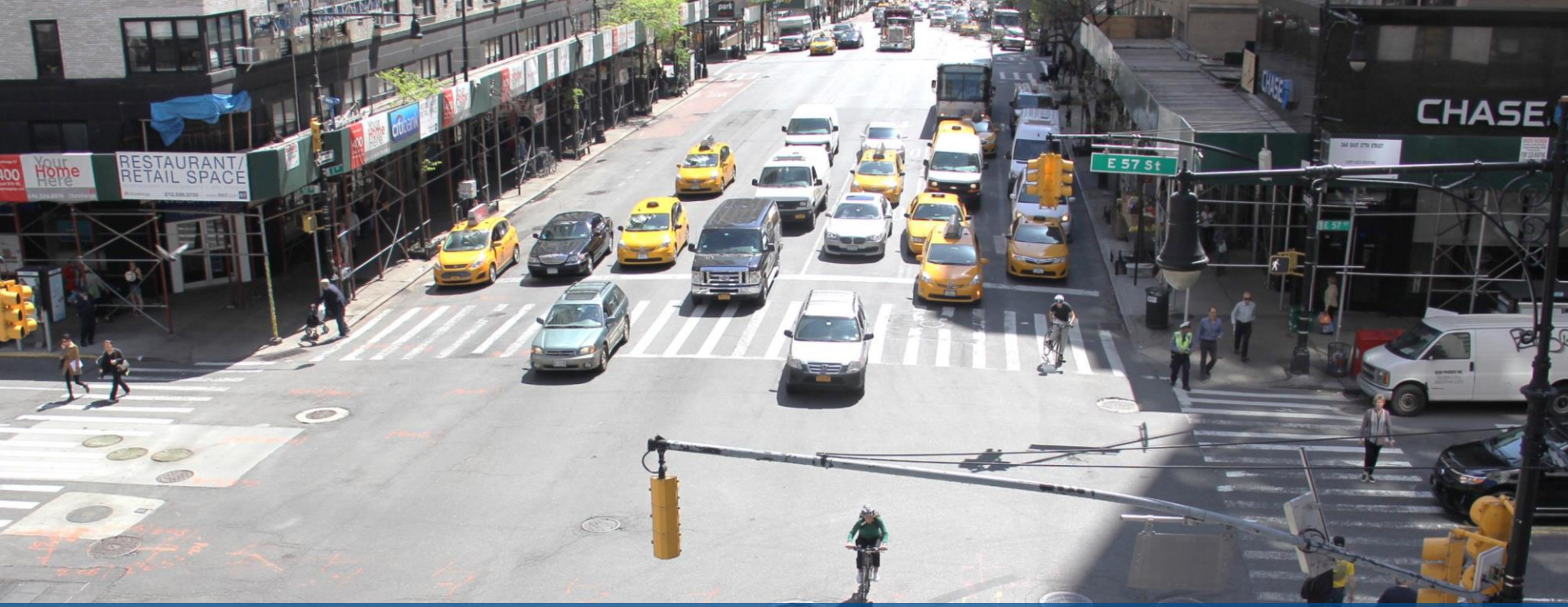


1ST AVENUE

PROTECTED BICYCLE LANE

New York City Department of Transportation

Presented by the Bicycle and Greenway Program on June 6, 2016 to Manhattan Community Board 6

PRESENTATION OVERVIEW

(1) Background
- Project Area
- Bike Network
- Safety
- Vehicle Network

(2) Existing Conditions
- Design of 1st Avenue
- Use of 1st Avenue

(3) Proposal
- Protected Bike Lanes
- Vehicle Mobility
- 48th St Island

(4) Summary

PROJECT BACKGROUND

1

PROJECT AREA

Protected Bike Lane

Gaps in the Protected Network

On Average, 4,865 cyclists use the Queensboro Bridge bike lane daily
(between April and October)

BIKE VOLUMES

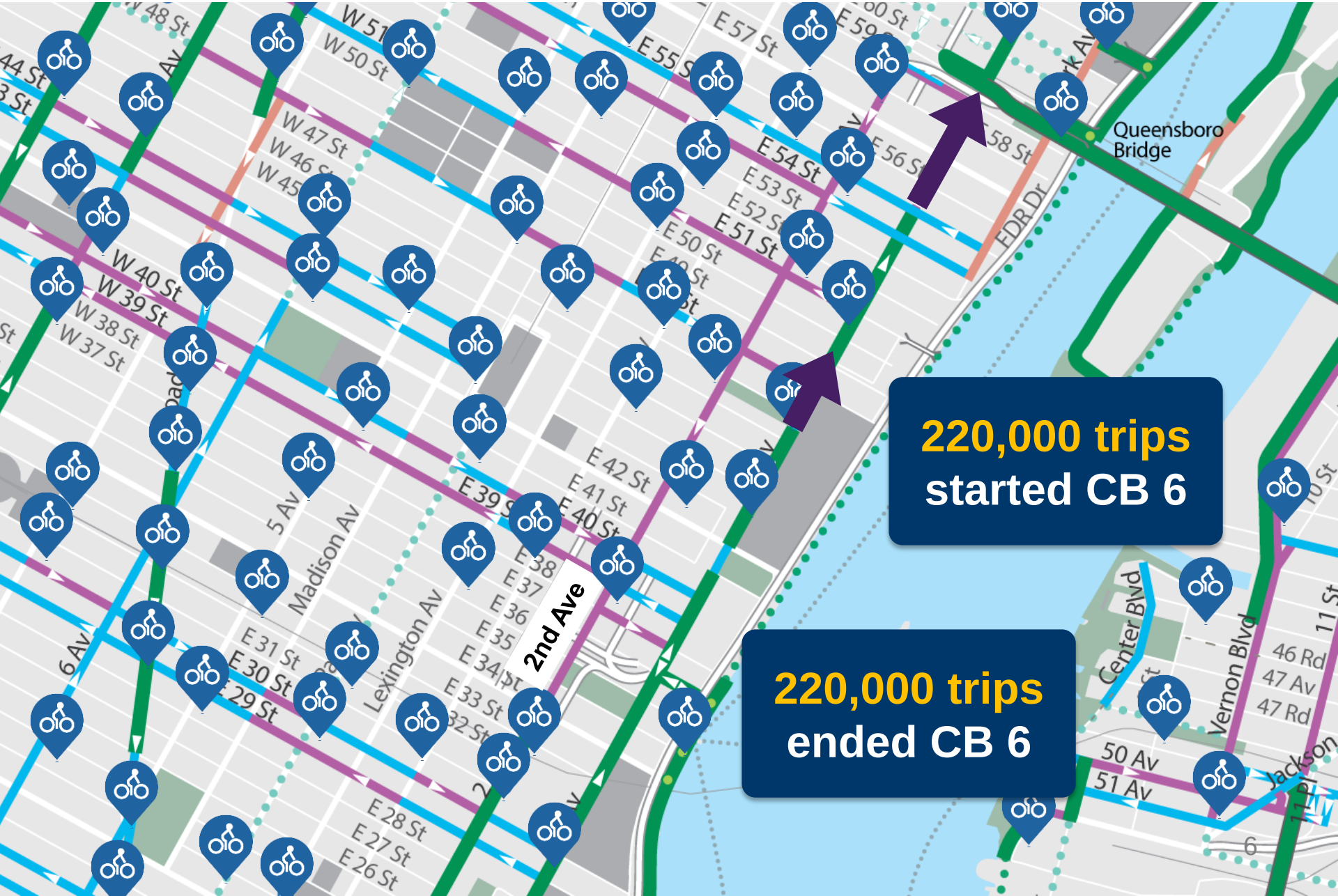
1st Ave Bicycle Volume:

Year	12-hour Bike Volume
2013	1,411
2014	1,447
2015	1,605

- Growing number of cyclists
- High level facility needed

Source: ATI Data, Bicycles btw. E 50 St and E 51 St, in May, August, and September in 2013, 2014, and 2015

CITI BIKE January 2016 – March 2016



SAFETY – Vision Zero

Total Injuries (2010-2014)

