Manhattan Bridge

Mobility and Safety Improvements

2015

VISION ZERO

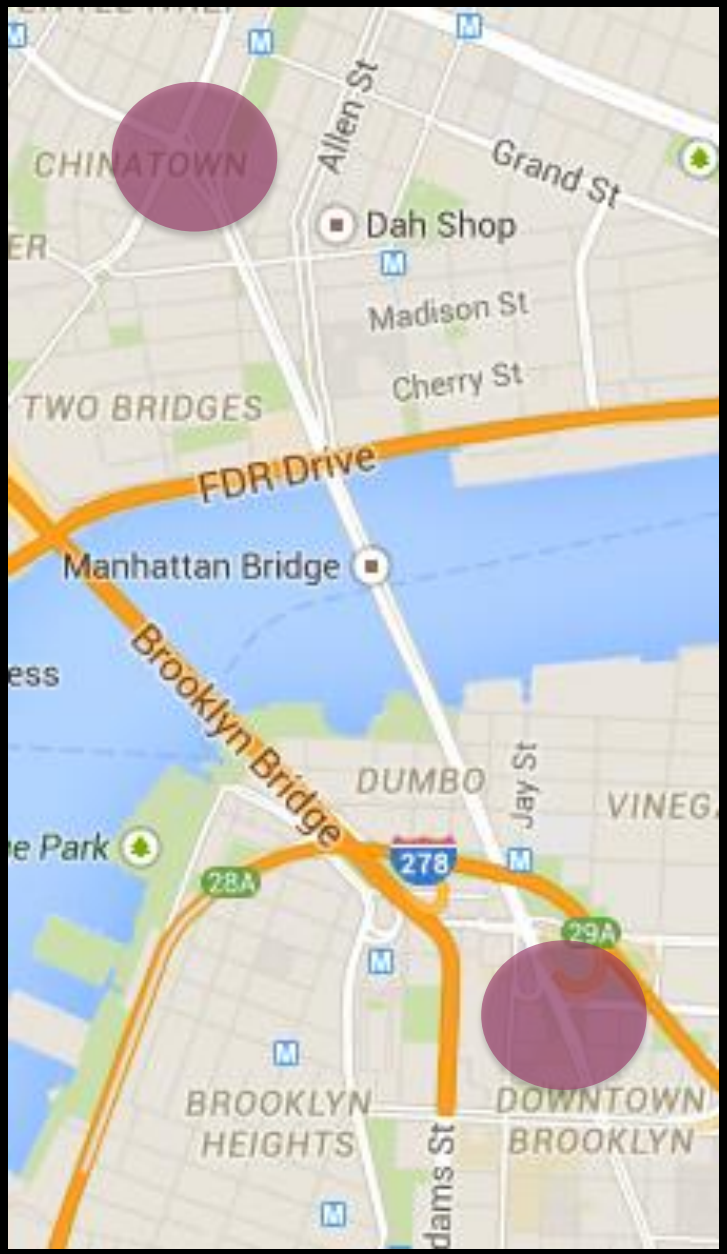
NEW YORK CITY DOT

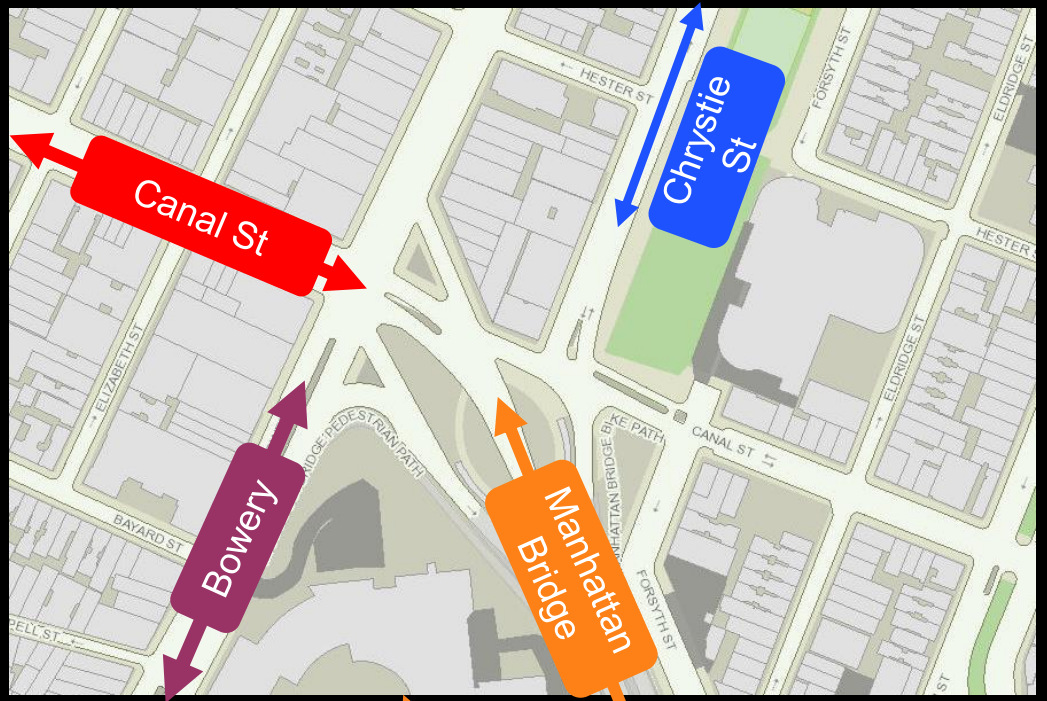
New York City Department of Transportation, Pedestrian Projects Group

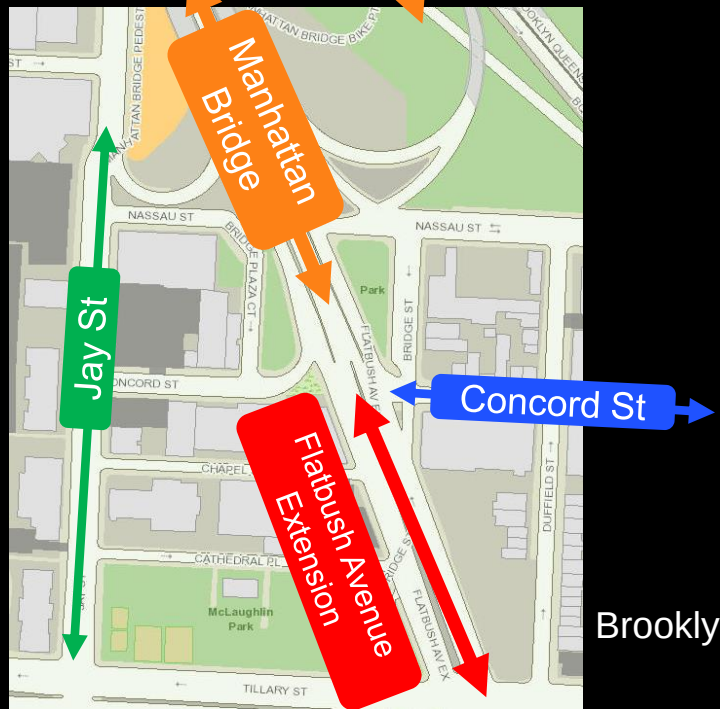
Presented to the Manhattan Community Board 3 Transportation Committee on May 12, 2015

