

MEMORANDUM

To: CRA Board

From: Cecelia Cobb, Project Planner; Tom Evans, Executive Director

Date: November 16, 2022

Re: 300 Binney Street Design Modification

BACKGROUND INFORMATION

The building at 300 Binney Street, located on the seventh individual parcel of Parcel 2 of the Kendall Square Urban Redevelopment Plan (KSURP) area. The building was first designed as an office building with floor-to-floor heights and vertical infrastructure circulation space to allow research and lab use in the future. The schematic design, by Elkus Manfredi, for 300 Binney (17 Cambridge Center) was approved by the CRA in 2009. It was developed as office space for Biogen Idec by Boston Properties (BXP), as part of the company's headquarters relocation back into Kendall Square in 2013. The building is currently home to a daycare (Bright Horizons) on the ground floor, office space on the 2nd – 6th floors, and a mechanical penthouse on the 7th floor.

PROPOSED DESIGN

Due to changes in market demand, the design team at BXP proposes to redesign 300 Binney to be used as lab and office space for the Broad Institute. The MXD Zoning District and the KSURP do not differentiate between office and lab use. The project does not require an increase in Gross Floor Area (GFA) which allows this project to move forward with no impact on the Cambridge Center Development Agreement and does not require a change of use approval.

The proposed changes include modifications to both the interior and exterior façades. The lobby will be modified, with its existing entrance along West Service Drive moving to what is currently the daycare entrance at the northeast corner of the building. The daycare will instead have a dedicated entrance off the path between 125 Binney Street and 300 Binney Street. On floors two through six, a small amount of square footage will be added over the entrance at the northwest corner to incorporate shared social space. The third and sixth floors will feature outdoor terraces, and the fourth floor will feature interior shared space. The building's mechanical penthouse will be modified to provide additional space for the required lab equipment, and design plans include options for either a 15' or expanded 18' roof screen.

The existing two-story connector corridor between 125 and 300 Binney will be removed, allowing for pedestrian connections traveling East-West between these two buildings and eventual access to the Center Plaza which will be built to the east. This newly opened corridor will receive landscape enhancements including paving, seating, and new landscaping in the form of trees and shrubs. Unfortunately, seven trees will need to be removed in order for construction to progress, but BXP has evaluated the trees for relocation and is in the process of determining a way to replant them in the area.

A loading dock will be added on the southeast side of the building as there will no longer be access to the previously shared loading dock at 125 Binney Street. The interior of the ground floor will also include a bike parking room with 48 long-term parking spaces.

In order to accommodate continued operation of Biogen's Bright Horizons center throughout construction, the daycare facility would move to a temporary location at 125 Binney Street. Its entrance and drop-off area will be accessible via West Service Drive, close to the present-day drop-off area. Bright Horizons will plan to stay in this location from May, 2023 through December, 2024. When renovations are completed, the daycare will be moved back to its expanded, modified location at 300 Binney with the dedicated entrance off the pedestrian path as noted above. The daycare drop-off location will remain on West Service Drive, consistent with its location throughout renovations.

DRAFT MOTION

Draft Motion: Approve the proposed design modification to the office building at 300 Binney Street within the Kendall Square Urban Redevelopment Project area.

EXHIBITS

Exhibit A: *300 Binney Street CRA Design Review Presentation*

Exhibit B: *Comments & Responses on 300 Binney Street Design from CRA Design Review Meeting, held October 13, 2022.*

300 Binney Street

CRA Design Review

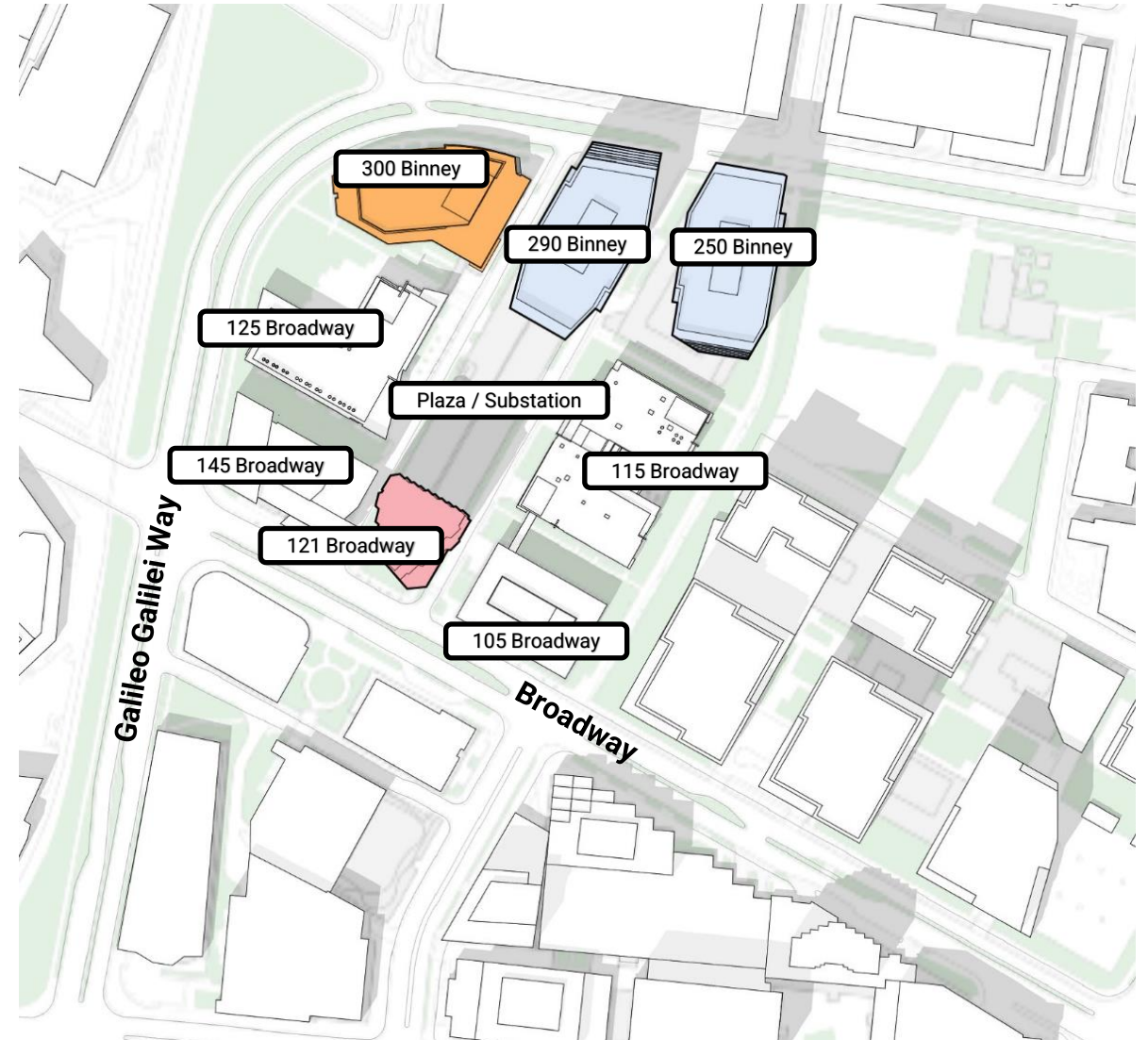
November 16th, 2022



SITE AERIAL / CONEXT

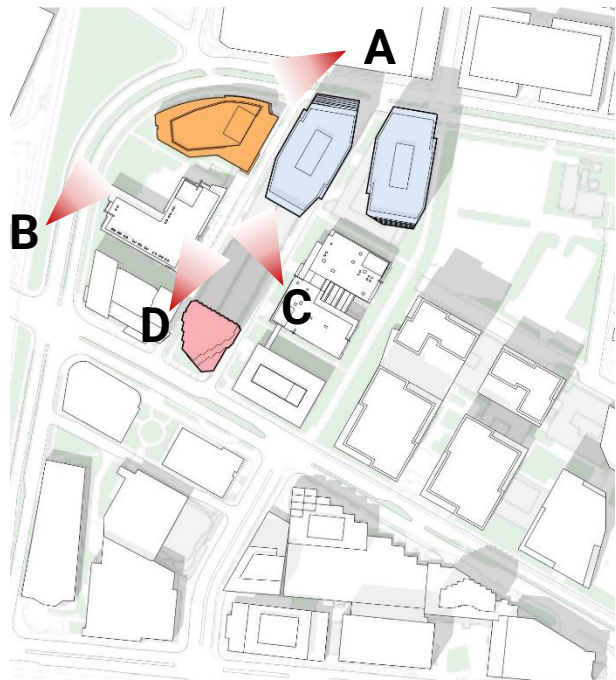


Existing Site

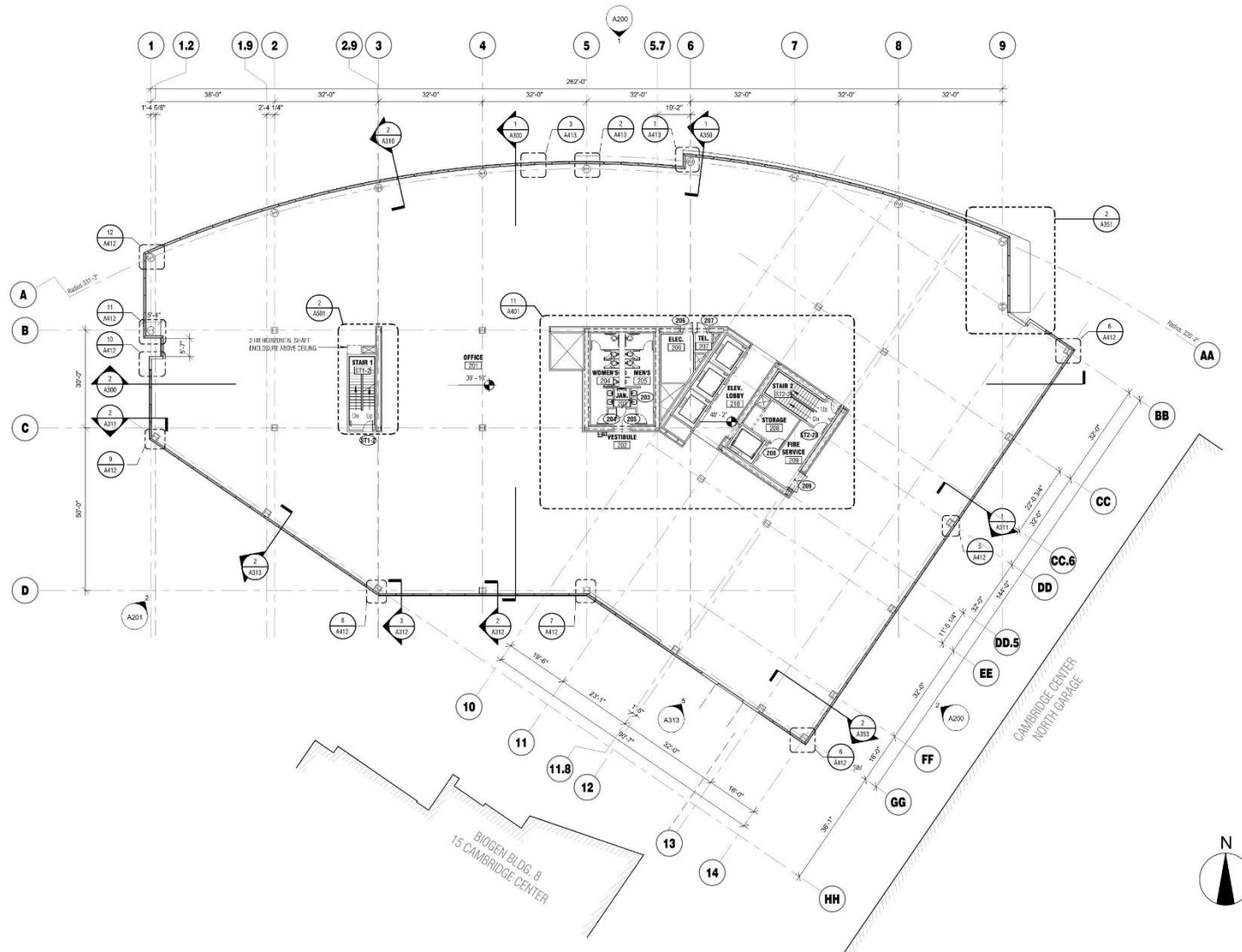


Future MXD Site

EXISTING CONDITIONS

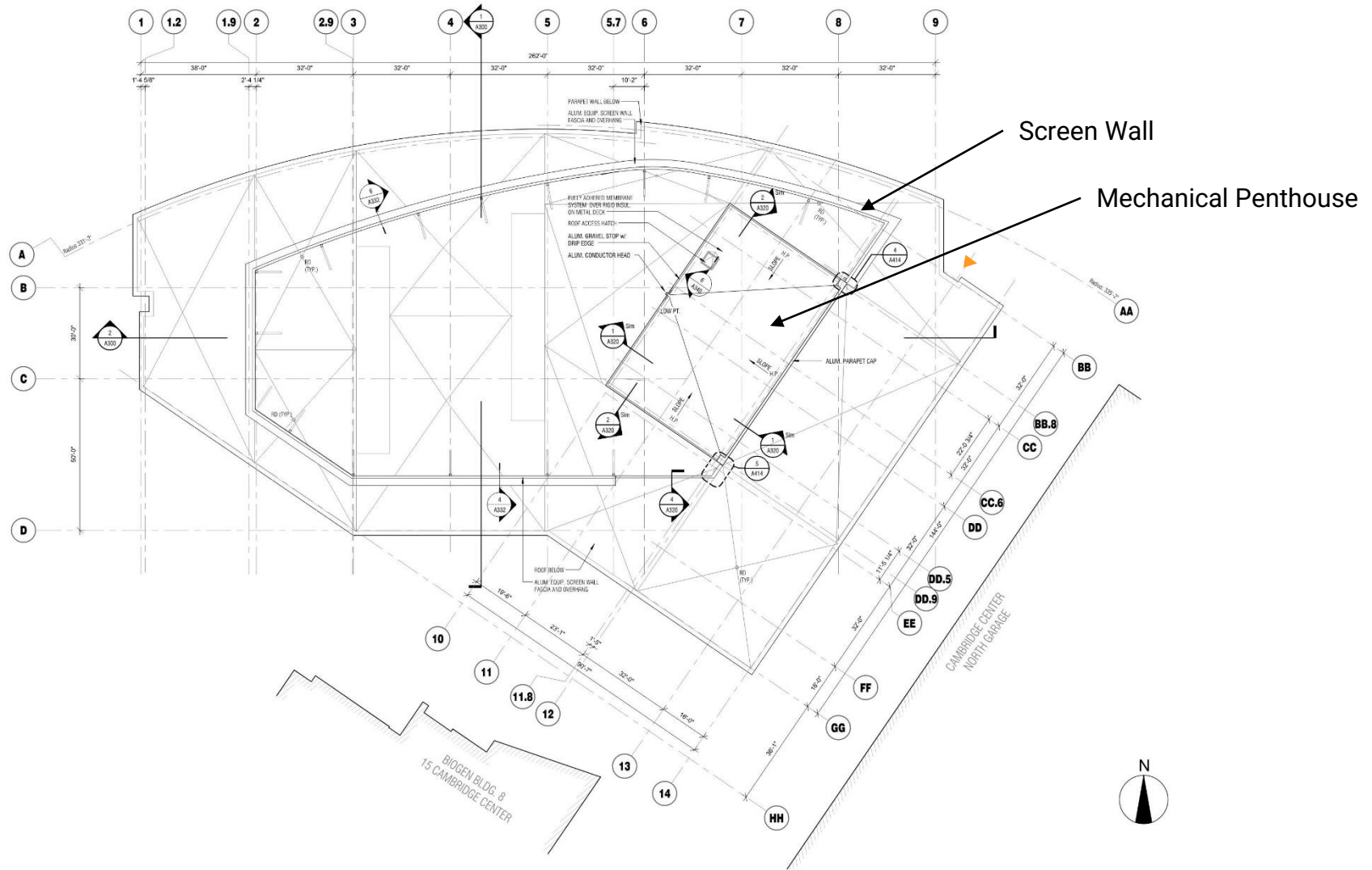


EXISTING SECOND – SIXTH FLOOR



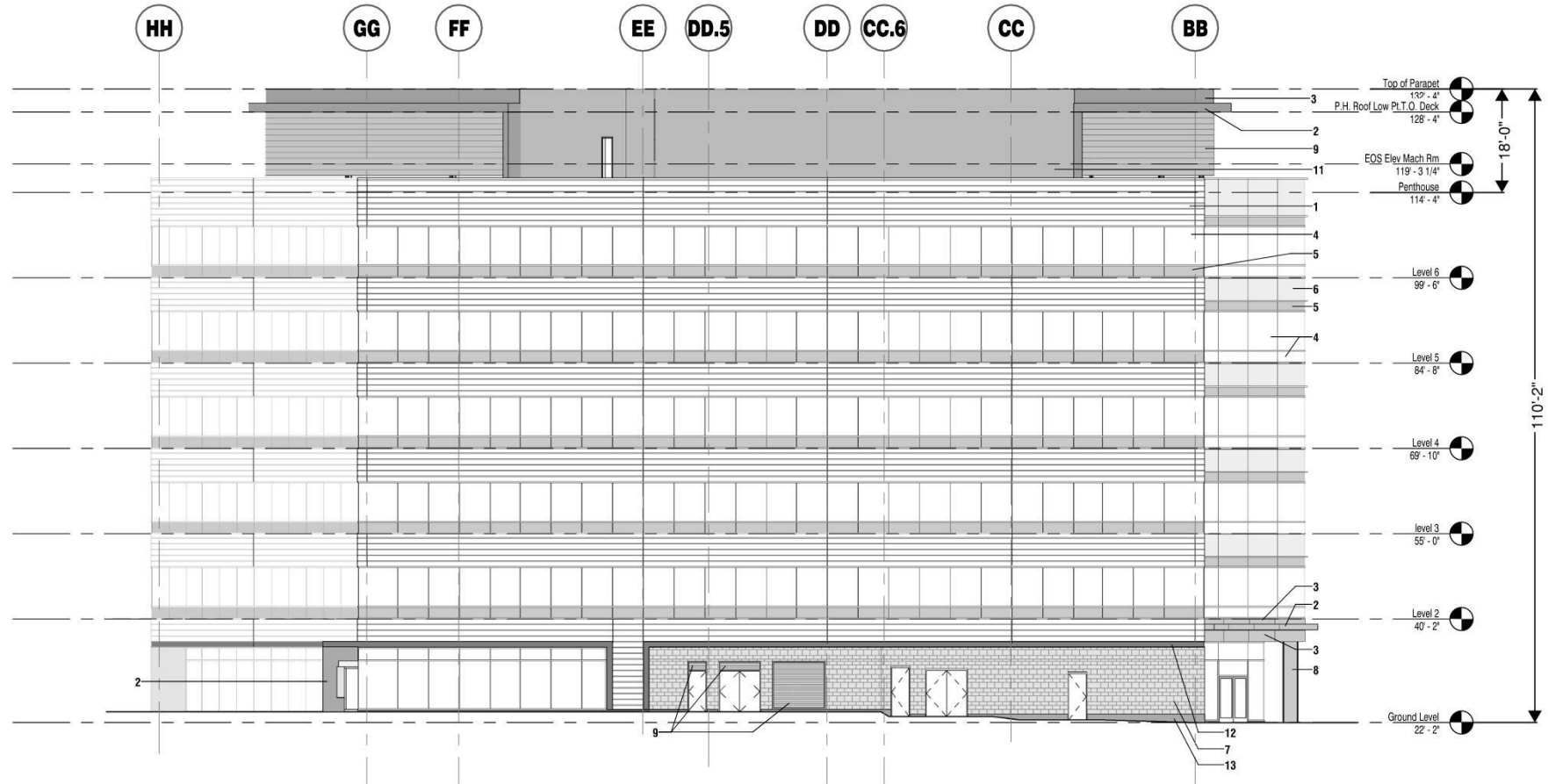
Existing Typical Floor (2 - 6)

