

# Tribeca/WTC Bicycle Network Enhancements

Church St, 6<sup>th</sup> Ave, West Broadway, Varick St, Murray St, Park Pl, Barclay St

Presentation to Manhattan Community Board 1

February 4, 2020



# Proposal Overview

- 1. Upgrade existing buffered conventional bike lanes on main north-south corridors to protected bike lanes and extend south
- 2. Install conventional bike lanes on side streets to improve connectivity between the Brooklyn Bridge, World Trade Center, and Hudson River Greenway.



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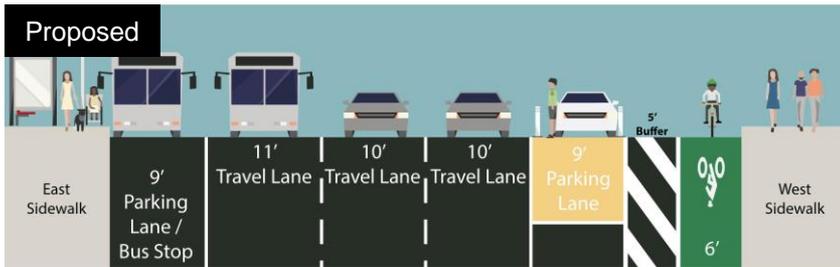
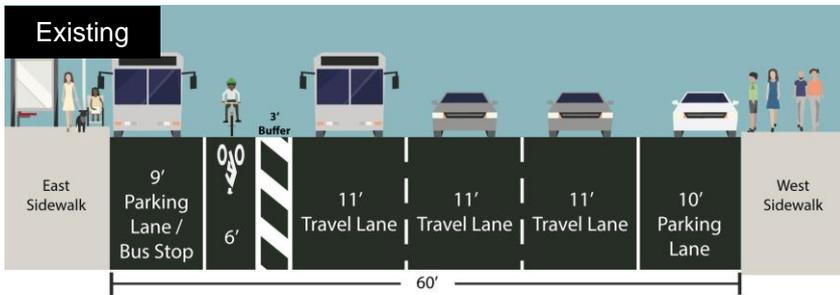
Church Street, 6<sup>th</sup> Avenue, Varick Street,  
West Broadway  
Upgrade to Protected Bicycle Lanes



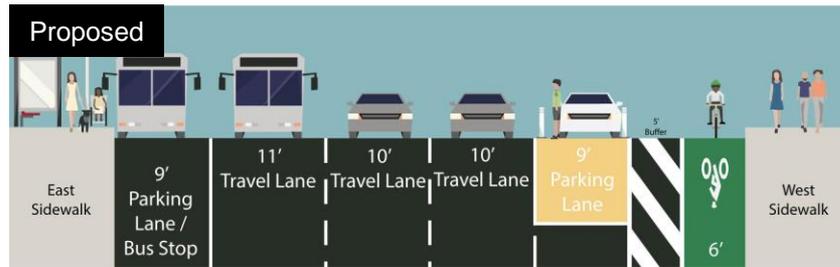
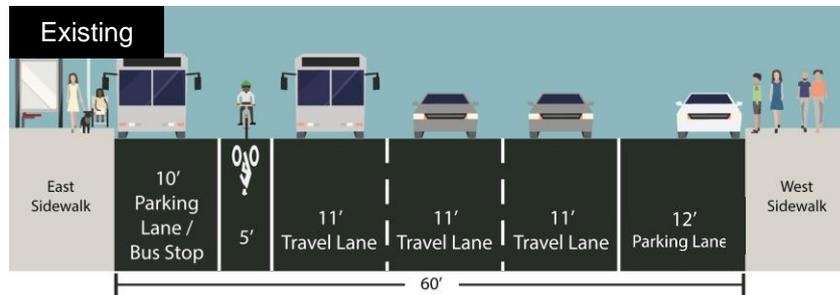
# Upgrade to Protected Bicycle Lanes: Church Street/6<sup>th</sup> Avenue

