



Fixing the L Line's Canarsie Tunnel



OUTLINE

- Background
- What We've Been Doing
- What We've Learned
- Draft Concept Plan
- Preliminary Work
- Next Steps



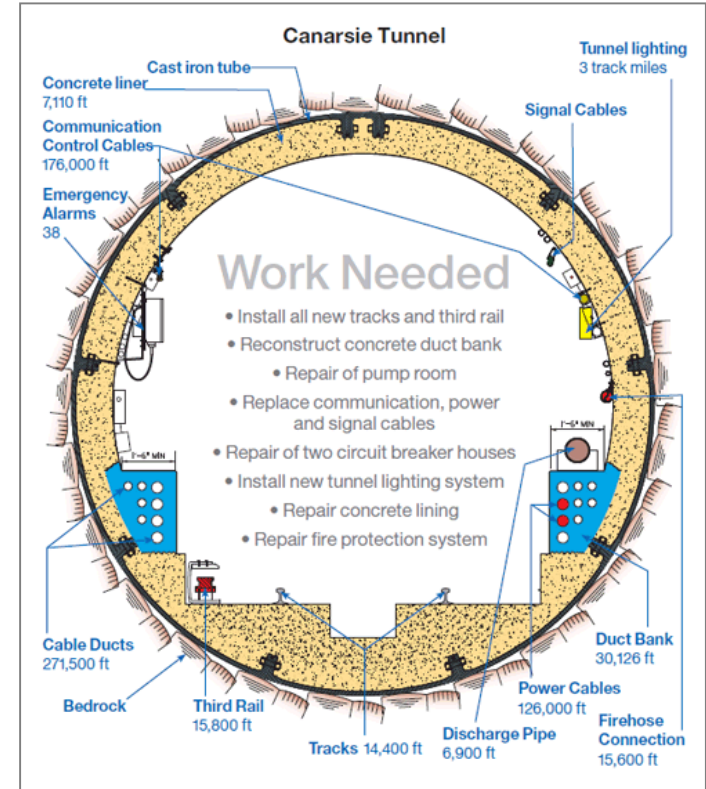


BACKGROUND








SANDY DAMAGE

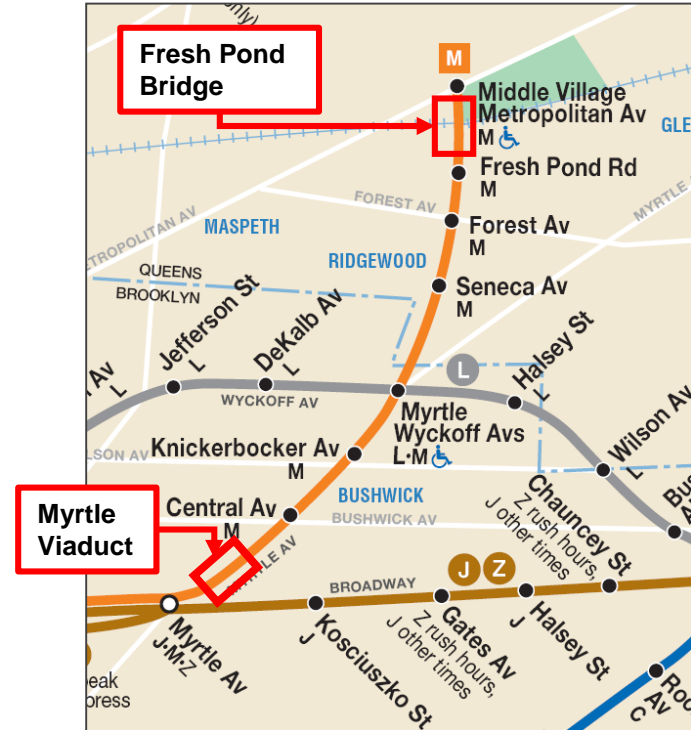
- The Canarsie Tube was inundated with saltwater during Superstorm Sandy causing corrosion of cabling, circuit breakers and power and track equipment
- The duct bank alongside the track, which houses cabling and provides walkway for emergency egress, sustained heavy damage and had one partial collapse
- Minor and emergency repairs have been conducted
- **The tunnel needs a complete overhaul**





