

*in association with* The National Center for Bicycling and Walking The Alan M. Voorheese Transportation Center



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### INTRODUCTION

Ivy Hill Elementary School is one of 6 schools in Newark, Trenton, and Camden that participated in New Jersey Department of Transportation's Safe Routes to School (SRTS) Urban Demonstration Program in 2008. This program aims to empower inner city school communities with tools and strategies to overcome barriers to walking and bicycling to school by addressing the needs that are important and specific to them. Through this program, the NJDOT provided the Ivy Hill Elementary School and the City of Newark with a project team led by The RBA Group (RBA) and including the National Center for Bicycling and Walking (NCBW) and the Voorhees Transportation Center (VTC) at Rutgers University. Each of the 6 school communities that participated in the Urban Demonstration Program took part in a collaborative problem solving approach to identifying their community's specific issues and assets, which include what they as individuals bring to the table. An important aspect of Ivy Hill Elementary School's SRTS Program is that it enables the school community to take ownership and achieve the goals specific to getting their kids to school safely on foot or bicycle.

Utilizing the NJDOT's <u>New Jersey SRTS Travel Plan Guide</u>, Ivy Hill's SRTS Travel Plan contains the six required elements of a "complete" travel plan:

- 1. School Description
- 2. SRTS Task Force and Partnerships
- 3. Barriers & Opportunities to Walking and Bicycling
- 4. Map of the School Neighborhood
- 5. Action Plan
- 6. Program Evaluation and Monitoring

This Safe Routes to School Travel Plan is a working document intended to set priorities for increasing the number and safety of students walking and bicycling to school. In so doing, this Travel Plan will serve as a basis for the organizing and funding of those priorities and will (hopefully) be replicated across Newark and in other areas of New Jersey.





## SCHOOL DESCRIPTION



Ivy Hill Elementary School Location: 107 Ivy Street (between Richelieu Terrace and Ellery Avenue) School District: Newark City Grade Levels: Currently kindergarten – 6<sup>th</sup>; will be expanded to 8<sup>th</sup> grade by the 2009 - 2010 school year Student Population: 366 Percentage of students living within 2 miles of the school: 100%

## Student Travel Mode

The school catchment area for students attending Ivy Hill Elementary is approximately 0.32 square miles, where all students live within 2 miles of the school. There is no district busing except for special needs students.

There is no crossing guard currently assigned to the school; therefore, school officials and security guards assist children and parents at the various intersections around the school during arrival and dismissal.

The official hours of instruction at the school are 8:20am – 2:55pm. According to the Principal, students arrive between 7:45am – 8:35am. The school does not have a breakfast program but they have several afterschool programs at varying times from 3:00pm – 9:00pm.

Driven:	40%					
Walk:	48%					
Bike:	0%					
School Bus:	6%					
Public Transit or Car Pool	6%					
Percentage of current student travel to and from school						





### SRTS TASK FORCE AND PARTNERSHIPS

A key element in the process was to conduct outreach efforts to the city and school communities and establish a Task Force for each school. The aim was to engage active community groups and local organizers who will support and sustain the SRTS program over time. In Newark, the Task Force is comprised of the Mayor's Office, Engineering Department, and Police Department, Meadowlink Transportation Management Agency, the University of Medicine and Dentistry of New Jersey (UMDNJ), the



Pedestrian Injury Prevention Partnership (PIPP), the Tri-State Transportation Campaign, the Ironbound East Family Success Center, School Leadership Team III Parent Leaders Executive Council, One Newark Education Coalition (ONEC), and the Newark Public School District. The key contact for the Ivy Hill Elementary School is Principal Keith Barton.

Task force members attended a program awareness meeting to receive an overview of SRTS and the Urban Demonstration Program while helping the project team gather insight to specific issues/concerns within the school community. This insight helped to facilitate the development of the program at each school as each representative identified issues that they believe compromise the safety of their students on their way to and from school.

These awareness meetings served as the catalyst for building the framework of the school community's task force. School representatives and community members became actively engaged in the process and became shared resources in carrying out the program's goals within the school community.

UMDNJ is supporting the SRTS program in Newark as a tie-in to their Pedestrian Injury Prevention Partnership (PIPP). The PIPP is a community coalition that consists of members from the New Jersey Trauma Center at The University Hospital in Newark, and representatives from the New Community Corporation, the New Jersey Division of Highway Traffic Safety, New Jersey Department of Transportation, the American Automobile Association, the Newark Mayor's Office, the Newark Engineering Department, Newark Public School District, the Newark Police Department, and the Greater Newark Conservancy.<sup>1</sup>



<sup>&</sup>lt;sup>1</sup> <u>http://www.umdnj.edu/about/news\_events/releases/07/r040507\_MultiAgency\_Coalition.htm</u>

Specifically, UMDNJ will support the SRTS Program by introducing their pedestrian injury prevention education curriculum into the classroom and in the community, increasing "awareness and knowledge about street safety among urban minority children ages 5-12."<sup>2</sup> They will also be active in seeking various grant funding to sustain this education element.

The City of Newark supports the SRTS program through the implementation of engineering improvements around the school neighborhoods. According to the City's Engineering Department, as informal policy, when the primary roadways around a school are resurfaced, two stages of traffic-calming techniques are automatically introduced on those roadways. The first stage consists of the placement of rumble strips, advanced school crossing signs and zebra striped crosswalks in the school neighborhood. The second stage consists of the placement of textured crosswalks and advanced school crossing flashers. These changes in the physical improvement fall under the umbrella of the City's School Zone Safety Program.

One Newark Education Coalition (ONEC) supports the program by helping to organize parents in the school community. ONEC is part of the Statewide Education Organizing Committee, which is made up of "public school parents and community leaders from urban and low-income school districts who have come together to work and fight for improvements in the education system."<sup>3</sup>

Organization	Role/Responsibility	Contact
Ivy Hill Elementary School	Programmatic Activity and	Keith Barton
	Implementation	Principal
		Ivy Hill School
		107 Ivy Street
		Newark, NJ 07106
		973-351-2121
		kbarton@nps.k12.nj.us
Newark City	Engineering Project	Margarita Muniz
	Implementation	Deputy Mayor
	1	City Hall
		920 Broad Street, Room 221
		Newark, NJ 07102
		973-733-4310
		munizm@ci.newark.nj.us

#### Partner Organizations



<sup>&</sup>lt;sup>2</sup> <u>http://www.umdnj.edu/about/news\_events/releases/07/r040507\_MultiAgency\_Coalition.htm</u> <sup>3</sup> <u>http://seocnj.org/</u>

<sup>(</sup>J358308\_Ivy Hill\_Travel Plan\_rev-9-12-08/G)

Organization	Role/Responsibility	Contact
Newark City	Engineering Project Implementation	Matt Klapper, <i>Policy Advisor to the Chief of Staff</i> Office of the Mayor 920 Broad Street, Room 200 Newark, NJ 007102 973-733-3818 <u>klapperm@ci.newark.nj.us</u>
Newark City	Engineering Project Implementation	Jack M. Nata, Sr. Administrative Analyst Department of Engineering Division of Traffic and Signals 255 Central Avenue Newark, NJ 07103 973-733-6183 <u>nataj@ci.newark.nj.us</u>
Newark City	Enforcement	Chris Weber Detective Newark Police Department 714 Hunterdon Street Newark, NJ 07108 973-733-7909 gasavagek@ci.newark.nj.us
UMDNJ	Safety Education	David Livingston, MD Director of the Trauma Center UMDNJ Department of Surgery Medical Science Building, G-506 185 S. Orange Avenue Newark, NJ 07101-1709 <u>livinsgst@umdnj.edu</u>
UMDNJ	Safety Education/SRTS Program Resource	Sharon Clancy Coordinator, Grant Development and Communication UMDNJ Department of Surgery 30 Bergen Street, ADMC 1110 Newark, NJ 07101-1709 973-972-9272 <u>clancysf@umdnj.edu</u>

