



2ND AVE E 68TH TO 59TH ST

BIKE NETWORK IMPROVEMENTS

New York City Department of Transportation

Presented by the Bicycle and Greenway Program on July 9, 2018



OVERVIEW

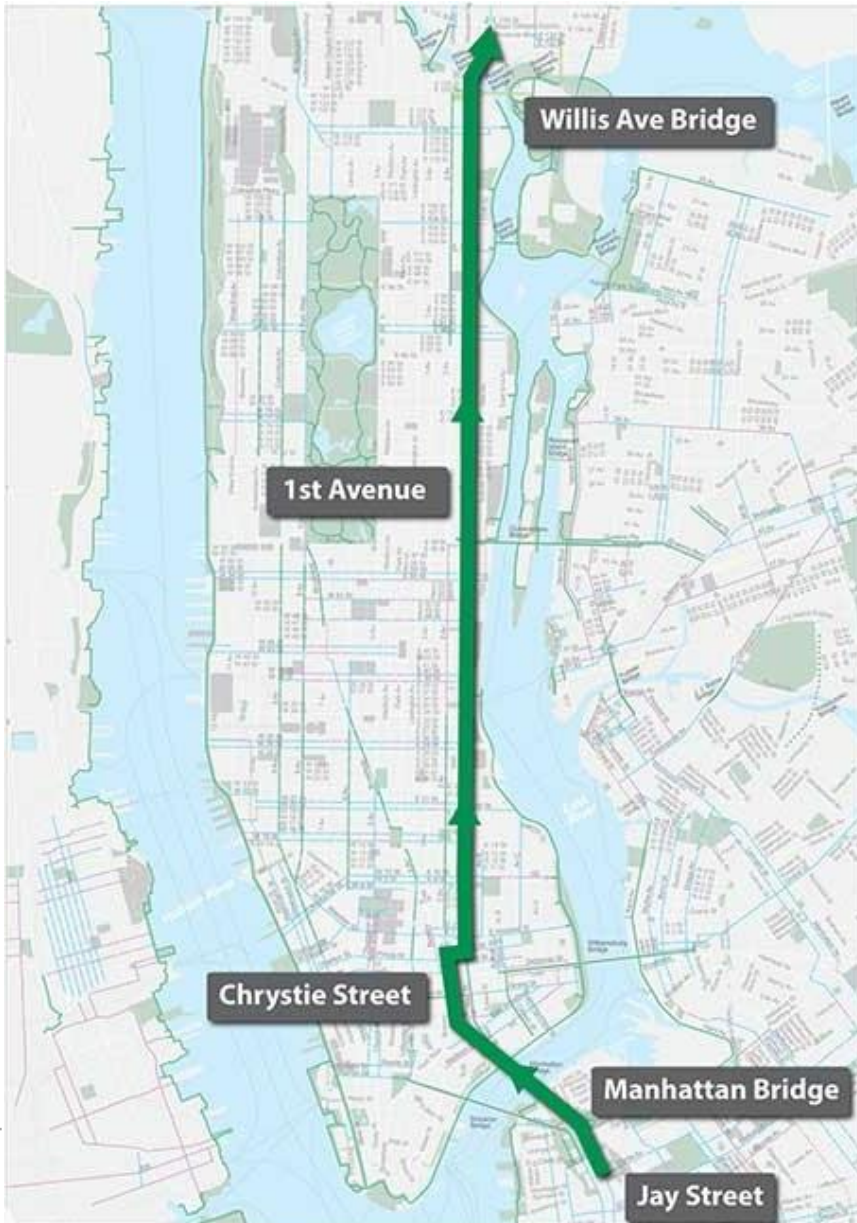
1. Protected Bike Network Implementation Update
2. Evaluation of Off-Peak Protected Bike Lane (52nd to 43rd Street)
3. Filling the Gaps
4. Proposal: Bridge (68th to 59th Street)
5. Update: Tunnel (43rd to 34th Street)
6. Next Steps



Protected Bike Network Implementation Update



EAST SIDE PROTECTED BIKE LANE NETWORK



Northbound: 1st Ave

- Continuous 9-mile protected bike lane connecting Brooklyn, Manhattan and the Bronx

Southbound: 2nd Ave

- Challenges to creating continuous protected bike lane:
 - 2nd Ave Subway construction
 - High traffic volumes approaching Queensboro Bridge and Midtown Tunnel

2ND AVENUE EXISTING BIKE FACILITIES



CB 8

PROTECTED BIKE LANE

- 96 St – 88 St**
2016 (MTA)
- 88 St – 82 St**
Functional, not yet completed (MTA)
- 82 St to 74 St**
2016 (DOT)
- 74 St – 68 St**
Functional, not yet completed (MTA)

ENHANCED SHARED LANE

- 68 St – 59 St Bridge**
Fall 2016/17 (MTA/DOT)

