



Schermerhorn Street, Clinton St to Flatbush Ave

Brooklyn Community Board 2

May 19, 2022

Location

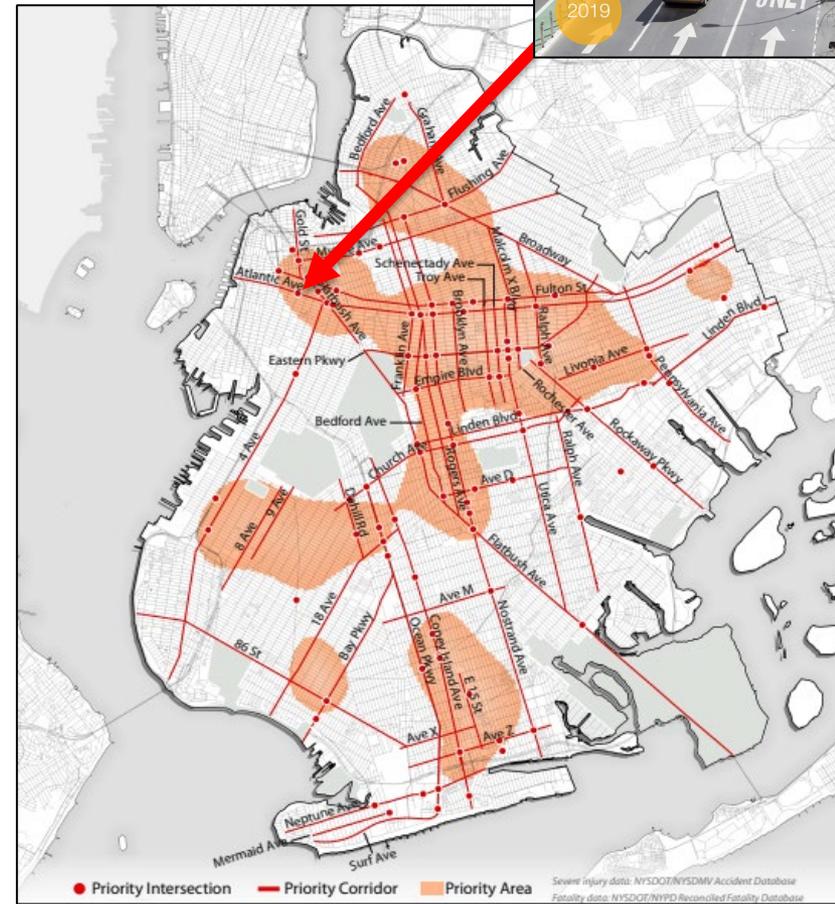
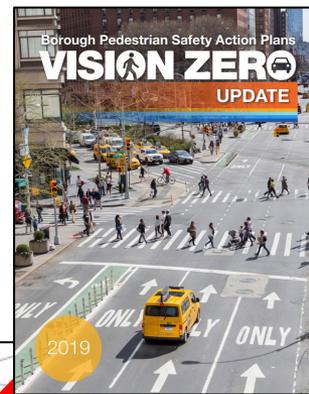
- Schermerhorn St (Clinton St to 3 Ave)
- Located in the Court-Livingston-Schermerhorn Business Improvement District (BID), part of the Downtown Brooklyn Partnership
- Schermerhorn St is a Local Truck Route between Flatbush Ave and Smith St
- Standard bike lanes on Schermerhorn St



Vehicle Network, Project Limits

Background

- Schermerhorn St is located in a Vision Zero Priority Area
- Schermerhorn St, 3 Ave and Flatbush Ave Intersection is a Vision Zero Priority Intersection
- History of community requests for safety improvements along Schermerhorn St
- Former Council Member Levin and current Council Member Restler have requested safety upgrades on Schermerhorn St
- Multiple 311 and public complaints regarding blocked bike lane and sidewalk on Schermerhorn St



Vision Zero Priority Geographies, Brooklyn

Downtown Brooklyn Streetscape

Schermerhorn St safety improvements are part of NYC DOT's commitment to improving the street network throughout Downtown Brooklyn

Recent Work

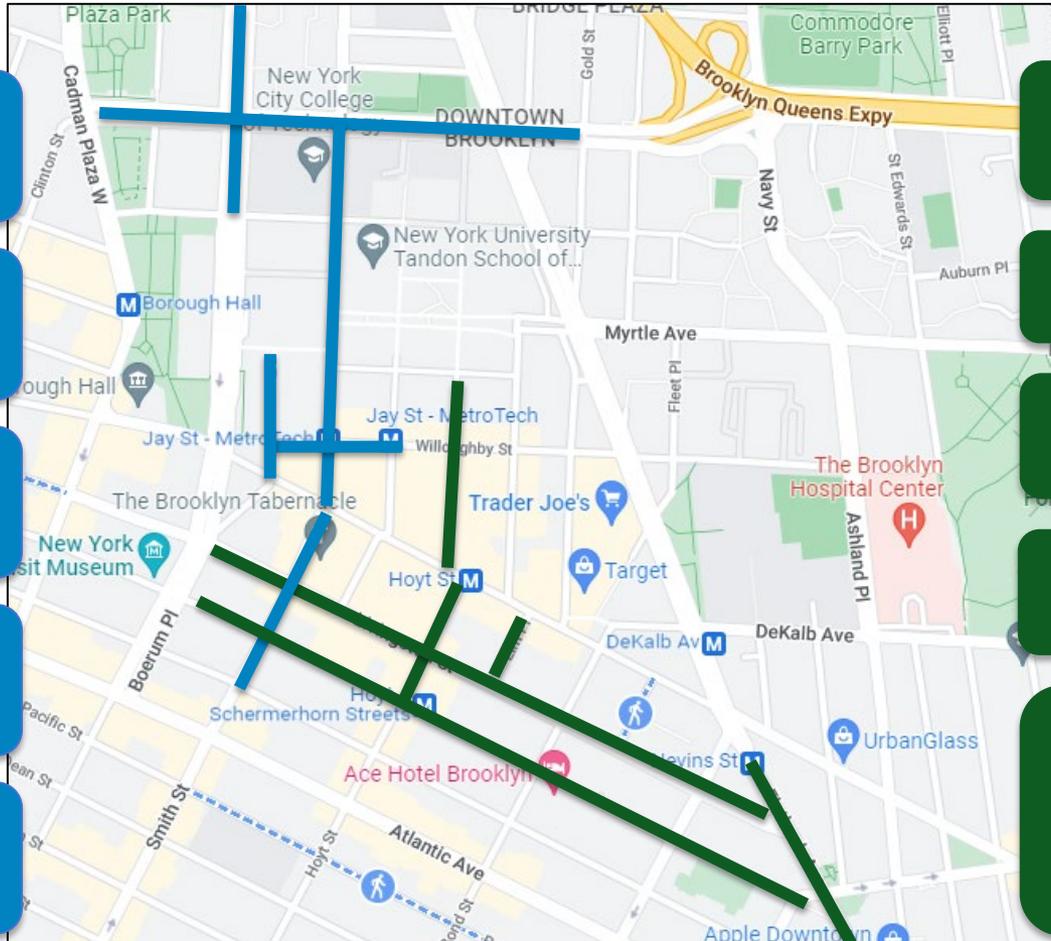
Pearl St and Willoughby St Shared Streets (2019)

