

 Boston Properties

Pelli Clarke Pelli Architects

ARROWSTREET

OJB | THE OFFICE OF
JAMES BURNETT
LANDSCAPE ARCHITECTURE

MAGNUSSON
KLEMENCIC
ASSOCIATES

 **WSP** | **PARSONS
BRINCKERHOFF**


McNAMARA · SALVIA

BRIA

AHA
CONSULTING
ENGINEERS


vhb

ARUP

**HALEY
ALDRICH**


RWDI
CONSULTING ENGINEERS
& SCIENTISTS


JENSEN HUGHES

 **Nutter**

THE BACK BAY / SOUTH END GATEWAY PROJECT

BOSTON, MASSACHUSETTS

MAY 18, 2016

SOUTH END PUBLIC MEETING



AGENDA

- Article 80 + Entitlement Process Overview
- Team Introductions + Project History
- Project Vision And Neighborhood Context
- *Back Bay Station Renovation*
- Back Bay / South End Gateway Project
 - Architecture
 - Landscape / Streetscape Improvements
 - Traffic & Parking
 - Wind & Shadow
 - Sustainability
- Q&A

PROJECT STATUS

- Key Dates
 - PNF Filing • March 29th
 - ENF Filing • April 15th
 - City Scoping Session • May 11th
 - Back Bay Public Meeting • May 11th
 - MEPA Public Meeting • May 18th
 - **South End Public Meeting • May 18th**
 - MEPA Public Comment Period Ends • May 31st
 - BCDC Meeting • June 7th
 - PNF Public Comment Period Ends • June 17th

PROJECT PROCESS

- Article 80 Review
 - PNF
 - DPIR (Draft Project Impact Report)
 - FPIR (Final Project Impact Report)
- MEPA Review (Concurrent)
 - ENF
 - DEIR (Draft Environmental Impact Report)
 - FPIR (Final Environmental Impact Report)
- PDA #2 (Planned Development Area)
 - Existing PDA Encompasses Garage Sites + Existing Building
 - Will Be Amended To Include Station Sites + Related Elements

INTRODUCTION





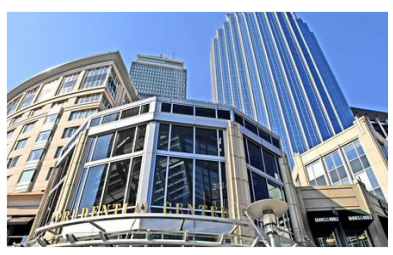
PRUDENTIAL TOWER



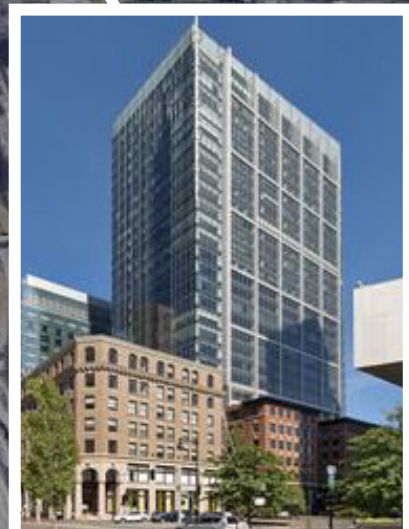
**THE HUB ON CAUSEWAY
(UNDER DEVELOPMENT)**



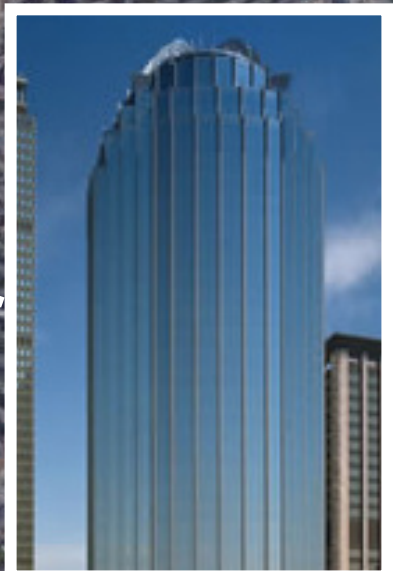
**888 BOYLSTON
(UNDER DEVELOPMENT)**



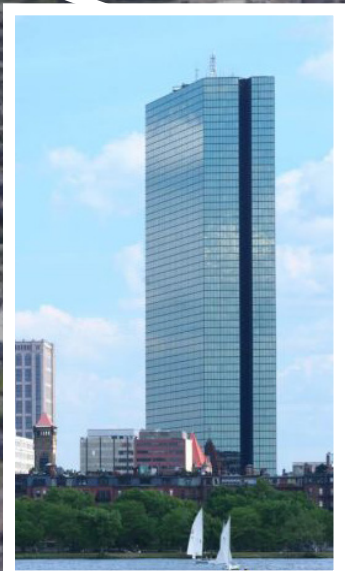
PRUDENTIAL CENTER



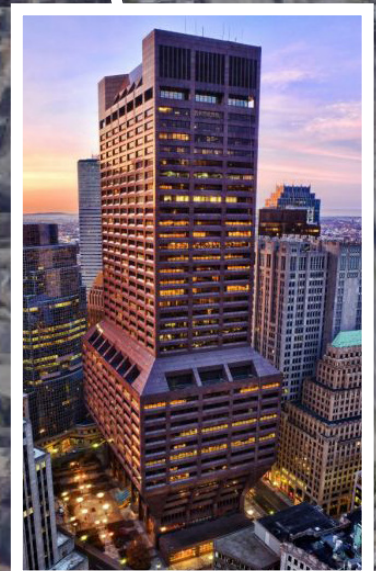
ATLANTIC WHARF



111 HUNTINGTON



200 CLARENDON



100 FEDERAL STREET

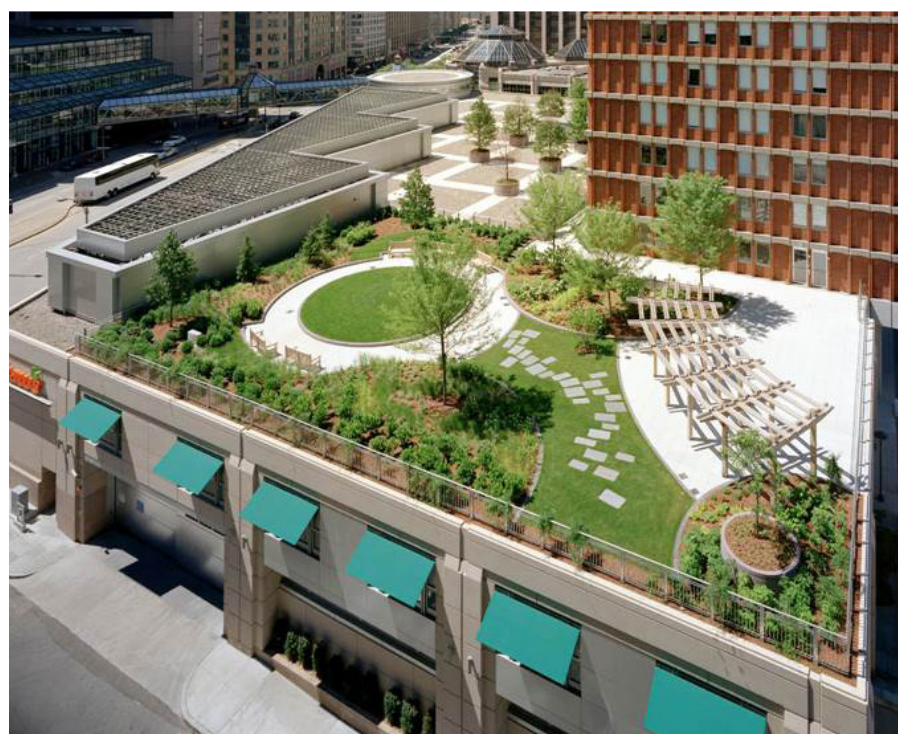
BOSTON PROPERTIES ASSETS



SAKS



LORD & TAYLOR



STAR MARKET



PRU CENTER ENTRANCE

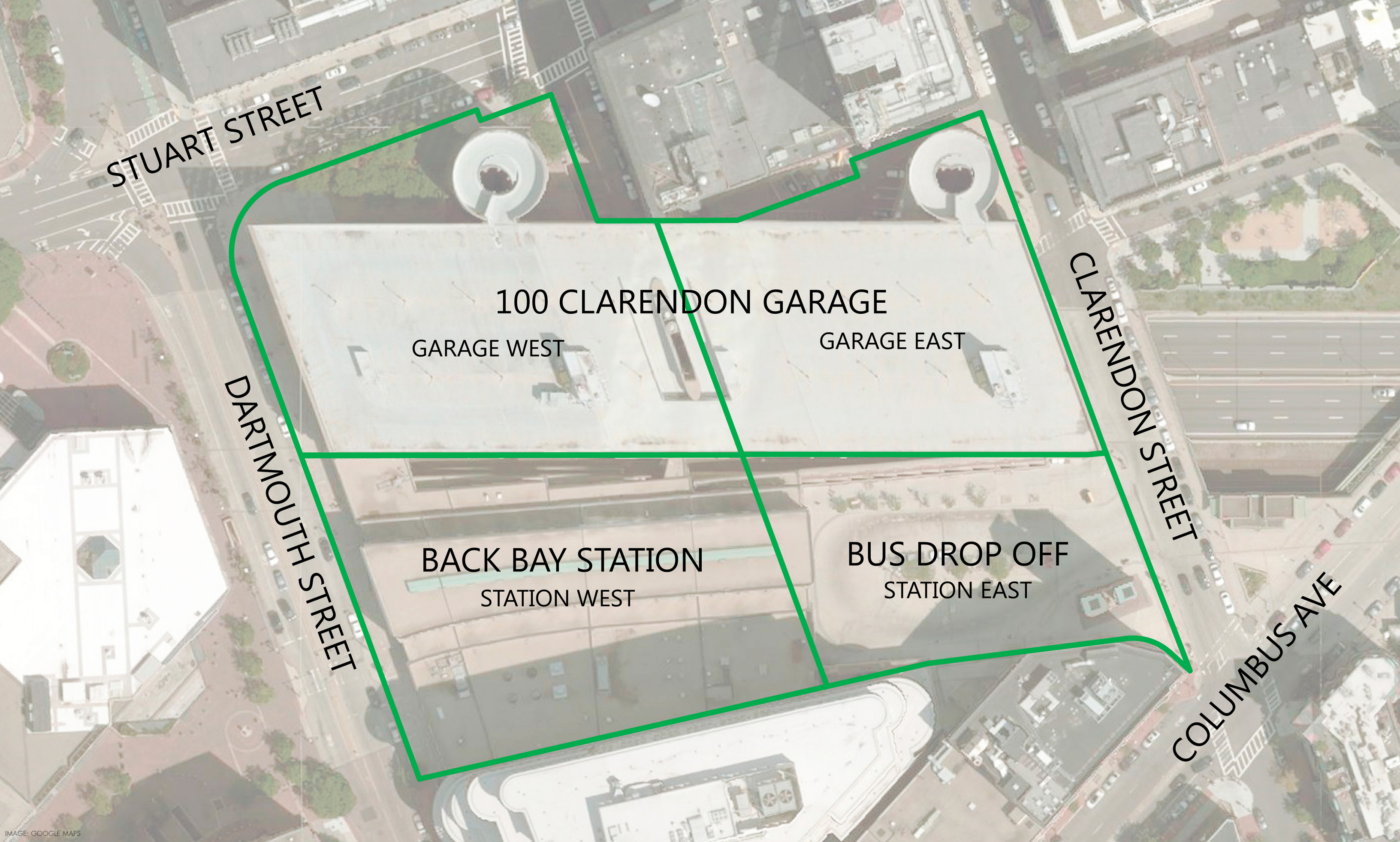


PROJECT HISTORY

- Lease Between MassDOT And Boston Properties
- Redevelopment Opportunity At The Garage
- MBTA Needed Funding For Station Renovation And Operational Assistance
- Successful **Public-Private Partnership** Was Formed:
 - BP To Fund And Execute An Extensive Concourse Renovation
 - BP To Contribute To MBTA-Led Track Level Ventilation Repair, And MBTA To Match
 - BP Assumed Property Management Responsibility Of Concourse On August 1st, 2015
- Additional Redevelopment Opportunity At The Station
- On-Ramp Closure Being Considered As A Separate Project



IMAGE: GOOGLE MAPS



STUART STREET

CLARENDON STREET

COLUMBUS AVE

DARTMOUTH STREET

100 CLARENDON GARAGE

GARAGE WEST

GARAGE EAST

BACK BAY STATION

STATION WEST

BUS DROP OFF

STATION EAST

IMAGE: GOOGLE MAPS

CONCEPTUAL DIVISION OF THE CONSOLIDATED SITE INTO 4 AREAS

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An architectural rendering of a modern urban development. The scene features several tall, glass-clad skyscrapers with some greenery integrated into their facades. In the foreground, a large, open pedestrian plaza is filled with people walking and sitting at outdoor cafe tables with yellow umbrellas. A transit station with a prominent arched entrance is visible, labeled 'BACK BAY STATION'. To the right, a lower building is labeled 'SHOPS AT BACK BAY'. The overall atmosphere is bright and sunny, with a clear blue sky.

PUBLIC BENEFITS VISION AND NEIGHBORHOOD CONTEXT

PUBLIC BENEFITS

- Approximately \$16 Million In Real Estate Tax Revenues For Boston
- Approximately \$5,500,000 In Housing Linkage And \$1,100,000 In Job Linkage Payments
- Approximately 2,500 Construction Jobs And 3,400 Permanent Jobs
- New Quality Housing Opportunities, Including Affordable Housing
- New Accessible Connections To The Station, Increasing Neighborhood Connectivity And Public Safety
- Significant Public Realm Improvements, In Compliance With BTDC Complete Streets Guidelines, Activated By High Quality Street Frontage
- New And Diverse Retail Opportunities For Neighborhood Residents, Transit Customers And The Public At Large
- Innovative New Workplace Opportunities For A Variety Of Businesses

PROJECT VISION

- Opportunity To Reconsider The Entire Site Wholistically To Create A “Great Place”
- Centered Around Renovated And Upgraded Station
- Permeability Through Site And Increased Accessibility
- Connectivity Between Surrounding Neighborhoods
- Transformative, Transit-Oriented, Sustainable, Mixed-Use, And Phasable
- Respectful Of Stuart Street Zoning Regulations
 - Height, Density, Massing, Shadow, And Wind
- High Quality Architecture
- Lively And Welcoming Street Frontage And Public Realm
- Locate Office Residential And Retail Uses Thoughtfully
- Become A “Good Neighbor” and Worthy “Front Door” Into Boston



BASE SCHEME VIEW FROM SOUTHWEST CORRIDOR



BASE SCHEME VIEW FROM STUART AND DARTMOUTH STREETS



BASE SCHEME VIEW FROM COLUMBUS AVE



NORTH END
NEIGHBORHOOD

BOSTON HARBOR

FINANCIAL DISTRICT

DOWNTOWN
CROSSING

BEACON HILL
NEIGHBORHOOD

BOSTON COMMON

BOSTON PUBLIC GARDEN

BAY VILLAGE
NEIGHBORHOOD

MASS TURNPIKE

BACK BAY
NEIGHBORHOOD

200
CLARENDON

COPLEY
SQUARE

SITE

SOUTH END
NEIGHBORHOOD

PRUDENTIAL CENTER

THE ESPLANADE

COMMONWEALTH AVE

BACK BAY
NEIGHBORHOOD

BAY
VILLAGE
NEIGHBORHOOD

SITE

SOUTH END
NEIGHBORHOOD

BACK BAY

- Serves Approximately 30,000 Passengers Per Day
 - Orange Line
 - 4 Commuter Rail Lines
 - Amtrak
 - 9 Bus Lines Stop Near The Station
- “Front Door” Into Boston
- Important Civic Neighbor

BAY VILLAGE

LOCAL BUS ROUTES



CHICAGO

LAKE SHORE LIMITED

FRAMINGHAM/WORCESTER LINE

WESTERN SUBURBS

BACK BAY
SOUTH END
STATION

SOUTH
STATION

TO OAK GROVE
(INBOUND)

JP, ROXBURY

TO FOREST HILLS
(OUTBOUND)

NORTHEAST REGIONAL &
ACELA EXPRESS

NYC
DC

SOUTH END

PROVIDENCE/STOUGHTON LINE &
NEEDHAM LINE &
FRANKLIN LINE

SOUTH SHORE SUBURBS

MBTA ORANGE LINE
MBTA COMMUTER RAIL
AMTRAK

BACK BAY / SOUTH END STATION RENOVATION

- Separate From Air Rights Development; Different Permitting Process + Schedule
- Interior Renovation And Restoration
- Goals Of The Project Are:
 - Create A First-Class Transit Hub Of “Airport Quality”
 - Improve Customer Experience And Access
 - Generate Revenue To Support Station Operations
 - Allow MBTA To Focus On Train Operations, BP To Focus On Real Estate
- Schedule
 - 2015-2016: Initial Clean-Up
 - Working With MBTA On Design
 - 2016: Restrooms
 - 2017: Ventilation Project
 - 2017: Major Renovation

An architectural rendering of a proposed urban development. The central focus is a large, modern building with a glass and metal facade, featuring multiple levels of cantilevered balconies with greenery. To its right is a tall, slender skyscraper with a glass curtain wall. The ground floor of the central building is labeled 'SHOPS AT BACK BAY' and 'BACK BAY STATION'. The foreground shows a busy pedestrian plaza with many people, outdoor seating with yellow umbrellas, and a street with cars. The sky is blue with light clouds.

BACK BAY / SOUTH END STATION RENOVATION PROJECT

1899



1928



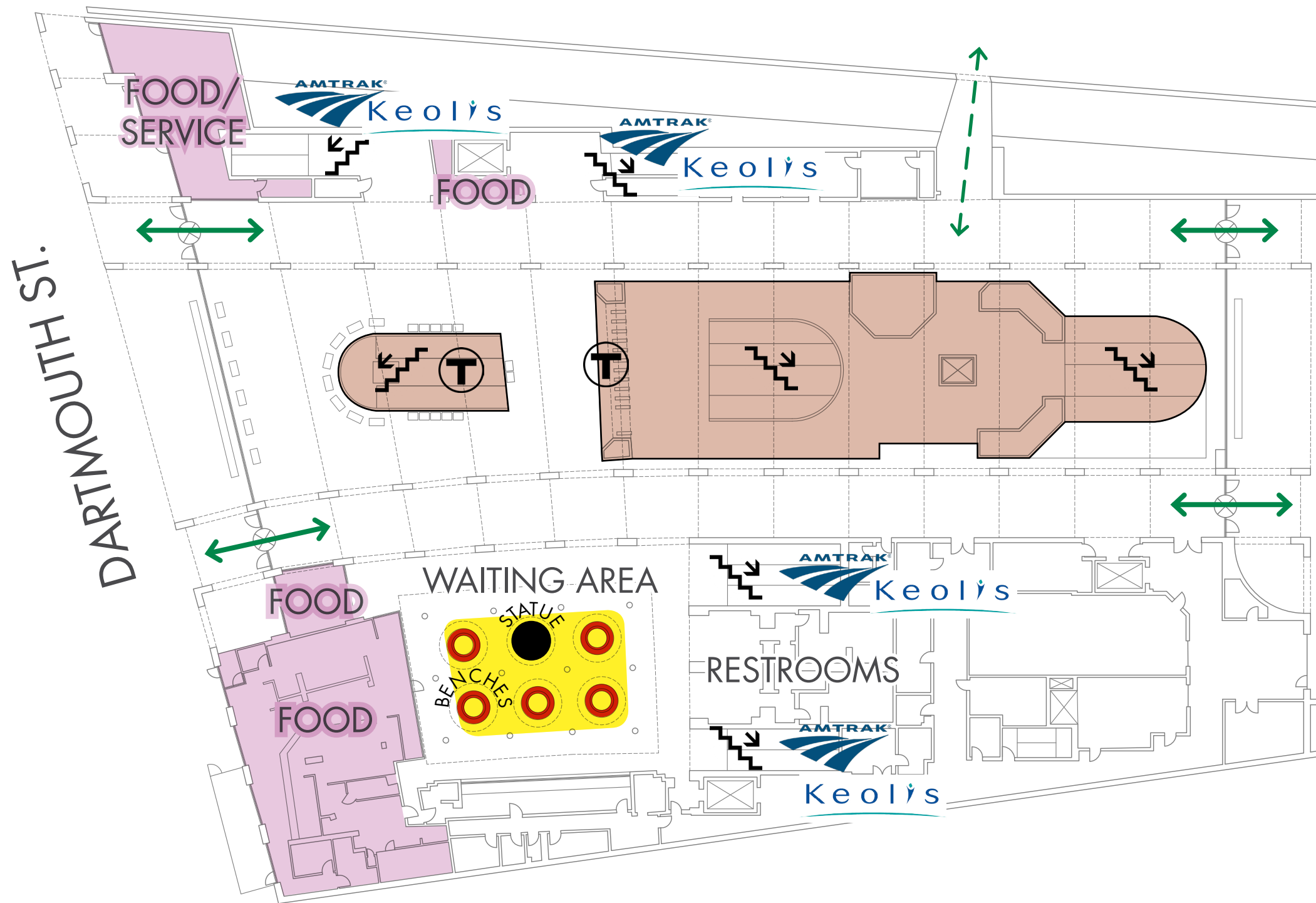
1987





CONDITION BEFORE TAKEOVER

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BACK BAY STATION NOW

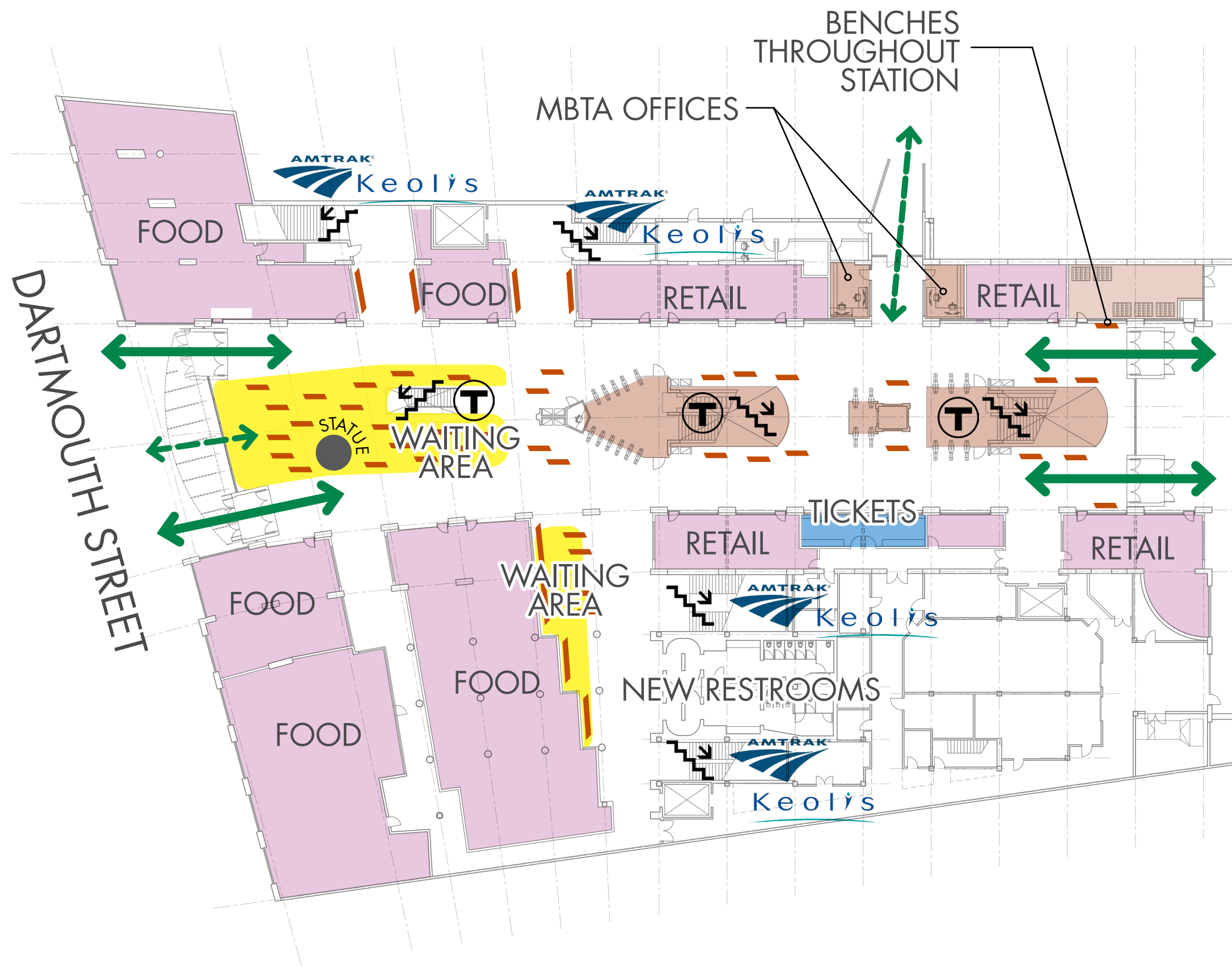
ENTRY AND CIRCULATION THROUGH LOW, DARK ARCADES

OVERSIZED ORANGE LINE AREA LIMITS CIRCULATION THROUGH STATION

ISOLATED AND CRAMPED WAITING AREAS

POOR VENTILATION

REBIRTH OF A MAJOR CIVIC SPACE



BACK BAY STATION FUTURE

NEW ENTRIES INTO CENTRAL HALL
IMPROVE CIRCULATION, EGRESS, AND TAKE
ADVANTAGE OF GREAT CIVIC SPACE

INCREASED AND BETTER DISTRIBUTED ORANGE
LINE FARE GATES IMPROVE TRACK ACCESS

IMPROVED WAITING AREAS AND
DISTRIBUTED BENCHES

AMTRAK AND KEOLIS TICKETING CENTRALLY
LOCATED TO BE MORE VISIBLE

IMPROVED MBTA FUNCTIONS AND OFFICES

NEW EXPANDED AND DISTRIBUTED RETAIL
TO ACTIVATE CENTRAL HALL AND IMPROVE
STREETSCAPE ENVIRONMENT

NEW PUBLIC ART STRATEGY

- EXTERIOR CONCRETE HAS BEEN CLEANED
- EXTERIOR ARCHES TO BE RESTORED SHORTLY



EXISTING STATION ENTRY (WEST)

- MORE WELCOMING DARTMOUTH STREET ENTRANCE
- IMPROVED STREETScape AND PEDESTRIAN ENVIRONMENT
- ENTRIES RELOCATED TO CENTER



PROPOSED STATION ENTRY (WEST)

- ARRIVAL FROM DARTMOUTH STREET IS VISUALLY CUT OFF FROM TRAINS AND ORANGE LINE
- POOR WAYFINDING AND LIGHTING





- NEW FLOOR FINISHES AND LIGHTING
- EASIER WAYFINDING
- IMPROVED CUSTOMER COMFORT IN CENTRALLY LOCATED WAITING AREA
- IMPROVED RETAIL AMENITIES



- VISUALLY CLUTTERED
- DIFFICULT WAYFINDING
- DETERIORATED GLASS BLOCK



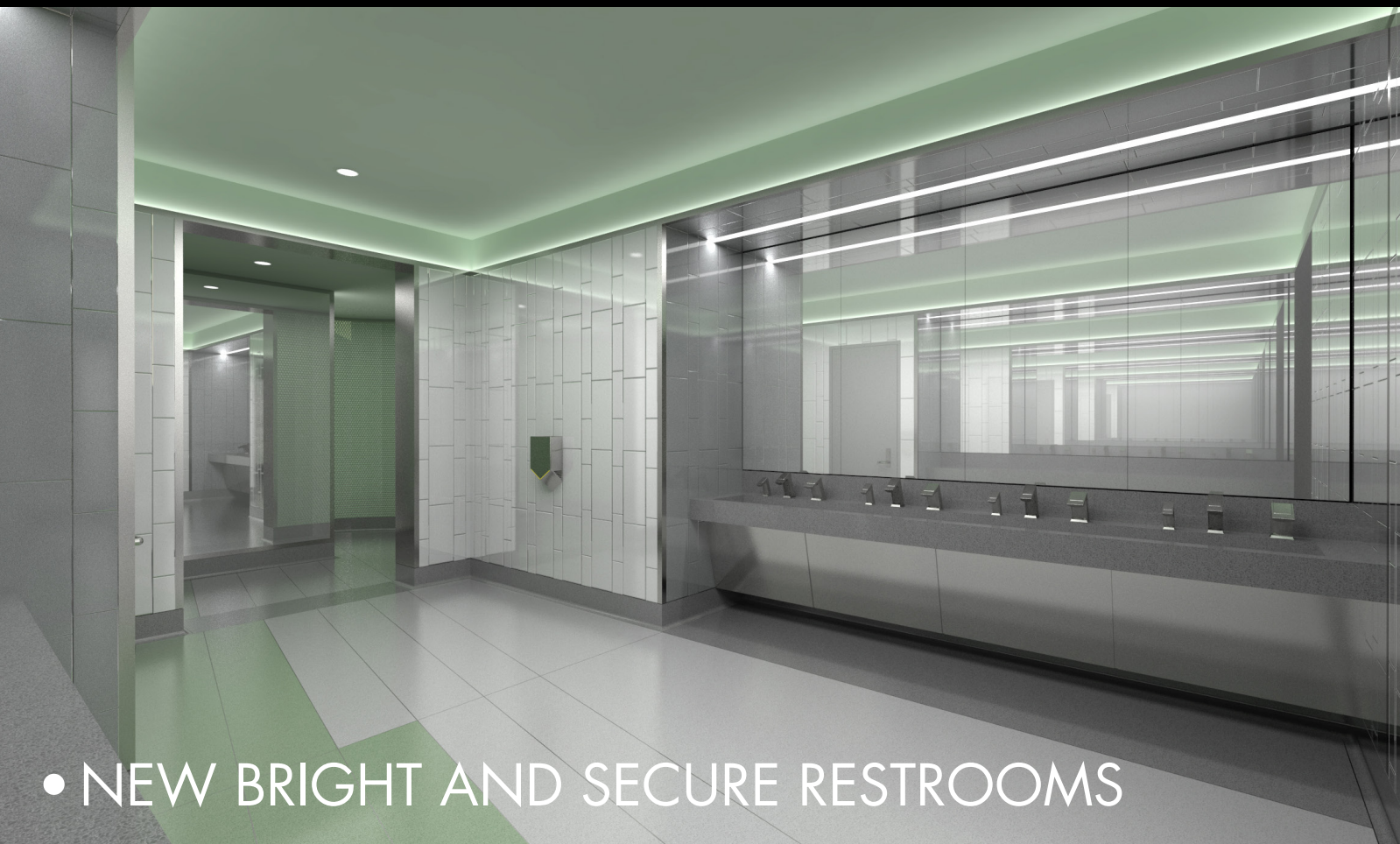
- APPROPRIATELY SIZED FARE ENCLOSURE
- VISIBLE NOTIFICATION BOARDS AND CLEAR WAYFINDING
- INSULATED GLASS REPLACING GLASS BLOCK