EXISTING PENTHOUSE AND ROOF PLAN



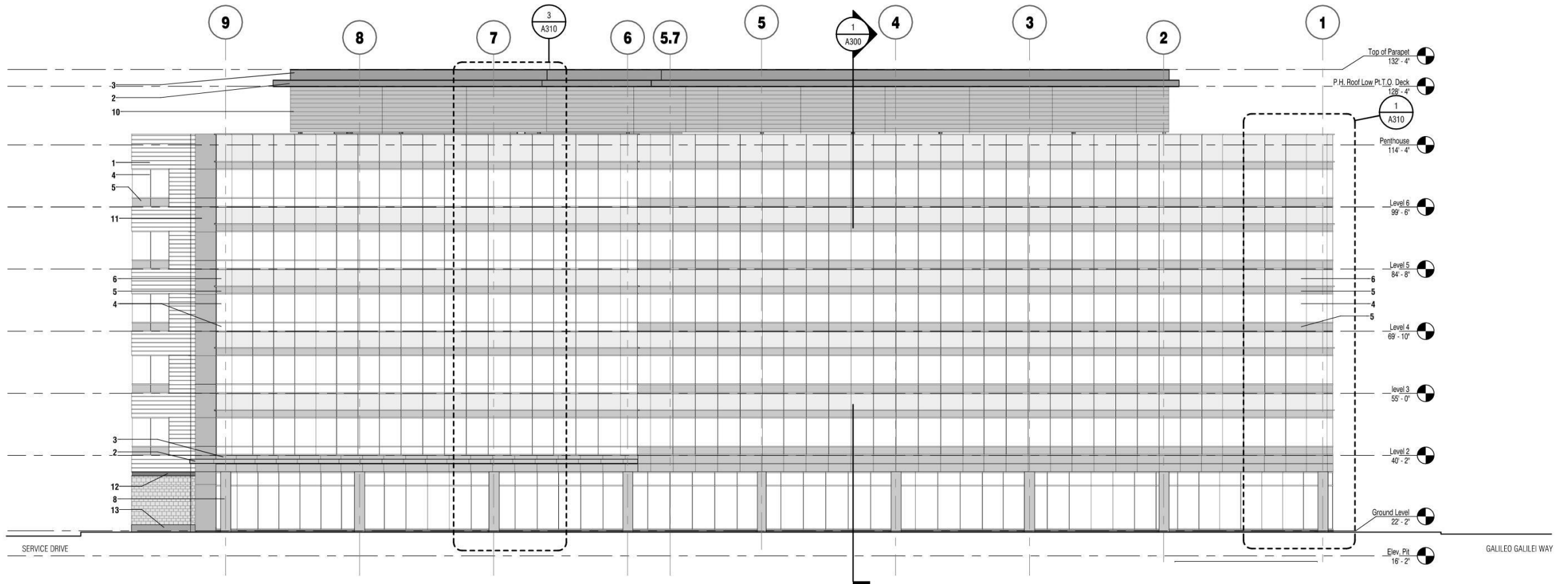
Existing Roof Plan

EXISTING EAST ELEVATION – WEST SERVICE DRIVE



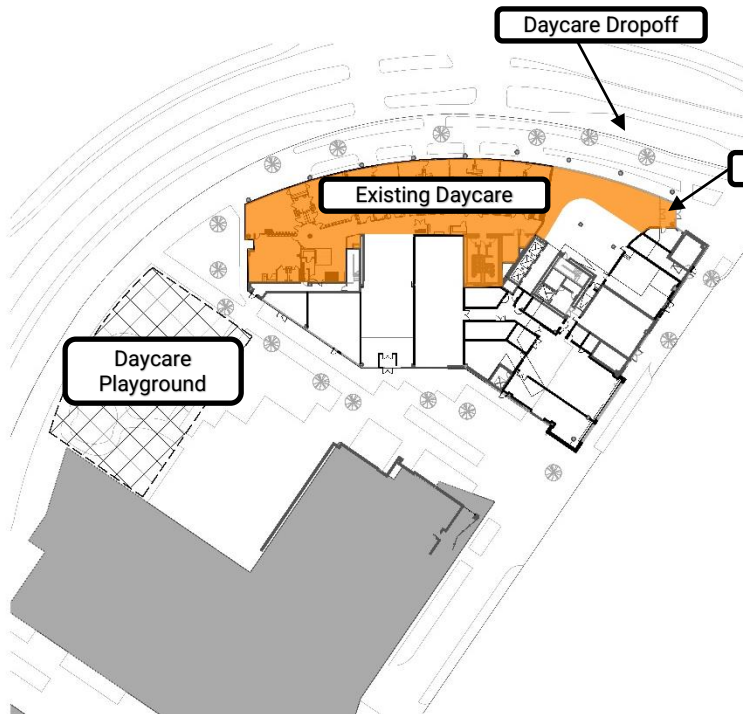
2 East Elevation
SCALE: 1/16" = 1'-0"

EXISTING NORTH ELEVATION – BINNEY STREET



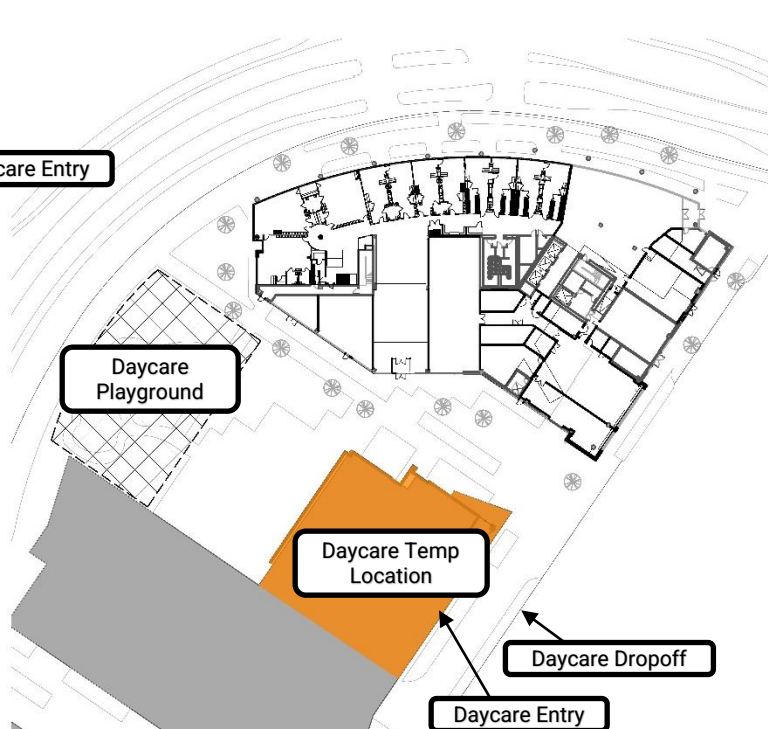
1 North Elevation
SCALE: 1/16" = 1'-0"

