

BOARD OF COUNTY COMMISSIONERS

AGENDA ITEM SUMMARY

Meeting Date: February 1, 2011 [] Consent [X] Regular [] Workshop [] Public

Hearing Department: Submitted By: Engineering & Public Works Submitted For: Traffic Division

I. EXECUTIVE BRIEF

Motion and Title: Staff requests Board direction: regarding a policy for the installation of school speed zones on roads fronting/adjacent to high schools.

SUMMARY: School speed zones are typically not installed at high schools in Palm Beach County. Parents of children attending Seminole Ridge High School have requested a school speed zone at the high school. The Board has directed staff to prepare information concerning the installation of school speed zones at high schools throughout Palm Beach County. Countywide (MRE)

Background and Justification: The current Traffic Division policy for school speed zones addresses the installation of school speed zones at elementary and middle schools. The current policy does not address the installation of school speed zones at high schools.

Florida Statute 316.1895 - Establishment of school speed zones, enforcement; designation does not address where school speed zones should be established. The Florida Department of Transportation (FDOT) issued a policy on school speed zones on the State Highway System. The policy allows school speed zone at elementary and middle schools. The policy states that school speed zones "are not normally needed at a high school, but when special circumstances occur, they should be addressed on a case-by-case basis, only used when needed, and justified by an engineering study". There is no specific guidance on the engineering study requirements.

High schools in Palm Beach County are located on State, County and municipal roadways.

(Continued on page 3)

- Attachments: 1. Traffic Division Policy on School Speed Zones 2. Excerpts from FDOT policy on school speed zones

Recommended By: Division Director Date

Approved By: [Signature] County Engineer 1/27/11 Date

II. FISCAL IMPACT ANALYSIS

A. Five Year Summary of Fiscal Impact:

Fiscal Years	2011	2012	2013	2014	2015
Capital Expenditures	\$ -0-	-0-	-0-	-0-	-0-
Operating Costs	-0-	-0-	-0-	-0-	-0-
External Revenues	-0-	-0-	-0-	-0-	-0-
Program Income (County)	-0-	-0-	-0-	-0-	-0-
In-Kind Match (County)	-0-	-0-	-0-	-0-	-0-
NET FISCAL IMPACT	* \$ -0-	-0-	-0-	-0-	-0-

ADDITIONAL FTE POSITIONS (Cumulative) _____

Is Item Included in Current Budget? Yes _____ No ____
 Budget Acct No.: Fund ___ Dept. ___ Unit ___ Object ___
 Program _____

B. Recommended Sources of Funds/Summary of Fiscal Impact:

* Fiscal impact indeterminable at this time.

C. Departmental Fiscal Review: April White

III. REVIEW COMMENTS

A. OFMB Fiscal and/or Contract Dev. and Control Comments:

 Chris 1/25/2011
 OFMB
 SN 1/25/11 PM 1-25-11

 Du-J 1/25/11
 Contract Dev. and Control

B. Approved as to Form and Legal Sufficiency:

 Marla R. 4/27/11
 Assistant County Attorney

C. Other Department Review:

 Department Director

This summary is not to be used as a basis for payment.

(Background and Justification - continued)

High schools are located on State, County and municipal roadways.

The tables below identify the 21 high schools in Palm Beach County, the roads fronting the schools and other major roads adjacent to schools.

TABLE 1 - HIGH SCHOOLS FRONTING F.D.O.T. ROADS			
SCHOOL	ADDRESS	SPEED LIMIT	SCHOOL SPEED ZONE
Atlantic	2455 W. Atlantic Ave.	45	no
Lake Worth	1701 Lake Worth Rd.	35	no
Palm Beach Central	8499 W. Forest Hill Blvd.	50	no

