6th Ave, Lispenard St – 14th St

Protected Bike Lane Upgrades

Presented by New York City Department of Transportation to Manhattan Community Board 2 on June 25, 2024

Overview

Background
- Project Area
- Issues

Safety
- Crash History
- Safety Benefits of Protected Bike Lanes

Proposal
- Existing
- Proposal
- Intersection Treatments

Summary & Next Steps

Background

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Background

- Community Board 2 recommended extending the 6th Avenue bike lane south to Canal St in 2016
- Vision Zero Priority Corridor
- 6th Ave between Lispenard St and W 8th St is 60' wide with 4 NB travel lanes, 2 parking lanes
- 6th Ave between W 9th St and W 14th St is 66' wide with 4 NB travel lanes, 2 parking lanes
- 6th Ave is a major corridor for buses, motor vehicles, and bicycles
  - M55 and M21 travel along corridor
  - 1,847 vehicles per hour in the peak hour
  - >2,000 bikes in a 12-hour count

Project Map

Previous Work

- Protected bike lane on 6th Ave between 8th St and 33rd St installed in 2016
- Protected bike lane on 6th Ave between 35th St and Central Park installed in 2020
- Protected bike lane on Church St and 6th Ave between Barclay St and Lispenard St installed in 2022

Issues: Lispenard St to W 8th St

- Heavy left turns leading to Holland Tunnel frequently block intersections and endanger cyclists on the west side of 6th Ave
- Frequent bus stops conflict with cyclists on the east side of 6th Ave
- The gap in the 6th Ave bike lane undermines utility of the bike corridor

Issues: W 8th St to W 14th St

- Increasing bike volumes lead to conflicts and delays
- Greater use of e-bikes results in a larger speed differentials and more passing in bike lane
- Wider cargo bikes and trailers leave less room for passing

Safety

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Safety: 6th Ave, Lispenard St - 14th St

Vision Zero Priority Corridor

6th Ave between W 11th St and W 14th St

Vision Zero Priority Intersection

6th Ave at W 14th St

More than 20 injuries between 2019 and 2023 at the following intersections:

- 6th Ave and Canal St
- 6th Ave and Watts St
- 6th Ave and W Houston St

6th Ave, Lispenard St -- 14th St
Crash History 2019-2023

Mode	Total Injuries	Severe Injuries	Fatalities	KSI
Pedestrian	70	11	0	11
Bicyclist	46	3	0	3
Motor Vehicle Occupant	92	4	0	4
Other Motorized	5	0	0	0
Total	213	18	0	18

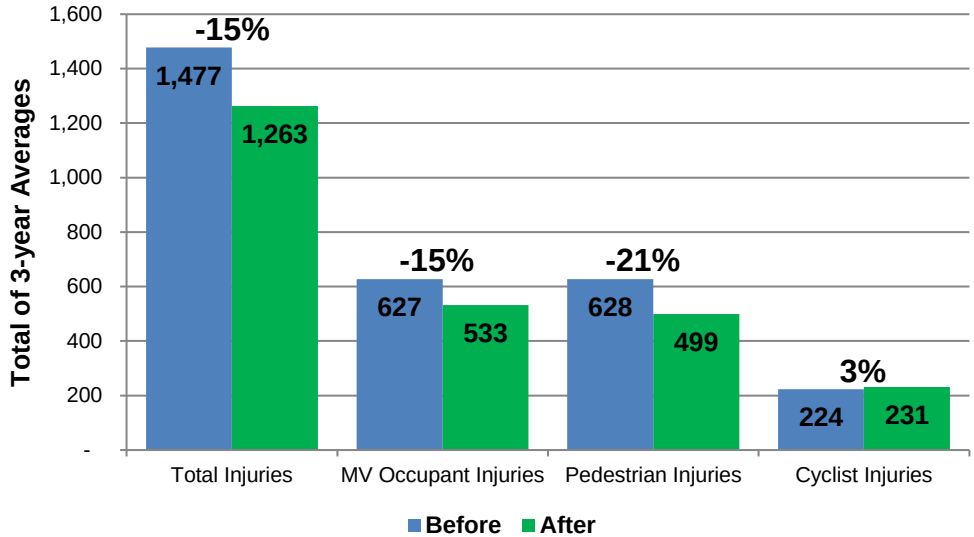
12.5 KSI Per Mile
Top 33% in Manhattan

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

Safety Benefits of Protected Bicycle Lanes

Protected Bike Lanes designs are proven to calm traffic and improve safety for all road users

