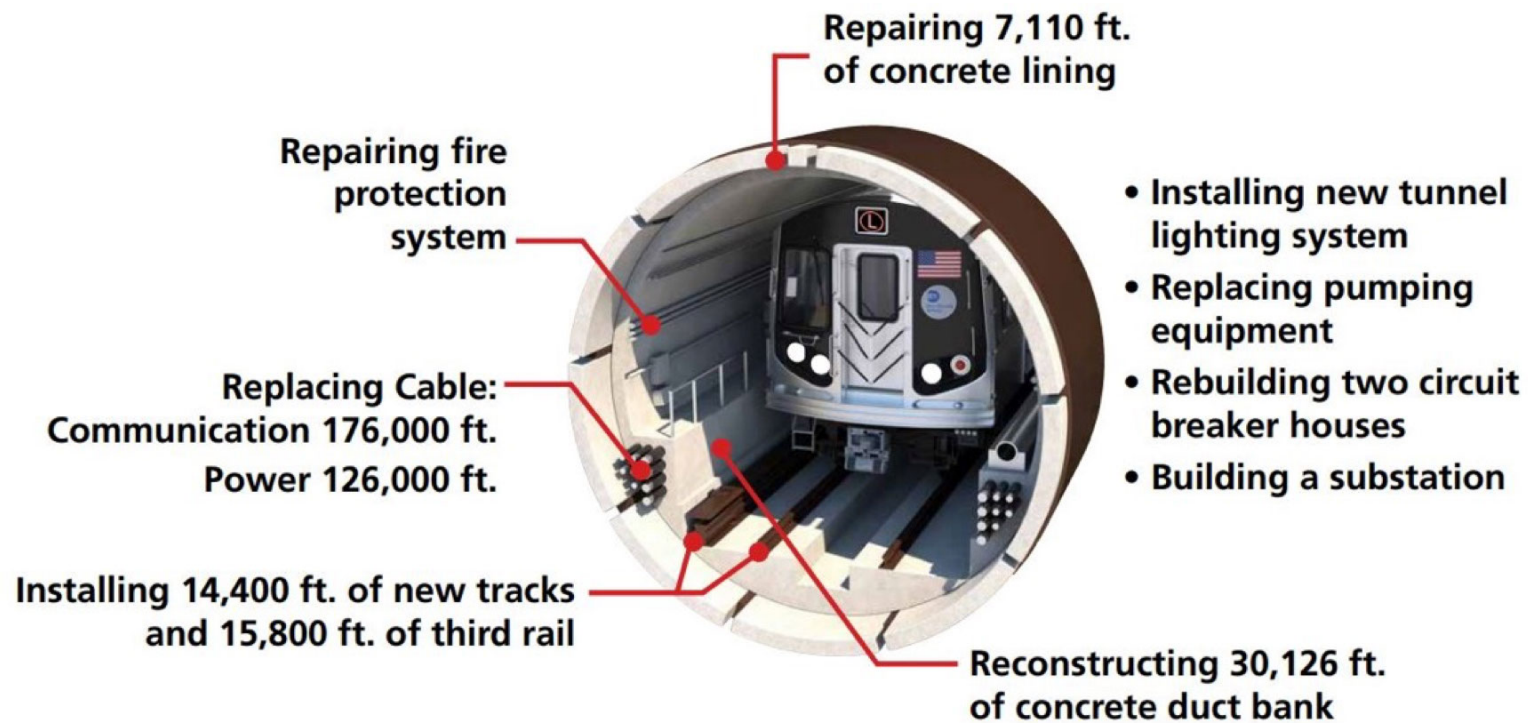




L Tunnel Reconstruction

Reconstructing the L Tunnel

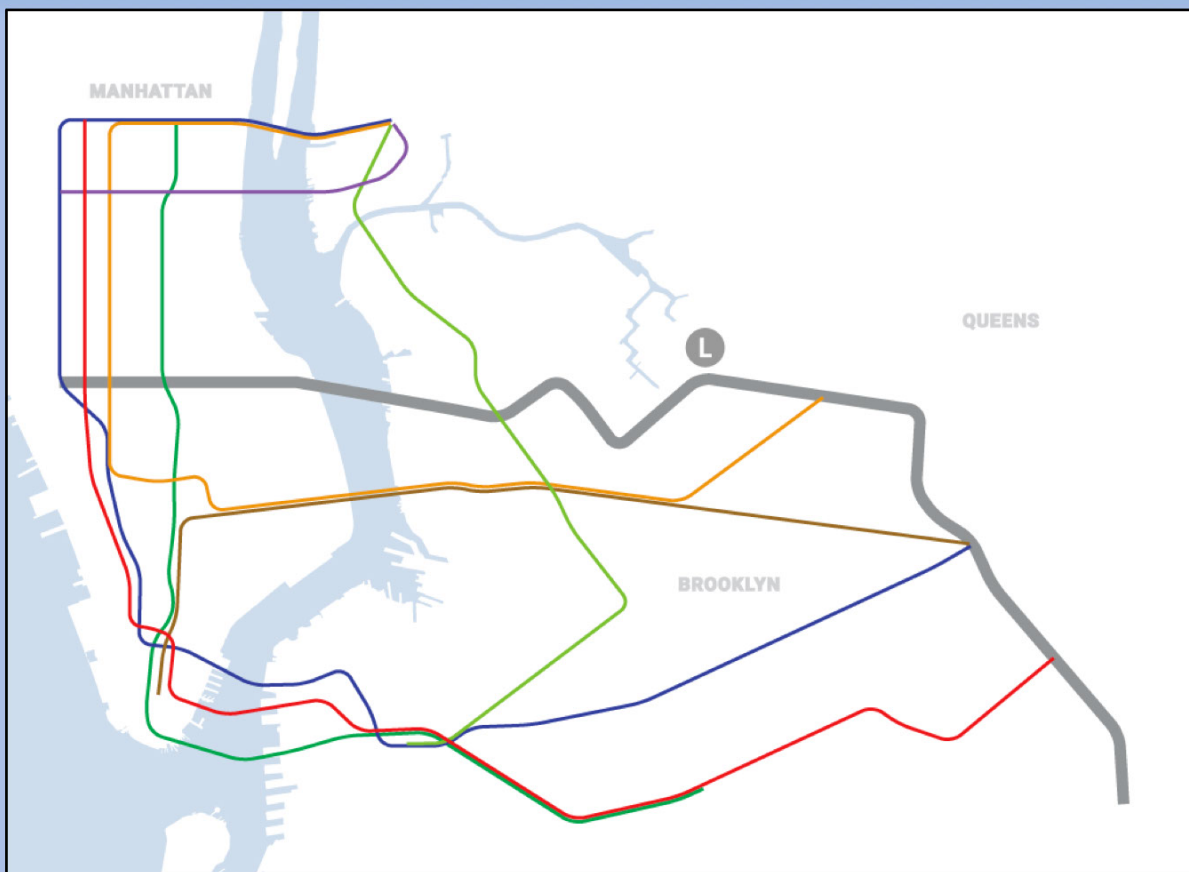


L Service During Tunnel Reconstruction

April 2019 through July 2020



Projected Cross River Travel Paths of **L** Customers



The Service Plan:

Our modeling assumes 100% of trips will be accommodated by one of the following service options

Projected Cross River Travel Paths of **L** Customers



By Subway:

More **J M Z** service

- 32% of **L** customers
- 14% capacity increase, accommodating an additional 3,480 riders

Projected Cross River Travel Paths of **L** Customers



By Subway:

More **G** service and longer trains to/from Long Island City

- 28% of **L** customers
- 176% capacity increase, accommodating an additional 11,100 riders

More **G** service and longer trains to/from Downtown Brooklyn

- 7% of **L** customers
- 121% capacity increase, accommodating an additional 7,620 riders

Projected Cross River Travel Paths of **L** Customers



By Subway:

From the **G** in Queens:

- Additional **E M** service
 - 11% of **L** customers
 - 11% capacity increase, accommodating an additional 3,480 riders
- Additional **7** service
 - 15% of **L** customers
 - 7% capacity increase, accommodating an additional 2,420 riders

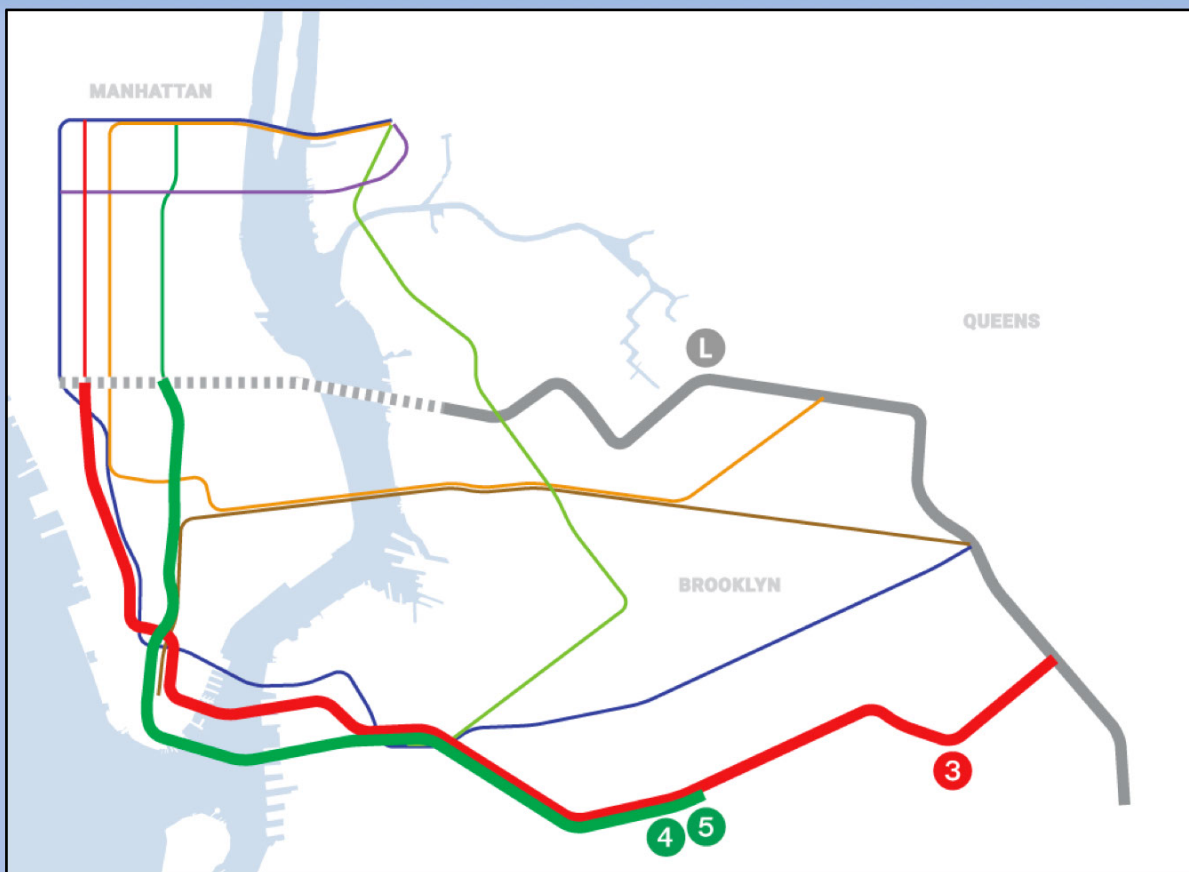
Projected Cross River Travel Paths of **L** Customers



By Subway:

- A C** in Brooklyn (longer **C** trains)
 - 12% will transfer from the **G** and **L**
 - 7% capacity increase, accommodating 2,320 customers

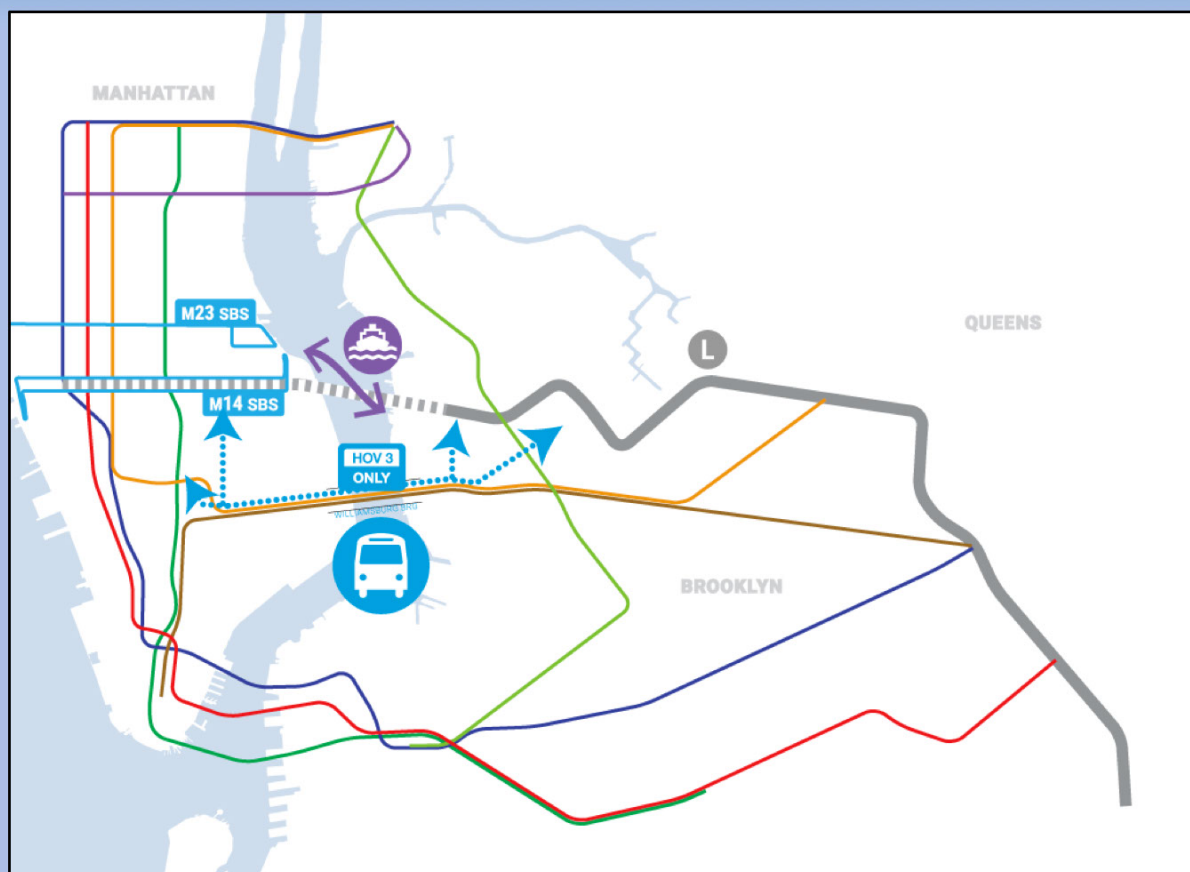
Projected Cross River Travel Paths of **L** Customers