Project Area

Manhattan Side

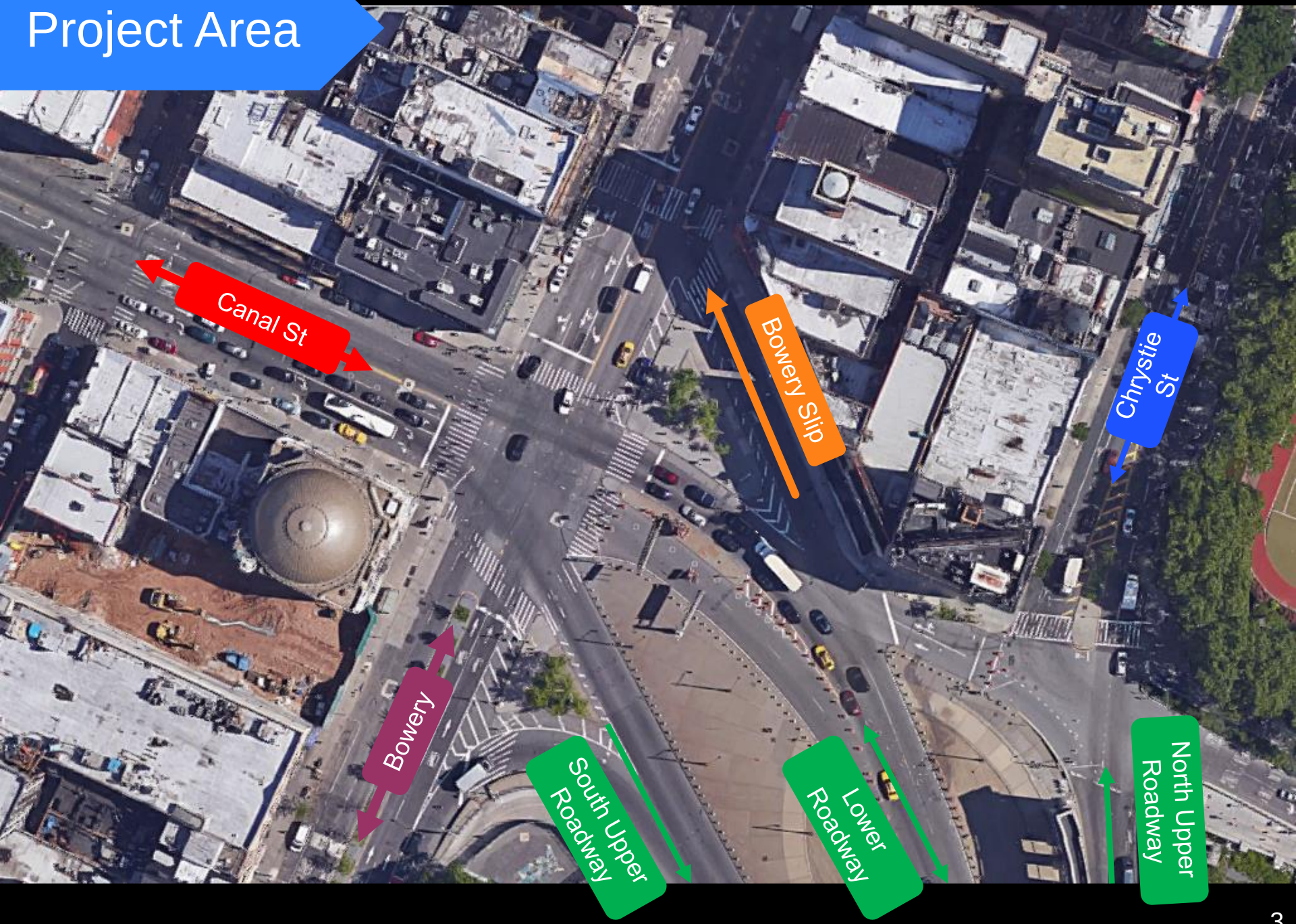






Brooklyn Side

Project Area



Background

- Community requests for pedestrian safety and access improvements, including Council Member Chin
- Vision Zero location
- High Crash Corridor – in top 10% of locations in Manhattan with crashes resulting in fatalities or severe injuries

Canal St - Bowery to Chrystie St, MN

Injury Summary, 2009-2013 (5 Years)

	Total Injuries	Severe Injuries	Fatalities	KSI
Pedestrian	16	7	1	8
Bicyclist	8	0	0	0
Motor Vehicle Occupant	133	9	0	9
Total	157	16	1	17

Fatalities, 01/01/2009-4/27/2015 : 1

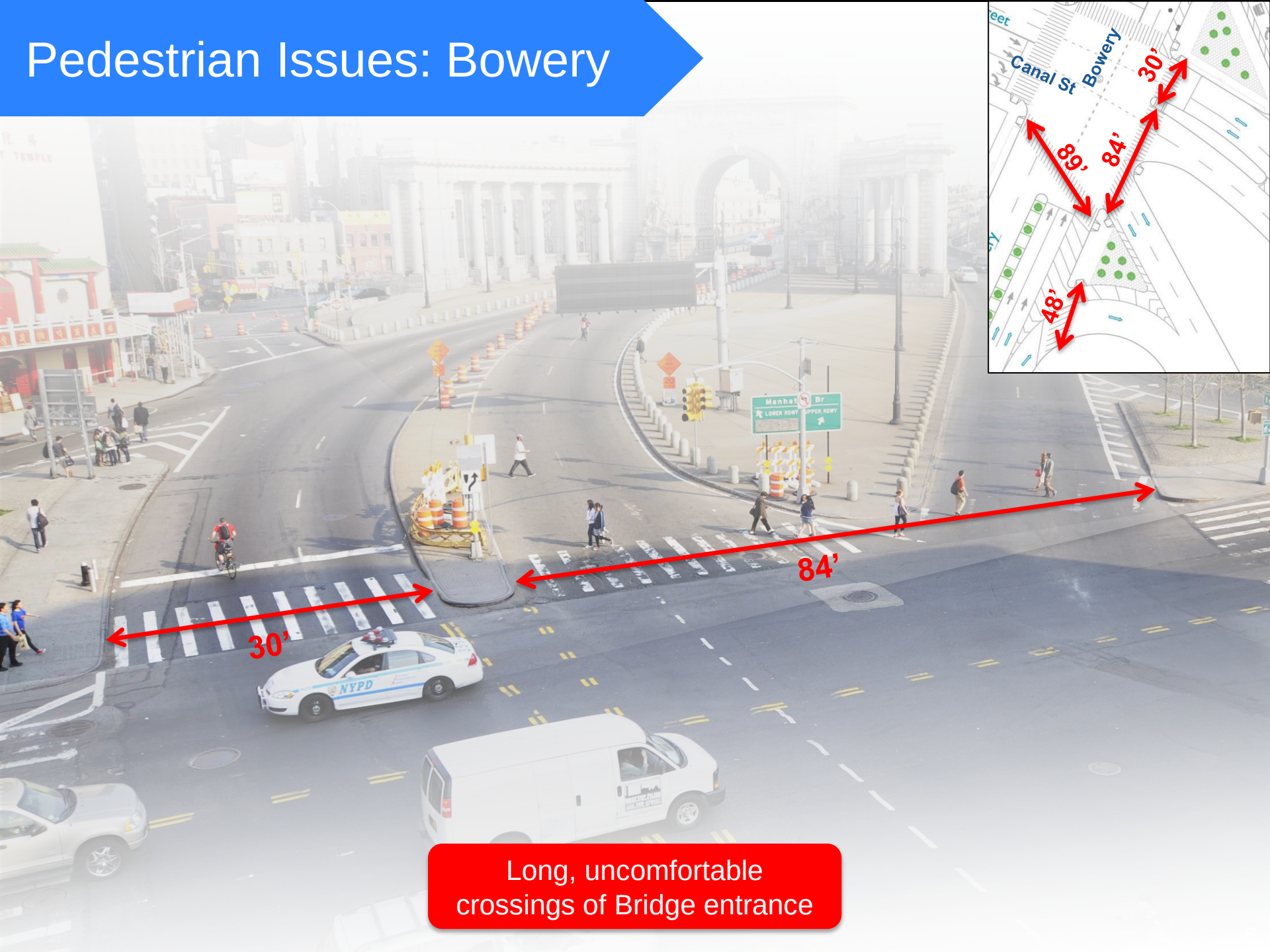
Source: Fatalities: NYCDOT
Injuries: NYSDOT
KSI: Persons Killed or Severely Injured

