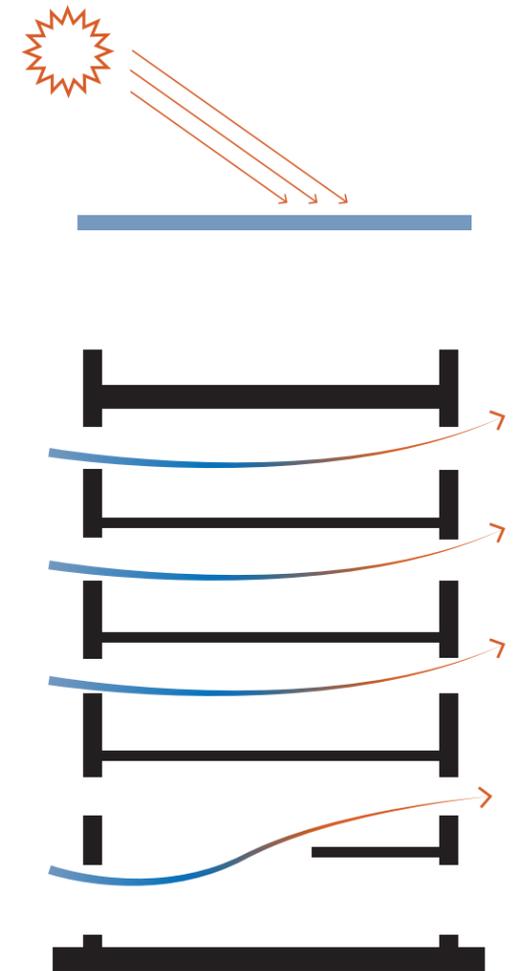


DRAFT



Cascade Built Hudson

Administrative Design Review

3700 South Hudson Street | DPD #3020443

## Project Information

Project Address:  
3700 S Hudson St  
Seattle, WA 98118

DPD Project #:  
3020443

Owner:  
Cascade Built  
Sloan Ritchie  
4111 E. Madison St. #104  
Seattle, WA 98112  
206.354.3455

Architect:  
NK Architects  
Joe Giampietro  
310 1st Ave S, Suite 4S  
Seattle, WA 98104

## Project Description

The proposed building is a 4-story apartment building with Live/Work and residential units at the ground level and a commercial space on the most prominent corner of the site, South Hudson Street and 37th Avenue South. A courtyard on the east side of the building will provide a common shared open space for residents.

## Project Specs

Zoning: NC2-40

Neighborhood: Columbia City Residential Urban Village

Lot Size: 4,950 SF

GSF: 17,958 SF

Dwelling Units: 32

Live-Work Units: 3

Commercial Space: Approx. 1070 sf

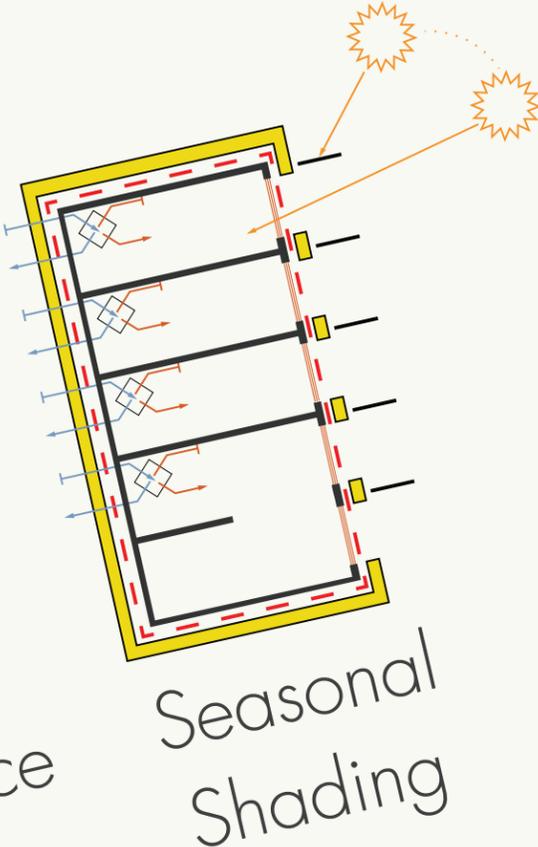
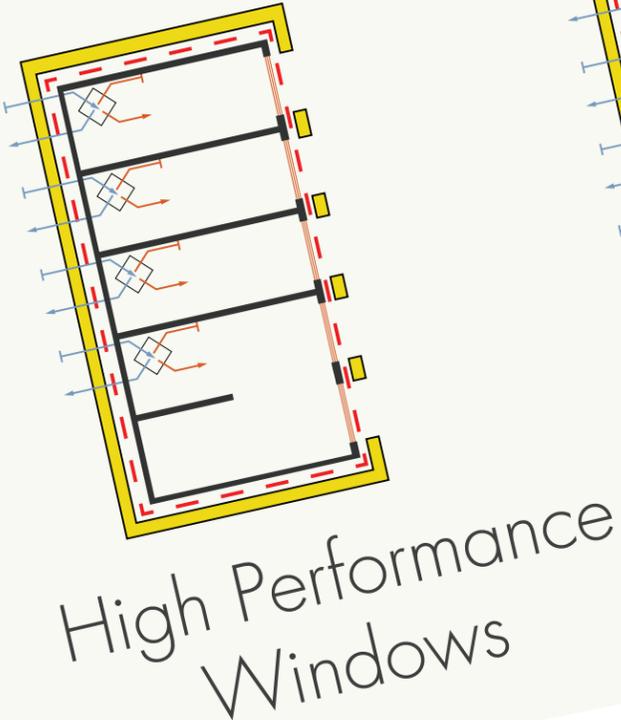
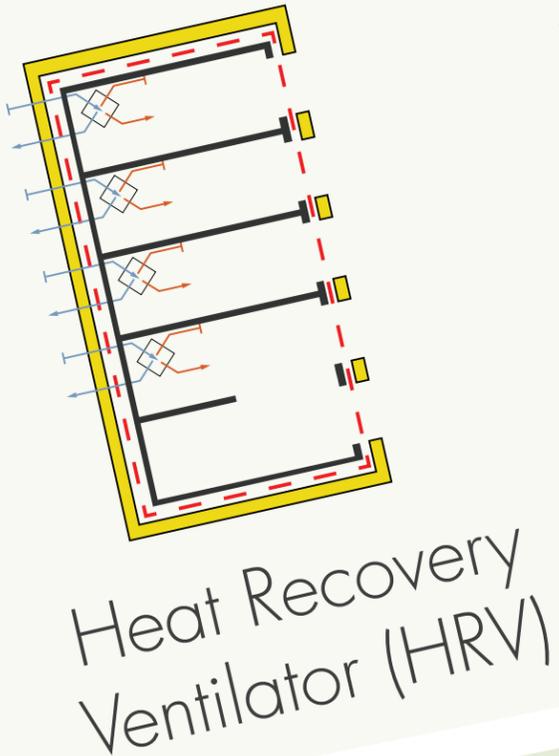
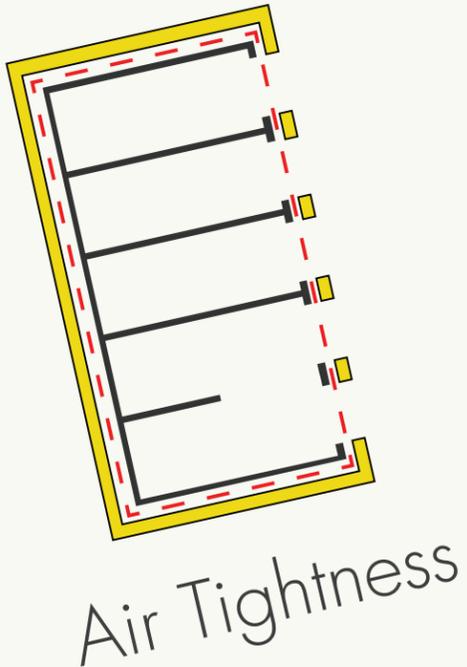
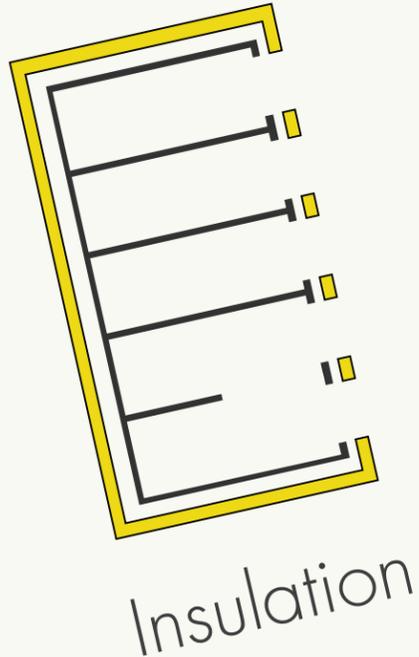
Parking Stalls provided: None

# Table of Contents

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# the concept of Passive House

A passive house is a highly insulated, air tight building that is able to maintain consistent thermal comfort year-round with the assistance of a heat exchange ventilation system and high performance windows.



- BENEFITS**
- 🛡️ **Durability** / enhanced wall assembly protects building structure
  - ⚡️ **High performance** / reduces energy demand
  - 🌡️ **Thermal comfort** / consistent temperature year round

getting to

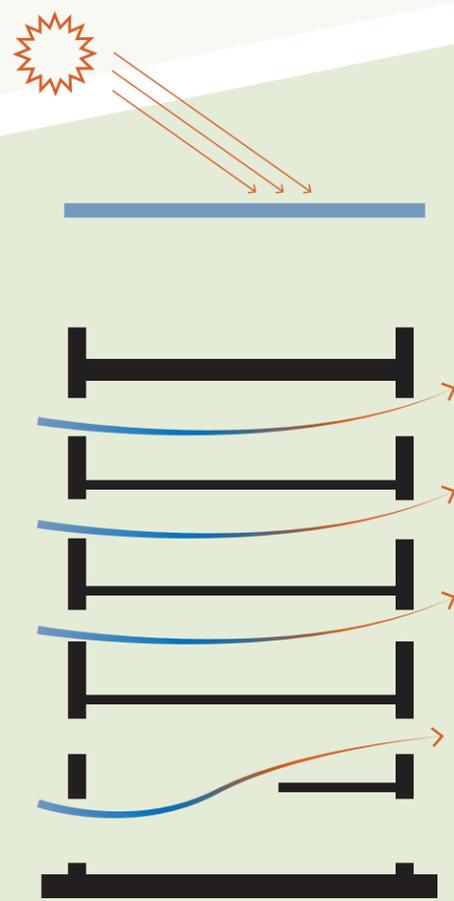
# Net-Zero Energy

Net-zero energy consumption is nearly impossible to achieve without first drastically reducing your energy demand. Passive House building strategies allow the building users the chance to reach for net-zero energy. The addition of photovoltaic solar panel systems produce energy on site and offset any energy that Passive House could not. This is the happy marriage between reduction and production.



## Passive Ventilation

During the warmer months, natural ventilation, in addition to providing the fresh air needed, can help lower the air temperature and eliminate the need for air conditioning.

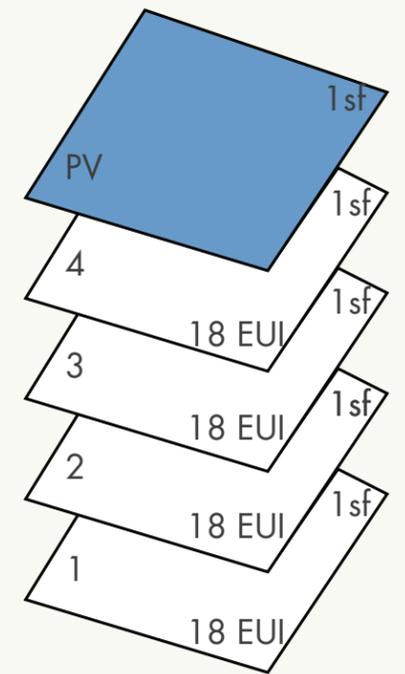


## Photovoltaic Solar Production

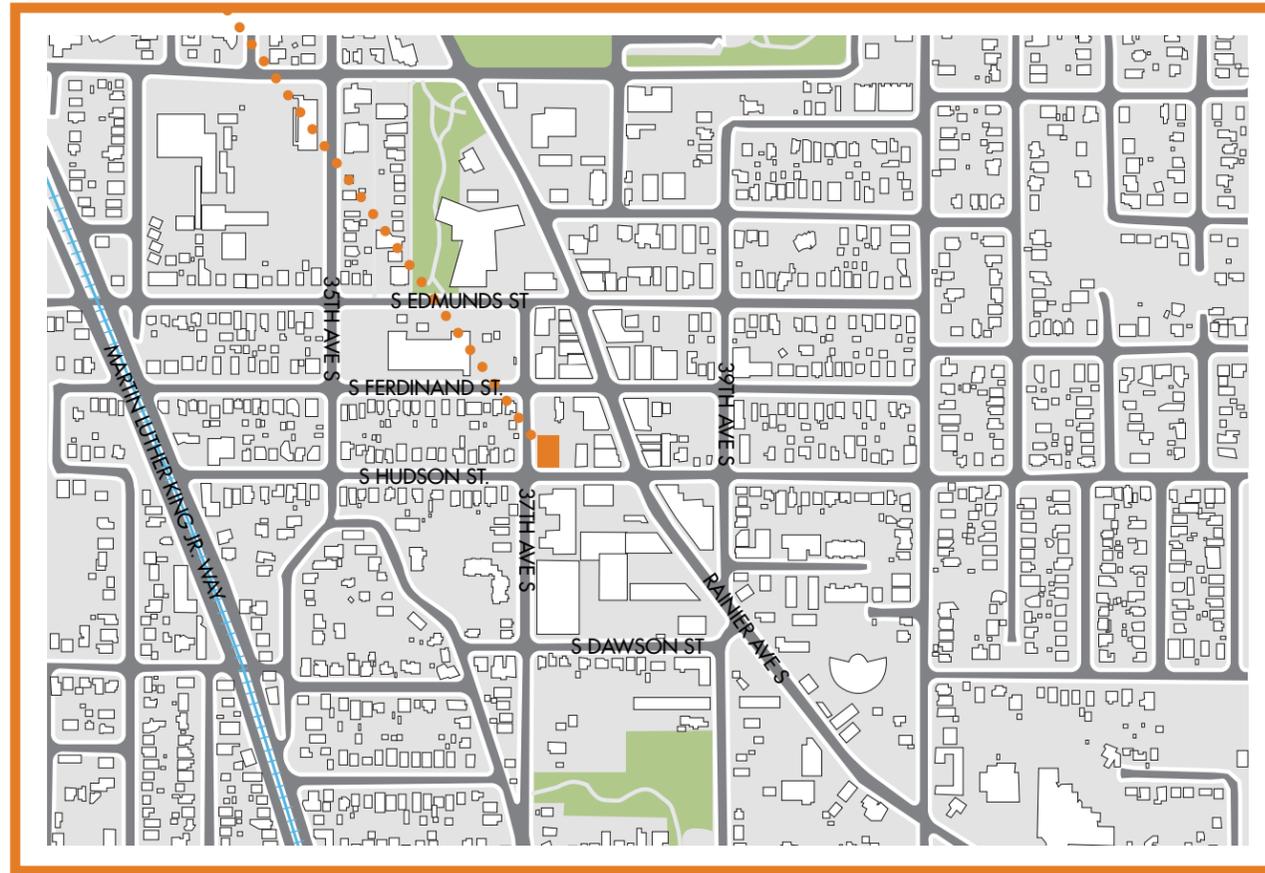
Solar PV Panel Arrays today can offset the energy demand needed in a 4-story residential building

$$1 \text{ Square Foot Production Area} = 4 \text{ Square Foot Energy Consumption}$$

18 EUI (kBtu/sf/yr) is the estimated energy budget for a net zero ready residential building.

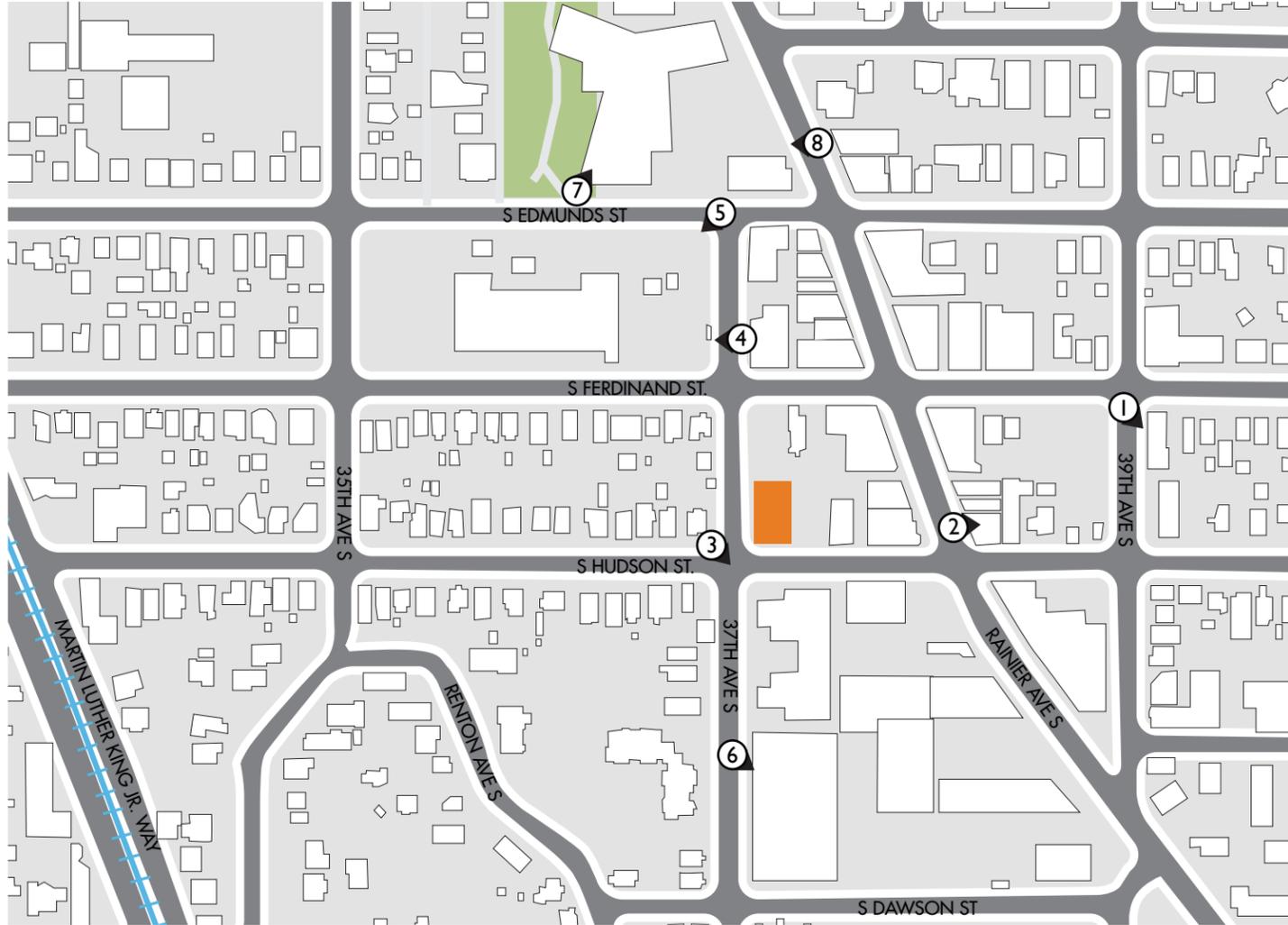


Site



# Context Analysis

## Neighborhood Context



① Apartments two blocks East of Site



② Columbia City Theater East of Site



③ Greenhouse Apartment Complex South of Site



④ Orca Alternative School Northwest of Site



⑤ Community Area North of Site



⑥ Seattle Gymnastics Academy



⑦ PCC Grocery Store to Northwest of Site



⑧ Angeline Apartments Northwest of Site

Walkability



Columbia City Neighborhood

3700 South Hudson Street has a Walk Score of 93 out of 100. This location is a Walker's Paradise so daily errands do not require a car.

3700 South Hudson Street is a seven minute walk from the LINK at the ST LIGHT RAIL & S EDMUNDS ST stop. And an eight minute walk from the Columbia City Light Rail Station on MLK Jr. Way.

