New York City Department of Transportation	2011
NYC Neighborhood Slow Zone	NEW YORK CITY

Application for Communities & Neighborhoods

#### Please read through the Neighborhood Slow Zone Guidelines before completing the application

**Community Information** 

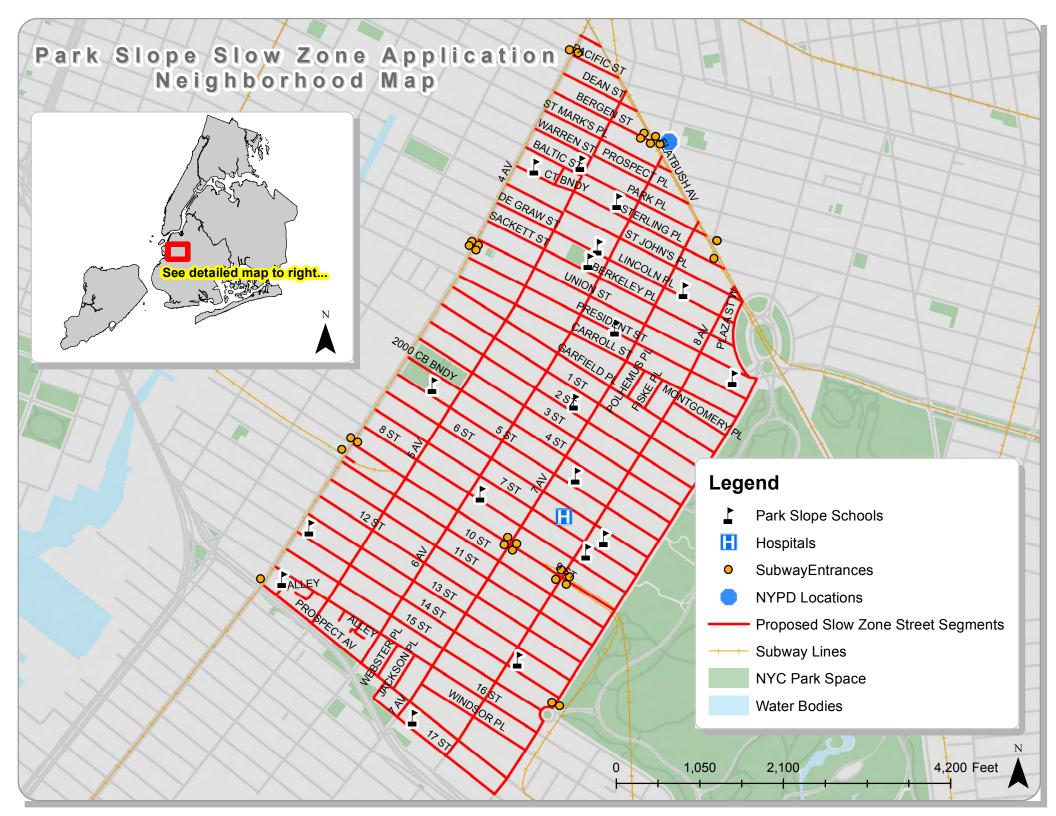
Name of Interested Community/Group:		Borough:	
Community Board(s):	(	Contact Person and Title:	
Contact's Address:			
City:	State:	Zip Code:	
Contact's Phone #:	Contact's Email:		

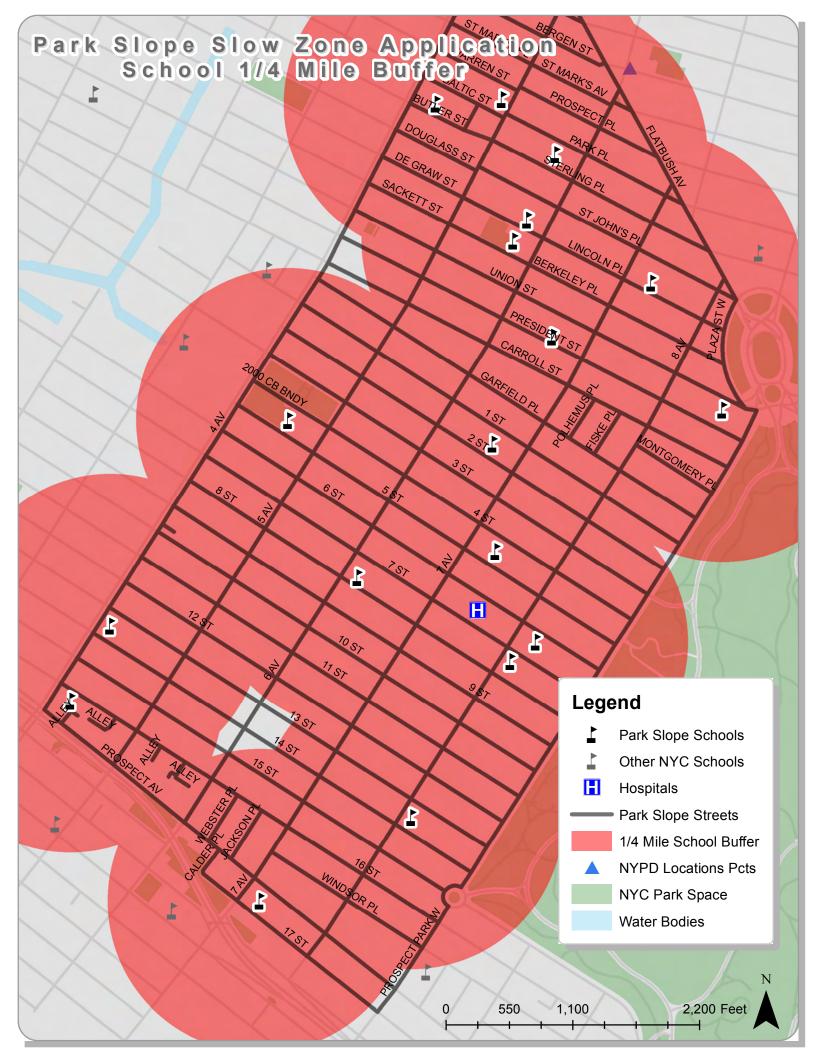
### Proposed Boundaries of Slow Zone

Describe the proposed location and boundaries of the Neighborhood Slow Zone. Please indicate any "strong" boundaries, e.g. highways, parks, elevated trains, dead ends, major streets. (Please attach a map):

#### Existing Traffic Calming

Speed humps:	Yes (how many?):	No: 🗖
Other traffic calming treatments:	Yes (please specify):	No: 🗖





### Inventory of Institutions and Transportation Facilities

Please provide the following information about institutions and facilities located inside or on the boundary of your proposed Slow Zone. Follow the links on DOT's Slow Zone web page to access the relevant online maps and look up Schools, Hospitals, Truck Routes, etc. If you need additional space to document more facilities, please attach a list.

#### 1. Schools

Name:	Address:
Name:	
Name:	
Name:	
2. Senior Centers	
Name:	Address:
Name:	
Name:	
Name:	
3. Daycare Centers/Pre-K/Head-Start	
Name:	Address:
Name:	
Name:	
Name:	
Name:	
4. Hospitals	
Name:	Address:
Name:	
5. Fire stations	
Name:	Address:
Name:	
Name:	
6. Subway stations	
Subway Line:	Intersection:
Subway Line:	Intersection:
Subway Line:	Intersection:
7. Bus Routes	
Bus Line:	Bus Line:
Bus Line:	
Bus Line:	
Bus Line:	Bus Line:
8. Truck Routes	
From:	To:
From:	
From:	To:

### Community/Stakeholder Support

Please list all organizations/officials that support the proposed implementation of a Slow Zone in this neighborhood (Please attach letters of support):

### NYC Neighborhood Slow Zone Application Submission Process

Please submit the complete application to **<u>slowzones@dot.nyc.gov</u>**.