MYRTLE VIADUCT REHABILITATION

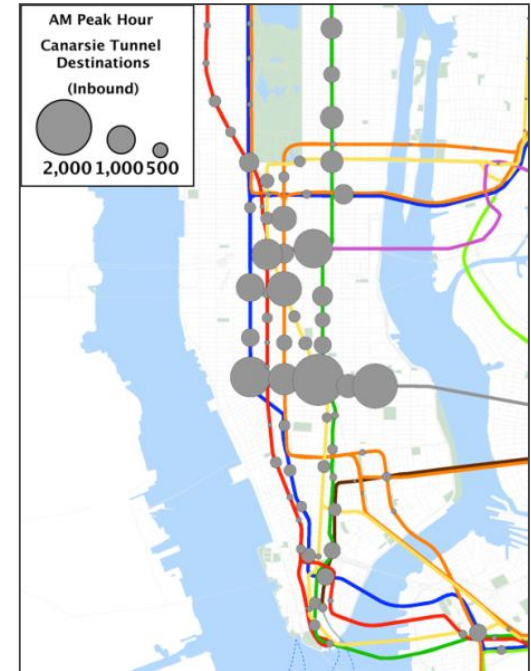
- During the Canarsie  work, it is critical that the  line be available to carry displaced  riders
- July 1, 2017 to September 1, 2017
 -  suspended between Metropolitan Av and Myrtle Av/Broadway
 - Replacement bus service
- September 2, 2017 to April 30, 2018
 -  rail shuttle between Metropolitan Av and Myrtle-Wyckoff Avs
 - Shuttle bus between Myrtle-Wyckoff Avs and Myrtle Av/Broadway
- Outreach presentations given to Brooklyn and Queens Community Boards





CHALLENGE OF SERVING **L** CUSTOMERS

- A total of **400,000** daily riders use the **L**:
 - **225,000** use the **Canarsie Tube under East River**
 - *Comparable to LIRR ridership to/from Penn Station*
 - *Nearly as many passengers during the AM peak hour as all six East River bridges and tunnels move vehicles*
 - **50,000** travel solely in **Manhattan** – *more than the 35,000 on M14*
 - **125,000** travel solely in **Brooklyn**
- Large number of **L** riders travel to 14th Street stations, including 1 Av, which is not easily reached by other subway lines





WHAT WE'VE BEEN DOING



CONTRACT UPDATE

- Contract awarded April 2017
- **15 Month Closure**, beginning April 2019
- Bonus for early completion
- Financial penalties for delays (\$400k/day)



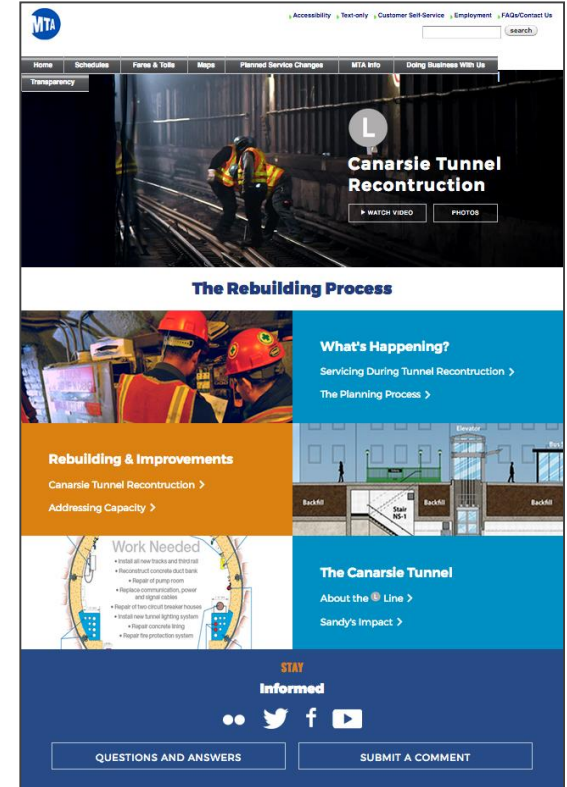


WEBSITE UPDATE

MTA website has been updated with:

