

## EXISTING CONDITIONS

Daily traffic volume counts of streets were taken with machine counters at various locations throughout the community. In addition, manual intersection peak hour turning movement counts were taken at several key intersections throughout the community. This traffic data, along with existing record traffic volumes were used for two purposes. First, to establish the existing road segment and intersection operating conditions and second, to establish known traffic volume data for comparison to the output of the base year traffic model.

**Figure 2** shows the existing daily traffic volumes on the street segments. Existing roadway classifications are shown on **Figure 3**.

### Street Segments

Based on existing roadway classifications and existing daily traffic volumes, those roadway segments that, exceed the maximum desirable traffic volumes derived from the *City's Traffic Impact Study Manual* (see **Table 1**), experience congestion at the present time are shown on **Figure 4**.

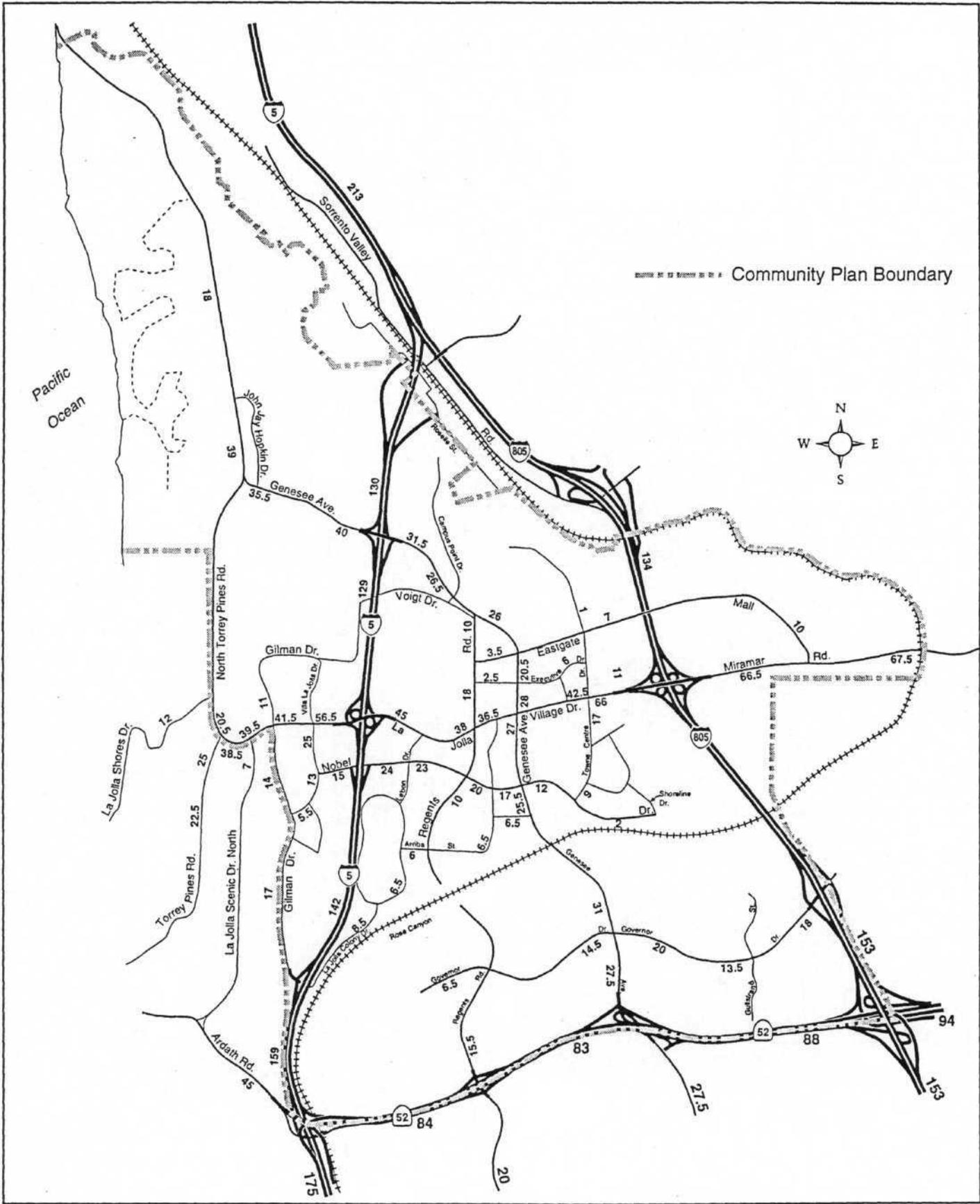
### Signalized Intersections

**Figure 5** shows the existing key signalized intersections that are experiencing congestion (with Levels of Service E and F) during the PM peak hour. **Table 2** shows the intersection evaluation criteria and the range of seconds of stopped delay per vehicle for the levels of service A through F.

