

Policy for Traffic Control in School Areas
City of Madison
Traffic Engineering Division
May, 2016

Introduction

The purpose of this document is to establish and clarify policies regarding traffic controls in school areas within the City of Madison. These policies include:

- signing and marking of school zones;
- posting (signing) of school speed limits;
- the designation, marking and signing of school crossings;
- designation of areas for, and restrictions on, parking, student drop-off/pick-up and school bus loading and unloading;
- the assignment of adult school crossing guards and student safety patrols; and
- the development and use of school traffic plans

These policies are derived from federal, state and local guidelines, standards and laws. Regulatory references will be noted throughout and included in appendices at the end of this document. References will be designated as follows:

WSS	Wisconsin State Statutes
MGO	Madison General Ordinances
MUTCD	Manual on Uniform Traffic Control Devices
WMUTCD	Wisconsin Supplement to the Manual on Uniform Traffic Control Devices

Background

Local Authorities (counties, cities, towns, and villages) are required by state statutes to follow the State of Wisconsin's adopted uniform traffic control devices manual when installing, operating and maintaining traffic control devices. Traffic control devices includes all markings, signs and signals. The State of Wisconsin has designated the Federal Highway Administration's (FHWA) Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD), as the official Wisconsin Manual on Uniform Traffic Control Devices subject to the modifications set forth in the Wisconsin Supplement (WMUTCD).

[WSS 84.02(4)(e) and 349.065; MUTCD introduction; WMUTCD Introduction]

Definitions

Some words and phrases used in the Wisconsin State Statutes, Madison General Ordinances, Manual on Uniform Traffic Control Devices and the Wisconsin Supplement to the MUTCD have specific meanings in these documents that may differ from the meaning these words and phrases have in common usage. These definitions will be indicated in this text where necessary for clarity. A list of definitions for words and phrases used in this document can be seen in Appendix 1.

Sign and Marking Retroreflectivity

All signs used for school area traffic control shall be retroreflectorized or illuminated.

[MUTCD 7B.02]

School Zone Designation and Signage

The MUTCD defines a “school” as a “public or private educational institution recognized by the State educational authority for one or more grades K through 12 or as otherwise defined by the State”. The Wisconsin MUTCD supplement defines “school grounds” as the “public, and private schools and their surrounding grounds where any of grades K through 12 are regularly taught during the normal school year”. Additionally, according to the Wisconsin State Statutes, a “private school” is defined as “an institution with a private educational program that meets all of the criteria under s. 118.165 (1) or is determined to be a private school by the state superintendent under s. 118.167”. In order to be classified as a private school, the school must be certified by the Wisconsin Department of Public Instruction. More information on private schools can be found at www.dpi.wi.gov/sms/private-schools.

[WSS 115.001, 115.01, 118.165, 118.167; MUTCD 1A.13(184); WMUTCD 7B.09]

School advance warning signs are used on all streets that border school grounds. These signs are placed in advance of the school grounds and this distance can vary. Engineering judgment is applied to location of signs to ensure proper visibility, prevent sign saturation, provide adequate perception time, and account for physical limitations of the site.

The Wisconsin MUTCD supplement specifies that “In accordance with Wisconsin State Statute 118.08, an S1-1 School Sign and supplemental plaque (W16-9P, Ahead) shall be erected in advance of the school grounds at the prescribed distance for warning signs at the normal speed limit, where the school grounds border the roadway, regardless of the presence of fencing. “School grounds” refers to public and private schools and their surrounding grounds where any of grades K through 12 are regularly taught during the normal school year.”

[WSS 118.08(1); MUTCD 7B.08; WMUTCD 7B.09]

All school advance warning signs shall have a supplemental “Ahead” plaque.

[MUTCD & WMUTCD 7B.08]

The end of a school zone is indicated by the placement of an End School Zone sign indicating the resumption of the normal speed limit for that street. This location will typically be opposite where the school speed limit sign is located for traffic traveling in the opposite direction on that street.

