



Bedford - Stuyvesant Bike Network Expansion

Presented to Community Board 8

April 25, 2023

Background

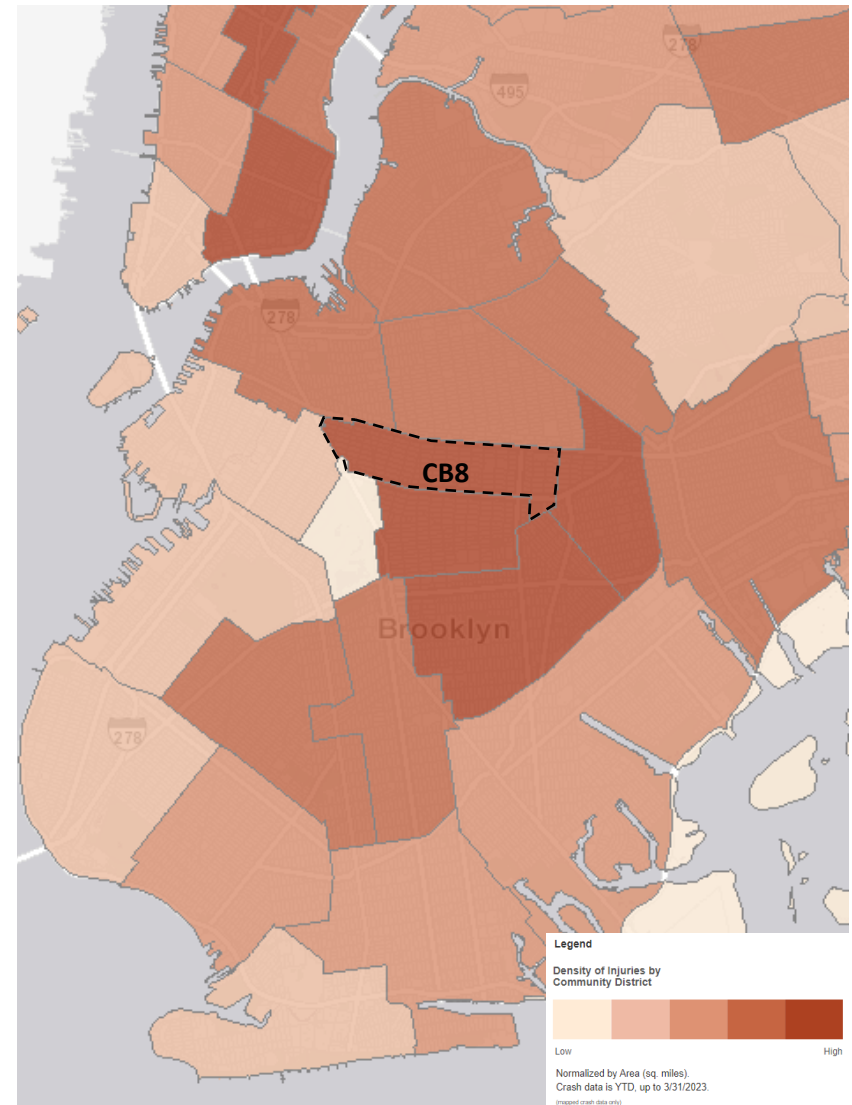


Background

Safer Cycling

- 2017 NYC DOT bike safety study found that the **vast majority of cyclist fatalities occur on streets without bicycle facilities**
 - 89% of cyclist fatalities occurred on streets without a bicycle facility (2006-2016 crash data)
- **Community Board 8 (CB 8)** has 38 miles of Vision Zero (VZ) Priority Zones, 11 miles of VZ Priority Corridors, and 11 VZ Priority Intersections, including Bedford Ave and Atlantic Ave.
- **296** people were Killed or Seriously Injured (KSI) in 5-year period (2016-2020) in CB 8.

