

Adult School Crossing Guard Manual

AAA Michigan
Community Safety Services
Approved by the
Michigan Department of Education
Michigan State Police



INTRODUCTION

Adult school crossing guards have been an integral part of school crossing protection programs in Michigan for many years. The crossing guard program was originally initiated in larger cities, but now exists in cities of all sizes.

The objective of school crossing protection should be consistent with the traffic safety education objective of preparing responsible traffic citizens. It is the goal of most school districts that students become knowledgeable of traffic hazards and sufficiently independent as pedestrians to cope with most traffic situations. If the school crossing protection aspect is over-emphasized, there is no opportunity for students to make responsible decisions for themselves. To ensure this learning and self-development process, only school crossing protection that is absolutely necessary should be provided. Therefore, police and school officials with traffic control responsibilities are urged to adhere to accepted standards and practices.

Public Act 227 (1978) establishes several procedures and responsibilities pertaining to adult school crossing guards. It states that an engineering study must be conducted to determine if an adult school crossing guard is warranted and that the training and supervision of adult guards is the responsibility of the local law enforcement agency having jurisdiction over the crossing. It further states the minimum age, education requirements and uniform attire for adult guards.

This guidebook provides practical procedures for conducting engineering studies and outlines the education course approved by the Michigan Department of Education and State Police. Suggestions for the organization, administration and operation of an adult school crossing guard program are included in this publication. Schools and communities should assess their particular school crossing needs and determine the direction to proceed within the limits of Public Act 227.

PERSONNEL MANAGEMENT

ORGANIZATION AND ADMINISTRATION

In Michigan, adult crossing guards are the responsibility of the local law enforcement agency having immediate jurisdiction over the crossing location (Michigan Vehicle Code section 257.613c). Usually, a member of the Police Department's traffic division is assigned to supervise the operation, as well as to conduct the necessary engineering studies and training programs. While the police agency is responsible for this program, close communication and cooperation should be maintained with school authorities.

SCOPE OF AUTHORITY Adult crossing guards cannot be given regulatory and enforcement powers. The scope of their responsibilities and duties should be clearly spelled out and understood by both police and crossing guards. Communities may employ adult school crossing guards consistent with this recommended limitation in accordance with Michigan Vehicle Code Public Act 300, as cited below:

257.613b School crossing guard; stationing; time period; color and design of outer vest; stopping vehicular traffic with hand held stop sign; authority.

Sec. 613b.

- (1) When assigned, a school crossing guard shall be stationed at a school crossing during time periods established jointly by the superintendent of the school district and the head of the law enforcement agency having immediate jurisdiction.
- (2) While on duty, a school crossing guard shall wear an outer vest of a color and design which conforms with the standards of the manual of uniform traffic control devices provided for in section 608.
- (3) A school crossing guard, while on duty at a school crossing shall when necessary, stop vehicular traffic. This shall be done by use of a hand held stop sign which conforms to the standards for the sign in the manual of uniform traffic control devices or as approved by the department of state highways and transportation. School crossing

guards shall have the authority only at their assigned crossings and only during their assigned duty times.

257.613c School crossing guard; responsibility of local law enforcement agency; instruction required; approval and conduct of courses.

Sec. 613c.

(1) School crossing guards shall be the responsibility of the local law enforcement agency having immediate jurisdiction of the crossing.

(2) A person shall receive a minimum of 4 hours instruction before performing the duties of a school crossing guard. Two hours of additional instruction shall be given annually to a school crossing guard before the beginning of each school year. The courses of instruction shall be approved by the Department of Education and the Department of State Police and conducted by the local law enforcement agency having jurisdiction or its designee.

257.613d Failure to stop for school crossing guard holding stop sign in upright position; misdemeanor; presumption.

Sec. 613d.

(1) A driver of a motor vehicle who fails to stop when a school crossing guard is in a school crossing and is holding a stop sign in an upright position visible to approaching vehicular traffic is guilty of a misdemeanor.

(2) In a proceeding for a violation of this section, proof that the particular vehicle described in the citation, complaint, or warrant was used in the violation, together with proof that the defendant named in the citation complaint or warrant was the registered owner of the vehicle at the time of the violation, constitutes in evidence a presumption that the registered owner of the vehicle was the driver of the vehicle at the time of the violation.

DUTY PERIODS The number and length of work periods will vary depending on a school's particular needs. Generally, crossing guards report for duty about one-half hour before the tardy bell and remain on duty until five minutes after classes begin. If a crossing guard is

unable to report for work, it is absolutely necessary to call as far in advance so a replacement can be located.