Organization	Role/Responsibility	Contact
UMDNJ	Safety Education	Bob Lavery WalkSafe Program Coordinator UMDNJ 30 Bergen Street, ADMC 1110 Newark, NJ 07101-1709 <u>lavery@umdnj.edu</u>
Ironbound East Family Success Center	Community Resource	Luciana Lyde Site Supervisor Ironbound East Family Success Center 29-31 Cortland Street Newark, NJ 07105 973-344-5949 <u>llyde@ironboundcc.org</u>
One Newark Education Coalition (ONEC)	SRTS Program Assistance/ Community Resource	Johnnie R. Lattner Organizer/School Safety Committee Coordinator One Newark Education Coalition (ONEC) 317 Roseville Avenue Newark, NJ 07107 973-485-0701 x141 j.lattner@seocnj.org
United Community Partners	Community Resource	Lucious Jones United Community Partners 134 Evergreen Place East Orange, NJ 07018 973-414-0111 <u>loujones07018@verizon.net</u>
School Leadership Team III/Parent Leaders Executive Council	Community Resource	Paulette Jones, <i>President</i> SLT III/Parent Leaders Executive Council 144 Ridgewood Avenue Newark, NJ 07108 973-623-0650 paulettej144pta@yahoo.com

Organization	Role/Responsibility	Contact
Meadowlink -	SRTS Program Assistance/	Rich Felsing
Transportation Management	Community Resource	Transportation Planner
Agency		Meadowlink
		201 Route 17 North
		Rutherford, NJ 07070
		201-939-4242
		richard.felsing@meadowlink.org
Tri-State Transportation	Community Resource	Zoe Baldwin
Campaign	-	NJ Coordinator
		Tri-State Transportation
		Campaign
		350 West 31st Street
		New York, NY 10001
		212-268-7474
		zoe@tstc.org



## BARRIERS & OPPORTUNITIES TO WALKING AND BICYCLING

The information gathering process for the Ivy Hill Elementary School followed a series of steps conducted by the project team including stakeholder interviews, data collection, student travel surveys, neighborhood mapping, visual preference surveys, and a community workshop. Together, these steps allowed the project team to develop a list of preliminary recommendations to the school neighborhood to improve conditions for students on their way to and from school.

### Stakeholder Interviews

On January 16, 2008, the Ivy Hill Elementary School participated in a Newark Task Force SRTS program awareness meeting jointly with the Hawthorne Avenue School – another NJDOT SRTS Urban Demonstration Program School in Newark. The purpose of the meeting was to provide the participants with background on the NJ SRTS Urban Demonstration Program and to interview key stakeholders who might provide valuable insight to the issues students face during their trip to school and potential resources that might be available to address those issues.



Through the interviews, the project team discovered that there are existing programs in Newark that can be supportive of Ivy Hill's SRTS program. For instance, UMDNJ's Walk Safe Education Program is looking to "adopt" schools in which to provide pedestrian safety education courses. In addition, through UMDNJ's Pedestrian Injury Prevention Program, the University Hospital's ambulance service can provide pedestrian safety education as well.

Some significant concerns revealed by stakeholders were the lack of crossing guards, and the concurrent dismissal between neighboring schools that are within a 1-mile radius of Ivy Hill – resulting in approximately more than 600 students being dismissed at the same time with no crossing guard on-duty. There is also the ever present fear in the school neighborhood community stemming from an incident, in August 2007, where three college students were fatally shot, execution-style, on the playground of the Mount Vernon School. Most parents drop their children off at school by family vehicle but there are also a number of students that walk with older siblings that attend neighboring schools. Principal Barton pointed out that there are a number of crime "hotspots" but this activity occurs further out from the school.



Some areas of concern ("hotspots") within the school neighborhood were identified. They include:

- Ellery Avenue and Ivy Street
- Richelieu Terrace and Ivy Street
- Sanford Avenue and Ivy Street
- 18<sup>th</sup> Avenue and Ivy Street

### **Data Collection**

Using readily available data, the project team was able to collect demographic information, school district mapping, school enrollment, crime and crash data/statistics, and crossing guard locations. Key sources of information included a Geographic Information Systems (GIS) base map of Newark from the City's Engineering Department, crash and crime data/statistics for the area surrounding the school from the City's Police Department, crash data/statistics from the Plan4Safety program at the Transportation Safety Resource Center at Rutgers University and a map of the school catchment area as defined by the Newark Board of Education. This information will help to clearly describe the physical and demographic characteristics of the school and to clearly identify where solutions to safe walking and bicycling are needed. Summaries of demographic, crime and crash data are as follows:

#### Demographic Information

The Ivy Hill Elementary School is located in Newark, New Jersey. Newark is a dense, urban city with a diverse population located in Essex County. It is the County Seat and, with an estimated 2006 population of 281, 402, the largest municipality in New Jersey.<sup>4</sup> Newark City is a designated urban center under the New Jersey State Redevelopment Plan. It is also an "Abbott District"<sup>5</sup> and qualifies for both municipal and urban aid funding. According to the data from the Tri-State Transportation Campaign, twelve (12) out of NJ's 25 most dangerous intersections are located in Newark. Ironically, 44% of Newark's population does not have access to a car.<sup>6</sup>

Ivy Hill is located in Newark's West Ward. This section of Newark, known as Upper Vailsburg, has approximately 54,602 residents and its ethnic neighborhoods are primarily comprised of African Americans and Haitians.<sup>7</sup> The area has the suburban characteristics of being populated by single-family residences but remains notably urban with largely commercial areas such as along Sanford Avenue.

<sup>6</sup> Tri-State Transportation *Mobilizing the Region #542*, <u>http://www.tstc.org</u>



<sup>&</sup>lt;sup>4</sup> U.S. Census Bureau, American Fact Finder, GCT-T1 Population Estimates Table, <u>www.factfinder.census.gov</u> <sup>5</sup> The term "Abbott" is used to distinguish the 31 school districts in New Jersey selected by the Court and the

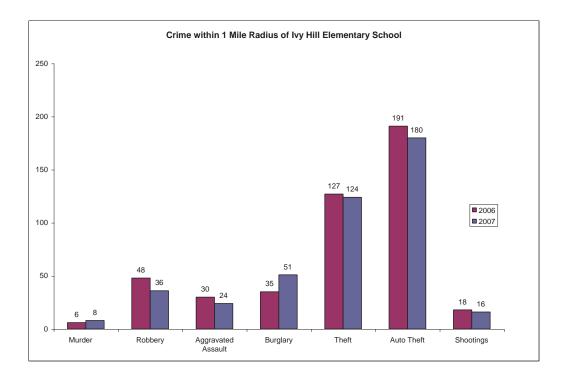
Legislature to receive financial assistance from the State to implement court-mandated remedies for equal educational practices in disadvantaged communities.

<sup>&</sup>lt;sup>7</sup> City of Newark, New Jersey website – <u>www.ci.newark.nj.us</u>

## Crime Data

The project team reviewed crime data provided by the City's Police Department for the two year period covering January 2006 – December 2007. For the 1-mile square area surrounding the school, the location of incidents and types of crimes were noted to identify what crimes are being committed during hours when children may be in the school neighborhood.

Although crime has been identified as a key concern and a significant risk for children walking and bicycling in Newark City has seen a 20% decrease in crime during the first year of Mayor Cory Booker's Administration (July 2006 – July 2007).<sup>8</sup> The City has continued to address these concerns by being vigilant in its search for crossing guards and by opening two new police precincts one of which is located in the Upper Vailsburg neighborhood.<sup>9</sup> The Ivy Hill Elementary School SRTS program aims to address crime and the related risks along designated routes to school through education and enforcement strategies.

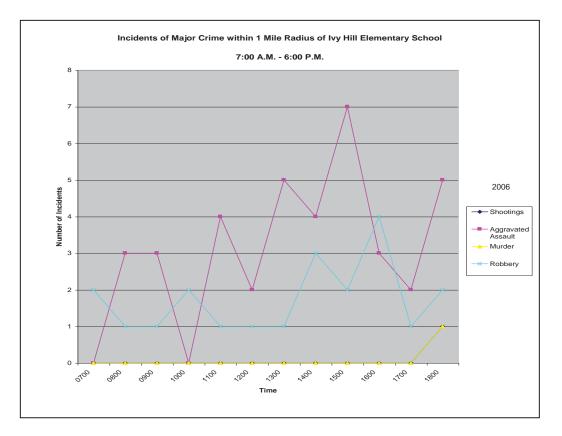


<sup>&</sup>lt;sup>8</sup> Newark Police Department Public Information Office Press Release July 6, 2007 <u>http://www.newarkpd.org/</u> <u>NewsPdf/CrimeYear.pdf</u>



<sup>&</sup>lt;sup>9</sup> Newark 2008 State of the City Address,

http://www.ci.newark.nj.us/userimages/downloads/2008StateOfCitySpeech.pdf



#### Crash Data

The project team reviewed crash data provided by the Plan4Safety<sup>10</sup> program at the Transportation Safety Resource Center at Rutgers University for the three year period covering January 2004 – December 2006. For the 2-mile square area surrounding the school, the review was conducted where incidents of crashes involving either a pedestrian or bicyclist were occurring and the type of action that the pedestrian or bicyclist was performing prior to being hit. The same data was analyzed by the number of crashes that occurred each day of the week, to determine the number of crashes that are occurring around the school area on days when children may be in school.

