

# How Hazardous Walking Routes Are Determined

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## Presentation Handouts

## CHAPTER 7 - SCHOOL AREAS

### 7.1 General

#### Need for Standards

The best way to achieve safe and effective traffic control to protect school students is through the uniform application of realistic policies, and standards developed through engineering judgment. Therefore, whenever possible, the Department should always follow the *MUTCD*.

Signs and pavement markings should also conform to those policies established in Chapters 2 and 3 of this manual. All school warning signs shall use retroreflective sheeting, either yellow or fluorescent yellow-green, but local authorities should be encouraged to avoid mixing the two colors whenever possible.

#### Laws, Regulations and Other Publications

*Hazardous Walking Routes (67 Pa. Code Chapter 447)*. Regulations issued under the authority of the Public School Code of 1949 (24 P.S. §§13-1362 and 25-2541) to help determine where student-walking routes are hazardous, which in turn affects the amount of reimbursement that school districts receive for busing school students. This regulation is available at <http://www.pacode.com/secure/data/067/chapter447/chap447toc.html>.

*Manual on Uniform Traffic Control Devices (MUTCD)*. Part 7 is titled, "Traffic Control for School Areas", and is available at [http://mutcd.fhwa.dot.gov/pdfs/2009/pdf\\_index.htm](http://mutcd.fhwa.dot.gov/pdfs/2009/pdf_index.htm).

*Pennsylvania Drivers Manual*. This manual provides guidance for drivers, and is available at <http://www.dmv.com/pa/pennsylvania/driver-handbook>.

*School Trip Safety Program Guidelines*, 1984 Edition (ITE).

*Traffic Control – Pavement Markings and Signing Standards (PennDOT Pub. 111)*. Standard drawings specifying the types, dimensions, locations and lighting of signs on expressways and freeways, and the legend spacing and sign supports for signs on all highways. Available at <ftp://ftp.dot.state.pa.us/public/PubsForms/Publications/PUB%20111M.pdf>

*Vehicle Code (75 Pa.C.S.)*. The Pennsylvania Vehicle Code is law that typically defines actions required by drivers and the Department. Specifically, [§3365\(b\)](#) discusses the establishment of the 15 mph school zone speed limit. In addition, [§3345\(a\)](#) discusses the driver's responsibility when approaching a school bus.

#### Definitions

The following words and terms, when used in this chapter, have the following meanings, unless the context clearly indicates otherwise:

*Divided highway* – A highway divided into two or more roadways and so constructed as to impede vehicular traffic between the roadways by providing an intervening space, physical barrier or clearly indicated dividing section. Each roadway of a divided highway is a "separate roadway" as used in [75 Pa.C.S. §3345\(g\)](#).

*Elementary students* – School students in kindergarten or grades one through six.

*Hazardous* – An unsafe condition caused by potential incompatibility between vehicles and school students, while the students are walking between their home and their school or school bus stop.

School zone – A portion of a highway that at least partially abuts a school property or extends beyond the school property line that is used by students to walk to or from school or to or from a school bus pick-up or drop-off location at a school.

Secondary students – School students in grades 7 through 12.

Separate roadway – One of the roadways of a “divided highway.”

Shoulder – The portion of the highway contiguous to the roadway used for accommodation of stopped or parked vehicles, for emergency use or for lateral support of base and surface courses.

Sidewalk – That portion of a street or highway or other public right-of-way that is reserved exclusively for pedestrian travel and is normally protected by a minimum average 4-inch high, non-mountable curb, or is not immediately adjacent to the roadway. A sidewalk should have a minimum width of 2 feet; a gravel, brick, stone or paved surface; and be available for use during normal weather conditions.

Student-walking route – The system of streets, shoulders, sidewalks and crosswalks used by school students when walking between their homes and their school or school bus stop, officially designated by the school district or, where no official route has been designated, used by school students because of the unavailability of a reasonable alternate route.

## 7.2 School Zone Speed Limits

### Criteria

The criteria to determine if a 15-mph school zone speed limit is applicable is in 67 Pa. Code §212.501 (see [Chapter 7 Appendix](#) on page 7-7).

**PLEASE NOTE:**

1. In accordance with §212.501(a), a 15-mph school zone speed limit is only applicable when at least one student walks to school.
2. The Department must approve all school zones, including the location and hours of operation of the speed limits on both State highways and on local roads, except as noted in §212.501(a)(2).

### Signing Requirements

Posting requirements are included in §212.501(b).

## 7.3 Student-Walking Routes

### Legislative Requirement

The Public School Code of 1949 (24 P.S.) requires the Department to take into account all relevant safety factors for student-walking routes when certifying whether or not walking constitutes a hazard to the students. § 25-2541(c) of the Code is included as [Exhibit 7-1](#).

### Department Regulations and Interpretations.

The regulations for Hazardous Walking Routes (Chapter 447 of Title 67, Pennsylvania Code) establish criteria for determining if student-walking routes are or are not hazardous for the students (see [Chapter 7](#)

**Appendix** on page 7-9). In addition to the regulations, the following interpretations provide guidance in evaluating the requests:

- a) When requested by the school district, the Department will evaluate a student-walking route regardless if a student is walking from home to school or to a school bus stop, or if the student is being transported by either a private or a school district conveyance.
- b) Crossing at a signalized intersection may be declared hazardous for an elementary school student if all of the following apply:
  1. The signal installation does not include an exclusive pedestrian walk phase.
  2. An adult crossing guard is not permanently assigned to the signalized intersection during the school year.
  3. Sight distance, traffic volumes, or roadway widths make it difficult for an elementary student to cross safely.
- c) Crossing at a signalized intersection may be declared hazardous for all school students if an adult crossing guard is not permanently assigned to the signalized intersection during the school year and one or more of the following is satisfied:
  1. The complexity of the operation or design of the signal system is such that:
    - signal indications do not readily provide a visible indication for the school student desiring to cross the intersection; or
    - a multi-phase signal operation exists and it may not be apparent what traffic is being given a green indication.
  2. A 4.5-foot tall student using a crosswalk within the intersection may not be visible at a point that allows an approaching driver turning across the crosswalk to come to a safe stop.
  3. The number of approach lanes and/or the complexity of the geometries of the intersection makes it difficult for a secondary school student to traverse the intersection or to reach a safe refuge.