This location is in the Columbia City neighborhood in Seattle. Nearby parks include Columbia Park, Hitt's Hill Park and Rainier Playfield.

10 minutes

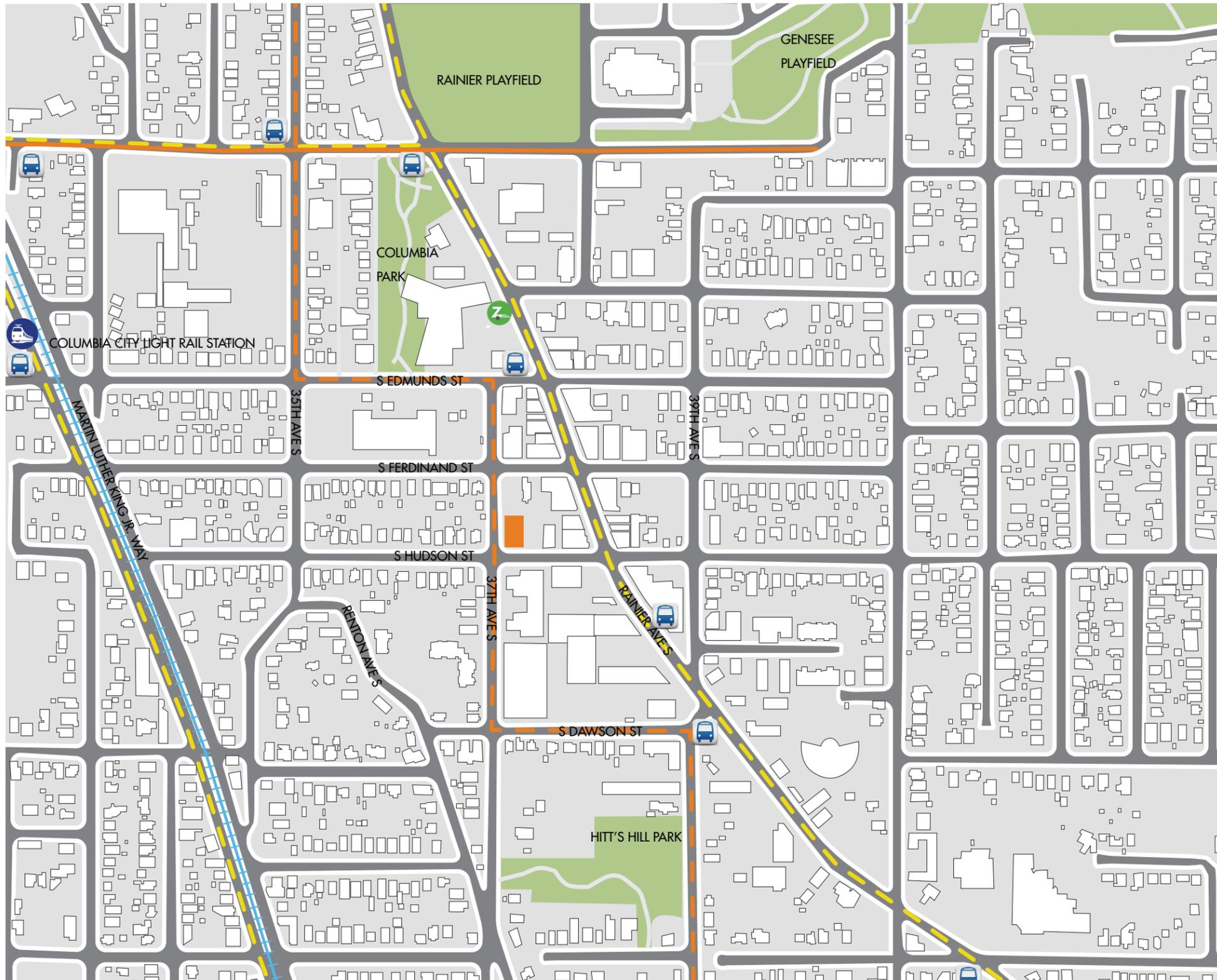
- ✉ Post Office
- 📖 Columbia Branch Library
- 🚇 Columbia City Light Rail Station
- 🏠 Rainier Community Center
- 🌳 Rainier Playfield
- 🏥 Rainier Park Medical Clinic
- 🎓 Dearborn Park Elementary
- 🍺 20+ Breweries
- 🍽️ 60+ Restaurants

5 minutes

- 🛒 Columbia City Farmers Market
- 🌳 Columbia Park
- 🌳 Hitt's Hill Park
- 🎭 Columbia City Theater
- 🎓 Orca Alternative School
- 🎬 Ark Lodge Cinema
- ☕ Starbucks
- 🍺 10+ Breweries
- 🍽️ 30+ Restaurants

Walk Score  
**93**

Transit Network



Area Information

3700 South Hudson Street has good transit which means many nearby public transportation options. Car sharing is available from Zipcar and RelayRides.

In less than a half mile radius 5 different bus lines are accessible. The 7 goes to First Hill and Capitol Hill. The 8 up through Central District then west all the way to Downtown and Lower Queen Anne. The 9 goes south to Rainier Beach and then North to Downtown and Capitol Hill. The 50 goes west to West Seattle and Alki.

Key

-  Light Rail Route
-  Bike Lane
-  Signed Bike Routes
-  Bus Route
-  Bus Stop
-  Zipcar Location
-  Light Rail Station
-  Project Site

Transit Score  
**59**

Bike Score  
**57**

## Adjacent Building Uses

The site is located in the Columbia City residential neighborhood, which is an urban village with many amenities located at walking distance. Many small businesses are located along Rainier Avenue South, just one block from the site. The height, bulk and scale of existing neighboring building does not reflect the density allowed by current zoning. The anticipated zoning height for the properties surrounding the site to the north and east is 65 ft. On the south, there is a more recent 65' apartment building. The proposed building, zoned with a 40 ft height limit, will provide an appropriate transition to the surrounding NC2-65 zoning and the single family zoning to the east.

- Key**
- Medical
  - Institutional
  - Commercial
  - Single Family
  - Multifamily
  - Project Site



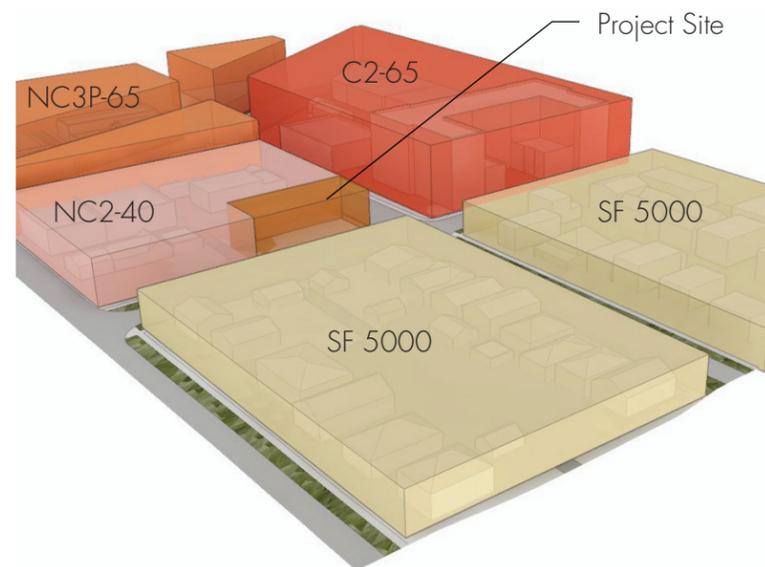
# Context Analysis

## Zoning

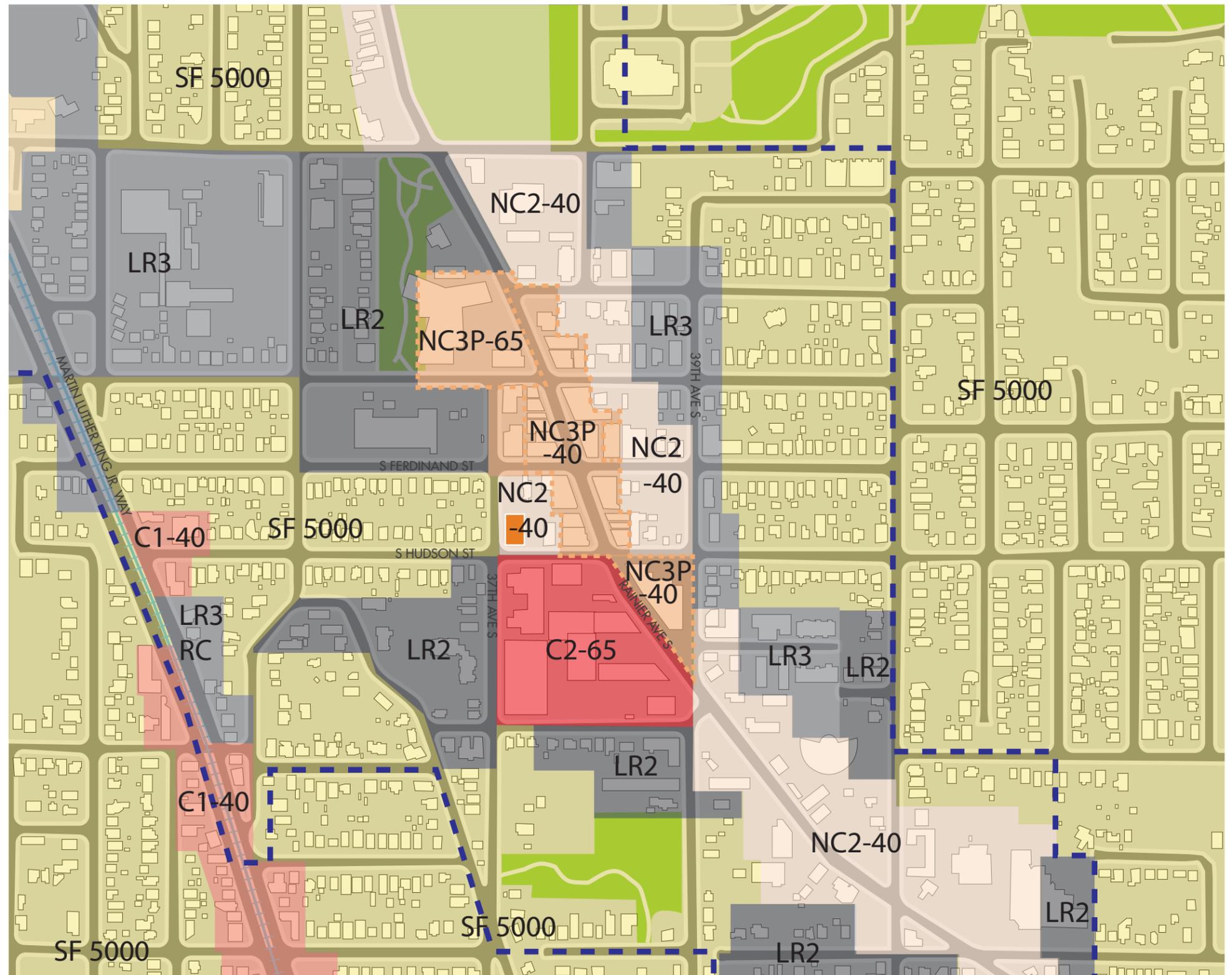
NC2-40: Mid-size shopping areas that serve the surrounding residential neighborhood with a full range of retail services, such as medium grocery stores, drug stores, coffee shops, and medical/dental facilities. Building types are single-purpose commercial structures, multi-story mixed use, and residential structures. Non-residential uses typically occupy the street front. Height is limited to 40 feet. Maximum size is 25,000 square feet for most commercial uses; multi-purpose retail sales buildings are limited to 50,000 square feet.

### Key

- SF 5000
- LR3
- LR2
- NC2-40
- NC3P-40/65
- C2-65
- C1-40
- Project Site
- Columbia City Residential Urban Area Outline



Columbia City Residential Urban Area Outline



# Site Analysis

## Site Survey

### Legal Description

COLUMBIA 282 & W 1/2 OF 283  
Plat Block: 16  
Plat Lot: 282-283

### Uses

The existing structure at 3700 South Hudson Street is a 3 story multifamily duplex with an asphalt parking lot in the rear.

### Topography

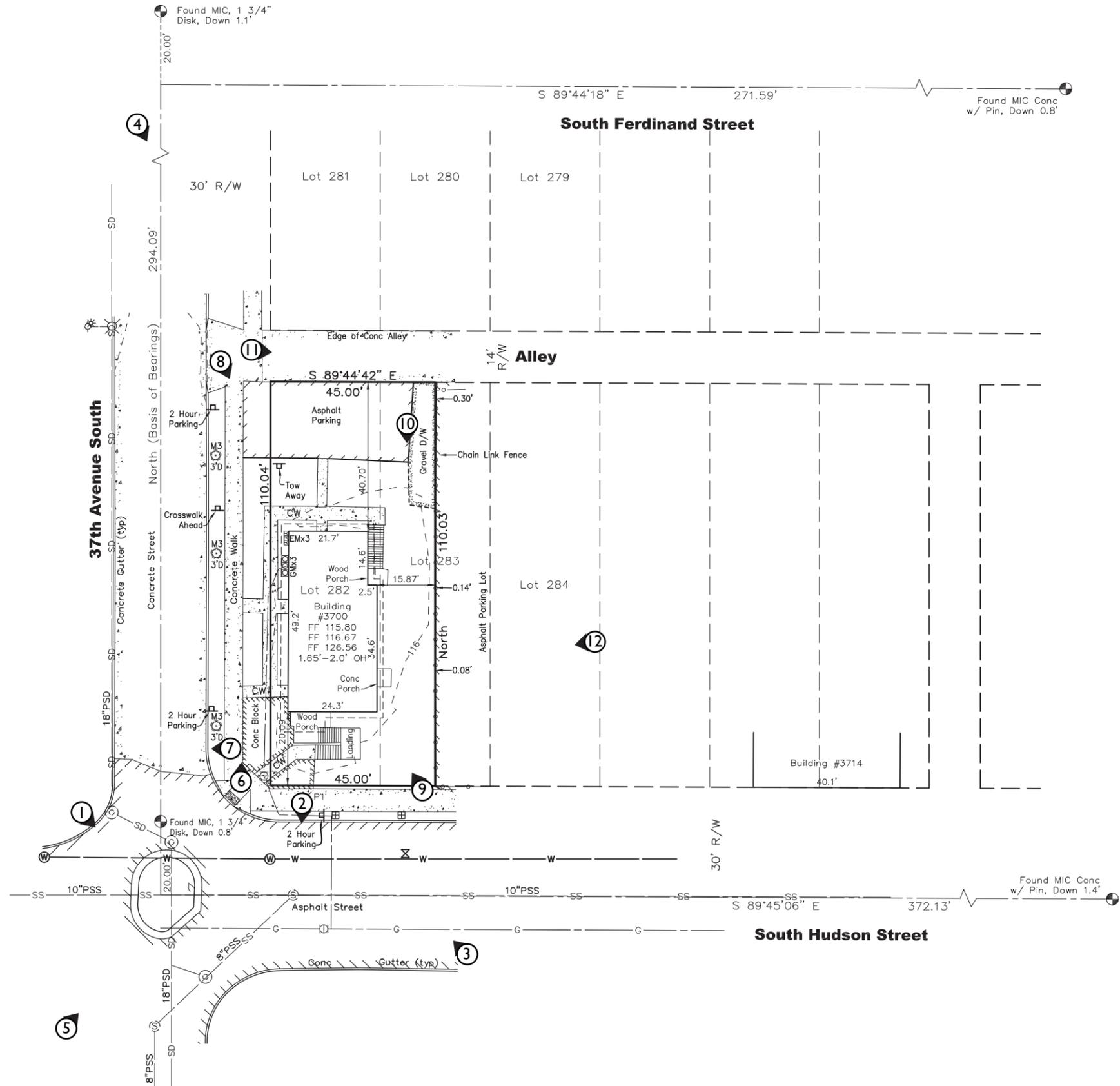
The site has very little topographic distinction.

### Access

There is pedestrian access via concrete sidewalks along South Hudson Street and 37th Avenue South. Vehicular access is currently via the alley at the north property line.

### View and Solar Access

Views are of the adjacent single family neighborhood and over the nearby 1 or 2 story commercial buildings to Rainier Avenue.



