



THOMAS L. BOLICH  
DIRECTOR OF PUBLIC WORKS

# County of Santa Cruz

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DEPARTMENT OF PUBLIC WORKS

701 OCEAN STREET, ROOM 410, SANTA CRUZ, CA 95060-4070  
(831) 454-2160 FAX (831) 454-2385 TDD (831) 454-2123

# TRAFFIC AND ENGINEERING REPORT

MARCH 2008



# County of Santa Cruz

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SUBJECT: TRAFFIC AND ENGINEERING REPORT MARCH 2008

To Whom It May Concern:

This traffic and engineering report was prepared in accordance with Vehicle Code Section 40803 to allow the use of radar for speed enforcement purposes. The recommended safe speeds were determined utilizing the prevailing 85th percentile speeds combined with traffic engineering judgment to match existing conditions with the traffic safety needs of the community. Accident statistics indicate that unsafe speed is the highest single primary collision factor on roadways, and adherence to safe speeds should result in a substantial reduction in vehicle accidents.

Yours truly,

THOMAS L. BOLICH  
Director of Public Works

\_\_\_\_\_  
Date

\_\_\_\_\_  
I hereby certify that this is a true and correct copy of the original document.

RR:lh

Attachments

trafficepmh

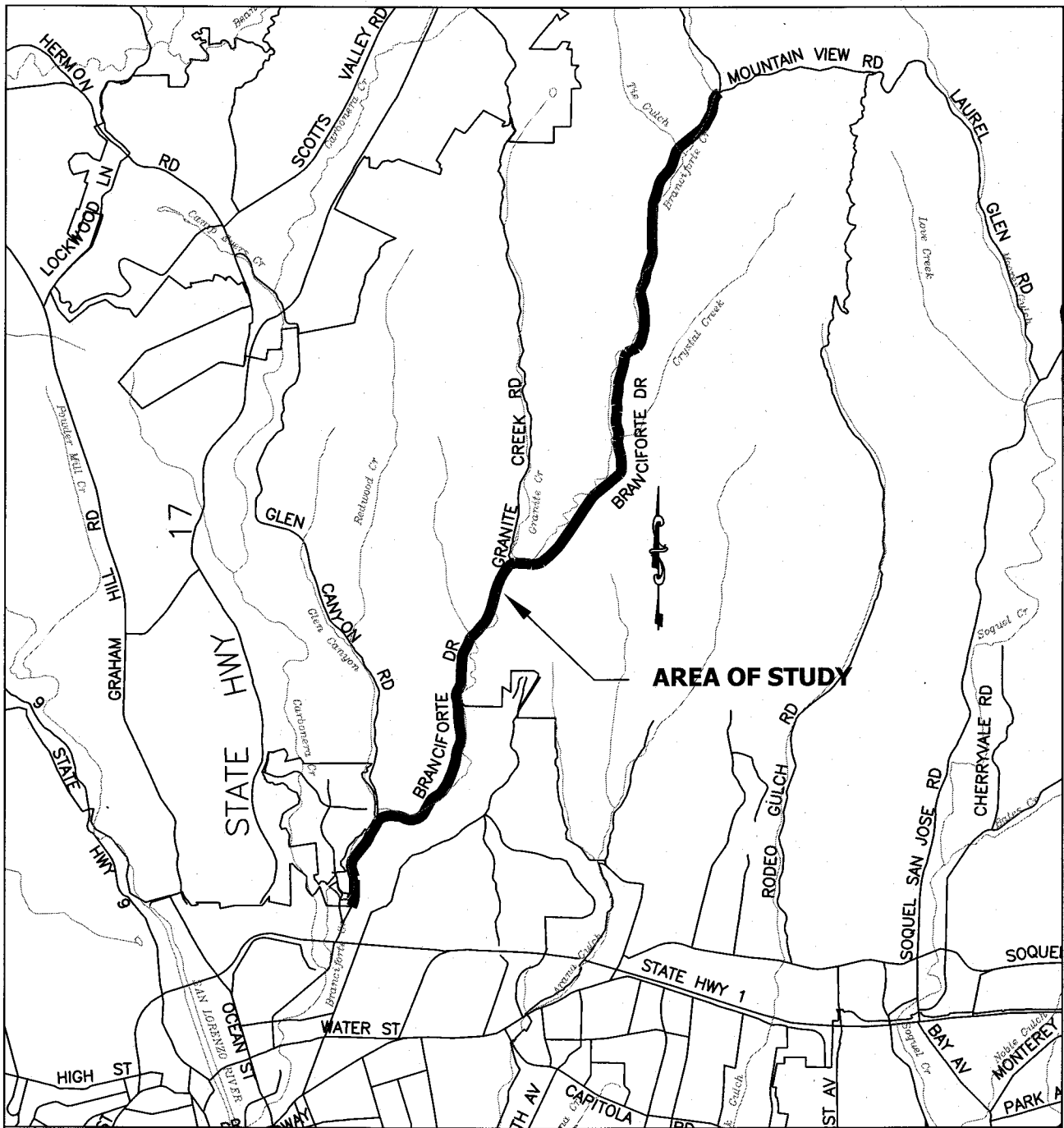
# TRAFFIC AND ENGINEERING REPORT

March, 2008

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**SANTA CRUZ COUNTY TRAFFIC ENGINEERING**  
**RADAR SPEED SURVEY**  
**BRANCIFORTE DRIVE**  
**SANTA CRUZ CITY LIMITS TO MOUNTAIN VIEW ROAD**

TRAFFIC AND ENGINEERING REPORT  
MARCH 2008

PURPOSE:

This survey is performed in accordance with Vehicle Code Section 40803 to allow the use of radar for enforcement purposes.

LOCATION:

Branciforte Drive from Santa Cruz City Limits to Mill Road. (Speed Data collected 400 feet north of the city limits)

