Montecito Ranch

APPENDIX B

TRAFFIC IMPACT ANALYSIS
(Volume 1 of 3 - Traffic Impact Analysis Report)

for the

DRAFT FINAL ENVIRONMENTAL IMPACT REPORT
SP01-001; VTM 5250RPL6; P04-045; P09-023; GPA 04-013; R04-022;
STP 08-019; ER 09-013; Log No. 01-09-013; SCH No. 2002021132

April 2010

APPENDIX B – TRAFFIC IMPACT ANALYSIS
INFORMATION FOR THE READER

This document consists of the Traffic Impact Analysis (TIA) for the Montecito Ranch Project (Proposed Project or Project) and analyzes traffic-related elements associated with operation of the Project. Since circulation of the Draft Environmental Impact Report (EIR) of the Proposed Project and associated technical reports, there have been some changes in Project description.

The TIA that circulated with the Draft EIR indicated that a 10.6-acre future school site would be located off of future Montecito Ranch Road in the vicinity of the proposed parks and wastewater reclamation facility. At this time, this use is being eliminated from the Final EIR, and hence the TIA. Any graphic or text references to the future school site should be ignored by the reader. Upon Project approval, the future school site will be excluded from the Project and placed into open space. This alteration in the Project description would not change the conclusion with regard to the level of significance of impacts because removal of the future school site and placement into open space would be beneficial in that the Project would result in 780 fewer average daily trips (ADT).

The above-cited revision is now included as part of the public record and will be before the Board of Supervisors during their consideration of the Project.

TRAFFIC IMPACT ANALYSIS

for

MONTECITO RANCH (TM 5250)

Prepared for

THE COUNTY OF SAN DIEGO

AND

MONTECITO RANCH, LLC

April 24, 2008

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N. Staff Recommended 2020 Circulation Element Amendments
Onsite Peak Hour Segment Analysis for Montecito Ranch Road

EXECUTIVE SUMMARY

Urban Systems Associates, Inc. was retained to evaluate traffic impacts from the Montecito Ranch (TM 5250) project. The proposed Montecito Ranch project includes 417 single-family residential homes. The project also will provide an 8.3 acre neighborhood park and sites for future development of a 600-student charter high school and an 11.9-acre historical park site. Although not currently proposed for development, school impacts also are evaluated as part of this study. The project is expected to generate 5,885 average daily vehicle trips, with 569 occurring in the AM peak hour and 587 occurring in the PM peak hour.

Based on an evaluation of Existing, Existing plus Project, Existing plus Approved Projects (Near Term), Existing plus Approved Projects plus Project (Near Term plus Project) and Year 2030 Conditions With and Without the Project, the following conclusions were reached:

- Street segments rarely limit traffic flow along a corridor like SR-67 and SR-78. Intersections where there is conflicting cross traffic are usually the cause of delay. Because of this fact, proposed project mitigation focuses on intersection improvements. The Highway Capacity Manual (2000) also recognizes this fact and, therefore, provides corridor evaluation procedures which are based on intersection control delays.

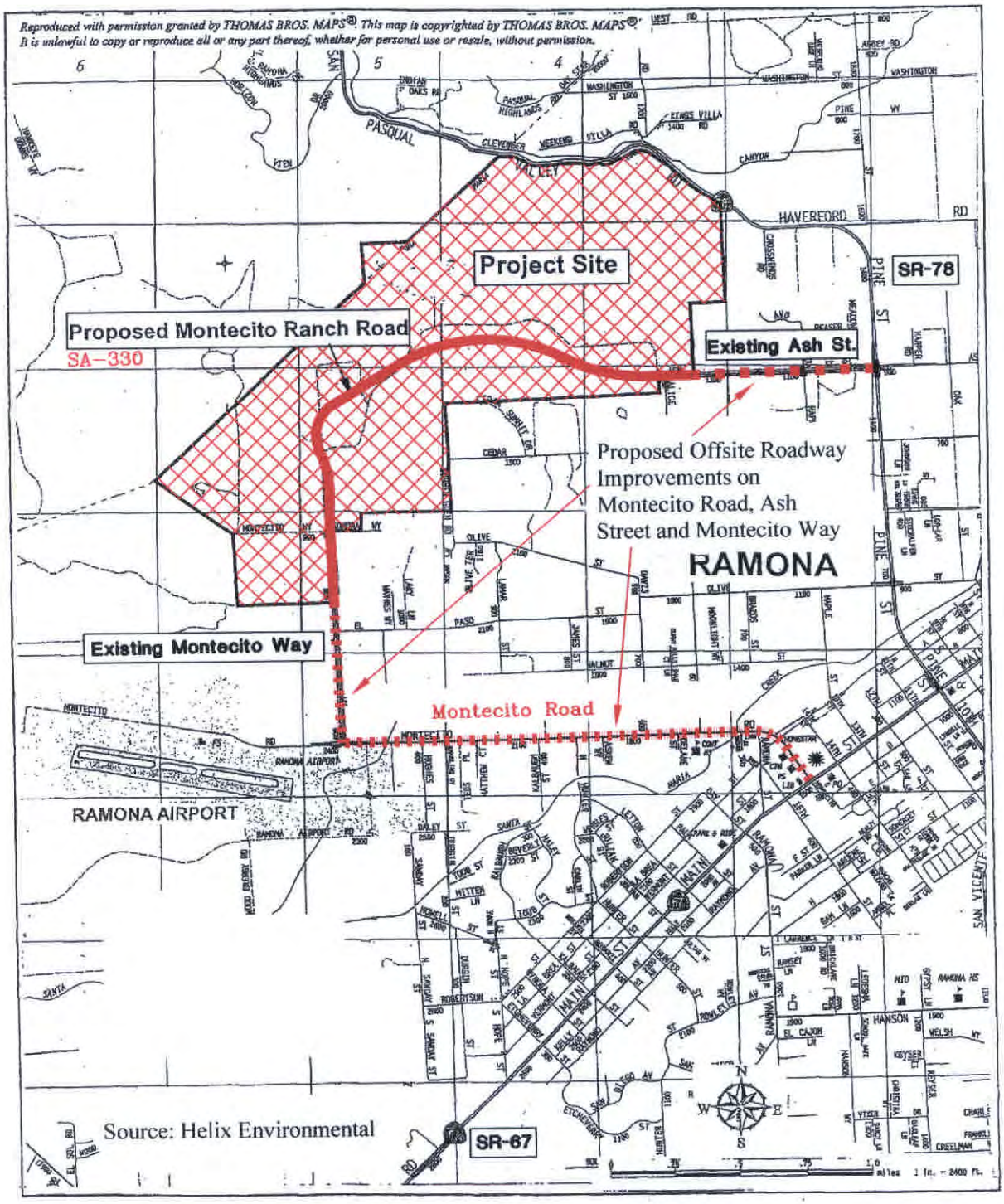


FIGURE ES-1

Project Vicinity Map With Proposed Off-Site Roadway Improvements

- **Table ES-1** shows a summary of intersection direct impacts and recommended mitigation. The table also indicates whether impacts are fully mitigated and whether a statement of overriding considerations is required.

- **Table ES-2** shows a summary of roadway segment direct impacts, and recommended mitigation. The table also indicates whether impacts are fully mitigated and whether a statement of overriding considerations is required.

- **Table ES-3** shows a summary of intersection cumulative impacts, and recommended mitigation. The table also indicates whether impacts are fully mitigated and whether a statement of overriding considerations is required.

- **Table ES-4** shows a summary of roadway segment cumulative impacts, and recommended mitigation. The table also indicates whether impacts are fully mitigated and whether a statement of overriding considerations is required.

- **Table ES-5** summarizes the "after mitigation" levels of service which may be expected at intersections mitigated by the Montecito Ranch project. **Figures ES-2** through **ES-6** show mitigation which is proposed for each significantly impacted intersection. Please note that **Appendix M** includes full D sheet size (24" x 36") p rints for the intersection mitigation. For more details regarding the improvements, transitions and related information please refer to these larger scale drawings.

TABLE ES-1

Summary of Significant Direct Intersection Impacts and Mitigation

Location	Intersection	Significant Direct Impact?(1)	Mitigation	Impact Fully Mitigated?	Override Required?
1.	Ash St. / Pine St. (SR-78)	Yes	Southbound right turn lane to westbound (as a community improvement; not required as mitigation); signalize and add eastbound right turn lane*	Yes	No
2.	Pine St (SR-78) / Olive St.	Yes	Signalize existing intersection (by Caltrans)*	Yes**	No
3.	Pine St. (SR-78) / Main St. (SR-67)	Yes	Widen and re-stripe north leg to add a right turn lane & modify signal*	Yes	No
4.	Main St.(SR-67) / Montecito Rd.	Yes	Optimize signal timing and re-stripe to add southbound to westbound right turn lane*	Yes	No
5.	Montecito Rd. / Montecito Wy.	No	N/A	N/A	N/A
6.	Main St. (SR-67) / Highland Valley Rd. / Dye Rd.	Yes	Construct Northbound dual left turn lanes	Yes	Yes
7.	Main St. (SR-67) / Archie Moore Rd.	Yes	Signalize existing intersection*	Yes	No

Notes:
(1) From **Table 12-4**
* Proposed mitigation would mitigate both direct and cumulative impacts.
** Based upon Board Policy J-34, where mitigation is assumed by others, if the recommended mitigation is not in place at the time project impacts occur, the project will provide the mitigation subject to reimbursement, except for the project's fair share contribution.

Note: All State Highway improvement plans and improvements will need to be approved by both the County and Caltrans.

TABLE ES-2

Summary of Roadway Significant Direct Segment Impacts and Mitigation

Road	Segment	Significant Direct Impact? (1)	Mitigation	Impact Fully Mitigated?	Override Required?
1. Pine Street (SR-78/10th Street)	Haverford Road to H Street	Yes	Widen to 4 Lane Major	No**	Yes
2. Montecito Way	Montecito Ranch Road to Montecito Road	Yes	Widen to Rural Light Collector*	Yes	No
3. Ash Street	Montecito Ranch Road to Pine Street (SR-78)	Yes	Widen to Rural Light Collector*	Yes	No
4. Montecito Road	Montecito Way to Main Street (SR-67)	Yes	Widen to a Rural Light Collector*	Yes	No
5. Main Street (SR-67)	Hunter Street to Poway Road	Yes	Widen to 4 Lane Major	No**	Yes

Notes:

(1) From **Table 12-1**

* Proposed mitigation would mitigate both direct and cumulative impacts.

** Road segment widening is not being proposed. The intersection improvements for SR-78/Ash Street, SR-78 / Olive Street, SR-78 / Main Street will partially mitigate segment impacts. A statement of overriding considerations will be required for Pine Street and Main Street.

TABLE ES-3

Summary of Intersection Cumulative Impacts and Mitigation

Location	Intersection	Significant Cumulative Impacts? (1)	Mitigation	Impact Fully Mitigated?	Override Required?
1.	Ash St. / Pine St. (SR-78)	Yes	Southbound right turn lane to westbound (as a community improvement; not required as mitigation); signalize and add eastbound right turn lane*	Yes	No
2.	Pine St (SR-78). / Olive St.	Yes	Signalize existing intersection (by Caltrans)*	Yes**	No
3.	Pine St. (SR-78) / Main St. (SR-67)	Yes	Widen and restripe north leg to add a right turn lane; modify signal*	Yes	No
4.	Main St.(SR-67) / Montecito Rd.	Yes	Optimize signal timing and re-stripe to add southbound to westbound right turn lane*	Yes	No
5.	Montecito Rd. / Montecito Wy.	No	N/A	N/A	N/A
6.	Main St. (SR-67) / Highland Valley Rd. / Dye Rd.	Yes	Construct Northbound dual left turn lanes or fair share contribution to TIF project A-09	Yes	No
7.	Main St. (SR-67) / Archie Moore Rd.	Yes	Construct traffic signal*	Yes	No

Notes:
(1) From **Table 12-6**
* Proposed mitigation would mitigate both direct and cumulative impacts.
** Based upon Board Policy J-34, where mitigation is assumed by others, if the recommended mitigation is not in place at the time project impacts occur, the project will provide the mitigation subject to reimbursement except for the project's fair share contribution.
Note: All State Highway improvement plans and improvements will need to be approved by both the County and Caltrans.

TABLE ES-4

Summary of Roadway Significant Cumulative Segment Impacts and Mitigation

Road	Segment	Significant Cumulative Impact? (1)	Mitigation	Impact Fully Mitigated?	Override Required?
1. Pine Street (SR-78/10th Street)	Haverford Road to H Street	Yes	Amend TIF to include widening.** Fair share contribution to TIF; widen to 4 Lane Major	Yes*	No
2. Montecito Way	Montecito Ranch Road to Montecito Road	Yes	Widen to Rural Light Collector •	Yes	No
3. Ash Street	Montecito Ranch Road to Pine Street (SR-78)	Yes	Widen to Rural Light Collector •	Yes	No
4. Montecito Road	Montecito Way to Main Street (SR-67)	Yes	Widen to Rural Light Collector •	Yes	No
5. Main Street (SR-67)	10th Street to Poway Road	Yes	Fair share contribution to TIF; widen to 4 Lane Major	No***	Yes

Notes:

(1) From **Table 12-3**

* Road segment widening is not being proposed. The intersection improvements for SR-78/Ash Street, SR-78/Olive Street, SR-78/Main Street will partially mitigate segment impacts. A statement of overriding considerations will be required for Pine Street and Main Street.

** If TIF is not amended then a statement of overriding considerations will be required.

*** A project contribution to the TIF will mitigate impacts to SR-67 within in the Ramona boundary. From the Ramona boundary to Poway Road, a statement of overriding considerations will be required.

• Proposed mitigation would mitigate both direct and cumulative impacts.

TABLE ES-5

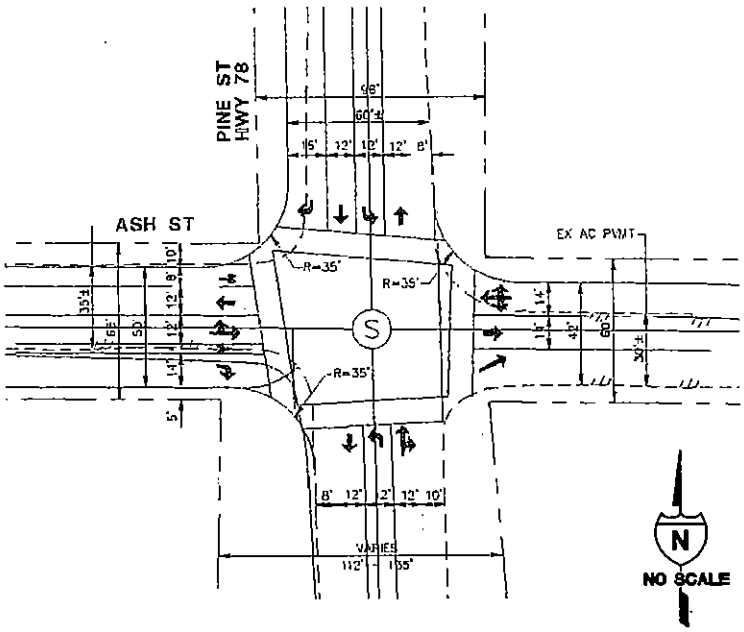
Existing + Project Intersection Levels of Service

(With Project Mitigation)

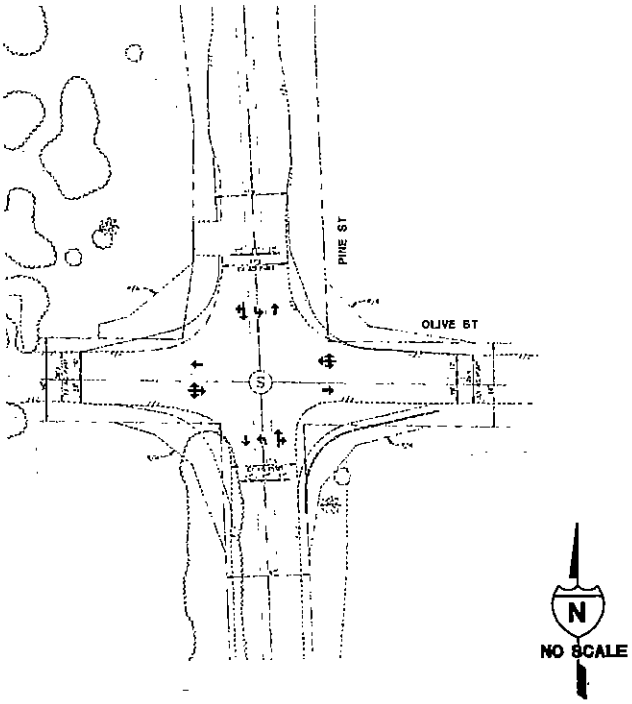
Number	Intersection	AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS
1	Ash Street at Pine Street (SR-78)	24.7	C	32.5	C
2	Pine Street (SR-78) at Olive Street	9.6	A	11.2	B
3	Pine Street (SR-78) at Main Street (SR-67)	40.7	D	49.6	D
4	Main Street (SR-67) at Montecito Road	31.1	C	38.3	D
5	Montecito Way at Montecito Road	10.4	B	10.3	B
6	SR-67 at Highland Valley Road / Dye Road	33.5	C	20.9	C
7	SR-67 at Archie Moore Road	5.5	A	10.7	B

Notes:

LOS = Level of Service



Intersection 1* - Ash Street at Pine Street (SR-78)

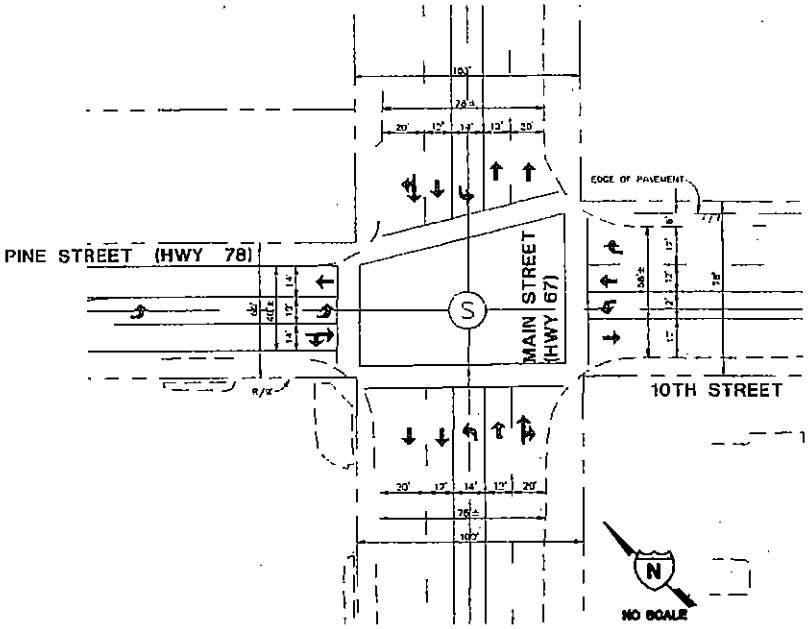


*For details, please refer to Appendix M for 24x36 large scale drawings at each location.

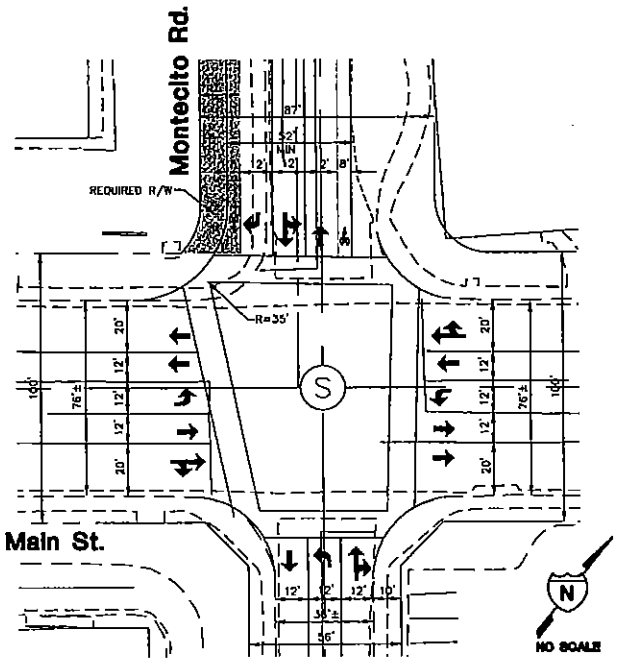
SOURCE
Stevens Cresto Engineering

Intersection 2* - Pine Street (SR-78) at Olive Street

FIGURE ES-2
Intersection Improvements



Intersection 3*- Pine Street (SR-78) at Main Street (SR-67)



*For details, please refer to Appendix M for 24x36 large scale drawings at each location.

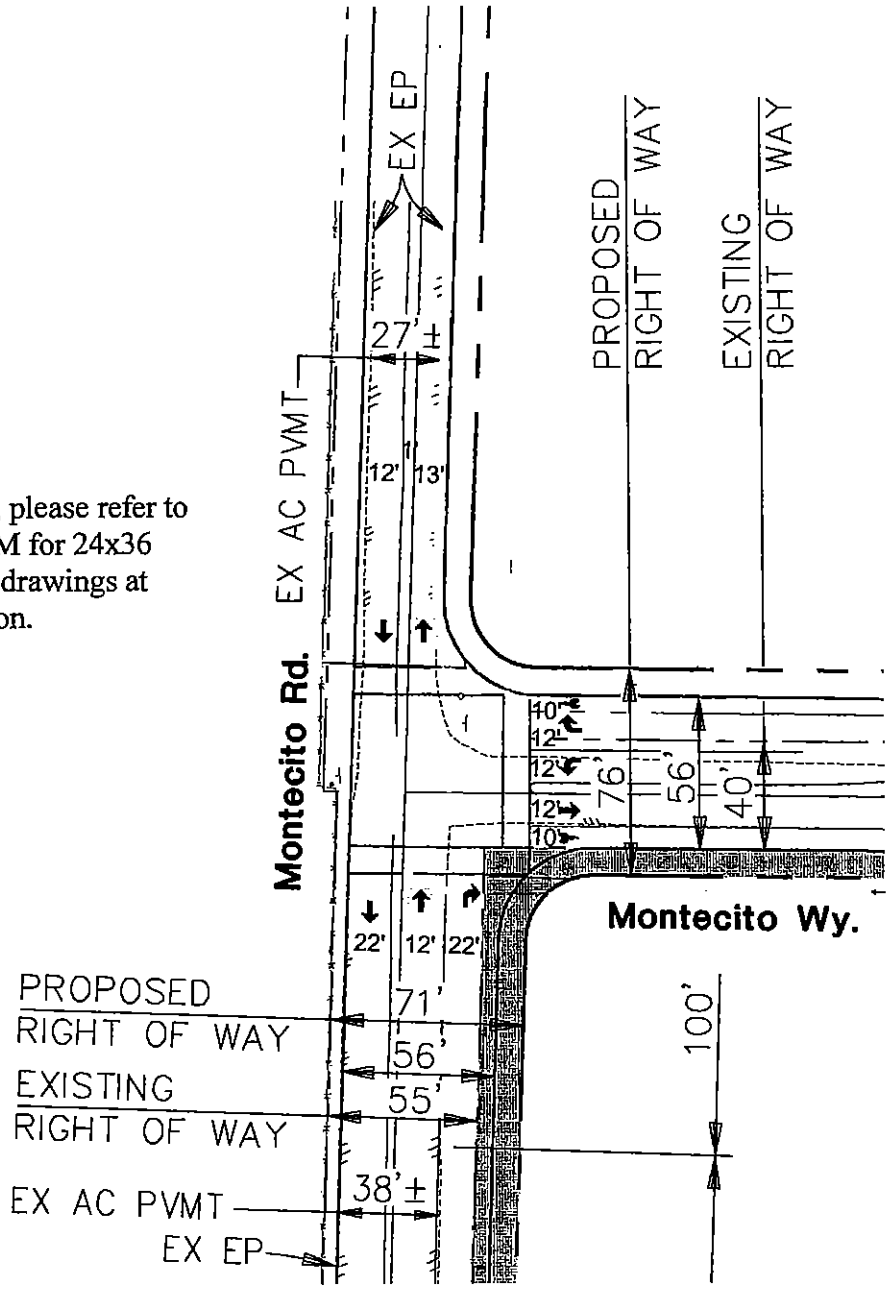
SOURCE
Stevens Cresto Engineering

Intersection 4*- Main Street (SR-67) at Montecito Road

FIGURE ES-3

Intersection Improvements

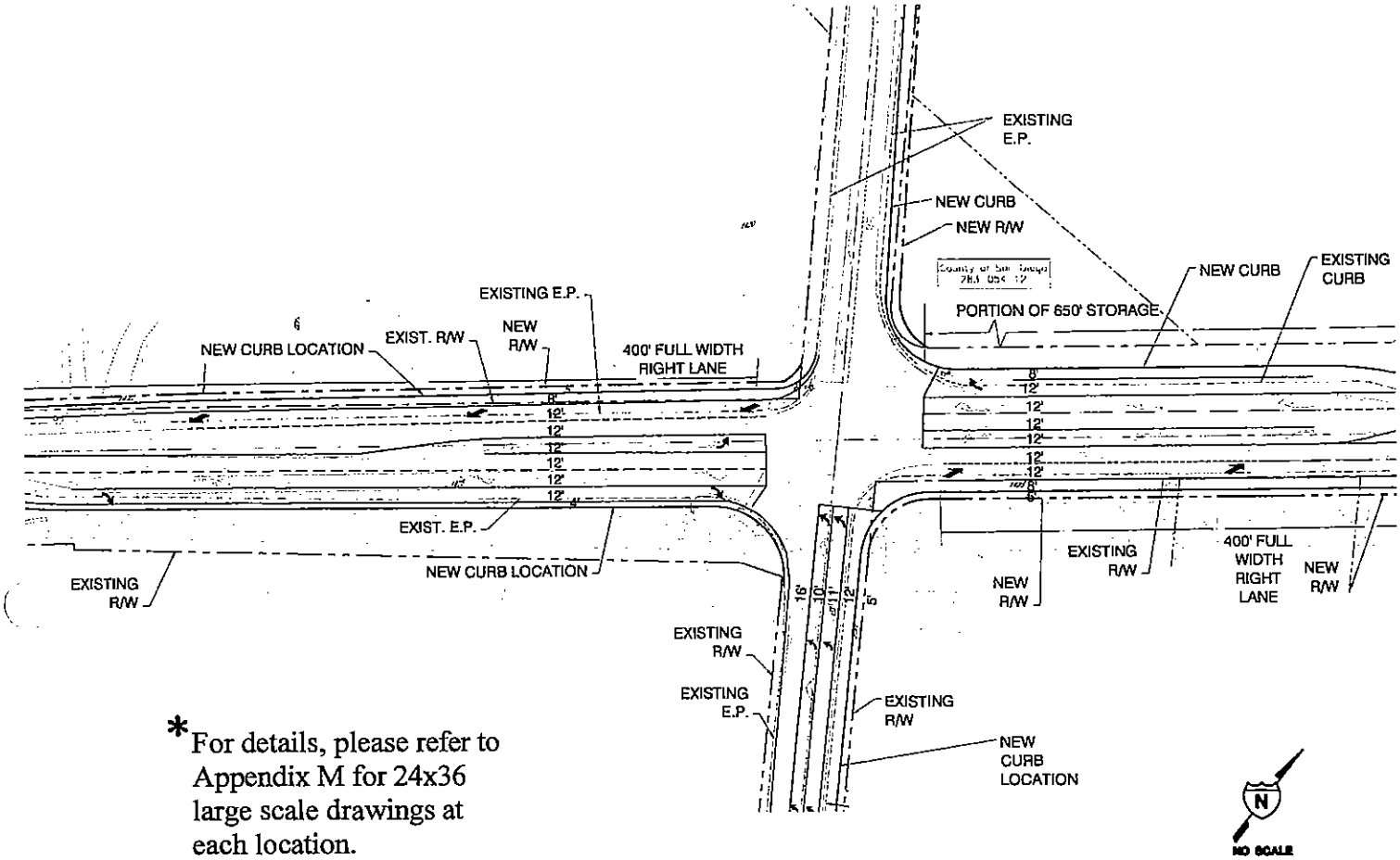
*For details, please refer to Appendix M for 24x36 large scale drawings at each location.



Intersection 5* - Montecito Way at Montecito Road

N
NO SCALE

FIGURE ES-4
Intersection Improvements

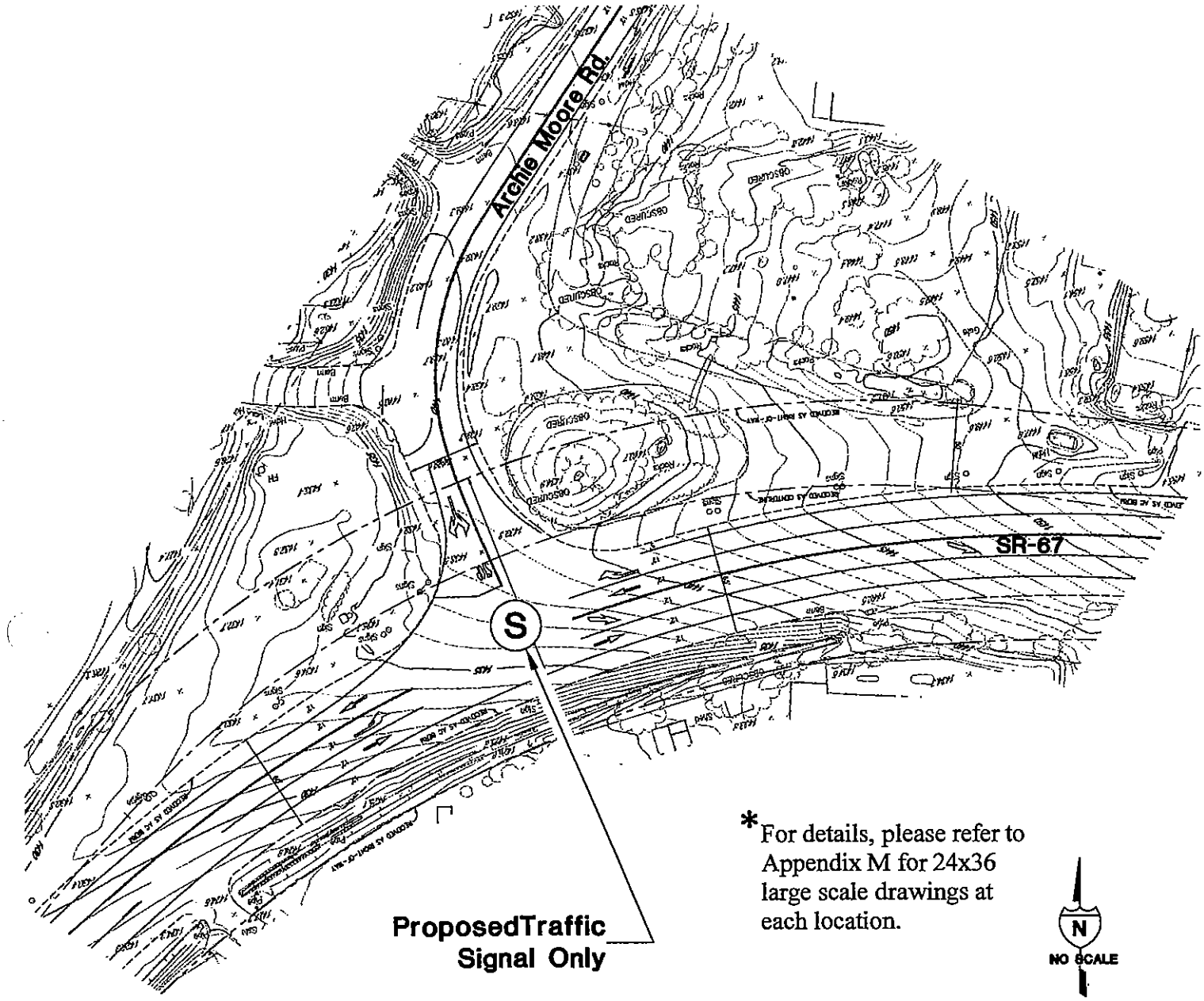


*For details, please refer to Appendix M for 24x36 large scale drawings at each location.

Intersection 6*- SR-67 at Highland Valley Road / Dye Road

SOURCE
Stevens Cresto Engineering

FIGURE ES-5
Intersection Improvements



Intersection 7* - Main Street (SR-67) at Archie Moore Road

SOURCE
Stevens Cresto Engineering

FIGURE ES-6
Intersection Improvements

- Except for intersection improvements which would not fully mitigate direct project impacts to roadway segments, as noted in the preceding tables mitigation is not being proposed for road segment impacts on SR-78 and SR-67. Chapter 12 of this report discusses these impacts and mitigation in more detail. Full "D" sheet size (24" x 36") drawings showing proposed intersection improvements are included in **Appendix M.**

- It should also be noted that the project will pay its fair share contribution toward the cost of mitigating cumulative segment impacts by amending and paying the Transportation Development Impact Fee (TIF). If amending the TIF is not accomplished, then overriding considerations will be required for the project cumulative impacted segments on SR-78. These fees may be used to mitigate cumulative segment impacts with the exception of a segment on SR-67 from the Ramona boundary to Poway Road, which is not covered under the TIF program. Direct segment impacts for SR-67 and SR-78 will not be mitigated, therefore findings and a statement of overriding considerations will be required for these segments.

- Subsequent to completion of the Project TIA and immediately preceding public review, traffic review in the community of Ramona indicated that cumulative impacts could occur at two additional intersections (SR 78/Magnolia Avenue and SR 67/14th Street). It is possible that the Proposed Project would not generate a cumulatively considerable contribution to this regional impact. Nonetheless, taking a conservative view, it is assumed that the Project's contribution to the cumulative condition would be significant. Mitigation at these two intersections is discussed below.

- To mitigate impacts to SR 78/Magnolia Avenue, the Project Applicant will make a fair-share contribution via payment toward another proposed project according to Board Policy J-25 or pay into the TIF program prior to occupancy of the 281st house on site. Required mitigation at this location is to be provided by TM 4962 by adding one lane north of SR-78 for a distance of approximately 175 feet plus a 90 foot transition. Estimated project cost is $50,000. TIF fees should cover the cost for this improvement.

- With regard to the SR 67/14th Street impact, the Project Applicant will make a fair-share contribution via payment toward another proposed project according to Board Policy J-25 or pay into the TIF program prior to occupancy of the 281st house on site. Improvements at this location may include a new north to eastbound right turn lane, a minor signal modification and curb returns at all corners. Cost for improvements are about $200,000. Based on J-25, a project fair share contribution would be $17,028.

- As discussed above, the cumulatively considerable contribution to impacts to SR 78/Magnolia Avenue and SR 67/14th Street, which has been conservatively assessed, would be mitigated through a fair-share contribution via payment toward another proposed project according to Board Policy J-25 or pay into the TIF program prior to occupancy of the 281st house on site.

1.0 INTRODUCTION

The Montecito Ranch LLC proposes a Specific Plan, consisting of the development of 417 single-family residential lots, a 600-student charter high school site, a neighborhood park with a trail staging/parking area and a historic park site with a ranch house. The proposed project also would include either a wastewater treatment facility on site or connect to an existing treatment plant off site. Neither of these wastewater treatment options would result in traffic generation. The project (TM 5250) proposes to provide access to the surrounding roadway system via Montecito Ranch Road, which will be constructed through the site. The connection would provide roadway access to SR-78 via Ash Street from the north, and to the south via Montecito Way which would connect to Montecito Road. The project will widen Montecito Road between Montecito Way and SR-67. The project will also widen Montecito Way and Ash Street. This report provides a full analysis for the proposed project with access via Ash Street and Montecito Road.

The County recently completed constructing and improving a new 16th Street/La Brea connection between Montecito Road and Main Street. This important improvement has provided more direct access for existing uses and allows Montecito Road to function at an improved level of service. The Specific Plan Area covers approximately 935 acres in the community of Ramona to the northwest of the downtown area. The site is vacant, and mainly consists of rolling hills and a large flat valley. **Figure 1-1** shows the project location in a regional context.

This study evaluates existing, near-term (Year 2010) and long-term (Year 2030) daily and peak hour traffic. Some circulation system improvements are identified to ensure acceptable operating conditions on most of the roadways and intersections within the study area.

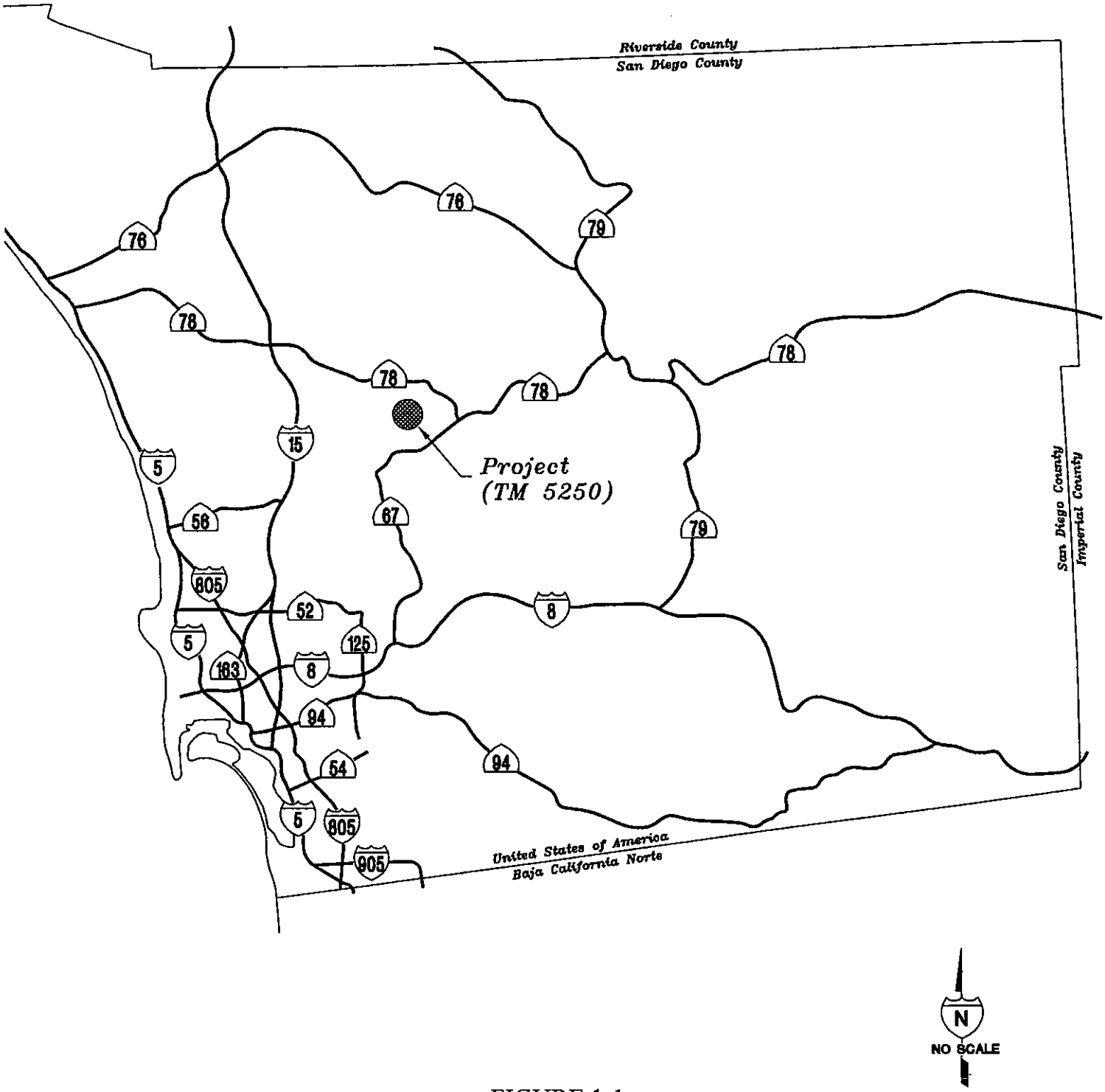
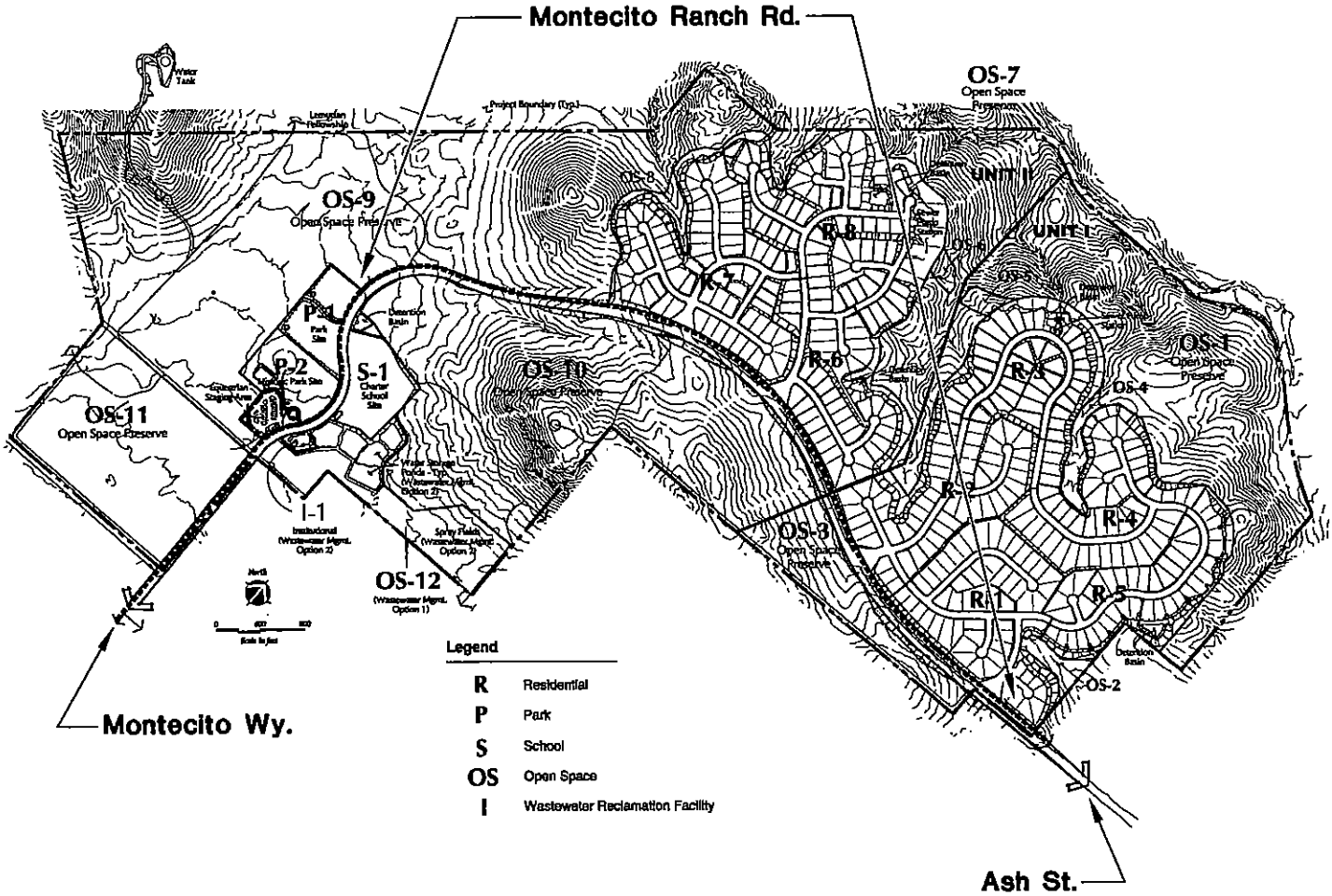


FIGURE 1-1
Project Vicinity Map

2.0 PROPOSED PROJECT

The project proposes to develop 417 single-family residential lots and a neighborhood park. The site also would provide land for a 600-student charter high school, and an historic ranch house site with an equestrian staging/parking area, see **Figure 2-1**. Montecito Ranch Road will be constructed within portions of the project as a "special" Rural Light Collector, and would connect Ash Street with Montecito Way. **Figure 2-2** illustrates the "Special"cross section proposed for Montecito Ranch Road. As shown, a 20 foot wide landscaped median is proposed to be added to the standard Rural Light Collector cross section. Existing Montecito Road east of Montecito Way will be improved to rural light collector standards to provide project access to SR-67 (Main Street). Also both existing Montecito Way and Ash Street will be improved to Rural Light Collector standards except as noted in the Tentative Map. A more complete project description and its various components is included as discussed in the Draft Environmental Impact Report (DEIR).

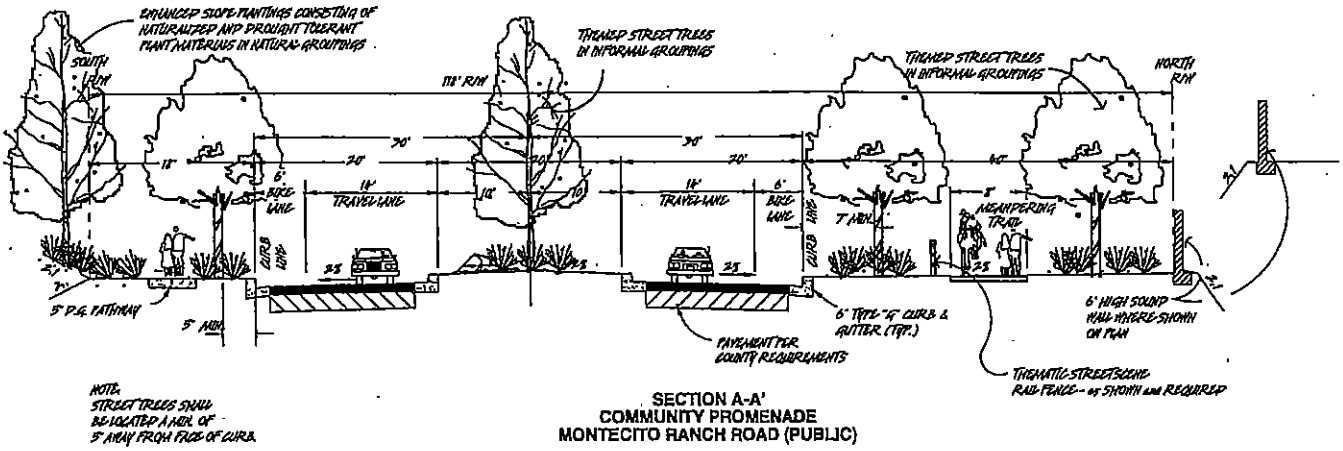
The Proposed Project would include development of a rural residential community consisting of 417 single-family residential units on lots ranging from 0.5 to 1.8 acres, with a total residential development area of approximately 293.5 acres. Horses would be allowed within lots 1 through 30 in the eastern portion of the site. The Proposed Project would develop and dedicate an 8.3-acre local park, as well as dedicate land for an 11.9-acre historic park site surrounding the existing historic Montecito Ranch House and a 10.6-acre charter high school site. The southern portion of the historic park site would include equestrian facilities, as well as act as an overflow parking area for the parks and school sites. The Proposed Project



SOURCE

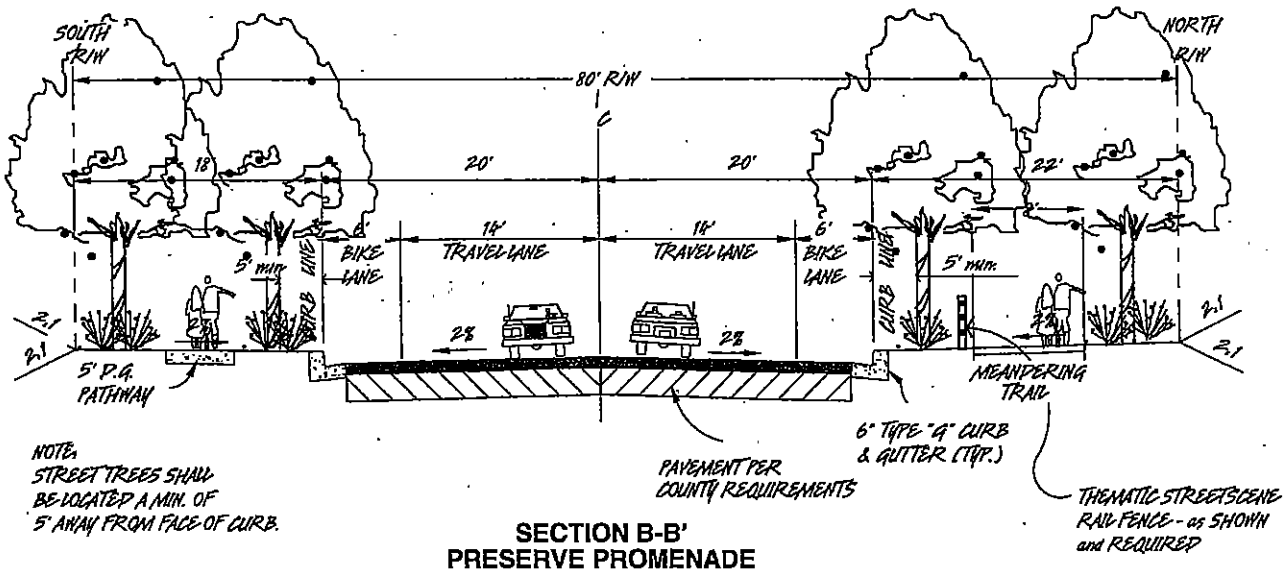
Site Plan Provided By:
Development Design Services &
GraphicAccess, Inc.

FIGURE 2-1
Project Site Plan



SECTION A-A'
COMMUNITY PROMENADE
MONTECITO RANCH ROAD (PUBLIC)

FROM CITY PROJECT ENTRY TO "K" STREET
NO SCALE



SECTION B-B'
PRESERVE PROMENADE
MONTECITO RANCH ROAD (PUBLIC)

LOT 392 TO EXIST. MONTECITO WAY
NO SCALE

SOURCE

Montecito Ranch Specific Plan
Figure 16

FIGURE 2-2

Montecito Ranch Road Special Cross Sections

would include the extension of a sewer main off-site from the southwestern corner of the site southerly on Montecito Way, easterly on Montecito Road, and southerly on Kalbaugh Street to an existing manhole just south of the southern terminus of Kalbaugh Street that flows to the Santa Maria Wastewater Treatment Plant. The other option available to the Project is an on-site wastewater reclamation facility (WRF) to treat all on-site wastewater and utilize the reclaimed water to irrigate on-site public landscaped areas. If the WRF is constructed, a total of 549.1 acres of open space would be preserved on site. If the WRF is not constructed, there would be 573.8 acres within on-site open space. In addition, the Proposed Project would dedicate approximately 29.0 acres for public roadways within the site, including the construction of Montecito Ranch Road between Ash Street and Montecito Way. The Project includes off-site roadway and water improvements to support the SPA development. The proposed off-site roadway improvements include the widening of off-site segments of Ash Street, Montecito Way, and Montecito Road and improvements to the intersections of Ash Street/Pine Street, Main Street/Pine Street, Main Street/Montecito Road, Montecito Road/Montecito Way, SR 67/Highland Valley Road/Dye Road, and SR 67/Archie Moore Road. Off-site water pipeline connections are proposed within Montecito Way and Ash Street. An off-site 0.91- to 1.26-millon gallon water storage tank would be installed just west of the Project site within an adjacent property. An associated pipeline and access road would be constructed from the water storage tank to Montecito Way. An off-site water booster pump station also would be installed at the northwestern corner of the Montecito Road/Montecito Way intersection.

A complete plan to plan comparison and discussion of the adopted Circulation Element (CE), the proposed County 2020 Circulation Plan and the proposed project road system is provided in Section 11.3.

3.0 STUDY METHODOLOGY AND STUDY AREA

3.1 COUNTY OF SAN DIEGO GUIDELINES

Significance criteria and general guidance for this traffic analysis is based on the County of San Diego Guidelines for Determining Significance, Traffic adopted September 26, 2006 and revised effective December 5, 2007. The purpose of these guidelines is to "be used by County staff for the review of discretionary projects and in the review of environmental documents pursuant to the California Environmental Quality Act (CEQA)."

According to the County of San Diego Guidelines, other significant regulations to be considered locally include the Congestion Management Program, County Road Standards, SANTEC/ITE Standards, California Department of Transportation (Caltrans) "Guide for the Preparation of Traffic Impact Studies," and the City of San Diego "Traffic Impact Study Manual."

The County of San Diego Guidelines further establishes criteria for determining project impacts to the road system. Part of this determination involves a discussion of direct vs. cumulative impacts. A direct impact "would result solely from the implementation of the project." A cumulative impact is based on a list of "past, present, and probable future projects" in the area and/or "summary of projects contained in an adopted general plan or related planning document." This means that a cumulative impact would occur as a result of traffic growth both from the project and from other projects in the area. Thus, a direct project impact would occur when considering the Existing + Project condition and cumulative impacts would occur when considering the Existing + Project + Other Projects condition and the 2030 with project condition.

The County Guidelines also provide thresholds for determining significant impacts. **Figure 3-1** shows the County Guidelines for determining the need and extent of a traffic study. As can be seen, a full traffic study for this project is required because more than 2,400 daily trips and 200 peak trips would be generated. **Figure 3-2** shows the County criteria for determining a significant project impact.

3.2 TRIP DISTRIBUTION

The projected trips were distributed based upon the San Diego Association of Governments (SANDAG) select zone assignment (**Appendix A**) and existing traffic flow on County roads in the project vicinity. The SANDAG select zone is a computerized traffic forecast that has been plotted with project only trips from the project zone shown distributed onto the street network. The traffic model works by matching up productions (in this case, residential units) with attractions (retail, education, office, etc.). These productions and attractions exist in certain discrete locations called traffic analysis zones (TAZ) which correspond to existing or proposed locations throughout the County of San Diego. The productions and attractions are based on land use data supplied by various agencies for use in planning situations such as population growth and traffic forecasts for the San Diego Region. SANDAG collects this data and maintains a region wide traffic forecast model. The select zone plot obtained by USAI is just one zone (the project zone) and the plot shows how that zone ties into the surrounding geographic area. This is how project trip distribution percentages are calculated and why they are applied. When appropriate, based on consultation with County and CalTrans staff, adjustments to the project only trip distributions are made. Adjustments to the computer traffic distribution were made based on more detailed analysis using select link data. A full discussion of the adjustments and basis for them is contained in **Appendix A**.

County Staff Criteria for the Need To Prepare a Traffic Impact Study (TIS)

Project Generated Traffic*	Focused TIS Needed	Full TIS Needed	Congestion Management Analysis Needed
Less than 200 Average Daily Trips OR Less than 20 Peak Hour Trips	No	No	No
500 Average Daily Trips OR 50 Peak Hour Trips	Yes	No	No
1,000 Average Daily Trips OR 100 Peak Hour Trips	No	Yes	No
2,400 Average Daily Trips OR 200 Peak Hour Trips	No	Yes	Yes

* Other situations could result in a request for an Issue Specific and/or Focused Traffic Impact Study. These include, but are not limited to, those issues addressed in this report.

NOTE: Analysis of cumulative traffic impacts may require a Traffic Impact Study, even when project generated traffic volumes alone do not.

Guidelines for Determining Significance for Traffic 40

FIGURE 3-1

Guidelines For Determination of Traffic Study Scope

- ***The additional or redistributed ADT generated by the proposed project will significantly increase congestion on a Circulation Element Road, State Highway or intersection currently operating at LOS E or LOS F as identified in Table 1.***

Table 1

Measures of Significant Project Impacts to Congestion
Allowable Increases on Congested Roads and Intersections

Road Segments

	2-LANE ROAD	4-LANE ROAD	6-LANE ROAD
LOS E	200 ADT	400 ADT	600 ADT
LOS F	100 ADT	200 ADT	300 ADT

Intersections

	SIGNALIZED	UNSIGNALIZED
LOS E	Delay of 2 seconds	20 peak hour trips on a critical movement
LOS F	Delay of 1 second, or 5 peak hour trips on a critical movement	5 peak hour trips on a critical movement

Note: A critical movement is one that is experiencing excessive queues.
Note: By adding proposed project trips to all other trips from a list of projects, these same tables are used to determine if total cumulative impacts are significant. If cumulative impacts are found to be significant, each project that contributes any trips must mitigate a share of the cumulative impacts.
Note: The County may also determine impacts have occurred on roads even when a project's traffic or cumulative impacts do not trigger an unacceptable level of service, when such traffic uses a significant amount of remaining road capacity.

The County of San Diego Public Road Standards include a table which establishes levels of service for County Circulation Element roads based upon average daily trips. This table shall be used in determining the level of service for County Circulation Element roads. The Highway Capacity Manual (HCM) includes analysis criteria for the assessment of the level of service for two-lane highways. The Director of Public Works may, based upon a review of the operational characteristics of the roadway, designate that a HCM analysis be used to determine the level of service for a two-lane County arterial in lieu of the level of service table provided in the County of San Diego Public Road Standards.

In determining the level of service for road segments and intersections outside of the County of San Diego's jurisdiction, the level of service standards for the jurisdiction or agency (Caltrans) shall be used. Early coordination with the affected jurisdiction and/or agency (Caltrans) should be conducted during the preparation of the traffic impact study.

FIGURE 3-2

Measures of Significant Project Impacts

The traffic model was run based upon a SA-330 connection as proposed by the County in their 2020 Circulation Element update. A direct SA-330 connection will attract more traffic than an indirect i.e. via Montecito Road and SR-67 connection. This analysis therefore used the same i.e. conservative, SA-330 volumes from the model but manually redistributed to Montecito Road and Main Street southwesterly of the SR-67, Montecito Road connection. As discussed above, this approach provides a conservative (i.e. higher) estimate of traffic on Montecito Road because it is very likely that more traffic was manually diverted to and evaluated on Montecito Road. The impacts on Montecito Road are therefore most likely overstated but fully mitigated by the recommended phase 2 project widening to two lane rural collector standards.