[WMUTCD 7B.15]

School Speed Limit Signs

The speed limit in a school zone or at a signed school crossing in Wisconsin is 15 mph when children are present or when an adult school crossing guard is in the crosswalk or is placing or removing cones in the street. Local authorities can modify this speed limit, but such modifications are only in effect where they are signed. The City of Madison has elected to set a school zone speed limit of 20 mph under these conditions.

[WSS 346.57(4)(a) and (b); 349.11(7)]

School speed limit signs are posted in conjunction with all school advance warning signs except in advance of a stop or yield sign. Where it is used, the School speed limit assembly shall be erected separately from and following the S1-1 School Warning sign.

[MUTCD & WMUTCD 7B.15]

A flashing beacon may be installed in conjunction with a school speed limit sign at a school crossing when any one of the following conditions is met according to the adopted Madison School Crossing Protection Criteria (see section on Adult School Crossing Guards and Appendix 2 for more details):

1. The 85th percentile speed is in excess of 40 mph, measured at existing school crossing signs, which have been in place at least 30 days.
2. The street crossed is a U.S. or State Trunk Highway on which a significant percentage of “foreign” drivers can be expected.
3. The ratio of sight distance to safe stopping distance is less than 1.5
4. The hazard rating is greater than 30 at an unguarded location where at least 25 elementary students cross and the available safe crossing gaps are less than 50%

Standard School Signage Layout

Diagrams showing the layout of standard school signage can be seen below in Figure 1 and Figure 2. Figure 1 shows a school located in streets that are laid out in the grid system. Figure 2 shows a school located near a T intersection.

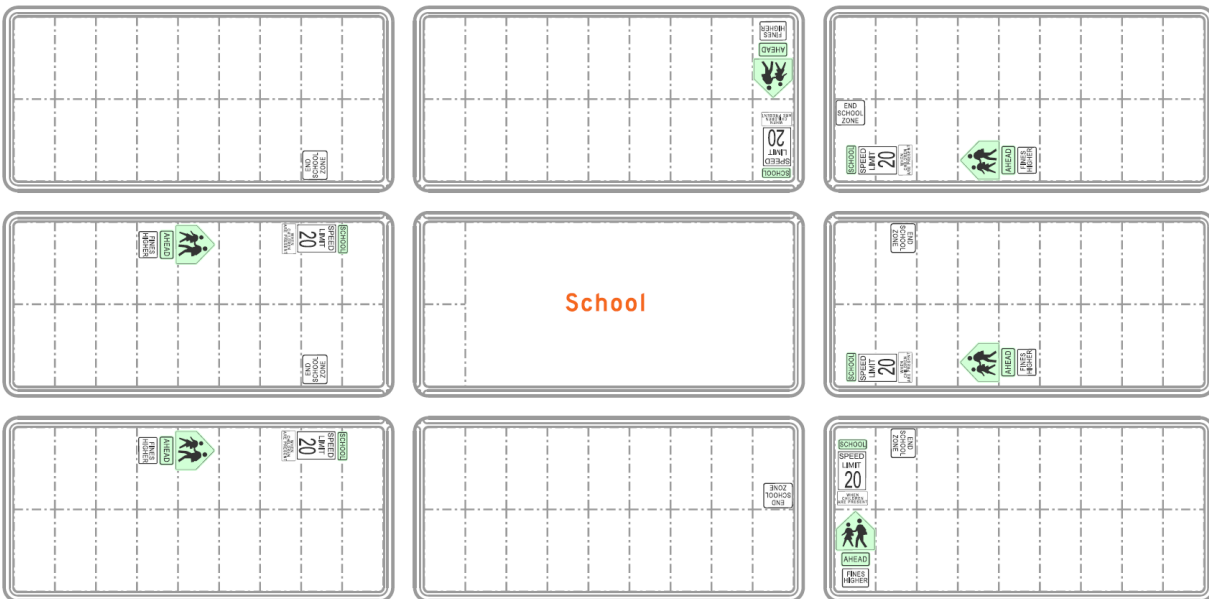


Figure 1: A typical layout of school zone signage for a school located in a grid system layout.