Pedestrian Issues: Bowery Slip

High pedestrian volume (1,525) In peak hour

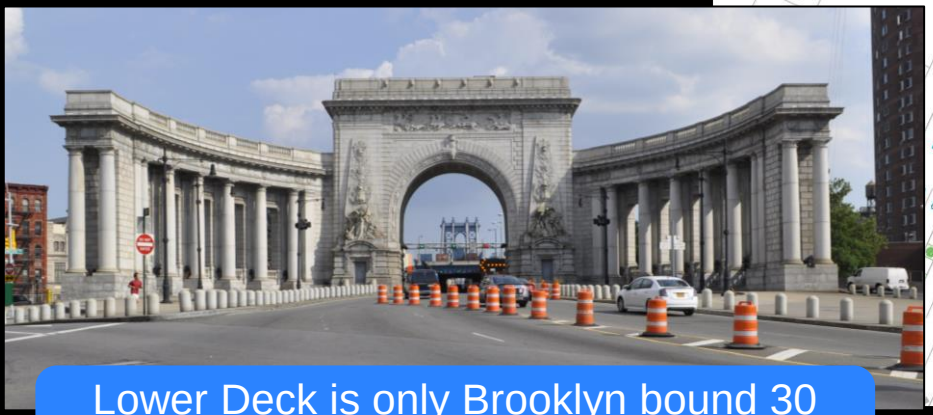
Unmarked & uncontrolled crossing with high-speed vehicle conflict

Pedestrian Issues: Bowery

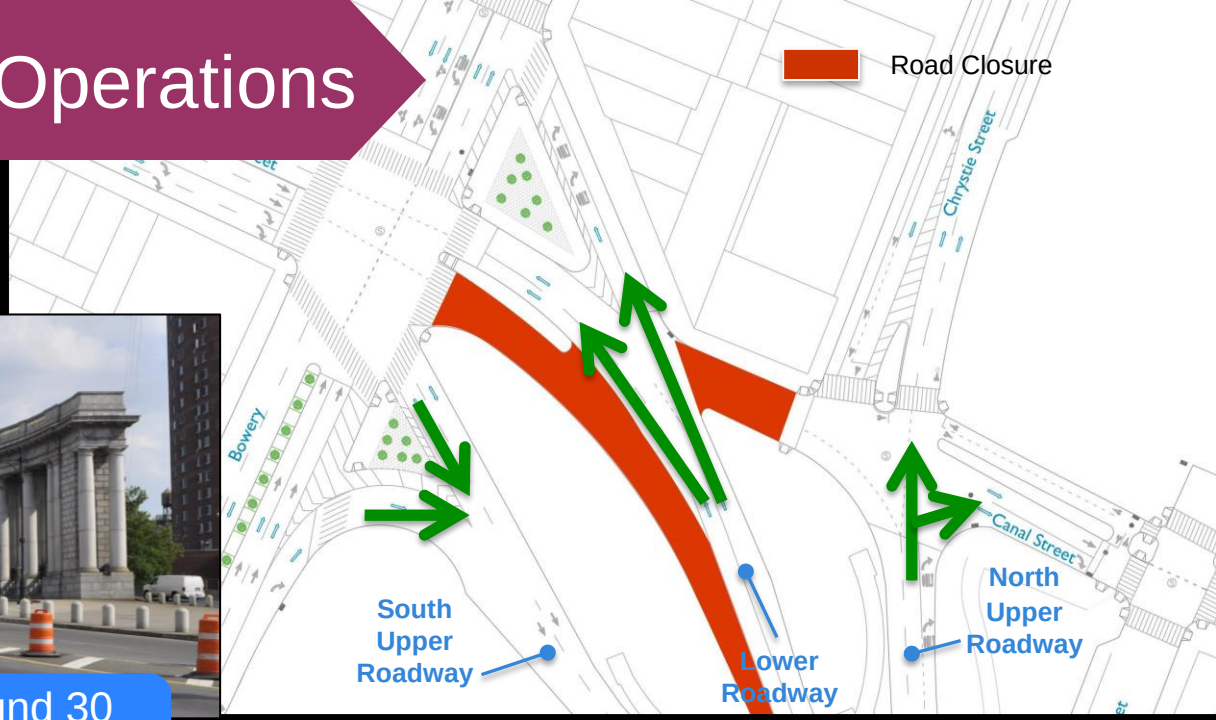


Manhattan Existing Operations

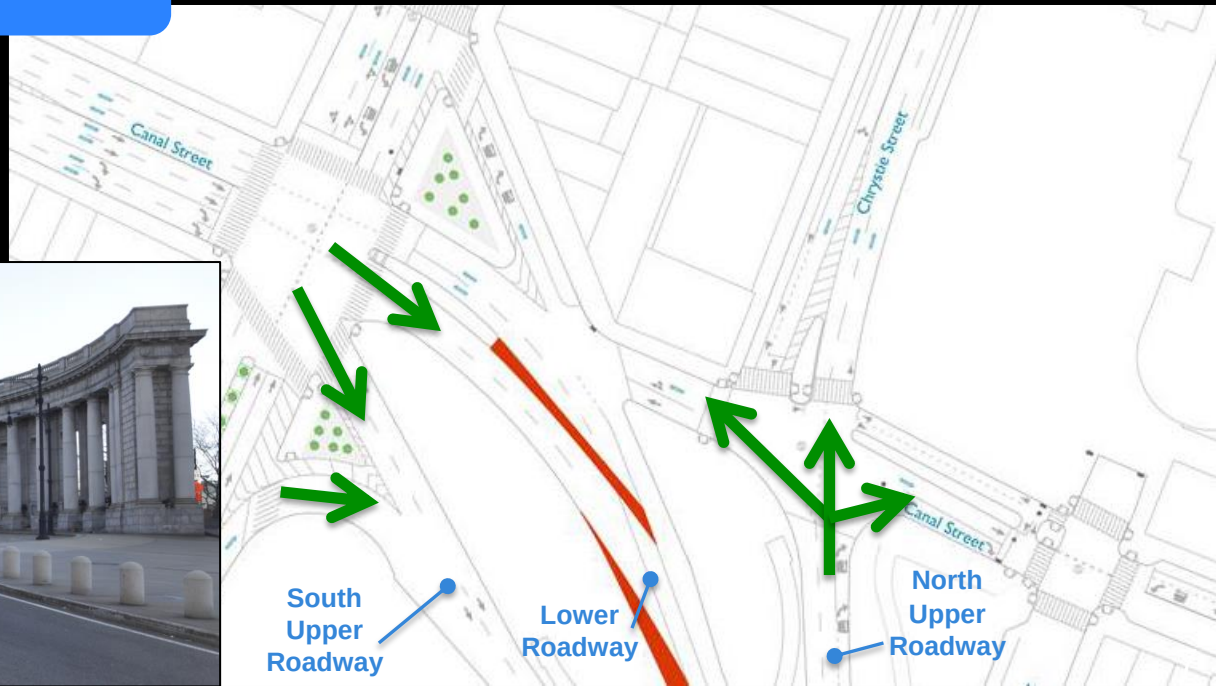
All other times Lower Deck:
Manhattan bound