3.3 SEGMENT LOS THRESHOLD

When analyzing street segments, the level of service (LOS) must be determined. LOS is a measure used to describe the conditions of traffic flow. LOS is expressed using letter designations from "A" to "F." LOS "A" represents the best case and LOS "F" represents the worst case. Generally LOS "A" through "C" represents free flowing traffic conditions with little or no delay. LOS "D" represents limited congestion and some delay, however, the duration of periods of delay are acceptable to most people. LOS "E" and "F" represent significant delays on local streets which are generally not accepted for urban design purposes. The LOS descriptions are from Chapter 9 of the Highway Capacity Manual (Transportation Research Board, 2000).

The County of San Diego (see **Appendix A**) has developed LOS threshold tables based on the different

functional street classifications and their ability to carry traffic. Actual capacity on some roadway segments may be higher due to intersection widening, restricted access and lane widening. For the County of San Diego, Policy 1.1 of the Public Facility Element states that new development shall provide on-site improvements to maintain an LOS "C" on CE roads during peak hours. New development shall provide off-site improvements to "contribute to the overall achievement of an LOS "D" on CE roads."

To apply policy 1.1 for on-site facilities, Table 1 shown on **Figure 3-2** is applied. As noted for road segments, if the future LOS on a road segment with project traffic is either E or F, and the project adds 200 or 100 daily trips, respectively, to the segment, project traffic is significant and mitigation (i.e., widening) is required to reduce the direct project impact.

For intersections, a similar procedure is followed, except there are two categories (i.e., signalized and unsignalized criteria) to apply. If an intersection is signalized and the LOS is E, up to a two (2) second change in delay for project traffic is allowed. If more than a two second change in delay occurs as the result of project traffic, a direct project impact would occur, which would require mitigation. For a LOS F, a change in delay of more than 1 second or 5 peak trips on a critical movement would constitute a significant impact.

Policy 1.2 requires review of all General Plan amendments and re-zones to be sure the circulation system is not over burdened. This traffic study, along with the EIR, provides the information needed by decision makers to make their findings.

A project cumulative travel forecast is prepared using the SANDAG Regional 2030 Traffic Model. The forecast provides both project only and cumulative traffic forecast values to determine if a project creates impacts to CE roads which may create the need for road reclassification. This project analysis includes an evaluation of cumulative 2030 impacts both with and without the proposed project.

Another evaluation technique is used to determine if project impacts along a road segment or corridor are perceptible to an average driver. The Year 2000 Highway Capacity Manual software has a corridor analysis procedure which is useful for determining average changes in speed due to a variety of factors such as intersection spacing, number of intersections, lane and shoulder widths, and intersection control (signal or other control). These considerations are entered into the model and an average change in speed is determined. Generally, for low changes in an average speed of one to two miles per hour, this magnitude of differences is barely perceptible to most drivers.

3.4 INTERSECTION LOS PROCEDURES

The County of San Diego Draft Guidelines and Regional Congestion Management Program (CMP) guidelines, as adopted by SANDAG, determine the procedures to be used for intersection peak hour analysis. To determine an intersection peak hour LOS, the County guidelines require use of the most recent procedure from Chapters 16 and 17 of the Highway Capacity Manual (Transportation Research Board, 2000). The procedure in Chapters 16 and 17 which is used to analyze signalized intersections is the "operational method." This method determines LOS based on total vehicle delay expressed in seconds. A computer program referred to as HCS 2000 is used to complete the analysis. As discussed above, guidelines have established LOS "D" as the objective for intersections and street segments.

3.5 CMP ENHANCED CEQA REVIEW GUIDELINES

The Congestion Management Program Regional Guidelines were developed by the SANDAG to provide a set of procedures for completing enhanced CEQA review for certain projects. The guidelines stipulate that any development project generating 2,400 or more average daily trips, or 200 or more peak hour trips must be evaluated in accordance with the requirements of the Regional CMP. The CMP analysis must include the traffic LOS impacts on affected freeways and Regionally Significant Arterial (RSA) systems, which include all designated CMP roadways. In order to conform to the region's CMP, the local jurisdiction must adopt and implement a land use analysis program to assess impacts of land use decisions on the regional transportation system.

A review of the trip generation from **Table 5-1** compared to the CMP requirements is summarized below:

	Montecito Ranch	**CMP Requirements**
ADT	5,885	> 2400
Peak Hour	587	> 200

As shown, Montecito Ranch traffic volumes are above these thresholds. Therefore, a CMP level of analysis is required.

3.6 STUDY AREA

The study area for a project is determined using guidelines developed by SANDAG, along with consultation with staff. Information that is used to identify likely project impacts after a project is built is a Select Zone Travel Forecast. The forecast provides a project only distribution of traffic, which is then used for the initial assessment of the location and magnitude of project traffic impacts. This information is then reviewed by staff and a consensus on a project study area is identified. Once a study area is determined, street or road segments and intersections are identified for analysis. Generally, CE road intersections within the study area are evaluated.

For the Montecito Ranch project, a select zone travel forecast was prepared at SANDAG using the Series 10 2030 traffic model. **Appendix A** provides the actual select zone information that was used for this analysis. Also, shown in **Appendix A** is the resulting project traffic distribution and the basis for a recommended study area. Based on this data and the process described above, the project study area is shown on **Figure 3-3.**

In addition to the process described above, USAI consulted with County Department of Public Works (DPW) staff. They requested that two additional intersections be added to our study, namely:

1. SR-67 at Highland Valley Road/Dye Road
2. SR-67 at Archie Moore Road

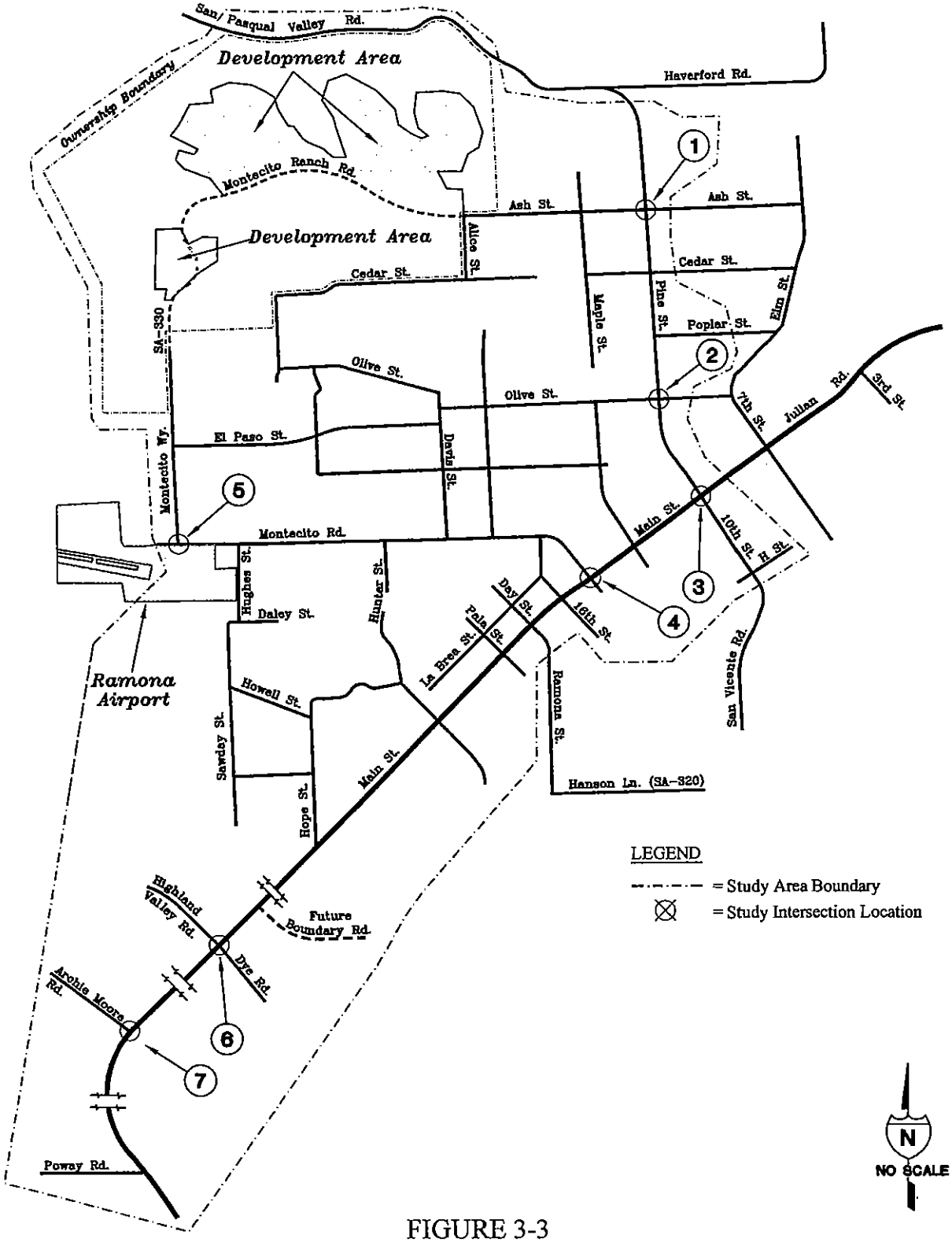


FIGURE 3-3

Project Study Area / Intersection Key

There are two basic reasons for adding these additional intersections. First, there is considerable community interest with regard to the need for improvements at the two locations. Second, possible fair share contributions for all projects in the area may be requested by both Caltrans and the County. **Table 3-1** summarizes the nineteen street segments and seven intersections studies in the analysis.

TABLE 3-1

Study Area Street Segments & Intersections

Street Segments	
Road	**Segment**
Pine Street (SR-78)	Haverford Road - Ash Street
	Ash Street - Olive Street
	Olive Street - Main Street
10th Street	Main Street - H Street
Main Street (SR-78)	7th Street - 10th Street
Main Street (SR-67)	10th Street - Montecito Road
	Montecito Road - Hunter Street
	Hunter Street - Future Boundary Road
	Future Boundary Road - Highland Valley Road/Dye Road
	Highland Valley Road/Dye Road - Archie Moore Road
	Archie Moore Road - Poway Road
Montecito Way	Montecito Ranch Road - Montecito Road
	Montecito Road - Main Street (SR-67)
Montecito Ranch Road	Project west access to Montecito Way
	Between Main Project Access Points
Ash Street	East Project Access - Pine Street (SR-78)
	Pine Street (SR-78) - Elm Street
Montecito Road	Montecito Way - Davis Street
	Davis Street - Main Street (SR-67)

Intersections	
Number	**Intersection**
1	Ash Street at Pine Street (SR-78)
2	Pine Street (SR-78) at Olive Street
3	Pine Street (SR-78) at Main Street (SR-67)
4	Main Street (SR-67) at Montecito Road
5	Montecito Way at Montecito Road
6	Main Street (SR-67) at Highland Valley Road
7	Main Street (SR-67) at Archie Moore Road

3.7 TRAFFIC MODEL

As previously mentioned, the SANDAG Regional Series 10, 2030 traffic model was used as the basis for this analysis. Several changes were made to the model. First, in the project area one traffic analysis zone was split into three zones and the centroid load points were adjusted to match the development concept for the proposed project. These development changes are shown in the select zone plot contained in **Appendix A**. Second, the street/road system was modified to reflect the proposed project. The specific road network changes included the removal of SA-603 between Rangeland Road and SR-78, the removal of SC-931 between Montecito Way and Rangeland Road, the realignment of Future Montecito Way for the segment south of Montecito Road to SR-67, and the addition of a two-lane rural light collector between Montecito Road and SR-78 through the project area. Except for land uses in one Traffic Analysis Zone (TAZ) south of town, there were no other changes to the model.

As previously discussed, once model forecast volumes were determined this traffic was manually redistributed to Montecito Road. Since Montecito Road is the proposed access route for the project and the project is willing to improve Montecito Road to rural light collector standards even with a conservative estimate of through traffic, these improvements can be made with only minimal new environmental study.

4.0 EXISTING CONDITIONS

Regional access to the proposed project is provided via SR-67 from the southwest and SR-78 from the north and east. Local access to the project site is available via an extension of Ash Street, construction of a new Montecito Ranch Road, a southerly extension of Montecito Way and existing Montecito Road. Following is a discussion of these access routes in the project area. It should be noted that most of the roadways discussed below may be found in the County's bicycle network system. Planned bikeway facilities may be found in the County's Bicycle Transportation Plan for the Ramona community.

4.1 EXISTING ROADWAY CONDITIONS

SR-78 (Pine Street) extends generally in a north-south direction from SR-67 (Main Street) in the Ramona community to the north/northwest, eventually reaching I-15 in the City of Escondido to the northwest. In the Ramona community, north of SR-67, SR-78 is two lanes with a pavement width that varies from 32-feet to 64-feet and variable shoulder widths.

SR-67 (Main Street) generally traverses in a northeast-southwest direction through the Ramona community and extends to the south, eventually reaching I-8 in the City of El Cajon. In the Ramona community, SR-67 is two or four lanes with pavement widths that vary from 40-feet to 78-feet and variable shoulder widths.

Ash Street extends in an east-west direction from Elm Street to Alice Street in the northern portion of the Ramona community. Ash Street is a two-lane road with 24-feet of pavement and variable shoulder widths.

The intersection of Ash Street and SR-78 has recently been widened to provide northbound and southbound left turn lanes.

Montecito Way extends north from Montecito Road to Sonora Way. Montecito Way is a two-lane road with 24-feet of pavement and variable shoulder widths which vary from 4 to 10 feet.

Montecito Road extends northwest and then west from SR-67 to the Ramona Airport. Montecito Road is a two-lane road with variable widths of pavement (30-36 feet) and shoulders of variable widths (4-8 feet wide).

The County recently improved segments of 16th Street and La Brea Street near the intersection of SR-67 and Montecito Road adjacent to the Sheriff's substation. These two street improvements are important because apartments and other uses in the area, i.e., the library and Sheriff's substation, all used Montecito Road north of SR-67 for access. These roads were dirt, and in some cases did not connect. Also, the roads were impassible whenever it rained. With the new roads, access to and from the area is improved and traffic on Montecito Road is reduced. Also, access to Main Street is now more direct and the intersection of SR-67 and Montecito Road was relieved. In addition, a traffic signal has been installed at 14th Street to facilitate access to and from the new streets at SR-67.

Existing lane configurations and traffic control for intersections along the recommended project access routes are shown on **Figure 4-1.** Daily traffic volumes and peak traffic is discussed in the next section of this report.

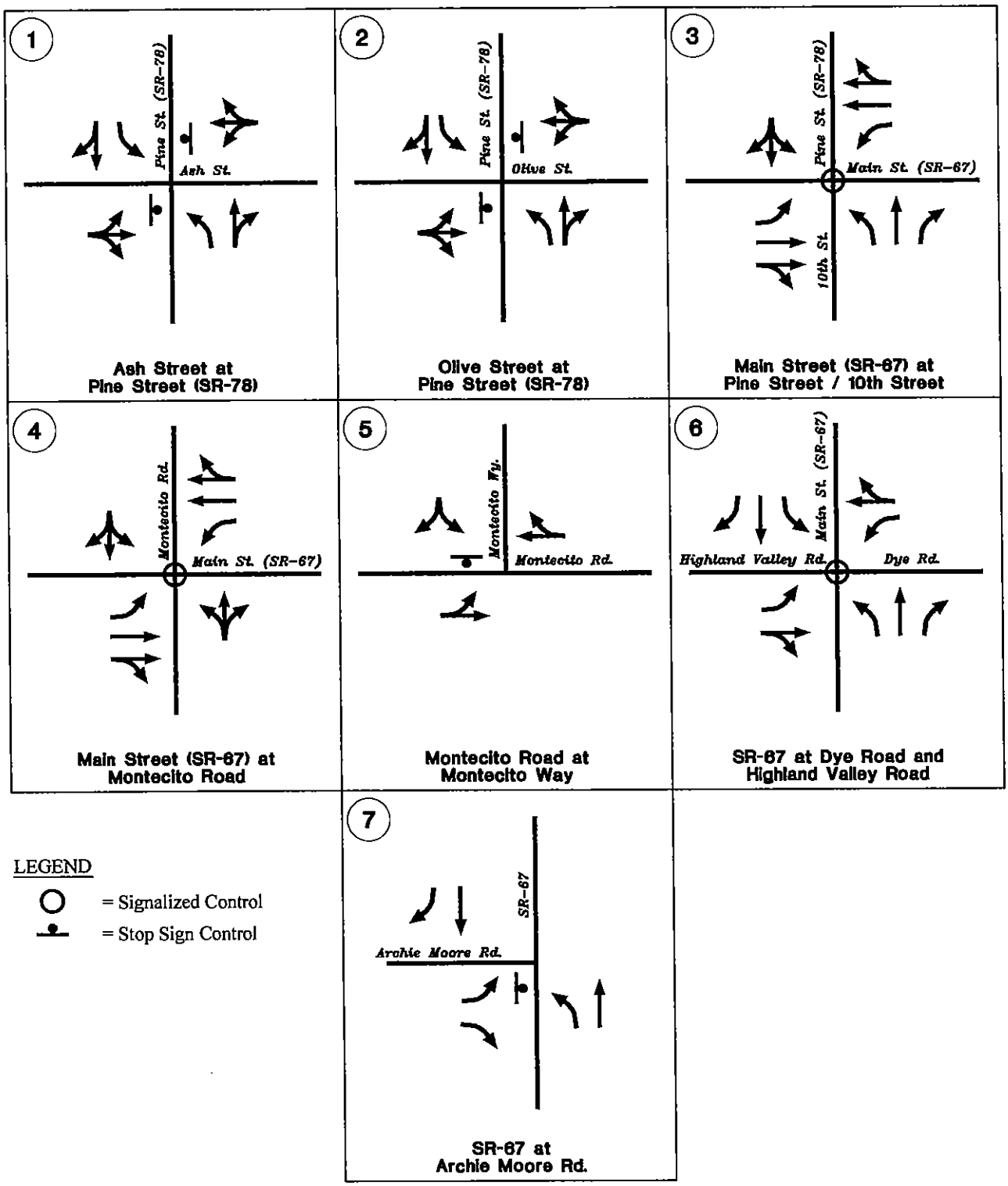


FIGURE 4-1

Existing Lane Configuration & Traffic Control

4.2 EXISTING TRAFFIC

Existing daily (24-hour) traffic volumes were compiled with assistance from DPW from traffic studies conducted for projects in the area, and SANDAG's website, and the Caltrans' website. Existing counts were updated to 2004 based on Ramona traffic consultant coordination efforts. Also, at the request of Caltrans, new counts, 2007, were obtained on SR-67 at Highland Valley Road Existing daily traffic volumes on the study area roadway segments are summarized on **Figure 4-2**. For the actual traffic count data see **Appendix B**.

Morning and afternoon peak period traffic volume counts were obtained for the study area intersections. Each intersection was counted for two hours during the morning peak period (between 7:00 and 9:00 AM) and for two hours during the afternoon peak period (between 4:00 and 6:00 PM). The counts resulted in the determination of peak hourly traffic volumes at the study area intersections. Existing morning and afternoon peak hour traffic volumes at the study intersections are summarized on **Figure 4-3.**

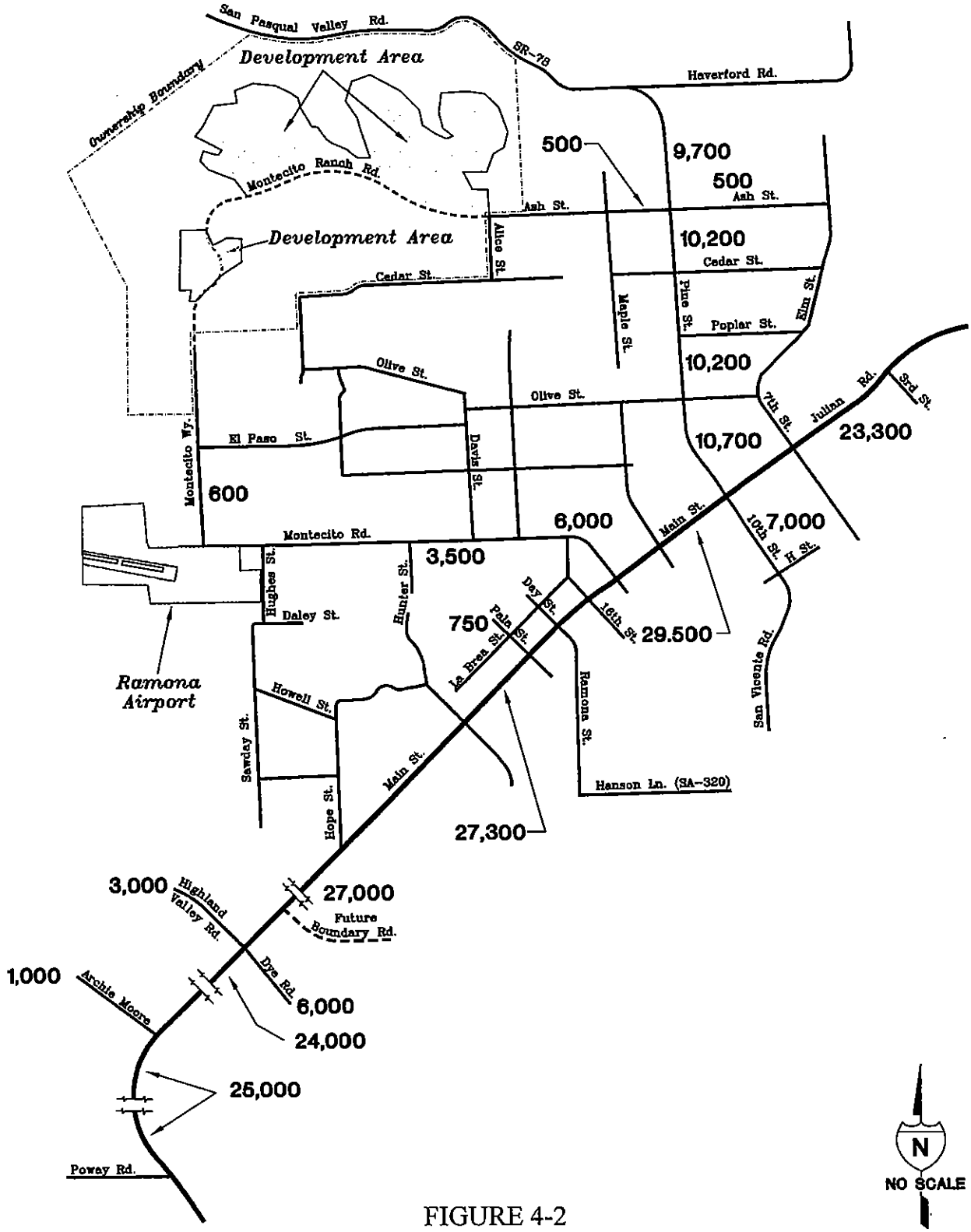
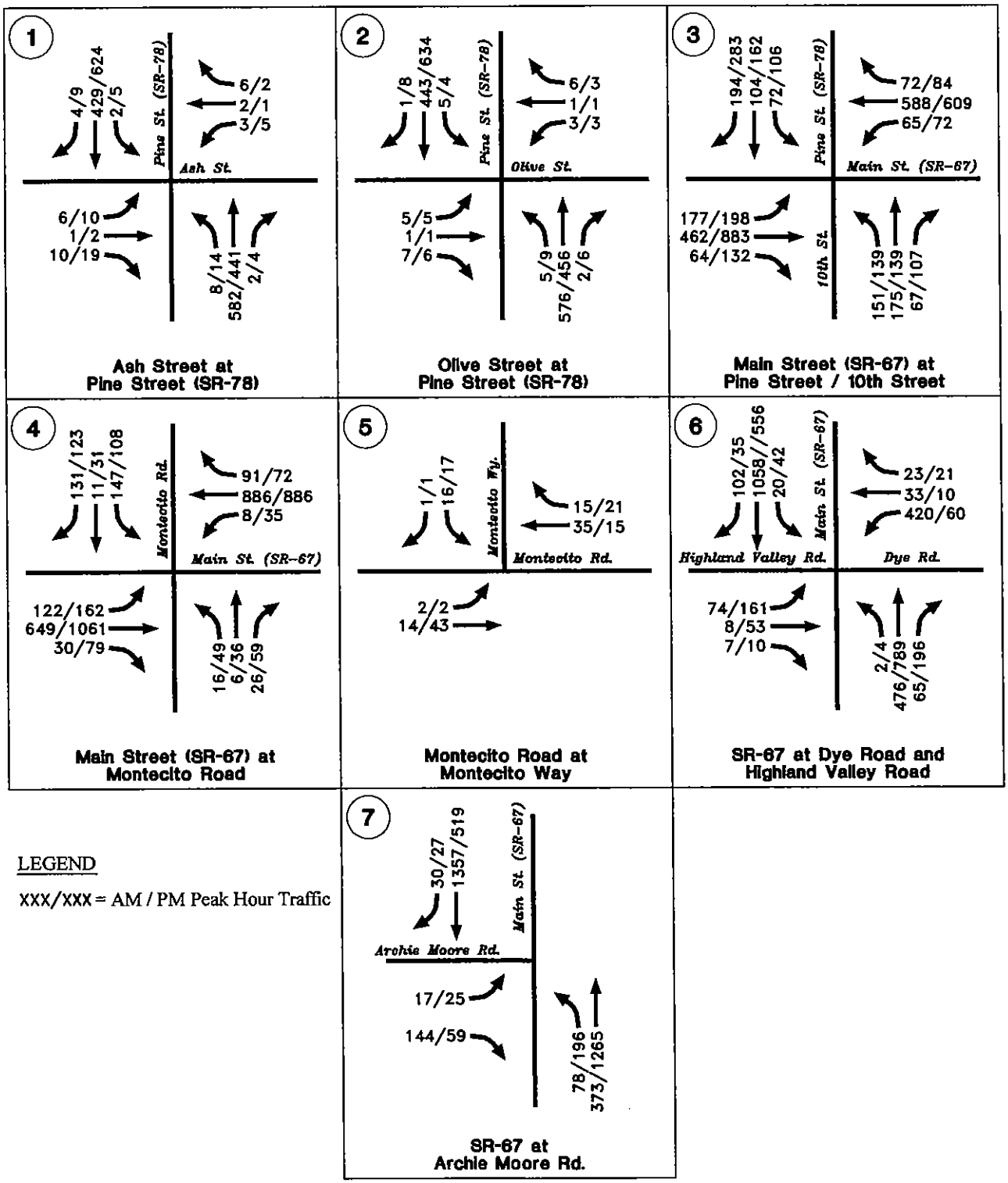


FIGURE 4-2

Existing Average Daily Traffic



LEGEND

XXX/XXX = AM / PM Peak Hour Traffic

FIGURE 4-3

Existing AM/PM Peak Hour Traffic

4.3 EXISTING LEVEL OF SERVICE

4.3.1 Road Segments

To determine road segment LOS for study area roadways, we determined the existing improvements functional classification based on the County of San Diego Public Road Standards. Roadway capacity for each functional classification is expressed in terms of maximum daily traffic for each LOS designation (LOS "A" through LOS "F"). The San Diego Public Road Traffic/Level of Service Standards are summarized in **Appendix A**.

A comparison of the existing daily traffic volumes to the estimated roadway capacity for study area roadways is summarized on **Table 4-1**.

As shown in **Table 4-1**, except for four segments on SR-67, all roadway segments presently operate at a level of service "D" or better. Three of the segments of SR-78 operate at level of service "D" while all other roadway segment shown in the table operate at level of service "C" or better.

4.3.2 Intersections

As previously discussed, the study area intersections were analyzed to determine existing peak levels of service using HCS 2000. LOS for intersections is defined in the Highway Capacity Manual (HCM) in terms of delay in seconds per vehicle. Significant impacts at intersections are based on the HCS analysis per the County's significance guidelines. Results of the intersection analysis are shown in **Table 4-2**.

TABLE 4-1

Existing Street Segment Levels of Service

Road	Segment	Class.	Cap.	Volume	V/C	LOS[1]
Pine Street (SR-78)	Ash St. - Haverford Rd.	RLC	16,200	9,700	0.60	D
	Ash St. - Olive St.	RLC	16,200	10,200	0.63	D
	Olive St. - Main St. (SR-67)	RLC	16,200	10,700	0.66	D
10th Street	Main St.(SR-67) - H Street	RLC	16,200	7,000	0.43	C
Main Street (SR-78)	7th Street - 10th Street	M	37,000	23,300	0.63	B
Main Street (SR-67)	10th St. - Montecito Rd.	M	37,000	29,500	0.80	C
	Montecito Rd. - Hunter St.	M	37,000	27,300	0.74	C
	Hunter St. - Future Boundary Rd	RLC	16,200	27,000	1.67	F
	Future Boundary Rd. - Highland Valley	RLC	16,200	27,000	1.67	F
	Highland Valley Rd. - Archie Moore Rd.	RLC	16,200	24,000	1.48	F
	Archie Moore Rd. - Poway Rd.	RLC	16,200	25,000	1.54	F
Montecito Wy.	Montecito Rd. - Montecito Ranch Rd.	RLC	16,200	600	0.04	A
	Montecito Road - Main Street (SR-67)	DNE[2]	---	---	---	--
Montecito Ranch Rd.	Project west access to Montecito Wy.	DNE[2]	---	---	---	---
	Between Main Project Access Points	DNE[2]	---	---	---	---
Ash St.	East Project Access - Pine St. (SR-78)	RLC	16,200	500	0.03	A
	Pine St. (SR-78) - Elm St.	RLC	16,200	500	0.03	A
Montecito Rd.	Montecito Wy. - Davis St.	RLC	16,200	3,500	0.22	B
	Davis St. - Main St. (SR-67)	RLC	16,200	6,000	0.37	C

Legend:

Class. = Functional Classification
Cap. = Capacity
RLC = Rural Light Collector
M = Major
LOS = Level of Service

Notes:

[1] = Based on County Public Roads Standards, See Appendix A;
[2] = DNE - Does Not Exist;

TABLE 4-2

Existing Intersection Levels of Service

Number	Intersection	AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS
1	Ash Street at Pine Street (SR-78)[1]	16.8	C	22.2	C
2	Pine Street (SR-78) at Olive Street[1]	16.7	C	19.3	C
3	Pine Street (SR-78) at Main Street[2]	33.7	C	58.7	E
4	Main Street (SR-67) at Montecito Road[2]	26.0	C	30.2	C
5	Montecito Way at Montecito Road[1]	8.8	A	8.9	A
6	Main Street (SR-67) at Highland Valley Road / Dye Road*[2]	54.7	D	22.3	C
7	Main Street (SR-67) at Archie Moore Road[1]	141.0	F	27.4	D

Notes:

LOS = Level of Service
[1] = Unsignalized, worst approach delay
[2] = Signalized
* = Peak Hour Factor (PHF) is 0.95

As shown in **Table 4-2** except for Archie Moore Road at SR-67 during the AM peak and SR-78 at Main Street in the PM peak, all signalized intersections presently operate at acceptable levels of service, i.e., "D" or better. Under existing conditions, the intersection of Archie Moore at SR-67 operates at a level of service "F"during the AM peak. However, this is due to the fact that unsignalized intersections experience considerable side street delay. The delay is a result of the relatively high through volumes along SR-67. SR-78 at Main Street operates at a level of service "E" during the PM peak. **Appendix C** summarizes the existing condition HCS worksheets.

As noted at the bottom of **Table 4-2,** a peak hour factor (PHF) of 0.95 was used in the analysis. Peak hour factors are sometimes varied from default values (0.90) to represent a more efficient intersection operation. This change is permitted and is standard practice for conducting traffic studies when an intersection is routinely used generally by the same commuters on a daily basis. Due to familiarity, daily users are more efficient.

5.0 PROJECT TRAFFIC GENERATION AND DISTRIBUTION

The project site plan, location and description are included in Section 2 of this report. In this section (Section 5.0) of the report, daily and peak hour traffic generation plus traffic distribution for the project are discussed.

5.1 TRAFFIC GENERATION

Project daily and peak hour traffic generation is based upon SANDAG trip generation rates, see **Appendix D**. **Table 5-1** summarizes the proposed project, which would include the development of 417 single-family residential units, 20.14-acres of park sites (neighborhood and historic) with an equestrian staging area and a future 600-student charter high school site. The table shows project traffic generation used for this analysis.

As shown in the table, project traffic for the 417 residential units, charter high school and parks, is 5,885 average daily trips (ADT) with 569 AM peak and 587 PM peak trips. IN/OUT splits of traffic are 236/334 and 386/202 for the AM and PM peaks respectively.

TABLE 5-1

Project Trip Generation

Use	Amount	*Trip	ADT	AM PEAK HOUR					PM PEAK HOUR				
				%	#	In/Ou	In	Out	%	#	In/Out	In	Out
Residential	417 DU	12 /DU	5,004	8	400	3 : 7	120	280	10	500	7 : 3	350	150
Nbhd. Park / Historical Park	20.14 AC5	/AC	101	13	13	5 : 5	7	7	9	9	5 : 5	5	5
Charter School	600 St	1.3 /St	780	20	156	7 : 3	109	47	10	78	4 : 6	31	47
		Total	5,885		569		236	334		587		386	202

NOTE:

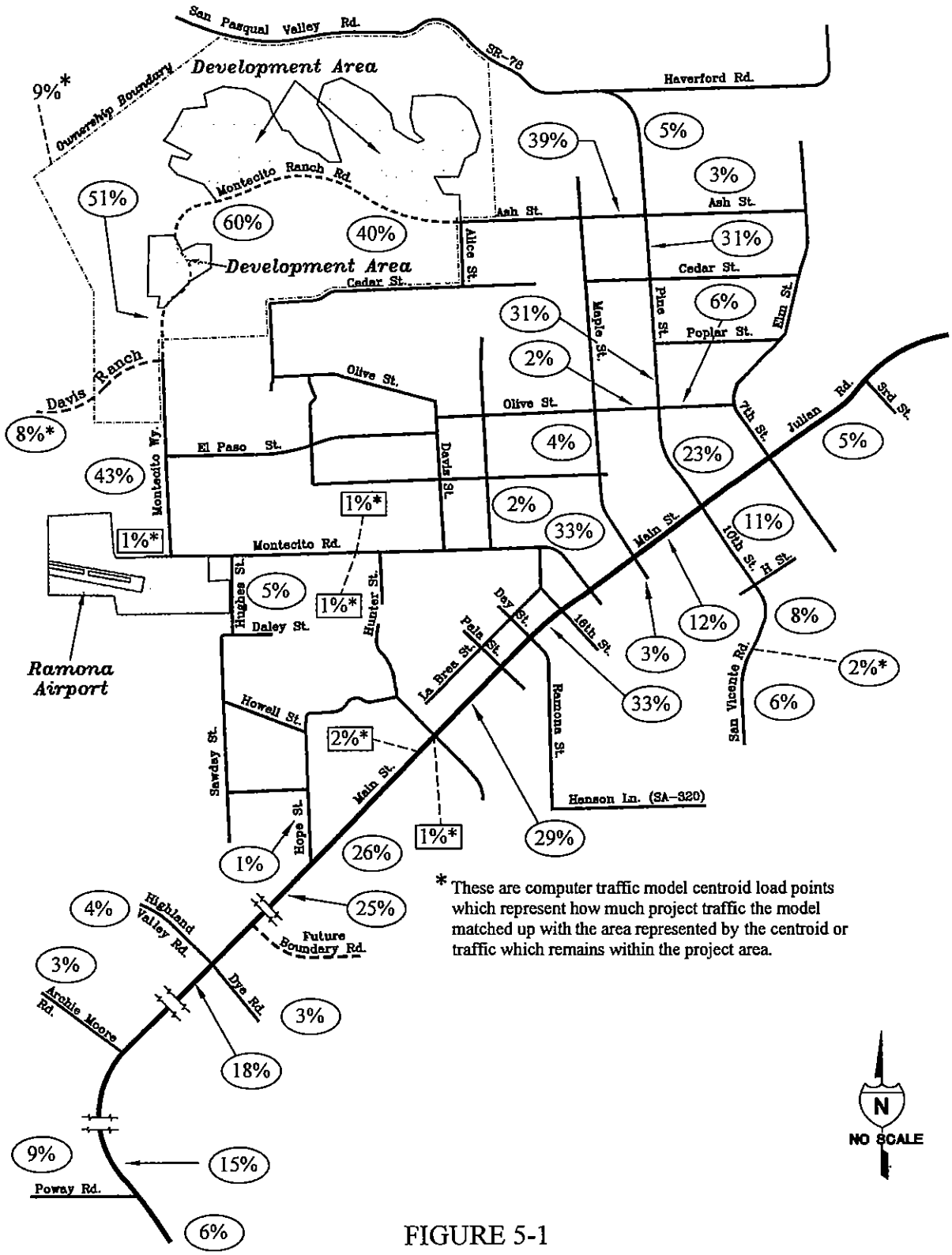
*= Average weekday traffic generation based on SANDAG Traffic Generation Rates, April 2002. (See Appendix D)

DU= Dwelling Unit
AC= Acre
St= Student

5.2 TRAFFIC DISTRIBUTION

The project study area and the Series 10 select zone travel forecasts were discussed in Section 3.0 of this report. **Figure 5-1** shows the percentage of traffic that is expected to result from buildout of the proposed project. It should be noted that due to the similarity in the road system for both near term and long term, the same distributions is used in this analysis. As shown, conservatively 100% of project traffic generated is assumed to leave the project area, 60% to the west and 40% to the east. As also shown on **Figure 5-1,** project traffic to the east uses SR-78 and SR-67. Also note that the percentage of project traffic reduces as one gets further away from the project. This is because project trip desires (purposes) are met and there is no need to travel further. For example, in the regional traffic model used for this analysis, the Davis Ranch Project was assumed to be built west of the proposed project site. (This model was run prior to the purchase of the Davis Ranch property by The Nature Conservancy for conservation). As shown on **Figure 5-1**, about 9% of project traffic matches in Davis Ranch area, thus project traffic to and from the south on Montecito Way reduces to 5% of total project traffic. Traffic that leaves the project study area boundary (Ramona area) is 5% to the northwest, 5% to the east 6% to the south and 18% to the southwest.

The widening of Montecito Road to Rural Light Collector Standards will mitigate some project impacts and provide capacity for both existing and new traffic. The project will be eligible for TIF credits and reimbursements for the construction cost of TIF roadways and intersections which are funded by the County of San Diego TIF for the Ramona community.



* These are computer traffic model centroid load points which represent how much project traffic the model matched up with the area represented by the centroid or traffic which remains within the project area.

FIGURE 5-1

Project Only Traffic Distribution Percentages

5.3 DAILY PROJECT ONLY TRAFFIC

Based on the project only distribution percentages, project only daily traffic was determined. **Figure 5-2** shows the result of this effort. As shown, the primary project traffic impacts are along Montecito Way, Montecito Road, and SR-78, south of Ash Street.

5.4 AM/PM PEAK HOUR TRAFFIC

Project only peak traffic was determined based on the project only traffic distribution. **Figure 5-3** summarizes the AM and PM peak traffic impacts for the proposed project.

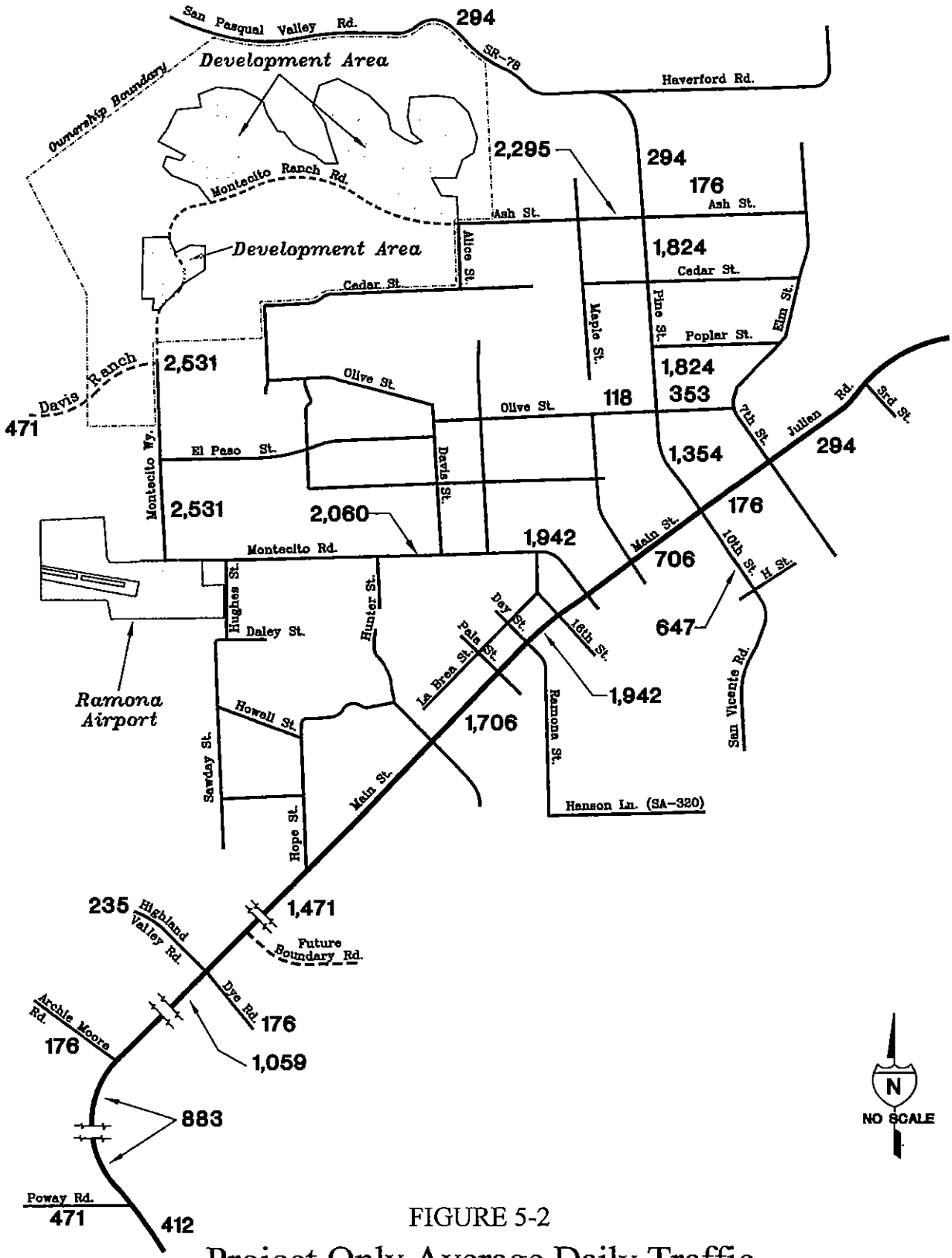
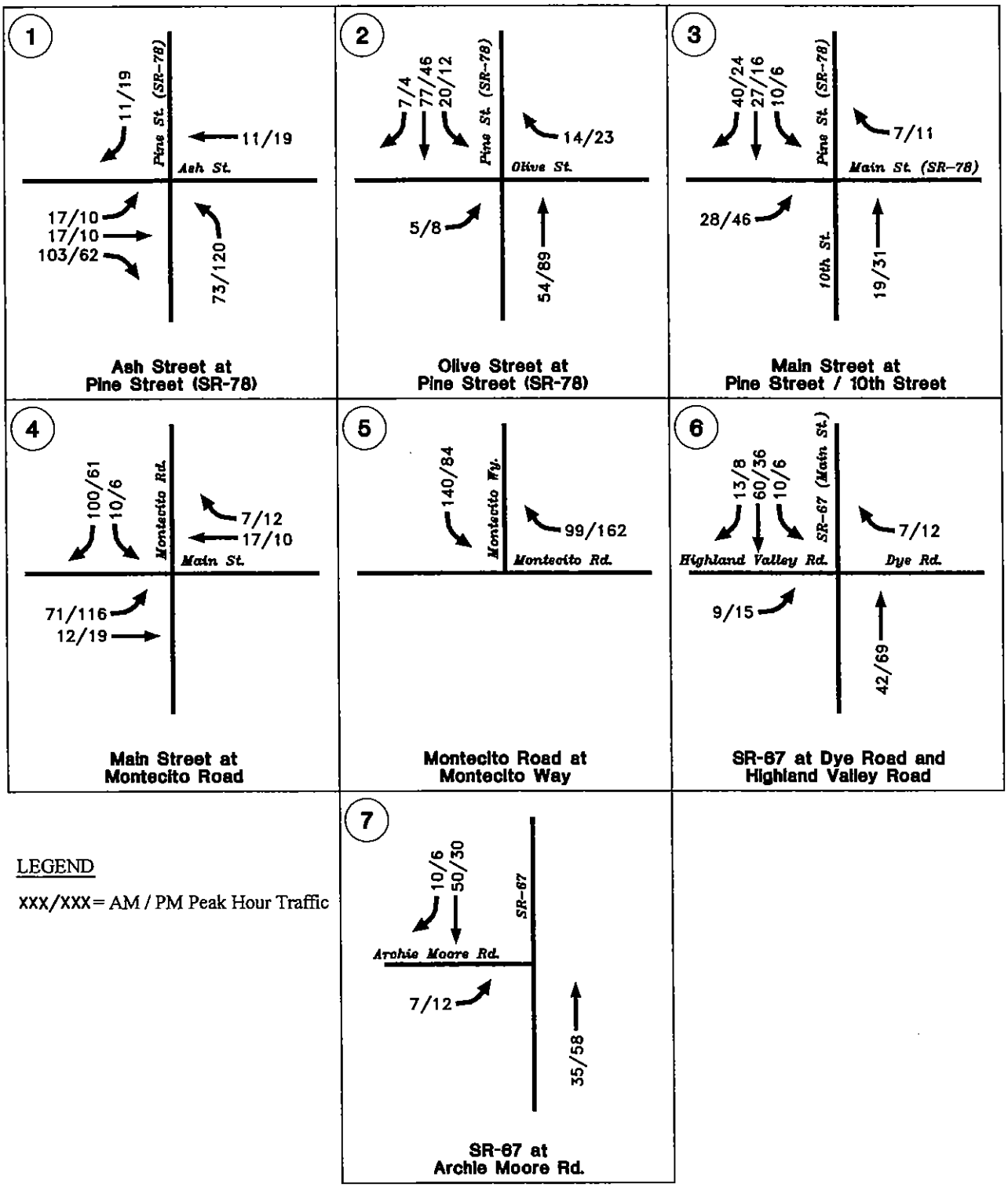


FIGURE 5-2
Project Only Average Daily Traffic



LEGEND

XXX/XXX= AM / PM Peak Hour Traffic

FIGURE 5-3

Project Only AM/PM Peak Hour Traffic

6.0 EXISTING PLUS PROJECT

This condition was developed by adding project only traffic to the existing condition prior to project mitigation.

6.1 STREET SEGMENTS

Street segment levels of service with project traffic were determined by combining the existing daily volumes from **Figure 4-2** with the project only daily volumes from **Figure 5-2**. **Figure 6-1** shows the results of this effort. Next, we prepared **Table 6-1**, which assumes that off-site roadway segment improvements would be made prior to the addition of project traffic to existing traffic. For example, Ash Street, Montecito Road, and Montecito Way are all assumed to be improved as a Rural Light Collector to 40-feet curb-to-curb in a 60-foot right-of-way. The functional classification column of the table was therefore updated and new levels of service were determined with project traffic added to existing traffic. This approach provides a measure of direct project impacts and later leads to mitigation recommendations.

As shown in **Table 6-1**, with six exceptions, all street segments evaluated provide acceptable levels of service, i.e. "D" or better, when project traffic is added to existing traffic. The six exceptions are along SR-67 between Hunter and Poway Road, where the segments operate at an LOS "F" and along SR-78 between Ash Street and SR-67, where the segments operate at an LOS "E". This means that along these segments, intersection widening and signalization become necessary to help mitigate associated project traffic impacts. Specific intersection improvements based on AM and PM peak hour analysis are proposed in the mitigation section, which is in Section 12.3 of this report.

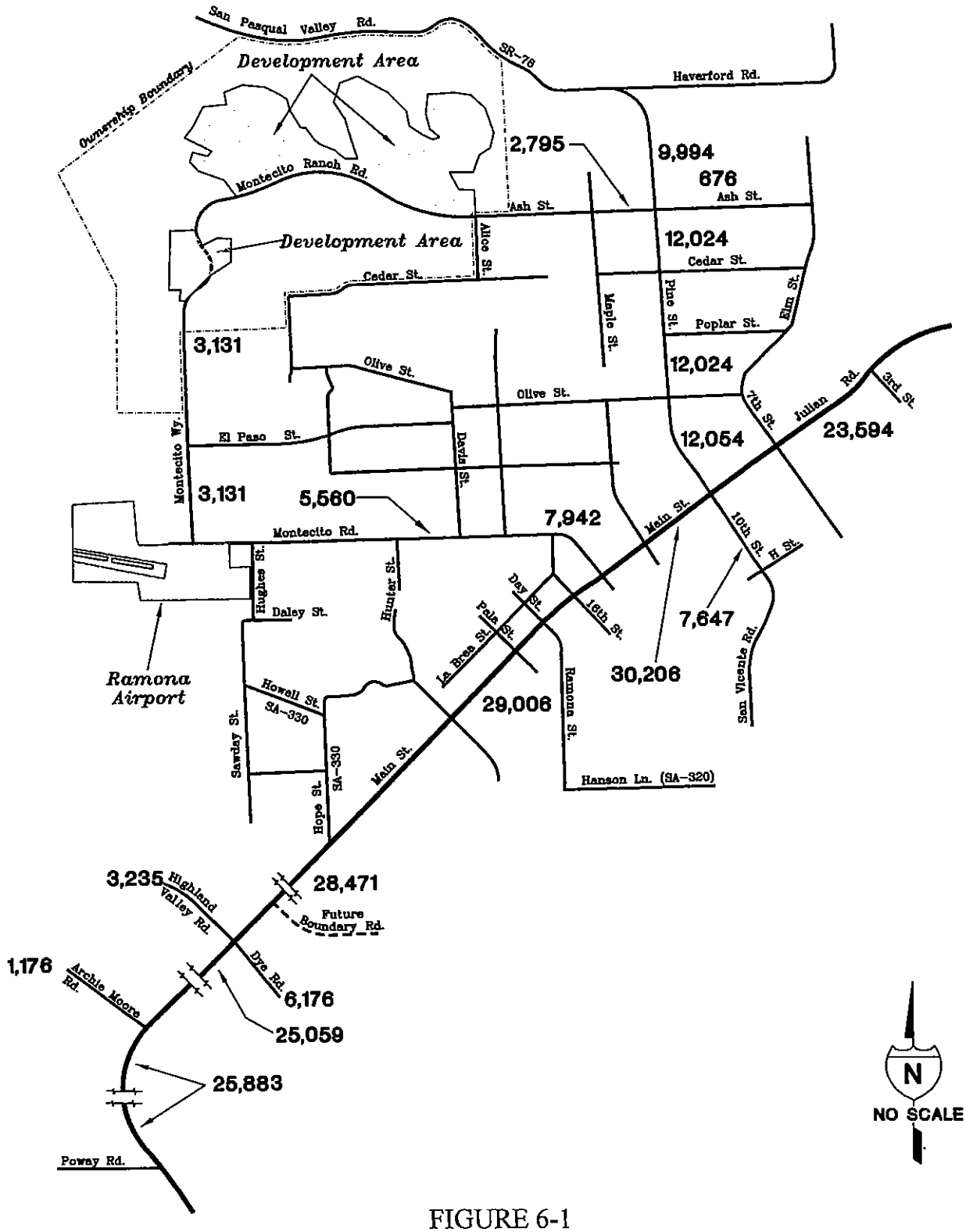


FIGURE 6-1

Existing + Project Average Daily Traffic

TABLE 6-1

Existing + Project Street Segment Levels of Service Before Project Mitigation

Road	Segment	Class.	Cap.	Volume	V/C	LOS[1]
Pine Street (SR-78)	Haverford Rd. - Ash St.	RLC	16,200	9,994	0.62	D
	Ash St. - Olive St.	RLC	16,200	12,024	0.74	E
	Olive St. - Main St. (SR-67)	RLC	16,200	12,054	0.74	E
10th Street	Main St. (SR-67) - H Street	RLC	16,200	7,647	0.47	D
Main Street (SR-78)	7th Street - 10th Street	M	37,000	23,594	0.64	B
Main Street (SR-67)	10th St. - Montecito Rd.	M	37,000	30,206	0.82	D
	Montecito Rd. - Hunter St.	M	37,000	29,006	0.78	C
	Hunter St. - Future Boundary Rd.	RLC	16,200	28,471	1.76	F
	Future Boundary Rd. - Highland Valley	RLC	16,200	28,471	1.76	F
	Highland Valley Rd. - Archie Moore Rd.	RLC	16,200	25,059	1.55	F
	Archie Moore Rd. - Poway Rd.	RLC	16,200	25,883	1.60	F
Montecito Wy.	Montecito Ranch Rd. - Montecito Rd.	RLC	16,200	3,131	0.19	B
	Montecito Rd - Main Street (SR-67)	RLC	Does Not Exist			
Montecito Ranch Rd.	Project west access to Montecito Wy.	RLC	16,200	3,131	0.19	B
	Between Main Project Access Points	Special[2]	15,000	2,060	0.14	B
Ash St.	East Project Access - Pine St. (SR-78)	RLC	16,200	2,795	0.17	B
	Pine St. (SR-78) - Elm St.	RLC	16,200	676	0.04	A
Montecito Rd.	Montecito Wy. - Davis St.	RLC	16,200	5,560	0.34	C
	Davis St. - Main St. (SR-67)	RLC	16,200	7,942	0.49	D

Legend:

Class. = Functional Classification
Cap. = Capacity
RLC = Rural Light Collector
M = Major
LOS = Level of Service
V/C = Volume-to-Capacity Ratio

Notes:

[1] = Based on County Public Roads Standards, see Table 3-1.
[2] = Two-lane divided, equivalent to City of San Diego collector with turn lane.

6.2 INTERSECTIONS

Project traffic for the AM and PM peaks was added to existing traffic to identify direct project impacts. **Figure 6-2** shows the result of this effort. **Table 6-2** shows the resulting AM and PM peak levels of service. Six of the seven analyzed intersections would operate at LOS "E" or "F" before mitigation during AM and/or PM peak hours, while the remaining one would operate at acceptable levels of service. With signalization and restriping to provide turn lanes, all direct project impacts can be mitigated. Mitigation is discussed in Chapter 12 of this report. **Appendix E** contains the existing plus project HCS worksheets.

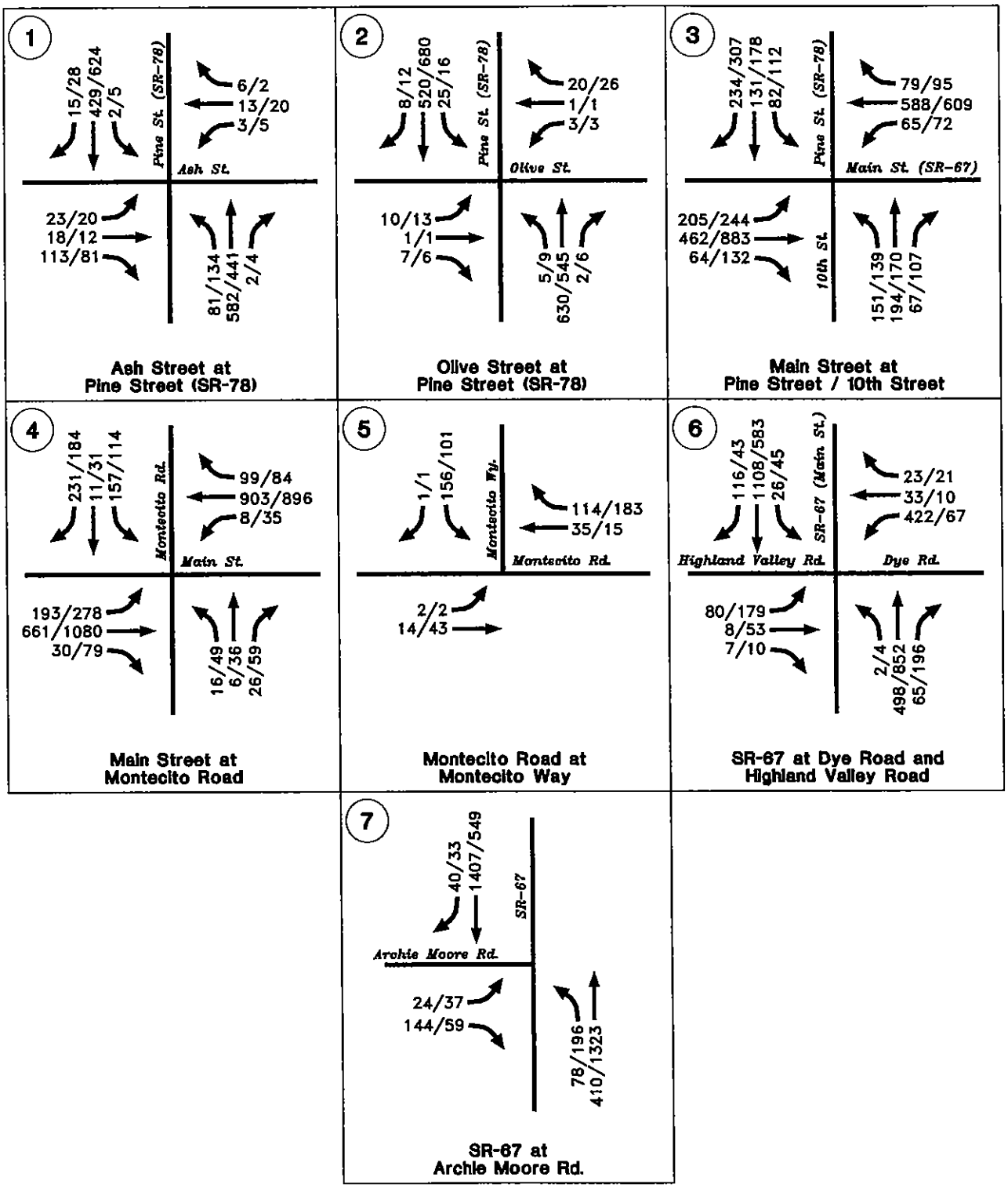


FIGURE 6-2

Existing + Project AM/PM Peak Hour Traffic

TABLE 6-2

Existing + Project Intersection Levels of Service Before Project Mitigation

Number	Intersection	AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS
1	Ash Street at Pine Street (SR-78)[1]	35.6	E	65.8	F
2	Pine Street (SR-78) at Olive Street [1]	31.4	D	40.2	E
3	Pine Street (SR-78) at Main Street (SR-67)[2]	44.5	D	62.7	E
4	Main Street (SR-67) at Montecito Road [2]	39.1	D	55.9	E
5	Montecito Way at Montecito Road[1]	10.4	B	10.3	B
6	Main Street (SR-67) at Highland Valley Road/Dye Road**[2]	133.3	F	23.7	C
7	Main Street (SR-67) at Archie Moore Road[1]	168.3	F	42.6	E

Notes:

[1] = Unsignalized, worst approach delay
[2] = Signalized
*=Intersection delay is so high, it is beyond the model accuracy.
LOS = Level of Service
** = PHF is 0.95

7.0 "OTHER PROJECTS"

To complete this analysis, the Traffic Study Guidelines require the identification of other projects that may affect traffic conditions in the Near Term (2010). Small individual projects may not by themselves result in a significant impact. However, on a cumulative basis, these individual projects may have a significant impact, particularly on SR-78 and SR-67 in the central area of Ramona.