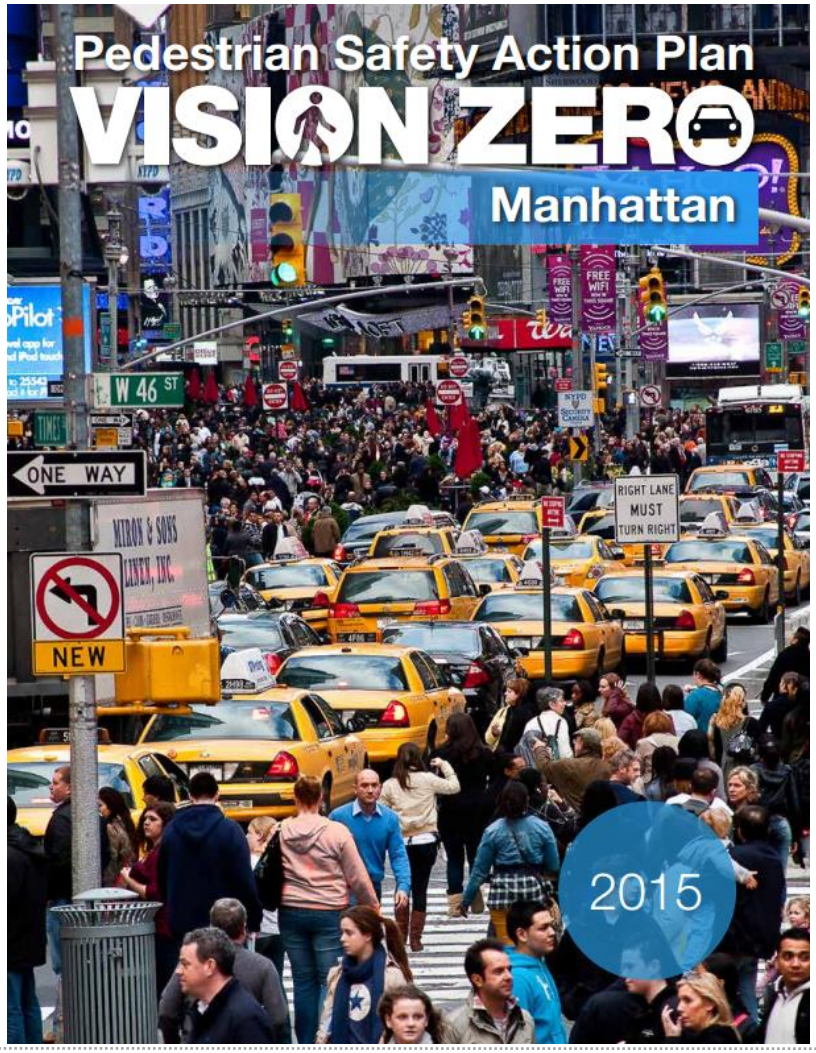
1st Ave at 47th St
- 3 Pedestrian Injuries
- 2 Bicyclist Injuries

1st Ave at 48th St
- 2 Pedestrian Injuries
- 2 Bicyclist Injuries; 1 severe

1st Ave (E 55th St to E 59th St), MN
Injury Summary, 2010-2014 (5 years)

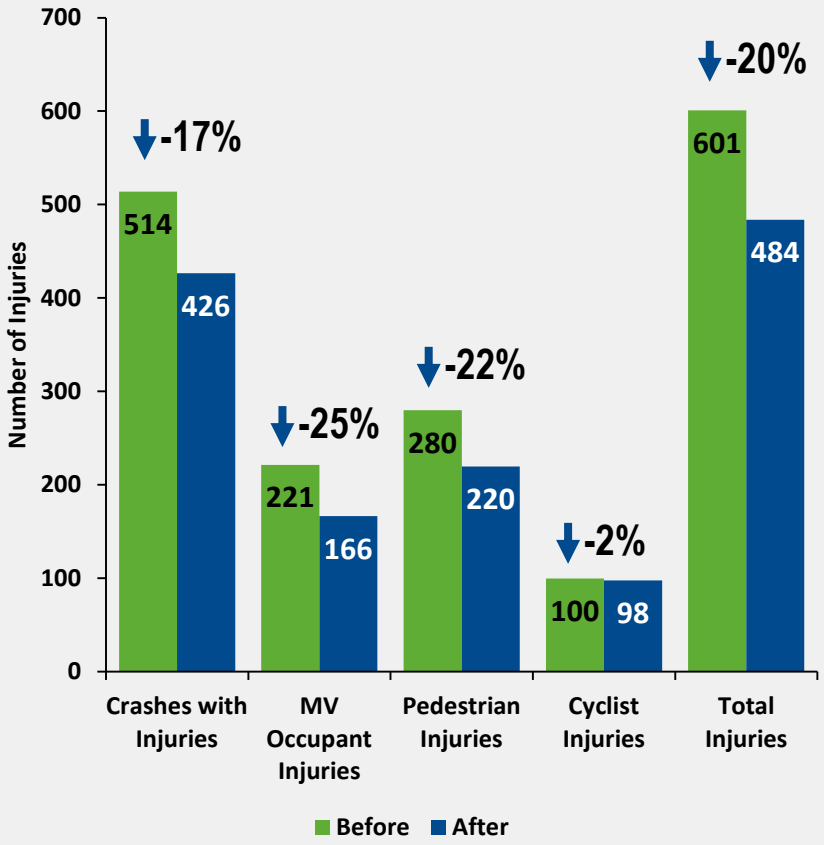
	Total Injuries	Severe Injuries	Fatalities
Pedestrian	83	3	3
Bicyclist	19	1	0
Motor Vehicle Occupant	92	5	0
Total	0	9	3

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



SAFETY – Protected Bike Facilities

Protected Bicycle Lanes with 3 years of After Data: Before and After

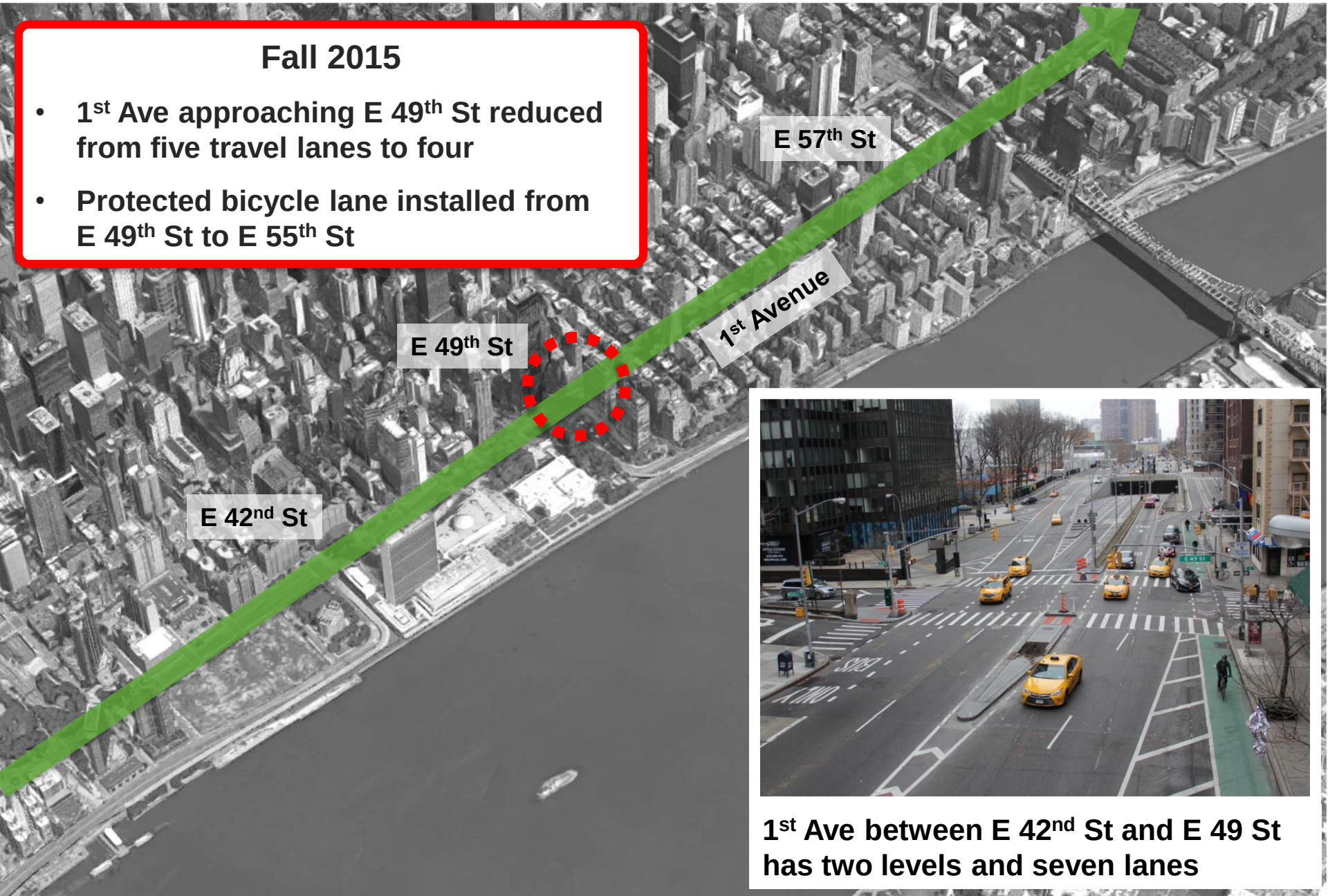


Protected bicycle lane projects with 3 years of after data include the following: 9th Ave (16th-31st), 8th Ave (Bank-23rd, 23rd-34th), Broadway (59th-47th, 33rd-26th, 23rd-18th), 1st Avenue (Houston to 34th), 2nd Ave (Houston-34th), Columbus Ave (96th-77th) Note: Only sections of projects that included protected bicycle lanes were analyzed
Source: NYPD AIS/TAMS Crash Database