Lower Deck is only Brooklyn bound 30 out of 168 hours per week

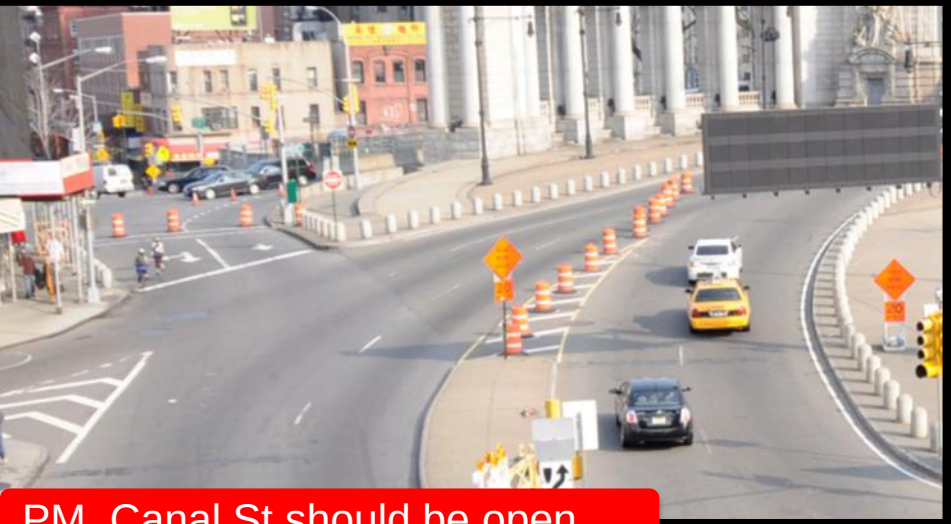


3-9PM Lower Deck:
Brooklyn bound



Inconsistent Operations

Reversal operation is inefficient & subject to non-compliance



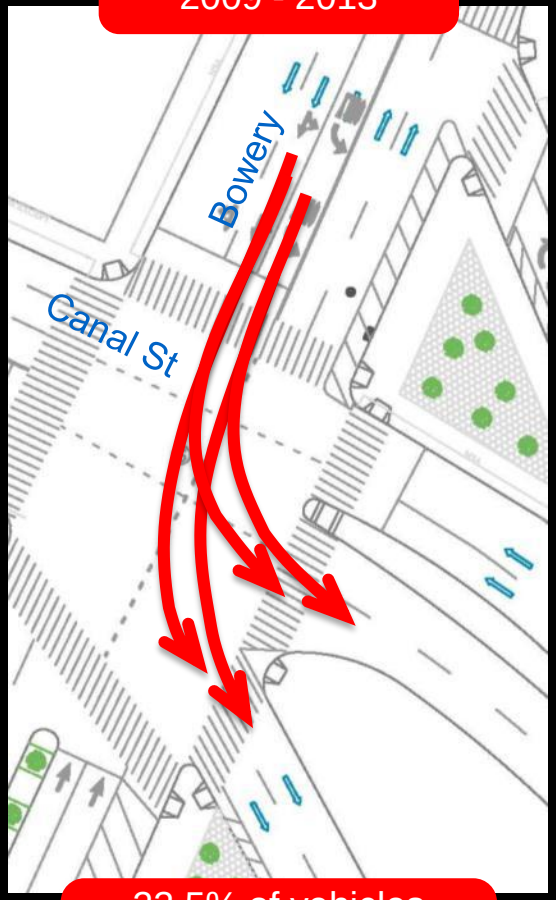
PM, Canal St should be open

AM, Canal St should be closed

Traffic Issues: Conflict

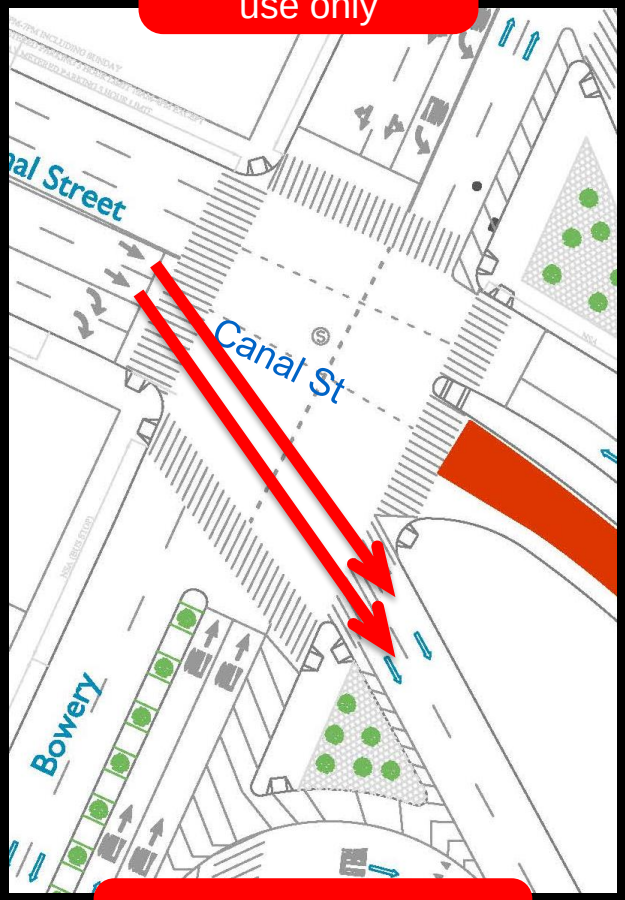
Unclear and conflicting lane assignments

133 crashes from 2009 - 2013



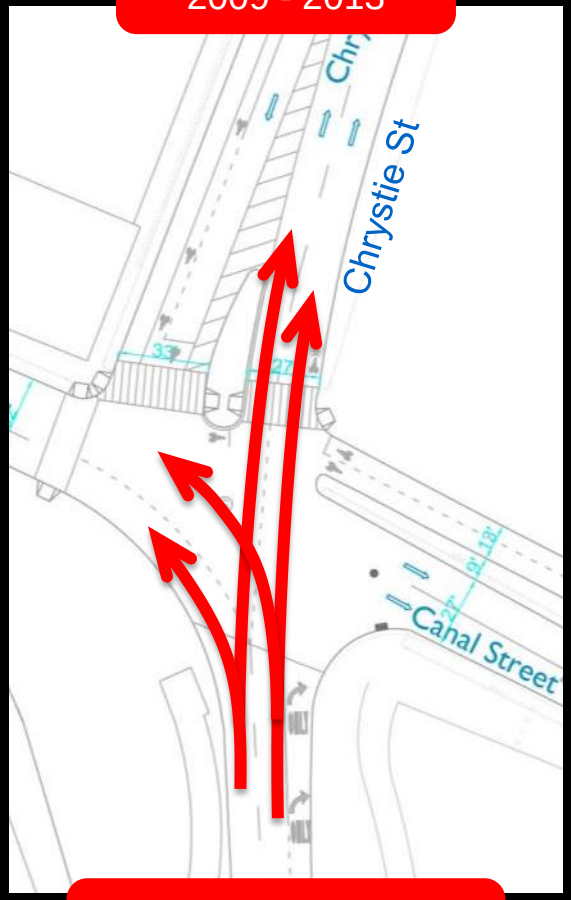
23.5% of vehicles make a conflict movement