There were a total of 95 crashes that occurred within the 2-mile radius surrounding the Ivy Hill School during the years 2004-2006. 83 of the 95 crashes involved an injured pedestrian, none of which were fatal.

Crash data was also obtained through the Newark Police Department, which gave general insight to the number of crashes and where they occurred within the 1-mile radius surrounding the Ivy Hill School during the years of 2006-2007. This information was vital in

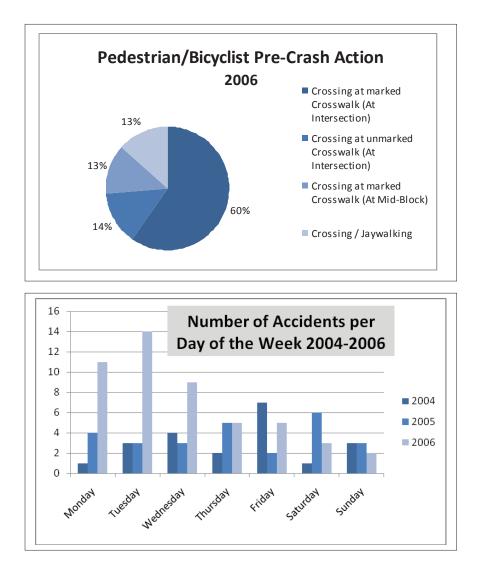
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<sup>&</sup>lt;sup>10</sup> Plan4Safety is a NJDOT sponsored program that offers a tool to transportation professionals to filter and analyze Statewide Crash Records for more detailed and place-based analysis.

determining where infrastructure improvements might be needed. During this time period, there were 735 crashes that occurred within the 1-mile school neighborhood radius. A significant amount of these crashes occurred along Sanford Avenue. The crash data substantiates the "hot spot" areas as identified through stakeholder interviews.



# Student Travel Surveys

The project team also gathered information from classroom surveys using a student travel tally form developed by the National Center for Safe Routes to School. The student travel tally form is intended to help track the number of children walking and biking to and from school through the use of a "hands-up" survey. These student travel tally forms were handed out to each Principal at the program awareness meeting on January 16, 2008. Students in each classroom of the Ivy Hill School were asked how they got to school each morning, and how they will get home after school. The teacher reads each mode of travel



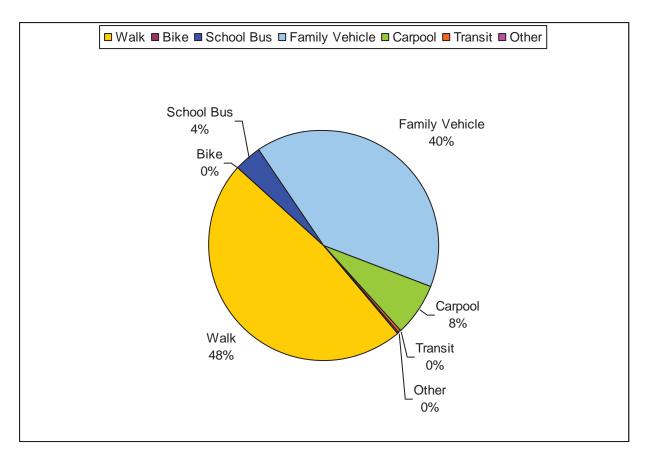
and students raise their hand for the teacher to count which mode they used or intend to use. These surveys were conducted on Tuesday, Wednesday and Thursday during the weeks of January 21 and February 4, 2008. Weather during these two weeks ranged from the upper 20s to the upper 30s for the am and pm during week 1 and the upper 40s to the upper 50s for the am and pm of week 2 with rain falling on only one afternoon. The data from each classroom was tallied and analyzed, using the National Center for Safe Routes to School's "Data Tools" System<sup>11</sup>, to reveal the number and average/percentage of students that traveled by each mode. A morning and afternoon comparison was also done to compare whether or not students are using the same mode of travel that they use to arrive as they use to get home.

On average, 48% of students walk, 40% are driven and the remaining 12% travel by school bus or carpool.

A summary of results from these surveys are noted on the following pages:



<sup>&</sup>lt;sup>11</sup> www.saferoutesinfo.org/tracking

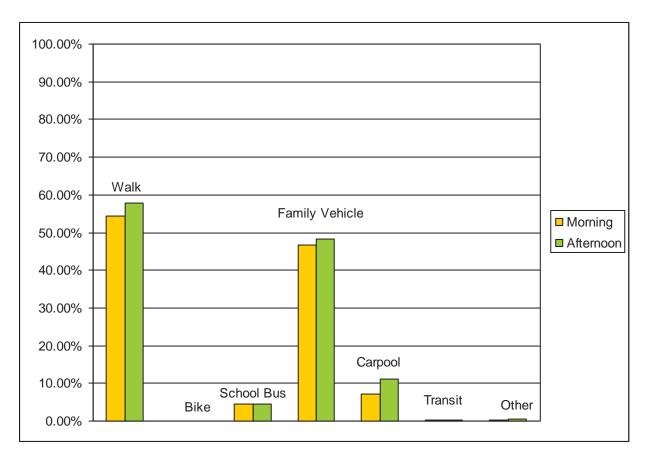


#### Students Traveling by each Mode (averaged across all reported days)

	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Average	107.17	0.00	8.50	90.83	16.83	0.33	0.67
Percent	47.77%	0.00%	3.79%	40.49%	7.50%	0.15%	0.30%

Average daily number of students: 224.33

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## Morning to Afternoon Travel Mode Comparison (by percent)

	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Morning	54.46%	0.00%	4.39%	46.75%	7.11%	0.15%	0.15%
Afternoon	57.87%	0.00%	4.50%	48.26%	11.04%	0.20%	0.61%

	Number of Students	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Tues AM	195	109	0	12	77	13	1	0
Tues PM	126	74	0	8	38	20	0	0
Wed AM	269	139	0	11	132	18	0	0
Wed PM	190	101	0	9	101	16	0	0
Thur AM	197	112	0	6	100	16	0	1
Thur PM	173	108	0	5	97	18	1	3

#### Summary Table (Totals)

### Summary Table (Percentages)

	Number of Students	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Tues AM	212	51.42%	0.00%	5.66%	36.32%	6.13%	0.47%	0.00%
Tues PM	140	52.86%	0.00%	5.71%	27.14%	14.29%	0.00%	0.00%
Wed AM	300	46.33%	0.00%	3.67%	44.00%	6.00%	0.00%	0.00%
Wed PM	227	44.49%	0.00%	3.96%	44.49%	7.05%	0.00%	0.00%
Thur AM	235	47.66%	0.00%	2.55%	42.55%	6.81%	0.00%	0.43%
Thur PM	232	46.55%	0.00%	2.16%	41.81%	7.76%	0.43%	1.29%



## Neighborhood Mapping

Following the data collection, the project team arranged to meet any available members of the Task Force at the Ivy Hill Elementary School to perform a field investigation around the school. This field investigation was conducted on March 10, 2008 from 1:30pm to 3:45pm to observe dismissal at the Ivy Hill Elementary School. Summaries and results of these collection efforts and field investigation are as follows:

The weather conditions on this day were clear, partially sunny, temperature in the 40's.

## **Observations of the Physical Conditions/Built Environment**

Observations were made of the physical conditions (built environment) all around the school; parking patterns and restrictions; auto and foot traffic and circulation. Special note was taken of the three traffic/crossing hot spots noted by the Principal at the program awareness meeting:

- Ellery Avenue and Ivy Street
- Richelieu Terrace and Ivy Street
- Sanford Avenue and Ivy Street

# Observations Noted at Dismissal

School dismissal was orderly. The area in front of the school on Ivy Street between Richelieu Terrace and Ellery Avenue seemed to be the most congested. For a short time cars had parked and double-parked within the striped no parking zone. This had resulted in thru traffic maneuvering around the standing cars.