PREVAILING SPEED DATA:

The existing posted speed limit is 35 MPH and is radar enforced.

The prevailing speeds are:

Direction	Northbound	Southbound
85 <sup>th</sup> Percentile	43 mph	42 mph
Pace Speed	33-43 mph	32-42 mph
Average Speed	38.22 mph	37.28 mph

ANALYSIS:

The prevailing 85<sup>th</sup> percentile speeds are 42 MPH and 43 MPH depending on the directions of travel. The safe speed is established at or near the average 85<sup>th</sup> percentile which is calculated to be 40 MPH. However, in matching existing conditions with the traffic safety needs of the community, engineering judgment as provided for in the California Manual on Uniform Traffic Control Devices indicates a further reduction of five miles per hour to 35 MPH. The factors justifying a further reduction are safe stopping sight distance, high volume of traffic, and shoulder conditions with pedestrian traffic in the roadway without sidewalks. It is recommended that the existing 35 MPH speed limit remain with enforcement activity taking place at speeds above the safe speed.

## RADAR SPEED SURVEY

		<u>MPH</u>	<u># of Vehicles</u>		<u>Percentage</u>
Route:	Branciforte Drive				
From:	Santa Cruz City limits	46	3	◆◆◆	100.0%
To:	Mill Road	45	4	◆◆◆◆	95.7%
Direction:	Northbound	44	3	◆◆◆	89.9%
Weather:	Cloudy	43	1	◆	85.5%
Posted Speed:	35 MPH	42	3	◆◆◆	84.1%
Begin time:	10:27 AM	41	8	◆◆◆◆◆◆◆◆	79.7%
End time:	11:00 AM	40	4	◆◆◆◆	68.1%
		39	8	◆◆◆◆◆◆◆◆	62.3%
		38	3	◆◆◆	50.7%
		37	5	◆◆◆◆◆	46.4%
		36	3	◆◆◆	39.1%
		35	10	◆◆◆◆◆◆◆◆◆◆	34.8%
		34	7	◆◆◆◆◆◆◆	20.3%
		33	3	◆◆◆	10.1%
		32	2	◆◆	5.8%
		31	1	◆	2.9%
CRITICAL SPEED	43	31	1	◆	2.9%
AVERAGE SPEED	38.22	30	0		1.4%
MEDIAN SPEED	38.0	29	1	◆	1.4%
STANDARD DEVIATION	4.13	28	0		0.0%
PACE RANGE	33 - 43	27	0		0.0%
PERCENTAGE IN PACE	78.3%	26	0		0.0%
TOTAL # OF AUTOS	69	25	0		0.0%

