



BROADWAY, WHITEHALL STREET
CITY HALL TO BATTERY PARK BICYCLE CONNECTION

Project Presentation
October 2019



PRESENTATION OVERVIEW

1. Background
2. **Project Proposal**
3. Summary



Background

1

PROJECT CONTEXT

2007 Bike lanes installed on Centre St direct cyclists from bridge north and to Greenway

2017 Protected bike lane connection installed on Centre St improves connection to the Brooklyn Bridge from south Shared route bike connections to Water St provides way finding through atypical street grid

2018-19 Protected bike lanes installed on Park Row Extends connection to Brooklyn Bridge and to Chinatown

- 2019**
- Bowling Green Shared Street (currently being installed) *Broadway, Morris St to Beaver St*
 - **City Hall to Battery Park connection:** *Broadway, Whitehall St*

- 2019 - Onwards**
- Capital Projects Sidewalk Reconstruction**
- Park Row
 - Water St at Whitehall (EDC)



LEGEND

- Proposed Bicycle Route
- Existing Bicycle Facilities
 - Protected Bicycle Path
 - Bicycle Lane
 - Shared Lane
 - Signed Route

Broadway Issues

High pedestrian traffic, loading along designated bus routes

High pedestrian traffic

- Pedestrians crossing midblock across multiple travel lanes and buses
- Conflict between pedestrians and left turns at Broadway and John St

Express and local bus routes

- M55, Staten Island (SIM), express buses and tour buses stop along Broadway between Barclay St and Battery Pl
- Truck loading occurs in designated bus lane and in front of bus stops along the west curb
- Cyclists frequently use the bus lane in both directions

Loading Demand

- East curb of Broadway between Fulton St and Morris St is signed as No Standing or Stopping Anytime
- Vehicles load in the bus lane, at the no standing zones or double park along the corridor



Broadway and John St



Broadway and Rector St



Broadway and Morris St

Broadway Biking

Future bike routes lead to Broadway

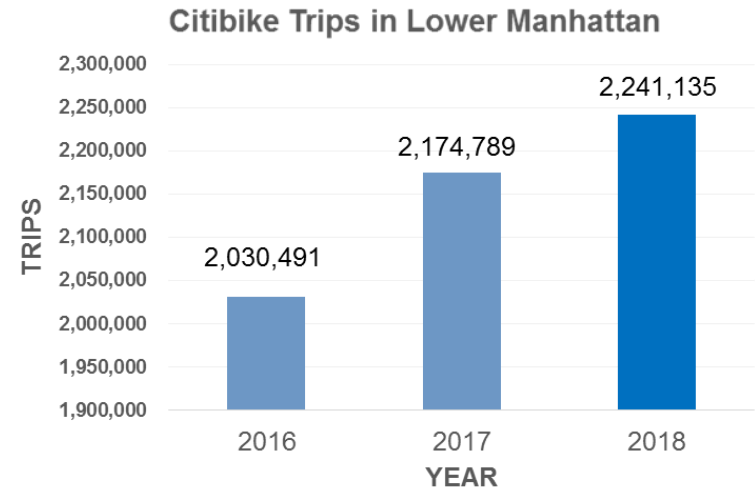
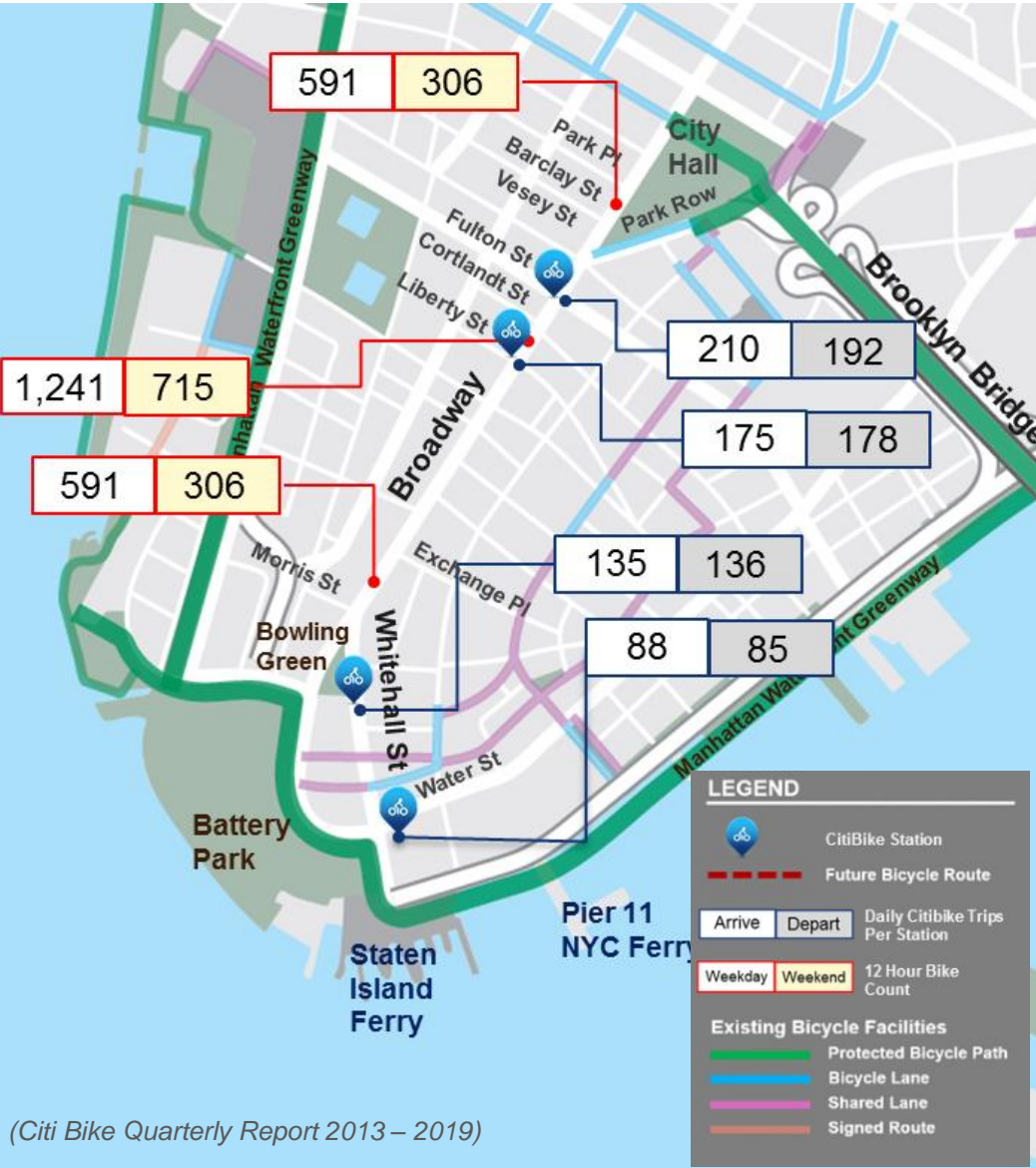
Lack of central connections to Bowling Green, Battery Park