Please refer to the "Background Conditions Transportation Report for the University Community" dated September 1995, for more detailed information on existing roadway and intersection performance, intersection configurations, and locations of traffic signals, bike lanes and transit routes.

### Base Year Model Calibration

SANDAG's Series 8 model used 1990 for the base year. For the University model we updated the base year data to 1995 for the land use and the roadway network within the University community.



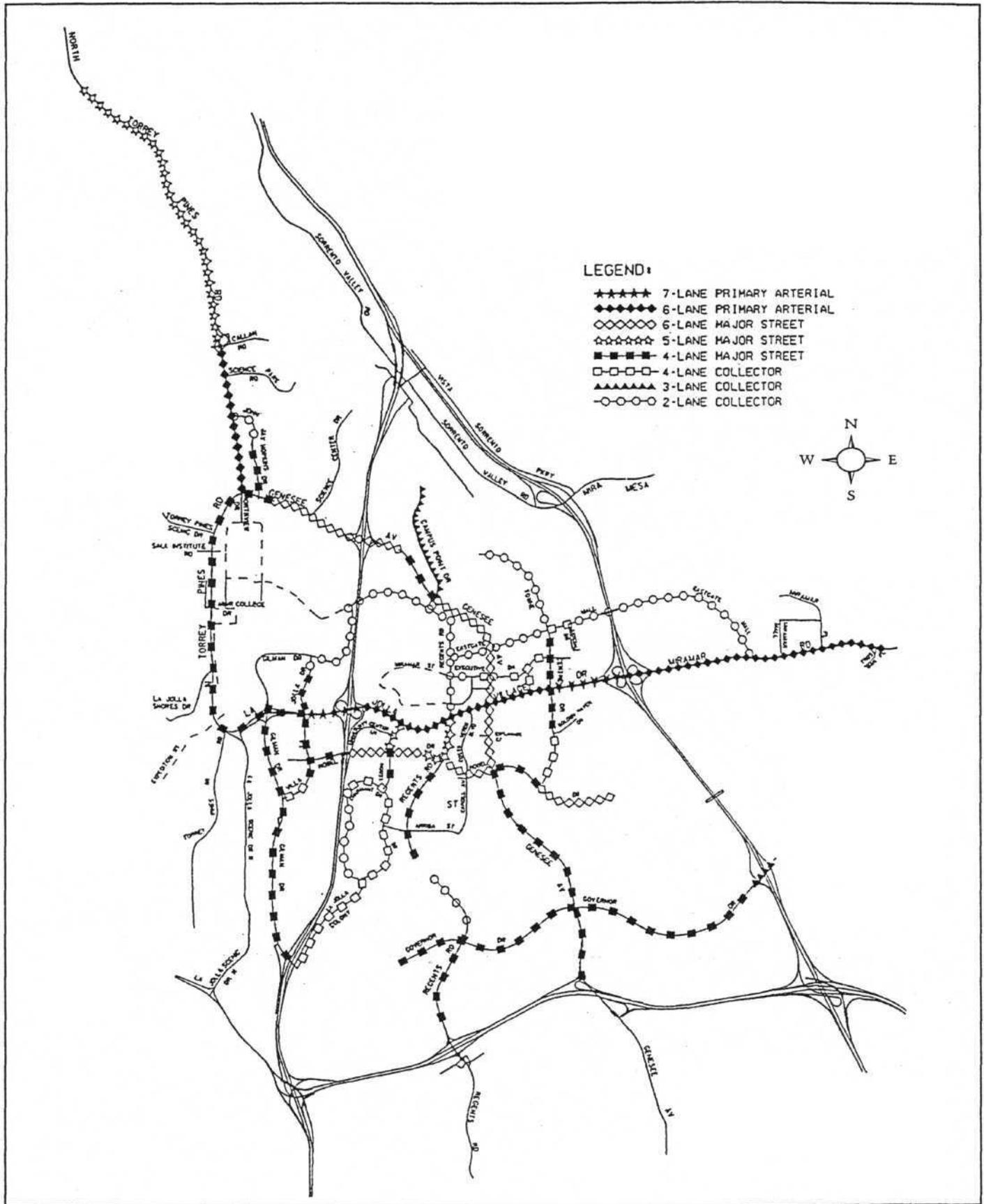
**Existing Daily Traffic Volumes (x1000)**  
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# Existing Functional Street Classifications

(September 1995)

