



# Bedford - Stuyvesant Bike Network Expansion

Presented to Community Board 3

April 27, 2023

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## Background

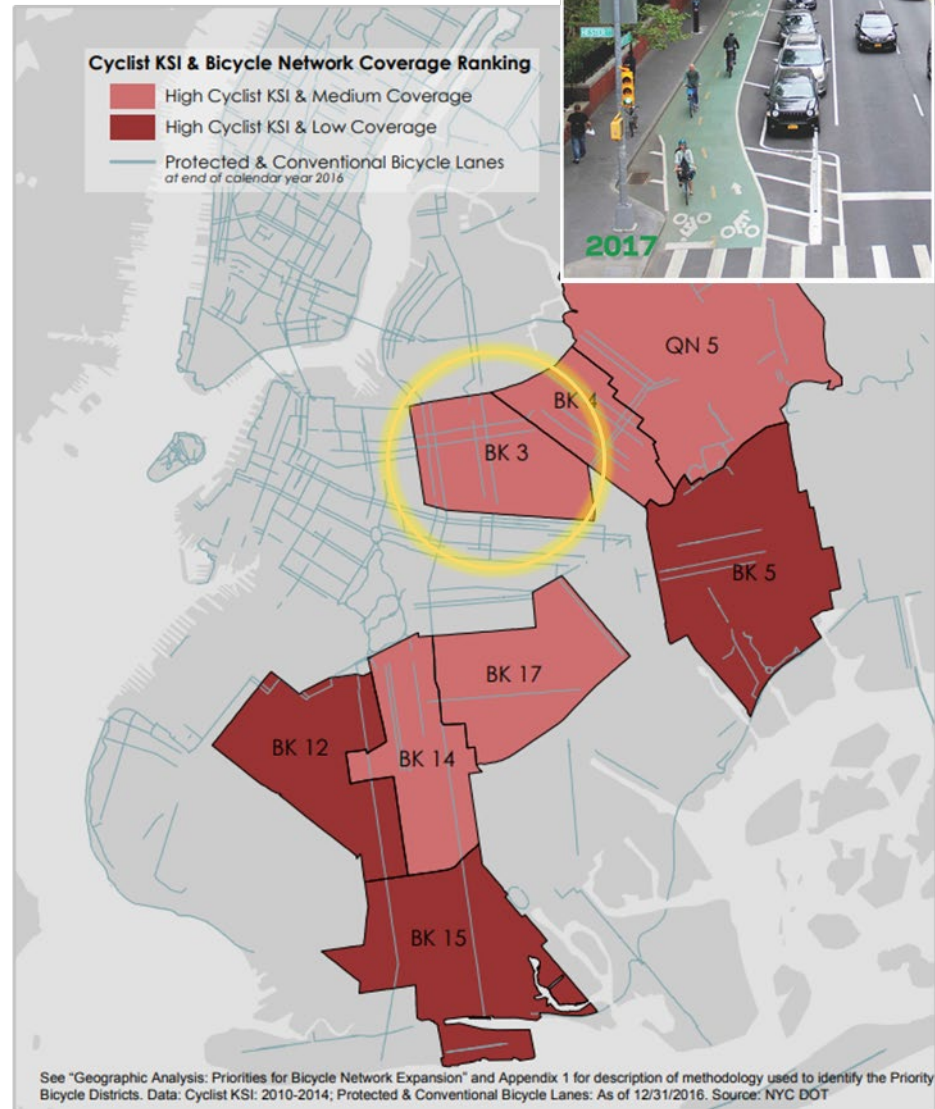


# Background

## 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 3 (CB 3)** identified as **Priority Bicycle District** due to high number of bicyclists Killed or Seriously Injured (KSI) and medium bicycle network coverage
- **93 cyclists** were Killed or Seriously Injured (KSI) in 5-year period (2016-2020) in CB 3.

