Austin-Foust Associates, Inc., "Newhall Ranch Supplemental Traffic Analysis: Ventura County Impact Analysis" (February 2001)

NEWHALL RANCH SUPPLEMENTAL TRAFFIC ANALYSIS
Ventura County Impact Analysis

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NEWHALL RANCH SUPPLEMENTAL TRAFFIC ANALYSIS
VENTURA COUNTY IMPACT ANALYSIS

This study provides the results of additional analyses undertaken to determine the impacts of the Newhall Ranch Specific Plan on arterial roads in Ventura County. This study is intended to supplement the traffic analysis performed in connection with preparation of the Newhall Ranch Final Environmental Impact Report ("EIR") (SCH No. 1995011015). Specifically, this study analyzes the Specific Plan's traffic impacts to arterial roads in Ventura County using the same traffic analysis methodology that was employed in the Final EIR to analyze impacts to arterial roads in Los Angeles County.

I. INTRODUCTION

On page _____ of the writ (Appendix ____), the trial court found that the Newhall Ranch Final EIR failed to demonstrate that the local roadways exiting State Routes 126 and 23 in Ventura County would not be impacted above the one percent impact criterion used in the Final EIR; therefore, the trial court found that there was an insufficient basis for the County's finding that traffic impacts would not be significant on those roads in Ventura County.

In light of its ruling, the trial court directed Los Angeles County to extend the traffic impact methodologies employed in analyzing the Specific Plan's traffic impacts in Los Angeles County to the analysis of the Plan's traffic impacts on arterial roadways in Ventura County until the one percent impact criterion used in the EIR is reached. In addition, the trial court directed that the additional analysis include an assessment of the project's traffic impacts on arterial roads in Ventura County, including the identification of feasible mitigation measures, if appropriate. Finally, the trial court directed that the County adopt such additional or revised findings as may be necessary to comply with CEQA and the trial court's writ.

In response to the trial court's direction, this report summarizes the results of the supplemental traffic analysis and discusses project impacts on arterial roads in Ventura County.

II. METHODOLOGY

This section describes the methodology used to identify the Specific Plan's traffic impacts to arterial roads in Ventura County. As background to that description, this section first discusses the traffic forecasting methodology used to analyze Los Angeles County arterials roads in the prior traffic study. The section then explains how similar procedures have been applied here to analyze arterial roads in Ventura County.

Background

The original Newhall Ranch Traffic Analysis contained in the Final EIR was prepared using traffic forecast data from the Santa Clarita Valley Consolidated Traffic Model (SCVCTM). This traffic forecasting model was developed jointly by the County of Los Angeles and the City of Santa Clarita to facilitate the analysis of transportation needs in the Santa Clarita Valley. The model was developed as a "windowed" model in which the Santa Clarita Valley study area was extracted as a window of the overall region. As a windowed model, the SCVCTM features only the land use and highway network within the Santa Clarita Valley and has a set of "cordons" which define the edges of the modeled area. These cordons are designated points on the highway network where regional traffic from outside the window enters and exists the modeled area.

The modeled approach used for the Los Angeles County traffic analysis permits a realistic forecasting of conditions with and without the proposed Specific Plan for areas within the Santa Clarita Valley. However, the prior traffic analysis did not provide the same forecasting ability outside of that area (*e.g.*, Ventura County). Furthermore, at the time that analysis was carried out, there was no comparable traffic modeling capability in Ventura County, nor an available regional model which could

provide the necessary data. Therefore, it was not possible to apply the methodologies that were used in Los Angeles County to Ventura County arterial roadways.

Despite the lack of a Ventura County traffic model, Los Angeles County addressed the Specific Plan's impacts in Ventura County, to the extent possible, using information obtained from the SCVCTM. Although, as discussed above, the forecasting ability of the SCVCTM does not extend west of the Los Angeles/Ventura County line, one of the cordons of the SCVCTM model area is State Route 126 at the County line. As with all the external traffic relationships in the SCVCTM, future volumes at this cordon point were derived from regional traffic forecast data and incorporated into the SCVCTM as traffic entering and leaving the modeled area at the cordon point. Thus, the SCVCTM provides a specific future *without-project* volume of traffic crossing the County line at this cordon point.

To evaluate the Specific Plan's traffic impacts in Ventura County, the Newhall Ranch EIR utilized a simplistic approach which provided impact data for SR-126 at the County line. Under this approach, the Specific Plan's project trips figure for SR-126 at the County line (two percent of total project trips, based on the SCVCTM cordon data) was simply added to the estimated future traffic on SR-126. As discussed at length in a later section of this report, "project impact volumes" derived through traffic modeling are substantially lower than figures obtained through this simple additive approach. Consequently, this simplistic approach substantially *overstated* the Specific Plan's *actual* traffic impacts to SR-126 at the County line. Furthermore, recognizing this overestimation of impacts on SR-126, the Newhall Ranch Final EIR concluded that the Specific Plan would cause minimal impacts to local arterial roads in Ventura County. However, at the time the Newhall Ranch EIR was prepared, no modeling data was available to directly support this conclusion.

Analysis/Methodology used in this Supplemental Study

With the subsequent development of the long-range Ventura Countywide Traffic Model ("VCTM") by the Ventura County Transportation Commission, it has been possible to more accurately determine the Specific Plan's impacts to Ventura County arterial roadways. The VCTM includes the

whole region (rather than being a windowed formulation as with the SCVCTM). Therefore, the VCTM has the capability of examining the effect of land uses outside of Ventura County, such as those in the Santa Clarita Valley. Accordingly, the VCTM was used to derive both the Specific Plan's project trip distribution and the project impact volumes for arterial roadway links in Ventura County (the same process as was used for the Newhall Ranch study area in Los Angeles County).

Section III of this report describes the Ventura County Highway system thereby providing a transportation setting for the impact analysis. Section IV then outlines the significance criteria used in this analysis and Section V contains a more detailed description of how the methodology used here and the results that were obtained differ from those in the prior report.