NETWORK

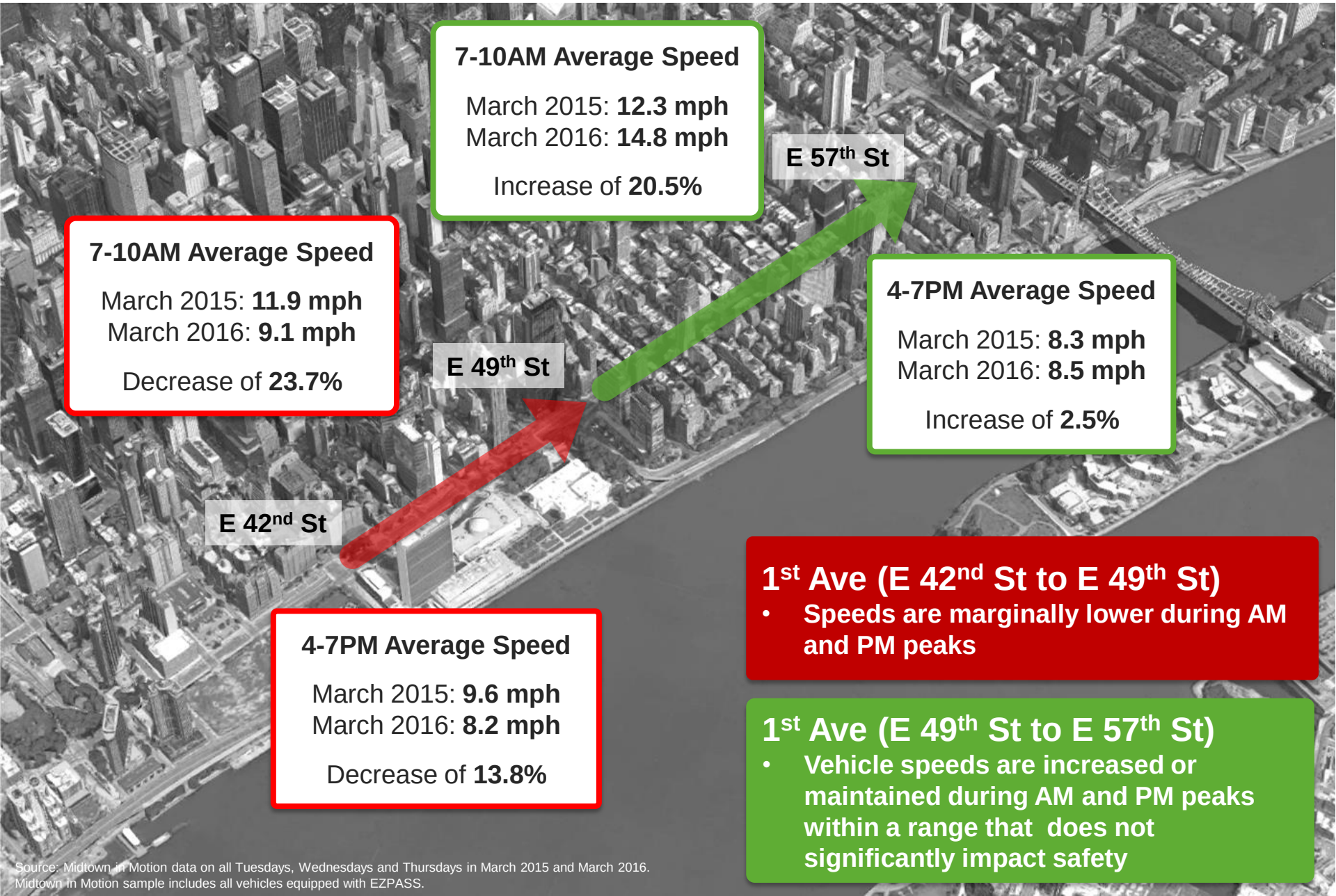
Fall 2015

- 1st Ave approaching E 49th St reduced from five travel lanes to four
- Protected bicycle lane installed from E 49th St to E 55th St



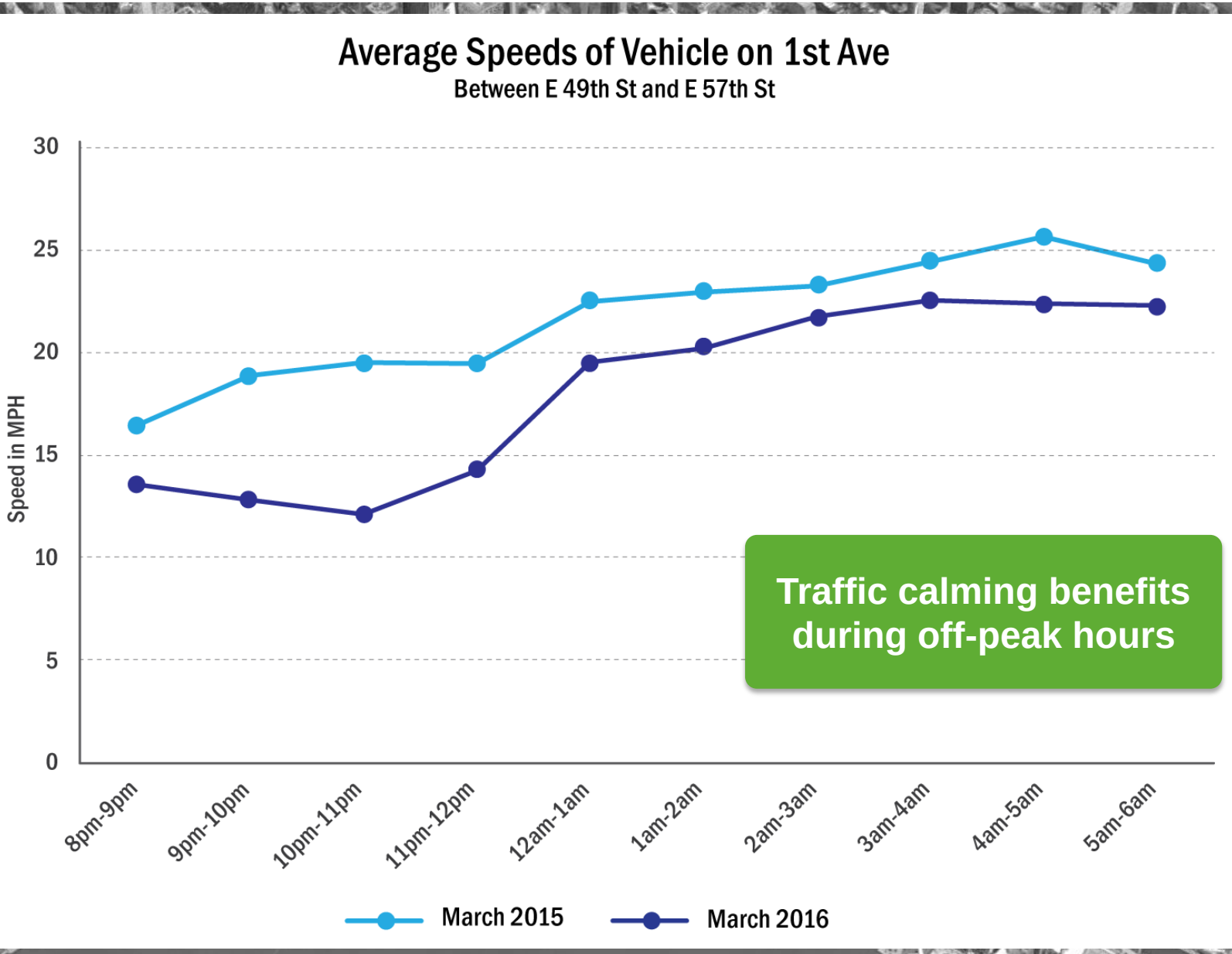
1st Ave between E 42nd St and E 49 St has two levels and seven lanes

IMPACT OF LANE REMOVAL



Source: Midtown in Motion data on all Tuesdays, Wednesdays and Thursdays in March 2015 and March 2016. Midtown in Motion sample includes all vehicles equipped with EZPASS.

