

Main Street & Union Turnpike Transit and Safety Improvements

Presentation to Community Board 8 | March 31, 2020



Background

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Better Buses Action Plan

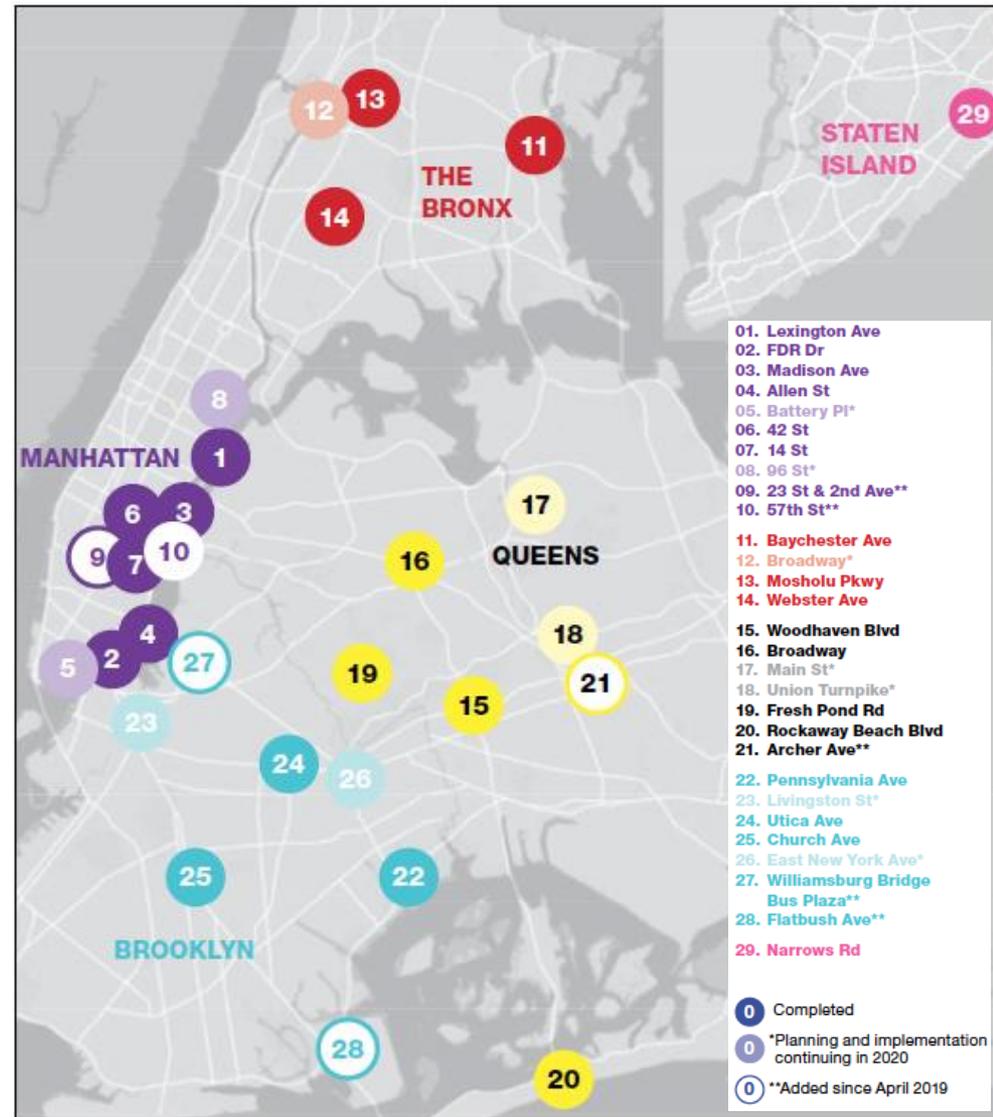
- Mayor's 2019 State of the City
 - Improve bus speeds 25% by 2020
- Better Buses Action Plan released April 2019
 - 24 priority projects announced for 2019 to improve bus service across all 5 boroughs



Better Buses Action Plan

2019 Priority Projects

- Main Street and Union Turnpike identified as priority 2019 project due to:
 - Pedestrian safety issues at a busy commercial intersection
 - Main St at Union Turnpike is a consistent source of delay for buses



Project Area

Main Street & Union Turnpike



 Project Area

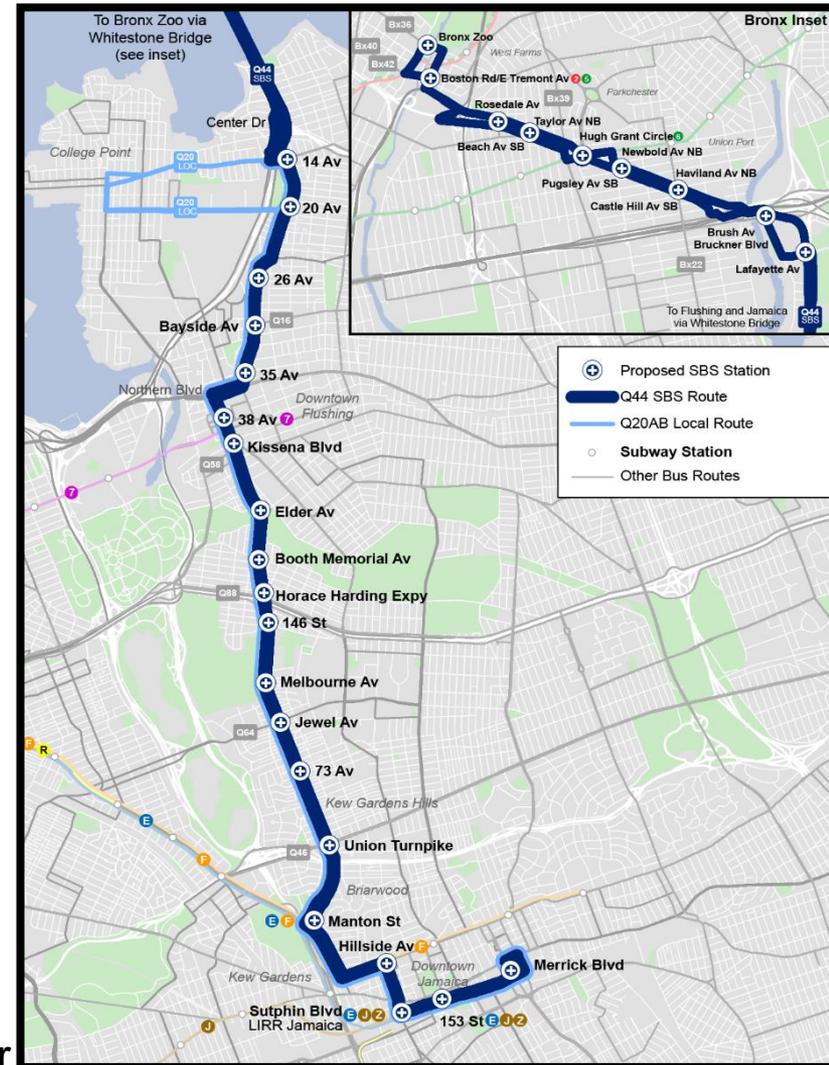
Bus Service

- Stops served:
 - Q44 SBS: Service between Jamaica, Queens, and Bronx Park South, Bronx
 - Q20 A/B: Service between Jamaica and College Point, Queens via 20 Av (A) and via 14 Av (B)



Q44 Select Bus Service (SBS)

- Q44 Select Bus Service (SBS) launched in November 2015, with pedestrian safety and transit improvements installed corridor-wide
- Improvements resulted in:
 - 4% increase in corridor (including Q20A/B) average weekday ridership, compared to a 1% decrease borough wide
 - Reduced bus bunching and improved schedule adherence
 - For sections of Main St **with** bus lanes, 12% improvement in Q44 SBS travel times NB (2015-2019)
 - 4-11% improvement in Q44 SBS travel times overall compared to previous local service, however since launch speeds have slowed on some parts of the corridor