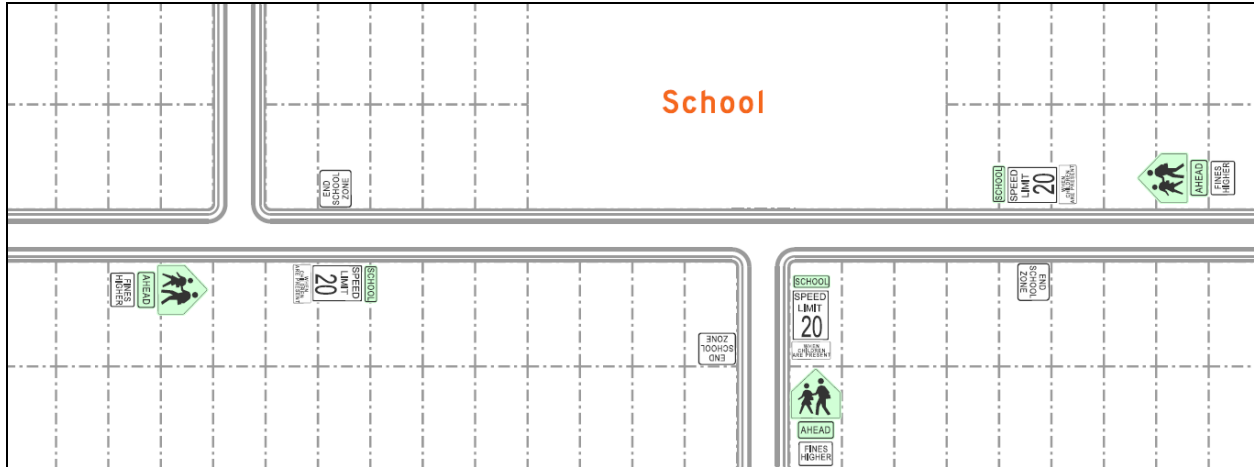


Figure 2: A typical layout of school zone signage for a school located at a T intersection.

Parking, Drop-Off and Pick-up Adjacent to School Grounds

Perhaps the greatest safety issue for students traveling to and from school involves conflict between walkers, school bus passengers and parents dropping-off or picking up students adjacent to school grounds.

State Statutes prohibit both parking and drop-off or pick-up on the near side of a street adjacent to an elementary or middle school on school days between 7:30 am and 4:30 pm if the street is a “through street”. A “through highway” is defined as “every highway or portion thereof which has been declared by the state or local authorities pursuant to s. 349.07 to be a through highway and at the entrances to which vehicular traffic from intersecting highways is required by traffic control signals or stop signs to stop.” A list of declared through highways in Madison can be found in MGO 12.53.

If the street adjacent to an elementary or middle school is not a through street, then parking is prohibited on the near side of the street, but drop-off and pick-up is permitted.

Local jurisdictions have the authority to modify these parking, stopping and standing restrictions by local ordinance. Any local parking regulations that differ from the state regulations must be signed to be in effect.

[WSS 349.13(1.e)]

These regulations on parking, drop-off and pick-up adjacent to schools apply to school buses as well as other vehicles. Local jurisdictions have the authority to permit school bus parking, loading and unloading on streets adjacent to schools by local ordinance and erection of signs.

Human services vehicles can only load and unload children with disabilities if the vehicle is entirely off the traveled portion of the roadway where parking, standing and stopping is not prohibited and if the children do not have to cross the street.

[WSS 340.01(67); 346.52(2); 346.475; 349.13(1e)(a); 34913(1e)(c)1; 349.13(1j); 349.13(2)(f) MGO 12.53]

School Crossings

There are a variety of ways in which school crossings can be treated including: various types of crosswalk marking patterns, signing as a school crossing, the assignment of student patrols by individual schools, the assignment of Adult School Crossing Guards by the City, and driver feedback boards. Each of these will be discussed below.

