

Chrystie St

Two-way Protected Bicycle Lane

2016



New York City Department of Transportation

Presented by the Bicycle and Greenway Program on March 8, 2016 to Community Board 3



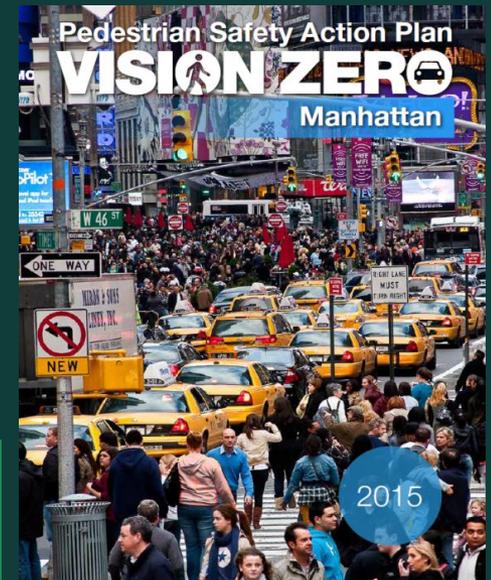
Presentation Overview



- Background
- Existing Conditions
- Issues
- Proposal
- Summary

Vision Zero

- Multi-agency effort to reduce traffic fatalities in NYC
- Borough Action Plans released in 2015
- Priority Intersections, Corridors, and Areas identified for each borough
- **2nd Ave Priority Corridor**



Background

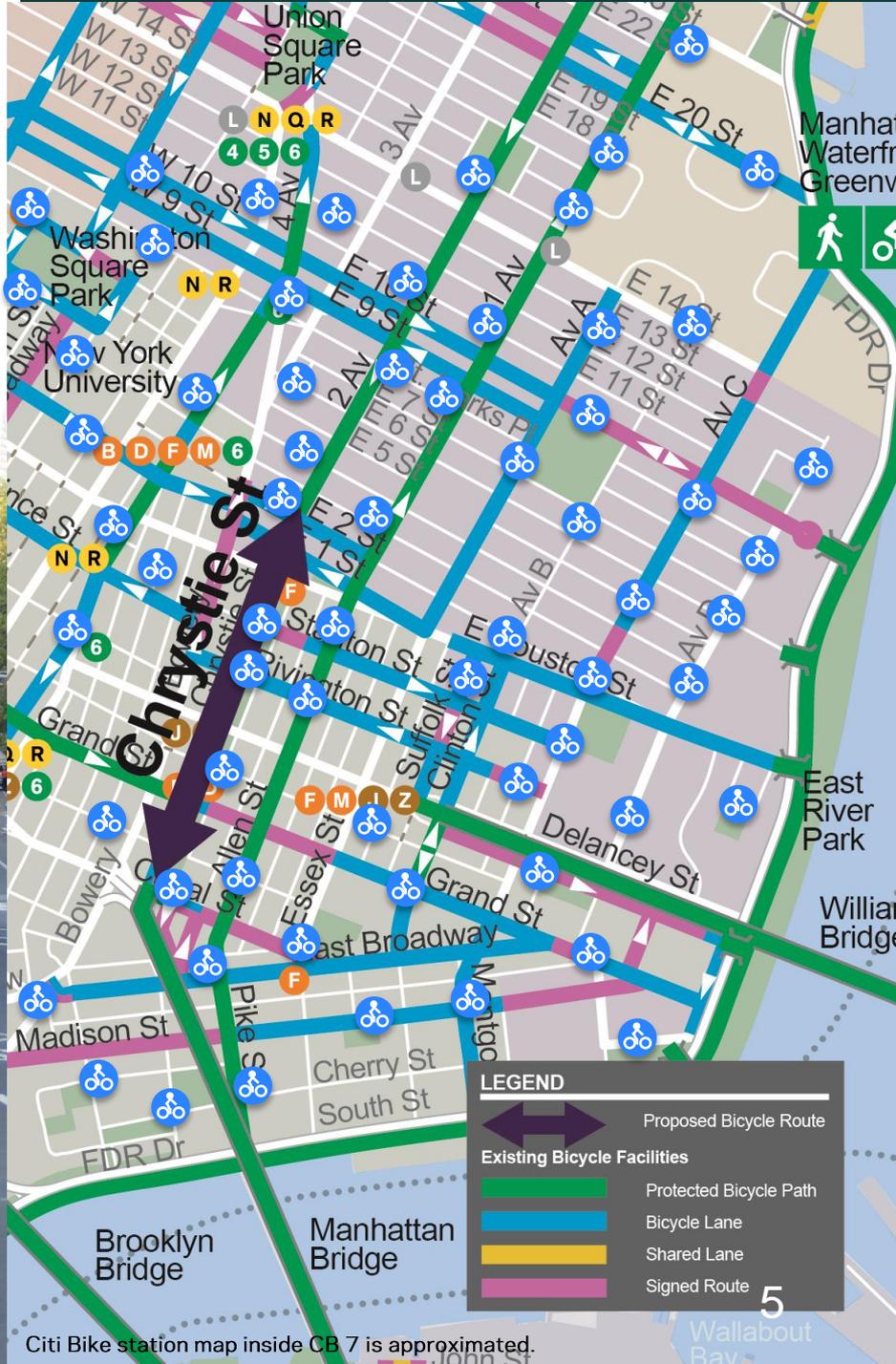
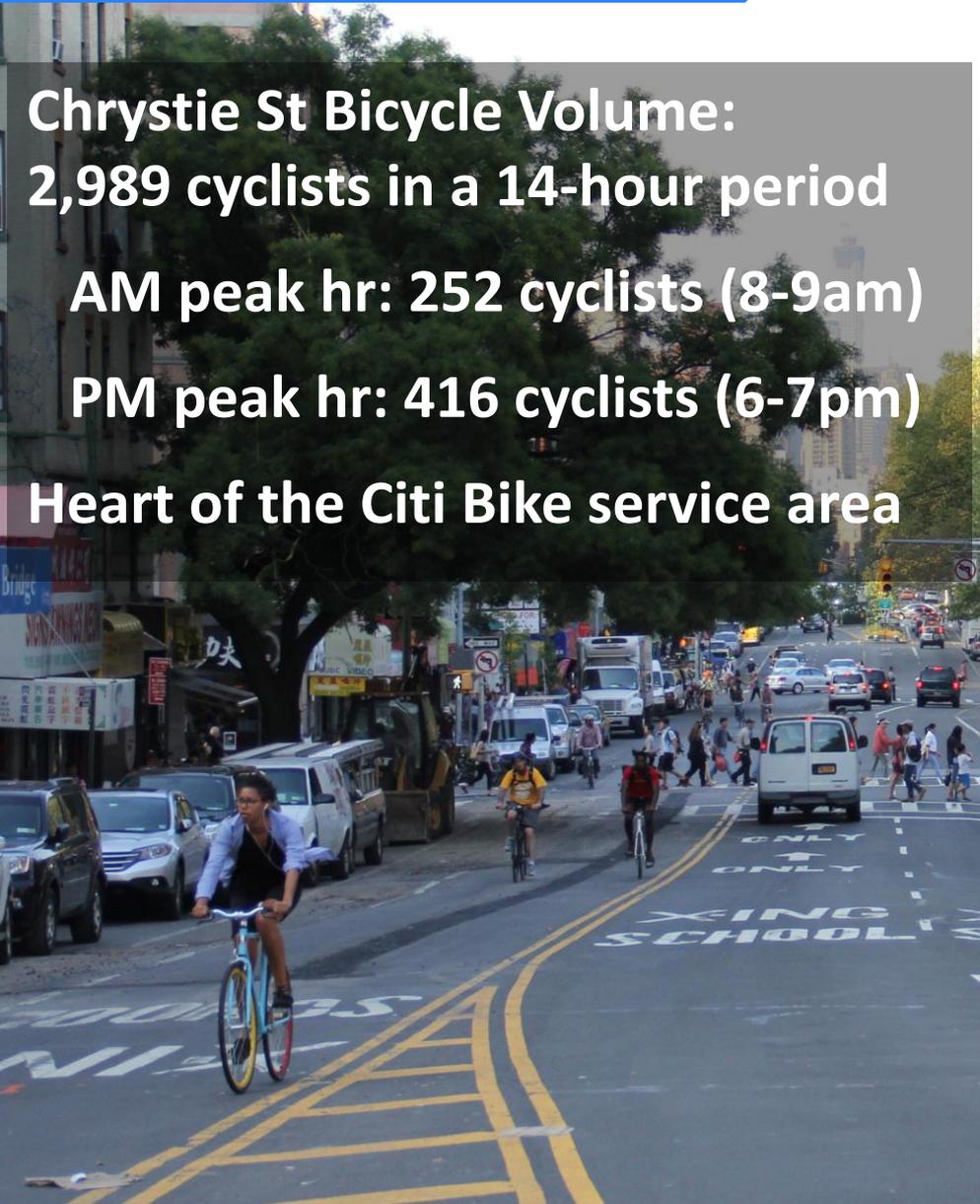
Key Bike Connection

