

**ALL-WAY STOP WARRANT SUMMARY**

LOCATION	<b>Naples St and First Ave</b>		PAGE
DATE	<b>6/12/2019</b>		1 OF 6
POLICY NUMBER	478-03	EFFECTIVE DATE	3/6/2001

**GENERAL**

Points are assigned to each of these warrants. The total points possible are 100. The installation of an all-way stop control is justified with a minimum of 45 points, unless:

Case 1:

If Caltrans' criteria is met, the point system is not applicable.

Case 2:

If any of the five criteria is met to the extent of 100% an all-way stop control intersection may be warranted even though the minimum number of points is not accumulated.

Case 3:

If the following conditions are met:

- (a) The street to be controlled is within a residence district as defined in Section 515 of the California Vehicle Code, and
- (b) The street to be controlled is classified a collector or is functioning as a collector, and
- (c) The subject intersection is not within 600 feet from the nearest controlled intersection along the collector, and

The subject intersection shall receive a bonus of 10 points.

**POINTS:** 0

**ALL-WAY STOP POINT SYSTEM CRITERIA:**

**1) ACCIDENT WARRANT: ( 25 points )**

Five Points are assigned for each accident susceptible to correction by an all-way stop control during any 12-month period prior to the investigation date.

Total number of accidents correctible by all-way stop: 0

( Maximum 25 points )

**POINTS:** 0

**2) UNUSUAL CONDITION WARRANT: ( 21 points )**

1) Adjacent to school, fire station, playground, senior center and/or amusement park.  
(7 points maximum )

**3 pts**

- a) within 100' of the intersection. 7 points
- b) between 101'-250' from the intersection. 5 points
- c) between 251'-400' from the intersection. 3 points
- d) within 500' of the intersection. 1 point

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2) Any visibility obstruction including horizontal and/or vertical curves which result in limited stopping sight distance based on either the posted speed limit or the 85% tile speed, whichever is higher.  
(7 points maximum)

$$\frac{400}{190} \times 100 = 211\% \geq 100\% \quad \mathbf{0 \text{ pts}}$$

- a) provides for less than 40% of the required sight distance. 7 points
- b) provides for less than 50% of the required sight distance. 6 points
- c) provides for less than 60% of the required sight distance. 5 points
- d) provides for less than 70% of the required sight distance. 4 points
- e) provides for less than 80% of the required sight distance. 3 points
- f) provides for less than 90% of the required sight distance. 2 points
- g) provides for less than 100 % of the required sight distance. 1 point

3) An intersection leading to an arterial from an interior (circular) collector **0 pts**      2 points

4) Intersection with steep grades within 500' from the intersection on the downhill approach.

- a) greater than 9% grade 7 points
- b) greater than 8% grade **0 pts**      5 points
- c) greater than 7% grade 3 points
- d) greater than 6% grade 1 point

5) Intersection is on "Suggested Route To School" and no other controlled crossing is located within 600'.  
(7 points maximum)

- a) intersection is 300' from school grounds. 7 points
- b) intersection is 400' from school grounds. **0 pts**      5 points
- c) intersection is 500' from school grounds. 3 points
- d) intersection is 600' from school grounds. 1 point

6) High approach speeds. **1 pts**

- a) prevailing speeds are up to 5 mph higher than posted speed. **1 point**
- b) prevailing speeds are up to 10 mph higher than posted speed. 4 points
- c) prevailing speeds are more than 10 mph higher than posted speed. 7 points

7) Adjacent to bus stop **2 points**  
 Public mailbox 2 points  
 School bus drop-off **2 pts**      7 points

( Maximum 21 points )

**POINTS: 6**

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**3) PEDESTRIAN VOLUME ( 20 points )**

Consideration is given to large numbers of pedestrians crossing the major street during the busiest hour of an average day.

Peak Hour: **5/22/2019 4:00pm-5:00pm** Number of Pedestrians:     **0**    

Pedestrians crossing major street, Total during the peak pedestrian hour

Volumes:	1-10	11-20	21-30	31-40	41-OVER
Points:	4	8	12	16	20

( Maximum 20 points )

POINTS:     **0**    

**4) TRAFFIC VOLUME ( 24 points ) \***

Points are dependent upon the magnitude of vehicular volumes entering the intersection during the eight busiest hours of an average day.

