LOWER MANHATTAN

Bike and Pedestrian Safety Improvements

Presented to Manhattan Community Board 1
March 13, 2017
1. Centre St / Park Row
   - Existing Bike Routes
   - Safety Issues
   - Existing Conditions
   - Proposed Design
   - Summary

2. Lower Manhattan Bike Network
   - Proposed Routes
   - Proposed Design
   - Summary
CENTRE ST / PARK ROW
Existing signed route to bridge from Battery Park and Financial District requires that cyclists take

- **Substantial detour**
- **Challenging section of Church St**
Inconvenient Route to Bridge Leads to Dangerous Wrong-way Cycling on Park Row

1,647 Cyclists Daily
(12-hour count, Oct 2015)

461 Against Traffic (28%)

148 On Sidewalk (9%)
Sidewalk Conflict
People bike on crowded sidewalk to avoid riding against traffic on Centre St toward bridge.
Path Access Point
Unclear from South
Cyclists traveling against traffic have been observed accidentally entering the Brooklyn Bridge roadway
Safety Issues

High Pedestrian Volumes Crossing Park Row
- 602 in the peak hour at Spruce St (west side)
- 740 in the peak hour at Beekman St

No Pedestrian Crossing at Spruce St Desire Line (east side of intersection)

1 Pedestrian Severely Injured 2009-2014
- 7 Additional Pedestrian Injuries
- 2 Cyclist Injuries
In the peak hour, 55 pedestrians cross Park Row on the east side of Spruce St despite lack of pedestrian crossing and existing signage.
• 1,147 pedestrians crossing Park Row at Spruce St (peak hour)
• 740 pedestrians crossing Park Row at Beekman St (peak hour)
• Curb extensions reduce the crossing distance from 42’ to 26’

2 Pedestrian KSIs on Park Row between Spruce and Beekman St (2009 - 2013)

Existing Conditions – Parking

No Standing Anytime
Often Occupied by NYPD

No Standing Anytime
Drop-off and pick-up

No Standing Anytime Except w/ NYP Plates,
(4 Parking Spaces)
Often Occupied by NYP Placard Holders
and Non-Placard Vehicles

Curb Cut
Created for City Hall Rehab
Often Occupied by Ice Cream Truck

No Standing Anytime
Often Occupied by Vehicles of Vendors

Bridge Path Entrance

Existing Curb Use
Often not fully occupied and/or not being used for intended purpose
• 1,147 pedestrians crossing Park Row at Spruce St (peak hour)
• 740 pedestrians crossing Park Row at Beekman St (peak hour)
• Curb extensions reduce the crossing distance from 42' to 26'
• 2 Pedestrian KSIs on Park Row between Spruce and Beekman St (2009-2013)

Proposed Design – Bike Improvements

- **Two-way Protected Bike Lane**
  - provides access to and from Brooklyn Bridge, clarifies entrance point

- **Shared Lanes and Contraflow Bike Lane**
  - connect the Brooklyn Bridge and City Hall to the Financial District

- **Short-term Loading/Unloading**
  - maintained in front of City Hall while preserving traffic flow

- **Bridge Path Entrance**
1,147 pedestrians crossing Park Row at Spruce St (peak hour)

740 pedestrians crossing Park Row at Beekman St (peak hour)

Curb extensions reduce the crossing distance from 42’ to 26’

2 Pedestrian KSIs on Park Row between Spruce and Beekman St (2009-2013)

Proposed Design – Parking Improvements

9 New Placard Parking Spaces added along expanded median to replace 4 spaces

+5 Net Gain in Placard Parking

Short-term Loading/Unloading maintained in front of City Hall while preserving traffic flow
1,147 pedestrians crossing Park Row at Spruce St (peak hour)

740 pedestrians crossing Park Row at Beekman St (peak hour)

Curb extensions reduce the crossing distance from 42' to 26'

2 Pedestrian KSIs on Park Row between Spruce and Beekman St (2009-2013)

Proposed Design

Centre St / Park Row

Existing

West Sidewalk

6' Parking Lane

4' Buffer

11' Travel Lane

11' Travel Lane

10' Turn Lane

42'

Median

Proposed Design

West Sidewalk

4' 4'

2' Concrete Barrier

0' 0'

4' 4'

42'

Median

Protected Two-way Bike Lane provides access to/from Brooklyn Bridge, with no reduction in roadway capacity
Proposed Design

Centre St / Park Row

Proposed Centre St / Park Row
Two-way Protected Bike Lane
1,147 pedestrians crossing Park Row at Spruce St (peak hour)

740 pedestrians crossing Park Row at Beekman St (peak hour)

Curb extensions reduce the crossing distance from 42' to 26'

