

The Coalition for a Livable West Side

Update

Pedestrian Safety Report

(P.S. 199)

**Recommended Pedestrian Safety
Measures**

for

West 70th Street

and

West End Avenue at West 70th Street

June 19, 2011

Prepared by Amy Pfeiffer, Consultant

For a number of years, the PTA of P.S. 199M had received complaints about the safety of their children walking to and from school. Great concern was expressed about the intersection of West 70th Street and West End Avenue.

On February 3, 2011, the PTA submitted a list of seven measures that would increase pedestrian safety at West 70th Street and West End Avenue, to Community Board 7 (CB7).

On March 1, 2011, the board unanimously approved **five of the seven measures**. The New York City Department of Transportation (NYCDOT) agreed to study the five recommendations. CB7 stated that the last two PS 199 recommendations needed further study before they could be submitted to the NYCDOT.¹

On April 10, 2011, the Coalition for a Livable West Side issued a report² by its consultant Amy Pfeiffer, that contained current research on the safety benefits of the traffic calming measures that were proposed in the CB7 resolution, as well as additional measures currently installed throughout New York City that have proven to be great safety benefits for pedestrians. She also examined the two recommendations that CB7 stated needed further study.

On May 16, 2011, NYCDOT sent a letter to CB7 outlining the measures they intend to implement based on the CB7 recommendations.

In this update, the safety benefits outlined in the NYCDOT's May 16th letter have been analyzed and some additional ideas have been proposed that would strengthen the proposed NYCDOT measures. In addition, this report contains recommendations that could be implemented that address the measures that the NYCDOT is considering but not installing as part of this safety plan.

1. CB7's recommendation: Instituting a 20 mile per hour school speed zone along West 70th St.

DOT's May 16 2011 response to CB7 - Installing Speed Bumps:

The DOT conducted a speed study and has approved two new speed bumps for West 70th Street, including speed warning signs at each bump.

Coalition's comments and recommendations:

Speed bumps are raised areas in the street, usually three inches tall and eight to ten feet wide, with signs and markings alerting motorists before reaching the

¹ The two additional safety recommendations include an evaluation of additional traffic calming measures at the school/playground area on West 70th Street and consideration of protected parking spaces in front of P.S. 199. The resolution asks for DOT's input on these ideas.

² Go to <http://www.livablenewyork.org/home.html>, click on Pedestrian Safety measures. Or go to http://0101.nccdn.net/1_5/3bf/208/3d0/PS-199-Safety-Measures-Report-Amy-Pfeiffer-April-2011.pdf

speed bumps. As permanent features of the street, speed bumps serve to reduce motor vehicle speeds at all times of the day, not just during school hours.

The efficacy of speed bumps in reducing motor vehicle speed throughout a street depends on the placement of the speed bumps. Placed too far apart, speed bumps reduce speed just at that location, and then motorists pick up speed through the rest of the street. Placed closer together, they are one piece of a school zone/traffic calming plan.

Speed bumps are recommended on West 70th Street after the crosswalk on the east side of the intersection and at or near the entrance of the school (PS 199).

2. CB7's recommendation: Installing red light safety cameras at West End Avenue and West 70th Street - from the western, northern and southern approach - to discourage red light running.

DOT's May 16 2011 response to CB7 re: Red Light Cameras

The request for red light cameras for the intersection of West End Avenue and West 70th Street is on hold.

Coalition's comments and recommendations: Red light cameras take pictures of a motor vehicle license plate if that vehicle runs through a red light, and issues that vehicle a ticket. The New York State Legislature controls the number of red light cameras installed in New York City. NYCDOT has installed 170 red light cameras, the maximum number of red light cameras allowed by the State.

The Coalition for a Livable West Side is reaching out to our local elected officials to push for legislation allowing additional red light cameras. The NYCDOT is interested in installing more red light cameras as they have proved beneficial for both driver and pedestrian safety.

3. CB7's recommendation: Day lighting to increase pedestrian visibility by removing several parking spaces on the SE corner, on West 70th Street, on the SW intersection, between WEA and West 71st Street and on WEA, the NW corner between West 70th and West 71st Street.

DOT's May 16 2011 response to CB7 re: Day Lighting

Day lighting: This term refers to removing parking spaces at intersections to make pedestrians waiting to cross the street more visible to motor vehicles approaching the intersection. To accomplish this, the DOT is installing "No Standing Anytime" signs at the following three locations: Southeast corner of West End Avenue (WEA) at W. 70th St, in front of the CVS; Southwest corner of W. 70th Street at WEA and the Northwest corner of WEA at W. 70th Street.

Coalition's comments and recommendations: "No Standing Anytime" regulations allow vehicles to pull over to the curb to drop people off or pick people up. Like all curb regulations, the police department, not the NYCDOT, enforces the regulation.

