4TH AVENUE, BROOKLYN

Protected Bicycle Lanes

June 2020

VISION ZERO
nyc.gov/visionzero

NEW YORK CITY DOT

PRESENTATION OVERVIEW

1. Background & Project History
2. Proposal
3. Making it Work
4. Summary

Background & Project History

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VISION ZERO – GREAT STREETS

VISION ZERO
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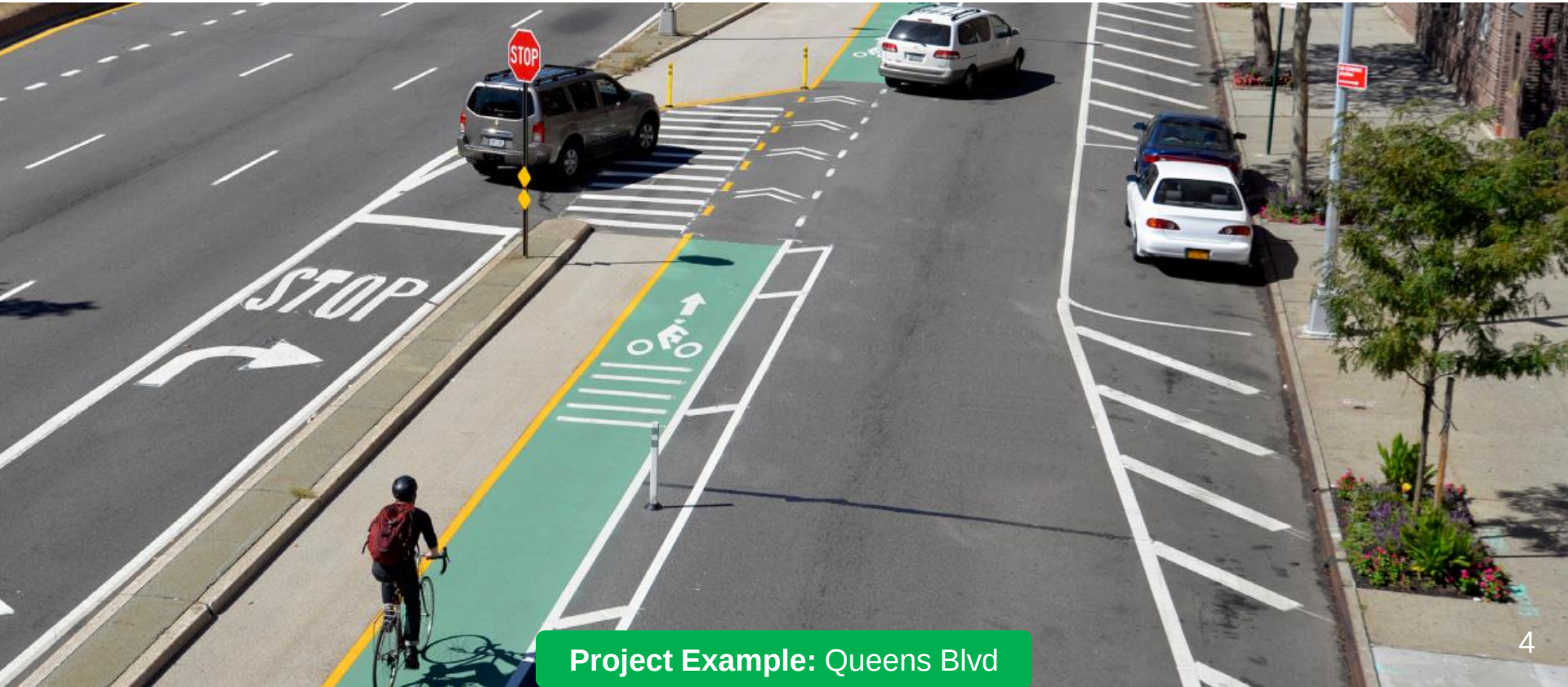
New York City's plan for ending traffic deaths and injuries on our streets. Vision Zero was introduced on January 15th, 2014.

4th Avenue is a **Vision Zero Priority Corridor** and one of the program's four *Vision Zero Great Streets* projects.



Project Example: Queens Blvd

2013 Street Improvement Project

Traffic calming and **pedestrian safety improvements** transformed 4th Ave from a **highway-like** street to a **vibrant neighborhood corridor** but **did not include protected bicycle facilities**

Atlantic Ave - 15th St
Crashes with injuries decreased **30%**
Pedestrian injuries decreased **53%**
Cyclist injuries decreased **29%**

WORKSHOPS

May 2, 2017
St. Thomas Aquinas Church
~100 participants

May 11, 2017
P.S. 136 Charles O'Dewey
~70 participants

July 12, 2017
Marien Heim Senior Center
~60 participants

Mapping exercises

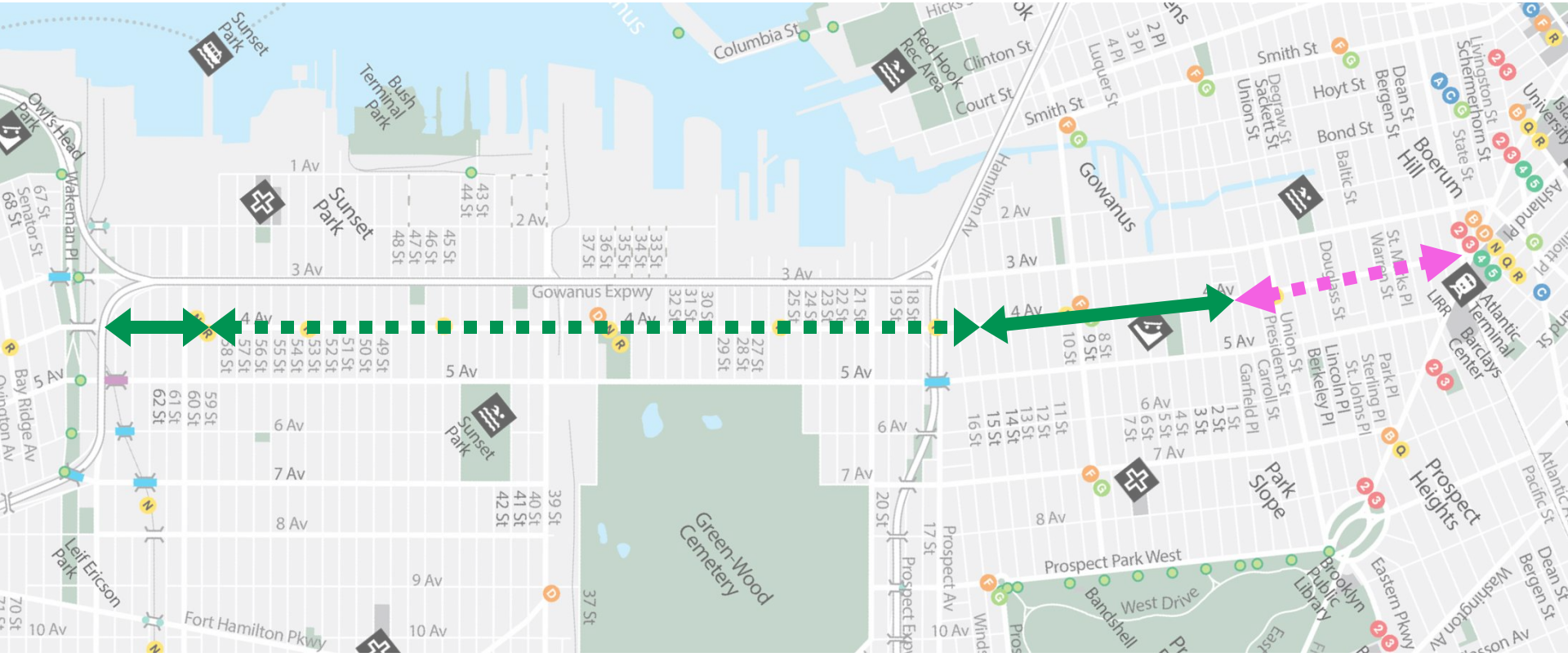
Group discussions

PROGRESS TO DATE

Installed Protected Bike Lane and Future Capital Project Limits: 1st St – 15th St, 60th St – 65th St

Ongoing Protected Bike Lane and Future Capital Project Limits: 15th St – 60th St

Proposed Protected Bike Lane and Future Capital Project Limits: Atlantic Ave – 1st St