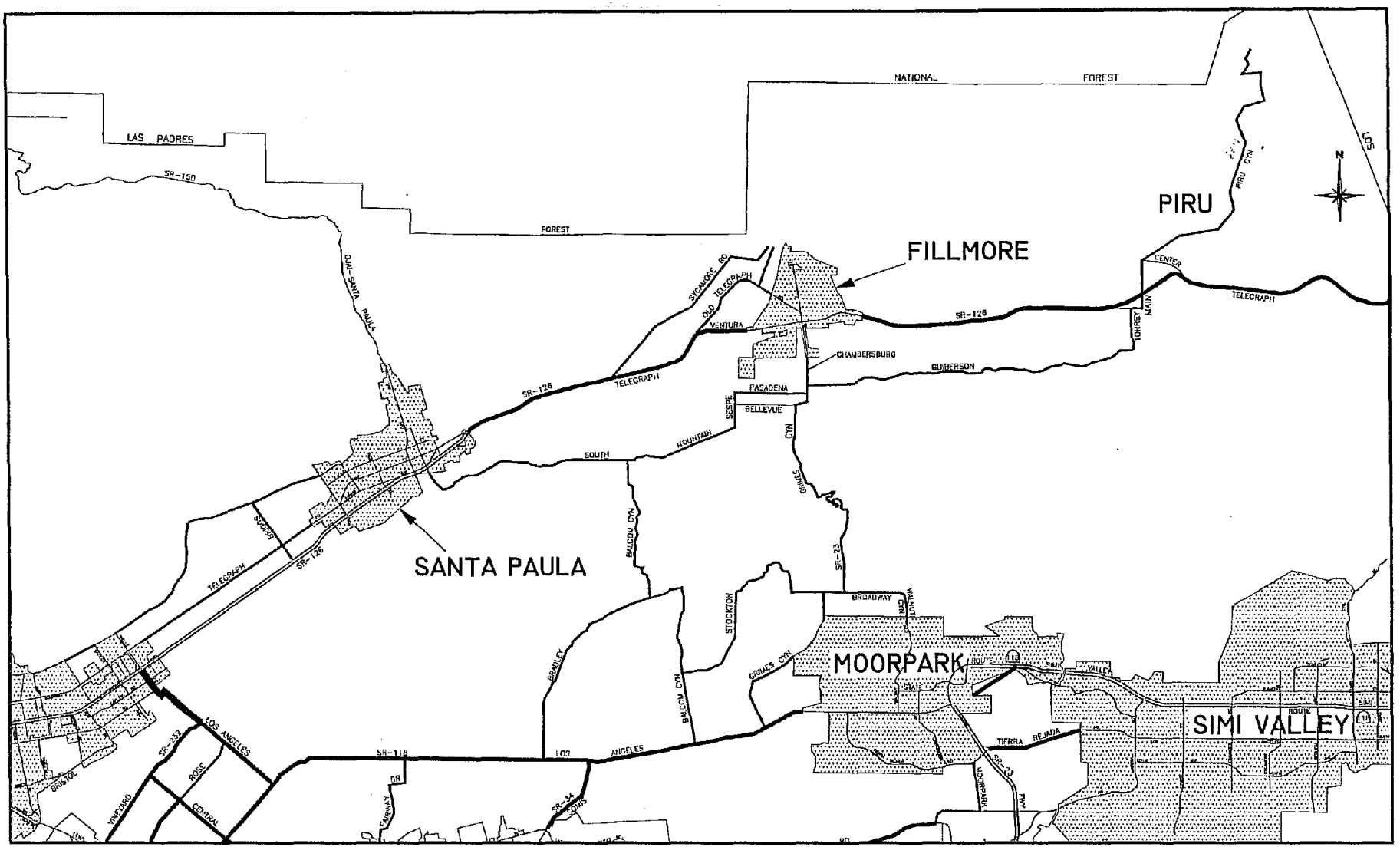
III. TRANSPORTATION SETTING

This section describes the Ventura County highway system and presents the traffic forecast data used in the impact analysis.

County Highway System

The Ventura County highway system comprises part of the Ventura County General Plan Circulation Element and is referred to as the "Regional Road Network." The current Regional Road Network was adopted in December 1989, and is currently being updated as part of the Countywide General Plan Amendment scheduled for adoption in 2001. Figure 1 shows this highway system for the northeastern part of Ventura County, which is the area addressed in this supplemental traffic study.

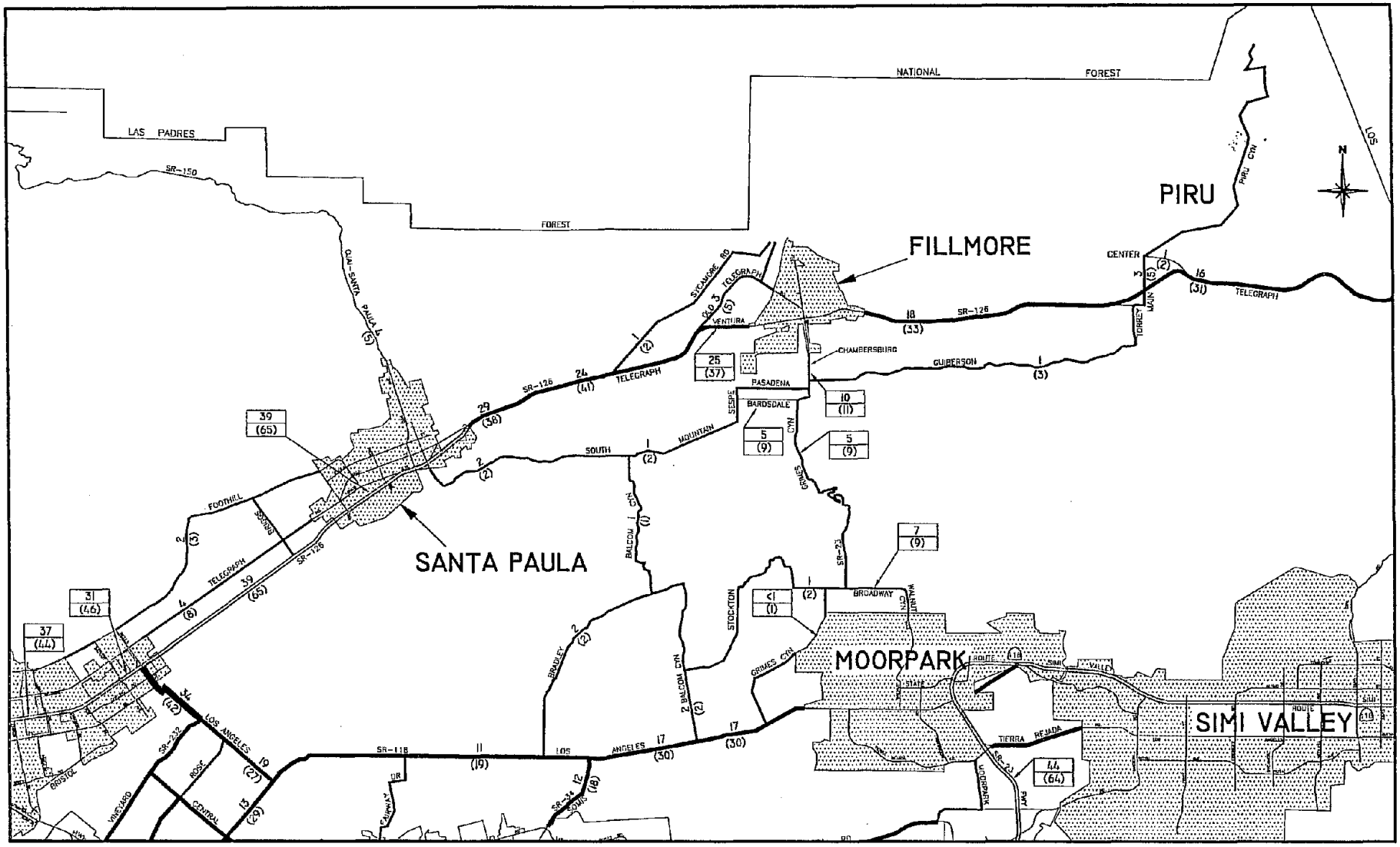
Ventura County has a set of existing traffic volumes from the year 1997, and uses traffic forecasts for the year 2020. These existing and future traffic volumes are shown in Figure 2. The year 2020 volumes have been used for the impact analysis presented in Section IV of this supplemental traffic study.



Legend
- 2 Lanes
- 4 Lanes
- 6 Lanes
- Freeways
- City Thoroughfare

Figure 1

VENTURA COUNTY ROADWAY SYSTEM



Legend

XX
(YY)
Existing 1997
Year 2020

Figure 2

ADT VOLUMES (000's)

Highway Capacity

For the Ventura County road system, Ventura County evaluates traffic volumes using average daily traffic (ADT) volumes and capacities which are defined according to different levels of service (LOS). The LOS capacity values established by Ventura County for specific roadway types are as follows:

AVERAGE DAILY TRAFFIC (ADT) THRESHOLDS

	CLASS I			CLASS II	CLASS III
LOS	2 LANES	4 LANES	6 LANES	2 LANES	2 LANES
A	2,400	19,000	29,000	1,500	350
B	5,600	28,000	42,000	3,900	2,000
C	10,000	38,000	57,000	7,000	3,300
D	16,000	47,000	70,000	11,000	5,900
E	27,000	58,000	87,000	21,000	16,000

For two-lane roads, there are three "classes" which are based on a variety of physical and operational attributes (design speed, pavement width, *etc.*). The different capacities for each class reflect the carrying ability of the roadway under its specific class designation.

The "level of service" (LOS) scale is used to evaluate road performance. The LOS levels range from A to F, with LOS A representing free-flow traffic conditions and LOS F representing severe traffic congestion. Descriptions of the quality of traffic flow for the different LOS ranges are shown on Table 1. Various operating LOS policy standards have been established which serve as a guideline for evaluating observed traffic conditions and as a target for evaluating future traffic conditions.

At the local level, Ventura County uses LOS "D" as the desirable performance level for its arterial roadways. Therefore, the ADT thresholds for LOS "D" represent the "capacity" for the designated arterial roadways in Ventura County, and a volume to capacity (V/C) ratio of 1.0 would represent the maximum volume for LOS "D." A V/C ratio of greater than 1.0 would cause the roadway to operate at LOS "E" or "F" under this criterion.