- Install parking-protected bicycle lanes on Church Street and 6<sup>th</sup> Avenue between Barclay Street and Walker Street
- Repurpose an average of two parking spaces per block for turn conflict mitigation and additional pedestrian space

Church Street typical cross section



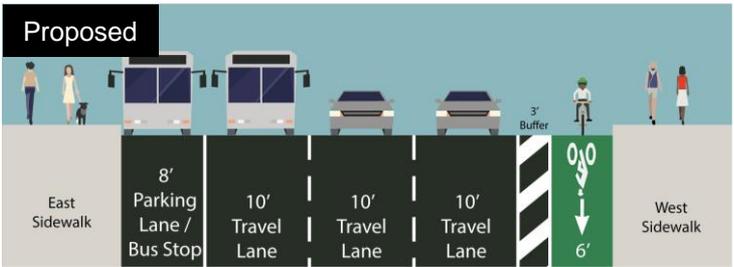
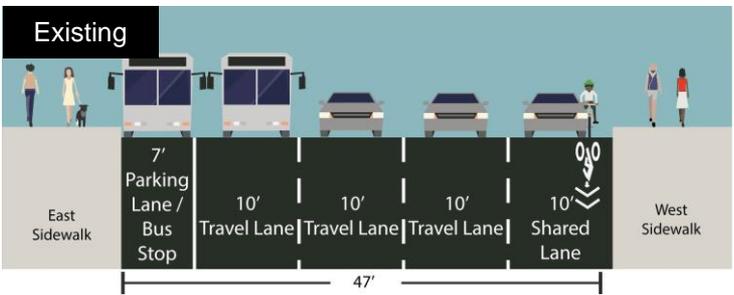
6<sup>th</sup> Avenue typical cross section



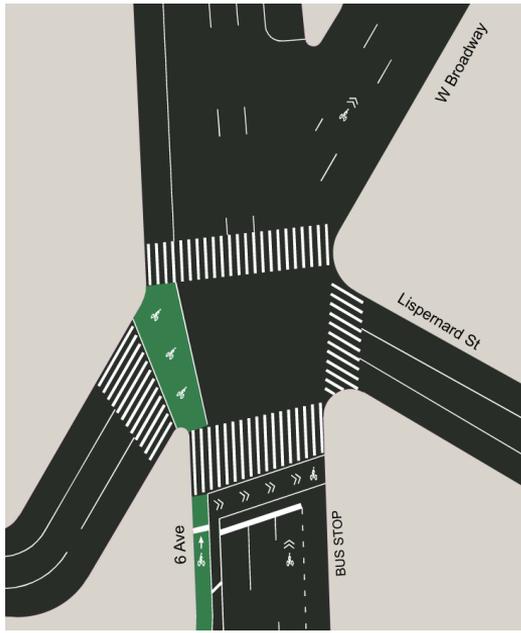
# Upgrade to Protected Bicycle Lanes: Church Street/6<sup>th</sup> Avenue

- Remove a travel lane and install a curbside buffered bike lane on 6<sup>th</sup> Avenue for 1 block between Walker Street and Lispenard Street
- Provide bike boxes and shared lanes to transition cyclists from the west side of 6<sup>th</sup> Avenue to West Broadway

6<sup>th</sup> Avenue cross section at Tribeca Park pinch point



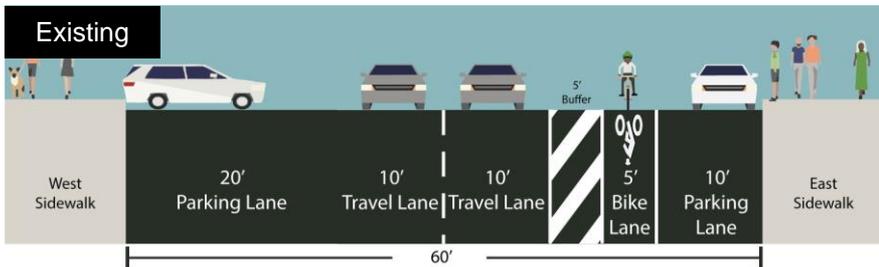
6<sup>th</sup> Avenue/West Broadway/Lispenard Street plan view