- Details on improvements post-construction
- Primer on planning process, transit and traffic modeling
- Listing of community engagement events
- FAQ
- Comment form

web.mta.info/sandy/rebuildingCanarsieTunnel.html





WHAT WE'VE LEARNED



PUBLIC WORKSHOPS

- In February and March, NYCDOT & MTA hosted two workshops in Manhattan and two in Brooklyn
- Participants interacted directly with representatives from NYCDOT, MTA, NYC Small Business Services about transportation, business, community, and accessibility concerns
- 550 participants from all over the City
- Participants shared preferences on types of alternative transit and street designs





PUBLIC WORKSHOPS

Overwhelming desire for agencies to take aggressive action

Most frequent comments:

- Buses need dedicated lanes
- Provide multiple options, including ferry
- Simple, direct inter-borough bus routing, connecting to subways
- Bike lanes should be physically separated
- Street treatments should take emergency vehicle and delivery access needs into consideration
- Manhattan residents fear traffic spillover on narrow, mostly residential side streets

CROSS RIVER TRAFFIC ANALYSIS

Travel Between Manhattan and Brooklyn

- Shuttle buses will be an essential link for some neighborhoods affected by **L** closure
- If we do nothing:
 - Buses would be stuck in traffic on Williamsburg Bridge and local streets
 - Some riders with shorter cross-river commutes could shift to for-hire vehicles, further burdening street network
 - Added street congestion would slow emergency vehicles, trucks and local deliveries



AM Traffic on Williamsburg Bridge



MANHATTAN CROSSTOWN TRAFFIC ANALYSIS

Travel on 14th St

- Currently:
 - 35,000 weekday bus passengers
 - 21,000 people in autos or taxis
 - Over 50,000 pedestrians *per hour*
- During **L** closure:
 - Bus service will carry more than 70,000 daily riders across 14th St
 - Bus service will need to more than double to carry that demand
 - Pedestrian volumes will increase dramatically
 - Traffic management solutions will be essential



14th Street at Union Square



MANHATTAN CROSSTOWN TRAFFIC ANALYSIS

If we do nothing:

- Widespread traffic impacts on 14th Street, Manhattan avenues and parallel streets
- Pedestrian safety/comfort decreases
- Loading at curb and garage access becomes more difficult

Without aggressive transit priority and street redesign, the additional buses and pedestrians could lead to gridlock





DRAFT CONCEPT PLAN



DRAFT CONCEPT PLAN



More subway service



New bus service (200 additional dedicated buses)