Table 1

LEVEL OF SERVICE DESCRIPTIONS

LEVEL OF SERVICE	TRAFFIC FLOW QUALITY	V/C VALUE
A	Excellent operation. All approaches to the intersection appear quite open, turning movements are easily made, and nearly all drivers find freedom of operation.	0 - .60
B	Very good operation. Many drivers begin to feel somewhat restricted within platoons of vehicles. This represents stable flow. An approach to an intersection may occasionally be fully utilized and traffic queues start to form.	.61 - .70
C	Good operation. Occasionally drivers may have to wait more than 60 seconds, and back ups may develop behind turning vehicles. Most drivers feel somewhat restricted.	.71 - .80
D	Fair operation. Cars are sometimes required to wait more than 60 seconds during short peaks. There are no long-standing traffic queues. This level is typically associated with design practice for peak periods.	.81 - .90
E	Poor operation. Some long-standing vehicular queues develop on critical approaches. Delays may be up to several minutes.	.91 - 1.00
F	Forced flow. Represents jammed conditions. Back ups from locations downstream or on the cross street may restrict or prevent movements of vehicles out of the intersection approach lanes; therefore, volumes carried are not predictable. Potential for stop and go type traffic flow.	Above 1.00

ICU - intersection capacity utilization

Source: Highway Capacity Manual, Special Report 209, Transportation Research Board, Washington D.C., 1985 and Interim Materials on Highway Capacity, MCHRP Circular 212, 1982.

In the impact analysis which follows, future roadway volumes have been compared with their corresponding capacities to give V/C ratios. The V/C ratios are then used to measure project impacts by applying the appropriate impact and level of service criteria. These criteria are discussed in the first part of the next section.

IV. IMPACT ANALYSIS

The following section summarizes the Specific Plan's traffic impacts to arterial roadways off the State Routes in Ventura County. As discussed above, this information was determined by applying the same traffic methodologies used to assess the Specific Plan's impacts on Los Angeles County arterial roadways.

Significance Threshold Criteria

The traffic impact analysis in the Newhall Ranch Final EIR used specific significance threshold criteria to identify the Specific Plan's traffic impacts to Los Angeles County arterial roadways. Those criteria are summarized in Table 2. The analysis used long-range average daily traffic (ADT) volumes to identify project impacts, and the criteria listed in Table 1 were applied to the volume to capacity (V/C) ratios on roadway segments within the defined study area.

With the availability of the VCTM, the same analysis was carried out for the arterial roadways in Ventura County and the same significance threshold criteria were applied as in the analysis of impacts to Los Angeles County arterials roads. This impact analysis uses a one percent criterion to identify those Ventura County arterial roadways off the State Routes on which the Specific Plan causes a "measurable" increase in traffic. That is, all roadway segments with a measurable change in traffic volume (i.e., one percent or greater) due to the Specific Plan were identified and then an analysis was performed, to determine if the project caused or contributed to a deficiency.

Table 2

SIGNIFICANCE THRESHOLD CRITERIA

I. ARTERIAL HIGHWAYS

To evaluate project impacts on the arterial highway system, long-range volumes with and without the project are compared using average daily traffic (ADT) volume to capacity (V/C) ratios[1]. Three types of impacts are identified:

P This refers to a location which has a V/C of less than or equal to 1.00 without the project and greater than 1.00 with the project. Hence, it can be considered a significant adverse impact of the project where mitigation is necessary.

C Contribution - This is where the no-project V/C is greater than 1.00 and the project has a contribution of more than one percent. The project, hence contributes to a future deficiency, but does not cause that deficiency.

A Several arterials in the City of Santa Clarita have special capacity augmentation, this capacity augmentation being needed for either no-project volumes or both no-project and project volumes. Where the project contributes traffic to such a location, then the amount of capacity augmentation that will be needed is increased. The project, hence, causes a potential impact at such locations, and is therefore identified here as a project impact of which the project has a share of the total impact.

In all cases, a project contribution of one percent or more is considered to be a measurable impact and is used as the impact criteria. Hence, V/Cs for those locations where the project measurably contributes to the total volume are examined, and if any of the above impact types are found, then the location is identified as being impacted by the project.

II. STATE HIGHWAYS AND FREEWAYS

Capacities are taken from the appropriate Caltrans Route Concept Reports, and V/C ratios calculated. Project has significant impact if the V/C is increased by more than .01 and the link is deficient.

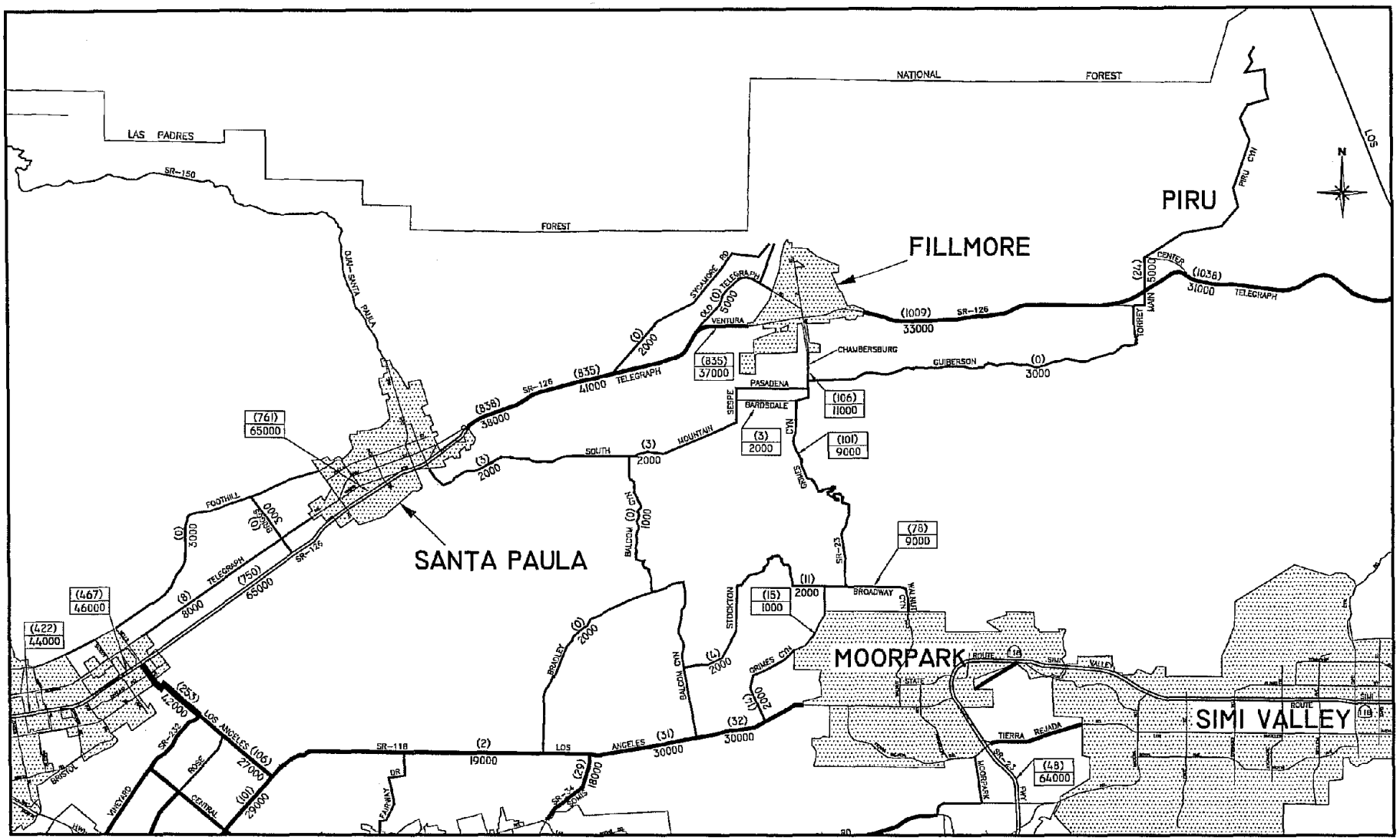
[1] ADT capacity values are as follows:

FACILITY TYPE	ADT CAPACITY
Augmented Major Highway	76,000
Major Highway (6-lanes)	54,000
Major Highway (4-lanes)	36,000
Major Highway (2-lanes)	18,000
Secondary Highway (4-lanes)	32,000
Secondary Highway (2-lanes)	16,000

In applying the significance threshold criteria, a determination must be made of whether the traffic conditions on a given roadway link are "deficient" or will be made so by the addition of Specific Plan traffic. To perform the same impact analysis for Ventura County arterial roads as was performed for Los Angeles County arterial roads, the same roadway deficiency standard should be applied. However, the County of Ventura employs a roadway deficiency standard *different* from that used in Los Angeles County. In Los Angeles County, a roadway link is considered "deficient" if the ADT volume exceeds the capacity for LOS "E". In Ventura County, the deficiency standard is LOS "D". In assessing the significance of the Specific Plan's traffic impacts to Ventura County arterials, this analysis considered both the Los Angeles County *and* Ventura County roadway deficiency standards. It should be noted that the augmented arterial significance criterion used in Los Angeles County (actually, the City of Santa Clarita) is not applicable to Ventura County roadways, and hence has not been used in this supplemental study.