Proposal

Complete Street Design

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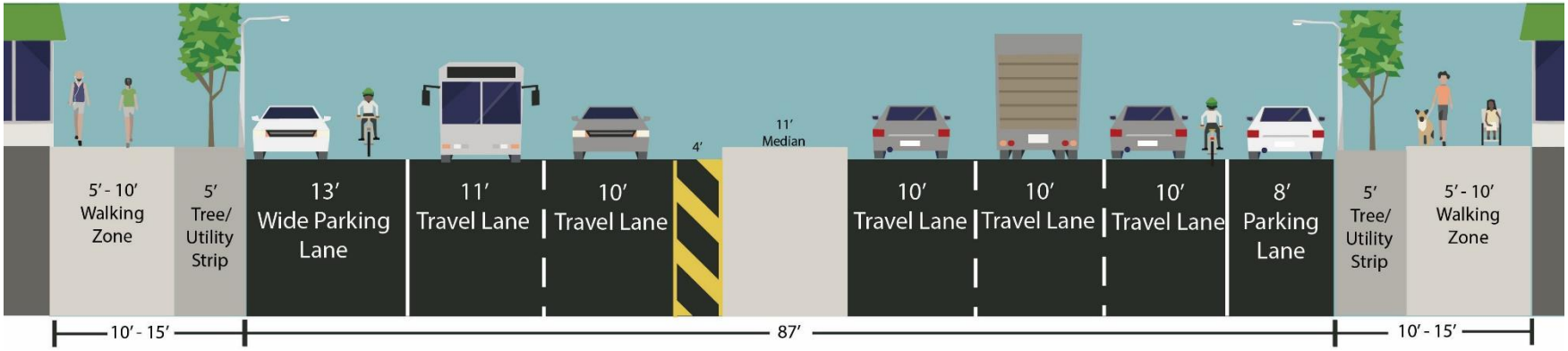
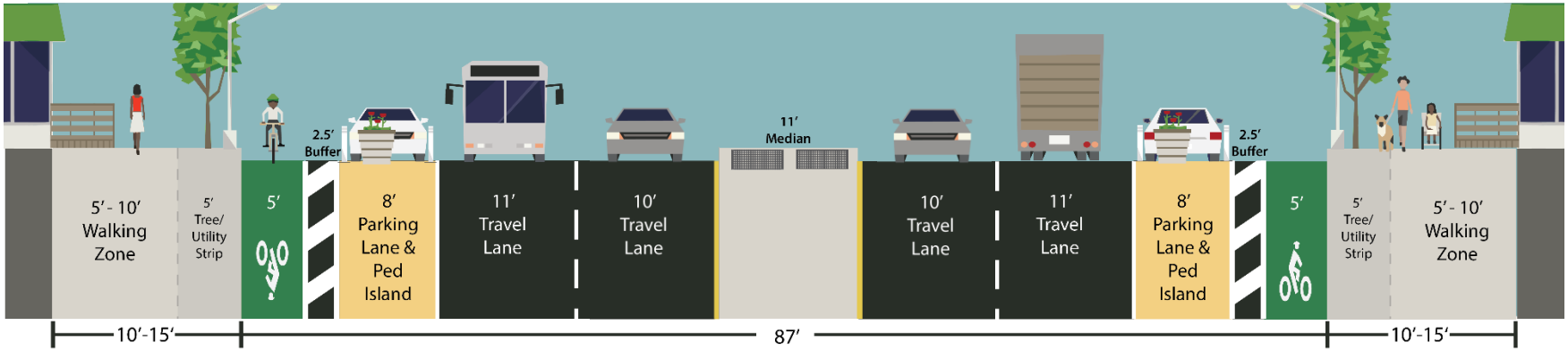
CROSS SECTIONS - TYPICAL

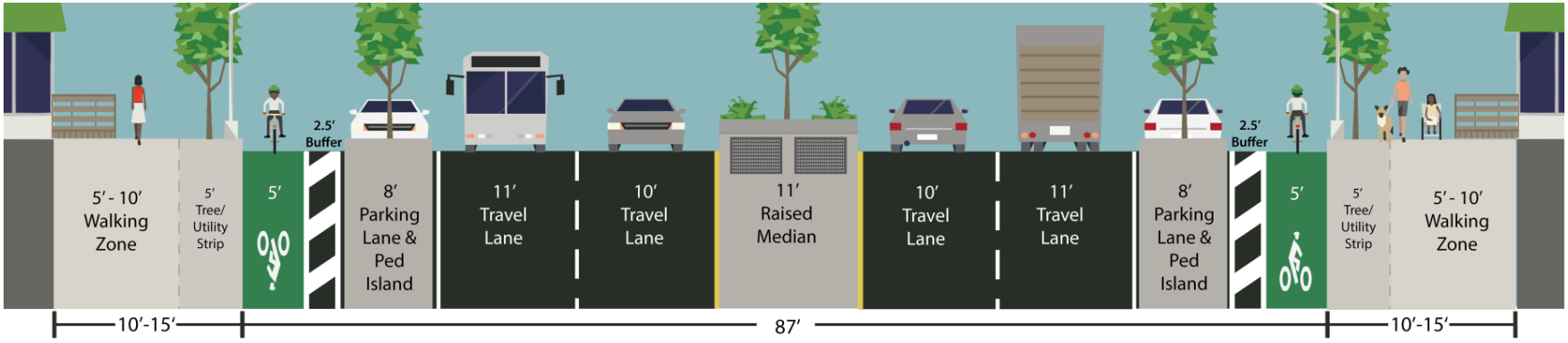
Existing



Proposed



Capital



BIKE & PED INTERSECTION SAFETY

NYC DOT recently developed new **traffic calming** designs to enhance bicycle and pedestrian safety at intersections

BENEFITS

- Expanded pedestrian space shortens crossing distances
- Opens up sight lines improving pedestrians' and cyclists' visibility
- Space for turning vehicles to wait without blocking travel lanes
- **Requires less parking removal than mixing zones**

MATERIALS

In-house (interim)

EXAMPLE: 4th Ave at 7th St, Brooklyn

Paint, markings, temporary materials

Capital build-out (permanent)

EXAMPLE: Amsterdam Ave, Manhattan

Concrete, landscaping, underground utilities

DESIGN SPECIFICS: 1ST ST TO PACIFIC ST

Continue the protected bike lane design found on the rest of 4th Avenue between 1st St and 65th St

- Protected bicycle lane separated from moving vehicles
- Turning treatments and pedestrian refuges at intersections
- Painted curb extensions at Union St subway station

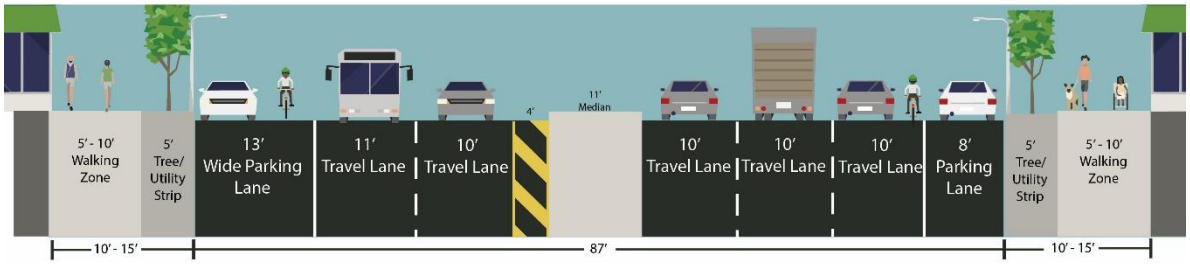
Design requires the removal of one northbound travel lane between Carroll St and Pacific St