Many people are unaware of what this regulation means, or simply ignore it, making this measure a less effective safety measure as vehicles can still pull to the curb, even if only for a short time.

An inexpensive and better method of day lighting curb space is marking the former parking area with painted stripes to delineate the space and placing flexible posts, or bollards, to define the outline of the area (actually anything that is visible and easy to see in the evening, such as planters with some retro-reflectivity in the material are suitable). The temporary nature of this design allows for easy modifications of the space to make it larger or smaller at any time.

These spaces then become temporary extensions of the curb, giving pedestrians greater safety at the corner and a shorten area for crossing.

This method reduces the level of enforcement needed at a curb, and has the same impact on the overall number of parking spaces lost as a "No Standing Anytime" zone.

4. CB7's recommendation: Adding leading pedestrian intervals (LPI) across West End Avenue giving pedestrians a head start crossing the street.

DOT's May 16 2011 response to CB7 re: Leading Pedestrian Intervals (LPIs): The DOT is evaluating the installation of LPIs at West End Avenue (WEA) and W. 70th Street. This evaluation requires an analysis of current levels of traffic and the signal timings at each intersection north/south/east/west of WEA and W. 70th Street to determine how much additional time can be allocated to pedestrians.

Coalitions comments: LPIs are traffic signals giving red lights to motor vehicles in every direction, and a walking signal to pedestrians in the north-south or east-west direction.

With regular traffic signals, pedestrians walk as vehicles start to turn, creating potential conflicts. With LPIs, pedestrians descend the curb and establish themselves in the crosswalk before turning vehicles.³

There is currently an LPI on West End Avenue but not on West 70th Street.

To calculating the recommended LPI on West 70th Street and West End Avenue: measure the length of the street, divide by two, and then divide that number by the amount of time given to pedestrians (feet per second). West 70th Street is 50' wide at both crossings. The current walking speed is between 3.5' to 4' per second; the LPI should be six to seven seconds on each side of West 70th Street.

5. CB7's recommendation: Installation of neck downs and pedestrian refuges at West End Avenue and West 70th Street to reduce the crossing distance.

DOT's May 16, 2011 response to CB7 re: Neckdowns and Pedestrian Refuges: *The DOT does not have budget to build neck downs at this time, but is looking to work with CB 7 and local elected officials for assistance.*

Coalition's comments and recommendations:

Community Board 7 should ask the NYCDOT to install temporary curb extensions immediately, as described in the day lighting section, to improve pedestrian safety. That is inexpensive to do.

Neck downs are extensions of the curb into the roadway, built from concrete with Americans With Disabilities Act (ADA) compliant ramps, designed to fill the space of one car length or more at the end of each side. Neck downs are effective in slowing turning traffic and promoting visibility with pedestrians.

Neck downs or curb extensions have a large range of costs based on what each corner of an intersection holds. There are generally four factors in the cost of neck downs at an intersection: All curbs are clear; some curbs have drainage grates; some curbs have utilities posts and some curbs have controller boxes⁴ and utility posts.

If curbs are clear, as is the case on the southeast and northwest corners of WEA and West 70th Street, each extension of the curb would cost between \$3,000-\$5,000 dollars.

The northeast corner at WEA and West 70th Street has drainage grates and utility poles that would have to be moved to install an ADA compliant curb extension. Extending that curb could cost anywhere from \$10,000 to \$25,000.

The southwest corner has utility poles that would have to be moved to create ADA complaint curbs. Extending that curb could cost between \$10,000 to \$15,000.

Extending all the curbs at the intersection of West End Avenue and West 70th Street could cost between \$26,000 and \$50,000 for design and construction.

⁴ Controller boxes are large metal boxes affixed to utility poles to house the mechanics associated with the traffic signals at intersections.

CB7 recommended that NYCDOT study the installation of pedestrian refuges at WEA and West 70th Street to reduce the crossing distance.

Pedestrian Median at West 70th Street and West End Avenue.

The DOT believes that WEA is too narrow at W. 70th Street for a pedestrian median. WEA at W. 70th Street is skewed; the north side of the intersection is narrower than the south side by almost 10', making it more difficult to accommodate a built-up island and keep the travel lanes on either side of the intersection in line.

Coalition's comments and recommendations re: Pedestrian Median.

The intersection of West End Avenue and West 70th Street is a skewed and somewhat complex intersection. West End Avenue is a two-way street, but changes from its general width of 80' feet at the south end of this intersection to 60' going north at this intersection. In turn, West 70th Street is two-ways and 50' in the westbound direction, and changes to a one way, also 50' street in the eastbound direction until it gets closer to Amsterdam Avenue and tapers to the standard residual street with of 30'.

A median is recommended on the east side of the intersection at West 70th Street.