Figure 3 presents the Specific Plan's project impact volumes on Ventura County arterial roadways, together with the year 2020 volumes on those roadways. Year 2020 volumes and corresponding levels of service for the County roadway links are summarized in Table 3, together with the traffic volume differences due to Newhall Ranch. It should be noted that impact data was derived for all of Ventura County and the area shown here for which roadway link data has been listed is the area within where measurable project impacts occur.

Under the applicable significance threshold criteria, the Specific Plan has a significant impact if the project contribution is one percent or greater and the location is deficient (or the contribution has caused the link to become deficient). As demonstrated by the data contained in Figure 3 and Table 3, the Specific Plan will not have a measurable impact (*i.e.,* a one percent or more contribution) on any Ventura County arterial roadways exiting SR-126 or SR-23. Therefore, the Specific Plan will not result in any significant impacts to any arterial roads in Ventura County.



Legend

- City Incorporated Areas
- (XX) YYY — Newhall Ranch Impact / Total ADT (Year 2020)

Figure 3

PROJECT IMPACTS

Table 3

2020 ADT LEVEL OF SERVICE SUMMARY - VENTURA COUNTY ROADWAYS

Roadway	Limits	Lanes	Class	2020 ADT	NR Increment Amount	(%)	2020 V/C (LOS "D") Capacity*	V/C	2020 V/C (LOS "E") Capacity*	V/C
Balcom Canyon Rd	South Mountain Rd to Bradley Rd	2	III	1,000	0	(0%)	5,900	.17	16,000	.06
Bardsdale Rd	Sespe to Grimes Canyon	2	II	2,000	3	(.1%)	11,000	.18	21,000	.10
Bradley Road	Balcom Canyon Rd to Los Angeles Ave	2	II	2,000	0	(0%)	11,000	.18	21,000	.10
Briggs Road	Foothill to Santa Paula Fwy	2	II	3,000	0	(0%)	11,000	.18	21,000	.10
Grimes Canyon Rd	Broadway to Los Angeles Ave (SR-118)	2	III	2,000	14	(.7%)	5,900	.34	16,000	.13
Guiberson Rd	Chambersburg Rd to SR-126	2	II	3,000	0	(0%)	11,000	.27	21,000	.14
Main St (Piru)	Telegraph Rd (SR-126) to Center St	2	II	5,000	24	(.4%)	11,000	.45	21,000	.24
Old Telegraph Rd	Telegraph Rd (SR-126) to Fillmore city limit	2	II	5,000	0	(0%)	11,000	.45	21,000	.24
Sespe St/Pasadena Ave	South Mountain Rd to Chamsbersburg Rd (SR-23)	2	II	1,000	0	(0%)	11,000	.17	21,000	.05
South Mountain Rd	Santa Paula city limit to Sespe St	2	II	2,000	3	(.1%)	11,000	.18	21,000	.10
Stockton Rd	Balcom Canyon Rd to Broadway	2	II	2,000	4	(.2%)	11,000	.18	21,000	.10
Telegraph Rd	Ventura city limit to Santa Paula city limit	2	I	8,000	8	(.1%)	16,000	.50	27,000	.30

Abbreviations:

NR - Newhall Ranch
SR- State Route
ADT - average daily traffic
LOS - level of service
V/C - volume to capacity ratio
% - percentage increase in traffic volumes due to Specific Plan

*See Table below

AVERAGE DAILY TRAFFIC (ADT) THRESHOLDS

	----------CLASS I----------			--CLASS II--	-CLASS III-
LOS	2 LANES	4 LANES	6 LANES	2 LANES	2 LANES
A	2,400	19,000	29,000	1,500	350
B	5,600	28,000	42,000	3,900	2,000
C	10,000	38,000	57,000	7,000	3,300
D	16,000	47,000	70,000	11,000	5,900
E	27,000	58,000	87,000	21,000	16,000

V. OTHER TOPICS OF DISCUSSION

This section is intended to address issues that may arise from consideration of the preceding sections. It also provides a more in-depth discussion of other points referenced in this supplemental analysis (*e.g.*, the traffic analysis methodology employed in the study).

Differences in Revised Traffic Impact Data

The Ventura County traffic impact data presented in this supplemental analysis differs substantially from the Ventura County traffic impact data contained in the Newhall Ranch Final EIR. The differences are due to the use of a modeled approach similar to that applied to analyze Los Angeles County arterial roads. As noted above, a traffic model was not available for Ventura County when the Newhall Ranch Final EIR was prepared; therefore, a simplistic additive approach was used. The following discussion further explains the differences between the approach taken in this supplemental study and that taken in the Final EIR:

Project Trips versus Project Impact Volumes - There are two important concepts involved in determining the traffic impacts of a project in a long-range context: (i) "project trips;" and (ii) "project impact volumes." Both of these concepts involve information relating to the project and both are typically obtained from traffic forecasting models. The project trips concept describes the number of project trips on a given roadway link (i.e., trips to or from the project). That number is derived from the project trip distribution value for the link. Each roadway link in the study area has a project trip distribution value which is the percent of total project traffic on that link. The project trips figure for a given roadway link is calculated by multiplying the project trip distribution value for that link by the total number of trips generated by the project. For example, if the project trip distribution value for a given roadway link is two percent and the total number of project trips is 1,000, this means the link in question will be carrying two percent of the total project trips, or 20 project trips.

"Project impact volumes" are determined through a comparison of long-range traffic volumes on a roadway link with and without the project. The difference in the with- and without-project volumes is the "project impact volume." This figure is used to analyze a project's traffic impacts. Crucial to an understanding of traffic impact methodology is the fact that, for a given roadway link, the "project impact volume" figure is not the same as the number of "project trips" for that link (even though this may appear to be a logical interpretation of "project trips"). Project trips are not simply added to the no-project volume on a link to derive with-project volumes. No-project and with-project volumes are estimated independently using a traffic model, and then the no-project volume is subtracted from the with-project volume. In producing these two sets of future traffic forecasts, it is assumed that all land uses outside the project area and their associated trip generation are exactly the same with or without the project. However, the trip patterns for each forecast change when some trips are directed to the project, and trips directed to other locations under a no-project scenario are redirected to the project. As part of this redirection, or "redistribution," trips to or from the project will use many of the same roadways, thereby not actually adding "new" trips to those roadways.

To further assist in understanding this redistribution effect, two commonly-used traffic modeling concepts, the "fixed population and employment base" and the "redistribution effect," are described below. These concepts are applied by both Los Angeles County and Ventura County in their traffic modeling efforts, and were applied to assess the Specific Plan's impacts to Los Angeles County arterial roadways.

The Fixed Population and Employment Base - This concept assumes that the land uses designated in the General Plans of the jurisdiction in which a proposed project is located (in this case, Los Angeles County), as well as the land uses designated in the general plans of outlying jurisdictions (*e.g.*, Ventura County), remain unchanged in the traffic model. Consequently, there is no change in the estimated future trip generation of those communities as a result of a proposed project (in this case, Newhall Ranch). This concept is known as fixing the population and employment base, and it is important because it is only through using this method that a proposed project's land uses can be added to the traffic model. The model can then redistribute the traffic generated by a proposed project, and

the "no-project" and the "with project" scenarios can describe the impact of adding specific land uses to a specific geographic location. In other words, trips that originate in a proposed project (in this case, Newhall Ranch) and have a destination in a remote community (such as Ventura County) do not change the total trip generation for that community's land uses (Ventura County). With or without the proposed project, that community (Ventura County) will continue to generate and attract the same *number* of trips. The only potential change is to the *origin* or *destination* of the trips that will be generated by that community's land uses.