To quantify the cumulative effect of "Other Projects," a three-step process was followed. First, a database review was conducted by staff to identify possible significant other projects. Second, a series of meetings and discussions with traffic consultants analyzing projects in the vicinity of Ramona was completed. Third, a composite database was developed for review by DPW and County Department of Planning and Land Use (DPLU) staff. These efforts resulted in the following composite estimate of cumulative "Other Projects" traffic for the Ramona area.

Appendix F shows the results from staff database review. Traffic consultants then collectively reviewed the list to determine project location, traffic generation and distribution characteristics, which projects may have already been completed or partially built that there was no new traffic generation potential and no double counting of traffic impacts. Also, the traffic consultants grouped projects by geographic area and developed composite traffic distribution patterns for the other projects. This effort resulted in a consolidated "other projects traffic" estimate for both SR-78 and SR-67. This information was then provided to DPLU and DPW staff for their review and comments.

Following staff review and validation, the resulting "other projects" traffic estimates were produced and subsequently used for project traffic studies. **Appendix F** to the report provides the individual "other project" cumulative results. The resulting "other projects" daily estimates are shown in **Figure 7-1**. These results were then used for subsequent cumulative impacts studies in this report.

The work described above was completed in July 2004 (07/26/04). Since the project processing period extends over a period of several years, a growth factor was applied to account for unidentified "other projects" from the date of initial analysis to the date of the project hearing set for the Planning Commission. Due to the time, just over three years, between completion of the "other projects" analysis until the present, a re-validation analysis was completed for this project.

A new "other project" analysis was completed and compared to the initial "other projects" analysis. We found that a total of 57 new projects were submitted to the County between July 2004 and July 2007. Based on this new "other projects" analysis, two new tables were prepared. Both tables are included at the end of **Appendix F**.

The two new "other projects" tables show new "other projects", i.e., since July 2004, that create impacts and previous "other projects" that have been withdrawn or already built at the time of the previous analysis, i.e. they do not create new traffic impacts, but actually reduce projected "other projects" traffic volumes. We found that a total of 110 new units could be added to the Ramona area based on projects submitted to the County between July 2004 through July 2007.

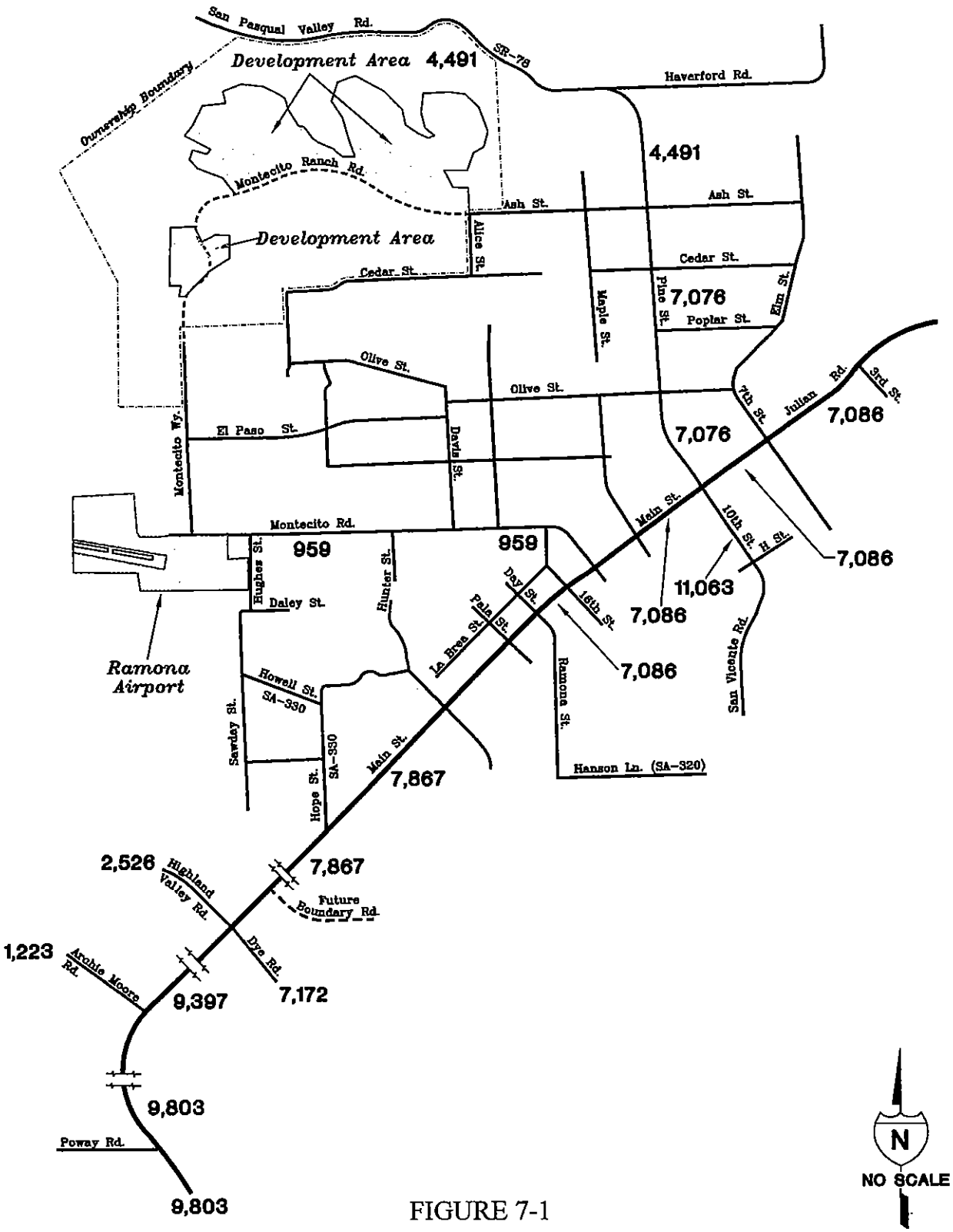


FIGURE 7-1

Other Projects Only Average Daily Traffic

Next we compared the previous "other projects" traffic total from the July 2004 analysis to the "other projects" volumes used in the traffic study. See **Figure 7-1** and the "combined total" 07/26/04 volumes which are on the last page of **Appendix F**. As shown by a comparison of these two figures, the growth factor used in the initial analysis exceeds the actual new "other projects" daily traffic impacts. **Table 7-1** summarizes this comparison. Based on this comparison, it can be concluded that the growth factor used in the earlier analysis more that adequately accounted for new "other projects" that were submitted to the County during the last three years. It should also be noted that additional projects could be added between July 2007 and the hearing date for the project. The analysis is anticipated to remain valid for this period. This can be confirmed through a review of any new project submittals up to the hearing date set for the project. To reflect anticipated "other projects", a growth potential, growth factor was used for this analysis which varied from 16% to 39% on SR-78 and SR-67. Specifically, a factor of 39% was used on SR-78 northwest of Haverford Road, 24% on SR-78 downtown, 38% on SR-67 through downtown to Highland/Dye Road and 16% on SR-67 from Highland Valley Road/Dye Road to Poway Road. Overall, as shown in **Table 7-1**, the assumed growth rate exceeds actual growth in traffic due to "other projects".

In order to determine peak hour traffic volumes at intersections, a factoring method was used. In this method, existing peak hour intersection volumes were increased (or factored) by the percentage increase in daily volumes between existing and existing + other projects conditions.

TABLE 7-1

Comparison of Daily Volumes from July 2004, Current Analysis and Updated Other Projects

Route	Location	ADT Analysis (Figure 7-1)	ADT 7/04 Other Projects	Assume ADT Increase Based on Growth Factor	Current New Other Projects ADT Increase*	Growth Factor Valid? (Yes / No)
SR-67	West of Mussey Grade Road	9,397	7,707	1,690	1,100	Yes
SR-67	Boundary Road to Montecito Road	7,867	5,705	2,162	1,100	Yes
SR-78	Pine Street (SR-78) to Magnolia Avenue	7,086	5,707	1,379	1,100	Yes
SR-78	Main Street (SR-67) to Haverford Road	7,076	5,428	1,648	1,100	Yes

* Assumes that 100% of new lots are built and occupied and that 100% of all new traffic generated passes through town on SR-78 and SR-67.

8.0 EXISTING PLUS OTHER PROJECTS

"Other project" traffic without the proposed project traffic was added to existing traffic for a Near Term cumulative evaluation. The results of this effort are discussed below.

8.1 STREET SEGMENTS

Figure 8-1 shows existing average daily traffic volumes with "other projects" traffic added and **Table 8-1** shows the resulting street segment levels of service for existing plus "other projects" traffic. As shown in the table, SR-78 and 10th Street is projected to operate at a level of service "E" or "F" based on segment volume to capacity ratios. Also, SR-67 west of SR-78 is projected to operate at a segment level of service "E" or "F." All other segments evaluated would operate at a level of service "D" or better.

8.2 INTERSECTIONS

Figure 8-2 shows the AM and PM peak intersection volumes with existing volumes factored as discussed in **Chapter 7.0. Table 8-2** includes study area intersection levels of service that would result if "other projects" traffic were added to existing traffic without mitigation. As shown in the table, all intersections would operate at LOS "E" or "F" during AM and/or PM peak hours, except for Montecito Way/Montecito Road. **Appendix G** contains the existing plus other project's HCS worksheets.

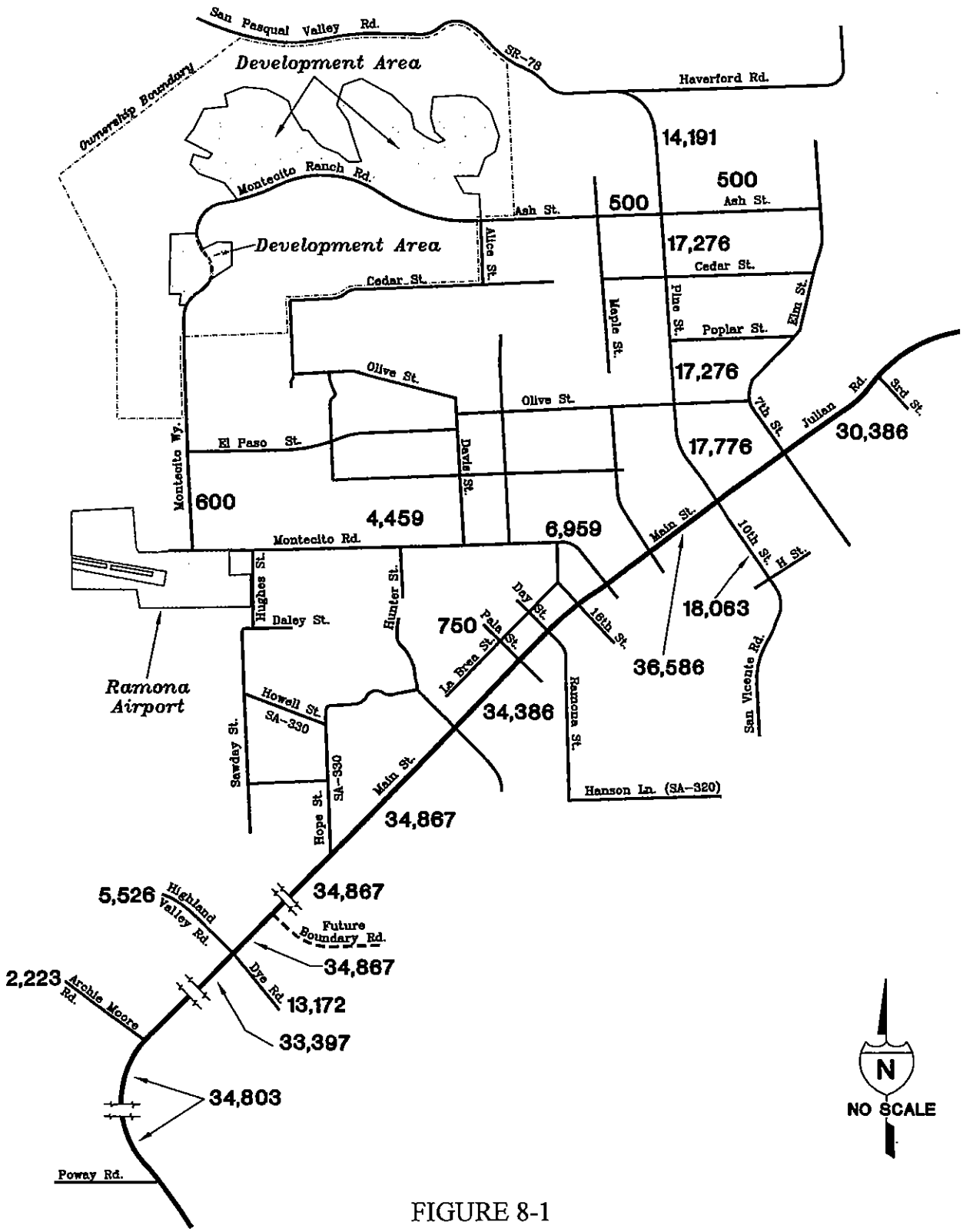


FIGURE 8-1

Existing + Other Projects Average Daily Traffic

TABLE 8-1

Existing + Other Projects Street Segment Levels of Service

Road	Segment	Class.	Cap.	Volume	V/C	LOS[1]
Pine Street (SR-78)	Haverford Rd. - Ash St.	RLC	16,200	14,191	0.88	E
	Ash St. - Olive St.	RLC	16,200	17,276	1.07	F
	Olive St. - Main St. (SR-67)	RLC	16,200	17,776	1.10	F
10th Street	Main St. (SR-67) - H Street	RLC	16,200	18,063	1.12	F
Main Street (SR-78)	7th Street - 10th Street	M	37,000	30,386	0.82	D
Main Street (SR-67)	10th St. - Montecito Rd.	M	37,000	36,586	0.99	E
	Montecito Rd. - Hunter St.	M	37,000	34,386	0.93	E
	Hunter St. - Future Boundary Rd.	M	16,200	34,867	2.15	F
	Future Boundary Rd. - Highland Valley	RLC	16,200	34,867	2.15	F
	Highland Valley Rd. - Archie Moore Rd.	RLC	16,200	33,397	2.06	F
	Archie Moore Rd. - Poway Rd.	RLC	16,200	34,803	2.15	F
(Montecito Wy.)	Montecito Ranch Rd. - Montecito Rd.	RLC	16,200	600	0.04	A
	Montecito Rd - Main St. (SR-67)	DNE[2]	--	--	--	---
Montecito Ranch Rd.	Project west access to Montecito Wy.	DNE[2]	--	--	--	--
	Between Main Project Access Points	DNE[2]	--	--	--	--
Ash St.	East Project Access - Pine St. (SR-78)	RLC	16,200	500	0.03	A
	Pine St. (SR-78) - Elm St.	RLC	16,200	500	0.03	A
Montecito Rd.	Montecito Wy. - Davis St.	RLC	16,200	4,459	0.28	B
	Davis St. - Main St. (SR-67)	RLC	16,200	6,959	0.43	C

Legend:

Class. = Functional Classification
Cap. = Capacity
RLC = Rural Light Collector
M = Major
LOS = Level of Service
V/C = Volume-to-Capacity Ratio

Notes:

[1] = Based on County Public Roads Standards, See Table 3-1;
[2] = DNE, Does Not Exist
[3] = Two-lane divided, equivalent to City of San Diego collector with turn lane.

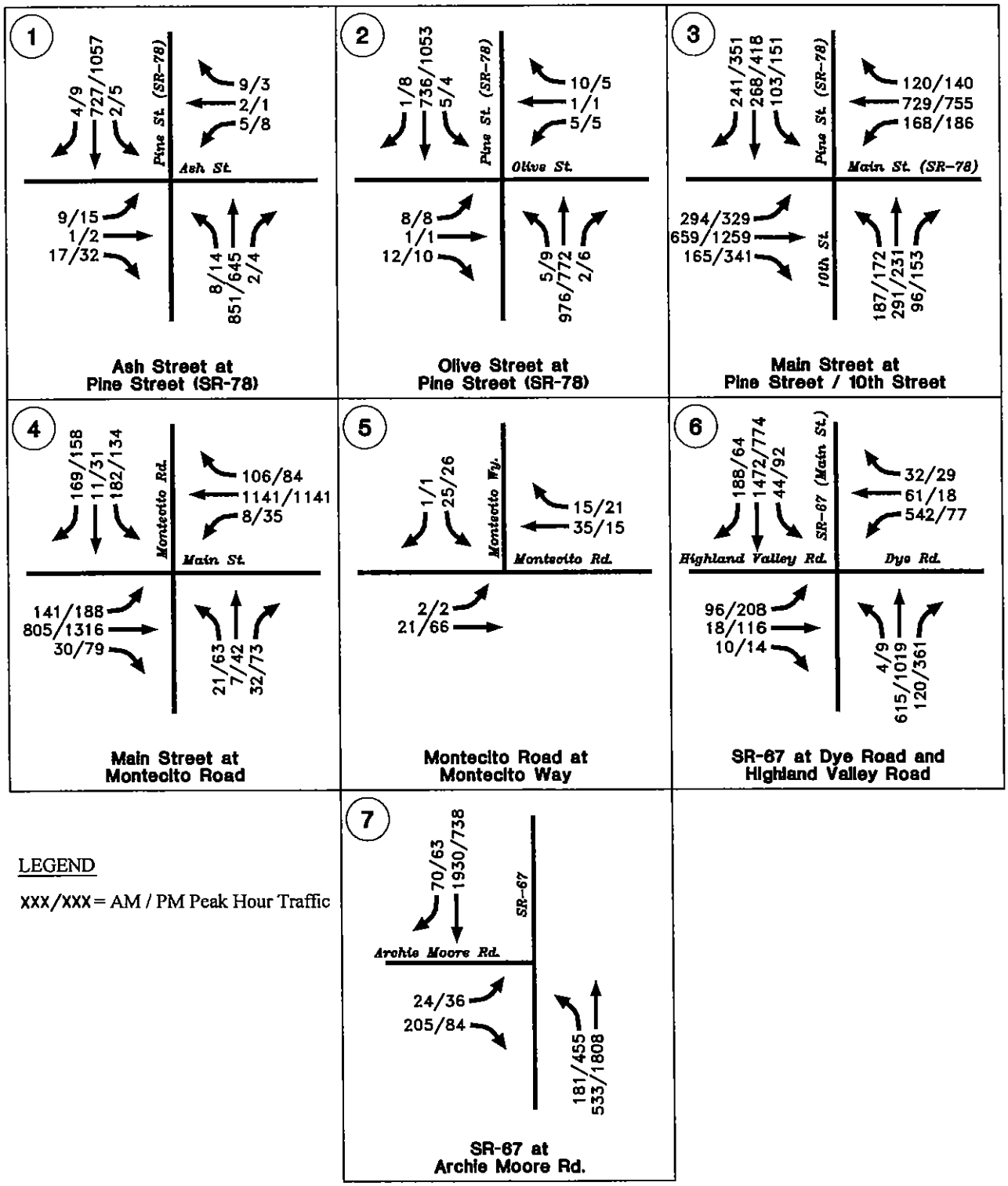


FIGURE 8-2

Existing + Other Projects Only AM/PM Peak Hour Traffic

TABLE 8-2

Existing + Other Projects Intersection Levels of Service

Number	Intersection	AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS
1	Ash Street at Pine Street (SR-78)[1]	43.5	E	100.8	F
2	Pine Street (SR-78) at Olive Street [1]	54.6	F	77.2	F
3	Pine Street (SR-78) at Main Street (SR-67)[2]	91.1	F	181.8	F
4	Main Street (SR-67) at Montecito Road[2]	37.2	D	58.5	E
5	Montecito Way at Montecito Road [1]	9.2	A	9.3	A
6	Main Street (SR-67) at Highland Valley Road / Dye Road** [2]	150.1	F	49.6	D
7	Main Street (SR-67) at Archie Moore Road [1]	*	F	*	F

Notes:

LOS = Level of Service
[1] = Unsignalized, worst approach delay
[2] = Signalized
* =Intersection delay is so high, it is beyond the model accuracy.
** = PHF is 0.95

9.0 EXISTING PLUS OTHER PROJECTS PLUS PROJECT

In this section of the report, project traffic was added to existing and "other projects" traffic to determine cumulative Near Term (2010) traffic impacts before project mitigation.

9.1 STREET SEGMENTS

Figure 9-1 shows existing plus other projects plus project volumes and **Table 9-1** shows street segment levels of service of the segments evaluated for the proposed project in the Near Term. As shown in the table, SR-78 and 10th Street are projected to operate at a level of service "E" or "F" without intersection or segment widening. Also, SR-67 will operate at a level of service "E" or "F". All other roadway segments would operate at LOS "D" or better.

9.2 INTERSECTIONS

Figure 9-2 shows the AM and PM peak intersection volumes when project traffic is added to existing plus "other projects" traffic. **Table 9-2** shows the levels of service projected to occur during the AM and PM peaks without any mitigation. As shown, all intersections will operate at LOS "E" or "F" during AM and/or PM peak hours, except for Montecito Way at Montecito Road. **Appendix H** contains the existing plus other projects plus project HCS worksheets.

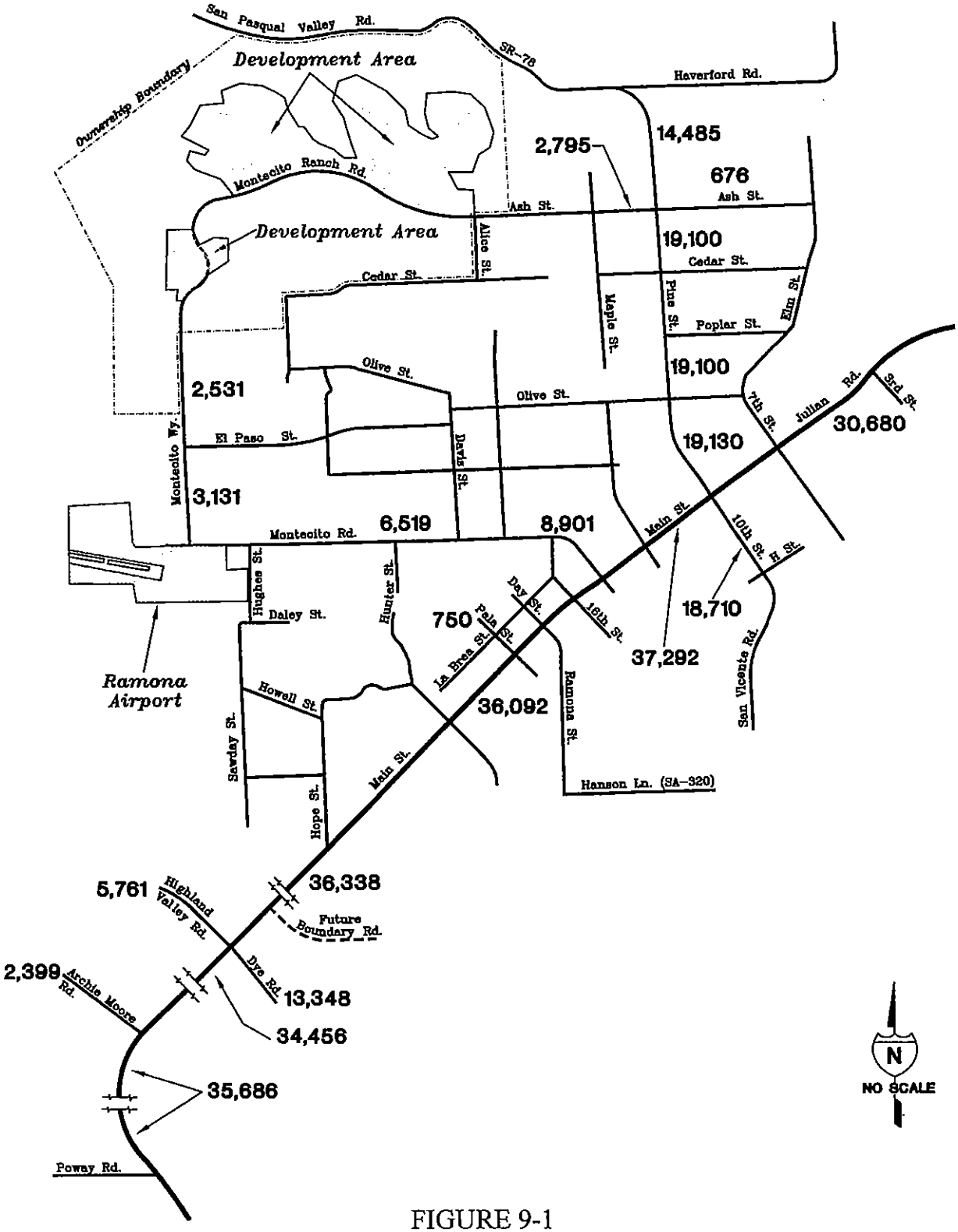


FIGURE 9-1

Existing + Other Projects + Project Average Daily Traffic

TABLE 9-1

Existing + Other Projects + Project Street Segment Levels of Service Before Project Mitigation

Road	Segment	Class.	Cap.	Volume	V/C	LOS[1]
Pine Street (SR-78)	Haverford Rd. - Ash St.	RLC	16,200	14,485	0.89	E
	Ash St. - Olive St.	RLC	16,200	19,100	1.18	F
	Olive St. - Main St. (SR-67)	RLC	16,200	19,130	1.18	F
10th Street	Main St. (SR-67) - H Street	RLC	16,200	18,710	1.15	F
Main Street (SR-78)	7th St. - 10th St.	M	37,000	30,680	0.83	D
Main Street (SR-67)	10th St. - Montecito Rd.	M	37,000	37,292	1.01	F
	Montecito Rd. - Hunter St.	M	37,000	36,092	0.98	E
	Hunter St. - Future Boundary Rd.	RLC	16,200	36,338	2.24	F
	Future Boundary Rd. - Highland Valley Rd.	RLC	16,200	36,338	2.24	F
	Highland Valley Rd. - Archie Moore Rd.	RLC	16,200	34,456	2.13	F
	Archie Moore Rd. - Poway Rd.	RLC	16,200	35,686	2.20	F
Montecito Wy.	Montecito Rd. - Montecito Ranch Rd.	RLC	16,200	3,131	0.19	B
	Montecito Rd. - Main St. (SR-67)	RLC	Does Not Exist			
Montecito Ranch Rd.	Project west access to Montecito Wy.	RLC	16,200	2,531	0.16	B
	Between Main Project Access Points	Special[2]	15,000	2,060	0.14	B
Ash St.	East Project Access - Pine St. (SR-78)	RLC	16,200	2,795	0.17	B
	Pine St. (SR-78) - Elm St.	RLC	16,200	676	0.04	A
Montecito Rd.	Montecito Wy. - Davis St.	RLC	16,200	6,519	0.40	C
	Davis St. - Main St. (SR-67)	RLC	16,200	8,901	0.55	D

Legend:

Class. = Functional Classification
Cap. = Capacity
RLC = Rural Light Collector
M = Major
LOS = Level of Service
V/C = Volume-to-Capacity Ratio

Notes:

[1] = Based on County Public Roads Standards; see Table 3-1.
[2] = Two-lane divided, equivalent to City of San Diego collector with turn lane.

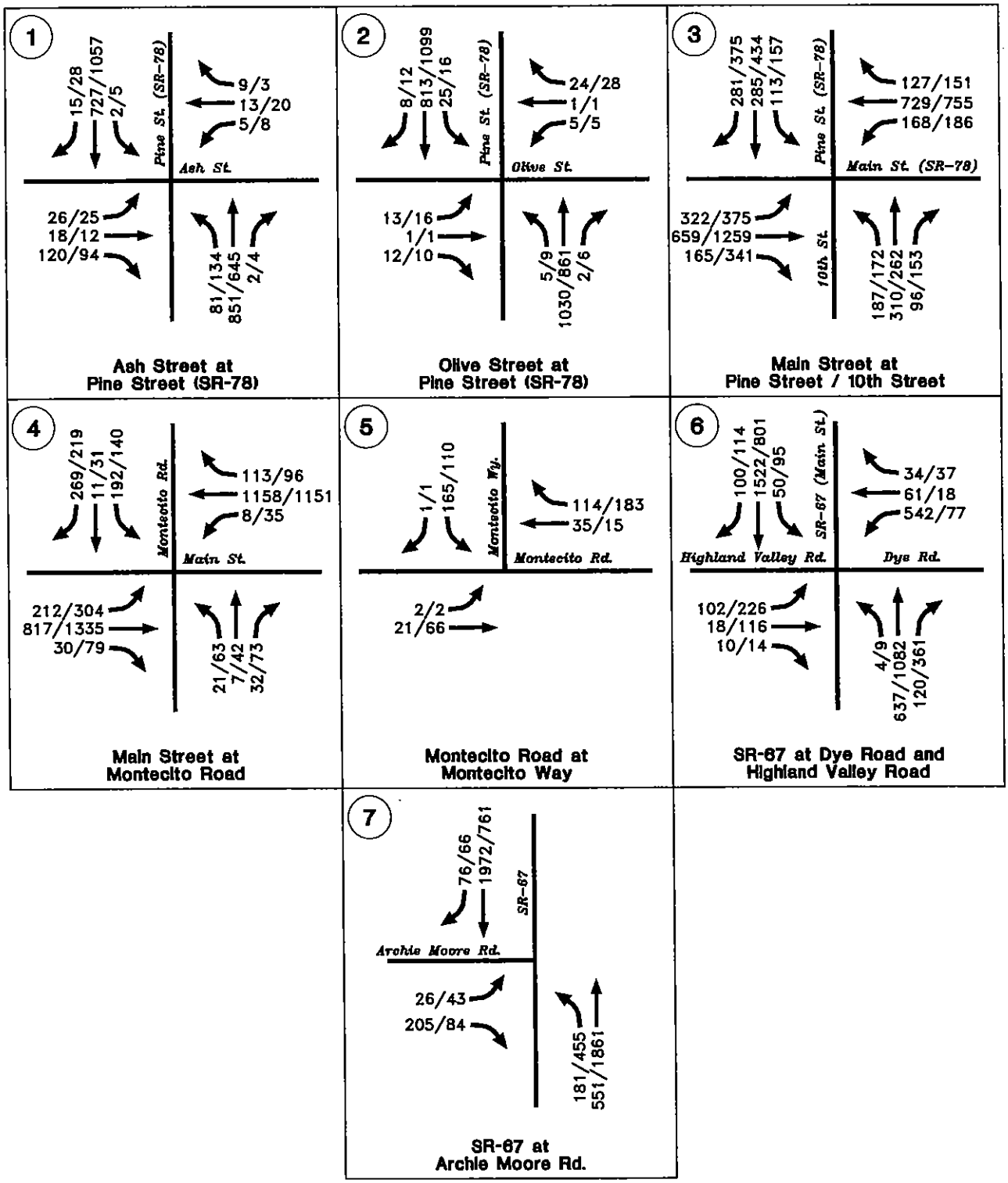


FIGURE 9-2

Existing + Other Projects + Project AM/PM Peak Hour Traffic

TABLE 9-2

Existing + Other Projects + Project Intersection Levels of Service Before Project Mitigation

Number	Intersection	AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS
1	Ash Street at Pine Street (SR-78)[1]	375.5	F	*	F
2	Pine Street (SR-78) at Olive Street [1]	145.2	F	268.9	F
3	Pine Street (SR-78) at Main Street (SR-67)[2]	102.4	F	193.1	F
4	Main Street (SR-67) at Montecito Road[2]	57.4	E	69.3	E
5	Montecito Way at Montecito Road [1]	10.6	B	10.6	B
6	Main Street (SR-67) at Highland Valley Road / Dye Road** [2]	161.7	F	82.7	F
7	Main Street (SR-67) at Archie Moore Road [1]	*	F	*	F

Notes:

LOS = Level of Service
[1] = Unsignalized, worst approach delay
[2] = Signalized
* =Intersection delay is so high, it is beyond the model accuracy.
** = PHF is 0.95

10.0 YEAR 2030 WITHOUT PROJECT

As discussed in preceding sections of this report, Series 10 travel forecasts were completed by Source Point for the proposed project. A copy of portions of the travel forecast plot with project is included in **Appendix I.** To determine Year 2030 without project daily and peak hour volumes, project traffic was removed from total buildout traffic. A complete traffic model description is included in Section 3.7 of this report.

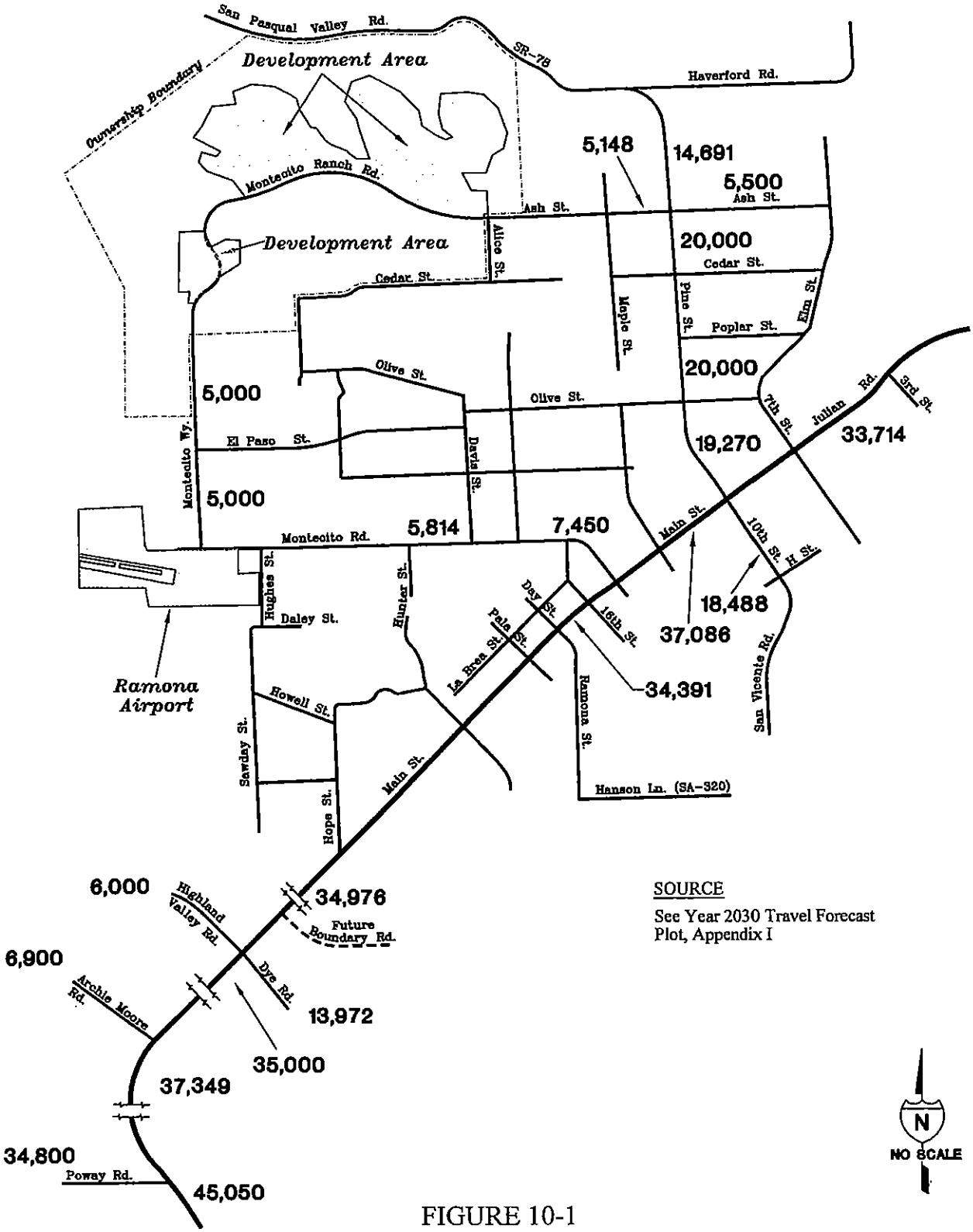
10.1 ROAD SEGMENTS

Figure 10-1 shows the Year 2030 without project average daily traffic volumes on road segments within the project study area.

Table 10-1 shows the study area road segments LOS for Year 2030 without project if the roadways are built to the function classification shown in the table. As shown, all analyzed segments of SR-78, SR-67 and 10th Street are projected to operate at an LOS that is below County standards, i.e., "E" or "F." The remaining roadway segments would operate at LOS "C" or better.

10.2 INTERSECTIONS

Peak hour intersection volumes at study area intersections under Year 2030 without project conditions are shown on **Figure 10-2.** These AM and PM peak turn volumes are generally based on turn volumes derived from the Series 10, Year 2030 traffic model. **Table 10-2** shows Year 2030 without project intersection levels of service. In some cases, where model turns did not represent reasonable volumes for analysis, i.e., the volumes may be lower than existing, the volumes were manually adjusted to more realistically represent likely Year 2030 conditions or to better match available peak intersection capacity. All analyzed



SOURCE
See Year 2030 Travel Forecast Plot, Appendix I

FIGURE 10-1

Year 2030 Without Project Average Daily Traffic

TABLE 10-1

Year 2030 Without Project Street Segment Levels of Service

Road	Segment	Class.	Cap.	Volume	V/C	LOS[1]
SR-78	Haverford Rd. - Ash St.	RLC	16,200	14,691	0.91	E
	Ash St. - Olive St.	RLC	16,200	20,000	1.23	F
	Olive St. - Main St. (SR-67)	RLC	16,200	19,270	1.19	F
10th Street	Main St. (SR-67) - H Street	RLC	16,200	18,488	1.14	F
Main Street (SR-78)	7th St. - 10th St.	M	37,000	33,714	0.91	E
Main Street (SR-67)	10th St. - Montecito Rd.	M	37,000	37,086	1.00	F
	Montecito Rd. - Hunter St.	M	37,000	34,391	0.93	E
	Hunter St. - Future Boundary Rd.	RLC	16,200	34,976	2.16	F
	Future Boundary Rd. - Highland Valley	RLC	16,200	34,976	2.16	F
	Highland Valley Rd. - Archie Moore Rd.	RLC	16,200	35,000	2.16	F
	Archie Moore Rd. - Poway Rd.	RLC	16,200	37,349	2.31	F
Montecito Wy.	Montecito Ranch Rd. - Montecito Rd.	RLC	16,200	5,000	0.31	C
	Montecito Rd. - Main St. (SR-67)	RLC	16,200	0	0.00	–
Montecito Ranch Rd.	Project west access to Montecito Wy.	RLC	16,200	0	0.00	--
	Between Main Project Access Points	Special[2]	15,000	0	0.00	--
Ash St.	East Project Access - Pine St. (SR-78)	RLC	16,200	5,148	0.32	C
	Pine St. (SR-78) - Elm St.	RLC	16,200	5,500	0.34	C
Montecito Rd.	Montecito Wy. - Davis St.	RLC	16,200	5,814	0.35	C
	Davis St. - Main St. (SR-67)	RLC	16,200	7,450	0.46	C

Legend:

Class. = Functional Classification
Cap. = Capacity
RLC = Rural Light Collector
M = Major
LOS = Level of Service
V/C = Volume-to-Capacity Ratio

Notes:

[1] = Based on County Public Roads Standards; see Table 3-1.
[2] = Two-lane divided, equivalent to City of San Diego collector with turn lane.

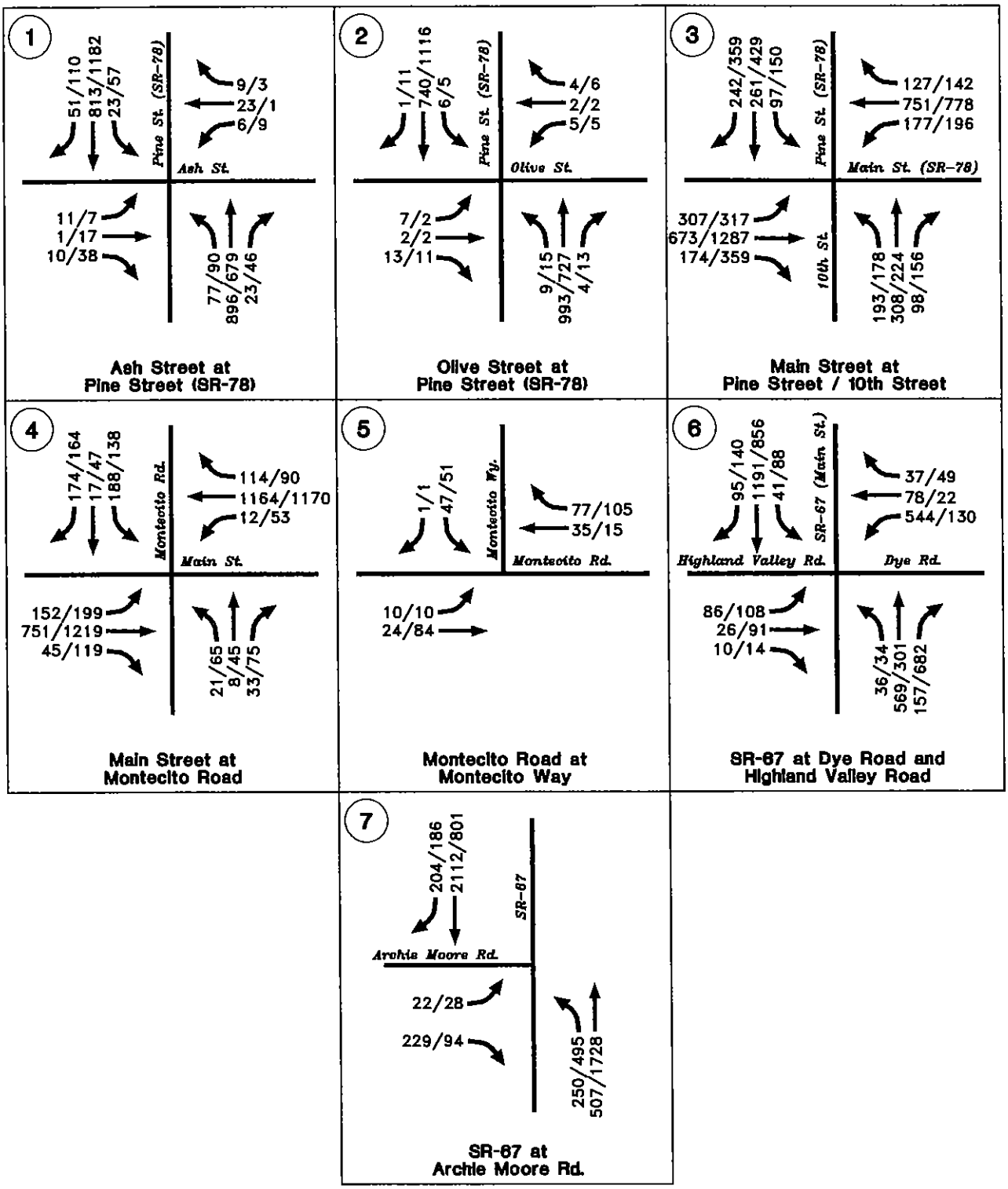


FIGURE 10-2

Year 2030 Without Project AM/PM Peak Hour Traffic

TABLE 10-2

Year 2030 Without Project Intersection Levels of Service

Number	Intersection	AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS
1	Ash Street at Pine Street (SR-78)[1]	(3)	F	(3)	F
2	Pine Street (SR-78) at Olive Street[1]	72.6	F	82.5	F
3	Pine Street (SR-78) at Main Street (SR-67)[2]	104.0	F	193.5	F
4	Main Street (SR-67) at Montecito Road[2]	40.0	D	59.1	E
5	Montecito Way at Montecito Road[1]	9.7	A	10.1	B
6	Main Street (SR-67) at Highland Valley Road / Dye Road*[2]	97.9**	F	43.4**	D
7	Main Street (SR-67) at Archie Moore Road[1]	(3)	F	(3)	F

Notes:

LOS = Level of Service
[1] = Unsignalized, worst approach delay
[2] = Signalized
(3) = Intersection delay is so high, it is beyond the model accuracy.
* = PHF is 0.95
** = Delay is less than near term at some locations due to lower volumes. The lower volumes are caused by the diversion of traffic due to construction of the southern bypass.

intersections would operate at LOS "E" or "F" at AM and/or PM peak hours, with the exception of Montecito Way/Montecito Road, which operates at LOS "B" or better.

It should be noted that the intersection levels of service shown in this table assume NO PROJECT MITIGATION or mitigation by others. This is because the project is not assumed to be built in this scenario. The next section describes the "with project" scenario and Chapter 12 discusses mitigation proposed for the project. **Appendix J** contains the Year 2030 without project HCS worksheets.

11.0 YEAR 2030 WITH PROJECT

As discussed in the preceding section of this report, Year 2030 with project segment and intersection volumes were determined using a Series 10 travel forecast. Since the forecast included project traffic, no further adjustments or refinements were necessary to establish daily and peak hour traffic for analysis.

11.1 ROAD SEGMENTS

Figure 11-1 shows the Year 2030 with project daily volumes and **Table 11-1** shows the road segment levels of service with the project. As shown in the table, all analyzed segments of SR-78 and SR-67 and 10th Street are projected to operate at a LOS that is below County standards, i.e., "E" or "F."

11.2 INTERSECTIONS

Peak hour intersection volumes at study area intersections are shown on **Figure 11-2**. These AM and PM peak turn volumes are generally based on turn volumes derived from the Series 10, Year 2030 traffic model. In some cases, where model turns did not represent reasonable volumes for analysis, i.e., the volumes may be lower than existing, the volumes were manually adjusted to more realistically represent likely Year 2030 conditions or to better match available peak intersection capacity. **Table 11-2** summarizes the results of the peak hour intersection analysis using HCS +. All intersections would operate at LOS "E" or "F" during AM and/or PM peak hours, except for Montecito Way/Montecito Road.

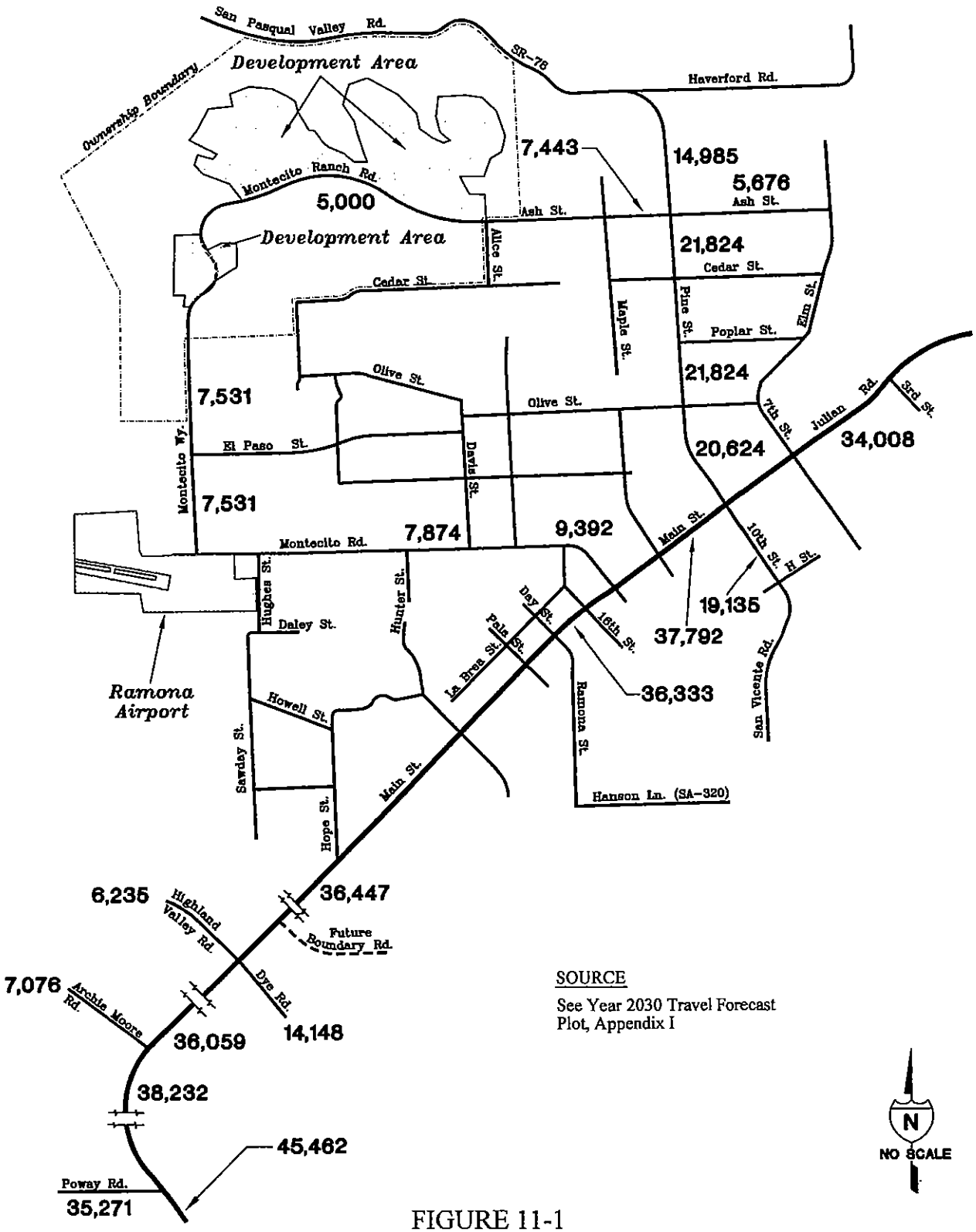


FIGURE 11-1

Year 2030 With Project Average Daily Traffic

TABLE 11-1

Year 2030 With Project Street Segment Levels of Service Before Project Mitigation

Road	Segment	Class.	Cap.	Volume	V/C	LOS[1]
Pine Street (SR-78)	Haverford Rd. - Ash St.	RLC	16,200	14,985	0.93	E
	Ash St. - Olive St.	RLC	16,200	21,824	1.35	F
	Olive St. - Main St. (SR-67)	RLC	16,200	20,624	1.27	F
10th Street	Main St. (SR-67) - H Street	RLC	16,200	19,135	1.18	F
Main Street (SR-78)	7th St. - 10th St.	M	37,000	34,008	0.92	E
Main Street (SR-67)	10th St. - Montecito Rd.	M	37,000	37,792	1.02	F
	Montecito Rd. - Hunter St.	M	37,000	36,333	0.98	E
	Hunter St. - Future Boundary Rd.	RLC	16,200	36,447	2.25	F
	Future Boundary Rd. - Highland Valley	RLC	16,200	36,447	2.25	F
	Highland Valley Rd. - Archie Moore Rd.	RLC	16,200	36,059	2.23	F
	Archie Moore Rd. - Poway Rd.	RLC	16,200	38,232	2.36	F
Montecito Wy.	Montecito Ranch Rd. - Montecito Rd.	RLC	16,200	7,531	0.46	D
	Montecito Rd. - Main St. (SR-67)	RLC	Does Not Exist			
Montecito Ranch Rd.	Project west access to Montecito Wy.	RLC	16,200	7,531	0.46	D
	Between Main Project Access Points	Special[2]	15,000	5,000	0.33	B
Ash St.	East Project Access - Pine St. (SR-78)	RLC	16,200	7,443	0.46	D
	Pine St. (SR-78) - Elm St.	RLC	16,200	5,676	0.35	C
Montecito Rd.	Montecito Wy. - Davis St.	RLC	16,200	7,874	0.49	D
	Davis St. - Main St. (SR-67)	RLC	16,200	9,392	0.58	D

Legend:

Class. = Functional Classification
Cap. = Capacity
RLC = Rural Light Collector
M = Major
LOS = Level of Service
V/C = Volume-to-Capacity Ratio

Notes:

[1] = Based on County Public Roads Standards; see Table 3-1.
[2] = Two-lane divided, equivalent to City of San Diego collector with turn lane.

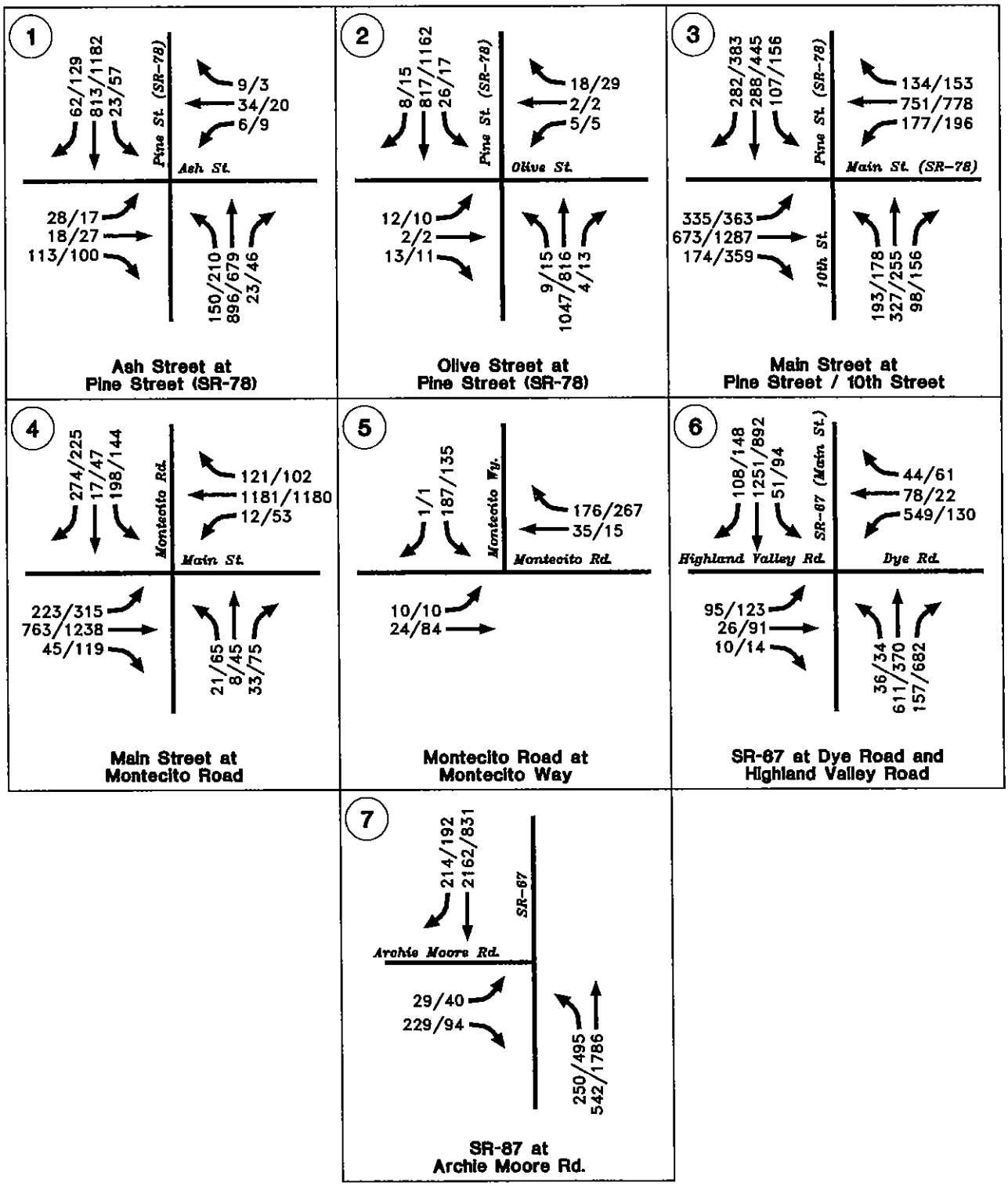


FIGURE 11-2

Year 2030 With Project AM/PM Peak Hour Traffic

TABLE 11-2

Year 2030 With Project Intersection Levels of Service Before Project Mitigation

Number	Intersection	AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS
1	Ash Street at Pine Street (SR-78)[1]	*	F	*	F
2	Pine Street (SR-78) at Olive Street [1]	144.3 [3]	F	198.6 [3]	F
3	Pine Street (SR-78) at Main Street (SR-67)[2]	116.8	F	200.6	F
4	Main Street (SR-67) at Montecito Road[2]	59.2	E	87.3	F
5	Montecito Way at Montecito Road [1]	11.5	B	11.9	B
6	Main Street (SR-67) at Highland Valley Road / Dye Road** [2]	106.8[3]	F	50.0[3]	D
7	Main Street (SR-67) at Archie Moore Road [1]	*	F	*	F

Notes:

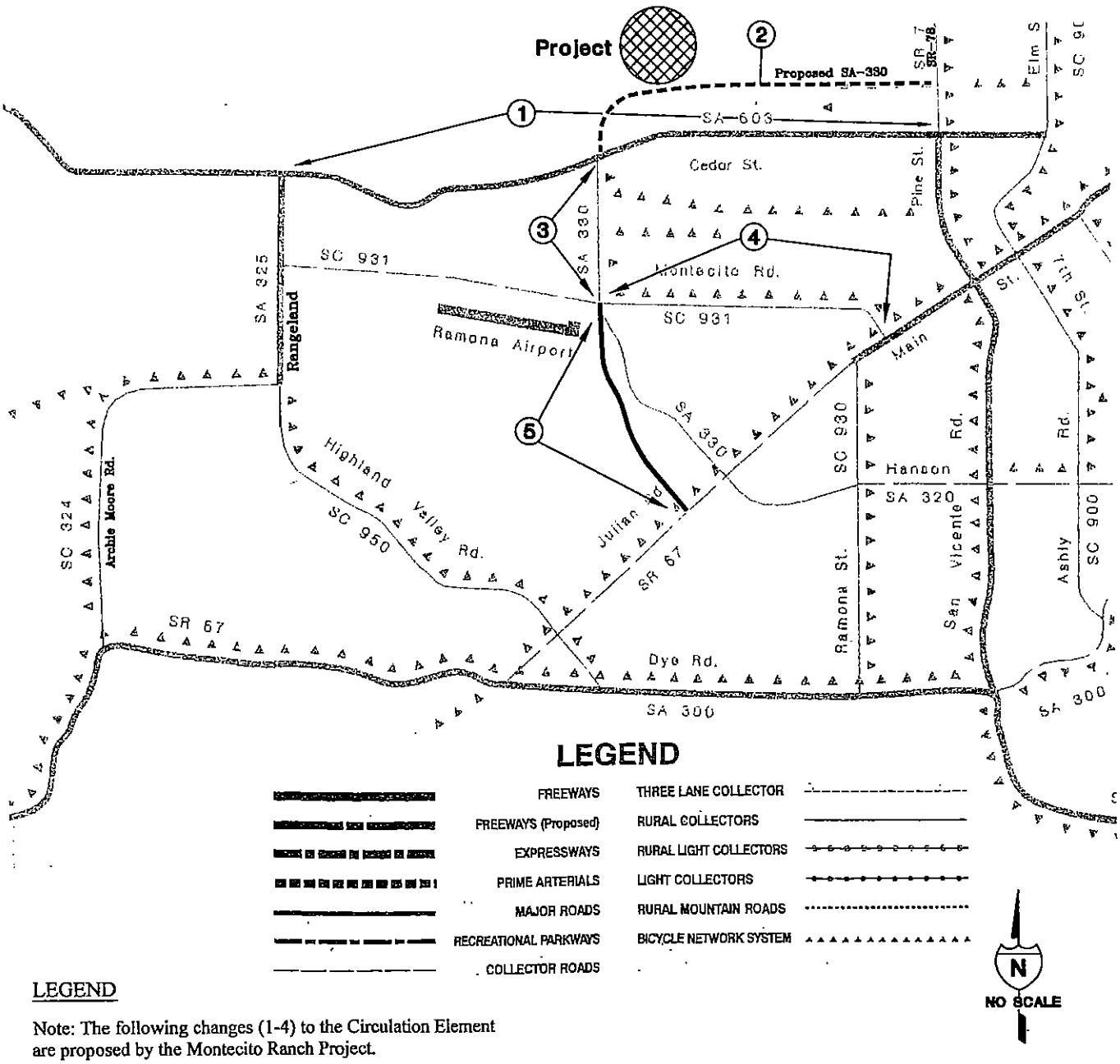
LOS = Level of Service
[1] = Unsignalized, worst approach delay
[2] = Signalized
* =Intersection delay is so high, it is beyond the model accuracy.
** = PHF is 0.95
[3] = Delay is less than Near Term with Project at this location due to lower volumes. The lower volumes and thus reduced delay are caused by the diversion of traffic due to construction of the southern bypass.