CB 6

PROTECTED BIKE LANE

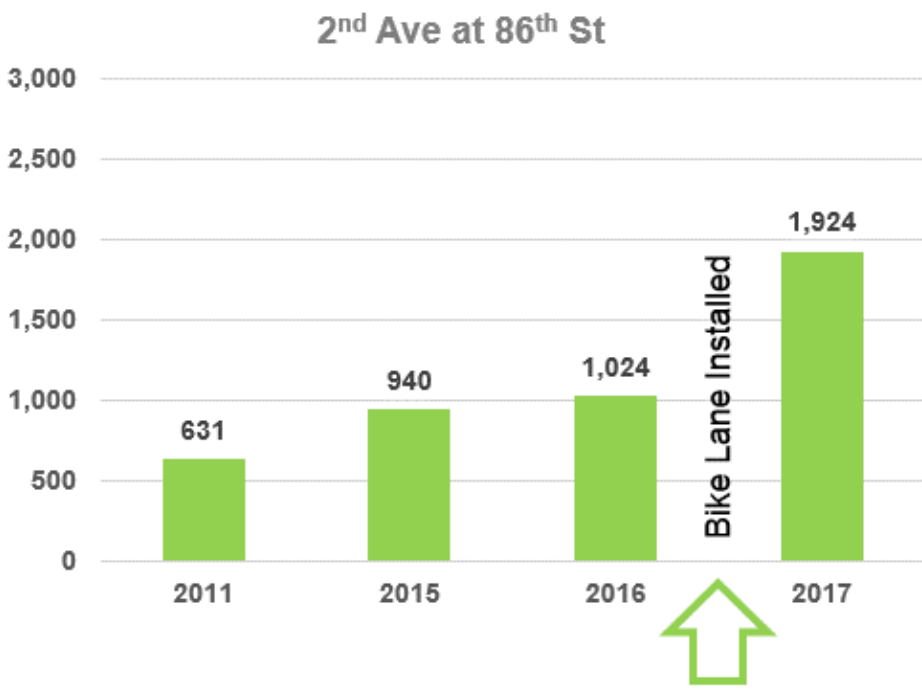
- 59 St – 43 St:**
2017 (DOT)
- 52 St – 43 St:** *Off-peak Protected Bike Lane Design*
2017 (DOT)

ENHANCED SHARED LANE

- 43 St – 34 St Tunnel**
2011 (DOT)

BIKE VOLUMES ARE GROWING

Bike Counts on 2nd Ave: **+105%**
(2015-2017)



Bicycle Volume Data: Average of three 12-hr (7AM-7PM) counts conducted on weekdays in May, July, and September for each year reported.



In the third quarter of 2017 **699,000** Citi Bike trips either started or ended in CB 6 and CB 8



On Average, **5,406 cyclists** use the Queensboro Bridge bike lane daily (between April and October)

SAFETY CONCERNS



2nd Ave is a Vision Zero Priority Corridor

2 Ave, 68 St – 59 St

Injury Summary, 2012-2016 (5 years)

	Total Injuries	Severe Injuries	Fatalities	KSI
Pedestrian	87	9	0	9
Bicyclists	32	1	0	1
Motor Vehicle Occupant	244	16	0	16
Total	363	26	0	26

Fatalities, 01/01/2012 – 03/19/2018: None

2 Ave, 43 St – 34 St

Injury Summary, 2012-2016 (5 years)

	Total Injuries	Severe Injuries	Fatalities	KSI
Pedestrian	118	11	0	11
Bicyclists	64	5	0	5
Motor Vehicle Occupant	194	7	0	7
Total	376	23	0	23

Fatalities, 01/01/2012 – 03/19/2018: None

Source: Fatalities: NYCDOT. Injuries: NYSDOT. KSI: Persons killed or severely injured

Evaluation of Off-Peak Protected Bike Lane Design

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BEFORE: 2 Ave, 52 St – 43 St



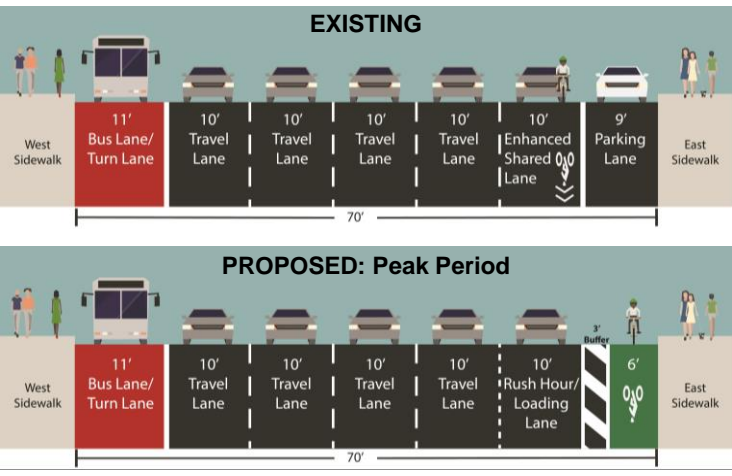
Enhanced Shared Lane

Gap in the protected bike lane network where facilities were most needed

High traffic volumes, lack of organization in roadway

Site specific curb access and parking needs

AFTER: Peak Period Design



Curbside bike lane provides dedicated space for cyclists

Maintains five moving lanes

Loading not permitted

AFTER: Off-peak Design

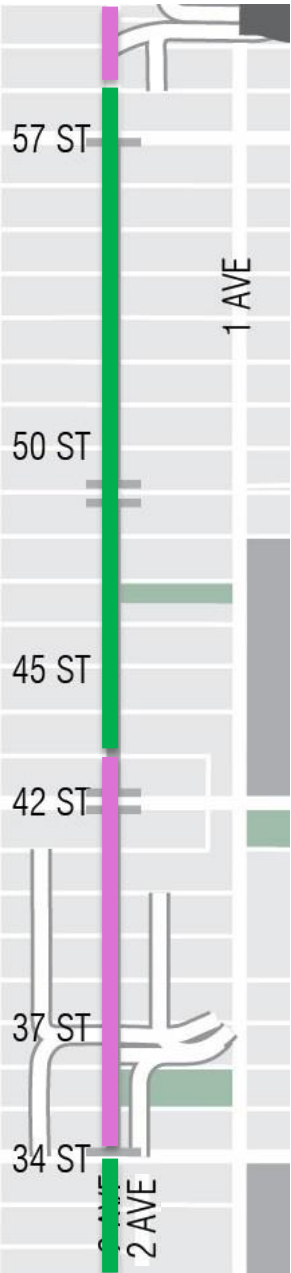
Parking protected bike lane provides dedicated space for cyclists, separated from moving vehicles

Removal of travel lane calms traffic when speeding is more likely to occur

Loading permitted



VEHICLE SPEEDS: MIDTOWN IN MOTION EZPASS DATA



		2016	2017
49 ST - 57 ST	AM	10.3 mph	11.2 mph
	MD	9.3 mph	10.3 mph
	PM	13.8 mph	13.2 mph
42 ST - 49 ST	AM	10.5 mph	10.4 mph
	MD	6.9 mph	7.5 mph
	PM	8.3 mph	8.5 mph