UNIFORMS Adult school crossing guards are required to be uniformly outfitted with a vest and stop sign so that motorists and pedestrians can recognize them and correctly respond to their signals. The MMUTCD describes the vest and stop sign specifications. Police departments may specify the use of uniform blouses, jackets, and low heel shoes, etc., to be worn in addition to the specified vest. Elaborate police uniforms, not only add unnecessary costs to the program but, may give the public an erroneous impression of the extent of authority of an adult guard.

LIABILITY Adult school crossing guards should be included under the state's Worker's Compensation Laws. Their insurance protection should be effective only during hours of duty and not include protection for traveling back and forth to work.

RECRUITMENT AND SELECTION

The recruitment and selection of persons to be hired as adult school crossing guards is the responsibility of the police department. Selection of crossing guards should be based on the following criteria:

CHARACTER Character references should be obtained on every individual who is being considered for employment. Some police departments also may conduct a background investigation. It is essential for adult crossing guards to have excellent character and background.

PHYSICAL FITNESS Physical examinations should give particular attention to the important areas of vision, hearing and reflexes. These are vital for adequate performance of duties.

DEPENDABILITY Areas deemed hazardous enough to warrant adult crossing guards require continuous supervision. It is paramount that crossing guards be reliable for prompt, consistent, courteous and efficient service.

AVAILABILITY When possible, adult school crossing guards should live within walking distance of the post where they are assigned. This not only assures their availability and accessibility at all times, it also reduces transportation factors.

COURSE OF INSTRUCTION

Michigan law requires adult school crossing guards to have a minimum of four hours instruction prior to assuming duties. It is also mandatory that an additional two hours of instruction be given annually before the beginning of each school year.

Courses of instruction must be approved by the Michigan Department of Education and the Department of State Police and must be conducted by the local law enforcement agency or its designee. The suggested training program outlined in this manual has been approved by these responsible state agencies.

CLASSROOM INSTRUCTION

Outlined below is the suggested approach for the classroom phase. Adequate time is needed for field training with a suggested new guard program of 3 hours classroom and 1 hour field training. Annual updating may include 1 1/2 hours classroom and 1/2 hour field training. Field training is defined as supervised practice in a real or simulated school crossing environment.

CLASSROOM INSTRUCTION TOPICS

- **Understanding the vehicle/pedestrian/bicycle crash problem associated with school children.** Information should be presented about the why, when and how of student pedestrian and bicycle crashes. Traffic crash statistics from the Office of Highway Safety Planning's website <http://www.michigantrafficcrashfacts.org/> can provide the awareness of student traffic crash involvement.
- **Warrants for use of adult crossing guards** Guards should understand the general criteria (warrants) used to determine the need for their assistance. They should further understand the specific dangers and problems at their assigned crossings.

- **Police Department Orientation** Adult crossing guards should understand the organization of the supervising police department and its position in the community. Name of immediate supervisor and proper procedures for communication are important elements.
- **Extent of responsibilities of adult guards** The responsibilities of crossing guards should be clearly defined so that all guards completely understand what they can or cannot do and what is expected of them. It is important to stress that adult guards are on duty to create gaps and to help students cross the street safely. They are **not** to direct motor vehicle traffic.
- **Working with traffic control devices** Crossing guards should understand the principles behind the use of traffic control devices, such as signs, signals and pavement markings. While guards should not be expected to become experts in traffic enforcement or engineering, a basic understanding will assist in their duties.
- **Working with AAA School Safety Patrols™** It is strongly recommended that adult crossing guards work with the AAA School Safety Patrol™. School crossings controlled by an adult guard/safety patrol team can provide maximum crossing protection by allowing the adult to concentrate on the traffic while students wait with patrols in a safe location. Guards must understand that the role of school safety patrol is to instruct, direct and control the members of the student body in crossing the streets. They should not be charged with the responsibility of directing vehicular traffic. Because safety patrol members are supervised by the school, it is necessary for a cooperative effort among the police department, the adult guard and the school safety patrol supervisor.
- **Personal conduct** A positive, professional adult/student relationship is necessary to maintain a safe crossing. In addition to being on time and having a neat appearance, it is important to stress other considerations. These include no smoking, eating or drinking while on duty, as well as any other actions which could be criticized by the public or detract from the performance of duties.

