

**New York City Department of Transportation
Office of School Safety Engineering**



School Safety Engineering Project

FINAL REPORT: Yeshiva Torah Temimah School, Brooklyn



**Prepared by
The RBA Group/Urbitran Associates**



OCTOBER 6, 2006

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Final Report: Yeshiva Torah Temimah School, Brooklyn**

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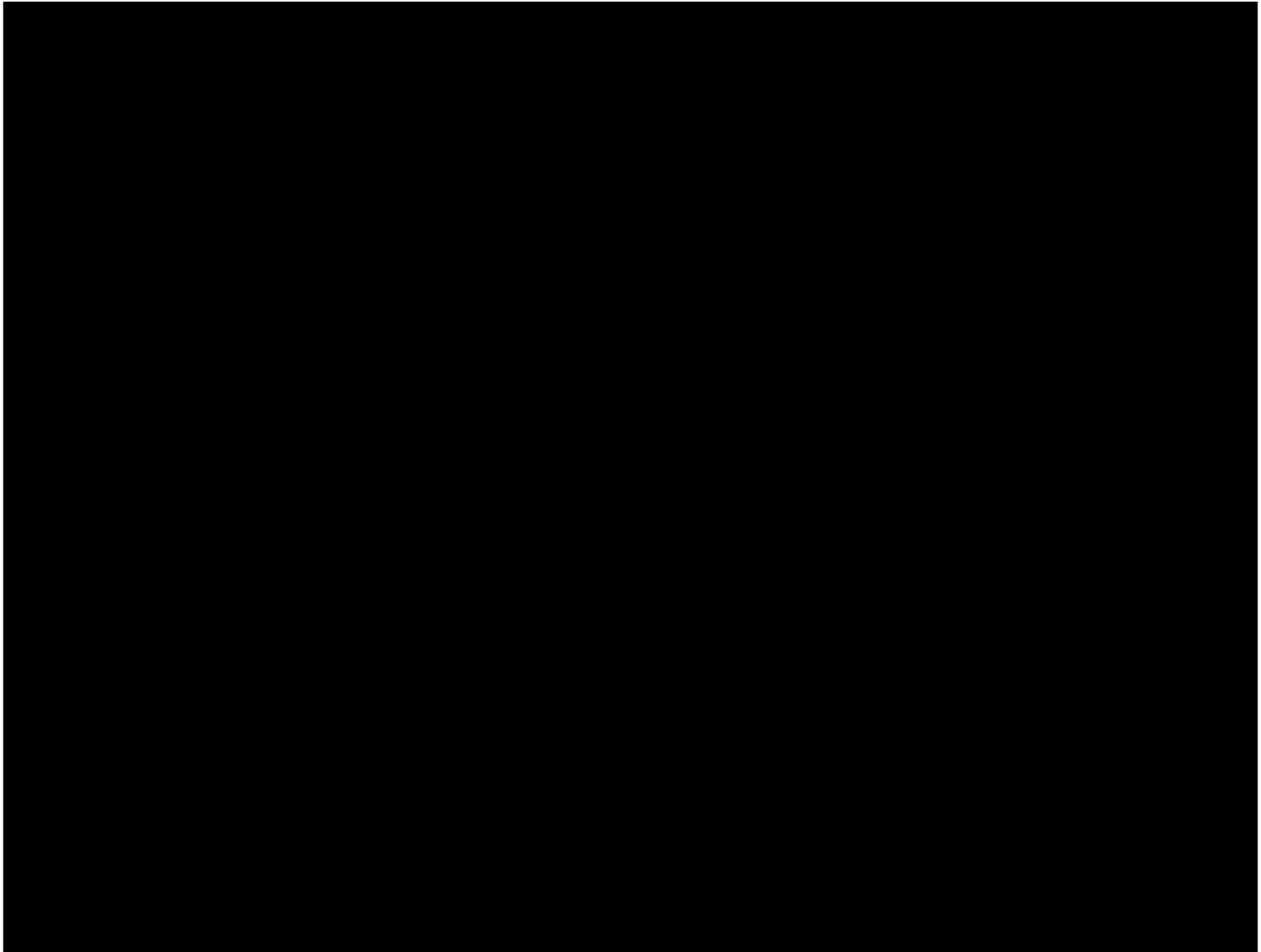
1. INTRODUCTION

1.1 PROJECT DESCRIPTION

The Department of Transportation has developed school safety maps for 1,471 schools throughout the City. Schools currently in the program are primarily elementary and intermediate schools with an enrollment of at least 250 students. The safety plans include the designation of official school crosswalks, identified by prominent warning signs and roadway markings. DOT also designates curbside locations for school bus loading and unloading and other parking controls to improve conditions for students. In addition, nearly 350 speed reducers (humps) have been installed in the immediate vicinity of schools.

Under this consultant study, the School Safety Engineering Project, accident data in the vicinity of all program schools was reviewed. As a result, schools were ranked in terms of pedestrian safety, and 135 “priority” schools were identified Citywide. At each of these priority schools safety improvements are being recommended (e.g., new school crosswalks, new traffic signals and signal timing modifications, new speed reducers). In addition, 32 of these schools will receive further investigation to design physical improvements (e.g., raised center medians, widened sidewalks, “neckdowns” or “bulbouts” at intersections). Yeshiva Torah Temimah School in Brooklyn is one of the 135 priority schools.

