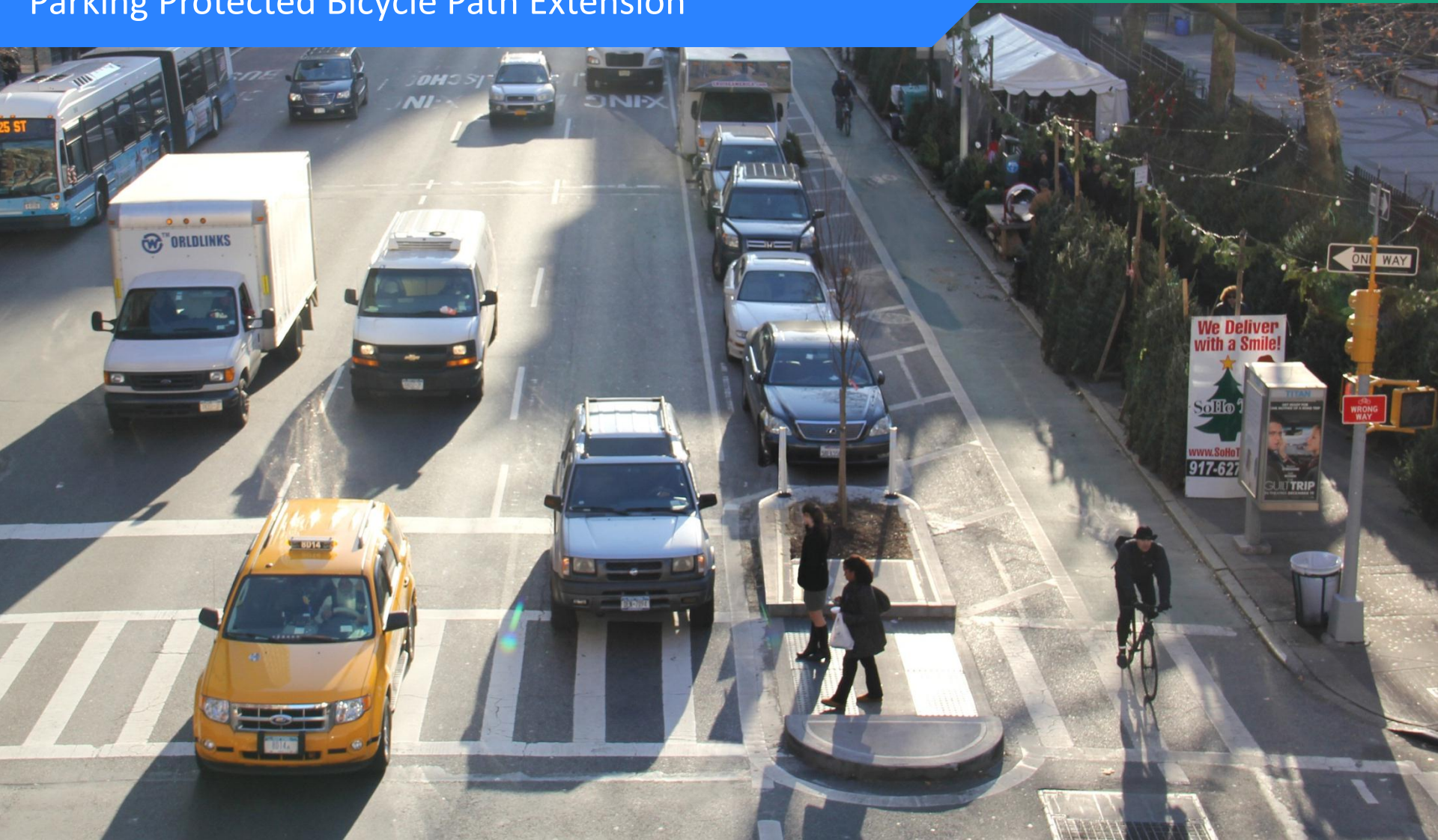


First Avenue: E 61 St to E 72 St

Parking Protected Bicycle Path Extension



Executive Summary

Building upon previously completed improvements to other sections of First and Second Avenues, DOT implemented enhancements on First Avenue between E 61 St and E 72 St in summer 2012. The project included a new bicycle path with landscaped pedestrian safety islands and mixing zones for turning vehicles. Post implementation analysis indicates an increase in bicycle ridership with a reduction in crashes while maintaining motor vehicle throughput. In addition, crossings are shorter and new street trees have enhanced the neighborhood.