Traffic Counts (circle eight highest hour volumes):

DIRECTION	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	TOTAL
NB	61	142	96	38	40	54	41	67	93	74	56	81	60	46	38	987
SB																0
<b>SUBTOTAL</b>	<b>61</b>	<b>142</b>	<b>96</b>	<b>38</b>	<b>40</b>	<b>54</b>	<b>41</b>	<b>67</b>	<b>93</b>	<b>74</b>	<b>56</b>	<b>81</b>	<b>60</b>	<b>46</b>	<b>38</b>	<b>987</b>
EB	258	610	472	352	395	457	471	475	754	821	762	766	580	502	333	8008
WB	212	499	460	288	269	334	347	310	441	663	470	479	401	292	250	5715
<b>SUBTOTAL</b>	<b>470</b>	<b>1109</b>	<b>932</b>	<b>640</b>	<b>664</b>	<b>791</b>	<b>818</b>	<b>785</b>	<b>1195</b>	<b>1484</b>	<b>1232</b>	<b>1245</b>	<b>981</b>	<b>794</b>	<b>583</b>	<b>13723</b>
<b>TOTAL</b>	<b>531</b>	<b>1251</b>	<b>1028</b>	<b>678</b>	<b>704</b>	<b>845</b>	<b>859</b>	<b>852</b>	<b>1288</b>	<b>1558</b>	<b>1288</b>	<b>1326</b>	<b>1041</b>	<b>840</b>	<b>621</b>	<b>14710</b>
<b>POINTS</b>		<b>2</b>	<b>1</b>					<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>			

- 3 POINTS ARE ASSIGNED PER HOUR WHEN TOTAL ENTERING VEHICULAR VOLUMES EXCEED 500 AND MINOR STREET VOLUMES (INCLUDING PEDESTRIANS) EXCEED 200.
- 2 POINTS ARE ASSIGNED PER HOUR WHEN TOTAL ENTERING VOLUMES EXCEED 500 BUT MINOR STREET VOLUMES ARE LESS THAN 200, BUT MORE THAN 100.
- 1 POINT IS ASSIGNED PER HOUR WHEN TOTAL ENTERING VEHICULAR VOLUMES EXCEED 500 BUT MINOR STREET VOLUMES ARE LESS THAN 100.
- 1 POINT IS ASSIGNED PER HOUR WHEN TOTAL ENTERING VEHICULAR VOLUMES DO NOT MEET 500, BUT MINOR STREET VOLUMES EXCEED 200.

In residence districts as defined by Section 515 CVC, if the 85th percentile approach speed of the major street exceeds 35 miles per hour, the minimum vehicular volume warrants is 70% of the above requirements.

( Maximum 24 points )

POINTS:     **9**

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**5) TRAFFIC VOLUME DIFFERENCE ( 10 POINTS )**

All-way stops operate best when the major and minor street approach traffic volumes are nearly equal. Points shall be assigned in accordance with the following table:

$$\frac{\text{*24-Hour Minor St. Approach Volumes}}{\text{*24-Hour Major St. Approach Volumes}} \times 100 = \frac{987}{5,715} \times 100 = 17.3\%$$

<u>PERCENTAGE</u>	<u>POINTS</u>
95-100	10
85-94	9
75-84	8
65-74	7
55-64	6
45-54	5
35-44	4
25-34	3
15-24	2
5-14	1
0-4	0

( Maximum 10 points )

POINTS: 2

\*For T-intersections, the percent is the ratio of the minor street approach volume to the highest single leg approach volume on the major street multiplied by one hundred.

**CALTRANS CRITERIA (CA MUTCD)**

Any of the following conditions may warrant a multi-way STOP sign installation, regardless of the point system:

- 1) Where traffic signals are warranted and urgently needed, the multi-way stop may be an interim measure that can be installed quickly to control traffic while arrangements are being made for the signal installation.
  
- 2) An accident problem, as indicated by five or more reported accidents within a 12 month period of a type susceptible to correction by a multi-way stop installation. Such accidents include right- and left-turn collisions as well as right-angle collisions.
  
- 3) Minimum traffic volumes - The total vehicular volume entering the intersection from all approaches must average at least 300 vehicles per hour for any 8 hours of an average day, and the combined vehicular, bicycle, and pedestrian volume from the minor street or highway must average at least 200 units per hour for the same 8 hours, with an average delay to minor street vehicular traffic of at least 30 seconds per vehicle during the maximum hour, but when the 85th percentile approach speed of the major street traffic exceeds 40 miles per hour ( \*\* ), the minimum vehicular volume warrant is 70 percent of the above requirements.

( \*\* ) This speed applies only to Caltrans Criteria



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**RECOMMENDATIONS:**

**REMARKS:**