Existing Conditions

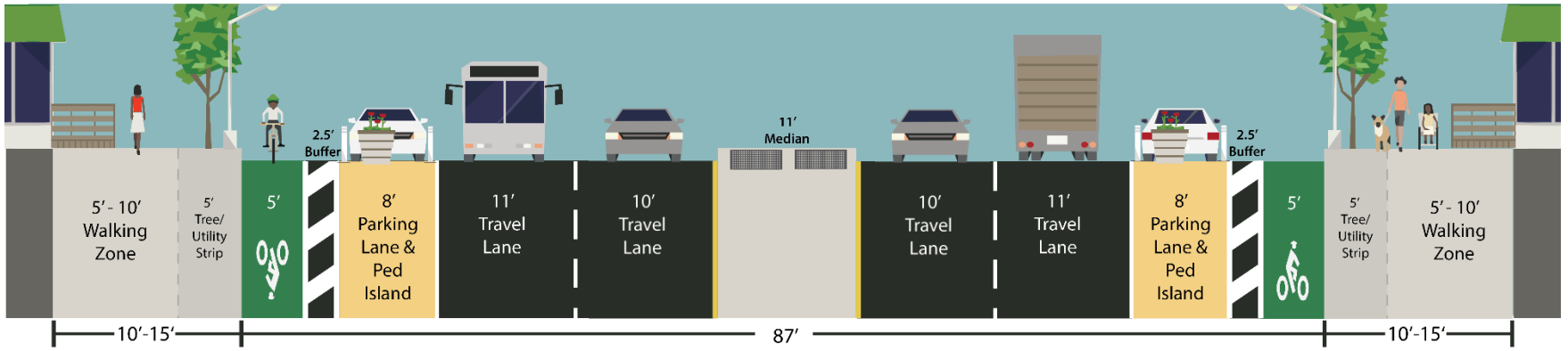
Wide parking lane

No bicycle facility (3 NB travel lanes)

Existing



Proposed



DESIGN SPECIFICS: TIMES PLAZA

Create cyclist connection to Ashland Place and Manhattan Bridge

Ban right turn for southbound vehicles at Times Plaza and remove right turn lane

Create connection through Times Plaza in advance of capital work

Remove pedestrian refuge island

Northbound cyclists cross Atlantic Ave at same time as the pedestrians

Remove parking on southbound 4th Ave between Atlantic Ave and Pacific St, install curbside bike lane

Painted curb extension

Making it Work

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PARKING IMPACTS

- Loss of ~5 parking spaces per block to accommodate pedestrian refuge islands (approximately 59 in CB 6 and 18 in CB 2)

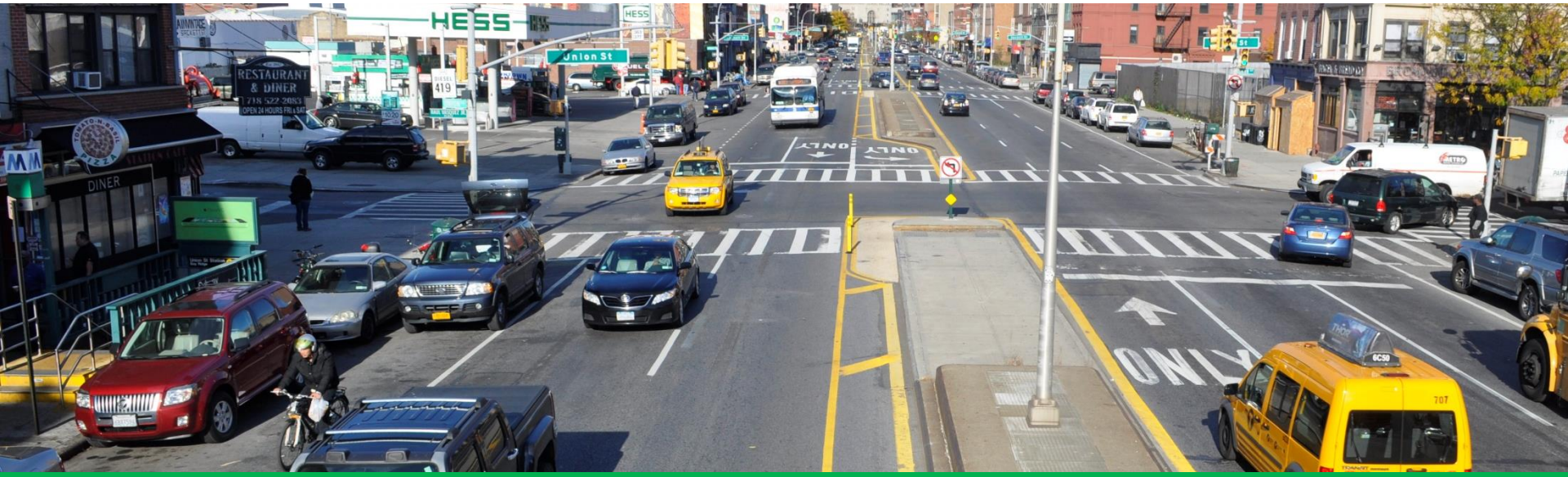
EXAMPLE: Pedestrian Refuge Islands on 4th Ave, Brooklyn

ISSUE: DOUBLE PARKING

Low parking turnover (especially on blocks without parking meters) prevents people from finding parking spaces near destinations on 4th Ave.

DOT Response:

- Conducted a **time-lapse parking study** to identify areas where double parking was most prevalent
- On the rest of the 4th Ave corridor DOT expanded **metered parking** along blocks with the most:
  - active commercial uses,
  - frequent double parking (more than 10 instances/hr during peak)
  - transit connections



4th Ave at Union St: Double parking in wide parking lane

ISSUE: DOUBLE PARKING

Most delivery vehicles cannot find legal parking near destination and are forced to double park and load from travel lane

DOT Response:

- Conducted a **merchant survey** to determine loading/delivery needs of businesses on 4th Ave
- DOT installed sensible, consistent **loading zones** and **metered parking** at locations with frequent or high-volume loading
- Overnight parking was maintained for residents

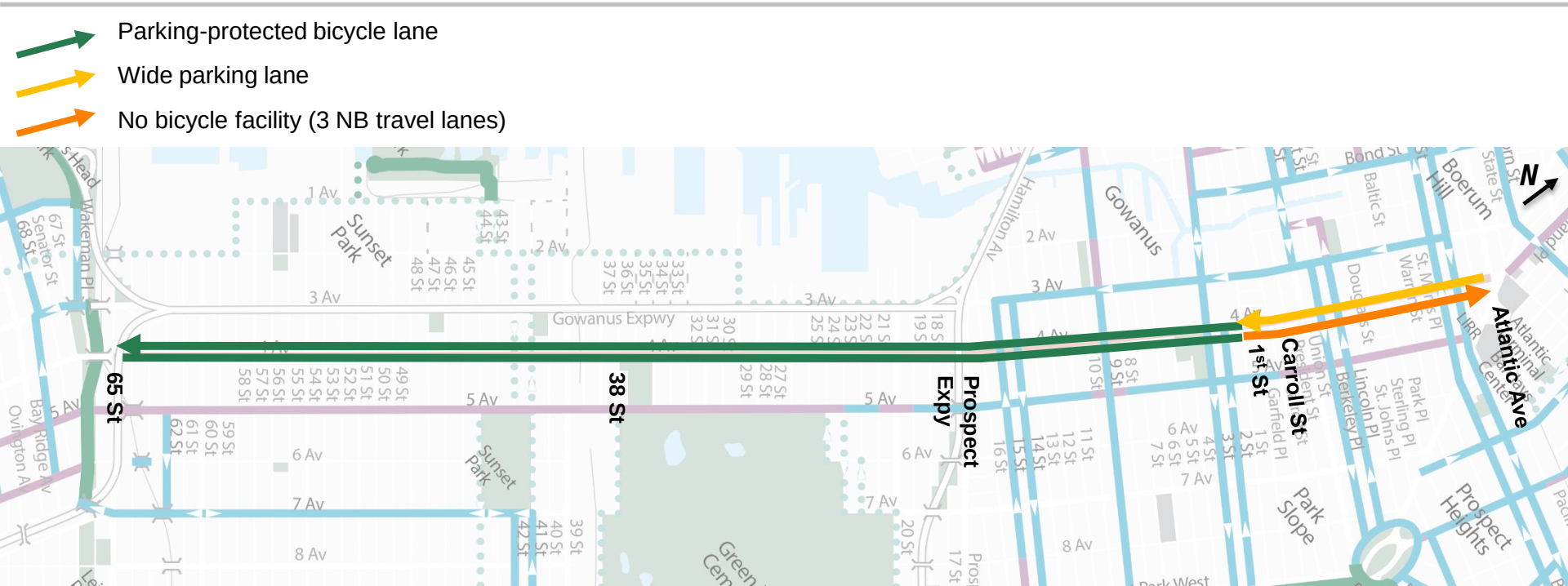
4 Ave between 4 St and 5 St: Double-parked delivery vehicle in travel lane