### Bicycle Priority Districts





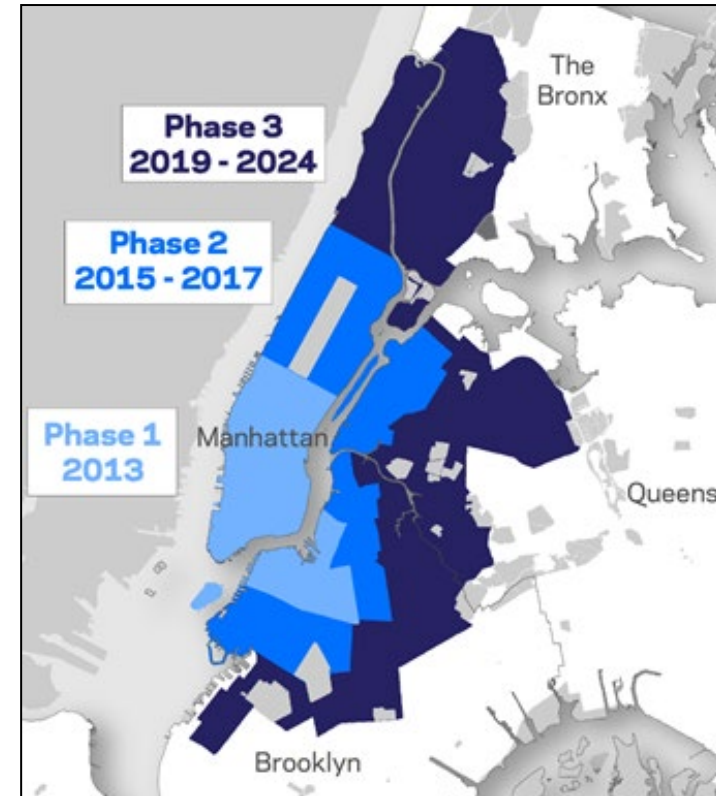
# Background

## Bike Share

- CB 3 included in Phase 1 and 2 Citi Bike service area (2013-2017)
- **Phase 3 expansion** in remainder of CB 3 completed in 2022.
- 2015 grant-funded **Better Bike Share Partnership with Bedford Stuyvesant Restoration Corporation** formed to address lower ridership rates.
  - Resulted in a significant increase in Citi Bike rides and memberships\*
- **Cycling in Numbers**
  - **15%** of New Yorkers use bike share (Mobility Survey, 2018)
  - BK CB3 is home to **over 4,000 Citi Bike members**
  - In 2022, **494,000 trips started** from stations within CB 3.

\*Source: Bringing Equitable Bike Share to Bed-Stuy, Bedford Stuyvesant Restoration Corporation and NACTO, March 2017

## Citi Bike Service Area



# Background

## Deep Dive

- In 2018, **NYC DOT** representatives spent five months in Community Board 3 (CB 3) and **spoke to over 800 people** about local transportation issues.
- **Speeding vehicles** was top safety concern shared among pedestrians, cyclists, and drivers.

## Requests for Bike Infrastructure

- **Request from CM Ossé and support from other elected officials** for an upgrade of Bedford Ave bike lane to a protected bike lane
- **Requests from the public** for additional bike lanes in CB 3 and safety improvements along Bedford Ave bike lane





# Background

## Existing CB 3 Bicycle Network

- No protected bike lanes within district
- Lack of east-west routes
- Bicycle Priority District
- Within Citi Bike service area