It should be noted that the intersection levels of service shown in this table assume NO PROJECT MITIGATION or mitigation by others. This is because project mitigation is not assumed to be built. The next sections describe the "with project" scenario and Chapter 12 discusses mitigation proposed for the project. **Appendix K** contains the buildout with project HCS worksheets.

11.3 PLAN TO PLAN COMPARISON

Figure 11-3 shows the proposed project site and the surrounding Ramona area on the present County General Plan Circulation Element (CE) map. From a CE perspective a new two-lane rural light collector loop is proposed by the project as an amendment to the circulation element because it provides needed access to the northern and southern parts of Ramona. The project has the potential to reduce both existing and future traffic within downtown Ramona by building 2 of the 3 segments of SA-330 which would then provide a bypass of downtown. See items 2 and 3 on **Figure 11-3**.

SA-330 from SR-78 to SR-67 would be classified as a rural light collector. The design speed for SA-330 would be 40 miles per hour, except between the eastern boundary of the project site and SR-78, where existing vertical design elements limit the speed to 35 miles per hour. A design exception will be required for Ash Street from east of the project boundary to SR-78 for design speed variation, removal of parking to provide bike lanes and removal of sidewalks and replacement with a multi-purpose trail. Design exceptions for Montecito Way (SA-330) include removal of parking to provide bike lanes, removal of sidewalks and replacement with a multi-purpose trail.



LEGEND

Note: The following changes (1-4) to the Circulation Element are proposed by the Montecito Ranch Project.

1. Deletion of SA-603 from Pine Street (SR-78) to Rangeland Road.
2. Addition of SA-330 from Pine Street (SR-78) along Ash Street, through Montecito Ranch (Montecito Ranch Road) to the intersection of Montecito Way and Sonora as a rural light collector.
3. Relocate SA-330 from existing alignment to Montecito Way, from the intersection of Montecito Way and Sonora to Montecito Road.*
4. Reclassify Montecito Road from MOntecito Way (SA-330) to Main Street (SR-67) to rural light collector standards.
5. Relocate SA-330 from easterly location to new location west of The Acres subdivision.

* SA-330 South of Montecito Road is already proposed as a circulation element amendment as part of General Plan 2020. Since this portion of SA-330 does not run through Montecito Ranch and is not part of the project improvements, it is not included as part of Montecito Ranch's circulation amendment.

FIGURE 11-3

Existing Circulation Element With Proposed Amendments

In addition to these changes to the CE, the project also recommends elimination of SA-603 between SR-78 and Rangeland Road. As discussed above key elements of the proposed project relate to the existing County CE that is shown on **Figure 11-3**. CE changes are proposed as a part of the project in addition to widening Montecito Road. As summarized on Figure 11-3, the proposed CE Amendments include:

1. Deletion of SA-603 from Pine Street (SR-78) to Rangeland Road.
2. Addition of SA-330 from Pine Street (SR-78) along Ash Street, through Montecito Ranch (Montecito Ranch Road) to the intersection of Montecito Way and Sonora as a rural light collector.
3. Relocate SA-330 from existing alignment to Montecito Way, from the intersection of Montecito Way and Sonora to Montecito Road*.
4. Reclassify Montecito Road from Montecito Way (SA-330) to Main Street (SR-67) to rural light collector standards.

*SA-330 South of Montecito Road is already proposed as a circulation element amendment as part of General Plan 2020. Although this portion of SA-330 does not run through Montecito Ranch and is not part of the project improvements, we are including it as part of Montecito Ranch's circulation amendment.

There are three land use plans, i.e., the proposed project, existing and proposed 2020 General Plan, which all propose 417 dwelling units for the project area. Since all three plans agree, there is no variation in traffic generation between the plans.

There are also three alternative circulation plans which were considered or used in this project impact analysis. The alternatives are:

1. Adopted General Plan CE
2. Proposed Project Changes to the CE
3. Staff Recommended General Plan 2020 Update

11.3.1 Adopted Circulation Element

The existing adopted CE with proposed amendments was discussed and is shown in **Figure 11-3**. There are four features of the adopted CE that are recommended for change by the project. These recommended changes are:

1. Deletion of SA-603 between Rangeland Road and SR-78.
2. Addition of SA-330 between Montecito Way and SR-78.
3. Reclassification of Montecito Road and Montecito Way to a rural light collector.
4. Relocation of SA-330 to the west to avoid impacts to the acres subdivision.

11.3.2 The Project Proposal

The Montecito Ranch project recommends a circulation element amendment to delete SA-603 and to build a portion of a new SA-330 rural light collector loop as proposed in the TIF program and as illustrated on **Figure 11-4**. The project proposes to build or improve to rural light collector standards three SA-330 segments as follows:

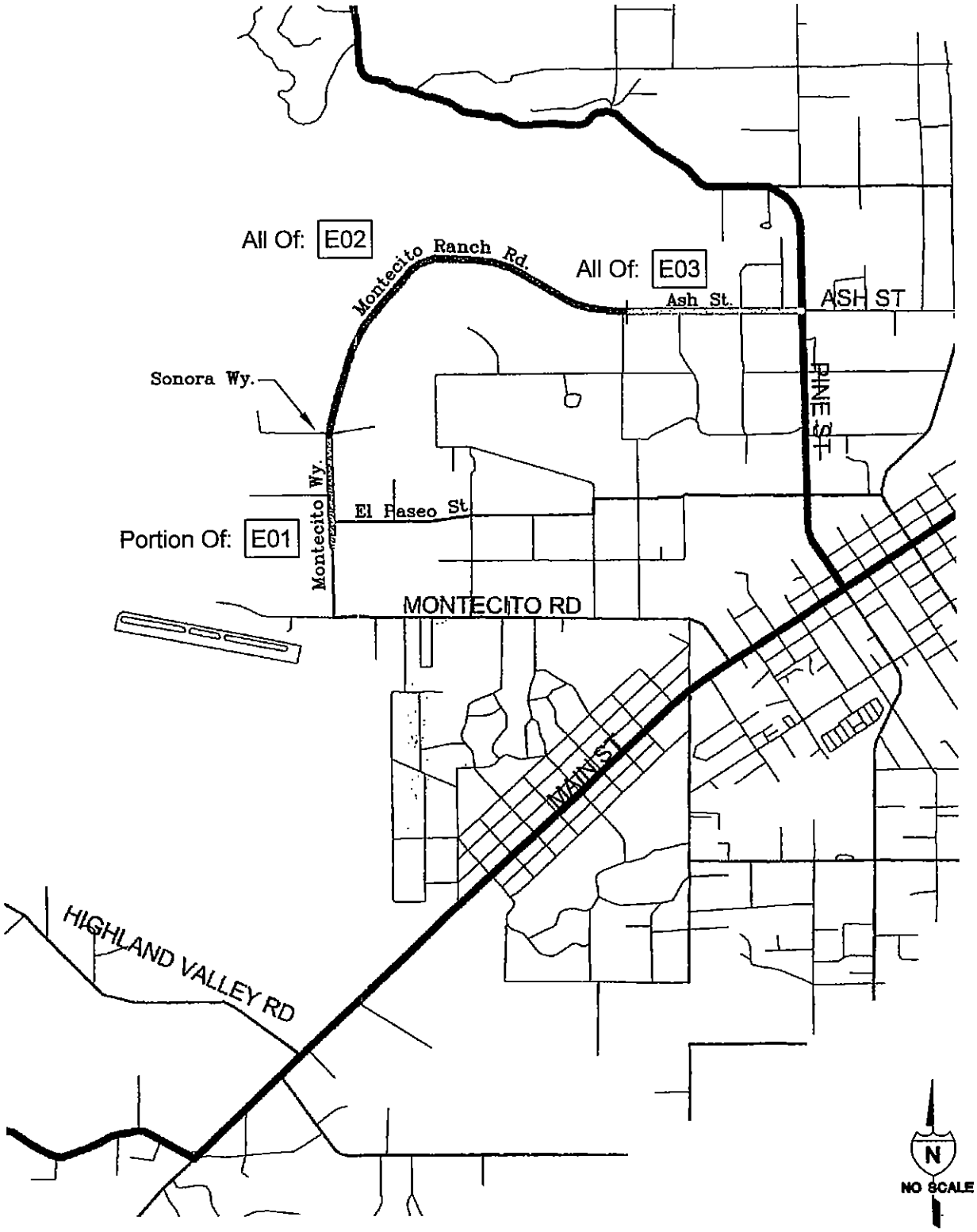


FIGURE 11-4

Project Improvements to SA-330

- Portion of: Segment (E01) - Montecito Way between Sonora Way and Montecito Road - BUILD
- All of: Segment (E02) - Montecito Ranch Road between Sonora Way and Ash Street - BUILD
- All of: Segment (E03) - Ash Street between Montecito Ranch Road and SR-78 - BUILD

These three segments are included in the County TIF program except that the TIF program includes Montecito Way south of El Paso Street in a location slightly east of existing Montecito Way. The project proposes to improve all of Montecito Way in its present location between El Paso Street and Montecito Road.

11.3.3 2020 Circulation Element Update - Staff Recommended Plan

The County recently completed the process of a comprehensive update to the adopted CE. The staff-recommended (but not approved) plan is shown in **Figure 11-5** and was recommended for preparation of an EIR by the Board of supervisors August 2, 2006. In the project area, staff recommends:

1. Deletion of SA-603 between Highland Valley Road and Montecito Way.
2. Deletion of SA-325 (Rangeland Road) between Highland Valley Road and SA-603.
3. Deletion of SC-931 between Rangeland Road and the airport.
4. Relocation of SA-330 along the old SA-603 alignment (Cedar Street) to Ash Street.
5. Relocation of SA-330 between Montecito Road and SR-67.
6. Connection of Boundary Road to SA-330 at SR-67.

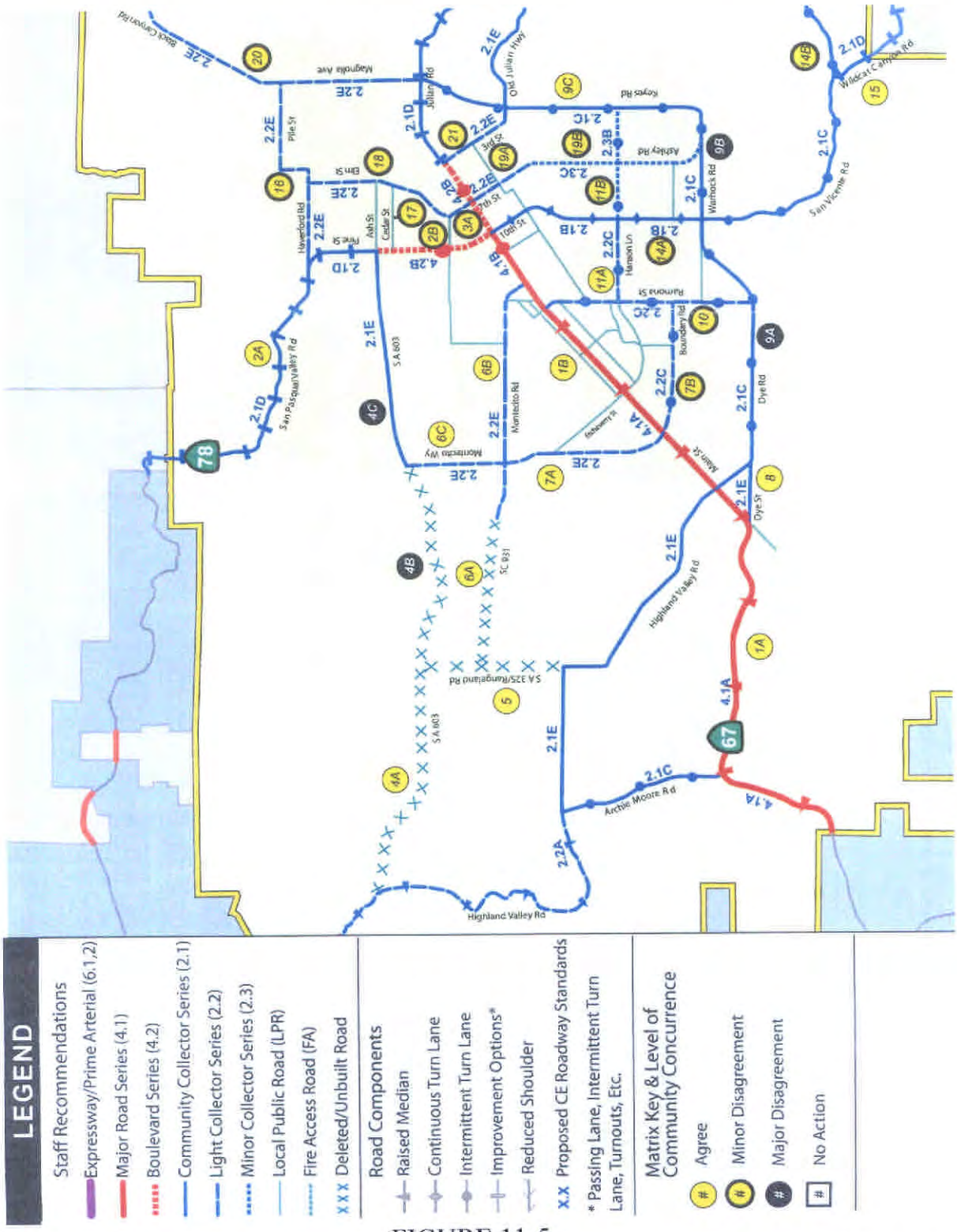


FIGURE 11-5

Year 2020 Staff Recommended Circulation Element Update

Table 11-3 compares each of the three circulation plans. The existing CE and proposed 2020 CE are shown in **Figures 11-3** and **11-5** respectively. Differences are discussed below. SA-603 is divided into three segments. The County recommends deletion of two segments and realignment of the easterly segment to become SA-330. **Figure 11-6** shows all of the proposed changes to the Circulation Element by the project.

With regard to SA-325 (Rangeland Road,) the project will support deletion, which is consistent with the staff 2020 recommendation. For SC-931, the staff 2020 recommendation is to delete portions. The project recommendation is no change west of Montecito Way. SC-931 east of Montecito Way is proposed to be reclassified as a Rural Light Collector by the project. No change is proposed by 2020 staff.

For SA-330, the staff and project recommendations are the same north of Montecito Road. The County recommends connection of Boundary Road to SA-330 and relocation of SA-330 to the west on the segment between Montecito Road and SR-67.

A comparison of traffic volumes for the 2030 with project and 2020 plans was also completed. **Table 11-4** summarizes the results of this effort. Existing land use designations for the adopted General Plan are shown in **Figures 11-7** and **11-8.** As shown in **Table 11-4**, the 2030 with project volumes are generally higher than the 2020 volumes. This is most likely due to the inclusion of numerous "other projects" in the project forecast. The required road facilities would be the same for both Project and 2020 forecast results.

TABLE 11-3

Circulation Element Plan Comparison

Road	Segment	Adopted Circulation Element (Figure 11-3)	Year 2020 Staff preference (Figure 11-5)	Project Proposed Circulation Element (Figure 11-6)
SA-603	Highland Valley Rd. to Rangeland (SA-325)	Major	Delete	No Recommendation
SA-603	Rangeland (SA-325) to Montecito Wy.	Major	Delete	Delete
SA-603	Montecito Wy. to Pine St. (SR-78)	Major	Re-designate SA-330	Re-designate SA-330
SA-325	Proposed SA-330 to Highland Valley Rd.	Major	Delete	No Recommendation
SA-330	Main Street (SR-67) to Montecito Rd.	Rural Collector	Re-locate, re-classify as Light Collector	Relocate, classify as Rural Light Collector
SA-330	Montecito Rd. to SA-603	Rural Collector	Re-classify as Light Collector	Re-classify as Rural Light Collector
SA-330	SA-603 to Pine Street (SR-78)	No Road	Re-classify Old SA-603 as a Light Collector	Re-classify SA-603 as a Rural Light Collector
Boundary Road	Main Street (SR-67) to Ramona Street	Local	Add Light Collector	No Recommendation
Montecito Road	Montecito Way to Main Street	Rural Collector	Re-classify as Rural Light Collector	Re-classify as Rural Light Collector

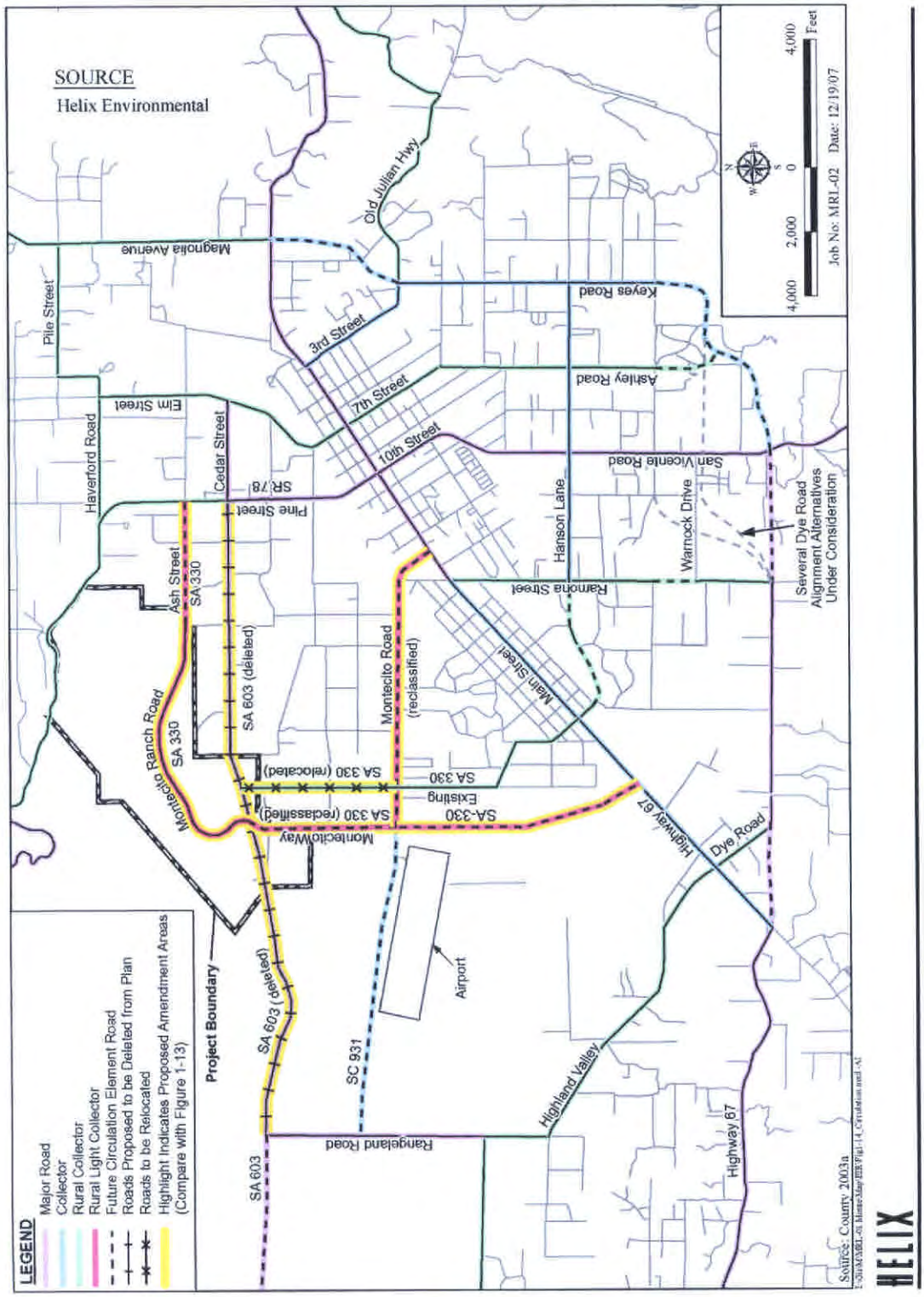


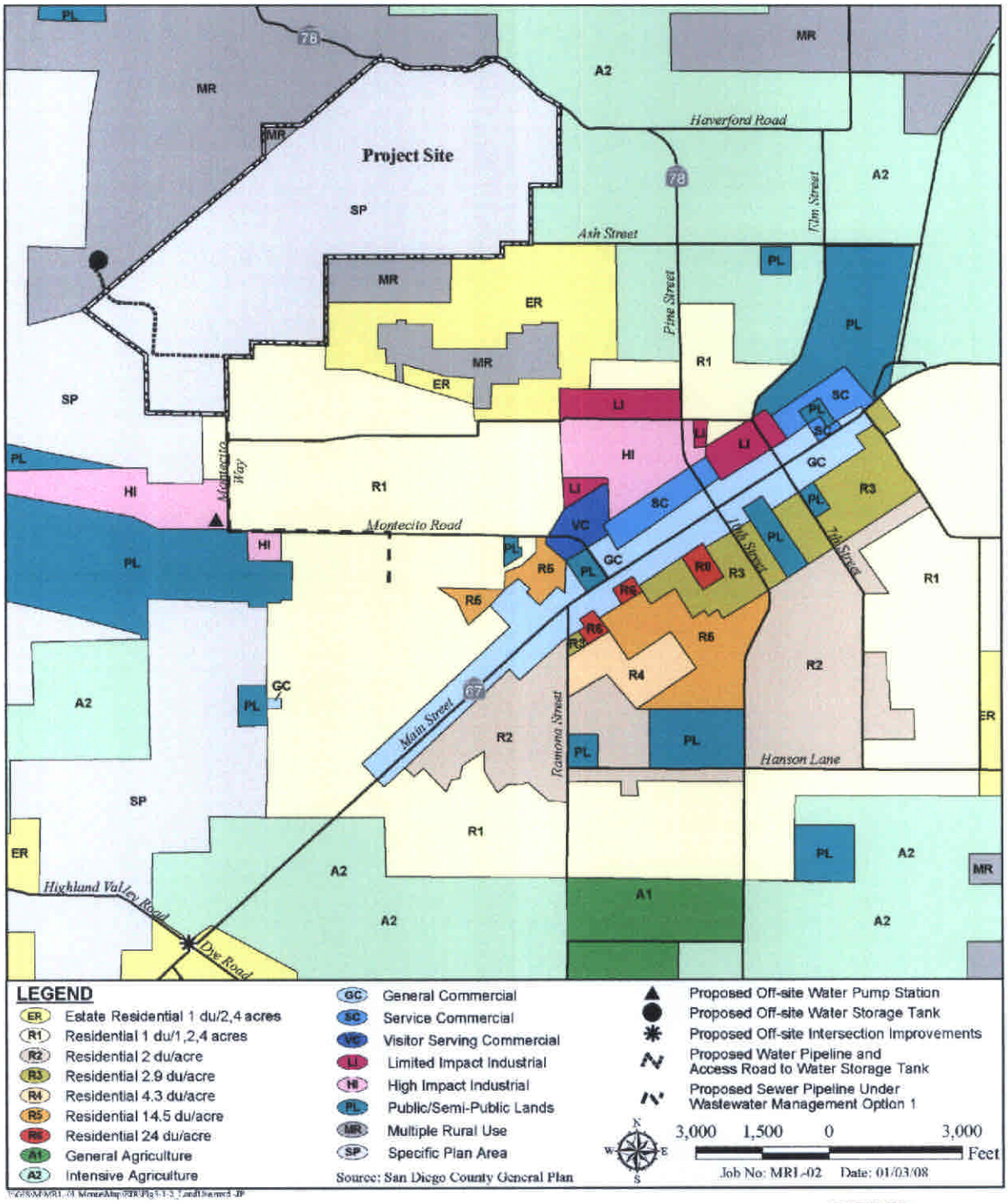
FIGURE 11-6

Proposed Amendments to Circulation Element Plan

TABLE 11-4

2030 With Project Volumes Compared to County 2020 Forecast Volumes

Road	Segment	2030 With Project	2020
Pine (SR-78)	Ash Street to Haverford Road	14,985	10,500
Pine (SR-78)	Ash Street to Olive	21,824	14,500
Proposed SA-330	Pine Street (SR-78) to Montecito Way	5,000	2,940
Proposed SA-330	Montecito Way to Montecito Road	7,531	4,200
Main Street (SR-67)	Pine Street (SR-78) to Montecito Road	37,792	31,000
Main Street (SR-67)	Montecito Road to Proposed SA-330	36,447	29,000
Main Street (SR-67)	Proposed SA-330 to Dye Road	38,471	33,300



HELIX

SOURCE
Helix Environmental

FIGURE 11-7
Existing General Plan Land Use Designations

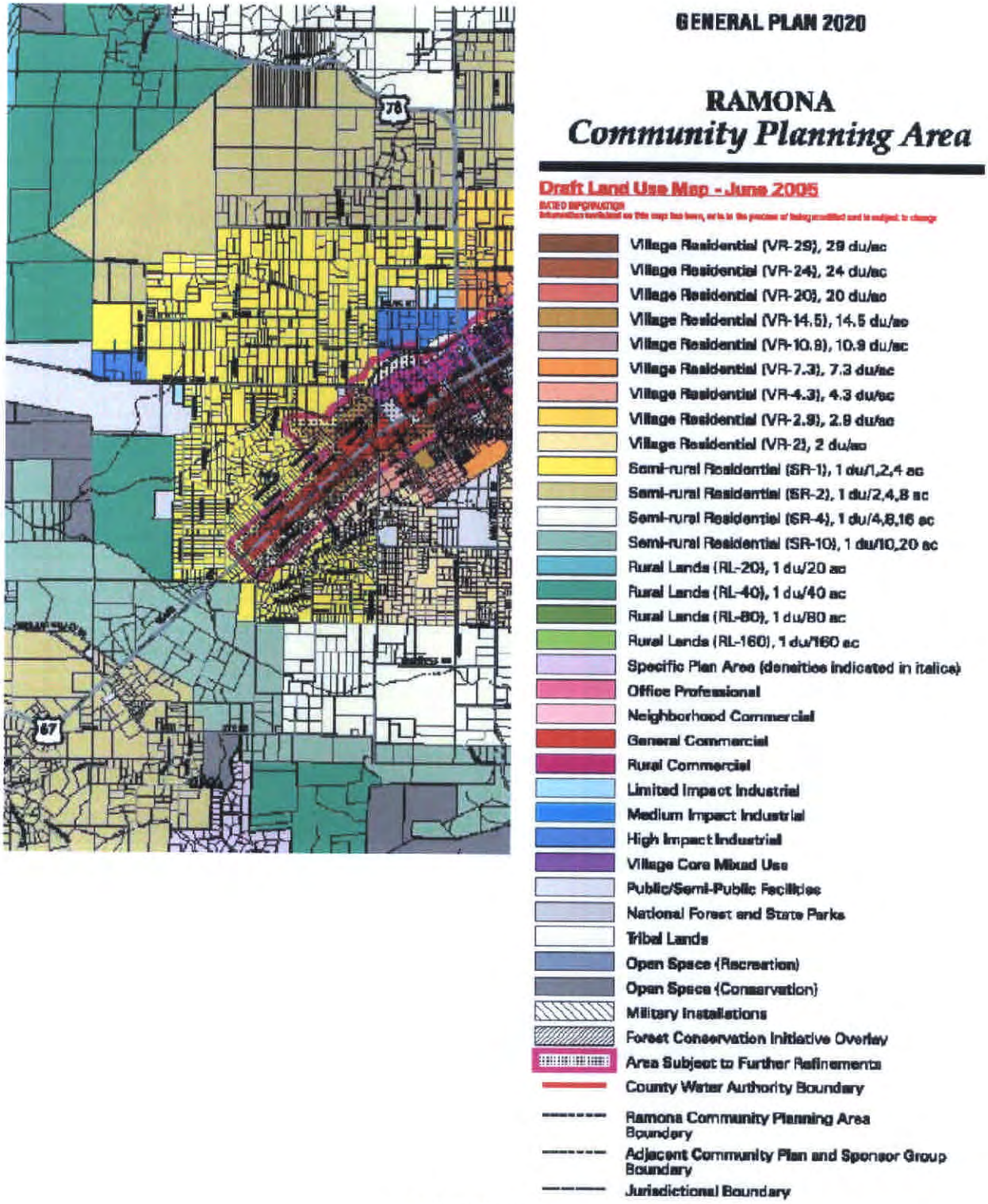


FIGURE 11-8

Draft Land Use Map - June 2005

11.4 PROJECT PHASING

This phasing analysis is based on roadway traffic capacities and should not be compared to project units (Units 1 and 2) which were developed for tentative mapping purposes only.

This phasing analysis was completed for the condition when Montecito Road and Ash Street provide project access, see **Figures 11-9A** or phase 1 and **11-9B** for phase 2. For this condition, the project site would be connected to SR-78 via Ash Street, project impacted intersections are mitigated. Montecito Way is improved and Montecito Ranch Road is built. Also Montecito Road from Montecito Way to SR-67 would be used along with intersection improvements at Montecito Road and SR-67.

In the existing plus project condition, the intersection of SR-67 and Montecito Road was shown to have unused capacity, i.e., during the PM peak it will operate at an LOS "D" and during the AM peak an LOS "C." To determine how much project traffic could be added to the intersection without creating a LOS that is below County standards, the peak project traffic from **Figure 5-3** was ratioed and the HCS 2000 capacity analysis was re-run.

We found that the PM peak along with turn movements at the intersection of SR-67 and Montecito Road were the most limiting factors. The analysis results showed that 280 dwelling units could be developed and occupied before the capacity at intersection #4 is exceeded resulting in levels of service below County standards. **Table 11-5** summarizes the improvements needed to accommodate the initial development phase of 280 units. The table also summarizes the traffic improvements for the two development phases (i.e., prior to occupancy of the first home to 280 homes, and prior to occupancy of 281 homes to project buildout of 417 homes).

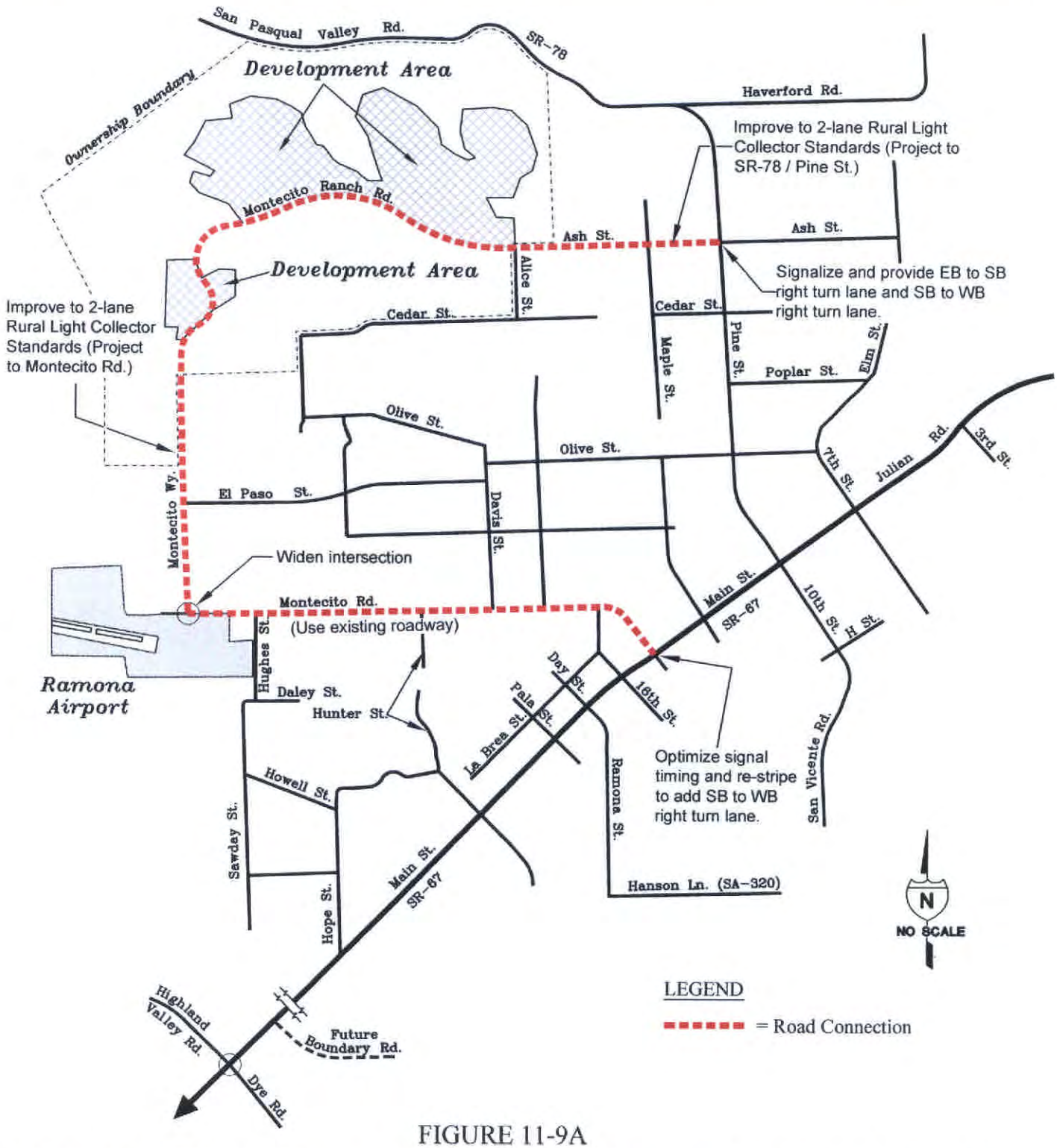


FIGURE 11-9A

Phase One Plan - Proposed Roadway / Intersection Improvements For Up To 280 Units

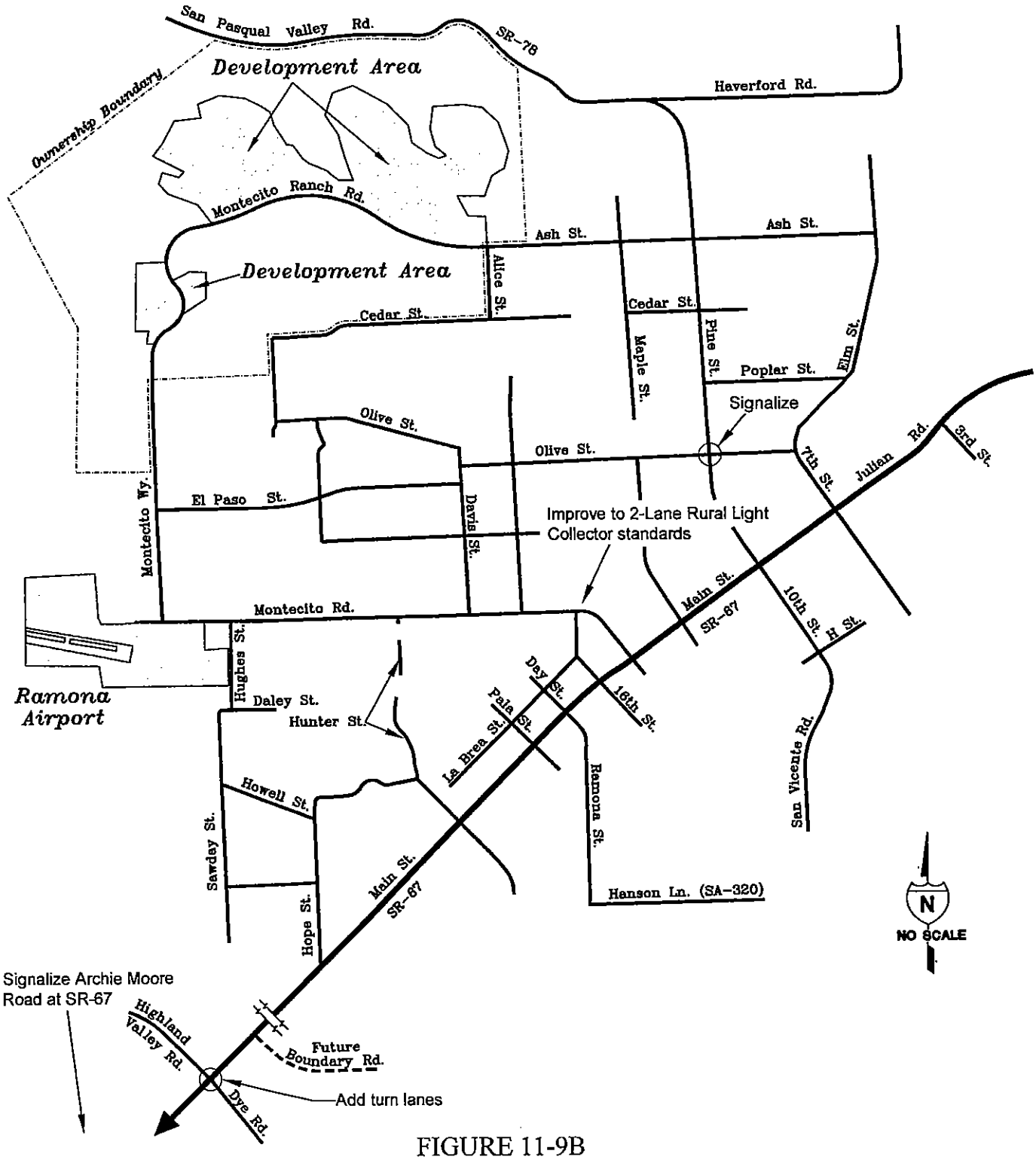


FIGURE 11-9B

Phase Two Plan - Proposed Roadway / Intersection Improvements For 281 to 417 Units

TABLE 11-5

Phased Traffic Improvements

Phase	Land Use Threshold	Mitigation Required		Improvement
		Segment/Intersection	Limits	
1	Prior to occupancy of first Home to 280 Homes	Montecito Way	Montecito Road to Montecito Ranch Rd.	Widen existing 2 lanes to meet 2 lane Rural Light Collector standards
1		Montecito Ranch Rd	Montecito Way to Ash Street	Construct new special design 2 lane Divided Rural Light Collector ; No signalization
1		Ash Street	Montecito Ranch Rd. to Pine St.	Widen existing 2 lanes to meet 2 lane Rural Light Collector standards
1		Ash Street at Pine Street	- Intersection	Signalize and construct eastbound to southbound right turn lane. Also provide a southbound to westbound right turn lane (Community Improvement*)
1		Main Street at Montecito Rd.	- Intersection	Restripe, widen, and modify signal to provide a southbound to westbound right turn lane.
1		Montecito Way at Montecito Rd.	- Intersection	Widen to provide left turn lanes on all approaches; no signalization
1		Pine Street at Main Street	- Intersection	Widen, restripe, and modify signal to provide a south to westbound right turn lane.
2	Prior to occupancy of the 281st Home to project build out of 417 homes.	Montecito Road	Montecito Way to SR-67	Improve the existing 2 lane road to 2 lane rural light collector standards
2		Pine at Olive	- Intersection	Provide new traffic signal if not previously signalized by Caltrans.
2		Highland Valley Road at SR-67	- Intersection	Provide one additional north to westbound left turn lane.
2		Archie Moore at SR-67	- Intersection	Signalize existing intersection.

Note:
* See Intersection 1, page 12-13 for futher detail

For the phased development, 280 homes translates to 235 PM peak in and 101 PM peak out trips. This traffic splits 40% to the east and 60% to the west. Therefore, the table below summarizes the phased peak traffic impacts to SR-78 and SR-67.

Phased PM Peak Traffic Impacts

Corridor	%	In	Out
SR-78 (Pine Street)	40%	94	41
SR-67 (Main Street)	60%	141	60
	TOTAL	235	101

As shown in the table, along the SR-78 corridor, if the peak traffic were spread uniformly over the peak one hour, about 1 ½ cars inbound and less than 1 car outbound per minute would impact SR-78.

For the SR-67 corridor, slightly more than 2 cars per minute inbound and about 1 car per minute outbound would impact the corridor. These impacts would not likely be perceptible to most drivers.

12.0 CONCLUSIONS AND RECOMMENDATIONS

In this section of the report, results from the analysis are summarized for each scenario and the significance of any project impacts are identified. Mitigation or overriding findings are then proposed.

12.1 STREET SEGMENTS

12.1.1 Existing

Table 12-1 summarizes the existing street segment levels of service. As shown in the table, all existing segments operate at a level of service "D" or better except portions of SR-67 between Hunter and Poway Road which operate at a level of service "F".

12.1.2 Existing Plus Project

Table 12-1 also shows the existing street segment level of service when project traffic is added to existing traffic. This analysis represents a measure of "direct project" impacts. As shown in the table, six street segments are significantly impacted by the addition of project traffic. These segments include SR-78 between Ash Street and SR-67, and SR-67 between Hunter Street and Poway Road. These impacts are not proposed to be fully mitigated by the project. Since most roadway corridors fail at intersections, the project has elected to focus on intersection improvements to mitigate project impacts. Refer to Section 12.3 for proposed mitigation measures.

TABLE 12-1

Existing & Existing + Project Street Segment Comparison

Street	Segment	Existing		Existing + Project		Δv	Significant?
		ADT	LOS	ADT	LOS		
Pine Street (SR-78)	Haverford Rd. - Ash St.	9,700	D	9,994	D	N/A	N
	Ash St. - Olive St.	10,200	D	12,024	E	1,824	Y
	Olive St. - Main St. (SR-67)	10,700	D	12,054	E	1,354	Y
10th Street	Main St. (SR-67) - H Street	7,000	C	7,647	D	N/A	N
Main Street (SR-78)	7th St. - 10th St.	23,300	B	23,594	B	N/A	N
Main Street (SR-67)	10th St. - Montecito Rd.	29,500	C	30,206	D	N/A	N
	Montecito Rd. - Hunter St.	27,300	C	29,006	C	N/A	N
	Hunter St. - Boundary Rd.	27,000	F	28,471	F	1,471	Y
	Boundary Rd. - Highland Valley Rd.	27,000	F	28,471	F	1,471	Y
	Highland Valley Rd. - Archie Moore Rd.	24,000	F	25,059	F	1,059	Y
	Archie Moore Rd. - Poway Rd.	25,000	F	25,883	F	883	Y
Montecito Wy.	Montecito Ranch Rd. - Montecito Rd.	600	A	3,131	B	N/A	N
	Montecito Rd. - Main St. (SR-67)	---	---	2,472	B	N/A	N
Montecito Ranch Rd.	Project west access to Montecito Wy.	---	---	3,131	B	N/A	N
	Between Main Project Access Points	---	---	2,060	B	N/A	N
Ash St.	East Project Access - Pine St. (SR-78)	500	A	2,795	B	N/A	N
	Pine St. (SR-78) - Elm St.	500	A	676	A	N/A	N
Montecito Rd.	Montecito Wy. - Davis St.	3,500	B	5,560	C	N/A	N
	Davis St. - Main St. (SR-67)	6,000	C	7,942	D	N/A	N

5703-TAB12-1L.wpd

Note: Δv = Change in volume between Existing and Existing + Project
LOS = Level of Service

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12.1.3 Existing Plus Other Projects

Table 12-2 shows the street segment levels of service expected when "other" project traffic is added to existing traffic (i.e., Near-Term Conditions). As shown, levels of service which are below County standards are expected to occur on SR-78/10th Street from Haverford Road to H Street and SR-67 from SR-78 to Poway Road, even if the Montecito Ranch Project is not built.

12.1.4 Existing Plus Other Projects Plus Project

Table 12-2 also shows expected conditions when project traffic is added. The project has significant impacts on SR-78/10th Street from Haverford Road to H Street and SR-67 from Pine Street to Poway Road. These impacts are not proposed to be fully mitigated by the project. Since most roadway corridors fail at intersections, the project has elected to focus on intersection improvements to mitigate project impacts. Refer to Section 12.3 for proposed mitigation measures.

12.1.5 Year 2030 and Year 2030 Plus Project

Table 12-3 summarizes the Year 2030 street segment levels of service with and without the project. As shown in the table, in 2030, several street segments would operate at less than acceptable levels of service. The segments are on SR-78 between Haverford Road and SR-67, 10th Street between SR-67 and H Street, and SR-67 from 10th to Poway Road. Cumulative impacts that ultimately will require widening of road segments are to be provided through the County's TIF program (see **Appendix L**). The project will also pay its fees for traffic impacts.

TABLE 12-2

Existing + Other Projects & Existing + Other Projects + Project Street Segment Comparison

Street	Segment	Existing + Other Project		Existing + Other Projects + Project		Δv	Significant?
		ADT	LOS	ADT	LOS		
Pine Street (SR-78)	Haverford Rd. - Ash St.	14,191	E	14,485	E	294	Y
	Ash St. - Olive St.	17,276	F	19,100	F	1,824	Y
	Olive St. - Main St. (SR-67)	17,776	F	19,130	F	1,354	Y
10th Street	Main St. (SR-67) - H Street	18,063	F	18,710	F	647	Y
Main Street (SR-78)	7th St. - 10th St.	30,386	D	30,680	D	N/A	N
Main Street (SR-67)	10th St. - Montecito Rd.	36,586	E	37,292	F	706	Y
	Montecito Rd. - Hunter St.	34,386	E	36,092	E	1,706	Y
	Hunter St. - Boundary Rd.	34,867	F	36,338	F	1,471	Y
	Boundary Rd. - Highland Valley Rd.	34,867	F	36,338	F	1,471	Y
	Highland Valley Rd. - Archie Moore Rd.	33,397	F	34,456	F	1,059	Y
	Archie Moore Rd. - Poway Rd.	34,803	F	35,686	F	883	Y
Montecito Wy.	Montecito Ranch Rd. - Montecito Rd.	600	A	3,131	B	N/A	N
	Montecito Rd. - Main St. (SR-67)	---	---	2,472	B	N/A	N
Montecito Ranch Rd.	Project west access to Montecito Wy.	---	---	2,531	B	N/A	N
	Between Main Project Access Points	---	---	2,060	B	N/A	N
Ash St.	East Project Access - Pine St. (SR-78)	500	A	2,795	B	N/A	N
	Pine St. (SR-78) - Elm St.	500	A	676	A	N/A	N
Montecito Rd.	Montecito Wy. - Davis St.	4,459	B	6,519	C	N/A	N
	Davis St. - Main St. (SR-67)	6,959	C	8,901	D	N/A	N

5703-TAB12-2L.wpd

Note: Δv = Change in volume between Existing + Other Project and Existing + Other Project + Project
LOS = Level of Service

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TABLE 12-3

Year 2030 & Year 2030 + Project Street Segment Comparison

Street	Segment	Year 2030		Year 2030 + Project		Δv	Significant?
		ADT	LOS	ADT	LOS		
Pine Street (SR-78)	Haverford Rd. - Ash St.	14,691	E	14,985	E	294	Y
	Ash St. - Olive St.	20,000	F	21,824	F	1,824	Y
	Olive St. - Main St. (SR-67)	19,270	F	20,624	F	1,354	Y
10th Street	Main St. (SR-67) - H Street	18,488	F	19,135	F	647	Y
Main Street (SR-78)	7th St. - 10th St.	33,714	E	34,008	E	294	Y
Main Street (SR-67)	10th St. - Montecito Rd.	37,086	F	37,792	F	706	Y
	Montecito Rd. - Hunter St.	34,391	E	36,333	E	1,942	Y
	Hunter St. - Boundary Rd.	34,976	F	36,447	F	2,056	Y
	Boundary Rd. - Highland Valley Rd.	37,000	F	38,471	F	1,471	Y
	Highland Valley Rd. - Archie Moore Rd.	35,000	F	36,059	F	1,059	Y
	Archie Moore Rd. - Poway Rd.	37,349	F	38,232	F	883	Y
Montecito Wy.	Montecito Ranch Rd. - Montecito Rd.	5,000	C	7,531	D	N/A	N
	Montecito Rd. - Main St. (SR-67)	3,949	B	6,421	C	N/A	N
Montecito Ranch Rd.	Project west access to Montecito Wy.	---	---	7,531	C/D*	N/A	N
	Between Main Project Access Points	---	---	5,000	B	N/A	N
Ash St.	East Project Access - Pine St. (SR-78)	5,148	C	7,443	D	N/A	N
	Pine St. (SR-78) - Elm St.	5,500	C	5,676	C	N/A	N
Montecito Rd.	Montecito Wy. - Davis St.	5,814	C	7,874	D	N/A	N
	Davis St. - Main St. (SR-67)	7,450	C	9,392	D	N/A	N

5703-TAB12-3L.wpd

Note: Δv = Change in volume between Year 2030 and Year 2030 + Project
LOS = Level of Service
* Public Facilities element Policy 1.1 permits onsite peak hour road segment analysis. An analysis for this onsite roadway was completed and the result shows that the segment will operate at a level of service C. See **Appendix N** for peak hour analysis worksheets.

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12.2 INTERSECTIONS

12.2.1 Existing

Table 12-4 shows the AM and PM peak intersection levels of service for the existing conditions. These levels of service are without the project and without any mitigation. As shown in the table, two locations operates unacceptably, SR-67 at Archie Moore in the AM peak, and SR-78 at Main Street in the PM peak.

12.2.2 Existing Plus Project - Direct Project Impacts

Table 12-4 also shows the with project conditions. Again, no mitigation is assumed. Mitigation to be provided by the project to alleviate project or existing impacts are discussed in a subsequent section of this report.

As shown in the table, project impacts are significant at six (6) intersections during either or both the AM or PM peak hour. The project impacted intersections are:

Location	Mitigation Required
Ash Street at SR-78	YES
SR-78 at Olive Street	YES
SR-78 at Main Street	YES
SR-67 at Montecito Road	YES
Archie Moore at SR-67	YES
SR-67 at Highland Valley Road/Dye Road	YES

TABLE 12-4

Existing and Existing + Project Intersection Summary

	Intersection	Existing				Existing + Project									
		AM Peak		PM Peak		AM Peak		∇	∇v	S	PM Peak		∇	∇v	S
		D	LOS	D	LOS	D	LOS				D	LOS			
1	Ash Street at Pine Street* (SR-78) [1]	16.8	C	22.2	C	35.6	E	18.8	103	Y	65.8	F	43.6	120	Y
2	Pine Street (SR-78) at Olive Street* [1]	16.7	C	19.3	C	31.4	D	14.7	N/A	N	40.2	E	20.9	89	Y
3	Pine Street (SR-78) at Main Street [2]	33.7	C	58.7	E	44.5	D	10.8	N/A	N	62.7	E	4.0	46	Y
4	Main Street (SR-67) at Montecito Road [2]	26.0	C	30.2	C	39.1	D	13.1	N/A	N	55.9	E	25.7	116	Y
5	Montecito Way at Montecito Road [1]	8.8	A	8.9	A	10.4	B	1.6	N/A	N	10.3	B	1.4	N/A	N
6	Main Street (SR-67) at Highland Valley/Dye Road [2]	54.7	D	22.3	C	133.3	F	78.6	60	Y	23.7	C	1.4	N/A	N
7	Main Street (SR-67) at Archie Moore Road* [1]	141.0	F	27.4	D	168.3	F	27.3	50	Y	42.6	E	15.2	58	Y

5703-TAB12-4O.wpd

D = Delay
LOS = Level of Service
∇ = Change
∇v = Change in volume between Existing and Existing + Project
S = Significant?
[1] = Unsignalized, worst approach delay
[2] = Signalized
* = PHF is 0.95

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12.2.3 Existing Plus Other Projects Plus Project

Table 12-5 shows the existing plus other projects plus project AM and PM peak intersection conditions. As shown, without any improvements, conditions below County standards would occur at six (6) intersections under the existing plus other projects plus project condition, including:

SR-78 at Ash Street

SR-78 at Olive Street

SR-78 at SR-67

SR-67 at Montecito Road

SR-67 at Highland Valley Road/Dye Road

SR-67 at Archie Moore Road

Significant impacts would occur at these intersections. An impact fee assessed to other projects or specific improvements, such as widening and signalization, is required to achieve acceptable LOS.

Also shown in **Table 12-5** are locations where project traffic becomes significant when added to existing and other project traffic. As shown, project traffic is significant at six intersections, the same locations identified and discussed in the preceding section of this report.

TABLE 12-5

Existing + Other Projects and Existing + Other Projects + Project Intersection Summary

	Intersection	Existing + Other Projects				Existing + Other Projects + Project									
		AM Peak		PM Peak		AM Peak		∇	∇v	S	PM Peak Hour		∇	∇v	S
		D	LOS	D	LOS	D	LOS				D	LOS			
1	Ash Street at Pine Street** (SR-78) [1]	43.5	E	100.8	F	375.5	F	332.0	103	Y	*	F	---	120	Y
2	Pine Street (SR-78) at Olive Street** [1]	54.6	F	77.2	F	145.2	F	90.6	77	Y	268.9	F	191.7	89	Y
3	Pine Street (SR-78) at Main Street [2]	91.1	F	181.8	F	102.4	F	11.3	40	Y	193.1	F	11.3	46	Y
4	Main Street (SR-67) at Montecito Road [2]	37.2	D	58.5	E	57.4	E	20.2	100	Y	69.3	E	10.8	116	Y
5	Montecito Way at Montecito Road [1]	9.2	A	9.3	A	10.6	B	1.4	N/A	N	10.6	B	1.3	N/A	N
6	Main Street (SR-67) at Highland Valley/Dye Rd [2]	150.1	F	49.6	D	161.7	F	11.6	60	Y	82.7	F	33.1	69	Y
7	Main Street (SR-67) at Archie Moore Road** [1]	*	F	*	F	*	F	---	50	Y	*	F	---	58	Y

5703-TAB12-5P.wpd

N/A = Not Applicable
D = Delay
LOS = Level of Service
∇ = Change
∇v = Change in volume between Existing and Existing + Project
S = Significant?
[1] = Unsignalized, worst approach delay
[2] = Signalized
* = Intersection delay is so high, it is beyond the model accuracy
** = PHF is 0.95

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12.2.4 Year 2030 Future Condition

Table 12-6 shows the Year 2030 conditions without the project and without mitigation. As shown in the table, all but one intersection evaluated show levels of service which are below County standards in the AM and/or PM peaks.

12.2.5 Year 2030 With Project Future Condition

Table 12-6 also shows the buildout (2030) with project conditions without mitigation. As shown, the project has significant impacts at six (6) locations. Mitigation of significant impacts to intersections are discussed in the next section of this report.

12.3 MITIGATION

This section of the report summarizes mitigation that will be implemented as a part of the proposed project. See **Appendix K** for HCS analysis results with mitigation.

