



WILLIAMSBURG BRIDGE ACCESS AND CONNECTIONS

Bike Network Development and Safety Improvements

Presented to Community Board 1, March 21, 2017

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

1

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



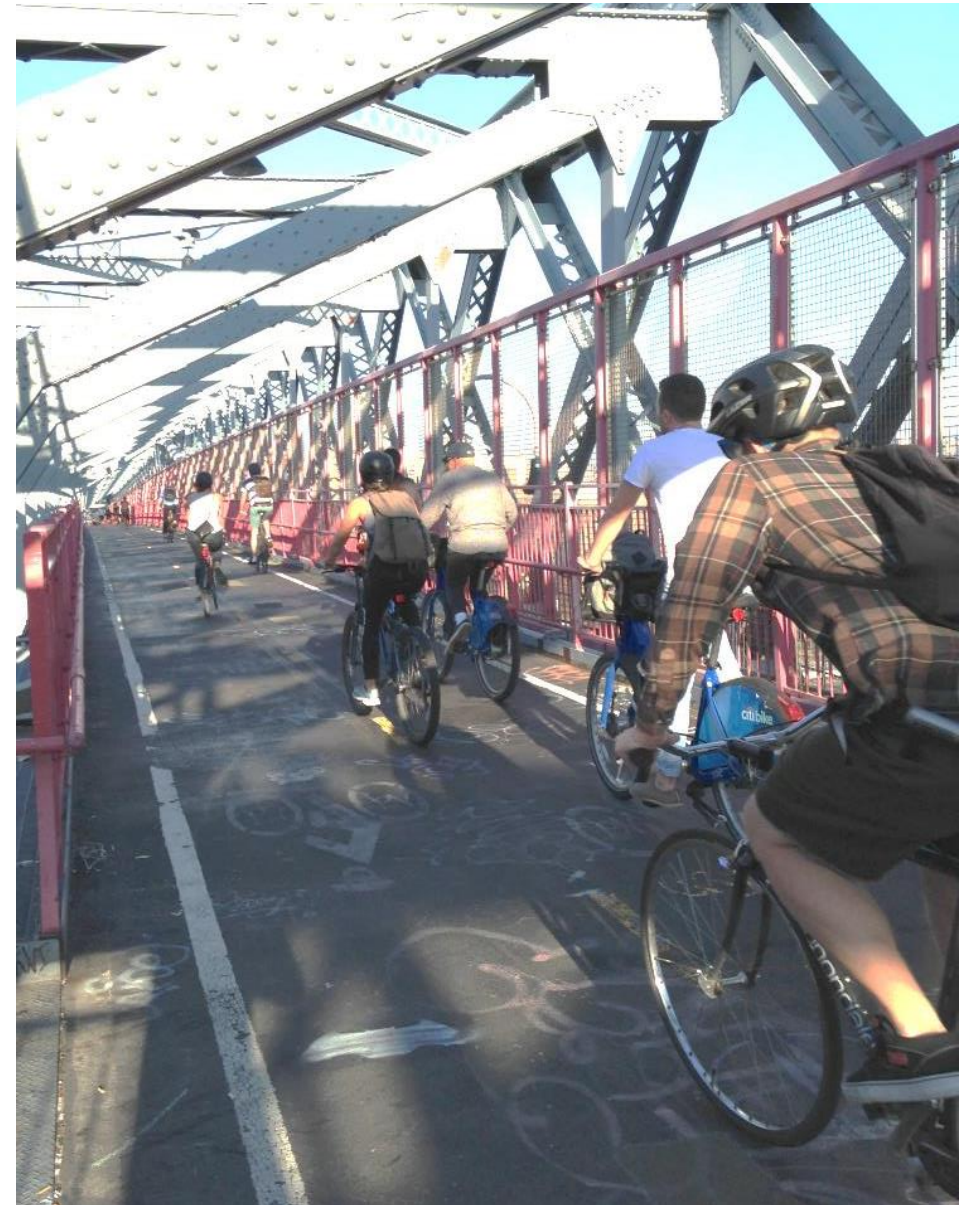
+80%
growth in daily
cycling trips
Including 60,000
Citi Bike trips daily