2. BACKGROUND—EXISTING CONDITIONS AND ANALYSIS



2.2 NEIGHBORHOOD DESCRIPTION

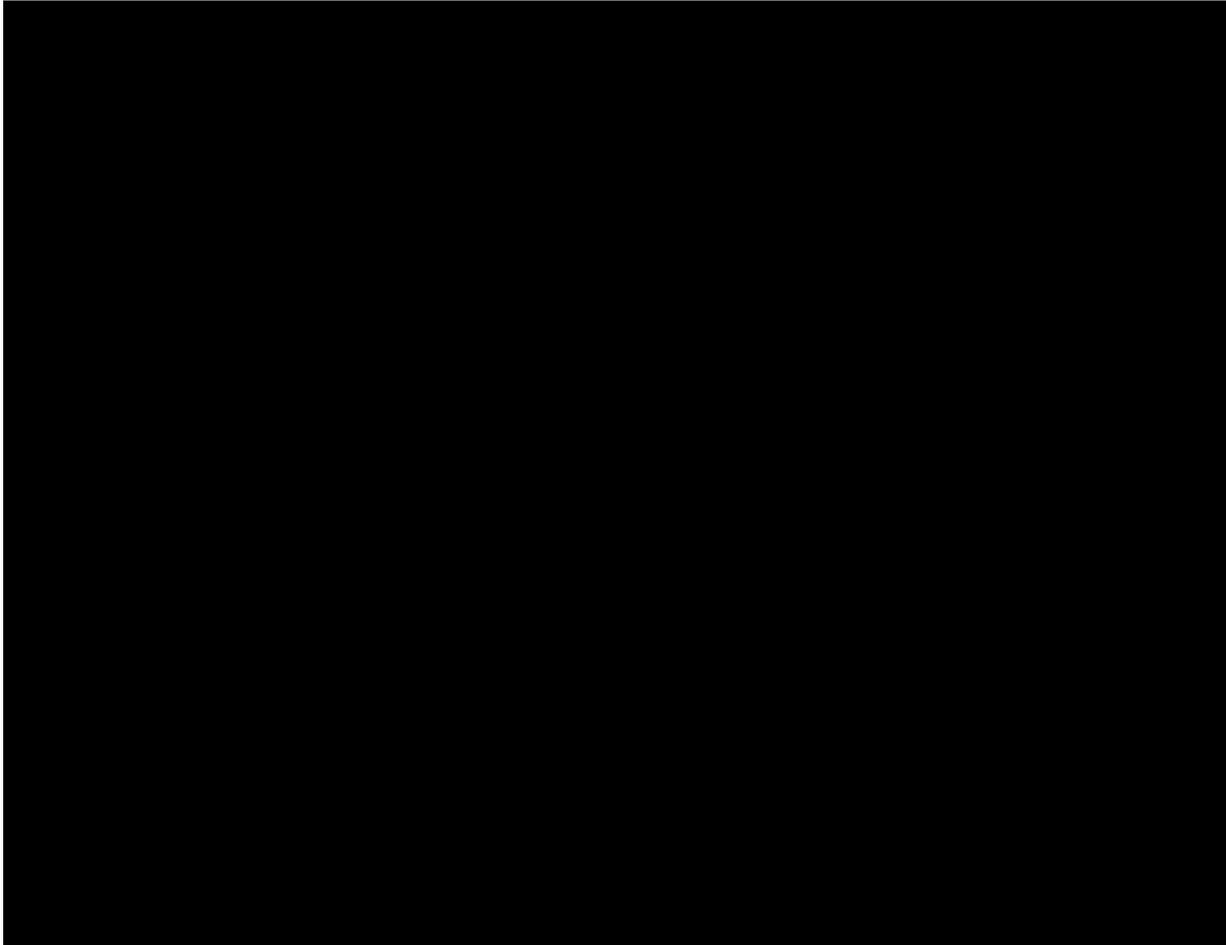
Yeshiva Torah Temimah School is located at 555 Ocean Parkway in Brooklyn, between Ditmas Avenue and 18th Avenue. Ocean Parkway is a main thoroughfare that runs between Brighton Beach to the south and Church Avenue to the north. Ocean Parkway consists of a mainline roadway, and north and south service roads, which are each one-lane roadways with parking on both sides (Figure 1). The area in the vicinity of is Yeshiva Torah Temimah is mostly a residential neighborhood consisting of 5-6 story residential buildings. (See Exhibit 1 for Aerial Photograph).

2.3 MEETING WITH SCHOOL REPRESENTATIVES

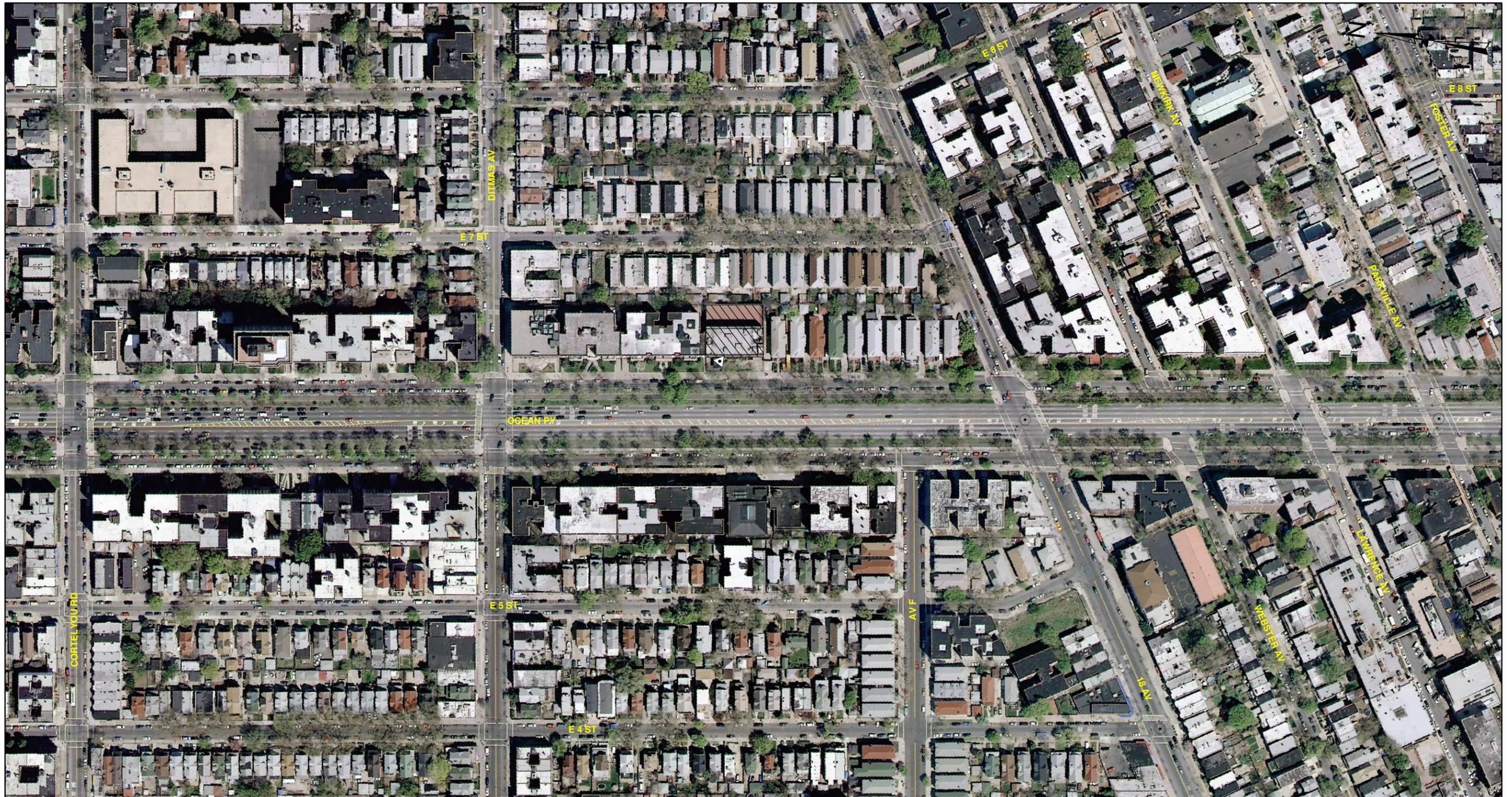
Representatives from the consultant team, 62nd Police Precinct, New York City DOT, Brooklyn Borough Commissioner's Office, and from Yeshiva Torah Temimah met at the school on the afternoon of May 17, 2006. The representatives from the school included the Yeshiva Torah Temimah Executive Director, an Assistant Principal and an administrator.