- **Knowledge of local traffic regulations** Adult crossing guards should be familiar with local traffic regulations. Knowledge of laws involving driver and pedestrian responsibilities in relation to school crossings, parking and yielding rights-of-way, are particularly critical.
- **Situational Awareness** Adult crossing guards should be vigilant to the presence of people and vehicles traveling through the neighborhoods where they are on duty. By keeping a notebook and pen handy, they can easily record the description of people and vehicles that they feel might be out of place and may pose a possible threat to the children and others.
- **Emergency procedures** Adult crossing guards must be prepared for emergency situations. If an emergency occurs, the guard must first ensure the safety of the students. Guards should know the appropriate phone numbers for requesting emergency help. A prepared procedure, telephone card and/or cellular phone may prove helpful.
- **First aid instruction** A person trained in first aid techniques should be requested to provide this phase of classroom instruction. It should be kept simple and include at least the following:
 - a. Caution against moving injured victims while protecting them
 - b. Control of bleeding
 - c. Shock prevention

IN-THE-FIELD TRAINING

Helping students to safely cross the street by creating gaps in traffic is the major function of an adult crossing guard. Therefore, proper instruction is extremely important.

An adult crossing guard's actions must be precise, firm and clear so that both pedestrians and drivers will know what is required of them. All crossing guards must be given supervised field training on uniform procedures before assignment to permanent duty.

A. CREATING A GAP

A-1 Initial position

On curb facing traffic, same side as students.



Special situations may require the guard to operate from the opposite side of the street.

B. STOPPING TRAFFIC

B-1 Guard enters roadway, stops the immediate first threat, continues to stop all traffic, one lane at a time.



B-2 Guard holds stop sign in upright position to stop the immediate threat.



B-3 Guard holds stop sign in motorist's line of vision.



B-4 Guard extends hand-held stop sign above head so it is visible to motorists.



C. CROSSING STUDENTS

- C-1 All lanes of traffic stopped as guard moves into final position, facing most immediate vehicular threat to students (usually turning motorists).

From this position, guard signals the AAA safety patroller to release students to cross, using the spoken command "WALK."



- C-2 While controlling traffic, the students should cross **BEHIND THE GUARD.**

It is imperative that the crossing guard remain in position until the last student has crossed. The guard must always be prepared to move quickly.



- C-3 After a guard has allowed several students to cross and realizes that traffic will be delayed an unreasonable amount of time, the guard tells the safety patroller to stop the students from crossing.



D. RELEASING TRAFFIC

D-1 After the last student has reached the far side of the street, guard keeps the stop sign upright until he/she reaches the initial position of the curb.



D-2 Once back on the curb, the guard should lower the stop sign to his/her side.

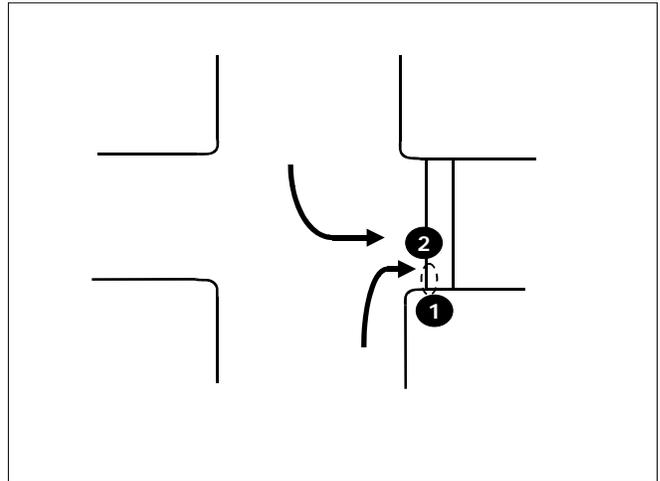
Note: Do not attempt to release traffic by waving to motorists.



E. SPECIAL CROSSINGS

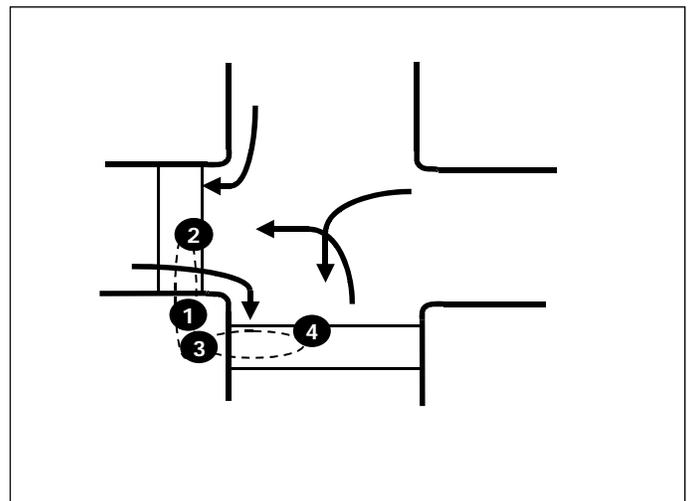
E-1 Controlling turns at signalized intersections.