Existing Issues

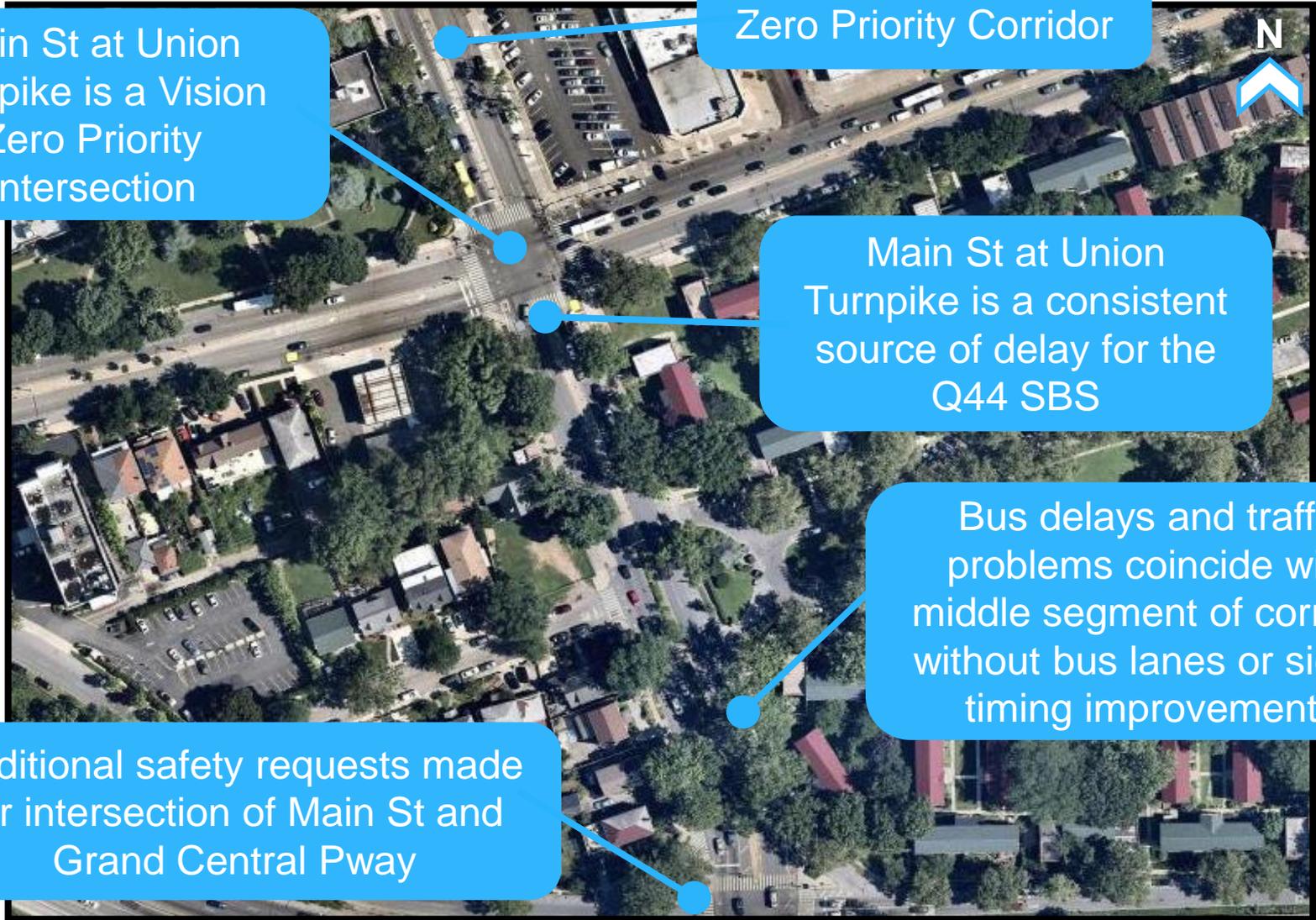
Main St at Union Turnpike is a Vision Zero Priority Intersection

Main St is a Vision Zero Priority Corridor

Main St at Union Turnpike is a consistent source of delay for the Q44 SBS

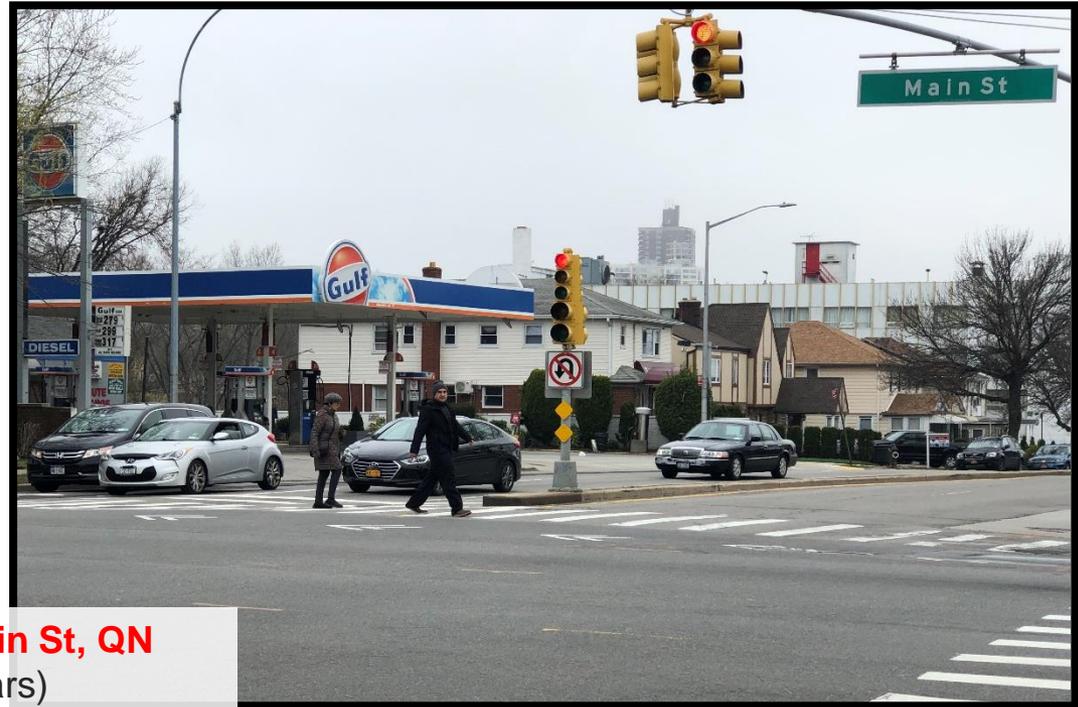
Bus delays and traffic problems coincide with middle segment of corridor without bus lanes or signal timing improvements

Additional safety requests made for intersection of Main St and Grand Central Pway



Existing Issues

- Long crossing distances
- Lack of pedestrian refuge



Grand Central Pkwy to Union Tpk, Main St, QN
Injury Summary, 2013-2017 (5 years)

	Total Injuries	Severe Injuries	Fatalities	KSI
Pedestrian	13	4	0	4
Bicyclists	2	1	0	1
Motor Vehicle Occupant	104	0	0	0
Total	119	5	0	5

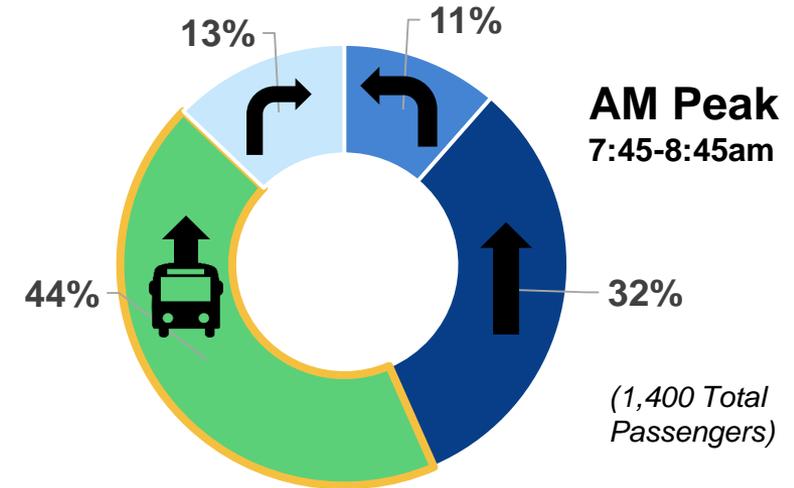
- 119 traffic injuries (2013-2017), including 5 severe injuries to pedestrians and cyclists