On the sidewalk in front of the no parking area, students descending the steps from the front door of the school had collected. They appeared to be waiting for a ride, their friends, or someone to walk them home. There were also two small school buses that pick children up from this area. The sidewalk here is only about 5 feet wide with a 2 foot dirt buffer from the street. The buffer could also be improved with tree plantings to enhance the landscape of the school environment. The front lawn of the school is separated from the sidewalk by a cyclone fence. If the fence were moved back closer to the school, the sidewalk could be expanded here to make more room for the students. The idea would not be to encourage more pick-ups in this area; rather to give a few more feet to make the area safer and more comfortable for the students. Currently, school personnel (on this day two women) block the students from running out or being pushed out onto the street.

Enforcement of the striped no parking zone needs to be (re)enforced - movable cones may help.



Some students were being picked up by people waiting in cars parked on the side streets of Richelieu Terrace and Ellery Avenue. However, there were no double parked cars on these streets during dismissal. Observing from the corner of Richelieu Terrace and Ivy Street, it was noticeable that students were walking down Ivy Street toward Sanford Avenue. Students here were also crossing Sanford Avenue. There appeared to be an increase in traffic at the corner at this time. More students walked down Ivy Street to Sanford Avenue than down Richelieu Terrace toward Varsity Avenue.

At the corner of Ellery and Ivy, parents were parked outside of the school entrance in an orderly manner, using a self-imposed pull-up process; however, there were a few parents that stopped in the middle of the street and motioned for their children to come to the car. From this corner, it appeared that students were walking from nearby schools to pick up their siblings. A security guard is dedicated to this post everyday.

## Additional Observations Around Ivy Hill Elementary School

- School is in the middle of a residential area it is surrounded by homes
- Streets are narrow. All the streets bordering the school are one-way streets with the exception of Ivy Street, which is a two-way.
- Green/yellow fluorescent school signs mark the area immediately surrounding the school
- Rumble strips are on Ivy, Richelieu and Ellery streets.
- Crosswalks are zebra striped.
- There is the potential for a possible drop-off/pick-up zone. A narrow patch of space (grassy area) between the school and sidewalk is fenced in on Ellery Ave. The fence could be moved back here to create a safe waiting zone for kids waiting to be picked up by motorists.
- Traffic around the school in the early afternoon appears to be mainly local. The traffic was light no buses or trucks were observed on this day.
- Sidewalks are 4-5 feet in width, in good to fair condition; and are bordered by a 2-foot dirt/grass or paved area aligned with the curb.
- Mature trees line the sidewalks very attractive.
- The area around this school was traffic calmed a few years ago with rumble strips, signs and zebra striped crosswalks. There are no plans at this time for additional treatments.
- There are no bicycle accommodations provided to or around this school and none are currently planned.
- At the corner of Sanford Ave. & Ivy St. Sanford is a 4-lane (plus parking) county road – traffic volumes and travel speed is higher; buses and trucks are present. Pedestrian head signals are located on all 4-corners but there are no pedestrian pushbuttons activated at this intersection. Jack Nata from Newark's Engineering Department stated that it would be up to Essex County – as would any



improvements on Sanford Avenue since it is a county road. The crosswalks here are the basic 2-parallel white stripes.

• The NJ Tree Foundation and the Greater Newark Conservancy have partnered with Ivy Hill School to plant trees and planting barrels in the neighborhood around the school as part of Newark's Tree Management Plan.

## Community Workshop

The final step in Ivy Hill's information-gathering process was a community workshop, sponsored by the New Jersey Department of Transportation. The workshop took place at the Ivy Hill School (107 Ivy Street) on May 15, 2008 from 4 to 7 pm and included parents/caregivers, teachers, police and community leaders, each taking part in a hands-on brainstorming process about resources to make students' trips to school safer and one that they might prefer to make on foot instead of in a car.

Although the three-hour community workshop was held late in the day, the project team got an early start and spent the entire school day with students, observing arrival and dismissal and in a classroom session getting their perspective on their trip to school. The student perceptions set the context for the evening's discussion.

## Student Arrival

The day of the workshop began at 7:45 am in front of Ivy Hill Elementary School. The project team was present to observe student arrival. Capturing video of the students was not permitted by the school, so project team members walked the school campus, adjacent streets, chatted with school personnel, and observed the interaction of parents and students, motor vehicles and pedestrians. No students traveled on bicycle.

To sum up what we observed: Student arrival was very orderly. Parents dropping off their children (mostly) used the designated location on Richelieu Terrace. This location was designated because it is a low traffic, one way street, and students can gather in a supervised location (the playground) before being let into school. On the morning of the workshop Principal Barton greeted students at the curb and monitored the playground.

Based on our observation of student arrival on May 15, 2008, we have identified three areas of concern—already documented extensively in the Preliminary Needs Assessment report—which, nevertheless, require brief mention in this summary:

- 1. Parents discharging students in front of the school, on Ivy Street. This is not the designated drop off zone.
- 2. The crosswalk at the intersection of Ivy Street and Ellery Avenue (crossing Ivy Street) is rarely respected by motorists. The adjacent crosswalk (crossing Ellery Avenue) is often violated by drivers—who have a stop sign—so that they may



glimpse oncoming traffic. Parked cars and sidewalk vegetation obstruct the field of vision.

3. The signalized intersection at Ivy Street and Sanford Avenue. Though there are pedestrian signal heads and marked crosswalks, students crossing to the middle school or Ivy Hill Elementary School are often threatened by turning traffic. There is, on occasion, a police officer posted at this location who acts as a crossing guard. The officer is there (on average) twice a week; students we interviewed want him there every day.

### **Classroom Session**

At 9:30 am, the project team joined Ms. Carlisle's 4<sup>th</sup> grade class to talk about the journey to school. Towards the end of the classroom session, Principal Barton arrived to participate. The students were asked about problem spots in the neighborhood. They were asked about why walking is important. Several students made unsolicited comments about bicycle riding in the neighborhood. With respect to conditions for bicycling, apart from the complaints about the heaves in the sidewalks and inattentive drivers, the most common complaint made by students was about the lack of secure bicycle parking; several were enthusiastic about the possibility of bicycle lanes. The classroom session lasted 75 minutes.

## Student Dismissal

At 3:00 pm, the project team returned to Ivy Hill Elementary School and spent some time observing student dismissal. Dismissal had a few problems, but overall the exit of students was very orderly. (Note: a week prior to the workshop, the Principal initiated changes to disburse the students among three exits — as opposed to sending them all to the front door.) School security personnel were on location to act as crossing guards and referees for students. By 3:25 pm it was all quiet. It should be noted that it is standard practice at this school to have security personnel assist with students at arrival and dismissal because of the lack of crossing guards.

## Community Workshop

At 4:00 pm the workshop officially began. Eight 5<sup>th</sup> grade students from an after school program (The Citizen Schools) participated in an exercise similar to that of the morning's students. All of them walk to school, most doing so daily. The results were much the same. Students felt very safe walking in the immediate neighborhoods. (Only when pressed did they identify some problems with personal safety.)

Primary threats identified by the students were: cars ignoring stop signs, drivers not respecting the crosswalk, and the occasional negative person encountered on the walk. Two students gave a short summary for the audience and did an excellent job.



The project team gave a presentation on the history of SRTS and what efforts NJDOT has underway at the moment and facilitated audience introductions. The professional community was well-represented; parent participation was somewhat sparse — in spite of food, heavy promotion by school staff, and mention on the school's billboard. (Most of the students we interviewed that morning were aware of the evening's workshop. We took the opportunity to invite them.)

The project team gave an hour-long interactive PowerPoint presentation on Safe Routes to School. The presentation was punctuated by the frequent and (often) insightful contributions of the Principal; others in attendance also contributed to presentation discussion. The presentation consisted of five parts: 1) Incomplete infrastructure; 2) Traffic; 3) Traffic control signals and intersections; 4) Land use; and 5) Personal safety and comfort. All of this was prefaced by a discussion of existing conditions and the rationale for undertaking a SRTS program.

At the conclusion of the presentation the group entered into a discussion about what should be done, who should undertake the work, and when it will happen. Very early on the in workshop Principal Barton suggested that a task force of parents, teachers, and others, assemble to issue recommendations on a Safe Routes to School program for Ivy Hill. It was thought that an endorsement by the neighborhood association would give any recommendations added clout.