### Field Study and Evaluation

The Department will determine if a student-walking route is hazardous when a written request is received from the school district. If a request is received from anyone other than the school district, the Engineering District will return the request with a letter explaining the Department's policy for evaluating student-walking routes. The District should also copy the school district, and include a copy of the original request. This will bring the potentially hazardous situation to the attention of the school district and serve as an official notification from the Department.

It is the responsibility of the school district to complete one or more Study and Data Sheets (see **Chapter 7 Appendix** on page 7-14) for each street or highway within the student-walking route. If the Department receives a request from a school district without the Study and Data Sheets, the request should be acknowledged by letter, asking the school district to provide the completed sheets. (The Department will provide a copy of Chapter 447 and one or more copies of the Study and Data Sheets.)

After receipt of the completed forms, the District Traffic Unit will evaluate the information on the Study and Data Sheets to determine if the student-walking route is or is not hazardous for the students. At the District

Traffic Unit's discretion, they may field verify any of the information. The District Traffic Unit shall conduct a study to determine if the student-walking route is or is not hazardous.

If the Engineering District cannot issue a certification within 2 weeks, the District Traffic Unit should acknowledge the School District's request and advise them when they should anticipate the certification.

**Certification**

Justification for Hazardous Certification

The District Traffic Unit will prepare the certification (see [Chapter 7 Appendix](#) on page 7-20) for a basic format). If the student-walking route (as defined on the Study and Data Sheets) is hazardous, the certification form shall cite the section(s) of Chapter 447 or the appropriate sections of this policy which was used to declare the route hazardous. For example:

*The results of the investigation indicate that sidewalks do not exist, the shoulders are less than 4 feet wide, the roadway width is less than 20 feet wide and one or more trucks with three or more axles were observed using the roadway during the time the elementary students are enroute to or from school. Therefore, in accordance with the provisions of §447.4(b)(1)(i), this route is declared hazardous for elementary students.*

Partial Hazardous Certification

If one or more portions of a designated walking route is determined to be hazardous and the balance is determined to be non-hazardous, certify the student-walking route accordingly. For example, a certification form could indicate:

*The results of the investigation indicate that the section of Street "X" between " \_\_\_\_\_ " and " \_\_\_\_\_ " does not have sidewalks, the shoulders are less than 4 feet wide, the roadway width is less than 20 feet wide and one or more trucks with three or more axles were observed using the roadway during the time the elementary students are enroute to or from school. Therefore, in accordance with the provisions of §447.4(b)(1)(i), this section of Street "X" is declared hazardous for elementary students. The remaining sections of Street "X" between " \_\_\_\_\_ " and " \_\_\_\_\_ " are non-hazardous.*

Approval of the Certification

The District Executive should sign the certification and forward copies to the school district and to the following address:

Pennsylvania Department of Education  
 Bureau of Budget and Fiscal Management  
 Division of Subsidy Data and Administration  
 333 Market Street, 4th Floor  
 Harrisburg, PA 17126-0333

**Exhibit 7-1      Payments on Account of Pupil Transportation (24 P.S. §25-2541(c))**

(c) *Payments for pupil transportation on account of the school year 1979-1980 and every school year thereafter shall be made only in the following cases:*

(1) *To all school districts for the transportation to and from school of elementary school pupils, including kindergarten pupils, residing one and one-half (1½) miles or more by the nearest public highway from the school in which the pupils are enrolled and to which transportation is authorized under section 1361 of this act or residing in areas where the road or traffic conditions are such that walking constitutes a hazard to the safety of the child **when so certified by the Department of Transportation.** The Department of Transportation shall take into account the presence of sidewalks along the highway, but such presence or lack thereof shall not be controlling and the department shall consider all relevant safety factors in making its determination as to whether or not walking constitutes a hazard to pupils. Such elementary school pupils shall include nonresident children who are placed in the home of a resident, or who are residents of an orphanage, or home or children's home or other institution for the care and training of orphans or other children.*

(2) *To all school districts for the transportation to and from school of secondary school pupils residing two (2) miles or more by the nearest public highway from the school in which the pupils are enrolled and to which transportation is authorized under section 1361 of this act or residing in areas where the road or traffic conditions are such that walking constitutes a hazard to the safety of the child **when so certified by the Department of Transportation.** The Department of Transportation shall take into account the presence of sidewalks along the highway, but such presence or lack thereof shall not be controlling and the department shall consider all relevant safety factors in making its determination as to whether or not walking constitutes a hazard to pupils. Such secondary school pupils shall include nonresident children who are placed in the home of a resident, or who are inmates of an orphan asylum or home or children's home or other institution for the care and training of orphans or other children.*

(3) *To all school districts for pupils transported to and from approved consolidated schools or approved joint consolidated schools living one and one-half (1½) miles or more from the school of attendance or residing in areas where the road or traffic conditions are such that walking constitutes a hazard to the safety of the child **when so certified by the Department of Transportation.** The Department of Transportation shall take into account the presence of sidewalks along the highway, but such presence or lack thereof shall not be controlling and the department shall consider all relevant safety factors in making its determination as to whether or not walking constitutes a hazard to pupils.*

*Consolidated schools or joint consolidated schools shall so long as they are approved as to organization, control, location, equipment, courses of study, qualifications of teachers, methods of instruction, condition of admission, expenditures of money, methods and means of transportation and the contracts providing therefore, constitute approved consolidated schools or approved joint consolidated schools.*

(4) *To all school districts for the transportation of exceptional children regularly enrolled in special classes approved by the Department of Education or enrolled in a regular class in which approved educational provisions are made for them.*

(5) *To all school districts for pupils transported to and from area technical schools.*

## 7.4 Chapter 7 Appendix

**67 Pa. Code §212.501 - School Zone Speed Limits**

Sec.