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TABLE 1

**ROADWAY CLASSIFICATIONS, LEVELS OF SERVICE (LOS)  
AND AVERAGE DAILY TRAFFIC (ADT)**

STREET CLASSIFICATION	LANES	CROSS SECTIONS	LEVEL OF SERVICE				
			A (.50)	B (.70)	C (1.00)	D (1.1-1.3)	E (1.2-1.6)
Freeway	8 lanes		60,000	84,000	120,000	140,000	150,000
Freeway	6 lanes		45,000	63,000	90,000	110,000	120,000
Freeway	4 lanes		30,000	42,000	60,000	70,000	80,000
Expressway	6 lanes	102/122	30,000	42,000	60,000	70,000	80,000
Prime Arterial	6 lanes	102/122	25,000	35,000	50,000	55,000	60,000
Major Arterial	6 lanes	102/122	20,000	28,000	40,000	45,000	50,000
Major Arterial	4 lanes	78/98	15,000	21,000	30,000	35,000	40,000
Collector	4 lanes	72/92	7,500	10,500	20,000	25,000	30,000
Collector (no center lane) (continuous left-turn lane)	4 lanes 2 lanes	64/84 52/72	5,000	7,000	10,000	13,000	15,000
Collector (no fronting property)	2 lanes	40/60	4,000	5,500	7,500	9,000	10,000
Collector (commercial-industrial fronting)	2 lanes	50/70	2,500	3,500	5,000	6,500	8,000
Collector (multi family)	2 lanes	40/60	2,500	3,500	5,000	6,500	8,000
Collector (single family)	2 lanes	40/60	---	---	2,200	---	---

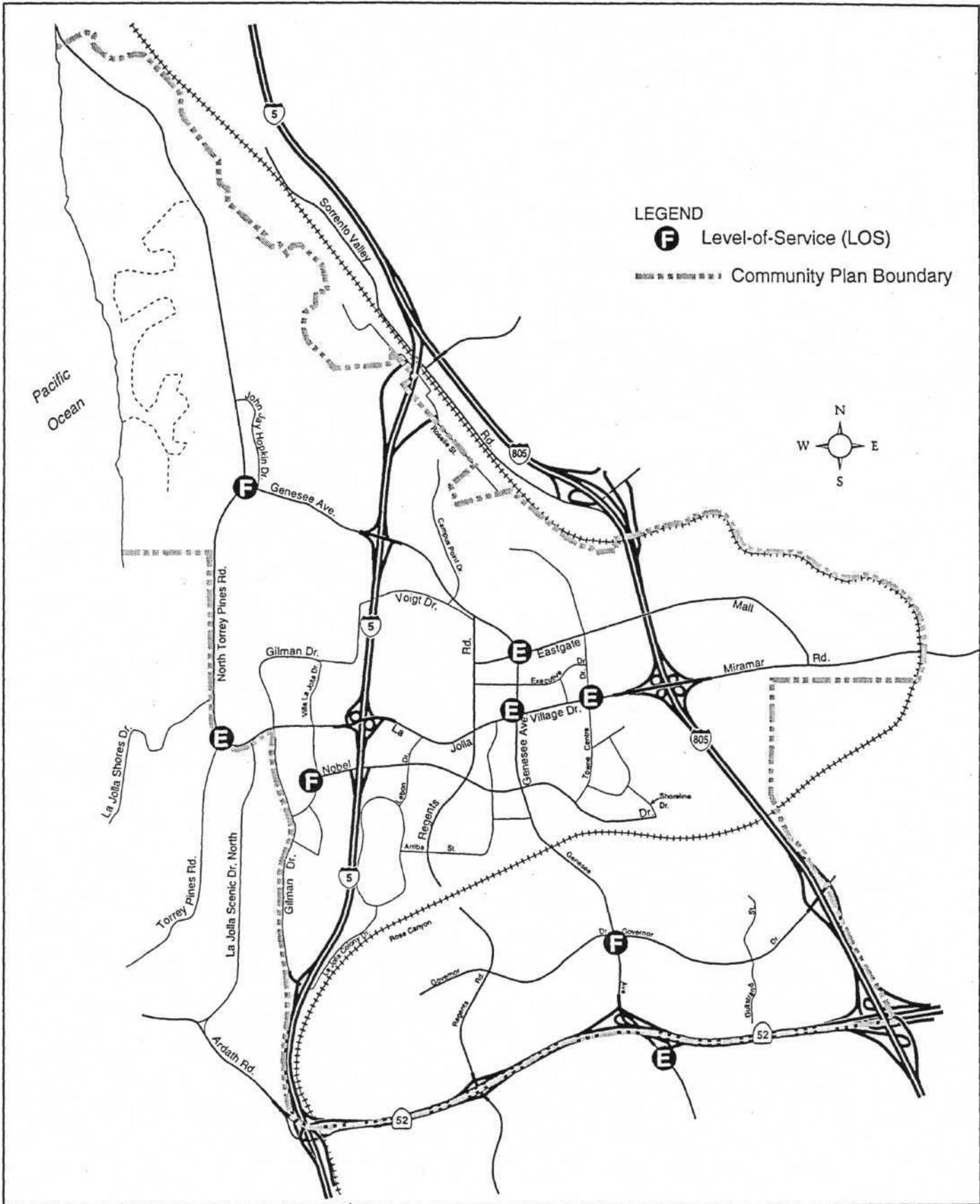
## LEGEND:

XXX/XXX = Curb-to-curb width (feet)/right-of-way (feet): based on the City of San Diego Street Design Manual.  
 XXX,XXX= Approximate recommended ADT based on the City of San Diego Street Design Manual.

