Bedford - Stuyvesant Bike Network Expansion

Presented to Community Board 3

April 27, 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 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.
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-Study, Bedford Stuyvesant Restoration Corporation and NACTO, March 2017
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
2023 Project Proposals
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
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
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)

<table>
<thead>
<tr>
<th></th>
<th>Total Injuries</th>
<th>Severe Injuries</th>
<th>Fatalities</th>
<th>KSI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pedestrian</td>
<td>71</td>
<td>7</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>Bicyclists</td>
<td>84</td>
<td>11</td>
<td>0</td>
<td>11</td>
</tr>
<tr>
<td>Motor Vehicle Occupant</td>
<td>486</td>
<td>11</td>
<td>0</td>
<td>11</td>
</tr>
<tr>
<td>Total</td>
<td>641</td>
<td>29</td>
<td>0</td>
<td>29</td>
</tr>
</tbody>
</table>

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
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
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

Existing

![Existing street view](image)

Proposed

![Proposed street view](image)

nyc.gov/dot
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

Summary & Next Steps
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
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?