According to representatives of the school, the identifiable problems that student pedestrians encounter on a regular basis include the following:

- Vehicles speeding on the East Service Road of Ocean Parkway;
- Congestion on the Service Road in front of the school during arrival and dismissal times created by school buses and parents dropping off students.
- Lack of school crosswalks and school signage on the north leg of 18th Avenue and Ocean Parkway, and on the south leg of Ditmas Avenue and Ocean Parkway;
- Right turning vehicles not yielding to pedestrians crossing at the intersection of 18th Avenue and the East Service Road.







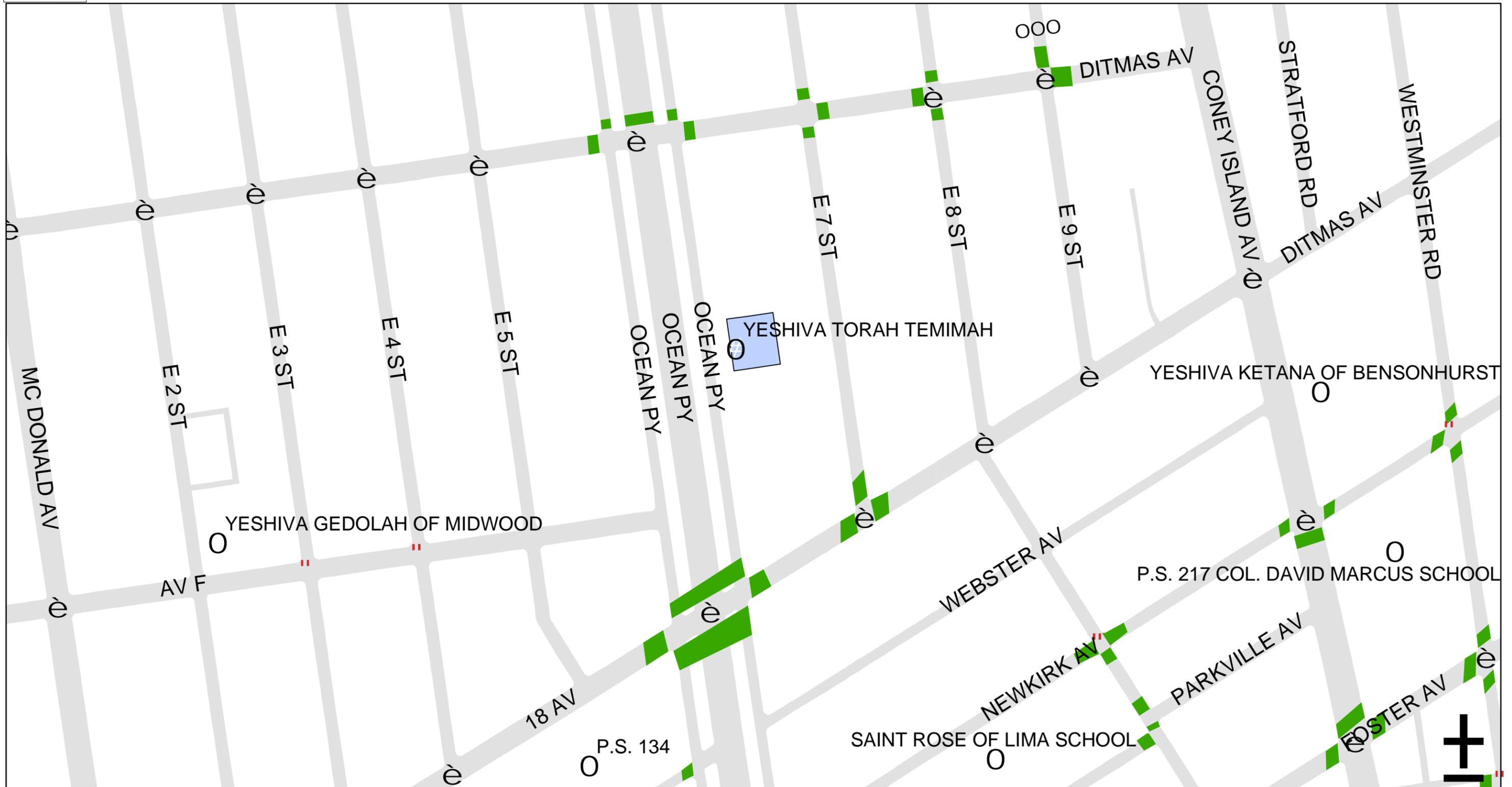
1 inch equals 200 feet

EXHIBIT 1
YESHIVA TORAH TEMIMAH
BROOKLYN

AERIAL PHOTOGRAPH



School Traffic Safety Map



0 320 640 1,280 Feet

The School Traffic Safety Map was established to help provide the maximum degree of safety for children going to and from school - by indicating the location of advance warning signs, speed reducers, school crosswalks and some traffic control devices. (While virtually all intersections in NYC benefit from traffic control devices - such as stop signs, traffic signals, yield signs, and all way stop signs - this map only shows traffic signals and all way stop signs.) The school crosswalks that are shown are ladder striped and make the crosswalk more visible to drivers and help make the intersection safer. These crosswalks are where school children are recommended to cross.

Note: Every attempt has been made to provide complete and accurate information that is updated regularly. The City's streets are constantly changing and it is not always possible to present information without error.

LEGEND:

SCHOOL LOCATION		TRAFFIC SIGNAL	
SCHOOL CROSSWALK		ALL - WAY STOP	
		SPEED REDUCER	

Brooklyn
YESHIVA TORAH TEMIMAH

Prepared by the NEW YORK CITY DEPARTMENT OF TRANSPORTATION, Iris Weinsahl, COMMISSIONER.

Map created on 9/13/2006

1.4.0

EXHIBIT 2

COMM. BOARD: 312
PRECINCT: 66

2.6 PRIMARY MODES OF TRANSPORT TO AND FROM SCHOOL

According to school officials, three percent of students walk to and from school, two percent ride MTA buses (none by subways), five percent are driven by a parent or guardian, five percent arrive by bicycle, and 85% are transported by school buses. See Table 1 for the schools estimate of the modes of travel.

