

Second Ave: E 100th St to E 125th St

Bicycle Path and Landscaped Pedestrian Islands

Manhattan



Executive Summary

Building upon previously completed improvements to other sections of First and Second Avenues, and with support from Council Member Melissa Mark-Viverito, DOT implemented enhancements on Second Avenue between E 125 St and E 100 St in fall 2012. The project included a new bicycle path with landscaped pedestrian safety islands and left turn treatments. Local stakeholders are benefiting from lower crash rates and a calmer, safer and more complete roadway design.



Results Summary

Safety

- Crashes with injuries fell by 12%
- There were 19% fewer injuries for all users

Mobility

- Peak hour vehicle volumes fell by approximately 20%
- Traffic on 2nd Avenue at 106th Street is reasonably free-flowing during the AM and PM peak periods

Quality of Life

- 17 trees were planted in pedestrian safety islands along project corridor
- “The local businesses (...) understand that the bike lanes will help, not hinder, their ability to thrive in our community.”
– City Council Member Melissa Mark-Viverito
- The project has had no adverse effects on FDNY and NYPD operations

Project Summary

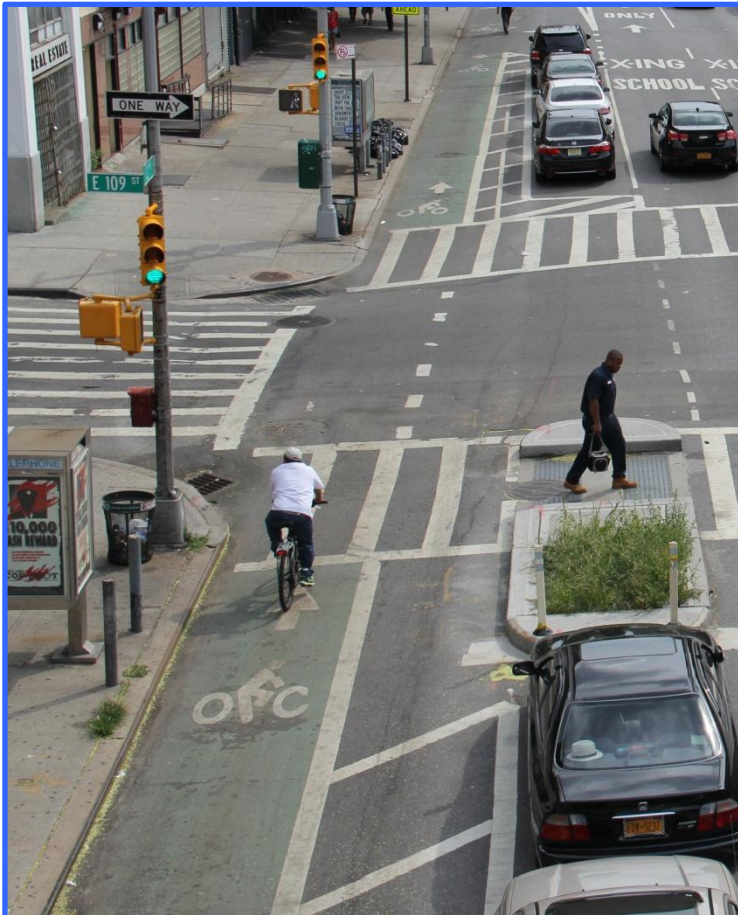


Completed November 2012:

- Installed 1.3 miles of separated bicycle path
- Installed mixing zones at intersections and split left turn signal phases at E 106 St and E 116 St
- Constructed 23 pedestrian safety islands