Connects 1st Ave and 2nd Ave protected lanes to the Manhattan Bridge bicycle path, which sees an average of 6,243 cyclists a day (April – October)



Background High Bike Volumes

Chrystie St Bicycle Volume:
2,989 cyclists in a 14-hour period
AM peak hr: 252 cyclists (8-9am)
PM peak hr: 416 cyclists (6-7pm)
Heart of the Citi Bike service area



Source: ATI Data, Bicycles btw. Canal St and Hester St on Chrystie St on July 8, 2015 and July 9, 2015, 7am-9pm.

Citi Bike station map inside CB 7 is approximated.



March 4, 2015

Margaret Forgione
Manhattan Borough Commissioner
New York City Department of Transportation
59 Maiden Lane
37th Floor
New York, NY 10038

Dear Borough Commissioner Forgione,

We are writing to you regarding Chrystie Street on the Lower East Side and Chinatown. Our offices have been contacted regarding safety concerns on this street and in its immediate area.

This corridor is surrounded by a park and open spaces, schools, senior and health centers, and several community organizations. Community Board 3 has unanimously passed a resolution, attached, asking the Department of Transportation (DOT) to evaluate the street's safety. As you may know, we believe it is important to take into account the concerns of the local community board when it speaks so strongly. We appreciate your consideration of its position.

We ask DOT to study this area quickly, work closely with the community on any next steps, and keep our offices informed. Should you have any questions, you may contact any of us, or Senator Squadron directly at 212-298-5565.

