

WHY CAN'T WE HAVE A 4-WAY STOP TO REDUCE CRASHES?

Many people believe that installing STOP signs on all approaches to an intersection will result in fewer crashes. This is not always the case, however. Although the crash severity may be lessened, drivers are penalized by the additional delay and higher vehicle operating costs (fuel, brakes, etc.). There is no real evidence to indicate that STOP signs decrease the speed of traffic. Impatient drivers view the additional delay caused by unwarranted STOP signs as “lost time” to be made up by driving at higher speeds between STOP signs. Unwarranted STOP signs breed disrespect by motorists who tend to ignore them or slow down without stopping. This can sometimes lead to tragic consequences.

State Law requires the installation of all traffic control devices, including STOP signs to meet State standards adopted by the Florida Department of Transportation (FDOT). Florida Statutes, Section 316.0745(1), states: “The Department of Transportation shall adopt a uniform system of traffic control devices for use on the streets and highways of the State.” Section 316.0745(3) states: “All official traffic control signals or official traffic control devices purchased and installed in this State by any public body or official shall conform with the manual and specifications published by the Department of Transportation” The Manual on Uniform Traffic Control Devices (MUTCD) published by the U.S. Department of Transportation is the national standard for traffic control devices and has been adopted by the FDOT as the State standard.

The installation of a multi-way stop condition must first meet the warrants as set forth in the MUTCD. The MUTCD states the following Support statements for the use of multi-way stops: “Multi-way stop control can be useful as a safety measure at intersections if certain traffic conditions exist. Safety concerns associated with multi-way stops include pedestrians, bicyclists, and all road users expecting other road users to stop. Multi-way stop control is used where the volume of traffic on the intersecting roads is approximately equal.”

The MUTCD provides the follow Guidance statements:

The decision to install multi-way stop control should be based on an engineering study. The following criteria should be considered in the engineering study for a multi-way STOP sign installation:

A. Where traffic control signals are justified, the multi-way stop is an interim measure that can be installed quickly to control traffic while arrangements are being made for the installation of the traffic control signal.

B. A crash problem, as indicated by five or more reported crashes in a 12-month period that are susceptible to correction by a multi-way stop installation. Such crashes include right- and left-turn collisions as well as right-angle collisions.

C. Minimum volumes:

1. The vehicular volume entering the intersection from the major street approaches (total of both approaches) averages at least 300 vehicles per hour for any 8 hours of an average day, and
2. The combined vehicular, pedestrian, and bicycle volume entering the intersection from the minor street approaches (total of both approaches) averages at least 200 units per hour for the same 8 hours, with an average delay to minor-street vehicular traffic of at least 30 seconds per vehicle during the highest hour, but
3. If the 85th-percentile approach speed of the major-street traffic exceeds 40 mph, the minimum vehicular volume warrants are 70 percent of the above values.

D. Where no single criterion is satisfied, but where Criteria B, C.1, and C.2 are all satisfied to 80 percent of the minimum values. Criterion C.3 is excluded from this condition.