• RESTROOMS IN DIRE NEED OF RENOVATION

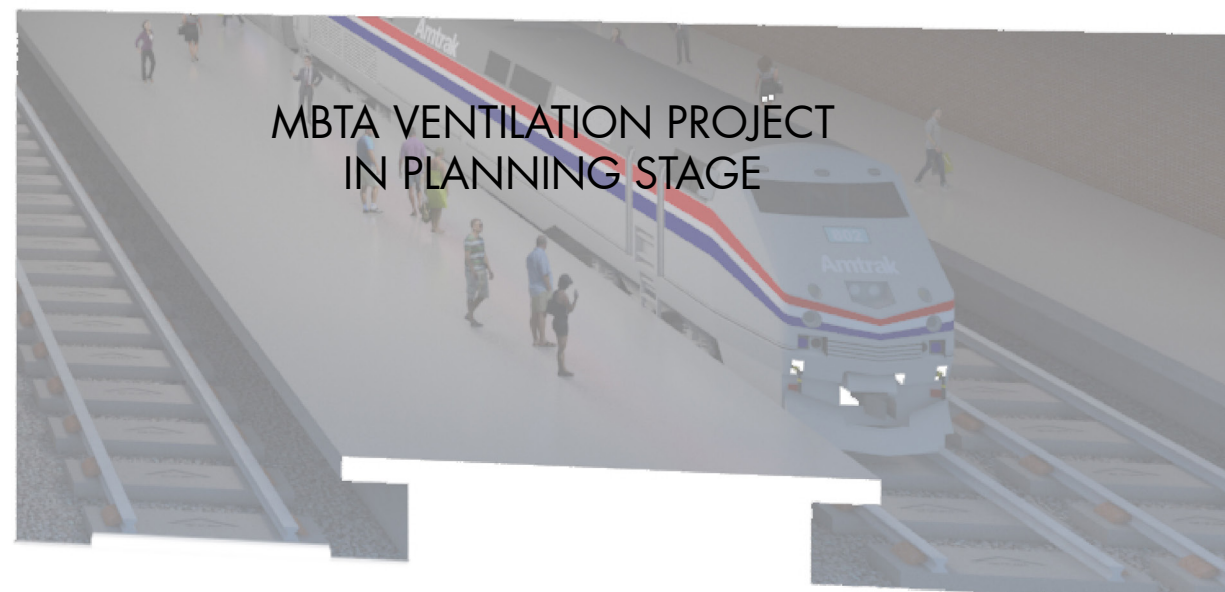
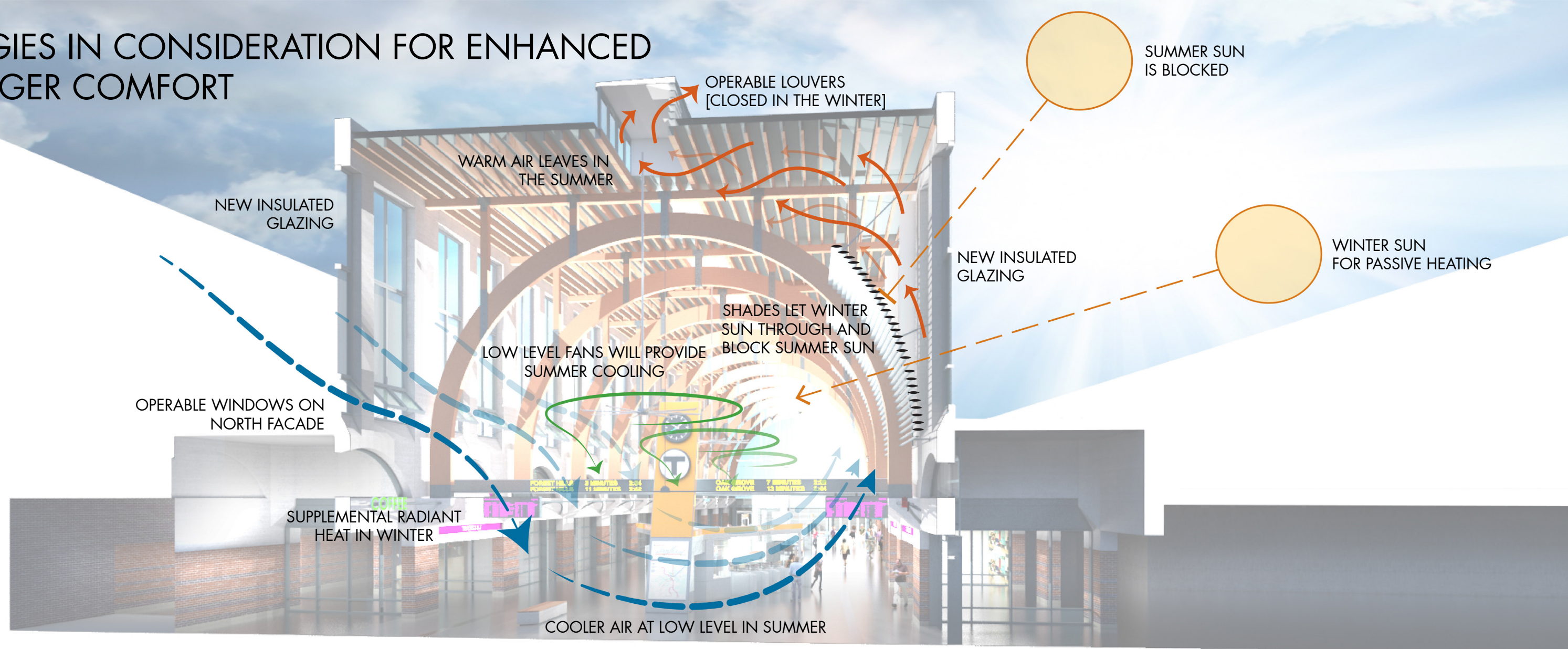
EXISTING CONDITIONS

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• NEW BRIGHT AND SECURE RESTROOMS

STRATEGIES IN CONSIDERATION FOR ENHANCED PASSENGER COMFORT



MBTA VENTILATION PROJECT
IN PLANNING STAGE

GUIDING PRINCIPLES

- Create A Better **Place**
- Improve Our **Transportation Infrastructure**
- Be Sensitive to Surrounding **Neighborhood Context**



An architectural rendering of a city street scene. In the center, a modern multi-story building with a glass facade and green terraces stands prominently. To its right is a taller, more slender glass skyscraper. The ground floor of the central building features a transit station with arched entrances, labeled 'BACK BAY STATION'. To the left of the station is a lower building with a sign that reads 'SHOPS AT BACK E'. To the right is another building with a sign that reads 'SHOPS AT BACK BAY'. The street is filled with pedestrians, cars, and outdoor seating with yellow umbrellas. The sky is blue with light clouds.

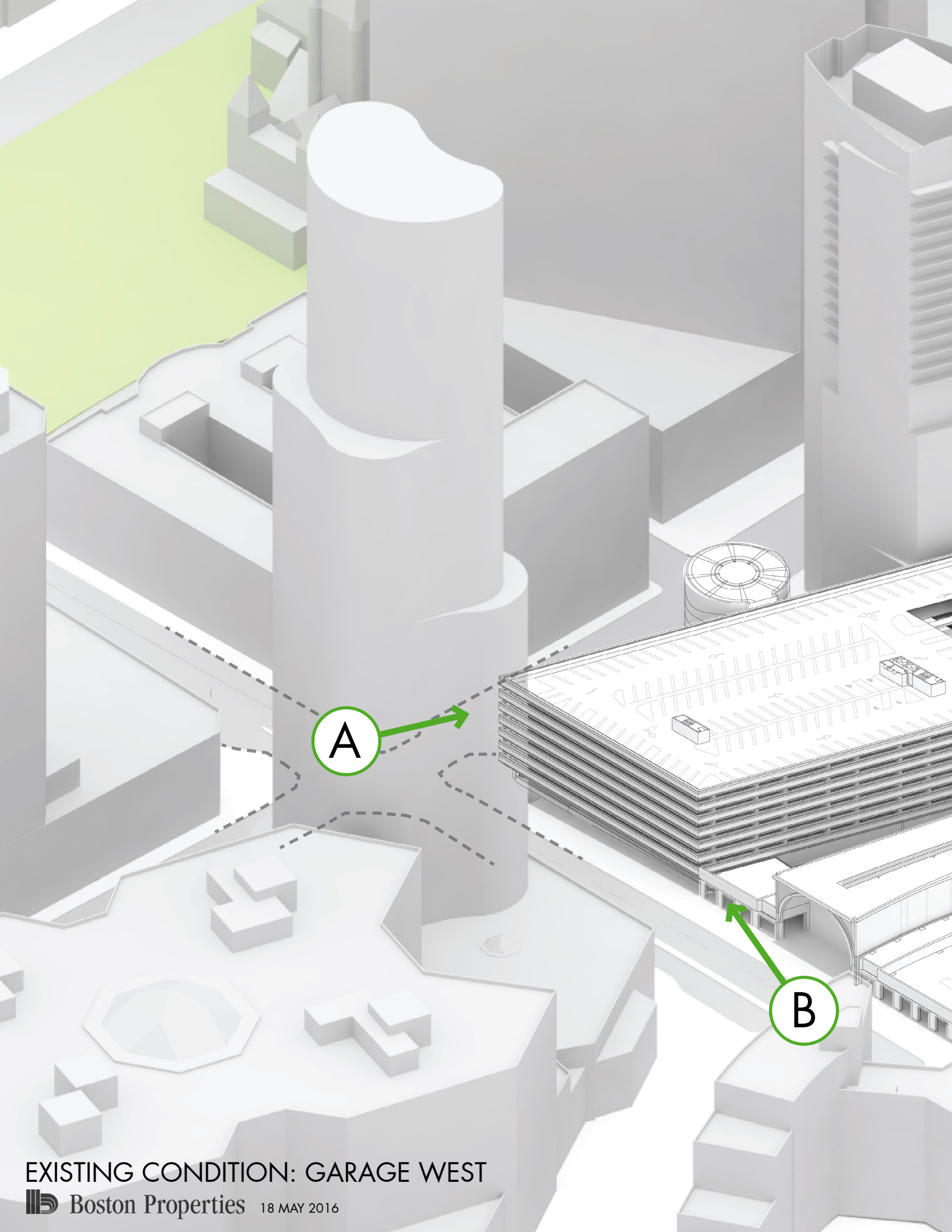
EXISTING CONDITIONS + SITE LIMITATIONS



IMAGE: GOOGLE MAPS



IMAGE: GOOGLE MAPS



A



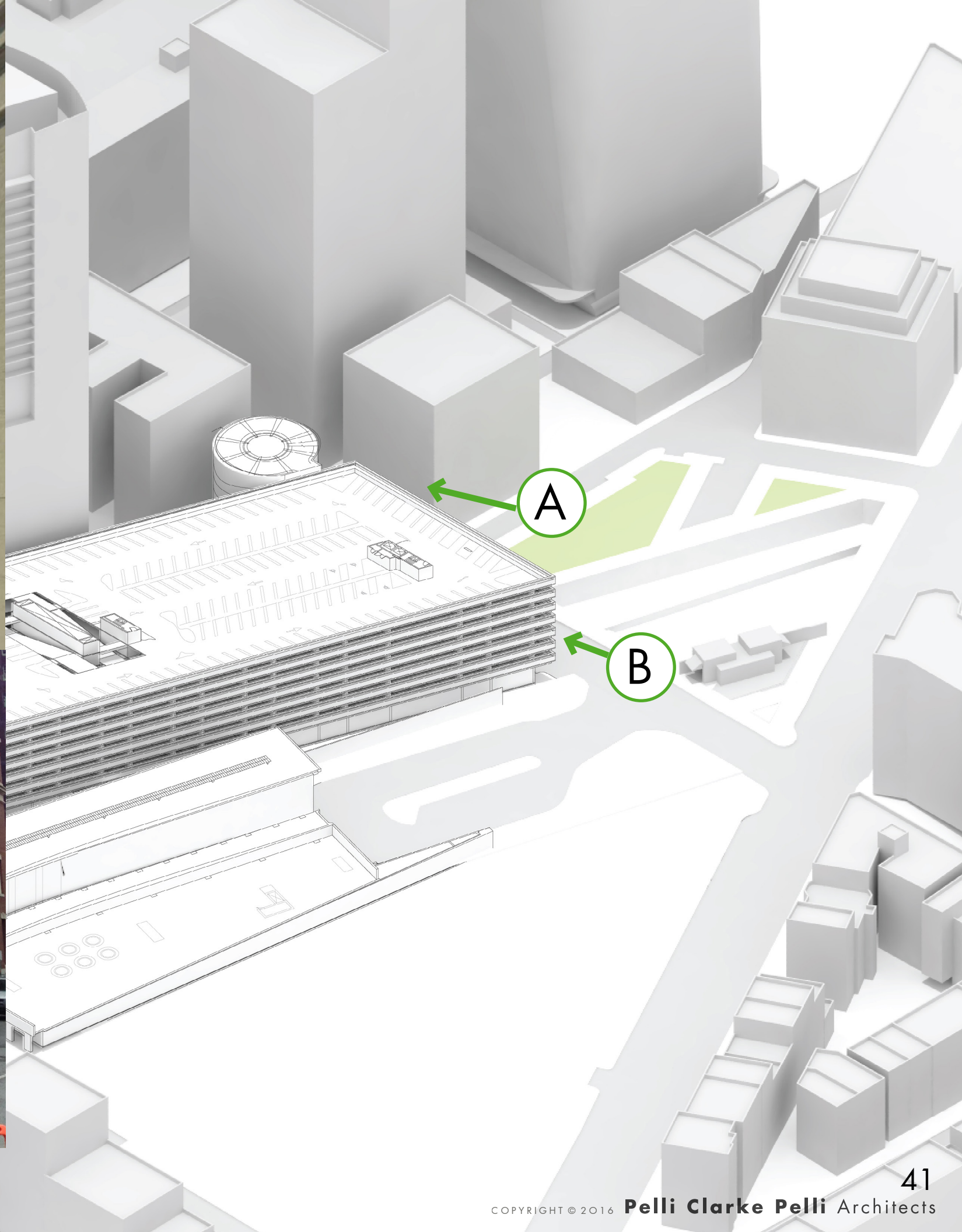
IMAGE: BING MAPS

B

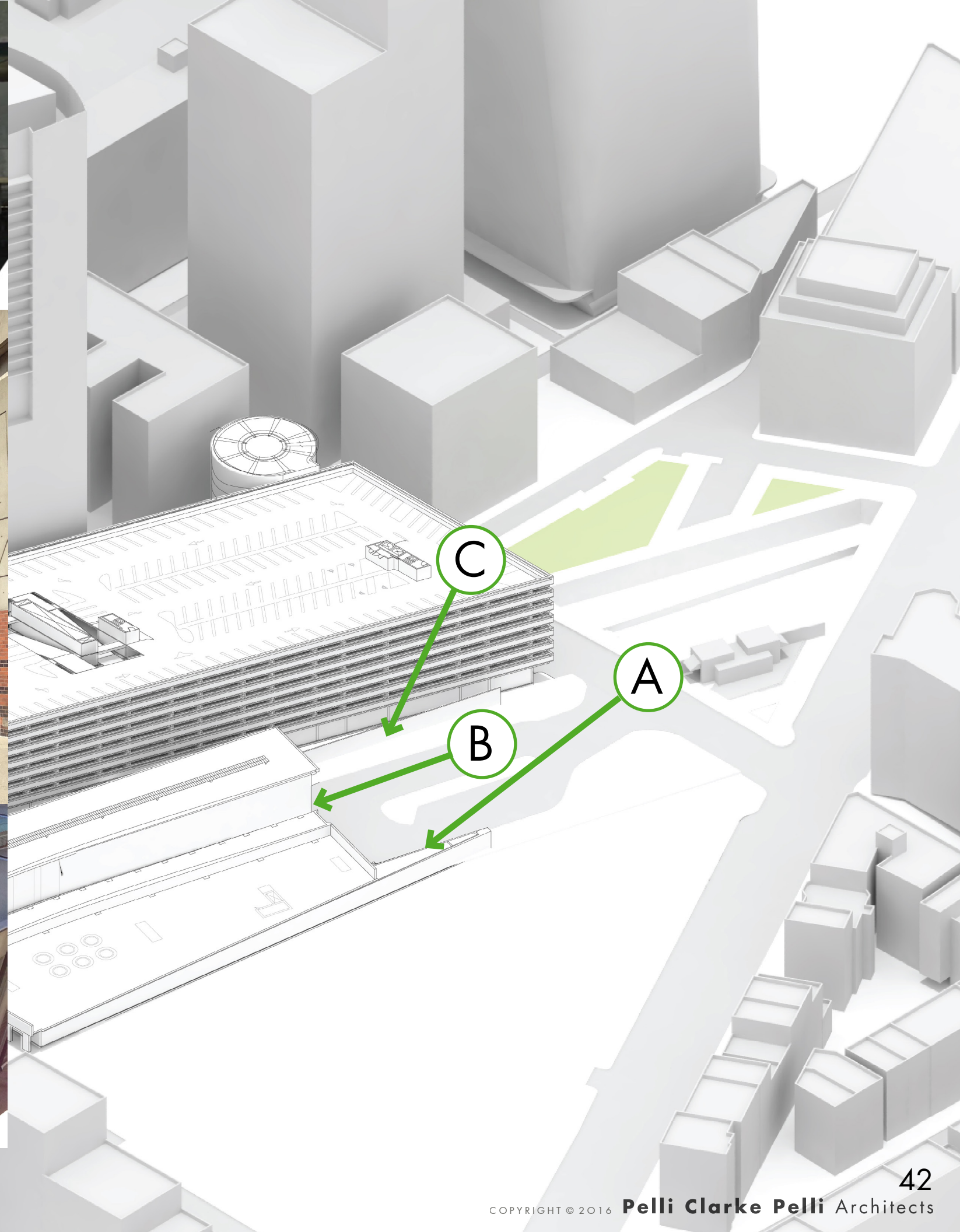


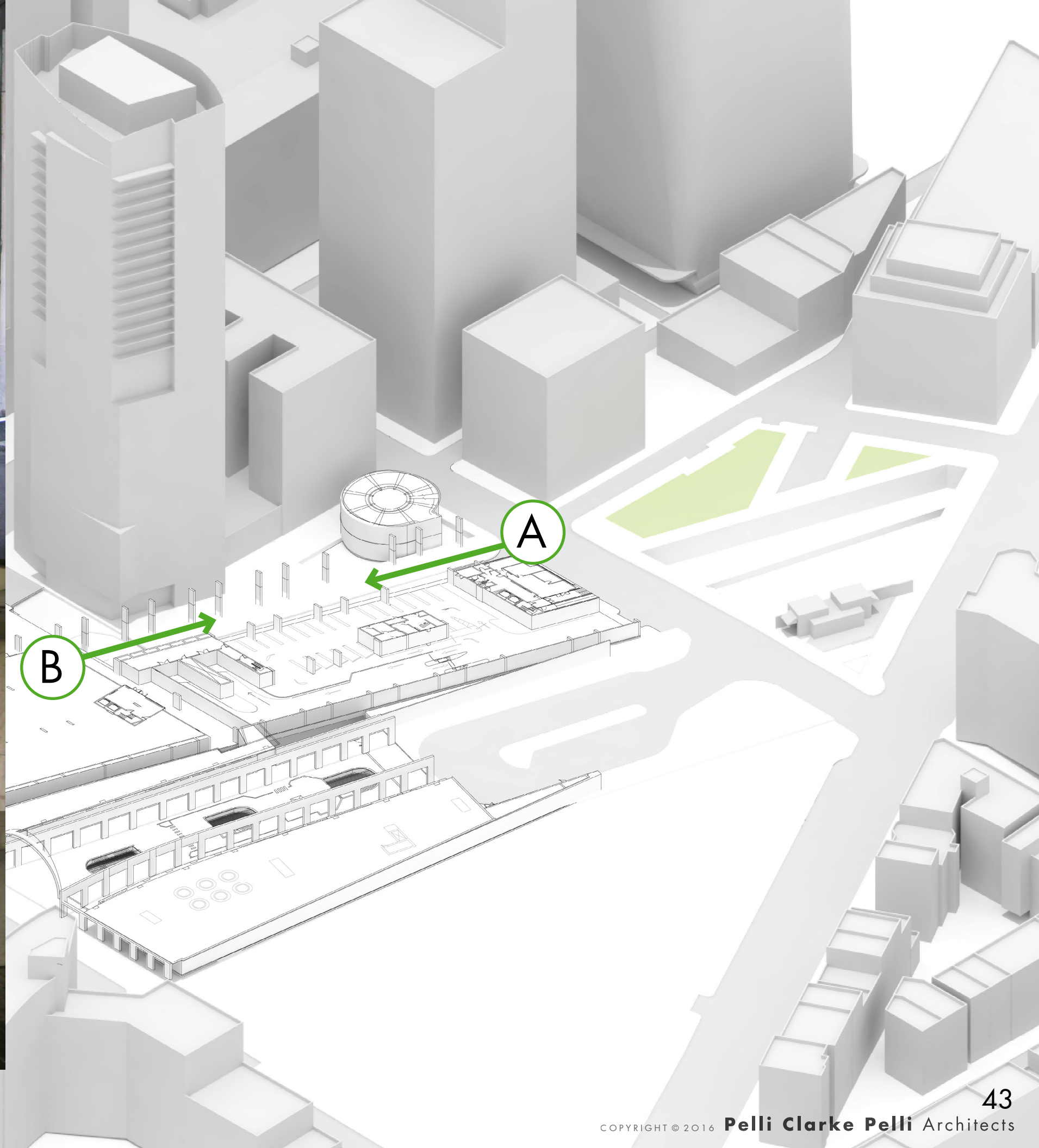
EXISTING CONDITION: GARAGE WEST

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EXISTING CONDITION: GARAGE EAST





EXISTING CONDITION: TURNPIKE ON-RAMP



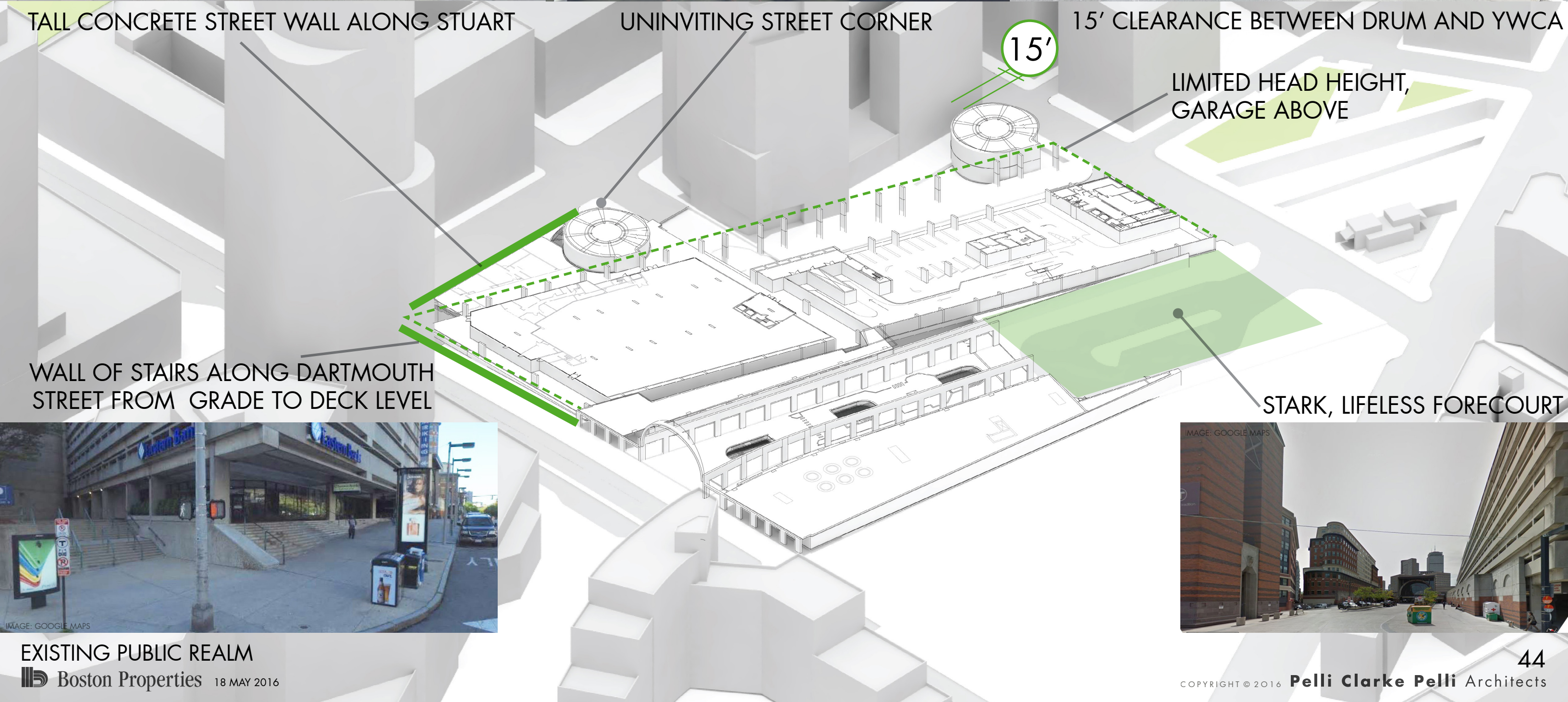
TALL CONCRETE STREET WALL ALONG STUART



UNINVITING STREET CORNER



15' CLEARANCE BETWEEN DRUM AND YWCA

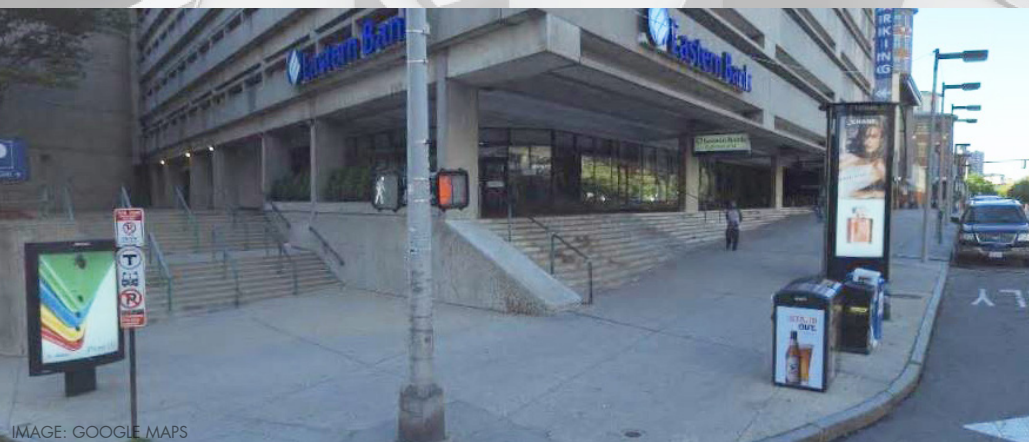


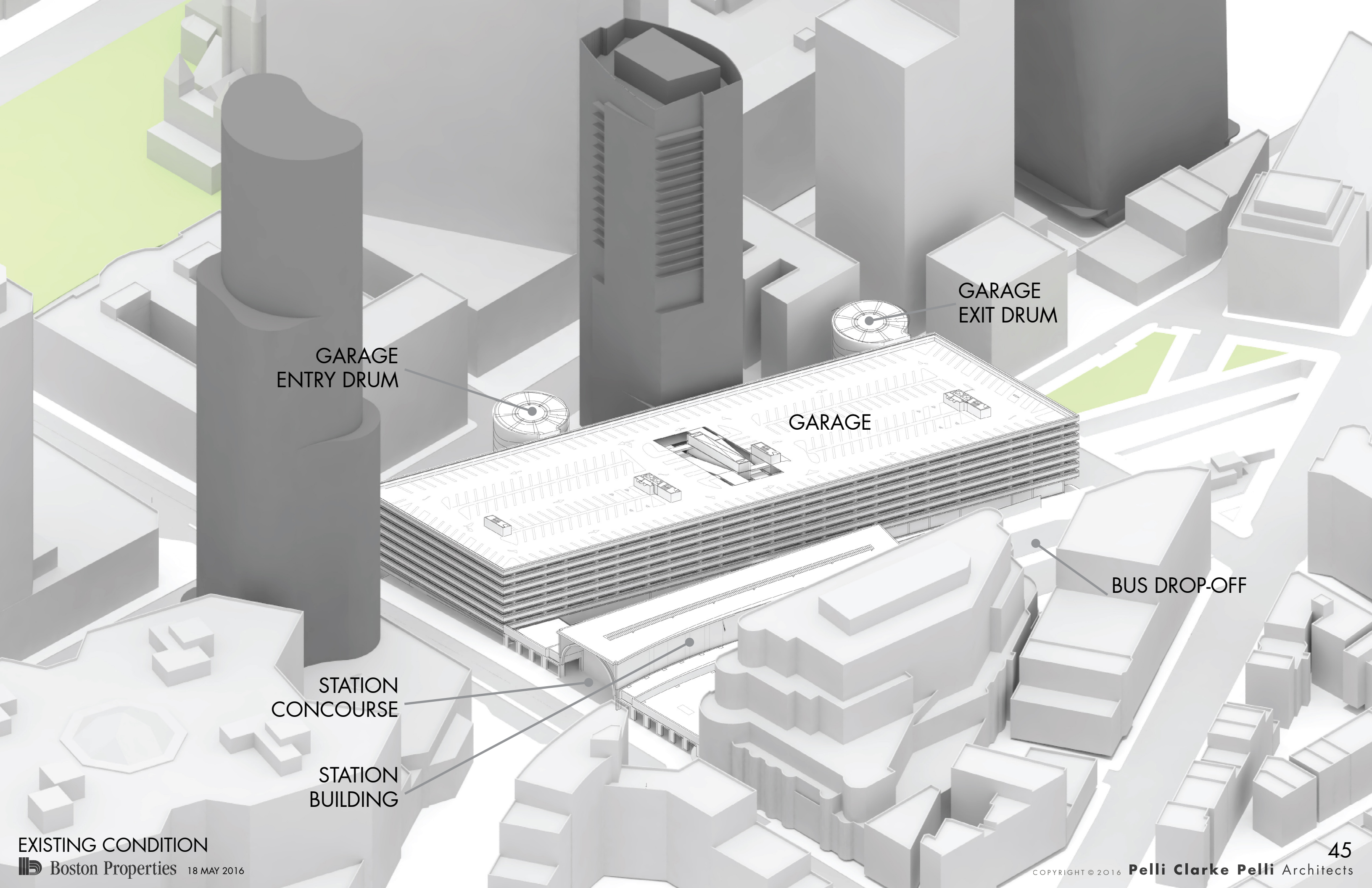
WALL OF STAIRS ALONG DARTMOUTH STREET FROM GRADE TO DECK LEVEL

