



NORTHERN BLVD AND BROADWAY PROTECTED BIKE LANE

Presented to Queens Community Board 2 Transportation Committee
February 2, 2021

Project Area Location



- Northern Blvd is an important corridor leading to the Queensboro Bridge for people in both motor vehicles and bikes
- Northern Blvd and Broadway have primarily commercial land uses, particularly automobile-oriented uses with off-street parking east of Steinway St
- Temporary bike lanes installed in September 2020

Background

Green Wave: A Plan for Cycling in New York City



Analysis of fatalities key factors (2014-Present):

- 60% of fatalities happened at intersections; 23% involved a vehicle turn; 16% involved a driver's failure to yield the right of way
- Nearly 90% of fatalities happened on streets without bike lanes

Citywide Protected Bicycle Lane (PBL) Network

- Build 30 miles of protected bicycle lane annually, guided by a PBL vision document.

Better Design:

- Implement **new design** standards based on national & international best practices **to enhance safety at intersections.**
- Continue **piloting new designs with rigorous safety analysis**

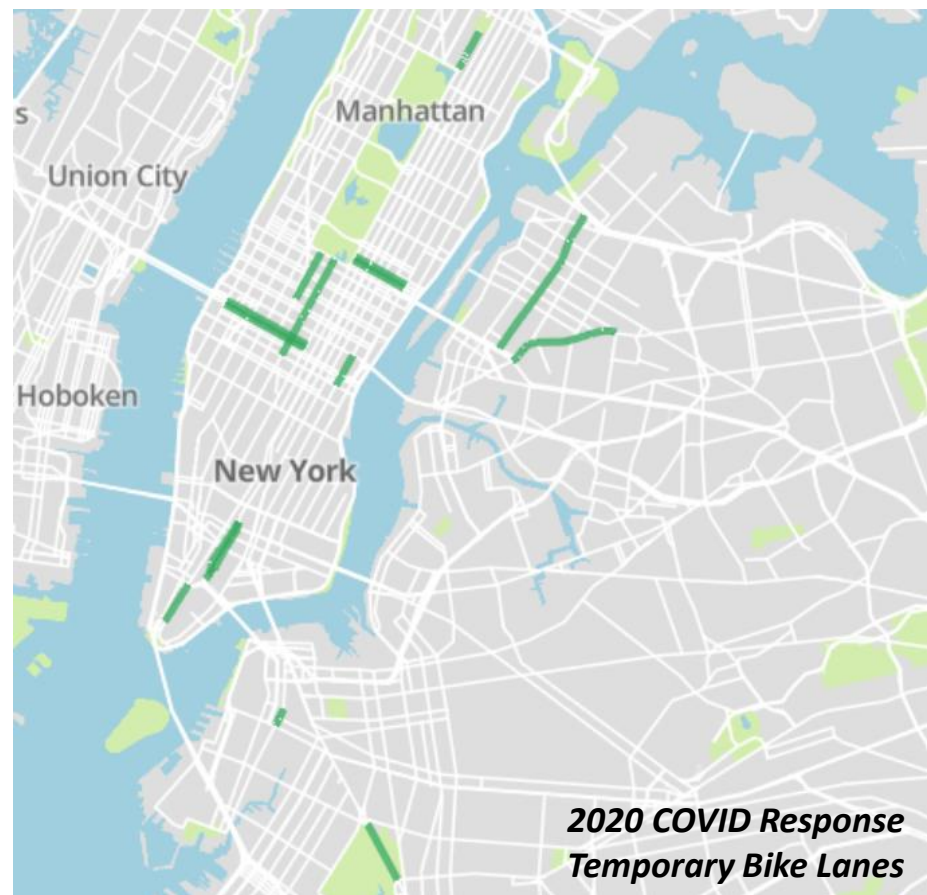
Education and Outreach:

- Launch **next phase of Vision Zero** public awareness campaign, educating drivers with a focus on cyclist safety — and **expand the "Get There"** bicycle encouragement/rules of the road campaign
- **Educate all street users** about safe truck operation on city streets
- Increase helmet giveaways and helmet use encouragement.