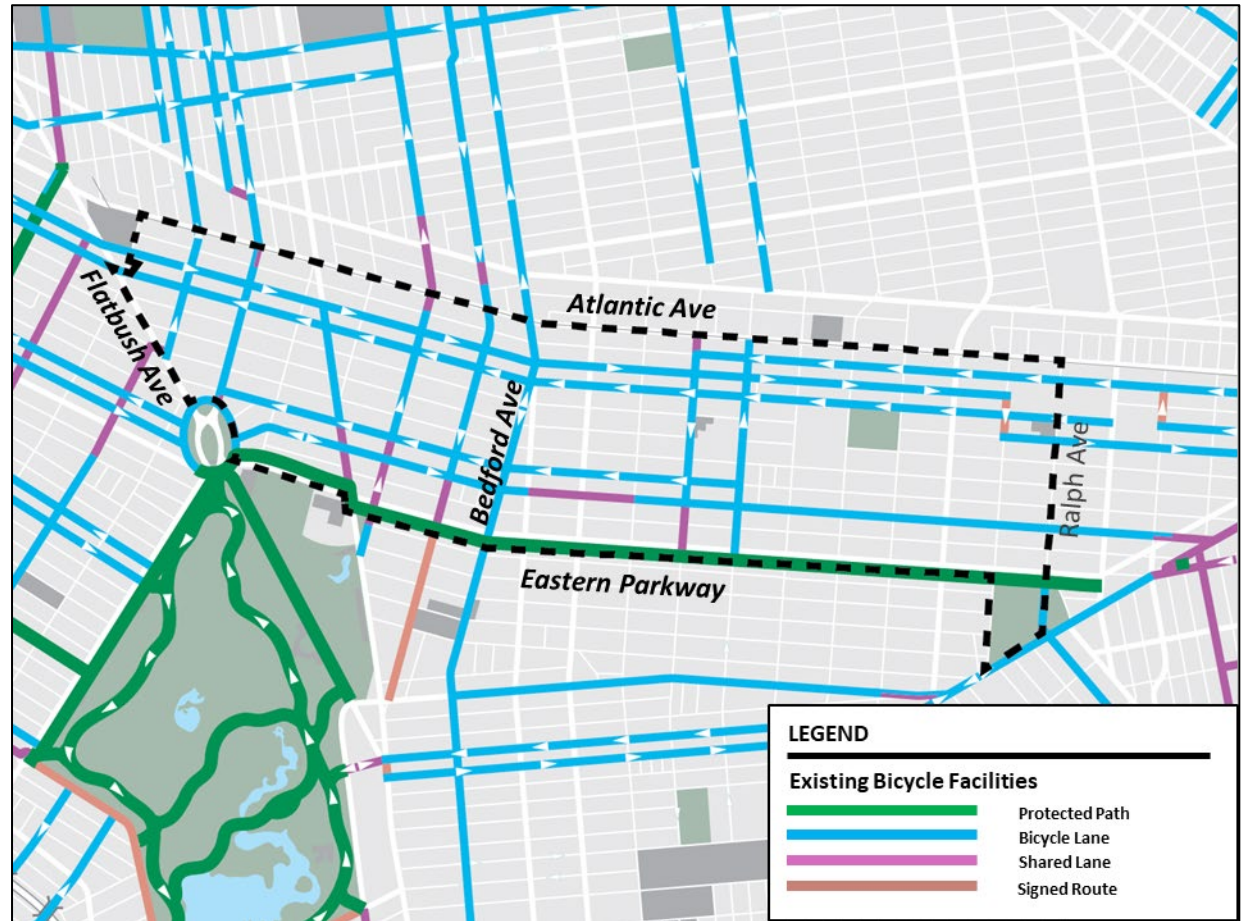
Density of Injuries by Community District



Background

Existing CB 8 Bicycle Network

- Mostly standard bike lanes
- Lack of protected bike lanes within district
- Within Citi Bike service area



