

 Boston Properties

Pelli Clarke Pelli Architects

ARROWSTREET

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& SCIENTISTS

  
JENSEN HUGHES

 Nutter

# THE BACK BAY / SOUTH END GATEWAY PROJECT

BOSTON, MASSACHUSETTS

JUNE 15, 2016

CAC MEETING #4



# KEY DATES

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- **CAC #4 Meeting • June 15th • 8-10am**
- MEPA Public Comment Period Ends • June 17th
- PNF Public Comment Period Ends • June 17th
- CAC #5 Meeting • June 29th • 6-8pm



# AGENDA

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- Responses to CAC Questions
  - Wind
  - Shadow
  - Traffic
  - Parking
  - Potential On-Ramp Closure
- Future CAC Meeting Topics:
  - Public Realm/Streetscape
  - Sustainability
  - Housing (Including Affordable Housing)
  - Covered Connections - Security And Access
  - Wayfinding Around Site
  - Overall Retail Strategy
  - Other Topics As Needed



# RESPONSES TO CAC QUESTIONS

QUESTION:

- How does the CAC PProcess work with the project review process?

# PROJECT PROCESS

- Article 80 Review
  - PNF
    - Public/Agency Comment Period
    - BRA Scoping Determination
  - DPIR (Draft Project Impact Report)
    - Public/Agency Comment Period
    - BRA Scoping Determination or Waiver of Further Review
  - FPIR (Final Project Impact Report)
    - Adequacy Determination
- MEPA Review (Concurrent)
  - ENF
    - Public/Agency Comment Period
    - Secretary's Certificate
  - DEIR (Draft Environmental Impact Report)
    - Public/Agency Comment Period
    - Secretary's Certificate
  - FEIR (Final Environmental Impact Report)
    - Secretary's Certificate

QUESTION:  
• Please Clarify Which Building  
Is On Which Site

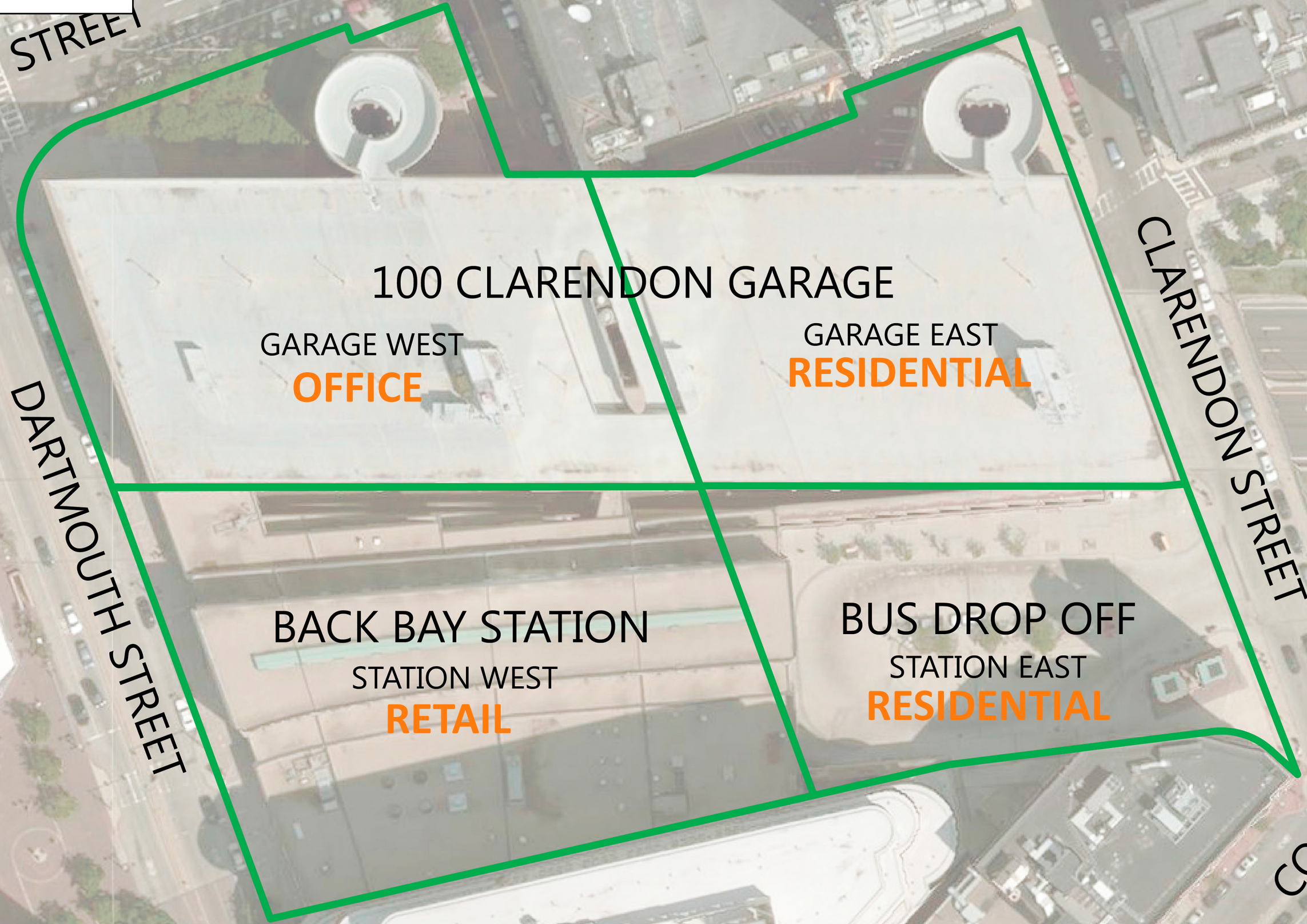


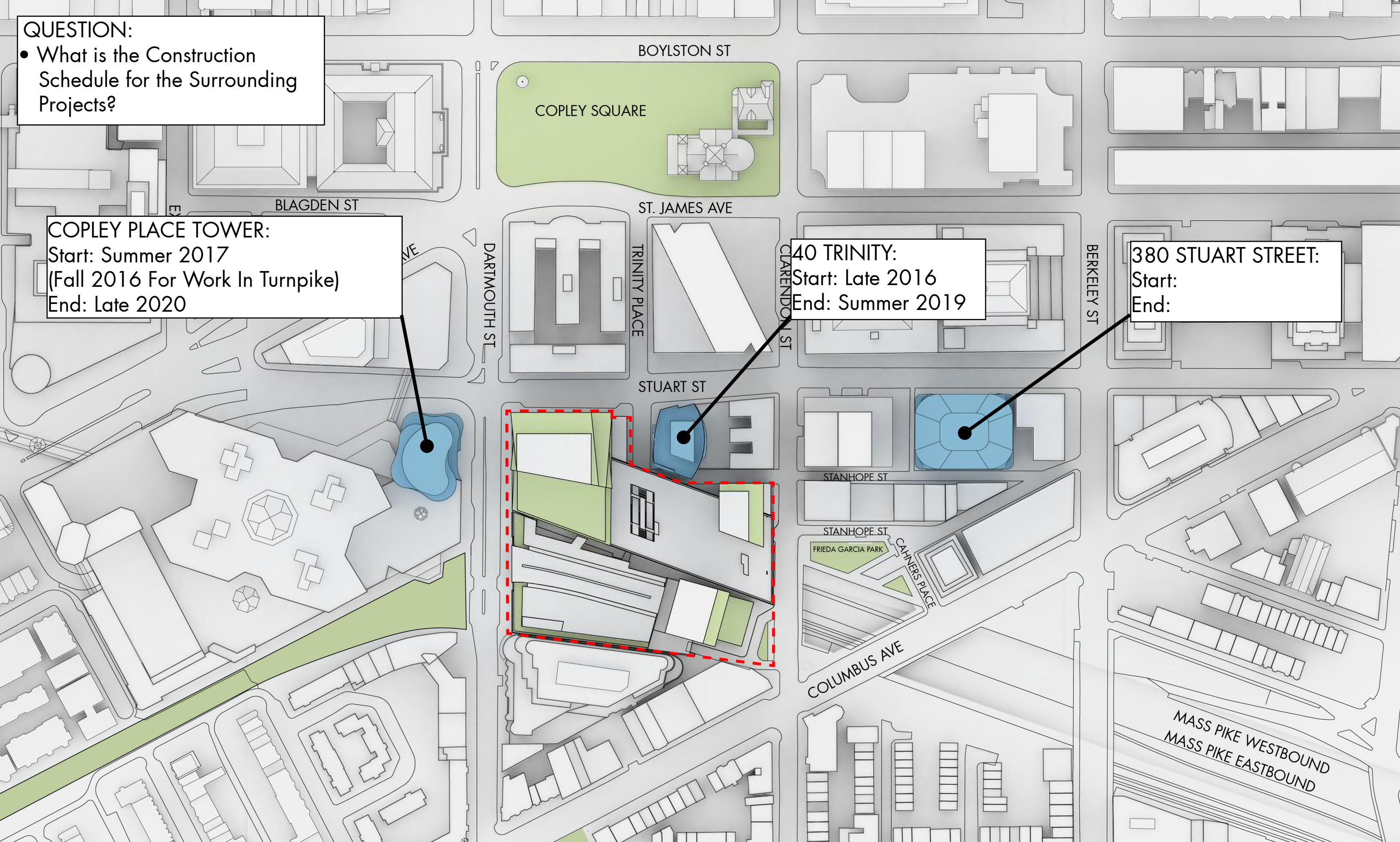
IMAGE: GOOGLE MAPS

**QUESTION:**  
• What is the Construction Schedule for the Surrounding Projects?

**COPLEY PLACE TOWER:**  
Start: Summer 2017  
(Fall 2016 For Work In Turnpike)  
End: Late 2020

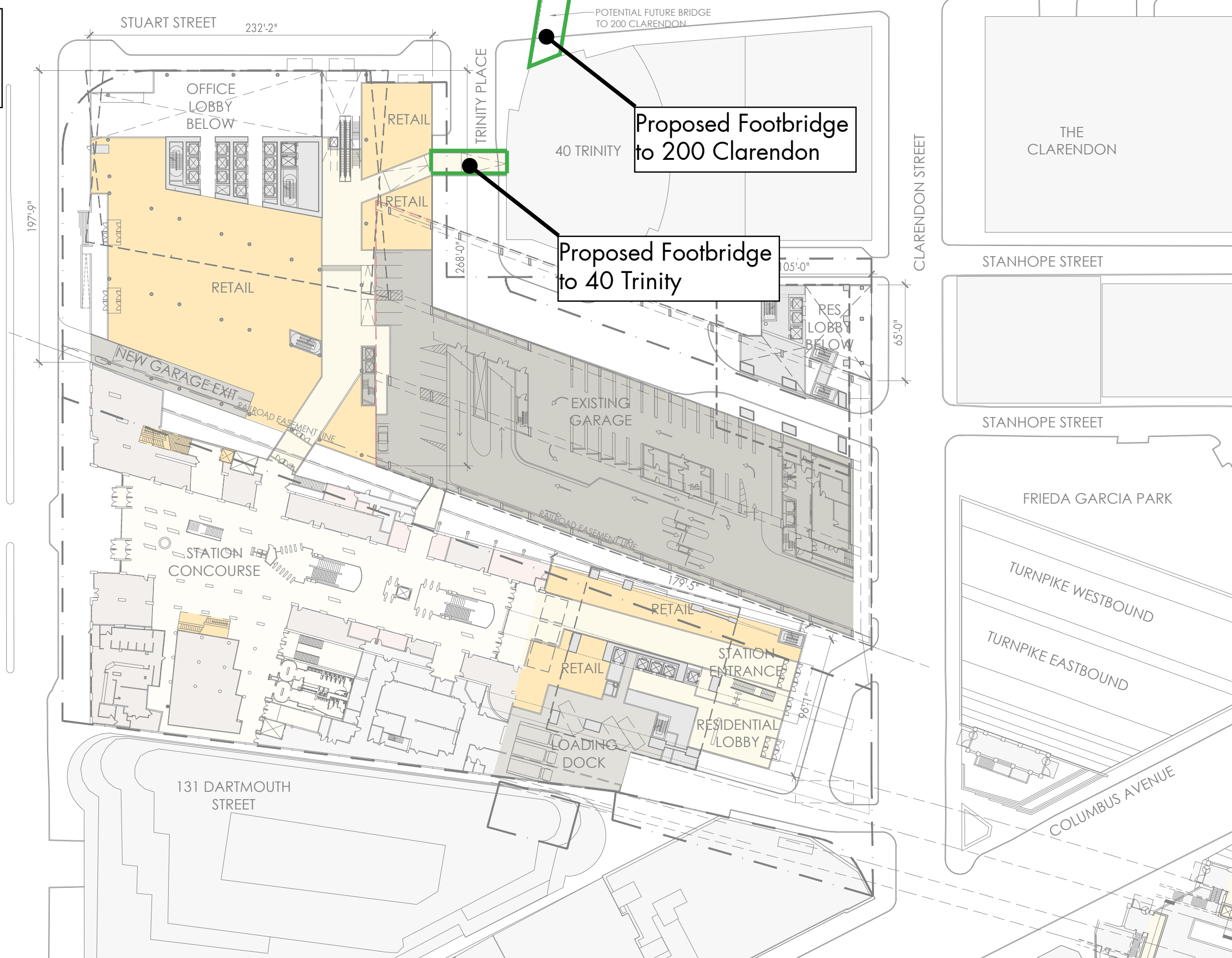
**40 TRINITY:**  
Start: Late 2016  
End: Summer 2019

**380 STUART STREET:**  
Start:  
End:



**QUESTION:**  
 • Where are the Proposed Footbridges Located?

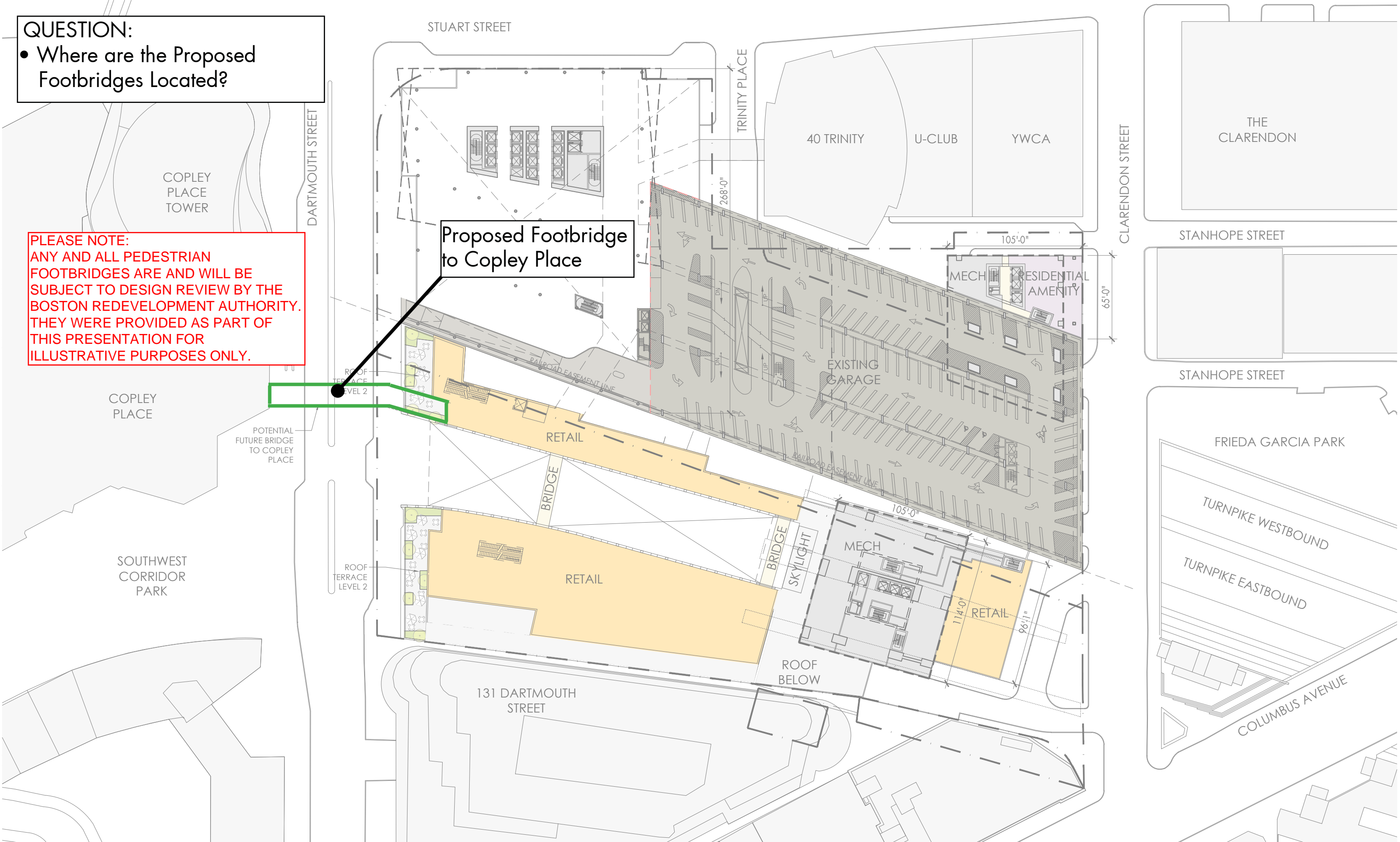
**PLEASE NOTE:**  
 ANY AND ALL PEDESTRIAN FOOTBRIDGES ARE AND WILL BE SUBJECT TO DESIGN REVIEW BY THE BOSTON REDEVELOPMENT AUTHORITY. THEY WERE PROVIDED AS PART OF THIS PRESENTATION FOR ILLUSTRATIVE PURPOSES ONLY.





