116TH STREET (CB10)

Corridor Safety Improvements

December 2016
Part of safety improvements proposed on 116th St between Lenox Ave and Madison Ave

Busy corridor with residential and commercial land uses and several schools, children’s programs, senior centers, religious institutions nearby

2/3 subway stop at Lenox Ave and nearby 6 subway stop at Lexington Ave

Many buses use 116th St:

- Local buses: M116, M7, M102, M1
- Express buses: BxM6, BxM7, BxM8, BxM9, BxM10, BxM11
VISION ZERO PRIORITY

Manhattan Priority Geographies

Vision Zero

• Multi-agency effort to reduce traffic fatalities in NYC
• Borough Action Plans released in 2015
• Priority Intersections, Corridors, and Areas identified for each borough

• On 116th St:
  • Intersections with Lenox Ave and Madison Ave identified as a Priority Intersections

W 116TH ST & LENOX AVE is a Vision Zero Priority Intersection
SAFETY DATA: PROJECT NEED

W 116th St (Lenox Ave to 5th Ave):
- 8 people severely injured (e.g., traumatic injuries typically requiring ambulance response)
- 21 pedestrians injured at Lenox
- 87 total injuries

<table>
<thead>
<tr>
<th></th>
<th>Total Injuries</th>
<th>Severe Injuries</th>
<th>Fatalities</th>
<th>KSI</th>
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<tbody>
<tr>
<td>Pedestrian</td>
<td>21</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Bicyclist</td>
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<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Motor Vehicle Occupant</td>
<td>16</td>
<td>1</td>
<td>0</td>
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<tr>
<td>Total</td>
<td>42</td>
<td>3</td>
<td>0</td>
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</thead>
<tbody>
<tr>
<td>Pedestrian</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Bicyclist</td>
<td>4</td>
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<td>1</td>
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<tr>
<td>Motor Vehicle Occupant</td>
<td>26</td>
<td>4</td>
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<td>4</td>
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<tr>
<td>Total</td>
<td>35</td>
<td>5</td>
<td>0</td>
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</table>

KSI = persons killed or severely injured
W 116<sup>TH</sup> ST & LENOX AVE: EXISTING CONDITIONS

Long crossing distances for pedestrians, especially for seniors and children

Lenox Ave is 80 feet wide
W 116<sup>TH</sup> ST & LENOX AVE: EXISTING CONDITIONS

Pedestrians get stuck in the middle with no safe space to wait

Lenox Ave at W 116<sup>th</sup> St, looking north
W 116TH ST & LENOX AVE: EXISTING CONDITIONS

High incidence of left turn crashes from eastbound W 116th St onto northbound Lenox Ave

Most crashes involve pedestrians crossing with the signal

Lenox Ave at W 116th St, looking west
W 116TH ST & LENOX AVE: PROPOSED SIGNAGE

Restrict left turns from eastbound W 116th St onto northbound Lenox Ave for all vehicles except buses.

Ban low-volume left turn from northbound Lenox Ave to westbound W 116th St.

Reduces conflicts between pedestrians and vehicles at busy intersection with subway stop and lots of pedestrian activity.

Reduces conflict between left turning vehicles and oncoming traffic.

Helps traffic operations by keeping traffic moving.
ALTENATE ROUTES FOR TURN BANS

Eastbound Left Turning Vehicles at Lenox Ave

<table>
<thead>
<tr>
<th>AM Peak Hour</th>
<th>PM Peak Hour</th>
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<tbody>
<tr>
<td>38</td>
<td>61</td>
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</table>

Averages less than one vehicle per signal cycle
Averages less than two vehicles per signal cycle

Alternate routes for left turns off of eastbound 116th St at other northbound avenues
ALTERNATE ROUTES FOR TURN BANS

Northbound Left Turning Vehicles at W 116th St

<table>
<thead>
<tr>
<th>AM Peak Hour</th>
<th>PM Peak Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>19</td>
<td>22</td>
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</table>

Averages only one vehicle every two signal cycles

Many alternate routes for left turns off of northbound Lenox Ave at westbound side streets
**W 116th St & Lenox Ave:**
**Proposed Concrete & Markings**

- **Turn bans** allow for median extensions/widening.
- **Shorten crossing distances** and provide safe waiting space for pedestrians.
- **Extend existing median** into north crosswalk.
- **Build out left turn bay** and extend median into south crosswalk.
- **Parking lane stripe** defines moving lane and discourages speeding.

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EXAMPLE SAFETY BENEFIT: LENOX AVE & W 125TH ST

2010 safety improvement project banned all left turns at intersection and widened and extended medians into crosswalks

Pedestrian injuries decreased by 42%

Total injuries decreased 24%

Source: 3-year after analysis using NYPD AIS/TAMS Crash Database
E 116TH ST & 5TH AVE: EXISTING CONDITIONS

High volume of vehicles, including many buses, turning left from westbound E 116th St onto 5th Ave

Left turning vehicles often have to wait until the yellow for a gap

MTA has requested left turn signal at this location

E 116th St at 5th Ave, looking west
E 116TH ST & 5TH AVE: PROPOSED LEFT TURN SIGNAL

Install left turn signal and protected left turn phase for westbound E 116th St

Protects MTA buses and other left turning vehicles from conflict with oncoming traffic

Benefits drivers and pedestrians
SUMMARY AND BENEFITS

Turn restrictions at W 116th St & Lenox Ave:
• Reduce conflicts between turning vehicles and pedestrians at busy intersection with subway
• Reduce conflicts between turning vehicles and oncoming traffic
• Helps traffic operations by keeping traffic moving

Median extensions at W 116th St & Lenox Ave:
• Shortens crossing distances and provides safe refuge for pedestrians
• Create safer crossings for pedestrians by encouraging vehicles to make safer turns

Left turn signal at E 116th St & 5th Ave:
• Gives buses and other vehicles conflict free time to make left turn

Parking lane stripe on 116th St:
• Creates standard width moving lane and discourages speeding
• No loss of parking or changes to parking regulations
THANK YOU!

Questions?

NYC DOT  NYC DOT  nyc_dot  NYC DOT