# Site Analysis

## Site Features



① Greenhouse Apartments Looking Southeast



② Greenhouse Apartments Looking South From Site



③ Looking Northwest Across Hudson at Site



④ Looking Southwest Down 37th toward Site



⑤ Looking Northeast Across Intersection at Site



⑥ Looking North on Southwest corner of Site



⑦ Looking West Across 37th from Site



⑧ Looking Southeast on Northwest corner of Site



⑨ Looking Northwest on Southeast corner of site



⑩ Looking South on Northeast corner of Site

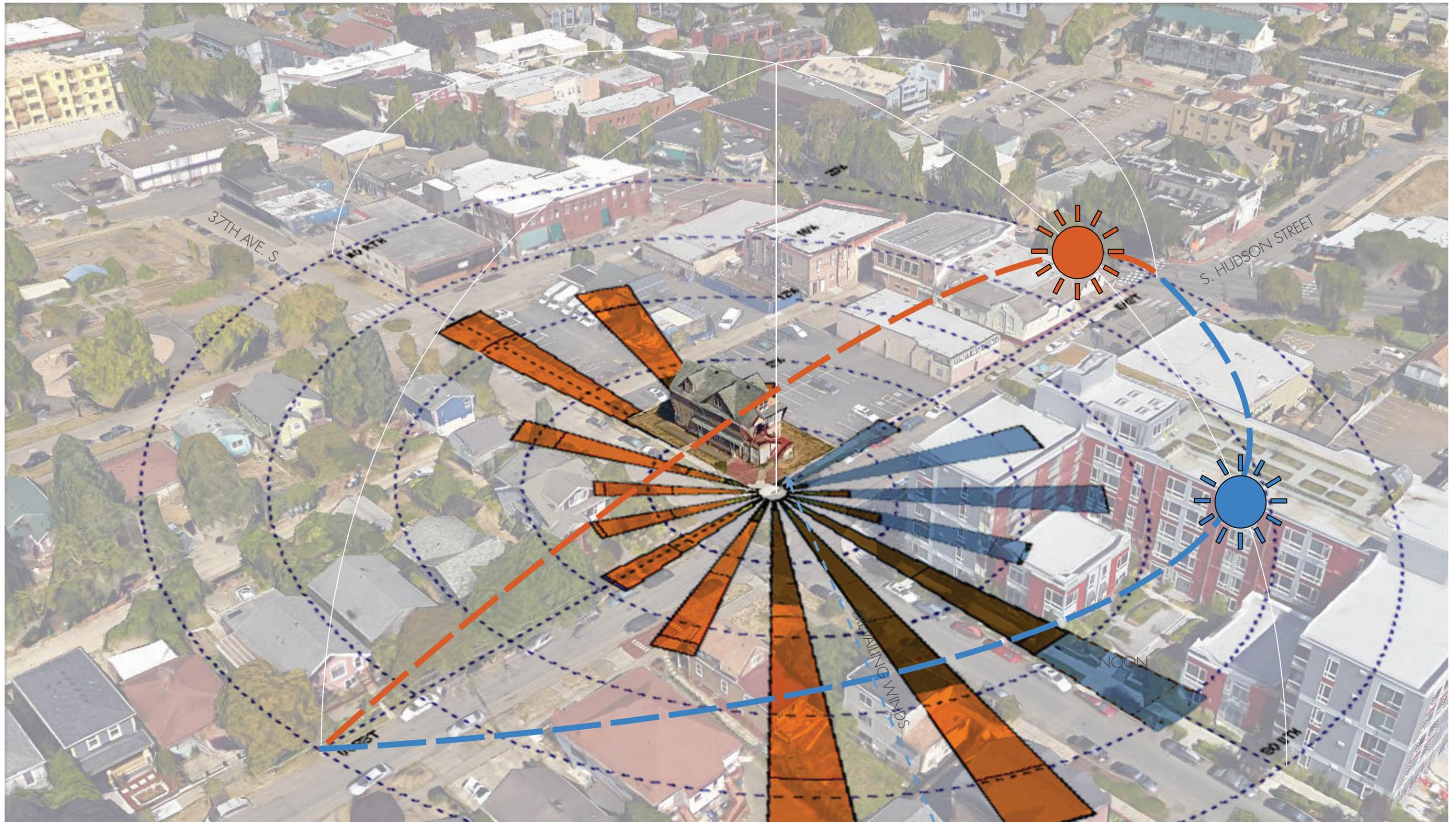


⑪ Looking East at Alley North of Site

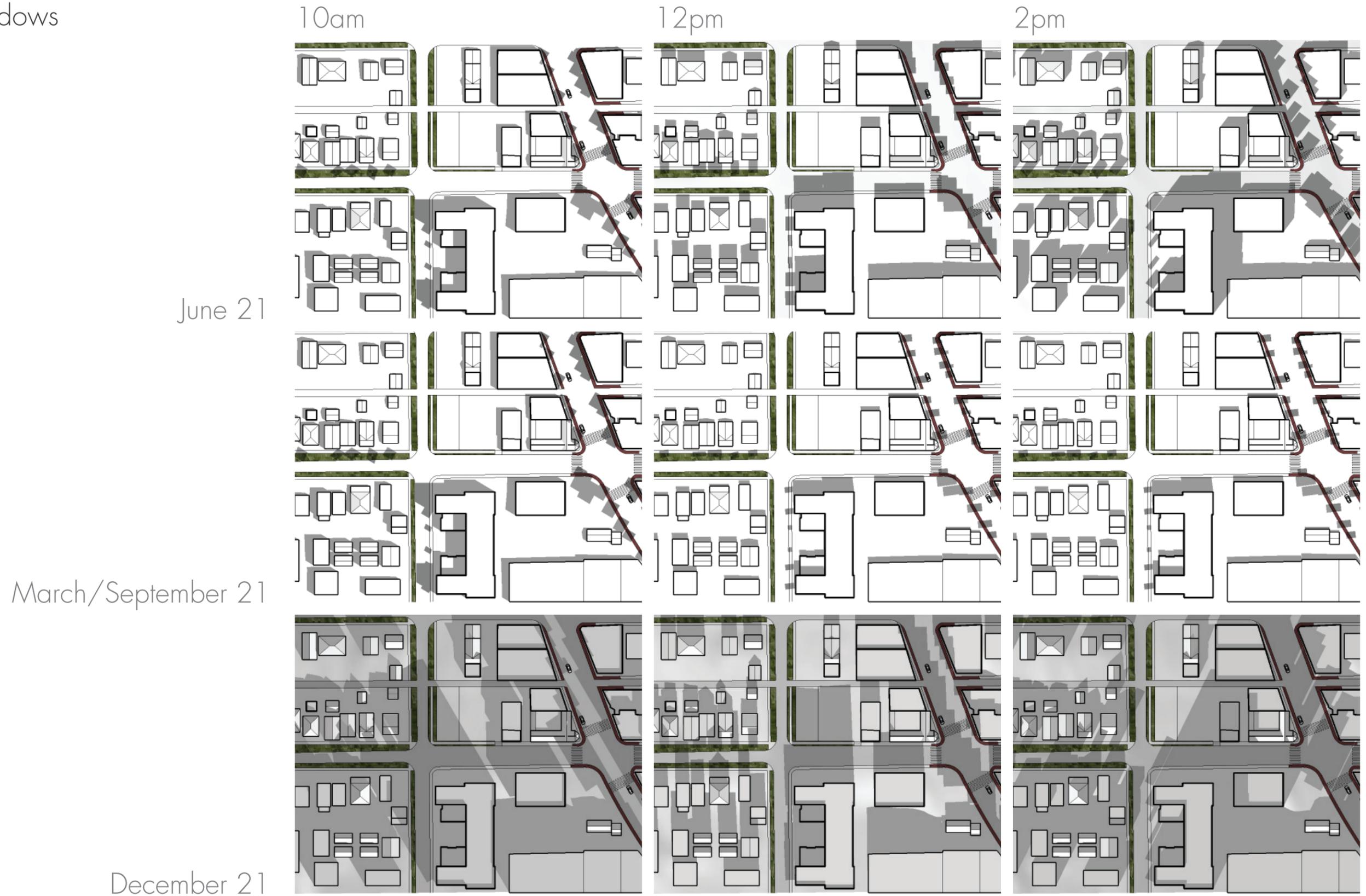


⑫ Looking West from Adjacent Parking Lot

- Summer Sun/Wind Path
- Winter Sun/Wind Path



Existing Shadows



June 21

March/September 21

December 21

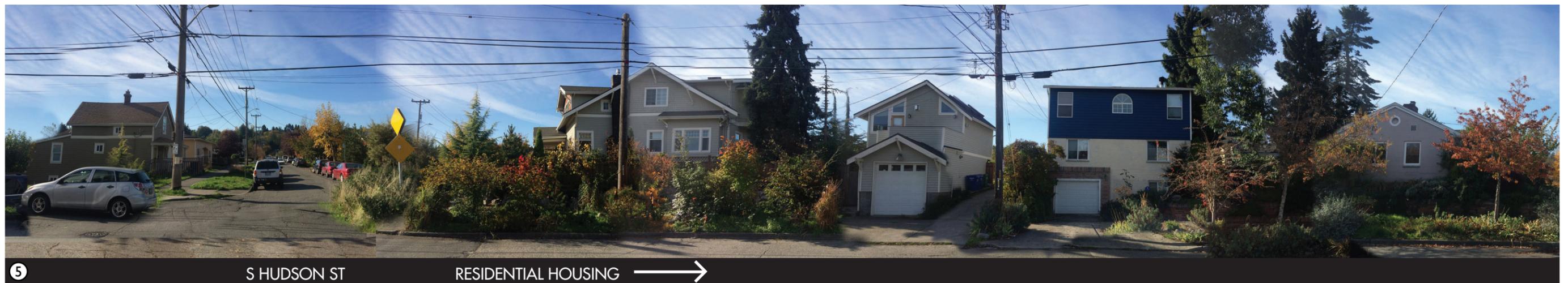
# Site Analysis

## Streetscape Montage



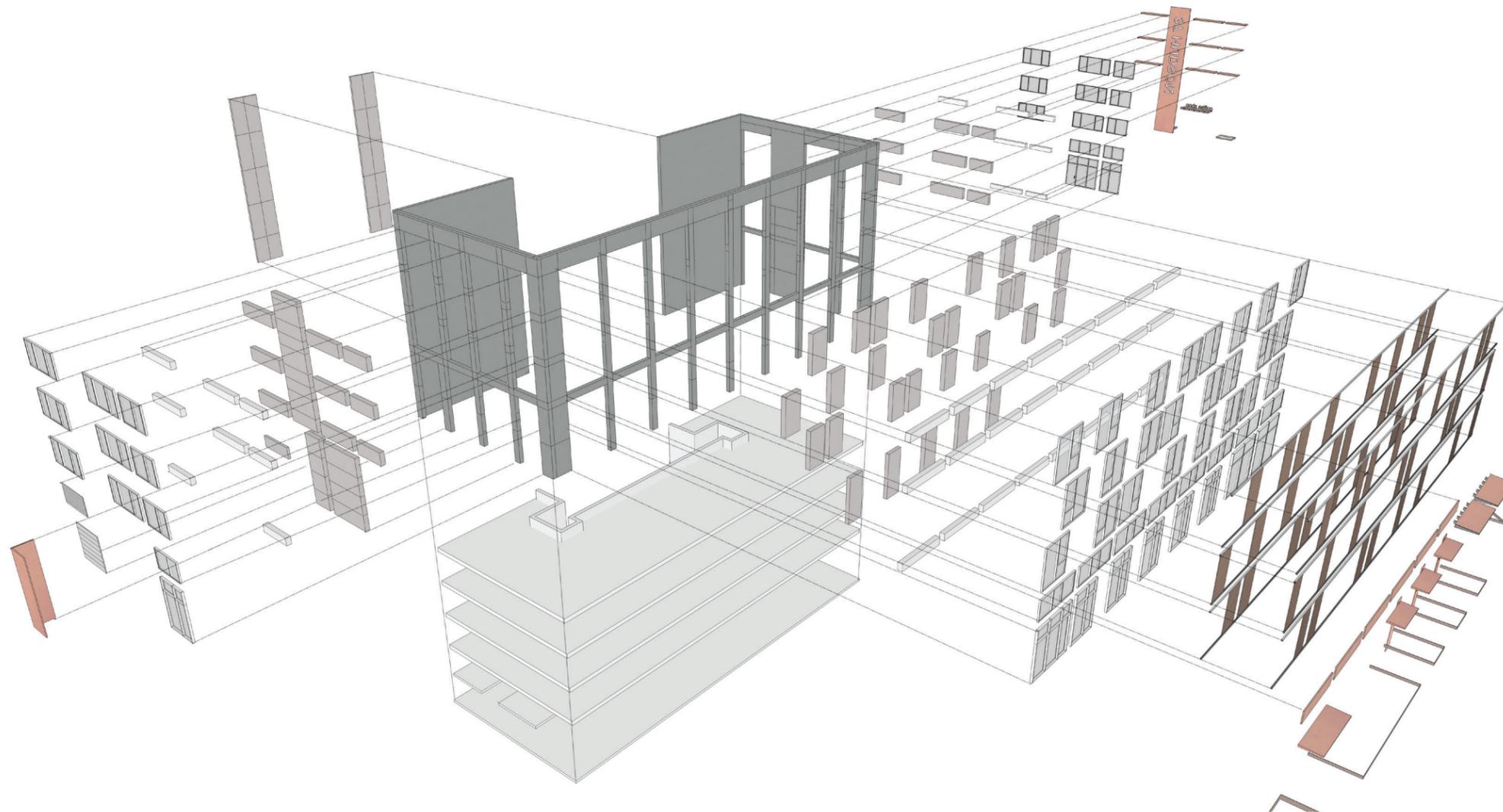
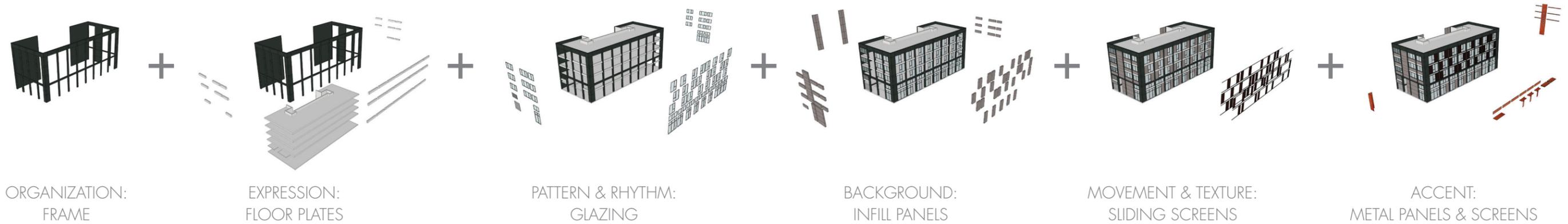
# Site Analysis

## Streetscape Montage



# Design Proposal

## Design Concept: Layered Grids



The building is designed as a simple massing to meet the high-performance goals of Passive House. The inner courtyard is an active circulation and gathering space that allows for cross-ventilation of units. The base of the building is differentiated with high transparency, metal accents, and outdoor sitting areas to create an active environment with pedestrian amenities.

A dark frame provides the primary organizing element of the building to express the individual dwelling units, establish a consistent rhythm, and provide continuity on all facades. A secondary organizing element, expressed floor plates, introduces horizontality and proportion.

Each facade provides a unique response to its solar orientation by utilizing a common set of elements: glazing, infill panels, wood screens, and metal shading devices. Set within the organizing framework, the playful arrangement of this kit of parts creates a layered grid of pattern and movement. This active facade engages the neighborhood and responds to the environment.

