# Rehabilitation of the BQE (I-278)

Urban design progress



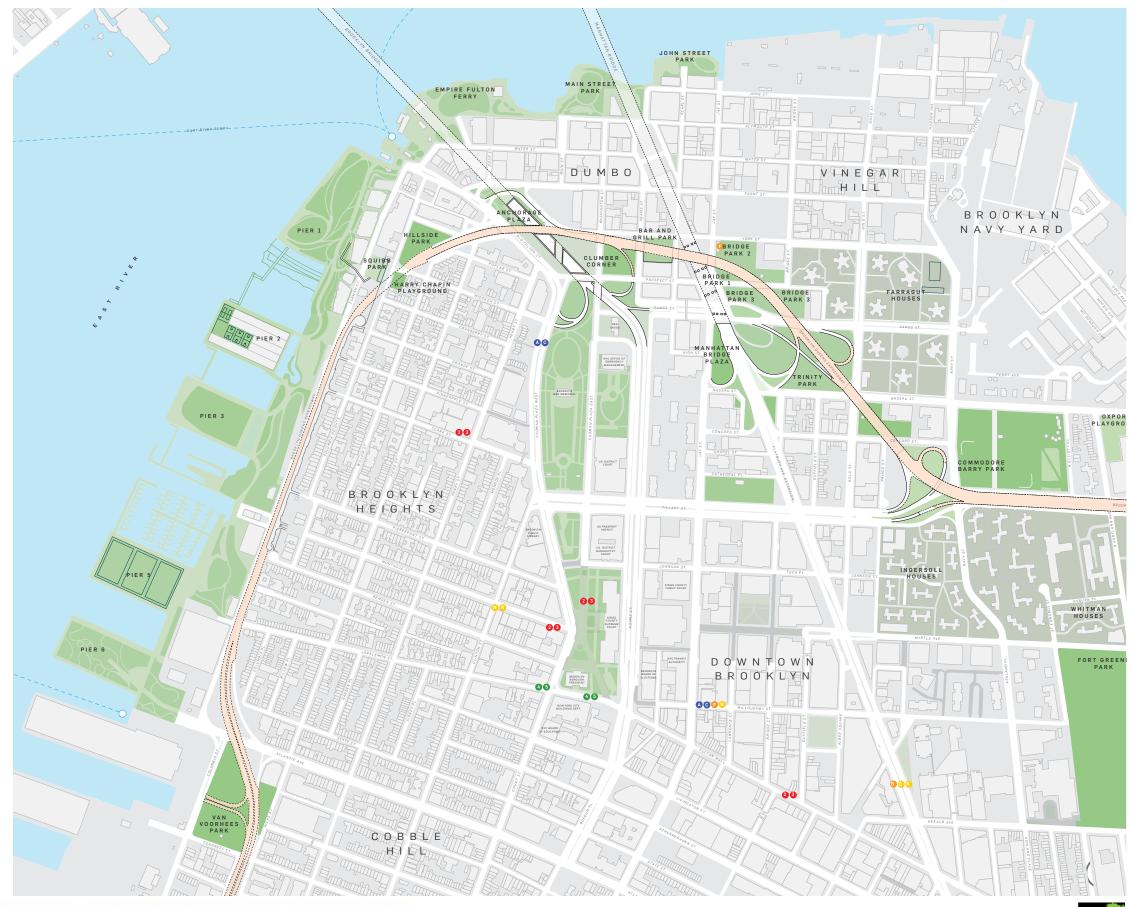
### **Contents**

- 1. BASELINE CONNECTIVITY
- 2. TEMPORARY ELEVATED ROADWAY
  - a. Impacts
  - b. Urban design opportunities
- 3. FINAL CONDITION DESIGN OPPORTUNITIES
  - a. Brooklyn Heights Promenade
  - b. Columbia Heights
  - c. Old Fulton Street & DUMBO
- 4. APPENDIX
  - a. Program & amenities analysis
  - b. Mapping analysis
  - c. Programming precedents

# 1 Baseline Connectivity



#### **Site Overview**



LEGEND

Existing BQE

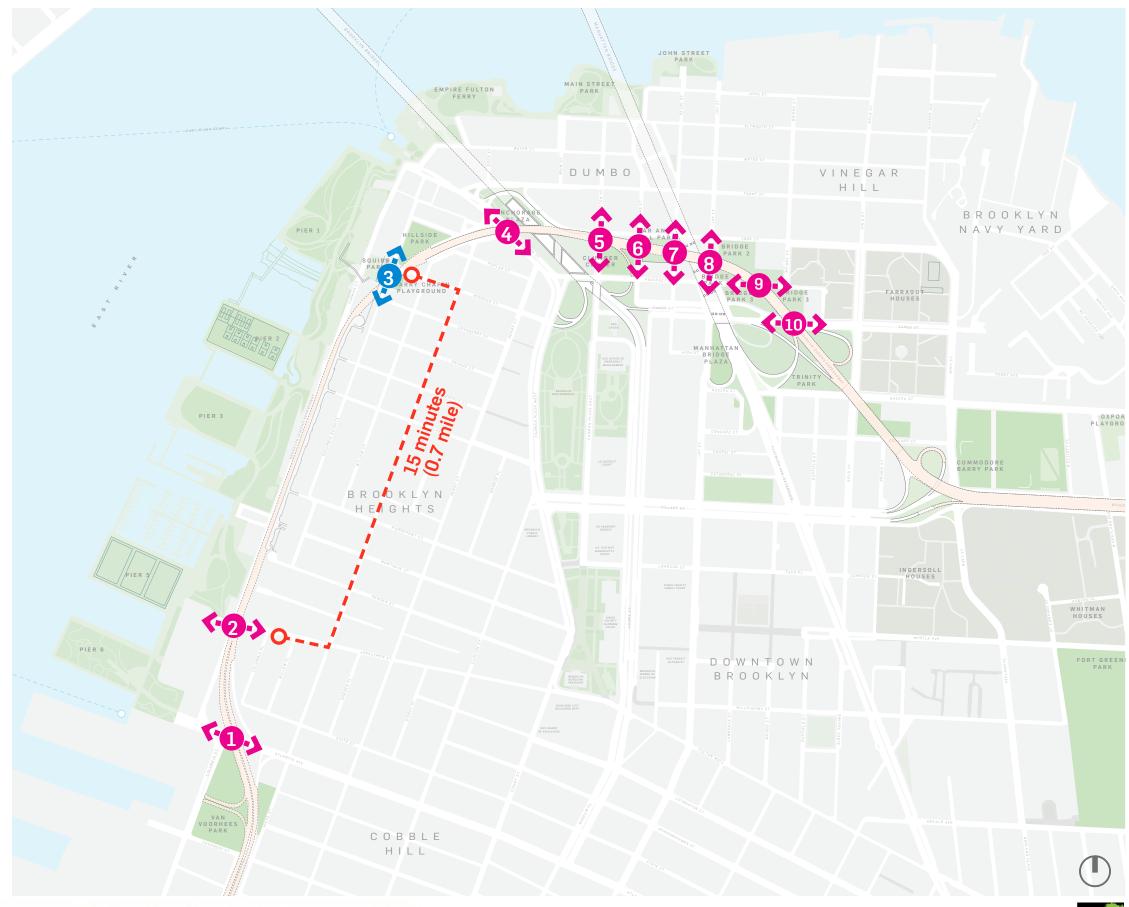
Feet
0 625 1,250

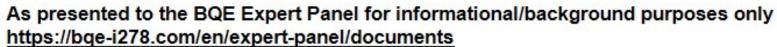


### **Connection Typologies**

- 1. Atlantic Ave
- 2. Joralemon St
- 3. Columbia Heights
- 4. Old Fulton St
- 5. Washington St
- 6. Adams St
- 7. Pearl St
- 8. Jay St
- 9. Prospect St
- 10. Sands St

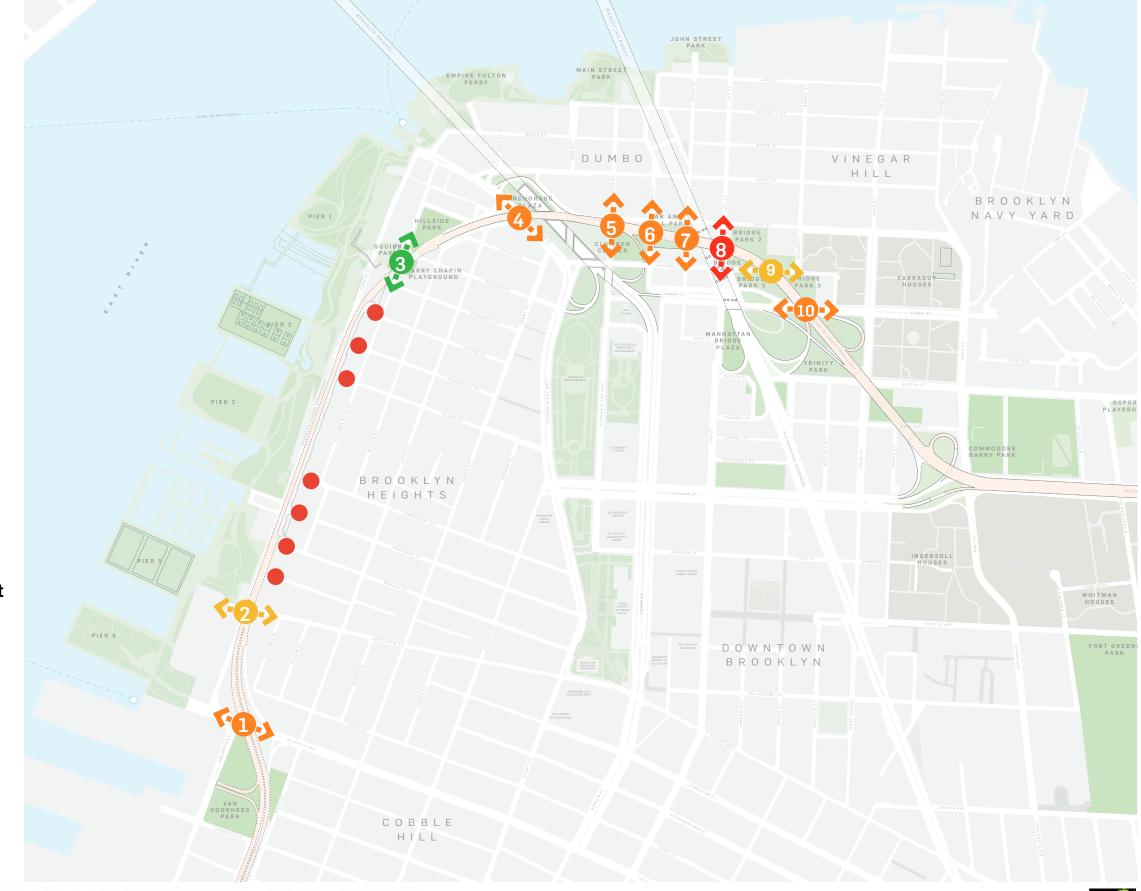
# LEGEND Underpass Bridge

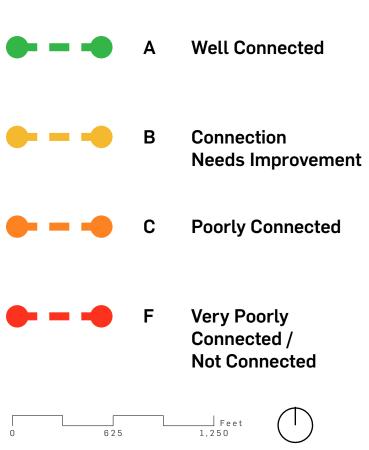






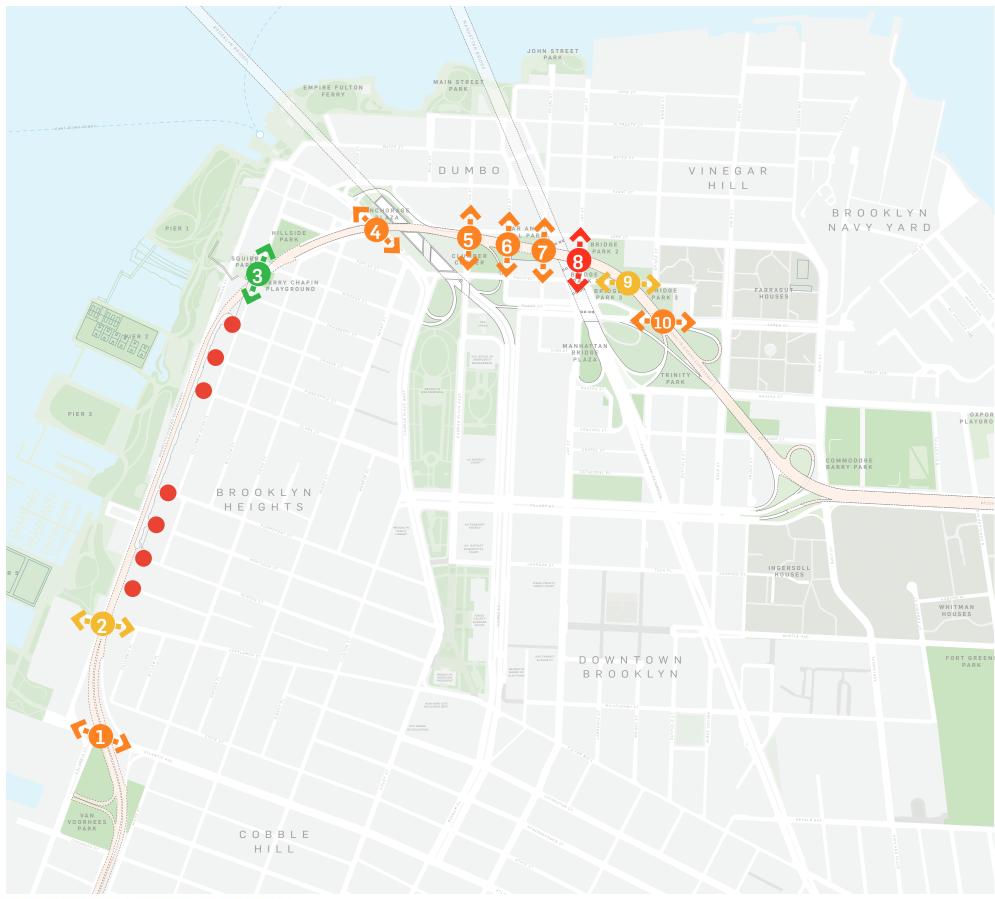
# Pedestrian Connections: Overview





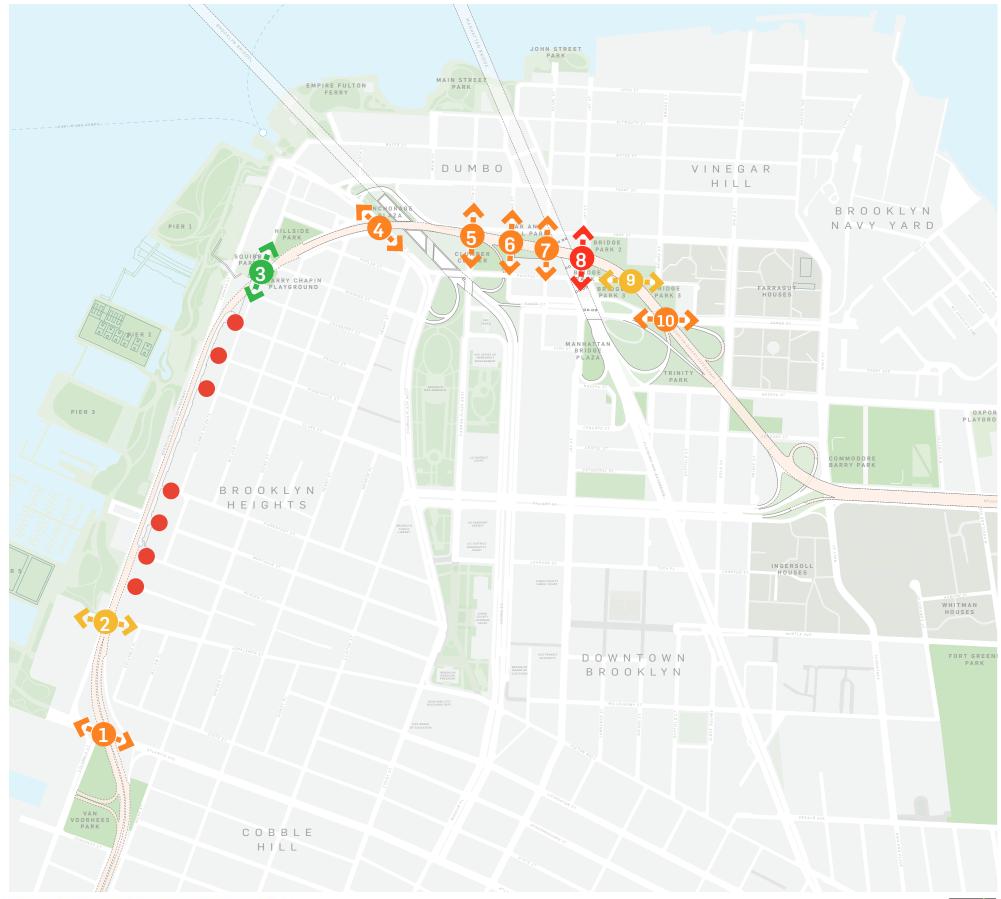


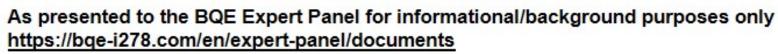
- 1 Atlantic Avenue
- Pedestrian safety
  - Sidewalk continuity
- Lighting daytime
- Lighting nighttime
- ☐ Street trees / vegetation
- ☐ Street furniture
- ☐ Signage & wayfinding





- 2 Joralemon Street
- Pedestrian safety
- Sidewalk continuity
- Lighting daytime
- ☐ Lighting nighttime
- Street trees / vegetation
- ☐ Street furniture
- ☐ Signage & wayfinding

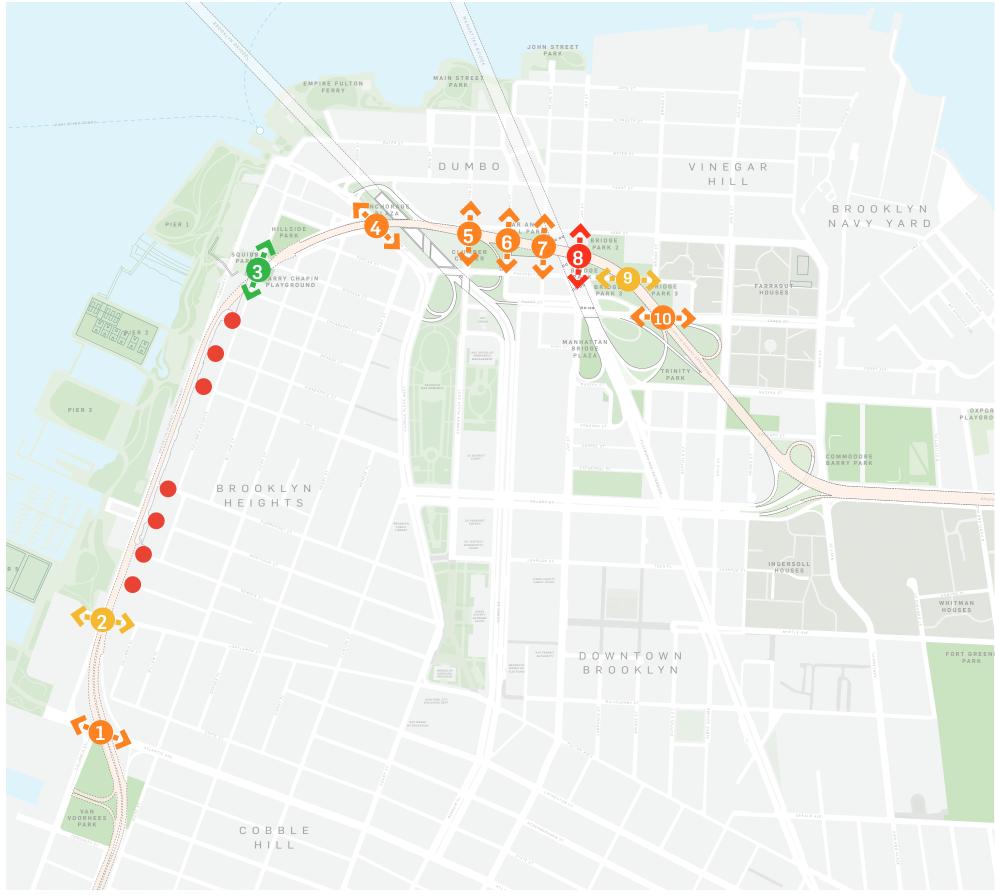


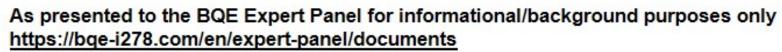






- **3** Columbia Heights
  - Pedestrian safety
  - Sidewalk continuity
  - Lighting daytime
  - Lighting nighttime
- Street trees / vegetation
- Street furniture
- ☐ Signage & wayfinding

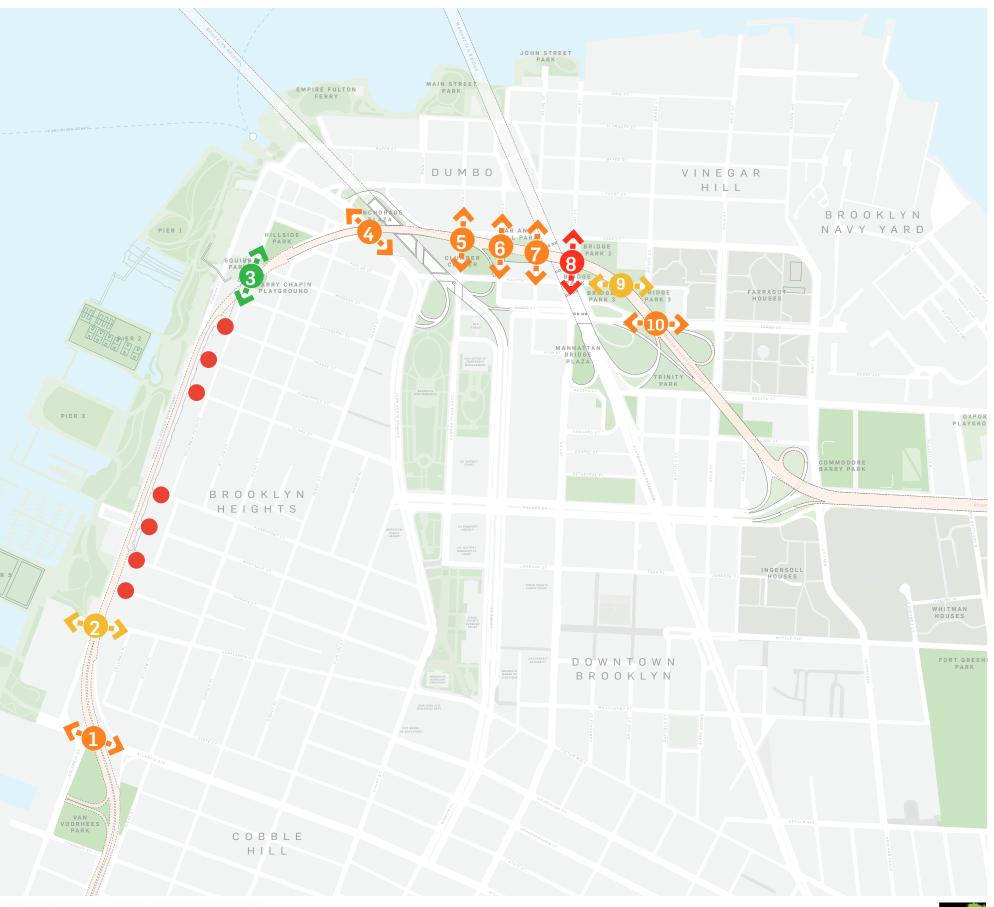


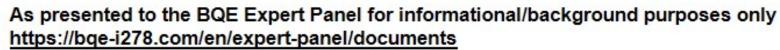






- 4 Old Fulton Street
- Pedestrian safety
- Sidewalk continuity
- Lighting daytime
- Lighting nighttime
- ☐ Street trees / vegetation
- ☐ Street furniture
- ☐ Signage & wayfinding

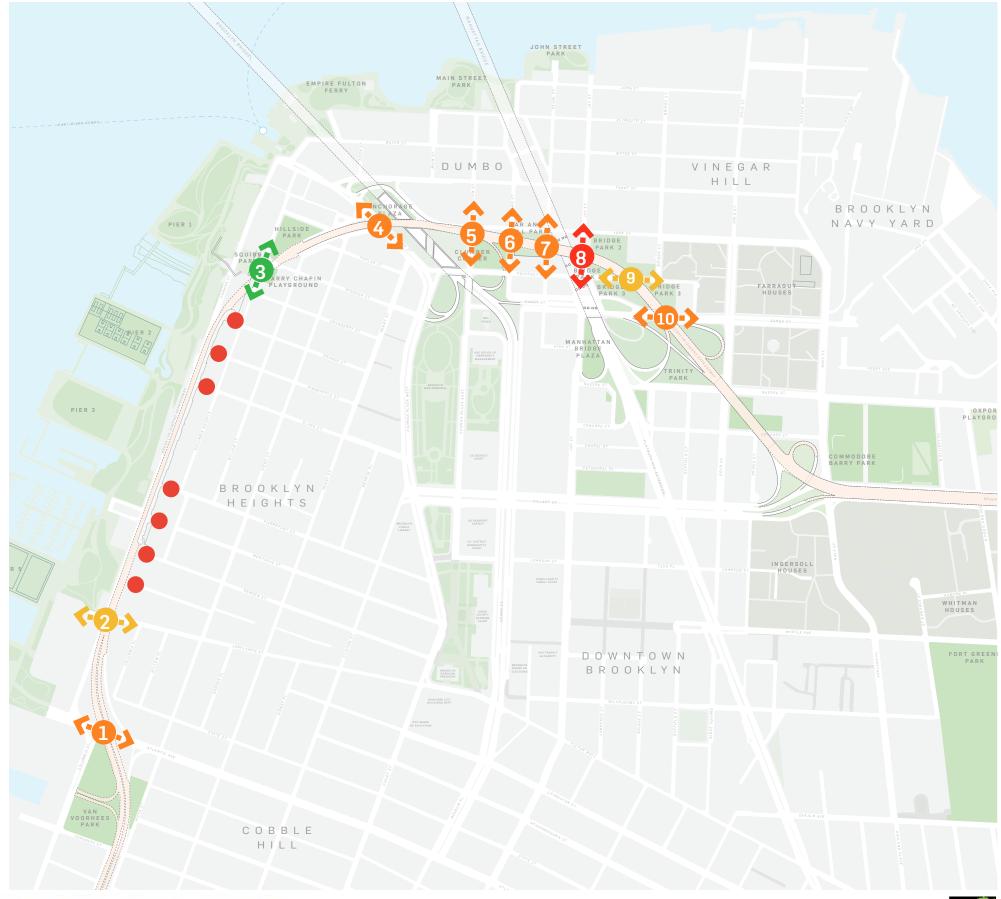


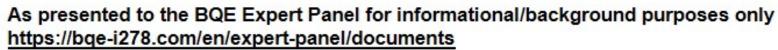






- **5** Washington Street
- ☐ Pedestrian safety
- Sidewalk continuity
- Lighting daytime
- ☐ Lighting nighttime
- Street trees / vegetation
- ☐ Street furniture
- ☐ Signage & wayfinding

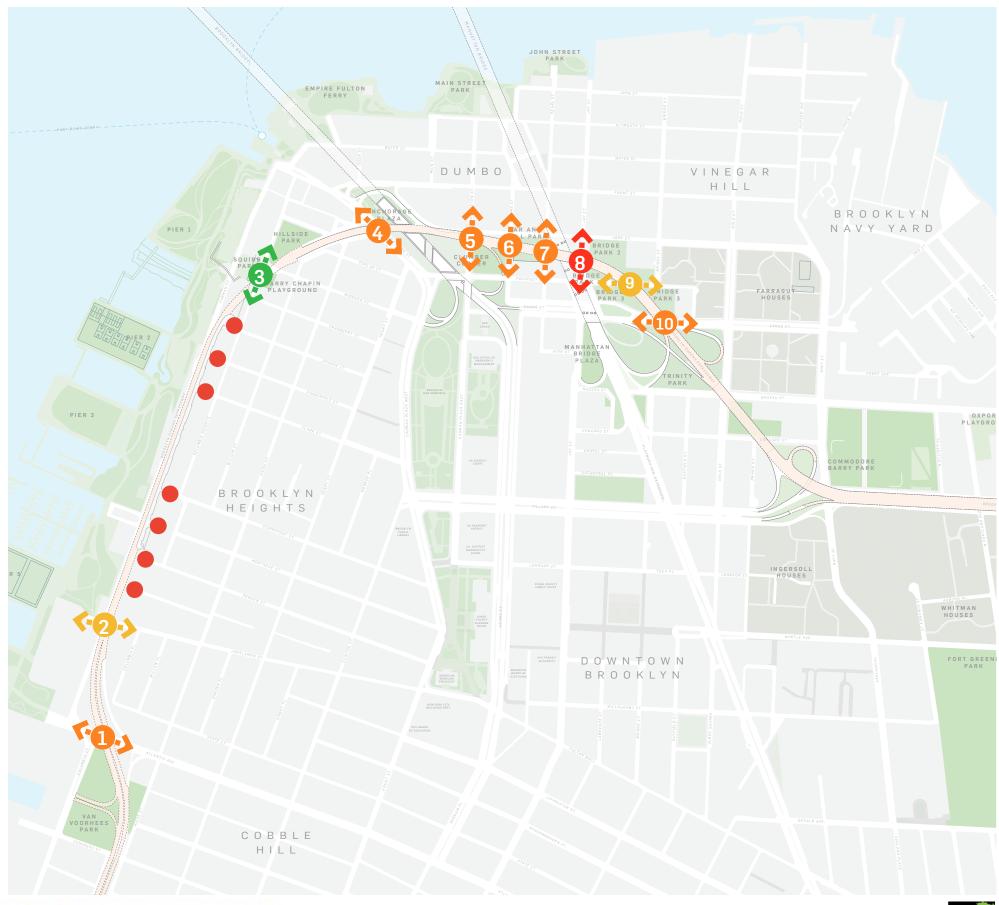








- 6 Adams Street
- Pedestrian safety
  - Sidewalk continuity
- Lighting daytime
- Lighting nighttime
- Street trees / vegetation
- ☐ Street furniture
- ☐ Signage & wayfinding





☐ Pedestrian safety

Sidewalk continuity

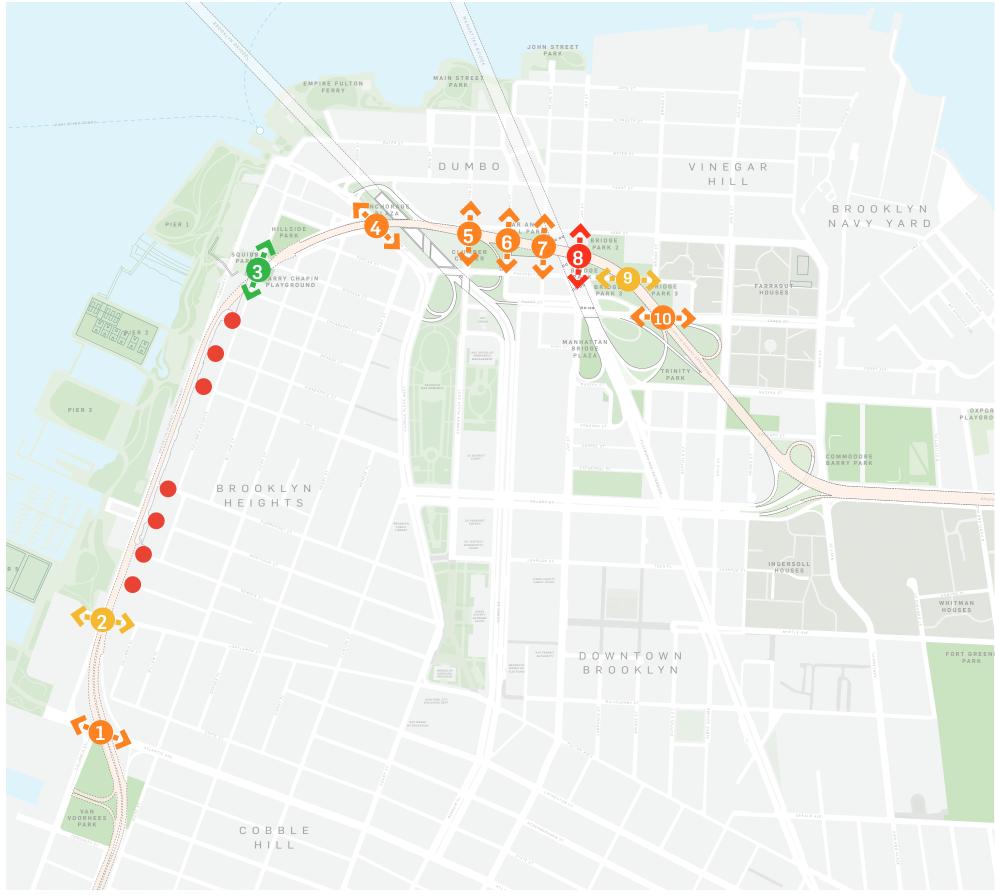
Lighting — daytime

Lighting — nighttime

☐ Street trees / vegetation

☐ Street furniture

☐ Signage & wayfinding

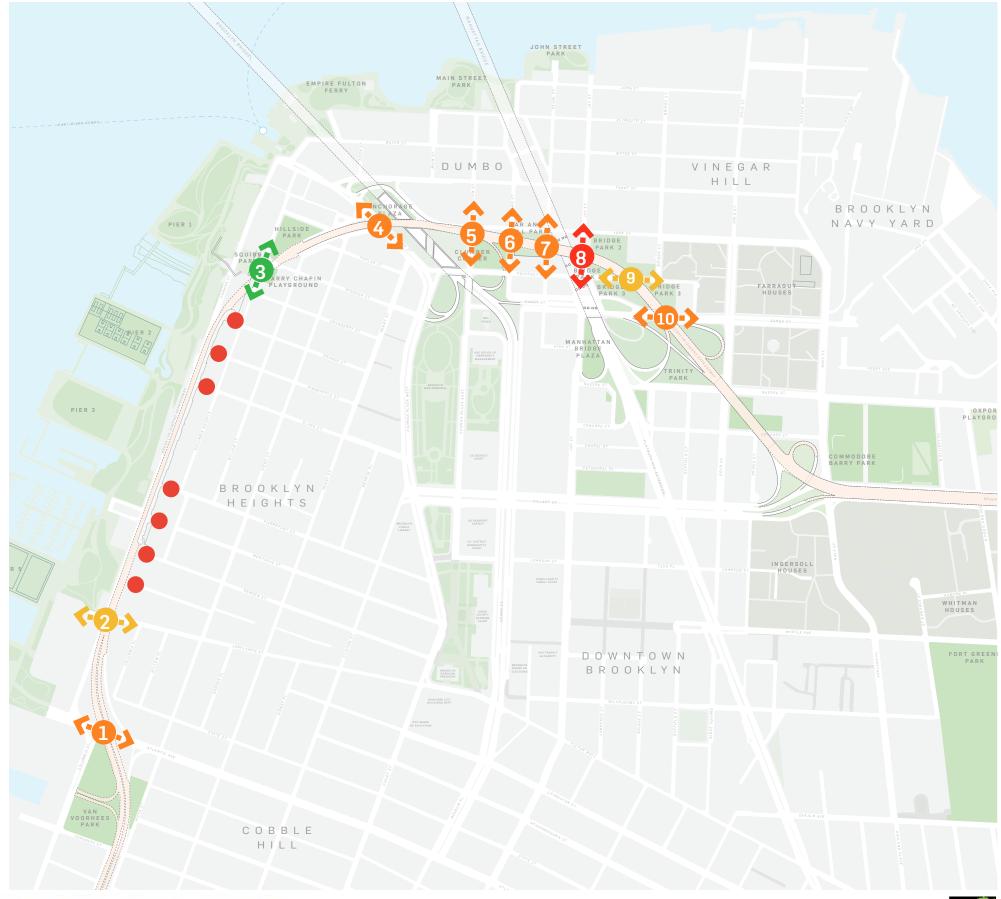


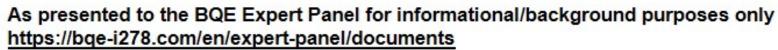


☐ Pedestrian safety

Jay Street

- Sidewalk continuity
- Lighting daytime
- Lighting nighttime
- ☐ Street trees / vegetation
- ☐ Street furniture
- ☐ Signage & wayfinding











