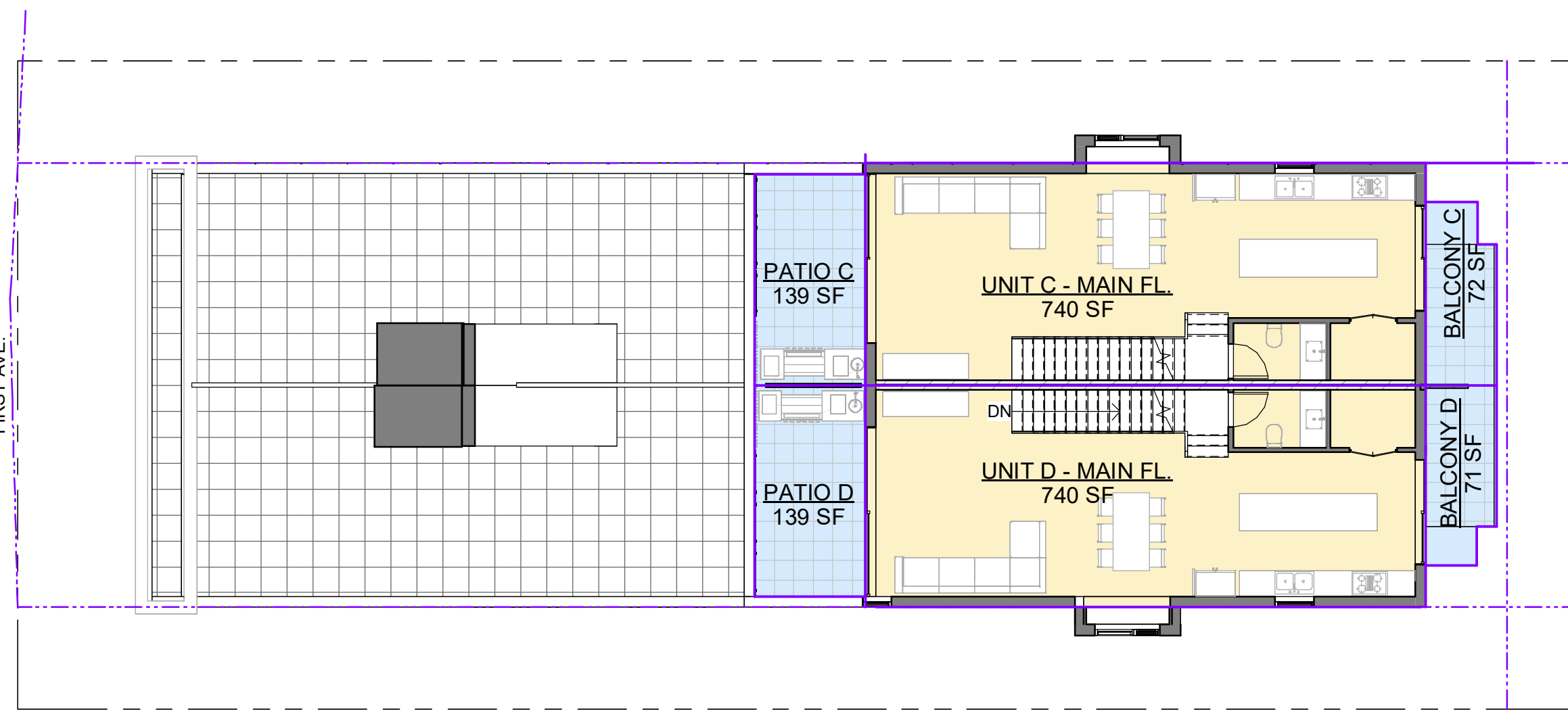
1 A&B BASEMENT FL.
1" = 10'-0"



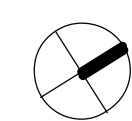
4 C&D UPPER
1" = 10'-0"