12.3.1 Intersection Impact/ Mitigation

Table 12-7 shows the AM and PM peak levels of service expected after project mitigation is implemented. As shown in the table, all intersections will operate at acceptable levels of service, i.e., "D" or better during both the AM and PM peaks. The table footnotes define the nature of proposed mitigation. Also noted in

TABLE 12-6

Year 2030 and Year 2030 + Project Intersection Summary

Intersection	Year 2030				Year 2030 + Project									
	AM Peak Hour		PM Peak Hour		AM Peak Hour		∇	∇v	S	PM Peak Hour		∇	∇v	S
	D	LOS	D	LOS	D	LOS				D	LOS			
1) Ash Street at Pine Street* (SR-78) [1]	(3)	F	(3)	F	(3)	F	N/A	103	Y	(3)	F	N/A	120	Y
2) Pine Street (SR-78) at Olive Street* [1]	72.6	F	82.5	F	144.3	F	71.7	77	Y	198.6	F	116.1	89	Y
3) Pine Street (SR-78) at Main Street [2]	104.0	F	193.5	F	116.8	F	12.8	40	Y	200.6	F	7.1	46	Y
4) Main Street (SR-67) at Montecito Road [2]	40.0	D	59.1	E	59.2	E	14.1	100.0	N	87.3	F	28.2	116	Y
5) Montecito Way at Montecito Road [1]	9.7	A	10.1	B	11.5	B	1.8	N/A	N	11.9	B	1.8	N/A	N
6) Main St. (SR-67) at Highland Valley/Dye Rd.* [2]	97.9	F	43.4	D	106.8	F	8.9	60	Y	50.0	D	6.6	N/A	N
7) Main Street (SR-67) at Archie Moore Road* [1]	(3)	F	(3)	F	(3)	F	N/A	50	Y	(3)	F	N/A	58	Y

5703-TAB12-6M.wpd

∇ = Change
D = Delay
LOS = Level of Service
S = Significant?
[1] = Unsignalized
[2] = Signalized
(3) = Intersection delay is so high, it is beyond the model accuracy
* = PHF is 0.95
∇v = Change in volume between Year 2030 and Year 2030 With Project
DNE = Does Not Exist
N/A = Not Applicable

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TABLE 12-7

Existing + Project Intersection Levels of Service

(With Project Mitigation)

Number	Intersection	AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS
1	Ash Street at Pine Street (SR-78)[1]	24.7	C	32.5	C
2	Pine Street (SR-78) at Olive Street [2]	9.6	A	11.2	B
3	Pine Street (SR-78) at Main Street (SR-67) [5]	40.7	D	49.6	D
4	Main Street (SR-67) at Montecito Road [5]	31.1	C	38.3	D
5	Montecito Road at Montecito Way [6]	10.4	B	10.3	B
6	Main Street (SR-67) at Highland Valley Road / Dye[4]	33.5	C	20.9	C
7	Main Street (SR-67) at Archie Moore Road[2]	5.5	A	10.7	B

Notes:

LOS = Level of Service
[1] = Signalization of intersection, add eastbound right turn lane and southbound right turn lane
[2] = Signalization of intersection
[3]= Signalize and add turn lanes
[4]= Add dual north to west turn left lanes
[5]= Add south to west right turn lane, modify signal
[6]= Add south to east left turn lane and west to north right turn lane

the table footnotes are locations where there is an existing traffic signal or two-way stop control. Following is a discussion of direct project impacts and required mitigation at each of the intersections.

- **Intersection 1** - Ash Street at Pine Street (SR-78): With the addition of project traffic, this intersection will need to be signalized. Also, an eastbound to southbound right turn lane on Ash Street and a southbound to westbound right turn lane will be provided to accommodate project traffic. Except for the south to west right turn lane which is being provided at the request of the community, these impacts are both direct and cumulative project impacts and mitigation will have to be provided prior to issuance of the first occupancy permit on site and to the satisfaction of the Director of DPW.

- **Intersection 2** - Pine Street (SR-78) at Olive Street: With the addition of project traffic this intersection will need to be signalized. This impact is both a direct and cumulative project impact and mitigation will have to be provided prior to issuance of the first occupancy permit on site and to the satisfaction of the Director of DPW. CALTRANS has plans to widen and signalize this location so mitigation may be in place prior to project impacts occurring.

- **Intersection 3** - Pine Street (SR-78) at Main Street (SR-67): With the addition of project traffic the north leg of the intersection will need to be re-striped to provide one additional lane, a right turn through or left turn lane. The traffic signal also needs to be modified. Project impacts at this location are both direct and cumulative. Widening, restriping and a signal modification will mitigate the direct project impact. Payment into the TIF program is required for cumulative mitigation prior the issuance of the first occupancy permit on site. However, if improvements are not made by the time 280 homes

are occupied, the applicant will make the necessary improvements and be reimbursed.

- **Intersection 4** - Main Street (SR-67) at Montecito Road: Mitigation is required, because of significant direct and cumulative impacts would occur at this location. To mitigate impacts we therefore propose improvements, restriping and widening to provide a south to westbound right turn lane along with a minor signal modification.

- **Intersection 5** - Montecito Way at Montecito Road: Provide left turn lanes on all approaches with two-way stop control. With the provision of turn lanes, neither direct or cumulative project impacts occur at this location.

- **Intersection 6** - Main Street (SR-67) at Highland Valley Road / Dye Road: Mitigation for direct impacts to this intersection are proposed by the project. Direct intersection impacts will be mitigated by installing dual north to westbound left turn lanes; thus, a statement of overriding considerations is not required. Based on projected cumulative traffic growth plus project traffic, this intersection will need to be widened. For cumulative impacts, a project fair share contribution via payment into the TIF program will be required.

- **Intersection 7** - SR-67 at Archie Moore: Mitigation for direct impacts to this intersection are proposed. Direct intersection impacts will be mitigated; thus, a statement of overriding considerations is not required. The project will amend the TIF program to include signalization of this intersection. A project fair share contribution will be required at this location. The project will implement the

traffic signal project to mitigate direct impacts. No roadway widening or realignment are proposed. If widening or unreasonable improvements are required by Caltrans, then a fair share signal contribution will be made and overriding findings for direct impacts will be required.

The current TIF fees for this project are estimated based on a local per home fee of $5,990 and a regional fee of $2,196 per home plus a freeway fee of $3.00 per home for a total fee pf $8,139 per home. Based upon a project of 417 homes, this translates to TIF fees of $3,393,963 for the project. These fees will be allocated by the County Engineer toward priority projects in the Ramona Community as determined by the Board of Supervisors. These fees also will be credited toward TIF projects completed by the proposed project.

12.3.2 Segment Impacts/Mitigation

The County of San Diego has recently adopted a TIF program for the entire County, and Ramona in particular. This program provides a way for a developer to pay fees assessed by the amount of development for the purpose of mitigating cumulative street segment or intersection impacts that are caused by the construction of multiple projects in an area. The proposed project will pay its fair share of TIF fees assessed by the County, as previously discussed, for the purpose of mitigating cumulative impacts, particularly road segment impacts to State Highways caused by future growth. See **Appendix L** for information on the TIF program. **Table 12-7A** summarizes direct and cumulative impacts for intersections. **Table 12-7B** summarize direct and cumulative impacts for segments. The tables also note if the impacts are fully mitigated.

TABLE 12-7A

Intersection Impacts and Mitigation

Location	Intersection	Significant Direct Impact?(1)	Significant Cumulative Impact? (2)	Mitigation	Impact Mitigated?	Findings Required?
1.	Ash St. / Pine St. (SR-78)	Yes	Yes	Southbound right turn lane to westbound (as a community improvement; not required as mitigation); signalize and add eastbound right turn lane*	Yes	No
2.	Pine St.(SR-78) / Olive St.	Yes	Yes	Signalize existing intersection (by Caltrans)	Yes**	No
3.	Pine St. (SR-78) / Main St. (SR-67)	Yes	Yes	Widen and re-stripe north leg to add a right through lane; modify signal*	Yes	No
4.	Main St. (SR-67) / Montecito Rd.	Yes	Yes	Southbound to Westbound dedicated right turn lane*	Yes	No
5.	Montecito Rd. / Montecito Wy.	No	No	None Required based on widening by the project to provide left turn lanes.	N/A	N/A
6.	Main Street (SR-67) / Highland Valley Rd. / Dye Rd.	Yes	Yes	Construct northbound dual left turn lanes	Yes	No
7.	Main Street (SR-67)/ Archie Moore Rd.	Yes	Yes	Signalize existing intersection*	Yes	No

Notes:

(1) From **Tables 12-4**
(2) From **Table 12-6**
* Proposed mitigation would mitigate both direct and cumulative impacts.
** Based upon Board Policy J-34, where mitigation is assumed by others, if the recommended mitigation is not in place at the time project impacts occur, the project will provide the mitigation subject to reimbursement except for the project's fair share contribution.
Note: All State Highway improvement plans and improvements will need to be approved by both the County and Caltrans.

TABLE 12-7B

Roadway Segment Impacts and Mitigation

DIRECT IMPACTS (1)

Road	Segment	Significant Impact? (1)	Mitigation	Impact Mitigated?	Override Required?
Pine Street (SR-78)	Ash Street to Main Street	Yes	Revise TIF to widen to 4 Lane Major	No*	Yes
Main Street (SR-67)	Hunter Street to Poway Road	Yes	Revise TIF to widen to 4 Lane Major***	No*	Yes

CUMULATIVE IMPACTS (2)

Road	Segment	Significant Impact? (1)	Mitigation	Impact Mitigated?	Override Required?
Pine Street (SR-78)	Ash Street to Main Street	Yes	Amend TIF to include widening fair share contribution to TIF; widen to 4 Lane Major	Yes**	No
Main Street (SR-67)	Hunter Street to Poway Road	Yes	Fair share contribution to TIF; widen to 4 Lane Major	No***	Yes

Notes:

(1) From **Table 12-1** (2) From **Table 12-3**

* Road segment widening is not being proposed. The intersection improvements will partially mitigate segment impacts. A statement of overriding considerations will be required.

** If the TIF is not amended, then a statement of overriding consideration will be required.

*** A project contribution to TIF will mitigate impacts to SR-67 within the Ramona boundary, overriding considerations will be required from the Ramona boundary to Poway Road.

12.4 INTERSECTING LANE VOLUME (ILV) ANALYSIS

Caltrans uses the Intersection Lane Volume (ILV) method for determining the adequacy of proposed mitigation improvements. In this section, the results of ILV analyses for several conditions are summarized.

12.4.1 Year 2030 With Project

Table 12-8 summarizes the ILV analysis results for the 2030 With Project condition (mitigated). As shown in the table only peaks at three locations are shown to be over capacity. The locations and peaks which are over capacity are listed in the table below.

Number	Intersection	ILV	Capacity	Peak
1	Ash Street at Pine Street (SR-78)	1,653	1,500	PM
3	Pine Street (SR-78) at Main Street (SR-67)	1,568	1,500	AM
3	Pine Street (SR-78) at Main Street (SR-67)	2,042	1,500	PM
7	Main Street (SR-67) at Archie Moore	1,856	1,500	AM
7	Main Street (SR-67) at Archie Moore	1,882	1,500	PM

At SR-78 and SR-67, an ILV of 2,042 is significantly over the analysis threshold of 1,500 ILV/Hour. Therefore, Caltrans may wish to recommend further improvements at this location. The main cause for an over capacity condition is increased through traffic in the 2030 condition which is not project related. At

TABLE 12-8

Intersecting Lane Volume (ILV) Analysis Summary

Year 2030 With Project Mitigated

Number	Location		ILV	Capacity	Conclusion
1	Ash Street at Pine Street (SR-78)	AM	1231	1,500	Approaching
		PM	1653	1,500	Over
2	Pine Street (SR-78) at Olive Street	AM	1129	1,500	Under
		PM	1253	1,500	Approaching
3	Pine Street (SR-78) at Main Street (SR-67)	AM	1568	1,500	Over
		PM	2042	1,500	Over
4	Main Street (SR-67) at Montecito Road	AM	1294	1,500	Approaching
		PM	1468	1,500	Approaching
5	Montecito Way at Montecito Road	AM	Not a State Highway Location (Under Capacity Both Peaks)		
		PM			
6	SR-67 at Highland Valley Road / Dye Road	AM	1397	1,500	Approaching
		PM	1011	1,500	Under
7	SR-67 at Archie Moore Road	AM	1856	1,500	Over
		PM	1882	1,500	Over

SR-67 / Archie Moore Road, the ILV volumes are still in the 1,800 range, so the proposed mitigation is very close to accommodating traffic up to the Year 2030. Monitoring and Regional TIF contributions in the future may be more appropriate as actual, not forecast conditions, become known. **Appendix M** includes the ILV Analysis Worksheets.

12.4.2 Existing

Table 12-9 summarizes the ILV analysis results. See **Appendix M** for the analysis worksheets. As shown in the table, SR-67 / Highland Valley Road / Dye Road and SR-67 / Archie Moore Road are presently over capacity in the morning.

12.4.3 Phase 1 With Project

Table 12-9A represents an ILV analysis of the first project phase which includes up to 280 homes. Phase 1 includes the widening of Ash Street and existing Montecito Way to accommodate traffic associated with the first 280 homes. As shown in the table, all intersections except two operate satisfactorily. The two intersections which operate over capacity are:

1. SR-67 at Highland Valley / Dye Road (AM Only).
2. SR-67 at Archie Moore Road (AM Only).

12.4.4 Existing With Project

Table 12-10 summarizes the ILV analysis results for existing plus project (mitigated) conditions. See **Appendix M** for analysis worksheets. As shown in the table, for all locations and both peaks there are no

TABLE 12-9

ILV Analysis SummaryExisting

Number	Location		ILV	Capacity	Conclusion
1	Ash Street at Pine Street (SR-78)	AM	620	1,500	Under
		PM	682	1,500	Under
2	Pine Street (SR-78) at Olive Street	AM	606	1,500	Under
		PM	670	1,500	Under
3	Pine Street (SR-78) at Main Street (SR-67)	AM	1052	1,500	Under
		PM	1396	1,500	Approaching
4	Main Street (SR-67) at Montecito Road	AM	947	1,500	Under
		PM	1138	1,500	Under
5	Montecito Way at Montecito Road	AM	Not a State Highway Location (Under Capacity Both Peaks)		
		PM			
6	SR-67 at Highland Valley Road / Dye Road	AM	1554	1,500	Over
		PM	1055	1,500	Under
7	SR-67 at Archie Moore Road	AM	1579	1,500	Over
		PM	1324	1,500	Approaching

TABLE 12-9 A

ILV Analysis Summary Phase 1 Project

Number	Location		ILV	Capacity	Conclusion
1	Ash Street at Pine Street (SR-78)	AM	778	1,500	Under
		PM	753	1,500	Under
2	Pine Street (SR-78) at Olive Street	AM	669	1,500	Under
		PM	735	1,500	Under
3	Pine Street (SR-78) at Main Street (SR-67)	AM	711	1,500	Under
		PM	1197	1,500	Under
4	Main Street (SR-67) at Montecito Road	AM	1097	1,500	Under
		PM	1297	1,500	Approaching
5	Montecito Way at Montecito Road	AM	Not a State Highway Location (Under Capacity Both Peaks)		
		PM			
6	SR-67 at Highland Valley Road / Dye Road	AM	1673	1,500	Over
		PM	1131	1,500	Under
7	SR-67 at Archie Moore Road	AM	1706	1,500	Over
		PM	1438	1,500	Approaching

TABLE 12-10

ILV Analysis Summary Existing Plus Ultimate Improvements

Number	Location		ILV	Capacity	Conclusion
1	Ash Street at Pine Street (SR-78)	AM	800	1,500	Under
		PM	894	1,500	Under
2	Pine Street (SR-78) at Olive Street	AM	699	1,500	Under
		PM	758	1,500	Under
3	Pine Street (SR-78) at Main Street	AM	967	1,500	Under
		PM	1,229	1,500	Approaching
4	Main Street (SR-67) at Montecito Road SR-67)	AM	953	1,500	Under
		PM	1,144	1,500	Under
5	Montecito Way at Montecito Road	AM	Not a State Highway Location (Under Capacity Both Peaks)		
		PM			
6	SR-67 at Highland Valley Road / Dye Road	AM	1,116	1,500	Under
		PM	811	1,500	Under
7	SR-67 at Archie Moore Road	AM	926	1,500	Under
		PM	1,186	1,500	Under

intersections which are over capacity. This result is due to improvements being made to mitigate project impacts.

12.4.5 Existing Plus Other Projects Plus Project

The table below summarizes the existing plus other projects plus project ILV analysis results which are over capacity. **Table 12-11** summarizes the ILV analysis results of this condition. See **Appendix M** for analysis worksheets.

Number	Intersection	ILV	Capacity	Peak
3	Pine Street (SR-78) at Main Street (SR-67)	2,028	1,500	PM

12.4.6 Year 2030 Without Project

Table 12-12 shows the ILV analysis results for the long term cumulative without project condition. The results show intersections over capacity at the same locations as 2030 with project condition except that Ash Street / SR-78 would not be over capacity and SR-67 / Highland Valley Road / Dye Road would be over capacity in the morning peak. This means that further improvements are necessary to mitigate long term growth.

12.4.7 Near Term Phased

Table 12-13 summarizes the analysis results for the near term phased project condition. As shown, SR-78 at SR-78 and SR-67 at both Highland Valley Road / Dye Road and Archie Moore Road are over capacity. Mitigation is not assumed for this analysis.

TABLE 12-11

ILV Analysis Summary Existing Plus Other Projects Plus Project Mitigated

Number	Location		ILV	Capacity	Conclusion
1	Ash Street at Pine Street (SR-78)	AM	1,081	1,500	Under
		PM	1,344	1,500	Approaching
2	Pine Street (SR-78) at Olive Street	AM	1,113	1,500	Under
		PM	1,188	1,500	Under
3	Pine Street (SR-78) at Main Street (SR-67)	AM	1,458	1,500	Approaching
		PM	2,028	1,500	Over
4	Main Street (SR-67) at Montecito Road	AM	1,191	1,500	Under
		PM	1,393	1,500	Under
5	Montecito Way at Montecito Road	AM	Not a State Highway Location (Under Capacity Both Peaks)		
		PM			
6	SR-67 at Highland Valley Road / Dye Road	AM	1,498	1,500	Approaching
		PM	992	1,500	Under
7	SR-67 at Archie Moore Road	AM	1,372	1,500	Approaching
		PM	1,025	1,500	Under

TABLE 12-12

ILV Analysis Summary Year 2030 Without Project

Number	Location		ILV	Capacity	Conclusion
1	Ash Street at Pine Street (SR-78)	AM	1056	1,500	Under
		PM	1457	1,500	Approaching
2	Pine Street (SR-78) at Olive Street	AM	1039	1,500	Under
		PM	1170	1,500	Under
3	Pine Street (SR-78) at Main Street (SR-67)	AM	1654	1,500	Over
		PM	2302	1,500	Over
4	Main Street (SR-67) at Montecito Road	AM	1232	1,500	Approaching
		PM	1402	1,500	Approaching
5	Montecito Way at Montecito Road	AM	Not a State Highway Location (Under Capacity Both Peaks)		
		PM			
6	SR-67 at Highland Valley Road / Dye Road	AM	1891	1,500	Over
		PM	1179	1,500	Under
7	SR-67 at Archie Moore Road	AM	2887	1,500	Over
		PM	2267	1,500	Over

TABLE 12-13

ILV Analysis Summary Near Term - Phased

Number	Location		ILV	Capacity	Conclusion
1	Ash Street at Pine Street (SR-78)	AM	904	1,500	Under
		PM	1141	1,500	Under
2	Pine Street (SR-78) at Olive Street	AM	1020	1,500	Under
		PM	1100	1,500	Under
3	Pine Street (SR-78) at Main Street (SR-67)	AM	1622	1,500	Over
		PM	2280	1,500	Over
4	Main Street (SR-67) at Montecito Road	AM	1187	1,500	Under
		PM	1387	1,500	Approaching
5	Montecito Way at Montecito Road	AM	Not a State Highway Location (Under Capacity Both Peaks)		
		PM			
6	SR-67 at Highland Valley Road / Dye Road	AM	2151	1,500	Over
		PM	1449	1,500	Approaching
7	SR-67 at Archie Moore Road	AM	2316	1,500	Over
		PM	1892	1,500	Over

12.5 QUEUING ANALYSIS

Another design issue related to mitigation is determining turn pocket lengths to be sure adequate storage is provided for left turn pockets. **Table 12-14** summarizes the results of this analysis for Year 2030 with Project (mitigated) condition. As shown in the table, PM peak intersection left turn volumes are determined. Then, based on the magnitude of the volume and the guideline to provide one foot of storage for each vehicle turning during the peak hour, recommended turn pocket lengths were derived.

The recommended pocket lengths are the higher of either the AM or PM peak for each location where left turn pockets are existing or recommended.

Appendix M includes the Queuing Summary Worksheets.

12.6 TRAFFIC SIGNAL WARRANTS

A traffic signal warrant analysis was completed for each location proposed for a new traffic signal. **Table 12-15** summarizes the results of this analysis and **Appendix M** includes the warrant worksheets.

As shown in **Table 12-15**, traffic signal warrants are met at all non-signalized locations except for Montecito Way at Montecito Road. It should be noted that no traffic signals will be installed until warrants are met as determined by Caltrans and to the satisfaction of the Director of DPW.

TABLE 12-14

Queuing Analysis Results
To Determine Turn Pocket Storage Lengths
Year 2030 With Project - Mitigated

Number	Location		Peak Volume				Turn Pocket Length			
			EB	WB	SB	NB	EB	WB	SB	NB
1	Ash Street at Pine Street (SR-78)	AM	X	X	23	150	X	X	100	150
		PM	X	X	57	210	X	X	100	250
2	Pine Street (SR-78) at Olive Street	AM	X	X	26	9	X	X	100	100
		PM	X	X	17	15	X	X	100	100
3	Pine Street (SR-78) at Main Street (SR-67)	AM	335	177	107	193	350	200	150	200
		PM	363	196	156	178	350	200	200	200
4	Main Street (SR-67) at Montecito Road	AM	152	114	X	X	150	150	X	X
		PM	199	90	X	X	200	100	X	X
5	Montecito Way at Montecito Road	AM	10	79	X	X	100	100	X	X
		PM	10	109	X	X	100	150	X	X
6	Main Street (SR-67) at Highland Valley Road / Dye Road	AM	95	544	51	36	100	250*	100	100
		PM	123	130	94	34	150	150	100	100
7	SR-67 at Archie Moore Road	AM	29	X	X	250	100	X	X	250
		PM	40	X	X	495	100	X	X	250

* Dual left turn lane assumed

TABLE 12-15

Signal Warrant Summary

Number	Intersection	Warrant	
		Met	Not Met
1	Ash Street at Pine Street (SR-78)	Yes	---
2	Pine Street (SR-78) at Olive Street	Yes	---
5	Montecito Way at Montecito Road	---	Yes
7	Main Street (SR-67) at Archie Moore Road	Yes	---

Note: No traffic signals are to be installed until Caltrans and/or the County agree that warrants are met.

12.7 CONSTRUCTION TRAFFIC CONTROL AND MITIGATION

Earthwork will balance both on site and off-site, therefore project-related traffic would be restricted to construction workers and supplies for infra-structure. The construction period for the Proposed Project is three to six years. The grading equipment to be used for the Proposed Project will be brought to the site at the beginning of the grading period and would remain on site until the completion of the grading period (e.g., equipment would not be hauled to and from the site daily). It is anticipated that from 15 to 240 workers on any one day would travel to and from the Project site, with an additional 70 workers required during sewage treatment plant construction. More typically, there is expected to be a maximum of 100 workers on site at any one time with 50 workers present on an average weekday. Based on an average weekday count of 50 workers, there will be 100 worker vehicle trips (50 trips each way) per day. It should be noted that worker trips usually are made outside typical traffic peaks. This is because a typical construction work day is 7:00 AM until 3:30 PM. Therefore, workers arrive at the site before the AM traffic peak and leave the site before the PM traffic peak. Approximately 20 construction-related vehicle (truck) trips would also be made per day to transport construction material to the Project site over a period of 3-6-years, which equates to 2-3 truck trips per hour. Housing construction is estimated to take approximately 48 months to complete (assuming work would occur Monday through Friday). It also was assumed that a maximum of 50 trucks per day (100 truck trips per day; 12.5 trips per hour) would transport materials to the site for treatment plant construction. Construction of the treatment plant is estimated to take 15 months to complete (assuming work would occur Monday through Friday).

A primary element of standard traffic control measures include a " Traffic Control Plan" which is approved by the County Department of Public Works prior to start of any clearing or grading activities, and would be implemented during construction of the Proposed Project. During roadway and utility improvements, access along segments of Ash Street, Montecito Way, and Montecito Road would be affected, but would remain open to traffic and emergency vehicles at all times. Two travel lanes (one in each direction) would remain open at all times, which may require the use of off-pavement shoulders. If Project construction limits traffic to one lane, traffic would be controlled and flagged around the work site. This event would only occur during actual construction. Other traffic control measures may include use of limited work hours, flaggers, detours as needed, traffic cones, advanced notification, signage, and pedestrian/equestrian detours. Emergency access to all residential and commercial properties (i.e., the shopping center at the east end of Montecito Road) would be maintained at all times. In addition, the construction contractor will provide a means for public liaison/contact information for public inquiries and concerns.

13.0 PROJECT ALTERNATIVES

There are five feasible project alternatives identified in the Draft EIR. Not all the alternatives, however, have traffic impacts; the "No Project - No Development" Alternative would not generate any new traffic Traffic would be the same as that identified under existing conditions in the project area. Two of the alternatives (Closed Water System Alternative and Reduced Development Footprint Alternative), would generate the same number of traffic trips and impacts as the proposed project, because the same land uses are proposed under these alternatives.

There are two alternatives which would result in traffic impacts that are different from the proposed project. These alternatives are:

1. No Project - Development Per Legal Parcels
2. Reduced Density

The No Project - Development Per Legal Parcels Alternative would result in 196 single-family homes plus the 11.9-acre historical park site and the Reduced Density alternative would result in 244 single-family homes and both parks (i.e., neighborhood and historical). Neither of these alternatives would dedicate land for the future charter high school. Traffic generation for these two alternatives is shown in **Tables 13-1A and B.**

TABLE 13-1A

Trip Generation for Legal Parcels Alternative

Use	Amount	*Trip Rate	ADT	AM PEAK HOUR					PM PEAK HOUR				
				%**	#	In/Out**	In	Out	%**	#	In/Out***	In	Out
Residential	196 DU	12 /DU	2,352	8	188	3 : 7	56	132	10	235	7 : 3	165	71
Historical Park	11.90 Ac	5 /ac	60	13	8	5 : 5	4	4	9	5	5 : 5	3	3
		Total	2,412		196		60	136		240		168	74

TABLE 13-1B

Trip Generation for Reduced Density Alternative

Use	Amount	*Trip	ADT	AM PEAK HOUR					PM PEAK HOUR				
				%**	#	In/Out*	In	Out	%**	#	In/Out**	In	Out
Residential	244 DU	12 /DU	2,928	8	234	3 : 7	70	164	10	293	7 : 3	205	88
Nbhd. Park / Historical Park	20.14 Ac	5 /ac	101	13	13	5 : 5	7	7	9	9	5 : 5	5	5
		Total	3,029		247		77	171		302		210	93

NOTE:

*= Average weekday traffic generation based on SANDAG Traffic Generation Rates, April 2002.
(See Appendix D)
DU= Dwelling Unit
Ac= Acre
St= Student

As shown in the Alternative Trip Generation tables, traffic generation is significantly reduced from proposed project ADT of 5,885 to only 2,412 ADT for the No Project - Development Per Legal Parcels Alternative and 3,029 ADT for the Reduced Density Alternative. The project phasing analysis (see discussion Section 11.4) is where we determined that 280 homes could be developed by using a combination of Ash Street and Montecito Road for access. The 280 homes would generate 3,360 daily trips which is about 10% more than the Reduced Density alternative. We can therefore expect similar roadway improvements for the No Project - Development Per Legal Parcels Alternative, which is about 1/3 less traffic than the phasing alternative. The same two access routes, i.e., Ash Street to SR-78 and Montecito Road to SR-67 would be sufficient; SA-330 from Montecito Road to SR-67 would not need to be constructed. A more detailed study would be necessary to further identify peak hour impacts and mitigation if either the Reduced Density or the No Project - Development Per Legal Parcel alternatives were selected instead of the proposed project.

14.0 REFERENCES

San Diego Region Traffic Engineer's Council (SANTEC) and Institute of Transportation Engineers (ITE), California Border Section,

Guidelines for Congestion Management Program (CMP) Traffic Impact Report, San Diego, CA (1993)

Transportation Research Board,

1997 Highway Capacity Manual Special Report, Washington, DC (2000 Update)

SANDAG:

Brief Guide of Vehicular Traffic Generation Rates (April 2002)

San Diego County Department of Planning and Land Use,

General Plan 2020 Traffic Modeling and Residential Land Use Distribution Map (May 19, 2004)

San Diego County Department of Public Works, Airports Division,

Ramona Airport Improvement Project (September 1998)

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Montecito Ranch

APPENDIX B

TRAFFIC IMPACT ANALYSIS
(Volume 2 of 3 - Appendices A through L)

for the

DRAFT FINAL ENVIRONMENTAL IMPACT REPORT
SP01-001; VTM 5250RPL6; P04-045; P09-023; GPA 04-013; R04-022;
STP 08-019; ER 09-013; Log No. 01-09-013; SCH No. 2002021132

April 2010

APPENDIX A

Series 10 Select Zone Plots - Study Area

Functional Classifications:

- Freeway
- Prime Arterial
- Major
- Collector
- Local Collector
- Rural Collector
- Local
- Freeway Ramp
- Ramp

Zone Boundaries:

- Select Zone Boundaries
- Zone Boundaries

Forecasted Volumes:

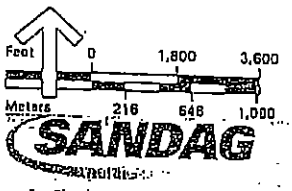
- # Unadjusted Forecasted Volume
- # Whole TAZ 1271 and 4606 Volume

SANDAG
Cities/County
Transportation Forecast
Series 10
Year 2030
Remona Area

Alternative 2
No N Bypass
No Rangeland XTN

Montecito Ranch

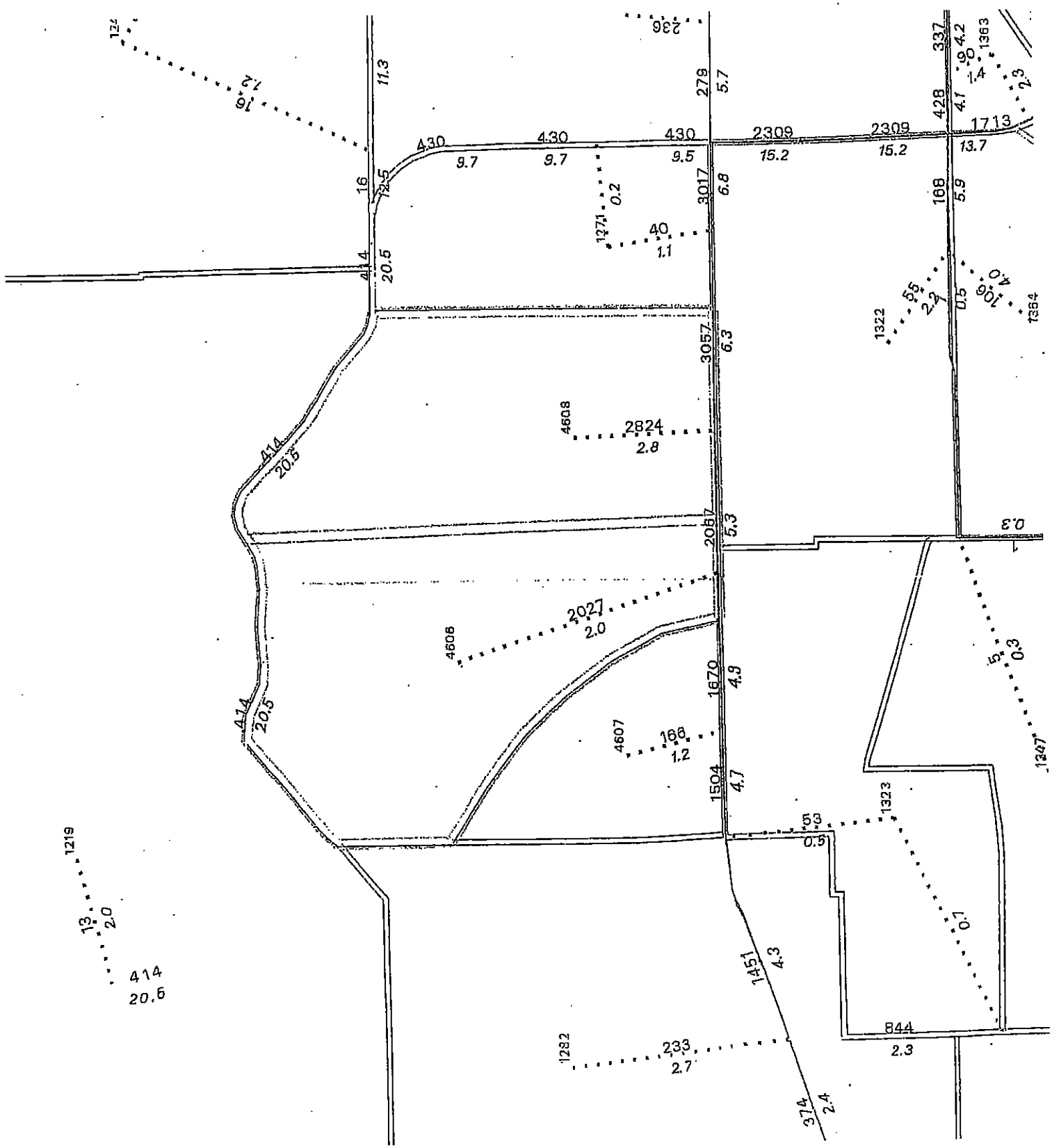
Select Zone Analysis



SANDAG

San Diego's Regional Planning Agency

April 22, 2005



430
9.7
430
9.7
430
9.5
2309
15.2
2309
15.2
1713
13.7
279
5.7
236
337
4.2
428
4.1
168
5.9
3017
6.8
3057
6.3
2824
2.8
2027
2.0
1670
4.9
1504
4.7
1451
4.3
844
2.3
233
2.7
374
2.4
414
20.5
414
20.5
414
20.5
414
20.5
1219
13
2.0
1322
55
2.2
1364
1323
53
0.5
1347
1363
1282

Project Distribution Discussion
Appendix A
June 30, 2006

The Sandag, Series 10, Year 2030, select zone traffic model was used to determine the distribution of project traffic on roadway segments for the study area. Manual adjustments were made to the traffic model. There are two reasons for these adjustments. First, Caltrans expressed a concern that traffic on the proposed SA-330 connection was understated. Second, Urban Systems Associates and County of San Diego Staff reviewed the traffic model results with respect to the concerns expressed by Caltrans and concluded that traffic on SA-330 was indeed understated. SA-330, being a new bypass facility, is designed to accomadate traffic from development northwest of SR-67 and SR-78. A consensus was reached based on working sessions with Caltrans, the County of San Diego, and Urban Systems and Associates.

The resulting project only traffic distributed via the proposed SA-330 loop was therefore modified to show more project traffic to the west and less project traffic to the east. In the traffic model, as you get further from SA-330 at Main Street, the distribution of traffic becomes closer and eventually identical to the results that the select zone traffic model predicted. For more detailed information, please refer to the Select Zone Forecast in this appendix.

and experience of roundabouts in the Untied States are needed before an analysis procedure for multilane roundabouts will be provided in the HCM.

TABLE 1

AVERAGE DAILY VEHICLE TRIPS

CIRCULATION ELEMENT ROADS		LEVEL OF SERVICE				
CLASS	X-SECTION	A	B	C	D	E
Expressway	126/146	<36,000	<54,000	<70,000	<86,000	<106,000
Prime Arterial	102/122	<22,200	<37,000	<44,600	<50,000	<57,000
Major Road	78/98	<14,800	<24,700	<29,600	<33,400	<37,000
Collector	64/84	<13,700	<22,800	<27,400	<30,800	<34,200
Town Collector	54/74	<8,000	<6,000	<9,500	<13,500	<19,000
Light Collector	40/60	<1,900	<4,100	<7,100	<10,900	<16,200
Rural Collector	40/84	<1,900	<4,100	<7,100	<10,900	<16,200
Rural Light Collector	40/60	<1,900	<4,100	<7,100	<10,900	<16,200
Recreational Parkway	40/100	<1,900	<4,100	<7,100	<10,900	<16,200
Rural Mountains	40/100	<1,900	<4,100	<7,100	<10,900	<16,200

NON - CIRCULATION ELEMENT ROADS		LEVEL OF SERVICE				
CLASS	X-SECTION	A	B	C	D	E
Residential Collector	40/60	*	*	<4,500	*	*
Residential Road	36/56	*	*	<1,500	*	*
Residential Cul-de-sac or Loop Road	32/52	*	*	<200	*	*

*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.

APPENDIX B

Existing Traffic Count Data

Transportation Studies, Inc.
1350 Reynolds Avenue
Suite 115
Irvine, CA. 92614

City: ROSEMONT
N-S Direction: SR-67 / MAIN STREET
E-W Direction: HIGHLAND VALLEY / DYE RD

File Name : H0701037
Site Code : 00004637
Start Date : 1/16/2007
Page No : 1

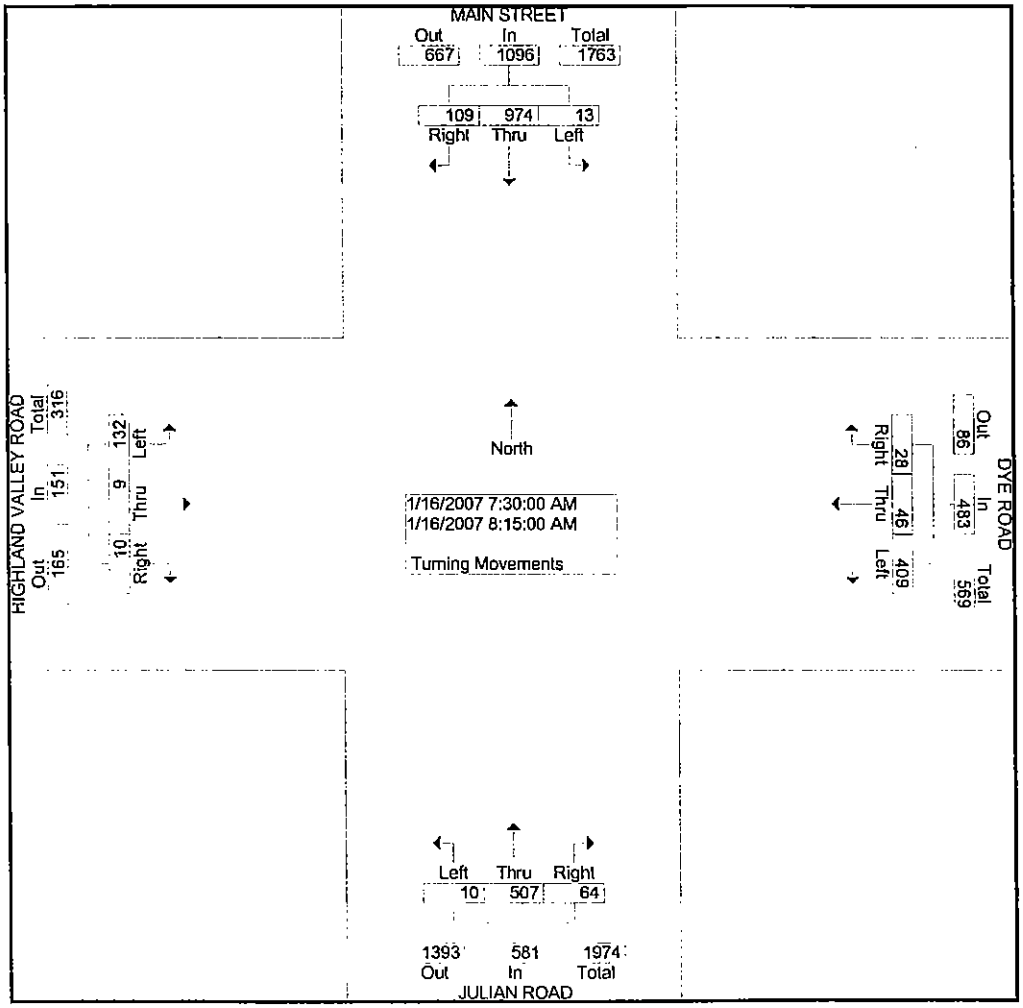
Groups Printed- Turning Movements

	MAIN STREET Southbound			DYE ROAD Westbound			JULIAN ROAD Northbound			HIGHLAND VALLEY ROAD Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	16	326	1	1	12	112	11	143	1	0	0	19	642
07:15 AM	16	301	0	7	12	124	16	112	0	0	1	17	606
07:30 AM	16	219	2	9	5	97	14	131	3	1	1	16	514
07:45 AM	30	249	2	8	11	114	14	103	1	3	0	13	548
Total	78	1095	5	25	40	447	55	489	5	4	2	65	2310
08:00 AM	33	244	2	7	15	90	17	142	4	0	6	53	613
08:15 AM	30	262	7	4	15	108	19	131	2	6	2	50	636
08:30 AM	13	204	1	6	6	72	14	122	1	4	3	27	473
08:45 AM	17	205	4	4	1	68	15	134	2	3	3	29	485
Total	93	915	14	21	37	338	65	529	9	13	14	159	2207
*** BREAK ***													
04:00 PM	14	188	18	3	0	42	87	257	0	7	20	64	700
04:15 PM	16	177	14	5	4	28	84	270	1	2	11	31	643
04:30 PM	7	149	7	11	3	32	92	249	3	6	9	37	605
04:45 PM	12	185	4	9	3	20	99	299	0	4	6	21	662
Total	49	699	43	28	10	122	362	1075	4	19	46	153	2610
05:00 PM	15	143	3	9	0	27	81	216	1	0	19	46	560
05:15 PM	15	180	11	6	0	20	107	261	0	3	22	66	691
05:30 PM	16	154	15	12	0	12	76	300	1	5	12	50	653
05:45 PM	17	191	13	14	1	21	86	249	0	2	29	60	683
Total	63	668	42	41	1	80	350	1026	2	10	82	222	2587
Grand Total	283	3377	104	115	88	987	832	3119	20	46	144	599	9714
Apprch %	7.5	89.7	2.8	9.7	7.4	82.9	21.0	78.5	0.5	5.8	18.3	75.9	
Total %	2.9	34.8	1.1	1.2	0.9	10.2	8.6	32.1	0.2	0.5	1.5	6.2	

Transportation Studies, Inc.
1350 Reynolds Avenue
Suite 115
Irvine, CA. 92614

File Name : H0701037
Site Code : 00004637
Start Date : 1/16/2007
Page No : 2

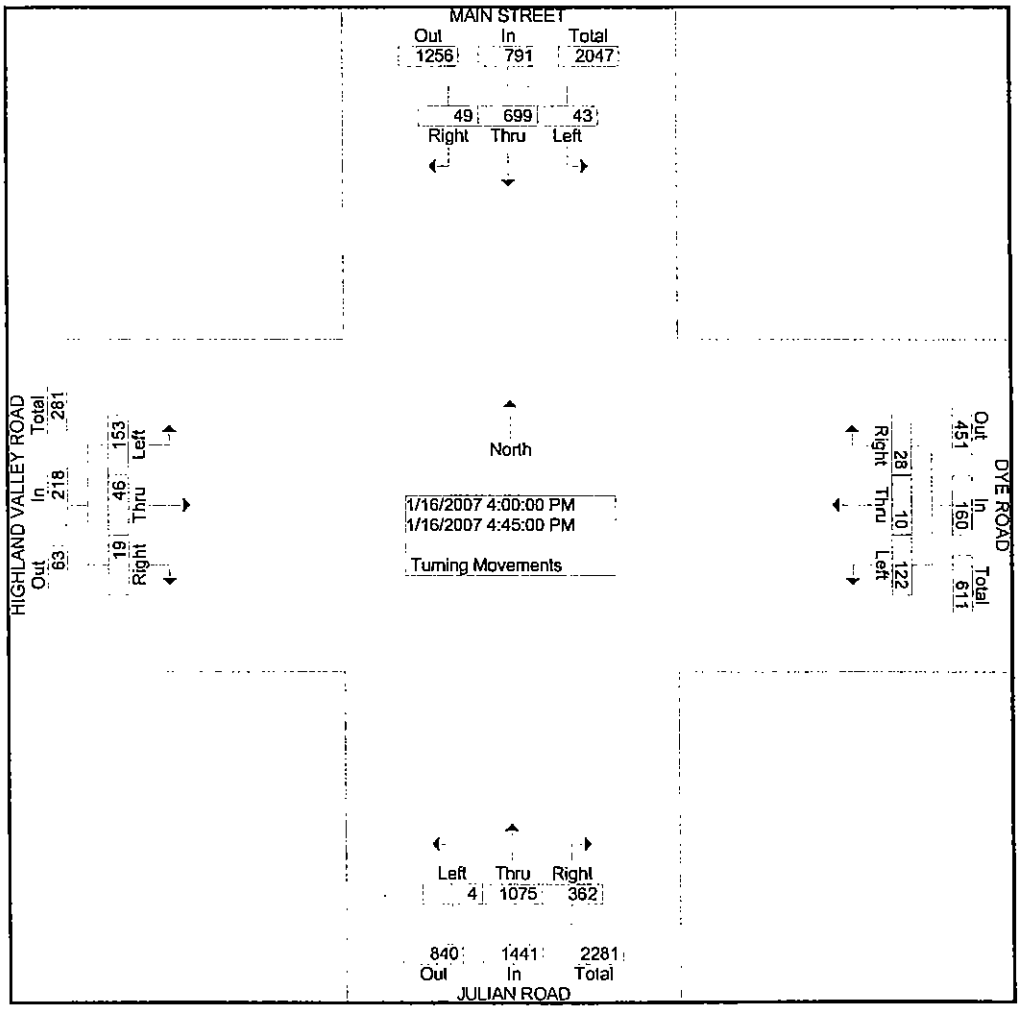
	MAIN STREET Southbound				DYE ROAD Westbound				JULIAN ROAD Northbound				HIGHLAND VALLEY ROAD Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Intersection	07:30 AM																
Volume	109	974	13	1096	28	46	409	483	64	507	10	581	10	9	132	151	2311
Percent	9.9	88.9	1.2		5.8	9.5	84.7		11.0	87.3	1.7		6.6	6.0	87.4		
08:15 Volume	30	262	7	299	4	15	108	127	19	131	2	152	6	2	50	58	636
Peak Factor																	0.908
High Int.	08:15 AM				07:45 AM				08:00 AM				08:00 AM				
Volume	30	262	7	299	8	11	114	133	17	142	4	163	0	6	53	59	
Peak Factor				0.916				0.908				0.891				0.640	



Transportation Studies, Inc.
1350 Reynolds Avenue
Suite 115
Irvine, CA. 92614

File Name : H0701037
Site Code : 00004637
Start Date : 1/16/2007
Page No : 3

	MAIN STREET Southbound				DYE ROAD Westbound				JULIAN ROAD Northbound				HIGHLAND VALLEY ROAD Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Intersection	04:00 PM																
Volume	49	699	43	791	28	10	122	160	362	1075	4	1441	19	46	153	218	2610
Percent	6.2	88.4	5.4		17.5	6.3	76.3		25.1	74.6	0.3		8.7	21.1	70.2		
04:00 Volume	14	188	18	220	3	0	42	45	87	257	0	344	7	20	64	91	700
Peak Factor																	0.932
High Int.	04:00 PM				04:30 PM				04:45 PM				04:00 PM				
Volume	14	188	18	220	11	3	32	46	99	299	0	398	7	20	64	91	
Peak Factor				0.899				0.870				0.905				0.599	



Transportation Studies, Inc.
1350 Reynolds Avenue, Ste. 115
Irvine, CA. 92614

Location : MONTECITO ROAD
Segment : N/O MAIN STREET
ent : URBAN SYSTEMS

Site: RAMONA
Date: 07/22/04

Day: Thursday

Interval	NB				SB				Combined			
Begin	AM		PM		AM		PM		AM		PM	
12:00	5	17	42	159	7	13	54	197	12	30	96	356
12:15	1		39		3		46		4		85	
12:30	5		39		2		56		7		95	
12:45	6		39		1		41		7		80	
01:00	3	13	44	154	3	4	52	192	6	17	96	346
01:15	5		36		1		50		6		86	
01:30	2		26		0		42		2		68	
01:45	3		48		0		48		3		96	
02:00	1	10	38	139	0	4	35	153	1	14	73	292
02:15	5		34		1		44		6		78	
02:30	3		31		3		32		6		63	
02:45	1		36		0		42		1		78	
03:00	0	1	30	182	2	8	57	200	2	9	87	382
03:15	0		48		0		41		0		89	
03:30	0		48		4		44		4		92	
03:45	1		56		2		58		3		114	
04:00	2	5	58	219	5	30	46	182	7	35	104	401
04:15	1		60		5		58		6		118	
04:30	0		46		9		42		9		88	
04:45	2		55		11		36		13		91	
05:00	1	12	52	219	19	98	52	219	20	110	104	438
05:15	2		56		17		55		19		111	
05:30	5		55		28		64		33		119	
05:45	4		56		34		48		38		104	
06:00	8	61	50	217	32	168	48	172	40	229	98	389
06:15	12		52		32		48		44		100	
06:30	7		53		44		44		51		97	
06:45	34		62		60		32		94		94	
07:00	17	92	50	166	64	204	42	164	81	296	92	330
07:15	21		38		46		38		67		76	
07:30	23		42		56		44		79		86	
07:45	31		36		38		40		69		76	
08:00	30	110	44	157	42	162	37	139	72	272	81	296
08:15	29		35		50		36		79		71	
08:30	24		36		32		38		56		74	
08:45	27		42		38		28		65		70	
09:00	27	112	33	120	36	153	40	122	63	265	73	242
09:15	26		33		42		29		68		62	
09:30	37		32		40		25		77		57	
09:45	22		22		35		28		57		50	
10:00	31	130	23	82	48	181	18	49	79	311	41	131
10:15	33		21		53		14		86		35	
10:30	30		20		43		11		73		31	
10:45	36		18		37		6		73		24	
11:00	34	151	10	35	54	183	8	29	88	334	18	64
11:15	30		9		44		11		74		20	
11:30	37		13		38		6		75		19	
11:45	50		3		47		4		97		7	
Totals	714		1,849		1,208		1,818		1,922		3,667	
Split%	37.1		50.4		62.9		49.6					
Day Totals		2,563				3,026				5,589		
Day Splits		45.9				54.1						
Peak Hour	11:00		03:30		06:45		05:00		11:00		05:00	
Volume	151		222		226		219		334		438	
Factor	0.75		0.93		0.88		0.86		0.86		0.92	

Data File : D0407048

Transportation Studies, Inc.
1350 Reynolds Avenue, Ste. 115
Irvine, CA. 92614

Location : MONTECITO WAY
Segment : N/O MONTECITO ROAD
Client : URBAN SYSTEMS

Site: RAMONA
Date: 07/22/04

Day: Thursday

Interval	SB				NB				Combined			
Begin	AM		PM		AM		PM		AM		PM	
12:00	0	0	5	15	0	0	5	9	0	0	10	24
12:15	0		3		0		1		0		4	
12:30	0		4		0		0		0		4	
12:45	0		3		0		3		0		6	
01:00	1	2	2	7	0	0	1	7	1	2	3	14
01:15	0		1		0		1		0		2	
01:30	1		1		0		1		1		2	
01:45	0		3		0		4		0		7	
02:00	0	2	2	8	0	2	5	11	0	4	7	19
02:15	0		4		1		2		1		6	
02:30	2		1		0		2		2		3	
02:45	0		1		1		2		1		3	
03:00	0	1	1	10	0	0	2	14	0	1	3	24
03:15	0		4		0		2		0		6	
03:30	0		3		0		6		0		9	
03:45	1		2		0		4		1		6	
04:00	0	0	1	7	0	0	1	11	0	0	2	18
04:15	0		2		0		2		0		4	
04:30	0		1		0		5		0		6	
04:45	0		3		0		3		0		6	
05:00	1	4	3	13	0	1	5	16	1	5	8	29
05:15	1		3		0		2		1		5	
05:30	2		6		0		5		2		11	
05:45	0		1		1		4		1		5	
06:00	3	8	3	15	0	2	3	12	3	10	6	27
06:15	1		3		0		5		1		8	
06:30	0		4		1		2		1		6	
06:45	4		5		1		2		5		7	
07:00	3	16	6	8	2	5	2	9	5	21	8	17
07:15	4		1		3		2		7		3	
07:30	3		1		0		1		3		2	
07:45	6		0		0		4		6		4	
08:00	5	11	3	12	2	7	0	2	7	18	3	14
08:15	4		2		2		1		6		3	
08:30	0		4		1		0		1		4	
08:45	2		3		2		1		4		4	
09:00	4	18	2	6	1	3	0	3	5	21	2	9
09:15	6		1		0		3		6		4	
09:30	2		1		2		0		4		1	
09:45	6		2		0		0		6		2	
10:00	3	13	0	0	1	7	0	0	4	20	0	0
10:15	2		0		3		0		5		0	
10:30	4		0		0		0		4		0	
10:45	4		0		3		0		7		0	
11:00	4	13	1	4	2	6	0	0	6	19	1	4
11:15	1		2		0		0		1		2	
11:30	4		0		0		0		4		0	
11:45	4		1		4		0		8		1	
Totals	88		105		33		94		121		199	
Split%	72.7		52.8		27.3		47.2					
Day Totals		193				127				320		
Day Splits		60.3				39.7						
Peak Hour	07:15		06:15		10:15		05:30		07:15		04:45	
Volume	18		18		8		17		23		30	
Factor	0.75		0.75		0.67		0.85		0.82		0.68	

Data File : 00407051

Transportation Studies, Inc.
1350 Reynolds Avenue, Ste. 115
Irvine, CA. 92614

Location : MONTECITO ROAD
Segment : E/O MONTECITO WAY
Client : URBAN SYSTEMS

Site: RAMONA
Date: 07/22/04

Interval	EB				WB				Combined				Day: Thursday
Begin	AM		PM		AM		PM		AM		PM		
12:00	1	1	10	27	1	2	11	28	2	3	21	55	
12:15	0		3		0		3		0		6		
12:30	0		7		1		9		1		16		
12:45	0		7		0		5		0		12		
01:00	0	2	3	24	1	2	9	27	1	4	12	51	
01:15	1		7		1		3		2		10		
01:30	1		6		0		7		1		13		
01:45	0		8		0		8		0		16		
02:00	0	3	6	24	0	1	13	27	0	4	19	51	
02:15	0		7		1		4		1		11		
02:30	2		9		0		4		2		13		
02:45	1		2		0		6		1		8		
03:00	1	2	5	31	0	0	6	23	1	2	11	54	
03:15	0		4		0		5		0		9		
03:30	0		14		0		6		0		20		
03:45	1		8		0		6		1		14		
04:00	0	2	4	26	0	0	4	21	0	2	8	47	
04:15	0		5		0		8		0		13		
04:30	0		8		0		2		0		10		
04:45	2		9		0		7		2		16		
05:00	0	4	6	30	0	1	7	21	0	5	13	51	
05:15	2		9		0		4		2		13		
05:30	1		7		0		8		1		15		
05:45	1		8		1		2		2		10		
06:00	3	9	7	25	0	12	6	26	3	21	13	51	
06:15	1		6		4		8		5		14		
06:30	0		6		2		5		2		11		
06:45	5		6		6		7		11		13		
07:00	4	23	9	19	6	32	6	14	10	55	15	33	
07:15	8		6		9		2		17		8		
07:30	4		3		6		3		10		6		
07:45	7		1		11		3		18		4		
08:00	8	14	6	21	12	45	0	12	20	59	6	33	
08:15	2		1		6		5		8		6		
08:30	2		9		15		4		17		13		
08:45	2		5		12		3		14		8		
09:00	7	27	6	16	12	30	6	11	19	57	12	27	
09:15	6		5		4		2		10		7		
09:30	6		1		5		3		11		4		
09:45	8		4		9		0		17		4		
10:00	7	32	0	7	7	30	2	6	14	62	2	13	
10:15	10		3		8		2		18		5		
10:30	8		2		7		1		15		3		
10:45	7		2		8		1		15		3		
11:00	6	37	2	3	4	19	0	2	10	56	2	5	
11:15	7		1		2		2		9		3		
11:30	8		0		6		0		14		0		
11:45	16		0		7		0		23		0		
Totals	156		253		174		218		330		471		
Split%	47.3		53.7		52.7		46.3						

Day Totals		409				392				801		
Day Splits		51.1				48.9						
Peak Hour	11:00		04:30		08:00		01:30		07:15		01:30	
Volume	37		32		45		32		65		59	
Factor	0.58		0.89		0.75		0.62		0.81		0.78	

Data File : D0407049

Transportation Studies, Inc.
1350 Reynolds Avenue, Ste. 115
Irvine, CA. 92614

Location: ASH STREET
Segment: W/O SR 78
Client: URBAN SYSTEMS

Site: RAMONA
Date: 07/22/04
Day: Thursday

Interval	WB				EB				Combined			
Begin	AM		PM		AM		PM		AM		PM	
12:00	1	3	2	29	1	3	3	25	2	6	5	54
12:15	0		13		0		6		0		19	
12:30	2		5		2		11		4		16	
12:45	0		9		0		5		0		14	
01:00	0	1	4	24	0	1	10	24	0	2	14	48
01:15	0		5		0		6		0		11	
01:30	1		8		1		4		2		12	
01:45	0		7		0		4		0		11	
02:00	0	1	5	25	0	0	5	19	0	1	10	44
02:15	0		10		0		3		0		13	
02:30	1		6		0		3		1		11	
02:45	0		4		0		6		0		10	
03:00	0	0	8	29	0	1	7	18	0	1	15	47
03:15	0		10		0		4		0		14	
03:30	0		6		1		2		1		8	
03:45	0		5		0		5		0		10	
04:00	0	0	6	26	1	7	4	12	1	7	10	38
04:15	0		4		0		3		0		7	
04:30	0		5		1		1		1		6	
04:45	0		11		5		4		5		15	
05:00	1	4	16	38	3	15	4	28	4	19	20	66
05:15	0		11		3		8		3		19	
05:30	3		6		4		6		7		12	
05:45	0		5		5		10		5		15	
06:00	2	8	10	38	10	28	6	16	12	36	16	54
06:15	2		1		5		4		7		5	
06:30	2		17		2		2		4		19	
06:45	2		10		11		4		13		14	
07:00	3	20	11	33	6	31	6	17	9	51	17	50
07:15	6		8		10		4		16		12	
07:30	7		6		7		3		14		9	
07:45	4		8		8		4		12		12	
08:00	4	15	2	19	4	20	2	5	8	35	4	24
08:15	3		4		8		2		11		6	
08:30	2		6		6		1		8		7	
08:45	6		7		2		0		8		7	
09:00	7	25	5	19	5	15	2	2	12	40	7	21
09:15	5		7		2		0		7		7	
09:30	8		2		6		0		14		2	
09:45	5		5		2		0		7		5	
10:00	0	10	3	9	2	16	0	0	2	26	3	9
10:15	4		3		2		0		6		3	
10:30	4		1		4		0		8		1	
10:45	2		2		8		0		10		2	
11:00	1	26	0	7	2	22	0	0	3	48	0	7
11:15	7		1		5		0		12		1	
11:30	10		6		5		0		15		6	
11:45	8		0		10		0		18		0	
Totals	113		296		139		166		272		462	
Split%	41.5		64.1		58.5		35.9					