Source: Fatalities: NYCDOT
Injuries: NYSDOT
KSI: Persons Killed or Severely Injured

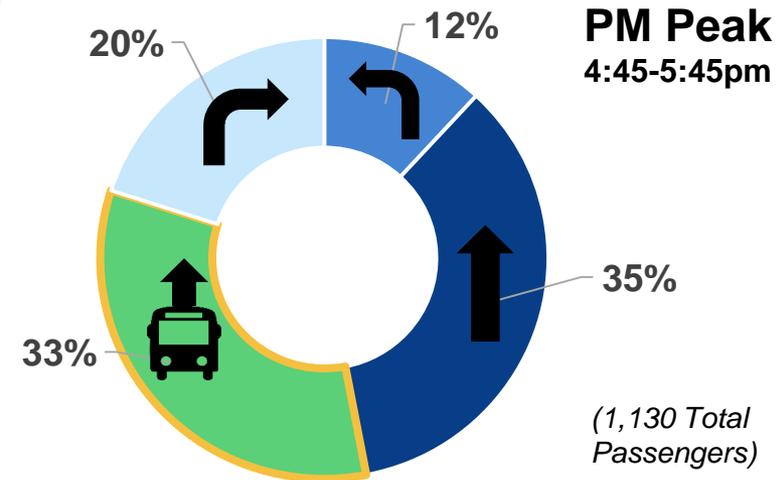
Buses and Traffic

- During rush hour, the Q44SBS, Q20A, and Q20B carry between 33% and 44% of all people traveling northbound
- Buses on Main St carry over 11,500 daily riders at Union Tpk stop (5,000+ northbound, 6,500+ southbound)
- Buses currently have no dedicated space on this stretch of Main St
- In recent years (since launch of SBS), bus speeds on Main St the area near Union Turnpike have declined
- Despite heavy volumes, there is no dedicated northbound right turn lane

People Traveling Northbound on Main St approaching Union Tpk



● NB Q44SBS, Q20A/B Buses
● All Other Vehicles



*Source: February 2019 traffic counts. MTA Ridership Data. Occupancy factors: 1.3 persons/veh

Proposed Improvements

2

Proposed Improvements

Median Tip Extension at Main St & Union Turnpike

- Painted or concrete median tip extension improves pedestrian safety
- Shortens crossing distances
- Traffic calming benefits

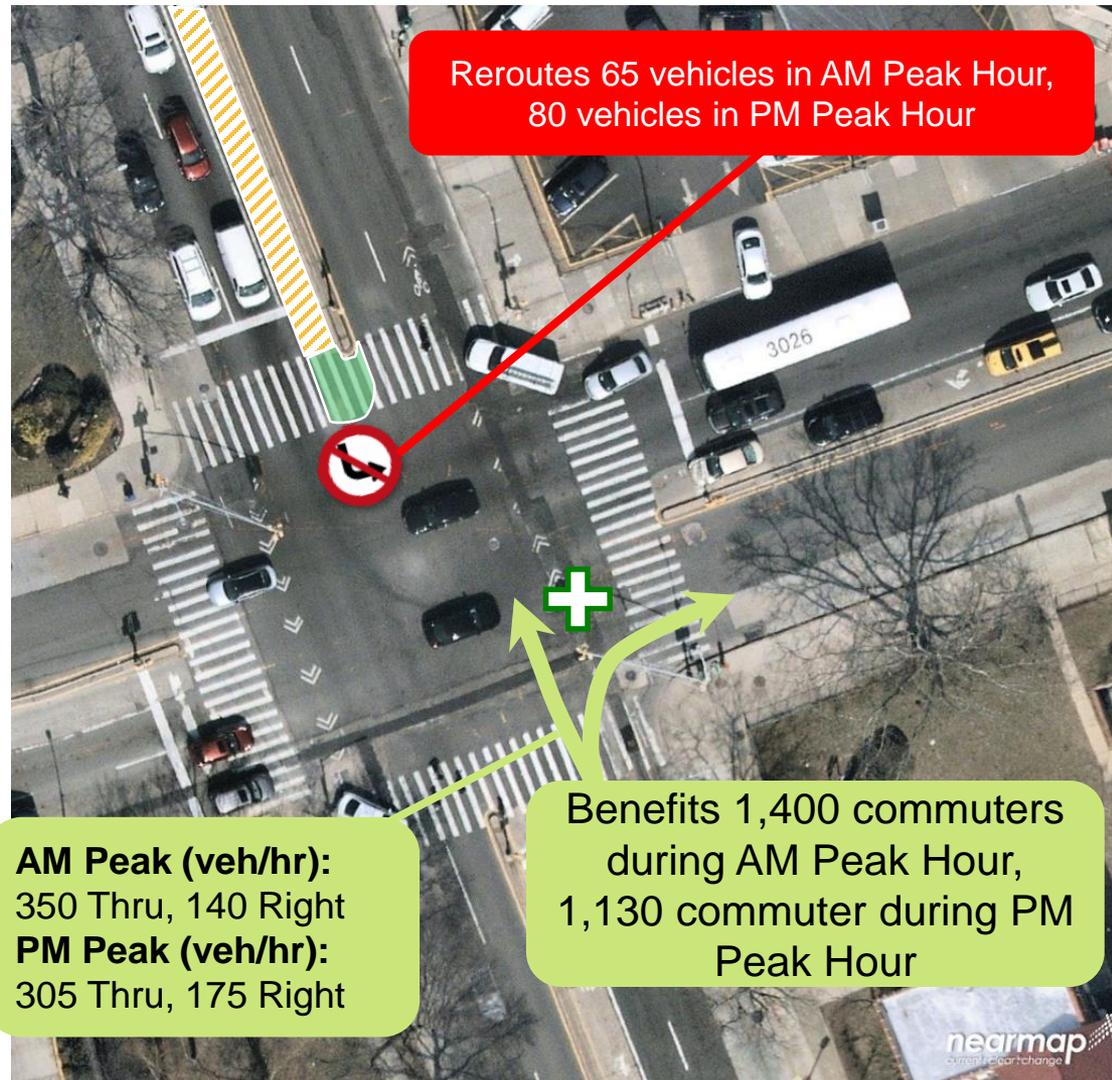


Proposed Improvements

Southbound Left Turn Restriction On Main St

- Lowest volume left turn at intersection
- Turn restriction allows for both pedestrian safety enhancements and traffic flow improvements