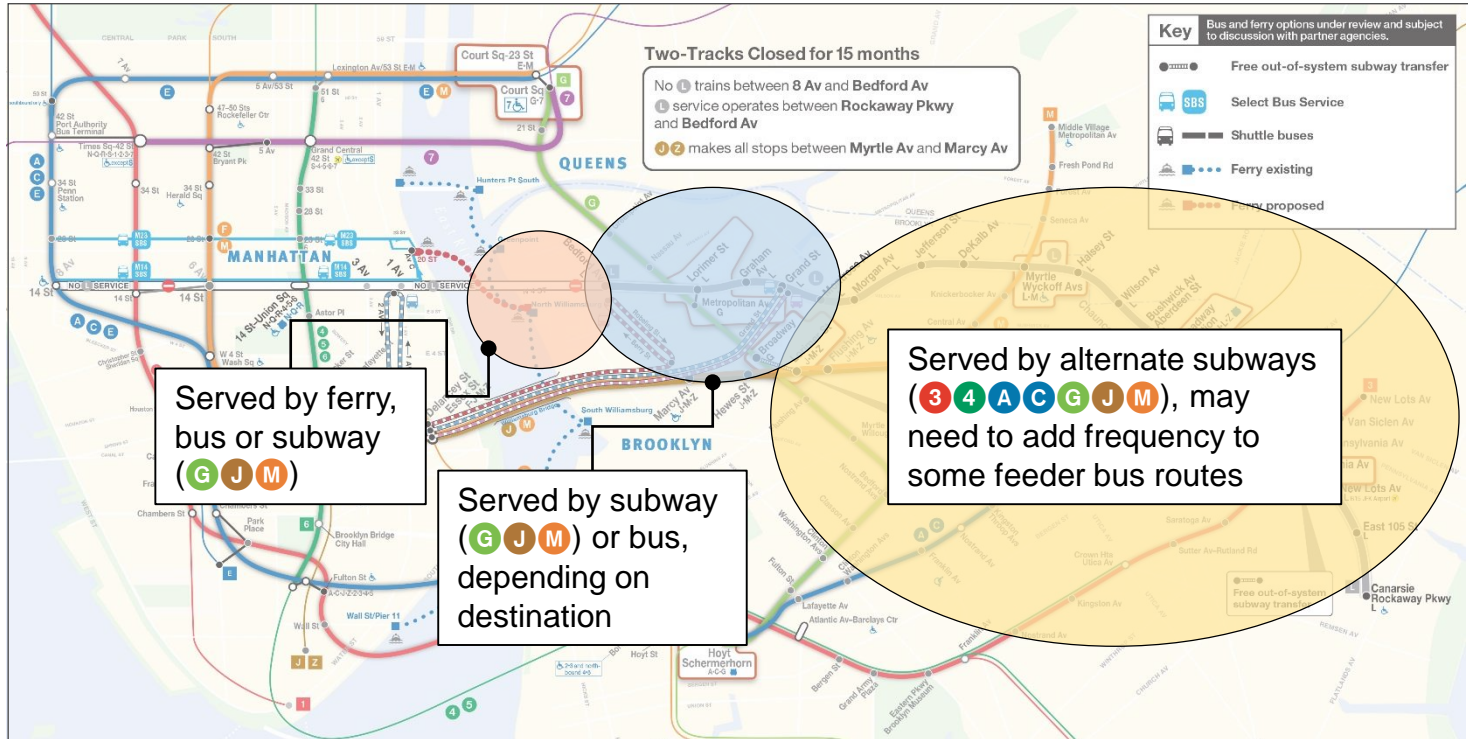
New ferry service



More bike and pedestrian infrastructure



DRAFT CONCEPT PLAN: TRANSIT SERVICE OVERVIEW





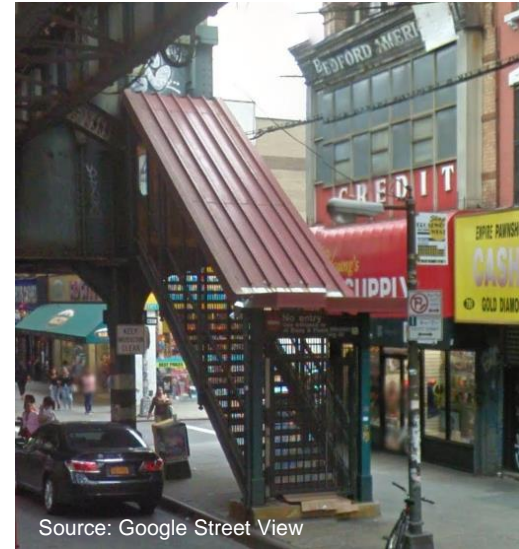
DRAFT CONCEPT PLAN: SUBWAY SERVICE

- Subway service increased on **G J M Z**
- **J Z** trains run local from Myrtle Av to Marcy Av to handle additional demand at South Williamsburg stations
- Free MetroCard transfers between:
 - Broadway **G** and Lorimer St **J M Z**
 - Junius St **3** and Livonia Av **L**
- Weekends and Overnights, **M** runs to 96 St / 2nd Av



DRAFT CONCEPT PLAN: SUBWAY STATIONS

- Passenger flow improvements at Marcy Av **J M Z**, and Court Sq **G** stations
- Reopening station entrance at Flushing Av **J M Z** at Fayette Street
- Additional station improvements and entrance reopenings under evaluation



Source: Google Street View

Closed Entrance at Flushing Av Station



DRAFT CONCEPT PLAN: CROSS RIVER TRAFFIC ANALYSIS

Fast and reliable bus service across Williamsburg Bridge will be critical to overall plan

