HARLEM BIKE NETWORK

Bike Lanes and Safety Improvements

Presented to Community Board 11
Updated on September 5, 2017
PRESENTATION OVERVIEW

Review of Background and Proposals
- 110th St, 111th St
- 126th St, 128th St
- 5th Ave

Update: Additional Outreach and Follow Up
- Resurfacing
- Walk Through
- Partnerships
- Street Ambassador Deployments
Background
Background

NYC MOBILITY

Recent Travel Trends (2010-2015)

+370,000 New York City residents

+520,000 new jobs

As the city grows, there is higher demand on the transportation system and people are increasingly turning to mass transit, FHV carpooling, and cycling.

+20% growth tourists

+10% growth in subway trips

+80% growth in daily cycling trips
Background

BIKE NETWORK – Citi Bike

Recent Trends

Total Number of Citi Bike Trips in NYC:
2016 - 14 million trips
2015 - 10 million trips

Citi Bike regularly serves over 70,000 trips per day

more than

Staten Island Ferry

Boro (green) Taxi
**PROJECT AREA**

1. **110th St**
   - Manhattan Ave to Central Park W
   - 1,401 weekend
   - 637 weekday

2. **110th St**
   - 5th Ave to Lenox Ave
   - 1,110 weekend
   - 725 weekday

3. **5th Ave**
   - 112th to 115th St
   - 422 weekend
   - 408 weekday

4. **125th St**
   - Amsterdam Ave to Morningside Ave
   - 436 weekend
   - 450 weekday

5. **1st Ave**
   - 124th St & RFK Bridge
   - 593 weekend
   - 704 weekday

6. **ACP Blvd**
   - 136th St & 137th St
   - 340 weekend
   - 217 weekday

**Background**

Minimal bicycle infrastructure in CB 9, 10, and 11
Heavily used routes
Background

PROJECT AREA – Citi Bike Expansion Area (110th St to 130th St)

Trips taken
Quarter 4 2016
37,052
Background

PROJECT AREA – Citi Bike Expansion Area (110th St to 130th St)

Citi Bike provides a new transportation option and increases neighborhood biking that

• Is useful for short trips – most Citi Bike trips are between 6 and 9 min (average trip is under 14 minutes)

• Can be faster and more convenient than taking a bus

• Can be used to get to subway stations for efficient multi-modal trips

• Makes biking an easy option for those who don’t own or have a place to store a bike

• Is an affordable option – unlimited 45 min trips for $15/month (with an annual membership, discounted memberships are $5/month)
Community Outreach
SAFETY – Vision Zero

Goal:
- Reduce preventable deaths and injuries through improved **engineering**, **education**, and **enforcement**

Outreach Process:
- Public workshops
- Interactive Web Portal
- Borough Action Plans
- Roll-out of safety initiatives

Outcome:
- Release of Borough Action Plans
- Continue roll out of **safety initiatives**
- Three years of declining fatalities (2014-17)

Redesigns of high-crash corridors that include bicycle facilities can improve safety for all road users
CITI BIKE

Goal:
- DOT and Motivate work with community to find **best locations** for stations in neighborhood, and expansion roll out

Outreach Process:
- 2015 – Present
- Community workshops
- Public web portal
- Meeting with community representatives, institutions, and BIDs

Outcome:
- 2016 - **draft plan** with location of Citi Bike stations **identified through community engagement**
- 2017 expansion of Citi Bike in CB 9, 10 and 11 (110th St to 130th St)
HARLEM RIVER BRIDGES ACCESS PLAN

Goal:
- Increase and improve pedestrian and bicycle safety and mobility between Manhattan and the Bronx across 13 Harlem River Bridges

Outreach Process:
- 12 workshops
- 200 surveys

Outcome:
- In Fall 2017 DOT will release report highlighting 37 priority projects
- Roll out of projects
Goal:
- Further evaluate pedestrian and bike potential connections based on community’s feedback.

Outreach Process:
- Follow up to HRBAP, collection of additional community feedback, Street Ambassadors deployed to 12 deployments, 8 locations

Outcome:
- 49% of surveyed ride bike in NYC
- 78% of surveyed have friends or family who bike in NYC
- Almost three times as many people reported to riding a bike or walking to parks and green spaces in the neighborhood compared to driving, or taken public transit

Locations - Focus on Harlem Community hubs
Goal:
 Further evaluate pedestrian and bike potential connections based on community’s feedback.

Outreach Process:
 Follow up to HRBAP, collection of additional community feedback, Street Ambassadors deployed to 12 deployments, 8 locations

Outcome:
 Further identified issues and opportunities for bike infrastructure in Harlem

Survey Comments:
“I want to start biking next summer and good infrastructure encourages me to do that more.”

