

The Institute of Transportation Engineers
Traffic Engineering Council
presents TIPS on



Stop Signs

How do you decide where to install STOP signs?

STOP signs are traffic control devices that drivers encounter every day. They impose an inconvenience on the driver that cannot be ignored. Many drivers feel that more or fewer STOP signs are needed depending on the location and the time of day. Since they impose a significant amount of control over traffic, traffic engineers are very selective about STOP sign installation.

In order to ensure that the advantages of installing a STOP sign outweigh the disadvantages, and to provide some consistency in the application of STOP signs, four warrants have been developed that define the *minimum* conditions under which further consideration of a STOP sign is appropriate. Using these warrants, traffic engineers look at an intersection based on various criteria:

- Does a minor road intersect a major road where application of normal



right-of-way rule is particularly hazardous?

- Does a street enter a through highway or street?
- Is the intersection an unsignalized one in a signalized area?
- Does the combination of high speed, restricted view, and serious accident history indicate a need for a STOP sign?

If one or more of these criteria describe the intersection, the traffic engineer then determines if a STOP sign is the best solution for the problem. It is important to note that a STOP sign should not be installed unless it meets one or more of the

warrants. However, if an intersection meets a warrant, a STOP sign does not have to be installed. The engineer should consider lesser control of the intersection, such as a YIELD sign, before installing a STOP sign.

Some intersections may require a multi-way STOP sign installation as a safety measure. There are three warrants to help determine if multi-way STOP signs are needed at an intersection. The engineer performs the same analysis as that for two-way STOP signs.

Many citizens believe that installing a STOP sign at an intersection will control speed along the roadway. However, unwarranted STOP signs can actually create other problems both at the

intersection and along the roadway. When unwarranted STOP signs are used, drivers must stop more frequently. Thus, they tend to drive faster between intersections in order to save time. Unwarranted STOP signs also encourage disobedience and the use of alternate, inadequate routes.

Properly located STOP signs can have various benefits. Aside from providing orderly traffic movement, they can reduce some types of accidents and allow minor street traffic to enter or cross a major roadway. Thus, before installing a warranted STOP sign, an engineer should determine that the STOP sign will improve the overall safety and/or operation of the intersection.