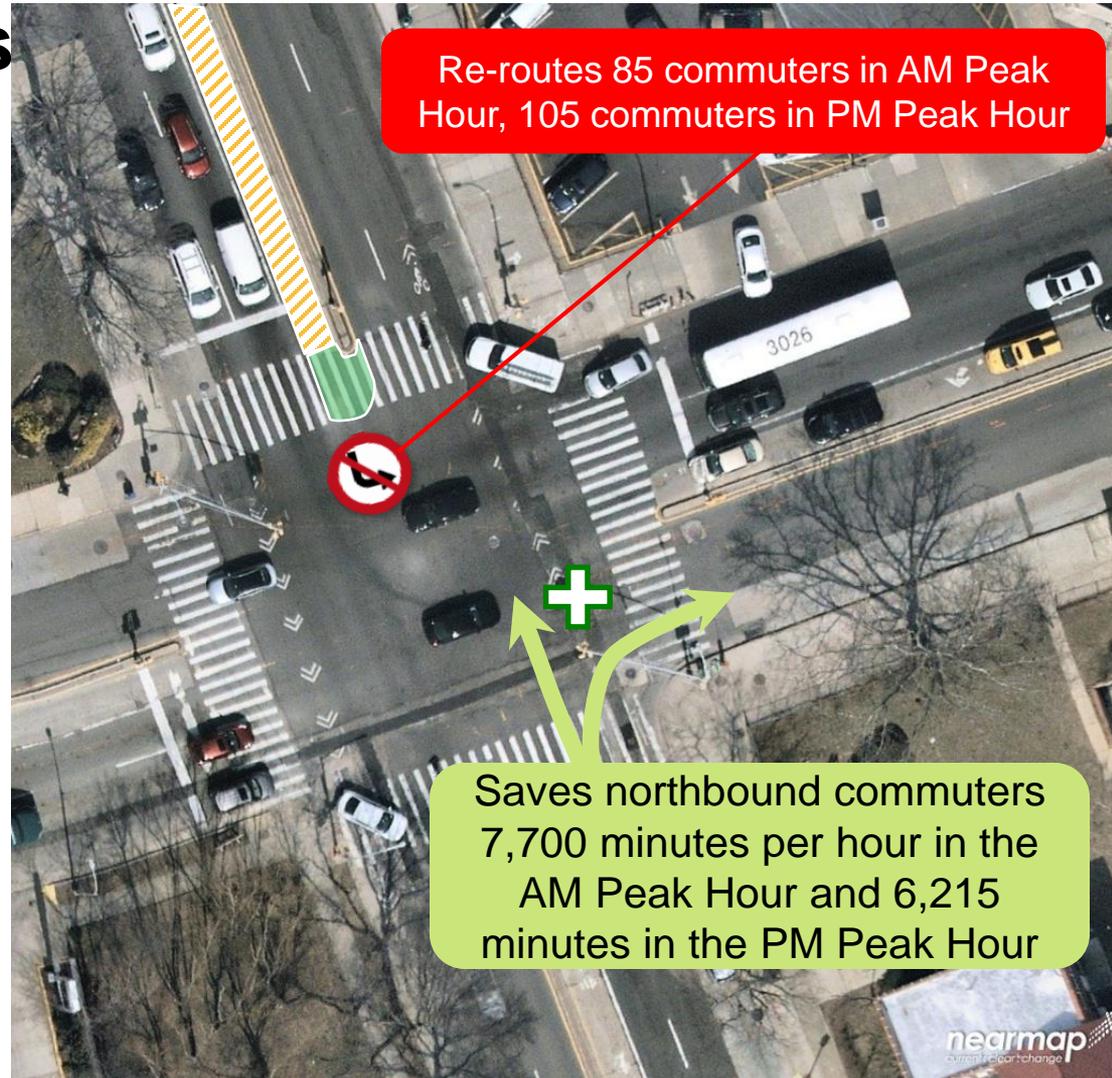
**Source: February 2019 traffic counts. MTA Ridership Data.
Occupancy factors: 1.3 persons/veh*



Proposed Improvements

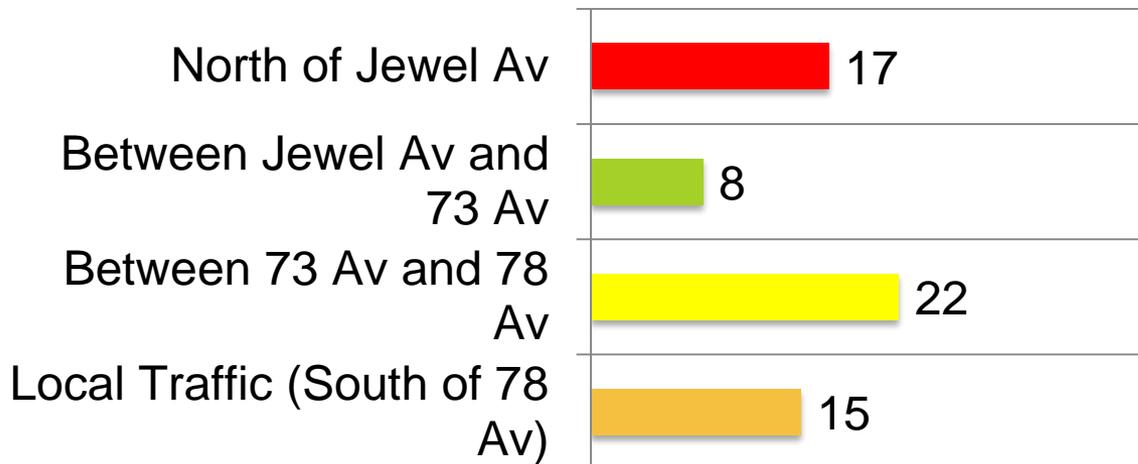
Signal Adjustments

- Adds 11 seconds of green time for northbound thru and right, while maintaining NB left turn green arrow phase
- Additional 11 seconds per 2 minute (120 sec) cycle (9% increase):
 - 5.5 minutes / hour
 - 132 minutes / day
- Increases pedestrian crossing time in east crosswalk by 11 seconds



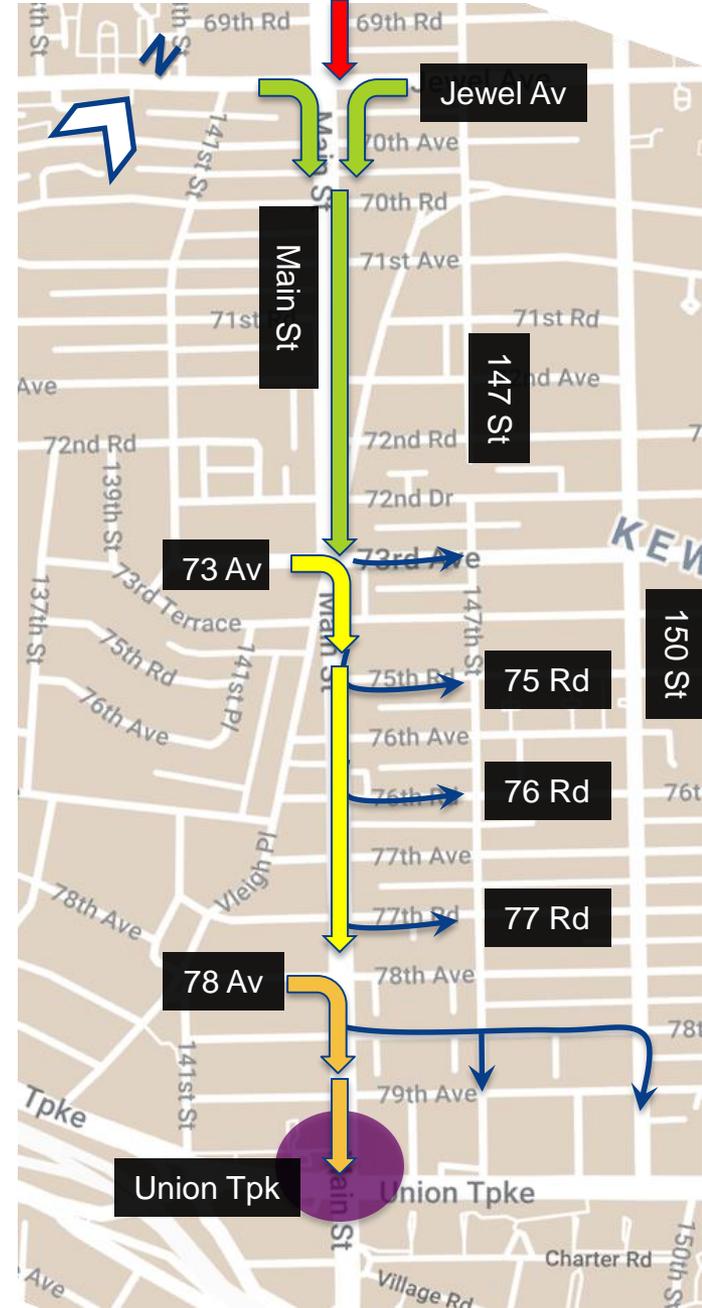
**Source: February 2019 traffic counts. MTA Ridership Data.
Occupancy factors: 1.3 persons/veh*