The guard's initial position should be on the side where turning movements occur. Crossings should then be coordinated with the signal and the aid of AAA safety patrol members. This procedure is most desirable with a multi-lane road and heavy turning movements. Attention must be paid to motorists turning "right-on-red."



E-2 Controlling two legs of a signalized intersection.

The guard's initial position should be on the corner from which both crossings can be worked. Crossing should then be coordinated with the signal and the aid of safety patrol members.



F. REMEMBER TO EMPHASIZE

F-1 To stop traffic, extend hand-held stop sign above the head so it is visible to motorists.



F-2 To release traffic, return to the curb, keeping stop sign in motorists view. When reaching a curb, lower the sign to the side. Never wave arms to direct motorists or students.



G. VEHICLE IDENTIFICATION

Adult School Crossing Guards have an opportunity to contribute to the safety of children that can go beyond their primary task of getting them safely from one side of the street to the other.

G-1 Adult guards must constantly be vigilant to the presence of people and vehicles traveling through the neighborhood that seem out of the ordinary. A school crossing guard is in a unique position to note and remember persons and vehicles that are part of the daily routine near your crossing location. By keeping a notebook and pen handy the guard can easily record the description of people and vehicles that they feel might be out of place and may pose a possible threat to children and others.



G-2 Adult School Crossing Guards should report observations to the appropriate law enforcement authority. There will probably be a reasonable explanation for the presence of these strangers, but when it comes to our children's welfare, better to be safe than sorry!



DETERMINING PLACEMENT OF GUARDS

Proper placement of adult school crossing guards is critical in their contribution to the safe route to school. A comprehensive engineering study must be conducted to determine if and where a guard is needed.

Reducing exposure to traffic hazards is possible by proper selection of safe walking routes. Route selection should be reviewed annually to determine the proper location of adult guards, school safety patrols and traffic controls.

SCHOOL CROSSING SURVEY

School crossing protection is a very sensitive topic. Well-meaning parents frequently demand greater protection measures than are needed; this can be counter-productive. One way to avoid serious complaints is to develop a uniform procedure of study and analysis. This should result in the best type of traffic controls for meeting the particular crossing needs. The following basic assumptions must be considered:

1. Students tend to become impatient when delays are excessive due to unsafe crossing conditions. This may result in their attempting to cross the street during an unsafe gap.
2. Some form of traffic control is essential when the number of adequate safe gaps is less frequent than one per minute.
3. Generally, students will not walk out of their way to avoid traffic hazards.

Adult crossing guards are an important segment of a school crossing protection program. They are not a community public relations gimmick. As is true for all traffic control measures, certain warrants must be met before adult guards are employed.

PROCEDURE

The analyst should sit in an unmarked car and observe all pedestrian and vehicular activity without disrupting the normal daily traffic patterns. All students crossing must be counted, even those jaywalking or crossing at a location other than the designated crossing.

The engineering study should be conducted during the entire period that students are crossing the street(s). The length of time can be determined only by observing each individual location. Generally, students arrive at school over a period of about one-half hour prior to the starting time. The afternoon dismissal crossing period is often shorter and immediately follows school dismissal time. It is recommended that all data be recorded in five-minute intervals. This will allow the analyst to differentiate the peak activity period from the times of lesser traffic.

It is important to realize that all of the following engineering studies do not have to be completed in full. Your judgment at each individual crossing will determine which study(s) will be necessary. All items should be considered and mentioned in your final report. A gap study should be conducted at all crossings when determining the placement of a guard.

EQUIPMENT

Equipment to conduct an accurate, comprehensive study might include:

- An intersectional traffic counting device to record all right, left or straight through vehicular movements. After these movements are counted, they can be transferred on to a **Graphic Summary Sheet (Appendix A)**.
- A stopwatch
- A measuring device (tape or wheel) to obtain measurements from which a condition diagram of the crossing can be drawn to scale. It should include street width, location of crosswalks, sidewalks, traffic controls, parking controls, site restrictions, etc. These measurements and the subsequent drawing cannot be done during the crossing study, but rather during an off-peak traffic volume time. Measurements should also be taken of the sight distance of students standing on the corner waiting to cross the street. The

distance should be measured from the waiting position of the students toward the direction of all approaching vehicles.