Tillary Street Capital Improvements (2020)

Jay Street Protected Bike Lane and Busway (2020)

Smith Street Protected Bike Lane (2020)

Brooklyn Bridge Protected Bike Lane (2021)



Proposed Work

Schermerhorn St Safety Improvements (2022)

Expand Shared Street Network (2022)

Livingston St Transit Improvements (2023)

Flatbush Ave Capital Improvements (2026)

Streetscape improvements from Downtown Brooklyn Partnership's Brooklyn 2030 Vision

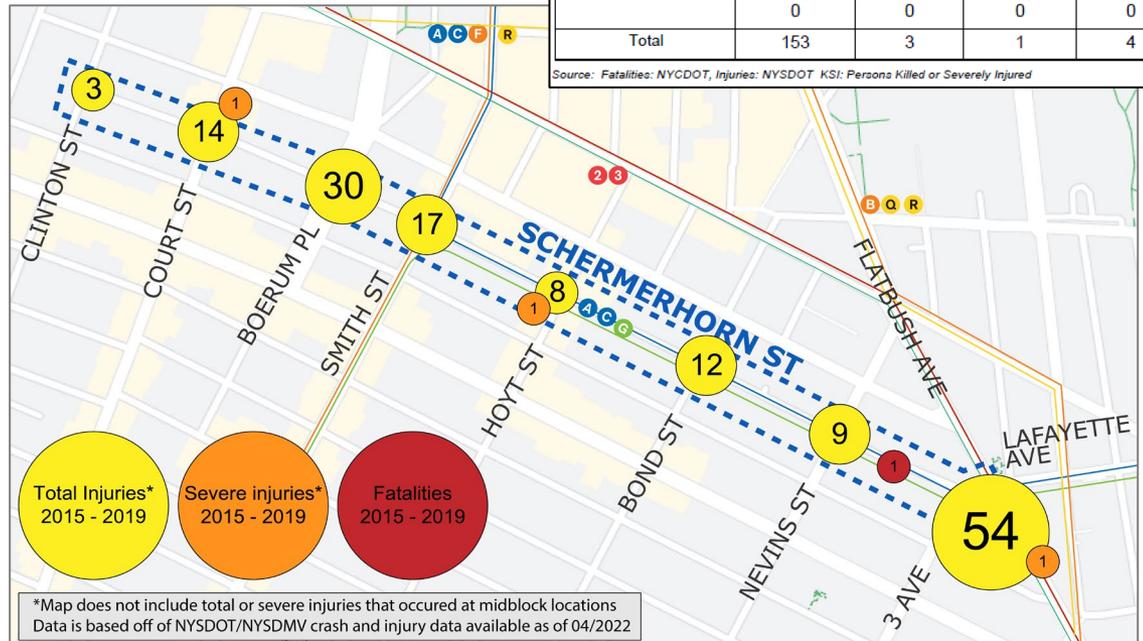
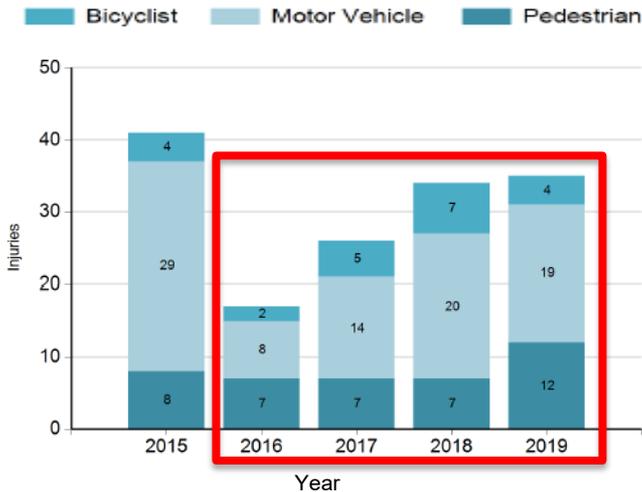
Safety Need

- 150+ injuries on Schermerhorn St in the most recent five-year period (2015 – 2019)
- Four people killed or severely injured along Schermerhorn St (2015 – 2019)
- Injuries have been increasing along Schermerhorn St since 2016

	Total Injuries	Severe Injuries	Fatalities	KSI
Pedestrian	41	1	1	2
Bicyclist	22	1	0	1
Motor Vehicle Occupant	90	1	0	1
Total	153	3	1	4

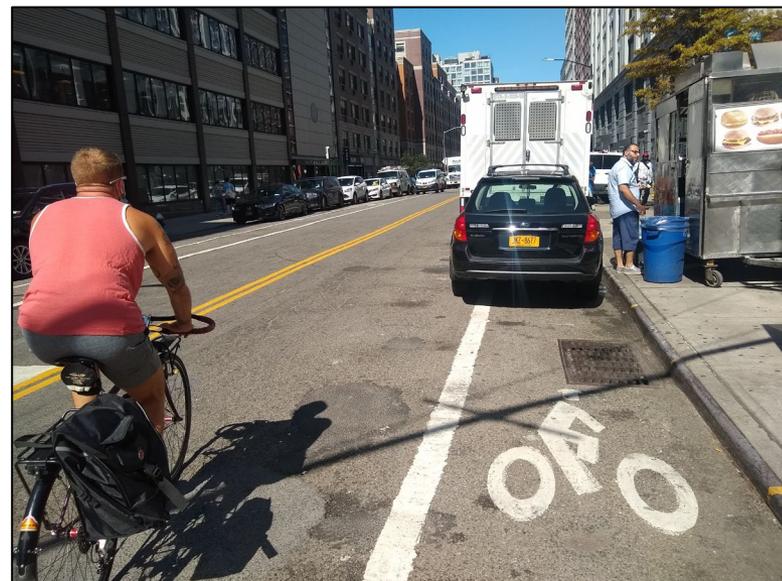
Source: Fatalities: NYCDOT, Injuries: NYSDOT KSI: Persons Killed or Severely Injured

