



## Corridor Vision

# BQE CENTRAL





# Visioning Goals

**A Corridor-Wide Approach** | The BQE is a vital part of our transportation system and our economy. We can and must immediately start working on a community-driven plan for the safe, modern, resilient roadway we need.



## Urgency & Resiliency

Take action as necessary to ensure that City section remains safe; prioritize sustainable design.



## Equity

Invest in communities along the full BQE corridor, not just higher income City section.



## Fiscal Responsibility

Pursue federal grants; make needed repairs; focus investments on greatest impact.



## Stakeholder Involvement

Work with elected officials and communities to develop BQE vision and move projects forward.

# Who's Involved?



## Community Visioning Council

... Guides the Engagement Process

Representatives from elected official offices, industry, small business organizations, civic and tenant associations, environmental justice and transportation advocates



## Community Partners

... Help Lead Grassroots Engagement

Engagement resources for community based organizations, with meaningful community ties, demonstrated experience in mobilizing their constituencies, and specialty in multilingual capacity

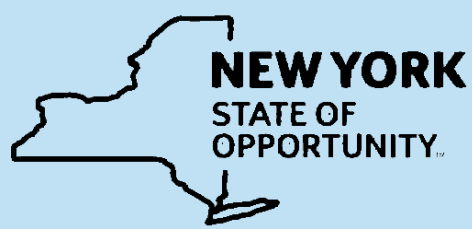


## Topical Working Groups

... Facilitate Focussed Discussions

Subject Matter Experts facilitate discussion around critical issues such as traffic, transportation, and logistics; open space, connectivity, and public realm; environmental justice, accessibility, and equity; and land use and economic development

## Local, State, & Federal Agencies



Department of  
Transportation



U.S. Department  
of Transportation  
Federal Highway  
Administration







# Community Partners

NYC DOT and its consulting team is working with up to 20 Community Partners to lead grassroots engagement, with emphasis on organizations along the BK BQE Corridor with deep community ties and demonstrated experience in mobilizing their constituencies. Groups were chosen with expertise in serving underrepresented communities and constituents whose primary language is not English.



**The Arab American Association of New York**

**Arab American Association of New York**

AAANY provide a range of critical support services to Brooklyn's Arab immigrant, refugee, and Muslim communities through our advocacy programs, women's empowerment and adult literacy programs, immigration legal assistance, and domestic violence support services, civic engagement and community organizing, and youth programming.



**Bay Ridge Community Development Center In.**  
*Community of the Middle Path*

**Bay Ridge Community Development Center**

Bay Ridge Community Development Center's mission is to promote and provide the highest quality activities and services that will contribute to the physical, emotional and social well-being of the community. BRCDC's vision is to enhance the quality of life and to fill the unmet needs through our services, programs and activities.



**Brooklyn Chinese-American Association (BCA)**

Brooklyn Chinese-American Association (BCA) is a community-based not-for-profit human services agency has over thirty-four years of successful experience and expertise in providing Asian immigrants with multi-dialectical and culturally sensitive access services, case management and family services.



**ADVANCING OUR COMMUNITY**

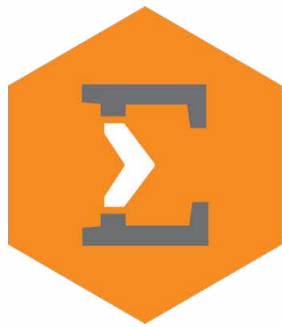
**Chinese-American Planning Council (CPC)**

Our mission is to promote the social and economic empowerment of Chinese American, immigrant, and low-income communities through 50 plus programs including Childcare Services, Youth Services, Language Access, Immigration Services, Benefits Supports, Services for communities with different needs, Older Adult Services, etc.



**El Puente**

El Puente is a community human rights institution that promotes leadership for peace and justice through the engagement of members (youth and adult) in the arts for social change, education, social justice organizing, wellness and environmental advocacy.



**EVERGREEN**  
Your North Brooklyn Business Exchange

**Evergreen Exchange**

Evergreen is a membership organization that champions manufacturing, creative production, and industrial service businesses in North Brooklyn and beyond. We connect businesses with resources and opportunities to create and maintain high quality jobs at all skill levels.



**Fifth Avenue Committee**  
Our Community. Our Future.

**Fifth Avenue Committee**

Our mission is to advance economic, social, and racial justice in New York City through integrated, community-centered affordable housing, grassroots organizing, policy advocacy, and transformative education, training, and services that build the power to shape our community's future.



**Mixteca**

Mixteca's mission is to empower the Mexican and Latin-American immigrants of the New York area by providing them access to services that enhance their quality of life and allow them to reach sustainable social and economic development. We offer a variety of programs and services that respond to the specific needs of immigrant families.



**NORTH BROOKLYN PARKS ALLIANCE**

**North Brooklyn Parks Alliance**

The North Brooklyn Parks Alliance was formed in 2003 as NYC's only district-wide parks conservancy, working with the NYC Department of Parks & Recreation, NYC DOT, NYS DOT, elected officials, and the community to maintain, activate, enhance, and expand local parks, while challenging common perceptions of what defines open space.



**Red Hook Initiative**

Red Hook Initiative has worked to carry out resident-led solutions to local problems and to confront the impacts of racial inequity and decades of disinvestment on our historically under-resourced community. In partnership with community adults, we nurture youth to envision themselves as co-creators of their lives and society.



**Southwest Brooklyn Industrial Development Corporation**

Southwest Brooklyn Industrial Development Corporation (SBIDC) provides advocacy and services to help businesses in the Sunset Park, Red Hook and Gowanus neighborhoods grow and create employment opportunities for local residents, by delivering a wide range of free business services and acting as an advocate for local small businesses.



**St.Nicks Alliance**  
*Where Opportunity Grows*

**St. Nicks Alliance**

St. Nicks Alliance seeks to transform the lives of low- and moderate-income people through employment, education, housing, and health care. As a civic anchor we carry out this mission within the context of building a sustainable community for all people through the arts, environmental advocacy, and urban planning.



**TRANSPORTATION ALTERNATIVES**

**Transportation Alternatives**

Transportation Alternatives (TA) reclaims New York City from cars, transforming our streets into safe, sustainable, and equitable places to walk, bike, take transit, gather, and thrive. TA has led the movement for safe, equitable streets in NYC and works with New Yorkers in every borough to build a future that rises to the needs of our communities.



**UNITED JEWISH ORGANIZATIONS OF WILLIAMSBURG**

**United Jewish Organization of Williamsburg**

The United Jewish Organizations of Williamsburg is the main social service provider in the area offering services to the poor including enrollment in SNAP, Medicaid and health insurance, senior services, housing, and food distributions. We also advocate for community planning needs and many other local issues affecting area residents.



**UPROSE**

As an intergenerational, multi-racial, nationally recognized community organization, UPROSE promotes sustainability and resiliency in the Sunset Park neighborhood through community organizing, advocacy, education, indigenous and youth leadership development, and cultural/artistic expression to ensure meaningful community engagement.



**WECNYC**  
WOMEN'S EMPOWERMENT COALITION OF NYC  
EDUCATE . EMPOWER . ELEVATE

**Women's Empowerment Coalition NYC**

The Women's Empowerment Coalition of NYC builds power among women from diverse communities through dialogue, education, leadership development and social services.



**YEMENI AMERICAN MERCHANTS ASSOCIATION**  
جمعية التجار اليمنيين الأمريكيين  
نُعلم - نُدافع - نرتقي - Educate - Advocate - Elevate

**Yemeni American Merchants Association**

Our mission is to educate and elevate Yemeni American merchants and their families through education, civil rights advocacy, business, and social service support. YAMA serves both Arabic-speaking small business owners and their families by offering a range of social services, educational programs, and advocacy campaigns.





## Engagement Approach

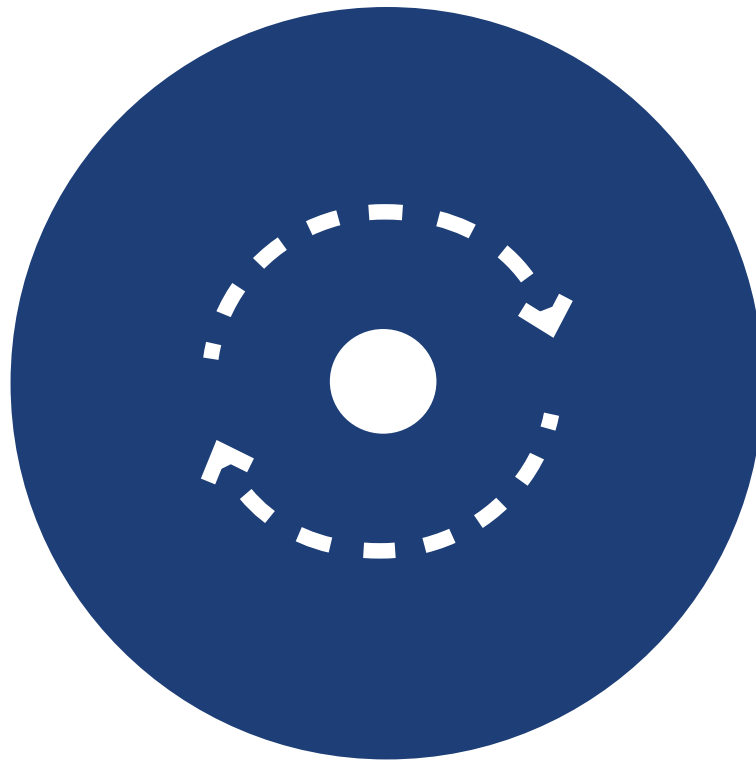
Community engagement will guide Mayor Adams' and DOT's decisions about the future of the full Brooklyn BQE Corridor.