OVERNIGHT VEHICLE SPEEDS

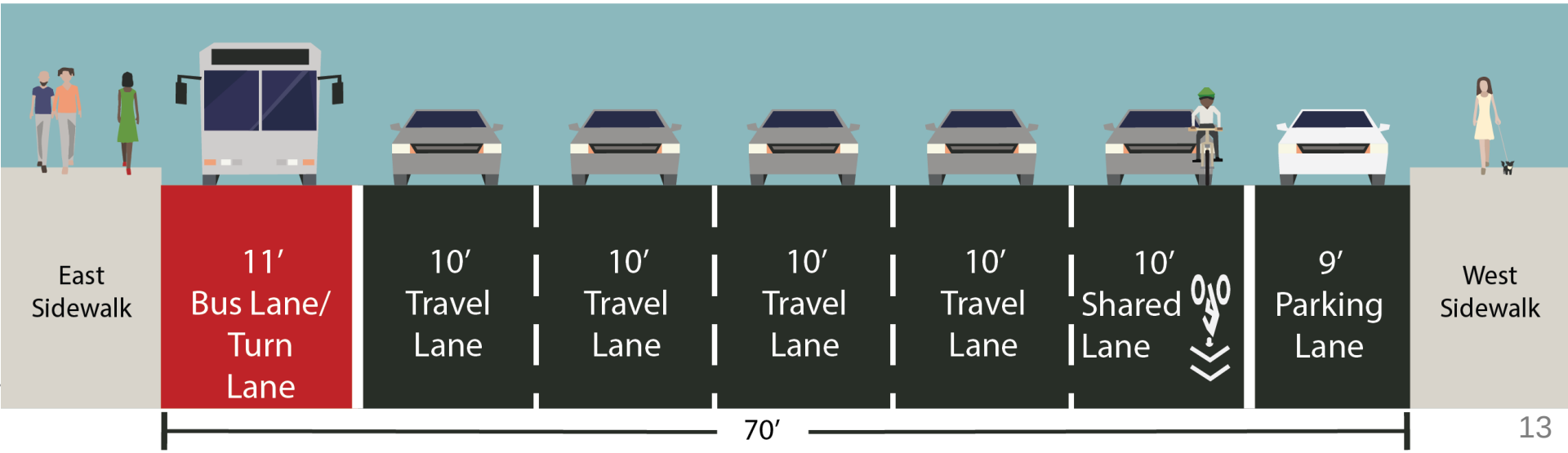


Source: Midtown in Motion data on all Tuesdays, Wednesdays and Thursdays in March 2015 and March 2016.
Midtown in Motion sample includes all vehicles equipped with EZPASS.

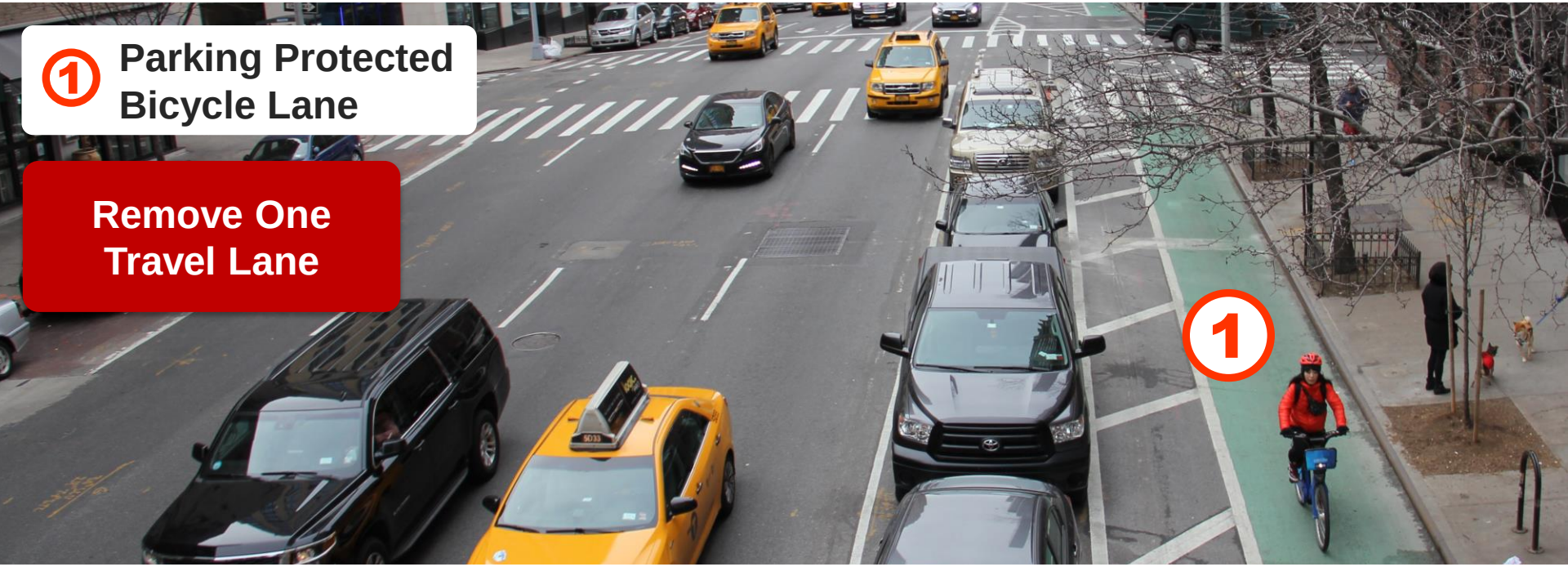
PROJECT PROPOSAL

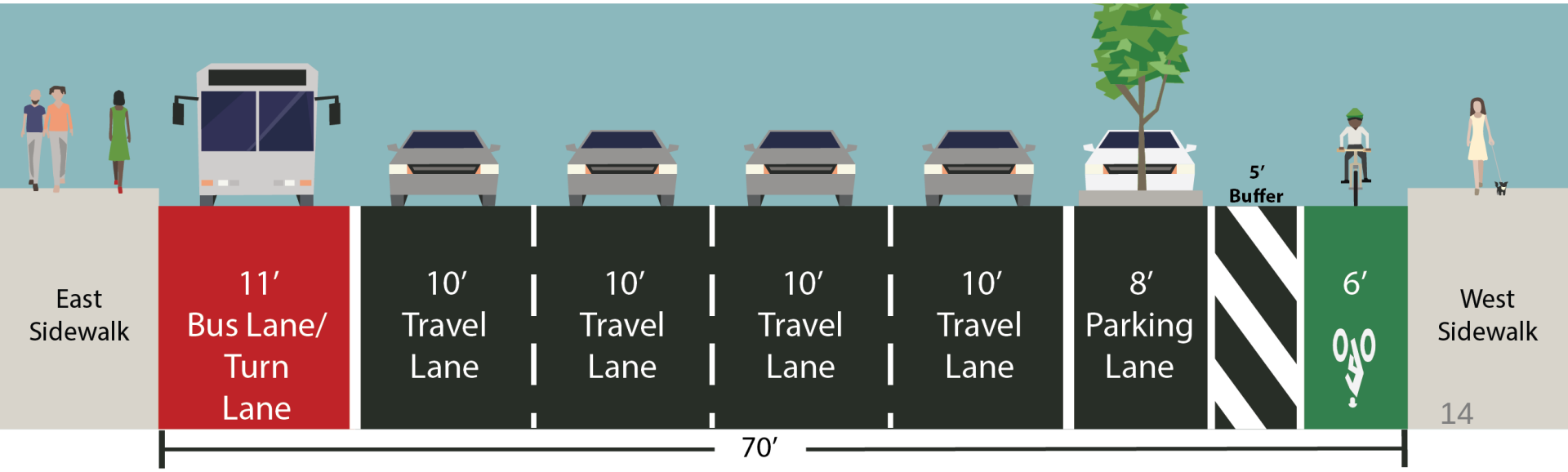
2

EXISTING CONDITIONS – 1st Ave (55th St to 59th St)



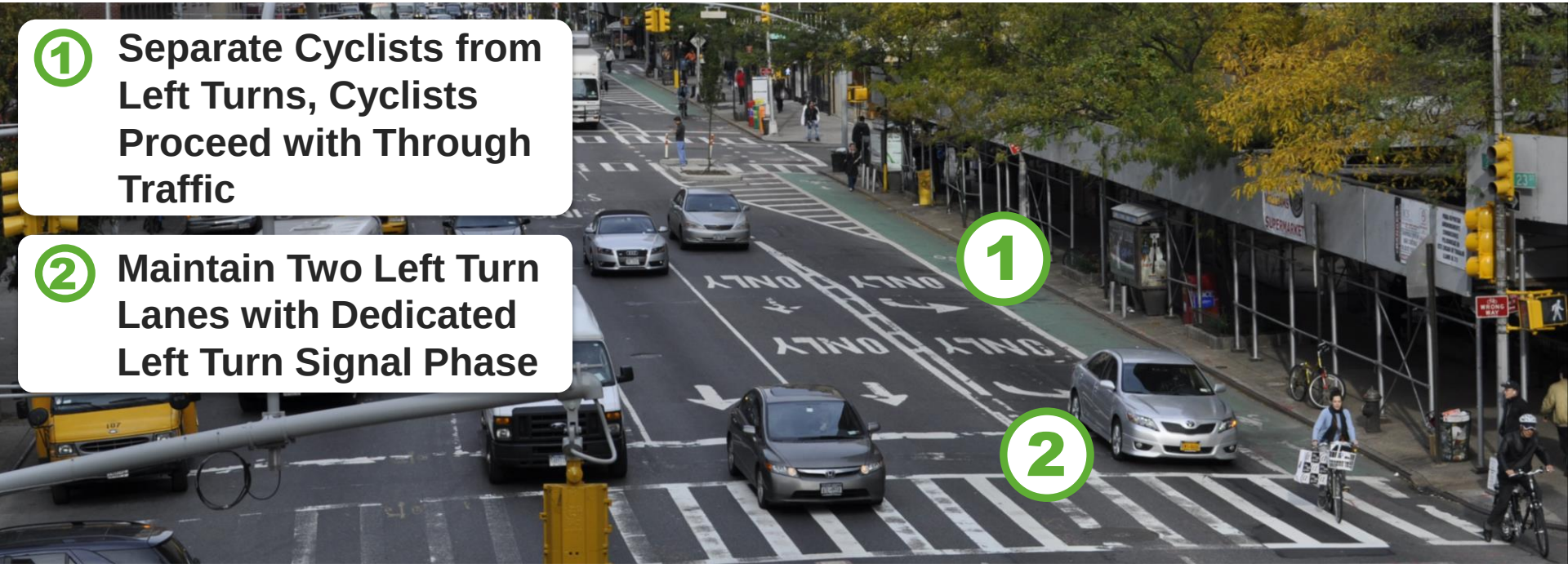
PROPOSED DESIGN - 1st Ave (55th St to 59th St)