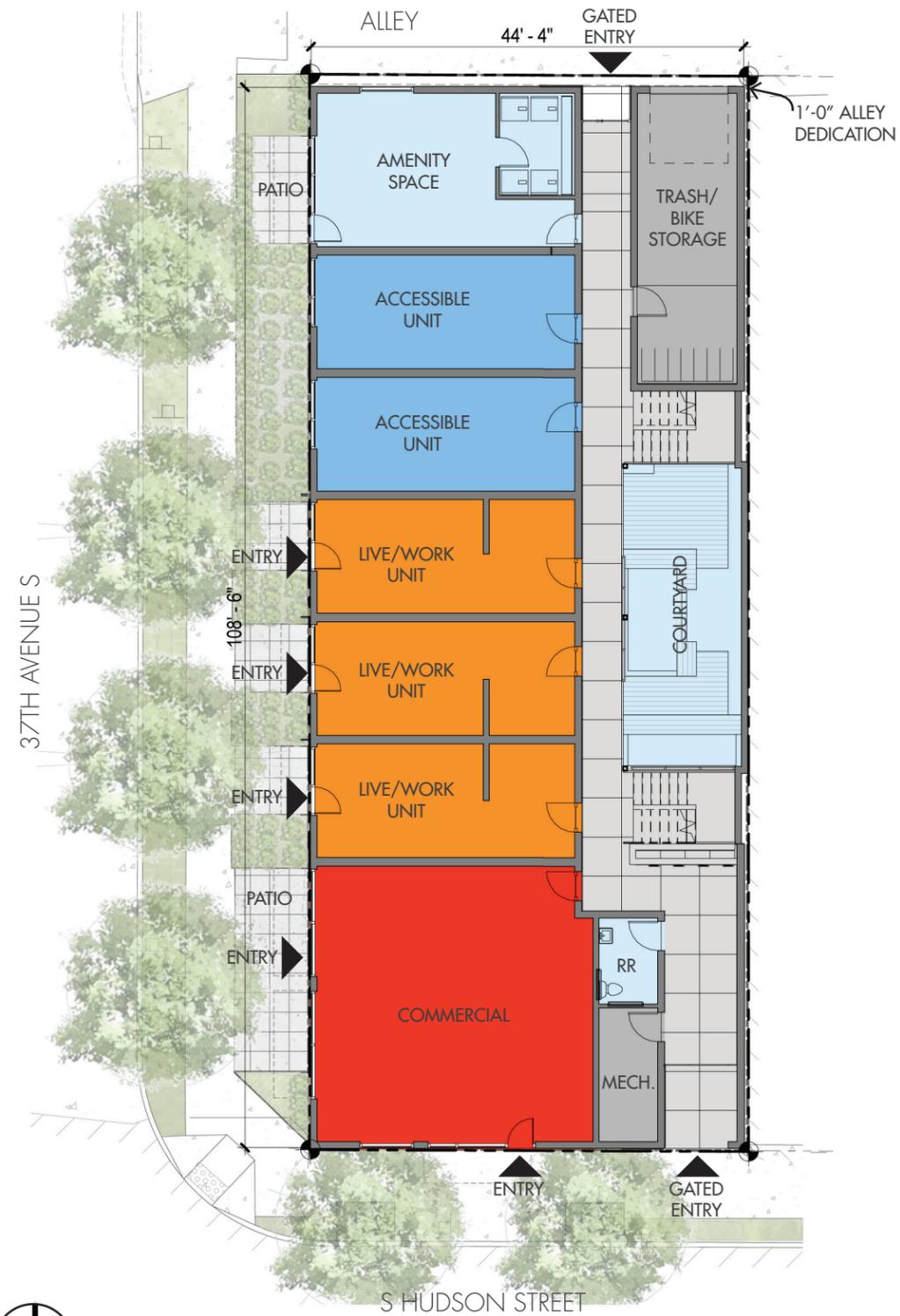


SE Corner Perspective

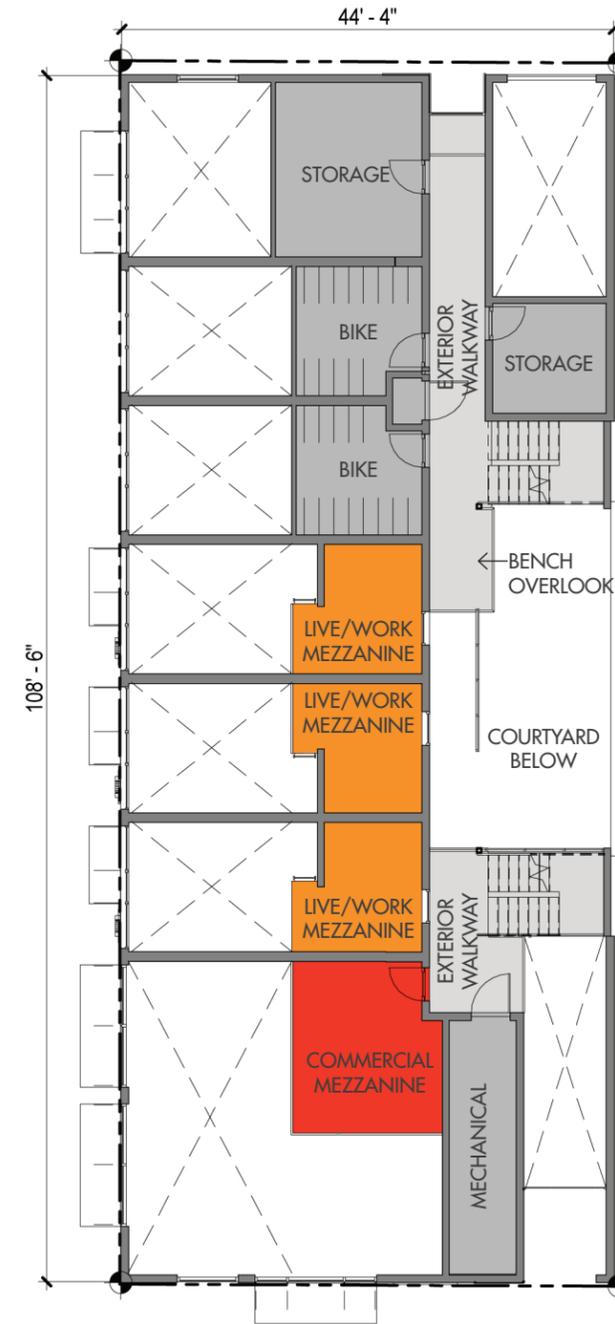


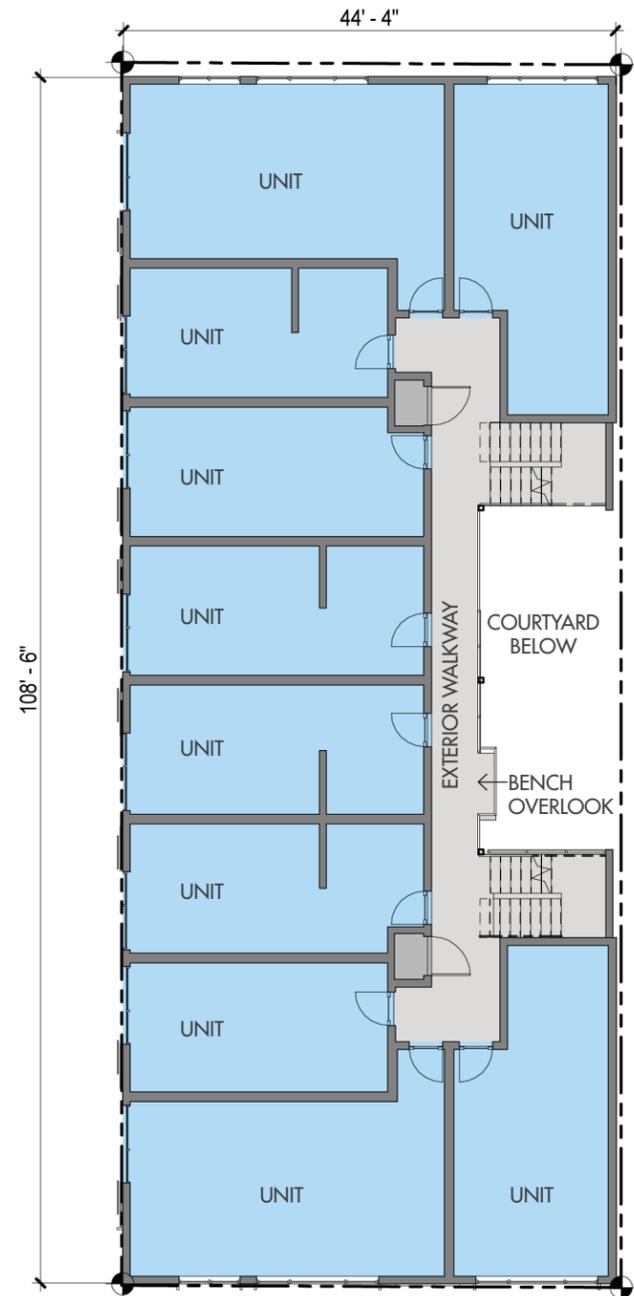
NW Corner Perspective



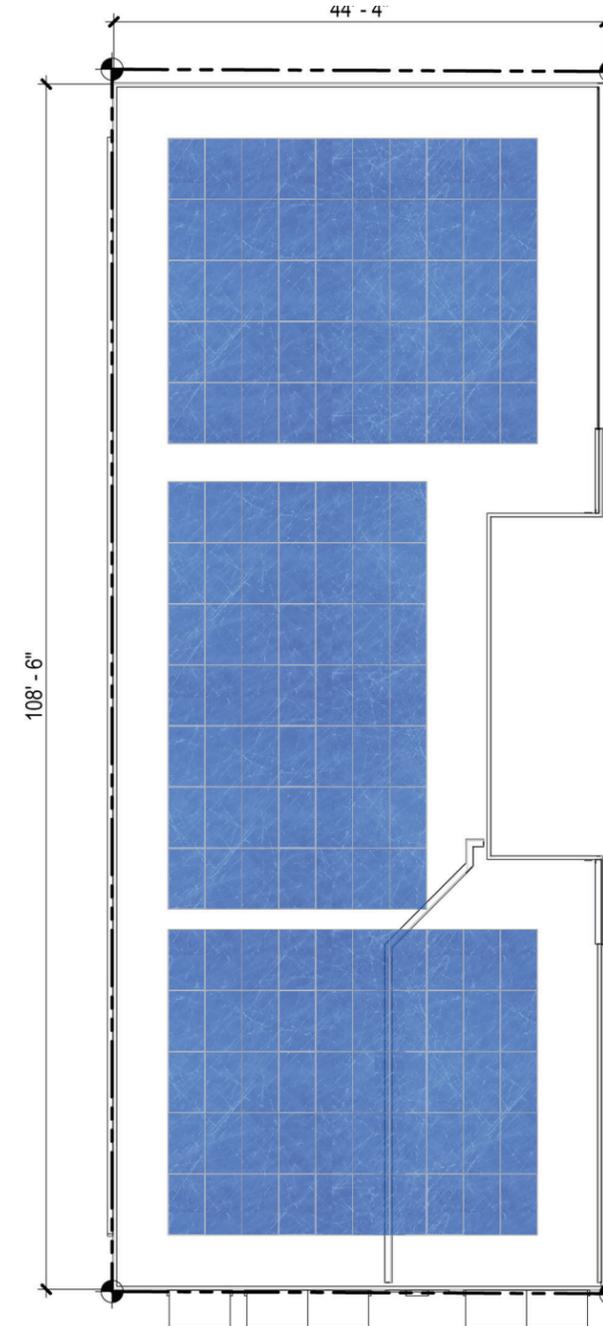


LEVEL 1





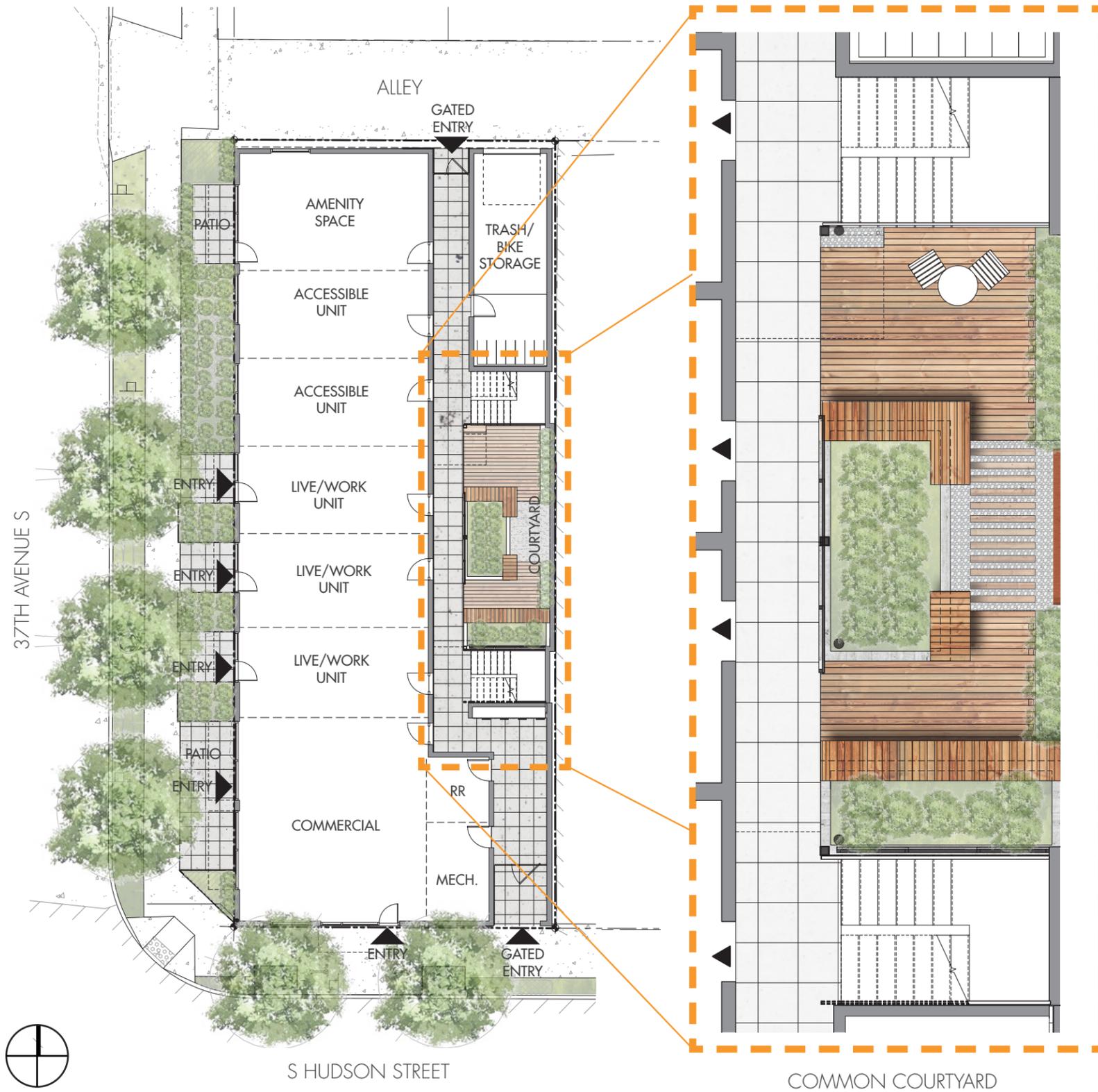
LEVELS 2-4



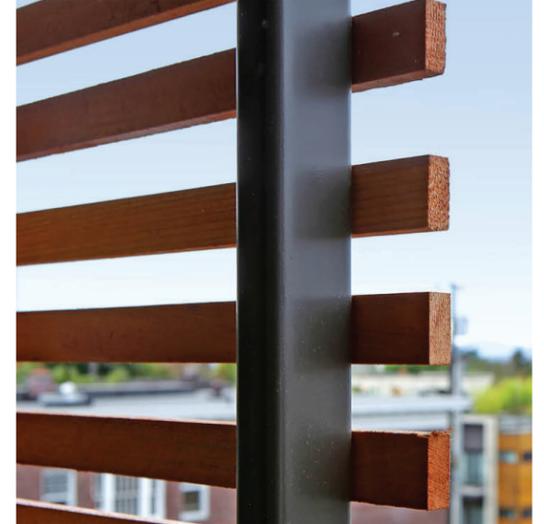
ROOF

# Design Proposal

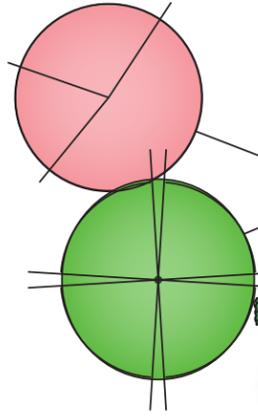
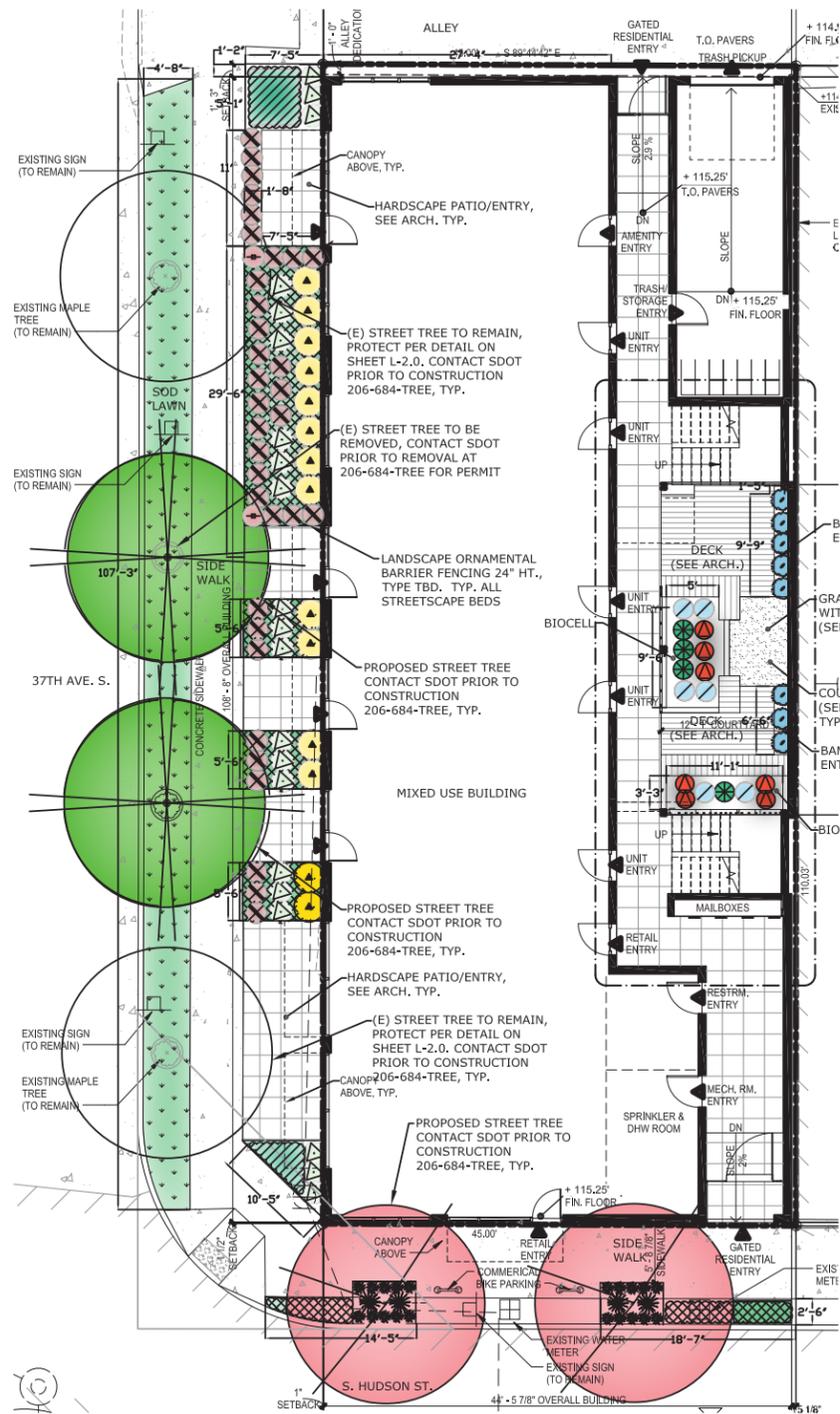
## Site Plan



INSPIRATION IMAGES







### PLANT SCHEDULE

BOTANICAL NAME	COMMON NAME	SIZE	COMMENTS
<b>TREES</b>			
<i>Quercus robur</i> x <i>bicolor</i> 'Long' ('street tree)	Regal Price Oak	2" Cal. Min.	(DT)
<i>Ulmus frontier</i> ('street tree)	Frontier Elm	2" Cal. Min.	(DT)
*Street Trees Approved Per Bill Ames 2/18/16*			
<b>SHRUBS &amp; GROUNDCOVERS</b>			
<i>Arctostaphylos uva-ursi</i> 'Vancouver Jade'	Vancouver Jade Hinnhinich	1 Gal.	(DT) 24" o.c. spacing
<i>Chimonobambusa marmorea</i>	Marbled Bamboo	5 Gal.	(DT)
<i>Cornus sericea</i> 'Helseyi'	Helseyi Redtwig Dogwood	2 Gal.	(B, DT)
<i>Equisetum hyemale</i>	Horsetail	1 Gal.	(B, DT)
<i>Liriope muscari</i> 'Silvery Sunproof'	Silvery Sunproof Liriope	1 Gal.	(DT) 24" o.c. spacing
<i>Lonicera nitida</i> 'Baggeson's Gold'	Baggeson's Gold Honeysuckle	5 Gal.	(DT)
<i>Hakonechloa macro</i> 'Aureola'	Golden Forest Grass	1 Gal.	(DT)
<i>Juncus patens</i> 'Elk Blue'	Elk Blue Rush	2 Gal.	(B, DT)
<i>Nandina domestica</i> 'Tuscan Flame'	Tuscan Flame Heavenly Bamboo	5 Gal.	(DT)
<i>Pennisetum alopecuroides</i> 'Hameln'	Dwarf Fountain Grass	2 Gal.	(DT)
<i>Phormium</i> 'Jack Spratt'	Jack Spratt NZ Flax	5 Gal.	(DT)
<i>Pieris japonica</i> 'Little Heath'	Little Heath Pieris	5 Gal.	(DT)
		B= Biocell	
		DT= Drought Tolerant	

Landscape Materials



REGAL PRINCE OAK



FRONTIER ELM



VANCOUVER JADE KINNIKINICK



ELK BLUE RUSH



DWARF FOUNTAIN GRASS



HORSETAIL



JAPANESE FOREST GRASS



JACK SPRATT NEW ZEALAND FLAX



TUSCAN FLAME NANDINA



SILVERY SUNPROOF LIRIOPE



LITTLE HEATH PIERIS



BAGGESON'S GOLD HONEYSUCKLE

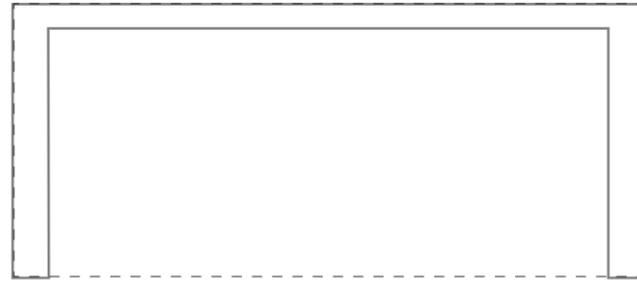


MARBLED BAMBOO

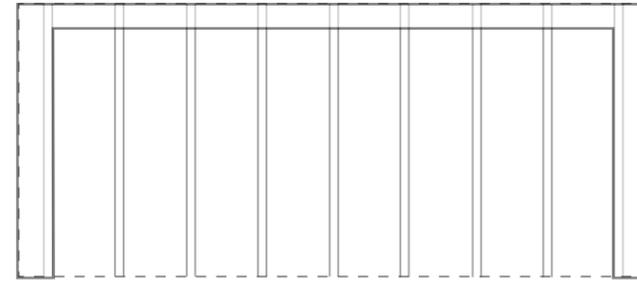
Elevation Development



WEST ELEVATION ENVELOPE



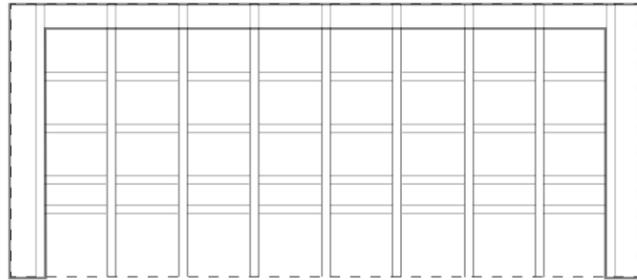
FRAME



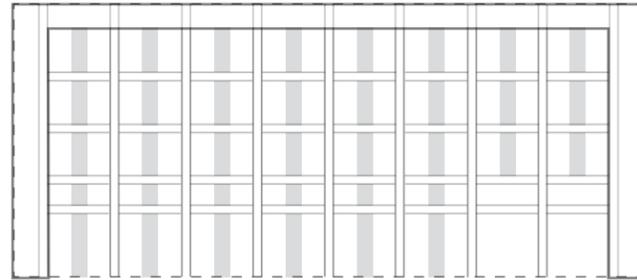
MAJOR REGULATING GRID

Layered Grids

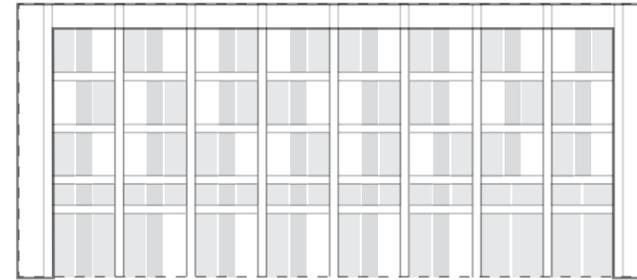
The elevations are designed as a sequence of layered grids within the primary frame. The regulating grids and major window grid develop an ordered facade. On the west facade, the playful layering of the minor window grid and panel grids add pattern and movement. The resulting facade has limitless configurations and the ability to respond to solar conditions, privacy, and user preference.



MINOR REGULATING GRID

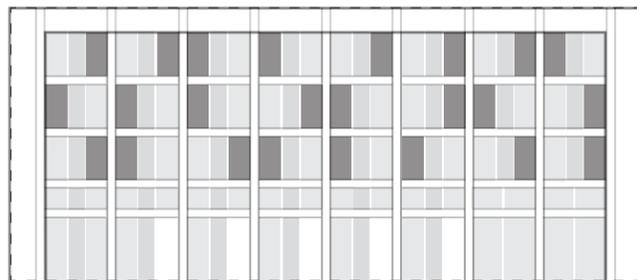


MAJOR WINDOW GRID

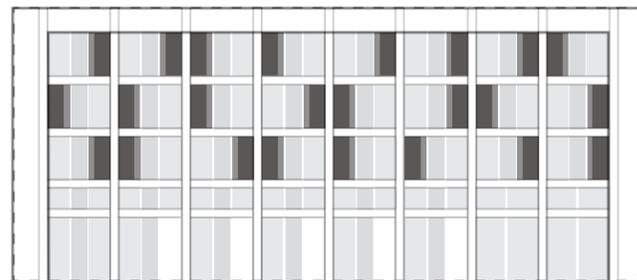


MINOR WINDOW GRID

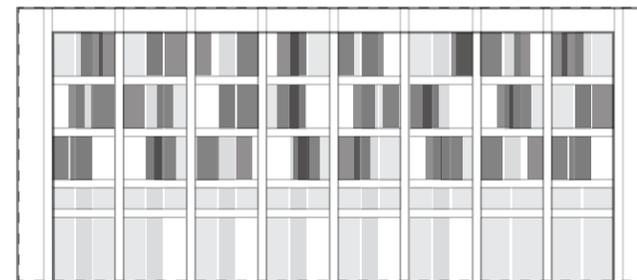
The material palette was chosen to emphasize the layered grid concept of the building. The primary framing element and "columns" at the party walls are contrasted with the expressed floor plates. Gray cementitious panels provide a neutral background to highlight the metal accents and warm wood tones of the sliding and fixed screen elements. This layering of elements creates a rich facade on the simple building massing.



