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# Background



### East River Bridges:

- **25,000+** cyclists cross the East River Bridges daily
- 22% growth in cycling on all East River Bridges between 2020 and 2023

### 2020-2023 Ridership Growth

- **+149%** Brooklyn Bridge
- **+13%** Manhattan Bridge
- **+3%** Williamsburg Bridge
- **+15%** Queensboro Bridge



## Safety of Protected Bike Lanes

### Protected bike lanes benefit all street users:

Crashes with  
Injuries  
**Down 15%**

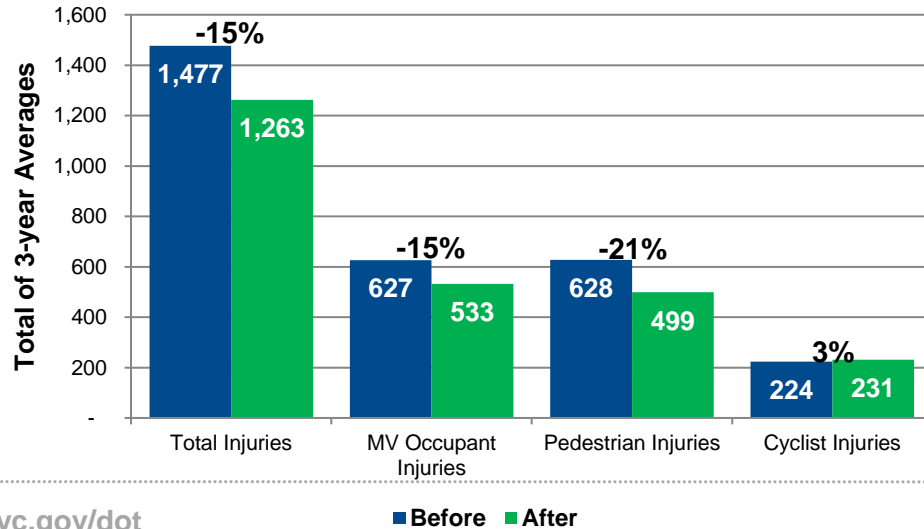
Motor Vehicle  
Occupant Injuries  
**Down 15%**

Pedestrian  
Injuries  
**Down 21%**

Injuries to cyclists increase only 3%, despite a 61% increase in bike volume increase