“[We need] more bike lanes, better enforcement, and better signage.”

“Times have changed and we need to share the road.”
Goal:
- Work with community and DOT to increase bike education, improve bike infrastructure, enhance safety to address health inequities

Outreach Process (on-going):
- Convened East Harlem Biking Coalition (Nov 2016)
- Conducted 1:1 conversations about biking with community partners (Jan-Feb 2017))
- Convened organizations to report on trends (March 2017)
- Co-hosted El Barrio Bike Bash with community partners (March 2017, 186 participants)

Outcome:
- Biking is a great way to get around, improve health and socialize
- Younger generation is excited about biking
- Biking is engrained in Latino culture and has a rich history in East Harlem
- Lack of bike infrastructure
- Safety concerns
Proposals
PROJECT GOALS / ROUTE SELECTION

### PUBLIC INPUT
- Vision Zero
- Citi Bike
- Harlem River Bridge Access Plan
- Street Ambassadors
- Department of Health

### SAFETY
- Redesign roadway to reduce on-street injuries and fatalities for all road users
- Address community’s safety concerns
- Use wayfinding to direct cyclists to safest routes

### MOBILITY
- Prioritize routes that provide safe and direct connection to existing network
- Create all-ages-friendly routes with connection to green and recreational spaces
- Accommodate Citi Bike expansion

10 cyclists killed, 92 cyclists were severely injured in CB 9, 10, 11, between 2010 and 2014

Identify and develop projects that:
- Incorporate public input
- Increase safety for all road users
- Create direct, connected bike network that improves mobility and enhances access to key destinations
PROJECT AREA

110th/111th St
- Limited east-west through streets (first opportunity after 72nd St)
- Identified as a priority route during HRBAP workshops and S.A. deployment
- Re-design of W 110th St, and FD Circle (community safety concerns)

126th St/128th St
(alternative to 125th St)
- Identified as a priority route during HRBAP workshops and S.A. deployment
- Limited possibilities for direct routes
- Connects to Willis Ave and RFK

5th Ave
- Strong desire for protected bike lane identified through S.A. outreach
- Excess width encourages speeding and other unsafe behavior
- Serve people traveling south as well as those traveling north on other streets
Proposal

PROJECT AREA

1. **110th /111th St**
   - 5th Ave to FDR
   - Access to Greenway and Parks
   - Cross-town Connection

2. **126th /128th St**
   - 2nd to 5th Ave
   - Access to bridges
   - Extension of east-west routes proposed in CB9 and 10

3. **5th Ave**
   - 110th to 120th St
   - Protected bike route to/from Marcus Garvey Park and Central Park
# SAFETY

## Injury Summary, 2010-2014 (5 years)

### 110<sup>th</sup> St/111<sup>th</sup> St (5<sup>th</sup> Ave to FDR)

<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>43</td>
<td>5</td>
<td>0</td>
<td>5</td>
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<tr>
<td>Bicyclists</td>
<td>15</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Motor Vehicle Occupant</td>
<td>114</td>
<td>6</td>
<td>0</td>
<td>6</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>172</strong></td>
<td><strong>13</strong></td>
<td><strong>0</strong></td>
<td><strong>13</strong></td>
</tr>
</tbody>
</table>

### 5<sup>th</sup> Ave (110<sup>th</sup> St to 120<sup>th</sup> St)

<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>17</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Bicyclists</td>
<td>11</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Motor Vehicle Occupant</td>
<td>65</td>
<td>5</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>93</strong></td>
<td><strong>8</strong></td>
<td><strong>0</strong></td>
<td><strong>8</strong></td>
</tr>
</tbody>
</table>

### 126<sup>th</sup> St/128<sup>th</sup> St (5<sup>th</sup> Ave to 2<sup>nd</sup> Ave)

<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>28</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Bicyclists</td>
<td>11</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Motor Vehicle Occupant</td>
<td>125</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>164</strong></td>
<td><strong>5</strong></td>
<td><strong>0</strong></td>
<td><strong>5</strong></td>
</tr>
</tbody>
</table>

Source: Fatalities: NYCDOT, Injuries: NYSDOT. KSI: Persons Killed or Severely Injured

**Opportunity to re-design corridors to be safer for all road users**
EXISTING/ISSUES – E 110th, 111th St

- One-way; typically 30’ – 34’
- No dedicated space for cyclists
- Cyclist position in roadway unpredictable for drivers and pedestrians
PROPOSED IMPROVEMENTS – E 110th, 111th St Typical Cross Section

- **Standard width travel lane** accommodates all vehicles, improves predictability, easier for pedestrians to cross