Canal aligned for 3 PM to 9 PM use only



All other times awkward lane shift

40 crashes from 2009 - 2013



19% of vehicles make a conflict movement

Traffic Issues: Bowery Conflicts

Traffic Issues: Canal St Confusion

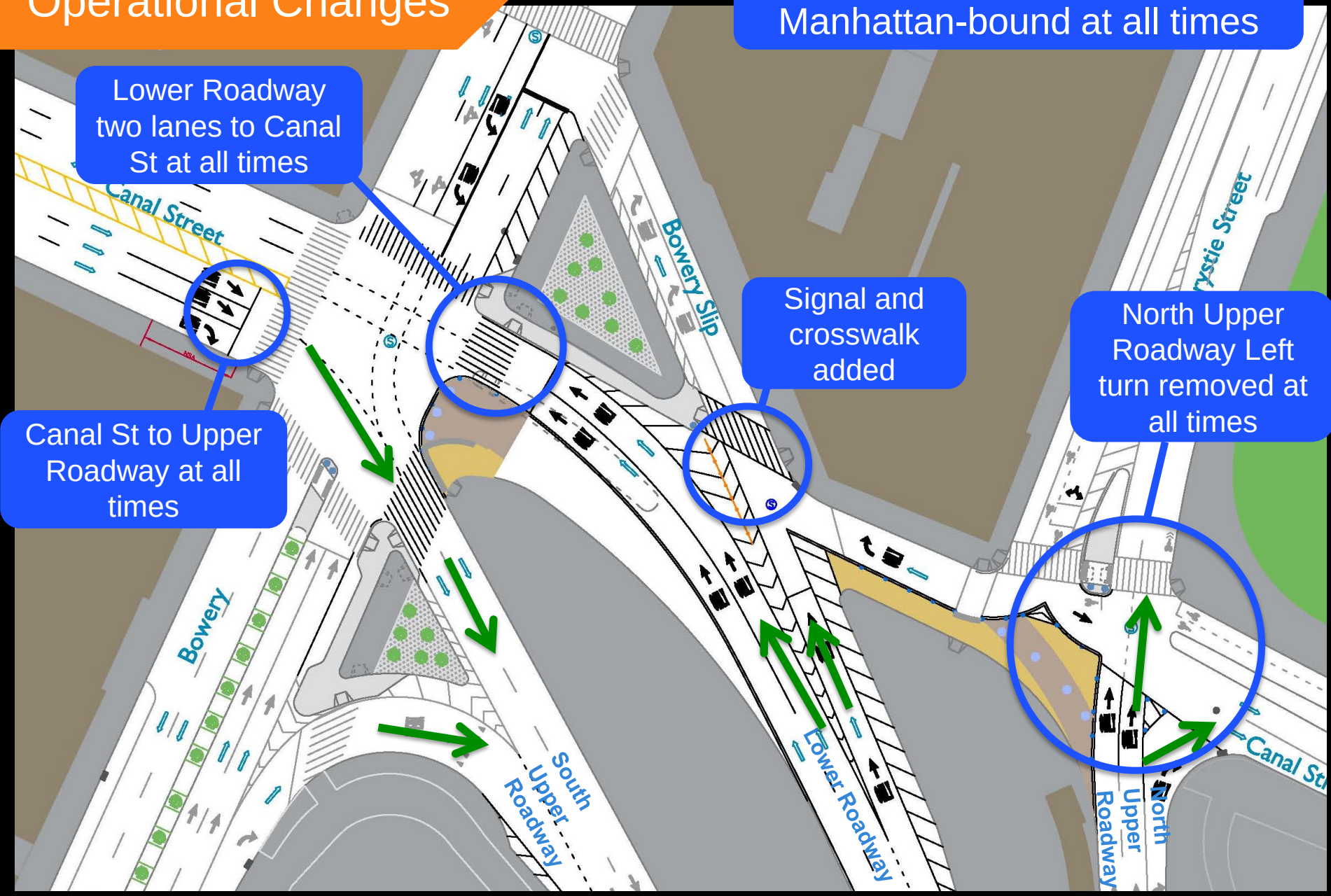
Traffic Issues: Chrystie St Conflicts

Rapid Response Toolkit

- Pavement markings
- Painted and/or textured surfaces
- Concrete sidewalk extensions
- New signage
- Signals
- Planters and delineators

Manhattan Proposal:

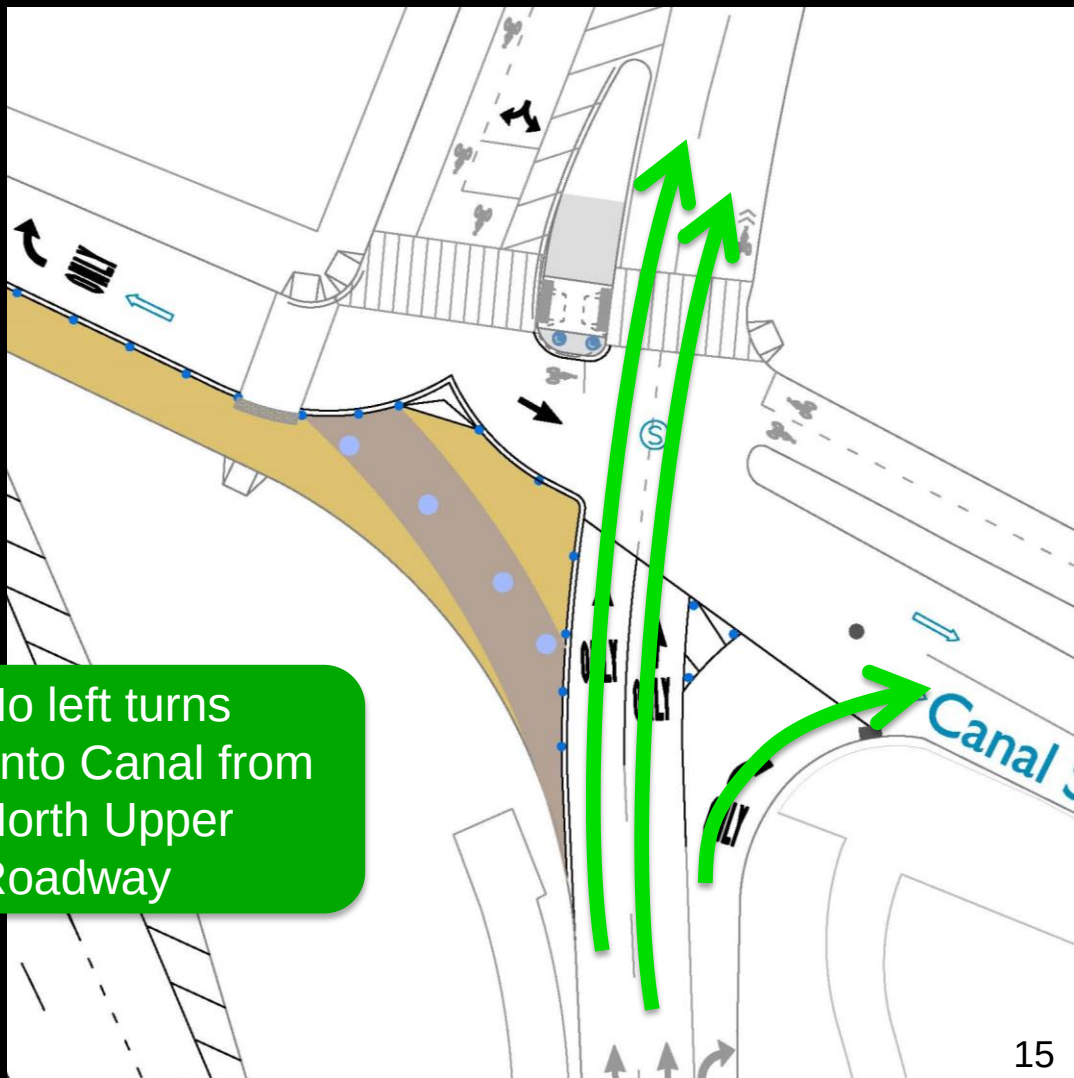
Operational Changes



Proposal: Chrystie St

Existing inconsistencies

Proposed: Consistent Configuration



No left turns onto Canal from North Upper Roadway

Proposal: Bowery Slip

1,525 pedestrians in peak hour

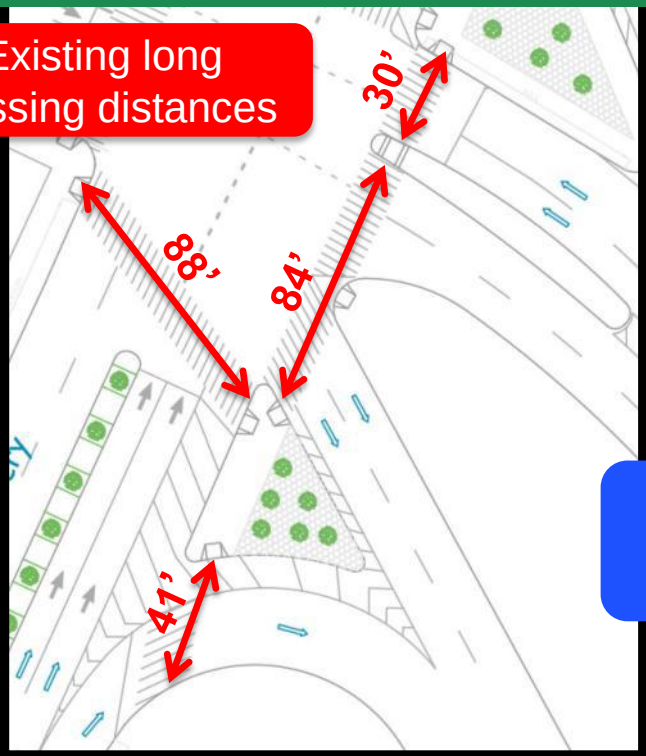
Extended sidewalk

New marked crosswalk

New signalized intersection

Proposal: Bridge Entrance

Existing long crossing distances



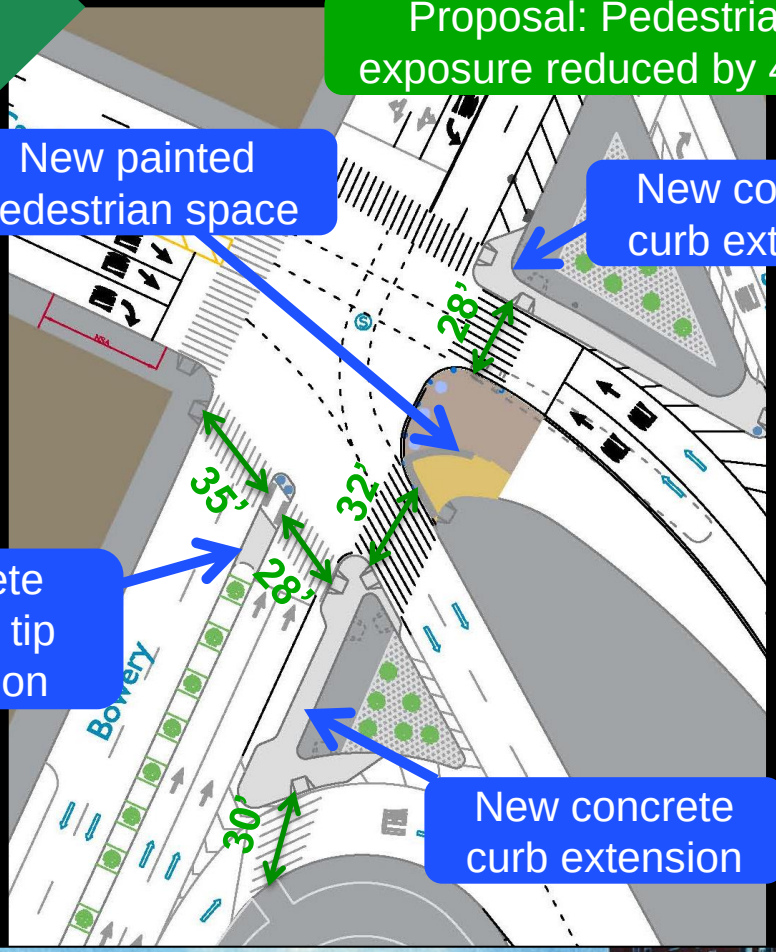
Proposal: Pedestrian exposure reduced by 42%