Make sure that your application contains:

- This form, completely filled out
- Letters of support
- A map of proposed Slow Zone

### Applications must be emailed by Friday, February 3, 2012.

Applications received after the deadline will not be considered. NYC DOT will confirm the receipt of all proposals.

Questions? Please contact **slowzones@dot.nyc.gov**.

# SUPPLEMENTAL REPORT

# **APPLICATION FOR A NEIGHBORHOOD SLOW ZONE**

Submitted by

# PARK SLOPE CIVIC COUNCIL

And

park slope neighbors

Submitted to



# **CITY OF NEW YORK**

# **DEPARTMENT OF TRANSPORTATION**

6 February 2012

Updated: 26 March 2012

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## 1. INTRODUCTION

This Supplemental Report accompanies the "NYC Neighborhood Slow Zone" application by the Park Slope Civic Council and Park Slope Neighbors (the "Applicants"). It provides information on fact-finding, community outreach, and surveys performed by the Applicants prior to this application; community concerns with respect to a Neighborhood Slow Zone (NSZ); and next steps to be followed by the Applicants. The Appendix to this Supplemental Report provides information requested in the application for which there was insufficient space.

A key premise of this application is that an NSZ is not only a traffic and transportation initiative. Entering an NSZ, a traveler (truck driver, motorist, bicyclist, pedestrian) ought to have a sense of entering a distinct place, a residential community where the streets are part of the fabric of community life and safe for all users. To create this sense of place, the character of the community must be taken into account. The Department of City Planning (DCP), the Landmarks Preservation Commission (LPC), and other City agencies as appropriate, should be key participants in the development of an NSZ in Park Slope.

The Applicants thank the New York City Department of Transportation (DOT) for undertaking the NSZ initiative but note that the 3 February 2012 deadline for applications is too short and has not allowed sufficient time for the extensive community information and outreach that this initiative requires, or for the preparation of a comprehensive application. The Applicants are submitting this application several days late on the basis of their understanding that DOT would show some flexibility in accepting late applications.

# 2. BACKGROUND

### 2.1 Organization

At the meeting of the Park Slope Civic Council's Board of Trustees on 1 December 2011, a call was made for volunteers to form an ad hoc committee to consider the NSZ initiative. Representatives of Park Slope Neighbors and the Prospect Heights Neighborhood Development Council joined this committee. The committee had its first meeting on 4 January 2012 and decided to conduct a community meeting on this subject, discussed in sub-section 2.3 below.

### 2.2 Fact-Finding Prior to this Application

On 14 January 2012 the Park Slope Civic Council made a visit to the pilot NSZ in the Claremont neighborhood of The Bronx. The participants walked along nearly every street inside the NSZ and along its boundaries, noting the characteristics of the neighborhood streets and traffic calming measures that were put into place for the pilot NSZ and those that appeared to predate it.

### 2.3 Community Outreach Prior to this Application

On 21 January 2012 the Park Slope Civic Council, Park Slope Neighbors, and the Prospect Heights Neighborhood Development Council conducted a community meeting to provide information on the NSZ initiative and on an initiative in the United Kingdom

called "20 is Plenty," engage in discussion, and encourage participants to complete a short survey.

The meeting was publicized with extensive distribution of palm cards at various locations in the community and announcements by P.S. 107, P.S. 321, the Park Slope Fifth Avenue Business Improvement District, and others. The meeting was co-sponsored by City Council Members Letitia James, Brad Lander, and Stephen Levin; P.S. 10, the Parents Association of Millennium Brooklyn High School, and event host Congregation Beth Elohim.

Over 75 people attended the meeting on a snowy Saturday, and of those 50 completed a survey. A report of the survey results is Appendix "B." The open discussion was moderated by Daniel Murphy, Executive Director of the Pitkin Avenue Business Improvement District.

The meeting organizers planned to submit an NSZ application to DOT if and only if the results of the survey showed community support, and to be guided by the feedback received when preparing this application. A clear majority of those responding to the survey favored the implementation of an NSZ.

### 2.4 Action by Park Slope Civic Council

At its meeting on 2 February 2012, the Board of Trustees of the Park Slope Civic Council voted to adopt a resolution to submit this application to DOT.

### 2.5 Letters of Support

Given the short amount of time allowed to submit an application, the letters of support attached to this application are fewer than those the Applicants know they will receive. The Applicants will submit additional letters of support as soon as possible and trust that DOT will receive them favorably.

### 2.6 NSZ Applications in Neighboring Communities

The Prospect Heights Neighborhood Development Council is submitting an application for an NSZ in Prospect Heights. The Applicants understand that applications are being prepared for Boerum Hill, Greenwood Heights, and Windsor Terrace. These four communities abut Park Slope.

# 3. DEFINING THE PROPOSED ZONE

### 3.1 Boundaries

Notwithstanding the guidance on DOT's Web site that NSZ applications cover an area of approximately one-quarter mile square, the Applicants are proposing a larger NSZ. The reasons for this are: (a) Park Slope has a large area and population; (b) Park Slope has a diverse population, with large numbers in all age groups who might benefit from reduced vehicular speeds through the community; and (c) Park Slope has many schools, hospitals,

houses of worship, transit facilities, and other facilities, all of whose natural catchment areas overlap significantly. This resulted in the proposed boundaries that include a small but necessary overlap into the area of Community Board 7. The overlap is not intended to pre-empt or overtake planning decisions in neighboring communities but to take into account the fact that several institutions on the periphery of the zone – P.S. 10, P.S. 124, and Holy Name of Jesus R.C. Church among others - have their catchment areas extend well into Park Slope. Thus, a clean distinction was impossible.

The map of the proposed NSZ is part of the main body of the application, as is a second map showing local institutions and one-quarter mile radius zones around them. The latter demonstrates clearly the point made immediately above.

The basis of the proposed NSZ is one-quarter mile radius zones around local institutions. This distance reflects the probable walking distance to those institutions. There is so much overlap of these one-quarter mile radius zones that proposing an NSZ for all of Park Slope makes sense.

The "strong boundaries" called for in the DOT application are 4<sup>th</sup> Avenue, Flatbush Avenue, Prospect Park West, and the Prospect Expressway.

### 3.2 Commercial Streets Within the Proposed Zone

The pilot NSZ in Claremont has commercial streets forming three of the four boundaries (East 174<sup>th</sup> Street, Southern Boulevard, East 167<sup>th</sup> Street/Westchester Avenue). There are no commercial streets within the pilot NSZ.

Park Slope is different. Two of the four boundaries, 4<sup>th</sup> Avenue and Flatbush Avenue, are commercial streets. One, Prospect Park West, is residential north of 14<sup>th</sup> Street. Importantly, Park Slope has two main commercial corridors, 5<sup>th</sup> Avenue and 7<sup>th</sup> Avenue, and smaller commercial zones on Union Street and 9<sup>th</sup> Street. 5<sup>th</sup> Avenue and 7<sup>th</sup> Avenue do not divide the community and there is a high level of all modes of traffic crossing these avenues going to and from home, school, business, houses of worship, and transportation. Moreover, many buildings having businesses on the first floor (and, in some cases, the first two floors) have apartments above, so in fact 5<sup>th</sup> Avenue, 7<sup>th</sup> Avenue, and other streets with businesses are hybrid commercial – residential streets.