Biking is growing in Lower Manhattan

- More than one million Citi Bike trips have started or ended on Broadway or Whitehall St, Make up 15% of all trips in Lower Manhattan

(Citi Bike Quarterly Report 2013 – 2019)

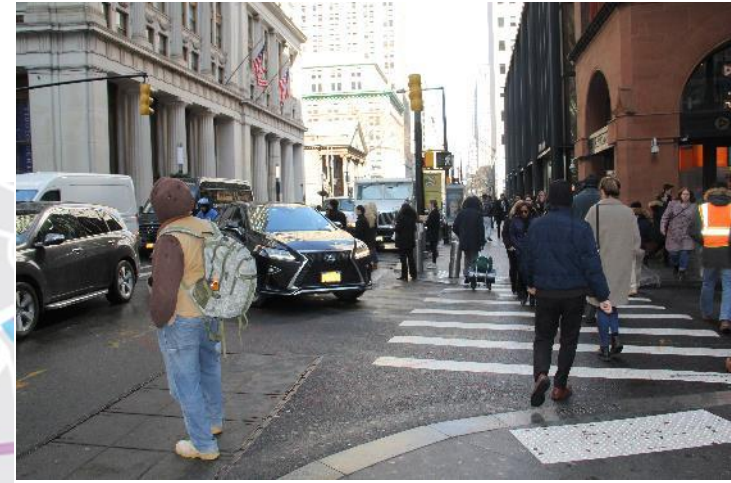
- 1,241 Cyclists on Broadway between Cortlandt St and Liberty (12 Hour Count, Midweek)



Citi Bike expansion between 2016 and 2018 led to more trips from boroughs outside of Manhattan

Broadway Vehicle Volumes

Two designated vehicle lanes in addition to a bus lane



- Traffic volumes drop significantly along the corridor
- High turn volumes conflict with high pedestrian traffic

Removing one vehicle lane between Barclay St and Morris St would provide space for:

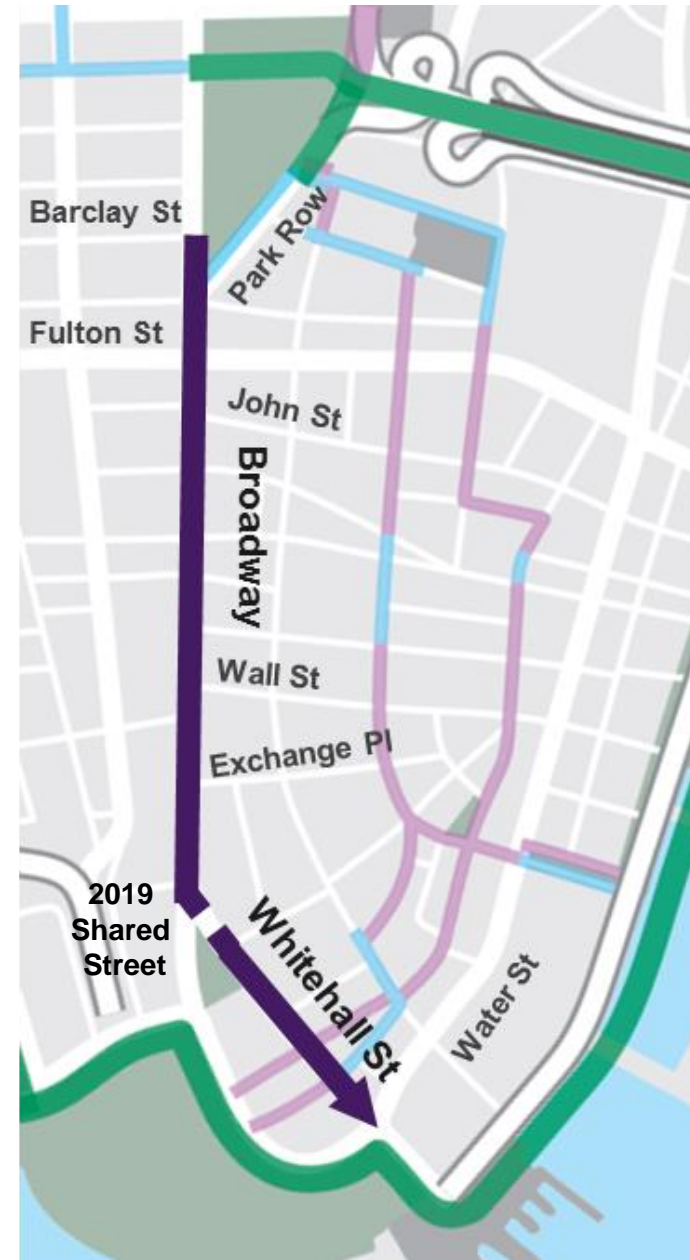
- Pedestrian Improvements
 - Commercial Loading
 - Dedicated bicycle lanes
- without impeding vehicular traffic**

Project Proposal

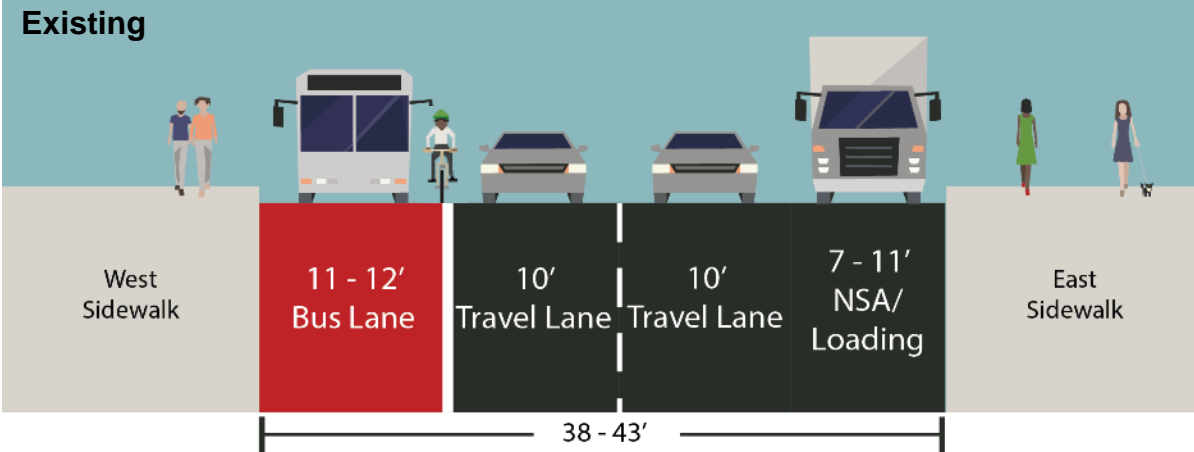
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Broadway Project Goals