Data show **no significant change** to average vehicle speeds in the project area (2nd Ave 59th St to 43rd St)

Note: No operational changes made south of 43 St

34 ST - 42 ST	AM	8.1 mph*	7.2 mph
	MD	10.6 mph*	9.2 mph
	PM	8.6 mph*	5.3 mph

Overall, average motor vehicle speeds on streets in **Midtown Manhattan decreased** during this same time period**

Source: EZPASS 2017 October Mid-week Vs. 2016 October Mid-Week.
 Note *: 2nd Avenue - Southbound - 42nd St to 34th St, 15 min Average Travel Time using 2017 October midweek vs. 2016 October midweek (The 2016 data for this link is approximate using the historical travel time as EZPASS reader at 34 St was down during this month).
 Note **:Taxi GPS is used as a proxy for travel speeds.)

BLOCKING OF BIKE LANE: TIME LAPSE CAMERA OBSERVATIONS



No Stopping Left Turn Area

Video data collected on
 2nd Ave at 43rd, 44th, 45th, 46th, 48th, and 50th Streets
 Data collected in August, September 2017.
 Mid-week days from 7AM-10AM

TLC200 2017/09/12 08:02:24

Bike Lane Blockages

Locations	43 St	44 St	45 St	46 St	48 St	50 St
Video Analyzed (Days)	5	5	6	9	12	9
Video Analyzed (Minutes)	1,200	1,200	1,440	2,160	2,880	2,160
Number of Times Bike Lane was Blocked	26	13	20	3	9	6
Total Time Bike Lane was Blocked in Minutes	81	48	86	21	46	36
Percentage of Time Bike Lane was Blocked	6.8%	4.0%	6.0%	1.0%	1.6%	1.7%

Bike lane is clear 97% of the time

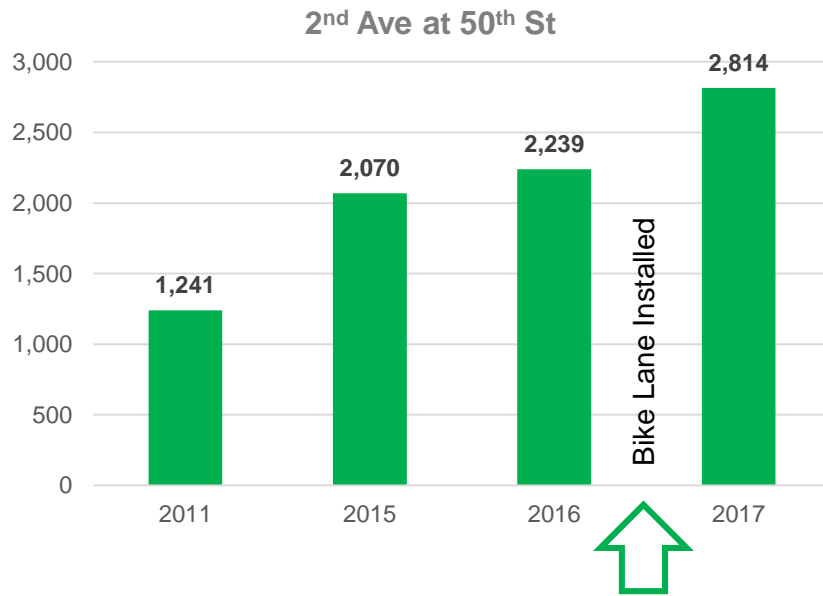
No Stopping Left Turn Area Blockages

Locations	43 St	44 St	45 St	46 St	48 St	50 St
Video Analyzed (Days)		5		9	12	9
Video Analyzed (Minutes)		1,200		2,160	2,880	2,160
Number of Times No Stopping LT was Blocked		29		15	61	14
Total Time No Stopping LT was Blocked in Minutes		454		72	1,380	201
Percentage of Time No Stopping LT was Blocked		37.8%		3.3%	47.9%	9.3%

Left Turn Area is clear 75% of the time

BIKE VOLUMES: BEFORE/AFTER COUNTS

Off-Peak Protected Bike Lane
installed on
2nd Ave (59 St to 43 St) in
Spring/Summer 2017



+36% increase in cycling
(2015-2017)



Proposal

3

CORRIDOR: EXISTING CONDITIONS



High Traffic Volume

High volume especially approaching bridge and tunnel



Curb Access/ Parking

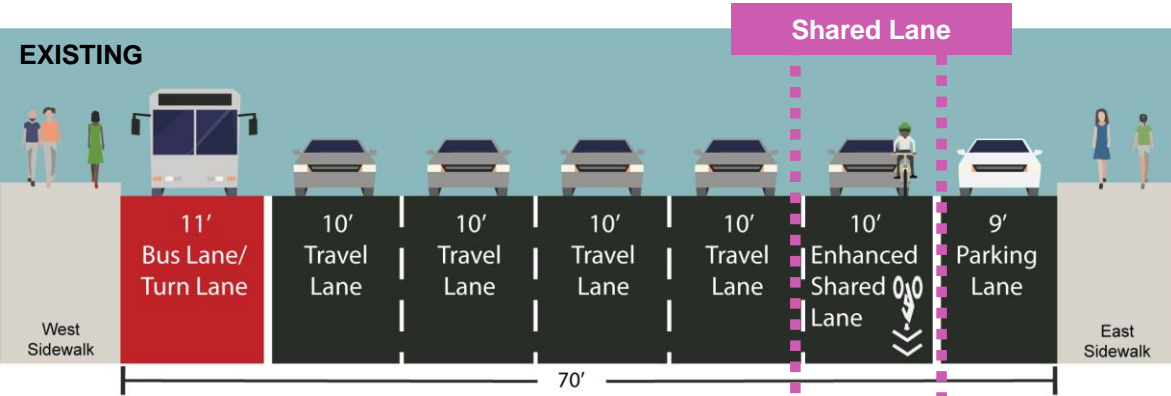
Commercial un/loading, drop-off/pick-up of passengers