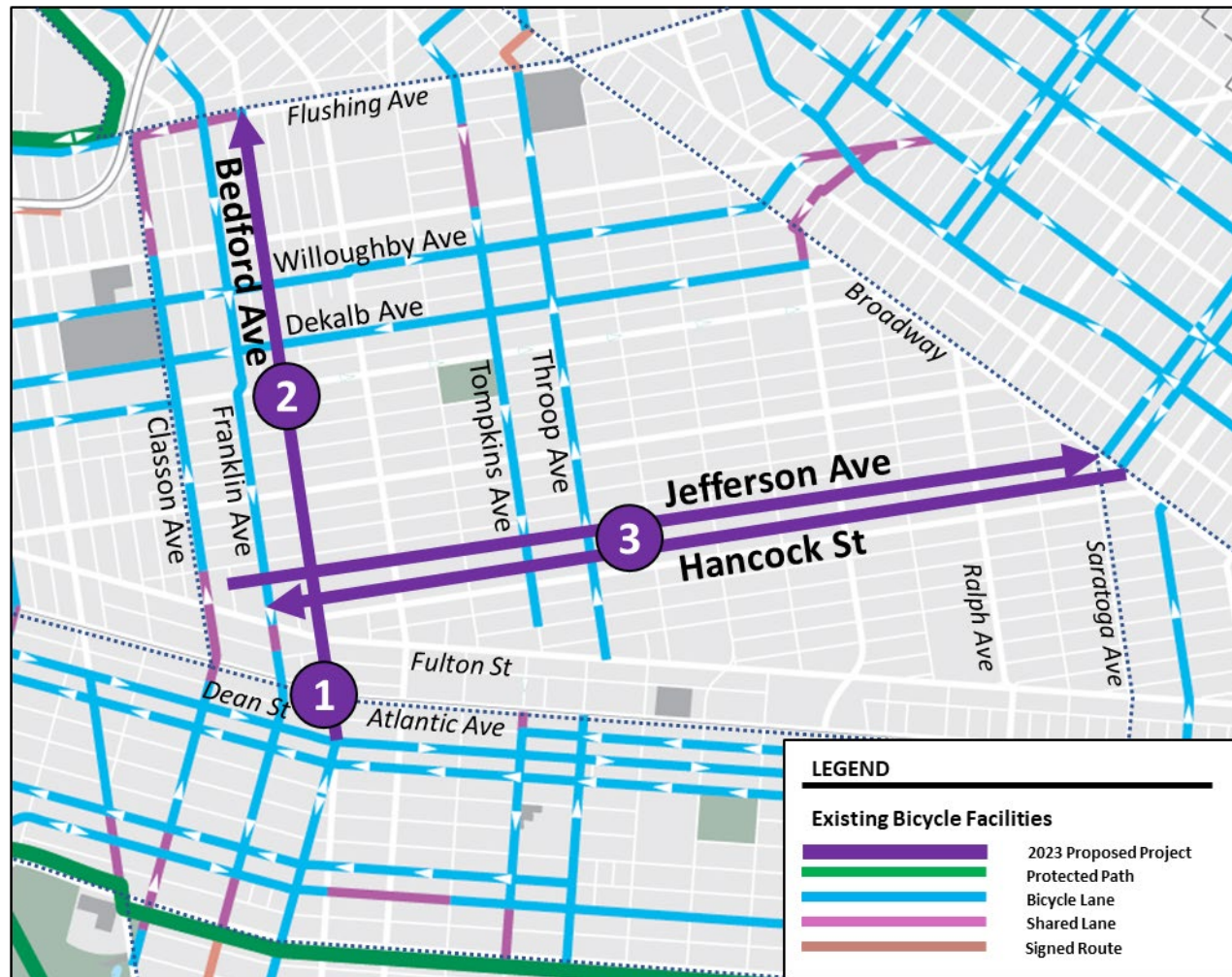
2023 Project Proposals

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Proposal Overview

Bedford Ave, Jefferson Ave, Hancock St

- 1 Upgrade** Bedford Ave conventional bike lane **to a Protected Bike Lane** between Dean St and Atlantic Ave
- 2 Upgrade** Bedford Ave buffered conventional bike lane **to a Protected Bike Lane** between Atlantic Ave and Flushing Ave
- 3 Install new conventional bike lanes:**
 - Jefferson Ave, Claver Pl to Broadway
 - Hancock St, Broadway to Franklin Ave



1 & 2 Bedford Ave

Existing Conditions

- Frequent double-parking in bike lane
- High left-turn and merge conflicts from Dean St to Atlantic Ave
- Highly used critical bike network connection between Jamaica Bay and East River waterfront bike paths