Potential Williamsburg Bridge Bus Priority Strategies:

- Traffic designated to specific parts of the bridge (e.g., outer roadway limited to bus/truck only)
- Bus lanes on bridge approaches and exits to ensure shuttle buses can operate reliably in both directions
- High Occupancy Vehicle (HOV) policies

Modeling effort measuring:

- Bus travel time
- Effects on regional traffic
- Effects on local street network near bridge entrances





DRAFT CONCEPT PLAN: CROSS RIVER TRAFFIC ANALYSIS

HOV on the Williamsburg Bridge would reduce traffic, improving both bus and auto speeds, but requires further analysis:

- HOV on WBB creates risk of significant traffic shifts to other East River Bridges and their approaches

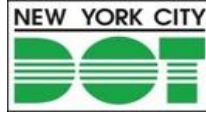
L train effects will not be limited to just Williamsburg, but will be felt throughout the city.






DRAFT CONCEPT PLAN: INTER-BOROUGH BUS ROUTING





DRAFT CONCEPT PLAN: INTER-BOROUGH BUS ROUTING

Simple, Direct Connections Across East River

- Limited stop, high frequency service
- Streamlined route design to maximize bus capacity with a limited supply of vehicles
- Targeted to **L** markets where buses could be faster than using alternate subway lines
- Currently planning three routes, but this could change based on public input
- Route 1: N. Williamsburg – S. Williamsburg – Delancey St/ Essex St **F J M Z** – Spring St **6** / Prince St **R W** / Broadway-Lafayette St **B D F M** / Bleecker St **6**
- Route 2: Grand St **L** – Delancey St/ Essex St **F J M Z** – 1 Av/14 St 
- Route 3: Grand St **L** – Delancey St/ Essex St **F J M Z** – Spring St **6** / Prince St **R W** / Broadway-Lafayette St **B D F M** / Bleecker St **6**



14TH STREET CORRIDOR DESIGN TRANSIT PRIORITY OPTIONS

Under evaluation:

1. Standard Select Bus Service – Full Corridor
2. Enhanced Select Bus Service – Full Corridor
 - Includes Additional Turn and Curb Restrictions
3. Exclusive Bus Way in Core, SBS elsewhere
4. Exclusive Bus Way – Full Corridor
 - Both bus way options include additional pedestrian space

Modeling results measuring:

- Bus travel time
- General traffic effects on adjacent streets and avenues
- Pedestrian effects on transit network