5 A&B MAIN FLOOR PLAN - C&D LOCK-OFF
1" = 10'-0"



3 C&D MAIN
1" = 10'-0"

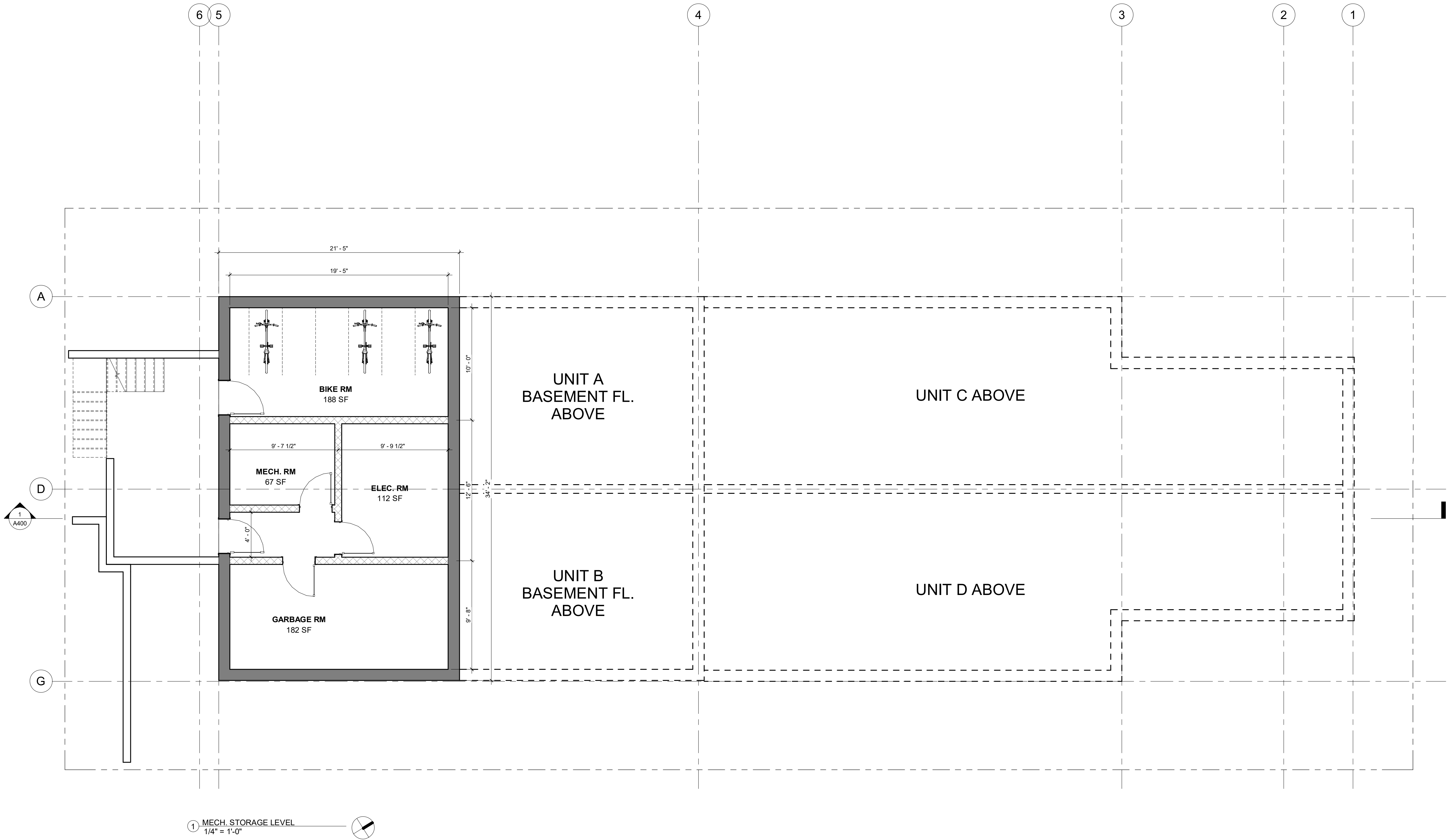


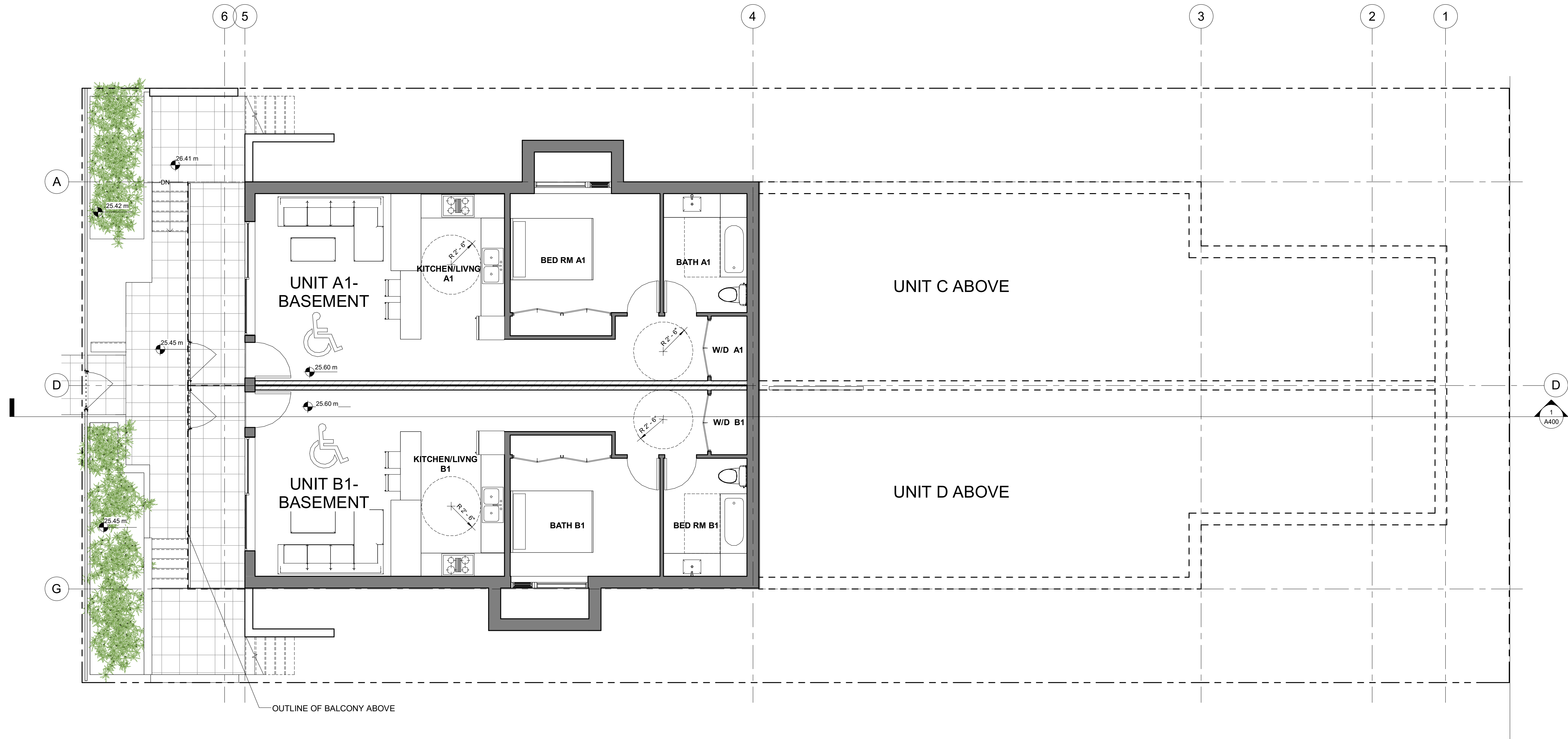


VIEW FROM E. 1ST. STREET (FRONT ELEVATION)

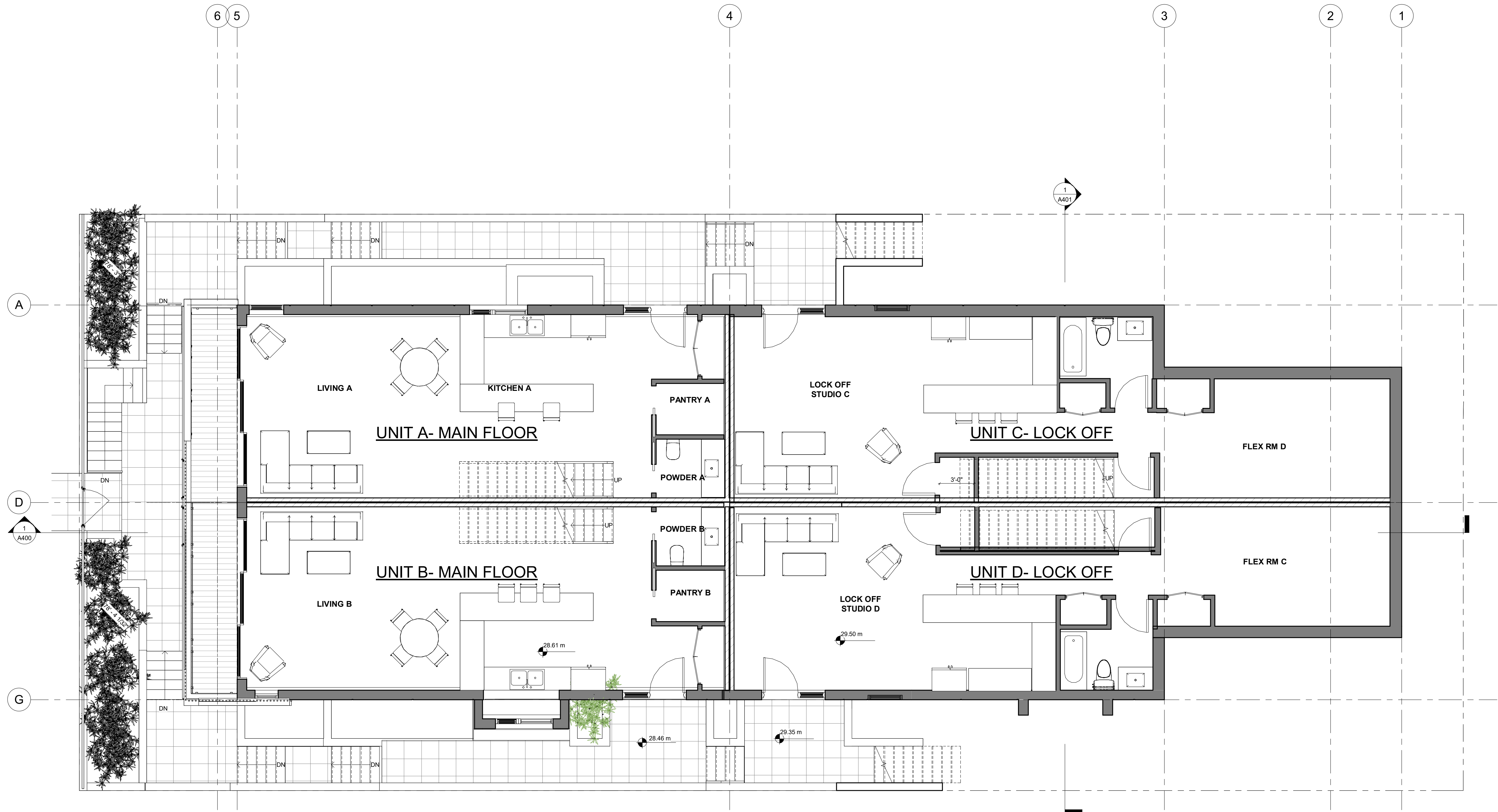


VIEW FROM THE LANE (REAR ELEVATION)

