

2023 Interim Repairs



Brooklyn Community Board 2: June 16, 2022

Brooklyn Community Board 6: June 21, 2022



Agenda

Introductions

BQE 2023 Construction Project Overview

Need for BQE Interim Repairs

Weekend Closures/Detours

Discussions/Action Items

BQE – Project Area

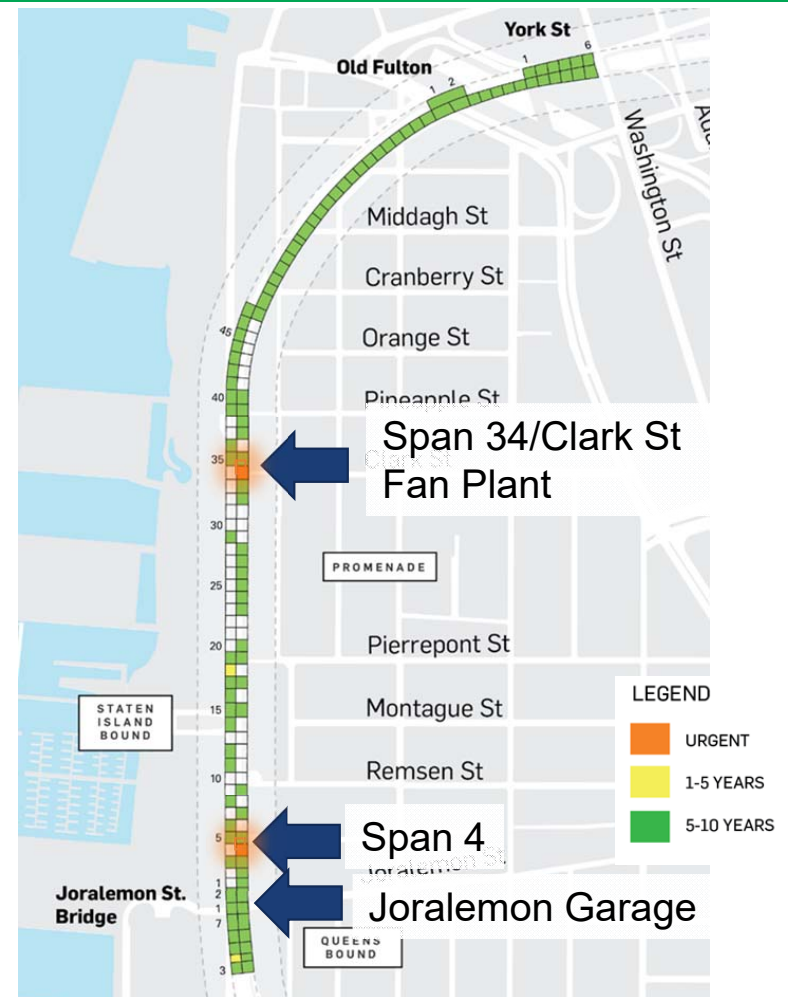


BQE Project Overview

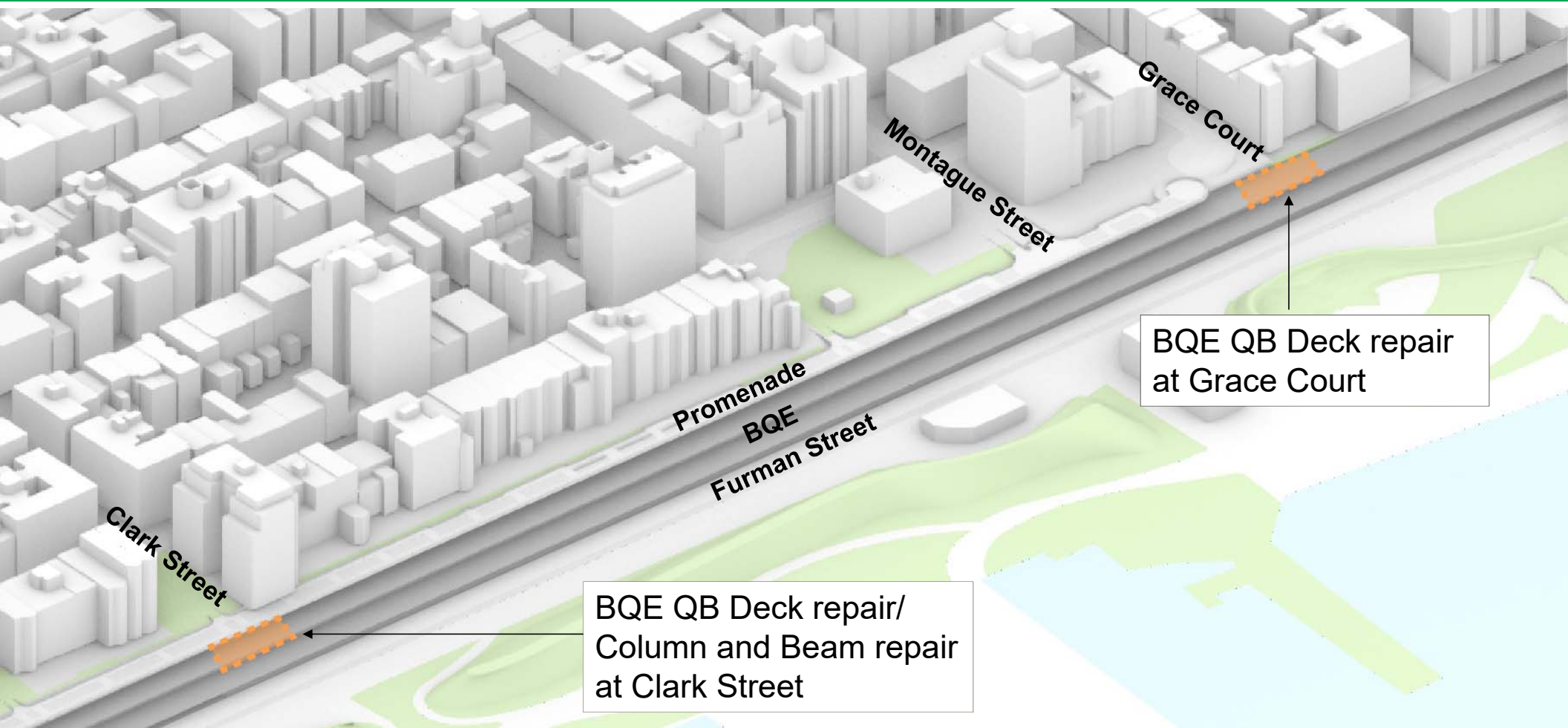
- **Safety is our number one priority.**
- NYC DOT and outside engineering partners (C2Smart) are closely tracking the city-owned structure to ensure we stay ahead of potential safety issues.
 - **In-Person Inspections by DOT Engineers.** Quarterly visual inspections detect any localized cracking, concrete spalling, steel corrosion, and other visible flags
 - **Constant Monitoring via Sensors.** Sensors and specialized instruments monitor changes in global stiffness, concrete cracking, and vibrations
 - **Truck Weight Monitoring.** Weigh-In-Motion technology provides real time measurement of truck loads. Automated enforcement starting by early 2023
 - **Analysis and Modeling:** DOT and outside engineering partners (C2Smart) are using data from monitoring to assess structure's current condition and to model its future condition

BQE Project Overview

- **Components require immediate attention**
- **Addressing immediate needs will allow us to maintain traffic flow**
- **Components Requiring Immediate Attention**
 - Span 34 (Clark Street)/Clark Street Fan Plant
 - Span 4 (Grace Court)
 - Joralemon Street Garage

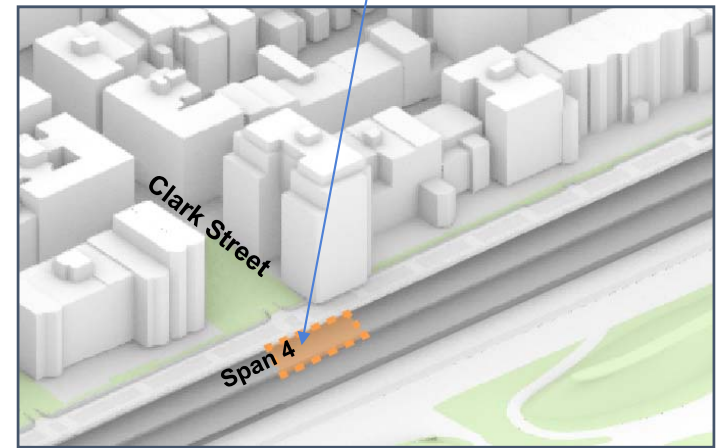
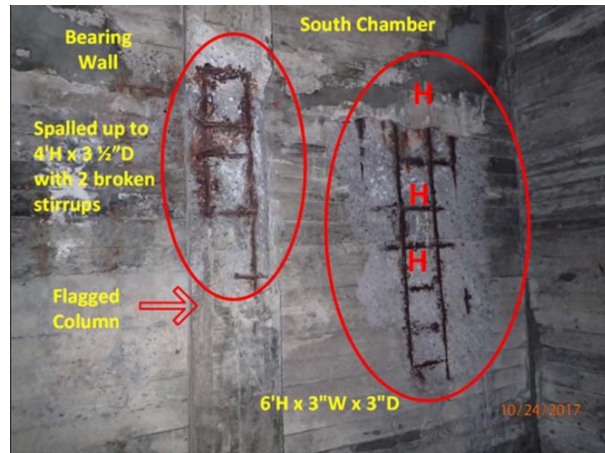