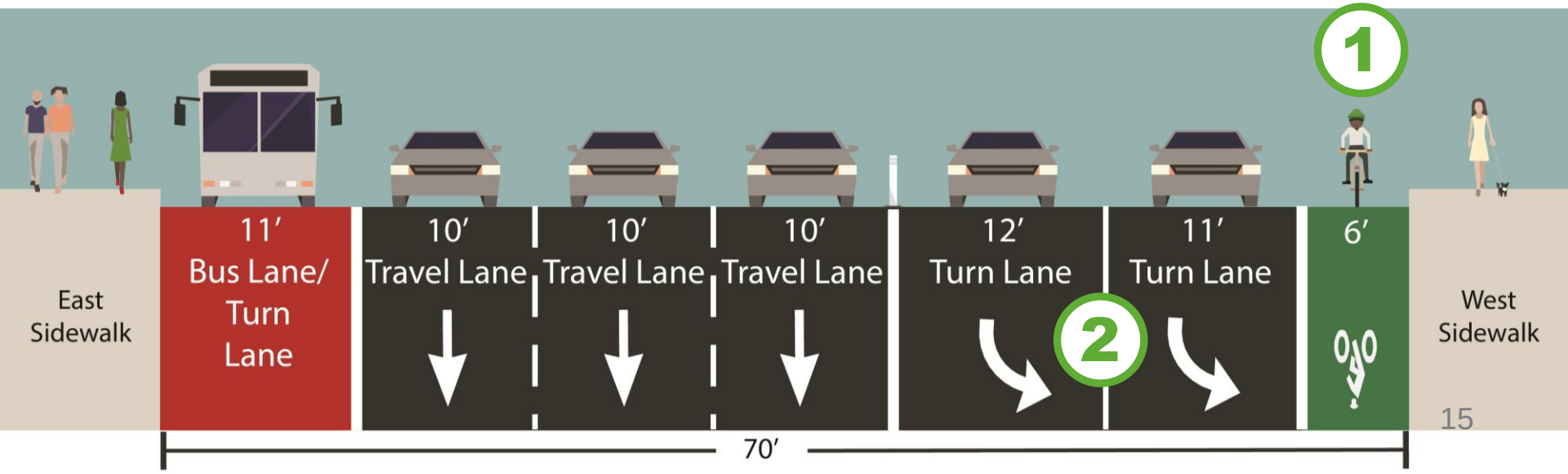




PROPOSED DESIGN – Left Turns at E 57th St and E 59th St

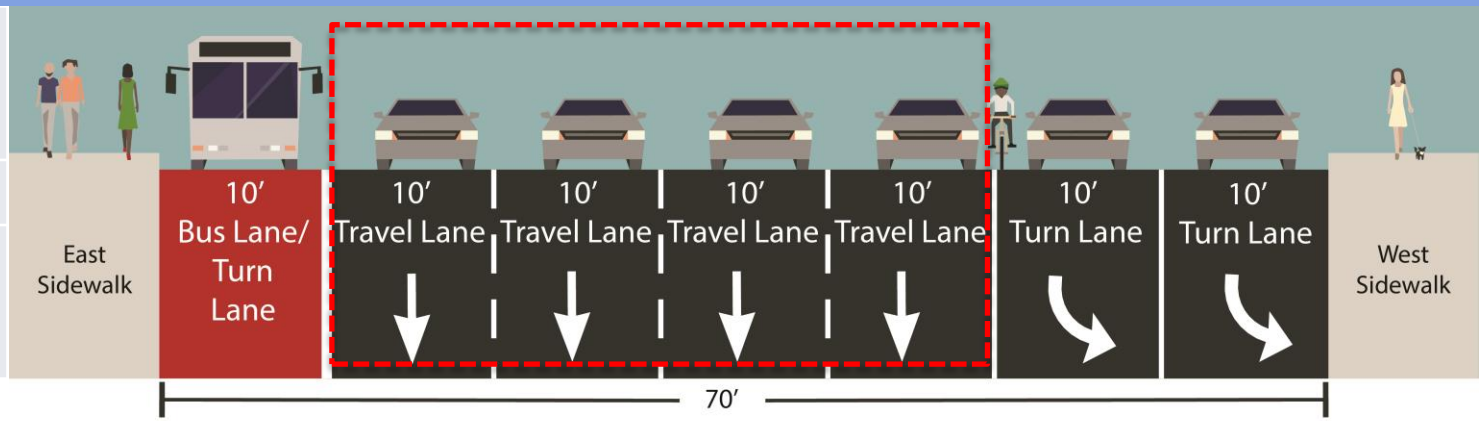
1. Separate Cyclists from Left Turns, Cyclists Proceed with Through Traffic
2. Maintain Two Left Turn Lanes with Dedicated Left Turn Signal Phase