By Subway:

3% of riders will take the **2 3 4 5**

Projected Cross River Travel Paths of **L** Customers



By Bus and Ferry:

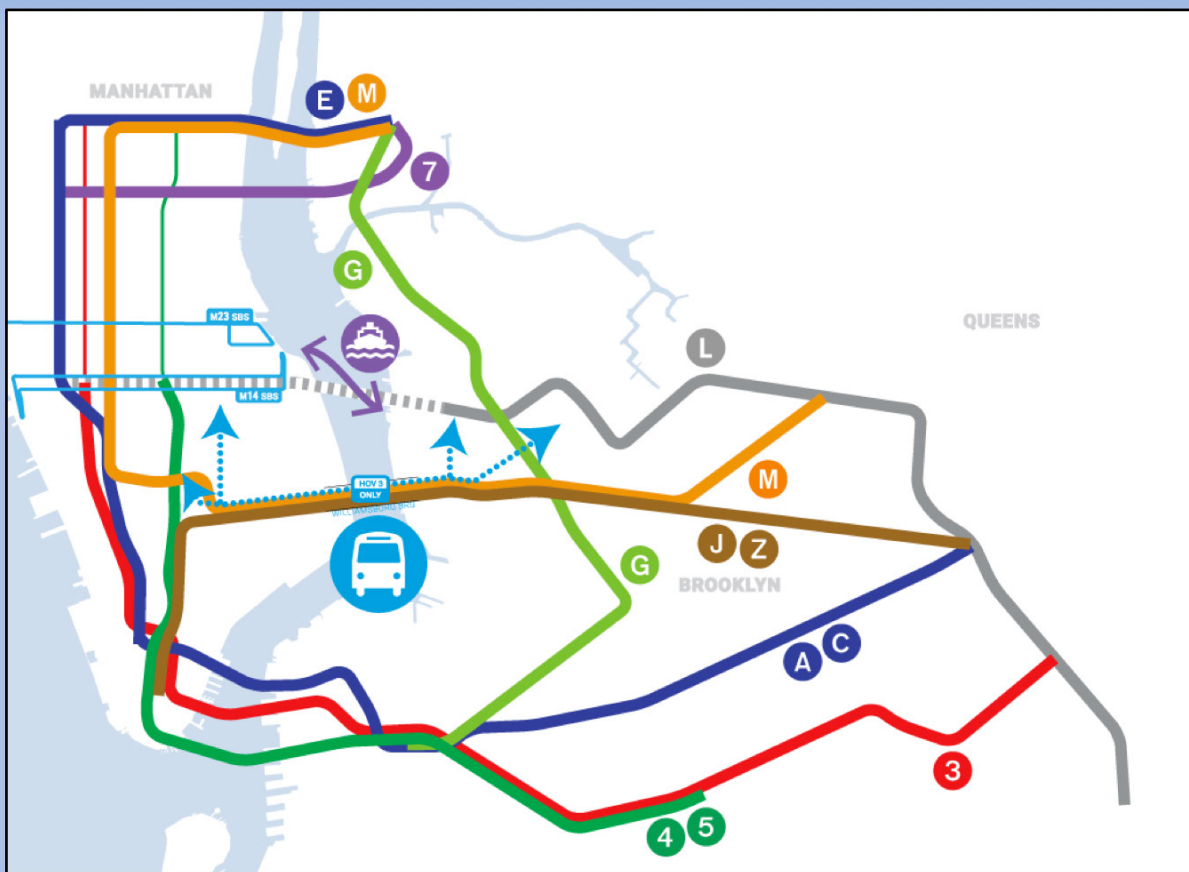
Four interborough Select Bus Service Routes

- 17% of **L** customers
- 80 buses per hour, accommodating 4,200 riders

New ferry service

- 4% of **L** customers
- Eight ferries per hour, accommodating 1,190 riders

Projected Cross River Travel Paths of **L** Customers

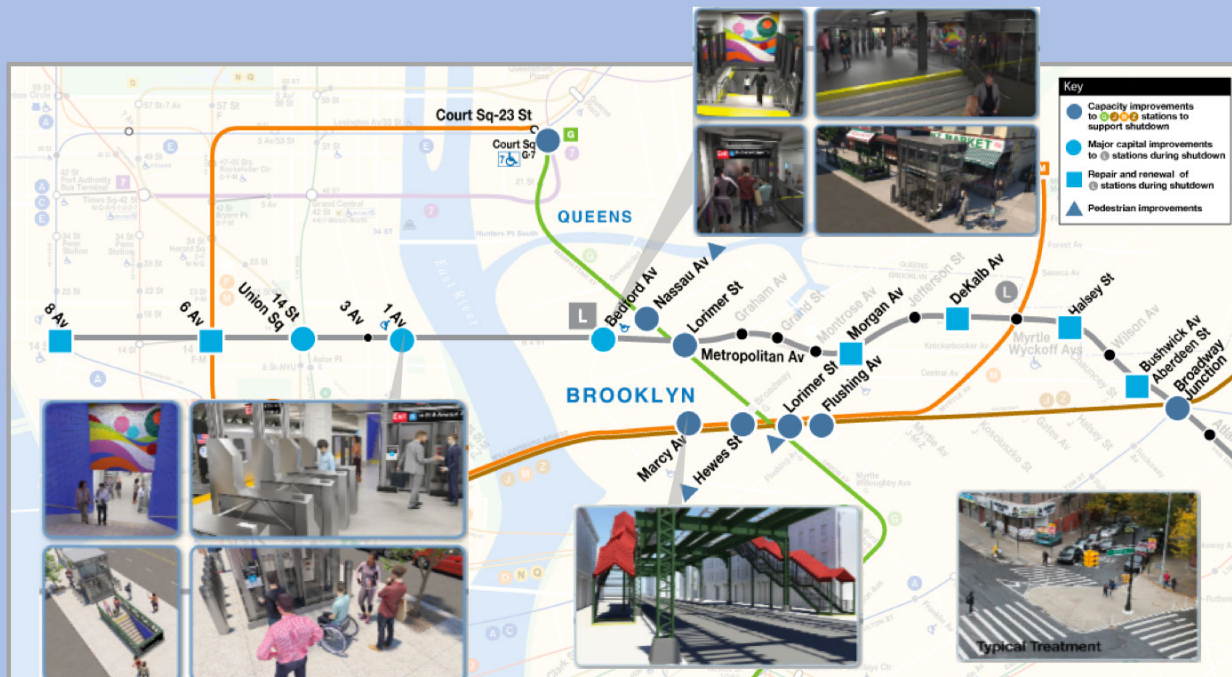


In Summary:

- **79%** of **L** riders will take other subway lines
- **17%** of **L** riders will take interborough buses
- **4%** of **L** riders will take the ferry
- **71%** of **L** riders will have no more than 10 minutes additional travel time in AM peak

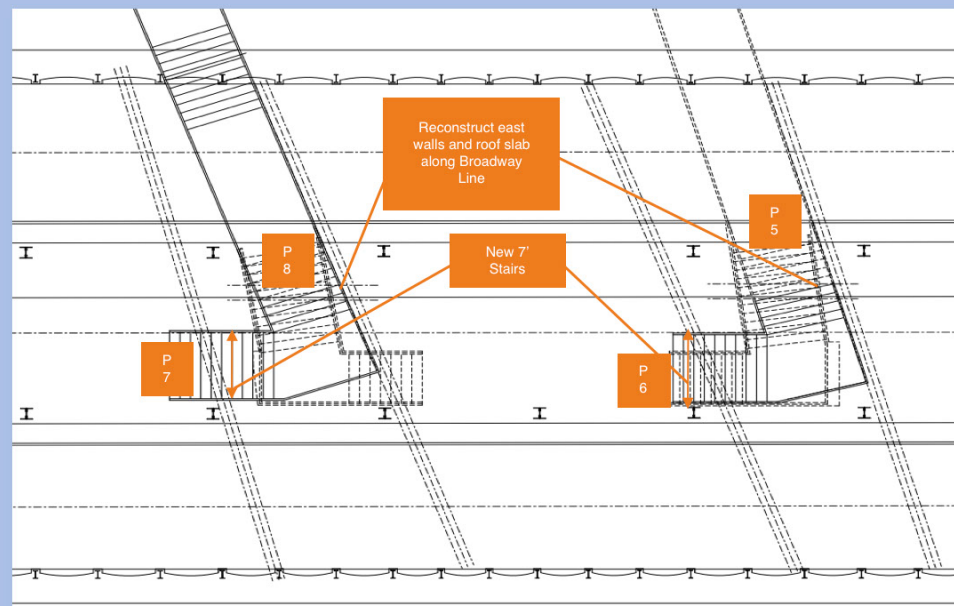
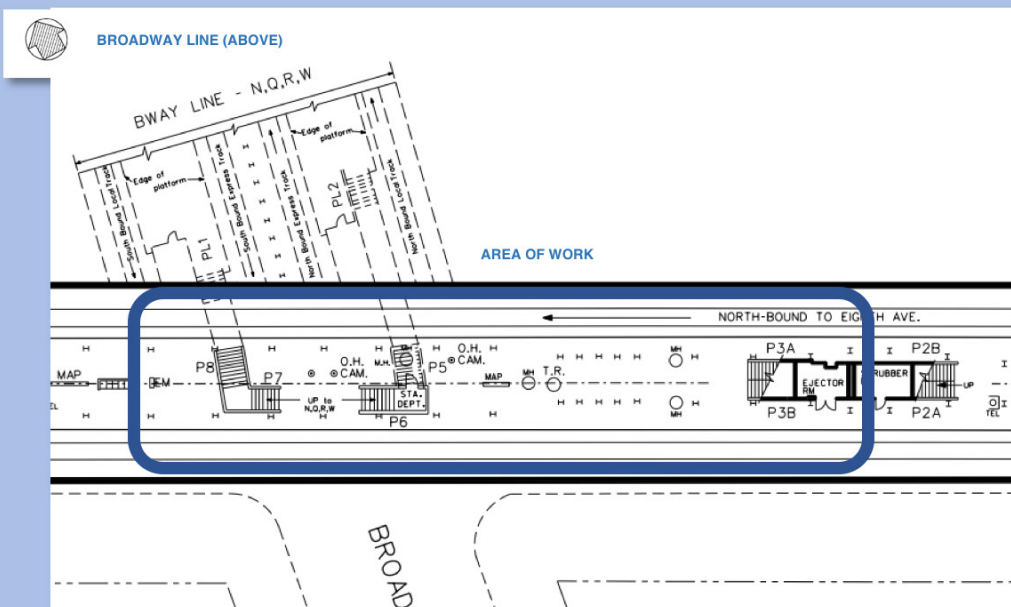
Permanent Station Improvements

Prior to the tunnel closure, we are improving access to and capacity in stations along the **G**, **J**, **M** and **Z** lines, that will provide alternatives to **L** service. During the tunnel closure, we will also enhance stations along the **L** line.