**QUESTION:**  
 • Where are the Proposed Footbridges Located?

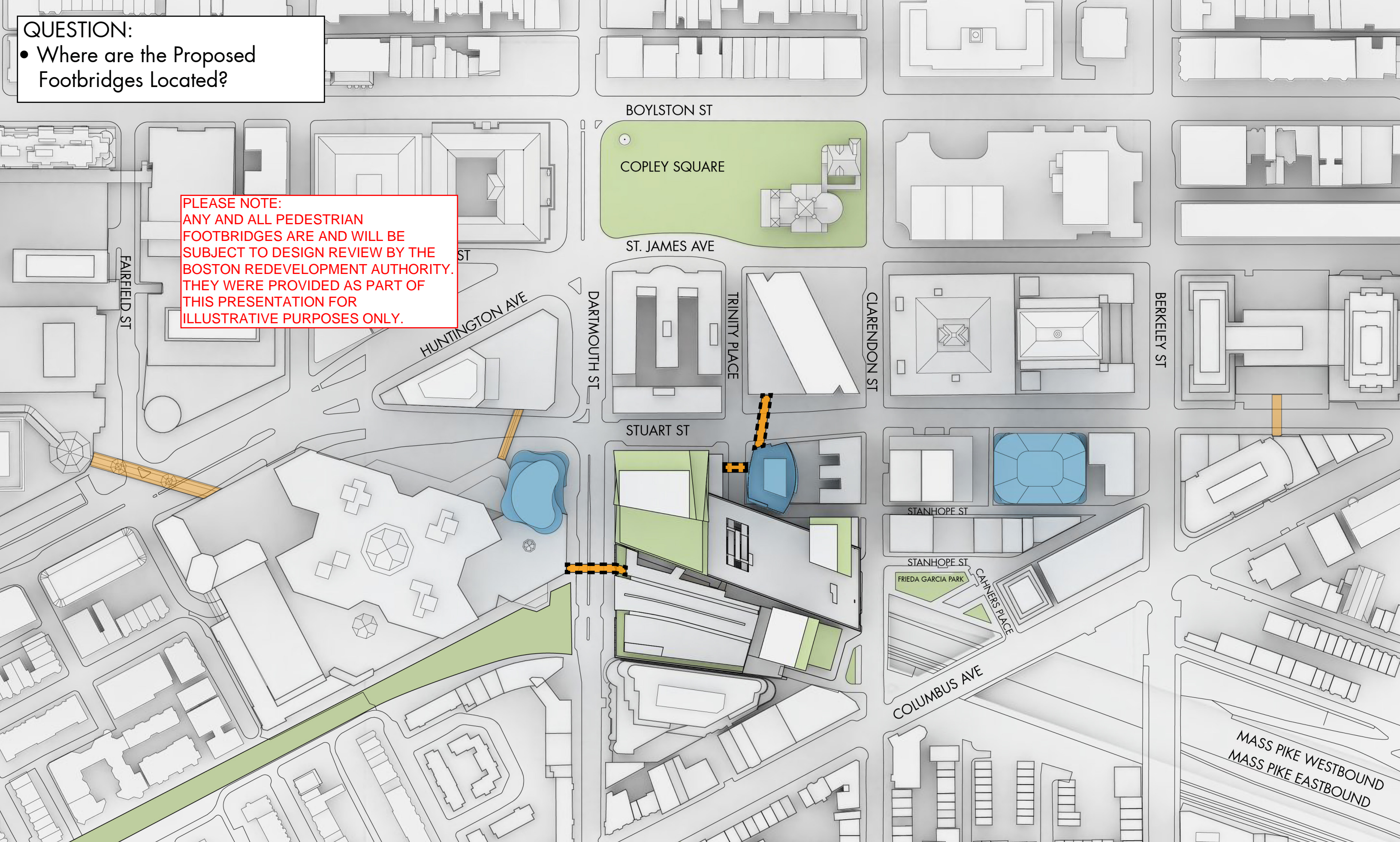
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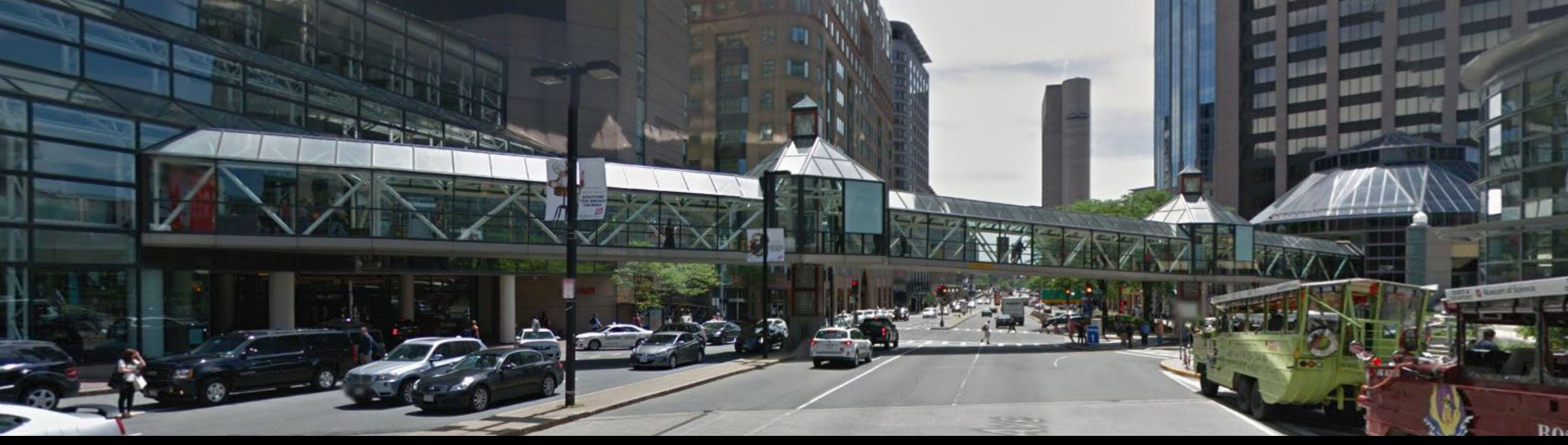


Proposed Footbridge to Copley Place

**QUESTION:**  
• Where are the Proposed Footbridges Located?

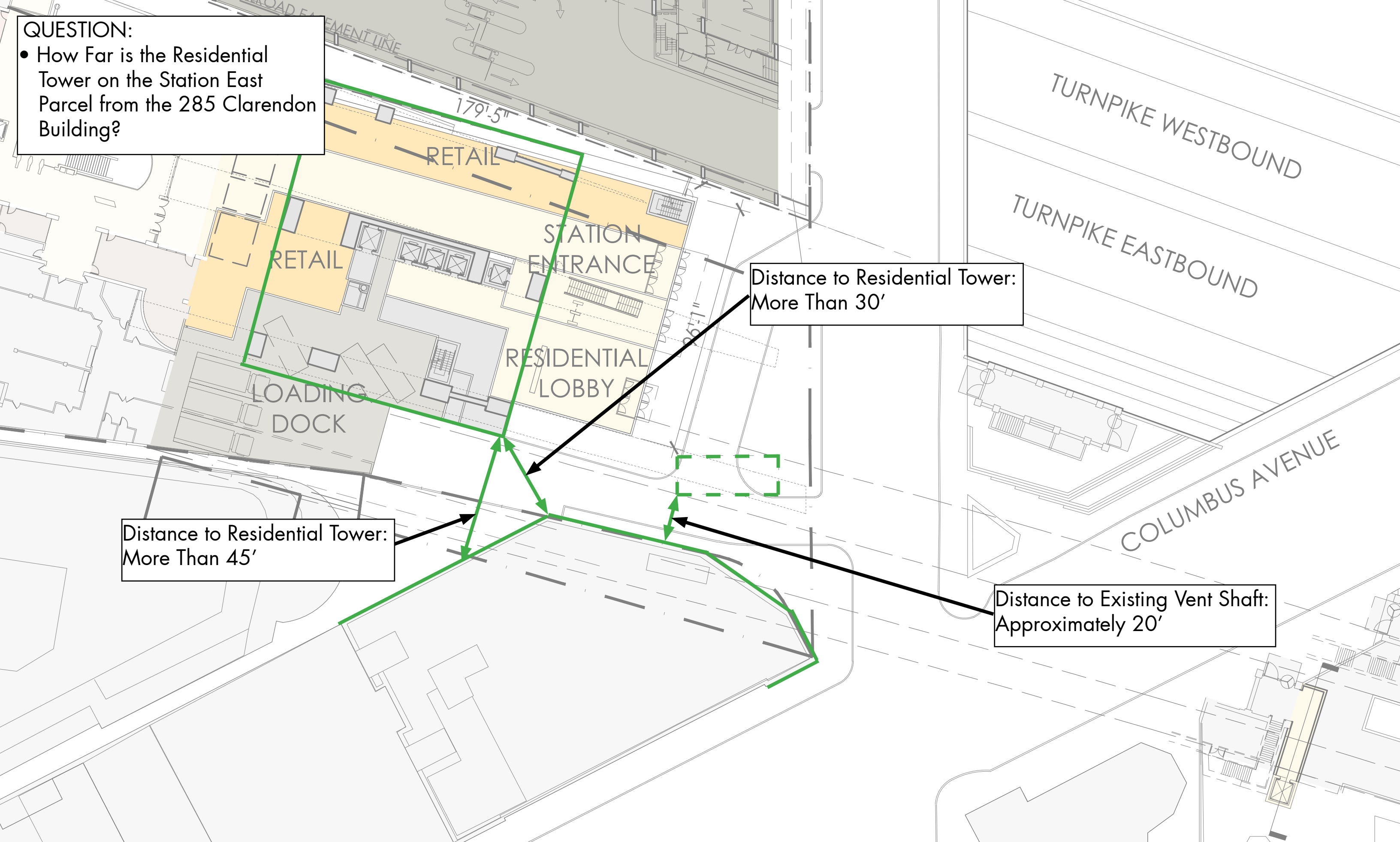
**PLEASE NOTE:**  
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EXISTING PEDESTRIAN BRIDGES IN BOSTON

**QUESTION:**  
• How Far is the Residential Tower on the Station East Parcel from the 285 Clarendon Building?



DISTANCE OF STATION EAST RESIDENTIAL TOWER TO 285 CLARENDON STREET

# PEDESTRIAN LEVEL WIND STUDY



# METHODOLOGY

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- 1:400 Scale Model
- 1,600 FT Study Radius
  - Berkeley to Exeter Street
  - Boylston to Chandler Street
- 130 Study Locations
- 48 Study Locations on or Around The Site
- No Build Condition
  - Includes Existing Buildings and Approved Projects
- Built Condition
  - Adds in The Project
  - Both Base and Alternate Schemes Considered

# COMFORT CRITERIA

Comfort Criteria (Melbourne Criteria):

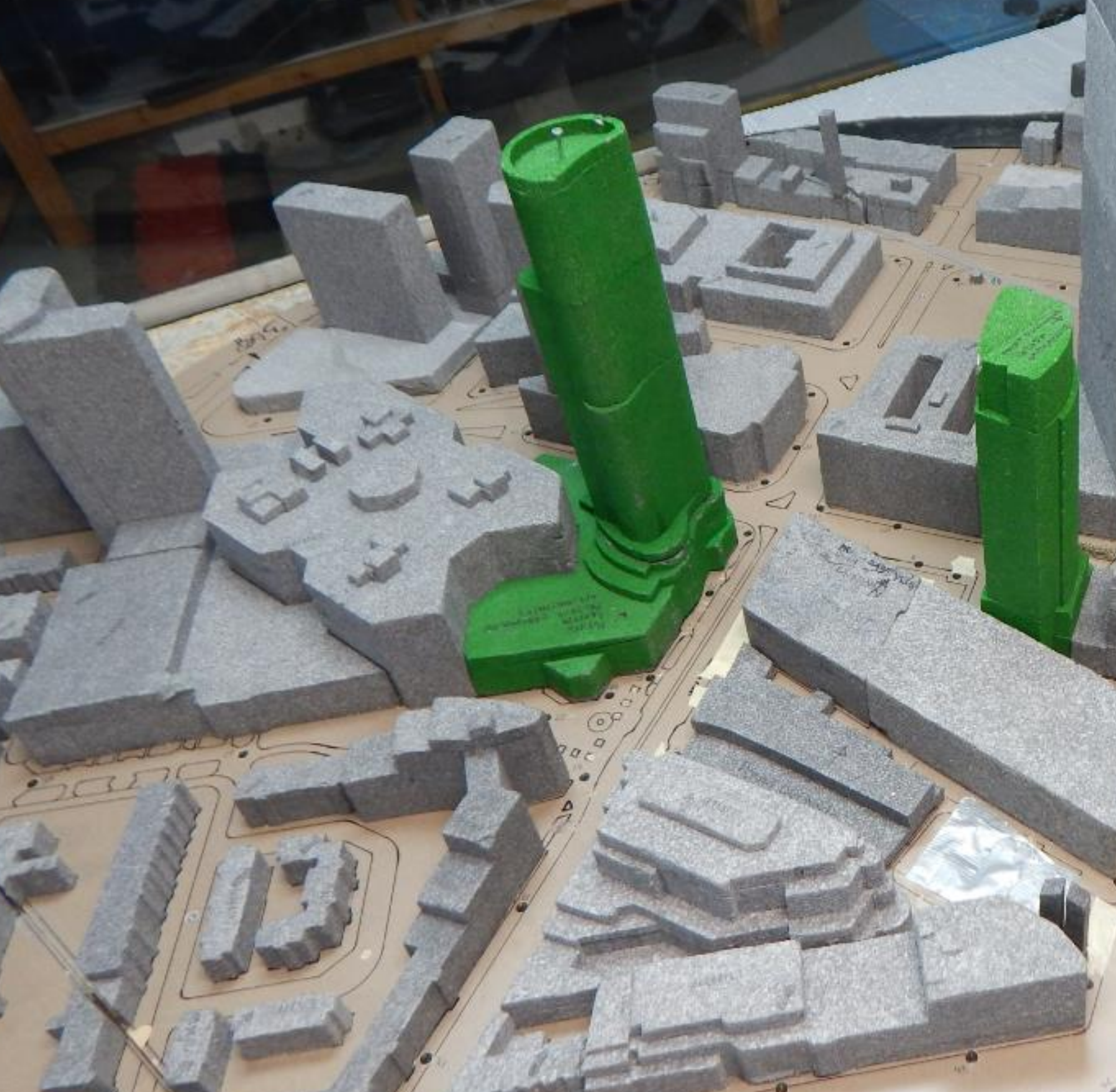
Annual Mean Speed:

Miles Per Hour:

- Sitting < 12
- Standing 12 – 15
- Walking 16 – 19
- Uncomfortable 20 – 27
- Dangerous > 27

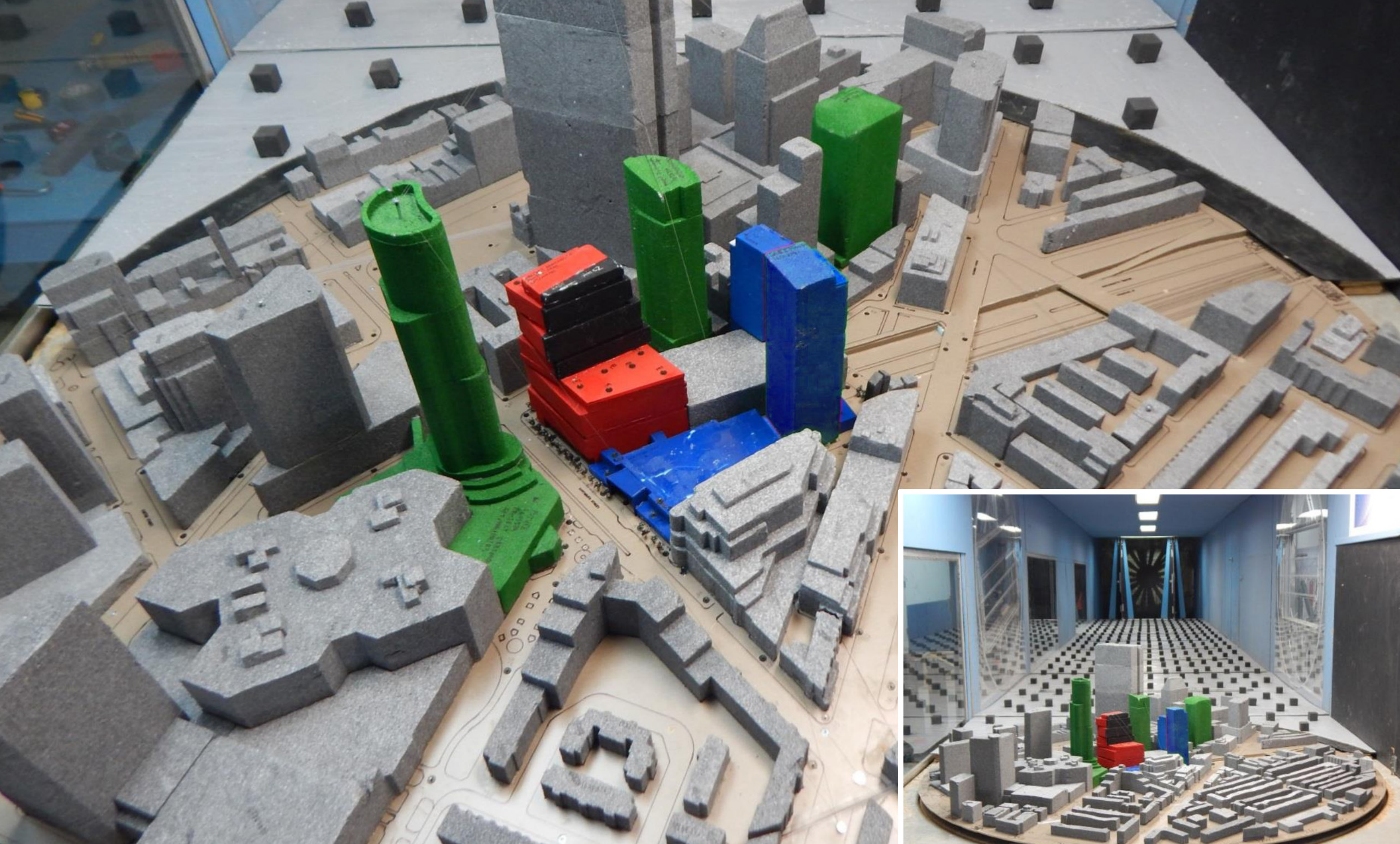
Effective Gusts:

- Acceptable < 31 mph
- Unacceptable > 31 mph



WIND TUNNEL ANALYSIS - EXISTING CONDITION WITH PROPOSED DEVELOPMENTS



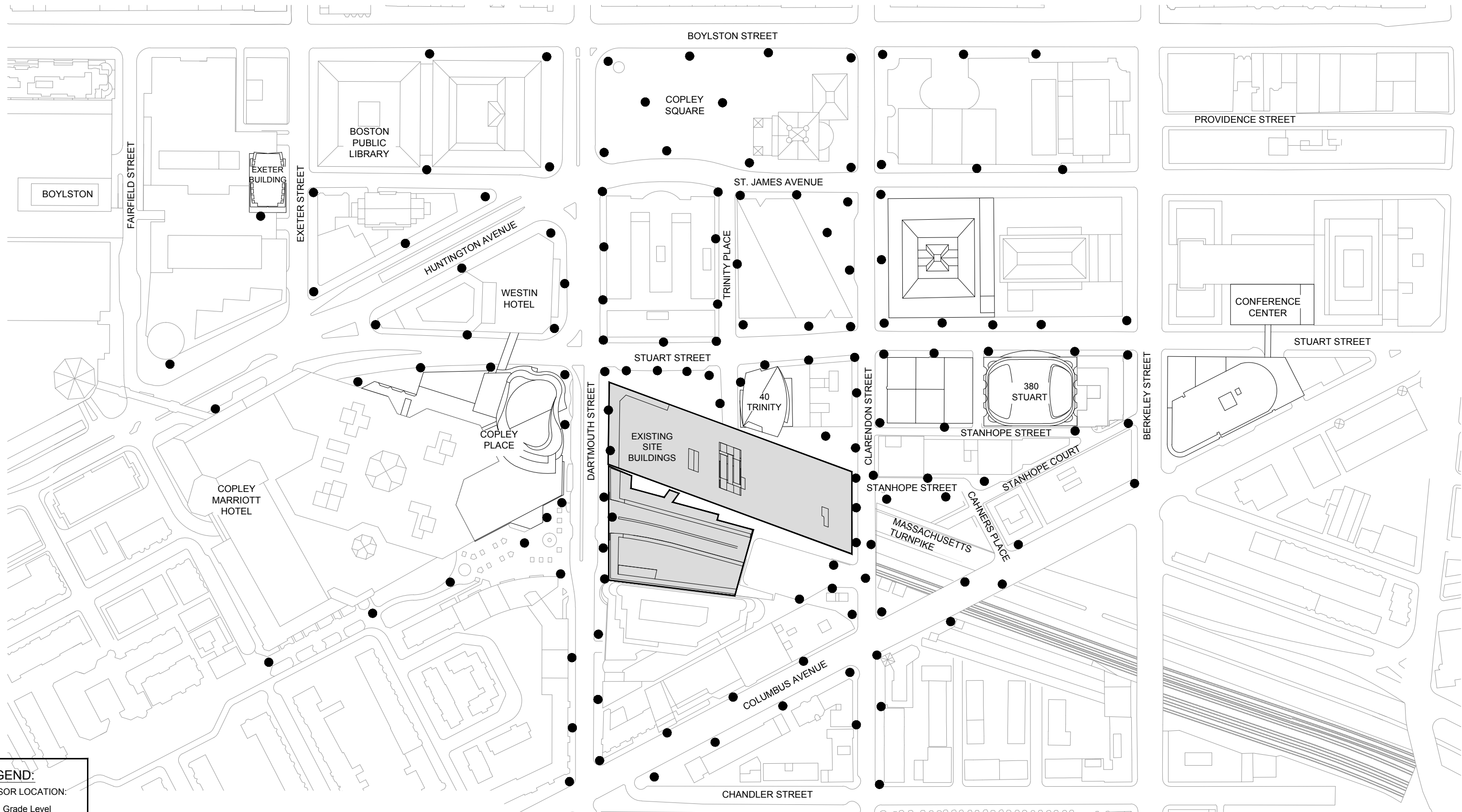


WIND TUNNEL ANALYSIS - BASE SCHEME

 Boston Properties 15 JUNE 2016



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**LEGEND:**  
 SENSOR LOCATION:  
 ● Grade Level

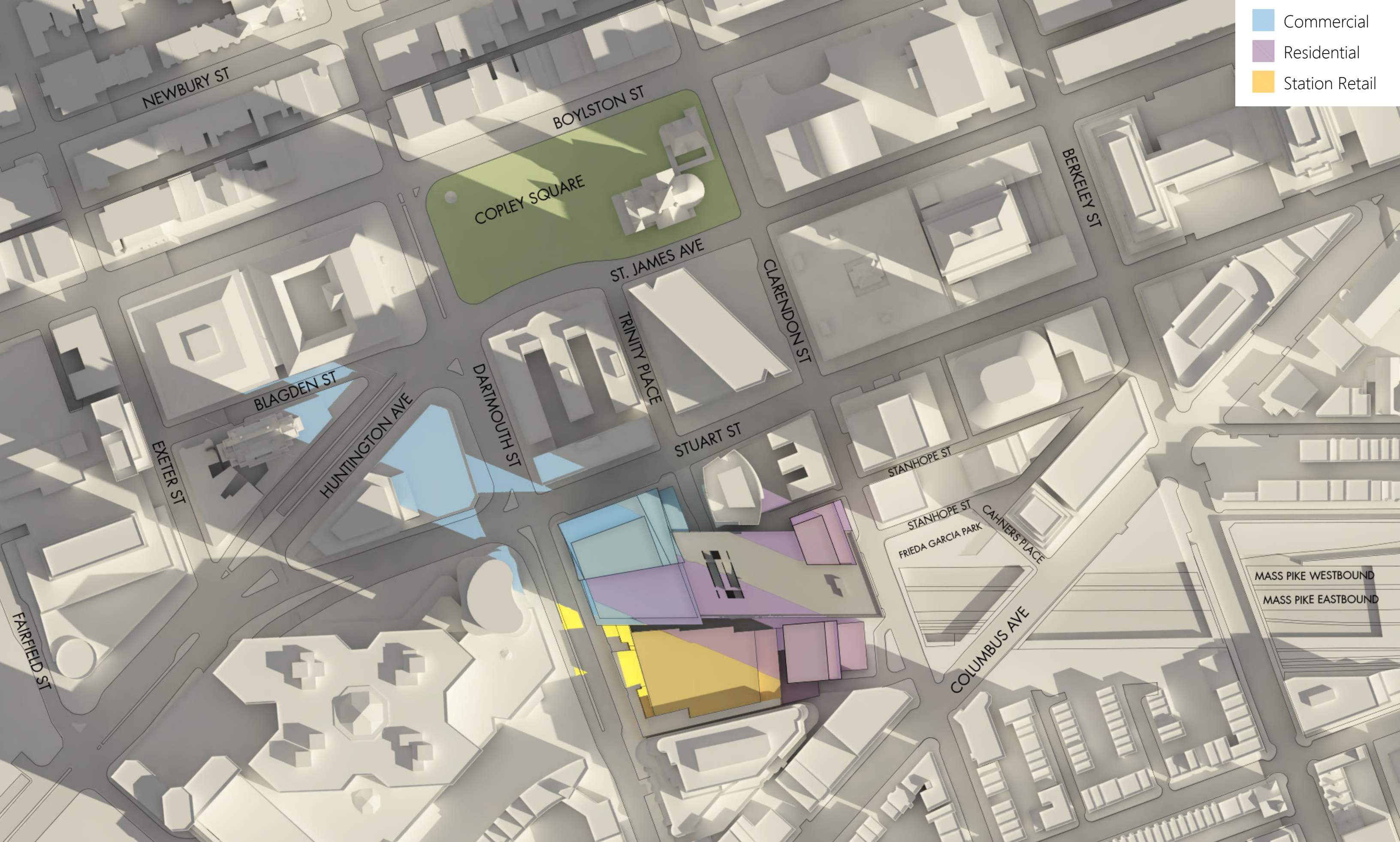
# PRELIMINARY RESULTS

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- 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





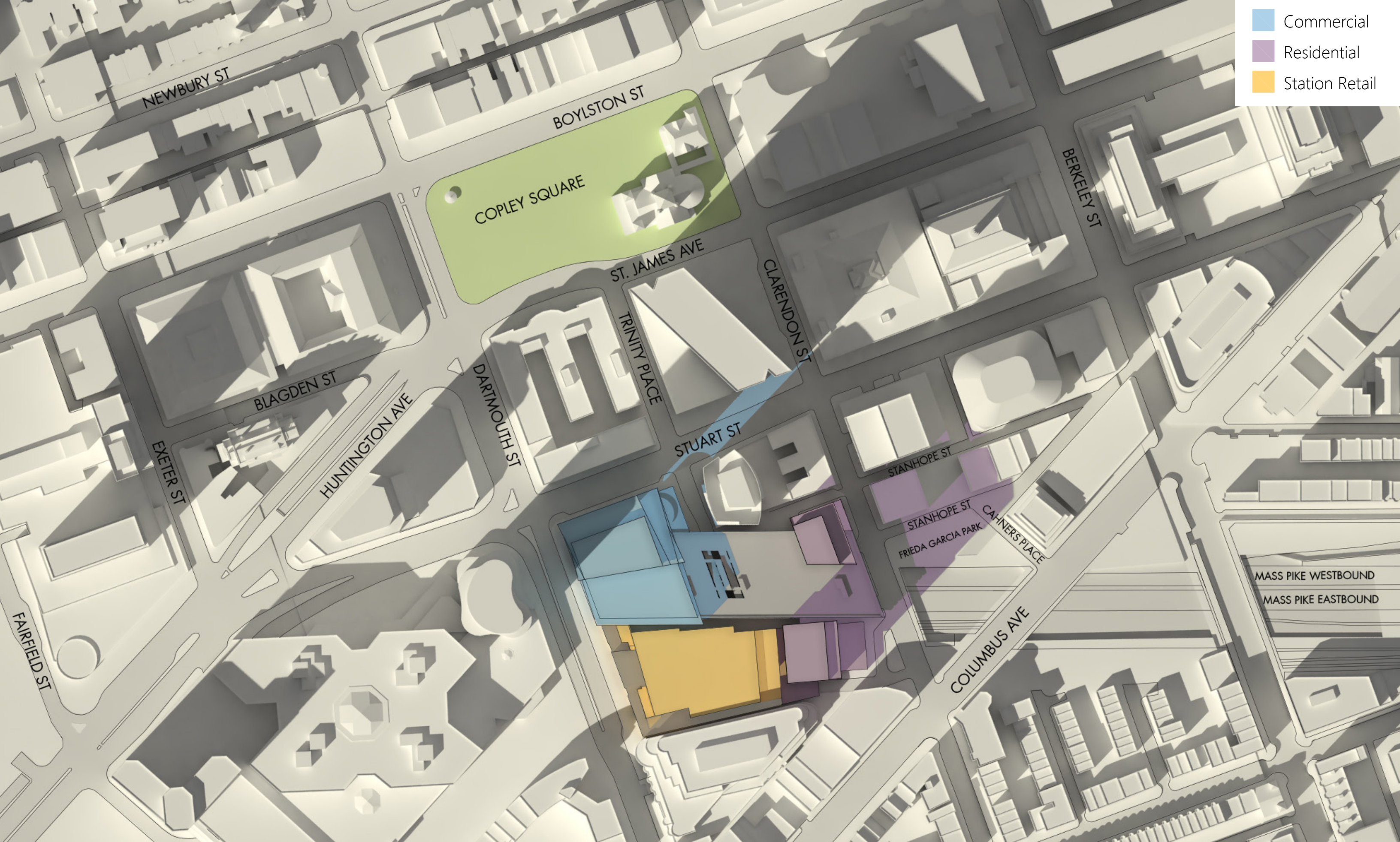
- Commercial
- Residential
- Station Retail