The Redistribution Effect - The great majority of a project's traffic trips are to destinations within the project's local area (i.e., the project area itself and the remainder of the Santa Clarita Valley). Such local project traffic is exemplified by and includes trips to shopping, services, school, recreation and some employment. The remaining minority of traffic trips are not to local destinations, but to regional destinations greater distances away (such as destinations within Ventura County). Those trips will be a combination of trips to "attractors" in that remote area (i.e., to jobs, shopping or recreation) and trips attracted from that area (e.g., Ventura County residents working in Newhall Ranch or shopping or visiting).

In long-term traffic modeling (such as that used by both Los Angeles County and Ventura County), it is assumed that land use patterns at and around the outlying regional destinations (*e.g.*, Ventura County) generate a fixed number of trips (*i.e.*, the "fixed base" described above). Under this fixed base concept, the project being modeled (in this case, Newhall Ranch) would not change the *number* of trips being generated by the land uses in the outlying region (*e.g.,* in Ventura County), but may, as noted above change the *origins* or *destinations* of the trips generated by the land uses in the outlying region. For example, consider an office land use in Ventura County 35 miles from the Los Angeles County/Ventura County line which in the future attracts 10,000 trips per day. The long-term traffic model would show that a small proportion of those trips (say 500) are expected to travel from outside Ventura County (*e.g.*, from Los Angeles County). Let us say that those trips are expected to travel from Los Angeles County along the Ventura Freeway and the SR-126 corridors. Now Newhall Ranch is added to the model in northern Los Angeles County. Clearly, Newhall Ranch would have no

influence on the *number* of trips that would be attracted by the office land use in Ventura County - it would remain 10,000 trips. This is the fixed base concept - the number of trips generated are fixed. However, the model will now show that the traffic patterns on regional roadways (*i.e.*, SR-126 and Ventura Freeway) have changed. The trips have been redistributed, resulting in a slight increase in trips on SR-126 and a slight decrease on Ventura Freeway. However, apart from the changes on these two corridors, no "new" trips occur on local roadways in the outlying region as a result of Newhall Ranch being added to the model.

This redistribution effect is important in estimating the impacts of a project. It is accounted for in all long-range traffic analyses, and is a basic feature of the traffic modeling procedures used to identify project impacts. If project trips were simply added to the network, then double-counting would occur (the additive method would assume that the trip generation in non-project areas increases) and the project trip impacts would be substantially overstated. In short, an accurate forecast of a project's traffic impacts is impossible without adjusting for the redistribution effect and that adjustment can only be calculated through traffic modeling.

In identifying the Specific Plan's impacts to traffic conditions on Los Angeles County arterial roadways, the SCVCTM was used to estimate the project trips (in the form of a project trip distribution) and then with- and without-project traffic forecast volumes were used to analyze actual project impacts volumes. In the process, the SCVCTM adjusted for the redistribution effect to avoid double counting of trips, as discussed above.

Using arterials on the eastern edge of the Los Angeles County study area as examples, Table 4 illustrates how, after modeling and adjustment for the redistribution effect, project impact volumes amount to considerably fewer "new" actual trips than the project trips figures indicate. For the arterials shown here, the project impact volumes compared to the corresponding project trips vary from 13 percent to 39 percent, with an average of 29 percent. The difference depends on the location of the link in question and the degree to which trips on that link are trips that are generated by areas whose trip generation will not change in the future. Typically, the difference between project trips and project

Table 4

LONG-RANGE ADT VOLUME SUMMARY

LOCATION	PROJECT TRIPS PERCENT*	PROJECT TRIPS VOLUME	PROJECT IMPACT VOLUMES** NO-PROJECT	W/PROJECT	DIFFERENCE	PERCENT OF PROJECT TRIPS
Newhall Ranch Road, East of McBean	2	7,700	71,000	72,000	1,000	13%
Magic Mtn Pkwy, East of McBean	3	11,600	57,000	61,000	4,000	34%
Valencia Blvd East of McBean	2	7,700	59,000	62,000	3,000	39%
Average						29%

* Source: Figure III-3 of the FEIR traffic report
** Source: Figures IV-5 and IV-6 of the FEIR traffic report

impact volumes increases with distance from the project, and at some distance from the project no "new" trips are actually being introduced onto the roadways even though some trips may be traveling to or from the project.

To show this redistribution effect in relation to Ventura County, Table 5 summarizes trip patterns for trips on SR-126 across the County line. The table shows origin-destination trips for the project area, the remainder of the Santa Clarita Valley, and the remainder of the region. These 2020 ADT area-to-area trips show 31,000 trips on SR-126 between Ventura County and Santa Clarita Valley with the project, and 29,962 without the project, a difference of 1,038.

The breakdown of these County line trips is as follows:

YEAR 2020 TRIPS ON SR-126 AT VENTURA COUNTY LINE

	WITHOUT NEWHALL RANCH	WITH NEWHALL RANCH
Trips to/from Newhall Ranch	0	4,216
Trips between Ventura County and Santa Clarita Valley	13,593	11,106
Regional trips	16,369	15,678
TOTAL	29,962	31,000
Difference		1,038

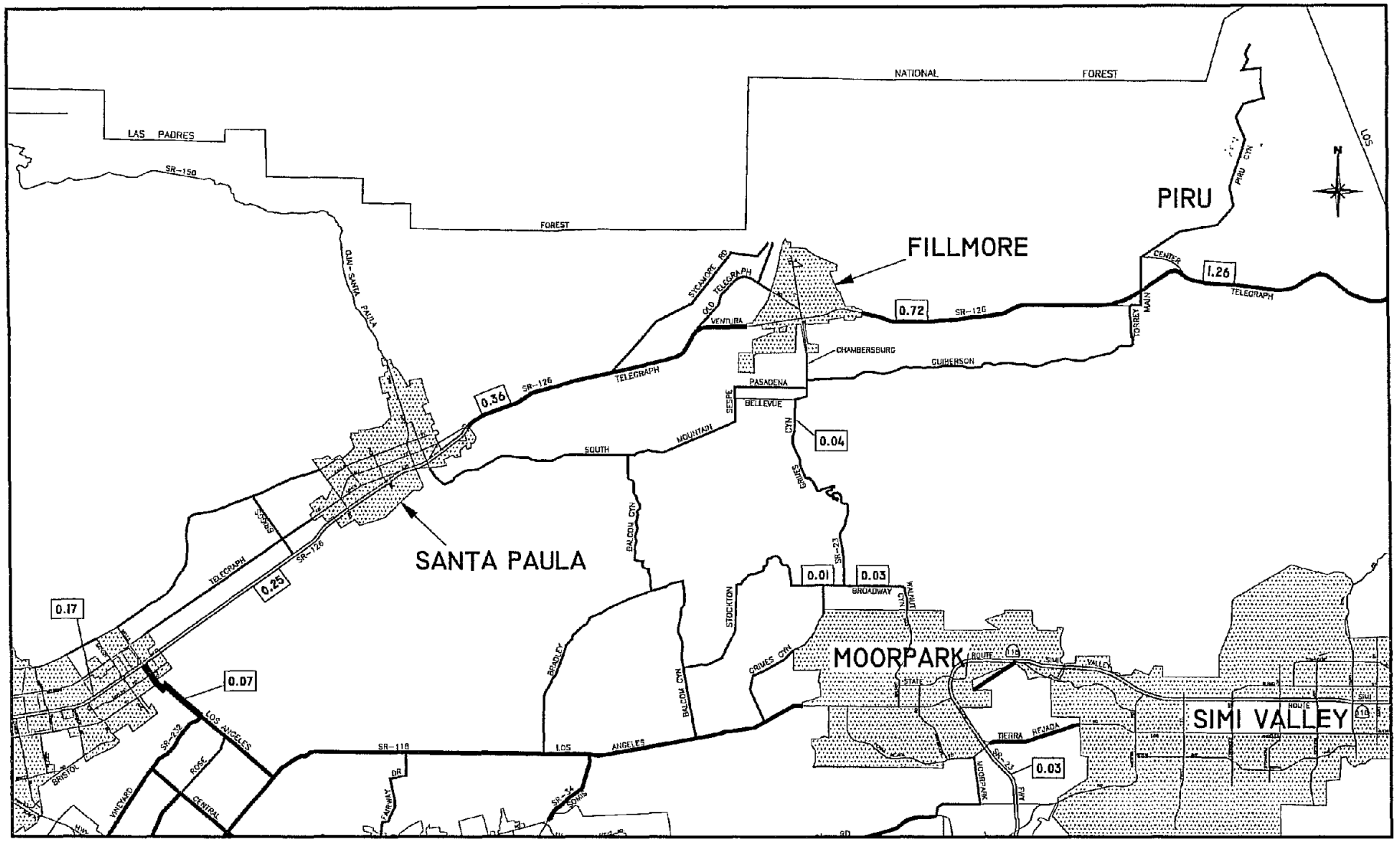
The with-project volume is three percent higher (1,038 trips) than the no-project volume, which reflects the average of the increase in trip generation in the three areas contributing to the traffic at this location, (0% in Ventura County, 10 percent in Santa Clarita Valley (due to Newhall Ranch), and 0% in the remainder of the region).

