

5.5 Massing Directional Emphasis

Massing Directional Emphasis

A core objective of the India Basin Project is to enhance public access to the waterfront by increasing connections and making routes visible and intuitive. The procession from the hillside stairs down to the Bay – emphasized by the circulation framework and echoed through the protection of key public view corridors – is amplified in urban form by establishing a directional emphasis for massing. As illustrated in Figure 5.11, the primary direction of development massing aligns with the main routes toward the

water. Transverse interstitial (or “infill”) areas step down and setback from the primary massing direction. Specific massing and bulk controls for each parcel are illustrated in Section 5.8: Massing Illustrations.

Guidelines

5.5.1. Concept Urban Form shall emphasize routes from the hillside to the waterfront as shown in Figures 5.18 and 5.19 by developing taller

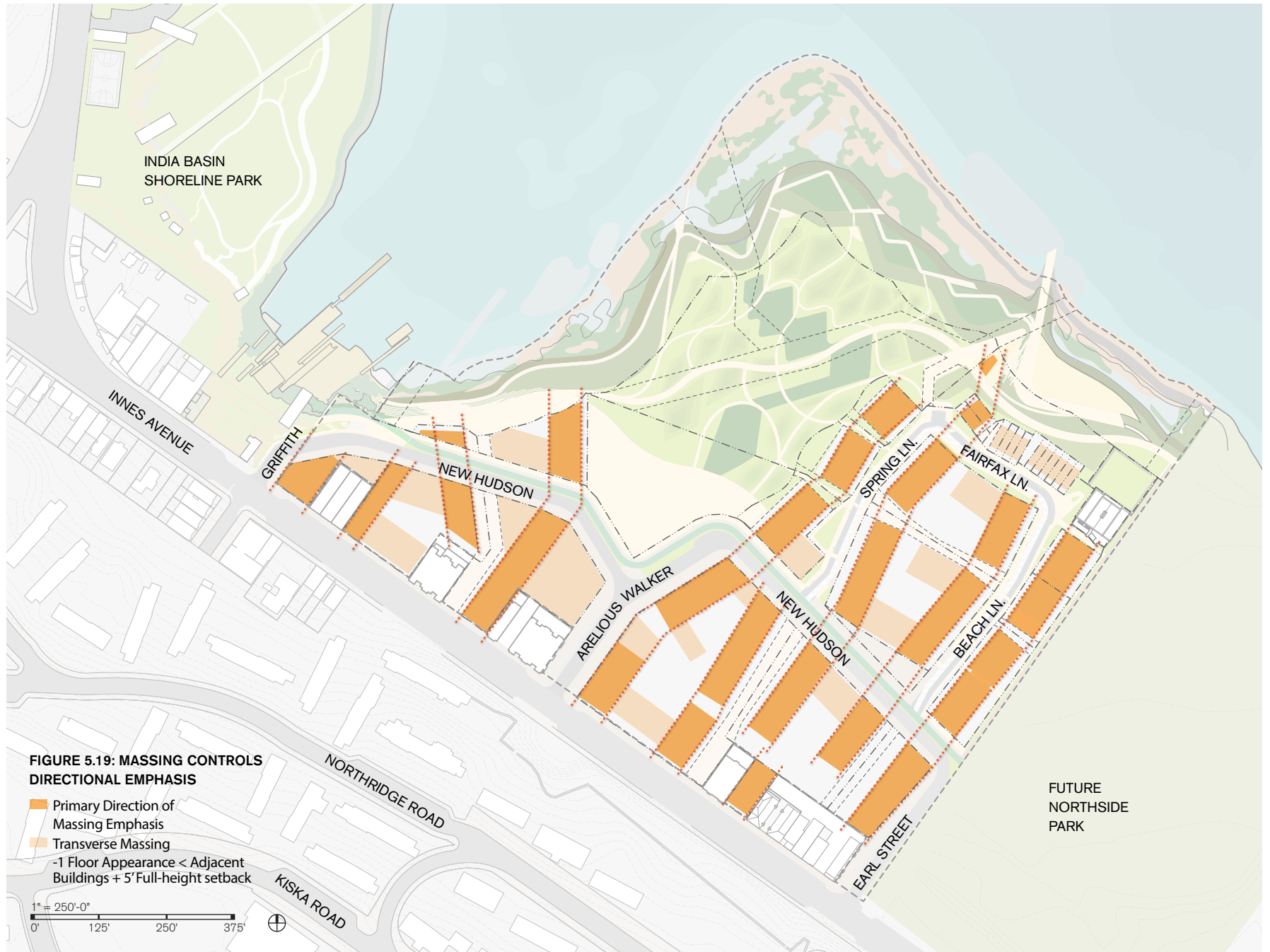
building massing along the Primary Direction of Massing Emphasis.

5.5.2. Massing The Primary Direction of Massing Emphasis shall be further distinguished from lower transverse interstitial areas by stepping height of these infill areas down at least ten feet or one floor – whichever is greater – below the adjacent primary masses

5.5.3. Setbacks Lower transverse interstitial (or “infill”) area masses shall setback 5’-0” from the property line, as indicated in Figure 5.19.



FIGURE 5.18: MASSING CONTROLS - DIRECTIONAL EMPHASIS



5.6 Stepbacks

Stepbacks

Stepbacks are defined as a horizontal setback from the vertical building face of the top floor(s), as illustrated in Figure 5.20. Required Stepbacks are shown in Figure 5.21.

The India Basin project employs Stepbacks to decrease the perceived height of building and allow more light into the public realm to improve pedestrian comfort. Stepbacks are also used to reinforce the primary massing directional emphasis from the hillside towards the waterfront, as described in Section 5.5: Massing Directional Emphasis and shown in Figure 5.19.

Standards

5.6.1. Where Required Where indicated in Figure 5.21 provide a setback at the top floor of no less than 6'-0". Stepbacks may extend for more than one floor.

5.6.2. Stepback H2-North For stepback labeled H2-North in Figure 5.21, a setback of no less than 9'-0" shall be provided for the top floor and a setback of no less than 6'-0" for the floor immediately below the top floor.

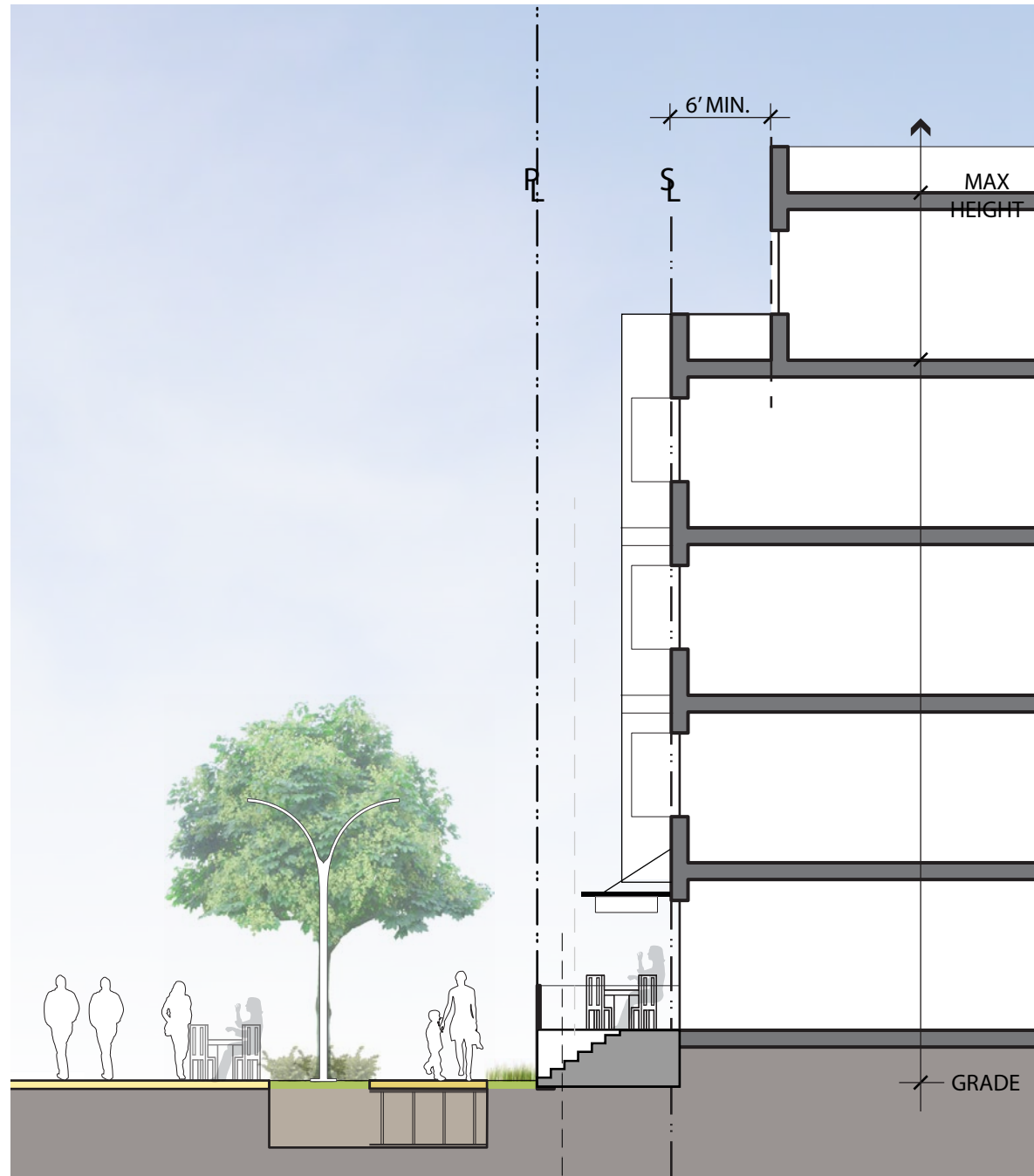
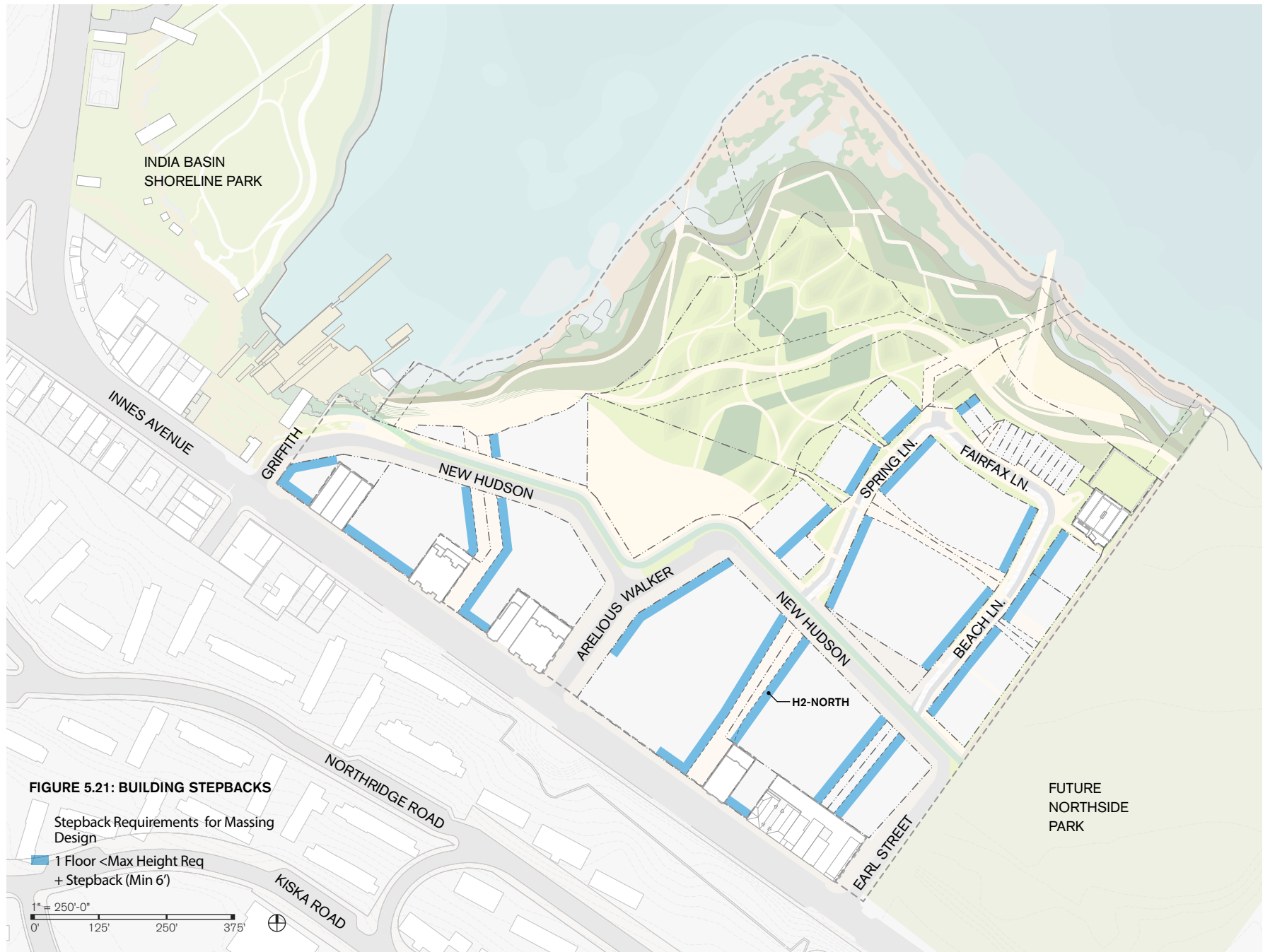


FIGURE 5.20: BUILDING STEPBACK - SECTION



5.7 Streetwall Requirements

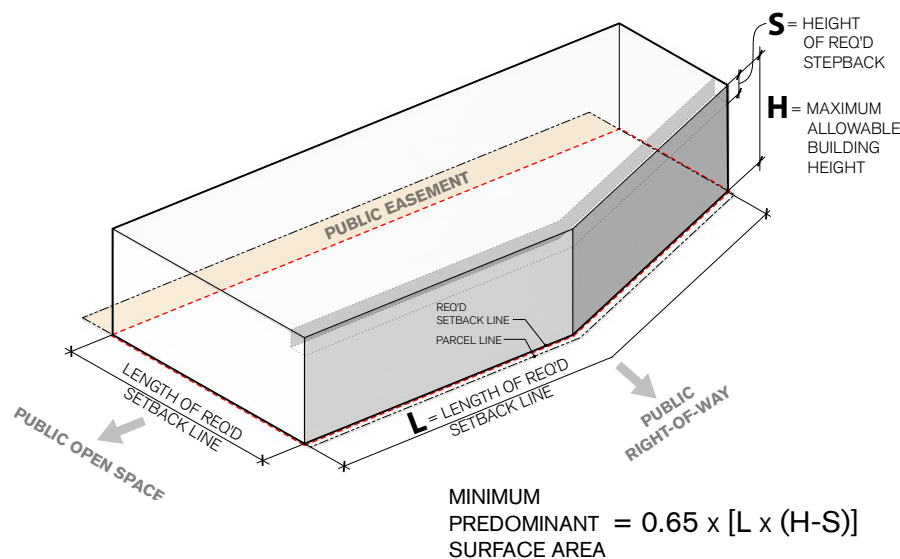


FIGURE 5.22: STREETWALL

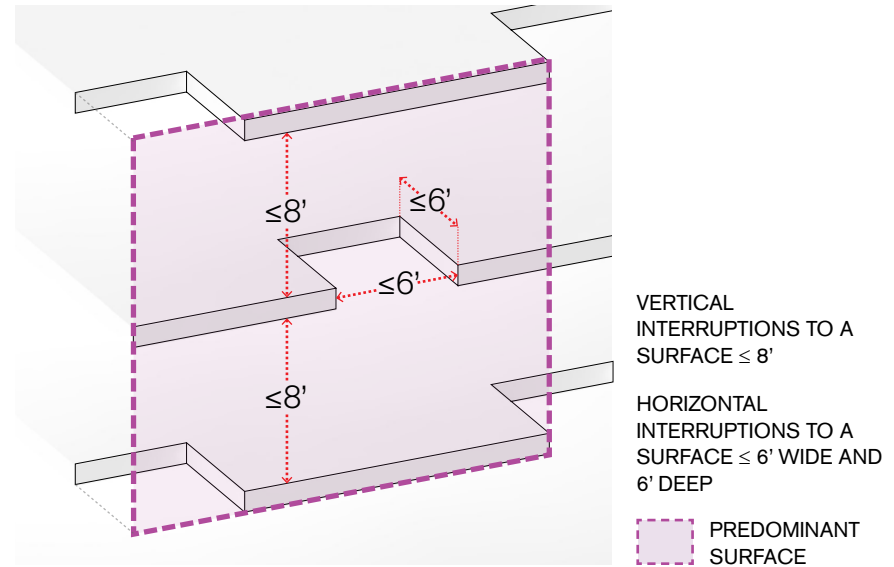


FIGURE 5.23: PREDOMINANT SURFACE, DEFINED

Streetwall Guidelines and Standards

Streetwalls are used to define the public realm and to engage the street. However, facades composed of continuous expanses of undifferentiated surfaces create dull streetscapes that lack scale, visual interest and character. Modulated streetwalls achieve both a high degree of public realm definition and architectural variation to create visual interest.

The example volume in Figure 5.22 illustrates a high degree of definition at the required setback. However, it also creates an undifferentiated

streetwall resulting in an undesirable condition with insufficient variation to support a human-scaled environment.

Standards

5.7.1. Streetwall, Where Required Any parcel boundary facing a Public Right-of-Way, Pedestrian Easement, or Public Open Space, as outlined in Figure 5.01 shall comply with the following Streetwall Standards and Guidelines.

5.7.2. Streetwall, Measured Streetwall area shall be calculated in terms of a Predominant Surface as defined in the Standards and Guidelines in this section (Section 5.7)

5.7.3. Predominant Surface A Predominant Surface is a coplanar area of a building façade which contains interruptions that do not exceed the criteria described in Figure 5.23.

5.7.4. Predominant Surface, Requirements Where a streetwall is required, there shall be a Predominant Surface at the required setback

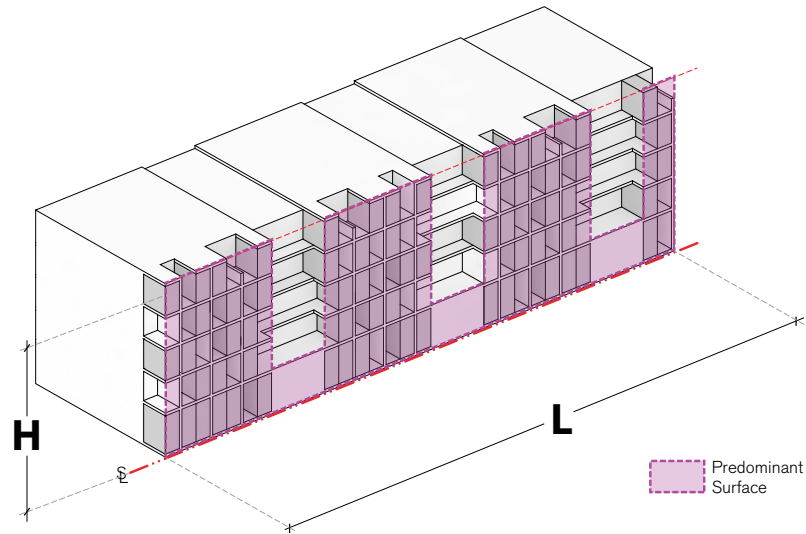
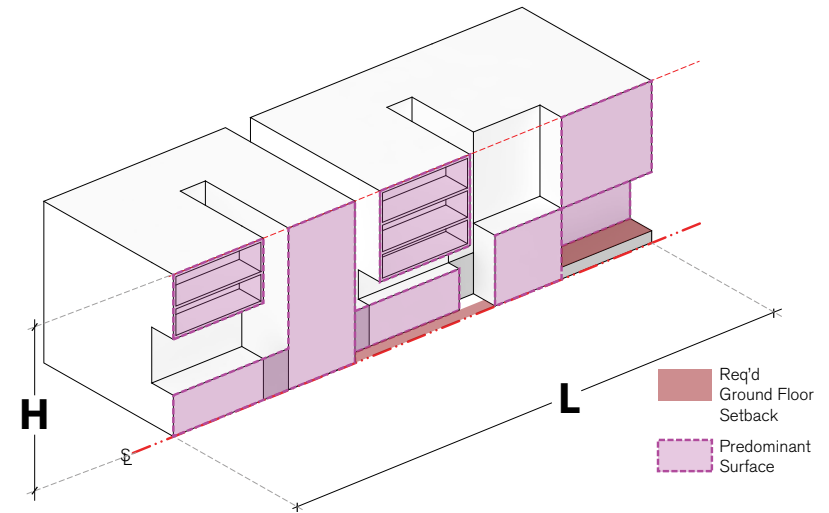


FIGURE 5.24: PREDOMINANT SURFACE

FIGURE 5.25: PREDOMINANT SURFACE
WITH GROUND FLOOR SETBACKS

line with a minimum area equal to the equation in Figure 5.22. A predominant surface area which deviates from the required setback line may count toward this minimum requirement if it complies with the Standard 5.7.5, Façade Zone.

5.7.5 Façade Zone A building's Predominant Surface may deviate from the setback line no more than 3'-0" forward and 3'-0" back to count toward the required streetwall minimum area. For parcel frontages requiring a minimum setback greater than 1'-0", the Predominant Surface shall project a maximum of 4'-0" forward and 3'-0" back from the setback line (Figure 5.26).

5.7.5 Streetwall, Parcel Corners Building facades shall maintain the parcel streetwall at the required setback line for the first 30'-0" at each parcel corner.

5.7.6. Maximum Building Dimension Buildings shall have no façade length greater than 200'-0".

5.7.7. Façade Modulation, Where Required Facades which face onto a public right-of-way, pedestrian easement or public space and which are 75'-0" or more in length shall comply with the following Modulation Standards and Guidelines.

5.7.8. Change-in-Plane Building façades shall be subdivided vertically by a Change-in-Plane at intervals of no greater than 75'-0". Intervals of vertical subdivision need not be equal. Changes-in-plane must have minimum dimensions of 18" in depth and 18" in width to qualify. Changes-in-plane or an overall offset shall be expressed as recesses or protrusions that extend the full height of the façade. Changes-in-plane need not extend to include recessed setbacks or upper level stepbacks which have a depth greater than the change-in-plane.

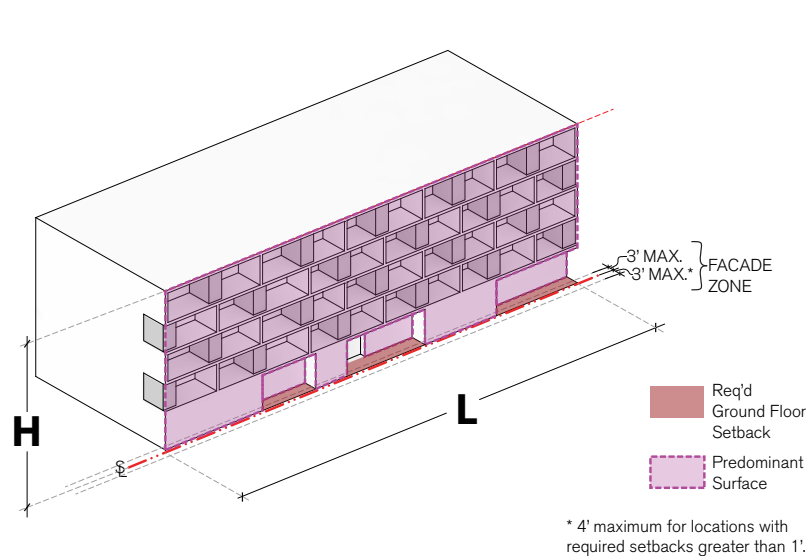


FIGURE 5.26: FACADE ZONE

5.7.9. Projections above Grade, No Setback

Where projections, such as balconies and bay windows, cantilever from the façade above grade, such projections shall extend no more than 3' forward of the property line, and shall extend no lower than the first floor above the ground floor, so as not to obstruct the pedestrian realm physically or visually.

5.7.10. Projections above Grade, within Setback

Where projections, such as balconies and bay windows, cantilever from the façade above grade, such projections shall extend no more than 4' forward of the setback line, and shall extend no lower than the first floor above the ground floor, so as not to obstruct the pedestrian realm physically or visually.

5.7.11. Projections at Grade Non-occupiable projections at grade (such as expressed structural bays or shading fins) may extend no more than 18" forward of a property line. The sum of the surface areas of such projections shall be no more than 20% of the total surface areas of the ground floor façade. Such projections shall not reduce the minimum clear travel width for pedestrians to less than 7'-6."

Bay Windows and other interior habitable projections within a setback at grade may extend up to 3' forward of the setback line. Residential stoops shall comply with Residential Setback Standards and Guidelines. The sum of the surface areas of all habitable projections at grade shall be

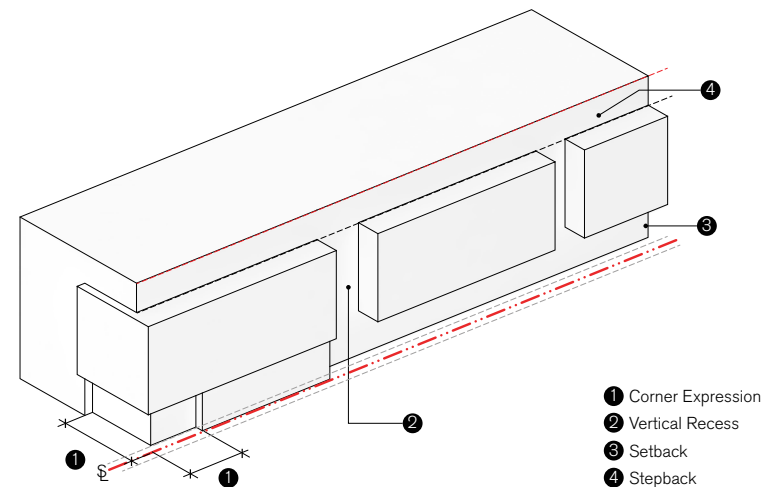
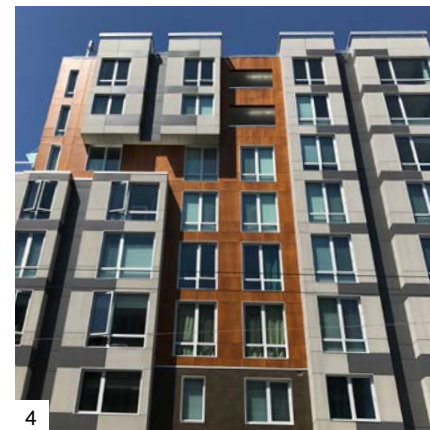


FIGURE 5.27: STREET WALL ARTICULATION

no more than 50% of the total surface areas of the ground floor façade.

Guidelines

5.7.12. Definition and Variation Streetwalls at India Basin shall achieve both a high degree of public realm definition and of facade variation. As shown in Figure 5.27, variation may be achieved using a range of architectural strategies, including but not limited to: Corner Expression, Vertical Projections or Recesses, Setbacks and Stepbacks.



1. Change in Plane
2. Change in Plane
3. Recessed Setback
4. Vertical Recess, Window Protrusion
5. Change in Plane

5.8 Massing Illustrations

To illustrate how the Urban Form Guidelines and Standards apply in combination, specific parcel-by-parcel diagrams follow in this Section. These massing - bulk illustrations are designed to facilitate the application of the Design Guidelines and Standards in support of the vision for India Basin.

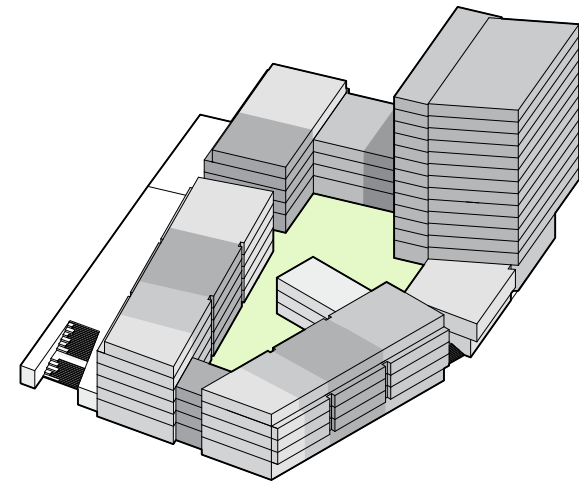


FIGURE 5.28: SCALE

Scale Break down facades into discrete components in order to create a diverse and rich urban environment.

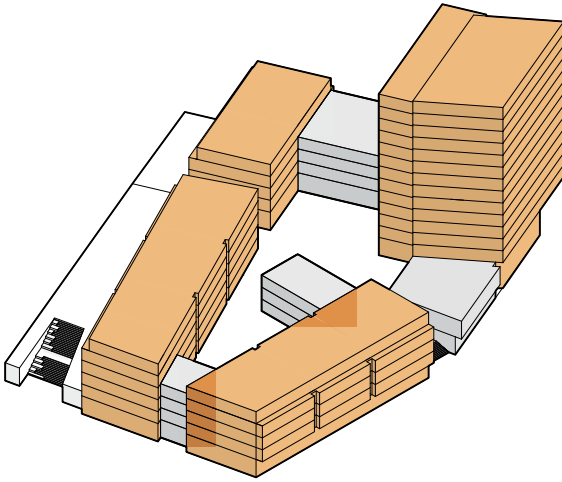


FIGURE 5.29: ORGANIZATION

Organization Emphasize building massing direction and articulations towards open space and waterfront.

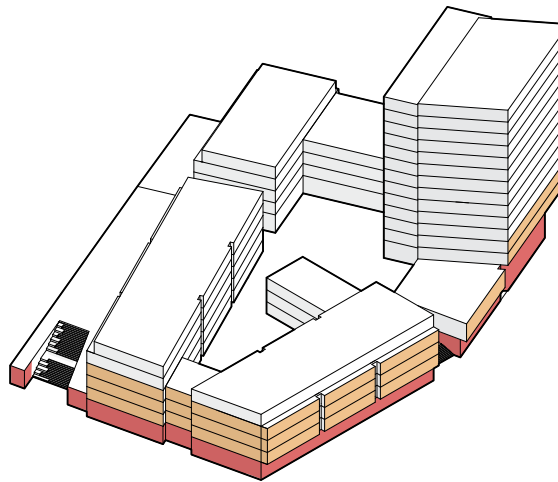


FIGURE 5.30: STREETWALL

Streetwall Create a contiguous and well-defined active ground floor and streetwall that promotes social interactions and a strong street presence.

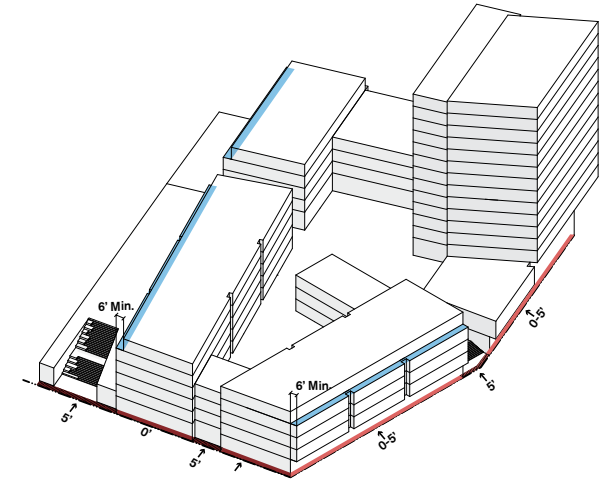


FIGURE 5.31: SETBACKS AND STEPBACKS

Setbacks and Stepbacks Establish adequate relationship between the public and private realm.

C1

New Hudson Street Tower

Primary Land Use	Mixed-Use
Special Use	Grocery Store

- 0' Setback
- 0'-5' Setback (GF Only)
- 5' Setback Required
- 6'-10' Setback -Ground floor residential
- 6'-10' Setback -Ground floor commercial
- Infill Building
- Stepback
- 10'-15' Setback (Earl Path)
- Varied Setback
- 20' Setback
- 25' Setback

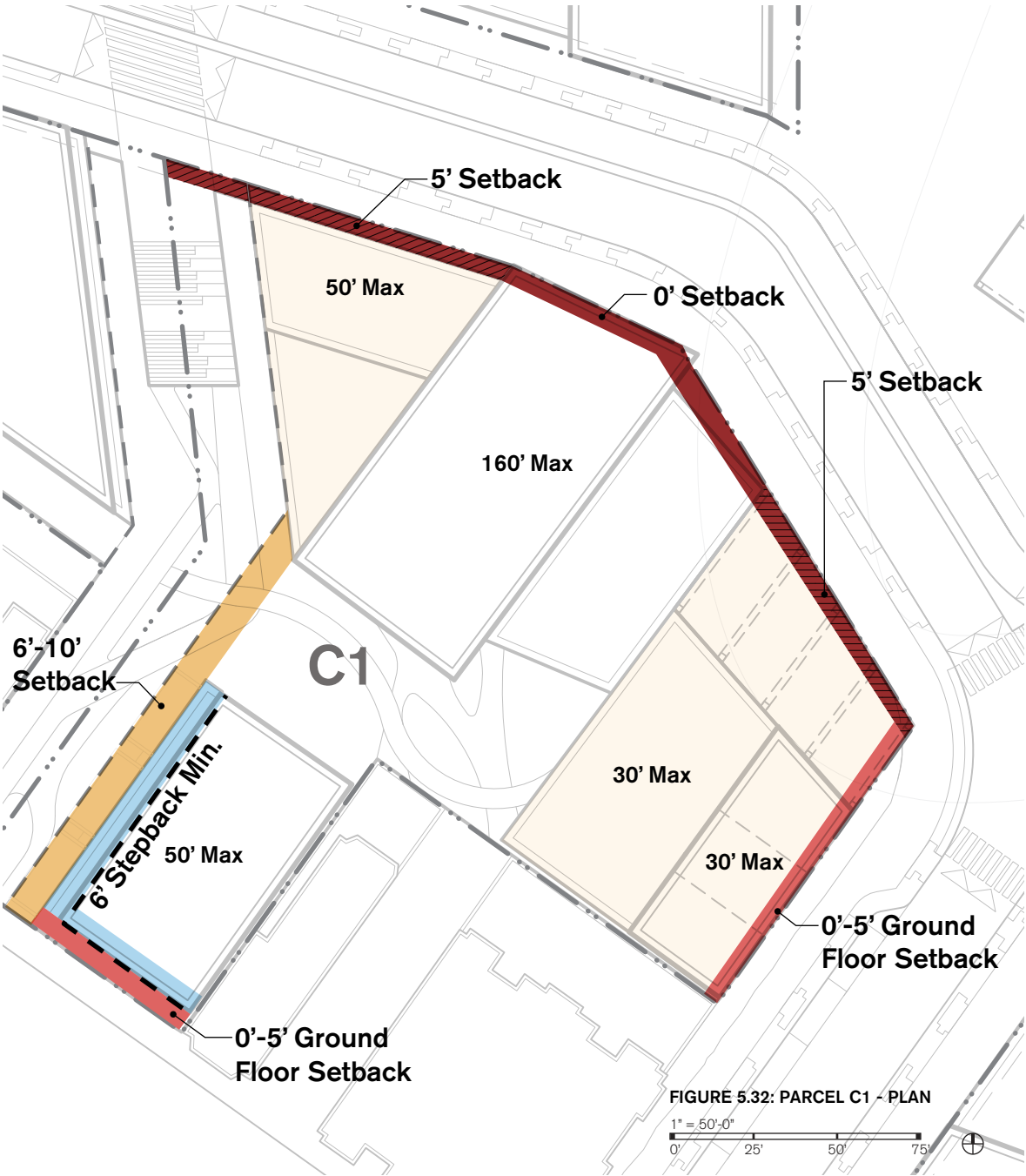
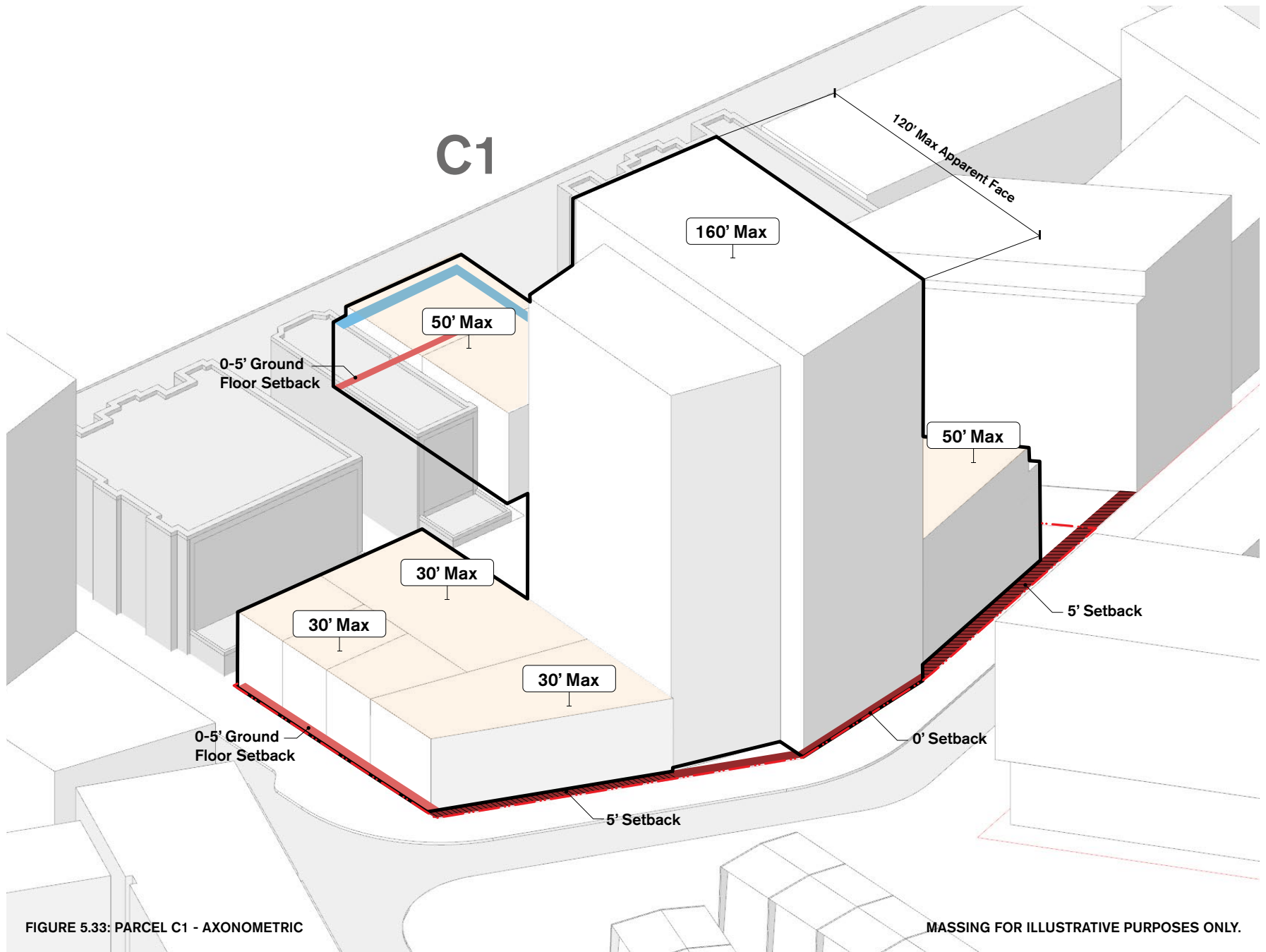


FIGURE 5.32: PARCEL C1 - PLAN



C2

New Hudson Street Building

Primary Land Use	Mixed-Use
Special Use	None

- 0' Setback
- 0'-5' Setback (GF Only)
- 5' Setback Required
- 6'-10' Setback -Ground floor residential
- 6'-10' Setback -Ground floor commercial
- Infill Building
- Stepback
- 10'-15' Setback (Earl Path)
- Varied Setback
- 20' Setback
- 25' Setback

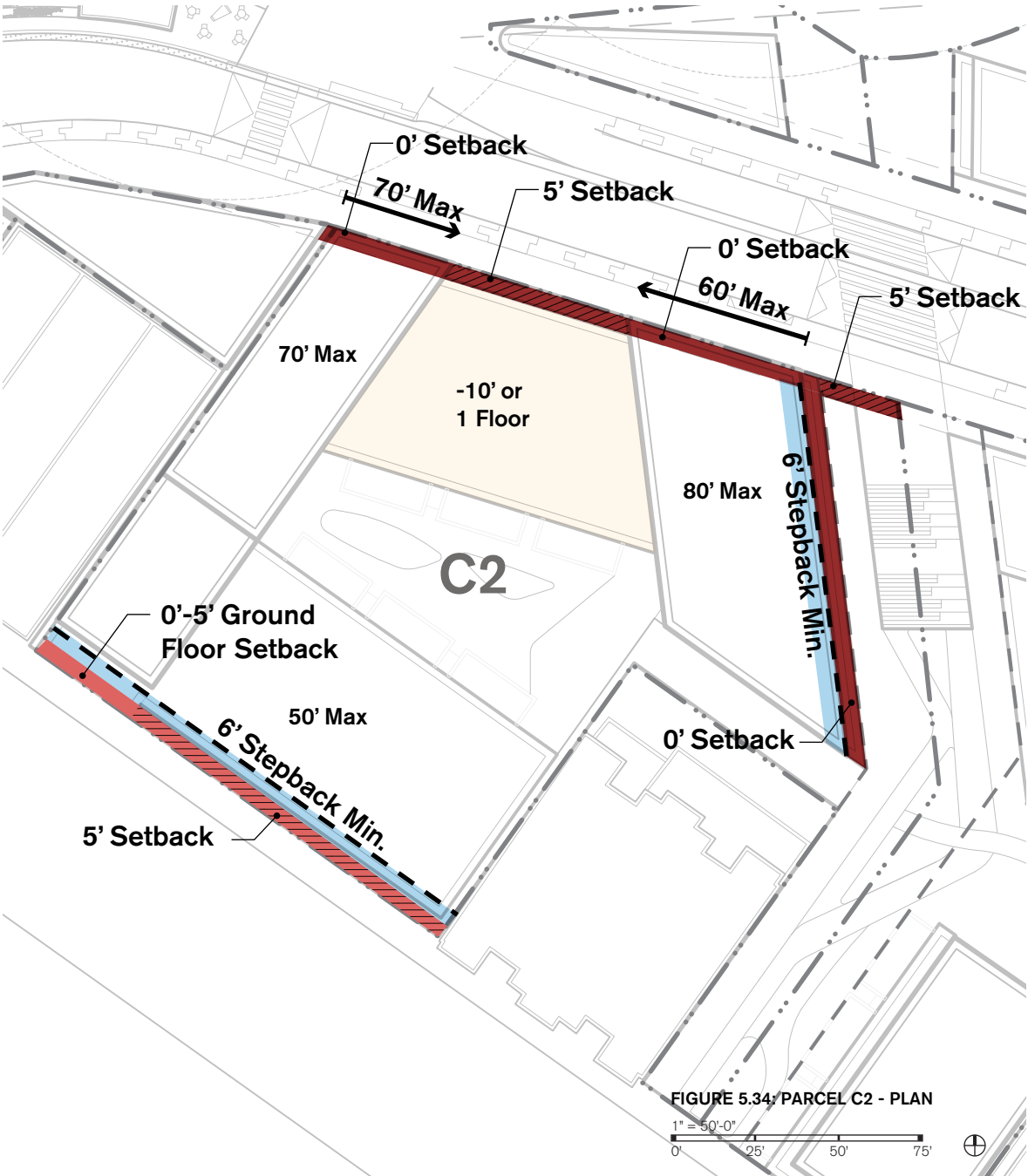


FIGURE 5.34/ PARCEL C2 - PLAN

1" = 50'-0"
0' 25' 50' 75'

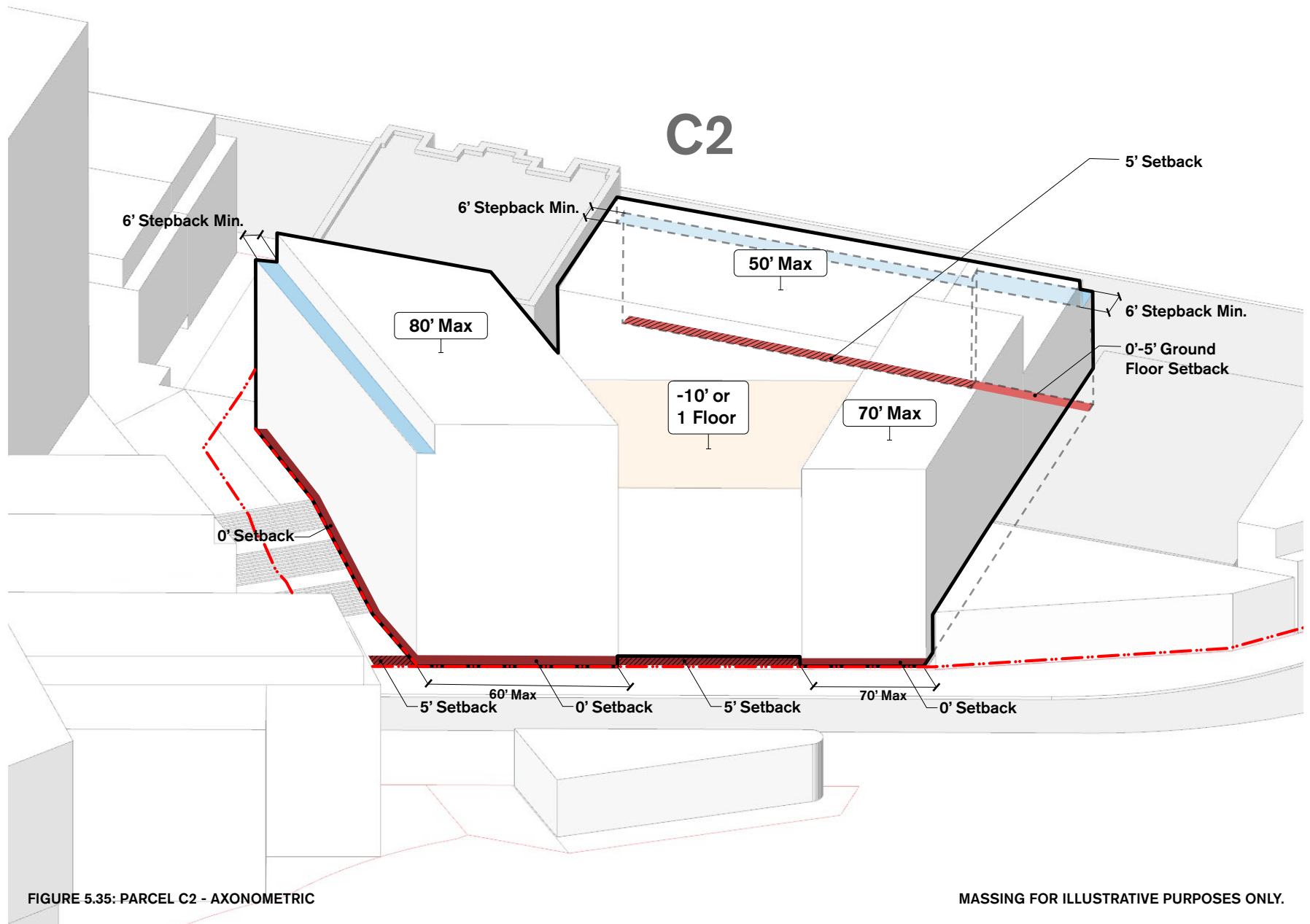


FIGURE 5.35: PARCEL C2 - AXONOMETRIC

MASSING FOR ILLUSTRATIVE PURPOSES ONLY.

