



THOMAS L. BOLICH  
DIRECTOR OF PUBLIC WORKS

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# County of Santa Cruz

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## DEPARTMENT OF PUBLIC WORKS

701 OCEAN STREET, ROOM 410, SANTA CRUZ, CA 95060-4070  
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# TRAFFIC AND ENGINEERING REPORT

JUNE 2006



# County of Santa Cruz

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SUBJECT: TRAFFIC AND ENGINEERING REPORT JUNE 2006

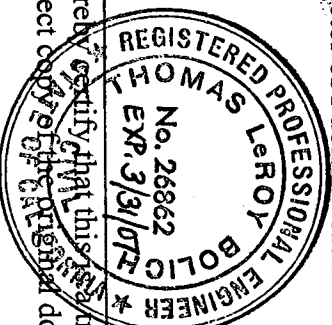
To Whom It May Concern:

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 safety 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



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

Date

8/1/08

JSD:mh

Attachments

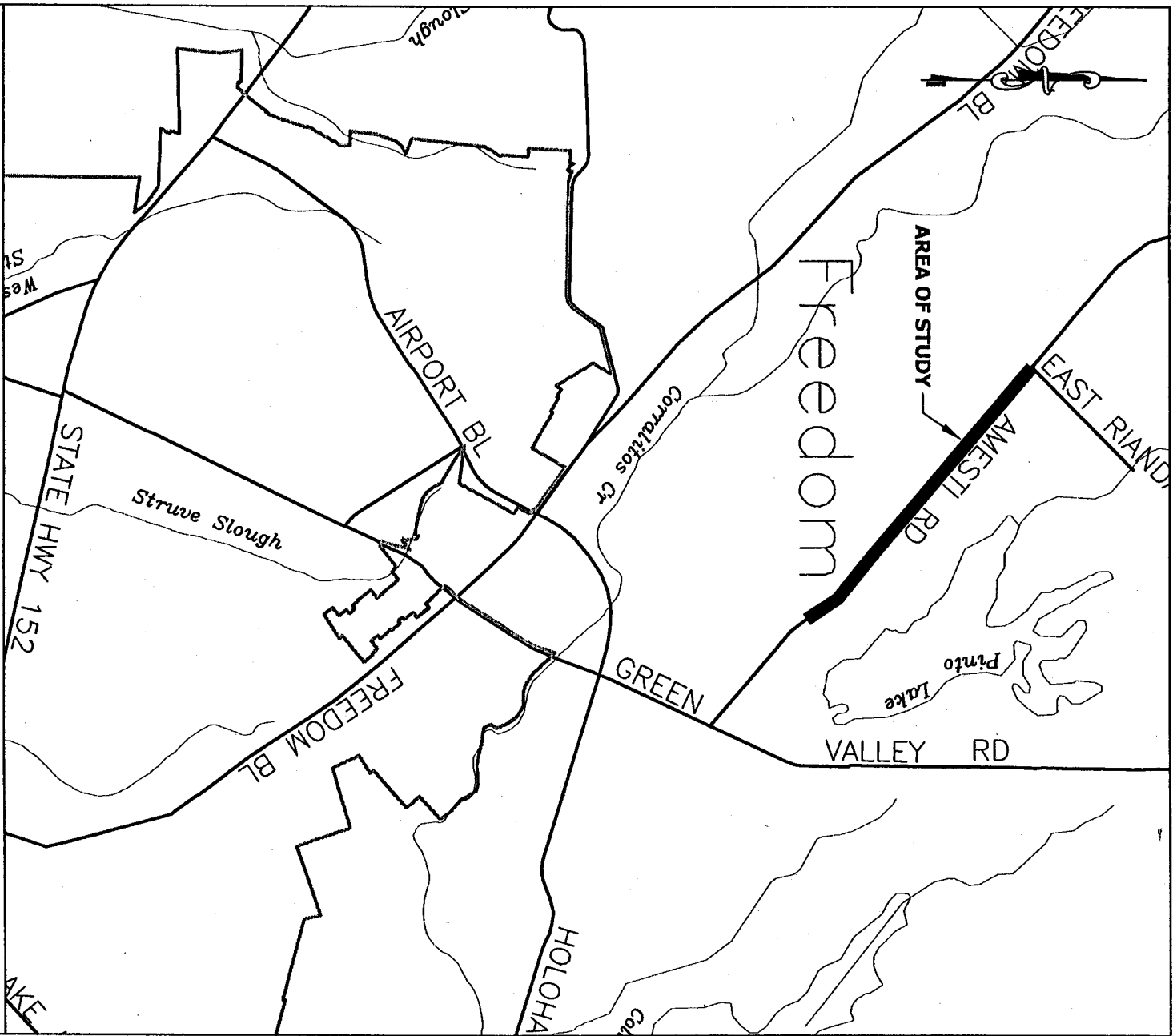
trafficeprepmh

# TRAFFIC AND ENGINEERING REPORT

June, 2006

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**SANTA CRUZ COUNTY TRAFFIC ENGINEERING**  
**RADAR SPEED SURVEY**  
**AMESTI ROAD**  
**0.4 MILES NORTH OF GREEN VALLEY ROAD TO EAST RIANDA ROAD**

TRAFFIC AND ENGINEERING REPORT

JUNE 2006

PURPOSE:

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

LOCATION:

Arnesi Road from 0.4 miles northwesterly of Green Valley Road to East Rianda Road ( Speed Data collected at Hawthorne)

PREVAILING SPEED DATA:

The existing posted speed limit is 40 MPH and is radar enforced.

The prevailing speeds are:

Direction	Westbound	Eastbound
85 <sup>th</sup> Percentile	47 mph	44 mph
Pace Speed	36-46 mph	36-46 mph