Results Summary:

Safety

- Total crashes fell by 9%
- Injuries for all users fell by 36%
- 70% decrease in cyclists riding on the sidewalk on First Ave

Mobility

- Vehicle volumes along the avenue have declined modestly
- First Ave travel times improved by 8% during the afternoon peak period (4-7pm)
- Bicycle volumes on First Ave increase by 45% on weekdays
- An acceptable Vehicle Level of Service was maintained after implementation

Economic Vitality/Quality of Life

- The project has had no adverse effects on FDNY and NYPD operations
- Created 70 parking spaces during afternoon peak period
- 14 trees planted within concrete safety islands

Project Summary

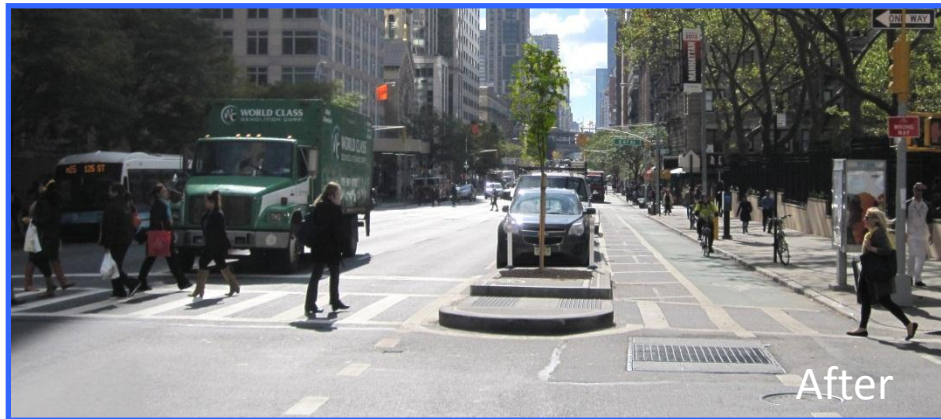
Before



Completed June 2012:

- Installed 0.6 miles of separated bicycle path with mixing zones
- Installed dedicated bicycle signal at E 72nd St
- Constructed 14 landscaped pedestrian safety islands
- Removed afternoon peak period parking restrictions

