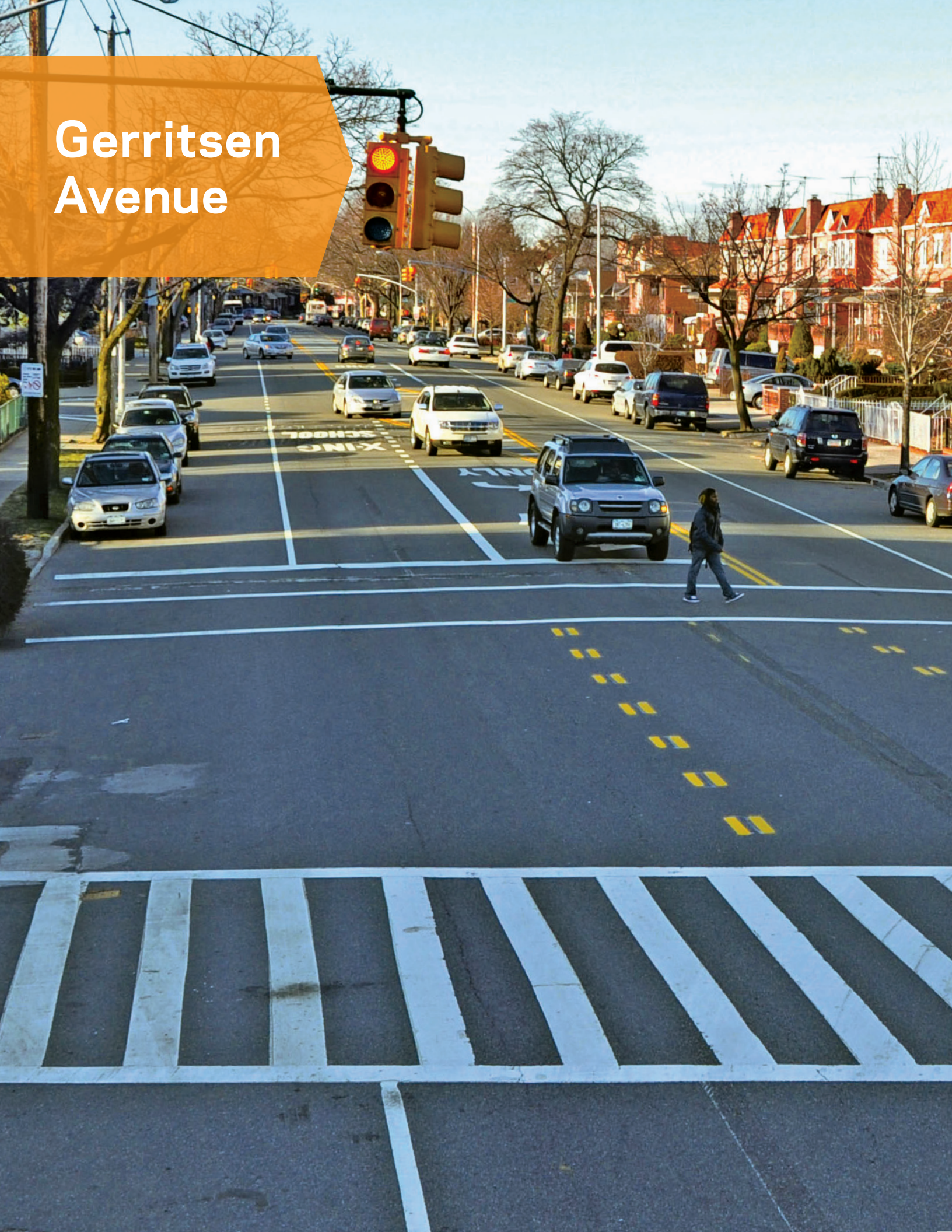


Gerritsen Avenue



Purpose

- Reduce excessive vehicle speeds
- Improve pedestrian and driver safety

Outreach

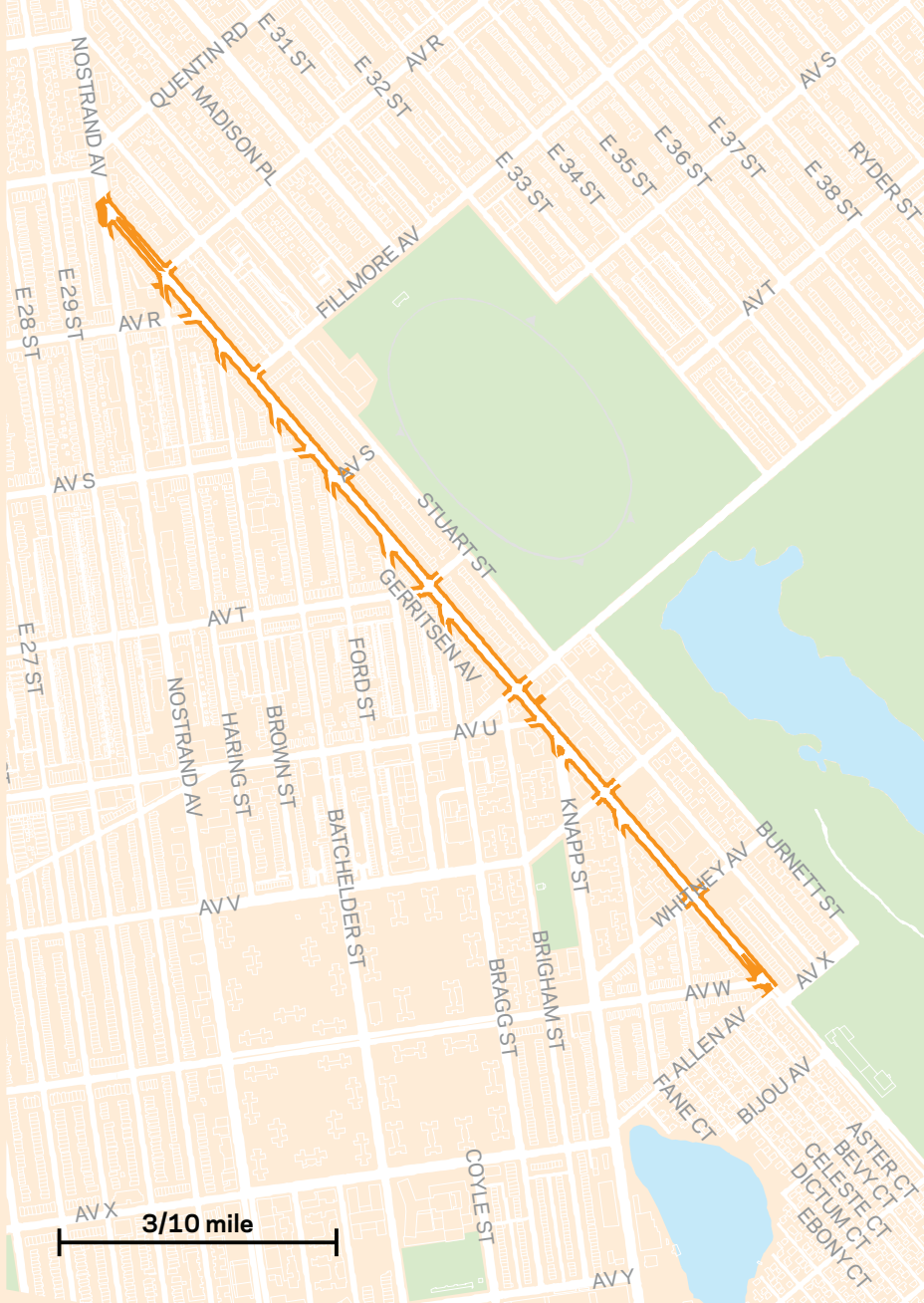
- DOT studied potential safety improvements in response to community concerns
- DOT met with the Brooklyn Community Board 15 Transportation Committee (CB15) and elected officials in July 2009 to present a safety and traffic calming proposal
- DOT presented plans to CB15 and elected officials in October 2009 and received feedback
- DOT modified the plans based on community input

Approach

- Narrowed the roadway from two moving lanes to one moving lane in each direction from Nostrand Avenue to Avenue W
- Installed a painted median and left-turn bays at key intersections
- Installed turn lanes at the Gerritsen Avenue and Avenue U intersection and the Gerritsen Avenue and Knapp Street intersection to improve safety and to reduce traffic delay
- Installed a pedestrian refuge island at the Gerritsen Avenue and Avenue U intersection to improve safety for pedestrians

Results

- 48% reduction in total crashes involving injuries along Gerritsen Avenue from Nostrand Avenue to Whitney Avenue
- Percentage of vehicles traveling over the speed limit decreased by 30% along northbound Gerritsen Avenue and by 10% along southbound Gerritsen Avenue
- Fewer lanes have not caused congestion



Gerritsen Avenue parallels Marine Park in the southeastern, Brooklyn neighborhood of Gerritsen Beach. The corridor is served by the B31 bus and the BM4 express bus. Gerritsen Avenue is predominantly residential in character with small pockets of commercial areas and schools.

Gerritsen Avenue is a wide roadway, approximately sixty feet, with two moving lanes and parking in each direction. In 2005, DOT implemented safety improvements along Gerritsen Avenue, from Avenue W to the southern terminus of the roadway at the edge of Plumb Beach Channel. The improvements in this southern section of Gerritsen Avenue consisted of roadway narrowing from two lanes to one lane in each direction and installing a painted median. The improvements resulted in a 10% decrease in speed which brought the daily average speed for vehicles traveling in both directions under the 30 m.p.h. speed limit.