BQE – Interim Repair Area Context



Clark Street Fan Plant

- Structural repair inside the chamber that houses the fan plant
- Work is concurrent with planned BQE closures
- Coordination with MTA, which owns fan plant



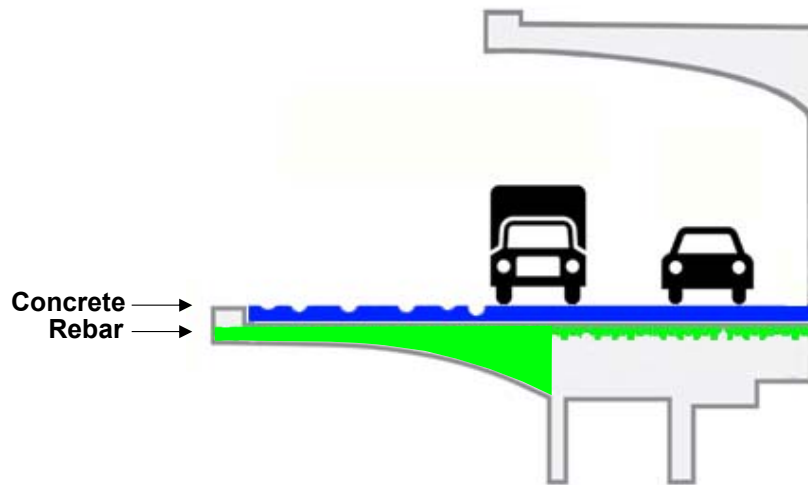
Joralemon Street Garage

- Structural repair inside the chamber that houses the garage
- Work can happen without BQE closures
- Crews can access work area via local street