All data must be compiled neatly and accurately. No attempt should be made to summarize study data, add columns of numbers or arrive at any conclusions while observing traffic movements. Notes of any unusual events or items of concern should be made for future reference. After the data has been tallied and cross-checked, it can be transferred onto a **Graphic Summary Sheet**.

ENGINEERING INFORMATION

Criteria to be used in evaluating the need for student crossing protection.

1. GAP STUDIES

This study is used to determine the number and length of safe crossing opportunities available at a student crossing. The minimum safe crossing time for one student, the gap, is calculated by using the following formula:

$$G = \frac{W}{4} + 3$$

G = Minimum safe crossing gap (seconds)

W = Width of street to be crossing (feet)

4 = Average walking speed of students (feet per second)

3 = Perception and reaction time (3 seconds)

Example: The minimum gap required for one student to safely cross a 40-foot wide street is 13 seconds.

$$G = \frac{40}{4} + 3 = 13 \text{ seconds}$$

The street width measurement must be taken before the gap study is begun so that all gaps less than the minimum can be ignored and not counted as a safe acceptable gap.

A **Gap Study Form (Appendix B)** should be used to record the vehicles, gaps and students during the gap study. When the officer observes a potential gap in traffic, the stopwatch should be activated at the

beginning of this gap. When the next vehicle arrives at the crosswalk, the stopwatch must be stopped. If the elapsed time is less than the minimum safe crossing time, this particular gap can be ignored. The watch must then be returned to zero in anticipation of the next gap. However, if the gap is larger than the minimum, this length of time must be recorded as shown by the number 17 in [Figure 1](#).

If 4 students have crossed during this 17-second gap, this number must also be recorded as shown by the number 4 in [Figure 1](#). The number of vehicles between safe gaps can be counted and entered on the form. This procedure must be continued for the entire length of the study; 5-minute intervals is recommended and recorded along the left column as shown.

When reviewing this data, it must be remembered that the minimum gap time was established for only one student crossing. However, it is likely that during several gaps more than one student crossed. Therefore, an adjustment must be made in the gap formula to take into account the amount of additional time required for these additional students to cross. This time has been determined to be 2-seconds for each additional 5 students. This can be simply calculated by determining the total number of students crossing during a particular gap. Subtract 1 for the first student, divide this total by 5 students and multiply by 2-seconds. This can be represented by:

$$\frac{N - 1}{5} \times 2$$

Therefore, when calculating the minimum safe crossing time for a group of students, the formula is expressed as follows:

$$G = \frac{W}{4} + 3 + \frac{N - 1}{5} \times 2$$

G = Minimum safe crossing time in seconds

W = Width of the street to be crossed in feet

4 = Average walking speed of students per second

3 = Perception and reaction time (3-seconds)

N = Total number of students crossing during a gap

1 = First student

5 = Group of five students

2 = 2 seconds of additional time (for each additional 5 students)

The gaps, students and vehicles are recorded on the survey form in spaces provided so the sequence of gaps, vehicles and students in each five-minute period is easily understood.

One adequate safe gap for each minute of study has proven to be a sufficient number of safe gaps for a safe crossing.

Figure 1

GAP STUDY FORM

Five Minute Period Ending	Street Width _____ Feet					Five Minute Totals			
	Minimum Safe Gap Time = $\frac{W}{4} + 3 = \frac{\quad}{4} + 3 = \underline{\quad}$					No. of Vehicles	No. of Gaps	No. of Students	
8:00	Vehicles Gap (SECS) Students	$\frac{3}{17}$ $\frac{4}{4}$	$\frac{7}{19}$ $\frac{1}{1}$	$\frac{3}{15}$ $\frac{2}{2}$	$\frac{5}{18}$ $\frac{1}{1}$	$\frac{6}{21}$ $\frac{6}{6}$	24	5	14
8:05	Vehicles Gap (SECS) Students	$\frac{2}{15}$ $\frac{1}{1}$	$\frac{5}{17}$ $\frac{3}{3}$	$\frac{6}{22}$ $\frac{2}{2}$	$\frac{1}{19}$ $\frac{4}{4}$	$\frac{3}{26}$ $\frac{6}{6}$			
	Vehicles Gap (SECS) Students	$\frac{4}{15}$ $\frac{7}{7}$	$\frac{7}{17}$ $\frac{1}{1}$	$\frac{3}{23}$ $\frac{2}{2}$	_____ _____	_____ _____	31	8	26
8:10	Vehicles Gap (SECS) Students	$\frac{3}{12}$ $\frac{1}{1}$	$\frac{4}{15}$ $\frac{0}{0}$	$\frac{7}{12}$ $\frac{2}{2}$	$\frac{10}{21}$ $\frac{1}{1}$	$\frac{13}{18}$ $\frac{0}{0}$			
	Vehicles Gap (SECS) Students	$\frac{17}{13}$ $\frac{0}{0}$	$\frac{4}{16}$ $\frac{0}{0}$	_____ _____	_____ _____	_____ _____	58	7	4
8:15	Vehicles Gap (SECS) Students	_____ _____	_____ _____	_____ _____	_____ _____	_____ _____			
	Vehicles Gap (SECS) Students	_____ _____ _____	TOTAL FOR 15 MINUTES			_____ _____	113	20	44