## NOTES:

1. The volumes and the average daily level of service listed above are only intended as a general planning guideline.
2. Levels of service are not applied to residential streets since their primary purpose is to serve abutting lots, not carry through traffic. Levels of service normally apply to roads carrying through traffic between major trip generators and attractors.





**Congested Intersections (PM Peak Hour)**  
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Table 2

INTERSECTION EVALUATION CRITERIA

The levels of service for signalized intersections are calculated using the operations analysis methodology of the 1985 Highway Capacity Manual. This method assesses the effects of signals (type, timing, phasing, and progression), vehicle mix, and geometries on delay. Level of Service designations are based solely on the criterion of calculated average stopped delay per vehicle, since delay is a measure of driver discomfort, frustration, fuel consumption, and increased travel time. The Table below summarizes the relationship between LOS and delay. The tabulated delay criterion may be applied in assigning LOS designations to individual lane groups or intersection approaches, or to entire intersections.

LEVEL OF SERVICE CRITERIA FOR  
SIGNALIZED INTERSECTIONS\*

Level of Service	Stopped Delay Per Vehicle (seconds)
A	≤5.0
B	5.1 to 15.0
C	15.1 to 25.0
D	25.1 to 40.0
E	40.1 to 60.0
F	>60.0

\*Source: Transportation Research Board, Special Report 209, Highway Capacity Manual, Washington, D.C., 1994

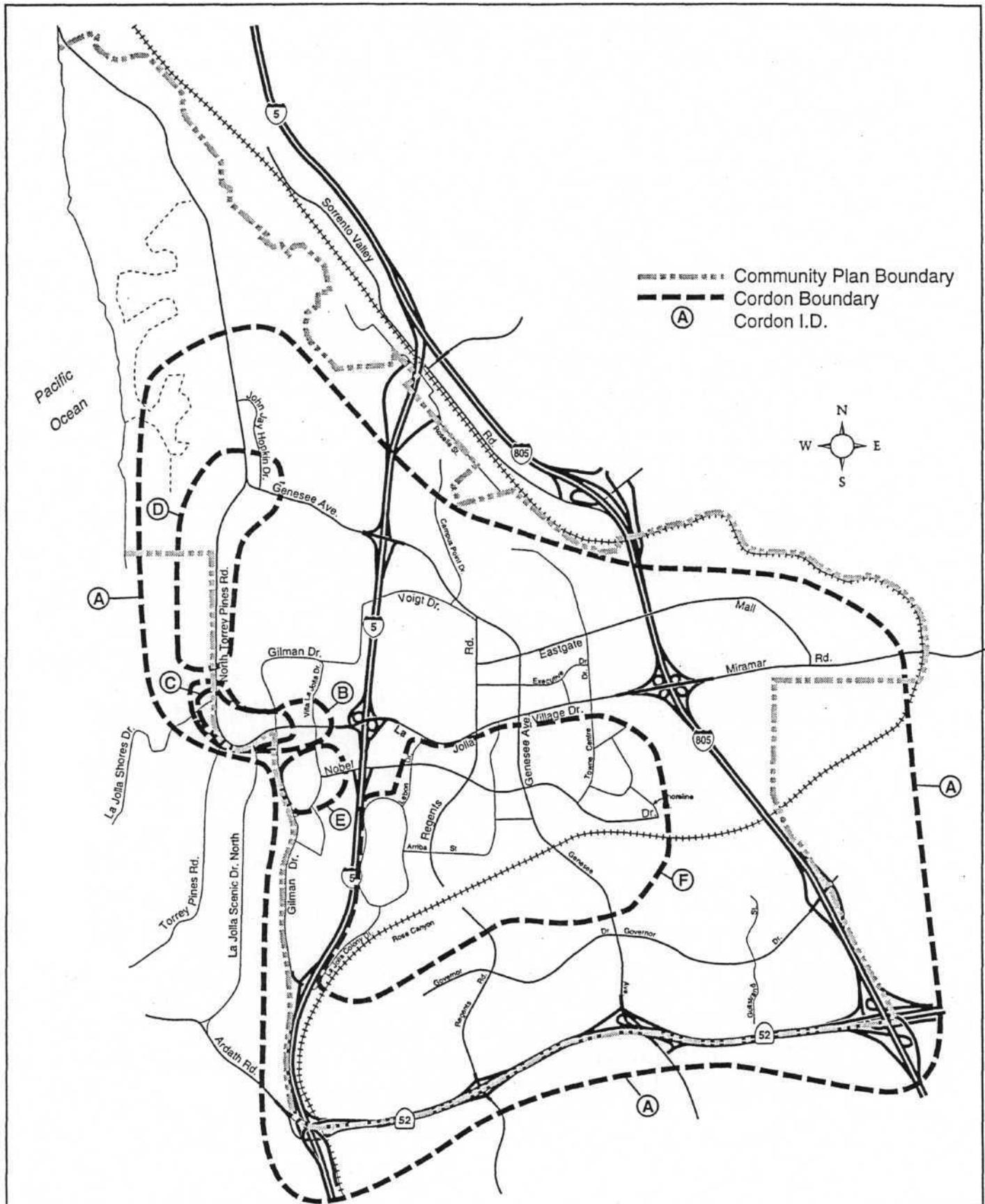
The land use maps for the University community produced by SANDAG and the land use listing for each community TAZ were given to the Long Range Planning staff for the University community who confirmed and updated existing uses to the year 1995 (See Appendix B).