ISSUE: BIKE NETWORK CONNECTIVITY

DOT conducted a thorough analysis of traffic volumes on the 4th Ave corridor and has determined that the protected bicycle lane that currently exists south of 1st St can be extended to Flatbush Ave while meeting current vehicular demands

DOT Response:

- Reduce northbound vehicle travel lanes from three to two between Carroll St and Atlantic Ave
- Install metered parking and loading zones on blocks where needed



CURB MANAGEMENT

Convert alternate side parking to metered parking on 11 blocks with commercial activity to:

- Reduce double parking and increase parking turnover
- Organize the roadway
- Maintain traffic flow during peak times
- Align parking needs with current uses of these blocks

Install “spur” metered parking on four selected side streets with commercial activity

Summary

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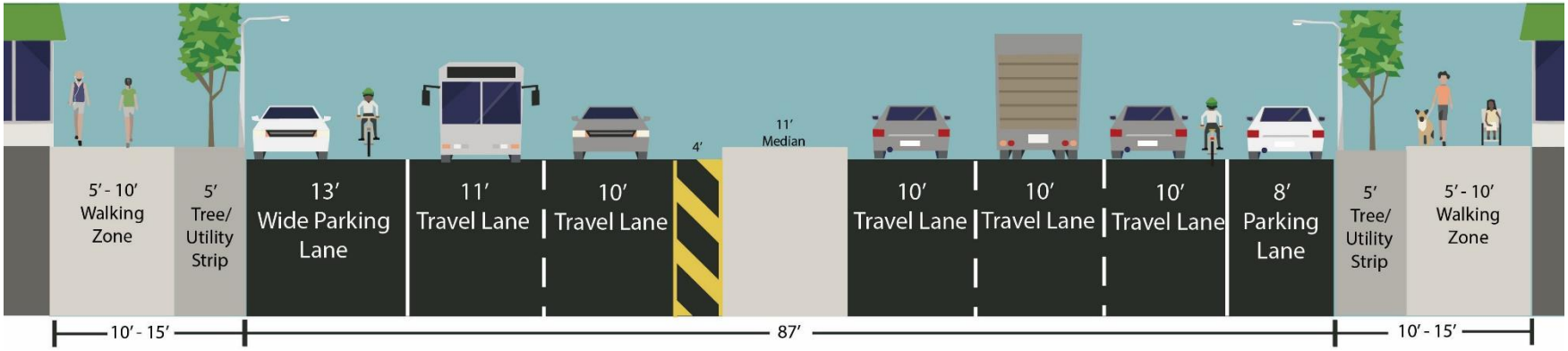
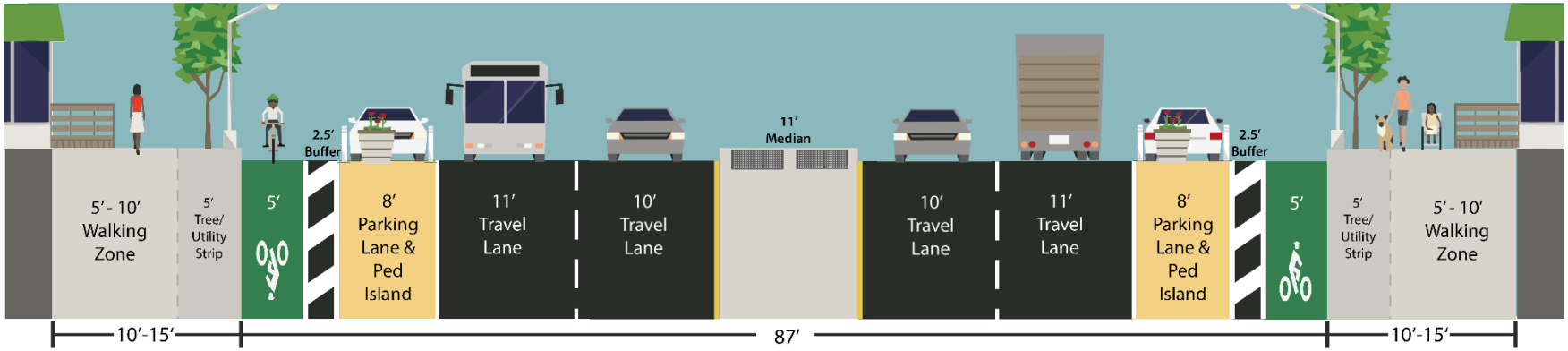
CROSS SECTIONS

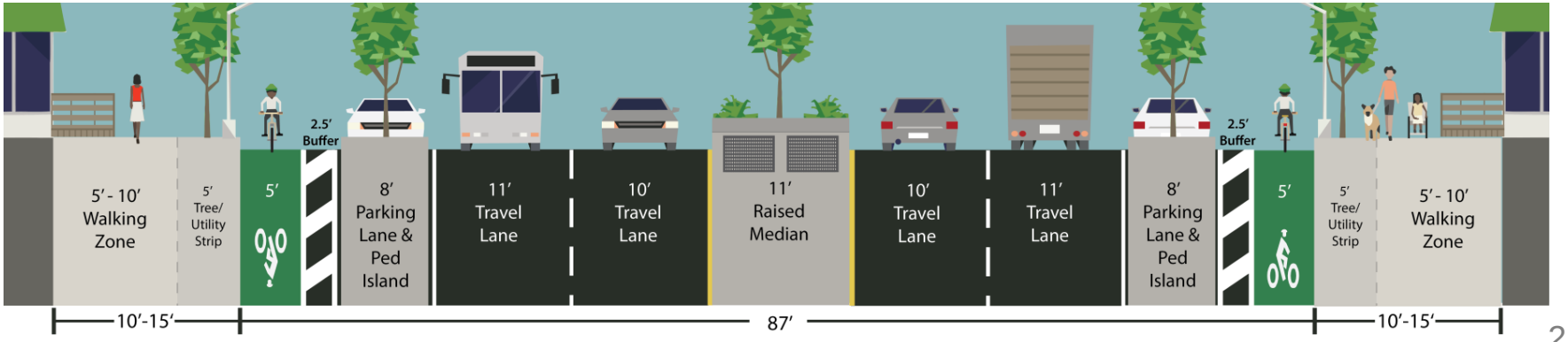
Existing



Interim



Capital



COMPLETE STREET DESIGN:

Safety

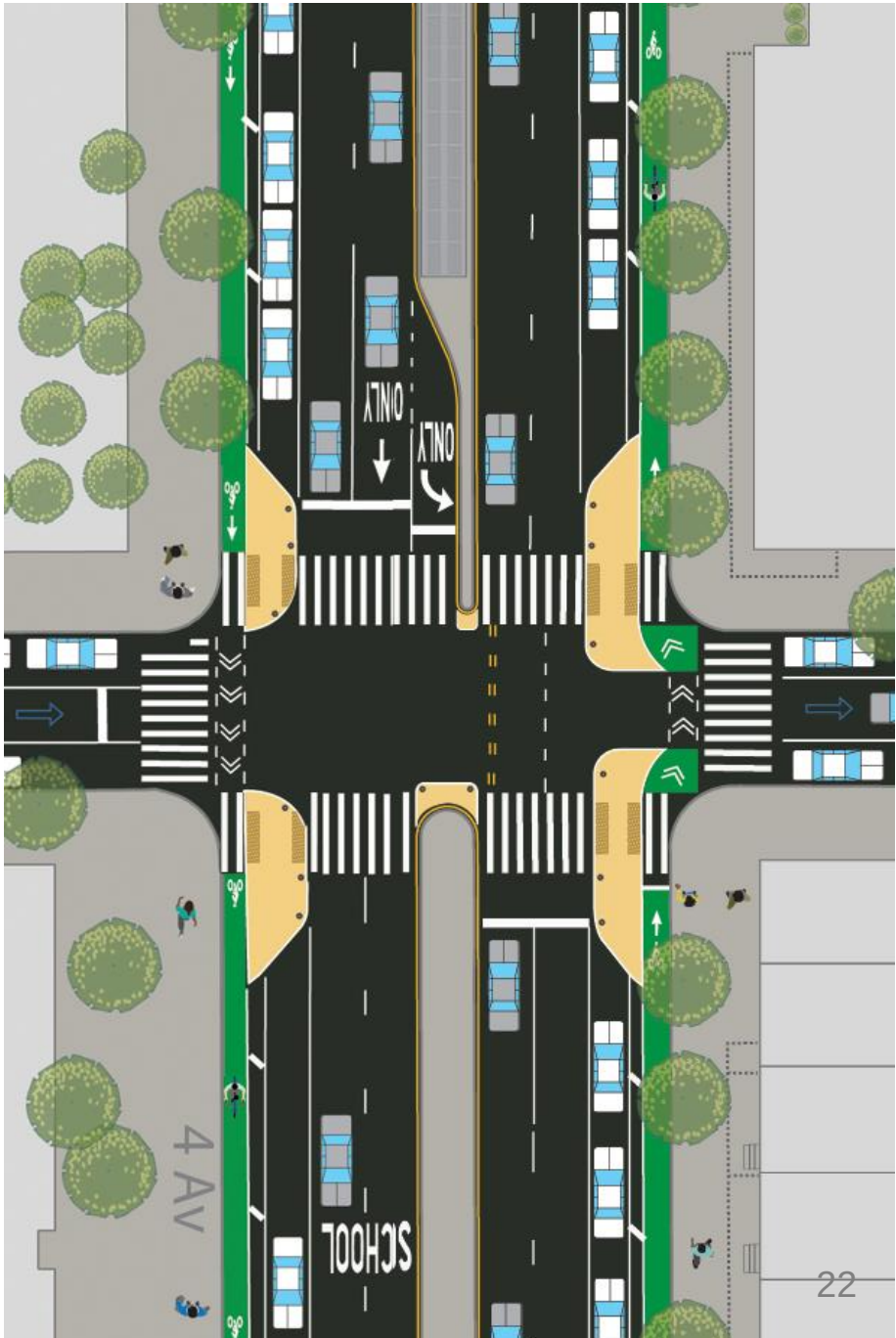
- Protected bike lanes
- Pedestrian refuge islands
- Maintain left-turn bans, high-visibility crosswalks, & road diet