After



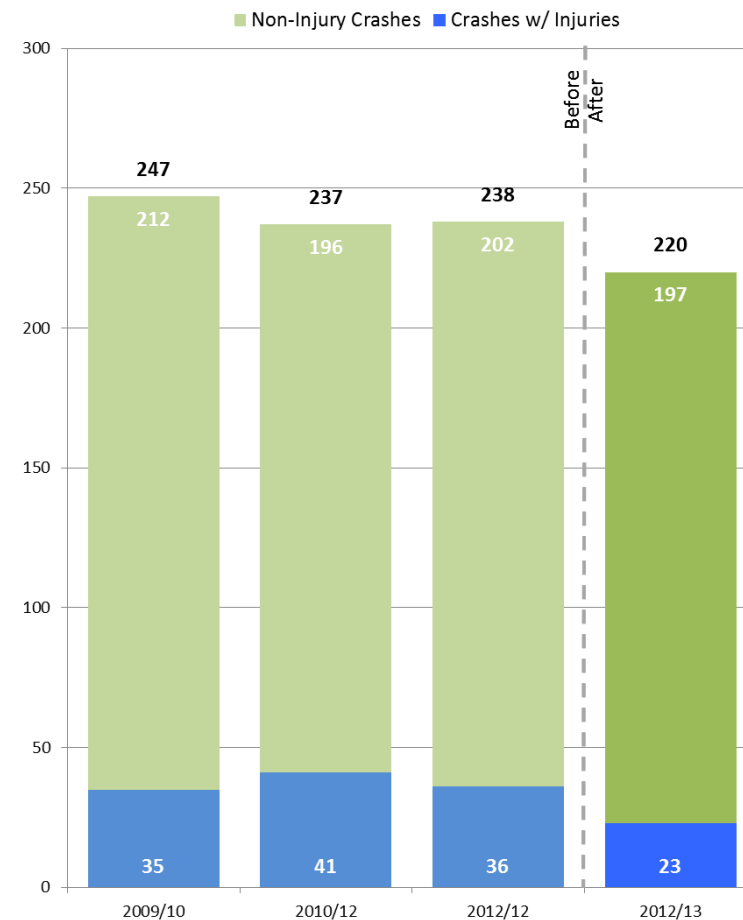
Safety – Crashes and Injuries

- Injuries for all users fell by 36%



Crashes, One-Year After Analysis

First Avenue (E. 61st to E. 72nd)



Each before year period is the 12-month period beginning March 1 and ending February 28. The 1-yr after period is July 1, 2012 to June 30, 2013. The implementation period of March 1, 2012 to June 30, 2012 is excluded.

Source: NYPD AIS/TAMS Crash Database

Safety – Crashes and Injuries

- Total crashes fell by 9%

Crashes and Injuries

One-Year After Analysis, First Avenue (E 61 St to E 72 St)

	Before			After
	'09/ '10	'10/ '12	'12/ '12	'12/ '13
Total Crashes	247	237	238	220
Crashes w/ Injuries	35	41	36	23
Motor Vehicle Occupant	18	21	17	15
Pedestrian	18	16	16	12
Cyclist	7	9	4	0
Total Injuries	43	46	37	27



Each before year period is the 12-month period beginning March 1 and ending February 28.

The 1-yr after period is July 1, 2012 to June 30, 2013. The implementation period of March 1, 2012 to June 30, 2012 is excluded.