1 & 2 Bedford Ave

Existing Conditions

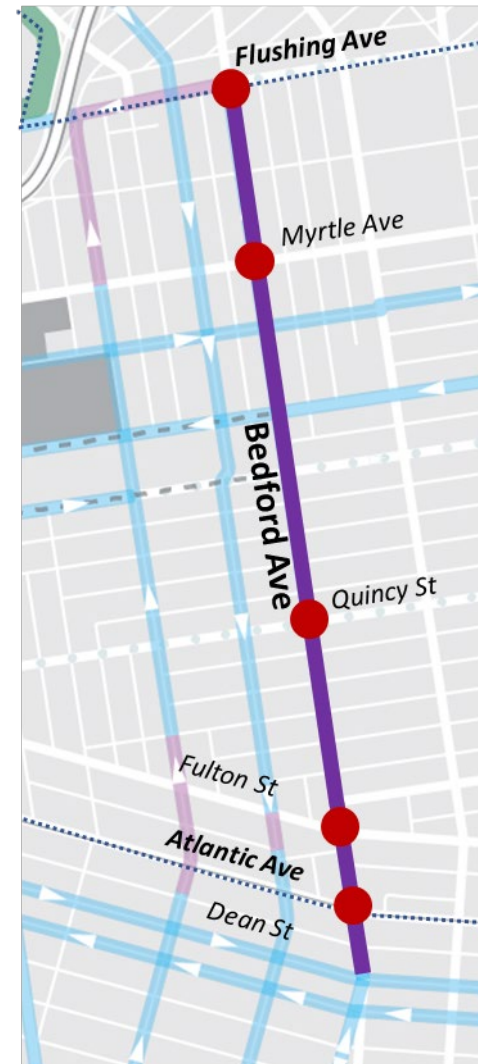
- Vision Zero Priority Corridor with 29 people killed or seriously injured over a five-year period (2016-2020).
- **5 pedestrian fatalities** in 2021 and 2022

Bedford Ave (Dean St – Flushing Ave)

Injury Summary, 2016-2020 (5 years)

	Total Injuries	Severe Injuries	Fatalities	KSI
Pedestrian	71	7	0	7
Bicyclists	84	11	0	11
Motor Vehicle Occupant	486	11	0	11
Total	641	29	0	29