2 Pedestrian KSIs on Park Row between Spruce and Beekman St (2009-2013)

Proposed Design – Pedestrian Improvements

Expand Median Tips reduce crossing distances

Painted Curb Extension reduces crossing distance

New Pedestrian Crossing at desire line

Median Extension organizes traffic and shortens crossing

Pedestrian safety refuges at Park Row and Beekman St will be delayed due to building construction
Bike Access to the Brooklyn Bridge

- Two-way protected bike lane provides safe, direct access to and from bridge path for 1,500+ cyclists daily
- 500+ cyclists riding contraflow or on sidewalk accommodated on street, improving safety for everyone
- Bike lanes and shared lanes connect Battery Park and Financial District to Centre St/Park Row and bridge

Parking Changes

- Short-term loading/unloading maintained in front of City Hall
- 9 new placard parking spaces on expanded median replace 4 placard parking spaces removed for bike lane

Pedestrian Crossings

- New pedestrian crossing at desire line on east side of intersection with Spruce St
- Pedestrian crossings at Spruce St and Beekman St shortened by expanded median tips, curb extension, and extended medians
LOWER MANHATTAN BICYCLE NETWORK
Proposed Bike Routes

Proposed New Bike Route to Bridge
- Half-mile shorter
- 4 fewer intersections
- Avoids Church St

+ 2.3 Miles of Bike Network
- Bike lanes and shared lanes connecting City Hall to the Financial District and Battery Park

Map showing proposed bike routes with a half-mile shorter route to the bridge, 4 fewer intersections, and 2.3 miles of bike network.
Design Considerations

**Road Width**
Limited Space for Bike Lanes

**Complex Street Grid**
Need for Wayfinding

**Curb Demand**
Curb space needed for loading/unloading
Proposed Bike Routes

Lower Manhattan Bicycle Network

**Treatment Types**

- Total distance: 2.1 miles
- Shared Lanes: 1.4 miles
- Bicycle Lanes: 0.5 miles

**Proposed Street Design Treatments**

Mix of Bike Lanes and Shared Lanes Corresponding to Existing Conditions

**LEGEND**

- Proposed Bicycle Lane
- Proposed Shared Lane

**Existing Bicycle Facilities**

- Protected Bicycle Path
- Bicycle Lane
- Shared Lane
- Signed Route
Proposed Design – Typical Shared Lane

EXISTING

- One combined travel/parking lane

PROPOSED

- Mark parking lane where parking and standing is permitted
- Add shared lane markings to travel lane

Impact

- Shared lane markings help cyclists with way finding and align themselves in road
- No impact on parking and loading activities
- No impact on traffic volume capacity
Proposed Design – Typical Bike Lane

Current Configuration
- One travel lane
- Wide parking lanes on each side of street

Proposed Changes
- Narrow parking lanes to standard width
- Mark a bicycle lane

Impact
- Cyclist will have dedicated lane for safety and wayfinding
- No change to curb regulations
**Proposed Design – Spruce St (Park Row to Nassau St)**

**EXISTING**
- South Sidewalk
- 25’ Travel Lane
- North Sidewalk

**PROPOSED**
- South Sidewalk
- 17’ Shared Lane
- 3’ Buffer
- North Sidewalk

**Proposed Changes**
- Add shared lane markings to eastbound travel lane
- Add counter flow curbside bicycle lane
- Add buffer separating counter flow bicycle traffic and east bound travel.

**Impact**
- Shared lane markings help cyclists with way finding and align themselves in road
- Counter flow bicycle lane connects north bound cyclist to Park Row
- No change to existing curb regulations (standing prohibited)

**Spruce Street from Park Row to Nassau Street**
Proposed Design – Gold St (Frankfort St to Fulton St)

Proposed Changes

- Narrow flush median
- Mark wide parking lane on each side of street
- Add south bound bicycle lane between Spruce St and Fulton St

Impact

- Cyclist will have dedicated lane for safety and wayfinding
- No changes to curb regulations
Proposed Design – Old Slip (South Side, Water St to South St)

**EXISTING**

South Sidewalk

<table>
<thead>
<tr>
<th>24’</th>
<th>Travel/Parking Lane</th>
</tr>
</thead>
</table>

Plaza

**PROPOSED**

South Sidewalk

<table>
<thead>
<tr>
<th>8’</th>
<th>Parking Lane</th>
</tr>
</thead>
<tbody>
<tr>
<td>11’</td>
<td>Travel Lane</td>
</tr>
<tr>
<td>5’</td>
<td></td>
</tr>
</tbody>
</table>

Impact

- Cyclist will have dedicated lane for safety and wayfinding
- No change to curb regulations
Summary

- Creates direct route between Brooklyn Bridge and Battery Park
- Connects to new bike infrastructure
- Improves safety and wayfinding for cyclists
- Improves access to Citi Bike Stations
- Maintains curb access and parking
THANK YOU!

Questions?