PRESENTATION

• Background
• Proposal
• Summary
Overview

• Joe Michaels Mile & Alley Pond Park bike routes are part of greenway network connecting Queens parks

• Community requests for safety improvements and increased bicycle connections to parks and LIRR

• 2012 Douglaston LDC request for traffic calming and bicycle access, based on community outreach
Project Goals
Improve safety for all road users
Increase bicycle access to parks and LIRR

1. Northern Blvd
   From 223rd St - Douglaston Pkwy

2. Douglaston Pkwy & 235th St
   From Northern Blvd to LIRR

3. Alley Pond Park edge
   From Northern Blvd to Springfield Blvd
Northern Blvd
223rd St – Douglaston Pkwy
Northern Blvd near Cross Island Parkway

Northern Blvd

223rd St - Douglaston Pkwy

- Only road that connects Douglaston to Bayside
- Q12 Bus route, 2 stops each side
- Through truck route
- Provides access to Joe Michaels Mile and Alley Pond Park for joggers, walkers, cyclists
- Current road design encourages speeding even during rush hour
Safety Issues

Northern Blvd Vision Zero Priority Corridor
top 10% of borough corridors in KSI/mile

Northern Blvd (223rd St – Douglaston Pkwy), QN
Injury Summary, 2010-2014 (5 Years)

<table>
<thead>
<tr>
<th></th>
<th>Total Injuries</th>
<th>Severe Injuries</th>
<th>Fatalities</th>
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<tr>
<td>Pedestrian</td>
<td>12</td>
<td>3</td>
<td>0</td>
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<tr>
<td>Bicyclists</td>
<td>10</td>
<td>1</td>
<td>0</td>
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<tr>
<td>Motor Vehicle Occupant</td>
<td>188</td>
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<tr>
<td>Total</td>
<td>210</td>
<td>5</td>
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</table>

Fatalities, 2010 – 2016 : 1
Northern Blvd  223rd St – Douglaston Pkwy

Existing

- Heavy turns at 223rd St and Douglaston Pkwy to access commercial & residential areas
- Few intersections in middle of the corridor
- EB vehicle volumes higher than WB volumes

Towards 223rd St

Towards Douglaston Pkwy
**Existing**

- 3 vehicle lanes in each direction during rush hour (2 during non-rush)
- Left turn bays help traffic flow

**Proposed**

- 2 vehicle lanes WB and middle EB corridor, **3 lanes at key intersections**
- Left turn bays maintained
at 223rd St

- EB capacity maintained to accommodate Cross Island on/off ramp volumes
- WB right turn bay onto NB Cross Island Parkway maintained
- 2 second average increase in vehicle delay at intersection, no change in Level of Service

at Douglaston Pkwy

- EB capacity maintained to accommodate Douglaston Pkwy turn volumes
- Signal timing adjustments improve vehicle throughput and provide safer crossing for pedestrians
- Reduced average vehicle delay at intersection, improved Level of Service
## Northern Blvd Level of Service (LOS) Impact

**223rd St**

<table>
<thead>
<tr>
<th>Time</th>
<th>Existing</th>
<th>Proposed</th>
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<td>AM</td>
<td>LOS: B</td>
<td>LOS: B</td>
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<td>Delay: 13.2s</td>
<td>Delay: 16.5s</td>
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<tr>
<td>PM</td>
<td>LOS: C</td>
<td>LOS: C</td>
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<td></td>
<td>Delay: 20.4s</td>
<td>Delay: 20.9s</td>
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**Douglaston Pkwy**

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<th>Proposed</th>
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<td>LOS: C</td>
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<td></td>
<td>Delay: 56.3s</td>
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<tr>
<td>PM</td>
<td>LOS: E</td>
<td>LOS: C</td>
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<tr>
<td></td>
<td>Delay: 55.9s</td>
<td>Delay: 23.5s</td>
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</table>

- No signal timing changes
- **Minimal increase in average vehicle delay**
- **No change in LOS**

- Existing: EB left turns proceed during protected (green arrow) and permitted (green ball) phases
- Proposed: EB left turns proceed during a longer protected (green arrow) phase only

  Improves LOS, EB left turns no longer wait for gaps in oncoming traffic
  Improves north leg pedestrian crossing, EB left turns occur separately
Existing