Existing Conditions Bicycling

- Temporary bike lanes installed in 2020
 - Northern Blvd: Curbside protected lane replaced rush hour lane or third moving lane
 - Broadway: Standard lane protected with delineators did not impact parking or moving lanes
- Consistent bike volumes
 - 674 bikes 12-hr weekend count
 - Weekday bike traffic to Queensboro Bridge

Oct 2020, Northern Blvd between 34th Ave and 49th St



Project Area Safety

Northern Blvd and Broadway 41st Ave – 68th St Crash History 2014-2018

	Total Injuries	Severe Injuries	Fatalities	KSI
Pedestrian	85	6	3	9
Bicyclists	59	7	0	7
Motor Vehicle Occupant	466	18	0	18
Total	610	31	3	34

- 15.0 Killed or Severely Injured (KSI) per mile puts the corridor in the top 10% of dangerous corridors in Queens
- Three fatalities in five years



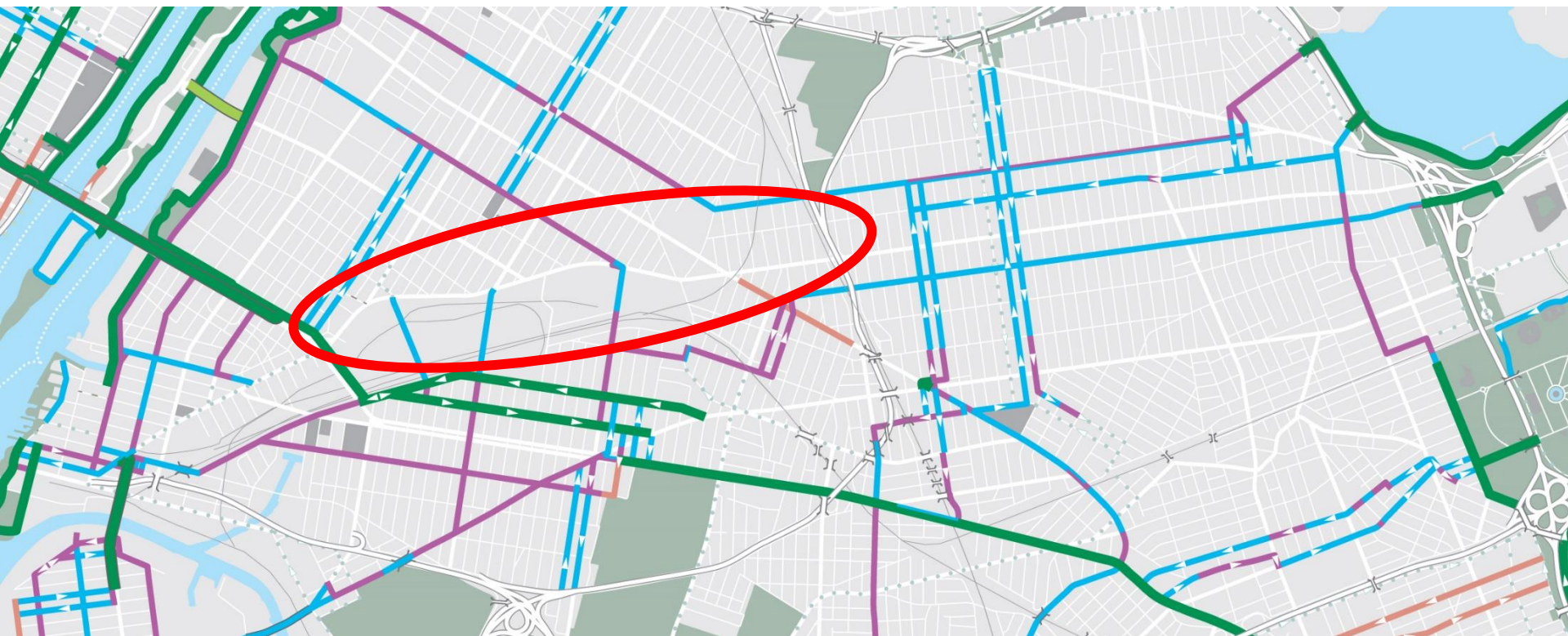
Issues Speeding and Dangerous Driving

- Northern Blvd experiences high frequency of off-peak speeding
 - 60% of westbound between 46th St and 45th St at 10AM in April 2016
 - 57% of eastbound drivers between 40th Ave and 31st St at 10 AM in July 2019
- Between 2014 and 2018, NYC DOT completed the following safety improvements on Northern Blvd in Community Boards 1 and 2:
 - Constructed 4 pedestrian safety islands at 33rd St, 34th St, 39th Ave, 48th St