212.501. [School zone speed limits.](#)

**§212.501. School zone speed limits.**

(a) *Establishment.* A 15 miles per hour school zone speed limit may be established in a school zone during the normal hours that walking students are arriving at or leaving school, under 75 Pa.C.S. §3365(b) (relating to special speed limitations).

(1) To establish a school zone, local authorities shall be responsible to prepare and submit a drawing showing the locations where students walk along or across roadways that are adjacent to school property, the hours that students are going to or from school and the proposed limits for the school zone to the Department for approval.

(2) The Department is responsible for approving the establishment of all school zones, including the locations and hours of operation, except local authorities shall be responsible for approving school zones at the following locations:

(i) On local highways when the municipality has received municipal traffic engineering certification under Chapter 205 (relating to municipal traffic engineering certification).

(ii) On State-designated highways when the municipality has entered into an agreement with the Department thereby transferring to the local authorities the authority to install traffic-control devices without specific Department approval.

(iii) On highways in cities of the first and second class, except not on expressways.

(3) The duration of a 15 miles per hour school zone speed limit should be only long enough to include the time that walking students routinely arrive at or leave school.

(b) *Posting.* A school zone speed limit shall be posted on official traffic-control devices as follows:

(1) At the beginning of the school zone speed limit, one of the following signs or groups of signs shall be posted either on the right side of the roadway or over the roadway:

(i) A Speed Limit Sign (R2-1) with the appropriate school zone speed limit, with a School Panel (S4-3) mounted above the Speed Limit Sign (R2-1) and a When Flashing Sign (S4-4) mounted below the Speed Limit Sign (R2-1), with two flashing speed limit sign beacons.

(ii) A Speed Limit Sign (R2-1) with the appropriate school zone speed limit, with a School Panel (S4-3) mounted above the Speed Limit Sign (R2-1) and a Restricted Hours Panel (R10-20A) mounted below the Speed Limit Sign (R2-1).



(iii) A School Speed Limit When Flashing Sign with a blank-out “15” and flashers as illustrated in the *Traffic Signal Design Handbook* (Department Publication 149).

(2) An End School Zone Sign (S5-2) shall be posted on the right side of the roadway to define the end of the school zone speed limit.

(3) The limits of a school zone may extend beyond the school property lines to improve the sight distance or to encompass a school crosswalk, except that the length of the zone may not be greater than 1,600 feet.

**67 Pa. Code Chapter 447 - Hazardous Walking Routes**

Sec.

- 447.1. [Purpose.](#)
- 447.2. [Definitions.](#)
- 447.3. [General policy.](#)
- 447.4. [Criteria.](#)

**Authority**

The provisions of this Chapter 447 issued under sections 506 and 2001 of The Administrative Code of 1929 (71 P. S. §§186 and 511); and sections 1362 and 2541 of the Public School Code of 1949 (24 P. S. §§13-1362 and 25-2541), unless otherwise noted.

**Source**

The provisions of this Chapter 447 adopted August 1, 1980, effective August 2, 1980, 10 Pa.B. 3191, unless otherwise noted.

**§447.1. Purpose.**

This chapter establishes guidelines for determining if a designated school student walking route along a public highway is hazardous, as the defined term is used in sections 1362 and 2541 of the Public School Code of 1949 (24 P. S. §13-1362 and §25-2541).

**Source**

The provisions of this §447.1 adopted August 1, 1980, effective August 2, 1980, 10 Pa.B. 3191; amended August 7, 1981, effective August 8, 1981, 11 Pa.B. 2777.

**§447.2. Definitions.**

The following words and terms, when used in this chapter, have the following meanings, unless the context clearly indicates otherwise:

*Elementary students*—School students in kindergarten or grades one through six.

*Hazardous*—An unsafe condition caused by potential incompatibility between vehicles and school students, while the students are walking between their home and their school or school bus stop.

*Safe-running speed*—The official speed limit as posted by signs or, in the absence of a posted speed limit, the average speed as determined by making a minimum of five test runs in each direction and periodically recording the operating speed at different locations while driving at a

speed which is reasonable and prudent considering the spacing of intersections, roadside development and sight distance.

*Secondary students*—School students in grades 7 through 12.

*Shoulder*—The portion of the highway contiguous to the roadway used for accommodation of stopped or parked vehicles, for emergency use or for lateral support of base and surface courses.

*Sidewalk*—That portion of a street or highway or other public right-of-way which is reserved exclusively for pedestrian travel and is normally protected by a minimum average 4-inch high, nonmountable curb, or is not immediately adjacent to the roadway. A sidewalk should have a minimum width of 2 feet; a gravel, brick, stone or paved surface; and be available for use during normal weather conditions.

*Student walking route*—The system of streets, shoulders, sidewalks and crosswalks used by school students when walking between their home and their school or school bus stop, officially designated by the school district or, where no official route has been designated, used by school students because of the unavailability of a reasonable alternate route.

#### Source

The provisions of this §447.2 adopted August 1, 1980, effective August 2, 1980, 10 Pa.B. 3191; amended August 7, 1981, effective August 8, 1981, 11 Pa.B. 2777.

#### **§447.3. General policy.**

(a) A request for review of student walking routes should be referred to the appropriate engineering district as listed in Appendix A [*NOTE: Appendix A is not included in Publication 46*]. Personnel of the engineering district will make the necessary study upon receipt of a written request from a school district and the district engineer will certify whether the route is or is not hazardous. The certification will be forwarded to the school district and to the Department of Education.

(b) The Vehicle Code sets forth certain rights and duties for pedestrians and vehicular traffic. These rights and duties have been considered in the development of these guidelines. Accordingly, if a hazard exists solely because of failure of drivers or school students to obey the provisions of the Vehicle Code, the student walking route may be declared hazardous; however, the basis for the hazardous walking route determination shall be so noted on the certification and the problem brought to the attention of the municipality.