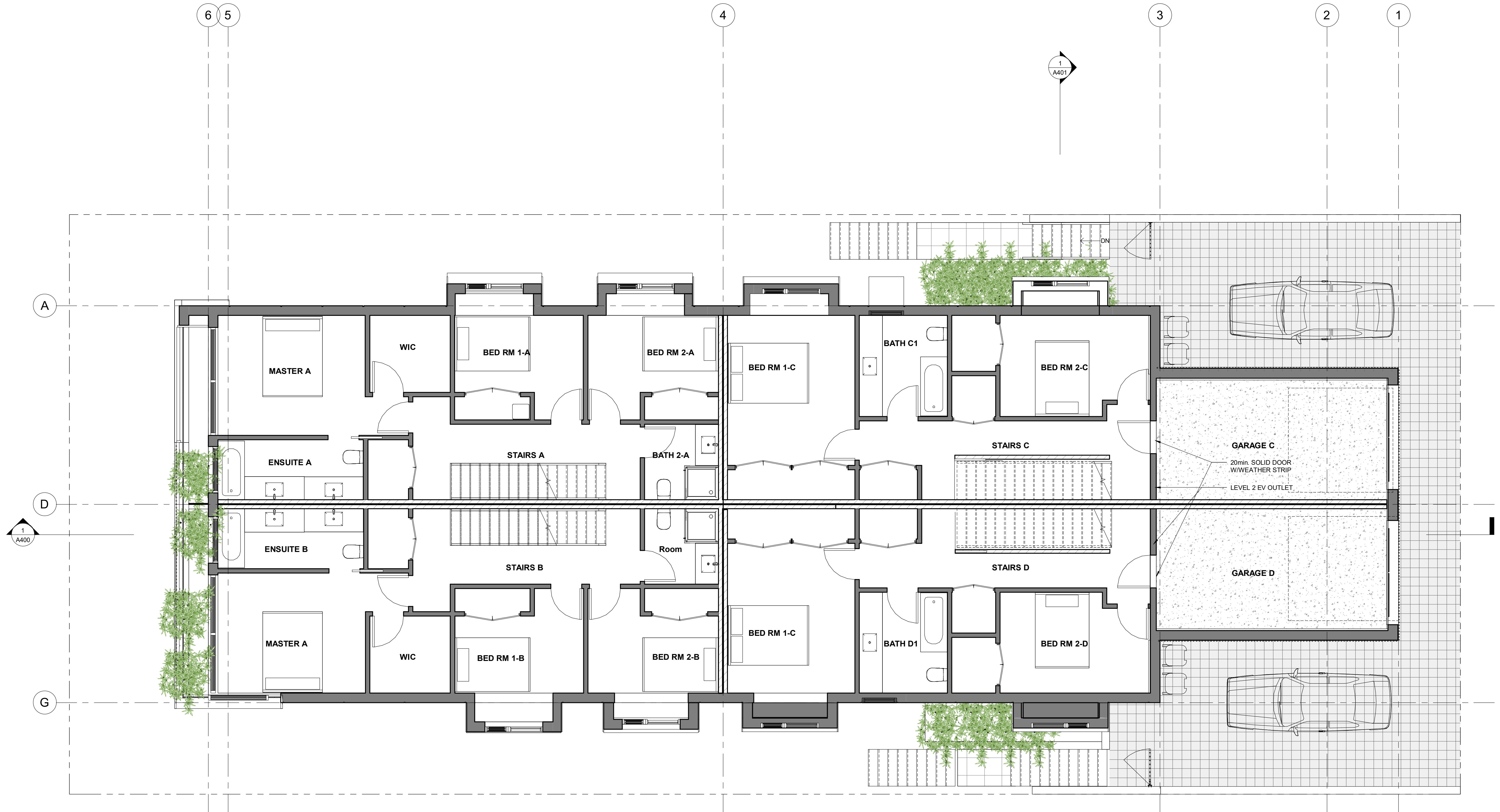




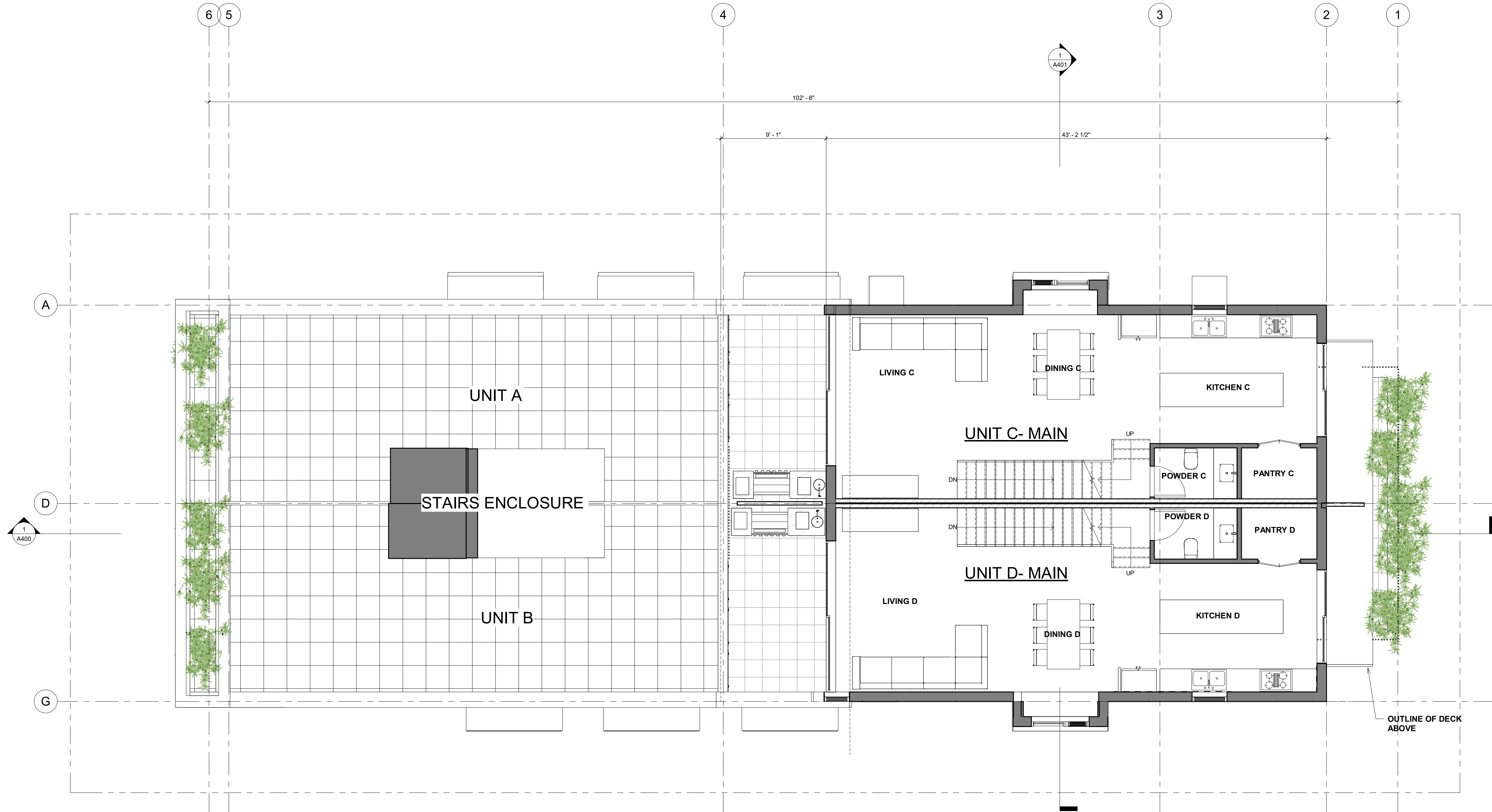
1 A&B BASEMENT FLOOR PLAN
1/4" = 1'-0"



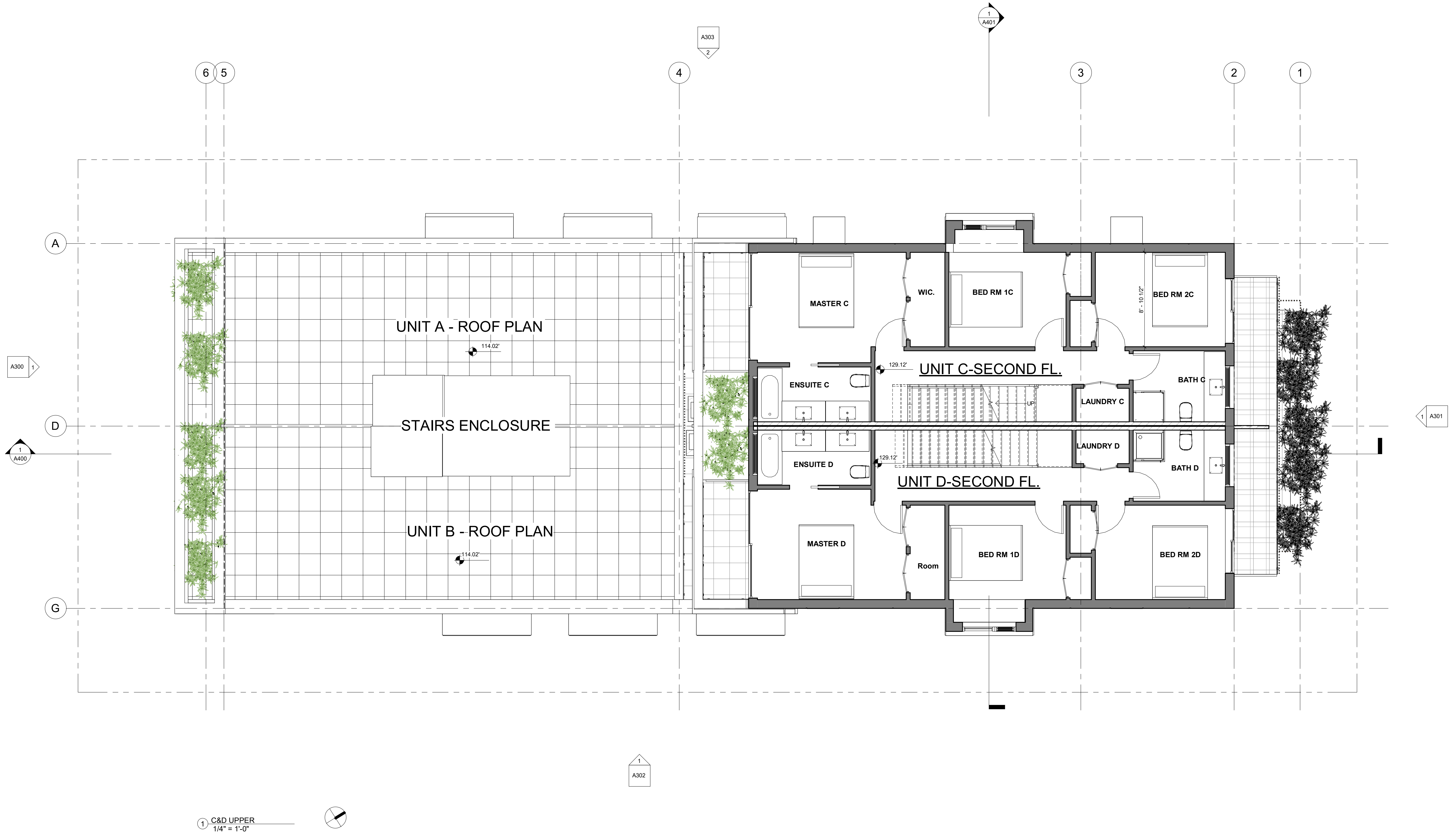
1 A&B MAIN FLOOR PLAN C&D LOCK-OFF
1/4" = 1'-0"