## RADAR SPEED SURVEY

		<u>MPH</u>	<u># of Vehicles</u>		<u>Percentage</u>
Route:	Branciforte Drive				
From:	Santa Cruz City limits	49	1	◆	100.0%
To:	Mill Road	48	1	◆	98.8%
Direction:	Southbound	47	0		97.5%
Weather:	Cloudy	46	1	◆	97.5%
Posted Speed:	35 MPH	45	2	◆◆	96.3%
Begin time:	10:27 AM	44	3	◆◆◆	93.8%
End time:	11:00 AM	43	2	◆◆	90.0%
		42	4	◆◆◆◆	87.5%
		41	5	◆◆◆◆◆	82.5%
		40	6	◆◆◆◆◆◆	76.3%
		39	6	◆◆◆◆◆◆	68.8%
		38	6	◆◆◆◆◆◆	61.3%
		37	5	◆◆◆◆◆	53.8%
		36	7	◆◆◆◆◆◆◆	47.5%
		35	8	◆◆◆◆◆◆◆◆	38.8%
CRITICAL SPEED	42	34	4	◆◆◆◆	28.8%
AVERAGE SPEED	37.28	33	8	◆◆◆◆◆◆◆◆	23.8%
MEDIAN SPEED	37.0	32	7	◆◆◆◆◆◆◆	13.8%
STANDARD DEVIATION	4.52	31	1	◆	5.0%
PACE RANGE	32 - 42	30	0		3.8%
PERCENTAGE IN PACE	77.5%	29	2	◆◆	3.8%
TOTAL # OF AUTOS	80	28	0		1.3%

**RADAR SPEED SURVEY**  
 Santa Cruz County  
 Department of Public Works

LOCATION BLANCFORTE DR (400' FROM CITY LIMITS) BY JCC  
 ROAD NO \_\_\_\_\_ DATE 5-25-07 DAY FRI BEGIN 1027 END 1100  
 POSTED SPEED 35 WEATHER CLOUDY  
 NUMBER OF LANES 2 GRADE 1 1/2 CALIBRATED

NUMBER OF VEHICLES

MPH	DIRECTION FROM GLEN	TOTAL OF EACH SPEED	DIRECTION TO GLEN	TOTAL OF EACH SPEED
	→ S		N ←	
60				
59				
58				
57				
56				
55				
54				
53				
52				
51				
50				
49		1		
48		1		
47		0		
46		1		3
45		2		4
44		3		3
43		2		1
42		4		3
41	<del>   </del>	5	<del>   </del> -	8
40	<del>   </del> -	6	-	4
39	<del>   </del> -	6	<del>   </del> -	8
38	<del>   </del> -	6	<del>   </del> -	3
37	<del>   </del> -	5	<del>   </del> -	5
36	<del>   </del> -	7	<del>   </del> -	3
35	<del>   </del> -	8	<del>   </del> -    -	10
34		4	<del>   </del> -	7
33	<del>   </del> -	8		3
32	<del>   </del> -	7		2
31		1		1
30		0		0
29		2		1
28		0		
27		0		
26		1		
25				
24				
23				
22				
21				
20				
TOTAL		80	TOTAL 69	

TRAFFIC AND ENGINEERING REPORT  
MARCH 2008

PURPOSE:

This survey is performed in accordance with Vehicle Code Section 40803 to allow the use of radar for enforcement purposes.

LOCATION:

Branciforte Drive from Mill Road to Mountain View Road. (Speed Data collected 1.4 miles north of Glen Canyon Road)

PREVAILING SPEED DATA:

The existing posted speed limit is 35 MPH and is radar enforced.