Inclusive

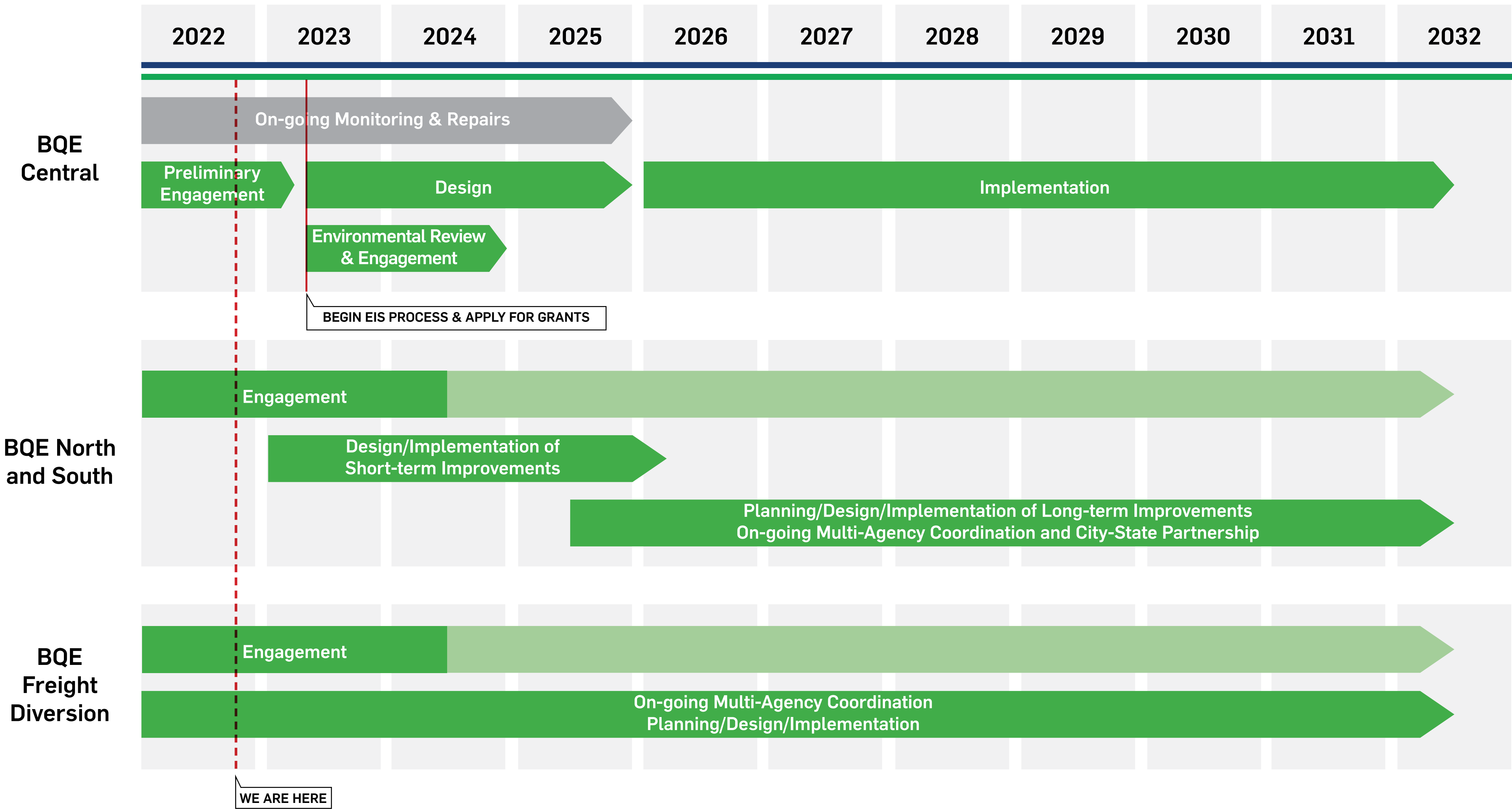


Transparent

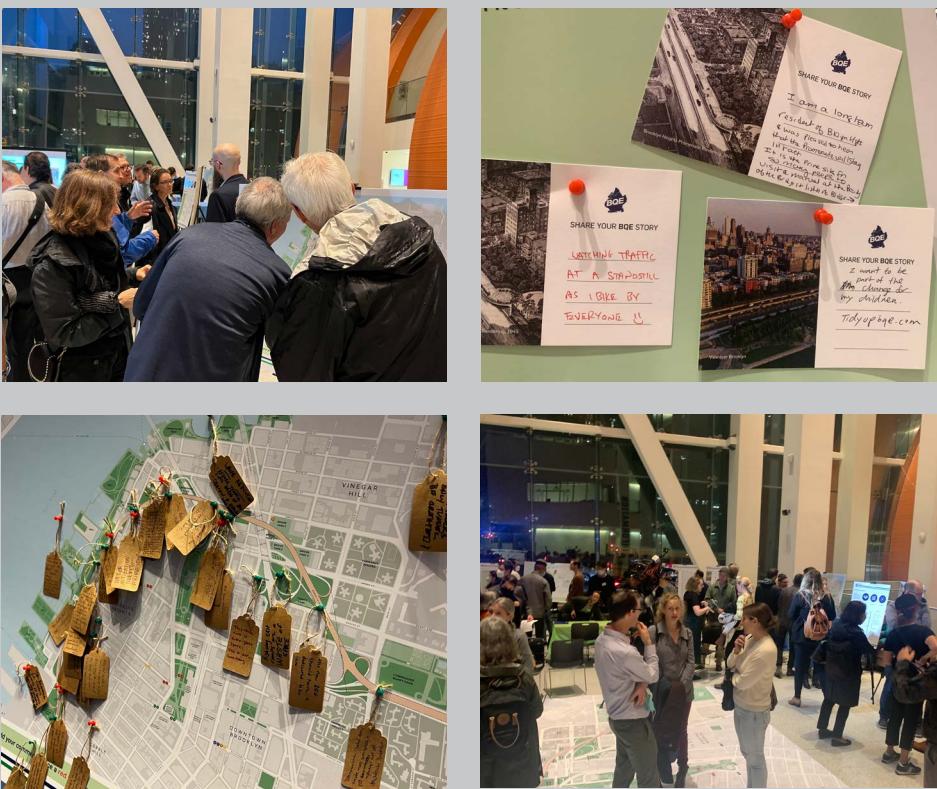


Consistent

## Project Timeline



### BQE Central Workshop 1



Thursday, October 13, 2022

### BQE Central Workshop 2

Feedback on Initial Concepts

In-Person

Tuesday, December 13, 2022  
6:30 PM to 8:30 PM

New York City College of Technology  
285 Jay Street, Brooklyn, NY 11201

Virtual

Thursday, December 15, 2022  
6:30 PM to 8:30 PM

Please register in advance:  
[bit.ly/bqecentral-2](https://bit.ly/bqecentral-2)

### BQE Central Workshop 3

Further Refine Concepts

Virtual

Tuesday, February 28, 2023  
6:30 PM to 8:30 PM

Details coming soon

In-person

Thursday, March 2, 2023  
6:30 PM to 8:30 PM

Details coming soon

### Initiate Environmental Review Process & Apply for Grants

Spring 2023

There will be additional community feedback throughout environmental review.

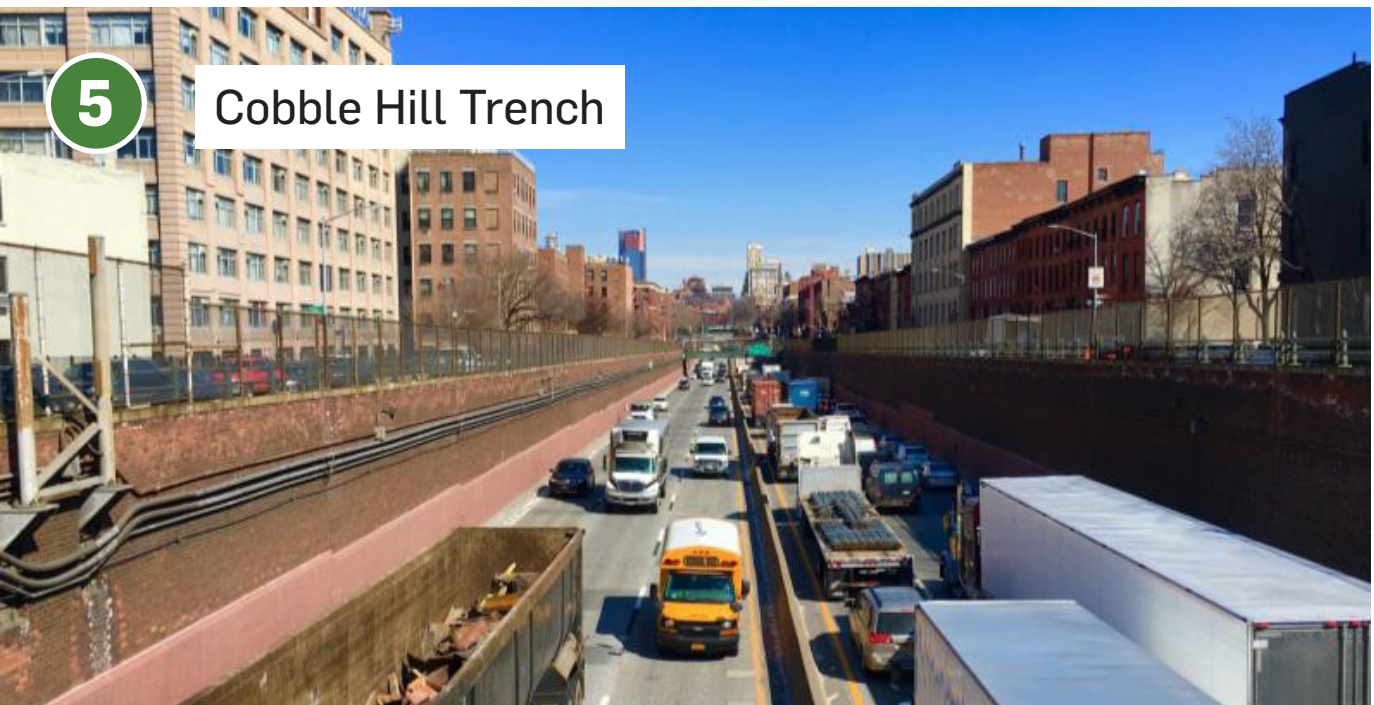




# BQE Corridor Vision: Focus Areas



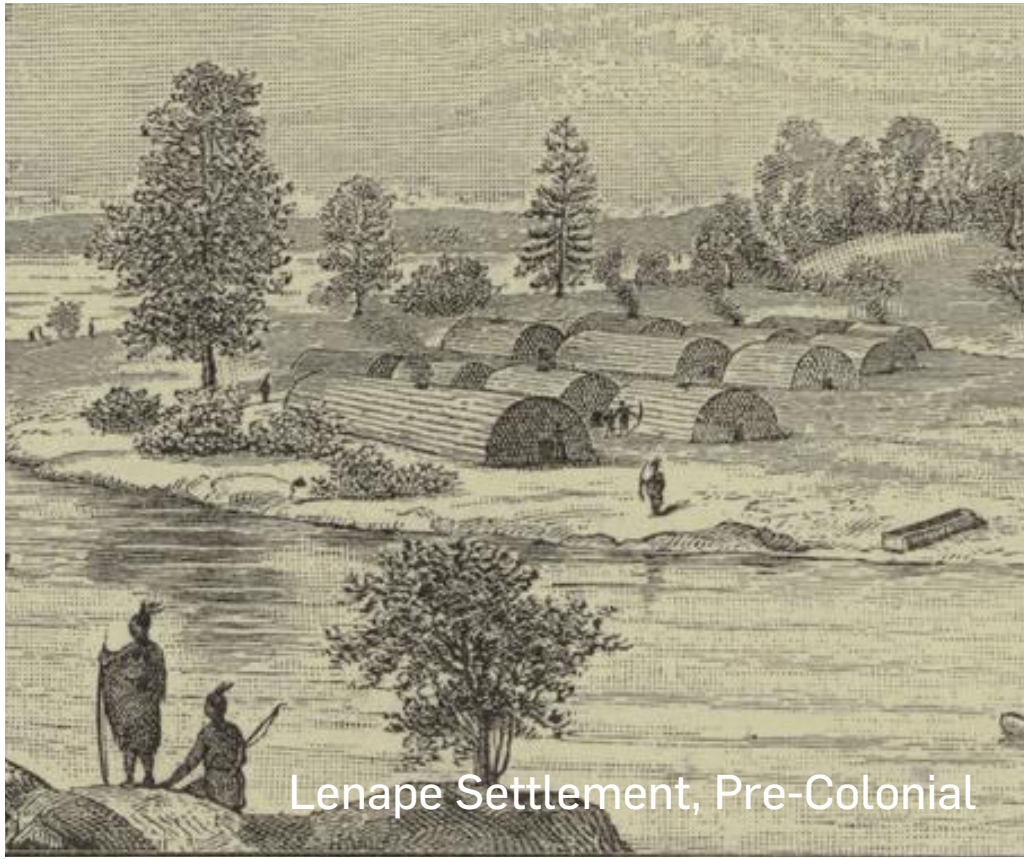
- BQE-North
- BQE-Central
- BQE-South
- City-Owned
- State-Owned







# BQE History: Central Area



Lenape Settlement, Pre-Colonial



Ferry Landing in Breuckelen, 1746



Map of Brooklyn Village, 1816



Brooklyn Heights, 1852



Litchfield's Solution to Brooklyn, 1931



Construction of Cadman Plaza Park, 1936

## Glacial Topography

In its retreat to the north, the Laurentide Ice Sheet cleaves current-day Brooklyn into two halves: a hilly Manhattan-oriented area to the north, and a broad, flat landscape to the south.

## Indigenous Habitation

Brooklyn was originally inhabited by a group of American Indians who called themselves the Lenape, which means “the People.” The area now known as Brooklyn Heights was ‘Ihpetonga’ by the Lenape, which means ‘High Sandy Hill’.

## “Breuckelen”

The Dutch settle in Manhattan in the early 1600s, with limited settlement in Brooklyn along the waterfront.

Modern-day Brooklyn Heights becomes the ferry landing site for a growing rural town variously called “Breuckelen” or “Brookland”.

By the time of the American Revolution, the waterfront was beginning to industrialize, and a few houses had been built atop the bluff.

## Brooklyn: Reshaping the Heights

Robert Fulton launches the Nassau, a ferry boat from Manhattan to Brooklyn, helping Brooklyn become one of the first “commuter suburbs.”

Brothers John Middagh Hicks and Jacob Middagh Hicks begin developing land on the northern section of The Heights naming streets after their family (Middagh, Hicks) and after fruits, such as Pineapple and Orange.

Hezekiah Pierrepont hires a surveyor to lay out a grid plan for Brooklyn Heights similar to John Randel Jr.’s plan for Manhattan.

On May 24, 1883, the Brooklyn Bridge opens, becoming the first structure to physically connect Brooklyn and New York City.

In 1908, the Interborough Rapid Transit Company opens Brooklyn’s first underground subway station at Borough Hall Station in Brooklyn Heights.

Early twentieth century urbanists begin to propose developments marrying architecture and transportation into infrastructure for the future. Proposals include Edgar Chambless’ “Roadtown” and Litchfield’s Solution.

The City of New York decides to demolish the Sands Street Elevated Terminal and redevelop the vacant land into Cadman Plaza Park.





## BQE History: Central Area



Montague Street in Brooklyn Heights, 1939



Triple Cantilever, 1945



Construction of the BQE, 1948



The Promenade, 1950



BQE Triple Cantilever, 1955



Brooklyn Heights Promenade, 1971

### Planning the BQE

The Regional Plan Association recommends the construction of a link known as the “Brooklyn-Queens Connecting Highway” between the newly proposed Gowanus Parkway and the Triborough Bridge.

In 1940, New York City arterial coordinator Robert Moses recommends that the BQE (initially known as the Brooklyn-Queens Connecting Highway) “should be filled immediately as an aid to the national defense.”

The Brooklyn Eagle issue of September 19, 1942 reports that the BQE route would bisect the neighborhood with the front-page headline: “Plan for Express Highway Is Shocking.”

Members of the Brooklyn Heights Association develop a “Citizen Alternative Plan” that proposed a three-decked structure along the Brooklyn Heights waterfront, topped by an extension of residents’ private gardens. Moses agrees to the “Citizen Alternative Plan” on the condition that the park and promenade would be open to the public.

### Construction of the BQE

Inspired by the tiered topography of the Villa d’Este at Tivoli, the engineering firm Andrews & Clark draft a plan for a cantilevered, three-tier structure to carry the Brooklyn-Queens Expressway beneath Brooklyn Heights, featuring a public promenade at the highest tier.

Construction of the BQE begins in fall of 1946, demolishing many buildings in its path through North Heights.

The Promenade officially opens to the public on October 7, 1950.

Nearby, the Farragut Houses, three superblocks of residential apartments, are completed.

In 1954, the triple cantilevered section opens in entirety when the lower highway accepts traffic, allowing motorists to view the Lower Manhattan skyline and New York Harbor, while residents enjoy the Promenade above.

The final section of the BQE in Brooklyn is completed along the Brooklyn Navy Yards in 1960.