BRIGHT HORIZONS SEQUENCE



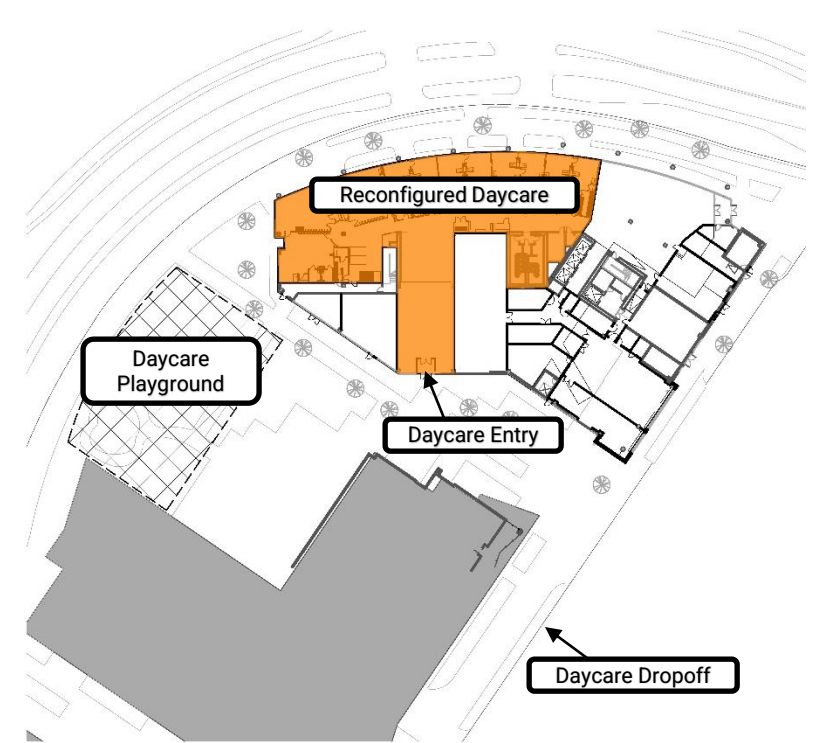
Existing Bright Horizons Location

THROUGH MAY 2023



Bright Horizons Temporary Location

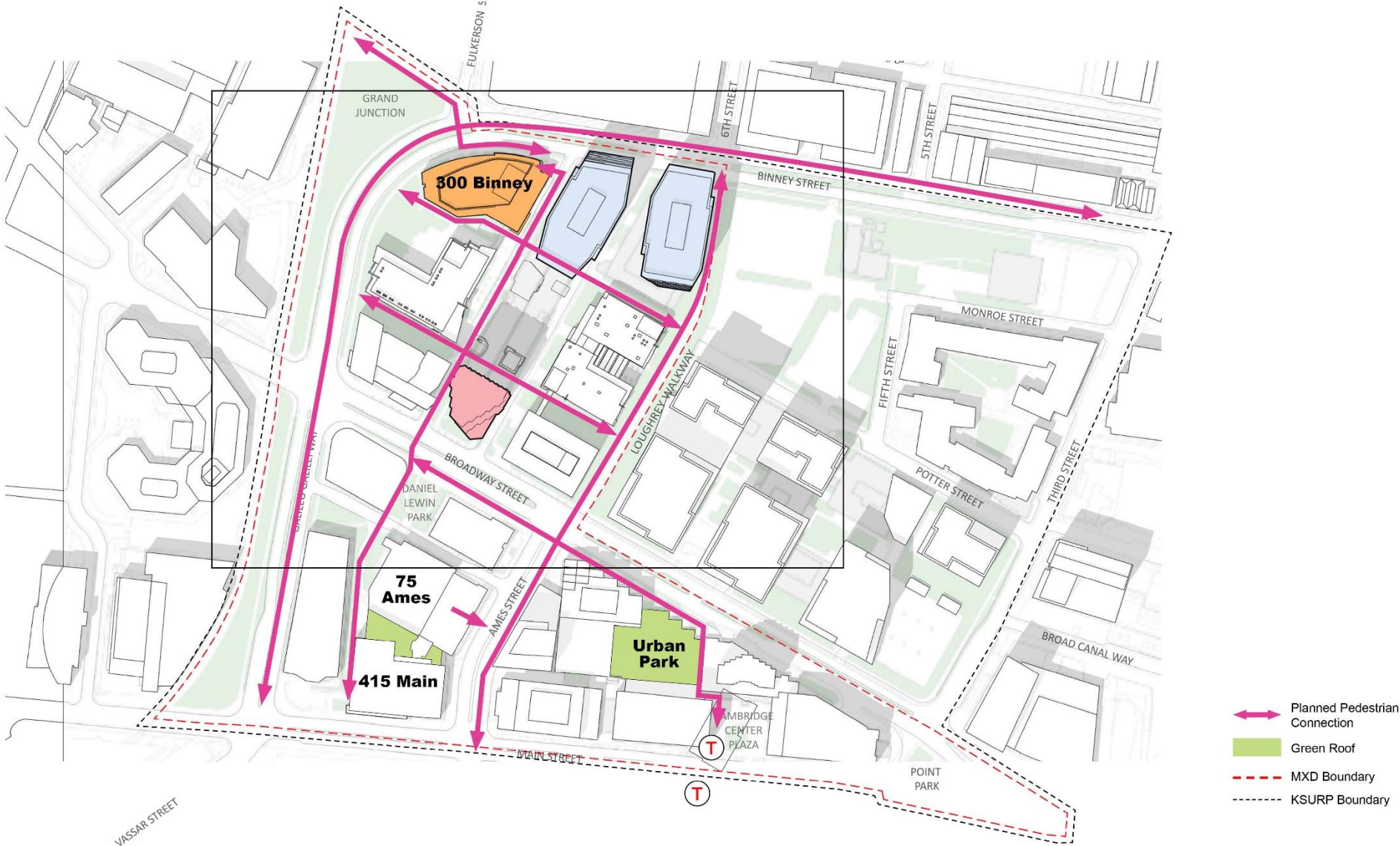
THROUGH DECEMBER 2024



Future Bright Horizons Location

JANUARY 2025

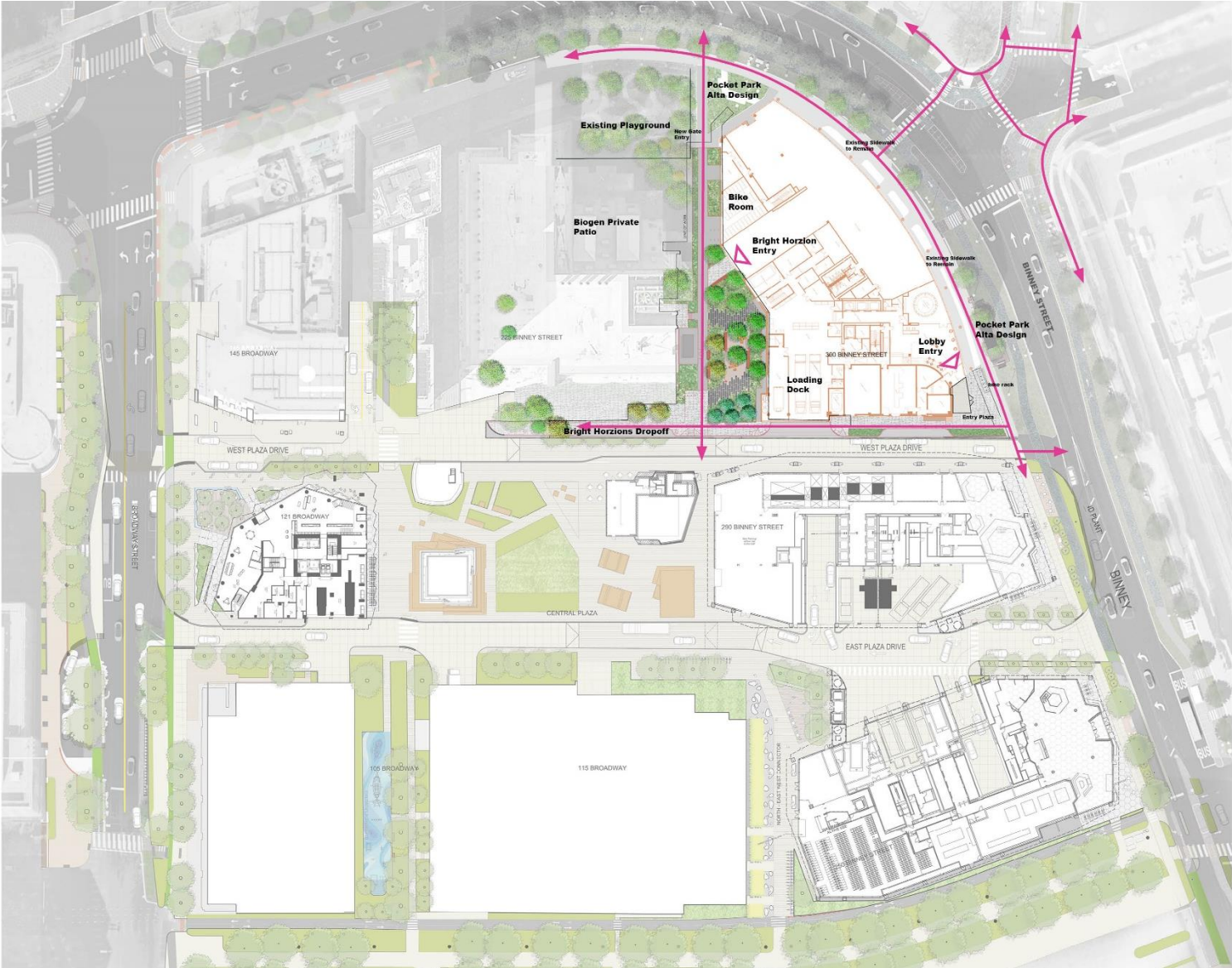
CONTEXT PLAN



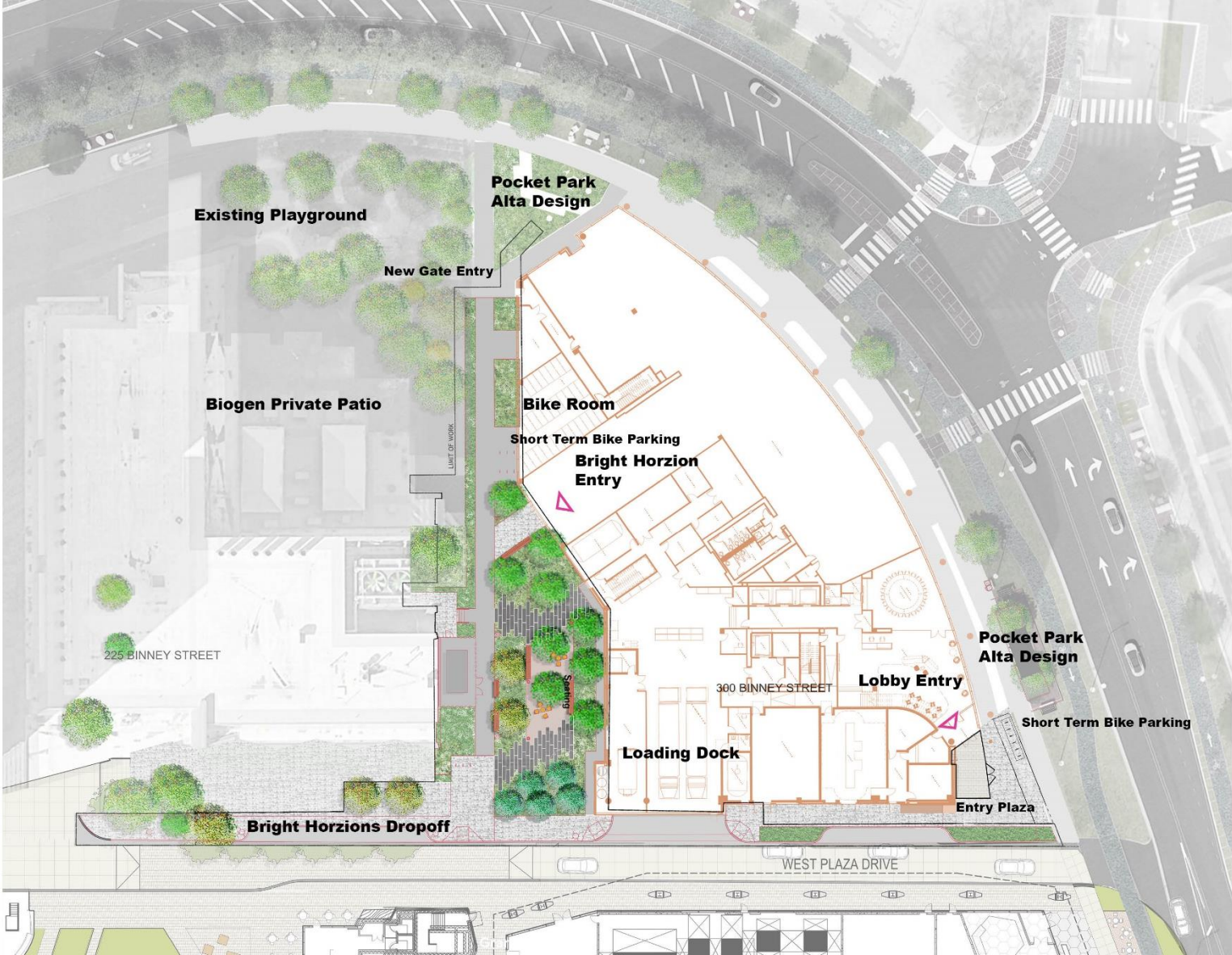
CONTEXT PLAN



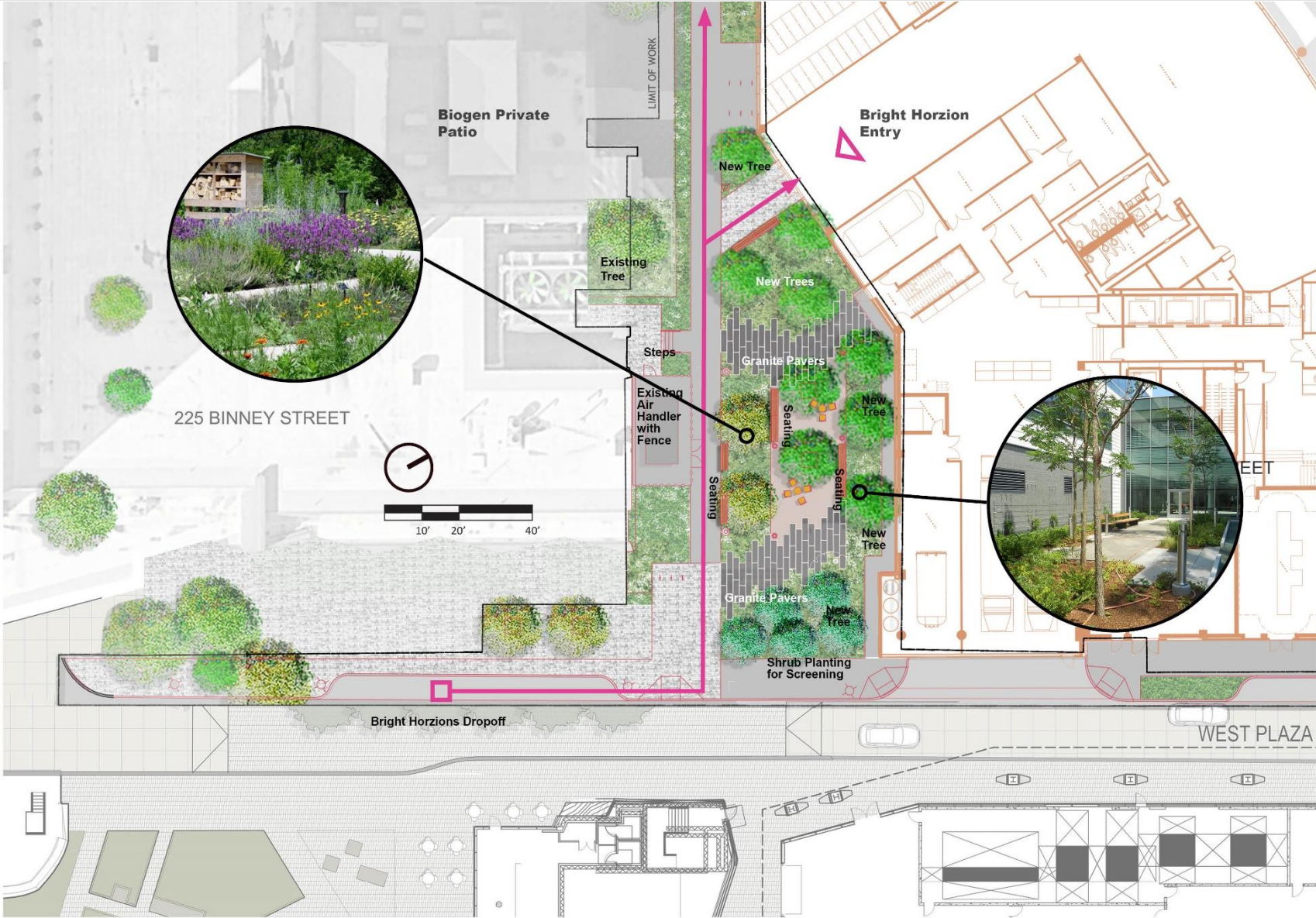
CONTEXT PLAN



CONCEPT PLAN

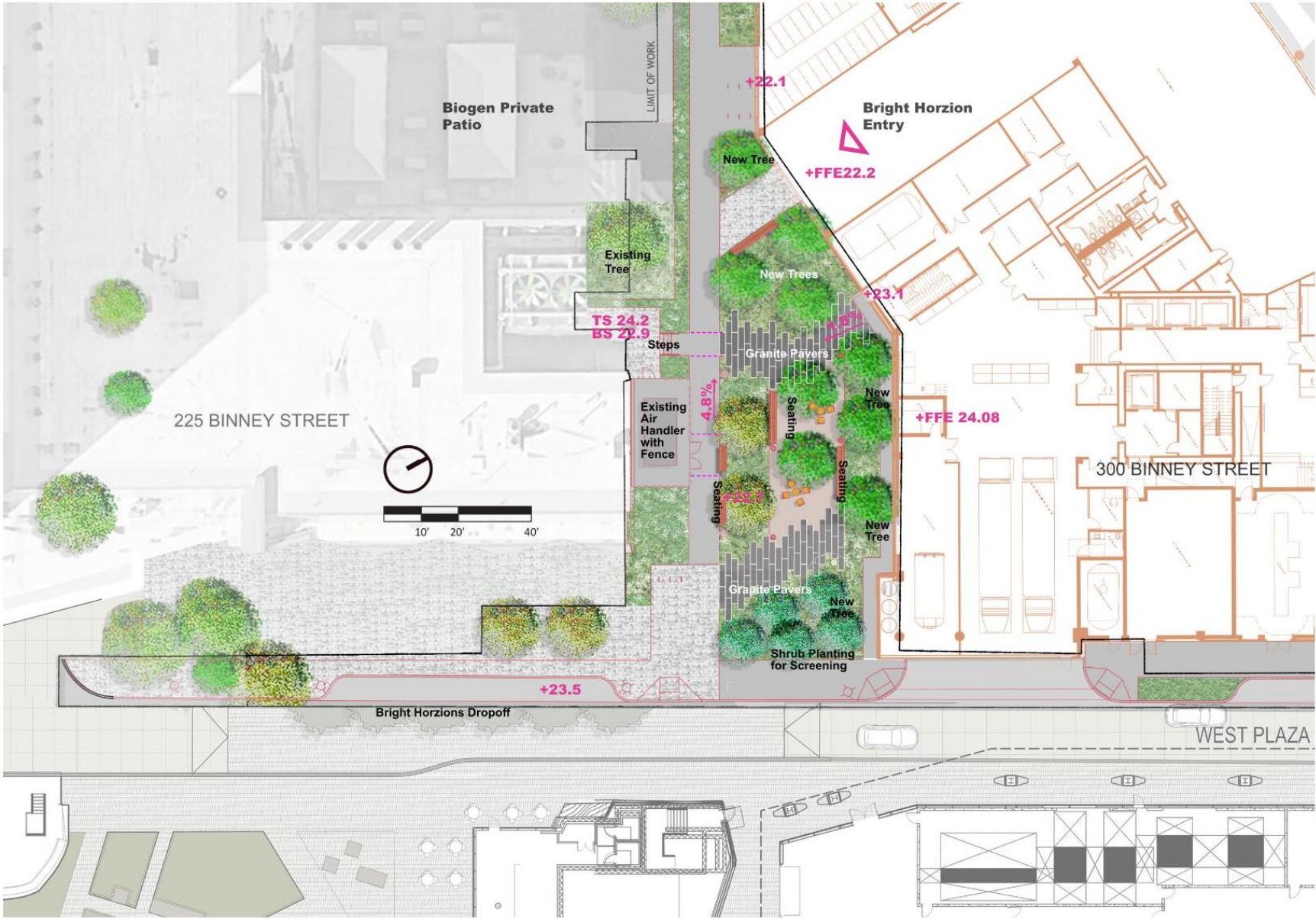


CONCEPT PLAN



Landscape Elements

CONCEPT PLAN



Grading

TREE MITIGATION

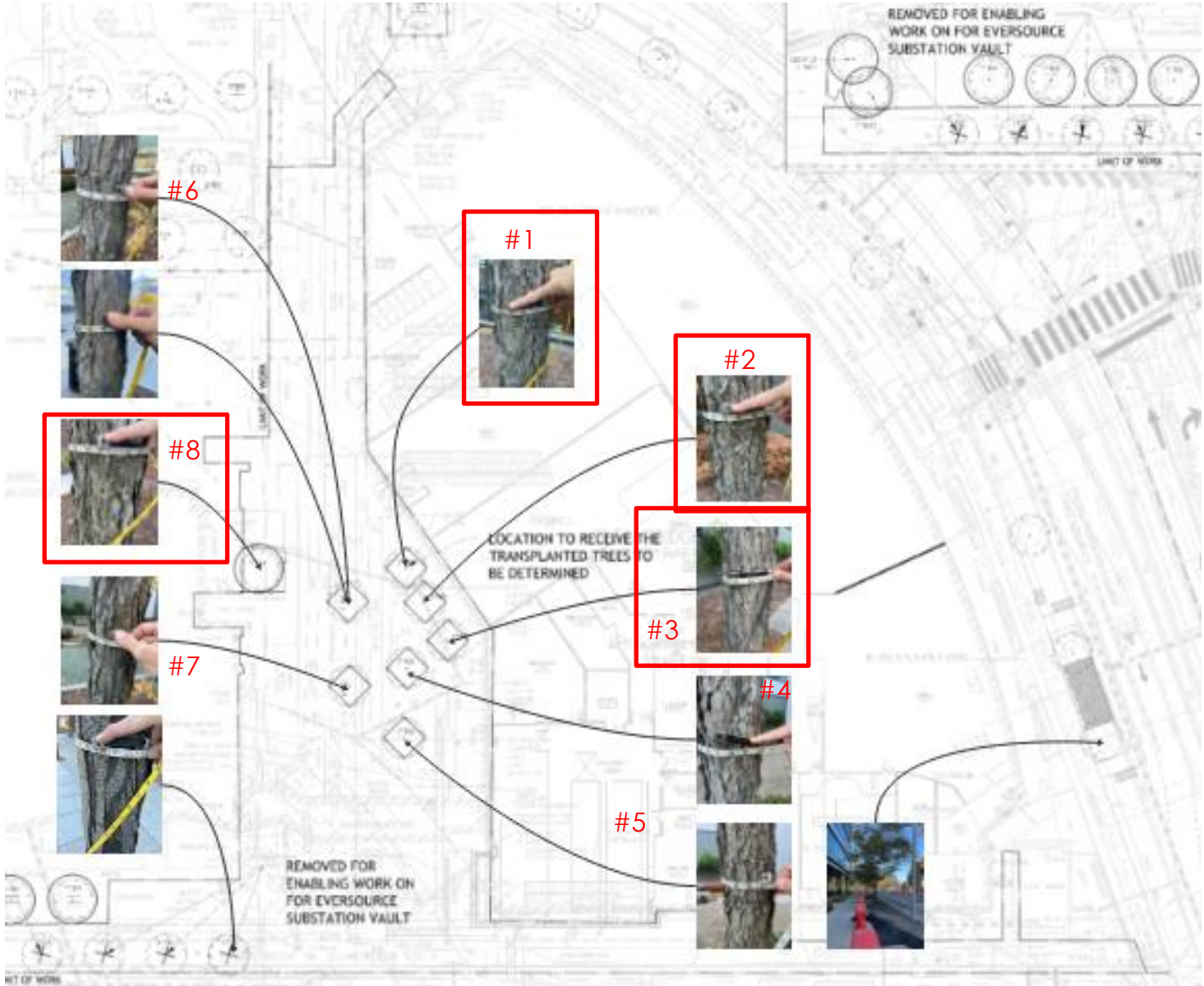
Existing Tree #	Species	Measured Circumference (in)	Size (in DBH)	Significant Tree? (>6" DBH)	Proposed Condition
1	Kentucky coffee	20.5	6.5	Yes	Remove/relocate
2	Kentucky coffee	19.5	6.2	Yes	Remove/relocate
3	Kentucky coffee	20.25	6.4	Yes	Remove/relocate
4	Kentucky coffee	18.5	5.9	No	Remove/relocate
5	Kentucky coffee	16	5.1	No	Remove/relocate
6	Kentucky coffee	15.75	5.0	No	Remove/relocate
7	Kentucky coffee	16	5.1	No	Remove/relocate
8	Kentucky coffee	23	7.3	Yes	Remain
Total Trees Removed			7		
Total DBH of Removed Trees			40		


Proposed Trees		Quantity	Size (in DBH)	Total Size (in DBH)
Betula nigra	River birch	3	3	9
Acer griseum	Paperbark maple	5	3	15
Acer rubrum	Red maple	2	3	6
Gleditsia triacanthos	Honey locust	2	3	6
Total Trees Planted		12		
Total DBH of Planted Trees		36		

Tree Mitigation Calculation (other project, no residential exemption)

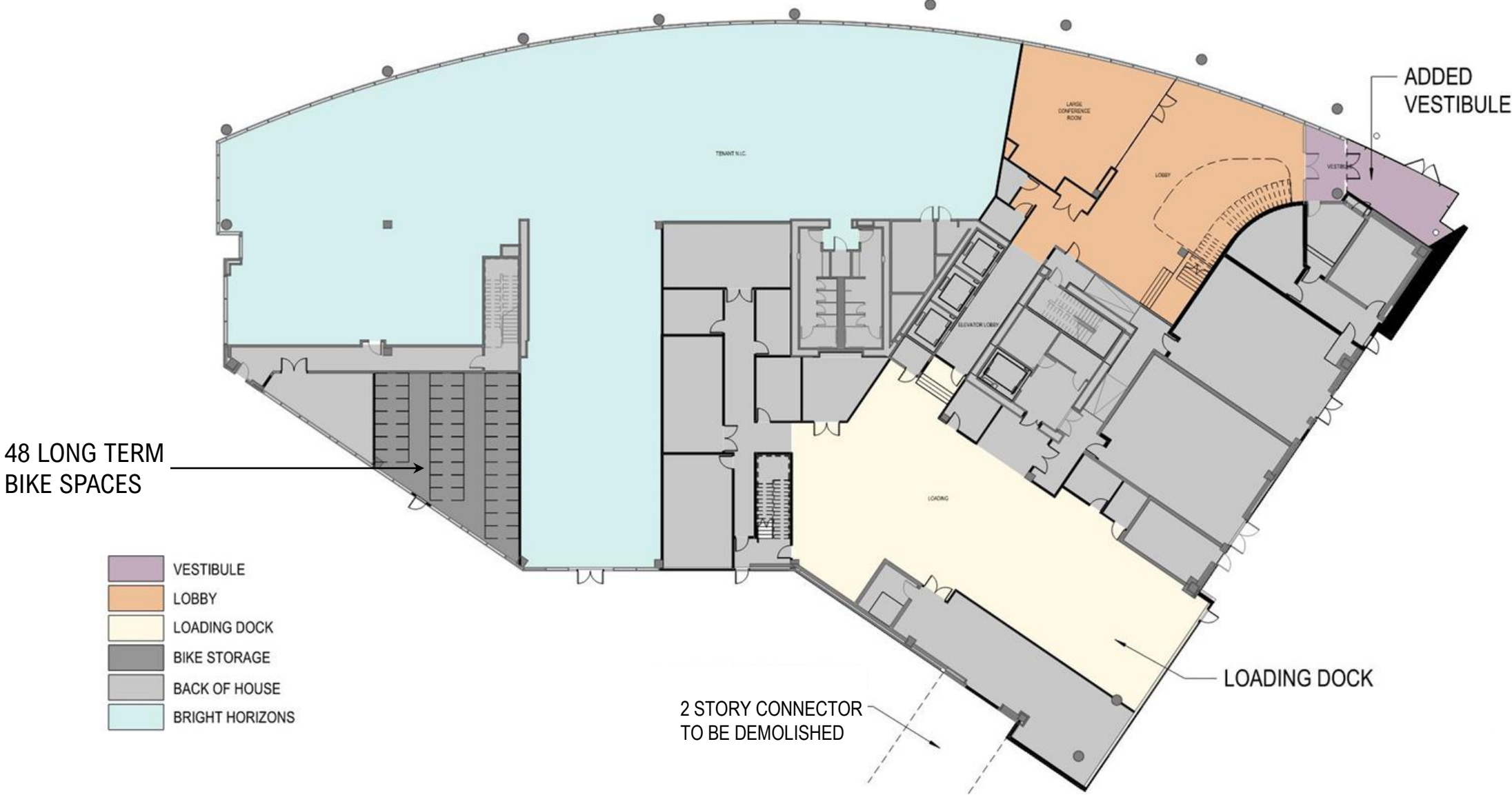
Significant Tree Removals	Size (DBH)	# of Replacement Trees	DBH of Replacement Trees (in)
1 Kentucky coffee	6.5	2	3
2 Kentucky coffee	6.2	2	3
3 Kentucky coffee	6.4	2	3
Total		6	9