For informational purposes, the trip distribution for project trips in Ventura County is illustrated in Figure 4. This shows the percentage of project trips on different parts of the Ventura County roadway network as derived from the VCTM. A value of 1.0 percent represents 3,340 trips. The project trips at the Ventura County line are 4,216 trips per day (compared to 7,740 in the prior

Table 5

TRAVEL PATTERN RELATIONSHIPS
(Year 2020 ADT Volumes on SR-126 at Ventura County Line)

	Newhall Ranch	Santa Clarita Valley Remainder	Ventura County	Remainder of Region	Total
A. NO-PROJECT					
Trips from/to					
Newhall Ranch	0	0	0	0	0
Santa Clarita Valley Rem.	0	0	6805	296	7101
Ventura County	0	6788	0	7470	14258
Remainder of the Region	0	313	7453	837	8603
TOTAL	0	7101	14258	8603	29962
B. WITH NEWHALL RANCH					
Trips from/to					
Newhall Ranch	0	0	2052	56	2108
Santa Clarita Valley Rem.	0	0	5563	313	5876
Ventura County	2050	5543	0	7095	14688
Remainder of the Region	58	333	7074	863	8328
TOTAL	2108	5876	14688	8328	31000



Legend

City Incorporated Areas

X.XX Percentage of Project Traffic at the location

Figure 4

PROJECT TRAFFIC DISTRIBUTION

traffic study and Final EIR). This number reflects the revised project (14 percent lower trip generation for the adopted project compared to that originally studied), plus the more accurate regional distribution of trips to and from the project area as derived from the VCTM. The original estimate of 7,740 was calculated as two percent of the original 387,000 trips generated, whereas the new volume is 1.26 percent of the revised trip generation of 334,000 trips, resulting in 4,216 estimated project trips at the Los Angeles County/Ventura County line. As discussed above, the project impact volume (the difference between with project and no-project future forecasts) is 1,038 trips per day, reflecting the redistribution effect described extensively earlier in this report.

Implications for Los Angeles County Analysis

The information presented here for Specific Plan traffic impacts in Ventura County shows project impacts considerably lower in magnitude than those presented in the prior Newhall Ranch traffic report. While this had been anticipated and discussed in the prior report, and more fully in Topical Response #5 in the Newhall Ranch Final EIR, no information was available to quantify the difference. The question therefore arises as to whether the reduction in impacts in Ventura County translates to increases elsewhere.

Placing the change in impact volumes for the Ventura County line cordon location into the SCVCTM would change the project impact volumes in other parts of the study area. The magnitude of such change can be estimated as follows:

Previous cordon volume difference (with and without project):	7,740 ADT
New cordon volume difference (with and without project):	1,040 ADT
Change:	-6,700 ADT

Hence, this change in the with and without project cordon volume difference would result in 6,700 project trips being distributed elsewhere in the study area. This represents the following percentage change:

Total project trip generation	387,000
Deduct previous Ventura County volumes	-7,740
Previous project trips impacting remainder of study area	379,260
Add change from above	+6,700
New project trips impacting remainder of study area	385,960
Percent increase in project impact trips	1.77 percent

On this basis, the previous Newhall Ranch traffic study underestimated the Specific Plan's traffic impacts in Los Angeles County by 1.77 percent.

However, the Specific Plan ultimately approved by the Los Angeles County Board of Supervisors differs from the original proposed Specific Plan analyzed in the Newhall Ranch traffic study. The difference in terms of trip generation is as follows:

Original Specific Plan	387,000 trips/day
Approved Specific Plan (as revised)	334,000 trips/day
Reduction	14 percent

Hence, the reduction in overall traffic impacts due to the approved Specific Plan, as revised, is substantially greater than the increase in traffic impacts resulting from the decrease in volumes at the Ventura County cordon. Appendix A presents impact analysis results for the change in cordon volume and the change in project trip generation.

APPENDIX A

REVISED TRAFFIC IMPACT DATA

This appendix summarizes revised traffic impact data for the Newhall Ranch project. The purpose of the analysis is to show the affect of the approved project (versus the project studied in the FEIR) and the revisions to the Ventura/Los Angeles county line impacts as presented in this report.

METHODOLOGY

As discussed in this report, the previous traffic analysis in the FEIR utilized a simplistic approach for analyzing the impacts of the project in Ventura County. Since the Santa Clarita Valley Consolidated Traffic Model (SCVCTM) is a "windowed" model, the with-project cordon volumes at the Los Angeles/Ventura county line were adjusted based on the amount of project traffic at this cordon. That incremental change was simply the volume of project traffic rather than the difference between with and without project volumes.

As discussed in this report, the Ventura County Traffic Model (VCTM) has now been utilized to make a more accurate estimate of the with and without project volumes at the County line. This report also notes that this smaller incremental change does not result in any greater impacts in the Los Angeles county portion of the study area when the reduced (approved) project is also considered. The material contained in this appendix presents detailed results verifying this finding.

To extract the new impact data, a special run of the SCVCTM was made incorporating the revised cordon difference and also the reduced project. Hence, this long-range version of the SCVCTM featured two differences from the previous with-project version; reduced cordon volume at the SR-126 Ventura County line and reduced project trip generation. The same ADT volume data was then extracted and compared with the previous no-project volumes.

RESULTS

The results from this analysis are summarized in Table A-1. To allow easy comparison, information from Table 4.3 of the previous traffic report as used for the FEIR has also been listed here. Those volumes compared with and without project conditions for the Alternative Highway Network (essentially the City of Santa Clarita General Plan). As this table shows, the combination of the reduced project impacts across Ventura county line and the reduced project result in impacts in the Los Angeles county portion of the study area which are either the same or less than in the previous analysis.