- Commercial
- Residential
- Station Retail



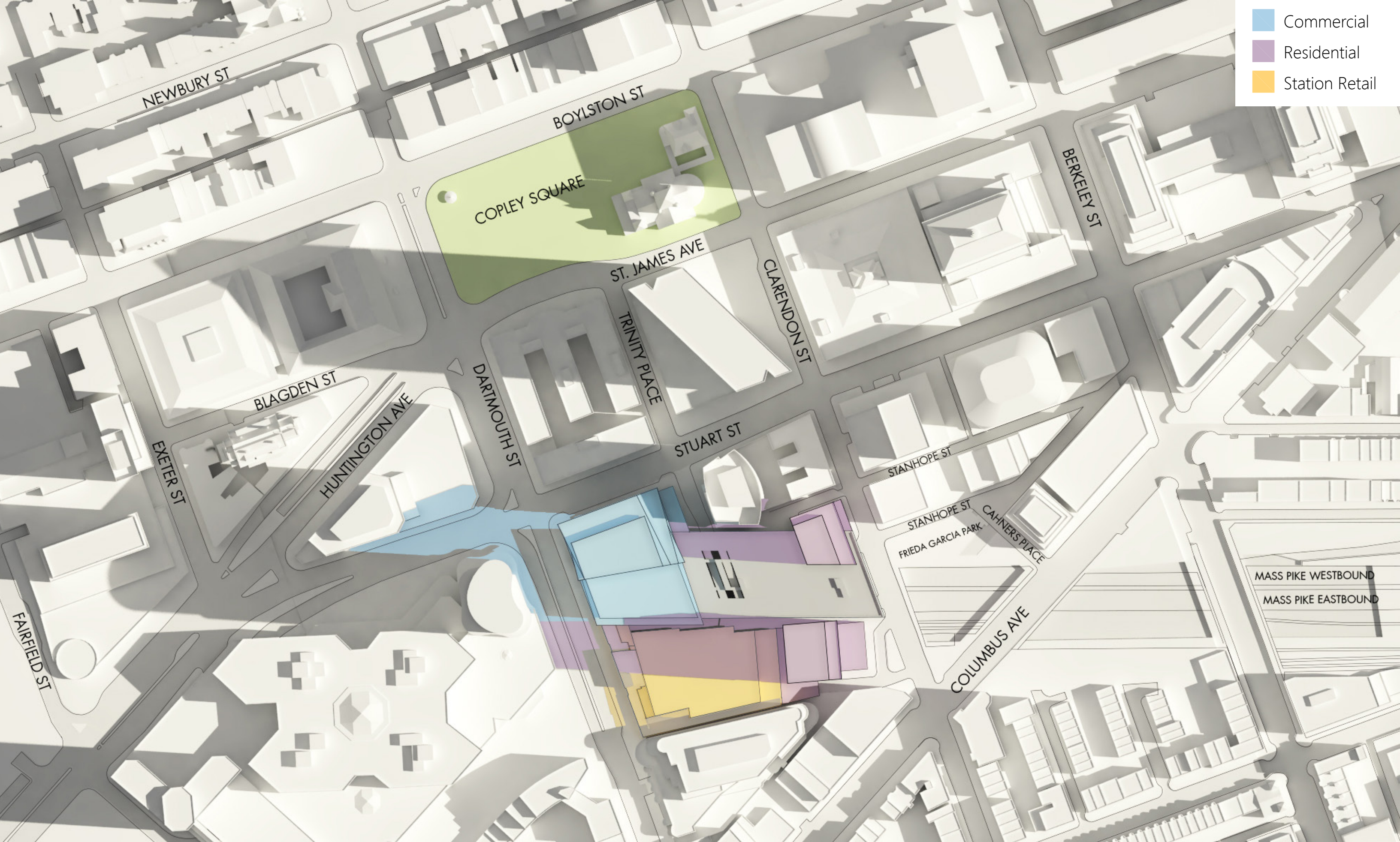
SHADOW IMPACT - MARCH 21 - 12:00PM EDT

- Commercial
- Residential
- Station Retail



SHADOW IMPACT - MARCH 21 - 3:00PM EDT

- Commercial
- Residential
- Station Retail





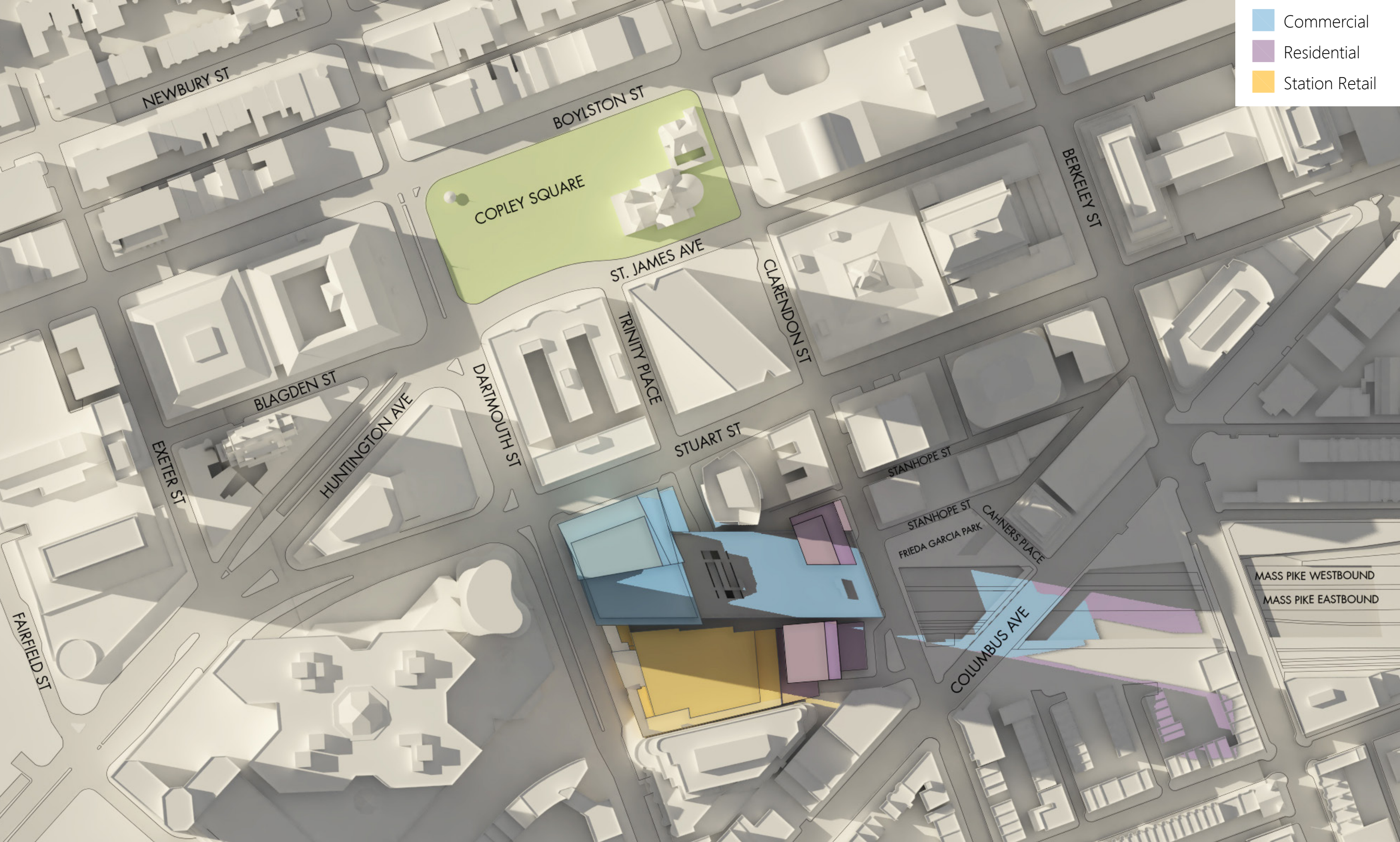
- Commercial
- Residential
- Station Retail



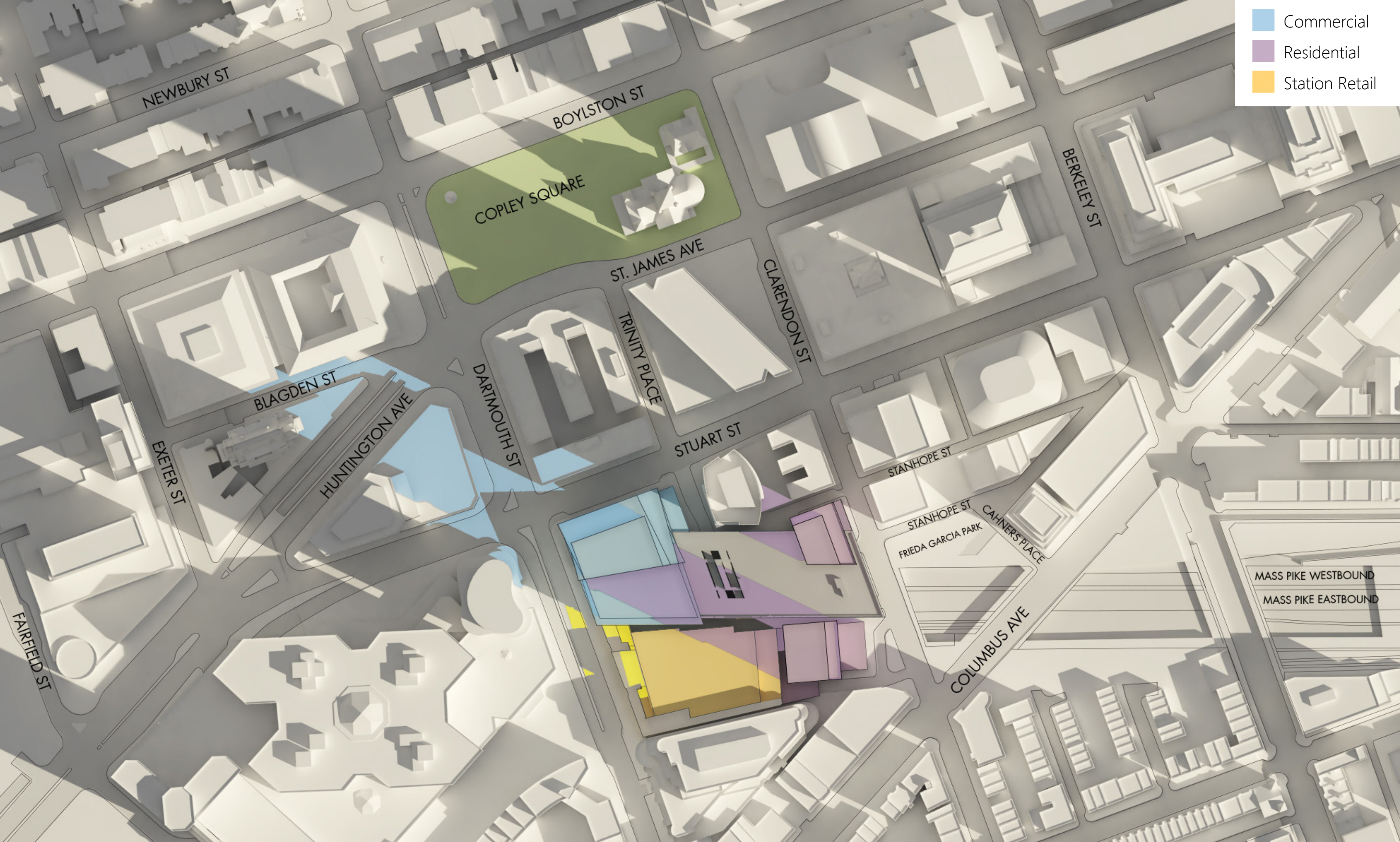
- Commercial
- Residential
- Station Retail



- Commercial
- Residential
- Station Retail



SHADOW IMPACT - JUNE 21 - 6:00PM EDT



- Commercial
- Residential
- Station Retail

- Commercial
- Residential
- Station Retail



SHADOW IMPACT - SEPTEMBER 21 - 12:00PM EDT

- Commercial
- Residential
- Station Retail



- Commercial
- Residential
- Station Retail



SHADOW IMPACT - DECEMBER 21 - 9:00AM EST

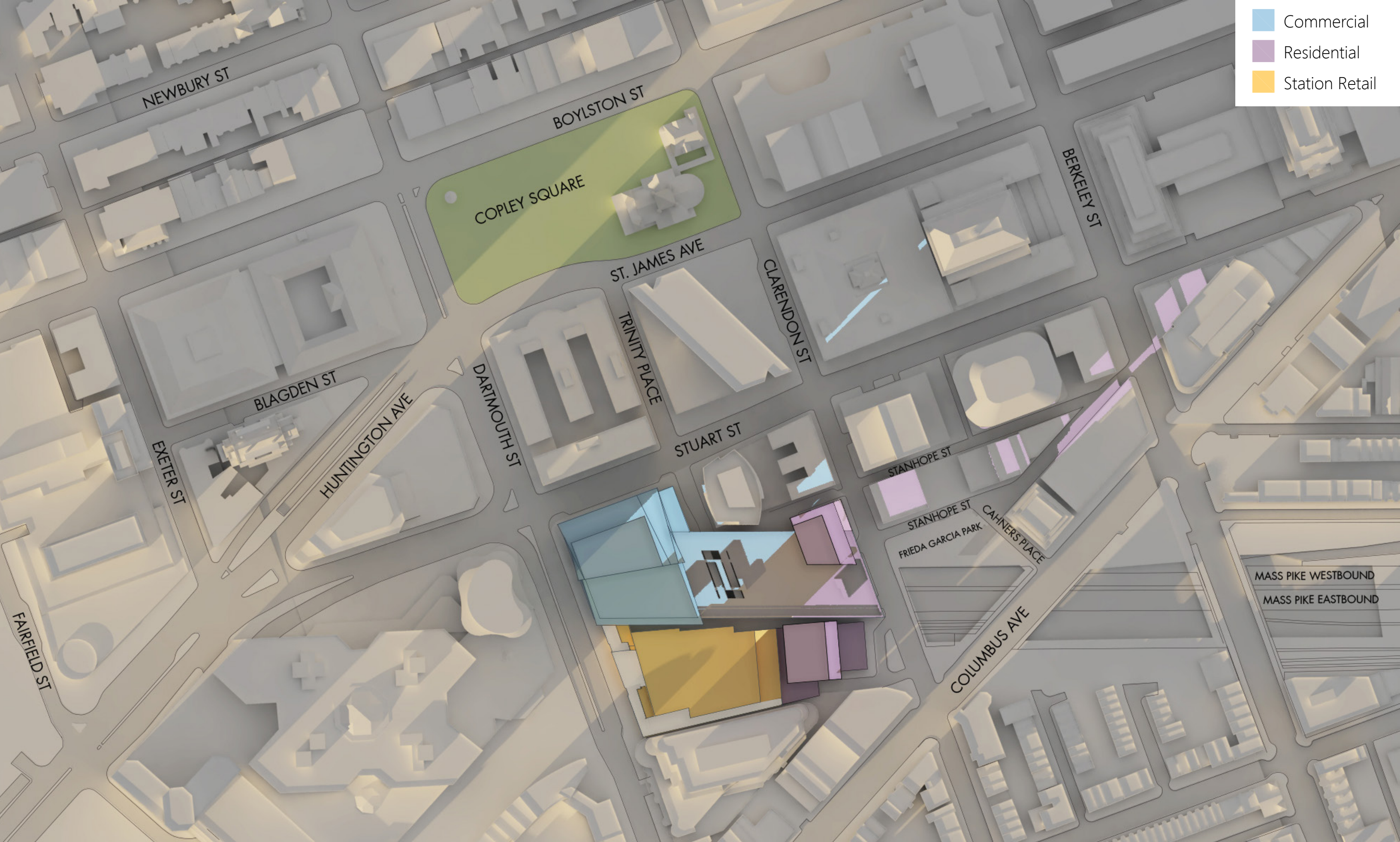
- Commercial
- Residential
- Station Retail