Heavily Used Cycling Route

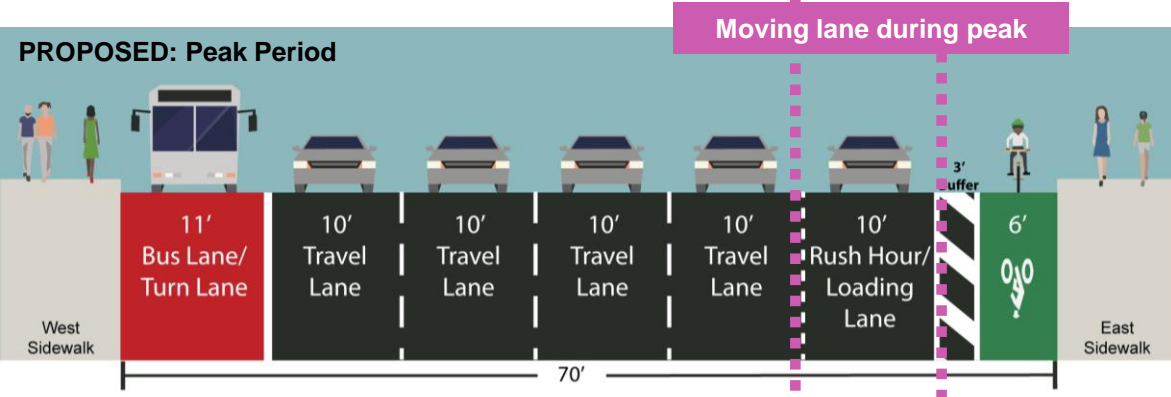
No dedicated space for cyclists
Gap in the protected bike network

CORRIDOR: PROPOSED DESIGN (68th – 60th St)



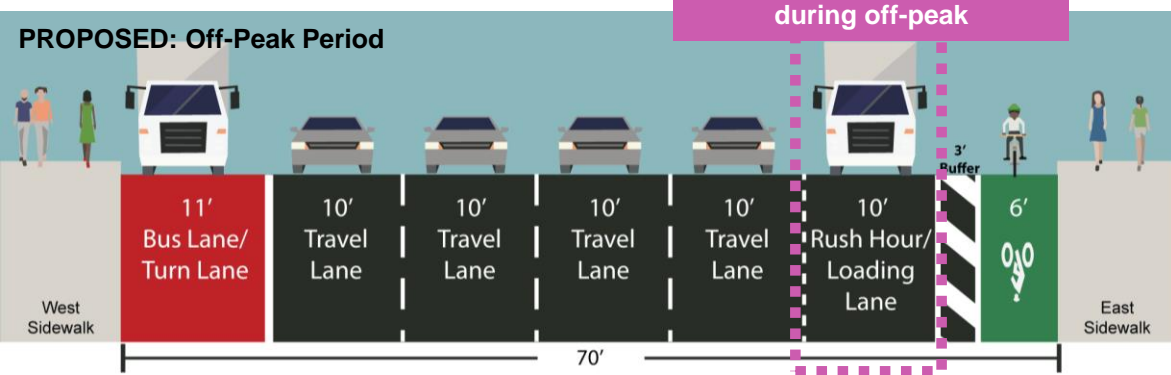
Gap in the Protected Bike Network

- No dedicated space for cyclists
- Enhanced shared lane breaks down during peak hour



Peak Period (7am - 10am, 3pm - 8pm)

- Curbside buffered bike lane
- Maintains vehicular capacity



Off-Peak Period

- Parking protected bike lane
- Traffic calming
- East curb access (loading/unloading)
- West curb access (loading/unloading) when bus lane not in effect