BQE Repair Challenges

Current BQE Condition

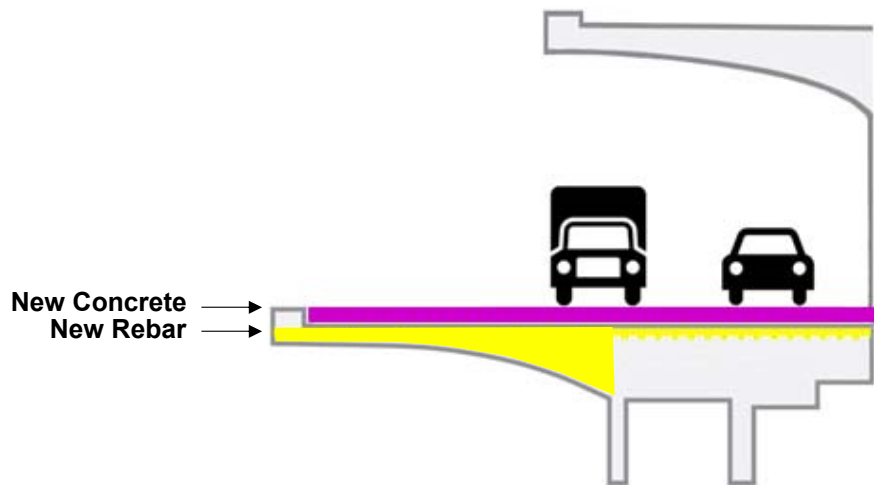


Remove deteriorated concrete and rebar

Legend

- Existing Concrete
- Existing Rebar

Required BQE Repairs

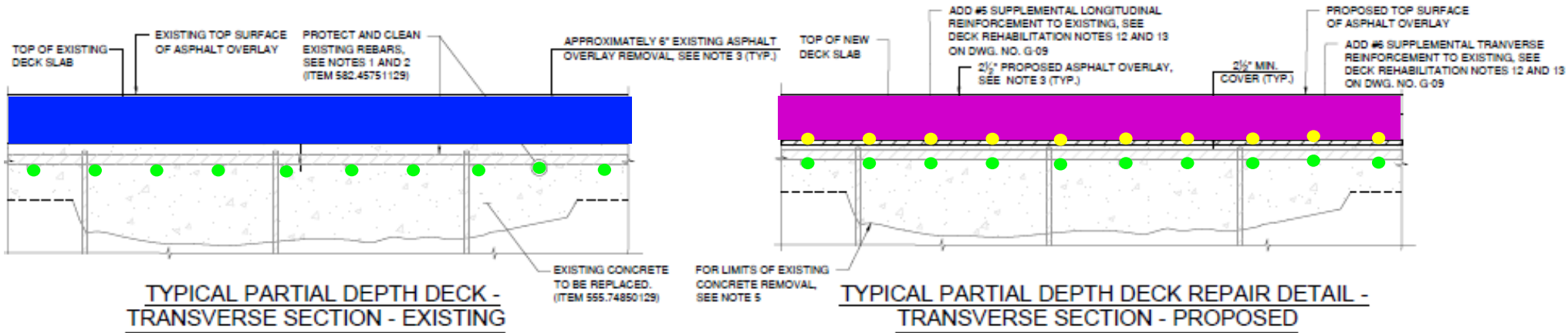


Repair concrete and rebar

Legend

- Concrete Repair
- Rebar Repair

Queens Bound Interim Deck Repair



Existing Condition

Legend

- Existing Asphalt
- Existing Rebar

Proposed Condition

Rebar added, not replaced

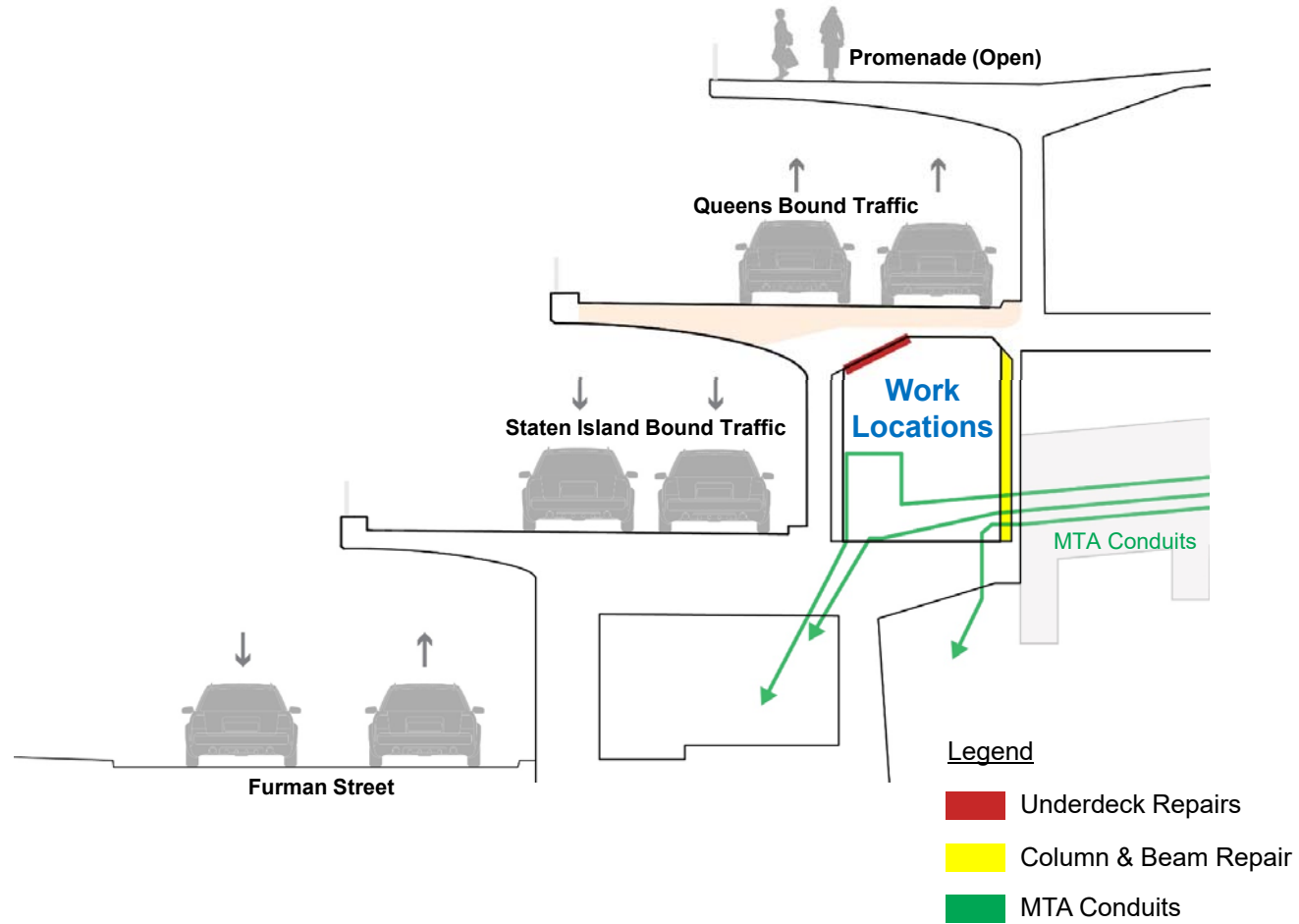
Legend

- Asphalt Overlay
- Supplemental Reinforcement

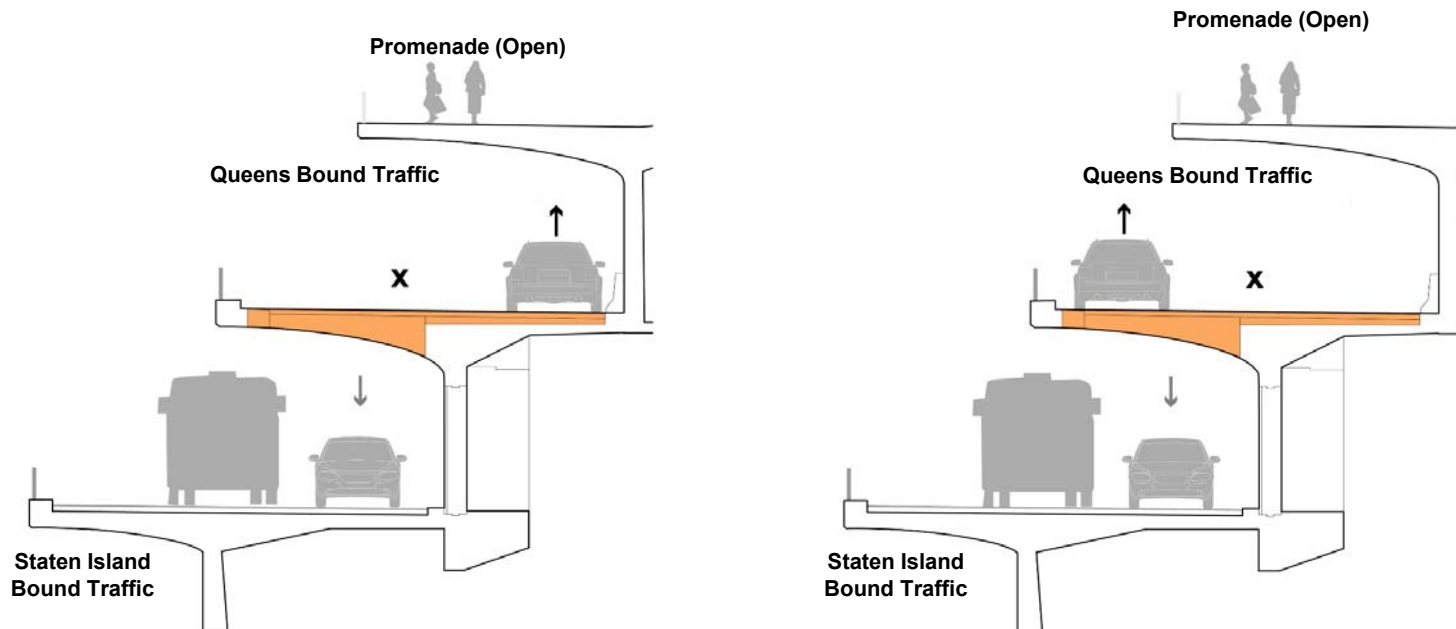
Queens Bound Interim Repairs at Clark Street



Column & beam repair



Construction Staging



Preparation Work (Night-Time)

- Remove deteriorated concrete
- Add steel plates for support in preparation
- No daytime work

Two level highway restricts areas to shift traffic during construction

First Weekend Closure

Full closure of all Queens-Bound lanes with BQE traffic to exit at Atlantic Ave

One lane open in the Staten Island Bound direction

Closures between Saturday 2AM to Monday 4AM

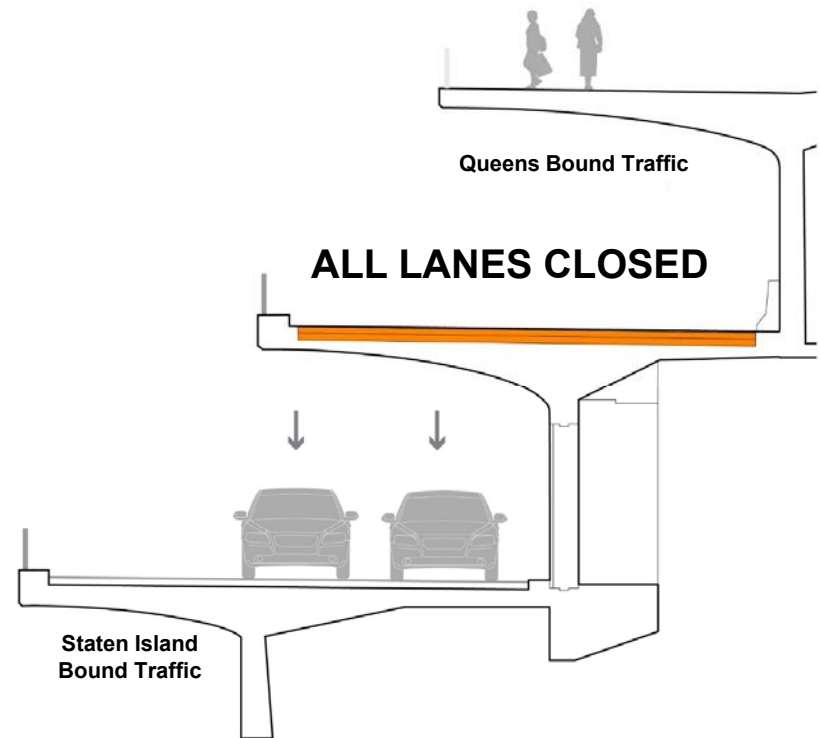


Second and Third Weekend Closures

Full closure of all Queens-Bound lanes with remaining BQE traffic to exit at Atlantic Ave

All travel lanes on the Staten Island-Bound direction will be open

Closures between Saturday 2AM to Monday 4AM



Weekend Closures (3 Total, Mar. - Oct.)

- **Weekend 1:** Queens-bound and Staten Island-bound closures
 - QB: Full Closure
 - SIB: 1 Lane Open
- **Preparation Work Continued**
- **Weekend 2:** Queens-bound closure only
 - QB: Full Closure
 - SIB: No Closure
- **Preparation Work Continued**
- **Weekend 3:** Queens-bound closure only
 - QB: Full Closure
 - SIB: No Closure
- **All Weekend Closures**
 - Entrance ramps along QB will be closed and detour routes will be provided
 - Traffic Enforcement Agents (TEA) and Pedestrian Managers will be provided
 - Variable message signs (VMS) will be provided in locations approved by EIC
 - Prospect Expressway Bus/HOV barrier

Mitigation Measures

Mitigation Measures During Closures

- Encourage alternate modes of transportation where possible
- Traffic agents at key intersections
- Pedestrian managers at key locations
- VMS signs informing travelers of closures/detours
- Adjustments to lane configurations
- Turn restrictions at select intersections
- Emergency services stationed at BBP
- Coordination with FDNY/NYPD/EMS
- Noise mitigation
 - Sound blankets and monitoring sound levels
- Dust mitigation



Weekend 1 Only

Staten Island-Bound Closures

**Staten Island Bound BQE
First Weekend Only
Mainline Lane Closures**



Staten Island Bound BQE First Weekend Only Lane Configurations - Mitigation



Staten Island Bound BQE First Weekend Only Lane Configurations - Mitigation

2 moving lanes (1 contra flow lane)
on Furman St
from Old Fulton St to Atlantic Ave