The prevailing speeds are:

Direction	Northbound	Southbound
85 <sup>th</sup> Percentile	40 mph	44 mph
Pace Speed	33-43 mph	33-43 mph
Average Speed	37 mph	38.97 mph

ANALYSIS:

The prevailing 85<sup>th</sup> percentile speeds are 40 MPH and 44 MPH depending on the direction of travel. The safe speed is established at or near the average 85<sup>th</sup> percentile which is calculated to be 40 MPH. However, in matching existing conditions with the traffic safety needs of the community, engineering judgment as provided for in the California Manual on Uniform Traffic Control Devices indicates a further reduction of five miles per hour to 35 MPH. The factors justifying a further reduction are safe stopping sight distance, high volume of traffic, the adjacent City of Santa Cruz Delaveaga Park and the Happy Valley School, and shoulder conditions with pedestrian traffic in the roadway without sidewalks. It is recommended that the existing 35 MPH speed limit remain with enforcement activity taking place at speeds above the safe speed.

## RADAR SPEED SURVEY

		<u>MPH</u>	<u># of Vehicles</u>		<u>Percentage</u>
Route:	Branciforte Drive				
From:	Mill Road	53	1	◆	100.0%
To:	Mountain View Road	52	0		98.1%
Direction:	Northbound	51	0		98.1%
Weather:	Sunny	50	0		98.1%
Posted Speed:	35 MPH	49	0		98.1%
Begin time:	11:29 AM	48	0		98.1%
End time:	12:29 PM	47	0		98.1%
		46	0		98.1%
		45	0		98.1%
		44	0		98.1%
		43	1	◆	98.1%
		42	2	◆◆	96.2%
		41	3	◆◆◆	92.3%
		40	7	◆◆◆◆◆◆◆	86.5%
		39	2	◆◆	73.1%
CRITICAL SPEED	40	38	7	◆◆◆◆◆◆◆	69.2%
AVERAGE SPEED	37.00	37	6	◆◆◆◆◆◆	55.8%
MEDIAN SPEED	37.0	36	4	◆◆◆◆	44.2%
STANDARD DEVIATION	4.03	35	9	◆◆◆◆◆◆◆◆◆	36.5%
PACE RANGE	33 - 43	34	1	◆	19.2%
PERCENTAGE IN PACE	84.6%	33	3	◆◆◆	17.3%
TOTAL # OF AUTOS	52	32	2	◆◆	11.5%
		31	1	◆	7.7%
		30	1	◆	5.8%
		29	2	◆◆	3.8%

## RADAR SPEED SURVEY

		<u>MPH</u>	<u># of Vehicles</u>		<u>Percentage</u>
Route:	Branciforte Drive				
From:	Mill Road	57	1	◆	100.0%
To:	Mountain View Road	56	0		98.8%
Direction:	Southbound	55	0		98.8%
Weather:	Sunny	54	1	◆	98.8%
Posted Speed:	35 MPH	53	0		97.7%
Begin time:	11:29 AM	52	1	◆	97.7%
End time:	12:29 PM	51	0		96.5%
		50	2	◆◆	96.5%
		49	1	◆	94.2%
		48	1	◆	93.0%
		47	0		91.9%
		46	1	◆	91.9%
		45	3	◆◆◆	90.7%
		44	3	◆◆◆	87.2%
		43	3	◆◆◆	83.7%
CRITICAL SPEED	44	42	5	◆◆◆◆◆	80.2%
AVERAGE SPEED	38.97	41	7	◆◆◆◆◆◆◆	74.4%
MEDIAN SPEED	38.0	40	7	◆◆◆◆◆◆◆	66.3%
STANDARD DEVIATION	5.34	39	4	◆◆◆◆	58.1%
PACE RANGE	33 - 43	38	11	◆◆◆◆◆◆◆◆◆◆◆◆	53.5%
PERCENTAGE IN PACE	73.3%	37	3	◆◆◆	40.7%
TOTAL # OF AUTOS	86	36	9	◆◆◆◆◆◆◆◆◆	37.2%
		35	3	◆◆◆	26.7%
		34	8	◆◆◆◆◆◆◆◆	23.3%
		33	6	◆◆◆◆◆◆	14.0%
		32	4	◆◆◆◆	7.0%
		31	0		2.3%
		30	2	◆◆	2.3%