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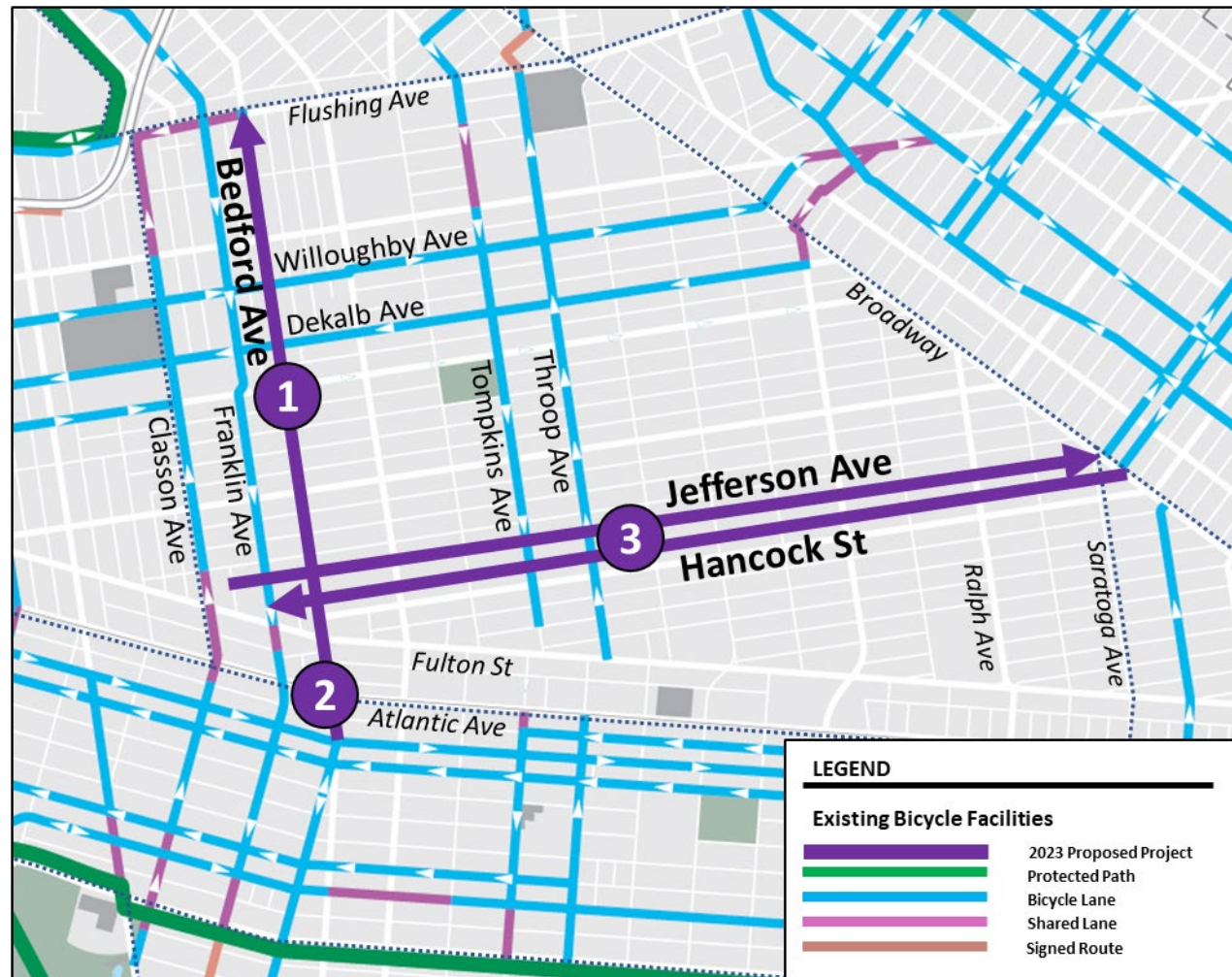
## 2023 Project Proposals

# 2

# Proposal Overview

## Bedford Ave, Jefferson Ave, Hancock St

- 1 Upgrade** Bedford Ave buffered conventional bike lane **to a Protected Bike Lane** between Atlantic Ave and Flushing Ave
- 2 Upgrade** Bedford Ave conventional bike lane **to a Protected Bike Lane** between Dean St and Atlantic 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 buffered 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