Current Left Turn Counts - AM Peak Hour

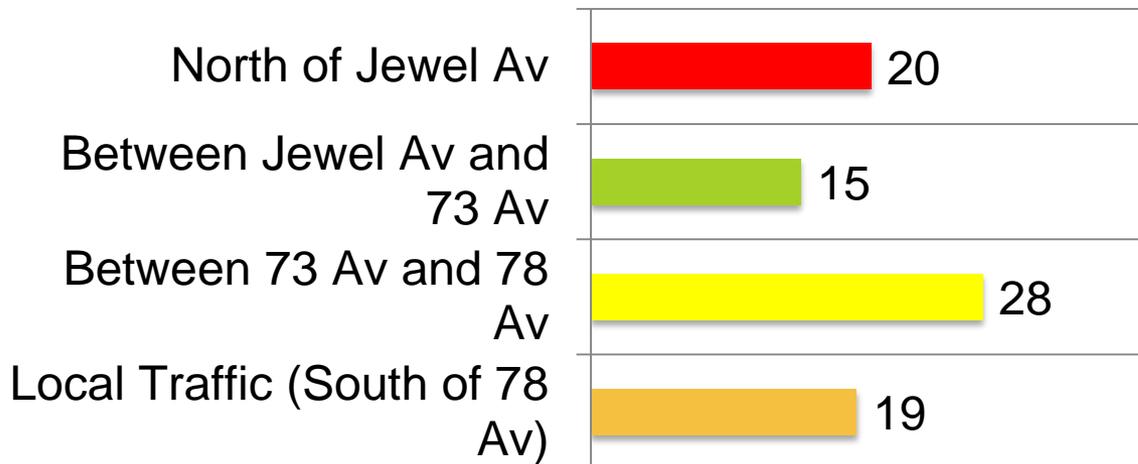


*Sources: February 2019 traffic counts and Streetlight

- An analysis was completed to better understand where vehicles traveling southbound on Main St and turning left at Union Turnpike originate
- Majority of vehicles making left turn would have multiple alternate routes available

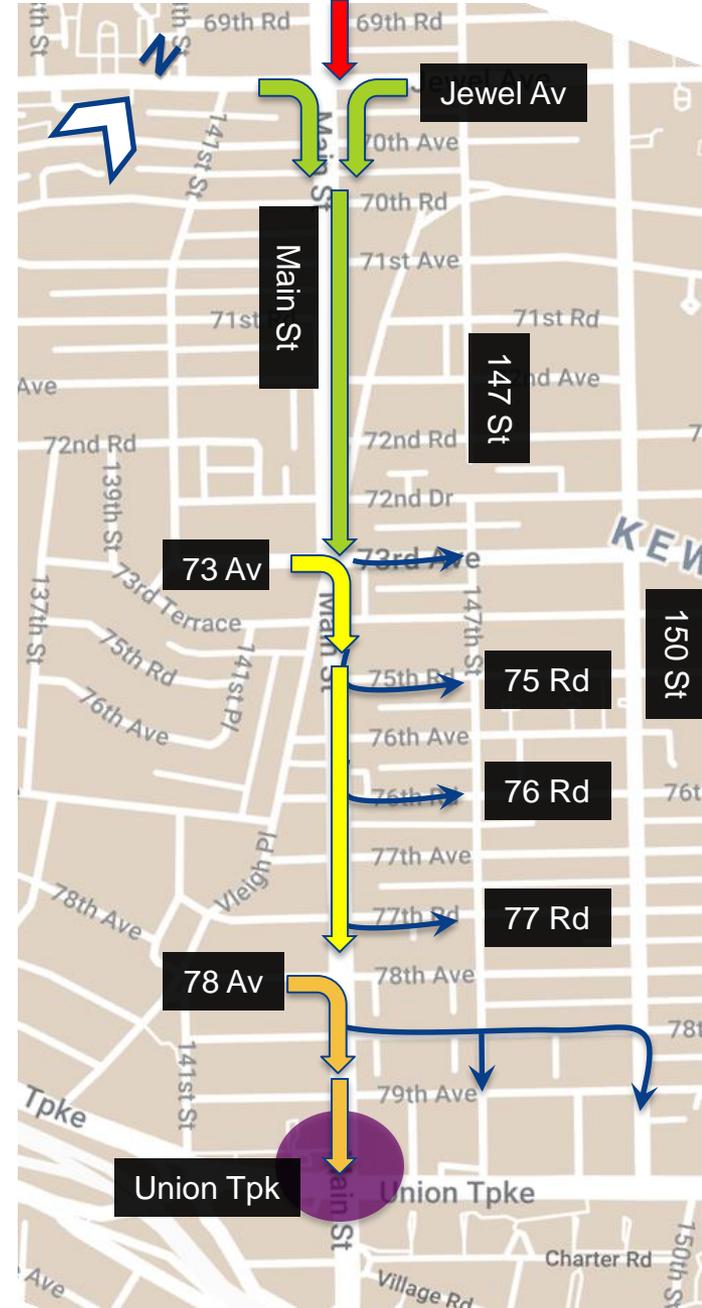


Current Left Turn Counts - PM Peak Hour

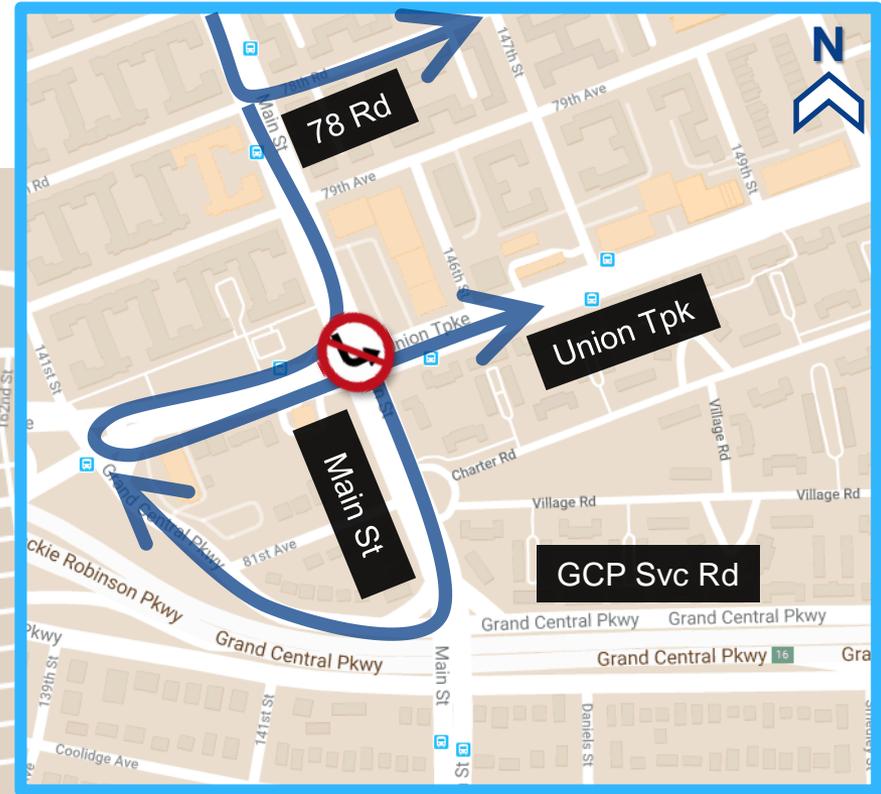
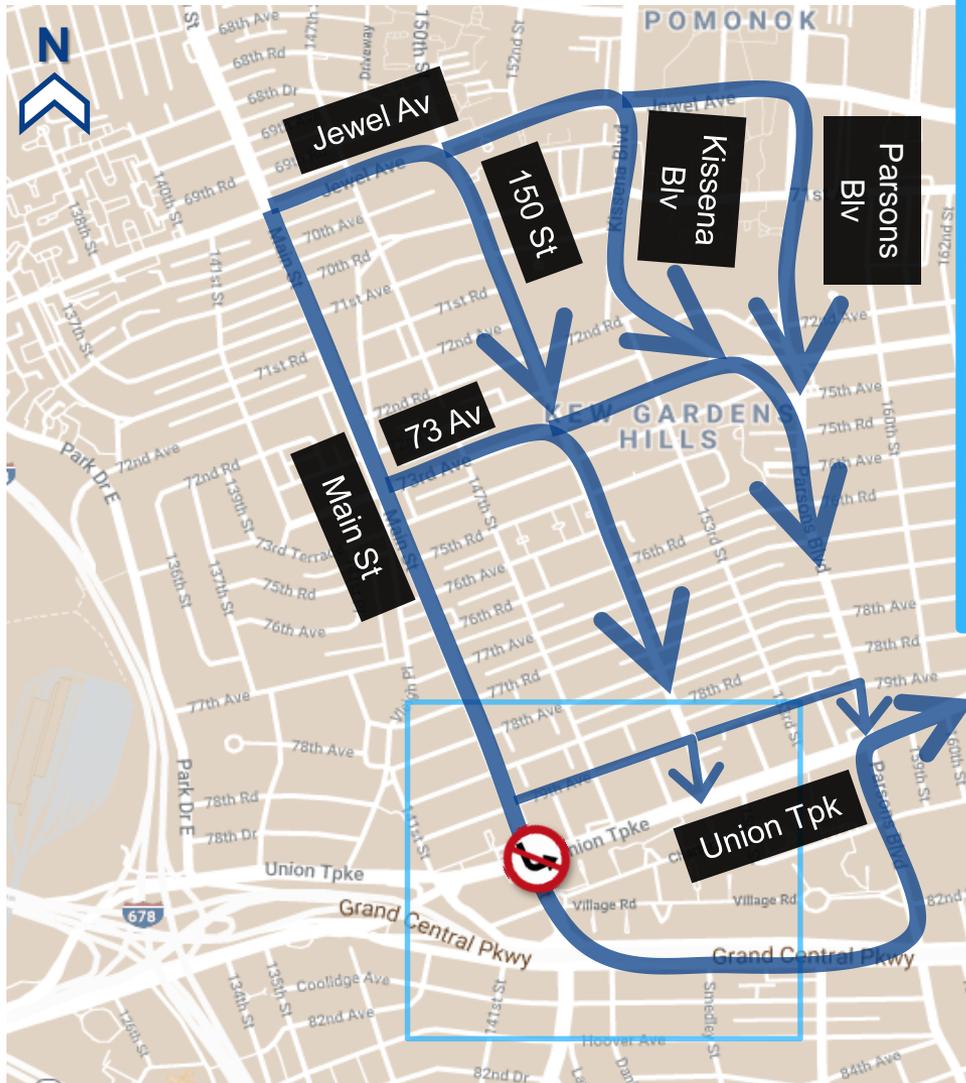