MAJOR PANEL GRID

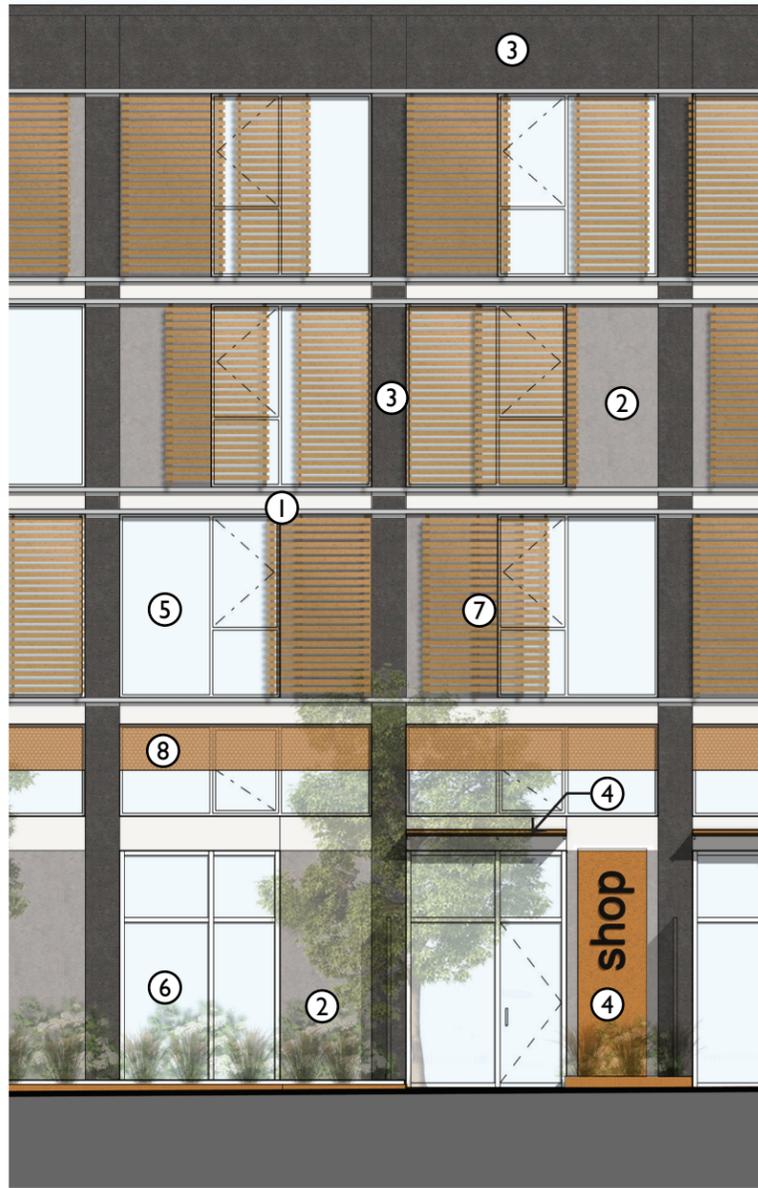


MINOR PANEL GRID



MOVEMENT THROUGH PANEL OPERABILITY

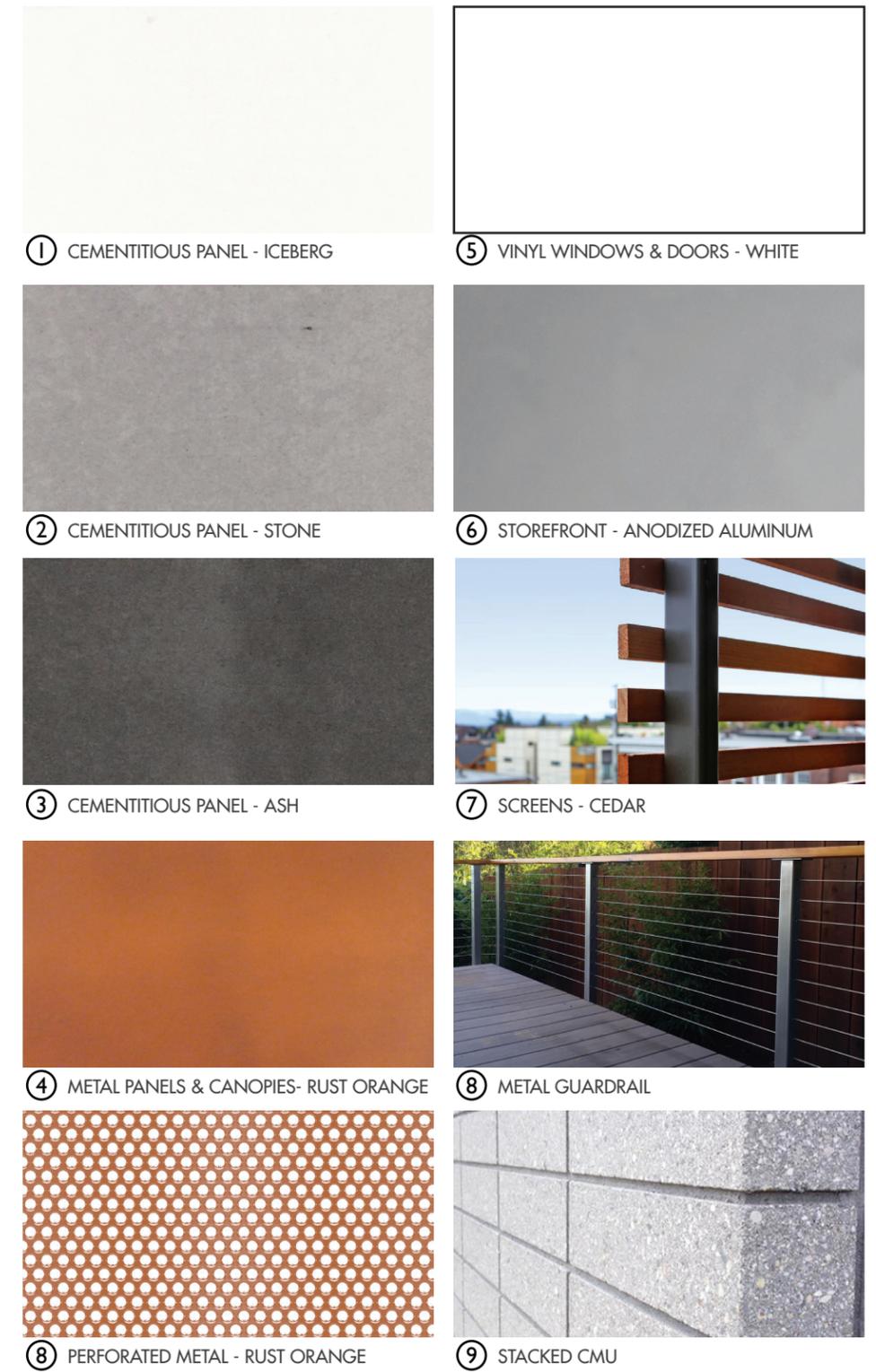
Material Palette



PARTIAL WEST ELEVATION



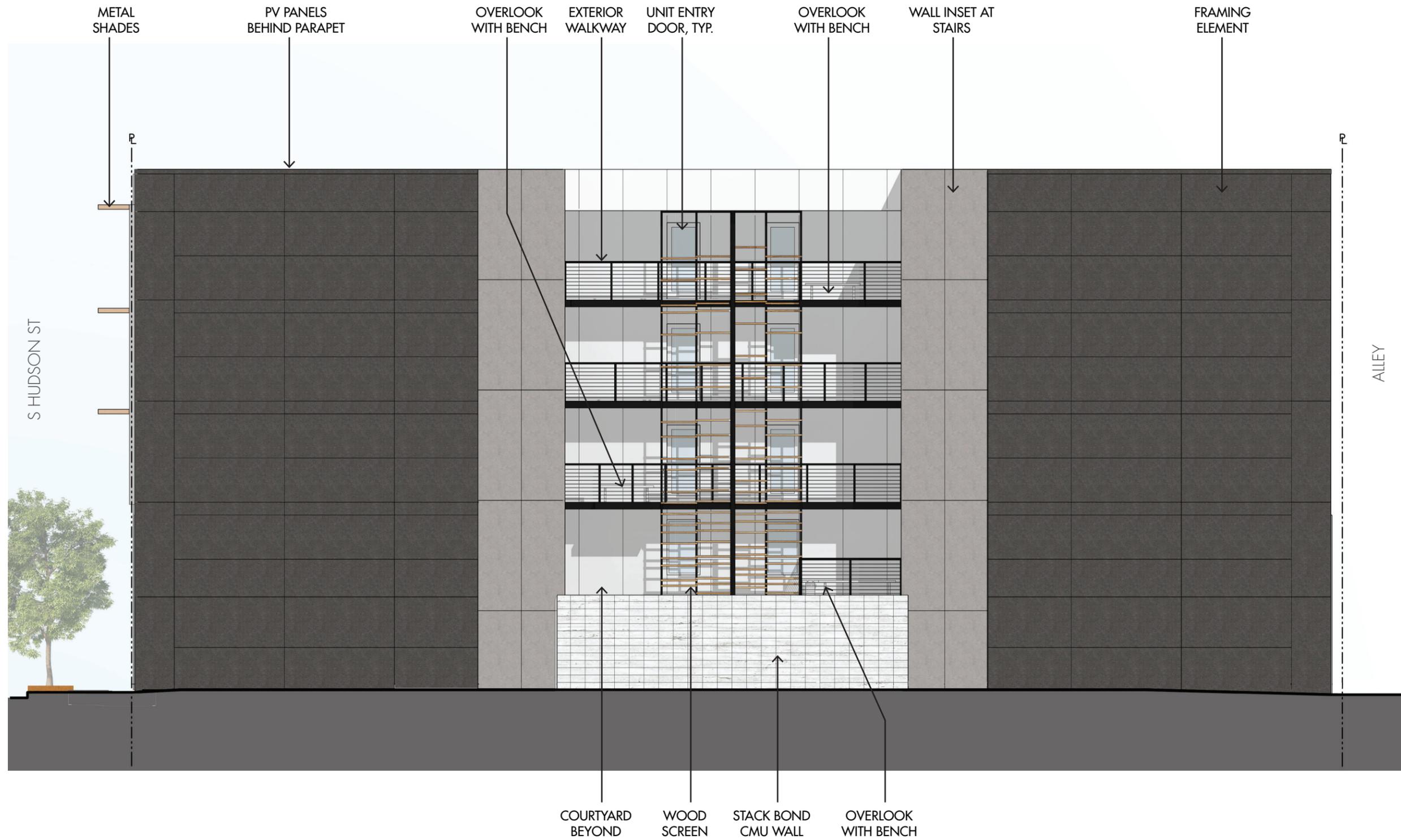
PARTIAL EAST ELEVATION







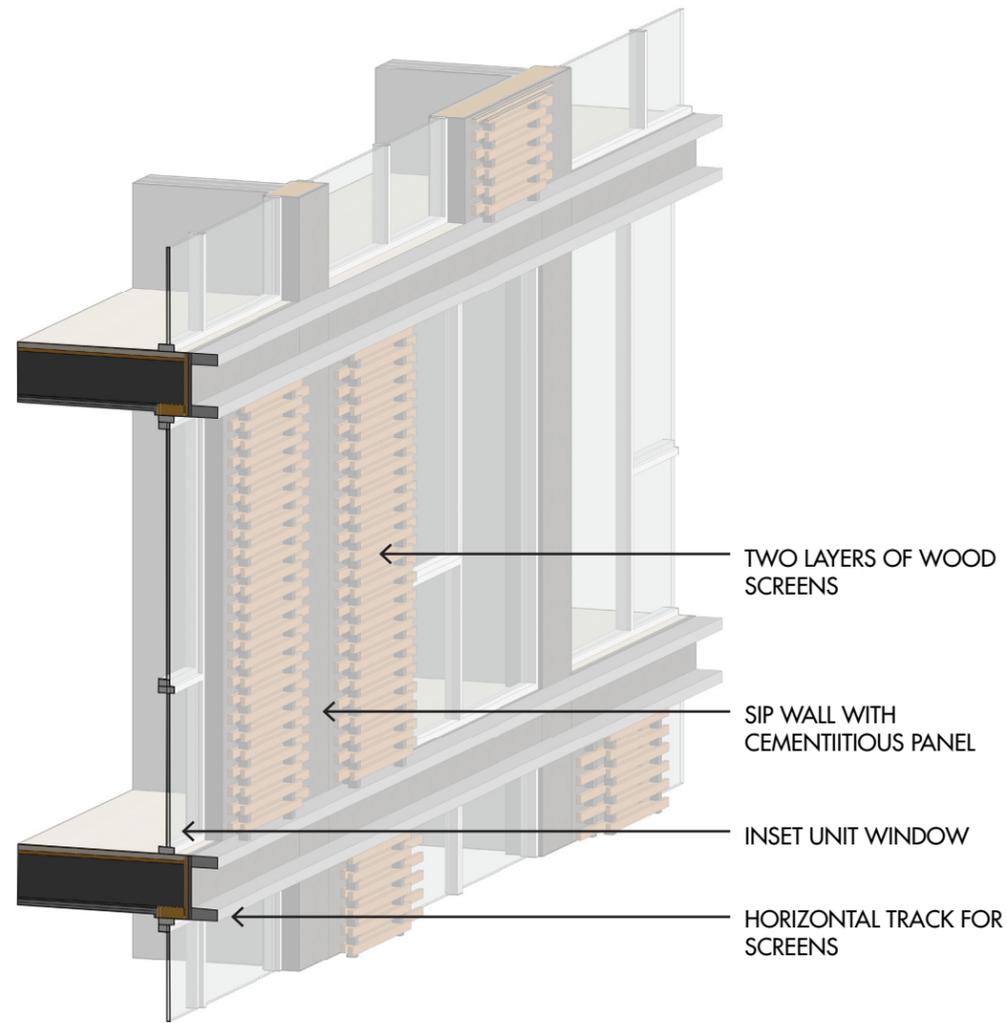
East Elevation





## Sliding Screen Concept

The sliding screens on the west facade play an integral role in creating an active facade to establish building identity and enhance performance. The screens allow residents to respond to changes in time of day, season, and privacy needs. Constructed of horizontal wood slats, the screens also had texture, warmth, and detail to the façade. Two layers of screens are designated for each unit to add depth to the facade and increase the configuration possibilities. Set within a regularized framework, the movement of the screens results in endless façade compositions. In resting position, the screens layer on top of a neutral cementitious panel. In active positions, they are able to slide past one another to layer over the windows. Wood screening is a cohesive design element that defines residential spaces throughout the building including the main tenant entry and in the courtyard.



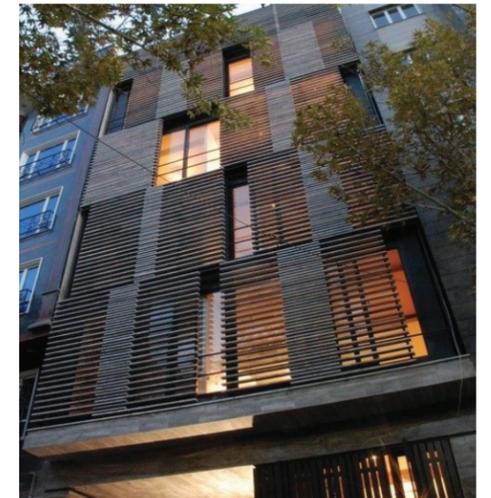
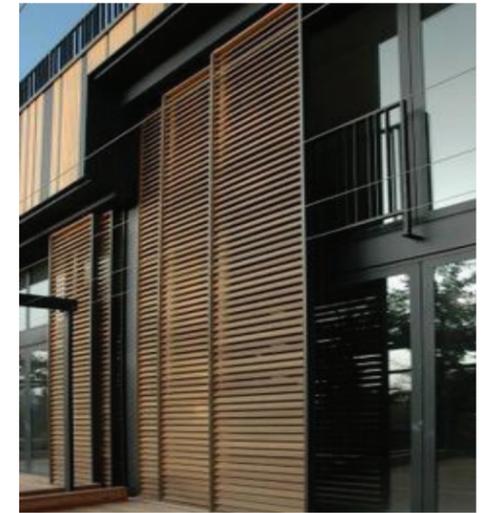
WEST FACADE WALL SECTION

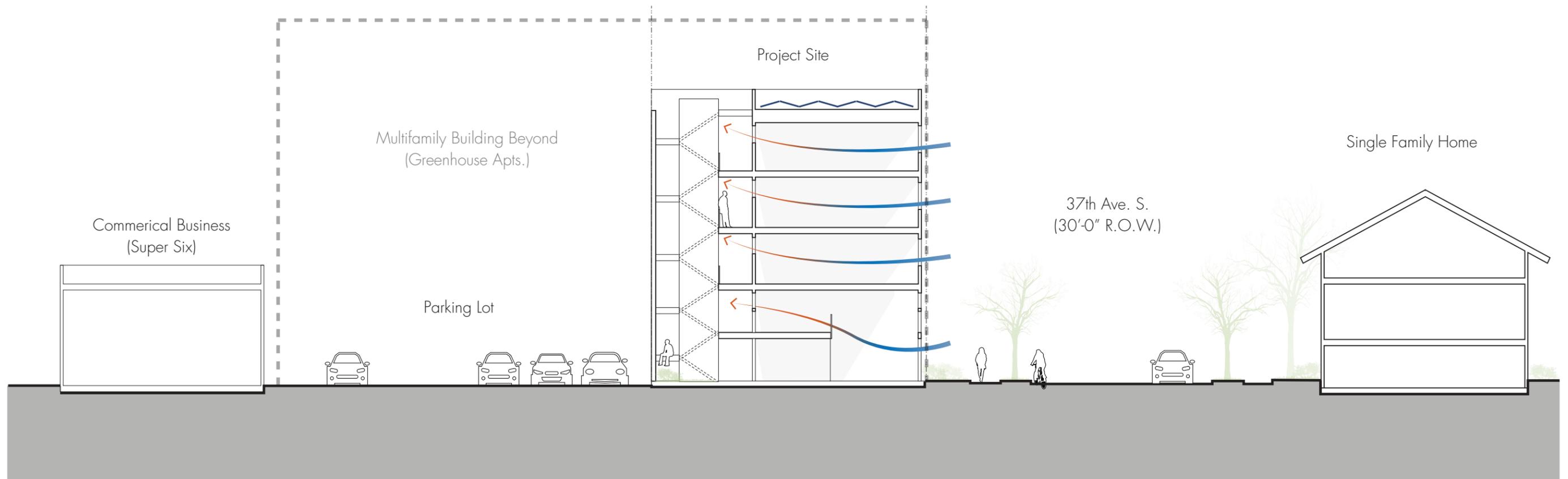


STUDY: WOOD SCREENS RESTING [MORNING/WINTER]

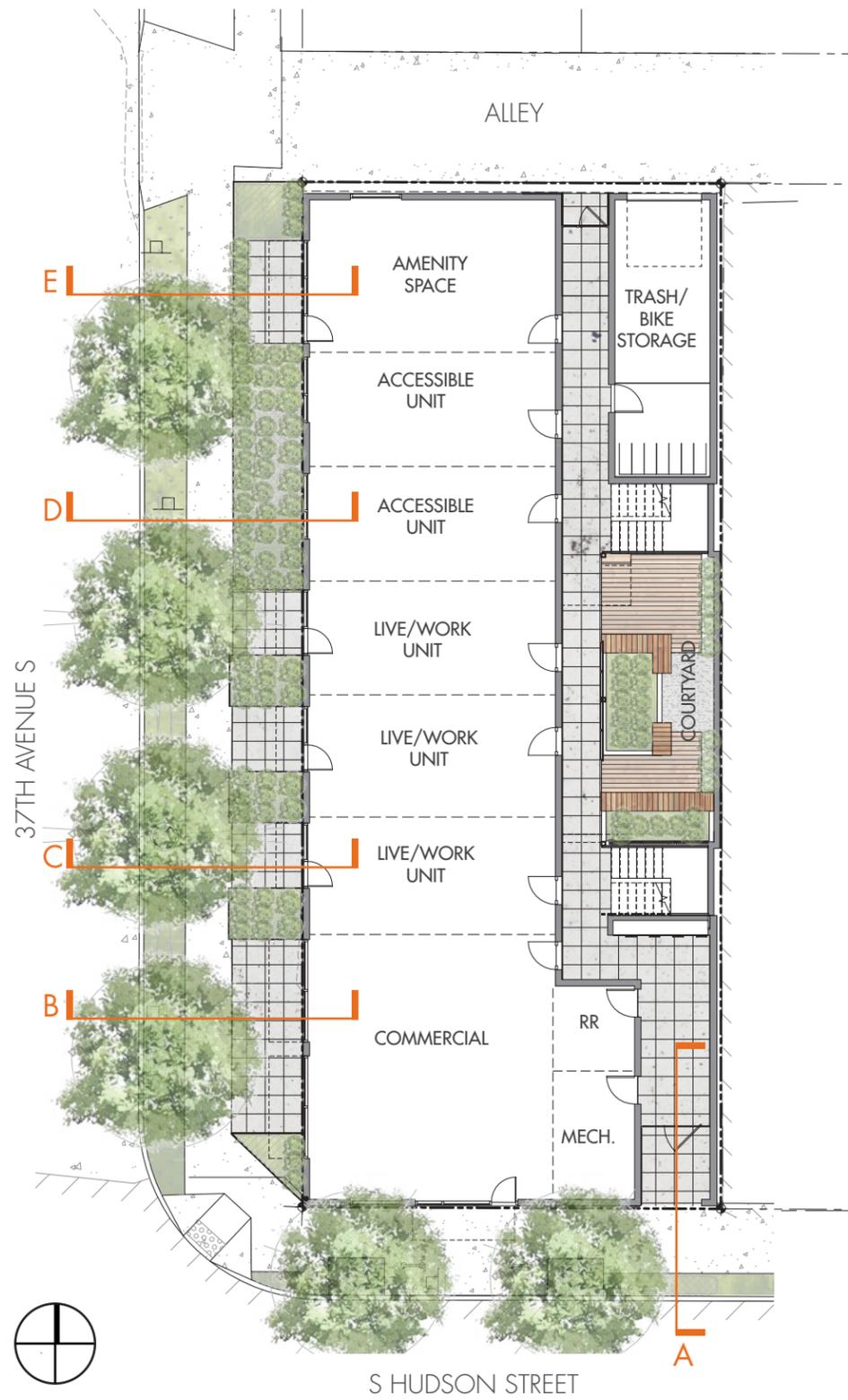


STUDY: WOOD SCREENS IN-USE [EVENING/SUMMER]