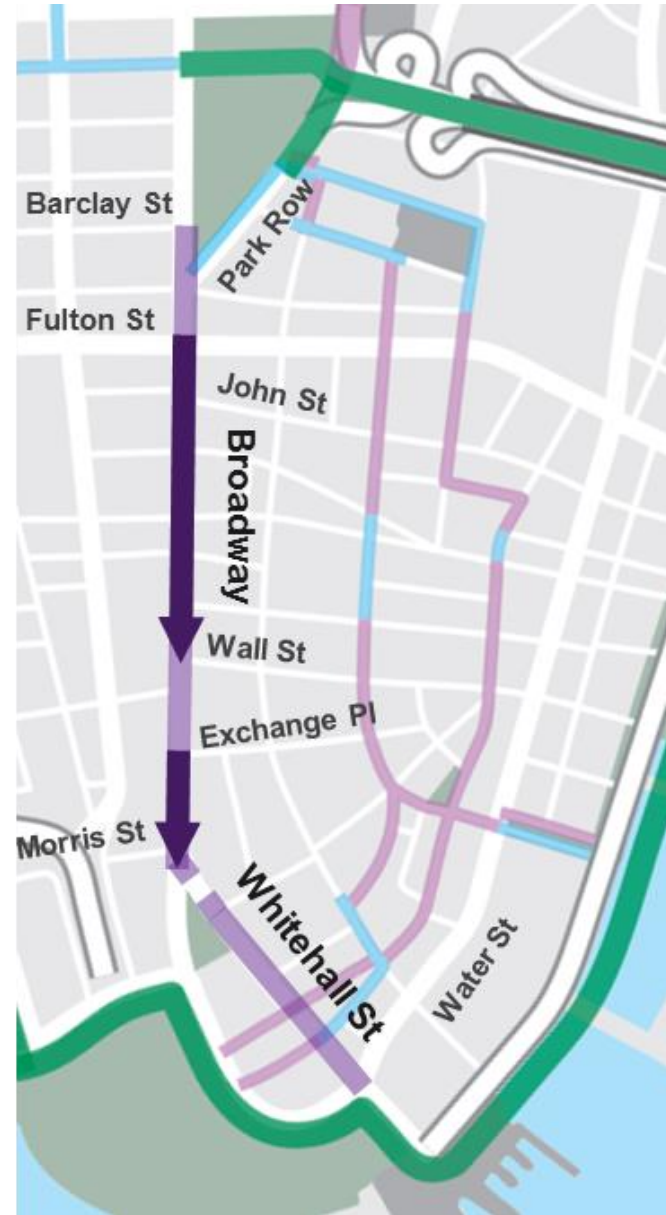
- Formalize and add loading space where possible
- Provide designated space for cyclists, separate from vehicles
- Connect City Hall, Brooklyn Bridge to Bowling Green, Waterfront path
- Improve pedestrian crossings and add painted sidewalk space at Wall St Subway Station
- Maintain traffic flow



Broadway Fulton St – Wall St, Exchange Pl – Morris St



- Cyclists frequently use the bus lane
- High numbers of left turns conflict with pedestrians at John St
- Inconsistent curb regulations along the corridor
- Loading often observed in No Standing, No Stopping areas, or in the bus lane

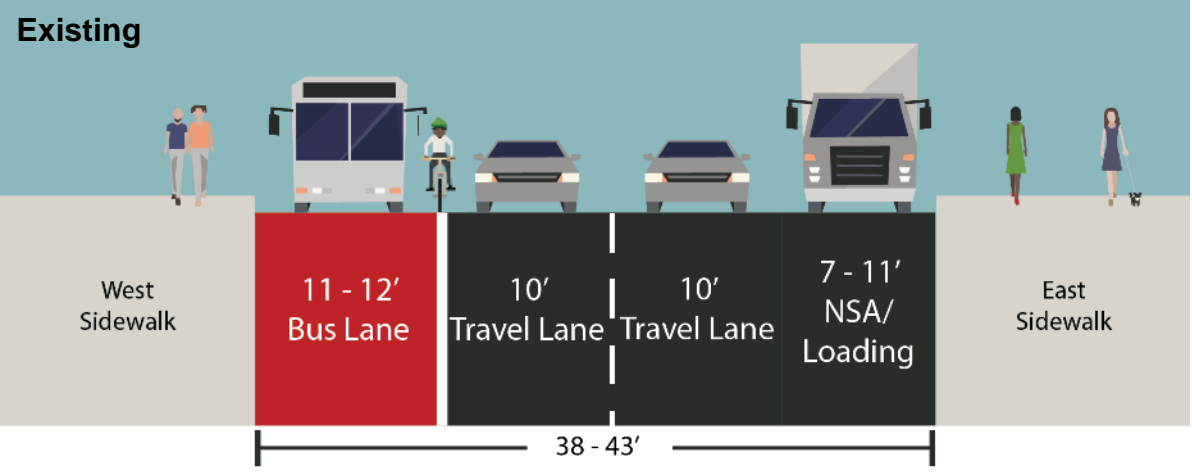


Broadway Fulton St – Wall St, Exchange Pl – Morris St

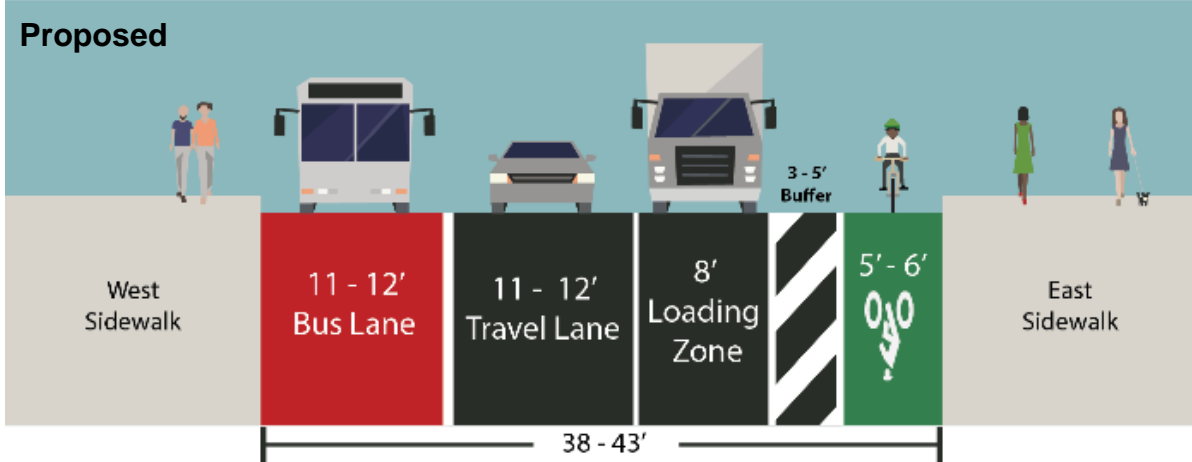
Typical Design



Existing



Proposed



Proposed

- Provide dedicated bike lane
- Add split phase and dedicated turn lane for left turns onto John St
- Add new metered loading where feasible to separate bikes from vehicle traffic, buffer/delineate bike lane on narrow blocks