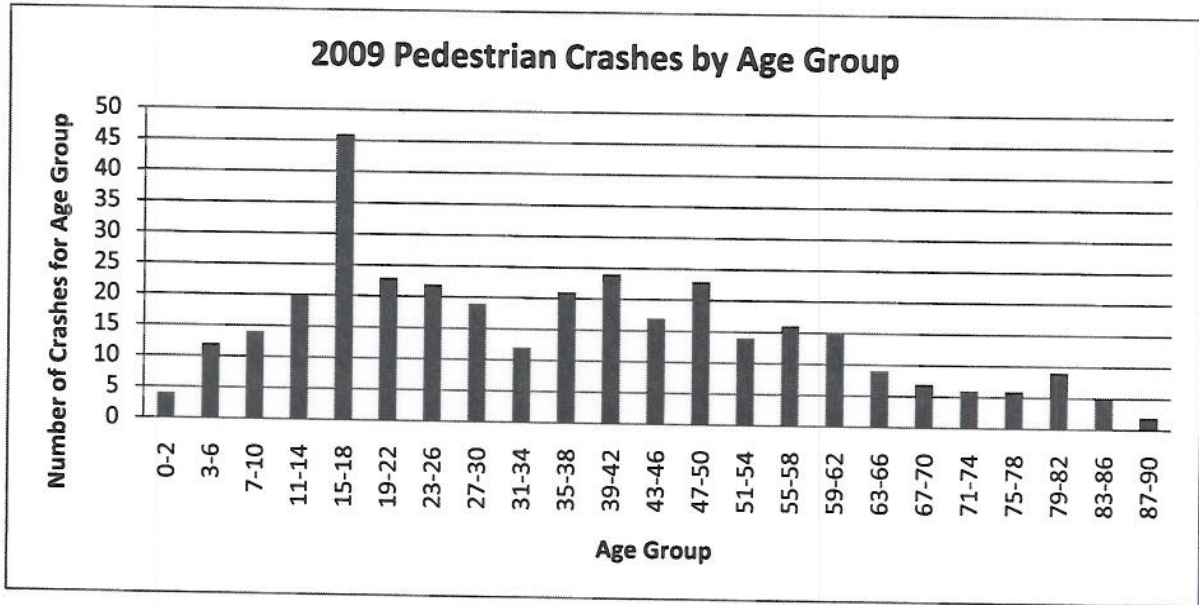
TABLE 2 - HIGH SCHOOLS FRONTING COUNTY ROADS			
SCHOOL	ADDRESS	SPEED LIMIT	SCHOOL SPEED ZONE
John I. Leonard	4701 10th Ave. N.	40	no
Jupiter	500 N. Military Trail	40	no
Olympic Heights	20101 Lyons Rd.	40	yes
Park Vista	7900 Jog Rd.	45	no
Royal Palm Beach	10600 Okeechobee Blvd.	50	no
Santaluces	6880 Lawrence Rd.	35	yes
Seminole Ridge	4601 Seminole Pratt Whitney Rd.	45	no
Spanish River	5100 Jog Rd.	40	yes
William T. Dwyer	13601 N. Military Trail	45	no

TABLE 3 - HIGH SCHOOLS FRONTING MUNICIPAL ROADS				
SCHOOL	ADDRESS	SPEED LIMIT	SCHOOL SPEED ZONE	MUNICIPALITY
A.W. Dreyfoos	501 S. Sapodilla Ave.	25	no	West Palm Beach
Boca Raton	1501 NW 15th Ct.	30	yes	Boca Raton
Boynton Beach	4975 Park Ridge Blvd.	25	no	Boynton Beach
Forest Hill	6901 Parker Ave.	35	no	West Palm Beach
Glades Central	1001 S.W. Ave. "M"	30	yes	Belle Glade
Pahokee Middle / High	900 Larrimore Rd.	35	eastbound only	Pahokee
Palm Beach Gardens	4245 Holly Dr.	25	yes	Palm Beach Gardens
Palm Beach Lakes	3505 Shiloh Dr.	30	no	West Palm Beach
Suncoast	13th St.	25	no	Riviera Beach
Wellington	2101 Greenview Shores Blvd.	40	no (removed)	Wellington

