

Adult School Crossing Guard Criteria Review

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Adult School Crossing Guard Guidelines



Prepared by the National Center for Safe Routes to School and the Pedestrian and Bicycle Information Center, both part of the University of North Carolina Highway Safety Research Center, with funding from the National Highway Traffic Safety Administration

The Safe Routes To School (SRTS) movement started in the United States in the late 1990's. The first national meeting of pedestrian and bicycle leaders interested in SRTS was held in 2003. Federal legislation establishing the National SRTS program was enacted in 2005. Despite 10 to 15+ years of activity, I was surprised to find that best practice recommendations on criteria for assigning Adult School Crossing Guard's (ASCG's) have not really been developed.

The National Center for Safe Routes To School does have a 16 page booklet titled Adult School Crossing Guard Guidelines, but only about 2 and half of these pages deal with Identifying Locations Where Adult Crossing Guards are Needed, and then only in very general terms.

The above guide is on-line at

http://guide.saferoutesinfo.org/crossing_guard/pdf/crossing_guard_guidelines_web.pdf

The section on Identifying the Locations Where Adult School Crossing Guards are Needed is on pages 4 - 6 of the guide (pages 6 - 8 of the PDF). Or see this section pulled out at

http://guide.saferoutesinfo.org/crossing_guard/identifying_the_locations_where_adult_school_crossing_guards_are_needed.cfm

Identifying the Locations Where Adult School Crossing Guards are Needed

No absolute national criteria exist for identifying which street crossings in a community require an adult school crossing guard.

The Manual on Uniform Traffic Control Devices (MUTCD) provides some general federal guidance on how to determine the need for a guard at a particular location.

Some states and local governments provide further guidance or recommendations, but the conditions under which a guard is assigned to a particular location vary around the country.

The local lead organization decides the selection criteria by which adult school crossing guards are assigned to crossings.

Location decisions reflect relevant federal, state and local policies and funding issues, and are tailored to the individual conditions and needs of a community.

Information to consider when identifying guard placement

The age of the students who are crossing

**The width of the street and
the number of lanes of traffic students must cross**

The sight distance at the crossing

Safe gaps in traffic

**Presence of traffic control devices,
including traffic signals, signs & pavement**

The speed of vehicles at the crossing

Volumes of traffic and pedestrians

The attendance boundary and walk zone for each school

**The distance the crossing is from a school and
the type of adjacent land use**

Crash history of the crossing

Information to consider when identifying guard placement

I want to compare and explain Madison's criteria for determining locations where Adult School Crossing Guards are warranted to the recommendations of the National Center for Safe Routes to School's recommendations.

The age of the students who are crossing

Madison includes this in two ways

- We give additional points if there is a higher than proportionate number of K-1 students, >40%
- Reduced criteria to assign an ASCG for schools with only grades K-2

The width of the street and the number of lanes of traffic students must cross

NSRTS does not really include this as a criteria. Rather they indicate that wider and multi-lane streets may require more than one ASCG.

In Madison, after a location is recommended and approved for an ASCG assignment, it is up to the Police Department to determine how to staff it. There are a couple of locations where they have two ASCG's working the crossing together, such as Gammon Road at Tree Lane and Whitney Way at Russett.

The sight distance at the crossing

Madison takes sight distance seriously in our evaluations. The ASCG you just approved for Falk would not have met criteria without the boost in points from lack of stopping sight distance to the crosswalk for westbound drivers.

Safe gaps in traffic

This is one of the main factors in our criteria

Presence of traffic control devices, including traffic signals, signs & pavement

Not really a criteria in NSRTS, rather a separate call to make sure traffic controls are adequate

The speed of vehicles at the crossing

Included in Madison's criteria, but not a major determinate

Volumes of traffic and pedestrians

Ped volume is important both as a component of the hazard rating as well as a specific minimum criteria

Traffic volume is reflected in gap availability.

