RALPH AVE, BAINBRIDGE ST, PATCHEN AVE

School Safety Improvements

Presentation for CB 3 | June 4, 2018
Vision Zero
• Multi-agency effort to reduce traffic injuries and fatalities in NYC
• Borough Action Plans released in 2015
• Priority Intersections, Corridors, and Areas identified for each borough

Ralph Ave, Bainbridge St, Patchen Ave
• Ralph Ave is a Vision Zero Priority Corridor
• Ralph Ave, Bainbridge St, and Patchen Ave are located in a Priority Area
Background

School Safety

- PS 40, CB 3, and 81st Precinct requested traffic calming and pedestrian safety improvements on Ralph Ave

- Vision Zero Priority Area

- High pedestrian volumes
Background

Safety Data

- Ralph Ave, Bainbridge St, and Patchen Ave project area is a High Crash Corridor with 8.7 killed or severely injured per mile, ranking in the top third of Brooklyn corridors.

- 50% of known pedestrian crashes occurred at uncontrolled intersections or midblock.

Injury Summary (2012 – 2016)

<table>
<thead>
<tr>
<th></th>
<th>Total Injuries</th>
<th>Severe Injuries</th>
<th>Fatalities</th>
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<tbody>
<tr>
<td>Pedestrian</td>
<td>37</td>
<td>2</td>
<td>0</td>
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<tr>
<td>Bicyclist</td>
<td>14</td>
<td>3</td>
<td>0</td>
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<tr>
<td>Motor Vehicle Occupant</td>
<td>63</td>
<td>1</td>
<td>0</td>
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<tr>
<td>TOTAL</td>
<td>114</td>
<td>6</td>
<td>0</td>
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</tbody>
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Ralph Ave (Fulton St to Bainbridge St)

Existing: Long crossings and long distances between crossings

Pedestrian desire lines between signalized crossings

Long crossing distances

Unpredictable vehicle movements

Poor pedestrian visibility
Ralph Ave (Fulton St to Bainbridge St)

Existing: Conflict between buses and vehicles using angled parking

- Angled parking makes pulling buses to the curb difficult, creating ADA accessibility issues
- Buses have to wait for parked cars to pull in/out
Ralph Ave (Fulton St to Bainbridge St)

Existing: Inefficient use of angled parking

- Unmarked parking spots are used inefficiently, leaving space between vehicles which could accommodate more parking.
Proposal: Safer, Shorter Pedestrian Crossings

- Painted curb extension at Ralph Ave and Bainbridge to normalize intersection
- New signalized crosswalk at Marion St with pedestrian island and painted curb extension
- New crosswalk for Sumpter St with pedestrian island and painted curb extension (under study)
- Leading Pedestrian Interval across Fulton St at Ralph Ave
- Relocate angled parking from Ralph Ave to Bainbridge St
- Convert angled parking to parallel parking to improve pedestrian visibility and reduce conflicts with bus
- Mark painted median and left turn bays to separate and organize traffic movements
Ralph Ave (Fulton St to Bainbridge St)

Proposal Detail: Safer, Shorter Pedestrian Crossings

**EXISTING**

- West Sidewalk
- 40’ Travel Lane and Angled Parking
- 20’ Travel Lane and Parking
- East Sidewalk

**PROPOSED**

- West Sidewalk
- 12’ Parking Lane
- 8’ Painted Buffer
- 11’ Travel Lane
- 10’ Flush Median, Left Turn Lane, Ped Island
- 11’ Travel Lane
- 9’ Parking Lane
- East Sidewalk

- Convert angled parking to parallel parking to improve pedestrian visibility and reduce conflicts with bus
- Relocate angled parking from Ralph Ave to Bainbridge St
- Mark painted median and left turn bays to separate and organize traffic movements
- Install new crossings and pedestrian islands at Marion St and Sumpter St (under study)

Example: Morningside Ave, Manhattan

Ralph Ave, looking north at MacDougal St
Proposal Detail: Painted Curb Extensions