C3

Griffith Street Building

Primary Land Use	Mixed-Use
Special Use	None

- 0' Setback
- 0'-5' Setback (GF Only)
- 5' Setback Required
- 6'-10' Setback -Ground floor residential
- 6'-10' Setback -Ground floor commercial
- Infill Building
- Stepback
- 10'-15' Setback (Earl Path)
- Varied Setback
- 20' Setback
- 25' Setback

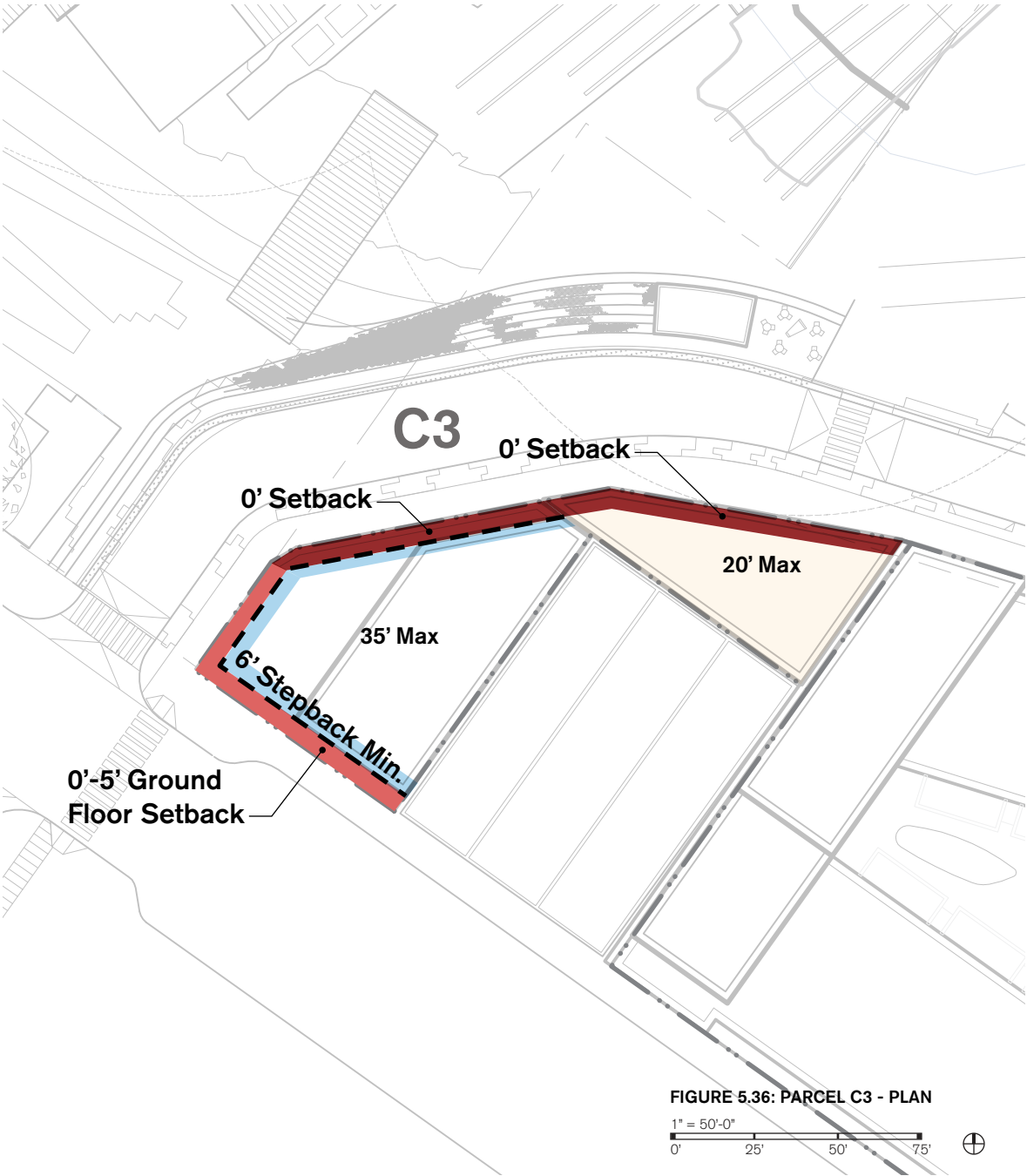
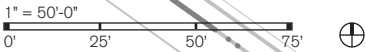


FIGURE 5.36: PARCEL C3 - PLAN



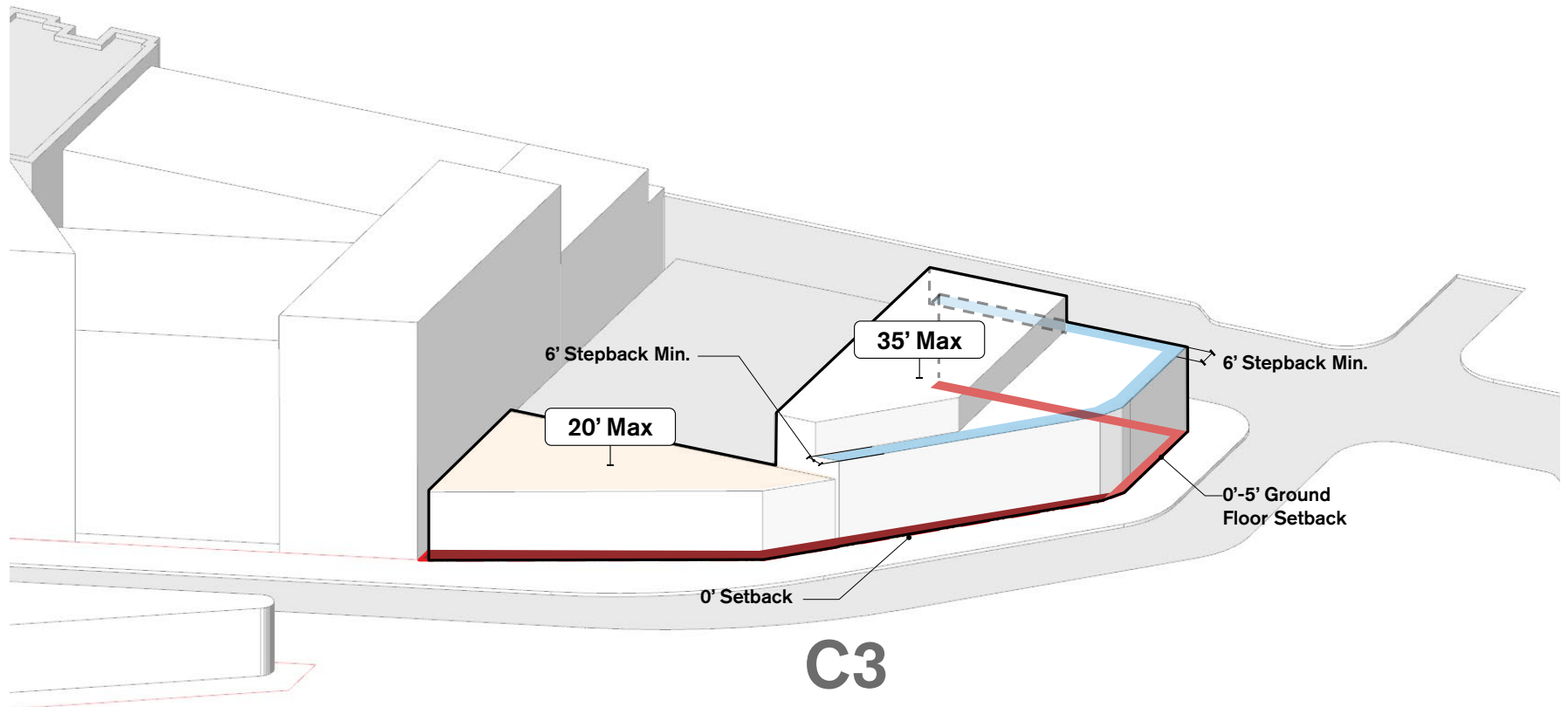


FIGURE 5.37: PARCEL C3 - AXONOMETRIC

MASSING FOR ILLUSTRATIVE PURPOSES ONLY.

C4

Cove Building	
Primary Land Use	Mixed-Use
Special Use	Through Retail

C5

Cove Pavilion	
Primary Land Use	Mixed-Use
Special Use	Pavilion

- 0' Setback
- 0'-5' Setback (GF Only)
- 5' Setback Required
- 6'-10' Setback -Ground floor residential
- 6'-10' Setback -Ground floor commercial
- Infill Building
- Stepback
- 10'-15' Setback (Earl Path)
- Varied Setback
- 20' Setback
- 25' Setback

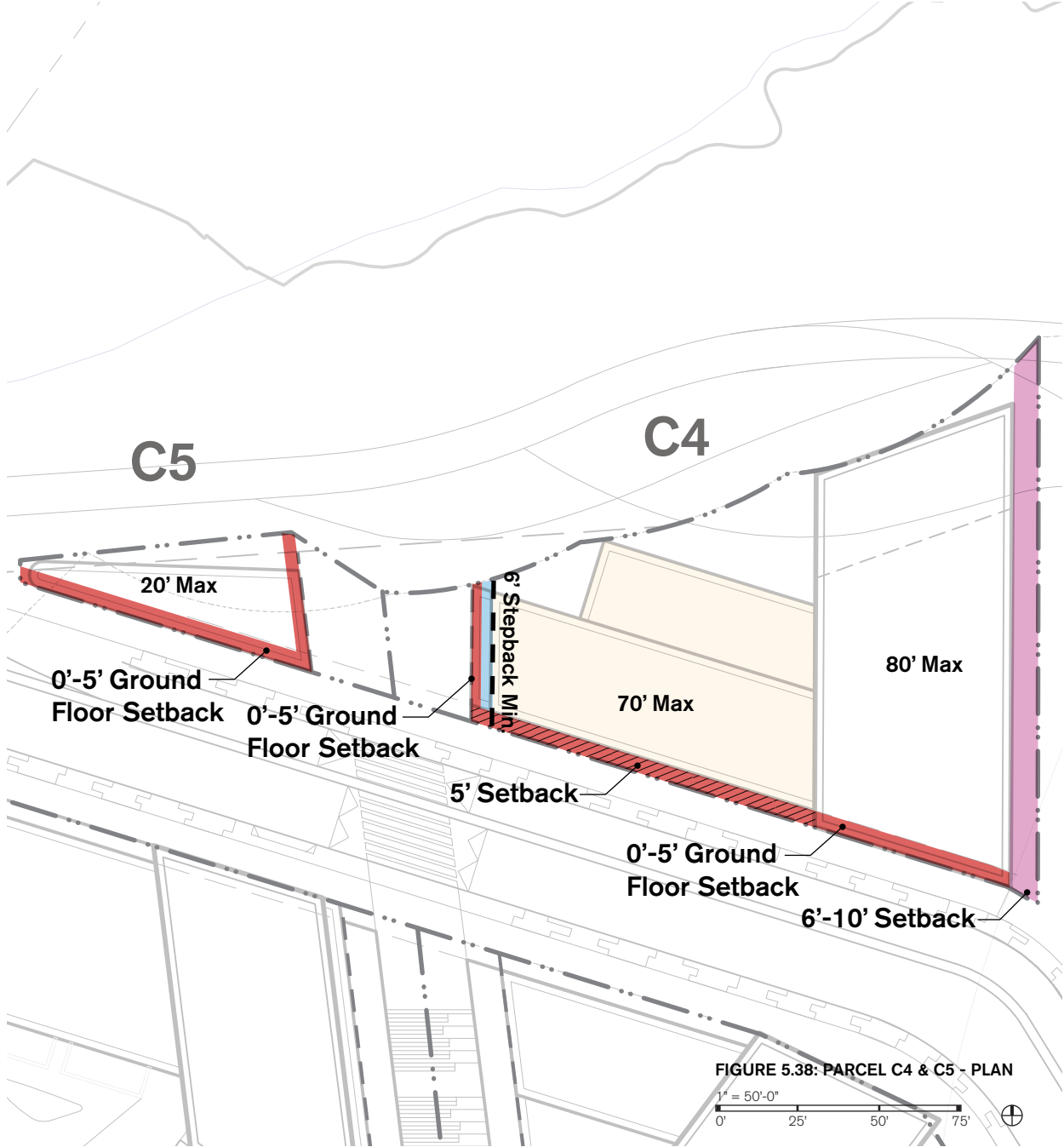
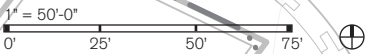


FIGURE 5.38: PARCEL C4 & C5 - PLAN



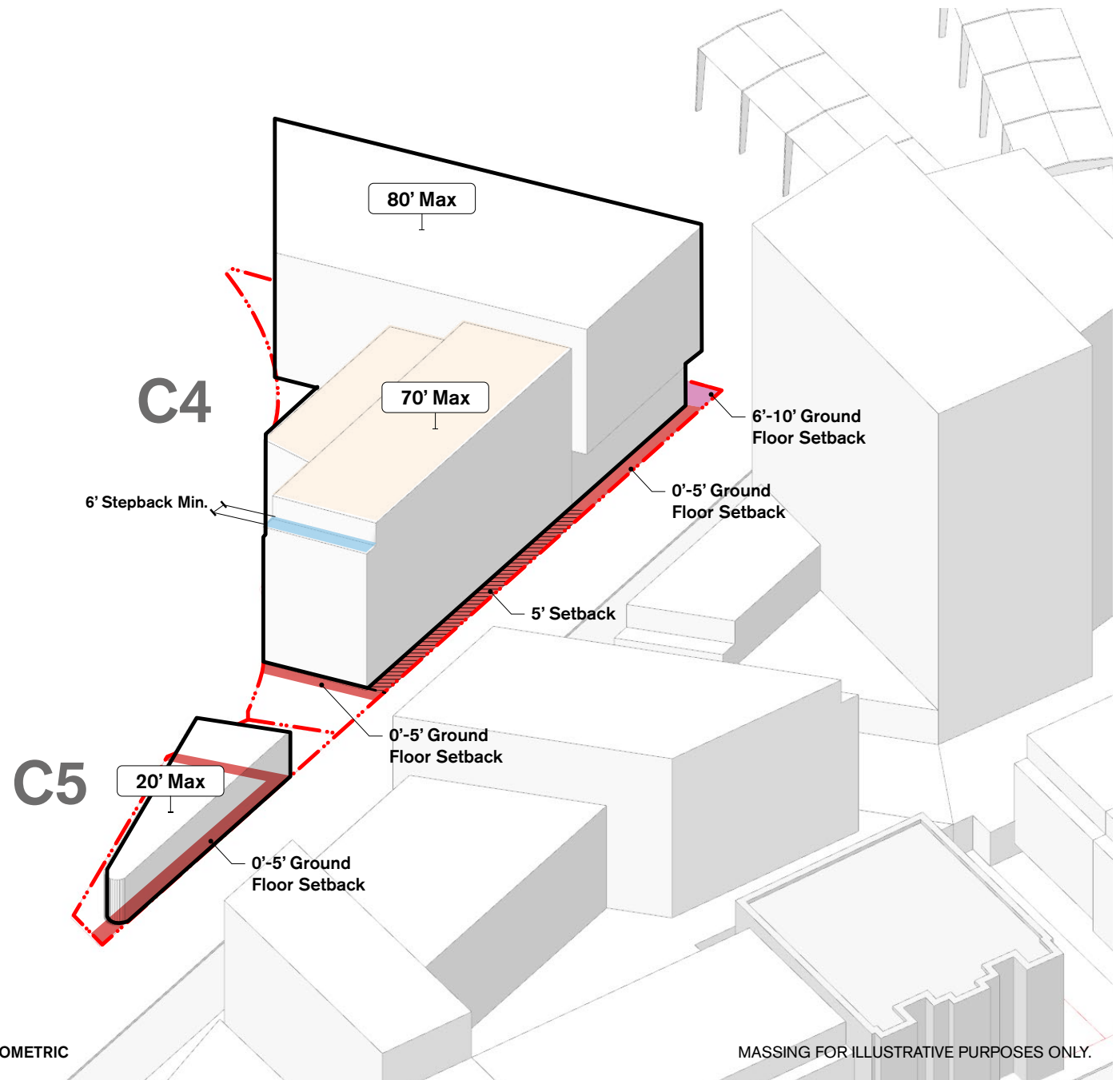


FIGURE 5.39: PARCEL C4 & C5 - AXONOMETRIC

H1

New Hudson Corner Building

Primary Land Use	Mixed-Use
Special Use	None

- 0' Setback
- 0'-5' Setback (GF Only)
- 5' Setback Required
- 6'-10' Setback -Ground floor residential
- 6'-10' Setback -Ground floor commercial
- Infill Building
- Stepback
- 10'-15' Setback (Earl Path)
- Varied Setback
- 20' Setback
- 25' Setback

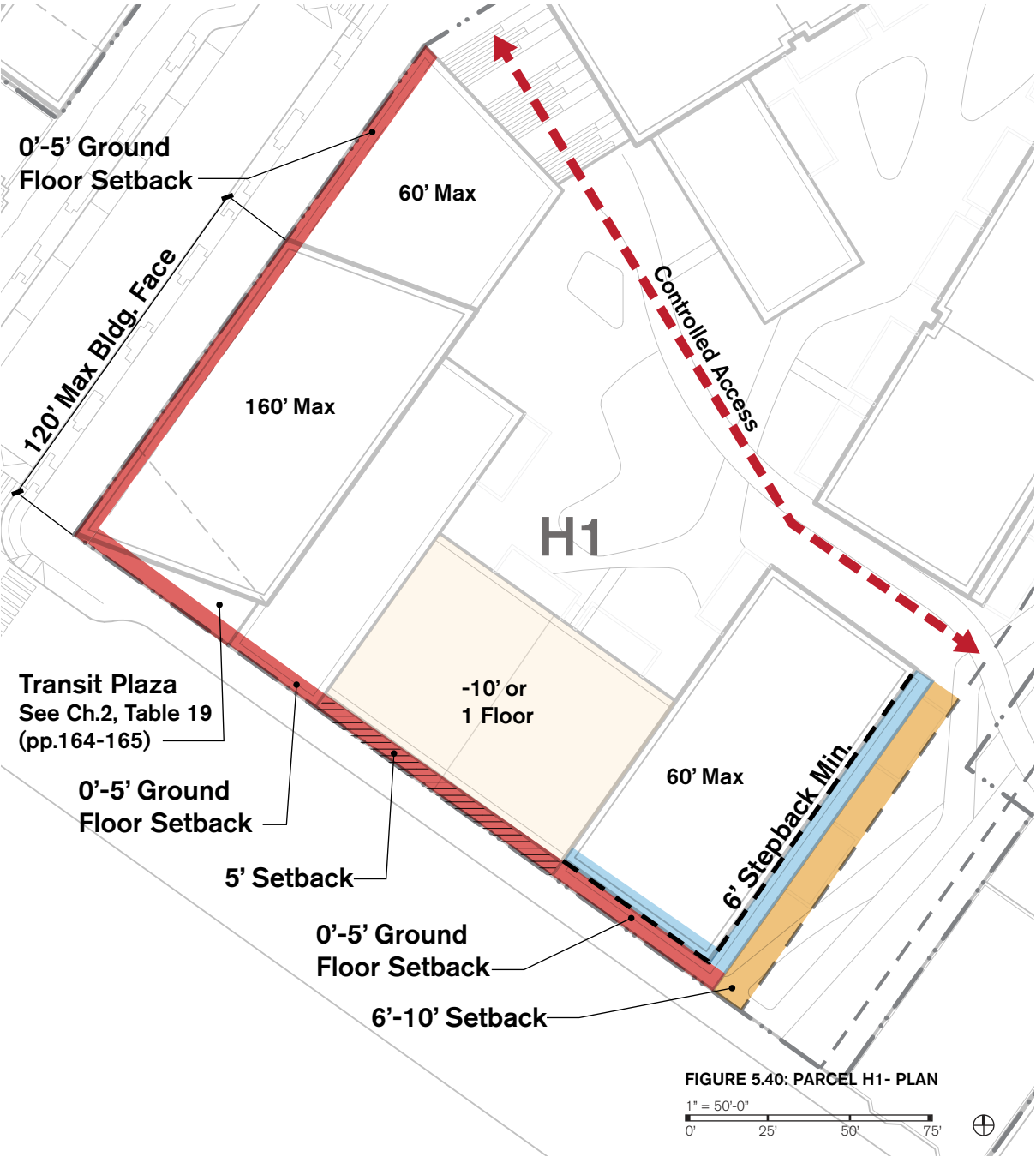


FIGURE 5.40: PARCEL H1 - PLAN

1" = 50'-0"
0' 25' 50' 75'

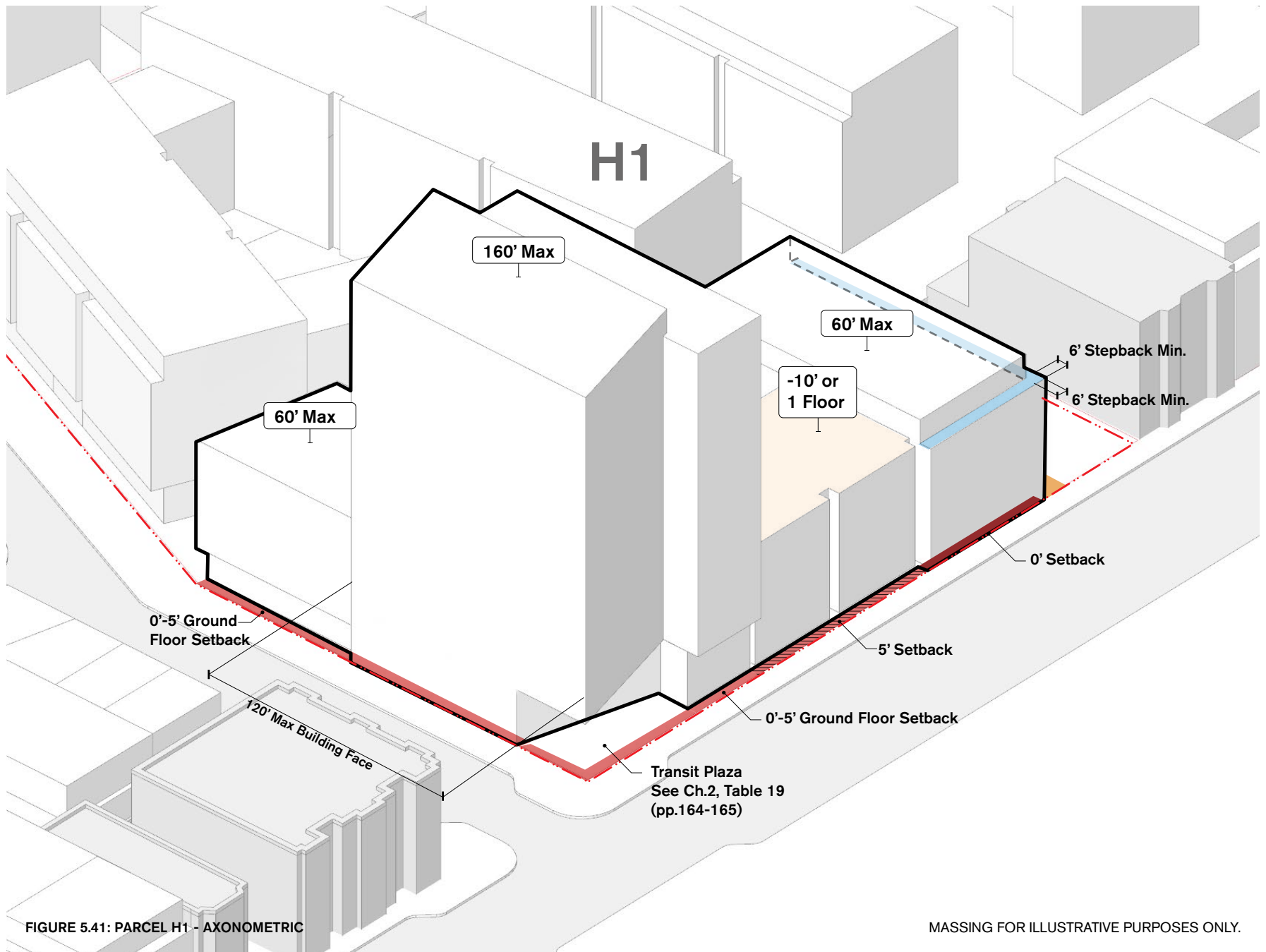


FIGURE 5.41: PARCEL H1 - AXONOMETRIC

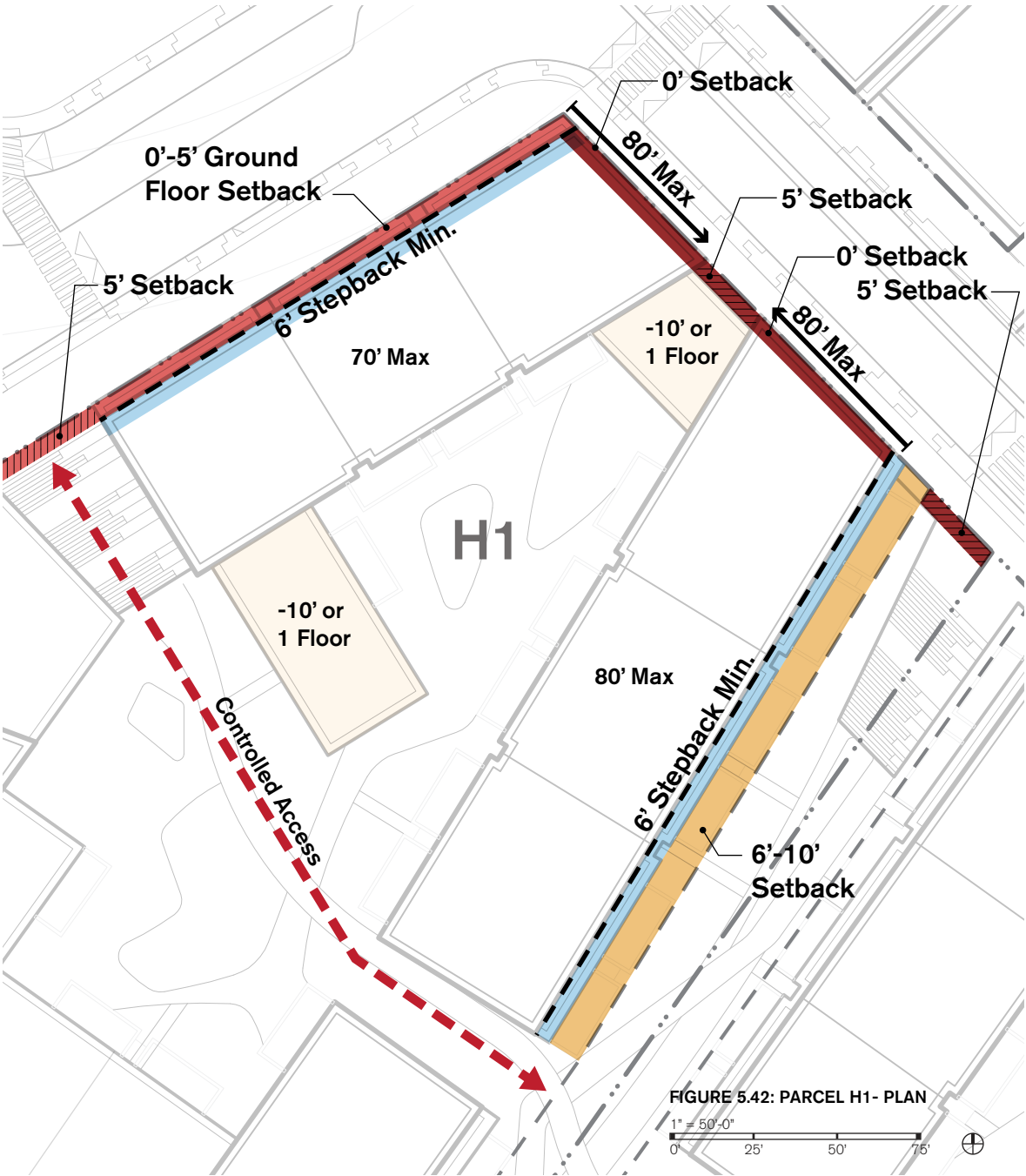
MASSING FOR ILLUSTRATIVE PURPOSES ONLY.

H1

New Hudson Corner Building

Primary Land Use	Mixed-Use
Special Use	None

- 0' Setback
- 0'-5' Setback (GF Only)
- 5' Setback Required
- 6'-10' Setback -Ground floor residential
- 6'-10' Setback -Ground floor commercial
- Infill Building
- Stepback
- 10'-15' Setback (Earl Path)
- Varied Setback
- 20' Setback
- 25' Setback



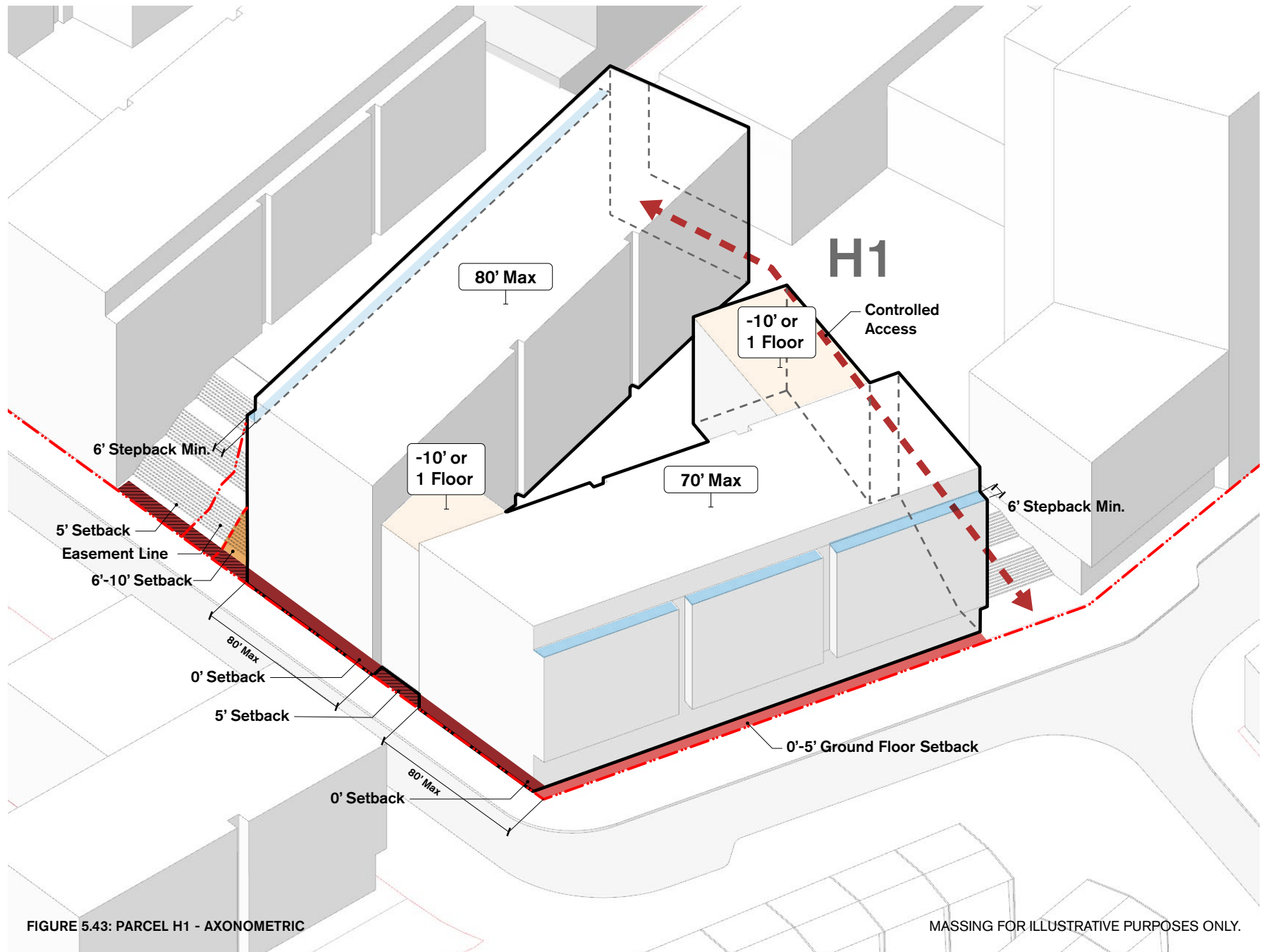


FIGURE 5.43: PARCEL H1 - AXONOMETRIC

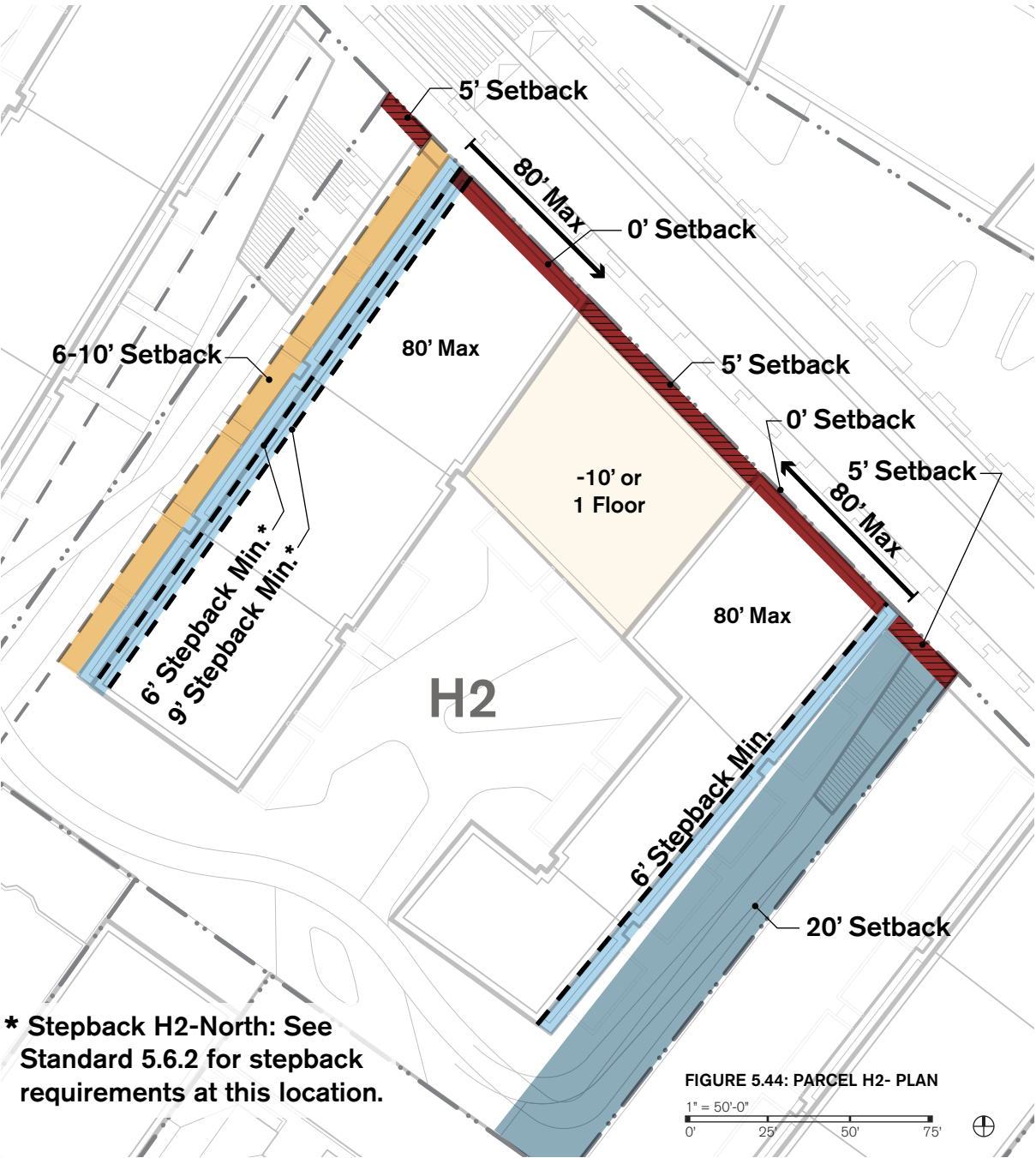
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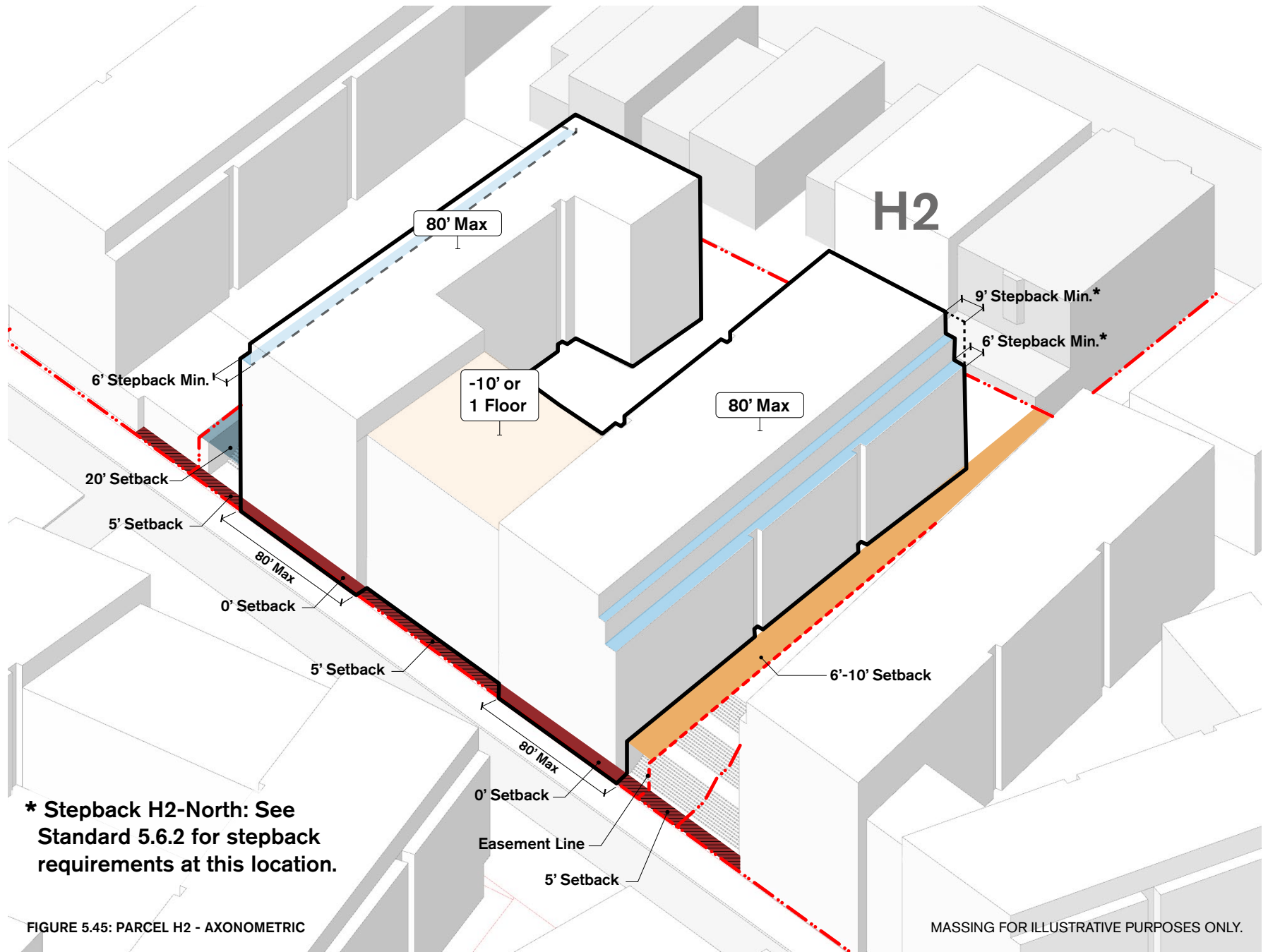
H2