On November 23, 1965, New York Landmarks Preservation Commission designates Brooklyn Heights as the city’s first historic district. Months later, Brooklyn Heights becomes a National Landmark Historic District, in part due to the Promenade, which is listed in the National Register of Historic Places.

The city enacts a “Special Scenic District” that creates a protected view from the edge of the Promenade to a line midway in the East River.





# BQE History: Central Area



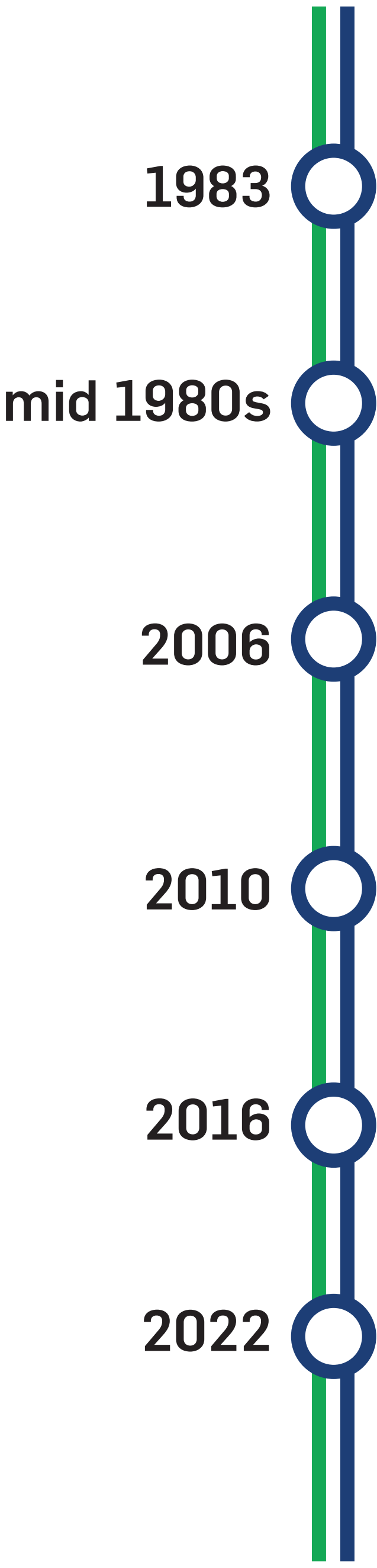
BQE, 1999



Brooklyn Bridge Park, 2018



BQE Town Hall, 2019



## Reclaiming the Waterfront

The Port Authority seeks input from local community leaders to transform the vacant land between Piers 1-6, into what is now Brooklyn Bridge Park.

Starting in the mid-1980s, the Brooklyn-Queens Expressway begins a rehabilitation effort to match Interstate standards.

The New York State Department of Transportation convenes a Design and Construction Workshop to begin a rebuilding and redesigning process for the triple-cantilever section of the BQE.

Pier 1, the first official section of the Brooklyn Bridge Park, opens to the public at a ribbon cutting ceremony. The nine-acre site featured vast green lawns, a playground, and a spacious promenade along the river.

The New York City Department of Transportation initiates the BQE Triple Cantilever Rehabilitation Project.

Mayor Adams announces public engagement process to accelerate long-term fix for the BQE and reconnect communities throughout Brooklyn corridor.



Aerial of Brooklyn Heights, 1924



Aerial of Brooklyn Heights, 1951



Aerial of Brooklyn Heights, 1996



Aerial of Brooklyn Heights, 2018



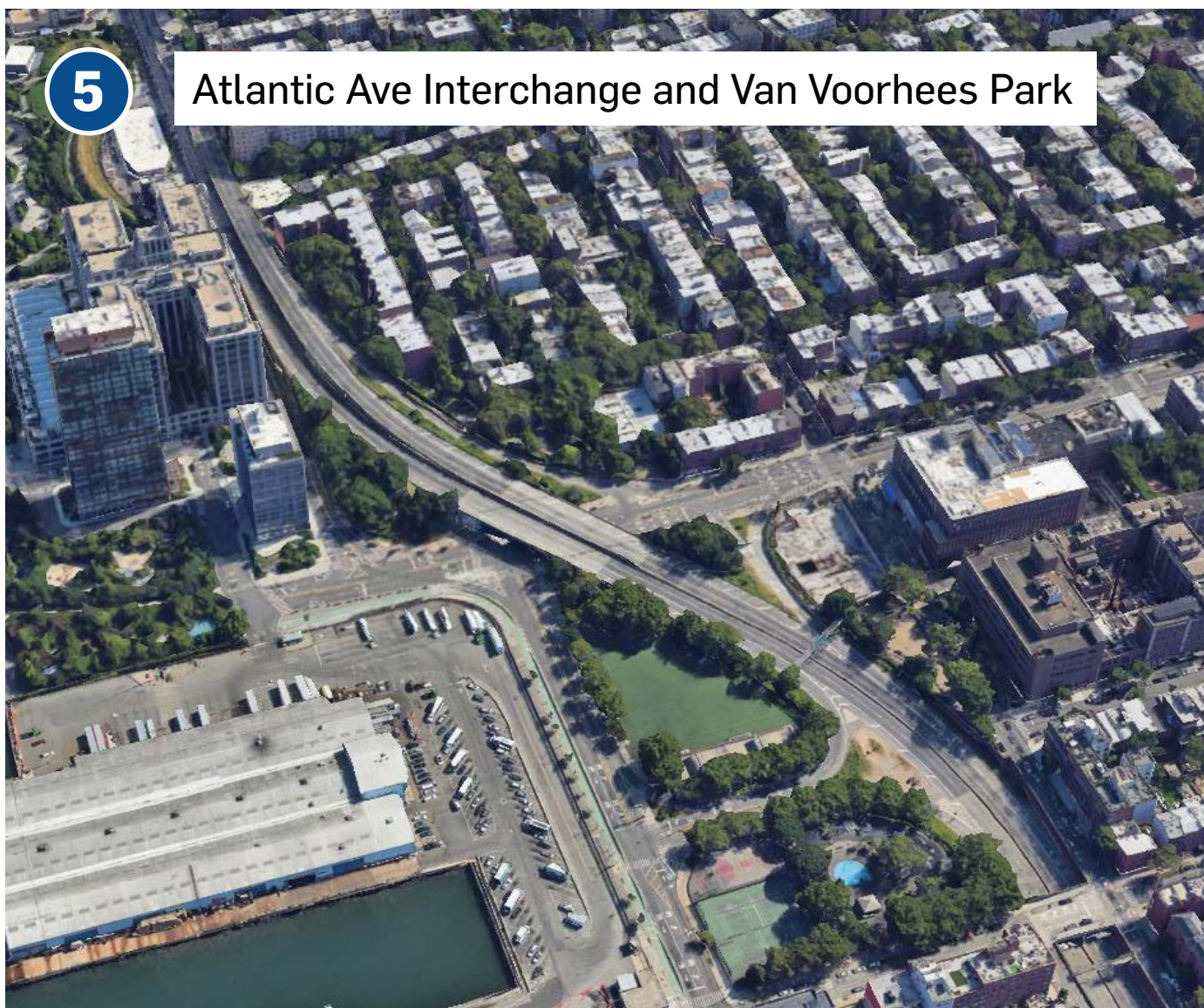
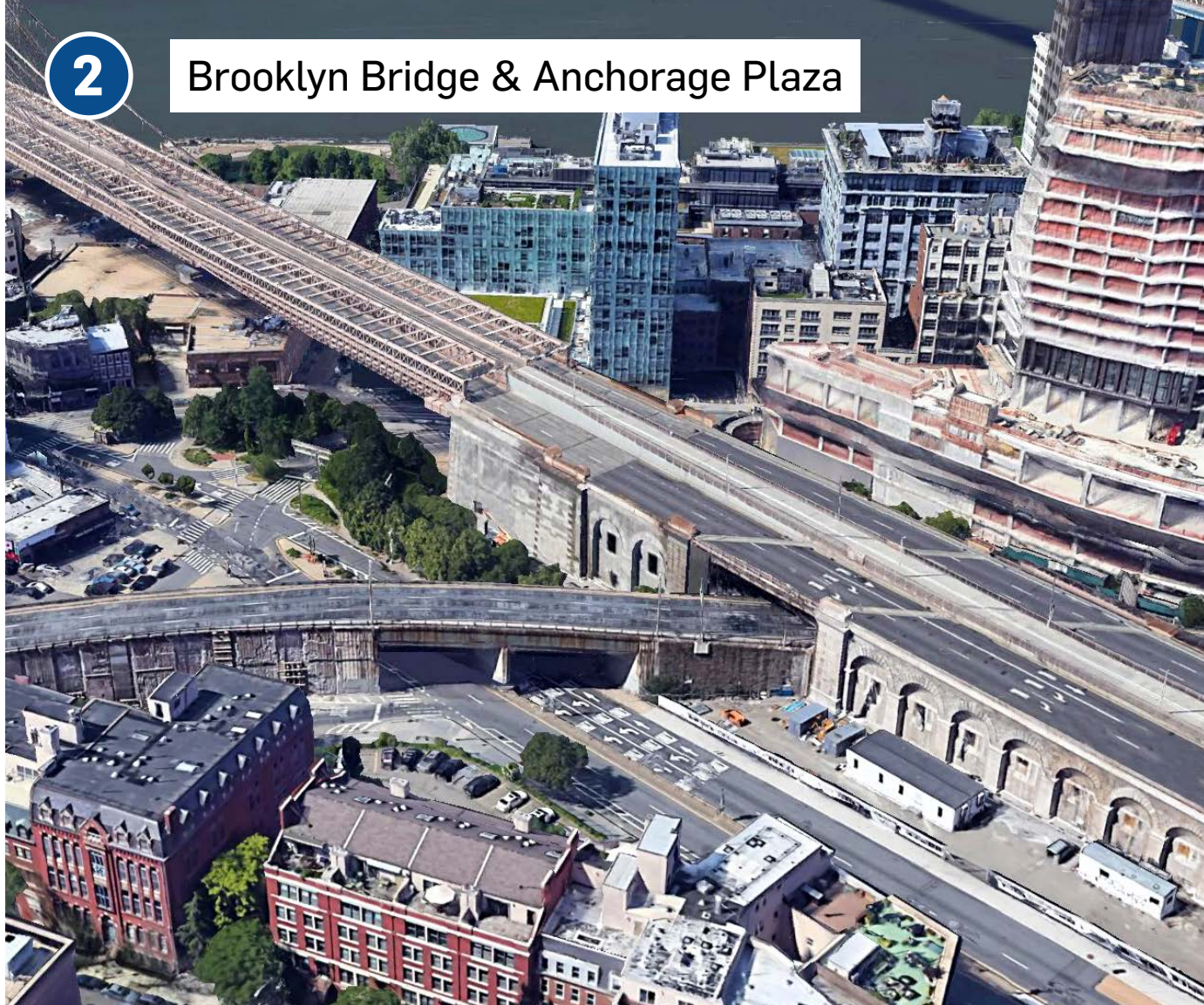