Table A-1

LONG-RANGE ADT VOLUME SUMMARY - ALTERNATIVE HIGHWAY PLAN

			INFORMATION FROM FEIR[1]					REVISED INFORMATION[2]		
			NO-PROJECT		WITH-PROJECT		PROJECT	WITH PROJECT		PROJECT
LOCATION*	LANES	CAPACITY	VOL	V/C	VOL	V/C	CONTR.	VOL	V/C	CONTR.
1. Hasley Cyn w/o Del Valle	4	32000	3000	.09	3000	.09	.00	3,000	.09	.00
2. Hasley Cyn e/o Del Valle	4	32000	6000	.19	6000	.19	.00	6,000	.19	.00
3. Del Valle n/o Chiquito Cyn	4	32000	4000	.13	4000	.13	.00	5,000	.16	.03
4. Chiquito Cyn w/o Del Valle	2	14000	2000	.14	2000	.14	.00	3,000	.21	.07
5. Chiquito Cyn e/o Del Valle	4	32000	3000	.09	3000	.09	.00	4,000	.13	.04
9. Commerce Cnt Dr e/o I-5	6	54000	5000	.09	7000	.13	.04	7,000	.13	.04
10. Commerce Cnt Dr w/o I-5	6	54000	45000	.83	48000	.89	.06	47,000	.87	.04
11. Commerce Cnt Dr s/o Hasley	6	54000	42000	.78	44000	.81	.04	42,000	.78	.00
12. Commerce Cnt Dr n/o SR-126	6	54000	30000	.55	36000	.67	.12	37,000	.69	.14
14. Valencia e/o MMP	6	54000	5000	.09	36000	.67	.56	37,000	.69	.60
18. Valencia w/o The Old Rd	6	54000	23000	.43	40000	.74	.31	40,000	.74	.31
19. Valencia e/o The Old Rd	6	54000	39000	.72	54000	1.00	.28	54,000	1.00	.28
22. Magic Mtn w/o The Old Rd	6	54000	45000	.83	73000	1.35	.52 [P]	72,000	1.33	.50 [P]
23. The Old Rd n/o Commerce Cnt	4	32000	17000	.53	16000	.50	-.03	16,000	.50	-.03
24. The Old Rd n/o Franklin	6	54000	8000	.15	6000	.11	-.04	6,000	.11	-.04
25. The Old Rd n/o SR-126	6	54000	7000	.13	6000	.11	-.02	6,000	.11	-.02
27. The Old Rd s/o Henry Mayo	6	54000	21000	.39	25000	.46	.07	26,000	.48	.29
28. The Old Rd n/o Magic Mtn	6	54000	41000	.76	46000	.85	.09	46,000	.85	.09
29. The Old Rd s/o Magic Mtn	6	54000	41000	.76	46000	.85	.09	47,000	.87	.11
30. The Old Rd s/o Valencia	6	54000	24000	.44	42000	.78	.33	42,000	.78	.34
31. The Old Rd s/o McBean	6	54000	29000	.54	33000	.61	.07	33,000	.61	.07
32. The Old Rd s/o Lyons	4	32000	10000	.31	10000	.31	.00	10,000	.31	.00
33. Pico w/o McBean	4	32000	23000	.72	17000	.53	-.19	17,000	.53	-.19
34. Pico e/o McBean	4	32000	19000	.59	15000	.47	-.13	15,000	.47	-.12
35. McBean w/o The Old Rd	6	54000	27000	.50	33000	.61	.11	33,000	.61	.11
36. McBean e/o I-5	6	54000	51000	.94	53000	.98	.04	53,000	.98	.04
37. McBean e/o Tournament	6	54000	30000	.56	30000	.56	.00	30,000	.56	.00
38. McBean s/o Valencia	6	54000	47000	.87	48000	.89	.02	48,000	.89	.02
39. McBean n/o Valencia	6A	76000	55000	.72	55000	.72	.00	55,000	.72	.00

(Continued)

Table A-1 (cont)
LONG-RANGE ADT VOLUME SUMMARY - ALTERNATIVE HIGHWAY PLAN

			INFORMATION FROM FEIR[1]					REVISED INFORMATION[2]		
			NO-PROJECT		WITH-PROJECT		PROJECT	WITH PROJECT		PROJECT
LOCATION*	LANES	CAPACITY	VOL	V/C	VOL	V/C	CONTR.	VOL	V/C	CONTR.
40. McBean n/o Magic Mtn	6A	76000	71000	.93	73000	.96	.03^	73,000	.96	.03^
41. McBean s/o Newhall Ranch Rd	6A	76000	60000	.79	60000	.79	.00	60,000	.79	.00
42. McBean n/o Newhall Ranch Rd	6	54000	52000	.96	51000	.94	-.02	51,000	94	-.02
43. McBean n/o Decoro	6	54000	41000	.76	40000	.74	-.02	40,000	.74	-.02
50. Newhall Ranch Rd e/o I-5	6A	76000	54000	.71	71000	.93	.22^	69,000	.91	.20^
51. Newhall Ranch Rd w/o Rye	6A	76000	55000	.72	71000	.93	.21^	69,000	.91	.19^
52. Newhall Ranch Rd e/o Rye	6A	76000	56000	.74	55000	.72	-.01	54,000	.71	-.03
53. Newhall Ranch e/o Dickason	6A	76000	66000	.87	69000	.91	.04^	68,000	.89	.02^
54. Newhall Ranch Rd e/o McBean	6A	76000	69000	.91	71000	.93	.03^	71,000	.93	.02^
55. Newhall Ranch e/o Bouquet	6A	76000	51000	.67	50000	.66	-.01	50,000	.66	-.01
56. Castaic n/o Newhall Ranch Rd	4	32000	7000	.22	6000	.19	-.03	6,000	.19	-.03
57. Castaic s/o Commerce Cnt Dr	4	32000	5000	.16	6000	.19	.03	6,000	.19	.03
58. Castaic n/o Commerce Cnt Dr	4	32000	5000	.16	5000	.16	.00	5,000	.16	.00
61. Franklin e/o Commerce Cnt Dr	4	32000	2000	.06	3000	.09	.03	3,000	.09	.03
63. Rye e/o I-5	6	54000	36000	.67	39000	.72	.06	39,000	.72	.05
64. Rye e/o Scott	6	54000	50000	.93	48000	.89	-.04	48,000	.89	-.04
65. Copperhill e/o Newhall Ranch	6A	76000	66000	.87	65000	.86	-.01	65,000	.86	-.01
66. Copperhill n/o Decoro	6	54000	31000	.57	32000	.59	.02	32,000	.59	.02
67. Copperhill e/o McBean	6	54000	44000	.81	44000	.81	.00	44,000	.81	.00
68. Copperhill e/o Seco	4	32000	17000	.53	17000	.53	.00	17,000	.53	.00
69. Copperhill e/o Haskell	4	32000	13000	.41	13000	.41	.00	13,000	.41	.00
70. Decoro e/o Copperhill	4	32000	19000	.59	22000	.69	.09	23,000	.72	.13
71. Decoro e/o Dickason	4	32000	26000	.81	25000	.78	-.03	25,000	.78	-.03
72. Decoro e/o McBean	4	32000	21000	.66	21000	.66	.00	21,000	.66	.00
73. Haskell n/o Bouquet	4	32000	14000	.44	14000	.44	.00	14,000	.44	.00
74. Seco n/o Decoro	4	32000	18000	.56	19000	.59	.03	19,000	.59	.03
75. Seco s/o Decoro	4	32000	25000	.78	25000	.78	.00	25,000	.78	.00
76. Bouquet e/o Haskell	6	54000	38000	.70	38000	.70	.00	38,000	.70	.00
77. Bouquet e/o Rio Vista	6	54000	51000	.94	51000	.94	.00	51,000	.94	.00

(Continued)