Average Speed	40.70 mph	39.38 mph

ANALYSIS:

The prevailing 85<sup>th</sup> percentile speeds are 47 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 45 MPH. However, in matching existing conditions with the traffic safety needs of the community, engineering judgment as provided for in the Manual on Uniform Traffic Control Devices 2003 California Supplement indicates a further reduction of five miles per hour to 40 MPH. The factors justifying a further reduction are many private roads and driveways, bus stops, bicycle traffic without bike lanes and pedestrian traffic without sidewalks or shoulders. It is recommended that the existing 40 MPH speed limit remain with enforcement activity taking place at speeds above the safe speed.

# RADAR SPEED SURVEY

**Route:** Amesiti Road  
**From:** .4 m. W. of Green Valley Rd  
**To:** East Rianda Road  
**Direction:** Westbound  
**Weather:** Overcast  
**Posted Speed:** 40  
**Begin time:** 10:35  
**End time:** 11:24

**CRITICAL SPEED**  
**AVERAGE SPEED**  
**MEDIAN SPEED**  
**STANDARD DEVIATION**  
**PACE RANGE**  
**PERCENTAGE IN PACE**  
**TOTAL # OF AUTOS**

47  
 40.70  
 41.0  
 6.27  
 36 - 46  
 66.0%  
 50

<u>MPH</u>	<u># of Vehicles</u>	<u>Percentage</u>
55	3	100.0%
54	0	94.0%
53	0	94.0%
52	0	94.0%
51	0	94.0%
50	0	94.0%
49	1	92.0%
48	2	88.0%
47	2	84.0%
46	1	82.0%
45	4	74.0%
44	1	68.0%
43	2	60.0%
42	4	48.0%
41	6	38.0%
40	5	32.0%
39	3	30.0%
38	1	20.0%
37	5	16.0%
36	2	12.0%
35	2	10.0%
34	1	10.0%
33	0	10.0%
32	0	10.0%
31	0	10.0%
30	1	8.0%
29	1	2.0%
28	1	0.0%
27	0	0.0%