# BQE Central Extents



## Focus Areas

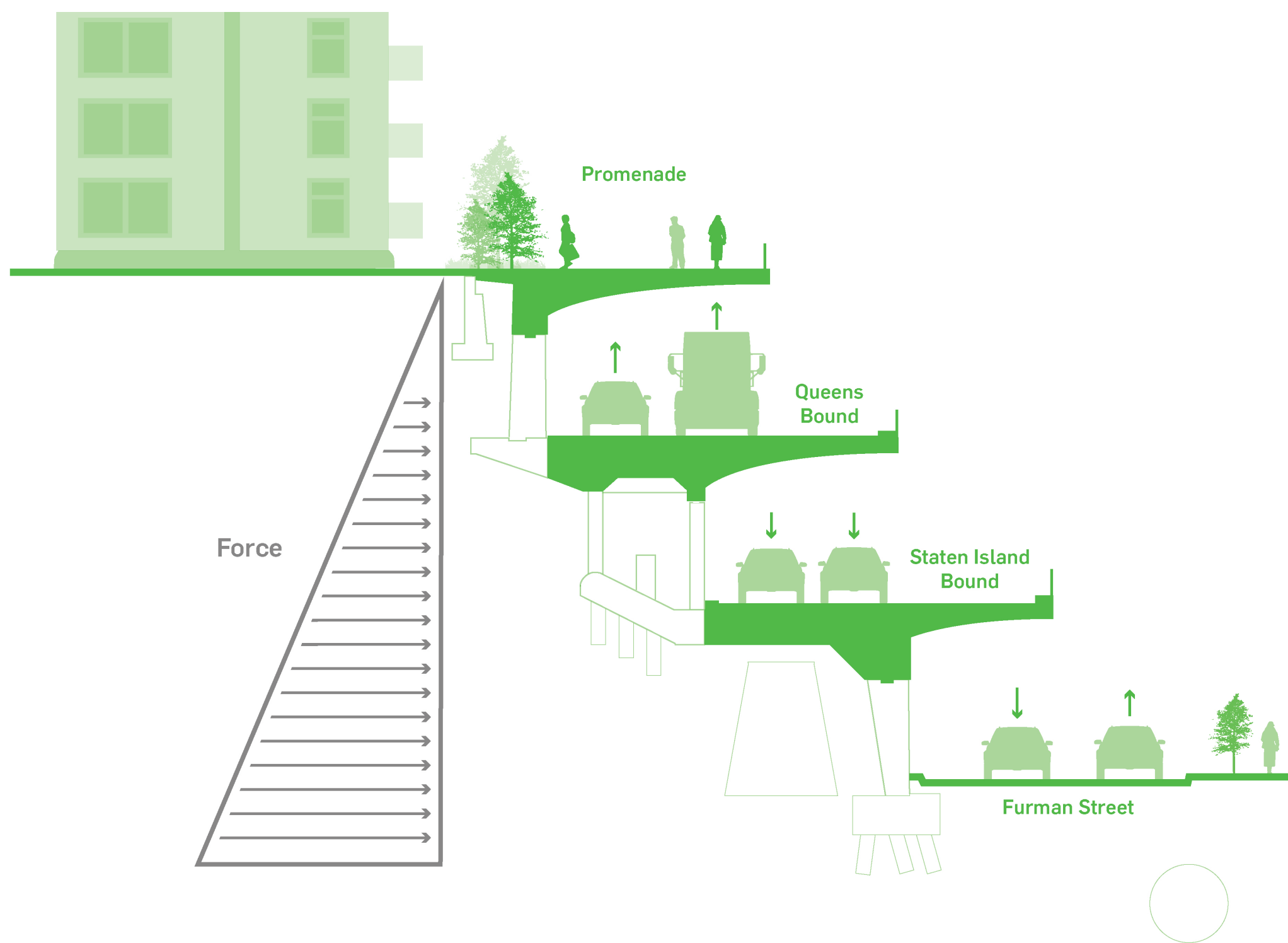
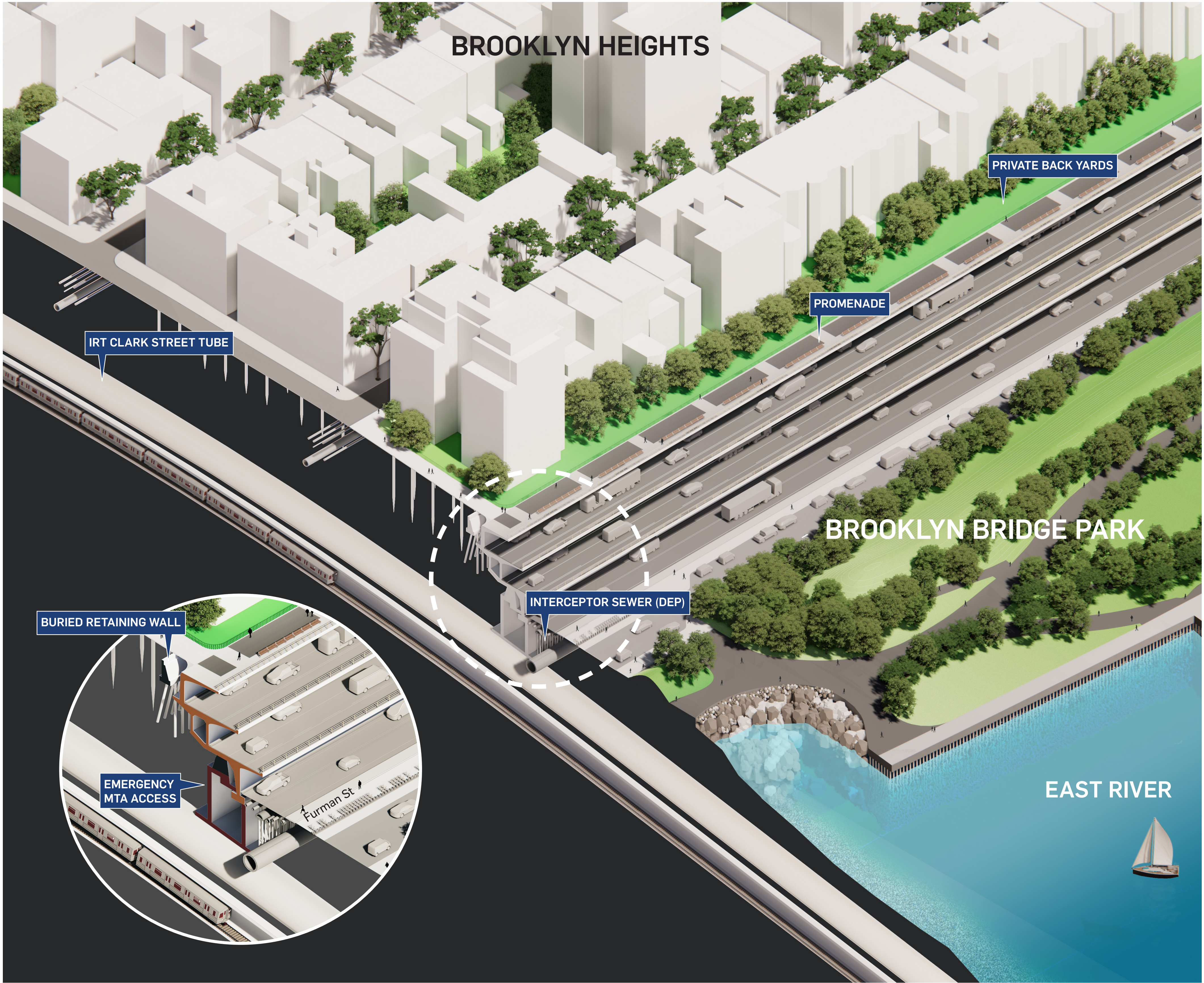
To further study BQE Central, we are zooming into five key focus areas.







# Triple Cantilever: An Engineering Marvel



## Triple Cantilever

A unique cantilever structure constructed into the bluffs of Brooklyn Heights during the 1940s, the Triple Cantilever elegantly masks a web of utilities, sub-grade infrastructure and retaining walls that support one of New York City's most critical arteries for traffic and one of its most famous promenades for people. As NYC DOT investigates potential strategies for rehabilitating the BQE, understanding the existing conditions beneath the BQE, from sewers and subways to impacts to nearby properties and streets, will be critical in guiding a smart, effective, and long-term solution. The accompanying diagram illustrates how the infrastructure behind the Triple Cantilever and beneath Furman Street ties into the fabric of the surrounding neighborhood.





# Traffic & Freight

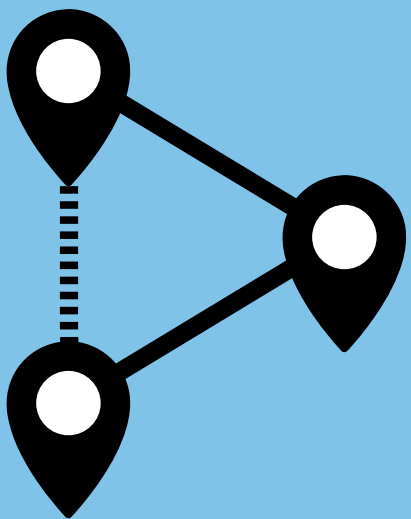
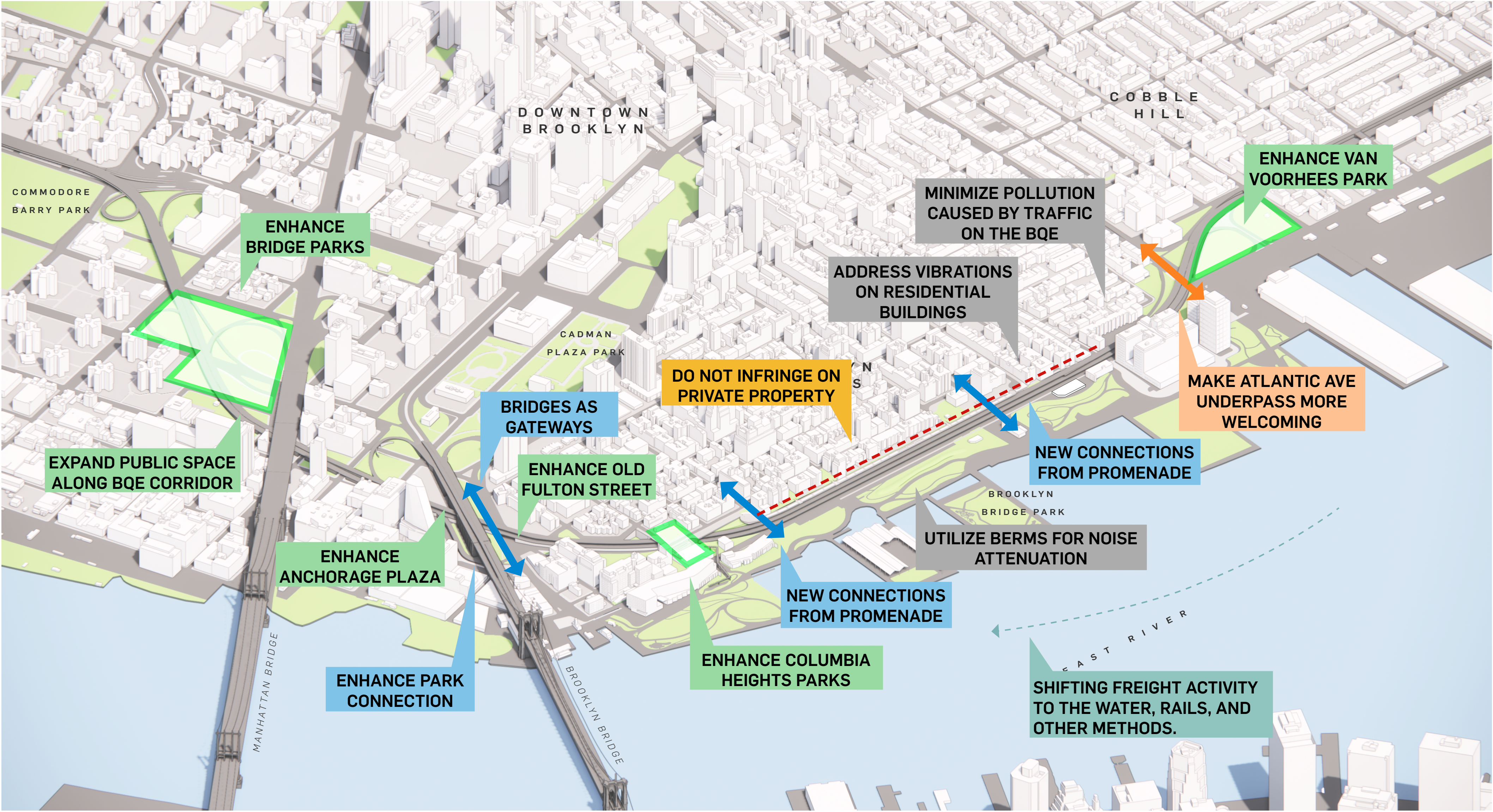


As the only interstate highway in Brooklyn, the BQE is a key piece of the roadway and freight network of New York. Even if you personally don't use the BQE, chances are most of the things you buy do.





# Some of What We've Heard



## Community Connections

**Facilitate new connections and access points**, such as from the Brooklyn and Manhattan Bridges, and Brooklyn Heights and Dumbo to Brooklyn Bridge Park.

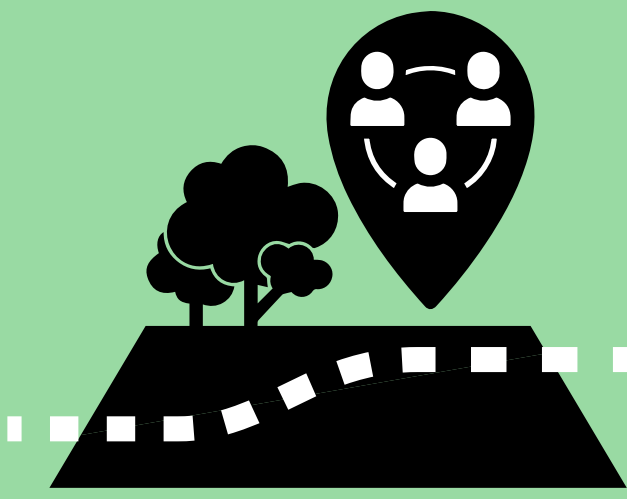
**Focus on reducing community impacts**, and talk with the community about trade-offs between shorter, more extensive community impacts, versus more prolonged, smaller ones.



## Pedestrian and Cyclist Safety

**Explore ways to increase and improve mobility and reduce vehicular reliance**, including through expanding cycling, pedestrian access, and public transit options.

**Improve the Atlantic Avenue BQE underpass and surrounding area**, as well as the northern entrance to Brooklyn Bridge Park, including around Old Fulton.



## Open Spaces and Public Amenities

**Invest in and enhance nearby parks and open spaces**, such as improvements at Van Voorhees Park, Adam Yauch Park, the Promenade, the Fruit Street sitting area, Harry Chapin Playground, and Hillside Dog Run.

**Centralize equity, sustainability, and resiliency** in the planning process, recognizing that historic investment along the full BQE has not been equitable or accessible to all.

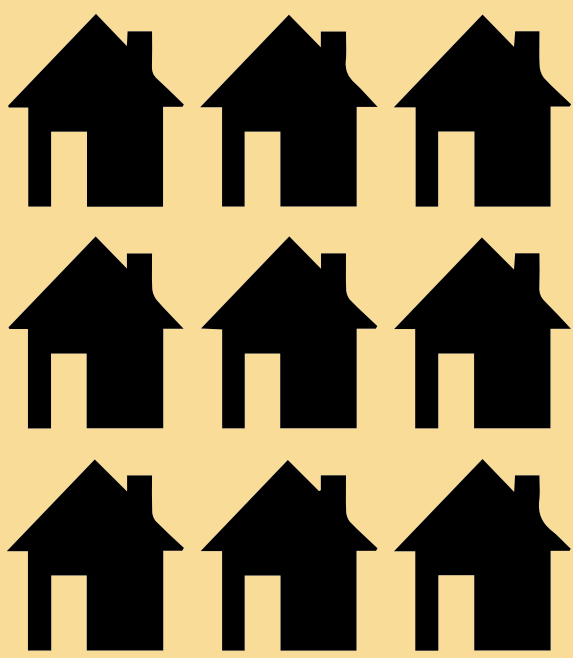


## Freight Activity

**Reduce reliance on trucks and their impacts**, including by shifting freight activity to the water, rails, and other methods.