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

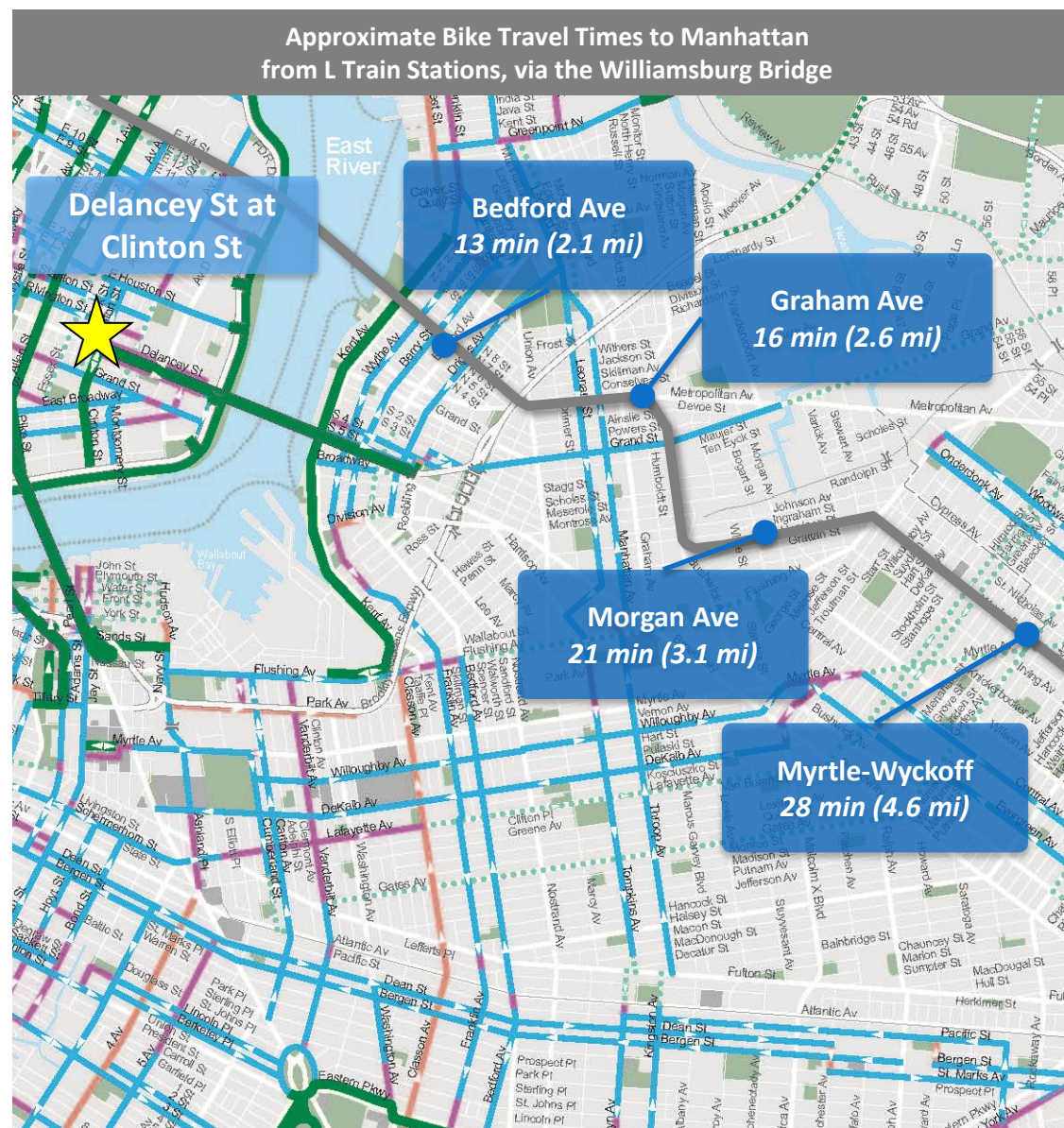


GROWTH IN CYCLING – L Train Shutdown

Substantial increase in bike ridership on Williamsburg Bridge expected with closure of L line

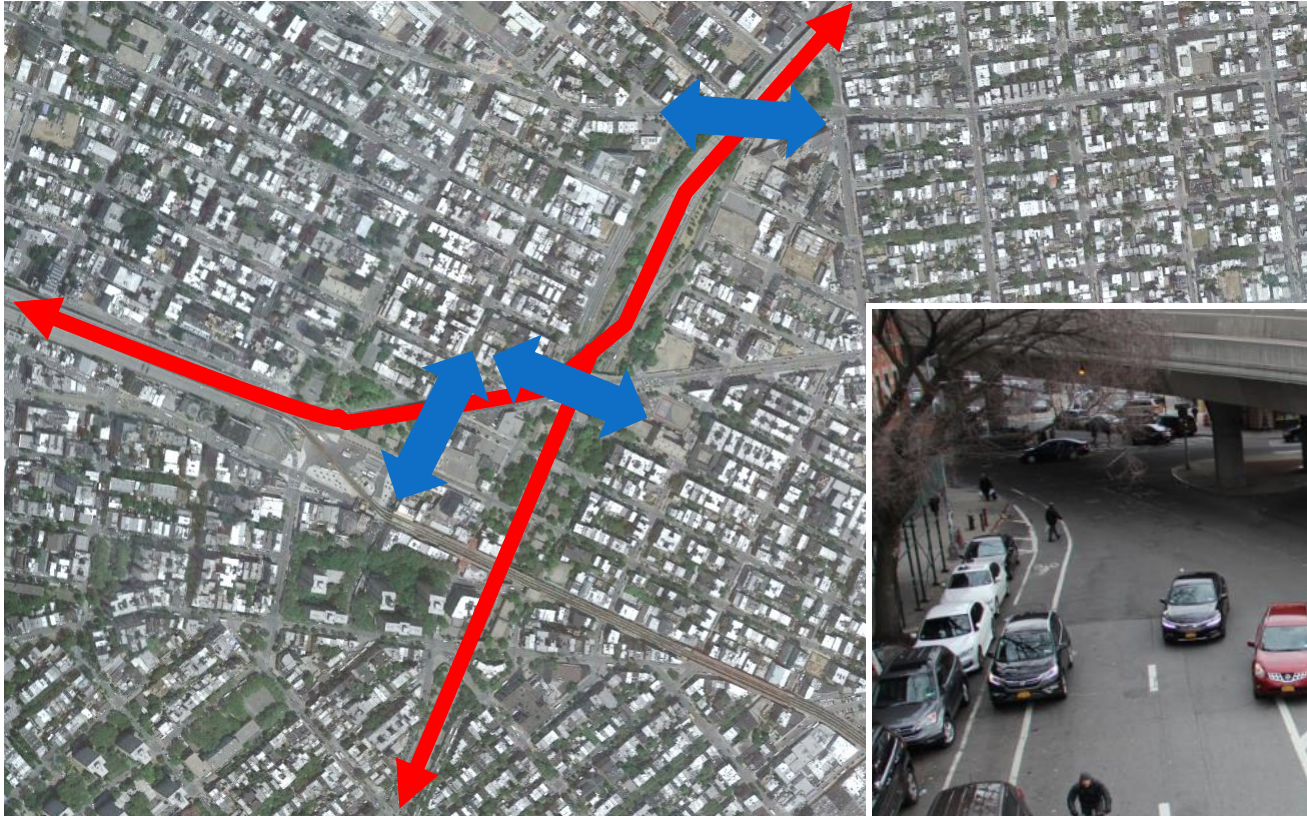
- **During Hurricane Sandy**, bike volumes on Manhattan Bridge increased **200-300%**
- **During the 2005 transit strike**, bike volumes on the East River bridges **more than quadrupled**