Pedestrian safety

Sidewalk continuity

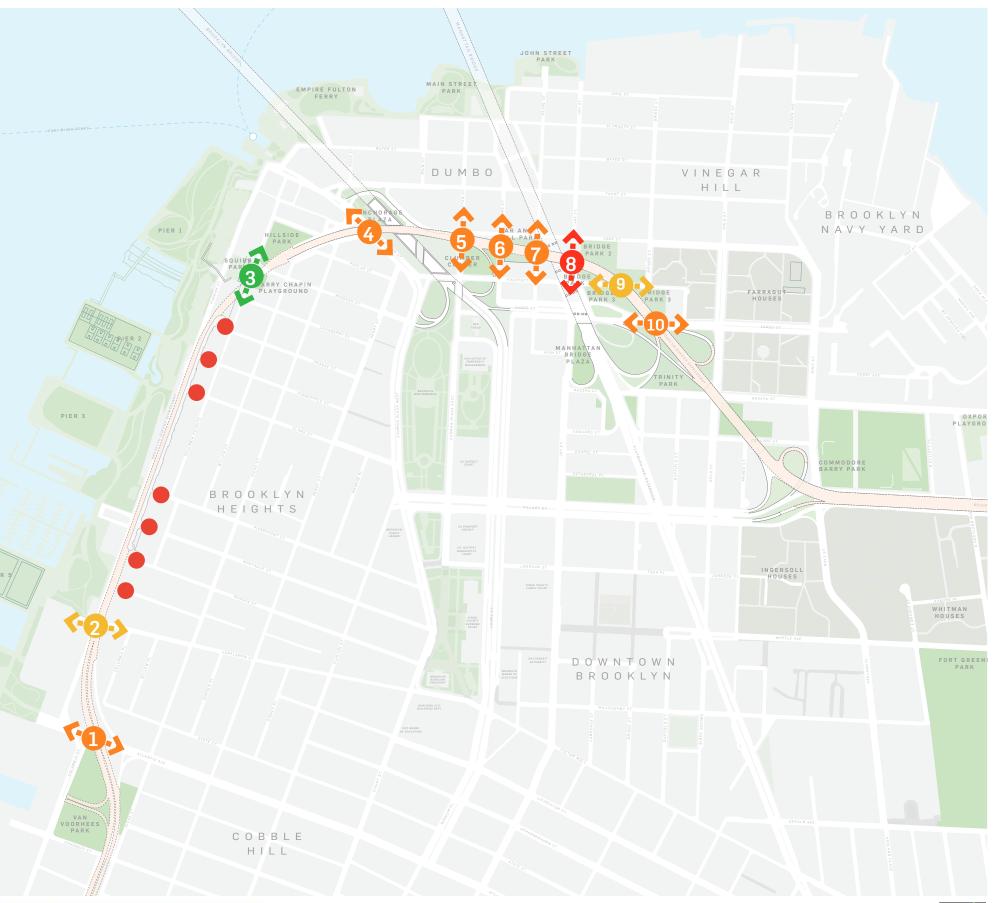
☐ Lighting — daytime

Lighting — nighttime

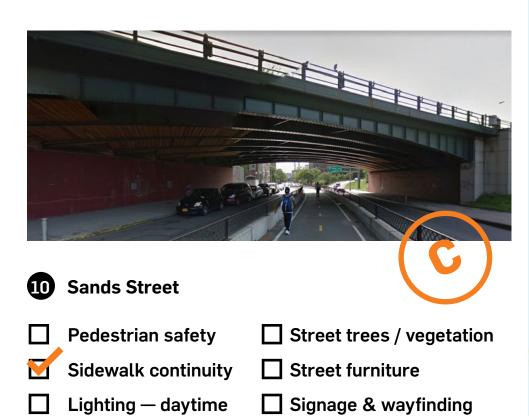
Street trees / vegetation

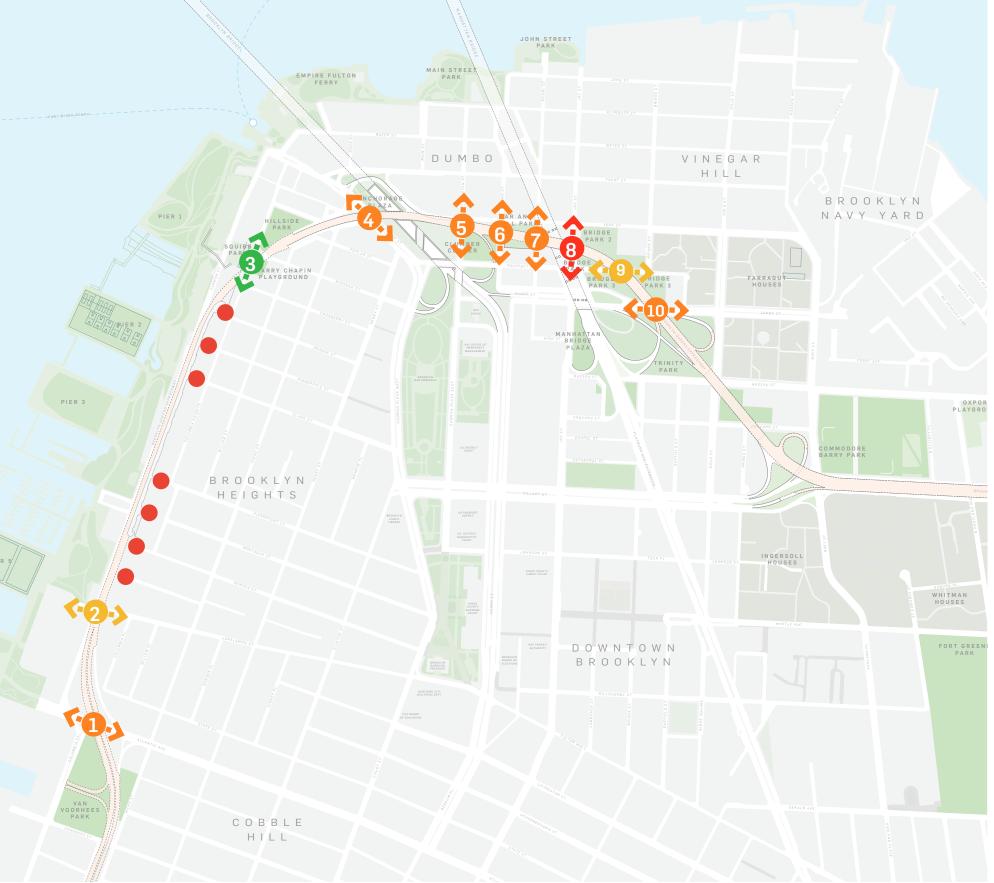
☐ Street furniture

☐ Signage & wayfinding



Lighting — nighttime





### **Bicycle Connections**



LEGEND

Existing BQE

Bike lane

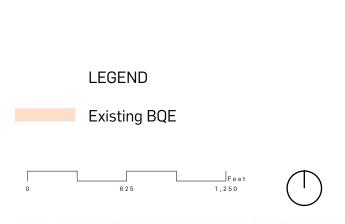
Missing connection

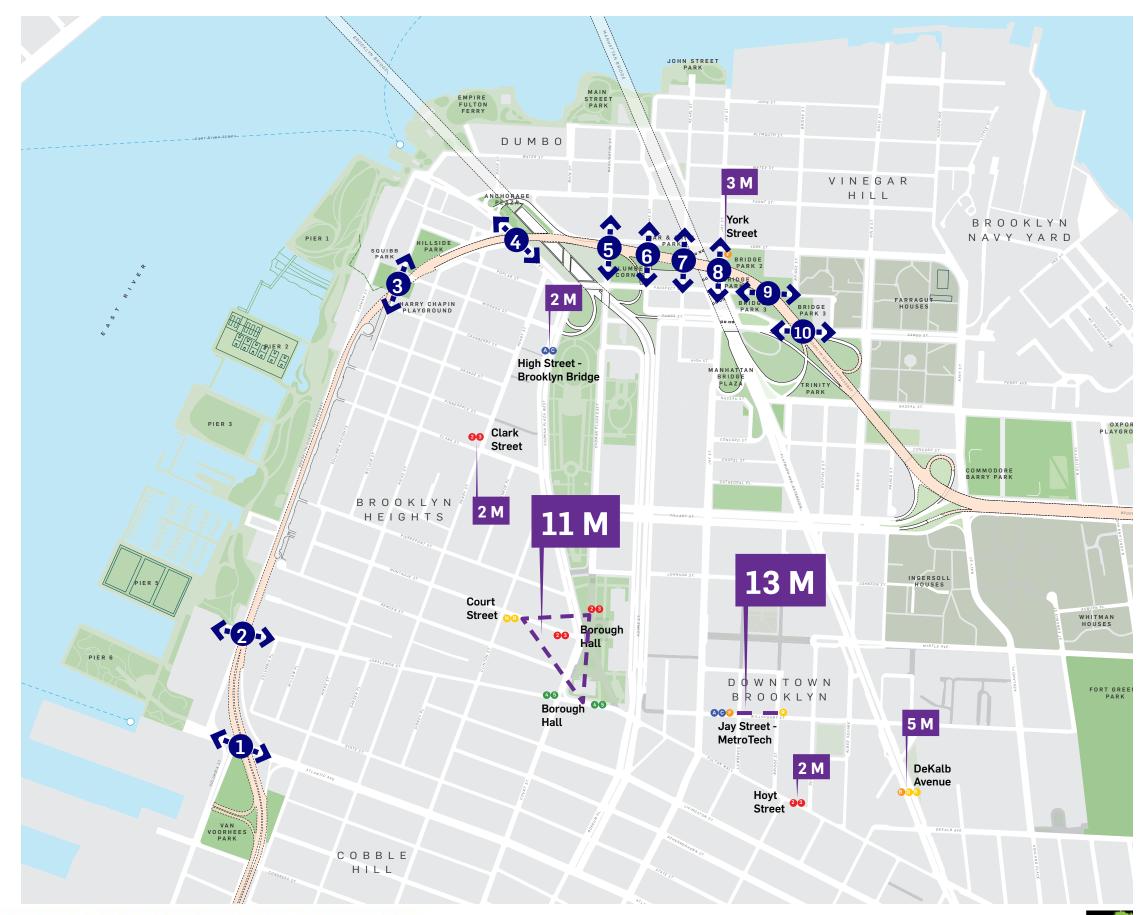
Citibike Station

# **Transit Ridership Per Station**

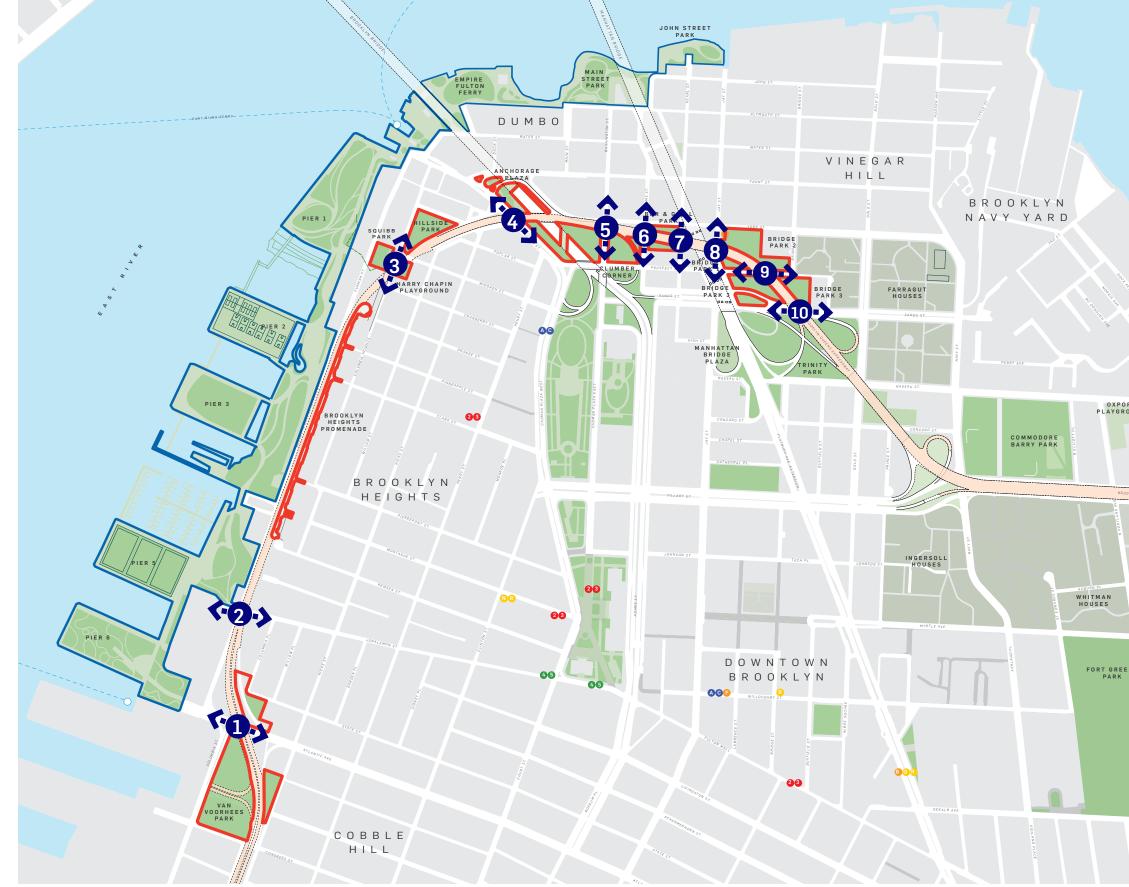
Figure in millions of riders per year.

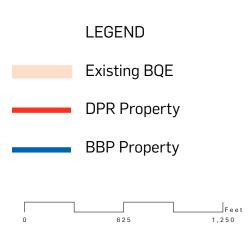
Source: MTA 2016





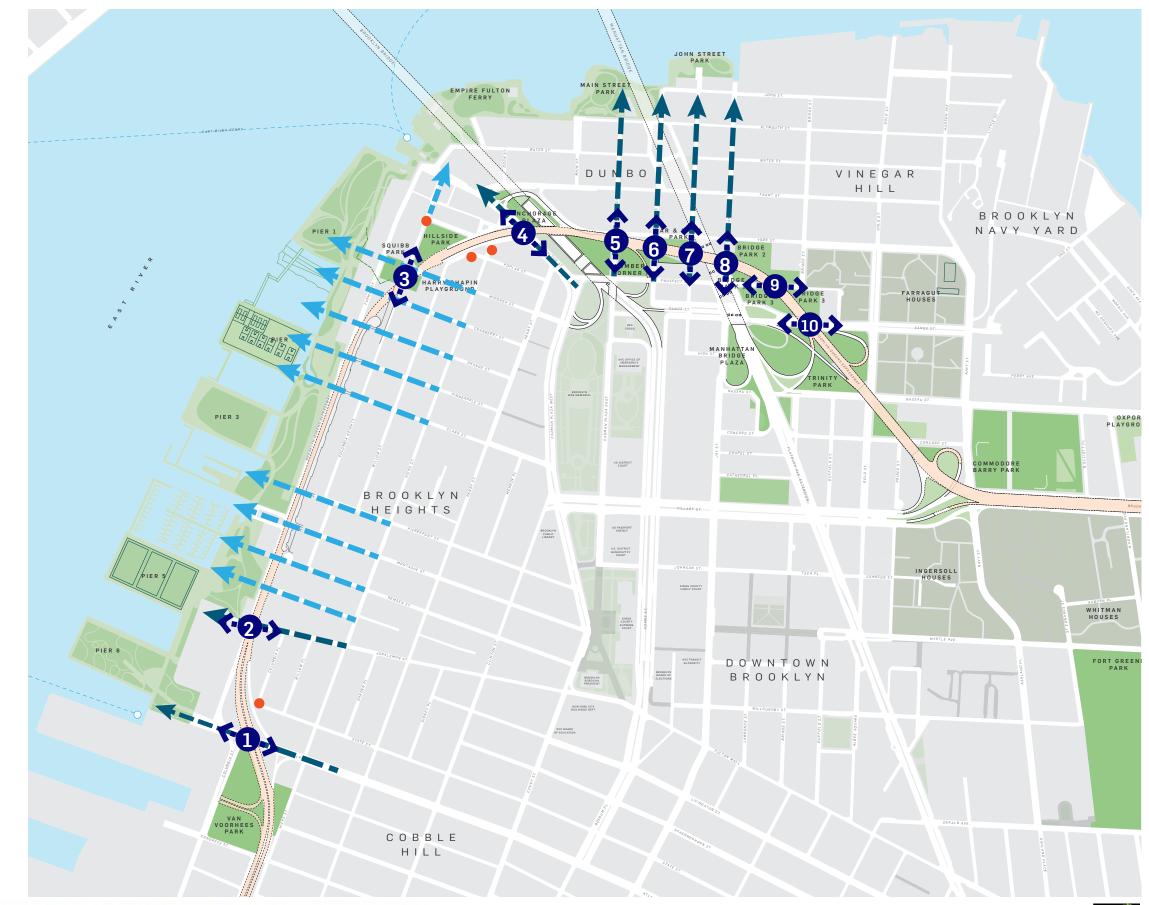
### Public Realm Relationships

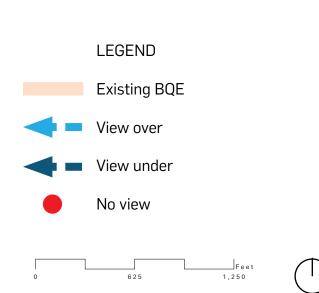






# View Corridors — looking toward the East River waterfront

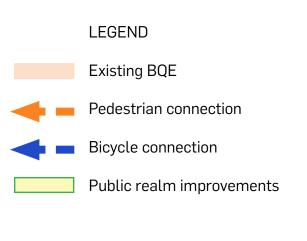


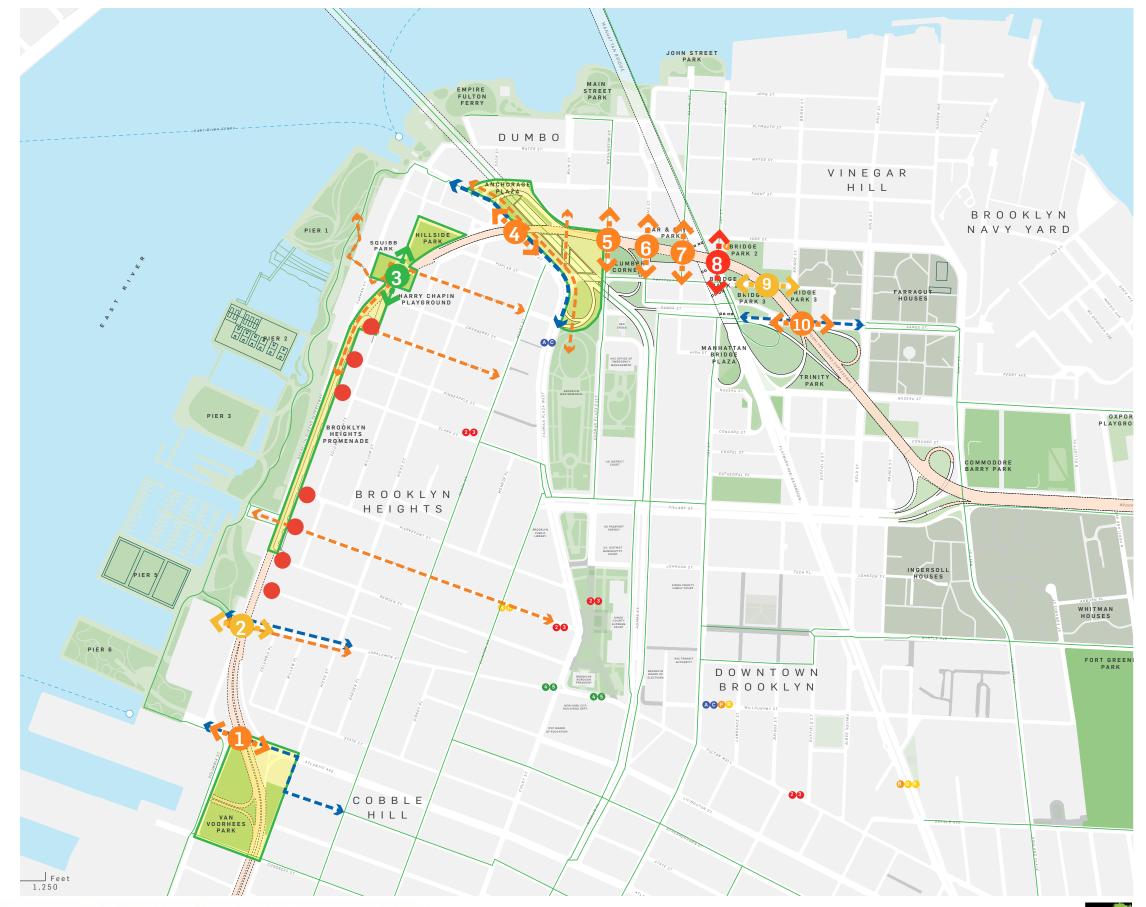


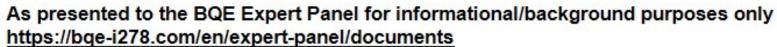
# Connectivity opportunities overview

Pedestrian & bicycle connection improvements

Public realm improvements



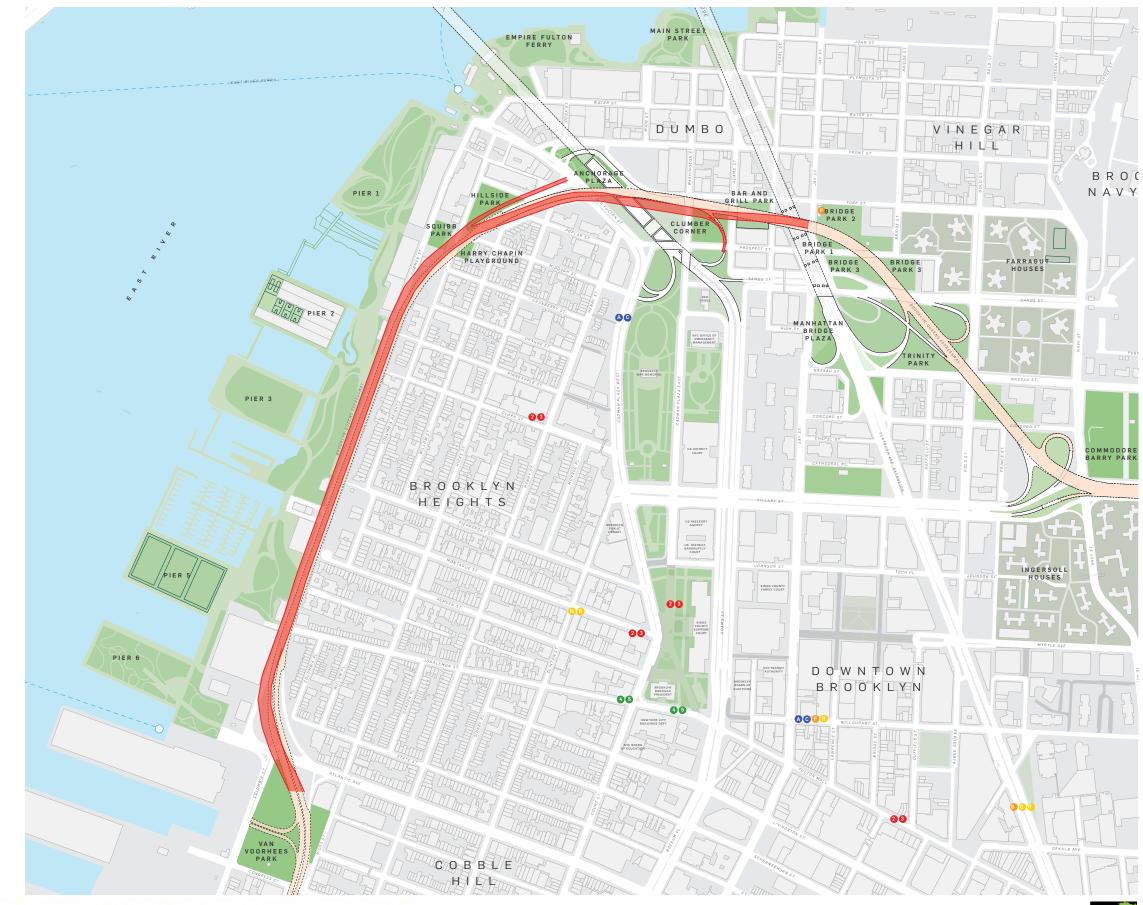


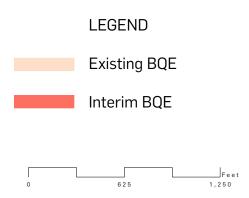




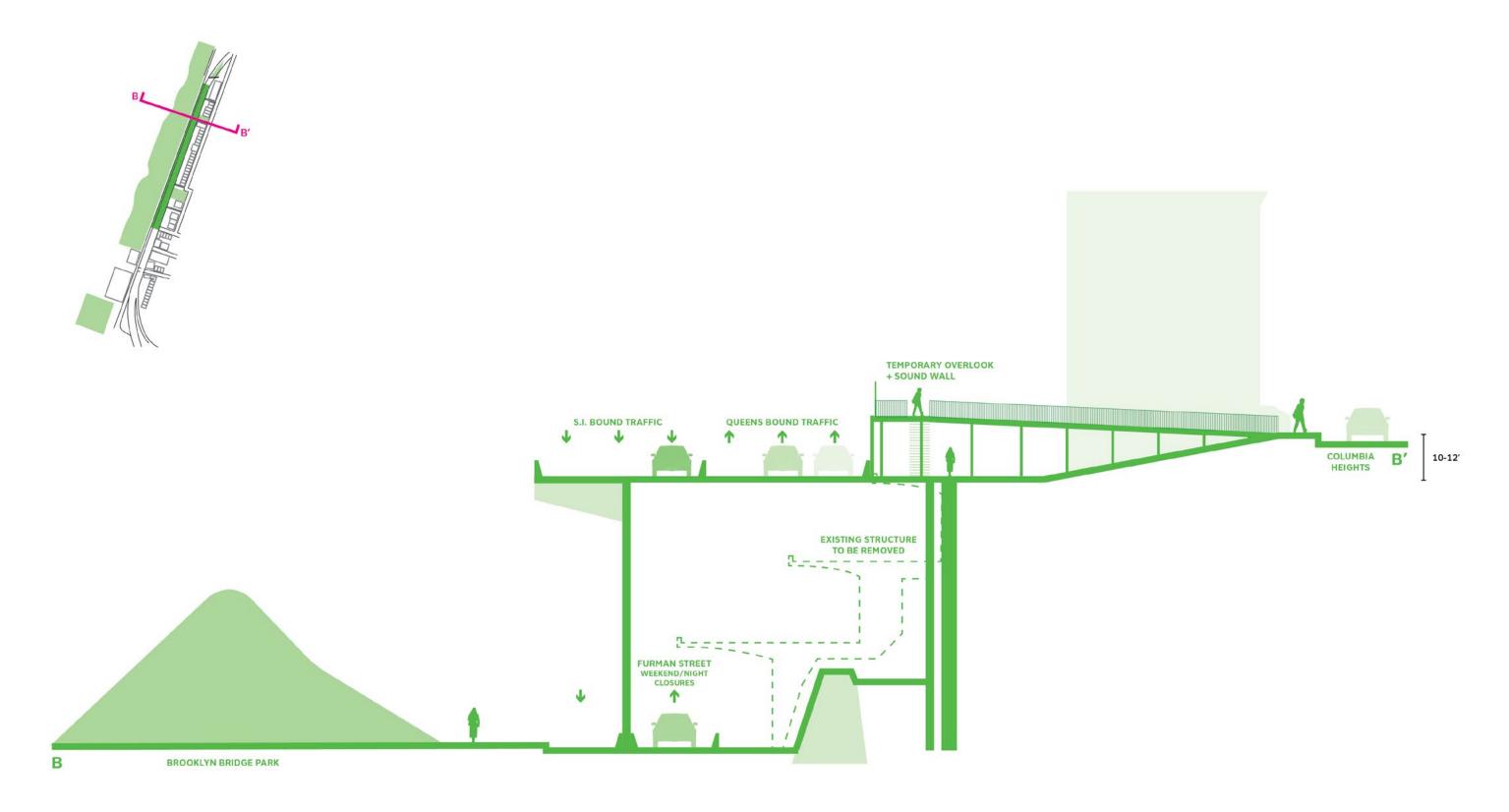
# 2 Temporary Elevated Roadway

# Temporary Elevated Roadway Alignment

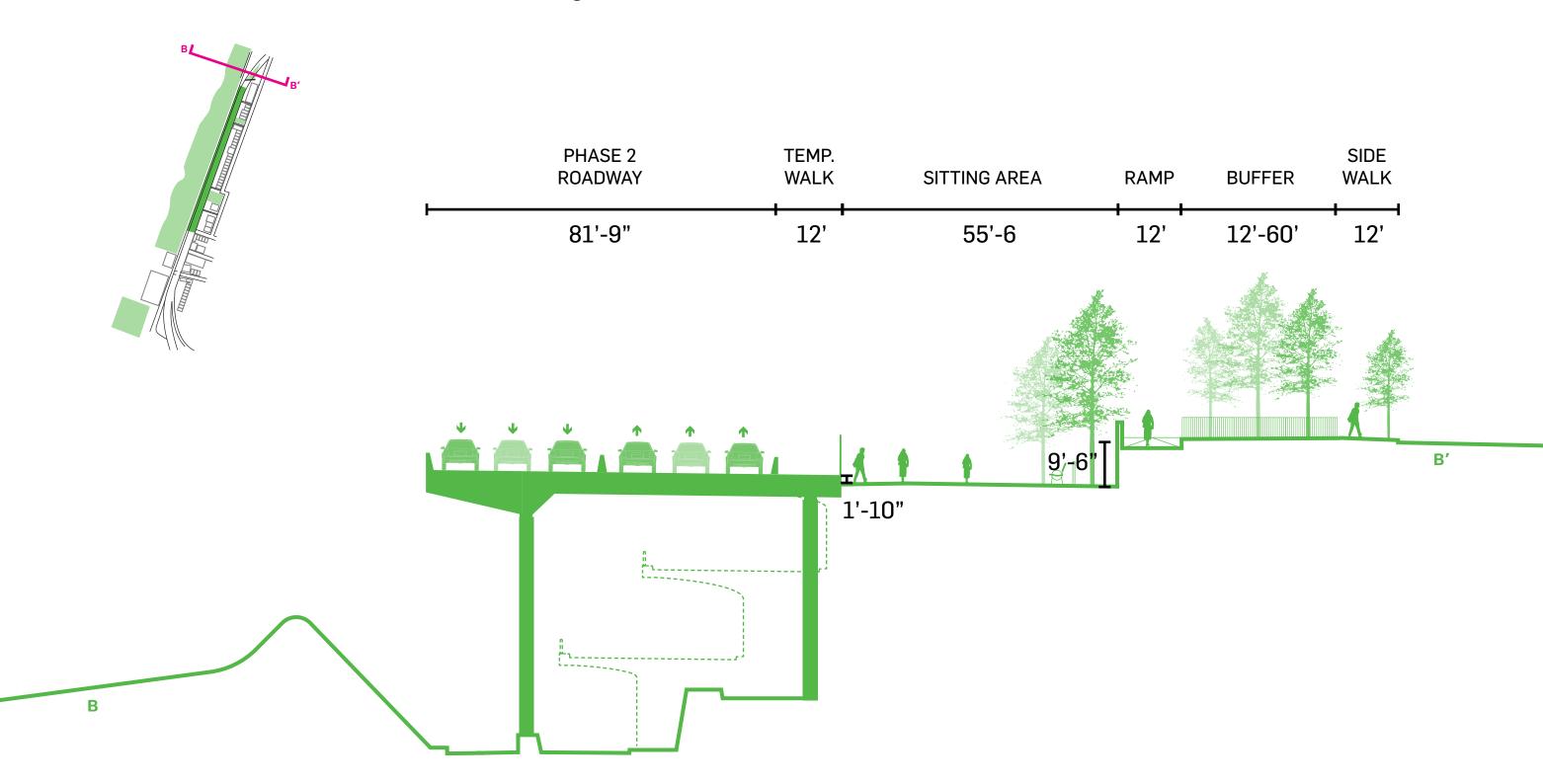




#### **Interim condition** — **Promenade street ends**



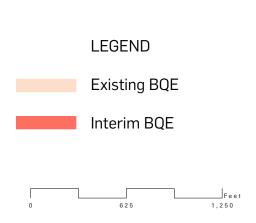
### **Interim condition — Fruit Street Sitting Area**