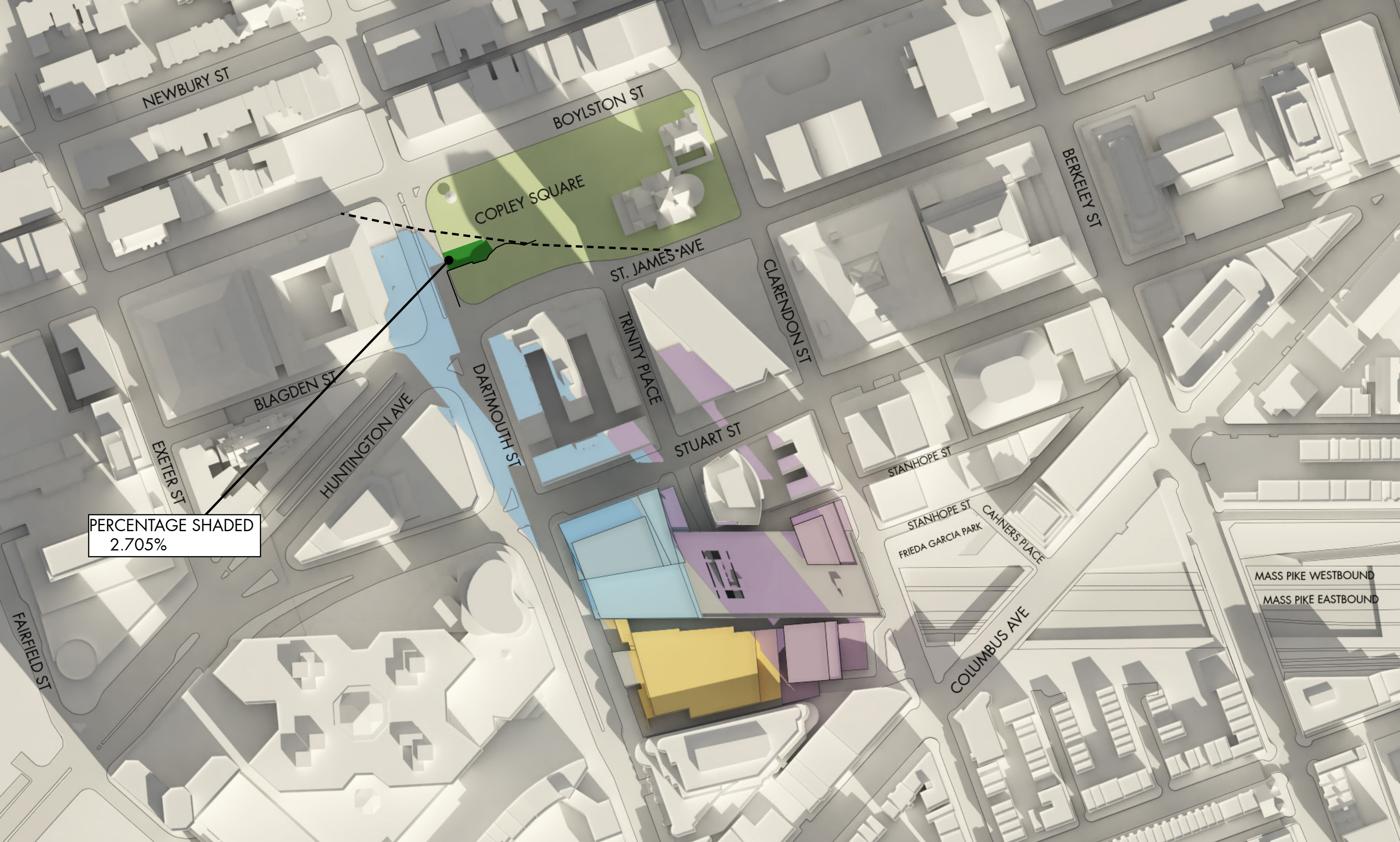


SHADOW IMPACT - DECEMBER 21 - 12:00PM EST



- Commercial
- Residential
- Station Retail





PERCENTAGE SHADED  
2.705%



PERCENTAGE SHADED  
2.705%







09:30 AM

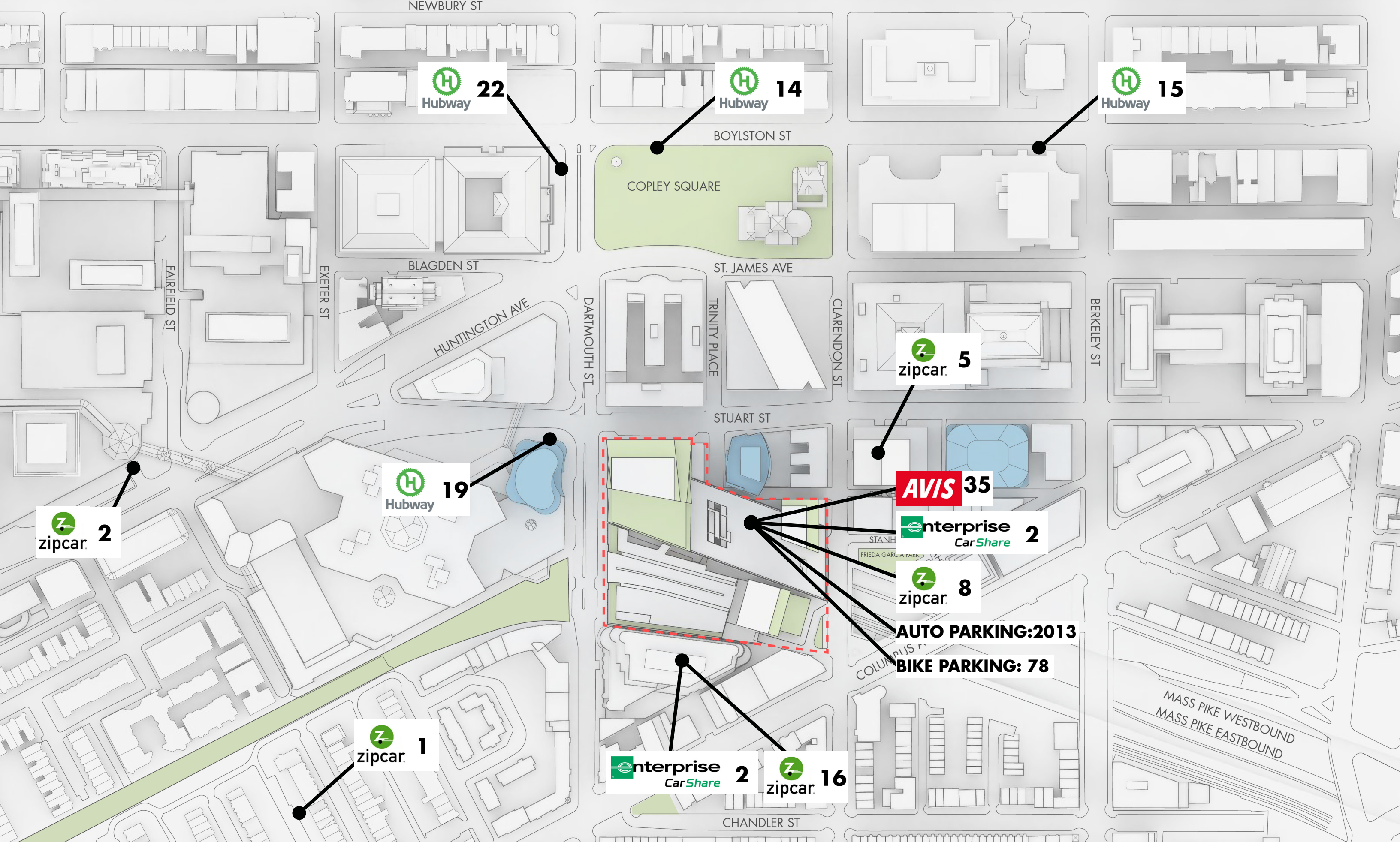
# TRAFFIC / PARKING



# TRAVEL MODE SHARES FOR PROJECT LOCATION

Mode	Office	Residential	Retail
Vehicles	30%	19%	30%
Rideshare	7%	4%	7%
<b>Transit</b>	<b>51%</b>	<b>31%</b>	<b>51%</b>
Walk	9%	<b>37%</b>	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

	<b>AVO</b>	<b>Vehicle</b>	<b>Transit</b>	<b>Walk</b>	<b>Bike</b>	<b>Other</b>
<b>Daily (24-hour)</b>						
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
<b>Total Daily</b>		4,180	7,198	2,692	250	498
<b>AM Peak Hour</b>		341	595	211	20	39
<b>PM Peak Hour</b>		344	604	178	16	33

# PROJECT PARKING RATIOS

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

## RESIDENTIAL PARKING RATIOS

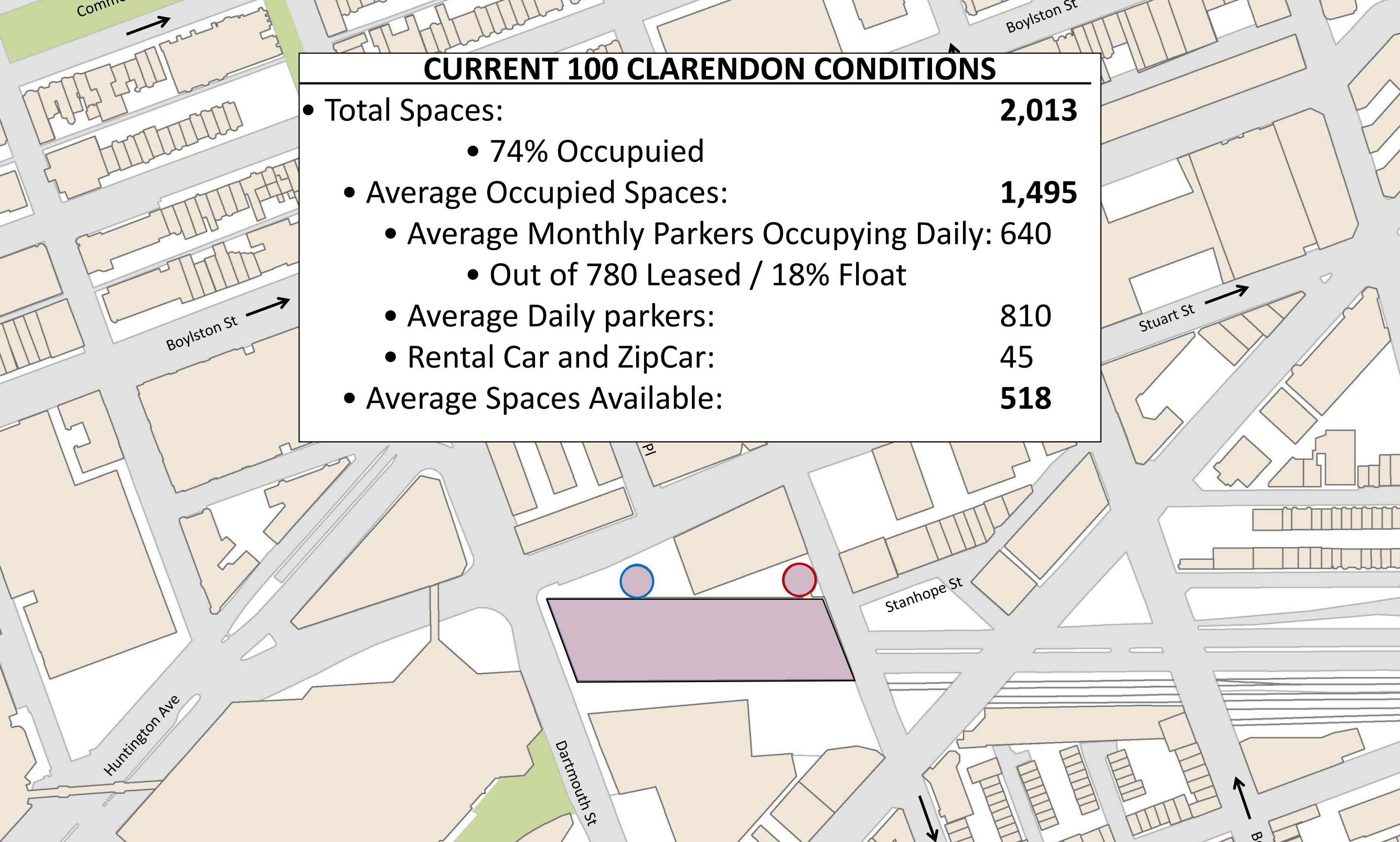
Project Name	Project Type	Location	Parking Ratio
Archstone – Boston Common	Apartment	Chinatown/Theater	0.38 spaces/unit
120 Kingston Street (Radian)	Apartment	Chinatown	0.35 spaces/unit
Archstone – Avenir	Apartment	West End	0.47 spaces/unit
The Boston Garden	Apartment	West End	0.40 spaces/unit
Avalon Bay – North Station	Apartment	West End	0.44 spaces/unit
One Back Bay	Apartment	Back Bay	0.46 spaces/unit
Exeter Residences	Apartment	Back Bay	0.70 spaces/unit
Kensington Place – Hinge Block	Apartment	Downtown	0.40 spaces/unit
45 Stuart Street (Ava)	Apartment	Downtown	0.49 spaces/unit
Lovejoy Wharf – 131 Beverly Street	Condo	Downtown	0 spaces/unit
The Victor	Apartment	Downtown	0.50 spaces/unit
One Canal	Apartment	Downtown	0.50 spaces/unit
319 A Street	Apartment	South Boston	0 spaces/unit
Ink Block	Apartment	South End	0.44 spaces/unit
275 Albany Street (The Troy)	Apartment	South End	0.5 spaces/unit

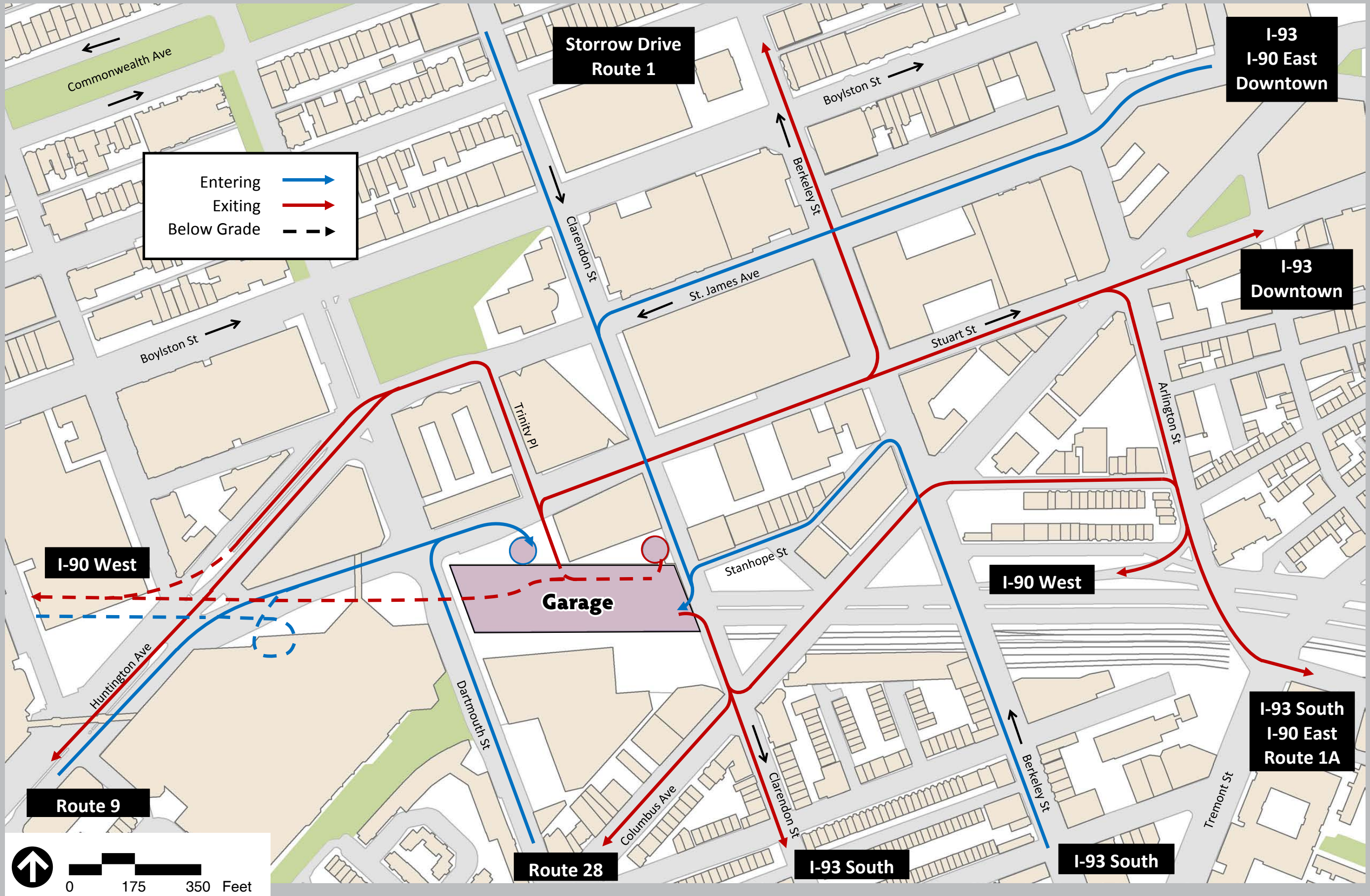
## COMMERCIAL PARKING RATIOS

Project Name	Project Type	Location	Parking Ratio
380 Stuart Street	Office/Retail	Back Bay	0.28 spaces/ksf
321 Harrison Avenue	Office	South End	0.51 spaces/ksf
125 Nashua Street	Office	North Station	0.49 spaces/ksf
Two Brookline Place	Office	Brookline	0.43 spaces/ksf
500 Boylston Street	Retail/Office Addition	Back Bay	0
Liberty Mutual	Office	Back Bay/South End	0.82 spaces/ksf
Vertex, Fan Pier	Office	South Boston	0.30 spaces/ksf
North Station	Office	North Station	0.50 spaces/kfs

## CURRENT 100 CLARENDON CONDITIONS

- Total Spaces: **2,013**
  - 74% Occupied
- Average Occupied Spaces: **1,495**
  - Average Monthly Parkers Occupying Daily: 640
  - Out of 780 Leased / 18% Float
- Average Daily parkers: **810**
- Rental Car and ZipCar: **45**
- Average Spaces Available: **518**