Not specifically part of an NSZ but an important accessory in this case would be loading zones on commercial streets. Providing loading zones would speed deliveries and calm traffic. The Applicants propose that implementation of a Park Slope NSZ include loading zones.

### 3.3 Bus Lines Within the Proposed Zone

Five MTA New York City Transit bus lines operate through Park Slope: B61, B63, B65, B67, B69. Another bus line, B110, operates through Park Slope between Williamsburg and Borough Park. The Applicants do not consider this to be an impediment to establishing an NSZ in Park Slope. The Claremont NSZ is traversed by three bus lines: Bx11, Bx35, and Bx36.

### 3.4 Houses of Worship

The DOT NSZ application form does not ask for a listing of houses of worship in the proposed NSZ. This is a major omission, as houses of worship generate large amounts of pedestrian and vehicular traffic. Appendix "A" includes a list of houses of worship in the proposed NSZ.

## 4. SPEED LIMITS AND ENFORCEMENT

There is a broad sense that there is too much speeding in Park Slope and this has led the Applicants to submit this NSZ application. Many people attending the 21 January community meeting, and many members of the Park Slope Civic Council Board of Trustees, noted that existing speed limits are not enforced consistently, so why would a reduced speed limit be enforced any better. The Applicants recognize that the Police Department does not have infinite resources and has many demands besides traffic enforcement.

The Applicants believe that consistent, visible enforcement would be a key element of a successful Park Slope NSZ. Enforcement should utilize patrol vehicles and enforcement cameras. Both would require bringing other entities, especially the Police Department, into discussion and development of an NSZ.

Park Slope hosts a high volume of through traffic, from points south of Park Slope toward Downtown Brooklyn and the Brooklyn and Manhattan Bridges. While much of this traffic is confined to 4<sup>th</sup> Avenue and Flatbush Avenue, a significant volume diverts into the community, along the avenues. An important element of a Park Slope NSZ would be signal timing that would calm traffic. Another would be an education campaign showing what the City speed limit and residential speed limit are, and that exceeding the speed limit does not shorten overall travel times.

# 5. DESIGN ELEMENTS

The gateways to the Claremont NSZ are marked by speed limit signs mounted above blue signs noting "Neighborhood Slow Zone", speed limit markings on the pavement, and striped buffers at intersections to create or enhance no-parking zones. Within the Claremont NSZ these elements are accompanied by new and pre-existing speed humps. These elements were implemented by DOT Operations and not as a capital project, as might be expected in a pilot installation.

The design elements and even the branding of the Claremont NSZ are wholly inappropriate to Park Slope. Arguably, they would be unsuitable for a permanent NSZ in Claremont.

### 5.1 Branding

Some participants in the 21 January community meeting considered the term "Neighborhood Slow Zone" to be negative and the term "20 is Plenty" positive. As a way of changing behaviors and increasing awareness of entering a distinct place, DOT should give careful consideration to the message that is being conveyed and review with communities applying for slow zones and even people working in media and advertising, to devise a name that would be positive and effective.

### 5.2 Signage

Signage within the Claremont NSZ is excessive and its amount and design are unsuitable in a community, such as Park Slope, that has a large and growing Historic District. Typical "gateway" signage at an entrance to the NSZ is shown in Figure 1. One sign is mounted on a standard steel pole embedded in the sidewalk, while the other is mounted inside the striped buffer in a metal can covered by a gray plastic box. In Claremont, speed humps installed for the NSZ are accompanied by fewer signs than existing speed humps, yet at the latter signage was not removed to

match that at new speed humps. The result is that signage is incon-In Claremont there are sistent. other examples of signage that might have been justified or even requested at one time but that appear excessive. Figure 2 shows a yellow diamond sign indicating the approach to a stop sign, approximately 20 feet in advance of the stop sign itself, where there is unimpeded visibility. The overall result is visual clutter that in the opinion of the Applicants detracts from the message being conveyed, place with a reduced speed limit.



Figure 1. Typical Gateway Signage and Buffering, Claremont Neighborhood Slow Zone



i.e. that one is entering a distinct Figure 2. Stop Signage, East 172<sup>nd</sup> Street, Claremont place with a reduced speed limit. Neighborhood Slow Zone

The types of signage installed in the Claremont NSZ would not be permitted by the LPC if they were installed on private property and should not be allowed in the Park Slope Historic District. That said, there should not be one standard for signage and iconography inside the Park Slope Historic District and another in the parts of Park Slope that lie outside the Historic District.

This application requests DOT to review signage for overall quantity, avoidance of visual clutter, and design. As one example, a double gateway sign, i.e. with a speed limit sign

above a slow zone sign, should be reconsidered in favor of a single sign that conveys the desired message with an aesthetic and placement that is appropriate to the community.

### 5.3 Pavement Markings: Speed Limits

At the gateways to the Claremont NSZ and within it, the speed limit is painted on the pavement. Refer to Figure 1 for an example. The Applicants have no opinion on the effectiveness or appropriateness of such speed markings but note that on the hilly streets of Claremont they might well be appropriate. It should be noted that one such pavement marking in Claremont was already deteriorated; see Figure 3. It is not clear whether this was an existing marking or one applied specifically for the NSZ. If the former is the case, it should have been upgraded as part of the NSZ implementation. For the



Figure 3. Deteriorated speed limit pavement marking, Boone Avenue, Claremont

purpose of this application, the point is that materials used for this purpose should be durable and consistently maintained.

### 5.4 Pavement Markings: Buffering and Crosswalks

The Claremont NSZ is characterized by a great deal of pavement striping for two purposes: buffers and crosswalks. Buffers are used to mark no-parking zones as well as to

slow down turning traffic. Figure 1 is an example of the former, while Figure 4 illustrates the latter. The result can be a clash of striping and confusing visual clutter as is apparent in Figure 1.

The potential loss of parking in an NSZ implementation is a concern of many in the Park Slope community. Parking spaces would be lost at gateways were the Claremont scheme to be replicated, and at other places where "daylighting" intersections in the interest of increasing visibility is desired. This application does not address park-



Figure 4. Traffic calming buffering, Longfellow Avenue at Westchester Avenue, Claremont

ing per se but does note that this must be a particular matter for community outreach.

### 5.5 Speed Humps

Another element of the Claremont NSZ is speed humps. As noted earlier, some of the speed humps seen in Claremont appeared to predate the pilot NSZ while others were clearly new. The experience of the Applicants is that opinions on speed humps in Park Slope are clearly mixed. One of the people who attended the 21 January community meeting expressed a concern that commercial and emergency vehicles would suffer damage to their undercarriages by going over speed humps, and vibrations from vehicles of all types going over speed humps would damage the foundations of houses and other buildings that were not designed to withstand such forces. The Applicants have no opinion on these views except to say that they should not be dismissed out of hand and merit a careful engineering analysis. Members of the community have also expressed a concern that speed humps increase the response time of emergency vehicles. The Applicants do not believe that they materially affect response time but this might be an appropriate matter for further study as DOT considers requests for speed humps City-wide, not necessarily as part of NSZ applications.

If speed humps are to be kept in the NSZ "toolbox," it is imperative that the accompanying signage be reduced in number and redesigned. An installation of two speed humps on Berkeley Place in Park Slope in 2009 was accompanied by eight warning signs, two per speed hump on each side of the street. One such sign was installed on a brand-new pole even though there is an unused existing pole less than five feet away. The number and appearance of the signs is totally out of character with the block on which they are placed.