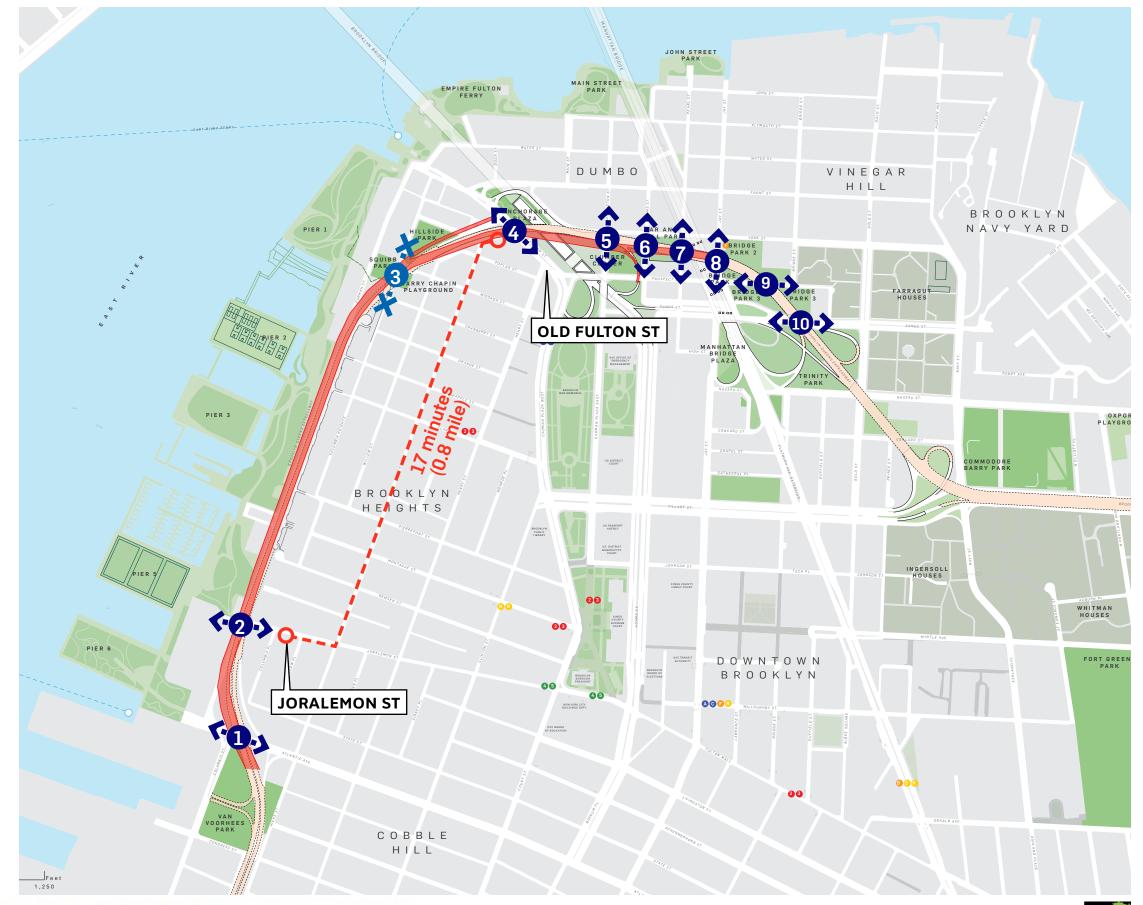


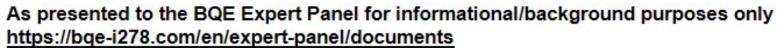
# Temporary Roadway Impacts

# Temporary Elevated Roadway Impacts

Note: without the Squibb Bridge, visitors will access to Brooklyn Bridge Park on Old Fulton St or Joralemon St, which will take extra 2-5 minutes

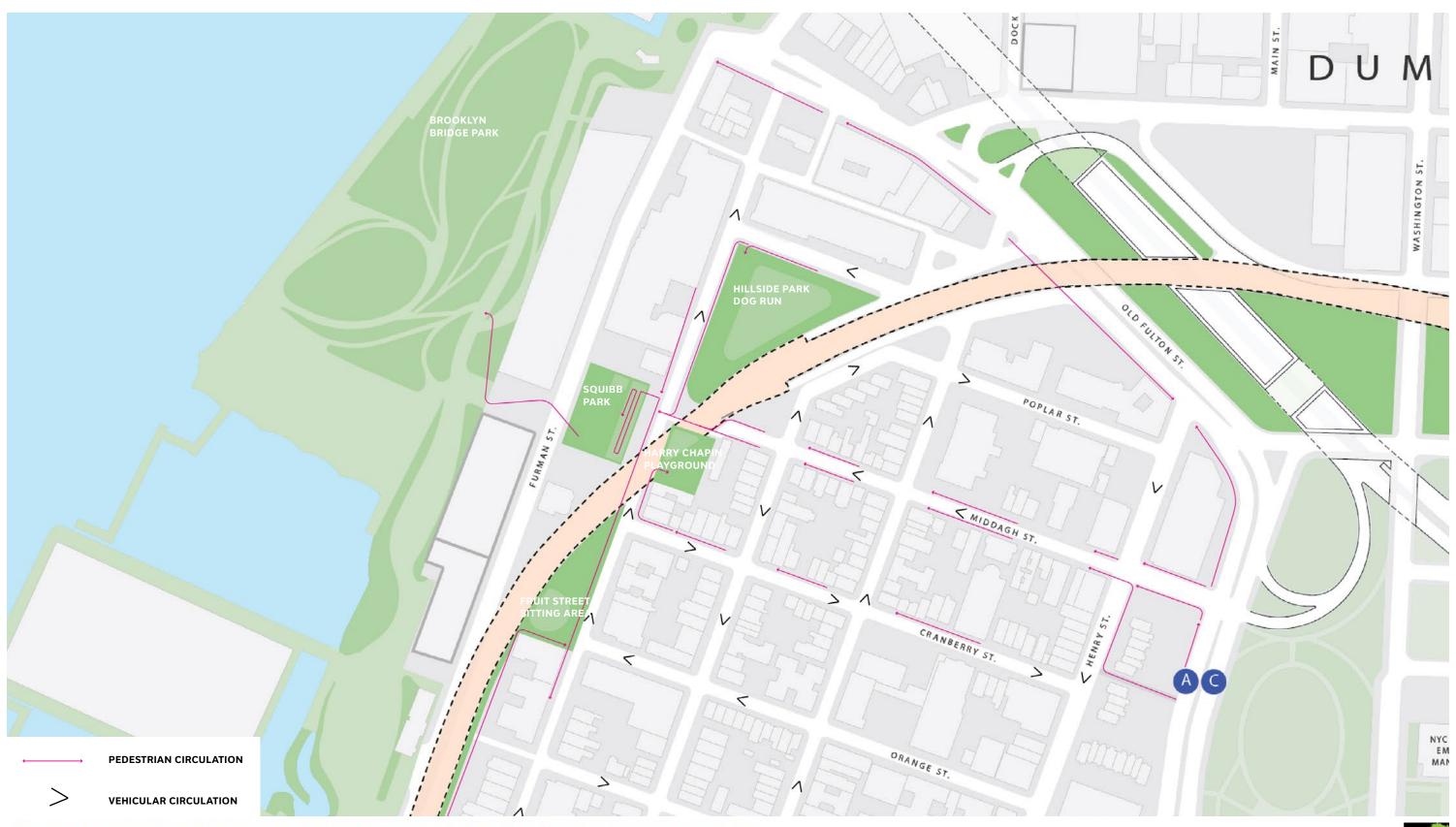


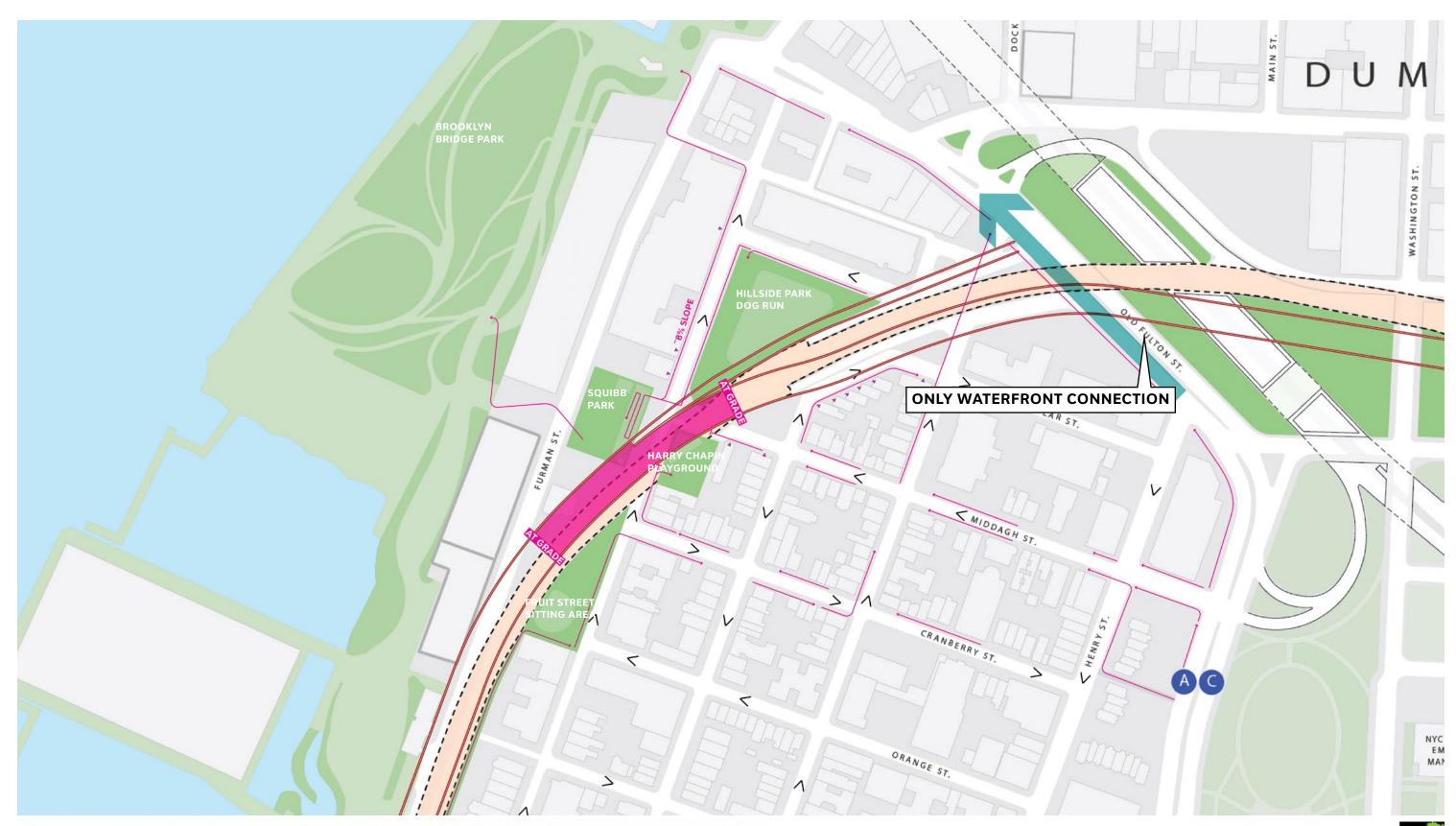


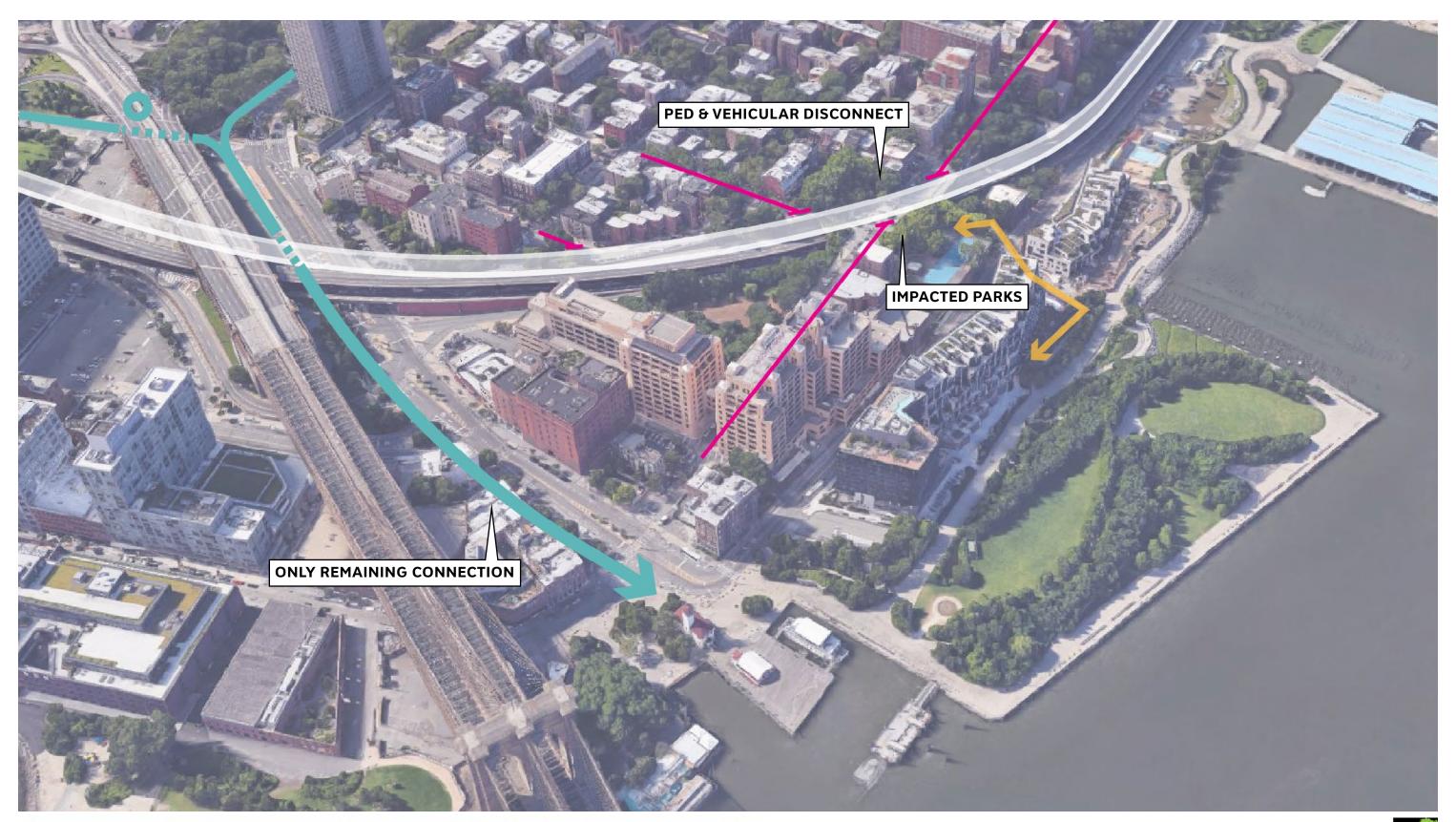


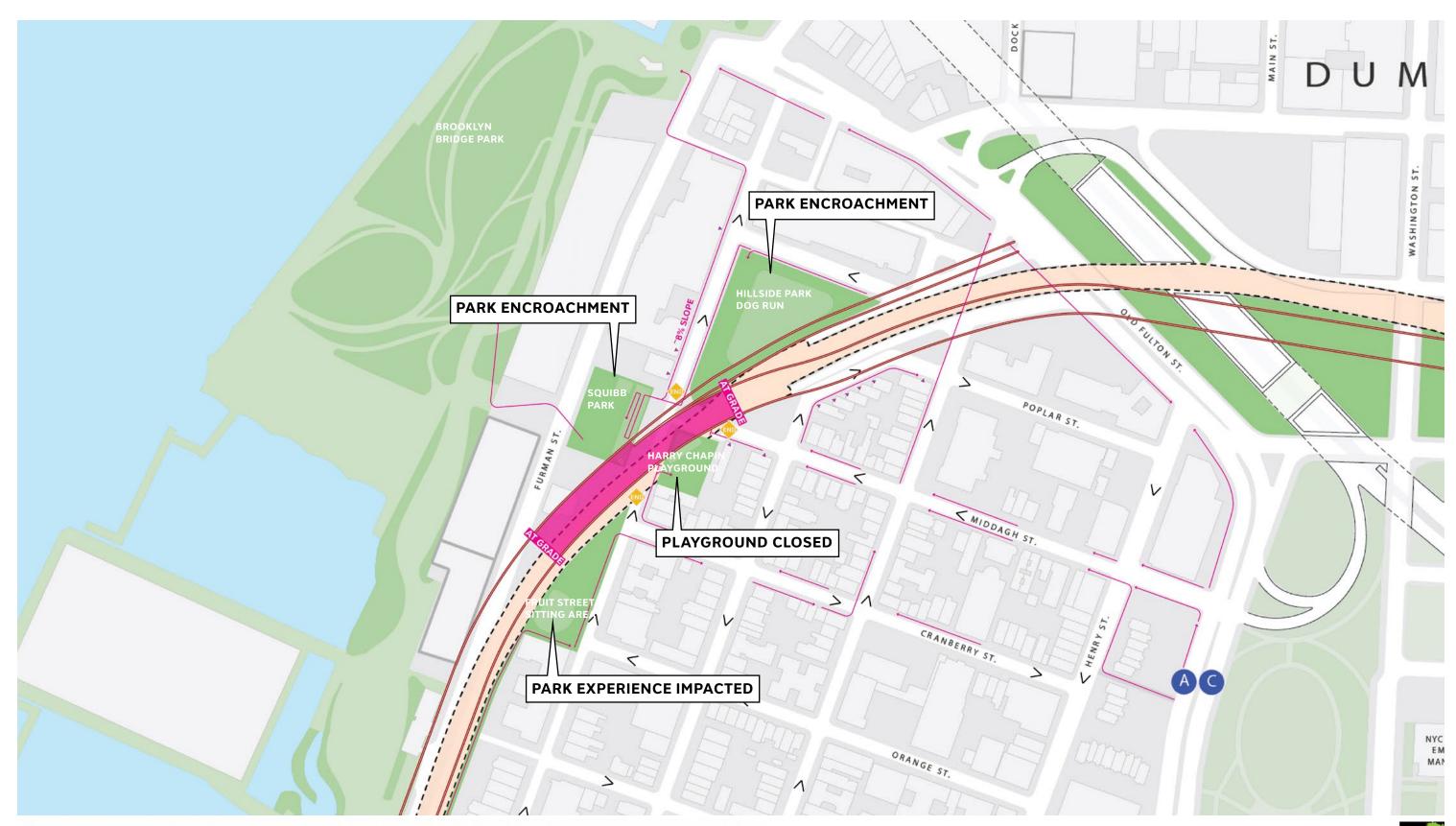


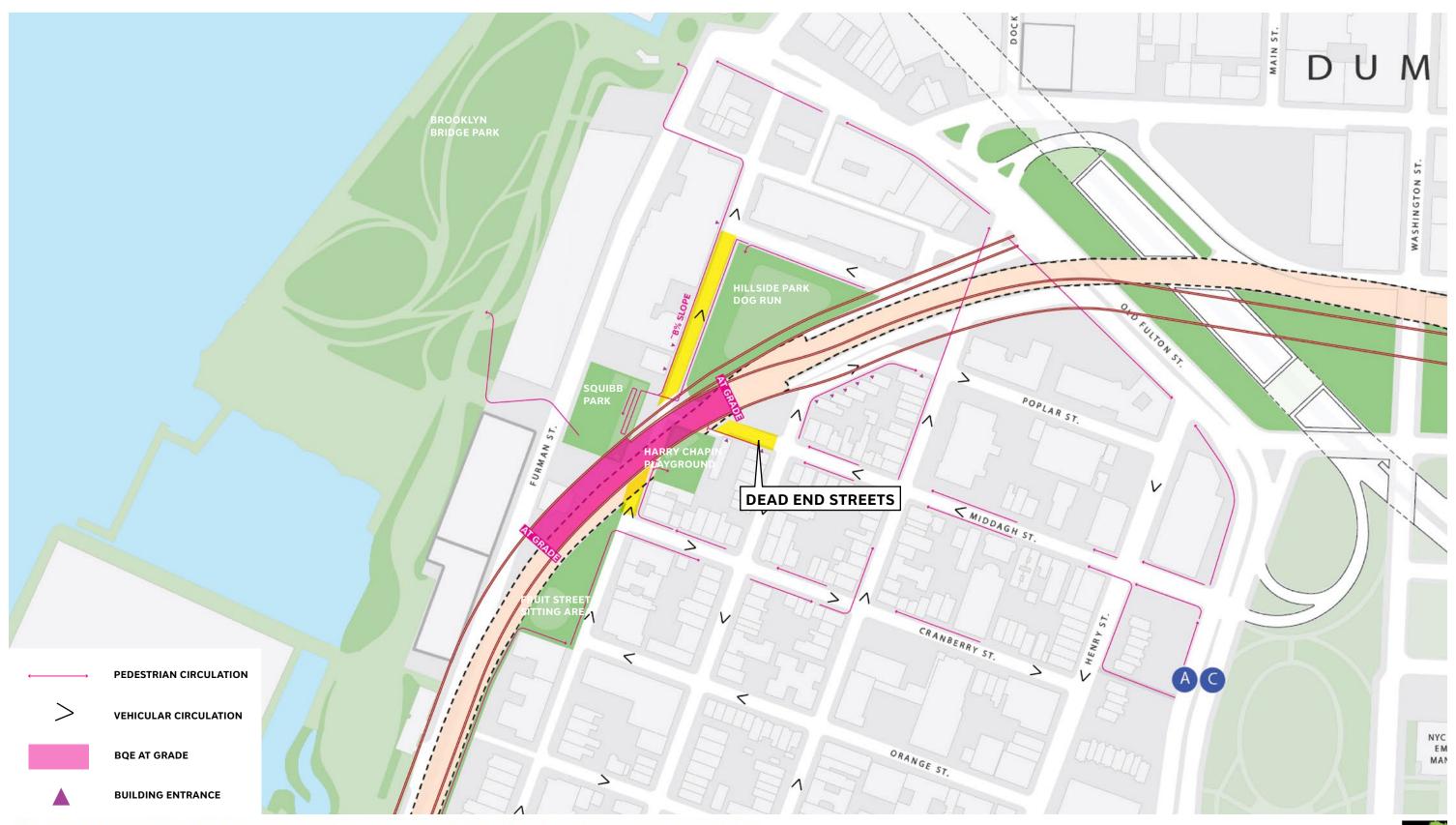
### **Existing Connectivity and Public Realm**

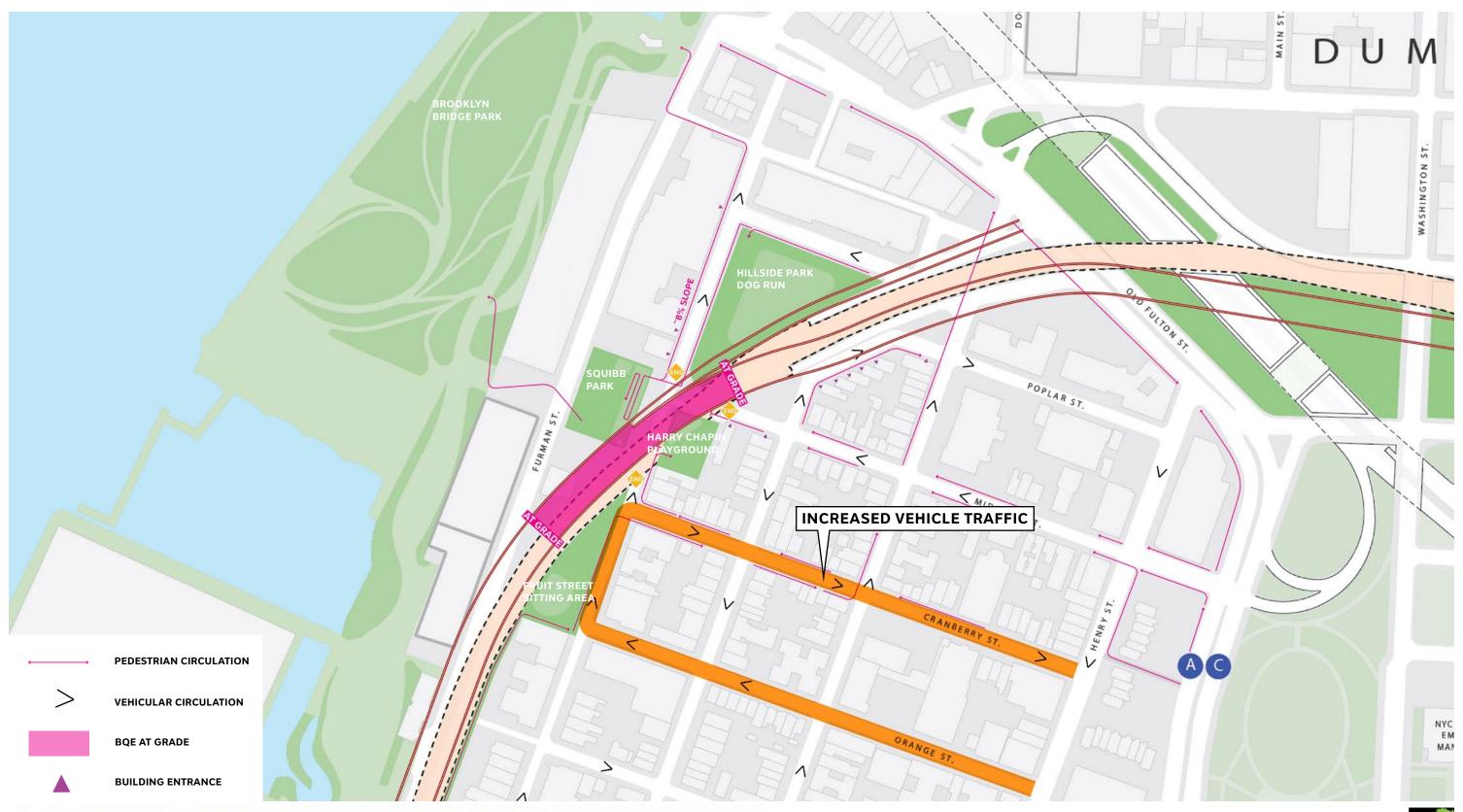












### Temporary elevated roadway — Columbia Heights



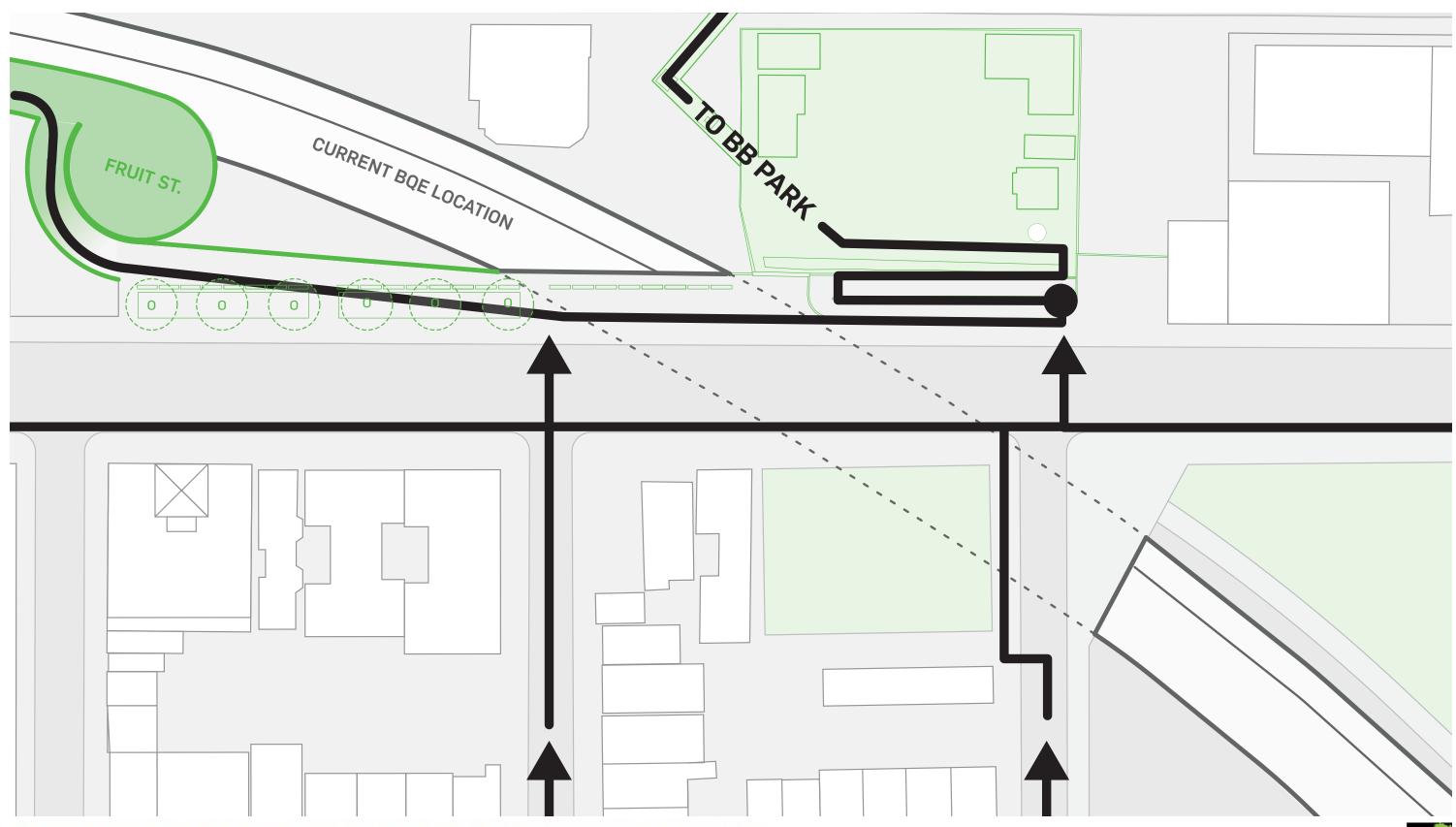
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### Temporary elevated roadway — Columbia Heights