Injuries by Year, 2015-2019 (5 Years)



Crash Data Analysis

- Vehicle occupant injuries are a result of a congested, narrow street more so than speeding
 - More injuries are caused by sideswipes and rear-end collisions
 - Fewer injuries are caused by right-angle crashes
- Majority (54%) of pedestrians are injured while crossing at intersections with the signal
 - Vast majority (75%) of pedestrians injured while crossing with the signal are injured by left-turning drivers
- Injuries are highest during the mid-day and PM rush hour (12 – 6 PM)



Double parking and parking in the bike lane effectively narrows the roadway, creating vehicle and cyclist conflict

Cyclist Conditions And Crashes

- Approximately 1,200 cyclists ride on Schermerhorn St daily with 2-300 cyclists counted during the peak PM rush hour (Counts from October, 2019)
- Bike lane frequently blocked by double parked vehicles forcing cyclists into roadway and causing conflicts
- 40% of cyclists injured by turning vehicles
- 27% of cyclists injured by sideswipe and rear-end crashes

“This street desperately needs protected or separated bike lanes. Cars are always in the bike lane double parked or otherwise blocking the bike lane”

- Respondent, NYC DOT survey



A cyclist navigates around a double parked truck on Schermerhorn St

Bike Connection

- The existing bike lanes on Schermerhorn St provide a crucial east/west connection through Downtown Brooklyn
- Important bike link between the bridges to Manhattan and Brooklyn neighborhoods south and east of downtown
- Existing heavy bike volumes on the corridor:
 - **1,176** bikes on a typical weekday
 - **895** bikes on a typical weekend day*

*Note: Average of two 12-hour bike counts conducted across two weekdays and two weekends on Schermerhorn St between Smith St and Hoyt St in October, 2019



Current Street Usage

Dense Residential and Commercial Activity

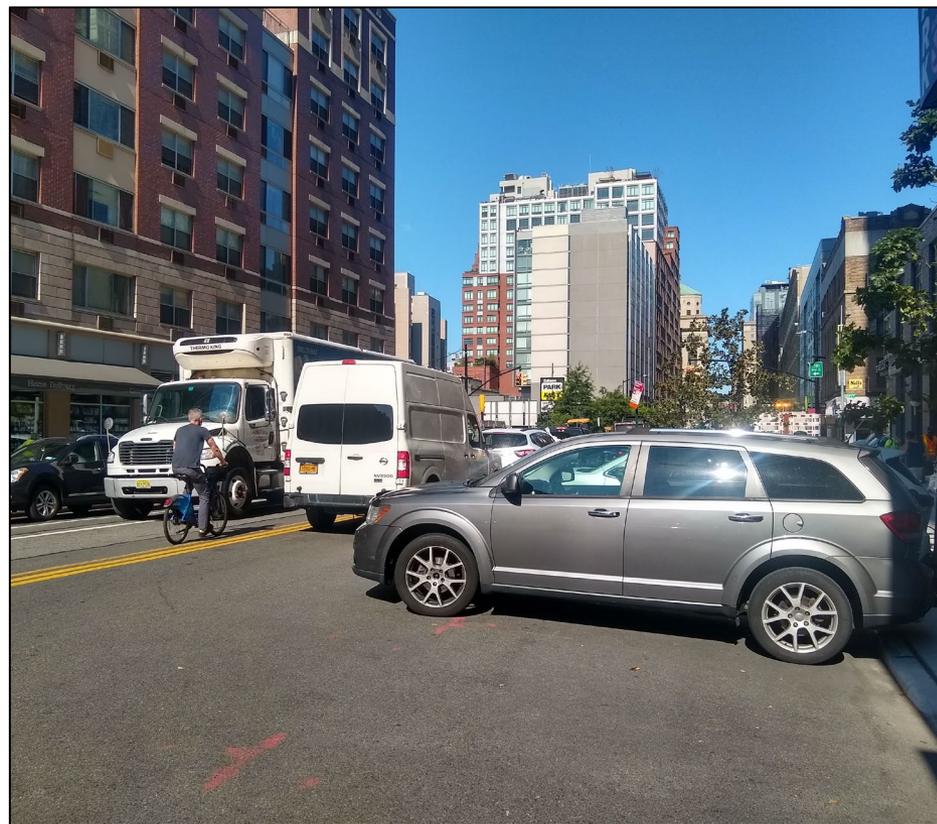
- Double parking, illegal back-in parking, frequent truck and hotel passenger loading
- Travel and bike lanes blocked, unpredictable movements, and congestion

Transit and Pedestrian Hub

- Transit-rich neighborhood with the A/C/G Hoyt-Schermerhorn subway station and many nearby destinations and dense residential buildings
- High pedestrian volumes along the corridor

Cyclist activity

- Key cyclist connections between Manhattan and the rest of Brooklyn
- Large cyclist volumes compete for limited space on an overcrowded corridor



Double parking and back-in parking along Schermerhorn St creates unsafe driving conditions and makes bike lanes unusable