(c) Road and traffic conditions shall be evaluated before any highway or section of highway is declared hazardous. The presence or absence of side walks shall be a factor in the evaluation but may not be the controlling factor. The criteria for road and traffic conditions may apply only to student walking routes, as defined in this chapter.

(d) This chapter may not be construed to require school buses to stop at every dwelling in the event that a student walking route or a portion thereof is declared hazardous, since such a policy would increase the probability of bus-related accidents. A student may be required to walk up to 500 feet on a roadway designated as a hazardous walking route when the route is designated as hazardous in accordance with §447.4(b) (relating to criteria).

(e) If changes occur in the condition of a walking route that was previously inspected, a reevaluation of the route may be requested.

**Source**

The provisions of this §447.3 adopted August 1, 1980, effective August 2, 1980, 10 Pa.B. 3191; amended August 7, 1981, effective August 8, 1981, 11 Pa.B. 2777.

**§447.4. Criteria.**

(a) A student walking route shall be considered hazardous if any one of the following three conditions exist:

(1) Two or more pedestrian-related accidents have occurred during the last 3 years while the pedestrians were walking along the student walking route during hours students are normally going to or from school.

(2) It is necessary for a student to cross a roadway; either daily or intermittently, at a location where vehicular traffic is not controlled by either traffic control signals or a stop sign, or where students are not protected by an adult crossing guard; provided vehicular traffic on roadway is in excess of the values given in the table below for any 15-minute period during which students are enroute to or from school:

**TABLE I**

<i>Roadway Width (ft)*</i>	<i>For Elementary Students Number of Vehicles</i>	<i>For Secondary Students Number of Vehicles</i>
20 or less	155	175
24	130	150
30	100	120
36	80	100
48	40	60

\* If the roadway is divided by a raised median which is at least 8 feet wide and has nonmountable curbs, the roadway should be considered as two separate roadways.

(3) It is necessary for students to cross a railroad-highway grade crossing which has two or more tracks and the following three qualifications are met:

(i) Trains normally — not necessarily with regularity — use the crossing at the time the students cross the tracks going to or from school.

(ii) The crossing is not protected by a flashing light signal or a crossing guard.

(iii) The speed of the trains and the available sight distance are such that students walking at a speed of 3.5 feet per second cannot safely cross the tracks.

(b) A student walking route shall be considered hazardous if a sidewalk does not exist and either paragraph (1) or (2) applies:

(1) The shoulders are less than 4 feet wide and for either:

(i) Elementary students, the roadway surface is less than 20 feet wide and one or more trucks with three or more axles, not including garbage trucks or other types of trucks making house-to-house stops, normally use the roadway during the time the elementary students are enroute to or from school.

(ii) Streets and highways with an average traffic volume of at least ten vehicles per hour during the time students are walking, a 3.5-foot tall elementary school student or a 4.5-foot tall secondary student is not visible by approaching drivers from at least the following minimum distances:

**TABLE II**

<i>Safe-running Speed</i>	<i>Minimum Distance (ft.)</i>
30 or less	200
35	240
40	275
45	315
50	350
55	410

(2) The normal vehicular traffic volume during any 15-minute period that students are enroute to or from school exceeds the following values for the appropriate safe-running speed range:

(i) Safe-running speed is 35 mph or less:

<i>Shoulder Width</i>	<i>For Elementary Students</i>	<i>Number of Vehicles For Secondary Students Only</i>
less than 4 ft.	30	45
4 ft. – 6 ft.	60	100

(ii) Safe-running speed is over 35 mph:

<i>Shoulder Width</i>	<i>For Elementary Students</i>	<i>Number of Vehicles For Secondary Students Only</i>
less than 4 ft.	20	30
4 ft. – 6 ft.	40	65

**Source**

The provisions of this §447.4 adopted August 1, 1980, effective August 2, 1980, 10 Pa.B. 3191; amended August 7, 1981, effective August 8, 1981, 11 Pa.B. 2777.

**Cross References**

This section cited in 67 Pa. Code §447.3 (relating to general policy).

**Student-Walking Route - Study and Data Sheet**

County \_\_\_\_\_ Municipality \_\_\_\_\_

School District Name \_\_\_\_\_ IU \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_ Zip Code \_\_\_\_\_

**FOR PURPOSES OF THIS REVIEW, THE FOLLOWING DEFINITIONS APPLY:**

**Elementary students** – School students in kindergarten or grades one through six.

**Hazardous** – An unsafe condition caused by potential incompatibility between vehicles and school students, while the students are walking between their home and their school or school bus stop.

**Safe-running speed** – The official speed limit as posted by signs or, in the absence of a posted speed limit, the average speed as determined by making a minimum of five test runs in each direction and periodically recording the operating speed at different locations while driving at a speed which is reasonable and prudent considering the spacing of intersections, roadside development and sight distance.

**Secondary students** – School students in grades 7 through 12.

**Shoulder** – The portion of the highway contiguous to the roadway used for accommodation of stopped or parked vehicles, for emergency use or for lateral support of base and surface courses.

**Sidewalk** – That portion of a street or highway or other public right-of-way that is reserved exclusively for pedestrian travel and is normally protected by a minimum average 4-inch high, non-mountable curb, or is not immediately adjacent to the roadway. A sidewalk should have a minimum width of 2 feet; a gravel, brick, stone or paved surface; and be available for use during normal weather conditions.

**Student-walking route** – The system of streets, shoulders, sidewalks and crosswalks used by school students when walking between their homes and their school or school bus stop, officially designated by the school district or, where no official route has been designated, used by school students because of the unavailability of a reasonable alternate route.

**PLEASE NOTE:** A map or detailed sketch of the area must accompany this study and data sheet, highlighting the school student-walking route. This map or detailed sketch should be large enough to include nearby streets and roadways, and should show the location of all adult crossing guards. Also, provide any additional supporting data.