EXISTING TREES

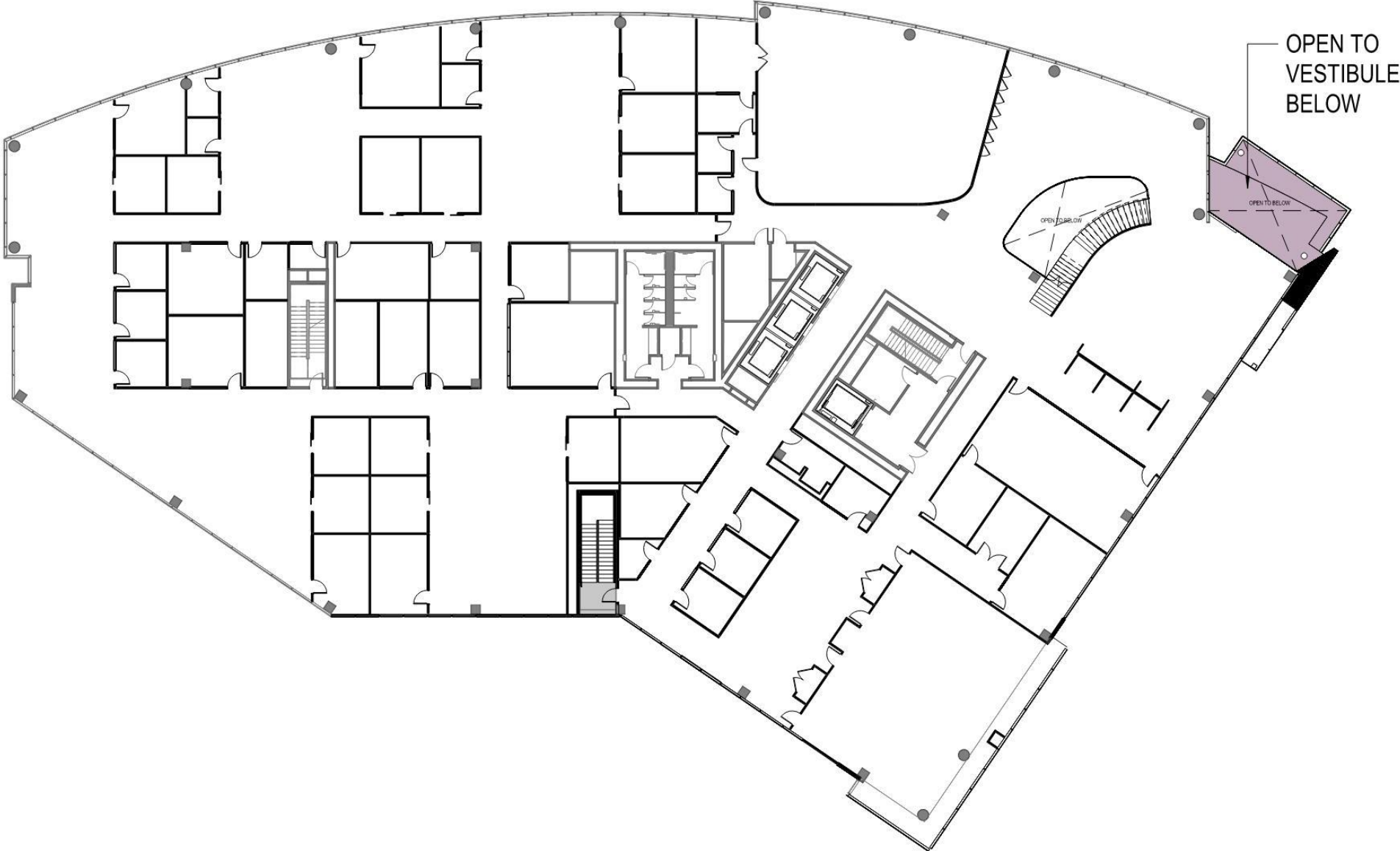


 Trees with DBH>6"