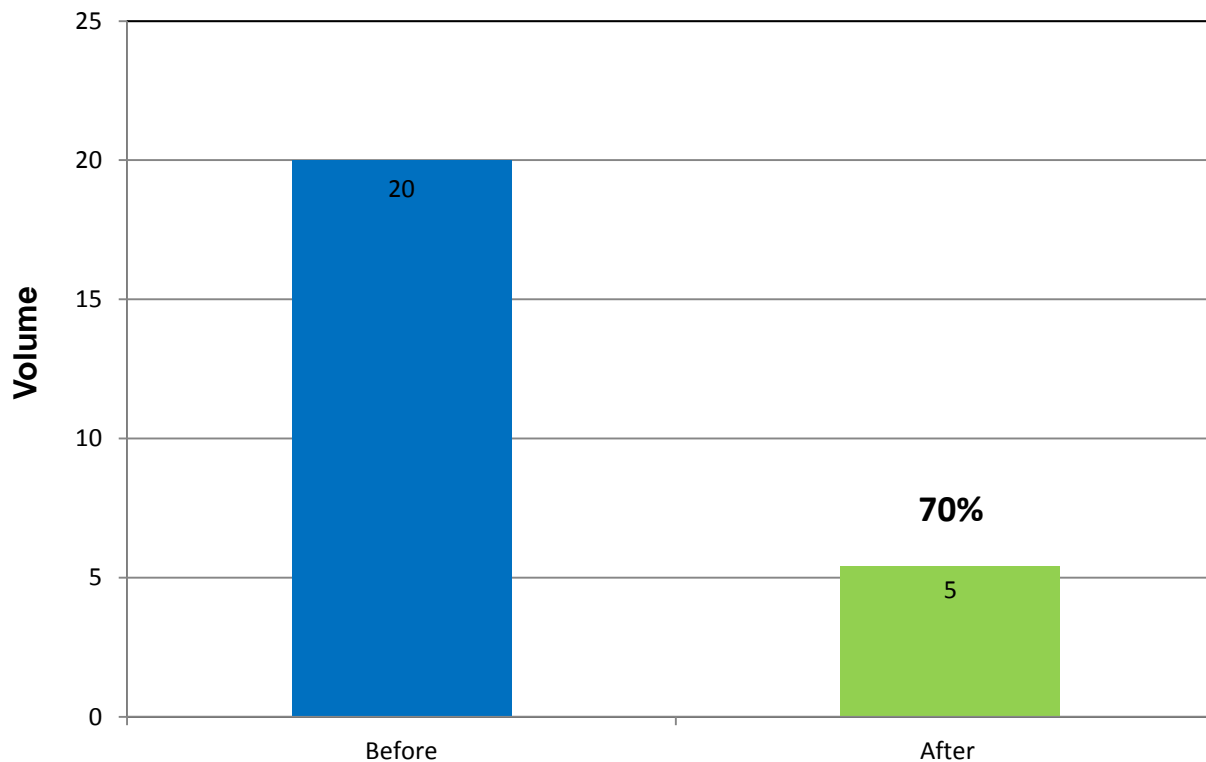
Source: NYPD AIS/TAMS Crash Database

Safety – Sidewalk Riding

- 70% decrease in cyclists riding on the sidewalk on First Ave

12-Hour Weekday Sidewalk Riding Volumes

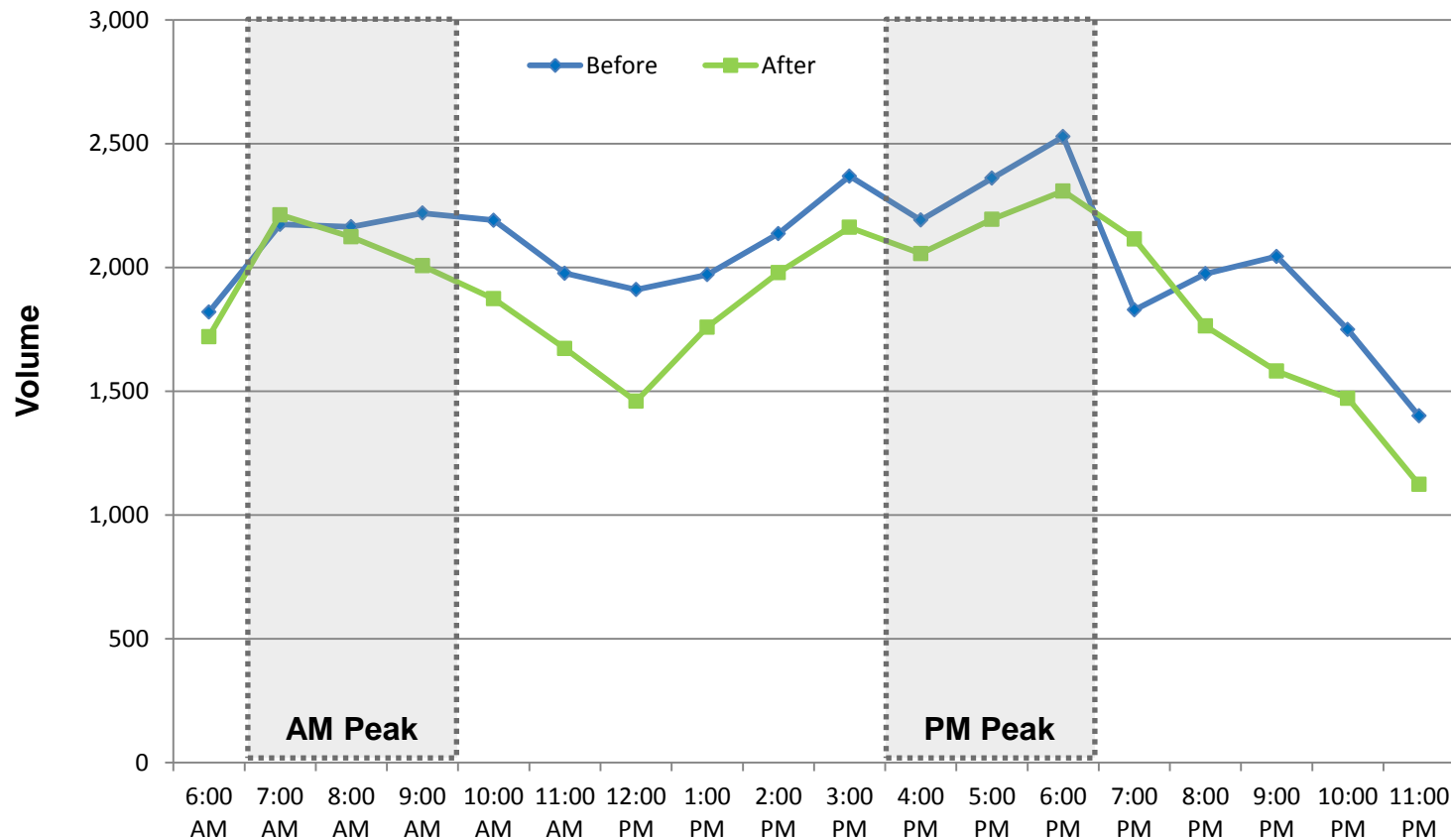
(First Ave between E 67 St and E 68 St, 7:00a – 7:00p)



