

RESOLUTION NUMBER R- 255149

Adopted on OCT 6 1981

A RESOLUTION AMENDING COUNCIL POLICY NO. 200-6 REGARDING
INSTALLATION OF TRAFFIC SIGNALS.

BE IT RESOLVED, by the Council of The City of San Diego as follows:

That Council Policy No. 200-6 entitled "Criteria For Installation of
Traffic Signals," be and it is hereby amended as set forth in the Council
Policy filed in the Office of the City Clerk as Document No. RR-
255149 .

BE IT FURTHER RESOLVED, that the City Clerk is hereby instructed to add the
aforesaid to the Council Policy Manual.

APPROVED: John W. Witt, City Attorney

By 
John K. Riess
Deputy City Attorney

JKR:smm:011.1
10/1/81 (Revised)
Or.Dept: TLU
Form=r.estcp

COUNCIL POLICY

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BACKGROUND

Various types and levels of traffic control methods and devices are utilized by the City depending upon the unique problems presented by the situation.

It is the City's responsibility to provide for traffic control at a level which will result in the greatest degree of safety, and the most efficient flow of traffic with minimum delays within its financial ability to do so.

In the case of intersections, control methods applied range from basic rules of the road to complex traffic signal systems.

Many different traffic situations arise over a period of time at any given intersection. Each situation requires a traffic control response which is tailored to solve the traffic problem. Too much control for a given situation can be as unsafe as too little.

When the right control for the situation is not used, the results may include increased accidents, excessive delays, congestion and diversion of traffic to other routes which may be less desirable in terms of public safety and environmental quality.

Controls used include:

- a. Basic Rules of the Road
- b. Yield
- c. 2-Way Stop
- d. 3 or 4-Way Stop
- e. Signalization

In order to ensure that the most appropriate traffic control method is used and that they be as nearly uniform as possible, the U.S. Department of Transportation and the California Department of Transportation have developed criteria for the installation of traffic signals and other control measures.

PURPOSE

The purpose of this policy is to set forth the criteria to be used by the City of San Diego for the installation of traffic signals.

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SAN DIEGO, CALIFORNIA

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COUNCIL POLICY

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PURPOSE

~~Traffic control signals are over-operated traffic control devices which alternately direct traffic to stop and proceed at street intersections. Their purpose is the orderly assignment of right-of-way to the various vehicular and pedestrian movements.~~

POLICY

It is the policy of the Council that the installation of traffic signals shall be in accordance with minimum criteria established herein, and that such measurements and computation as may be required in determining criteria qualification shall be the responsibility of the City Engineer.

GENERAL

Only those intersections meeting the minimum warrants should be considered for traffic signals. The minimum warrants listed herein are the criteria used by the California Division of Highways both the U.S. Department of Transportation and the California Department of Transportation and have general national acceptance. They are based on an analysis of data from a large number of signal installations coupled with the judgement of traffic engineers with long experience. The minimum criteria are satisfied when any one of the ~~six~~ seven warrants is met.

The satisfaction of a warrant is not necessarily justification for signals. In special situations, they may be disqualified a traffic signal should not be installed because of the adverse effect they it could cause in a total area traffic pattern in the overall traffic circulation pattern of an area.

WARRANTS

	<u>Number of Approach Lanes</u>	<u>Urban</u>	<u>*Rural</u>
	<u>(Major St.)</u>	<u>(Minor St.)</u>	
1. <u>Minimum Vehicular Volume</u>			
a. The total vehicular volume per hour entering the intersection from all approaches on the <u>major street</u> for any 8 hours of an average day must average be:	<u>1</u>	250 veh.	500 veh.
	<u>2 or more</u>	500 <u>600</u>	350 <u>420</u>
**b. In addition, the total vehicular volume per hour entering the intersection from the <u>higher volume minor street or streets from approach</u> for the same 8 hours must average be:	<u>1</u>	125 veh.	125 veh.
	<u>2 or more</u>	150 <u>200</u>	105 <u>140</u>

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WARRANTS (Continued)

	<u>Number of Approach Lanes</u> <u>(Major St.)</u>	<u>Urban</u>	<u>*Rural</u>
2. <u>Interruption of Continuous Traffic</u>			
a. The vehicular volume per hour entering the intersection <u>from all approaches</u> on the major street for any 8 hours of an average day must <u>average</u> be:	<u>1</u> 2 or more	<u>750</u> <u>900</u>	<u>500</u> veh. <u>525</u> <u>630</u>
**b. In addition, the combined vehicular and-pedestrian volume per hour entering the intersection from the <u>higher-volume minor street or-streets approach</u> for the same 8 hours must <u>average</u> be:	<u>1</u> 2 or more	<u>75</u> <u>100</u>	<u>50</u> <u>50</u> <u>70</u>
c. And, the average vehicular speed on the major street must exceed:		20-MPH	25-MPH
3. <u>Minimum Pedestrian Volume</u>			
a. The pedestrian volume per hour crossing the major street <u>in the highest-volume crosswalk</u> for any 8 hours of an average day must <u>average</u> be:		<u>250</u> ped. <u>150</u> ped.	<u>125</u> ped. <u>105</u> ped.
b. In addition, the vehicular traffic per hour entering the intersection from <u>all approaches</u> on the major street for the same 8 hours must <u>average</u> be:		<u>600</u> veh.	<u>400</u> veh. <u>420</u> veh.
c. And, the average vehicular speed on the major street must exceed:		15-MPH	20-MPH
<u>OR, the vehicular traffic per hour entering the intersection from all approaches on a major street where there is a raised median island 4 ft. or more in width for the same 8 hours must be:</u>		<u>1000</u> veh.	<u>700</u> veh.