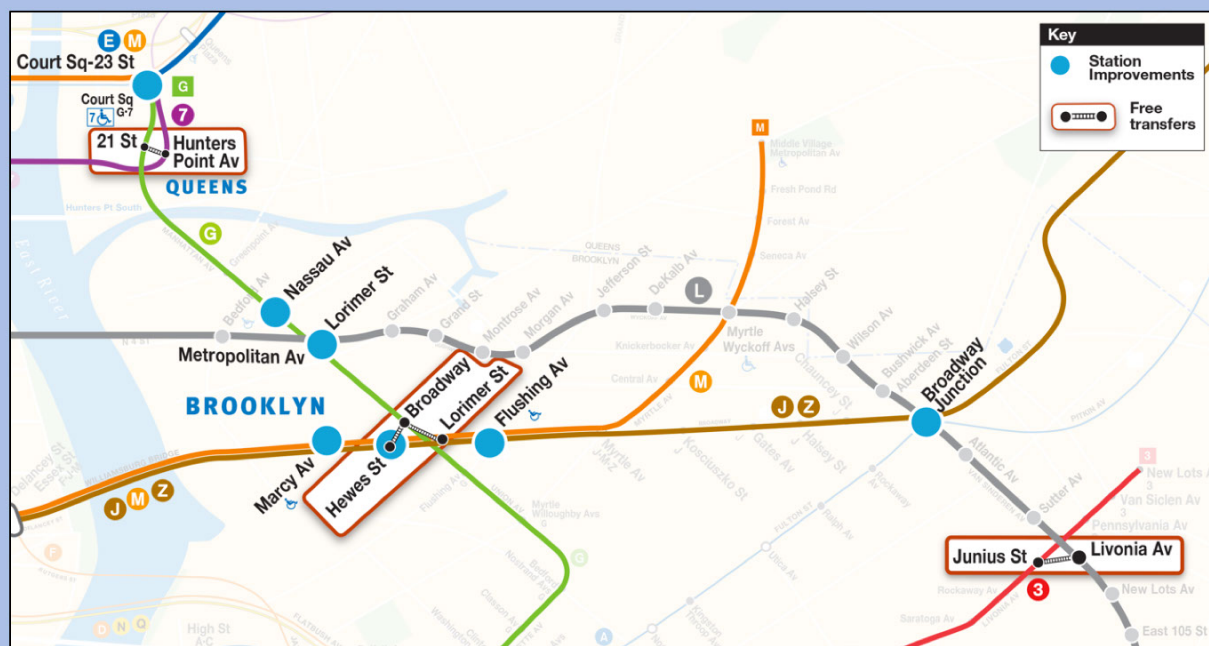


14 St-Union Sq Station Permanent Improvements

We are improving and expanding stair circulation between the **L** line platform and the **N Q R W** platforms at Union Square, and adding an escalator between the mezzanine and **L** platform.



Station Capacity and Transfers

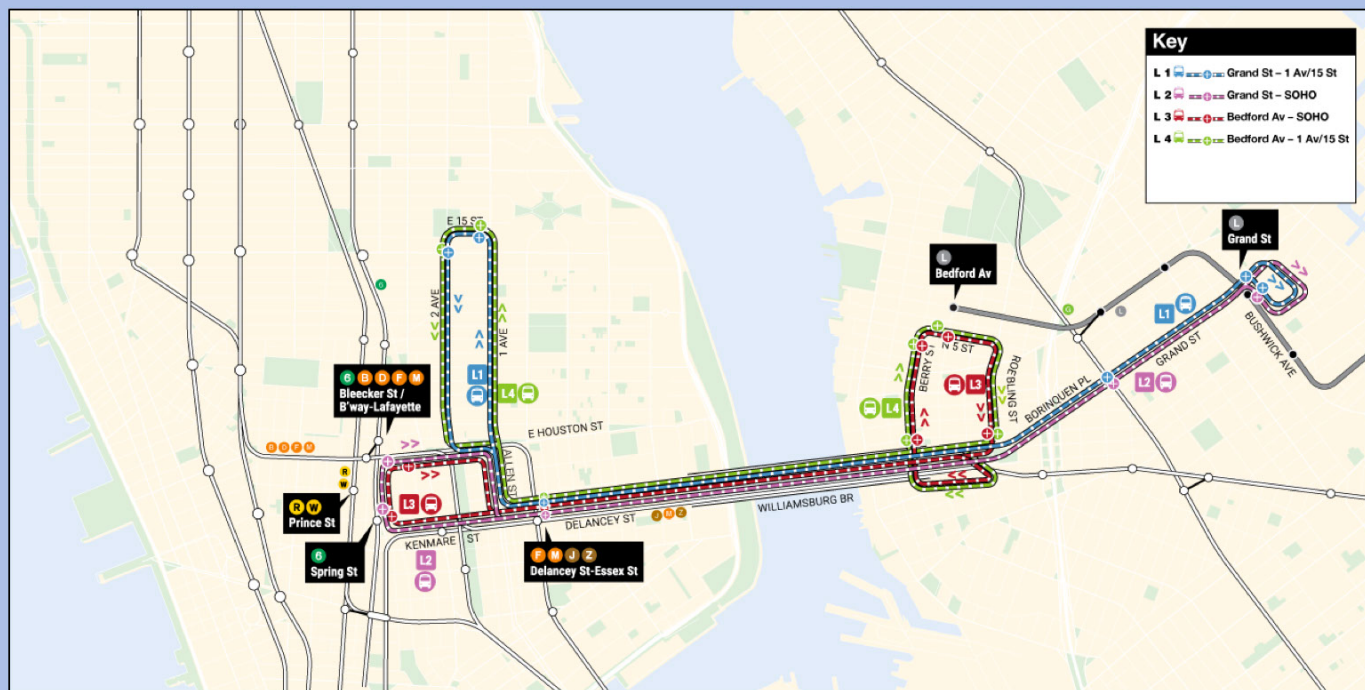


New Free Transfers:

- Broadway **G** and Hewes St **J M Z**
- Broadway **G** and Lorimer St **J M Z**
- Junius St **3** and Livonia Av **L**
- 21 St **G** and Hunters Point Av **7**

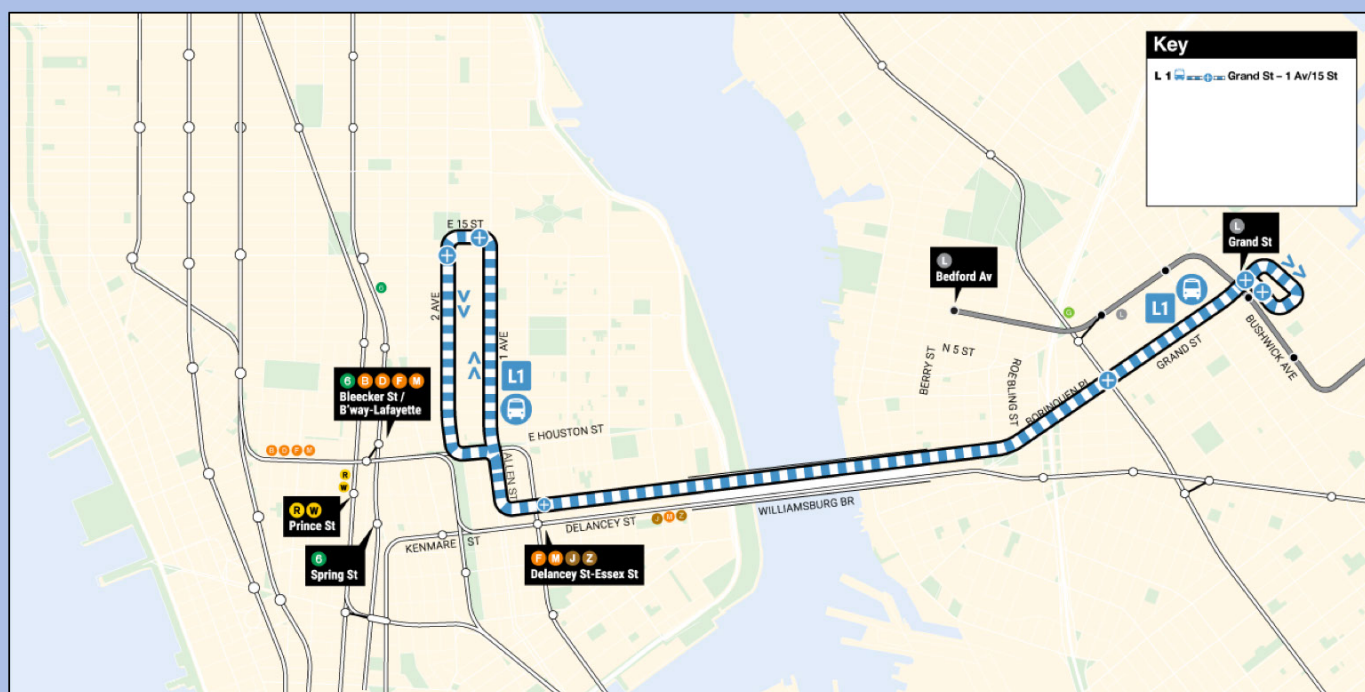
Interborough Select Bus Service

80 Buses Per AM Peak Hour will Travel Across the Williamsburg Bridge



- L1 SBS
- L2 SBS
- L3 SBS
- L4 SBS

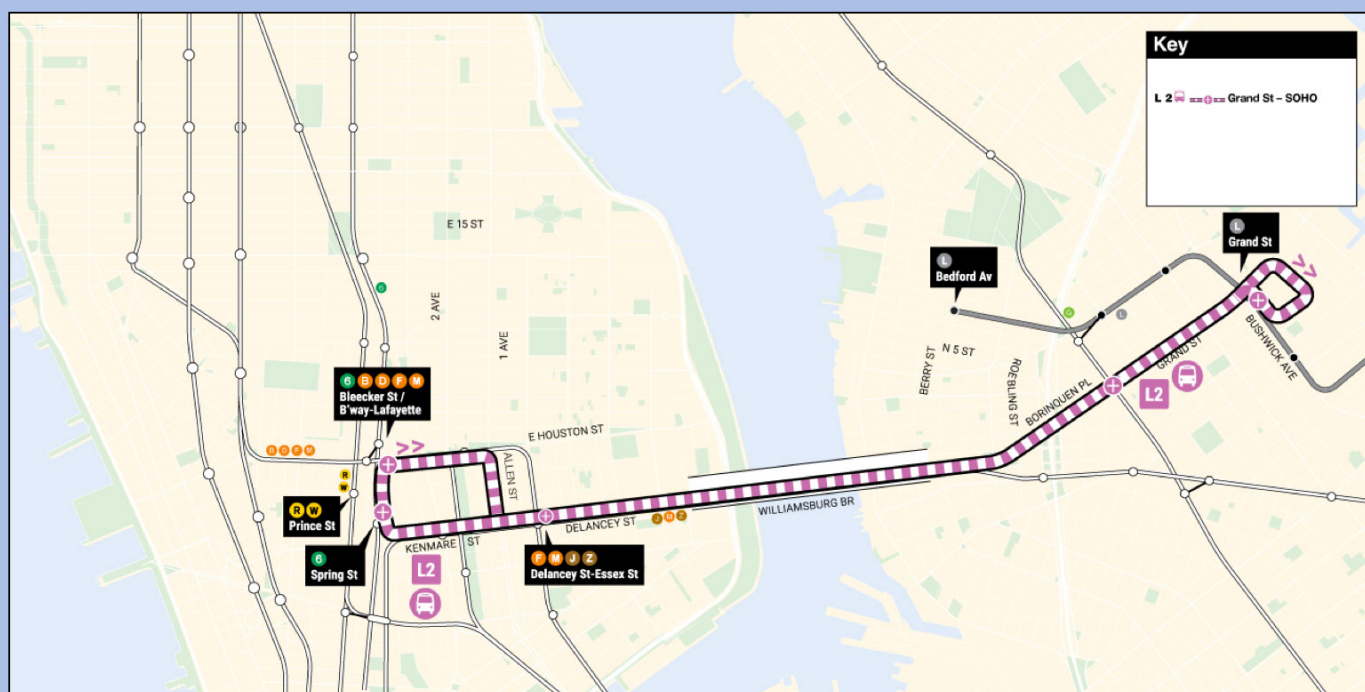
Interborough Select Bus Service: L1 SBS



Service between Grand St and 1 Ave/15 St:

- Every 2½ minutes during AM peak hours
- Every 3½ minutes during PM peak hours

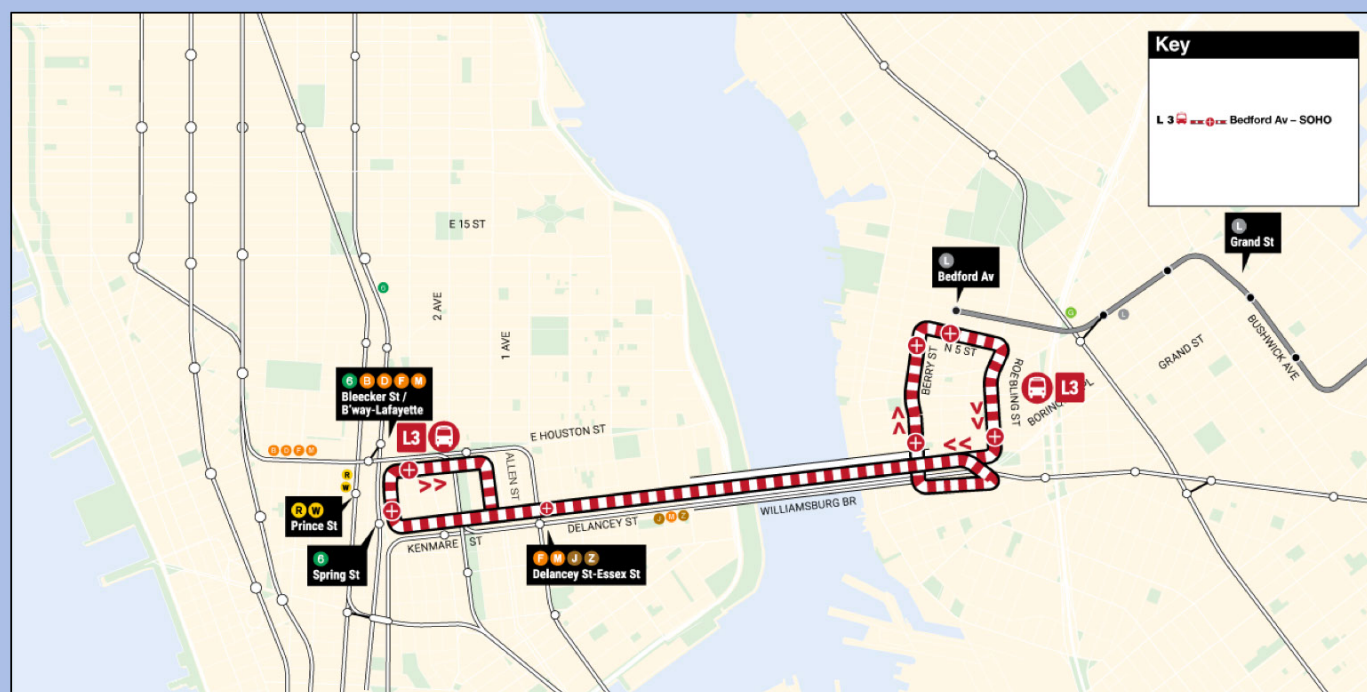
Interborough Select Bus Service: L2 SBS



Service between Grand St and SoHo:

- Every 2½ minutes during AM peak hours
- Every 3½ minutes during PM peak hours

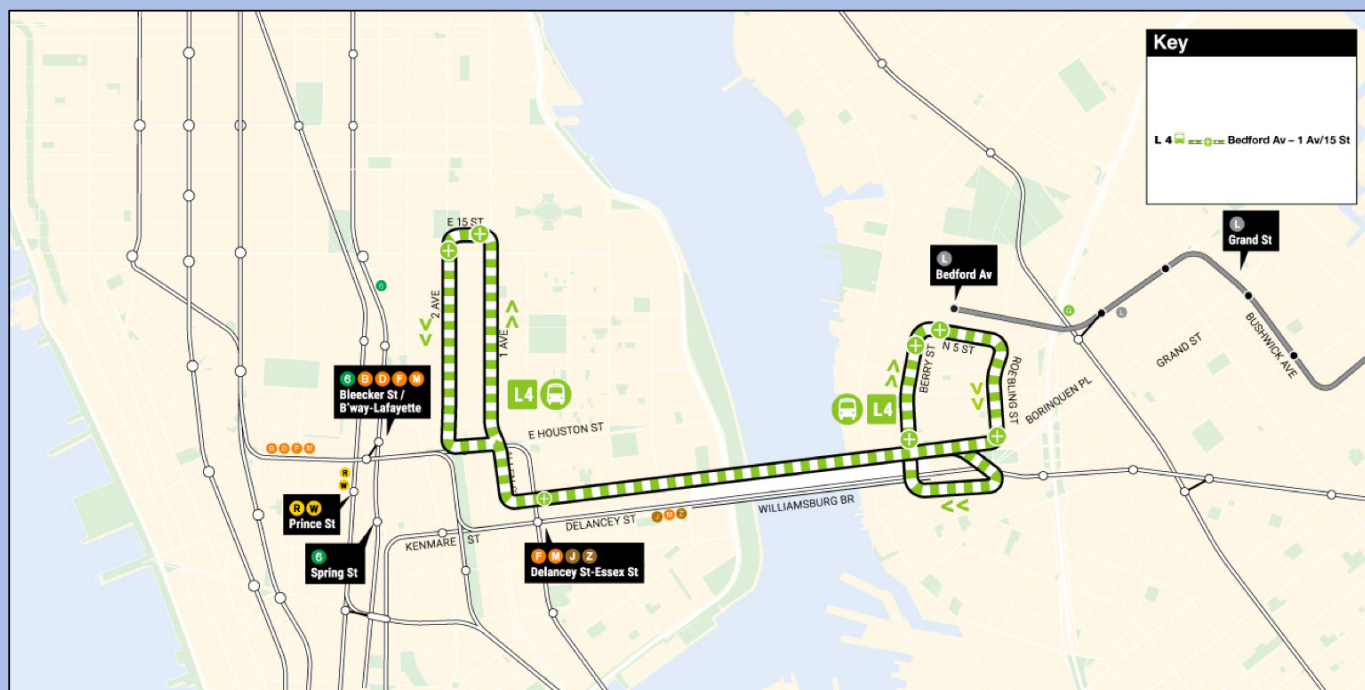
Interborough Select Bus Service: L3 SBS



Service between Bedford Av and SoHo:

- Every 2½ minutes during AM and PM peak hours

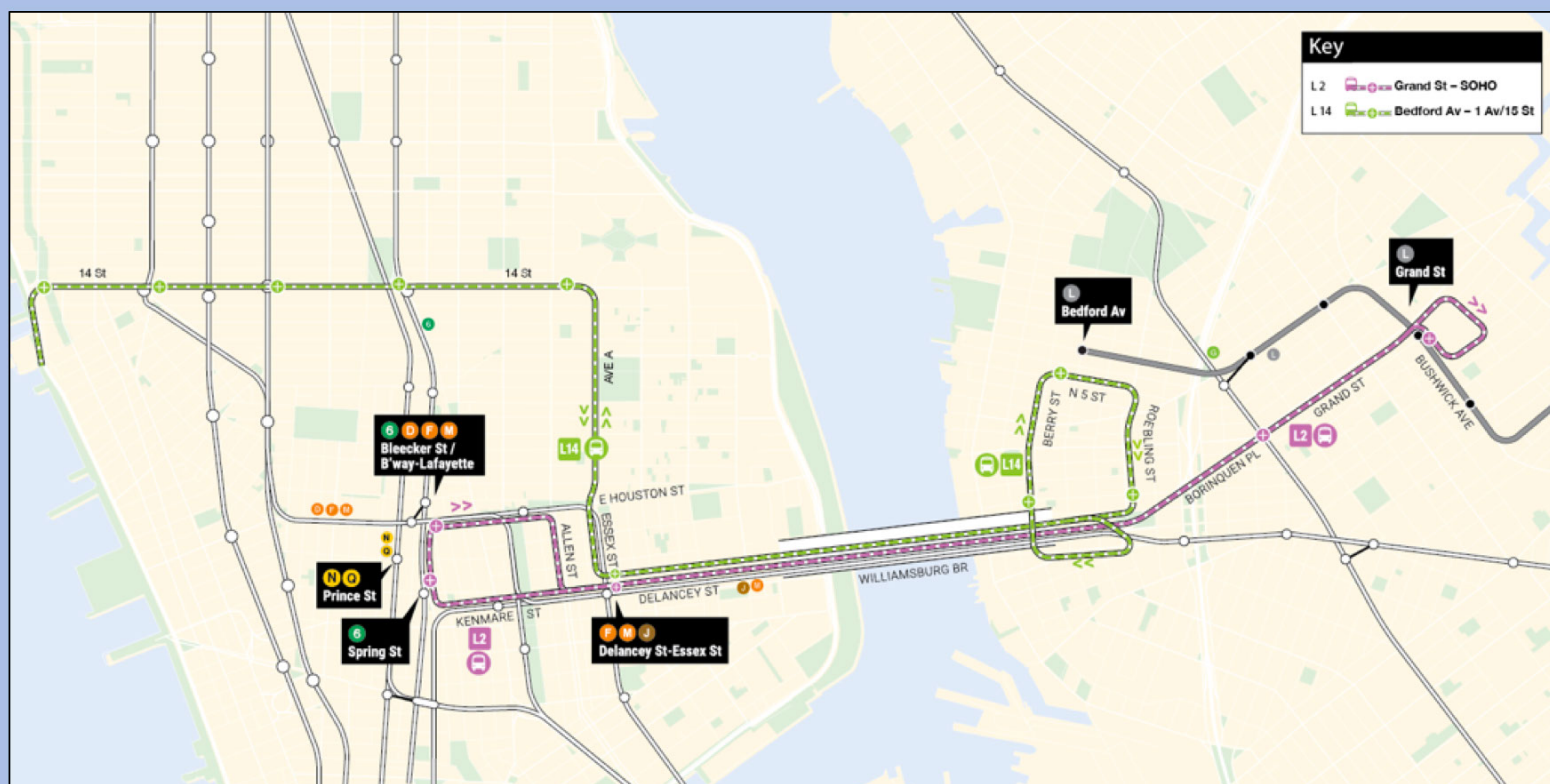
Interborough Select Bus Service: L4 SBS



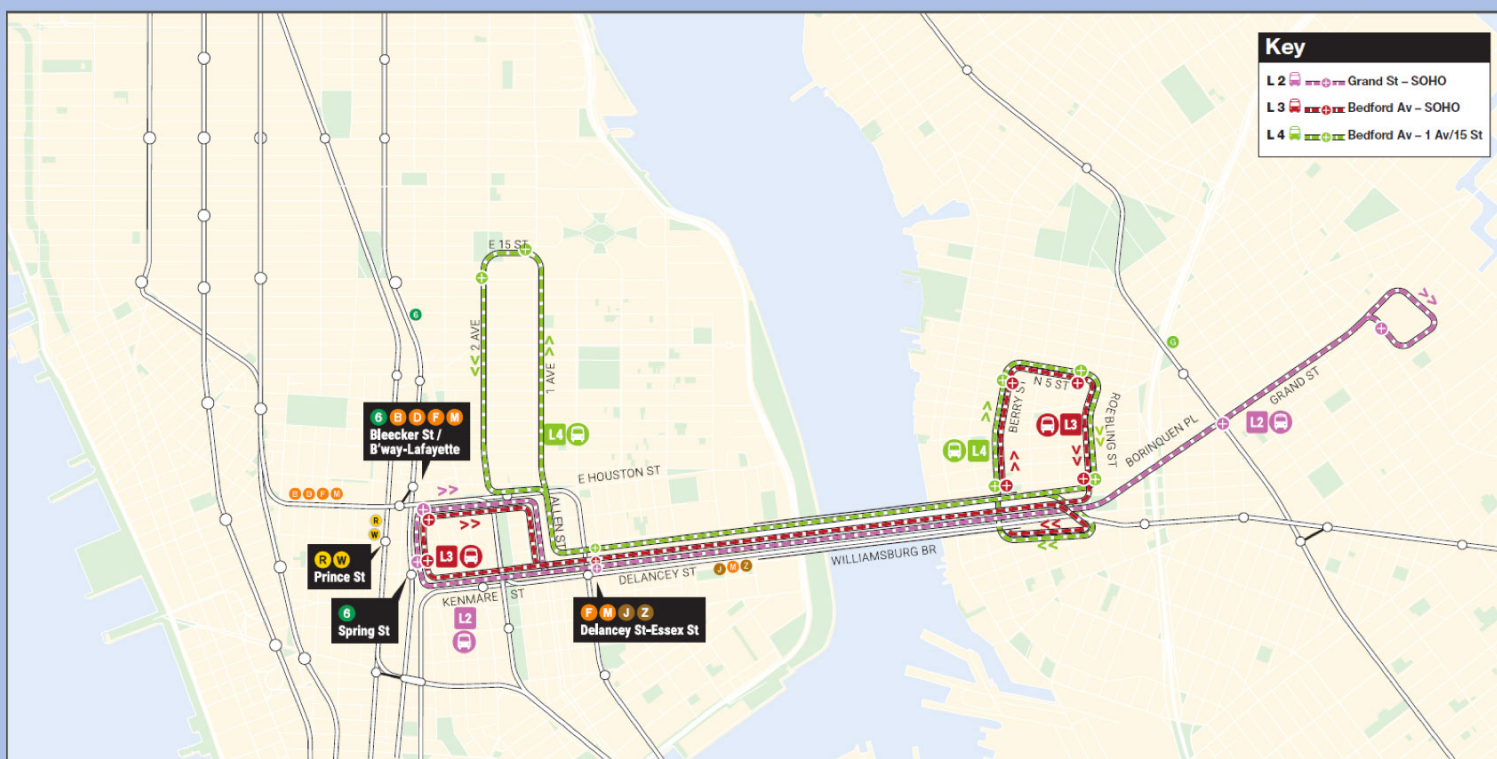
Service between Bedford Av and 1 Av/15 St:

- Every 6 minutes during AM peak hours
- Every 6½ minutes during PM peak hours

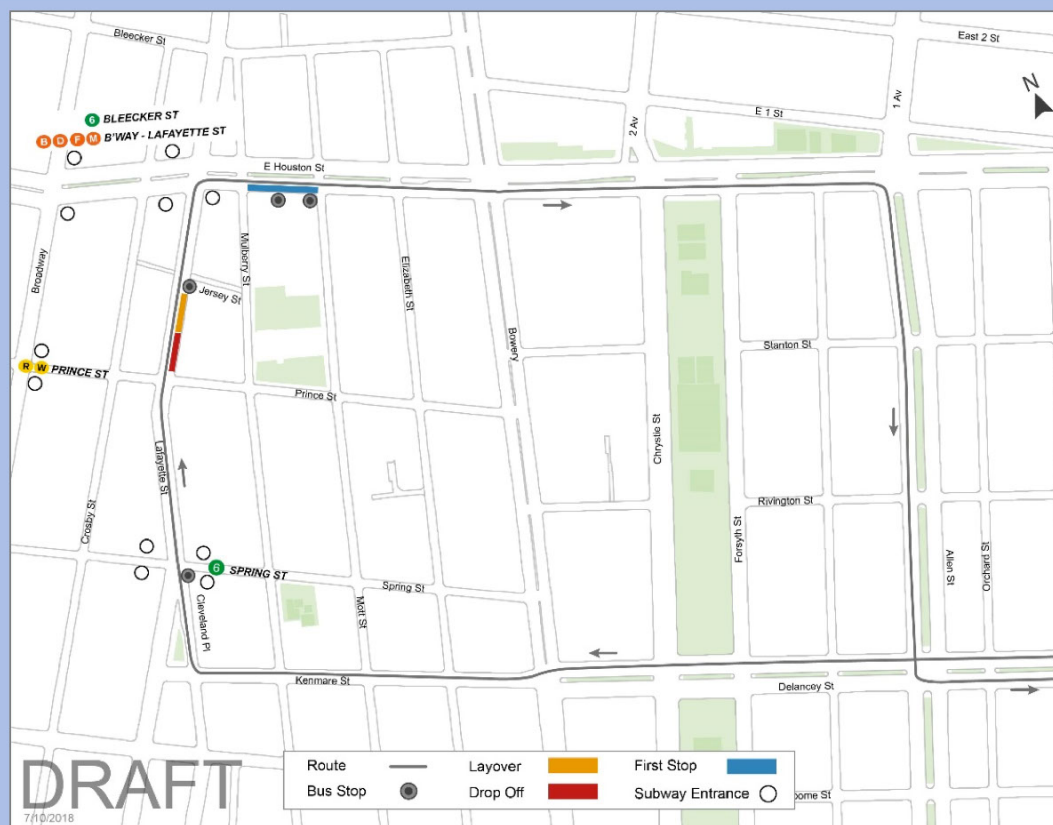
Late Night Bus Service: L14 SBS



Weekend Service: L2 SBS, L3 SBS, L4 SBS



L2 & L3 SBS Bus Stops – SOHO/ Little Italy Loop



L1, L2, L3 & L4 SBS Bus Stops – Delancey Street/ Essex Street



Bus Priority Plan



Williamsburg Bridge HOV 3+ Hours

HOV 3+ Policy:

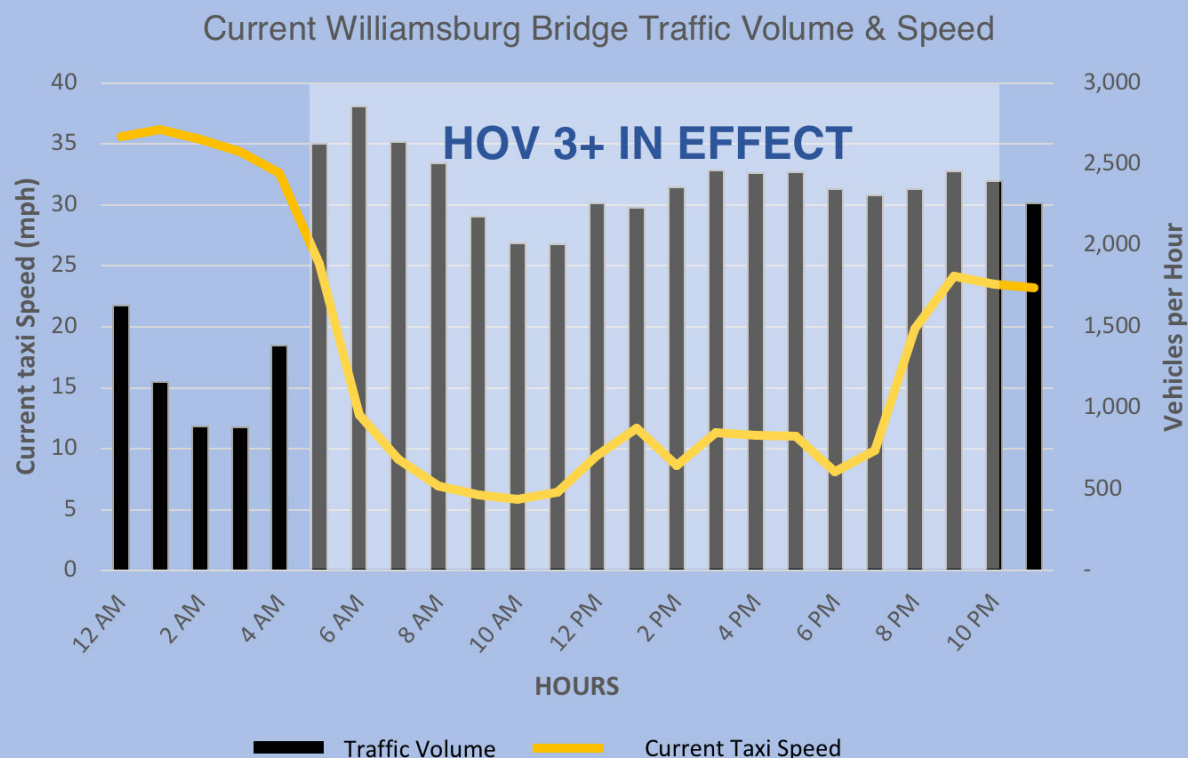
5 AM to 10 PM, every day

- Buses, Trucks & HOV 3+ Only
- Manhattan- and Brooklyn-Bound
- All Lanes

Key benefits

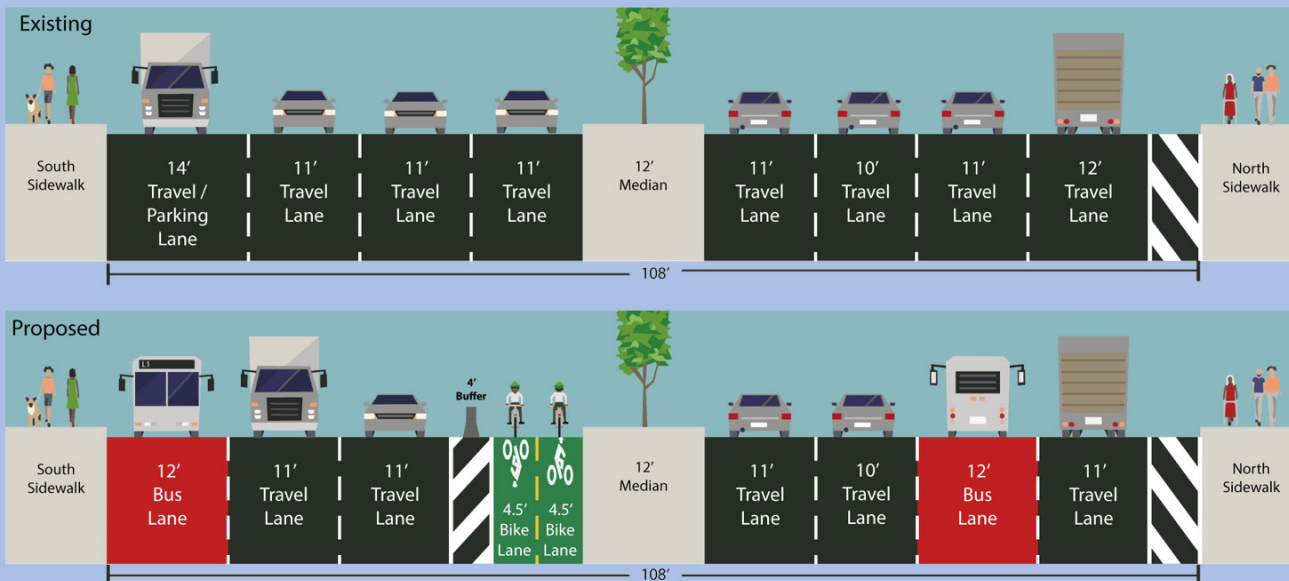
- 5 AM start discourages early morning congestion before regulation goes into effect
- HOV supports period of highest projected bus ridership demand
- Weekend and evening HOV hours support non-commute trips

DOT coordinating with NYPD on enforcement staging, strategy



Delancey Street

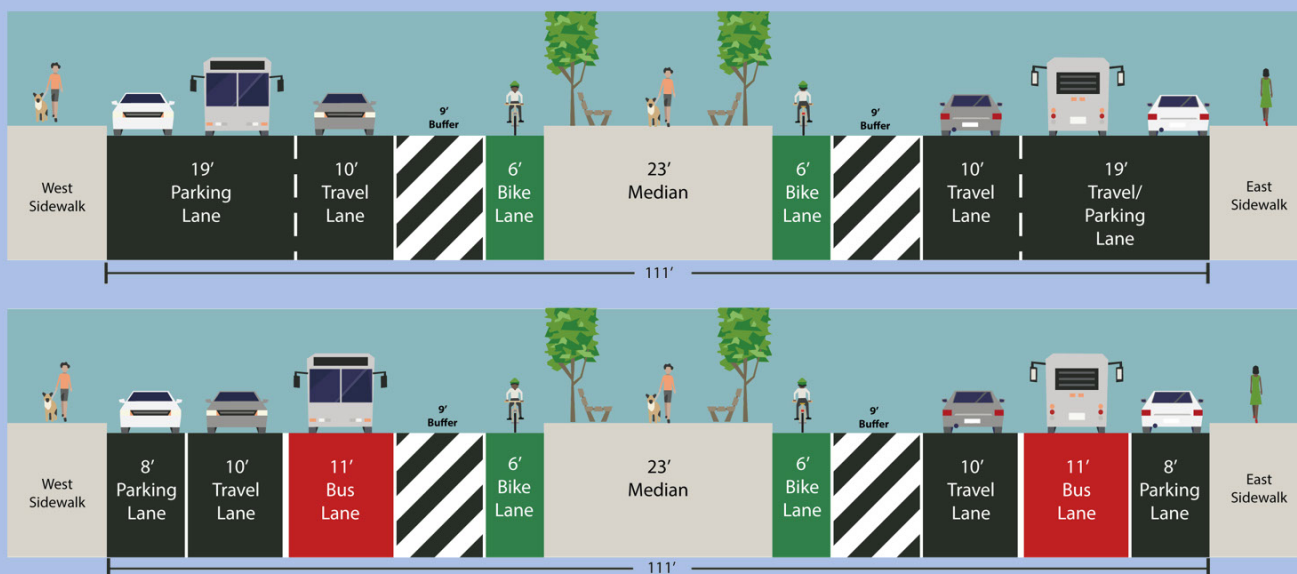
From Williamsburg Bridge to Bowery



- Continues bus priority from Williamsburg Bridge
- All shuttle buses will stop at Essex St for Delancey/Essex F/J/M subway transfer
- Bus stops will be located on both sides of Essex St in both directions
- Provides a safe bike facility connecting the Williamsburg Bridge, Allen Street and Chrystie Street
- Bike lane approved by CB 3 and will be implemented in summer
- Ongoing analysis of traffic and curb regulations

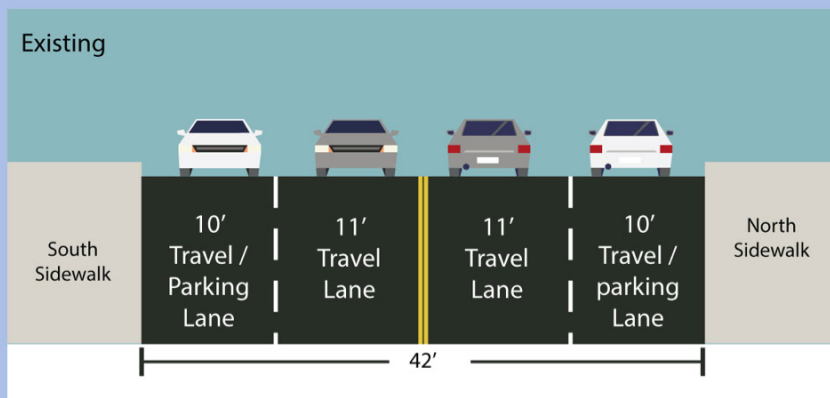
Allen Street

From Delancey Street to Houston



- Maintains the existing bike lanes
- Southbound bus lane will be aligned to the left to accommodate left-turning buses at Delancey St (left turns for buses only)
- M15SBS/Local will be able to use the bus lanes