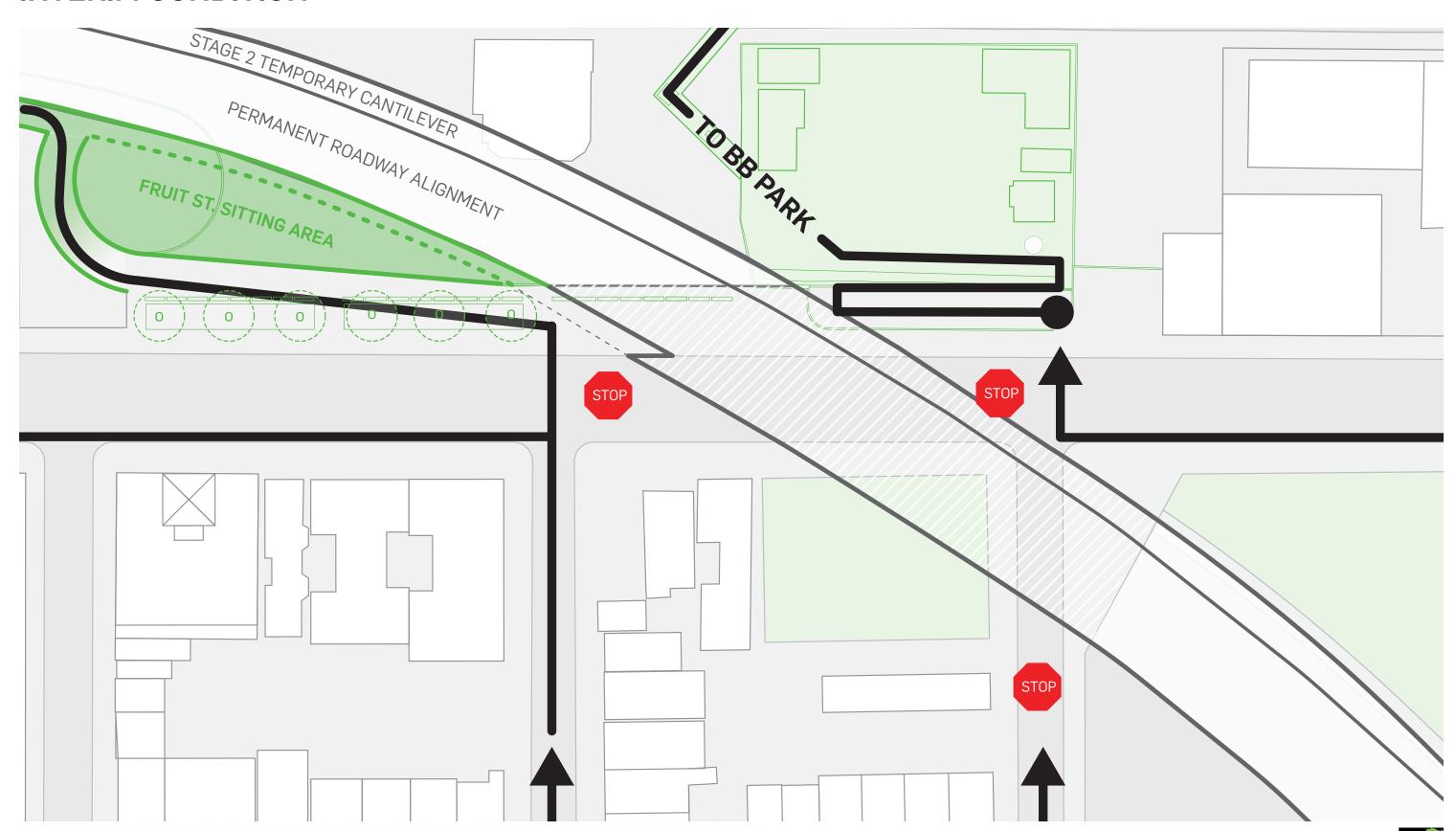


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#### **CURRENT CONDITION**



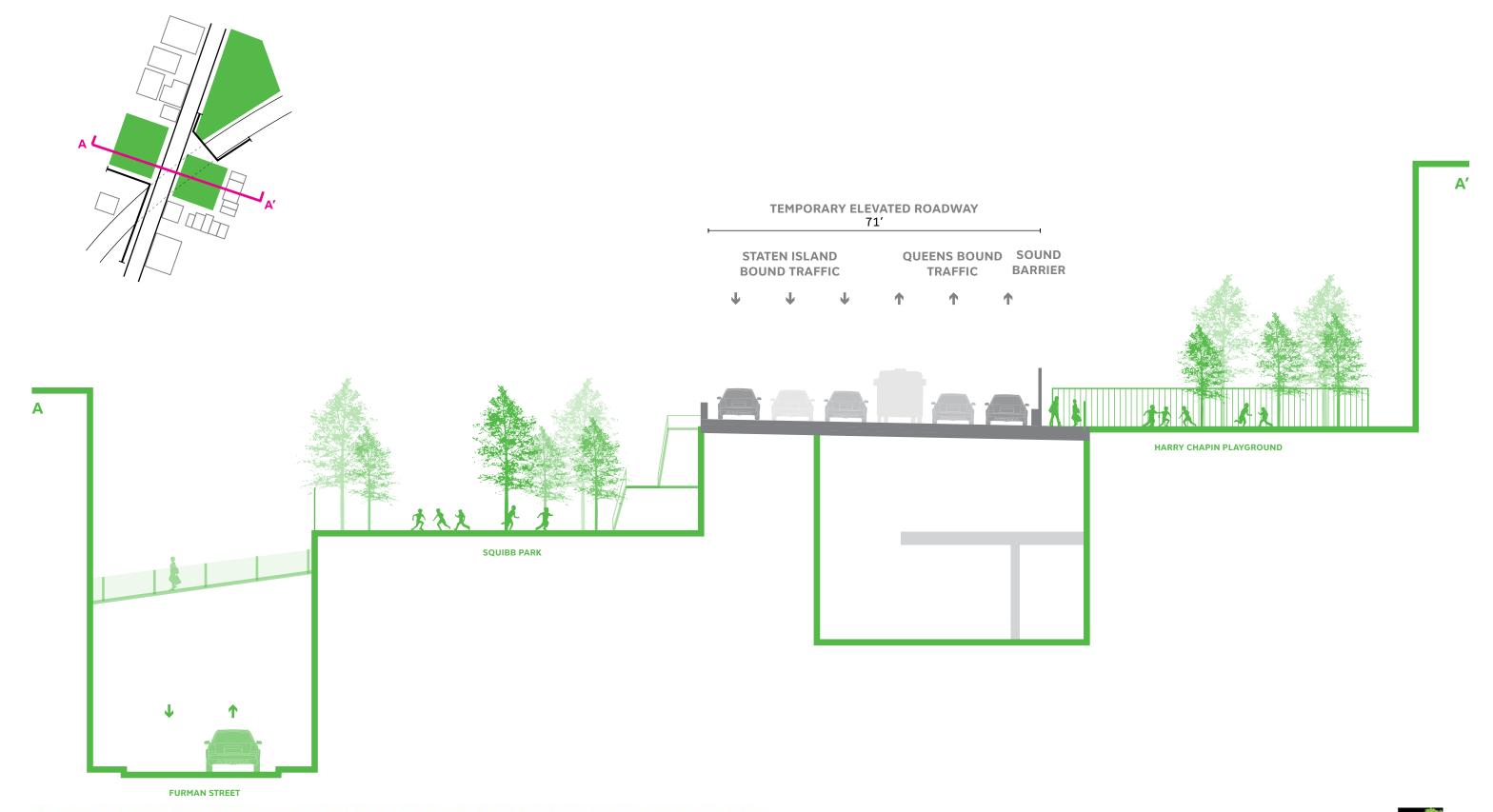
#### **INTERIM CONDITION**



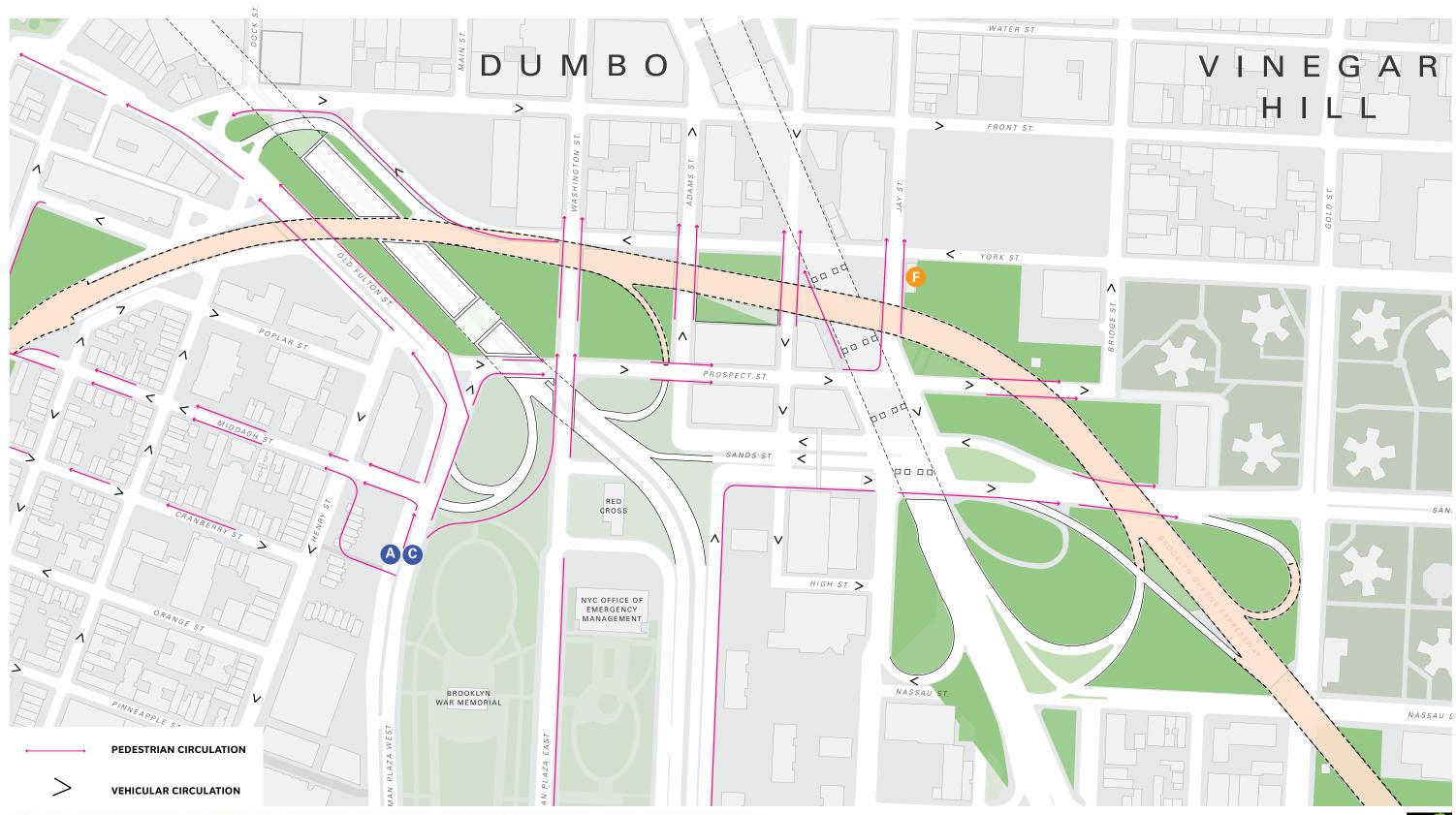
# **Columbia Heights Overpass — Current**



# **Columbia Heights Overpass — Interim Condition**

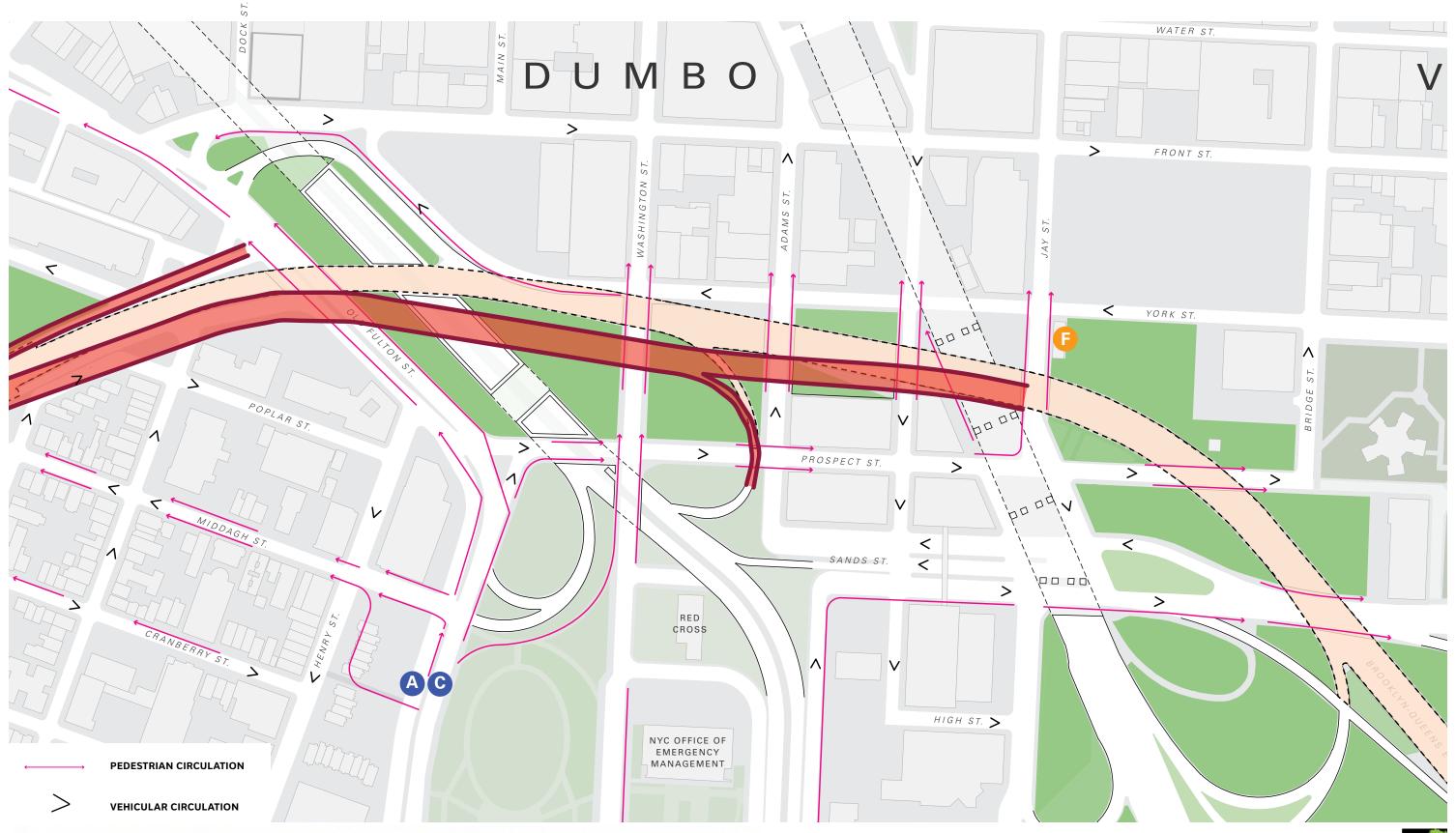


#### Existing connectivity & public realm — Brooklyn & Manhattan Bridges





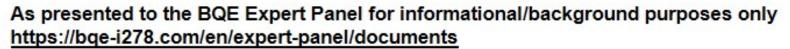
#### Temporary elevated roadway — Brooklyn & Manhattan Bridges alignment





# Temporary elevated roadway — Brooklyn Bridge flyover





#### Temporary elevated roadway — connectivity & public realm impacts

#### **COLUMBIA HEIGHTS**

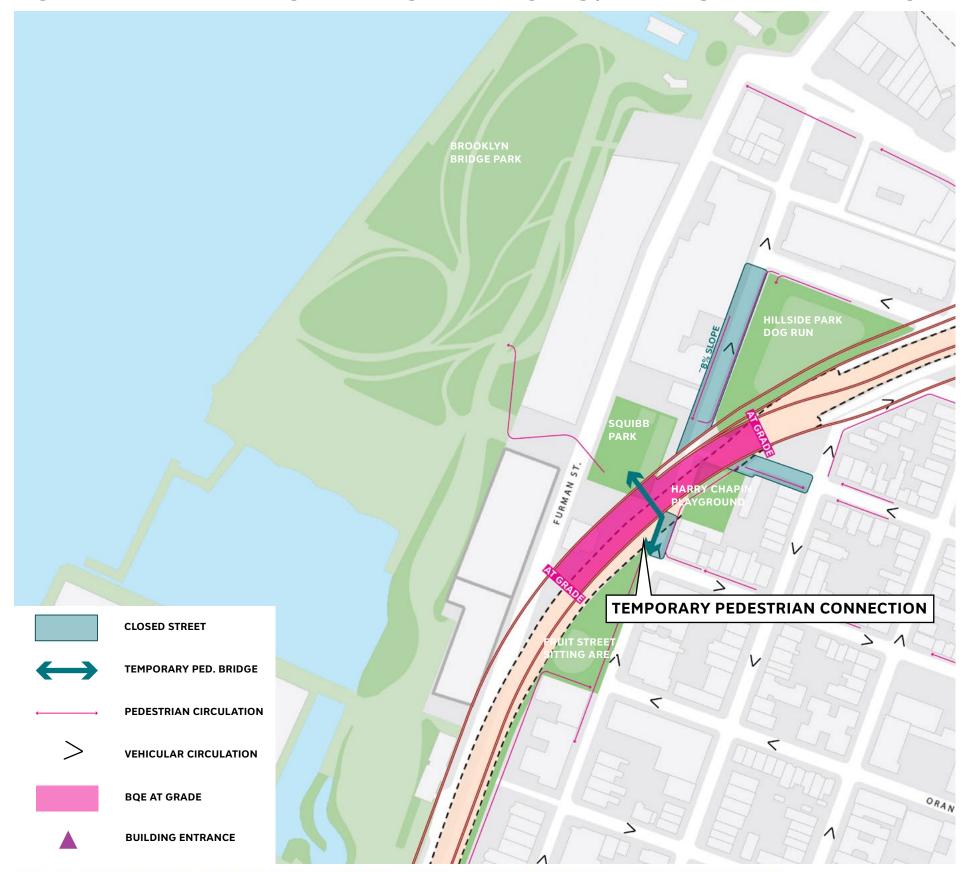
- Hillside Park Dog Run interim roadway encroachment
- Squibb Park limited access, interim roadway encroachment
- Harry Chapin Playground significant encroachment, playground likely closed
- Fruit Street Sitting Area park experience impacted
- Increased vehicular traffic at Orange and Cranberry Streets
- Dead end streets at Middagh, Columbia Heights (in both directions)
- Limited waterfront connection (only point remaining is Old Fulton St.)

#### **BROOKLYN & MANHATTAN BRIDGES**

- Old Fulton additional barrier between Downtown and the waterfront
- Anchorage Plaza staging location (?)
- Clumber Corner staging location (?)

# Urban Design Opportunities

#### POTENTIAL TEMPORARY STRATEGIES: PEDESTRIAN BRIDGE







#### POTENTIAL TEMPORARY STRATEGIES: TREE NURSERY







#### POTENTIAL TEMPORARY STRATEGIES: POP UP PLAZA



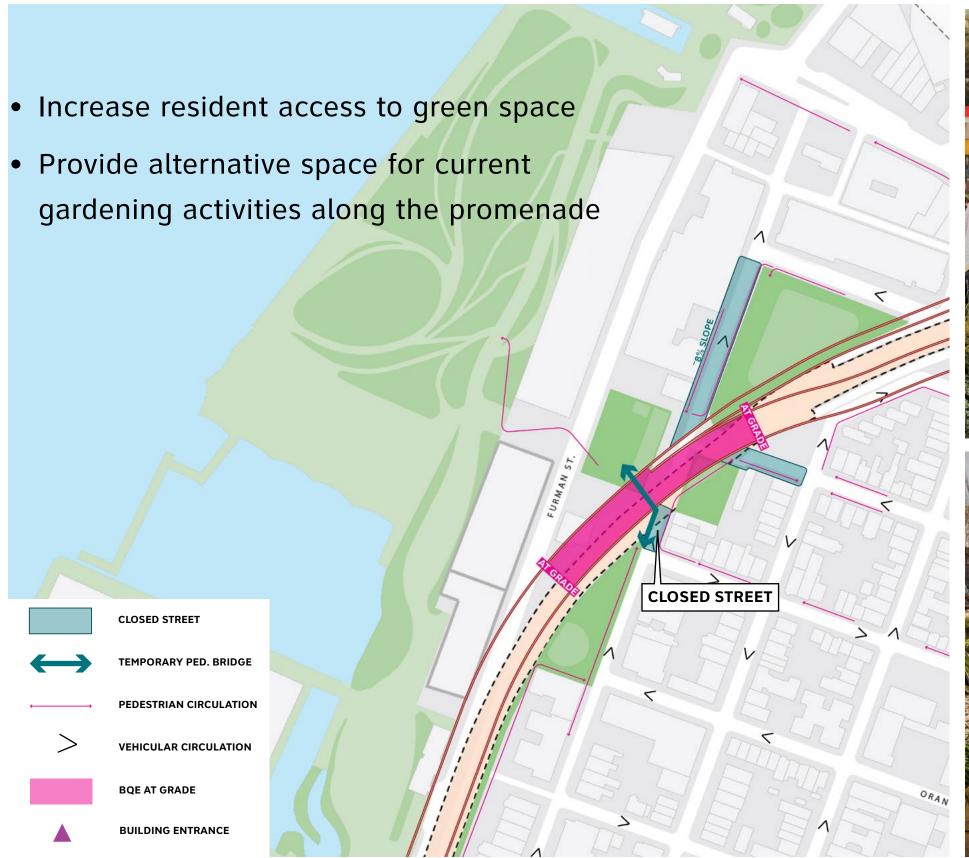




#### POTENTIAL TEMPORARY STRATEGIES: POP UP PLAY SPACE



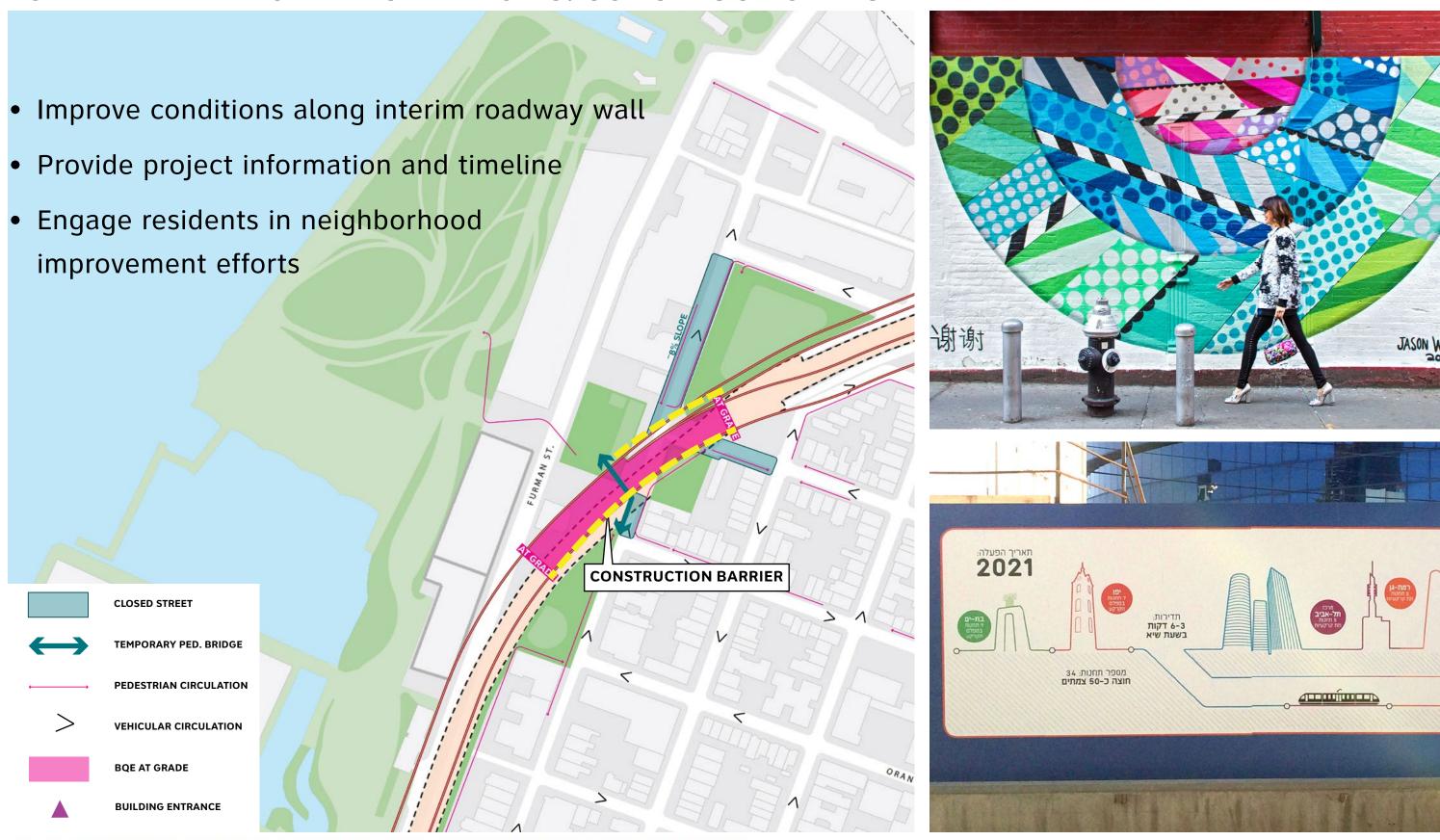
#### POTENTIAL TEMPORARY STRATEGIES: TEMPORARY COMMUNITY GARDEN







#### POTENTIAL TEMPORARY STRATEGIES: CONSTRUCTION MURAL



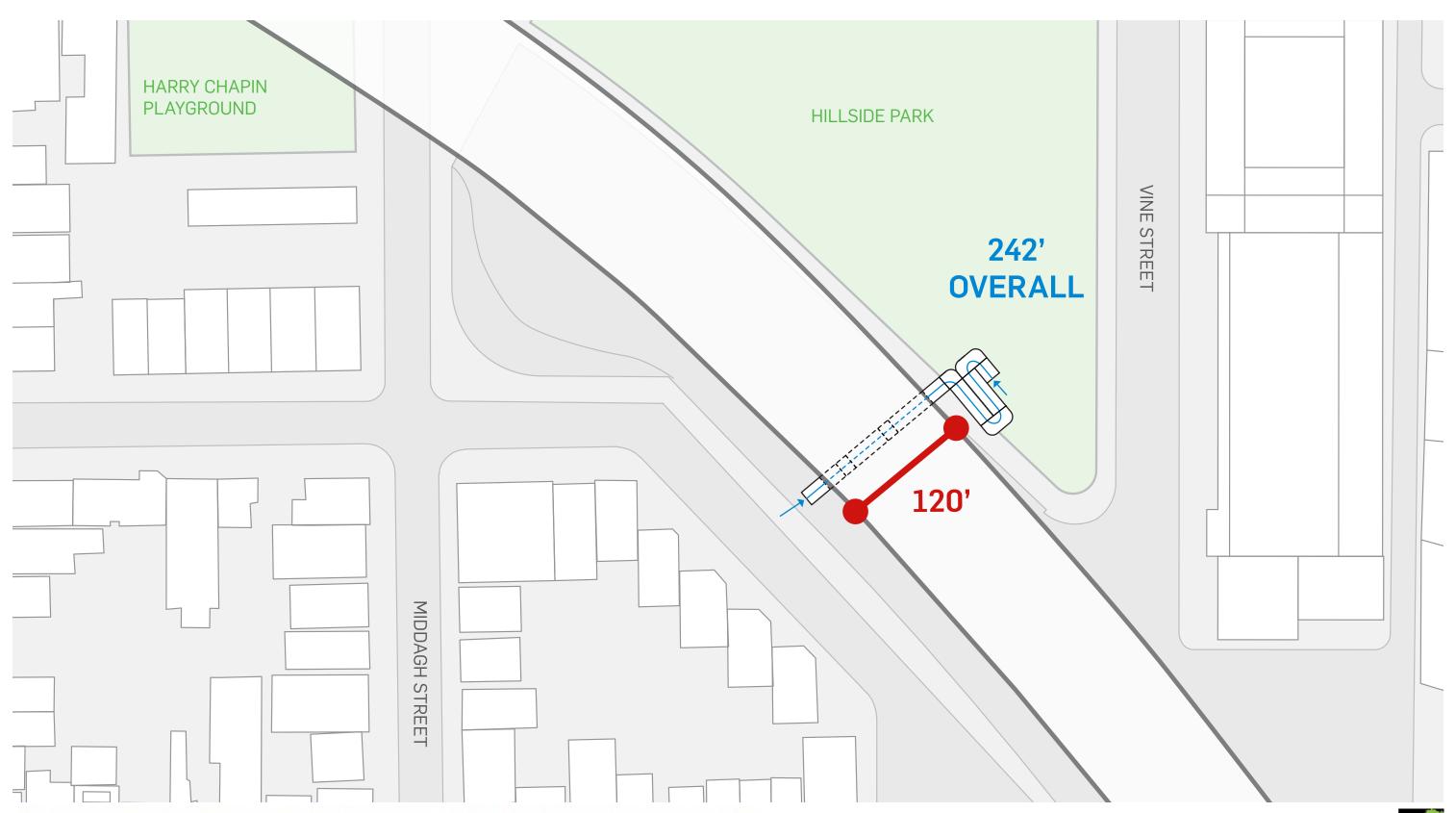
#### Temporary Elevated Roadway at Columbia Heights — Interim Pedestrian Connections Overview



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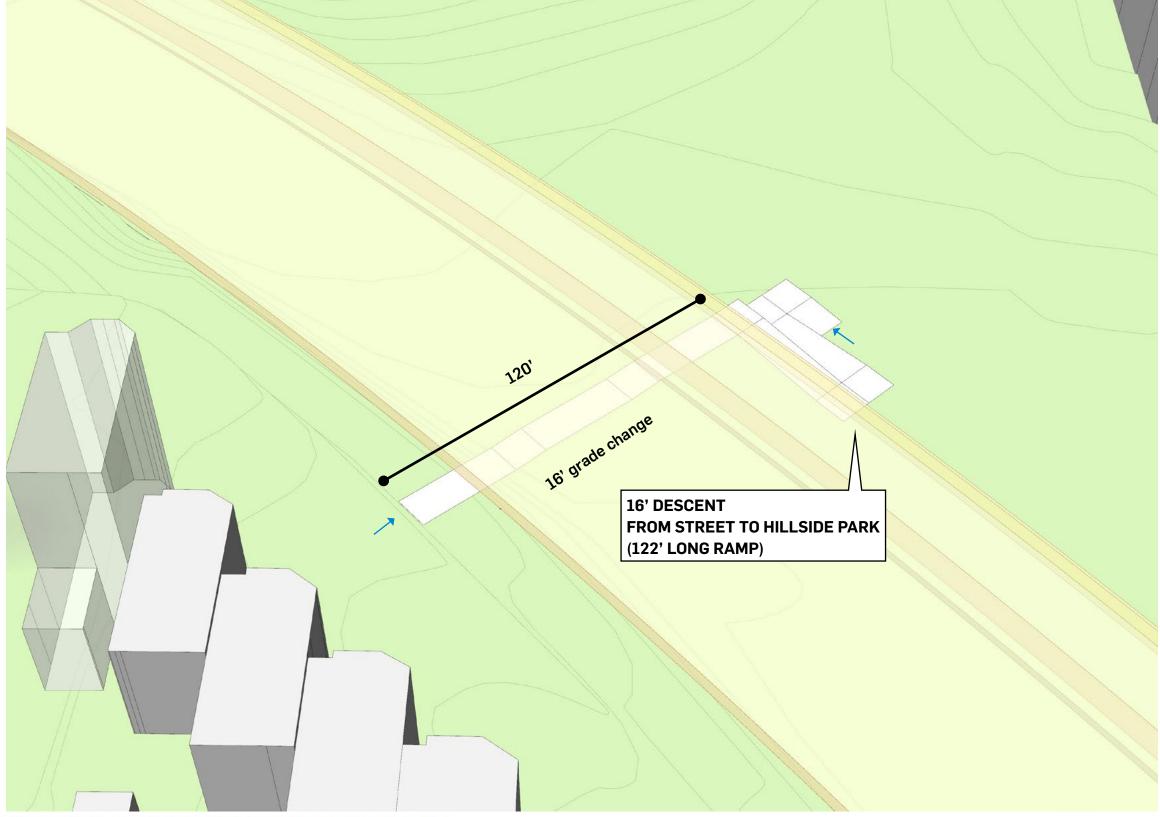


# 1. Underpass — Willow Street to Hillside Park

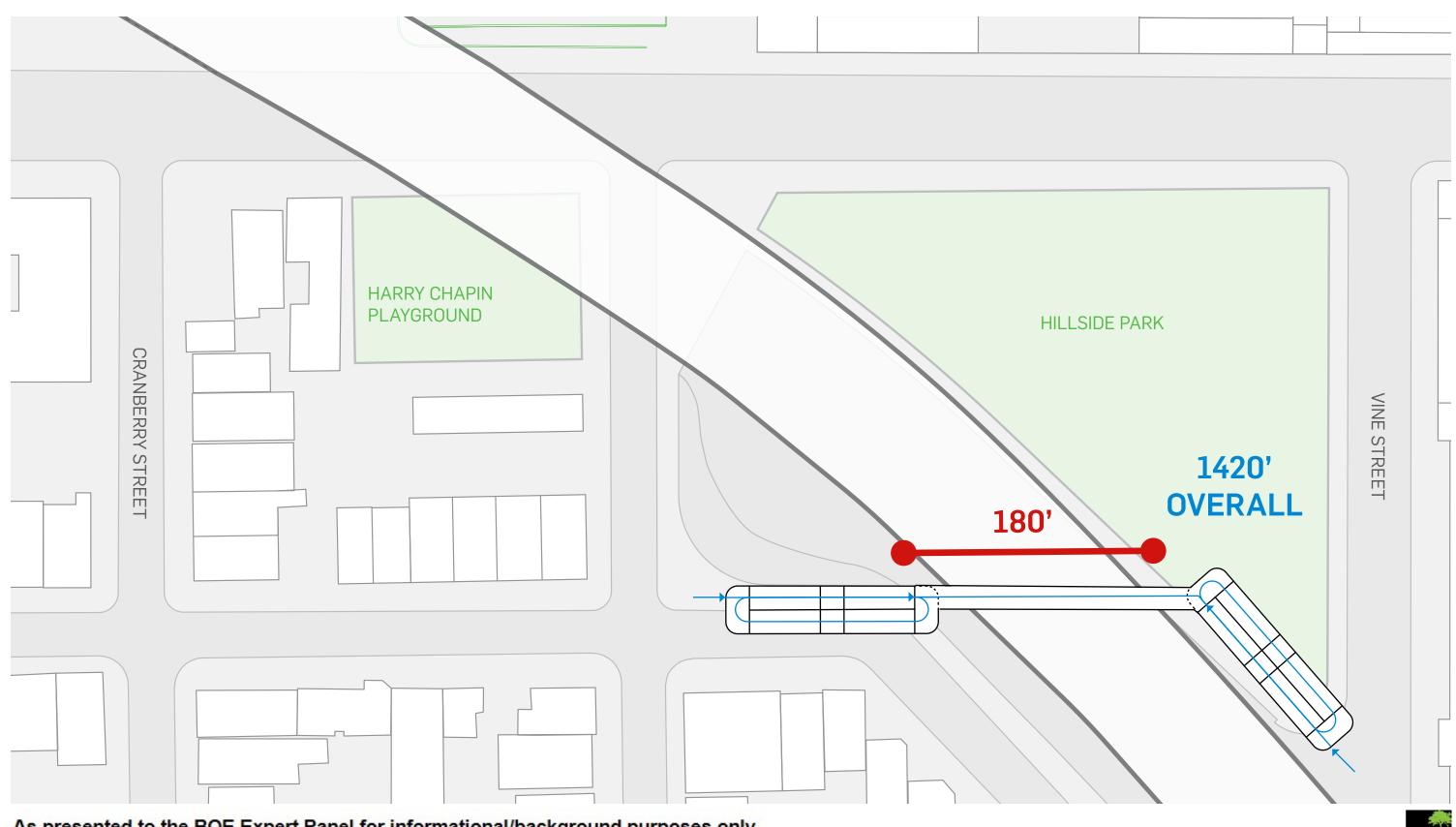


# 1. Underpass — Willow Street to Hillside Park



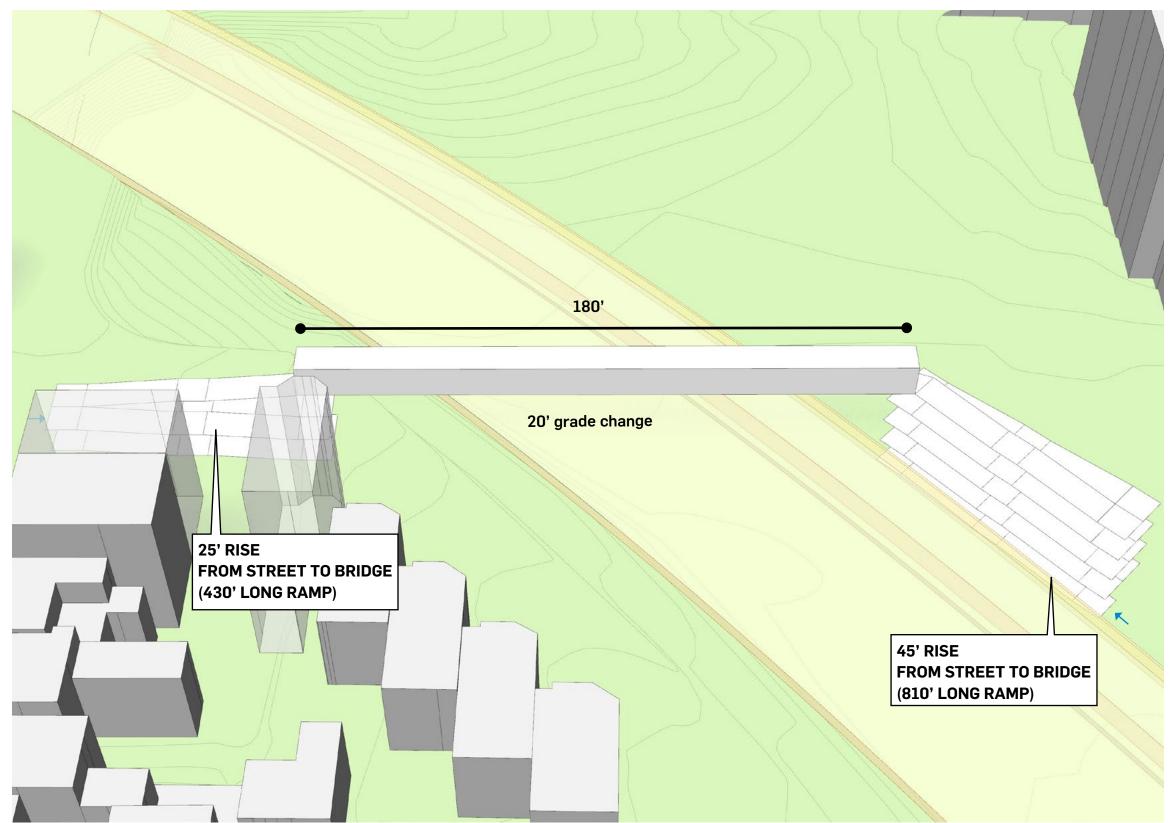


# 2. Overpass — Willow Street to Vine Street



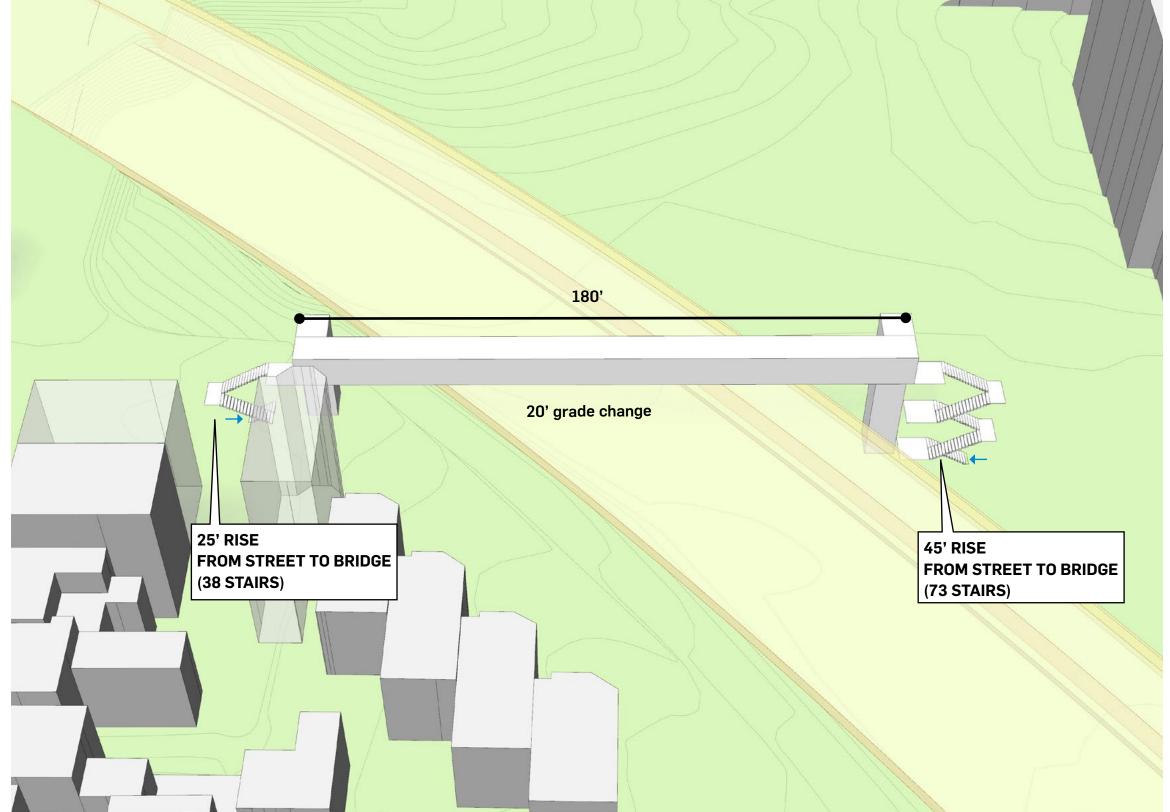
# 2. Overpass — Willow Street to Vine Street (Ramp Option)