New Hudson Street Building

Primary Land Use	Mixed-Use
Special Use	None

- 0' Setback
- 0'-5' Setback (GF Only)
- 5' Setback Required
- 6'-10' Setback -Ground floor residential
- 6'-10' Setback -Ground floor commercial
- Infill Building
- Stepback
- 10'-15' Setback (Earl Path)
- Varied Setback
- 20' Setback
- 25' Setback





H3

Earl Street Building

Primary Land Use	Mixed-Use
Special Use	School

- 0' Setback
- 0'-5' Setback (GF Only)
- 5' Setback Required
- 6'-10' Setback -Ground floor residential
- 6'-10' Setback -Ground floor commercial
- Infill Building
- Stepback
- 10'-15' Setback (Earl Path)
- Varied Setback
- 20' Setback
- 25' Setback

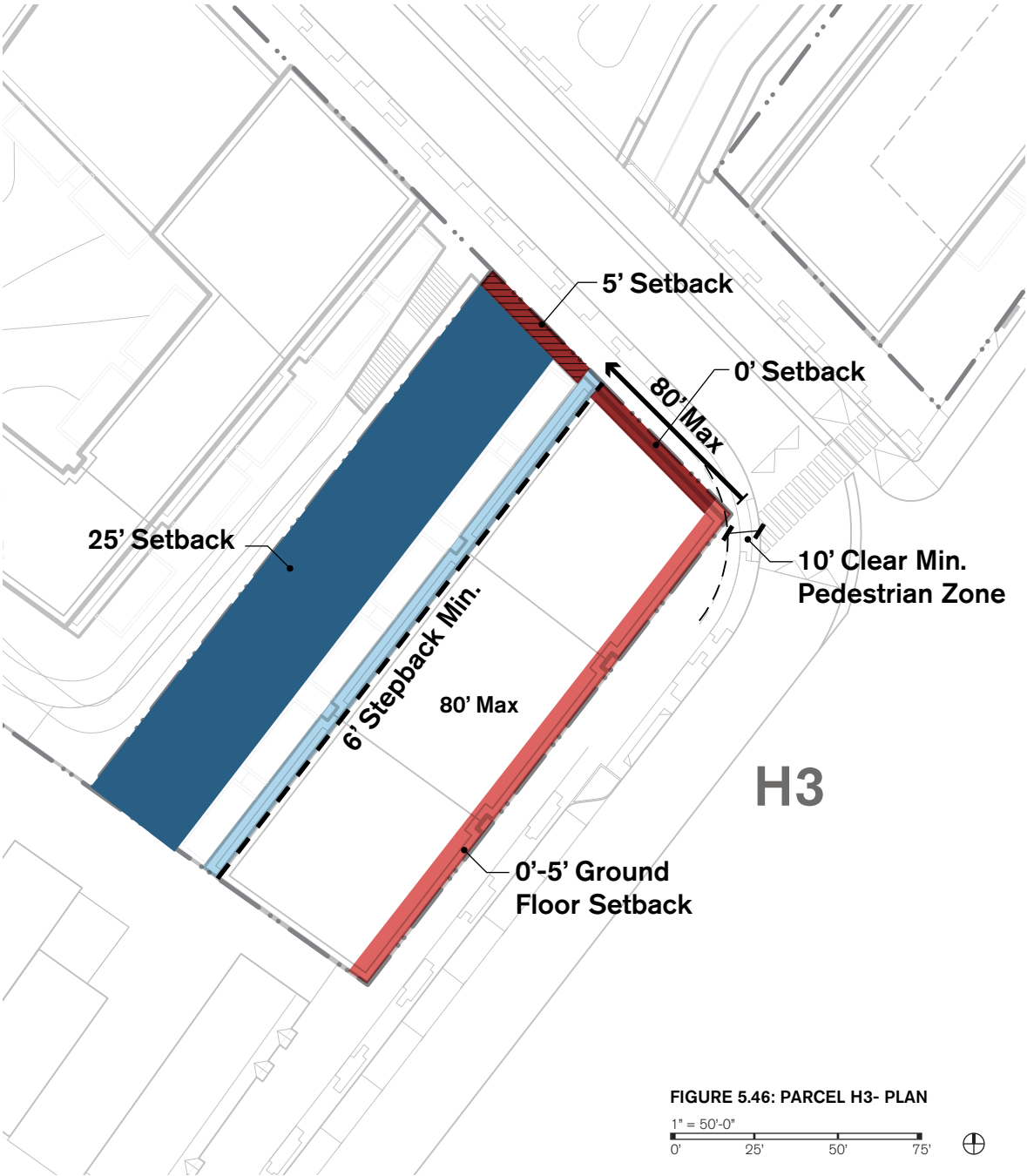
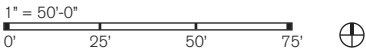


FIGURE 5.46: PARCEL H3- PLAN



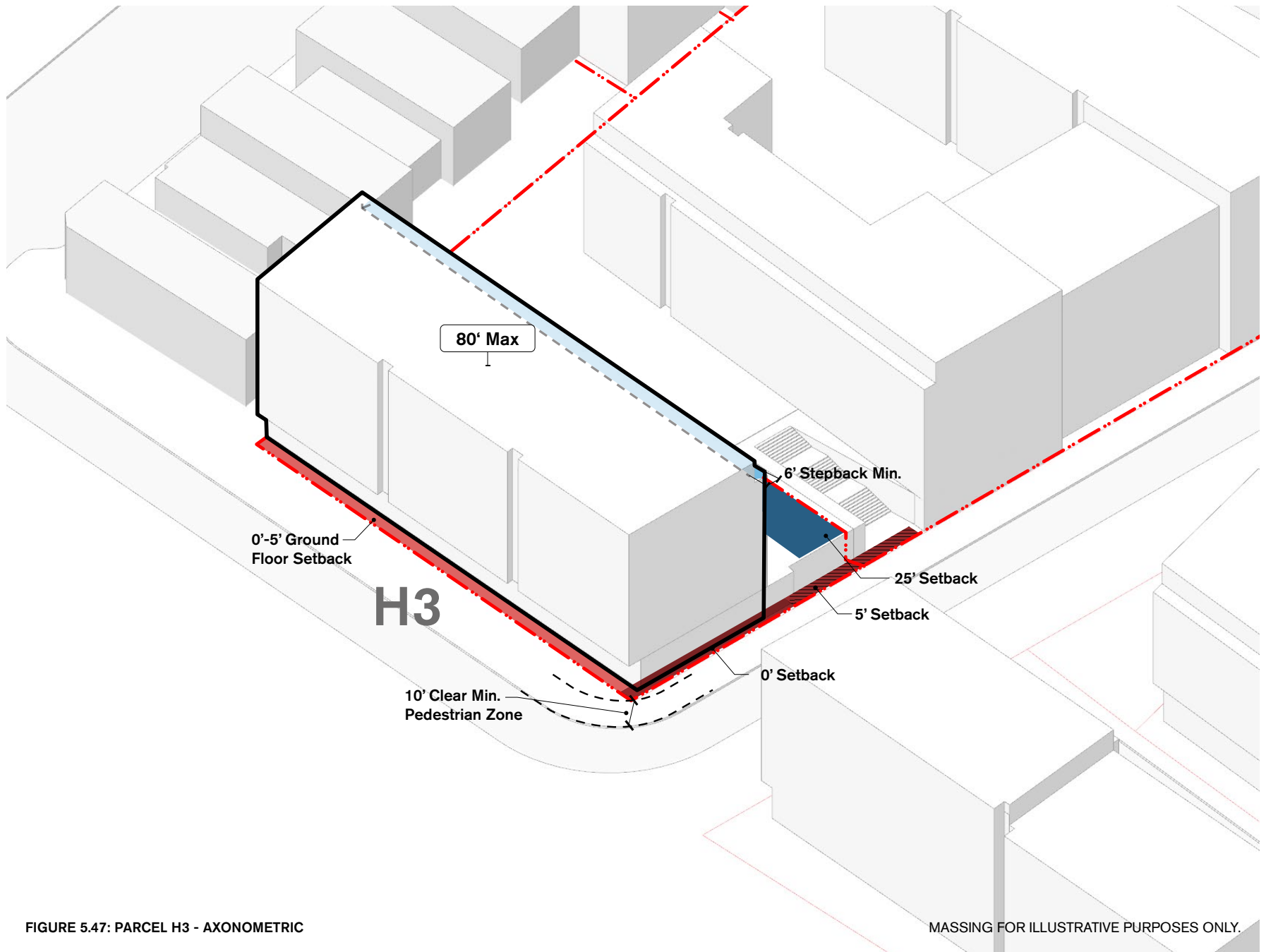


FIGURE 5.47: PARCEL H3 - AXONOMETRIC

H4

Innes Building	
Primary Land Use	Mixed-Use
Special Use	None

- 0' Setback
- 0'-5' Setback (GF Only)
- 5' Setback Required
- 6'-10' Setback -Ground floor residential
- 6'-10' Setback -Ground floor commercial
- Infill Building
- Stepback
- 10'-15' Setback (Earl Path)
- Varied Setback
- 20' Setback
- 25' Setback

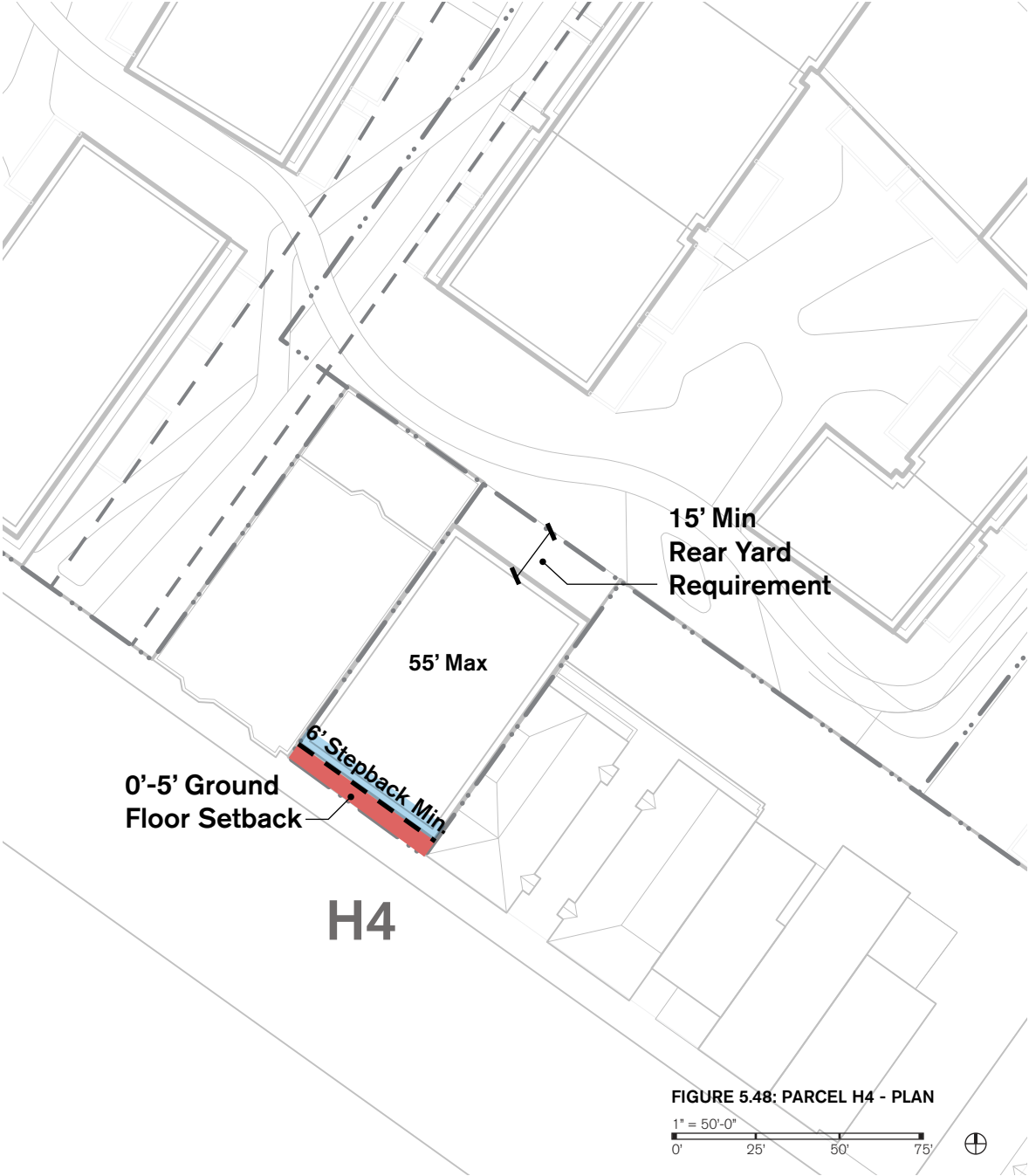


FIGURE 5.48: PARCEL H4 - PLAN



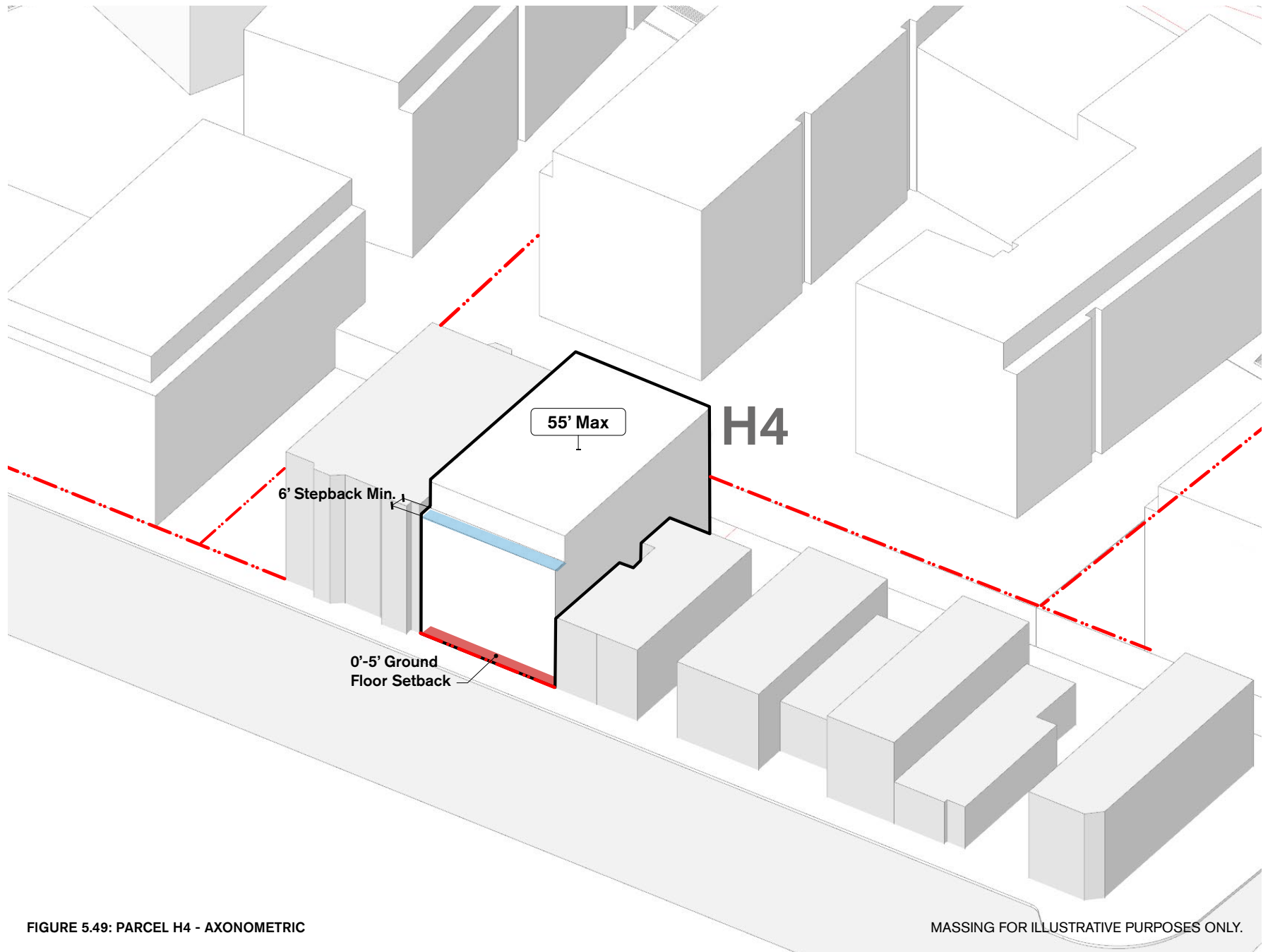


FIGURE 5.49: PARCEL H4 - AXONOMETRIC

MASSING FOR ILLUSTRATIVE PURPOSES ONLY.

F1

New Hudson Building

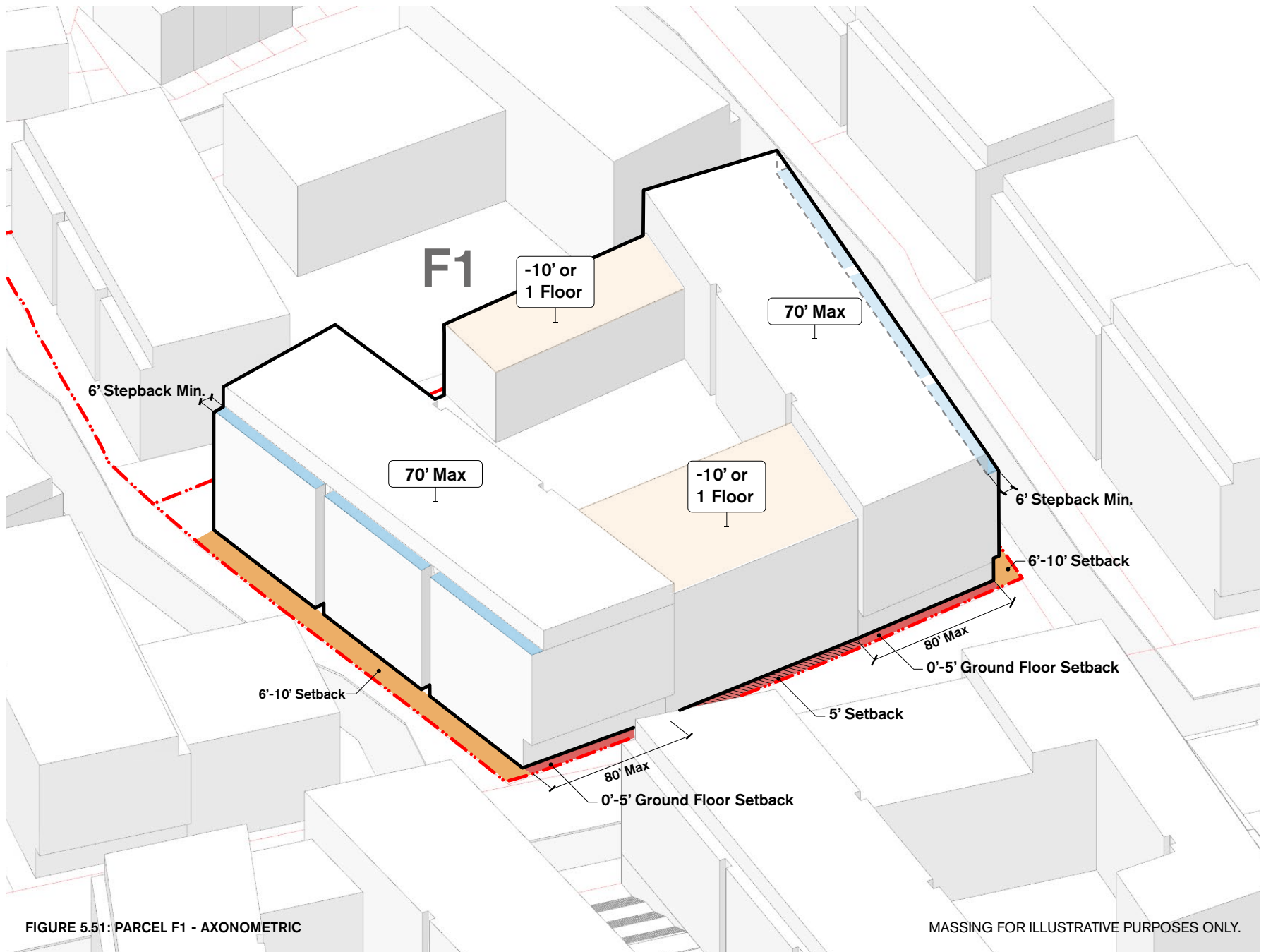
Primary Land Use	Mixed-Use
Special Use	Live-Work

- 0' Setback
- 0'-5' Setback (GF Only)
- 5' Setback Required
- 6'-10' Setback -Ground floor residential
- 6'-10' Setback -Ground floor commercial
- Infill Building
- Stepback
- 10'-15' Setback (Earl Path)
- Varied Setback
- 20' Setback
- 25' Setback



FIGURE 5.50: PARCEL F1 - PLAN

1" = 50'-0"
0 25 50 75



F2

Fairfax Building

Primary Land Use	Residential
Special Use	Live-Work

- 0' Setback
- 0'-5' Setback (GF Only)
- 5' Setback Required
- 6'-10' Setback -Ground floor residential
- 6'-10' Setback -Ground floor commercial
- Infill Building
- Stepback
- 10'-15' Setback (Earl Path)
- Varied Setback
- 20' Setback
- 25' Setback

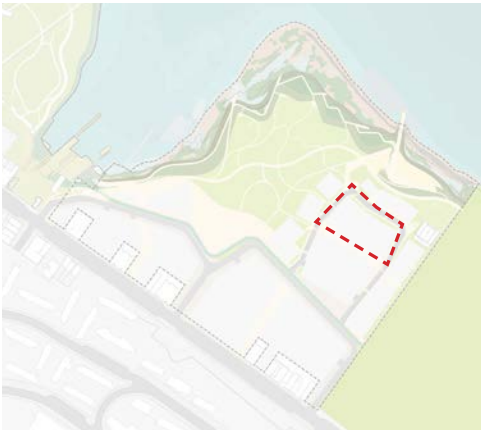


FIGURE 5.52: PARCEL F2 - PLAN

1" = 50'-0"
0' 25' 50' 75'

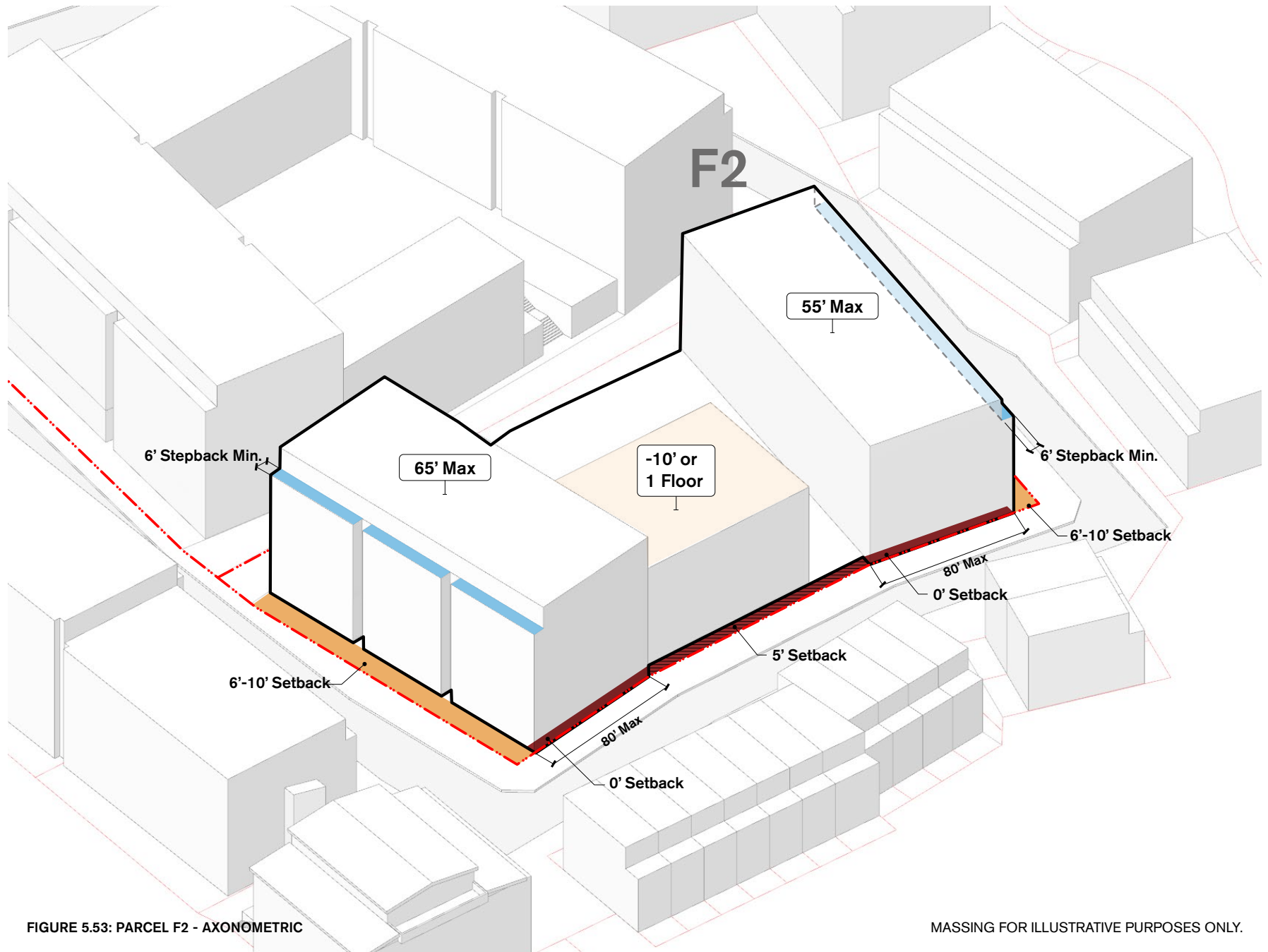


FIGURE 5.53: PARCEL F2 - AXONOMETRIC

MASSING FOR ILLUSTRATIVE PURPOSES ONLY.

F3

Spring Corner Building

Primary Land Use	Mixed-Use
Special Use	None

- 0' Setback
- 0'-5' Setback (GF Only)
- 5' Setback Required
- 6'-10' Setback -Ground floor residential
- 6'-10' Setback -Ground floor commercial
- Infill Building
- Stepback
- 10'-15' Setback (Earl Path)
- Varied Setback
- 20' Setback
- 25' Setback



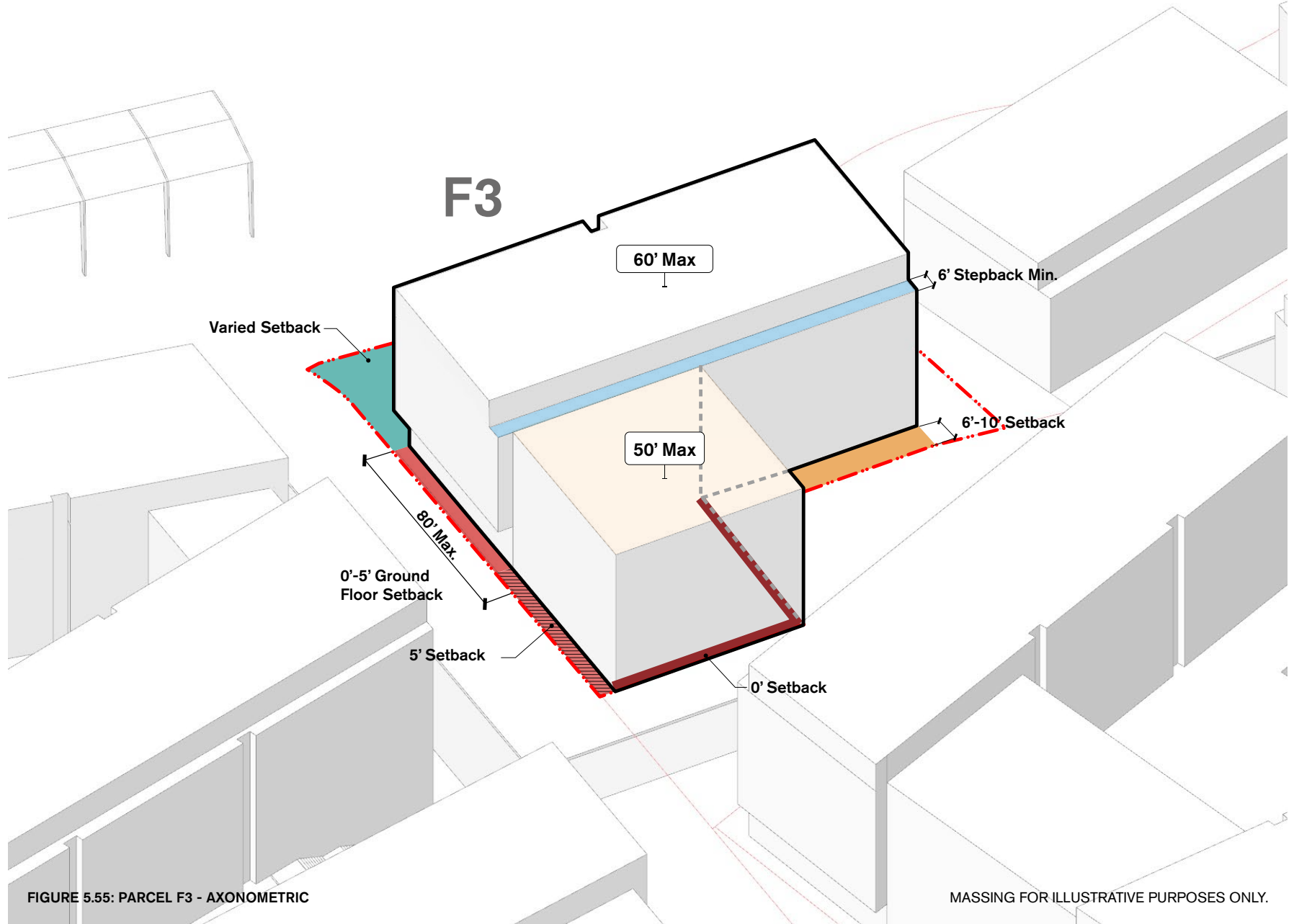


FIGURE 5.55: PARCEL F3 - AXONOMETRIC

MASSING FOR ILLUSTRATIVE PURPOSES ONLY.

F4

Spring Building

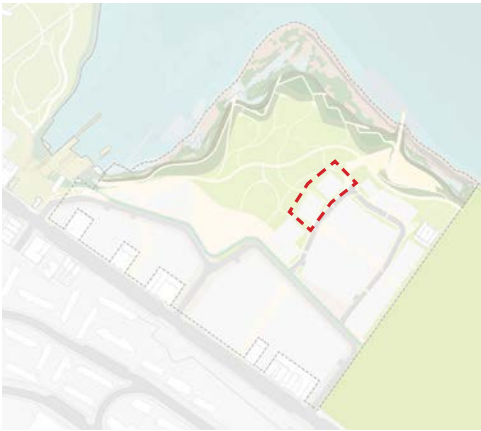
Primary Land Use	Residential
Special Use	None

F5

Spring Building

Primary Land Use	Residential
Special Use	None

- 0' Setback
- 0'-5' Setback (GF Only)
- 5' Setback Required
- 6'-10' Setback -Ground floor residential
- 6'-10' Setback -Ground floor commercial
- Infill Building
- Stepback
- 10'-15' Setback (Earl Path)
- Varied Setback
- 20' Setback
- 25' Setback



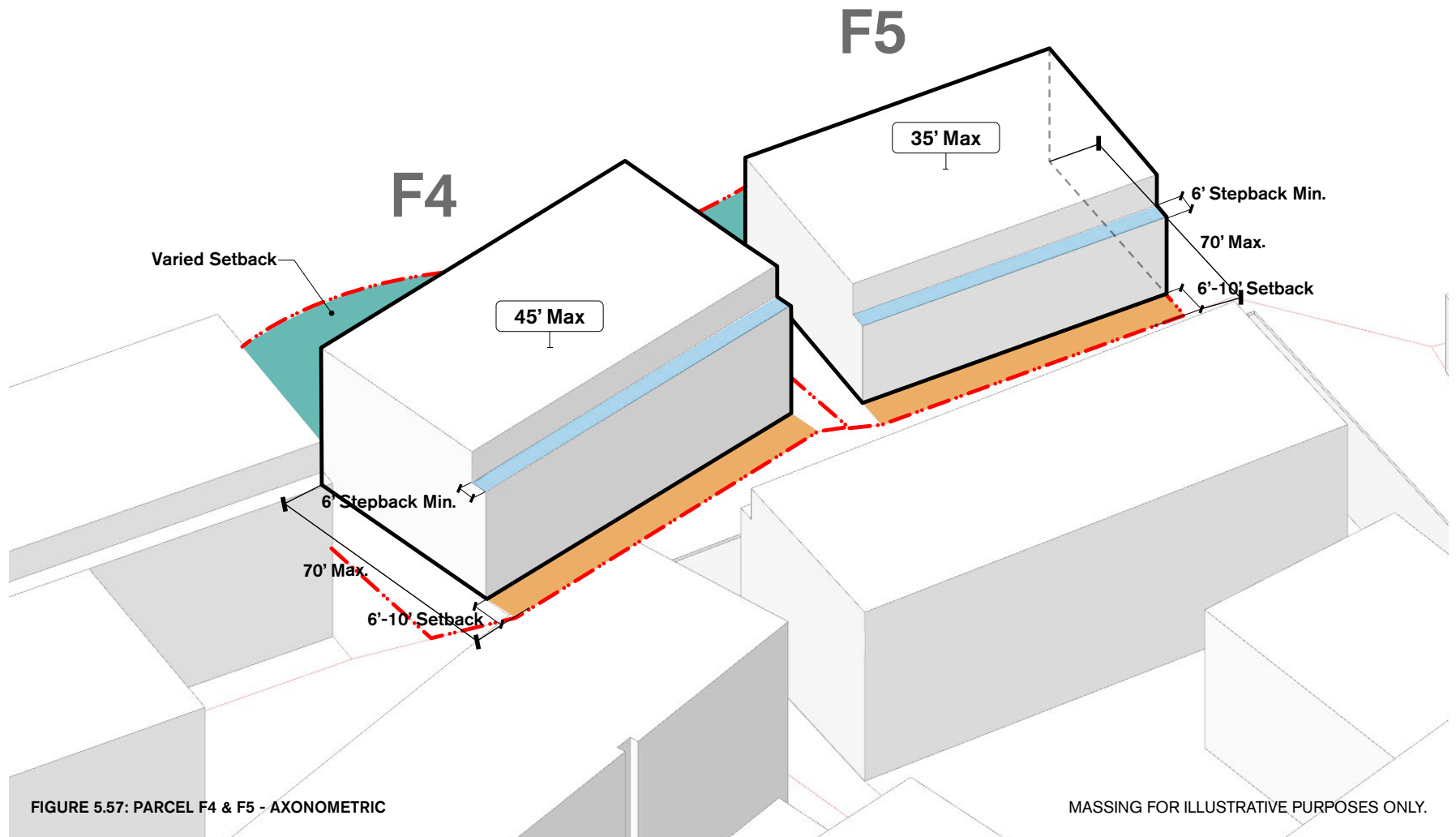


FIGURE 5.57: PARCEL F4 & F5 - AXONOMETRIC

MASSING FOR ILLUSTRATIVE PURPOSES ONLY.