SIGHT DISTANCES

The line of sight should be measured from the student's eye height on the corner toward the direction of all approaching drivers.

It is important that motorists be able to see students standing on the roadside before they enter the street. As a guideline, this distance should be greater than 5 times the speed approaching vehicles. For example, if the speed limit is 40 mph, the sight distance should be 5 times that number, which would be 200 feet. This is a minimum distance at which drivers and pedestrians can see and be able to avoid each other. This speed may not be the same as the posted speed limit. To determine the compliance of motorists with the posted speed limit, it may be necessary to conduct a speed study and review the posted limit.

DETERMINING VEHICULAR TRAFFIC VOLUMES

The officer should park an unmarked car in the best vantage point to see all the vehicular and pedestrian movements which cross at the crosswalk. He then counts the left and right turns and straight through movements across the crosswalk indicating them on the [Traffic Volume Summary Form \(Appendix C\)](#). An intersection traffic counting device is necessary to record all vehicular traffic in the area. Data can be gathered on this counter, then transferred to a [Traffic Volume Summary Form](#) periodically, (15-minute intervals is recommended). This information is later transferred to a [Graphic Summary Sheet](#).

PEDESTRIAN TRAFFIC VOLUMES

The total pedestrian volume can be easily determined by adding the total number of students counted during the gap study. This total and the direction of crossing can be added to the vehicle movement graphic summary. At this point, the graphic summary will indicate the total vehicles and pedestrians and the direction of each during the entire study. It presents a complete picture of the traffic activity during the crossing period.

AGES AND GRADES OF STUDENTS

Consideration should be given to the ages and grades of students that use the particular crossing. For example, students in the primary grades (K-3) are in a greater need of assistance when crossing streets than high school students. Crossing guards and safety patrols are excellent aids for elementary students, however, neither should be used with high school students. Therefore, depending on the results of the entire study, student crossing protection can be determined.

VEHICULAR SPEEDS

The speeds of vehicles approaching the crossing is something that must be taken into consideration. It is obvious that faster vehicles require a greater stopping distance, but it must be remembered that the minimum crossing time or gap student is not affected by the speed of approaching vehicles. The point of concern is that younger students have a more difficult time judging the speed of approaching vehicles and may be tempted to cross during the unsafe gap.

DAY/NIGHT CONDITIONS

Consideration should also be given to the time of day and light conditions under which the students will be crossing. These light conditions change gradually during the school year and suddenly when daylight savings time begins and ends. It also varies considerably throughout Michigan. It is possible that students may be crossing during the dark in the morning on their way to school but will be dismissed from school at mid-afternoon during a period of maximum light.

TRUCK TRAFFIC

At some school crossings, consideration should be given to the amount of truck traffic. These vehicles may cause additional problems by:

- requiring a larger turning radius at corners
- restricting sight distance while moving or parked
- requiring a greater length of time to accelerate and decelerate
- truck drivers have a greater difficulty seeing students who are very close to their vehicle.

EXISTING TRAFFIC CONTROLS

The presence of traffic signals, signs and pavement markings has a considerable effect on both vehicles and pedestrians. These should be included on the condition diagram. It also may be necessary to determine if the proper controls have been placed along the roads and at the crossing that students will be using. Sometimes the wrong control is worse than no control.