The group made four recommendations for priority action. Those are:

- 1. Install stop signs at the intersection of Ivy Street and Richelieu Terrace. There is only a crosswalk across Richelieu, and no stop signs for traffic on Ivy Street. This is the busiest corner for pedestrians and motor vehicles.
- 2. Traffic calming on neighborhood streets. Speed humps were specifically recommended. The treatments that have recently been added to the streets around Orange Park were cited by community members as an effective example.
- 3. Adding school zone flashing beacons on Ivy Street one block on either side of the school. Lincoln school, several blocks away, has already received this treatment.
- 4. Improving the intersection of Ivy Street and Sanford Avenue.

While it didn't make the list of the top four priorities, there was a great deal of enthusiasm and desire for the idea of more parental involvement at "hot spots" in Ivy Hill's catchment area. It was pointed out by several workshop attendees that parent patrols have been successfully implemented at other schools in the district. *Hot Spots* were defined as areas around liquor or grocery stores, areas where older students congregate, and locations where men loiter and make vulgar comments to young girls who attend Ivy Hill Elementary School. Workshop participants mentioned an existing neighborhood watch



program in Newark involving parents organized into patrols around the school area; it was noted that these volunteers were equipped with walkie-talkies to facilitate communications.

Principal Barton, on several occasions throughout the day, took the opportunity to promote the idea of student travel patterns. In essence, these would be designated walking routes for students of Ivy Hill. These routes would utilize the safest crossings, they would steer students away from snacking temptations, and they would result in safety improvements due to more children walking together and more timely arrivals to school.

At the conclusion of the workshop, the project team captured the recommendations of workshop participants for inclusion in the final report, and critical local contacts (resources) were identified for those present who wanted to take immediate action.

#### **Preliminary Recommendations**

Recommendations, where appropriate, are provided as options for the Ivy Hill School to consider while implementing its Safe Routes to School plan.

### Engineering

- Move fence back widen sidewalk at 2 locations
  - In front of school on Ivy Street
  - At side of the school on Ellery Avenue
- Create parent drop-off zone along eastbound Ivy Street between Kerrigan Boulevard and Ellery Avenue.
- Construct new driveway for pull-up/pick-up zone along Ellery Ave.
- Provide high visibility crosswalks within the school zone.
- Traffic Calming (horizontal and/or vertical elements) along Ivy Street within the school zone.
- Clearly define and enhance school zones along Ivy Street between Eastern Parkway and Stuyvesant Avenue with reduced speed limit and strong yellow-green school advance warning signs.
- Provide Gateway Treatments on Ivy Street at Eastern Parkway and Stuyvesant Avenue.
- Install pedestrian pushbuttons and pedestrian signal heads with countdown timers at the intersection of Sanford Avenue and Ivy Street.



- Consider forced Street Closure during morning and afternoon school dropoff/pickup may be appropriate on Ivy Street between Ellery Avenue and Richelieu Terrace.
- Enhance/designate school routes with signs, pavement markings or in-ground medallions/wayfinding markers.

### Education

- Conduct community wide outreach, possibly with flyers detailing SRTS programs and benefits. This could help to reach both school families and the general population.
- The neighborhood should be informed of any designated school routes, and priority given to helping those who need assistance with snow removal or other sidewalk maintenance.
- The health benefits of conducting a SRTS program should be included in teacher training programs and in the student curriculum.
- Parents and students should be educated about the established drop off and pick up procedures. Walking school bus options should be distributed to school families.
- School walking event information could be circulated with municipal utility or tax bills. This would help to reach all residents, not just the families with students currently in the school system. The school newspapers could also be utilized as a means to circulate information about major events.

## Encouragement

• The City should define recommended walking routes between major residential areas and the school. This would passively encourage families to have the students walk more often. The recommended walking routes could be displayed both on

paper maps that can be easily shared with the school community and installed physically on the ground with pavement markings, and/or with signs.

• Conduct a bicycle rodeo. This could include stations about bicycle safety, helmet and bicycle fit, rules of the road, handling skills and numerous other safety topics.





- Develop a Safe Routes to School Committee that will lead the effort to expand school access safety and coordinate preparing any grant applications and administering the SRTS program.
- Prepare for and participate in the International Walk to School Days.
- Conduct a preference survey to determine what families would like to see and have available as choices for their school commute.
- Establish walking school buses. (Safety in numbers! Walk with family and other students.)
- Establish "Frequent Walker Card" system. This is similar to "Frequent Flyer Mile" programs, and can be a great motivator.
- Consider establishing a "Golden Sneaker" award that would be circulated between the classrooms that achieve the highest participation rates for walking or bicycling to school. This will require ongoing travel mode surveys. Some schools opt for a "stinky sneaker" alternative – students should choose what will be a better motivator.
- The City could consider taking on snow removal responsibility along identified routes to school.

# Enforcement

- Clear parking regulation signs should be posted at all intended drop-offs and pick-up locations at each school to better define and support the drop off and pick up procedures. This helps to keep motorists self enforced, without excessive police presence required or misunderstanding or confusion in the school area roadways.
- Consider issuing warnings, rather than citations for first offenses once school routes are established and shared with the community. Include education materials about the dangers of speeding or other violations, especially in the school area.









- Police could conduct a series of pedestrian stings, to strongly reinforce that Newark takes its motor vehicle laws and pedestrian rights seriously. This should be considered to be repeated approximately every six weeks until driver behavior is perceived to be more respectful of pedestrian's right to travel safely.
- Police presence should continue to be maintained at major pedestrian crossing locations such as Ivy Street and Sanford Avenue. This will help to passively encourage drivers to obey the laws, and expect that they are being monitored.
- Police should also work within the school system to educate students on bicycle and pedestrian safety.



- Lower speed limit on Ivy Street in school zones.
- Prioritize/enhance police presence in areas of loitering and undesirable behavior in the school neighborhood during school commute times. Encourage police to walk or bike these routes.

#### Evaluation

- Conduct a survey to define mode choice (number and percentage of students who walk or bicycle to school) so that there is a base line to reference when assessing the success of future efforts.
- Conduct school commute time parking studies to evaluate effectiveness of SRTS programs.
- Conduct a preference survey to determine what families would like to see and have available as choices for their school commute.
- Conduct tracking exercises for distances students walk both on-line and in the classroom.



## **Photo Documentation**

### IVY HILL ELEMENTARY SCHOOL



Traditionally striped crosswalk at Ivy Street and Sanford Avenue



Traditionally striped crosswalk at Varsity Road and Richelieu Terrace

Traditionally striped crosswalk at Sanford Avenue and Underwood Street

Parent pick-up in the middle of Ellery Street







(J358308\_Ivy Hill\_Travel Plan\_rev-9-12-08/G)



m association with National Center For Bicycling and Walking Voorhees Transportation Center



Parents parked in the "no parking" school bus zone

Limited space on sidewalk for children waiting for school bus pick-up in front of the school





Adult entertainment business along Sanford Avenue





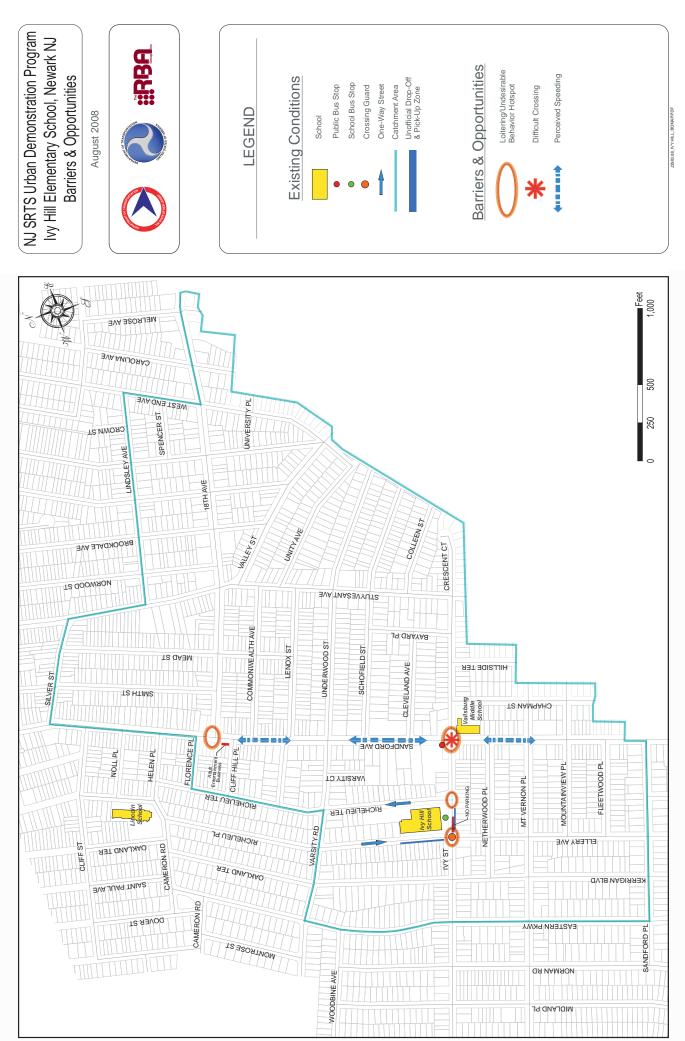
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## MAPS OF THE SCHOOL NEIGHBORHOOD