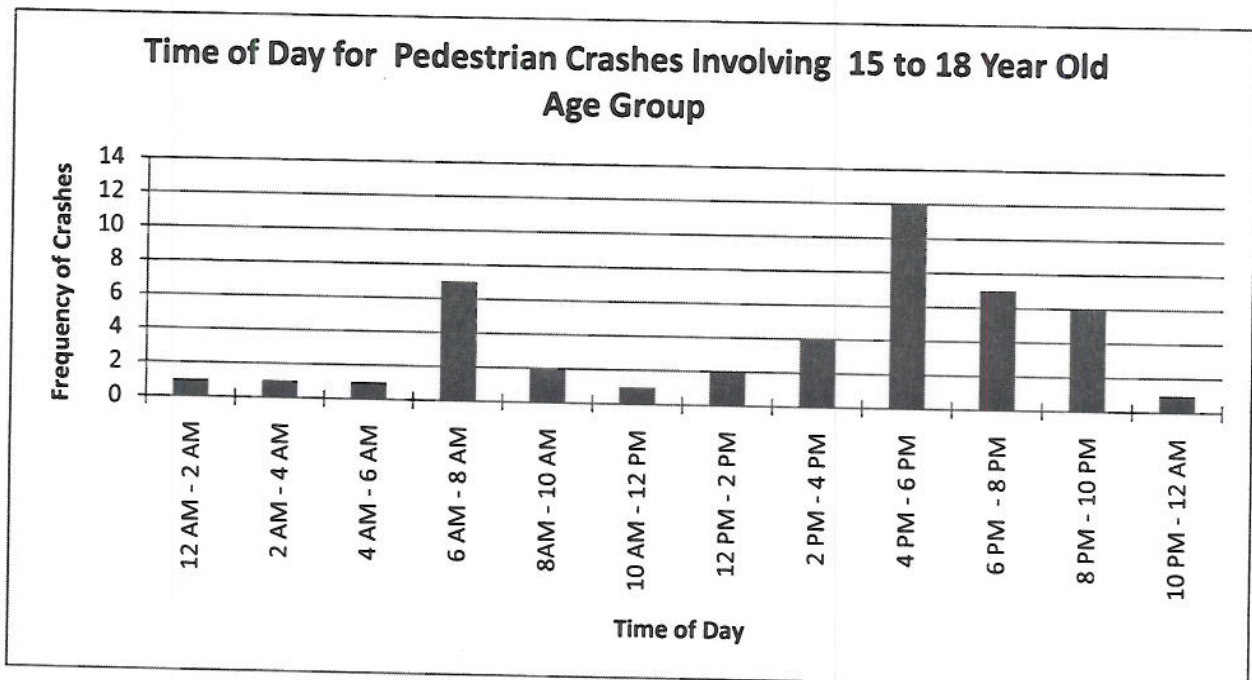
TABLE 4 - HIGH SCHOOLS WITH OTHER MAJOR ADJACENT ROADS				
SCHOOL	ADJACENT ROAD	SPEED LIMIT	SCHOOL SPEED ZONE	ROAD JURISDICTION
A.W. Dreyfoos	Tamarind Ave.	35	yes (sign only)	West Palm Beach
Boynton Beach	Gateway Blvd.	45	no	Boynton Beach
Forest Hill	Forest Hill Blvd.	35	no	F.D.O.T.
John I. Leonard	Haverhill Road	40	no	County
Palm Beach Gardens	Military Tr.	45	no	F.D.O.T.
Palm Beach Lakes	Military Tr.	45	no	F.D.O.T.
Palm Beach Central	Lyons Rd.	40	no	County
Santaluces	Hypoluxo Rd.	45	no	County

(Background and Justification - continued)

Crash reports for 2009 involving pedestrians were reviewed and analyzed. There were 345 reported crashes in 2009 involving pedestrians. The ages of the pedestrians were calculated based on the date of birth of the pedestrian and the date of the crash. A chart showing the data from all age groups is also shown below.



There were 345 crashes in 2009 involving pedestrians. High school age pedestrians, ages 15 to 18, were the predominant age group. There were 46 crashes involving pedestrians in this age group. Most of the high schools start their school day at 7:30 AM and end their school day at 2:50 PM. Morning commute times for these schools are generally 6:00 AM to 8:00 AM. During the AM commute time period there were 7 pedestrian crashes. Afternoon commute times are generally 3:00 PM to 5:00 PM. During the PM commute time period there were 10 pedestrian crashes. A chart showing the time of day data for pedestrian crashes for the 15 to 18 age group is shown below.