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

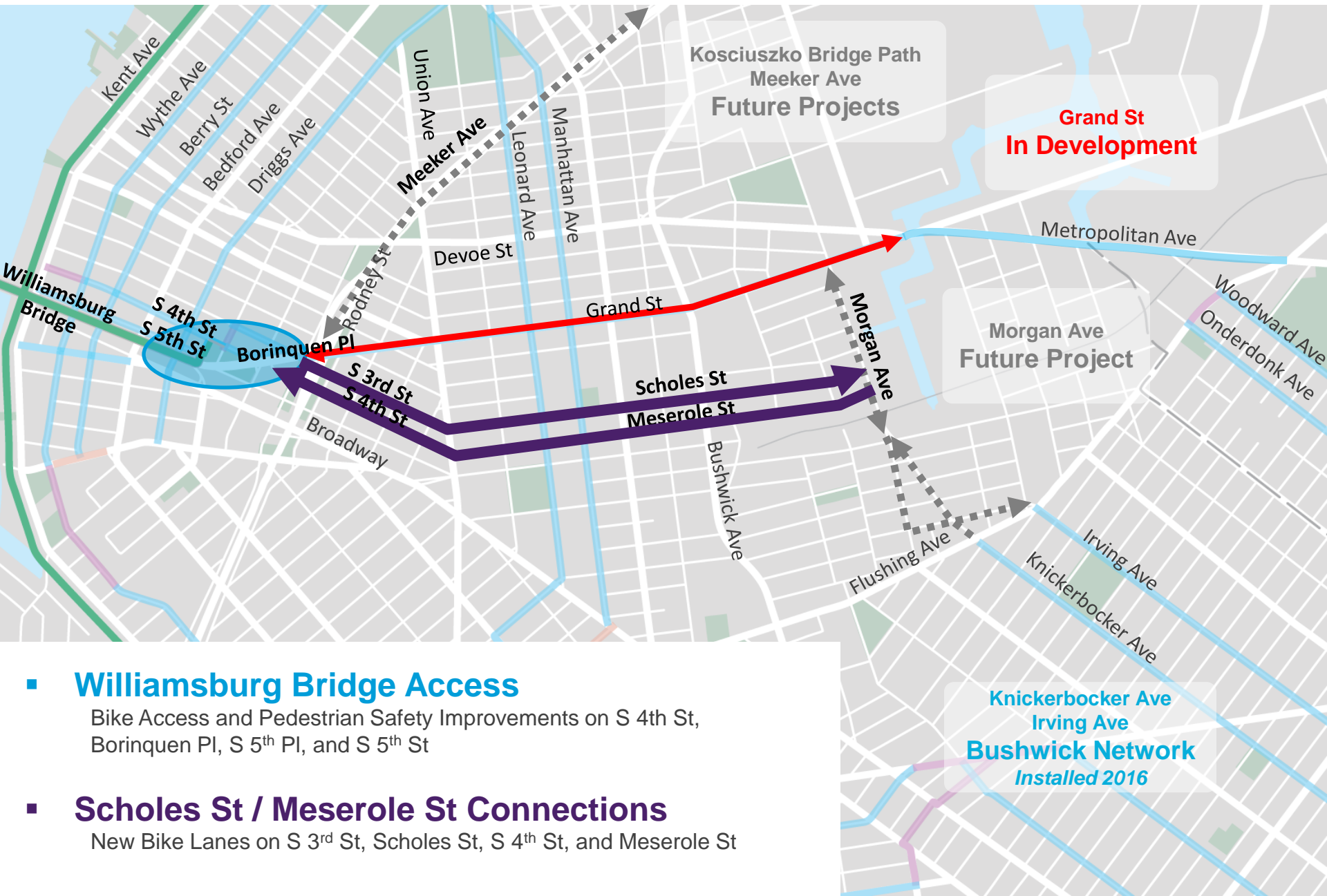


NEIGHBORHOOD CONNECTIVITY

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

2

PROPOSED IMPROVEMENTS

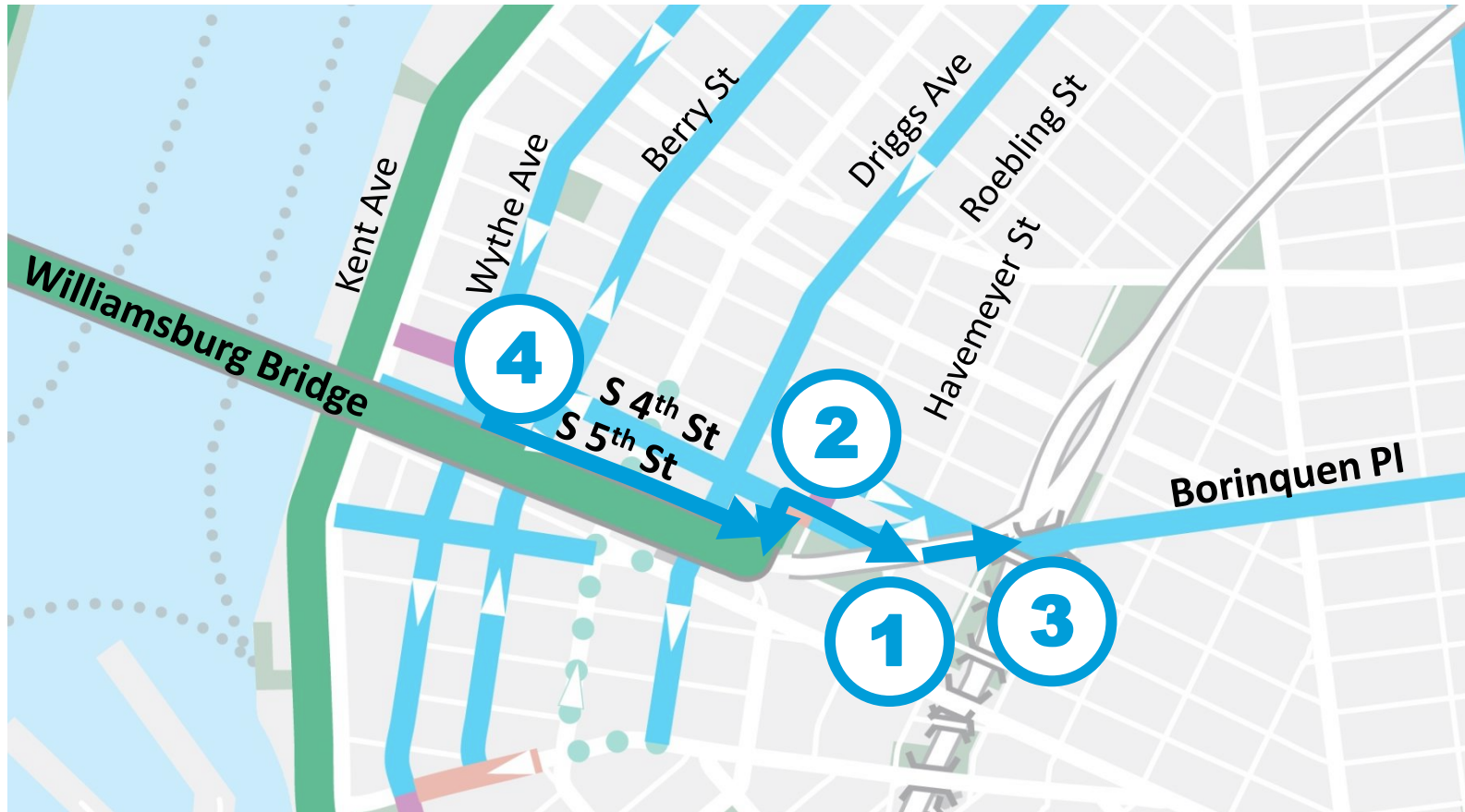
- 1

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



Williamsburg Bridge Approach

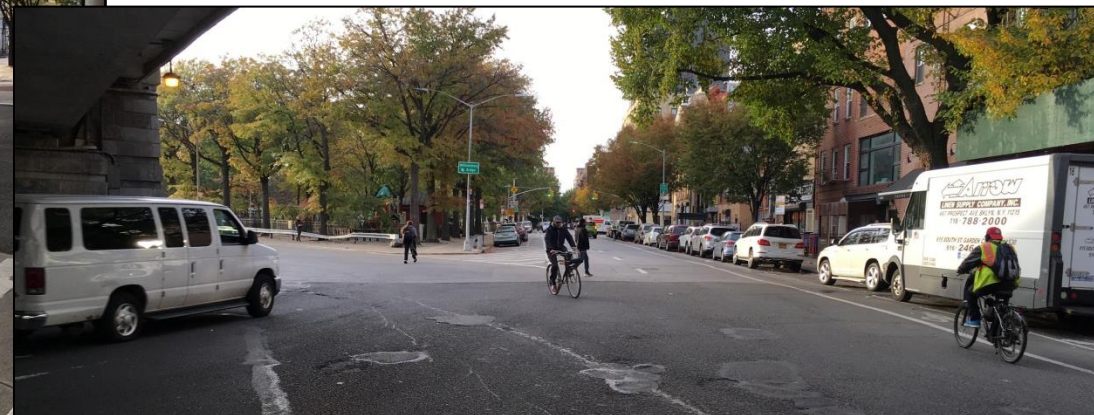