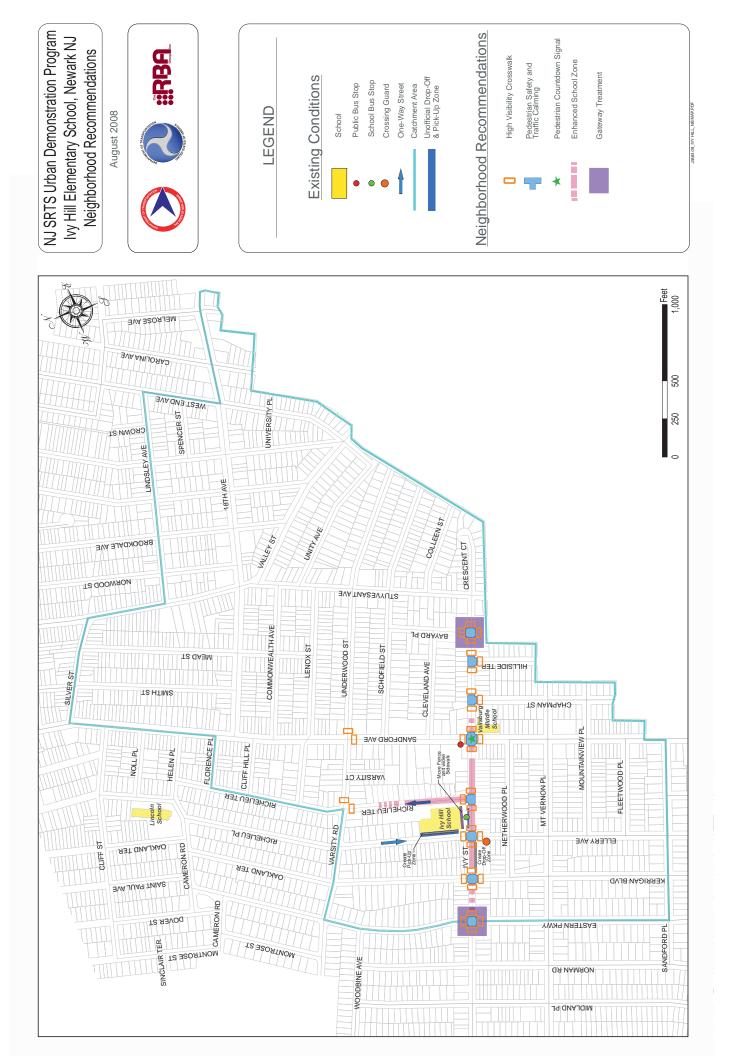
The maps in this section illustrate the existing conditions in the neighborhood of the Ivy Hill Elementary School, the barriers and opportunities students face walking to school, and some neighborhood recommendations to improving facilities so their trips are safer.

Map 1. Barriers and Opportunities

Map 2. Neighborhood Recommendations



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## ACTION PLAN

This plan of action for implementing the Ivy Hill Elementary School SRTS program is intended to increase safety for students on their walk to and from school and when appropriate, encourage more students to walk. The table below identifies those actions, a responsible party for implementing them, a time frame and a level of cost.

### Engineering

Action	Responsibility	Time Frame	Cost
Provide high visibility crosswalks within	Municipality/	Short-	Low
the school zone.	County	Term	
Install pedestrian pushbuttons and	Municipality/	Short-	Medium
pedestrian signal heads with countdown	County	Term	
timers at the intersection of Sanford			
Avenue and Ivy Street.			
Cleary define and enhance school zones	Municipality/	Short-	Low
along Ivy Street between Eastern	County	Term	
Parkway and Stuyvesant Avenue with			
reduced speed limit and strong yellow-			
green school advance warning signs.			
Consider forced Street Closure during	Municipality	Short-	Low
morning and afternoon school drop-		Term	
off/pickup may be appropriate on Ivy			
Street between Ellery Avenue and			
Richelieu Terrace.	0.1.1/		
Create parent drop-off zone along	School/	Short-	Low
eastbound Ivy Street between Kerrigan	Municipality	Term	
Boulevard and Ellery Avenue.	0.1.1/	01	2.6.11
• Move fence back – widen sidewalk at 2	School/	Short-	Medium
locations:	Municipality	Term	
• In front of school on Ivy Street			
• At side of school on Ellery Avenue	0.1.1/	01 /	
Construct new driveway for pull-	School/	Short-	Medium
up/drop-off zone along Ellery Avenue.	Municipality	Term	
Pedestrian safety and traffic calming	Municipality	Short-	Medium
improvements (Horizontal and/or		Term	
vertical elements) along Ivy Street within the school zone.			
Enhance/designate school routes with	Municipality	Short-	Low
signs, pavement markings or in-ground	manerpunty	Term	2011
medallions/wayfinding markers.			



#### Education

Action	Responsibility	Time Frame	Cost
• Conduct community wide outreach, possibly with flyers detailing SRTS programs and benefits. This could help to reach both school families and the general population.	School/ Municipality	Short- Term	Low
• The neighborhood should be informed of any designated school routes, and priority given to helping those who need assistance with snow removal or other sidewalk maintenance.	Municipality	Short- Term	Low
• The health benefits of conducting a SRTS program should be included in teacher training programs and in the student curriculum.	School/ PTO	Short- Term	Low
<ul> <li>Parents and students should be educated about the established drop off and pick up procedures.</li> </ul>	School/ Municipality	Short- Term	Low
Walking school bus options should be distributed to school families.	School/ Municipality	Short- Term	Low
<ul> <li>School walking event information could be circulated with municipal utility or tax bills. This would help to reach all residents, not just the families with students currently in the school system. The school newspapers could also be utilized as a means to circulate information about major events.</li> </ul>	School/ Municipality	Short- Term	Low



### Encouragement

Action	Responsibility	Time Frame	Cost
<ul> <li>The City should define recommended walking routes between major residential areas and the school. This would passively encourage families to have the students walk more often. The recommended walking routes could be displayed both on paper maps that can be easily shared with the school community and installed physically on the ground with pavement markings, and/or with signs.</li> </ul>	School/ Municipality	Short- Term	Low
<ul> <li>Conduct a bicycle rodeo. This could include stations about bicycle safety, helmet and bicycle fit, rules of the road, handling skills and numerous other safety topics.</li> </ul>	PTO/School/ Municipality	Mid- Term	Low
<ul> <li>Develop a Safe Routes to School Committee that will lead the effort to expand school access safety and coordinate preparing any grant applications and administering the SRTS program.</li> </ul>	School/ PTO	Short- Term	Low
Prepare for and participate in the     International Walk to School Days.	School/PTO Municipality	Short- Term	Medium
<ul> <li>Conduct a preference survey to determine what families would like to see and have available as choices for their school commute.</li> </ul>	School	Short- Term	Low
<ul> <li>Establish walking school buses. (Safety in numbers! Walk with family and other students.)</li> </ul>	PTO/ School	Mid- Term	Low
• Establish "Frequent Walker Card" system. This is similar to "Frequent Flyer Mile" programs, and can be a great motivator.	PTO/ School	Short- Term	Low