Broadway John St

Signal timing improvements

Existing



Cycle Length: 90 s
Offset: 45 s

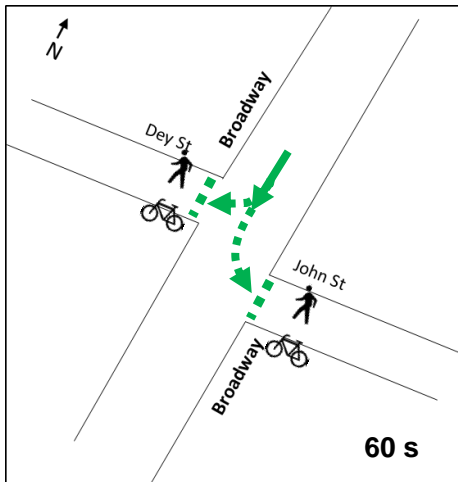
Proposed



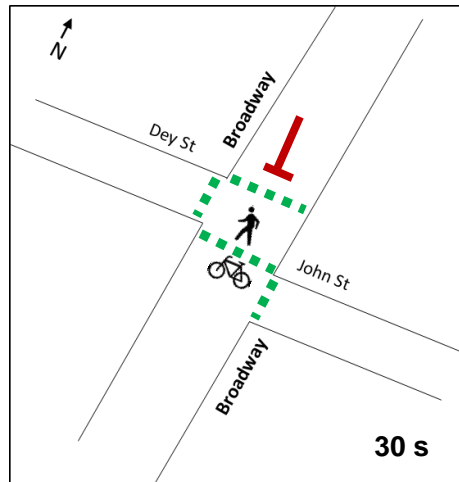
Cycle Length: 90 s
Offset: 40 s

Existing

Phase A

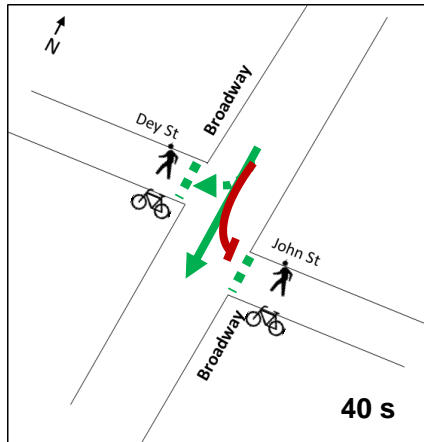


Phase B

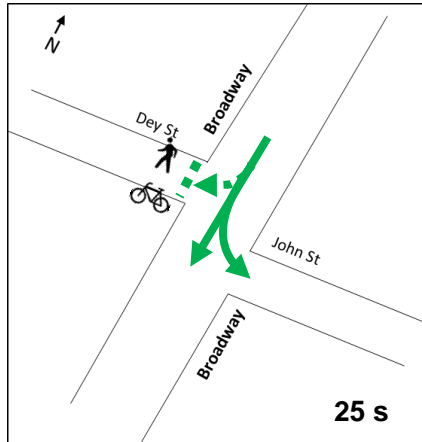


Proposed

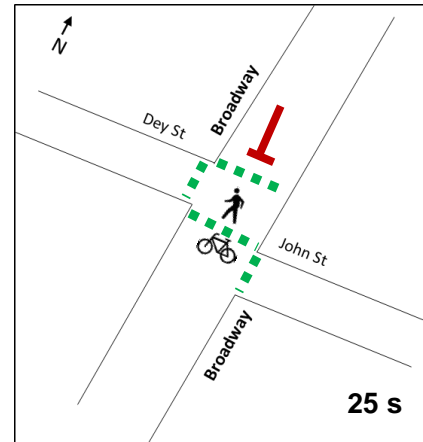
Phase A



Phase B



Phase C



— Pedestrian/Bike Crossing



Protected Movement