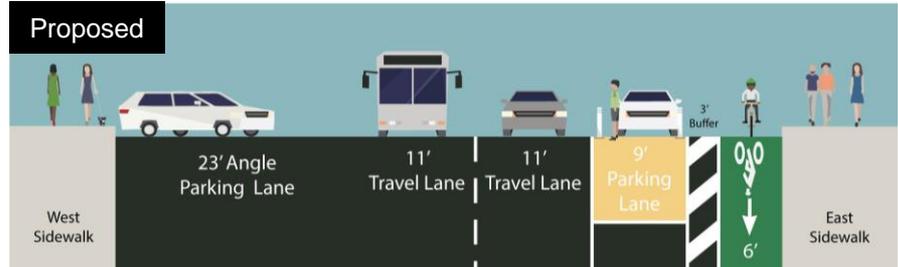
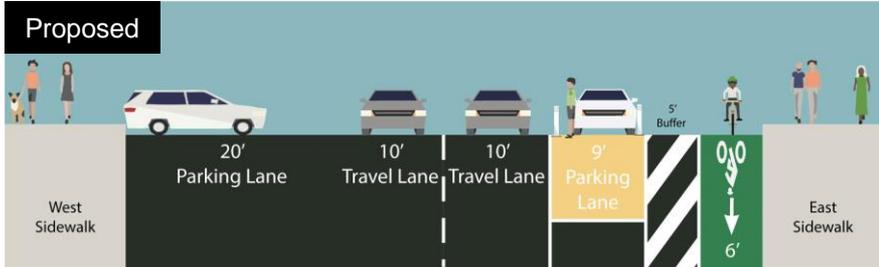
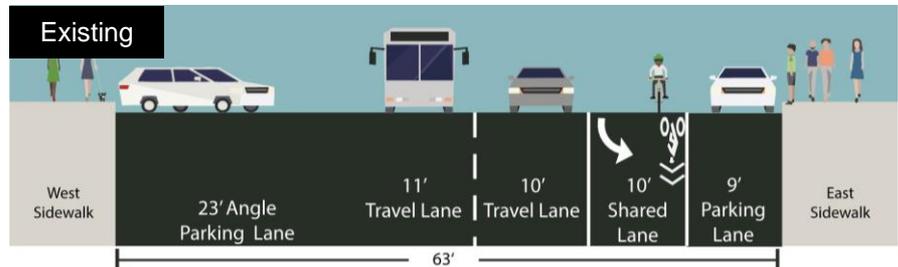
# Upgrade to Protected Bicycle Lanes: Varick Street

- Install parking-protected bicycle lanes on Varick Street between Laight Street and Leonard Street
- Remove third travel lane/turn lane for one block between Laight Street and Beach Street
- Repurpose an average of two parking spaces per block for turn conflict mitigation and additional pedestrian space

Varick Street typical cross section



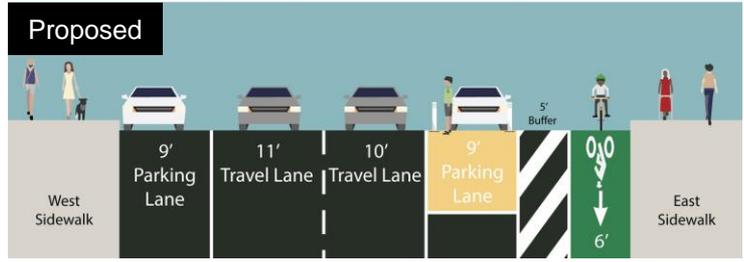
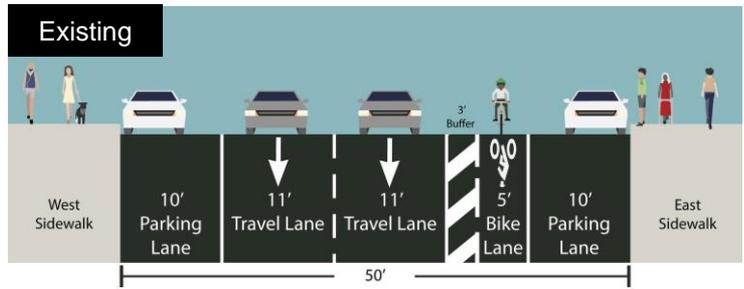
Varick Street (Laight Street to Beach Street) cross section