2 moving lanes
on Atlantic Ave On Ramp
from Columbia St to SIB BQE

Vine Street
Entrance Ramp

Sands Street
Entrance Ramp

Flushing Avenue
Entrance Ramp

HOV slip ramp open to
Hugh L. Carey Tunnel

Ramp Closure Bus Stop Closure NYPD Police Station
 Lane Configuration Main Detour FDNY Fire Station
 Turn Restriction Staten Island Bound BQE Partial Closure Hospital



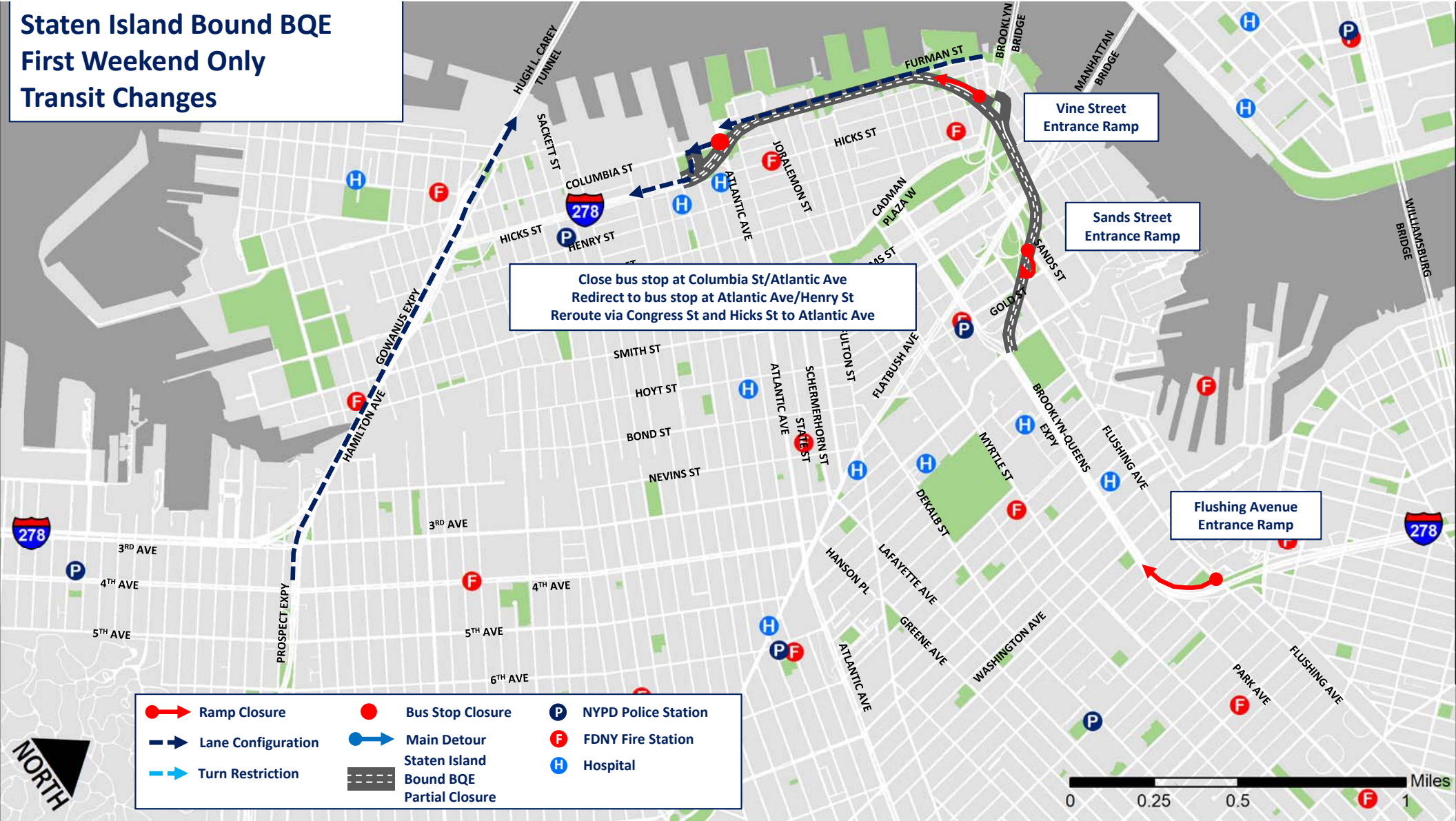
Staten Island Bound BQE First Weekend Only Turn Restrictions - Mitigation



	Ramp Closure		Bus Stop Closure		NYPD Police Station
	Lane Configuration		Main Detour		FDNY Fire Station
	Turn Restriction		Staten Island Bound BQE Partial Closure		Hospital

0 0.25 0.5 1 Miles

Staten Island Bound BQE First Weekend Only Transit Changes



**Staten Island Bound BQE
First Weekend Only
Flushing Avenue
Entrance Ramp Detour**



- | | | |
|--------------------|---|---------------------|
| Ramp Closure | Bus Stop Closure | NYPD Police Station |
| Lane Configuration | Main Detour | FDNY Fire Station |
| Turn Restriction | Staten Island Bound BQE Partial Closure | Hospital |










0 0.25 0.5 1 Miles

**Staten Island Bound BQE
First Weekend Only
Sands Street
Entrance Ramp Detour**



**Staten Island Bound BQE
First Weekend Only
Vine Street
Entrance Ramp Detour**



- | | | | | | |
|---|--------------------|---|---|---|---------------------|
|  | Ramp Closure |  | Bus Stop Closure |  | NYPD Police Station |
|  | Lane Configuration |  | Main Detour |  | FDNY Fire Station |
|  | Turn Restriction |  | Staten Island Bound BQE Partial Closure |  | Hospital |

0 0.25 0.5 1 Miles



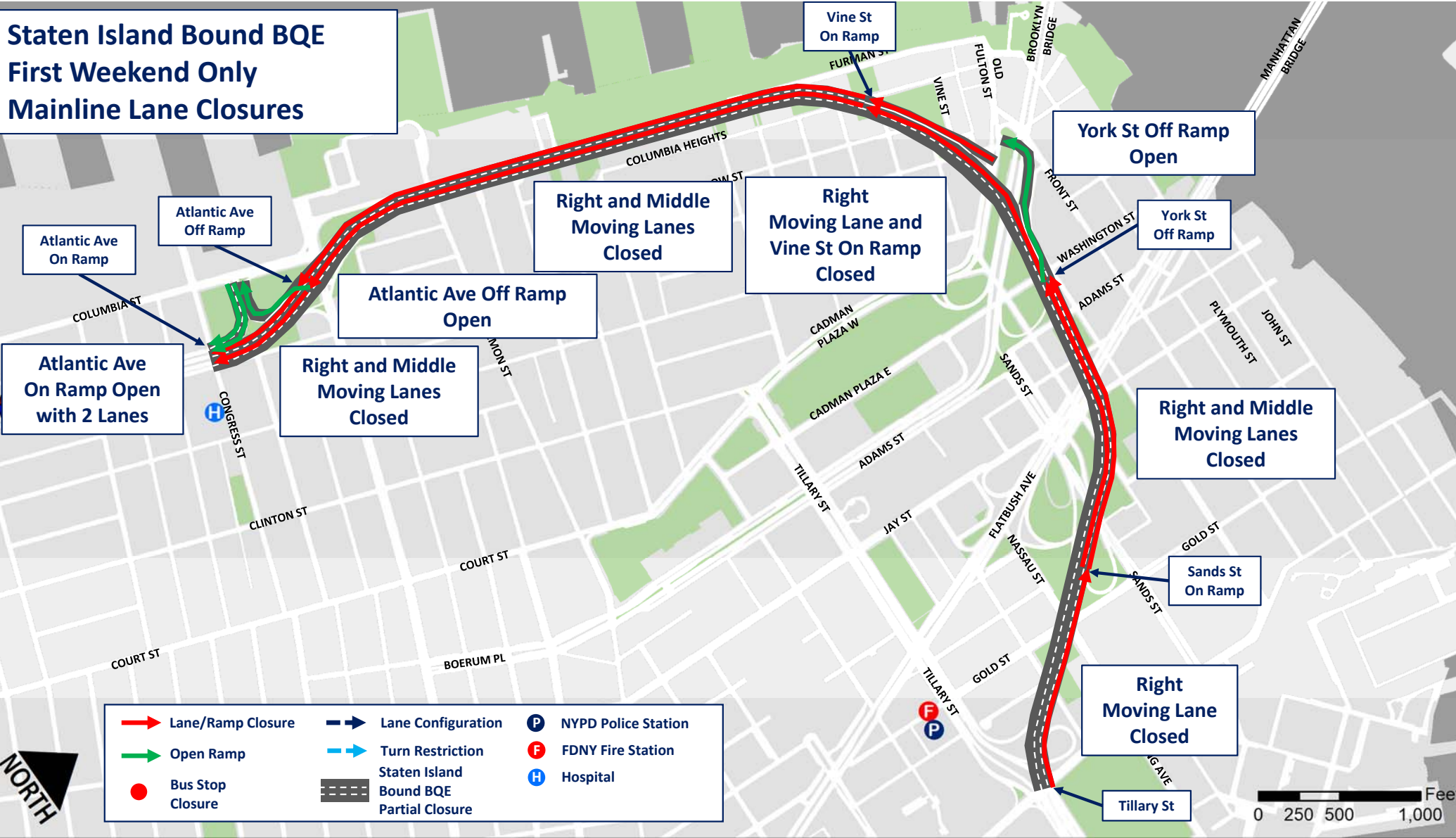
**Staten Island Bound BQE
First Weekend Only
All Main Detours**