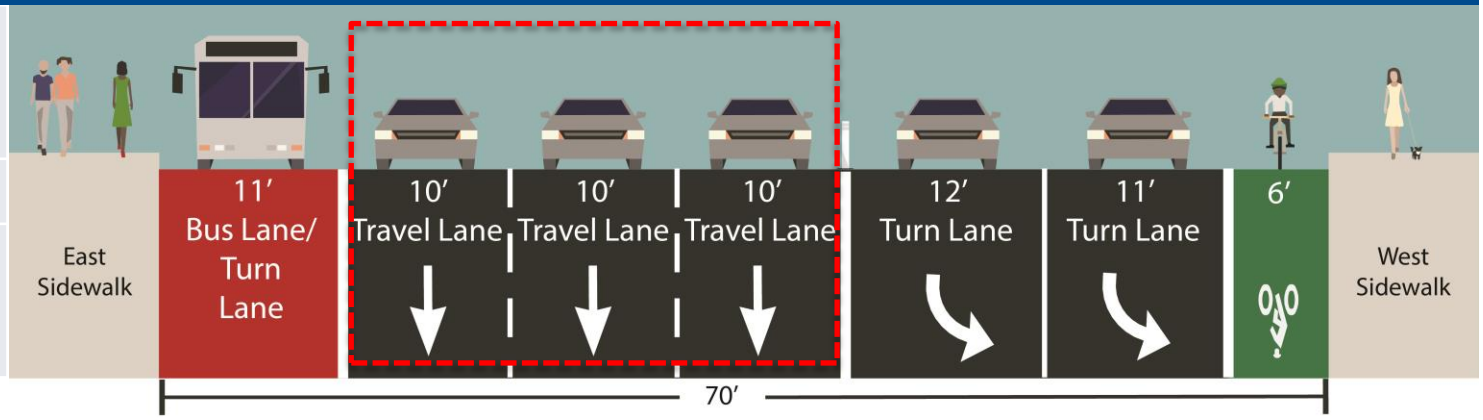


PROPOSED DESIGN – 1st Ave at E 57th St

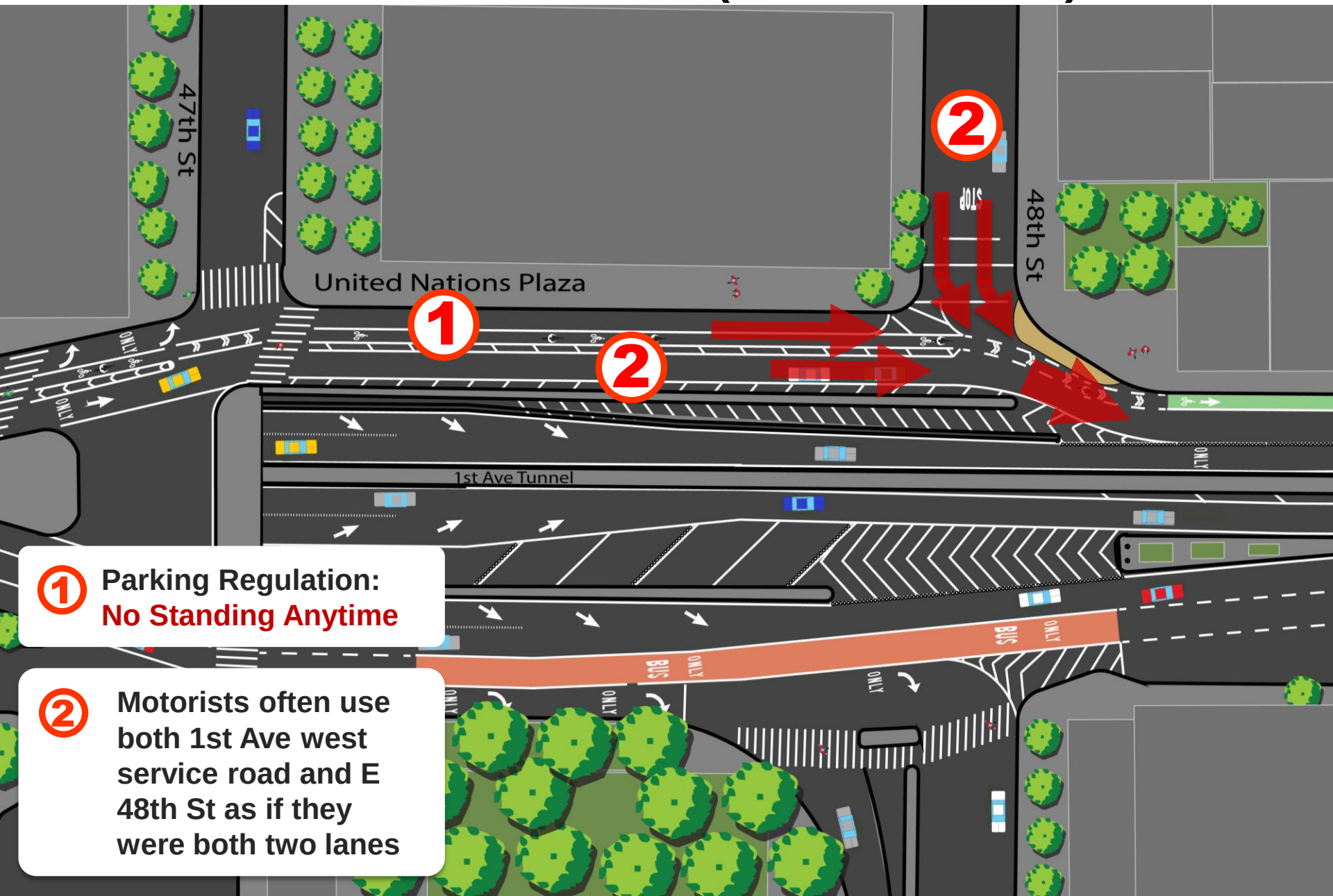
Existing	
5-6 PM Peak Thru Volume (veh/hr)	1,763
Delay	9.2
Volume-to-Capacity Ratio	0.75



Proposed	
5-6 PM Peak Thru Volume (veh/hr)	1,763
Delay	31.7
Volume-to-Capacity Ratio	0.96



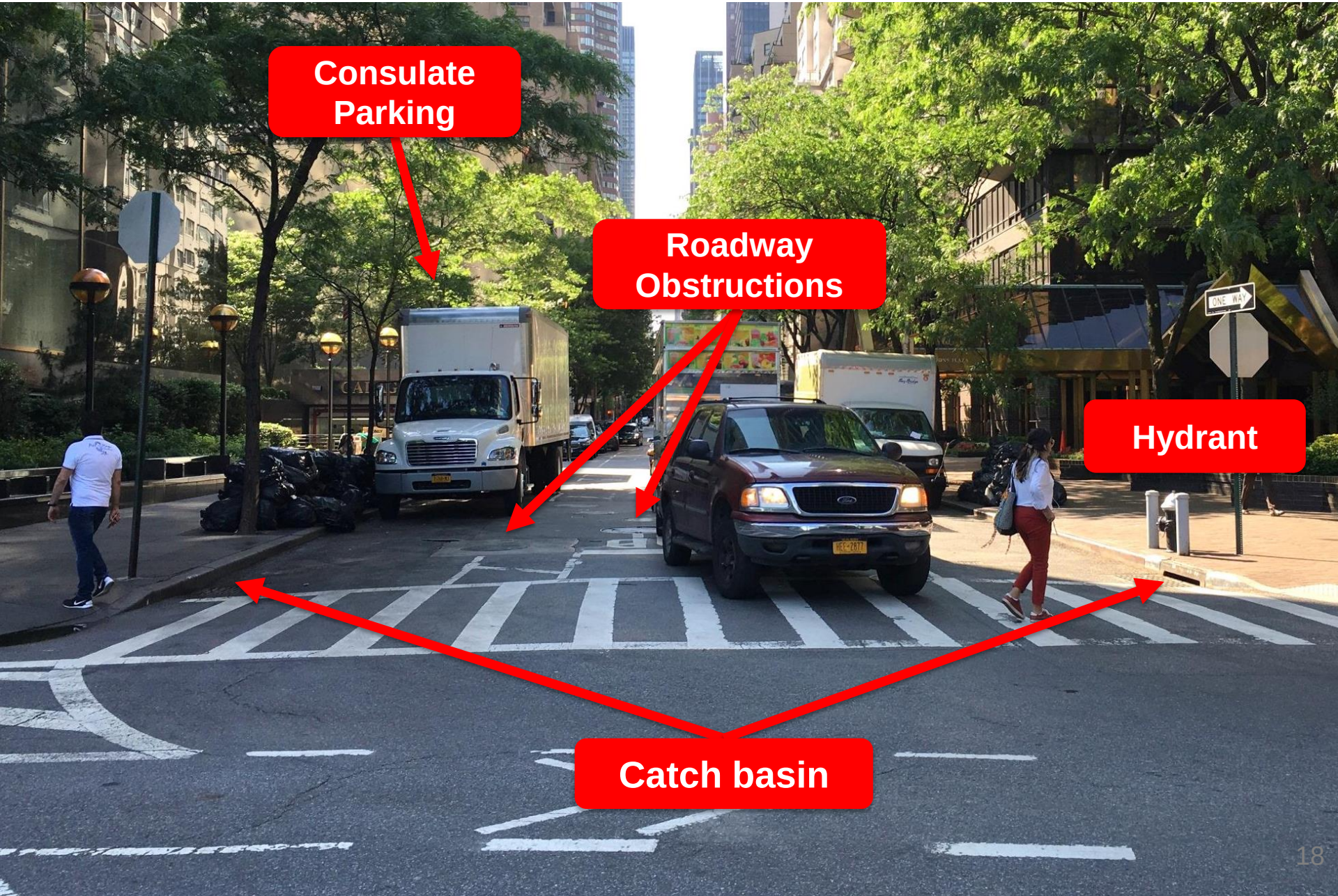
EXISTING CONDITIONS – 1st Ave (47th St to 48th St)



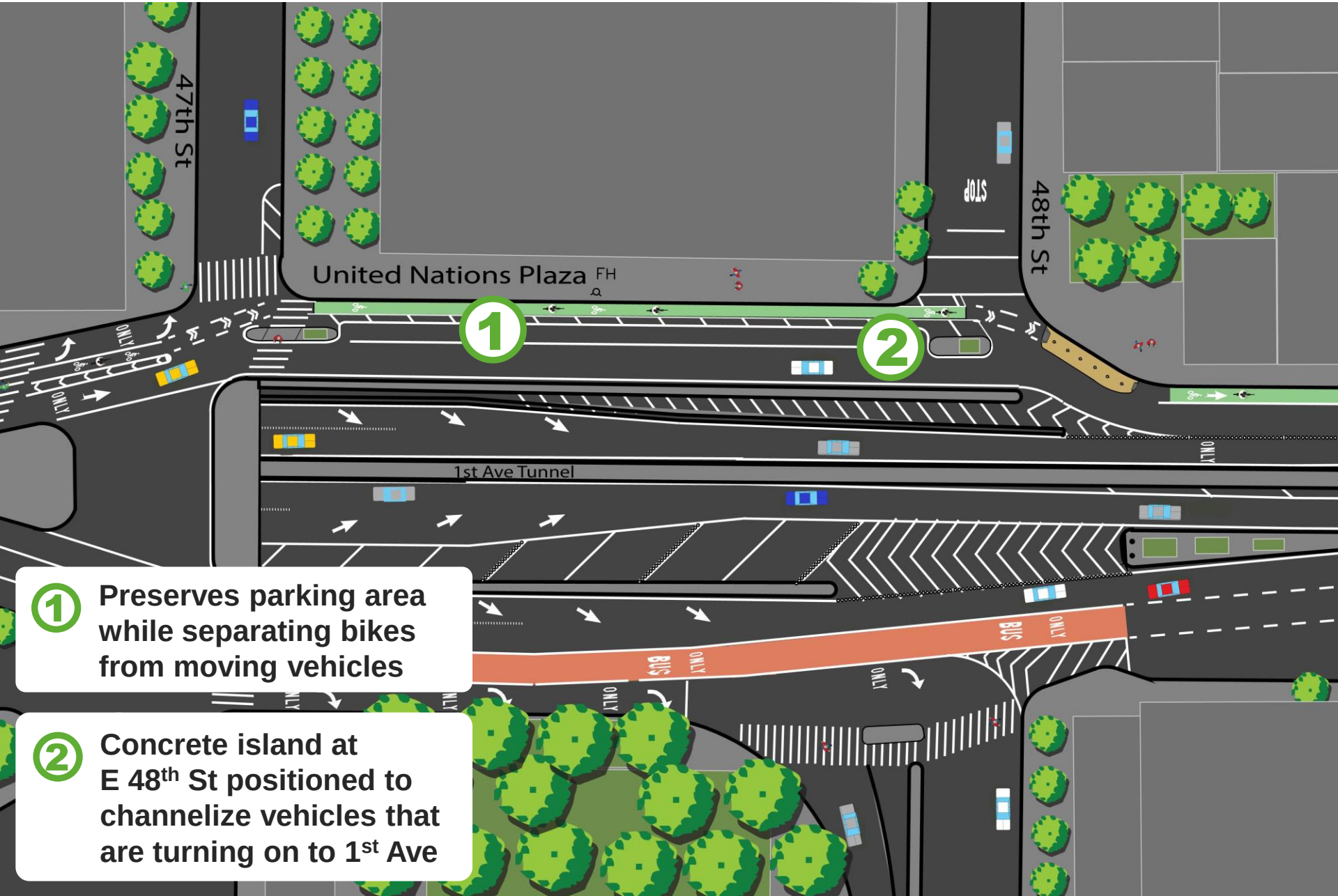
1 **Parking Regulation:**
No Standing Anytime