Action	Responsibility	Time Frame	Cost
<ul> <li>Consider establishing a "Golden Sneaker" award that would be circulated between the classrooms that achieve the highest participation rates for walking or bicycling to school. This will require ongoing travel mode surveys. Some schools opt for a "stinky sneaker" alternative – students should choose what will be a better motivator.</li> </ul>	School	Short- Term	Low
• The City could consider taking on snow removal responsibility along identified routes to school.	Municipality	Mid- Term	Medium

### Enforcement

Action	Responsibility	Time Frame	Cost
<ul> <li>Clear parking regulation signs should be posted at all intended drop-offs and pick- up locations at each school to better define and support the drop off and pick up procedures. This helps to keep motorists self enforced, without excessive police presence required or misunderstanding or confusion in the school area roadways.</li> </ul>	Municipality/ School	Mid- Term	Low
<ul> <li>Consider issuing warnings, rather than citations for first offenses once school routes are established and shared with the community. Include education materials about the dangers of speeding or other violations, especially in the school area.</li> </ul>	Municipality/ Police	Short- Term	Low
<ul> <li>Police could conduct a series of pedestrian stings, to strongly reinforce that Newark takes its motor vehicle laws and pedestrian rights seriously. This should be considered to be repeated approximately every six weeks until driver behavior is perceived to be more respectful of pedestrian's right to travel safely.</li> </ul>	Police	Short- Term	Medium



#### IVY HILL ELEMENTARY SCHOOL, NEWARK, NJ SAFE ROUTES TO SCHOOL TRAVEL PLAN

Action	Responsibility	Time Frame	Cost
<ul> <li>Police presence should continue to be maintained at major pedestrian crossing locations such as Ivy Street and Sanford Avenue. This will help to passively encourage drivers to obey the laws, and expect that they are being monitored.</li> </ul>	Police	Short- Term	Low
<ul> <li>Police should also work within the school system to educate students on bicycle and pedestrian safety.</li> </ul>	Police/ School	Short- Term	Low
Lower speed limit on Ivy Street in school zones.	Municipality	Short- Term	Low
<ul> <li>Prioritize/enhance police presence in areas of loitering and undesirable behavior in the school neighborhood during school commute times. Encourage police to walk or bike these routes.</li> </ul>	Police/ School	Short- Term	Low

#### Evaluation

Action	Responsibility	Time Frame	Cost
• Conduct a survey to define mode choice (number and percentage of students who walk or bicycle to school) so that there is a base line to reference when assessing the success of future efforts.	School/ PTO	Short- Term	Low
<ul> <li>Conduct a preference survey to determine what families would like to see and have available as choices for their school commute.</li> </ul>	School/ PTO	Short- Term	Low
• Conduct school commute time parking studies to evaluate effectiveness of SRTS programs.	School/ PTO	Short- Term	Low
Conduct tracking exercises for distances students walk both on-line and in the classroom.	School/ PTO	Short- Term	Low



#### IVY HILL ELEMENTARY SCHOOL, NEWARK, NJ SAFE ROUTES TO SCHOOL TRAVEL PLAN

Note: Engineering projects defined as "short -term" are generally high priority, critical connections, or projects that do not require an intensive design effort. "Long-term" projects are either lower priority or will require additional design efforts to prepare construction documents and bid the projects. Programmatic actions may require target dates for implementation. Projects estimated to be "low cost" are generally "short term" projects that may include signing and striping or other low-impact construction activities. A "high cost" project would generally be considered "long term" and would include activities like roadway reconstruction, utility relocation, and projects that have right-of-way impacts.

*Non-engineering projects costs are based on the anticipated labor effort and are generally defined as: Low = less than 2 days, Medium = 2-5 days, High = More than one week.* 





#### IVY HILL ELEMENTARY SCHOOL, NEWARK, NJ SAFE ROUTES TO SCHOOL TRAVEL PLAN

#### PROGRAM EVALUATION AND MONITORING

Utilizing the NJDOT SRTS Toolbox Fact Sheet, "EVALUATING YOUR SRTS PROGRAM" as a guide, Ivy Hill Elementary School will conduct classroom/student hands-up travel pattern surveys and parent/caregiver take-home attitudinal surveys to evaluate its SRTS Program over time.

<u>Travel Mode Surveys</u> – Ivy Hill Elementary School will measure the number of children walking and bicycling to school by conducting Travel Mode Surveys once a year. For younger aged children, the teacher could incorporate the survey in the lesson plan and by asking for raised hand responses and tabulating the overall classroom results with the students in a bar chart. The results will be evaluated yearly to show if there has been a shift in the number of children walking and bicycling to school.

<u>Parent/Caregiver Survey</u> – Ivy Hill Elementary School will administer a take-home survey to determine, from a parent/caregiver perspective, the overall environment for walking and biking, why children do not walk or bike to school, and how attitudes change as a result of SRTS Programs.

Other program evaluation methods can include monitoring the timing of drop-off dynamics around the school, parking studies, and distance tracking exercises. These methods are described further in the ACTION PLAN section of this Plan.

\*Ivy Hill Elementary School will utilize the services of the Voorhees Transportation Center at Rutgers University to tabulate survey data.



# **APPENDIX A**

# SAMPLE JOINT RESOLUTION BETWEEN CITY AND BOARD OF EDUCATION



(J358308\_Ivy Hill\_Appendices/G)

m association mito National Center For Bicycling and Walking Voorhees Transportation Center

#### RESOLUTION SUPPORTING THE IVY HILL ELEMENTARY SCHOOL SAFE ROUTES TO SCHOOL PROGRAM

**WHEREAS**, the Ivy Hill Elementary School participated in a Safe Routes to School Urban Demonstration Program sponsored by the New Jersey Department of Transportation and an Action Plan was developed, and

**WHEREAS**, the City, School Board and the Safe Routes to School Task Force have reviewed and support the Action Plan elements, and

**WHEREAS**, the Safe Routes to School Program will support and encourage students to walk and bike to school through on-going programs, and through improvements to the walking and biking environment, and

WHEREAS, the Safe Routes to School Program will support and encourage increased parent education and community involvement, decrease the amount of traffic near the schools, and encourage children to be independent and healthy, and

**WHEREAS**, the Safe Routes to School Program provides a means to pursue public policy goals related to:

- Reducing traffic congestion around schools
- Creating safer, calmer streets and neighborhoods
- Improving air quality and providing a cleaner environment
- Increasing physical activity for children
- Fostering a healthier lifestyle for the whole family, and

WHEREAS, the Safe Routes to School Program will support objectives such as:

- Teaching age-appropriate walking and bicycle traffic safety skills routinely in school and offering special events such as Walk and Bike to School Days, and other encouragement models including classroom participation and contests
- Providing opportunities for the community to participate in developing plans for making streets, sidewalks, pathways, trails, and crosswalks safe, convenient and attractive for walking and bicycling to school
- Enforcing all traffic laws near schools and on school routes, and in other areas of high pedestrian and bicycle activity
- Applying the use of human and technological resources, including volunteers, to provide routes to school that feel secure to both parents and children alike, and

**WHEREAS**, there will be participation by school and district administrators, teachers, students parents, and municipal and community representatives to implement the Safe Routes to School Program; now therefore, be it

**RESOLVED**, the Ivy Hill Elementary School Council and Ivy Hill Elementary School Board of Education jointly endorse the Safe Routes to School Program for the Ivy Hill Elementary School.



# **APPENDIX B**

# SAFE ROUTES TO SCHOOL PLEDGE TO STUDENTS



#### Safe Routes to School Pledge to Ivy Hill Elementary School Children

#### Take the Pledge

In the last 30 years, our children have lost a lot of the freedom and independence they once had to explore our neighborhoods. As we have designed our communities around automobiles, activities like walking or bicycling to school have declined dramatically. *We believe it's time for a change. We pledge that by the time the kindergarten class of 2008 graduates high school, the majority of school trips will once again be made safely by foot or bicycle.*<sup>1</sup>

To our children, we pledge to make your health and safety our number one priority, including to:

- Make the streets safe, convenient and attractive enough to let you walk or bicycle to schools.
- Ensure the streets around your schools have frequent, safe places to cross.
- Drive slowly through school zones.
- Enforce traffic laws in school zones and neighborhoods to slow down motor vehicle traffic.
- Locate schools within walking and bicycling distance of as many pupils as possible.
- Reduce the amount of traffic around your schools.
- Provide secure bicycle parking at your schools.
- Teach traffic safety skills routinely throughout your school career: first as a pedestrian, next as a bicyclist, and then as a motorist.
- Encourage staff and students at your schools to walk and bicycle more often.