TABLE 1: MODES OF TRAVEL	
(AS ESTIMATED BY SCHOOL OFFICIALS)	
DESCRIPTION	PERCENTAGE
Walk	3%
Driven by parent or guardian	5%
School bus	85%
Bicycle	5%
MTA bus	2%
TOTAL	100%

2.7 ADDITIONAL STUDENT PEDESTRIAN TRAFFIC GENERATORS

An additional building belonging to Yeshiva Torah Temimah with approximately 250 students from high school through post-college studies is located at the southeast corner of Ditmas Avenue and Ocean Parkway. P.S. 62 is located across Ditmas Avenue between East Seventh Street and East Eighth Street. P.S. 134 is located at the southwest corner of 18th Avenue and the West Service Road intersection. There are no other major pedestrian traffic generators identified in the vicinity of Yeshiva Torah Temimah School.

2.8 CROSSING GUARD LOCATIONS

According to school officials, there are no crossing guards assigned to Yeshiva Torah Temimah. However, school officials noted that a crossing guard was stationed at the intersection of 18th Avenue and Ocean Parkway until a few years ago.

3. TRAFFIC OPERATIONS

3.1 SCHOOL BUS OPERATIONS

As noted in Section 2.6, 85% of students are transported by school yellow buses. The school owns four buses; seven other buses are from the Department of Education. Each of the school owned buses transports students twice in the morning and five times in the afternoon.

During the field visit, buses were observed to pick up students, leave the school area and come back approximately a half an hour later. The school-owned buses transport students all six school days. Buses stage along the east curb of the Service Road, in front of the school, and wait for students to be dismissed. Since parking is allowed along the west curb of the Service Road, and the Service Road is a 24-foot wide roadway, school bus drivers intentionally mount the curb so as not to block traffic (see Figure 4).

According to school officials, in the morning arrival time larger school buses park at the curb, and smaller buses stop while dropping off students. This is done intentionally to keep the traffic behind the buses until students are safely on the sidewalk. During dismissal time, students are lined up in the gym and then led to school buses in an organized fashion (Figure 5).



Figure 4: A school bus mounting the curb in front of Yeshiva Torah Temimah School



Figure 5: Yeshiva Torah Temimah during dismissal time

3.2 PARENT DROP-OFF OPERATIONS

School officials have indicated that approximately five percent of Yeshiva Torah Temimah School students are driven to and from school by parents or guardians.

Parents use the Ocean Parkway East Service Road as a pick-up and drop-off area for students. Parents utilize any available curb space or double park in order to allow a child to exit the vehicle. To avoid congestion on the East Service Road, some children are dropped off on Ditmas Avenue, and the children then walk by themselves to school. During the morning arrival time the service road becomes heavily congested with traffic queuing all the way back to the intersection of 18th Avenue and Ocean Parkway East Service Road.

3.3 PARKING REGULATIONS

Parking is prohibited on the Ocean Parkway East Service Road on alternate sides of the roadways between 11:30 am and 1:00 pm.

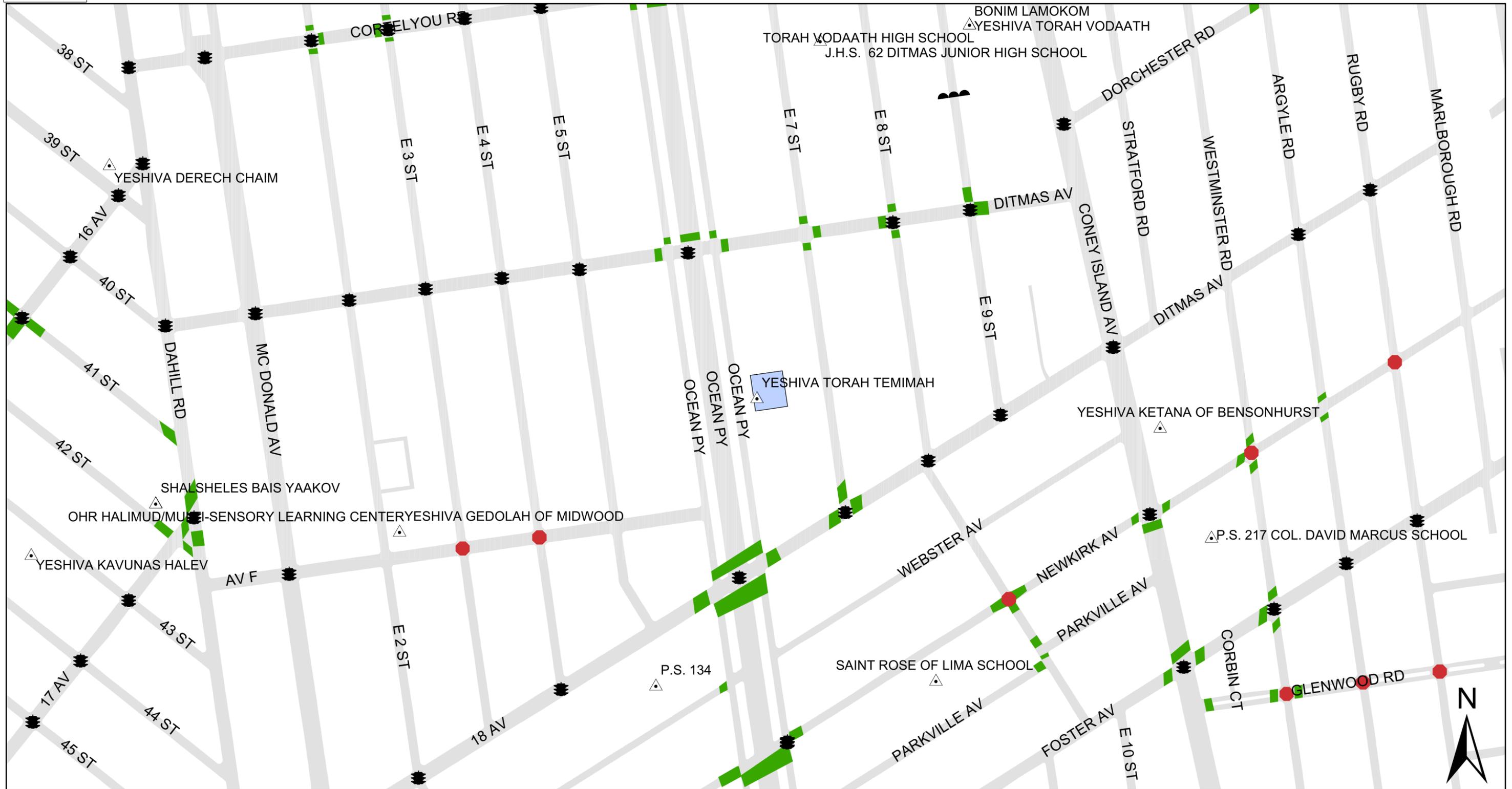
Parking regulations “NO STANDING 7 AM – 4 PM, SCHOOL DAYS, EXCEPT M.I.U. VEHICLES” and “NO PARKING, 7 AM – 7 PM, SCHOOL DAYS” are posted along the east curb of Ocean Parkway East Service Road in front of the school. Exhibit 3 shows parking regulations on Ocean Parkway East Service Road.