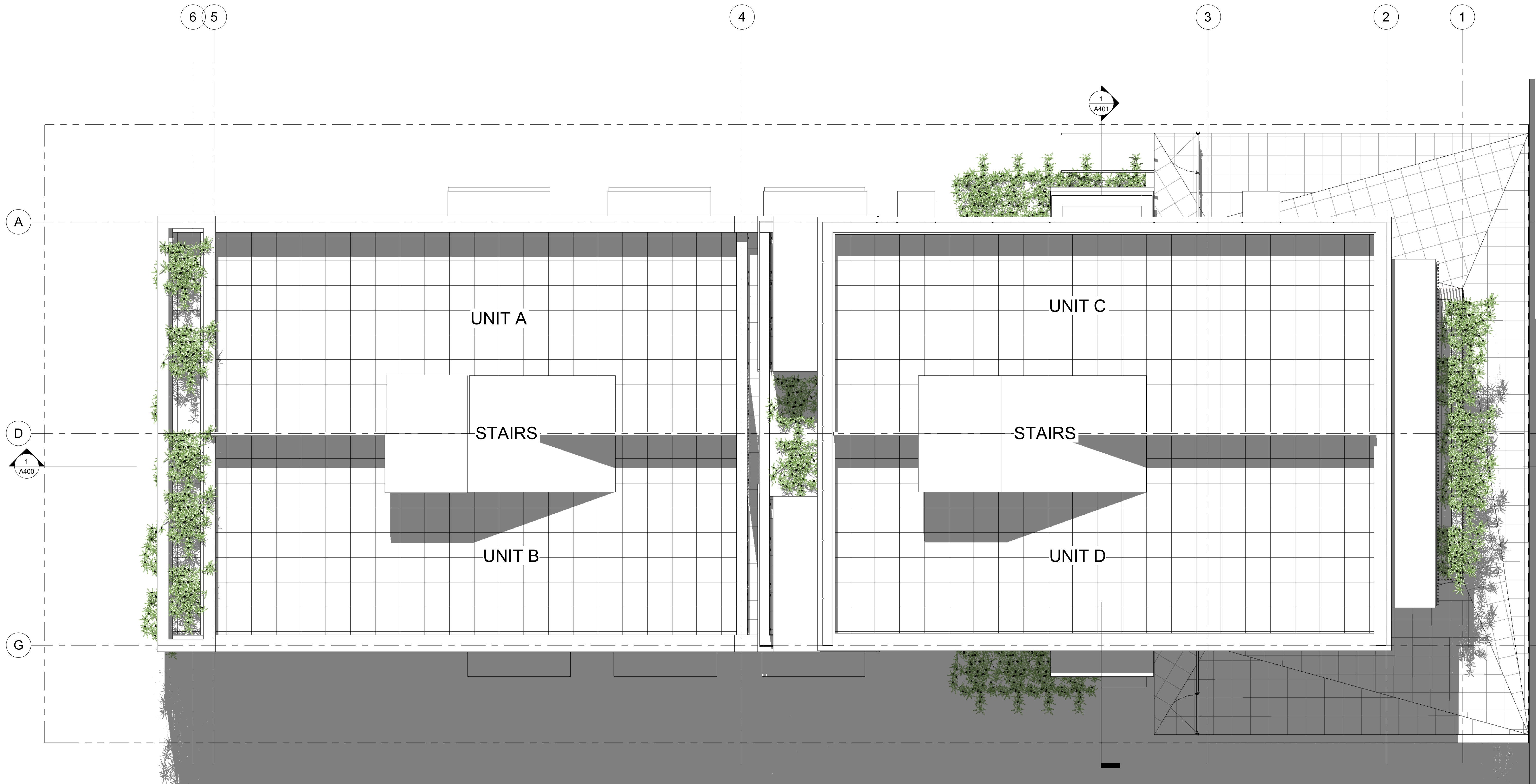


1 A&B UPPER FL. - C&D BASEMENT
1/4" = 1'-0"

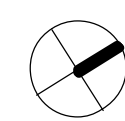


1 C&D MAIN
1/4" = 1'-0"





1 ROOF PLAN
1/4" = 1'-0"





EXTERIOR MATERIAL	
1	WALL CLADDING HARDIE PANEL ARCTIC WHITE SEAGRASS FINISH
2	WALL CLADDING HARDIE PANEL NIGHT GRAY FINE SAND FINISH (SMOOTH FINISH)
3	ACCENT WALL PANEL COMPOSITE WOOD PANEL ANTIQUE COLOUR
4	GALVANIZED METAL FLASHING
5	DOUBLE GLAZED CLEAR GLASS, CHARCOAL VINYL FRAME HIGH PERFORMANCE WINDOWS
6	CLEAR GLASS, SIDE MOUNT RAILING
7	EXPOSED CONCRETE SAND BLASTED SMOOTH FINISH



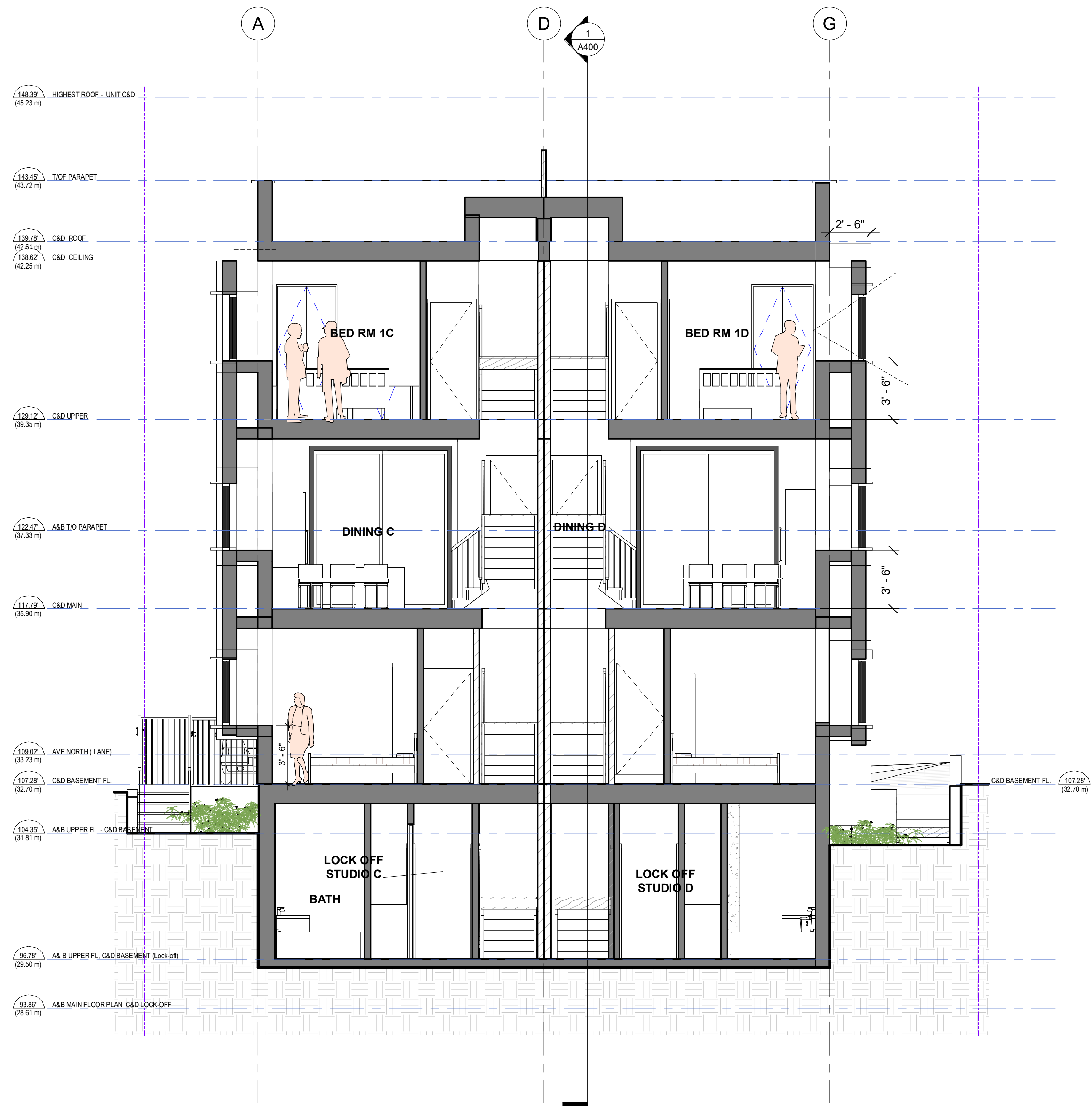
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1	WALL CLADDING HARDIE PANEL ARCTIC WHITE SEAGRASS FINISH
2	WALL CLADDING HARDIE PANEL NIGHT GRAY FINE SAND FINISH (SMOOTH FINISH)
3	ACCENT WALL PANEL COMPOSITE WOOD PANEL ANTIQUE COLOUR
4	GALVANIZED METAL FLASHING
5	DOUBLE GLAZED CLEAR GLASS CHARCOAL VINYL FRAME HIGH PERFORMANCE WINDOWS
6	CLEAR GLASS, SIDE MOUNT RAILING
7	EXPOSED CONCRETE SAND BLASTED SMOOTH FINISH