Note: Before data; average of single weekday counts between 7a & 7p on 3/20/12, 3/21/12 and 3/22/12; After data is the average of single weekday counts on 4/24/13, 6/25/13, 7/17/13, 9/17/13, 10/19/13

Mobility – Vehicle Volumes

- Vehicle volumes along the avenue have declined modestly

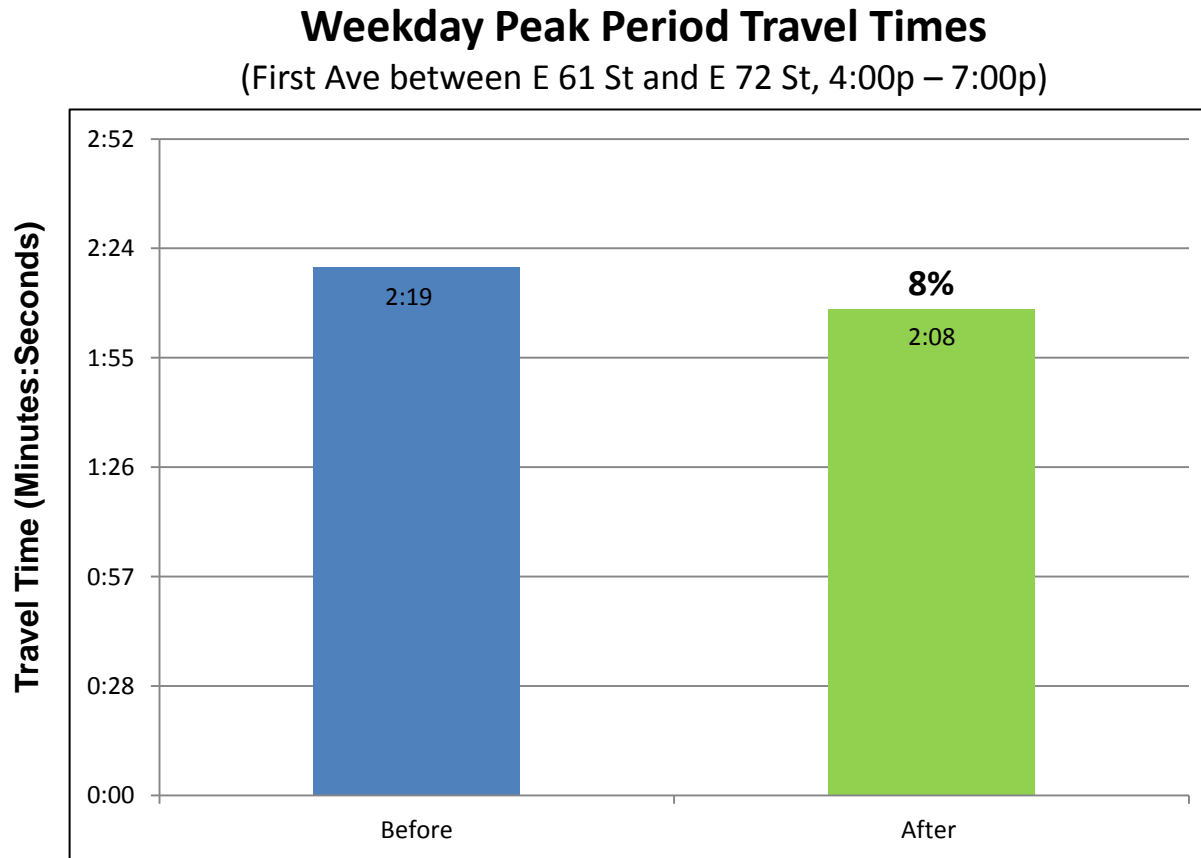


Before: Average midweek peak volume week of May 16, 2010

After: Average midweek peak volume week of January 7, 2013

Mobility – Travel Times

