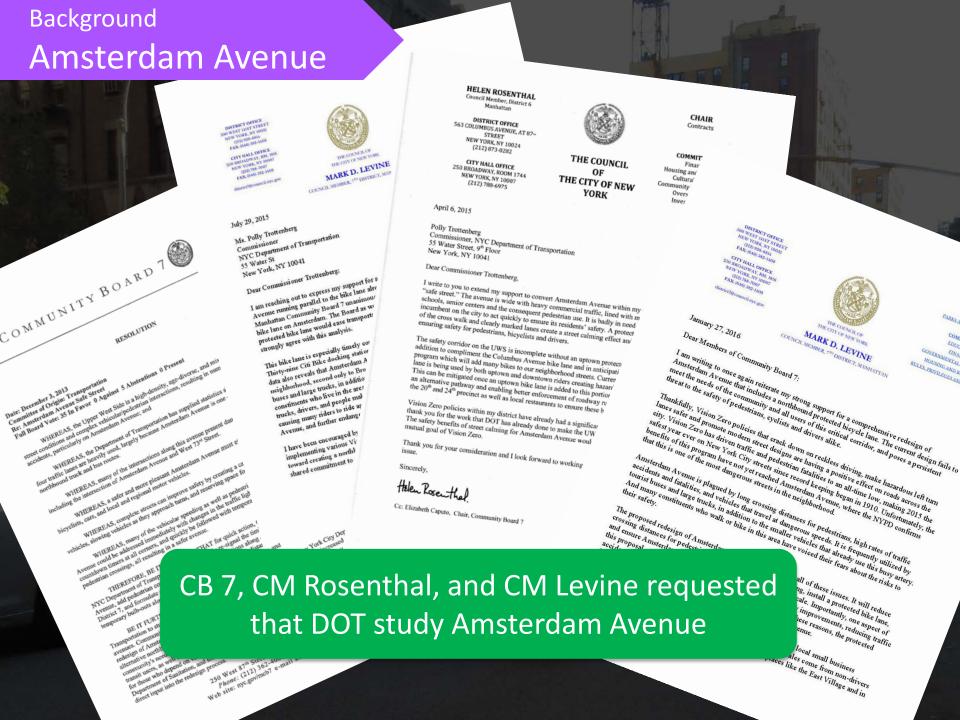


- Logical northbound pairing for Columbus Ave
- Recent Citi Bike expansion uptown to W 86th St
- Over 19 people killed or severely injured per mile (including three fatalities)
- High traffic volumes, bus route, local truck route, active curbside loading