NYC DOT Business Outreach

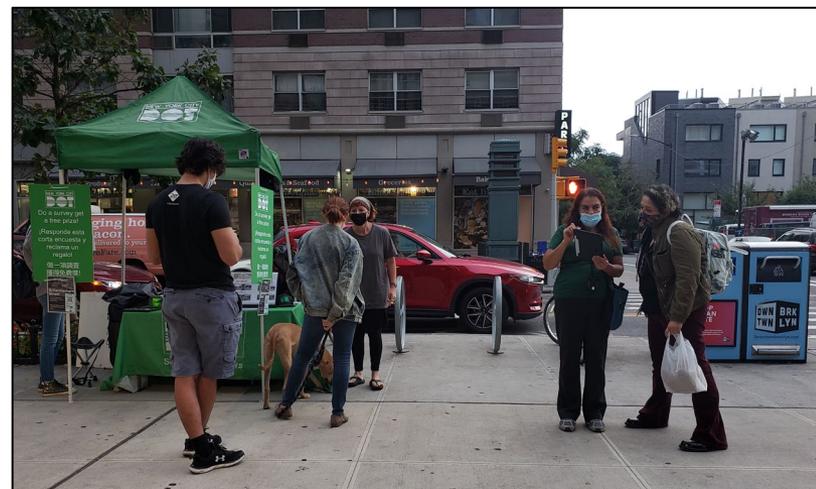
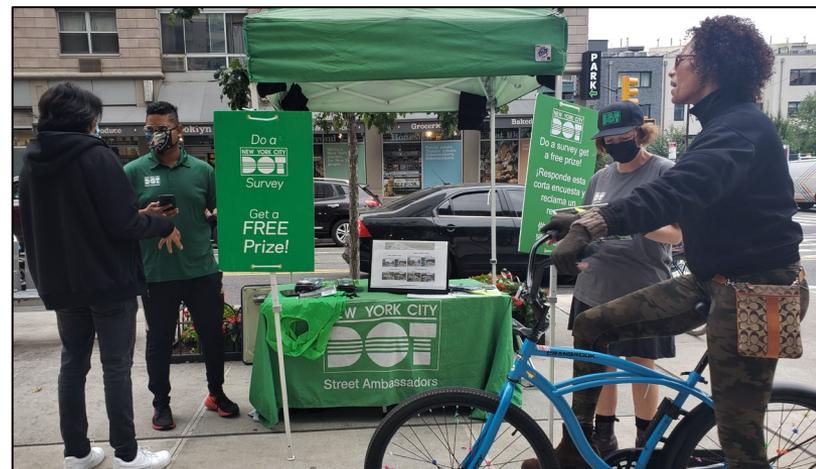
- In Summer 2021, NYC DOT's Street Ambassador Team surveyed businesses on Schermerhorn Street
- Businesses were surveyed about their loading and delivery practices and needs as well as observations about street operations
- 70% of businesses said that vehicles typically double park to make local deliveries
- Higher than average frequency of deliveries observed during mid-day and afternoon hours



NYC DOT Street Ambassadors speak with businesses on Schermerhorn St

NYC DOT Public Survey

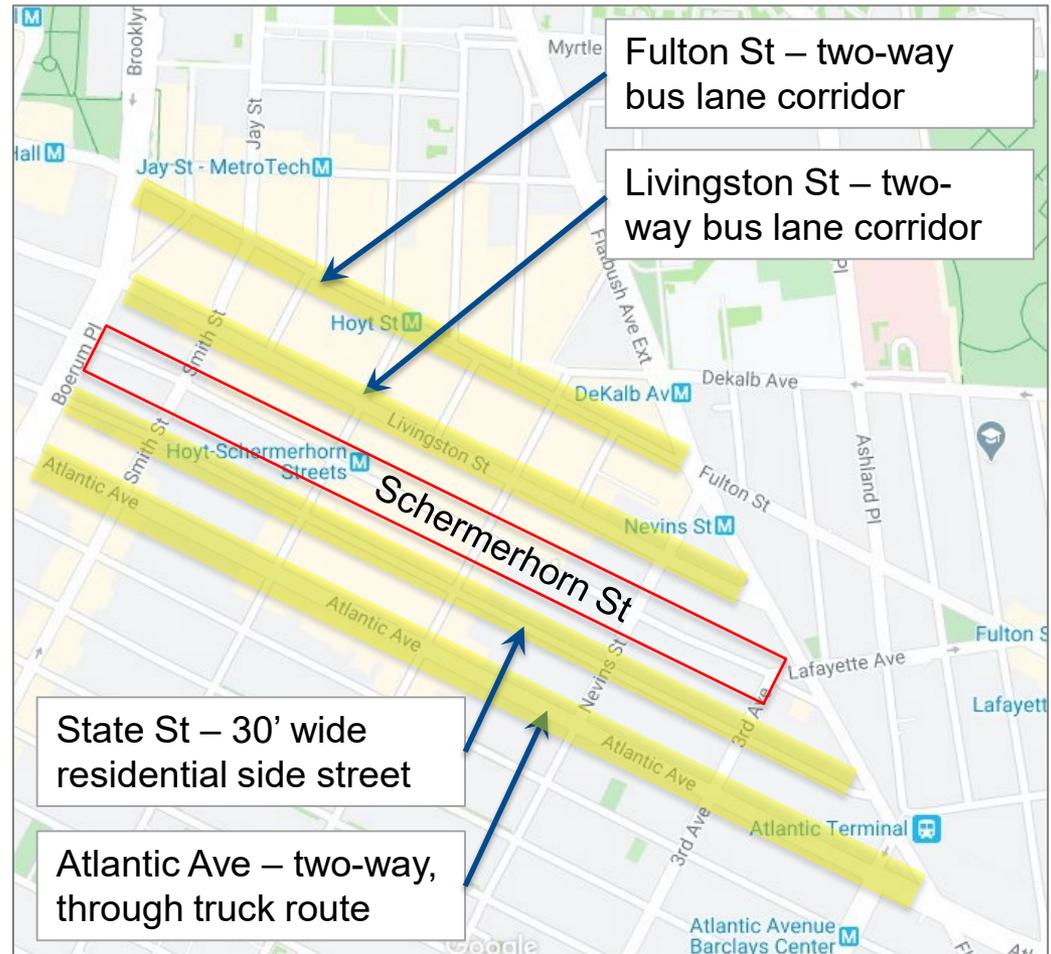
- In Fall 2021, NYC DOT completed 261 on-street surveys and completed an additional 1,057 online surveys about street usage and safety and mobility perceptions
- 7% of surveyed cyclists and 32% of surveyed pedestrians felt “somewhat safe” or “very safe” when biking or walking on Schermerhorn St, respectively
- Most frequently identified issues were double parking blocking the moving lane/bike lane and parking blocking the sidewalk
- Largest concerns from respondents were the conditions of the bike lane and traffic safety
- Cyclists and pedestrians identified illegal parking, unpredictable and unsafe driving as top concerns. Drivers also included congestion as a top concern



