Stop Signs

The City of Walnut receives many requests for the installation of stop signs. A stop sign is an important traffic control device that is used for controlling traffic at an intersection. Research has shown that stop signs are not effective in reducing vehicle speeds. The primary purpose of stop signs is to assign right-of-way to drivers as they approach an intersection.

Stop signs are installed in accordance to the California Vehicle Code Section 21401(a) and as stipulated in the California Manual on Uniform Traffic Control Devices (CAMUTCD). This manual has criteria or "traffic warrants" for installing signs, along with other traffic control devices, which identify specific traffic, bicycle and pedestrian volumes, accident history, and any unusual conditions, which need to be present at the intersection before these traffic control devices can be installed.

Two-Way Stop Control

Stop signs are installed at an intersection only after a careful engineering evaluation determines that one or more of the following traffic conditions exist:

- The intersecting road conflicts the most with established pedestrian crossing activity or school walking routes;
- The intersecting road has obscured vision, dips, or bumps that already require drivers to use lower operating speeds;
- The intersecting road has the longest distance of uninterrupted flow approaching the intersection, and;
- The intersecting road has the best sight distance to conflicting traffic.

Multi-Way Stop Control

The City often receives requests to install multi-way stop signs at intersections where two-way stop signs exist. Multi-way stop signs are used where the volume of traffic on the intersection roads is approximately equal. These requests are carefully evaluated using the following established warrants provided in the CAMUTCD:

- *Interim Measure:* 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.

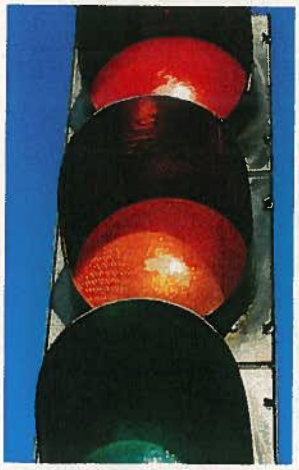
Multi-Way Stop Control (Continued)

- *Crashes:* A crash problem, as indicated by 5 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.
- *Posted Speed Limit:* If posted speed of the major-street traffic exceeds 40 mph the minimum vehicular volume warrants are 70% percent of the above values.
- *Multiple Warrants:* Where no single warrant is satisfied, but where crash and volume warrants are all satisfied to 80 percent of the minimum values, a multi-way stop control may also be considered.

Requests and Inquiries

If you have questions, requests, or suggestions concerning traffic please contact the Community Services Department at (909) 598-5605.

Traffic Signals



A traffic signal is a valuable tool for controlling vehicle and pedestrian traffic and for promoting safe and efficient traffic flow at intersections, along routes and in street networks. The primary function of a traffic signal is to assign right-of-way to the various traffic movements at an intersection.

As the traffic handling capacity of lesser traffic control devices, such as multi-way stop signs diminishes at an intersection, a traffic signal may be the appropriate traffic control device to be used at the intersection, depending on whether minimum installation criteria, in accordance with the Manual on Uniform Traffic Control Devices is satisfied. The minimum installation criteria or "warrants" generally requires an evaluation of the following traffic conditions:

- The amount of vehicular and pedestrian traffic;
- The need to provide interruption to the major flow for side street vehicles and pedestrians;
- The collision history of the intersection; and
- The proximity to schools.

Advantages and Disadvantages of Traffic Signals

There is a common belief that traffic signals are the answer or "cure all" to all traffic problems at an intersection. However, this belief is not well founded because there are both advantages and disadvantages to the installation of a traffic signal. By definition, a green light for some traffic is a red light for other traffic. Traffic signals tend to decrease congestion and delay for some vehicles and increase delay and congestion for other vehicles.

If traffic signals are justified, properly located and maintained, one or more of the following advantages may be achieved:

- Orderly movement of traffic and an increase in the traffic handling capacity of the intersection.
- A reduction in the frequency and severity of certain types of crashes, especially right-angle collisions.
- Coordination to provide for continuous or nearly continuous movement of traffic at a definite speed along a given route under favorable conditions.
- Interruption of heavy traffic at intervals to permit other traffic, vehicular or pedestrian, to cross the major street.

Traffic Signals

Advantages and Disadvantages of Traffic Signals (Continued)

Traffic signals, even though warranted by traffic conditions, can be improperly designed or operated and can produce the following disadvantages:

- Can increase total intersection delay, especially during off-peak periods.
- Can interrupt the progressive flow of traffic on a route causing increased delay and stopping.
- The use of less adequate routes may be encouraged in an attempt by drivers to avoid such signals.
- Significant increases in the frequency of rear-end type collisions.