15'

LIMITED HEAD HEIGHT, GARAGE ABOVE

STARK, LIFELESS FORECOURT





GARAGE
ENTRY DRUM

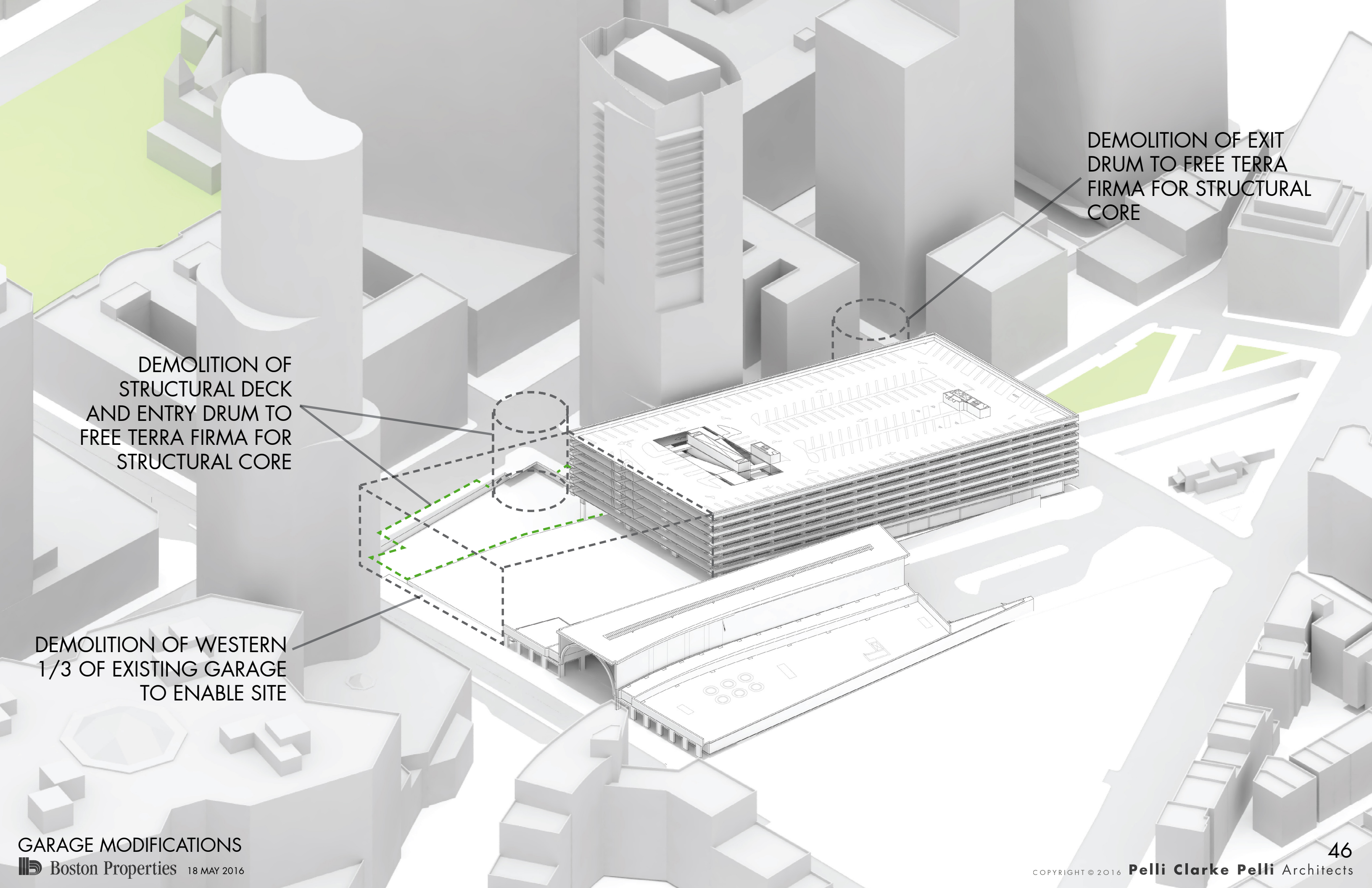
GARAGE
EXIT DRUM

GARAGE

BUS DROP-OFF

STATION
CONCOURSE

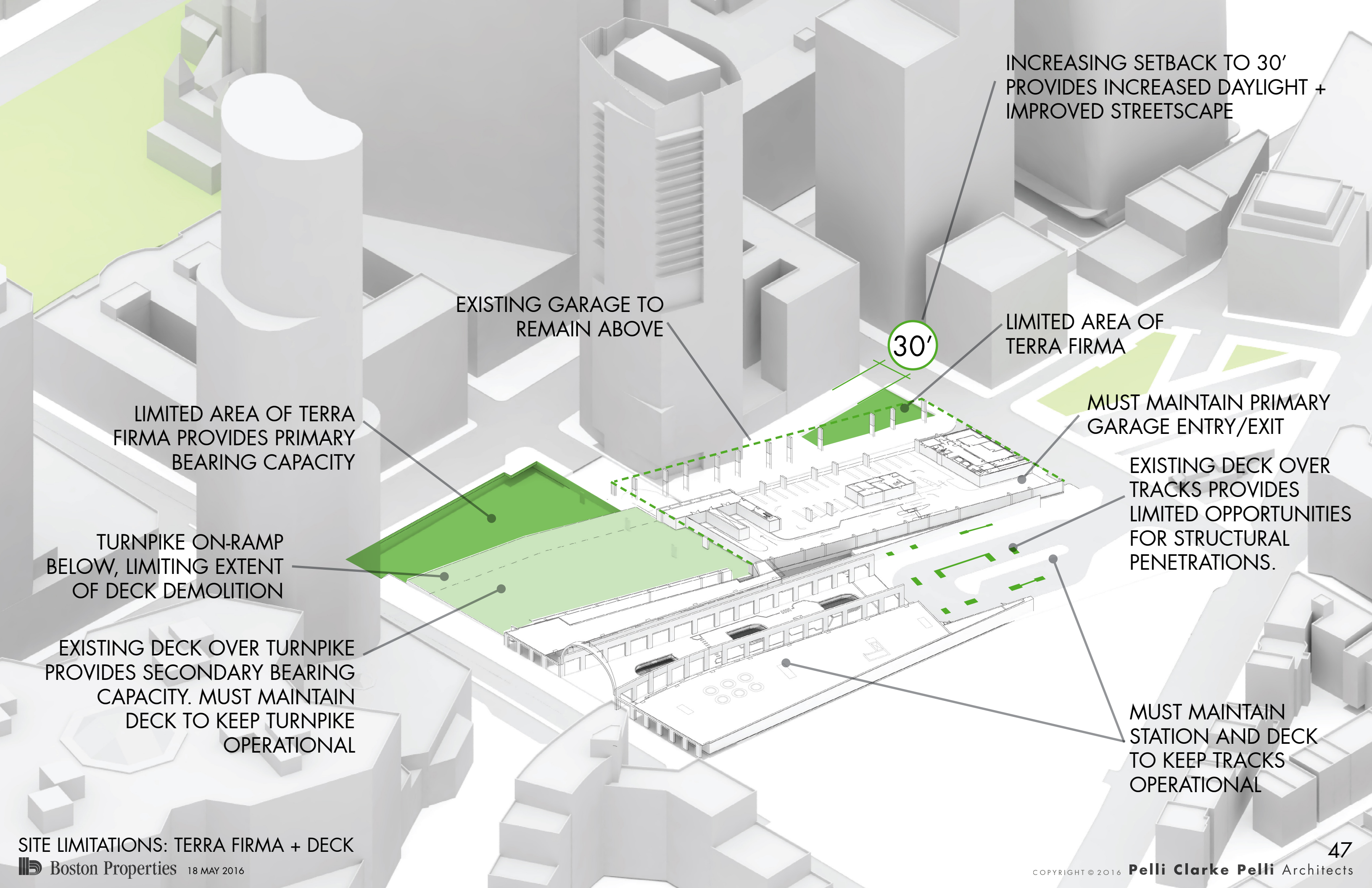
STATION
BUILDING



DEMOLITION OF EXIT
DRUM TO FREE TERRA
FIRMA FOR STRUCTURAL
CORE

DEMOLITION OF
STRUCTURAL DECK
AND ENTRY DRUM TO
FREE TERRA FIRMA FOR
STRUCTURAL CORE

DEMOLITION OF WESTERN
1/3 OF EXISTING GARAGE
TO ENABLE SITE



INCREASING SETBACK TO 30'
PROVIDES INCREASED DAYLIGHT +
IMPROVED STREETScape

EXISTING GARAGE TO
REMAIN ABOVE

30'

LIMITED AREA OF
TERRA FIRMA

MUST MAINTAIN PRIMARY
GARAGE ENTRY/EXIT

LIMITED AREA OF TERRA
FIRMA PROVIDES PRIMARY
BEARING CAPACITY

EXISTING DECK OVER
TRACKS PROVIDES
LIMITED OPPORTUNITIES
FOR STRUCTURAL
PENETRATIONS.

TURNPIKE ON-RAMP
BELOW, LIMITING EXTENT
OF DECK DEMOLITION

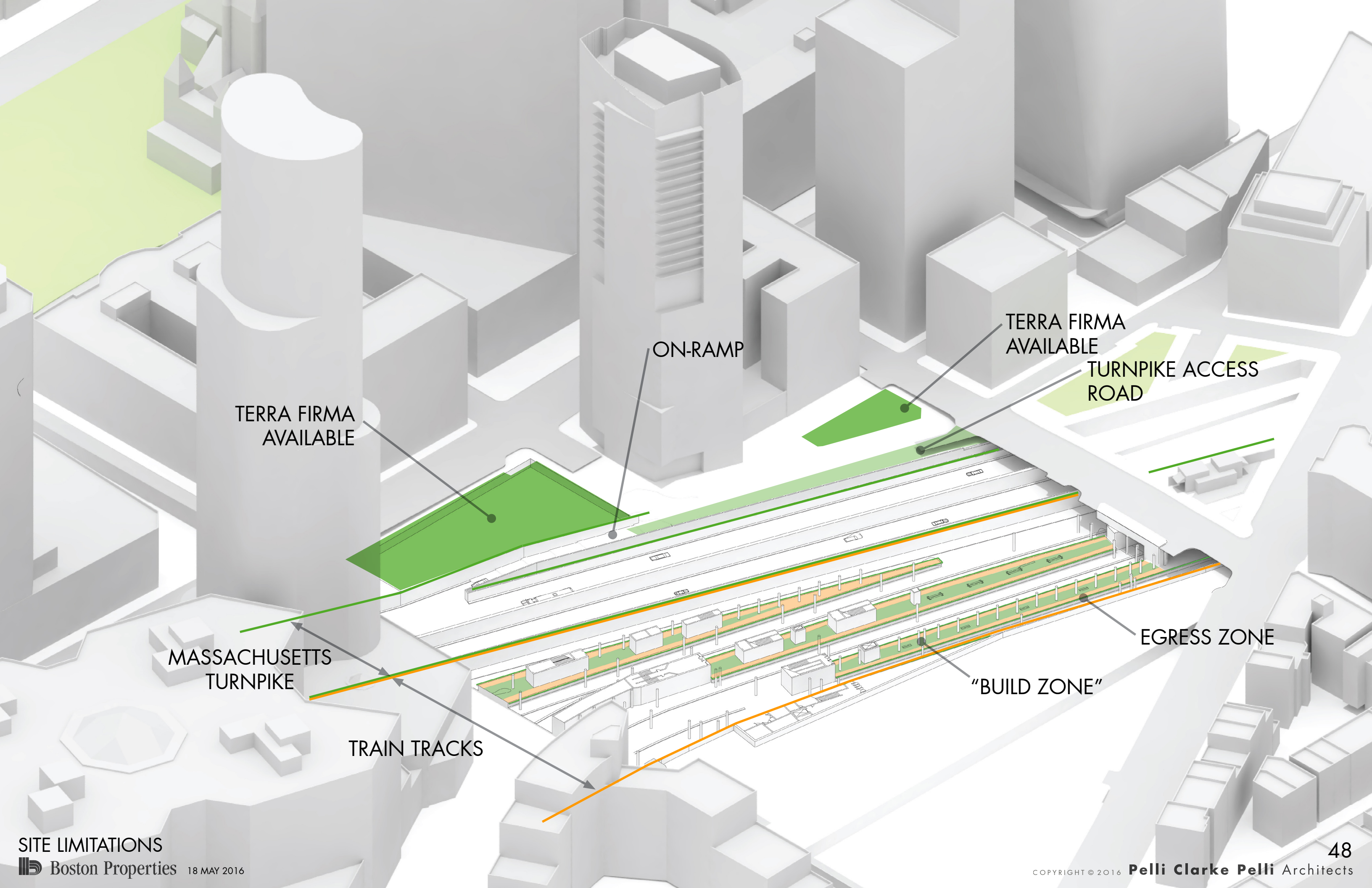
EXISTING DECK OVER TURNPIKE
PROVIDES SECONDARY BEARING
CAPACITY. MUST MAINTAIN
DECK TO KEEP TURNPIKE
OPERATIONAL

MUST MAINTAIN
STATION AND DECK
TO KEEP TRACKS
OPERATIONAL

SITE LIMITATIONS: TERRA FIRMA + DECK

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TERRA FIRMA
AVAILABLE

ON-RAMP

TERRA FIRMA
AVAILABLE

TURNPIKE ACCESS
ROAD

MASSACHUSETTS
TURNPIKE

TRAIN TRACKS

EGRESS ZONE

"BUILD ZONE"

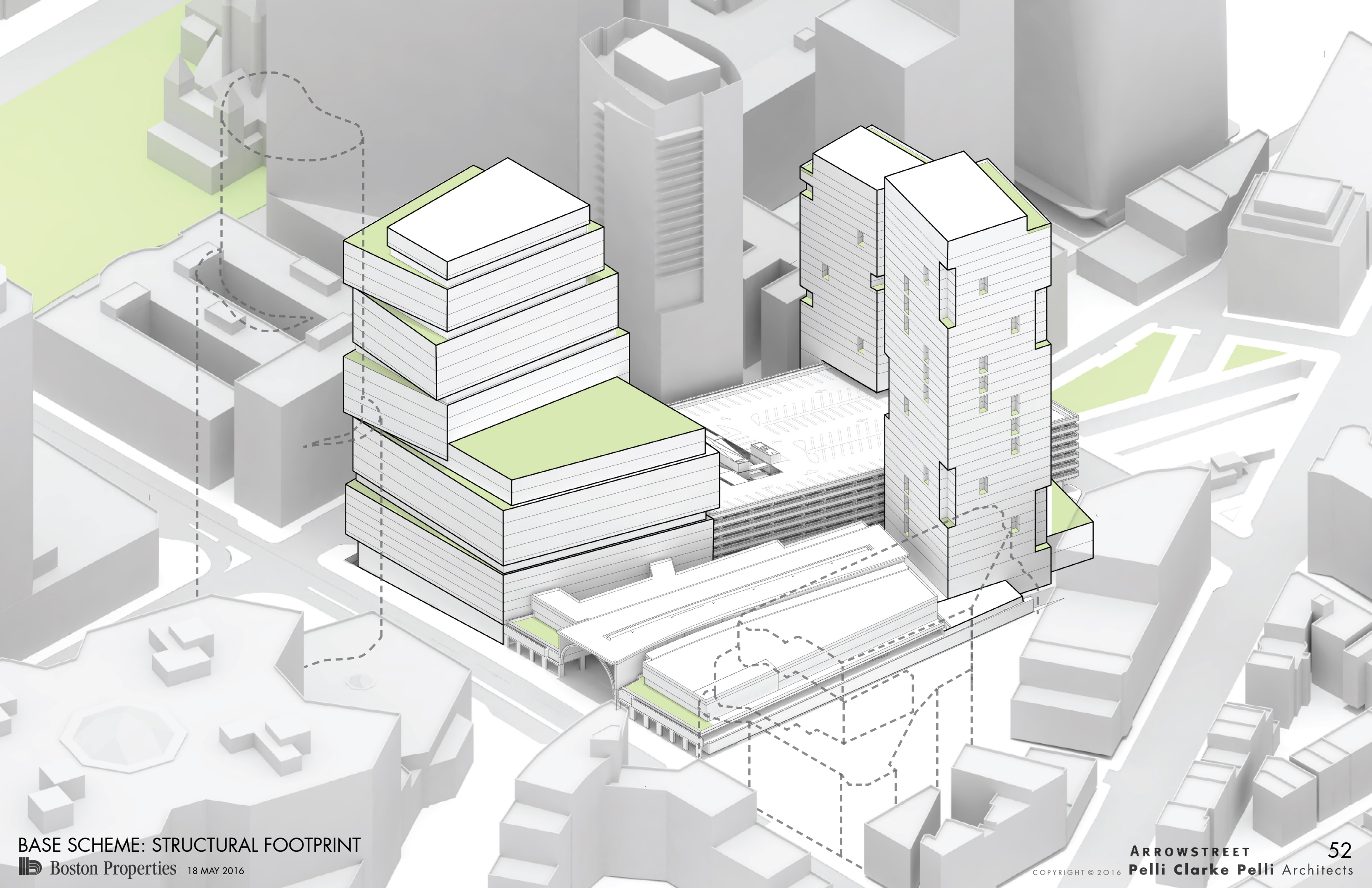


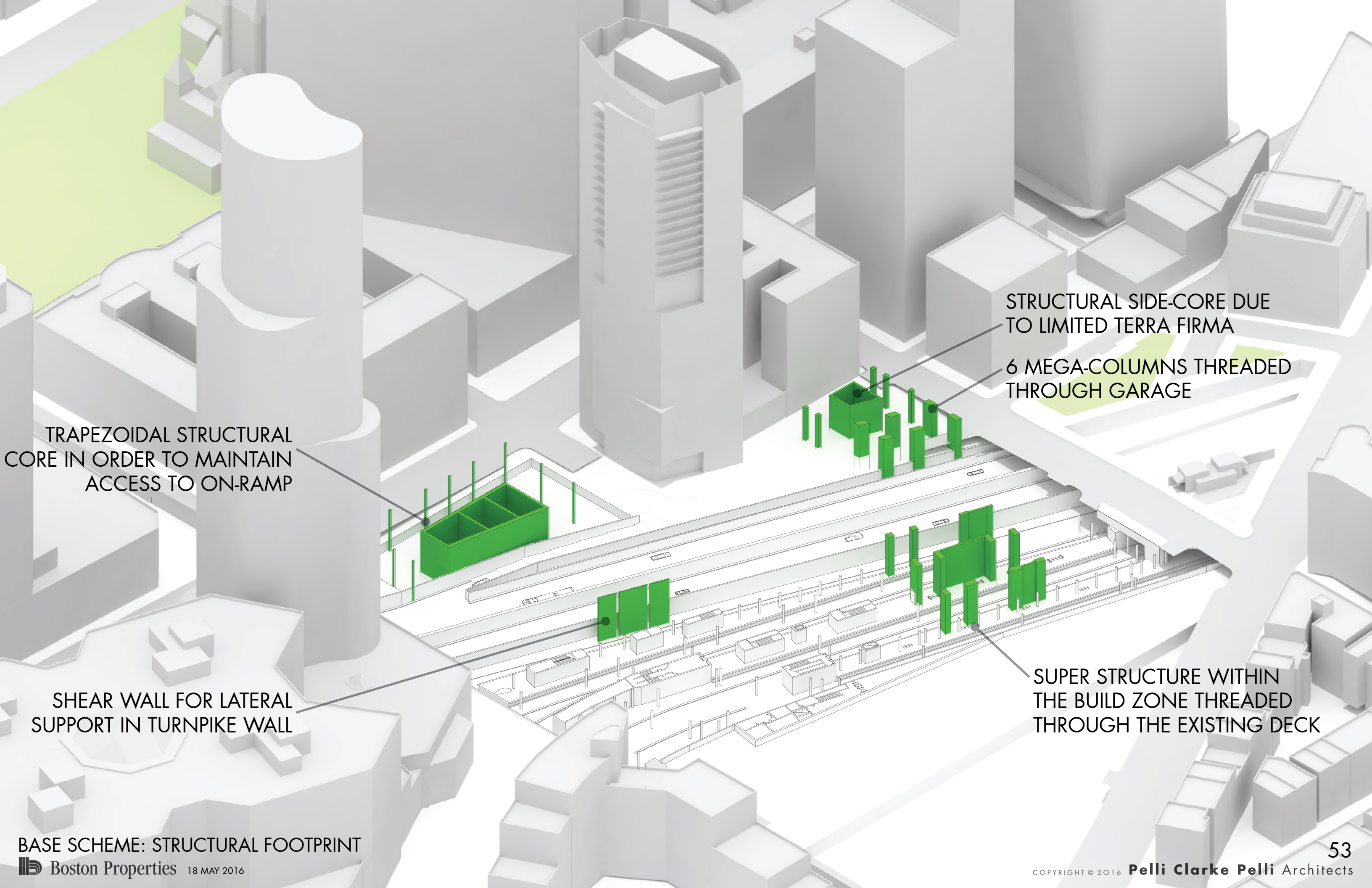


DEVELOPMENT REFERENCE IN BILBAO SPAIN - PELLİ CLARKE PELLİ ARCHITECTS

An architectural rendering of a proposed urban development in Boston. The central focus is a large, modern building with a glass and metal facade, featuring multiple levels of cantilevered floors and green roofs. To its right is a tall, slender skyscraper with a glass curtain wall. The ground floor of the central building is labeled 'SHOPS AT BACK BAY' and 'BACK BAY STATION', with a large arched entrance. The foreground shows a busy pedestrian plaza with many people, outdoor seating with yellow umbrellas, and a street with cars. The sky is blue with light clouds.

BACK BAY / SOUTH END GATEWAY PROJECT AIR RIGHTS DEVELOPMENT





STRUCTURAL SIDE-CORE DUE
TO LIMITED TERRA FIRMA

6 MEGA-COLUMNS THREADED
THROUGH GARAGE

TRAPEZOIDAL STRUCTURAL
CORE IN ORDER TO MAINTAIN
ACCESS TO ON-RAMP

SHEAR WALL FOR LATERAL
SUPPORT IN TURNPIKE WALL

SUPER STRUCTURE WITHIN
THE BUILD ZONE THREADED
THROUGH THE EXISTING DECK



BRACING SYSTEM TO BEAR FLOORS BACK TO CORE

STRUCTURAL TRANSFER (SKY-MAT) TO ALLOW FOR RESIDENTIAL COLUMN GRID ABOVE

STRUCTURAL TRANSFER (TABLE TOP TRUSS SYSTEM) TO ALLOW FOR RESIDENTIAL COLUMN GRID ABOVE

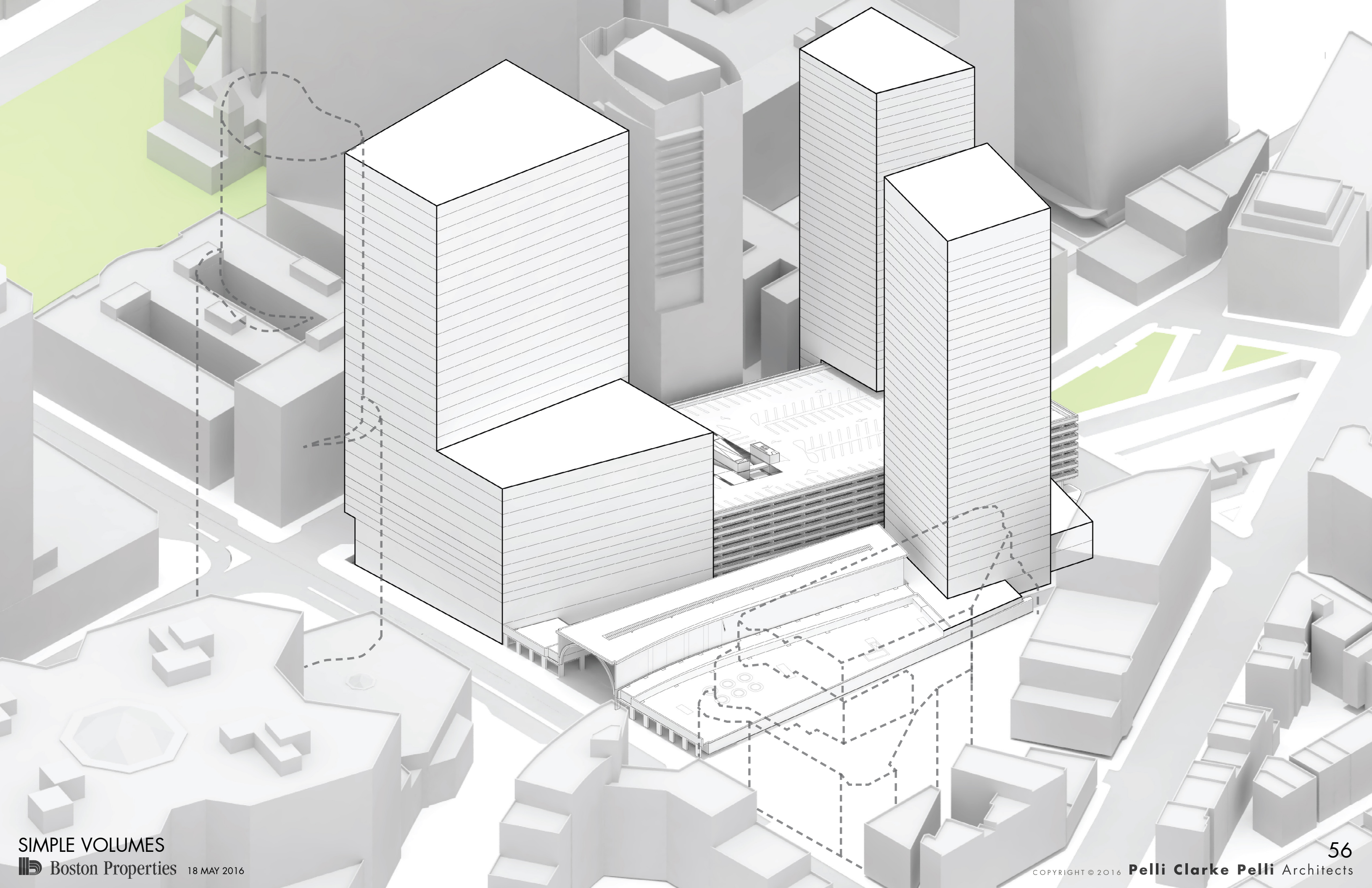
BASE SCHEME: STRUCTURAL FOOTPRINT UP TO "TABLE-TOP" AND "SKY-MAT"