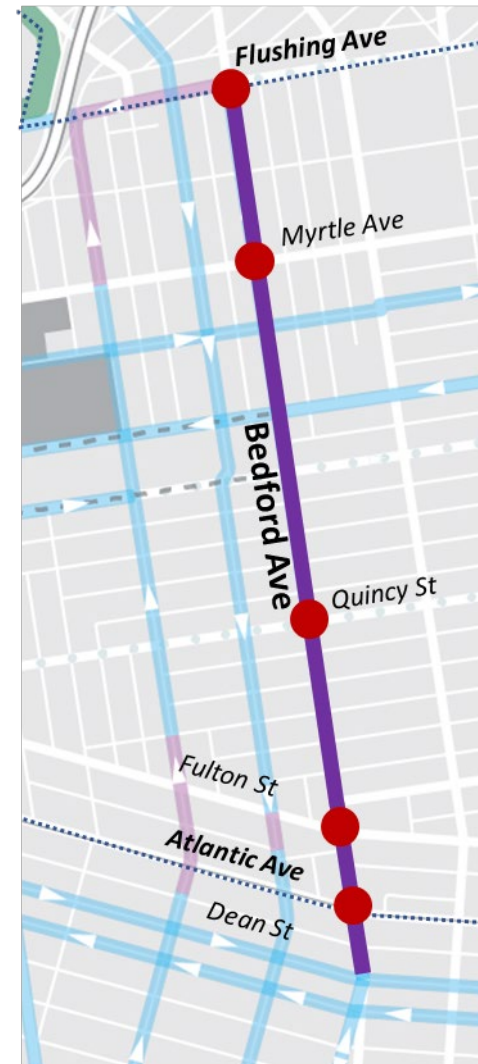
- Vision Zero Priority Corridor with 29 people killed or seriously injured over a five-year period (2016-2020).
- **5 pedestrian fatalities** in 2021 and 2022

### 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 reduce crossing distances, improve 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