### Protected Bike Lanes

*Before and After Crash Data, 2007 - 2017*

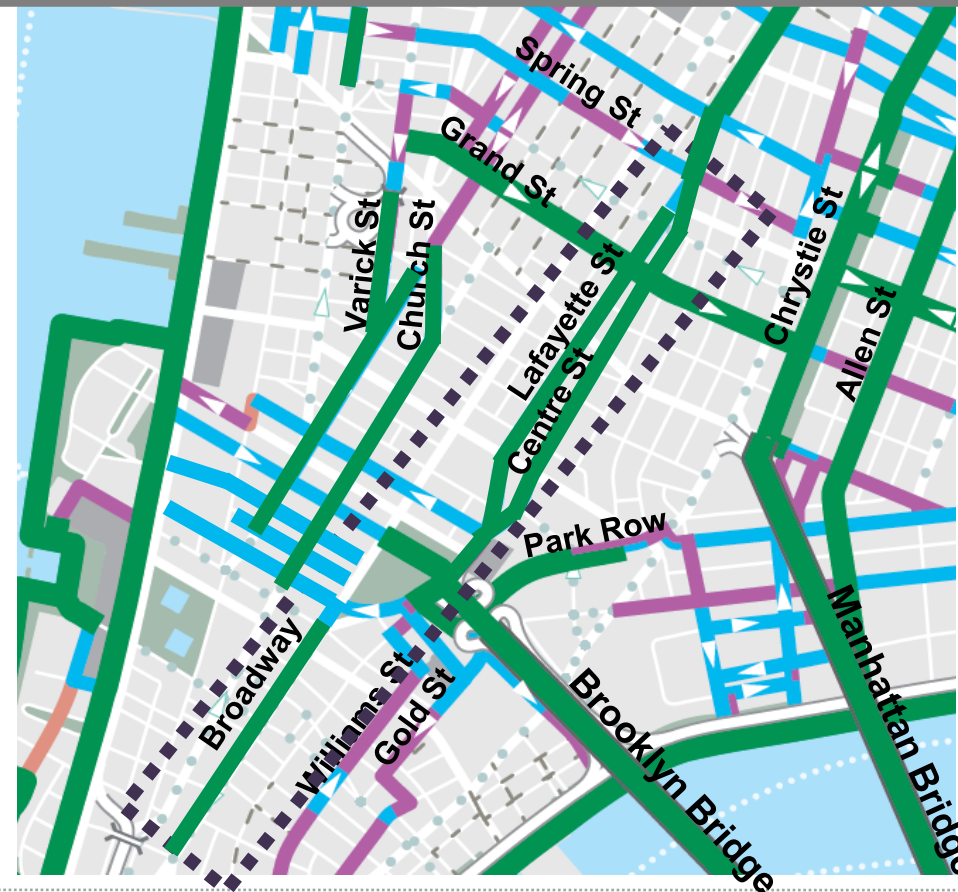


Data from 25 separate protected bicycle lane projects installed from 2007-2014 with 3 years of after data. Includes portions of 1 Ave, 2 Ave, 8 Ave, 9 Ave, Broadway, Columbus Ave, Hudson St, Lafayette St / 4 Ave, Sands St, Allen/Pike St, Kent Ave, Prospect Park West, Flushing Ave, Bruckner Blvd & Longfellow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



### Brooklyn Bridge Access:

- Dedicated cycling path installed in the Manhattan-bound Brooklyn Bridge roadway in 2021
- Southbound protected bike lane on Broadway installed in 2020
- Continuous protected bike connection to the Brooklyn Bridge installed on Centre St and Lafayette St from 2021 to 2023



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# Existing Conditions

# 2

# Existing Conditions

## Brooklyn Bridge Cyclist Access from the North



Access to points north of the bridge was greatly improved by connecting the new roadway bridge path to a two-way lane on Centre St

Centre St

Chambers St

Bridge Bike Path



# Existing Conditions

## Brooklyn Bridge Cyclist Access to the South

To access points south cyclists must execute a 180 degree turn to transition from the bridge path to the promenade

The turn for cyclists entering the bridge is tighter, with some cyclists crossing over the yellow center line

Turning cyclists must watch for oncoming thru cyclists, for oncoming turning cyclists, and for pedestrians on the promenade





# Existing Conditions

## Brooklyn Bridge Pedestrian Access to the South

High pedestrian volumes using the promenade for bridge access, transit access, and as a sidewalk to points further south must mix with cyclists accessing the bridge path or using the promenade as a thru route



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Proposal

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# Proposal

## Brooklyn Bridge Access to the South

Extend the on-street two-way protected bike lane on Centre St around the west side of the promenade

Increase the radius of the 180 degree turn that cyclists must make to access the bridge path