# RADAR SPEED SURVEY

**Route:** Arnessti Road  
**From:** East Rianda Road  
**To:** 4 m. W. of Green Valley Rd  
**Direction:** Eastbound  
**Weather:** Overcast  
**Posted Speed:** 40  
**Begin time:** 10:35  
**End time:** 11:40

**CRITICAL SPEED**  
**AVERAGE SPEED**  
**MEDIAN SPEED**  
**STANDARD DEVIATION**  
**PAGE RANGE**  
**PERCENTAGE IN PACE**  
**TOTAL # OF AUTOS**

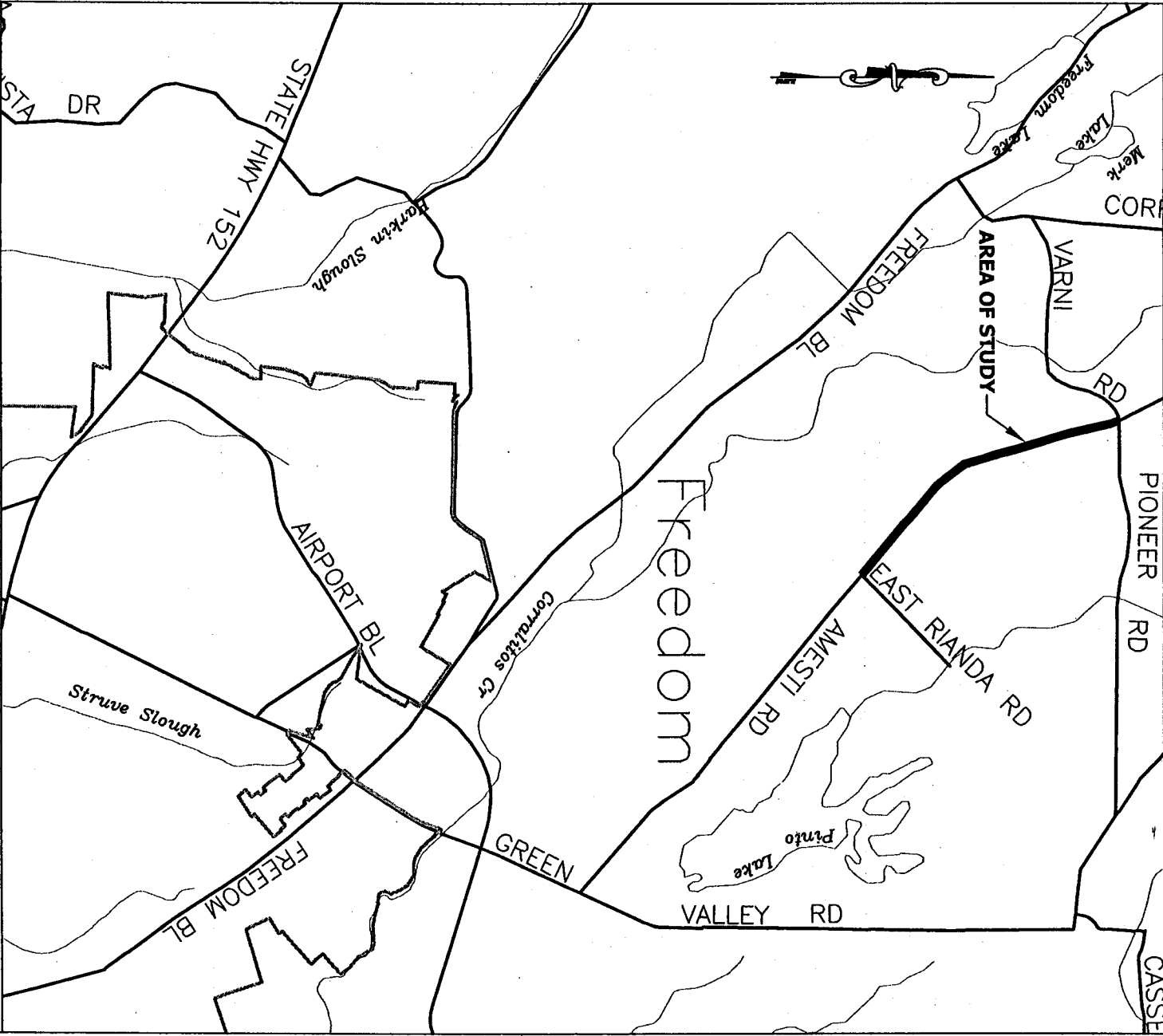
44  
 39.38  
 40.5  
 5.42  
 36 - 46  
 84.0%  
 50