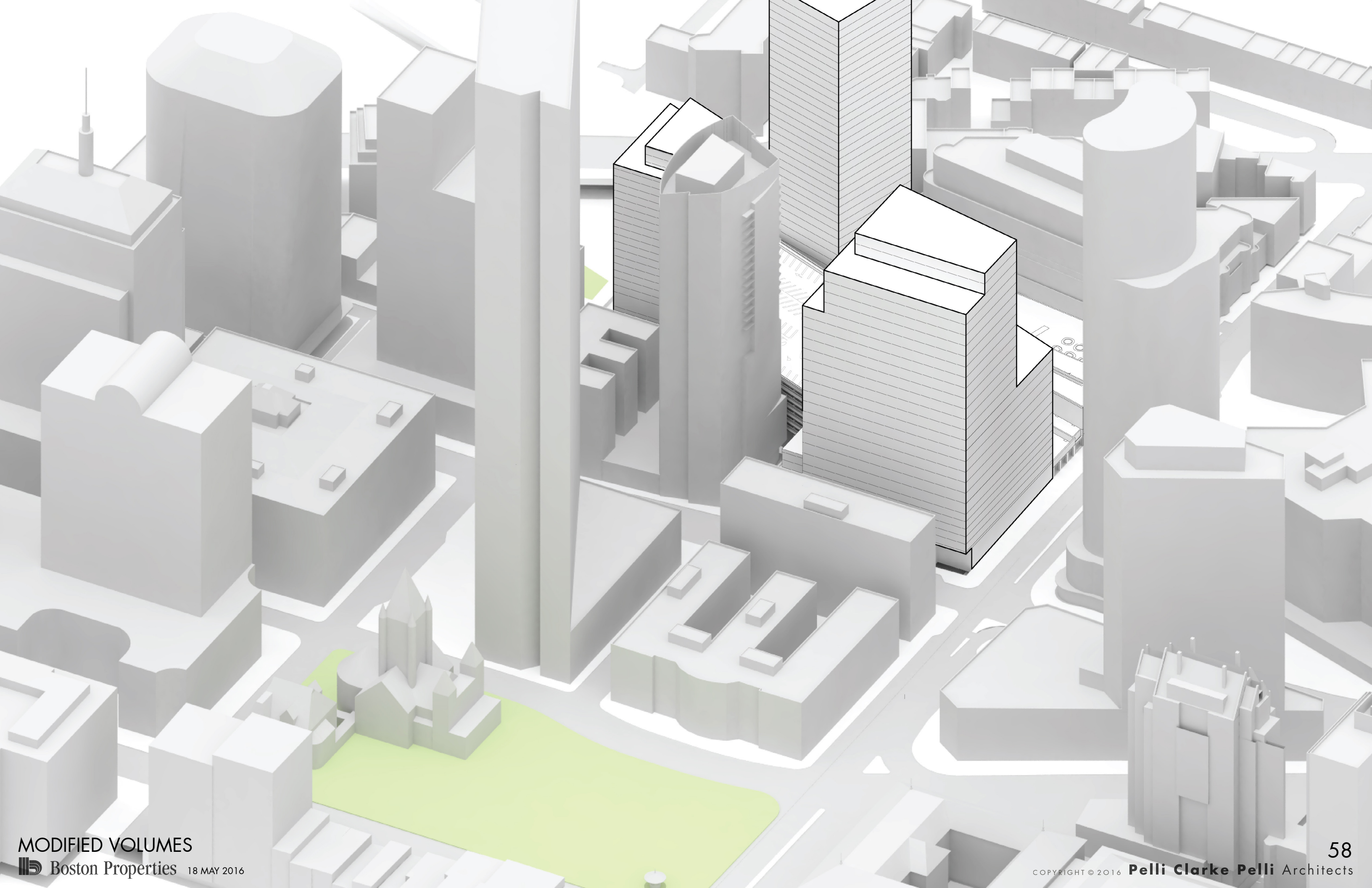
OFFICE FLOOR
PLATE SIZE:
26,050SF

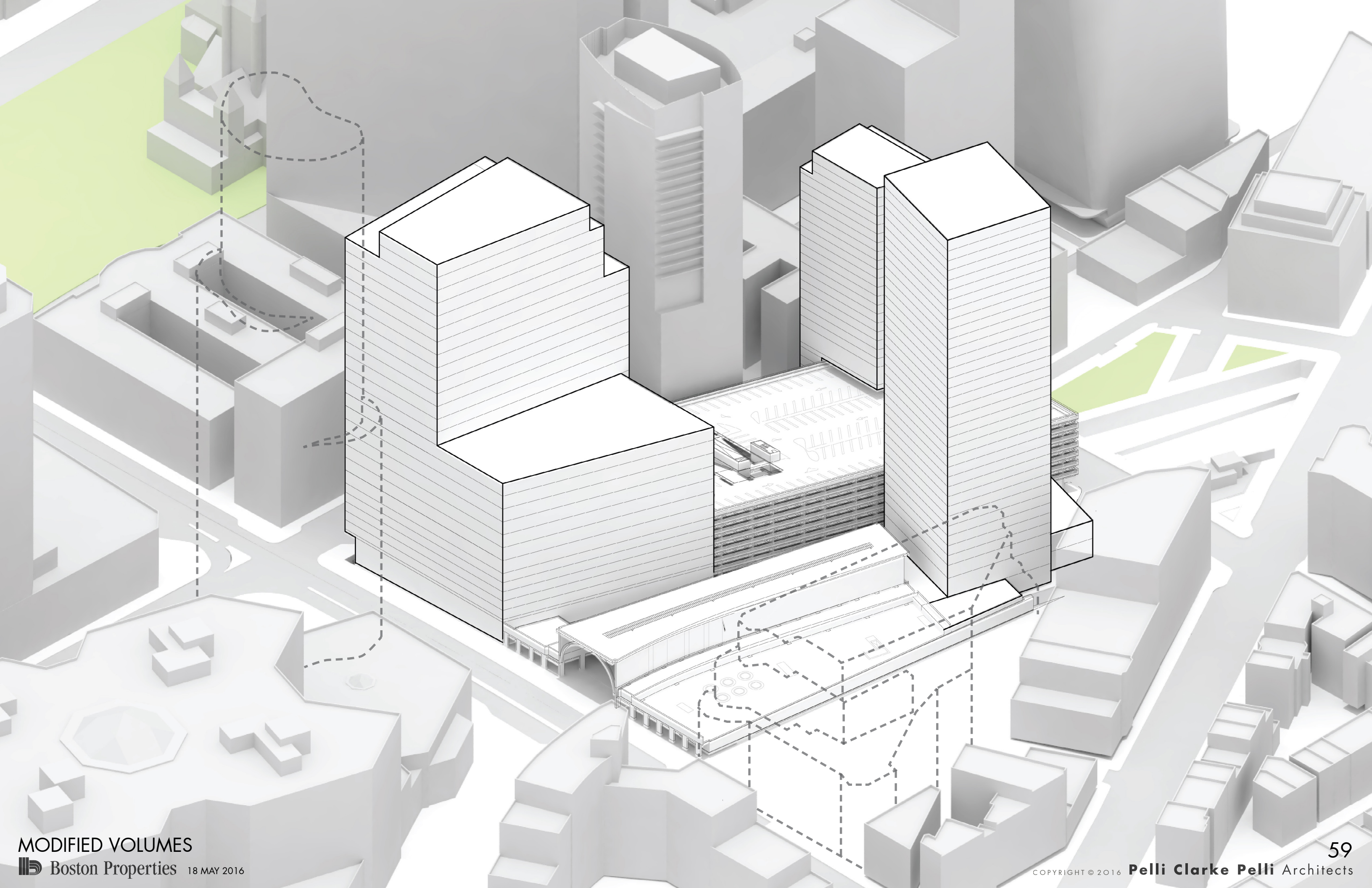
RESIDENTIAL FLOOR
PLATE SIZE:
10,200SF

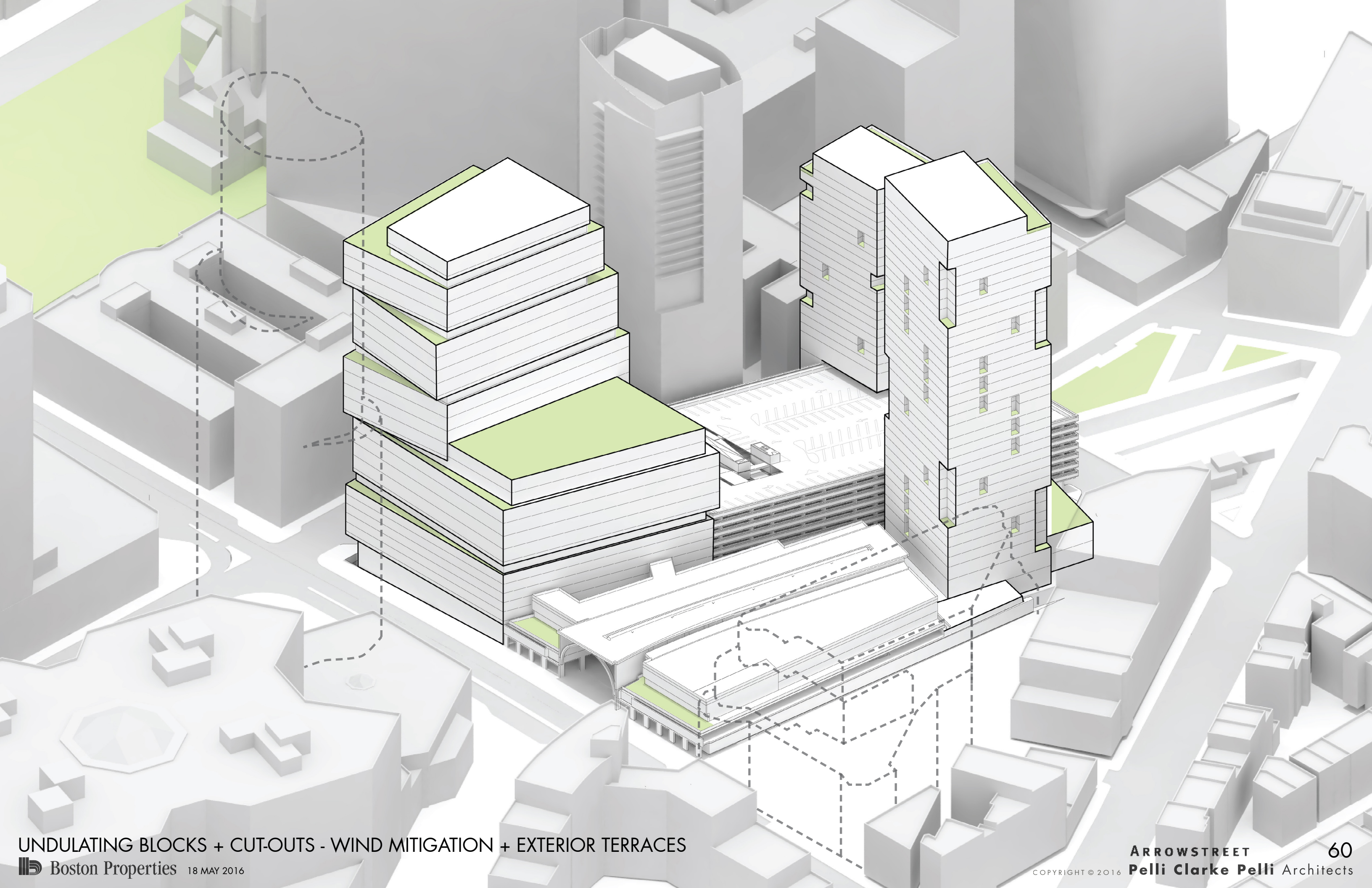
RESIDENTIAL FLOOR
PLATE SIZE:
11,950SF











UNDULATING BLOCKS + CUT-OUTS - WIND MITIGATION + EXTERIOR TERRACES

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EXISTING VIEW FROM SOUTHWEST CORRIDOR



BASE SCHEME VIEW FROM SOUTHWEST CORRIDOR



IMAGE: GOOGLE MAPS



BASE SCHEME VIEW FROM DARTMOUTH STREET



IMAGE: BING MAPS

EXISTING VIEW FROM STUART AND DARTMOUTH STREETS

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ARROWSTREET



BASE SCHEME VIEW FROM STUART AND DARTMOUTH STREETS



IMAGE: GOOGLE MAPS

EXISTING VIEW FROM COLUMBUS AVE

 Boston Properties 18 MAY 2016



BASE SCHEME VIEW FROM COLUMBUS AVE



IMAGE: GOOGLE MAPS

EXISTING BUS LOOP FROM CLARENDON STREET

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BASE SCHEME VIEW FROM CLARENDON STREET

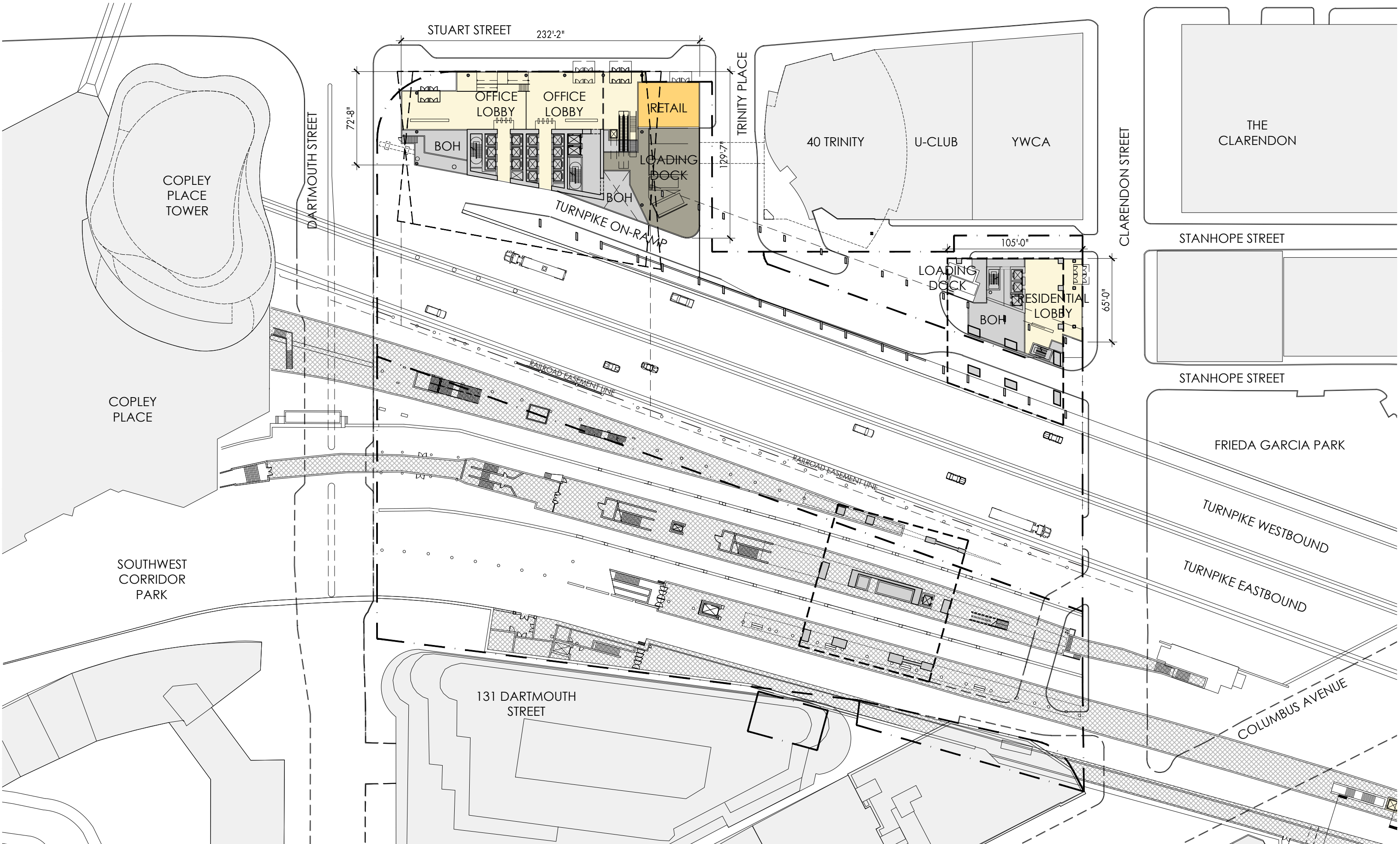


IMAGE: BING MAPS

SITE AERIAL PHOTOGRAPH

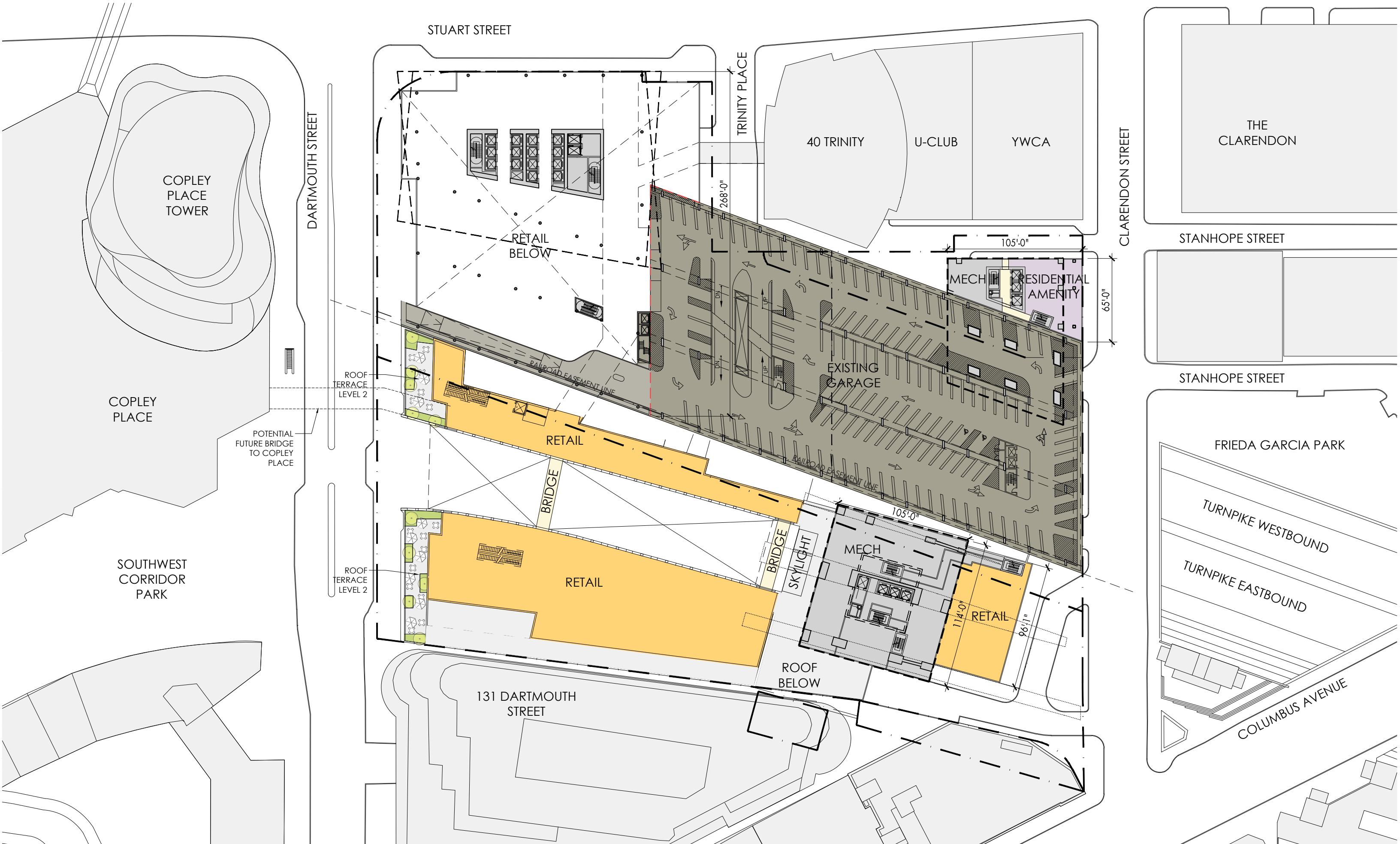
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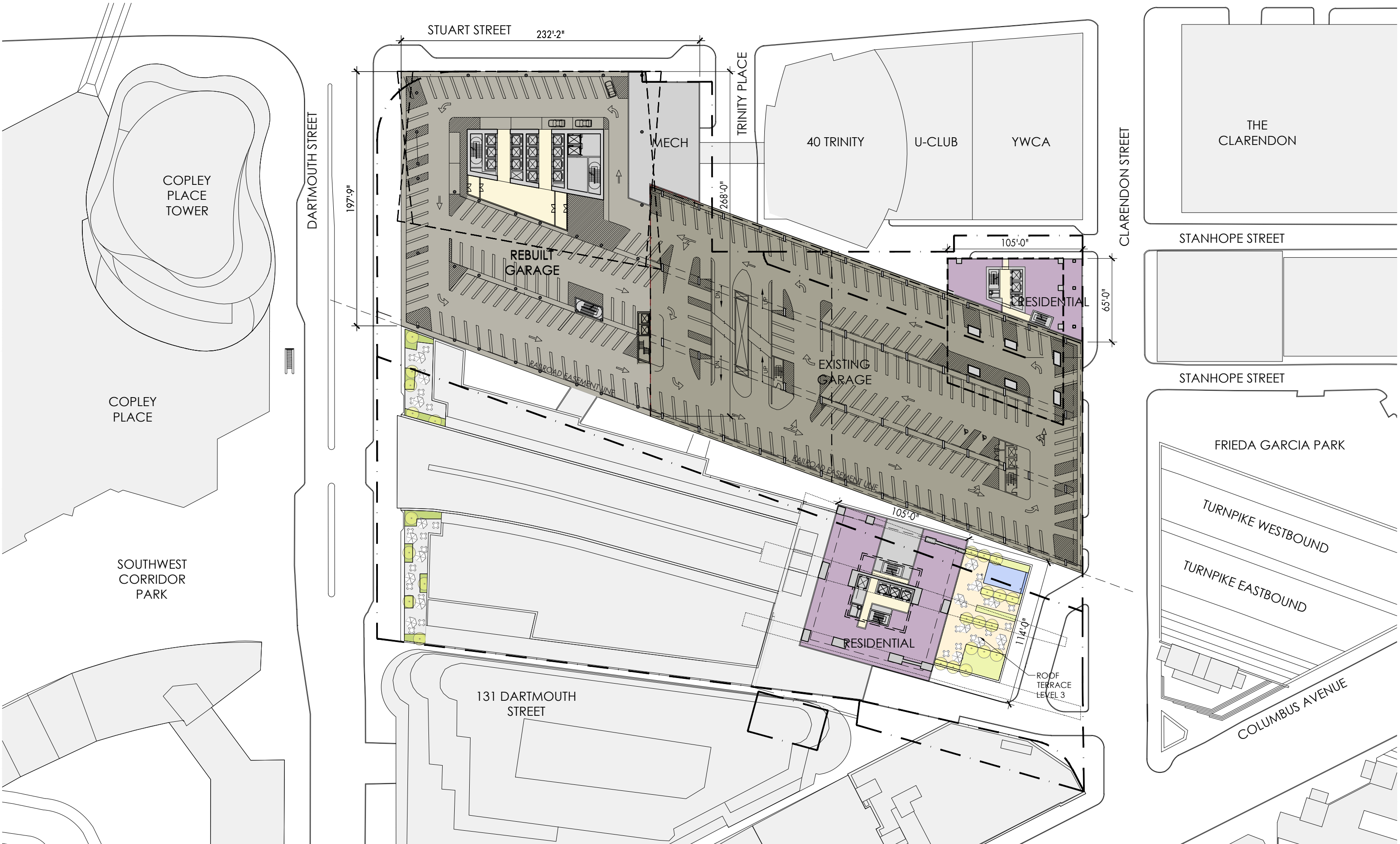