NYC DOT Street Ambassadors survey pedestrians and cyclists on Schermerhorn St

Current Safety Improvement Limitations

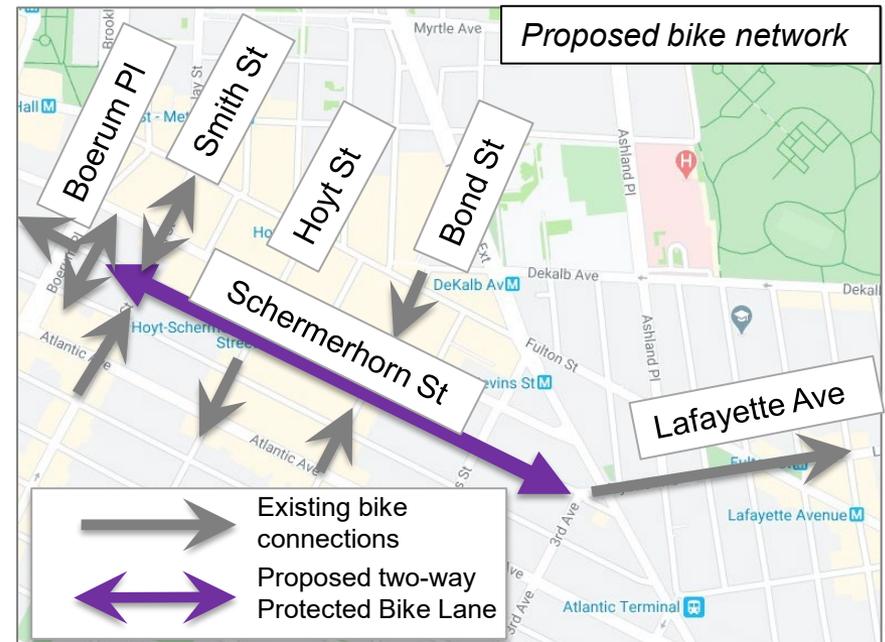
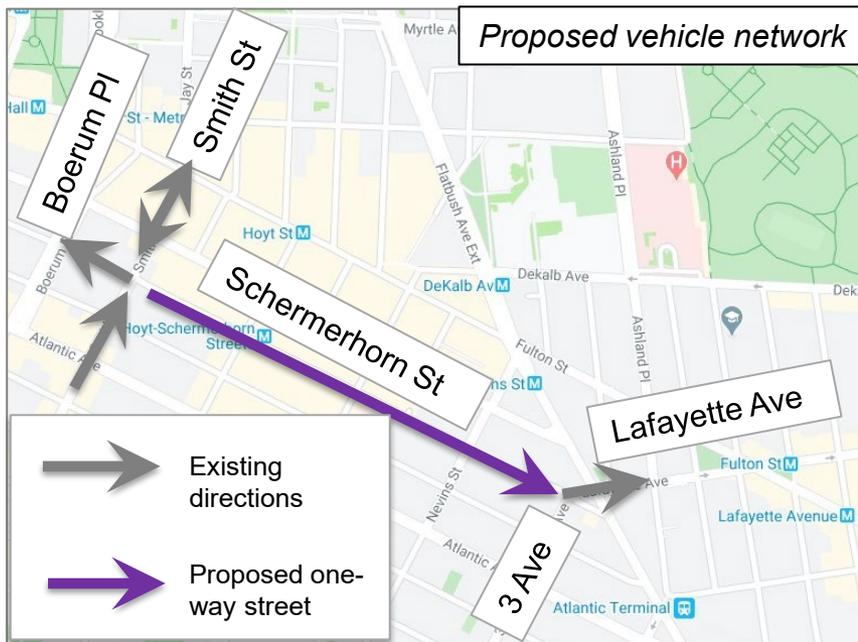
- As a 50' wide, two-way street with parking on both sides, Schermerhorn St has limited corridor safety improvement possibilities, particularly for through traffic and cyclists
- Existing concrete curb extensions at multiple corners further limit roadway width (26' wide at it's narrowest point)
- Adjacent parallel streets do not have capacity to incorporate a paired Protected Bike Lane



Adjacent, parallel streets to Schermerhorn St

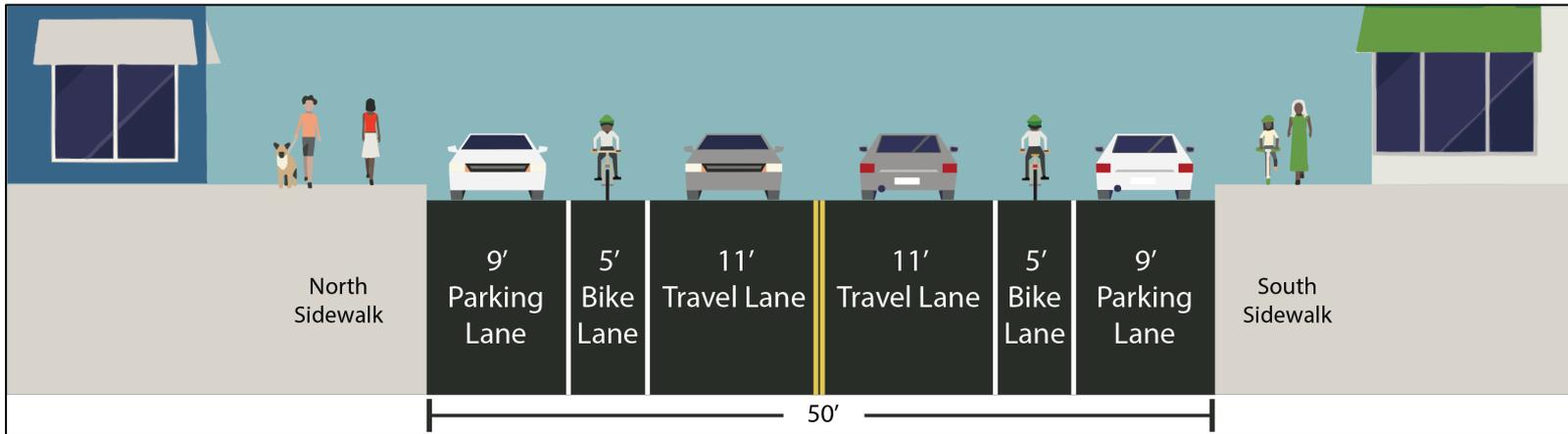
Proposal

- Convert Schermerhorn St to one-way eastbound for vehicles between Smith St and 3 Ave
- Add a two-way parking Protected Bike Lane to the south curb of Schermerhorn St between Boerum PI and 3 Ave
- Move existing standard bike lane on Schermerhorn between Boerum PI and Clinton St to the south side of the street
- Install painted pedestrian refuge space to shorten crossing distances at Boerum PI, Hoyt St, Bond St, Nevins St, and 3rd Ave