**Explore solutions like making the BQE truck-only, tolling, and other demand management tools.**

**Move towards smaller trucks, and expand enforcement**, including through continued weigh-in-motion implementation.



## Impacts on Private Property

Ensure any plans **minimize impacts on local residences**, and **do not infringe on private property**.

Consider the opportunity to **utilize land formerly occupied by the BQE for affordable and/or senior housing, community centers, or other community benefits**, while balancing concerns about overdevelopment.



## Noise Pollution

**Focus on noise mitigation during construction and permanently.**

**Address vibrations from the BQE on residential buildings.**

These comments reflect some of the main feedback themes received at previous engagement events, including an in-person engagement session on Thursday, October 13, and a virtual engagement session on Tuesday, October 18.





# What Should be Considered?

The design team reviewed a range of considerations that have helped shape our approach. For each of these considerations, we determined whether something was worth further exploring or could be resolved in design (in blue), needed further study and analysis (orange), or should be avoided if possible (in red). Very few of these considerations were considered absolute limitations, and many of the items in red were explored and studied for feasibility in detail during this process to fully investigate potential opportunities.

## Connections



Brooklyn Bridge Park Connections



Designs have explored opportunities to tie into the existing berms and rethink the current parking lot along Furman Street, but not adversely impact the current design of the park itself. The team also looked at opportunities at Old Fulton Street and Atlantic Avenue to create a safer and more welcoming gateway to the waterfront and Brooklyn Bridge Park.



Atlantic Avenue Interchange



The design team is exploring opportunities to enhance the Atlantic Avenue interchange, both to enhance safety for pedestrians and bikes around existing ramps and streets and to improve existing open spaces like Van Voorhees Park around the crossing.



Brooklyn Bridge Surface Connections



The design team is exploring a variety of ideas and approaches that would enhance connectivity and open space in the vicinity of the Brooklyn Bridge. This included the potential closure of on and off ramps from the Bridge to the BQE, pedestrian safety and placemaking improvements at Anchorage Plaza and Clumber Corner, and a new gateway and bridge design at Old Fulton Street.



Manhattan Bridge to BQE



The design team studied opportunities to create more direct connections to the Manhattan Bridge, including a direct link from the BQE to the Manhattan Bridge that would alleviate local truck traffic in DUMBO and Brooklyn Heights and potential new bike connections to the Manhattan Bridge through Trinity Park.

## Property Considerations



Impacts to Private Property



While abutting properties will have construction in close proximity, the city does not plan on impacting or taking private property as part of this process, with the exception of one portion of a structure that is built into the highway itself at 25 Joralemon Street.



Impacts to Public Property



In exploring options for tunnels, in tandem with other potential open space and connectivity improvements, the team studied a range of design options that could impact public property, including existing parks, streets, and open spaces. This includes potential impacts to Furman Street and enhancements to existing NYC Parks properties along the BQE, many of which have seen limited investment.



DEP Interceptor Sewer



DEP currently has no plans to move interceptor sewer running below Furman Street, but the design team studied concepts that would potentially have access implications and considered sections that would move the roadway below Furman Street. The City does not consider moving the interceptor sewer a prudent approach, but did not rule out impacts as a design consideration. This was analyzed during the design process.



MTA Facilities

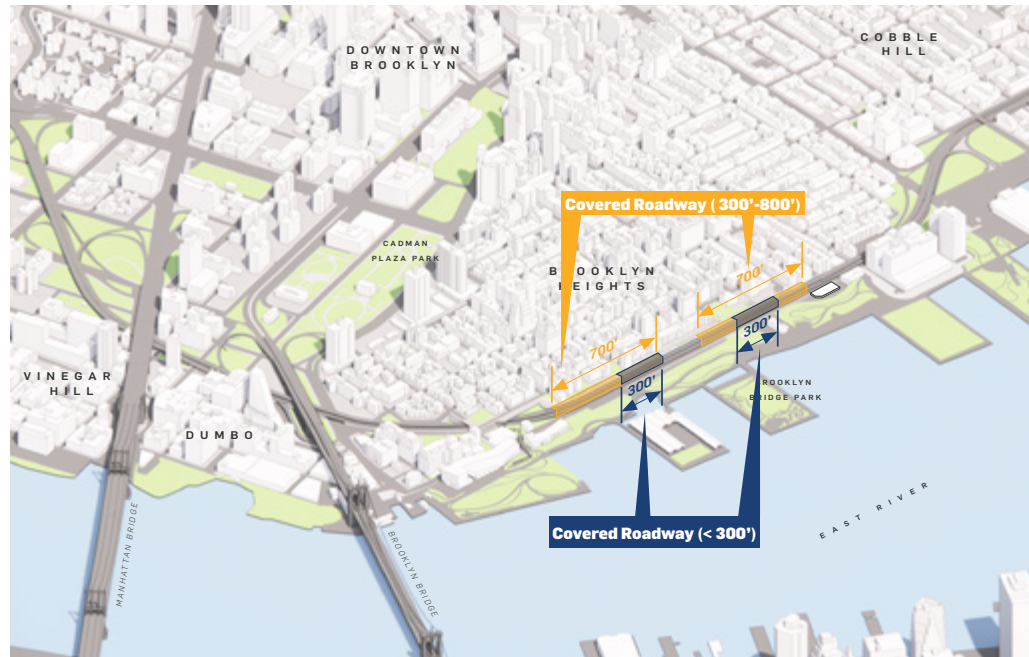


Moving MTA structures, such as existing substations and fan plants or rebuilding subway tubes, is not being pursued. MTA does not have plans to replace these facilities. Moving MTA infrastructure would negatively impact the overall timeline and budget of the project long-term, including negative impacts to subway service.

## Technical Considerations



Tunnels and Open Space Connections

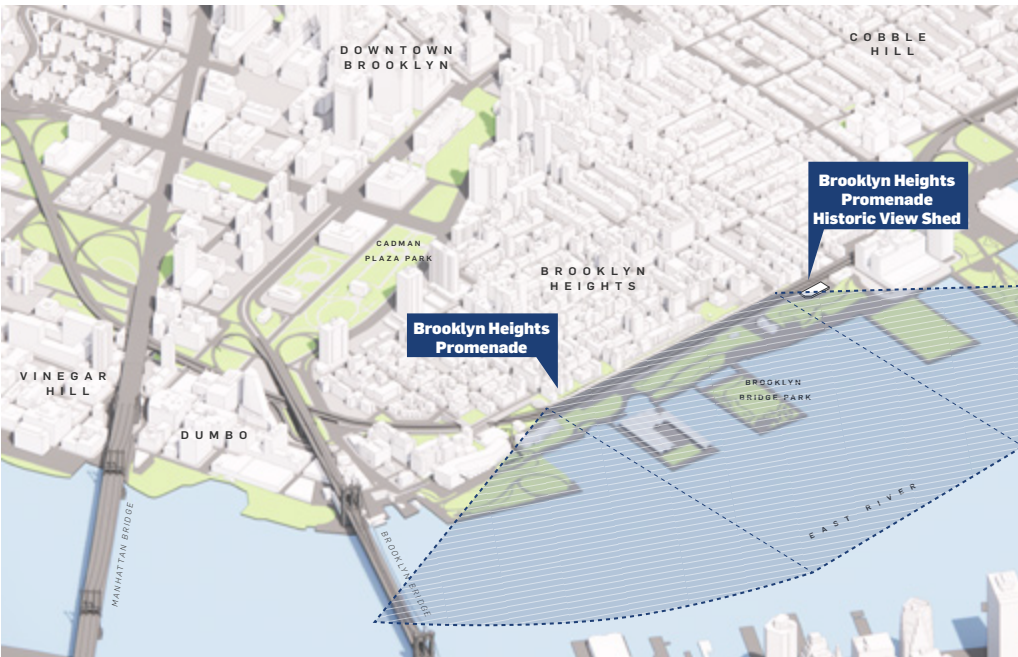


The design team studied a variety of different tunnel options, from shorter landscape bridges of 300' and under to tunnels of up to 800'.

- Tunnels are typically defined by three categories.
- Category 1 (under 300') requires no ventilation.
  - Category 2 (300'- 800') requires further analysis for fire, life, and safety considerations. Designs can explore one or more short tunnels over the highway, which is the basis of our design studies.
  - Category 3 (over 800') requires ventilation structures. These were studied by the engineering team, but are not recommended based on their overall complexity, fire, life and safety requirements, and engineering constraints at 360 Furman and Columbia Heights that would limit their overall impact.



Promenade Configuration & View Shed



The Promenade is viewed as a critical historic part of the neighborhood and something that people have cherished memories of in its current configuration. The design team explored opportunities to enhance the promenade, but is not looking at concepts that would significantly disrupt its view shed or totally alter the experience of walking along the promenade, such as creating exposed structure along its edge.



Fully or Partially Replace Retaining Wall



Replacement of the existing wall structure could help minimize the footprint of the BQE, mitigate issues of noise and vibration, and lengthen the lifespan of the structure. A partial replacement would not free up any footprint and would not mitigate noise and vibration to the same extent, but construction would likely have less of a community impact. Both partial and full replacement alternatives were explored in the design process.



Roadway Widths & Configurations



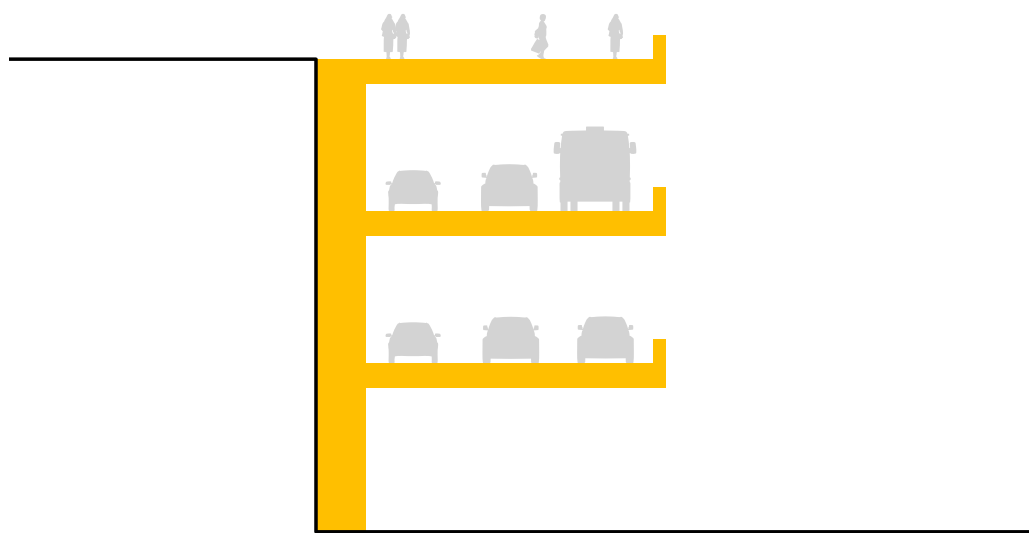
Design concepts explored a three-lane configuration, but strive to minimize the overall footprint of the highway. Whereas a typical interstate highway with three lanes would be 50' or more, a narrower structure would be feasible along constrained sections of the BQE. Maintaining two-lane in the final highway configuration would mean communities adjacent to BQE Central would continue to see increased truck traffic on local roads.