Traffic Volume also reflected in some of the "other" factors

- Foreign traffic route.
- For each approach in excess of four.
- For complex signal or crossing design.
- An intersection of two arterial streets where total weekday traffic approach volume exceeds 25,000 vehicles.
- Volume of turning traffic not reflected in gap availability.

The attendance boundary and walk zone for each school

Not really a criteria for NSRTS, rather a statement that "The distances that walk zones extend from schools as well as policies regarding the provision of bus service differ among states and communities. Both can impact the number of children walking to school and the routes they take."

The distance the crossing is from a school and the type of adjacent land use

Also not a criteria. "A crossing in close proximity to a school within a residential neighborhood may attract more student pedestrians than, for example, a crossing located further from a school surrounded by non-residential land uses."

Crash history of the crossing

Can weigh heavily in Madison's point scoring

We look both at whether there have been any crashes involving students on their way to or from school, as well as whether there is a pattern of crashes that might affect students on their way to and from school

California Manual on Uniform Traffic Control Devices

FHWA's MUTCD 2009 Edition, including Revisions 1 & 2 as amended for use in California.



The National Center for Safe Routes To School's guidelines refer to two statewide programs as examples, California and Arizona.

California's Adult School Crossing Guard criteria are included in their state Manual on Uniform Traffic Control Devices (MUTCD).

See <http://www.dot.ca.gov/hq/traffops/engineering/mutcd/pdf/camutcd2014/Chapter7D.pdf>

Part 7 – Traffic Control for School Areas
CHAPTER 7D. CROSSING SUPERVISION

Section 7D.01 Types of Crossing Supervision

Support:

There are three types of school crossing supervision:

- A. Adult control of pedestrians and vehicles by adult crossing guards,**
- B. Adult control of pedestrians and vehicles by uniformed law enforcement officers, and**
- C. Student and/or parent control of only pedestrians with student and/or parent patrols.**

Information regarding the organization, administration, and operation of a school safety patrol program is contained in the "AAA School Safety Patrol Operations Manual" (see Section 1A.11).

California MUTCD mentions three types of crossing supervision

Adult School Crossing Guard

Law Enforcement

Student or parent / adult volunteer patrol

Note that this is the same as the Federal MUTCD.

See <http://mutcd.fhwa.dot.gov/pdfs/2009r1r2/part7.pdf>

Page 15 of this PDF (page 745 of the MUTCD)

California MUTCD Criteria for Adult Crossing Guards

Adult Crossing Guards normally are assigned where official supervision of school pedestrians is desirable while they cross a public highway, and at least 40 school pedestrians for each of any two hours (not necessarily consecutive) daily use the crossing while going to or from school.

California is generally looking for at least 40 students per hour both on the way to and from school.

Madison uses 25 elementary school aged students crossing at the location being studied as a minimum. Meeting this requirement in Madison is not required both on the way to and from school. We typically will recommend assignment of an ASCG if this is met (along with the hazard rating) either in the morning when students are arriving at school or in the afternoon when they are dismissed.

California MUTCD Criteria for Adult Crossing Guards (cont'd)

Adult crossing guards may be used under the following conditions:

- 1. At uncontrolled crossings where there is no alternate controlled crossing within 600 feet; and**
 - a. In urban areas where the vehicular traffic volume exceeds 350 during each of any two hours (not necessarily consecutive) in which 40 or more school pedestrians cross daily while going to or from school; or**
 - b. In rural areas where the vehicular traffic volume exceeds 300 during each of any two hours (not necessarily consecutive) in which 30 or more school pedestrians cross daily while going to or from school.**

Whenever the critical (85th percentile) approach speed exceeds 40 mph, the guidelines for rural areas should be applied.

Uncontrolled crossing

No ASCG if there is a controlled crossing within 600 feet.

(A controlled crossing generally means there is a traffic signal.)

Otherwise, in urban area if traffic volume >350/hr when 40 students crossing (= approx 3500 ADT) or in rural area if traffic volume >300/hr when 30 students cross.