QUEENSBORO BRIDGE: EXISTING CONDITIONS

Complex intersection

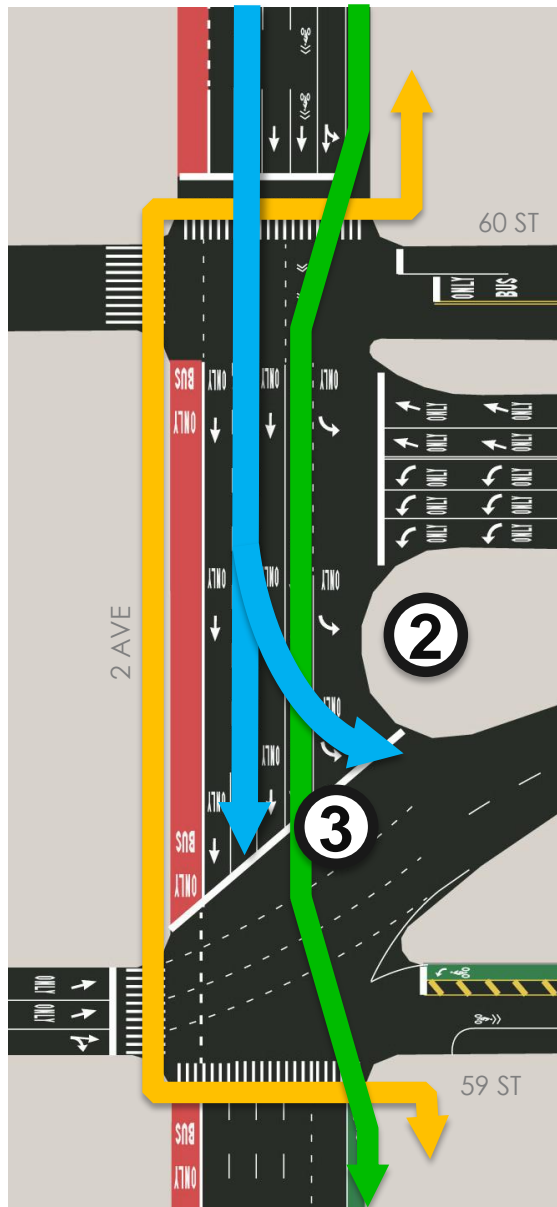
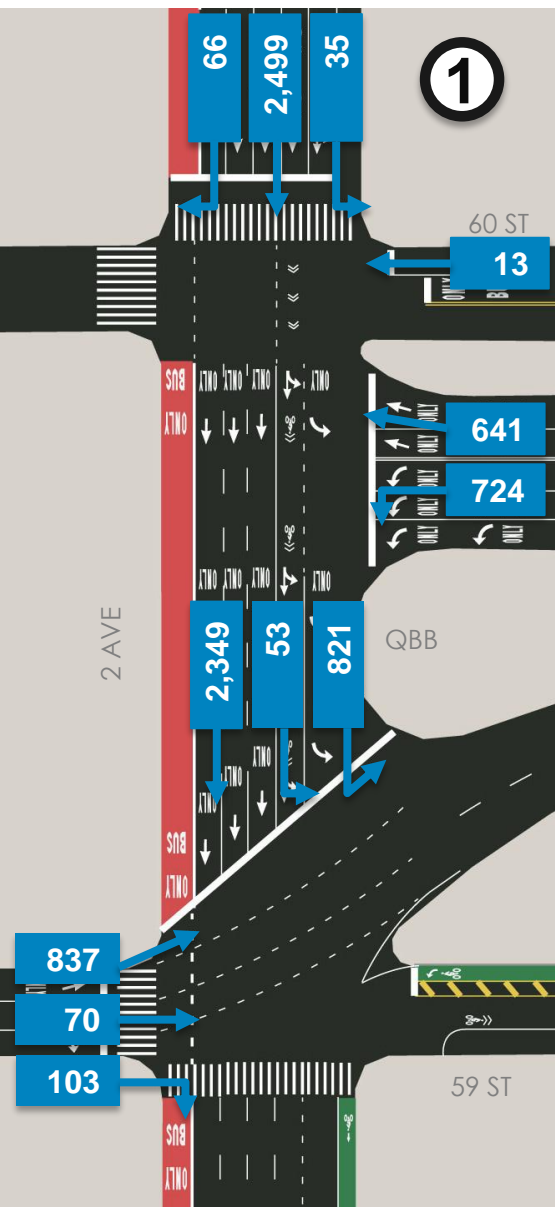
- High, constant vehicle volumes
- Limited pedestrian and bicycle access



QUEENSBORO BRIDGE: EXISTING/ISSUES



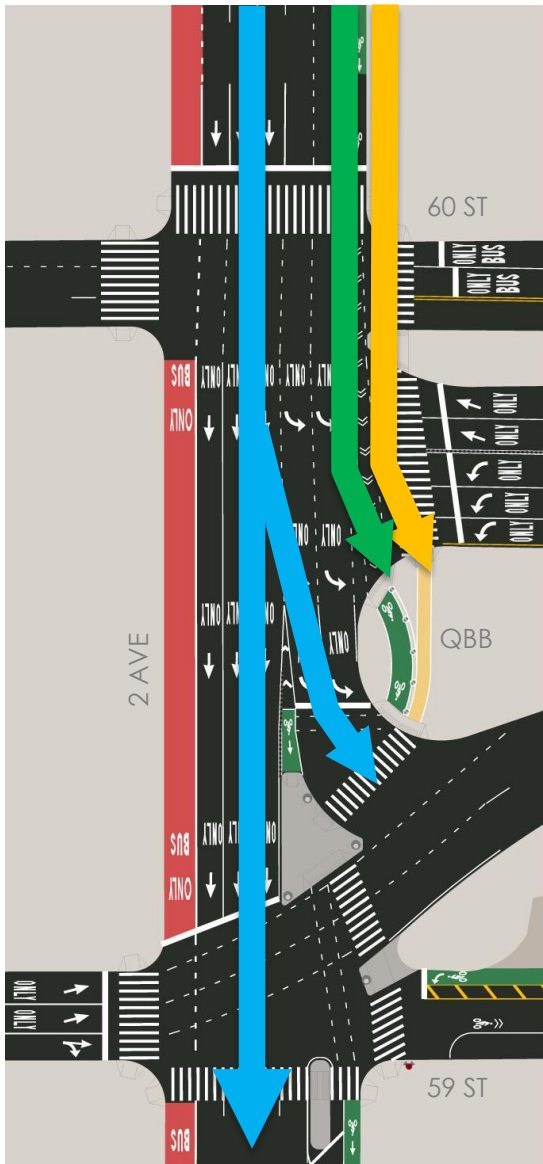
Vehicle Volumes:



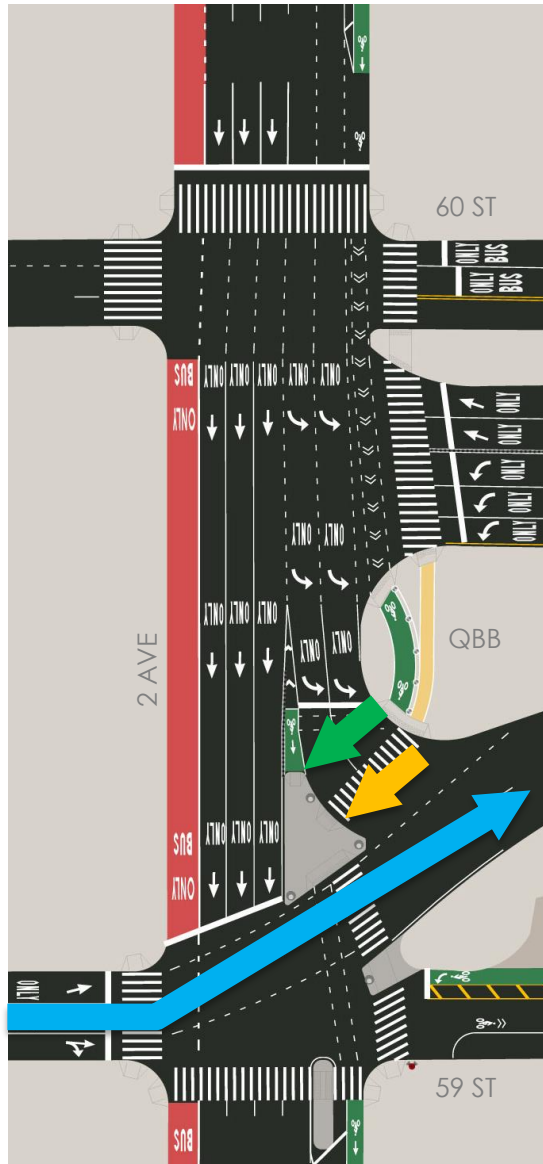
- ① High volumes throughout the day
- ② No pedestrian and bike crossing on east side from 60th and 59th St
- ③ Southbound cyclists forced to merge turning vehicles to continue traveling through

QUEENSBORO BRIDGE: PROPOSED THREE STAGE CROSSING

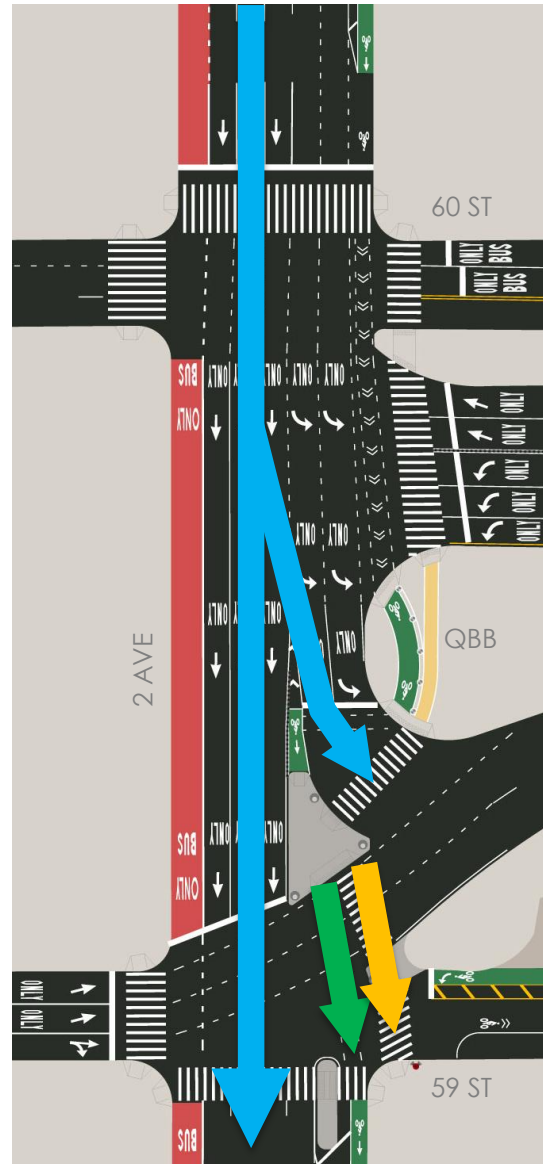
Phase 1   



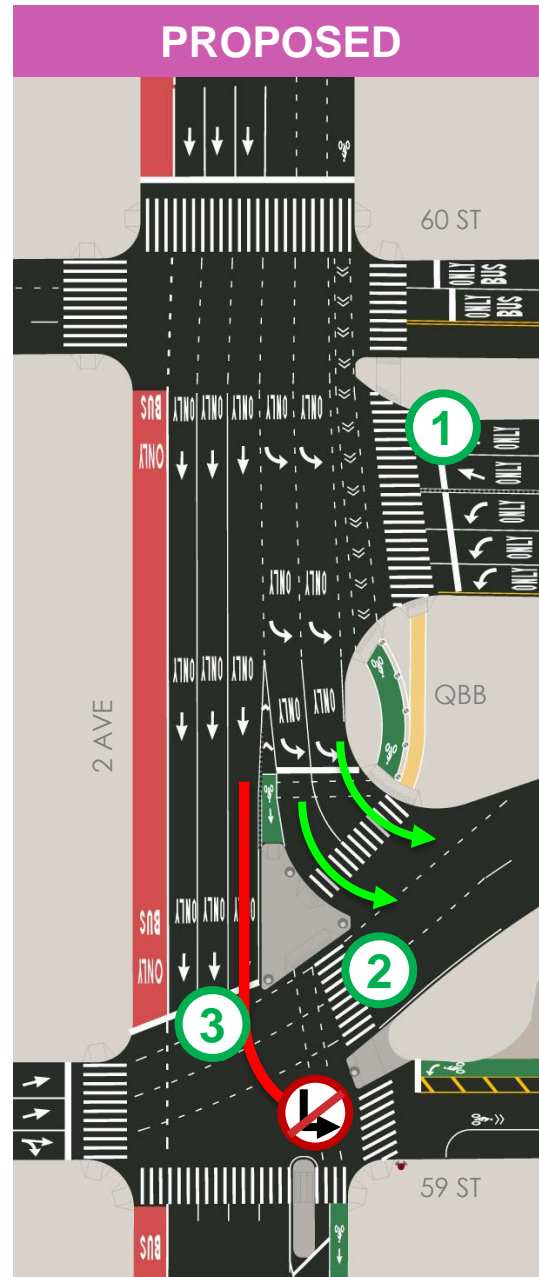
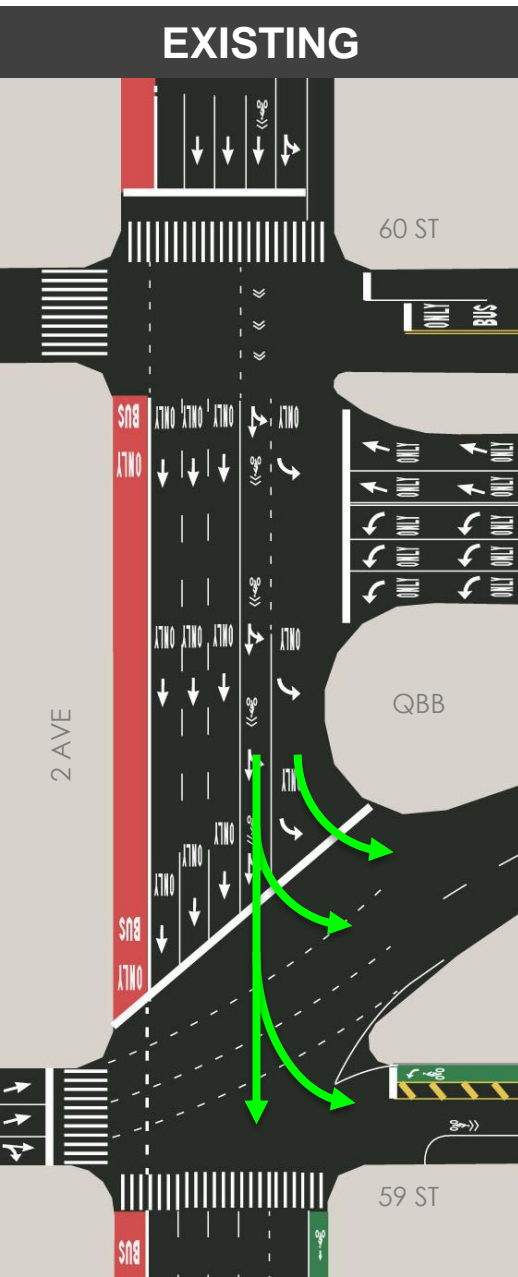
Phase 2   