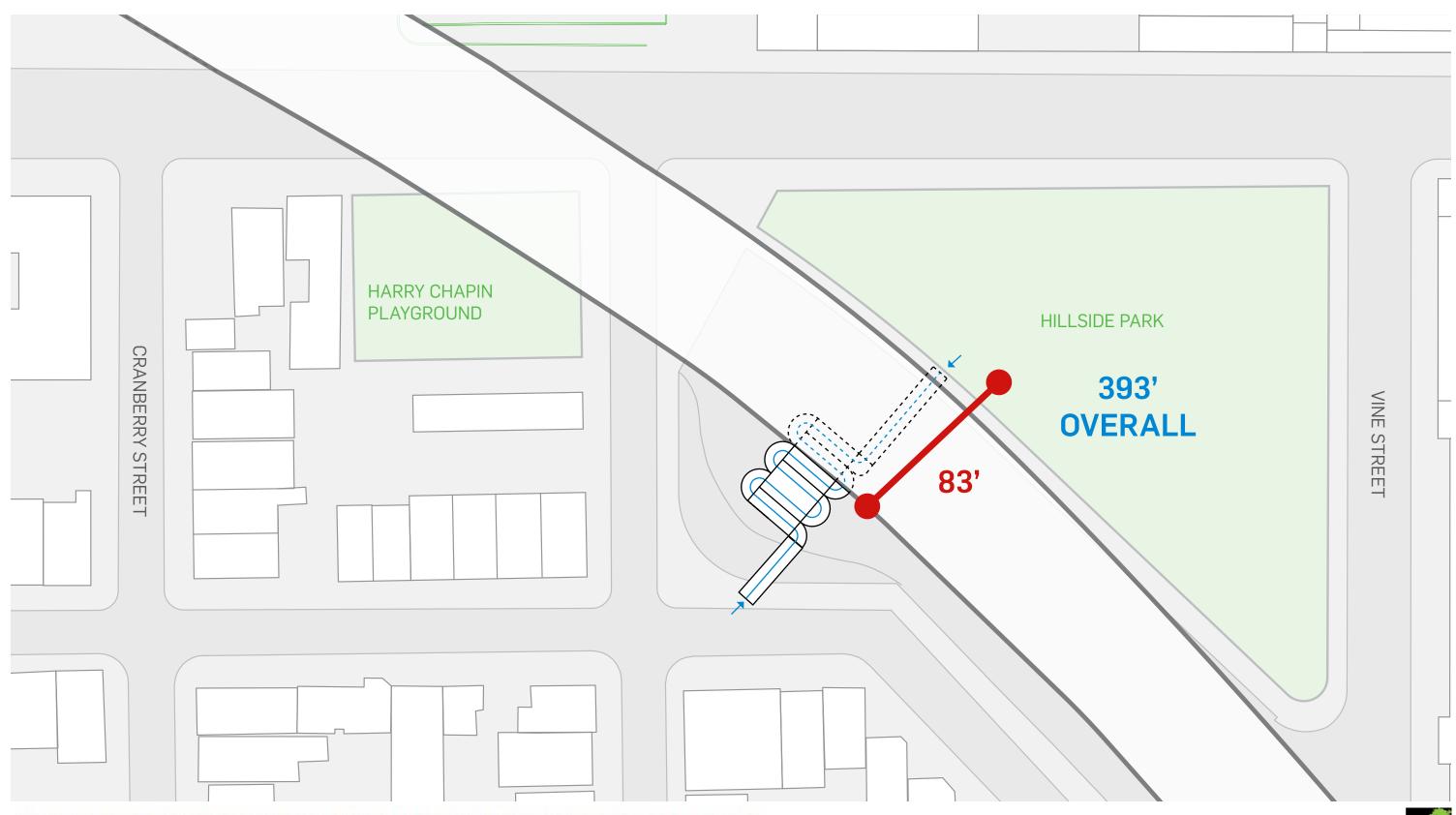


#### 2. Overpass — Willow Street to Vine Street (Elevator & Stair Option)



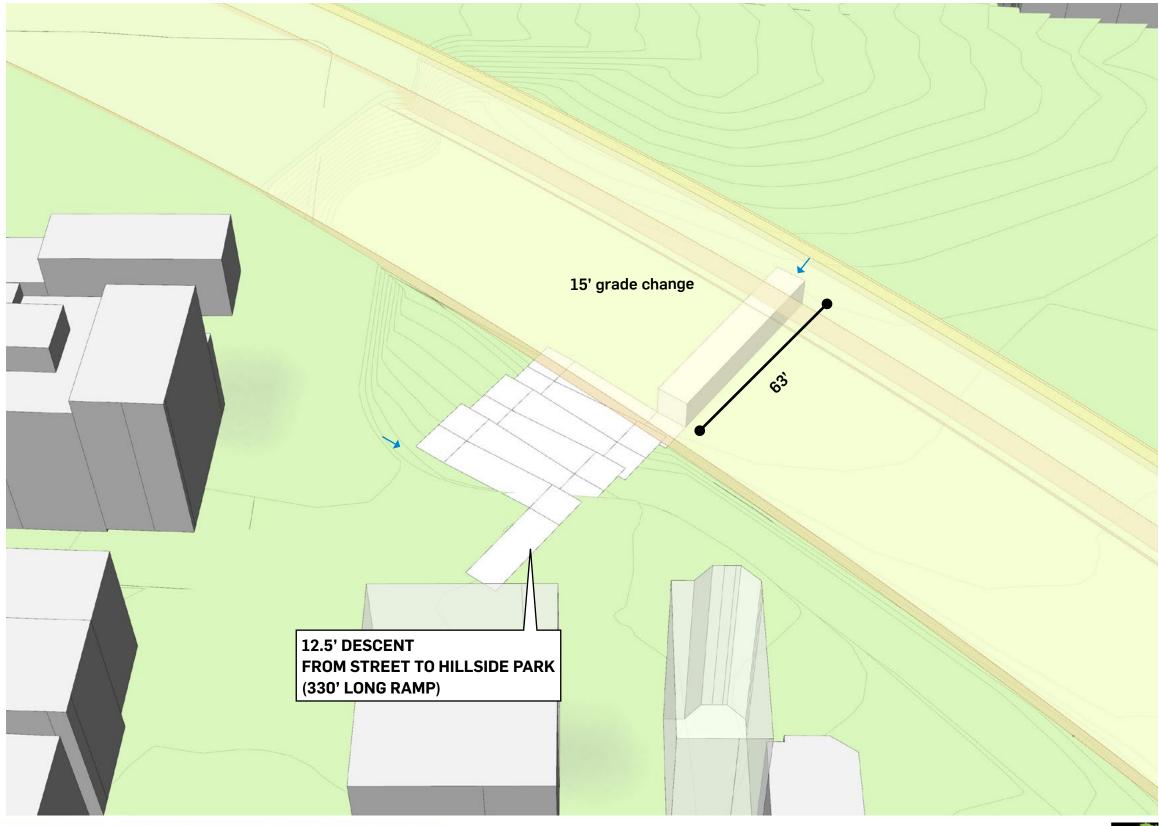


#### 3. Underpass — Willow Street to Hillside Park (Ramp Option)

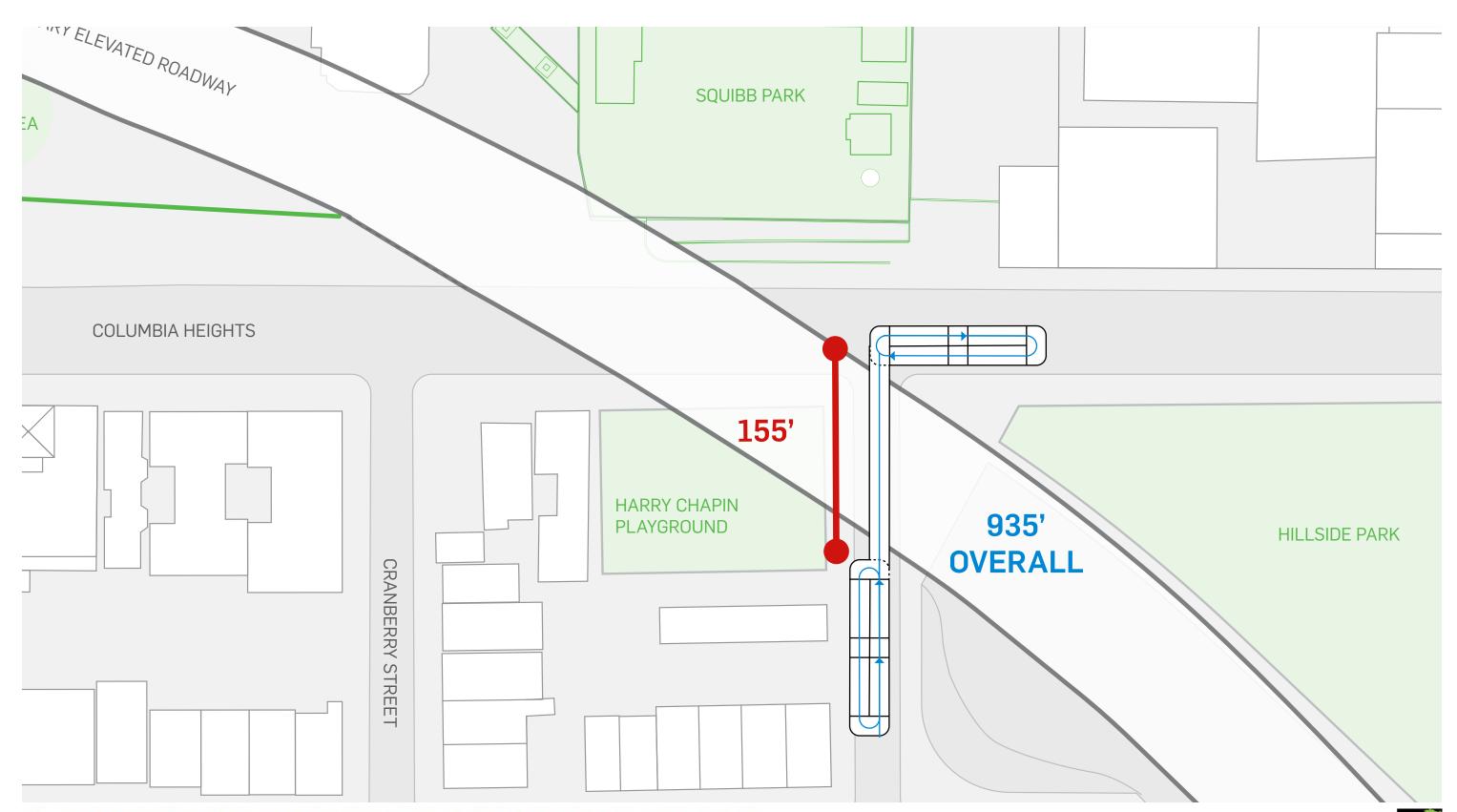


# 3. Underpass — Willow Street to Hillside Park (Ramp Option)



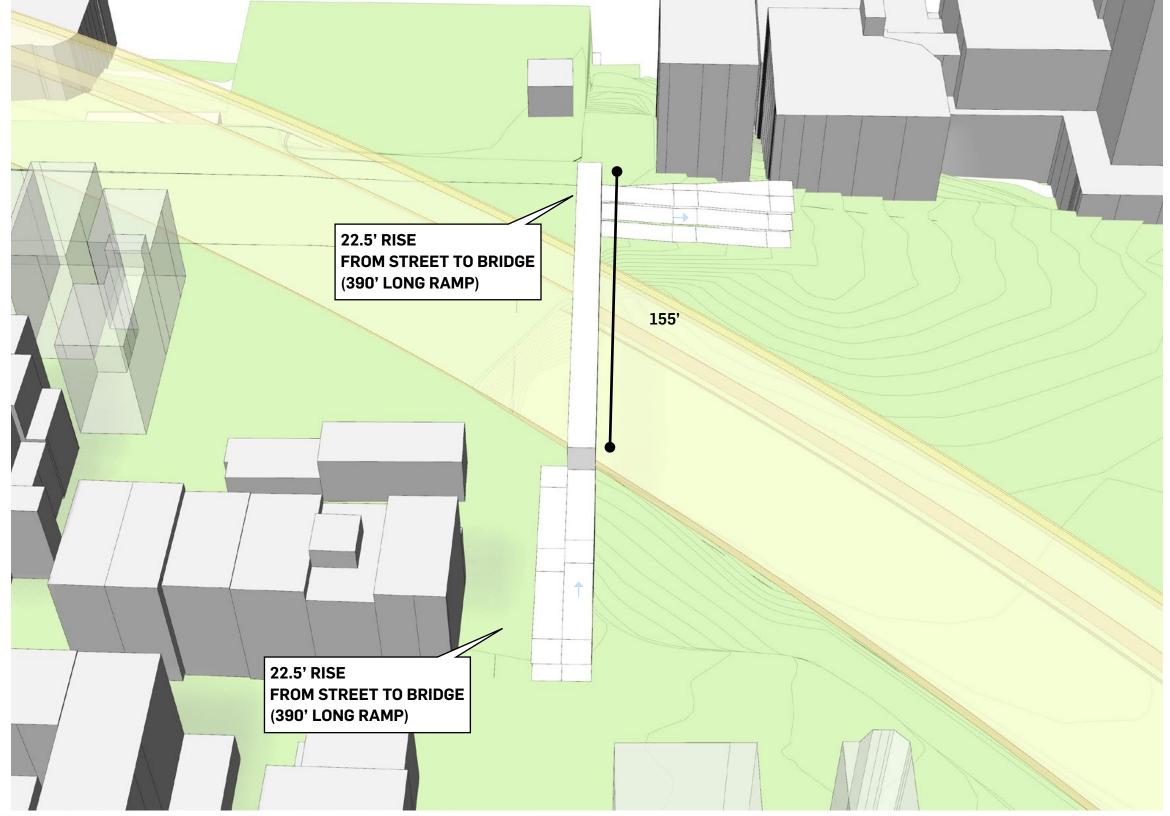


#### 4. Overpass — Middagh Street to Columbia Heights (Ramp Option)



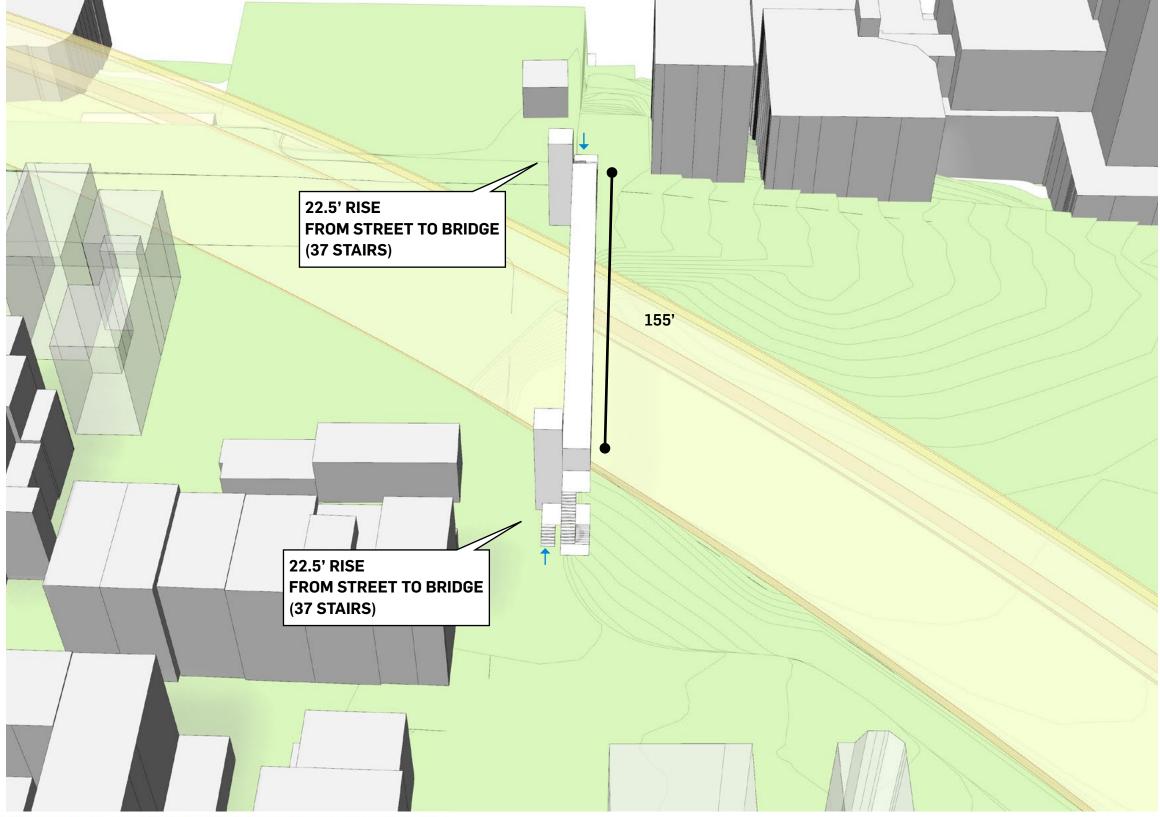
# 4. Overpass — Middagh Street to Columbia Heights (Ramp Option)

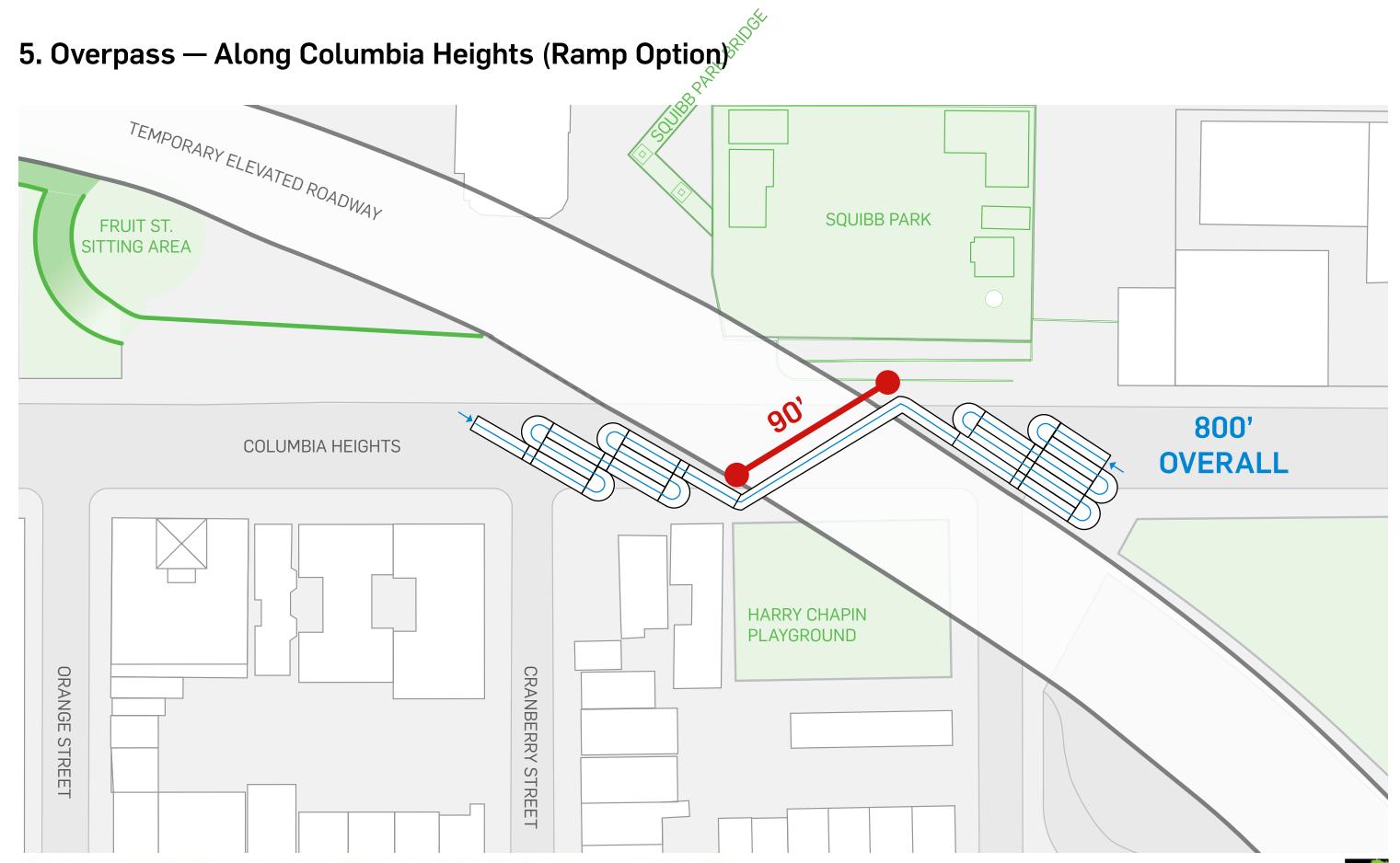




#### 4. Overpass — Middagh Street to Columbia Heights (Elevator & Stair Option)

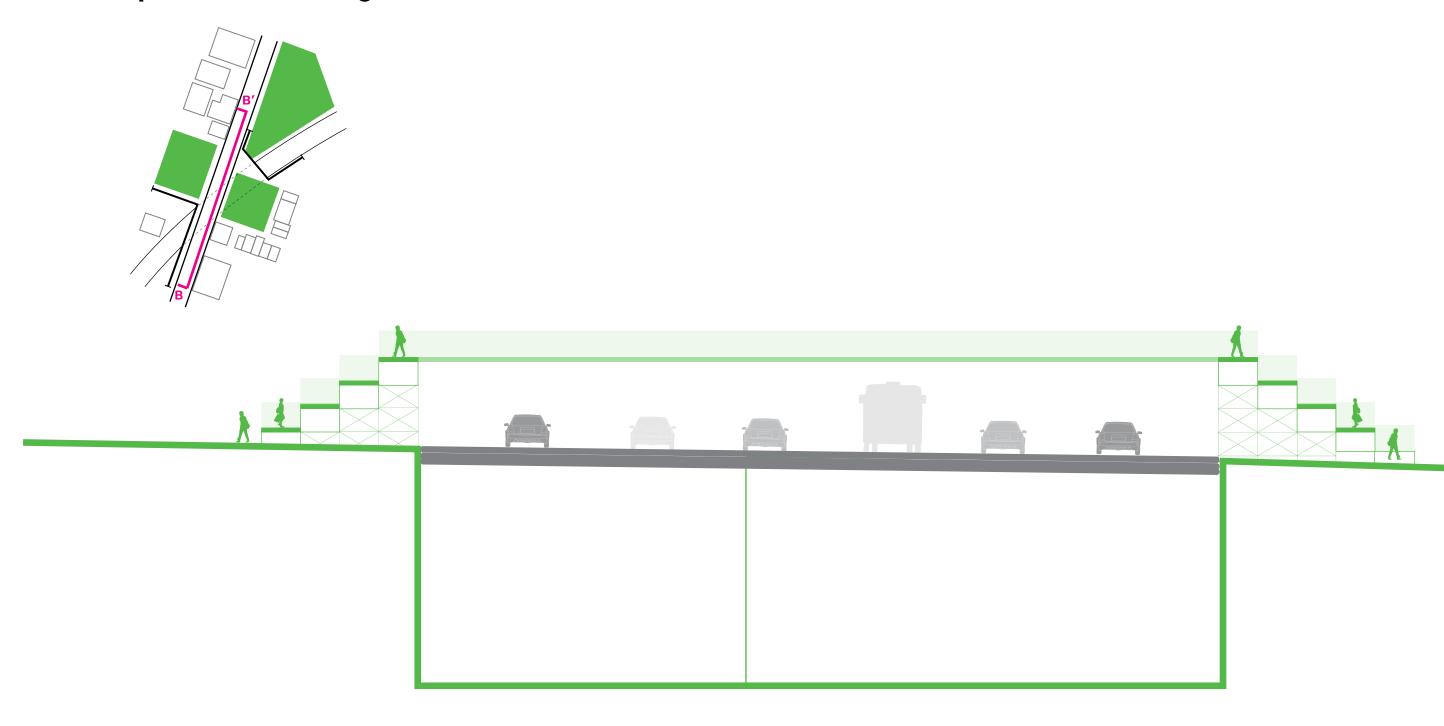






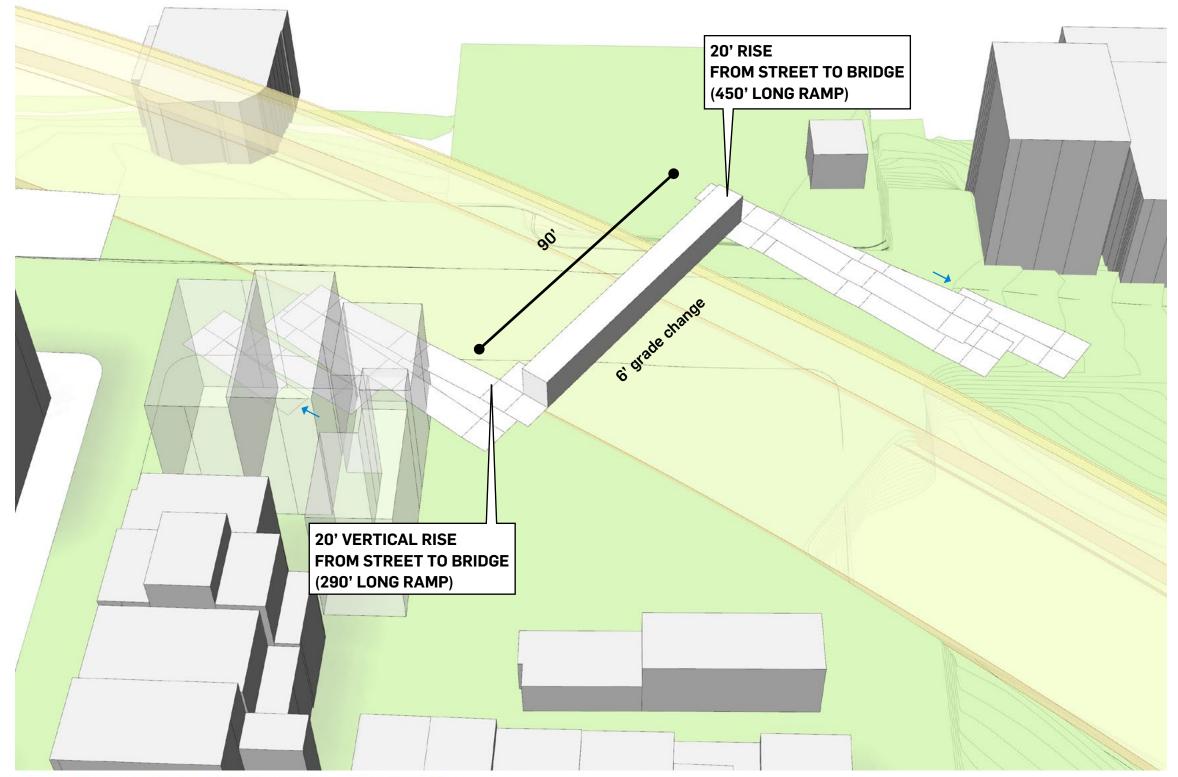


# 160' pedestrian bridge



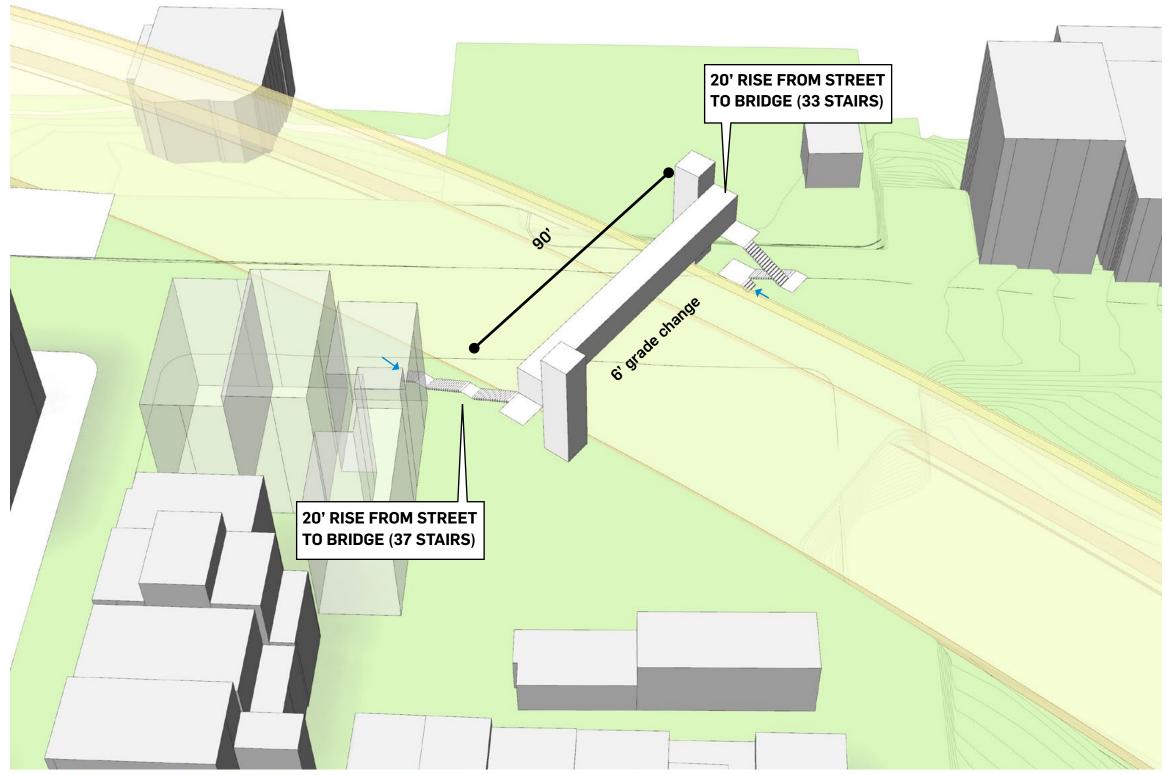
# 5. Overpass — Along Columbia Heights (Ramp Option)