Sincerely,

Daniel Squadron
State Senator

Nydia Velazquez
Congress Member

Gale A. Brewer
Manhattan Borough President

Sheldon Silver
Assembly Member

Margaret Chin
Council Member



THE CITY OF NEW YORK MANHATTAN COMMUNITY BOARD 3

59 East 4th Street - New York, NY 10003
Phone (212) 533-5300 - Fax (212) 533-3659
www.cb3manhattan.org - info@cb3manhattan.org

Gigi Li, Board Chair

Susan Stetzer, District Manager

March 2, 2015

Hon. Polly Trottenberg, Commissioner
NYC Department of Transportation (DOT)
55 Water Street, 9th Floor
New York, NY 10041-0004

Dear Commissioner Trottenberg:

At its February 2015 monthly meeting, Community Board 3 passed the following resolution:

VOTE: Community Board 3 Resolution Requesting Safety Improvements for Chrystie Street

WHEREAS, Chrystie Street's road design has not been adjusted for 7 years, since the 2008 Manhattan Bridge Bicycle Access Network installation that brought traffic calming and bike lanes to the area. Cycling ridership has grown tremendously in the years following DOT's upgrades to the Manhattan Bridge, in particular along Chrystie Street for the northbound AM and southbound PM rush hours; and

WHEREAS, Second Avenue has seen a surge of bicycling usage since the introduction of its protected bike lane, which feeds directly into southbound Chrystie Street. The Second Avenue bike lanes were installed during the 2010 First Avenue/Second Avenue Select Bus Service installation; and

WHEREAS, current conditions on Chrystie Street all but guarantee hazards for cyclists and drivers alike with severely faded bike lanes in the southbound direction, and with uneven and hummock-filled surfaces because of heavy truck and bus traffic; and

WHEREAS, southbound cyclists must regularly contend with double parked vehicles and garage driveways blanketing the west side of the street; and

WHEREAS, southbound cyclists must regularly make a confusing and dangerous transition at East 2nd Street (just before Houston Street) from the protected bike lane on the east side of Second Avenue to get over to the unprotected, faded bike lane on the west side of Chrystie Street; and

WHEREAS, Vision Zero's first year of record has seen marked reductions in crashes

CB 3 and Elected Officials (District, City, and State)
requested DOT study of Chrystie St

Existing Conditions

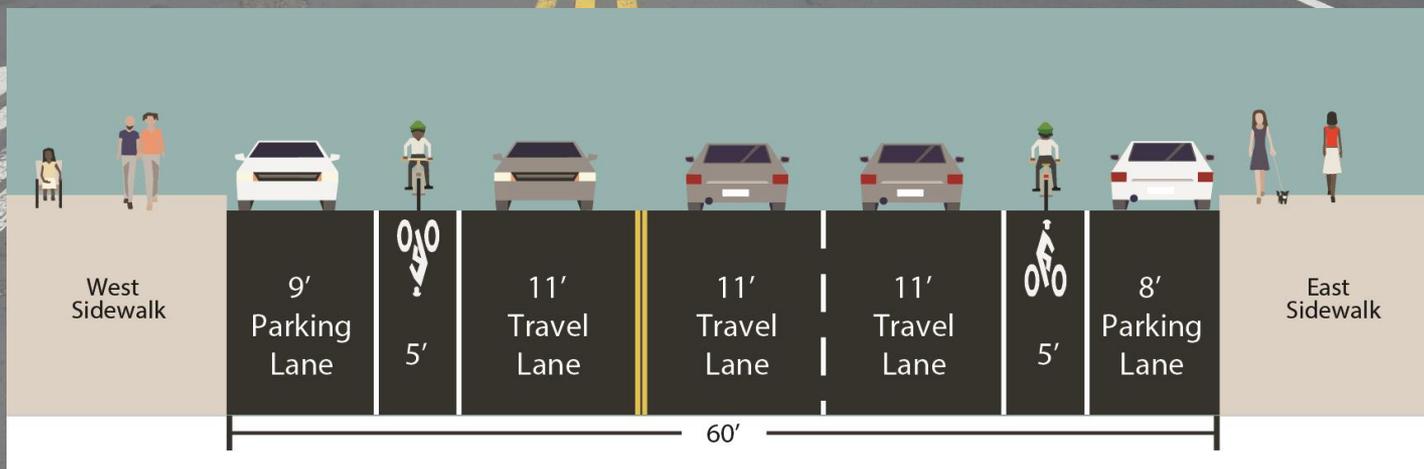
Typical Design (Varies Along Corridor)