 - Constructed curb extensions at 48th St and 34th Ave
 - Banned a left turn at 39th Ave
 - Installed 10 second Leading Pedestrian Intervals (LPI) at all feasible intersections (typical LPI is 7 seconds)
 - Installed high-visibility crosswalks and refurbished markings between Queens Plaza and 68th St



Issues East-West Bicycle Connections

- Lack of direct bicycle connections from Central Queens residential areas to Western Queens and Manhattan job centers
- The 34th Ave Open Street COVID response revealed strong demand for opportunities for safe biking and walking
- 34th Ave Open Street is more useful if it is part of a safe street network



Proposed Design Goals

- Improve street safety for pedestrian and drivers
 - Reduce off-peak speeding to prevent serious crashes with injuries
 - Shorten pedestrian crossing distances to enhance safe neighborhood walking connections
- Create safe, comfortable bike route to Queensboro Bridge
 - Provide dedicated space for biking
- Maintain motor vehicle circulation



SAFETY – Protected Bike Lanes

Street designs that include protected bike lanes increase safety for all users

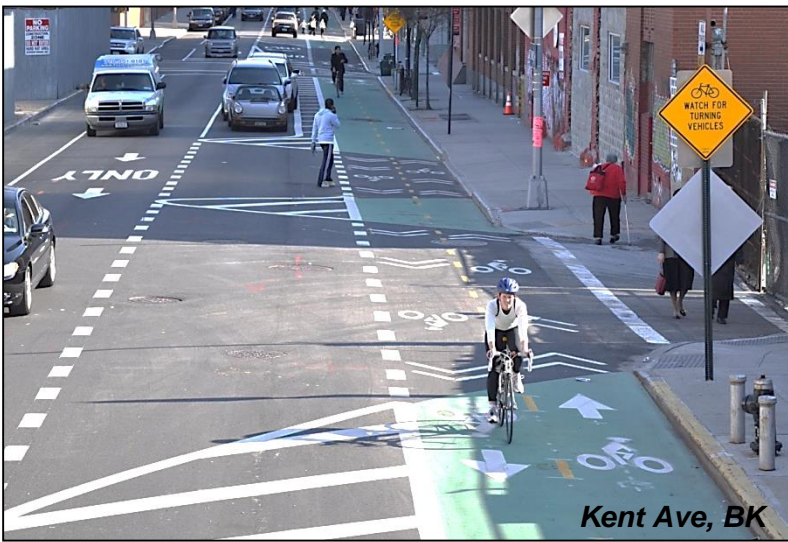
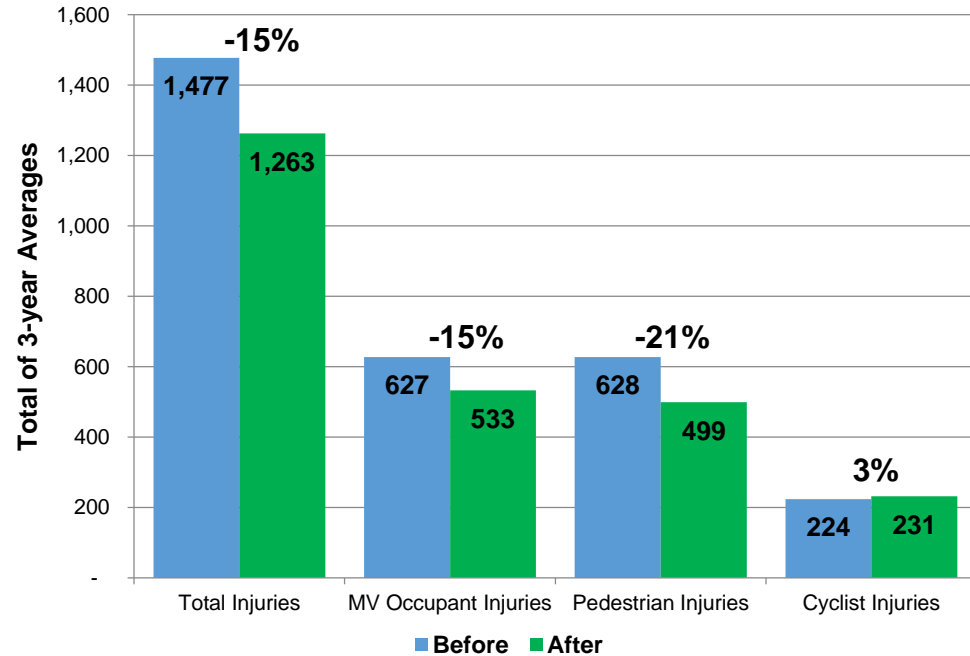
-15% drop in all crashes with injuries
-21% drop in pedestrian injuries