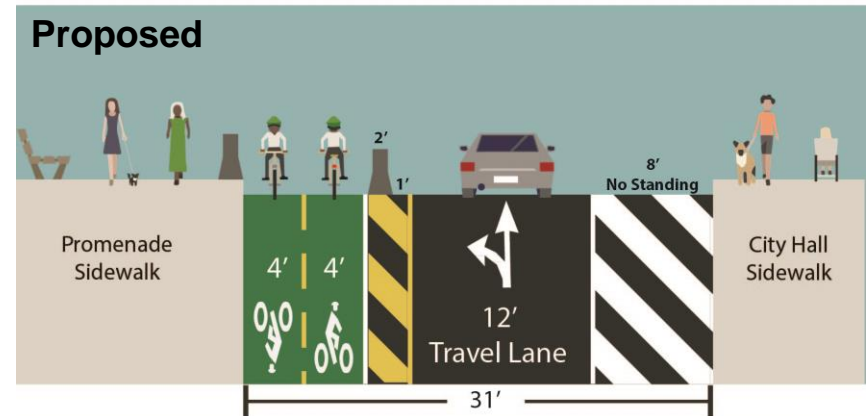
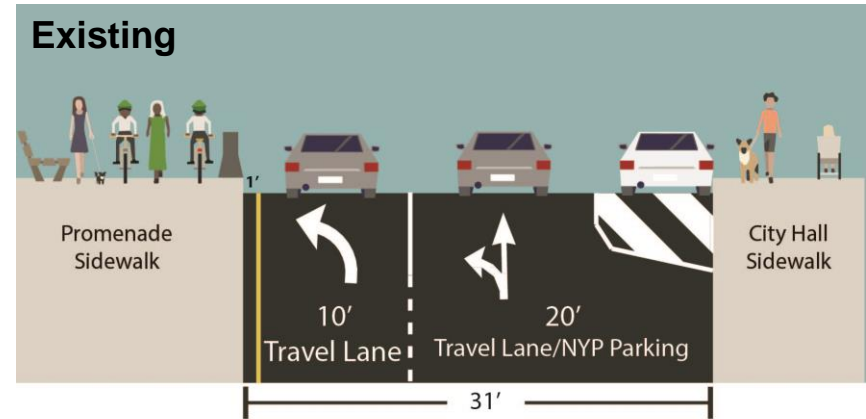
Remove mixing conflict with pedestrians on the promenade





### New Access to the Brooklyn Bridge

- Cyclists are relocated from the promenade to a dedicated, barrier-protected space in the roadway
- Reduce the vehicle travel lanes from two to one
- Remove parking on opposite curb to improve efficiency of remaining travel lane