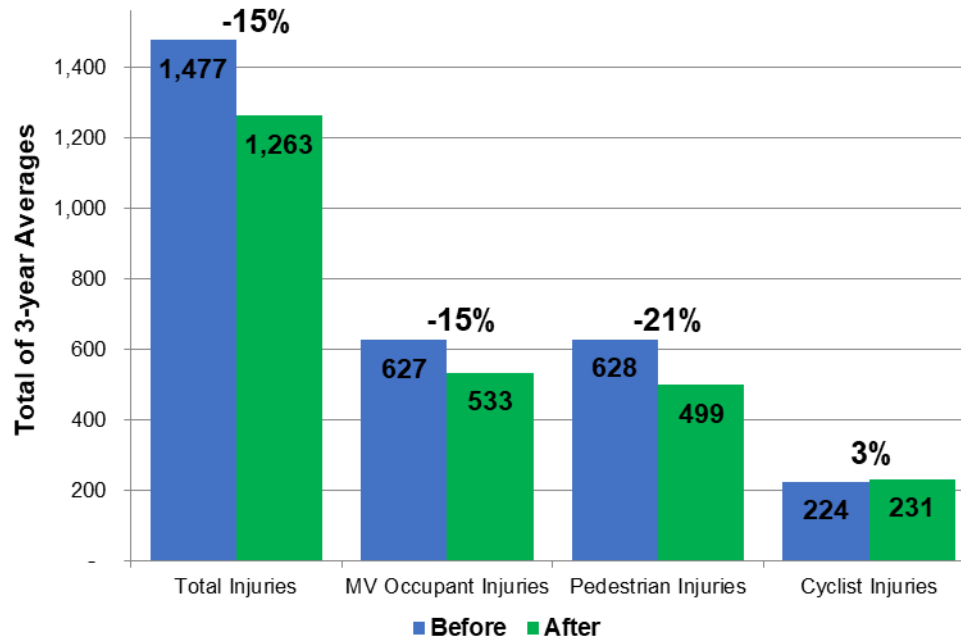
**-21%** drop in pedestrian injuries

*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*

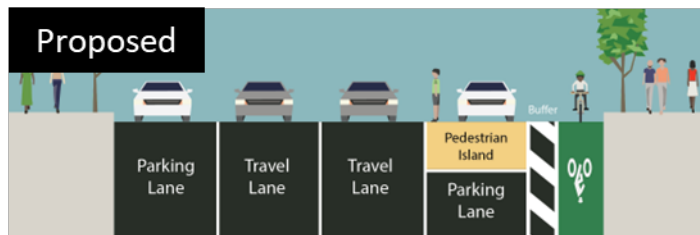
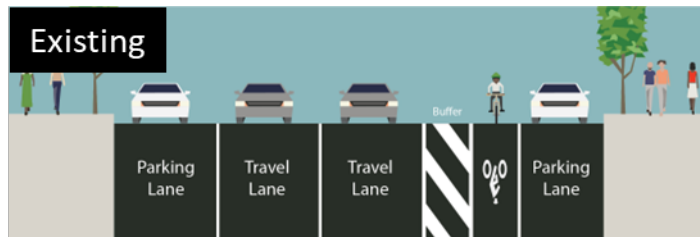


Data from 25 separate protected bicycle lane projects installed from 2007-2014 with 3 years of after data. Includes portions of 1 Ave, 2 Ave, 8 Ave, 9 Ave, Broadway, Columbus Ave, Hudson St, Lafayette St / 4 Ave, Sands St, Allen/Pike St, Kent Ave, Prospect Park West, Flushing Ave, Bruckner Blvd & Longfellow 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 Ave, Atlantic to Flushing Ave

## Halsey St to Flushing Ave

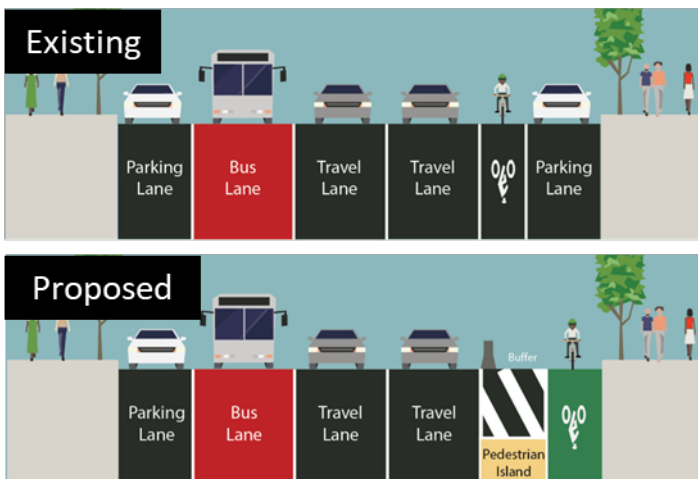
- **Upgrade** conventional bike lane to a **parking protected bike lane**, separates people on bicycles from moving vehicles
- **Install painted pedestrian islands**, shortens crossing distances, and boost visibility
- **Design reduces vehicular speeding** by narrowing the roadway, increasing safety for all road users
- Removes on average 1 parking space per block between Flushing Ave and Halsey St to improve visibility at intersections



# 1 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
- Removes 16 parking spaces on west curb between Atlantic Ave and Halsey St (various regulations)
- No changes to travel lanes and bus lane





## 2 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*

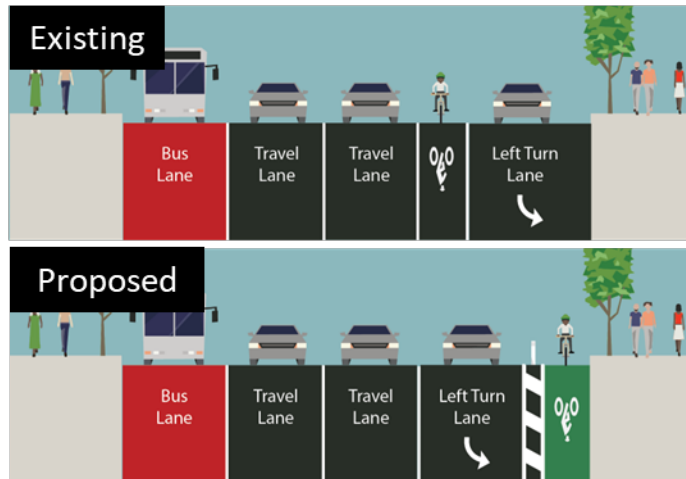


*Concrete Median with Left-turn Traffic Calming  
Adam Clayton Powell Jr. Blvd, MN*