Day Totals		409				325				734		
Day Splits		55.7				44.3						
Peak Hour	08:45		06:30		06:45		12:15		06:45		04:45	
Volume	26		46		34		32		52		66	
Factor	0.81		0.68		0.77		0.73		0.81		0.82	

Data File: D0407050

Transportation Studies, Inc.
1350 Reynolds Avenue
Suite 115
Irvine, CA. 92614

City: RAMONA
N-S Direction: MONTECITO ROAD
E-W Direction: MAIN STREET

File Name : H0407031
Site Code : 00000916
Start Date : 7/22/2004
Page No : 1

Groups Printed- Turning Movements

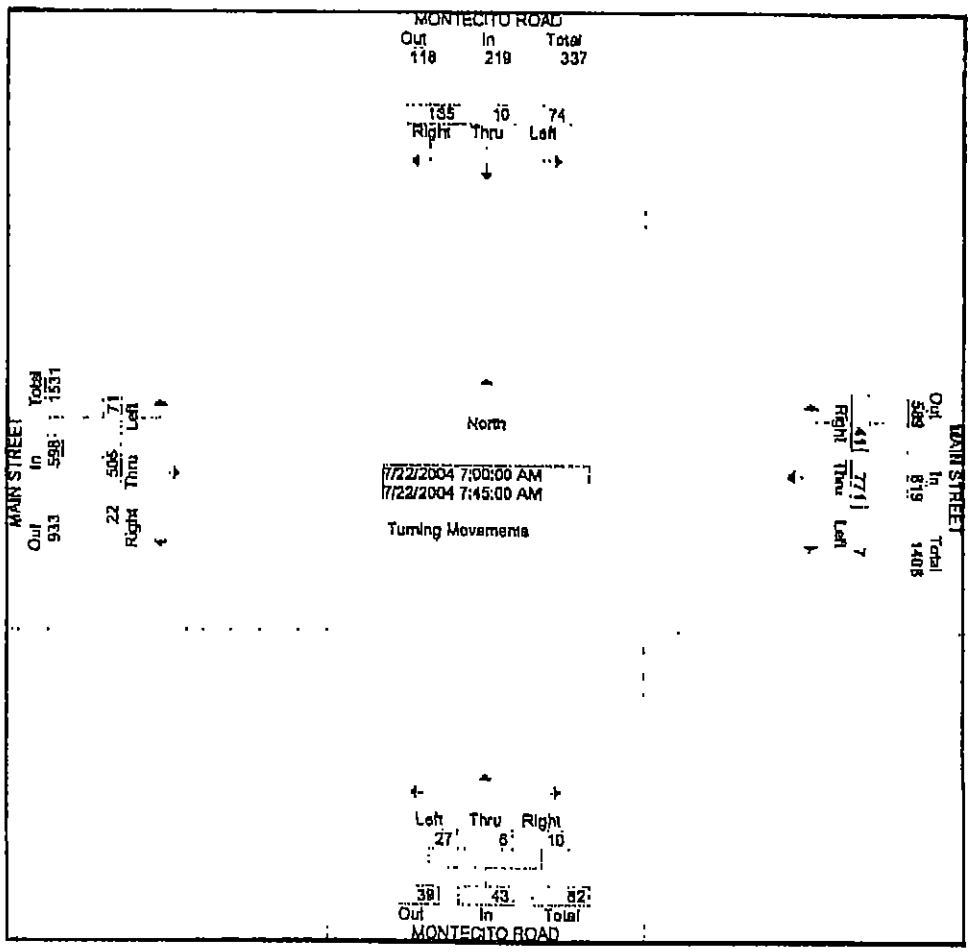
	MONTECITO ROAD Southbound			MAIN STREET Westbound			MONTECITO ROAD Northbound			MAIN STREET Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
06:00 AM	22	0	5	9	158	1	0	2	4	0	71	4	276
06:15 AM	33	0	8	3	156	1	2	1	4	3	90	8	309
06:30 AM	33	2	18	6	138	1	1	0	6	5	123	13	346
06:45 AM	36	0	24	10	203	3	2	0	6	4	118	17	422
Total	123	2	55	28	655	6	5	3	20	12	402	42	1353
07:00 AM	42	3	19	9	201	0	2	0	5	4	104	12	401
07:15 AM	36	3	11	8	182	2	3	0	13	3	131	19	411
07:30 AM	24	3	24	15	191	4	3	1	5	8	134	17	429
07:45 AM	33	1	20	9	197	1	2	5	4	7	136	23	438
Total	135	10	74	41	771	7	10	6	27	22	505	71	1679
*** BREAK ***													
03:30 PM	34	9	19	17	184	11	12	7	10	21	215	27	566
03:45 PM	33	8	34	18	185	12	15	9	12	31	255	20	632
Total	67	17	53	35	369	23	27	16	22	52	470	47	1198
04:00 PM	33	4	21	19	231	4	10	18	11	24	246	21	640
04:15 PM	39	6	26	18	194	14	18	7	24	24	247	19	636
04:30 PM	30	6	18	19	184	9	12	7	16	17	268	16	622
04:45 PM	31	4	20	17	194	12	20	12	14	29	239	19	611
Total	133	20	85	73	803	39	60	42	65	94	1020	75	2509
05:00 PM	46	9	18	17	186	7	16	8	13	19	271	33	652
05:15 PM	43	2	24	15	193	6	16	7	6	16	283	27	638
Grand Total	548	60	309	209	2987	86	134	82	153	215	2951	295	8029
Apprch %	59.7	6.6	33.6	6.4	91.0	2.7	36.3	22.2	41.5	6.2	85.3	8.5	
Total %	6.8	0.7	3.8	2.6	37.2	1.1	1.7	1.0	1.9	2.7	36.8	3.7	

Transportation Studies, Inc.
1350 Reynolds Avenue
Suite 115
Irvine, CA, 92614

City: RAMONA
N-S Direction: MONTECITO ROAD
E-W Direction: MAIN STREET

File Name : H0407031
Site Code : 00000916
Start Date : 7/22/2004
Page No : 2

	MONTECITO ROAD Southbound				MAIN STREET Westbound				MONTECITO ROAD Northbound				MAIN STREET Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour From 08:00 AM to 07:45 AM - Peak 1 of 1																	
Intersection	07:00 AM																
Volume	135	10	74	219	41	771	7	819	10	6	27	43	22	505	71	598	1679
Percent	61.6	4.6	33.8		5.0	94.1	0.9		23.3	14.0	62.8		3.7	84.4	11.9		
07:45 Volume	33	1	20	54	9	197	1	207	2	5	4	11	7	138	23	168	438
Peak Factor																	0.958
High Int.	07:00 AM				07:00 AM				07:15 AM				07:45 AM				
Volume	42	3	19	64	9	201	0	210	3	0	13	16	7	138	23	168	
Peak Factor				0.855				0.975				0.672				0.901	

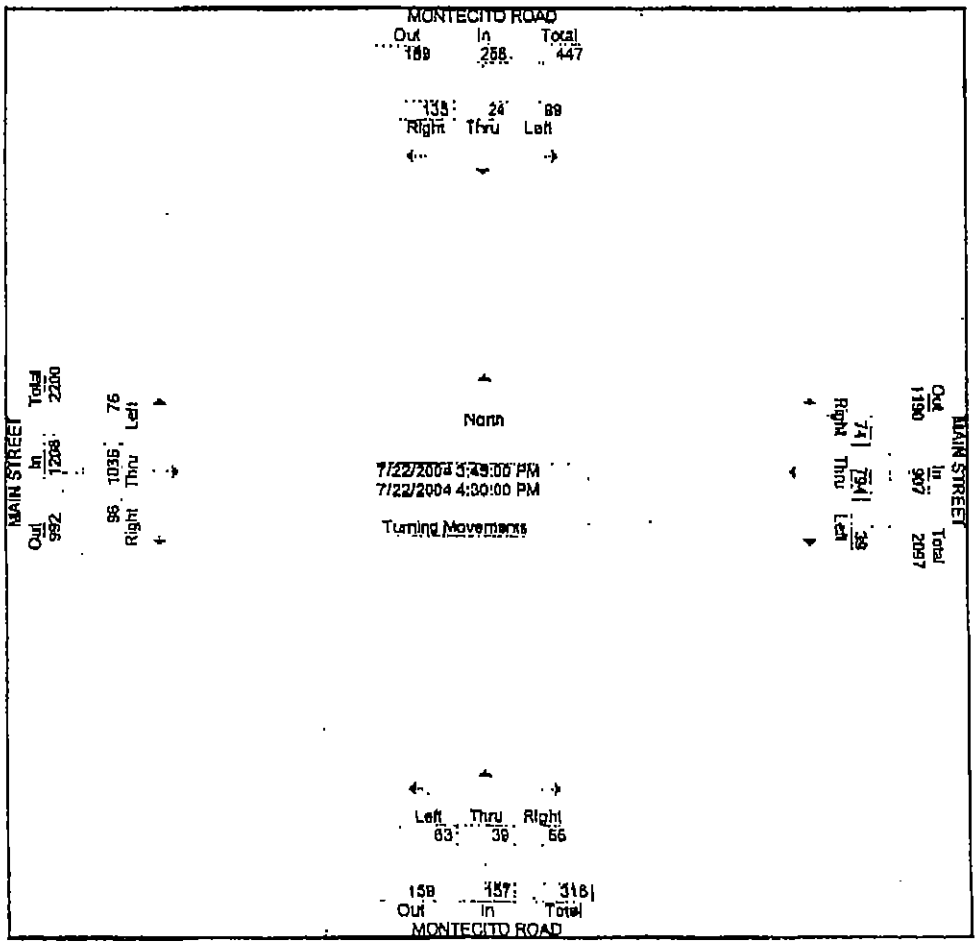


Transportation Studies, Inc.
1350 Reynolds Avenue
Suite 115
Irvine, CA. 92614

City: RAMONA
S Direction: MONTECITO ROAD
E-W Direction: MAIN STREET

File Name : H0407031
Site Code : 00000916
Start Date : 7/22/2004
Page No : 3

	MONTECITO ROAD Southbound				MAIN STREET Westbound				MONTECITO ROAD Northbound				MAIN STREET Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour From 03:30 PM to 05:15 PM - Peak 1 of 1																	
Intersection	03:45 PM																
Volume	135	24	99	258	74	764	39	907	55	39	63	157	96	1036	76	1208	2530
Percent	52.3	9.3	38.4		8.2	87.5	4.3		35.0	24.8	40.1		7.9	85.8	6.3		
04:00 Volume	33	4	21	58	19	231	4	254	10	16	11	37	24	246	21	291	640
Peak Factor																	0.988
High Int.	03:45 PM				04:00 PM				04:15 PM				04:30 PM				
Volume	33	8	34	75	19	231	4	254	18	7	24	49	17	288	18	321	
Peak Factor				0.860				0.893				0.801				0.941	



hp officejet 4100 serie 4110 Personal . inter/Fax/Copier/Scanner

Log for
U an Systems Associates,
8..-560-9734
7/27/2004 08:42

Last Transaction

Date	Time	Type	Identification	Duration	Pages	Result
27 Jul	08:37	Received	949+852+8441	3:41	8	OK

LOS Engineering, Inc.

6342 Ferris Square, San Diego, CA 92121

Counted By: Emp. #01
Location: SR-78/Pine Street & Olive Street

Start Date: 06/15/2005
File Name: 399-01-1

	SR-78/Pine Street Northbound				SR-78/Pine Street Southbound				Olive Street Eastbound				Olive Street Westbound				Vehicle
Start Time	Left	Thru	Right	Ped	Left	Thru	Right	Ped	Left	Thru	Right	Ped	Left	Thru	Right	Ped	Interval Total
7:00	10	92	0	0	5	78	0	0	12	1	19	0	6	6	16	0	245
7:15	15	116	2	0	10	64	2	0	5	9	17	0	1	3	30	0	274
7:30	5	99	1	0	7	54	3	0	6	6	14	0	0	5	13	0	213
7:45	22	72	3	0	10	91	3	0	3	5	12	0	1	8	22	1	252
Total	52	379	6	0	32	287	8	0	26	21	62	0	8	22	81	1	984
8:00	10	64	0	0	3	88	1	0	6	3	12	0	2	4	13	0	206
8:15	18	79	5	0	4	80	2	0	6	6	17	0	3	4	6	0	230
8:30	21	67	3	0	4	82	1	0	3	4	10	0	1	2	17	0	215
8:45	12	75	1	0	5	82	8	0	3	5	9	0	1	6	13	0	220
Total	61	285	9	0	16	332	12	0	18	18	48	0	7	16	49	0	871
Grand Total	113	664	15	0	48	619	20	0	44	39	110	0	15	38	130	1	1855
Approach%	14.3	83.8	1.9	-	7.0	90.1	2.9	-	22.8	20.2	57.0	-	8.2	20.7	70.7	0.5	
Total%	6.1	35.8	0.8	-	2.6	33.4	1.1	-	2.4	2.1	5.9	-	0.8	2.0	7.0	0.1	

Peak hour analysis for the period 07:00 to 07:45

Volume	52	379	6	-	32	287	8	-	26	21	62	-	8	22	81	1	984
Approach%	11.9	86.7	1.4	-	9.8	87.8	2.4	-	23.9	19.3	56.9	-	7.1	19.6	72.3	0.9	
Total%	5.3	38.5	0.6	-	3.3	29.2	0.8	-	2.6	2.1	6.3	-	0.8	2.2	8.2	0.1	
PHF				0.82				0.79				0.85				0.82	

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LOS Engineering, Inc.

6342 Ferris Square, San Diego, CA 92121

Counted By: Emp. #01
Location: SR-78/Pine Street & Olive Street

Start Date: 06/15/2005
File Name: 399-01-2

	SR-78/Pine Street Northbound				SR-78/Pine Street Southbound				Olive Street Eastbound				Olive Street Westbound				Vehicle
Start Time	Left	Thru	Right	Ped	Left	Thru	Right	Ped	Left	Thru	Right	Ped	Left	Thru	Right	Ped	Interval Total
16:00	20	87	2	0	20	117	11	0	9	5	12	0	1	4	15	1	303
16:15	19	101	5	0	22	134	6	0	7	11	20	0	4	5	11	0	345
16:30	15	74	2	0	13	101	6	0	10	5	20	0	1	4	10	0	261
16:45	14	93	7	0	25	125	13	0	6	4	19	0	1	6	9	0	322
Total	68	355	16	0	80	477	36	0	32	25	71	0	7	19	45	1	1231
17:00	10	97	3	1	17	138	11	0	11	6	17	0	3	2	19	0	334
17:15	17	80	2	0	15	116	9	0	7	9	10	0	1	4	16	0	286
17:30	18	87	3	0	28	144	8	0	4	9	8	0	0	5	3	1	317
17:45	10	93	2	0	17	89	7	0	3	4	7	0	0	2	6	0	240
Total	55	357	10	1	77	487	35	0	25	28	42	0	4	13	44	1	1177
Grand Total	123	712	26	1	157	964	71	0	57	53	113	0	11	32	89	2	2408
Approach%	14.3	82.6	3.0	0.1	13.2	80.9	6.0	-	25.6	23.8	50.7	-	8.2	23.9	66.4	1.5	
Total%	5.1	29.6	1.1	0.0	6.5	40.0	2.9	-	2.4	2.2	4.7	-	0.5	1.3	3.7	0.1	

Peak hour analysis for the period 16:15 to 17:00

Volume	58	365	17	1	77	498	36	-	34	26	76	-	9	17	49	-	1,262
Approach%	13.2	82.8	3.9	0.2	12.6	81.5	5.9	-	25.0	19.1	55.9	-	12.0	22.7	65.3	-	
Total%	4.6	28.9	1.3	0.1	6.1	39.5	2.9	-	2.7	2.1	6.0	-	0.7	1.3	3.9	-	
PHF				0.88				0.92				0.89				0.78	

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LOS Engineering, Inc.

6342 Ferris Square, San Diego, CA 92121

Counted By: Emp. #01
Location: SR-78/Pine Street & Olive Street

Start Date: 06/15/2005
File Name: 399-01-3

	SR-78/Pine Street Northbound				SR-78/Pine Street Southbound				Olive Street Eastbound				Olive Street Westbound				Vehicle
Start Time	Left	Thru	Right	Ped	Left	Thru	Right	Ped	Left	Thru	Right	Ped	Left	Thru	Right	Ped	Interval Total
18:15	11	81	2	0	8	139	8	0	9	4	6	0	1	5	8	0	282
18:30	10	61	3	0	17	133	6	0	5	9	11	1	1	4	6	0	266
18:45	3	49	6	0	10	79	7	0	4	4	7	0	0	1	4	0	174
19:00	4	48	7	0	4	57	4	0	4	6	7	0	0	0	9	0	150
Total	28	239	18	0	39	408	25	0	22	23	31	1	2	10	27	0	872
19:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	28	239	18	0	39	408	25	0	22	23	31	1	2	10	27	0	872
Approach%	9.8	83.9	6.3	-	8.3	86.4	5.3	-	28.6	29.9	40.3	1.3	5.1	25.6	69.2	-	
Total%	3.2	27.4	2.1	-	4.5	46.8	2.9	-	2.5	2.6	3.6	0.1	0.2	1.1	3.1	-	

Peak hour analysis for the period 18:15 to 19:00

Volume	28	239	18	-	39	408	25	-	22	23	31	1	2	10	27	-	872
Approach%	9.8	83.9	6.3	-	8.3	86.4	5.3	-	28.6	29.9	40.3	1.3	5.1	25.6	69.2	-	
Total%	3.2	27.4	2.1	-	4.5	46.8	2.9	-	2.5	2.6	3.6	0.1	0.2	1.1	3.1	-	
PHF				0.76				0.76				0.74				0.70	

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LOS Engineering, Inc.

6342 Ferris Square, San Diego, CA 92121

Counted By: Emp. #03
Location: Pine Street/ SR-78 & Olive Street

Start Date: 06/18/2006
File Name: 622-01-1

	Pine Street/SR-78 Northbound				Pine Street/SR-78 Southbound				Olive Street Eastbound				Olive Street Westbound				Vehicle
Start Time	Left	Thru	Right	Ped	Left	Thru	Right	Ped	Left	Thru	Right	Ped	Left	Thru	Right	Ped	Interval Total
9:30	2	70	4	0	1	49	3	0	5	3	1	0	3	5	8	0	154
9:45	5	84	0	0	1	61	2	0	2	8	7	0	3	1	9	0	183
10:00	8	74	4	0	5	48	9	0	5	4	6	0	1	5	6	0	175
10:15	3	96	3	1	3	80	3	0	6	3	2	0	1	1	2	0	203
Total	18	324	11	1	10	238	17	0	18	18	16	0	8	12	25	0	715
10:30	2	96	3	1	5	64	4	0	3	3	4	0	0	1	12	1	197
10:45	5	90	0	0	8	70	1	0	2	2	1	0	1	5	17	1	202
11:00	2	72	3	0	2	77	7	0	4	3	4	0	4	1	10	0	189
11:15	2	77	1	0	5	70	2	0	3	8	6	0	0	0	13	0	187
Total	11	335	7	1	20	281	14	0	12	16	15	0	5	7	52	2	775
Grand Total	29	659	18	2	30	519	31	0	30	34	31	0	13	19	77	2	1490
Approach%	4.1	93.1	2.5	0.3	5.2	89.5	5.3	-	31.6	35.8	32.6	-	11.7	17.1	69.4	1.8	
Total%	1.9	44.2	1.2	0.1	2.0	34.8	2.1	-	2.0	2.3	2.1	-	0.9	1.3	5.2	0.1	

Peak hour analysis for the period 10:15 to 11:00

Volume	12	354	9	2	18	291	15	-	15	11	11	-	6	8	41	2	791
Approach%	3.2	93.9	2.4	0.5	5.6	89.8	4.6	-	40.5	29.7	29.7	-	10.5	14.0	71.9	3.5	
Total%	1.5	44.8	1.1	0.3	2.3	36.8	1.9	-	1.9	1.4	1.4	-	0.8	1.0	5.2	0.3	
PHF				0.92				0.94				0.84				0.59	

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LOS Engineering, Inc.

6342 Ferris Square, San Diego, CA 92121

Counted By: Emp. #03
Location: Pine Street/ SR-78 & Olive Street

Start Date: 06/18/2006
File Name: 622-01-2

	Pine Street/SR-78 Northbound				Pine Street/SR-78 Southbound				Olive Street Eastbound				Olive Street Westbound				Vehicle
Start Time	Left	Thru	Right	Ped	Left	Thru	Right	Ped	Left	Thru	Right	Ped	Left	Thru	Right	Ped	Interval Total
17:30	2	69	1	0	10	71	3	0	6	4	1	0	1	3	7	0	178
17:45	5	72	2	0	2	75	7	0	4	1	1	0	0	3	9	0	181
18:00	2	74	2	0	3	66	5	0	7	1	5	0	1	3	8	0	177
18:15	6	75	0	0	3	66	3	0	4	6	3	0	0	4	6	0	176
Total	15	290	5	0	18	278	18	0	21	12	10	0	2	13	30	0	712
18:30	5	79	1	0	8	67	6	0	5	2	5	0	0	1	4	0	183
18:45	5	65	3	0	6	59	1	1	4	2	3	0	1	0	5	0	154
19:00	3	60	1	0	7	67	5	0	2	3	6	0	2	0	2	0	158
19:15	2	62	2	0	6	70	4	1	4	3	4	0	1	0	1	0	159
Total	15	266	7	0	27	263	16	2	15	10	18	0	4	1	12	0	654
Grand Total	30	556	12	0	45	541	34	2	36	22	28	0	6	14	42	0	1366
Approach%	5.0	93.0	2.0	-	7.2	87.0	5.5	0.3	41.9	25.6	32.6	-	9.7	22.6	67.7	-	
Total%	2.2	40.7	0.9	-	3.3	39.6	2.5	0.1	2.6	1.6	2.0	-	0.4	1.0	3.1	-	

Peak hour analysis for the period 17:45 to 18:30

Volume	18	300	5	-	16	274	21	-	20	10	14	-	1	11	27	-	717
Approach%	5.6	92.9	1.5	-	5.1	88.1	6.8	-	45.5	22.7	31.8	-	2.6	28.2	69.2	-	
Total%	2.5	41.8	0.7	-	2.2	38.2	2.9	-	2.8	1.4	2.0	-	0.1	1.5	3.8	-	
PHF				0.95				0.93				0.85				0.81	

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LOS Engineering, Inc.

6342 Ferris Square, San Diego, CA 92121

Counted By: Emp. #03
Location: Pine Street/ SR-78 & Olive Street

Start Date: 06/18/2006
File Name: 622-01-2

	Pine Street/SR-78 Northbound				Pine Street/SR-78 Southbound				Olive Street Eastbound				Olive Street Westbound				Vehicle
Start Time	Left	Thru	Right	Ped	Left	Thru	Right	Ped	Left	Thru	Right	Ped	Left	Thru	Right	Ped	Interval Total
17:30	2	69	1	0	10	71	3	0	6	4	1	0	1	3	7	0	178
17:45	5	72	2	0	2	75	7	0	4	1	1	0	0	3	9	0	181
18:00	2	74	2	0	3	66	5	0	7	1	5	0	1	3	8	0	177
18:15	6	75	0	0	3	66	3	0	4	6	3	0	0	4	6	0	176
Total	15	290	5	0	18	278	18	0	21	12	10	0	2	13	30	0	712
18:30	5	79	1	0	8	67	6	0	5	2	5	0	0	1	4	0	183
18:45	5	65	3	0	6	59	1	1	4	2	3	0	1	0	5	0	154
19:00	3	60	1	0	7	67	5	0	2	3	6	0	2	0	2	0	158
19:15	2	62	2	0	6	70	4	1	4	3	4	0	1	0	1	0	159
Total	15	266	7	0	27	263	16	2	15	10	18	0	4	1	12	0	654
Grand Total	30	556	12	0	45	541	34	2	36	22	28	0	6	14	42	0	1366
Approach%	5.0	93.0	2.0	-	7.2	87.0	5.5	0.3	41.9	25.6	32.6	-	9.7	22.6	67.7	-	
Total%	2.2	40.7	0.9	-	3.3	39.6	2.5	0.1	2.6	1.6	2.0	-	0.4	1.0	3.1	-	

Peak hour analysis for the period 17:45 to 18:30

Volume	18	300	5	-	16	274	21	-	20	10	14	-	1	11	27	-	717
Approach%	5.6	92.9	1.5	-	5.1	88.1	6.8	-	45.5	22.7	31.8	-	2.6	28.2	69.2	-	
Total%	2.5	41.8	0.7	-	2.2	38.2	2.9	-	2.8	1.4	2.0	-	0.1	1.5	3.8	-	
PHF				0.95				0.93				0.85				0.81	

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LOS Engineering, Inc.

6342 Ferris Square, San Diego, CA 92121

Counted By: Emp. #03
Location: Pine Street/ SR-78 & Olive Street

Start Date: 06/18/2006
File Name: 622-01-1

	Pine Street/SR-78 Northbound				Pine Street/SR-78 Southbound				Olive Street Eastbound				Olive Street Westbound				Vehicle
Start Time	Left	Thru	Right	Ped	Left	Thru	Right	Ped	Left	Thru	Right	Ped	Left	Thru	Right	Ped	Interval Total
9:30	2	70	4	0	1	49	3	0	5	3	1	0	3	5	8	0	154
9:45	5	84	0	0	1	61	2	0	2	8	7	0	3	1	9	0	183
10:00	8	74	4	0	5	48	9	0	5	4	6	0	1	5	6	0	175
10:15	3	96	3	1	3	80	3	0	6	3	2	0	1	1	2	0	203
Total	18	324	11	1	10	238	17	0	18	18	16	0	8	12	25	0	715
10:30	2	96	3	1	5	64	4	0	3	3	4	0	0	1	12	1	197
10:45	5	90	0	0	8	70	1	0	2	2	1	0	1	5	17	1	202
11:00	2	72	3	0	2	77	7	0	4	3	4	0	4	1	10	0	189
11:15	2	77	1	0	5	70	2	0	3	8	6	0	0	0	13	0	187
Total	11	335	7	1	20	281	14	0	12	16	15	0	5	7	52	2	775
Grand Total	29	659	18	2	30	519	31	0	30	34	31	0	13	19	77	2	1490
Approach%	4.1	93.1	2.5	0.3	5.2	89.5	5.3	-	31.6	35.8	32.6	-	11.7	17.1	69.4	1.8	
Total%	1.9	44.2	1.2	0.1	2.0	34.8	2.1	-	2.0	2.3	2.1	-	0.9	1.3	5.2	0.1	

Peak hour analysis for the period 10:15 to 11:00

Volume	12	354	9	2	18	291	15	-	15	11	11	-	6	8	41	2	791
Approach%	3.2	93.9	2.4	0.5	5.6	89.8	4.6	-	40.5	29.7	29.7	-	10.5	14.0	71.9	3.5	
Total%	1.5	44.8	1.1	0.3	2.3	36.8	1.9	-	1.9	1.4	1.4	-	0.8	1.0	5.2	0.3	
PHF				0.92				0.94				0.84				0.59	

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Vehicle Counts

VehicleCount-399.1.1-EB

Datasets:

Site:	**[3990101] Olive Street Btwn Oak Street & Hwy 78**
Direction:	6 - West bound A>B, East bound B>A., **Lane:** 0
Survey Duration:	17:49 Tuesday, June 14, 2005 => 12:45 Friday, June 17, 2005
File:	399010117JUN2005-1.EC0 (Plus)
Identifier:	N116JRX9 MC56-L4 [MC55] (c)Microcom 19Sep03
Algorithm:	Factory default
Data type:	Axle sensors - Paired (Class, Speed, Count)

Profile:

Filter time:	**0:00 Wednesday, June 15, 2005 => 0:00 Thursday, June 16, 2005**
Included classes:	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Speed range:	5 - 100 mph.
Direction:	East (bound)
Separation:	All - (Headway)
Name:	Factory default profile
Scheme:	Vehicle classification (Scheme F99)
Units:	Non metric (ft, mi, ft/s, mph, lb, ton)
In profile:	Vehicles = 1000 / 5507 (18.16%)

*** Wednesday, June 15, 2005 - Total=1000, 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
5	6	5	2	6	13	32	59	41	43	54	59	55	43	60	66	112	110	80	45	39	27	24	14	
2	2	2	0	1	2	5	7	7	12	15	16	11	10	15	16	25	23	19	15	9	9	7	5	-
3	0	1	0	1	3	6	18	13	14	16	16	15	6	15	16	31	27	14	14	9	6	9	1	-
0	2	0	1	1	2	12	15	11	9	10	14	15	12	19	22	20	36	27	5	9	10	4	4	-
0	2	2	1	3	6	9	19	10	8	13	13	14	15	11	12	36	24	20	11	12	2	4	4	-

AM Peak 0700 - 0800 (59), AM PHF=0.78

Vehicle Counts

VehicleCount-399.1.1-WB

Datasets:

Site:	**[3990101] Olive Street Btwn Oak Street & Hwy 78**
Direction:	6 - West bound A>B, East bound B>A., **Lane:** 0
Survey Duration:	17:49 Tuesday, June 14, 2005 => 12:45 Friday, June 17, 2005
File:	399010117JUN2005-1.EC0 (Plus)
Identifier:	N116JRX9 MC56-L4 [MC55] (c)Microcom 19Sep03
Algorithm:	Factory default
Data type:	Axle sensors - Paired (Class, Speed, Count)

Profile:

Filter time:	**0:00 Wednesday, June 15, 2005 => 0:00 Thursday, June 16, 2005**
Included classes:	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Speed range:	5 - 100 mph.
Direction:	West (bound)
Separation:	All - (Headway)
Name:	Factory default profile
Scheme:	Vehicle classification (Scheme F99)
Units:	Non metric (ft, mi, ft/s, mph, lb, ton)
In profile:	Vehicles = 1018 / 5507 (18.49%)

*** Wednesday, June 15, 2005 - Total=1018, 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
2	**8**	**1**	**4**	**10**	**65**	**97**	**117**	**76**	**51**	**53**	**62**	**61**	**54**	**49**	**63**	**70**	**57**	**39**	**25**	**18**	**17**	**9**	**10**	
2	6	0	1	0	6	24	25	23	16	15	15	18	20	10	12	22	21	10	7	7	6	1	2	-
0	1	0	1	2	17	16	38	15	14	17	12	12	12	15	17	18	19	13	5	3	1	5	4	-
0	1	0	0	1	18	24	22	21	12	11	19	14	15	15	22	16	9	9	3	3	5	2	0	-
0	0	1	2	7	24	33	32	17	9	10	16	17	7	9	12	14	8	7	10	5	5	1	4	-

AM Peak 0630 - 0730 (120), AM PHF=0.79

Event Counts

EventCount-301.1.1-NB

DATASETS:

Site:	**[1.1] 16th Street btwn Main Street and F Street**
ChannelA:	7 - North/South. - Excluded from totals. (0)
ChannelB:	1 - North bound. - Added to totals. (1)
Survey Duration:	19:48 Mon 01 Nov 2004 to 11:10 Wed 03 Nov 2004
File:	UM1.1b03.EC0 (Plus)
Identifier:	N036BXM7 MC56-L4 [MC55] (c)Microcom 19Sep03
Algorithm:	Event count

PROFILE:

Filter time:	**23:00 Mon 01 Nov 2004 to 01:00 Wed 03 Nov 2004**
Name:	Factory default profile
Method:	Count axles divided by two.
Units:	Non-Metric (ft, mi, f/s, mph, lb, ton)
In profile:	1329 Events

*** Mon 01 Nov 2004 - Total=3(incomplete) , 15 minute drops,**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	1

*** Tue 02 Nov 2004 - Total=1322, 15 minute drops,**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
2	2	0	7	9	27	49	83	131	64	72	85	80	61	120	142	88	90	67	53	29	36	22	3	
1	1	0	1	0	5	13	21	32	14	17	22	27	20	18	47	23	26	17	16	7	10	10	2	1
0	1	0	2	3	6	5	18	49	21	18	13	18	15	39	30	23	30	18	12	10	15	5	1	0
0	0	0	1	2	10	16	25	30	12	14	24	13	10	36	35	23	18	14	13	4	5	5	0	3
1	0	0	3	4	6	15	19	20	17	23	26	22	16	27	30	19	16	18	12	8	6	2	0	0

AM PkHr 08:00 to 09:00 (n=131), AM PHF=0.67 PM PkHr 14:15 to 15:15 (n=149), PM PHF=0.79

*** Wed 03 Nov 2004 - Total=4(incomplete) , 15 minute drops,**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Event Counts

EventCount-301.1.1-SB

DATASETS:

Site:	**[1.1] 16th Street btwn Main Street and F Street**
ChannelA:	7 - North/South. - Added to totals. (1)
ChannelB:	1 - North bound. - Subtracted from totals. (-1)
Survey Duration:	19:48 Mon 01 Nov 2004 to 11:10 Wed 03 Nov 2004
File:	UM1.1b03.EC0 (Plus)
Identifier:	N036BXM7 MC56-L4 [MC55] (c)Microcom 19Sep03
Algorithm:	Event count

PROFILE:

Filter time:	**23:00 Mon 01 Nov 2004 to 01:00 Wed 03 Nov 2004**
Name:	Factory default profile
Method:	Count axles divided by two.
Units:	Non-Metric (ft, mi, f/s, mph, lb, ton)
In profile:	1577 Events

*** Mon 01 Nov 2004 - Total=9(incomplete) , 15 minute drops,**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	0
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	1
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1

*** Tue 02 Nov 2004 - Total=1565, 15 minute drops,**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
3	0	3	3	1	6	30	38	101	51	58	96	94	91	153	179	151	140	133	93	66	48	18	9	
0	0	1	2	0	1	3	8	38	18	12	20	29	25	39	62	44	30	35	27	18	13	5	6	0
1	0	0	1	1	1	5	10	31	10	11	25	26	16	31	39	29	31	43	23	19	16	3	2	2
1	0	2	0	0	2	5	10	22	14	13	25	20	19	33	35	36	42	33	26	14	9	6	1	0
1	0	0	0	0	2	17	10	10	9	22	26	19	31	50	43	42	37	22	17	15	10	4	0	0

AM PkHr 11:30 to 12:30 (n=106), AM PHF=0.91 PM PkHr 14:45 to 15:45 (n=186), PM PHF=0.75

*** Wed 03 Nov 2004 - Total=2(incomplete) , 15 minute drops,**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Vehicle Counts

VehicleCount-301,2,1-NB

DATASETS:

Site:	**[2.1] Pine Street, n/o Haverford Road**
Direction:	5 - South bound A>B, North bound B>A., **Lane:** 0
Survey Duration:	19:47 Mon 01 Nov 2004 to 11:10 Wed 03 Nov 2004
File:	UM2.1b03.EC0 (Plus)
Identifier:	N0378XKS MC56-L4 [MC55] (c)Microcom 19Sep03
Algorithm:	Factory default

PROFILE:

Filter time:	**23:00 Mon 01 Nov 2004 to 01:00 Wed 03 Nov 2004**
Included classes:	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Speed range:	5 - 100 mph.
Direction:	North (bound)
Headway:	All
Scheme:	Scheme F99
Name:	Factory default profile
Method:	Vehicle classification
Units:	Non-Metric (ft, mi, f/s, mph, lb, ton)
In profile:	211 Vehicles

*** Mon 01 Nov 2004 - Total=0(incomplete) , 15 minute drops,**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0

*** Tue 02 Nov 2004 - Total=210, 15 minute drops,**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
0	0	3	1	0	1	8	14	7	14	15	12	17	17	15	12	14	17	20	8	7	3	3	2	
0	0	1	0	0	1	0	7	0	4	5	7	2	3	4	2	3	6	9	0	1	2	2	0	1
0	0	1	1	0	0	0	2	4	2	3	1	4	2	6	4	5	1	3	3	2	0	0	1	0
0	0	0	0	0	0	2	4	1	3	2	1	6	3	3	4	2	6	3	2	2	0	0	1	0
0	0	1	0	0	0	6	1	2	5	5	3	5	9	2	2	4	4	5	3	2	1	1	0	0

AM PkHr 06:45 to 07:45 (n=19), AM PHF=0.68 PM PkHr 13:30 to 14:30 (n=22), PM PHF=0.61

*** Wed 03 Nov 2004 - Total=1(incomplete) , 15 minute drops,**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Vehicle Counts

VehicleCount-301.2.1-SB

DATASETS:

Site:	**[2.1] Pine Street, n/o Haverford Road**
Direction:	5 - South bound A>B, North bound B>A., **Lane:** 0
Survey Duration:	19:47 Mon 01 Nov 2004 to 11:10 Wed 03 Nov 2004
File:	UM2.1b03.EC0 (Plus)
Identifier:	N0378XKS MC56-L4 [MC55] (c)Microcom 19Sep03
Algorithm:	Factory default

PROFILE:

Filter time:	**23:00 Mon 01 Nov 2004 to 01:00 Wed 03 Nov 2004**
Included classes:	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Speed range:	5 - 100 mph.
Direction:	South (bound)
Headway:	All
Scheme:	Scheme F99
Name:	Factory default profile
Method:	Vehicle classification
Units:	Non-Metric (ft, mi, f/s, mph, lb, ton)
In profile:	217 Vehicles

*** Mon 01 Nov 2004 - Total=0(incomplete) , 15 minute drops,**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0

*** Tue 02 Nov 2004 - Total=217, 15 minute drops,**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
0	1	1	1	3	6	13	22	12	15	14	9	23	14	17	19	17	6	5	9	6	0	3	1	
0	0	0	0	1	2	4	5	3	4	5	1	8	3	6	4	4	3	2	0	2	0	1	0	0
0	0	0	0	0	2	0	14	3	4	4	4	4	4	3	6	5	1	0	5	1	0	1	0	0
0	0	0	1	0	0	4	3	0	4	0	1	2	4	3	5	4	2	1	4	3	0	1	1	0
0	1	1	0	2	2	5	0	6	3	5	3	9	3	5	4	4	0	2	0	0	0	0	0	0

AM PkHr 06:30 to 07:30 (n=28), AM PHF=0.50 PM PkHr 12:00 to 13:00 (n=23), PM PHF=0.64

*** Wed 03 Nov 2004 - Total=0(incomplete) , 15 minute drops,**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Vehicle Counts

VehicleCount-312.2.1-SB

DATASETS:

Site:	**[2] Ashley Rd btwn Hanson Ln and Main St**
Direction:	5 - South bound A>B, North bound B>A., **Lane:** 0
Survey Duration:	12:47 Wed 01 Dec 2004 to 15:06 Fri 03 Dec 2004
File:	UM2c03.EC0 (Plus)
Identifier:	N0378XKS MC56-L4 [MC55] (c)Microcom 19Sep03
Algorithm:	**Modified** - Factory default

PROFILE:

Filter time:	**23:00 Wed 01 Dec 2004 to 01:00 Fri 03 Dec 2004**
Included classes:	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Speed range:	5 - 100 mph.
Direction:	South (bound)
Headway:	All
Scheme:	Scheme F99
Name:	Factory default profile
Method:	Vehicle classification
Units:	Non-Metric (ft, mi, f/s, mph, lb, ton)
In profile:	2267 Vehicles

*** Wed 01 Dec 2004 - Total=12(incomplete) , 15 minute drops,**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	1
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	1
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	0

*** Thu 02 Dec 2004 - Total=2246, 15 minute drops,**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
2	4	2	2	19	73	200	309	182	103	105	102	138	122	187	121	136	144	106	76	55	29	18	11	
1	3	1	0	1	12	27	141	54	31	20	22	33	25	46	30	37	45	31	28	12	9	7	3	2
0	1	0	0	2	12	39	70	61	24	37	31	36	25	57	23	27	41	27	17	11	10	1	2	3
1	0	0	2	5	20	42	53	24	20	25	21	34	32	44	35	27	34	24	20	18	5	9	2	3
0	0	1	0	11	29	92	45	43	28	23	28	35	40	40	33	45	24	24	11	14	5	1	4	1

AM PkHr 06:45 to 07:45 (n=356), AM PHF=0.63 PM PkHr 13:45 to 14:45 (n=187), PM PHF=0.82

*** Fri 03 Dec 2004 - Total=9(incomplete) , 15 minute drops,**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Vehicle Counts

VehicleCount-312.2.1-NB

DATASETS:

Site:	**[2] Ashley Rd btwn Hanson Ln and Main St**
Direction:	5 - South bound A>B, North bound B>A., **Lane:** 0
Survey Duration:	12:47 Wed 01 Dec 2004 to 15:06 Fri 03 Dec 2004
File:	UM2c03.EC0 (Plus)
Identifier:	N0378XKS MC56-L4 [MC55] (c)Microcom 19Sep03
Algorithm:	**Modified** - Factory default

PROFILE:

Filter time:	**23:00 Wed 01 Dec 2004 to 01:00 Fri 03 Dec 2004**
Included classes:	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Speed range:	5 - 100 mph.
Direction:	North (bound)
Headway:	All
Scheme:	Scheme F99
Name:	Factory default profile
Method:	Vehicle classification
Units:	Non-Metric (ft, mi, f/s, mph, lb, ton)
In profile:	2076 Vehicles

*** Wed 01 Dec 2004 - Total=21(incomplete) , 15 minute drops,**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	3
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	5
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	3
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	2

*** Thu 02 Dec 2004 - Total=2047, 15 minute drops,**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
13	6	4	3	11	14	65	186	102	66	53	108	112	111	183	167	205	188	144	105	92	60	40	9	
3	0	1	1	2	3	6	51	21	16	12	21	19	25	34	37	45	51	39	24	23	22	7	3	1
5	3	2	2	2	4	10	58	26	21	17	32	42	44	71	40	45	54	44	37	25	16	13	3	2
3	1	0	0	1	3	15	51	37	15	13	30	28	22	52	51	51	34	29	31	13	11	11	1	4
2	2	1	0	6	4	34	26	18	14	11	25	23	20	26	39	64	49	32	13	31	11	9	2	1

AM PkHr 06:45 to 07:45 (n=194), AM PHF=0.84 PM PkHr 16:30 to 17:30 (n=220), PM PHF=0.86

*** Fri 03 Dec 2004 - Total=8(incomplete) , 15 minute drops,**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Vehicle Counts

VehicleCount-462.1,1-NB

Datasets:

Site:	**[1.1] SR-67 btwn Pala St and Ramona St**
Direction:	5 - South bound A>B, North bound B>A., **Lane:** 0
Survey Duration:	21:55 Wednesday, September 28, 2005 => 3:38 Friday, September 30, 2005
File:	UM1.1930.EC0 (Plus)
Identifier:	N0269ZK4 MC56-L4 [MC55] (c)Microcom 19Sep03
Algorithm:	Factory default
Data type:	Axle sensors - Paired (Class, Speed, Count)

Profile:

Filter time:	**0:00 Thursday, September 29, 2005 => 0:00 Friday, September 30, 2005**
Included classes:	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Speed range:	5 - 100 mph.
Direction:	North (bound)
Separation:	All - (Headway)
Name:	Factory default profile
Scheme:	Vehicle classification (Scheme F99)
Units:	Non metric (ft, mi, ft/s, mph, lb, ton)
In profile:	Vehicles = 11792 / 12107 (97.40%)

*** Thursday, September 29, 2005 - Total=11792, 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
87	**50**	**26**	**24**	**41**	**148**	**359**	**562**	**611**	**585**	**548**	**597**	**758**	**596**	**891**	**982**	**1048**	**1051**	**942**	**632**	**449**	**414**	**243**	**148**	
16	17	5	6	10	20	68	134	125	159	138	133	201	157	227	222	250	272	259	192	129	109	83	42	-
27	7	6	6	8	26	68	125	140	147	150	176	177	152	257	232	259	257	236	157	112	110	59	36	-
20	18	8	9	11	41	82	149	158	132	135	148	194	152	215	270	262	246	225	153	121	104	61	39	-
24	8	7	3	12	61	141	154	188	147	125	140	186	135	192	258	277	276	222	130	87	91	40	31	-

AM Peak 1145 - 1245 (712), AM PHF=0.89

Vehicle Counts

VehicleCount-462.1.2-SB

Datasets:

Site:	**[1.2] SR-67 btwn Pala St and Ramona St**
Direction:	5 - South bound A>B, North bound B>A., **Lane:** 0
Survey Duration:	21:56 Wednesday, September 28, 2005 => 3:36 Friday, September 30, 2005
File:	UM1.2930.EC0 (Plus)
Identifier:	N0378XKS MC56-L4 [MC55] (c)Microcom 19Sep03
Algorithm:	Factory default
Data type:	Axle sensors - Paired (Class, Speed, Count)

Profile:

Filter time:	**0:00 Thursday, September 29, 2005 => 0:00 Friday, September 30, 2005**
Included classes:	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Speed range:	5 - 100 mph.
Direction:	South (bound)
Separation:	All - (Headway)
Name:	Factory default profile
Scheme:	Vehicle classification (Scheme F99)
Units:	Non metric (ft, mi, ft/s, mph, lb, ton)
In profile:	Vehicles = 96 / 12825 (0.75%)

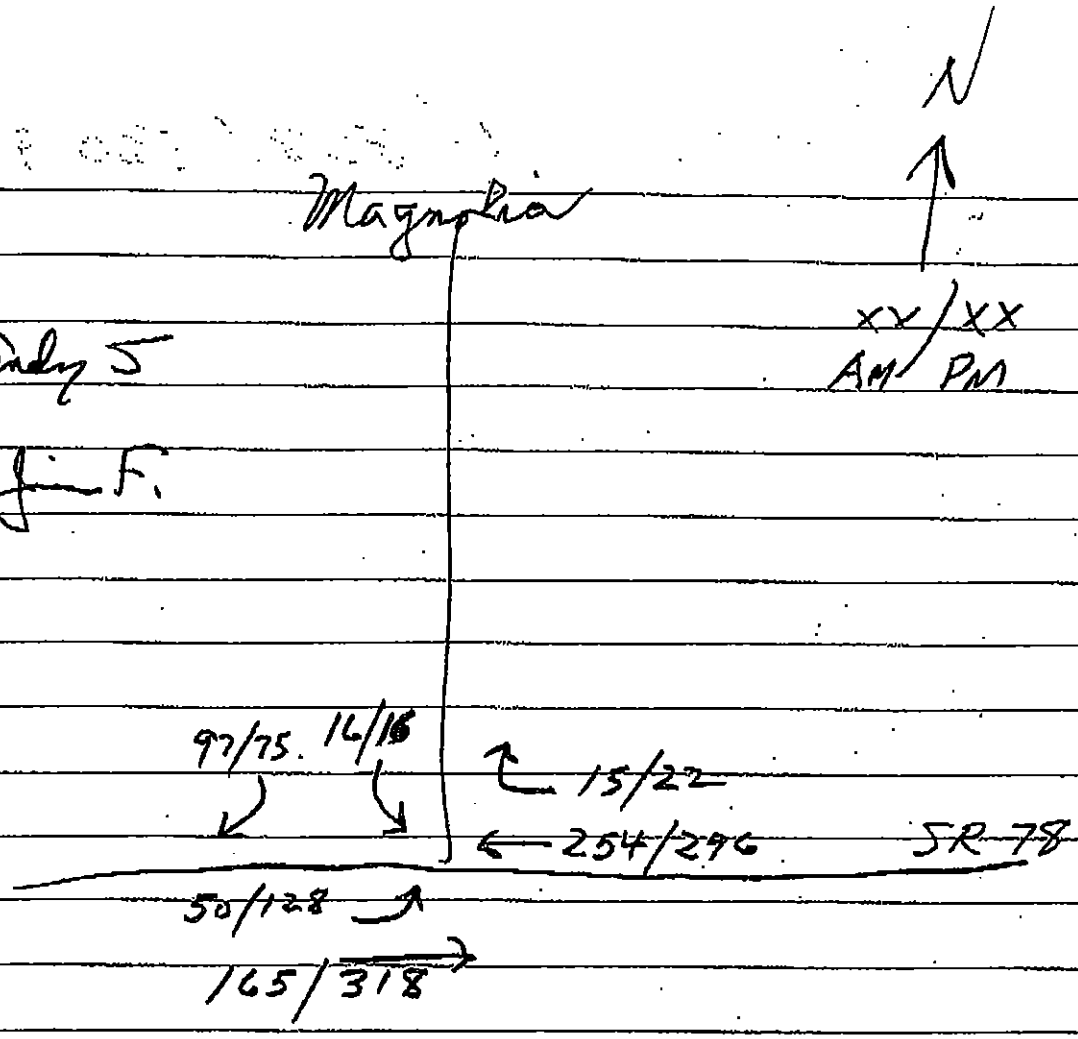
*** Thursday, September 29, 2005 - Total=12596, 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
42	33	27	55	183	661	982	1057	971	824	664	725	692	716	758	765	848	725	594	490	331	247	144	62	
12	7	10	10	17	91	276	269	267	209	190	179	181	151	191	220	218	183	152	138	86	67	49	15	-
13	4	5	15	46	153	259	301	254	223	162	194	167	170	148	178	215	213	160	142	103	72	38	19	-
8	9	4	8	60	184	231	260	233	211	157	157	169	215	206	179	208	178	153	100	80	62	32	14	-
9	13	8	22	60	233	216	227	217	181	155	195	175	180	213	188	207	151	129	110	62	46	25	14	-

AM Peak 0700 - 0800 (1057), AM PHF=0.88

To: Andy S

From Jim F.