Loading activity on west curb

Standard Bike Lanes

High peak vehicle volumes

Sara Roosevelt Park on east curb



Existing Conditions Issues – Cyclist Safety



Loading and double parking in bike lane

Cyclists not separated from traffic



Existing Conditions

Issues – Southbound Cyclist Connectivity



Southbound cyclists must switch sides at Houston St

And again at Canal St

Leads to wrong way cycling



Difficult
pedestrian
crossings

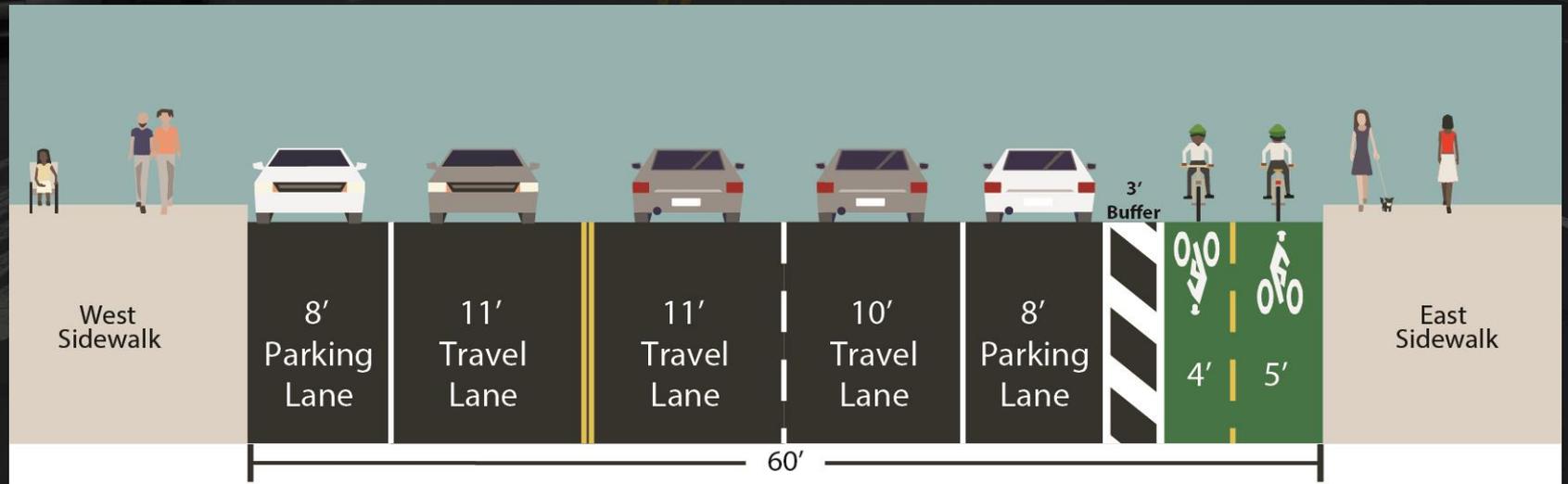


Typical Treatment (Varies Along Corridor)

Two-way protected bike lane

- *Separates cyclists from traffic*
- *Removes conflict with loading/double parking*
- *Eliminates need for SB cyclists to cross the street*