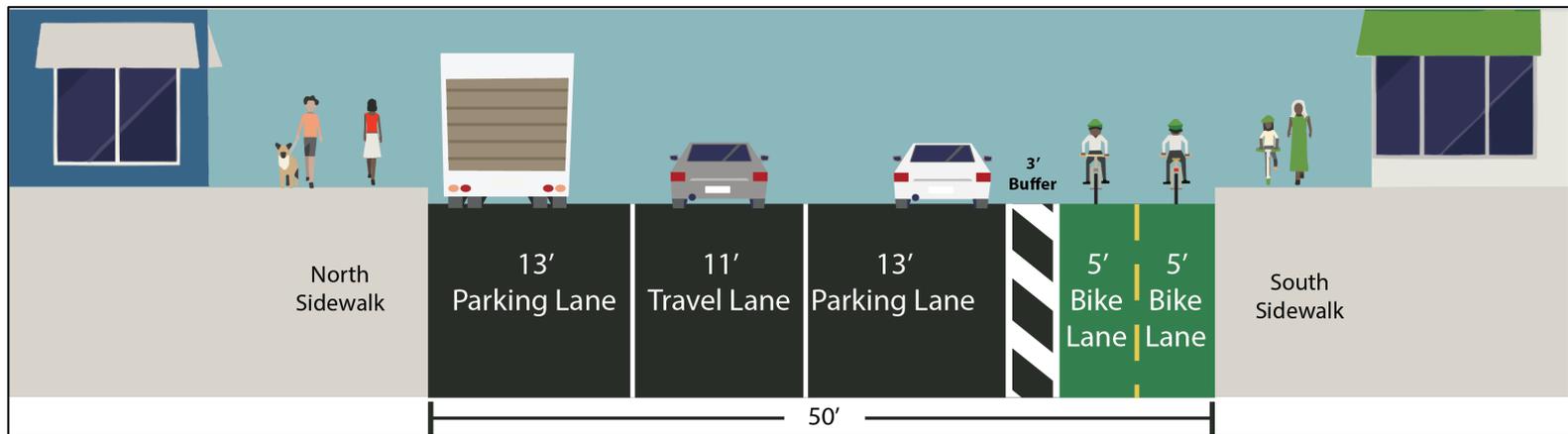


Proposed Design

Existing - Schermerhorn St, Smith St to 3 Ave



Proposed - Schermerhorn St, Smith St to 3 Ave



Schermerhorn St, Looking East

One-way Conversion Benefits

- One-way conversion improves vehicle predictability and eliminates head-on conditions created by congested two-way street
- Between Smith St and 3rd Ave, removes all left turns off of Schermerhorn St, eliminating the largest source of pedestrian injuries
- A one-way street can improve traffic flow on Schermerhorn St while Protected Bike Lanes provide traffic calming, roadway organization and improve cyclist connections and safety
- One-way conversion allows for the installation of Leading Pedestrian Intervals for pedestrians walking along Schermerhorn St (usable by bikes), improving safety and mobility



Similar design implemented on Shore Parkway, BK

Proposed Design

Boerum Pl & Smith St

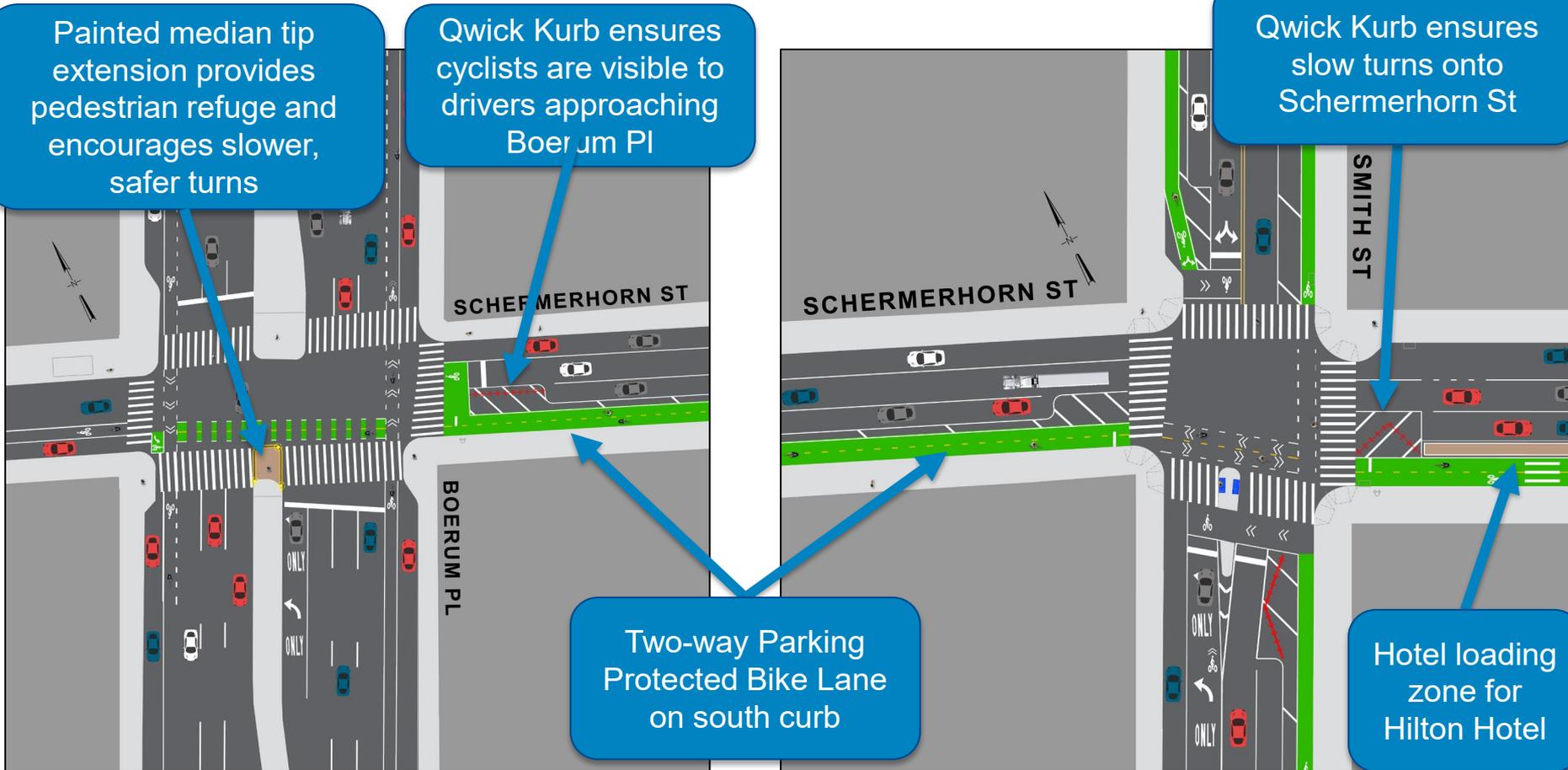


A Qwick Kurb
Protected Bike Lane,
Crescent St, Queens

Painted median tip extension provides pedestrian refuge and encourages slower, safer turns