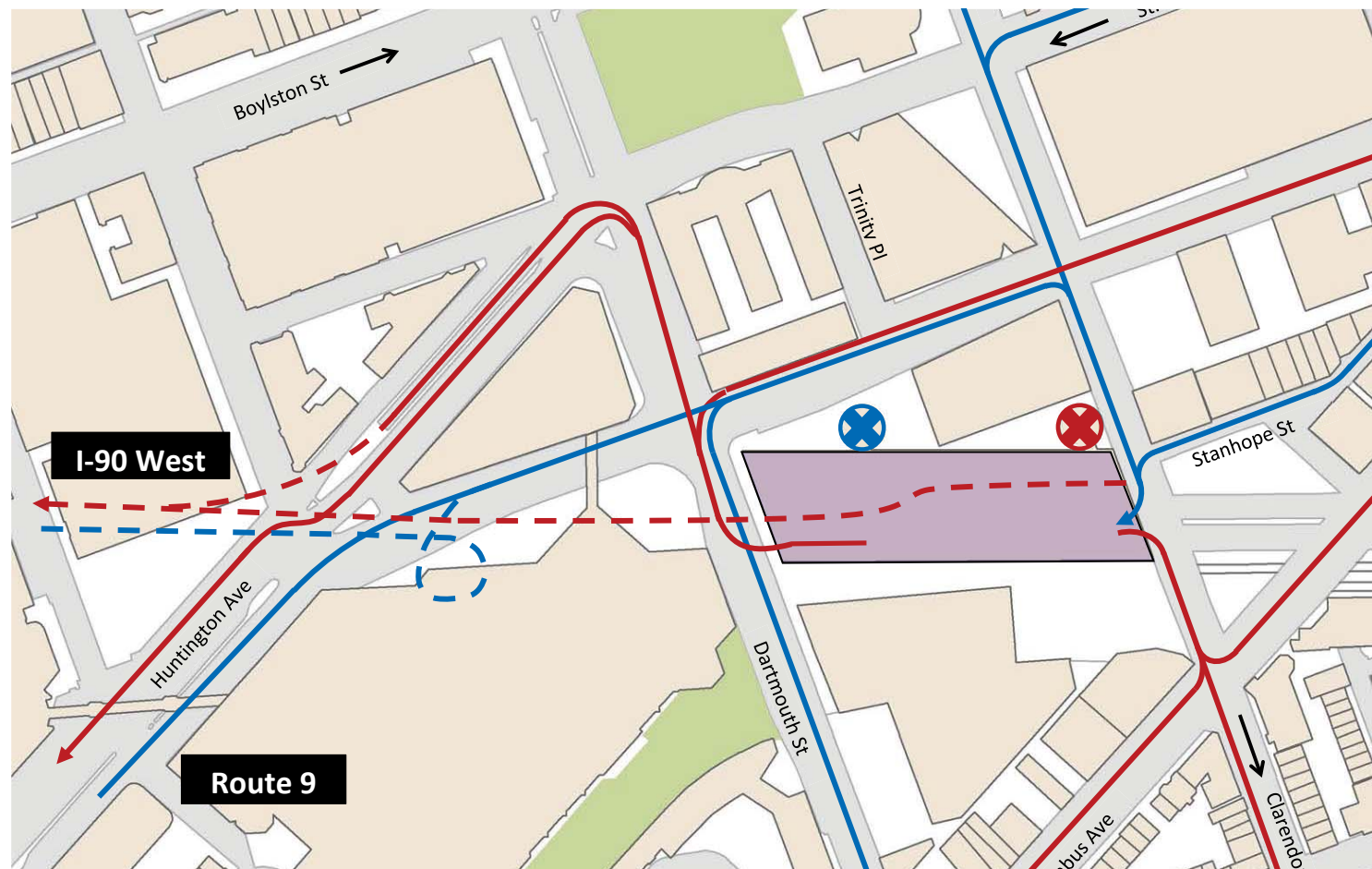




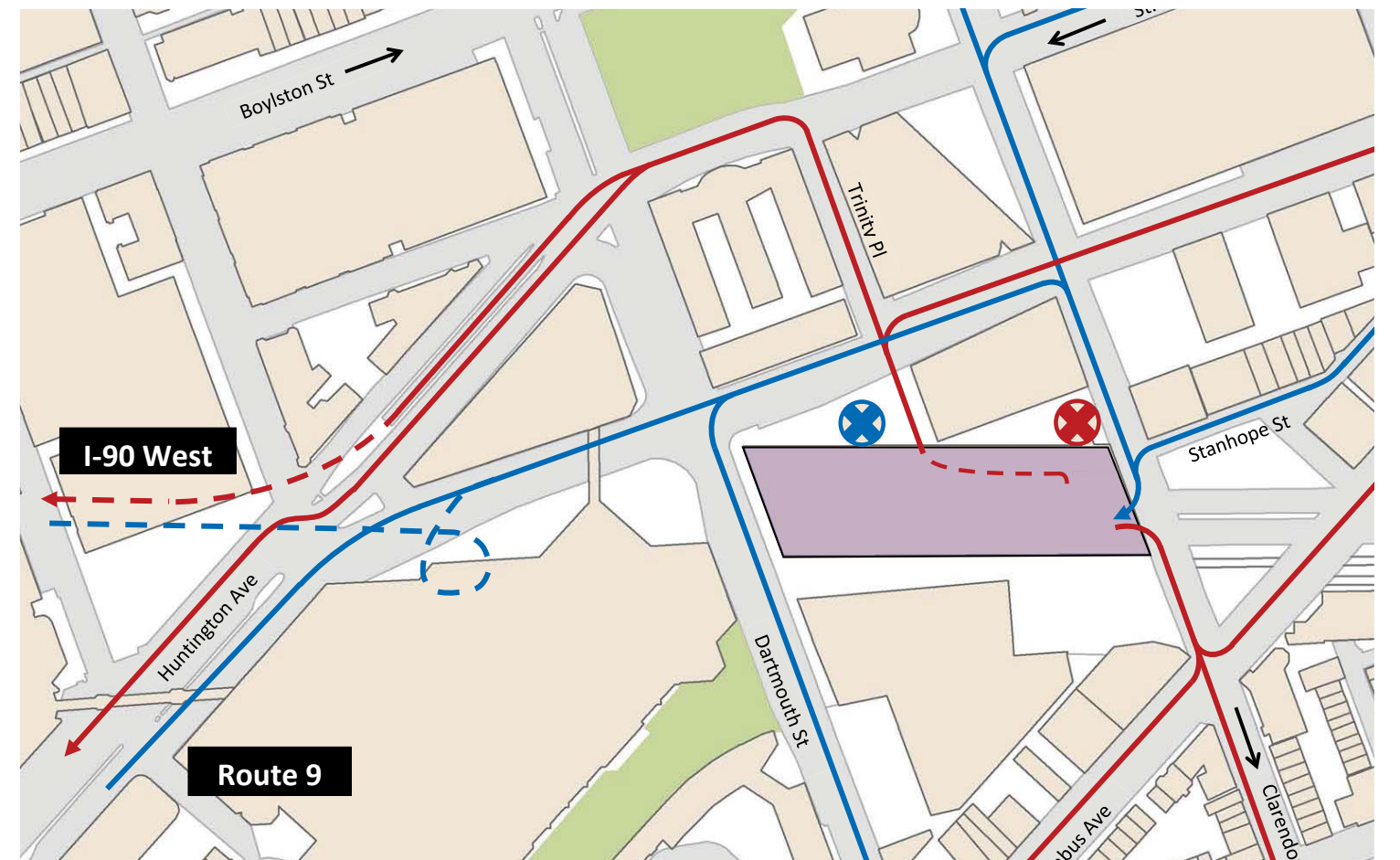
**EXISTING PARKING GARAGE ACCESS**

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**



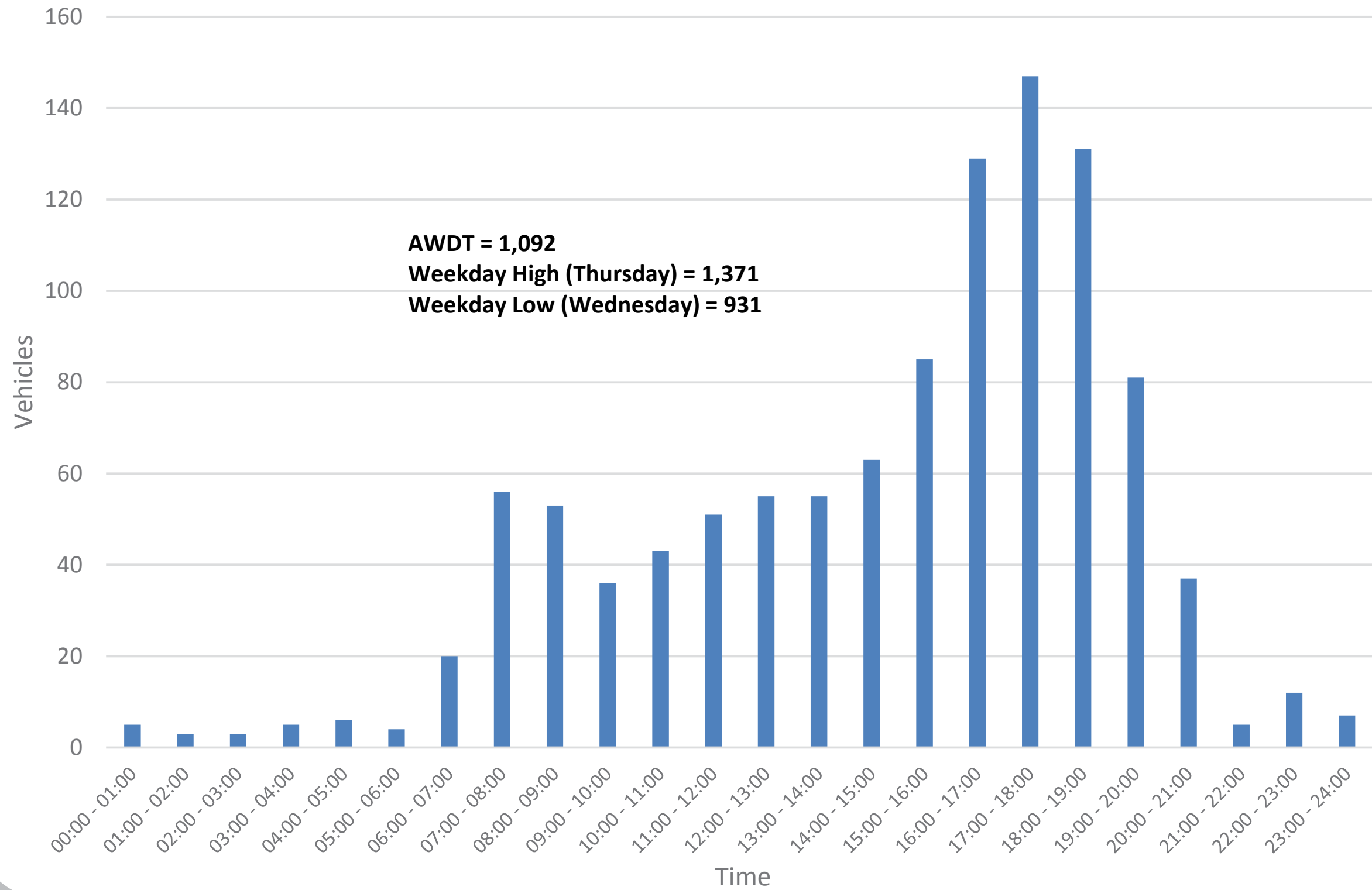
**I-90 WESTBOUND ON-RAMP CLOSED**



## I-90 Westbound Ramp Daily Traffic Volumes

Day of Week	Ramp Location			Total 3 Ramps	Clarendon Ramp %
	Huntington Ave.	Clarendon St.	Arlington St.		
Monday	3,526	1,003	4,231	8,760	11.4%
Tuesday	3,824	1,009	4,992	9,825	10.3%
Wednesday	4,109	931	5,201	10,241	9.1%
Thursday	3,250	1,371	5,407	10,028	13.7%
Friday	4,003	1,122	4,107	9,232	12.2%
<b>Weekday Average</b>	<b>3,742</b>	<b>1,092</b>	<b>4,788</b>	<b>9,622</b>	<b>11.3%</b>
<b>Ramp Percentage</b>	38.9%	<b>11.3%</b>	49.8%	100%	
<b>7-Day Average</b>	<b>3,601</b>	<b>960</b>	<b>4,421</b>	<b>8,982</b>	<b>10.7%</b>
<b>Ramp Percentage</b>	40.1%	<b>10.7%</b>	49.2%	100%	

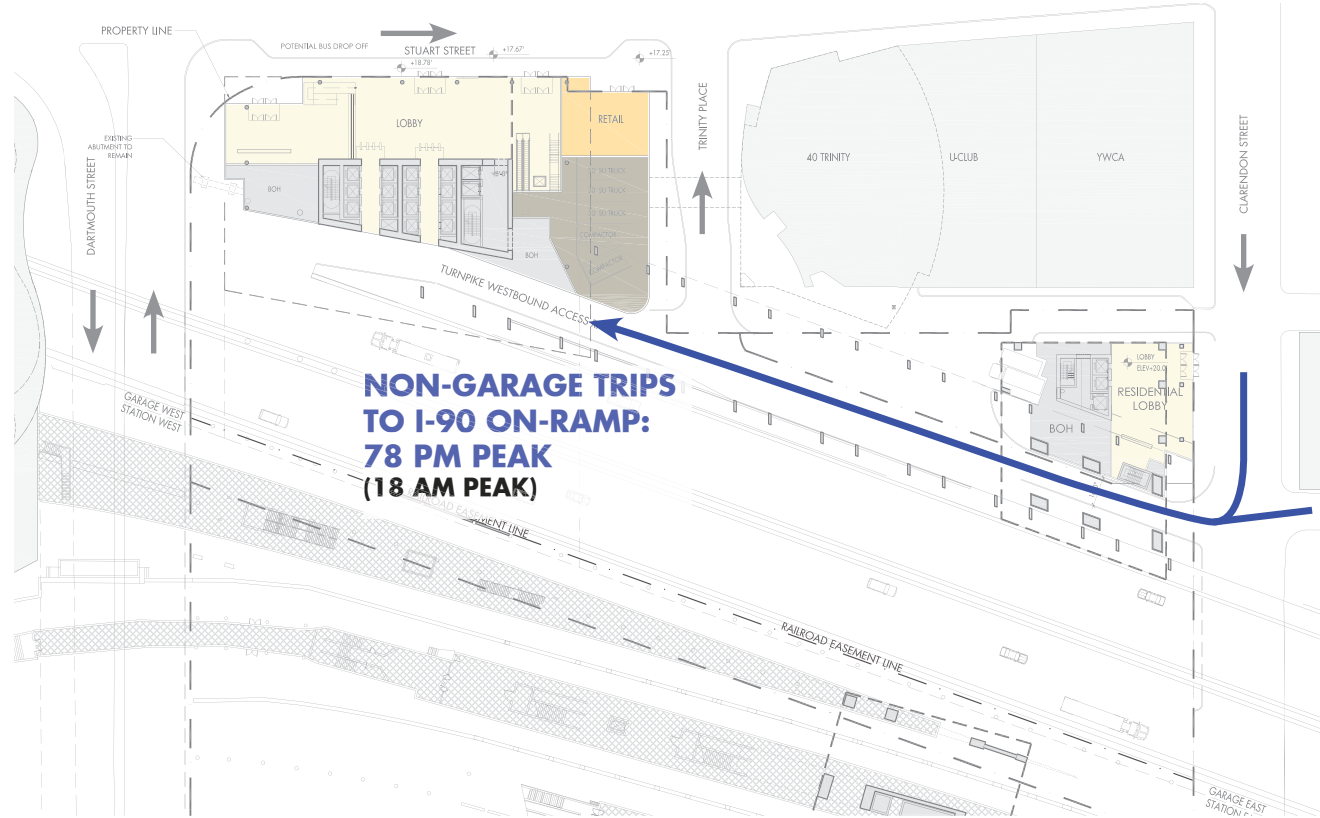
### Clarendon Street I-90 Westbound On-Ramp Average Weekday Traffic (AWDT)



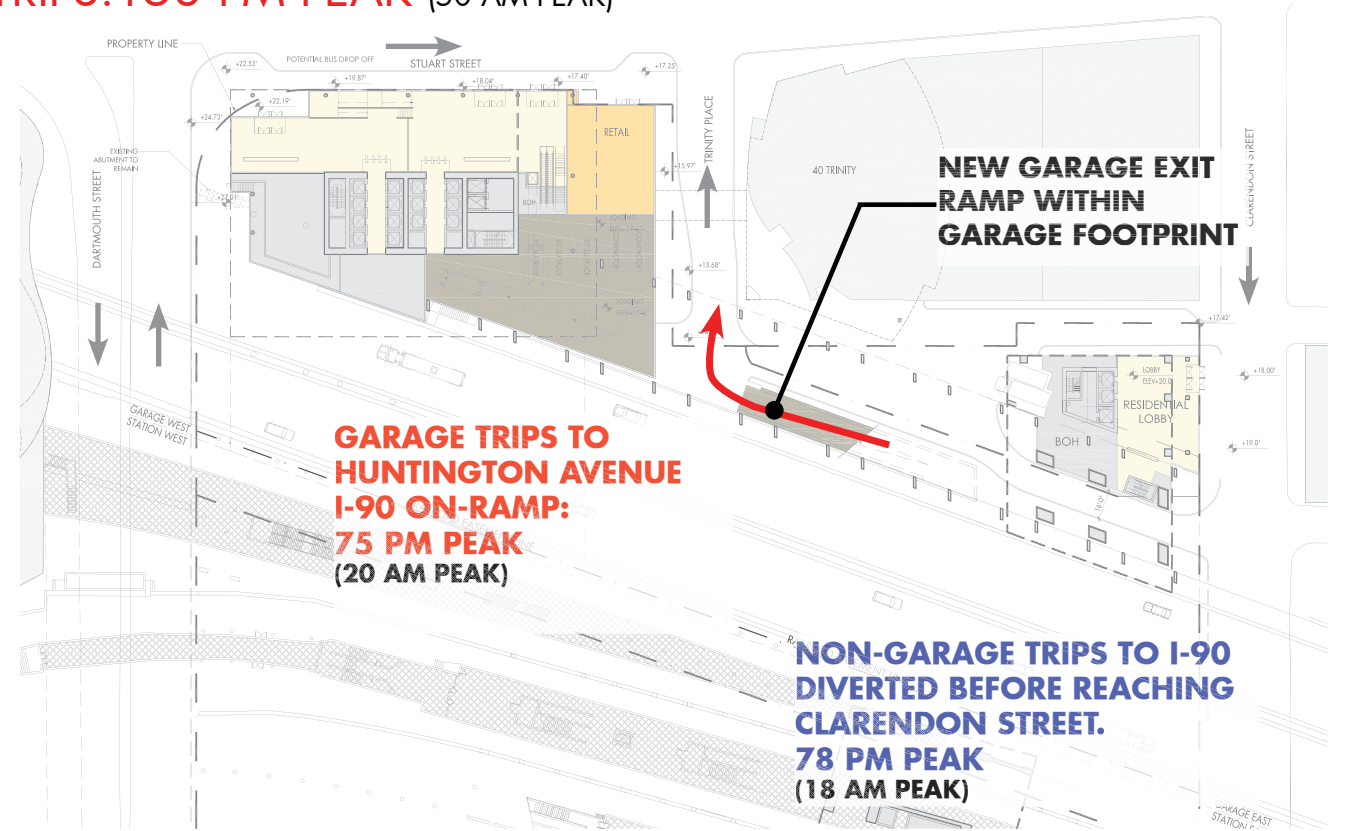
# ON-RAMP OPEN

EXISTING I-90 RAMP PEAK HOUR TRIPS: 153 PM PEAK (50 AM PEAK)