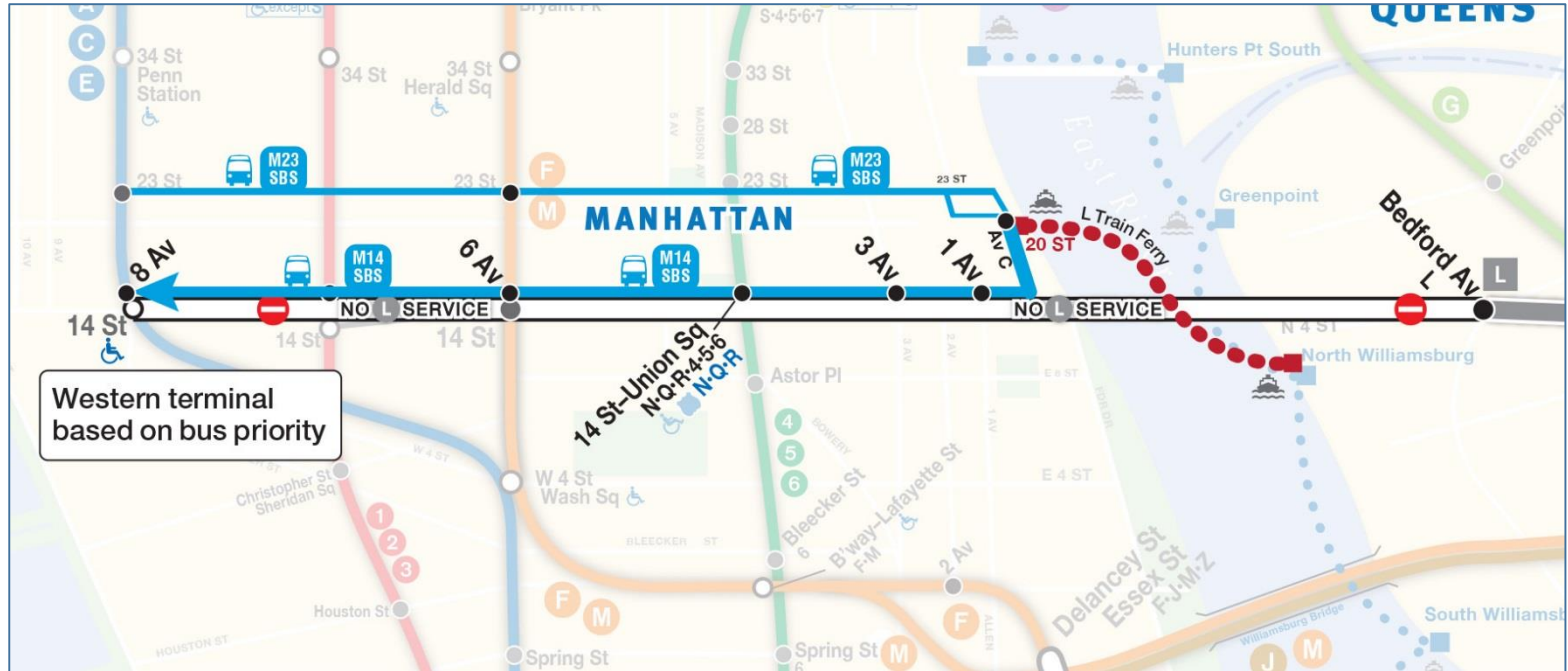
Curb access for deliveries/loading will be a key consideration



Select Bus Service on 34th Street



DRAFT CONCEPT PLAN: 14TH STREET SBS BUS ROUTING





DRAFT CONCEPT PLAN: 14TH STREET SBS BUS ROUTING

New 14th Street SBS Route

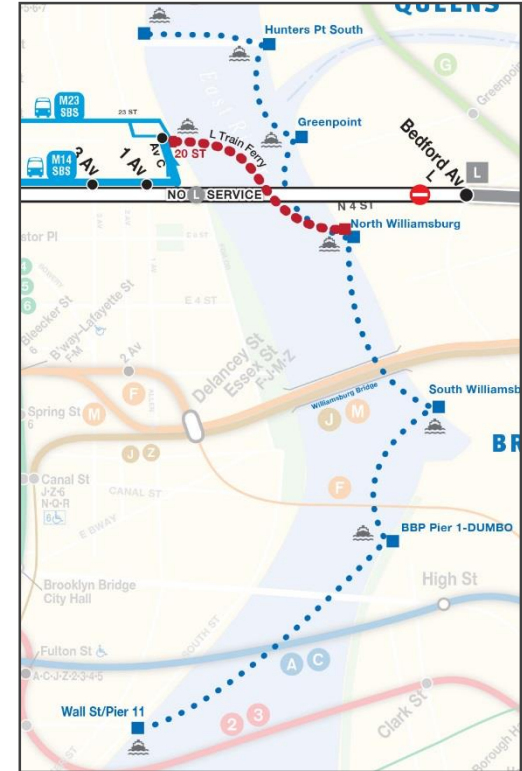
- Overlay in addition to existing M14A, M14D Service
- Bus Priority / Potential Bus Lanes
- Off-Board fare collection on SBS route
- Traditional on-board fare collection on M14A and M14D
- Western terminus will be determined based on level of bus priority on 14 St

• Route: Stuyvesant Cove  (20 St & Av C) – 1 Av – 3 Av –
Union Sq  – 6 Av  – 8 Av 



DRAFT CONCEPT PLAN: FERRY

- Temporary ferry service between N. 6th St. and E. 20th St.
- Up to 8 boats per hour (every 7.5 minutes) – maximum docking capacity
- Capacity for approximately 1,200 riders per hour (about the capacity of one **L** train or 22 standard length buses)
- Fare will be integrated into M14 SBS and M23 SBS system
- Some customers may take NYC Ferry, particularly people going to the East 30s or Wall St
- MTA, NYCEDC and NYCDOT are working together to provide this service