**RADAR SPEED SURVEY**  
 Santa Cruz County  
 Department of Public Works

LOCATION BRANCIFORTE (1.4 MILES FROM GLEN CANYON) BY JGL

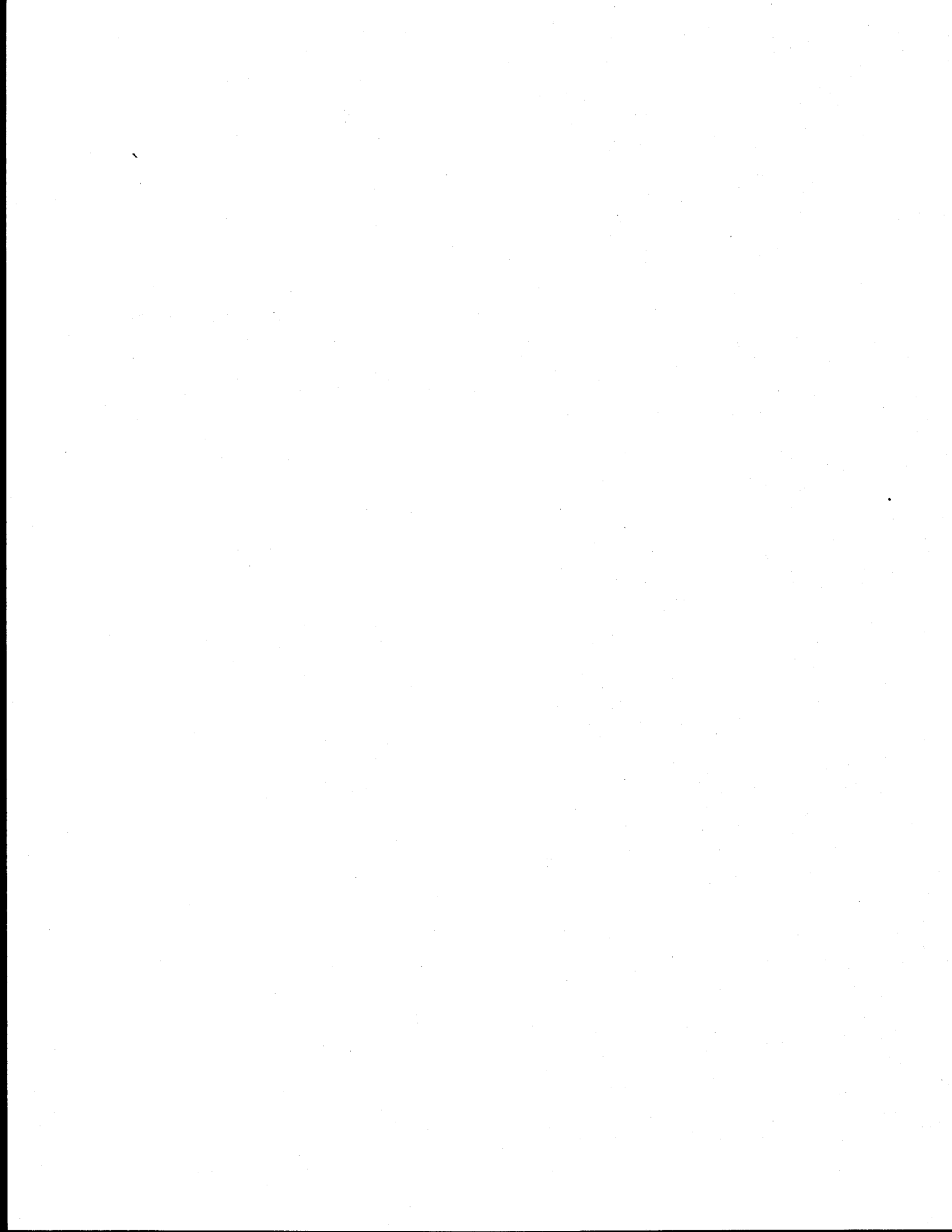
ROAD NO \_\_\_\_\_ DATE 12/14/07 DAY FRI BEGIN 11:29 END 12:29