A) *Marking Crosswalks*

A crosswalk exists at any intersection where there is a sidewalk leading up to the intersection. The crosswalk is simply the extension of the sidewalk across the street, whether or not the crosswalk is marked. An example of an unmarked crosswalk can be seen as crosswalk number 1 in Figure 3. The majority of crosswalks in Madison are not marked in any way. Marked crosswalks can exist at intersections with or without sidewalks, and at mid-block locations. Marked crosswalks are typically marked with two parallel 6 inch wide lines across the street, spaced 6 feet apart. This can be seen as crosswalk number 2 in Figure 3. Continental crosswalks are a series of 24 inch wide bars to demand the extra attention of drivers. A continental crosswalk can be seen in Figure 3 as crosswalk number 3.

[WSS 340.01(10)]

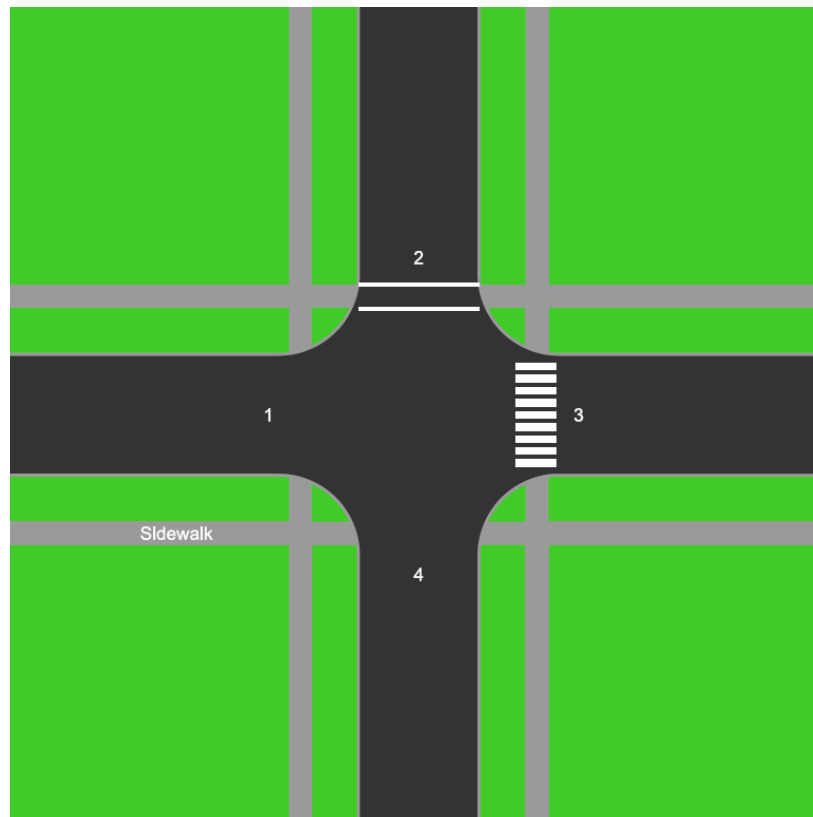


Figure 3: Graphic showing the different kinds of crosswalks in Madison.

Crossing 1 and 4 are unmarked crosswalks.

Crossing 2 is a marked crosswalk.

Crossing 3 is a continental crosswalk.

The following guidelines will assist the Madison Traffic Engineering Division in determining if and how to mark crosswalks.

Any recommended school crossing adjacent to school grounds will be marked with a continental crosswalk.

Any crossing location where an Adult School Crossing Guard is assigned, a flashing beacon has been installed or which is signed as a school crossing will be marked with a continental crosswalk.

Any crossing where a school has assigned student patrols to assist other students with the crossing will be considered being marked with a continental crosswalk.

Any crossing of a through street generally within a quarter mile of a school or a street with a speed limit of 30 mph or greater should have a marked crosswalk.

B) Signed School Crossings

Signed school crossings use the five-sided school sign and an “Ahead” sub-plaque in advance of the crossing location to notify drivers that they are approaching a school crossing. If the sign is placed adjacent to the school crossing, a supplemental down arrow plaque is used.