The community and elected officials voiced their concern to DOT over safety issues along the northern and central sections of Gerritsen Avenue, specifically at and around the Avenue U intersection. As a result of these concerns, DOT collected speeds, traffic volumes and crash data along Gerritsen Avenue between Nostrand Avenue and Avenue W. DOT recorded a high incidence of speeding, especially in the residential area north of Avenue U where vehicles were traveling 45 m.p.h. on the 30-m.p.h. roadway. The corridor was also found to have excess traffic capacity based on the traffic volumes collected. As a result of the findings, DOT began to develop safety improvements for Gerritsen Avenue from Nostrand Avenue to Avenue W.

DOT presented the project plans to CB15 in October 2009. The board suggested removing bike lanes from the corridor. DOT made the modifications recommended by the board. Project implementation was completed in November 2009.

In order to calm traffic and improve pedestrian and driver safety, DOT narrowed Gerritsen Avenue to one moving lane in each direction and installed a wide center median along with left-turn bays at key intersections. Most segments along the corridor experienced a decrease in speed due to the traffic calming improvements. The percentage of drivers traveling above the speed limit on northbound Gerritsen Avenue decreased from 37% to 7%. Along southbound Gerritsen Avenue, the incidence of speeding decreased from 26% to 16%.

Weekday traffic volumes were virtually unchanged for morning peak traffic in both directions. There was a small decrease of 8-9% for the evening peak hour traffic in both directions, most likely due to seasonal variation. However, the decrease in traffic volumes shows that removing one lane maintained capacity for existing traffic levels.

The project also included modifications to the intersections on Gerritsen Avenue at Avenue U and Knapp Street to improve safety and reduce traffic delay. The improvements at the Gerritsen Avenue and Avenue U intersection included installing a left-turn lane on westbound Avenue U and southbound Gerritsen Avenue as well as installing a pedestrian refuge island on the south-side crosswalk along with bollards and trees. DOT provided a southbound right-turn lane on Gerritsen Avenue approaching Knapp Street and added green time to the signal for these right-turning vehicles.

The total number of crashes involving injuries along Gerritsen Avenue from Nostrand Avenue to Whitney Avenue decreased by 48% from an average of 16.7



A pedestrian refuge island was installed in the south crosswalk at the intersection of Gerritsen Avenue and Avenue U to improve safety for pedestrians.



Traffic calming and safety measures applied on Gerritsen Avenue included the narrowing of the roadway from two lanes in each direction to one and the addition of painted center medians and left-turn bays.

The total number of crashes involving injuries along Gerritsen Avenue from Nostrand Avenue to Whitney Avenue decreased by 48%, a statistically significant reduction in crashes.

per year during the three years prior to implementation to an annual rate of 8.7 since the project was completed. This decline represents a statistically significant reduction in crashes (for crash analysis methodology, see page 72). In addition, the total number of crashes involving injuries is lower than any of the 10 prior years.

The safety improvements along Gerritsen Avenue have benefited pedestrians and drivers by providing traffic calming measures, simplifying turning movements, and installing a pedestrian refuge island while not causing congestion with fewer lanes.

Northbound Gerritsen Avenue Traffic Volumes At Avenue U (average vehicles per hour)

Time	Before	After	% Change
7 - 10 a.m.	509	514	1%
4 - 7 p.m.	642	593	-8%
Daily	379	380	0%

Before data collected in February 2009. After data collected in November 2010. Volumes shown in average vehicles per hour.

Crashes with Injuries along Gerritsen Avenue Nostrand Avenue to Whitney Avenue

	Before* (three previous years)			After
Total Crashes with Injuries	17	16	17	8.7
Number of Crashes with Injuries to:				
Motor Vehicle Occupants	14	10	11	6.5
Pedestrians	2	6	6	1.1
Bicyclists	1	0	0	1.1

*Before columns show the crash history for each of the three years immediately prior to project implementation. After column shows number of crashes since implementation (through October 2010) at annual rate. See page 72 for further information on crash data source and analysis methodology. The sum of the three specific categories may not equal "Total Crashes with Injuries" because some crashes involved injuries in multiple categories.

Southbound Gerritsen Avenue Traffic Volumes At Avenue U (average vehicles per hour)

Time	Before	After	% Change
7 - 10 a.m.	425	426	0%
4 - 7 p.m.	512	467	-9%
Daily	299	291	-3%

Before data collected in February 2009. After data collected in November 2010. Volumes shown in average vehicles per hour.

Gerritsen Avenue Average Traffic Speeds (in m.p.h.) Avenue U to Knapp Street

	Before	After	% Change
Northbound	29.5	22.9	-22%
Southbound	26.1	25.9	-1%

Data collected between 3:40-4:00 p.m. on a weekday. Before data collected in February 2009 and after data collected in May 2010.

Percentage of Vehicles Over the Speed Limit on Gerritsen Avenue Avenue U to Knapp Street

	Before	After	% Change
Northbound	37%	7%	-30%
Southbound	26%	16%	-10%

Data collected between 3:40-4:00 p.m. on a weekday. Before data collected in February 2009 and after data collected in May 2010.