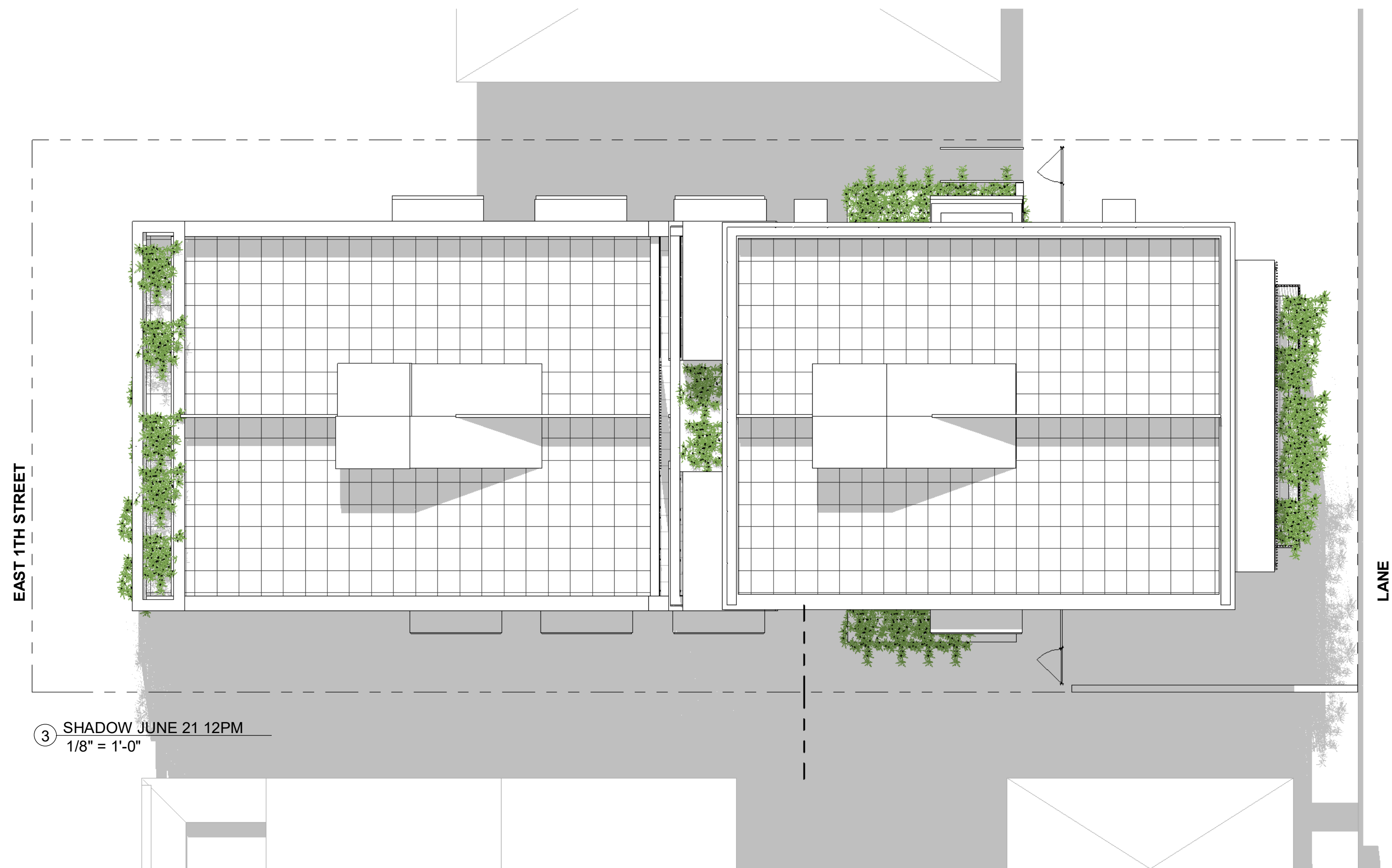
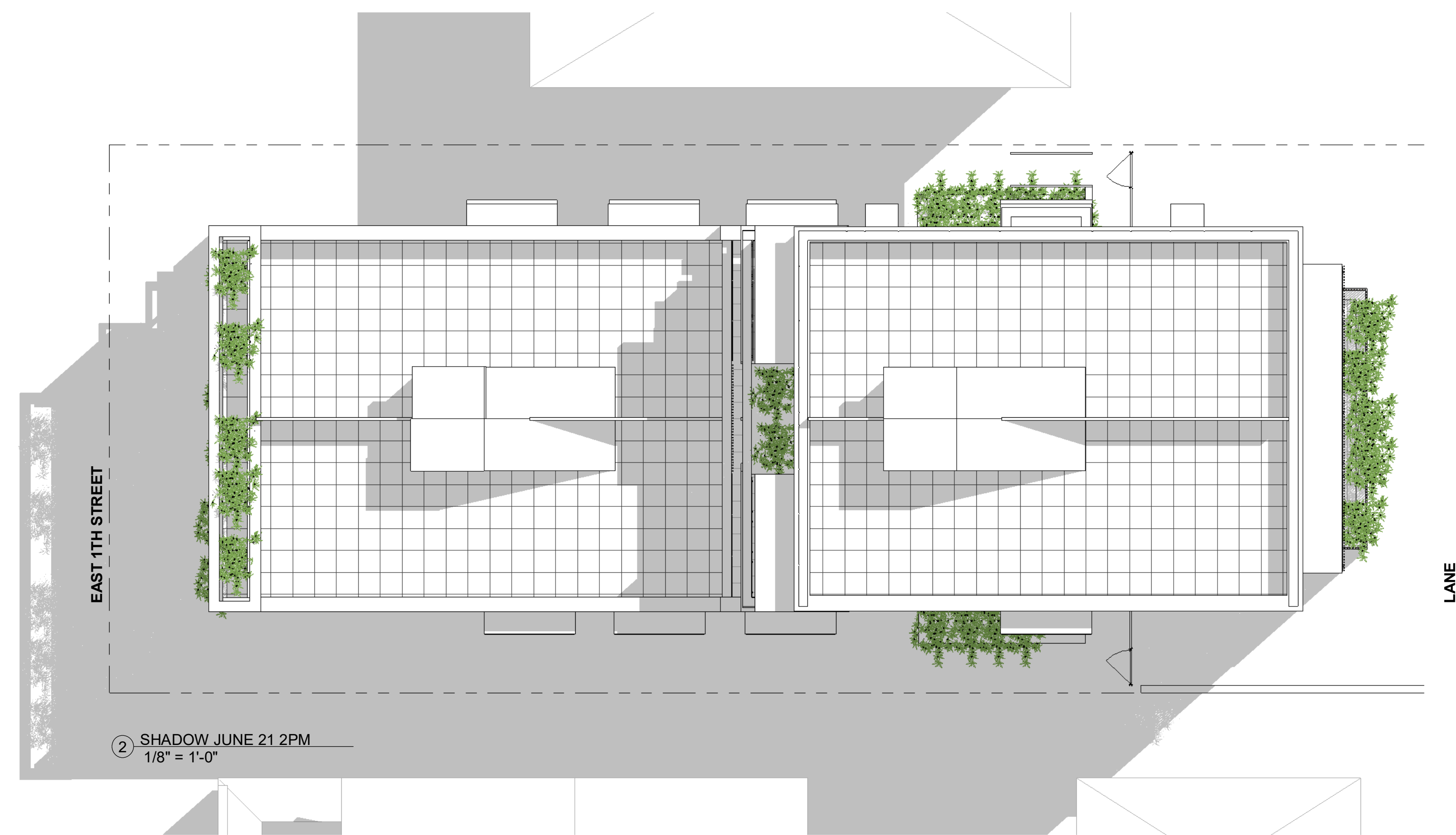
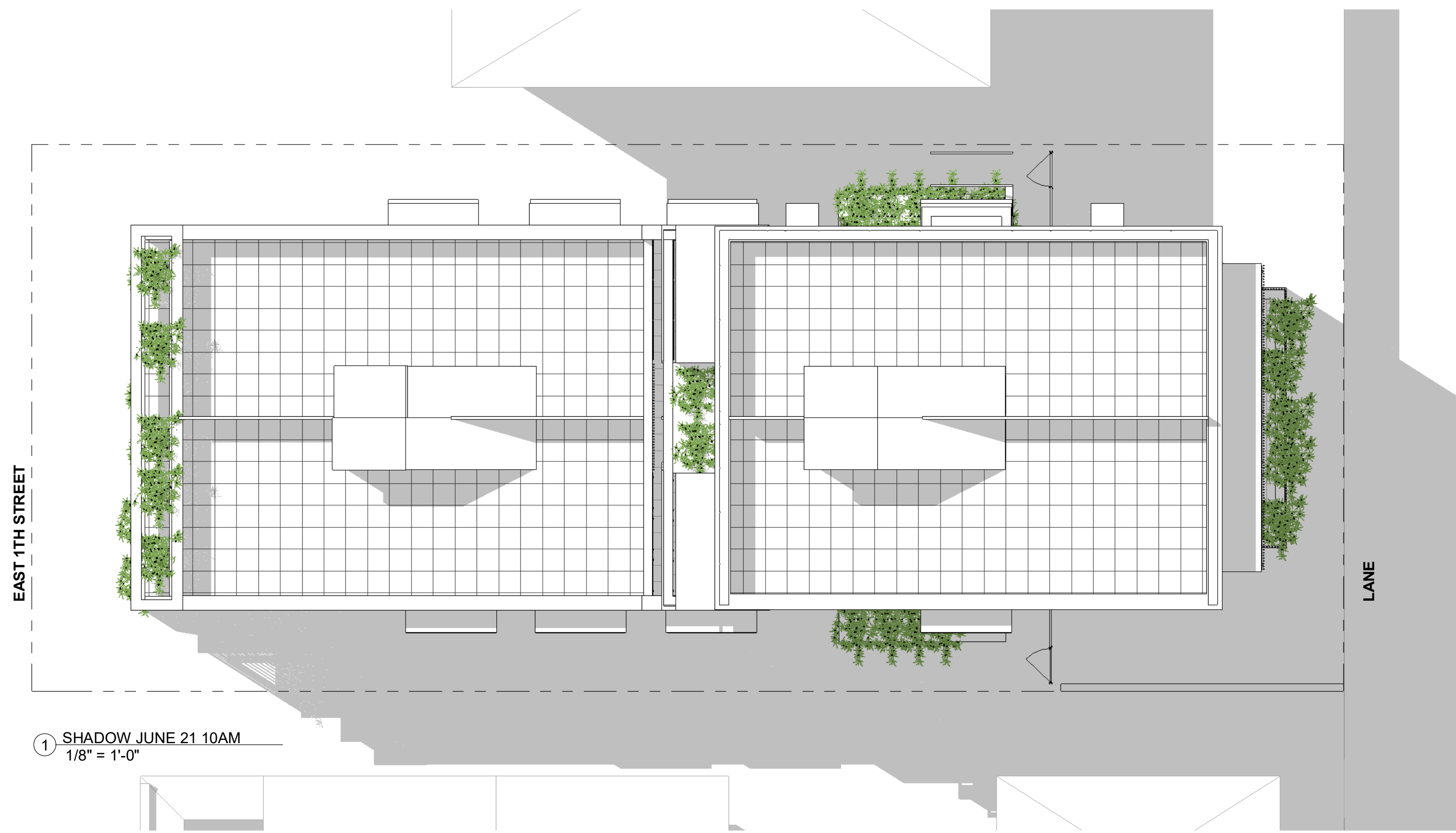
BCBC 2018, Table Table 3.2.3.1.-D EAST ELEVATION			
AREA OF EXPOSING BUILDING FACE	297.3 sqm	3200 sqft	
LIMITING DISTANCE	2.4 m	7.9 ft	
MAX. ALLOWED PERCENTAGE OF UNPROTECTED OPENING IN EXTERIOR WALLS	9.63		
MAX. ALLOWED AREA OF UNPROTECTED OPENING IN EXTERIOR WALLS	28.6 sqm	308.2 sqft	
PROVIDED PERCENTAGE	9.63		
AREA OF PROVIDED UNPROTECTED OPENING IN EXTERIOR WALL	28.6 sqm	308.0 sqft	