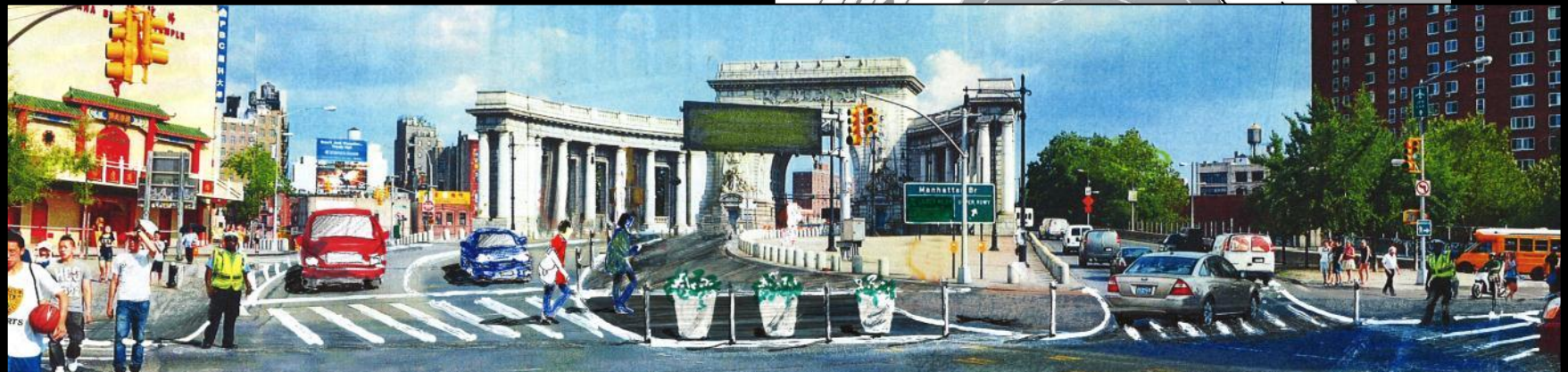
New painted pedestrian space

New concrete curb extension

Concrete median tip extension

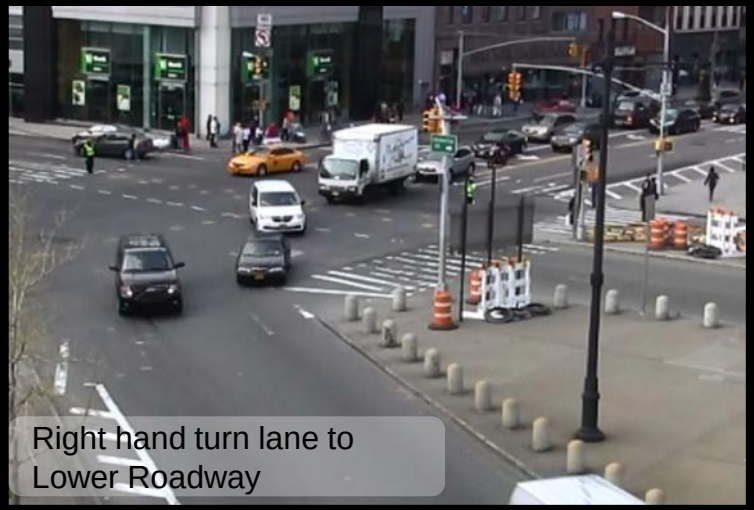
New concrete curb extension



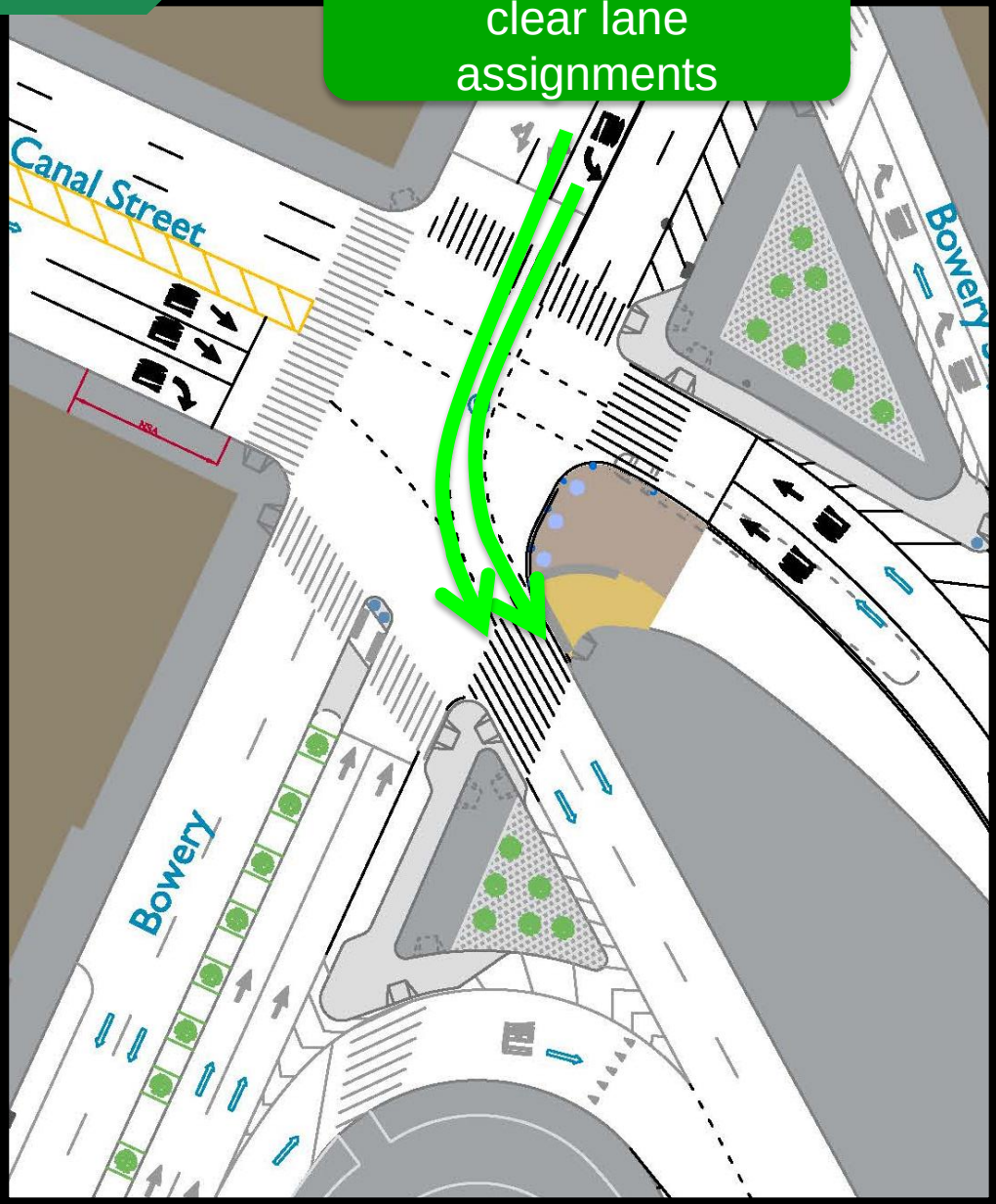


Proposal: Bridge Entrance

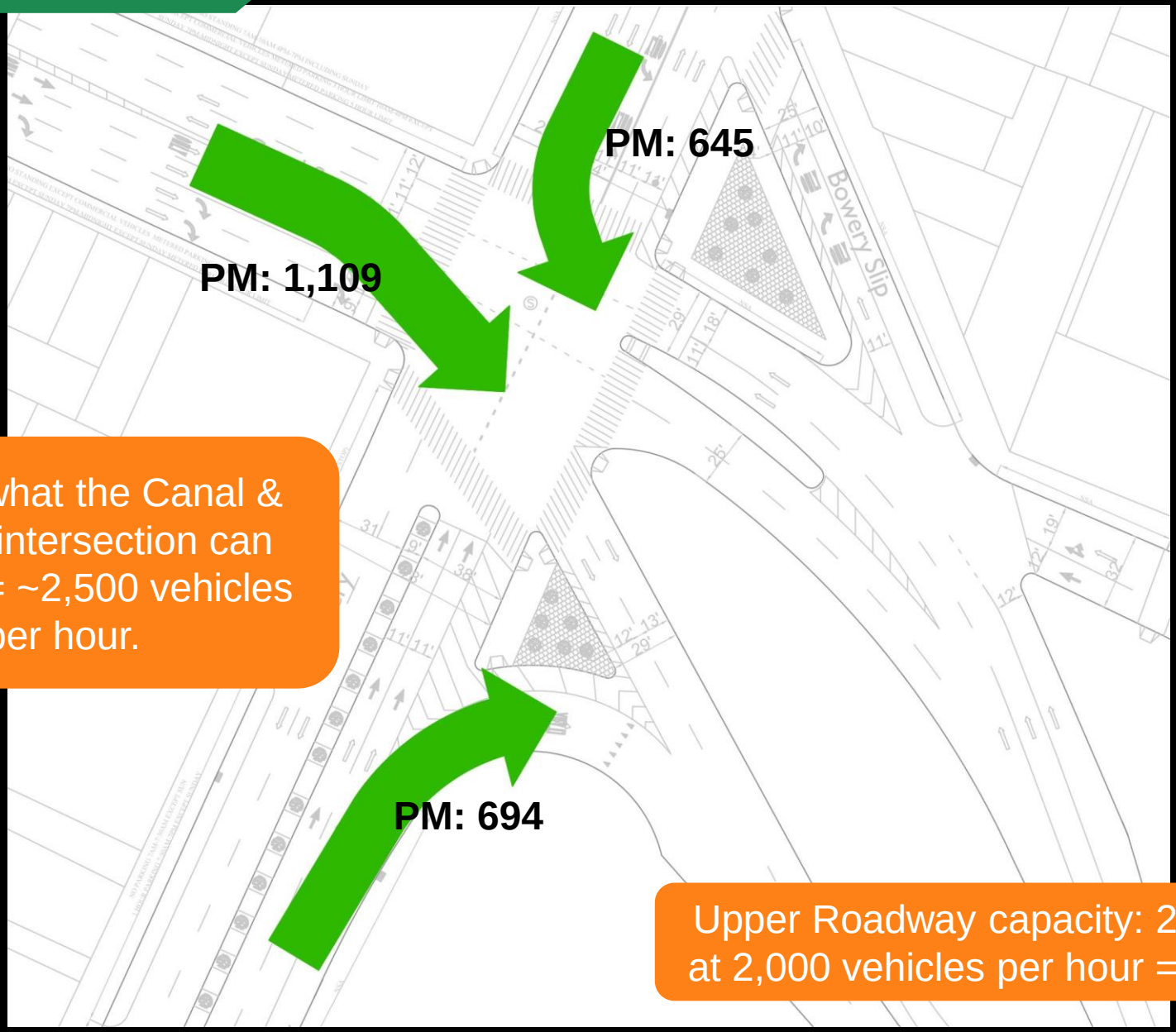
Existing conflicting turns



Proposal: Signed and clear lane assignments



Opportunities

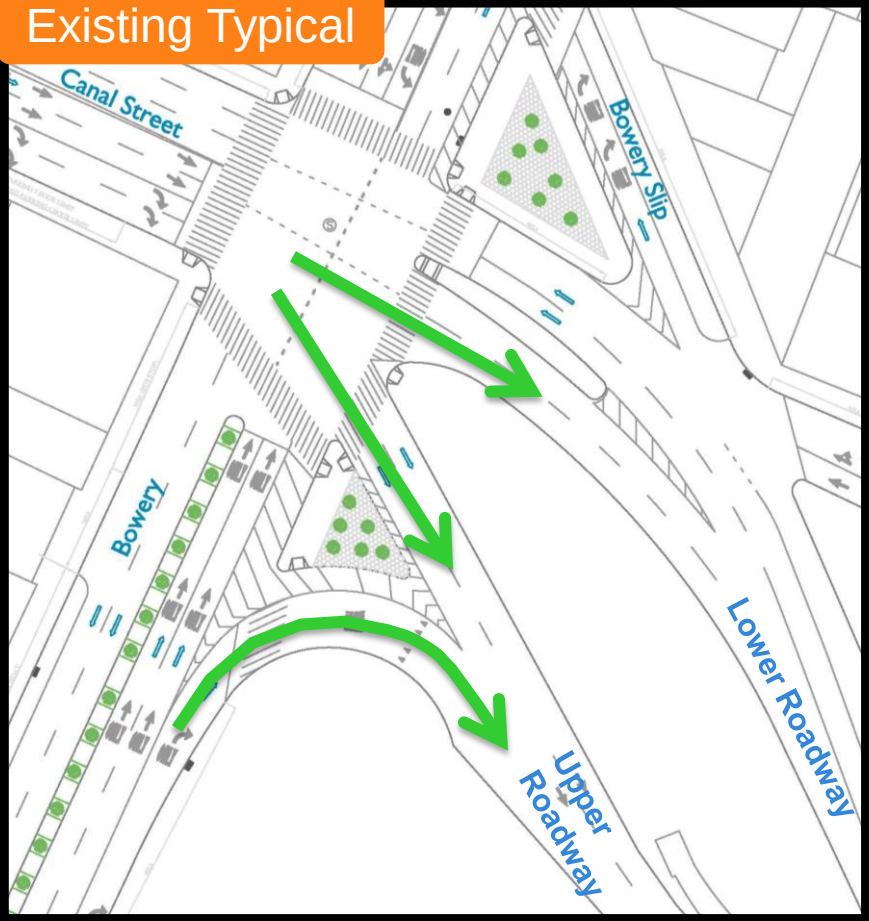


Limit to what the Canal & Bowery intersection can process = ~2,500 vehicles per hour.