DOT should give careful consideration to warning signs that would be more in character with the community yet still effective. Such signs might well be non-standard. The Applicants understand that new speed hump installations by DOT are accompanied by fewer signs than in the past. This was evident in Claremont and is a positive development.

### 5.6 Other Physical Devices

Mid-block chicanes or "neckdowns" should be considered for traffic calming. Installing these at existing fire hydrants might be a good introductory step.

Raised crosswalks or distinctive surface treatments at the gateways to and within an NSZ would convey a distinct sense of place to all users.

Rumble strips might be an effective alternative to speed humps; these would be easy and relatively inexpensive to replace when needed and should not require accompanying signage.

Mini-roundabouts have been installed in residential areas in several cities, notably Chicago. These are small enough to be mountable by trucks and large enough to be effective traffic-calming tools.<sup>1</sup> Mini-roundabouts might not be suitable in all locations but DOT should give careful consideration to these.

The Applicants realize that implementing NSZ design elements other than those installed in Claremont might require one or more capital projects.

### 6. COMMUNITY OUTREACH

This application is the first step in what might be a lengthy process. It is more important to the community that an NSZ be done right than be done quickly. The Applicants look forward to discussing this application with DOT together with other community stakeholders such as the two Business Improvement Districts in Park Slope (Park Slope Fifth Avenue BID, North Flatbush BID), Brooklyn Community Boards Six and Seven, and City agencies that would have an interest in a Park Slope NSZ, such as DCP and LPC.

The Applicants are ready to assist in canvassing the community about a possible Park Slope NSZ and publicizing community meetings, walkabouts, design charettes, and the like, to maximize the opportunity for community input.

<sup>&</sup>lt;sup>1</sup> Arterials and Streets: Infrastructure and Operations for Mobility, Access, and Community in Metropolitan Chicago; Part IIIa: Roundabouts. Chicago Metropolitan Agency for Planning, January 2009, p. 4.

# **APPENDIX "A"**

# INFORMATION REQUESTED IN NEIGHBORHOOD SLOW ZONE APPLICATION

This Appendix provides information requested in the Neighborhood Slow Zone application for which there was insufficient space in the application.

### **EXISTING TRAFFIC CALMING**

The following map shows all traffic calming measures currently in place in the proposed Park Slope NSZ.



## **APPLICATION ITEM 1 – SCHOOLS**

Name of School	Address
P.S. 10	511 7 <sup>th</sup> Avenue
P.S. 39	417 6 <sup>th</sup> Avenue
P.S. 107	1301 8 <sup>th</sup> Avenue
P.S. 124	515 4 <sup>th</sup> Avenue
P.S. 133	211 8 <sup>th</sup> Street
P.S. 282	180 6 <sup>th</sup> Avenue
P.S. 321	180 7 <sup>th</sup> Avenue
M.S. 51	350 5 <sup>th</sup> Avenue
M.S. 266	62 Park Place
Secondary School for Journalism	
Secondary School for Law	237 7 <sup>th</sup> Avenue
Secondary School for Research	2577 Avenue
Millennium Brooklyn High School	
Berkeley Carroll Upper School	181 Lincoln Place
Berkeley Carroll Lower School	701 Carroll Street
The Montessori School of New York	105 8 <sup>th</sup> Avenue
Poly Prep Country Day School	50 Prospect Park West
St. Francis Xavier School	763 President Street
St. Saviour School	701 8 <sup>th</sup> Avenue
St. Saviour High School	588 6 <sup>th</sup> Street

### APPLICATION ITEM 3 - DAYCARE CENTERS / PRE-K / HEAD START

Name of Facility	Address	
Beansprouts	453 6 <sup>th</sup> Avenue; multiple locations on/near 6 <sup>th</sup> Avenue between 7 <sup>th</sup> and 12 <sup>th</sup> Streets	
Brooklyn Free Space	298 6 <sup>th</sup> Avenue	
Camp Friendship	339 8 <sup>th</sup> Street	
Chai-Tots Preschool	70 Prospect Park West	
Chickpeas Preschool	211 8 <sup>th</sup> Street	
Congregation Beth Elohim Early Childhood Center	274 Garfield Place	
Eladia's Kids	272 Flatbush Avenue, 147 5 <sup>th</sup> Avenue	
Helen Owen Carey Child Development Center	71 Lincoln Place	
Honeydew Drop	277 14 <sup>th</sup> Street	
Hugs Day School	763 President Street	
Kiddi City	414 16 <sup>th</sup> Street	
Kidville Annex	808 Union Street	
Little Mushrooms	433 1 <sup>st</sup> Street	

Name of Facility	Address
Natalie's Sunflower	8 <sup>th</sup> Street between 4 <sup>th</sup> and 5 <sup>th</sup> Avenues, 16 <sup>th</sup> Street at 8 <sup>th</sup> Avenue
Parkers Place	428 7 <sup>th</sup> Avenue
Park Slope Child Care Collective	186 St. John's Place
Prospect Kids Academy	341 Prospect Avenue
Prospect Park YMCA Early Childhood Center	357 9 <sup>th</sup> Street
St. John's Kidz	34 St. John's Place

### **APPLICATION ITEM 6 – SUBWAY STATIONS**

Subway Line(s)	Intersection	
F, G	Bartel-Pritchard Square (15 <sup>th</sup> Street Station)	
F, G	8 <sup>th</sup> Avenue and 9 <sup>th</sup> Street, 7 <sup>th</sup> Avenue and 9 <sup>th</sup> Street (7 <sup>th</sup> Avenue Station)	
F, G, R	4 <sup>th</sup> Avenue and 9 <sup>th</sup> Street	
R	4 <sup>th</sup> Avenue and Prospect Avenue	
R	4 <sup>th</sup> Avenue and Union Street	
D, N, R	4 <sup>th</sup> Avenue and Pacific Street	
B, Q	Flatbush Avenue and Park Place (7 <sup>th</sup> Avenue Station)	
2, 3	Flatbush Avenue and Bergen Street	
2, 3	Flatbush Avenue and Plaza Street (Grand Army Plaza Station)	

Information not requested in the application but relevant to it is the following:

### HOUSES OF WORSHIP

Name	Address
All Saints Episcopal Church	286 – 288 7 <sup>th</sup> Avenue
Church of Gethsemane / Congregation Kolot Chaiyenu	1012 8 <sup>th</sup> Avenue
Church of the Virgin Mary	216 8 <sup>th</sup> Avenue
Congregation Beth Elohim	274 Garfield Place
Congregation Bnai Jacob	401 9 <sup>th</sup> Street
First Church of Christ, Scientist	156 Sterling Place
Grace United Methodist Church	33 7 <sup>th</sup> Avenue
Greenwood Baptist Church	461 6 <sup>th</sup> Street
Holy Family R.C. Church	222 13 <sup>th</sup> Street
* Holy Name of Jesus R.C. Church	245 Prospect Park West
Immanuel United Methodist Church	422 – 424 Dean Street
Kingdom Hall of Jehovah's Witnesses	303 8 <sup>th</sup> Street
Kingsboro Temple Seventh Day Adventist Church	421 7 <sup>th</sup> Street
Memorial Presbyterian Church	186 St. John's Place

Supplemental Report: Application for a Neighborhood Slow Zone Submitted by Park Slope Civic Council and Park Slope Neighbors

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Name	Address	
New York City Church of Christ	298 6 <sup>th</sup> Avenue	
Old First Reformed Church	729 Carroll Street	
Park Slope Baptist Church	251 12 <sup>th</sup> Street	
Park Slope Jewish Center	1320 8 <sup>th</sup> Avenue	
Park Slope United Methodist Church	410 6 <sup>th</sup> Avenue	
Sixth Avenue Baptist Church	97 Lincoln Place	
St. Augustine's R.C. Church	116 6 <sup>th</sup> Avenue	
St. Francis Xavier R.C. Church	225 6 <sup>th</sup> Avenue	
St. John – St. Matthew – Emmanuel Lutheran Church	283 Prospect Avenue	
St. John's Episcopal Church	139 St. John's Place	
St. Saviour R. C. Church	611 8 <sup>th</sup> Avenue	
St. Thomas Aquinas R.C. Church	249 9 <sup>th</sup> Street	
United Temple of Park Slope	315 8 <sup>th</sup> Street	

\* - This church is just outside the zone subject of this application (across the street on Prospect Park West), but as the parish extends into the zone it is included here.