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Intersection Safety Improvements at S 4th St, Havemeyer St and Borinquen Pl

EXISTING CONDITIONS

Challenging intersection disconnects neighborhoods

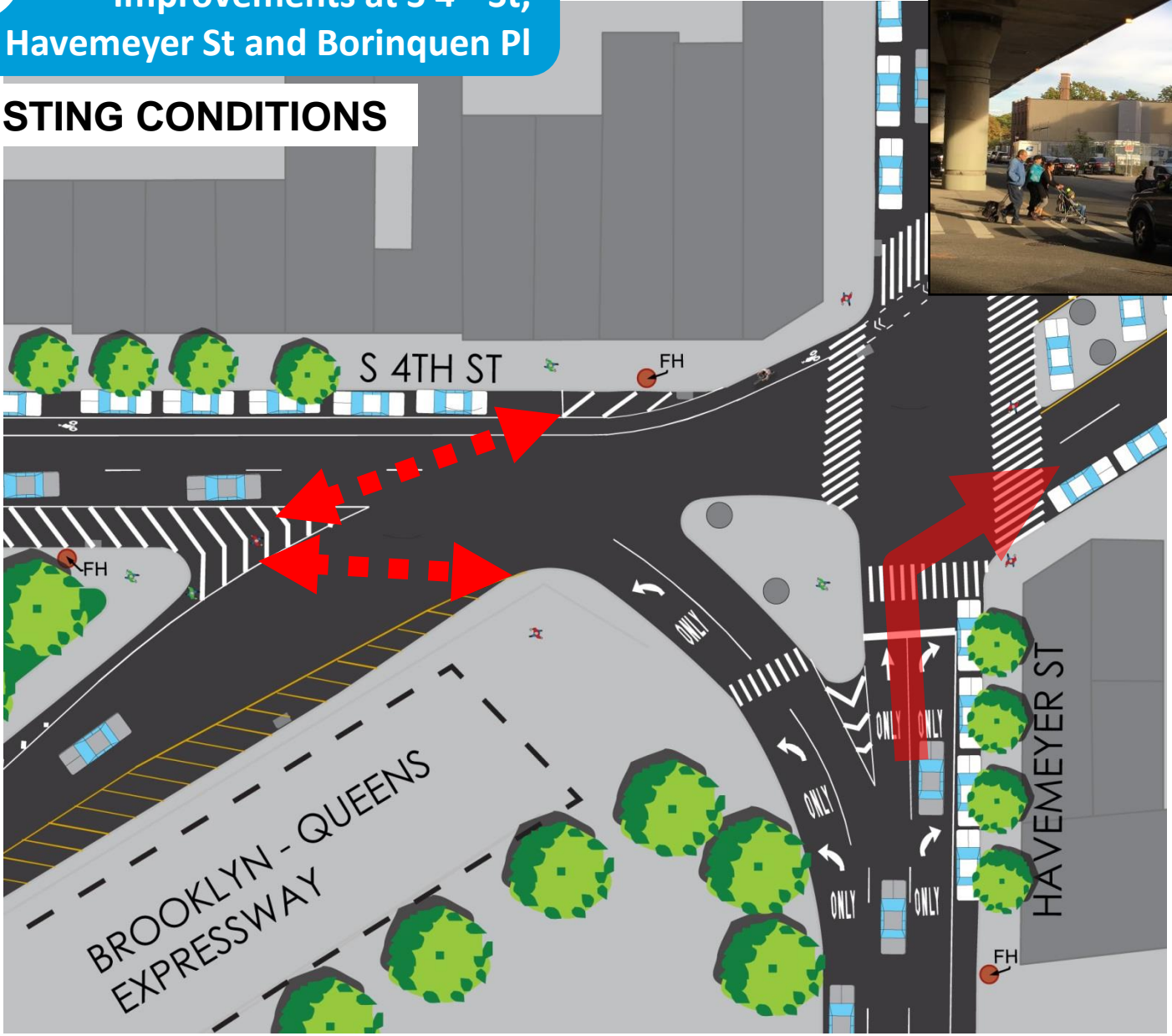
- No pedestrian crossings at S 4th St and bridge entrance
- No direct connection for bikes from Williamsburg Bridge to Borinquen Pl/Grand St
- Double parking in existing bike lane
- Difficult to cross Borinquen Pl due to heavy right turn