# Triple Cantilever | Reviewed Structural Types

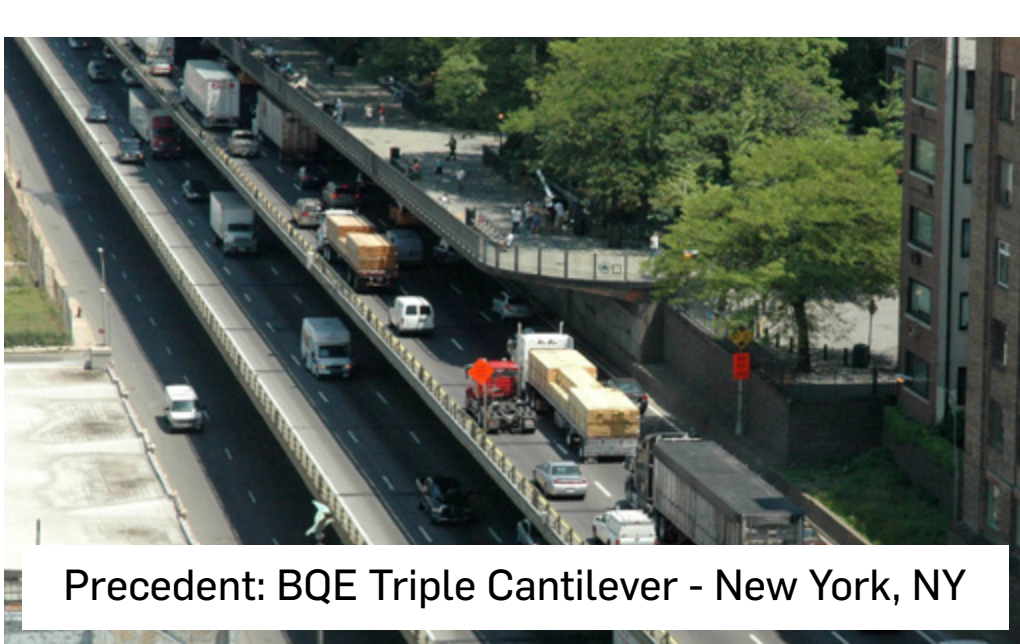
## Triple Cantilever (Existing)



Triple Cantilever Structure

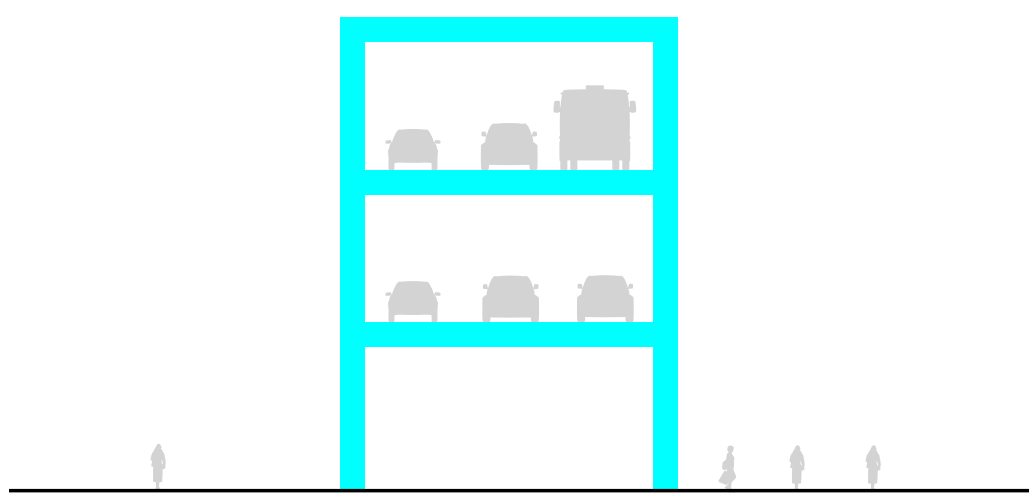


Roadway Structure



Precedent: BQE Triple Cantilever - New York, NY

## Stacked Above Street Level



Bi-Level Above Street Level Structure

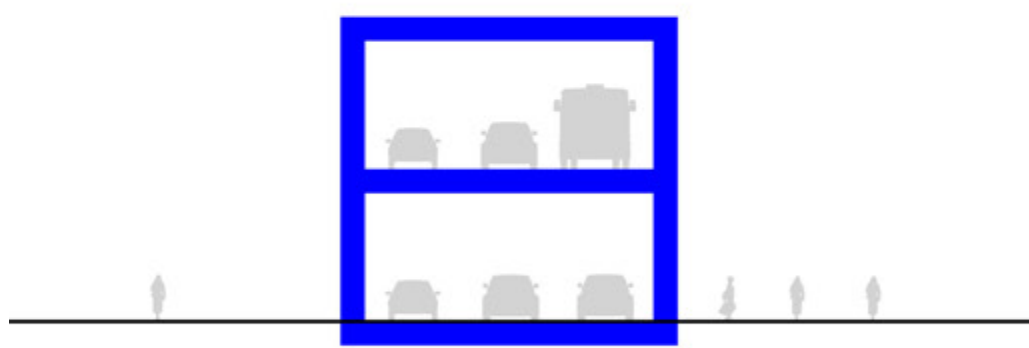


Roadway Structure



Precedent: St. Joseph Valley Parkway - Missouri

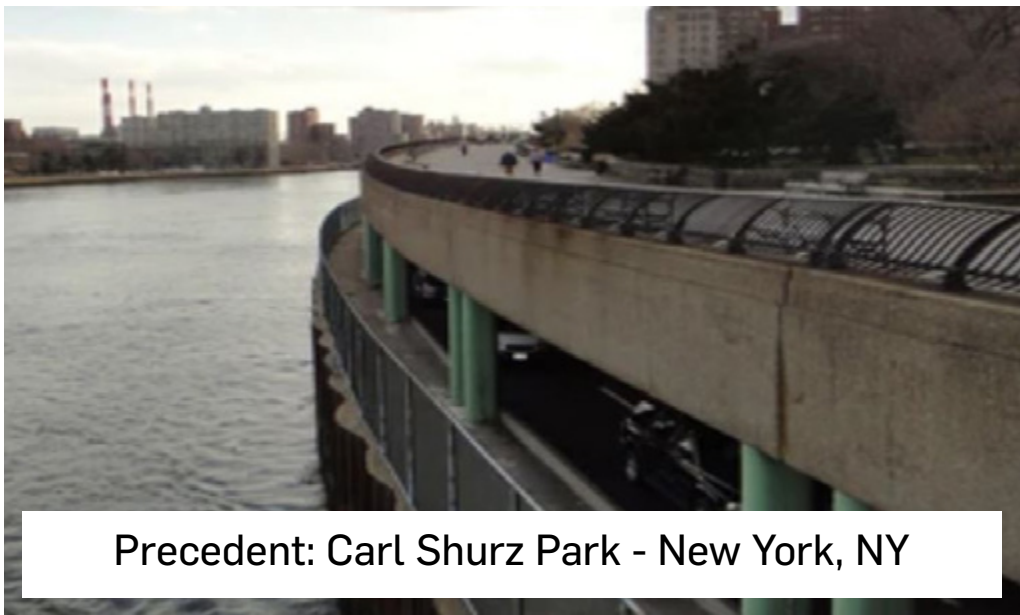
## Stacked At Street Level



Bi-Level At Street Level Structure



Roadway Structure



Precedent: Carl Shurz Park - New York, NY

## Flat Above Street Level



Single Level Above Street Level Structure



Roadway Structure



Precedent: FDR Drive - New York, NY

## Flat At Street Level



Single Level At Street Level Structure

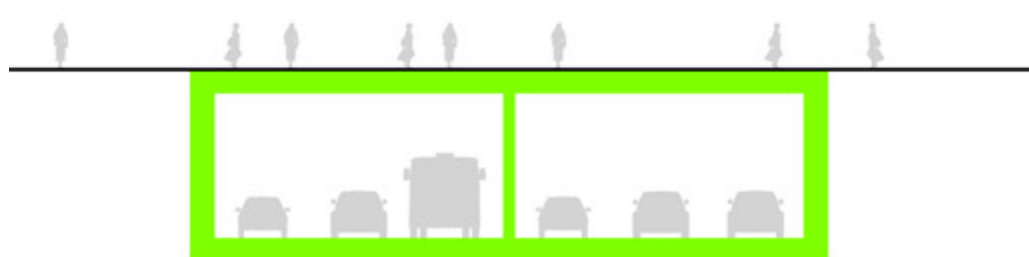


Roadway Structure



Precedent: The Gateway Arch - St. Louis, MO

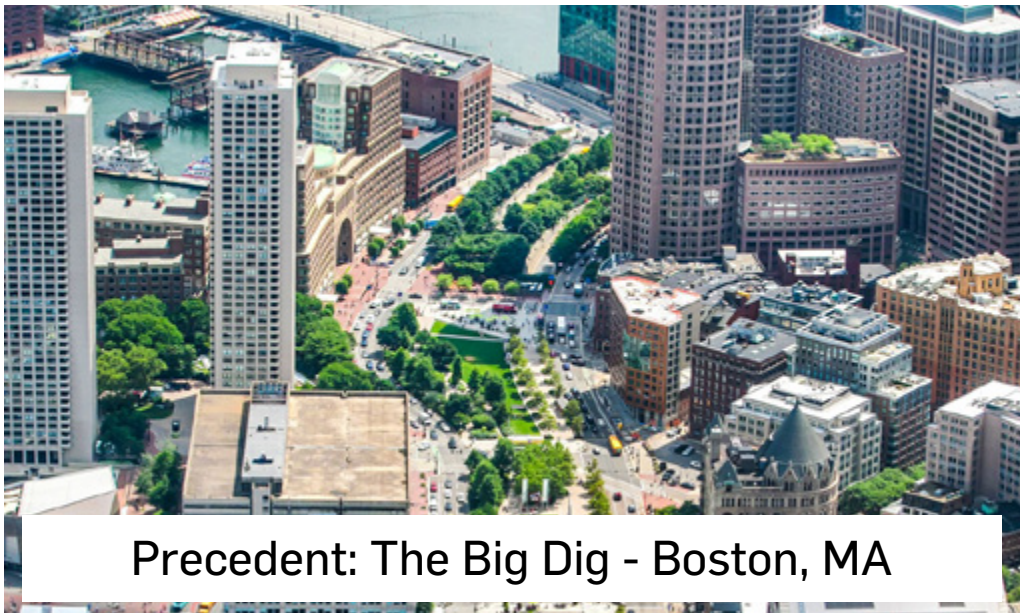
## Flat Below Street Level



Single Level Below Street Level Structure



Roadway Structure



Precedent: The Big Dig - Boston, MA





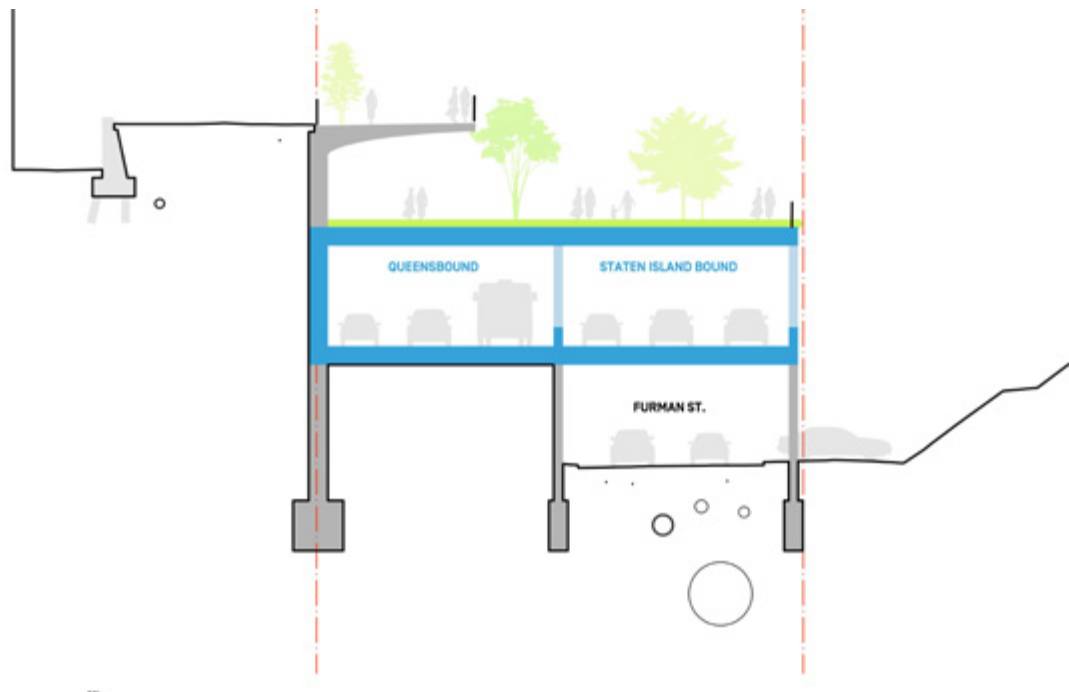
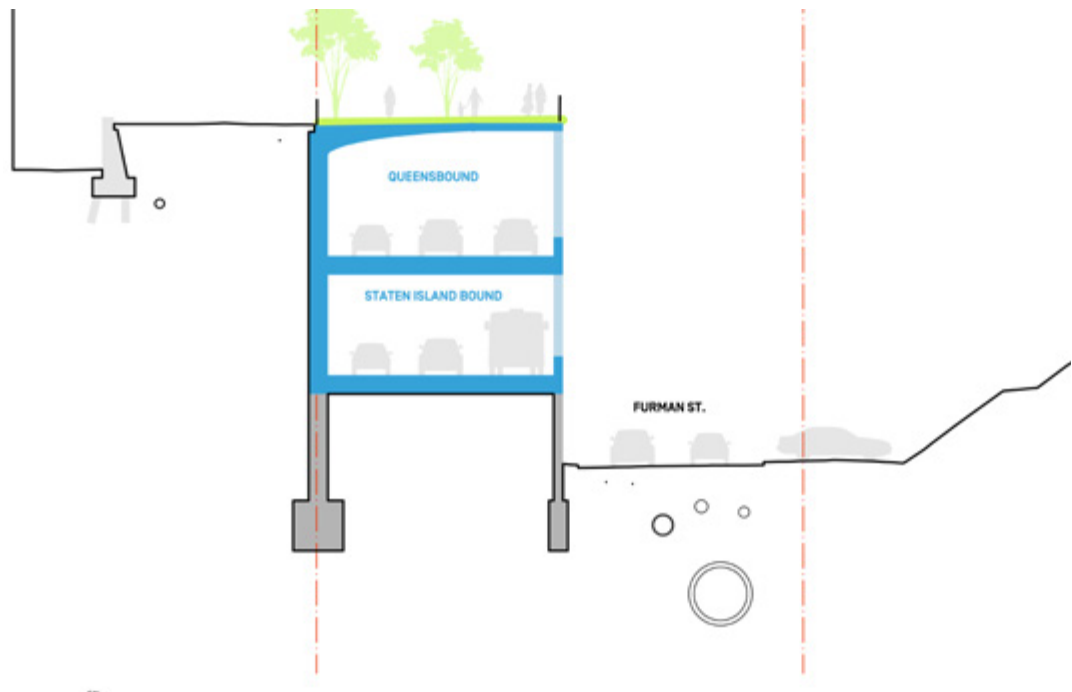
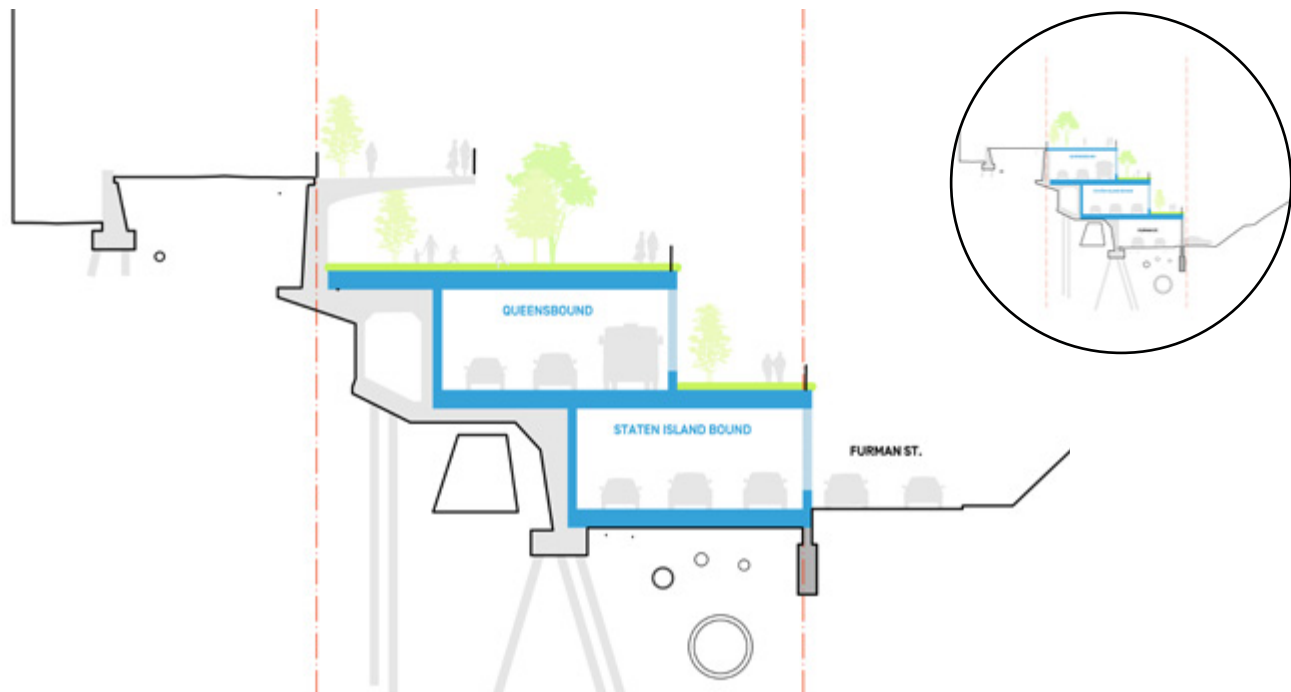
# Triple Cantilever | Explored Options