The main difference in urban vs rural recommendations is speed. In fact, in an urban area if 85th percentile speed >40 mph, California MUTCD recommends using rural criteria.

California MUTCD Criteria for Adult Crossing Guards (cont'd)

2. At stop sign-controlled crossing:

Where the vehicular traffic volumes on undivided highways of four or more lanes exceeds 500 per hour during any period when the school pedestrians are going to or from school.

3. At traffic signal-controlled crossings:

- a. Where the number of vehicular turning movements through the school crosswalk exceeds 300 per hour while school pedestrians are going to or from school; or**
- b. Where justified through analysis of the operations of the intersection.**

If the intersection is stop sign controlled

consider ASCG when traffic volume >500/hr when students are crossing.

At controlled intersection (traffic signal)

consider ASCG when turning movements >300/hr when students are crossing,
or anytime "engineering judgment" indicates an ASCG justified.

Arizona Revised Statutes

28-797. School crossings; civil penalty; assessment; definition

- A. The director with respect to state highways, the county board of supervisors with respect to county highways or the governing body of a city or town or its designee with respect to city or town streets, by and with the advice of the school district governing board, may mark or cause to be marked by the department or local authorities crosswalks in front of each school building or school grounds abutting the locations where children are required to cross the highway or street.**
- B. The department or local authorities may approve additional crossings across highways not abutting on school grounds on application of school authorities and with written satisfactory assurance given the department or local authorities that guards will be maintained by the school district at the crossings to enforce the proper use of the crossing by school children.**

Arizona State Statutes

The Arizona law is more about when to mark a school crossing than when to assign an Adult School Crossing Guard. This is basically the same thing, however, since there is a requirement that if a crossing meets the criteria for marking as a school crossing, the school district has to agree to staff the crossing with an adult crossing guard in order for the crossing to be marked.

School authorities are responsible for the proper operation of School Crossings. No School Crossing evaluation on the state highway system may be undertaken without a written request signed by the school district governing board or superintendent of schools for that district or the superintendent of a charter, private, or parochial school.

Study recommendations propose a method of operation of the School Crossing by school authorities and the willingness of the school and school district to provide the necessary adult crossing guard(s) Ditto non-abutting crossings. Since these require ASCG and school district has to pay for these, non-abutting crossings are only marked and signed if school district agrees to fund the ASCG

The Arizona DOT School Crossing Warrants use a point system similar to ours. They look at four factors

- A. Average Time Between Gaps
- B. School Age Pedestrian Volume
- C. 85th Percentile Approach Speed
- D. Average Demand Per Gap

Also similar to Madison's criteria, the number of students is both included in the point total and is a separate criteria. Arizona criteria can generate a maximum of 33 points for the four categories listed. A minimum of 16 points is required to recommend marking a crossing if there are at least 11 or more students using the crossing.

See <http://www.azdot.gov/docs/business/adot-traffic-safety-for-school-area-guidelines.pdf?sfvrsn=0>

Appendix B

Arizona Revised Statutes

28-797. School crossings; (cont'd)

- D. When the school crossings are established, school authorities shall place within the highway the portable signs indicating that school is in session. This placement shall be not more than three hundred feet from each side of the school crossing. In addition, portable signs indicating that the driver shall stop when children are in the crosswalk shall be placed at school crossings. School authorities shall maintain these signs when school is in session and shall cause them to be removed within one hour after the end of a school session or pursuant to an agreement with a city or town.**