Proposed

Install two-way protected bike lane on north curb

- Maintains queueing space and vehicle flow at approaches to intersections
- Overnight parking maintained on south curb between Alameda Ave and Douglaston Pkwy
- Approximately 25 non rush hour parking spaces removed from north curb between Alameda Ave and 243rd St
- Creates a safe, clear bike route, safer crossings and a path that is comfortable for all skill levels
Northern Blvd  Cross Island Parkway - Alameda Ave

**Existing**

- 10’ Travel Lane / Non Rush Parking
- 10’ Travel Lane
- 10’ Travel Lane

- Vehicle lanes re-installed at standard width for trucks and buses
- Few signals along corridor help maintain traffic flow
- Buses will pull to curb at clearly marked bus stops with gap in bike lane barrier
- Creates a safe, clear bike route, safer crossings and a path that is comfortable for all skill levels

**Proposed**  
*Install two-way protected bike lane on north curb*

- 6’ Buffer & Concrete Barrier with Bus Stop Access
- 4’ Travel Lane
- 11’ Travel Lane

- Vehicle lanes re-installed at standard width for trucks and buses
- Few signals along corridor help maintain traffic flow
- Buses will pull to curb at clearly marked bus stops with gap in bike lane barrier
- Creates a safe, clear bike route, safer crossings and a path that is comfortable for all skill levels
Joe Michaels Mile Entrance

Existing

- Existing 1 mile long waterfront path for runners, walkers, cyclists
- No designated bike access to Joe Michaels Mile from east
  - 160 weekend and 50 weekday cyclists use busy roadway or narrow sidewalk (7am – 7pm, June 2016)
- Uncomfortable, unclear bike access from west

Proposed

Install two-way protected bike lane on north curb with to safely access JMM

Barrier Protected Bike Lanes
Northern Blvd At 223rd St – Additional Safety Improvements

Existing

- Unpredictable Movements
- Large conflict zones

Proposed

Install Left Turn Treatment on both sides of intersection

- Narrower turns
- Reduced Conflict Zones

Pedestrian Conflict Zone

“Hardened center line” calms left turning vehicles
Benefits

1. Over 1.5 lane miles of new protected bike lanes – more than doubling Joe Michaels Mile path length

Safer pedestrian crossings at intersections

Slows speeding without causing traffic

Requires removal of rush hour parking on north curb.

Overnight parking maintained on south curb between Alameda and Douglaston Pkwy
Douglaston Connections
Douglaston Pkwy and 235th St: Northern Blvd - LIRR
Douglaston Pkwy
Northern Blvd – 235th St

• 50’ roadway is wider than needed
• Community requests for bike access, traffic calming at Northern Blvd
• No designated bike access to LIRR station, commercial uses
2 Douglaston Connections

Douglaston Pkwy Northern Blvd – 235th St

**Existing**

- West Sidewalk
  - 13’ Parking Lane
  - 12’ Travel Lane
  - 14’ Travel Lane
  - 11’ Parking Lane

**East Sidewalk**

**Proposed**

*Install standard bike lanes*

- West Sidewalk
  - 9’ Parking Lane
  - 5’ Travel Lane
  - 11’ Travel Lane
  - 11’ Travel Lane
  - 5’ Parking Lane

- East Sidewalk

- Uses existing roadway, narrows travel lanes to calm traffic
- Maintains curbside parking
- Creates a safe, clear bike route to Douglaston LIRR station, local businesses
Douglaston Connections

235th St
Douglaston Pkwy - LIRR

- 38’ wide roadway
- Slower moving traffic
- No designated bike access to LIRR station
2 Douglaston Connections

235th St Douglaston Pkwy – LIRR Station

Existing

- Uses existing roadway, Maintains curbside parking
- Creates clear bike route to LIRR station appropriate for traffic volumes and street type

Proposed

Install shared use markings

- Uses existing roadway, Maintains curbside parking
- Creates clear bike route to LIRR station appropriate for traffic volumes and street type
2 Douglaston Connections

Benefits

2 Safe bicycle connection to Douglaston LIRR
Over 0.5 lane miles of new bike routes

No parking removal

Northern Blvd, E Hampton Blvd, Douglaston Pkwy
Alley Pond Park
Park Edge Greenway Upgrade
Existing Bike Route – Alley Pond Park edge