## The Terraces

## The Lookout

## The Stoop

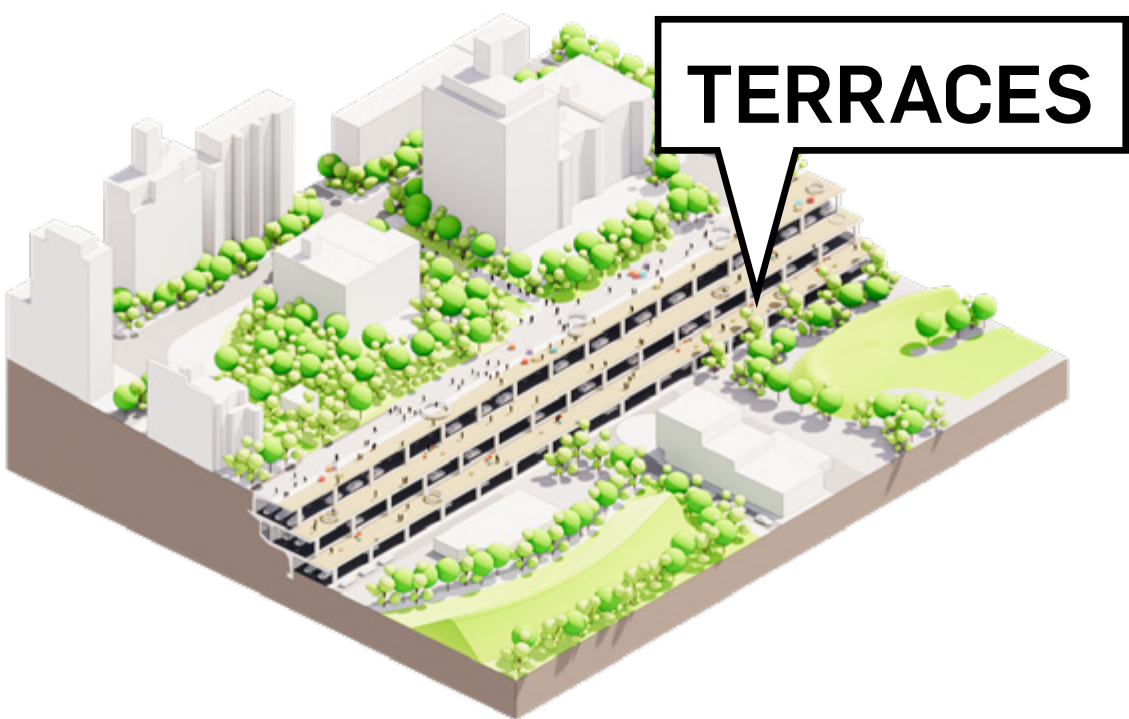
### Roadway Structure



### Potential Open Spaces



### Design Studies



Cascading Terraces

Ramps and Terraces

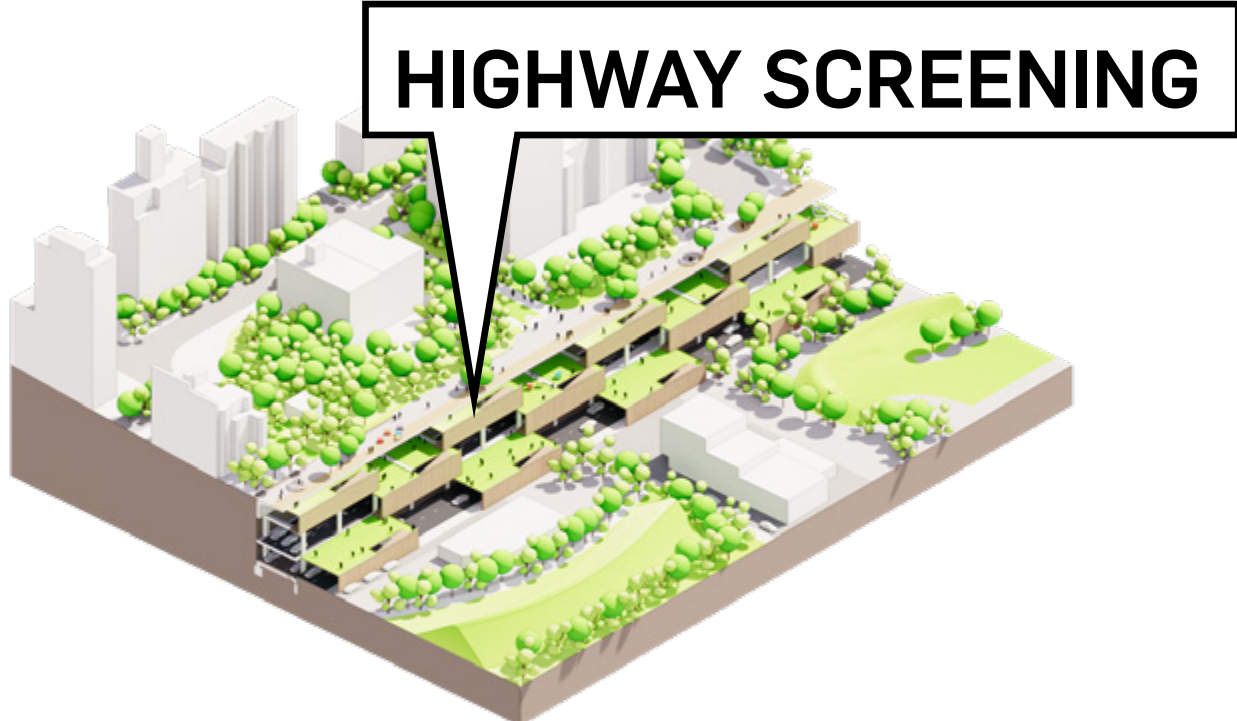
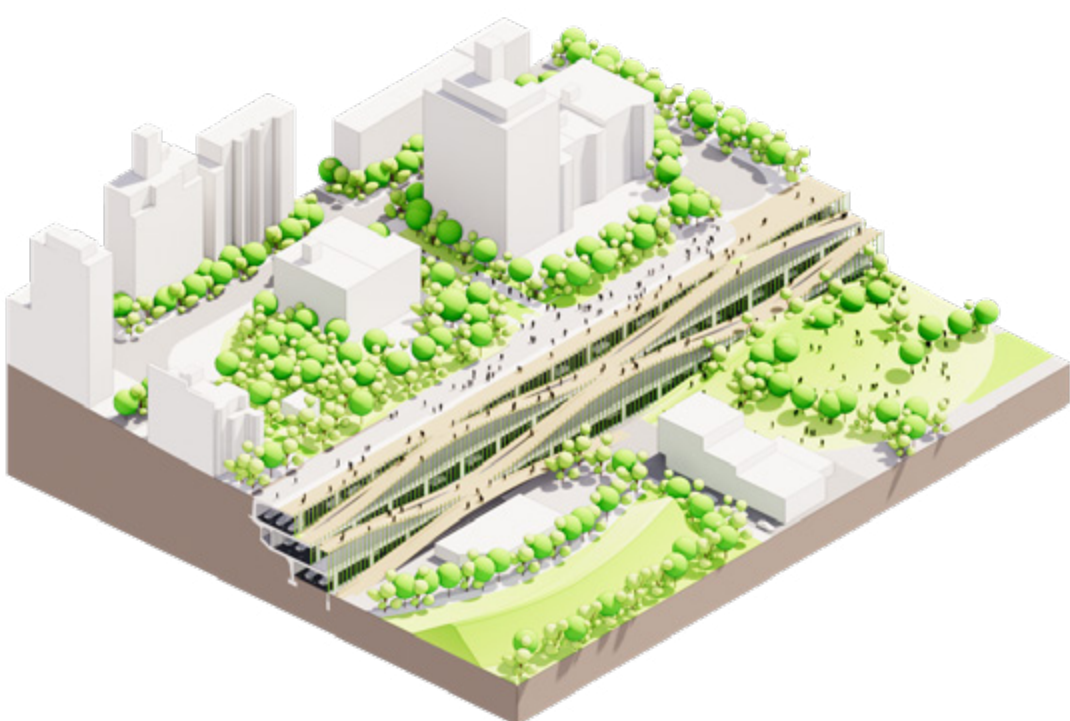
Continuous Ramp A