Signed (any combination of the following),

Mayor City Council City Manager/Administrator City Engineer/Public Works City Police

School District Board of Education School Principal School Teacher(s) School Nurse PTA/Parents/Caregivers

Community Liaison Other community groups

<sup>1</sup> Pledge to Children is based on the Active Living Resource Center's SRTS Pledge.

B-2

# **APPENDIX C**

# **SCHOOL SAFETY TIPS**



#### SCHOOL SAFETY TIPS...

...to help keep your children, your school and your neighborhood safe.<sup>1</sup>

#### Create and Maintain a School Safety Zone:

Police enforcement helps to ensure that criminal activities don't occur in or around schools, in part by increasing the penalties for such activities. But "School Zone" signs alone aren't enough; parents and other community residents need to be actively involved in creating safety zones.

#### **Parent Patrols:**

Parent patrols are an effective way of ensuring that the areas around our schools are free from crime. Parents, community residents and school staff monitor and observe all activities in and around schools and can serve as a powerful deterrent to criminal activity. Many schools now have Walking Schools Buses -- groups of children that walk to school under the care of a responsible adult -- to complement the activities of the Parent Patrols.

Get involved with your school's Parent Patrol or Walking School Bus or help organize one. Also, find out about your school district's court process. Parent groups can help ensure that the court system imposes stiff penalties for violations of School Zone laws.

#### Check Your Children's Route to School for Hazards:

Abandoned buildings, abandoned cars and uncleared vacant lots can pose a danger to your children. Not only can these seem to your children to be exciting places to play, they can often become centers for criminal activity. Another benefit of a Walking School Bus is that it can help to identify such conditions on your children's route to and from school and report them to the local police. Working together with the Police and other City agencies, you can ensure that these kinds of hazards are removed from your neighborhood.

#### Make Sure Your Children Are in School Every Day:

Youngsters are most likely to get into trouble when they are not in school when they should be. Try to sit down and have a 10-minute conversation with your children every day about what they did in school. Not only will this help you to ensure that your children are going to school, it can help you identify problems or challenges that your children may be facing and help them to address those problems. Also make sure that your children's school has a well-developed anti-truancy policy that can help you address truancy problems should they occur.

#### Ensure that Your Children Have Something to do and Somewhere to go After School:

There are a variety of activities available to broaden your children's interests and abilities as well as provide a safe place to be after school. Many New Jersey Public Schools offer afterschool programs and activities, in areas such as art, music and sports. In addition, local YMCA's or community recreation departments sponsor a wide range of activities at facilities throughout the city.



m association with National Center For Bicycling and Walking Voorhees Transportation Center

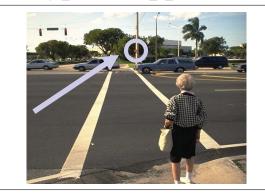
<sup>&</sup>lt;sup>1</sup> Adopted from City of Chicago School Safety Tips, <u>CityofChicago.org</u> (J358308\_Ivy Hill\_Appendices/G)

# APPENDIX D

# TYPICAL OPPORTUNITIES AND TREATMENTS



### **Typical Opportunities for Improvements**



#### LONG CROSSING DISTANCES

Long crossing distances prolong the exposure time of pedestrians to motorists and make it difficult to see the pedestrian signal head on the other side of the road.



#### PEDESTRIAN OBSTRUCTIONS

Obstructions in the pedestrian right-of-way impede pedestrian movement and safety.



#### LACK OF CURB CUTS

Sidewalks without curb cuts are an obstacle to parents with baby carriages as well as people with disabilities.



#### POOR MAINTENANCE

Without maintenance pedestrians can trip, it can be a liability issue, and people with disabilities can have trouble negotiating the area.



### **Typical Bicycle/Pedestrian Treatments**









#### SHARED-USE ROADWAY

Can be a safe for bicyclists when:

- Width is sufficient
- Speeds are low
- Traffic volumes are low

#### **BICYCLE LANE**

- Provides a safe and comfortable environment for bicyclists
- An area that is delineated, but not separated from the roadway
- Typically 4' wide with a bicycle stencil

#### SHARED USE PATH (TRAIL)

- Offers connections and opportunities not provided in the roadway system
- Can provide valuable connections and recreational opportunities
- Typically 8'-10' wide

#### **OTHER FACILITIES**

- Bicycle Lockers
- Bicycle Racks on Transit
- Bicycle Racks
- Bicycle Safety Programs





### **Typical Bicycle/Pedestrian Treatments**





### SIDEWALKS

- A portion of the road ROW for the preferential or exclusive use of pedestrians
- Typically at least 5' wide
- Should be free of obstructions along its width and 80" high

#### CROSSWALKS

- Provides a designated crossing point
- Helps provide more predictable pedestrian movements
- Alerts drivers to pedestrian areas



#### SIGNAGE AND STRIPING

- Can help define pedestrian realm
- Provide visual cues for pedestrians and motorists
- Can augment other facilities



#### AMENITIES AND AESTHETICS

- Lets pedestrians know area was designed for their use
- Helps provide a safe and comfortable environment
- Helps provide sense of "place"

Voorhees Transportation Center

### **Typical Bicycle/Pedestrian Treatments**







#### **CURB EXTENSION**

- Reduces Vehicle Speeds
- Reduces Pedestrian Crossing Distance
- Increases Pedestrian Visibility
- Protects Parking Area & Prevents Parking Close to Intersection

#### **FULL CLOSURE**

- Can be used to eliminate neighborhood cut-throughs
- Eliminates vehicular access
- Allows pedestrian and bicycle access and egress

#### MID-BLOCK CROSSING

- Reduces Vehicle Speeds
- Increases Pedestrians Visibility
- Reduces Pedestrian Crossing Distance
- Connects Pedestrian Generators

#### **RAISED MEDIAN GATEWAY**

- Provides Defined Entry
- Provides Cue to a Transition Area
- Aesthetically Pleasing
- Provides Pedestrian Refuge
- Reduction in Vehicle Speeds





### **Typical Traffic Calming Devices**

GATEWAY





#### CURB EXTENSION REDUCED TURNING

• Provides Defined Entry

• Aesthetically Pleasing

• Provides Cue to a Transition Area

- Reduces Vehicle Speeds
- Reduces Pedestrian Crossing Distance
- Increases Pedestrian Visibility
- Protects Parking Area & Prevents Parking Close to Intersection



#### RAISED

- Reduces Vehicle Speeds
- Increases Pedestrians Visibility
- Reduces Pedestrian Crossing Distance
- Provides Pedestrian Refuge



#### BIKELANE

- Reduces Vehicle Speeds
- Produces Designated Lane for Bicyclists
- Provides Additional Buffer for Pedestrians



### **Typical Traffic Calming Devices**







#### **RAISED MEDIAN**

- Provides Defined
- Provides Cue to a Transition
- Aesthetically
- Provides Pedestrian
- Reduction in Vehicle

#### PUBLIC

- Provides Identifiable
- Identifies Entry/
- Can Contribute to
- Aesthetically

#### TEXTURED

- Better Defines the Crossing Location for the Pedestrian
- May Reduce Pedestrian-Vehicle Conflicts
- Aesthetically Pleasing



#### TEXTURED

- Better defines parking
- Provides Consistency to linear
- Aesthetically





### **Typical Traffic Calming Devices**







#### **CURB EXTENSION**

- Reduces Vehicle Speeds
- Reduces Pedestrian Crossing Distance
- Increases Pedestrian Visibility
- Protects Parking Area & Prevents Parking Close to Intersection

#### **MEDIAN REFUGE**

- Reduces Vehicle Speeds
- Reduces Pedestrian- Vehicle Conflict
- Reduces Pedestrian Crossing Distance
- Improves Aesthetics if wellmaintained

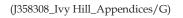
#### MID-BLOCK CROSSING

- Reduces Vehicle Speeds
- Increases Pedestrians Visibility
- Reduces Pedestrian Crossing Distance
- Connects Pedestrian Generators



#### **Sidewalks and Access**

- Simplifies Crossing Movement
- Reinforces pedestrian priority
- Improves visibility
- Provides safe accessibility





Voorhees Transportation Center

The preparation of this School Travel Plan was developed as part of the New Jersey Department of Transportation's Safe Routes to School (SRTS) Urban Demonstration Program.

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