BASE SCHEME STUART STREET / TURNPIKE / PLATFORM LEVEL







BASE SCHEME +55', +65' LEVEL









BASE SCHEME TYPICAL LEVEL AT TOP OF BUILDING



BASE SCHEME ROOF PLAN



COPLEY SQUARE ST JAMES AVE

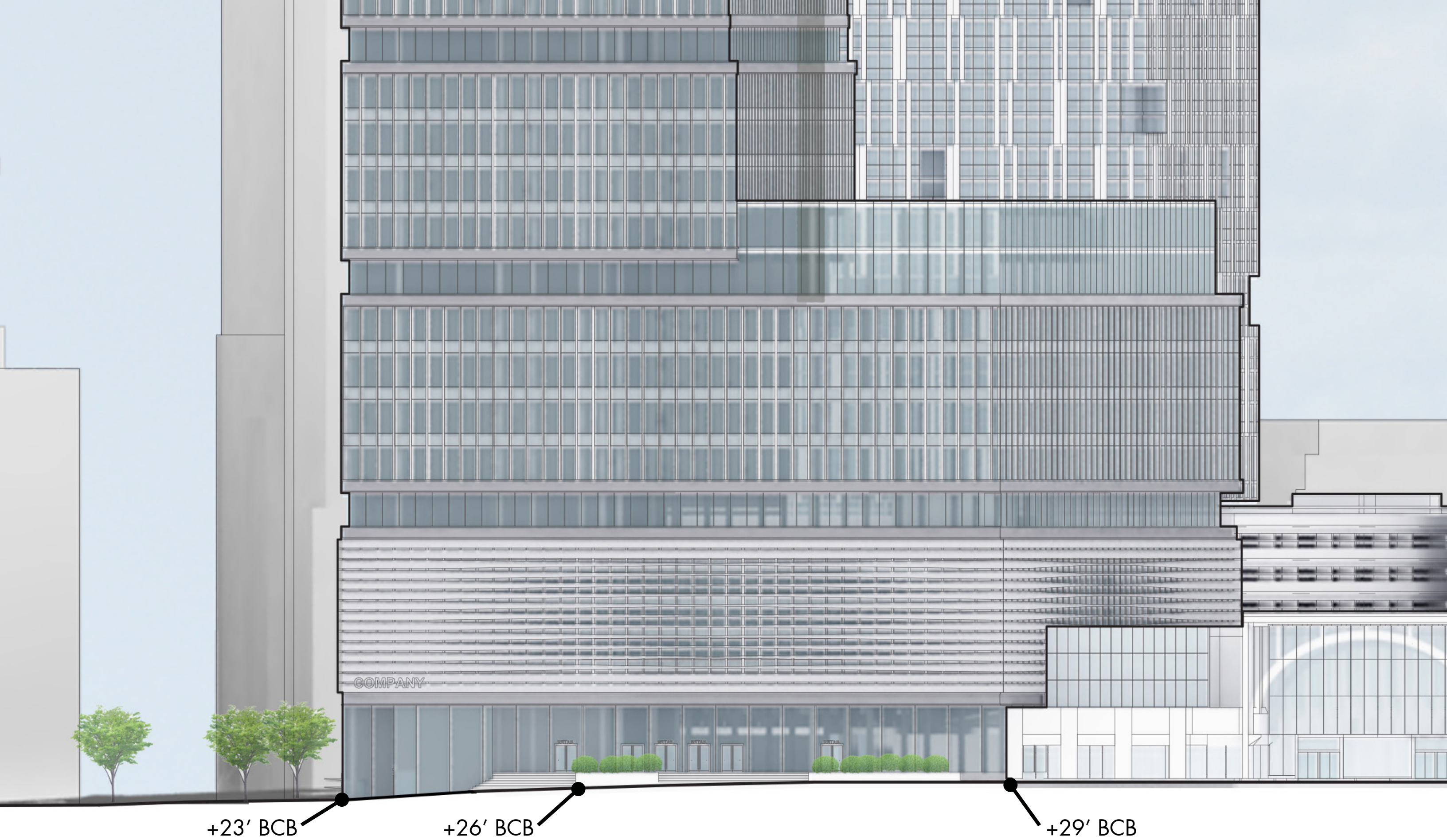
STUART STREET

GARAGE WEST

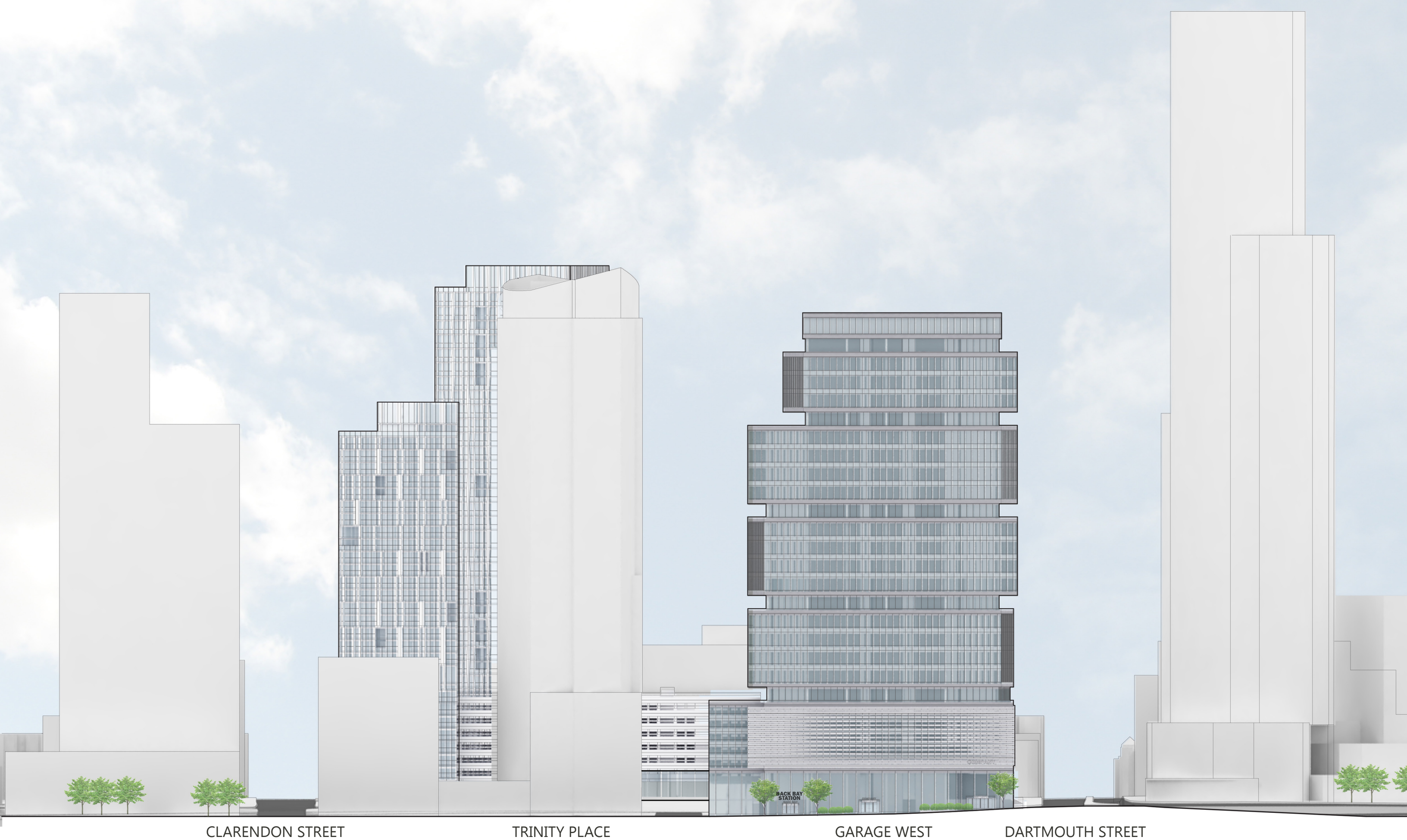
STATION WEST

BASE SCHEME DARTMOUTH STREET ELEVATION

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BASE SCHEME DARTMOUTH STREET ELEVATION - ENLARGED



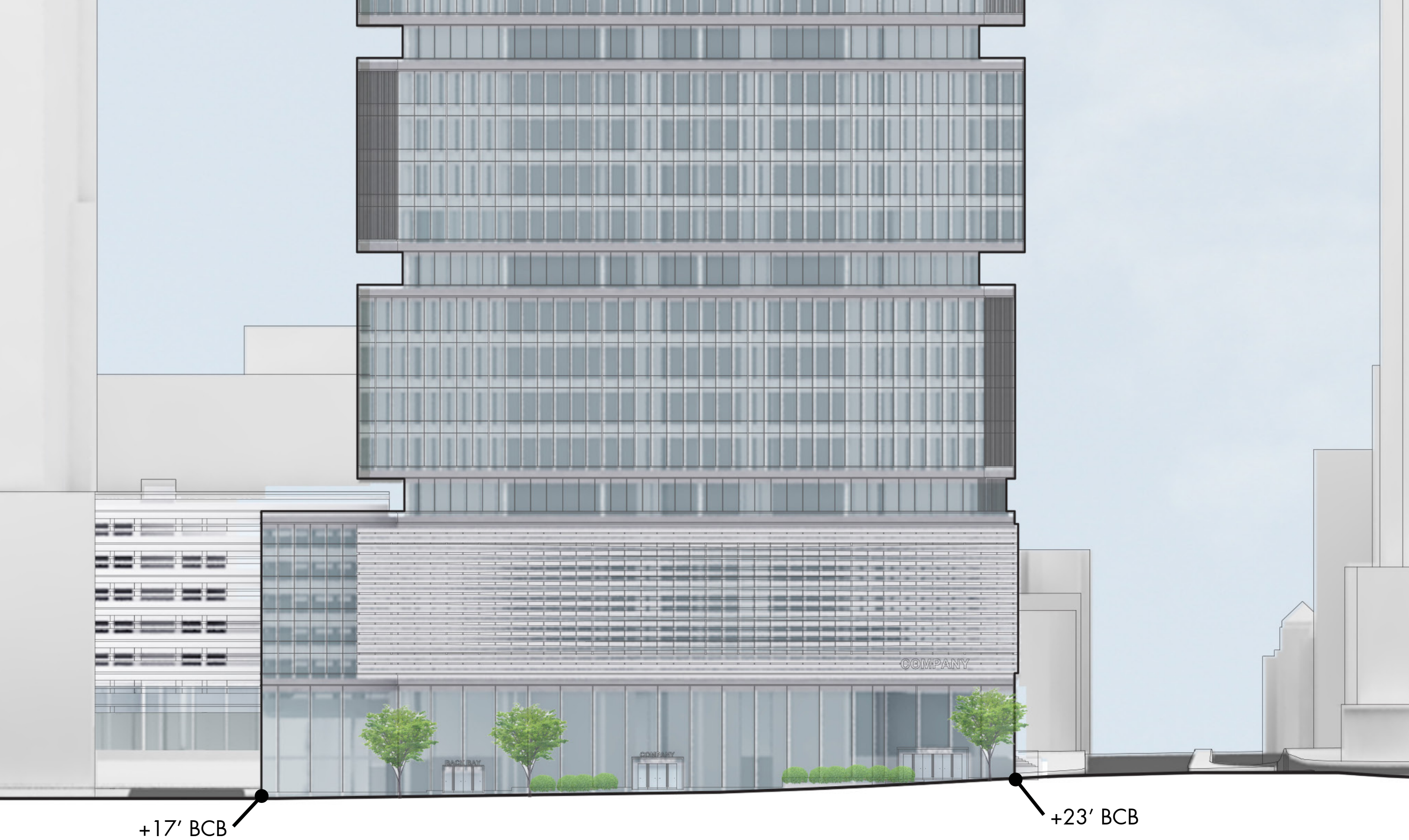
CLARENDON STREET

TRINITY PLACE

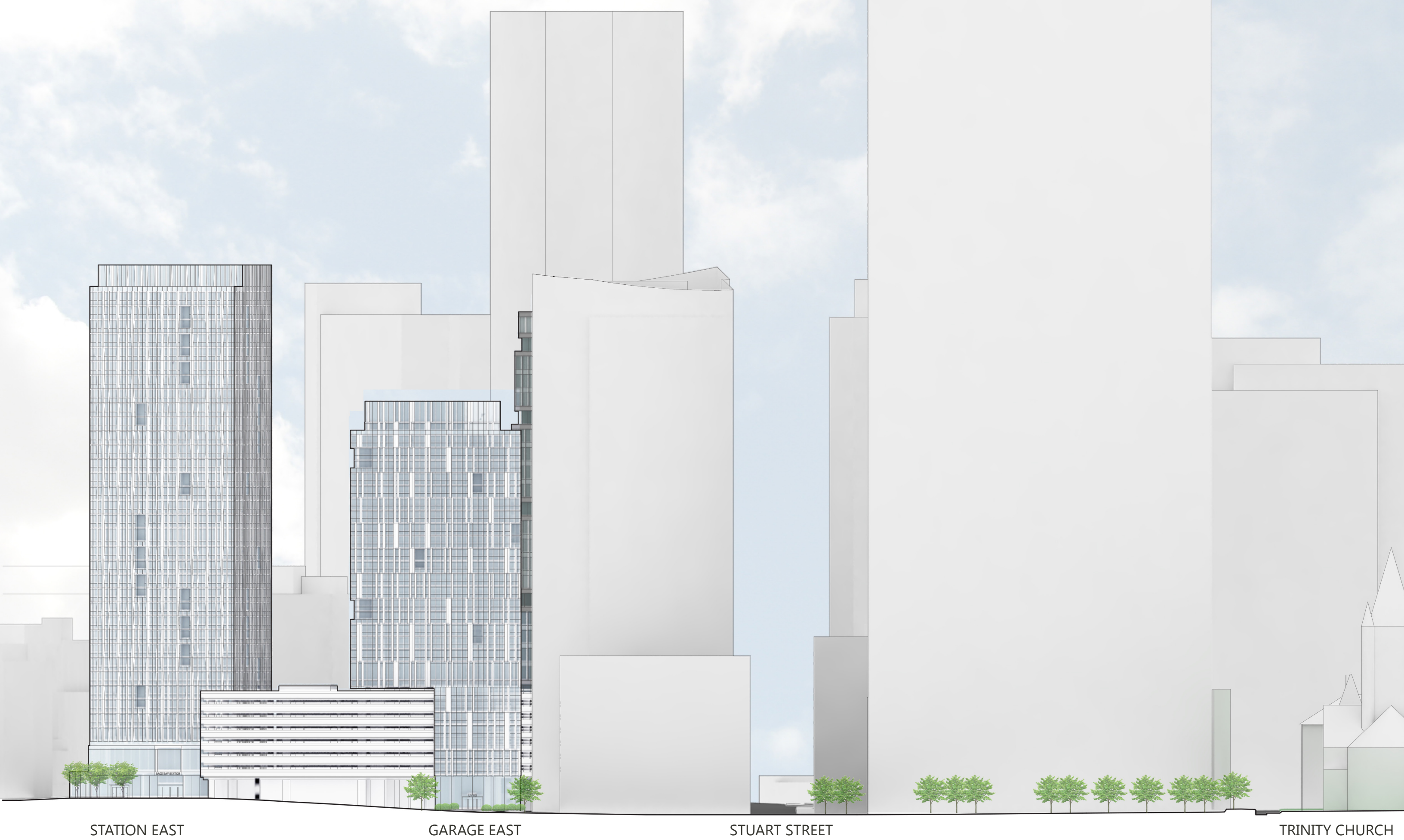
GARAGE WEST

DARTMOUTH STREET

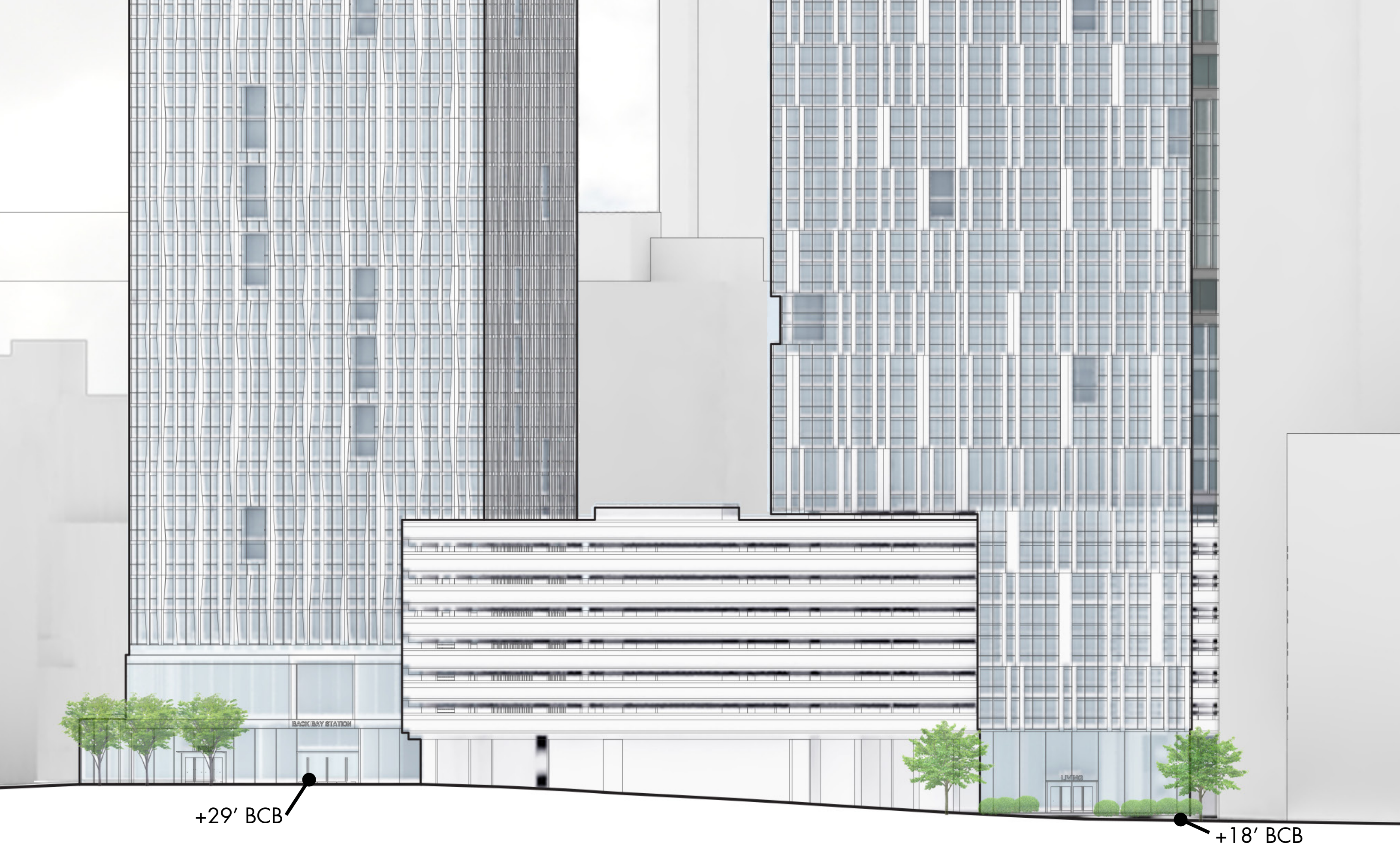
BASE SCHEME STUART STREET ELEVATION



BASE SCHEME STUART STREET ELEVATION - ENLARGED



BASE SCHEME CLARENDON STREET ELEVATION



+29' BCB

+18' BCB

BASE SCHEME CLARENDON STREET ELEVATION - ENLARGED

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GARAGE WEST ALTERNATE SCHEME





GARAGE WEST ALTERNATE SCHEME VIEW FROM SOUTHWEST CORRIDOR

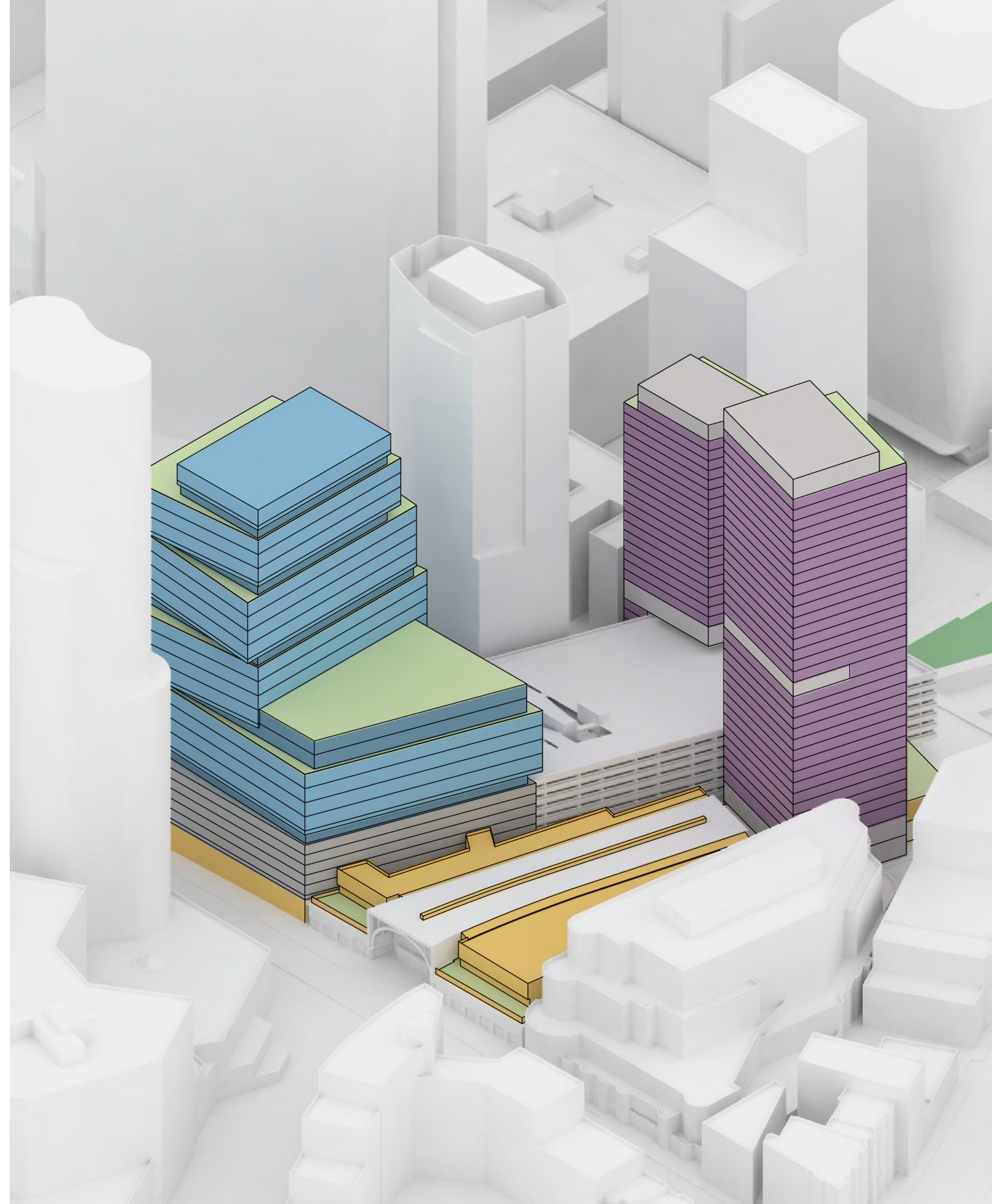
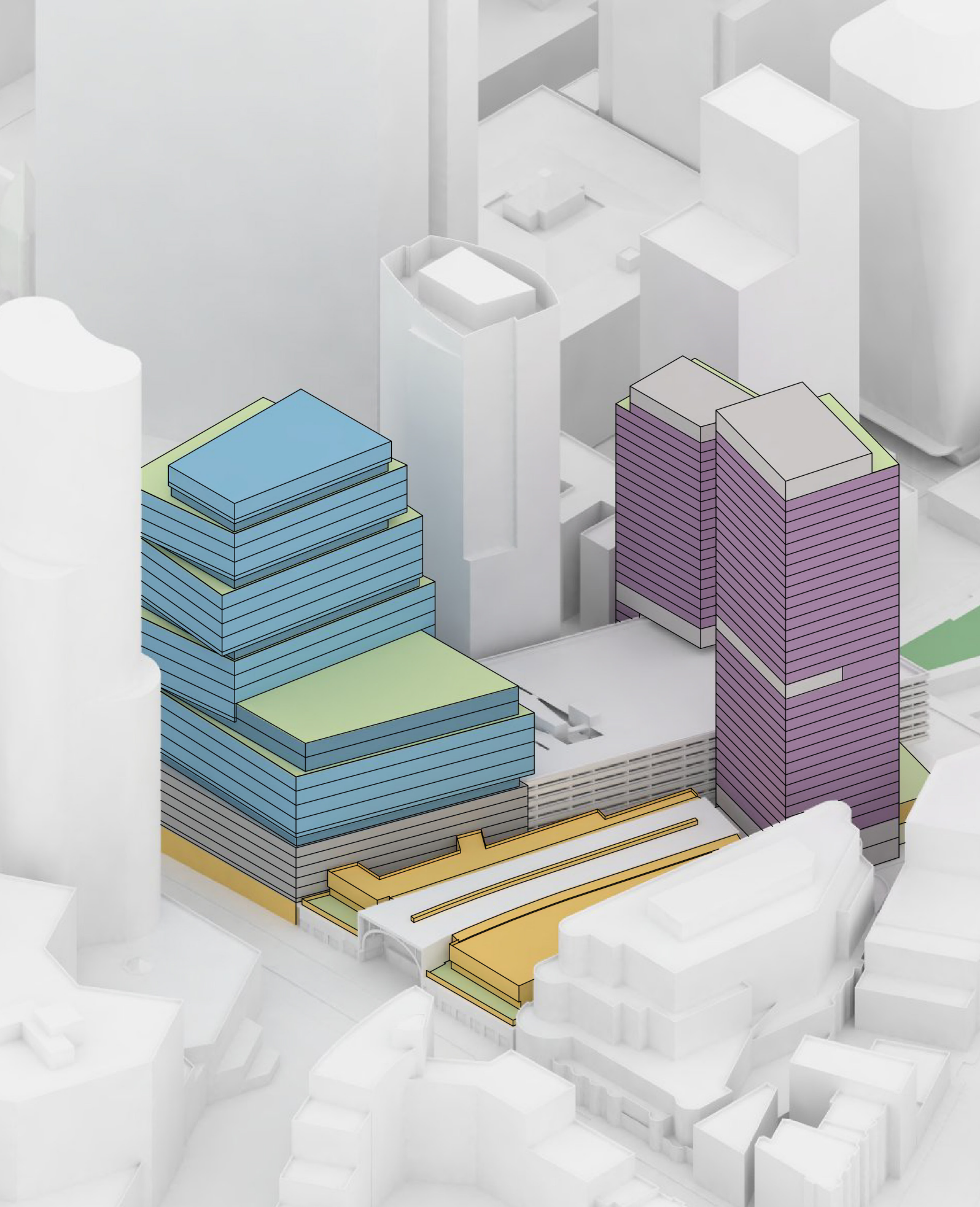