- First Ave travel times improved by 8% during the afternoon peak period (4-7pm)



Before: weekday average travel time derived from (2) runs every hour over 3 days conducted May 11-13, 2010

After: weekday average travel time derived from (4) runs every hour over 2 days conducted November 20-21, 2013

Mobility – Level of Service

- An acceptable Vehicle Level of Service was maintained after implementation

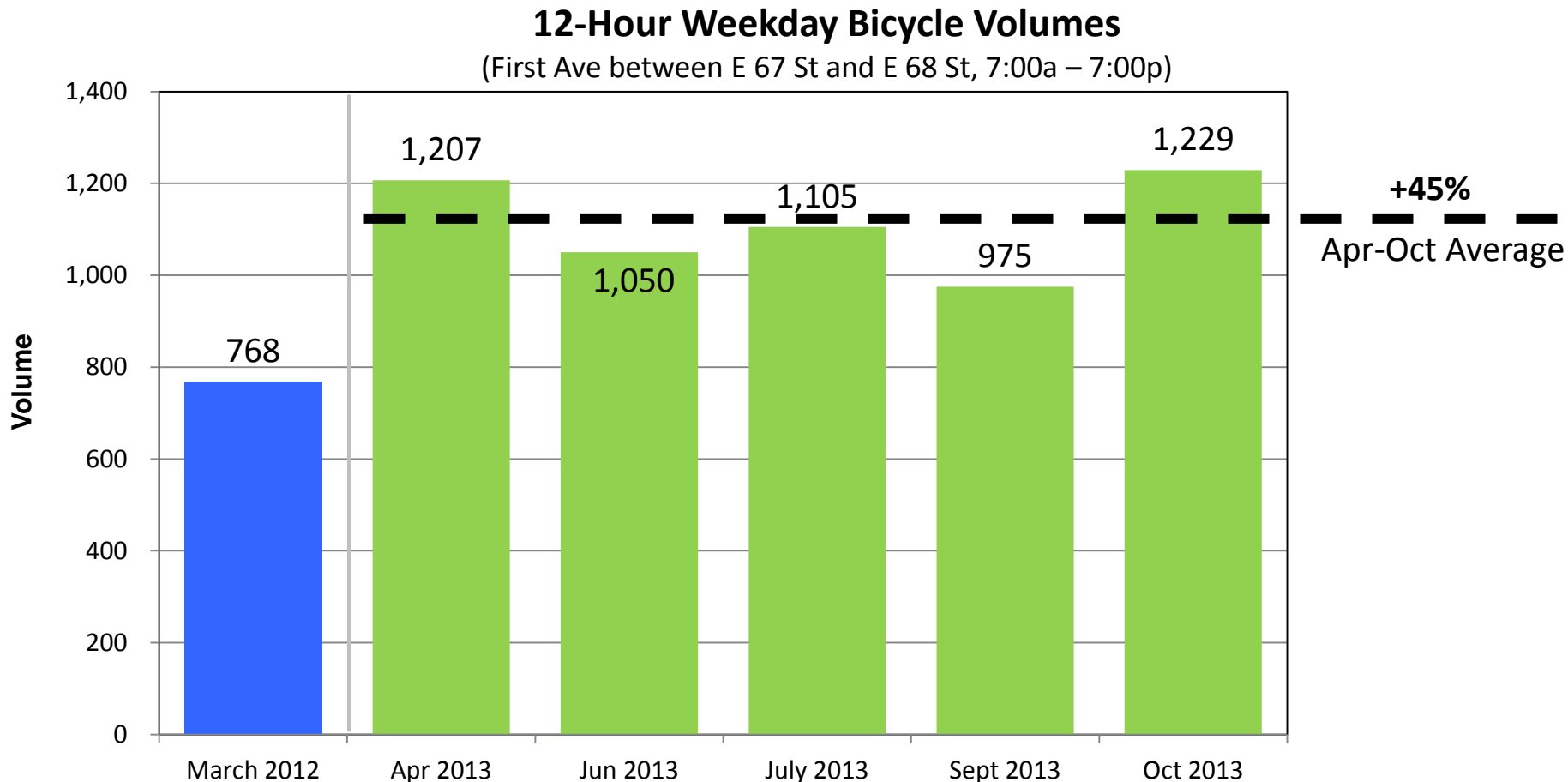
Level of Service of First Ave at E. 72nd Street
(PM Peak 6p-7p)