**Staten Island Bound BQE
First Weekend Only
Mainline Lane Closures**



**Staten Island Bound BQE
First Weekend Only
Mainline Lane Closures**



Atlantic Ave On Ramp

Atlantic Ave Off Ramp

Atlantic Ave On Ramp Open with 2 Lanes

Atlantic Ave Off Ramp Open

Right and Middle Moving Lanes Closed

Right and Middle Moving Lanes Closed

Right Moving Lane and Vine St On Ramp Closed

Vine St On Ramp

York St Off Ramp Open

York St Off Ramp

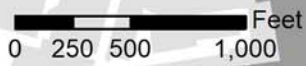
Right and Middle Moving Lanes Closed

Sands St On Ramp

Right Moving Lane Closed










Tillary St

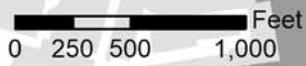
Lane/Ramp Closure	Lane Configuration	NYPD Police Station
Open Ramp	Turn Restriction	FDNY Fire Station
Bus Stop Closure	Staten Island Bound BQE Partial Closure	Hospital



**Staten Island Bound BQE
First Weekend Only
Furman St Closures**










**Close NB Furman St travel lane
from Atlantic Ave to Old Fulton St**

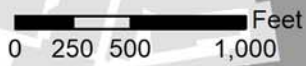
 Lane/Ramp Closure	 Lane Configuration	 NYPD Police Station
 Open Ramp	 Turn Restriction	 FDNY Fire Station
 Bus Stop Closure	 Staten Island Bound BQE Partial Closure	 Hospital



**Staten Island Bound BQE
First Weekend Only
Furman St Closures**










**Open 2 SB travel lanes
from Old Fulton St to Atlantic Ave**

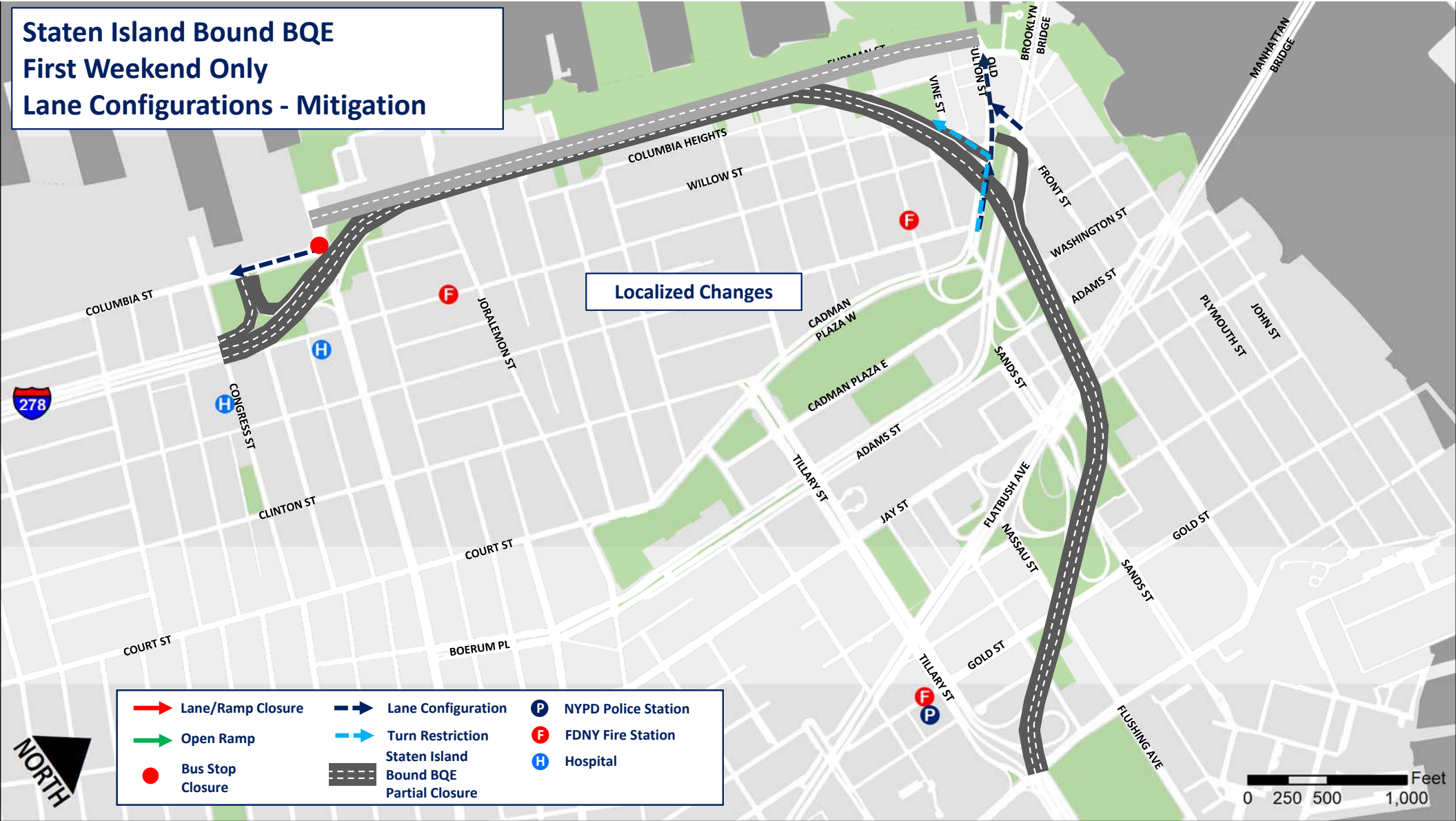
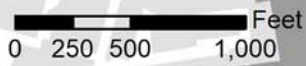
 Lane/Ramp Closure	 Lane Configuration	 NYPD Police Station
 Open Ramp	 Turn Restriction	 FDNY Fire Station
 Bus Stop Closure	 Staten Island Bound BQE Partial Closure	 Hospital



Staten Island Bound BQE First Weekend Only Lane Configurations - Mitigation

Localized Changes

	Lane/Ramp Closure		Lane Configuration		NYPD Police Station
	Open Ramp		Turn Restriction		FDNY Fire Station
	Bus Stop Closure		Staten Island Bound BQE Partial Closure		Hospital