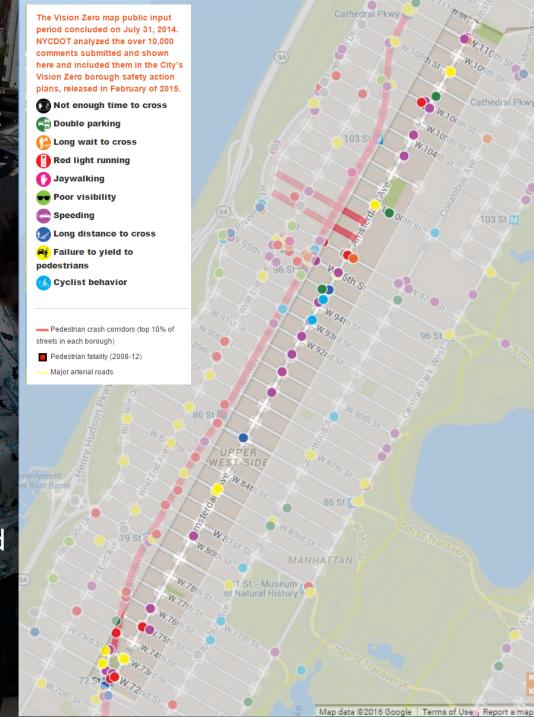


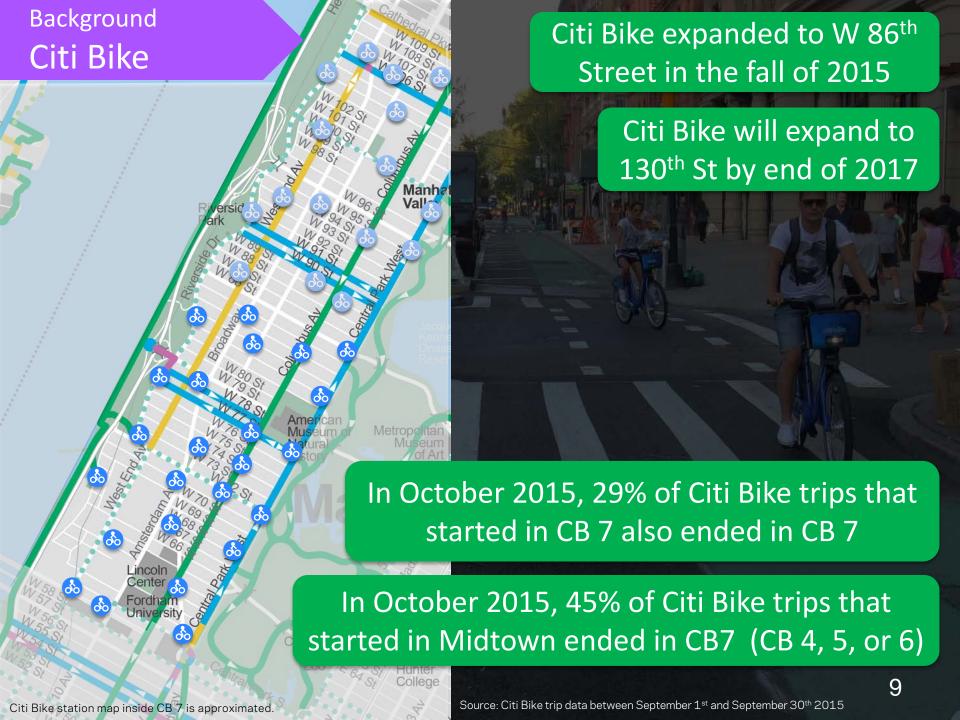


Background Public Input

Numerous comments regarding:

- Speeding, especially during the morning
- Vehicles running red lights
- Vehicles failing to yield when turning from side streets
- Vehicles failing to yield when turning at major two-way cross streets
- Cyclists running red lights and riding on the sidewalk





Amsterdam Ave w 85 th to w 86 th St	12-hour Bike Volume		
October 2007	217		
October 2011	515		
October 2015	609		

• A three fold increase in cycling on Amsterdam since 2007 and almost double on Columbus.

Columbus Ave W 87 th to W 86 th St	12-hour Bike Volume
October 2007	486
October 2011	594
October 2015	724

Design **Existing Issues**

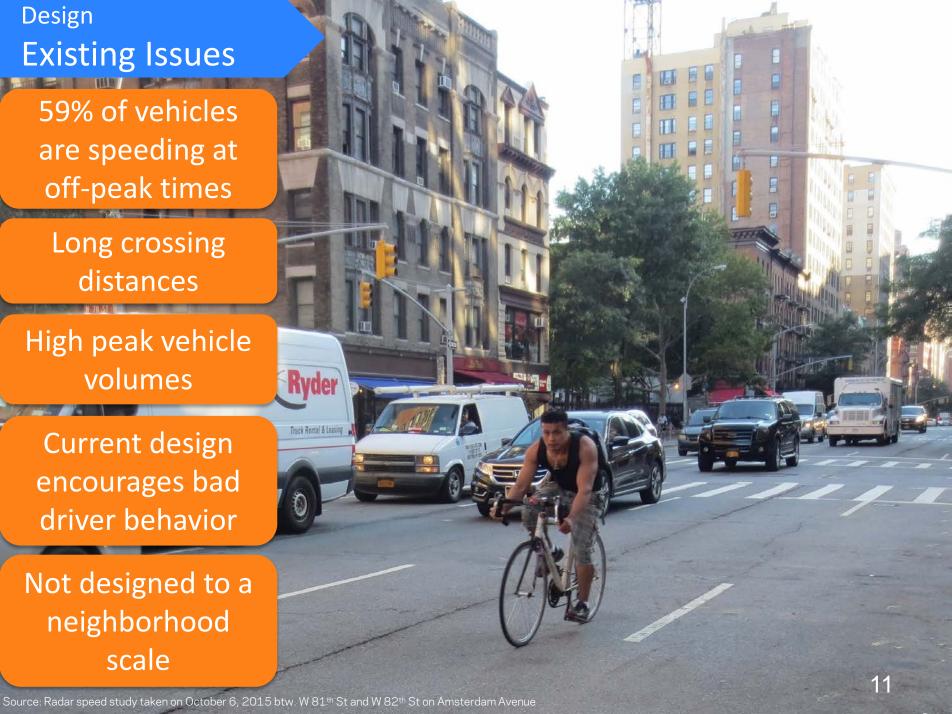
59% of vehicles are speeding at off-peak times