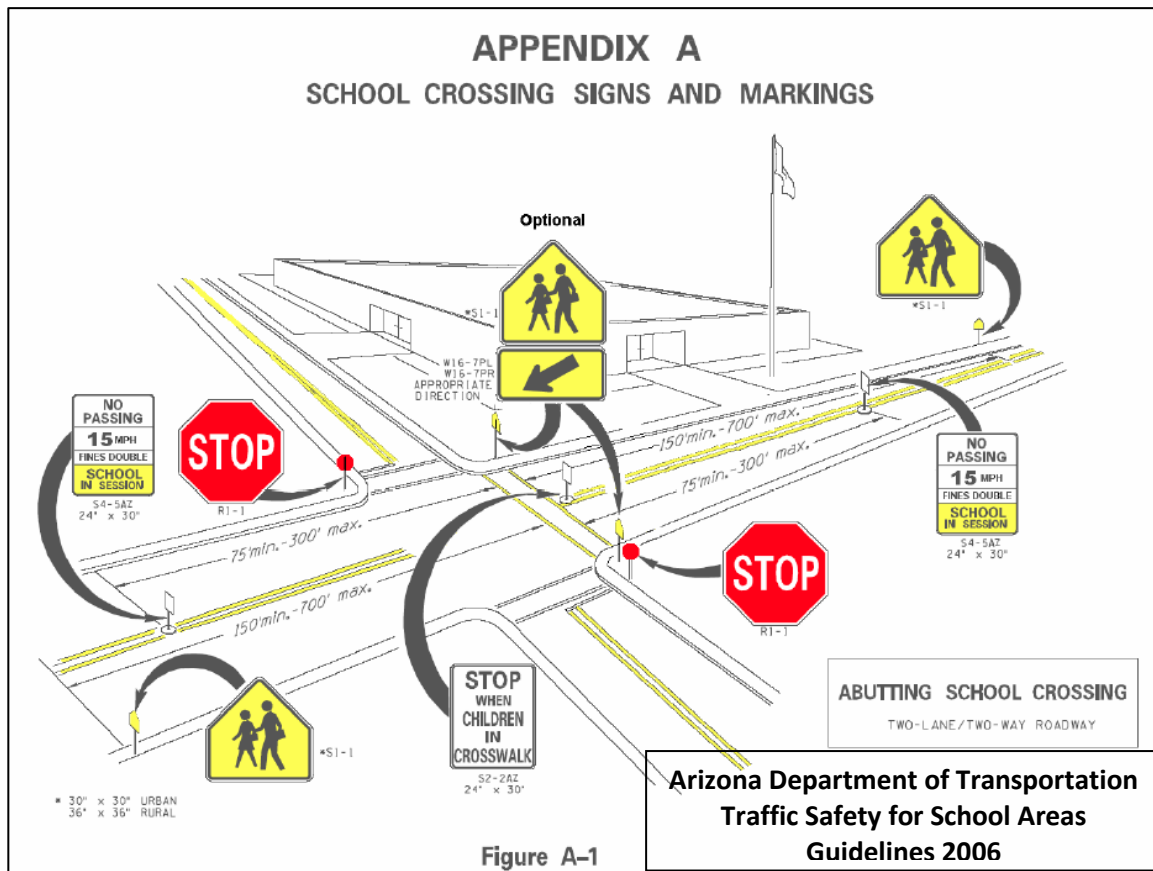
Arizona school crossings, whether abutting the school or not, require portable signs.
School in session (and SSL and no passing).
Stop when children in crosswalk.
See next slide for what these signs look like.



A couple of signs at the crossing guard training session in Mesa. They should be obeyed by anyone who drives around the Valley. (Photo by Steve Shadley - KJZZ)

<http://kizz.org/content/39956/valley-crossing-guards-prepared-new-school-year>

Close up photo of what the portable signs required at school crossings by Arizona state statute look like.



Typical school signage including the portable signs for a typical local street intersection (two-lane to two-lane)

From <http://www.azdot.gov/docs/business/adot-traffic-safety-for-school-area-guidelines.pdf?sfvrsn=0>

That's it for national recommended best practice.

I plan to look at some "peer" cities criteria, eg Boulder, Portland, Seattle, Davis, Minneapolis, etc.

What I want to now is ask you

- What additional research you would like us to pursue / what other information / data would you like
- What types of changes you are interested in
- What are the reasons / rational for the changes
- What are the intended outcomes of the changes
- Note that whatever changes are pursued, they are likely to have a budget impact which needs to be included in the discussion