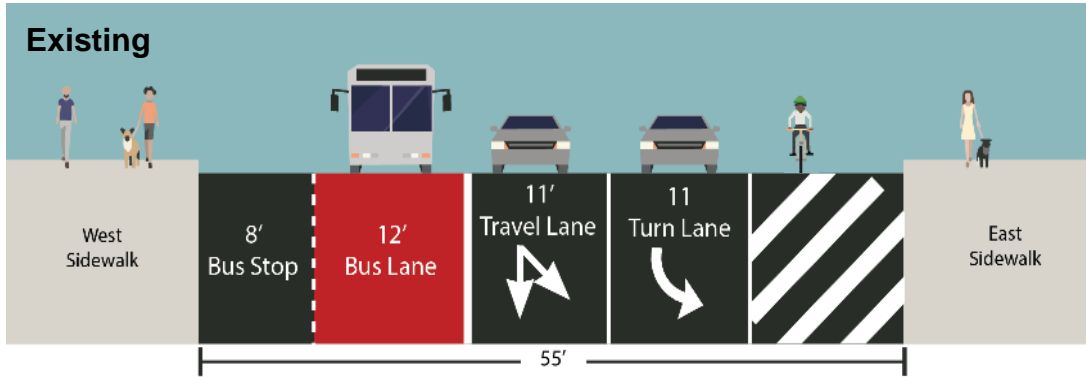


Permitted Movement

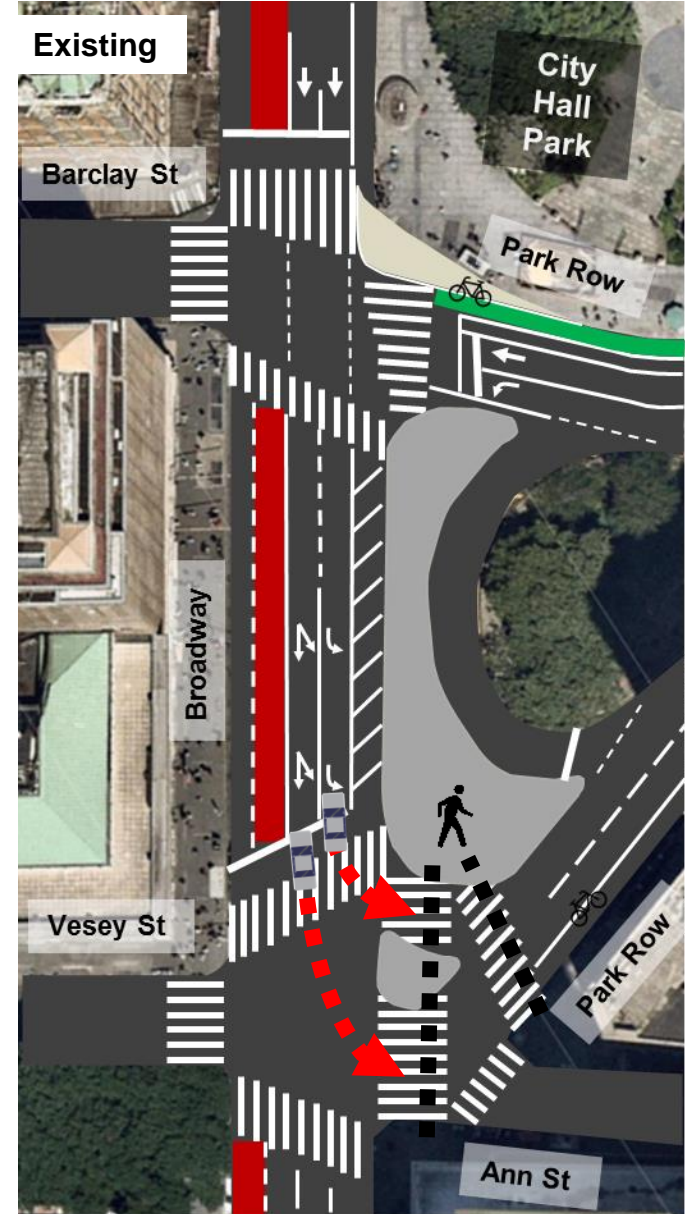


Red Phase

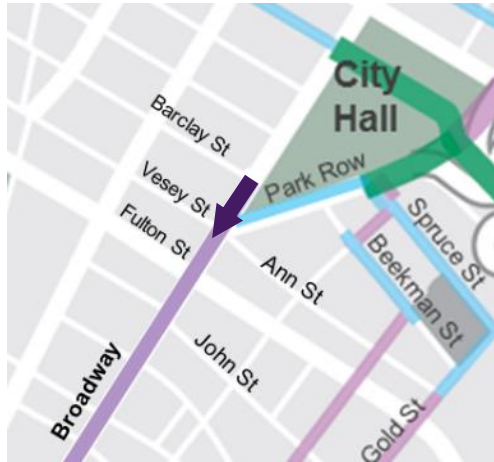
Broadway Barclay St – Vesey St



- No bike route onto Broadway for cyclists arriving from Park Row bike lane/off Brooklyn Bridge
- Excess width marked with channelization
- **Double left turns over long crossing distance at Park Row and Ann St**

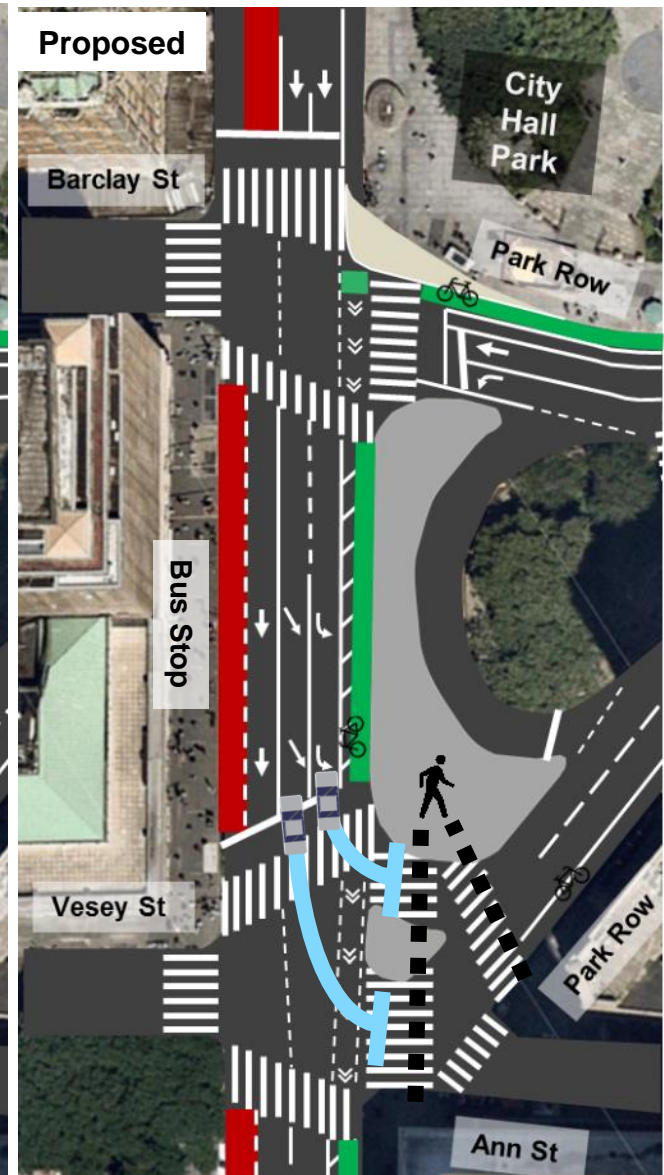
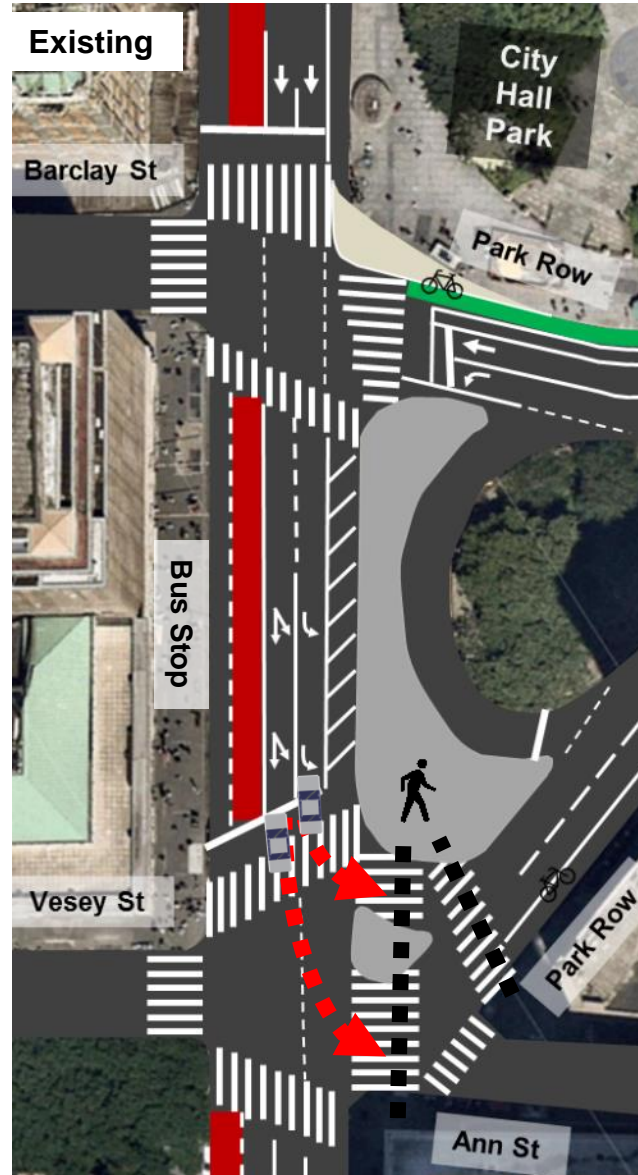