Existing Travel Lanes Retained



Proposed Design

Existing Bicycle Lanes at Canal Street



Proposed Design

Two-way Protected Bicycle Lane at Canal Street



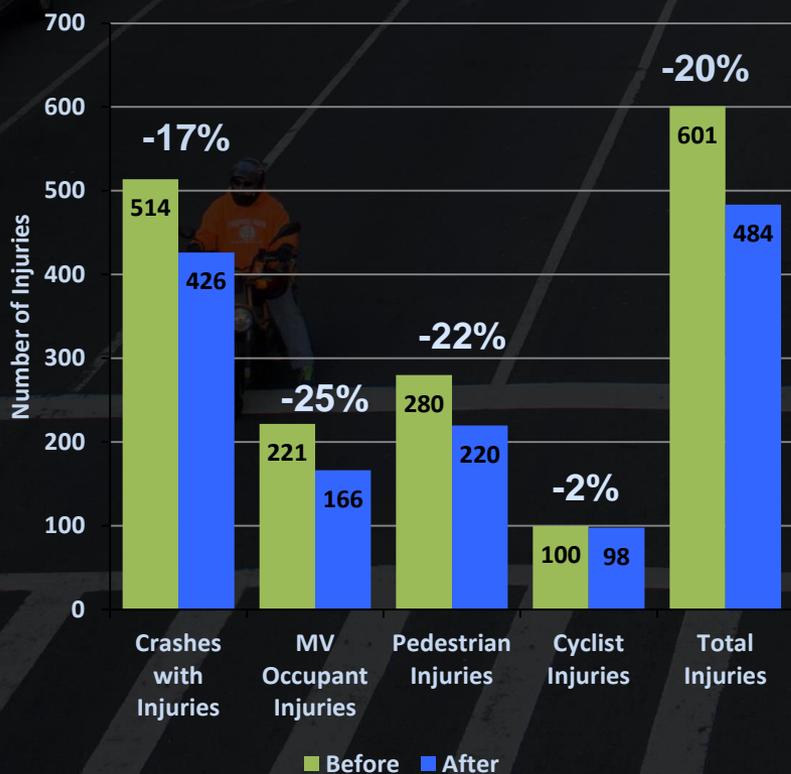
Pedestrian Improvements



New concrete islands

- Shorten pedestrian crossings
- Improve park access

Protected Bicycle Lanes with 3 yrs of After Data: Before vs After

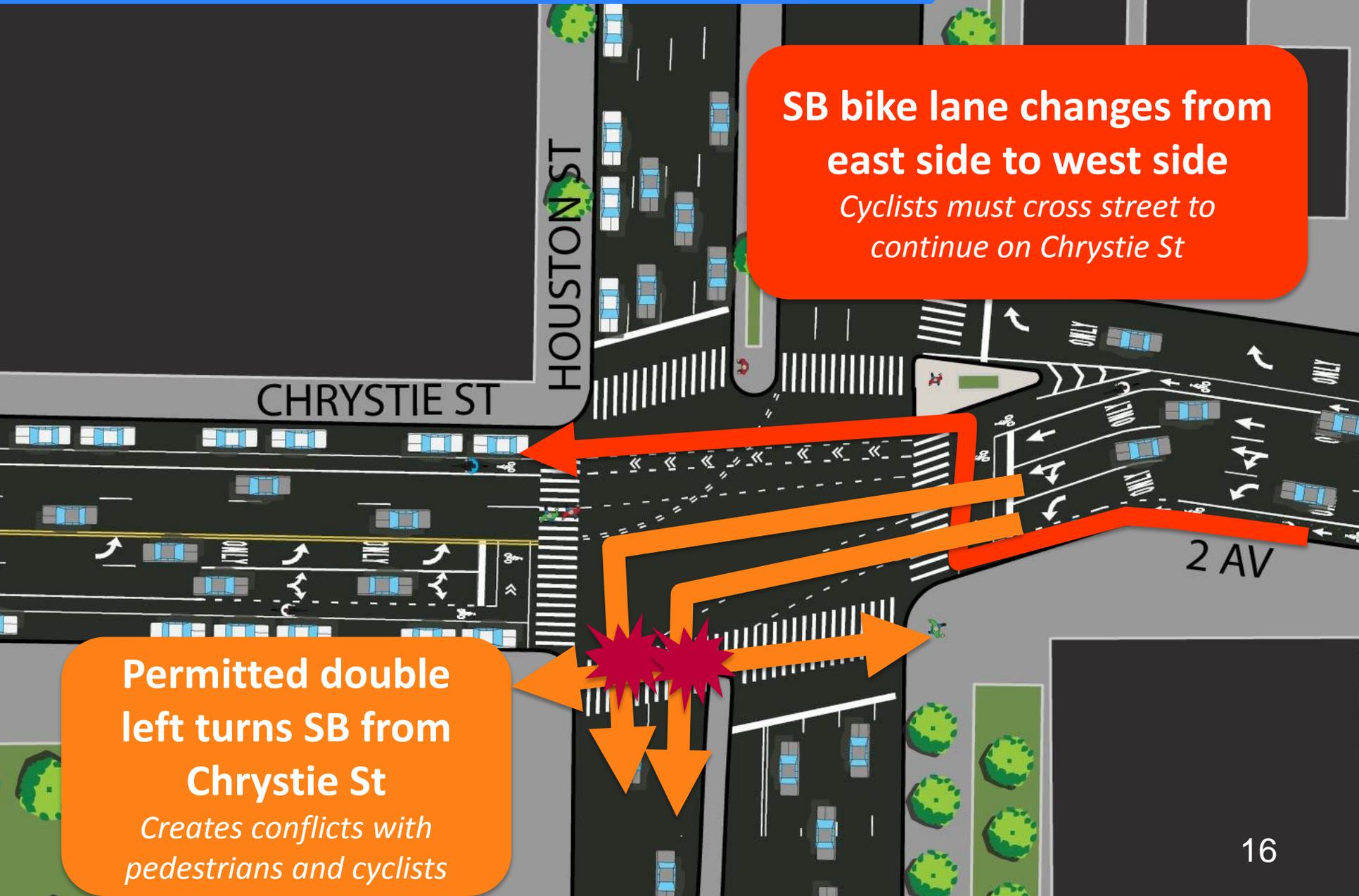


In general protected bike lanes in Manhattan improve safety for all users:

- Total injuries have dropped by 20%
- Crashes with injuries have been reduced by 17%
- Pedestrian injuries are down by 22%
- Cyclist injuries show a minor improvement even as bicycle volumes have dramatically increased

Protected bicycle lane projects with 3 years of after data include the following: 9th Ave (16th-31st), 8th Ave (Bank-23rd, 23rd-34th), Broadway (59th-47th, 33rd-26th, 23rd-18th), 1st Avenue (Houston to 34th), 2nd Ave (Houston-34th), Columbus Ave (96th-77th) Note: Only sections of projects that included protected bicycle lanes were analyzed
Source: NYPD AIS/TAMS Crash Database

Houston St – Existing Conditions



SB bike lane changes from east side to west side
Cyclists must cross street to continue on Chrystie St

Permitted double left turns SB from Chrystie St
Creates conflicts with pedestrians and cyclists