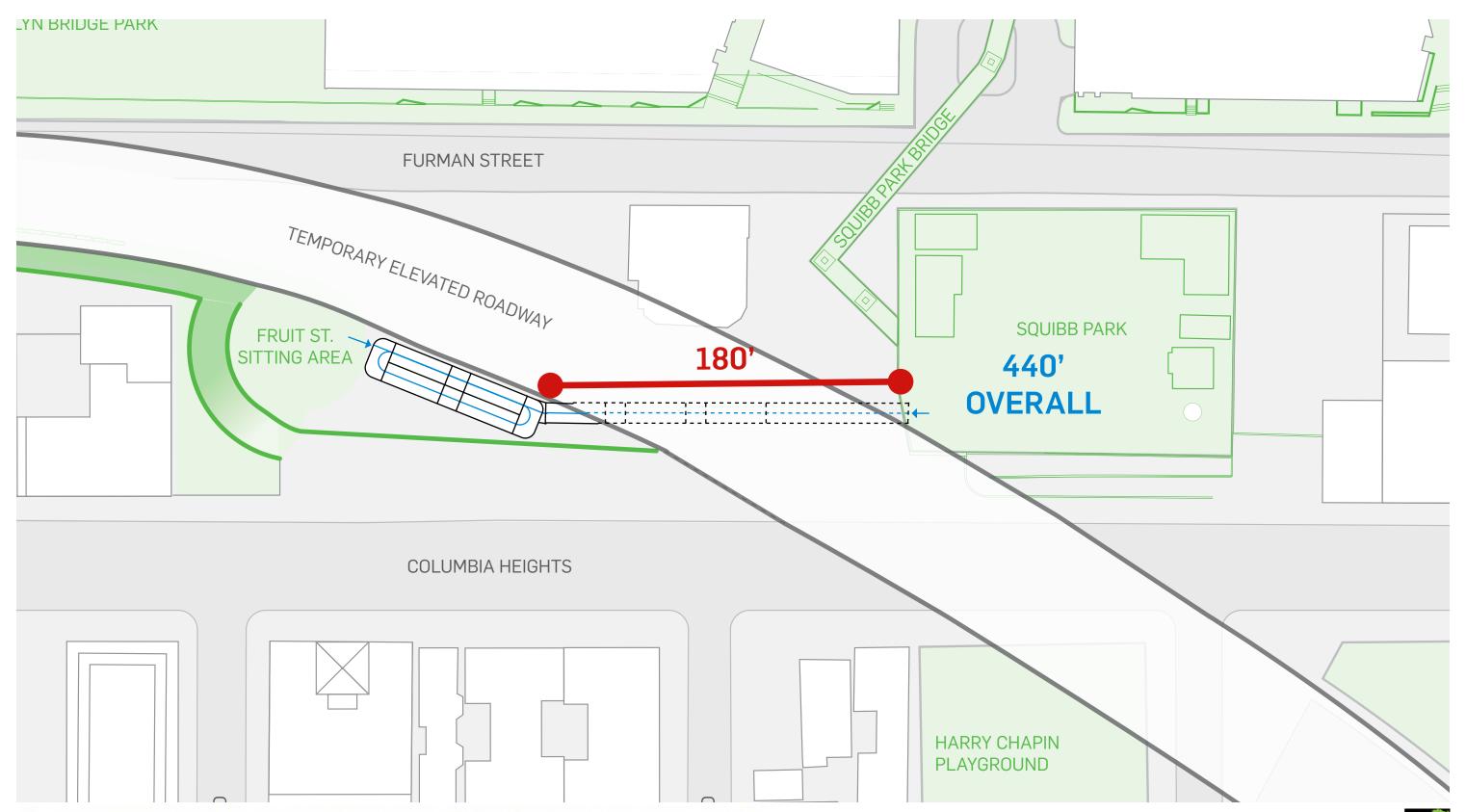


# 5. Overpass — Along Columbia Heights (Elevator & Stair Option)





#### 6. Underpass — Fruit Street to Squibb Park (Ramp Option)





# 6. Underpass — Fruit Street to Squibb Park (Ramp Option)





#### **Columbia Heights Overpass — Temporary Ramp Precedents**



Temporary ADA ramp on scaffolding with switchbacks



Temporary ADA ramp on scaffolding with plywood cladding



Temporary bleacher seating



Temporary stair on scaffolding



Temporary planters on inclined geometry



Temporary planting on scaffolding

#### **Temporary Pedestrian Bridge Precedents - Box Truss**











Temporary Steel Truss Bridge Singapore



#### **Temporary Pedestrian Bridge Precedents - Arches**









Temporary Scaffolding Bridge Structure EDEN Project - RDG Engineering

Temporary Steel, Wood & Cardboard Bridge Gardon River Bridge - Shigeru Ban

# **Temporary Elevators**





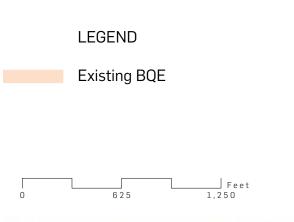
Temporary Elevator RECO Lift Solutions - UK, Netherlands, Germany



# Final Condition Design Opportunities

#### **Focus Areas**

- 1. Atlantic Avenue / Van Voorhees Park
- 2. Brooklyn Heights Promenade
- 3. Columbia Heights
- 4. Old Fulton Street & DUMBO
- 5. Manhattan Bridge & Sands Street





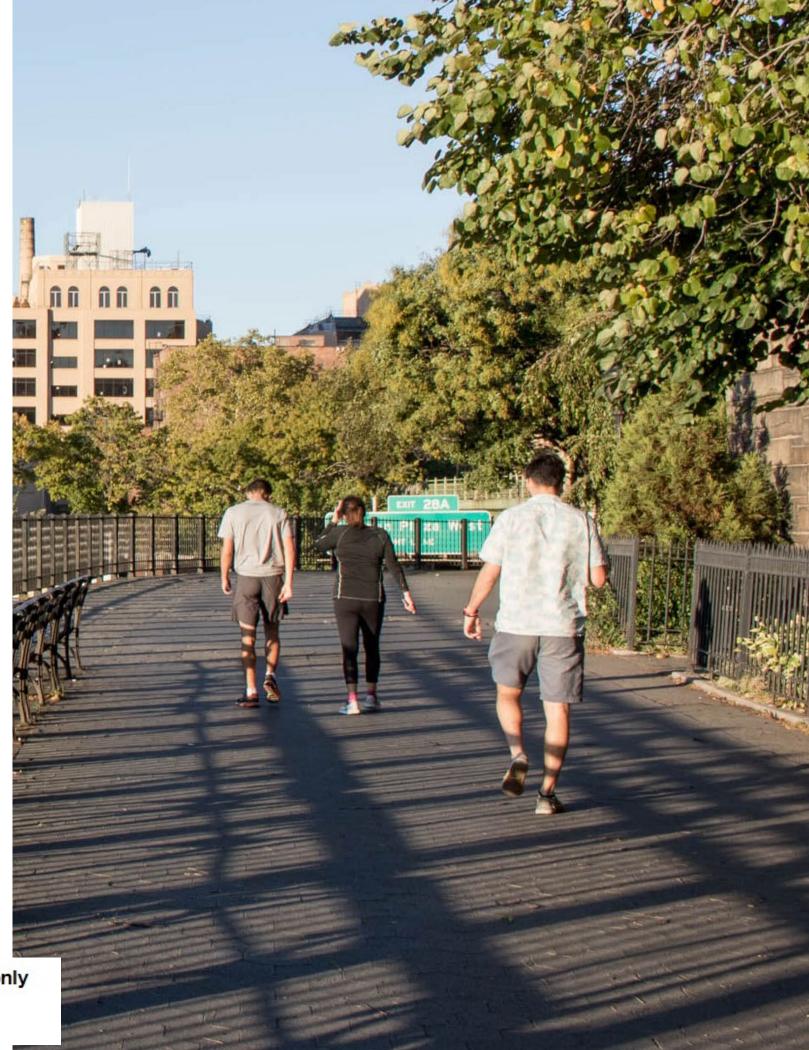
# Brooklyn Heights Promenade





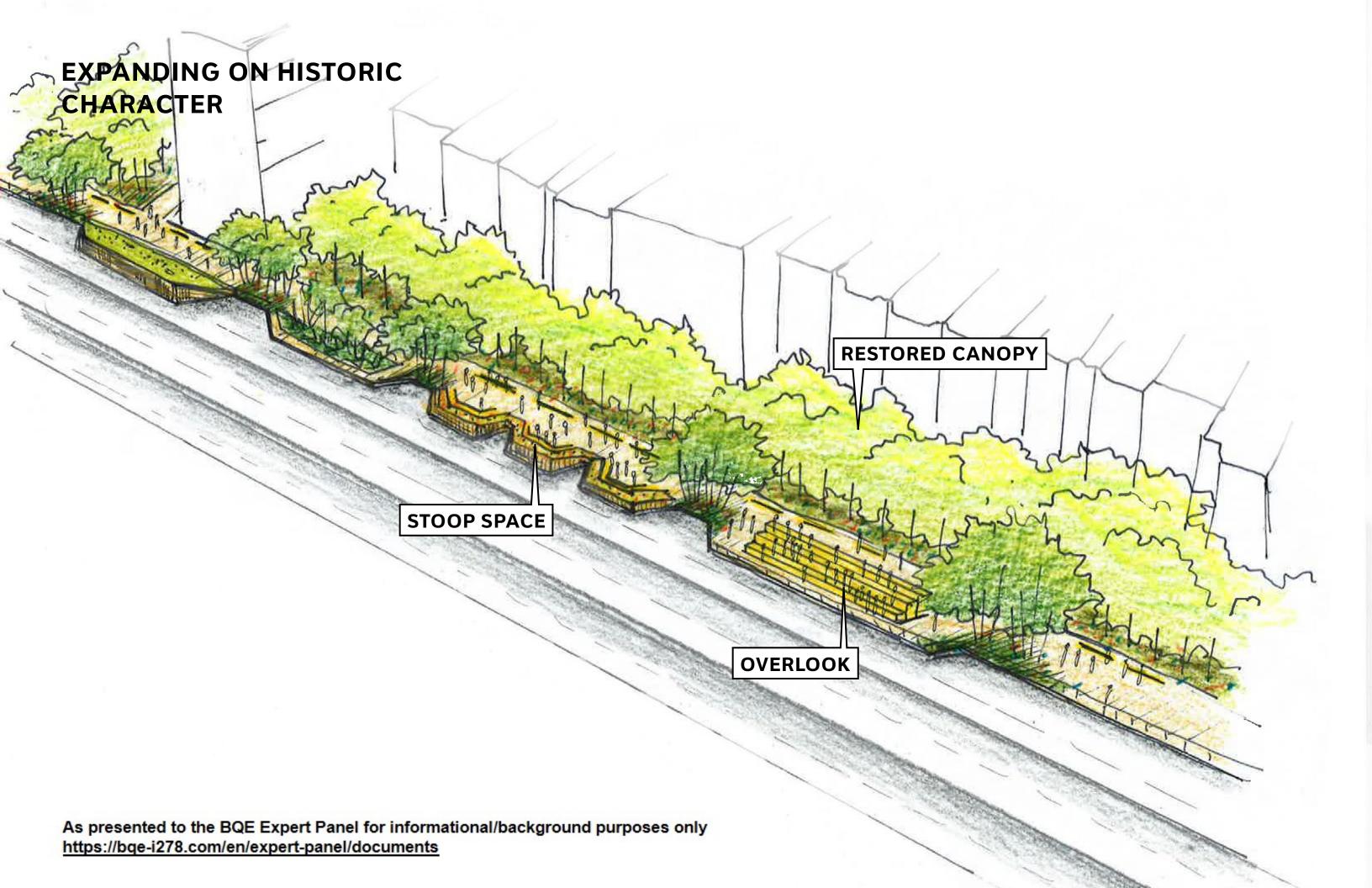




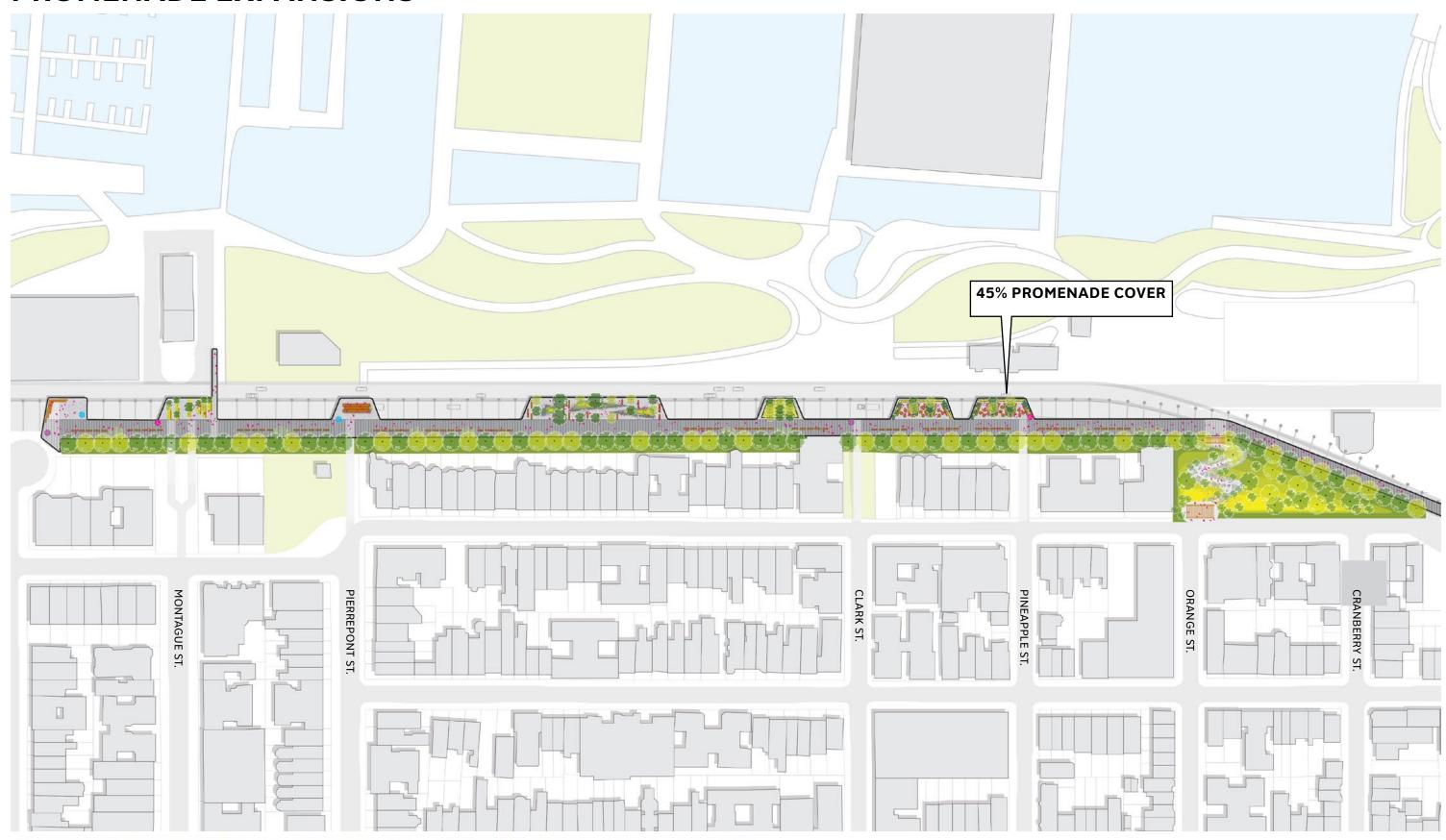




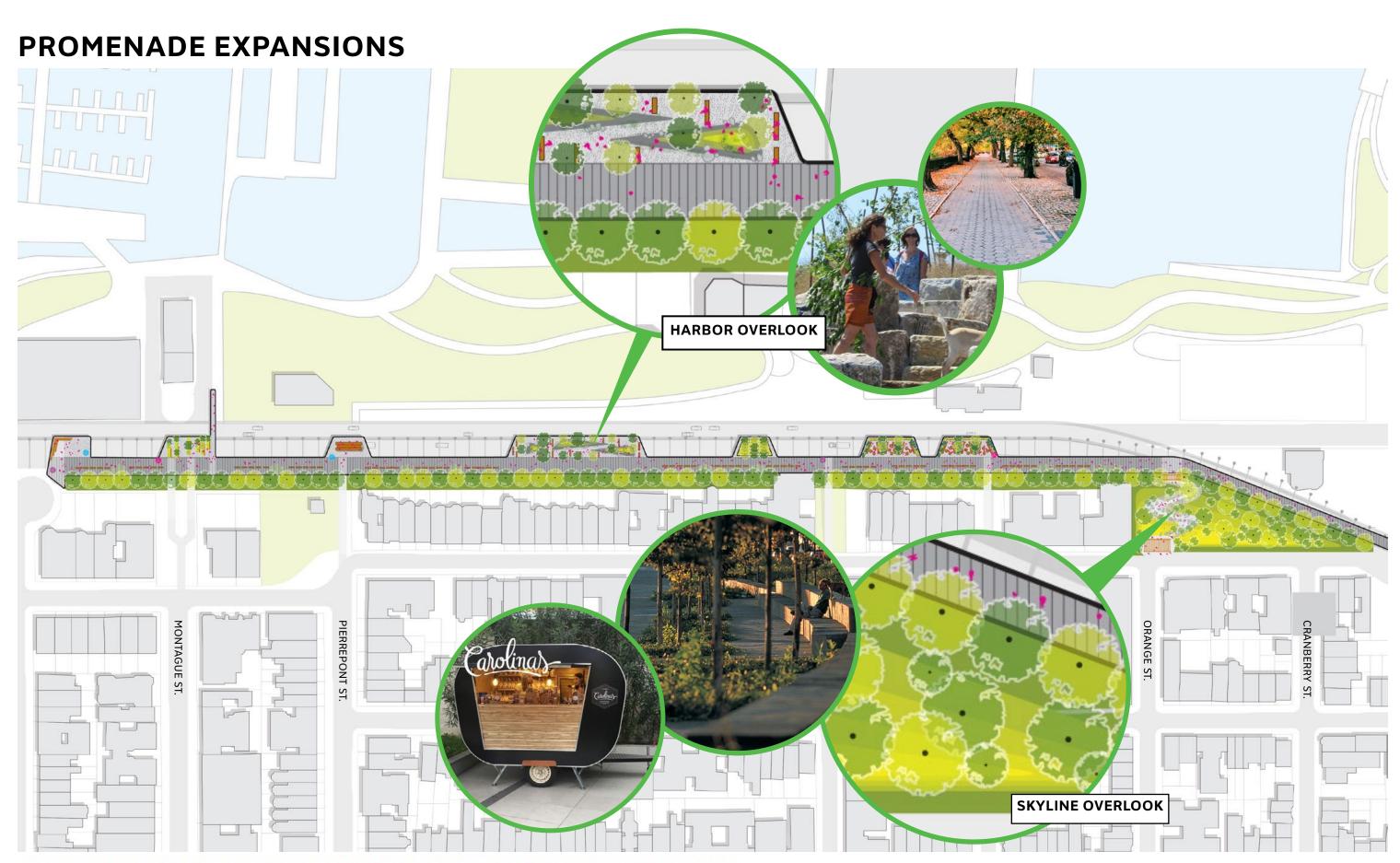




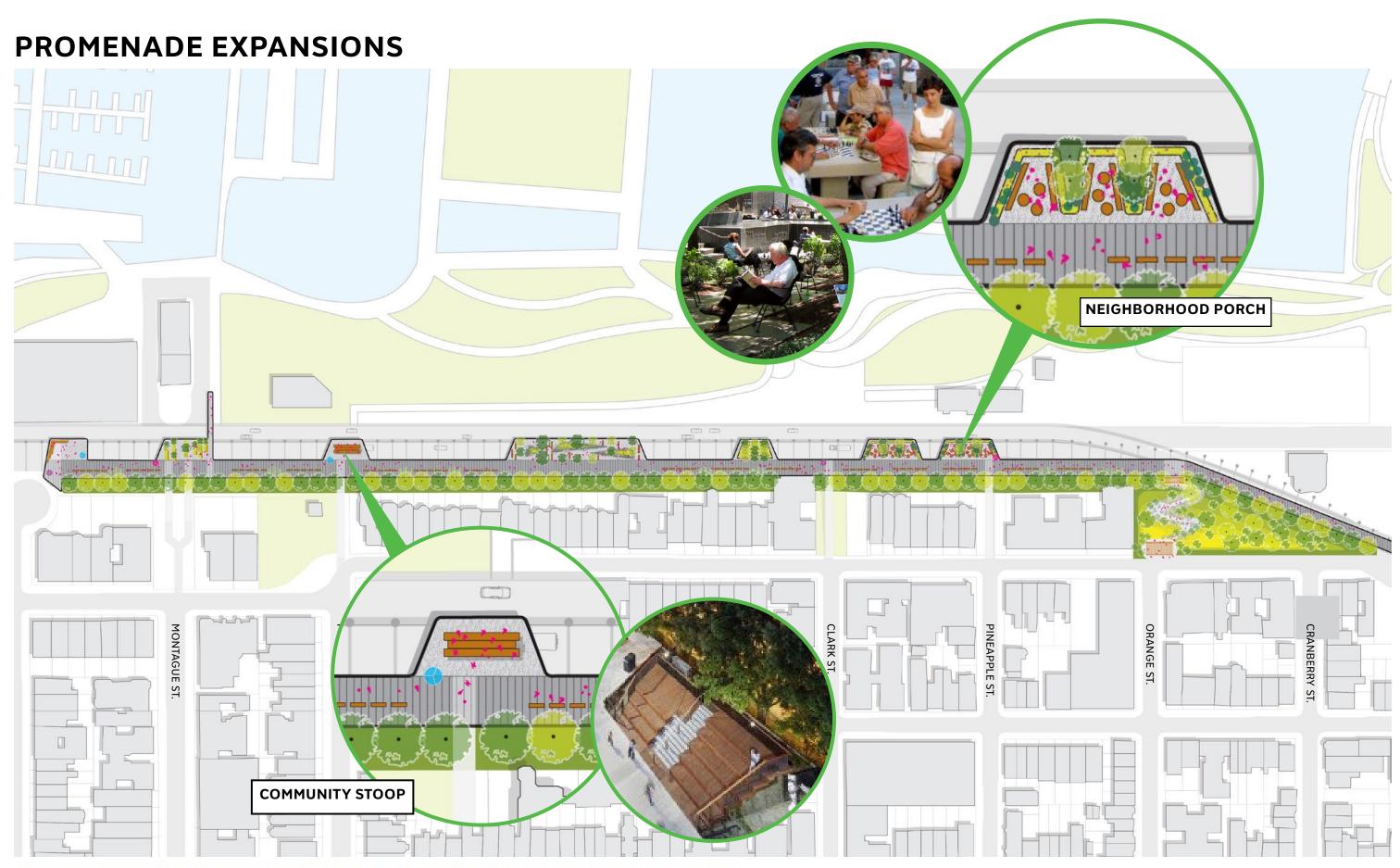
#### **PROMENADE EXPANSIONS**



As presented to the BQE Expert Panel for informational/background purposes only https://bqe-i278.com/en/expert-panel/documents



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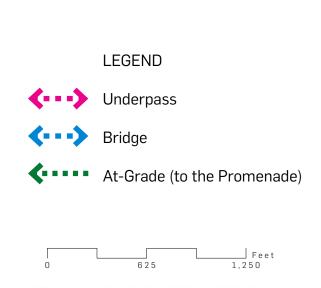
#### **PROMENADE EXPANSIONS**

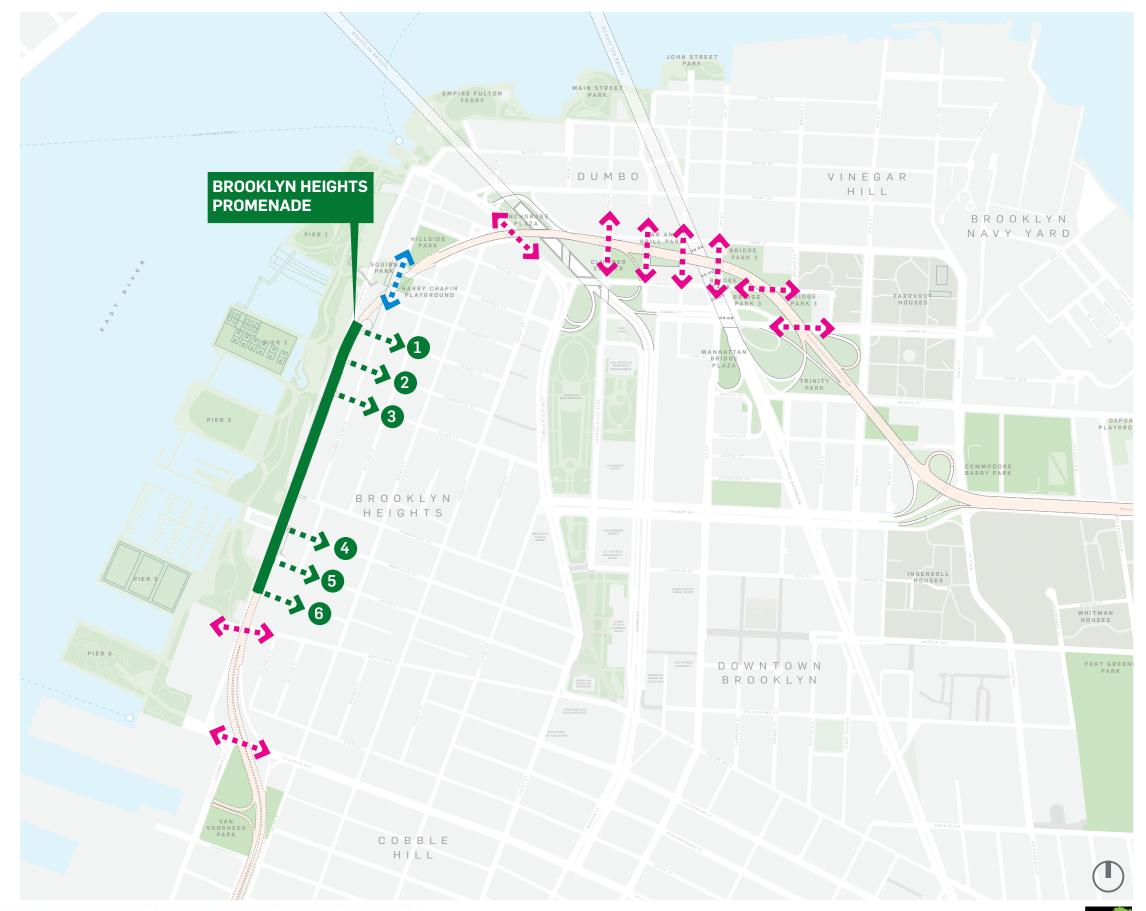


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## Existing Connectivity: Brooklyn Heights Promenade

- 1. Orange St (Fruit St Sitting Area)
- 2. Pineapple St
- 3. Clark St
- 4. Pierrepont St
- 5. Montague St
- 6. Remsen St





### Potential Montague St Extension

Columbus Park



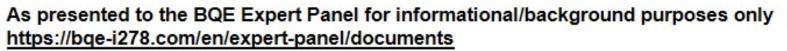
St. Anns Church



Retail along Montague St



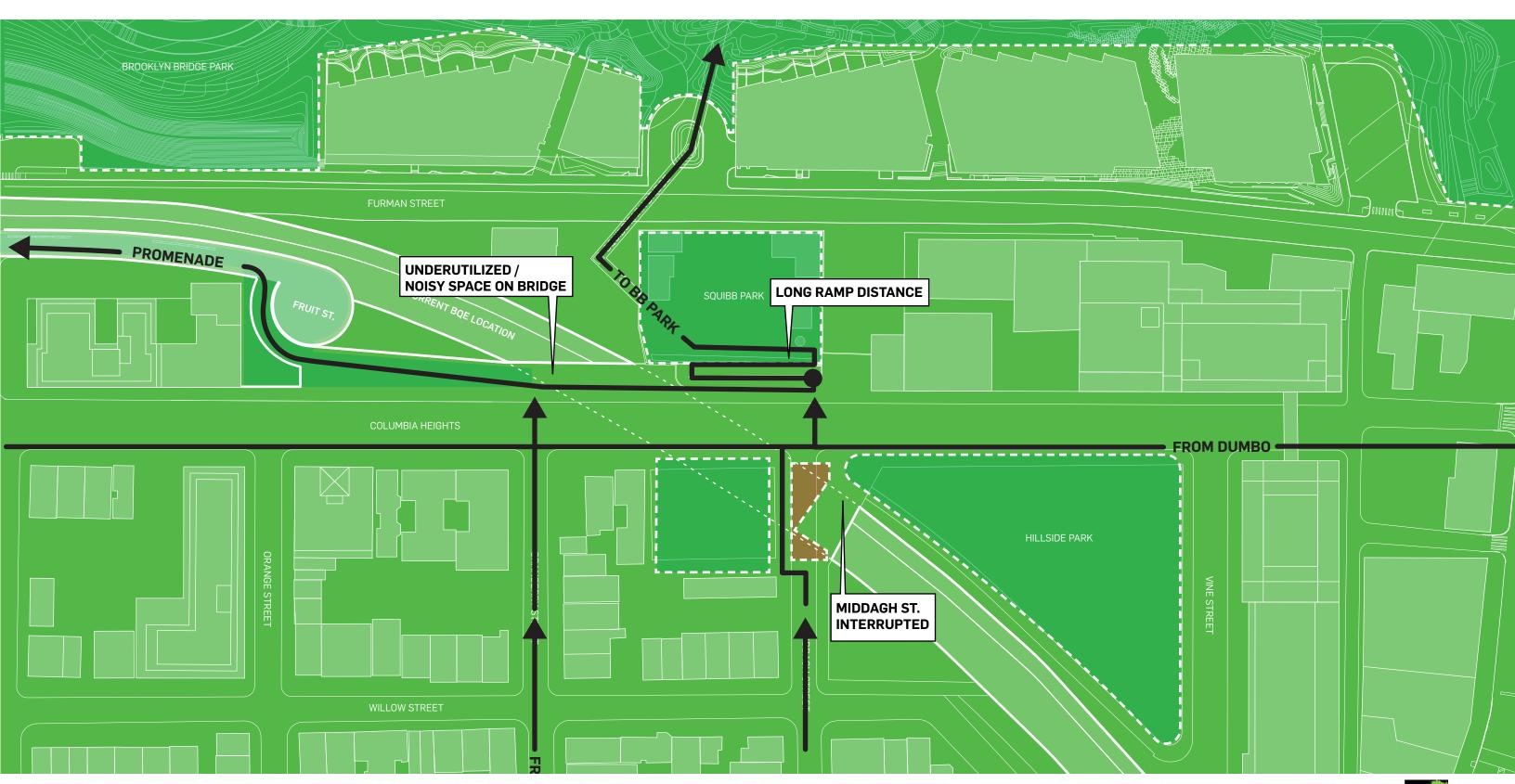






### Columbia Heights

#### **Columbia Heights - Existing Configuration**

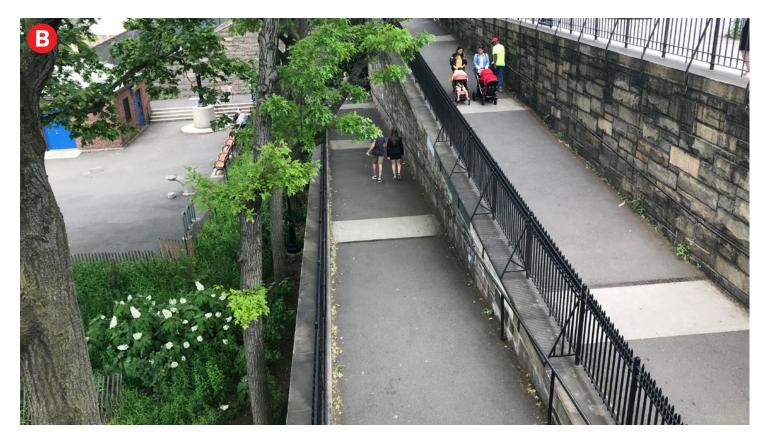


#### **Columbia Heights - Challenges**





1. Underutilized & Noisy space on Bridge over BQE



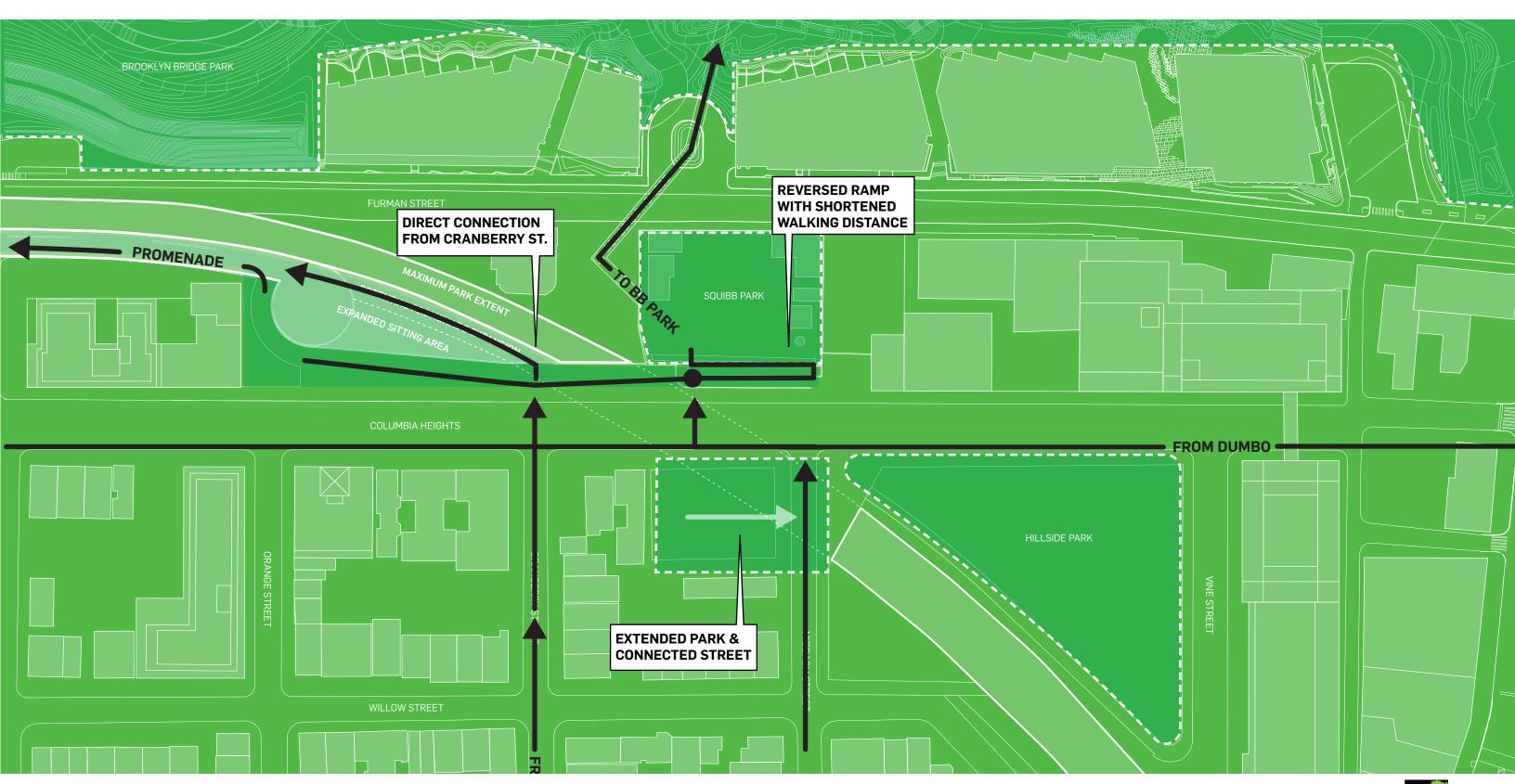
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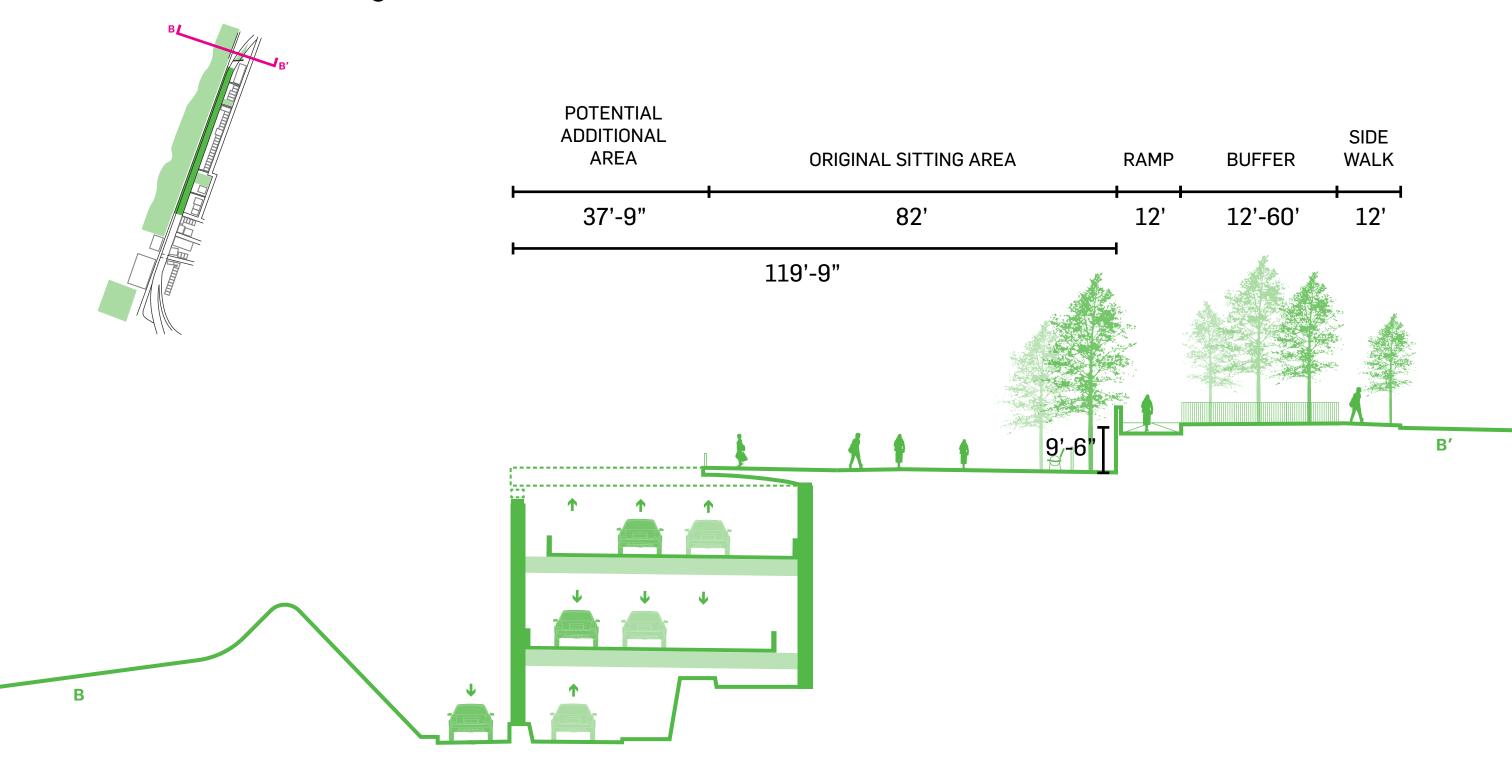
dagh Street circulation interrupted