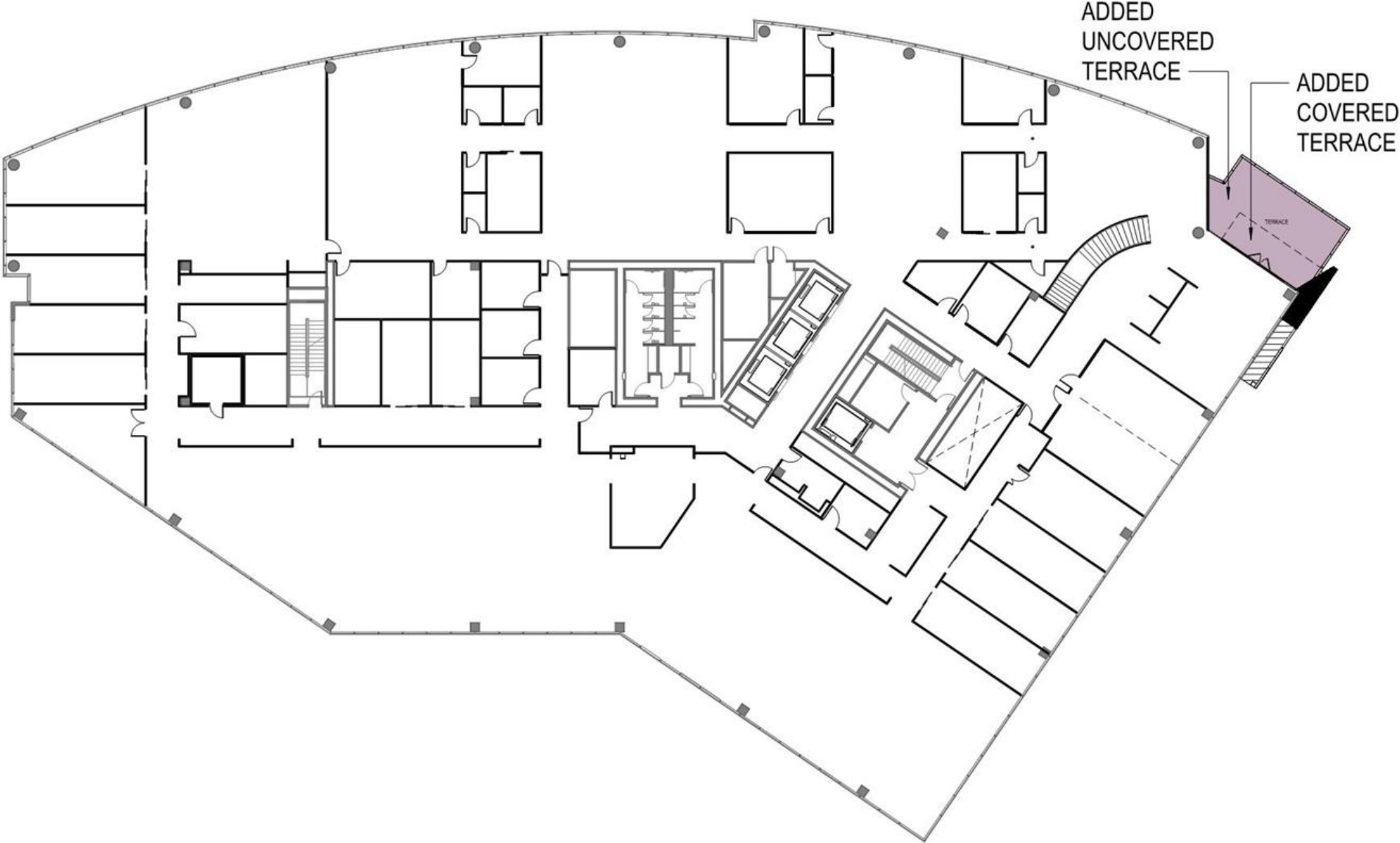
GROUND FLOOR PLAN



SECOND FLOOR PLAN



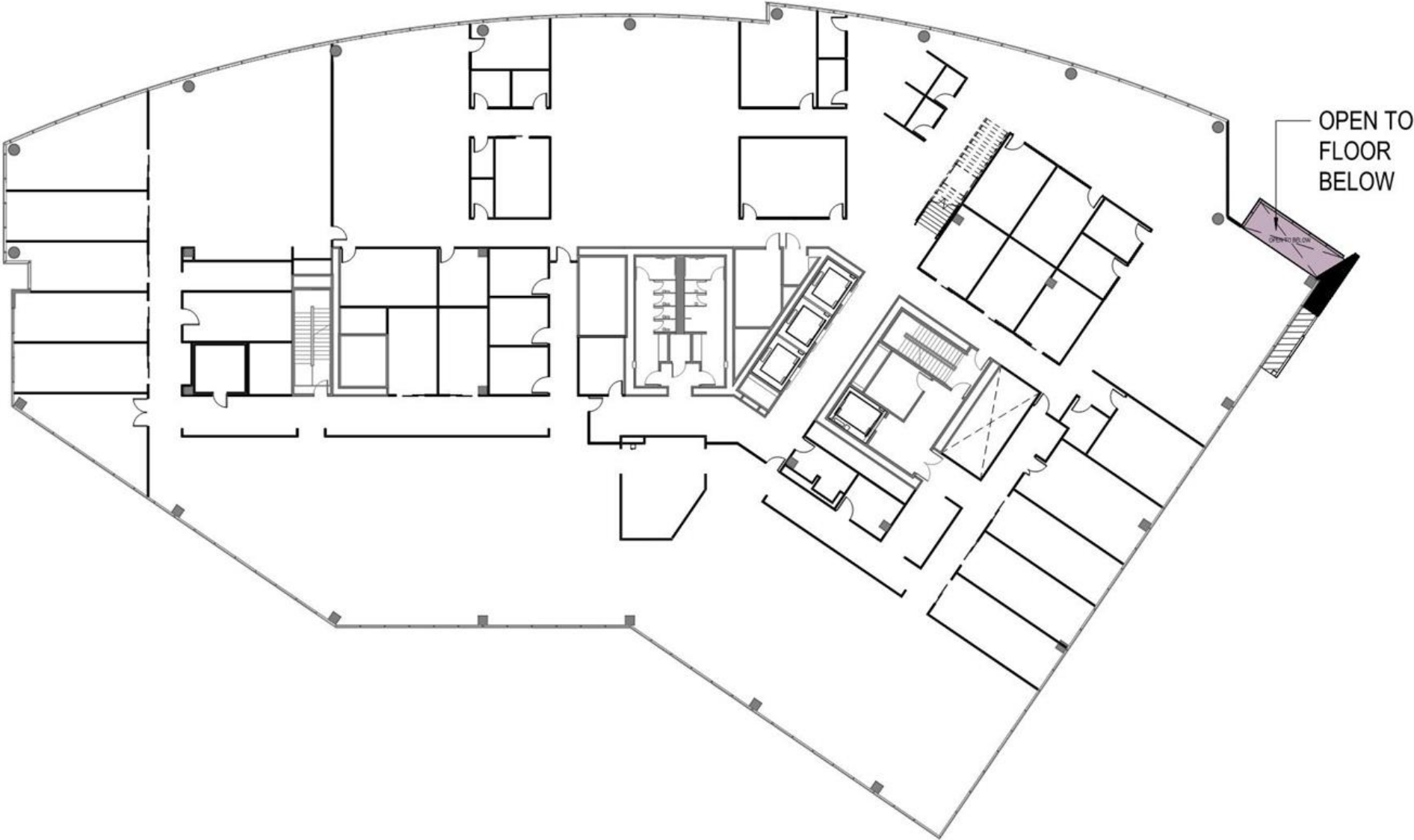
THIRD FLOOR PLAN



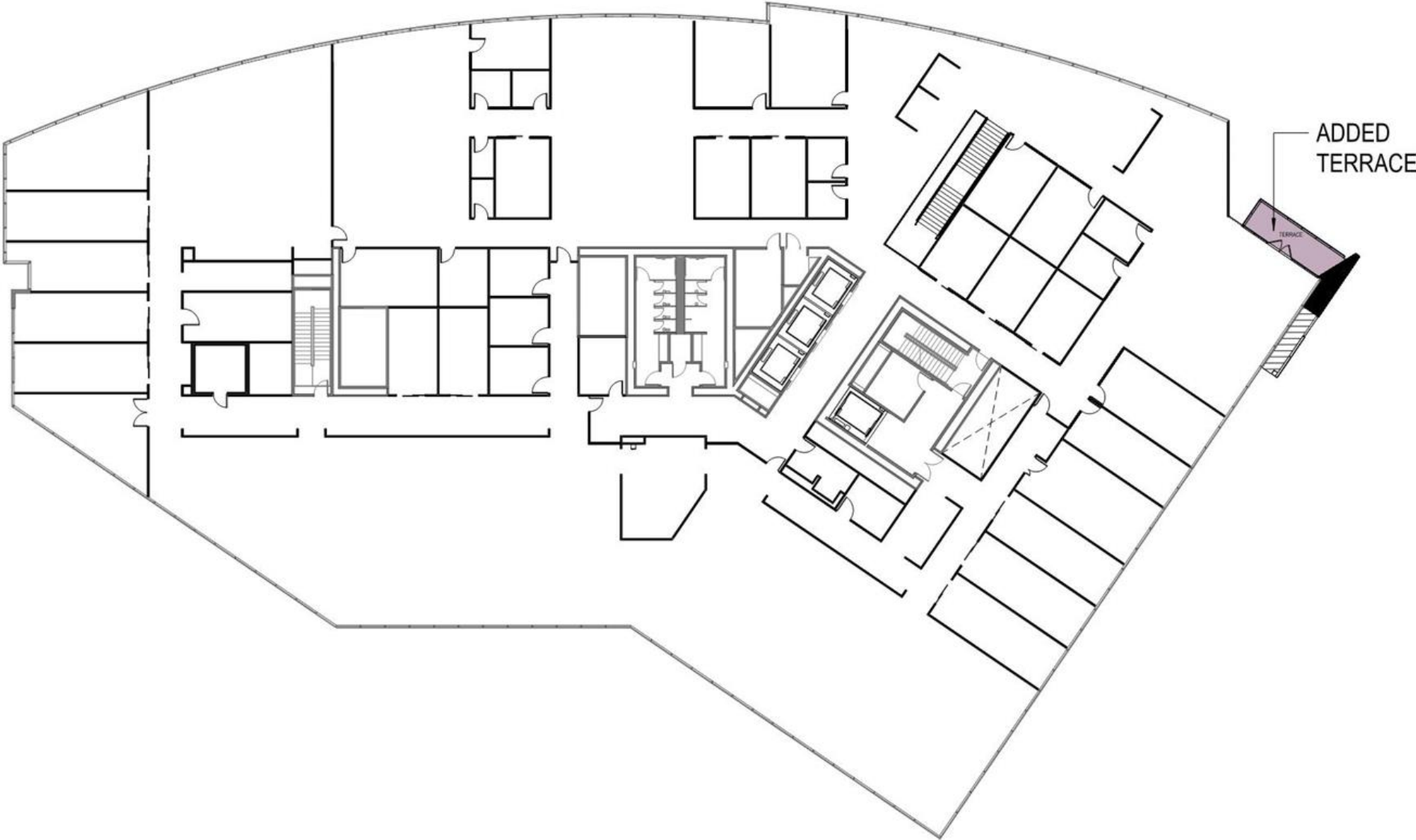
FOURTH FLOOR PLAN



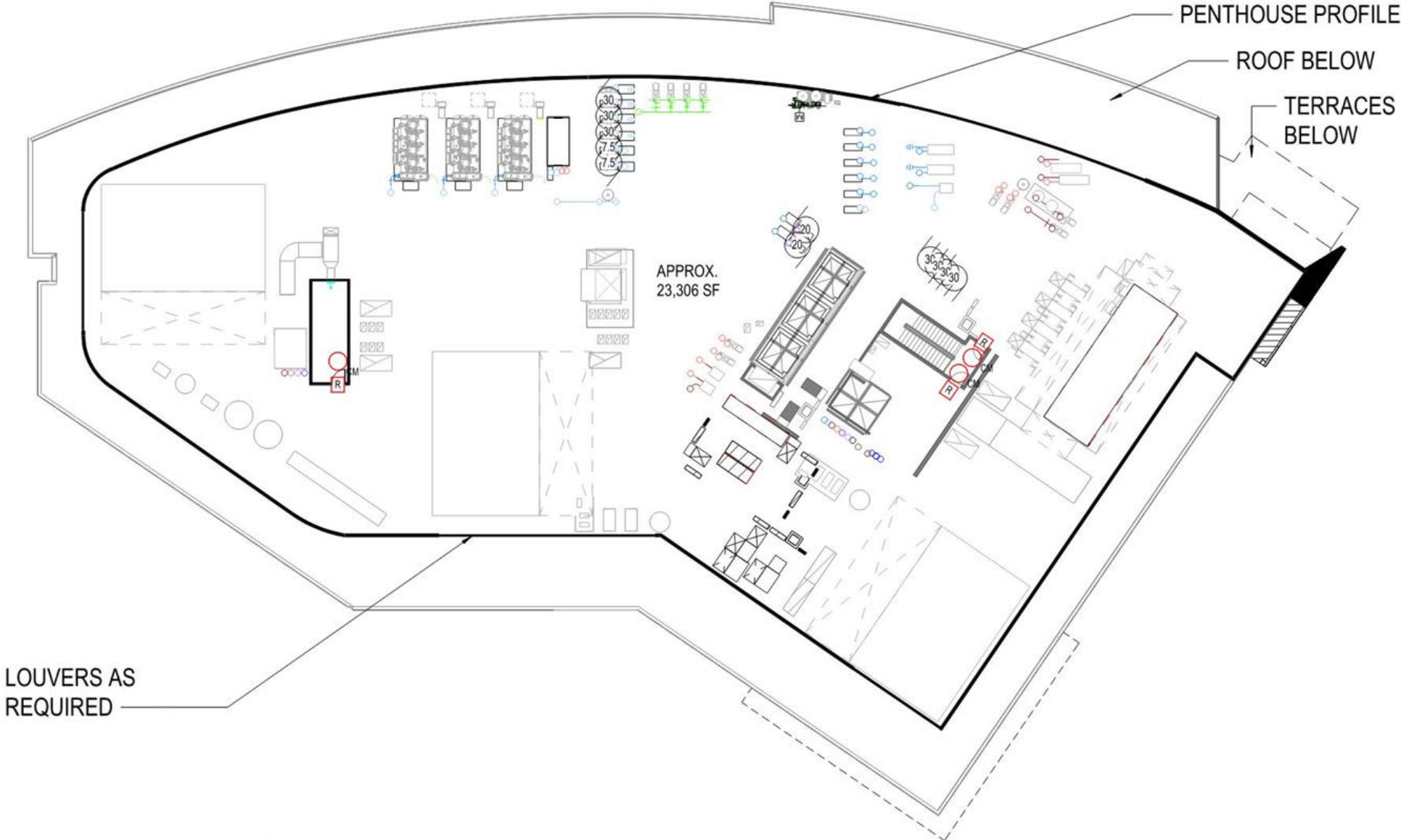
FIFTH FLOOR PLAN



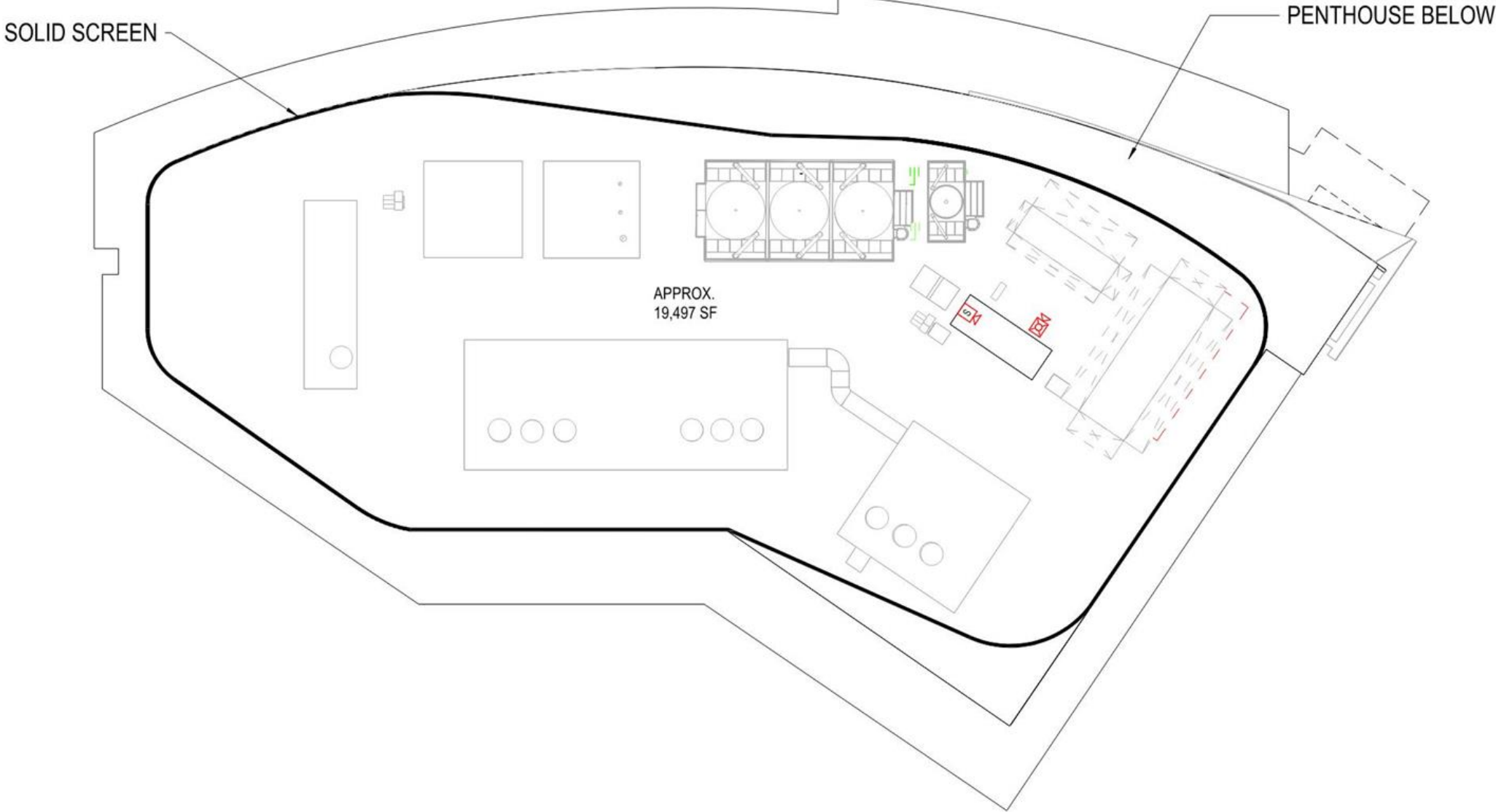
SIXTH FLOOR PLAN



MECHANICAL PENTHOUSE PLAN

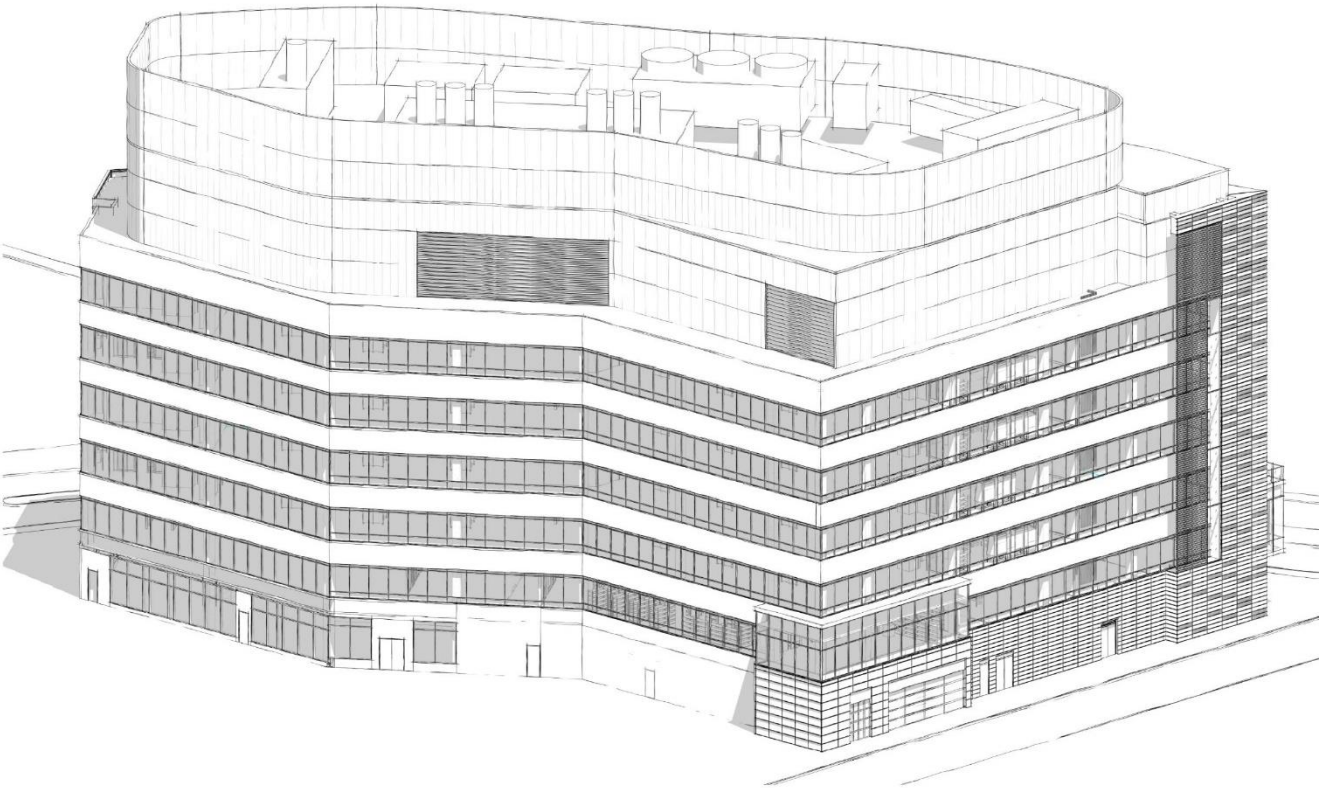
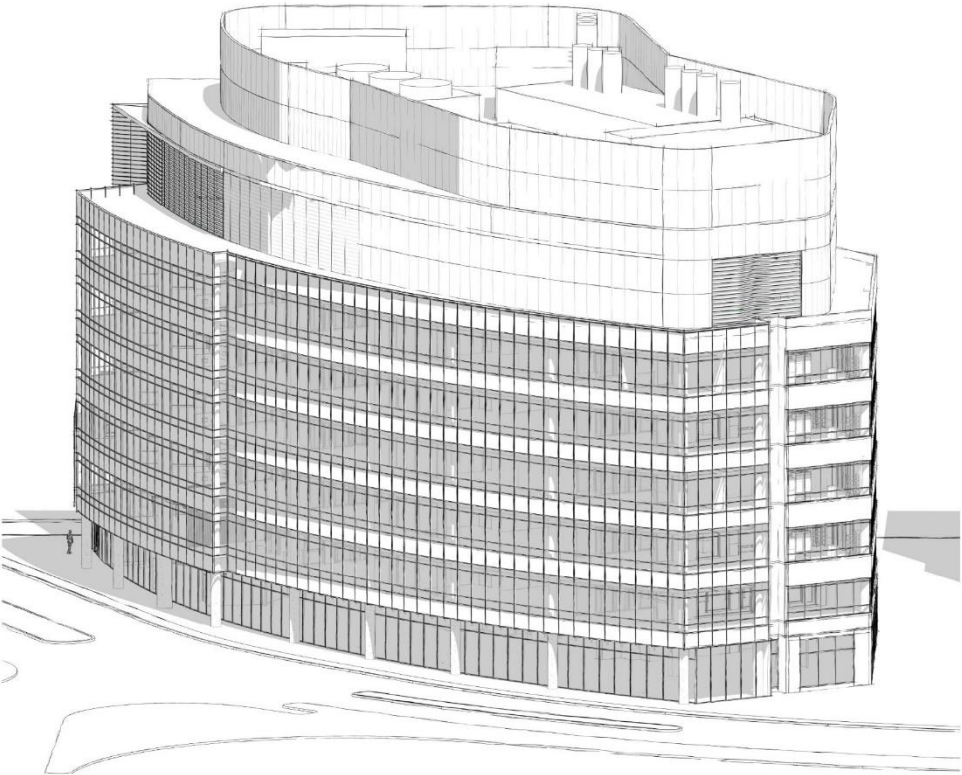


MECHANICAL SCREENED ROOF PLAN



300 BINNEY STREET- BIRD'S EYE VIEWS

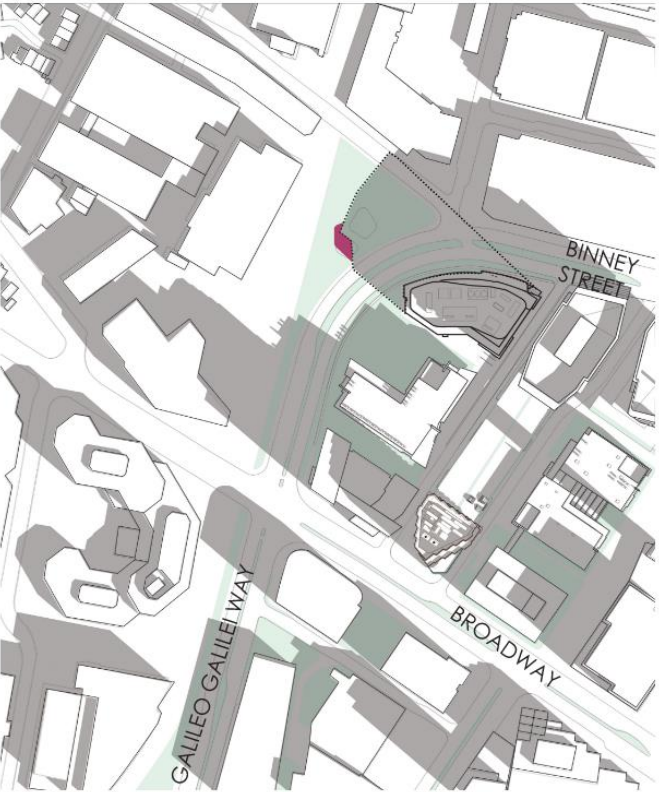
DESIGN COMMITTEE PRESENTATION 10/13/22:
SCREEN WALL=20'



SHADOW STUDY - EQUINOX

MARCH 21 AND SEPTEMBER 21 (EST)

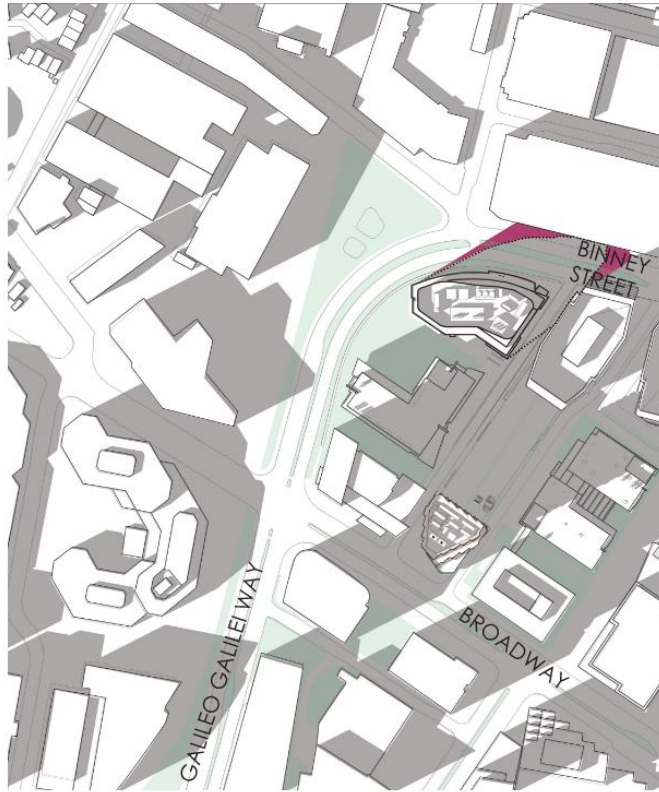
March 21 and September 21 are the Spring and Fall equinoxes, respectively on which Cambridge experiences roughly equal length day and night.



MAR/SEP 9 AM



MAR/SEP 12 PM



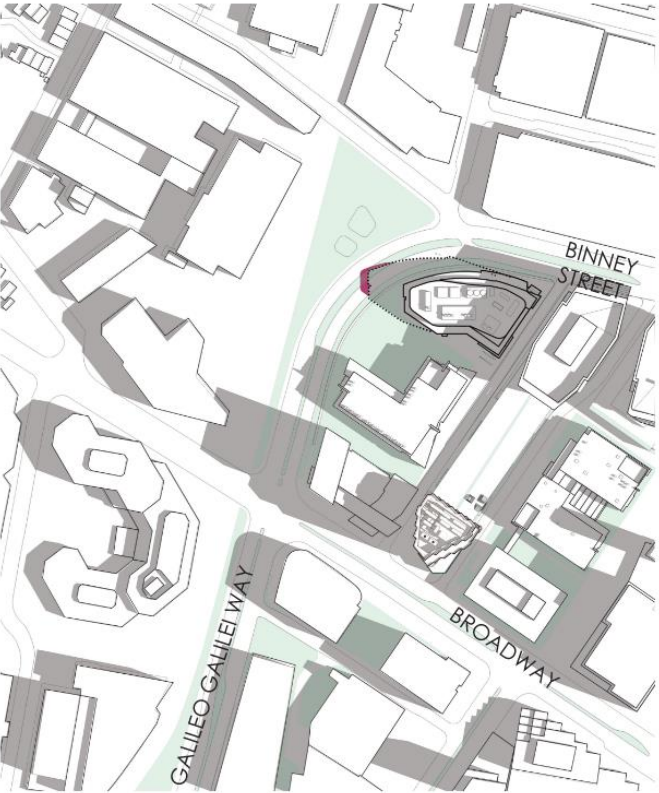
MAR/SEP 3 PM

KEY

- EXISTING BINNEY SHADOW
- NEW BINNEY SHADOW
- SURROUNDING BUILDING SHADOW

SHADOW STUDY – SUMMER SOLSTICE

JUNE 21



JUN 9 AM



JUN 12 PM



JUN 3 PM

KEY

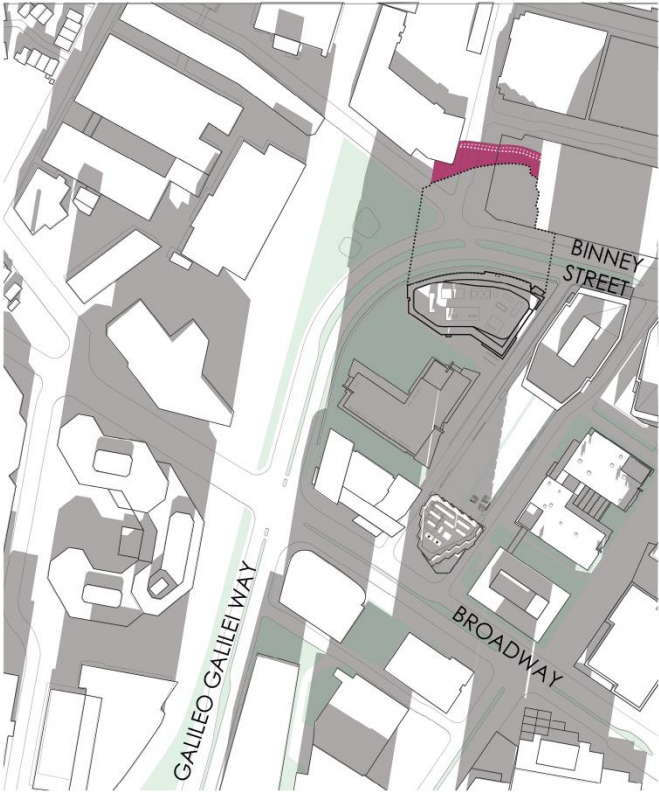
- EXISTING BINNEY SHADOW
- NEW BINNEY SHADOW
- SURROUNDING BUILDING SHADOW