- Greenway route established to connect Joe Michaels Mile to Vanderbilt Motor Pkwy
- Conventional bike lanes with some sections of signed route (no markings)
- “Edge condition” along Alley Pond Park for approximately 2 miles
Alley Pond Park Edge

223rd St to 73rd Ave

- Existing conventional bike lanes in poor condition, missing markings
- Wide travel lanes
- Community requests for bike lane upgrades and traffic calming and safer alignment for all road users
- Very little cross traffic along park edge
- Successful park edge bike paths throughout city
### Alley Pond Park Edge - Typical

**Existing**

- **Sidewalk**
  - 8’-9’ Parking Lane
  - 5’
  - 11’-12’ Travel Lane
  - 11’-12’ Travel Lane
  - 5’
  - 8’-9’ Parking Lane

**Proposed**

- **Install two-way parking protected bike lane along park edge**

- **Sidewalk**
  - 8’ Parking Lane
  - 11’ Travel Lane
  - 11’ Travel Lane
  - 8’ Parking Lane
  - 4’ Buffer

**Park-edge segments of**
- 223rd St
- Cloverdale Blvd
- Horatio Pkwy
- 50th Ave
- 232nd St
- E Hampton Blvd
- 233rd St
- 67th Ave
- 230th Ave
- 73rd Ave

- **Uses existing roadway, narrows travel lanes to calm traffic**
- **Maintains curbside parking**
- **Creates a safe, clear bike route separated from traffic and a path that is comfortable for all skill levels**
3 Alley Pond Park

E Hampton Blvd – Residential Driveways

Existing

Proposed

Install two-way parking protected bike lane along east curb

- Uses existing roadway, narrows travel lanes to calm traffic
- Maintains curbside parking with minimal markings
- Creates a safe, clear bike route and a path that is comfortable for all skill levels
3 Alley Pond Park

67th Ave – In front of PS 213

Existing

Proposed

Establish shared space for safe pick-up/drop off and bike access to school

Potential design

- Uses existing roadway, narrows travel lanes to calm traffic in front of school
- Enhances school pick up/drop off access, increased space for safer bus loading
- Creates a safe, clear bike route and a path with access to PS 213

Northern Blvd, E Hampton Blvd, Douglaston Pkwy
Benefits

3 Over 4 lane miles of new protected path

Upgraded bicycle connection to JMM/Northern Blvd, Vanderbilt Motor Pkwy

Some parking removal at corners for daylighting and emergency vehicle access
Project Summary

Safety Improvements for all users

Enhances greenway access and safety from Vanderbilt Motor Pkwy to Douglaston by:

- Reducing speeding along corridors, while maintaining needed traffic capacity
- Improving pedestrian crossings
- Installing 7 miles of bicycle routes connecting to parks, greenway paths, LIRR
- Adding over 6 protected bike lane miles as new neighborhood recreational amenity
THANK YOU!

Questions?
E Hampton Blvd at Long Island Expwy overpass

**Existing**

- Separates bikes from faster moving traffic
- Maintains all existing travel lanes
- North side avoids off ramp slip lanes. Wide sidewalk meets shared use standards

**Proposed**

*Install bike markings on northeast sidewalk*

- Separates bikes from faster moving traffic
- Maintains all existing travel lanes
- North side avoids off ramp slip lanes. Wide sidewalk meets shared use standards
Install two-way parking protected bike lane along park edge

- Uses existing roadway, narrows travel lanes to calm traffic in front of school
- Maintains school bus loading
- Creates a safe, clear bike route and a path with access to PS 213
E Hampton Blvd at 231st St

**Existing**

- 13.5’ - 17.5’ Shared Lane
- 13.5’ - 17.5’ Shared Lane

27’ - 35’

**Proposed**

*Install two-way protected bike lane along park edge*

- 10’ Travel Lane
- 10’ Travel Lane
- 3.5’ 3.5’

27’ - 35’

- Uses existing roadway, narrows travel lanes to calm traffic on narrow street
- Maintains continuous bike path along park edge
Protected bicycle lane projects with 3 years of after data include the following: 9th Ave (16th-31st), 8th Ave (Bank-23rd, 23rd-34th), Broadway (59th-47th, 33rd-26th, 23rd-18th), 1st Avenue (Houston to 34th), 2nd Ave (Houston-34th), Columbus Ave (96th-77th) Note: Only sections of projects that included protected bicycle lanes were analyzed
Source: NYPD AIS/TAMS Crash Database