APPENDIX "B"

# PARK SLOPE CIVIC COUNCIL

# COMMUNITY MEETING ON NEIGHBORHOOD SLOW ZONES

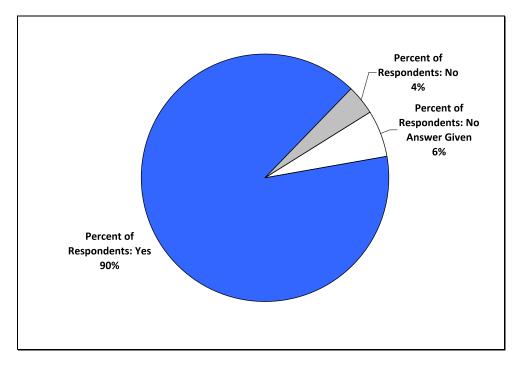
SURVEY RESULTS

SATURDAY, JANUARY 21, 2012

### **Overview**

On Saturday, 21 January 2012, the Park Slope Civic Council hosted a community meeting on slow zones. Following the meeting, attendees were asked to complete a short survey on the implementation of a potential slow zone program in Park Slope.

Fifty people completed the 27-question survey, indicating various reasons for attending the meeting. Many indicated that they attended to learn more about the program, support livable streets in the neighborhood, and discuss methods for slowing traffic.



# Figure 2: Would you want your street to be part of a "Slow Zone"?

Forty-seven respondents answered whether or not they want their street to be part of a slow zone. Of respondents, 90% indicated "Yes," 4% indicated "No," and 6% did not answer the question.

### **Demographics**

The fifty respondents represented households with a total of 102 adults and 18 senior citizens. Twenty-five respondents (50 percent) indicated children in the home: 9 children younger than 5-years-old; 21 elementary aged school children; 4 middle school aged children; and 9 high school aged children. Of these households, none have wheelchair users, but 3 use walkers and 6 use strollers.

The average age of all respondents was 52 years old. The overall age range of respondents was 30 to 75 years old.

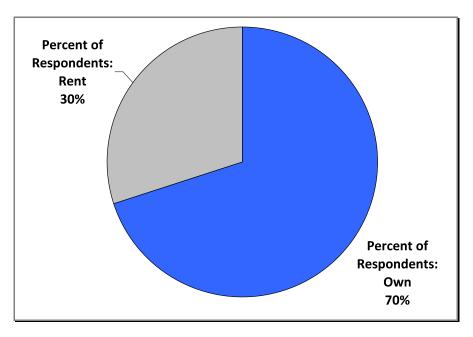


Figure 3: Percent of respondents who own or rent their home

Respondents were asked if they owned or rented a home. Seventy percent own, while 30 percent rent.

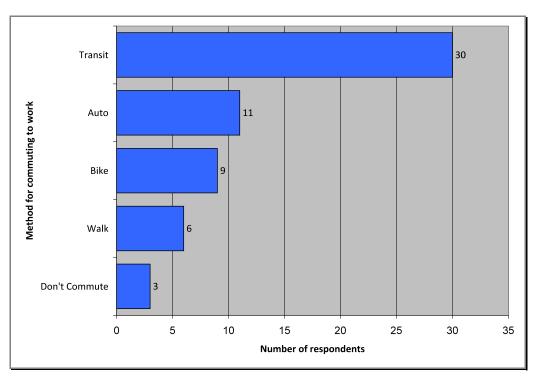


Figure 4: Method for commuting to work

Respondents were asked for their *primary* method of commuting to work, although several respondents indicated combined commuting methods, such was walking, driving, or biking to public transit. *Figure 3* displays the frequency of response for each method, including those who do not commute.

### Vehicle Use

Twenty-eight people (56%) reported they own or lease an automobile, for a total of 29 among survey respondents. Thirty-four respondents (68%) indicated owning a bicycle, for a total of 109 bicycles among respondents.

### **Slow Zone Areas**

On	From	То
2 Street	4 Avenue	5 Avenue
	5 Avenue	6 Avenue
4 Street	6 Avenue	7 Avenue
6 Avenue	2 Street	3 Street
	Carroll Street	Garfield Place
6 Street	5 Avenue	6 Avenue
0 Street	6 Avenue	7 Avenue
	8 Avenue	Prospect Park Wes
8 Avenue	President Street	Carroll Street
o Avenue	Union Street	Berkeley Place
	Union Street	President Street
10 Street	3 Avenue	4 Avenue
12 Street	6 Avenue	7 Avenue
13 Street	5 Avenue	6 Avenue
14 Street	5 Avenue	6 Avenue
	6 Avenue	5 Avenue
62 Street	23 Avenue	24 Avenue
Bergen Street	Carlton Avenue	Vanderbilt
Berkeley Place	7 Avenue	8 Avenue

# Table 1: Streets segments from respondents favoring a slow zone ontheir street

On	From	То			
Carlton Avenue	Prospect Place	St. Marks Avenue			
Dean Street	6 Avenue	Carlton Avenue			
Eastern Parkway	Classon Avenue	Franklin Avenue			
	5 Avenue	6 Avenue			
Garfield Place	6 Avenue	7 Avenue			
	7 Avenue	8 Avenue			
	8 Avenue	Prospect Park West			
Lefferts Avenue	Bedford Avenue	Rogers Avenue			
Morgan Avenue	Driggs Avenue	Nassau Avenue			
Park Place	Vanderbilt	Underhill			
Plaza Street West	Berkeley Place	Union Street			
President Street	7 Avenue	8 Avenue			
St. Johns Place	6 Avenue	7 Avenue			
Sterling Place	Flatbush	7 Avenue			
Stratford Road	Cortelyou Road	Beverly Road			
Underhill	Park Place	Sterling			

Of the 45 respondents (90%) who indicated that they would like their street to be a part of a slow zone, 36 different street segments were represented.

# Table 2: Streets segments from respondents not favoring a slow zoneon their street

On	From	То		
Prospect Park West	10 Street	11 Street		

Of the two respondents (4%) who indicated they do not want a slow zone on their street, one street segment was indicated.