MPH	# of Vehicles	Percentage
55	1	100.0%
54	0	98.0%
53	0	98.0%
52	0	98.0%
51	0	98.0%
50	0	98.0%
49	0	98.0%
48	0	98.0%
47	0	98.0%
46	0	98.0%
45	5	98.0%
44	2	88.0%
43	4	84.0%
42	8	76.0%
41	5	60.0%
40	3	50.0%
39	5	44.0%
38	1	34.0%
37	5	32.0%
36	4	22.0%
35	0	14.0%
34	0	14.0%
33	2	14.0%
32	0	10.0%
31	2	10.0%
30	0	6.0%
29	1	6.0%
28	1	4.0%
27	0	2.0%
26	0	2.0%
25	0	2.0%
24	0	2.0%
23	0	2.0%
22	0	2.0%
21	1	2.0%
20	0	0.0%

RADAR SPEED SURVEY  
Santa Cruz County  
Department of Public Works

LOCATION Highway 1 Buena Vista 25 (44 to 2140506d) BY RR  
 ROAD NO 2608 DATE 4/26 DAY Tuesday BEGIN 10:35 END 11:05  
 POSTED SPEED 40 MPH WEATHER overcast  
 NUMBER OF LANES 2 GRADE 6% CALIBRATED yes

MPH	DIRECTION <small>10:35 11:24</small>	TO <small>VARM</small>	TOTAL OF EACH SPEED	DIRECTION <small>10:35 TO 11:24</small>	TO <small>GREEN VALLEY</small>	TOTAL OF EACH SPEED
55+			3			1
54						
53						
52						
51						
50						
49			1			
48			2			
47			2			
46			1			
45			4			5
44			1			2
43			2			2
42			4			5
41			6			5
40			4			5
39			2			5
38			1			1
37			3			4
36			2			4
35			2			
34						
33						2
32						
31						2
30			1			1
29			3			1
28			1			1
27						
26						
25						
24						
23						
22						
21						1
20-						
TOTAL			50			50



**SANTA CRUZ COUNTY TRAFFIC ENGINEERING**  
**RADAR SPEED SURVEY**  
**AMESTI ROAD**  
**EAST RIANDA RD TO VARNI RD**

TRAFFIC AND ENGINEERING REPORT  
JUNE 2006

PURPOSE:

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

LOCATION:

Amesti Road from East Rianda Road to Varni Road ( Speed Data collected at Linden)

PREVAILING SPEED DATA:

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

The prevailing speeds are:

Direction	Westbound	Eastbound
85 <sup>th</sup> Percentile	41 mph	44 mph
Pace Speed	32-42 mph	33-43 mph
Average Speed	35.66 mph	36.8 mph

ANALYSIS:

The prevailing 85<sup>th</sup> percentile speeds are 41 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 Manual on Uniform Traffic Control Devices 2003 California Supplement indicates a further reduction of five miles per hour to 35 MPH. The factors justifying a further reduction are a residential area with many intersections, private roads and driveways, bus stops, bicycle traffic without bike lanes and pedestrian traffic without sidewalks or shoulders. 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

**Route:** Amessti Road  
**From:** East Rianda Rd  
**To:** Varni Road  
**Direction:** Westbound  
**Weather:** Sunny  
**Posted Speed:** 35  
**Begin time:** 12:36  
**End time:** 1:19