- **Bike lane** creates dedicated, predictable space for cyclists, separate from moving vehicles, discourages sidewalk riding to reduce pedestrian conflicts

- **Re-design of roadway** has no impact on vehicle capacity or parking loss

- Creates **access to Central Park, East River Greenway, 1st and 2nd Ave protected lanes**
PROPOSED DESIGN ELEMENTS

Organized Roadway
Increases safety, predictability, comfort
PROJECT AREA – STREET NETWORK

Street Network

Proposed Bicycle Access

Contraflow Bike Lane

No changes for vehicles

Allow 2-way bicycle access to Harlem River Greenway
PROPOSED IMPROVEMENTS – 110th St (5th Ave to Madison Ave)

- Contra-flow bike lane creates continuous eastbound route
- Design requires parking to be relocated to the next block
PROPOSED IMPROVEMENTS – Parking Relocation

Existing Parking Configuration

Proposed Parking Configuration

Net gain of parking spaces

No Parking

90 degree back-in parking
PROPOSED IMPROVEMENTS – E 111\textsuperscript{th} St (A New St to FDR Drive)

- **Connections**
  - Connection to Harlem River
  - Signs and markings permit bike access in both directions on lightly trafficked block to/from greenway
  - Connection to Thomas Jefferson Park and the Manhattan Waterfront Greenway
EXISTING/ISSUES – 126th, 128th St

126th/128th St
2nd Ave to Amsterdam Ave

- One-way
- No dedicated space for cyclists
- Cyclist position in roadway unpredictable for drivers and pedestrians
PROPOSED IMPROVEMENTS – 126th, 128th St Typical Cross Section

- **Standard width travel lane** accommodates all vehicles, improves predictability, easier for pedestrians to cross

- **Bike lane** creates dedicated, predictable space for cyclists, separate from moving vehicles, discourages sidewalk riding to reduce pedestrian conflicts

- East-west connection north of 125th St

- Challenging street grid; limited east-west opportunities for direct routes

- **Creates access** East River Greenway, 1st and 2nd Ave protected lanes, Willis Ave and RFK Bridges
PROPOSED DESIGN ELEMENTS

Organized Roadway
Increases safety, predictability, comfort
EXISTING/ISSUES – 5th Ave (Central Park to Marcus Garvey Park)

- Excess vehicular capacity
- Wide travel lanes encourages speeding and other unsafe behavior
- Long pedestrian crossings
- Vulnerable users; schools, senior care facilities and churches along corridor
- Cyclist position in roadway unpredictable for drivers and pedestrians
PROPOSED IMPROVEMENTS – 5th Ave (Typical Design)

- Complete streets re-design
- Narrower roadway with standard width lanes discourages speeding, shortens pedestrian crossings
- 2-way protected bike lane creates dedicated, predictable space for cyclists, discourages wrong-way and sidewalk riding, and reduce pedestrian conflicts
- Painted pedestrian islands create shorter and safer pedestrian crossings

Traffic Study
Goal: Improve safety for all road users while maintaining traffic flow
Data collection: Automated Traffic Recorders, Manual Turn Counts
Analysis: Study existing conditions including vehicle volumes, geometry, signal timing, turning movements
Result: Two lanes provide sufficient capacity for vehicle volumes

Peak Hour Volume: 996
8-9am at 110th St
PROPOSED IMPROVEMENTS – Left Turn Locations

• Left-turning vehicles kill or severely injure (KSI) pedestrians and cyclists at over three times the rate (19%) of right turn vehicle (6%)

• Seniors are more at risk: median age for pedestrian and bicycle KSI by a left-turning vehicle is 67; all other fatal crash types have median age of 50

• Split phase signals increase safety by providing protected time for pedestrians and cyclists to cross, require left turn lanes

• Minimal impact on parking – limited parking removal required for left turn bays (9 spaces for entire project), will be offset by addition of new legal parking spaces
PROPOSED IMPROVEMENTS – 5th Ave (115th St to 112th St)

- **Existing informal perpendicular parking** on east curb

- **Proposed formal perpendicular parking** on west curb

- **Creates new legal parking spaces**, offsetting changes due to safety improvements

Proposal results in net gain of legal parking spaces along corridor
PROPOSED DESIGN ELEMENTS

Creates bike access between Central Park and Marcus Garvey Park that is comfortable for all ages and abilities.
PROPOSED DESIGN ELEMENTS

- Shortens pedestrian crossing distances
- Guides motorists through turns
- Improves visibility

Painted Curb Extension

High Visibility Crosswalk
PROJECT AREA – Proposed Bike Network

Proposal

110th St Counts (Manhattan Ave to Central Park W)
- Weekend: 1,401
- Weekday: 637