# Proposal

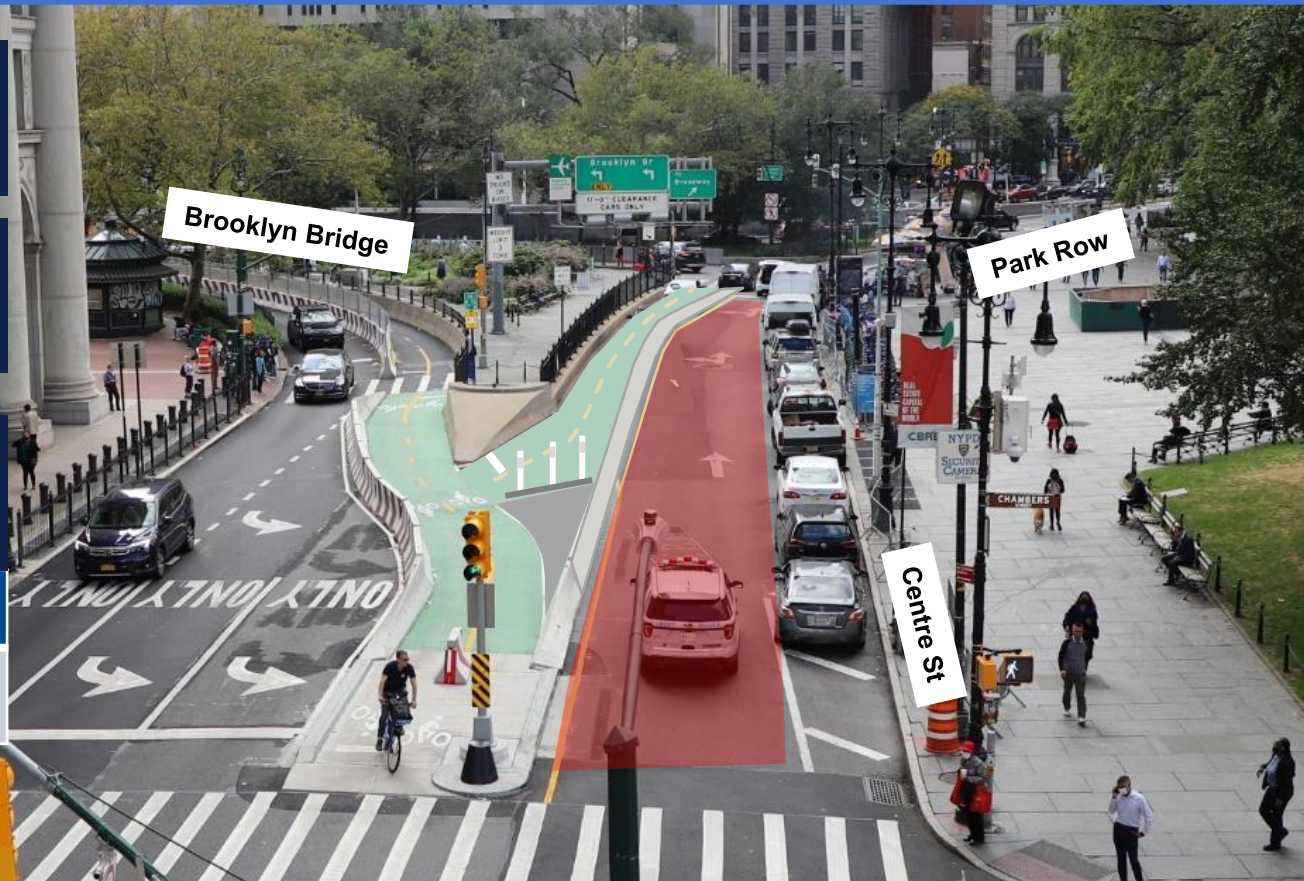
## Making it Work

Remove one southbound left turn lane for vehicles accessing the Brooklyn Bridge

Approximately 700 vehicles during peak times, with 6 out of every 7 turning left

The proposed single turn lane has enough capacity for all existing vehicle volumes

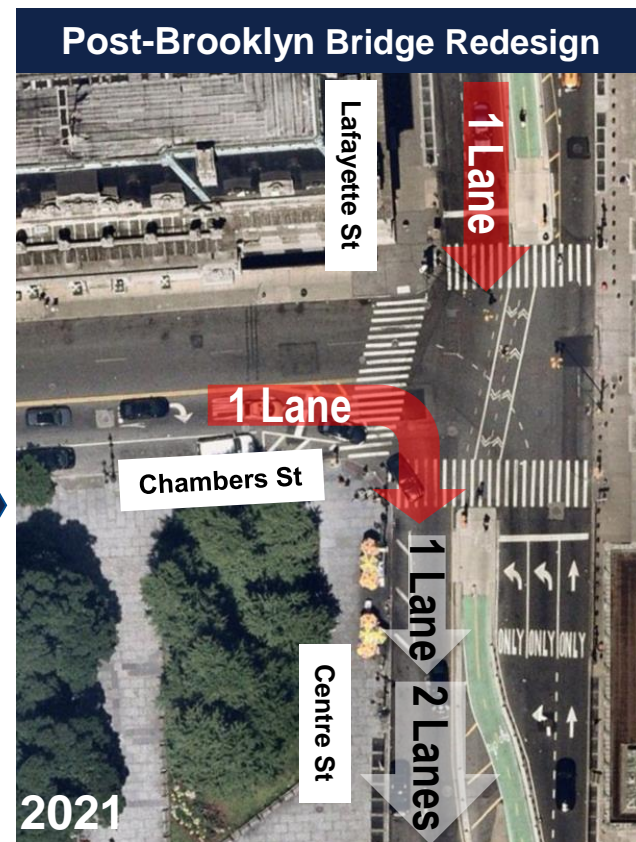
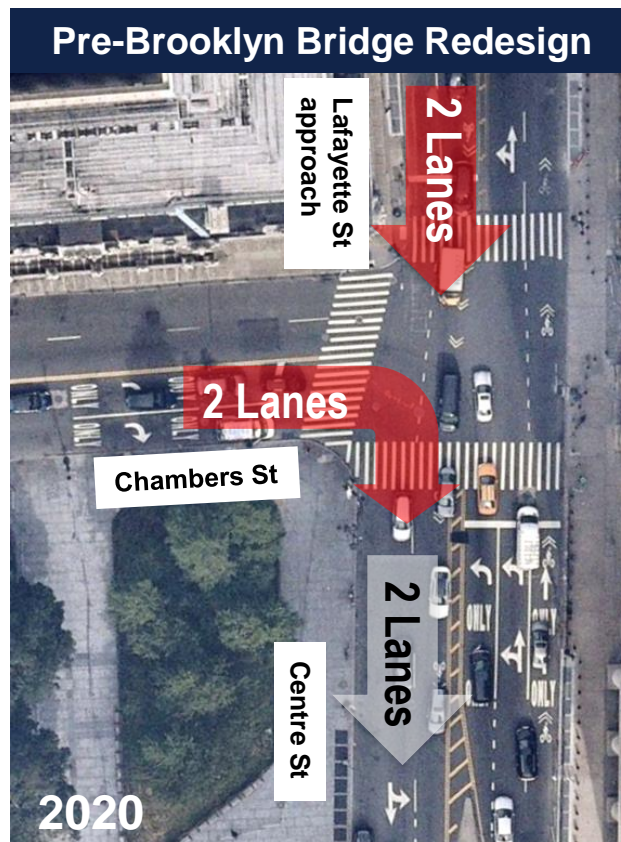
Delay	Existing	Proposed
Centre St (SB)	1.5 sec	2.6 sec