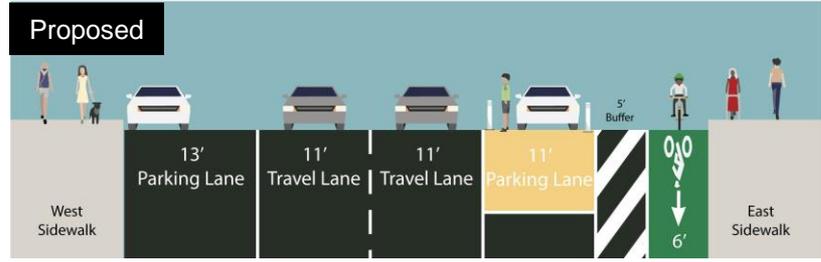
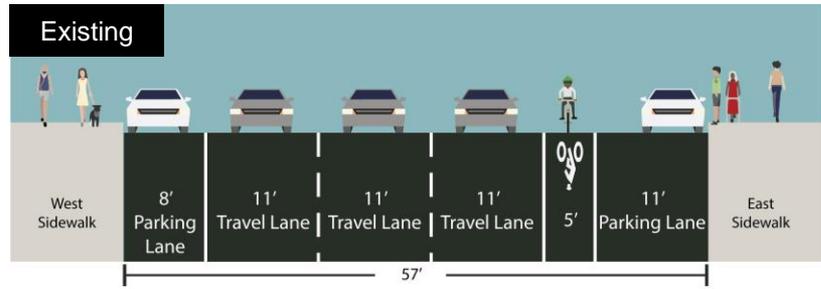
# Upgrade to Protected Bicycle Lanes: West Broadway

- Install parking-protected bicycle lanes on West Broadway between Beach Street/Walker Street and Barclay Street
- Remove third travel lane for two blocks between Chambers Street and Murray Street
- Repurpose an average of 0.75 parking spaces per block for turn conflict mitigation and additional pedestrian space
- DOT is coordinating with the Port Authority of New York and New Jersey on the design for West Broadway between Park Place and Barclay Street

West Broadway typical cross section



West Broadway (Chambers Street to Murray Street) cross section



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# Murray Street, Park Place, Barclay Street

Improve Bicycle Network Connectivity

# 2

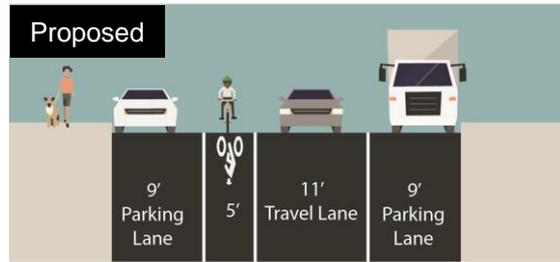
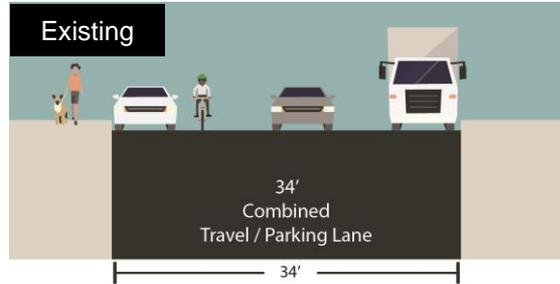
# Improve Bicycle Network Connectivity