Kenmare Street



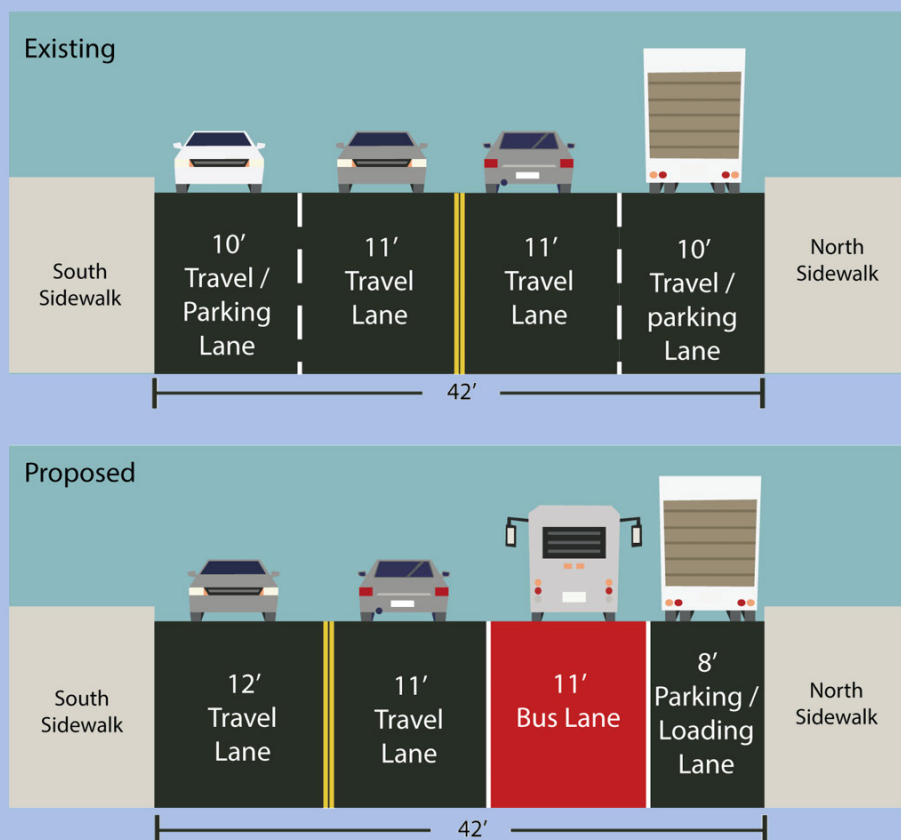
- Kenmare is a challenging street
 - Narrow street continuation of wide arterial (Delancey St)
 - High level of curb loading on several blocks
- MTA/DOT performed a traffic analysis of Kenmare and surrounding streets
- DOT conducted merchant surveys of businesses throughout Soho Loop

Kenmare Street Traffic

- Most vehicles on Kenmare St are going to or coming from the Williamsburg Bridge
- Around 35% of vehicles on Kenmare St are traveling to/from the Holland Tunnel
- Westbound traffic volumes are higher than Eastbound volumes all hours of the day
 - WB: 760 AM Peak, 750 PM Peak, 630 Sat. Peak
 - EB: 420 AM Peak, 615 PM Peak, 570 Sat. Peak
- Trucks make up approximately 10% of vehicles on Kenmare St
- During the L closure, the Williamsburg Bridge will be HOV3+ and truck only from 5am to 10pm 7 days a week
- **Modeling predicts HOV3 policy will reduce traffic volumes on Kenmare St up to 75%**

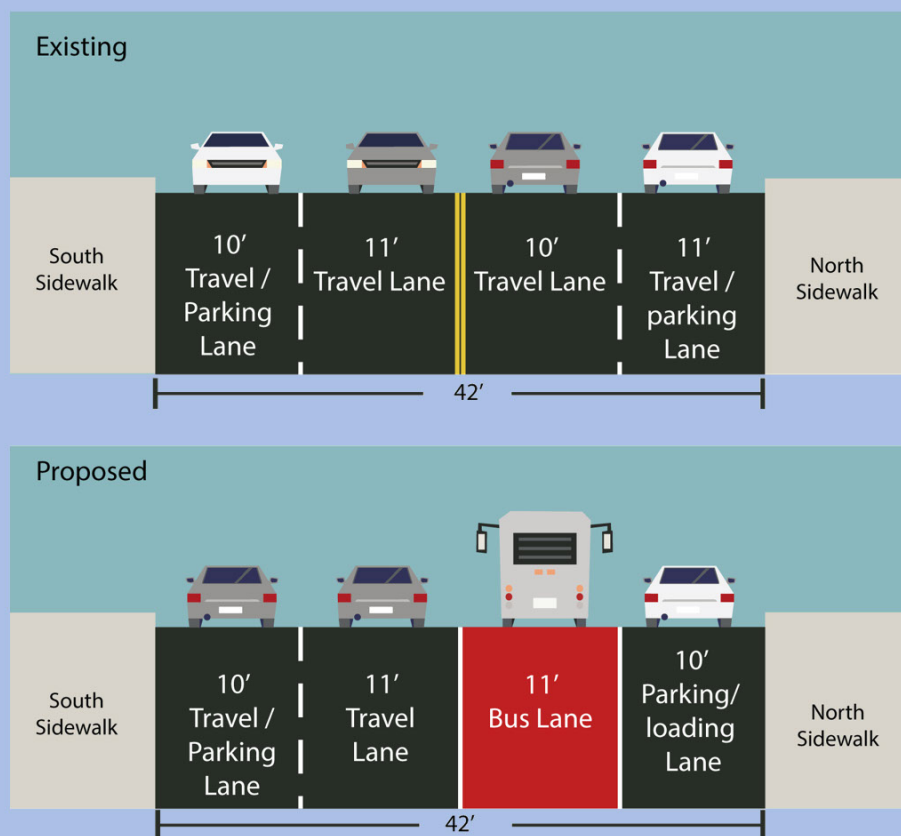


Option A



- Shifts existing travel lanes to accommodate an offset bus lane
- Full-time loading/parking in 8' lane on the north curb (currently a part time loading lane)
- Convert lane against the south curb to Eastbound travel lane
- Eastbound through traffic would be constrained by any loading activity on south curb
- Right turns onto and off of Kenmare would be constrained and require stop bars to be set back significantly
- Traffic analysis indicates this option is feasible

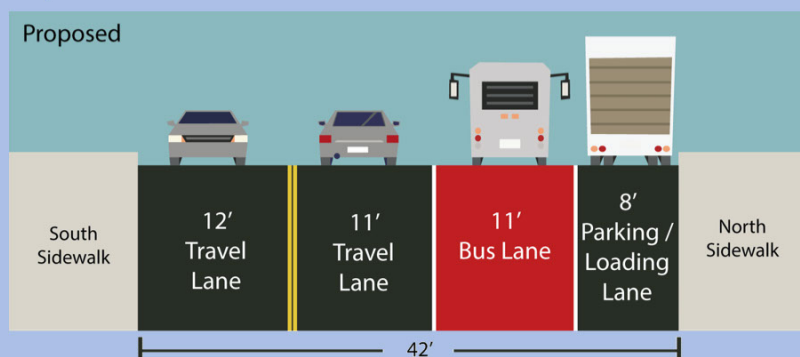
Option B



- Convert Kenmare to one-way westbound from Bowery to Lafayette St
- Add an offset bus lane
- Maintains wide loading/parking lanes
- Provides more curb loading space than the two-way option and existing configuration
- Wider lanes would reduce traffic and bus blockages due to double-parking
- Eastbound traffic would be diverted to other streets
- Better accommodates the direction of travel with the highest traffic volumes

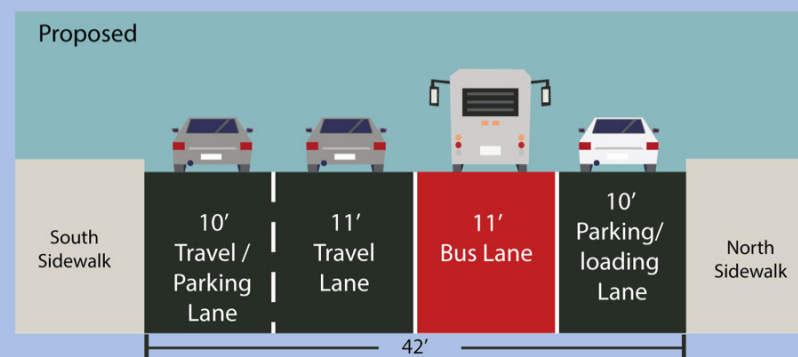
Comparing the Options

Option A



- Maintains bi-direction traffic
- Reduces amount of curb loading/parking
- Narrow loading lane may lead to bus blockages
- Curbside travel lane would be blocked by drop-offs and pick-ups
- Lane configuration creates more-difficult turns

Option B



- Increases curbside loading over existing
- Wider lanes would reduce blockages and improve turns
- One-way traffic reduces vehicle conflicts
- Eastbound traffic would divert to other streets

Kenmare at Petrosino Sq



- Westbound vehicles drive the wrong way to bypass queue making left turn from Kenmare St onto Lafayette St
- **In response to community concerns**, DOT proposes to convert the short block of Kenmare at Petrosino Sq to one-way westbound
- Low-volume left turn from Lafayette St onto Kenmare St would be banned
- Eliminates wrong-way movements and add pedestrian space next to Petrosino Sq
- Shortens pedestrian crossings
- Feasible with either of the broader Kenmare designs (Option A and Option B)
- Traffic analysis indicates this change would not significantly increase delay

Houston Street

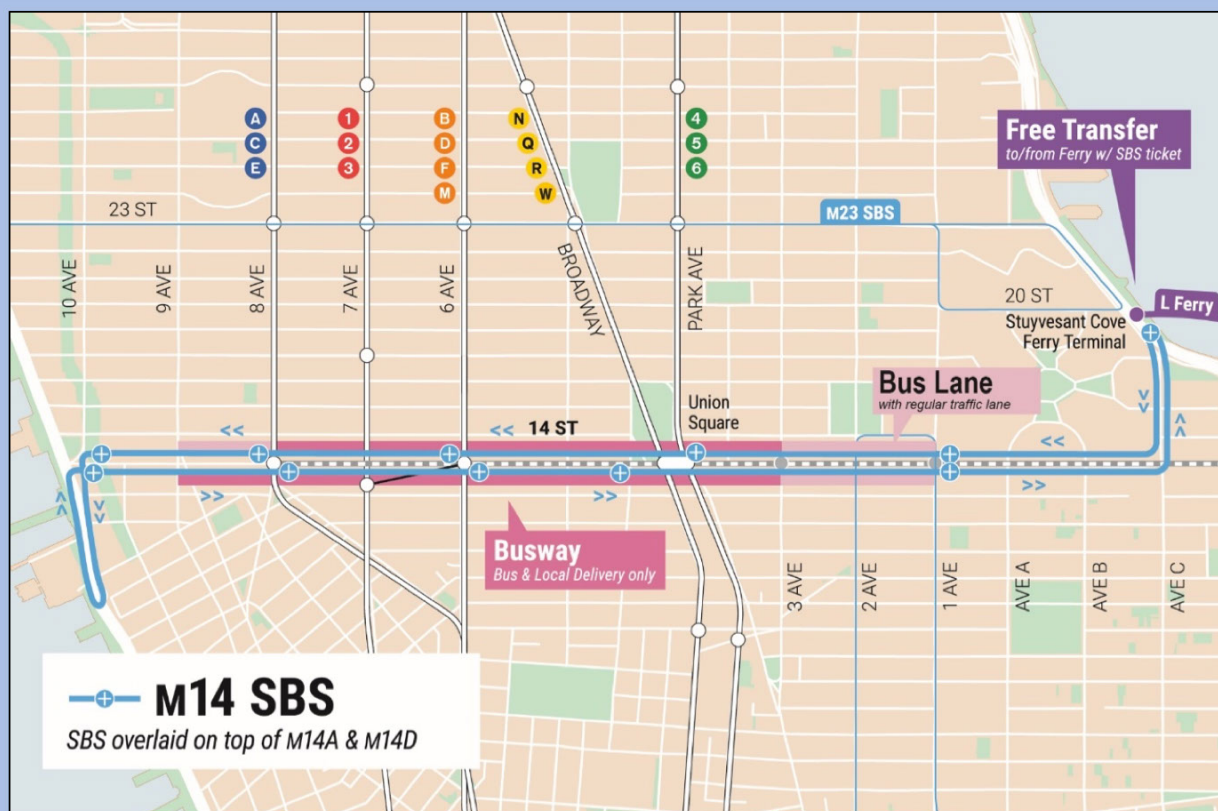
from Lafayette Street to Mott Street



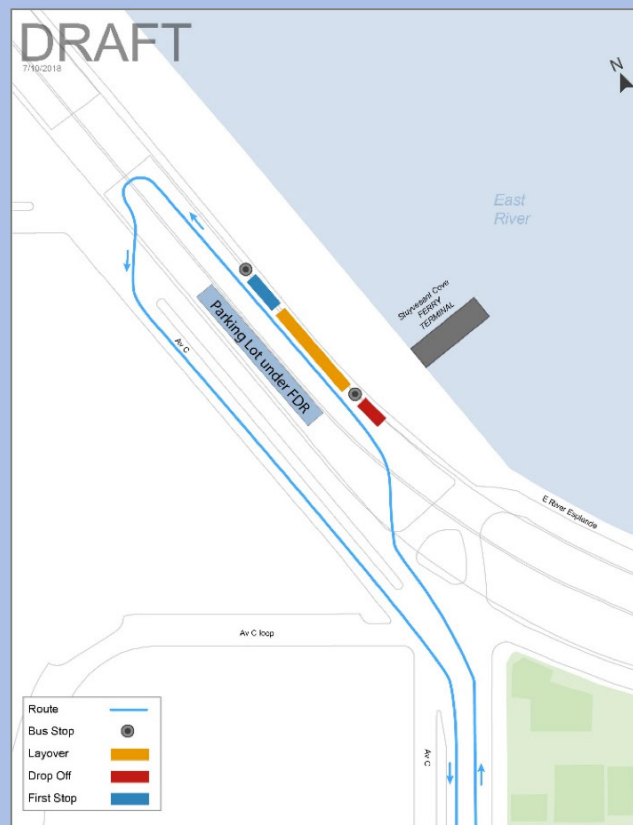
- L2 and L3 buses will make their first pick-up stop on Houston St between Mulberry St and Mott St
- Bus boarder will be installed to provide more space for pedestrians boarding the bus
- Painted pedestrian space will be added around subway entrance on Houston St between Lafayette St and Mulberry St