1

Intersection Safety Improvements at S 4th St, Havemeyer St and Borinquen Pl

EXISTING CONDITIONS



1

Intersection Safety Improvements at S 4th St, Havemeyer St and Borinquen Pl

PROPOSED IMPROVEMENTS

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.



2

Two-way Protected Bike Lane on S 5th Pl and S 4th St

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



2

Two-way Protected Bike Lane on S 5th Pl and S 4th St

PROPOSED IMPROVEMENTS

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



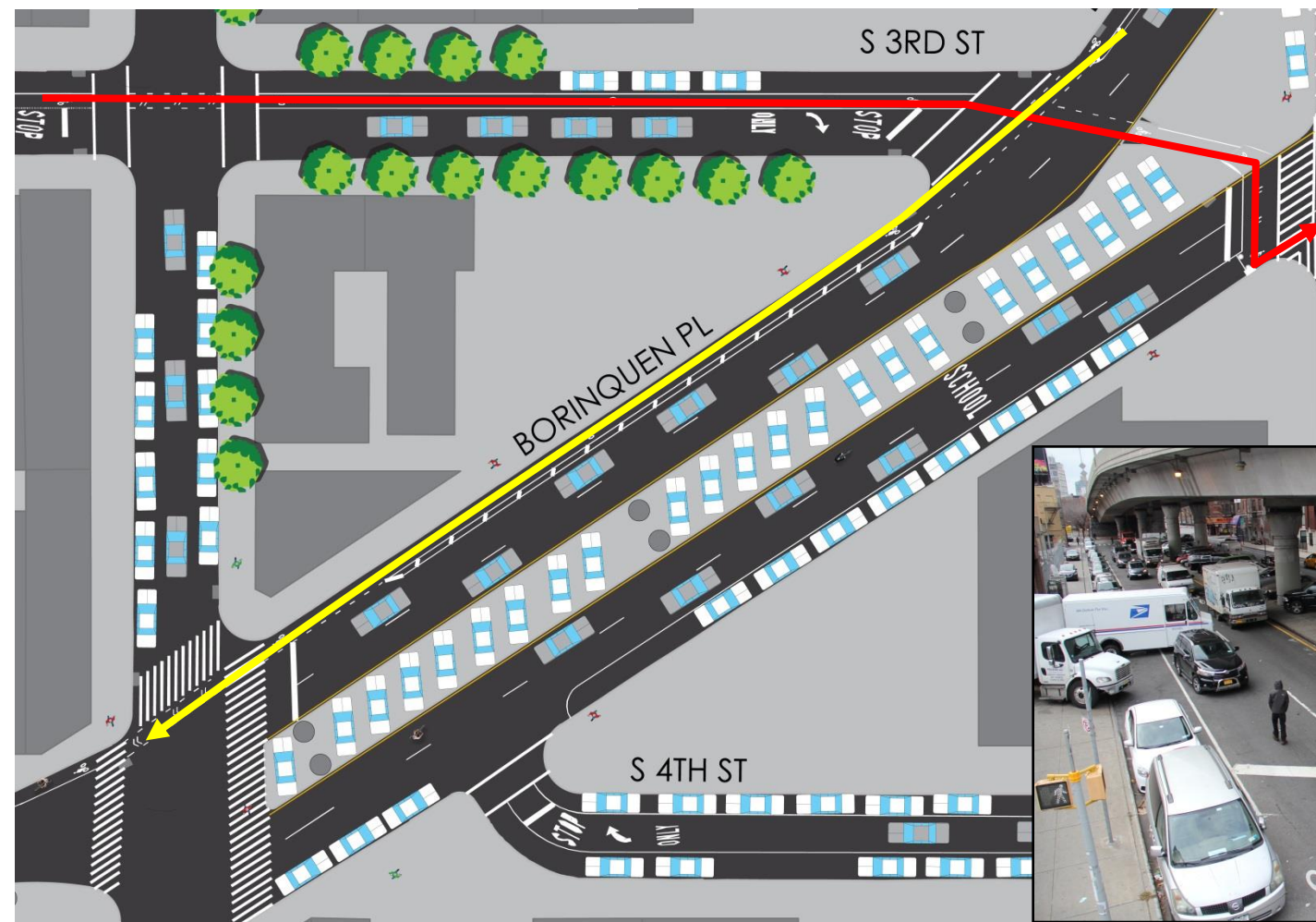