Existing Traffic

Counted 7/22/2004

P.S. This project started in 2000
The counts were recounted in 2004

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: SR-78 DATE: 3/28/2001 CITY: RAMONA

E-W STREET: SR-67 DAY: WEDNESDAY PROJECT# 0355003A

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	1	0	0	1	0	1	2	0	1	2	0	
6:00 AM													
15 AM													
30 AM													
45 AM													
7:00 AM	29	43	11	11	41	38	54	102	12	29	128	11	509
15 AM	26	51	16	17	37	51	57	123	15	28	145	17	583
30 AM	35	46	15	15	26	53	48	114	17	14	152	14	549
45 AM	41	41	19	18	19	41	37	127	20	13	140	19	535
8:00 AM	49	37	17	22	22	49	35	98	12	10	151	22	524
15 AM	41	29	21	19	27	43	41	105	15	11	160	17	529
30 AM	32	26	14	16	21	39	97	126	17	17	142	18	565
45 AM	35	31	16	18	23	94	36	114	14	16	131	21	549
:00 AM													
15 AM													
30 AM													
45 AM													
10:00 AM													
15 AM													
30 AM													
45 AM													
TOTAL VOLUMES =	288	304	129	136	216	408	405	909	122	138	1149	139	4343
PEAK VOLUMES =	151	175	67	72	104	194	177	462	64	65	588	72	2191

AM Peak Hr Begins at 715 AM

ADDITIONS: SIGNALIZED

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: SR-78 DATE: 2/28/2001 CITY: RAMONA

E-W STREET: SR-67 DAY: WEDNESDAY

PROJECT# 0355003P

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	1	0	0	1	0	1	2	0	1	2	0	
2:00 PM													
15 PM													
30 PM													
45 PM													
3:00 PM													
15 PM													
30 PM													
45 PM													
4:00 PM	31	30	27	21	41	59	41	169	32	17	151	21	640
15 PM	40	41	35	24	37	67	52	201	35	19	176	25	752
30 PM	29	38	27	32	46	71	47	202	29	22	137	19	699
45 PM	39	31	21	27	38	76	56	249	37	17	127	23	741
00 PM	31	29	24	23	41	69	43	231	31	14	169	17	722
15 PM	27	27	19	24	36	73	55	219	37	18	141	11	687
30 PM	21	33	21	27	44	69	57	201	29	14	137	14	667
45 PM	25	26	16	21	36	59	46	188	30	10	142	15	614
6:00 PM													
15 PM													
30 PM													
45 PM													
TOTAL VOLUMES =	243	255	190	199	319	543	397	1660	260	131	1180	145	5522
PEAK VOLUMES =	139	139	107	106	162	283	198	883	132	72	609	84	2914

PM Peak Hr Begins at 415 PM

ADDITIONS: SIGNALIZED

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: MONTICETO DATE: 3/29/2001 CITY: RAMONA

E-W STREET: SR-67 DAY: THURSDAY PROJECT# 0217002A

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	1	2	0	1	2	0	
6:00 AM													
15 AM													
30 AM													
45 AM													
7:00 AM	7	2	4	30	3	30	10	166	10	4	215	20	501
15 AM	1	3	5	30	4	40	30	161	9	3	220	18	524
30 AM	6	1	6	36	2	33	33	170	8	2	205	22	524
45 AM	5	1	7	40	3	28	29	168	7	1	230	21	540
8:00 AM	4	1	8	41	2	30	30	150	6	2	231	30	535
15 AM	5	0	3	20	2	20	22	166	10	2	220	22	492
30 AM	6	2	2	18	1	19	10	145	10	2	211	19	445
45 AM	6	2	6	10	3	20	18	130	8	1	201	20	425
:00 AM													
15 AM													
30 AM													
45 AM													
10:00 AM													
15 AM													
30 AM													
45 AM													
TOTAL VOLUMES =	40	12	41	225	20	220	182	1256	68	17	1733	172	3986

AM Peak Hr Begins at 715 AM

PEAK VOLUMES =	16	6	26	147	11	131	122	649	30	8	886	91	2123

ADDITIONS: SIGNALIZED

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: MONTICETO DATE: 3/29/2001 CITY: RAMONA

E-W STREET: SR-67 DAY: THURSDAY PROJECT# 0217002P

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	1	2	0	1	2	0	
2:00 PM													
15 PM													
30 PM													
45 PM													
3:00 PM													
15 PM													
30 PM													
45 PM													
4:00 PM	10	8	11	10	8	31	50	220	30	15	220	22	635
15 PM	11	10	12	12	9	20	44	250	29	10	225	18	650
30 PM	12	11	15	20	7	33	39	233	26	11	211	16	634
45 PM	15	7	16	33	7	30	48	267	18	8	205	15	669
:00 PM	12	8	18	30	8	29	35	272	17	9	230	19	687
15 PM	10	10	10	25	9	31	40	289	18	7	220	22	691
30 PM	9	6	11	20	7	30	41	250	19	7	215	18	633
45 PM	8	7	12	18	6	22	34	256	20	8	201	20	612
6:00 PM													
15 PM													
30 PM													
45 PM													
TOTAL VOLUMES =	87	67	105	168	61	226	331	2037	177	75	1727	150	5211
PEAK VOLUMES =	49	36	59	108	31	123	162	1061	79	35	866	72	2681

PM Peak Hr Begins at 430 PM

ADDITIONS: SIGNALIZED

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: RAMONA ST. DATE: 3/29/2001 CITY: RAMONA

E-W STREET: SR 67 DAY: THURSDAY PROJECT# 01020203A

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	1	0	0.5	0.5	1	1	2	0	1	2	0	
6:00 AM													
15 AM													
30 AM													
45 AM													
7:00 AM	80	5	30	10	4	8	2	125	20	17	205	10	516
15 AM	79	6	42	9	5	4	4	130	18	18	211	11	537
30 AM	77	7	37	8	7	8	3	122	30	19	230	12	560
45 AM	70	7	35	11	8	7	4	140	22	20	221	20	565
8:00 AM	57	5	40	12	9	7	2	110	18	10	190	19	479
15 AM	53	6	22	10	6	6	3	118	18	8	188	10	448
30 AM	45	7	20	11	6	5	3	115	17	9	187	12	437
45 AM	46	8	18	12	7	4	2	120	19	9	190	20	455
00 AM													
15 AM													
30 AM													
45 AM													
10:00 AM													
15 AM													
30 AM													
45 AM													
TOTAL VOLUMES =	507	51	244	83	52	49	23	980	162	110	1622	114	3997

AM Peak Hr Begins at 700 AM

PEAK VOLUMES =	306	25	144	38	24	27	13	517	90	74	867	53	2178

ADDITIONS: SIGNALIZED

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: RAMONA ST. DATE: 3/29/2001 CITY: RAMONA

E-W STREET: SR 67 DAY: THURSDAY

PROJECT# 0102203P

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	1	0	0.5	0.5	1	1	2	0	1	2	0	
2:00 PM													
15 PM													
30 PM													
45 PM													
3:00 PM													
15 PM													
30 PM													
45 PM													
4:00 PM	30	10	25	45	10	5	7	201	46	30	170	26	605
15 PM	37	18	30	45	11	9	6	211	55	22	166	18	628
30 PM	40	10	22	30	12	7	5	260	56	29	201	30	702
45 PM	28	12	19	37	15	6	6	277	45	30	188	44	707
5:00 PM	30	11	20	40	12	6	4	258	50	31	190	47	699
15 PM	31	10	21	33	10	5	5	240	42	18	155	30	600
30 PM	20	9	20	20	20	4	5	237	39	20	177	23	594
45 PM	29	8	18	29	10	4	4	250	50	29	190	40	661
6:00 PM													
15 PM													
30 PM													
45 PM													
TOTAL VOLUMES =	245	88	175	279	100	46	42	1934	383	209	1437	258	5196

PM Peak Hr Begins at 415 PM

PEAK VOLUMES =	135	51	91	152	50	28	21	1006	206	112	745	139	2736

ADDITIONS: SIGNALIZED

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: HIGHLAND VALLEY RD.
E-W STREET: SR 67

DATE: 3/29/2001
DAY: THURSDAY

CITY: RAMONA
PROJECT# 0355005a

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	1	0	1	1	0	1	1	1	1	1	1	
6:00 AM													
15 AM													
30 AM													
45 AM													
7:00 AM	101	9	11	30	5	4	5	99	10	5	301	15	595
15 AM	100	8	12	19	6	5	6	110	11	7	311	20	615
30 AM	105	10	13	15	7	3	7	105	15	6	301	26	613
45 AM	90	11	10	25	5	6	5	101	13	8	256	25	555
8:00 AM	88	15	8	20	6	5	3	102	10	10	240	30	537
15 AM	60	12	6	34	10	7	5	105	8	9	222	34	512
30 AM	65	11	10	30	11	6	2	111	6	8	201	22	483
45 AM	60	10	11	25	8	5	4	101	7	7	189	30	457
:00 AM													
15 AM													
30 AM													
45 AM													
10:00 AM													
15 AM													
30 AM													
45 AM													
TOTAL VOLUMES =	669	86	81	198	58	41	37	834	80	60	2021	202	4367

AM Peak Hr Begins at 700 AM

PEAK VOLUMES =	396	38	46	89	23	18	23	415	49	26	1169	86	2378

ADDITIONS: SIGNALIZED

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: HIGHLAND VALLEY RD.
E-W STREET: SR 67

DATE: 3/29/2001
DAY: THURSDAY

CITY: RAMONA
PROJECT# 0355005P

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	1	0	1	1	0	1	1	1	1	1	1	
2:00 PM													
15 PM													
30 PM													
45 PM													
3:00 PM													
15 PM													
30 PM													
45 PM													
4:00 PM	20	2	10	30	16	3	4	288	77	7	196	20	673
15 PM	20	4	8	33	11	2	3	311	78	10	201	18	699
30 PM	25	6	9	40	12	4	2	305	80	11	180	22	696
45 PM	30	7	15	38	10	3	1	270	81	10	177	30	672
00 PM	21	8	12	41	8	2	2	288	101	8	160	26	677
15 PM	20	7	18	30	7	2	2	270	105	9	152	19	641
30 PM	18	7	10	27	7	1	2	267	90	10	160	20	619
45 PM	12	2	12	20	6	3	1	250	98	8	121	22	555
6:00 PM													
15 PM													
30 PM													
45 PM													
TOTAL VOLUMES =	NL 166	NT 43	NR 94	SL 259	ST 77	SR 20	EL 17	ET 2249	ER 710	WL 73	WT 1347	WR 177	TOTAL 5232

PM Peak Hr Begins at 415 PM

PEAK VOLUMES =	96	25	44	152	41	11	8	1174	340	39	718	96	2744

ADDITIONS: SIGNALIZED

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: MUSSEY GRADE RD. DATE: 09/13/01 CITY: RAMONA

E-W STREET: SR-67 DAY: THURSDAY Intersection I.D.:
PROJECT# 0936005A

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
RECEIVING:		X			X			X			X		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0.5		0.5					1	1	1	1		
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	25		21					203	5	9	350		613
7:15 AM	31		27					174	11	17	289		549
7:30 AM	21		40					202	13	15	328		619
7:45 AM	35		43					232	11	23	376		720
8:00 AM	22		27					178	14	16	311		568
8:15 AM	18		23					165	12	20	324		562
8:30 AM	16		11					141	9	14	282		473
8:45 AM	10		5					164	8	12	306		505
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	178	0	197	0	0	0	0	1459	83	126	2566	0	4609

AM Peak Hr Begins at 700 AM

PEAK VOLUMES =	112	0	131	0	0	0	0	811	40	64	1343	0	2501

ADDITIONS: 1-WAT STOP, NORTH

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: MUSSEY GRADE RD. DATE: 09/13/01 CITY: RAMONA

E-W STREET: SR-67 DAY: THURSDAY

PROJECT# 0936005P

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0.5		0.5					1	1	1	1		
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	12		24					238	17	13	153		457
4:15 PM	11		20					280	15	19	166		511
4:30 PM	14		25					348	26	23	197		633
4:45 PM	13		29					317	23	28	176		586
5:00 PM	11		19					322	26	31	180		589
5:15 PM	12		28					339	29	29	199		636
5:30 PM	9		33					311	27	23	218		621
5:45 PM	13		41					338	33	25	205		655
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 95	NT 0	NR 219	SL 0	ST 0	SR 0	EL 0	ET 2493	ER 196	WL 191	WT 1494	WR 0	TOTAL 4688

PM Peak Hr Begins at 500 PM

PEAK VOLUMES =	45	0	121	0	0	0	0	1310	115	108	802	0	2501

ADDITIONS: 1-WAY STOP, NORTH

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: ARCHIE MOORE RD. DATE: 09/12/01 CITY: RAMONA

E-W STREET: SR-67 DAY: WEDNESDAY Intersection I.D.:
PROJECT# 0936006A

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
RECEIVING:		X			X			X			X		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:				1		1	1	2			2	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM				19		41	15	127			364	9	575
7:15 AM				15		46	15	141			389	11	617
7:30 AM				16		45	17	117			371	8	574
7:45 AM				12		47	19	120			346	13	557
8:00 AM				18		54	21	133			327	15	568
8:15 AM				16		50	13	116			312	24	531
8:30 AM				22		61	14	129			288	36	550
8:45 AM				24		47	11	122			265	17	486
9:00 AM				80		212	59	500			1192	92	
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	0	0	0	142	0	391	125	1005	0	0	2862	133	4458

AM Peak Hr Begins at 700 AM

PEAK VOLUMES =	0	0	0	62	0	179	66	505	0	0	1470	41	2323

ADDITIONS: 1-WAY STOP, SOUTH

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: ARCHIE MOORE RD. DATE: 09/12/01 CITY: RAMONA

E-W STREET: SR-67 DAY: WEDNESDAY PROJECT# 0936006P

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:				1		1	1	2			2	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM				7		18	23	319			151	20	538
4:15 PM				9		24	26	337			174	23	593
4:30 PM				10		21	29	374			179	26	639
4:45 PM				13 39		19 82	38 110	328 1358			165 669	32 101	595
5:00 PM				10		25	45	345			143	27	595
5:15 PM				8		20	41	352			136	25	582
5:30 PM				6		19	62	330			140	21 QU	578
5:45 PM				8 32		16 80	51 199	318 1345			121	23	537
6:00 PM											540		
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
VOLUMES =	0	0	0	71	0	162	315	2703	0	0	1209	197	4657

PM Peak Hr Begins at 415 PM

PEAK VOLUMES =	0	0	0	42	0	89	138	1384	0	0	661	108	2422

ADDITIONS: 1-WAY STOP, SOUTH

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: SR-67 DATE: 09/13/01 CITY: RAMONA

E-W STREET: POWAY RD. DAY: THURSDAY Intersection I.D.: PROJECT# 0936007A ✓

RECEIVING:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	X NT	NR	SL	X ST	SR	EL	X ET	ER	WL	X WT	WR	TOTAL
LANES:	1	2			2	1	2		1				
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	53	72			296	158	39		42				660
7:15 AM	55	76			274	143	31		38				617
7:30 AM	63	80			249	169	37		49				647
7:45 AM	87	69			227	153	41		61				638
8:00 AM	76	75			211	145	36		52				595
8:15 AM	72	62			228	139	40		45				586
8:30 AM	58	53			196	134	43		38				522
8:45 AM	42	57			183	111	38		34				465
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 506	NT 544	NR 0	SL 0	ST 1864	SR 1152	EL 305	ET 0	ER 359	WL 0	WT 0	WR 0	TOTAL 4730

AM Peak Hr Begins at 700 AM

PEAK VOLUMES =	258	297	0	0	1046	623	148	0	190	0	0	0	2562

ADDITIONS: SIGNALIZED

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: SR-67 DATE: 09/13/01 CITY: RAMONA

E-W STREET: POWAY RD. DAY: THURSDAY

PROJECT# 0936007P

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2			2	1	2		1				
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	66	267			87	56	132		52				660
4:15 PM	57	230			116	61	154		79				697
4:30 PM	52	256			109	59	126		73				675
4:45 PM	63	241			93	71	149		85				702
5:00 PM	72	238			81	62	157		96				706
5:15 PM	60	249			85	54	162		98				708
5:30 PM	64	273			79	58	168		89				731
5:45 PM	57	264			75	54	154		82				686
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
VOLUMES =	491	2018	0	0	725	475	1202	0	654	0	0	0	5565
PM Peak Hr Begins at				445	PM								
PEAK VOLUMES =	259	1001	0	0	338	245	636	0	368	0	0	0	2847

ADDITIONS: SIGNALIZED

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: SR-78 (PINE ST.) DATE: 09/13/01 CITY: RAMONA

E-W STREET: HAVERFORD RD. DAY: THURSDAY Intersection I.D.: PROJECT# 0936001A

RECEIVING:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	X NT	NR	SL	X ST	SR	EL	X ET	ER	WL	X WT	WR	TOTAL
LANES:		1	0	0	1					0	1	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM		128	3	0	106					9		17	263
7:15 AM		184	5	6	97					14		22	328
7:30 AM		156	2	7	92					15		13	285
7:45 AM		117	8	9	83					11		15	243
8:00 AM		131	4	4	94					17		14	264
8:15 AM		119	3	6	87					16		21	252
8:30 AM		125	5	5	90					18		16	259
8:45 AM		133	8	7	98					13		20	279
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 0	NT 1093	NR 38	SL 44	ST 747	SR 0	EL 0	ET 0	ER 0	WL 113	WT 0	WR 138	TOTAL 2173

AM Peak Hr Begins at 715 AM

PEAK VOLUMES =	0	588	18	26	366	0	0	0	0	57	0	64	1120

ADDITIONS: 1-WAY STOP, WEST

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: SR-78 (PINE ST.) DATE: 09/13/01 CITY: RAMONA

E-W STREET: HAVERFORD RD. DAY: THURSDAY PROJECT# 0936001P

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:		1	0	0	1					0	1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM		80	9	16	132					16		10	263
4:15 PM		71	11	8	98					14		12	214
4:30 PM		92	16	25	161					22		16	332
4:45 PM		114	21	14	140					26		18	333
5:00 PM		75	16	15	117					15		11	249
5:15 PM		96	19	18	143					17		15	308
5:30 PM		83	11	17	154					13		10	288
5:45 PM		68	10	11	136					10		8	243
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	0	679	113	124	1081	0	0	0	0	133	0	100	2230
PM Peak Hr Begins at				430	PM								
PEAK VOLUMES =	0	377	72	72	561	0	0	0	0	80	0	60	1222

ADDITIONS: 1-WAY STOP, WEST

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: SR-78 (PINE ST.) DATE: 09/13/01 CITY: RAMONA

E-W STREET: ASH ST. DAY: THURSDAY Intersection I.D.: ✓

PROJECT# 0936002A

RECEIVING:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	X NT	NR	SL	X ST	SR	EL	X ET	ER	WL	X WT	WR	TOTAL
LANES:	1	1	0	1	1	0	0	1	0	0	1	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	1	127	1	0	118	0	1	0	4	0	1	0	253
7:15 AM	6	185	0	1	110	1	0	1	3	1	0	1	309
7:30 AM	0	149	0	0	105	2	3	0	1	2	0	3	265
7:45 AM	1	121	1	1	96	1	2	0	2	0	1	2	228
8:00 AM	2	130	2	2	109	0	2	0	3	1	0	0	251
8:15 AM	5	114	2	2	102	0	3	0	9	2	1	2	242
8:30 AM	3	123	3	1	107	1	2	0	6	1	1	3	251
8:45 AM	4	136	1	0	111	0	4	0	5	1	0	2	264
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 22	NT 1085	NR 10	SL 7	ST 858	SR 5	EL 17	ET 1	ER 33	WL 8	WT 4	WR 13	TOTAL 2063

AM Peak Hr Begins at 700 AM

PEAK VOLUMES =	8	582	2	2	429	4	6	1	10	3	2	6	1055

ADDITIONS: 2-WAY STOP, EAST & WEST

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: SR-78 (PNIE ST.) DATE: 09/13/01 CITY: RAMONA

E-W STREET: ASH ST. DAY: THURSDAY PROJECT# 0936002P

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	1	0	1	1	0	0	1	0	0	1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	6	89	2	0	142	4	3	0	4	0	0	0	250
4:15 PM	11	81	1	1	98	6	0	0	1	1	0	2	202
4:30 PM	4	104	0	0	185	2	2	1	6	2	1	0	307
4:45 PM	5	135	1	2	160	1	1	0	3	1	0	1	310
5:00 PM	2	90	0	2	123	5	3	1	5	0	0	1	232
5:15 PM	3	112	3	1	156	1	4	0	5	2	0	0	287
5:30 PM	5	98	1	0	164	3	1	0	7	1	0	0	280
5:45 PM	1	74	0	1	139	4	2	0	4	0	1	2	228
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	37	783	8	7	1167	26	16	2	35	7	2	6	2096
PM Peak Hr Begins at				430	PM								
PEAK VOLUMES =	14	441	4	5	624	9	10	2	19	5	1	2	1136

ADDITIONS: 2-WAY STOP, EAST & WEST

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: SR-78 (PINE ST.) DATE: 09/13/01 CITY: RAMONA

E-W STREET: CEDAR ST. DAY: THURSDAY Intersection I.D.:
PROJECT# 0936003A

RECEIVING:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	X NT	NR	SL	X ST	SR	EL	X ET	ER	WL	X WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0	1	0	0	1	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	0	128	1	4	119	0	0	1	1	0	0	1	255
7:15 AM	1	187	0	0	115	0	1	0	2	2	1	3	312
7:30 AM	3	145	1	1	106	1	1	0	1	0	0	0	259
7:45 AM	1	116	0	0	103	0	3	0	3	1	0	2	229
8:00 AM	0	133	0	0	97	0	1	1	0	1	0	1	234
8:15 AM	1	119	1	1	112	1	0	0	2	2	1	2	242
8:30 AM	0	124	2	2	110	1	2	0	5	1	0	2	249
8:45 AM	1	135	0	3	122	1	1	0	2	0	2	4	271
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	7	1087	5	11	884	4	9	2	16	7	4	15	2051

AM Peak Hr Begins at 700 AM

PEAK VOLUMES =	5	576	2	5	443	1	5	1	7	3	1	6	1055

ADDITIONS: 2-WAY STOP, EAST & WEST

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: SR-78 (PNIE ST.) DATE: 09/13/01 CITY: RAMONA ✓

E-W STREET: CEDAR ST. DAY: THURSDAY PROJECT# 0936003P

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0	1	0	0	1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	4	96	2	1	143	1	2	1	1	2	0	0	253
4:15 PM	3	93	1	0	97	0	0	1	2	1	0	1	199
4:30 PM	1	111	2	1	188	3	1	0	1	0	0	0	308
4:45 PM	5	138	0	2	159	2	3	0	2	1	1	1	314
5:00 PM	2	89	3	1	126	0	0	1	2	1	0	2	227
5:15 PM	1	118	1	0	161	3	1	0	1	1	0	0	287
5:30 PM	2	104	1	0	170	1	2	0	1	2	1	1	285
5:45 PM	0	76	2	2	141	1	1	0	2	0	0	0	225
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 18	NT 825	NR 12	SL 7	ST 1185	SR 11	EL 10	ET 3	ER 12	WL 8	WT 2	WR 5	TOTAL 2098
PM Peak Hr Begins at				430	PM								
PEAK VOLUMES =	8	456	6	4	634	8	5	1	6	3	1	3	1136

ADDITIONS: 2-WAY STOP, EAST & WEST

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: MONTECITO WAY DATE: 09/12/01 CITY: RAMONA

E-W STREET: MONTECITO RD. DAY: WEDNESDAY Intersection I.D.: PROJECT# 0936004A

RECEIVING:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	X NT	NR	SL	X ST	SR	EL	X ET	ER	WL	X WT	WR	TOTAL
LANES:				0	1	0	0	1			1	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM				5		0	0	1			7	1	14
7:15 AM				2		0	0	3			8	4	17
7:30 AM				3		1	0	4			5	2	15
7:45 AM				6		0	1	5			11	8	31
8:00 AM				2		0	0	2			9	3	16
8:15 AM				5		0	1	3			8	2	19
8:30 AM				4		0	0	1			6	2	13
8:45 AM				2		1	1	2			15	3	24
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 0	NT 0	NR 0	SL 29	ST 0	SR 2	EL 3	ET 21	ER 0	WL 0	WT 69	WR 25	TOTAL 149

AM Peak Hr Begins at 730 AM

PEAK VOLUMES =	0	0	0	16	0	1	2	14	0	0	33	15	81

ADDITIONS: Not Controlled

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: MONTECITO WAY DATE: 09/12/01 CITY: RAMONA

E-W STREET: MONTECITO RD. DAY: WEDNESDAY PROJECT# 0936004P

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:				0	1	0	0	1			1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM				4		2	1	9			6	3	25
4:15 PM				2		0	0	8			3	3	16
4:30 PM				5		0	2	5			4	2	18
4:45 PM				4		1	0	6			4	4	19
5:00 PM				5		0	1	15			5	5	31
5:15 PM				7		0	0	11			5	2	25
5:30 PM				3		0	0	9			2	5	19
5:45 PM				2		1	1	8			3	9	24
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	0	0	0	32	0	4	5	71	0	0	32	33	177

PM Peak Hr Begins at 500 PM

PEAK VOLUMES =	0	0	0	17	0	1	2	43	0	0	15	21	99

ADDITIONS: Not Controlled

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: RANGELAND RD. DATE: 09/13/01 CITY: RAMONA

E-W STREET: HIGHLAND VALLEY RD. DAY: THURSDAY Intersection I.D.: PROJECT# 0936008A

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
RECEIVING:		X			X			X			X		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1			1	0	0	1	0				
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	22	4			1	6	2		10				45
7:15 AM	13	3			2	6	1		7				32
7:30 AM	21	1			1	3	3		10				39
7:45 AM	30	3			3	4	0		8				48
8:00 AM	45	2			4	3	4		20				78
8:15 AM	82	3			3	8	2		54				152
8:30 AM	73	4			4	5	4		86				176
8:45 AM	35	1			2	4	2		25				69
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	321	21	0	0	20	39	18	0	220	0	0	0	639

AM Peak Hr Begins at 800 AM

PEAK VOLUMES =	235	10	0	0	13	20	12	0	185	0	0	0	475

ADDITIONS: 1-WAY STOP, SOUTH

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET:	RANGELAND RD.	DATE:	09/13/01	CITY:	RAMONA
E-W STREET:	HIGHLAND VALLEY RD.	DAY:	THURSDAY	PROJECT#	0936008P

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1			1	0	0	1	0				
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	12	3			5	3	2		39				64
4:15 PM	10	2			2	2	3		24				43
4:30 PM	9	4			1	1	4		33				52
4:45 PM	18	6			3	2	2		58				89
5:00 PM	13	4			2	3	5		47				74
5:15 PM	18	7			3	6	4		62				100
5:30 PM	11	9			3	3	12		71				109
5:45 PM	9	6			7	5	13		80				120
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	100	41	0	0	26	25	45	0	414	0	0	0	651
PM Peak Hr Begins at				500	PM								
PEAK VOLUMES =	51	26	0	0	15	17	34	0	260	0	0	0	403

ADDITIONS: 1-WAY STOP, SOUTH

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: ARCHIE MOORE RD. DATE: 09/13/01 CITY: RAMONA

E-W STREET: HIGHLAND VALLEY RD. DAY: THURSDAY Intersection I.D.: PROJECT# 0936009A

RECEIVING:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	X NT	NR	SL	X ST	SR	EL	X ET	ER	WL	X WT	WR	TOTAL
LANES:	1		1					1	1	0	1		
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	2		9					12	14	16	22		75
7:15 AM	1		6					17	16	23	19		82
7:30 AM	2		5					8	10	25	17		67
7:45 AM	3		8					7	12	18	15		63
8:00 AM	1		3					11	17	20	16		68
8:15 AM	0		4					41	28	61	14		148
8:30 AM	1		6					62	53	55	23		200
8:45 AM	2		4					21	12	13	8		60
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	12	0	45	0	0	0	0	179	162	231	134	0	763

AM Peak Hr Begins at 745 AM

PEAK VOLUMES =	5	0	21	0	0	0	0	121	110	154	68	0	479

ADDITIONS: 1-WAY STOP, EAST

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: ARCHIE MOORE RD. DATE: 09/13/01 CITY: RAMONA

E-W STREET: HIGHLAND VALLEY RD. DAY: THURSDAY PROJECT# 0936009P

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1		1					1	1	0	1		
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	3		27					17	8	10	9		74
4:15 PM	4		33					20	11	9	11		88
4:30 PM	2		37					26	13	6	12		96
4:45 PM	2		35					18	10	8	10		83
5:00 PM	3		58					14	13	5	11		104
5:15 PM	1		55					11	11	8	9		95
5:30 PM	3		64					11	9	6	6		99
5:45 PM	2		37					8	7	5	7		66
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 20	NT 0	NR 346	SL 0	ST 0	SR 0	EL 0	ET 125	ER 82	WL 57	WT 75	WR 0	TOTAL 705
PM Peak Hr Begins at				445	PM								
PEAK VOLUMES =	9	0	212	0	0	0	0	54	43	27	36	0	381

ADDITIONS: 1-WAY STOP, EAST

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: 16th Street

E-W STREET: SR-67 (Main St.)

DATE: 7/31/2002

DAY: WEDNESDAY

LOCATION: City of Ramona

PROJECT# 02-0964-001 A

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
LANES:	E NL 1	E NT 2	E NR 0	W SL 1	W ST 2	W SR 0	N EL 0	N ET 1	N ER 0	S WL 0	S WT 1	S WR 0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	0	119	2	8	224	1	1	0	1	3	0	9	368
7:15 AM	2	117	3	12	215	0	2	0	3	4	0	9	367
7:30 AM	2	136	3	3	223	2	1	0	1	4	0	9	384
7:45 AM	5	134	3	9	220	3	0	0	2	1	0	9	386
8:00 AM	0	151	4	17	178	3	0	0	4	5	1	19	382
8:15 AM	2	142	7	18	209	0	1	1	0	1	0	14	395
8:30 AM	4	159	5	14	204	1	0	0	3	3	0	14	407
8:45 AM	2	164	5	10	187	2	1	0	3	5	0	15	394
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 17	NT 1122	NR 32	SL 91	ST 1660	SR 12	EL 6	ET 1	ER 17	WL 26	WT 1	WR 98	TOTAL 3083

AM Peak Hr Begins at: 800 AM

PEAK VOLUMES =	8	618	21	59	778	6	2	1	10	14	1	62	1578

INTERSECTION CONTROL: 2-Way Stop 16th Street

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: 16th Street

DATE: 7/31/2002

LOCATION: City of Ramona

E-W STREET: SR-67 (Main St.)

DAY: WEDNESDAY

PROJECT# 02-0964-001 P

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	~~ENL~~ NL	~~ENT~~ NT	~~ENR~~ NR	~~WSL~~ SL	~~WST~~ ST	~~WSR~~ SR	~~NEL~~ EL	~~NET~~ ET	~~NER~~ ER	~~SWL~~ WL	~~SWT~~ WT	~~SWR~~ WR	TOTAL
LANES:	1	2	0	1	2	0	0	1	0	0	1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	4	291	13	30	221	2	1	0	1	6	3	39	611
4:15 PM	2	272	18	23	240	3	1	0	3	5	0	31	598
4:30 PM	2	296	11	26	247	2	2	0	7	2	1	36	632
4:45 PM	3	308	12	30	261	5	2	0	4	2	0	38	665
5:00 PM	5	271	4	24	238	1	2	0	7	3	0	41	596
5:15 PM	1	290	11	24	228	4	1	0	3	1	0	42	605
5:30 PM	3	256	13	25	201	2	1	1	2	1	0	30	535
5:45 PM	9	279	5	34	226	1	1	1	4	3	0	39	602
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 29	NT 2263	NR 87	SL 216	ST 1862	SR 20	EL 11	ET 2	ER 31	WL 23	WT 4	WR 296	TOTAL 4844

PM Peak Hr Begins at: 400 PM

PEAK VOLUMES =	11	1167	54	109	969	12	6	0	15	15	4	144	2506

INTERSECTION CONTROL: 2-Way Stop 16th Street

Location:Pine St. (SR-78) s/o Olive St. Ramona Volumes for Tues. 4/10/01 03920001

AM Period	NB		SB			PM Period	NB		SB		
12:00-12:15	10		14			12:00-12:15	73		82		
12:15-12:30	5		8			12:15-12:30	82		81		
12:30-12:45	9		8			12:30-12:45	87		71		
12:45-1:00	7	31	6	36	67	12:45-1:00	72	314	71	305	619
1:00-1:15	2		3			1:00-1:15	72		84		
1:15-1:30	4		3			1:15-1:30	57		65		
1:30-1:45	3		3			1:30-1:45	55		79		
1:45-2:00	6	15	4	13	28	1:45-2:00	71	255	86	314	569
2:00-2:15	0		2			2:00-2:15	62		81		
2:15-2:30	0		2			2:15-2:30	85		87		
2:30-2:45	2		4			2:30-2:45	88		105		
2:45-3:00	5	7	4	12	19	2:45-3:00	83	318	96	369	687
3:00-3:15	0		0			3:00-3:15	96		102		
3:15-3:30	5		3			3:15-3:30	80		113		
3:30-3:45	1		2			3:30-3:45	101		127		
3:45-4:00	5	11	3	8	19	3:45-4:00	94	371	128	470	841
4:00-4:15	7		9			4:00-4:15	90		100		
4:15-4:30	18		4			4:15-4:30	81		133		
4:30-4:45	19		11			4:30-4:45	84		124		
4:45-5:00	31	75	15	39	114	4:45-5:00	86	341	142	499	840
5:00-5:15	31		18			5:00-5:15	112	363	99	498	
5:15-5:30	56		16			5:15-5:30	87		140		
5:30-5:45	60		24			5:30-5:45	99		139		
5:45-6:00	72	219	34	92	311	5:45-6:00	74	372	140	518	890
6:00-6:15	97		54			6:00-6:15	76		106		
6:15-6:30	99		35			6:15-6:30	65		80		
6:30-6:45	95		64			6:30-6:45	66		75		
6:45-7:00	92	383	71	224	607	6:45-7:00	68	275	87	348	623
7:00-7:15	90		58			7:00-7:15	69		75		
7:15-7:30	102		77			7:15-7:30	49		63		
7:30-7:45	85		59			7:30-7:45	45		68		
7:45-8:00	75	352	64	258	610	7:45-8:00	40	203	49	255	458
8:00-8:15	86	348	63	263		8:00-8:15	34		46		
8:15-8:30	87		89			8:15-8:30	45		48		
8:30-8:45	77		56			8:30-8:45	43		38		
8:45-9:00	68	318	80	288	606	8:45-9:00	26	148	47	179	327
9:00-9:15	63		82			9:00-9:15	38		40		
9:15-9:30	65		87			9:15-9:30	28		63		
9:30-9:45	54		74			9:30-9:45	21		49		
9:45-10:00	74	256	85	328	584	9:45-10:00	27	114	46	198	312
10:00-10:15	85		55			10:00-10:15	22		30		
10:15-10:30	88		96			10:15-10:30	13		24		
10:30-10:45	89		65			10:30-10:45	8		21		
10:45-11:00	98	360	54	270	630	10:45-11:00	18	61	18	93	154
11:00-11:15	87		74			11:00-11:15	17		18		
11:15-11:30	74		78			11:15-11:30	10		13		
11:30-11:45	85		85			11:30-11:45	10		14		
11:45-12:00	99	345	90	327	672	11:45-12:00	8	45	16	61	106
Total Vol	2372		1895		4267		2817		3609		6426
Daily Totals							5189		5504		10693

Location: Julian Rd. (SR-67) s/o Etcheverry St. Ramona Volumes for Tues. 4/10/01 03920009

AM Period	NB		SB			PM Period	NB		SB		
12:00-12:15	33		13			12:00-12:15	131		154		
12:15-12:30	30		18			12:15-12:30	154		147		
12:30-12:45	17		7			12:30-12:45	174		152		
12:45-1:00	24	104	6	44	148	12:45-1:00	185	644	163	616	1260
1:00-1:15	14		8			1:00-1:15	163		169		
1:15-1:30	8		15			1:15-1:30	154		170		
1:30-1:45	6		4			1:30-1:45	185		187		
1:45-2:00	9	37	10	37	74	1:45-2:00	169	671	182	708	1379
2:00-2:15	6		3			2:00-2:15	169		187		
2:15-2:30	6		7			2:15-2:30	170		166		
2:30-2:45	11		6			2:30-2:45	161		185		
2:45-3:00	3	26	5	21	47	2:45-3:00	200	700	157	695	1395
3:00-3:15	5		4			3:00-3:15	218		175		
3:15-3:30	5		11			3:15-3:30	263		168		
3:30-3:45	7		18			3:30-3:45	251		169		
3:45-4:00	2	19	19	52	71	3:45-4:00	237	969	153	665	1634
4:00-4:15	8		28			4:00-4:15	293		161		
4:15-4:30	8		45			4:15-4:30	285		156		
4:30-4:45	6		61			4:30-4:45	283		174		
4:45-5:00	8	30	90	224	254	4:45-5:00	287	1148	155	646	1794
5:00-5:15	15		124			5:00-5:15	274		138		
5:15-5:30	19		170			5:15-5:30	279		164		
5:30-5:45	23		203			5:30-5:45	243		134		
5:45-6:00	23	80	236	733	813	5:45-6:00	259	1055	144	580	1635
6:00-6:15	56		294			6:00-6:15	243		114		
6:15-6:30	54		273			6:15-6:30	231		137		
6:30-6:45	83		229			6:30-6:45	194		122		
6:45-7:00	80	273	223	1019	1292	6:45-7:00	203	871	122	495	1366
7:00-7:15	107		299			7:00-7:15	170		110		
7:15-7:30	85		224			7:15-7:30	149		104		
7:30-7:45	107		263			7:30-7:45	140		88		
7:45-8:00	136	435	231	1017	1452	7:45-8:00	155	614	68	370	984
8:00-8:15	105		208			8:00-8:15	131		85		
8:15-8:30	123		190			8:15-8:30	119		58		
8:30-8:45	115		188			8:30-8:45	86		66		
8:45-9:00	138	481	170	756	1237	8:45-9:00	96	432	56	265	697
9:00-9:15	122		163			9:00-9:15	94		55		
9:15-9:30	135		188			9:15-9:30	91		61		
9:30-9:45	121		152			9:30-9:45	90		60		
9:45-10:00	126	504	184	687	1191	9:45-10:00	83	358	53	229	587
10:00-10:15	123		174			10:00-10:15	70		32		
10:15-10:30	133		185			10:15-10:30	85		26		
10:30-10:45	141		163			10:30-10:45	45		31		
10:45-11:00	152	549	123	645	1194	10:45-11:00	42	242	26	115	357
11:00-11:15	136		136			11:00-11:15	50		20		
11:15-11:30	165		154			11:15-11:30	28		23		
11:30-11:45	147		147			11:30-11:45	32		11		
11:45-12:00	123	571	152	589	1160	11:45-12:00	37	147	7	61	208
Total Vol	3109		5824		8933		7851		5445		13296
Daily Totals							10960		11269		22229

Location:Montecito Rd. e/o Davis St. Ramona Volumes for Tues. 4/10/01 03920005

AM Period	EB		WB			PM Period	EB		WB		
12:00-12:15	1		4			12:00-12:15	21		28		
12:15-12:30	0		1			12:15-12:30	18		24		
12:30-12:45	1		1			12:30-12:45	14		22		
12:45-1:00	2	4	1	7	11	12:45-1:00	22	75	26	100	175
1:00-1:15	2		1			1:00-1:15	16		33		
1:15-1:30	0		0			1:15-1:30	19		32		
1:30-1:45	0		1			1:30-1:45	21		24		
1:45-2:00	1	3	0	2	5	1:45-2:00	16	72	30	119	191
2:00-2:15	1		0			2:00-2:15	23		25		
2:15-2:30	0		1			2:15-2:30	25		21		
2:30-2:45	0		0			2:30-2:45	20		17		
2:45-3:00	0	1	2	3	4	2:45-3:00	12	80	22	83	163
3:00-3:15	1		0			3:00-3:15	23		25		
3:15-3:30	1		0			3:15-3:30	16		21		
3:30-3:45	1		1			3:30-3:45	19		20		
3:45-4:00	1	4	1	2	6	3:45-4:00	15	73	30	96	169
4:00-4:15	4		0			4:00-4:15	20		31		
4:15-4:30	3		0			4:15-4:30	32		45		
4:30-4:45	4		2			4:30-4:45	23		24		
4:45-5:00	7	18	0	2	20	4:45-5:00	21	96	20	120	216
5:00-5:15	9		0			5:00-5:15	18		34		
5:15-5:30	11		3			5:15-5:30	22		31		
5:30-5:45	15		2			5:30-5:45	24		34		
5:45-6:00	22	57	1	6	63	5:45-6:00	26	90	23	122	212
6:00-6:15	15		4			6:00-6:15	22		32		
6:15-6:30	20		27			6:15-6:30	22		30		
6:30-6:45	13		4			6:30-6:45	12		26		
6:45-7:00	17	65	7	42	107	6:45-7:00	21	77	29	117	194
7:00-7:15	23		11			7:00-7:15	23		24		
7:15-7:30	26		13			7:15-7:30	9		27		
7:30-7:45	14		21			7:30-7:45	11		24		
7:45-8:00	28	91	17	62	153	7:45-8:00	10	53	19	94	147
8:00-8:15	18		13			8:00-8:15	15		15		
8:15-8:30	20		23			8:15-8:30	5		14		
8:30-8:45	25		18			8:30-8:45	8		12		
8:45-9:00	21	84	16	70	154	8:45-9:00	11	39	11	52	91
9:00-9:15	12		21			9:00-9:15	6		7		
9:15-9:30	17		18			9:15-9:30	15		25		
9:30-9:45	12		14			9:30-9:45	9		5		
9:45-10:00	21	62	10	63	125	9:45-10:00	7	37	6	43	80
10:00-10:15	28		18			10:00-10:15	5		9		
10:15-10:30	26		12			10:15-10:30	2		9		
10:30-10:45	33		22			10:30-10:45	7		2		
10:45-11:00	32	119	25	77	196	10:45-11:00	6	20	5	25	45
11:00-11:15	21		16			11:00-11:15	5		5		
11:15-11:30	18		13			11:15-11:30	2		5		
11:30-11:45	14		33			11:30-11:45	0		1		
11:45-12:00	10	63	32	94	157	11:45-12:00	1	8	0	11	19
Total Vol	571		430		1001		720		982		1702
Daily Totals							1291		1412		2703

Volumes for Thursday 06/06/02 City of Ramona Job # 07810001

Location: Highland Valley Rd. e/o Highlander Dr.

AM Period	EB		WB			PM Period	EB		WB		
12:00-12:15	5		3			12:00-12:15	10		9		
12:15-12:30	4		1			12:15-12:30	13		13		
12:30-12:45	3		1			12:30-12:45	14		9		
12:45-1:00	1	13	2	7	20	12:45-1:00	12	49	8	39	88
1:00-1:15	1		0			1:00-1:15	15		11		
1:15-1:30	2		1			1:15-1:30	17		14		
1:30-1:45	3		2			1:30-1:45	14		15		
1:45-2:00	1	7	3	6	13	1:45-2:00	13	59	9	49	108
2:00-2:15	3		0			2:00-2:15	13		10		
2:15-2:30	0		0			2:15-2:30	18		30		
2:30-2:45	0		1			2:30-2:45	20		31		
2:45-3:00	0	3	1	2	5	2:45-3:00	16	67	33	104	171
3:00-3:15	1		1			3:00-3:15	61		37		
3:15-3:30	0		1			3:15-3:30	78		28		
3:30-3:45	1		1			3:30-3:45	39		11		
3:45-4:00	0	2	5	8	10	3:45-4:00	38	216	12	88	304
4:00-4:15	3		2			4:00-4:15	37		15		
4:15-4:30	1		5			4:15-4:30	69		20		
4:30-4:45	2		1			4:30-4:45	98		22		
4:45-5:00	3	9	4	12	21	4:45-5:00	86	290	39	96	386
5:00-5:15	0		7			5:00-5:15	106		29		
5:15-5:30	0		6			5:15-5:30	62		32		
5:30-5:45	4		5			5:30-5:45	50		27		
5:45-6:00	2	6	8	26	32	5:45-6:00	35	253	22	110	363
6:00-6:15	0		15			6:00-6:15	27		25		
6:15-6:30	1		25			6:15-6:30	36		21		
6:30-6:45	9		27			6:30-6:45	13		11		
6:45-7:00	17	27	29	96	123	6:45-7:00	29	105	15	72	177
7:00-7:15	24		30			7:00-7:15	12		8		
7:15-7:30	7		39			7:15-7:30	12		11		
7:30-7:45	17		41			7:30-7:45	15		11		
7:45-8:00	13	61	57	167	228	7:45-8:00	30	69	19	49	118
8:00-8:15	23		50			8:00-8:15	23		17		
8:15-8:30	41		74			8:15-8:30	22		15		
8:30-8:45	52		56			8:30-8:45	30		3		
8:45-9:00	23	139	18	198	337	8:45-9:00	19	94	6	41	135
9:00-9:15	11		23			9:00-9:15	15		7		
9:15-9:30	9		21			9:15-9:30	19		3		
9:30-9:45	14		16			9:30-9:45	18		8		
9:45-10:00	12	46	19	79	125	9:45-10:00	12	64	2	20	84
10:00-10:15	10		14			10:00-10:15	11		2		
10:15-10:30	20		17			10:15-10:30	7		4		
10:30-10:45	20		13			10:30-10:45	8		5		
10:45-11:00	14	64	13	57	121	10:45-11:00	6	32	4	15	47
11:00-11:15	11		10			11:00-11:15	9		2		
11:15-11:30	17		19			11:15-11:30	4		2		
11:30-11:45	15		12			11:30-11:45	3		2		
11:45-12:00	17	60	14	55	115	11:45-12:00	1	17	1	7	24
Total Vol.	437		713		1150		1315		690		2005
Daily Totals							1752		1403		3155

Southland Car Counters ~ 24hr. Machine Count

Volumes for Thursday 06/06/02

City of Ramona

Location: Archie Moore Rd. n/o Salt Mine Rd.

Job # 07810002

AM Period	NB		SB			PM Period	NB		SB		
12:00-12:15	0		3			12:00-12:15	19		12		
12:15-12:30	0		1			12:15-12:30	18		18		
12:30-12:45	0		2			12:30-12:45	10		7		
12:45-1:00	0	0	0	6	6	12:45-1:00	18	65	12	49	114
1:00-1:15	0		0			1:00-1:15	10		16		
1:15-1:30	0		1			1:15-1:30	10		12		
1:30-1:45	0		2			1:30-1:45	12		13		
1:45-2:00	0	0	1	4	4	1:45-2:00	12	44	12	53	97
2:00-2:15	0		2			2:00-2:15	9		5		
2:15-2:30	0		1			2:15-2:30	15		8		
2:30-2:45	0		0			2:30-2:45	33		12		
2:45-3:00	0	0	0	3	3	2:45-3:00	31	88	14	39	127
3:00-3:15	2		1			3:00-3:15	39		33		
3:15-3:30	1		2			3:15-3:30	23		35		
3:30-3:45	1		1			3:30-3:45	24		20		
3:45-4:00	2	6	2	6	12	3:45-4:00	20	106	19	107	213
4:00-4:15	0		2			4:00-4:15	21		23		
4:15-4:30	1		0			4:15-4:30	35		18		
4:30-4:45	2		0			4:30-4:45	25		33		
4:45-5:00	3	6	8	10	16	4:45-5:00	80	161	26	100	261
5:00-5:15	3		7			5:00-5:15	77		28		
5:15-5:30	4		1			5:15-5:30	34		20		
5:30-5:45	5		4			5:30-5:45	31		58		
5:45-6:00	6	18	12	24	42	5:45-6:00	44	186	38	144	330
6:00-6:15	10		16			6:00-6:15	38		44		
6:15-6:30	12		24			6:15-6:30	35		34		
6:30-6:45	12		27			6:30-6:45	49		23		
6:45-7:00	27	61	45	112	173	6:45-7:00	31	153	25	126	279
7:00-7:15	22		35			7:00-7:15	33		22		
7:15-7:30	19		33			7:15-7:30	42		20		
7:30-7:45	26		32			7:30-7:45	36		13		
7:45-8:00	30	97	56	156	253	7:45-8:00	32	143	6	61	204
8:00-8:15	37		56			8:00-8:15	17		13		
8:15-8:30	40		84			8:15-8:30	11		10		
8:30-8:45	66		89			8:30-8:45	8		10		
8:45-9:00	50	193	33	262	455	8:45-9:00	7	43	15	48	91
9:00-9:15	30		28			9:00-9:15	7		6		
9:15-9:30	22		25			9:15-9:30	9		11		
9:30-9:45	18		29			9:30-9:45	8		10		
9:45-10:00	20	90	18	100	190	9:45-10:00	9	33	6	33	66
10:00-10:15	15		19			10:00-10:15	7		8		
10:15-10:30	17		24			10:15-10:30	7		4		
10:30-10:45	18		20			10:30-10:45	6		4		
10:45-11:00	12	62	14	77	139	10:45-11:00	4	24	1	17	41
11:00-11:15	8		9			11:00-11:15	5		2		
11:15-11:30	13		9			11:15-11:30	6		3		
11:30-11:45	10		10			11:30-11:45	7		2		
11:45-12:00	9	40	10	38	78	11:45-12:00	2	20	1	8	28
Total Vol.	573		798		1371		1066		785		1851
Daily Totals							1639		1583		3222

Southland Car Counters ~ 24hr. Machine Count

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: SR-78 DATE: 3/28/2001 CITY: RAMONA

E-W STREET: SR-67 DAY: WEDNESDAY PROJECT# 0355003A

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	1	0	0	1	0	1	2	0	1	2	0	
6:00 AM													
15 AM													
30 AM													
45 AM													
7:00 AM	29	43	11	11	41	38	54	102	12	29	128	11	509
15 AM	26	51	16	17	37	51	57	123	15	28	145	17	583
30 AM	35	46	15	15	26	53	48	114	17	14	152	14	549
45 AM	41	41	19	18	19	41	37	127	20	13	140	19	535
8:00 AM	49	37	17	22	22	49	35	98	12	10	151	22	524
15 AM	41	29	21	19	27	43	41	105	15	11	160	17	529
30 AM	32	26	14	16	21	39	97	126	17	17	142	18	565
45 AM	35	31	16	18	23	94	36	114	14	16	131	21	549
9:00 AM													
15 AM													
30 AM													
45 AM													
10:00 AM													
15 AM													
30 AM													
45 AM													
TOTAL VOLUMES =	288	304	129	136	216	408	405	909	122	138	1149	139	4343

AM Peak Hr Begins at 715 AM

PEAK VOLUMES =	151	175	67	72	104	194	177	462	64	65	588	72	2191

ADDITIONS: SIGNALIZED

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: SR-78 DATE: 2/28/2001 CITY: RAMONA

E-W STREET: SR-67 DAY: WEDNESDAY

PROJECT# 0355003P

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	1	0	0	1	0	1	2	0	1	2	0	
2:00 PM													
15 PM													
30 PM													
45 PM													
3:00 PM													
15 PM													
30 PM													
45 PM													
4:00 PM	31	30	27	21	41	59	41	169	32	17	151	21	640
15 PM	40	41	35	24	37	67	52	201	35	19	176	25	752
30 PM	29	38	27	32	46	71	47	202	29	22	137	19	699
45 PM	39	31	21	27	38	76	56	249	37	17	127	23	741
00 PM	31	29	24	23	41	69	43	231	31	14	169	17	722
15 PM	27	27	19	24	36	73	55	219	37	18	141	11	68[illegible]
30 PM	21	33	21	27	44	69	57	201	29	14	137	14	667
45 PM	25	26	16	21	36	59	46	188	30	10	142	15	614
6:00 PM													
15 PM													
30 PM													
45 PM													
TOTAL VOLUMES =	243	255	190	199	319	543	397	1660	260	131	1180	145	5522

PM Peak Hr Begins at 415 PM

PEAK VOLUMES =	139	139	107	106	162	283	198	883	132	72	609	84	2914

ADDITIONS: SIGNALIZED

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: MONTICETO DATE: 3/29/2001 CITY: RAMONA

E-W STREET: SR-67 DAY: THURSDAY PROJECT# 0217002A

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	1	2	0	1	2	0	
6:00 AM													
15 AM													
30 AM													
45 AM													
7:00 AM	7	2	4	30	3	30	10	166	10	4	215	20	501
15 AM	1	3	5	30	4	40	30	161	9	3	220	18	524
30 AM	6	1	6	36	2	33	33	170	8	2	205	22	524
45 AM	5	1	7	40	3	28	29	168	7	1	230	21	540
8:00 AM	4	1	8	41	2	30	30	150	6	2	231	30	535
15 AM	5	0	3	20	2	20	22	166	10	2	220	22	492
30 AM	6	2	2	18	1	19	10	145	10	2	211	19	445
45 AM	6	2	6	10	3	20	18	130	8	1	201	20	425
9:00 AM													
15 AM													
30 AM													
45 AM													
10:00 AM													
15 AM													
30 AM													
45 AM													
TOTAL VOLUMES =	40	12	41	225	20	220	182	1256	68	17	1733	172	3986

AM Peak Hr Begins at 715 AM

PEAK VOLUMES =	16	6	26	147	11	131	122	649	30	8	886	91	2123

ADDITIONS: SIGNALIZED

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: MONTICETO DATE: 3/29/2001 CITY: RAMONA

E-W STREET: SR-67 DAY: THURSDAY PROJECT# 0217002P

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	1	2	0	1	2	0	
2:00 PM													
15 PM													
30 PM													
45 PM													
3:00 PM													
15 PM													
30 PM													
45 PM													
4:00 PM	10	8	11	10	8	31	50	220	30	15	220	22	635
15 PM	11	10	12	12	9	20	44	250	29	10	225	18	650
30 PM	12	11	15	20	7	33	39	233	26	11	211	16	634
45 PM	15	7	16	33	7	30	48	267	18	8	205	15	669
00 PM	12	8	18	30	8	29	35	272	17	9	230	19	687
15 PM	10	10	10	25	9	31	40	289	18	7	220	22	69
30 PM	9	6	11	20	7	30	41	250	19	7	215	18	633
45 PM	8	7	12	18	6	22	34	256	20	8	201	20	612
6:00 PM													
15 PM													
30 PM													
45 PM													
TOTAL VOLUMES =	87	67	105	168	61	226	331	2037	177	75	1727	150	5211

PM Peak Hr Begins at 430 PM

PEAK VOLUMES =	49	36	59	108	31	123	162	1061	79	35	866	72	2681

ADDITIONS: SIGNALIZED

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: RAMONA ST. DATE: 3/29/2001 CITY: RAMONA

E-W STREET: SR 67 DAY: THURSDAY PROJECT# 01020203A

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	1	0	0.5	0.5	1	1	2	0	1	2	0	
6:00 AM													
15 AM													
30 AM													
45 AM													
7:00 AM	80	5	30	10	4	8	2	125	20	17	205	10	516
15 AM	79	6	42	9	5	4	4	130	18	18	211	11	537
30 AM	77	7	37	8	7	8	3	122	30	19	230	12	560
45 AM	70	7	35	11	8	7	4	140	22	20	221	20	565
8:00 AM	57	5	40	12	9	7	2	110	18	10	190	19	479
15 AM	53	6	22	10	6	6	3	118	18	8	188	10	448
30 AM	45	7	20	11	6	5	3	115	17	9	187	12	437
45 AM	46	8	18	12	7	4	2	120	19	9	190	20	455
9:00 AM													
15 AM													
30 AM													
45 AM													
10:00 AM													
15 AM													
30 AM													
45 AM													
TOTAL VOLUMES =	507	51	244	83	52	49	23	980	162	110	1622	114	3997

AM Peak Hr Begins at 700 AM

PEAK VOLUMES =	306	25	144	38	24	27	13	517	90	74	867	53	2178

ADDITIONS: SIGNALIZED

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: RAMONA ST. DATE: 3/29/2001 CITY: RAMONA

E-W STREET: SR 67 DAY: THURSDAY

PROJECT# 0102203P

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	1	0	0.5	0.5	1	1	2	0	1	2	0	
2:00 PM													
15 PM													
30 PM													
45 PM													
3:00 PM													
15 PM													
30 PM													
45 PM													
4:00 PM	30	10	25	45	10	5	7	201	46	30	170	26	605
15 PM	37	18	30	45	11	9	6	211	55	22	166	18	628
30 PM	40	10	22	30	12	7	5	260	56	29	201	30	702
45 PM	28	12	19	37	15	6	6	277	45	30	188	44	70
5:00 PM	30	11	20	40	12	6	4	258	50	31	190	47	699
15 PM	31	10	21	33	10	5	5	240	42	18	155	30	600
30 PM	20	9	20	20	20	4	5	237	39	20	177	23	594
45 PM	29	8	18	29	10	4	4	250	50	29	190	40	661
6:00 PM													
15 PM													
30 PM													
45 PM													
TOTAL VOLUMES =	245	88	175	279	100	46	42	1934	383	209	1437	258	5196

PM Peak Hr Begins at 415 PM

PEAK VOLUMES =	135	51	91	152	50	28	21	1006	206	112	745	139	2736

ADDITIONS: SIGNALIZED

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: SR-67 DATE: 11/12/2003 LOCATION: City of pala

E-W STREET: Pala St DAY: WEDNESDAY PROJECT# 03-1684-001

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	1	1	1	1	0	0	1	0	0	1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	5	264	3	2	211	5	2	2	18	1	0	10	523
4:15 PM	10	258	5	4	195	5	5	0	16	0	1	9	508
4:30 PM	15	276	6	6	179	6	4	0	10	5	0	8	515
4:45 PM	17	249	1	7	202	4	6	0	10	3	0	8	507
5:00 PM	16	229	7	7	240	3	3	3	11	3	0	8	530
5:15 PM	19	269	3	3	190	4	1	0	15	1	0	9	514
5:30 PM	18	267	4	7	179	7	3	1	12	5	1	16	520
5:45 PM	13	251	2	8	174	4	4	0	16	3	1	8	484
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 113	NT 2063	NR 31	SL 44	ST 1570	SR 38	EL 28	ET 6	ER 108	WL 21	WT 3	WR 76	TOTAL 4101

PM Peak Hr Begins at: 445 PM

PEAK VOLUMES =	70	1014	15	24	811	18	13	4	48	12	1	41	2071
PEAK HR. FACTOR:		0.944			0.853			0.956			0.614		0.977

CONTROL: 2WayStop(EW)

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: SR-67 DATE: 11/12/2003 LOCATION: City of pala

E-W STREET: Pala St DAY: WEDNESDAY PROJECT# 03-1684-001

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	1	1	1	1	0	0	1	0	0	1	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	2	153	1	10	268	2	1	0	6	7	0	6	456
7:15 AM	7	122	0	8	248	2	0	1	4	4	0	6	402
7:30 AM	5	156	1	8	210	4	1	0	7	11	0	8	411
7:45 AM	4	176	1	9	230	2	0	0	7	5	1	10	445
8:00 AM	7	157	2	18	240	1	0	0	11	7	0	11	454
8:15 AM	6	168	1	8	222	4	1	0	7	6	0	10	433
8:30 AM	8	158	4	6	224	4	0	0	10	9	0	6	429
8:45 AM	5	170	3	7	195	2	0	0	10	4	2	17	415
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 44	NT 1260	NR 13	SL 74	ST 1837	SR 21	EL 3	ET 1	ER 62	WL 53	WT 3	WR 74	TOTAL 3445

AM Peak Hr Begins at: 745 AM

PEAK VOLUMES =	25	659	8	41	916	11	1	0	35	27	1	37	1761
PEAK HR. FACTOR:		0.956			0.934			0.818			0.903		0.970

CONTROL: 2WayStop(EW)

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: HIGHLAND VALLEY RD.
E-W STREET: SR 67

DATE: 3/29/2001
DAY: THURSDAY

CITY: RAMONA
PROJECT# 0355005a

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	1	0	1	1	0	1	1	1	1	1	1	
6:00 AM													
15 AM													
30 AM													
45 AM													
7:00 AM	101	9	11	30	5	4	5	99	10	5	301	15	595
15 AM	100	8	12	19	6	5	6	110	11	7	311	20	615
30 AM	105	10	13	15	7	3	7	105	15	6	301	26	613
45 AM	90	11	10	25	5	6	5	101	13	8	256	25	555
8:00 AM	88	15	8	20	6	5	3	102	10	10	240	30	537
15 AM	60	12	6	34	10	7	5	105	8	9	222	34	512
30 AM	65	11	10	30	11	6	2	111	6	8	201	22	483
45 AM	60	10	11	25	8	5	4	101	7	7	189	30	457
9:00 AM													
15 AM													
30 AM													
45 AM													
10:00 AM													
15 AM													
30 AM													
45 AM													
TOTAL VOLUMES =	669	86	81	198	58	41	37	834	80	60	2021	202	4367

AM Peak Hr Begins at 700 AM

PEAK VOLUMES =	396	38	46	89	23	18	23	415	49	26	1169	86	2378

ADDITIONS: SIGNALIZED

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: HIGHLAND VALLEY RD.
E-W STREET: SR 67

DATE: 3/29/2001
DAY: THURSDAY

CITY: RAMONA
PROJECT# 0355005P

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	1	0	1	1	0	1	1	1	1	1	1	
2:00 PM													
15 PM													
30 PM													
45 PM													
3:00 PM													
15 PM													
30 PM													
45 PM													
4:00 PM	20	2	10	30	16	3	4	288	77	7	196	20	673
15 PM	20	4	8	33	11	2	3	311	78	10	201	18	699
30 PM	25	6	9	40	12	4	2	305	80	11	180	22	696
45 PM	30	7	15	38	10	3	1	270	81	10	177	30	672
00 PM	21	8	12	41	8	2	2	288	101	8	160	26	67[illegible]
15 PM	20	7	18	30	7	2	2	270	105	9	152	19	6[illegible]
30 PM	18	7	10	27	7	1	2	267	90	10	160	20	619
45 PM	12	2	12	20	6	3	1	250	98	8	121	22	555
6:00 PM													
15 PM													
30 PM													
45 PM													
TOTAL VOLUMES =	166	43	94	259	77	20	17	2249	710	73	1347	177	5232

PM Peak Hr Begins at 415 PM

PEAK VOLUMES =	96	25	44	152	41	11	8	1174	340	39	718	96	2744

ADDITIONS: SIGNALIZED

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: MUSSEY GRADE RD. DATE: 09/13/01 CITY: RAMONA

E-W STREET: SR-67 DAY: THURSDAY Intersection I.D.:
PROJECT# 0936005A

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
RECEIVING:		X			X			X			X		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0.5		0.5					1	1	1	1		
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	25		21					203	5	9	350		613
7:15 AM	31		27					174	11	17	289		549
7:30 AM	21		40					202	13	15	328		619
7:45 AM	35		43					232	11	23	376		720
8:00 AM	22		27					178	14	16	311		568
8:15 AM	18		23					165	12	20	324		562
8:30 AM	16		11					141	9	14	282		473
8:45 AM	10		5					164	8	12	306		505
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 178	NT 0	NR 197	SL 0	ST 0	SR 0	EL 0	ET 1459	ER 83	WL 126	WT 2566	WR 0	TOTAL 4609

AM Peak Hr Begins at 700 AM

PEAK VOLUMES =	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	112	0	131	0	0	0	0	811	40	64	1343	0	2501

ADDITIONS: 1-WAT STOP, NORTH

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: MUSSEY GRADE RD. DATE: 09/13/01 CITY: RAMONA

E-W STREET: SR-67 DAY: THURSDAY

PROJECT# 0936005P

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0.5		0.5					1	1	1	1		
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	12		24					238	17	13	153		457
4:15 PM	11		20					280	15	19	166		511
4:30 PM	14		25					348	26	23	197		633
4:45 PM	13		29					317	23	28	176		586
5:00 PM	11		19					322	26	31	180		589
5:15 PM	12		28					339	29	29	199		636
5:30 PM	9		33					311	27	23	218		621
5:45 PM	13		41					338	33	25	205		655
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
VOLUMES =	95	0	219	0	0	0	0	2493	196	191	1494	0	4688

PM Peak Hr Begins at 500 PM

PEAK VOLUMES =	45	0	121	0	0	0	0	1310	115	106	802	0	2501

ADDITIONS: 1-WAY STOP, NORTH

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: ARCHIE MOORE RD. DATE: 09/12/01 CITY: RAMONA

E-W STREET: SR-67 DAY: WEDNESDAY Intersection I.D.:
PROJECT# 0936006A

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
RECEIVING:		X			X			X			X		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:				1		1	1	2			2	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM				19		41	15	127			364	9	575
7:15 AM				15		46	15	141			389	11	617
7:30 AM				16		45	17	117			371	8	574
7:45 AM				12		47	19	120			346	13	557
8:00 AM				18		54	21	133			327	15	568
8:15 AM				16		50	13	116			312	24	531
8:30 AM				22		61	14	129			288	36	550
8:45 AM				24		47	11	122			265	17	486
9:00 AM				80		212	59	500			1192	92	
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
VOLUMES =	0	0	0	142	0	391	125	1005	0	0	2662	133	4458

AM Peak Hr Begins at 700 AM

PEAK VOLUMES =	0	0	0	62	0	179	66	505	0	0	1470	41	2323

ADDITIONS: 1-WAY STOP, SOUTH

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: ARCHIE MOORE RD. DATE: 09/12/01 CITY: RAMONA

E-W STREET: SR-67 DAY: WEDNESDAY

PROJECT# 0936006P

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:				1		1	1	2			2	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM				7		18	23	319			151	20	538
4:15 PM				9		24	26	337			174	23	593
4:30 PM				10		21	29	374			179	26	639
4:45 PM				13 39		19 82	38 110	328 1368			165 669	32 101	595
5:00 PM				10		25	45	345			143	27	595
5:15 PM				8		20	41	352			136	25	582
5:30 PM				6		19	62	330			140	21 GU	578
5:45 PM				8 32		16 80	51 199	318 1348			121	23	537
6:00 PM											540		
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
VOLUMES =	0	0	0	71	0	162	315	2703	0	0	1209	197	4657

PM Peak Hr Begins at 415 PM

PEAK VOLUMES =	0	0	0	42	0	89	138	1384	0	0	661	108	2422

ADDITIONS: 1-WAY STOP, SOUTH

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: SR-67 DATE: 09/13/01 CITY: RAMONA