Few locations were at or near schools. However, 3 of the 17 pedestrian crashes that occurred during the 6:00 AM to 8:00 AM and the 3:00 PM to 5:00 PM commute time periods occurred near high schools. All three of the crashes occurred at traffic signals. The details are shown below.

- The crash at Glades High School occurred within a school speed zone. The crash involved a car turning left from a side street. The school speed zone had no effect in preventing the crash.

(Background and Justification- continued)

- There is no school speed zone at Jupiter High School. The crash involved a car turning left onto a side street. It is likely that a school speed zone at this location would not have prevented the crash.

- There is no school speed zone at Seminole Ridge High School. The crash involved two pedestrians and a car traveling northbound through the intersection. It is possible the pedestrians were crossing against the traffic signal. A school speed zone may have prevented the crash or reduced the severity of the crash.

Staff concludes that there is no pattern of pedestrian crashes, involving high school age pedestrians, in the area of high schools. High school age pedestrians, ages 15 to 18, are involved in three times more pedestrian crashes than the average for all age groups (46 for the high school age group versus an average of 15 for all age groups). The incident of pedestrian crashes drops off for the younger and older age groups, possibly due to less pedestrian activity in those age groups. High school age pedestrians are involved in two times more pedestrian crashes than the average for age groups between 10 and 50 years of age (46 for the high school age group versus an average of 22 for the 10 to 50 age groups).

Because the locations of pedestrian crashes for this age are very diverse, there appears to be a need to educate the 15 to 18 age group in street crossing safety.

The responsibility for installing school speed zones depends on the jurisdiction of the roadway and the location of the school. State roads are the exclusive authority of the FDOT. County roads are the authority of the County in the unincorporated areas and within municipalities that have traffic control agreements with the County. Municipal roads are the exclusive authority of municipalities. Implementing school speed zones on non-County roads would be at the discretion of the FDOT or the municipality that has authority for the road. The cost of installing and maintaining school zone flashers on state roads would be the responsibility of FDOT. The cost of installing and maintaining school zone flashers on municipal roads will likely be the responsibility the municipality, depending on the language in the various traffic control agreements.

Roadside school speed zone flashing signs cost about \$6,000 - \$8,000 each. Two lane roads will need two signs, one on each end of the school. Four and six lane roads will need four signs, one on the roadside and one in the median, on each end of the school. Table 5 shows the cost of installing and maintaining school speed zone flashers at high schools that front on County roads, where the County has traffic control jurisdiction. Table 6 shows the cost of installing and maintaining school speed zone flashers on County roads that are adjacent to high schools.

SCHOOL	FRONTING ROADS	LANES	NUMBER OF SIGNS	CONSTRUCTION COST	ANNUAL MAINTENANCE
John I. Leonard	10th Ave. N.	5	2	\$16,000	\$600
Jupiter	N. Military Trail	6	4	\$32,000	\$1,200
Park Vista	Jog Rd.	6	4	\$32,000	\$1,200
Seminole Ridge	Seminole Pratt Whitney Rd.	2/4	3	\$24,000	\$900
West Boca Raton	Glades Rd.	2	2	\$16,000	\$600
William T. Dwyer	N. Military Trail	6	4	\$32,000	\$1,200
			Totals	\$152,000	\$5,700

(Background and Justification – Continued)

TABLE 6 - HIGH SCHOOLS WITH OTHER ADJACENT COUNTY ROADS - FLASHING SIGN COSTS					
SCHOOL	ADJACENT ROAD	LANES	NUMBER OF SIGNS	CONSTRUCTION COST	ANNUAL MAINTENANCE
Palm Beach Central	Lyons Rd.	2	2	\$16,000	\$600
Santaluces	Hypoluxo Rd.	6	4	\$32,000	\$1,200
John I. Leonard	Haverhill Rd.	5	4	\$32,000	\$1,200
			Totals	\$80,000	\$3,000

The installation of school speed zone flashers on county roads does not address high schools on state or municipal roads. Table 7 shows the high schools and roads that would not be addressed.