Broadway Barclay St – Vesey St



Proposed

- Two-stage queue box for cyclists turning onto Broadway from Park Row
- Dedicated bike lane on Broadway in existing channelization
- Curbside bus lane and separated through lane and left turn lanes onto Ann St, Park Row
- **Split phase eliminates conflict between pedestrians, cyclists and heavy left turns onto Ann St and Park Row**



Broadway Barclay St – Vesey St

Signal timing improvements

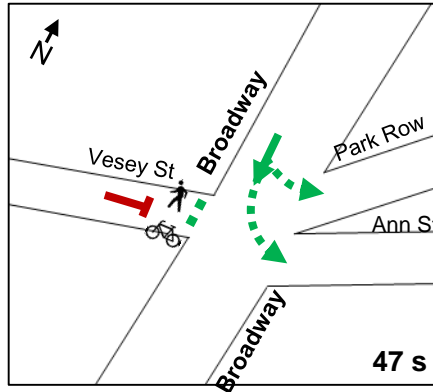
Existing



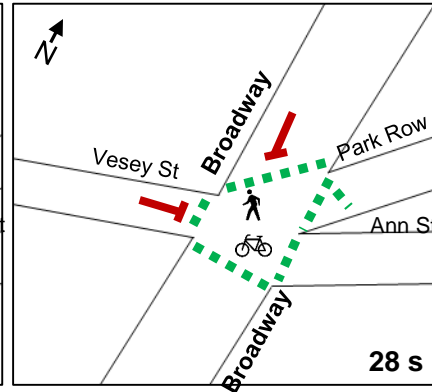
Cycle Length: 90 s
Offset: 32 s

Existing

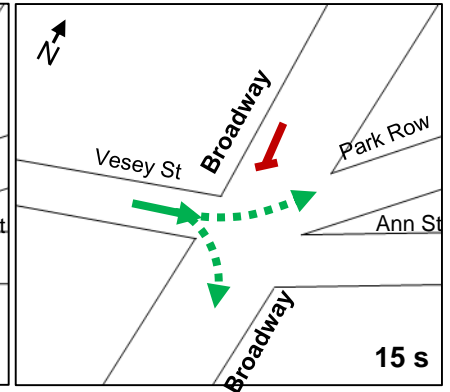
Phase A



Phase B



Phase C



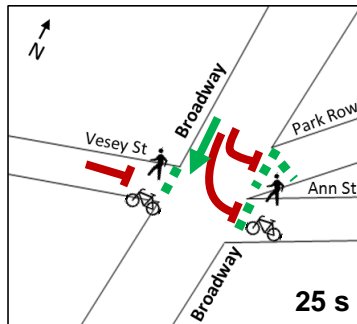
Proposed

Proposed

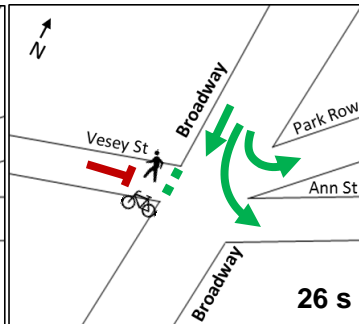


Cycle Length: 90 s
Offset: 32 s

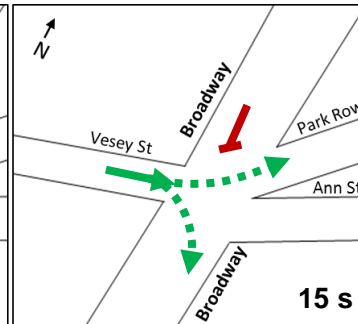
Phase A



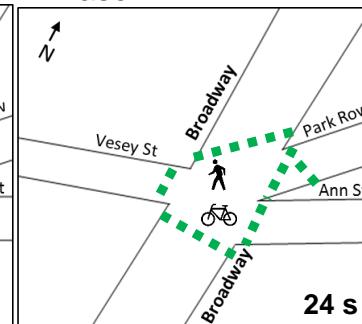