[MUTCD & WMUTCD 7B.08]

Locations for signed school crossings are determined using the Madison Common Council’s adopted School Crossing Protection Criteria. The School Crossing Protection Criteria develops a hazard rating for each crossing studied and then compares this hazard rating to adopted protection recommendations. The hazard rating collects data on a variety of factors at studied crossings and assigns a relative point rating to each observed factor. The main factors included in this evaluation are the number of elementary school children crossing the street, the availability of safe gaps in traffic for the children to cross the street, the speed of traffic on the street being crossed, sight distance for drivers to the crosswalk, safety history of the crossing including both whether children have been involved in crashes at the location on their way to or from school and whether there is a history of crashes which might impact the safety of children using the crossing during school hours. A number of other factors which might influence the safety of a crossing for school children are also studied. Such factors may include complex intersection and/or traffic signal design, existence of a safer crossings nearby, the age of children crossing, a street which is used extensively by “foreign” traffic, the presence of stopped buses and other obstructions, and the volume of turning traffic not reflected in the gap availability criterion. See Appendix 2 for the complete School Crossing Protection Criteria including a detailed explanation of the factors and points assigned for various levels of each factor used to generate a hazard rating for a crossing location.

School crossings will be signed at locations where the hazard rating is greater than 20 points and at least 25 elementary school students use the crossing during the peak crossing hour and the crosswalk is marked.

C) Student Patrols

Student patrols, also known as school safety patrols, are assigned, trained and supervised by individual schools. In Madison, student patrols are typically assigned at elementary schools, with older students (5th grade) being assigned to help younger students at crossings near their school. The role of student patrols is either to direct students not to cross at a particular location, or to help students choose a safe gap in traffic at a crossing location. Student patrols cannot stop or otherwise direct traffic, that is the role of Adult School Crossing Guards, see next section. They may, however, use a 24 inch square yellow flag to warn drivers that children are about to cross the roadway.

[WSS 118.10, 346.41(2)]

D) Adult School Crossing Guards

Adult School Crossing Guard assignments in Madison are determined by the City's Pedestrian-Bicycle-Motor Vehicle Commission, subject to budget approval by the Madison Common Council. Determinations are made based on the Madison Common Council's adopted School Crossing Protection Criteria included in Appendix 2. The Adult School Crossing Guards are appointed, paid and supervised by the City's Police Department.

The School Crossing Protection Criteria develops a hazard rating for each crossing studied and then compares this hazard rating to adopted protection recommendations. The hazard rating collects data on a variety of factors at studied crossings and assigns a relative point rating to each observed factor. The main factors included in this evaluation include the number of elementary school children crossing the street, the availability of safe gaps in traffic for the children to cross the street, the speed of traffic on the street being crossed, sight distance for drivers to the crosswalk, safety history of the crossing including both whether children have been involved in crashes at the location on their way to or from school and whether there is a history of crashes which might impact the safety of children using the crossing during school hours. A number of other factors which might influence the safety of a crossing for school children are also studied. Such factors may include complex intersection and/or traffic signal design, existence of a safer crossings nearby, the age of children crossing, a street which is used extensively by "foreign" traffic, the presence of stopped buses and other obstructions, and the volume of turning traffic not reflected in the gap availability criterion. See Appendix 2 for the complete School Crossing Protection Criteria, including a detailed explanation of the factors used to generate a hazard rating for a crossing location.

Adult School Crossing Guards are recommended for assignment to locations where the hazard rating is greater than 40 points and at least 25 elementary school students use the crossing during the peak crossing hour. If the school has only grades K – 2, then an Adult School Crossing Guard would be recommended at a crossing where the hazard rating is at least 30 points and the crossing is used by at least 15 elementary school students use the crossing during the peak crossing hour.

A list of current Adult School Crossing Guard assignments is included in Appendix 3.

[WSS 120.13(31); 349.215; MGO 5.01(4); 3.51(6)(g)1]

E) Driver Feedback Boards

Driver feedback boards are electronic signs that displays the speed of a vehicle as it drives past. These can help to make drivers aware of their speed and slow down if they are going above the speed limit. In Madison these signs are often located near school zones and school crossings to slow traffic and provide increased safety to the students.