1. Location of school student-walking route: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Ex: From residences and connecting roadways to \_\_\_\_\_ school. Or, See Attached Map

2. Local street name, Township Road No., or State Route No. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Beginning location \_\_\_\_\_

Ex: Street Address, or cross-street info.`

Ending location \_\_\_\_\_

Ex: Street Address, or cross-street info.`

Approximate length \_\_\_\_\_

Any general comments regarding the location: \_\_\_\_\_

3. Typical roadway width is \_\_\_\_\_ feet. Shoulder width is \_\_\_\_\_ feet.

4. Are sidewalks present? \_\_\_\_\_ Are shoulders present? \_\_\_\_\_

5. Is this a request for a re-evaluation of a previously inspected route? \_\_\_\_\_ If yes, when was it last reviewed and what was the finding? \_\_\_\_\_  
\_\_\_\_\_

6. During what time periods are students using the subject route?

Elementary Students

Secondary Students

(a) Morning \_\_\_\_\_ to \_\_\_\_\_

(a) Morning \_\_\_\_\_ to \_\_\_\_\_

(b) Mid-day \_\_\_\_\_ to \_\_\_\_\_

(b) Mid-day \_\_\_\_\_ to \_\_\_\_\_



(c) Afternoon \_\_\_\_\_ to \_\_\_\_\_ (c) Afternoon \_\_\_\_\_ to \_\_\_\_\_

7. Which 15-minute time period has the greatest vehicular traffic volume while:

(a) Elementary students are enroute?

\_\_\_\_\_ to \_\_\_\_\_ 15-minute volume: \_\_\_\_\_

(b) Secondary students are enroute?

\_\_\_\_\_ to \_\_\_\_\_ 15-minute volume: \_\_\_\_\_

Traffic volumes should be done during school year, and during walk times.

8. How many pedestrian-related accidents occurred in the study area in the last 36 months

during the hours students are normally going to or from school? \_\_\_\_\_

*(If any pedestrian accidents occurred, please attach a copy of each police accident report and indicate the location of the accident on the accompanying map. The walking route between two or more accident locations is hazardous.)*

Obtain this info. from the Police Dept.

9. Does the student-walking route cross the roadway at any location where vehicular traffic is

not controlled by either a STOP sign or traffic-control signal, or an adult crossing guard?

\_\_\_\_\_ If yes, what is the roadway width? \_\_\_\_\_ and, is the crossing by:

(a) Elementary students? \_\_\_\_\_ Secondary students? \_\_\_\_\_

(b) Number of vehicles using the road during a 15-minute period while students would

ordinarily be attempting to cross the road? \_\_\_\_\_

Traffic volumes should be done during school year, and during walk times.

*(If the number of vehicles exceeds the appropriate values in Table 1 in §447.4(a)(2) of the regulations, the crossing is hazardous.)*

10. Does the student-walking route cross a highway-rail grade crossing that has two or more

tracks? \_\_\_\_\_ If yes,

(a) Do trains normally use the crossing during the time students are going to or from

school? \_\_\_\_\_

(b) Is the crossing unprotected? \_\_\_\_\_ Question (b) is answered "no" when:

- A flashing light signal (i.e., two alternately flashing red light units) is installed at the crossing, or
- A "flagger is employed by the railroad company to stop highway vehicles and pedestrians, is present whenever a train moves over the crossing.

(c) Is the speed of the trains and the available sight distance such that students walking at a speed a normal pace of approximately 3.5 feet per second cannot safely cross the tracks? \_\_\_\_\_

*(If the answers to all four questions are "yes," crossing the rail-highway grade crossing is hazardous.)*

11. Is the roadway less than 20 feet wide and without either sidewalks or minimum 4-foot wide shoulders at any location? \_\_\_\_\_ If yes, how many trucks with three or more axles (excluding garbage trucks or other types of trucks making house-to-house stops) normally use the roadway during the time elementary students are enroute? \_\_\_\_\_

*(If the first answer is "yes," and one or more trucks normally uses the roadway during this time, the section of highway or street on which the trucks travel is hazardous.)*

12. What is the safe running speed (see the definition on Page 7C-1)? \_\_\_\_\_ mph.

Posted Speed

13. Do at least 10 vehicles use the roadway during the hours students are going to or from school, and is the roadway without either sidewalks or minimum 4-foot wide shoulders at any location? \_\_\_\_\_ If yes, are there any sections of the roadway where the visibility of the student(s) is a problem for approaching drivers? \_\_\_\_\_ If yes, how far away can drivers see the shortest student? \_\_\_\_\_ feet.

*(If the distance is less than the appropriate value in Table II in §447.4(b)(ii) of the regulation, the section of street or highway on which the sight distance deficiency exists is hazardous.)*

14. If the roadway has no sidewalks, how wide are the shoulders? \_\_\_\_\_ feet During any 15-minute period that students are enroute to or from school, how many vehicles normally travel on the roadway? \_\_\_\_\_

*(If the number of vehicles exceeds the values in §447.4(b)(2) for the appropriate speed, the route is hazardous for elementary and secondary students.)*

15. Do elementary students have to cross at a signalized intersection that does not have an exclusive pedestrian walk phase or an adult crossing guard? \_\_\_\_\_ If yes, is sight distance, traffic volumes, or roadway widths such that it may be difficult for an elementary student to cross the intersection safely? \_\_\_\_\_

*(If both answers are "yes" the route is hazardous for elementary students.)*

16. Do secondary students who use the student-walking route have to cross a signalized intersection which is not routinely protected by an adult crossing guard? \_\_\_\_\_ If yes, is one or more of the following is satisfied? \_\_\_\_\_

- Students cannot readily see visible signal indications when desiring to cross the intersection.
- The signal is a multi-phase operation where it may not be apparent what traffic has a green indication.
- A 4.5-foot tall student using a crosswalk within the intersection may not be visible at a point that will allow an approaching driver turning through the crosswalk time to come to a safe stop.
- The complexity of the geometrics of the intersection makes it difficult for a secondary school student to traverse the intersection or reach a safe refuge.