3

Eastbound Bike Connection on Borinquen Pl Median

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

EXISTING CONDITIONS



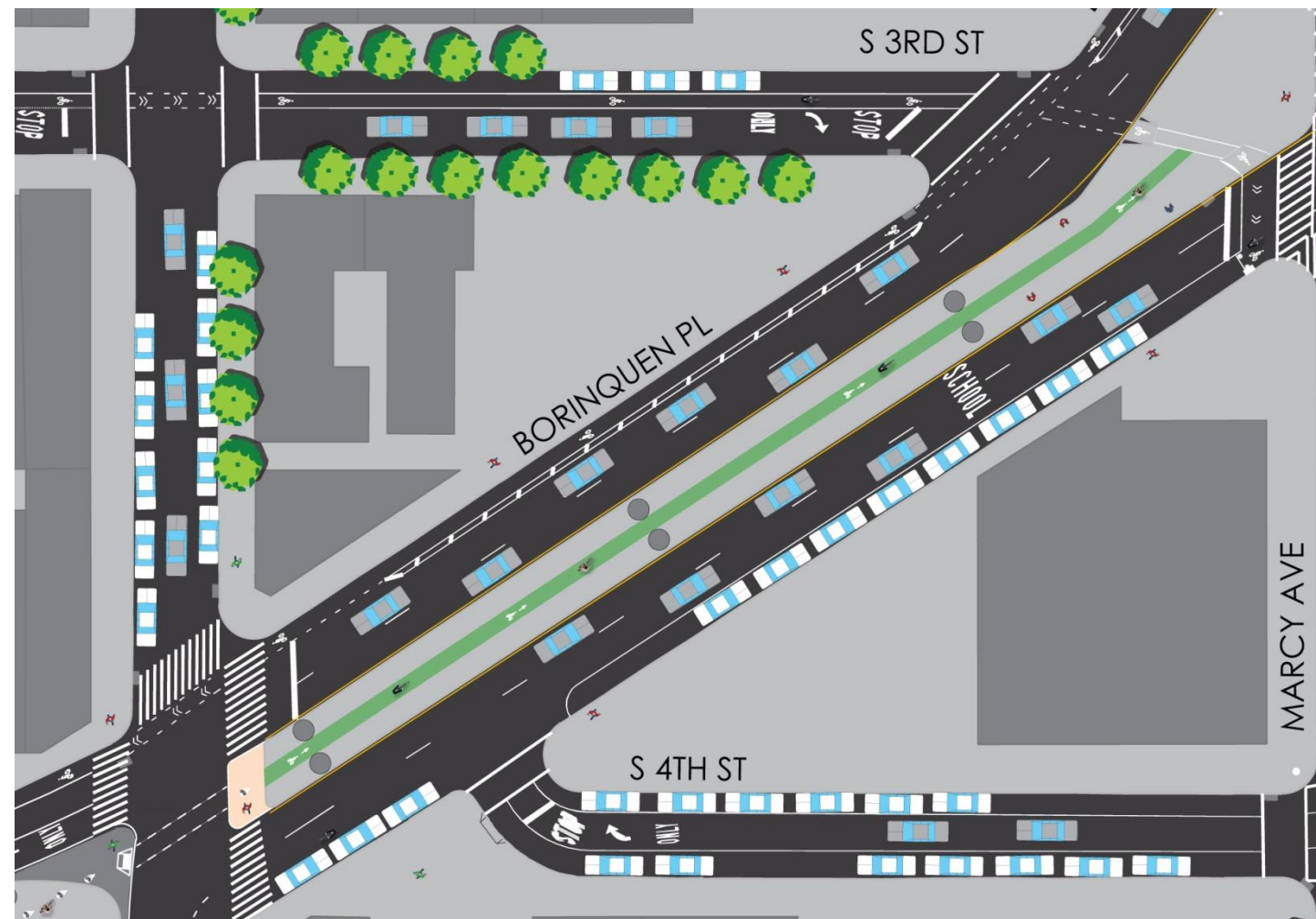
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Eastbound Bike Connection on Borinquen Pl Median

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



3

Potential for DOT Art on Borinquen PI Median



Williamsburg Bridge Approach

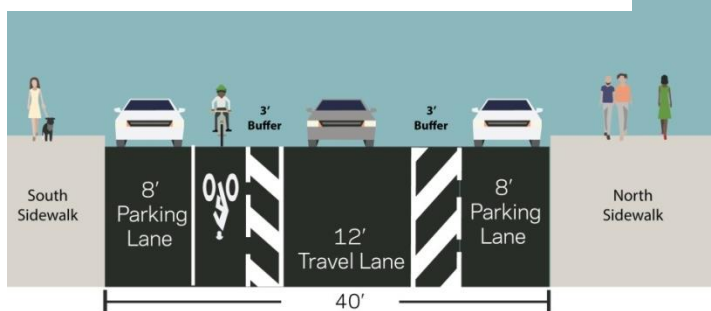
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Parking Protected Bike Lane on S 5th St