All 3 Weekend Closures

Queens-Bound Closures

Queens Bound BQE Weekend Full Closure Ramp Closures



Hamilton Avenue Entrance Ramp

Atlantic Avenue Entrance Ramp

Cadman Plaza Exit Ramp

Brooklyn Bridge Exit Ramp

Manhattan Bridge Exit Ramp

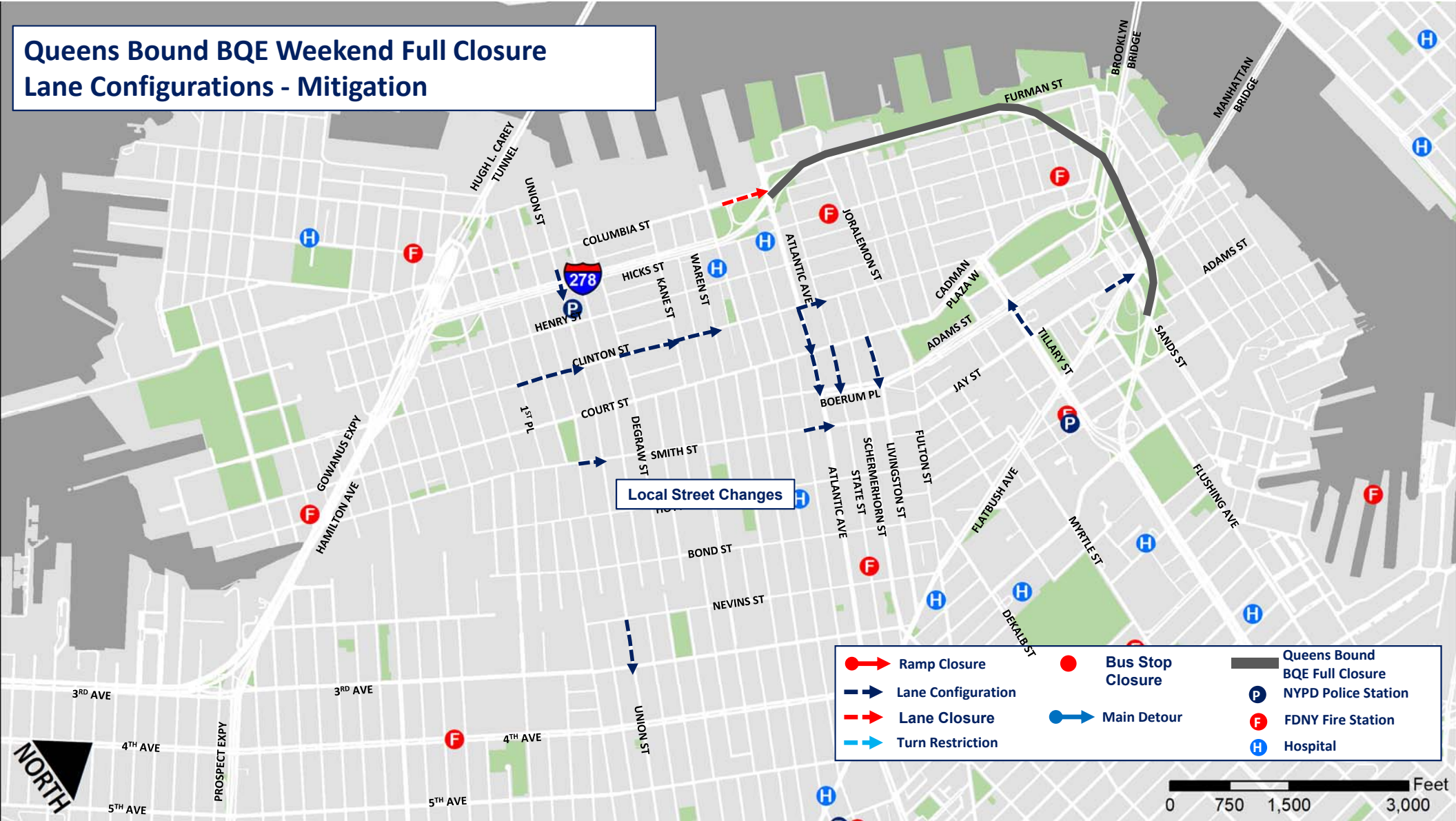
Prospect Expressway Entrance Ramp

- ➔ Ramp Closure
- ➔ Lane Configuration
- ➔ Lane Closure
- ➔ Turn Restriction
- Bus Stop Closure
- ➔ Main Detour
- Queens Bound BQE Full Closure
- P NYPD Police Station
- F FDNY Fire Station
- H Hospital

0 750 1,500 3,000 Feet



Queens Bound BQE Weekend Full Closure Lane Configurations - Mitigation



- | | | |
|--------------------|-------------------|-------------------------------|
| Ramp Closure | Bus Stop Closure | Queens Bound BQE Full Closure |
| Lane Configuration | Main Detour | NYPD Police Station |
| Lane Closure | FDNY Fire Station | Hospital |
| Turn Restriction | | |