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



● Pedestrian fatality

Design Elements of Protected Bike Lanes

Protected bike lanes provide dedicated space for cyclists

Standard width travel lanes discourage speeding

Painted pedestrian islands reduces crossing distances, improves visibility



Safety Benefits of Protected Bike Lanes

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

-15% drop in all crashes with injuries

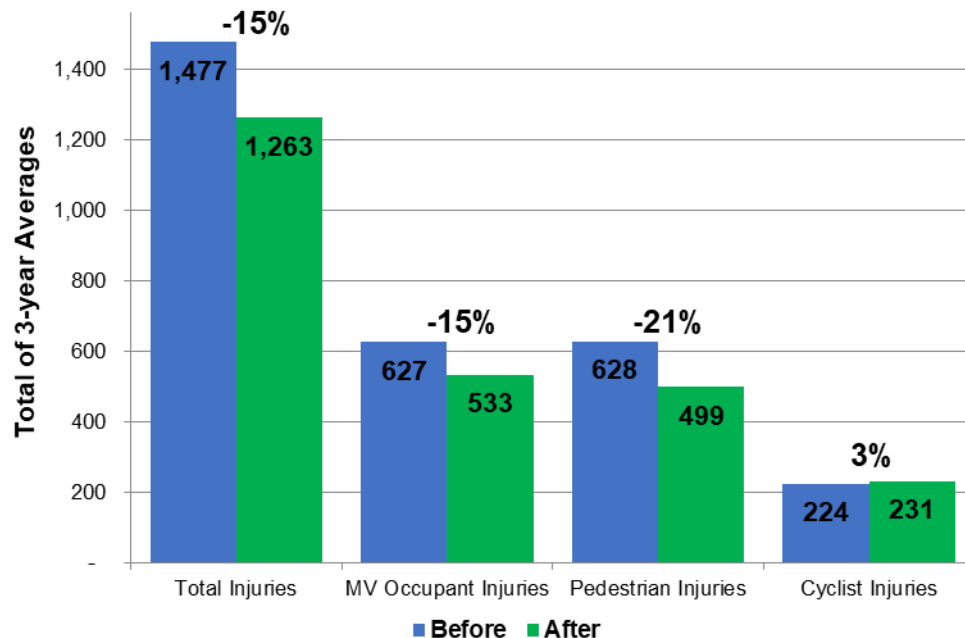
-21% drop in pedestrian injuries

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

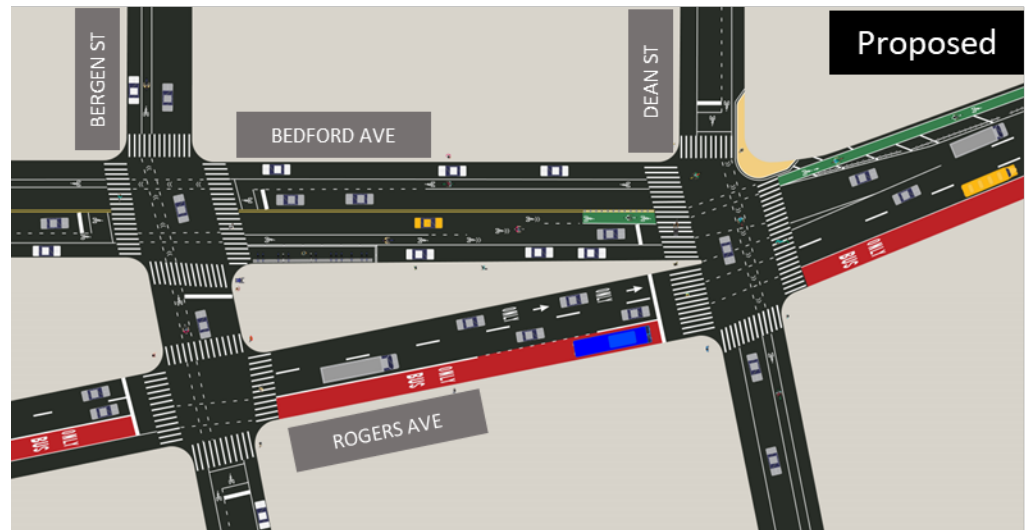
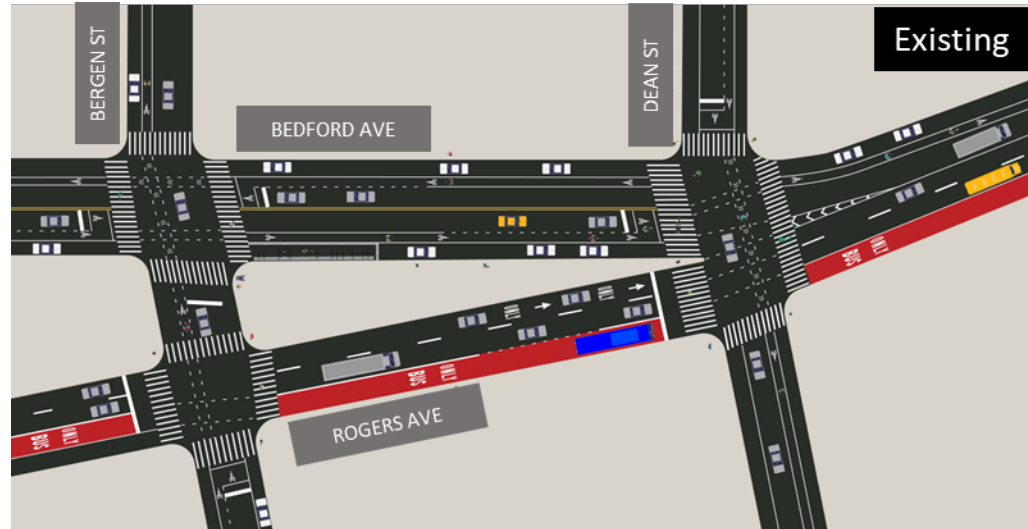