F6

Beach Corner Building

Primary Land Use	Mixed-Use
Special Use	Live-Work

- 0' Setback
- 0'-5' Setback (GF Only)
- 5' Setback Required
- 6'-10' Setback -Ground floor residential
- 6'-10' Setback -Ground floor commercial
- Infill Building
- Stepback
- 10'-15' Setback (Earl Path)
- Varied Setback
- 20' Setback
- 25' Setback

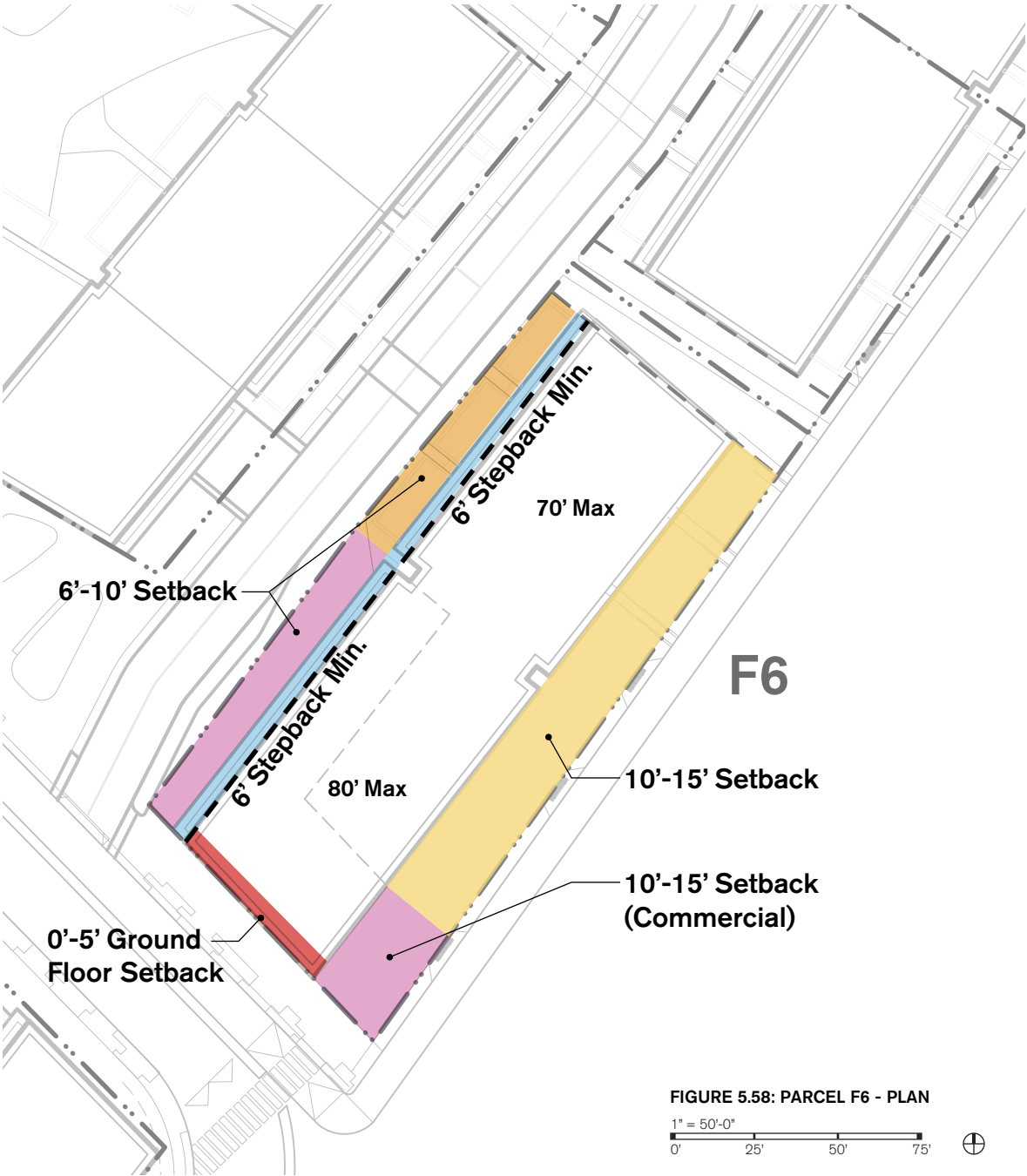
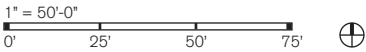
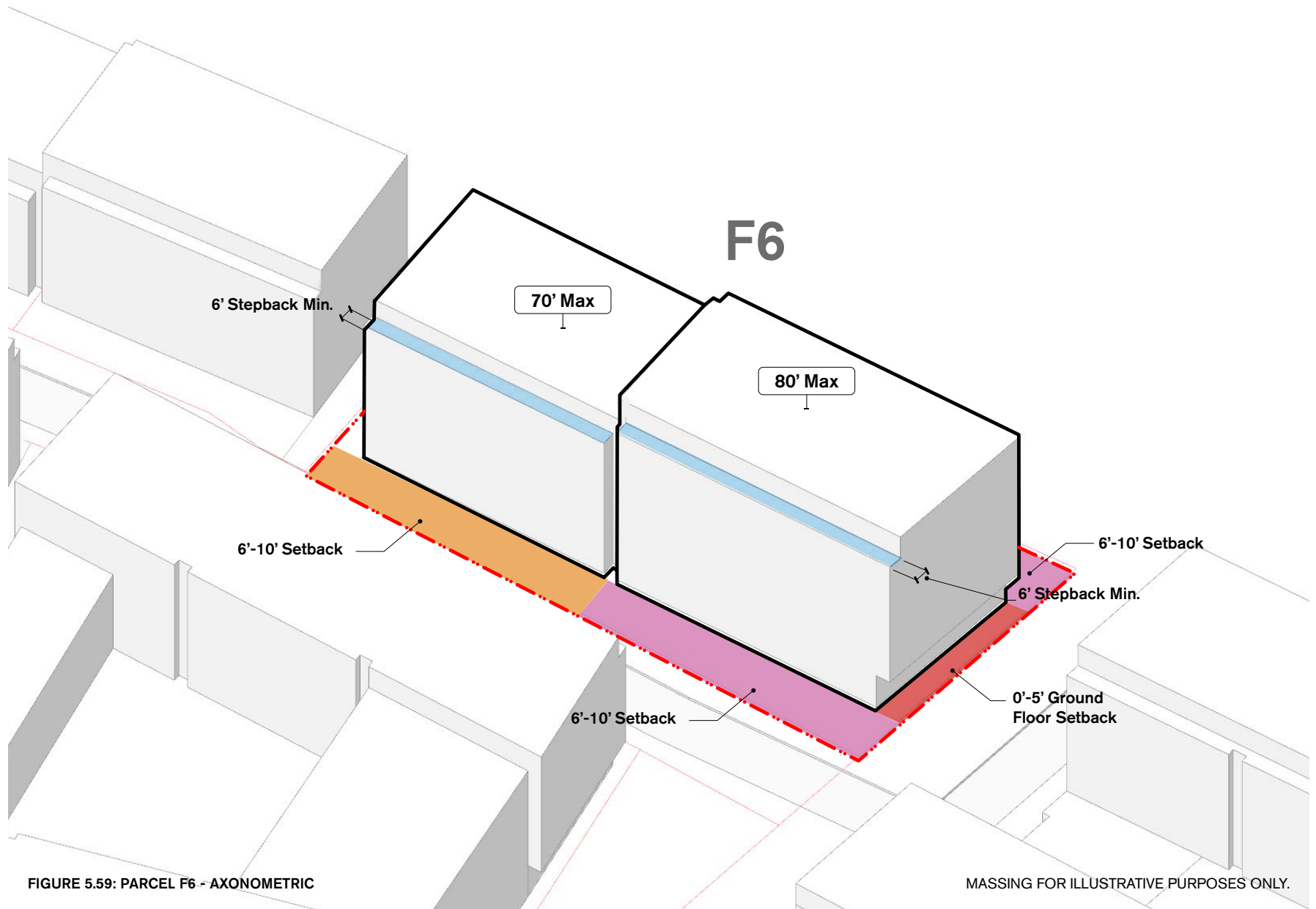


FIGURE 5.58: PARCEL F6 - PLAN





F8

Beach Buildings	
Primary Land Use	Residential
Special Use	None

F9

Beach Building	
Primary Land Use	Residential
Special Use	None

- 0' Setback
- 0'-5' Setback (GF Only)
- 5' Setback Required
- 6'-10' Setback -Ground floor residential
- 6'-10' Setback -Ground floor commercial
- Infill Building
- Stepback
- 10'-15' Setback (Earl Path)
- Varied Setback
- 20' Setback
- 25' Setback

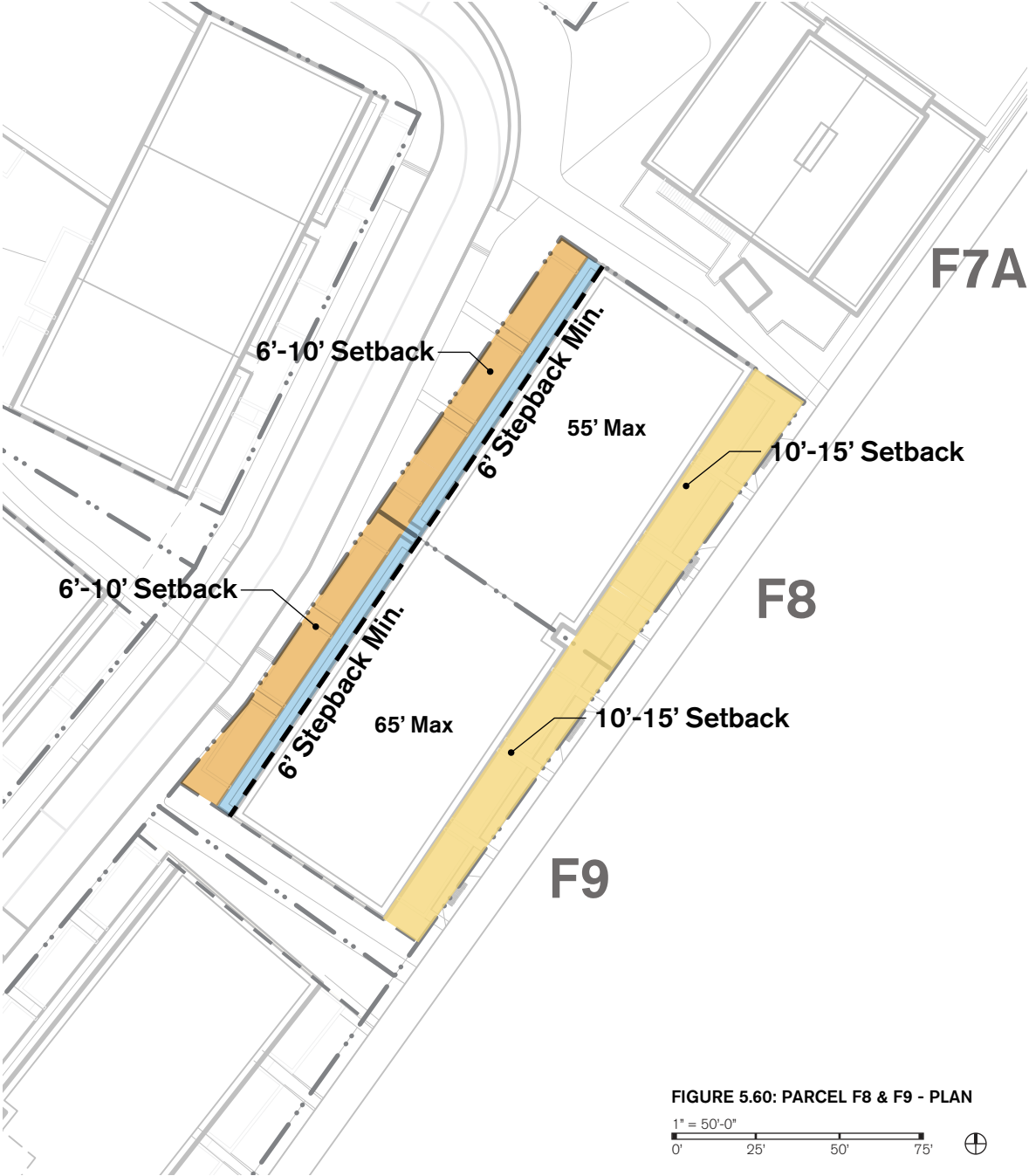
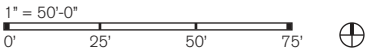
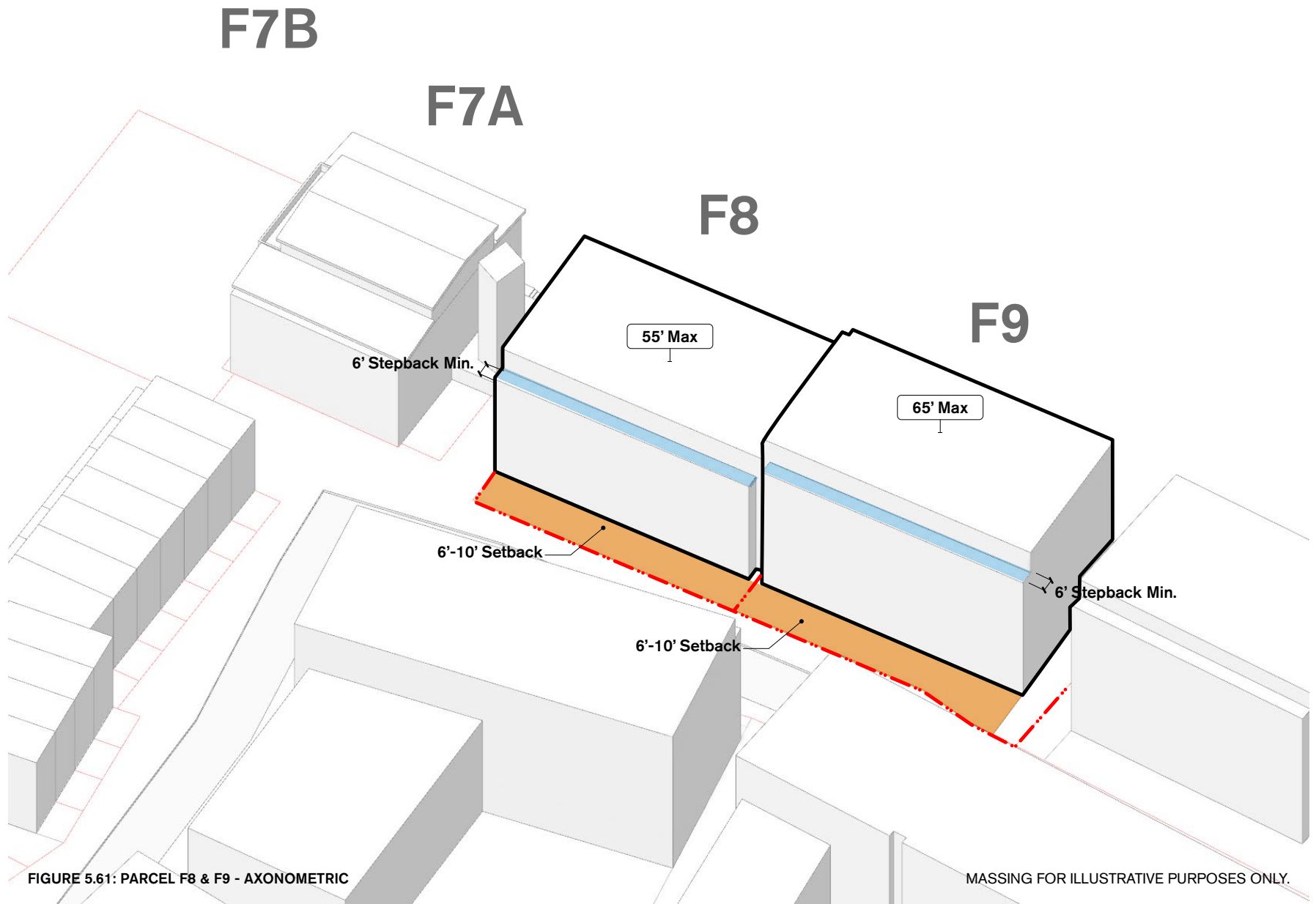


FIGURE 5.60: PARCEL F8 & F9 - PLAN





F10 to F22

Beach Townhouses

Primary Land Use	Residential
Special Use	Townhomes

- 0' Setback
- 0'-5' Setback (GF Only)
- 5' Setback Required
- 6'-10' Setback -Ground floor residential
- 6'-10' Setback -Ground floor commercial
- Infill Building
- Stepback
- 10'-15' Setback (Earl Path)
- Varied Setback
- 20' Setback
- 25' Setback

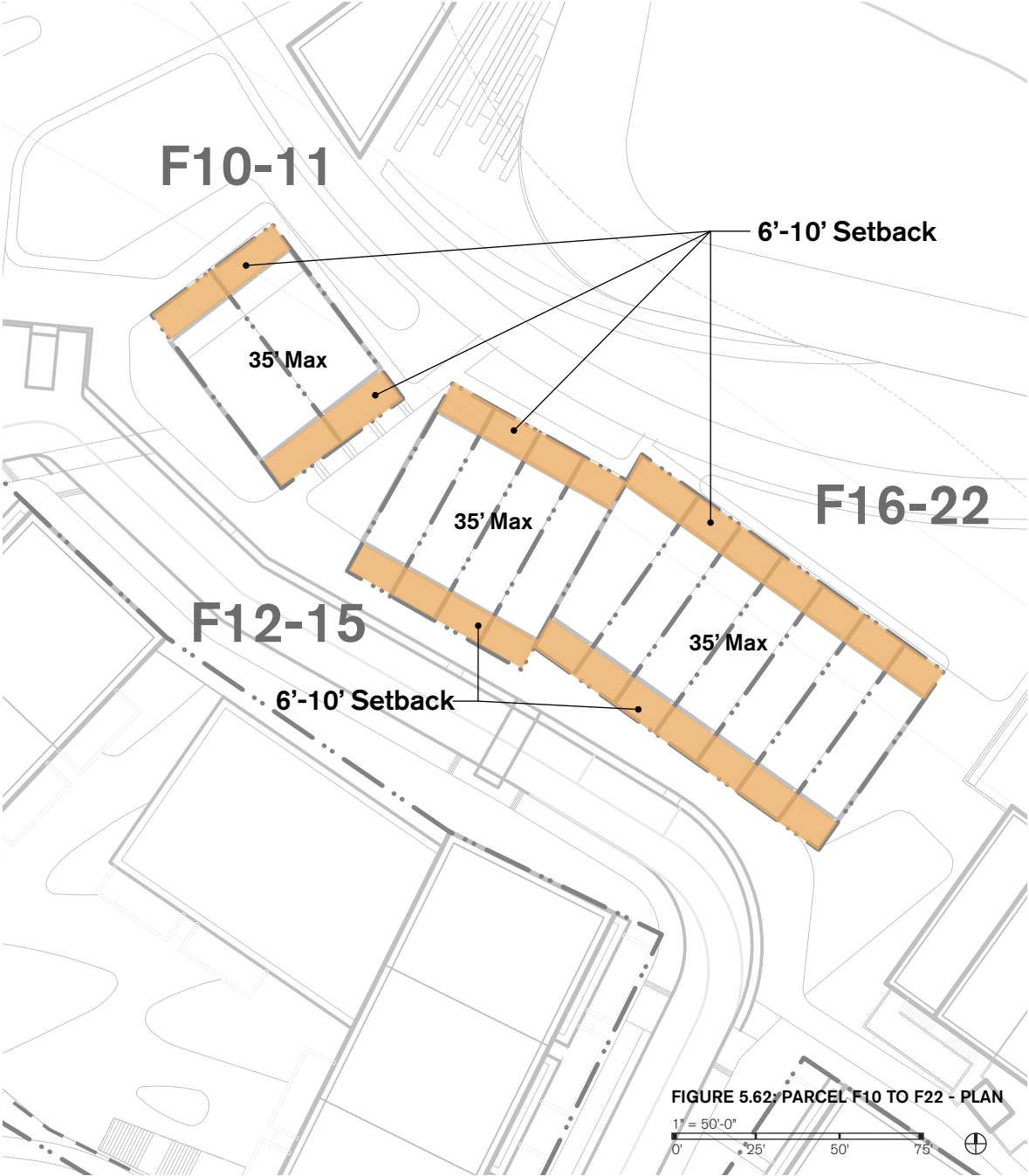


FIGURE 5.62: PARCEL F10 TO F22 - PLAN



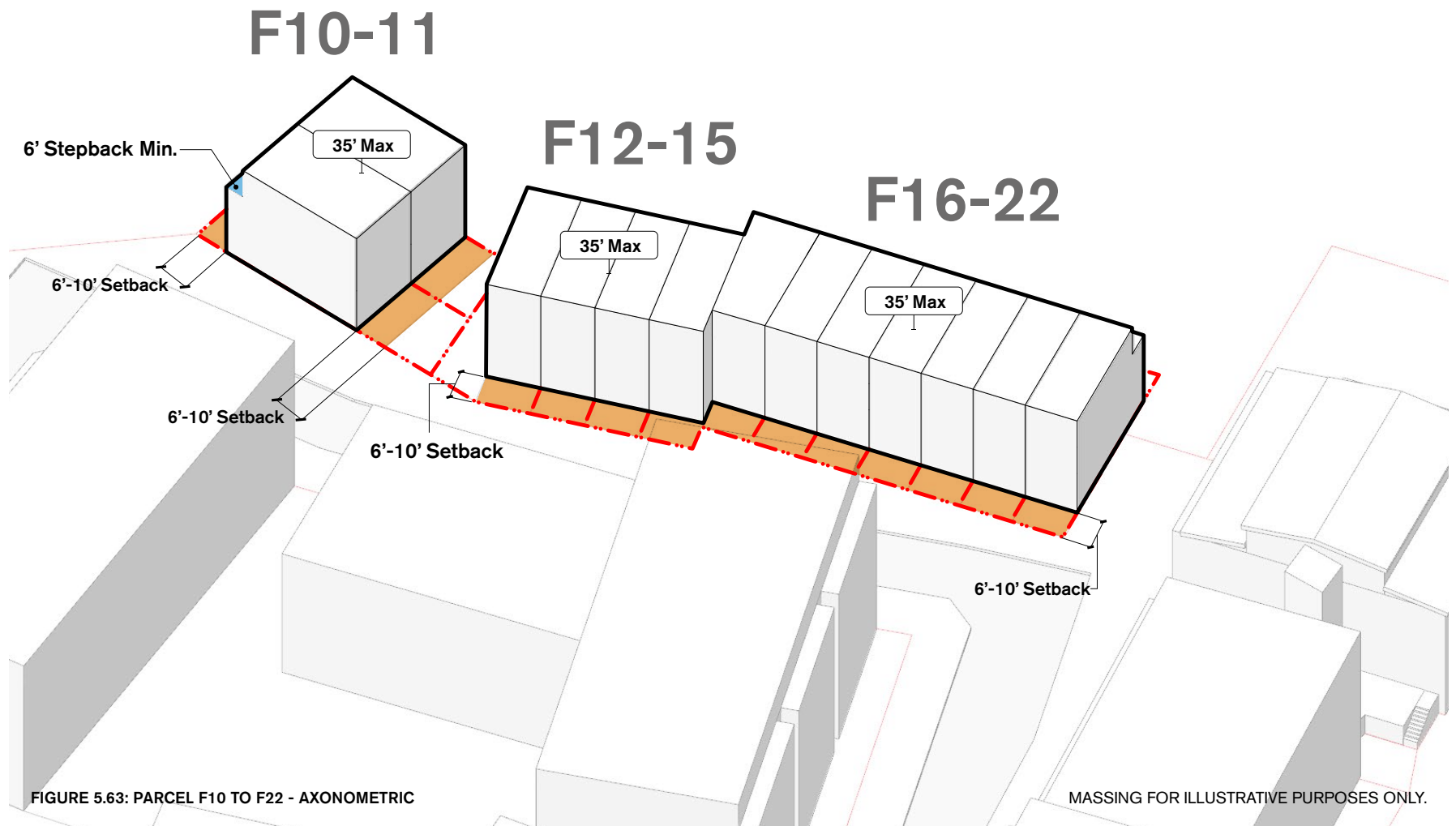


FIGURE 5.63: PARCEL F10 TO F22 - AXONOMETRIC

MASSING FOR ILLUSTRATIVE PURPOSES ONLY.

06



Architecture

Chapter 06: Architecture

- 6.1 Architectural Intent
- 6.2 Base
- 6.3 Facade
- 6.4 Roof
- 6.5 High Performance Building Design

This chapter elaborates the Architectural Standards and Guidelines for India Basin. While the Standards and Guidelines for Public Realm, Land Use, and Urban Form in previous chapters have tended toward a more prescriptive approach, the Architectural Guidelines that follow are generally more-performative – describing desired outcomes which are illustrated by a non-exhaustive selection of possible strategies.

The detail of these Standards and Guidelines has been focused on the ground-level experience of buildings from the public realm – to lower floors of frontages along rights-of-way and pedestrian easements to facades visible from open spaces and to the threshold interface between public and private. Composition of buildings and spaces emphasize diversity with complementarity. Flexibility is preserved to enable and encourage a variety of architectural responses.

6.1 Architectural Intent

“Urban form that considers the quality and functionality of the building fabric, streets and open spaces contributes to the livability of San Francisco... Buildings that enhance the connection between the inner life of buildings and the outer public realm also help engage people to the larger sense of activity and spirit of the place in which they live.”

San Francisco Urban Design Guidelines,
August 2016 Draft

The architectural intent for India Basin draws inspiration from the Project Vision to integrate ecology and urbanity in the form of a human-scale village. This entails the calibration of building Form, Proportion, Variation, Modulation, Rhythm, Articulation, Depth, Threshold, Materiality, Texture and Color of physical elements to the speed, range, capabilities and delights of human sensory perception. An architecture for the Human Scale compels:

Variety: Variety in this architectural context is a condition of difference of forms, features or other characteristics manifest amongst a group of proximate buildings. Variety is essential to the richness of experience necessary for a welcoming, attractive and vibrant pedestrian environment.

Tectonics: Tectonics is the science and art of construction reified in the synthesis of program, space and assembly. It refers not just to the activity of making requisite construction that answers certain needs, but rather, to the activity that raises this construction to an art form. It is the expression of material depth and tactility through the means and methods of craft — the evident effect of materiality on the experience of space.

Resonance: With buildings, as with people, good neighbors make great neighborhoods. As each new structure is added to India Basin, the built context is enriched. Subsequent additions to the neighborhood are obliged to respond with appropriate sensitivity and contextual resonance.

The Standards and Guidelines that follow comprise the architectural vocabulary and controls for India Basin. The Standards and Guidelines are organized according to building element: Base, Façade, Roof and Systems Performance.



An Architecture for the Human Scale.

6.2 Base



Open Ground Floor Condition

6.2.1. Street Orientation

Engagement between the public and private realms is foundational to urbanity. This engagement is reflected in the orientation of a building to the public right-of-way. Generous, transparent, open and otherwise inviting façade treatments express the interrelatedness of public and private and the participation of private space in the public life of the community.



Commercial Ground Floor Use with Outdoor Seating



Recessed Setback for Ground-Floor Retail Facade



Non-Residential Storefront Open to Public Realm

Standards

6.2.1.1. Entry from the Street To create engagement and foot traffic between the ground floor of the buildings and the public realm, the primary entry for each building shall be from a public right-of-way or pedestrian easement. Primary building entries are not permitted to be located on park facing frontages.

Each retail use shall provide a minimum of one entry along a street or open space.

Building facades that face onto a Public Right of Way or Pedestrian Easement shall provide a minimum of one entry for every 70'-0" of façade length. Qualifying entries shall include building access, individual unit entries, or access to ground floor commercial, residential or retail tenant spaces. Parking entries, storage, exit stairs and building service access are excluded.

Guidelines

6.2.1.2. Public Realm Orientation Non-Residential Storefront façades shall open up to the pedestrian public realm and shall make visible social or common uses. Large movable openings such as pivot, sliding or roll-up windows and doors are encouraged, but not required.



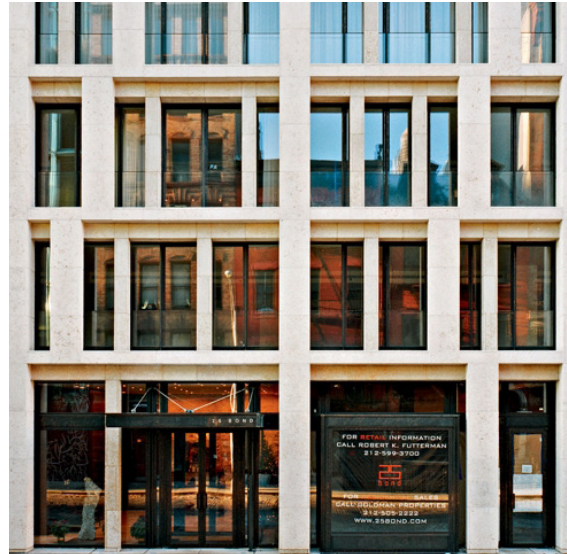
6.2.2 Ground Floor Modulation

The ground floor of the building most-directly participates in the pedestrian experience. Modulation of the ground floor on 4 to 5-second interval, but no more than 8 to 10-second interval, at average walking speed provides a frequency of new activities and sights that helps to stimulate the feel of a vibrant environment.

Small-Scale Neighborhood Retail With Primary Entry Accessible From Public Right-of-Way



Narrow Retail Frontage.



Expressed Structural Bays



Facade Modulation

Standards

6.2.2.1. Ground Floor Façade Modulation

Buildings shall modulate ground floor façades with vertical articulation at intervals no greater than 30'-0" on-center. Intervals need not be equal. Articulation may be achieved through expressed bay structure or subdivision using ground floor piers, window patterns or other integral elements.

6.2.2.2. Retail Storefront Diversity Individual Retail Sales and Service entities shall occupy no more than 75'-0" of ground floor frontage length.

Guidelines

6.2.2.3. Exterior Modulation Exterior Façade Modulation shall reflect the delineation of structural bays and/or spatial uses on the interior of the Building. Modulation shall reinforce the

architectural concept and vocabulary of the building as a holistic composition.



6.2.3. Transparency

Transparency promotes active interface between exterior and interior uses, provides fluidity between public and private realms and fosters a sense of well-being and security through natural surveillance. Transparency expresses an invitation to participate that evokes a sense of community.



Low Sill Height at Ground floor Commercial Use



Recessed, Transparent Primary Entry



Transparency at Active Ground Floor Corner Condition

Standards

6.2.3.1. Transparency, Non-Residential Use

The ground floor façade of all non-residential uses shall have a minimum of 65% transparency, excluding portions of an elevation frontage dedicated to parking and loading access, building egress, and mechanical and core systems or other non-occupiable service areas. Transparent areas shall have a sill height no more than 42" from sidewalk grade.

In order to comply, the majority of glazed areas shall be unobstructed by solid window coverings or other features that impede visibility from the public realm into the interior of the ground floor of the building. Darkly-tinted or highly-mirrored glass is prohibited on the ground floor.

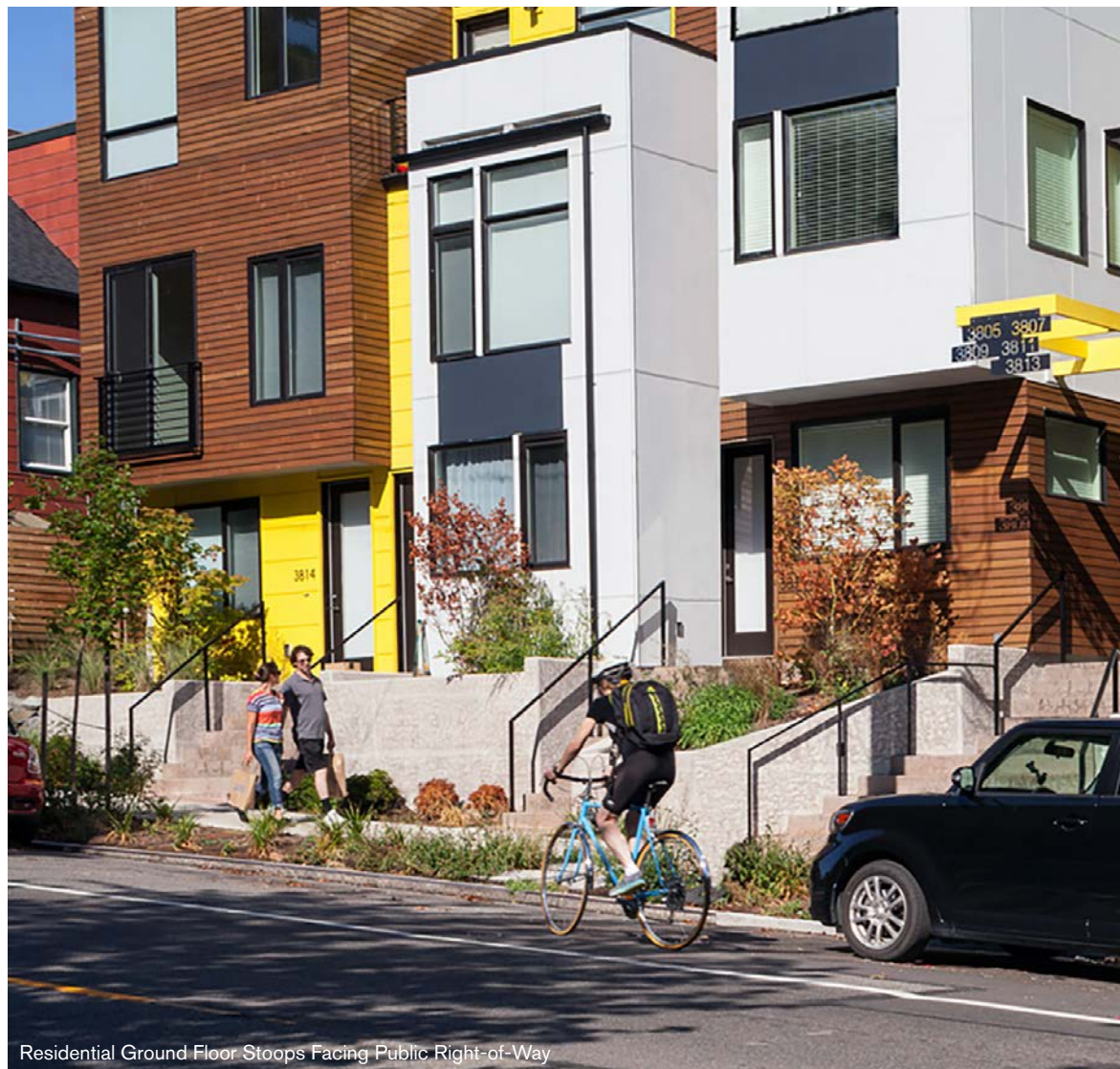
6.2.3.2. Non-Retail Commercial Frontage Interior

The interior area within four feet from the surface of the window glass shall be at least 75% open to perpendicular view from the street. No partitions parallel to the facade and above 42" shall be located within four feet of the

window.

6.2.3.3. Transparency, Residential Use

Ground floor residential lobbies and amenities shall have a minimum of 65% transparency in order to enliven the visual interface with the public right-of-way. Transparent areas shall have a sill height of no more than 42" from sidewalk grade. Ground floor residential units shall have a minimum of 40% transparency while allowing for window coverings and elements to maintain privacy for units.



6.2.4. Threshold Treatment

Buildings that provide an active and transparent threshold create an engaging interface between exterior and interior uses. Well-designed thresholds provide fluidity between public and private realms and foster a sense of well-being and security through natural surveillance. Gracious thresholds activated with residential stoops, furnishing, interior/exterior public uses and upper levels with balconies create an engaging street level experience and instill a sense of community.



Non-Residential Primary Entry Threshold



Raised Commercial Ground Floor Terrace With Awning



Weather-Protected Residential Entry

Standards

6.2.4.1. Non-Residential Entry Design Non-residential entry design shall incorporate two or more of the following methods:

- Change in wall/window plane in relation to the primary building façade
- Use of accentuating light and color
- Provide a projecting element above
- Include a change in material or detailing
- Recessed doors or cased openings

6.2.4.2. Residential Entry Design Where individual ground floor entries exist, unit shall have a weather-protected entry directly into the unit. Changes in material, awnings, recessed entries and stoops are encouraged to express the module of the residential unit.

6.2.4.3. Lobby Design Lobby entrances shall occupy a maximum of 30'-0" of façade length within the first interior 25'-0" of the façade. Lobby façade treatment shall maximize transparency to interior common spaces or

interior open spaces.

6.3 Facade

6.3.1. Variation

Variation is a change or difference in form, proportion, position, condition, quantity, level or other compositional characteristic – typically within certain parameters. In design, Variation describes adjacent elements comprising both similar and different attributes such that they are recognizable as related.



Varied Residential Facades Articulated at narrow Intervals



Facade Modulation by Vertical Protrusions and Recesses



Change in Color and Building Massing Setbacks



Facade Variation

Guidelines

6.3.1.1. Façade Variation Individual buildings shall vary from immediately adjacent building(s) in at least two of the following ways: building massing, materials, glazing pattern and proportion, integral material color (paint color differences alone do not qualify), architectural detail, articulation or roofline modulation.



6.3.2. Modulation

Modulation strategies are occupiable façade elements that are generally less than five feet in depth. Modulation strategies involve creating volumetric shifts that result in proportional parts—or “modules”—in an architectural façade. These strategies may be rhythmic or asymmetric.



Changes in Material, Color, and Depth Along Facade



Facade Depth Through Recessed Balconies and Projections



Staggered Protected Balconies

Guidelines

6.3.2.1. Façade Modulation Façade Design shall incorporate Multiple Façade Systems and/or Volumetric Façade Modulation, as described below:

Multiple Façade Systems: Façades are differentiated into no less than two distinctly expressed volumes. This differentiation entails contrasting materials, articulation or fenestration

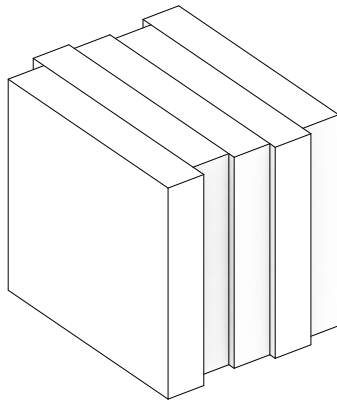
pattern aligned with a volumetric shift. The volumetric façade shift may include but shall not be limited to changes in the façade plane through reveals, facets recesses, protrusions or other formal shifts. Paint, or coatings do not qualify as contributing to multiple façade systems.

Volumetric Façade Modulation: Volumetric Façade Modulation is a variation in the façade plane through modulation of the building envelope or occupiable space. The application

of volumetric façade articulation includes, but is not limited to, the following: vertical or horizontal recesses or protrusions, structural expression, shifted modules, bay or sawtooth windows and balconies.

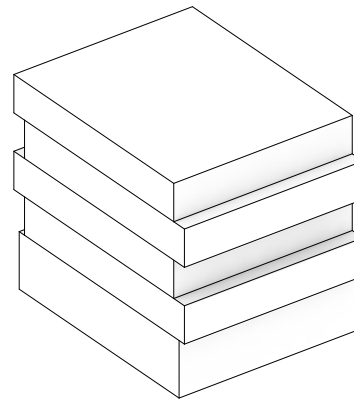
A non-exhaustive selection of Multiple Façade Systems and Volumetric Façade Modulation examples are shown on the following pages.

Facade Modulation Strategies



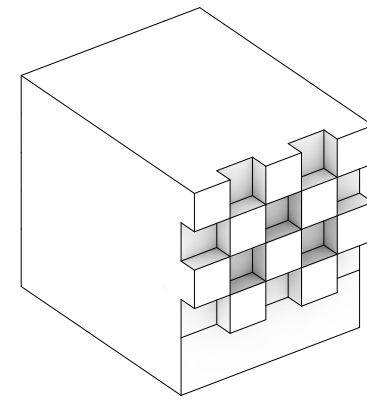
Vertical Shift

The facade is subdivided into “bays” that protrude or recess from a predetermined datum. These bays may be expressive of a programmatic or structural characteristic of the building.



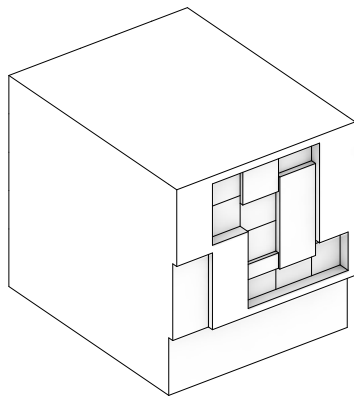
Horizontal Shift

The facade is defined by horizontal subdivisions which project forward or push back from each other. The horizontal subdivisions may, but need not be, determined by the location of the building's floorslabs.



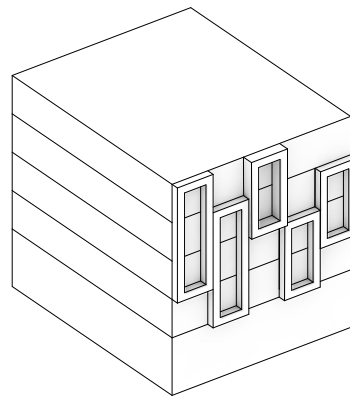
Pixilation

The facade is subdivided into “pixels” (or relatively small and regularly occurring modules), which are expressed as identifiable, individual pieces of a whole system or pattern along the facade. Pixilation techniques may include, but are not limited to, changes in depth, material or surface treatment.



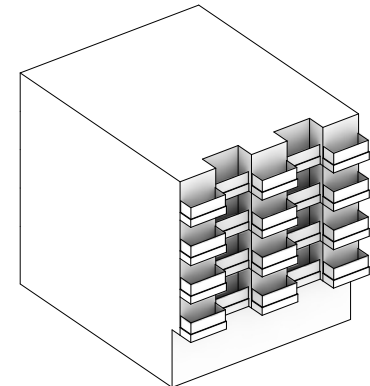
Low-Relief / Carving

A single apparent volume contains subtle changes in plane—typically combined with changes in material [systems]—to create the illusion of a carved and layered facade.



Floor Grouping

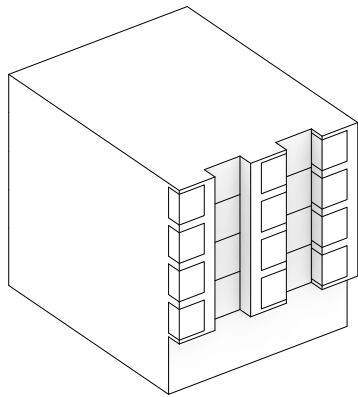
Two or more adjacent floors are grouped for a portion of their span by a single element along the facade such as a frame, protrusion, subtraction, structural element, etc.



Balconies

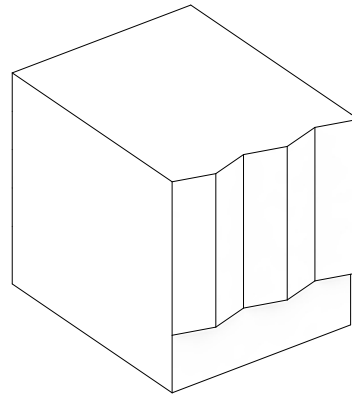
Balconies can be used as a modular element to break up a facade into smaller-scaled portions. Balconies can be open, partially enclosed, projections or recesses from the main facade.

Facade Modulation Strategies



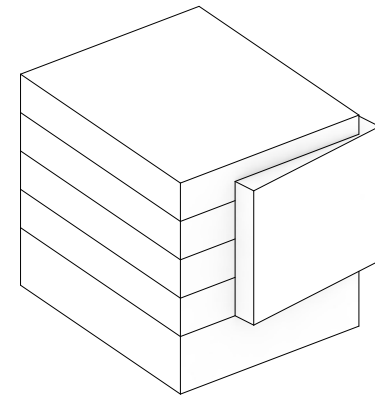
Bay Windows

Bay Windows are occupiable, enclosed projections off of the main facade. A bay window need not extend the full height of the building.



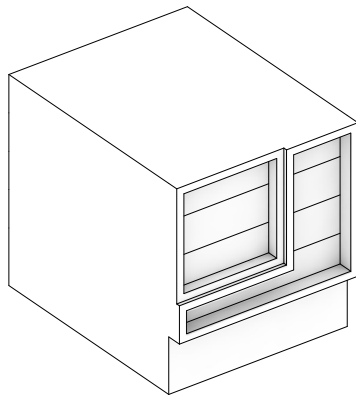
Push-Pull

This is defined by a series of sloped or faceted surfaces along the facade which occur at the scale of the facade.



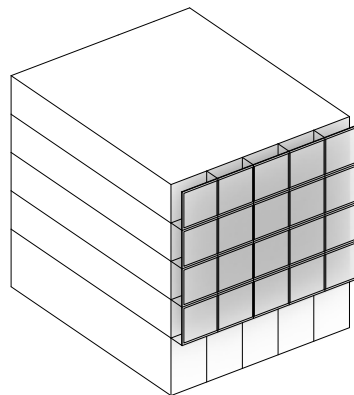
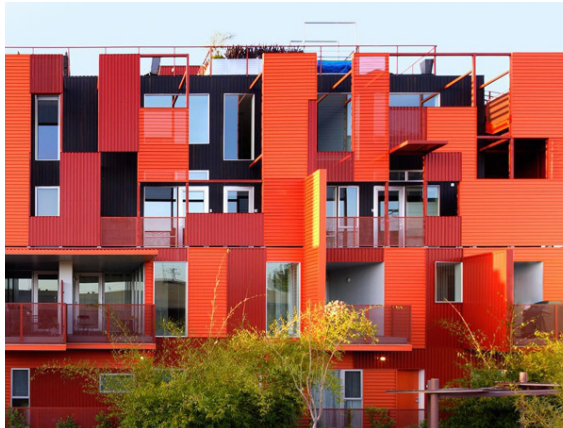
Intersecting Volumes

This strategy modulates a building's facade by creating the illusion of two or more distinct volumes intersecting each other. The apparent volumes are typically emphasized as discrete using contrasting materials, colors, textures or offset angles.



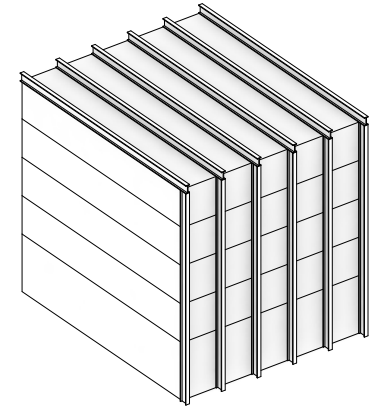
Framing

Elements of a facade can be identified as modules through the use of a frame or framing element. A frame can be a continuous protrusion which follows some perimeter at the facade scale.



Double Skin

A double skin is a facade system created by a second enclosure, typically lighter and slightly translucent or perforated, outboard of the main exterior building envelope. A double skin may have operable components and is meant to add depth and intricacy by way of light and shadows along the facade.



Structural Expression

Structural elements such as beams, columns, cross-bracing, or fastenings can naturally break up a building's facade if made visible along a building's exterior.



6.3.3. Articulation

Articulation strategies are non-occupiable expressions of material properties, craft, treatment, pattern and assembly, which comprise the depth of the façade. Articulation and material application shall reinforce building massing and modulation strategies to create a cohesive façade system. A non-exhaustive selection of Articulation examples are shown on the following pages.

Standards

6.3.3.1. Material Treatment Façade Design shall incorporate material treatments that express the integral qualities of the material, exhibit craft and resonate with the industrial history of the area. This includes the use of treated metal, concrete, stone, glass, composites and wood materials in order to achieve a visible level of texture, formwork, color and/or relief. A minimum of 65% of exterior facade shall either incorporate integral material finishes or shall be white in color.