GARAGE WEST ALTERNATE SCHEME - STUART STREET AND PLATFORM / TURNPIKE LEVEL



GARAGE WEST ALTERNATE SCHEME - TYPICAL HIGHRISE



GARAGE WEST - AXON LOOKING TO THE NORTHEAST - BASE SCHEME AND ALTERNATE SCHEME

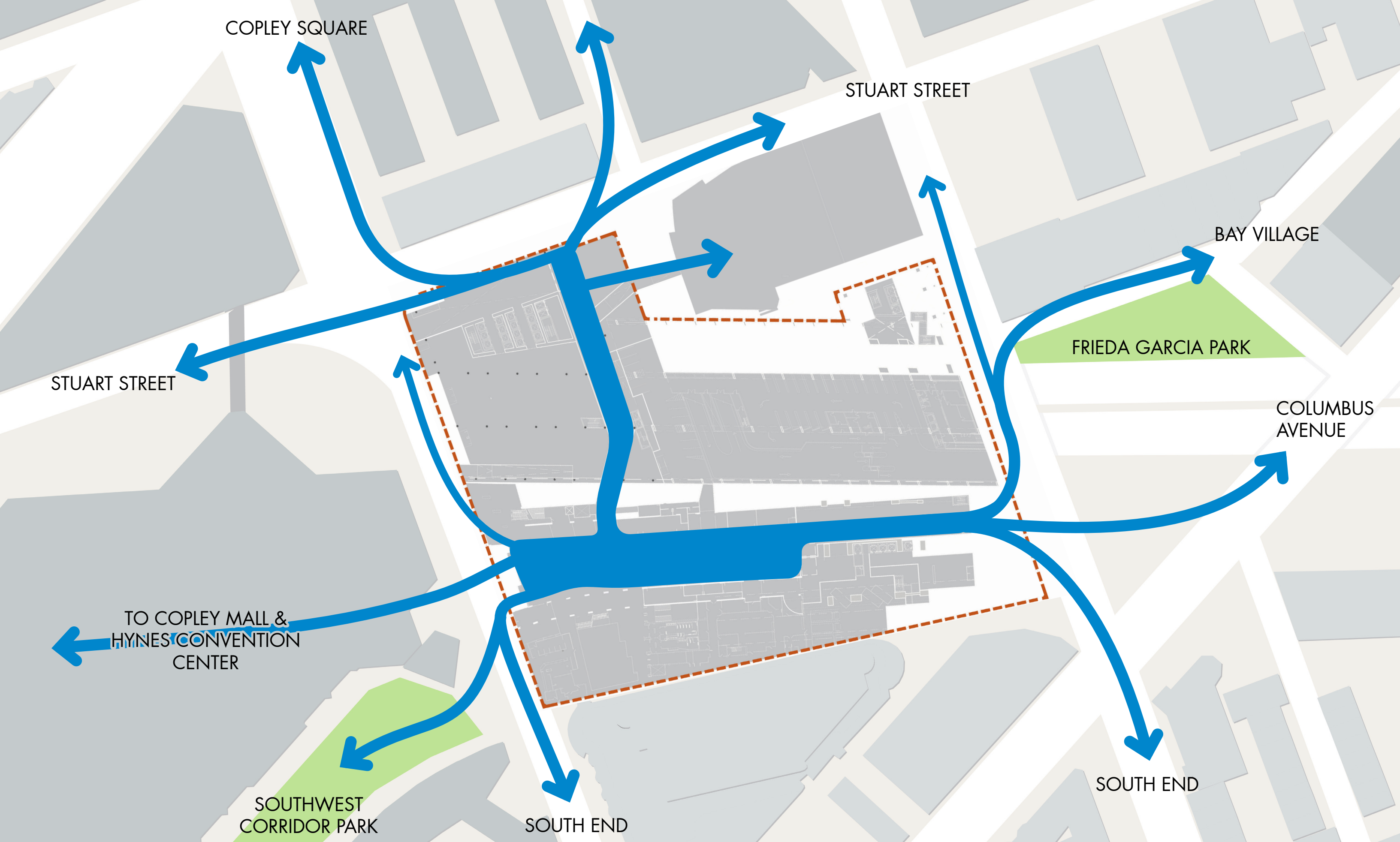
STATION AIR RIGHTS

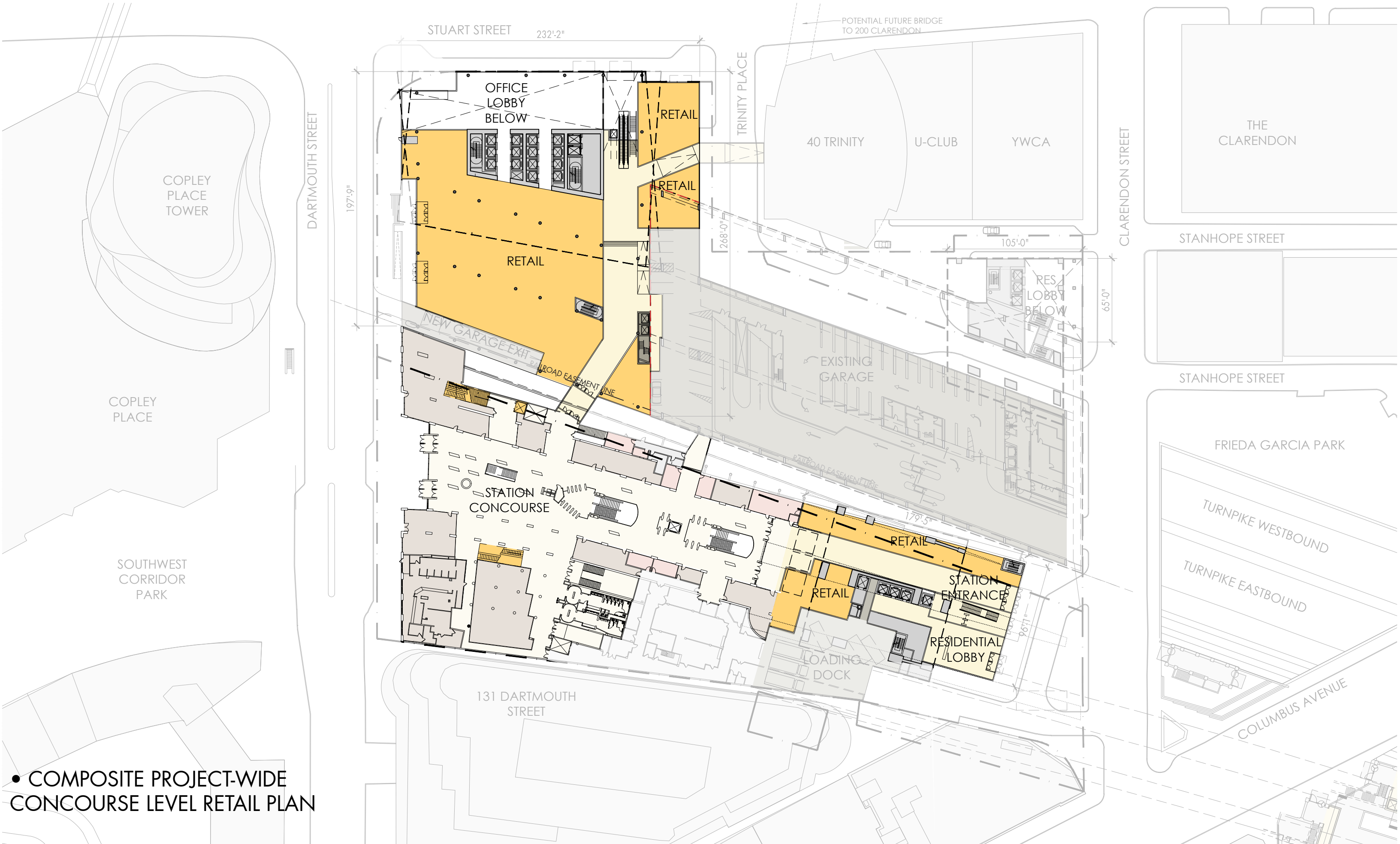




BASE SCHEME VIEW FROM DARTMOUTH STREET

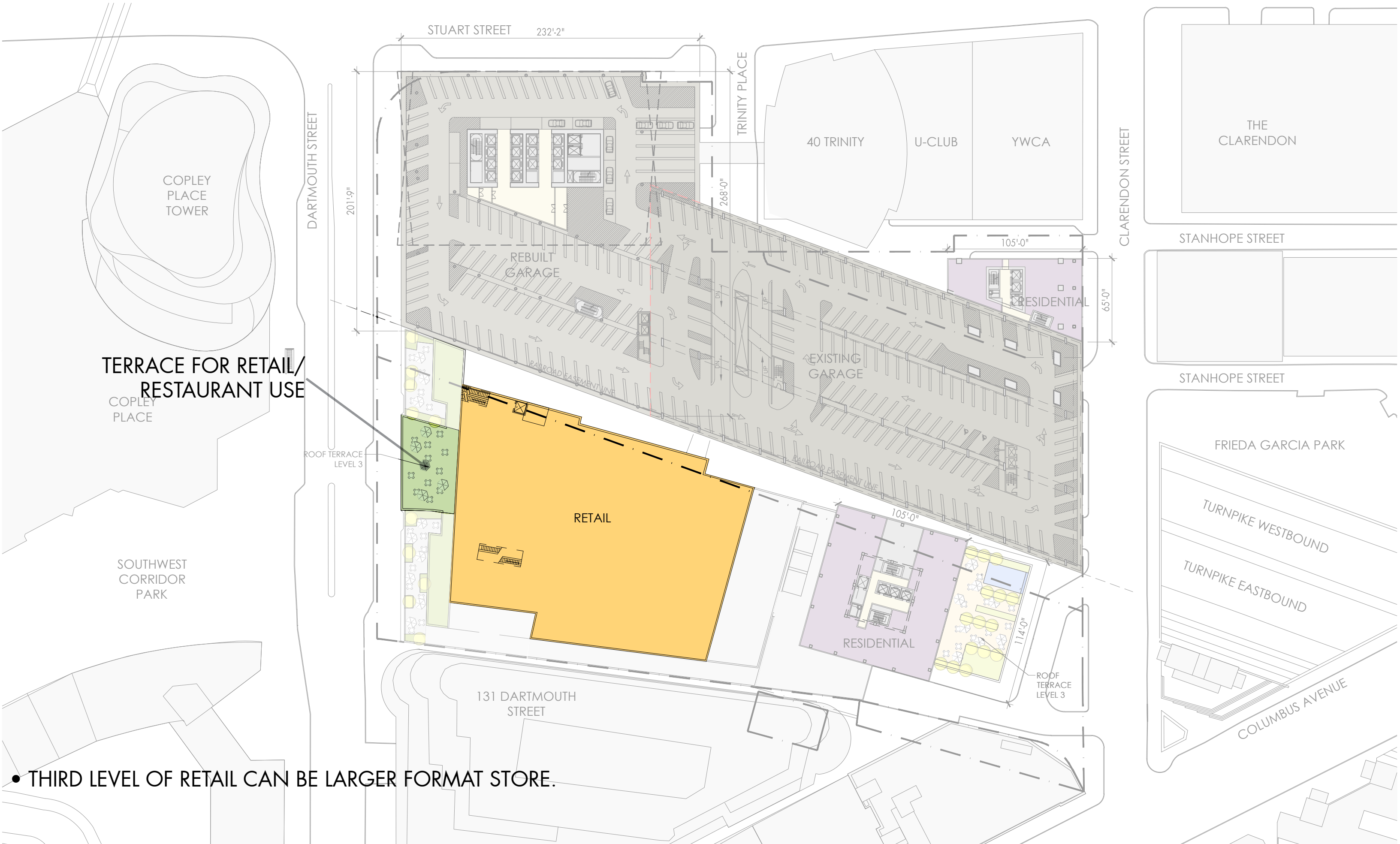






• COMPOSITE PROJECT-WIDE
CONCOURSE LEVEL RETAIL PLAN

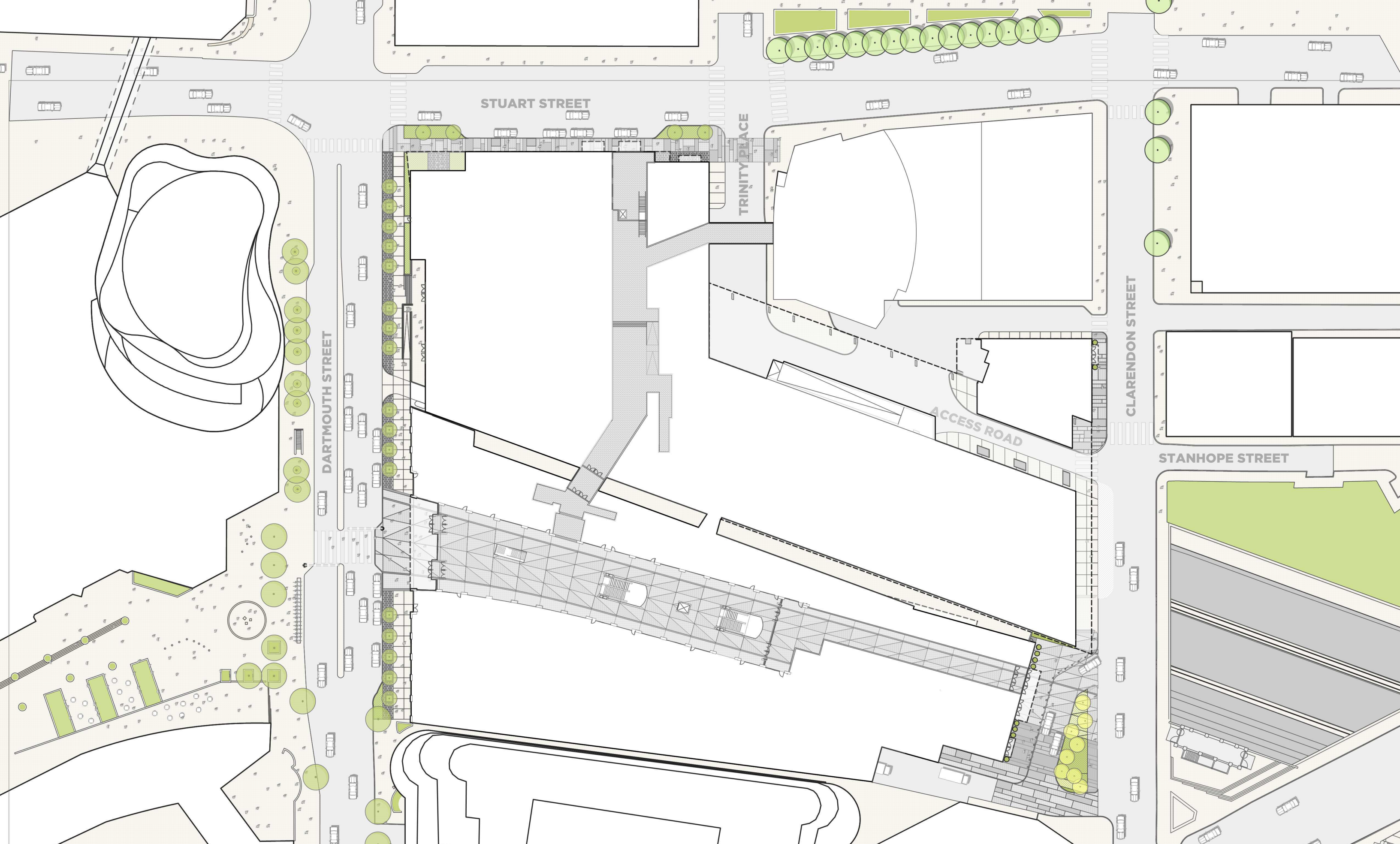
STATION WEST, STATION EAST AND GARAGE WEST CONCOURSE

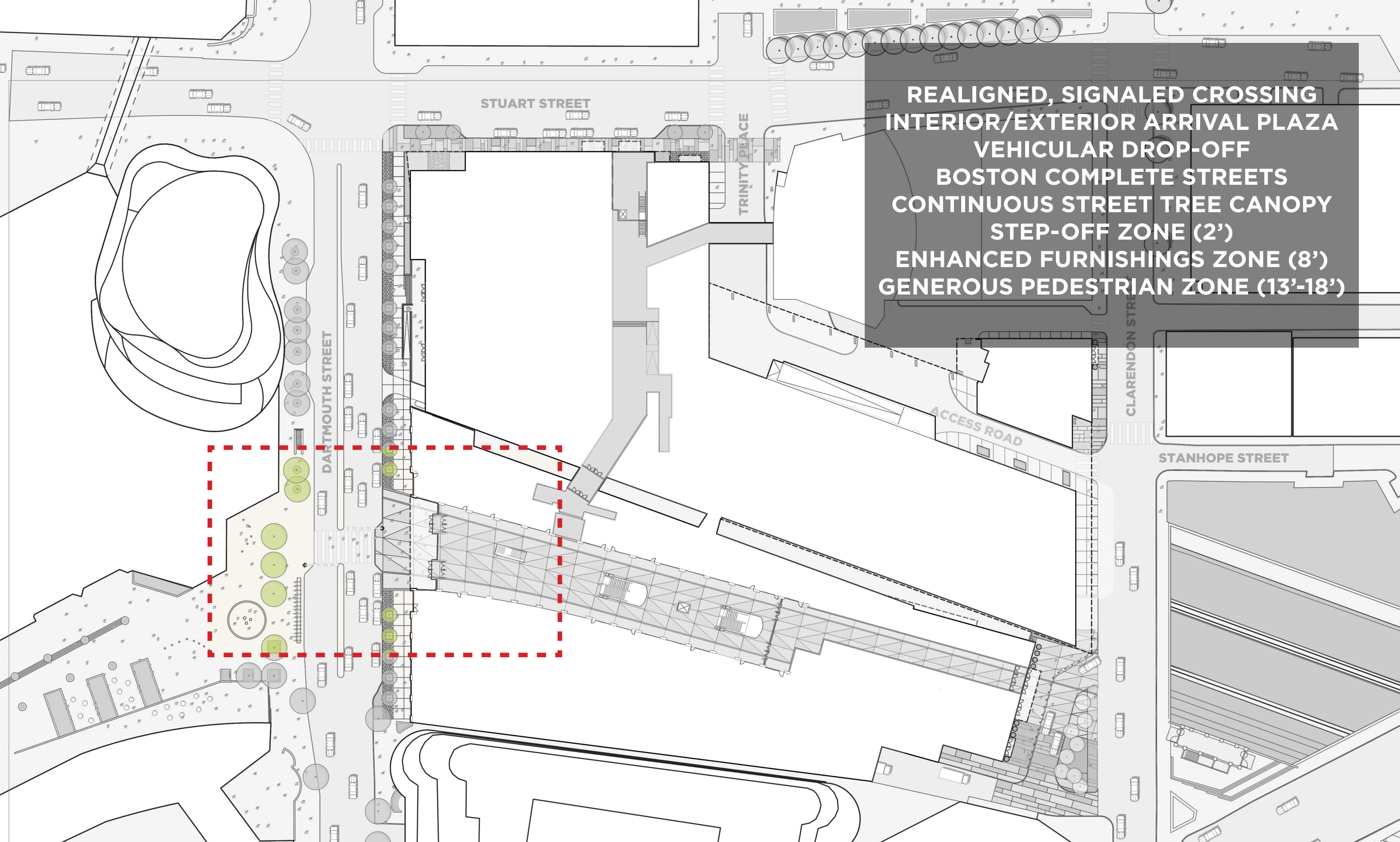


THIRD LEVEL RETAIL OVER STATION

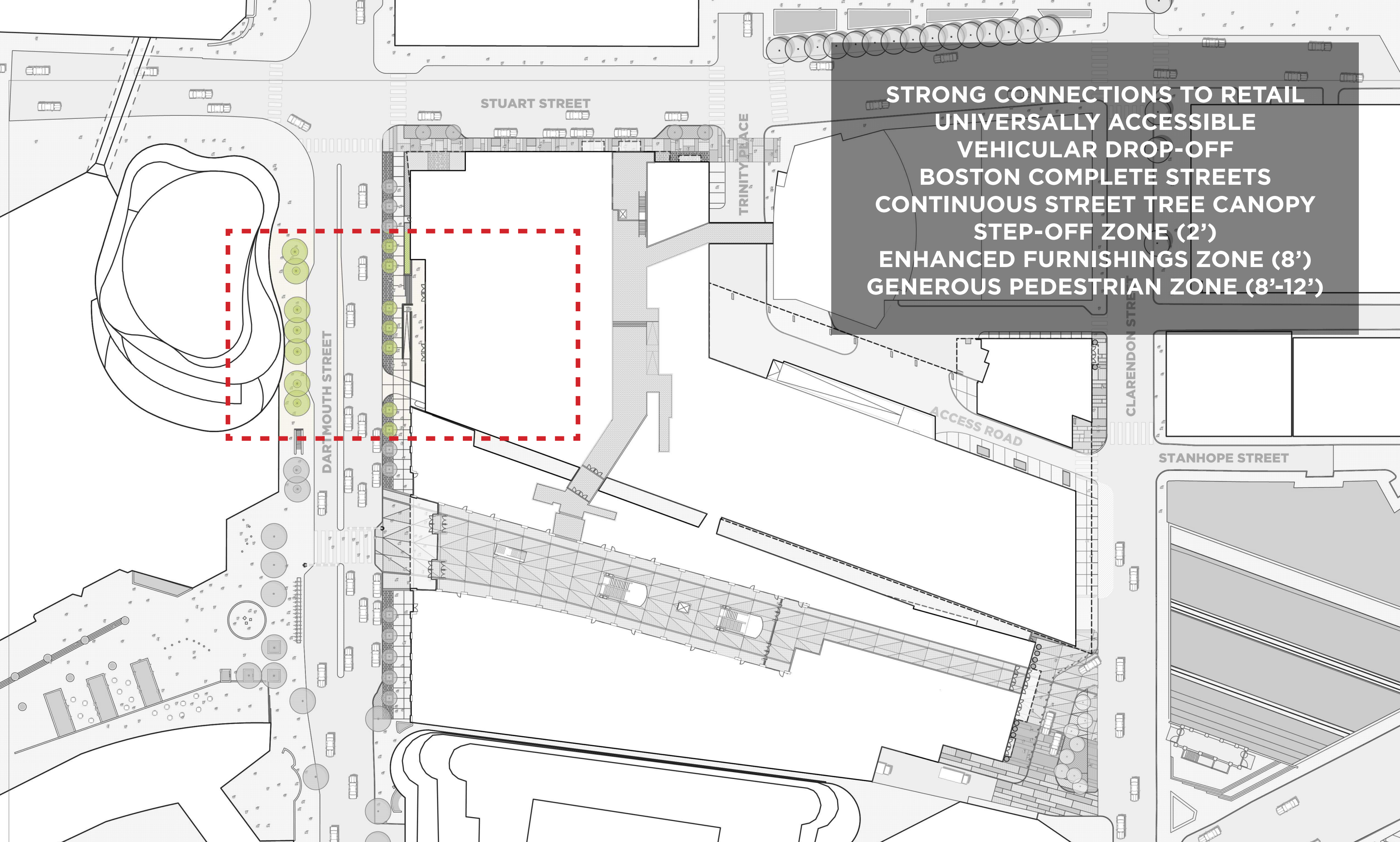
LANDSCAPE / STREETSCAPE IMPROVEMENTS



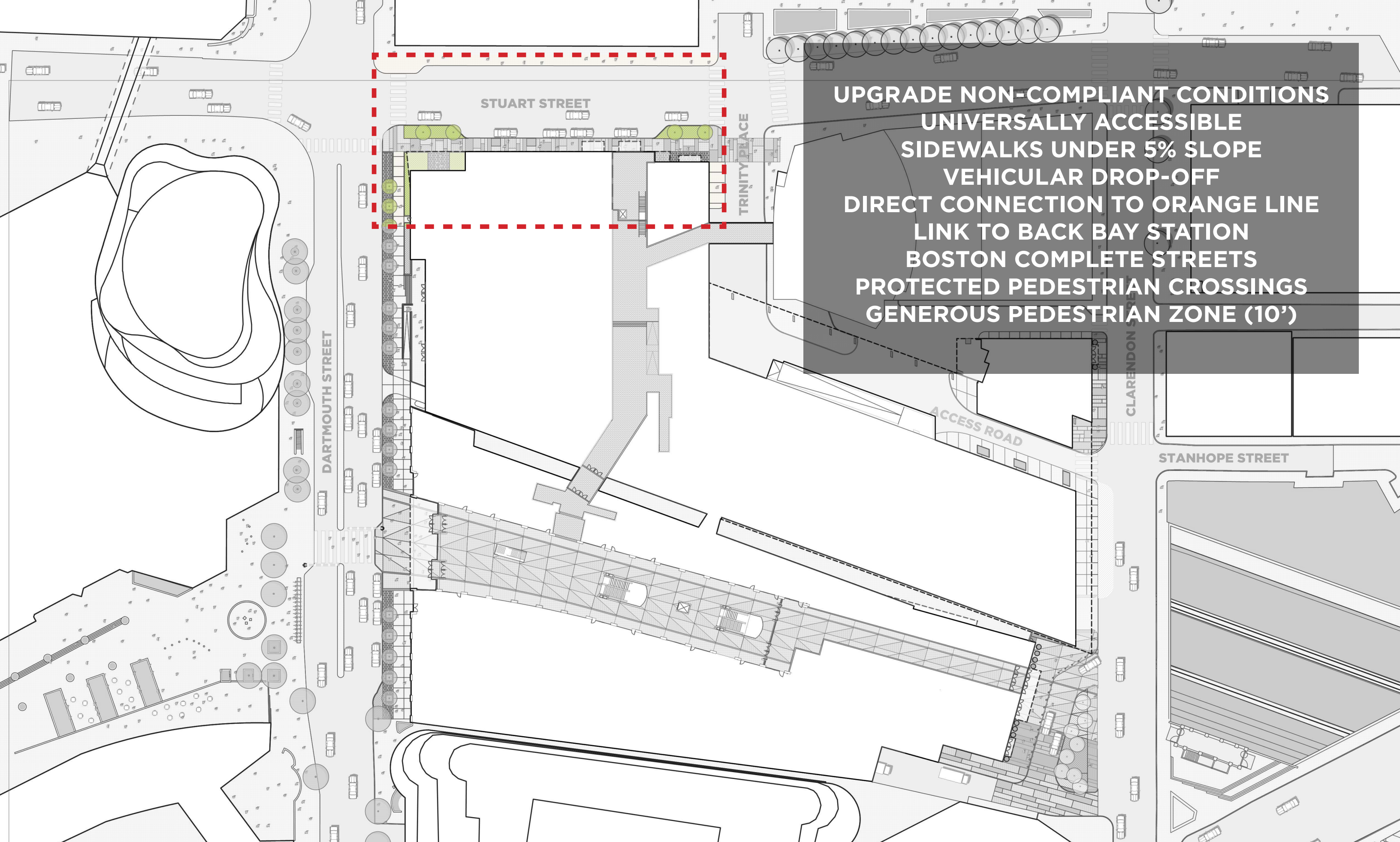




- REALIGNED, SIGNALLED CROSSING
- INTERIOR/EXTERIOR ARRIVAL PLAZA
- VEHICULAR DROP-OFF
- BOSTON COMPLETE STREETS
- CONTINUOUS STREET TREE CANOPY
- STEP-OFF ZONE (2')
- ENHANCED FURNISHINGS ZONE (8')
- GENEROUS PEDESTRIAN ZONE (13'-18')

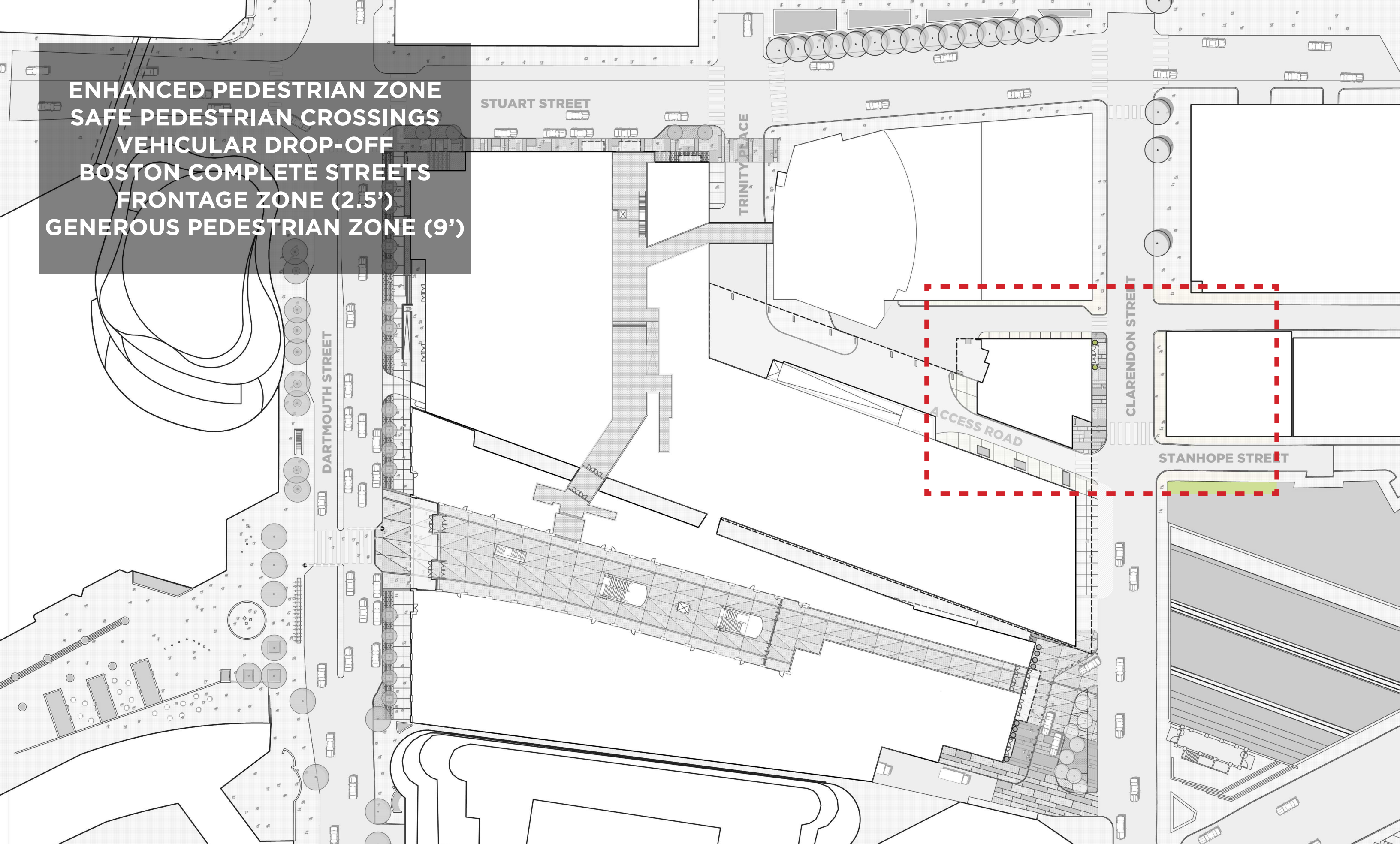


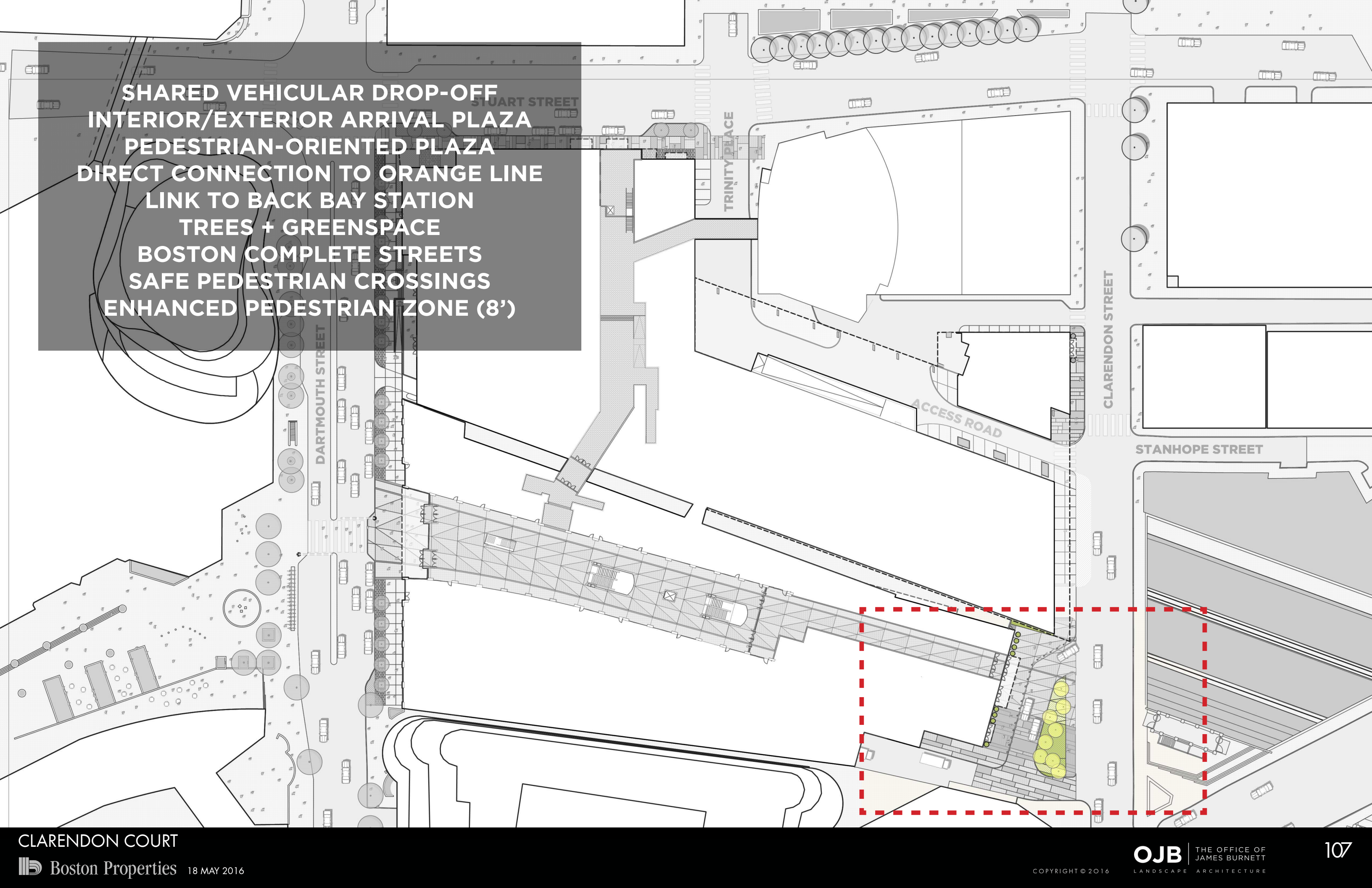
STRONG CONNECTIONS TO RETAIL
UNIVERSALLY ACCESSIBLE
VEHICULAR DROP-OFF
BOSTON COMPLETE STREETS
CONTINUOUS STREET TREE CANOPY
STEP-OFF ZONE (2')
ENHANCED FURNISHINGS ZONE (8')
GENEROUS PEDESTRIAN ZONE (8'-12')



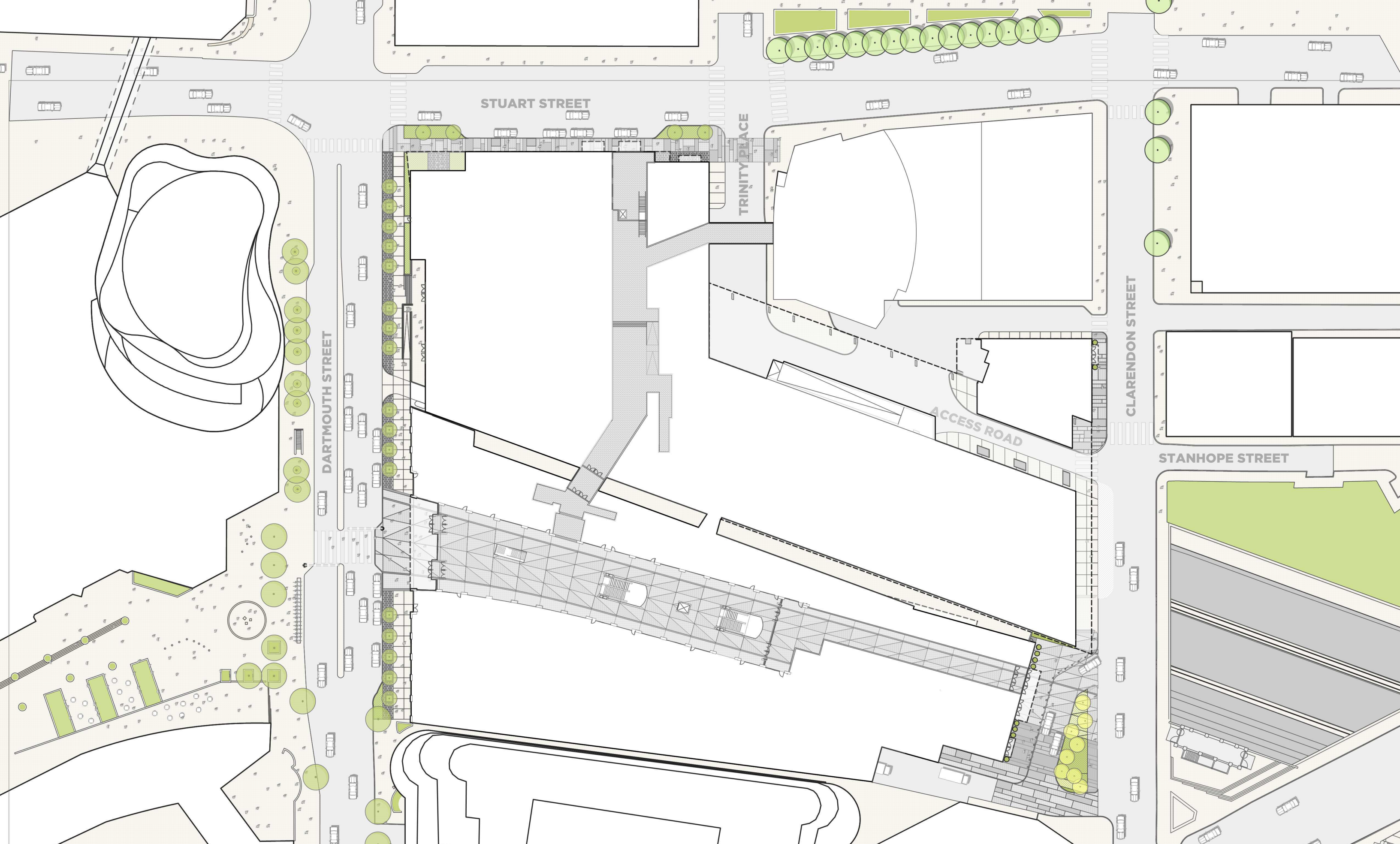
UPGRADE NON-COMPLIANT CONDITIONS
UNIVERSALLY ACCESSIBLE
SIDEWALKS UNDER 5% SLOPE
VEHICULAR DROP-OFF
DIRECT CONNECTION TO ORANGE LINE
LINK TO BACK BAY STATION
BOSTON COMPLETE STREETS
PROTECTED PEDESTRIAN CROSSINGS
GENEROUS PEDESTRIAN ZONE (10')

ENHANCED PEDESTRIAN ZONE
SAFE PEDESTRIAN CROSSINGS
VEHICULAR DROP-OFF
BOSTON COMPLETE STREETS
FRONTAGE ZONE (2.5')
GENEROUS PEDESTRIAN ZONE (9')





SHARED VEHICULAR DROP-OFF
INTERIOR/EXTERIOR ARRIVAL PLAZA
PEDESTRIAN-ORIENTED PLAZA
DIRECT CONNECTION TO ORANGE LINE
LINK TO BACK BAY STATION
TREES + GREENSPACE
BOSTON COMPLETE STREETS
SAFE PEDESTRIAN CROSSINGS
ENHANCED PEDESTRIAN ZONE (8')