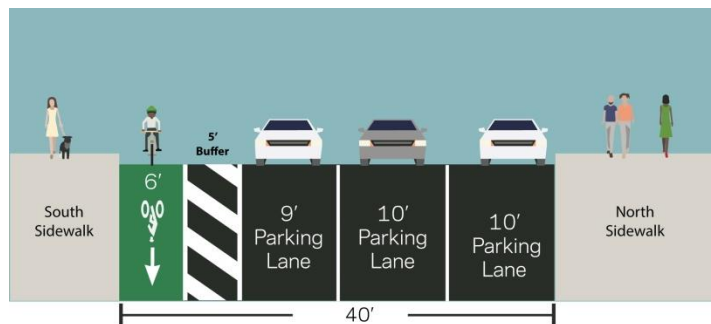


Berry St to Driggs Ave

EXISTING CONDITIONS



PROPOSED IMPROVEMENTS

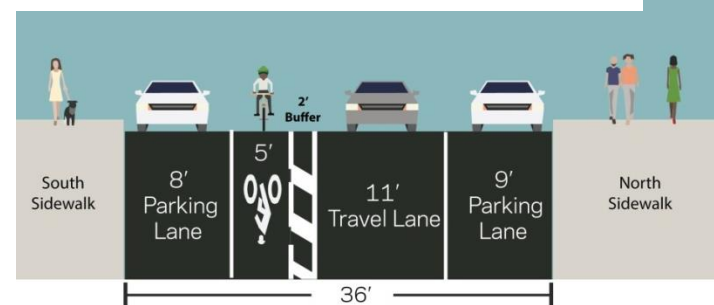


Parking protected bike lane creates stronger western connection to and from bridge path

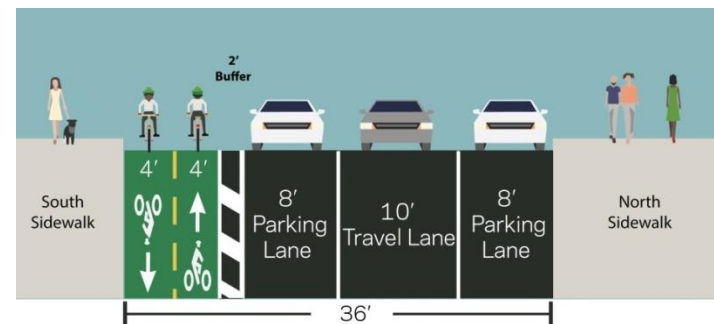
- Parking protected eastbound lane connects Berry St to bridge path
- Parking protected two-way path connects bridge path to Driggs St
- Requires the loss of 3 parking spaces

Driggs Ave to S 5th Pl

EXISTING CONDITIONS



PROPOSED IMPROVEMENTS



Scholes St, Meserole St
Connections

3

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



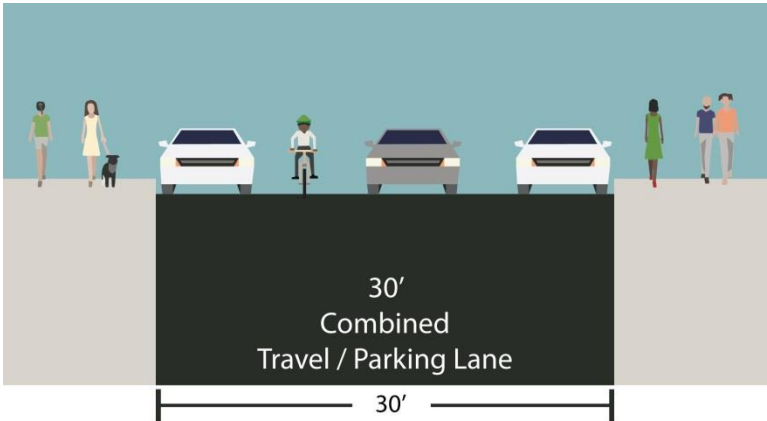
Scholes St, Meserole St Connections

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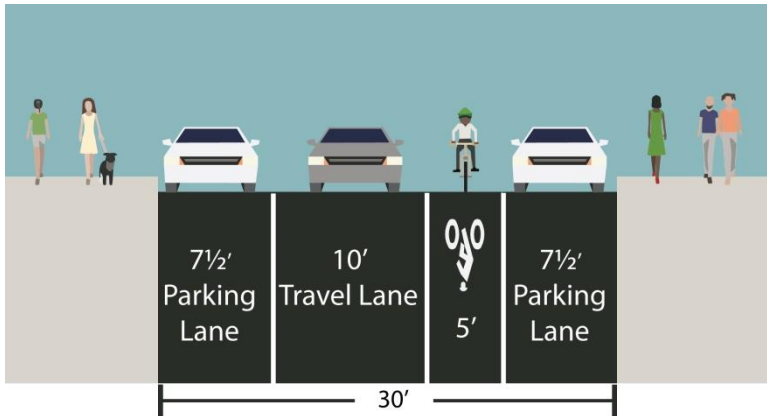
Eastbound Bike Lane on
S 3rd St and Scholes St

Borinquen Pl to Leonard St
Bushwick Ave to Morgan Ave

EXISTING CONDITIONS



PROPOSED IMPROVEMENTS



Bike lanes create new connection from bridge to East Williamsburg and Bushwick

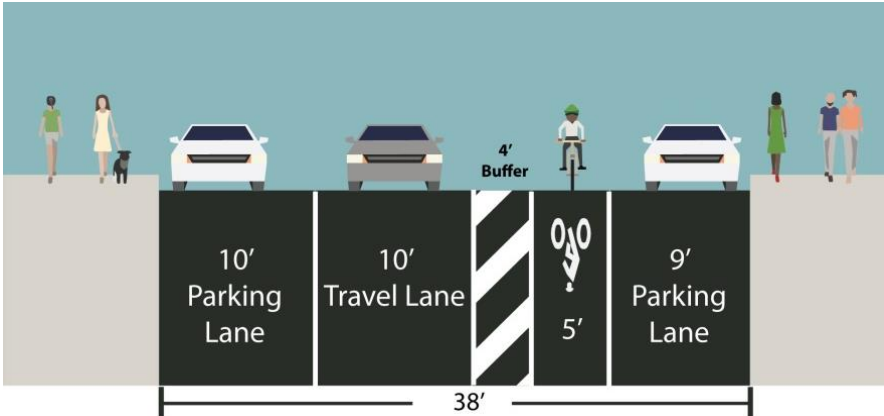
- Organize roadway, calm traffic
- Provide dedicated space for cyclists
- No impact on capacity or parking