Traffic Signal Equipment

A traffic signal is made up of a controller, signal heads, vehicle detectors, and signal poles and supports, and can cost up to $350,000. Its operation, from the standpoint of electrical energy consumption, can cost up to an average of $1,500 per year.

Requests and Inquiries

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Speed Limits

All fifty states of the United States base their speed regulations on the Basic Speed Law. In California, CVC 22350 defines the basic speed laws as:

"No person shall drive a vehicle upon a highway at a speed greater than is reasonable or prudent having a regard for weather, visibility, the traffic on, and the surface and width of the highway, and in no event at a speed which endangers the safety of the persons or property."

This law recognizes that driving conditions vary widely from time-to-time and place-to-place and, therefore, no set of fixed driving rules will adequately serve all conditions. The motorist will constantly adjust his or her driving behavior to fit conditions encountered and must learn to do this with a minimum of assistance from enforcement agencies. The Basic Speed Law is founded on the belief that a majority of motorists are able to modify their driving behavior properly, as long as they are aware of the conditions around them.

Determination of Speed Limits

Speed limits on public streets are determined in three different ways:

1) *Prima Facie Speed Limits:* Prima facie limits are automatically established by law (CVC 22352), which includes a 15 mph in alleys, blind intersections, and blind railroad crossings, and the 25 mph limit in business and residence districts. There is also a part-time 25 mph limit in school zones when children are present en route to or from school.

   Business and residence districts are defined in the Vehicle Code as specific areas meeting a specified minimum density of roadside development. CVC Sections 235 and 240 define these regulations. A count of houses or active business facing on a highway must be made to determine whether or not a valid business or residence district exists. The law does not require posting of prima facie speed limits when such roadside conditions are readily apparent.

2) *Posted Speed Limits:* These speed limits are established by local ordinance on public streets which do not satisfy the requirements of a business or residence district or where the statewide speed limit of 65 mph is higher than reasonable for the given street. The posted speed limit must be a speed considered appropriate to facilitate the orderly movement of traffic and is reasonable for the prevailing conditions and safe, justified by an engineering and traffic survey.

Determination of Speed Limits (Continued)

State law permits local authorities to lower the maximum speed limit (65 mph) or to raise the speed limit in business and resident districts (25 mph) on the basis of a traffic and engineering survey. These "intermediate speed limits" between 25 mph and 65 mph must be posted to clearly define the limits of the zone and the prima facie speed established. CVC 22357 authorizes the increase in limits and CVC 22358 authorizes the decrease in limits.

3) *Maximum Statewide Speed Limit:* All public roads are subject to this speed limit (65 mph) unless the "Prima Facie Speed Limits" of part 1 applies or a lower limit is established in accordance with the "Posted Speed Limits" of part 2 above.

Reduction of Speed Limits

Speed limits are reduced on the basis of an engineering and traffic survey (CVC 40802) that analyzes roadway conditions, accident records and a sampling of the prevailing speed of traffic, (CVC627). Though other factors may be considered, an unreasonable speed limit, or speed trap, may not be established in accordance with CVC 40802.

Speed limits can only be reduced on the basis of an engineering and traffic survey (CVC 40802) that analyzes roadway conditions, accident records and a sampling of the prevailing speed of traffic, (CVC627). Though other factors may be considered, an unreasonable speed limit, or speed trap, may not be established in accordance with CVC 40802.

The Legislature has declared a strong public policy against the use of speed traps, to the extent that citations issued where a speed trap is found to exist, are likely to be dismissed, particularly if radar enforcement methods are used (CVC 40803-40805). Moreover, California Courts, in cases involving speed traps, have generally referenced the following provision of the CVC:

"It is the intent of the Legislature that physical conditions such as width, curvature, grade and surface conditions, or any other conditions not readily apparent to a driver, in absence of other factors, would not require special downward speed zoning, as the basic rule of section 22350 is sufficient regulation as to such conditions" (CVC 22358.5).

Setting Speed Limits

In setting speed limits, an engineering and traffic survey is conducted using a sampling of the speeds of vehicles, typically 100 free-flowing vehicles. The highest speed that 85% of the

Setting Speed Limits (Continued)

vehicles are traveling is determined by the survey. This is called the 85th percentile speed. This 85th percentile speed, in accordance with California Manual on Uniform Traffic Control Devices procedures, is used as a guideline in determining the speed limit.

Speed limits higher that the 85th percentile are not generally considered reasonable and prudent. Speed limits below the 85th percentile do not ordinarily facilitate the orderly movement of traffic and require constant enforcement to maintain compliance. Speed limits established on the basis of the 85th percentile conform to the consensus of those who drive highways as to what speed is reasonable and prudent, and are not dependent on the judgment of one or a few individuals.

Requests and Inquiries

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