TRAFFIC / PARKING



TRAVEL MODE SHARES FOR PROJECT LOCATION

Mode	Office	Residential	Retail
Vehicles	30%	19%	30%
Rideshare	7%	4%	7%
Transit	51%	31%	51%
Walk	9%	37%	9%
Bike	1%	3%	1%
Other	2%	6%	2%

PRELIMINARY PROJECT TRIP GENERATION PROJECTIONS







BASE SCHEMES (TOTAL TRIPS ENTER + EXIT), UN-ADJUSTED FOR SHARED TRIPS

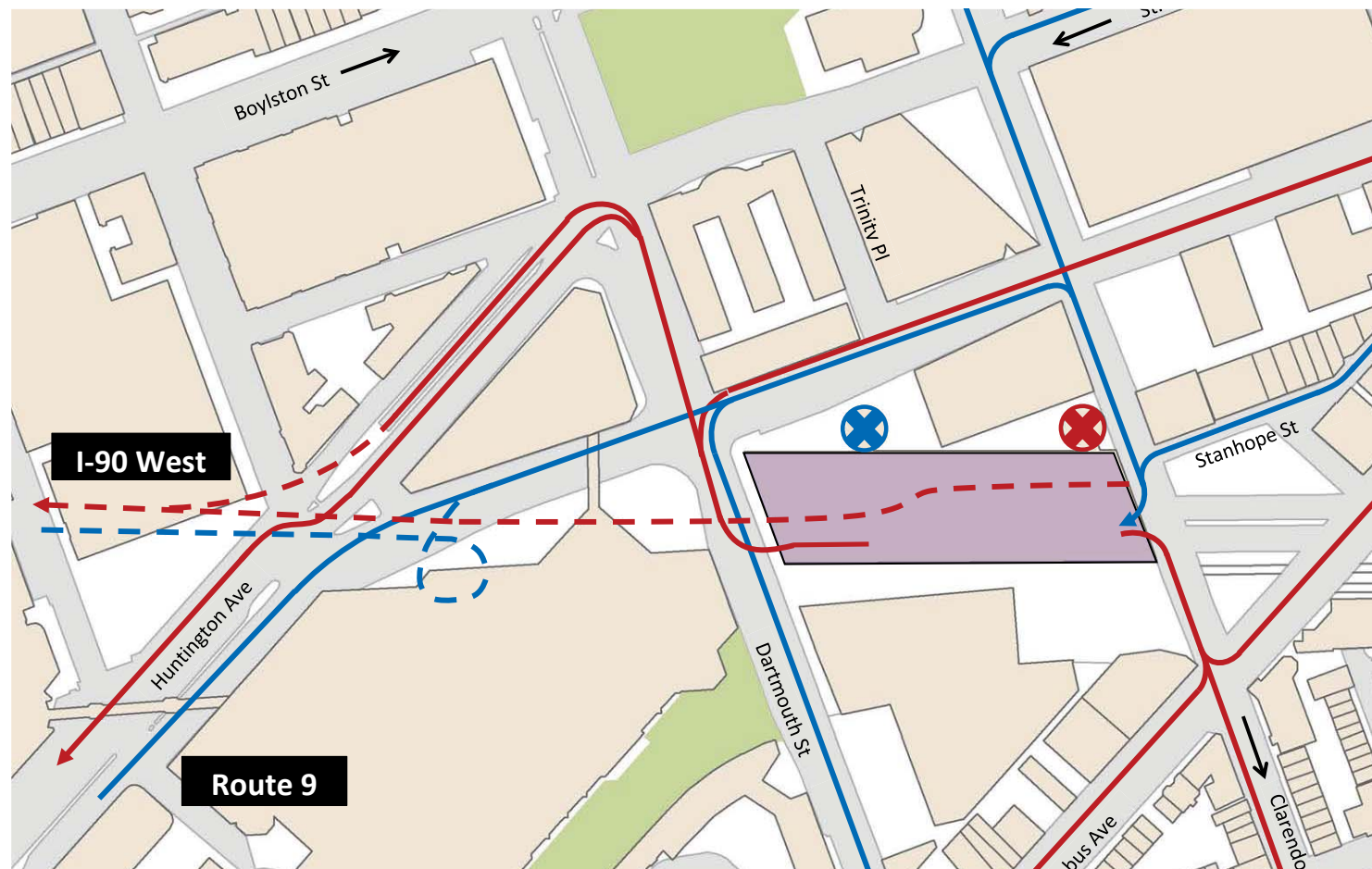
	AVO	Vehicle	Transit	Walk	Bike	Other
Daily (24-hour)						
Office	1.27	2,084	3,648	644	72	144
Retail	1.27	1,296	2,266	400	42	88
Residential	1.30	800	1,398	1,668	136	270
Total Daily		4,180	7,198	2,692	250	498
AM Peak Hour		341	595	211	20	39
PM Peak Hour		344	604	178	16	33

PROJECT PARKING RATIOS

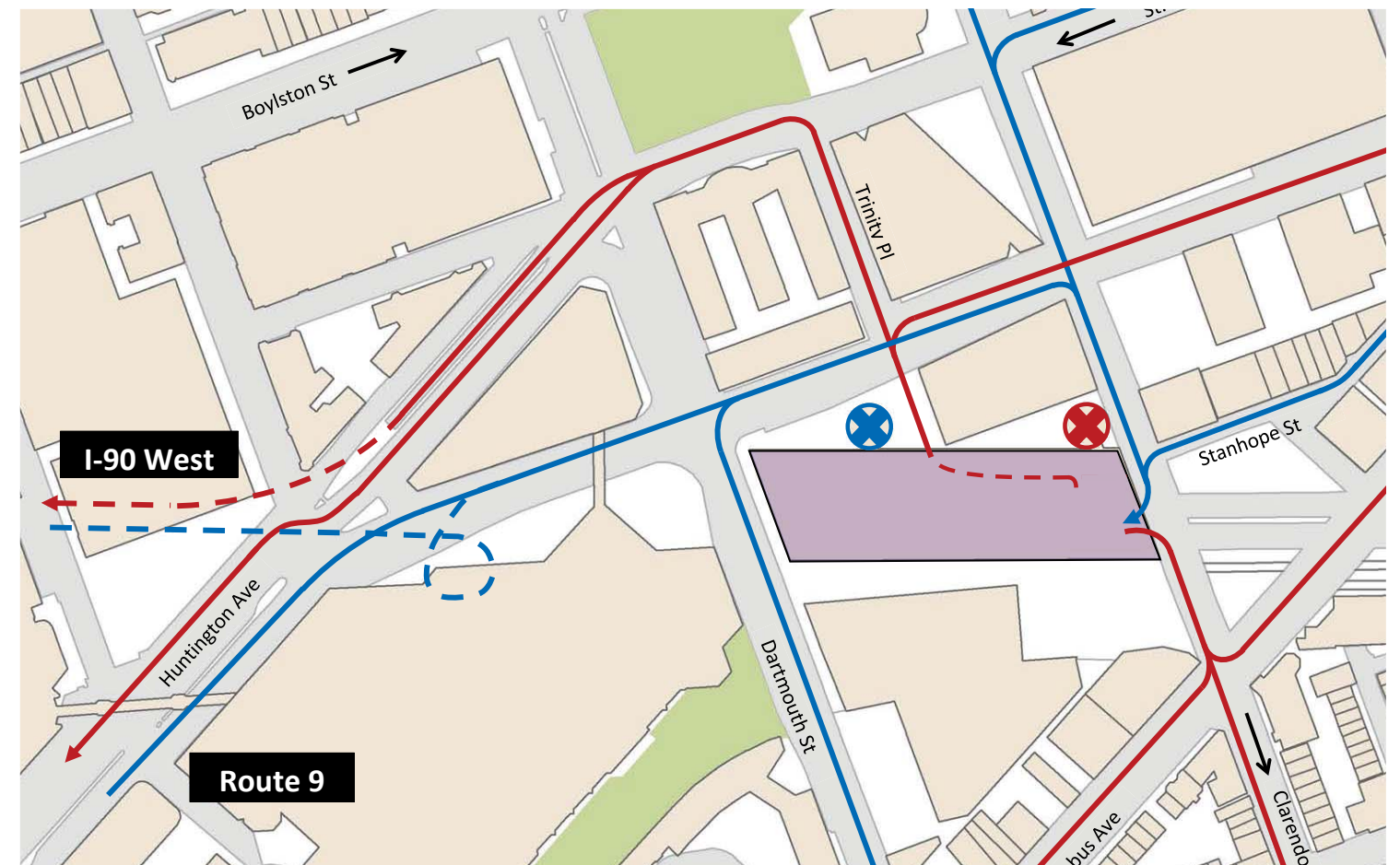
Land Use	Size	Parking Ratio	Parking Spaces
Office	574,024 SF	0.4 spaces per KSF	230
Residential	600 units	0.4 spaces per unit	180
Retail	62,274 SF	0.4 spaces per KSF	25
Project Sub-total			435
Existing commitments			992
Permitted public parking			Up to 576
Total			Up to 2,013

KEY

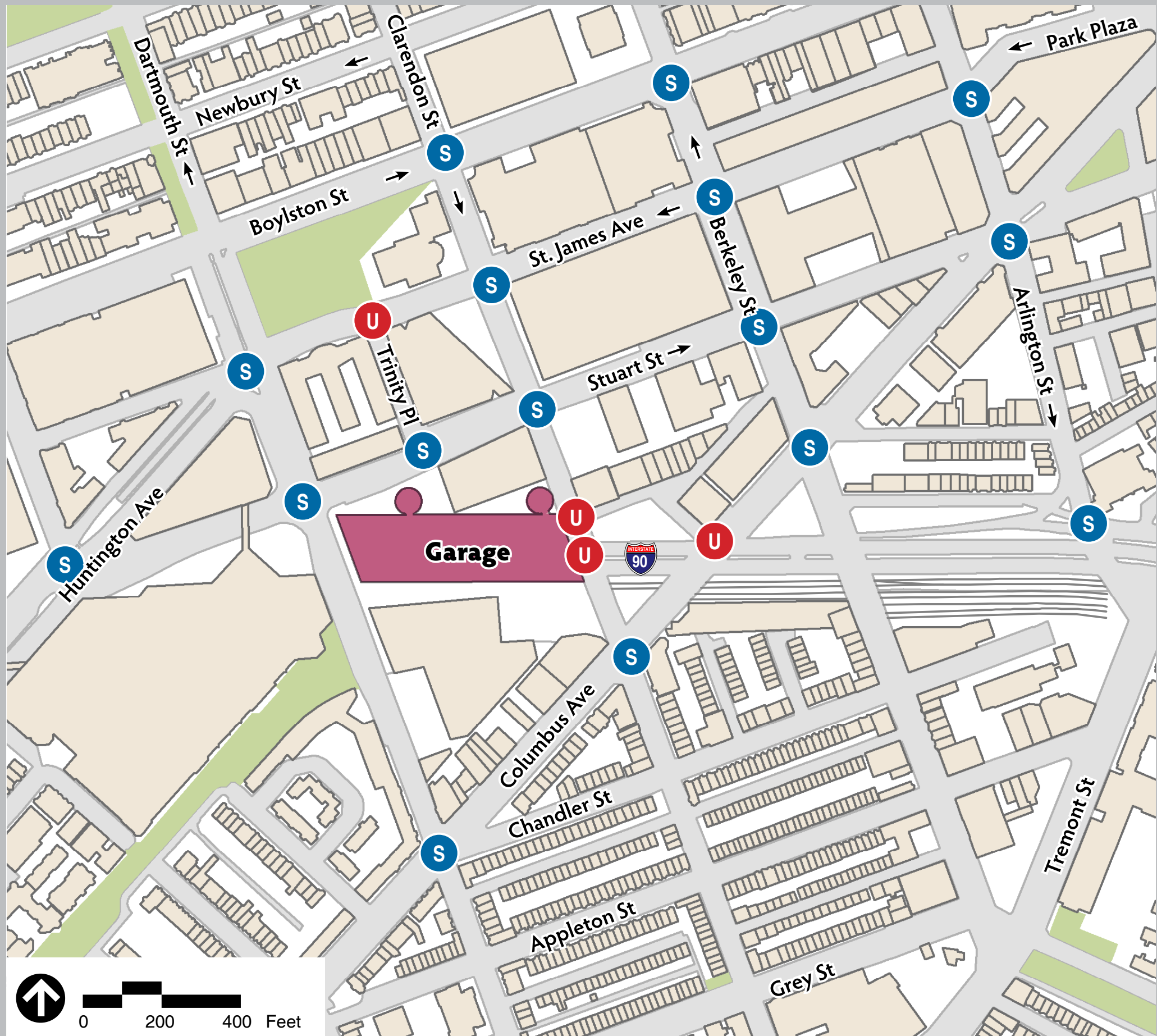
-  GARAGE INBOUND
-  GARAGE OUTBOUND
-  GARAGE INBOUND BELOW GRADE
-  GARAGE OUTBOUND BELOW GRADE
-  EXISTING GARAGE ENTRY DRUM ELIMINATED
-  EXISTING GARAGE EXIT DRUM ELIMINATED



I-90 WESTBOUND ON-RAMP OPEN



I-90 WESTBOUND ON-RAMP CLOSED

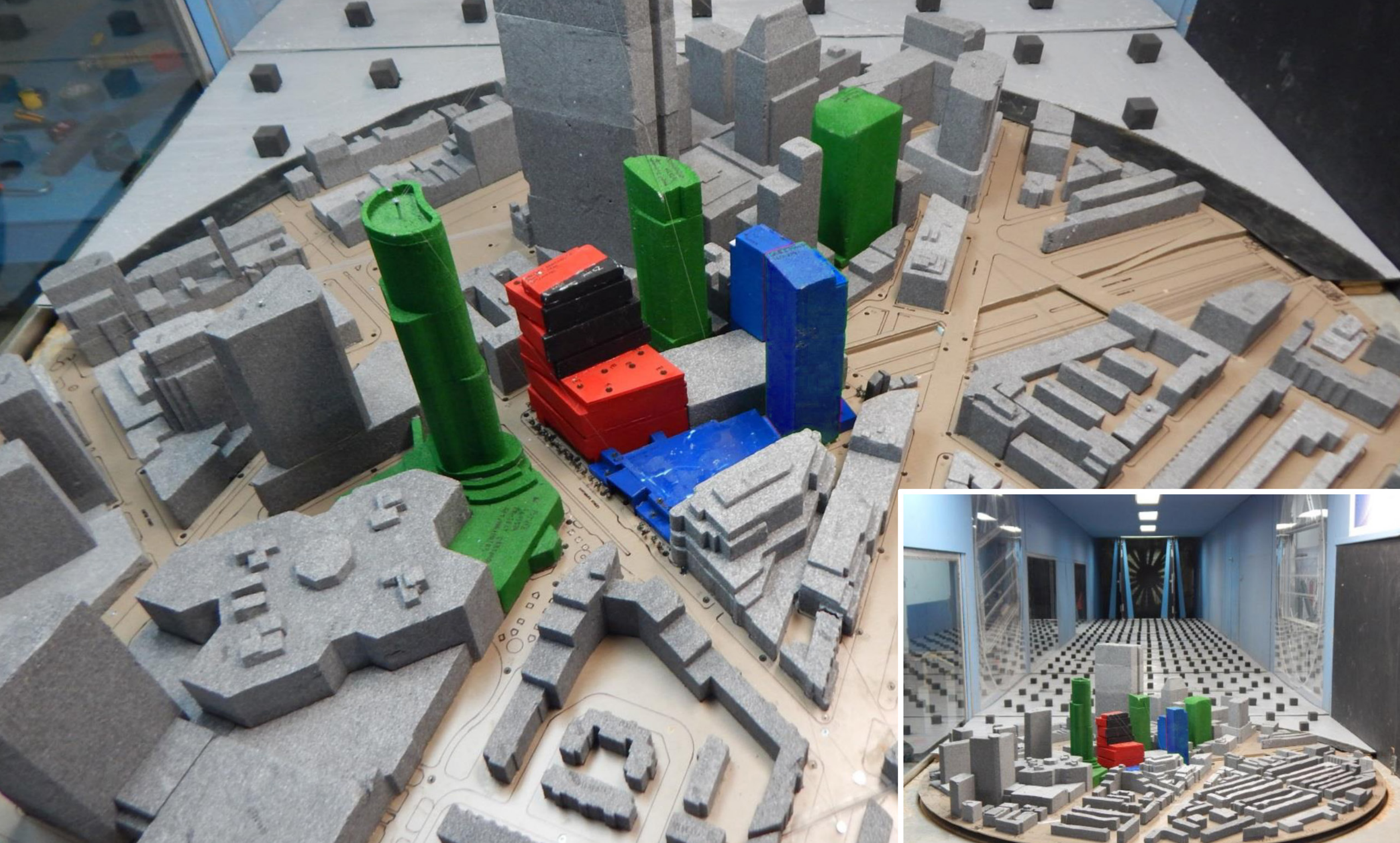


- S Signalized Intersection
- U Unsignalized Intersection

PROPOSED STUDY AREA

PEDESTRIAN LEVEL WIND STUDY



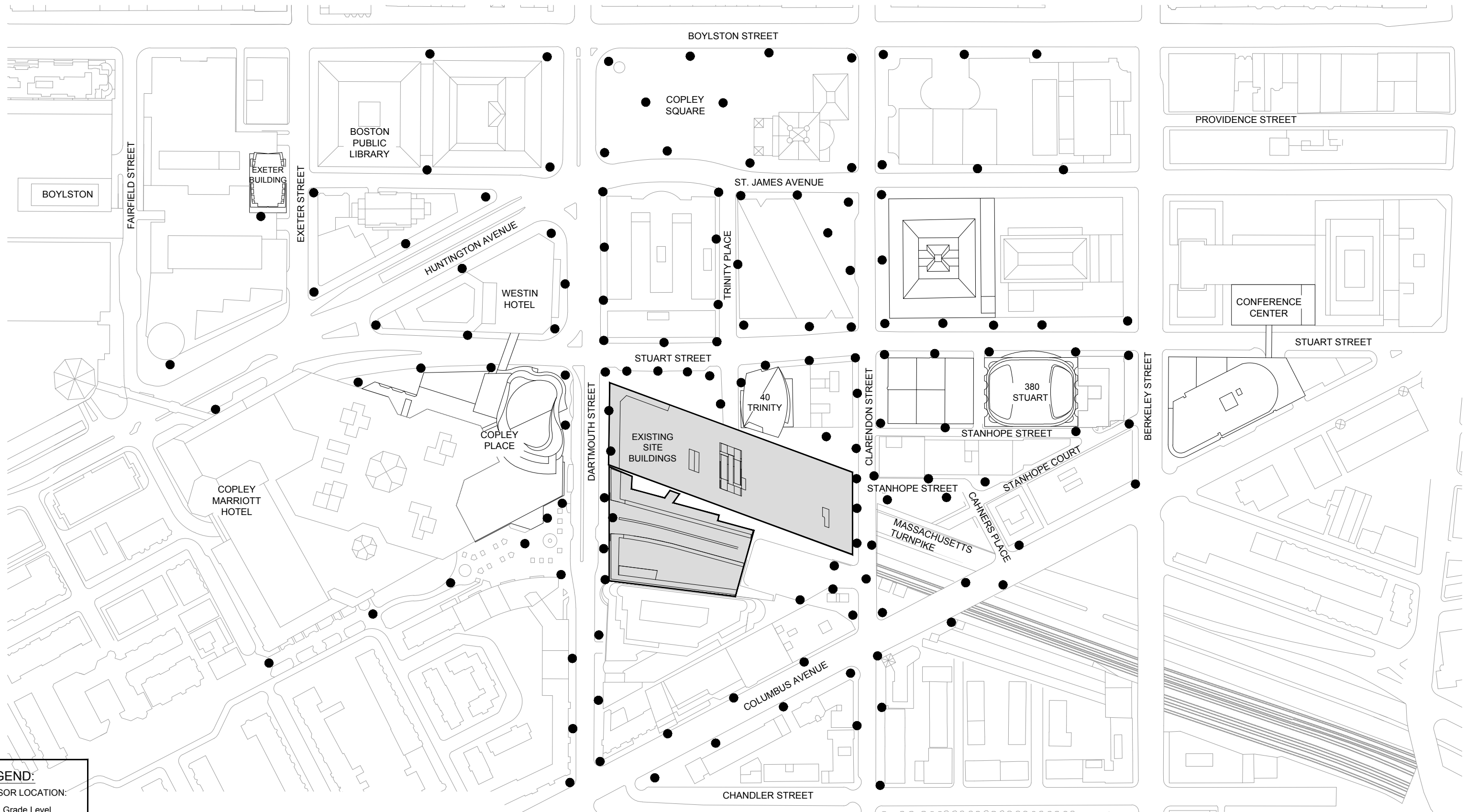


WIND TUNNEL ANALYSIS - BASE SCHEME

 Boston Properties 18 MAY 2016



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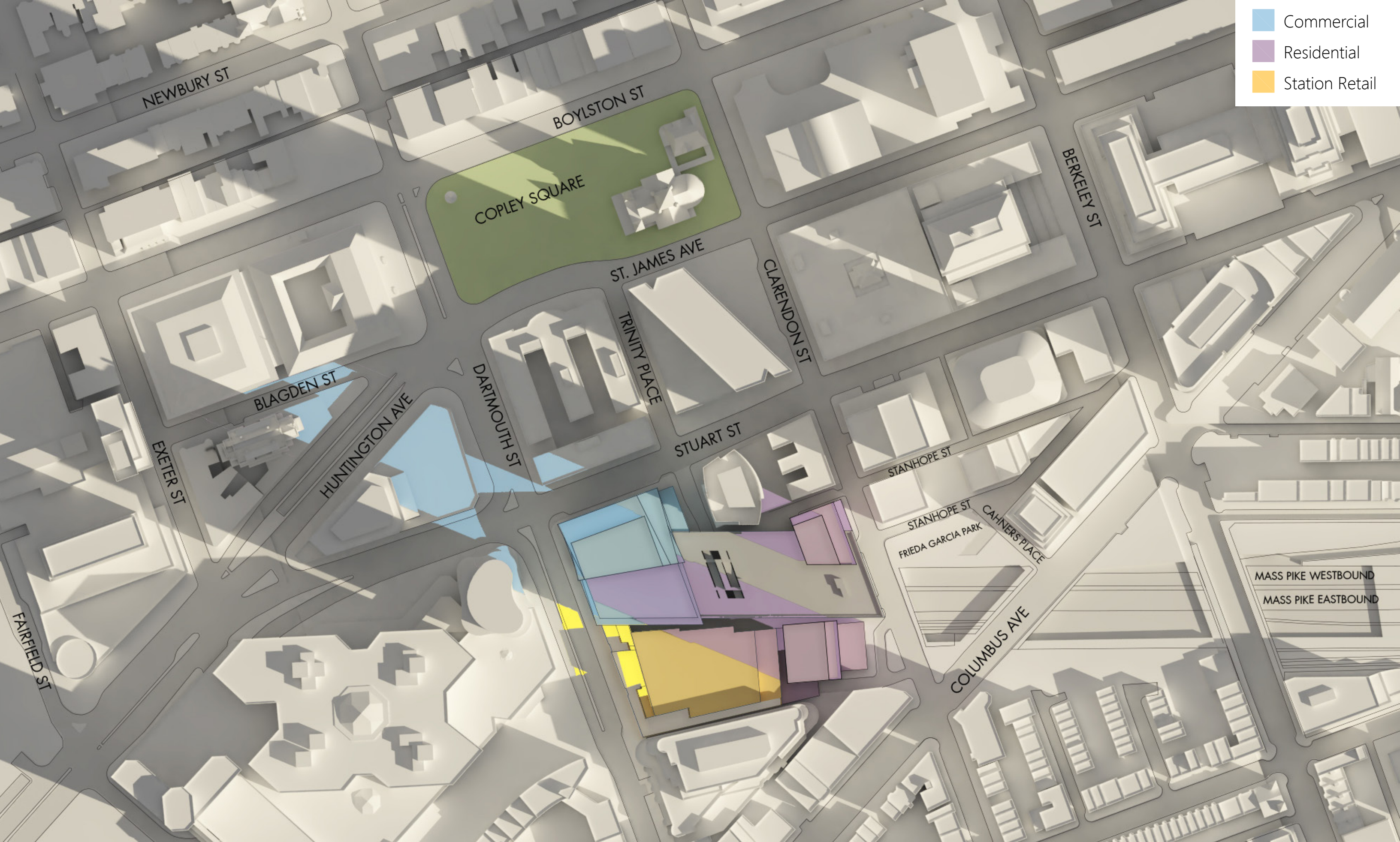


PRELIMINARY RESULTS

- Complete Analysis Will Be In The Draft Project Impact Report
- Base Scheme And Alternate Scheme Nearly Identical
- Majority Of Locations Showed No Impact From Project
- General Improvement In Other Locations
- Consistent Improvement In Areas Adjacent To Project, Especially Along:
 - Stuart Street
 - Clarendon Street
 - Dartmouth Street
- Some Locations Showed Modest Wind Increases (2-3 mph)
 - Stuart Street / Trinity Place Intersection
 - Columbus Avenue
- Continue to Work on Improvements As Design Develops

SHADOW STUDIES

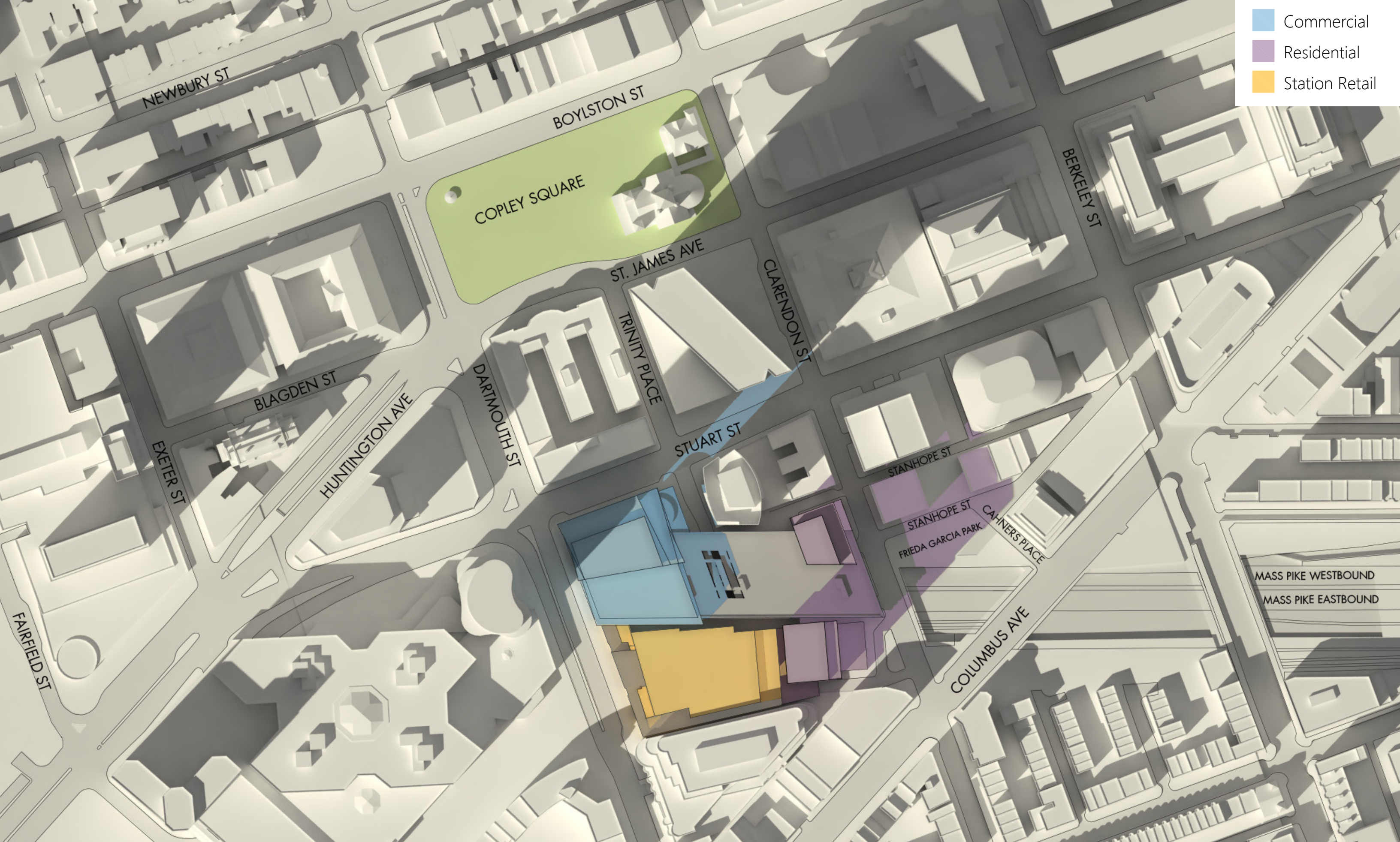




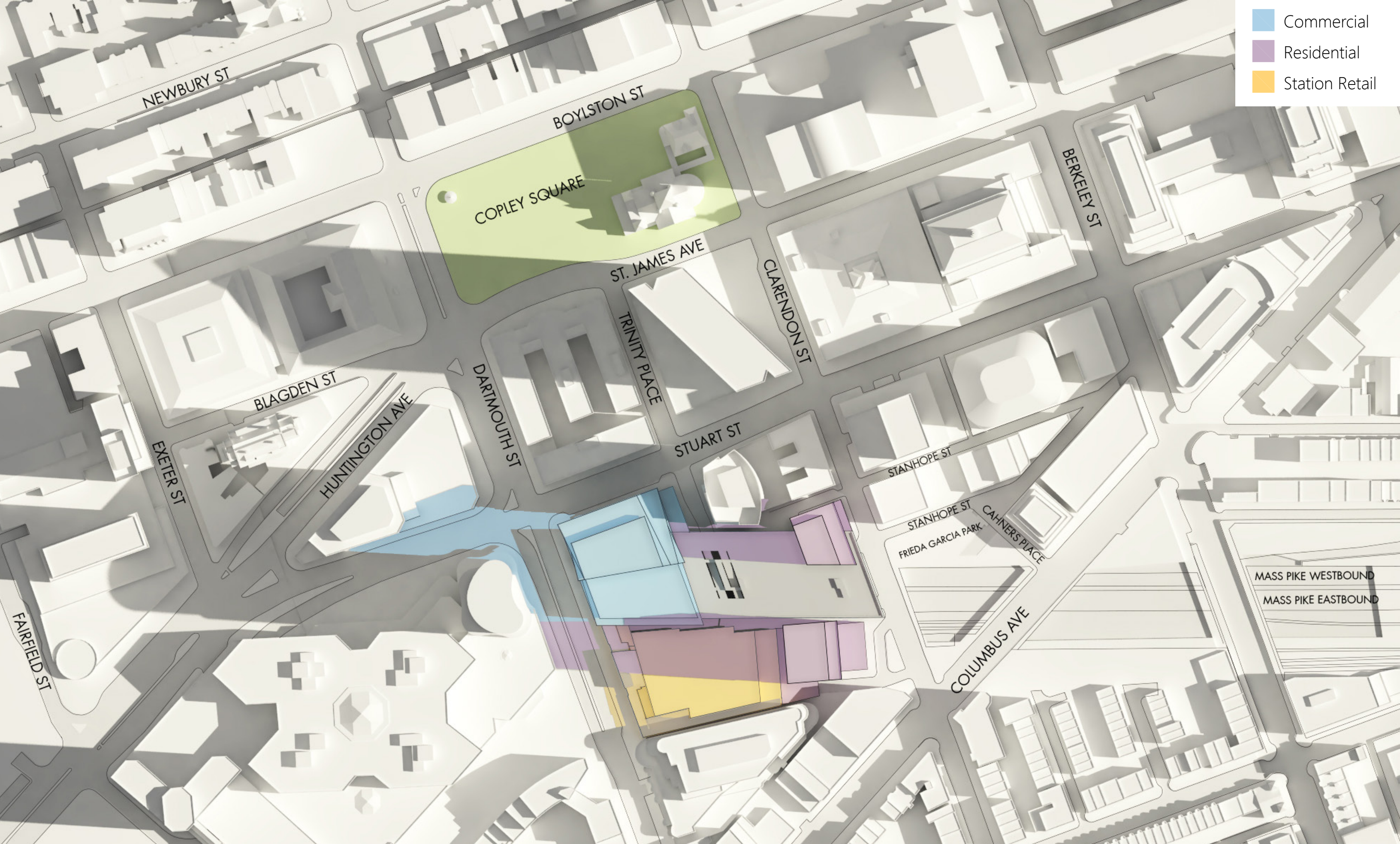
- Commercial
- Residential
- Station Retail