- Traffic signals should be installed only when they are warranted according to the MMUTCD. Traffic signals create gaps in traffic to allow students to cross the street, but they also require many motorists to stop, possibly creating a rear-end crash problem which can endanger students.
- Stop signs also require motorists to stop allowing students to cross. However, most motorists approach the stop sign when there are no students present. As with traffic signals, intersections with stop signs many times exhibit similar rear-end crash problems.
- Yield signs should be used to assign right-of-way for motorists and should not be used as a pedestrian safety measure.
- No controls at an intersection may be the safest control if there are a sufficient number of safe gaps, and motorists and pedestrians can see each other.
- School Advance signs should be installed in advance of the school.
- School Crossing signs should be placed at the crossing.
- School Advance and Crossing signs must have either a yellow or fluorescent yellow green background.
- Crosswalks need to be painted at the major school crossings.
- Speed limits are an educational and enforcement tool and therefore should be realistically set. Studies have shown that motorists drive at a speed that they believe is "safe and prudent" despite what speed limits are posted. Special reduced speed limits installed for school areas have proven to be quite ineffective in reducing motorists' speeds. Usually speeds are not a real problem only a perceived one.

A designated school crossing shall consist of the following:

- Advance school signs should be located between 150 and 700 feet in advance of the crossing.
- School Crossing signs should be located as close as possible, but in advance of the crossing. It is not necessary to post this sign where there are Stop signs, yield signs or traffic signals.
- Crosswalks should be painted on the pavement. Refer to the MMUTCD for different paint schemes to be used.
- If a traffic signal is installed at a school crossing, pedestrian signals (Walk/Don't Walk) must also be installed.
- Additional pedestrian protection may be provided by school safety patrollers and adult crossing guards. The safety patrol may operate without an adult guard, however, the adult guard should not operate without a safety patroller.

TRAFFIC CRASH EXPERIENCE

Traffic crash records should be reviewed to determine the history of crashes. The extent of the review will be determined primarily by the type of accidents and time-of-day.

SPECIFIC CONDITIONS

In addition to all of the items listed above, consideration should also be given to such items as: street alignment, hills, curves, sidewalks and paths, road construction, maintenance, etc. Often there is discussion about whether it would be better to use traffic control signals at crossings in place of adult crossing guards. MMUTCD indicates the following:

"In connection with traffic control signals installed for school crossings, it should be understood that a traffic signal is not the only remedy nor is it necessarily the correct solution to the perplexing problem of traffic conflicts between vehicles and school children. Brief periods during which the hazards are unusually high are often better handled by officer control or adult crossing guards.

In some circumstances, the pupils' responses to traffic control indications are so inadequate that the signal can become a contributory factor in increasing rather than decreasing crashes. The response to officer control or adult crossing guards is usually less uncertain."

Ordinarily, traffic control signs should not be installed at school crossings, where safety patrols or adult guards can be used effectively, where students can be directed to cross at locations which are already controlled by traffic control signals or where pedestrian refuge islands provide adequate protection.

The considerations listed above are used in all parts of the country. They may need to be adjusted to meet your particular local problem but could serve as a guideline for use in determining your crossing protection.

The data gathered in these studies should be analyzed thoroughly and reviewed to determine accuracy. It may be necessary to check with the engineering drawing or the appropriate road agency to determine the accuracy of measurements. The road agency or local law enforcement agency may also be able to provide daily traffic volume counts and vehicular crash experience in the vicinity of the crossings. The analysis of all this information does not lead to an absolute answer as to the feasibility of placing an adult crossing guard at any crossing; it is meant to be only a guideline.

SUMMARY

The gap study indicates the number of minimum safe crossing times and length of each during the study. Guidelines have been established that adult crossing guard may not be necessary if there is at least one safe gap per minute of study. Therefore, if the students are crossing over a period of 12-minutes, there should be least 12 safe opportunities for them to cross the street. If there are not, an adult crossing guard may be necessary.

Where sight distances are less than the guidelines of 5 times the speed limit, consideration may also be given to the placement of an adult crossing guard. If there is a large pedestrian movement and students are in the primary grades, an adult crossing guard may be necessary; however, few older students may not need the added protection.

These are suggested guidelines and offer a positive outlook and substantial insight into analyzing the crossing. The studies and analysis should be made at every crossing with priority given to the higher traffic or pedestrian volumes, high traffic crash location, and locations where adult guards exist. Studies should be reviewed annually and conducted again when a change in traffic patterns, road geometrics, or traffic controls takes place. It may also be necessary to review the data during the school year.

Questions can be directed to AAA Michigan, Community Safety Services at communitysafety@aaamichigan.com or 1-800-646-4222.