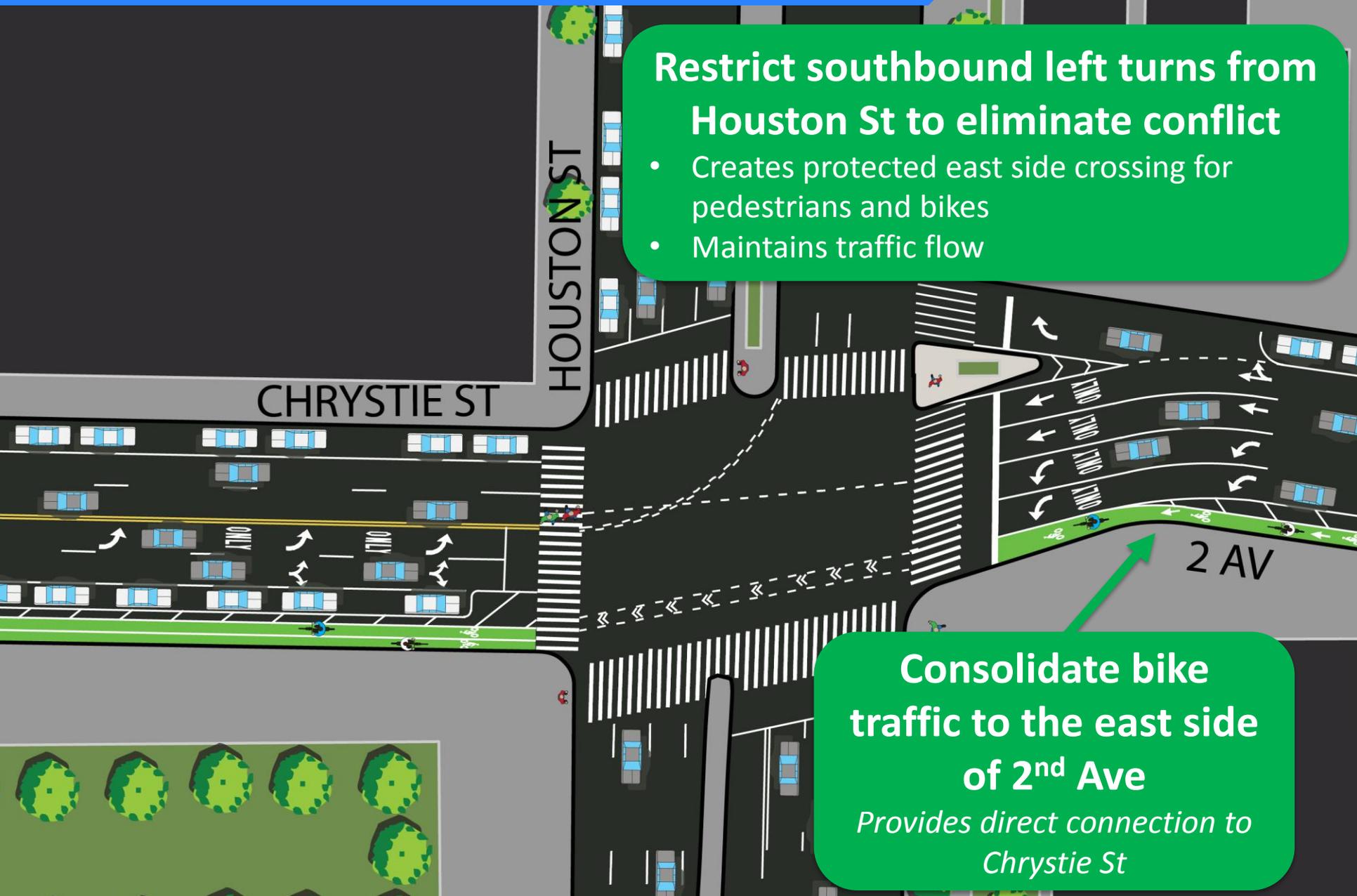
Houston St – Proposed Design

Restrict southbound left turns from Houston St to eliminate conflict

- Creates protected east side crossing for pedestrians and bikes
- Maintains traffic flow

Consolidate bike traffic to the east side of 2nd Ave

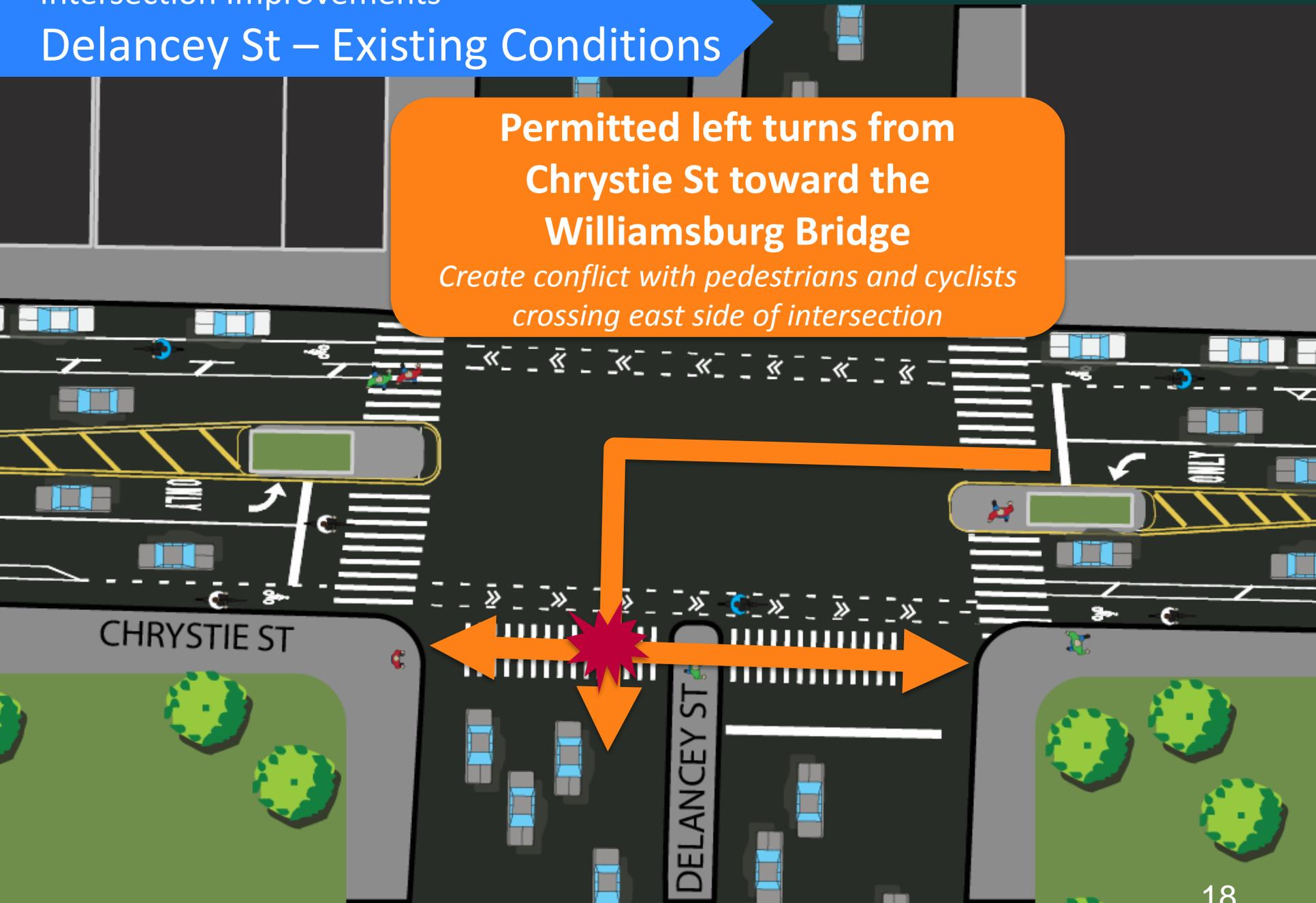
Provides direct connection to Chrystie St