Streetscape Sections



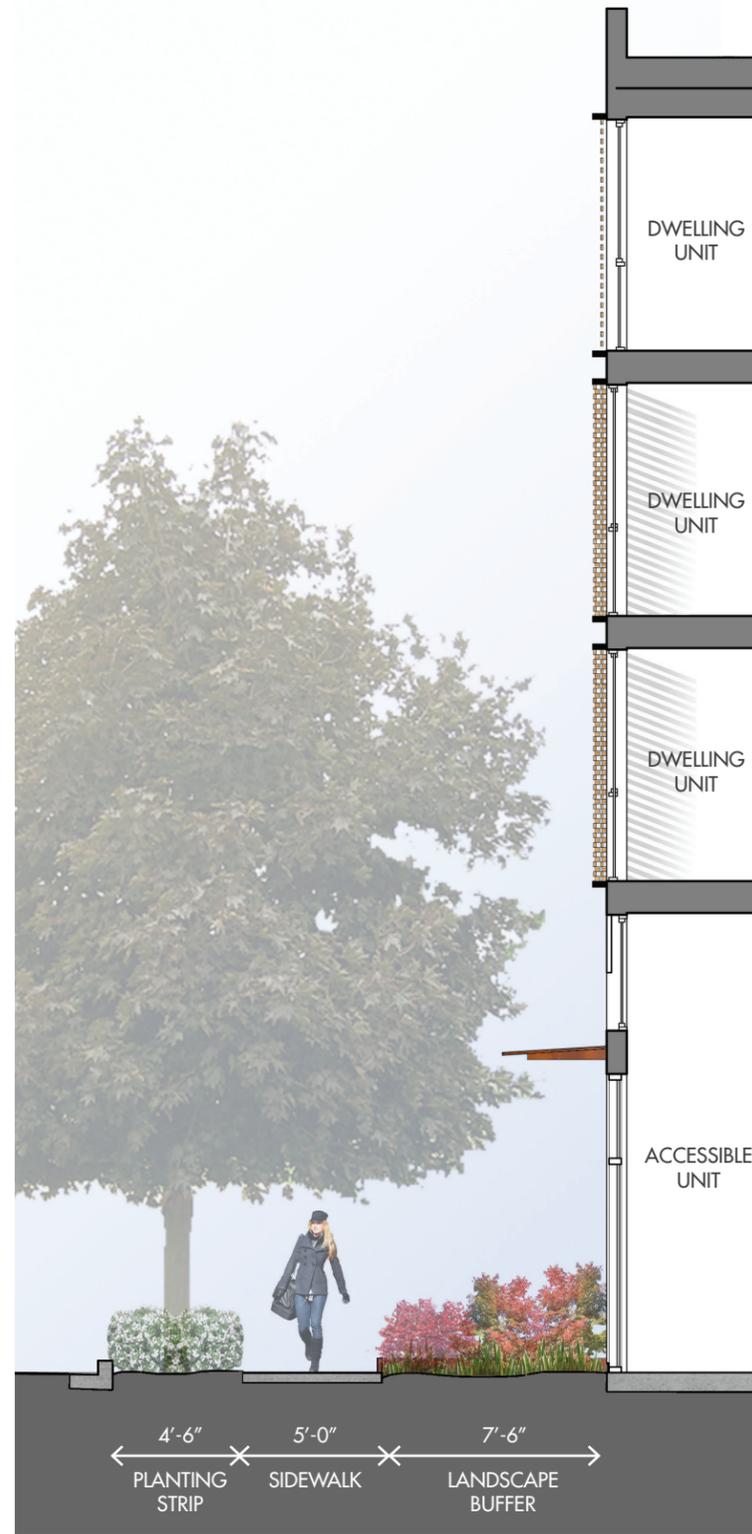
SECTION A: MAIN RESIDENTIAL ENTRY GATE



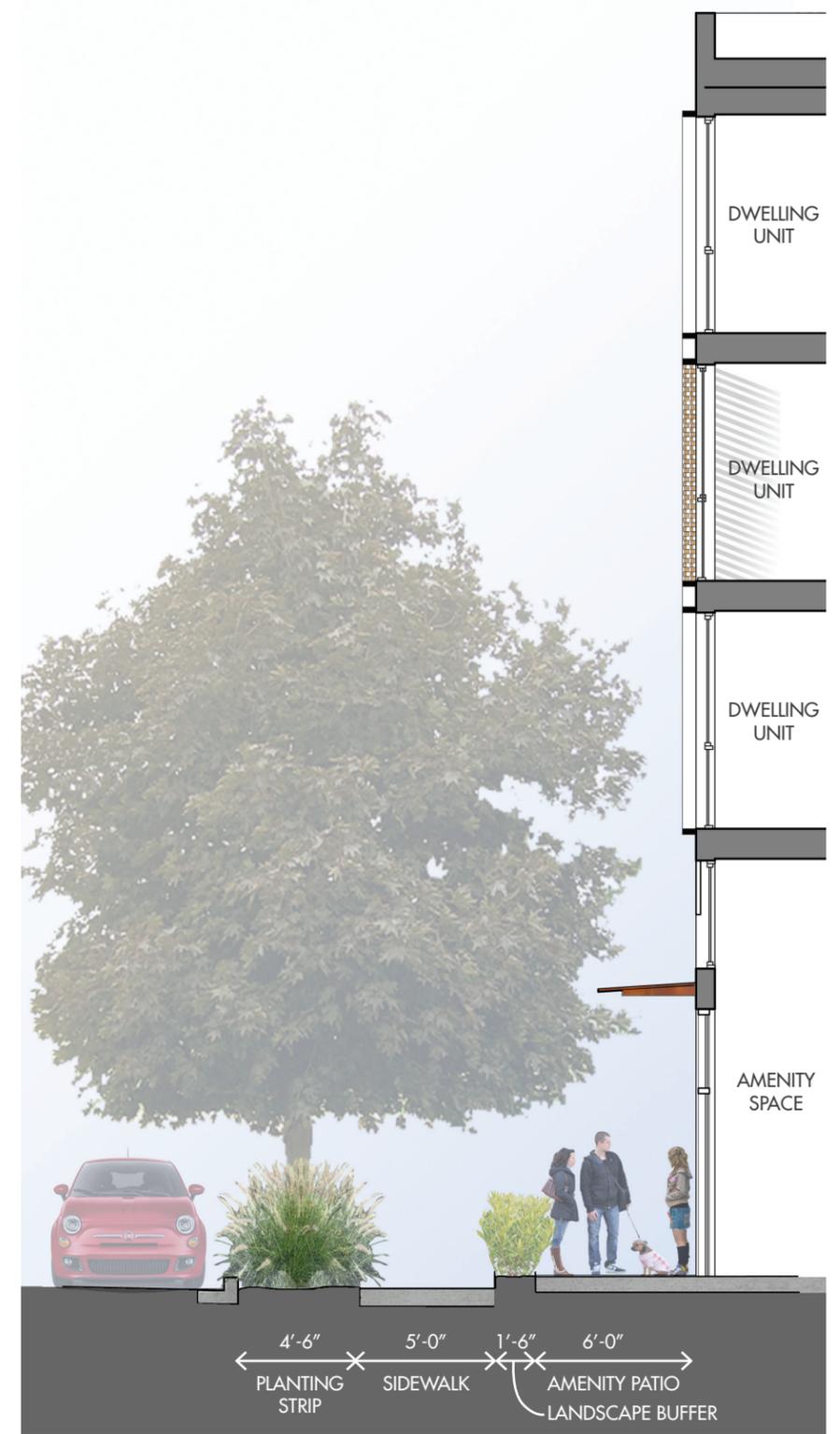
SECTION B: RETAIL PATIO



SECTION C: LIVE/WORK ENTRY

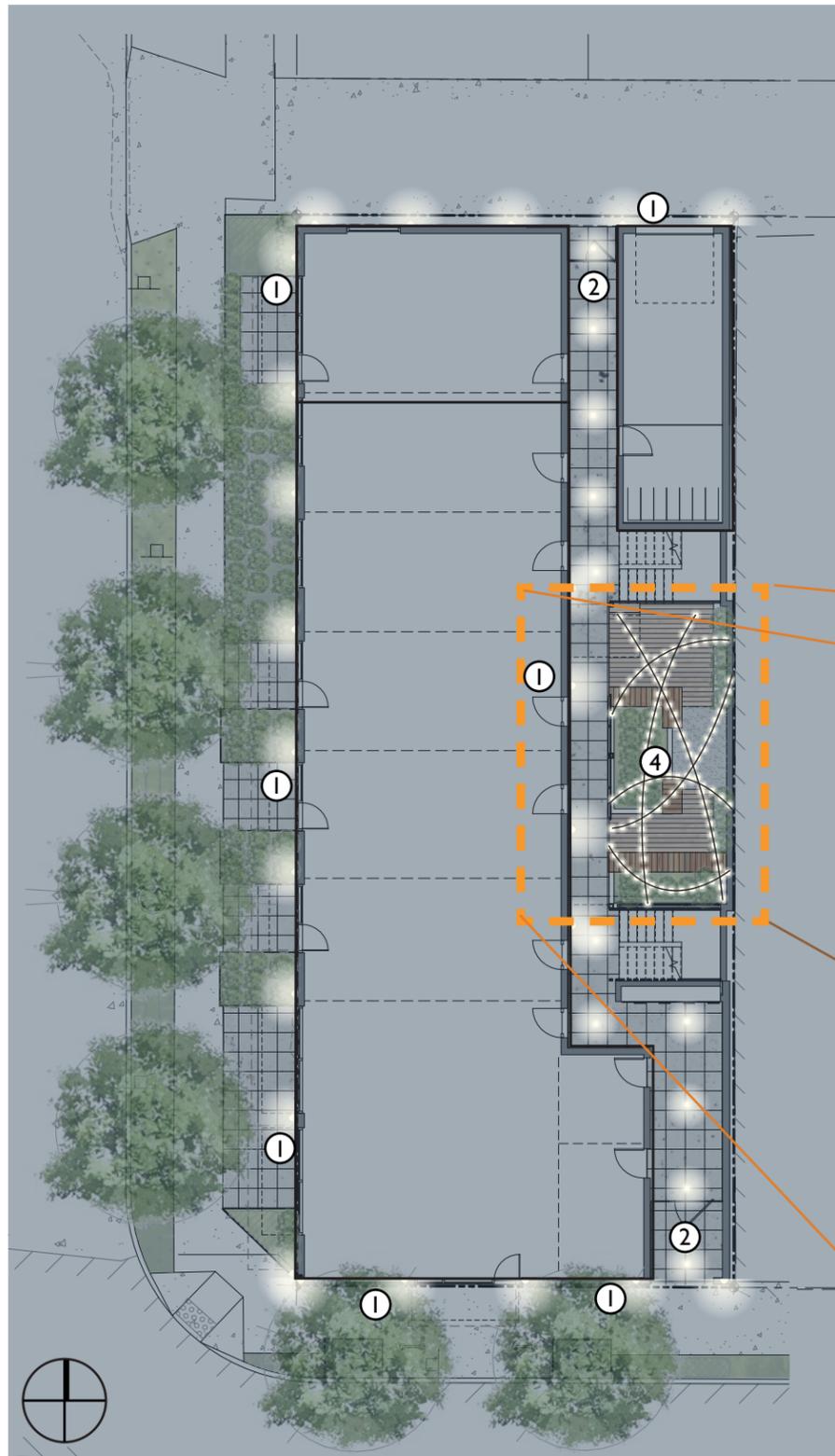


SECTION D: ACCESSIBLE UNIT BUFFER



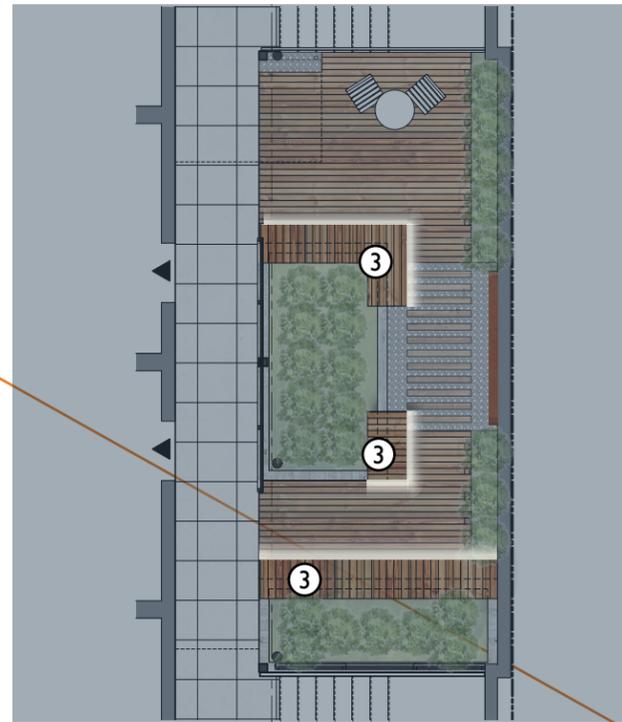
SECTION E: AMENITY SPACE PATIO

Lighting Concept Plan



**Lighting Concept**

The proposed lighting scheme will include sconce lighting at each "column" to highlight the rhythm of the building facades. Soffit lighting will emphasize the residential entries to create a well-lit area for safety and security. In the courtyard, bench lighting will highlight the landscape features and cable lighting will be used to add character and enliven the outdoor room. Sconce lighting at unit doors along the courtyard will mark the individual entries.



COMMON COURTYARD

INSPIRATION IMAGES

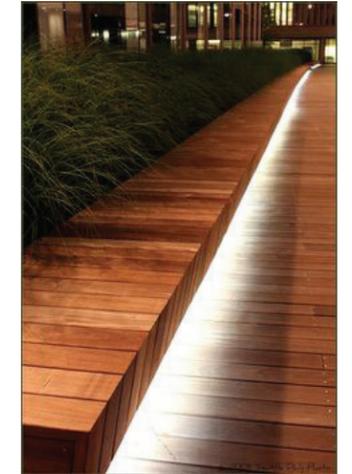
① SCONCE LIGHTING



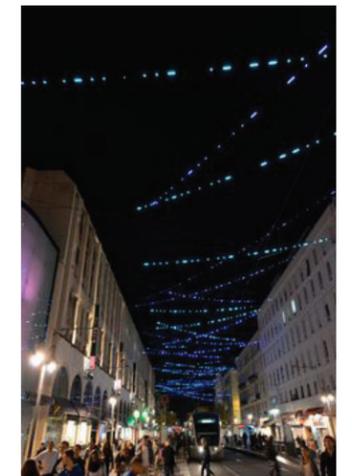
② RECESSED LIGHTING



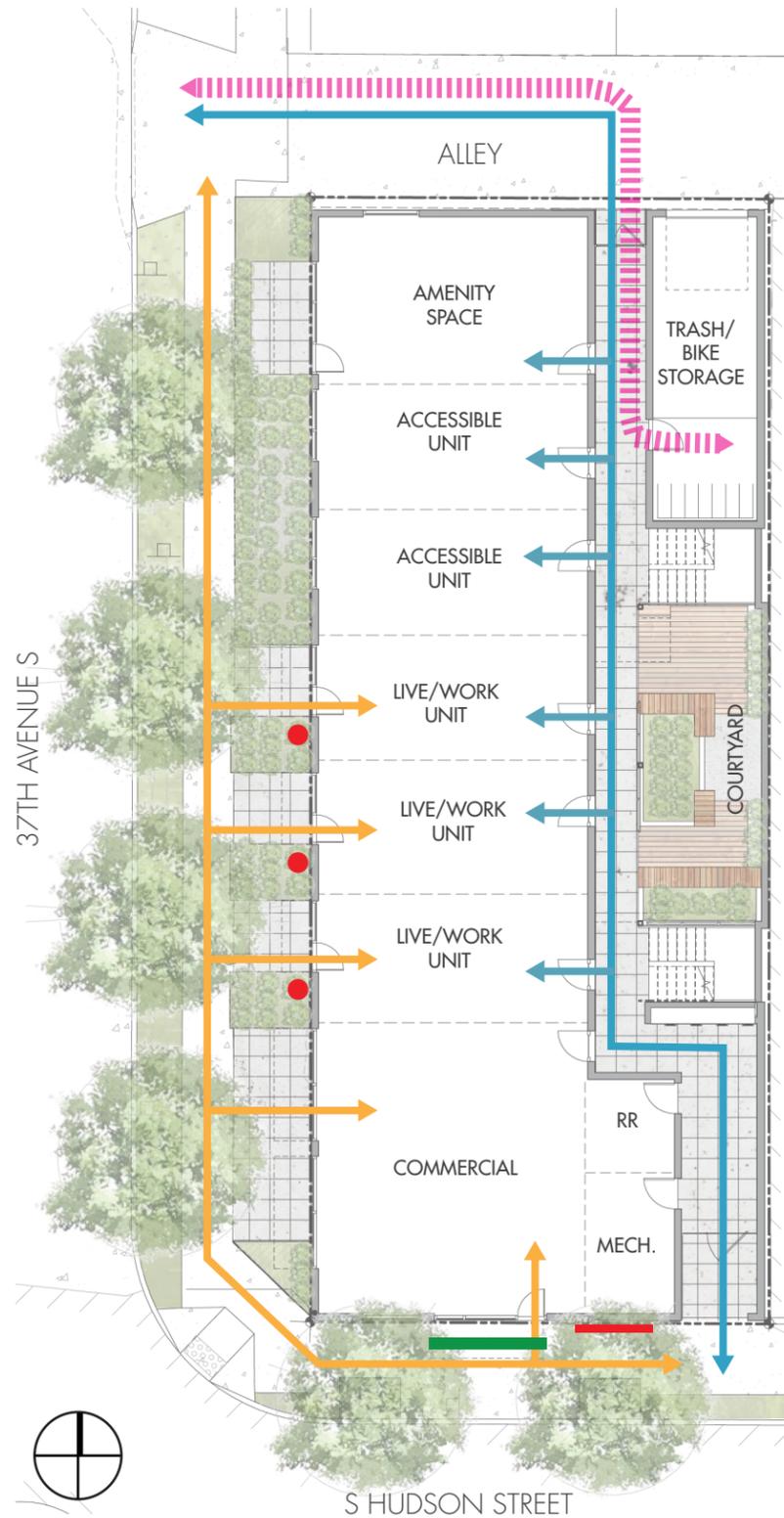
③ PLANTER LIGHTING



④ CABLE LIGHTING



Signage Concept Plan



Signage Concept

The proposed signage scheme will use metal accent panels as a consistent material for signage. Both the live-work signage and the main building signage will be layered over metal accent panels adjacent to the entries. The metal accents are a cohesive design element employed around the base of the building. The corner commercial space will employ canopy signage over the primary retail entry on S. Hudson Street to be more visible from passersby on Rainier Avenue S.