The SANDAG 1990 model roadway network attributes were plotted and printed and compared to record data and field investigations to update it to 1995 conditions.

After updating the input data to 1995, the base year model was run to output simulated traffic volumes on the street network. These volumes were compared to the actual machine count volumes to test the model assumptions and to see how well the 1995 traffic volumes could be replicated by the traffic model. This validation process is referred to as "calibration of the base year model."

Cordons surrounding key areas of the community and screen lines crossing selected road segments were established to measure the model output volumes against the actual machine count volumes throughout the community. **Figure 6** shows the cordons and **Figure 7** shows the screen lines.

**Figure 8** shows the 1995 base year model daily traffic volumes and **Tables 3 and 4** show the cordon and screen line daily volume comparisons. As can be seen on Table 3 for cordon "A," the model output for traffic entering and leaving the community as a whole was within 1 percent of the actual counted volume demonstrating that the base year calibration of the model was quite successful.



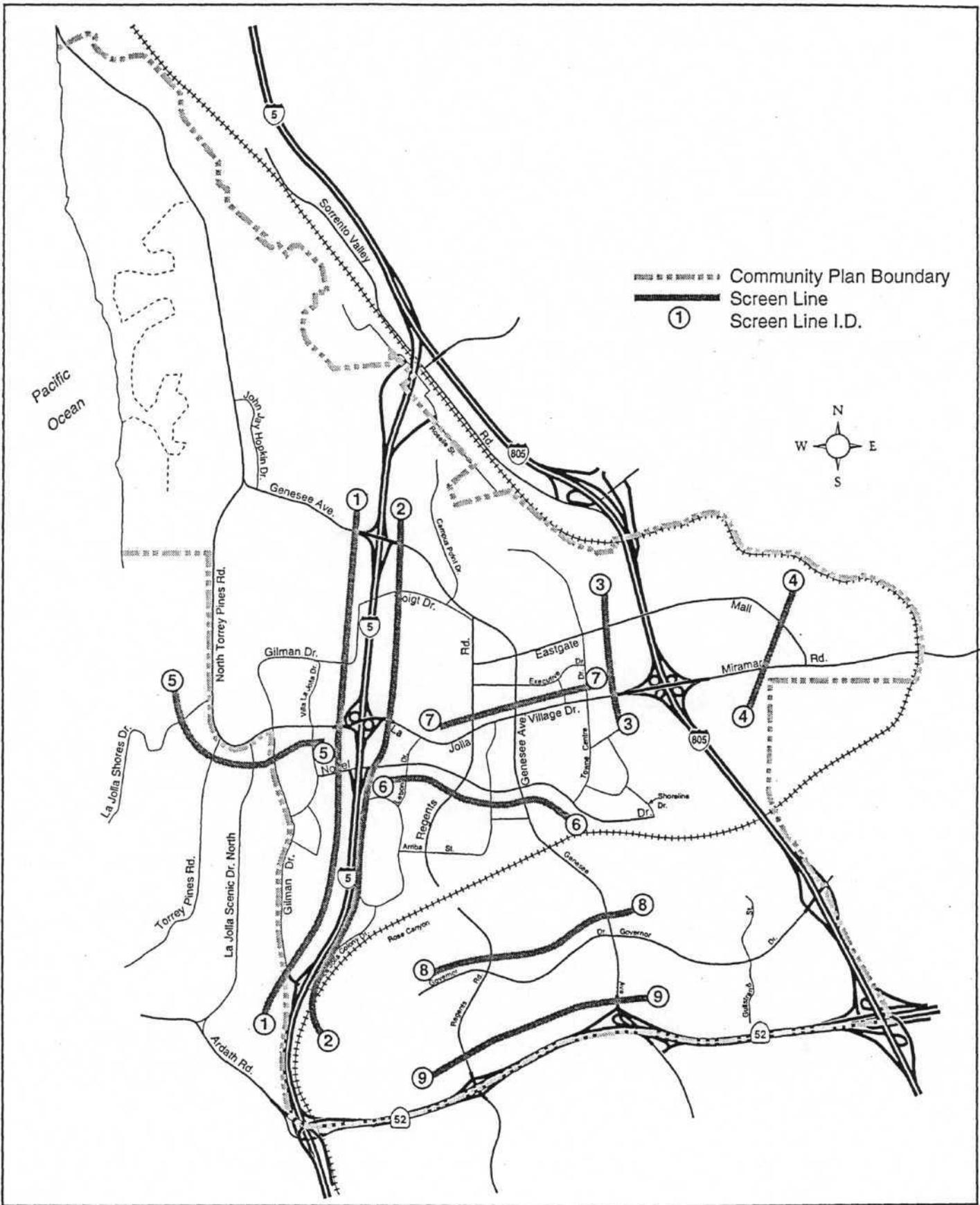
# Cordons

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# Screen Lines

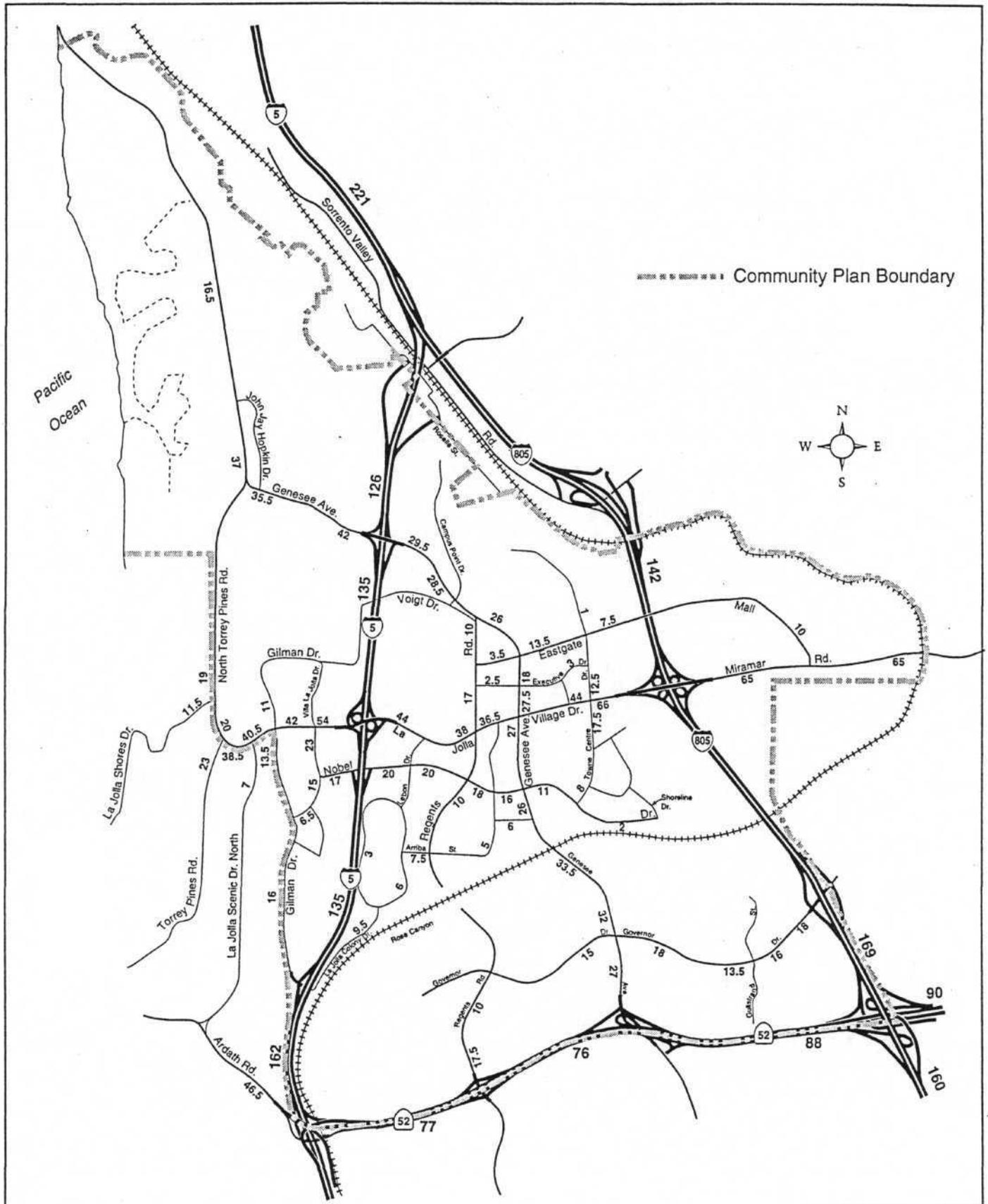
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# 1995 Base Year Model Daily Traffic Volumes (x1000)