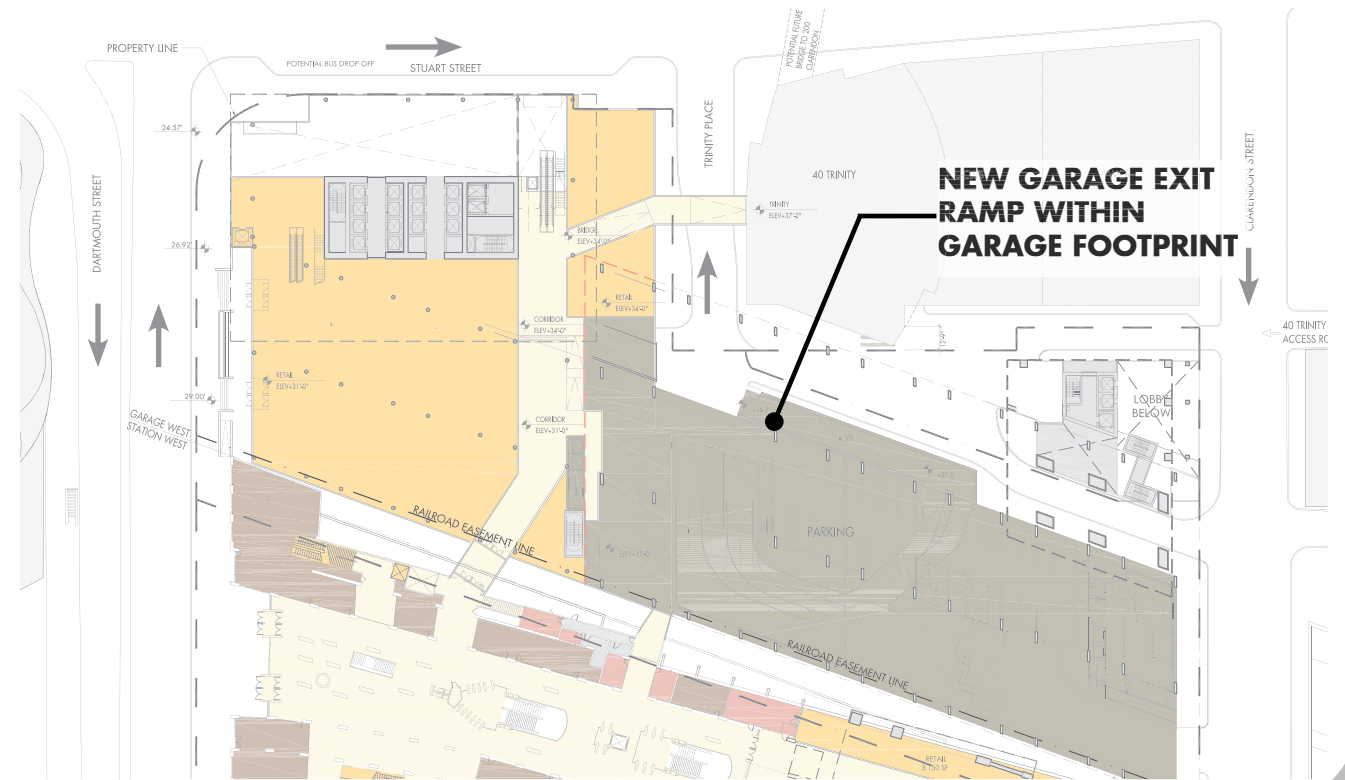
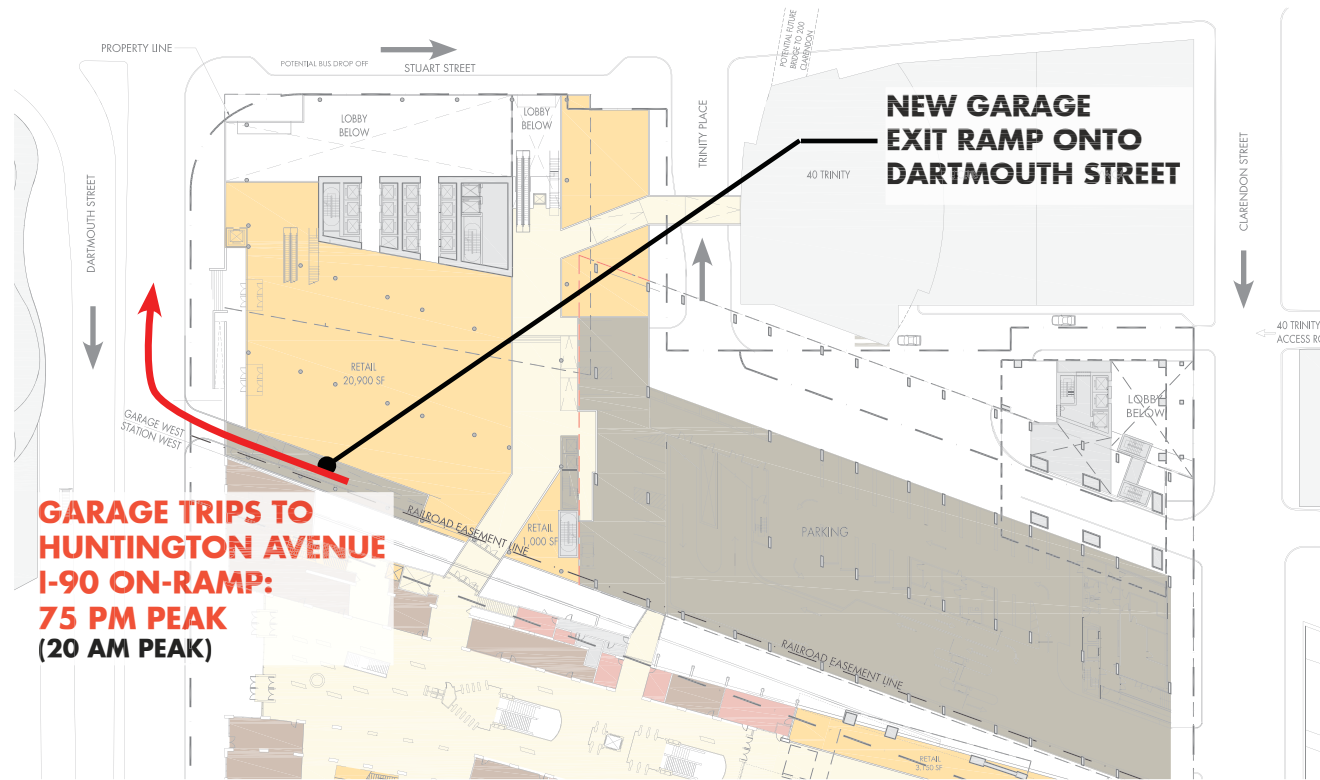
STUART STREET LEVEL

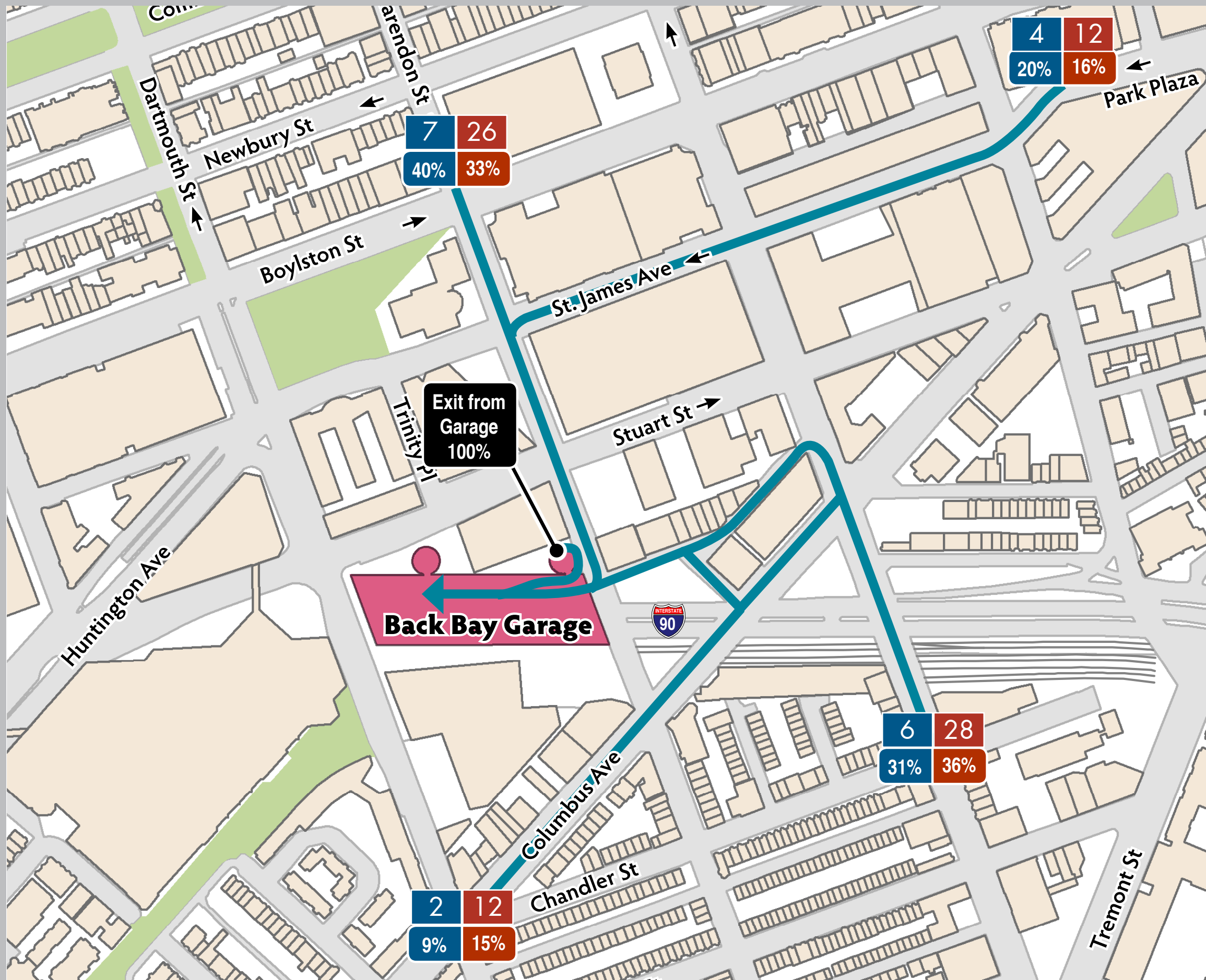


# ON-RAMP CLOSED



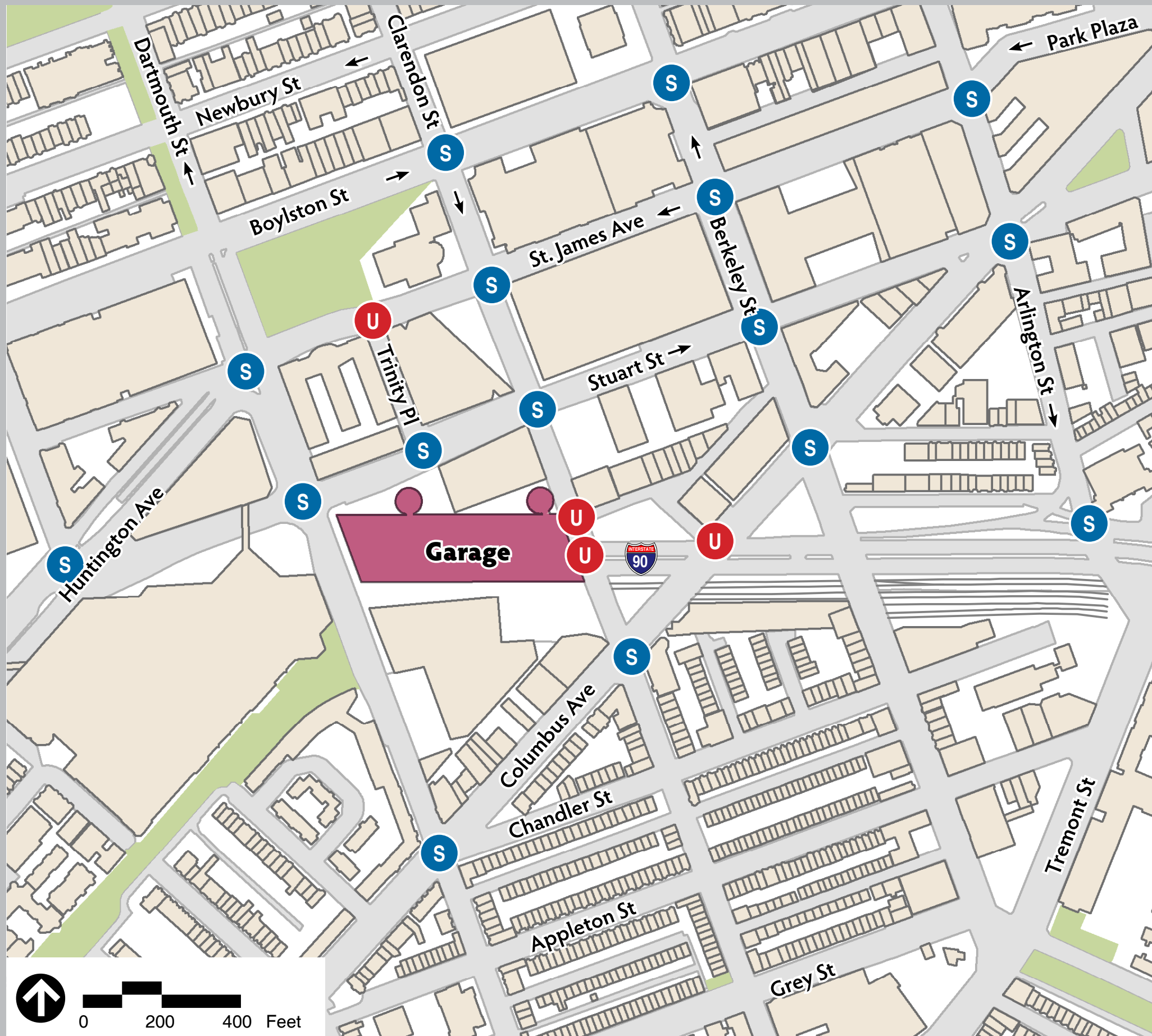
DECK LEVEL





#	%	
AM	PM	

DISTRIBUTION OF TRIPS USING I-90 ON-RAMP AT CLARENDON STREET



- S Signalized Intersection
- U Unsignalized Intersection

**PROPOSED STUDY AREA**

# Q&A



# KEY DATES AND FUTURE TOPICS

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- MEPA Public Comment Period Ends • June 17th
- PNF Public Comment Period Ends • June 17th
- CAC #5 Meeting • June 29th • 6-8pm
  - Streetscape / Landscape / Public Realm Design
  - Sustainability
- Future CAC Meeting Topics:
  - Housing (Including Affordable Housing)
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  - Wayfinding Around Site
  - Overall Retail Strategy
  - Other Topics As Needed

# CONTACT INFORMATION

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Chris Tracy, Senior Project Manager, Boston Redevelopment Authority  
Christopher.Tracy@boston.gov • 617.918.4259



THANK YOU!

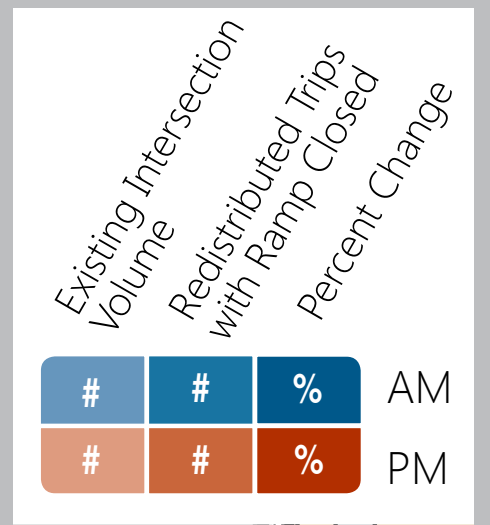
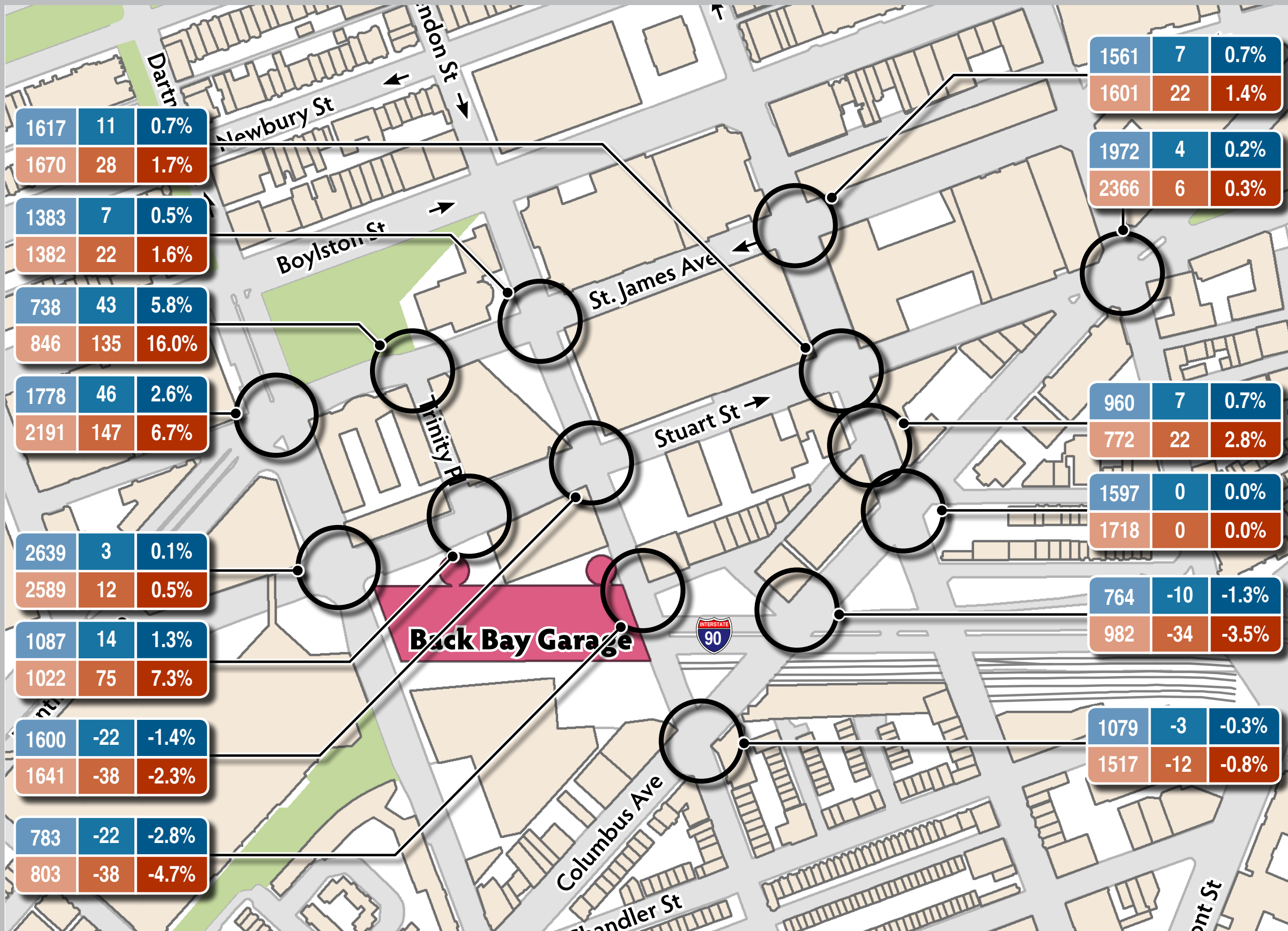