Data from 25 separate protected bicycle lane projects installed from 2007-2014 with 3 years of after data. Includes portions of 1 Ave, 2 Ave, 8 Ave, 9 Ave, Broadway, Columbus Ave, Hudson St, Lafayette St / 4 Ave, Sands St, Allen/Pike St, Kent Ave, Prospect Park West, Flushing Ave, Bruckner Blvd & Longfellow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

1 Bedford Av, Dean St to Atlantic Ave

Proposed Intersection Improvements at Dean St

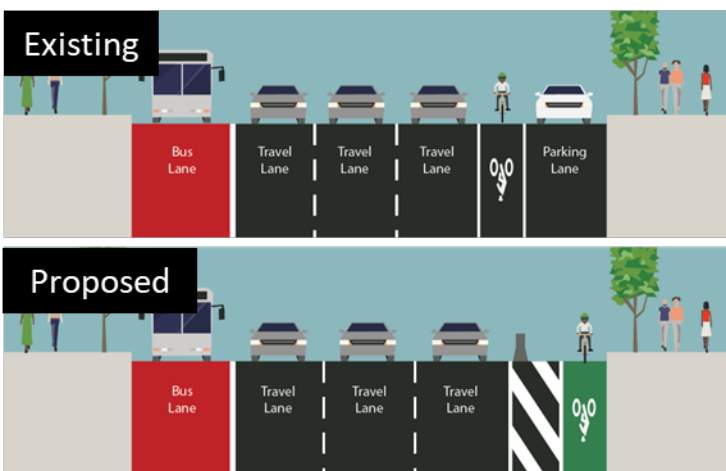
- Begin shifting bikes left of cars mid-block to reduce conflicts at the intersection
- **Add painted curb extension to NE corner at Dean St** to help cyclists transition to protected bike lane where Bedford Ave and Rogers Ave merge



1 Bedford Ave, Dean St to Atlantic Ave

Dean St to Pacific St

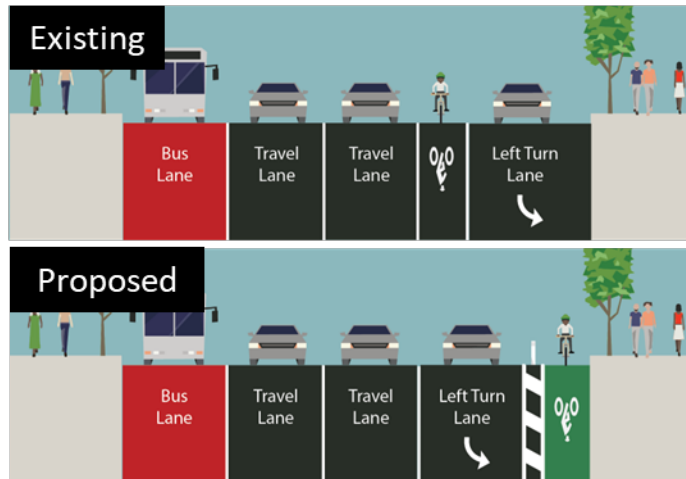
- **Upgrade** conventional bike lane to a **barrier protected bike lane**, separates people on bicycles from moving vehicles
- Removes 8 alternate side parking spots between Dean St and Pacific St



1 Bedford Ave, Dean St to Atlantic Ave

Pacific St to Atlantic Ave

- Brings floating bike lane curbside for entire block to reduce conflict with vehicles merging into left-turn lane



1 Bedford Ave, Dean St to Atlantic Ave

Proposed Intersection Improvements at Atlantic Ave

Existing Conditions:

- Vision Zero Priority Intersection
 - 7 pedestrians and cyclists severely injured (2016-2020)
 - 1 pedestrian fatality (2021)
- 100'+ western crosswalk
- Heavy vehicular turn from Bedford Ave onto westbound Atlantic Ave

Proposal:

- Northbound left delayed turn to give pedestrians and cyclists a head start
- Build out concrete median into the west crosswalk to slow turns and provide refuge for pedestrians
- Install left turn traffic calming to slow turning vehicles
- Maintain all travel lanes