110th St Counts (5th Ave to Madison Ave)
- Weekend: 1,110
- Weekday: 725

Connection to the Manhattan Waterfront Greenway (west and east side)

Southbound bicycle connection from Amsterdam Ave to Columbus Ave

SB connection from Amsterdam Ave to Columbus Ave

Marcus Garvey Park

St. Nicholas Park

Riverside Park

Hudson River Greenway

Central Park

CB 9

CB 10

CB 11
BENEFITS OF DESIGN ELEMENTS

Vehicles
- Organize the roadway
- Improve safety
- Improve alignment, and visibility
- Establish standard width; discourage speeding

Cyclists
- Provide dedicated space for cyclists
- Increase predictability of cyclists location for motorists and pedestrians
- Connection to existing network
- Provide wayfinding

Refuge islands, painted neck downs, and high visibility crosswalks
- Create shorter, safer pedestrian crossings
- Improve alignment at intersections
- Discourage drivers from encroaching into crosswalk

Street re-designs improve safety for all road users
Additional Outreach and Follow Up
Community request for street resurfacing at June CB Meeting

Resurfacing on some streets including sections of 110th St and 111th St started in July.

DOT will continue to assess paving conditions and resurface as necessary.
SUMMARY OF ADDITIONAL OUTREACH

Additional Outreach and Follow Up

Street designs improve safety for all road users

- High-visibility crosswalks
- Traffic calming e.g. road diets
- Signal timing changes
- Sidewalk enhancements
- Curb management e.g. loading zones
- Transit enhancements e.g. bus islands

Walk Throughs with CB 10 and CB 11:

July 14, 2017:
5th Ave (120th St to 110th St)

August 30, 2017
5th Ave (120th St to 110th St)

Street Ambassador Deployments:

Talked to nearly 250 people about bicycle facilities, proposed routes, answered general questions, and distributed giveaways and educational materials

August 24, 2017
116th St & Park Ave – El Barrio Youth Marqueta

August 26, 2017
124th St & 5th Ave

August 27, 2017
110th St & Malcolm X Blvd

Coordination with Partner Organizations:

Every Third Saturday (Ongoing since June)
East Harlem Neighborhood Health Action Center (NYC Department of Health & Mental Hygiene)
- Attended monthly meetings and group biking and walking tours, presented proposed projects

August 15, 2017
Cyclopedia (Youth Summer Biking and Educational Program)
- Group discussion about street design and DOT tool box
RESPONSE TO QUESTIONS RAISED AT WALK THROUGHs

How will this affect emergency vehicle access? How will streets be swept and plowed?

All DOT Proposals are Reviewed by FDNY
• Emergency vehicle access is maintained or improved

Department of Sanitation
• New designs are reviewed by the agency
• Protected bike lanes are designed to allow for garbage and snow removal
Will vehicles loading/unloading block traffic?

Wide Parking Lanes
• Space for moving vehicles to pass vehicles dropping off/pick uping passengers and deliveries

Updated Parking Regulations/Loading Zones
• DOT can investigate loading zones along the corridor to accommodate delivery vehicles
How do protected bike lanes impact street safety?

In general protected bike lanes improve safety for all users:

- Crashes with injuries have been reduced by 17%
- Pedestrian injuries are down by 22%
- Cyclist injuries show a minor improvement even as bicycle volumes have dramatically increased

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
STREET AMBASSADOR DEPLOYMENT SUMMARY: HARLEM BIKE NETWORK AUGUST 24, 26, 27, 2017

Unit Supported: Bikes and Greenways

Dates: August 24, 26, 27, 2017

Locations:
- 116th St & Park Ave
- 124th St & 5th Ave
- 110th St & Malcolm X Blvd

# Interactions: Approximately 250

Notable Feedback: Overall the feedback was positive on both days. Residents we spoke to were excited to hear Citi Bike was coming to the area and liked the idea of the lanes connecting to green spaces. Concerns included bike lanes being placed on narrow streets and better bike education.
Additional Outreach and Follow Up

WHAT WE HEARD ON THE STREET

biking is all about making the community more accessible.
- Peggy, CB 10 member

New crosswalks and protected bike lanes

It’s an excellent idea!

It’s scary to bike in NYC without bike lanes. It’s for those who aren’t used to biking in the city. Add lots of ones.

Avoid taking up parking spaces. Allow more bike parking spots on median. Pedestrian side.

I drive for a living but would love more bike lanes.

I would love to have bike lanes!!

More bike lanes

Anything that makes the city healthier and safer is a great thing.

Mes rutas protegidas

“I want to bike

-I, 14

I wanna see more people riding bikes.

Safe

- Harley-9

More bikes please!

- Joel 92

I like to ride my bike!!
Questions?

THANK YOU!