*(If both answers are "yes" the route is hazardous for secondary students.)*

17. Can the school bus stop or the student-walking route be relocated to avoid a hazardous certification? \_\_\_\_\_  
 \_\_\_\_\_

18. Are there any other extenuating circumstances that you believe would qualify this route as being hazardous? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

PERSON RESPONSIBLE FOR COMPLETING THIS FORM:

I hereby certify that I personally examined this student-walking route and, to the best of my knowledge, the information I have supplied on this Study and Data Sheet is true and correct.

Name \_\_\_\_\_

Signature \_\_\_\_\_ Date \_\_\_\_\_ Title \_\_\_\_\_

\_\_\_\_\_ Telephone No. \_\_\_\_\_

SCHOOL SUPERINTENDENT:

Signature \_\_\_\_\_ Date \_\_\_\_\_

Student Walking Route Certification

Sample Response Letter from PennDOT

On \_\_\_\_\_, the Pennsylvania Department of Transportation
(Date)
investigated \_\_\_\_\_, in Intermediate Unit No. \_\_\_\_\_,
(SR, or Road or Street)
\_\_\_\_\_ School District, between \_\_\_\_\_
\_\_\_\_\_ and \_\_\_\_\_
\_\_\_\_\_, in \_\_\_\_\_ County.

The results of the investigation indicate the following:

Multiple horizontal lines for writing the results of the investigation.

Certified by:

District Executive
Engineering District \_\_\_\_\_

# **STUDENT WALKING ROUTE - STUDY & DATA SHEETS**

**Student-Walking Route - Study and Data Sheet**

County \_\_\_\_\_ Municipality \_\_\_\_\_

School District Name \_\_\_\_\_ IU \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_ Zip Code \_\_\_\_\_

**FOR PURPOSES OF THIS REVIEW, THE FOLLOWING DEFINITIONS APPLY:**

**Elementary students** – School students in kindergarten or grades one through six.

**Hazardous** – An unsafe condition caused by potential incompatibility between vehicles and school students, while the students are walking between their home and their school or school bus stop.

**Safe-running speed** – The official speed limit as posted by signs or, in the absence of a posted speed limit, the average speed as determined by making a minimum of five test runs in each direction and periodically recording the operating speed at different locations while driving at a speed which is reasonable and prudent considering the spacing of intersections, roadside development and sight distance.

**Secondary students** – School students in grades 7 through 12.

**Shoulder** – The portion of the highway contiguous to the roadway used for accommodation of stopped or parked vehicles, for emergency use or for lateral support of base and surface courses.

**Sidewalk** – That portion of a street or highway or other public right-of-way that is reserved exclusively for pedestrian travel and is normally protected by a minimum average 4-inch high, non-mountable curb, or is not immediately adjacent to the roadway. A sidewalk should have a minimum width of 2 feet; a gravel, brick, stone or paved surface; and be available for use during normal weather conditions.

**Student-walking route** – The system of streets, shoulders, sidewalks and crosswalks used by school students when walking between their homes and their school or school bus stop, officially designated by the school district or, where no official route has been designated, used by school students because of the unavailability of a reasonable alternate route.

**PLEASE NOTE:** A map or detailed sketch of the area must accompany this study and data sheet, highlighting the school student-walking route. This map or detailed sketch should be large enough to include nearby streets and roadways, and should show the location of all adult crossing guards. Also, provide any additional supporting data.

1. Location of school student-walking route: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2. Local street name, Township Road No., or State Route No. \_\_\_\_\_  
\_\_\_\_\_

Beginning location \_\_\_\_\_

Ending location \_\_\_\_\_

Approximate length \_\_\_\_\_

Any general comments regarding the location: \_\_\_\_\_

3. Typical roadway width is \_\_\_\_\_ feet. Shoulder width is \_\_\_\_\_ feet.

4. Are sidewalks present? \_\_\_\_\_ Are shoulders present? \_\_\_\_\_

5. Is this a request for a re-evaluation of a previously inspected route? \_\_\_\_\_ If  
yes, when was it last reviewed and what was the finding? \_\_\_\_\_  
\_\_\_\_\_

6. During what time periods are students using the subject route?

Elementary Students

Secondary Students

(a) Morning \_\_\_\_\_ to \_\_\_\_\_

(a) Morning \_\_\_\_\_ to \_\_\_\_\_

(b) Mid-day \_\_\_\_\_ to \_\_\_\_\_

(b) Mid-day \_\_\_\_\_ to \_\_\_\_\_



(c) Afternoon \_\_\_\_\_ to \_\_\_\_\_ (c) Afternoon \_\_\_\_\_ to \_\_\_\_\_

7. Which 15-minute time period has the greatest vehicular traffic volume while:

(a) Elementary students are enroute?

\_\_\_\_\_ to \_\_\_\_\_ 15-minute volume: \_\_\_\_\_

(b) Secondary students are enroute?

\_\_\_\_\_ to \_\_\_\_\_ 15-minute volume: \_\_\_\_\_

8. How many pedestrian-related accidents occurred in the study area in the last 36 months during the hours students are normally going to or from school? \_\_\_\_\_

*(If any pedestrian accidents occurred, please attach a copy of each police accident report and indicate the location of the accident on the accompanying map. The walking route between two or more accident locations is hazardous.)*

9. Does the student-walking route cross the roadway at any location where vehicular traffic is not controlled by either a STOP sign or traffic-control signal, or an adult crossing guard?

\_\_\_\_\_ If yes, what is the roadway width? \_\_\_\_\_ and, is the crossing by:

(a) Elementary students? \_\_\_\_\_ Secondary students? \_\_\_\_\_

(b) Number of vehicles using the road during a 15-minute period while students would ordinarily be attempting to cross the road? \_\_\_\_\_

*(If the number of vehicles exceeds the appropriate values in Table 1 in §447.4(a)(2) of the regulations, the crossing is hazardous.)*

10. Does the student-walking route cross a highway-rail grade crossing that has two or more tracks? \_\_\_\_\_ If yes,

(a) Do trains normally use the crossing during the time students are going to or from school? \_\_\_\_\_

(b) Is the crossing unprotected? \_\_\_\_\_ Question (b) is answered "no" when:

- A flashing light signal (i.e., two alternately flashing red light units) is installed at the crossing, or
- A "flagger is employed by the railroad company to stop highway vehicles and pedestrians, is present whenever a train moves over the crossing.