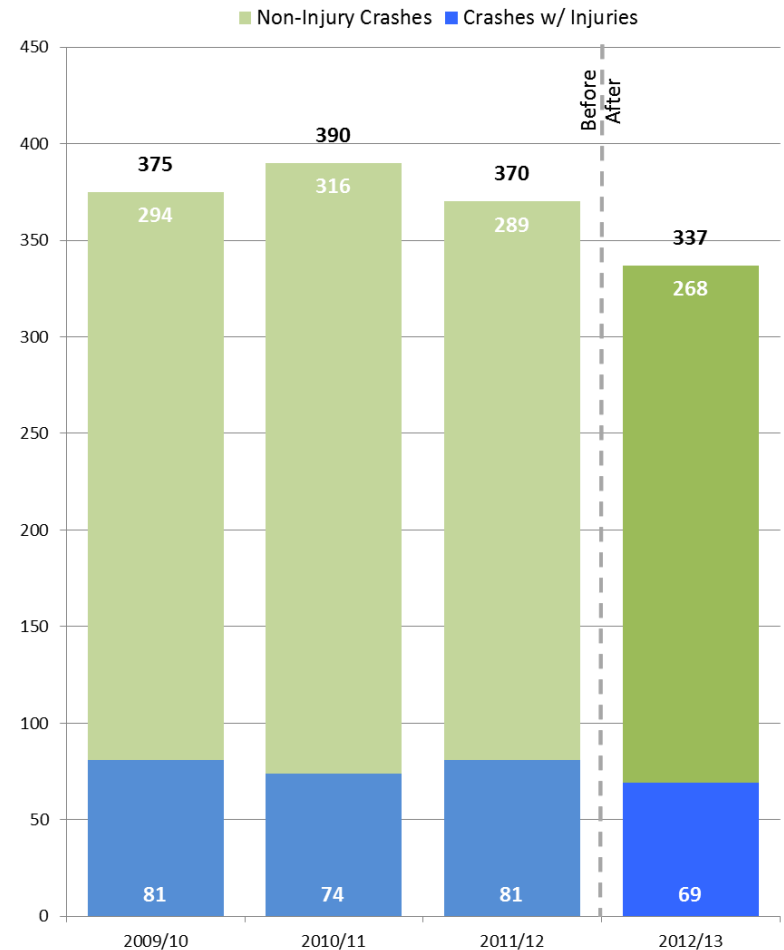
Safety – Crashes and Injuries

- Crashes with injuries fell by 12%



Crashes, One-Year After Analysis

Second Avenue (E 100 St to E 125 St)



Each before year period is the 12-month period beginning September 1 and ending August 31. The 1-yr after period is November 1, 2012 to October 31, 2013. The implementation period of September 1, 2012 to October 31, 2012 is excluded. Source: NYPD AIS/TAMS Crash Database

Safety – Crashes and Injuries

- There were 19% fewer injuries for all users

Crashes and Injuries

One-Year After Analysis, Second Ave (E 100 St to E 125 St)

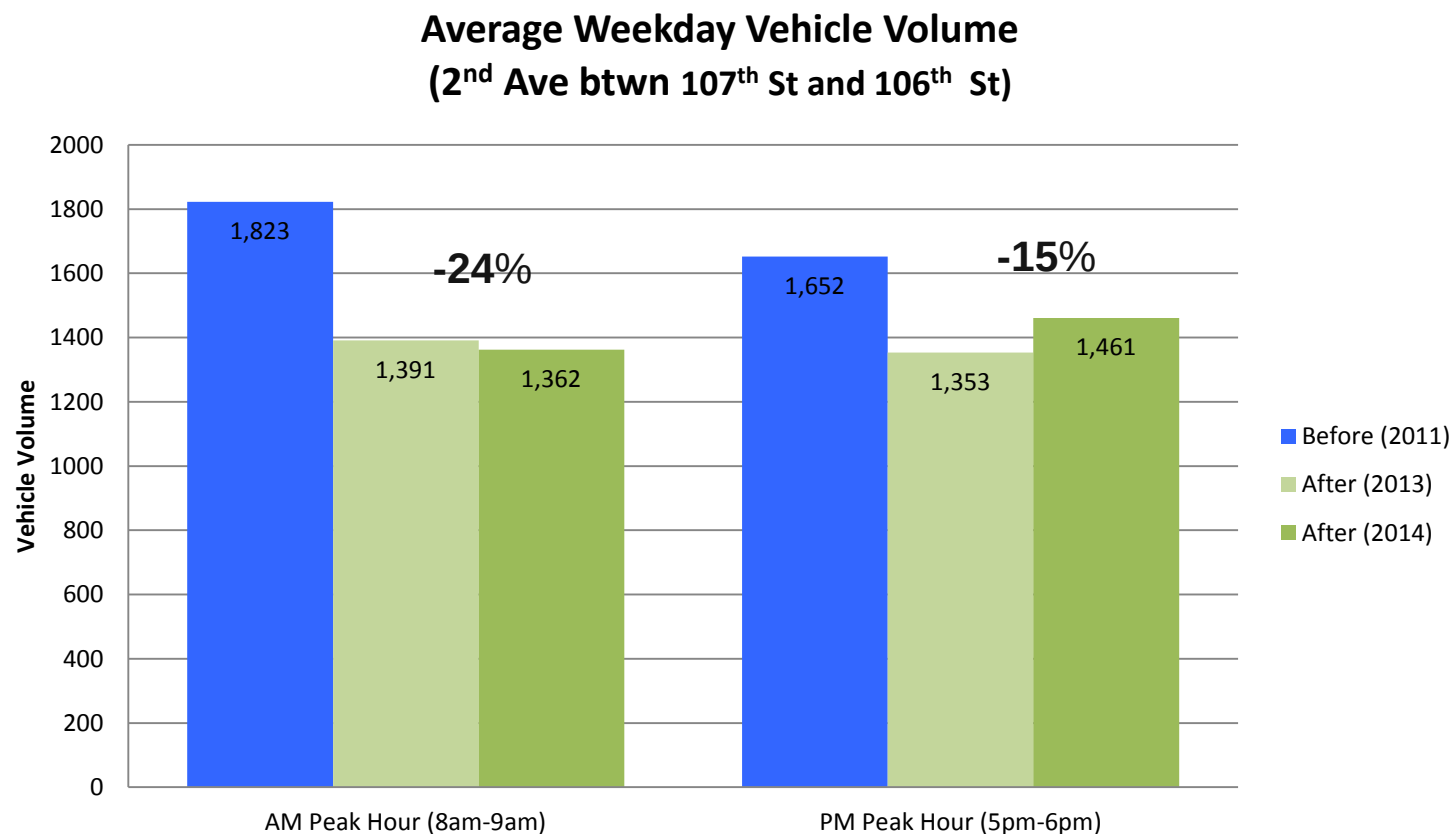
	Before			After
	'09/ '10	'10/ '11	'11/ '12	'12/ '13
Total Crashes	375	390	370	337
Crashes w/ Injuries	81	74	81	69
Motor Vehicle Occupant	80	50	79	53
Pedestrian	36	37	33	29
Cyclist	11	7	8	10
Total Injuries	127	94	120	92