Long crossing distances

High peak vehicle volumes

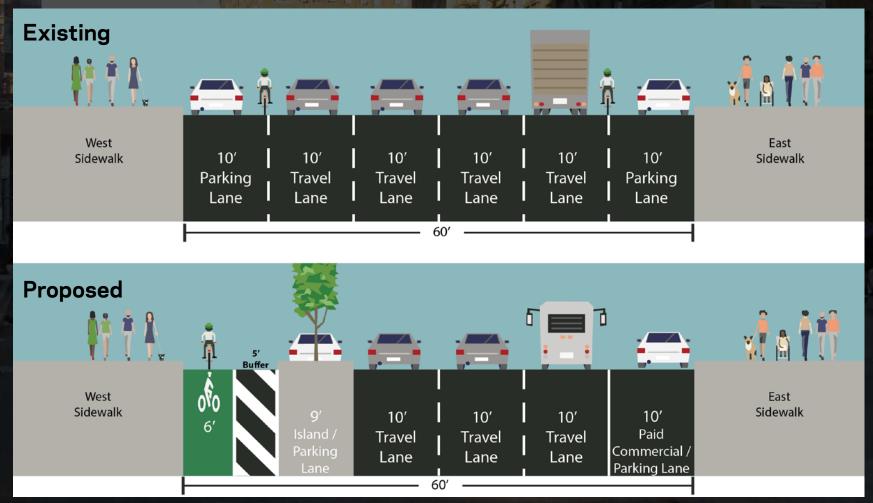
Current design encourages bad driver behavior

Not designed to a neighborhood scale



Design

Proposal



Curbside parking protected lane

Pedestrian safety islands

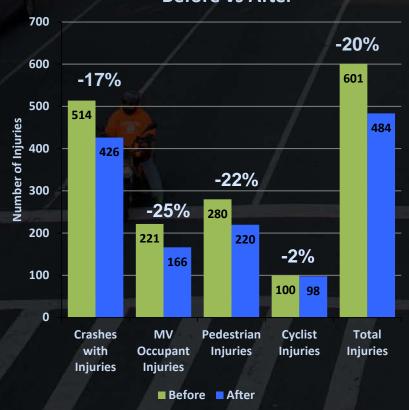
Lane reduction with turn lanes

Updated curb regulations



Design Safety

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



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

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

Design Safety

27% fewer injuries overall, including 39% fewer pedestrian injuries, on Columbus Ave between W 96th St and W 77th St*

10% fewer injuries overall, including **27%** fewer pedestrian injuries, on Columbus Ave between W 110th St and W 96th St and between W 77th St and W 69th St**

Speeding Data Before After **May 2010 March 2012** 87th – 86th St 87th - 86th St 26.8 22.3 Average Speed Percent of Vehicles 14% 6% Over 30 mph * 3-yrs of after data ** 2-yrs of after data