## 2 Bedford Ave, Dean St to Atlantic Ave

### Pacific St to Atlantic Ave

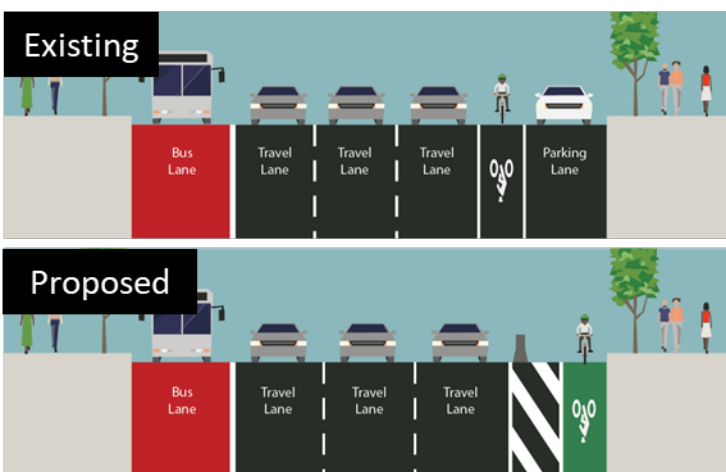
- Brings floating bike lane curbside for entire block to reduce conflict with vehicles merging into left-turn lane



## 2 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

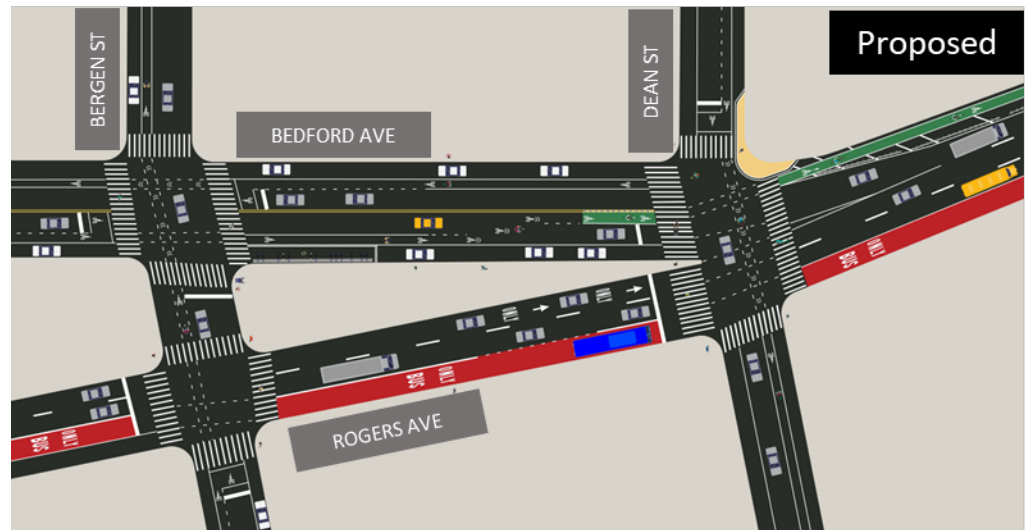
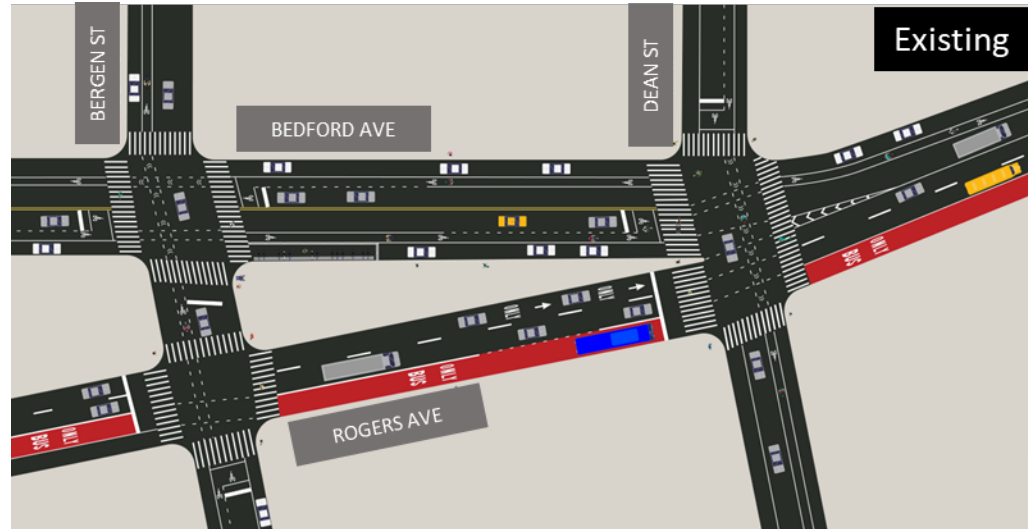