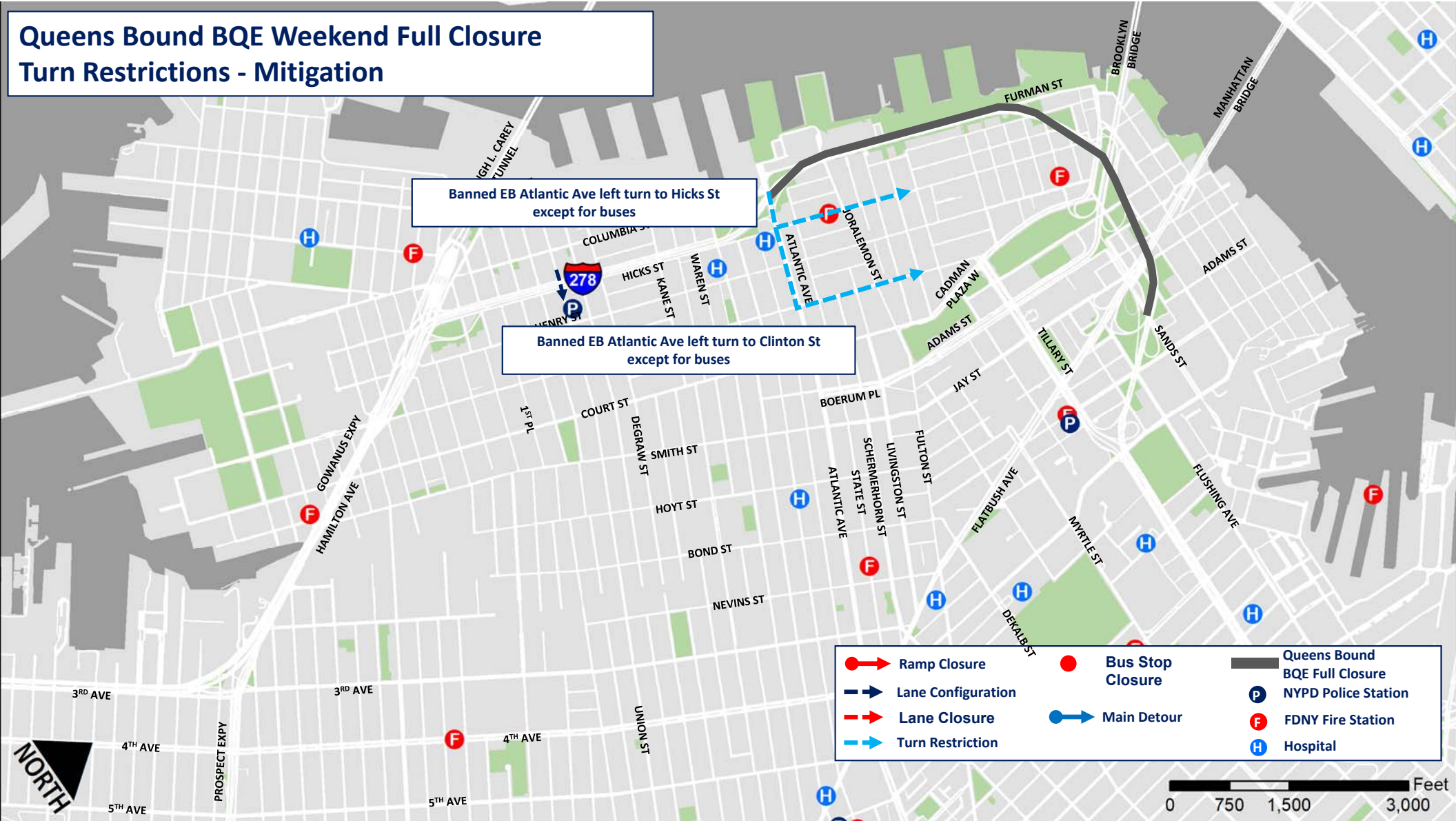
0 750 1,500 3,000 Feet

Queens Bound BQE Weekend Full Closure Turn Restrictions - Mitigation

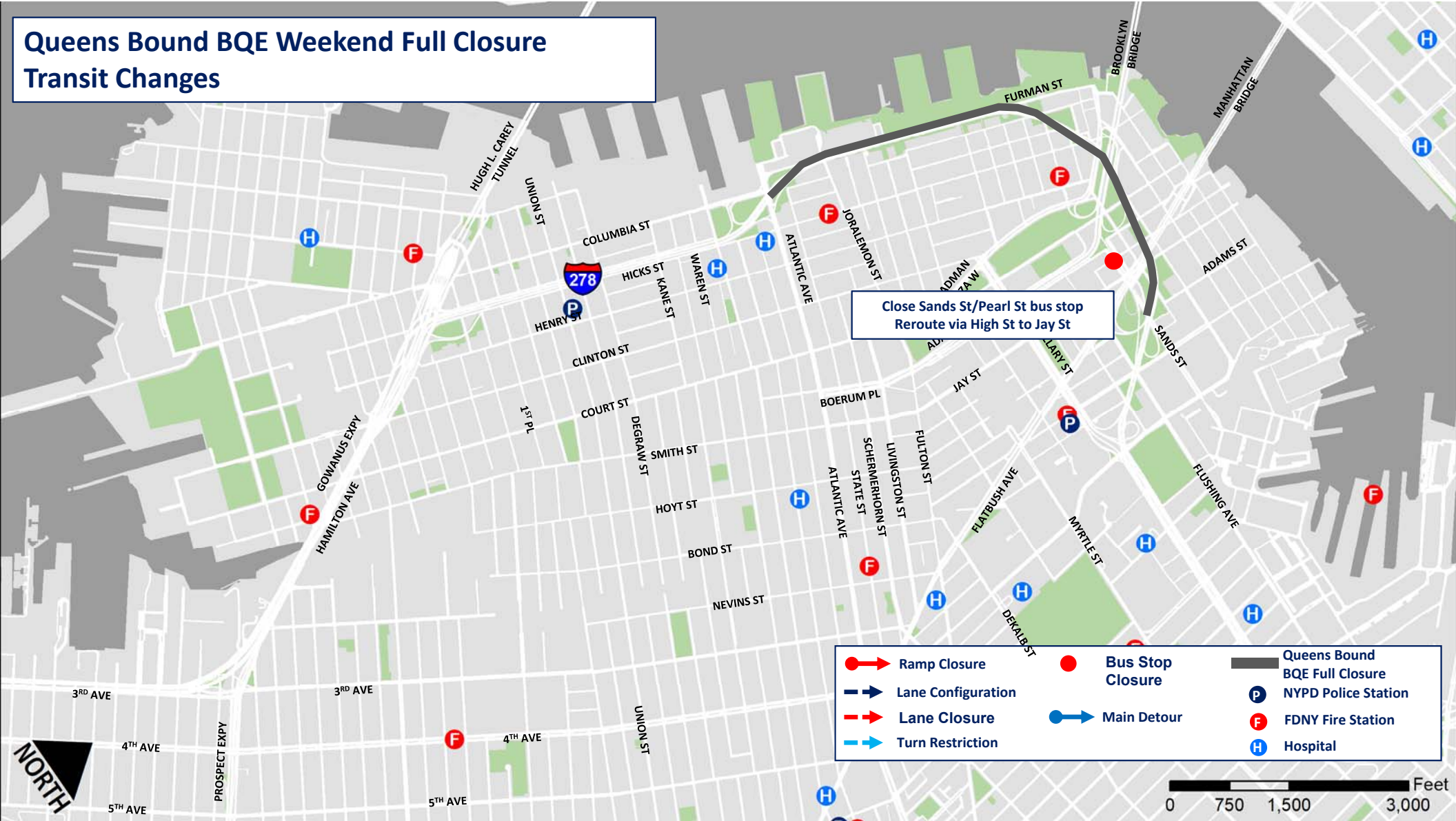
Banned EB Atlantic Ave left turn to Hicks St
except for buses

Banned EB Atlantic Ave left turn to Clinton St
except for buses

-  Ramp Closure
-  Lane Configuration
-  Lane Closure
-  Turn Restriction
-  Bus Stop Closure
-  Main Detour
-  Queens Bound BQE Full Closure
-  NYPD Police Station
-  FDNY Fire Station
-  Hospital