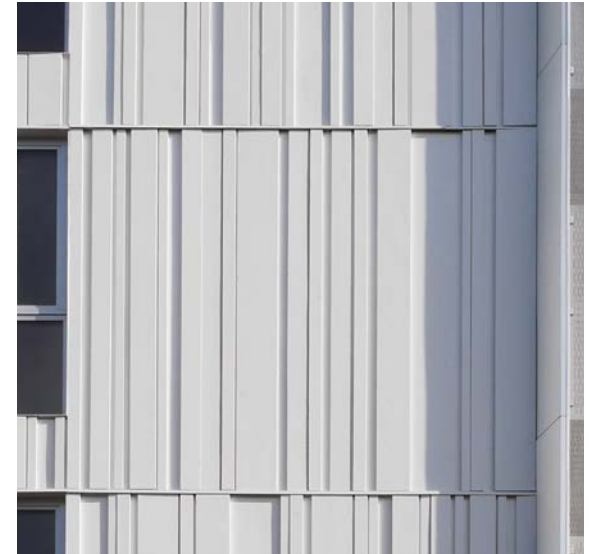
6.3.3.2. Metals Painted metal colors shall be limited to shades of gray, silver or white.



Facade Depth Achieved Through Staggered Columns



Operable Perforated Metal Screens



Textured Surface Panels

Guidelines

6.3.3.3. Façade Depth Façades shall incorporate architectural details and material finishes which create visible shadows and texture across the building façade. Examples include but shall not be limited to shading devices, shutters, screens, window reveals, spandrels and mullions, standing seams, perforated, textured or otherwise highly tactile materials.

6.3.3.4. Material Quality Façade Design shall incorporate durable materials that age well, express production and assembly and have integral tactility. Materials which evoke the rugged industrial maritime character of the area and which compliment those used in the adjacent public realm are preferred. See Chapter 2 Public Realm for material palette. Cement Plaster may be used only in combination with other permitted building materials.

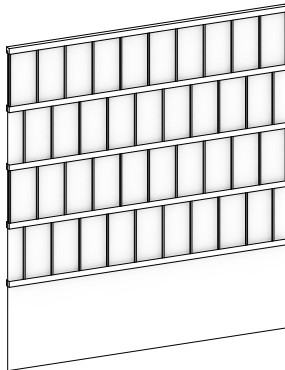
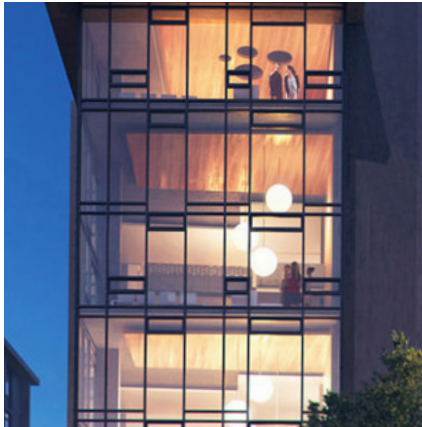
6.3.3.5. Glazing Glazing shall be of low reflectance. Darkly tinted or highly-reflective glazing shall be prohibited.

6.3.3.6. Bird-Safe Glazing Treatment Facades shall comply with City of San Francisco Standards for Bird-Safe Buildings.

6.3.3.7. Color Palette Exterior wall color shall reinforce the architectural concept and employ a limited color palette.

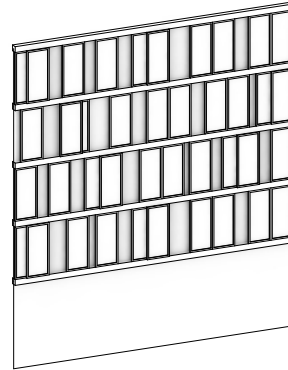
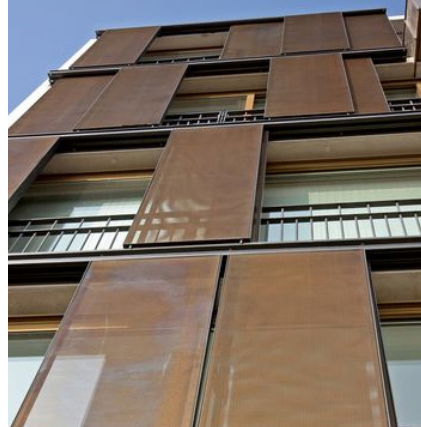
6.3.3.8. Artwork Architecturally integrated artwork, including but not limited to mural, bas relief, mosaics, textured tiles lighting and other interactive installations, shall be encouraged.

Facade Articulation Strategies



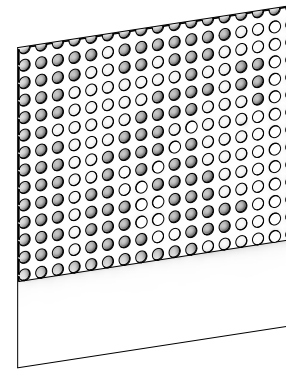
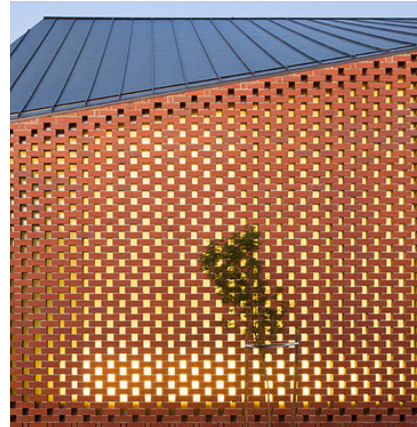
Mullions

Window mullions can be arranged or designed to create elegant patterns along a building's facade.



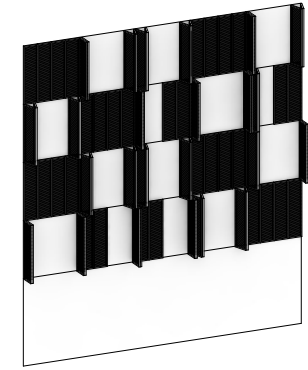
Panelling

This kind of articulation may consist of fixed or operable panel systems.



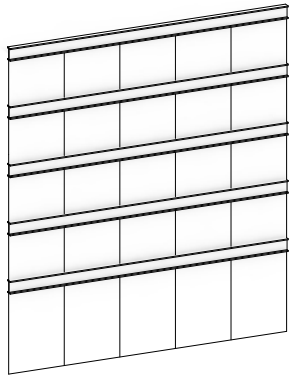
Perforations / Patterning

Perforations and patterning on a facade can be achieved through the detailed arrangement of much smaller elements (such as brick) or through different fabrication techniques or treatments of surfaces along the building's exterior (such as perforated metal).



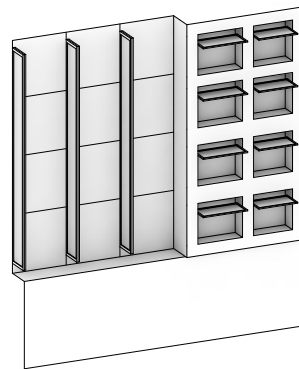
Shutters

Shutter systems add textural richness by virtue of their changing configurations. The breadth of shutter styles and materials (pleated, sliding, horizontal, pivot, opaque, translucent, etc) provides a wealth of facade design options as well.



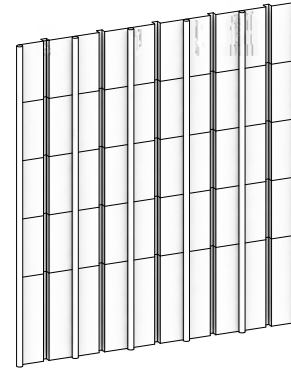
Spandrels

With enough contrast from other elements on the facade, spandrels can serve to articulate a building's structure and layout.



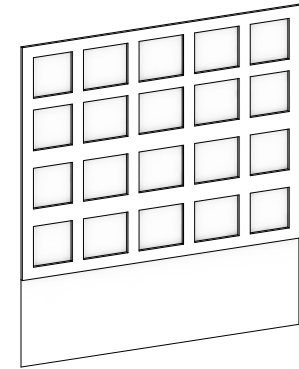
Fins / Shading Devices

Fins and shading devices can be arranged strategically to serve their function as well as create intricate patterns on a building's facade.



Protrusions / Recesses

Subtle protrusions and recesses articulated on a building's facade give it depth by catching light and shadows at different angles throughout the day.



Windows / Openings

The organization of windows and openings on a facade may curtail the need for additional articulation. The inherent elements of windows (sills, frames, etc.) can be enough to generate textural richness along a building's facade.

6.4 Roof



Integrated Green roof and Rooftop Amenities

6.4.1. Roof

Roof design is integral to building character, adding another opportunity for visible activation and complementing the array of exterior building elements – as viewed both from the street and from above. Thoughtfully-designed roofs can provide amenity through the strategic placement of rooftop gardens or community rooms. Roofs can support habitat in an environmentally sustainable fashion. They can be irrigated with high quality, non-potable water, and supply green energy, in turn improving the thermal envelope of a building and reducing storm-water runoff.

Refer to District Sustainability standards in Chapter 3, and the Better Roof Requirements in San Francisco Environmental Code for additional guidance.



Rooftop Amenity



Sustainable Roof



Green Roof integrated photovoltaic system

Standards

6.4.1.2. Species Green roofs and green walls shall use regionally-appropriate, native and/or adaptive species to minimize water consumption.

6.4.1.3. Screening of Rooftop Features Refer to Section 5.2, Standard 5.2.3 for acceptable rooftop screening.

6.4.1.4. Soil Where installed, green roofs shall have a minimum of 6" depth of soil media.

Guidelines

6.4.1.5. Location Green Walls shall be located away from highly glazed facades for bird safety.

6.4.1.6. Rooftop Solar Portions of the roof area shall be designed to permit installations of South oriented solar panels.

6.4.1.7. Solar Where green roofs are installed, incorporate shade tolerant species on green roofs beneath PV structures. (See Section 3.1: Energy)

6.4.1.8. Species Green Roof Species shall be selected with an emphasis on habitat creation. Habitat types include: Pollinator species, Species for nesting and Species as food source. See Section 3.8 for Habitat Types.

6.5 High Performance Building Design

Building Energy Performance

India Basin aspires to be a leader in building energy efficiency by going above and beyond the minimum energy performance requirements established by state and local codes.

Title 24, the California code that regulates building energy consumption, is targeting net zero energy operation for low-rise residential buildings by 2020 with a 2030 target date for non-residential and high rise residential buildings. The San Francisco Green Building Code has energy efficiency requirements in addition to those mandated by state code.

The State of California's path to net zero is currently undefined, so a linear extrapolation of the path from current code to net zero in 2030 has been used to guide building energy performance targets for India Basin.

The energy performance projections for each building type have been included in Figures 6.04. The charts use the metric of Energy Use Intensity (EUI) in kBtu/sf/yr. Energy Use Intensity reflects the amount of energy used per square foot of building area. The graphs show the projected code minimum (solid, top line) and the India Basin EUI goals (dashed, bottom line).

To assess which energy efficiency strategies will have the largest impact on energy consumption, the predicted energy end use of each building type was calculated. Figures 6.01-6.03 also show the energy end use breakdown of the predominant building types on the site. These breakdowns can be used to inform the most effective energy efficiency strategies.

Detailed descriptions on building energy end uses can be found in the Appendix.

Building Water Efficiency

The City of San Francisco's local ordinances include aggressive water efficiency standards designed to achieve San Francisco's conservation goals and address long-term threats to water resources posed by climate change. The San Francisco Plumbing Code has recently been updated to meet new minimum state water conservation standards, which are among the most stringent conservation standards in the Nation. India Basin will meet or exceed these water efficiency standards, as defined by State and Local codes at the time of construction. As noted in Chapter 3, at a district scale, the project will strive to maximize production of recycled water to serve on-site non-potable demands and for export to neighboring developments to further reduce potable water-use demand.

Goals

6.5.1 High Performance Buildings Potentially meet or exceed energy use intensity (EUI) targets in Figures 6.01-6.03 through a combination of energy efficiency measures and/or renewable energy production.

6.5.2 Possible Off Site Renewable Power Purchase Agreement Engage in a renewable energy power purchase agreement for all energy consumed in the buildings.

Guidelines

6.5.3 Limit On-site Combustion Limit on-site use of natural gas to residential and commercial kitchen processes. When feasible, evaluate viability to eliminate all on-site combustion to align with the non-combustion requirements of the Living Futures Living Building Challenge (LBC).

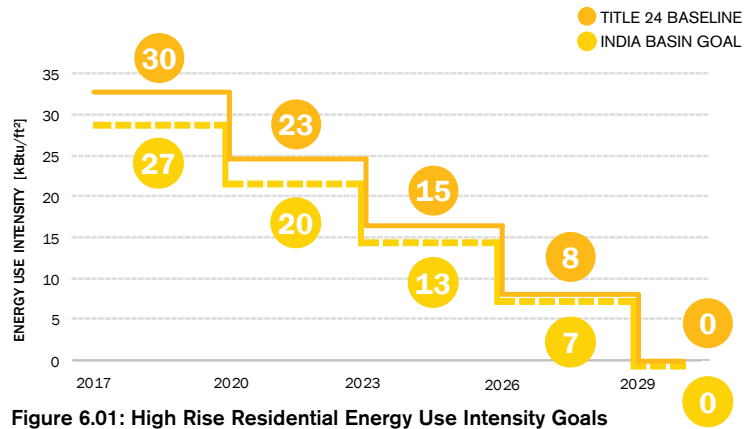


Figure 6.01: High Rise Residential Energy Use Intensity Goals

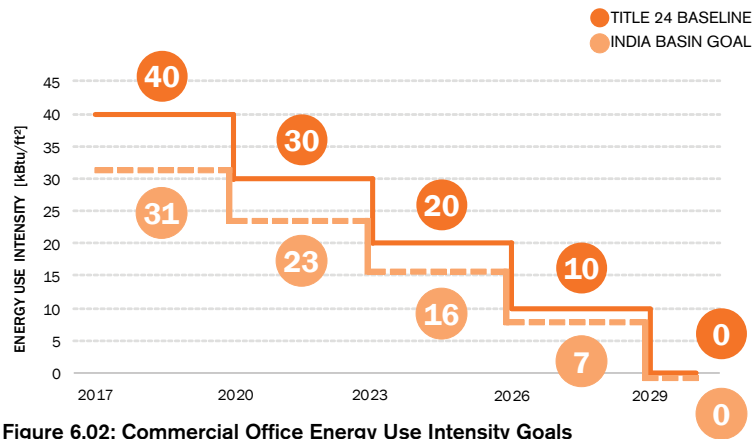


Figure 6.02: Commercial Office Energy Use Intensity Goals

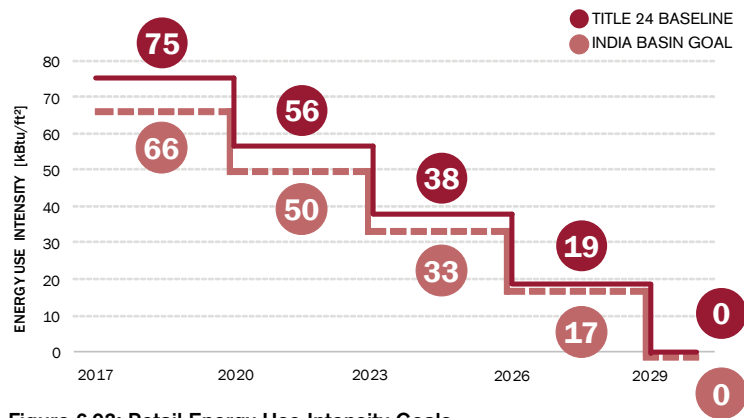


Figure 6.03: Retail Energy Use Intensity Goals

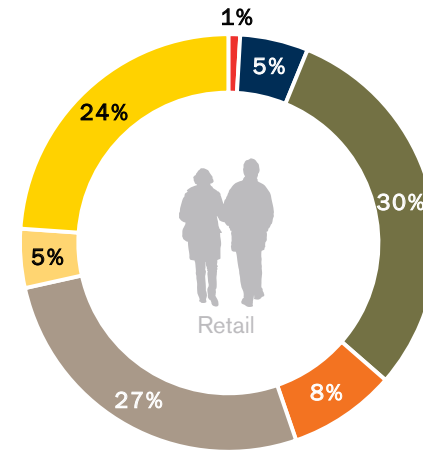
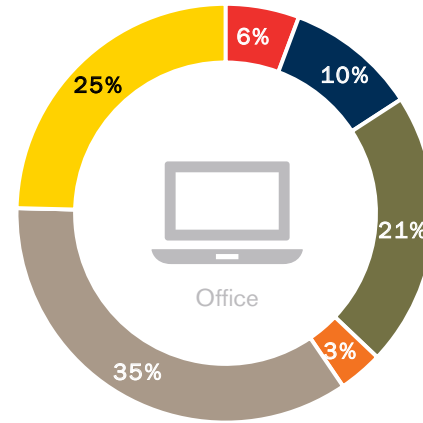
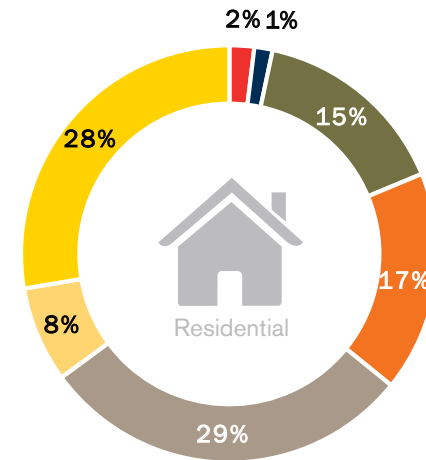


Figure 6.04: Energy Use By Program

- SPACE HEATING
- SPACE COOLING
- VENTILATION + PUMPING
- DOMESTIC HW
- MISC EQUIPMENT
- PROCESS GAS
- LIGHTING

DRAFT

7.0

777

Wayfinding and Signage

Chapter 07: Wayfinding and Signage

- 7.1 Public Signage
- 7.2 Private Signage
- 7.3 Approvals Process

The India Basin Signage Standards and Guidelines are intended to outline and illustrate the 2016 amendments to San Francisco's Mixed-Use District Code (Section 607.2). The guidelines attempt to clarify the effectiveness of sign advertising for individual concerns and in the interest of fostering sense of place. They regulate the size, placement and certain aspects of design, and are intended to reduce sign clutter and enhance site character.

The guidelines describe the qualitative considerations of designing signs in conformance with the India Basin Special Use Zone. It should be noted that San Francisco Building Code contains certain standards regarding structure, clearance and safety pertaining to signs. These standards and guidelines should be considered supplemental to the San Francisco Signage Guidelines and Better Streets Plan.

This document outlines and illustrates signage guidelines in order to assist in preparing applications for signage design review. Moreover, the guidelines are intended to provide dimensional and aesthetic guidance prior to formal application to streamline the design review requirement of signage by the India Basin Trust (India Basin Owners Association) and the San Francisco Planning Department (SF Planning). Conformance with the guidelines does not replace the review process and does not guarantee approval. At the discretion of SF Planning, complete proposals describing signage proposals that comply with these guidelines will be eligible for administrative review. Applicants must comply with other agencies and review processes.

7.1 Public Signage

Though India Basin's Signage Guidelines have been tailored to preserve and communicate the site's character, the city's carefully considered general streetscape guidelines are its foundation.

Public Signage

San Francisco's Better Streets Initiative has established the following as the core tenets of the city's signage guidelines. The following tenets apply to all forms of public realm signage:

Guidelines

7.2.1 Placement All signage shall be placed strategically, always with the goal of minimizing the overall number of signs and signage systems necessary. Overuse and careless placement simultaneously dilutes signage effectiveness and clutters the streetscape.

7.2.2. Catch the attention of passers-by but complement the overall streetscape design.

7.2.3. Align with existing site furnishings or be otherwise located out of the path of travel.

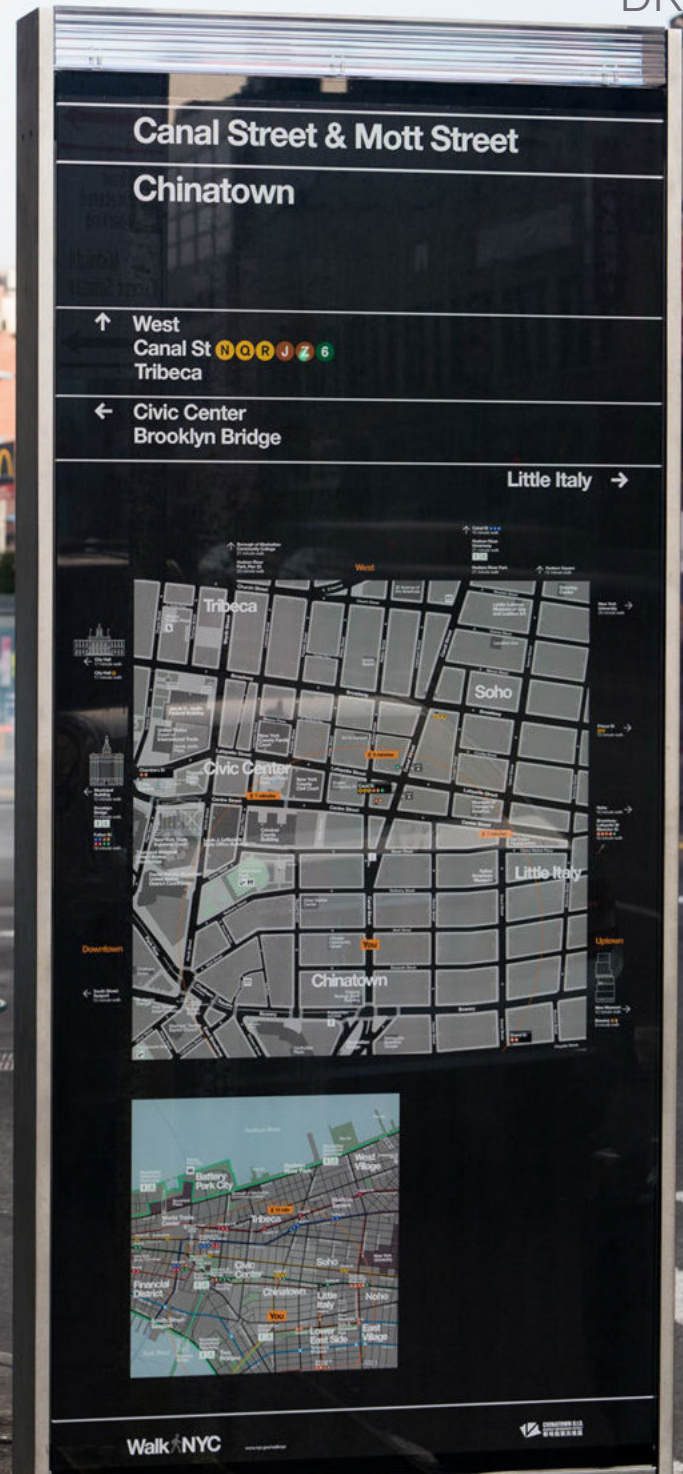
7.2.4 Include braille and be multi-lingual as necessary and appropriate to the specific location.

7.2.5. Use a consistent graphic look and feel; signs that highlight local district or neighborhood character should be encouraged and should be of a similar look and feel throughout that district to enhance the area's sense of place.

7.2.6. Incorporate neighborhood-specific or artistic elements; flexibility shall be granted to artisans and craftspeople to create unique signage.



WalkNYC Wayfinding





Street Markers



Transit Signage



Advisory Message

7.21 Street Markers, Transit Signage and Public Safety

Street Marker Guidelines

7.21.1 Street Markers Street markers shall be implemented as specified by San Francisco street signage standards, including private streets/corridors on the site.

7.21.2 Streetpoles Streetpoles shall align with fixture and placement standards/guidelines in Chapter 2: Public Realm.

Transit Signage Guidelines

7.21.3 Transit Signage In the interest of weaving India Basin into San Francisco, all transit signage shall follow city transit signage standards.

7.21.4 Streetpoles Streetpoles shall align with fixture and placement standards and guidelines in Chapter 2: Public Realm.

Public Safety Signage Guidelines

7.21.5 Public Safety Safety is paramount—executing the city’s existing program improves recognition and comprehension. All signage shall follow San Francisco’s public safety signage standards.

7.21.6 Non-critical Messages To avoid sign clutter, non-critical messages shall, where practicable, be directly applied to existing surfaces.

“Design must be functional, and functionality must be translated into visual aesthetics without any reliance on gimmicks that have to be explained.”

– Ferdinand Porsche

7.22 Wayfinding Signage

On most streets, typical street signage is all that is needed to orient pedestrians to major destinations. However, on streets and public spaces with heavy pedestrian volumes, additional directional signage is often helpful. This is especially true on streets that handle greater numbers of visitors, on major transit routes or in tourist-oriented areas.

Directional signs are typically much simpler than a neighborhood orientation sign, featuring only place names and wayfinding information. They should have a distinct and coordinated design consistent with the character of the surrounding neighborhood. Well-designed directional signs can help give the area a distinct identity.

India Basin's history of maritime, bay-fill and industrial activities evolved piecemeal over time and remnants of the site's past are evident. Paired with the site's bayside location, India Basin's is feral, rugged, industrial and wild—characteristics embraced by the community. Wayfinding should direct and inform visitors while communicating the site's wild and industrial character.

Standards

7.22.01 All signs shall follow the minimum Americans with Disabilities Act (ADA) requirements for cap heights.

7.22.02 In open areas, freestanding signs shall be located within a clearance radius of 3' to 5' to allow for up close reading of small text. The placement of such signs shall not impede pedestrian flow.

Guidelines

7.22.03 Pole-mounted signage shall mount to existing poles where possible, consistent with the signage design. India Basin has specified street poles—refer to Chapter 2: Public Realm and coordinate with the India Basin Trust.

7.22.04 Sign Location Wayfinding signage must be in locations with high pedestrian traffic and be attractive—complementing the style of other streetscape elements—and easily usable to residents and visitors.

7.22.05 Wayfinding shall not obstruct key sightlines. This may be achieved by applying wayfinding to existing surfaces (Images 2 and 5 on page 377) or material porosity (Image 3

Signs, signs, everywhere
a sign. Breaking up the
scenery. Breaking my
mind.

– Five Man Electrical Band

on page 377). Signage must be located in the furnishings zone and as near to intersection corners as is practicable (without infringing on the corner zone).

7.22.06 Signage must have a clear, consistent relationship with the site's architectural and natural forms (Image 4).

7.22.07 Each building may be designed in phases and by different architects with varying functions and components within each structure. Therefore, signage will play a key role in visually unifying the site. Though signs naturally weave their way through architectural forms, they must hold a place for themselves and have a distinguished presence.

7.22.08 Typography An appropriate typeface must be legible and clear, feature a selection of weights and styles and complement and coexist with existing identities and environments.

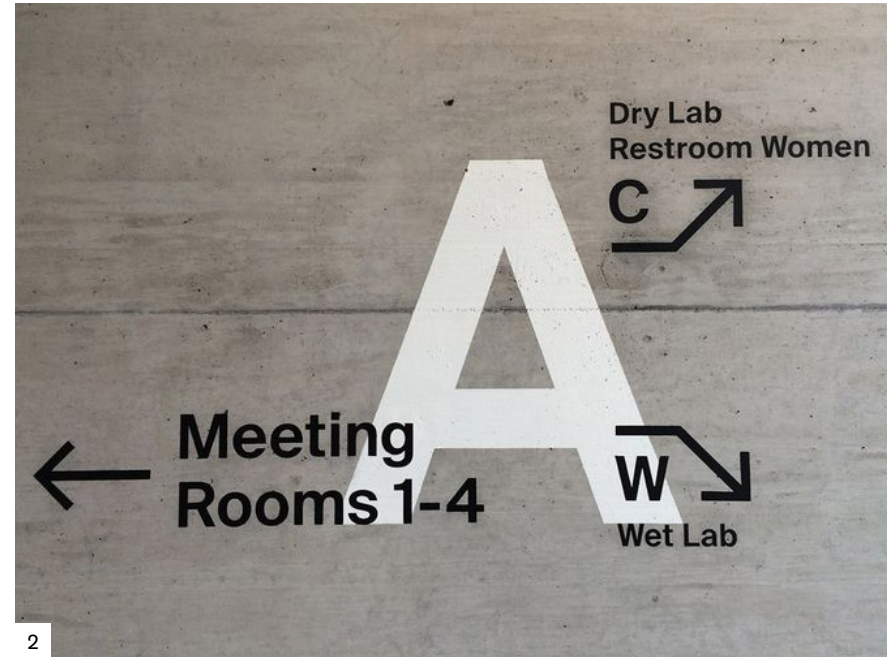
7.22.09 Languages, Accessibility and Nomenclature As the international language of business and science and the first language of San Francisco, wayfinding must use English as its primary language.

7.22.10 Symbols and Pictograms As symbols and pictograms are an efficient way of communicating without multi-lingual content, site wayfinding must use pictograms and symbols when practicable (Image 1). Include destination icons, place names and directional markers – e.g. arrows – for local destinations on blades or integral to the body of the sign. A map indicating current location and the best routes to nearby destinations should also be considered.

7.22.11 Materials and Construction Materials and applications chosen must align with the hardscape palette outlined in Ch. 2: Public Areas and be well-fabricated, assembled and installed.



1



2

1. Whakarewarewa Valley Wayfinding, Rotorua, New Zealand
2. Universitätsklinik Balgrist Hospital Signage, Zurich, Switzerland
3. Outdoor Wayfinding System, Costa Brava, Catalonia, Spain
4. Wayfinding Signage, The High Line, New York City, NY
5. Museum Zeughaus Wayfinding Design, Vienna, Austria



3



4



5

“Everywhere has something interesting; it’s just about being curious enough to find it and scratch where you have to scratch and stay longer and walk further.”

– Diego Luna

7.23 Interpretive Signage

Standards

7.23.01 All signs shall follow the minimum Americans with Disabilities Act (ADA) legibility requirements.

7.23.02 In open areas, freestanding signs shall be located within a clearance radius of 3' to 5' to allow for up close reading of small text. The placement of such signs shall not impede pedestrian flow.

7.23.03 India Basin interpretive signage shall be developed in tandem with wayfinding, in regards to both design and voice. While content and scale for wayfinding differs from wayfinding, the two must share a material vocabulary.

Guidelines

7.23.04 Sign Hierarchy The interpretive signage systems shall use no more than three sign sizes.

7.23.05 Sign Content Main body text shall consist of no more than two paragraphs of three or four short sentences. Text must be kept to no more than 150 words (up to 250 if using captions and smaller fonts for secondary text or captions).

7.23.06 Signs must avoid content overlap—signs that are repetitious in content, format and/or layout will quickly lose visitor attention, and therefore, will be unsuccessful in communicating the message.

7.23.07 Text must be active—using “we” and “you”—and positive without prescriptive adjectives. Interpretive text must answer the question, “So what?”

7.23.08 Languages, Accessibility and Nomenclature As the international language of

business and science and the first language of San Francisco, interpretive signage must use English as its primary language.

7.23.09 Secondary and tertiary interpretive signs must both be placed at a height suitable for all ages and abilities, and be low enough to preserve visibility beyond. Alternatively, signage design may use transparency such that the design itself serves as a frame for the subject matter or view (Image 1 on page 379).

7.23.10 Sign Location All interpretive signage must be coordinated with the rhythm and placement of wayfinding elements. To avoid competition and sign clutter between primary interpretive and wayfinding elements, consider combining the two.

7.23.11 Sign positioning must align the intended direction of the visitors’ attention with the subject matter. Signage must be located in the furnishings zone and as near to intersection corners as is practicable—without infringing on the corner zone (Images 2, 3 on page 379).

7.23.12 Typography Typography shall be coordinated with the wayfinding system, either matching or complementing the approach.



- 1 Klehm Arboretum
Wayfinding, Rockford, IL
- 2 Interpretive Trail Signage,
Alpe Adria Trail, Austria
- 3 Nordkyn Signage,
Nordkyn Finnmark,
Norway

7.2 Private Signage

As Mixed Use Districts change, they need to maintain their attractiveness to customers and potential new businesses alike. Physical amenities and a pleasant appearance will benefit both existing and new enterprises.

The character of signs and other features projecting from buildings is a fundamental part of the visual appeal of a street and the general quality and economic stability of the area. Opportunities exist to relate these signs and projections more effectively to street design and building design. These regulations establish a framework that will contribute toward a coherent appearance of Mixed Use Districts.

Mixed Use Districts are typically areas with commercial uses at grade (or lower stories) and residential uses above commercial uses (or in upper stories). Mixed Use districts may also have residential, commercial and retail uses interspersed. Although signs and other advertising devices are essential to a vital commercial district, they should not be allowed to interfere with or diminish the livability of residential units within a Mixed Use District or in adjacent residential districts.

The scale of most Mixed Use Districts, as characterized by building height, bulk, and appearance, as well as the width of streets and sidewalks, differs from that of other commercial districts. Sign sizes should relate and be compatible with the surrounding district scale.

“The ornament of a house is the friends who frequent it.”

– Ralph Waldo Emerson

7.31 Residential Signage

Standards

7.31.01 Prohibited Sign Types Residential signage shall not take the following forms: billboard, off-premise advertising, box sign, programmable electronic sign, sandwich board, waterfall awning or freestanding.

7.31.02 Placement Signage shall be located so as not to block windows, doors or other means of ingress and egress.

Guidelines

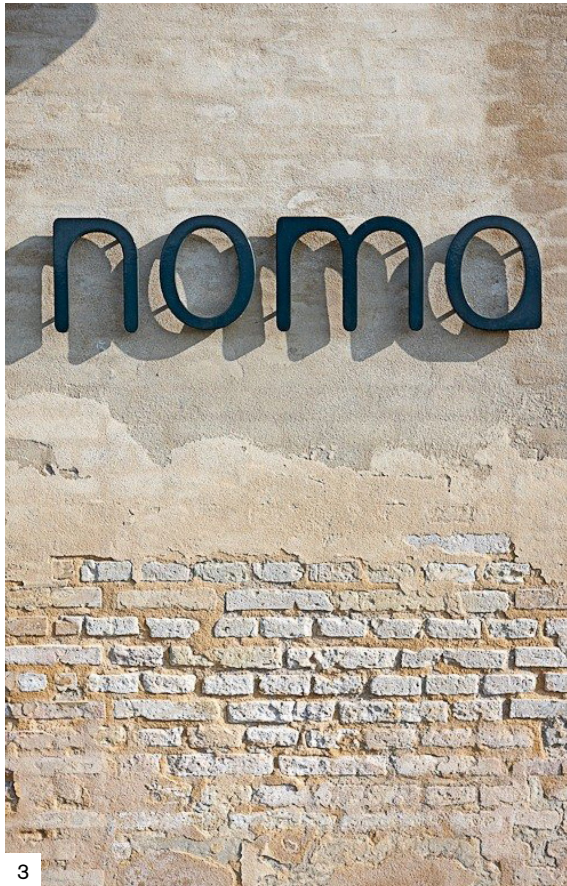
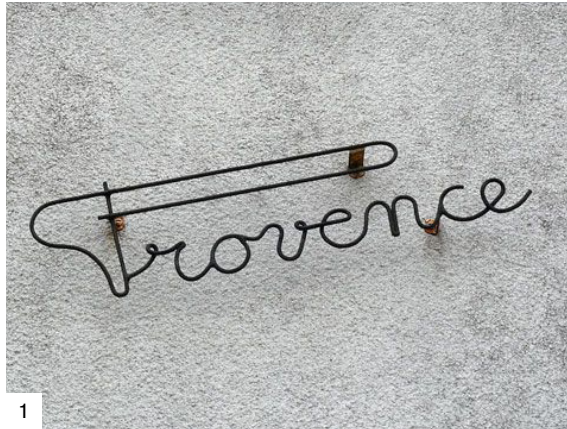
7.31.03 Surface Area Residential signage shall not exceed four square feet. It is acknowledged that compelling and sensitive signage approaches may lie outside of the given parameters. In light of this, the India Basin Trust will consider nameplates/residential signage falling outside of the aforementioned parameters, provided the sign is an asset to the community, contributing to the site’s sense of place. Examples provided on the following pages are neither inclusive nor exclusive of other approaches.

7.31.04 Contextual Sensitivity Signage must respect architectural features, placed in accordance with façade rhythm, scale and proportion, including windows, storefronts and entries. Proportions should relate and be compatible with the surrounding scale. All signs should be integrated with the design of the project’s architecture and landscaping. As a family of elements, signs should be related in their design approach and convey a clear hierarchy of information. Examples of architecturally-sensitive signage solutions are included on pages 382-383.

7.31.05 Lighting Exposed conduit and tubing shall be prohibited. All transformers and other equipment should be concealed. Sign lighting shall not be detrimental to adjacent residential property. Property directly across a public right of way shall be considered adjacent property.

7.31.06 Residential signage should reinforce the building identity and be visible from the most common approach.

7.31.07 The size of signs and sign letters should be proportional to the space they are located in, with characters approximately 6” to 12” high.



1. Villa Catherine Mamet, Montpellier, France
2. Luce Loft, San Diego, CA
3. Noma Restaurant, Copenhagen
4. Pompiers, Tremblay-en-France, France



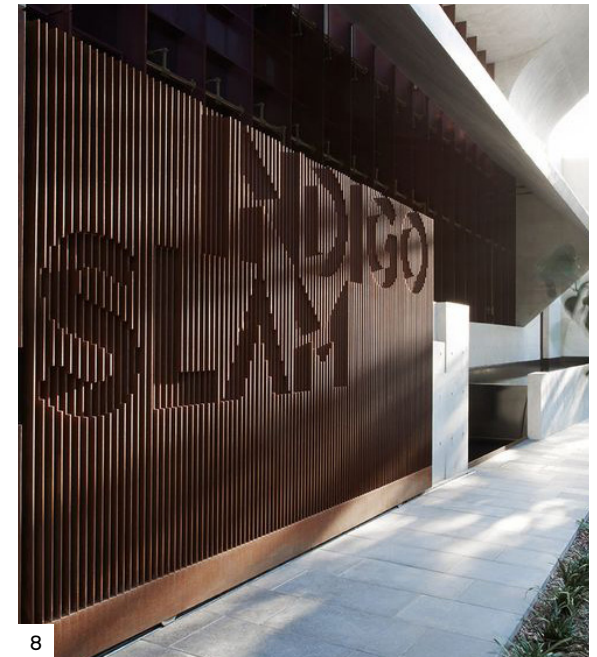
5



6



7



8

- 5 Small House
Big Door
Seoul, Korea
- 6 The China House,
Bangkok, Thailand
- 7 Co-op, Italy
- 8 Indigo Slam, Sydney,
Australia

7.32 Business/Retail Signage

Retail/business signage is defined by the San Francisco Planning Code, Section 602(c), as “a sign which directs attention to the primary business, commodity, service, industry or other activity which is sold, offered or conducted on the premises upon which such sign is located or to which it is affixed. Where a number of businesses, services, industries or other activities are conducted on the premises, or a number of commodities, services or other activities with different brand names or symbols are sold on the premises, up to one-third of the area of a business sign, or 25 square feet of sign area, whichever is the lesser, may be devoted to the advertising of one or more of those businesses, commodities, services, industries or other activities by brand name or symbol as an accessory function of the business sign, provided that such advertising is integrated with the remainder of the business sign, and provided also that any limits which may be imposed by this code on the area of individual signs and the area of all signs on the property are

not exceeded. The primary business, commodity, service, industry, or other activity on the premises shall mean the use which occupies the greatest area on the premises upon which the business sign is located, or to which it is affixed.”

Standards

7.32.01 Prohibited Signs Retail signage shall not take the following forms: billboard, off-premise advertising, box sign, programmable electronic sign, sandwich board, waterfall awning, or freestanding.

7.32.02 Movement All retail signage shall be stationary (i.e. no moving parts or lighting). Spinning, windblown or inflated devices including pennants, propeller discs, flags are forbidden.

7.32.03 Lighting Illuminated signs shall not use exposed fluorescent lights. Electrical raceways and all wiring shall be hidden from view.

7.32.04 Dimensional Letters Dimensional letters shall be no deeper than 0'-6”.

7.32.05 Horizontal Blade Signs Horizontal blades shall project no more than half of sidewalk width and be oriented perpendicular to the building face.

7.32.06 Vertical Blade Signs Vertical blades shall project no more than half of sidewalk width and be oriented perpendicular to the building face.

7.32.07 Trademark The registered trademark of a specific commodity shall occupy no more than ten percent of the total sign area.

Guidelines

7.32.08 Surface Area Retail signage shall be less than 30 square feet in area and shall be mounted no higher than 30'-0”. However, it is acknowledged that compelling and sensitive signage approaches may lie outside of these



Pike Place Market, Seattle, WA

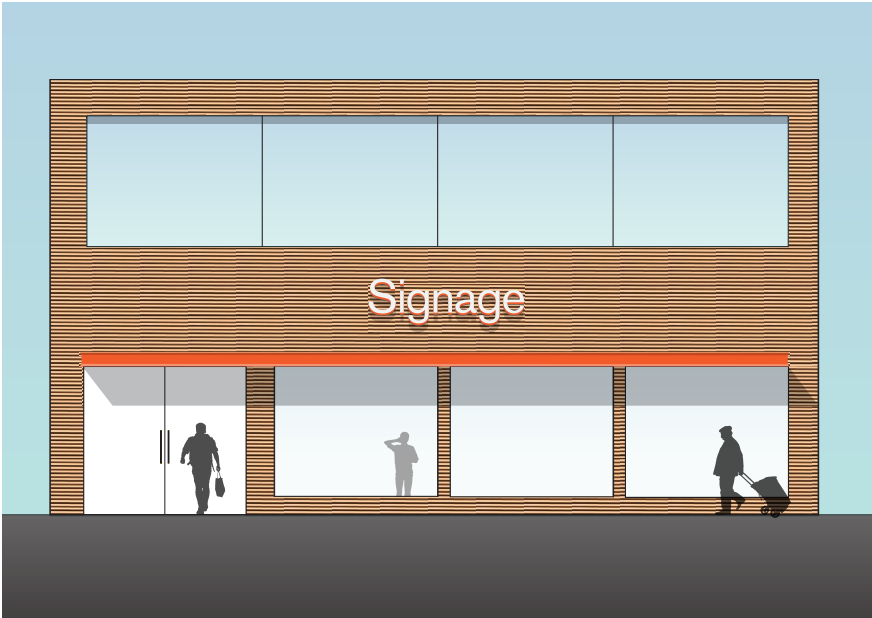


FIGURE 7.01: INCORPORATE BRANDED RETAIL SIGNAGE



FIGURE 7.02: SCALE AND TRANSPARENCY



FIGURE 7.03: ACTIVE SIGNAGE - RECOMMENDED



FIGURE 7.04: ACTIVE SIGNAGE - DISCOURAGED

parameters. Figure 7.02 shows a painted retail sign that falls outside of the size parameters. However—because of both the character of the sign and its transparency—the design is a positive community addition. Hand-painted lettering is less obtrusive than other comparably-sized approaches and ages gracefully with minimal upkeep. Proposed exceptions shall be reviewed on a case-by-case basis by the India Basin Trust.