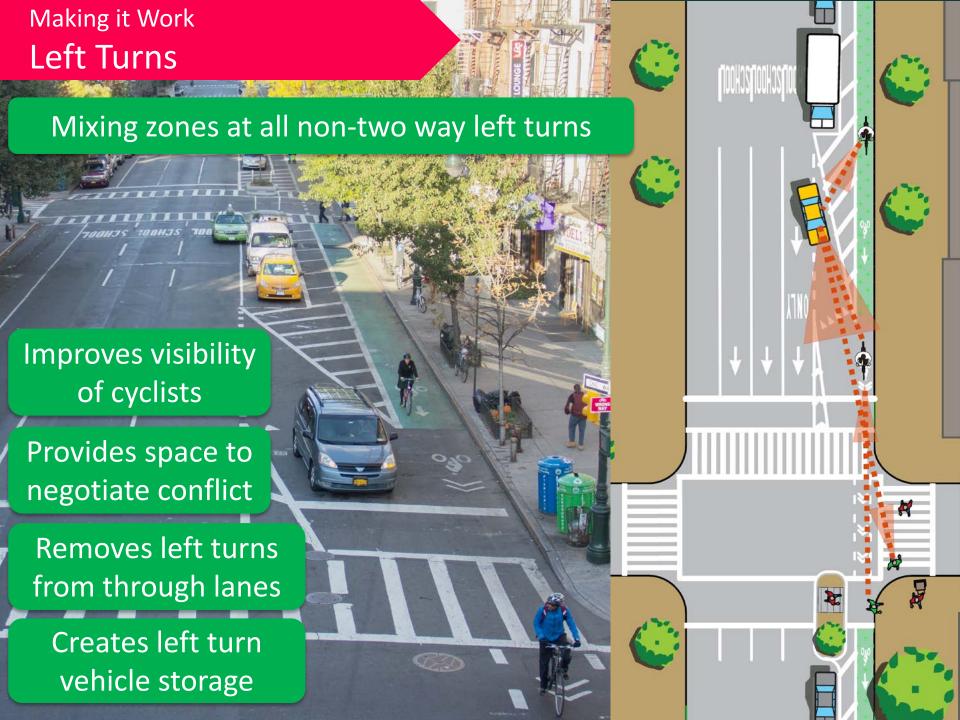
Making it Work **Existing Capacity** W 96: v/c - 0.91 Manha Valley Ams erdemalve W 86: v/c - 0.81 W 82: v/c - 0.66 W 79: v/c - 0.85 W 77: v/c - 0.62 Lincoln Fordham University College **Existing Condition v/c Ratios**

