Project Background
Broadway, Hooper St to Flushing Ave, BK
Injury Summary, 2012-2016 (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>70</td>
<td>9</td>
<td>4</td>
<td>13</td>
</tr>
<tr>
<td>Bicyclists</td>
<td>59</td>
<td>11</td>
<td>0</td>
<td>11</td>
</tr>
<tr>
<td>Motor Vehicle Occupant</td>
<td>203</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>332</td>
<td>21</td>
<td>4</td>
<td>25</td>
</tr>
</tbody>
</table>

- Broadway is a Vision Zero Corridor with 21 KSI/mile
- Both Broadway at Hooper St and Broadway at Flushing are Vision Zero Intersections
- Project scope is within a Vision Zero Area

KSI: Killed or Severely Injured
Project Issues and Solutions
PROJECT LOCATIONS

Improve access to stations
HOOPER ST – EXISTING ISSUES

1. Multiple missing crosswalks
2. Inconsistent street network on Hooper St
HOOPER ST – PROJECT PLAN

1. Convert one block of Hooper St to one-way southbound
2. Close slips on Division Ave and Broadway in paint
3. Add a right turn lane on Hooper St at Harrison Ave
4. Build out and extend concrete triangle and adjacent corners
1. Missing crossing on S 5th St
2. Long crossings along Union Ave
3. Redundancies in vehicular network create conflict for all roadway users
Convert one block of Montrose Ave to one-way westbound

1. Extend sidewalks in paint along S 5th St

2. Painted Sidewalk Extensions

Street Conversions
UNION AVE – EXISTING ISSUES

1. Long pedestrian crossing distances
2. Acute right turns from Union onto Broadway are not geometrically possible for heavy vehicles
Restrict the right turns onto Broadway from Union Ave
Extend sidewalks in paint
THROOP AVE – EXISTING ISSUES

1. Missing crosswalks and ADA compliant access along Broadway and across Throop Ave
2. Unclear vehicular and pedestrian movements
Close the slip from Middleton St to Broadway in paint
Install a painted sidewalk extension on Throop Ave at Broadway
Add crosswalks along the southern side of Broadway
DEBEVOISE ST – EXISTING ISSUES

1. Crosswalk behind the bus stop making pedestrians less visible to vehicles
2. Crosswalk does not match pedestrian desire line or the existing ramp
DEBEVOISE ST – PROJECT PLAN

1. Add painted curb extension on the northern side of Debevoise St
2. Realign crosswalk to be in front of the bus stop
FLUSHING AVE – EXISTING ISSUES

1. Crosswalk does not lead to the station stairs

2. Left turns from Flushing Ave westbound onto Broadway and Graham Ave northbound create an unsafe condition
1. Flare the crosswalk on Flushing Ave and Broadway

2. Install hardened centerline to calm turns from Flushing onto Broadway
THANK YOU!

Questions?
Appendix
Convert one block of Hooper St to one-way southbound

Close slips on Division Ave and Broadway in paint

Add a right turn lane on Hooper St at Harrison Ave

Build out and extend concrete triangle and adjacent corners
Examples of cars failing to yield to pedestrians on the Division Ave slip
Convert one block of Montrose Ave to one-way westbound

Extend sidewalks in paint along S 5th St
UNION AVE - EXISTING

- Long pedestrian crossing distances
- Columns impact visibility of pedestrians
- Acute turns are not possible for heavy vehicles
Restrict the right turns onto Broadway from Union Ave

Extend sidewalks in paint
DIVERSION DIAGRAM – UNION AVE
1. Close the slip from Middleton to Broadway in paint

2. Install a painted sidewalk extension on Throop Ave at Broadway

3. Add crosswalks along the southern side of Broadway
THROOP AVE – VEHICULAR MOVEMENTS

EXISTING

EXISTING CAR TURNING OUT OF SLIP

PLANNED

EXISTING CAR TURNING INTO SLIP
DEBEVOISE ST - EXISTING

- Column splits the roadway on Debevoise St
- Bus stop is in front of crosswalk, impacting visibility
- Pedestrian fatality in 2012
EXAMPLE OF PAINTED CURB EXTENSIONS

1. Add painted curb extension on the northern side of Debevoise St
2. Realign crosswalk to be in front of the bus stop
1. Flare the crosswalk on Flushing Ave and Broadway

2. Install hardened centerline to calm turns from Flushing onto Broadway