- Commercial
- Residential
- Station Retail



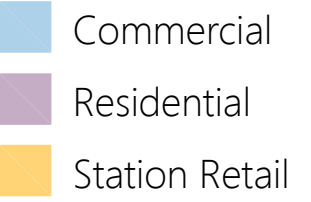
- Commercial
- Residential
- Station Retail

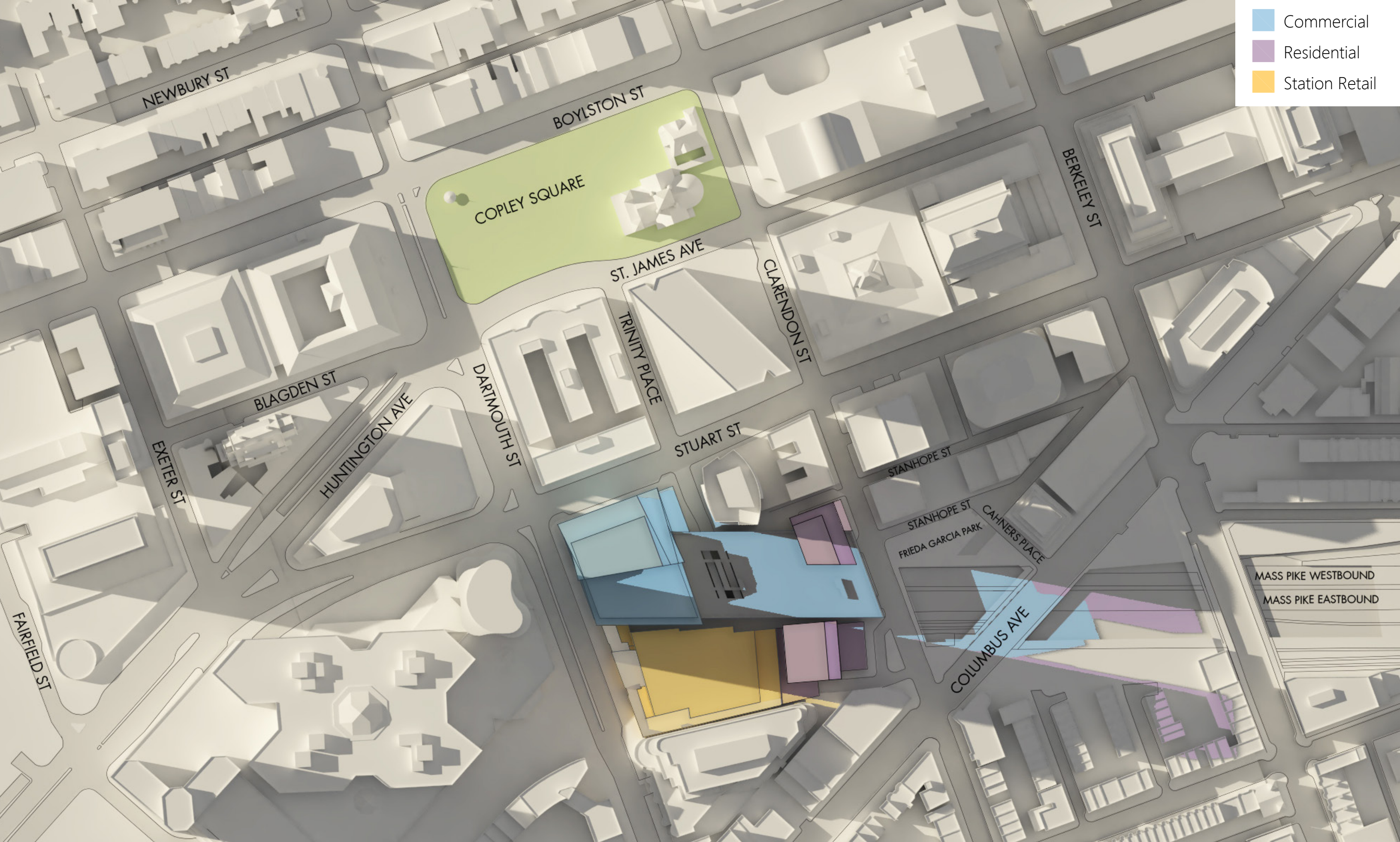


- Commercial
- Residential
- Station Retail

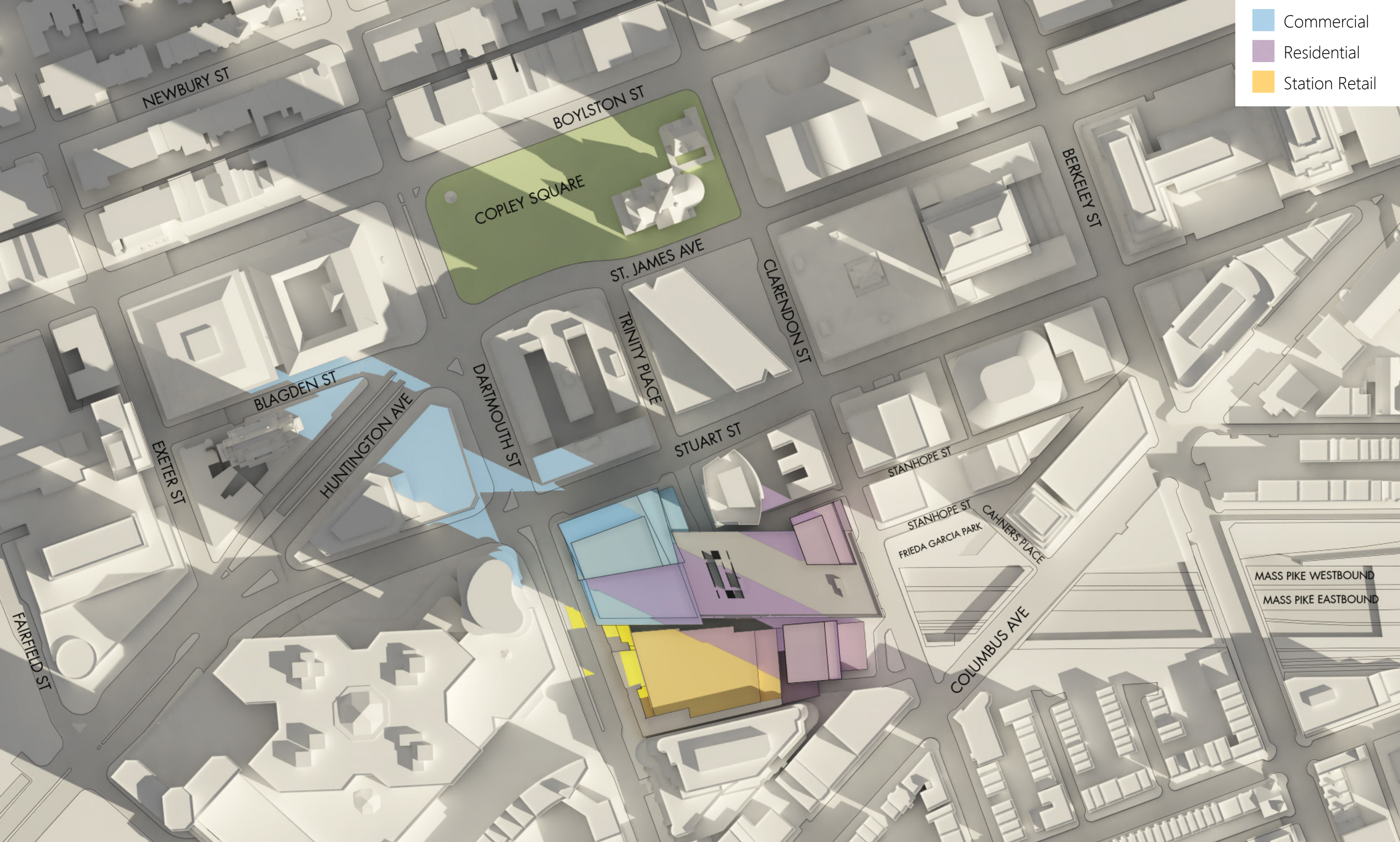


- Commercial
- Residential
- Station Retail





- Commercial
- Residential
- Station Retail



- Commercial
- Residential
- Station Retail



- Commercial
- Residential
- Station Retail



- Commercial
- Residential
- Station Retail



- Commercial
- Residential
- Station Retail



- Commercial
- Residential
- Station Retail

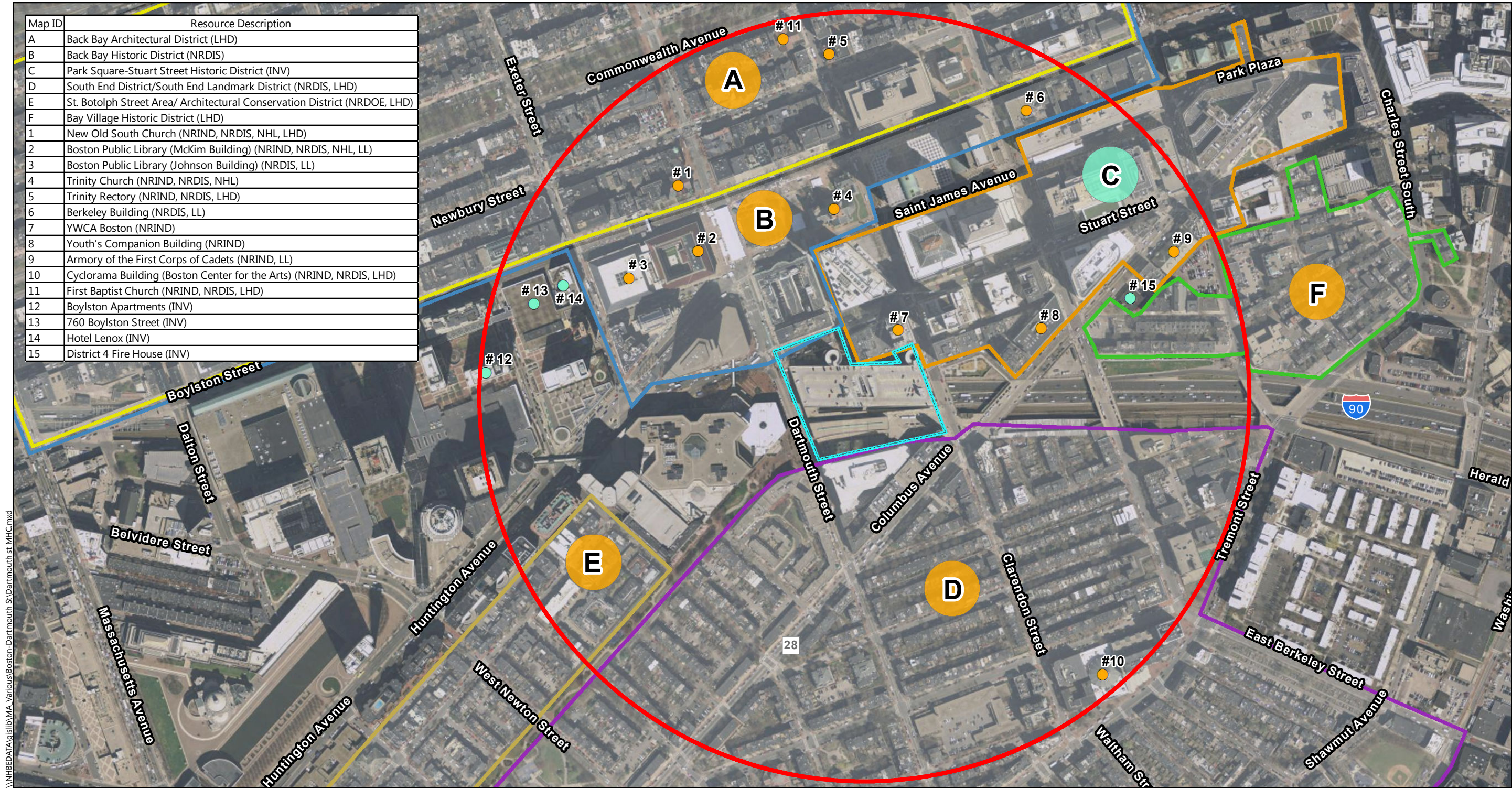


- Commercial
- Residential
- Station Retail

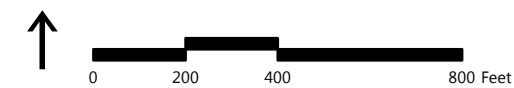


HISTORICAL CONTEXT





Map ID	Resource Description
A	Back Bay Architectural District (LHD)
B	Back Bay Historic District (NRDIS)
C	Park Square-Stuart Street Historic District (INV)
D	South End District/South End Landmark District (NRDIS, LHD)
E	St. Botolph Street Area/ Architectural Conservation District (NRDOE, LHD)
F	Bay Village Historic District (LHD)
1	New Old South Church (NRIND, NRDIS, NHL, LHD)
2	Boston Public Library (McKim Building) (NRIND, NRDIS, NHL, LL)
3	Boston Public Library (Johnson Building) (NRDIS, LL)
4	Trinity Church (NRIND, NRDIS, NHL)
5	Trinity Rectory (NRIND, NRDIS, LHD)
6	Berkeley Building (NRDIS, LL)
7	YWCA Boston (NRIND)
8	Youth's Companion Building (NRIND)
9	Armory of the First Corps of Cadets (NRIND, LL)
10	Cyclorama Building (Boston Center for the Arts) (NRIND, NRDIS, LHD)
11	First Baptist Church (NRIND, NRDIS, LHD)
12	Boylston Apartments (INV)
13	760 Boylston Street (INV)
14	Hotel Lenox (INV)
15	District 4 Fire House (INV)



- Legend**
- 1/4 Mile Radius
 - Site Location
 - Historic Resources
 - Inventoried Resources

MHC Designation Codes

- NRIND National Register of Historic Places, Individual Listing
- NRDIS National Register of Historic Places, District
- NRDOE Determined eligible for listing in the National Register by the Keeper of the Register (State Register of Historic Places)
- NHL National Historic Landmark
- LHD Local Historic District (State Register of Historic Places)
- LL Boston Local Landmark (State Register of Historic Places)
- INV Listed in the Inventory of Historic and Archaeological Assets of the Commonwealth, no current designation

Project Dartmouth, Boston MA

**Massachusetts Historical Commission
Inventoried and Listed Properties (1/4-Mile Radius)**

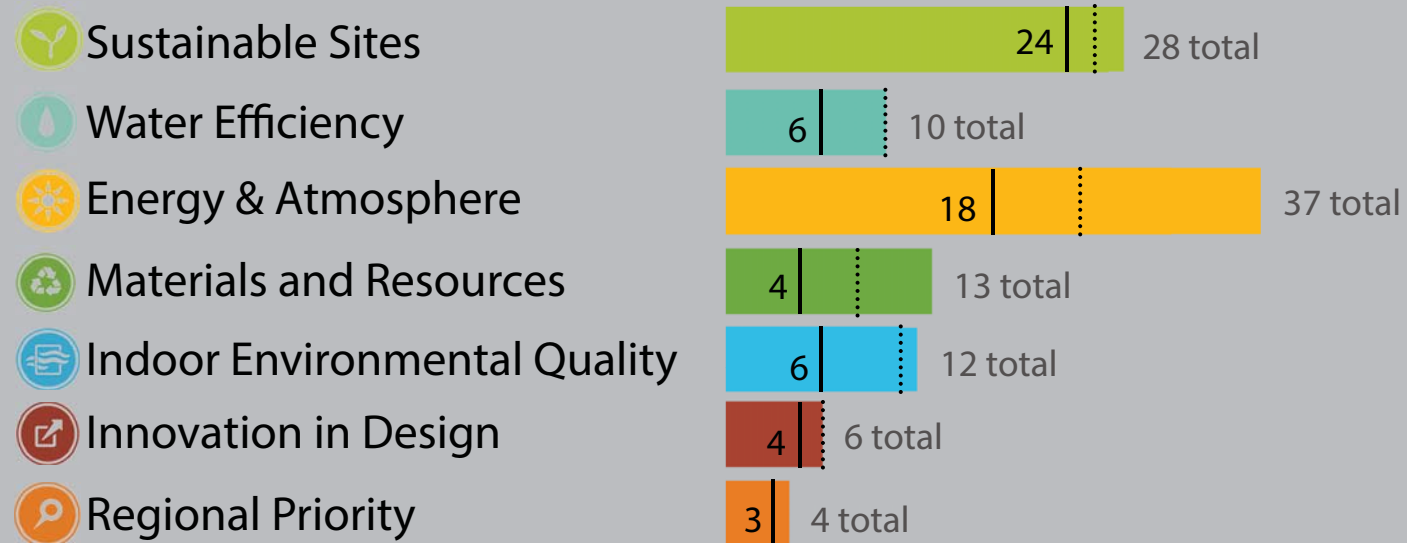
SUSTAINABILITY





LEED

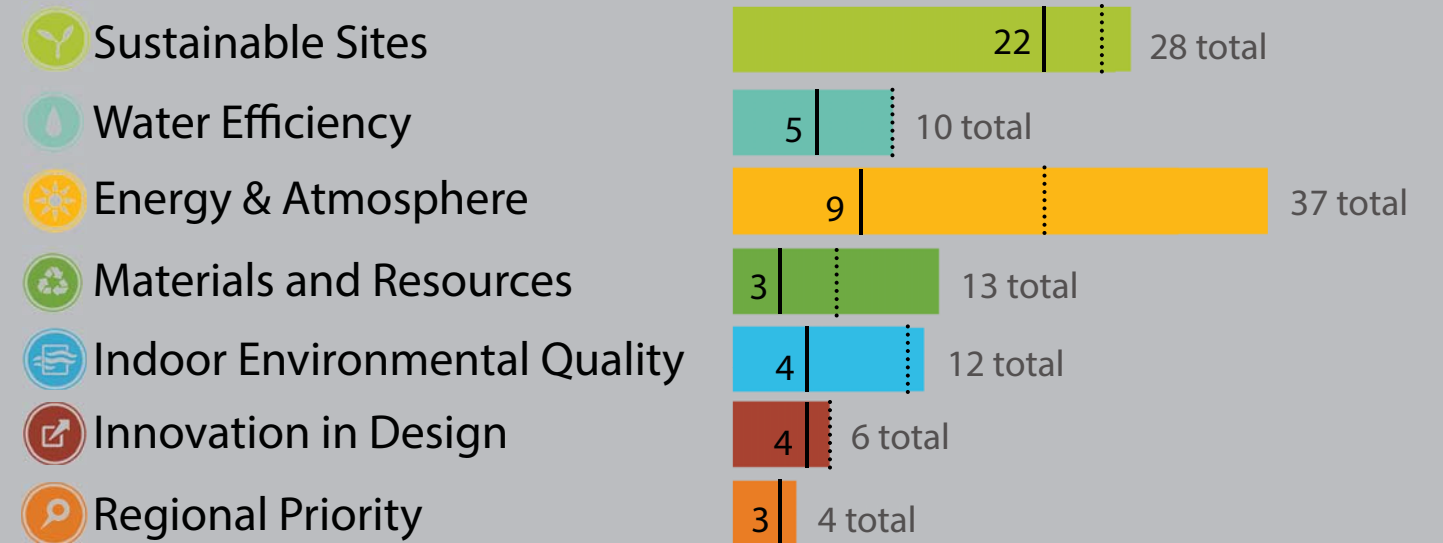
Garage West (office) LEED-CS



65 (23) 110 total
'yes' 'maybe'



Station West (retail) LEED-CS



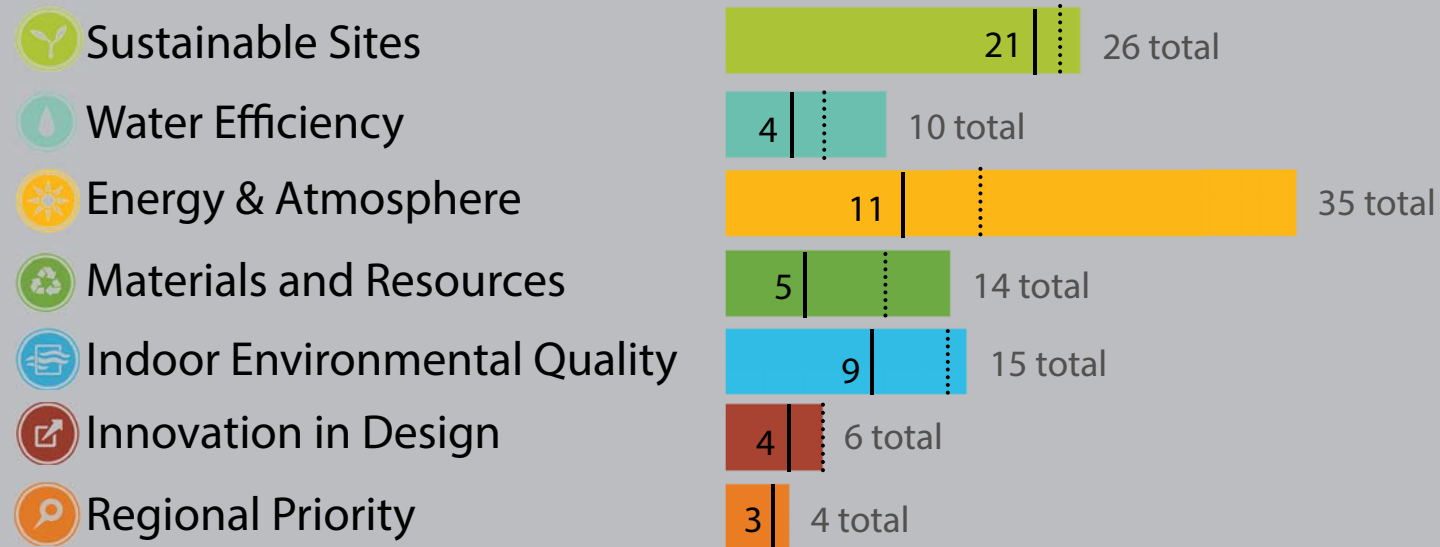
50 (34) 110 total
'yes' 'maybe'





LEED

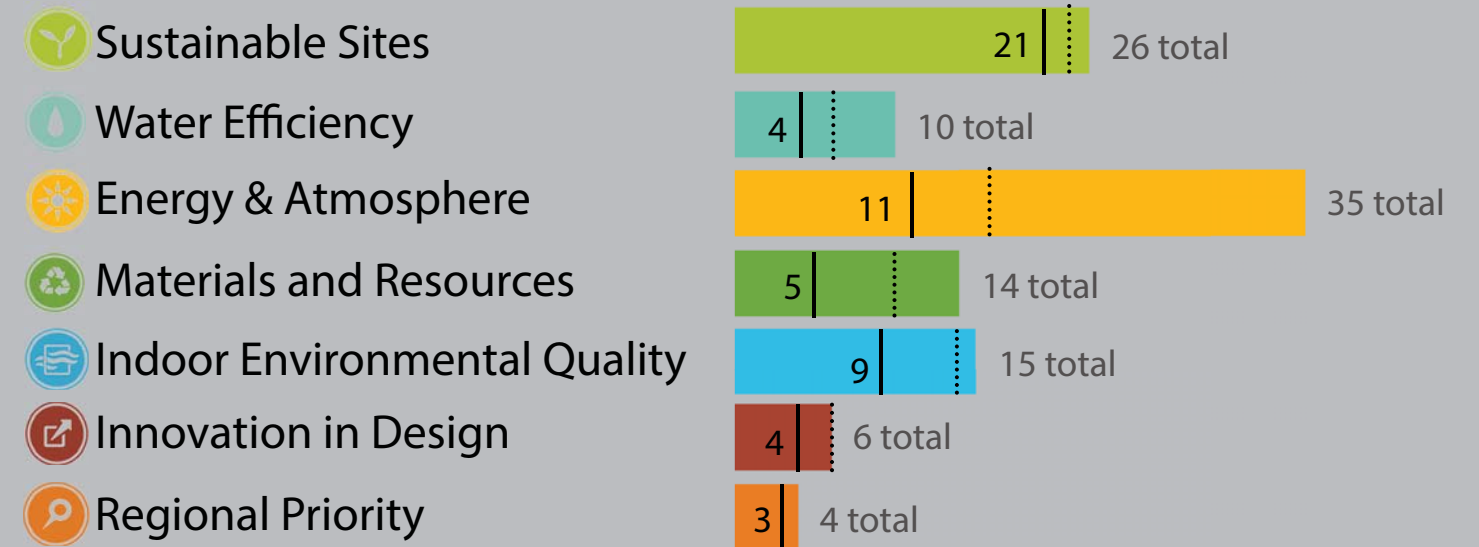
Garage East (residential) LEED-NC



57 (26) 110 total
'yes' 'maybe'



Station East (residential) LEED-NC



57 (26) 110 total
'yes' 'maybe'



Energy strategies
being studied;

- Cogen system
- Solar photovoltaics
- Wind turbines
- Demand response
- On-site energy storage

Preliminary Energy Model

	% energy savings	EUI (kBtu/SF/yr)
• Garage West	21.2	61
• Garage East	19.4	63
• Station East	19.4	63
• Station West	7.5	120-220
• Project Wide	19.6	63-65

savings per ASHRAE 90.1-2013


Water strategy for commercial parcels: non-potable water for irrigation and low-flow fixtures

Minimizes stormwater quantity and quality

Water strategy for residential parcels: non-potable water for irrigation

Site is located in a dense, urban area with excellent public transportation

Material selection to minimize heat island effect

An architectural rendering of the Garage West building, a modern multi-story structure with a glass and metal facade. The building features several green roofs and is situated in an urban environment with other buildings and a street scene in the background. Six callout boxes with arrows point to specific features of the building: 'Low lighting power densities from efficient LED lighting' points to the upper floors; 'High performance building envelope' points to the glass facade; 'Maximize daylighting and minimize glare' points to the lower floors; 'Green roof for reduced heat island effect, stormwater attenuation, and visual amenity' points to a green roof; 'Good indoor air quality through demand controlled ventilation and use of materials with low volatile organic compounds' points to the building's base; and 'High efficiency mechanical equipment, including: - Gas fired condensing boilers - Active chilled beams - Dedicated outside air - Heat recovery' points to the upper floors.

Low lighting power densities from efficient LED lighting

High performance building envelope

Maximize daylighting and minimize glare

High efficiency mechanical equipment, including:

- Gas fired condensing boilers
- Active chilled beams
- Dedicated outside air
- Heat recovery

Green roof for reduced heat island effect, stormwater attenuation, and visual amenity

Good indoor air quality through demand controlled ventilation and use of materials with low volatile organic compounds

Good indoor air quality
through demand
controlled ventilation
and use of materials
with low volatile organic
compounds

High efficiency
mechanical equipment
with energy recovery

Low lighting
power densities
from efficient
LED lighting

High performance
building envelope



Operable
Windows

Green roof for reduced heat
island effect, stormwater
attenuation, and visual amenity

High efficiency mechanical
equipment, including:

- Gas fired condensing boilers
- Dedicated outside air
- Energy recovery

High performance
building envelope

Maximize
daylighting and
minimize glare

Good indoor air quality
through the use of
materials with low volatile
organic compounds

Q&A



KEY DATES + CONTACT INFORMATION

- MEPA Public Comment Period Ends • May 31st
- BCDC Meeting • June 7th
- PNF Public Comment Period Ends • June 17th

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THANK YOU!