Traffic Operations

- Maintain capacity for existing northbound vehicle volumes
- Identify loading zones and expand metered parking
- Some parking loss to accommodate ped refuge islands
  (~5 per block, 59 in CB 6 & 18 in CB 2)

Capital Design Coordination

- Continue development of all phases of capital build out of 4th Ave
- Coordinate with partner agencies



Questions?

THANK YOU!

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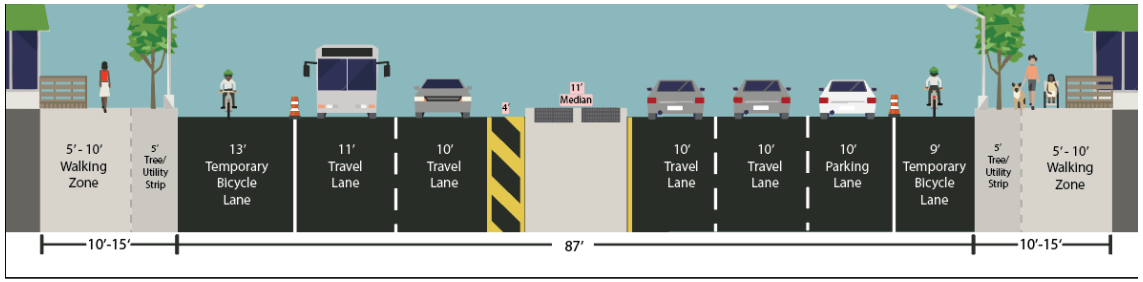
NEW YORK CITY DOT

Appendix

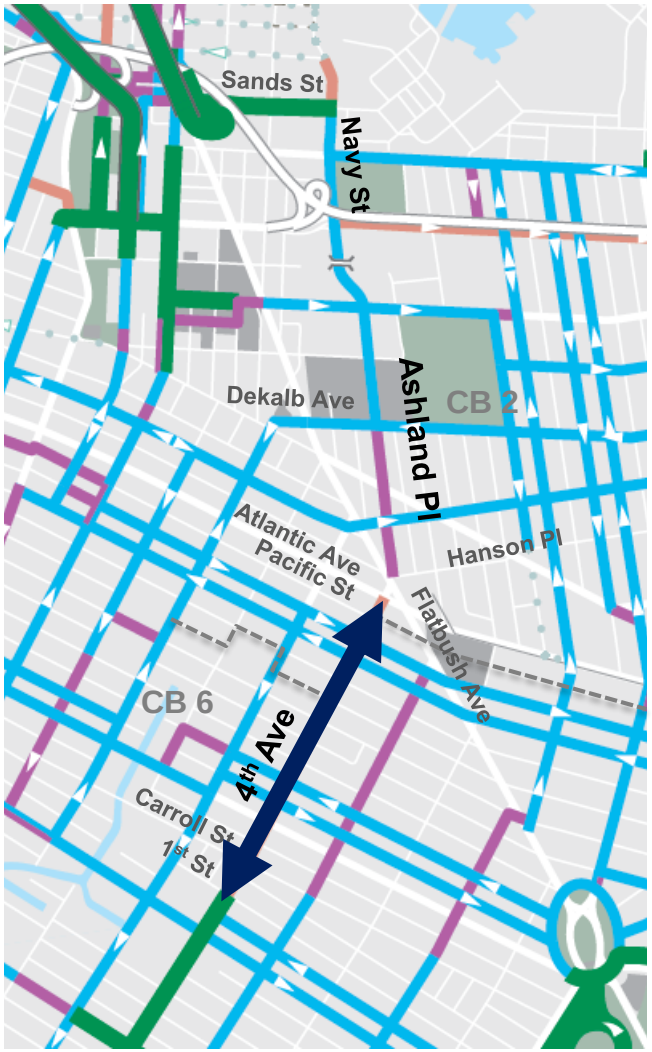
TEMPORARY DESIGN: 4TH AVENUE

To extend the protected bicycle network from 1st St to the Manhattan Bridge, DOT proposes a temporary design on 4th Ave, Ashland Pl, and Navy St.



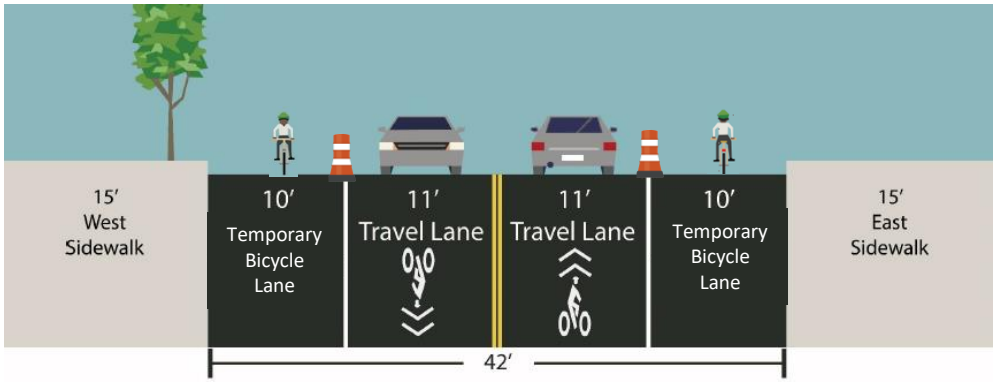
On 4th Ave, this would require temporary removal of:

- 98 parking spaces on the southbound side between Atlantic Ave and 1st St
- 23 parking spaces on the northbound side between 1st St and Carrol St