KEY

- COMMERCIAL CIRCULATION
- TENANT CIRCULATION
- BIKE STORAGE ACCESS
- LIVE/WORK USE SIGNAGE
- CANOPY SIGNAGE
- MAIN BUILDING SIGNAGE



BUILDING SIGNAGE OPTION #1 (PREFERRED)  
METAL ACCENT PANEL WITH SIGNAGE ON STANDOFFS



BUILDING SIGNAGE OPTION #2  
CANOPY SIGNAGE WITH PATTERNED METAL ACCENT PANEL



LIVE WORK SIGNAGE OPTION #1 (PREFERRED)  
METAL ACCENT PANEL W/ SIGNAGE ON STANDOFFS



LIVE WORK SIGNAGE OPTION #2  
BLADE SIGNAGE WITH WOOD ACCENT PANEL



LIVE WORK SIGNAGE OPTION #3  
BLADE SIGNAGE WITH GREEN SCREENS



DESIGN OPTION #1: ROOFTOP PHOTOVOLTAIC PANELS WITH METAL SUNSHADES ON SOUTH FACADE



DESIGN OPTION #2: PHOTOVOLTAIC SUN SHADES ON SOUTH AND WEST FACADES

### Photovoltaic Panel Concepts

The design team is seeking approval for two photovoltaic panel options. The first option includes a rooftop solar array with metal sunshades on the south facade. The rooftop array is concealed behind the building parapet. This option is consistent with the proposed design presented elsewhere in the packet. The second option includes photovoltaic sunshades on the south and west facade in lieu of or in addition to the rooftop photovoltaic panels pending financial feasibility. The photovoltaic sun shades provide renewable on-site energy, additional shading to unit windows, and demonstrate the building's high performance goals. The unit windows have been designed to match typical photovoltaic module sizes to fully integrate with the building design.



EXAMPLES OF PHOTOVOLTAIC SUN SHADES

# Priority Design Guidelines

## Context and Site

### CS1 Natural Systems and Site Features

#### CS1-B Sunlight and Natural Ventilation

##### CS1-B-1 Sun and Wind:

Consistent with the project goal of a high-performance Passive House project, the proposed building will use significantly less energy compared to a standard code building. Passive house strategies will be employed including continuous insulation, an airtight layer to prevent infiltration of outside air and loss of conditioned air, high performance windows, and a continuous balanced heat and moisture recovery ventilation system. Solar gain is also managed with shading devices on the west and south façade to exploit the sun's energy for heating purposes and to minimize it in cooling seasons. The west façade is activated by sliding shade screens to respond to the time of day, season, and user preference. The high performance windows along with the airtightness of the envelope will provide a more uniform interior temperature and a high level of comfort. The east-west orientation of the units and the open corridor on the west side of the building will provide natural cross ventilation for the units on each floor.

### CS2 Urban Pattern & Form

#### CS2-D Height, Bulk, Scale

##### CS2-D-3 Zone Transitions:

The site is currently on the edge of a Neighborhood Commercial zone in the Columbia City Urban Village. The zoning height limit for this building is 40 feet compared to 65 feet on the other side of South Hudson Street and 30 feet on the other side of 37th Avenue South. The height of this project built out to the zoning height creates a transition from the 65 foot zone to the south. As this area of the city, an Urban Village, becomes more urbanized, we expect that this scale of development with a pedestrian oriented street presence will become more common. Transition elements include: Street Trees, right-of-way plantings, entry walks, canopies, and seating areas.

## Public Life



### PL2 Walkability

#### PL2-B Safety and Security

##### PL2-B-3 Street Level Transparency:

The street level non-residential uses are designed to exceed the code required level of transparency and provide an opportunity for "eyes on the street". Residential entries on S. Hudson Street and the alley are designed as screened gated entries to provide views into and out of these spaces. The Amenity Room provides additional natural surveillance opportunities along 37th Avenue South and the alley.

### PL3 Street-Level Interaction

#### PL3-A Entries

##### PL3-A-2 Ensemble of Elements:

The project provides for an active engagement between the public and private realm with the interstitial zone of seating areas, walkways, canopies and landscape plantings between the sidewalk and the building enclosure. The residential entry is marked by wood accent panels and a wood gate within a recessed threshold space to provide a covered entry sequence. Canopies, signage, and metal accent panels define the live/work and commercial entries.

#### PL3-B Residential Edges

##### PL3-B-2 Ground Level Residential:

Landscape screening is provided at the two residential units to enhance privacy and security. These two units are designed without exterior door entries to increase physical separation from the sidewalk while allowing for "eyes on the street."

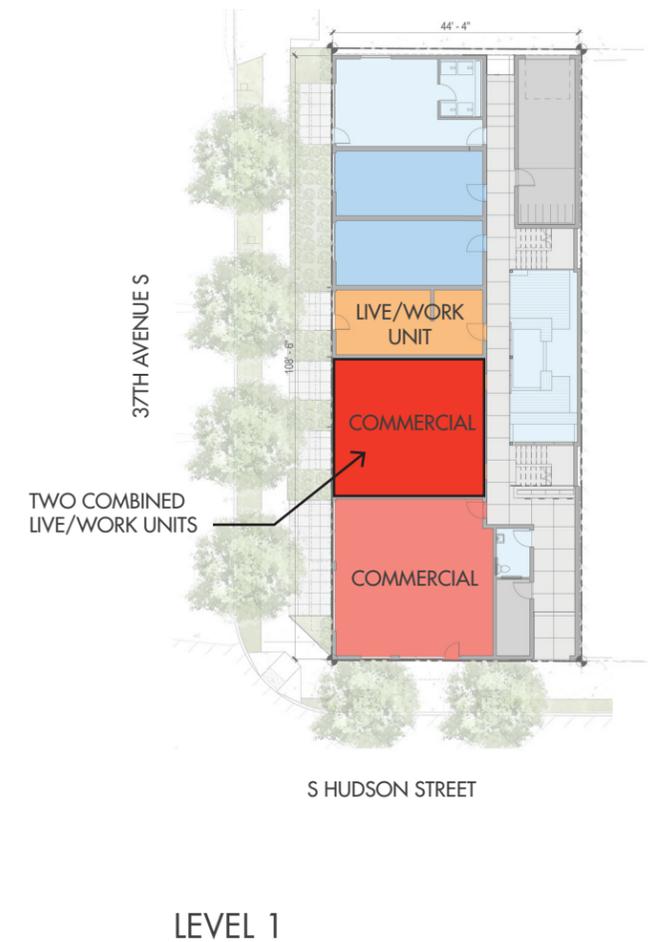
##### PL3-B-3 Buildings with Live Work Uses:

A combination of openness with large transparent storefront glazing and separation from the sidewalk creates a defined entry and identity to accommodate both Live and Work functions. The building structure is conceived to allow to allow for several non-residential spaces to be combined into larger retail facilities for future needs.

#### PL3-C Retail Edges

##### PL3-C-1 Porous Edge:

The proposed design has a primary retail entry at South Hudson and a secondary retail access from the interior out to the paved right-of-way in front of 37th Avenue South. The west side is a potential sitting area between the sidewalk and building enclosure that a future retail tenant can take advantage of through an SDOT permitting process. This area is prime outdoor seating with south and west solar exposure.



## Priority Design Guidelines

### Design Concept

#### [DC1 Project Uses & Activities](#)

##### [DC1-A Arrangement of Interior Uses](#)

###### [DC1-A-3 Flexibility:](#)

The proposed interior structural system allows for separations between two adjoining non-residential spaces to be removed to create a larger commercial space. This approach continues up the building to allow for two units on the upper floors to be combined into one larger unit.

###### [DC1-A-4 Views and Connections:](#)

On the 37th Avenue South frontage, the walkways and seating areas are positioned to allow for inside / outside interface. On the east elevation at the property line to the adjoining parcel that is now a parking lot and anticipated to be one for 20 years, the central courtyard provides significant relief along a potentially blank wall. Viewed from Rainier Avenue South, upper floor circulation will be quite visible and provide meaningful activation to the public realm. A highly-visible wood screen element will provide a focal point for the courtyard and identity for the building. The residential units are arranged so that every unit has an unobstructed view either to the west, south or north.

#### [DC2 Architectural Concept](#)

##### [DC2-A Massing](#)

###### [DC2-A-1 Site Characteristics and Uses:](#)

The extra wide right-of-way on 37th Avenue South between the curb and the building façade, about 17'-6", provides an excellent "borrowed" open space for landscaping, seating and walkways of approximately 800 square feet. Taking the Property Line as a "build to" reference plane works to enhance the street environment as an outdoor room. This will bring the interior non-residential activities closer to the sidewalk and engage the pedestrian passerby. The street-level is predominately inhabited by active uses such as: a prominent residential entry, corner retail, three live-work units, and tenant amenity space.

###### [DC2-A-2 Reducing Perceived Mass:](#)

The dwelling unit configuration is clearly defined by the façade composition and presents a backdrop for a very active and engaging play of operable shade panels. The individual panels, as managed by each resident independently, offer a unique and varied combination of patterns at the scale of each unit. The variety of movement and activity thus provided is our primary way of creating scale and human interest. Additional modulation is created by expressing the mass and its functions within as components: party walls are expressed with vertical framework, the track for the operable panels reads as a strong horizontal element, residential common areas are given a cohesive yet unique expression of wood patterning.

#### [DS2-B Architectural & Façade Composition](#)

##### [DC2-B-1 Façade Composition:](#)

The façades are designed as four cohesive elements, each responding to the unique demands of its orientation. The façade compositions are all set within an organizing hierarchy of a dark frame with expressed party walls and revealed floor levels. Fenestration sizing and placement and the use of shading devices differs in response to the façade location. Recurring design elements such as metal accent panels to denote signage, wood screening elements to highlight residential functions, and a consistent material palette unify the building. The east façade presents a look into the inner courtyard highlighted by a dynamic wood screen element that stretches from the ground level to the roof.

##### [DC2-B-2 Blank Walls:](#)

The east wall facing the adjacent parcel parking lot has 30% openness above the ground floor level. The dwelling unit walls are treated as a framing device for the active courtyard. The stair walls are expressed by a change in material to denote their unique function, and provide a variation of depth, texture and color.

#### [DC2-C: Secondary Architectural Features](#)

##### [DC2-C-1 Visual Depth and Interest:](#)

Awnings, canopies and operable shade elements have been incorporated on the two primary street façades. These components are highly articulated to create an interesting and active façade. The building program does not call for decks or balconies, so do not offer an opportunity for additional recesses and projections.

#### [DC3 Open Space Concept](#)

##### [DC3-A Building-Open Space Relationship](#)

###### [DC3-A-1 Interior/Exterior Fit:](#)

The project has developed the right-of-way space along 37th Avenue S as a complement to the interior functions providing sitting space adjacent to retail, articulated entries at the live-work units, a dense landscape buffer at the two residential units, and a patio space at the tenant Amenity Room. The interior courtyard space is designed as a gathering space for tenants, an active circulation zone, and incorporates a focal screening element visible to the neighborhood.

#### [DC4 Exterior Elements and Finishes](#)

##### [DC4-A Building Materials](#)

###### [DC4-A-1 Exterior Finish Materials:](#)

The exterior finish materials have been selected for ease of maintenance and durability. Additionally, the material palette will bring texture, warmth, and a fine-grain of detail to the project.

## Response to Early Design Guidance

### 1. Massing

The Owner and Design team has chosen to further develop the third massing option with an internal courtyard in the center of the project and an indoor amenity space at the NW corner of the site.

a. Modulation of the 37th Avenue façade has been developed to add depth and visual interest as follows: 1) a playful pattern of windows and sliding shade elements will activate the façade by responding to each resident's personal needs for privacy, light level, and solar gain; 2) a rhythm of formal vertical and horizontal elements frame the modulating pattern of windows and shade elements to create a layered and finely scaled façade ; 3) a variety of street level plantings, fenestration patterns, and entry areas differentiate the uses taking place behind the enclosure, to activate the sidewalk, provide identity, and add interest at the pedestrian level ; 4) canopies, screens, and shade elements accentuate the different uses through material expression, texture and scale, and activity; 5) new and existing street trees provide scale, rhythm at street level, and screening both for the neighborhood and to the residents; and 6) a retail patio area can serve as outdoor seating for a coffee shop, restaurant or other neighborhood commercial amenity.

b. The Owner and design team propose that the operable shade screens be wood slats that offer a distinctive warm and tactile material for the moving portion of the façade and add a fine grain of detail to the building. This also represents a simple and physical way of responding to the need to address western sun for warmth in the winter, shading in the summer, and both in the shoulder seasons. The common residential areas at the courtyard and residential entries will be defined by a similar language of wood slats mounted on a metal framework. Though fixed, the playful arrangement of the slats at these locations evoke a sense of movement and a fine layer of detail. They also serve to emphasize the residential entry on S. Hudson St.

### 2) Façade Composition and Materials

a. Wood slat operable shades are planned for the west façade as shown in the Early Design Guidance submittal.

b. The east façade is being developed with a cohesive language with the rest of the building. The playful arrangement of wood slats over a metal framework that defines the residential entry on S. Hudson St. will be developed as an expressive feature element of the courtyard. The wood slats will create a sense of growth and movement from the courtyard floor towards the roof. This screen creates a focal point for the east façade, adds material warmth and texture, and provides privacy

to unit entries. This screen is framed to the north and south by massing elements defined by subtle material and planar shifts to create visual interest and express the form and function taking place at that location.

### 3) Entries and Street Frontages

a. The SW retail corner has been design with a high level of transparency and openness to engage the pedestrian environment. In addition, the NW corner amenity space is treated with a similar level of transparency to engage the public realm and increase "eyes on the street". An outdoor seating area in front of the amenity room will facilitate engagement with the community and tenant activity at the sidewalk.

b. The live/work unit entries are designed to help transition to a residential scale with individualized entries characterized by smaller-scaled signage and shallower canopies. The ground-level residential units and screened by a landscape buffer between the building envelope and the sidewalk t to enhance privacy and security.

c. The building structure is conceived to allow for several non-residential spaces to be combined into larger retail facilities for future needs.

### 4) Open Space

We have given much consideration to how best to serve the new residents of this project with common amenity areas. While it would be possible to move a residential unit to the NW corner and relocate the indoor amenity closer to the central courtyard, the Owner and design team have taken the path of reinforcing the activity of the NW corner and it's openness to the street and alley. This strategy "bookends" the building with active uses at the sidewalk, increases "eyes on the street" at the alley, while transitioning from commercial to residential activity. We also see a need to allow each amenity space to function separately, to provide two quite different places for residents who rely on the common amenity for "third" places.

### 5) Solar Collectors and Related Departures

After receiving feedback from the city and from community comments on the EDG package, the Owner and design team have decided to remove the elevated and visible structure of the Solar PV array. Instead, the renewable energy generating PV array will be mounted directly on the roof surface. Per the Fire Marshall, this arrangement requires perimeter walkways around the edges of the array which reduces the effective energy performance capacity by approximately 25%. Additionally, the project is seeking approval for an alternative PV option pending financial feasibility. This option would add PV panels to the west façade and replace the shading devices on the south façade with PV panels. The façade has been designed so that the panel sizes correspond to the window sizes.

## Zoning Standards

### Chapter 23.47A - Commercial - NC2-40

#### 23.47A.004: Permitted and Prohibited uses

- » Uses per Table 23.47A.004

#### 23.47A.005: Street Level Uses

- » The proposed is not within a pedestrian designated zone or along a principal pedestrian street.

#### 23.47A.0048 Street Level Development Standards

- » Blank segments of the street-facing façade 2 feet - 8 feet above the sidewalk may not exceed 20 feet in width
- » Total of all blank façade segments may not exceed 40% of the width of the façade of the structure at the street
- » Street-level, street-facing facades shall be located within 10 feet of the street lot line, unless wider sidewalks, plazas, or other approved landscaped or open spaces are provided
- » Non-residential: 60% of the street-facing façade 2 feet - 8 feet above the sidewalk shall be transparent
- » Non-residential: uses shall extend an average depth of at least 30 feet and a minimum depth of 15 feet
- » Non-residential: uses at street level shall have a floor-to-floor height of at least 13 feet
- » Residential: at least one street-level, street-facing facade shall have a visually prominent pedestrian entry
- » Residential: the floor of a dwelling unit located along the street-level, street-facing façade shall be at least 4 feet above or 4 feet below sidewalk grade or be set back at least 10 feet from the sidewalk
- » Live-work: the non-residential portion of the unit must be located between the street and the residential portion; the non-residential portion shall extend the width of the facade and be a minimum 15 feet deep

#### 23.47A.010: Maximum size of non-residential use

- » The maximum size of commercial use is 25,000 sf.

#### 23.47A.012: Structure Height

- » 40 feet base height above average grade
- » 4 foot additional for 13' floor-to-floor height at non-residential uses - 44'
- » 2 foot additional for insulation material, rooftop decks, or soil for landscaping if enclosed by parapets - 46'
- » 4 foot additional allowed for parapets - 48'
- » 4 foot additional allowed for solar collectors - 48'

#### 23.47A.013: Floor Area Ratio (FAR) Limits

- » Maximum FAR for a single-use - 3.00
- » Maximum FAR for mixed-use - 3.25

### Design Team Response

- » Residential, live-work, retail, and restaurant uses are allowed under table 23.47A.004.

- » There are no restrictions on the uses at street level.

- » The proposed design will address all the requirements regarding blank facades, facade location, floor-to-floor height of non-residential uses, and residential entries.
- » The proposed design departs from the code in regards to the residential setback of the two dwelling units located at Level 1 along S. Hudson St. The floor of the units are setback 7'-6" from the sidewalk. The units will be designed with a landscape buffer to maintain privacy for residents.
- » The proposed design departs from the code in regards to the extent of non-residential uses. The live-work and commercial spaces are slightly shallower than the 30' average depth required.
- » The proposed design departs from the code in regards to the location of the non-residential portion of the live-work unit. The residential portion is located within 11'-8" of the building facade.
- » The proposed design departs from the transparency requirement of non-residential uses at the commercial space on S. Hudson Street in order to maintain proportion and develop a strong architectural concept.

- » Proposed maximum commercial use is 2,463 sf.

- » Level 1 floor-to-floor height is 17'-0"
- » Proposed maximum base structure height is less than 44'
- » Insulation will exceed the maximum height limit up to 2' and will be enclosed by a parapet
- » Solar PV panels will exceed the maximum height limit up to 4'

- » Proposed FAR for residential - 2.66
- » Proposed FAR for nonresidential - 0.50
- » Proposed Total FAR - 3.16

## Zoning Standards

### Chapter 23.47A - Commercial - NC2-40

#### 23.47A.014 Setback Requirements

- » No setbacks required
- » 1'-0" alley dedication

#### Design Team Response

- » 1'-0" alley dedication provided

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#### 23.47A.016 Landscaping and Screening Standards

- » Green factor score of 0.3 or greater

- » Green factor 0.3 or greater is proposed

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#### 23.47A.024 Amenity Area

- » Amenity areas are required in an amount equal to 5 percent of the total gross floor area in residential use

- » The proposed design departs from the code in regards to the location of amenity areas. A combined interior and exterior amenity area will meet the code required area.