(c) Is the speed of the trains and the available sight distance such that students walking at a speed a normal pace of approximately 3.5 feet per second cannot safely cross the tracks? \_\_\_\_\_

*(If the answers to all four questions are "yes," crossing the rail-highway grade crossing is hazardous.)*

11. Is the roadway less than 20 feet wide and without either sidewalks or minimum 4-foot wide shoulders at any location? \_\_\_\_\_ If yes, how many trucks with three or more axles (excluding garbage trucks or other types of trucks making house-to-house stops) normally use the roadway during the time elementary students are enroute? \_\_\_\_\_

*(If the first answer is "yes," and one or more trucks normally uses the roadway during this time, the section of highway or street on which the trucks travel is hazardous.)*

12. What is the safe running speed (see the definition on Page 7C-1)? \_\_\_\_\_ mph.

13. Do at least 10 vehicles use the roadway during the hours students are going to or from school, and is the roadway without either sidewalks or minimum 4-foot wide shoulders at any location? \_\_\_\_\_ If yes, are there any sections of the roadway where the visibility of the student(s) is a problem for approaching drivers? \_\_\_\_\_ If yes, how far away can drivers see the shortest student? \_\_\_\_\_ feet.

*(If the distance is less than the appropriate value in Table II in §447.4(b)(ii) of the regulation, the section of street or highway on which the sight distance deficiency exists is hazardous.)*

14. If the roadway has no sidewalks, how wide are the shoulders? \_\_\_\_\_ feet During any 15-minute period that students are enroute to or from school, how many vehicles normally travel on the roadway? \_\_\_\_\_

*(If the number of vehicles exceeds the values in §447.4(b)(2) for the appropriate speed, the route is hazardous for elementary and secondary students.)*

15. Do elementary students have to cross at a signalized intersection that does not have an exclusive pedestrian walk phase or an adult crossing guard? \_\_\_\_\_ If yes, is sight distance, traffic volumes, or roadway widths such that it may be difficult for an elementary student to cross the intersection safely? \_\_\_\_\_

*(If both answers are "yes" the route is hazardous for elementary students.)*

16. Do secondary students who use the student-walking route have to cross a signalized intersection which is not routinely protected by an adult crossing guard? \_\_\_\_\_ If yes, is one or more of the following is satisfied? \_\_\_\_\_

- Students cannot readily see visible signal indications when desiring to cross the intersection.
- The signal is a multi-phase operation where it may not be apparent what traffic has a green indication.
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*(If both answers are "yes" the route is hazardous for secondary students.)*

17. Can the school bus stop or the student-walking route be relocated to avoid a hazardous certification? \_\_\_\_\_  
 \_\_\_\_\_

18. Are there any other extenuating circumstances that you believe would qualify this route as being hazardous? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

PERSON RESPONSIBLE FOR COMPLETING THIS FORM:

I hereby certify that I personally examined this student-walking route and, to the best of my knowledge, the information I have supplied on this Study and Data Sheet is true and correct.

Name \_\_\_\_\_

Signature \_\_\_\_\_ Date \_\_\_\_\_ Title \_\_\_\_\_

\_\_\_\_\_ Telephone No. \_\_\_\_\_

SCHOOL SUPERINTENDENT:

Signature \_\_\_\_\_ Date \_\_\_\_\_

## **Common Misconceptions/Questions/Errors When Completing The Hazardous Walking Route Study**

- A separate Hazardous Walking Route Study should be submitted for each road between a specified origin, to the school, in to obtain partial funding if a portion(s) of the road are not determined to be hazardous.

Q: How far do students need to walk before being bussed?

A: 1.5 miles for Elementary, 2.0 miles for Secondary, 1.5 miles for Consolidated Schools

Q: If a route is declared hazardous, does a bus need to make frequent stops at neighboring houses for every student?

A: No. Even though a route is declared hazardous, a student may be required to walk up to 500 feet. This is to lessen the chances of bus related accidents and maintain motorists' compliance of the Stopped School Bus Law.

Q: For Question 3 of the Study Sheet...If the roadway is wide, with no painted shoulder line, how is the shoulder width determined?

A: You can assume 10 foot to 11 foot wide travel lanes, the difference can be counted as shoulder.

Q: For vehicle counts (Question 7 on Study Sheet), what time of day, & month should traffic counts be completed?

A: Because traffic patterns change throughout the year, vehicle counts should be conducted during the school year, and within student walking times.