# Table 3: Locations and experiences of respondents who have spenttime in another city with similar programs

Location	Experience (Verbatim Responses)			
Washington, DC, Boulder, CO, Portland, OR	[left blank]			
Hoboken, Claremont, Charlottesville, VA, Bryn Mawr and Haver- ford, PA	Other than signs and street markings at the entrances to the zones in Claremont, there really wasn't a sense of place and it didn't seem that there could possibly be much of a "culture of safety" as a result of this zone. As for Charlottesville and the PA cities, these weren't slow zones, but places where the speed limits were lower on residential and commercial streets in "the village" and in fact, traffic did move more slowly - but I suppose that *is* part of their culture. The day we went to Hoboken was very stormy and I'm afraid I really didn't get much a sense of their zones.			
Copenhagen, Berlin, Iceland, Berkeley, Se- attle.	There is police enforcement as appropriate, versus NYC where there is NONE.			
Copenhagen, Denmark; Makumoto, Japan	Positive			
Hoboken, New Jersey; Alexandria, Virginia; Berlin, Germany	Positive everywhere. There is a distinct sense that one is in a different place than the rest of the city.			
Holland has very pe- destrian friendly poli- cies.	Holland has very pedestrian friendly policies.			
Delft, Netherlands	Positive			
Berkeley, CA	Amazing streets curves, roundabouts, barricades			
Geneva CH.	Experience was great - much safer!			
Many.	They certainly affect my speed and pedestrian awareness.			
London	[left blank]			

Respondents were asked if they had spent time in another city that has a program comparable to slow zones. Twenty-two percent have. Locations and their experience of the slow zone are provided in *Table 3*, above.

### **Additional Feedback**

Respondents were asked to "Tell us more" about their opinions of slow zones in the neighborhood. Many of the respondents indicated areas where they regularly witness speeding traffic and also discussed family who were hit by turning or speeding vehicles: "My wife and granddaughter were run over by a bus on 6<sup>th</sup> Avenue at 13<sup>th</sup> Street;" and, "My child was struck on 6<sup>th</sup> Avenue at 13<sup>th</sup> Street by a turning school bus."

A full list of verbatim responses is included in Appendix B-2.

# **APPENDIX B-1: SURVEY QUESTIONS**

#	Question
1	Thank you for coming. Why are you here?
1A	# of young children <5
1B	# of Elementary Schoolers
1C	# of Middle Schoolers
1D	# of High Schoolers
1E	# Adults
1F	# Seniors
1G	# Wheelchair Users
1H	# Strollers
1I	# Automobiles
1J	# Bicycles
1K	# Dogs
1L	# Walker Users
2	Age
3	Do you own or rent your home?
4	How do you commute?
5	Have you spent time in another city that has a program such as "20 is Plenty for Us" or "Slow Zones in place?"
6	What city or cities?
7	What was your experience?
8	If you live with a child, how does that child get to school?
9	Would you want your street to be part of a slow zone?
9A	On
9B	Between

9C	And
10	Tell us more.
10A	What do you like about the "Slow Zone" program?
10B	What would you recommend to improve the "Slow Zone" program?

## **APPENDIX 2: VERBATIM RESPONSES**

Question 1: Why are you here?
I own a building in Park Slope and I represent CB14. We might be interested as well.
I own a building in Park Slope and I represent CB14. We might be interested as well (separate response for owned rental property in Park Slope).
I am concerned about speeding in Park Slope.
Information distressed about the bullying about speed bumps and slow zones. This was a "done deal."
Have children and observed many speeding cars in Park Slope neighborhood.
Interested in seeing Park Slope maintain and enhance its livability.
I want a Slow Zone.
To support PSCC's initiative!
To support a Slow Zone on side streets of Park Slope.
Interested in community feedback on Slow Zones.
Interested in the concept.
Learn what we need to do to apply for the Slow Zone.
Concerned about pedestrian safety and rampant speeding.
To support slower safe streets in Park Slope.
Interested in creating a Slow Zone in Prospect Heights.
To hear what other residents have to say about Slow Zones. I'm already convinced that it's a great idea that must be implemented in Park Slope. And to help out with the meeting.
Local representative/concerned citizen
Traffic safety, calming; safe, comfortable walking and bicycling
Want safer streets, especially for kids, for pedestrians, and for cyclists.
To learn more about and support a 20 mph zone
I want traffic calming that is SMART and INTEGRATED
Agree it is a good idea to establish a slow zone in Park Slope to increase pedestrian safety.

#### Question 1: Why are you here?

Take action to slow down traffic in our neighborhood

I'm a transportation engineer and it's not only my profession but my passion

Interested in a slow zone for our area; we knew Tish James was in support of the program and wanted to learn more about opportunities for implementation (until about 2 months ago I lived in Park Slope)

To learn more and hope to see slower traffic in Park Slope and elsewhere

For information on the program

I want to see slower traffic

Representing PHNDC

Listening to citizen concerns

To slow down traffic on 8th Avenue. Nobody knows it narrows at 1st Street, then they crash

Chairing the meeting and interest in livable streets

Concerned about neighborhood safety

Concern about traffic safety.

I'm concerned about traffic safety in my community.

Interested in issue.

Concern for the safety of my children

Interested in subject

Traffic in Park Slope is dangerous. Police enforcement is non-existent.

I believe a neighborhood-wide slow zone will benefit the community.

I would like to see a 20 mph speed zone in all of Park Slope.

As a representative of St. John Village Association - a resident of St. John's Place

Traffic in Park Slope is a major issue.

I want to see slower speeds in my community.

Our block has tried to slow traffic on St. John's Place and to eliminate truck traffic. We have been unsuccessful.

Representing Assemblymember Jim Brennan.

Learn more about NSZ.

### Question 1: Why are you here?

I am excited that we are having a community meeting about slow zones - and am thrilled to see so many people out on a snowy day.

#### Question 9: Tell us more (in response to "Would you want your street to be part of a "Slow Zone"?).

Those responding "Yes" that they want their streets to be part of a slow zone program:

My street is especially important since hundreds of pedestrians exit the 10 St entrance of the 4 Ave/9 St subway station and cars always speed up 10 St.

30 mph looks like a raceway

Yes, please! My child was struck on 6th Avenue at 13th Street by a turning school bus.

We have a lot of children on our street (block) because of Honey Dew Drop Daycare and Ameririeki

14th Street traveling east becomes a thoroughfare for drivers off Hamilton Avenue going east, past the park and around the park, so we need traffic slowed here!

Absolutely. My wife and granddaughter were run over by a bus on 6th Avenue at 13th Street

Have a car service office on 13th Street and 5th Avenue that uses 14th Street to race thru the light.

I would like to see more than just my street.

Since 3 Street is a thru street, there is a lot of traffic and cars drive too fast.

A Slow Zone in Park Slope will make our streets safer. It will reduce cut-through traffic, and make our streets quieter. Not a single day goes by that I don't observe aberrant driver behavior, including speeding, red-light running, illegal u-turns and illegal parking.

6 Ave

Speeding on 6 Ave is out of control. Children should be able to walk to school safely.

I live downhill from New York Methodist Hospital and the John Jay Educational Campus. While I know my block better than others, I suspect most of our blocks have the same problem of cars racing to make the next traffic light, find that elusive parking spot, or just simply driving fast because they're just passing through. In addition, I am the administrator of a day camp with several locations in the neighborhood (2 on 6 Ave) and add my voice to any others who complain that 6 Avenue, with it's schools, churches and many, many blocks of brownstones, is either a speed-way or badly congested, depending upon the time of day. In fact, the same goes for 5 and 7 Aves, with speeding especially common during street sweeping hours and when most businesses are closed and deliveries are done for the day. I would urge the inclusion of all avenues above 4 Ave in Park Slope in a slow zone; excluding the avenues defeats the purpose.

All 30-foot streets at 20 mph - ALL. Avenues - can it be done? It would be a good idea for avenues.

Eighth Avenue traffic often goes too fast for peds at all ages to cross; it will speed through the green at President Street to make the light at Union Street

8th Avenue is a racetrack in a residential area.