2 **Motorists often use both 1st Ave west service road and E 48th St as if they were both two lanes**

EXISTING CONDITIONS – E 48th St at 1st Ave



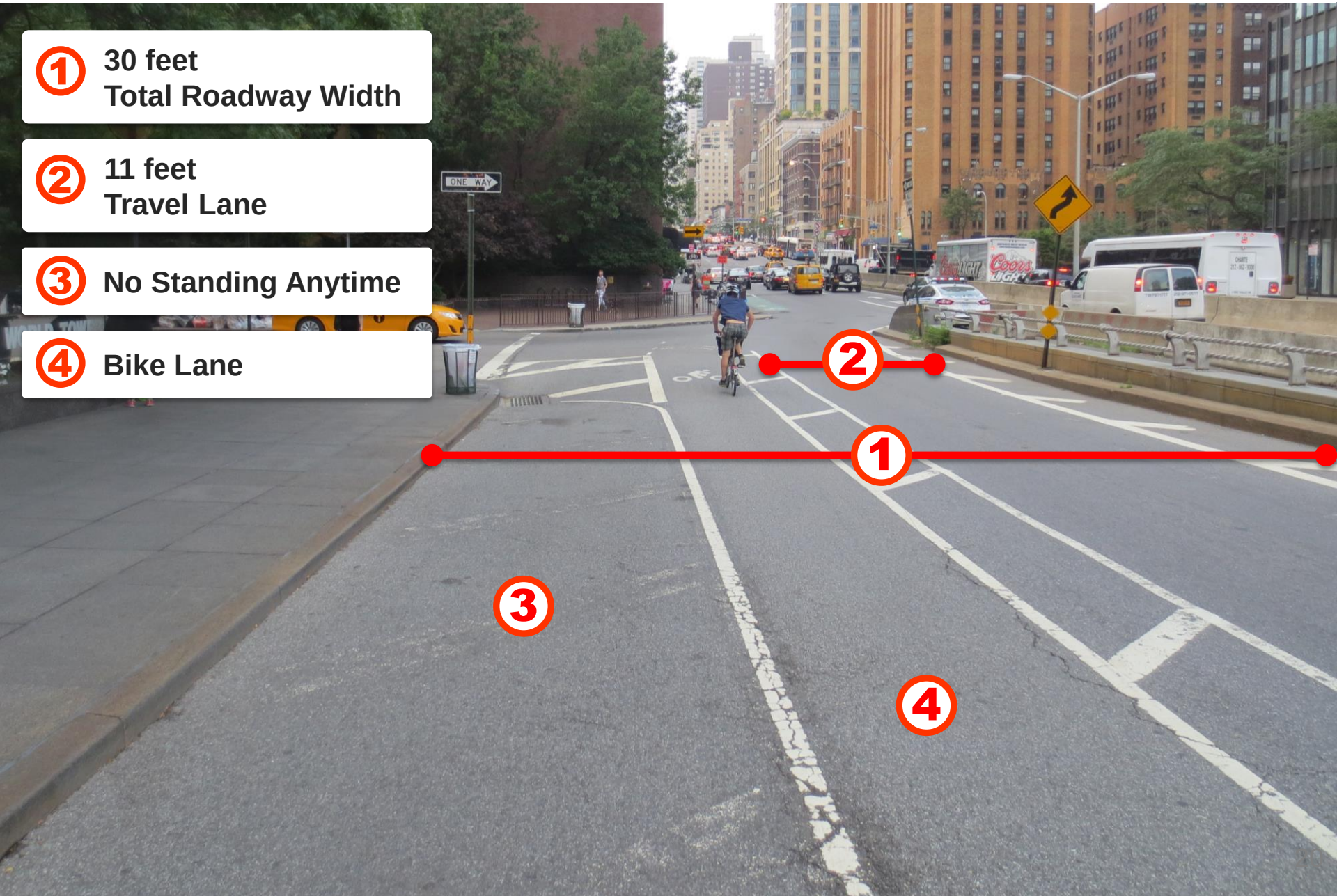
PROPOSED - 1st Ave (47th St to 48th St)



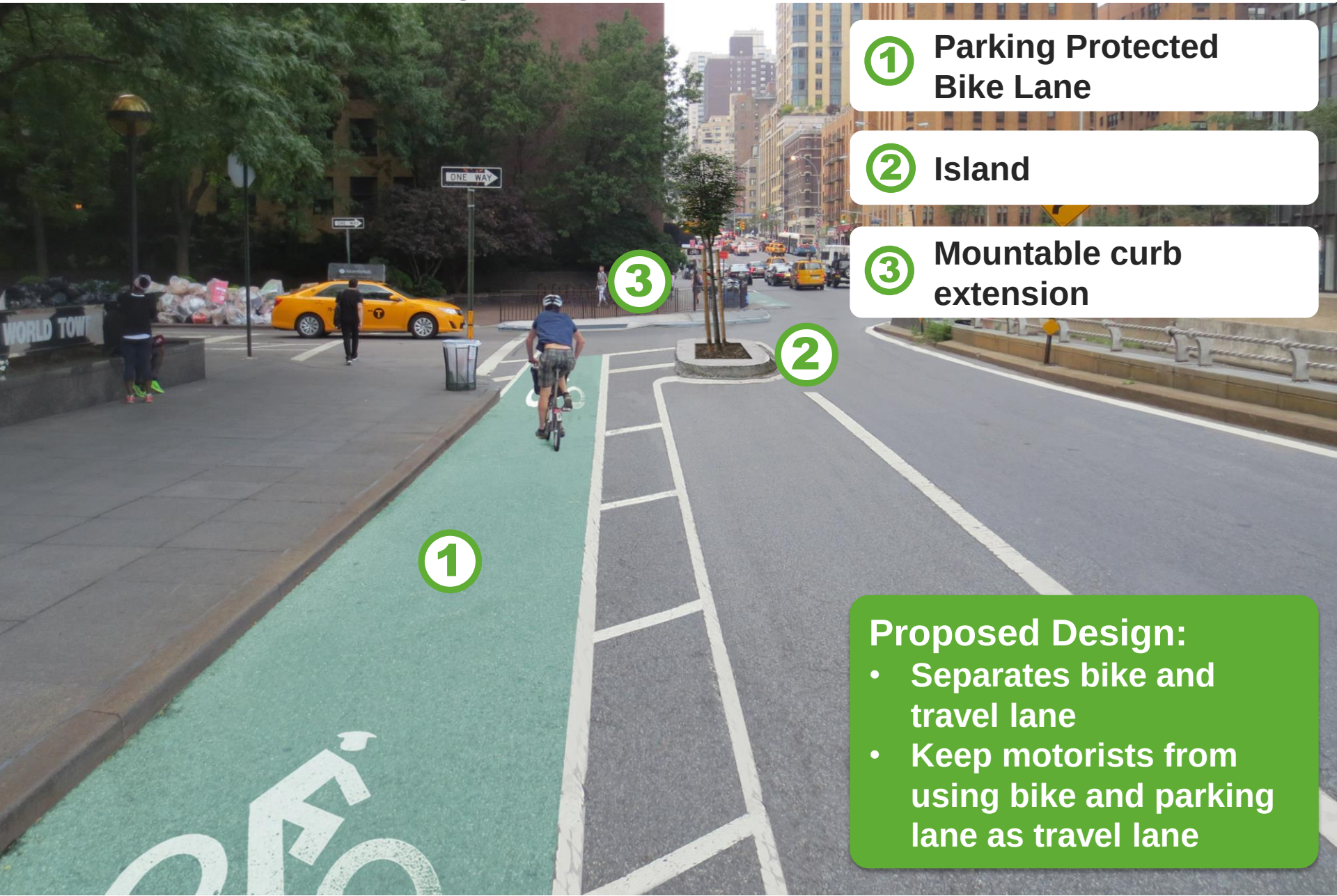
1. Preserves parking area while separating bikes from moving vehicles

2. Concrete island at E 48th St positioned to channelize vehicles that are turning on to 1st Ave

EXISTING


1 30 feet Total Roadway Width
2 11 feet Travel Lane
3 No Standing Anytime
4 Bike Lane
ONE WAY
1
2
3
4

PROPOSED – Parking Protected Bike Lane



1. Parking Protected Bike Lane
2. Island
3. Mountable curb extension

Proposed Design:

- Separates bike and travel lane
- Keep motorists from using bike and parking lane as travel lane

SUMMARY

3

PROPOSED DESIGN

1st Ave at E 47th and E 48th Streets

Islands

- Separates bikes from vehicles
- Discourage motorists from encroaching on the bike lane
- Channelizes vehicles that are turning from E 48th St to 1st Ave
- Shortens crossing

1st Ave between E 55th and E 59th Streets

Curbside bike lane

- Fill the gap in the protected network
- Off-peak traffic calming
- Maintain existing vehicle mobility

THANK YOU!