- Shorten pedestrian crossings
- Control vehicle turns
- Increase pedestrian visibility

Example: St Marks Ave at Classon Ave, Brooklyn

Example: Enhanced crossing with painted curb extensions on 8th St, Manhattan
Bainbridge St (Ralph Ave to Patchen Ave)

Existing: Wide street with low traffic volumes encourages speeding

63% of vehicles over 25 mph speed limit
Max speed: 50 mph
(n=100)

Bainbridge St, looking east at Patchen Ave
Proposal: Convert parallel parking to 90-degree parking

- Relocate angled parking from Ralph Ave to Bainbridge St
- Mark 90-degree parking spaces on Bainbridge St for more efficient use
- Narrow travel lane to discourage speeding and reduce unpredictable vehicle movements
- Remove parking at approach to pathways into Brevoort Houses per FDNY request
Proposal Detail: Convert parallel parking to 90-degree parking

**Bainbridge St (Ralph Ave to Patchen Ave)**

**EXISTING**

- Unmarked Travel Lane and Parking Lanes

**PROPOSED**

- 90 Degree Parking Lane
- 24’ Travel Lane
- 8’ Parking Lane

**EXISTING**

- South Sidewalk
- North Sidewalk

**PROPOSED**

- South Sidewalk
- North Sidewalk

Relocate angled parking from Ralph Ave to Bainbridge St

Mark 90-degree parking spaces on Bainbridge St for more efficient use

Narrow travel lane to discourage speeding and reduce unpredictable vehicle movements

Example: E 112th St, looking towards 2nd Ave, Manhattan

Bainbridge St, looking towards Patchen Ave
Patchen Ave (Bainbridge St to Fulton St)

Existing: Long crossings and wide vehicle turns

- Long crossing distances
- Unpredictable vehicle movements
- Wide roadway with 2 lanes
- Wide vehicle turns
Proposal: Mark roadway to organize traffic

- Remove parking at approach to crosswalks to improve pedestrian visibility
- Mark painted median and left turn bays to separate and organize traffic
- Painted curb extension at Patchen Ave and Bainbridge St to normalize intersection, control vehicle turns, and shorten pedestrian crossings
- Stripe travel lanes to discourage speeding and reduce unpredictable vehicle movements
Proposal Detail: Mark roadway to organize traffic

EXISTING

West Sidewalk

25’ Travel and Parking Lane

25’ Travel and Parking Lane

East Sidewalk

50’

Mark painted median and left turn bays to separate and organize traffic

PROPOSED

West Sidewalk

10’ Parking Lane

10’ Travel Lane

10’ Travel Lane

10’ Parking Lane

East Sidewalk

50’

Example: Lefferts Blvd, Queens

Patchen Ave, looking north at Marion St
Ralph Ave, Bainbridge St, Patchen Ave

Proposal Detail: Parking

• Relocate angled parking from Ralph Ave to Bainbridge St to improve pedestrian safety

• Stripe parking stalls to maximize efficiency

• Calm traffic on Bainbridge St

• Improve pedestrian visibility and bus operations on Ralph Ave

• Up to 8 parking spaces removed to add new crosswalks, shorten pedestrian crossings, improve pedestrian visibility and provide FDNY access to Brevoort Houses

+49 parking spaces on Bainbridge St, south curb
Existing: 38 parallel parking spaces
Proposed: 85 90-degree parking spaces, including 6 spaces removed at approach to pathways into Brevoort Houses per FDNY request

-52 parking spaces on Ralph Ave, west curb
Existing: 83 existing parking spaces
Proposed: 31 parallel parking spaces, including 8 spaces removed for pedestrian crossings at Marion St and Sumpter St

-3 parking spaces on Patchen Ave, east curb:
Remove spaces at approach to crosswalks for pedestrian visibility at Marion St, Chauncey St, and Bainbridge St

-2 parking spaces on Ralph Ave and Sumpter St, southwest corner
Remove parking spaces for FDNY clearance with new pedestrian crossing on Ralph Ave (Pending study of the crosswalk)
THANK YOU!