	<u>MPH</u>	<u># of Vehicles</u>	<u>Percentage</u>
	48	0	100.0%
	47	1	98.0%
	46	0	98.0%
	45	0	98.0%
	44	2	98.0%
	43	2	94.0%
	42	1	90.0%
	41	4	88.0%
	40	3	80.0%
	39	2	74.0%
	38	3	70.0%
	37	4	64.0%
	36	5	56.0%
	35	3	46.0%
	34	4	40.0%
	33	3	32.0%
	32	3	26.0%
	31	3	20.0%
	30	0	14.0%
	29	3	14.0%
	28	0	8.0%
	27	0	8.0%
	26	2	8.0%
	25	0	4.0%
	24	2	4.0%
	23	0	0.0%

**CRITICAL SPEED** 41  
**AVERAGE SPEED** 35.66  
**MEDIAN SPEED** 36.0  
**STANDARD DEVIATION** 5.27  
**PAGE RANGE** 32 - 42  
**PERCENTAGE IN PACE** 68.0%  
**TOTAL # OF AUTOS** 50

# RADAR SPEED SURVEY

**Route:** Amessti Road  
**From:** Varri Road  
**To:** East Rianda Rd  
**Direction:** Eastbound  
**Weather:** Sunny  
**Posted Speed:** 35  
**Begin time:** 12:36  
**End time:** 1:46

	<u>MPH</u>	<u># of Vehicles</u>	<u>Percentage</u>
	48	1	100.0%
	47	0	98.0%
	46	0	98.0%
	45	3	98.0%
	44	4	92.0%
	43	0	84.0%
	42	4	84.0%
	41	1	76.0%
	40	3	74.0%
	39	3	68.0%
	38	1	62.0%
	37	7	60.0%
	36	5	46.0%
	35	3	36.0%
	34	3	30.0%
	33	3	24.0%
	32	1	18.0%
	31	0	16.0%
	30	1	16.0%
	29	1	14.0%
	28	1	12.0%
	27	3	10.0%
	26	2	4.0%
	25		0.0%
	24		0.0%