TABLE 7 - HIGH SCHOOLS NOT ADDRESSED BY COUNTY SCHOOL ZONE PROGRAM		
SCHOOL	ROAD	JURISDICTION
Atlantic	W. Atlantic Ave.	F.D.O.T.
A.W. Dreyfoos	S. Sapodilla Ave.	West Palm Beach
A.W. Dreyfoos	Tamarind Ave.	West Palm Beach
Boynton Beach	Park Ridge Blvd.	Boynton Beach
Boynton Beach	Gateway Blvd.	Boynton Beach
Forest Hill	Parker Ave.	West Palm Beach
Forest Hill	Forest Hill Blvd.	F.D.O.T.
Lake Worth	Lake Worth Rd.	F.D.O.T.
Pahokee Middle / High	Larrimore Rd.	Pahokee
Palm Beach Central	W. Forest Hill Blvd.	F.D.O.T.
Palm Beach Gardens	Military Tr.	F.D.O.T.
Palm Beach Lakes	Shiloh Dr.	West Palm Beach
Palm Beach Lakes	Military Tr.	F.D.O.T.
Royal Palm Beach	Okeechobee Blvd.	Royal Palm Beach
Suncoast	13th St.	Riviera Beach

POLICY ON SCHOOL ZONES

I. DEFINITIONS

MUTCD: *Manual on Uniform Traffic Control Devices - Millennium Edition.* The MUTCD was developed by the Federal Highway Administration and the United States Department of Transportation, and has been adopted by the State of Florida and Palm Beach County to guide the application of traffic control devices.

School Route Map: A map developed systematically by the school with input from law enforcement and the County Traffic Engineering Division for each elementary, middle, and high school showing the streets, school property, existing traffic control devices, established school crossings, and established school walk routes. School maps are developed for the purpose of providing uniform school area traffic control and to serve as basis for the development of school traffic control plan.

School Speed Zone: Segment(s) of a street on the school route map where a 20 mile per hour speed zone has been established during specified time periods of a scheduled school day. School speed zones are established in accordance with the guidelines in this policy and based on the results of an engineering study.

II. PURPOSE

The purpose of this policy is to achieve safe and effective traffic control on the street system serving as direct or indirect access to schools through the uniform application of realistic guidelines, standards, and practices based on sound engineering judgment. Pedestrian safety in the vicinity of schools can be achieved only when both the motoring public and pedestrians understand the need for these traffic controls and how these controls function for their safety.

III. SCHOOL ROUTE MAP

Procedure for Establishing Map:

School route maps developed and or adopted by the school or the law enforcement official in charge of the school safety program shall be considered (as is or with modifications) as an official school route map by the Traffic Engineering Division for the purposes of this policy. A school official requesting any school-related traffic engineering services shall submit a copy of the most recent school route map to the Traffic Engineering Division.

Components of Map:

School route maps shall show the school property limits, streets, existing traffic control devices, established pedestrian/school crossings, any adult crossing guard/school patrol locations, any designated on-street student drop off/pick up locations, and established school walk routes.

Coordination with Schools and Law Enforcement:

School route maps are established by each individual school with input from law enforcement agency and the Traffic Engineering Division.

Maintenance and Updates:

The school route map shall be maintained by the school. Revisions to the map are made by the school in cooperation with the Traffic Engineering Division, individual school, and law enforcement official based on a request submitted by any of these parties. The map shall be updated at the time any change is made to any of its components.

IV. GUIDELINES FOR ESTABLISHING SCHOOL SPEED ZONE

Warrants:

A school speed zone may be established only on that segment(s) of a street, where any number of elementary and/or middle school students walk across that particular segment of the street at an established school crossing, provided that one or more of the following conditions are met:

A. Streets abutting school and providing direct access to its main entrance:

- 1- Vehicular traffic **is not** required to stop at the established school crossing by means of a stop sign or traffic signal.
- 2- Vehicular traffic **is** required to stop at the established school crossing by means of a stop sign or traffic signal control, **and** that crossing **is not** served by an adult crossing guard.
- 3- The posted speed limit or the 85th percentile speed on that particular segment of the street is greater than 35 miles per hour.
- 4- Street with four or more traffic lanes.
- 5 - Street segment with a designated on-street student drop-off and/or pick up area.

