WILLIAMSBURG BRIDGE ACCESS AND CONNECTIONS
Bike Network Development and Safety Improvements
Presented to Community Board 1, March 21, 2017
Williamsburg Bridge Access Improvements

PRESENTATION OVERVIEW

- **Background**
  - Growth in Cycling
  - L Train Shutdown
  - Neighborhood Connectivity
  - Proposal Overview

- **Williamsburg Bridge Approach**
  - S 5th St, S 5th Pl, S 4th St, Borinquen Pl

- **Scholes St, Meserole St Connections**
  - S 3rd St, Scholes St, S 4th St, Meserole St

- **Summary**
Background
NEW YORK CITY MOBILITY

Growth in NYC (2010-2015)

- +370,000 New York City residents
- +520,000 new jobs
- +20% growth Tourists

Recent Travel Trends (2010-2015)

- +10% growth in subway trips
- +80% growth in daily cycling trips
  Including 60,000 Citi Bike trips daily

Biking provides an efficient and affordable transportation option for a growing city

GROWTH IN CYCLING – Williamsburg Bridge

83% increase in bike commuting in Brooklyn 2010-2015

An average of 7,580 cyclists used the Williamsburg Bridge every day in 2016 - an increase of 13% compared to 5 years ago
Substantial increase in bike ridership on Williamsburg Bridge expected with closure of L line

- **During Hurricane Sandy**, bike volumes on Manhattan Bridge increased **200-300%**
- **During the 2005 transit strike**, bike volumes on the East River bridges more than quadrupled

Biking will provide a convenient alternative to transit for regular L train riders
Background

NEIGHBORHOOD CONNECTIVITY

Williamsburg Bridge structure, elevated Brooklyn-Queens Expressway and their associated ramps divide neighborhoods.
PROPOSAL OVERVIEW

- **Williamsburg Bridge Access**
  Bike Access and Pedestrian Safety Improvements on S 4th St, Borinquen Pl, S 5th Pl, and S 5th St

- **Scholes St / Meserole St Connections**
  New Bike Lanes on S 3rd St, Scholes St, S 4th St, and Meserole St
Williamsburg Bridge Access
PROPOSED IMPROVEMENTS

1. Intersection Safety Improvements at S 4th Pl, Havemeyer St, and Borinquen Pl
2. Two-way Protected Bike Lane on S 5th Pl and S 4th St
3. Eastbound Bike Connection on Borinquen Pl Median
4. Parking Protected Bike Lane on S 5th St
Intersection Safety
Improvements at S 4th St, Havemeyer St and Borinquen Pl

EXISTING CONDITIONS

Challenging intersection disconnects neighborhoods
- No pedestrian crossings at S 4th St and bridge entrance
- No direct connection for bikes from Williamsburg Bridge to Borinquen Pl/Grand St
- Double parking in existing bike lane
- Difficult to cross Borinquen Pl due to heavy right turn
Intersection Safety Improvements at S 4th St, Havemeyer St and Borinquen Pl

EXISTING CONDITIONS
New signalized crossings at S 4th St and bridge entrance and signal timing changes at Havemeyer St create seamless pedestrian and bike connection through intersection
- New concrete pedestrian island, expanded refuge island and median
- Double right turn from Havemeyer St to Borinquen Pl on separate phase from pedestrian crossing
  - Reduces delay by 88% and queue length by 73%
- Requires loss of 4 parking spaces during the PM peak, Monday to Friday, 2-7pm.
EXISTING CONDITIONS

Existing routes to bridge challenging, indirect
- Route to bridge requires challenging left turn from S 4th St to S 5th Pl and uses shared sidewalk on S 5th Pl resulting in
  - high bike volumes that conflict with pedestrians
  - high incidence of contraflow biking
- No eastbound connection on S 4th St to Borinquen Pl/Grand St, indirect route via Roebling St and S 3rd St
Two-way protected path creates safe, direct connection to/from bridge, accommodates high bike volumes