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#### 23.47A.024 Required Parking

- » Residential and non-residential: no parking is required within urban villages when use is within 1320' of a street with frequent transit service
- » Nonresidential Bicycle Parking: 1 space per 12,000 sf (long-term) - 1 space required  
1 space per 4,000 sf (short-term) - 1 space required
- » Residential Bicycle Parking: 1 space per 4 dwelling units/0.75 spaces per SEDU - 18 spaces required

- » No parking required
- » Required bicycle parking for non-residential uses will be provided on S. Hudson St. right-of-way
- » Required parking for residential uses will be provided at Level 1 and Level 2
- » Bicycle parking will meet or exceed minimum requirements

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#### 23.47A.024 Solid Waste and Recycling

- » Residential: 26-50 dwelling units - 375 sf
- » Nonresidential: 0-5,000 sf - 50% of 82 sf - 41 sf

- » Solid waste and recycling areas will be reviewed by SPU

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#### 23.53.035 Structural Building Overhangs

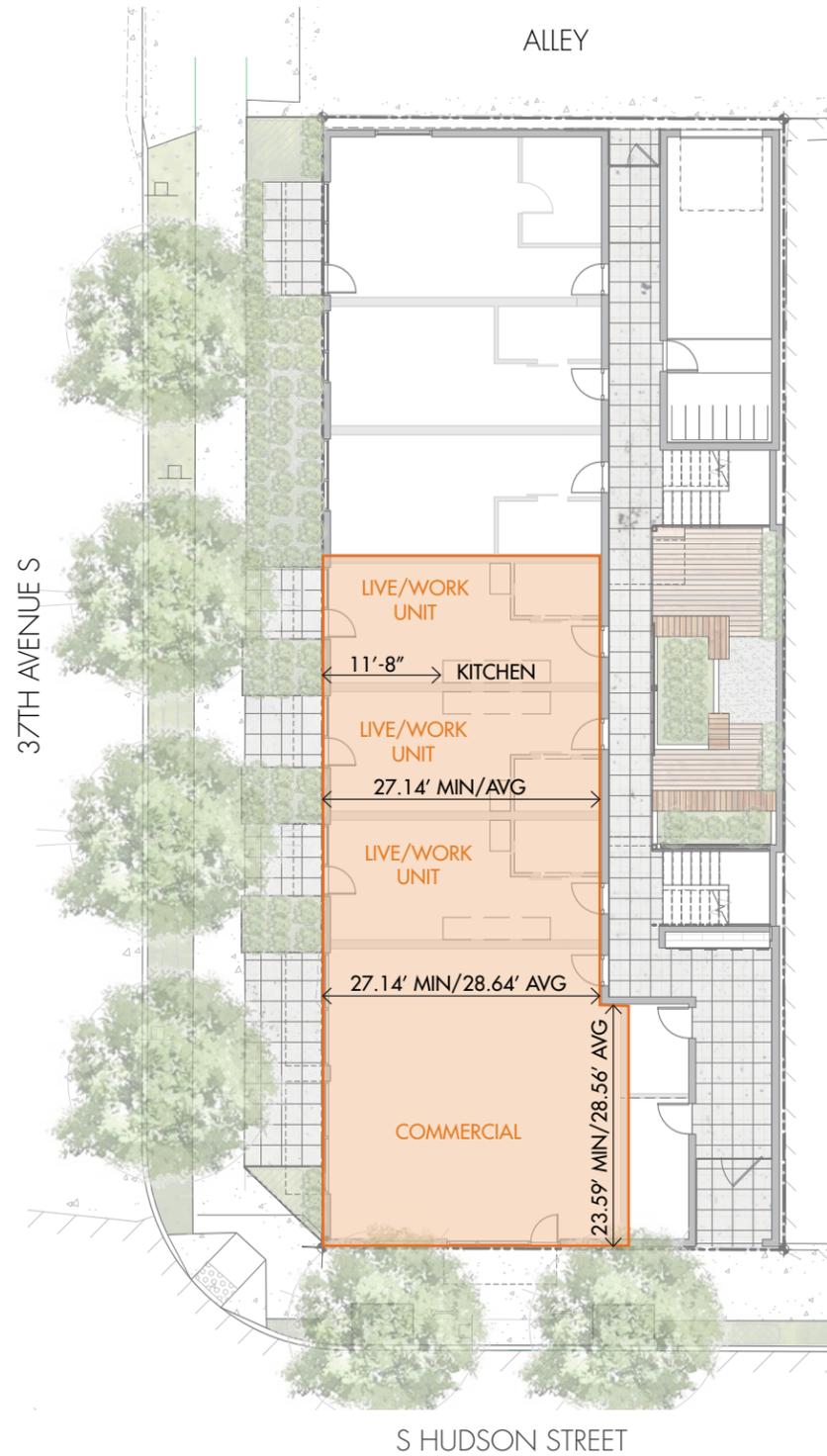
- » Sliding Screens: 8' above sidewalk; 3' max depth; 15' max length; 30% area of facade
- » Shades: 8' above sidewalk; 3' max depth; 15' max length; 1' min from interior lot line; 30% area of facade
- » Canopies: no closer than 6' to the curb

- » Structural building overhangs will meet requirements for height above the sidewalk, max depth, max length, facade area, distance from the interior lot line, and distance from the curb

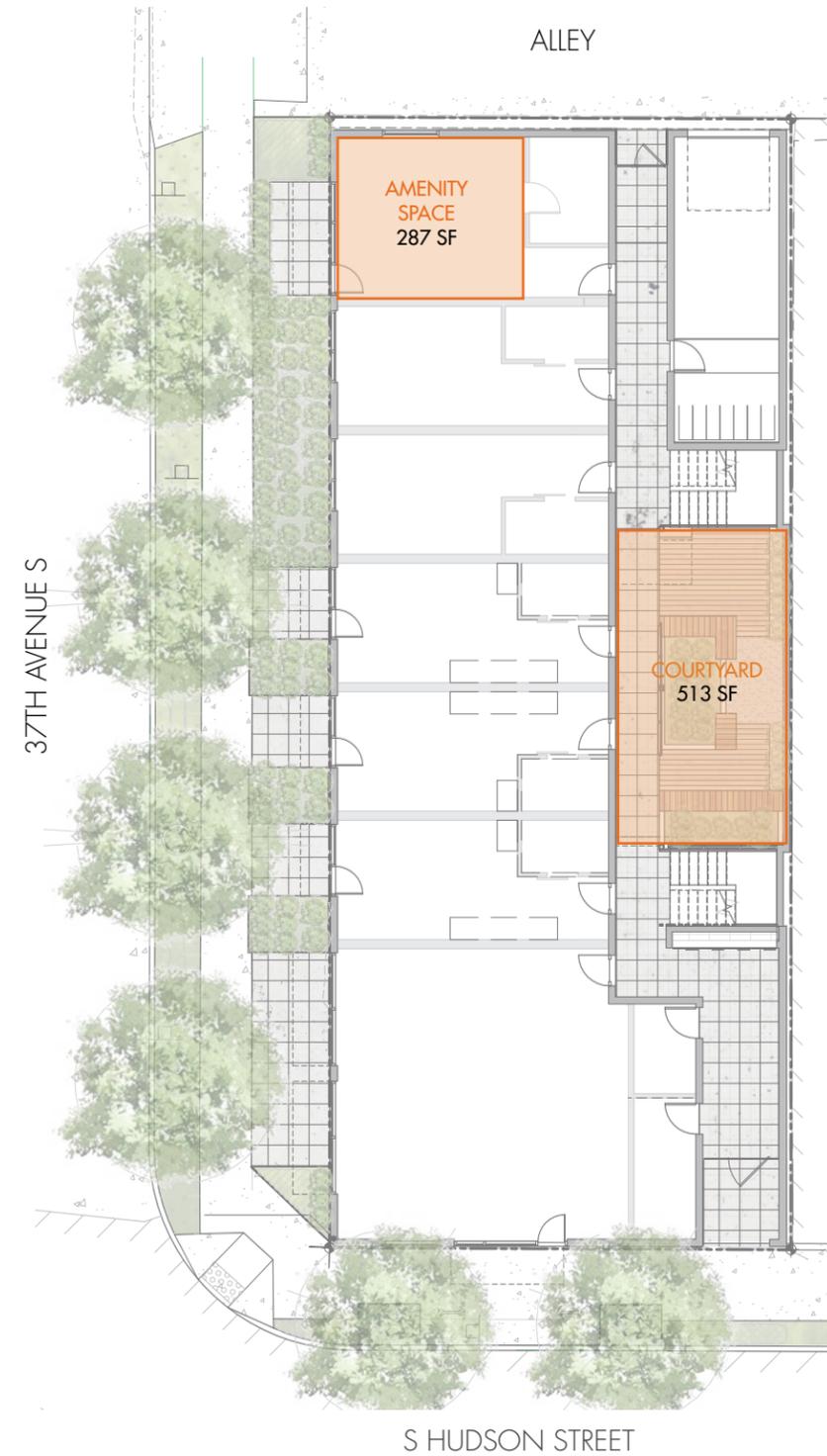
Departure Requests

ZONING CODE	REQUIREMENT	PROPOSED	DEPARTURE RATIONALE	DESIGN REVIEW GUIDELINES
#1 NON-RESIDENTIAL DEPTH PROVISION: SMC 23.47A.008.B.3.	15' minimum; 30' average	<p><b>RETAIL SPACE DEPTH ON S HUDSON:</b></p> <ul style="list-style-type: none"> <li>» 23.59' MIN; 28.56' AVG</li> <li>» <b>DEPARTURE:</b> 1.44' AVG</li> </ul> <p><b>RETAIL SPACE DEPTH ON 37TH AVE S:</b></p> <ul style="list-style-type: none"> <li>» 27.14' MIN; 28.64' AVG</li> <li>» <b>DEPARTURE:</b> 1.36' AVG</li> </ul> <p><b>LIVE/WORK DEPTH ON 37TH AVE S:</b></p> <ul style="list-style-type: none"> <li>» 27.14' MIN; 27.14' AVG</li> <li>» <b>DEPARTURE:</b> 2.86' AVG</li> </ul>	The area of retail and live-work spaces is maximized for the site. Non-residential uses occupy approximately 56% of the gross square footage at ground level. Corner retail has been provided to activate the pedestrian realm on both S. Hudson Street and 37th Avenue S. Three live-work units provide additional activity along 37th Avenue S. The retail and live-work spaces are slightly shallower than the average requirement in order to provide circulation and an internal courtyard of adequate depth for tenants.	CS2C - Relationship to the Block PL1C - Outdoor Uses & Activities PL3C - Retail Edges DC3B - Open Space Uses & Activities
#2 RESIDENTIAL SETBACK: SMC 23.47A.008.D.2.	10' minimum setback from the sidewalk for street-level units less than 4' above or 4' below sidewalk grade	<p><b>SETBACK:</b> 7'-6" from the 37th Avenue S sidewalk</p> <p><b>DEPARTURE:</b> 2'-6"</p>	The setback at the two dwelling units along 37th Avenue S was established to maintain consistency with the overall building massing, develop a cohesive language of facade articulation, and maximize the energy efficiency of the building to meet the project's high performance goals. Simple massing is essential to a thermally efficient building and appropriate for the scale of the project. The dwelling units are separated from the sidewalk by a 7'-6" deep landscape buffer for the length of the unit frontage. The buffer provides both horizontal separation as well as vertical screening with tall, dense plantings.	PL3B - Residential Edges DC2A - Massing DC2B - Architectural & Facade Composition
#3 LIVE-WORK FEATURES: SMC 23.47A.008.E.1.	15' minimum depth for non-residential portions and shall not contain any primary residential features	<p><b>NON-RESIDENTIAL DEPTH:</b> 18.24'</p> <p><b>KITCHEN SETBACK:</b> 11'-8"</p> <p><b>DEPARTURE:</b> 3'-4"</p>	The depth of the live-work spaces is maximized for the site. The non-residential portion of the units occupies the full width of the units and a depth of 18.24'. A small portion of the kitchen extends into the non-residential portion of the unit. This arrangement allows for a secondary "live" entry to provide tenant access into the courtyard and to tenant amenities.	PL3B - Residential Edges DC3A - Building - Open Space Relationship DC3B - Open Space Uses & Activities
#4 AMENITY AREA: SMC 23.47A.024.	5% of gross floor area in residential use; amenity area shall not be enclosed	<p><b>REQUIRED AMENITY AREA:</b> 658 SF</p> <p><b>EXTERIOR AMENITY AREA:</b> 513 SF</p> <p><b>DEPARTURE:</b> 145 SF of required amenity area to be provided as interior amenity area</p>	The tenant amenity space was developed as two distinct spaces to provide unique experiences for residents that rely on common amenity as "third places". The courtyard is designed to provide internal community space, is activated by circulation, open to the elements, and able to accommodate passive recreation activities. The amenity room at the NW corner of the site is designed to reinforce pedestrian activity along 37th Avenue S. It creates a "bookend" to the corner retail with a high level of transparency and small tenant patio. This amenity space will open up to the street, provide natural surveillance opportunities to the sidewalk and the alley, and create a transition from commercial to residential activity. Additionally, this strategy provides an excess of required amenity space (6.1%) and allows for year-round use.	CS2B - Adjacent Sites, Streets & Open Spaces CS2C - Relationship to the Block PL1C - Outdoor Uses & Activities PL2B - Safety & Security PL3B - Residential Edges DC3A - Building - Open Space Relationship DC3B - Open Space Uses & Activities
#5 NON-RESIDENTIAL TRANSPARENCY: SMC 23.47A.008.B.2.	60% of street-facing facades 2-8 ft above the sidewalk shall be transparent	<p><b>RETAIL SPACE TRANSPARENCY ON S HUDSON:</b> 57%</p> <p><b>DEPARTURE:</b> 3%</p>	The framing element and expressed "columns" are carried down to the building base along the facades for cohesion, rhythm, and proportion. The framing element results in a slightly smaller percentage of transparency at the storefront windows of the commercial space on S Hudson Street in order to maintain consistency with the facade dimensions and to develop a strong architectural concept.	DC2B - Architectural & Facade Composition

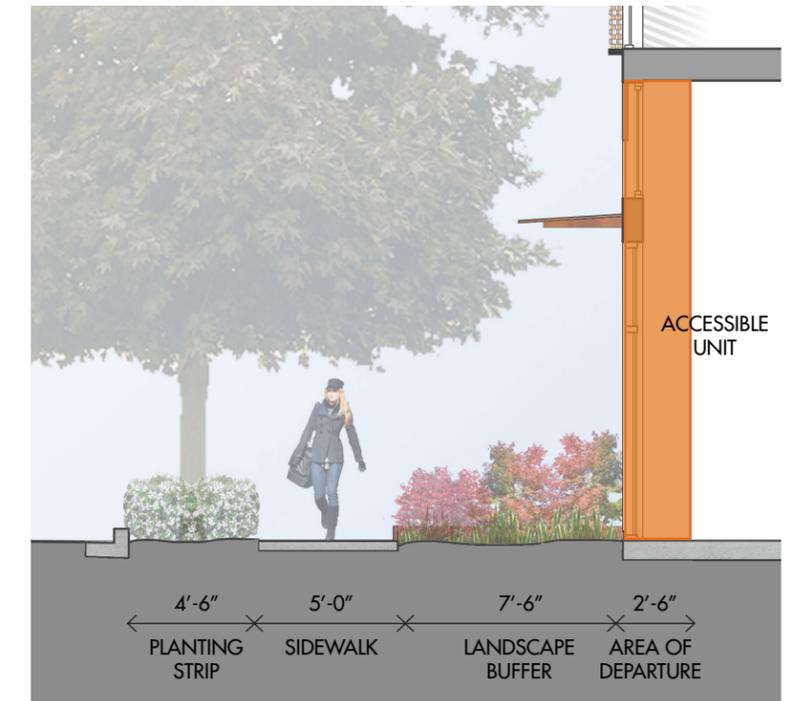
Departure Requests



#1 - NON-RESIDENTIAL DEPTH PROVISION  
#3 - LIVE-WORK FEATURES



#4 - AMENITY AREA



#2 - RESIDENTIAL SETBACK



#5 - NON-RESIDENTIAL TRANSPARENCY

Additional Design Studies



STUDY: ALTERNATIVE RETAIL GLAZING

This study explores the option of including more glazing at the retail corner. Full transparency at the corner results in a top-heavy building and breaks with the architectural concept. The design team concluded the framing element and expressed "columns" were stronger when these features were continued to the base of the building.



STUDY: ALTERNATIVE COLOR

This study explores expanding the use of the accent "rust orange" color to the expressed floorplates of the building. This scheme weakens the contrast created by the dark vertical "columns" and white horizontal "floorplates". The accent color also competes with the warm tones of the sliding screens on the west facade. The design team concluded it is preferable to maintain the integrity of the accent color as a metal element with its primary usage along the building base.

Shadow Study

10am

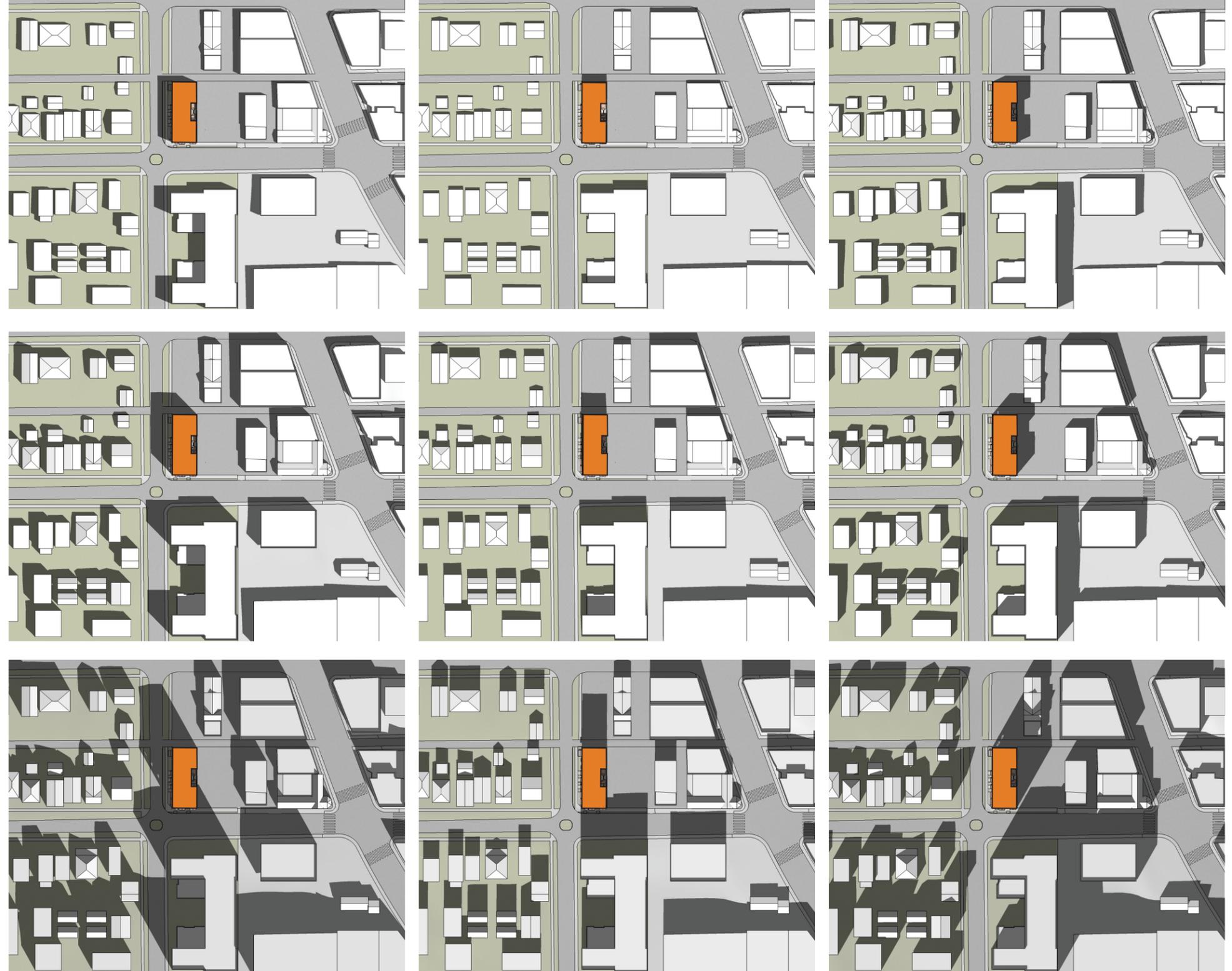
12pm

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June 21

March/September 21

December 21





STREAM BELMONT



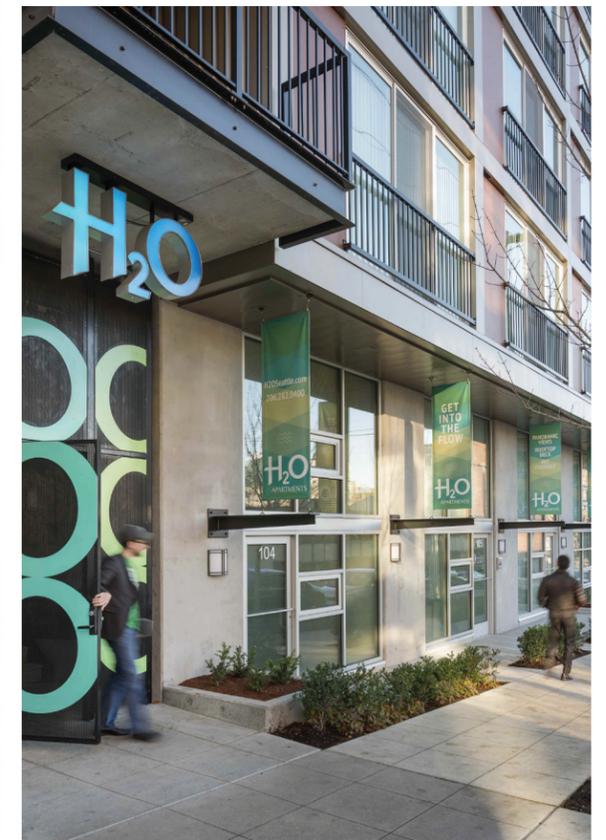
ARTHOUSE



APERTURE - BUILT GREEN 3-STAR TARGET



BROADSTONE KOI - LEED-NC CERTIFIED TARGET



H2O APARTMENTS