B- Other streets not abutting school:

- 1- Vehicular traffic **is not** required to stop at the established school crossing by means of a stop sign or traffic signal, **and** the crossing **is** served by an adult crossing guard.

Signing:

School speed zone signs shall be installed in accordance with Part 7 of the MUTCD. When established, the school speed zone shall be placed at least 100 feet upstream from school property line or 200 feet from the nearest established school crossing, which ever is encountered first. The beginning of a school zone is identified by the school zone speed limit signs defined in the MUTCD and include (S4-3, R2-1, and S4-1). The end of a school zone is identified by the regular speed limit sign (R2-1) indicating the beginning of the regular speed zone. School zone notification signs shall be provided for side streets that intersect with the school zone road if the intersection is located within that school zone.

Speed Limit and Enforcement Time:

School zone speed limit is 20 mph. Such speed limit may be in force during those times 40 minutes before, during, and 10 minutes after the periods of time when pupils are arriving at a regularly scheduled breakfast program or a regularly scheduled school session and 10 minutes before, and 30 minutes after leaving a regularly scheduled school session.

IV. GUIDELINES FOR INSTALLING SCHOOL FLASHERS

Warrants:

School flashers shall be installed on street segment(s) abutting an elementary or middle school with an established school speed zone if one or more of the following warrants are met:

- 1- Two-lane or three-lane (one-way and two-way) street meeting one or more of the school speed zone warrants under section IV of this document, **and** a speed study indicating 85th percentile speed exceeding 25 miles per hour during the time periods when the 20 mile per hour school zone speed limit is enforced.

- 2- Four or more lane roadway meeting one or more of the school speed warrants of section IV above, or 85th percentile speed exceeding 25 mile per hour measured during the time period when the 20 mile per hour school zone speed limit is enforced.

Design, Installation, and Maintenance:

The Traffic Engineering Division will prepare design details for each individual school speed zone flasher location, install, and maintain the flasher assembly as needed.

V. GUIDELINES FOR ESTABLISHING SCHOOL CROSSING

School crossings shall be established along and as part of the school's walk route and as part of the schools officially adopted school route map. No school crossing shall be established within 300 feet of an existing / established school / pedestrian crossing or an intersection that is controlled by a stop sign or traffic signal.

VI. TRAFFIC SIGNALS

A traffic signal associated with a school may be provided for:

- **School Entrances:** if Warrant # 3, **Peak Hour**, of the MUTCD traffic signal warrants is satisfied.
- **The first intersection that provides school traffic access to a major thoroughfare road** if a traffic signal is not provided at a school entrance, and Warrant# 3, **Peak Hour**, of the MUTCD traffic signal warrants is satisfied.

Excerpts from FDOT Policy

ESTABLISHING SCHOOL ZONES AND SCHOOL CROSSINGS

1. ELIGIBLE SCHOOL ZONE LOCATIONS

1.1 Only public or private elementary, middle schools (Jr. High), or federally funded Headstart facilities providing a full-time educational program are eligible for the markings, signs, and other traffic control devices referenced in **Section 4.1**.

1.2 Except as noted in **Section 1.1**, other educational institutions and facilities are not eligible for the traffic control devices referenced in **Section 4.1**. These include universities, vocational technical schools, junior colleges, community colleges, nursery schools, high schools, and day cares. These institutions may be considered for other types of traffic control devices such as pedestrian crossing signs or warning signs for a playground or driveway entrance.

Traffic control devices are not normally needed at a high school, but when special circumstances occur, they should be addressed on a case-by-case basis, only used when needed, and justified by an engineering study.

2.4 Upon a request from the local government, a reduced speed zone will be used at school crossings at signalized intersections at locations adjacent to or near school property if justified by an engineering study