14th Street Transit Corridor



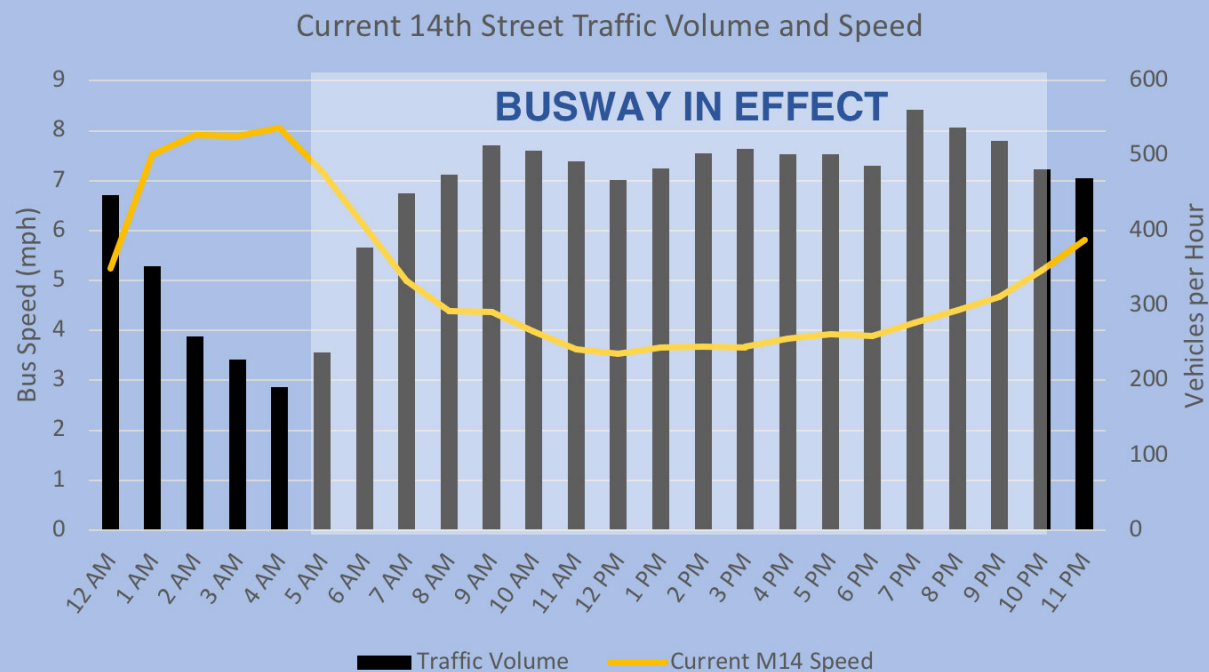
M14 SBS Bus Stops – 10th Ave & Stuyvesant Cove



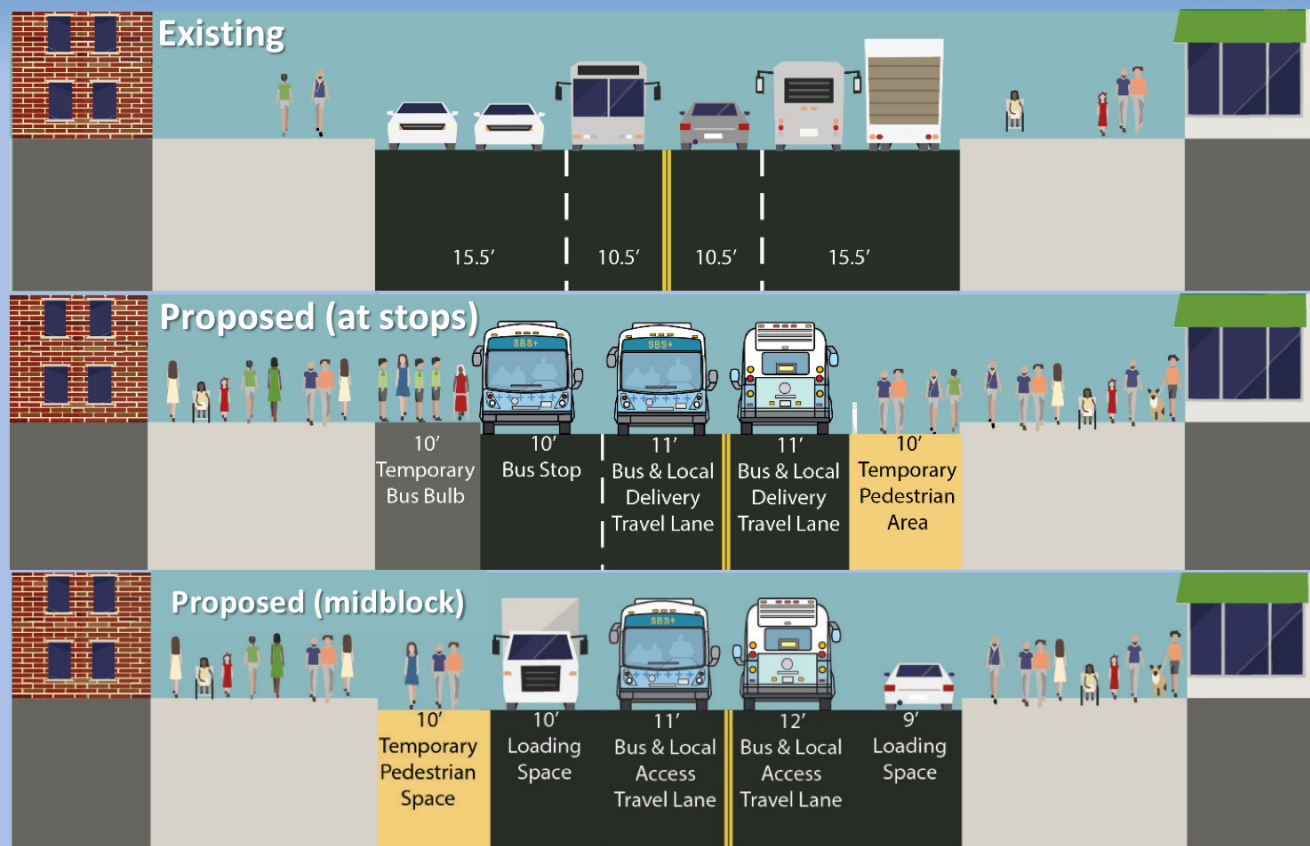
14th Street Busway Hours

5 AM to 10 PM, every day

- Buses
- Emergency Vehicles
- **Local access for deliveries, private parking garages, pickups and drop-offs**
- Busway hours support period of highest traffic demand on 14th Street
- Bus lane camera enforcement and NYPD presence will deter through traffic
- Busway operation without a midday gap allows for clear messaging and enforcement
- DOT will monitor traffic conditions on 14th Street and wider traffic network throughout the closure period



14th Street Busway Design



Pedestrian Volume Increases

Pedestrian surges of over 2x existing volumes on a Vision Zero Priority Corridor

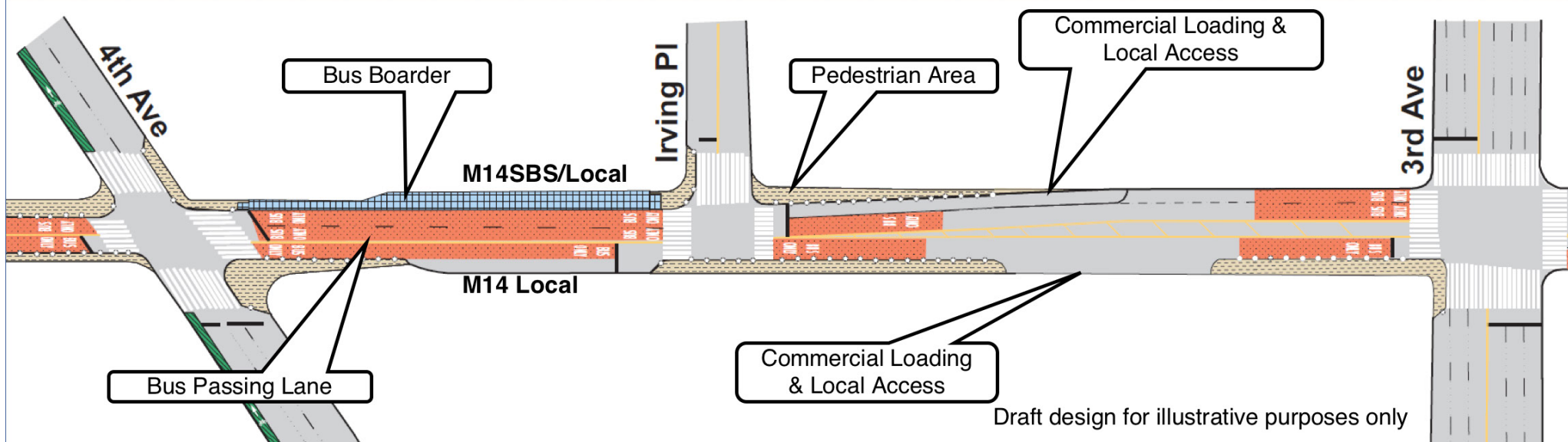


| 14th Street Projected Pedestrian Volume Changes 8-9 AM Peak Hour | | | |
|---|-----------------|------------|-------------|
| Location | Existing Volume | New Volume | % changes |
| Union Sq (2 ?t *Sl grl Qos_x C_qr* @m_bu_w*Sl g cpgwNj*Sl grl Qos_x U cqr) | 7,500 | 11,500 | 53% |
| 6 Av | 3,100 | 7,400 | 139% |
| 8 Av | 1,700 | 3,000 | 76% |

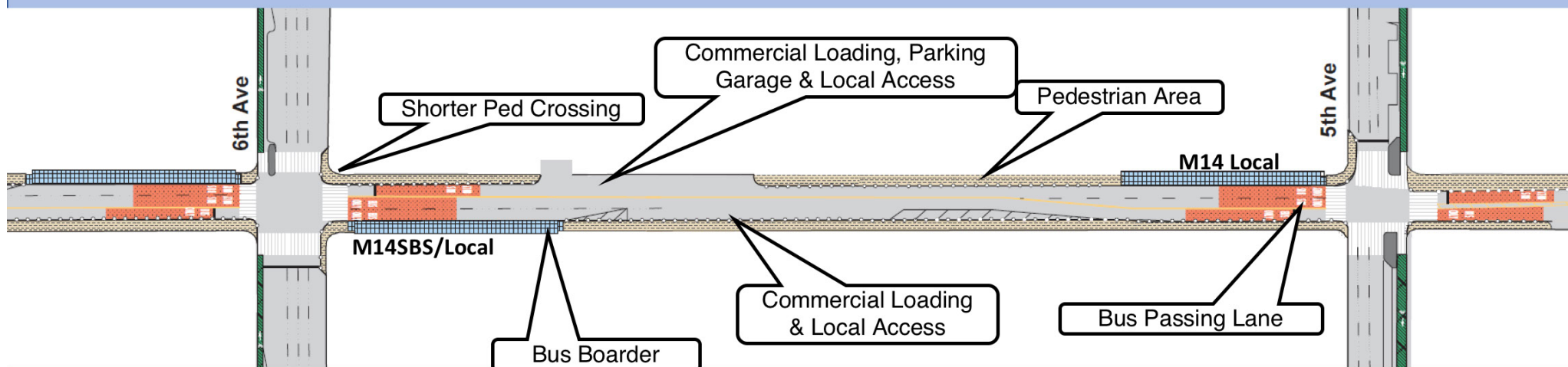
| Location | 14th St Projected Volume | Existing 34th St Volume | Existing 42nd St Volume |
|----------|--------------------------|-------------------------|-------------------------|
| 6 Av | 7,400 | 8,000 | 9,100 |

Data Inputs: counts of current pedestrians, projected bus volumes, projected entrance and exit of subway stations by stairway

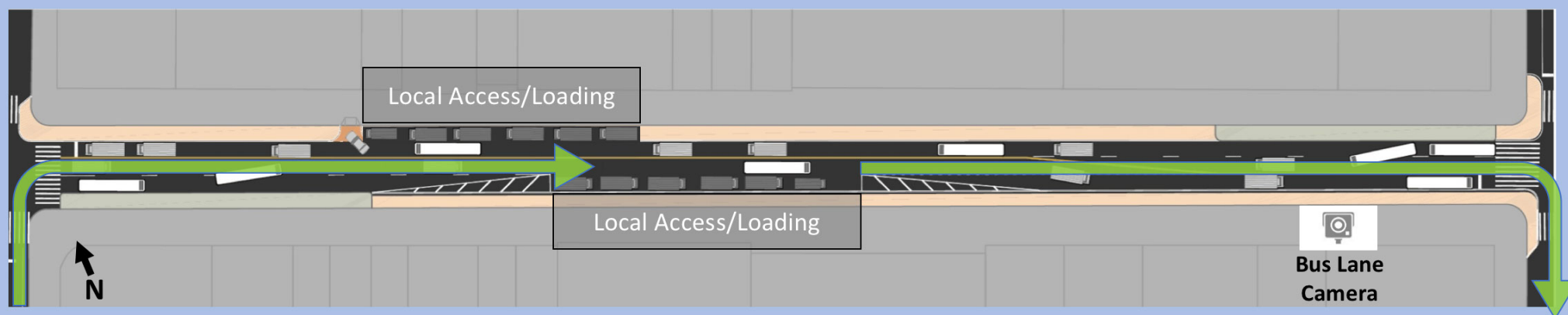
Busway between 4th and 3rd Avenue



Busway between 5th and 6th Avenue



Local Access within the 14th Street Busway



- **Response to public and elected official feedback**
- Local Access:
 - Turn right on to 14th Street
 - Exit at next right turn
- Left turns prohibited at most intersections
- Enforceable with bus lane cameras
- Most pickup/dropoff activity currently takes place on the avenues, not on 14th Street
- DOT will conduct outreach local businesses and residents about access policy