Qwick Kurb ensures cyclists are visible to drivers approaching Boerum Pl

Qwick Kurb ensures slow turns onto Schermerhorn St

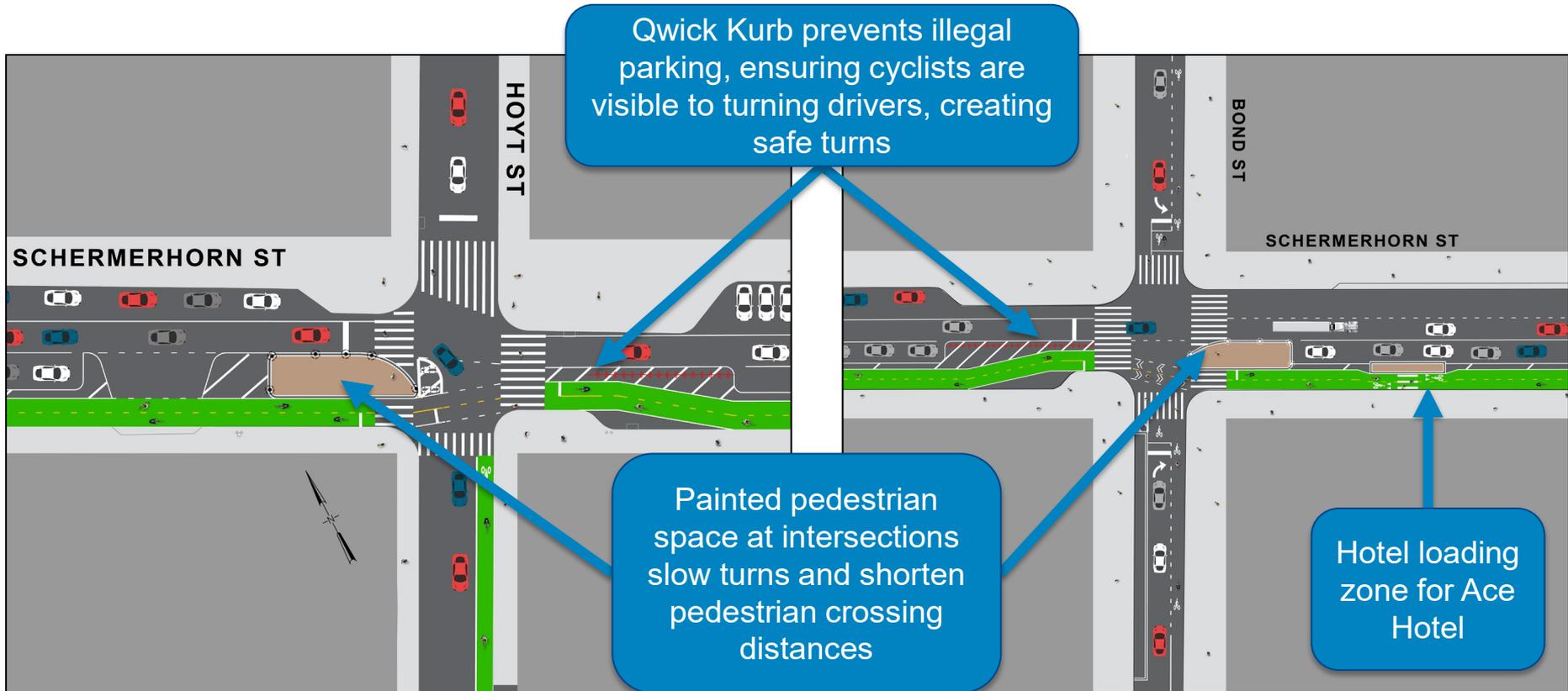


Two-way Parking
Protected Bike Lane
on south curb

Hotel loading
zone for
Hilton Hotel

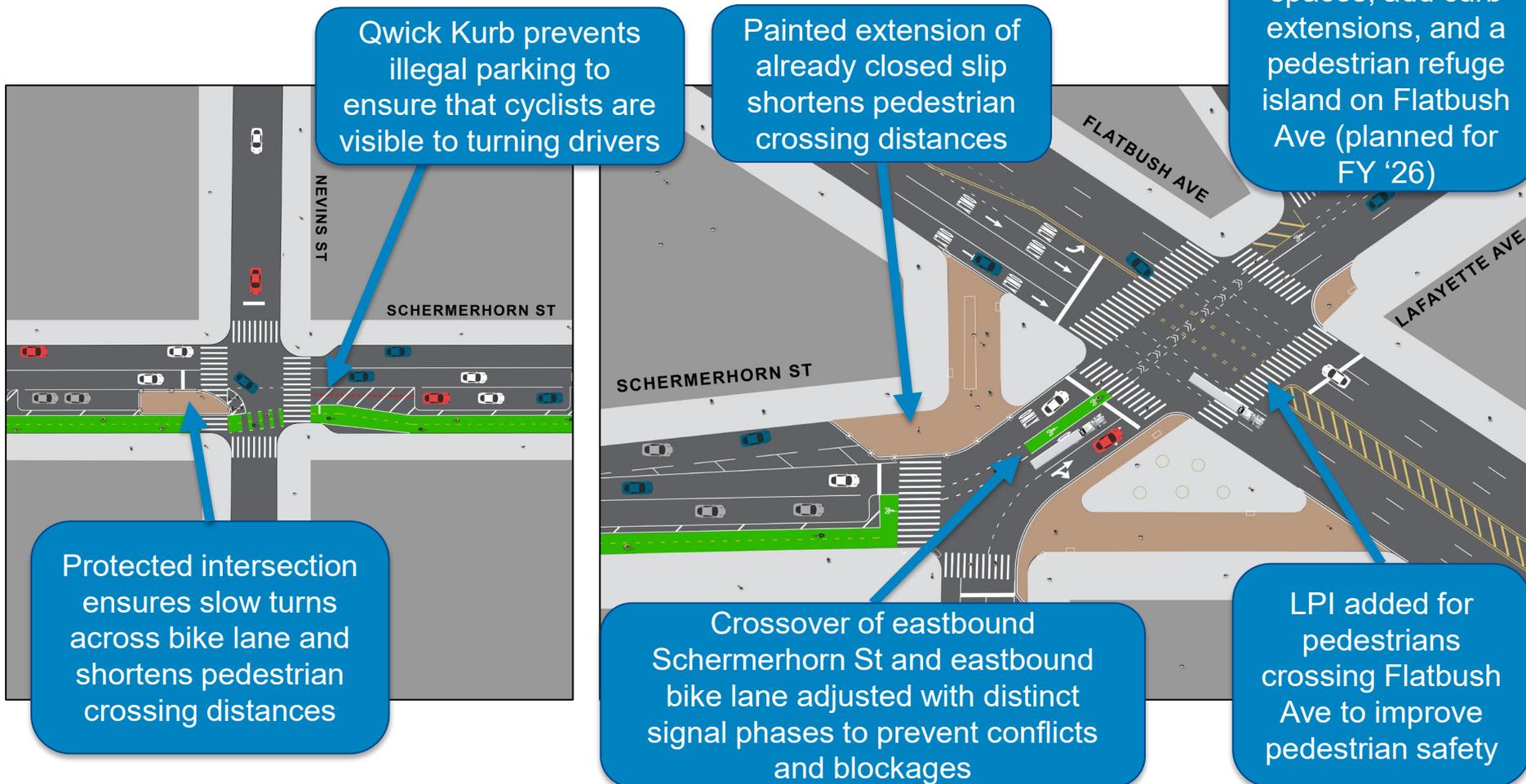
Proposed Design

Hoyt St and Bond St



Proposed Design

Nevins St and 3rd Ave/Lafayette Ave



Safety Benefits of Protected Bike Lanes

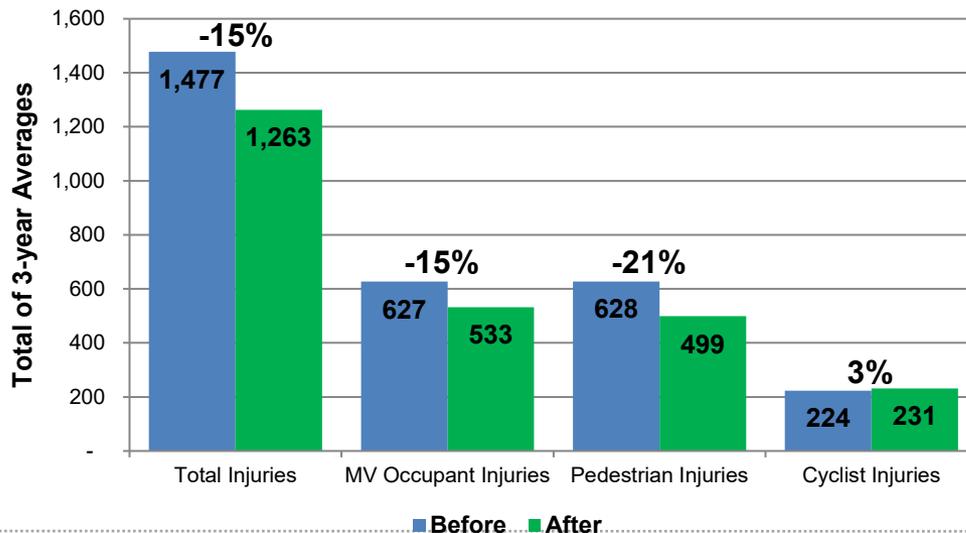
Street designs that include Protected Bike Lanes increase safety for all users

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

- 15%** decrease in all crashes with injuries
- 15%** decrease in motor vehicle occupant injuries
- 21%** decrease in pedestrian injuries

Protected Bike Lanes

Before and After Crash Data, 2007 - 2017



Protected Bike Lanes on Jay St, BK

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

Additional Considerations

- Commercial activity
 - Merchant survey completed in Fall 2021 identified commercial loading zone needs along the corridor
- Parking loss: 15-20 spots repurposed for intersection safety treatments and driveway clearance
 - Parking removed for daylighting to ensure cyclist visibility and to permit turns onto and off of Schermerhorn St
 - All agencies with authorized parking expected to maintain their current allocation
- Truck Route
 - Additional truck route signage to be added to direct westbound trucks to Atlantic Ave
- Hotel pick up and drop off
 - Design includes painted pedestrian area and crosswalks across bike lane for hotel loading zones located along the south curb