- Install conventional bicycle lanes on:
  - Murray Street, Broadway to West Street
  - Park Place, Greenwich Street to Broadway
  - Barclay Street, Broadway to Greenwich Street
- All streets are 1-way except for:
  - Park Place, Church Street to Broadway
  - Murray Street, Greenwich Street to West Street
- Future connection on Greenwich Street to be explored following planned capital project



Broadway protected bike lane planned 2020 implementation

### 1-way typical cross section



### 2-way typical cross section



# Project Benefits

- Shortens pedestrian crossing distances
- Provides additional pedestrian space and improves visibility.
- Discourages speeding
- Upgrade to protected lanes improves safety and functionality of bicycle facilities
- New bicycle lanes improve connectivity north and south, and strengthen connections between Brooklyn Bridge and the Greenway.



# THANK YOU!

Questions?

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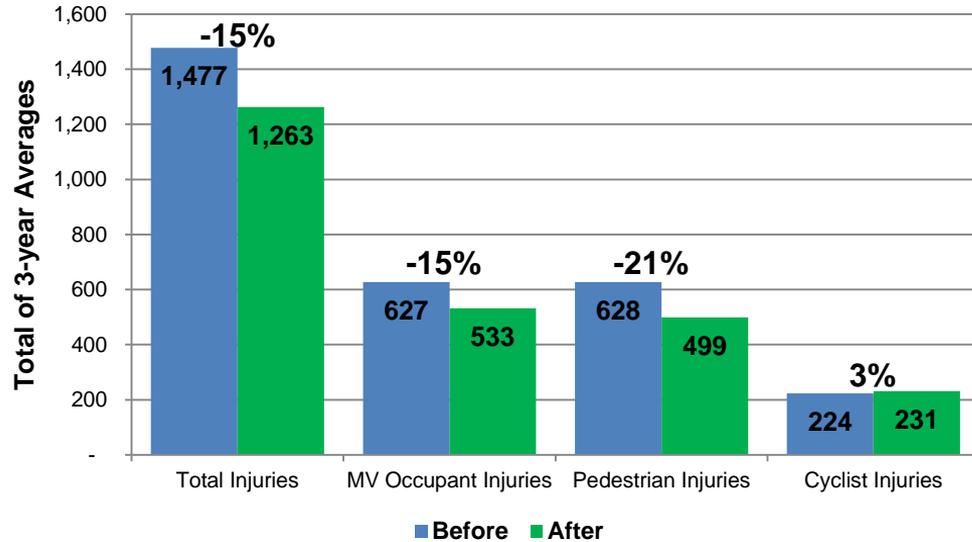
# Appendix

# 3

# Safety Benefits of Protected Bike Lane

## Protected Bike Lanes

Before and After Crash Data, 2007 - 2017



Data from 25 separate protected bicycle lane projects installed from 2007-2014 with 3 years of after data. Includes portions of 1 Ave, 2 Ave, 8 Ave, 9 Ave, Broadway, Columbus Ave, Hudson St, Lafayette St / 4 Ave, Sands St, Allen/Pike St, Kent Ave, Prospect Park West, Flushing Ave, Bruckner Blvd & Longfellow Ave, Imlay St / Conover St, Paerdegat Ave. Only sections of projects that included protected bike lanes were analyzed. Source: NYPD AIS/TAMS Crash Database





# Summary of Proposed Left-turn Treatments on Planned Protected Bicycle Lanes

On street	Cross-street	Left-turn treatment
Church Street	Murray Street	offset crossing
Church Street	Chambers Street	offset crossing
Church Street	Reade Street	offset crossing
Church Street	Thomas Street	offset crossing
Church Street	Worth Street	offset crossing
Church Street	Leonard Street	offset crossing
6th Avenue	White Street	offset crossing
Varick Street	Beach Street	mixing zone
Varick Street	Franklin Street	split-phase signal operation
West Broadway	Franklin Street	offset crossing
West Broadway	Worth Street	offset crossing
West Broadway	Duane Street	offset crossing
West Broadway	Chambers Street	offset crossing
West Broadway	Warren Street	offset crossing
West Broadway	Park Place	split-phase signal operation