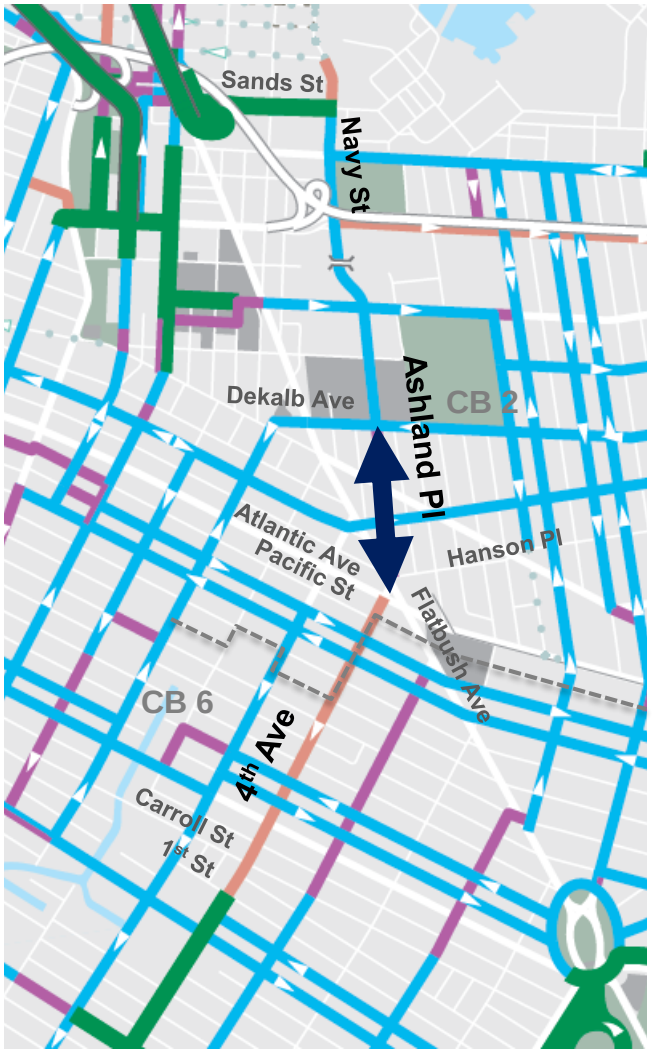
TEMPORARY DESIGN: ASHLAND PL & NAVY ST

To extend the protected bicycle network from 1st St to the Manhattan Bridge, DOT proposes a temporary design on 4th Ave, Ashland Pl, and Navy St.



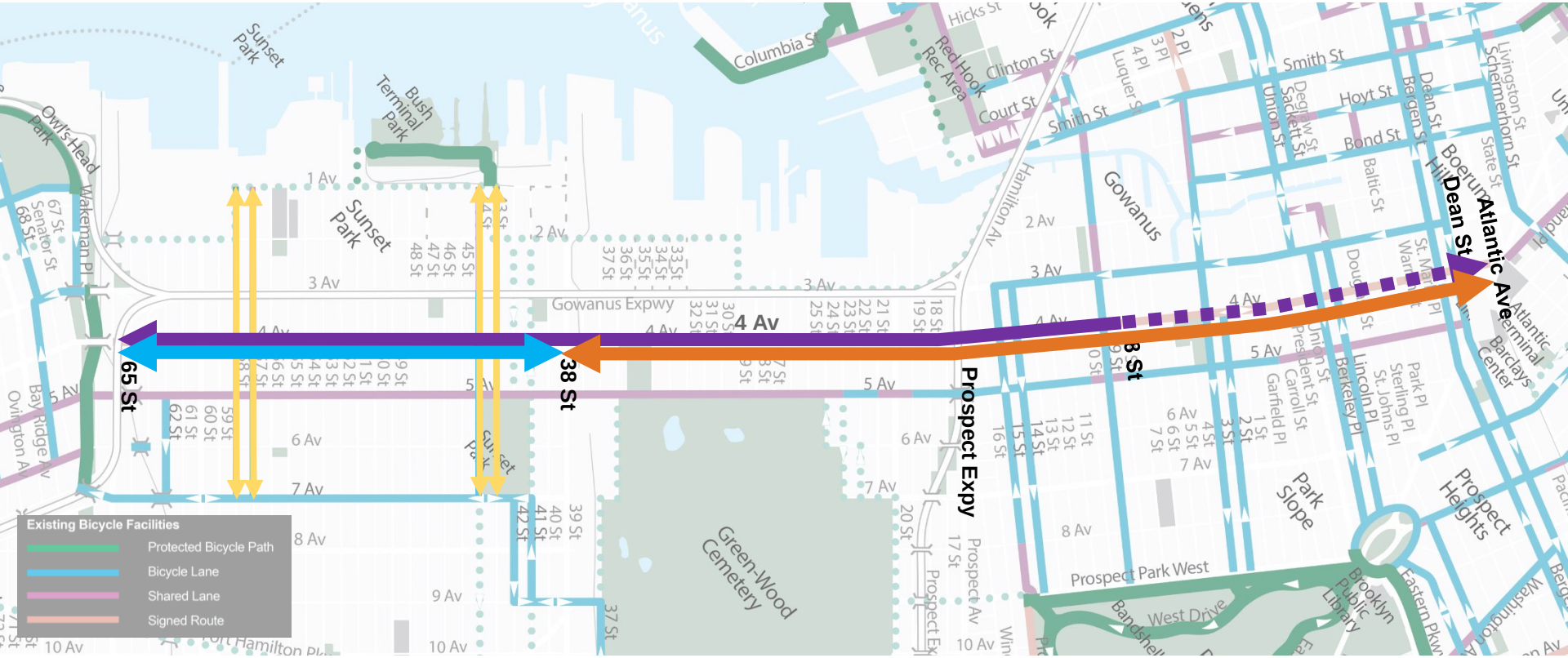
On Ashland Pl, this would require removal of all parking (approx. 87 spaces) between Hanson Pl and Dekalb Ave.

Ashland Pl north of Dekalb Ave and Navy St between Myrtle Ave and Flushing Ave are still in design



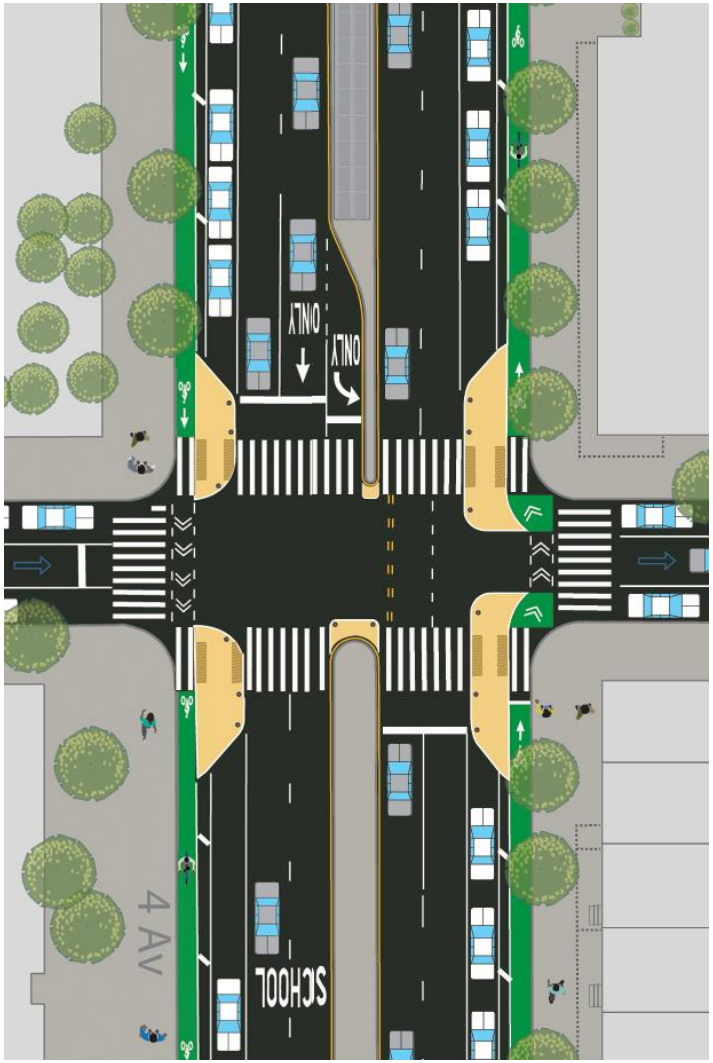
4th Avenue

Project Phase	Construction Start
Interim In-House Project (38 St to 65 St)	Spring 2018, Summer 2019
Interim In-House Project (Atlantic Ave to 38 St)	Spring 2019, Summer 2020
Capital Project Ph. A (8 St to 64 St)	Fall 2020
Capital Project Ph. B (Atlantic Ave - 8 St)	Fall 202
Recently Installed Bike Projects	Spring 2018