- Roadway Conditions
 - DOT plans to resurface Schermerhorn St before implementing project due to deteriorating roadway condition



Hotel Loading Zone, E 55 St, Manhattan



Poor roadway condition, Schermerhorn St

Summary

- Protected Bike Lane improves safety and operations on one of the most heavily used bike connections in Brooklyn
- Pedestrian space reduces crossing distances and creates slower vehicle turns, directly addresses the cause of the majority of pedestrian injuries on the corridor
- One-way conversion reduces head-on conflicts, sideswipes and causes of vehicle injuries while preserving neighborhood circulation and eliminating left turns that cause pedestrian injuries
- Project aligns with citywide and agency-wide goals of expanding Protected Bike Lane network and providing additional pedestrian space



Cyclists ride on Schermerhorn St

Thank You!



NYCDOT



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NYCDOT

Rerouted Westbound Vehicles

- All vehicles currently using Schermerhorn St westbound can be rerouted via network of Livingston St, Smith St, Atlantic Ave, and 3rd Ave/Flatbush Ave
- Peak volumes are 204 westbound vehicles during the PM rush hour
- Rerouted volumes add less than 100 vehicles to Livingston St and less than 150 to Atlantic Ave
- Signal timing adjustments within the Downtown Brooklyn network will ensure that impacts to travel time on these streets will be minimal

Westbound Destinations

Rerouted Turning Movements Example – Southeast Origins, One-Way Eastbound Option