- Parking protected on S 5th Pl
- Jersey barrier protected / parking protected on S 4th St
- Reduces turning conflicts and bike-pedestrian conflicts
- Improved signal timing at S 4th St and Roebling St
- Requires loss of 2 parking spaces and left turn on S 4th St
EXISTING CONDITIONS

Existing route on S 3rd St is indirect and has an uncontrolled crossing at Borinquen Pl

- Indirect route leads to contraflow biking
- Proposed two-way protected bike lane on S 4th St would end at Havemeyer St and Borinquen Pl
- Illegal parking along median disrupts neighborhood continuity, impairs pedestrian and bike movements
Williamsburg Bridge Approach

New eastbound bike path along Borinquen Pl median creates safe, direct connection from bridge and S 4th St to Borinquen Pl/Grand St
- Eliminates illegal parking along median
- Opportunity to reimagine public space

PROPOSED IMPROVEMENTS

Eastbound Bike Connection on Borinquen Pl Median
Williamsburg Bridge Approach

Potential for DOT Art on Borinquen Pl Median
Williamsburg Bridge Approach

Parking Protected Bike Lane on S 5th St

EXISTING CONDITIONS

PROPOSED IMPROVEMENTS

Parking protected bike lane creates stronger western connection to and from bridge path
- Parking protected eastbound lane connects Berry St to bridge path
- Parking protected two-way path connects bridge path to Driggs St
- Requires the loss of 3 parking spaces

Berry St to Driggs Ave

Driggs Ave to S 5th Pl
Scholes St, Meserole St Connections

PROPOSED IMPROVEMENTS

1. Eastbound Bike Lane on S 3rd St and Scholes St
2. Westbound Bike Lane on Meserole St and S 4th St
EXISTING CONDITIONS

Bike lanes create new connection from bridge to East Williamsburg and Bushwick
- Organize roadway, calm traffic
- Provide dedicated space for cyclists
- No impact on capacity or parking

PROPOSED IMPROVEMENTS

Eastbound Bike Lane on S 3rd St and Scholes St

Borinquen Pl to Leonard St
Bushwick Ave to Morgan Ave

Leonard St to Bushwick Ave
Scholes St, Meserole St Connections

2 Westbound Bike Lane on Meserole St and S 4th St

EXISTING CONDITIONS

Morgan Ave to Bushwick Pl

Shared lanes and bike lanes create from East Williamsburg and Bushwick to bridge
- Organize roadway, calm traffic
- Provide dedicated space for cyclists where feasible
- No impact on capacity or parking

PROPOSED IMPROVEMENTS

Bushwick Pl to Borinquen Pl

PROPOSED IMPROVEMENTS
EXISTING CONDITIONS

PROPOSED IMPROVEMENTS

Connection to Borinquen Pl
- Use wide sidewalk on south side of Borinquen Pl to access signalized intersection and cross to westbound bike lane
- Discourages contraflow riding
- Requires the removal of 1 parking space

Bike Stamps
L Train Shutdown

Grand Street
- A plan will be submitted this year once input from workshops is synthesized
- Will be part of a larger roll out of L train mitigation

EXISTING CONDITIONS – Grand St

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<tr>
<th>South Sidewalk</th>
<th>9’ Parking Lane</th>
<th>5’</th>
<th>11’ Travel Lane</th>
<th>11’ Travel Lane</th>
<th>5’</th>
<th>9’ Parking Lane</th>
<th>North Sidewalk</th>
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Summary
BENEFITS OF DESIGN ELEMENTS

Summary

Roadway markings

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

Cyclists
- Dedicated space for cyclists
- Increase predictability of cyclists location
- Direct connections to existing network
- Provide wayfinding

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

Organized roadway

Dedicated space for cyclists

Shorter, safer pedestrian crossings
Questions?

THANK YOU!