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WARRANTS (Continued)

4--Coordinated Movement

A coordinated signal system may be warranted if a majority of the signalized intersections composing the system comply with one or more of the established warrants, and if the system fits an overall time-space diagram. Signals at an intersection may be warranted as part of a coordinated system if they fit into an existing time-space diagram.

4. Progressive Movement

A signal may be warranted where the existing adjacent signals do not provide the necessary degree of platooning of vehicles. This warrant is not applicable at locations that are within 1000 feet of an existing signal.

5. Accident Hazard

Five or more reported accidents of types susceptible to correction by a traffic signal have occurred within a recent 12-month period.

- a. A signal may be warranted where five (5) or more reported accidents of types susceptible to correction by a traffic signal have occurred within a recent 12 month period, and
- b. Where not less than eighty percent (80%) of the minimum vehicular and/or pedestrian volumes specified in Warrants 1, 2 or 3 are satisfied, and
- c. Where an adequate trial of less restrictive remedies with satisfactory observance and enforcement has failed to reduce the accident frequency.

6--Combination

Where no one warrant is satisfied but two or more are satisfied to the extent of 80 percent or more of the stated values.

6. Systems

A signal may be warranted at the intersection of two (2) or more major streets and/or primary arterials where the total entering traffic volume is at least 800 during the peak hour of an average weekday, or for any five (5) hours of a Saturday and/or Sunday.

7. Combination

In exceptional cases, a signal may be warranted where no one warrant is satisfied but where any two (2) of Warrants 1, 2 or 3 are satisfied to the extent of eighty percent (80%) or more of the stated values.

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- * USE AT INTERSECTIONS WHEN THE 85-PERCENTILE SPEED ON THE MAJOR STREET EXCEEDS 40 MPH.
- ** INCLUDE THE HIGHER-VOLUME LEFT TURN MOVEMENT FROM THE MAJOR STREET, IF A SEPARATE LEFT TURN PHASE IS TO BE PROVIDED. THE MAJOR STREET VOLUME SHOULD BE REDUCED BY THIS AMOUNT.

PRIORITY SYSTEM

The purpose of the priority rating system is to impartially rank all intersections so qualifying. This rating is used by the City Engineer to make recommendations for the installation of signals under various City improvement programs. It also provides a running inventory of intersections to be resurveyed periodically for significant changes in operating conditions. This system is based on the warrants for traffic signals as listed above. Points are assigned for the first five warrants of the table. Points are also assigned for a sixth warrant, "Special Conditions." The points for the six warrants criteria are added and the intersections arranged by descending number of points to form a priority list.

1. Warrant No. 1 - Total Vehicular Volume - Max. Points 15

Points are dependent upon the major and minor street volumes entering the intersection. Points are also dependent upon the intersection capacity. Volumes are based on 4-hour counts, taken usually between 2 and 6 p.m.

2. Warrant No. 2 - Interruption of Continuous Traffic - Max. Points 10

Vehicles on through streets, if uncontrolled tend to travel through minor street intersections at speeds that make it difficult and hazardous for vehicles and pedestrians from the side street to cross or enter the principal traffic stream. ~~The total of the minor street vehicles plus pedestrians crossing or entering the major street must exceed 300 in four hours to receive any points.~~

3. Warrant No. 3 - Pedestrian Volume - Max. Points 10

A traffic signal may be needed where many pedestrians cross a major street.

4. Warrant No. 4 - Coordinated Progressive Movement - Max. Points 5

This warrant depends upon engineering studies and must include the present and future traffic demands of the area. A signal may be justified when it forms a part of an interconnected or coordinated system.

5. Warrant No. 5 - Accident Hazard - Max. Points 15

Only those accidents susceptible to correction by traffic signals are considered and then only if less restrictive measures such as warning signs, proper lighting, painted markings, etc. have failed.

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PRIORITY SYSTEM (Continued)6. Warrant No. 6 - Special Conditions - Max. Points 15

This warrant-~~considers~~ item gives consideration to extenuating circumstances that are not covered in the previous five warrants. They may include: the proximity of schools, churches, public buildings and other traffic and pedestrian generators; an abrupt change from a rural to an urban area; the need for police control during portions of the day; a steep hill; a horizontal curve; restricted sight distance. This warrant requires engineering judgement based on physical inspection of the site.

DATED: June 9, 1981

Adopted by Resolution No. 171009 5/24/62
Amended by Resolution No. 194909 10/1/68

Passed and adopted by the Council of The City of San Diego on OCT 6 1981,
 by the following vote:

Councilmen	Yeas	Nays	Not Present	Ineligible
Bill Mitchell	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bill Cleator	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Susan Golding	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Leon L. Williams	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fred Schnaubelt	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mike Gotch	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dick Murphy	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lucy Killea	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mayor Pete Wilson	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

AUTHENTICATED BY:

PETE WILSON

Mayor of The City of San Diego, California.

CHARLES G. ABDELNOUR

City Clerk of The City of San Diego, California.

(Seal)

By Ellen Board, Deputy.

Office of the City Clerk, San Diego, California	
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