7.32.09 Exposed Neon Signage Exposed neon is discouraged, but proposed exceptions shall be reviewed on a case-by-case basis by the India Basin Trust.

7.32.10 Non-Identity Graphic Elements Signage incorporating creative logos or graphic elements along with the business identity are encouraged, but are subject to review by the India Basin Trust.

7.32.11 Contextual Sensitivity Wall signs must appear balanced and in scale within the context of the sign space and the building as a whole. A sign that respects the architecture augments the perceived quality of the retail tenant. Figure 7.01 uses modestly-scaled dimensional letters with returns colored to match the branded canopy. In Figure 7.03, signage is sympathetic to the building facade. The message is set in a weight

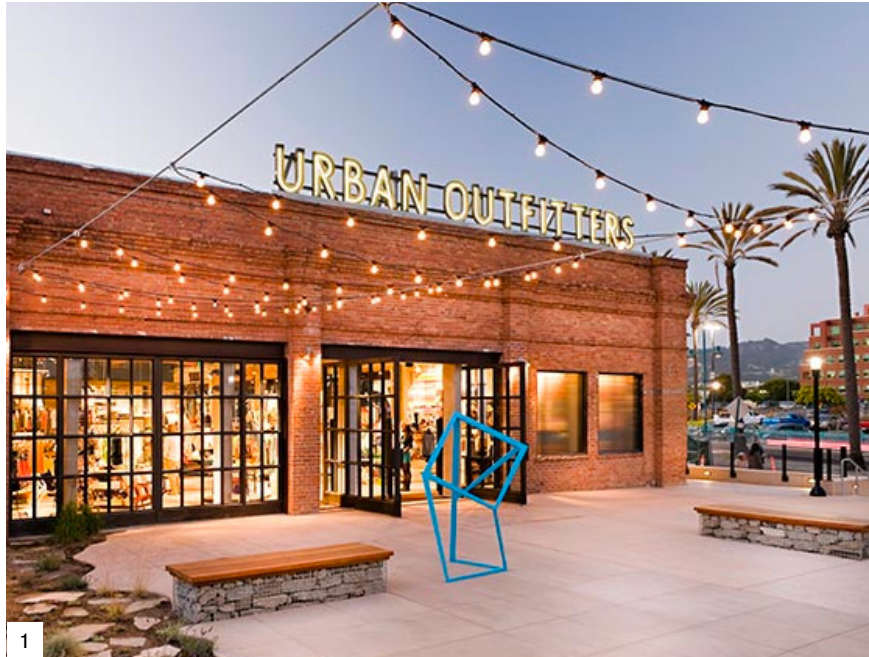
informed by the slatted wood facade and right-aligned to the window's edge. Further examples of architecturally-sensitive signage solutions are included on the following spread (Images 1–8).

7.32.12 Signage Mounting Mounting letter forms directly to the building (Fig. 7.03) allows the facade to bleed through the negative space, blurring the boundaries between facade and active signage area. Retail messages shall not mount to a plate or backing surface (Fig. 7.04) that contrasts with the building facade in color or material. Signs, copy and graphic elements must fit comfortably into sign area, leaving sufficient margins and negative space on all sides.

7.32.13 Typography and Color Thickness, height, and color of sign lettering shall be visually balanced and in proportion to other signs on the building, responding to a building module/datum. Maximum letter height must fall at or below 0'-24".

7.32.14 Vertical Blade Signage Vertical blade signs are encouraged to be iconic in character.

7.32.15 Window Signage Retail signage mounted to windows must be porous (i.e. not mounted on a solid rectangular form).



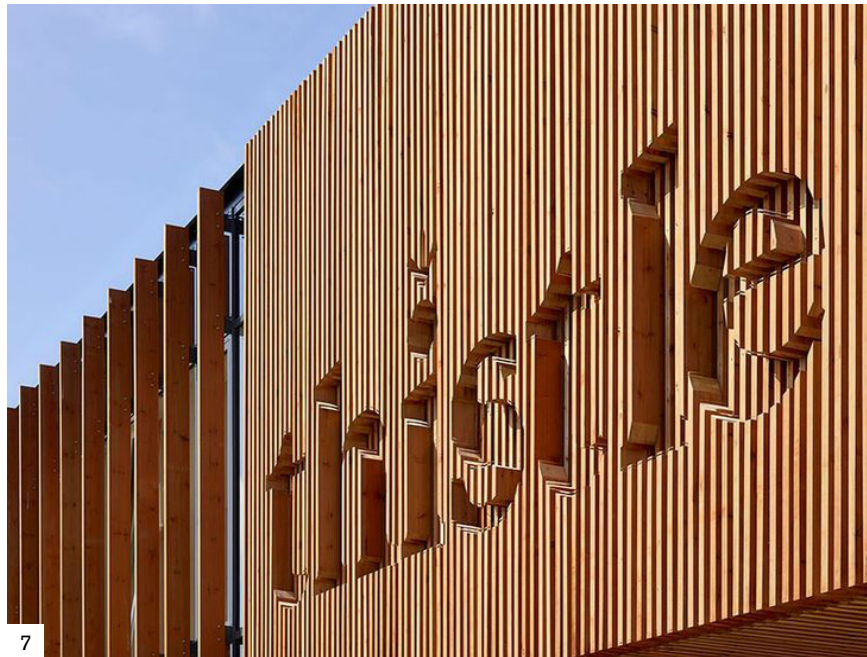
1. Urban Outfitters
Emeryville, CA
2. Beam and Anchor
Vintage Store, Portland,
OR
3. Shed Exterior Signage,
Healdsburg, CA
4. Pike Place Market,
Seattle, WA



5



6



7



8

- 5 March Store,
San Francisco, CA
- 6 Peter Nappi Leather
Goods,
Nashville, TN
- 7 Thistle Centre,
Edinburgh, Scotland
- 8 Playhouse Serviced
Apartments,
Melbourne, Australia

“I think that I shall never
see a billboard lovely as
a tree. Perhaps, unless
the billboards fall, I’ll
never see a tree at all.”

– Ogden Nash

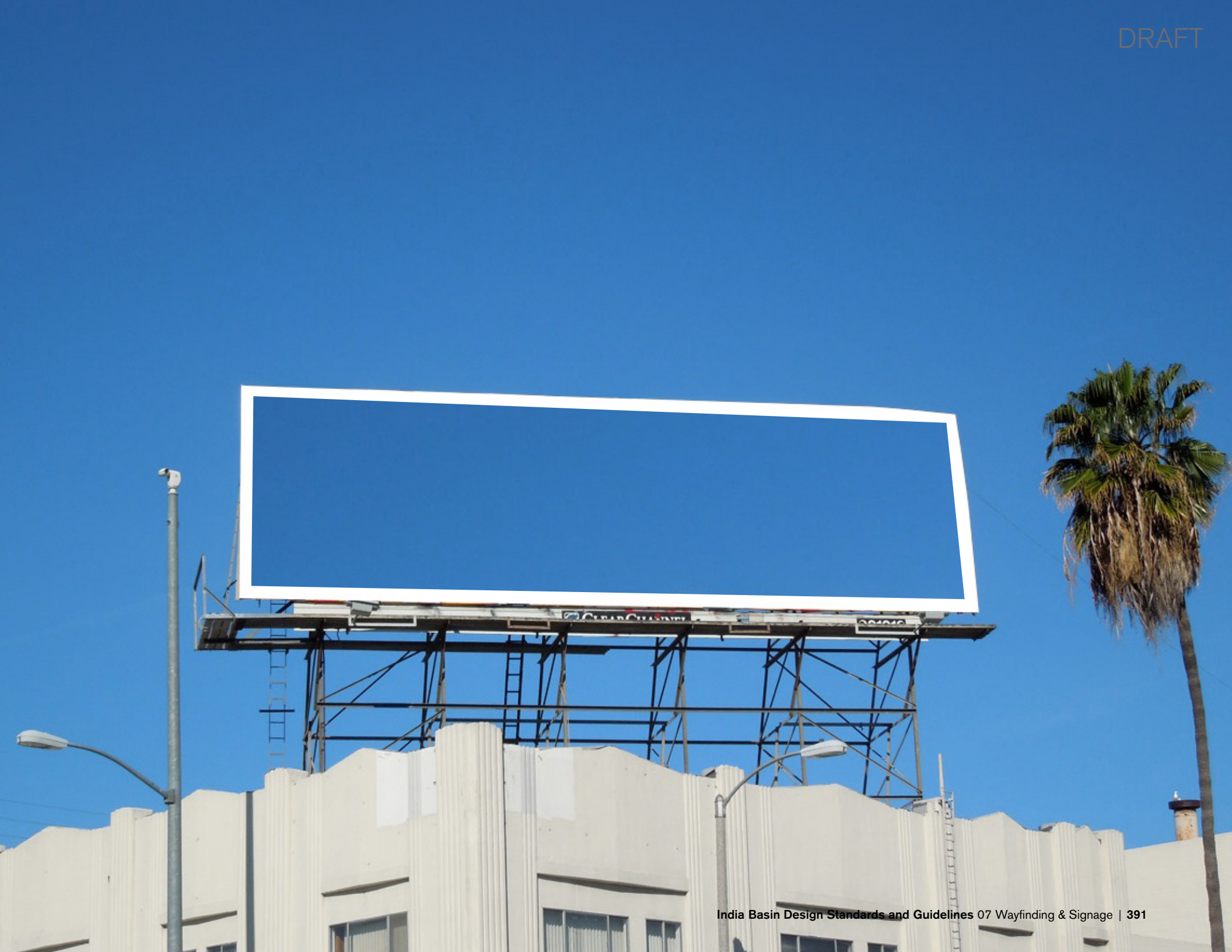
7.33 General Advertising Signage

Standards

7.33.01 All freestanding general advertising signs currently on site shall be permitted to remain until site development commences, at which point removal is required.

7.33.02 No general advertising sign shall be permitted to cover part or all of any windows.

7.33.03 No new general advertising signs shall be permitted at India Basin.



7.3 Approvals Process

“Design is neither an intellectual nor a material affair, but simply an integral part of the stuff of life, necessary for everyone in a civilized society.”

—Walter Gropius

The following information must be submitted when applying for a permit to erect, re-erect, paint, post, apply, alter or structurally repair signs:

Building Permit Application Required if your sign includes any kind of structure, and/or if it is affixed to a wall, or erected as a free standing sign).

Sign Permit Application Required only if your sign does not require a Building Permit. Sign Permit forms are green and are sometimes referred to as “Form 6.” This form is available at the Planning Information Center (PIC).

Scaled Sign Drawings Include the location of the sign on the building, structure or lot. If the sign projects over the sidewalk, your scaled drawing needs to show the projection and the sidewalk width beneath the sign.

Sign Content A designation of the copy (i.e. text on the sign) as is needed to determine that the location, area and other provisions of the India Basin Design Standards and Guidelines are met.

It is recommended applicants visit or call PIC early in the planning of their project. PIC is at 1660 Mission Street, 1st floor and may also be reached by phone at (415) 558-6377 or via email at pic@sfgov.org.

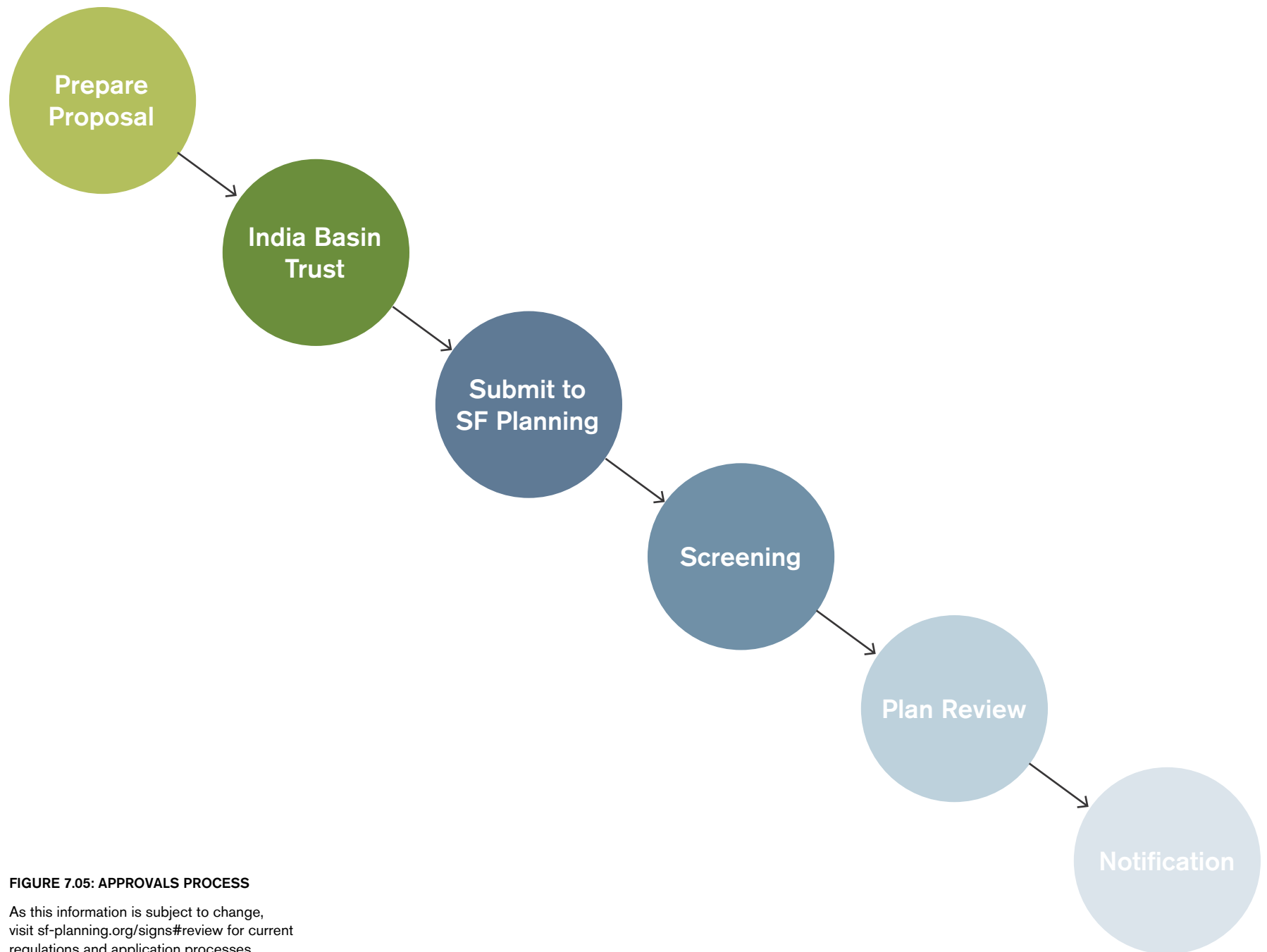


FIGURE 7.05: APPROVALS PROCESS

As this information is subject to change, visit sf-planning.org/signs#review for current regulations and application processes.

08



Implementation

Chapter 08: Implementation

8.1 Implementation

India Basin aspires to be sustainable, vibrant, mixed-use neighborhood with a high quality public realm. The Design Standards and Guidelines have been created to work with a variety of other design and development tools to ensure this outcome. This chapter describes, in detail, each of the elements for successful implementation of the IB Plan. The result will be an exceptional district with an authentic – wild, eclectic, extra-ordinary – sense of place.

8.1 Implementation

Process

Implementation of these Design Standards and Guidelines (DSG) shall be in accordance with the Development Agreement (DA) entered between the India Basin Investment LLC, the property owner (Master Developer) and the City and County of San Francisco (City). All private and public investment and improvements in the India Basin Plan Area (IB Plan Area) will be required to be consistent with the regulations, standards and guidelines in this document.

Special Use District

The Special Use District (SUD) for India Basin refers to and incorporates this document which contains detailed design standards and guidelines for all development within the IB Plan Area, as shown on Figure X. This DSG was adopted by the Planning Commission and incorporated by reference into the DA, approved by Ordinance by the Board of Supervisors. It should be used as a reference for how to interpret the SUD. The DA, SUD and DSG are designed to work in unison to ensure the orderly, efficient and effective development of the IB Plan Area. The SUD, which shall become part of the San Francisco Planning Code, provides basic

zoning/land use districts, including categories of principally permitted and conditional uses and sets forth height and bulk districts. It also describes the process for approval of all vertical development within the project site, from public notice to administrative-level design review to special Planning Commission approvals.

Development Agreement (DA)

To ensure that these DSG are followed for all development within the Plan Area, the City intends to enter into a DA governing and enforcing the timing and delivery of all improvements, including infrastructure, or horizontal development, buildings, or vertical development, and public benefits, such as Below Market Rate (BMR) housing, that may or may not be located on-site. The outline of the basic issues that will be included in the DA are described in the following paragraphs.

Phasing Plan

The DA and Master Plan will include a detailed Phasing Plan that identifies the specific infrastructure and public benefits required to complete at the end of each vertical development phase. The master developer cannot commence a new phase of vertical development without having completed the horizontal development and public benefit requirements from the previous phase. The order of the first two vertical development phases will likely be fixed, but the order of the remaining vertical development phases may be ordered based on market demand or other opportunities. The ultimate timing of the filing of development applications and commencement of construction of any and all phases shall be at the sole and absolute discretion of the master developer and will be based on market conditions. However, once vertical development is started, the delivery of the infrastructure and public benefits required for a given vertical development phase cannot be deferred or delayed.

The guiding principle behind the Phasing Plan is to ensure the timely delivery of infrastructure to serve the vertical development in each phase, while also providing public benefits that can

be economically supported. The exact mix of infrastructure and public benefits in each phase will reflect a balance of community priorities (such as providing enhanced access to the waterfront) and practical physical necessity (such as providing fully functional streets adjacent to new building frontages or new transit-only lanes to service the growing population).

The master developer will be responsible for building all public and privately owned infrastructure within the IB Plan Area, unless a particular infrastructure improvement or public benefit is specifically reserved for, or assigned to, a third party and/or City agency for delivery in the DA. With the City's consent, the master developer may also assign responsibility for delivering any portion of the infrastructure and/or public benefits associated with a particular vertical development phase to a third party vertical developer, but in no event can the master developer commence a new phase without the previous phase's infrastructure and public benefit requirements being complete.

Horizontal infrastructure requirements include demolition and/or removal of any improvements on the site; excavation and the completion of any required soil remediation necessary; incremental

grading of the site to prepare it for development, provision of "complete streets," including street trees, lights and furniture; provision of all wet and dry utilities necessary to support the vertical development in each phase, public parking, and publicly accessible open space and public realm improvements like parks, plazas, stairways and pathways.

The public benefits package shall include a detailed on-site and off-site BMR Housing Program that meets the City's income diversity goals for the area—the details will be negotiated as part of the DA process. The delivery of all BMR housing will be phased to ensure that a reasonable proportion of the total planned BMR units are provided in each vertical development phase. There will be a series of area-wide transportation-related improvements, such as installation of new transit-only lanes on Innes Avenue, TDM programs like provision of a private BART and Caltrain commuter shuttle, bike-share pods, the Class-1 cycle track improvements, and/or new bus shelters. Additional public benefits shall include a workforce development plan that will bring both construction and permanent jobs to the existing residents of the neighborhood and programs for on-site public art and artist-in-residency programs.

Post DA-Approval Design Review Process

The San Francisco Planning Department will administer the provisions of the DSG in accordance with the City's General Plan, state and federal law. Topics not expressly addressed by the DSG, SUD or DA will regulated by the San Francisco Municipal Code as it currently exists or may be amended in the future.

The DA provides the Master Developer with a vested right to construct all vertical and horizontal development in the IB Plan Area consistent with the SUD and the DSG. The master developer intends to submit a Tentative Subdivision Map for future parcel delineation and an Infrastructure Plan to the Board of Supervisors for approval concurrent with the DA.

Each vertical developer shall submit schematic designs for each horizontal development phase and/or individual building pads within a vertical development phase to the Planning Department. The Planning Department will review all SD applications for consistency with the SUD and DSG through the approval procedure set forth in the SUD. The Planning Director shall promulgate a list of necessary documents and materials to be submitted with each application as necessary to determine consistency with the DSG. The Planning Commission shall have no independent

review of compliance of vertical development within the parameters set forth in the DA, unless the SUD and DA specifically call for such review (for example, approval of a Conditional Use).

Parking Allocation

The DA and SUD allow construction of both on-street and off-street car parking. The DA anticipates that any off-street car parking will be provided through off-street accessory parking facilities within a number of centralized underground or “wrapped podium” parking garages that will serve the mix of uses set forth in the SUD and IB Plan. Some accessory on-street parking may also be provided, either on an interim basis, or for particular uses, such as publicly accessible open space, on a permanent basis. All garages shall be designed to be convertible to other uses in the event that the necessity for private car storage declines in the future due to technological advances such as self-driving vehicles.

Maximum off-street car parking accessory to residential, office/R&D and retail uses are governed by the SUD. The maximum car parking ratio for each listed use are below:

- Residential: 1 parking space per dwelling unit (1:1)
- Retail: 1 parking space per 200 gross square feet (0.2/1,000 GSF)
- Office/R&D: 1 parking space per 500 gross square feet (0.5/1,000 GSF)

The ratios are applied on an aggregate basis across the IB Plan Area for all development of the listed land use type. The Project will also provide public parking accessory to the 23-acre park uses included as part of the project. There will be a minimum of 100 parking spaces and a maximum of 500 parking spaces set aside for publicly accessible smart-metered below grade parking.

Affordable/BMR Housing Program

The DA includes detailed provision(s) governing the future development of BMR housing associated with all Vertical Development of the IB Plan Area (the “BMR Housing Program”). The Program will include a detailed description of on-site and off-site BMR housing that meets the City’s income diversity goals for the area. The delivery of all BMR housing will be phased to ensure that a reasonable proportion of the

total number of BMR units planned as part of the project are provided in each vertical development phase. The City shall administer the BMR Housing Program set forth in the DA, including approval of the location and allocation of inclusionary, on-site and off-site BMR housing. Without limiting or foregoing anything else in this DSG, the provisions of Planning Code Sections 413 and 415 expressly do not apply to the IB Plan Area and the Planning Commission shall have no independent review of compliance of vertical development within the parameters set forth in the DA.

Operations, Maintenance and Stewardship: The India Basin Trust

Concurrently with the approval of the DA, the Board of Supervisors shall authorize approval of a 50-year Maintenance and Operations Community Facility District (CFD) to levy a special tax on all future vertical development within the IB Plan Area. The annual proceeds generated from the CFD will fund a non-profit, public benefit entity called the “India Basin Trust” that will be governed by a 9-person Board of Trustees comprised of a mix of representatives from the future Master Homeowners Association (MHOA), the SF Recreation and Parks

Department (RPD), the master developer (until all vertical development is complete), an IBNA representative, and representatives from at least two Citywide non-profit park advocacy organizations. The Trust will work in close partnership with key City agencies, but especially RPD, who will likely lead on-site park related programing, to fund ongoing maintenance and operations for the entire IB Plan Area.

The Trust will fund (1) the ongoing maintenance of all publicly and privately owned streetscapes, parks and plazas and pathways, including the Big Green and India Basin Open Space, (2) 24-hour public safety to supplement SFPD services throughout the IB Plan Area, (3) some programming for the publicly accessible parks and plazas in close coordination with RPD and (4) on-going education and volunteer programs for residents, commercial occupants, park users and the broader Bayview neighborhood on the sustainability, habitat restoration and resiliency goals of the IB Plan. The MHOA will complement the work of the Trust but focus on maintaining and operating a subset of the privately owned areas within the IB Plan Area, including the garages. The MHOA will also run the Transportation Management Programs agreed to in the DA.

General Provisions

Applicability of State and Federal Law. To the extent that the standards or guidelines set forth in the DSG are preempted by state or federal law, including, without limitation, the Americans with Disabilities Act or Title 24 of the California Code of Regulations (California Physical Access Laws), the applicable State or Federal Code shall prevail.

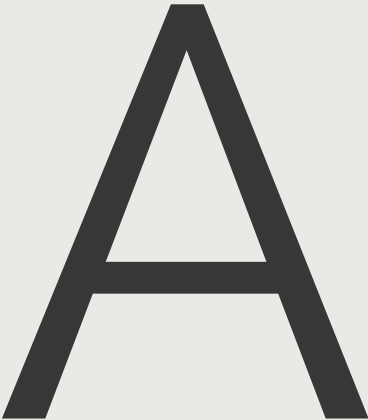
Process for Amendment. The Planning Commission may initiate and adopt amendments to the DSG or may approve amendments to the DSG upon application by City, or upon initiation by either City or upon application by owner of property (or his or her authorized agent) within India Basin to the extent that such amendments are consistent with the SUD, the General Plan and the approved DA.

Interpretation. In the event of an ambiguity or of circumstances not specifically provided for in this DSG, the Planning Director shall interpret the intent of the standards and guidelines contained herein. The Planning Director shall have the authority to determine whether a land use not specifically listed within the Permitted and SUD generally fits within a category of a permitted or special use and is consistent with the intent of the SUD and this DSG and may be

allowed as a permitted or special use.

Environmental Impact. Because the Environmental Impact Report (EIR) prepared and certified for the development of India Basin is both a “project” and a “program” EIR. It is anticipated that the approval of each subsequent application consistent with the DSG shall not require the preparation of new environmental documents, unless otherwise required pursuant to Public Resources Code Section 21166, as same may be amended from time to time.

In the event of a conflict between the terms of this DSG and the mitigation measures included as part of the Mitigation Monitoring and Reporting Plan adopted by the Board of Supervisors, the terms of the mitigation measures shall prevail.



Appendix

Appendix

- A.1 Definition of Terms
- A.2 List of Figures
- A.3 Image Credits
- A.4 References

A.1 Definition of Terms

ACCESSORY USES A related minor use that is either: necessary to the operation or enjoyment of a lawful principal use or conditional use; or appropriate, incidental, and subordinate to any such use shall be permitted as an accessory use when located on the same lot.

ACCLIMATED SPECIES Plants that are not native but are adapted to the Northern California coastal climate and soil conditions and do not require irrigation two years after their initial installation.

ACTIVE USES Uses that include locally serving retail and services, community rooms and kitchens, and recreational and arts facilities.

ARTICULATION Minor variations in the massing, setback, height, fenestration, or entrances to

a building, which express a change across the elevation or facades of a building. Articulation may be expressed, as bay windows, porches, building modules, entrances, or eaves, vertical recesses, changes in wall plane, changes in material and colors, projections or changes in window forms and patterns among other similarly scaled elements.

AWNING A light roof-like structure, supported entirely by the exterior wall of a building, consisting of a movable frame covered with approved cloth, plastic or metal, extending over doors and windows, with the purpose of providing protection from sun and rain and embellishment of the facade; as further regulated in Section 3105 of the Building Code.

A.1 Definition of Terms (Continued)

BACK-OF-WALK The edge of a sidewalk that abuts the development parcel/area. Commonly used to demarcate the boundary between a public right-of-way and private development parcel

BIO-CORRIDOR A strip of habitat connecting wildlife populations that have been separated by human activities.

BIO-FILTRATION A process to remove and biologically degrade pollutants from stormwater runoff by filtering the water through a planted medium.

BIO-INFILTRATION A process to remove and biologically degrade pollutants from stormwater runoff by slowly absorbing and infiltrating in shallow, planted depressions. This process also reduces the volume of runoff while cleaning up pollutants. Stormwater flows into the bioinfiltration area, ponds on the surface, and gradually infiltrates into the soil bed. Filtered runoff is infiltrated into the surrounding soils via an absorption basin or trench. Excess water can be collected by an underdrain system and discharged to the storm sewer system or directly into receiving waters.

BLANK WALL Any streetwall area that is not transparent, including solid doors and mechanical area wall(s).

BLOCK An area of land bounded by public rights-of-way as designated numerically on the Project Boundary, Block, and Street Grid maps

BUILDING Any structure having a roof supported by columns or walls and intended for supporting or sheltering any use or permanent occupancy.

BUILDING ENTRY The point of a building associated with accessibility of the user, not including service or loading access.

BUILDING ENVELOPE The exterior dimensions—dictating the maximum dimensions of width, depth, height and bulk—within which a building may exist on a given site.

BUILDING FACE The major or primary plane of the exterior wall of the building. The term is often used in context with its relationship to an adjacent street or public area.

BUILDING HEIGHT The vertical distance by which a building or structure rises above a certain point of measurement. See Section 5.2 of this Code for how height is measured.

BUILDING PROJECTION Any portion of the building projecting from the building face at twelve feet (12') above grade, or from a point above the ground floor.

BULK The maximum physical dimensions of built volume.

CANOPY A light roof-like structure, supported by the exterior of a building consisting of a fixed or frame covered with approved cloth, plastic or metal, with the purpose of providing protection from sun and rain and embellishment of the façade

CORNER The first fifty feet of a block measured from the intersection of two or more streets.

CURB CUT A break in the street curb to provide vehicular access from the street surface to private or public property across a continuous sidewalk.

CYCLE TRACK A separated, two-way right-of-way adjacent to or within the street right-of-way for the exclusive use of bicycles with crossflow by motorists and pedestrians minimized.

DAYLIGHTING The practice of providing a specific length of red curb at the corners of intersections where parallel street parking is not inset into the sidewalk area to ensure that pedestrians, bicycles and other vehicles are fully visible to drivers positioned for a right or left turn. Where parallel street parking is inset into the sidewalk, a red curb is not required.

DESIGN GUIDELINES Describe the alignment of specific features or provisions to the project intent,

vision, principles, design drivers and physical framework, including recommendations for project elements. Guidelines are binding; proposed development must demonstrate compliance with guideline intent. Guidelines differ from Standards in that they may be subjective or otherwise require interpretation, and variation from them does not require formal modification. Compliance may be evaluated, and conditions amended or waived ministerially.

DESIGN STANDARDS Mandatory, objective and quantifiable specifications or other requirements applicable to the components, features or provisions within a Project. Amendments to Standards require formal approval by the Authority Having Jurisdiction (AHJ).

DWELLING UNIT A Residential Use defined as a room or suite of two or more rooms that is designed for, or is occupied by, one family doing its own cooking therein and having only one kitchen.

EASEMENTS Easements establish a right to cross or otherwise use land owned by others for a specified purpose.

EXCEPTION A relaxation of certain development controls when a set of specific design guidelines are met.

FAÇADE An entire exterior wall assembly including, but not limited to, all finishes and siding, fenestration, doors, recesses, openings, bays, parapets, sheathing, and framing.

FENESTRATION The arrangement of windows and doors on the elevation of a building. Fenestration is often examined as a pattern

FIN SIGN A sign projecting from the building wall over the sidewalk, visible from the street, also known as blade sign that directs attention to a business, service or retail activity

FREESTANDING SIGN A sign in no part supported by a building

FRONTAGE ZONES This is a zone located along retail buildings reserved for outdoor display, signage and movable cafe seating with appropriate permits

GOALS Aspects of the project that the sponsors will diligently pursue and seek to finance. Goals are ultimately non-binding and are intended to be achieved at full build-out.

GROCERY A Retail Sales and Services Use that:

- (a) Offers a diverse variety of unrelated, non-complementary food and non-food commodities, such as beverages, dairy, dry

goods, fresh produce and other perishable items, frozen foods, household products, and paper goods;

- (b) May provide beer, wine, and/or liquor sales for consumption off the premises with a California Alcoholic Beverage Control Board License type 20 (off-sale beer and wine) or type 21 (off-sale general) within the accessory use limits;
- (c) Prepares minor amounts or no food on site for immediate consumption; and
- (d) Markets the majority of its merchandise at retail prices;
- (e) May have a Limited Restaurant use within the accessory use limits;

GROSS FLOOR AREA Shall have the meaning established in the City of San Francisco Planning Code §102. DEFINITIONS, for “Floor Area, Gross.”

HARDSCAPE The coverage of ground surfaces with constructed materials such as paving, walls, steps, decks, or furnishings.

HEDGEROW A row of bushes, shrubs and/or trees that help define a place, act as shelterbelts from prevailing winds, and add to biodiversity.

A.1 Definition of Terms (Continued)

HISTORIC RESOURCES Buildings or structures listed on the National Register of Historic Places, either individually or as contributors to a National Register-listed Historic District.

HORIZONTAL DEVELOPMENT Horizontal improvements, including infrastructure, streetscape and open space improvements that the master horizontal developer is required to construct under the terms of a Development Agreement (DA) with the master developer.

IMPERVIOUS SURFACES An impermeable material, which prevents moisture percolation into the ground, and therefore sheds rainwater and residues onto streets and into stormwater sewers

LANDING The area associated with a stairway or ramp that provides reprieve from the ascent or descent of the vertical change; typically flat, and sometimes wider than said stairway or ramp.

LINER RETAIL Small retail spaces located along the perimeter of large retail areas.

LIVE/WORK UNIT A hybrid Residential and PDR Use that is defined as a structure or portion of a structure combining a residential living space for a group of persons including not more than four adults in the same unit with an integrated work space principally used by one or more of the

residents of that unit.

LOCAL-SERVING RETAIL Retail uses providing goods and services to the population within the immediate neighborhood.

LOT FRONTAGE The dimension of a lot along a primary street.

MAJOR PHASE OF DEVELOPMENT Each major phase of development identified in the phasing plan.

MASSING Form used to describe the three-dimensional volume or shape of a building or part of a building or the act of creating it.

MAXIMUM APPARENT FACE Add definition text.

MAXIMUM PLAN DIMENSION The maximum linear horizontal dimension of a building or structure at a given level, between the outside surfaces of its exterior walls. The maximum plan dimension of a building or structure is the greatest plan dimension parallel to the long axis of the building.

MICRO-PARCELS Small scale property parcels of no more than 2,000sf, intended for development of between 1 and 3 dwelling units.

MODULATION A Major variation in the massing,

height, or setback of a building, as a means of breaking up a structure's perceived bulk.

NATIVE SPECIES Plants that have evolved over geologic time in response to physical and biotic processes characteristic of a region: the climate, soils, timing of rainfall, drought and interactions with the other species inhabiting the local community. They are uniquely adapted to local conditions, providing a practical and ecologically valuable alternative for landscaping, conservation and restoration projects, and as wildlife food source.

OFFICE USE A space within a structure intended or primarily suitable for occupancy by persons or entities which perform for their own benefit or provide to others at that location, administrative services, design services, business and professional services, financial services, medical services, multimedia, software development, web design and information technology

OPEN-AIR SALES A retail use involving open-air sale of new and/or used merchandise, except vehicles, but including agricultural products, crafts, and art work.

OPEN RECREATION AREA A Non-Commercial Entertainment, Arts and Recreation Use that is not publicly owned which is not screened from

public view, has no structures other than those necessary and incidental to the open land use, is not operated as a gainful business, and is devoted to outdoor recreation such as golf, tennis, or cycling.

OPEN USE Any use of a lot that is not conducted within a Building.

OUTDOOR ACTIVITY AREA An area, not including primary circulation space or any public street, located outside of a building or in a courtyard and provided for the use or convenience of patrons of a commercial establishment including, but not limited to, sitting, eating, drinking, dancing, and food-service activities.

OWNERS ASSOCIATION (OA) Add definition text.

PARCEL Parcels delineate the limits of public and private property.

PARKING A parking facility serving uses located on either parcels or blocks occupied by said facility or on other parcels or blocks.

PASSIVE OUTDOOR RECREATION A Non-Commercial Entertainment, Arts and Recreation Use defined as an open space used for passive recreational purposes that is not publicly owned and is not screened from public view, has no

structures other than those necessary and incidental to the open land use, is not served by vehicles other than normal maintenance equipment, and has no retail or wholesale sales on the premises. Such open space may include, but not necessarily be limited to, a park, playground, or rest area.

PERMEABLE SURFACES Permeable surfaces are those that allow stormwater to infiltrate the underlying soils. Permeable surfaces shall include, but not be limited to, vegetative planting beds, porous asphalt, porous concrete, single-sized aggregate, open-jointed blocks, stone, pavers, or brick that are loose-set and without mortar. Permeable surfaces are required to be contained so neither sediment nor the permeable surface discharges off the site

PERMITTED USES Uses permitted by right per the Permitted and Conditional Table. See Chapter 4.

PERVIOUS SURFACE Landscaping materials that allow a percentage of rainwater to percolate into the ground rather than run off into the stormwater system

PLANNING COMMISSION The governing body of the Planning Department of the City and County of San Francisco.

POCKET PLAZAS Community gathering and program spaces located at strategic nodes within the neighborhood.

PROHIBITED USES Excluded uses, as listed below, are uses that might have fit within a broad category listed in the Permitted or Conditionally Permitted Use table but are expressly prohibited:

Drive-through facilities

Adult entertainment

General Advertising

RESIDENTIAL USE A Use Category consisting of uses that provide housing for San Francisco residents, rather than visitors, including Dwelling Units, Group Housing, Residential Hotels, and Senior Housing, and any residential components of Institutional Uses. Single Room Occupancy and Student Housing designations are considered characteristics of certain Residential Uses.

RESTAURANT A full-service or self-service retail facility primarily for eating use; which provides ready-to-eat food to customers for consumption on or off the premises; which may or may not provide seating; and which may include a Bar. Food may be cooked or otherwise prepared on the premises.

A.1 Definition of Terms (Continued)

RETAIL SALES AND SERVICES A commercial use which provides goods and/or services directly to the customer, including Outdoor Activity Areas and Open Air Sales Areas. It may provide goods and/or services to the business community, provided that it also serves the general public.

RETAIL USE A Commercial Use that includes uses that involve the sale of goods, typically in small quantities, or services directly to the ultimate consumer or end user including, but not limited to, Retail Sales and Service Uses, Commercial Entertainment, Arts and Recreation Uses, and Retail Automotive Uses.

ROOF SIGN A sign, or portion thereof, erected or painted on or over the roof of a building.

SEMI-PRIVATE COURTYARD OR OPEN SPACE Open space that is available and accessible to residents or tenants of the adjacent buildings but is not necessarily required to be publicly accessible.

SERPENTINE SOILS Serpentine soils are typically present in areas near active geologic faults, where the mineral Serpentinite emerges from the earth's mantle through cracks in surrounding bedrock. The San Andreas and Hayward faults are responsible for the serpentine outcrops that occur across the Bay Area.

These soils are characterized by a thin, rocky texture, and a mineral content high in magnesium, nickel, and chromium and low in calcium and nitrogen. The result is an environment that is outright toxic to many plants, and simply challenging for other to survive. However, certain plants have evolved over time to thrive in these conditions, including many of the plants that are endemic to the Bay Area and the larger ecosystems that revolve around them

SETBACK Open space provided between the property line and the primary built structure creating an expanded area along the sidewalk providing a transition between the street and private uses on the property. Setbacks may be required to be dedicated for public use or remain as private space between the public right-of-way and the building mass. The term may refer to:

- The required or actual horizontal distance between the property line and the nearest face of the building.
- The area defined by such dimension.

SHARED PUBLIC WAY Dedicated rights-of-way primarily designed for pedestrian use, which also permit vehicles and bicycles to share the open space.

SHARED YARD The shared yard is a buffer between the Big Green and the Flats. It acts as a visual transition between public open space and private homes, and provides residents with a shared semi-private open space for activities such as play, barbecue, small gatherings, and leisure time. Stoops overlook the shared yard, which fronts the Big Green. Stormwater is treated between buildings

SOFTSCAPE Landscaped areas dedicated to planted materials such as ground cover, annuals, perennials, shrubs and trees

STEPBACK

- A. The required or actual distance between the vertical edges of a building above a specified height, or between the vertical edge of a building and the property line above a specific height.
- B. The area defined by such dimension

STOOP An outdoor entryway into residential units raised above the sidewalk level. Stoops may include steps leading to a small porch or landing at the level of the first floor of the unit.

STORAGE A use which stores goods and materials used by households or businesses at other locations, but which does not include

junk, waste, salvaged materials, automobiles, inflammable or highly combustible materials. A storage building for household or business goods may be operated on a self-serve basis.

STOREFRONT The facade of a retail space between the street grade and the ceiling of the first floor.

STREET A Right-of-Way permanently dedicated to common and general use by the public, as described in the Parcels+Easement Plan.

STREETWALL The aggregate effect of the façades of buildings along a property line adjacent to a public street or open space. The typical context for this term is in defining the public realm and framing or engaging the street.

STRUCTURAL SOIL Designed growing medium made up of crushed stone, clay loam, and a hydrogel stabilizing agent, which can meet or exceed pavement sub-base design and compaction requirements while remaining root penetrable and supportive of tree growth. The small voids in structural soil provide space for healthy root growth at deeper levels and serve to prevent surface heaving of pavement much more effectively than root barriers

STRUCTURE Anything constructed or erected

which requires fixed location on the ground or attachment to something having fixed location on the ground.

TERRACE A raised, flat platform associated with and providing egress from a [usually residential] building.

TIDAL ZONE The tidal portion of the site exists from the high tide line down to low tide line (open water). The project site contains the largest area available for this habitat in India Basin and one the largest in the southeastern waterfront of San Francisco.

TIDELANDS TRUST The public trust for commerce, navigation and fisheries, whereby title to tidelands and lands under navigable waters are held in trust for the benefit of the people of California.

TRANSPARENCY A characteristic of clear facade materials, such as glass, that provide an unhindered visual connection between the sidewalk and internal areas of the building

TOWER EXTENSION The portion of a tower above the roof of the highest occupied floor used to screen rooftop elements and to enhance the tower design.

UNBUNDLED PARKING Non-residential, unassigned shared parking.

UNDERSTORY PLANTING Define

VERTICAL DEVELOPMENT Individual buildings or structures developed pursuant to a Vertical Development Agreement.

VISION ZERO “a multi-national road traffic safety project that aims to achieve a highway system with no fatalities or serious injuries in road traffic. It started in Sweden and was approved by their parliament in October 1997.[1] A core principle of the vision is that ‘Life and health can never be exchanged for other benefits within the society’ rather than the more conventional comparison between costs and benefits, where a monetary value is placed on life and health, and then that value is used to decide how much money to spend on a road network towards the benefit of decreasing how much risk.” https://en.wikipedia.org/wiki/Vision_Zero “In 2014, the SFMTA joined the San Francisco Board of Supervisors in adopting “Vision Zero”: a policy to eliminate all traffic deaths in San Francisco by 2024.’ <https://www.sfmta.com/projects-planning/projects/vision-zero>

WALK-UP FACILITY A structure designed for provision of pedestrian-oriented services, located on an exterior building wall, including window service, self-service operations, and automated bank teller machines (“ATMs”).