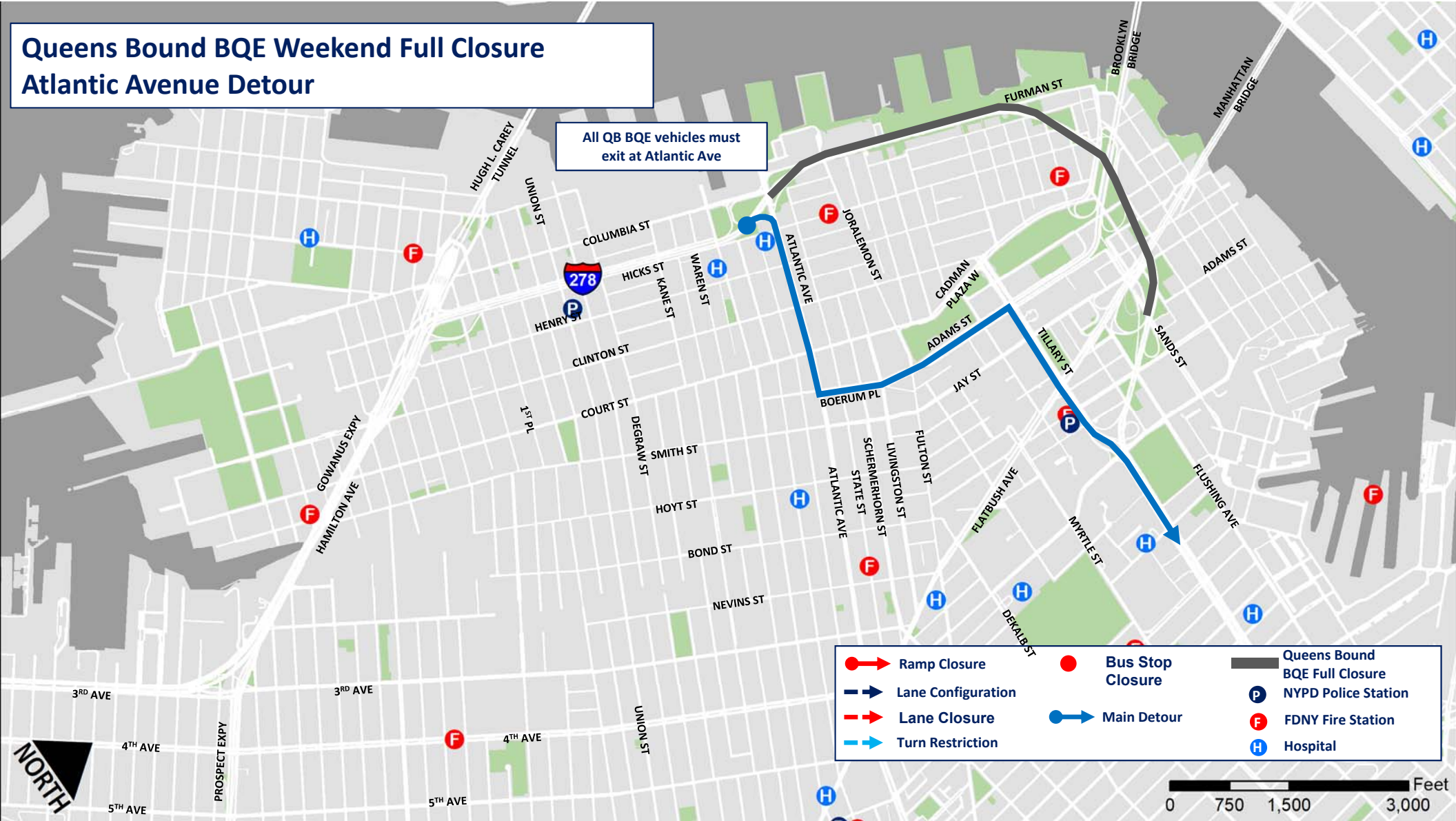


Queens Bound BQE Weekend Full Closure Transit Changes



Queens Bound BQE Weekend Full Closure Atlantic Avenue Detour

All QB BQE vehicles must exit at Atlantic Ave



Queens Bound BQE Weekend Full Closure 3rd Avenue Entrance Ramp Detour



Queens Bound BQE Weekend Full Closure Prospect Expy Entrance Ramp Detour



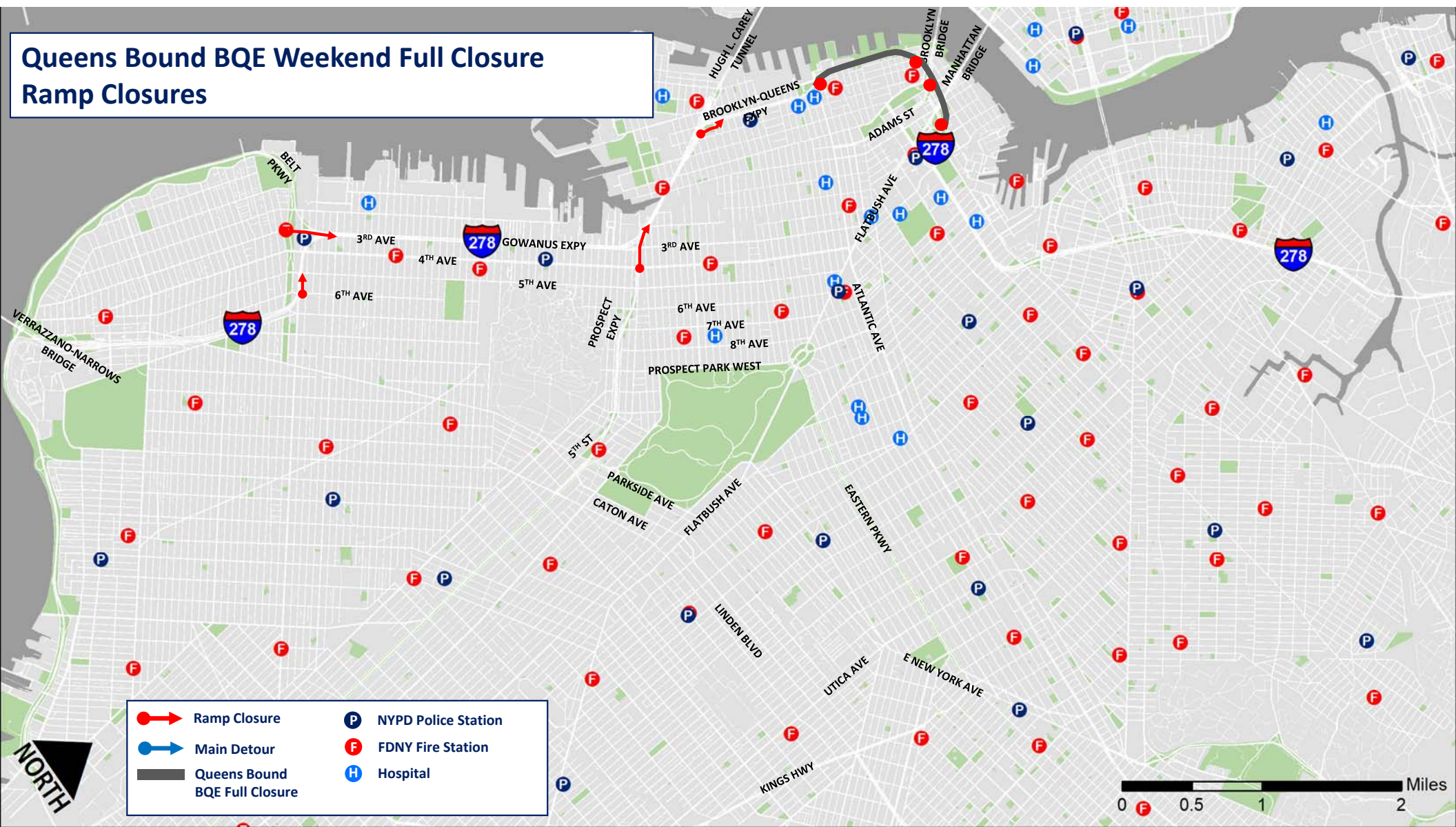
Queens Bound BQE Weekend Full Closure All Main Detours









- Ramp Closure
- Lane Closure
- Turn Restriction
- Bus Stop Closure
- Main Detour
- Queens Bound BQE Full Closure
- NYPD Police Station
- FDNY Fire Station
- Hospital

0 750 1,500 3,000 Feet

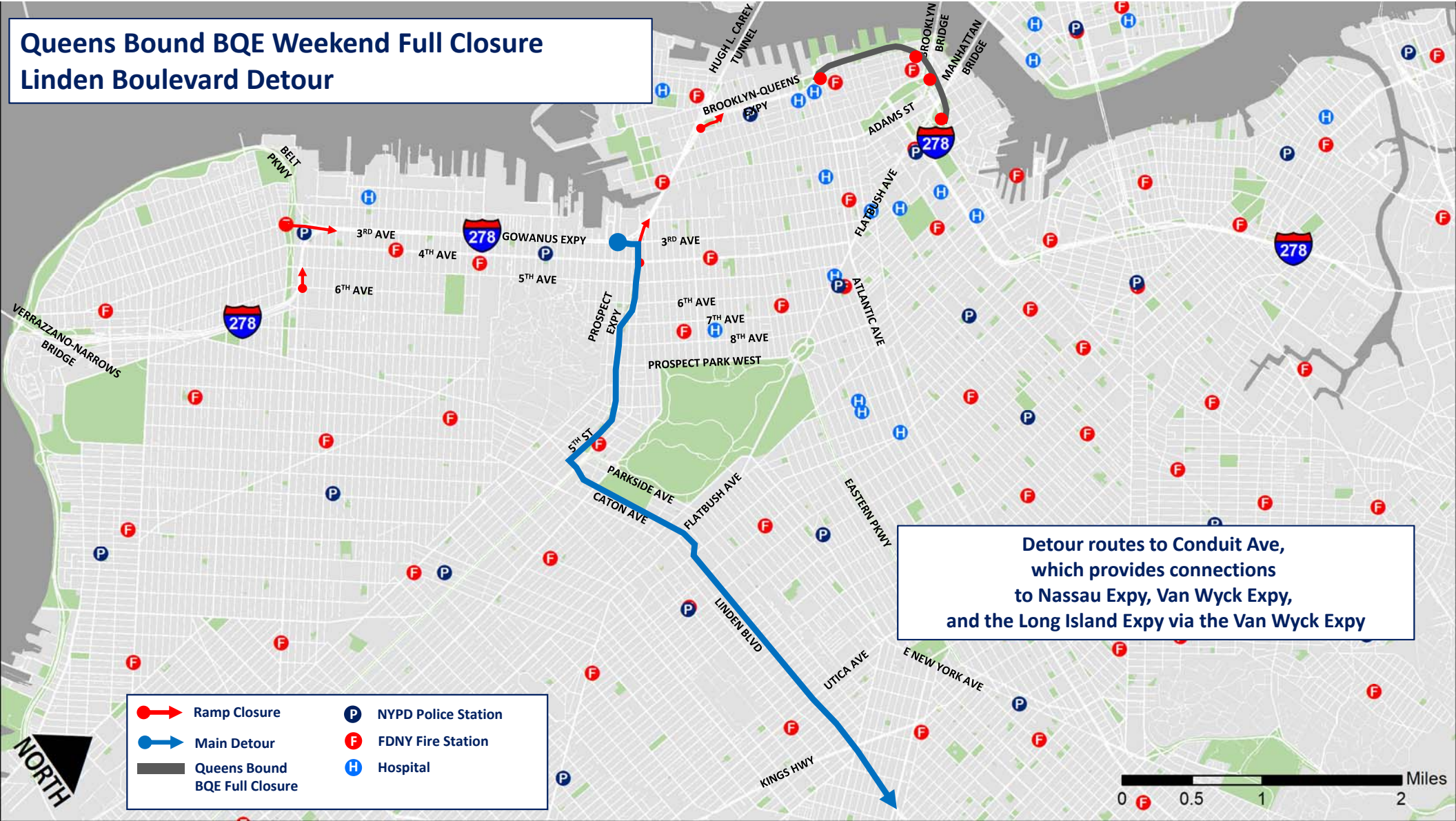
Queens Bound BQE Weekend Full Closure Ramp Closures



	Ramp Closure		NYPD Police Station
	Main Detour		FDNY Fire Station
	Queens Bound BQE Full Closure		Hospital

0 0.5 1 2 Miles

Queens Bound BQE Weekend Full Closure Linden Boulevard Detour



Detour routes to Conduit Ave,
which provides connections
to Nassau Expy, Van Wyck Expy,
and the Long Island Expy via the Van Wyck Expy

- ➔ Ramp Closure
- ➔ Main Detour
- Queens Bound BQE Full Closure
- P NYPD Police Station
- F FDNY Fire Station
- H Hospital

0 0.5 1 2 Miles



Manhattan Lane Configurations - Mitigation

Close WB lane
on WB Canal St
from Eldridge St to Forsyth St

Close WB lane
on WB Canal St
from Pike St/Allen St to Eldridge St

1 thru lane and 1 right lane
on EB Canal St
from Eldridge St to Pike St/Allen St

2 thru lanes, 1 right turn lane, and 1 right turn bay
on NB Manhattan Bridge Upper Roadway
from Manhattan Bridge Arch to Canal St

1 thru lane, 1 thru/right turn shared lane, and 1 right turn lane
on EB Canal St
from Chrystie St to Forsyth St

2 left turn lanes to SB Bowery, thru lanes to WB Canal St, and 1 thru lane to NB Bowery
on NB Manhattan Bridge Lower Roadway
from Manhattan Bridge Arch to Canal St

-  Lane Configuration
-  Lane Closure
-  NYPD Police Station
-  FDNY Fire Station
-  Hospital



BQE Interim Repairs Schedule

Information Distribution

NYCDOT will develop and distribute tailored information materials including project one-pagers, presentations, brochures, and construction updates, and distribute them in a variety of ways including through the department website, mass electronic mailings, media posts, and at meetings

- Last quarter of 2021Completion of Contract Documents
- First quarter of 2022 Contract Advertisement to be issued
- Last quarter of 2022Contract Award and NTP

Construction Duration for Spans 4 & 34

- Overnight closures between March – October 2023
- The 3 closure weekends spread out over construction season
- Joralemon Street garage repairs will occur concurrently – no BQE closures needed
- More specific schedule will be shared in future as information becomes available

Questions

Thank You!