Phase B



Phase C



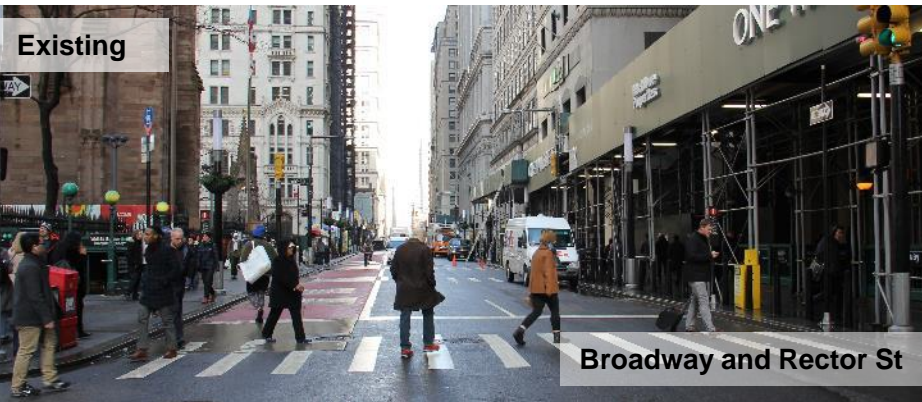
Phase D



Separate phases for left turns and pedestrians crossing on east side



Broadway Wall St – Exchange PI



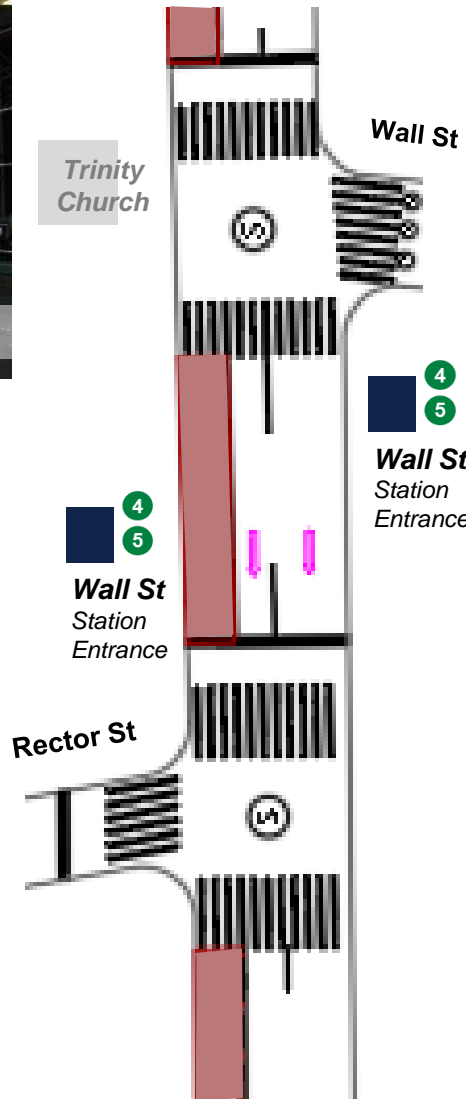
Existing

- Pedestrians exiting and entering the train station frequently cross mid-block, or against through traffic
- Narrow sidewalk due to ongoing construction

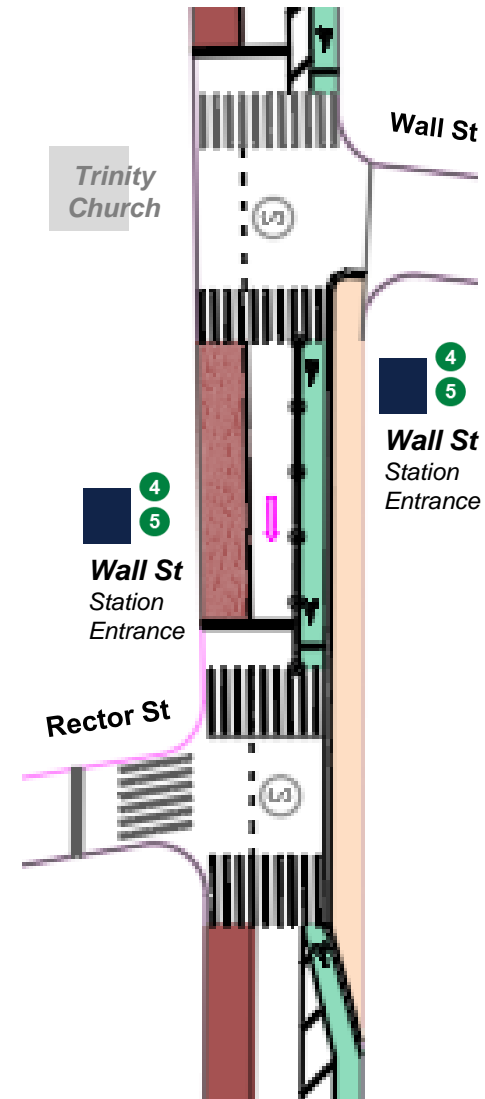
Proposed

- Provide dedicated space for pedestrians and cyclists
- Shorten pedestrian crossings at Wall St station entrances and Exchange PI

Existing



Proposed



Broadway, Whitehall St Morris St – Beaver St

Existing



Whitehall St and Bowling Green

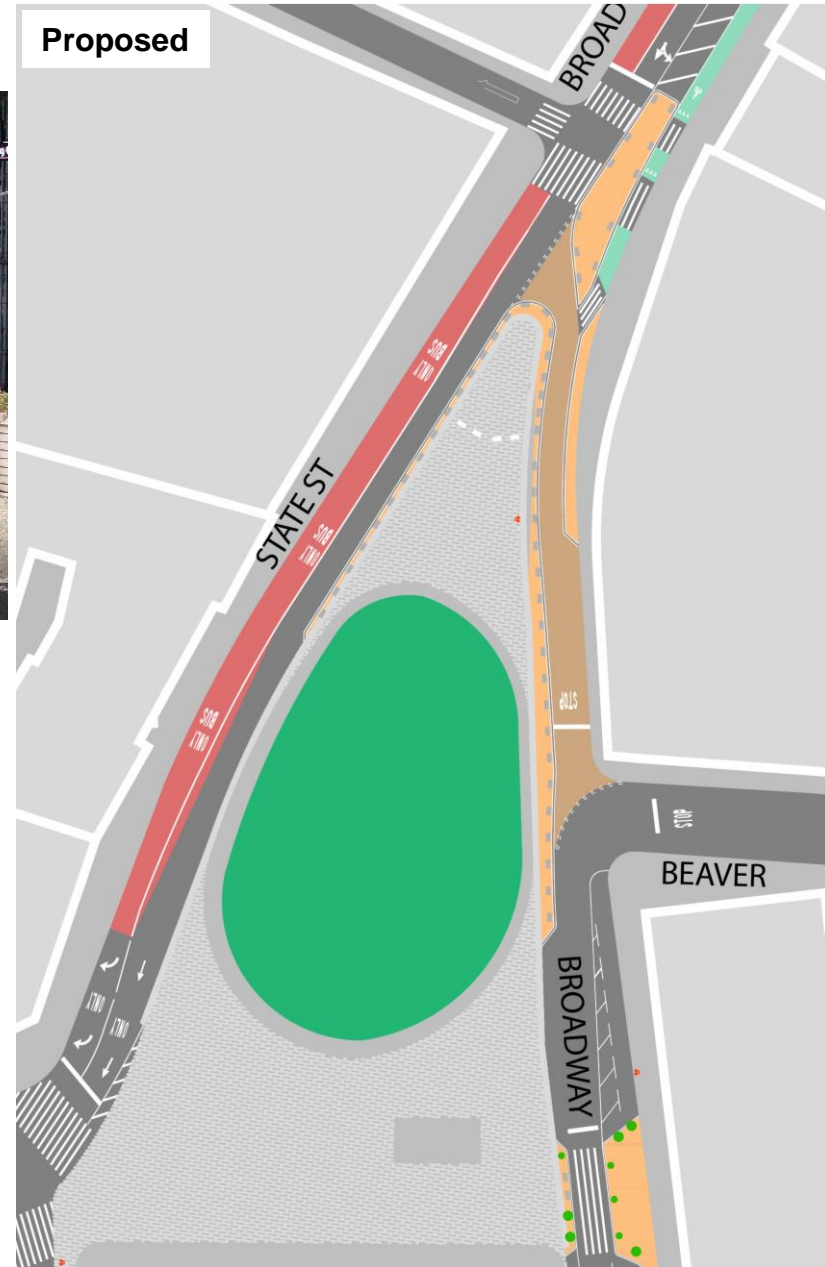


Proposed

Shared Street SIP currently in progress for 2019

- Coordination with Public Space Unit on overlap between proposed bike path design and shared street