SITE PLANS

Interim



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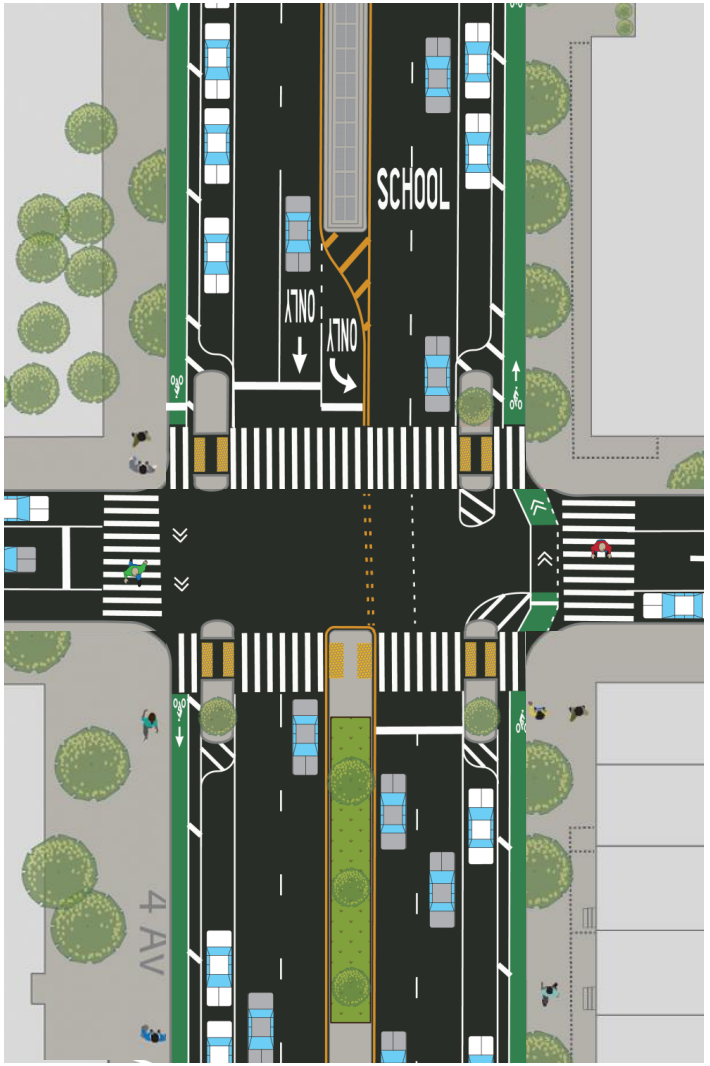
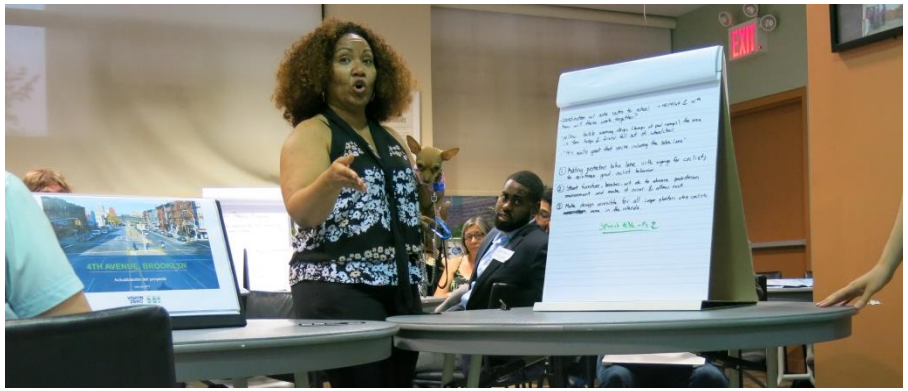


WHAT WE HEARD



- Change regs to encourage parking turnover for biz districts.

- Cycling is unsafe now, protected bike lane is the way to go

- 65th – 40th lots of businesses - loading zones needed

NORTHBOUND PBL TO CONTINUE TO TIMES PLZ.
(OR AT LEAST DEAN / BERGEN)

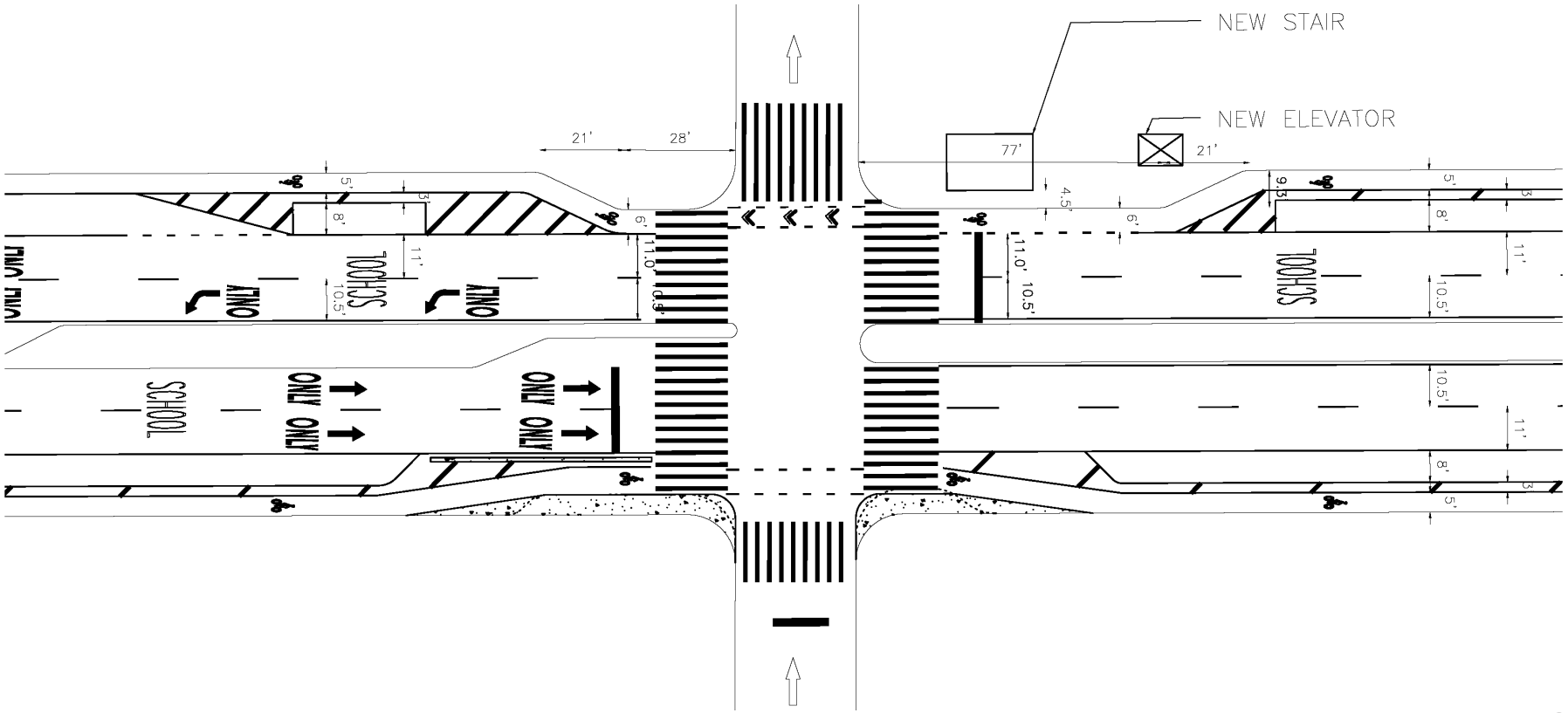
Double parking makes me avoid biking on 4th Ave – and go to other businesses.