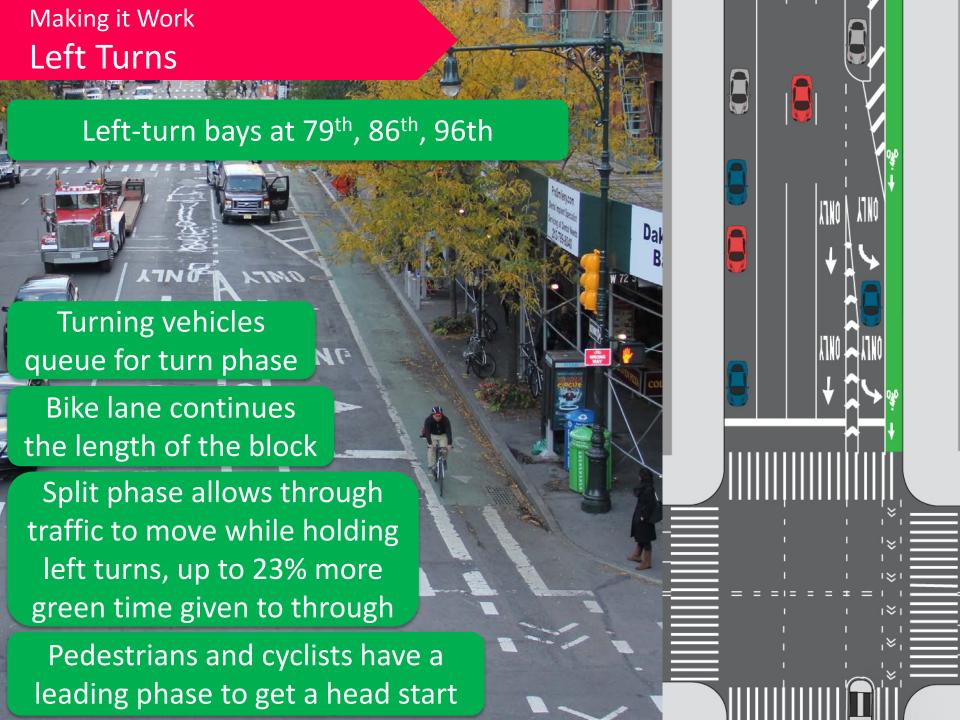
Existing Traffic Conditions

Cross Street	Amsterdam 6-7 PM Peak Volumes (veh/hr)	Delay (s)	Volume- to- Capacity Ratio
W 96 th	1,687	12.8	0.91
W 86 th	1,704	6.5	0.81
W 82 nd	1,545	3.0	0.66
W 79 th	1,330	40.9	0.85
W 77 th	1,377	4.8	0.62

The **volume-to-capacity** ratio is a measure of how "full" a roadway feels and is calculated as a ratio between the measured traffic volume and calculated capacity of the roadway. The result is expressed as a number between 0 and 1. A value of "1" would indicate that the roadway is "full."

Delay is a measure of the average time a vehicle will spend processing through an intersection







Indicates a combination of open metered parking and metered commercial Indicates metered commercial 7am-7pm Monday to Friday

Note 1: Metered parking to remain unless otherwise indicated.

Note 2: Specifics of regulations north of W 106th St pending further consultation with the Columbus Amsterdam BID

Beacon Theater



Plaza Jewish Community Chapel





200	Existing		30' m	
Cross Street	Amsterdam 6-7 PM Peak Volumes (veh/hr)	Delay (s)	Volume-to- Capacity Ratio	
W 96 th	1,687	12.8	0.91	
W 86 th	1,704	6.5	0.81	
W 82 nd	1,545	3.0	0.66	
W 79 th	1,330	40.9	0.85	
W 77 th	1,377	4.8	0.62	
	Propose	Proposed		
Cross Street	Amsterdam 6- 7 PM Peak Volumes (veh/hr)	Delay (s)	Volume- to- Capacity Ratio	
* W 96 th	1,670	5.0	0.78	
W 86 th	1,687	12.7	0.91	