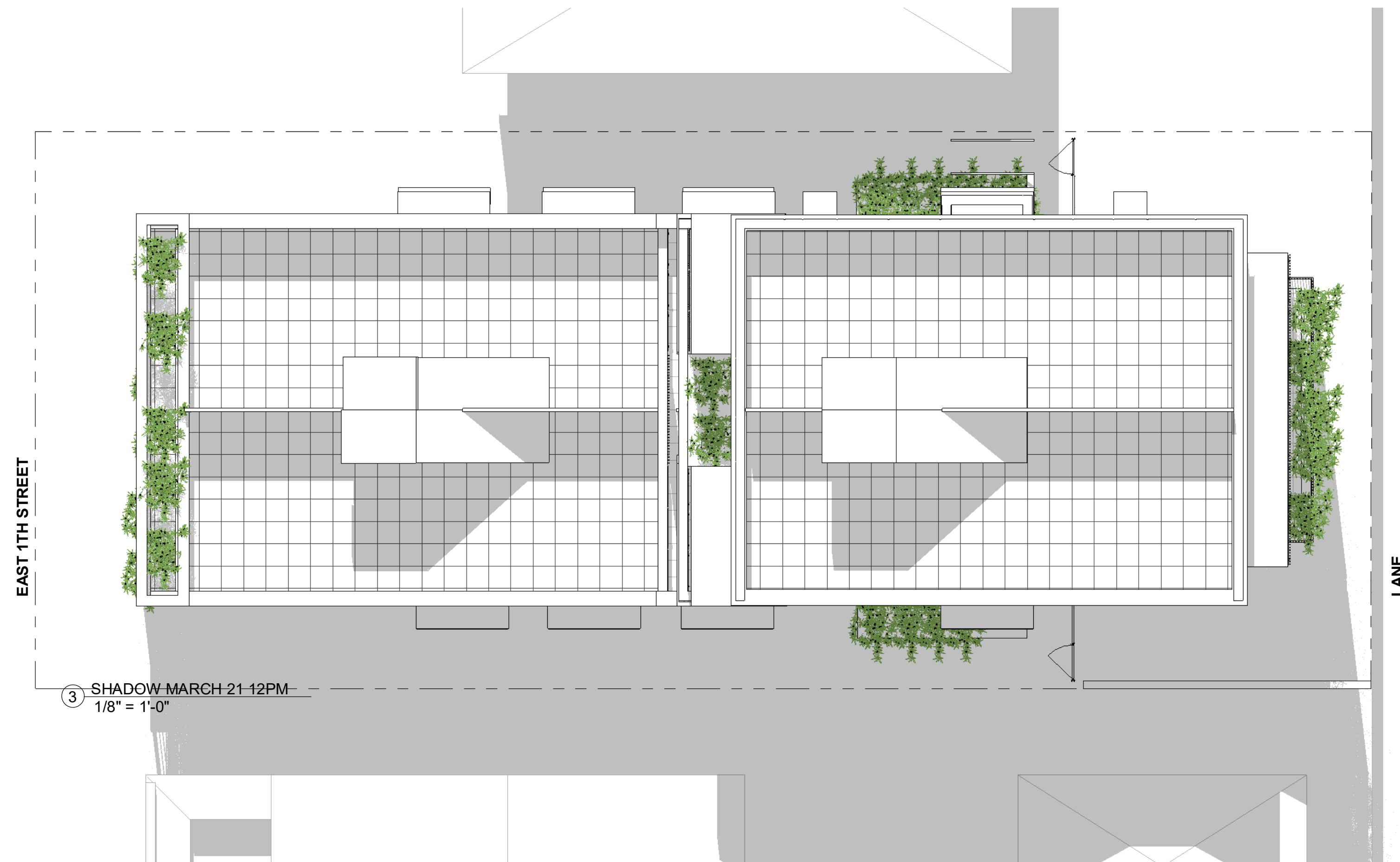
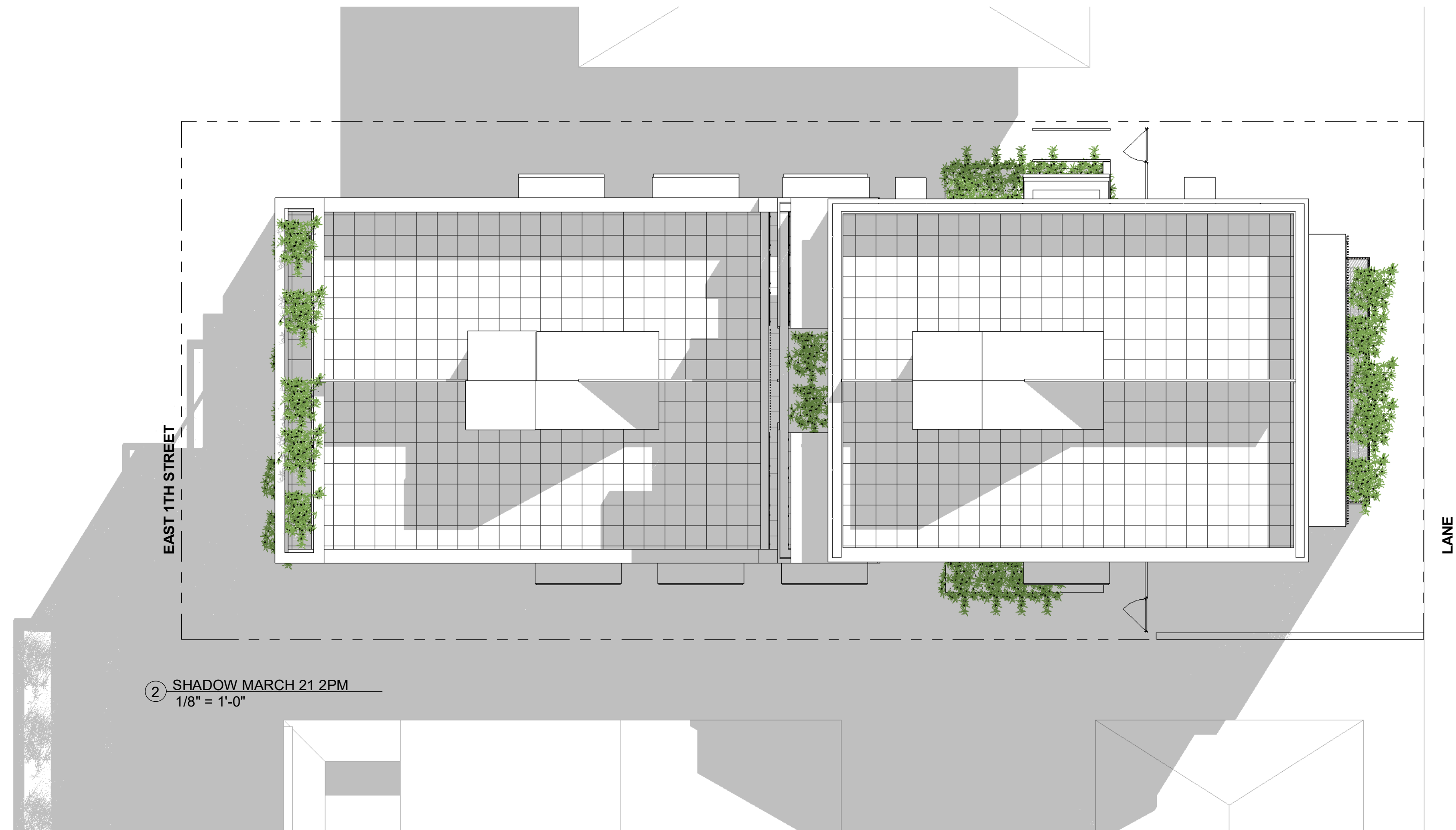
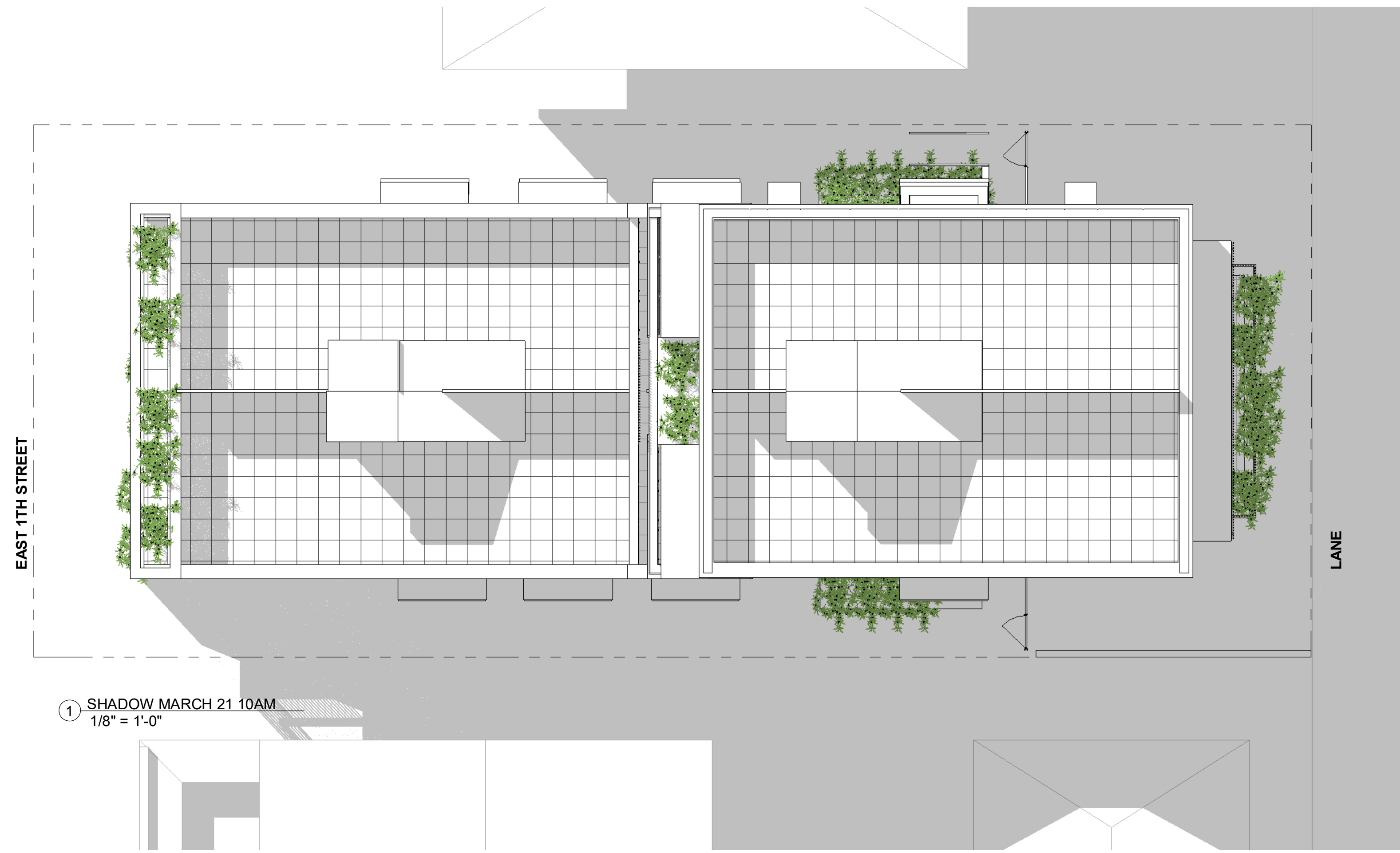