I own a car and don't care about parking

#### Question 9: Tell us more (in response to "Would you want your street to be part of a "Slow Zone"?).

#### *Those responding "Yes" that they want their streets to be part of a slow zone program:*

People of all ages live on my street. Many people use Berkeley Place as an alternate route to Grand Army Plaza, opting against using Union Street, although with speed humps on Berkeley Place since 2009 and two eastbound lanes on Union Street for the past year the amount of such traffic is less. Berkeley Place has a heavily used bike lane. 8th Avenue has a lot of overspeed traffic. A slow zone would recognize the needs of ALL users of the streets.

I am drafting the plan for PHNDC

It is crazy traffic in our street.

We'll have to email Tish James since we're on Eastern Parkway

I would like Eastern Parkway to have an ENFORCED 30 mph and intersecting streets to be slow-zoned

Yes!! My son and all the children in the neighborhood cannot walk to school (PS 321) safely and so cannot have the freedom they are ready to have.

6th Avenue is the main problem.

I live two blocks from a school (PS321) and Temple Beth Elohim. There are many children in the area and I fear for their safety.

But would not like to see a speed bump mid-block. I prefer raised "speed tables" at the intersections/crosswalks.

Not heavy traffic, but some cars, trucks and school buses speed to make the light

I see speeding and dangerous driving throughout the Slope.

In addition to my block (in CB 1) I am supportive of an extensive 20 mph zone going to the extent the Park Slope community is supportive.

Currently have too much through traffic.

Plaza Street West is a traffic alt route for cars avoiding Union and Flatbush/GAP. Drivers use the bike path as an express lane. Cars do not stop at stop signs. no parking safety zones are not enforced. Police/Fire permit holders use these spaces as personal parking spaces and are NOT ticketed.

Plaza Street West is very dangerous because of its width and curve

Especially streets near schools should have Slow Zones.

St. John's Place has become a high speed thruway for vehicles avoiding Flatbush Avenue. There is also a day care center on the corner of 7 Ave.

I witnessed several times over this last year only near fatal accidents, two times involving my kids and my wife.

We have tried to slow traffic between 5 Ave and 8 Ave on St. John's. DOT has been helpful. Want to reduce truck traffic.

Supplemental Report: Application for a Neighborhood Slow Zone Submitted by Park Slope Civic Council and Park Slope Neighbors Question 9: Tell us more (in response to "Would you want your street to be part of a "Slow Zone"?).

Those responding "Yes" that they want their streets to be part of a slow zone program:

People come down Sterling Place very fast.

I want a safer street for my family. I am constantly outraged by the behavior of drivers in our neighborhood.

### Question 25: Tell us more (in response to "Would you want your street to be part of a "Slow Zone"?).

Those responding "No" that they want their streets to be part of a slow zone program:

PPW is a major thoroughfare through the Park Slope neighborhood and the volume of traffic is substantial.

Against slow zones; neighborhood ruined by Vanderbilt Avenue and the Prospect Park bike lane.

### Question 25: Tell us more (in response to "Would you want your street to be part of a "Slow Zone"?).

Those who did not indicate "Yes" or "No" to whether they want their streets to be part of a slow zone program:

Not sure. Do not like speed bumps and signage. Do like slower speed by drivers. Do want local input into design of our local area.

#### Question 10: What do you like about the "Slow Zone" program?

Those responding "Yes" that they want their streets to be part of a slow zone program:

It addresses speeding over a larger area instead of street by street. The problem of speeding is braod so lets address the whole problem.

Safety

Like the idea for residential streets only, not avenues. Time lights on all avenues

Not just one block -- comprehensive shift.

WE NEED SLOW ZONE INVOLVEMENT!

I like an integrated program that changes driver behavior, not just a speed bump.

Keep pedestrians safer, helps enforce mph regulations. Safer for bikers and children who may not always cross at intersections

Everything; try it now

Seems to enhance feeling of a neighborhood in Park Slope that allows pedestrians and vehicles to coexist in a safe manner.

Make the streets more livable.

I get the impression slow zones are part of a cultural change - I believe this change is critical.

It makes streets safer and creates a sense of place and community. It lets drivers know that it's not OK to speed on our streets.

Increased safety.

The emphasis on safety. I commend NYCDOT for following the lead of other cities that have found slow zones save lives and make streets friendlier and more livable for all users. A Slow Zone program that creates a sense of place will cause people driving cars to instinctively prioritize safety as they pass through the neighborhoods of NYC - to understand that streets are shared space and that stopping to let someone cross isn't an inconvenience, but a responsibility. I'd like to see the speed limit in the city uniformly 20, with exceptions for thoroughfares, if for no reason that this would simply things and go a long way towards creating a culture of safety.

Moves traffic at "reasonable speeds" without impeding access or throughput capacity.

Make streets easier to cross.

Begs drivers to THINK about how they're driving on residential streets and near schools. PS 10 is near the Prospect Expressway and I see many drivers driving too fast. They need to go slower and share the road better.

Safety for pedestrians and cyclists.

It may save my child's life

#### Question 10: What do you like about the "Slow Zone" program?

Those responding "Yes" that they want their streets to be part of a slow zone program:

Public attention to livability concerns

I like the fact that NYCDOT is thinking about this and trying out the concept

Pretty much everything

It helps with traffic issues in my neighborhood.

People are less likely to die. Also, this is about EVERYONE, not just kids. Even adults have issues around navigating intersections and speeding.

Slower cars! Safety and sanity.

Create an environment of community where we are looking after the safety of our neighbors.

Sounds like it should make the neighborhood safer and more pleasant.

It establishes an entire area as opposed to individual streets.

Reduced traffic speed.

Safer for all

This is an idea whose time has come.

It creates a community space

I am in support of Slow Zones but they have to be enforced.

Reduced accidents, improved quality of life.

Will keep our streets fair for all users.

It will increase pedestrian safety and force vehicles to drive more slowly.

It will for sure increase safety in the neighborhood and this is a first step - maybe not the only one. Great initiative!

Slows traffic, reduces cut-through traffic, reduces cut-through truck traffic.

The basic, it slows down cars.

Safety

Safety.

### Question 26: What do you like about the "Slow Zone" program?

Those responding "No" that they want their streets to be part of a slow zone program:

I support slow zones on the residential streets, but don't think they should be implemented on PPW, 8 Ave, 7 Ave, 5 Ave, 4 & 3 Aves.

Nothing!

### Question 26: What do you like about the "Slow Zone" program?

Those who did not indicate "Yes" or "No" to whether they want their streets to be part of a slow zone program:

Community effort to make our streets safer. Like having a slow zone (without speed bumps) if done without ruining attractiveness of residential streets.

Community-based and community-driven planning process.

No one wants more fatalities but there are trade-offs.

# APPENDIX "C"

# COMPARISON OF 20 MPH AND 30 MPH SPEED LIMITS

In the late night and early morning of 31 January -1 February 2012, three members of the Park Slope community made some simple measurements of how long it takes to traverse the neighborhood while driving 20 mph vs. doing the same at 30 mph.

They chose to do it late at night for two reasons. First, with the streets mostly empty, it enabled them to measure the largest potential differences. Without other cars on the road, it is much easier to keep to 30 mph than it would be during other parts of the day, when more volume, turning vehicles and double-parked cars and trucks have a natural traffic-calming effect. Second, on many streets in the neighborhood, driving the current speed limit of 30 mph feels dangerous, and they were hoping to encounter as few pedestrians, cyclists, and other vehicles as possible.

In that two-and-a-half hour time period, the people doing the survey were able to gather comparisons for Prospect Park West, 8<sup>th</sup> Avenue, and 7<sup>th</sup> Avenue in both northerly and southerly directions, and for 2<sup>nd</sup> Street, 3<sup>rd</sup> Street, and 6<sup>th</sup> Street. In the interest of consistency they always started out from a stop at a red light newly turned green and attempted to maintain the prescribed speed as precisely as possible.