Upper Roadway capacity: 2 lanes at 2,000 vehicles per hour = 4,000

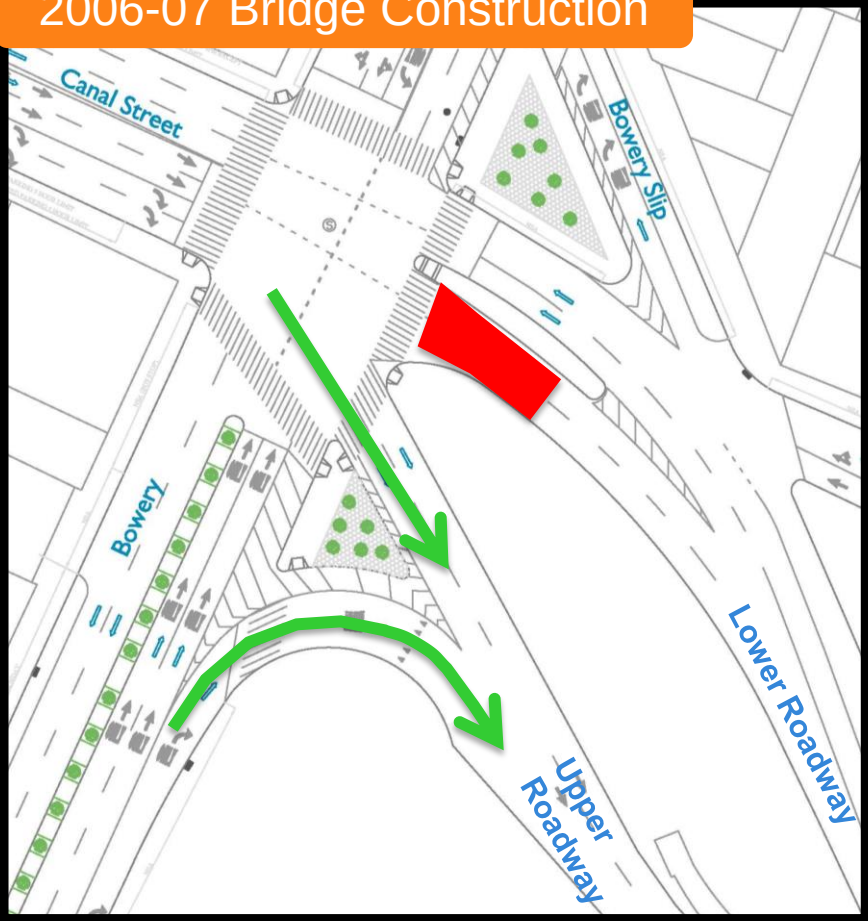
Traffic Considerations

Existing Typical



Brooklyn bound PM peak hour: 2,550 spread over Upper and Lower Roadways

2006-07 Bridge Construction



PM peak hour: ~2,400 vehicles accommodated on Upper Roadway during Lower Roadway closure

Summary

- Reduces pedestrian crossing distances
- Improves pedestrian access and safety
- Clarifies traffic movements
- Maintains traffic capacity

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Thank You