### Previous Work

In 2021 the Brooklyn Bridge project reduced approaching streets from two lanes to one

Removing one lane for half a block of Centre St will have a minimal effect on congestion because the upstream streets were already reduced





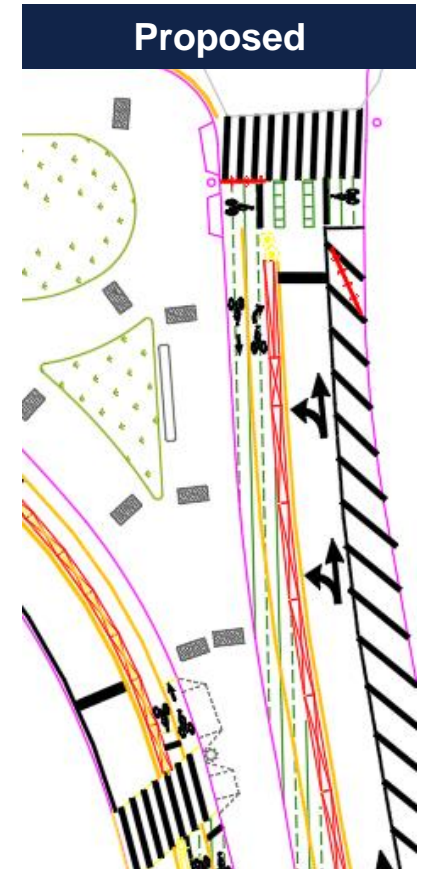
**Relocate Authorized Vehicle Parking (Press) on Centre St to Chambers St**

**Switching the regulation will preserve space for emergency vehicles**

**Extend corner No Standing space to facilitate pick-ups and drop-offs on Chambers St approaching Centre St**



- Use markings to indicate an upcoming turn for cyclists and show where they must queue
- Install guide signage to show cyclists that they must cross the street at the intersection with the promenade
- Install vertical barrier to prevent cyclists from continuing straight in the promenade-side lane
- Organize and improve the pedestrian experience by clarifying markings, providing additional signage, and improving existing ramps



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# Summary



## Project Summary:

- Creates a protected on-street bicycle connection linking the Brooklyn Bridge to Park Row
- Removes cyclist and pedestrian mixing area at the base of the promenade, improves experience for all users
- Does not affect vehicle travel time to the Brooklyn Bridge from Chambers St



# Thank You!

Questions?



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