School Transportation

The Madison Metropolitan School District provides yellow school bus service for all elementary school students who live more than one and a half miles from their assigned school.

The Madison Metropolitan School District also has an Unusual Hazards Plan which has been developed to identify existing hazardous conditions encountered by children traveling to and from school and the manner in which these hazards have been eliminated through proper safeguards. The school district works closely with the City of Madison Police, Traffic Engineering, and Planning Departments to resolve hazardous situations relating to pedestrian travel. In cases where it is not practical to eliminate a hazardous condition, the Board of Education for the district will authorize the use of transportation for elementary school students living closer than one and a half miles from school. All board policies and provisions dealing with the treatment of unusual hazards have also been extended to private and parochial school students located within the school district boundaries.

Yellow school buses in the City of Madison may use their red flashers when stopped at locations without traffic signals and children have to cross the street.

[WSS 346.48, 349.21; MGO 12.80]

The City of Madison’s Metro Transit System includes bus routes to all middle and high schools within the City of Madison. Metro’s youth fares are included in Table 1. See Metro’s website for the most recent fare and route information. www.mymetrobus.com .

Youth Cash Fare*	\$1.25	
Youth 10-Ride Cards*	\$10.00	
EZ Rider Youth Pass*	\$150.00	Unlimited rides during the semester issued
Summer Youth Pass*	\$30.00	Unlimited rides during summer break
* age 5 – 17 or in high school		

School Traffic Plans

Schools are encouraged to create and maintain school traffic plans. A school traffic plan includes an evaluation of physical conditions, school population, and pedestrian and driver behavior. The plan can have recommended school walk routes which include the locations of

marked crosswalks, traffic signals and other traffic controls. In addition, student patrol and Adult School Crossing Guard locations, as well as school bus loading areas, parking and student drop-off/pick-up restrictions adjacent to school properties and on school grounds. Each school is responsible for communicating their traffic plan to their families. This is generally done with maps, brochures, and the inclusion of this information in their student handbooks and on their school websites.

Assistance in developing school traffic plans and information pieces will be provided by a joint City/Madison Metropolitan School District Traffic Safety Committee. Representatives of the following agencies make up this committee: Madison's Traffic Engineering Division, Police Department and Health Department, and Madison Metropolitan School District.

Appendix 1 – Definitions

Note: The download date of the source documents used for this verbiage was May 10th, 2016. Any changes to the source documents after this date are not reflected in this document.

<u>MGO:</u>	Madison General Ordinances
<u>MUTCD:</u>	Manual on Uniform Traffic Control Devices
<u>Public School:</u>	An institution with a private educational program that meets all of the criteria under s. 118.165 (1) or is determined to be a private school by the state superintendent under s. 118.167
<u>School:</u>	Public or private educational institution recognized by the State educational authority for one or more grades K through 12 or as otherwise defined by the State
<u>School Grounds:</u>	Public, and private schools and their surrounding grounds where any of grades K through 12 are regularly taught during the normal school year
<u>Through highway:</u>	Every highway or portion thereof which has been declared by the state or local authorities pursuant to s. 349.07 to be a through highway and at the entrances to which vehicular traffic from intersecting highways is required by traffic control signals or stop signs to stop
<u>WMUTCD:</u>	Wisconsin Supplement to the Manual on Uniform Traffic Control Devices
<u>WSS:</u>	Wisconsin State Statutes

Appendix 2 – School Crossing Protection Criteria

Appendix 3 – List of Current Adult School Crossing Guard Assignments

Appendix 4 – Steps for Developing a School Traffic Safety Plan

The Madison Metropolitan School District has developed a guide titled Steps for Developing a School Traffic Safety Plan. This guide can be viewed at their website at <https://curriculum.madison.k12.wi.us/node/869>

Another useful resource provided by the Madison Metropolitan School District is their guide titled Tools to Improve Traffic Safety at MMSD Schools. This guide can be viewed at their website at <https://curriculum.madison.k12.wi.us/node/867>