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

Protected bike lanes benefit all street users:

Crashes with Injuries	Motor Vehicle Occupant Injuries	Pedestrian Injuries
Down 15%	Down 15%	Down 21%

Safer Streets for Cycling (2021)

Safety & Ridership
Overall:

- **32% reduction in crash risk where bike facilities have been installed**

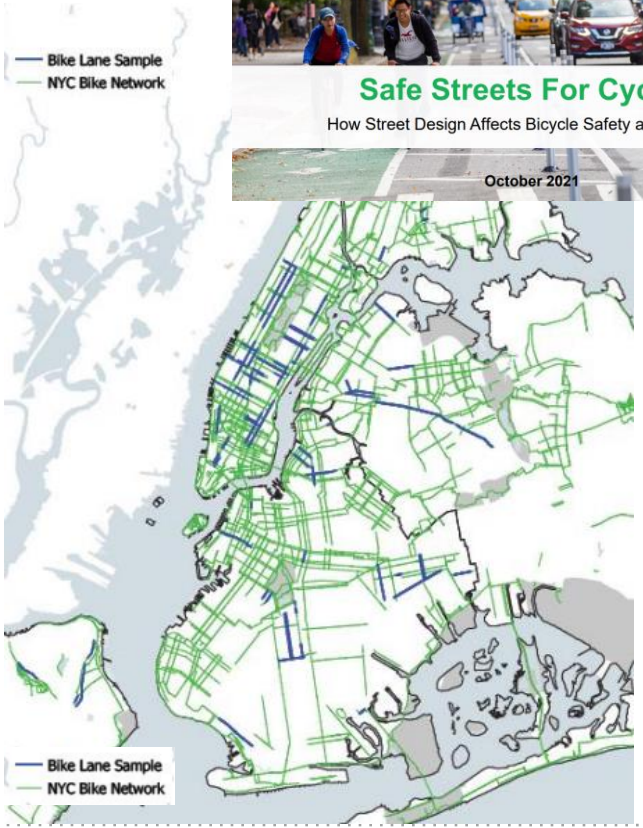
Protected Bike Lanes

- **Risk reduction of 34% across all study projects**
- On the highest risk streets, cyclist risk is reduced by over 60%

Cycling Volumes:

- Installation of PBL and conventional bike lane increased bicycle volumes by 50%
- On the highest risk streets, bicycling volumes nearly doubled after a bike lane was installed

Source: Safety Stats (*Data from 100+ bike lane projects including 35 Protected (31 mi), 50 Conventional (46 mi), and 16 Shared (18 mi) installed between 2009-2018)*. Risk is defined by injuries per mile per bicyclist volume



Proposal

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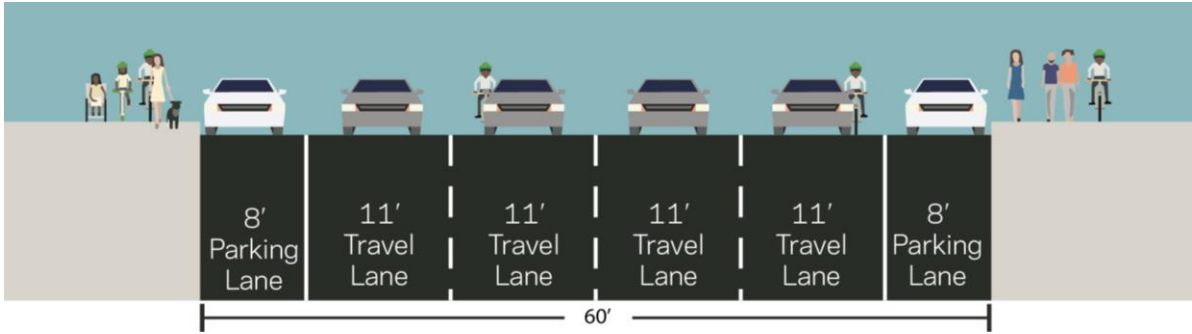
Existing: Lispenard St to W 8th St