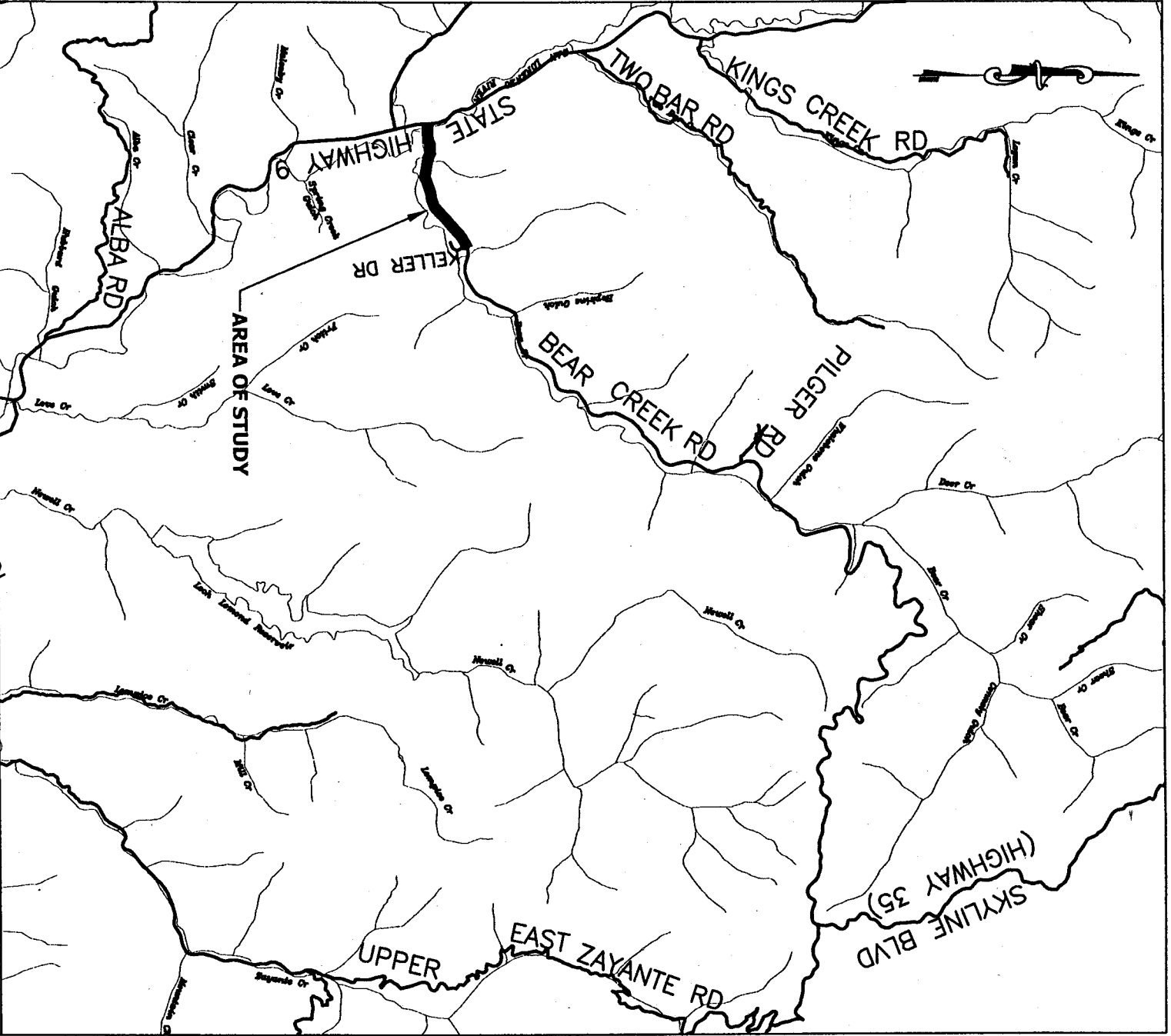
**CRITICAL SPEED** 44  
**AVERAGE SPEED** 36.80  
**MEDIAN SPEED** 37.0  
**STANDARD DEVIATION** 5.56  
**PAGE RANGE** 33 - 43  
**PERCENTAGE IN PACE** 66.0%  
**TOTAL # OF AUTOS** 50

RADAR SPEED SURVEY  
 Santa Cruz County  
 Department of Public Works

REGISTRATION - 925

LOCATION AVENUE 1 ROAD - GREEN BY \_\_\_\_\_  
 ROAD NO 2608 DATE 4/12 DAY Tuesday BEGIN 12:30 END \_\_\_\_\_  
 POSTED SPEED \_\_\_\_\_ 35 MPH WEATHER clear & sunny  
 NUMBER OF LANES 2 GRADE 4 % CALIBRATED 9/85

MPH	DIRECTION <i>(2:30 TO 1:19) TO WEST</i>	TOTAL OF EACH SPEED	DIRECTION <i>12:30 - 1:46 TO GREEN VALLEY</i>	TOTAL OF EACH SPEED
55+				
54				
53				
52				
51				
50				
49				
48				
47		1		1
46				
45			111	3
44		2	1111	4
43		2	1111	4
42		1		1
41		2		2
40		3	111	3
39		2	111	3
38		3		3
37		4	1111	4
36		5	1111	5
35		3	111	3
34		4	111	4
33		3	111	3
32		3	1	1
31		3		3
30			1	1
29		3		3
28			1	1
27			111	3
26		2	11	2
25				
24		2		2
23				
22				
21				
20-				
TOTAL		50		50



**SANTA CRUZ COUNTY TRAFFIC ENGINEERING**  
**RADAR SPEED SURVEY**  
**BEAR CREEK ROAD**  
**HIGHWAY 9 TO KELLER DRIVE**

TRAFFIC AND ENGINEERING REPORT  
JUNE 2006

PURPOSE:

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

LOCATION:

Bear Creek Road from Highway 9 to Keller Drive (Speed Data collected at the Huckleberry Lane intersection)

PREVAILING SPEED DATA:

The existing speed limit is 30 MPH and is radar enforced.