Table A-1 (cont)
LONG-RANGE ADT VOLUME SUMMARY - ALTERNATIVE HIGHWAY PLAN

			INFORMATION FROM FEIR[1]					REVISED INFORMATION[2]		
			NO-PROJECT		WITH-PROJECT		PROJECT	WITH PROJECT		PROJECT
LOCATION*	LANES	CAPACITY	VOL	V/C	VOL	V/C	CONTR.	VOL	V/C	CONTR.
78. Bouquet n/o Newhall Ranch	6A	76000	67000	.88	68000	.89	.01[A]	68,000	.89	.01[A]
79. Bouquet s/o Newhall Ranch	8A	80000	79000	.99	80000	1.00	.01[A]	80,000	1.00	.01[A]
80. Bouquet n/o Magic Mtn	6	54000	36000	.67	39000	.72	.06	39,000	.72	.05
81. San Fernando s/o Magic Mtn	6	54000	42000	.78	42000	.78	.00	42,000	.78	.00
82. San Fernando s/o Wiley	6	54000	37000	.69	37000	.69	.00	37,000	.69	.00
83. San Fernando n/o Placerita	6	54000	35000	.65	35000	.65	.00	35,000	.65	.00
84. San Fernando s/o Placerita	6	54000	31000	.57	31000	.57	.00	31,000	.57	.00
85. San Fernando s/o Lyons	6	54000	29000	.54	28000	.52	-.02	28,000	.52	-.02
86. Ave Scott e/o Rye	4	32000	12000	.38	15000	.47	.09	15,000	.47	.09
87. Ave Scott e/o Dickason	4	32000	15000	.47	16000	.50	.03	16,000	.50	.03
88. Magic Mtn e/o I-5	6A	76000	65000	.86	72000	.95	.09[A]	73,000	.96	.10[A]
89. Magic Mtn e/o Tourney	6A	76000	64000	.84	72000	.95	.11[A]	71,000	.96	.12[A]
90. Magic Mtn e/o McBean	6A	76000	57000	.75	61000	.80	.05[A]	60,000	.79	.04[A]
91. Magic Mtn e/o Valencia	6A	76000	56000	.74	59000	.78	.04[A]	58,000	.76	.02[A]
92. Magic Mtn c/o San Fern	6	54000	48000	.63	47000	.87	.24	46,000	.85	.22
93. Tourney n/o Valencia	4	32000	20000	.63	19000	.59	-.03	19,000	.59	-.04
94. Rockwell s/o Valencia	4	32000	24000	.75	27000	.84	.09	27,000	.84	.09
95. Tournament s/o McBean	4	32000	12000	.38	12000	.38	.00	12,000	.38	.00
96. Valencia e/o I-5	6A	76000	52000	.68	56000	.74	.05[A]	56,000	.74	.06[A]
98. Valencia e/o Rockwell	6A	76000	72000	.95	75000	.99	.04[A]	75,000	.99	.04[A]
99. Valencia e/o McBean	6A	76000	59000	.78	62000	.82	.04[A]	62,000	.82	.04[A]
100. Valencia n/o Magic Mtn	6A	76000	71000	.93	72000	.95	.01[A]	72,000	.95	.02[A]
101. Soledad e/o Bouquet	6	54000	37000	.69	40000	.74	.06	39,000	.72	.03
102. Wiley s/o Lyons	4	32000	20000	.63	24000	.75	.13	24,000	.75	.12
103. Wiley n/o Lyons	6	54000	36000	.67	40000	.74	.07	40,000	.74	.07
104. Wiley e/o Tournament	6	54000	29000	.54	32000	.59	.06	33,000	.61	.07
105. Wiley e/o Orchard Village	6	54000	42000	.78	42000	.78	.00	42,000	.78	.00
106. Via Princessa e/o San Fern	6	54000	41000	.76	41000	.76	.00	41,000	.76	.00
107. Via Princessa e/o Magic Mtn	6	54000	51000	.94	50000	.93	-.01	49,000	.91	-.03
108. 15th St e/o Orchard Village	4	32000	9000	.28	9000	.28	.00	9,000	.28	.00
109. Newhall n/o Lyons	4	32000	4000	.13	4000	.13	.00	4,000	.13	.00

(Continued)

Table A-1 (cont)
LONG-RANGE ADT VOLUME SUMMARY - ALTERNATIVE HIGHWAY PLAN

			INFORMATION FROM FEIR[1]					REVISED INFORMATION[2]		
			NO-PROJECT		WITH-PROJECT		PROJECT	WITH PROJECT		PROJECT
LOCATION*	LANES	CAPACITY	VOL	V/C	VOL	V/C	CONTR.	VOL	V/C	CONTR.
110. Newhall s/o Lyons	4	32000	25000	.78	26000	.81	.03	26,000	.81	.03
111. San Fernando e/o Newhall	6	54000	49000	.91	48000	.89	-.02	47,000	.87	-.04
112. Orchard Village s/o McBean	6	54000	43000	.80	49000	.91	.11	49,000	.91	.11
113. Orchard Village s/o Wiley	6	54000	29000	.54	29000	.54	.00	29,000	.54	.00
114. Orchard Village s/o Lyons	4	32000	7000	.22	7000	.22	.00	7,000	.22	.00
115. Lyons e/o I-5	6	54000	49000	.91	55000	1.02	.11[P]	54,000	1.00	.09
116. Lyons e/o Wiley	6	54000	43000	.80	45000	.83	.04	45,000	.83	.03
117. Lyons e/o Orchard Village	6	54000	44000	.81	47000	.87	.06	46,000	.85	.04
118. Lyons w/o San Fernando	6	54000	18000	.33	20000	.37	.04	19,000	.35	.02
119. McBean e/o Orchard Village	6	54000	33000	.61	35000	.65	.04	35,000	.65	.04
122. Dockweiler e/o San Fernando	4	32000	16000	.50	18000	.56	.06	18,000	.56	.06
124. Dickason s/o Decoro	4	32000	7000	.22	10000	.31	.09	10,000	.31	.09
126. Bouquet e/o Seco	6A	76000	49000	.64	50000	.66	.01	50,000	.66	.02
128. Newhall Ranch w/o Bouquet	6A	76000	71000	.93	72000	.95	.01[A]	72,000	.95	.02[A]
129. Newhall Ranch e/o B St	6	54000	27000	.50	26000	.49	-.01	26,000	.49	-.01
130. NRR e/o Santa Clarita Pkwy	6A	76000	54000	.71	55000	.72	.01[A]	55,000	.72	.01[A]
131. NRR e/o Porta Bella	6A	76000	46000	.60	47000	.61	.01	47,000	.62	.02
132. NRR e/o Golden Valley	6A	76000	47000	.62	49000	.65	.03	49,000	.64	.02
135. Golden Valley e/o MMP	4	32000	23000	.72	22000	.69	-.03	22,000	.69	-.03
136. Golden Valley e/o NRR	4	32000	12000	.38	15000	.47	.09	15,000	.47	.09
137. Golden Valley n/o Soledad	6	54000	29000	.54	29000	.54	.00	30,000	.56	.02
139. B St w/o Rio Vista	4	32000	24000	.75	24000	.75	.00	24,000	.75	.00
140. B St e/o Rio Vista	4	32000	24000	.75	24000	.75	.00	24,000	.75	.00
141. Rio Vista s/o B St	6	54000	30000	.56	31000	.57	.02	31,000	.57	.01
142. Santa Clarita n/o B St	6	54000	30000	.56	31000	.57	.02	31,000	.57	.01
143. Soledad w/o Golden Valley	6	54000	25000	.46	21000	.39	-.07	21,000	.39	-.07
151. Via Princessa w/o MMP	6	54000	20000	.37	20000	.37	.00	20,000	.37	.00
155. MMP e/o Golden Valley	6	54000	44000	.81	43000	.80	-.02	42,000	.78	-.03
156. MMP s/o Via Princessa	4	32000	16000	.50	16000	.50	.00	16,000	.50	.00
159. Sierra Hwy e/o San Fern	6	54000	32000	.59	35000	.65	.06	35,000	.65	.06

(Continued)

Table A-1 (cont)
LONG-RANGE ADT VOLUME SUMMARY - ALTERNATIVE HIGHWAY PLAN

			INFORMATION FROM FEIR[1]					REVISED INFORMATION[2]		
			NO-PROJECT		WITH-PROJECT		PROJECT	WITH PROJECT		PROJECT
LOCATION*	LANES	CAPACITY	VOL	V/C	VOL	V/C	CONTR.	VOL	V/C	CONTR.
191. North of Hasley	4	32000	1000	.03	1000	.03	.00	1,000	.03	.00
194. Copperhill w/o McBean	6	54000	34000	.63	36000	.67	.04	35,000	.65	.02
196. Porta Bella s/o NRR	4	32000	20000	.63	20000	.63	.00	20,000	.63	.00
197. MMP e/o Porta Bella	6	54000	41000	.54	36000	.67	.13	36,000	.67	.13
198. "E" St e/o Valley	2	16000	5000	.31	5000	.31	.00	5,000	.31	.00
199. Golden Valley n/o Via Princessa	4	32000	18000	.56	18000	.56	.00	18,000	.56	.00

[1] Previous FEIR project impact data
[2] Approved project together with revised SR-126 cordon volumes from Ventura County Model
[P] Project Impact - Project causes V/C to exceed 1.00
[C] Contribution - No-project and with-project V/C exceeds 1.00
[A] Augmented Capacity Impact - Adds to the need for capacity augmentation
6A - Augmented capacity
* A reference map for the link numbering system can be found in Appendix C

Level of service ranges: .00 - .60 A
.61 - .70 B
.71 - .80 C
.81 - .90 D
.91 - 1.00 E
Above 1.00 F