Existing

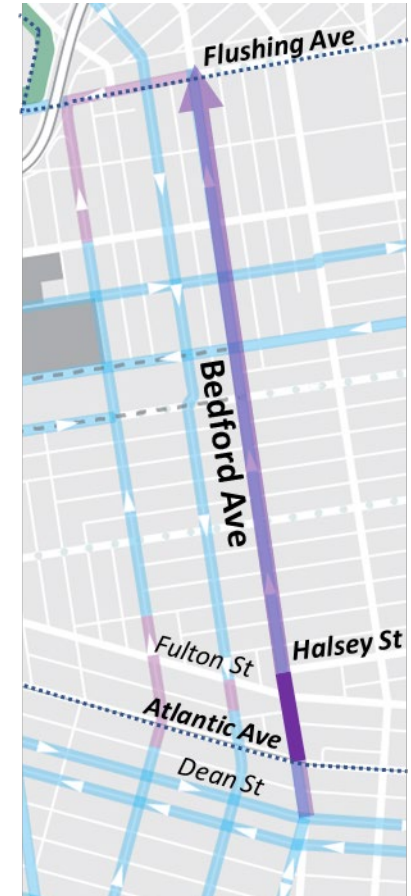
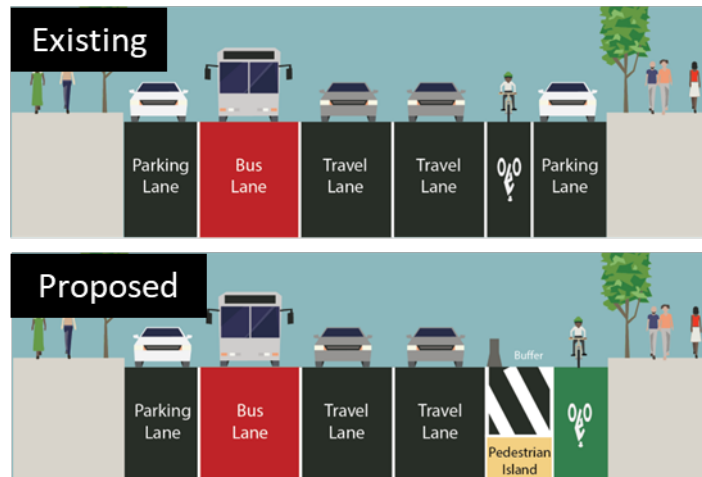


*Concrete Median with Left-turn Traffic Calming
Adam Clayton Powell Jr. Blvd, MN*

2 Bedford Ave, Atlantic to Flushing Ave

Atlantic Ave to Halsey St

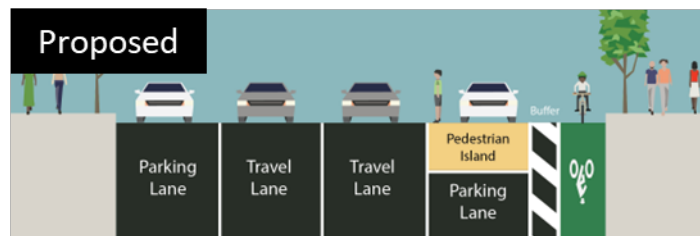
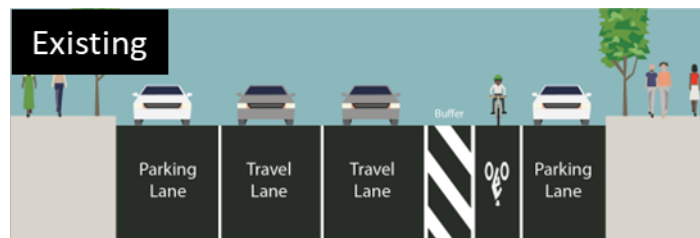
- **Upgrade** conventional bike lane to a **barrier protected bike lane**, separates people on bicycles from moving vehicles
- **Install painted pedestrian islands**, shortens crossing distances, and boost visibility
- **Design reduces vehicular speeds** by narrowing the roadway, increasing safety for all road users