0.83

0.72

0.69

1,530

1,317

1,363

5.9

35.5

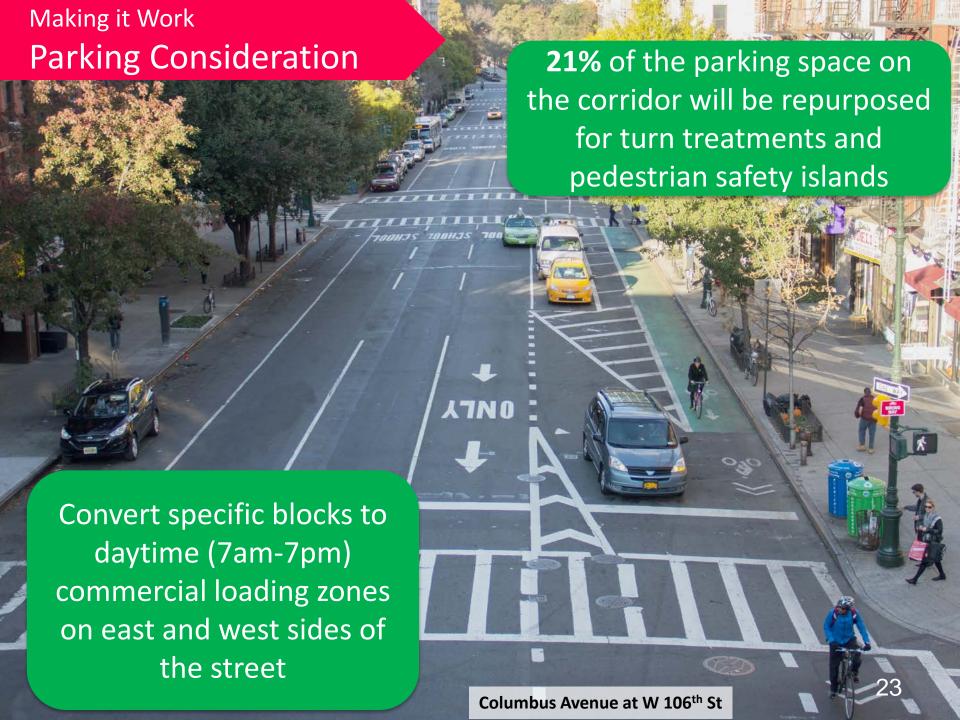
4.5

W 82nd

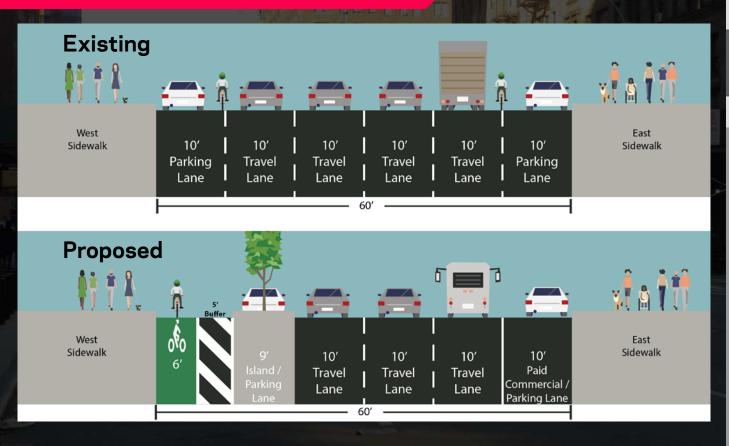
* W 79th

W 77th

²²

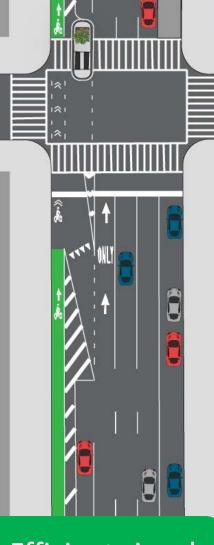


Making it Work Overall



3 through lanes process efficiently

Traffic is organized into through, turns, and proper loading zones



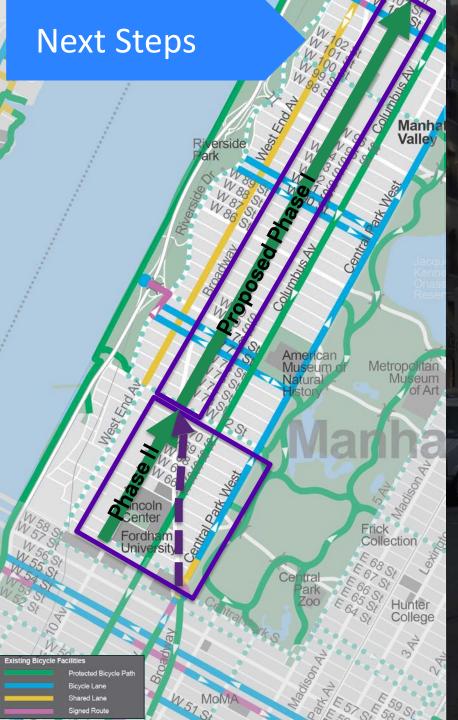
Efficient signal progression



Summary

Amsterdam Avenue

- Protected bicycle lane provides northbound route for cyclists
- Reduced pedestrian crossing distances with islands
- Design for neighborhood street with safety benefits expected for all users
- Lane reduction with left turn treatments
- High peak hour traffic volumes require some signal adjustments
- Left turn treatments and paid commercial spaces reduce parkable area
- Traffic flow will be maintained
- Connections to new route via CPW at 77th/78th and 90th/91st



Phase 1 – 72nd – 110th

 Implementation begins Spring 2016, nearly two miles of protected lanes and new infrastructure

Phase 2 - South of 72nd

- Gather feedback & develop proposals
- Consider network connections
- Coordinate with 2016 capital project at 71st/Amsterdam/Broadway
- Complete improvements on Columbus south of 65th St
- Any route will require careful planning through complex intersection of 71st/Amsterdam/Broadway

Questions?

Thank You