Existing Conditions:

- Long crossing distance for pedestrians (4 travel lanes, 60 feet)
- No dedicated space for cyclists
- Heavy tunnel-bound traffic
- Parked vehicles block bus stop at Lispenard St

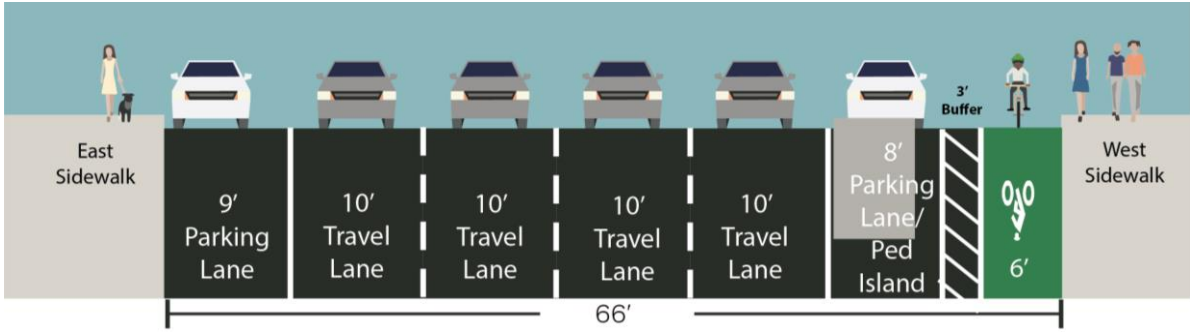


6th Ave at W 4th St

Existing: W 8th St to W 14th St

Existing Conditions:

- Protected bike lane on west side of 6th Ave, installed in 2016
- Four lanes of traffic
- Concrete pedestrian islands at intersections
- No parking on west side of 6th Ave between 8th St and 9th St

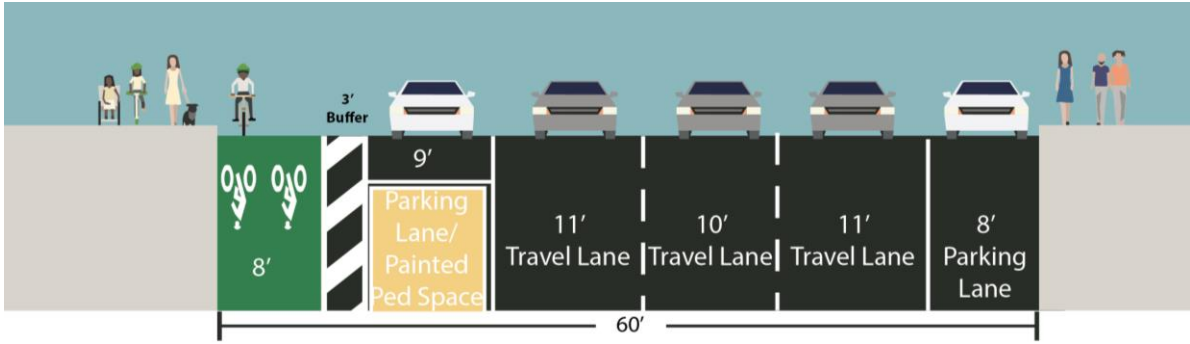


6th Ave at 11th St

Proposed: Lispenard St to W Houston St

Proposed Design:

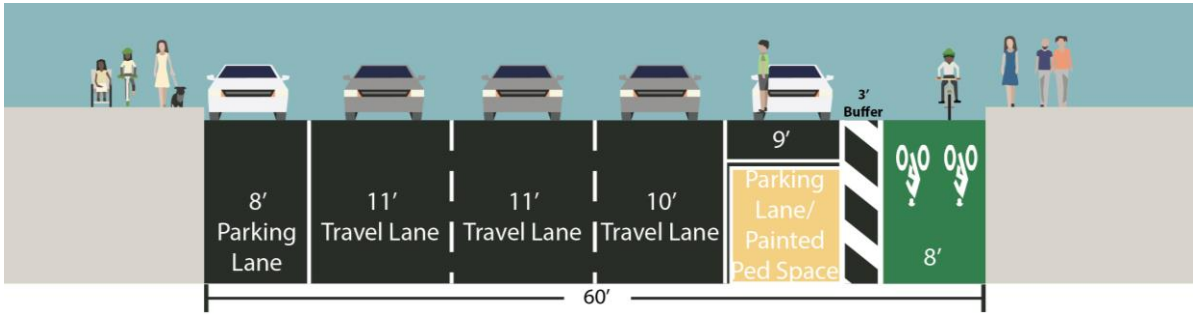
- Protected bike lane on the east side of 6th Ave avoids turning conflicts and congested intersections caused by tunnel-bound traffic
- Bus boarding islands installed to reduce conflict between buses and bikes
- Pedestrianize Sullivan St slip lane at Watts St; northbound access is retained from Broome St
- Three moving lanes can accommodate traffic: most traffic delay is caused by tunnel-bound traffic



Proposed: W Houston St to W 8th St

Proposed Design:

- Protected bike lane on the west side of 6th Ave to meet up with existing bike lane north of W 8th St
- Bus stops remain in place on the east side of 6th Ave
- Three moving lanes

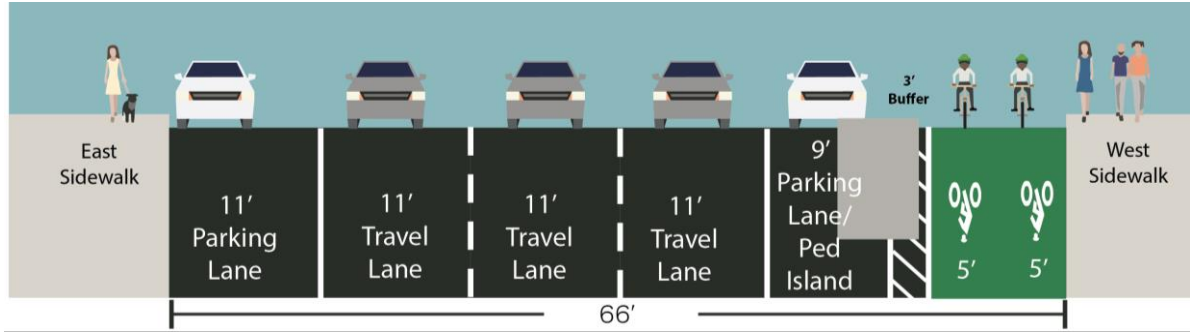


Proposed Configuration: 9th Ave

Proposed: W 8th St to W 14th St

Proposed Design:

- Widening protected bike lane allows passing
- Existing concrete islands remain in place
- Pedestrian crossing distances shortened
- Three moving lanes to match lane configuration south of 8th St



Proposed Configuration: 3rd Ave

Proposed: Bus Boarding Islands

Proposed Design:
Bus boarding islands are being investigated at the following existing bus stops:

- W Broadway
- Thompson St
- Broome St
- Prince St
- Spring St

Project Map: Bus Boarding Islands

Proposed Configuration: Gerritsen Ave

Summary & Next Steps

Summary/Benefits

- Proposed protected bike lane completes 6th Ave corridor connecting the Financial District to Central Park
- Bike lane avoids conflicts with left turning tunnel-bound traffic at Canal St, Watt St, and Broome St
- Wider bike lane accommodates higher bike volumes and mix of wider and faster bikes
- Addition of five bus boarding islands improves MTA Bus accessibly

Next Steps

- Implementation in Summer 2024

Thank You!

Questions?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