Continuous Ramps A

Continuous Ramps

Continuous Ramp B



Continuous Ramps B

Rooms

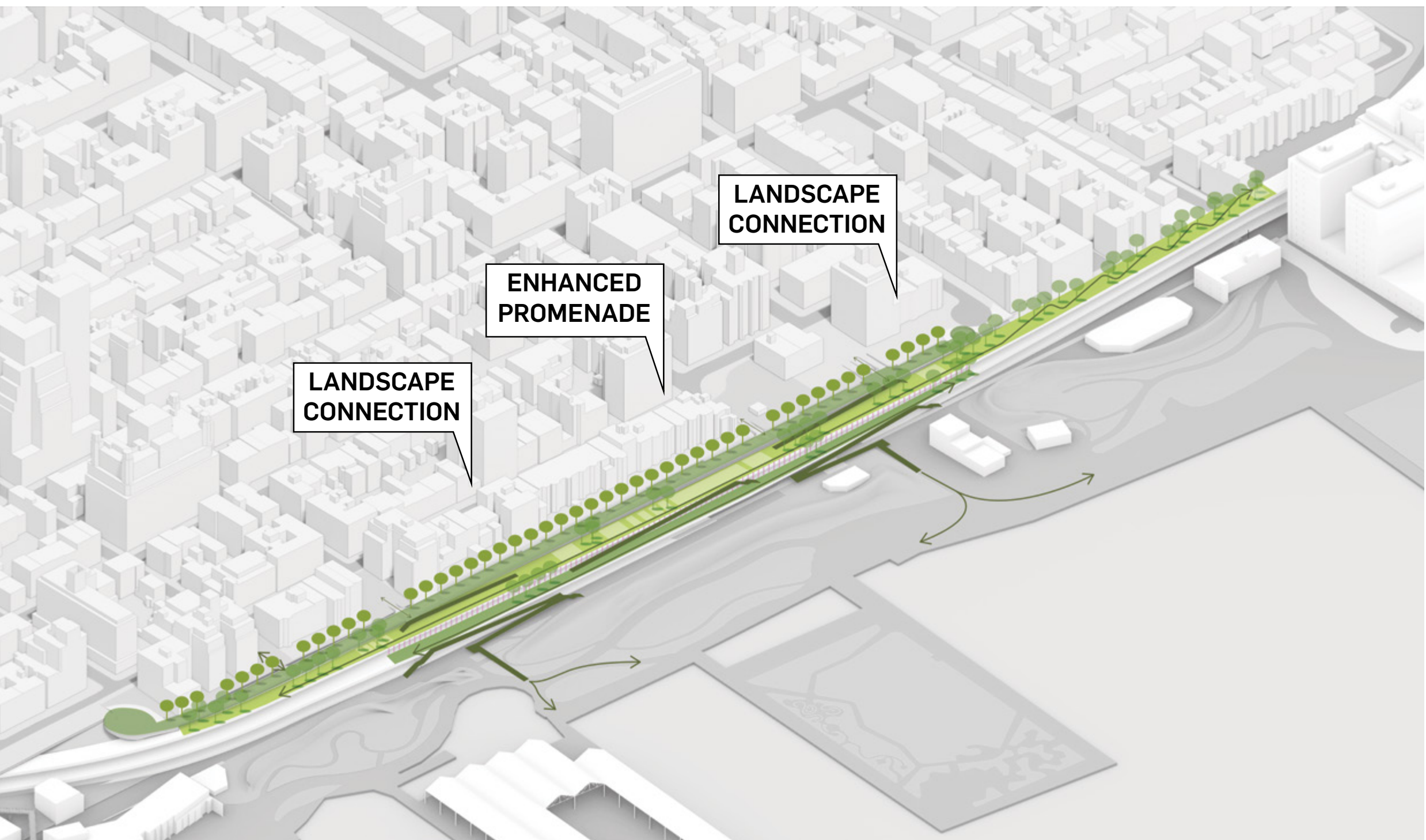
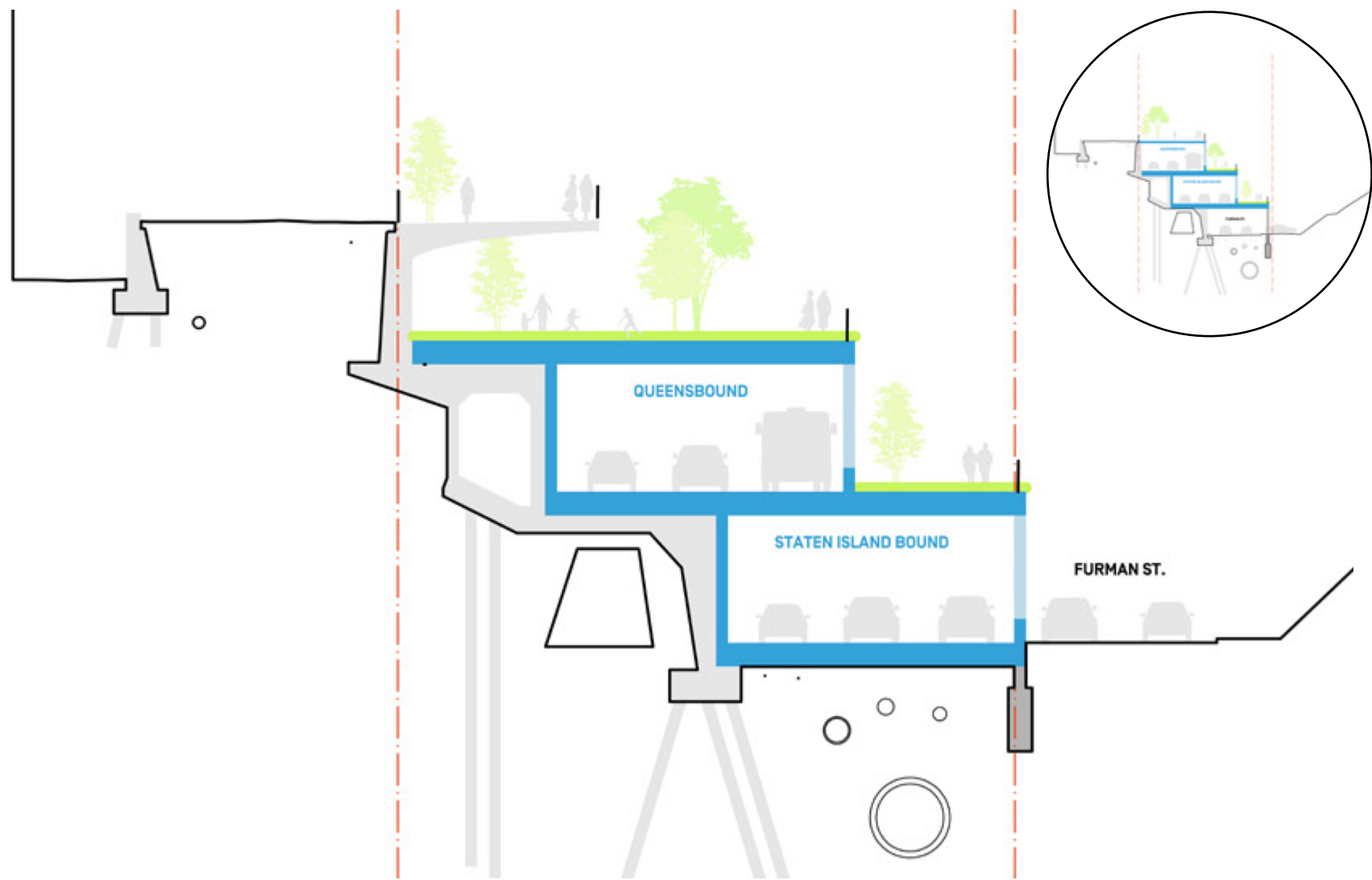
Landform Connection



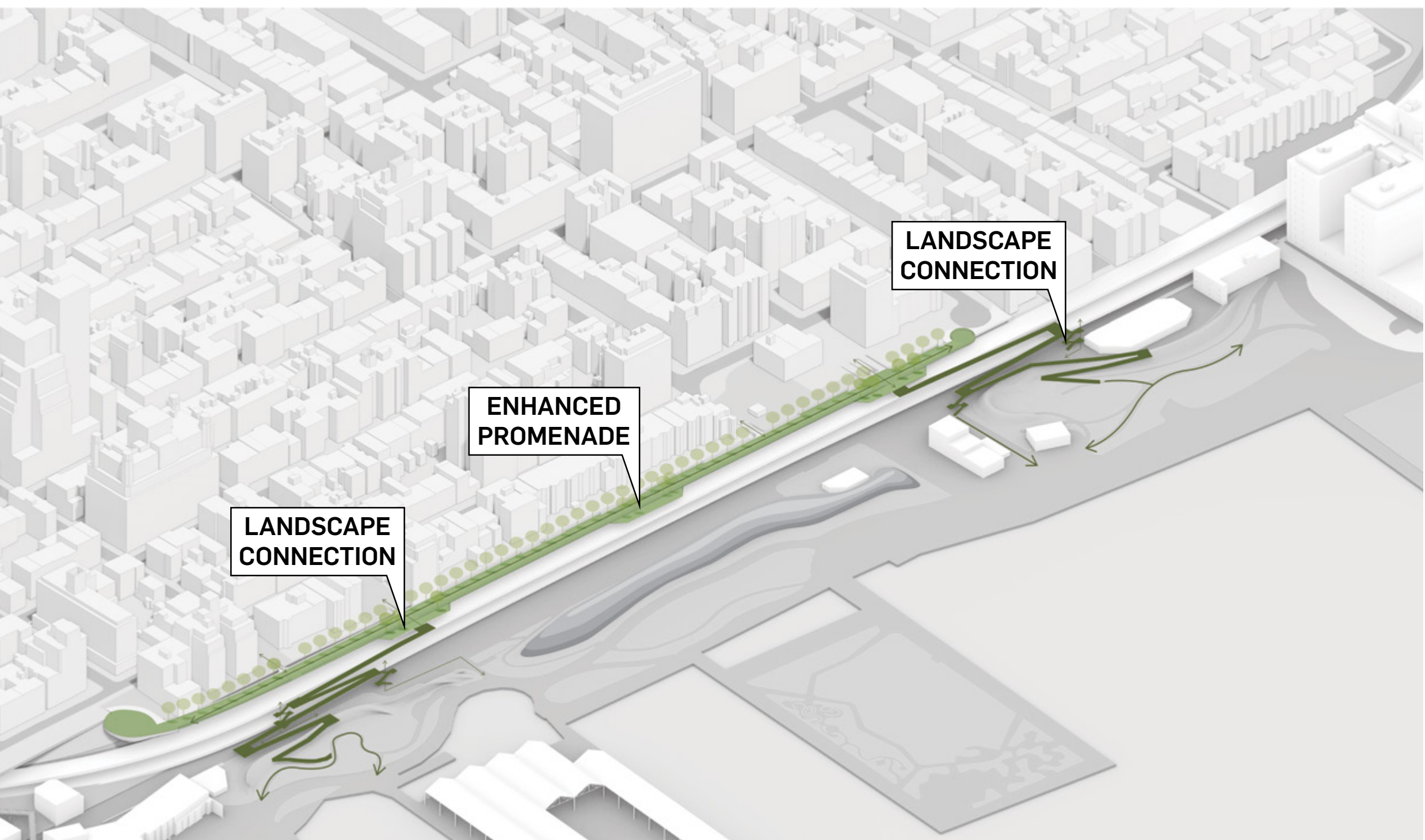
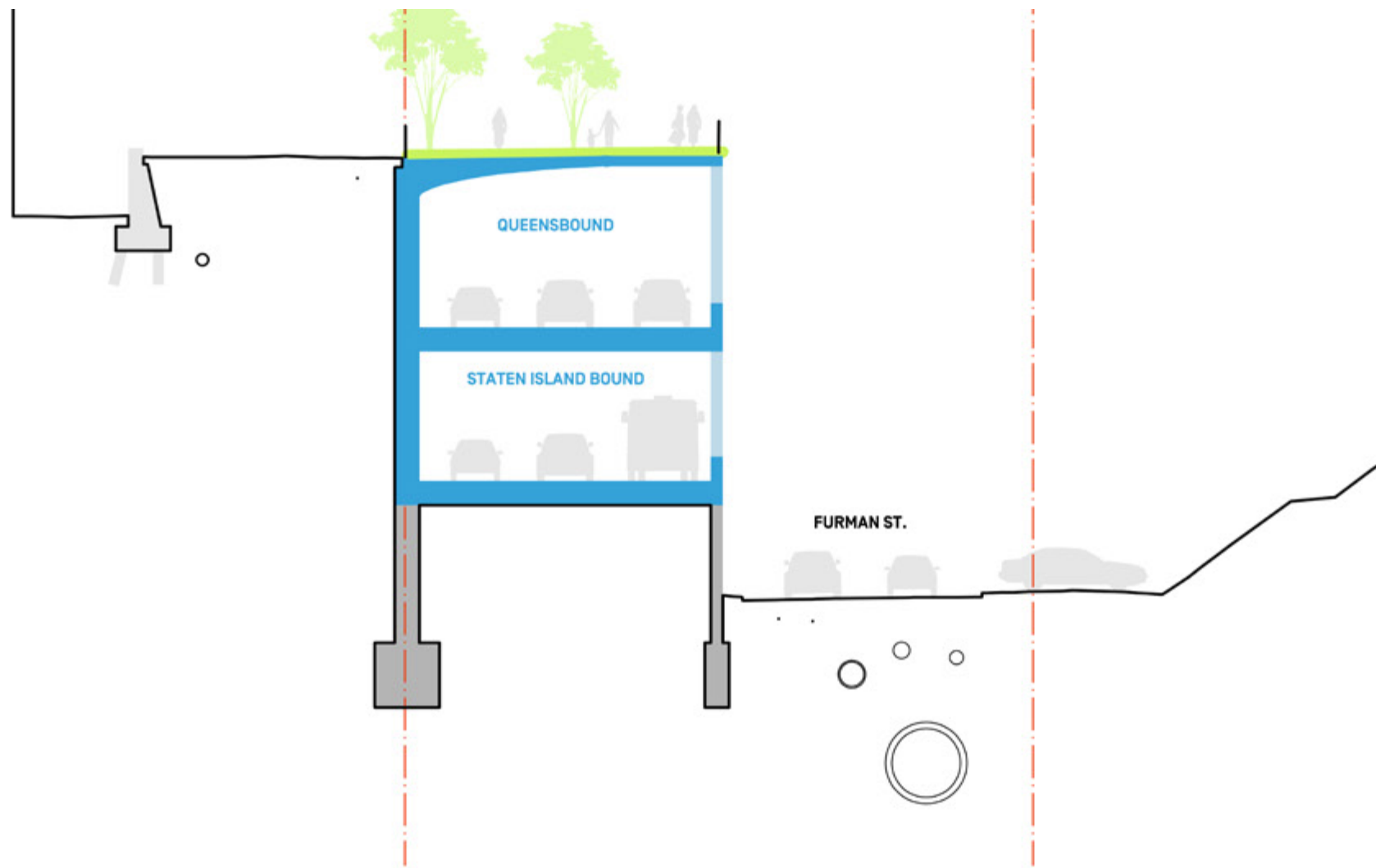


# Triple Cantilever | Explored Options

## The Terraces



## The Lookout



## The Stoop