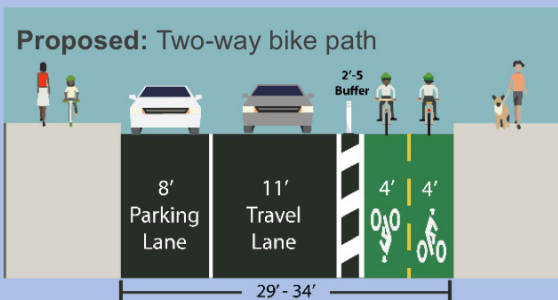
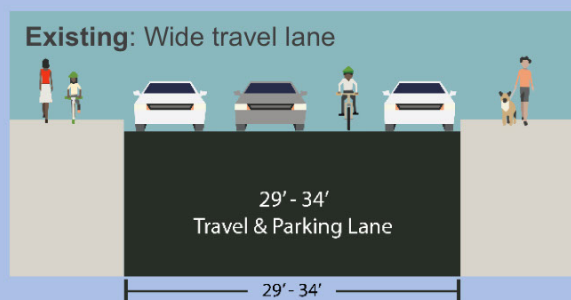
Bicycle Network Connections



12th St & 13th Street Bike Lanes

Background

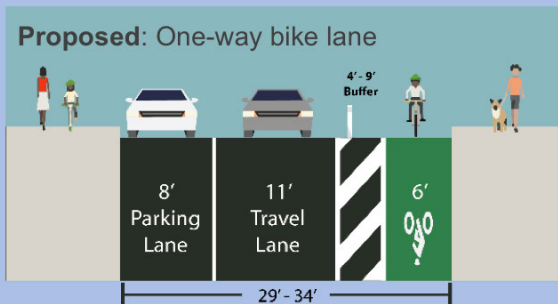
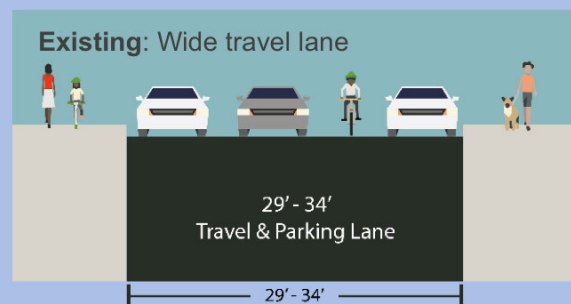
Original Design Typical: 13th St Two-Way Path



Example: Clinton St, MN



Alternate Design Typical: 12th St & 13th St One-Way Pair



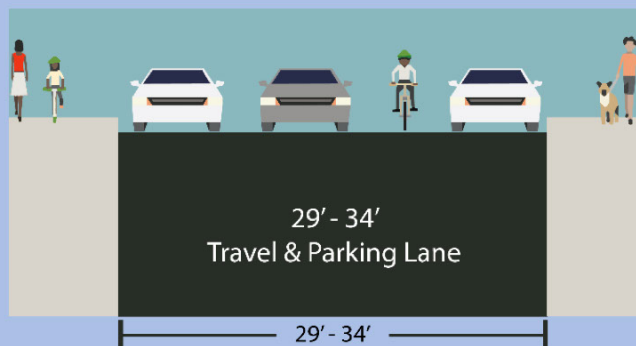
Example: Bleeker St, MN



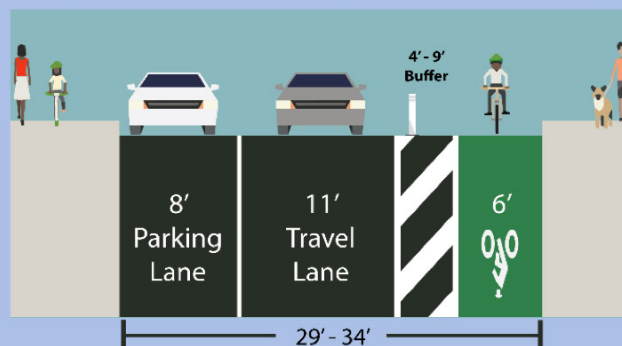
12th St & 13th Street Bike Lanes

Route Details

Existing Condition: Wide travel lane
Blocks range from 29'-34' wide



Proposed Configuration: Curbside bike lane on left side (south side of 13th St, north side of 12th St)



Design Details

- Bike lane separated with flexible delineators and demarcated buffer
- Floating pickup & drop-off adjacent to bike lane may be feasible at some locations
- Parking spaces to be removed along
 - North side of 12th St (7th Ave – Ave C)
 - South side of 13th St (Greenwich Ave – Ave B)

Project Map



Proposed Bicycle Route

- Protected Bicycle Path
- Bicycle Lane
- Shared Lane

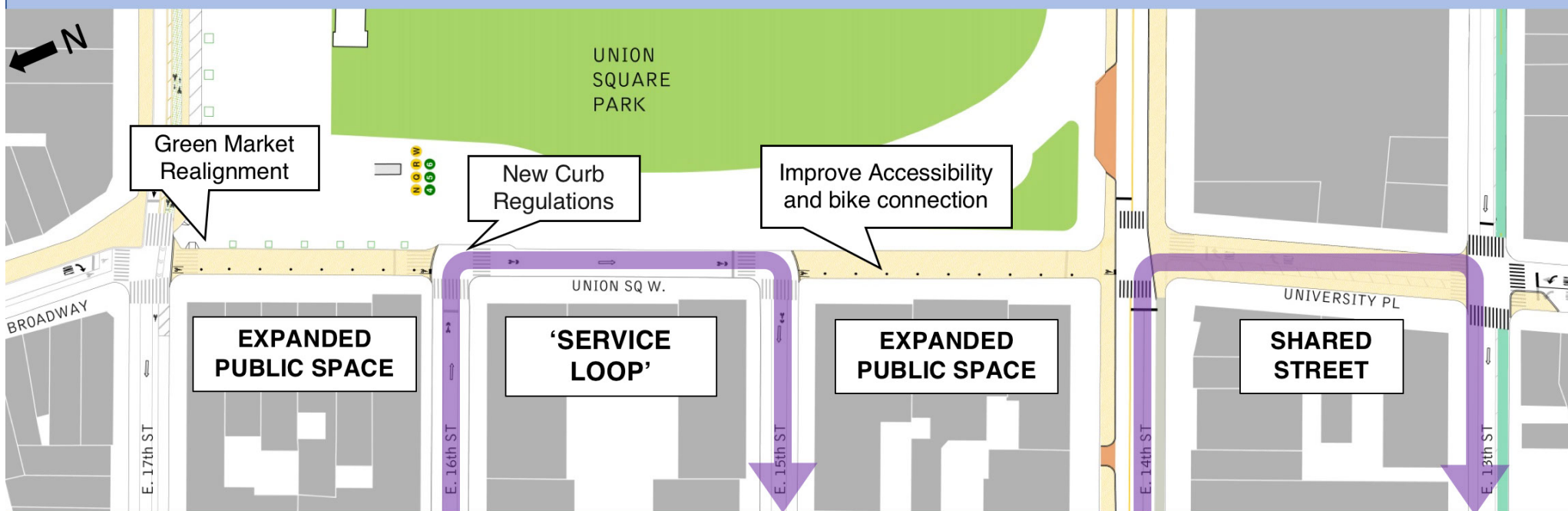
Citi Bike Infill

Increasing docks and bikes in the existing service area

- 1,250 bikes, 2,500 docks
 - Manhattan: 59th Street – Canal
 - Brooklyn: Williamsburg area
- Expanded Valet Services
 - Staffed by Citi Bike, Valet Service allows Stations to operate at increased capacity
- Pedal-assist Shuttle Service
 - 1,000 pedal assist bikes
 - Available at key locations
 - 2 in Manhattan
 - 2 in Brooklyn
- Additional standard bike parking in key locations



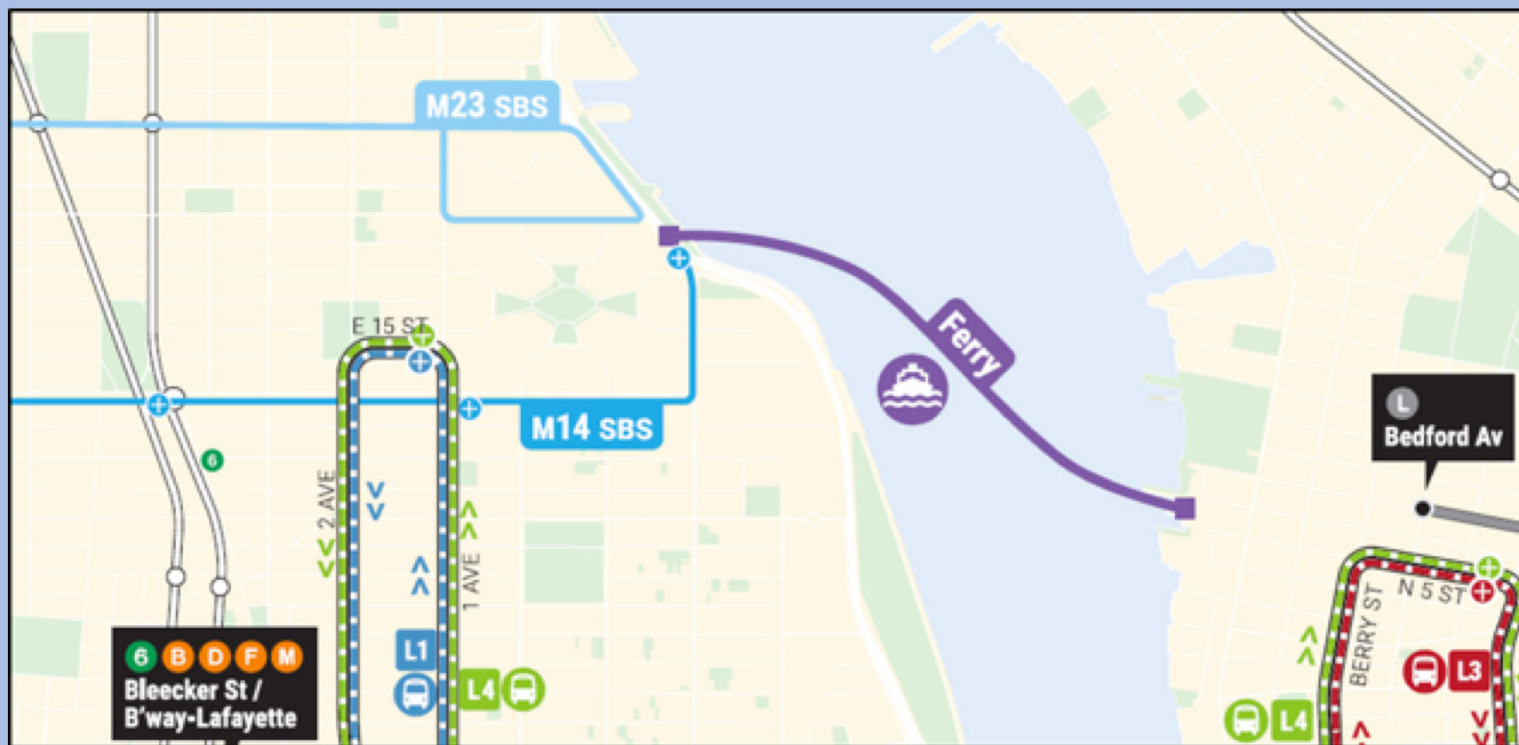
Union Square West and University Place



- Reduce pedestrian congestion
- Strengthen SB bike connection
- Maintain circulation for Deliveries, Pick-up/ drop-off, Farmers Market trucks
- Improve pedestrian circulation
- Strengthen SB bike connection
- Expand bike parking options
Ex: CitiBike Valet Service, Racks, Secure Bike Parking

Initiating Proposed Ferry Service

Ferry Will Operate 6 AM to Midnight on Weekdays, and 6 AM to 2 AM on Weekends





Between Brooklyn and Manhattan:

- Every 7½ minutes during AM and PM peak hours
- Every 10 minutes middays, evenings and weekends



Weekend Preparatory Work on Line

- Ensure reliable service for  riders during reconstruction
- Ensure project duration stays within 15 months
- No  service between Manhattan and either Myrtle-Wyckoff Aves or Broadway Junction

Summer and Fall 2018

August 11-12

October 6-7

October 13-14

October 20-21

October 27-28

November 10-11

November 17-18

Winter and Spring 2019

February 2-3

February 9-10

February 16-17

February 23-24

March 2-3

March 9-10

March 16-17

April 13-14



Customer Service and Communications

Remaining Responsive:

- Hundreds of MTA staff will be deployed at subway stations, bus stops and ferry locations to manage crowding to ensure safety
- Actively communicate with customers in real time, in person and through all available channels
- MTA to work with DOT and other relevant City agencies to ensure responsive information dissemination and feedback
- Will make adjustments to the plan in response to feedback

Proposed Alternate Subway, Bus and Ferry Services