SHADOW STUDY – WINTER SOLSTICE

DECEMBER 21



DEC 9 AM



DEC 12 PM



DEC 3 PM

KEY

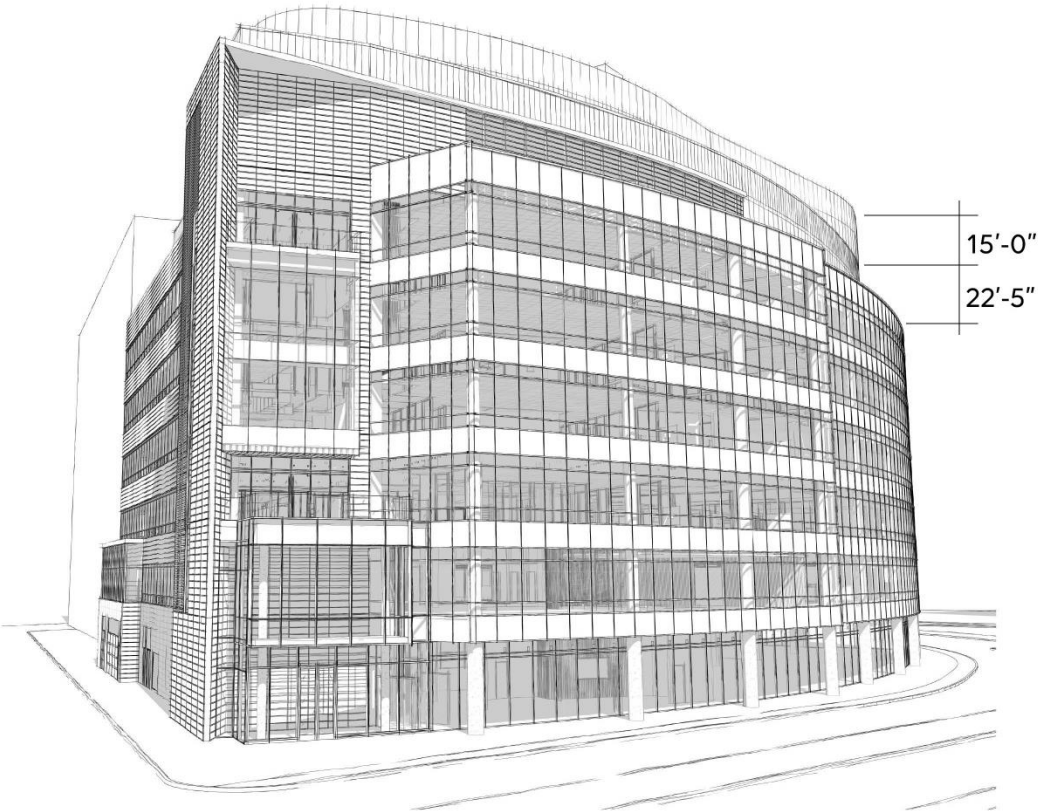
- ⋯ EXISTING BINNEY SHADOW
- NEW BINNEY SHADOW
- SURROUNDING BUILDING SHADOW
- ⋯ SHADOW – 15' SCREEN WALL
- ⋯ SHADOW – 18' SCREEN WALL

300 BINNEY ENTRY VIEWS

EXISTING VS PROPOSED MASSING OF PENTHOUSE
LOWER SCREEN HEIGHTS



EXISTING



PROPOSED 15' ROOF SCREEN



ALTERNATE 18' ROOF SCREEN

300 BINNEY ENTRY VIEWS

EXISTING VS PROPOSED MASSING OF PENTHOUSE
LOWER SCREEN HEIGHTS



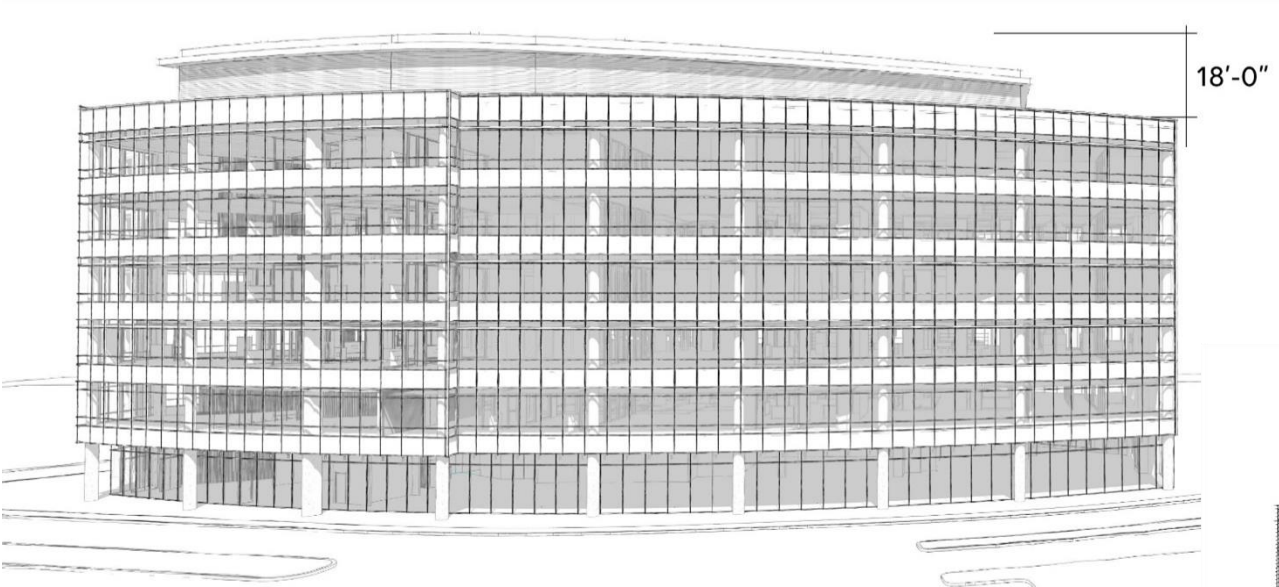
EXISTING



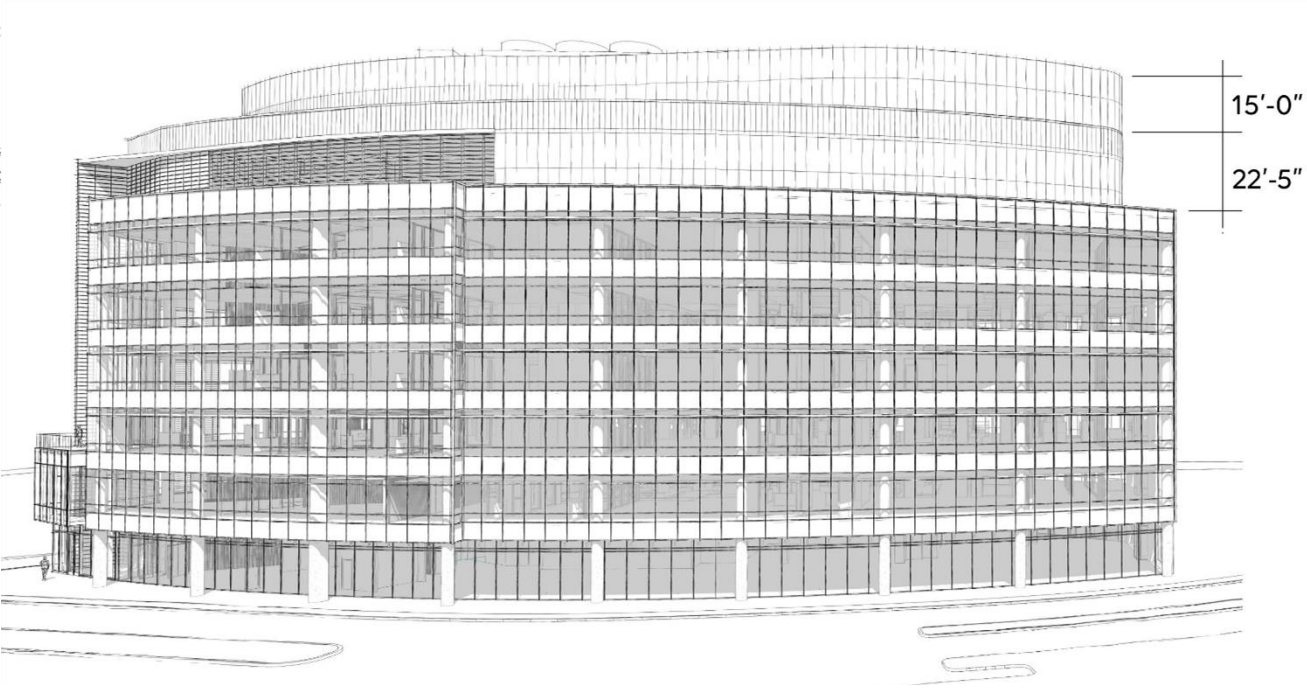
PROPOSED 15' ROOF SCREEN



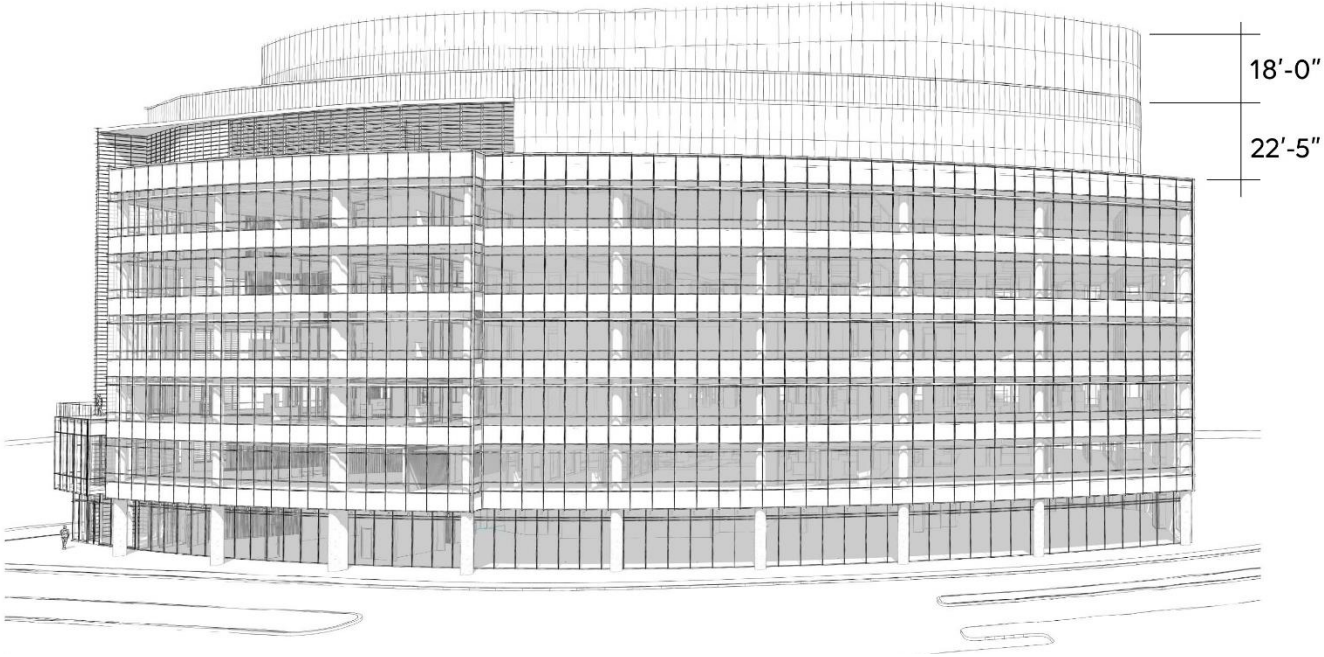
ALTERNATE 18' ROOF SCREEN



EXISTING



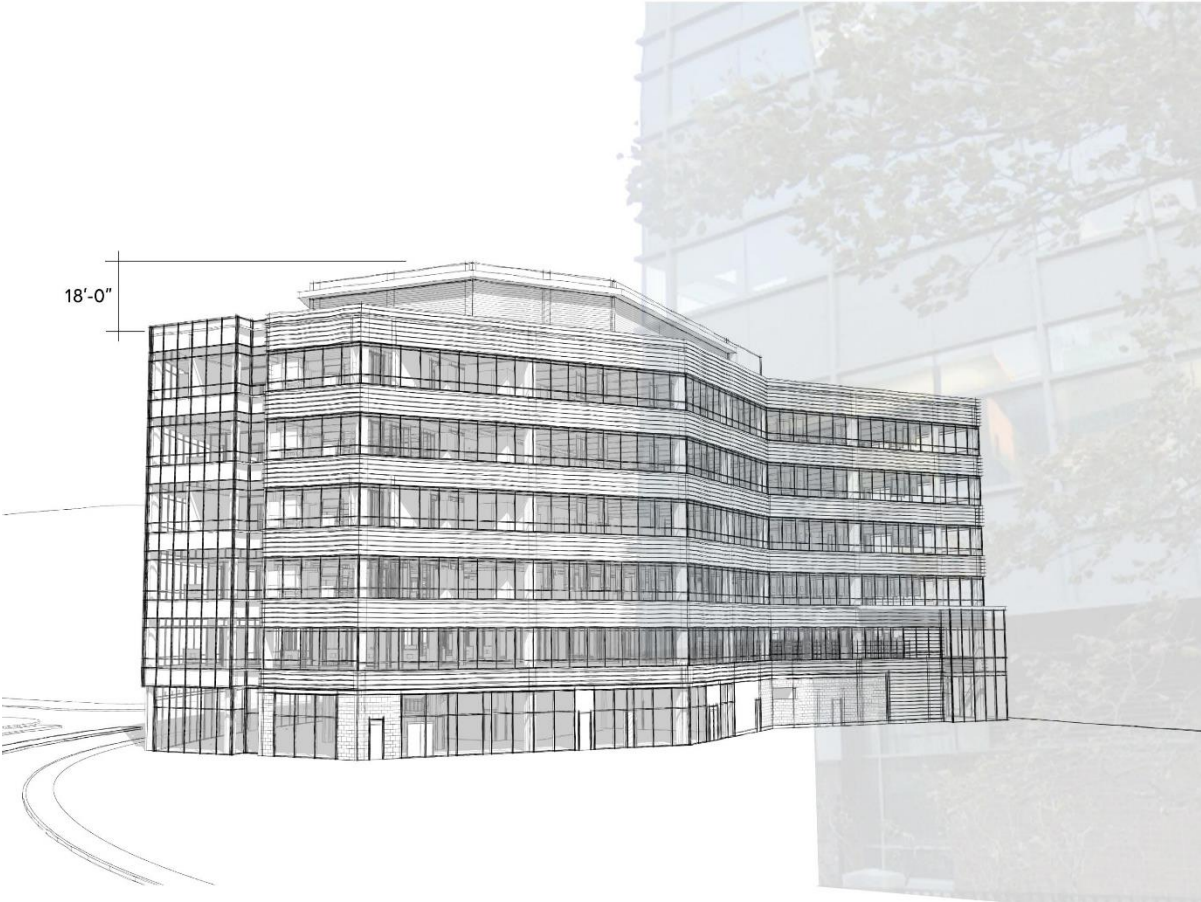
PROPOSED 15' ROOF SCREEN



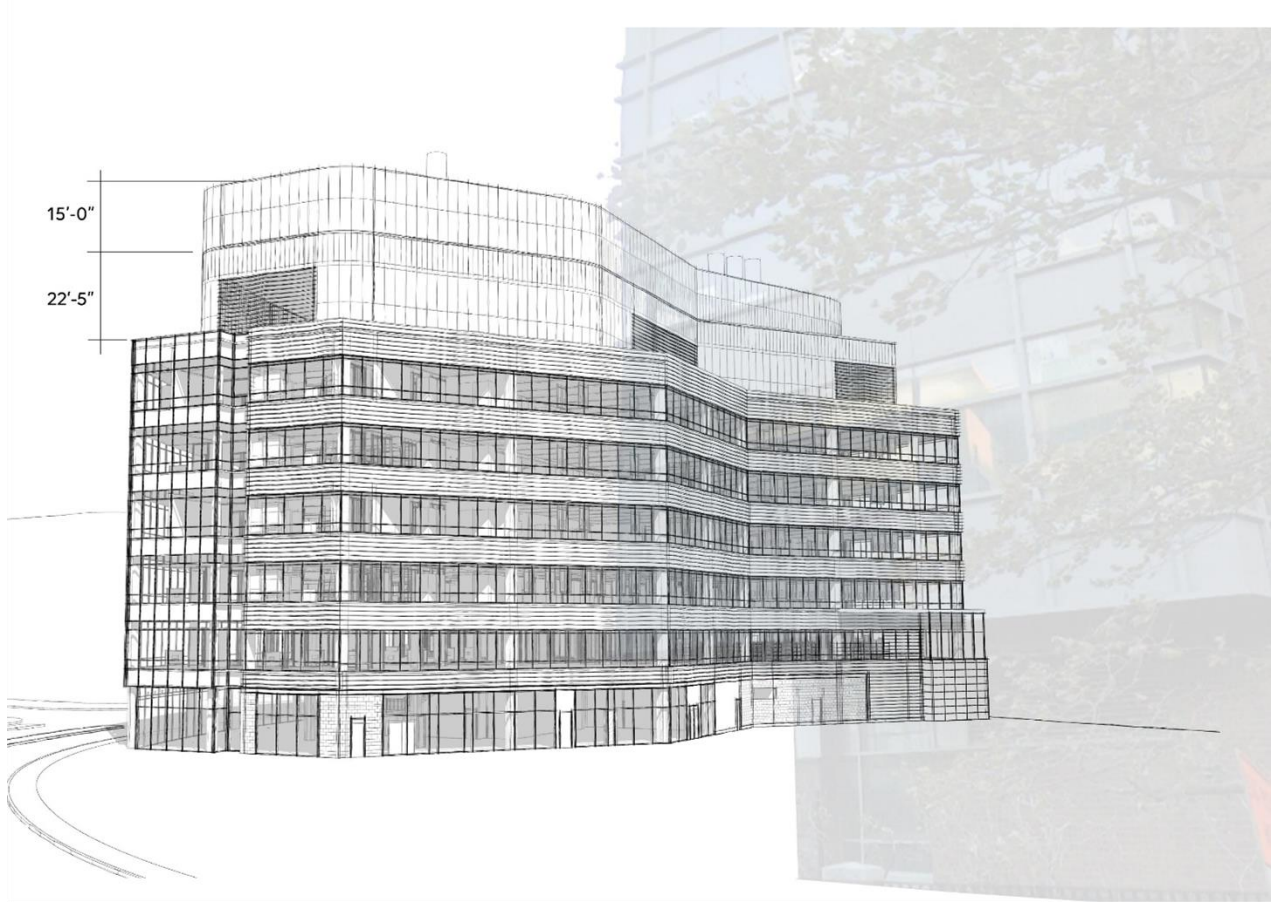
ALTERNATE 18' ROOF SCREEN

300 BINNEY SOUTH VIEW

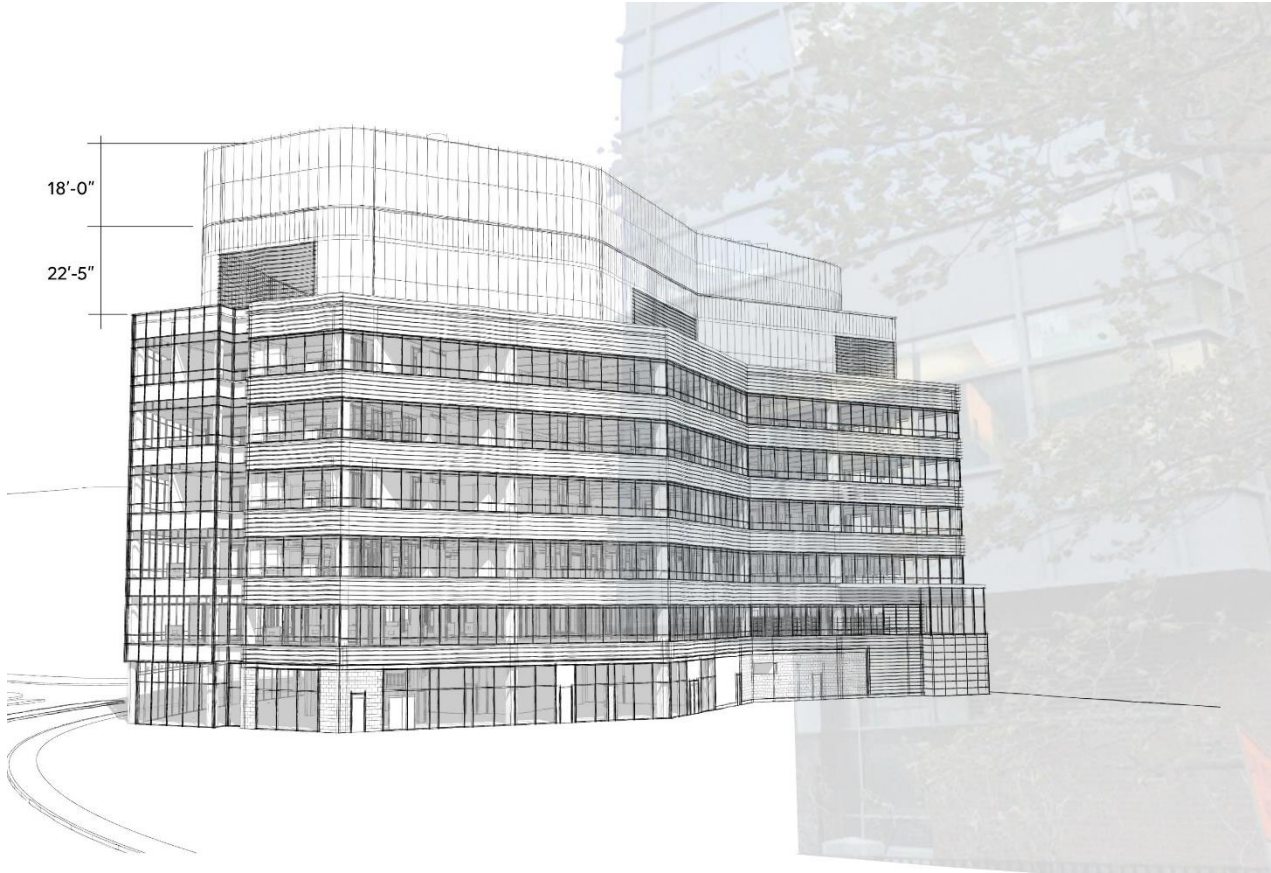
EXISTING VS PROPOSED MASSING OF PENTHOUSE
LOWER SCREEN HEIGHTS