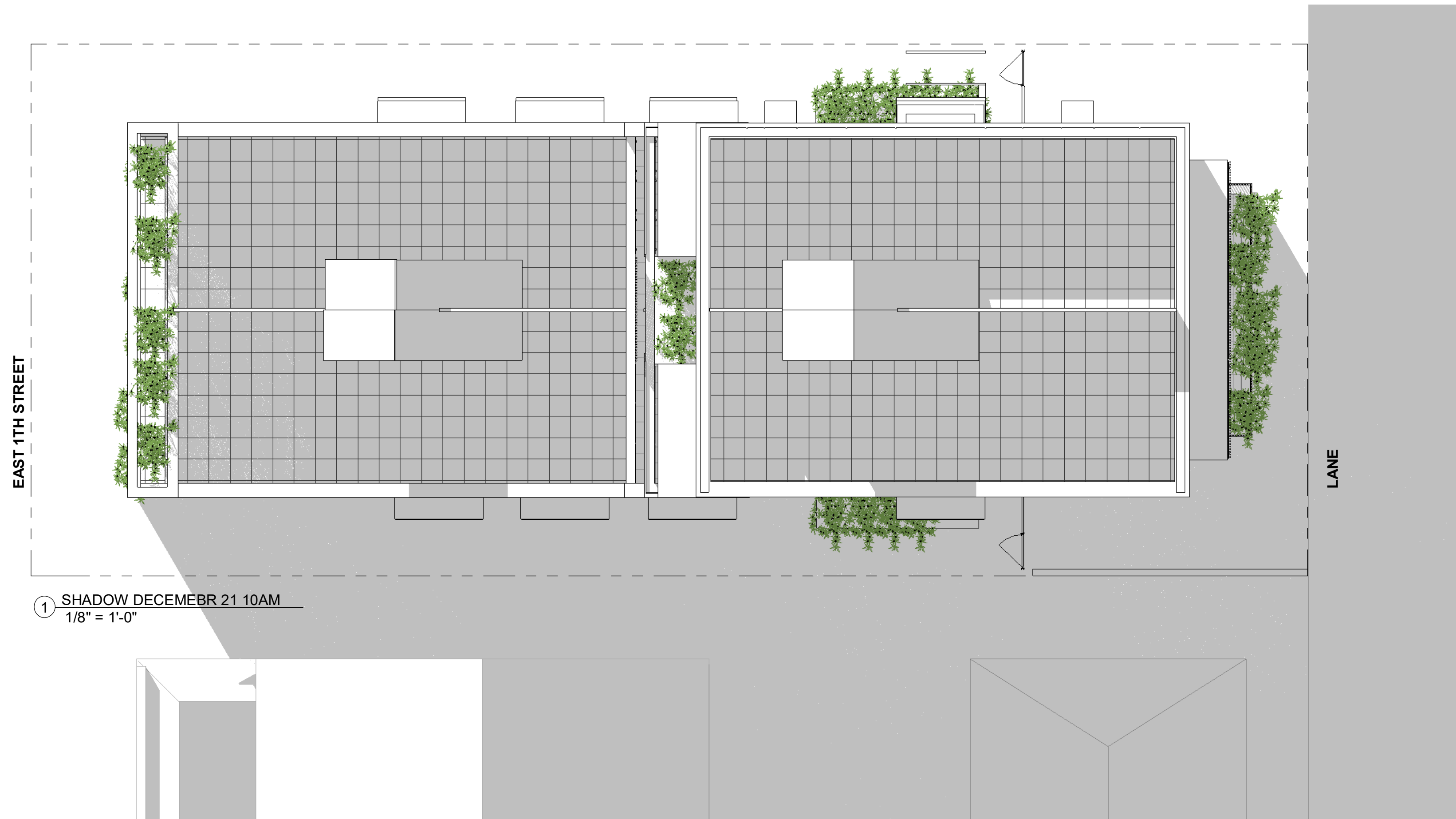
① EAST ELEVATION
1/4" = 1'-0"