*Sources: February 2019 traffic counts and Streetlight

- Vehicle counts are higher in PM peak hour can also be accommodated in the larger neighborhood traffic network

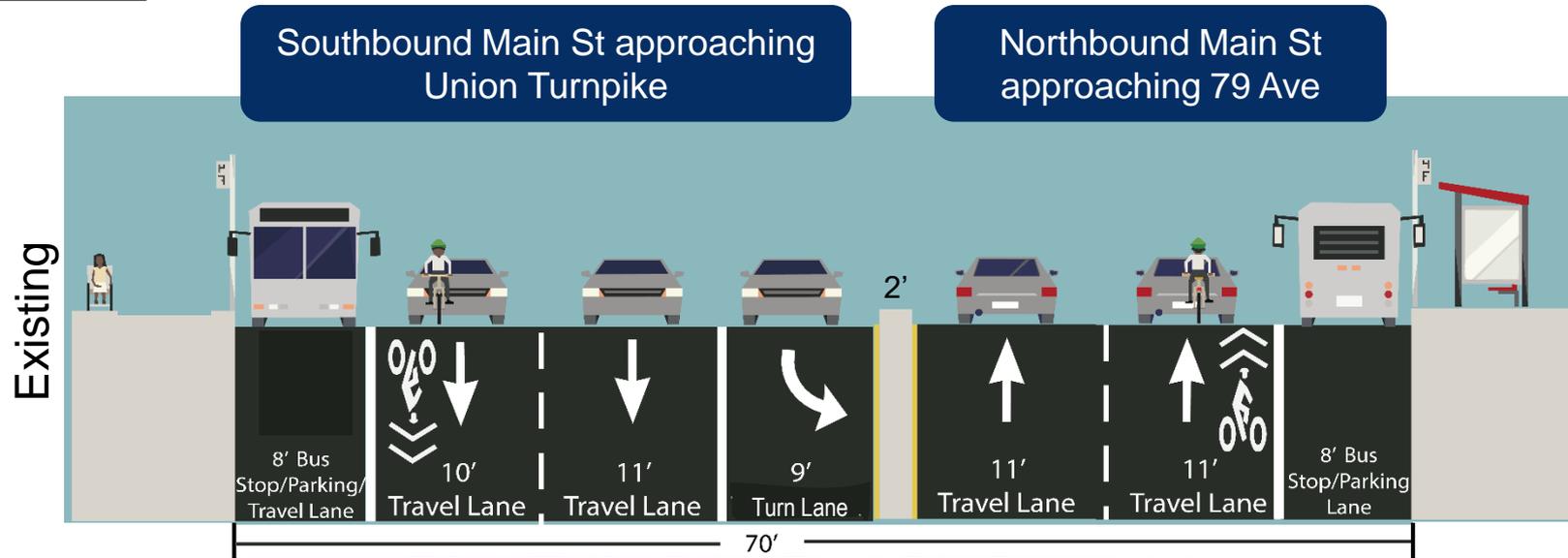


Traffic Diversions



- Numerous alternatives for southbound left turn
- Traffic analysis shows minimal traffic impact on adjacent streets