A.2 List of Figures

Executive Summary

Figure 0.01 Illustrative Site Plan

01 Master Plan Framework

Figure 1.01 Regional Context

Figure 1.02 Project Location

Figure 1.03 Neighborhood Context

Figure 1.04 Citywide Transit Access to Site

Figure 1.05 India Basin Transportation
Action Plan

Figure 1.06 Existing Site Conditions

Figure 1.07 Coastal Processes

Figure 1.08 Regulatory Jurisdiction

Figure 1.09 Existing Mitigation Wetlands

Figure 1.10 Existing Habitats and Wetlands

Figure 1.11 Existing Hydrology System

Figure 1.12 Sea Level Rise

Figure 1.13 Settlement Zones

Figure 1.14 Geotechnical Constraints

Figure 1.15 Illustrative Site Plan

Figure 1.16 Blue Green Coastal Zone

Figure 1.17 Eco-Bands (Terracing)

Figure 1.18 Public Views

Figure 1.19 Eco-Corridors- Hillside to Bay

Figure 1.20 Unbraided Cord

Figure 1.21 Nodes/ Places

Figure 1.22 Typical Grid

Figure 1.23 Adjusted Grid for Wind Permeability

Figure 1.24 Adjusted Scale for Wind and
Pedestrian Permeability

Figure 1.25 Proposed Block Structure

Figure 1.26 District Sustainability Strategies

Figure 1.27 Wild to active Gradient

Figure 1.28 Biodiversity cross-section &
Vertical connectivity

Figure 1.29 Regional Views

Figure 1.30 Protected Public View Corridors

Figure 1.31 Compact Village

Figure 1.32 Urban Form

Figure 1.33 Urban Form

Figure 1.34 Public Realm “Heat Map”

Figure 1.35 Open Space Netowrk

Figure 1.36 Project Sub-Areas

Figure 1.37 The Shoreline and Big Green

Figure 1.38 The Cove

Figure 1.39 The Hillside

Figure 1.40 The Flats

Figure 1.41 The Market Plaza

Figure 1.42 The Cove Terrace

Figure 1.43 The Hillside Steps

Figure 1.44 The Town Triangle

02 Public Realm

Figure 2.01 Public Realm “Heat Map”

Figure 2.02 Open Space Network

Figure 2.03 Existing and Planned Transit Access

Figure 2.04 Transit Access

Figure 2.05 Bike Network

Figure 2.06 Pedestrian Network

Figure 2.07 Street and Laneways

Figure 2.08 Shared Public Way Emergency
Vehicle Access

Figure 2.09 Emergency Vehicle Access

Figure 2.10 Streetscape Zone

Figure 2.11 New Hudson Street View

Figure 2.12 New Hudson Street Section

Figure 2.13 New Hudson Enlarged Plan

Figure 2.14 Arelious Walker Street View

Figure 2.15 Arelious Walker Street Sectopm

A.2 Figures (Continued)

Figure 2.16 Arelious Walker Street Enlarged Plan	Figure 2.36 Maintenance Acces Routes	Figure 2.56 Stormwater Enlargement Plan
Figure 2.17 Earl Street Sectoin	Figure 2.37 Trail Network	Figure 2.57 Shared Front Yard Enlargement Plan
Figure 2.18 Earl Path View	Figure 2.38 Trail Sections- Multi-use Trail	Figure 2.58 Public Market Plaza Enlargement Plan
Figure 2.19 Earl Street Enlarged Plan	Figure 2.39 Trail Sections- Elevated Boardwalk, Trail in Slope, Hiking Trail	Figure 2.59 Transit Planza Plan
Figure 2.20 Earl's Path Section	Figure 2.40 (Left) Furnishing zone at curve (Right) Furnishing zone at straight alignments	Figure 2.60 Town Triangule Enlargment Plan
Figure 2.21 Earl's Path Enlarged Plan	Figure 2.41 Places	Figure 2.61 Pocket Plazas
Figure 2.22 Shared Public Way- Beach Lane	Figure 2.42 Signature Places	Figure 2.62 Couryards, Stairs & Laneways
Figure 2.23 Shared Public Way - Section at Tree	Figure 2.43 Beach, Boat Launch & Overlook Axon, Looking West	Figure 2.63 Couryard Access
Figure 2.24 Typical Shared Way Section	Figure 2.44 Perched Beach Section	Figure 2.64 Conceptual Furnishign Plan
Figure 2.25 Shared Public Way - Fairfax Lane Enlarged Plan	Figure 2.45 Beach & Boat Launch Enlarged Plan	Figure 2.65 Conceptual Fences and Gate
Figure 2.26 Shared Public Way - Beach Lane Enlarged Plan	Figure 2.46 East Shoreline Axon, Looking East	Figure 2.66 Pedestrian Light Levels
Figure 2.27 Shared Public Way - Spring Lane Enlarged Plan	Figure 2.47 East Shoreline Section	Figure 2.67 Public Realm Structures
Figure 2.28 Cove Laneway Axon	Figure 2.48 East Shoreline Enlarged Plan	Figure 2.68 Tree Pit Configuration
Figure 2.29 Cove Laneway Section	Figure 2.49 West Shoreline Section	Figure 2.69 Standard Tree Pit
Figure 2.30 Cove Laneway Enlarged Plan	Figure 2.50 West Shoreline Enlargement Plan	Figure 2.70 Modular Structural Cell
Figure 2.31 Hillside Laneway Axon	Figure 2.51 Cove Terrace Axon looking Northeast	Figure 2.71 Bioretention Type A Section
Figure 2.32 Hillside Laneway Section-Typical	Figure 2.52 Cove Terrace Enlargement Plan	Figure 2.72 Bioretention Type B Section
Figure 2.33 Hillside Laneway Enlarged Plan	Figure 2.53 Big Green Enlargement Plan	Figure 2.73 Roof Bioretention Section
Figure 2.34 Flats Laneway Section	Figure 2.54 Earthwork Typologies	Figure 2.74 Habitat continuity throughout India Basin
Figure 2.35 Flats Laneway Enlarged Plan	Figure 2.55 Earthwork Enlargement Plan	Figure 2.75 Urban Biodiversity
		Figure 2.76 Conceptual Tree Plan
		Figure 2.77 Conceptual Understory Planing Plan

03 District Sustainability

- Figure 3.01** Potential Non-Potable Water Generation and Uses
- Figure 3.02** Potential Microgrid
- Figure 3.03** Potential Microgrid with Battery Storage
- Figure 3.04** Potential India basin Zero Net Energy Public Realm
- Figure 3.05** Watersheds and Stormwater Management
- Figure 3.06** Wastewater Management
- Figure 3.07** Potential Photovoltaic Locations
- Figure 3.08** Product Selection
- Figure 3.09** San Francisco City and India Basin Efforts
- Figure 3.10** Net Zero Off-Haul
- Figure 3.11** Site Assets & Interim Activation
- Figure 3.12** Anticipated Sea Level Rise
- Figure 3.13** Proposed Shoreline Adaptation
- Figure 3.14** Upland Habitat Migration

04 Land Use

- Figure 4.01** Strategy for Expanding Neighborhood Amenities
- Figure 4.02** Existing Neighborhood Amenities
- Figure 4.03** India Basin Waterfront Parks and Trails Study
- Figure 4.04** Existing and Proposed Community Services and Amenities
- Figure 4.05** Community Services and Amenities
- Figure 4.06** Land Use
- Figure 4.07** Permitted and Conditional Use Table
- Figure 4.08** Active Ground Floor Use
- Figure 4.09** Treatments for Garages and Parking Access
- Figure 4.10** Loading Space Table
- Figure 4.11** Loading

05 Urban Form

- Figure 5.01** Parcels and Easements
- Figure 5.02** Parcel Area Table
- Figure 5.03** Parcels and Easements - Small Parcels
- Figure 5.04** Building Height Measurement

- Figure 5.05** Maximum Height
- Figure 5.06** Building Height Measurement Concept
- Figure 5.07** Building Height Measurement
- Figure 5.08** Tower Controls
- Figure 5.09** Tower Zone
- Figure 5.10** Building Setbacks
- Figure 5.11** 0'-0" Setback
- Figure 5.12** 0'-5' Setback - Recessed Ground Floor
- Figure 5.13** 5' Setback - Full Height
- Figure 5.14** 6'-10' Setback - Commercial Ground Floor
- Figure 5.15** Typical Residential Setback - 6'-10'
- Figure 5.16** Open Space Edge Setback - Varies
- Figure 5.17** Earl's Path Setback - 10'-15'
- Figure 5.18** Massing Controls - Directional Emphasis
- Figure 5.19** Massing Controls - Directional Emphasis
- Figure 5.20** Building Stepback - Section
- Figure 5.21** Building Stepbacks
- Figure 5.22** Streetwall
- Figure 5.23** Predominant Surface, Defined
- Figure 5.24** Predominant Surface

A.2 Figures (Continued)

Figure 5.25 Predominant Surface with
Ground Floor Setbacks

Figure 5.26 Facade Zone

Figure 5.27 Street Wall Articulation

Figure 5.28 Scale

Figure 5.29 Organization

Figure 5.30 Streetwall

Figure 5.31 Setbacks and Stepbacks

Figure 5.32 Parcel C1 - Plan

Figure 5.33 Parcel C1 - Axonometric

Figure 5.34 Parcel C2 - Plan

Figure 5.35 Parcel C2 - Axonometric

Figure 5.36 Parcel C3 - Plan

Figure 5.37 Parcel C3 - Axonometric

Figure 5.38 Parcel C4 & C5 - Plan

Figure 5.39 Parcel C4 & C5 - Axonometric

Figure 5.40 Parcel H1 - Plan

Figure 5.41 Parcel H1 - Axonometric

Figure 5.42 Parcel H1 - Plan

Figure 5.43 Parcel H1 - Axonometric

Figure 5.44 Parcel H2 - Plan

Figure 5.45 Parcel H2 - Axonometric

Figure 5.46 Parcel H3 - Plan

Figure 5.47 Parcel H3 - Axonometric

Figure 5.48 Parcel H4 - Plan

Figure 5.49 Parcel H4 - Axonometric

Figure 5.50 Parcel F1 - Plan

Figure 5.51 Parcel F1 - Axonometric

Figure 5.52 Parcel F2 - Plan

Figure 5.53 Parcel F2 - Axonometric

Figure 5.54 Parcel F3 - Plan

Figure 5.55 Parcel F3 - Axonometric

Figure 5.56 Parcel F4 & F5 - Plan

Figure 5.57 Parcel F4 & F5 - Axonometric

Figure 5.58 Parcel F6 - Plan

Figure 5.59 Parcel F6 - Axonometric

Figure 5.60 Parcel F8 & F9 - Plan

Figure 5.61 Parcel F8 & F9 - Axonometric

Figure 5.62 Parcel F10 to F22 - Plan

Figure 5.63 Parcel F10 to F22 - Axonometric

06 Architecture

Figure 6.01 High Rise Residential Energy Use
and Intensity Goals

Figure 6.02 Commercial Office Energy use
Intensity Goals

Figure 6.03 Retail Energy Use Intensity Goals

Figure 6.04 Energy Use by Program

07 Wayfinding & Signage

Figure 7.01 Incorporate Branded Retail Signage

Figure 7.02 Scale And Transparency

Figure 7.03 Active Signage - Recommended

Figure 7.04 Active Signage - Discouraged

Figure 7.05 Approvals Process

A.3 Image Credits

Preface

Cover View of Downtown from Site
SOM

View of Downtown from Site
SOM

p. iv Historic Map of San Francisco (1895)
USGS, Historical Topographic Map Viewer
historicalmaps.arcgis.com/usgs/

p. x Complete the Neighborhood
300 Ivy by David Baker
Photo by Bruce Damonte
www.dbarchitect.com/images/dynamic/slideshow_images/image//300ivy_photo%C2%A9brucedamonte_31.jpg

Shape Public Space
Mint Plaza by CMG Architects
Photo by Sharon Risedorph
www.asla.org/uploadedImages/CMS/Business_Quarterly/mintplaza_page.jpg

p.x Craft a Human-Scale Village
Hammarby Sjostad
www.greenearthalmanac.com/2011/09/europes-vibrant-new-low-carbon.html

p.xi Cultivate a Robust Urban Ecology
Tanner Springs Park
Photo by GreenWorks
www.ramboll.com/projects/germany/tanner-springs-park

Grow a Legacy of Stewardship
Photo by Save the Bay
baytrail.org/wp-content/uploads/2015/10/Bair-Island-Planting.jpg

01 Master Plan Framework

p.18 View of Site from Hillside
SOM

p.21 View of Downtown from Site
SOM

p.28 Site as seen from India Basin Shoreline Park
SOM

Stairway along Innes Ave at Arelious Walker
SOM

900 Innes Site
SOM

View of Downtown
SOM

India Basin Shoreline Park
SOM

p.29 Existing Storage Yard
SOM, Photo by Cesar Rubio

A.3 Image Credits (Continued)

p.29 Undeveloped Area of Site

SOM, Photo by Cesar Rubio

Existing Earl Street Right of Way

SOM, Photo by Cesar Rubio

India Cove 828 Innes Ave

SOM, Photo by Cesar Rubio

Arelious Walker

SOM, Photo by Cesar Rubio

p.30 Site location overlayed on historic map of San Francisco, 1895

India Basin, c.1900

p.31 India Basin, 1920s

<https://media1.fdnclms.com/sfexaminer/imager/this-historic-image-shows-india-basin-as-i/u/original/2907193/bayvwHPindia-1920s.jpg>

India Basin, 1969

<http://www.foundsf.org/images/6/6c/BayvwHP%24india-basin-1969.jpg>

p.32 Historic Shipwright's Cottage, 900 Innes

SF Planning

[cdn0.vox-cdn.com/thumbor/Qx-1oph-Z90JZQbGer6BDWN-BjVn4=/1000x0/filters:no_upscale\(\)/cdn0.vox-cdn.com/uploads/chorus_asset/file/5392387/900_20innes_201970s.0.jpg](cdn0.vox-cdn.com/thumbor/Qx-1oph-Z90JZQbGer6BDWN-BjVn4=/1000x0/filters:no_upscale()/cdn0.vox-cdn.com/uploads/chorus_asset/file/5392387/900_20innes_201970s.0.jpg)

p.41 Existing Site

SOM

02 Public Realm

p.76 Class I Cycle Track

Photo by Calgary Herald

wpmedia.calgaryherald.com/2014/05/7th_st77.jpg?quality=55&strip=all&w=620&h=349&crop=1

Multi-Use Shared Path

http://www.dbarchitect.com/images/dynamic/article_slideshow_images/image/bike_trail_tiburon_crowded.jpg.project_large.jpg

Class III "Sharrow"

Photo by Downtown Chambersburg Inc.

96bda424cfcc34d9dd1a-0a7f10f87519d-ba22d2dbc6233a731e5.r41.cf2.rackcdn.com/chambersburg/Sharrows_riders.jpg

**p.80 Existing Throughway-Innes Avenue
SOM**

Neighborhood Commercial

Airbnb

https://a1.muscache.com/locations/uploads/photo/image/3477/0_4200_0_2800_one_SF_PacificHeights_OdessaShekar-46.jpg

Shared Public Way

NACTO

https://nacto.org/wp-content/uploads/2015/06/bell_aerial_1_large-e1461787935121.jpg

p.126Type A&B

At&t Park to the Golden Gate Bridge

<https://www.zozi.com/journal/zozi-gurus/dean-karnazes-san-francisco-running-routes>

Type C

Tiburon Bay Trail
 San Francisco Bay Trail Project
https://commons.wikimedia.org/wiki/File:Tiburon_Bay_Trail.JPG

Type D

Laguna Niguel Hike – Salt Creek Hiking Trail Overview
<https://www.google.com/url?sa=i&rct=-j&q=&esrc=s&source=images&cd=&ved=0a>

Type E

San Francisco Bay - West Luff Beach
<http://www.californiabeaches.com/beach/west-bluffs-beach-at-crissy-field/>

Type F

By Pam VanDrimlen
<http://www.wheresbrya.com/past-trips/>

Type G

Galomorro
<http://galomorro.weebly.com/stairways-are-heaven/something-for-everyone-part-2>

Type H

not found

Type I

by Bonneville Trail
<http://www.bonnevilleshorelinetrail.org/184tofarmington/184tofarmington.html>

p.139 Kayak Launch

Designed and photo by MVVA
<http://mkarchitects.com/>

Perched Beach & Deck

By Mayslits Kassif Architects
<http://tclf.org/blog/dear-architecture-criticism-evolve-already>

p.153 Earthwork, Science Lab

Designed and photoby Mayslits Kassif Architects
<http://tclf.org/blog/dear-architecture-criticism-evolve-already>

Earthwork, Storm King

Photo by Storm King Art Center
<http://inhabitat.com/nyc/storm-king-art->

center-a-summer-retreat-for-the-artsy-nature-loving-new-yorker/sony-dsc-9/

p.159 Stomwater pond character

Designed and photo by Turenscape
<https://www.asla.org/2010awards/006.html>

Boardwalk traversing stormwater pond

Designed and photo by Turenscape
<https://www.asla.org/2010awards/006.html>

p.160 Shared yard for residence

by NOTFOUND

Activated edge and public realm engagement

by NOTFOUND

p.163 Flexible plaza s

Photo by Stephanie Mitchell
<http://news.harvard.edu/gazette/story/2013/09/to-market-to-market-2/>

Canopy Typology

Photo by Flora Grubb Gardens
<https://old.kennwilson.com/2007/07/flo->

ra-grubb-gardens/

p.175 Caption
Vienna Museum Quarter forecourt
<http://www.shiftdesignstudio.com/>

p.177 Patchwork
Not Found

Historic
Key sage grouse habitat
<http://www.shiftdesignstudio.com/>

Connections
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Infrastructure
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Wild
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Oddities
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Artifacts
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Community
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Wetlands
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Leftovers
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Industrial
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p.178 Wildflower Meadow
Not Found

Concrete rubble and oystercatchers
Not Found

Cracked asphalt paving
Not Found

Existing coastal scrub

Photo by West8
Not Found

Power sub-station
Not Found

Steel
Not Found

p.179 Corten Steel
by ALPHA Nano Solution
<http://www.alphananosolutions.com/single-post/2015/10/15/PROTECTING-MET-ALWORK-WITH-CDS>

Galvanized Metal
LandLab and eCubed Building Workshop
<http://www.alphananosolutions.com/single-post/2015/10/15/PROTECTING-MET-ALWORK-WITH-CDS>

Hardwood
Photo by Plank and Mill
<https://www.plankandmill.com/products/reclaimed-barn-wood-planks?variant=20454219717>

Row Concrete

Broom Concrete Finish

<http://pell-builder.com/services/new-concrete/exposed-aggregate-concrete-finish-in-vancouver-bc/broom-finished-concrete-2-2/>

Asphalt

Photo by Alexandr Blankov

<http://atextures.com/black-road-asphalt-texture/>

Native & Adaptive Vegetation

Photo by Saxon Holt

<http://swbiodiversity.org/seinet/imagelib/imgdetails.php?imgid=311289>

Native & Adaptive Vegetation

Photo by Zoya Akulova

<http://swbiodiversity.org/seinet/imagelib/imgdetails.php?imgid=311289>

p.181 Type A: Permeable Asphalt

http://www.asphaltpavement.org/index.php?option=com_content&view=article&id=359&Itemid=863

Type B: Permeable Concrete**Bay Area Concrete**

<http://www.bayareaperviousconcrete.com/our-work>

Type C: Grass Pave

CORE Grass Reinforcement

<http://www.corelp.co.uk/core-grass-reinforcement/>

Type D: Turf Block

Ecological permeable surfaces

Montreal

<http://paysagiste-montreal-landscaping.blogspot.com/2014/04/surfaces-permeables-ecologique.html>

Type E: Permeable Unit Pavers

CORE Grass Reinforcement

<http://eaglebaypavers.com/paver-looks/permeable-pavers/>

Type F: Reinforced Planting

Not Found

p.182 Type G: Asphalt

Photo by Alexandr Blankov

<http://atextures.com/black-road-asphalt-texture/>

<http://atextures.com/black-road-asphalt-texture/>

Type H: CIP Concrete

Cynwyd Concrete

<https://buten.wordpress.com/2012/07/25/cynwyd-concrete-complete-by-2012-07-20/>

Type I: Enhanced Cast in Place Concrete

Not found

Type J: Concrete Unit Pavers

Designed by Landscape Projects

<https://landarchs.com/just-how-powerful-are-pedestrianised-streets/>

Type K: Cobblestone

by Toptexture

<https://toptexture.com/lighter-rectangular-street-cobblestone>

Type L: Thermoplastic

Fell Street, San Francisco

http://ibikenopa.blogspot.com/2010_10_01_archive.html

p.183 Type M: Decomposed Granite

http://cotaticityca.iqm2.com/citizens/Detail_LegiFile.aspx?ID=1330

Type N: Demarcation Multi-use

By Architectcts Építész Stúdió, Lépték-Terv
Photo by Gergely Kenéz

<http://www.archdaily.com/797567/szell-kalman-square-epitesz-studio-plus-leptek-terv>

Type O: Exposed Aggregate

Photo by Alexandr Blankov
<http://www.exposedaggregateconcreter.com.au/news/21-labasa>

Type P: Stenciled Concrete

Concrete Stencils
<https://www.google.com/url?sa=i&rct=-j&q=&esrc=s&source=images&cd=&ved=0ahUKEwjTiIOGvszRAhVBX>

Type Q: Stabilized Crushed Stone

Gray Tan Crushed Stone
<http://www.thestonestore.com/crushed-stone-products.php>

Type R: Truncated Domes

Top Guard Truncated Domes

<http://roadwayconcepts.com/gallery-3/>

p.184 Type S: Inlay Pressed Paving

<https://www.pinterest.com/pin/35395547046011587/>

Type U: Wood Boardwalk

Photo by Nevue Ngan Assoc.
<https://oregonsustainabilitycenter.wordpress.com/2009/06/12/achieving-water-independence/>

Type T: Wood Plank

Photo by Fabulous Nature
<http://www.fabulousnature.com/img2157.htm#>

Type V: Sand

Photo by SF News
<http://www.frostsands.com.au/quarry-products%E2%80%9393sands>

p.185 Seating with Back Support

Street Product
<http://www.streetlife.nl/en>

Long, linear seating

Street Product

<http://www.streetlife.nl/en>

Furnishing family durable materials

Street Product
<http://www.streetlife.nl/en>

p.186 Type A: Small Scale Seating

Street Product
<http://www.streetlife.nl/en>

Type B: Standard Bench

Street Product
<http://www.streetlife.nl/en>

Type C: Large Bench

Street Product
<http://www.streetlife.nl/en>

Type D: CIP Concrete Seating

Designed by EXP Architects
<http://www.marshalls.co.uk/commercial/street-furniture/products/escofet-milenio-webpar5218>

Type E: Modular Furnishing System

Street Product
<http://www.streetlife.nl/en>

Type F: Movable Furnishings

Photo by Lisa Bielawa and Robert Hammond
<http://www.marcomartinelli.it/chance-encounters-on-tiber/>

Type G: Site-Specific/Custom Furnishings

Rough&Ready Royal Curve Benches
<http://www.streetlife.nl/en/product-selector/product/rough-ready-royal-curve-benches>

p.188 Durable, corten steel bike rack

Street Product
<http://www.streetlife.nl/en>

Built-in fire pit for year round use

Thompson's Hearth and Home
<https://www.houzz.es/professionals/chime-neas/c/Everett--WA>

p.189 Variety and adventure

Photo by Tim Wilson
<http://www.timpaulwilson.com/schools/>

Recreation amenities for all ages and abilities

Design and Photo by West8
<http://tclf.org/blog/dear-architecture-criticism-evolve-already>

Space for outdoor fitness

<http://news.co.cr/exercise-and-get-in-shape-with-raw-outdoor-fitness-costa-rica/15668/>

Flexible public spaces maximum potential uses

Design and Photo by Mayslits Kassif Architects
<http://mkarchitects.com/>

Integrate play features into the landscape

Design by Rainer Schmidt
<https://www.modlar.com/inspiration/cool-est-playgrounds-designed-by-architects/>

p.190 Elevated boardwalk

West Bluff Beach
<http://www.californiabeaches.com/beach/west-bluffs-beach-at-crissy-field/>

Newsracks combined as one feature

not found

p.191 Parking meter stations

Designed for City of Madrid
<http://www.scmp.com/news/world/article/1501812/madrid-charge-more-for-pooling-cars-park>

Water filling stations as bicycle infrastructure

Design by Urban Fountains+Furniture
<http://www.urbanff.com.au/product/apollo-280-drinking-fountain/>

p.192 Type A: Wire Mesh A

Design and Photo by Lutongwiremesh
<http://www.lutongwiremesh.net/sale-8556320-stainless-steel-ferrule-wire-rope-mesh.html>

Type B: Cable

Not found

Type C: Wood Slats

Design and Photo by Street Product
<http://www.streetlife.nl/en>

Type D: Gate

Design and Photo by Street Product
<http://www.streetlife.nl/en>

Type E: Screen

Design and Photo by Street Product
<http://www.streetlife.nl/en>

p.194 Identity

Designed by Ignacio Ciocchini
<http://www.streetlife.nl/en>

Multi-Stream Capacity

Photo by ZANO
<http://www.streetlife.nl/en>

User Behavior

Photo by OMOS
<http://www.streetlife.nl/en>

p.196 Type A: Street Light

Design by Gonzalo Milá
<http://www.landscapeforms.com/en-US/product/Pages/SantaCole-Rama-Lighting.aspx>

Type B: Pedestrian Light

Design by Maxime Saisse
<http://www.technilum.com/en/product/>

arbane

Type C: Bollard Light

Design and Photo by Street Product
<http://www.streetlife.nl/en>

Type D: Foot Light

Design and Photo by Street Product
<http://www.streetlife.nl/en>

Type E: Solar Powered Light

not found

p.200 Concessions Stand

not found

Boat Storage Shed

Design and Photo by MKTHINK
<http://www.aiasf.org/programs/competition/constructed-realities/2011/kayak-hut-at-mission-creek-sports-park/>

Field Center

not found

Restrooms

Design and Photo by Suchail Architecture

Urbanism

<http://www.farestudio.it/public-toilets-in-contemporary-architecture-coups-de-theatre-or-real-issues/>

Shade/Wind Protection

Photo by Lidija Grozdanic
<http://www.notey.com/blogs/plant-architect>

Framed Views & Overlooks

Tungeneset by Code arkitektur
Photo by Jarle Wahler
<http://www.nasjonaleturistveger.no/no/turistvegene/senja?attraksjon=Tungeneset>

p. 2011. Sculpture&Installation Examples

2.Mark Di Suvero, Governors Island

Photo by Storm King Art Center
<http://inhabitat.com/nyc/storm-king-art-center-a-summer-retreat-for-the-artsy-nature-loving-new-yorker/sony-dsc-9/>

3. Whatami

MAXXI museum
Photo by stARTT
<http://www.archdaily.com/146875/whata->

mi-at-maxxi-starrt/

4. “Bamboo Circle”, Los Angeles

Photo By Cory Gallo

<http://msulalc.blogspot.com/2014/02/a-new-temporary-art-installation-was.html>

5. Olympic Sculpture Park

not found

6. Clothespin Sculpture, Chaudfontaine Park, Belgium

Photo by Mehmet Ali Uysal

<https://theculturetrip.com/europe/belgium/articles/the-best-public-art-in-belgium/>

7. The Platform, Saunders Architecture, Fjord

Design and Photo By Saunders Architecture

<http://saunders.no/>

p.203 Accessible crossing meet code

Photo by SF Public Works

<http://sfpublicworks.org/curbrampprogram>

Truncated domes at edge of vehicular zone

not found

Bulb-outs create safe crossings

Photo by SF Public Works

<http://sfpublicworks.org/curbrampprogram>

p.204 Type A - Decomposed Granite

<http://bourgetbros.com/product/stabilized-decomposed-granite/>

Type B - Planting

http://nycgarden.blogspot.com/2012_06_01_archive.html

Type C - Cobblestone

Photo by Type C - Cobblestone

<http://lyngsogarden.com/index.cfm?event=Display.Home.Product&sku=BGSC&homeCategory=STONE&categoryid=70647&productid=70649&CFID=4987575&CFTOKEN=9057463>

p.209 Seasonal

not found

Feral

not found

Native

not found

Adaptive

not found

Dynamic

not found

p.212 Coastal Dune

Landscape Resource

<http://www.landscaperesource.com/plant-communities/coastal-strand.htm>

Coastal Scrub

Photo by Pyatok

<http://www.pointlobos.org/nature/plant-communities>

Multi-Family Residential

Photo by Pyatok

www.pyatok.com/uploads/5626a44322034.jpg

Freshwater Marsh

not found

Mixed Forest

<http://sf.racked.com/2015/1/6/7562379/>

san-francisco-urban-hikes

Coastal Prairie

<http://ca.audubon.org/news/rare-coastal-sage-scrub-habitat-provides-home-threatened-gnatcatcher-and-many-other-species>

Annual Grassland

Photo by Emily Grason
<http://www.biodiverseperspectives.com/2014/02/18/diverse-introspectives-a-conservation-with-david-hooper/>

p.213 Oak Woodland

Photo by User:Anlace
<https://commons.wikimedia.org/wiki/File:-Sonomamtneflank.jpg>

Rocky Intertidal

Photo by Alvesgaspar
https://commons.wikimedia.org/wiki/File:Porto_Covo_February_2009-2.jpg

Subtidal

http://www.seagrassli.org/media_and_more/gallery/local_meadows/pages/

Long%20Island%20Sound%20eel-grass%20(4).html

Tidal flat

<http://www.southbayrestoration.org/news/e-newsletters/Aug-2012/>

Salt marsh

Photo by SF News
<http://www.thesfnews.com/san-francisco-wetlands-restoration-has-become-crucial/23415>

p.215 Bird Baths

Photo by Castella Beach
<http://www.castella-beach.gr/en/620760/activities>

Serpentine Grasslands

Photo by Will Elder
<https://www.nps.gov/prsf/learn/nature/coastal-prairie-serpentine-grassland-community.htm>

Constructed Tide Pools

Design and Photo by EConcrete
<http://castohn.com/collections/bio-active-wall-tide-pool/>

wall-tide-pool/

Floating Wetlands

Joe Mahoney
http://www.richmond.com/news/local/henrico/article_74aa7a51-1ca4-5f22-aa6e-7af159db3ebb.html

Eelgrass Beds

[http://www.seagrassli.org/media_and_more/gallery/local_meadows/pages/Long%20Island%20Sound%20eel-grass%20\(4\).html](http://www.seagrassli.org/media_and_more/gallery/local_meadows/pages/Long%20Island%20Sound%20eel-grass%20(4).html)

Seasonal Wetlands

<http://www.sacnaturecenter.net/ssvernal-pools.html>

p.217 1. Arctostaphylos uva-ursi

not found

2. Carex praegracilis

Photo by Pacific Nurseries
<http://pacificnurseries.com/can-na->

tive-grasses-add-installation/

3. *Juncus patens*

Photo by SMart Loft Studio

<http://www.watershednursery.com/nursery/plant-finder/juncus-patens/>

4. *Layia platyglossa*

Photo by Gold Rush Nursery

http://www.goldrushnursery.com/index.cfm/fuseaction/plants.plantDetail/plant_id/331/index.htm

5. *Ceanothus* ‘Yankee Point’

Photo by Plant Master

<http://www.plantmaster.com/gardens/collage.php?plantnum=24194>

6. *Polystichum munitum*

Photo by Binny Plants

http://www.binnyplants.com/Catalogue_By-GenusPlantsAtoZ.asp?CategoryID=4&GenusID=177

7. *Sisyrinchium bellum*

Photo by Las Pilitas Nursery

<http://www.laspilitas.com/nature-of-california/plants/642--sisyrinchium-bellum>

8. *Lasthenia californica*

Photo by Doreen L. Smith

<http://www.rareplants.cnps.org/detail/1303.html>

9. *Heuchera maxima*

Yerba Buena Nursery

<http://www.yerbabuenanursery.com/view-plant.php?pid=0164>

10. *Salvia spathacea*

not found

11. *Erigeron glaucus* ‘Bountiful’

Lambley Nursery

<http://lambley.com.au/plant/erigeron-glaucus-seabreeze>

12. *Dudleya cymosa*

Gary A. Monroe

http://calphotos.berkeley.edu/cgi/img_query?enlarge=0000+0000+1102+0989

13. *Asarum caudatum*

Brewbooks

<https://www.flickr.com/photos/brewbooks/6067354719>

14. *Ceanothus* ‘Ray Hartman’

<https://selectree.calpoly.edu/tree-detail/ceanothus-ray-hartman>

15. *Iris* PCH ‘Canyon Snow’

not found

16. *Solidago* ‘Leraft’

New York Botanical Garden

http://www.nybg.org/visit/flowering_results.php?month=9

17. *Sesleria autumnalis*

<http://www.thebattery.org/plants/plantview.php?id=238>

18. *Sedum rupestre* ‘Angelina’

not found

p.219 1. *Agrostis pallens*

Photo by Rasbak

https://en.wikipedia.org/wiki/File:Gewoon_struisgras_Agrostis_tenuis.jpg

2. *Mimulus aurantiacus*

not found

3. Danthonia californica

Photo by Rebecca Wenk

http://calphotos.berkeley.edu/cgi/img_query?where-genre=Plant&where-taxon=Danthonia%20californica

4. Stipa pulchra

Photo by Zoya Akulova

http://ccag-eh.ucanr.edu/Turf_Demonstration_Project/Native_Grass_Turf/Purple_Needlegrass/

5. Lupinus chamissonis

Photo by Gold Rush Nursery

http://www.goldrushnursery.com/index.cfm/fuseaction/plants.printDetail/plant_id/607/index.htm

6. Elymus glaucus

Photo by Bay Natives

<http://www.baynatives.com/plants/Elymus-glaucus/>

7. Eriogonum fasciculatum

Photo by Las Pilitas Nursery

<http://www.laspilitas.com/nature-of-california/plants/283--erigonum-fasciculatum-foliolosum>

8. Baccharis pilularis

Photo by Margo Bors

https://www.calflora.org/cgi-bin/species_query.cgi?where-calrecnum=1031

9. Artemisia californica

Photo by Bay Natives

<http://www.baynatives.com/plants/Artemisia-californica/>

10. Salvia mellifera

Photo by Las Pilitas Nursery

<http://www.laspilitas.com/nature-of-california/plants/612--salvia-mellifera>

11. Eschscholzia californica

Photo by Saxon Holt

<http://gardeninggonewild.com/?p=30239>

12. Trichostema lanatum

Photo by Las Pilitas Nursery

<http://www.laspilitas.com/movie-players/573/plants/trichostema-lanatum.m4v>

13. Frangula californica

Photo by The Watershed Nursery

<http://plantlust.com/plants/28743/rhamnus-californica/>

14. Ribes viburnifolium

Photo by Chanel Islands

<http://www.csuci.edu/fs/sustainability/landscaping/burgess-courtyard/plants/catalina-perfume.htm>

15. Achillea millefolium

Photo by Green Light Plants

http://greenlightplants.com/index.php/plant_catalog/achillea-millefolium/

16. Quercus agrifolia

<http://wikimapia.org/10558890/Foothill-Regional-Park>

17. Schoenoplectus acutus

<http://science.halleyhosting.com/nature/cascade/mtadams/sedge/scirpus/acutus.htm>

18. Lathyrus jepsonii var. jepsonii

Photo by Neal Kramer

http://calphotos.berkeley.edu/cgi/img_query?enlarge=0000+0000+0910+0488

1. Frankenia salina

Photo by C. Cook

<http://greenrosettas.com/hayplant.htm>

2. Grindelia stricta var. angustifolia

Photo by Pete Veilleux

<https://www.flickr.com/photos/eastbay-wilds/sets/72157625188620468/>

3. Atriplex prostrata

http://www.smmflowers.org/mobile/species/Atriplex_prostrata.htm

4. Sarcocornia pacifica

<http://sunnibergeron.com/pflwrs/pwild046.html>

p.221 1. Frankenia salina

Photo by C. Cook

<http://greenrosettas.com/hayplant.htm>

2. Grindelia stricta var. angustifolia

Photo by Pete Veilleux

<https://www.flickr.com/photos/eastbay-wilds/sets/72157625188620468/>

3. Atriplex prostrata

http://www.smmflowers.org/mobile/species/Atriplex_prostrata.htm

4. Sarcocornia pacifica

<http://sunnibergeron.com/pflwrs/pwild046.html>

5. Spartina foliosa

Photo by Charles Kennard

<http://baynature.org/article/turning-corner-invasive-spartina/>

6. Distichlis spicata

Photo by Matt Lavin

[https://commons.wikimedia.org/wiki/File:Distichlis_spicata_\(5879864704\).jpg](https://commons.wikimedia.org/wiki/File:Distichlis_spicata_(5879864704).jpg)

7. Bolboschoenus maritimus

Photo by Louis-M. Landry

http://calphotos.berkeley.edu/cgi/img_query?enlarge=0000+0000+0311+0716

8. Zostera marina

http://www.seagrassli.org/media_and_

[more/gallery/local_meadows/pages/Long%20Island%20Sound%20eel-grass%20\(4\).html](more/gallery/local_meadows/pages/Long%20Island%20Sound%20eel-grass%20(4).html)

9. Jaumea carnosa

Photo by Br. Alfred Brousseau, Saint Mary's College

http://calphotos.berkeley.edu/cgi/img_query?enlarge=6040+1631+1307+0014

10. Limonium californicum

Photo by Arnold Gum

<http://waywardhawaiian.blogspot.com/2012/07/sea-lavender.html>

11. Triglochin maritima

Photo by Robert Sikora

http://calphotos.berkeley.edu/cgi/img_query?enlarge=0000+0000+0512+0969

12. Juncus xiphioides

Not found

13. Leymus triticoides

<http://www.pfaf.org/USER/Plant.aspx?LatinName=Leymus+triticoides>

14. Suaeda californica

https://en.wikipedia.org/wiki/Suaeda_californica

15. Baccharis douglasii

Photo by Gordon Leppig & Andrea J. Pickart

https://en.wikipedia.org/wiki/Baccharis_glutinosus

16. Carex pansa

Photo by Stickpen

[http://calscape.org/Carex-pansa-\(Sand-Dune-Sedge\)?srch-cr=sc5867165784ffb](http://calscape.org/Carex-pansa-(Sand-Dune-Sedge)?srch-cr=sc5867165784ffb)

17. Lythrum californicum

Photo by Stan Shebs

<http://plantlust.com/plants/5047/lythrum-californicum/>

18. Juncus balticus

Photo by Matt Lavin

https://www.flickr.com/photos/plant_diversity/6442160005/

p.224 Top left

Zelkova, Village Green

Photo by Bordine's

http://bordines.com/plant-library/plant/?plant_id=22404&slug=zelkova-village-green

Top middle

'Yarwood' London Planetree

Photo by Wofford College

https://www.wofford.edu/arboretum/Tour-Detail.aspx?tour_id=4&start=91

Top right

Acacia baileyana "Purpurea"

Photo by Leafland

<http://leafland.co.nz/product/acacia-baileyana-purpurea-purple-fernleaf-wattle/>

Middle left

Arbutus 'Marina' (Standard)

Photo by San Marcos Growers

http://www.smgrowers.com/products/plants/plantdisplay.asp?plant_id=157

Middle middle

Prunus ilicifolia lyonii

Photo by Jennifer Leech

<http://www.yerbabuenanursery.com/view-plant.php?pid=511>

Middle right

Alnus rubra - Red alder

Photo by Oregon State University

<http://ecoplexity.org/?q=node/926>

Bottom left

Ginkgo Trees

Photo by Kathy Keatley Garvey

<http://angelapingel.com/2014/08/ginkgo-trees-can-you-help.html>

Bottom middle

Honey Locust

http://www.tree-shop.co.uk/products_detail.asp?productheadingID=969#sthash.u1qcJo2Q.dpbs

Bottom right

Not found

p.225 Top left

Olive 'Kalamata'

<http://www.greenleafnurseries.co.nz/>

index.php?route=product/product&path=90&product_id=2463

Top middle

Acer palmatum 'Sango kaku'

Photo by Heritage seedling and liners

http://www.heritageseedlings.com/page_98_40/acer-palmatum-sango-kaku

Top right

Natchez Crape Myrtle Tree

https://www.thetreecenter.com/natchez-crape-myrtle/#prettyPhoto

Middle left

California Buckeye

https://hiveminer.com/Tags/californiabuckeye/tree/Interesting

Middle middle

Geijera parviflora

Boething Treeland Farms

http://www.boethingtreeland.com/grown-as/standard-tree/geijera-parviflora.html

Middle right

Paperbark (Melaleuca quinquenervia)

http://plantpono.org/inv-plant.php?id=29

Bottom left

04 Land Use

p.268 Mixed Use

The Avenue by Sasaki

Photo by Eric Taylor/ Craig Kuhner

www.sasaki.com/media/files/the-avenue-12.jpg

Residential Mixed Use

300 Ivy by David Baker

Photo by Bruce Damonte

www.dbarchitect.com/images/dynamic/article_slideshow_images/image//5_1.jpg

Multi-Family Residential

Photo by Pyatok

www.pyatok.com/uploads/5626a44322034.jpg

p.269 Public Market

Photo by Aleksander Dekanski

i1.trekearth.com/photos/143403/2014-08-30_08-26-22_mari-bor.jpg

Public - Park/ Plaza Overlay

Photo by Amanda Williams

media0.trover.com/T/53431e-a532304333bb0000d2/fixdw_large_4x.jpg

Public - Shoreline Overlay

Minghu Wetland Park by Turenscape

Photo by Turenscape

www.archdaily.com/590066/minghu-wetland-park-turenscape/54bf1e7ce58ece-1abf0001ca-12-123o0064_adjust-jpg

p.271 Residential Mixed-Use

h2hotel by David Baker

Photo by Bruce Damonte

www.dbarchitect.com/images/dynamic/slideshow_images/image//h2hotel2_0180.jpg

Mixed use

8th and Howard by David Baker

Photo by David Baker Architects

www.dbarchitect.com/images/dynamic/article_slideshow_images/image//9812_how-

A.3 Image Credits (Continued)

ard_harvestmarket_w800.jpg

Public Use - Plaza

Mint Plaza by CMG Architects

Photo by BUILD:

static1.squarespace.com/static/571013fd-37013b18ee710144/57339359b6aa60e-f4ae3df8a/57339366b6aa60e-f4ae3e065/1462997890108/DSC_2761.JPG?format=1500w

Multi-Family Residential

Photo by Pyatok

www.pyatok.com/uploads/avalonhayesvalleyhickorystreet.jpg

Public Market

Photo by Jeff Goldberg/ Esto

www.archdaily.com/177512/update-covington-farmers-market-designbuildlab/covington-farmers-market-4

p.275 Special Event

Bell Street Park

https://i0.wp.com/www.theurbanist.org/wp-content/uploads/2015/07/20140412_143228_

