Criteria For Installation Of Multi-Way Stop Signs

The criteria for installation of multi-way stop signs are intended for analysis purposes. Meeting these criteria may warrant consideration for installation of multi-way stop signs. However, do not automatically assume that multi-way stop signs will be installed if these criteria are met. Professional discretion will be utilized by staff when making the final decisions. For example, a stop sign may not be approved, despite meeting these criteria, if it will cause more harm than benefit.

Temporary stop signs may be installed, if approved by the City Engineer, for construction or emergency needs without meeting these criteria.

(1) High-Volume Streets (over 4,000 cars per day)

(a) Multi-way stop sign installation may be considered if any two of the following conditions exist:

Minimum Traffic Volumes:

(1) The total vehicular volume entering the intersection from all approaches must average at least 450 vehicles per hour for any 8 consecutive hours of an average day, and

(2) The combined vehicular and pedestrian volume entering the intersection from the minor street must average at least 150 units per hour for the same 8 consecutive hours, but

(3) When the 85th percentile approach speed exceeds 40 mph, the minimum volume requirements are 70% of the above standards

(b) Accidents: An accident problem, as indicated by four (4) or more reported accidents within a 12 month period of a type susceptible to correction by a multi-way stop installation.

(c) Visibility: The stopping sight distance on the approaches to the major street are less than recommended for the given design speed. The design speed shall be considered to be the posted speed plus 10 mph.

(2) Moderate-Volume Streets (4,000 or fewer cars per day)

(a) Multi-way stop sign installation may be considered if any two of the following conditions exist: Minimum Traffic Volumes:

(1) The total vehicular volume entering the intersection from all approaches must average 300 vehicles per hour for any 8 hours of an average day, and

(2) The vehicular and pedestrian volume entering the intersection from the minor street for the same 8 hours must average at least 100 cars per hour, but

(3) When all of the following conditions are met, the volume requirements are 60% of the above standards

(a) Both streets have residential frontage with existing 25 mph speed limits; and

(b) Neither street exceeds 40 feet of roadway width; and

(c) No existing stop sign or signal is located on the more heavily traveled street within a distance of 800 feet; and

(d) Intersecting streets extend 800 feet or more away from the intersection; and

(e) Intersection is a location where large numbers of elementary school children cross (minimum of 25 children crossing on an average school day)

(3) Accidents: An accident problem, as indicated by four or more reported accidents within a 12-month period of a type susceptible to correction by a multi-way stop installation.

(4) Visibility: The straight-line sight distance on the approaches to the major street for vehicles or pedestrians crossing the intersection are less than 250 feet.

(5) Speed: The 85th percentile vehicle speed must exceed 30 miles per hour on the approaches to the intersection.