Hillside and Metropolitan Pedestrian Safety Improvements 2014

Commissioner Polly Trottenberg   New York City Department of Transportation
Presented by the Pedestrian Projects Group on May 27, 2014 to Queens CB9 Transportation Committee
1. Existing Aerial

129 St
130 St
131 St
Metropolitan Ave
Hillside Ave
Crash History

24% of motor vehicle crashes involved left turning vehicles

60% of pedestrian crashes took place when pedestrians are crossing with signal.

<table>
<thead>
<tr>
<th></th>
<th>Total Injuries</th>
<th>Severe Injuries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pedestrian</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Bicyclist</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Motor Vehicle Occupant</td>
<td>38</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>46</td>
<td>3</td>
</tr>
</tbody>
</table>

Metropolitan Ave at Hillside Ave Injury Summary, 2008-2012 (5 years)
Existing Issues

Long Pedestrian Crossings

- 100 ft
- 86 ft
- 114 ft
- 67 ft
Existing Issues

- Long Pedestrian Crossings
- Poor Visibility/Yielding to Peds
Existing Issues

- Long Pedestrian Crossings
- Poor Visibility/Yielding to Peds
- Turn Conflicts Congest Intersection
Existing Issues

- Long Pedestrian Crossings
- Poor Visibility/Yielding to Peds
- Turn Conflicts Congest Intersection
- Difficult to Predict Vehicle Movements
Rapid Response Toolkit

• Signal Timing
• Pavement Markings
• Turn Restrictions
• Concrete Islands & Island Extensions
Proposed Improvements

Concrete neckdowns

Pedestrian safety islands

Concrete neckdown/extension example
Proposed Improvements

Shorter pedestrian crossings

- 78 ft
- 36 ft
- 65 ft
- 34 ft
- 26 ft
- 17 ft
Signal Timing Benefits

Vehicle/vehicle conflicts
Vehicle/pedestrian conflicts

Existing Phase A
Signal Timing Benefits

No vehicle/vehicle conflicts
No vehicle/pedestrian conflicts
Signal Timing Benefits

Existing Phase B

Vehicle/vehicle conflicts
Vehicle/pedestrian conflicts
Signal Timing Benefits

Zero vehicle/vehicle conflicts
Zero vehicle/pedestrian conflicts

Proposed Phase B
Signal Timing Benefits

Proposed Phase C (All Pedestrian Phase)

Zero vehicle/vehicle conflicts
Zero vehicle/pedestrian conflicts
Proposed Improvements

- Eliminates head-on condition on 131st St at Hillside Ave
- 131st St between Metropolitan and Kew Gardens converted to northbound only
- Improves signal coordination
Proposed Improvements

- Turn restrictions at low volume movements
- New LT Bays: e/b 129th St w/b 127th St
- Maintain local access to grocery store
Net parking gain/loss:
-3
2. Existing Aerial

Hillside Ave

PS 54

Hillside Ave Elem School

127 St

126 St
Existing Condition

School crossings
Proposed Improvements

- Pedestrian safety island
- New w/b LT bay
Existing Issues

Long Pedestrian Crossings

- 84 ft
- 104 ft
- 99 ft
- 117 ft
Existing Issues

- Long Pedestrian Crossings
- Poor Visibility/Yielding to Peds
Existing Issues

- Long Pedestrian Crossings
- Poor Visibility/Yielding to Peds
- Pedestrian Desire Lines Not Accommodated
Proposed Improvements

Pedestrian island creates safer crossing

Concrete sidewalk extension improves pedestrian visibility

Concrete extension example
Proposed Improvements

- New pedestrian crossing accommodates direct crossing
- Shorter pedestrian crossings
- Improved alignment of existing crosswalk
Proposed Improvements

- Convert Kew Gardens Rd to e/b only from Hillside Ave to Van Wyck State Rd W
- Network changes
- Removes turning conflict and adds parking to Kew Gardens Rd
Proposed Improvements

Turning restrictions

New LT bay: e/b 136th St
Proposed Improvements

Net parking gain/loss: +7
Proposal Benefits

1. Hillside and Metropolitan
   – Pedestrian islands create safer, shorter crossings
   – Sidewalk extensions shorten crosswalks, improve visibility
   – Improved signal timing provides conflict free ped crossings
   – Network changes remove vehicle-vehicle turning conflicts
   – Reduced congestion resulting from eliminated Metropolitan LT conflicts

2. Hillside and 127th
   – Pedestrian islands create safer, shorter crossings
   – Left turn bay improves turn movement

3. Hillside and Kew Gardens
   – Pedestrian island creates safer, shorter crossings
   – Sidewalk extensions shorten crosswalks, improve visibility
   – Pedestrian desire lines accommodated across Hillside Ave
Proposed changes to the intersection of Hillside/Metropolitan

1. Add two concrete neckdowns to shorten crosswalks
2. Add two concrete pedestrian islands to create safer crossings
3. Improve signal timing to allow for conflict-free crossings and vehicle turns
4. Convert Metropolitan btwn 130 St/131 St to e/b only
5. Convert 130 St btwn Metropolitan and Kew Gardens to n/b only
6. Restrict following LTs:
   1. e/b Metropolitan to s/b 130 St
   2. e/b Hillside to s/b 130 St
   3. w/b Hillside to s/b 130 St
7. Add new turn bays at:
   1. e/b Hillside to n/b 129 St
   2. w/b Hillside to s/b 127 St
8. Add concrete pedestrian island @ Hillside/127th St to create safer crossing

Proposed changes to the intersection of Hillside/Kew Gardens

1. Add concrete pedestrian island to create safer crossing
2. Add two concrete sidewalk extensions to create shorter crossings
3. Convert Kew Gardens Rd btwn Hillside Ave/Van Wyck State Rd to e/b only
4. Restrict following LTs:
   1. e/b Metropolitan to n/b Kew Gardens Rd and 135 St
   2. w/b Hillside to s/b Kew Gardens Rd
5. Add new turn bay at e/b Hillside to n/b 136 St
www.nyc.gov/dot

Thank You