Figure 6: Parking regulation on Ocean Parkway East Service Road in front of Yeshiva Torah Temimah School



School Traffic Safety Map



0 300 600 1,200 Feet

The School Traffic Safety Map was established to help provide the maximum degree of safety for children going to and from school - by indicating the location of speed reducers, school crosswalks and some traffic control devices. (While virtually all intersections in NYC benefit from traffic control devices - such as stop signs, traffic signals, yield signs, and all way stop signs - this map shows only traffic signals and all way stop signs.) The school crosswalks that are shown are ladder striped and make the crosswalk more visible to drivers and help make the intersection safer. These crosswalks are where school children are recommended to cross.

Note: Every attempt has been made to provide complete and accurate information that is updated regularly. The City's streets are constantly changing and it is not always possible to present information without error.

LEGEND:

- SCHOOL LOCATION
- SCHOOL CROSSWALK
- TRAFFIC SIGNAL
- ALL - WAY STOP
- SPEED REDUCER

Brooklyn
YESHIVA TORAH TEMIMAH

Prepared by the NEW YORK CITY DEPARTMENT OF TRANSPORTATION, Iris Weinsahl, COMMISSIONER.

Map created on 11/16/2006 **EXHIBIT 3**

COMM. BOARD: 312
PRECINCT: 66

3.4 EXISTING SCHOOL SIGNS AND MARKINGS

The Traffic Safety Plan, Exhibit 2, shows existing crosswalk pavement markings. It is noted that a citywide signage program is currently underway to upgrade school signage to current Federal Manual of Uniform Traffic Control (MUTCD) standards of fluorescent yellow-green signs with downward pointing arrows. Signs scheduled to be installed under this program are shown as “existing” on Exhibit 5.



Figure 7: School signs and markings on the East Service Road in the vicinity of Yeshiva Torah Temimah

3.5 ACCIDENT SUMMARY

Exhibit 4 and Table 2 show a summary of accidents, as obtained from the New York State Department of Motor Vehicles (DMV), in the vicinity of Yeshiva Torah Temimah School for the three-year period from January 1, 1998 through December 31, 2000. The DMV data provides some detail relating to the circumstances and cause of the accidents. Table 3 is a summary of more recent accident data obtained from the NYC Police Department (NYPD). Though current through 2004, the NYPD data does not provide the same level of detail as the DMV data.

This report targets intersections closest to the school where the highest concentration of student pedestrians occurs. Intersections farther from the school and locations for which detailed data was not available at the time of this study will be addressed with the ongoing work of DOT's School Safety Engineering Program. DMV accident data is discussed in Section 3.6, Traffic Operations and Issues.

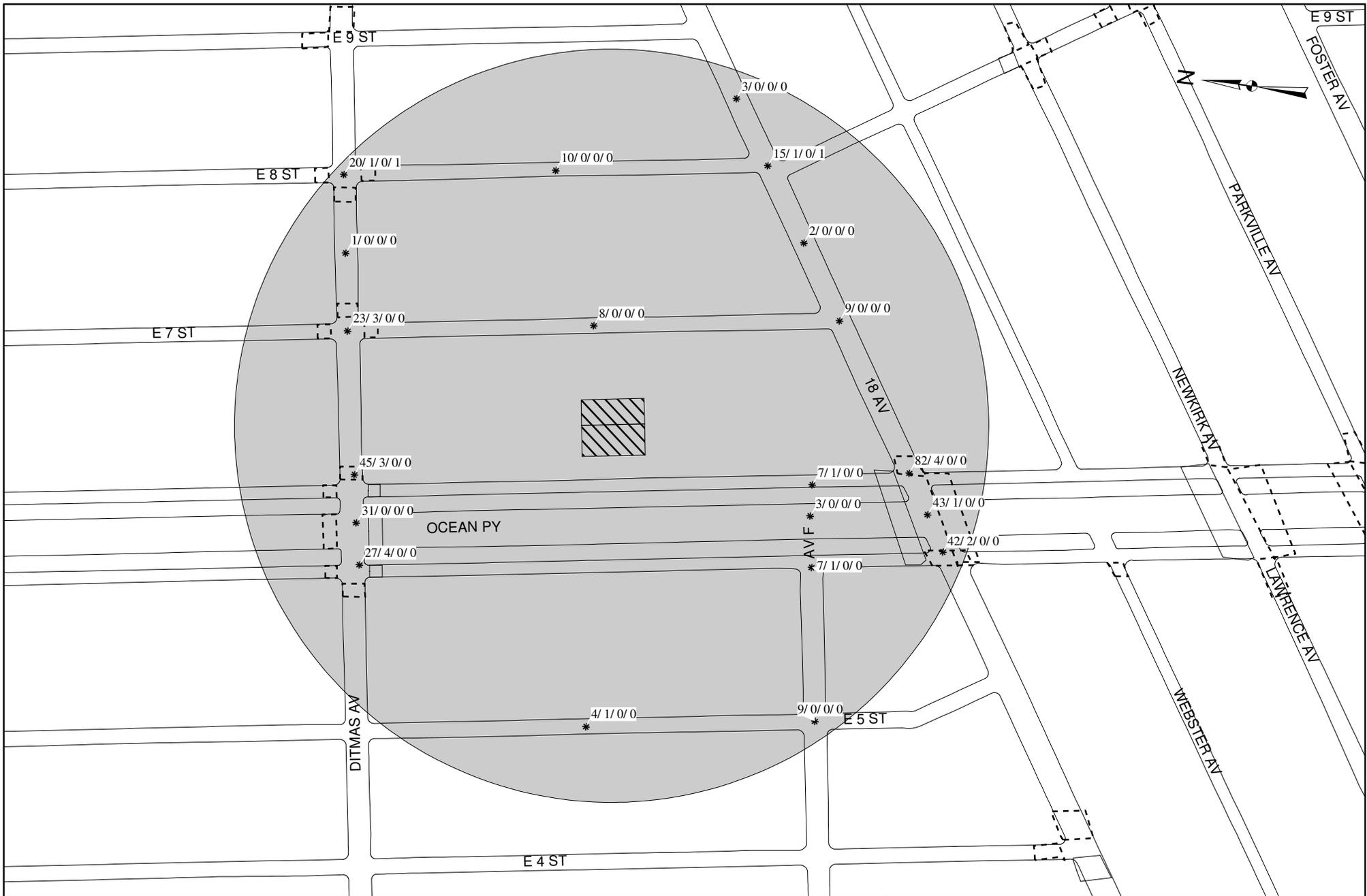
TABLE 2: DMV THREE-YEAR ACCIDENT SUMMARY (1998-2000)				
INTERSECTION	TOTAL ACCIDENTS	PEDESTRIAN ACCIDENTS	PEDESTRIAN FATALITIES	SCHOOL-RELATED ACCIDENTS*
Ocean Parkway and 18 th Avenue	167**	7	0	0
Ocean Parkway and Ditmas Ave	103**	7	0	0
East 7 th Street and 18 th Avenue	9	0	0	0
East 7 th Street and Ditmas Avenue	23	3	0	0
East 8 th Street and 18 th Avenue	15	1	0	1
East 8 th Street and Ditmas Avenue	20	1	0	1
TOTAL	337	19	0	2