Proposed



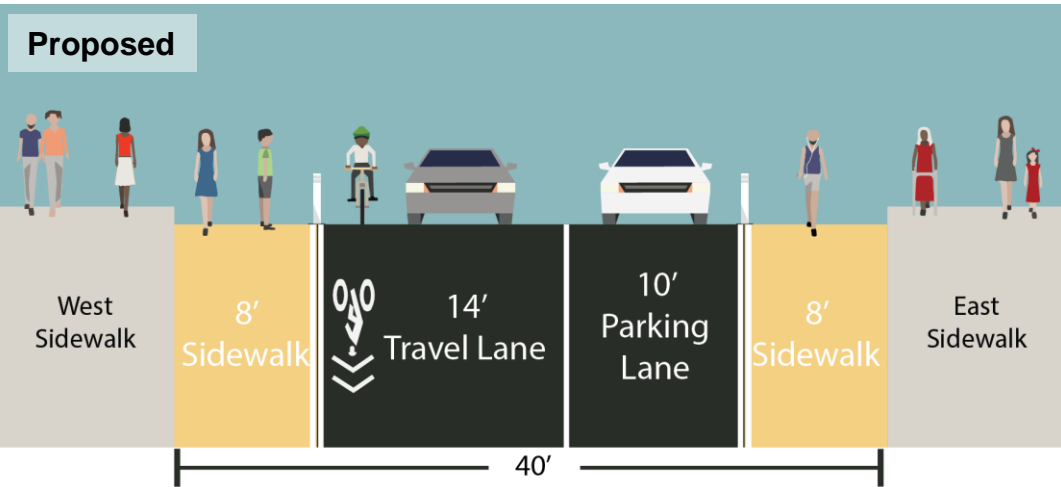
Broadway, Whitehall St Beaver St – Pearl St

Existing



Whitehall St and Bridge St

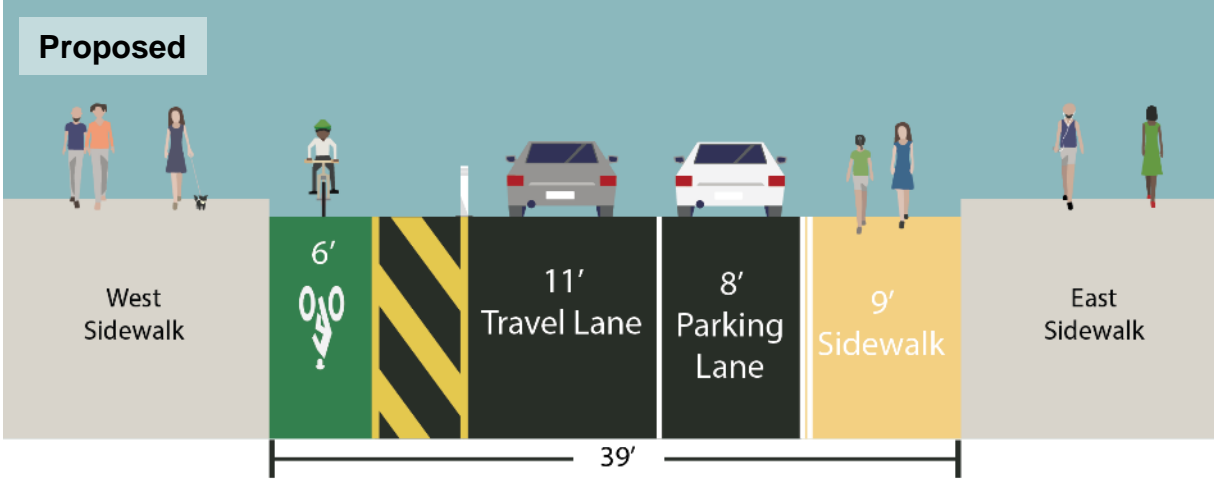
Proposed



- Provide shared lane to guide cyclists
- Maintain existing pedestrian space
- Maintain existing loading



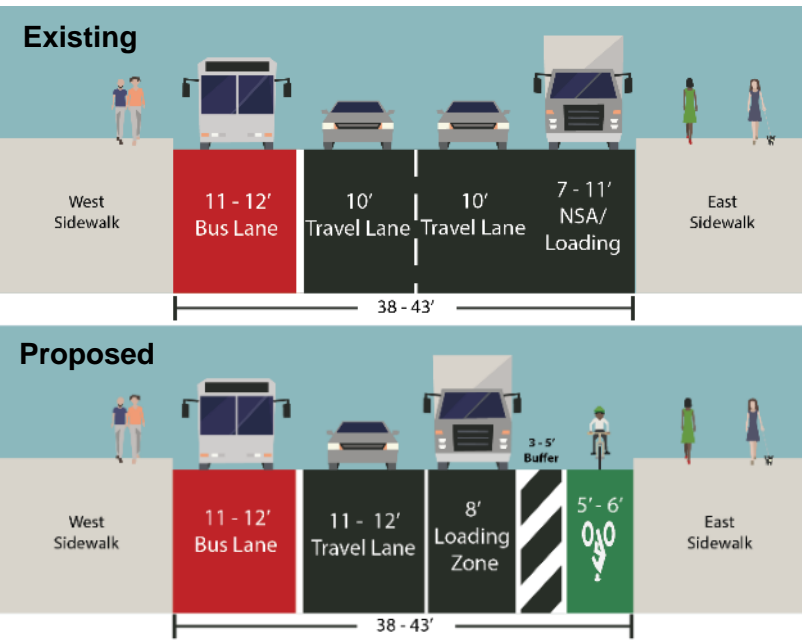
Whitehall St Pearl St – Water St



- Provide connection to Manhattan Waterfront Greenway
- Requires relocation of two NYS Banking Dept. spots to nearby block
- Removal of four Commercial Parking spots on the west curb of Whitehall St



Project Summary



- Provides and formalizes loading space
- Maintains traffic flow
- Provides designated space for cyclists, separate from vehicles
- Connects City Hall, Brooklyn Bridge to Bowling Green, Waterfront path
- Adds pedestrian space at Wall St Subway Station

Manhattan Waterfront Greenway

Brooklyn Bridge

City Hall

Barclay St

Vesey St

Fulton St

Ann St

John St

Wall St

William St

Pearl St

Whitehall St

Beekman St

Spruce St

Gold St

Battery Park

Staten Island Ferry

Pier 11 NYC Ferry

SBL Split Phase

New Pedestrian Space
Wall St Subway Entrance
Pedestrian Islands on Vesey St, Fulton St and Cortlandt St

Shared Street, 2019
DOT Public Space Project

Manhattan Waterfront Greenway Connection

THANK YOU!

Questions?



NYC DOT



NYC DOT



nyc_dot



NYC DOT