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**TABLE 3**  
**UNIVERSITY FOCUSED TRANSPORTATION STUDY**  
**1995 BASE YEAR**  
**CORDON DAILY VOLUME COMPARISONS**

CORDON	STREET	LOCATION	EXISTING DAILY VOLUME(1)	BASE YEAR YEAR FORECAST (2)	FORECAST ACTUAL DIFFERENCE	FORECAST PERCENT DIFFERENCE
A	N. Torrey Pines Rd	S/O Callan Rd	18,000	16,500	-1500	-8
	I-5	N/O Genesee	130,000	126,000	-4000	-3
	I-805	N/O Eastgate Mall	134,000	155,000	21000	16
	Miramar Rd	E/O Miramar Pl	67,500	65,000	-2500	-4
	SR 52	E/O I-805	94,000	90,000	-4000	-4
	I-805	S/O SR 52	153,000	160,000	7000	5
	Genesee Ave	S/O SR 52	27,500	26,000	-1500	-5
	Regents Rd	S/O SR 52	20,000	21,500	1500	8
	I-5	S/O SR 52	175,000	170,500	-4500	-3
	Ardath Rd	N/O SR 52	45,000	46,500	1500	3
	La Jolla Scenic Dr	S/O La Jolla Village Dr	7,000	7,000	0	0
	Torrey Pines Rd	S/O La Jolla Village Dr	25,000	23,000	-2000	-8
	La Jolla Shores Dr	E/O Torrey Pines Rd	12,000	11,500	-500	-4
<b>TOTAL</b>			<b>908,000</b>	<b>918,500</b>	<b>10500</b>	<b>1</b>
B	Torrey Pines Rd	N/O La Jolla Shores	22,500	19,000	-3500	-16
	La Jolla Shores Dr	E/O Torrey Pines Rd	12,000	11,500	-500	-4
	Torrey Pines Rd	S/O La Jolla Village Dr	25,000	23,000	-2000	-8
	La Jolla Scenic Dr	S/O La Jolla Village Dr	7,000	7,000	0	0
	Gilman Dr	S/O La Jolla Village Dr	14,000	13,500	-500	-4
	Villa La Jolla Dr	S/O La Jolla Village Dr	26,000	23,000	-3000	-12
	La Jolla Village Dr	E/O Villa La Jolla Dr	56,500	54,000	-2500	-4
	Villa La Jolla Dr	N/O La Jolla Village Dr	16,500	20,000	3500	21
	Gilman Dr	N/O La Jolla Village Dr	11,000	11,000	0	0
	<b>TOTAL</b>			<b>190,500</b>	<b>182,000</b>	<b>-8500</b>
C	Torrey Pines Rd	N/O La Jolla Shores	22,500	19,000	-3500	-16
	La Jolla Shores Dr	E/O Torrey Pines Rd	12,000	11,500	-500	-4
	Torrey Pines Rd	S/O La Jolla Village Dr	25,000	23,000	-2000	-8
	La Jolla Scenic Dr	S/O La Jolla Village Dr	7,000	7,000	0	0
	La Jolla Village Dr	E/O Gilman Dr	41,500	42,000	500	1
<b>TOTAL</b>			<b>108,000</b>	<b>102,500</b>	<b>-5500</b>	<b>-5</b>
D	Torrey Pines Rd	N/O La Jolla Shores	22,500	19,000	-3500	-16
	Genesee Ave	E/O John J. Hopkins	40,000	42,000	2000	5
	John J Hopkins	N/O Genesee Ave	8,500	9,000	500	6
	N. Torrey Pines Rd	N/O Genesee Ave	39,000	37,000	-2000	-5
<b>TOTAL</b>			<b>110,000</b>	<b>107,000</b>	<b>-3000</b>	<b>-3</b>
E	Gilman Dr	S/O La Jolla Village Dr	14,000	13,500	-500	-4
	Gilman Dr	S/O Vill Alicante	17,000	16,000	-1000	-6
	Nobel Dr	W/O I-5	15,000	17,000	2000	13
	Villa La Jolla Dr	S/O La Jolla Village Dr	26,000	23,000	-3000	-12
<b>TOTAL</b>			<b>72,000</b>	<b>69,500</b>	<b>-2500</b>	<b>-3</b>
F	La Jolla Colony Dr	E/O I-5	8,500	9,500	1000	12
	Genesee Ave	N/O Governor Dr	31,000	32,000	1000	3
	Towne Centre Dr	S/O La Jolla Village Dr	17,000	17,500	500	3
	Genesee Ave	S/O La Jolla Village Dr	27,000	27,000	0	0
	Regents Rd	S/O La Jolla Village Dr	12,500	11,500	-1000	-8
	Lebon Dr	S/O La Jolla Village Dr	12,000	11,000	-1000	-8
	Nobel Dr	W/O Lebon Dr	24,000	20,000	-4000	-17
<b>TOTAL</b>			<b>132,000</b>	<b>128,500</b>	<b>-3500</b>	<b>-3</b>

(1) Source: Machine Count Index, Traffic Engineering Division, Engineering & Development Department, City of San Diego.