EXISTING



PROPOSED 15' ROOF SCREEN



ALTERNATE 18' ROOF SCREEN

300 BINNEY STREET- NORTHEAST CORNER VIEW



EXISTING CONDITION



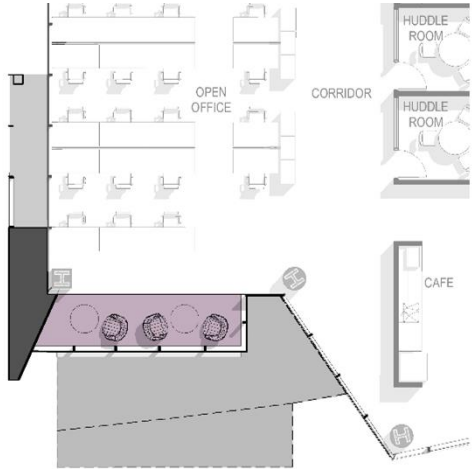
300 BINNEY STREET- NORTH VIEW



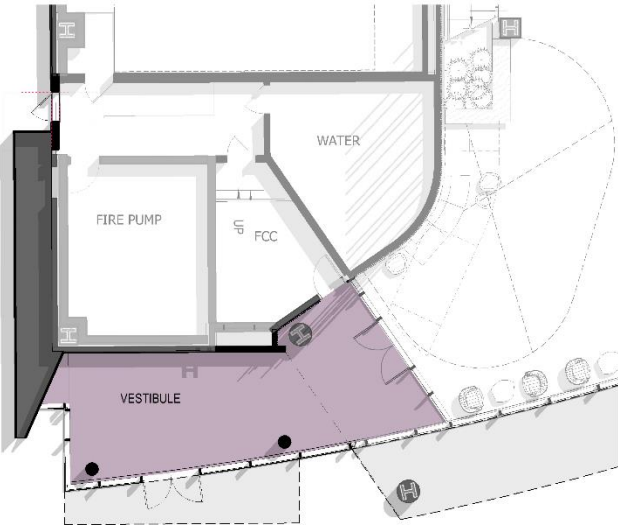
EXISTING CONDITION



300 BINNEY PROPOSED NORTHEAST CORNER- PREFERRED



LEVEL 4

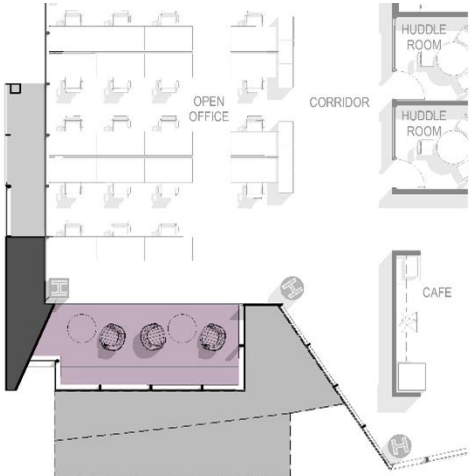


LEVEL 1

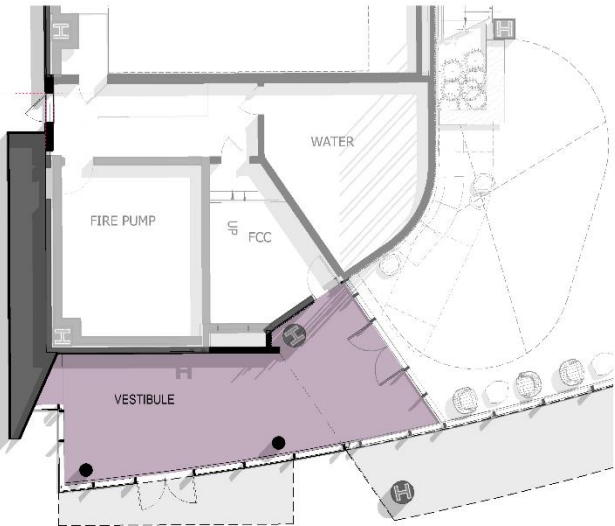


NE ENTRY

300 BINNEY ALTERNATE CONSIDERED (NOT PREFERRED)



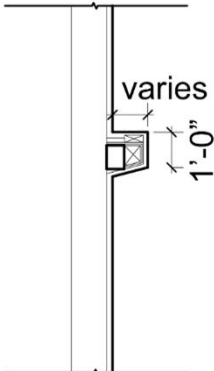
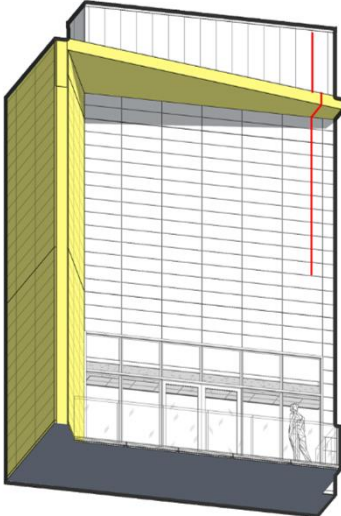
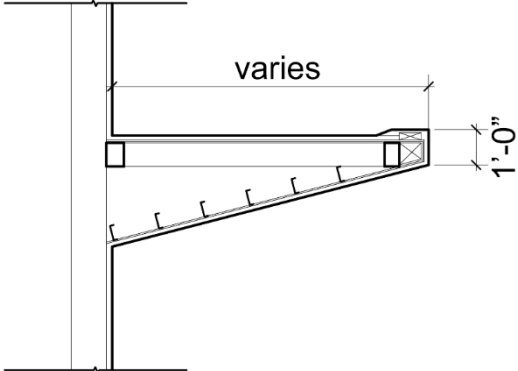
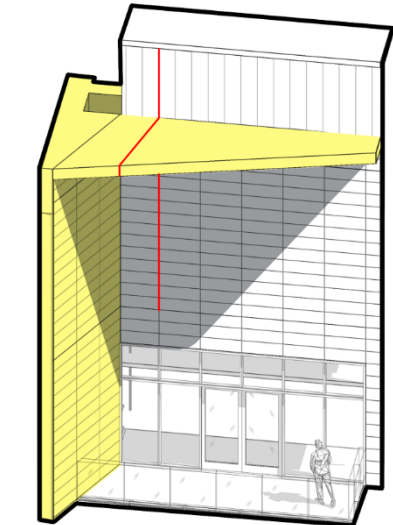
LEVEL 4

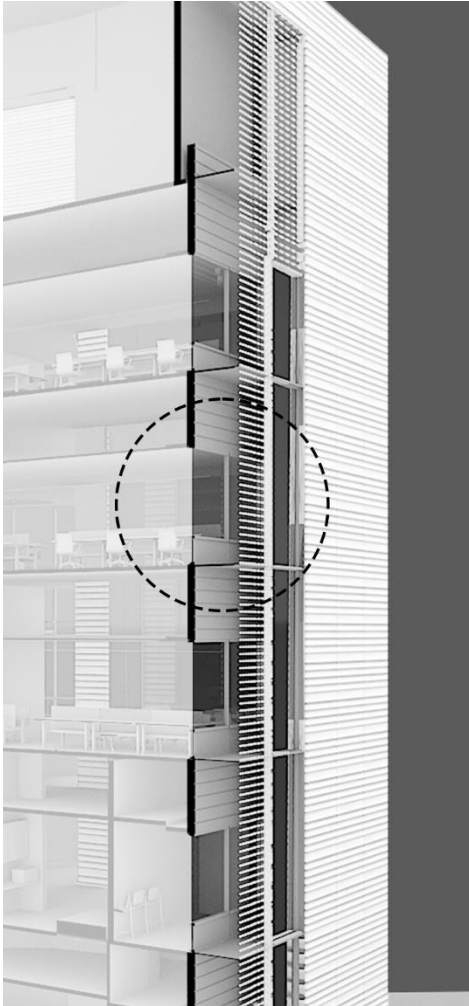


LEVEL 1



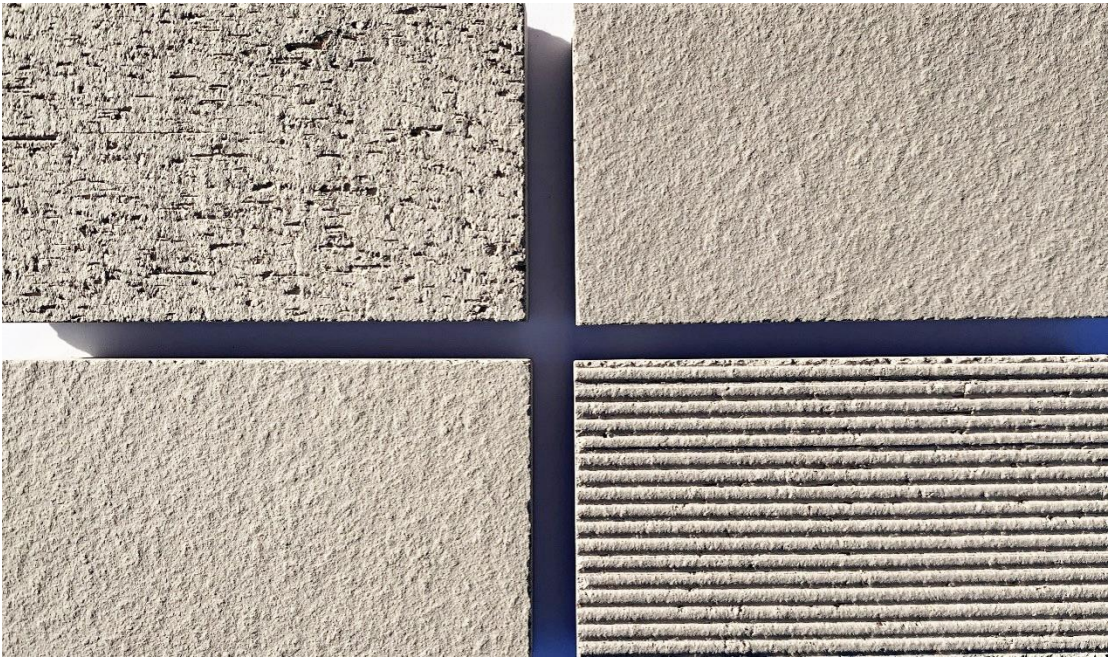
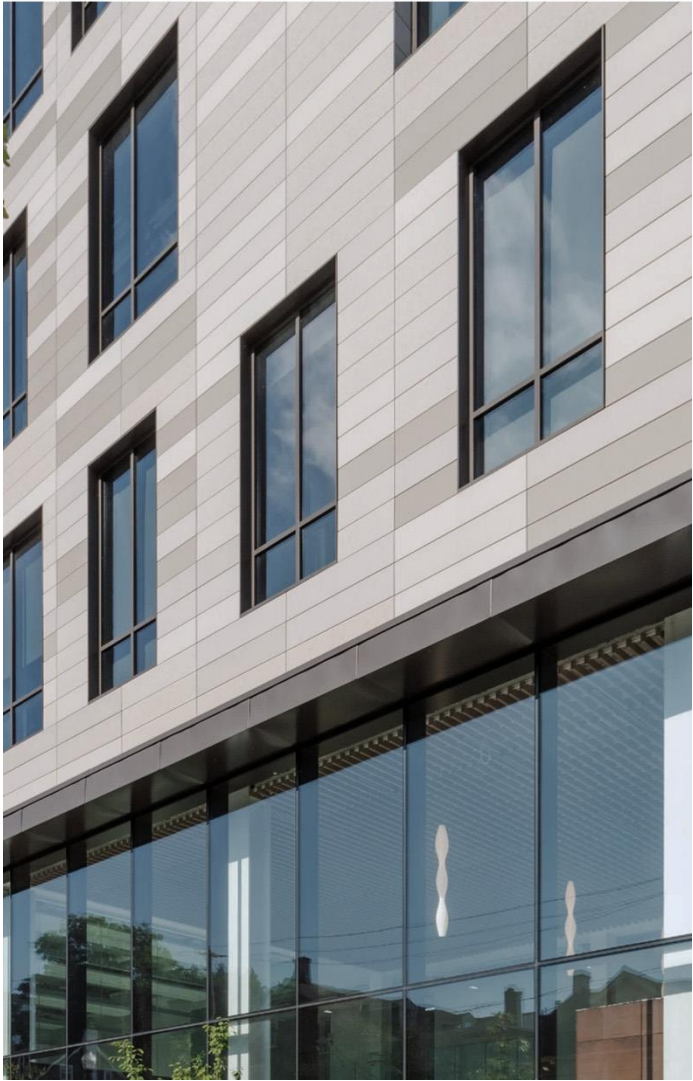
NE ENTRY