Leonard St to Bushwick Ave

EXISTING CONDITIONS



PROPOSED IMPROVEMENTS



2

Westbound Bike Lane on
Meserole St and S 4th St

- 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

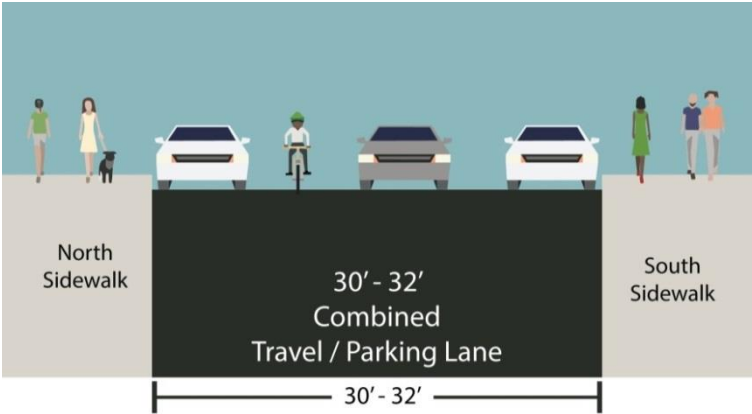
Morgan Ave to Bushwick PI
EXISTING CONDITIONS



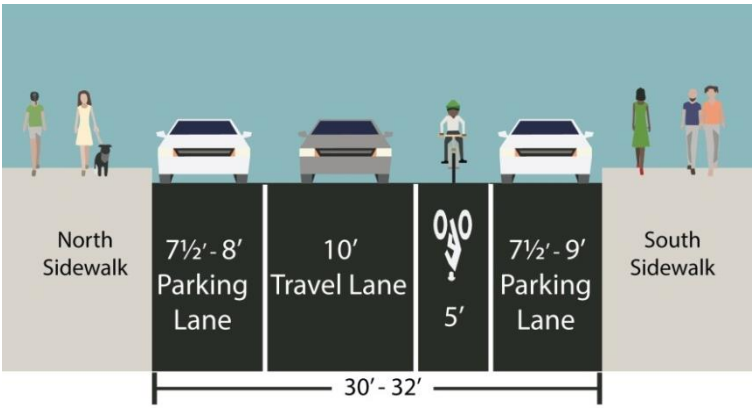
PROPOSED IMPROVEMENTS



Bushwick PI to Borinquen PI
EXISTING CONDITIONS



PROPOSED IMPROVEMENTS



2

Westbound Bike Lane on S 4th St

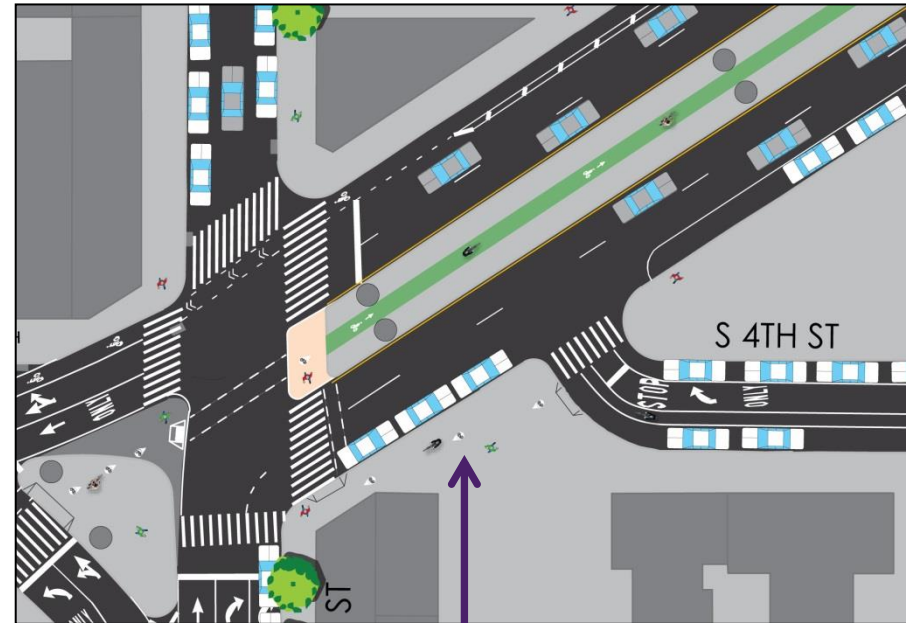
EXISTING CONDITIONS



Connection to Borinquen PI

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

PROPOSED IMPROVEMENTS



Bike Stamps

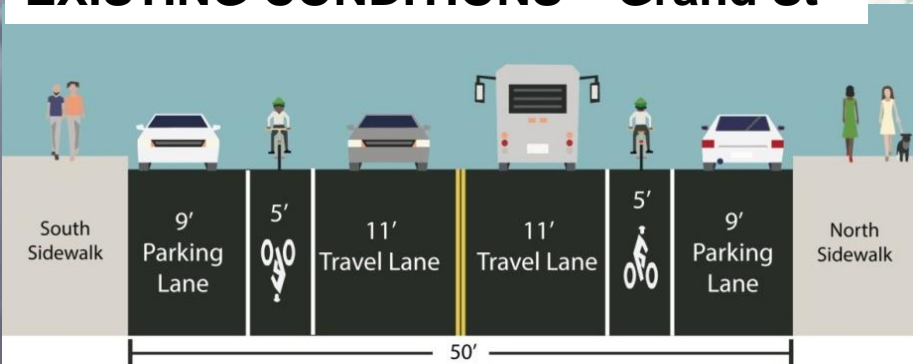
L Train Shutdown

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



Summary

4

BENEFITS OF DESIGN ELEMENTS

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



Questions?

THANK YOU!



NYC DOT



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