#### **Columbia Heights - Opportunities**



#### **Fruit Street - Final Configuration**



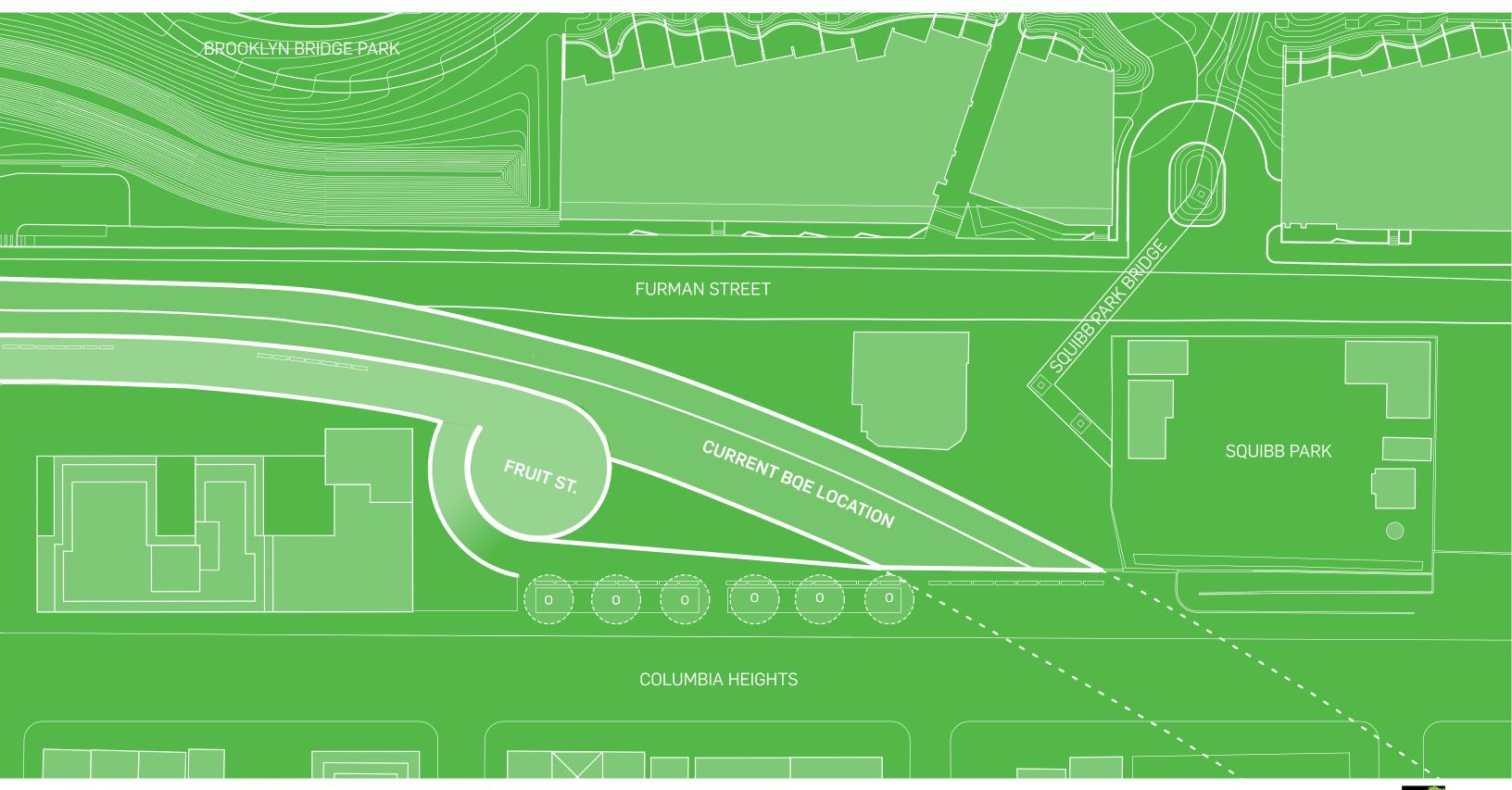
#### **Columbia Heights Overpass**



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#### **Fruit Street - Existing Configuration**



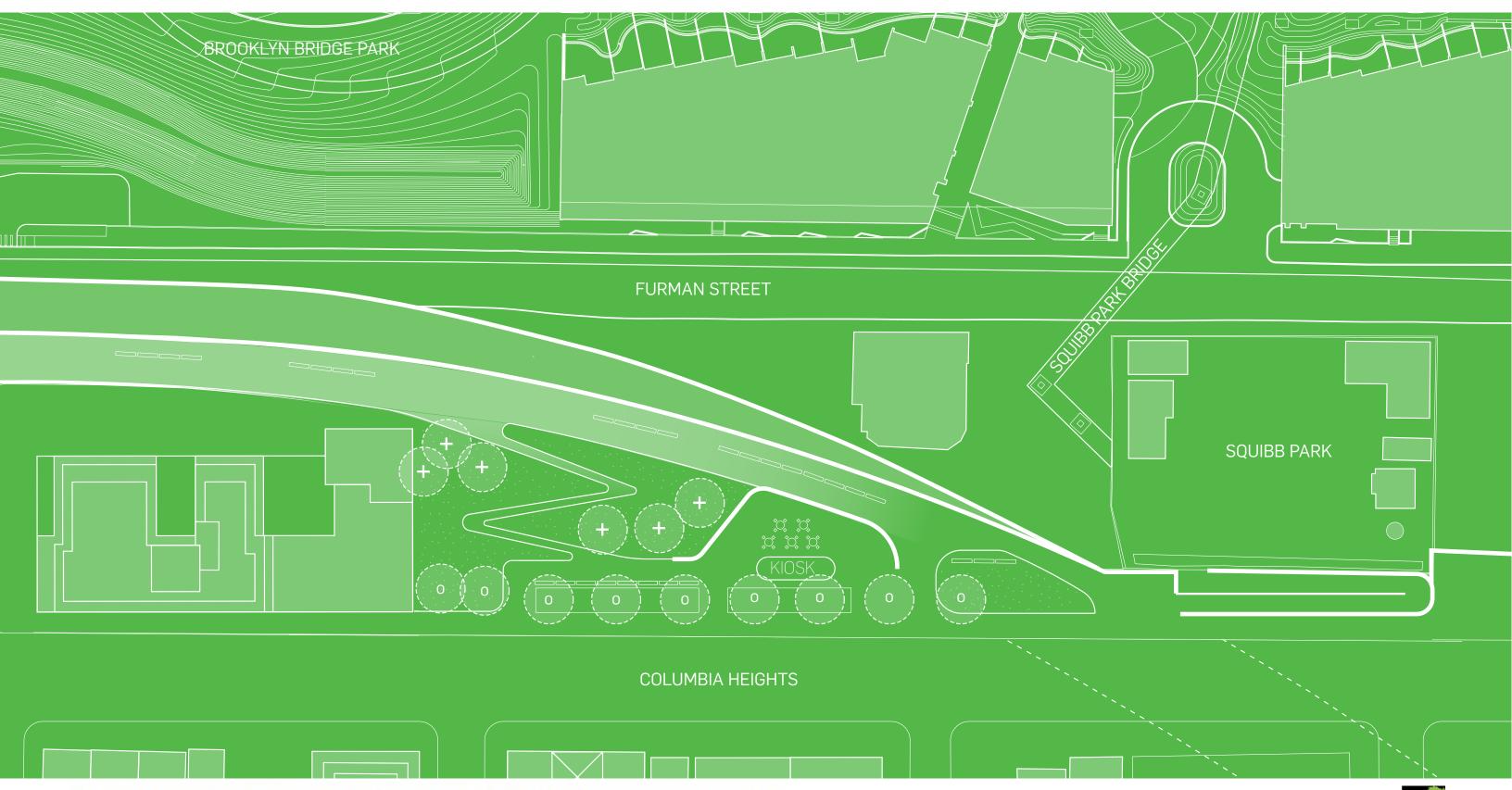
#### **Fruit Street - Existing Configuration**



#### Fruit Street - Amphitheater & Columbia Heights Terrace



#### Fruit Street - Meandering Path & Columbia Heights Kiosk



#### Fruit Street - Expanded Columbia Heights Sitting Area



# Old Fulton Street & DUMBO

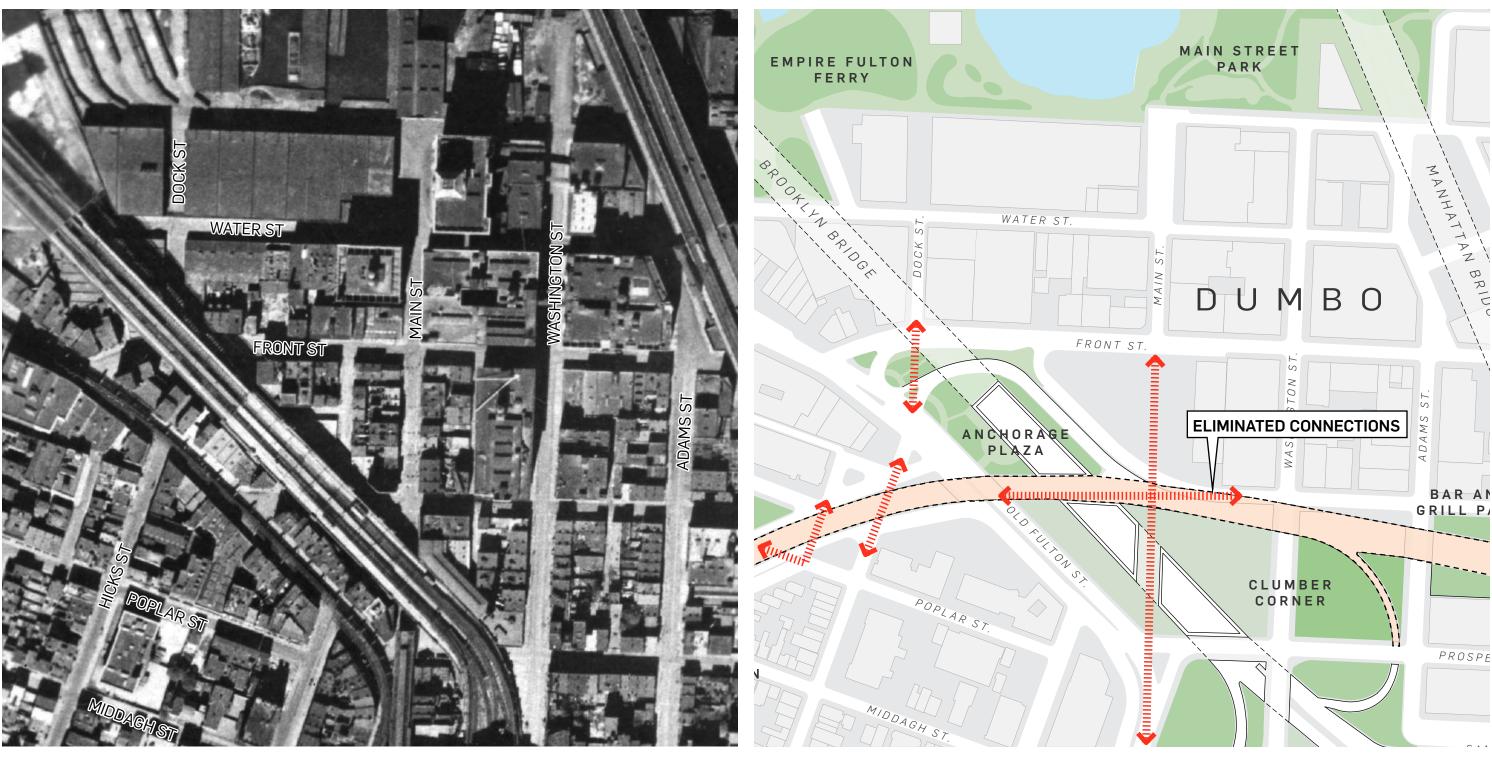
#### Historic Maps: 1924 and 1951





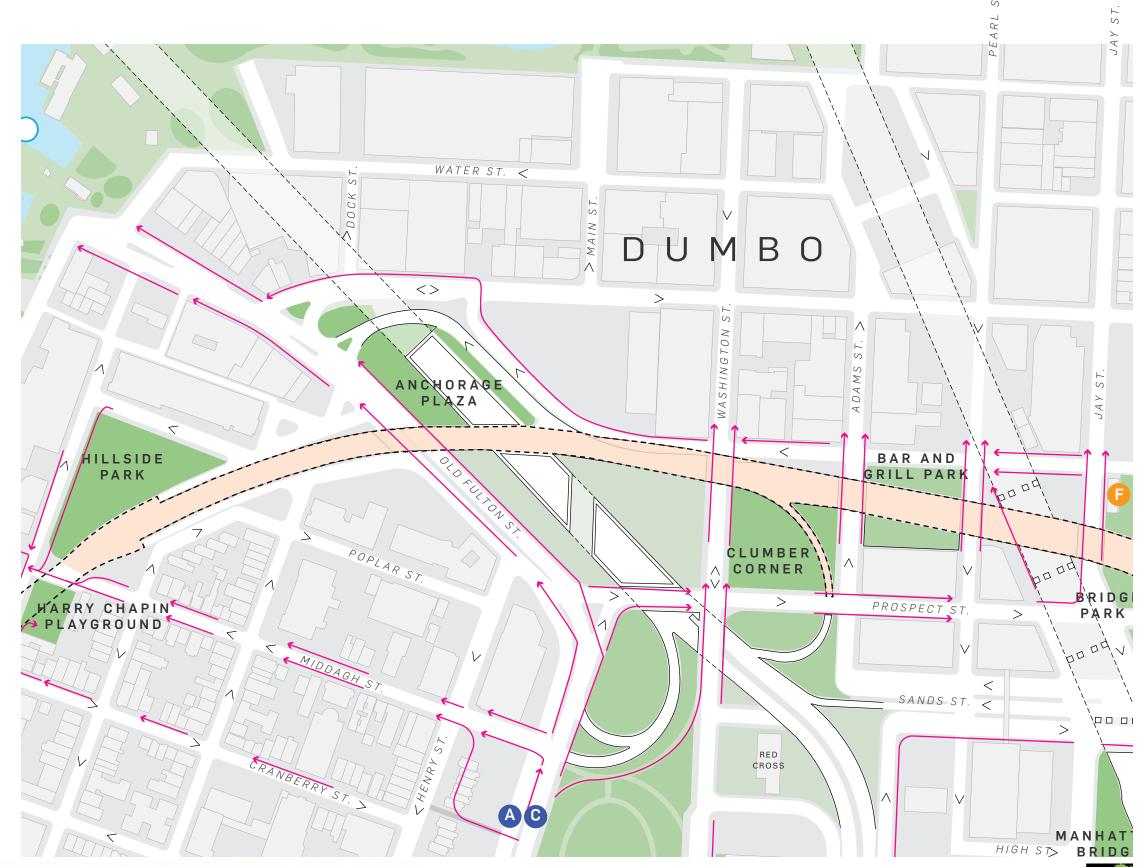
1924: PRE BQE 1951: DURING BQE CONSTRUCTION

#### Historical Maps Comparison: 1924 and 2018



1924 2018

#### **Existing Circulation**



LEGEND

Existing BQE

Pedestrian Circulation

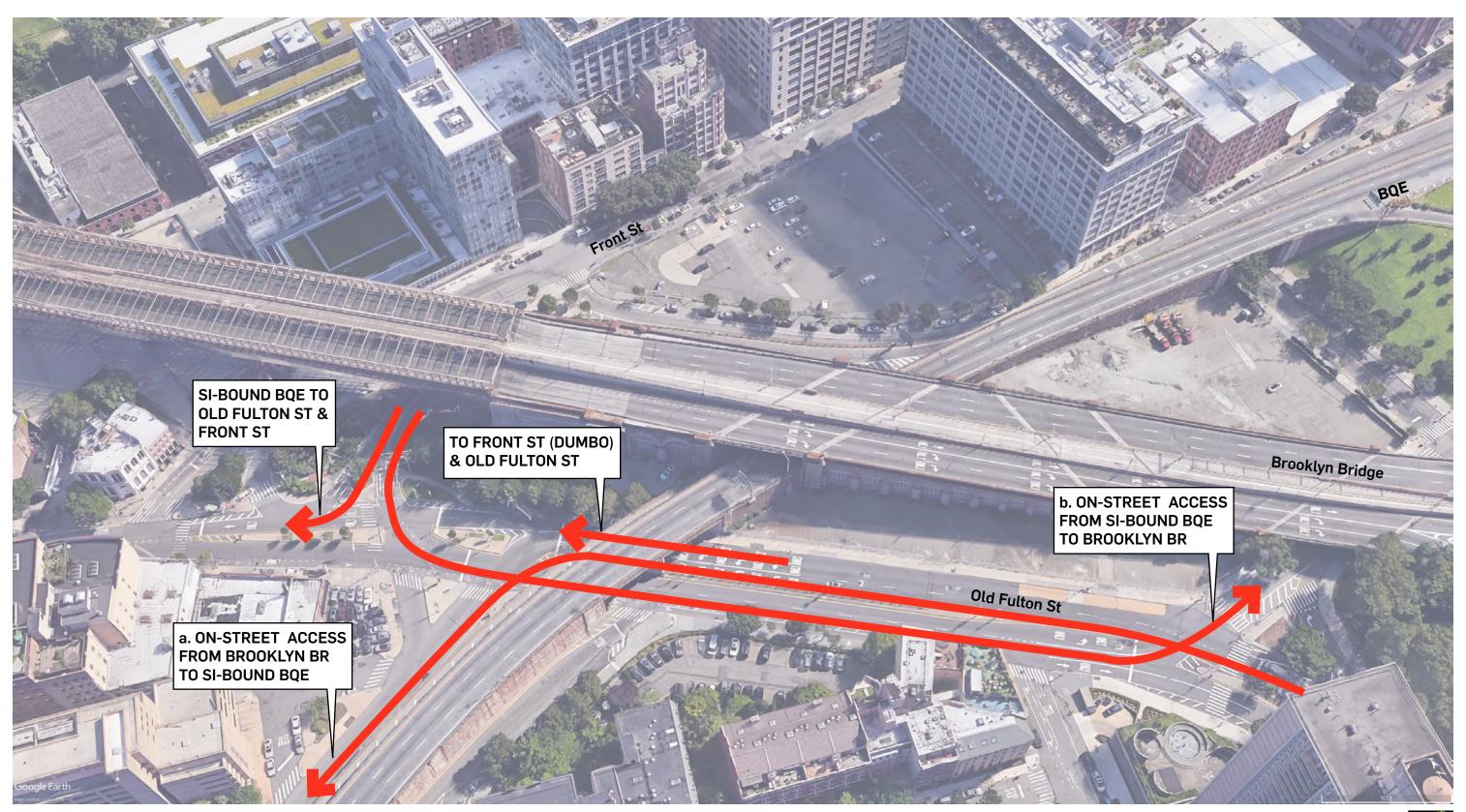
Vehicular Circulation

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#### **Old Fulton St — Existing Condition**

NYC DOT: Pedestrian/Bike/Greenway Notes | 15. Build direct ramps between Brooklyn Bridge and BQE to eliminate on street conflicts. Primarily for SI-bound BQE to Brooklyn Bridge and Brooklyn Bridge to SI-bound BQE.

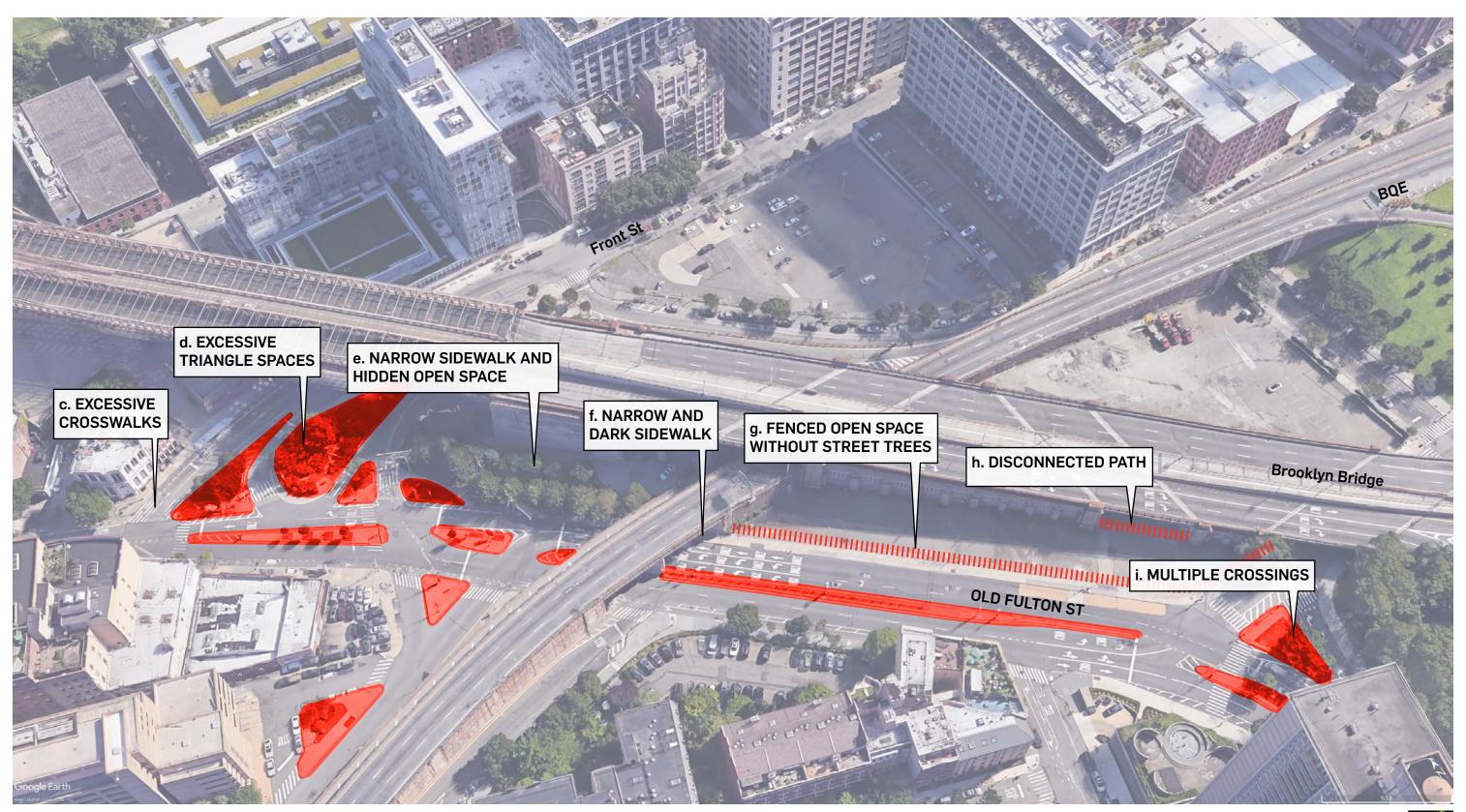


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#### Old Fulton St — DOT Notes

NYC DOT: Pedestrian/Bike/Greenway Notes | 15. Build direct ramps between Brooklyn Bridge and BQE to eliminate on street conflicts. Primarily for SI-bound BQE to Brooklyn Bridge and Brooklyn Bridge to SI-bound BQE.



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#### **Old Fulton St** — **Pedestrian Challenges**





1. On-street access from Brooklyn Bridge to SI-bound BQE creating traffic congestion



TO FRONT ST

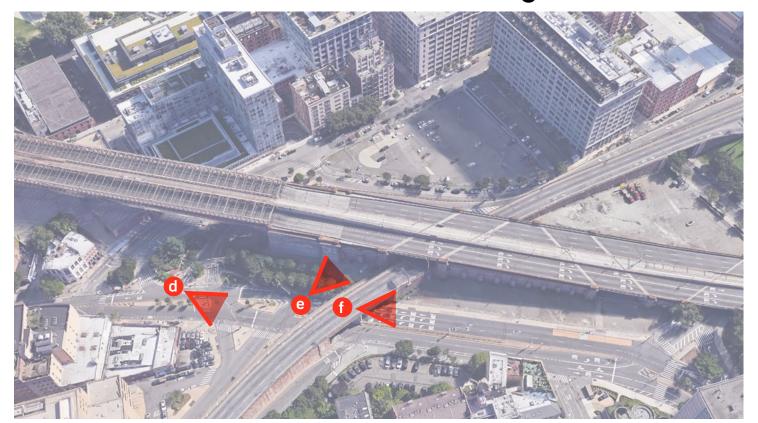
BQE TO LOCAL ROADS

BQE TO BROOKLYN BRIDGE

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cessive sidewalk crossings (Total 4 crossings in 240 ft)

#### **Old Fulton St — Pedestrian Challenges**





4. Excessive triangle spaces without landscaping disrupting pedestrian flows



8<sup>1</sup>-WIDE

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rrow and dark sidewalk under BQE

#### **Old Fulton St** — **Pedestrian Challenges**





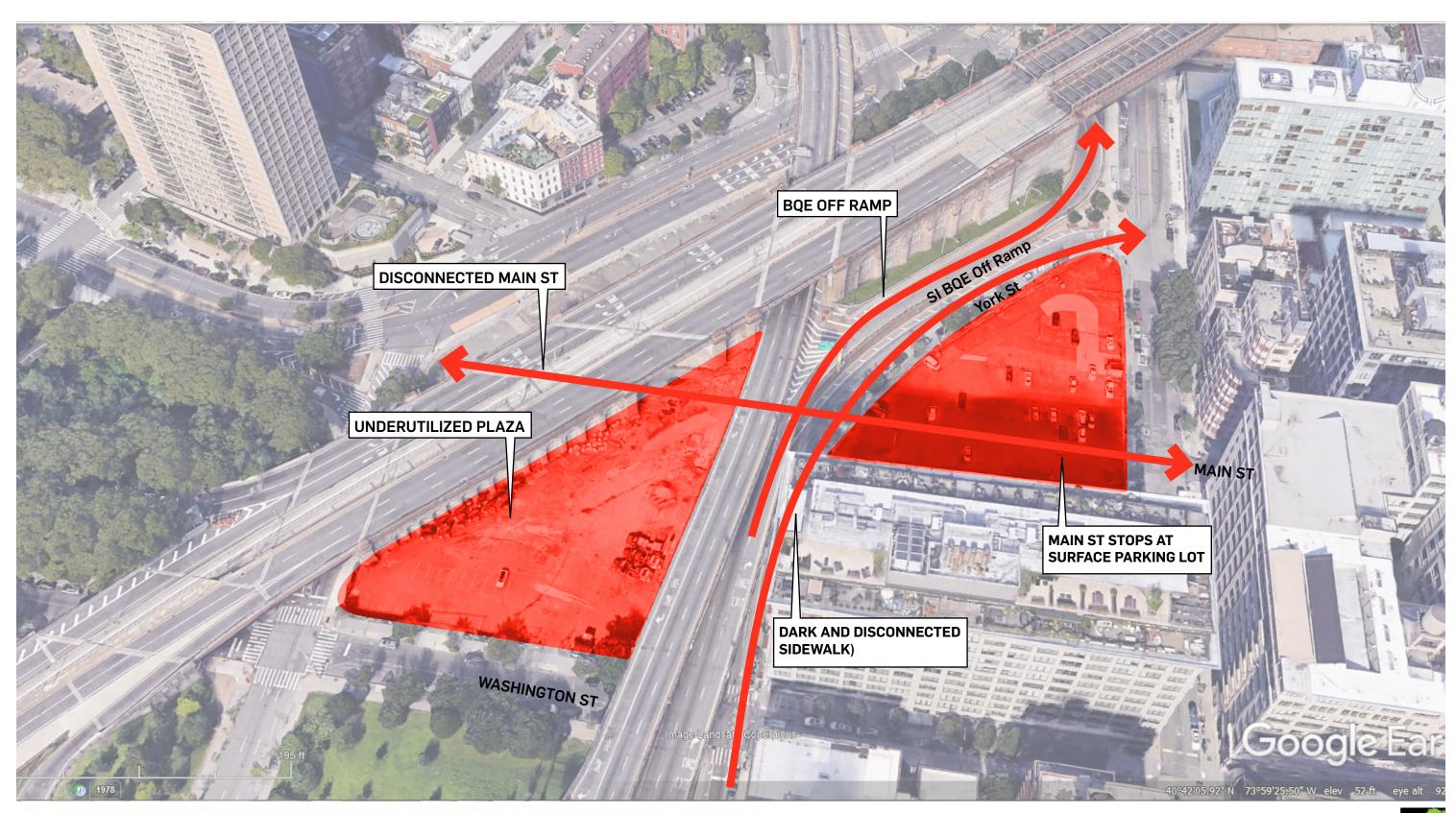
7. Fenced open space without street trees



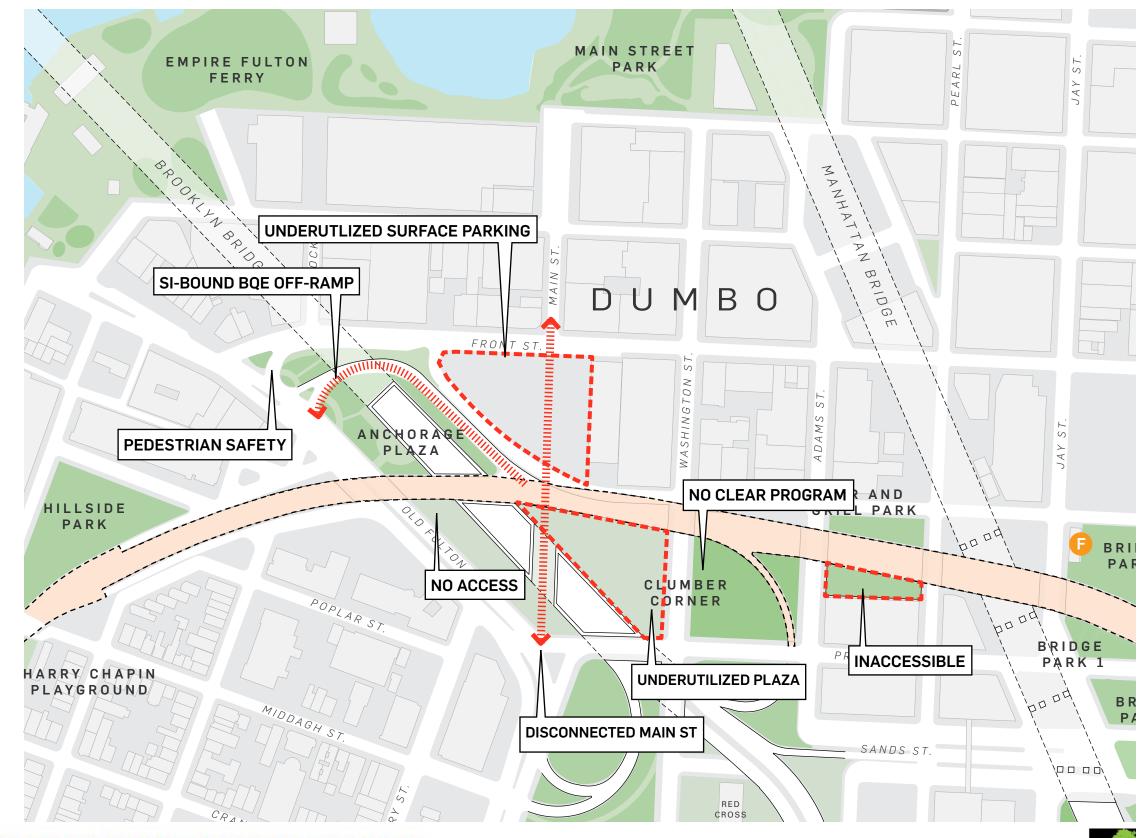
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#### York Street — Existing Challenges



