# 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 <br> Baseline Connectivity

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

## Site Overview



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

## Connection Typologies



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

## Pedestrian Connections:

## Overview



A Well Connected
$\qquad$ B Connection
Needs Improvement


C Poorly Connected


F Very Poorly
Connected /
Not Connected


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

## Pedestrian Connections:

## Evaluation



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

## Pedestrian Connections:

## Evaluation



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

## Pedestrian Connections:

## Evaluation



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

## Pedestrian Connections:

## Evaluation



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

## Pedestrian Connections:

## Evaluation



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

## Pedestrian Connections:

## Evaluation



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

## Pedestrian Connections:

## Evaluation



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

## Pedestrian Connections:

## Evaluation



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

## Pedestrian Connections:

## Evaluation



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

## Pedestrian Connections:

## Evaluation


$\square$ Pedestrian safety
$\square$ Street trees / vegetationSidewalk continuityStreet furnitureLighting - daytime $\square$ Signage \& wayfindingLighting - nighttime


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

Bicycle Connections

LEGEND
Existing BQE
0
Bike lane
Missing connection
Citibike Station

(1)


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

## Transit Ridership

 Per StationFigure in millions of riders per year.

Source: MTA 2016

LEGEND
Existing BQE


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

## Public Realm <br> Relationships

 LEGENDExisting BQE
DPR Property
BBP Property


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

## View Corridors -

looking toward the East River waterfront


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

## Connectivity opportunities overview

Pedestrian \& bicycle connection improvements

Public realm improvements


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

## 2 <br> Temporary Elevated Roadway

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

## Temporary Elevated Roadway Alignment



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

## Interim condition - Promenade street ends



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

## Interim condition - Fruit Street Sitting Area



## Temporary Roadway Impacts

## Temporary Elevated

 Roadway ImpactsNote: 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


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

## Existing Connectivity and Public Realm



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

## Temporary elevated roadway - connectivity \& public realm impacts



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

Temporary elevated roadway - connectivity \& public realm impacts


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

## Temporary elevated roadway - connectivity \& public realm impacts



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

## Temporary elevated roadway - connectivity \& public realm impacts



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

## Temporary elevated roadway - connectivity \& public realm impacts



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

## Temporary elevated roadway - Columbia Heights



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

## Temporary elevated roadway - Columbia Heights



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

## CURRENT CONDITION



## INTERIM CONDITION



## Columbia Heights Overpass - Current



## Columbia Heights Overpass - Interim Condition



TEMPORARY ELEVATED ROADWAY


A


## Existing connectivity \& public realm - Brooklyn \& Manhattan Bridges



Temporary elevated roadway — Brooklyn \& Manhattan Bridges alignment
 https://bqe-i278.com/en/expert-panel/documents

## 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 (?)


## 2b

## Urban Design Opportunities

POTENTIAL TEMPORARY STRATEGIES: PEDESTRIAN BRIDGE


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

## POTENTIAL TEMPORARY STRATEGIES: TREE NURSERY

- Grow trees for future use in project area
- Provide temporary green space in disconnected areas


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

## POTENTIAL TEMPORARY STRATEGIES: POP UP PLAZA

- Prevent dead-end streets from becoming de-facto parking lots while maintaining street parking
- Provide temporary area for seating and socializing


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

## POTENTIAL TEMPORARY STRATEGIES: POP UP PLAY SPACE

- Activate dead-end streets


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

## POTENTIAL TEMPORARY STRATEGIES: TEMPORARY COMMUNITY GARDEN

- Increase resident access to green space
- Provide alternative space for current


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

## POTENTIAL TEMPORARY STRATEGIES: CONSTRUCTION MURAL

- Improve conditions along interim roadway wall
- Provide project information and timeline
- Engage residents in neighborhood improvement efforts


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


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

## 1. Underpass - Willow Street to Hillside Park



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

## 1. Underpass - Willow Street to Hillside Park



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


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

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



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

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



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

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



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

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



As presented to the BQE Expert Panel for informational/background purposes only
https://bqe-i278.com/en/expert-panel/documents
4. Overpass - Middagh Street to Columbia Heights (Ramp Option)


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



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

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



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

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



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

## 160' pedestrian bridge



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



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

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



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

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


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


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

## Columbia Heights Overpass - Temporary Ramp Precedents



Temporary ADA ramp on scaffolding with switchbacks


Temporary stair on scaffolding


Temporary ADA ramp on scaffolding with plywood cladding


Temporary planters on inclined geometry


Temporary bleacher seating


Temporary planting on scaffolding

## Temporary Pedestrian Bridge Precedents - Box Truss



Rector Street Temporary Pedestrian Bridge \& Lightweight, Temporary Modular Panel Bridge