Community Board 7 asked NYCDOT for input on a proposal to create a protected parking space/traffic buffer zone in front of PS 199 on West 70th Street.

DOT did not address this issue in their May 16, 2011 letter to CB7.

Coalition's comments and recommendations re: Protected Parking Spaces.

As the final safety measure, CB7 asked DOT to evaluate moving the parking between the front of PS 199 on West 70th Street and West End Avenue away from the south curb in order to create floating parking.

Floating parking refers to a design where parking is removed from the curb side and "floats" in what was formally a travel lane.

From a safety perspective, the Coalition believes the other traffic calming measures proposed for West 70th Street are preferable to floating parking at this location."

Please refer to the next section for greater details. It is in the original April 10, 2011 report and analysis. It contains current research on the safety benefits of the traffic calming measures that were proposed in the CB7 resolution, as well as additional measures currently installed throughout New York City that have proven to be great safety benefits for pedestrians.

Traffic Operations/Roadway Geometry

There are several traffic operations and roadway issues at West End Avenue and West 70th Street contributing to unsafe behavior by motorists. These include:

- Heavy vehicle volumes on West End Avenue cause left turning motorists to watch for gaps in traffic to make the turn, rather than watching pedestrians in the crosswalks.
- The lack of a marked crosswalk on the east side of the intersection reduces yielding to pedestrians and making the crossing this leg of the intersection difficult for people with visual impairments.
- There are no signs or markings indicating motorists are entering a school zone. While the yellow buses in front of the school serve as an indicator of the presence of a school they seem to have no influence on driver's speed on that section of West 70th Street.
- Wide intersections such as West End Avenue at West 70th Street tend to increase motor vehicle speed through the intersection as motorists perceive a greater risk in being struck by another motor vehicle.
- The width of West 70th Street on the east side of the intersection with West End Avenue is excessively wide, accommodating as many as three travel lanes at the approach to the school.

Recommendations: Traffic Calming Measures/Traffic Buffer Zone

Creating a school safety zone around P.S. 199 requires moving all roadway users through the intersection of West End Avenue and West 70th Street more slowly and maintaining these speeds throughout the corridor. As such, treatments at the intersection, throughout West 70th Street and at the entrances to the school and the playground together will create the desired quality of life at this location.

This memo provides additional information on two matters brought to the attention of Manhattan's Community Board 7 (CB7) by the PTA at P.S. 199 for which they seek further ideas from the New York City Department of Transportation (NYCDOT) in making this area safer for all road users. These two measures include:

1. Traffic calming measures on West 70th Street
2. Analysis of protected parking spaces/traffic buffer in front of P.S. 199

These two measures are in addition to the five initial treatments, proposed by the PTA of P.S. 199 to CB7 start the process. These include: a 20 mile per hour zone denoted with signs, installation of red light cameras, day lighting two corners and one mid-block location, adding protected time for pedestrians to cross West End Avenue, and adding extensions to the curb.

Building on these treatments, five additional traffic calming measures are recommended:

Treatment #1:

A raised crosswalk^{15, 16} on the east leg of the intersection.



Proven to: Reduce crashes of turning and through vehicles at signalized intersections.¹⁷

A less expensive alternative: color the crosswalk to alert motorists they are entering a different zone.¹⁸



¹⁵ civilsketchup.blogspot.com

¹⁶ derekneighbors.com

¹⁷ http://www.walkinginfo.org/pedsafe/pedsafe_ca_crashtypes.cfm

¹⁸ Thetravelingwheelchair.com

Treatment #2:

A pedestrian refuge on the east leg of the intersection, with a planted median strip extending down West 70th Street until the roadway narrows near Amsterdam Avenue.¹⁹



Proven to: Reduce crashes of through vehicles at signalized intersections and at mid-block locations.

Treatment #3:

Curb extensions on the east leg of the intersection.²⁰



Proven to: Reduce crashes from left and right turning vehicles, as well as crashes occurring from lack of visibility at crosswalks.

¹⁹ nysdot.gov

²⁰ Photo Credit: Dan Burden

Treatment #4:

Textured pavement in front of the school and the playground.²¹



Proven to: Reduce crashes common with children walking to and from school areas and playground as motorists slow down as they encounter different pavement treatments.

Treatment #5:

Flashing school zone lights at the approach to the intersection from Freedom Place, on the NE and SE corners of the intersection, and at the front of the school.²²



Proven to: Reduce crashes common with children walking to and from school areas and playground.

As to issue #2, CB 7 member Mark Darin proposed “to move the parking between the front of P.S. 199 and West End Avenue away from the south curb and instead have floating parking.” Floating parking refers to a design where parking is removed from the curb side and “floats” in what was formally a travel

²¹ Streetprint.com

²² inetgiant.com

lane. From a safety perspective, the traffic calming measures described above are preferable to floating parking at this location.