Phase 1   



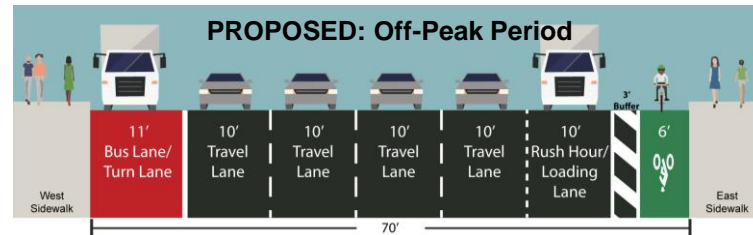
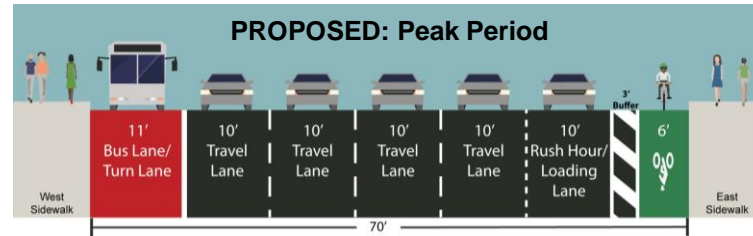
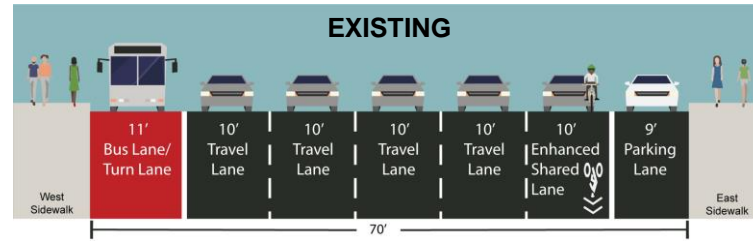
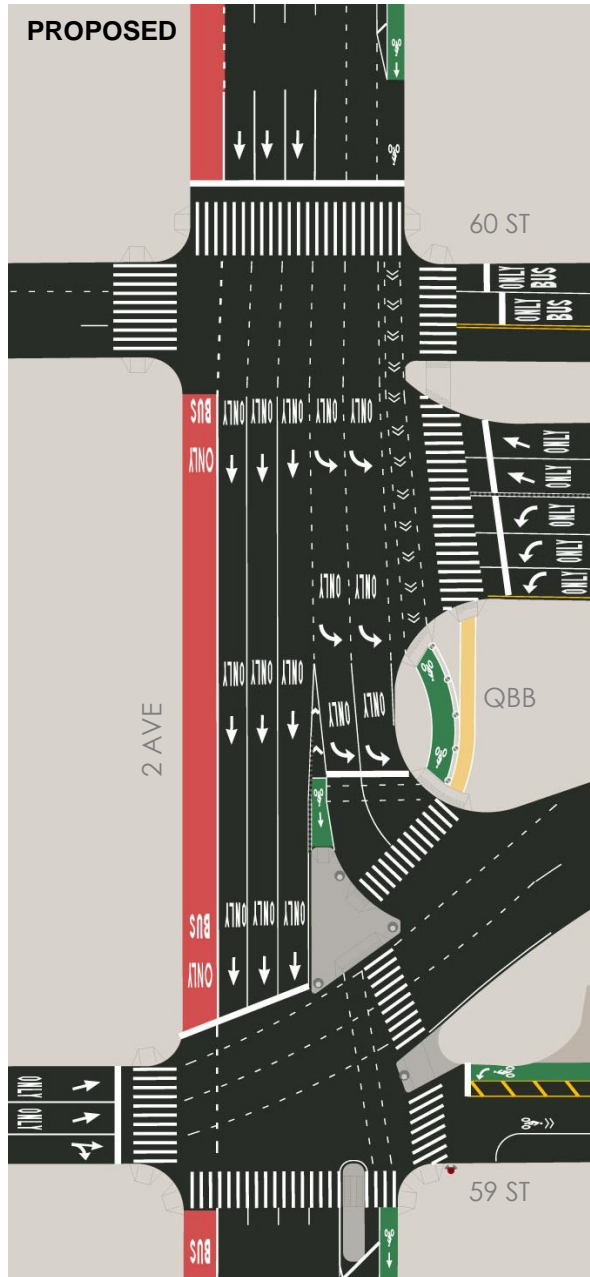
QUEENSBORO BRIDGE: PROPOSAL