#### Old Fulton St & DUMBO — Key Issues

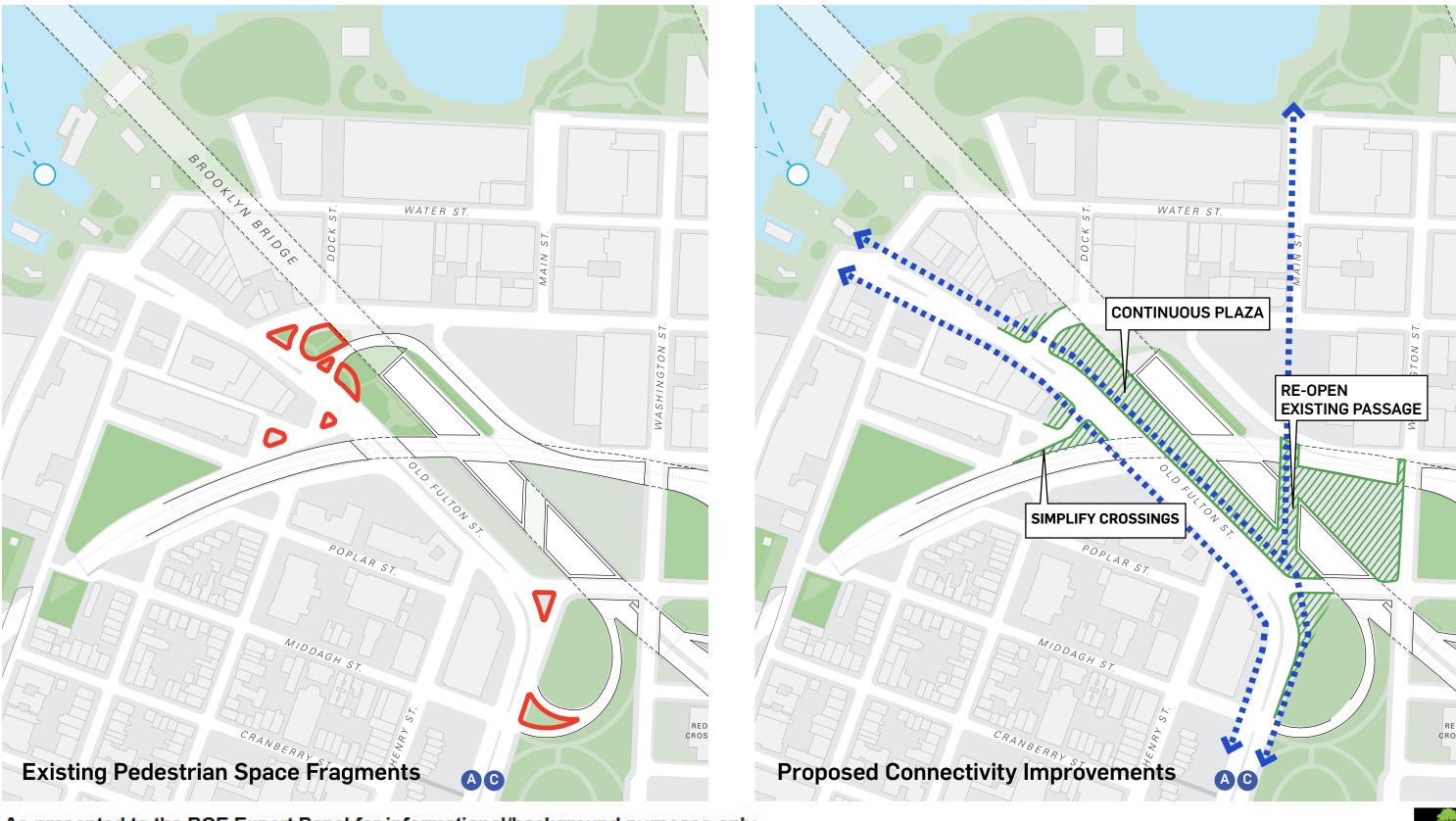


Feet 500

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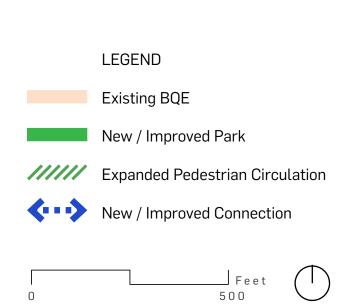


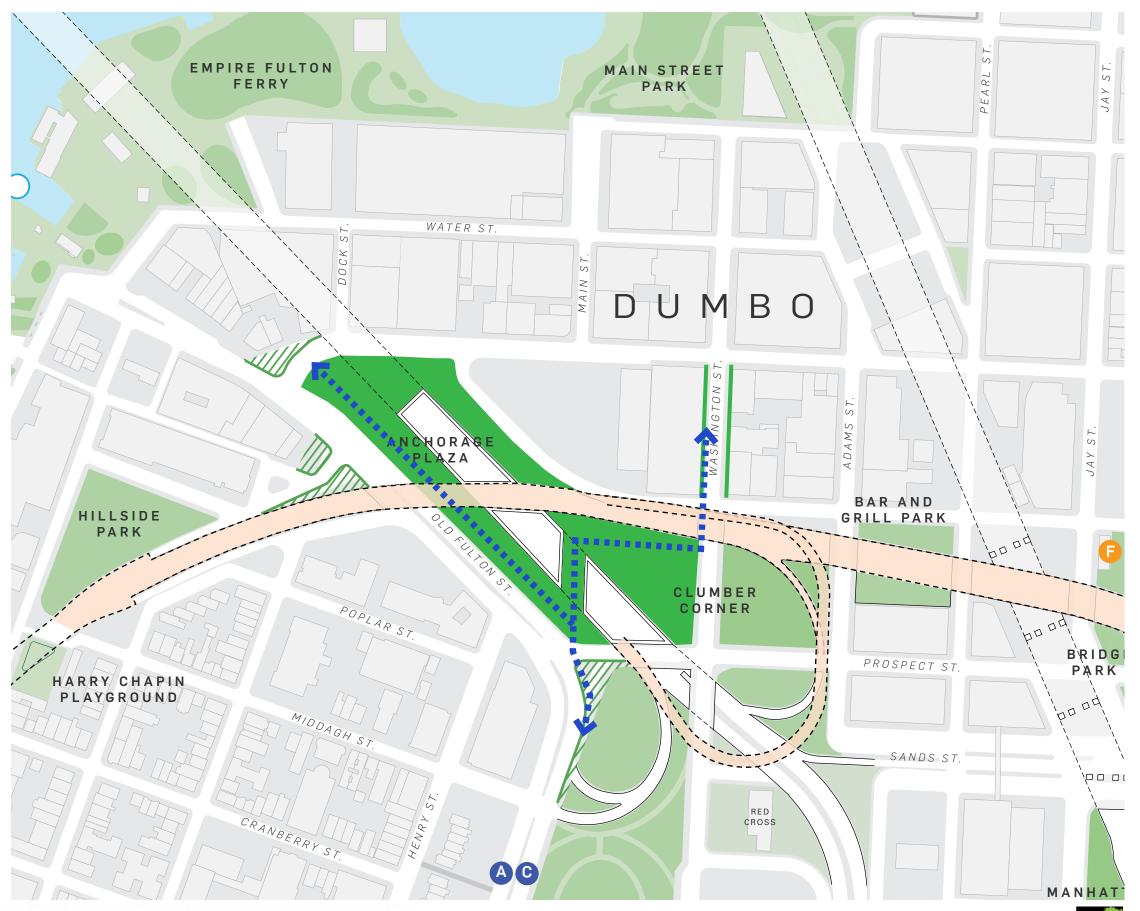
#### Old Fulton St — Street Modifications & Connectivity Opportunities



# DUMBO — Street Modifications & Connectivity Opportunities

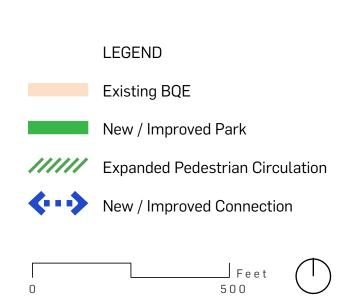
Option A: Reconnected Anchorage Plaza

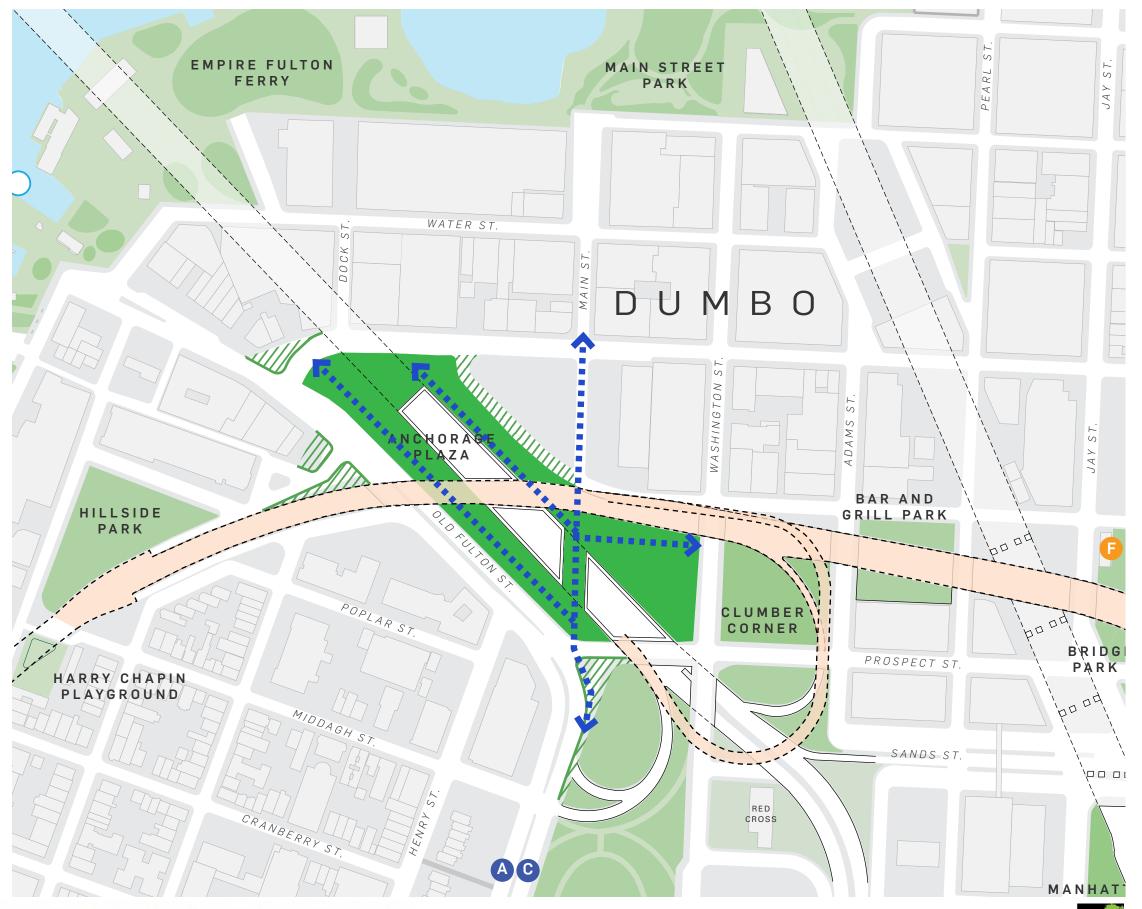




# DUMBO — Street Modifications & Connectivity Opportunities

Option B: Reestablish Main Street; introduce viaduct structure

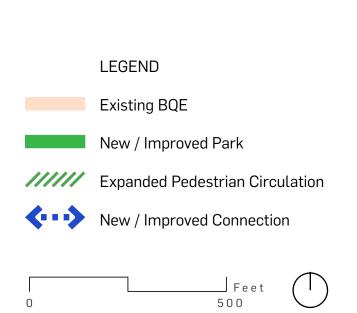


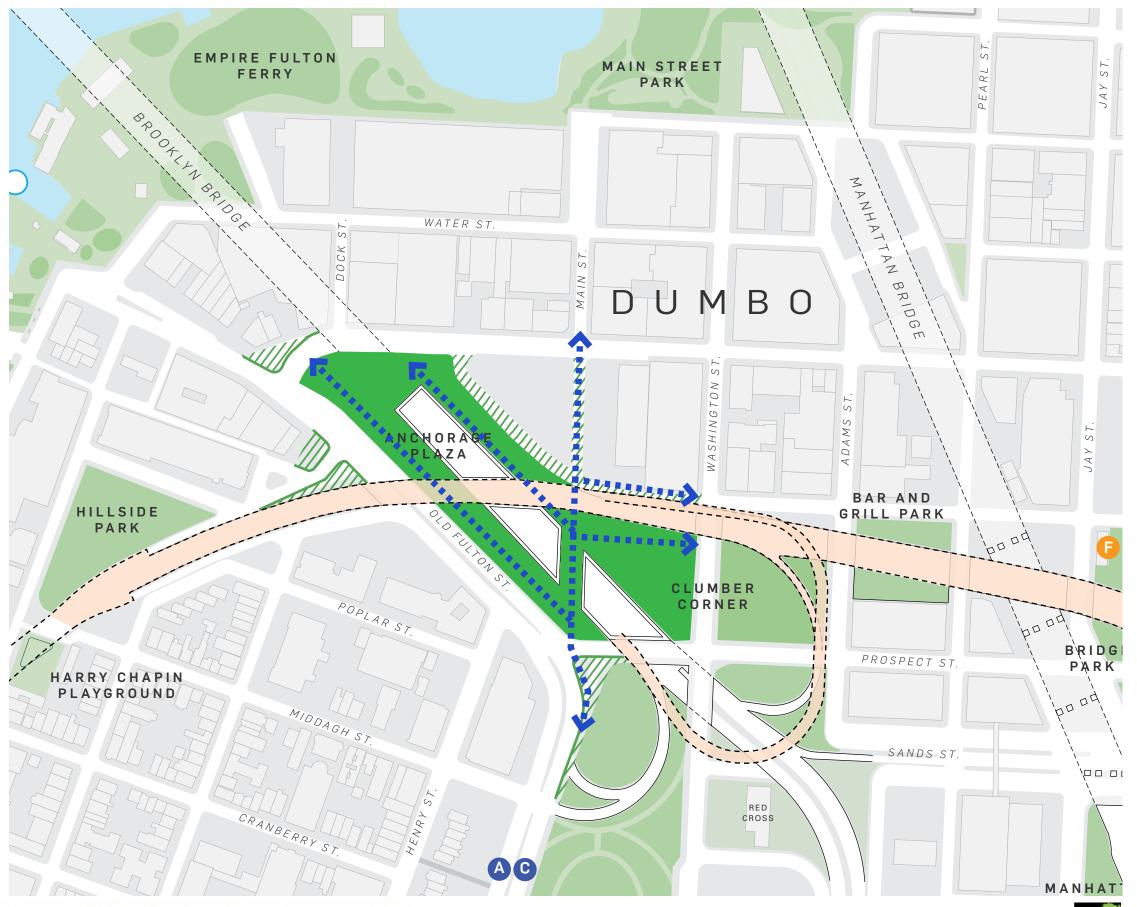


## DUMBO — Street Modifications & Connectivity Opportunities

Option C:

Reestablish Main Street as pedestrian route; close York Street west of Washington Street; introduce viaduct structure





# Brooklyn to Manhattan Bridge

#### **CLUMBER CORNER**

VISUAL ANALYSIS

Clumber Corner is mainly lawn and planted trees, serving as a buffer landscape between the streets below and the BQE.



BIRDSEYE OF CLUMBER CORNER



VIEW FROM CADMAN PLAZA/PROSPECT ST



VIEW FROM BQE TOWARDS CLUMBER CORNER SOUTH



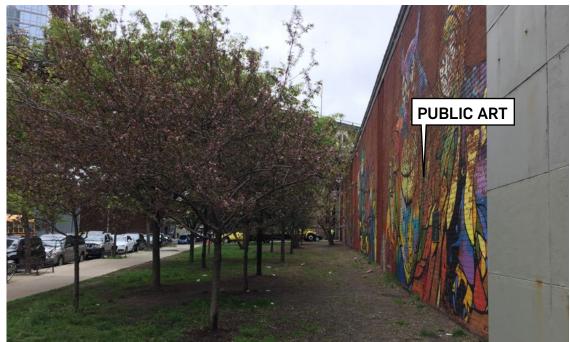
#### **CLUMBER CORNER — BAR & GRILL PARK**

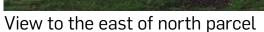
#### VISUAL ANALYSIS

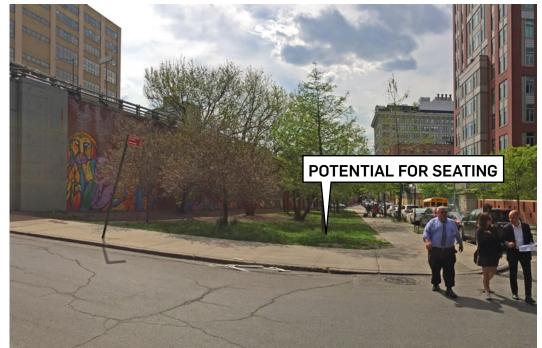
Bar & Grill Park consists of a small northern parcel on street level, with a cluster of deciduous and evergreen trees.

A brightly colored mural is present on the north side of the BQE retaining wall.

The South parcel is about 4-5' above grade at its lowest point, and consists of lawn and newly planted trees.







View from pearl street looking west



Southern parcel of park is inaccessible from street level



#### **CLUMBER CORNER — ANCHORAGE PLAZA EAST**

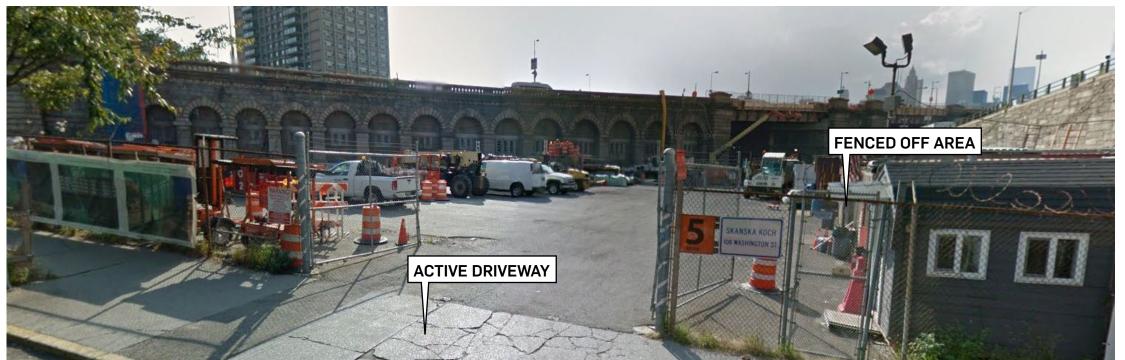
VISUAL ANALYSIS

The parcel closest to the Brooklyn Bridge on ramp is currently used for DOT staging and construction.

It is inaccessible and currently contained by chain-link fence with barbed wire.



VIEW FROM BOE TOWARDS DOT LO

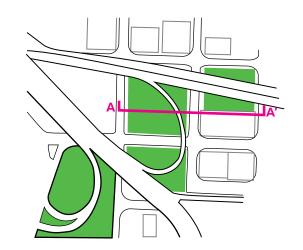


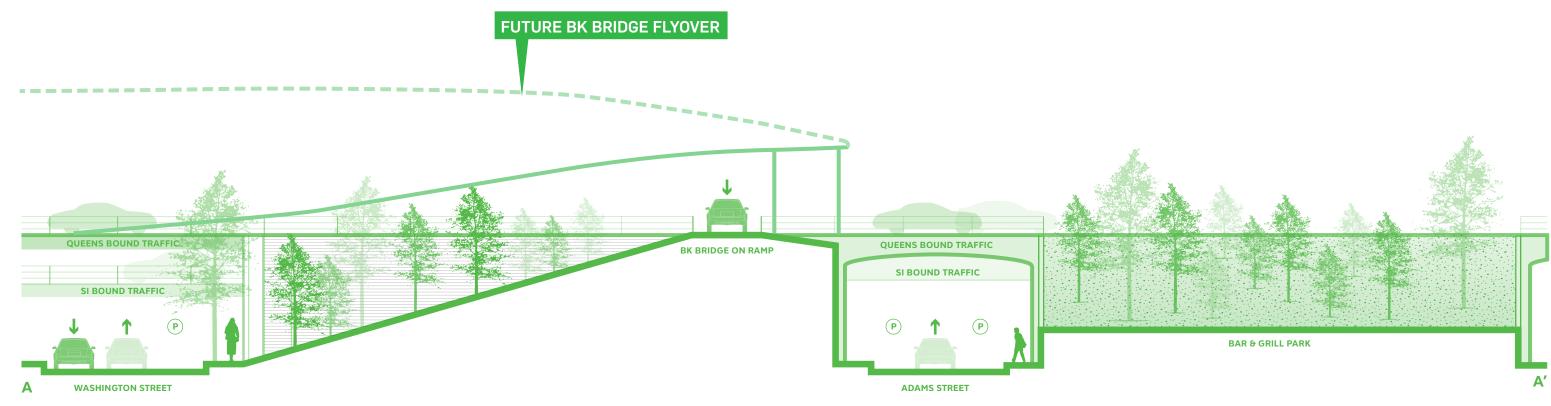
STREET LEVEL VIEW OF DOT LOT



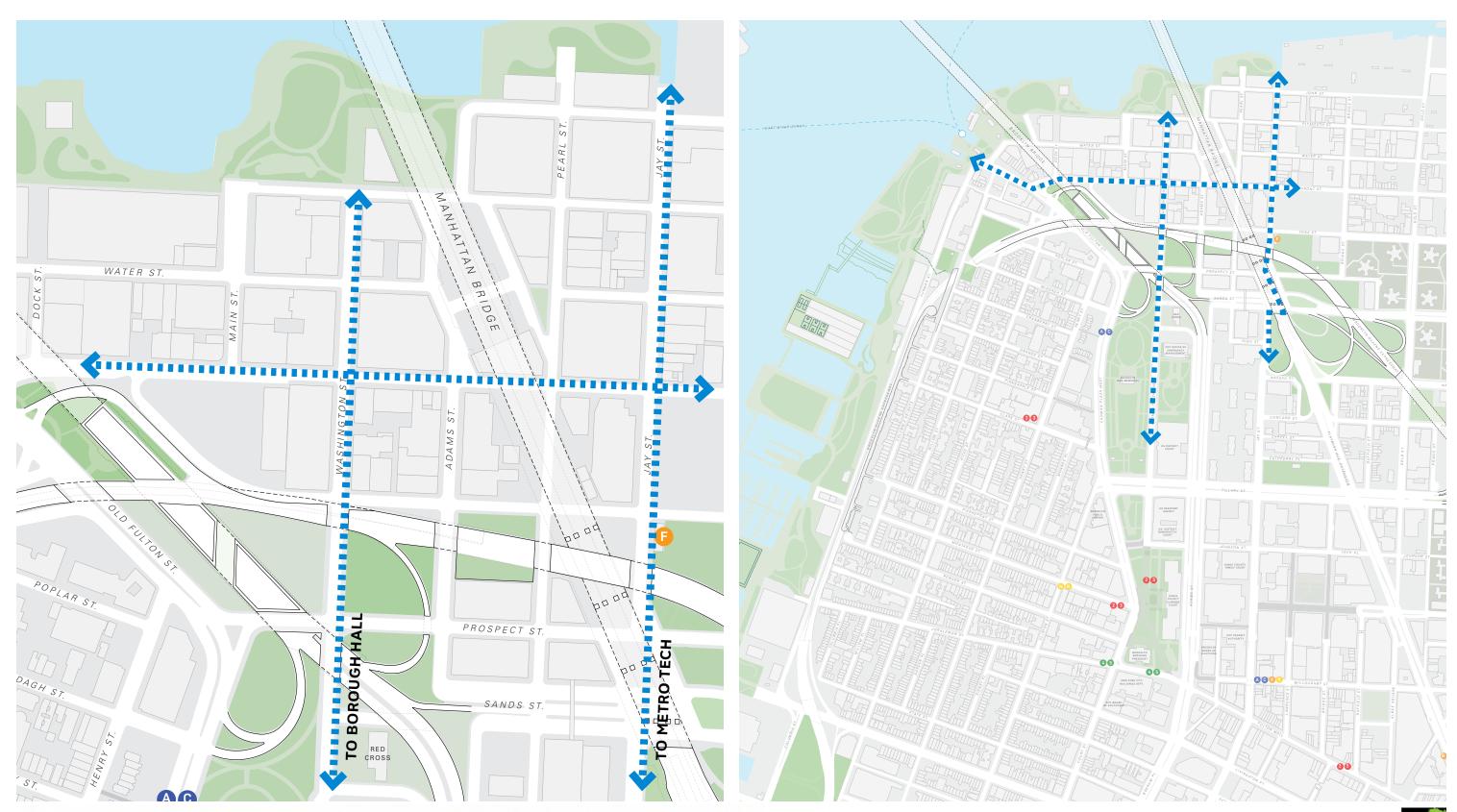
#### **CLUMBER CORNER**

**TYPICAL SECTION** 

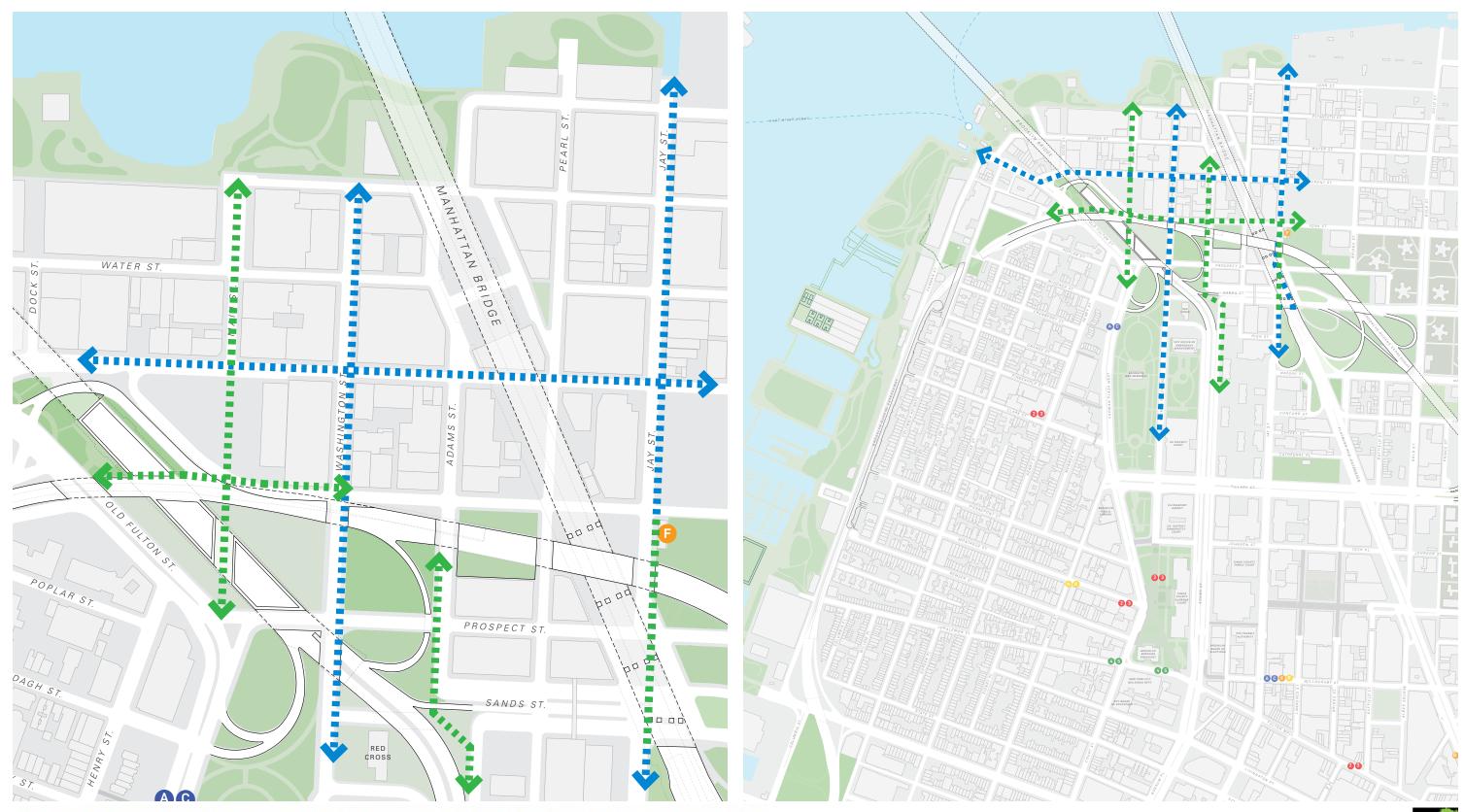




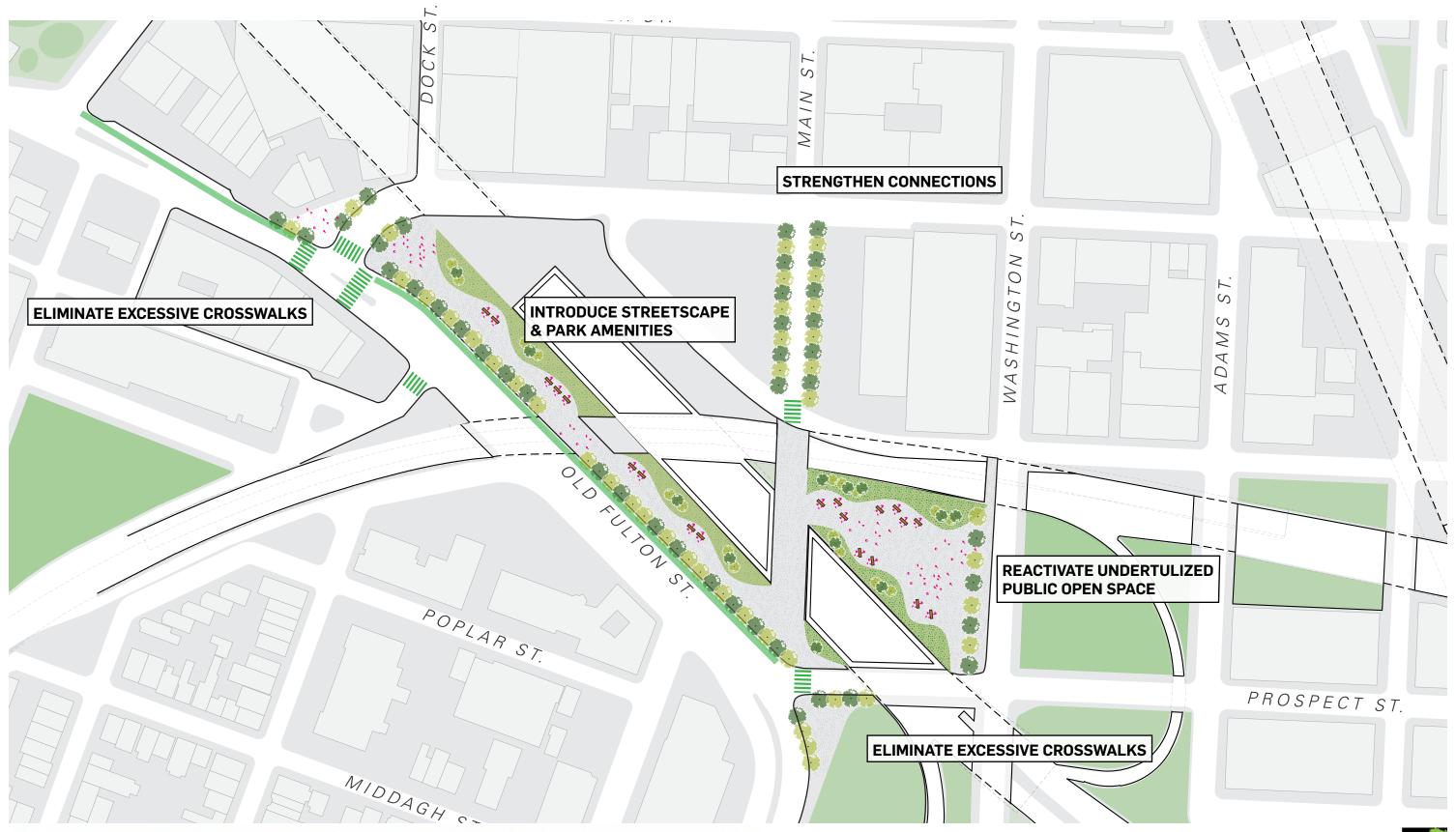
#### **Brooklyn to Manhattan Bridge: Existing**



#### **Brooklyn to Manhattan Bridge: Potential**



#### **Old Fulton St — Opportunities**



### How can we leverage the BQE rehabilitation & interim conditions to create a better connected public realm?

	Design Criteria	Design Actions
1	Promotes pedestrian safety	Upgrade, widen, & connect sidewalks Eliminate excessive ramps & crosswalks
2	Strengthens connections & access – pedestrian, bicycle, vehicular	Connect existing open spaces Connect primary routes of circulation
3	Complements existing assets & programs	Introduce streetscape & park amenities
4	Improves wayfinding	Clarify street grid & focus view corridors
5	Facilitates access to & between public open spaces	Reactivate underutilized public open space Create new nodes for neighborhood gathering Activate street frontages

## Appendix