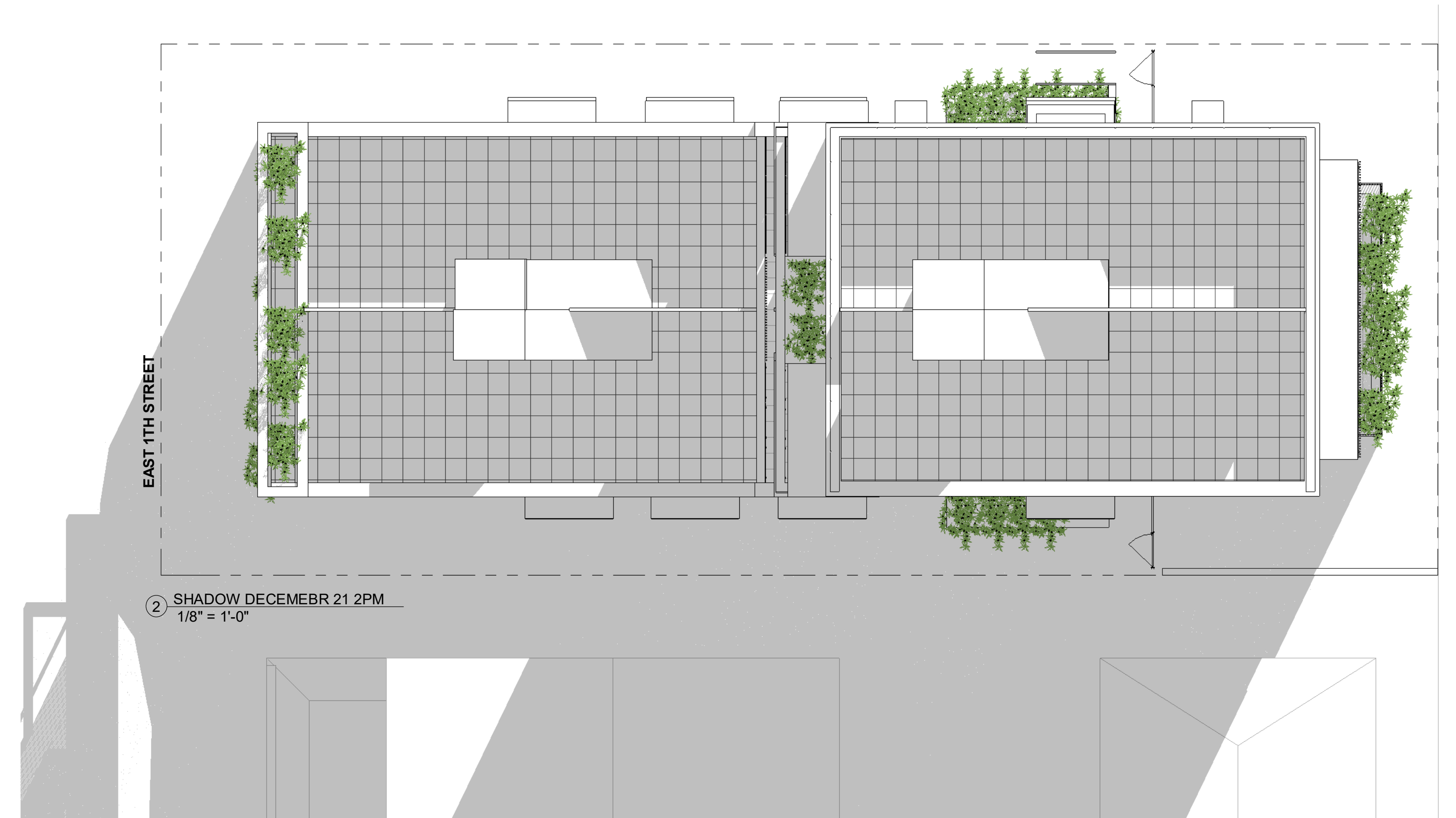




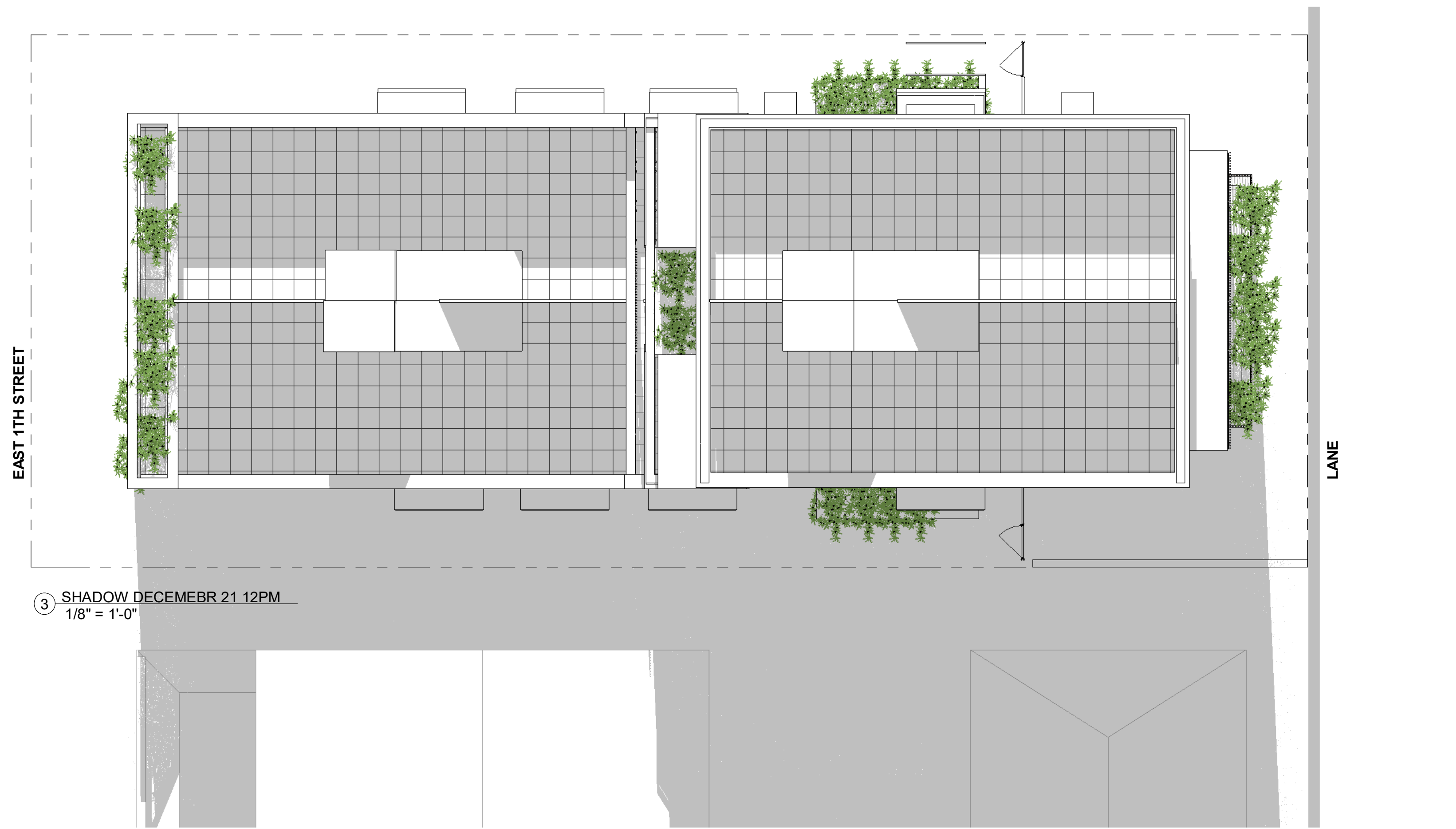




① SHADOW DECEMEBR 21 10AM
1/8" = 1'-0"



② SHADOW DECEMEBR 21 2PM
1/8" = 1'-0"



③ SHADOW DECEMEBR 21 12PM
1/8" = 1'-0"