- 1 Add pedestrian and bicycle crossing**
 - Allows pedestrian crossing along east side
 - Closes the gap on the protected bike network on 2nd Ave
- 2 Add concrete island and tip extension**
 - Shorter pedestrian and bicycle crossing that works with signal timing
- 3 Change in lane configuration**

Existing:	Proposed:
<ul style="list-style-type: none">3 SB through1 shared SB/left lane1 left lane onto QBB	<ul style="list-style-type: none">3 SB through2 left lanes onto QBBNo left turn from 2nd Ave onto 59th St
- 4 No change to signal timing**

BENEFITS OF PROPOSED DESIGN



Continue existing lane south to 59th Street

- Bike lane is now continuous from 125th to 43rd Street
- Shared lanes replaced with dedicated bike lanes at bridge

New pedestrian crossing at Bridge

- People can now walk continuously along east side

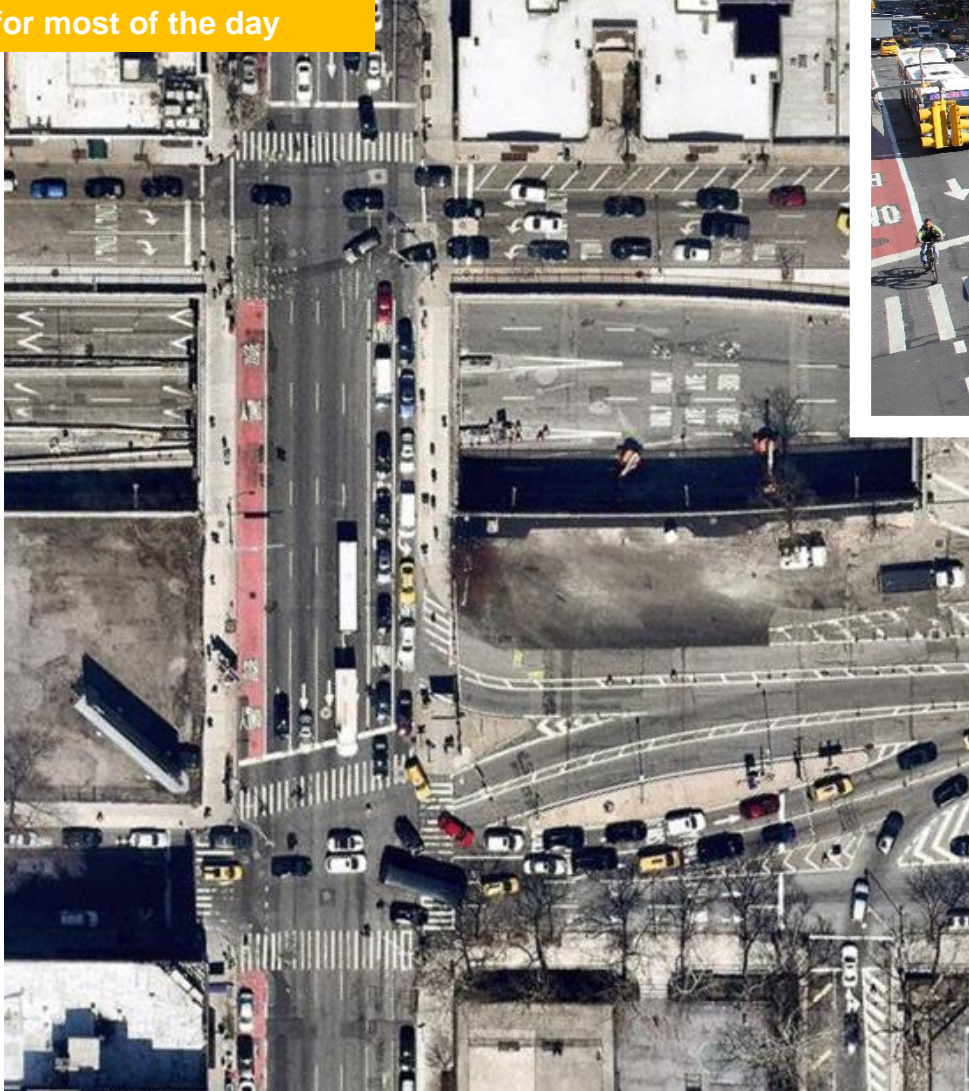
Minimize congestion impacts

- Signal timing remains the same, minimizing back-ups into surrounding streets

QUEENS MIDTOWN TUNNEL: ISSUES

Complex intersection

**High vehicular volume
for most of the day**



**Ongoing MTA work around
the Tunnel area**

**DOT is currently working
with MTA to develop a plan**

Next Steps

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QUEENSBORO BRIDGE

- **Project Development**
 - Complete analysis and design of corridor during all traffic configurations
 - Finalize proposal for rush hour/parking regulations
- **Community Outreach**
 - Present finalized designs to
 - Elected Officials
 - Community Board 6 and 8
- **Implementation**
 - Late 2018 / Early 2019

QUEENS MIDTOWN TUNNEL

- DEP capital work on 2nd Ave between 34th and 36th Streets
- DOT is working with MTA to develop a plan for the area
- Due to ongoing work and coordination efforts, facilities between 34th and 43rd Streets will not be implemented at the same time as QBB



THANK YOU!

Questions?



NYCDOT



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