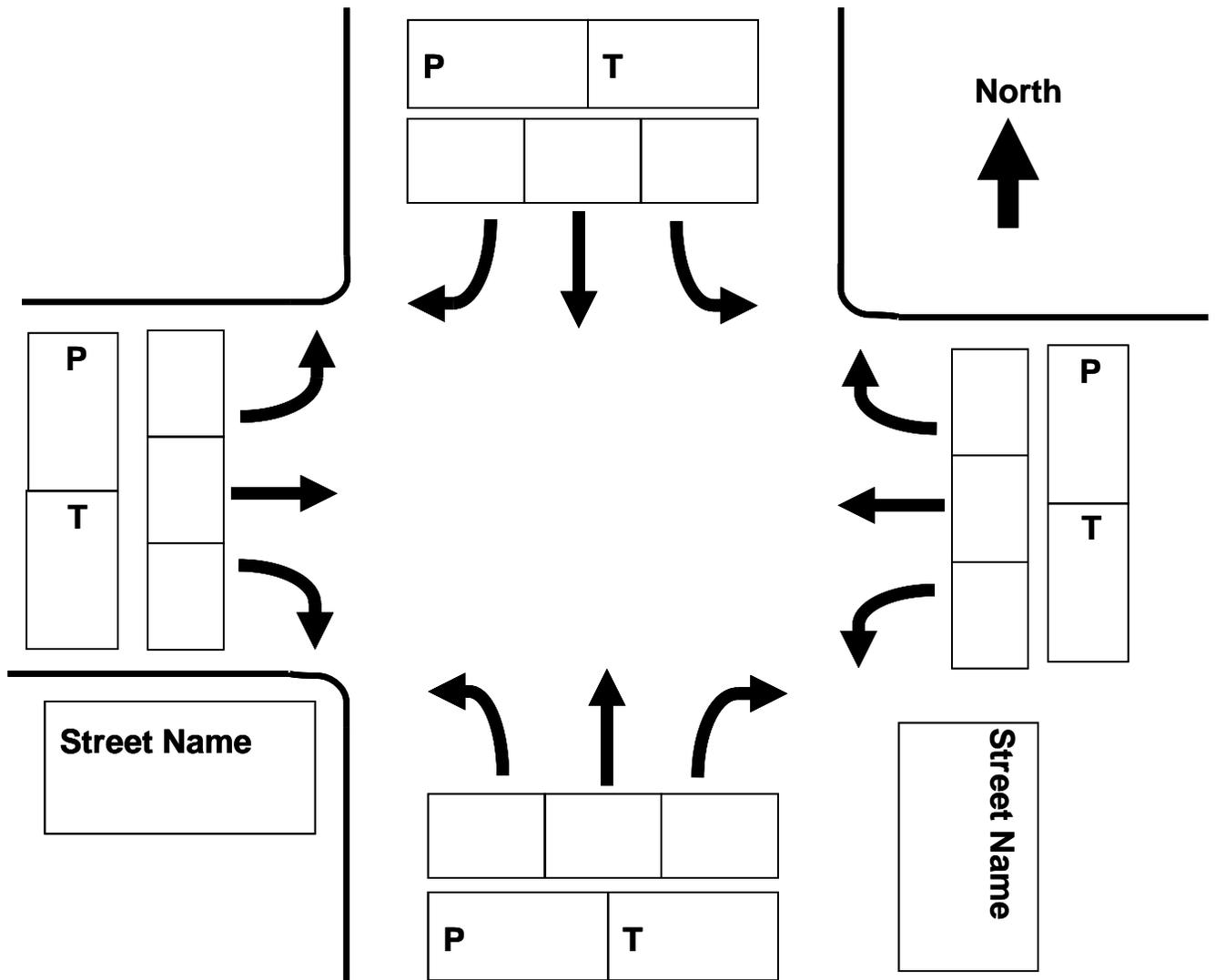


Date _____ Time _____ to _____

Intersection _____

Weather _____

Observer _____



Gap Study Form

Name: _____ Agency: _____

School: _____ City: _____

Intersection: _____

Date: _____ Day: _____ Weather: _____

Five Minute Period Ending	Street Width _____ Feet		Five Minute Totals		
	Minimum Safe Gap Time = $\frac{W}{4} + 3 = \frac{_}{4} + 3 =$		No. of Vehicles	No. of Gaps	No. of Students
	Vehicles	_____			
	Gap (SECS)	_____			
	Students	_____			
	Vehicles	_____			
	Gap (SECS)	_____			
	Students	_____			
	Vehicles	_____			
	Gap (SECS)	_____			
	Students	_____			
	Vehicles	_____			
	Gap (SECS)	_____			
	Students	_____			
	Vehicles	_____			
	Gap (SECS)	_____			
	Students	_____			
Study Totals			Vehicles	Cars	Students