TABLE 3: NYPD FOUR-YEAR ACCIDENT SUMMARY (2001-2004)				
INTERSECTION	TOTAL ACCIDENTS	PEDESTRIAN ACCIDENTS	PEDESTRIAN FATALITIES	SCHOOL-RELATED ACCIDENTS*
Ocean Parkway and 18 th Avenue***	168	-	-	-
Ocean Parkway and Ditmas Ave***	160	-	-	-
East 7 th Street and 18 th Avenue	8	0	0	0
East 7 th Street and Ditmas Avenue	40	6	0	2
East 8 th Street and 18 th Avenue	11	0	0	0
East 8 th Street and Ditmas Avenue	13	1	0	1
TOTAL	400	7	0	3

* School-Related Accidents are defined as accidents involving school-age pedestrians (age 4 – 14), occurring weekdays during the school year.

**Accidents on mainline and service roads are summarized

*** There is no information on the number of accidents that involved pedestrians



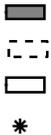
SCHOOL CROSSWALK ASSIGNED TO P.S. 217

SCHOOL CROSSWALK ASSIGNED TO ANOTHER SCHOOL
CROSSWALK

ACCIDENT LOCATION

X/X/X/X

TOTAL ACCIDENTS	PED ACCIDENTS	PED FATAL	SCHOOL PED ACCIDENTS
X	X	X	X



1 inch equals 250 feet

EXHIBIT 4
YESHIVA TORAH TEMIMAH
BROOKLYN
ACCIDENT SUMMARY
THREE YEAR PERIOD
(1998-2000)

3.6 TRAFFIC OPERATIONS AND ISSUES

The following outlines the accidents and operational issues at intersections in the vicinity of the school.

3.61 Ocean Parkway and 18th Avenue

Ocean Parkway has a southbound and northbound service road, each with one travel lane of traffic and parking along both sides. The service roads are separated from the main road traffic by landscaped islands, which are approximately 30 feet wide. The main road is 70 feet wide and composed of three through lanes (with a left turn lane) in both the northbound and southbound directions. 18th Avenue is a 45-foot wide, two-way street with one travel lane in both directions and parking on both sides (see Figures 8, 9, 10 and 11). 18th Avenue is a bus route for the MTA B8 bus line.

The intersection is signal-controlled with protected left turns on Ocean Parkway. Traffic on 18th Avenue is signal-controlled, while both service roads are stop-controlled. There are school crosswalks on the east, west and south legs of the intersection (across both the main road and the service roads).

A total of 167 accidents occurred during the 1998-2000 study period (this includes both the main road and the service roads). Seven accidents involved pedestrians, and none were school-related. According to the accident data for the 1998-2000 study period, four pedestrian accidents occurred at the east side of the intersection (18th Avenue and the East Service Road), one accident on the main road, and two pedestrian accidents at the west side of the intersection (18th Avenue and the West Service Road). The DMV reports indicate that three pedestrians were struck while crossing against the signal; two pedestrians were struck while crossing with the signal and that the pedestrians were struck due to a number of reasons including pedestrian error, driver inattention and slippery conditions. One pedestrian was struck while emerging from a parked vehicle.



Figure 8: Ocean Parkway and 18th Avenue (on 18th Avenue, looking west)



Figure 9: North crosswalk at Ocean Parkway and 18th Avenue (looking west)



Figure 10: South crosswalk at Ocean Parkway and 18th Avenue (looking west)



Figure 11: Ocean Parkway East Service Road and 18th Avenue intersection (looking south)

Several school officials indicated that vehicles tend to speed along the East Service Road in the vicinity of the school.

To determine vehicular speeds along this section, a spot speed study was conducted on Tuesday, June 13, 2006 on Ocean Parkway East Service Road between 18th Avenue and Ditmas Avenue. The 85th percentile speed was found to be 24 mph, which is below the legal speed limit of 30 mph.

TABLE 4: SPOT SPEED STUDY		
LOCATION	MEDIAN SPEED (MPH)	85TH PERCENTILE SPEED (MPH)
Ocean Parkway East Service Road between 18 th Avenue and Ditmas Avenue	18	24

3.6.2 Ocean Parkway and Ditmas Avenue

Ditmas Avenue is a 45-foot wide, two-way roadway with one travel lane and parking on both sides (see Figure 12). Traffic on the mainline Ocean Parkway and Ditmas Avenue is signal controlled, while both service roads are stop controlled. There are school crosswalks on the north, west, and east legs of the intersection.

A total of 103 accidents occurred at this intersection during the 1998-2000 study period. Seven accidents involved pedestrians. There were no school-related accidents. According to the accident data for the 1998-2000 study period, three pedestrian accidents occurred at the east side of the intersection (Ditmas Avenue and the East Service Road), and four pedestrian accidents occurred at the west side of the intersection (Ditmas Avenue and the West Service Road). Four pedestrians were struck while crossing with the signal, and three pedestrians were struck while crossing against the signal or outside of the crosswalk area.



Figure 12: Ocean Parkway and Ditmas Avenue (looking west)



Figure 13: North crosswalk at Ocean Parkway and Ditmas Avenue (looking west)

3.6.3 East Seventh Street and Ditmas Avenue

This is a stop-controlled intersection with a stop sign on East Seventh Street. East Seventh Street is a 30-foot wide, one-way (southbound) roadway with one travel lane and parking on both sides. Ditmas Avenue is a 45-foot wide two-way roadway with one travel lane in each direction and parking on both sides. There are school crosswalks on the east, north and south legs of the intersection.