Approach	Before						After					
	Vehicles (v/hr)	Lane Group			Approach		Vehicles (v/hr)	Lane Group			Approach	
		V/C Ratio	Delay (s)	LOS	Approach Delay (s)	Approach LOS		V/C Ratio	Delay (s)	LOS	Approach Delay (s)	Approach LOS
NB 1st Ave	L = 145	0.38	17.1	B	19.0	B	L = 158	0.67	48.4	D	20.2	C
	T = 2253	0.73	19.4	B			T = 1996	0.67	18.2	B		
	R = 130	0.29	15.2	B			R = 155	0.35	16.2	B		
WB E. 72nd St	L = 0	0.20	18.8	B	18.8	B	L = 0	0.27	19.5	B	19.5	B
	T = 162						T = 215					
	R = 54						R = 54					
EB E. 72nd St	L = 118	0.44	22.1	C	22.1	C	L = 124	0.50	23.1	C	23.1	C
	T = 247						T = 290					
	R = 0						R = 0					
Overall Intersection	Delay: 19.4(s) LOS: C						Delay: 20.5(s) LOS: C					

sat flow rate = 2050 vphpl

Mobility – Bicycle Volumes

- Bicycle volumes on First Ave increased by 45% on weekdays



Note: Before data; average of single weekday counts between 7a & 7p on 3/20/12, 3/21/12 and 3/22/12. After data; single weekday counts between 7a-7p on 4/24/13, 6/25/13, 7/17/13, 9/17/13, 10/19/13

Warm weather months (April-October) are averaged to provide a seasonal factor in comparison to other months

Quality of Life – Emergency Response

- The project has had no adverse effects on FDNY and NYPD operations



- NYPD confirmation date November 14, 2013
- FDNY confirmation date November 14, 2013

First Avenue: E 61st St to E 72nd St

Economic Vitality/Quality of Life

- Created 70 parking spaces during afternoon peak period
- 14 trees planted within concrete safety islands