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Mobility – Vehicle Volumes

- Peak hour vehicle volumes fell by approximately 20%



Before counts conducted April 5-7, 2011, after counts conducted October 29-31 and November 5-6, 2013 and April 24, April 29-30 and May 1, 2014.

Mobility – Traffic Analysis

- Traffic on 2nd Avenue at 106th Street is reasonably free-flowing during the AM and PM peak periods

E 106th St and 2nd Ave								
Existing Condition Traffic Flow Analysis (AM Peak)								
	Operational Details			Lane Group			Approach	
	Mvmt	G/A/R*	Volumes (v/h)	V/C Ratio	Delay (s)	LOS	Approach Delay (s)	Approach LOS
EB E 106 St	T - 1, TR - 1	31/3/2	T = 184 R = 170	0.57	27.1	C	27.1	C
WB E 106 St	TL -1, T - 1	31/3/2	L = 71 T = 157	0.62	28.7	C	28.7	C
SB 2nd Av	L - 1, T - 3, TR - 1	49/3/2	L = 45 T = 1211 R = 106	0.12 0.65	10.3 11.0	B B	11.0	B
Overall Intersection	Delay: 16.5(s) LOS: B							
Existing Condition Traffic Flow Analysis (PM Peak)								
EB E 106 St	T - 1, TR - 1	31/3/2	T = 170 R = 130	0.41	23.9	C	23.9	C
WB E 106 St	TL -1, T - 1	31/3/2	L = 51 T = 292	0.50	25.4	C	25.4	C
SB 2nd Av	L - 1, T - 3, TR - 1	49/3/2	L = 51 T = 1431 R = 76	0.11 0.55	10.2 9.8	B A	9.8	A
Overall Intersection	Delay: 14.5(s) LOS: B							

Note: Data collected on 4/29/2014 and 4/30/2014. AM peak period is 8am-9am, PM peak period is 5:30pm-6:30pm. Saturated flow rate is 2000 vphpl.

Quality of Life – Tree Pits

- 17 trees were planted in pedestrian safety islands along project corridor



Quality of Life

“I feel safe in the bike lanes. I wish they would put more all over the city to encourage people to ride,”

-Edward Johnson, local commuter involved in past crashes

“New curb extensions included in the protected bike lane design—which include planters for additional street trees—shorten the distance from one side of the street to another and give pedestrians additional protection while crossing the street.”

– Michael Storm of CIVITAS, an East Harlem citizens union

“The local businesses (...) understand that the bike lanes will help, not hinder, their ability to thrive in our community.”

– City Council Member Melissa Mark-Viverito

Quality of Life – Emergency Response

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



NYPD confirmation date February 24, 2014
FDNY confirmation date April 23, 2014