## 2 Bedford Av, Dean St to Atlantic Ave

### Proposed Intersection Improvements at Dean St

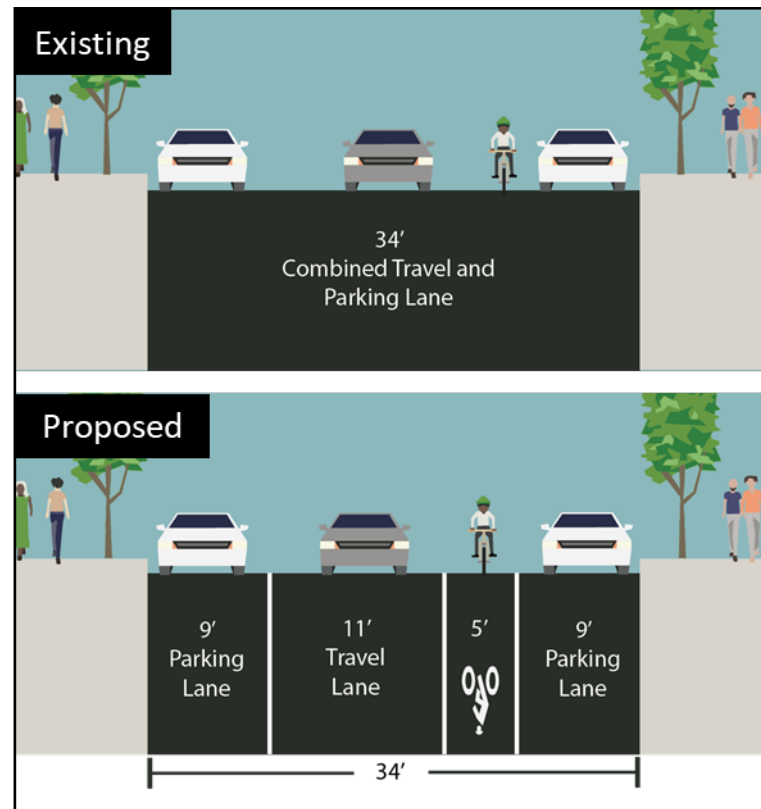
- Begin shifting bikes left of cars mid-block to reduce conflicts at the intersection
- **Add painted curb extension to NE corner at Dean St** to help cyclists transition to protected bike lane where Bedford Ave and Rogers Ave merge



# 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.

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## Summary & Next Steps

3



# Proposal Overview

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# Proposal Overview

## Benefits of Proposed Upgrades

- Improved safety for **all** road users in CB3 (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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