IMPROVED SAFETY
IS A PRIORITY
FOR ALL STREET USERS

ATYPICAL INTERSECTIONS - HIGH PEDESTRIAN VOLUMES

- Sidewalk extensions / neckdowns at locations with highest pedestrian volumes (e.g. subway station entrances)

Example: 59 St:



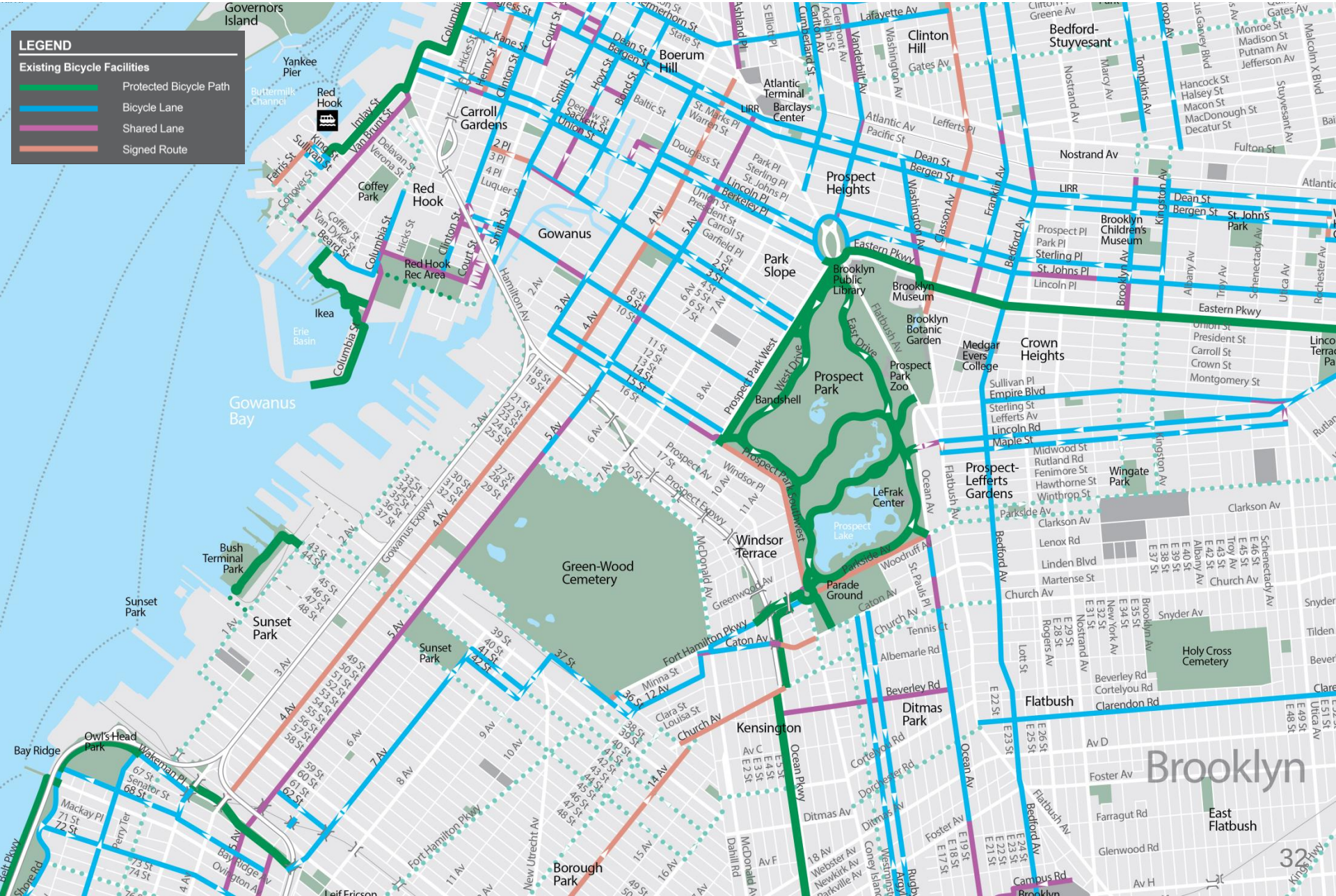
SAFETY DATA – BEFORE & AFTER 2012 SIP (CB6)

Crashes and Injuries
Three-Year After Analysis, 4 Ave from Atlantic Ave to 15 St

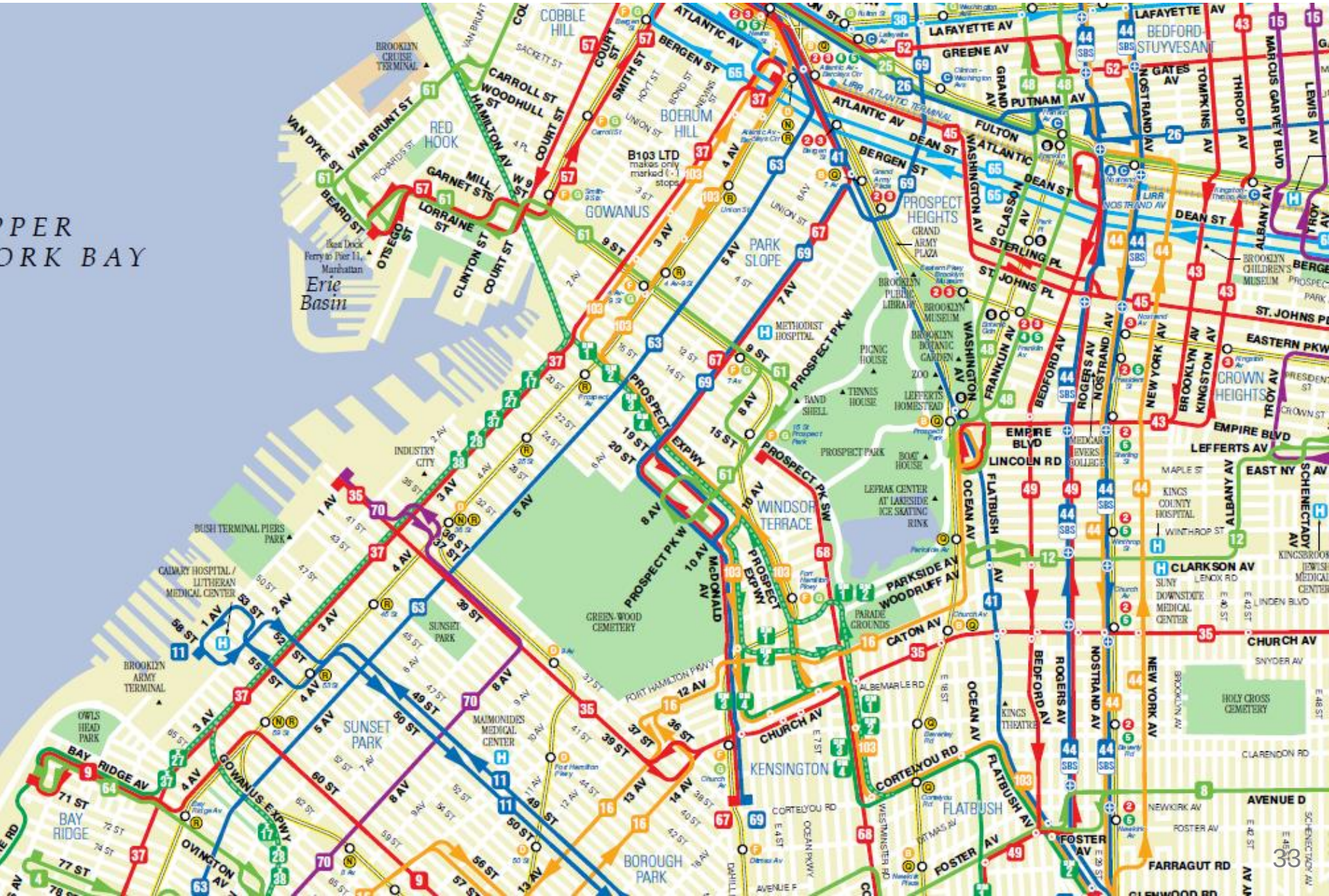
	Before				After				Change	
	'10/ '11	'11/ '12	'12/ '13	Average	'13/ '14	'14/ '15	'15/ '16	Average	Actual	Percent
Total Crashes	484	432	416	**444.0**	359	382	343	**361.3**	-82.7	**-19%**
Crashes w/ Injuries	103	70	62	**78.3**	63	52	50	**55.0**	-23.3	**-30%**
Motor Vehicle Occupant	97	61	40	**66.0**	45	52	39	**45.3**	-20.7	**-31%**
Pedestrian	31	22	23	**25.3**	13	8	15	**12.0**	-13.3	**-53%**
Cyclist	12	9	10	**10.3**	16	11	13	**13.3**	3.0	**29%**
Total Injuries	140	92	73	**101.7**	74	71	67	**70.7**	-31.0	**-30%**

Each before year period is the 36-month period beginning August 1 and ending July 31.
The 3-yr after period is September 1, 2013 to August 31, 2016. The implementation period of August 1, 2013 to August 31, 2013 is excluded.
Source: NYPD AIS/TAMS Crash Database

BIKE NETWORK MAP



BUS ROUTE MAP



TRUCK ROUTE MAP