



Information on Traffic Signals



What criteria must be met before installing a traffic signal? The signal poles are there, why don't they install the arms and lights? How long does it take to get the signal installed once it is warranted and how much do they cost? How many accidents have to occur before a signal can be installed?

Where Traffic Signals Can Be Useful

SCDOT and Beaufort County are required to use the **Manual on Uniform Traffic Control Devices (MUTCD)**, which states that: "When properly used, traffic control signals are valuable devices for the control of vehicular and pedestrian traffic. They assign the right-of-way to the various traffic movements and thereby profoundly influence traffic flow." Unfortunately, traffic signals are too often considered a solution for all traffic problems at an intersection. This belief can lead to traffic signals being installed at locations where they are not needed, adversely affecting the safety and efficiency of vehicular, bicycle, and pedestrian traffic.

Criteria for a Traffic Signal Installation

The decision to install a traffic signal is based on a traffic engineering study, which compares the following conditions to nine **MUTCD** warrants. The following are evaluated to determine if any of the nine warrants are satisfied:

- a. The number of vehicles and pedestrians that use the intersection;
- b. The intersection's physical makeup;
- c. Average speed of the vehicles;
- d. The number and types of crashes that have occurred at the intersection;
- e. Nearby developments; and
- f. The traffic delays during peak hours.

The nine **MUTCD** warrants evaluate the conditions to determine if a traffic signal would provide for a more orderly movement of traffic, increase the traffic-handling capacity of the intersection, reduce certain types of accidents, provide a more continuous movement of traffic and/or provide needed gaps to assist traffic, both vehicular and pedestrian, to cross or enter the roadway.

How much does a traffic signal cost and how long to get it built?

A typical traffic signal can cost from \$100,000 to \$250,000 depending on the width of the roads. Once a traffic signal has been determined to be warranted, it can take from 3 months up to almost a year to be constructed and activated.

How many accidents have to occur at a location before a traffic signal gets installed?

A traffic signal may be warranted after 1) Other alternatives have failed to reduce crash frequency, 2) A minimum of five reported crashes, occur in a 12-month period, of the types susceptible to correction by a traffic signal, each involving excessive personal injury or property damage, and 3) 56 percent of the Eight-Hour Volume Warrant is satisfied. Traffic signals do not guarantee that accidents, including fatalities, will be prevented. While some types of accidents may decrease, other types of accidents increase. Accidents are only one of the criteria that is analyzed during the traffic engineering study.

Want More Information?

This flyer is for general purposes only. For more information, please contact the Beaufort County Traffic & Transportation Engineering Department at (843) 255-2940 or [click here](#)

NOTE: The **MUTCD** is used throughout the country as the standard by which traffic control decisions are made. The complete **MUTCD** can be found at: http://mutcd.fhwa.dot.gov/pdfs/2009r1r2/pdf_index.htm