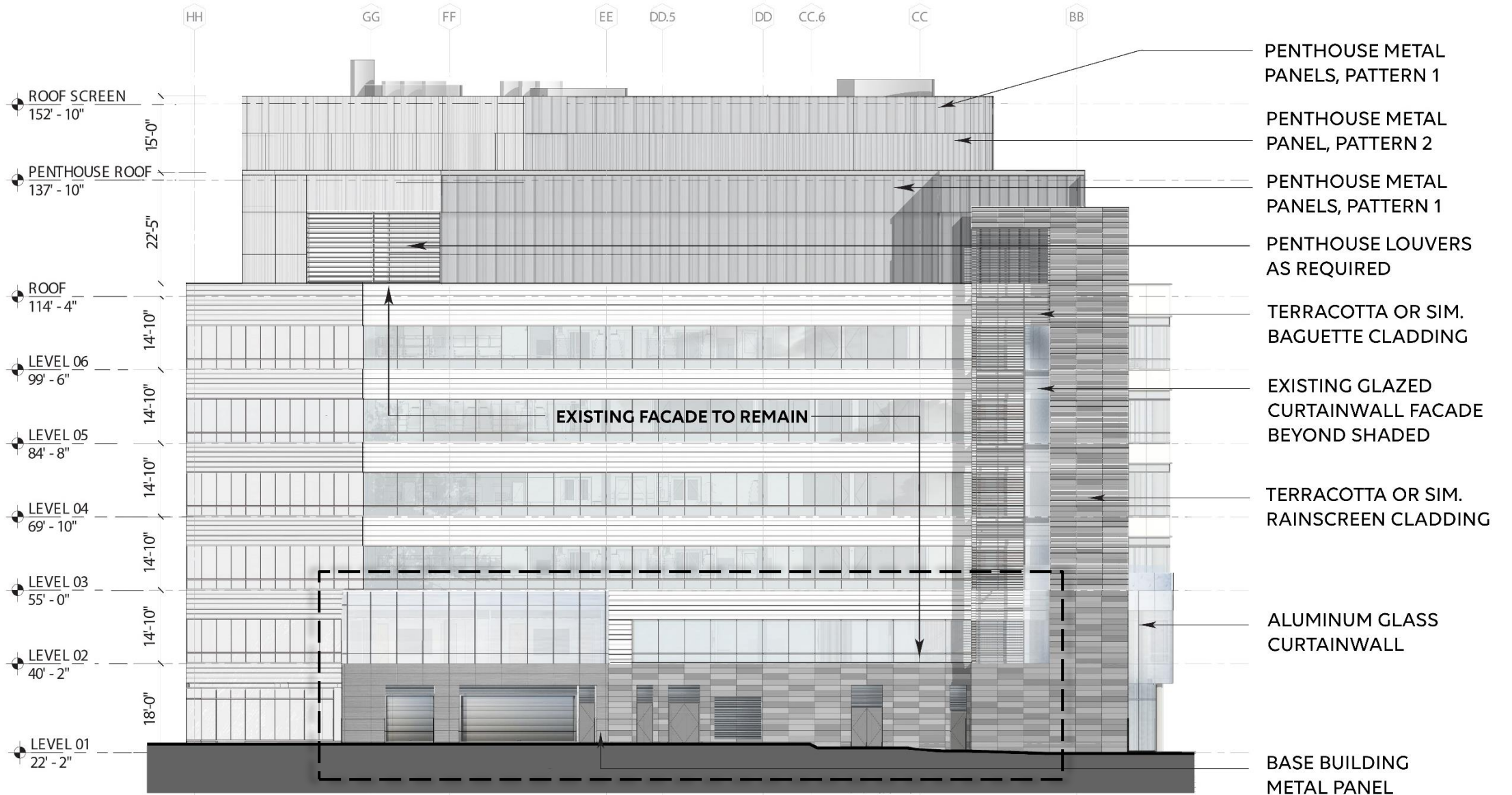


TERRACOTTA COLOR AND SAMPLE

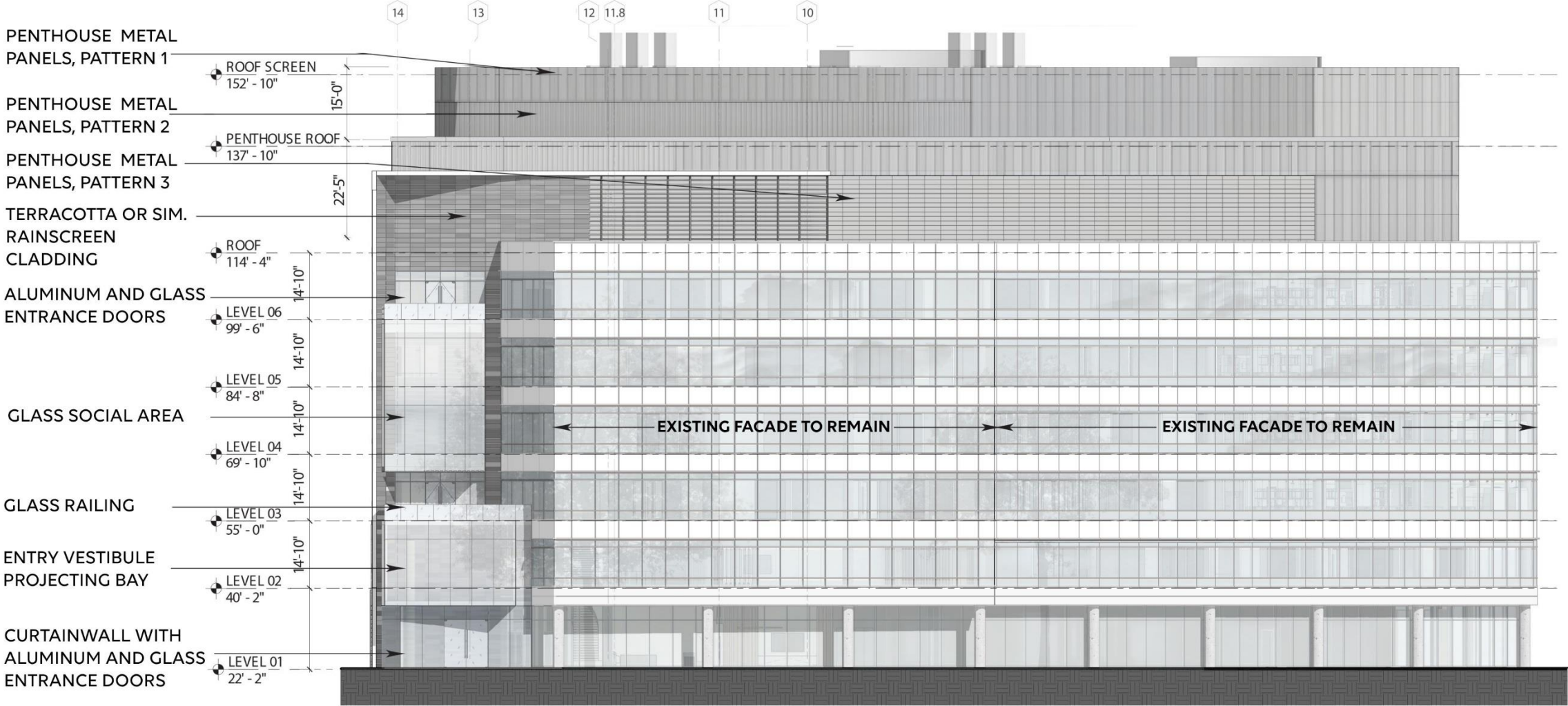


300 BINNEY EAST ELEVATION

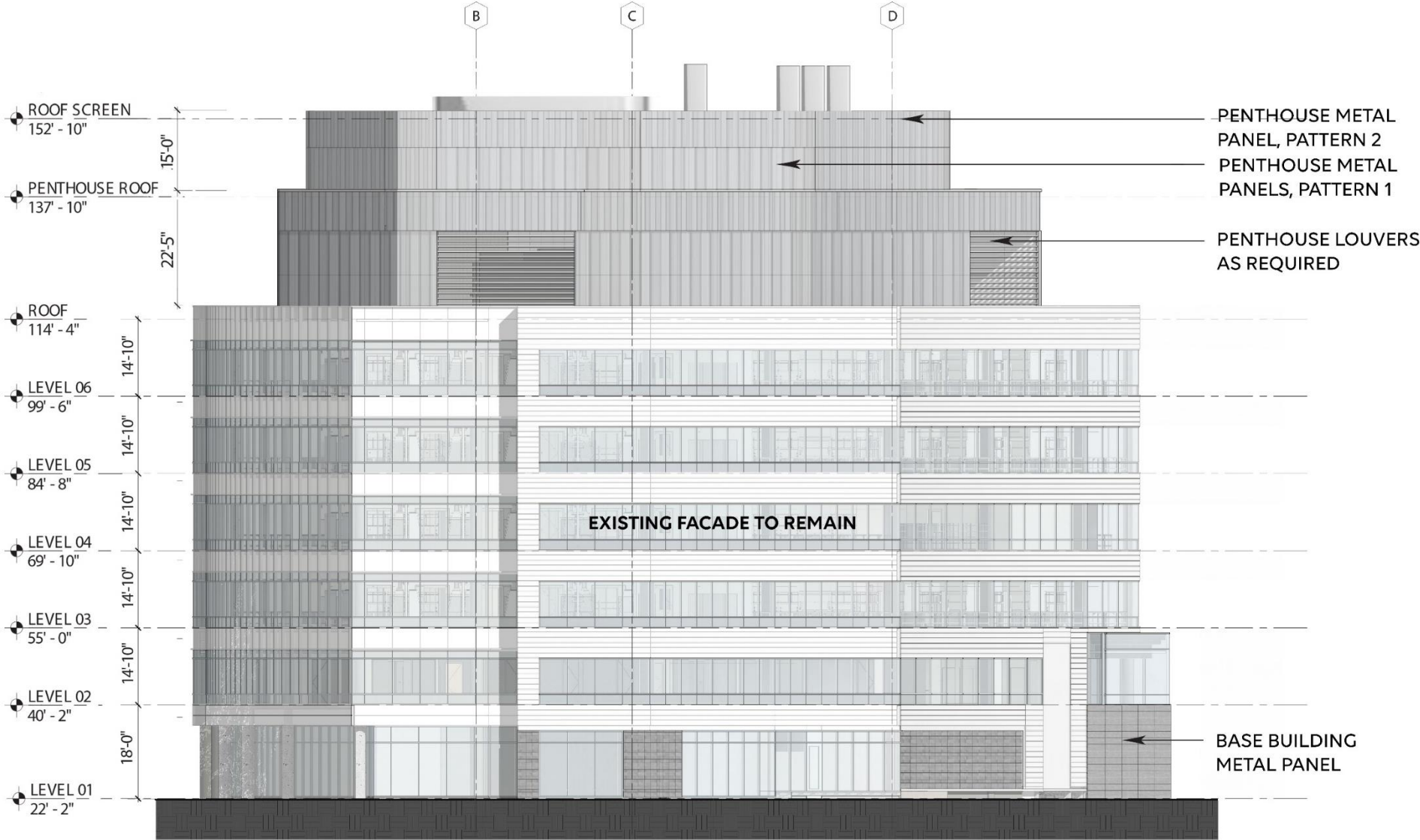
PUNCHED OPENINGS AT FIRST FLOOR TERRACOTTA SCREEN



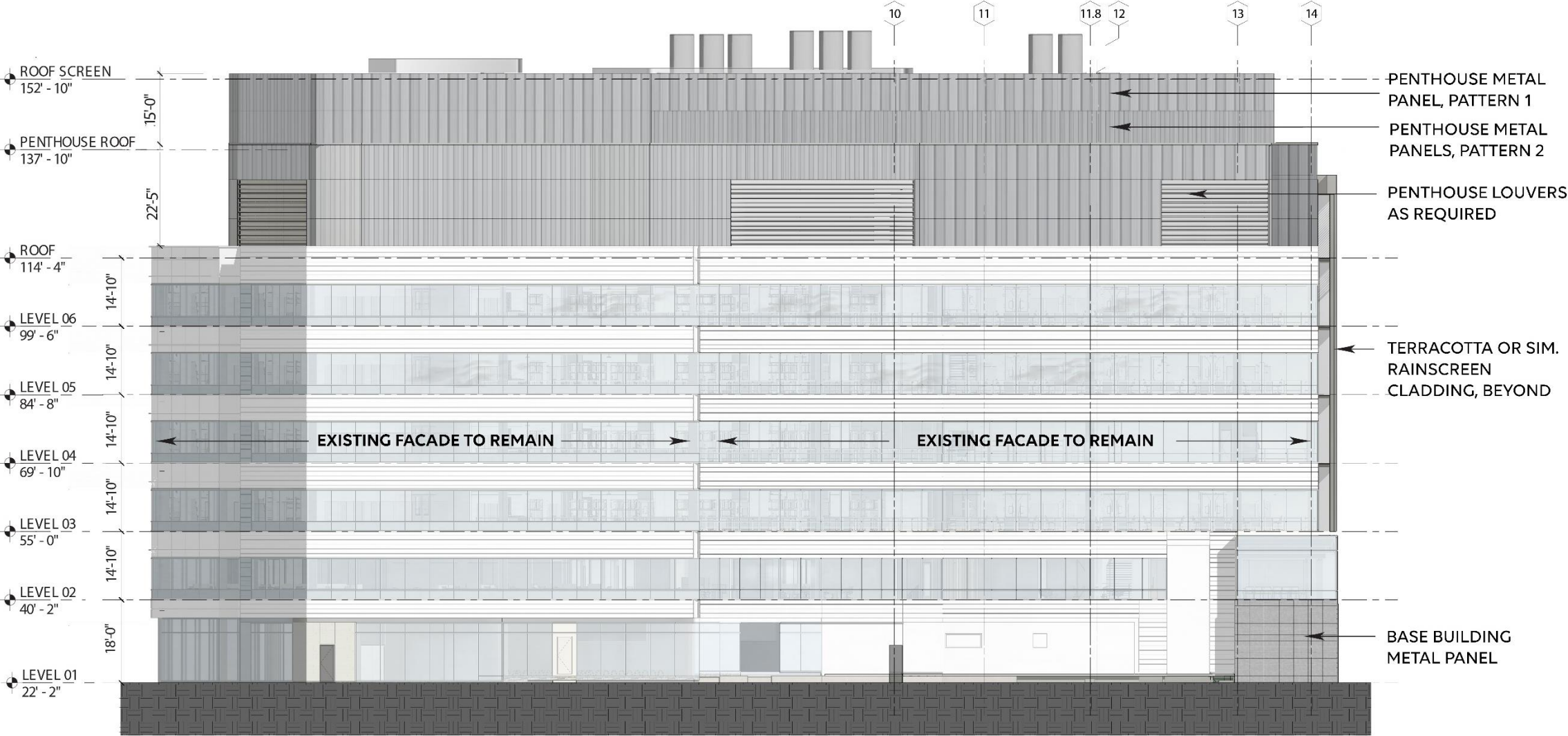
300 BINNEY NORTH ELEVATION



300 BINNEY WEST ELEVATION



300 BINNEY SOUTH ELEVATION

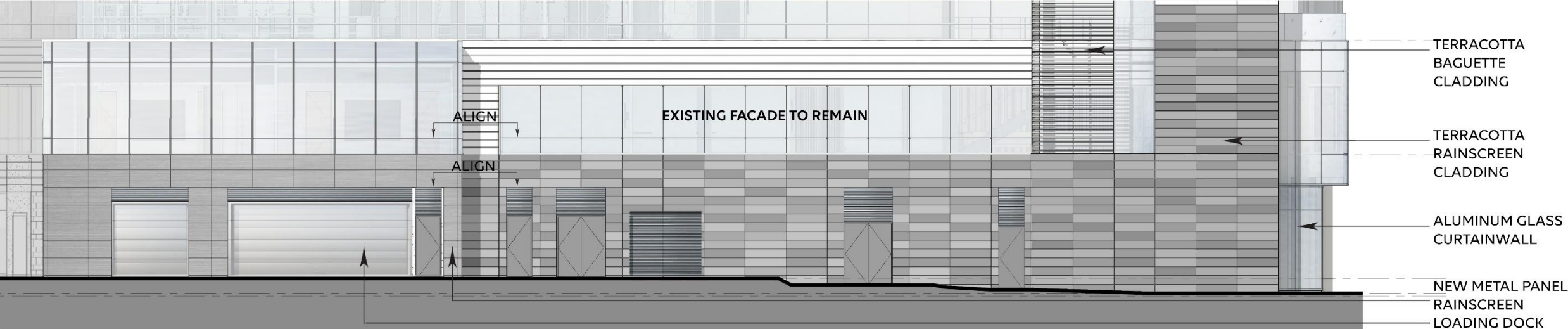




EXISTING



PUNCHED OPENING WITH METAL SURROUND



PROPOSED

300 BINNEY – SOUTH ELEVATION



EXISTING



- ← EXISTING PRECAST PANELS
- ← EXISTING CURTAIN WALL
- ← NEW CONNECTOR INFILL
- ← NEW METAL PANEL RAINSCREEN

- ↑ NEW PH SYSTEM ENTRANCE
- ↑ NEW ALUM./GLASS STOREFRONT
- ↑ NEW BIKE ENTRANCE
- ↑ NEW BRIGHT HORIZON ENTRANCE
- ↑ NEW TRASH ENTRANCE

PROPOSED



EXHIBIT B

300 Binney Street

CRA Design Review Comments and Responses

Design Review Committee Meeting: October 13, 2022

Category	Comment	Response
General		
Loading Dock Usage	Request frequency/utilization data; compare to 75 Ames i.e. size of trucks/ percentage of truck sizes.	- Dock hours: 8am to 4pm (in line with our other lab buildings). - Estimate 12-15 deliveries each day. - Average truck size = 26'. Occasional tractor trailers but frequency very limited; team has modeled both SU-30 and SU-40 trucks
GFA Calc	Confirm GFA of Proposed building	Existing building GFA = 188,079 sf Proposed building GFA = 173,440 (final GFA will be calculated based on final plans at building permit submission)
Next Mtg	Project referred to CRA Board - next available Board Meeting is November 16	Submission required by Nov 9th ahead of CRA Board Meeting
Utility Conversion	Status of conversion from BioGen to Vicinity and Eversource	BXP working with Eversource (electrical) and Vicinity (steam) to convert connections from Biogen's Co-Gen plant; timing is scheduled to occur during building construction and be completed prior to Broad's occupancy
Landscape/Site		
Tree Transplanting Scope	Clarify intent/scope of tree planting and opportunity to transplant - tree inventory	Per a site inspection by Sasaki, the size and conditions of existing trees were verified. An existing and proposed tree inventory and tree mitigation calculation has been included in the CRA Board submission.
Landscape/Hardscape Plan in Context of MXD	More info on adjacent lots/pathways; show 300B scope in context of larger development	The CRA Board re-submission includes a smaller scale landscape context plan.
Bike Parking Quantity/Ratio	Clarify bike parking required counts and provided spaces.	<p>Long Term Spaces: The new secured Bike Room has capacity for 48 bike spaces. Per article 6.100 of the zoning code, the number of required bike spaces is 48 spaces, calculated as follows:</p> <p>Zoning Requirements per Article 6.1 12,000 GFA : Bright Horizons - .3 bike spaces per classroom x 6 classrooms = 2 spaces 176,000 GFA : Broad 60/40 lab/office split 105,600 (60% lab) - N2 (technical office / research facility) .22 per 1000 sqft = 24 spaces 70,400 (40% office) - N1 (office) .3 per 1000 sqft = 22 spaces TOTAL required = 48</p> <p>Short Term Spaces: We currently show 12 new bike spaces at the front entrance to the lab/office space near Binney Street and 12 new bike spaces near the entrance to Bright Horizons. Per article 6.1 of the zoning code we believe the project requires 11 spaces for the day care use and 11 spaces for the lab/office use. See below:</p> <p>Zoning Requirements per Article 6.1 12,000 GFA: Bright Horizons - 1.7 bike spaces per classroom x 6 classrooms = 11 spaces 176,000 GFA: Broad 60/40 lab/office split 105,600 (60% lab) - N5 (laboratories and research facilities) 0.06 per 1000 sqft = 6.3 70,400 (40% office) - N5 (professional and technical offices) 0.06 per 1000 sqft = 4.2 TOTAL required = 22</p>

300 Binney Street

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Design Review Committee Meeting: October 13, 2022

Category	Comment	Response
Exterior Improvements		
Penthouse Massing	Show the existing vs. proposed massing of penthouse together. The currently shown height of the screen wall is 20'. Study different heights of the proposed screen wall. Goal would be to obscure mech equipment case, no need to obscure stacks	The CRA Board Submission includes perspective views with screen wall heights at 20', 18' and 15'; we are finalizing specific mechanical equipment, exhaust stacks and generator flues and how each may or may not be visible in the perspective views provided. Final presentation materials for these views will be finalized for the Board presentation on Nov 16th
Shadow Study	Compare to existing building and 290 shadow. Confirm highest piece of equipment	The CRA Board Submission includes Shadow Studies. The base modeling assumes a 20' screen wall and hence is conservative if screen wall is reduced. The Dec shadow study includes a representation of reduced views with screen wall at 18' and 15' heights.
Back of Terra Cotta Screen	Consider appearance of terra cotta screen from inside the building.	Page 44 of the CRA Board Submission provide an example of the views out should terra cotta baguettes.
Terra Cotta Color	What is color of terra cotta?	The CRA Board Submission includes representative color samples. Specific samples can be provided prior to final procurement
Terra Cotta Baguette Details	What is detail around terra cotta baguette. Show drawn details and material sample	The CRA Board Submission includes some initial details and reference images on baguette detail
Punched Opening at 1st Floor Terra Cotta	Study design coordination with adjacent loading dock façade. Elaborate on design/detail intent.	The CRA Board Submission includes an enlarged East Elevation showing terra cotta openings on the ground floor
Cap Design/ Cornice Design	Study "pinch" of cap and screen Provide rationale of the cornice extent/depth	The CRA Board Submission includes further detail on the cornice cap and its integration into the mechanical penthouse
Glass Bay Window	Describe the relationship between the upper level glass boxes added and the adjacent wall on the east side	The CRA Board Submission includes further detail on the glass bump out and an alternative studied that pulls out the glass from the east wall.
Exterior Lighting/	Describe exterior lighting strategy; minimize light pollution from NE corner and potential signage No large scale signage intended by Broad, lighting will be accent rather than beacon. Additional studies will be developed.	Lighting of the new lobby and vestibule will be primarily interior lit Exterior lighting will be limited and designed to minimize any light spill Signage is generally planned as follows (a separate signage submission will be made at a future date): ** an exterior building sign ** signage at main lobby entrance ** signage within the main lobby
Exterior Wall at South	Study wall between Bright Horizons and Loading Dock - even if blank/utilitarian, consider surface treatment Action: Design of surface treatment will be studied.	The CRA Board Submission includes an enlarged South Elevation showing improvements to this façade to account for new daycare entrance and other associated program elements
South Corner - Gas Tanks	Consider visual enclosure at gas tanks	Proposed tanks are gaseous science gasses and are planned for areas inside the Loading Dock