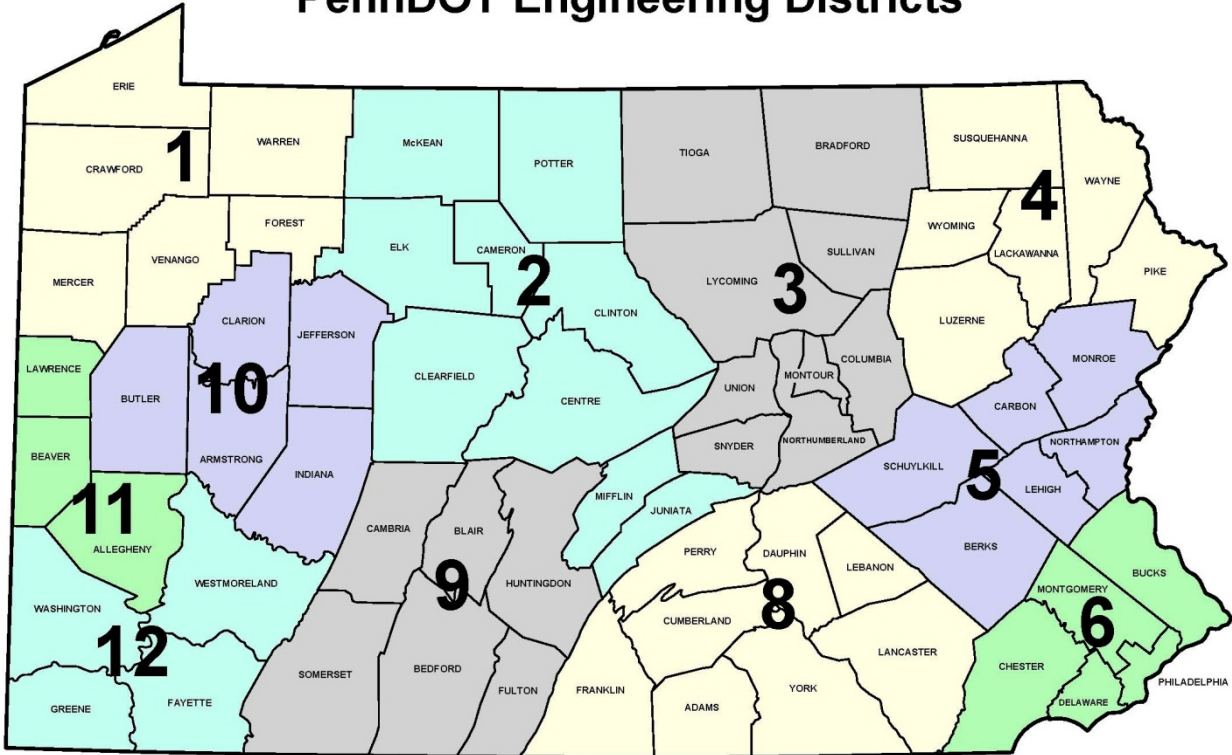
Q: What is the Safe Running Speed of a road? (Question 12 of the Study)

A: In the context of this study, the Safe Running Speed should coincide with the posted speed limit of the roadway.

## **Hazardous Walking Route Submission Checklist**

- ✓ Ensure Study is Filled Out Completely! - No Blanks...Enter N/A, or “-” if necessary
- ✓ Study is Signed by Person Who Performed the Study and the School Superintendent
- ✓ Legible Map Included, with Route Highlighted, Streets Labeled, School Located, etc.
- ✓ Submit the Completed Study and Backup Information to Your Corresponding PennDOT Engineering District Office, c/o the District Traffic Engineer (names & addresses included in this packet)

# PennDOT Engineering Districts



## PennDOT Engineering Districts By County

County	PennDOT District
Adams	8
Allegheny	11
Armstrong	10
Beaver	11
Bedford	9
Berks	5
Blair	9
Bradford	3
Bucks	6
Butler	10
Cambria	9
Cameron	2
Carbon	5
Centre	2
Chester	6
Clarion	10
Clearfield	2
Clinton	2
Columbia	3
Crawford	1
Cumberland	8
Dauphin	8
Delaware	6
Elk	2
Erie	1
Fayette	12
Forest	1
Franklin	8
Fulton	9
Greene	12
Huntingdon	9
Indiana	10
Jefferson	10

County	PennDOT District
Juniata	2
Lackawanna	4
Lancaster	8
Lawrence	11
Lebanon	8
Lehigh	5
Luzerne	4
Lycoming	3
McKean	2
Mercer	1
Mifflin	2
Monroe	5
Montgomery	6
Montour	3
Northampton	5
Northumberland	3
Perry	8
Philadelphia	6
Pike	4
Potter	2
Schuylkill	5
Snyder	3
Somerset	9
Sullivan	3
Susquehanna	4
Tioga	3
Union	3
Venango	1
Warren	1
Washington	12
Wayne	4
Westmoreland	12
Wyoming	4
York	8



## **PennDOT Engineering District Addresses**

PennDOT Engineering District 1-0  
Brian M. Smith, P.E. – District Traffic Engineer  
255 Elm Street  
Oil City, PA 16301  
(814) 678-7085

PennDOT Engineering District 9-0  
John P. Ambrosini, P.E. – District Traffic Engineer  
1620 North Juniata Street  
Holidaysburg, PA 16648  
(814) 696-7250

PennDOT Engineering District 2-0  
Erik Brown, P.E. – District Traffic Engineer  
70 PennDOT Drive  
Clearfield, PA 16830  
(814) 765-0400

PennDOT Engineering District 10-0  
David Tomaswick, P.E. – District Traffic Engineer  
2550 Oakland Avenue  
Indiana, PA 15701  
(724) 357-2800

PennDOT Engineering District 3-0  
Alan W. Keller, P.E. – District Traffic Engineer  
715 Jordan Avenue  
Montoursville, PA 17754  
(570) 368-8686

PennDOT Engineering District 11-0  
Todd Kravits, P.E. – District Traffic Engineer  
45 Thoms Run Road  
Bridgeville, PA 15017  
(412) 429-5000

PennDOT Engineering District 4-0  
Keith D. Williams, P.E. – District Traffic Engineer  
55 Keystone Industrial Park  
Dunmore, PA 18512  
(570) 963-4061

PennDOT Engineering District 12-0  
Bryan P. Walker, P.E. – District Traffic Engineer  
825 North Gallatin Avenue, Ext.  
Uniontown, PA 15401  
(724) 439-7315

PennDOT Engineering District 5-0  
Dennis Toomey, P.E. – District Traffic Engineer  
1002 West Hamilton Street  
Allentown, PA 18101  
(610) 871-4100

PennDOT Engineering District 6-0  
Ashwin Patel, P.E. – District Traffic Engineer  
7000 Geerdes Boulevard  
King of Prussia, PA 19406  
(610) 205-6700

\* Mail Hazardous Walking Route  
Submissions to the Attention of the  
District Traffic Engineer

PennDOT Engineering District 8-0  
Richard K. Deen, P.E. – Acting District Traffic Engineer  
2140 Herr Street  
Harrisburg, PA 17103  
(717) 787-6653