# TRANSPORTATION APPENDIX

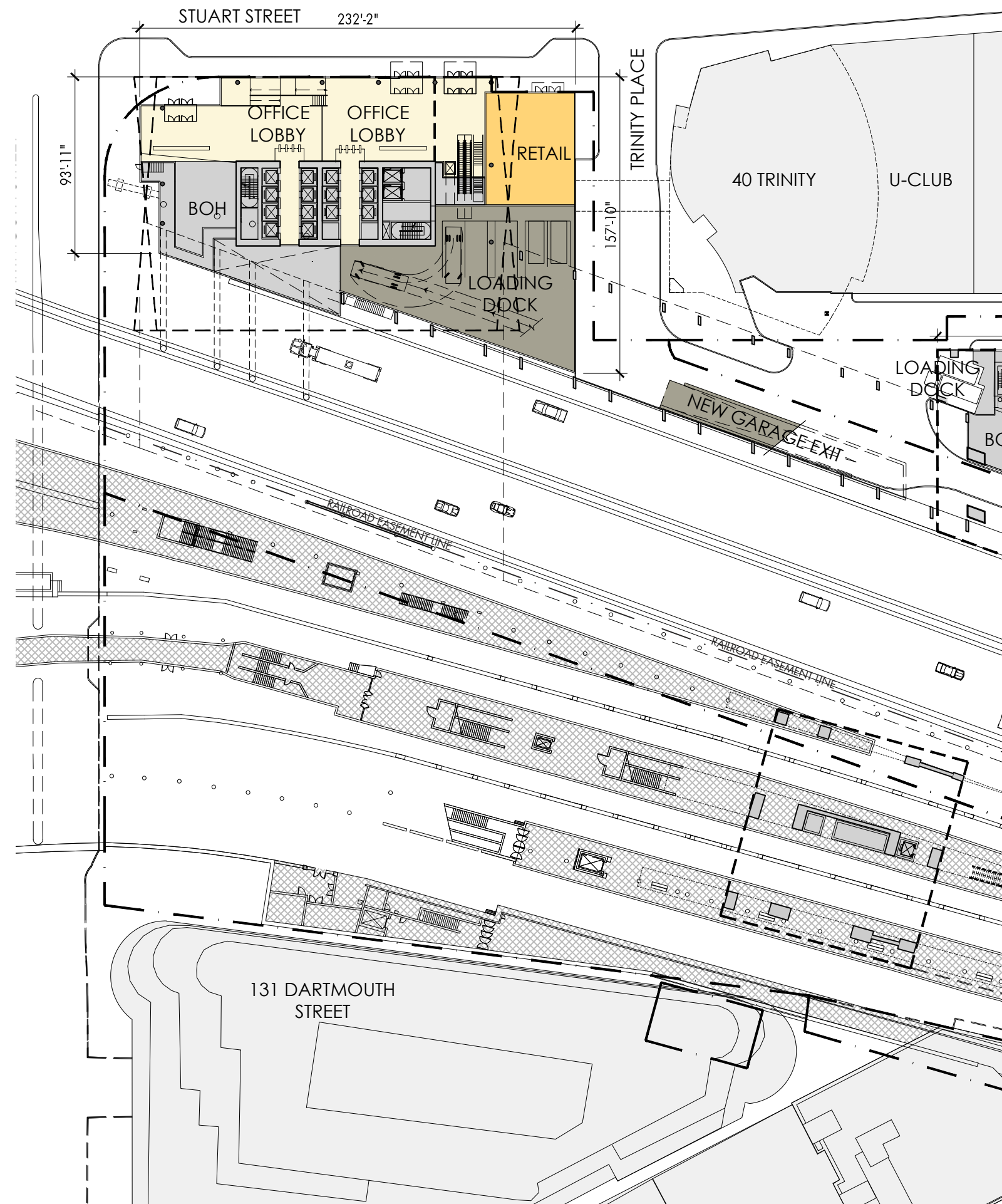
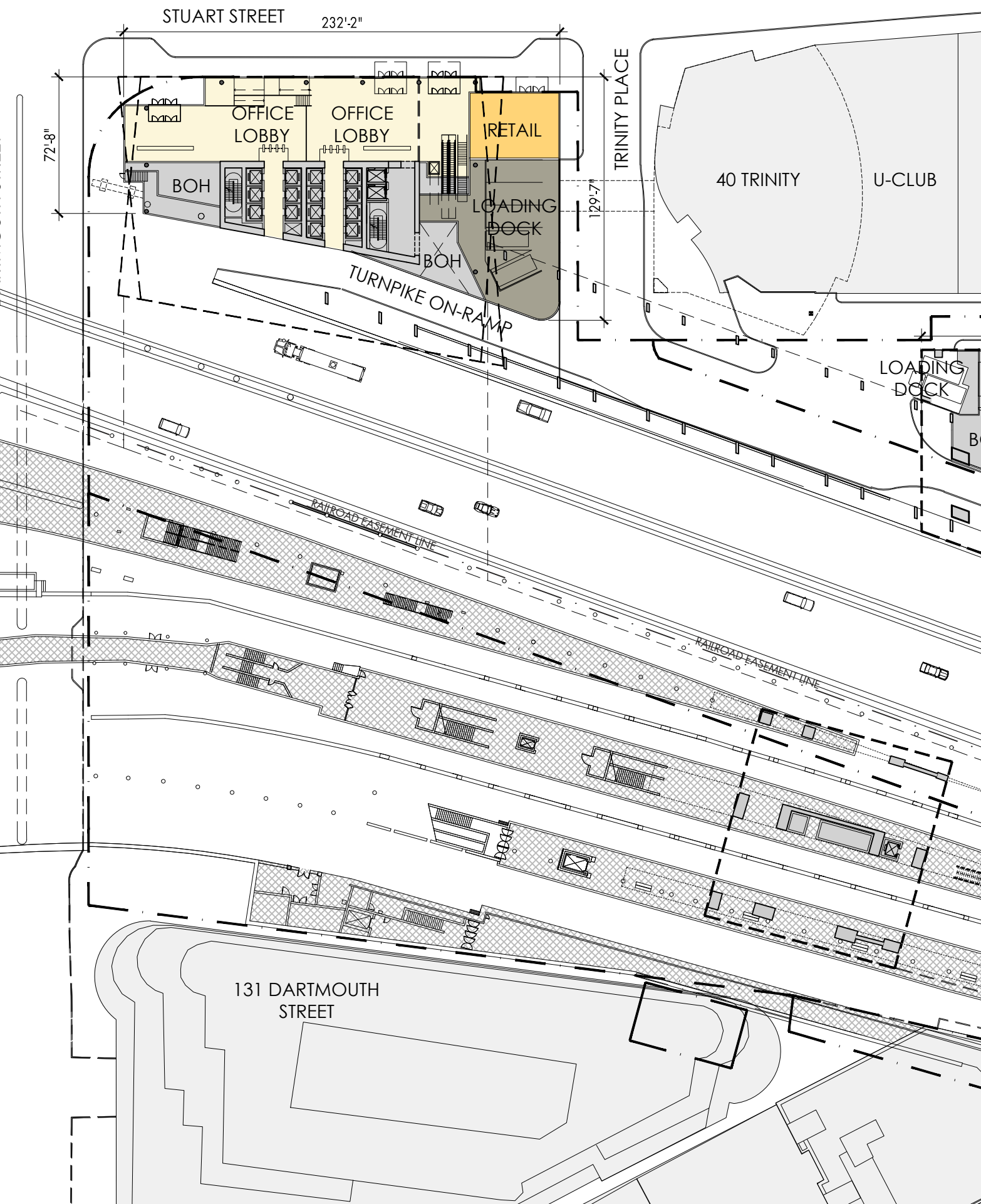


**PRELIMINARY PROJECT TRIP GENERATION PROJECTIONS (BASE SCHEMES)  
(Total Trips Enter + Exit)**

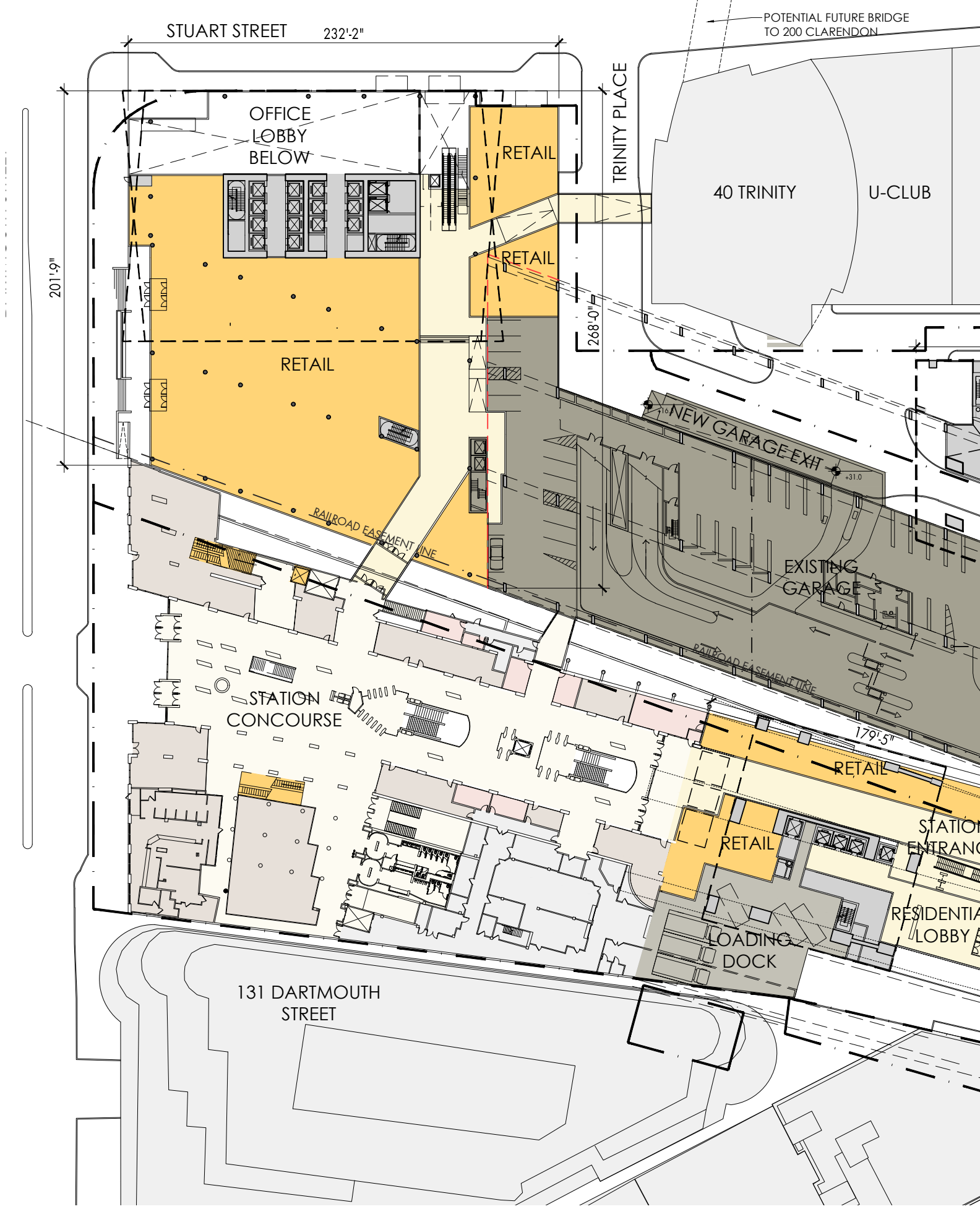
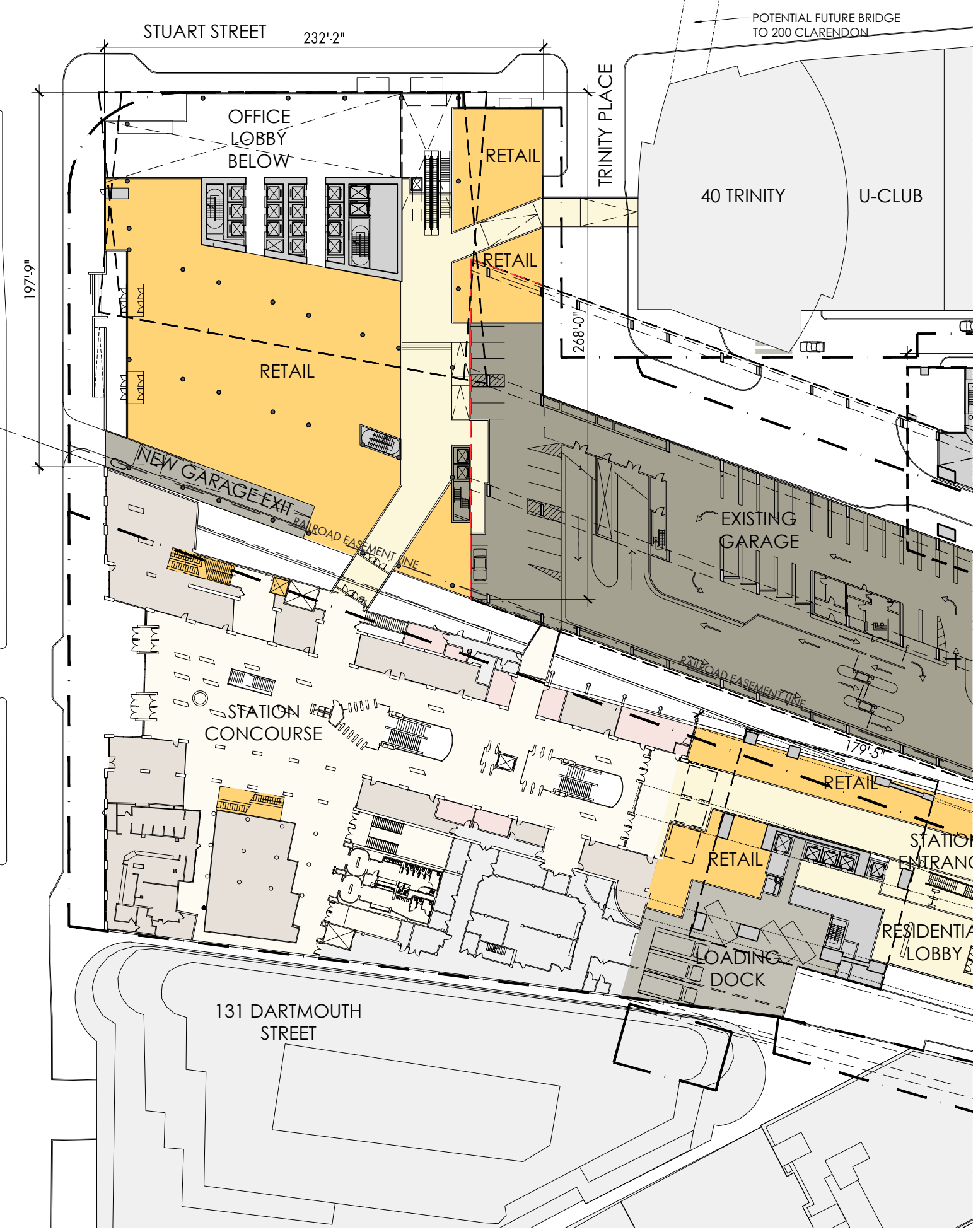
	<b>AVO</b>	<b>Vehicle</b>	<b>Transit</b>	<b>Walk</b>	<b>Bike</b>	<b>Other</b>
<b>Daily (24-hour)</b>						
Office	1.27	2,084	3,648	644	72	144
Retail	1.27	1,296	2,266	400	42	88
Residential	1.30	800	1,398	1,668	136	270
<b>Total</b>		4,180	7,198	2,692	250	498
<b>AM Peak Hour</b>						
Office	1.27	274	478	85	10	19
Retail	1.27	7	13	3	0	0
Residential	1.3	60	105	124	10	20
<b>Total</b>		341	595	211	20	39
<b>PM Peak Hour</b>						
Office	1.27	261	458	81	9	18
Retail	1.27	44	77	15	0	2
Residential	1.30	39	69	82	7	13
<b>Total</b>		344	604	178	16	33



CHANGES IN INTERSECTION VOLUMES DUE TO I-90 RAMP CLOSURE



GARAGE WEST - BASE AND ALTERNATE SCHEME - STUART STREET



GARAGE WEST - BASE AND ALTERNATE SCHEME - DECK LEVEL