POSTED SPEED 35 WEATHER SUNNY

NUMBER OF LANES 2 GRADE 1% CALIBRATED

NUMBER OF VEHICLES

MPH	DIRECTION	TOTAL OF EACH SPEED	DIRECTION	TOTAL OF EACH SPEED
	→ S TO S.C. CITY		← N FROM S.C. CITY	
60				
59				
58				
57		1		
56				
55				
54		1		
53				1
52		1		
51				
50		2		
49		1		
48		1		
47				
46		1		
45		3		
44		3		
43		3		1
42	<del>  </del> -	5		2
41	<del>  </del> -	7		3
40	<del>  </del> -	7	<del>  </del> -	7
39		4		2
38	<del>  </del> - <del>  </del> -	11	<del>  </del> -	7
37		3	<del>  </del> -	6
36	<del>  </del> -	9	<del>  </del> -	4
35		3	<del>  </del> -	9
34	<del>  </del> -	9		1
33	<del>  </del> -	6		3
32		4		2
31				1
30		2		1
29				2
28				
27				
26				
25				
24				
23				
22				
21				
20				
TOTAL		86	TOTAL 52	





TRAFFIC AND ENGINEERING REPORT  
MARCH 2008

PURPOSE:

This survey is performed in accordance with Vehicle Code Section 40803 to allow the use of radar for enforcement purposes.

LOCATION:

Brommer Street from 7th Avenue to the City of Capitola. (Speed Data collected between 17<sup>th</sup> Avenue and Chanticleer Avenue)

PREVAILING SPEED DATA:

The existing speed limit is 25 MPH and is radar enforced.

The prevailing speeds are:

Direction	Westbound	Eastbound
85 <sup>th</sup> Percentile	31 mph	31 mph
Pace Speed	25-35 mph	25-35 mph
Average Speed	28.78 mph	28.46 mph

ANALYSIS:

The prevailing 85<sup>th</sup> percentile speeds are 31 MPH in both directions of travel. The safe speed is established at or near the average 85<sup>th</sup> percentile which is calculated to be 30 MPH. However, in matching existing conditions with the traffic safety needs of the community, engineering judgment as provided for in the California Manual on Uniform Traffic Control Devices indicates a further reduction of five miles per hour to 25 MPH. The factors justifying a further reduction are prima-facie residential and business district, high volume of traffic, adjacent county park and county maintenance yard, a route to and from area schools, and shoulder conditions with pedestrian traffic in the roadway without sidewalks. It is recommended that the existing 25 MPH speed limit remain with enforcement activity taking place at speeds above the safe speed.

## RADAR SPEED SURVEY

		<u>MPH</u>	<u># of Vehicles</u>		<u>Percentage</u>
Route:	Brommer Street				
From:	Seventh Avenue	35	2	◆◆	100.0%
To:	City of Capitola	34	2	◆◆	97.1%
Direction:	Eastbound	33	2	◆◆	94.2%
Weather:	Sunny	32	2	◆◆	91.3%
Posted Speed:	25 MPH	31	6	◆◆◆◆◆◆	88.4%
Begin time:	2:30 PM	30	7	◆◆◆◆◆◆◆	79.7%
End time:	3:05 PM	29	6	◆◆◆◆◆◆	69.6%
		28	15	◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆	60.9%
		27	12	◆◆◆◆◆◆◆◆◆◆◆◆◆◆	39.1%
		26	9	◆◆◆◆◆◆◆◆◆◆◆◆	21.7%
		25	4	◆◆◆◆◆	8.7%
		24	2	◆◆	2.9%
		23	0		0.0%
		22	0		0.0%
		21	0		0.0%
CRITICAL SPEED	31	20	0		0.0%
AVERAGE SPEED	28.46	19	0		0.0%
MEDIAN SPEED	28.0	18	0		0.0%
STANDARD DEVIATION	2.55	17	0		0.0%
PACE RANGE	25 - 35	16	0		0.0%
PERCENTAGE IN PACE	94.2%	15	0		0.0%
TOTAL # OF AUTOS	69				