on streets where protected bike lanes were installed 2007-2017

Injuries to cyclists increase only 3%,
despite a 61% bike volume increase

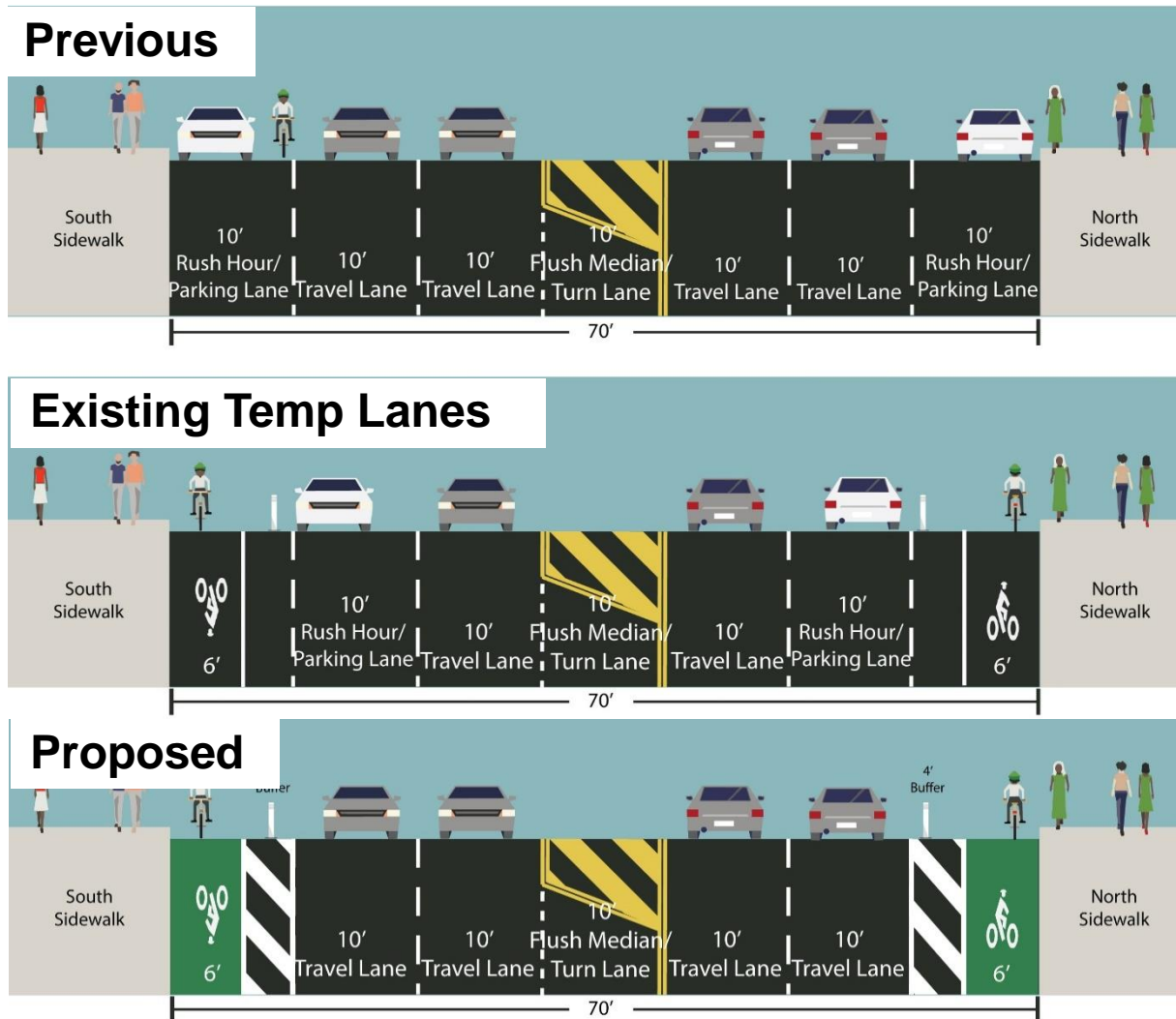
Protected Bike Lanes

Before and After Crash Data, 2007 - 2017



Data from 25 separate protected bicycle lane projects installed from 2007-2014 with 3 years of after data. Includes portions of 1 Ave, 2 Ave, 8 Ave, 9 Ave, Broadway, Columbus Ave, Hudson St, Lafayette St / 4 Ave, Sands St, Allen/Pike St, Kent Ave, Prospect Park West, Flushing Ave, Bruckner Blvd & Longfellow Ave, Imlay St / Conover St, Paerdegat Ave. Only sections of projects that included protected bike lanes were analyzed.
Source: NYPD AIS/TAMS Crash Database

Proposed Design Northern Blvd



- Temporary bike lanes effectively removed parking
- New design makes parking arrangement permanent
- NYC DOT will harden bike lane barriers at high conflict areas

Proposed Design Northern Blvd

Existing Temp Lanes

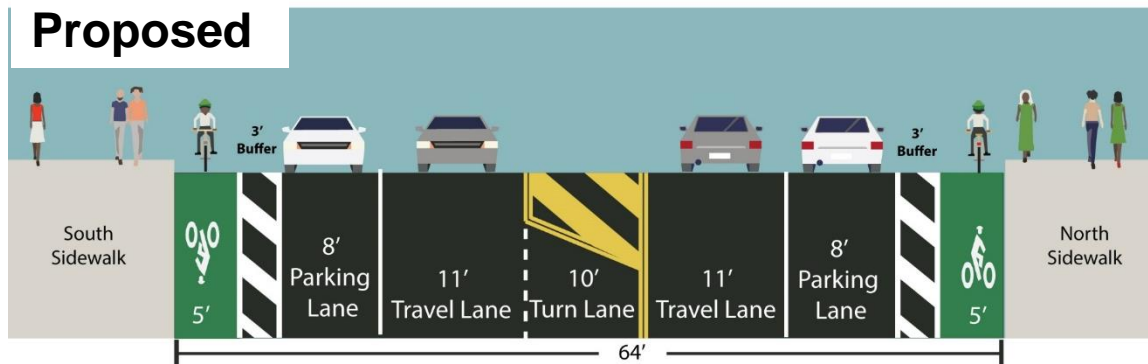
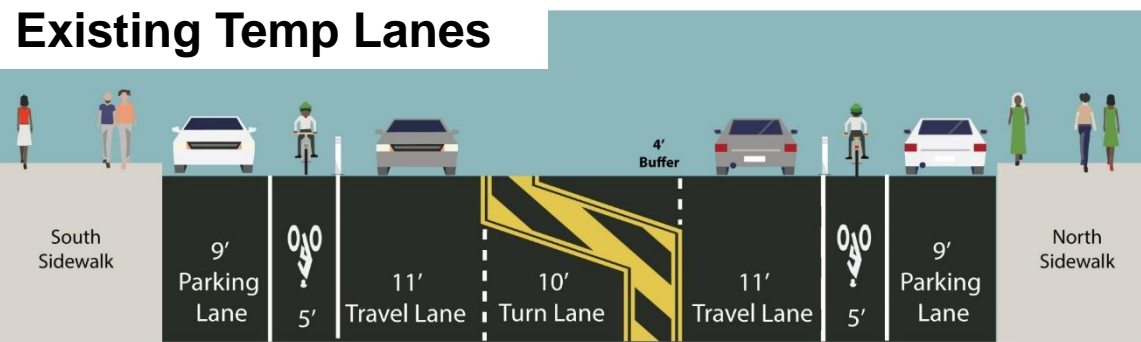
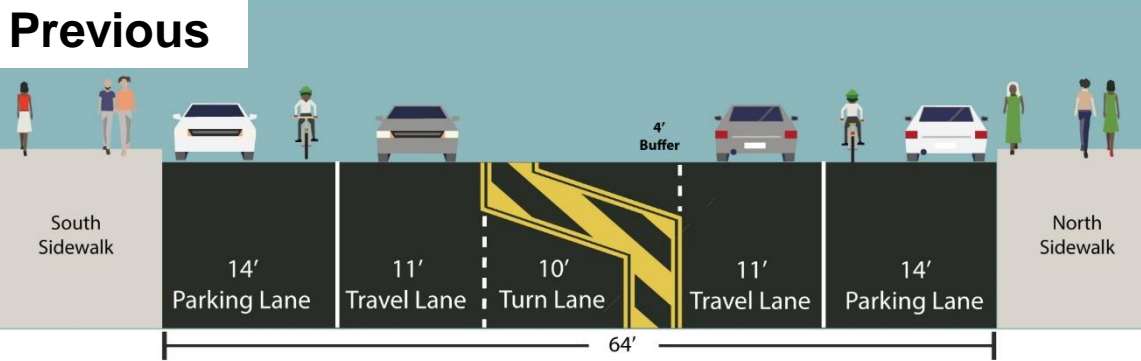