The prevailing speeds are:

Direction	Northbound	Southbound
85 <sup>th</sup> Percentile	35 mph	38 mph
Pace Speed	28-38 mph	28-38 mph
Average Speed	32.2 mph	33.5 mph

ANALYSIS:

The prevailing 85<sup>th</sup> percentile speeds are 35 MPH and 38 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 35 MPH. However, in matching existing conditions with the traffic safety needs of the community, engineering judgment as provided for in the Manual on Uniform Traffic Control Devices 2003 California Supplement indicates a further reduction of five miles per hour to 30 MPH. The factors justifying a further reduction are an accident record, safe stopping sight distance, numerous driveways, commute route, major arterial, intersection configurations and shoulder conditions with school children and other pedestrian traffic in the roadway without sidewalks. It is recommended that the existing 30 MPH speed limit remain with enforcement activity taking place at speeds above the safe speed.

## RADAR SPEED SURVEY

**Route:** Bear Creek Road  
**From:** Highway 9  
**To:** Keller Drive  
**Direction:** Northbound  
**Weather:** Sunny  
**Posted Speed:** 30mph  
**Begin time:** 10:56  
**End time:** 11:35

**CRITICAL SPEED**  
**AVERAGE SPEED**  
**MEDIAN SPEED**  
**STANDARD DEVIATION**  
**PAGE RANGE**  
**PERCENTAGE IN PACE**  
**TOTAL # OF AUTOS**

35  
 32.24  
 32.0  
 2.77  
 28 - 38  
 92.0%  
 50

<u>MPH</u>	<u># of Vehicles</u>	<u>Percentage</u>
38	2	100.0%
37	2	96.0%
36	2	92.0%
35	2	88.0%
34	10	84.0%
33	6	64.0%
32	6	52.0%
31	5	40.0%
30	8	30.0%
29	1	14.0%
28	4	12.0%
27	2	4.0%
26	0	0.0%
25	0	0.0%
24	0	0.0%
23	0	0.0%
22	0	0.0%
21	0	0.0%
20	0	0.0%
19	0	0.0%
18	0	0.0%
17	0	0.0%

## RADAR SPEED SURVEY

**Route:** Bear Creek Road  
**From:** Keller Drive  
**To:** Highway 9  
**Direction:** Southbound  
**Weather:** Sunny  
**Posted Speed:** 30mph  
**Begin time:** 10:56  
**End time:** 11:35

	<u>MPH</u>	<u># of Vehicles</u>	<u>Percentage</u>
	39	2	100.0%
	38	3	96.0%
	37	3	90.0%
	36	5	84.0%
	35	7	74.0%
	34	6	60.0%
	33	3	48.0%
	32	9	42.0%
	31	2	24.0%
	30	5	20.0%
	29	5	10.0%
	28	0	0.0%
	27	0	0.0%
	26	0	0.0%
	25	0	0.0%
	24	0	0.0%
	23	0	0.0%
	22	0	0.0%
	21	0	0.0%
	20	0	0.0%
	19	0	0.0%
	18	0	0.0%
<b>CRITICAL SPEED</b>	38		
<b>AVERAGE SPEED</b>	33.52		
<b>MEDIAN SPEED</b>	34.0		
<b>STANDARD DEVIATION</b>	2.87		
<b>PAGE RANGE</b>	28 - 38		
<b>PERCENTAGE IN PACE</b>	90.0%		
<b>TOTAL # OF AUTOS</b>	50		