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

## Temporary Pedestrian Bridge Precedents - Arches



Temporary Scaffolding Bridge Structure EDEN Project - RDG Engineering

Temporary Steel, Wood \& Cardboard Bridge
Gardon River Bridge - Shigeru Ban
As presented to the BQE Expert Panel for informational/background purposes only https://bqe-i278.com/en/expert-panel/documents

## Temporary Elevators



Temporary Elevator
RECO Lift Solutions - UK, Netherlands, Germany
As presented to the BQE Expert Panel for informational/background purposes only https://bqe-i278.com/en/expert-panel/documents

## 3

## 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

## LEGEND




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

## Brooklyn Heights Promenade

CRITICAL SITE ACCESS POIHTS
ato chiticats I- Access ronto

HISTORIC TREE CANOPY


```
HISTORIC SHORELINE VIEWPOINTS
```





## PROMENADE EXPANSIONS



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

PROMENADE EXPANSIONS


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

## PROMENADE EXPANSIONS



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

## PROMENADE EXPANSIONS



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

## 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

LEGEND
<---> Underpass
<---> Bridge
<-"-" At-Grade (to the Promenade)


VINEGAR
 NAVY YARD
!


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

## Potential Montague St

## Extension

Columbus Park


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

## 3b

## Columbia Heights

## Columbia Heights - Existing Configuration



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

## Columbia Heights - Challenges



1. Underutilized \& Noisy space on Bridge over BQE

As presented to the BQE Expert Panel for informational/background purposes only

ddagh Street circulation interrupted

## Columbia Heights - Opportunities



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

## Fruit Street - Final Configuration



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

## Columbia Heights Overpass



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

## Fruit Street - Existing Configuration



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

## Fruit Street - Existing Configuration



COLUMBIA HEIGHTS

## Fruit Street - Amphitheater \& Columbia Heights Terrace



COLUMBIA HEIGHTS

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



COLUMBIA HEIGHTS

## 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


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

## Existing Circulation

## LEGEND

Existing BQE
$\longrightarrow$ Pedestrian Circulation
$>$ Vehicular Circulation



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

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.


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

## Old Fulton St - Pedestrian Challenges



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


As presented to the BQE Expert Panel for informational/background purposes only
zessive sidewalk crossings (Total 4 crossings in 240 ft ) https://bqe-i278.com/en/expert-panel/documents

## Old Fulton St - Pedestrian Challenges


4. Excessive triangle spaces without landscaping disrupting pedestrian flows


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

Old Fulton St - Pedestrian Challenges

7. Fenced open space without street trees


As presented to the BQE Expert Panel for informational/background purposes only

## York Street - Existing Challenges



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

## Old Fulton St \& DUMBO - Key Issues



## Old Fulton St - Street Modifications \& Connectivity Opportunities



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

## DUMBO -

Street Modifications \& Connectivity Opportunities

Option A:
Reconnected Anchorage Plaza


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

## DUMBO -

Street Modifications \& Connectivity Opportunities

Option B:
Reestablish Main Street; introduce viaduct structure


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

## DUMBO -

Street Modifications \& Connectivity Opportunities

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


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

## 3d

## 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.



VIEW FROM CADMAN PLAZA/PROSPECT ST


## 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 to the east of north parcel
View from pearl street looking west


Southern parcel of park is inaccessible from street level
As presented to the BQE Expert Panel for informational/background purposes only
https://bqe-i278.com/en/expert-panel/documents

## 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 BQE TOWARDS DOT LOT


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

## CLUMBER CORNER

TYPICAL SECTION


## Brooklyn to Manhattan Bridge: Existing



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

## Brooklyn to Manhattan Bridge: Potential

 https://bqe-i278.com/en/expert-panel/documents

## Old Fulton St - Opportunities



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

Design Criteria

1 Promotes pedestrian safety

2 Strengthens connections \& access pedestrian, bicycle, vehicular

3 Complements existing assets \& programs
4 Improves wayfinding
5 Facilitates access to \& between public open spaces

Design Actions

Upgrade, widen, \& connect sidewalks Eliminate excessive ramps \& crosswalks

Connect existing open spaces Connect primary routes of circulation

Introduce streetscape \& park amenities
Clarify street grid \& focus view corridors
Reactivate underutilized public open space Create new nodes for neighborhood gathering Activate street frontages

## Appendix

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