Proposed



- Upgrade retains dedicated bike lane and delineators
- Adds green paint and intersection markings

Proposed Design Broadway



- Temporary bike lanes did not impact parking
- Parking lane keeps bike lane clear of parked vehicles

Proposed Design Broadway

Existing Temp Lanes

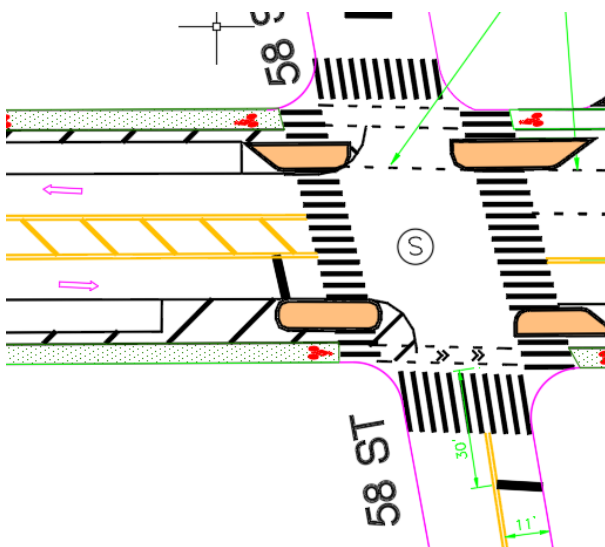


Proposed



- Upgrades temporary standard bike lane to protected lane
- No loss of traffic capacity

Turn Treatments Offset Crossings



- Offset crossings slow right-turning vehicles to mitigate conflict with bikes traveling in same direction
- Pedestrian island shortens crossing distance
- Daylighting the intersection ensures visibility between turning vehicles and people on bikes

Parking Impacts



- All parking spaces between 41st Ave and Broadway converted to protected bike lane in 2020
 - No additional spaces will be affected on Northern Blvd
 - East of Honeywell St off-street parking is more abundant
- Proposed Broadway bike lanes will convert 22 parking spaces

Next Steps

- Continue outreach for Northern Blvd and Broadway protected bike lanes
- Implementation of Northern Blvd and Broadway protected bike lanes this summer
- Ongoing outreach for 34th Avenue between Broadway and 69th Street
 - DOT currently conducting community outreach and developing a design for this stretch



Summary Project Benefits

- Connects Central Queens to Queensboro Bridge with high quality protected bike lanes
- Increases pedestrian safety by shortening crossing distances
- Discourages speeding by narrowing roadway
- Enhances safety and builds on NYC DOT's ongoing efforts to improve safety on one of the Borough's dangerous corridors
- Protects bicycle lane from double parking
- Maintains traffic capacity