A total of 23 accidents occurred at this intersection during the 1998-2000 study period. Three accidents involved pedestrians. There were no school-related accidents. According to the accident data, two pedestrians were struck by westbound vehicles while crossing outside the crosswalk. There is no detailed information on the third pedestrian accident.

3.6.4 East Seventh Street and 18th Avenue

This is a signalized T-intersection. There are school crosswalks on the north, east and west legs of the intersection.

Nine accidents occurred at this location during the 1998-2000 study period. None of the accidents involved pedestrians.

3.6.5 East Eighth Street and Ditmas Avenue

This is signalized intersection with school crosswalks on the west, north and south legs of the intersection. East Eighth Street is a 30-foot wide, one-way (northbound) roadway with one travel lane and parking on both sides.

A total of 20 accidents occurred at this intersection during the 1998-2000 study period. One accident involved a pedestrian, who was a 12-year old student. According to the accident data, this pedestrian was struck while crossing with the signal, but outside of the crosswalk area. Driver inattention was cited as the main factor for this accident.

3.6.6 East Eighth Street and 18th Avenue

This is a signalized intersection and there are no school crosswalks at this intersection.

A total of 15 accidents occurred at this intersection during the 1998-2000 study period. One accident involved a pedestrian, and was a school-related accident. According to the accident data this pedestrian was struck by a westbound vehicle while crossing against the signal.

3.7 SIGNAL TIMING: PEDESTRIAN PHASE

Pedestrian crossing time was field-verified at all signalized intersections in the vicinity of Yeshiva Torah Temimah School, and found to be adequate in all directions and approaches.

TABLE 5: PEDESTRIAN CROSSING TIME AT SIGNALIZED INTERSECTIONS				
INTERSECTION NAME	CROSSWALK WIDTH (FEET)	PED. PHASE ACTUAL (SECONDS)	PED. PHASE REQ'D (SECONDS)	TIMING ADJUSTMENT? (YES/NO)
18th Avenue @ Ocean Parkway				
crossing 18 th Avenue	45	66	18	NO
crossing Ocean Parkway	70 ²	40 ²	27	NO
Ditmas Avenue @ Ocean Parkway				
crossing Ditmas Avenue	45	60	18	NO
crossing Ocean Parkway	70 ²	45 ²	27	NO

Notes:

1. A rate of 3 ft/sec plus 3 seconds reaction time was utilized as the child pedestrian walking rate
2. Pedestrian crossings across service roads are not signalized

3.8 PHYSICAL CONDITIONS (ROADWAYS AND SIDEWALKS)

The roadways and sidewalks in the vicinity of the school were observed to be in good condition.



Figure 14: Sidewalk in front of Yeshiva Torah Temimah School

4. POTENTIAL MEASURES TO IMPROVE STUDENT PEDESTRIAN SAFETY

4.1 SHORT-TERM MEASURES

- Install No-Standing Zone

Existing “NO PARKING 7:00 AM – 7:00 PM, SCHOOL DAYS” parking regulations should be upgraded to “NO STANDING 7:00 AM – 7:00 PM, SCHOOL DAYS” along the Ocean Parkway East Service Road in front of the school’s main entrance, to provide sufficient clear frontage for buses to drop off and pick up students. In addition it is recommended a “NO PARKING 7:00 AM – 7:00 PM, SCHOOL DAYS” zone be established on the west curb of the East Service Road.

- Administer student pedestrian safety education program

It is recommended that the NYCDOT, Safety Education Program work with the school to educate the students on pedestrian safety including crossing the street with the WALK phase, and the meaning of the WALK - FLASHING DON’T WALK - DON’T WALK pedestrian signal sequence. It is also recommended that the school dedicate a staff member to act as a valet or greeter to expedite the time required for students to disembark from or enter vehicles. These measures should help mitigate congestion along the school block.

- Install enlarged signal lens

Enlarged signal lens should be considered for all traffic signal heads at the intersection of Ocean Parkway and Ditmas Avenue, and at the intersection of Ocean Parkway and 18th Avenue. The enlarged heads will allow drivers to see the red signal and deter drivers from stopping in the crosswalk.

- Install pedestrian information signs

Pedestrian information signs should be installed on signal heads at the north and south service roads at the intersections of Ocean Parkway at Ditmas Avenue, and Ocean Parkway at 18th Avenue. These signs will help to educate pedestrians on how to cross Ocean Parkway.



Figure 15 – “Cross with Care” sign

- Place stop bars ten feet in advance of school crosswalks

The MUTCD and New York City DOT standard for placement of a stop bar is four feet in advance of a marked crosswalk. At signalized (or stop controlled) crosswalks, the vehicle stop line can be placed farther back from the crosswalk in order to maximize visibility of pedestrians and to minimize the potential for pedestrian/vehicle conflicts. Therefore, it is recommended that stop bars be placed ten feet in advance of all school crosswalks.

- Submit a request to the Police Department for a Crossing Guard at the intersection of Ocean Parkway and 18th Avenue

According to school officials a crossing guard was stationed at this intersection until two to three years ago. Currently northbound traffic on the East Service Road is stop controlled at the intersection with 18th Avenue. Therefore, as a mitigation measure to improve student safety at this location, it is recommended that a request be submitted to the Police Department for a crossing guard during the arrival and dismissal times at this intersection.

- Review bus management / staging procedures

As noted in Section 3.1 school buses tend to stage and wait on the East Service Road in front of the school. This operation creates congestion during the morning arrival and afternoon dismissal times. For this reason, some buses may still be required to stage at other locations until sufficient curbside space becomes available. School officials should review the bus operations at the school and consider the following:

- Restrict drop-off/pick-up of students from school buses to the designated curbside area fronting the school
- Define a staging area for buses to queue until they can safely pull into the curbside directly fronting the school for drop-off/pick-up operations.

It is important that students not enter/exit buses while the buses are in the staging area. By reducing the number of students entering or exiting the buses at one time, it may be easier to manage the students' actions at arrival and dismissal times.

- Install new school crosswalks, signs and roadway markings

Install new school crosswalks and associated signage at the following locations:

- Ocean Parkway (including both service roads) and Ditmas Avenue (south leg)
- Ocean Parkway (including both service roads) and 18th Avenue (north leg)
- 18th Avenue and East 8th Street (north, east, and west legs)

The new crosswalks and signage will alert drivers that students cross the street at these locations en route to school, thus making the route safer for students.