2 Bedford Ave, Atlantic to Flushing Ave

Halsey St to Flushing Ave

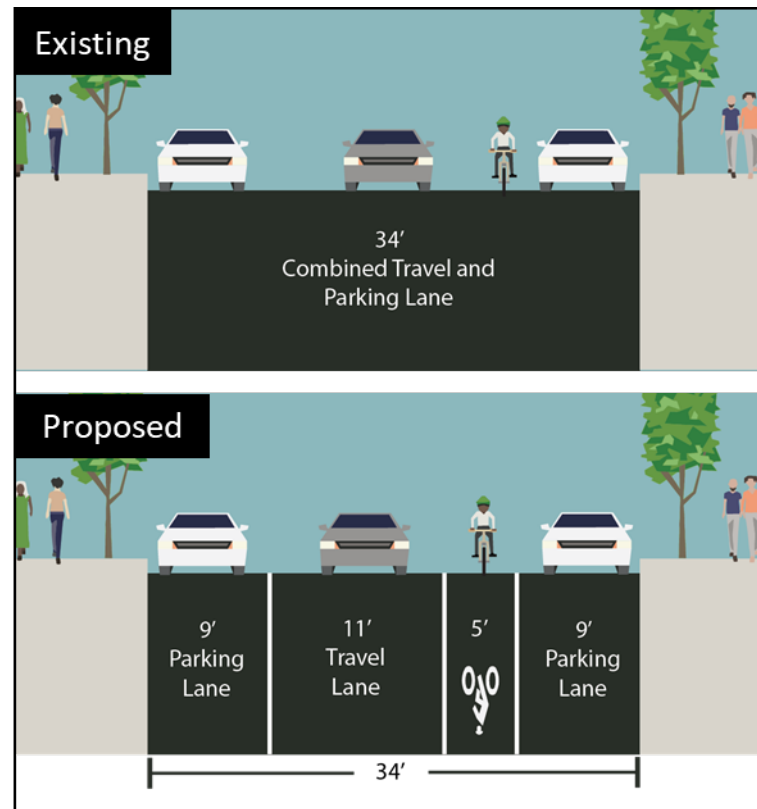
- **Upgrade** conventional bike lane to a **parking protected bike lane**, separates people on bicycles from moving vehicles
- **Install painted pedestrian islands**, shortens crossing distances, and boost visibility
- **Design reduces vehicular speeding** by narrowing the roadway, increasing safety for all road users



3 Jefferson Ave and Hancock St

Proposed Conventional Bike Lanes

- Install conventional bike lanes on Jefferson Ave (Claver Pl to Broadway) and Hancock St (Broadway to Franklin Ave)
- Connects Franklin Ave and Bedford Ave bike lanes to existing Jefferson Ave and Hancock St bike lanes in Bushwick
- Reduces gap in east-west bike routes between Dekalb Ave and Pacific St
- Conventional bike lanes shown to result in 32% reduction in cyclist risk of injury*
- No parking loss or travel lane loss



*Source: *Safe Streets for Cycling: How Street Design Affects Bicycle Safety and Ridership*, October 2021.

Summary & Next Steps

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Proposal Overview

Benefits of Proposed Upgrades

- Improved safety for **all** road users (Vision Zero priority area)
- No travel lanes/ capacity lost
- Adds E/W connections with standard lanes on Jefferson Ave and Hancock St
- Protects bike lanes on Bedford Ave, a Vision Zero Priority Corridor with a high ratio of persons killed or severely injured per mile (top 10% in BK)
- Addresses high left-turn and merge conflicts from Dean St to Atlantic Ave



Thank You!

Questions?



NYCDOT



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NYCDOT

Bedford Ave

Injury Summary

CB8: Bedford Ave (Dean St – Atlantic Ave)

Injury Summary, 2016-2020 (5 years)

	Total Injuries	Severe Injuries	Fatalities	KSI
Pedestrian	18	4	0	4
Bicyclists	24	4	0	4
Motor Vehicle Occupant	102	2	0	2
Total	144	10	0	10

CB3: Bedford Ave (Atlantic Ave to Flushing Ave)

Injury Summary, 2016-2020 (5 years)

	Total Injuries	Severe Injuries	Fatalities	KSI
Pedestrian	63	6	0	6
Bicyclists	75	11	0	11
Motor Vehicle Occupant	453	10	0	10
Total	591	27	0	27



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