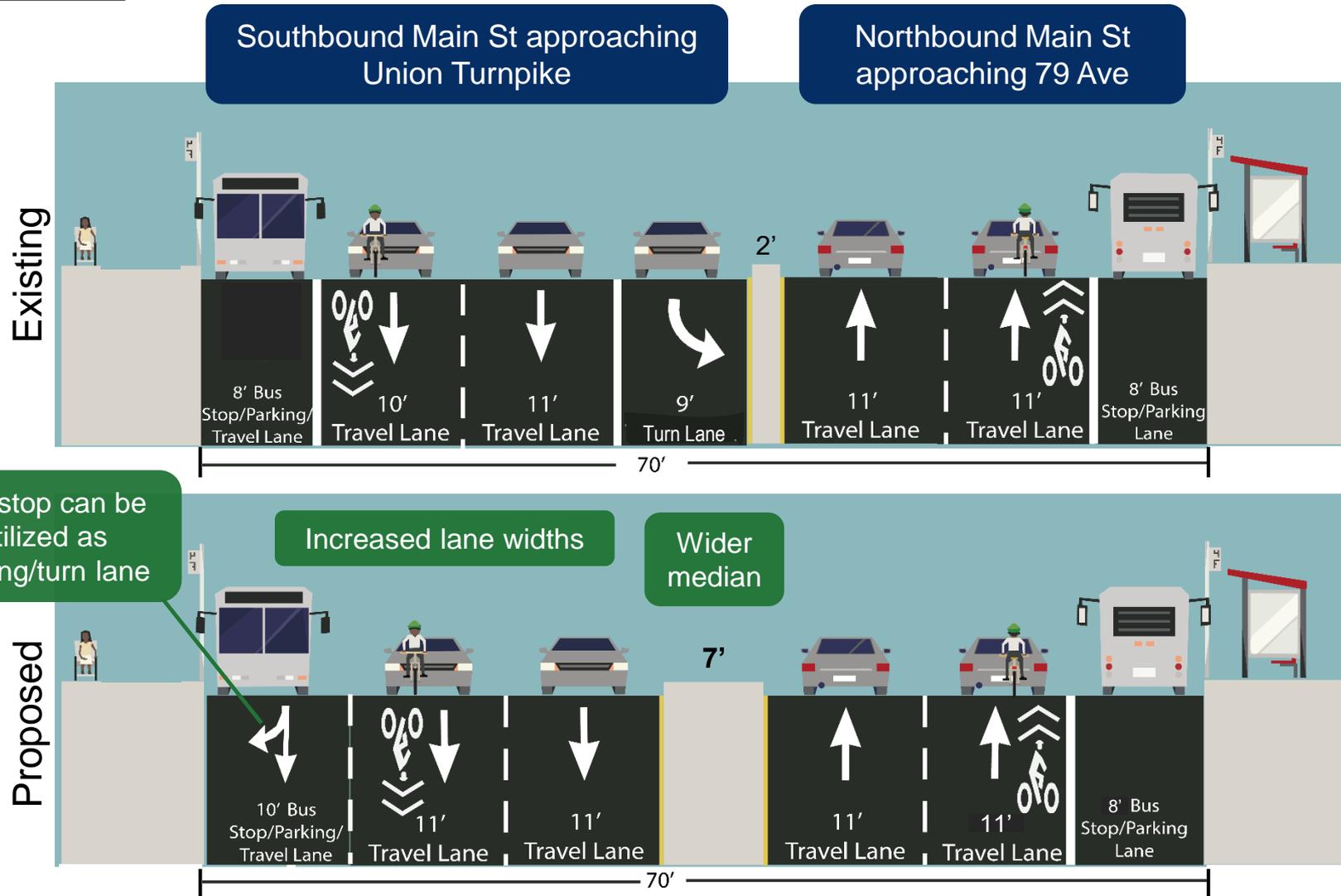
Existing Configuration



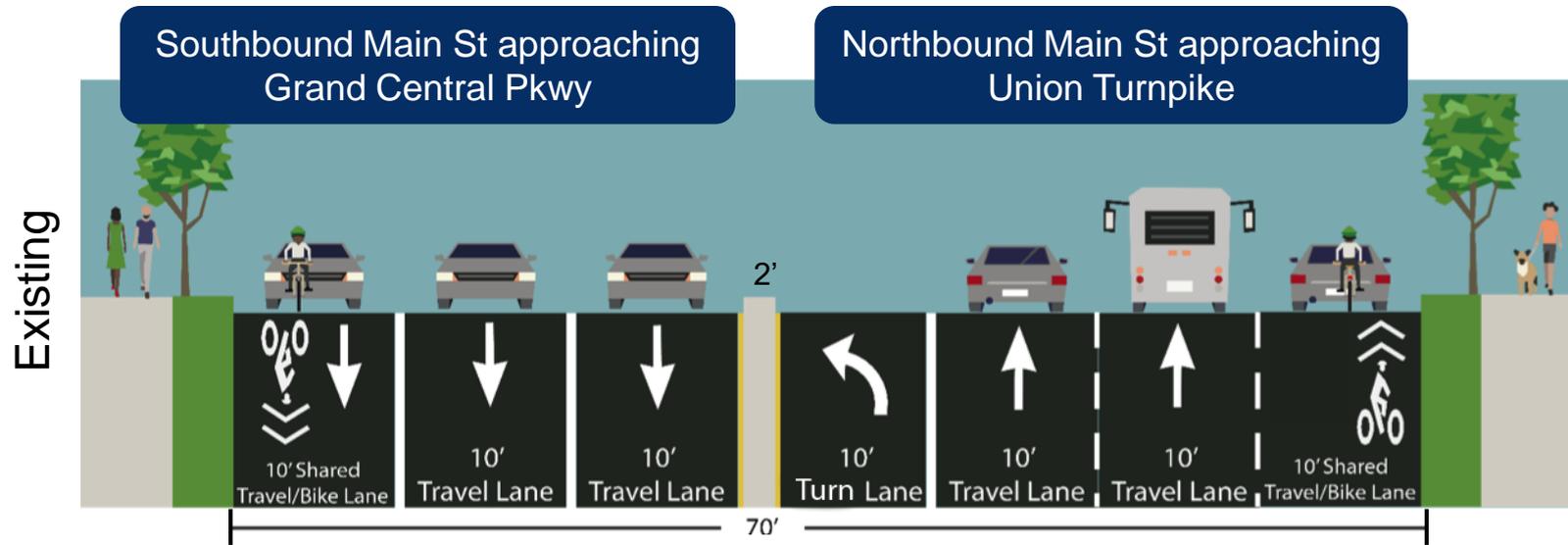
Looking north



Proposed Configuration



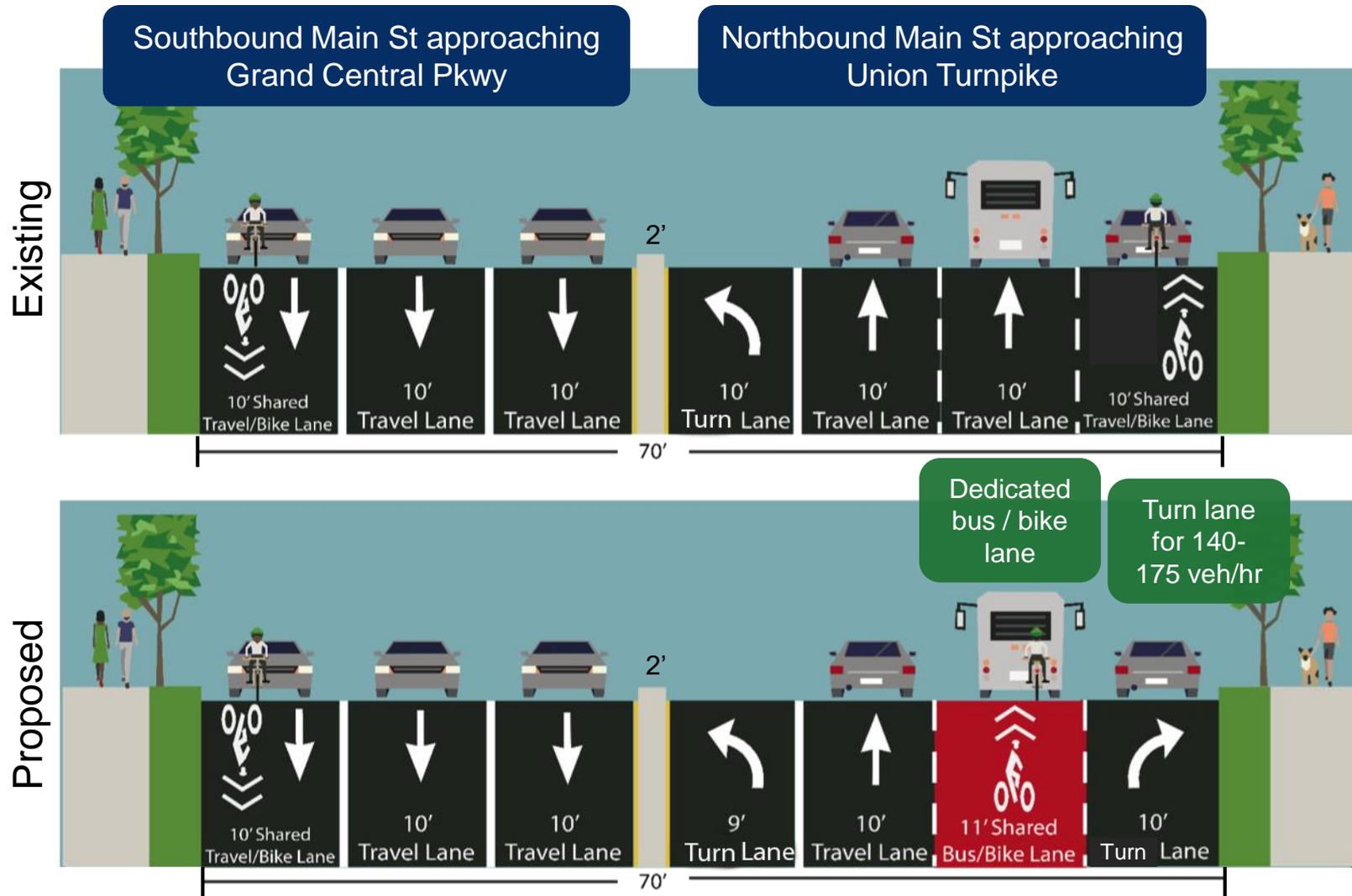
Existing Configuration



Looking north



Proposed Configuration



Proposed Configuration

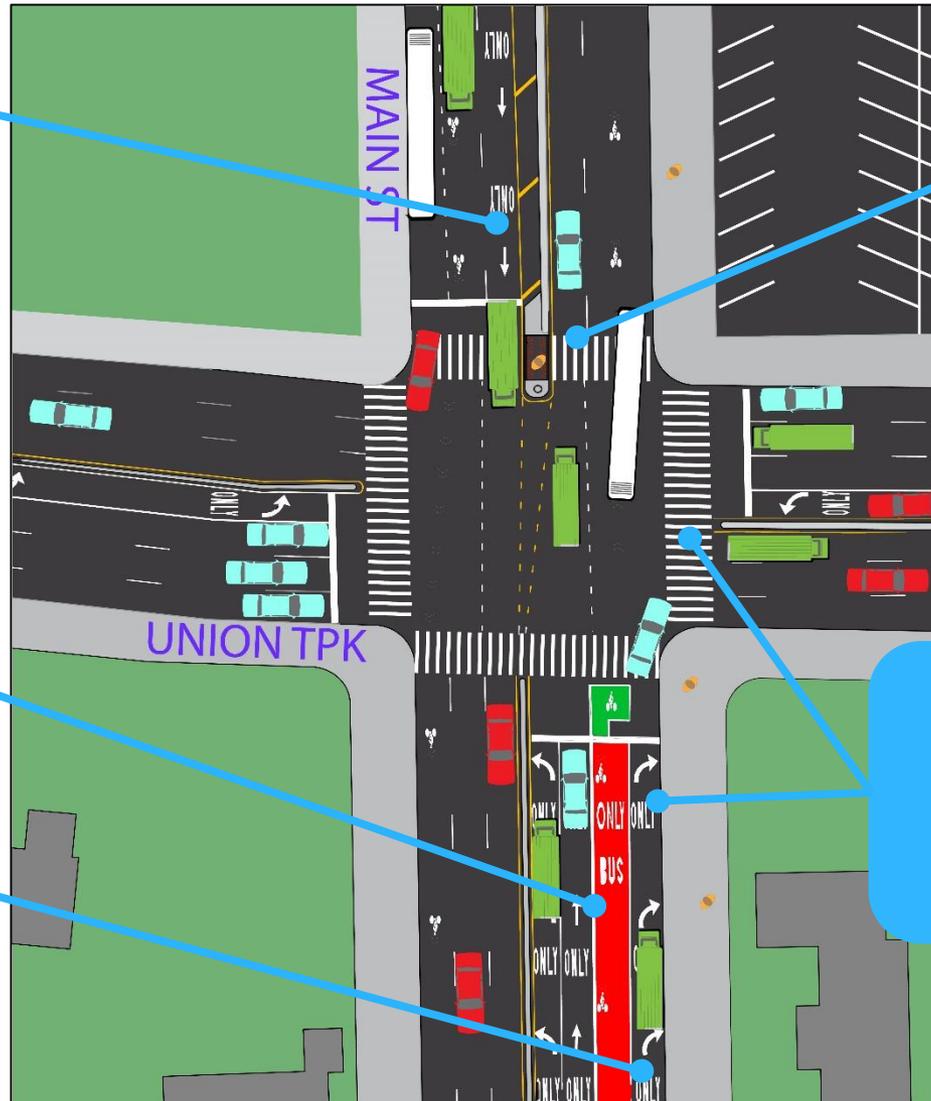
Left Turn Restriction

Median Tip Extension

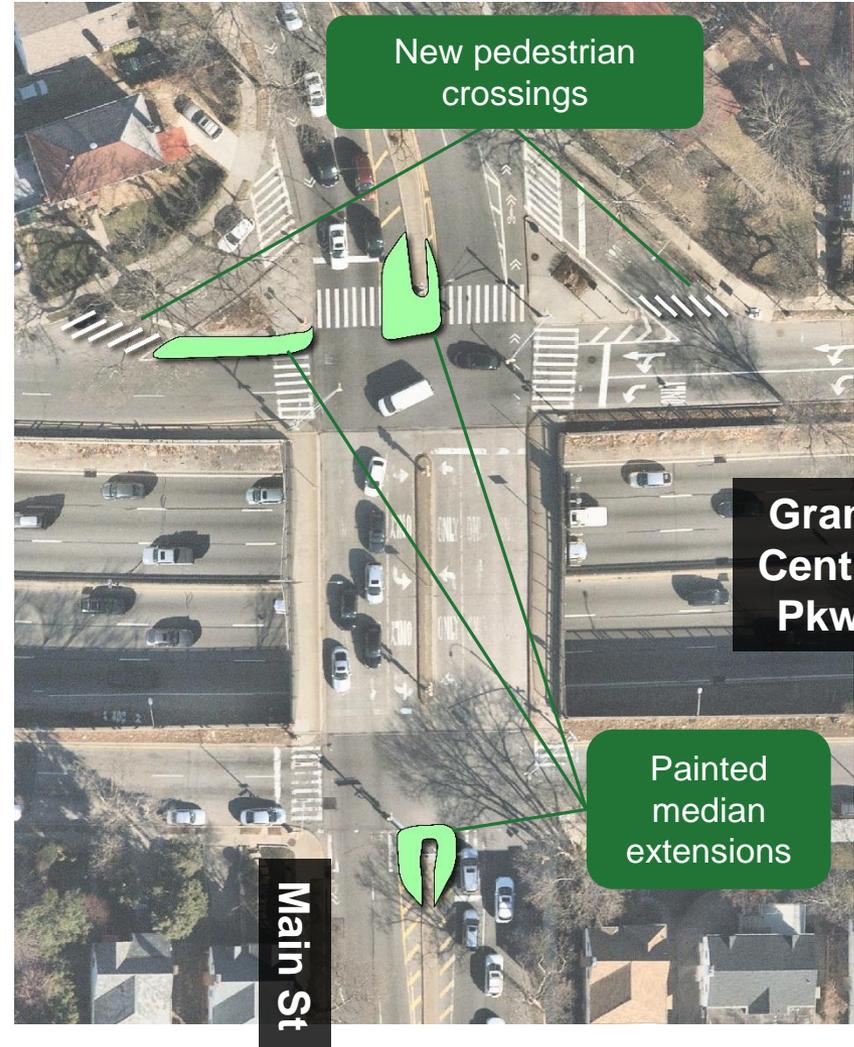
Dedicated Bus/Bike Lane

Right Turn Lane

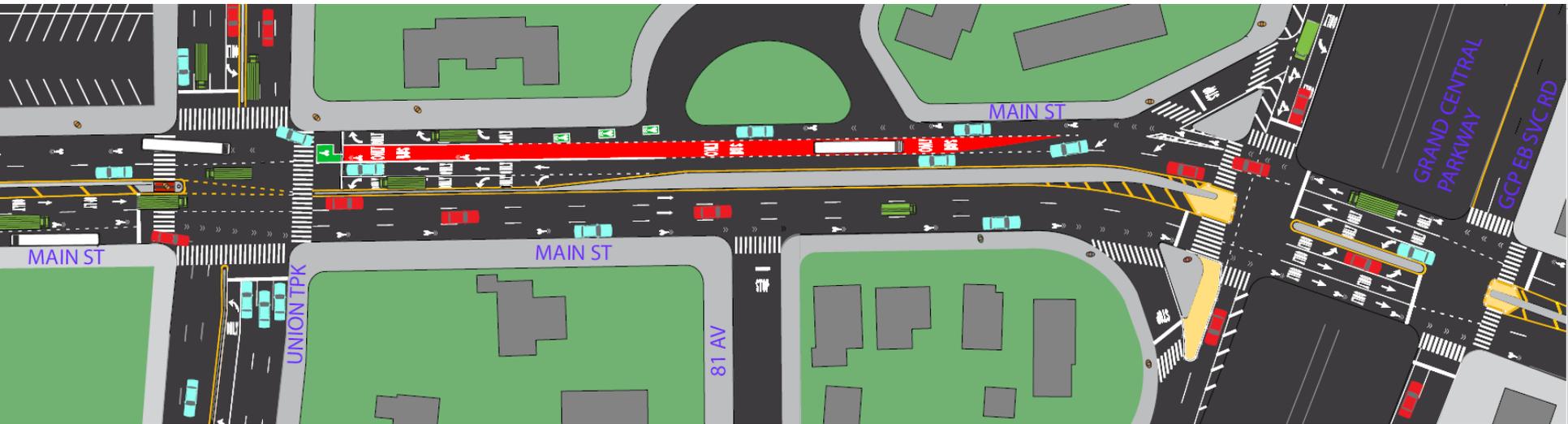
Additional 11 Seconds for Northbound Thru/Right and East Crosswalk



Main St and Grand Central Parkway



Full Proposal



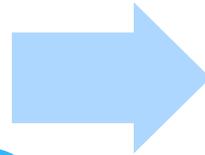
Benefits

- Improves bus speeds and reliability
- Enhances pedestrian safety
- Improves traffic flow

Project Schedule

Spring 2020

- CB8 outreach
- Elected Official briefing
- Finalize design based on stakeholder feedback



Later 2020

- Implement project as conditions allow
- Concrete, markings, signage, and signals implementation

Thank You!

Questions?



NYC DOT



NYC DOT



nyc_dot



NYC DOT