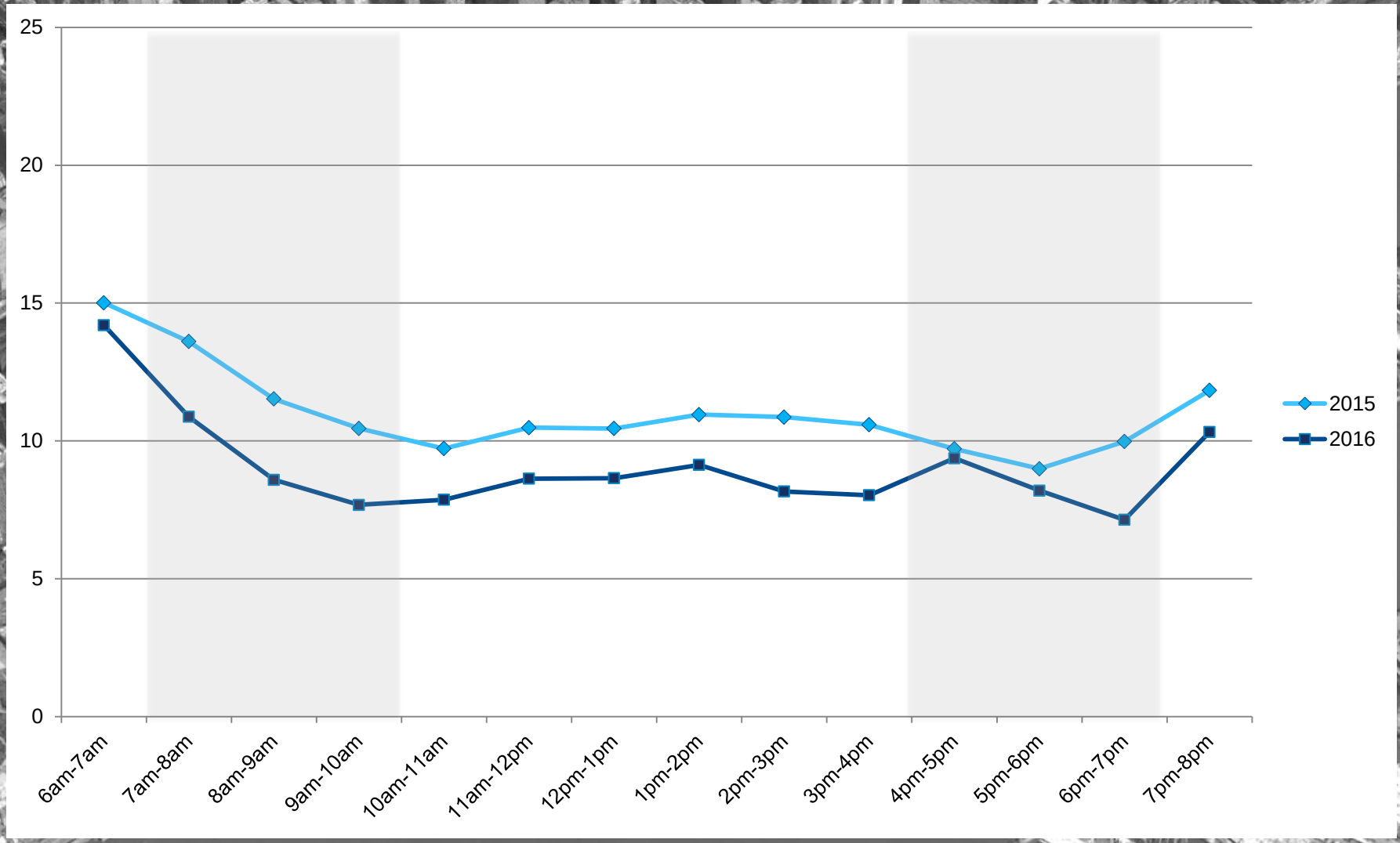
Questions?

VISION ZERO
nyc.gov/visionzero

NEW YORK CITY DOT

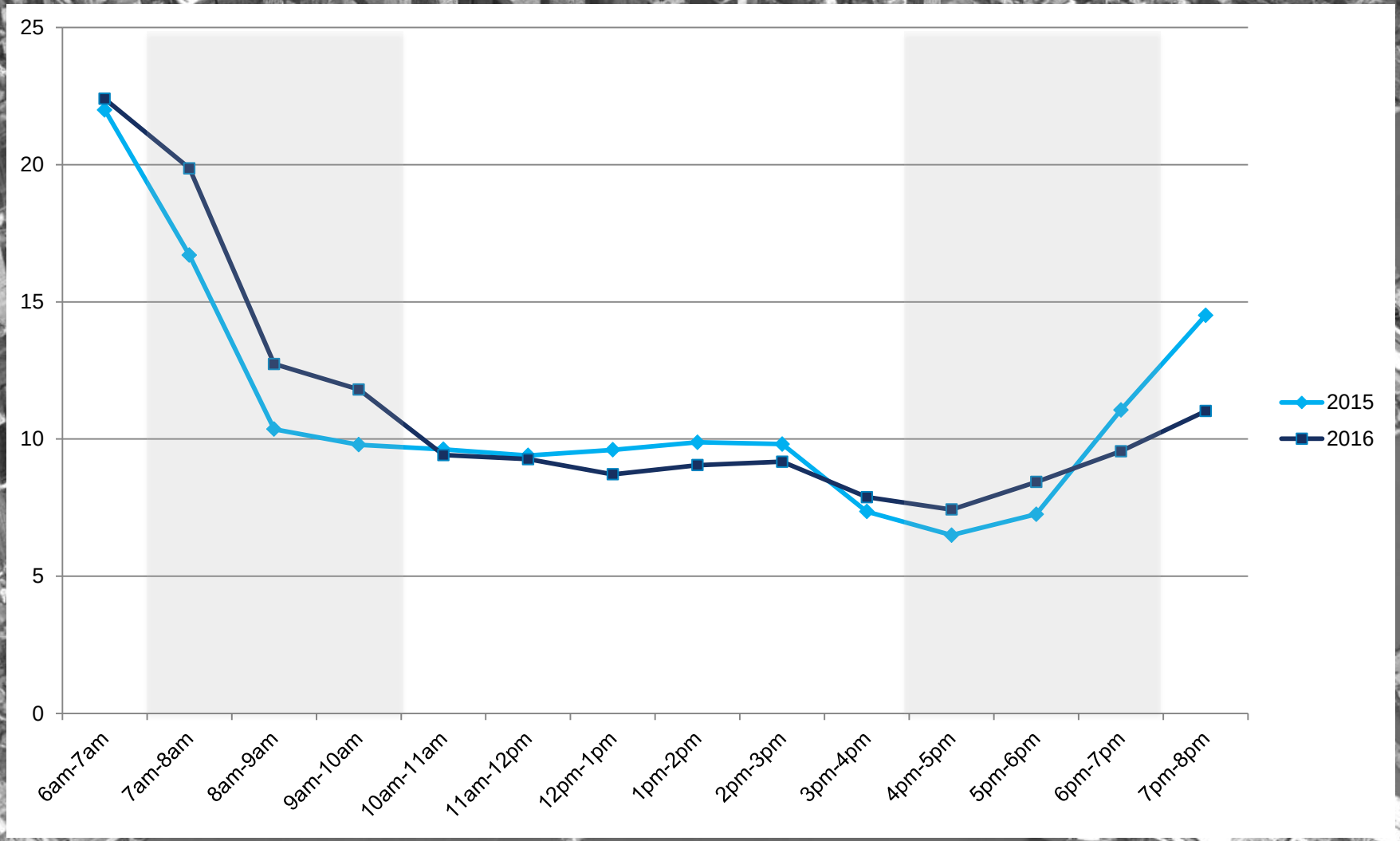
NYC DOT | NYC DOT | nyc_dot | NYC DOT

VEHICLE SPEEDS – 1st Ave between E 42nd St and E 49th St



Source: Midtown in Motion data on all Tuesdays, Wednesdays and Thursdays in March 2015 and March 2016.
Midtown in Motion sample includes all vehicles equipped with EZPASS.

VEHICLE SPEEDS – 1st Ave between E 49th St and E 57th St



Source: Midtown in Motion data on all Tuesdays, Wednesdays and Thursdays in March 2015 and March 2016.
Midtown in Motion sample includes all vehicles equipped with EZPASS.