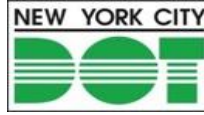




DRAFT CONCEPT PLAN: FERRY HOURS OF OPERATION

- Proposed Hours:
 - Weekdays/Sunday: 6 AM – Midnight
 - Friday/Saturday: 6 AM – 2 AM
- Potential noise concerns with late night operation
 - USCG requires use of horn at every departure
- Need for community input before final decision





DRAFT CONCEPT PLAN: BIKE IMPROVEMENTS

Goals

- Bike network upgrades on either side of Williamsburg Bridge
- Separating bikes from buses allows for safer operations and more efficient bus services
- Provide protected facility where possible to provide an attractive, safe option for increased number of cross-river and crosstown cyclists





DRAFT CONCEPT PLAN: BIKE AND PED MITIGATIONS

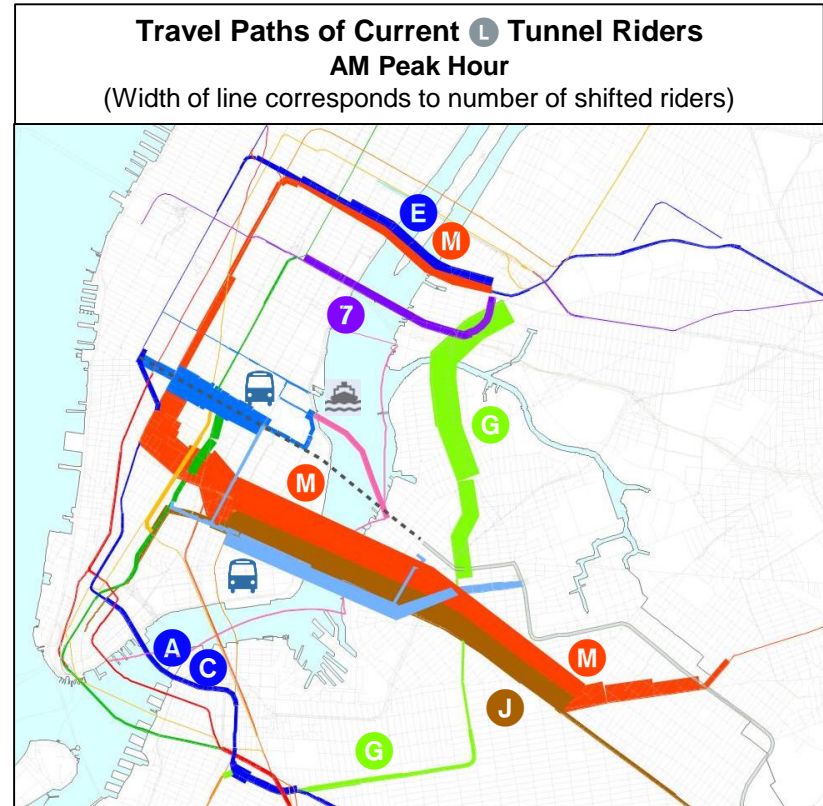
- Bike network expansion
- Potential high capacity bike parking
- Potential CitiBike expansion
- Targeted pedestrian safety improvements, including at **Vision Zero** priorities and subway entrances





DRAFT CONCEPT PLAN: ANTICIPATED RIDERSHIP BY MODE

- 75-85% to other subway lines
 - Target share is 75% to keep subway crowding to manageable levels
 - Need attractive bus mode to reduce subway share
- 5-15% to shuttle buses (12,000-36,000 riders per day)
 - 15% bus share only achievable with aggressive transit priority
- 3-5% to ferry
 - Ferry capacity limited to 5% of **L** market
- 5-7% to bikes, taxis, other (e.g., cars, Uber, etc.)