Rounded to nearest 500 ADT

(2) Source: 1995 Base Year Calibration Run #16 (Final), Transportation Planning Section, Community & Economic Development, City of San Diego

Rounded to nearest 500 ADT

**TABLE 4**  
**UNIVERSITY FOCUSED TRANSPORTATION STUDY**  
**1995 BASE YEAR**  
**SCREENLINE DAILY VOLUME COMPARISON**

SCREEN-LINE	STREET	LOCATION	EXISTING DAILY VOLUME (1)	BASE YEAR FORECAST (2)	FORECAST ACTUAL DIFFERENCE	FORECAST PERCENT DIFFERENCE
1-1	Genesee Ave	W/O I-5	40,000	42,000	2000	5
	Voigt Dr	W/O I-5	7,500	7,500	0	0
	La Jolla Village Dr	W/O I-5	56,500	54,000	-2500	-4
	Nobel Dr	W/O I-5	15,000	17,000	2000	13
	Gilman Dr	W/O I-5	17,000	16,000	-1000	-6
<b>Total</b>			<b>136,000</b>	<b>136,500</b>	<b>500</b>	<b>0</b>
2-2	Genesee Ave	E/O I-5	31,500	29,500	-2000	-6
	La Jolla Village Dr	E/O I-5	45,000	44,000	-1000	-2
	Nobel Dr	E/O I-5	24,000	20,000	-4000	-17
	La Jolla Colony Dr	E/O I-5	8,500	9,500	1000	12
<b>Total</b>		<b>109,000</b>	<b>103,000</b>	<b>-6000</b>	<b>-6</b>	
3-3	Eastgate Mall	W/O I-805	7,000	7,500	500	7
	La Jolla Village Dr	W/O I-805	66,000	66,000	0	0
<b>Total</b>		<b>73,000</b>	<b>73,500</b>	<b>500</b>	<b>1</b>	
4-4	Eastgate Mall	E/O I-805	10,000	10,000	0	0
	Miramar Rd	E/O I-805	66,500	65,000	-1500	-2
<b>Total</b>		<b>76,500</b>	<b>75,000</b>	<b>-1500</b>	<b>-2</b>	
5-5	La Jolla Shores Dr	E/O Torrey Pines Rd	12,000	11,500	-500	-4
	Torrey Pines Rd	S/O La Jolla Village Dr	25,000	23,000	-2000	-8
	La Jolla Scenic Dr	S/O La Jolla Village Dr	7,000	7,000	0	0
	Gilman Dr	S/O La Jolla Village Dr	14,000	13,500	-500	-4
	Villa La Jolla Dr	S/O La Jolla Village Dr	26,000	23,000	-3000	-12
<b>Total</b>		<b>84,000</b>	<b>78,000</b>	<b>-6000</b>	<b>-7</b>	
6-6	Lebon Dr	S/O Nobel Dr	11,000	11,000	0	0
	Regents Rd	S/O Nobel Dr	10,000	10,000	0	0
	Genesee Ave	S/O Nobel Dr	25,500	26,000	500	2
<b>Total</b>		<b>46,500</b>	<b>47,000</b>	<b>500</b>	<b>1</b>	
7-7	Regents Rd	N/O La Jolla Village Dr	18,000	17,000	-1000	-6
	Genesee Ave	N/O La Jolla Village Dr	28,000	27,500	-500	-2
	Executive Wy	N/O La Jolla Village Dr	3,500	4,000	500	14
	Towne Centre Dr	N/O La Jolla Village Dr	11,000	12,500	1500	14
<b>Total</b>		<b>60,500</b>	<b>61,000</b>	<b>500</b>	<b>1</b>	
8-8	Regents Rd	N/O Governor	1,500	1,500	0	0
	Genesee Ave	N/O Governor	31,000	32,000	1000	3
<b>Total</b>		<b>32,500</b>	<b>33,500</b>	<b>1000</b>	<b>3</b>	
9-9	Regents Rd	N/O SR 52	15,500	17,500	2000	13
	Genesee Ave	N/O SR 52	27,500	27,000	-500	-2
<b>Total</b>		<b>43,000</b>	<b>44,500</b>	<b>1500</b>	<b>3</b>	

(1) Source: Machine Count Index, Traffic Engineering Division, Engineering & Development Department, City of San Diego.

Rounded to nearest 500 ADT

(2) Source: 1995 Base Year Calibration Run #16 (Final), Transportation Planning Section, Community & Economic Development, City of San Diego

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