Android-2-1024x538.

jpg?resize=760%2C507&ssl=1

The Yard at Mission Rock

Photo by Niall David

www.wanderu.com/blog/wp-content/uploads/2016/03/Google-Local-Guides-in-the-Yard-at-Mission-Rock-San-Francisco-Event-Niall-David-Photography-8359.jpg

Food Trucks

*https://cdn-images-1.medium.com/max/1600/1*zVkrH-ZZbszld-E80IWcmQ.jpeg*

Temporary Event Space

Photo by Martha Cooper

https://i2.wp.com/obeygiant.com/images/2012/11/eCooperOBEY-6609.jpg?ssl=1

Temporary Retail

Re:Start Mall

https://talltales.me/tag/christchurch/#-jp-carousel-7353

05 Urban Form

p.287 Amsterdam Borneo Sporenburg

Photo by West8

http://www.johndesmond.com/wp-content/uploads/2016/10/borneo-sporenburg-01.jpg

p.296 Ground Level Commercial Setback

300 Ivy by David Baker

Photo by Bruce Damonte

www.dbarchitect.com/images/dynamic/article_slideshow_images/image//5_1.jpg

p.298 Ground Level Residential Setback

Speer and Washington apartments

Photo by DenverInFill

denverinfill.com/blog/wp-content/uploads/2014/08/2014-08-14_SpeerWashington-04.jpg

p.307 Change in Plane

1020 Pine Street , Shildan

https://architizer.com/projects/1020-pine-street/media/1646407/

Change in Plane

BUILD

http://bldsf.com/blog/650indiana

Recessed Setback

300 Ivy by David Baker

Photo by Bruce Damonte

www.dbarchitect.com/images/dynamic/article_slideshow_images/image//5_1.jpg

Vertical Recess, Window Protrusion
SOM

Change in Plane

Five Story Mixed Use

<http://brisbaneca.org/sites/default/files/5%20story%20mixed%20use.jpg>

06 Architecture**p.346 Open Ground Floor Condition**

Linkedin

http://331mrnu3ylm2k3db3s1xd1hg.wpengine.netdna-cdn.com/wp-content/uploads/2016/09/Sprudge-SFTechCoffee-JennChen-sf_tech_equator_coffees_linkedin_san_francisco_jenn_chen-2.jpg

p.347 Commercial Ground Floor Use with Outdoor Seating
SOM

Recessed Setback for Ground-Floor Retail Facade

Lumina

https://cdn.vox-cdn.com/thumbor/RG_V-jp_i2aHgWaxhQhJJ4uhQzA=/0x3:5000x-2816/1600x900/cdn.vox-cdn.com/uploads/chorus_image/image/49075227/LUMINA_MARKET_Woodlands.0.0.jpg

Non-Residential Storefront Open to Public Realm

h2 Hotel, David Baker Architects

Photo by Bruce Damonte

http://www.dbarchitect.com/images/dynamic/slideshow_images/image/h2hotel_132_1.slideshow_main.jpg

p.348 Small-Scale Neighborhood Retail with Primary Entry Accessible from Public Right-of-Way

Filmore Street, Bay City Guide

<http://baycityguide.com/media/00PU000000GpjlKMAb/FillmoreStreet-Shopping-1500x872.jpg>

p. 349 Narrow Retail Frontages

Filmore Street, Airbnb

https://a1.muscache.com/locations/uploads/photo/image/3477/0_4200_0_2800_one_SF_PacificHeights_OdessaShekar-46.jpg

Expressed Structural Bays

25 Bond Street, BSK Architects,

<https://s-media-cache-ak0.pinimg.com/736x/09/53/4c/09534c-1008ba62b97dde77a421da51a8--sliding-windows-washington-street.jpg>

Facade Modulation

SOMA Studios, David Baker Architects

Photo by Brian Rose

http://www.dbarchitect.com/images/dynamic/slideshow_images/image/9812_howard_retail.slideshow_main.jpg

p.350 Facade Recessed Facade with Transparency Revealing Active Ground Floor Use
SOM

p.351 Low Sill Height at Ground Floor Commercial Use

A.3 Image Credits (Continued)

300 Ivy, David Baker Architects

Photo by Bruce Damonte

<https://s-media-cache-ak0.pinimg.com/originals/2b/83/2d/2b832dd75d947b-9c7eb7c7cbd33d4f40.jpg>

Recessed, Transparent Primary Entry

Don Fisher Clubhouse, TEF Design

Photo by David Wakely

<https://architizer.com/projects/don-fisher-clubhouse-boys-girls-club-of-san-francisco/media/2062221/>

Transparency at Active Ground Floor Corner Condition

Mir

https://news.theregistryps.com/wp-content/uploads/2016/11/Mithun-Spring_District-Relaxed_Copyrights-www.mir_.no_.jpg

p.352 Residential Ground Floor Stoops Facing Public Right of Way

Fremont Townhomes, B9 Architects

https://static1.squarespace.com/static/52eef061e4b-0180040fb8e9f/55c115c0e-4b04eee667494d9/579a8d7a9f7456e9f-31b59a7/1469746572135/20150816_b9_fth_014+copy.jpg?format=1500w

p.353 Non-Residential Primary Entry Threshold

300 Ivy, David Baker Architects

Photo by Bruce Damonte

<http://assets.inhabitat.com/wp-content/blogs.dir/1/files/2015/01/300-Ivy-Street-David-Baker-Architects-6.jpg>

Raised Commercial Ground Floor Terrace with Awning

Pearl Block 136, Mithun

http://mithun.com/wp-content/uploads/2017/05/1325700_N10.jpg

Weather Protected Entry SOM

p. 354 Varied Residential Facades Articulated at narrow intervals

Sluseholmen by Arkitema Architects +

Sjoerd Soeters

Photo by Arkitema

www.archdaily.com/330652/sluseholmen-arkitema-architects-sjoerd-soeters/5118decbb-3fc4bc2d0000024-sluseholmen-arkitema-architects-sjoerd-soeters-image

p. 355 Facade Modulation by Vertical Protrusions and Recesses

901 Jefferson Workforce Housing, Pyatok

<http://www.pyatok.com/uploads/53bc137c73336.jpg>

Change in Color and Building Massing

Habitat 852, LOHA

<https://s-media-cache-ak0.pinimg.com/originals/93/33/37/9333379bd6c6e4a-8341449b067e4d424.jpg>

Facade Variation

Richardson Apartments

David Baker Architects

http://arcadenw.org/images/uploads/content-media/Richardson_Apartments_1060

.jpg

p. 356 Rhythmic Facade Modulation and Active Ground Floor Thresholds

Spring District Phase 2, Mithun

http://www.thespringdistrict.com/files/9314/9158/4189/Mithun-Spring_District-Alleyway_meeting-2.jpg

p.357 Changed in Material, Color and Depth Along Facade

300 Cornwall , Kennerly Architects

<https://s-media-cache-ak0.pinimg.com/236x/eb/02/76/eb0276ddd154c693d91f1e6e99d-93fac--cool-architecture-commercial-architecture.jpg>

Facade Depth Through Recessed Balconies and Projection

Plein Soleil / rh+ architecture

Photo by Luc Boegly

<http://www.archdaily.com/395522/plein-soleil-rh-architecture/51c731e8b3fc4bf9e40000db-plein-soleil-rh-architecture-photo>

Staggered Protected Balconies

Ruutorppa Social Housing, Arkkitehdit

Hannunkari & Mäkipaja Architects

Photo by Mikael Linden

<https://s-media-cache-ak0.pinimg.com/736x/0a/c3/58/0ac3581ab6e1c6b9116d256d1725616e--social-housing-architecture-finland.jpg>

p.358 Vertical Shift

200 Second Street, David Baker Architects

https://photonet.hotpads.com/search/listingPhoto/Rent-Linx/3201268/0000_1083576359_large.jpg

Horizontal Shift

Aquitani HQ, Platform Architectures

Photo by Luc Boegly, J. Ricolleau

<https://s-media-cache-ak0.pinimg.com/736x/b5/34/a7/b534a7114f0fcbcbde21eef003240145--architecture-of-fice-office-buildings.jpg>

Pixelation

The Marlow Condominium, Kwan Henmi

Architecture/ Planning

<http://c.ymcdn.com/sites/www.aiaa.org/resource/resmgr/Images/DesignAwards/2015/Marlow/2139-7.jpg>

p.359 Low-Relief/ Carving

SOM

Floor Grouping

SOM

Balconies

SOM

p.360 Bay Windows

1020 Pine Street, Kennerly Architects

A.3 Image Credits (Continued)

<https://s-media-cache-ak0.pinimg.com/originals/6e/ac/85/6eac854e56e60335158fb31d9e2816c4.jpg>

Push-Pull
SOM

Intersection Volume

300 Cornwall, Kennerly Architects

Photo by Bruce Damonte

<http://kennerlyarchitecture.com/wp-content/uploads/2016/03/m-california-1.jpg>

p.361 Framing
SOM

Double Skin

Formosa1140, LOHA

http://www.archello.com/sites/default/files/1_3136.jpg

Structural Expression

1310 East Union Loft, SHED Architecture

<https://s-media-cache-ak0.pinimg.com/736x/43/bb/d6/43bb-d63e1315e28e286ff972e40d434d--loft->

<style-urban-planning.jpg>

p.362 Modulation and Articulation on

Residential Building Facade

Hunters View Housing, Paulett Taggart Architects

Photo by Bruce Damonte

http://images.adsttc.com/media/images/5900/2dba/e58e/ce9e/d700/0182/large_jpg/HuntersView_Photo%C2%A9BruceDamonte_27.jpg?1493183914

p.363 Facade Depth, Staggered Columns

25 Bond Street, BKSK Architects,

<https://s-media-cache-ak0.pinimg.com/736x/09/53/4c/09534c-1008ba62b97dde77a421da51a8--sliding-windows-washington-street.jpg>

Operable Perforated Metal Screens

MDW Architecture, Les Courses

<https://s-media-cache-ak0.pinimg.com/originals/20/19/ab/2019ab50e7141f087d>

<353391f9d7d6b0.jpg>

Textured Surface Panels

David Baker Architects, 388 Fulton Street

http://www.dbarchitect.com/images/dynamic/slideshow_images/image/21205_rsb_north_db.project_large.jpg

p.364 Mullions

Mithun, UCI

http://mithun.com/wp-content/uploads/2016/03/UCI_architecture.jpg

Paneling

Brise & Shutter

<https://s-media-cache-ak0.pinimg.com/originals/a0/27/ae/a027aee9311c525bc-8ccc6578fcc6766.jpg>

Performances/ Patterning

Jackson Clements Burrows Architects:

Harold Street Residence

Photo by John Gollings

https://www.designboom.com/weblog/images/images_2/danny/harold/harold04.jpg

Shutters

Lofts @ Cherokee Studios , Pugh + Scarpa

Photo by Tara Wujcik

http://architizer-prod.imgix.net/legacy_blog/2012/10/1302897576-cherokee-528x401.jpg?q=60&auto=format,-compress&cs=strip&w=1680

p.365 Spandrels

Hancock Mixed Use Apartments

Photo by Koning Eizenberg Architecture
architizer.com/projects/hancock-mixed-use-residential-housing/media/171142/

Fins/ Shading Device

1180 Fourth Street, Mithun-Solomon + Kennerly

Photo by Bruce Damonte

http://images.adsttc.com/media/images/56d4/fa3c/e58e/cec2/3500/0037/slideshow/1180FourthSt_Photo-%E2%84%A2BruceDamonte_04.jpg?1456798237

Protrusions/ Recesses

ALUCOBOND

https://cdn.stylepark.com/manufacturers/3/3a-composites/produkte/alucobond-finish-gloss-grade-colour/_1410xAUTO_fit_center-center_90/alucobond-finish-gloss-grade-colour-1.jpg

Windows/ Openings

Stanley Saitowitz, BLANC

<http://www.socketsite.com/wp-content/uploads/2013/09/1080-Sutter-Rendering-2013.jpg>

p.366 Roof

Zibi

Photo by Bruce Damonte

<http://www.zibi.ca/wp-content/uploads/2015/03/rooftop-growing.jpg>

p.367 Rooftop Amenitiy

The Civic by Solomon Cordwell Buenz

Photo by The Civic SF

[r.rdcpx.com/v09/c21dd1300-r18xd-w640_h480_q80.jpg](http://rdcpix.com/v09/c21dd1300-r18xd-w640_h480_q80.jpg)

Sustainable Roof

Fourth Street Apartments, NBBJ

Photo by High Rise Photo

static1.squarespace.com/static/53d15bd3e4b0962250a184bb/53e01bc0e4b0e2037afc999d/53e01fdfe4b0f2394fee5690/1417635655869/DSC_4899.jpg?format=1000w

Green Roof integrated Photovoltaic System

Photo by Urban Strong

i0.wp.com/www.urbanstrong.com/wp-content/uploads/2016/01/german-GRiPV.jpg?w=669

07 Wayfinding and Signage**p.373 WalkNYC Wayfinding**

by WalkNYC

Photo by PentaCityGroup

mir-s3-cdn-cf.behance.net/project_modules/disp/3b0f3112109915.562577e2cf629.jpg

p.374 Street Markers

A.3 Image Credits (Continued)

I Found the Place Blog

<http://1.bp.blogspot.com/-wupbqE6pPTY/T6DamOjKYzI/AAAAAAAAAX1M/jA9njFK-mlxw/s1600/church-cesar-chavez-street-signs-sf.jpg>

Transit Signage

Photo by David Dieter - Studio DWD
Communication Design
www.studiodwd.com/muni.html

Dump No Waste - Drains to Bay

Storm Drain Stenciling
Photo by City of Bay County, Michigan
www.baycounty-mi.gov/baswa/baswa2.JPG

p.377 Whakarewarewa Valley Wayfinding

Photo by Joanne Duff Design
payload414.cargocollective.com/1/8/269265/10585860/Te-Puia_wayfinding6_4_815.jpg

Museum Zeughaus Wayfinding Design

Photo by XX
[s-media-cache-ak0.pinimg.com/736x/cb/59/da/cb59da2cb1b0f-](http://s-media-cache-ak0.pinimg.com/736x/cb/59/da/cb59da2cb1b0f-6c59e8a242236c25d33.jpg)

[6c59e8a242236c25d33.jpg](http://s-media-cache-ak0.pinimg.com/736x/cb/59/da/cb59e8a242236c25d33.jpg)

Outdoor Wayfinding System

Photo by Porcuatro Design
www.dallasdigitalsigns.com/uploads/1/4/7/4/14748336/3977574_orig.jpg

Signage System for The High Line

Photo by Pentagram
cdn.pentagram.online/pentagram-com/uploads/PS_HighLine_201.jpg

Causeway Coastal Route Wayfinding

Photo by Tandem Design
static1.squarespace.com/static/57066e31d51cd45f7c8f575e/57b1d4e603596ef99d950d83/57b1d516d2b85757b79f0ee6/1474993604957/Benone.jpg?format=750wp.453

p.379 Klehm Arboretum Wayfinding

Bluestone Associates
bluestoneinc.com

Interpretive Trail Signage

Photo by Kamten Werbung GmbH

<https://s-media-cache-ak0.pinimg.com/originals/6b/d1/8c/6bd18c6d715795311159f53140e7925c.jpg>

Nordkyn Interpretive Signage

Photo by Neue Design Studio
www.neue.no/wp-content/uploads/2014/10/Nordkyn_Stedskilt.png

p.382 Villa Catherine Mamet

Jules Vernacular Blog by Jack Usine
Photo by Jack Usine, SMeltery
vernacular.fr

Luce Loft, San Diego

Photo by Ashley Kelemen
apartment34.com/wp-content/uploads/2014/06/wedding-venue.jpg

Noma Restaurant

Photo by Kontrapunkt Design, Denmark
s-media-cache-ak0.pinimg.com/736x/2d/58/7c/2d587c6b73d8f9dd95284553f9017c03.jpg

Pompier

Photo by Jack Usine, SMeltery

<http://www.vernacular.fr/images/2009-11/pompier.jpg>

p.383 Small House Big Door

Seoul, Korea

The China House

Photo by Mandarin Oriental Hotel

s-media-cache-ak0.pinimg.com/736x/cc/cd/3a/cccd3afa39b80ae94c-cdff7d7063b61d.jpg

Co-Op, Italy

Curbed

[https://cdn.vox-cdn.com/thumbor/gc6C7kYxJRy5k0ScnNmOEVMK-gek=/1000x0/filters:no_upscale\(\)/cdn.vox-cdn.com/uploads/chorus_asset/file/5979237/coop.0.jpg](https://cdn.vox-cdn.com/thumbor/gc6C7kYxJRy5k0ScnNmOEVMK-gek=/1000x0/filters:no_upscale()/cdn.vox-cdn.com/uploads/chorus_asset/file/5979237/coop.0.jpg)

Indigo Slam

Smart Design Studio

www.archdaily.com/799154/indigo-slam-smart-design-studio/5824209ee58ece4fc-d0001a6-indigo-slam-smart-design-studio-photo

p.385 Pike Place Market

Photo by Creative Commons

p.388 Beam & Anchor Vintage Store

Photo by Beam & Anchor

beamandanchor.com

Urban Outfitters**Shed Exterior Signage**

SHED by Jensen Architects

Photo by Mariko Reed

http://jensen-architects.com/case_studies/wp-content/uploads/Shed2_28-440x501.jpg

Pike Place Market

Photo by Creative Commons

p.389 March Cooking Store

Photo by Damon Styer

www.flickr.com/photos/66586176@N00/3131874264/

Peter Nappi Leather Goods

Peter Nappi

A.4 Energy Analysis

Energy Performance

India Basin's district-wide energy performance was studied to quantify the overall energy consumption of the project at full build-out. Starting with Title 24-2016 compliant baseline buildings, a series of centralized and decentralized efficiency strategies were tested. The results of this analysis are summarized in Figure A4.01.

Various programmatic mixes were evaluated to confirm whether the results were sensitive to changes in the proposed program. All cases yielded the following findings:

- A centralized thermal approach has benefits, but investing in building efficiency results in highest energy reductions, better building performance, and future flexibility.
- District energy emphasis should be on electricity rather than thermal energy.
- A predominantly electric site allows project to take advantage of future GHG reductions through a cleaner grid and future renewable investment.
- Using photovoltaics instead of solar thermal to meet domestic hot water demand increases benefit of renewable installations by allowing energy captured from the sun to be used beyond domestic hot water and space heating loads.

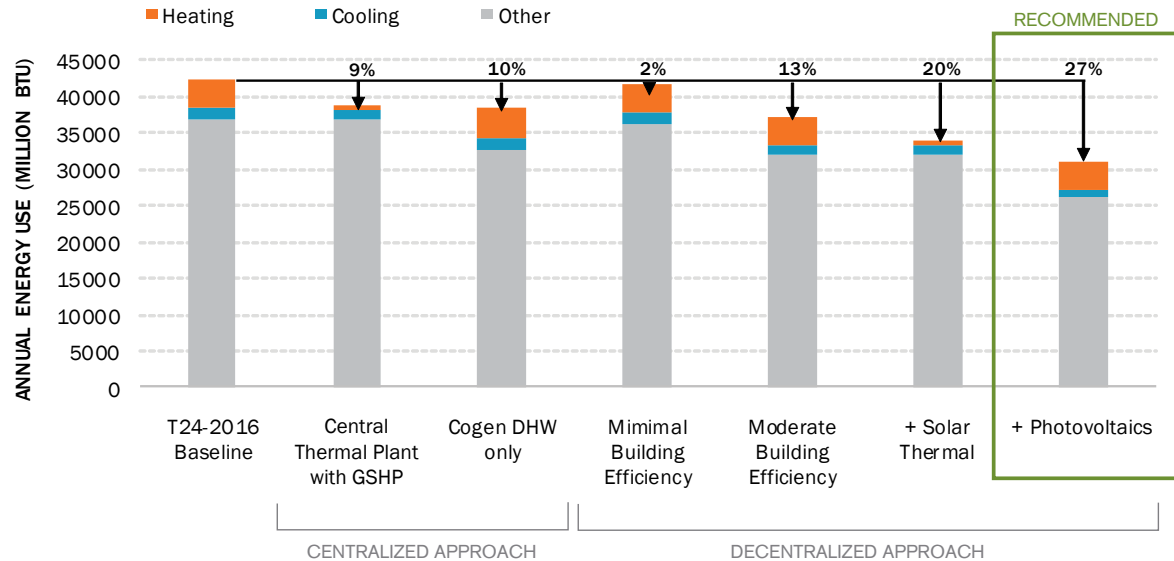


Figure A4.01: Centralized and Decentralized Efficiency Strategies

These conclusions were reached by looking at building energy consumption on-site and different efficiency strategies.

Heating and cooling make up a small percentage of the overall site-wide energy consumption. A centralized thermal energy plant can therefore only save up to 10% of site energy use.

Centralized thermal energy approaches such as a centralized ground source heat pump system or a cogeneration system have a beneficial impact on overall energy consumption (9% and 10% respectively), but both strategies carry a significant infrastructure investment and embodied carbon without necessarily improving the overall quality of the individual buildings.

Initial studies demonstrated that the project could achieve a greater level of energy savings (13%) by implementing moderate efficiency measures at the building scale. These measures can target electrical energy use, in addition to heating and cooling, thus having a greater impact. As Title 24 gets stricter, heating and cooling will only decrease as an overall percentage of building energy consumption. A decentralized approach to efficiency also encourages higher quality buildings and enables more future flexibility by allowing buildings to adopt future innovations in efficiency without tying them to a comparatively inflexible district central plant.

Based on these observations, the project will explore implementing a microgrid, which is semi-independent electric grid that can distribute alternating current (AC) and potentially direct current (DC) electricity within the site. The project will focus on implementing a micro grid that includes DC electrical distribution to specific loads to minimize losses and improve resiliency. This site is also targeting an all-electric site to minimize on-site combustion, and integrating on-site renewable electricity generation to power the public realm and provide backup power in the event of an emergency.

Net Zero Public Realm

The energy balance for the site prepared to determine the feasibility of achieving a net zero public realm compared a rough estimate of the total energy available from onsite renewable electricity generation with anticipated energy demand of the public realm.

The anticipated energy demand on site from parking structure lighting and ventilation, site lighting, electric fleet charging, public realm structures, and wastewater treatment was calculated based on energy analysis and project precedent.

Efficiency is always the first priority as it reduces

the overall electricity demand and requires less on-site renewable energy generation to meet the net zero public realm goal. Efficient will be achieved with high performance site lighting, garage lighting, and garage ventilation.

To achieve a net zero public realm, on-site photovoltaic panels can be installed on rooftops and building facades. The total capacity of the installed solar panels will need to exceed the anticipated demand to achieve a net zero public realm. Based on the comparison of on-site renewable energy potential and demands, it should be possible to offset the entire public realm energy demand with on-site solar electricity generation.

Building Energy Performance

India Basin aims to remain a leader in energy efficiency by going above and beyond code minimum energy performance. Energy use intensity (EUI) targets for each building type have been proposed in Section 6.5 High Performance Buildings.

While it may be possible to achieve the building EUI targets of the near future through efficiency alone, renewable energy will be required to achieve the more aggressive EUI targets in the future. Depending on the code trajectory, they EUI targets may need to be revisited throught the India Basin development timeline.

The predicted energy end use of each building type was calculated to assess which energy efficiency strategies will have the largest impact on energy consumption. The following pages summarize potential efficiency strategies for each building type and their order of magnitude impact on annual energy use intensity (EUI) when compared to a T24-2016 baseline building. These charts are suggestions to demonstrate a path to the goal EUIs for each building type, but the energy efficiency measures indicated are not required. Predicted EUI for each building type will have to be confirmed based on whole building energy analysis which reflects the actual design for each building.

High-Rise Residential

For residential buildings, lighting and equipment makeup more than half of the total energy use. Therefore, efficient ENERGY STAR equipment and high efficiency lighting with advanced controls will have a significant effect on energy consumption. Domestic hot water makes up another 17% of the total energy, and ventilation and pumping make up another 15%. Space cooling and heating combined makeup less than 5% of the energy use in the building. Based on this energy use distribution, recommended energy efficiency strategies are summarized in Figure A4.02.

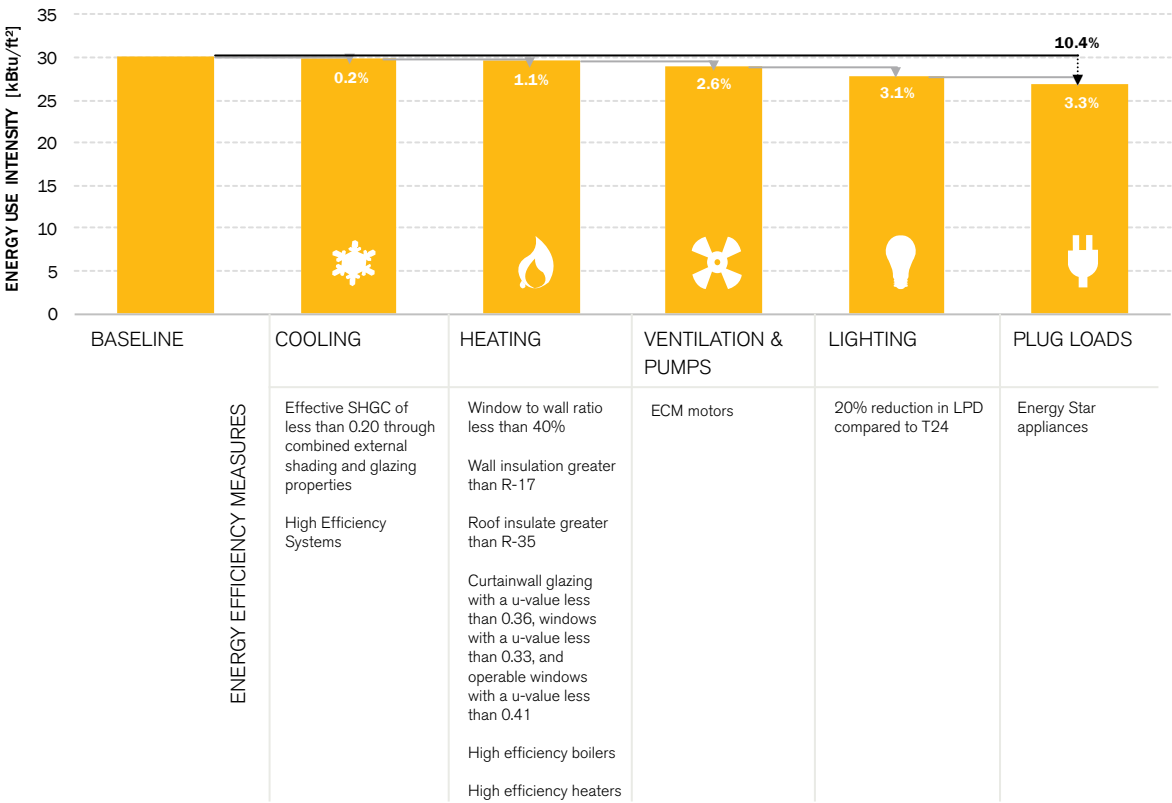


Figure A4.02: High Rise Residential Energy Efficiency Strategies

Commercial Office

In commercial office buildings, miscellaneous equipment makes up more than a third of the total energy end use, but is hard to address at the building scale because it is typically driven by occupant choices. Lighting makes up a quarter of the total energy end use, making it a priority for efficiency. While heating and cooling make up just over 15% of the energy consumption in the building, pumping and ventilation uses 21% of the total energy. Based on this energy use distribution, recommended energy efficiency strategies are summarized in Figure A4.03 below.

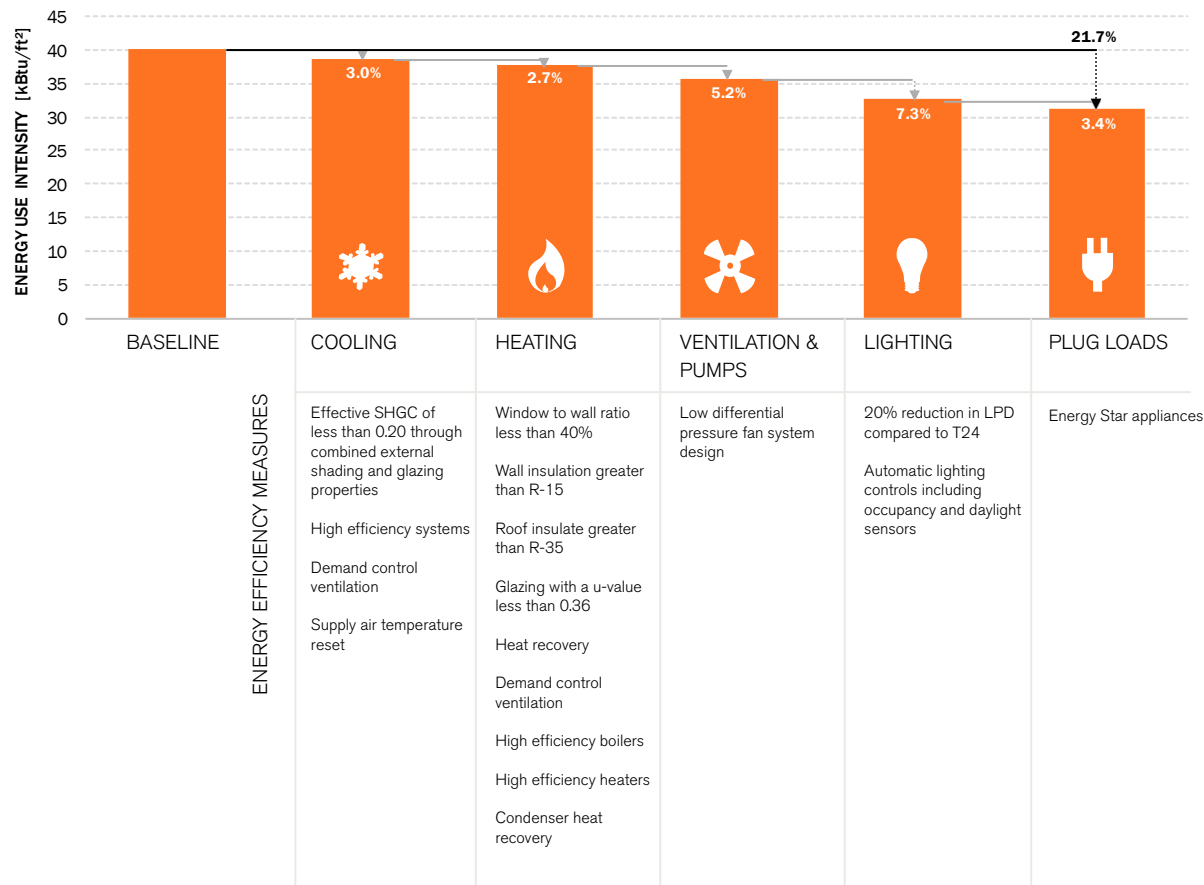


Figure A4.03: Commercial Office Energy Efficiency Strategies

Retail

For retail buildings, lighting, equipment, ventilation & pumping makeup the majority of the total energy use. Energy efficient lighting and ventilation design will have the most significant impact on reducing energy demand. The full summary of potential energy efficiency strategies are summarized in Figure A4.04 below.

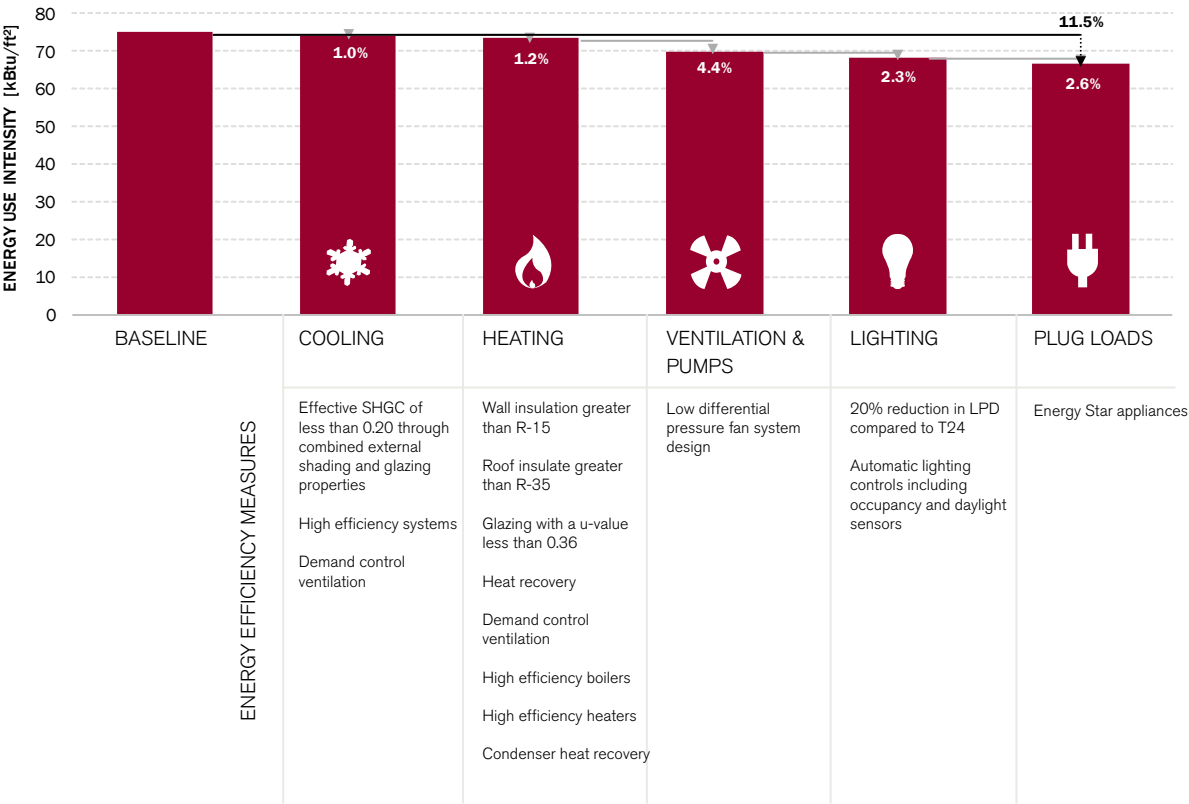


Figure A4.04: Retail Energy Efficiency Strategies

Energy Resilience

There are two approaches to energy resilience that could be implemented on site: “shelter in place” or “centralized place of refuge”.

The “shelter in place” strategy allows people to stay in their residences in an emergency with a minimum level of service including refrigeration, basic lighting, critical electronics, and water pumping. A budget of 5 kWh/day/occupant must be provided assuming minimal energy consumption for these end uses. If 500 kWh of battery storage is installed on the microgrid, 180 occupants will be able to shelter in place with minimal service. More or fewer occupants may be served depending on the capacity of the battery and sun conditions. This approach to resilience would require that the microgrid have dedicated critical service panels in each building to ensure that only critical loads were served in an emergency.

In the “centralized place of refuge”, lighting, refrigeration, and critical services would be centralized. Camps and other gathering areas could be provided in site open spaces. Assuming these critical services, each occupant would have an energy need of 1.5 kWh/day. The microgrid, when coupled with the site storage of 900 kWh, could provide critical energy services for up to 750 people.

Figure A4.05 illustrates the ability for batteries to even out the intermittent electricity provided by photovoltaics, Figure A4.06 summarizes the critical services and electric loads which may be considered as components of India Basin’s energy resilience planning efforts.

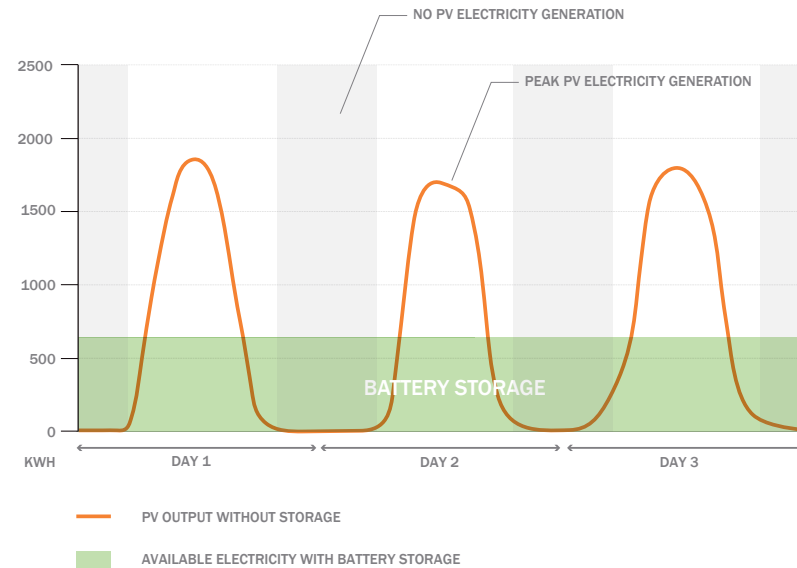


Figure A4.05: On-site Generation and Battery Storage 72 hour Timeline

	CRITICAL SERVICES	APPLICABLE IB BUILDING TYPOLOGY / SERVICE	CRITICAL ELECTRIC LOADS
HEALTH	<ul style="list-style-type: none"> Food and Water Distribution Emergency First Aid Waste Management 	<ul style="list-style-type: none"> Wastewater Treatment Facility Grocery Store or Food Supply Waste Management Services 	<ul style="list-style-type: none"> Purification System and pumps Water Supply Stations Critical Refrigeration Emergency lighting and critical medical equipment
HUMAN SERVICES	<ul style="list-style-type: none"> Disaster Welfare Information Facilitate Reunification Support unaffiliated volunteers and unsolicited donations Voluntary Agency Coordination Disaster Housing Assistance 	<ul style="list-style-type: none"> Commercial building: info hub Community Center: Designated Emergency Operation Center 	<ul style="list-style-type: none"> WiFi Communication repeaters and variable message boards Charging for electric communication devices
SHELTER & TRANSPORTATION	<ul style="list-style-type: none"> Sheltering: General, Specialized, Medical Shelter in Place Senior Housing Transportation Access Household Pets and Service Animals 	<ul style="list-style-type: none"> Big Green Senior Housing (shelter in place) Public Transit Facilities 	<ul style="list-style-type: none"> Emergency shelters Critical way finding, systems, waste management for senior housing Critical lighting and message boards for transport

Figure A4.06: Critical Services to be Considered for India Basin Resiliency Strategy

A.X Envelope

H1

New Hudson Corner Building

Program:	TBD
Primary Land Use	Mixed-Use
Special Use	None

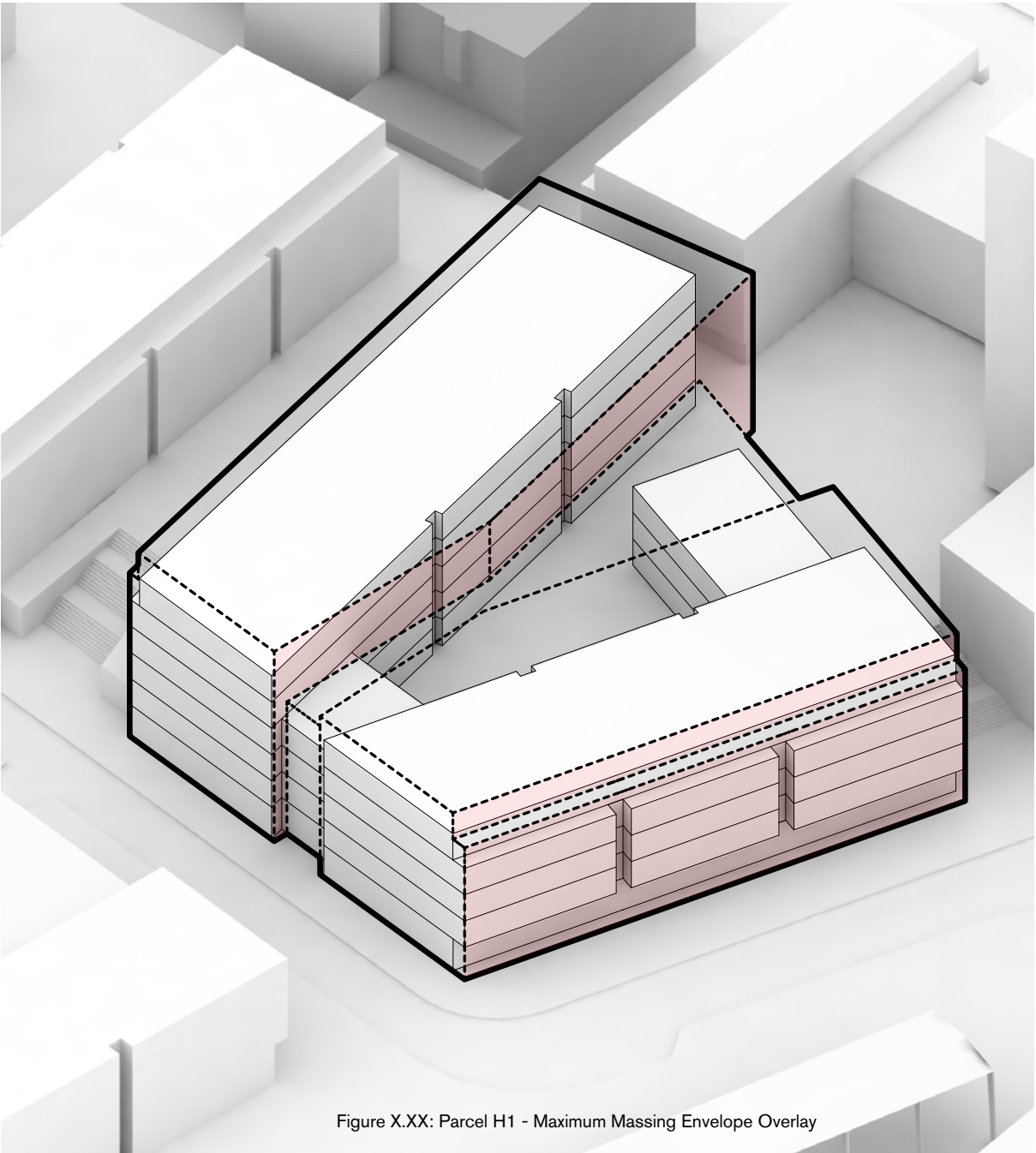


Figure X.XX: Parcel H1 - Maximum Massing Envelope Overlay

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 San Francisco Bay Conservation and Development Commission
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Local Organizations and Stakeholders

India Basin Neighborhood Association
 San Francisco Parks Alliance
 Bay Area Bike Share
 San Francisco Bike Coalition
 San Francisco Housing Action Coalition
 San Francisco Planning and Urban Research

Peer Review

BAR Architects
 Regen Network

Legal

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 Gibson Dunn