PRELIMINARY WORK



PRELIMINARY STREET WORK TO BEGIN IN JUNE

- 14th St & Av A
- Bedford Av & N 7th St



Ave A North & South Side Street Works



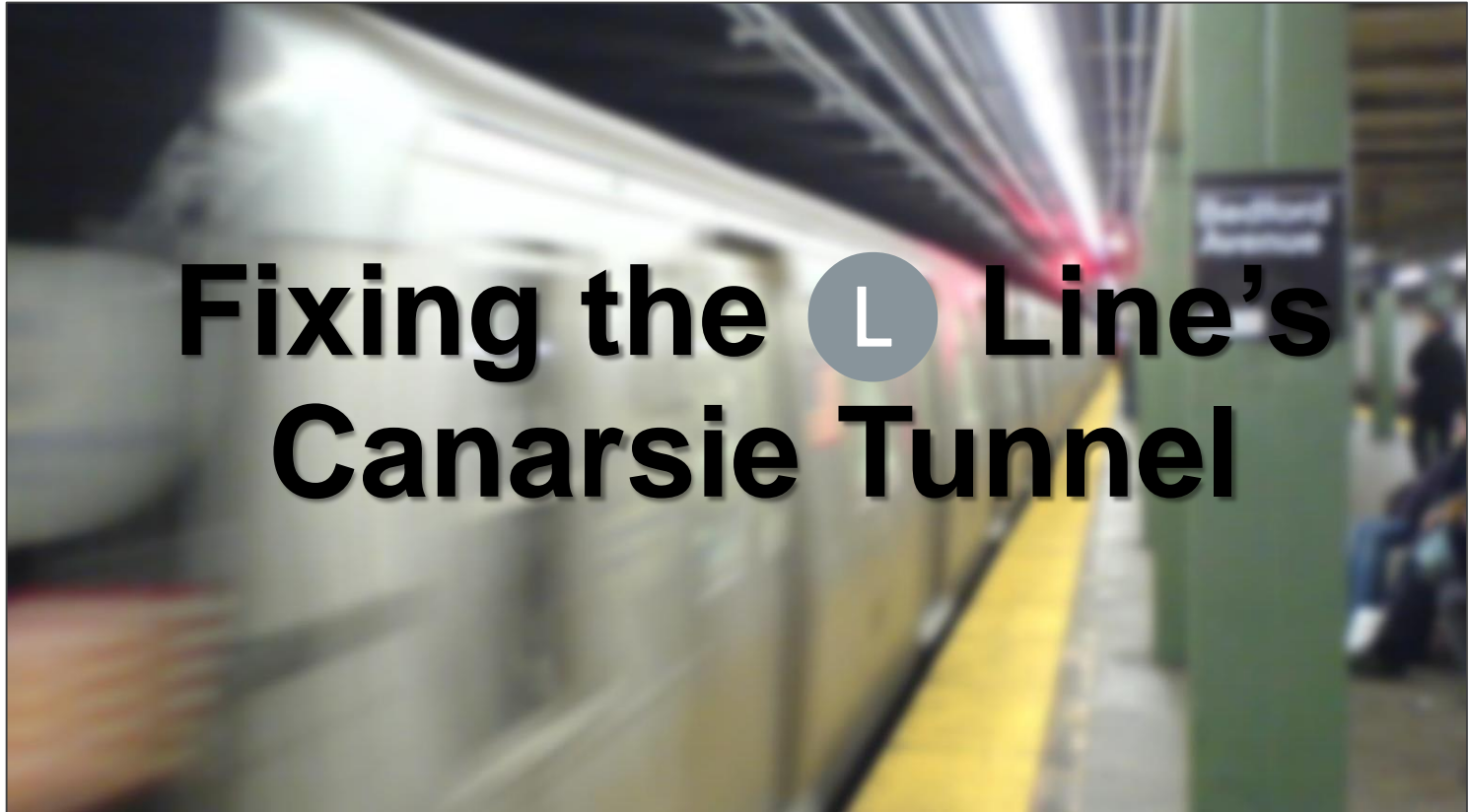


N 7th Street between Bedford Av and Driggs Av



NEXT STEPS

- **June 2017**
 - Community Board Briefings
- **Summer – Fall 2017**
 - Meet again in the Fall
 - Refine Plan
 - Next round of public engagement
- **Winter 2017**
 - Share Service Plan



Fixing the L Line's Canarsie Tunnel