Delancey St – Existing Conditions

**Permitted left turns from
Chrystie St toward the
Williamsburg Bridge**

*Create conflict with pedestrians and cyclists
crossing east side of intersection*



Delancey St – Proposed Design

Restrict southbound left turn and eliminate conflict

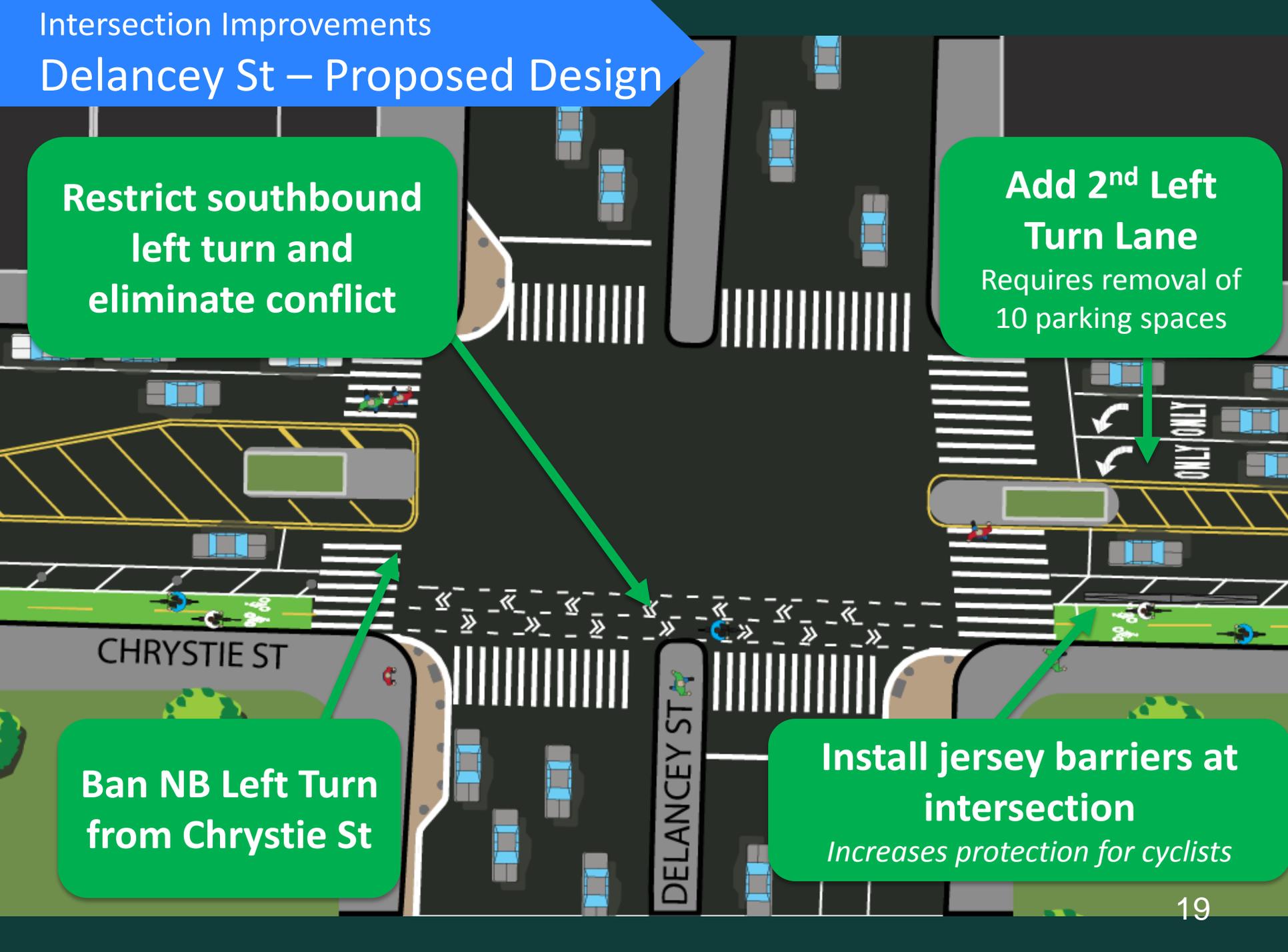
Add 2nd Left Turn Lane

Requires removal of 10 parking spaces

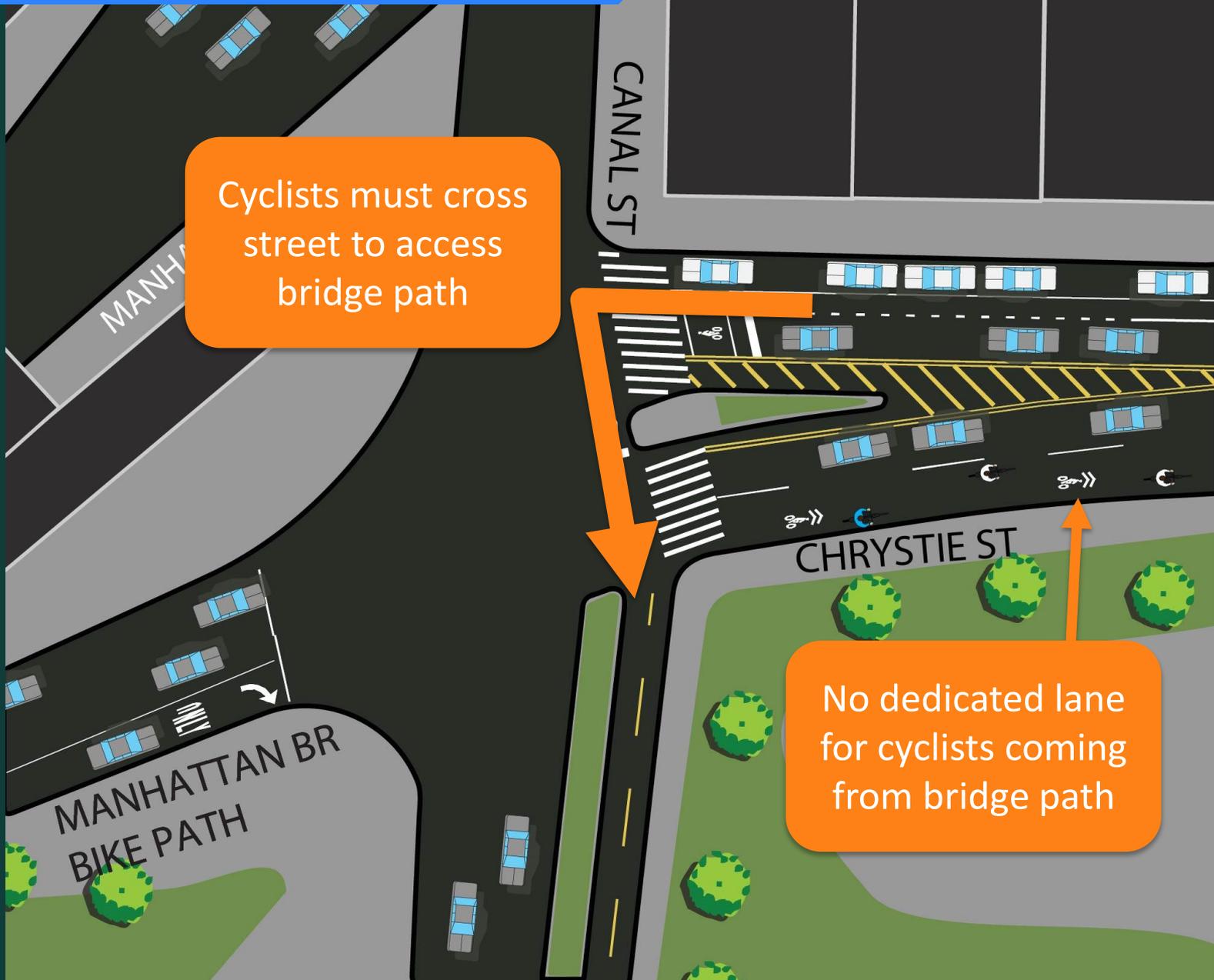
Ban NB Left Turn from Chrystie St

Install jersey barriers at intersection

Increases protection for cyclists



Canal St - Existing Conditions



Intersection Improvements
Canal St – Proposed Design

**Relocate
pedestrian island**

*Creates space for
protected bike lane*

**Extend existing
concrete island**

*Increases protection
for cyclists*

**Install two-way bike lane
protected by jersey barriers**

*Creates safe, direct connection to
bridge path*



Parking Impacts of Safety Improvements

Approximately 12 parking spaces are removed for safety measures along the half mile corridor for turn treatments and pedestrian safety islands



Summary



Chrystie Street

Install 2-way protected bike lane on east curb

- Increases cyclist safety
- Improves connections from 2nd Ave to Manhattan Bridge Path

New concrete islands

- Reduce pedestrian crossing distances

Left turn restrictions Houston St, Delancey St and Grand St

- Improve safety for pedestrians and cyclists

Neighborhood street design

- Provide safety benefits for all users

Signal timing adjustments

- Will maintain traffic flow

Questions?

Thank
You