On Prospect Park West, it took an extra 1 minute 32 seconds (1:32) to drive at 20 mph from Union Street to Bartel-Pritchard Square, but more than half of that difference was due to time stopped at red lights. They did not encounter any red lights while driving at 30 mph. If the lights were to be adjusted for the lower speed limit, the difference would have been just 42 seconds.

Similarly, on 8<sup>th</sup> Avenue, it took an extra 1:07 to drive from Prospect Avenue to Flatbush Avenue. Due to light timings, it was difficult to maintain 30 mph, so the people doing the survey found themselves frequently having to brake slightly to slow enough for lights to turn green; however, they never had to stop. The team leader, Eric McClure, reported "At 20 mph, we pretty much trailed just behind the 'green wave,' though we encountered a couple [of] red lights at the north end of 8<sup>th</sup> Avenue, which added 29 seconds. With light adjustments, the 20 mph vs. 30 mph difference would be just 38 seconds."

On 7<sup>th</sup> Avenue, they timed the trip in both directions. Overall, it was a slower trip both north and south than it was on the one-way avenues as signals on two-way 7<sup>th</sup> Avenue are not sequenced. The trip took an average of more than five-and-one-half minutes at 30 mph and just over seven minutes at 20 mph; the average difference was 1:30. Southbound, the stopped time was virtually the same; northbound, the people doing the survey spent 0:42 more at red lights.

On the side streets, the people performing the survey experienced an average increased trip time of 25 seconds to go from Prospect Park West to 4<sup>th</sup> Avenue or *vice versa*. They reported spending less time at red lights going 20 mph on 3rd and 6th Streets, and only 0:04 more at red lights on 2<sup>nd</sup> Street.

While the sample is small, it appears clear that in the worst case, reducing speeds in the neighborhood from 30 mph to 20 mph would add at most a minute and a half to the north-south trip from one end of Park Slope to the other, and less than 30 seconds from 4<sup>th</sup> Avenue to Prospect Park West, or *vice versa*. And as the vast majority of people driving into or out of the neighborhood will only be covering a portion of that distance, the average time added to a trip at 20 mph would be less than that. To me, that seems a very small price to pay for a very large gain in safety. A person struck by a vehicle traveling 20 mph is nine times more likely to survive than if struck at 30 mph.

The tabulated results appear below.

From Union Street Union Street	<b>To</b> Bartel-Pritchard Square		Total Time					
	Bartel-Pritchard Square		Total Time	Moving Time	<b>Red Light Time</b>	Total	Moving	Red Light
Union Street		30	02:15	02:15	00:00			
	Bartel-Pritchard Square	20	03:47	02:57	00:50	01:32	00:42	00:50
Prospect Avenue	Flatbush Avenue	30	03:14	03:14	00:00			
Prospect Avenue	Flatbush Avenue	20	04:21	03:52	00:29	01:07	00:38	00:29
Park Place	Prospect Avenue	30	05:58	03:23	02:35			
Park Place	Prospect Avenue	20	07:16	04:37	02:39	01:18	01:14	00:04
Prospect Avenue	Park Place	30	05:24	03:23	02:01			
Prospect Avenue	Park Place	20	07:05	04:22	02:43	01:41	00:59	00:42
PPW	4th Avenue	30	03:02	01:48	01:14			
PPW	4th Avenue	20	03:36	02:18	01:18	00:34	00:30	00:04
4th Avenue	PPW	30	02:17	01:52	00:25			
4th Avenue	PPW	20	02:54	02:35	00:19	00:37	00:43	-00:06
PPW	4th Avenue	30	02:39	02:00	00:39			
PPW	4th Avenue	20	02:43	02:18	00:25	00:04	00:18	-00:14
				Aver	age for Avenues:	01:24	00:53	00:31
		Average for Avenues w/Adjusted Light Timings <sup>1</sup> :			01:04	00:53	00:11	
			Average for Side Streets:		00:25	00:30	-00:05	
	ark Place ark Place rospect Avenue rospect Avenue PW PW th Avenue th Avenue PW	ark Place Prospect Avenue   ark Place Prospect Avenue   rospect Avenue Park Place   rospect Avenue Park Place   PW 4th Avenue   PW 4th Avenue   th Avenue PPW   th Avenue PPW   PW 4th Avenue   PW 4th Avenue   PW PPW   PW 4th Avenue	ark PlaceProspect Avenue30ark PlaceProspect Avenue20rospect AvenuePark Place30rospect AvenuePark Place20PW4th Avenue30PW4th Avenue20th AvenuePPW30th AvenuePPW30PW4th Avenue20PW4th Avenue20PW4th Avenue20PW4th Avenue20PW4th Avenue20	ark PlaceProspect Avenue3005:58ark PlaceProspect Avenue2007:16rospect Avenue2007:16rospect AvenuePark Place3005:24rospect AvenuePark Place2007:05PW4th Avenue3003:02PW4th Avenue2003:36th AvenuePPW3002:17th AvenuePPW2002:54PW4th Avenue3002:39PW4th Avenue2002:43	ark Place     Prospect Avenue     30     05:58     03:23       ark Place     Prospect Avenue     20     07:16     04:37       rospect Avenue     20     07:16     04:37       rospect Avenue     Park Place     30     05:24     03:23       rospect Avenue     Park Place     20     07:05     04:22       PW     4th Avenue     30     03:02     01:48       PW     4th Avenue     20     03:36     02:18       th Avenue     PPW     30     02:17     01:52       th Avenue     PPW     20     02:54     02:35       PW     4th Avenue     30     02:13     02:18       PW     4th Avenue     20     02:54     02:35       PW     4th Avenue     20     02:43     02:18       PW     4th Avenue     20     02:43     02:18       PW     4th Avenue     20     02:43     02:18       PW     4th Avenue     20     02:43     02:18	Prospect Avenue     30     05:58     03:23     02:35       ark Place     Prospect Avenue     20     07:16     04:37     02:39       rospect Avenue     20     07:16     04:37     02:39       rospect Avenue     Park Place     30     05:24     03:23     02:01       rospect Avenue     Park Place     20     07:05     04:22     02:143       PW     4th Avenue     30     03:02     01:48     01:14       PW     4th Avenue     20     03:36     02:18     01:18       th Avenue     PPW     30     02:17     01:52     00:25       th Avenue     PPW     20     02:54     02:35     00:19       PW     4th Avenue     20     02:43     02:18     00:25       PW     4th Avenue     20     02:43     02:18     00:25       th Avenue     20     02:43     02:18     00:25       PW     4th Avenue     20     02:43     02:18     00:25       PW	ark Place     Prospect Avenue     30     05:58     03:23     02:35       ark Place     Prospect Avenue     20     07:16     04:37     02:39     01:18       rospect Avenue     Park Place     30     05:24     03:23     02:01     01:14       rospect Avenue     Park Place     20     07:05     04:22     02:43     01:41       PW     4th Avenue     30     03:02     01:48     01:14     00:34       PW     4th Avenue     30     02:17     01:52     00:25     01:37       PW     PPW     20     02:39     02:00     00:39     00:37	Ark Place     Prospect Avenue     30     05:58     03:23     02:35     0       ark Place     Prospect Avenue     20     07:16     04:37     02:39     01:18     01:14       rospect Avenue     Park Place     30     05:24     03:23     02:01

<sup>1</sup> With adjusted signal progressions on PPW and 8th Avenue, stopped time at red lights could be eliminated, as with current 30 mph speeds.