4.2 LONG-TERM MEASURES

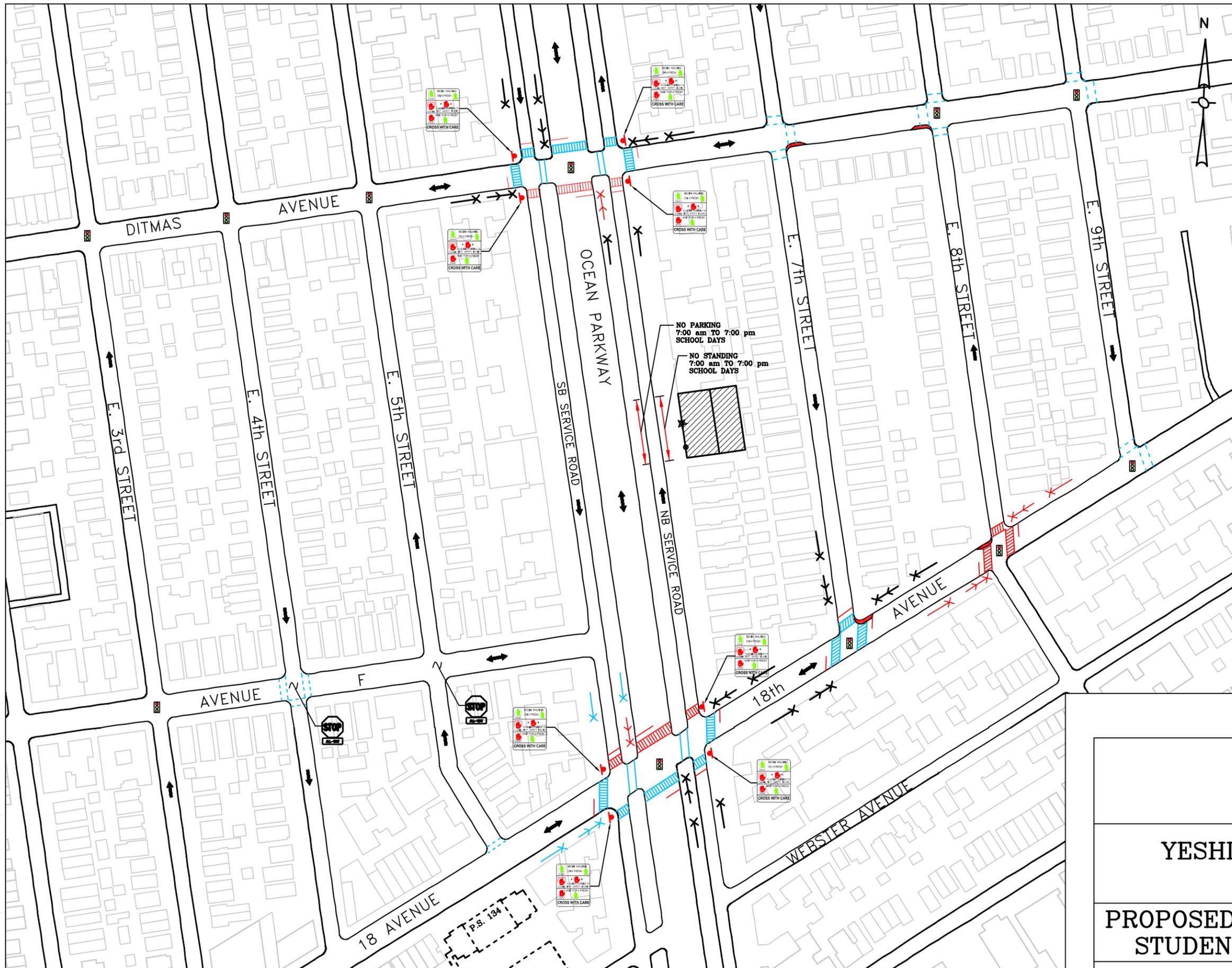
▪ *Install curb extensions at the following intersections:*

Consideration should be given to installing a curb extension at the following locations, provided that the Final Design confirms that construction of the recommended curb extension would be feasible and would not interfere with traffic operations. Final details pertaining to the number, location and geometry of curb extensions will be developed during the Final Design/Contract Document preparation.

- Northeast corner of 18th Avenue and East Seventh Street (on 18th Avenue)
- Northwest corner of 18th Avenue and East Eighth Street (on 18th Avenue)
- Southeast corner of Ditmas Avenue and East Seventh Street (on Ditmas Avenue)
- Southwest corner of Ditmas Avenue and East Eighth Street (on Ditmas Avenue)

Curb extensions should be considered at the corners as shown in Exhibit 5.

The purpose of the curb extensions is to shorten the crossing distance for pedestrians, and to reduce speeds of vehicles approaching and turning at these heavily utilized school crosswalks (or intersections). These curb extensions would not eliminate or reduce the width of any moving lanes.



LEGEND

- LEGEND**
- MAIN ENTRANCE
 - OTHER ENTRANCES
 - EXISTING ADVANCE WARNING SIGN
 - EXISTING (OR SCHEDULED TO BE INSTALLED BY DOT) ADVANCE WARNING SIGN WITH ARROW
 - EXISTING TRAVEL DIRECTION
 - SIGNALIZED INTERSECTION
 - EXISTING SCHOOL CROSSWALK
 - EXISTING STANDARD (NON-SCHOOL) CROSSWALK
 - EXISTING SCHOOL CROSSWALK ASSOC. WITH OTHER SCHOOL
 - EXISTING ALL-WAY STOP
 - PROPOSED ADVANCE WARNING SIGN
 - PROPOSED ADVANCE WARNING SIGN WITH ARROW
 - PROPOSED SCHOOL CROSSWALK
 - PROPOSED STOP LINE
 - PROPOSED PARKING REGULATIONS
 - PROPOSED CURB EXTENSION (NECKDOWN)

SCALE: 1" : 180'

EXHIBIT 5

**YESHIVA TORAH TEMIMAH
BROOKLYN**

**PROPOSED MEASURES TO IMPROVE
STUDENT PEDESTRIAN SAFETY**

APPENDIX

SPOT SPEED STUDY

Date: 6/13/06

Time: 10:30AM - 11:30AM

School: YESHIVA TORAH TEMIMA

Location: OCEAN PKWY BTWN DITMAS AVENUE & 18TH AVENUE

Direction: SERVICE ROAD (NORTH E

Surveyor: T.S.

Comments:

Mean Speed = 17.6 mph
 Standard Deviation = 6.4 mph
 Margin of Error (95% Confidence) = ± 2.2 mph

Median Speed = 17.6 mph
 15th Percentile Speed = 10.9 mph
 85th Percentile Speed = 24.2 mph