E-W STREET: POWAY RD. DAY: THURSDAY Intersection I.D.: PROJECT# 0936007A ✓

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
RECEIVING:	NL	X NT	NR	SL	X ST	SR	EL	X ET	ER	WL	X WT	WR	TOTAL
LANES:	1	2			2	1	2		1				
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													660
7:00 AM	53	72			296	158	39		42				617
7:15 AM	55	76			274	143	31		38				647
7:30 AM	63	80			249	169	37		49				638
7:45 AM	87	69			227	153	41		61				595
8:00 AM	76	75			211	145	36		52				586
8:15 AM	72	62			228	139	40		45				522
8:30 AM	58	53			196	134	43		38				465
8:45 AM	42	57			183	111	38		34				
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 506	NT 544	NR 0	SL 0	ST 1864	SR 1152	EL 305	ET 0	ER 359	WL 0	WT 0	WR 0	TOTAL 4730

AM Peak Hr Begins at 700 AM

PEAK VOLUMES =	258	297	0	0	1046	623	148	0	190	0	0	0	2562

ADDITIONS: SIGNALIZED

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: SR-67 DATE: 09/13/01 CITY: RAMONA

E-W STREET: POWAY RD. DAY: THURSDAY PROJECT# 0936007P

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2			2	1	2		1				
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	66	267			87	56	132		52				660
4:15 PM	57	230			116	61	154		79				697
4:30 PM	52	256			109	59	126		73				675
4:45 PM	63	241			93	71	149		85				702
5:00 PM	72	238			81	62	157		96				706
5:15 PM	60	249			85	54	162		98				708
5:30 PM	64	273			79	58	168		89				731
5:45 PM	57	264			75	54	154		82				686
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
VOLUMES =	491	2018	0	0	725	475	1202	0	654	0	0	0	5565
PM Peak Hr Begins at				445	PM								
PEAK VOLUMES =	259	1001	0	0	338	245	636	0	368	0	0	0	2847

ADDITIONS: SIGNALIZED

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: SR-78 (PINE ST.) DATE: 09/13/01 CITY: RAMONA

E-W STREET: HAVERFORD RD. DAY: THURSDAY Intersection I.D.:
PROJECT# 0936001A

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
RECEIVING:		X			X			X			X		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:		1	0	0	1					0	1	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM		128	3	0	106					9		17	263
7:15 AM		184	5	6	97					14		22	328
7:30 AM		156	2	7	92					15		13	285
7:45 AM		117	8	9	83					11		15	243
8:00 AM		131	4	4	94					17		14	264
8:15 AM		119	3	6	87					16		21	252
8:30 AM		125	5	5	90					18		16	259
8:45 AM		133	8	7	98					13		20	279
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 0	NT 1083	NR 38	SL 44	ST 747	SR 0	EL 0	ET 0	ER 0	WL 113	WT 0	WR 138	TOTAL 2173

AM Peak Hr Begins at 715 AM

PEAK VOLUMES =	0	588	19	26	366	0	0	0	0	57	0	64	1120

ADDITIONS: 1-WAY STOP, WEST

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: SR-78 (PINE ST.) DATE: 09/13/01 CITY: RAMONA

E-W STREET: HAVERFORD RD. DAY: THURSDAY PROJECT# 0936001P

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:		1	0	0	1					0	1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM		80	9	16	132					16		10	263
4:15 PM		71	11	8	98					14		12	214
4:30 PM		92	16	25	161					22		16	332
4:45 PM		114	21	14	140					26		18	333
5:00 PM		75	16	15	117					15		11	249
5:15 PM		96	19	18	143					17		15	308
5:30 PM		83	11	17	154					13		10	288
5:45 PM		68	10	11	136					10		8	243
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	0	679	113	124	1081	0	0	0	0	133	0	100	2230
PM Peak Hr Begins at				430	PM								
PEAK VOLUMES =	0	377	72	72	561	0	0	0	0	80	0	60	1222

ADDITIONS: 1-WAY STOP, WEST

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: SR-78 (PINE ST.) DATE: 09/13/01 CITY: RAMONA

E-W STREET: ASH ST. DAY: THURSDAY Intersection I.D.: ✓

PROJECT# 0936002A

RECEIVING:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	X NT	NR	SL	X ST	SR	EL	X ET	ER	WL	X WT	WR	TOTAL
LANES:	1	1	0	1	1	0	0	1	0	0	1	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	1	127	1	0	118	0	1	0	4	0	1	0	253
7:15 AM	6	185	0	1	110	1	0	1	3	1	0	1	309
7:30 AM	0	149	0	0	105	2	3	0	1	2	0	3	265
7:45 AM	1	121	1	1	96	1	2	0	2	0	1	2	228
8:00 AM	2	130	2	2	109	0	2	0	3	1	0	0	251
8:15 AM	5	114	2	2	102	0	3	0	9	2	1	2	242
8:30 AM	3	123	3	1	107	1	2	0	6	1	1	3	251
8:45 AM	4	136	1	0	111	0	4	0	5	1	0	2	264
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 22	NT 1085	NR 10	SL 7	ST 858	SR 5	EL 17	ET 1	ER 33	WL 8	WT 4	WR 13	TOTAL 2063

AM Peak Hr Begins at 700 AM

PEAK VOLUMES =	NL 8	NT 582	NR 2	SL 2	ST 429	SR 4	EL 6	ET 1	ER 10	WL 3	WT 2	WR 6	TOTAL 1055

ADDITIONS: 2-WAY STOP, EAST & WEST

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: SR-78 (PNIE ST.) DATE: 09/13/01 CITY: RAMONA

E-W STREET: ASH ST. DAY: THURSDAY PROJECT# 0936002P

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	1	0	1	1	0	0	1	0	0	1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	6	89	2	0	142	4	3	0	4	0	0	0	250
4:15 PM	11	81	1	1	98	6	0	0	1	1	0	2	202
4:30 PM	4	104	0	0	185	2	2	1	6	2	1	0	307
4:45 PM	5	135	1	2	160	1	1	0	3	1	0	1	310
5:00 PM	2	90	0	2	123	5	3	1	5	0	0	1	232
5:15 PM	3	112	3	1	156	1	4	0	5	2	0	0	287
5:30 PM	5	98	1	0	164	3	1	0	7	1	0	0	280
5:45 PM	1	74	0	1	139	4	2	0	4	0	1	2	228
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	37	783	8	7	1167	26	16	2	35	7	2	6	2096
PM Peak Hr Begins at				430	PM								
PEAK VOLUMES =	14	441	4	5	624	9	10	2	19	5	1	2	1136

ADDITIONS: 2-WAY STOP, EAST & WEST

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: SR-78 (PINE ST.) DATE: 09/13/01 CITY: RAMONA

E-W STREET: CEDAR ST. DAY: THURSDAY Intersection I.D.: PROJECT# 0936003A

RECEIVING:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	X NT	NR	SL	X ST	SR	EL	X ET	ER	WL	X WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0	1	0	0	1	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	0	128	1	4	119	0	0	1	1	0	0	1	265
7:15 AM	1	187	0	0	115	0	1	0	2	2	1	3	312
7:30 AM	3	145	1	1	106	1	1	0	1	0	0	0	259
7:45 AM	1	116	0	0	103	0	3	0	3	1	0	2	229
8:00 AM	0	133	0	0	97	0	1	1	0	1	0	1	234
8:15 AM	1	119	1	1	112	1	0	0	2	2	1	2	242
8:30 AM	0	124	2	2	110	1	2	0	5	1	0	2	249
8:45 AM	1	135	0	3	122	1	1	0	2	0	2	4	271
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	7	1087	5	11	884	4	9	2	16	7	4	15	2051

AM Peak Hr Begins at 700 AM

PEAK VOLUMES =	5	576	2	5	443	1	5	1	7	3	1	6	1055

ADDITIONS: 2-WAY STOP, EAST & WEST

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: SR-78 (PNIE ST.) DATE: 09/13/01 CITY: RAMONA ✓

E-W STREET: CEDAR ST. DAY: THURSDAY PROJECT# 0936003P

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0	1	0	0	1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	4	96	2	1	143	1	2	1	1	2	0	0	253
4:15 PM	3	93	1	0	97	0	0	1	2	1	0	1	199
4:30 PM	1	111	2	1	188	3	1	0	1	0	0	0	308
4:45 PM	5	138	0	2	159	2	3	0	2	1	1	1	314
5:00 PM	2	89	3	1	126	0	0	1	2	1	0	2	227
5:15 PM	1	118	1	0	161	3	1	0	1	1	0	0	287
5:30 PM	2	104	1	0	170	1	2	0	1	2	1	1	285
5:45 PM	0	76	2	2	141	1	1	0	2	0	0	0	225
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 18	NT 825	NR 12	SL 7	ST 1185	SR 11	EL 10	ET 3	ER 12	WL 8	WT 2	WR 5	TOTAL 2098
PM Peak Hr Begins at				430	PM								
PEAK VOLUMES =	8	456	6	4	634	8	5	1	6	3	1	3	1136

ADDITIONS: 2-WAY STOP, EAST & WEST

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: MONTECITO WAY DATE: 09/12/01 CITY: RAMONA

E-W STREET: MONTECITO RD. DAY: WEDNESDAY Intersection I.D.: PROJECT# 0936004A

RECEIVING:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	X NT	NR	SL	X ST	SR	EL	X ET	ER	WL	X WT	WR	TOTAL
LANES:				0	1	0	0	1			1	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM				5		0	0	1			7	1	14
7:15 AM				2		0	0	3			8	4	17
7:30 AM				3		1	0	4			5	2	15
7:45 AM				6		0	1	5			11	8	31
8:00 AM				2		0	0	2			9	3	16
8:15 AM				5		0	1	3			8	2	19
8:30 AM				4		0	0	1			6	2	13
8:45 AM				2		1	1	2			15	3	24
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 0	NT 0	NR 0	SL 29	ST 0	SR 2	EL 3	ET 21	ER 0	WL 0	WT 69	WR 25	TOTAL 149

AM Peak Hr Begins at 730 AM

PEAK VOLUMES =	0	0	0	16	0	1	2	14	0	0	33	15	81

ADDITIONS: Not Controlled

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: MONTECITO WAY DATE: 09/12/01 CITY: RAMONA

E-W STREET: MONTECITO RD. DAY: WEDNESDAY PROJECT# 0936004P

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:				0	1	0	0	1			1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM				4		2	1	9			6	3	25
4:15 PM				2		0	0	8			3	3	16
4:30 PM				5		0	2	5			4	2	18
4:45 PM				4		1	0	6			4	4	19
5:00 PM				5		0	1	15			5	5	31
5:15 PM				7		0	0	11			5	2	25
5:30 PM				3		0	0	9			2	5	19
5:45 PM				2		1	1	8			3	9	24
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 0	NT 0	NR 0	SL 32	ST 0	SR 4	EL 5	ET 71	ER 0	WL 0	WT 32	WR 33	TOTAL 177

PM Peak Hr Begins at 500 PM

PEAK VOLUMES =	0	0	0	17	0	1	2	43	0	0	15	21	99

ADDITIONS: Not Controlled

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: RANGELAND RD. DATE: 09/13/01 CITY: RAMONA

E-W STREET: HIGHLAND VALLEY RD. DAY: THURSDAY Intersection I.D.: PROJECT# 0936008A

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
RECEIVING:		X			X			X			X		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1			1	0	0	1	0				
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	22	4			1	6	2		10				45
7:15 AM	13	3			2	6	1		7				32
7:30 AM	21	1			1	3	3		10				39
7:45 AM	30	3			3	4	0		8				48
8:00 AM	45	2			4	3	4		20				78
8:15 AM	82	3			3	8	2		54				152
8:30 AM	73	4			4	5	4		86				176
8:45 AM	35	1			2	4	2		25				69
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 321	NT 21	NR 0	SL 0	ST 20	SR 39	EL 18	ET 0	ER 220	WL 0	WT 0	WR 0	TOTAL 639

AM Peak Hr Begins at 800 AM

PEAK VOLUMES =	235	10	0	0	13	20	12	0	185	0	0	0	475

ADDITIONS: 1-WAY STOP, SOUTH

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: RANGELAND RD. DATE: 09/13/01 CITY: RAMONA

E-W STREET: HIGHLAND VALLEY RD. DAY: THURSDAY PROJECT# 0936008P

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1			1	0	0	1	0				
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	12	3			5	3	2		39				64
4:15 PM	10	2			2	2	3		24				43
4:30 PM	9	4			1	1	4		33				52
4:45 PM	18	6			3	2	2		58				89
5:00 PM	13	4			2	3	5		47				74
5:15 PM	18	7			3	6	4		62				100
5:30 PM	11	9			3	3	12		71				109
5:45 PM	9	6			7	5	13		80				120
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 100	NT 41	NR 0	SL 0	ST 26	SR 25	EL 45	ET 0	ER 414	WL 0	WT 0	WR 0	TOTAL 651

PM Peak Hr Begins at 500 PM

PEAK VOLUMES =	51	26	0	0	15	17	34	0	260	0	0	0	403

ADDITIONS: 1-WAY STOP, SOUTH

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: ARCHIE MOORE RD. DATE: 09/13/01 CITY: RAMONA

E-W STREET: HIGHLAND VALLEY RD. DAY: THURSDAY Intersection I.D.: PROJECT# 0936009A

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
RECEIVING:	NL	X NT	NR	SL	X ST	SR	EL	X ET	ER	WL	X WT	WR	TOTAL
LANES:	1		1					1	1	0	1		
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	2		9					12	14	16	22		75
7:15 AM	1		6					17	16	23	19		82
7:30 AM	2		5					8	10	25	17		67
7:45 AM	3		8					7	12	18	15		63
8:00 AM	1		3					11	17	20	16		68
8:15 AM	0		4					41	28	61	14		148
8:30 AM	1		6					62	53	55	23		200
8:45 AM	2		4					21	12	13	8		60
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 12	NT 0	NR 45	SL 0	ST 0	SR 0	EL 0	ET 179	ER 162	WL 231	WT 134	WR 0	TOTAL 763

AM Peak Hr Begins at 745 AM

PEAK VOLUMES =	5	0	21	0	0	0	0	121	110	154	68	0	479

ADDITIONS: 1-WAY STOP, EAST

SOUTHLAND CAR COUNTERS
VEHICLE AND MANUAL COUNTS

N-S STREET: ARCHIE MOORE RD. DATE: 09/13/01 CITY: RAMONA

E-W STREET: HIGHLAND VALLEY RD. DAY: THURSDAY PROJECT# 0936009P

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1		1					1	1	0	1		
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	3		27					17	8	10	9		74
4:15 PM	4		33					20	11	9	11		88
4:30 PM	2		37					26	13	6	12		96
4:45 PM	2		35					18	10	8	10		83
5:00 PM	3		58					14	13	5	11		104
5:15 PM	1		55					11	11	8	9		95
5:30 PM	3		64					11	9	6	6		99
5:45 PM	2		37					8	7	5	7		66
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	20	0	346	0	0	0	0	125	82	57	75	0	705
PM Peak Hr Begins at				445	PM								
PEAK VOLUMES =	9	0	212	0	0	0	0	54	43	27	36	0	381

ADDITIONS: 1-WAY STOP, EAST

Location:Pine St. (SR-78) s/o Olive St. Ramona Volumes for Tues. 4/10/01 03920001

AM Period	NB		SB			PM Period	NB		SB		
12:00-12:15	10		14			12:00-12:15	73		82		
12:15-12:30	5		8			12:15-12:30	82		81		
12:30-12:45	9		8			12:30-12:45	87		71		
12:45-1:00	7	31	6	36	67	12:45-1:00	72	314	71	305	619
1:00-1:15	2		3			1:00-1:15	72		84		
1:15-1:30	4		3			1:15-1:30	57		65		
1:30-1:45	3		3			1:30-1:45	55		79		
1:45-2:00	6	15	4	13	28	1:45-2:00	71	255	86	314	569
2:00-2:15	0		2			2:00-2:15	62		81		
2:15-2:30	0		2			2:15-2:30	85		87		
2:30-2:45	2		4			2:30-2:45	88		105		
2:45-3:00	5	7	4	12	19	2:45-3:00	83	318	96	369	687
3:00-3:15	0		0			3:00-3:15	96		102		
3:15-3:30	5		3			3:15-3:30	80		113		
3:30-3:45	1		2			3:30-3:45	101		127		
3:45-4:00	5	11	3	8	19	3:45-4:00	94	371	128	470	841
4:00-4:15	7		9			4:00-4:15	90		100		
4:15-4:30	18		4			4:15-4:30	81		133		
4:30-4:45	19		11			4:30-4:45	84		124		
4:45-5:00	31	75	15	39	114	4:45-5:00	86	341	142	499	840
5:00-5:15	31		18			5:00-5:15	112	363	99	498	
5:15-5:30	56		16			5:15-5:30	87		140		
5:30-5:45	60		24			5:30-5:45	99		139		
5:45-6:00	72	219	34	92	311	5:45-6:00	74	372	140	518	890
6:00-6:15	97		54			6:00-6:15	76		106		
6:15-6:30	99		35			6:15-6:30	65		80		
6:30-6:45	95		64			6:30-6:45	66		75		
6:45-7:00	92	383	71	224	607	6:45-7:00	68	275	87	348	623
7:00-7:15	90		58			7:00-7:15	69		75		
7:15-7:30	102		77			7:15-7:30	49		63		
7:30-7:45	85		59			7:30-7:45	45		68		
7:45-8:00	75	352	64	258	610	7:45-8:00	40	203	49	255	458
8:00-8:15	86	248	63	263		8:00-8:15	34		46		
8:15-8:30	87		89			8:15-8:30	45		48		
8:30-8:45	77		56			8:30-8:45	43		38		
8:45-9:00	68	318	80	288	606	8:45-9:00	26	148	47	179	327
9:00-9:15	63		82			9:00-9:15	38		40		
9:15-9:30	65		87			9:15-9:30	28		63		
9:30-9:45	54		74			9:30-9:45	21		49		
9:45-10:00	74	256	85	328	584	9:45-10:00	27	114	46	198	312
10:00-10:15	85		55			10:00-10:15	22		30		
10:15-10:30	88		96			10:15-10:30	13		24		
10:30-10:45	89		65			10:30-10:45	8		21		
10:45-11:00	98	360	54	270	630	10:45-11:00	18	61	18	93	154
11:00-11:15	87		74			11:00-11:15	17		18		
11:15-11:30	74		78			11:15-11:30	10		13		
11:30-11:45	85		85			11:30-11:45	10		14		
11:45-12:00	99	345	90	327	672	11:45-12:00	8	45	16	61	106
Total Vol	2372		1895		4267		2817		3609		6426
Daily Totals							5189		5504		10693

Location:Julian Rd. (SR-67) s/o Etcheverry St. Ramona Volumes for Tues. 4/10/01 03920009

AM Period	NB		SB			PM Period	NB		SB		
12:00-12:15	33		13			12:00-12:15	131		154		
12:15-12:30	30		18			12:15-12:30	154		147		
12:30-12:45	17		7			12:30-12:45	174		152		
12:45-1:00	24	104	6	44	148	12:45-1:00	185	644	163	616	1260
1:00-1:15	14		8			1:00-1:15	163		169		
1:15-1:30	8		15			1:15-1:30	154		170		
1:30-1:45	6		4			1:30-1:45	185		187		
1:45-2:00	9	37	10	37	74	1:45-2:00	169	671	182	708	1379
2:00-2:15	6		3			2:00-2:15	169		187		
2:15-2:30	6		7			2:15-2:30	170		166		
2:30-2:45	11		6			2:30-2:45	161		185		
2:45-3:00	3	26	5	21	47	2:45-3:00	200	700	157	695	1395
3:00-3:15	5		4			3:00-3:15	218		175		
3:15-3:30	5		11			3:15-3:30	263		168		
3:30-3:45	7		18			3:30-3:45	251		169		
3:45-4:00	2	19	19	52	71	3:45-4:00	237	969	153	665	1634
4:00-4:15	8		28			4:00-4:15	293		161		
4:15-4:30	8		45			4:15-4:30	285		156		
4:30-4:45	6		61			4:30-4:45	283		174		
4:45-5:00	8	30	90	224	254	4:45-5:00	287	1148	155	646	1794
5:00-5:15	15		124			5:00-5:15	274		138		
5:15-5:30	19		170			5:15-5:30	279		164		
5:30-5:45	23		203			5:30-5:45	243		134		
5:45-6:00	23	80	236	733	813	5:45-6:00	259	1055	144	580	1635
6:00-6:15	56		294			6:00-6:15	243		114		
6:15-6:30	54		273			6:15-6:30	231		137		
6:30-6:45	83		229			6:30-6:45	194		122		
6:45-7:00	80	273	223	1019	1292	6:45-7:00	203	871	122	495	1366
7:00-7:15	107		299			7:00-7:15	170		110		
7:15-7:30	85		224			7:15-7:30	149		104		
7:30-7:45	107		263			7:30-7:45	140		88		
7:45-8:00	136	435	231	1017	1452	7:45-8:00	155	614	68	370	984
8:00-8:15	105		208			8:00-8:15	131		85		
8:15-8:30	123		190			8:15-8:30	119		58		
8:30-8:45	115		188			8:30-8:45	86		66		
8:45-9:00	138	481	170	756	1237	8:45-9:00	96	432	56	265	697
9:00-9:15	122		163			9:00-9:15	94		55		
9:15-9:30	135		188			9:15-9:30	91		61		
9:30-9:45	121		152			9:30-9:45	90		60		
9:45-10:00	126	504	184	687	1191	9:45-10:00	83	358	53	229	587
10:00-10:15	123		174			10:00-10:15	70		32		
10:15-10:30	133		185			10:15-10:30	85		26		
10:30-10:45	141		163			10:30-10:45	45		31		
10:45-11:00	152	549	123	645	1194	10:45-11:00	42	242	26	115	357
11:00-11:15	136		136			11:00-11:15	50		20		
11:15-11:30	165		154			11:15-11:30	28		23		
11:30-11:45	147		147			11:30-11:45	32		11		
11:45-12:00	123	571	152	589	1160	11:45-12:00	37	147	7	61	208
Total Vol	3109		5824		8933		7851		5445		13296
Daily Totals							10960		11269		22229

Location:Montecito Rd. e/o Davis St. Ramona Volumes for Tues. 4/10/01 03920005

AM Period	EB		WB			PM Period	EB		WB		
12:00-12:15	1		4			12:00-12:15	21		28		
12:15-12:30	0		1			12:15-12:30	18		24		
12:30-12:45	1		1			12:30-12:45	14		22		
12:45-1:00	2	4	1	7	11	12:45-1:00	22	75	26	100	175
1:00-1:15	2		1			1:00-1:15	16		33		
1:15-1:30	0		0			1:15-1:30	19		32		
1:30-1:45	0		1			1:30-1:45	21		24		
1:45-2:00	1	3	0	2	5	1:45-2:00	16	72	30	119	191
2:00-2:15	1		0			2:00-2:15	23		23		
2:15-2:30	0		1			2:15-2:30	25		21		
2:30-2:45	0		0			2:30-2:45	20		17		
2:45-3:00	0	1	2	3	4	2:45-3:00	12	80	22	83	163
3:00-3:15	1		0			3:00-3:15	23		25		
3:15-3:30	1		0			3:15-3:30	16		21		
3:30-3:45	1		1			3:30-3:45	19		20		
3:45-4:00	1	4	1	2	6	3:45-4:00	15	73	30	96	169
4:00-4:15	4		0			4:00-4:15	20		31		
4:15-4:30	3		0			4:15-4:30	32		45		
4:30-4:45	4		2			4:30-4:45	23		24		
4:45-5:00	7	18	0	2	20	4:45-5:00	21	96	20	120	216
5:00-5:15	9		0			5:00-5:15	18		34		
5:15-5:30	11		3			5:15-5:30	22		31		
5:30-5:45	15		2			5:30-5:45	24		34		
5:45-6:00	22	57	1	6	63	5:45-6:00	26	90	23	122	212
6:00-6:15	15		4			6:00-6:15	22		32		
6:15-6:30	20		27			6:15-6:30	22		30		
6:30-6:45	13		4			6:30-6:45	12		26		
6:45-7:00	17	65	7	42	107	6:45-7:00	21	77	29	117	194
7:00-7:15	23		11			7:00-7:15	23		24		
7:15-7:30	26		13			7:15-7:30	9		27		
7:30-7:45	14		21			7:30-7:45	11		24		
7:45-8:00	28	91	17	62	153	7:45-8:00	10	53	19	94	147
8:00-8:15	18		13			8:00-8:15	15		15		
8:15-8:30	20		23			8:15-8:30	5		14		
8:30-8:45	25		18			8:30-8:45	8		12		
8:45-9:00	21	84	16	70	154	8:45-9:00	11	39	11	52	91
9:00-9:15	12		21			9:00-9:15	6		7		
9:15-9:30	17		18			9:15-9:30	15		25		
9:30-9:45	12		14			9:30-9:45	9		5		
9:45-10:00	21	62	10	63	125	9:45-10:00	7	37	6	43	80
10:00-10:15	28		18			10:00-10:15	5		9		
10:15-10:30	26		12			10:15-10:30	2		9		
10:30-10:45	33		22			10:30-10:45	7		2		
10:45-11:00	32	119	25	77	196	10:45-11:00	6	20	5	25	45
11:00-11:15	21		16			11:00-11:15	5		5		
11:15-11:30	18		13			11:15-11:30	2		5		
11:30-11:45	14		33			11:30-11:45	0		1		
11:45-12:00	10	63	32	94	157	11:45-12:00	1	8	0	11	19
Total Vol	571		430		1001		720		982		1702
Daily Totals							1291		1412		2703

Volumes for Thursday 06/06/02 City of Ramona Job # 07810001

Location: Highland Valley Rd. e/o Highlander Dr.

AM Period	EB		WB			PM Period	EB		WB		
12:00-12:15	5		3			12:00-12:15	10		9		
12:15-12:30	4		1			12:15-12:30	13		13		
12:30-12:45	3		1			12:30-12:45	14		9		
12:45-1:00	1	13	2	7	20	12:45-1:00	12	49	8	39	88
1:00-1:15	1		0			1:00-1:15	15		11		
1:15-1:30	2		1			1:15-1:30	17		14		
1:30-1:45	3		2			1:30-1:45	14		15		
1:45-2:00	1	7	3	6	13	1:45-2:00	13	59	9	49	108
2:00-2:15	3		0			2:00-2:15	13		10		
2:15-2:30	0		0			2:15-2:30	18		30		
2:30-2:45	0		1			2:30-2:45	20		31		
2:45-3:00	0	3	1	2	5	2:45-3:00	16	67	33	104	171
3:00-3:15	1		1			3:00-3:15	61		37		
3:15-3:30	0		1			3:15-3:30	78		28		
3:30-3:45	1		1			3:30-3:45	39		11		
3:45-4:00	0	2	5	8	10	3:45-4:00	38	216	12	88	304
4:00-4:15	3		2			4:00-4:15	37		15		
4:15-4:30	1		5			4:15-4:30	69		20		
4:30-4:45	2		1			4:30-4:45	98		22		
4:45-5:00	3	9	4	12	21	4:45-5:00	86	290	39	96	386
5:00-5:15	0		7			5:00-5:15	106		29		
5:15-5:30	0		6			5:15-5:30	62		32		
5:30-5:45	4		5			5:30-5:45	50		27		
5:45-6:00	2	6	8	26	32	5:45-6:00	35	253	22	110	363
6:00-6:15	0		15			6:00-6:15	27		25		
6:15-6:30	1		25			6:15-6:30	36		21		
6:30-6:45	9		27			6:30-6:45	13		11		
6:45-7:00	17	27	29	96	123	6:45-7:00	29	105	15	72	177
7:00-7:15	24		30			7:00-7:15	12		8		
7:15-7:30	7		39			7:15-7:30	12		11		
7:30-7:45	17		41			7:30-7:45	15		11		
7:45-8:00	13	61	57	167	228	7:45-8:00	30	69	19	49	118
8:00-8:15	23		50			8:00-8:15	23		17		
8:15-8:30	41		74			8:15-8:30	22		15		
8:30-8:45	52		56			8:30-8:45	30		3		
8:45-9:00	23	139	18	198	337	8:45-9:00	19	94	6	41	135
9:00-9:15	11		23			9:00-9:15	15		7		
9:15-9:30	9		21			9:15-9:30	19		3		
9:30-9:45	14		16			9:30-9:45	18		8		
9:45-10:00	12	46	19	79	125	9:45-10:00	12	64	2	20	84
10:00-10:15	10		14			10:00-10:15	11		2		
10:15-10:30	20		17			10:15-10:30	7		4		
10:30-10:45	20		13			10:30-10:45	8		5		
10:45-11:00	14	64	13	57	121	10:45-11:00	6	32	4	15	47
11:00-11:15	11		10			11:00-11:15	9		2		
11:15-11:30	17		19			11:15-11:30	4		2		
11:30-11:45	15		12			11:30-11:45	3		2		
11:45-12:00	17	60	14	55	115	11:45-12:00	1	17	1	7	24
Total Vol.	437		713		1150		1315		690		2005
Daily Totals							1752		1403		3155

Southland Car Counters ~ 24hr. Machine Count

Volumes for Thursday 06/06/02 City of Ramona Job # 07810002

Location: Archie Moore Rd. n/o Salt Mine Rd.

AM Period	NB		SB			PM Period	NB		SB		
12:00-12:15	0		3			12:00-12:15	19		12		
12:15-12:30	0		1			12:15-12:30	18		18		
12:30-12:45	0		2			12:30-12:45	10		7		
12:45-1:00	0	0	0	6	6	12:45-1:00	18	65	12	49	114
1:00-1:15	0		0			1:00-1:15	10		16		
1:15-1:30	0		1			1:15-1:30	10		12		
1:30-1:45	0		2			1:30-1:45	12		13		
1:45-2:00	0	0	1	4	4	1:45-2:00	12	44	12	53	97
2:00-2:15	0		2			2:00-2:15	9		5		
2:15-2:30	0		1			2:15-2:30	15		8		
2:30-2:45	0		0			2:30-2:45	33		12		
2:45-3:00	0	0	0	3	3	2:45-3:00	31	88	14	39	127
3:00-3:15	2		1			3:00-3:15	39		33		
3:15-3:30	1		2			3:15-3:30	23		35		
3:30-3:45	1		1			3:30-3:45	24		20		
3:45-4:00	2	6	2	6	12	3:45-4:00	20	106	19	107	213
4:00-4:15	0		2			4:00-4:15	21		23		
4:15-4:30	1		0			4:15-4:30	35		18		
4:30-4:45	2		0			4:30-4:45	25		33		
4:45-5:00	3	6	8	10	16	4:45-5:00	80	161	26	100	261
5:00-5:15	3		7			5:00-5:15	77		28		
5:15-5:30	4		1			5:15-5:30	34		20		
5:30-5:45	5		4			5:30-5:45	31		58		
5:45-6:00	6	18	12	24	42	5:45-6:00	44	186	38	144	330
6:00-6:15	10		16			6:00-6:15	38		44		
6:15-6:30	12		24			6:15-6:30	35		34		
6:30-6:45	12		27			6:30-6:45	49		23		
6:45-7:00	27	61	45	112	173	6:45-7:00	31	153	25	126	279
7:00-7:15	22		35			7:00-7:15	33		22		
7:15-7:30	19		33			7:15-7:30	42		20		
7:30-7:45	26		32			7:30-7:45	36		13		
7:45-8:00	30	97	56	156	253	7:45-8:00	32	143	6	61	204
8:00-8:15	37		56			8:00-8:15	17		13		
8:15-8:30	40		84			8:15-8:30	11		10		
8:30-8:45	66		89			8:30-8:45	8		10		
8:45-9:00	50	193	33	262	455	8:45-9:00	7	43	15	48	91
9:00-9:15	30		28			9:00-9:15	7		6		
9:15-9:30	22		25			9:15-9:30	9		11		
9:30-9:45	18		29			9:30-9:45	8		10		
9:45-10:00	20	90	18	100	190	9:45-10:00	9	33	6	33	66
10:00-10:15	15		19			10:00-10:15	7		8		
10:15-10:30	17		24			10:15-10:30	7		4		
10:30-10:45	18		20			10:30-10:45	6		4		
10:45-11:00	12	62	14	77	139	10:45-11:00	4	24	1	17	41
11:00-11:15	8		9			11:00-11:15	5		2		
11:15-11:30	13		9			11:15-11:30	6		3		
11:30-11:45	10		10			11:30-11:45	7		2		
11:45-12:00	9	40	10	38	78	11:45-12:00	2	20	1	8	28
Total Vol.	573		798		1371		1066		785		1851
Daily Totals							1639		1583		3222

APPENDIX C

Existing HCS Worksheets

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	USAI	Intersection	Ash St. / Pine St.
Agency/Co.	Urban Systems	Jurisdiction	County of San Diego
Date Performed	4/26/2005	Analysis Year	2005
Analysis Time Period	1 E AM		

Project Description	5703 Montecito Ranch
East/West Street: Ash St.	North/South Street: Pine St. (SR-78)
Intersection Orientation: North-South	Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	8	582	2	2	429	4
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR	8	582	2	2	429	4
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	1	1	0	1	1	0
Configuration	L		TR	L		TR
Upstream Signal		0			0	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	3	2	6	6	1	10
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR	3	2	6	6	1	10
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L	L		LTR			LTR	
v (vph)	8	2		11			17	
C (m) (vph)	1137	1001		316			345	
v/c	0.01	0.00		0.03			0.05	
95% queue length	0.02	0.01		0.11			0.15	
Control Delay	8.2	8.6		16.8			16.0	
LOS	A	A		C			C	
Approach Delay	--	--	16.8			16.0		
Approach LOS	--	--	C			C		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	USAI	Intersection	Ash St. / Pine St.
Agency/Co.	Urban Systems	Jurisdiction	County of San Diego
Date Performed	4/26/2005	Analysis Year	2005
Analysis Time Period	1 E PM		
Project Description	5703 Montecito Ranch		
East/West Street:	Ash St.	North/South Street:	Pine St. (SR-78)
Intersection Orientation:	North-South	Study Period (hrs):	0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	14	441	4	5	624	9
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR	14	441	4	5	624	9
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	1	1	0	1	1	0
Configuration	L		TR	L		TR
Upstream Signal		0			0	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	5	1	2	10	2	19
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR	5	1	2	10	2	19
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L	L		LTR			LTR	
v (vph)	14	5		8			31	
C (m) (vph)	960	1126		217			301	
v/c	0.01	0.00		0.04			0.10	
95% queue length	0.04	0.01		0.11			0.34	
Control Delay	8.8	8.2		22.2			18.3	
LOS	A	A		C			C	
Approach Delay	--	--	22.2			18.3		
Approach LOS	--	--	C			C		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	USAI	Intersection	Olive St. / Pine St.
Agency/Co.	Urban Systems	Jurisdiction	County of San Diego
Date Performed	3/09/2006	Analysis Year	2006
Analysis Time Period	2 E AM		
Project Description	5703 Montecito Ranch		
East/West Street:	Olive St.	North/South Street:	Pine St. (SR-78)
Intersection Orientation:	North-South	Study Period (hrs):	0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	5	576	2	5	443	1
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR	5	576	2	5	443	1
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	1	1	0	1	1	0
Configuration	L		TR	L		TR
Upstream Signal		0			0	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	3	1	6	5	1	7
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR	3	1	6	5	1	7
Percent Heavy Vehicles	2	0	0	2	2	2
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L	L		LTR			LTR	
v (vph)	5	5		10			13	
C (m) (vph)	1116	996		325			321	
v/c	0.00	0.01		0.03			0.04	
95% queue length	0.01	0.02		0.10			0.13	
Control Delay	8.2	8.6		16.4			16.7	
LOS	A	A		C			C	
Approach Delay	--	--	16.4			16.7		
Approach LOS	--	--	C			C		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*USAI*	Intersection	*Olive St. / Pine St.*
Agency/Co.	*Urban Systems*	Jurisdiction	*County of San Diego*
Date Performed	*3/09/2006*	Analysis Year	*2006*
Analysis Time Period	*2 E PM*		
Project Description	*5703 Montecito Ranch*		
East/West Street:	*Olive St.*	North/South Street:	*Pine St. (SR-78)*
Intersection Orientation:	*North-South*	Study Period (hrs):	*0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	9	456	6	4	634	8
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR	9	456	6	4	634	8
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	1	1	0	1	1	0
Configuration	L		TR	L		TR
Upstream Signal		0			0	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	3	1	3	5	1	6
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR	3	1	3	5	1	6
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L	L		LTR			LTR	
v (vph)	9	4		7			12	
C (m) (vph)	943	1099		260			264	
v/c	0.01	0.00		0.03			0.05	
95% queue length	0.03	0.01		0.08			0.14	
Control Delay	8.9	8.3		19.2			19.3	
LOS	A	A		C			C	
Approach Delay	--	--	19.2			19.3		
Approach LOS	--	--	C			C		

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	Main St. / Pine St. / 10th St.
Agency or Co.	Urban Systems	Area Type	All other areas
Date Performed	4/26/2005	Jurisdiction	County of San Diego
Time Period	3 E AM	Analysis Year	2005

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	1	2	0	1	1	1	0	1	0
Lane group	L	TR		L	TR		L	T	R		LTR	
Volume (vph)	177	462	64	65	588	72	151	175	67	72	104	194
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0	2.0		2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0	2.0		2.0	
Arrival type	3	3		3	3		3	3	3		3	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0		3.0	
Ped/Bike/RTOR Volume	10	0	0	10	0	0	10	0	0	10	0	29
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0		12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0	0		0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0		3.0	

Phasing	Excl. Left	EB Only	Thru & RT	04	NB Only	SB Only	07	08
Timing	G = 5.0	G = 5.0	G = 16.0	G =	G = 9.0	G = 16.0	G =	G =
	Y = 4	Y = 0	Y = 4	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 67.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	197	584		72	733		168	194	74		379	
Lane group cap.	370	1089		132	831		238	250	208		409	
v/c ratio	0.53	0.54		0.55	0.88		0.71	0.78	0.36		0.93	
Green ratio	0.21	0.31		0.07	0.24		0.13	0.13	0.13		0.24	
Unif. delay d1	23.6	19.0		29.9	24.6		27.7	28.0	26.4		24.9	
Delay factor k	0.14	0.14		0.15	0.41		0.27	0.33	0.11		0.44	
Increm. delay d2	1.5	0.5		4.7	11.0		9.2	14.2	1.0		27.1	
PF factor	1.000	1.000		1.000	1.000		1.000	1.000	1.000		1.000	
Control delay	25.1	19.5		34.6	35.5		36.9	42.2	27.4		52.0	
Lane group LOS	C	B		C	D		D	D	C		D	
Apprch. delay	20.9			35.5			37.7			52.0		
Approach LOS	C			D			D			D		
Intersec. delay	33.7			Intersection LOS						C		

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	Main St. / Pine St. / 10th St.
Agency or Co.	Urban Systems	Area Type	All other areas
Date Performed	1/9/2008	Jurisdiction	County of San Diego
Time Period	3 E PM	Analysis Year	2005

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	1	2	0	1	2	0	1	1	1	0	1	0
Lane Group	L	TR		L	TR		L	T	R		LTR	
Volume (vph)	198	883	132	72	609	84	139	139	107	106	162	283
% Heavy Vehicles	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Pretimed/Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup Lost Time	2.0	2.0		2.0	2.0		2.0	2.0	2.0		2.0	
Extension of Effective Green	2.0	2.0		2.0	2.0		2.0	2.0	2.0		2.0	
Arrival Type	3	3		3	3		3	3	3		3	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0		3.0	
Ped/Bike/RTOR Volume	10	0	20	10	0	0	10	0	16	10	0	42
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0		12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/Hour												
Bus Stops/Hour	0	0		0	0		0	0	0		0	
Minimum Pedestrian Time		3.3			3.3			3.3			3.3	

Phasing	Excl. Left	EB Only	Thru & RT	04	NB Only	SB Only	07	08
Timing	G = 7.0	G = 6.0	G = 28.0	G =	G = 8.0	G = 24.0	G =	G =
	Y = 4	Y = 0	Y = 4	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 89.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	220	1105		80	770		154	154	101		566	
Lane Group Capacity	338	1330		139	1094		159	167	258		463	
v/c Ratio	0.65	0.83		0.58	0.70		0.97	0.92	0.39		1.22	
Green Ratio	0.19	0.38		0.08	0.31		0.09	0.09	0.17		0.27	
Uniform Delay d_1	33.3	24.9		39.6	26.8		40.4	40.2	32.9		32.5	
Delay Factor k	0.23	0.37		0.17	0.27		0.48	0.44	0.11		0.50	
Incremental Delay d_2	4.4	4.6		5.8	2.1		61.8	47.6	1.0		118.2	
PF Factor	1.000	1.000		1.000	1.000		1.000	1.000	1.000		1.000	
Control Delay	37.7	29.5		45.3	28.9		102.2	87.8	33.9		150.7	
Lane Group LOS	D	C		D	C		F	F	C		F	
Approach Delay	30.9			30.5			79.9			150.7		
Approach LOS	C			C			E			F		
Intersection Delay	58.7			Intersection LOS						E		

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	Main St. / Montecito Rd.
Agency or Co.	Urban Systems	Area Type	All other areas
Date Performed	4/26/2005	Jurisdiction	County of San Diego
Time Period	4 E AM	Analysis Year	2005

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	1	2	0	0	1	0	0	1	0
Lane group	L	TR		L	TR			LTR			LTR	
Volume (vph)	122	649	30	8	886	91	16	6	26	147	11	131
% Heavy veh	0	0	0	0	0	0	0	0	0	0	0	0
PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0			2.0			2.0	
Ext. eff. green	2.0	2.0		2.0	2.0			2.0			2.0	
Arrival type	3	3		3	3			3			3	
Unit Extension	3.0	3.0		3.0	3.0			3.0			3.0	
Ped/Bike/RTOR Volume	0		0	0		0	0		0	0		0
Lane Width	12.0	12.0		12.0	12.0			12.0			12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0			0			0	
Unit Extension	3.0	3.0		3.0	3.0			3.0			3.0	

Phasing	Excl. Left	EB Only	Thru & RT	04	NB Only	SB Only	07	08
Timing	G = 5.0	G = 5.0	G = 27.0	G =	G = 5.0	G = 15.0	G =	G =
	Y = 4	Y = 0	Y = 4	Y =	Y = 4	Y = 4	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 73.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	136	754		9	1085			54			321	
Lane group cap.	346	1575		124	1319			119			357	
v/c ratio	0.39	0.48		0.07	0.82			0.45			0.90	
Green ratio	0.19	0.44		0.07	0.37			0.07			0.21	
Unif. delay d1	25.8	14.6		31.8	20.8			32.7			28.3	
Delay factor k	0.11	0.11		0.11	0.36			0.11			0.42	
Increm. delay d2	0.7	0.2		0.2	4.3			2.7			24.6	
PF factor	1.000	1.000		1.000	1.000			1.000			1.000	
Control delay	26.5	14.8		32.1	25.2			35.4			52.8	
Lane group LOS	C	B		C	C			D			D	
Apprch. delay	16.6			25.2			35.4			52.8		
Approach LOS	B			C			D			D		
Intersec. delay	26.0			Intersection LOS						C		

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	Main St. / Montecito Rd.
Agency or Co.	Urban Systems	Area Type	All other areas
Date Performed	4/26/2005	Jurisdiction	County of San Diego
Time Period	4 E PM	Analysis Year	2005

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	1	2	0	0	1	0	0	1	0
Lane group	L	TR		L	TR			LTR			LTR	
Volume (vph)	162	1061	79	35	886	72	49	36	59	108	31	123
% Heavy veh	0	0	0	0	0	0	0	0	0	0	0	0
PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0			2.0			2.0	
Ext. eff. green	2.0	2.0		2.0	2.0			2.0			2.0	
Arrival type	3	3		3	3			3			3	
Unit Extension	3.0	3.0		3.0	3.0			3.0			3.0	
Ped/Bike/RTOR Volume	0		0	0		0	0		0	0		0
Lane Width	12.0	12.0		12.0	12.0			12.0			12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0			0			0	
Unit Extension	3.0	3.0		3.0	3.0			3.0			3.0	

Phasing	Excl. Left	EB Only	Thru & RT	04	NB Only	SB Only	07	08
Timing	G = 5.0	G = 5.0	G = 28.0	G =	G = 8.0	G = 13.0	G =	G =
	Y = 4	Y = 0	Y = 4	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 75.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	180	1267		39	1064			160			291	
Lane group cap.	337	1575		120	1335			188			302	
v/c ratio	0.53	0.80		0.32	0.80			0.85			0.96	
Green ratio	0.19	0.44		0.07	0.37			0.11			0.17	
Unif. delay d1	27.6	18.2		33.4	21.0			32.9			30.8	
Delay factor k	0.14	0.35		0.11	0.34			0.38			0.47	
Increm. delay d2	1.7	3.2		1.6	3.5			29.2			41.9	
PF factor	1.000	1.000		1.000	1.000			1.000			1.000	
Control delay	29.2	21.4		35.0	24.4			62.2			72.6	
Lane group LOS	C	C		C	C			E			E	
Apprch. delay	22.3			24.8			62.2			72.6		
Approach LOS	C			C			E			E		
Intersec. delay	30.2			Intersection LOS						C		

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	USAI
Agency/Co.	Urban Systems
Date Performed	4/26/2005
Analysis Time Period	5 E AM

Site Information

Intersection	Montecito Rd. / Montecito Wy.
Jurisdiction	County of San Diego
Analysis Year	2005

Project Description: 5703 Montecito Ranch

East/West Street: Montecito Rd.

North/South Street: Montecito Wy.

Intersection Orientation: East-West

Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	2	14	0	0	35	15
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate (veh/h)	2	14	0	0	35	15
Proportion of heavy vehicles, P_{HV}	0	--	--	0	--	--
Median type	Undivided					
RT Channelized?			0			0
Lanes	0	1	0	0	1	0
Configuration	LT					TR
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	0	0	0	16	0	1
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate (veh/h)	0	0	0	16	0	1
Proportion of heavy vehicles, P_{HV}	0	0	0	0	0	0
Percent grade (%)	0			0		
Flared approach		N			N	
Storage		0			0	
RT Channelized?			0			0
Lanes	0	0	0	0	0	0
Configuration					LR	

Control Delay, Queue Length, Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT						LR	
Volume, v (vph)	2						17	
Capacity, c_m (vph)	1570						956	
v/c ratio	0.00						0.02	
Queue length (95%)	0.00						0.05	

Control Delay (s/veh)	7.3						8.8	
LOS	A						A	
Approach delay (s/veh)	--	--				8.8		
Approach LOS	--	--				A		

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TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*USAI*
Agency/Co.	*Urban Systems*
Date Performed	*4/26/2005*
Analysis Time Period	*5 E PM*

Site Information

Intersection	*Montecito Rd. / Montecito Wy.*
Jurisdiction	*County of San Diego*
Analysis Year	*2005*

Project Description *5703 Montecito Ranch*

East/West Street: *Montecito Rd.* North/South Street: *Montecito Wy.*

Intersection Orientation: *East-West* Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	2	43	0	0	15	21
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate (veh/h)	2	43	0	0	15	21
Proportion of heavy vehicles, P_{HV}	0	–	–	0	–	–
Median type	Undivided					
RT Channelized?			0			0
Lanes	0	1	0	0	1	0
Configuration	LT					TR
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	0	0	0	17	0	1
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate (veh/h)	0	0	0	17	0	1
Proportion of heavy vehicles, P_{HV}	0	0	0	0	0	0
Percent grade (%)	0			0		
Flared approach		N			N	
Storage		0			0	
RT Channelized?			0			0
Lanes	0	0	0	0	0	0
Configuration					LR	

Control Delay, Queue Length, Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT						LR	
Volume, v (vph)	2						18	
Capacity, c_m (vph)	1588						941	
v/c ratio	0.00						0.02	
Queue length (95%)	0.00						0.06	

Control Delay (s/veh)	7.3						8.9	
LOS	A						A	
Approach delay (s/veh)	–	–				8.9		
Approach LOS	–	–				A		

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	Highland Valley Rd./ Main St.
Agency or Co.	Urban Systems	Area Type	All other areas
Date Performed	3/07/2006	Jurisdiction	County of San Diego
Time Period	6 E AM	Analysis Year	2006

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	1	1	0	1	1	0	1	1	1	1	1	1
Lane Group	L	TR		L	TR		L	T	R	L	T	R
Volume (vph)	74	8	7	420	33	23	2	476	65	20	1058	102
% Heavy Vehicles	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Pretimed/Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup Lost Time	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Arrival Type	3	3		5	3		3	3	3	3	3	3
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	0	0	0	10	0	0	10	0	0	10	0	15
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/Hour												
Bus Stops/Hour	0	0		0	0		0	0	0	0	0	0
Minimum Pedestrian Time		3.2			3.3			3.3			3.3	

Phasing	Excl. Left	WB Only	Thru & RT	04	Excl. Left	Thru & RT	07	08
Timing	G = 8.0	G = 19.0	G = 5.0	G =	G = 5.0	G = 69.0	G =	G =
	Y = 4	Y = 0	Y = 4	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 122.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	78	15		442	59		2	501	68	21	1114	92
Lane Group Capacity	116	71		450	341		73	1054	888	73	1054	888
v/c Ratio	0.67	0.21		0.98	0.17		0.03	0.48	0.08	0.29	1.06	0.10
Green Ratio	0.07	0.04		0.25	0.20		0.04	0.57	0.57	0.04	0.57	0.57
Uniform Delay d_1	55.7	56.6		45.2	40.7		56.2	15.7	12.0	56.8	26.5	12.2
Delay Factor k	0.24	0.11		0.49	0.11		0.11	0.11	0.11	0.11	0.50	0.11
Incremental Delay d_2	14.2	1.5		37.7	0.2		0.2	0.3	0.0	2.2	44.1	0.1
PF Factor	1.000	1.000		0.773	1.000		1.000	1.000	1.000	1.000	1.000	1.000
Control Delay	69.9	58.1		72.6	41.0		56.3	16.1	12.1	58.9	70.6	12.3
Lane Group LOS	E	E		E	D		E	B	B	E	E	B
Approach Delay	68.0			68.9			15.7			66.0		
Approach LOS	E			E			B			E		
Intersection Delay	54.7			Intersection LOS						D		

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	Highland Valley Rd./ Main St.
Agency or Co.	Urban Systems	Area Type	All other areas
Date Performed	3/07/2006	Jurisdiction	County of San Diego
Time Period	6 E PM	Analysis Year	2006

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	1	1	0	1	1	0	1	1	1	1	1	1
Lane Group	L	TR		L	TR		L	T	R	L	T	R
Volume (vph)	161	53	10	60	10	21	4	789	196	42	556	35
% Heavy Vehicles	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Pretimed/Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup Lost Time	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Arrival Type	3	3		3	3		3	3	3	3	3	3
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	0	0	10	0	4	10	0	20	10	0	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/Hour												
Bus Stops/Hour	0	0		0	0		0	0	0	0	0	0
Minimum Pedestrian Time		3.3			3.3			3.3			3.3	

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 8.0	G = 5.0	G =	G =	G = 5.0	G = 37.0	G =	G =
	Y = 4	Y = 4	Y =	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 71.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	169	67		63	29		4	831	185	44	585	37
Lane Group Capacity	199	126		199	114		125	971	817	125	971	817
v/c Ratio	0.85	0.53		0.32	0.25		0.03	0.86	0.23	0.35	0.60	0.05
Green Ratio	0.11	0.07		0.11	0.07		0.07	0.52	0.52	0.07	0.52	0.52
Uniform Delay d_1	30.9	31.9		29.0	31.2		30.7	14.7	9.2	31.5	11.9	8.3
Delay Factor k	0.38	0.13		0.11	0.11		0.11	0.39	0.11	0.11	0.19	0.11
Incremental Delay d_2	27.7	4.3		0.9	1.2		0.1	7.6	0.1	1.7	1.1	0.0
PF Factor	1.000	1.000		1.000	1.000		1.000	1.000	1.000	1.000	1.000	1.000
Control Delay	58.6	36.2		29.9	32.4		30.9	22.3	9.4	33.2	12.9	8.4
Lane Group LOS	E	D		C	C		C	C	A	C	B	A
Approach Delay	52.2			30.7			20.0			14.0		
Approach LOS	D			C			C			B		
Intersection Delay	22.3			Intersection LOS						C		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	USAI	Intersection	Archie Moore Rd. / SR-67
Agency/Co.	Urban Systems	Jurisdiction	County of San Diego
Date Performed	3/07/2006	Analysis Year	2006
Analysis Time Period			

Project Description 5703 Montecito Ranch

East/West Street: Archie Moore Rd. | North/South Street: SR-67

Intersection Orientation: North-South | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	78	373			1357	30
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR (veh/h)	78	373	0	0	1357	30
Percent Heavy Vehicles	2	–	–	0	–	–
Median Type	Undivided					
RT Channelized			0			0
Lanes	1	2	0	0	1	1
Configuration	L	T			T	R
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	17		144			
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR (veh/h)	17	0	144	0	0	0
Percent Heavy Vehicles	2	0	2	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	1	0	1	0	0	0
Configuration	L		R			

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L					L		R
v (veh/h)	78					17		144
C (m) (veh/h)	490					70		139
v/c	0.16					0.24		1.04
95% queue length	0.56					0.85		7.67
Control Delay (s/veh)	13.7					72.2		149.2
LOS	B					F		F
Approach Delay (s/veh)	–	–				141.0		
Approach LOS	–	–				F		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	USAI	Intersection	Archie Moore Rd. / SR-67
Agency/Co.	Urban Systems	Jurisdiction	County of San Diego
Date Performed	3/07/2006	Analysis Year	2006
Analysis Time Period			

Project Description 5703 Montecito Ranch

East/West Street: Archie Moore Rd. | North/South Street: SR-67

Intersection Orientation: North-South | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	196	1265			519	27
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR (veh/h)	196	1265	0	0	519	27
Percent Heavy Vehicles	0	–	–	0	–	–
Median Type	Undivided					
RT Channelized			0			0
Lanes	1	2	0	0	1	1
Configuration	L	T			T	R
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	25		59			
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR (veh/h)	25	0	59	0	0	0
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	1	0	1	0	0	0
Configuration	L		R			

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L					L		R
v (veh/h)	196					25		59
C (m) (veh/h)	1033					88		507
v/c	0.19					0.28		0.12
95% queue length	0.70					1.05		0.39
Control Delay (s/veh)	9.3					61.4		13.0
LOS	A					F		B
Approach Delay (s/veh)	–	–				27.4		
Approach LOS	–	–				D		

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APPENDIX D

SANDAG Trip Generation Rates

(NOT SO)

BRIEF GUIDE OF VEHICULAR TRAFFIC GENERATION RATES FOR THE SAN DIEGO REGION

JULY 1998

San Diego ASSOCIATION OF GOVERNMENTS
401 B Street, Suite 800
San Diego, California 92101
(619)595-5300 • Fax (619)595-5305

NOTE: This listing only represents a *guide* of average, or estimated, traffic generation "driveway" rates and some very general trip data for land uses (emphasis on acreage and building square footage) in the San Diego region. These rates are subject to change as future documentation becomes available, or as local sources are updated. For more specific information regarding traffic data and trip rates, please refer to the San Diego Traffic Generators manual. *Always check with local jurisdictions for their preferred or applicable rates.*

LAND USE	TRIP CATEGORIES (PRIMARY:DIVERTED:PASS-BY)[1]	ESTIMATED WEEKDAY VEHICLE TRIP GENERATION RATE (DRIVEWAY)	HIGHEST PEAK HOUR % (plus IN:OUT ratio) Between 6:00-9:30 A.M.		Between 3:00-6:30 P.M.		TRIP LENGTH (Miles)[2]
AGRICULTURE (Open Space)	[00:10:2]	2/acre**					10.8
AIRPORT	[70:20:2]						12.6
Commercial		60/acre, 100/flight, 70/1000 sq. ft.* **	5%	(6:4)	8%	(5:5)	
General Aviation		8/acre, 2/flight, 6/based aircraft* **	9%	(7:3)	15%	(6:5)	
Heliports		100/acre**					
AUTOMOBILE[3]							
Car Wash							
Automatic		800/site, 600/acre**	4%	(5:5)	9%	(6:5)	
Self-serve		100/wash stall**	4%	(6:5)	8%	(6:5)	
Gasoline	[21:51:28]						2.8
with/Food Mart		160/vehicle fueling space**	7%	(6:5)	9%	(5:5)	
with/Food Mart & Car Wash		155/vehicle fueling space**	8%	(5:5)	9%	(5:5)	
Older Service Station Design		160/vehicle fueling space, 900/station**	7%	(6:5)	9%	(6:5)	
Sales (Dealer & Repair)		60/1000 sq. ft., 300/acre, 30/service stall* **	5%	(7:3)	8%	(4:6)	
Auto Repair Center		20/1000 sq. ft., 400/acre, 20/service stall*	8%	(7:3)	11%	(4:6)	
Auto Parts Sales		60/1000 sq. ft. **	4%		10%		
Quick Lube		40/service stall**	7%	(6:4)	10%	(5:5)	
Tire Store		25/1000 sq. ft., 30/service stall**	7%	(6:4)	11%	(5:5)	
CEMETERY		5/acre*					
CHURCH (or Synagogue)	[84:25:11]	9/1000 sq. ft., 30/acre** (quadruple rates for Sunday, or days of assembly)	5%	(6:4)	9%	(5:5)	6.1
COMMERCIAL/RETAIL[3]							
Super Regional Shopping Center (More than 60 acres, more than 600,000 sq. ft., w/usually 3+ major stores)		40/1000 sq. ft.,[5] 400/acre*	2%	(7:3)	9%	(5:5)	
Regional Shopping Center (30-60 acres, 300,000-600,000 sq. ft., w/usually 2 major stores)	[64:35:11]	50/1000 sq. ft.,[5] 500/acre*	2%	(7:3)	9%	(5:5)	5.2
Community Shopping Center (10-30 acres, 100,000-300,000 sq. ft., w/usually 1 major store, detached restaurant(s), grocery and drugstore)	[47:31:22]	70/1000 sq. ft., 700/acre* **	3%	(6:4)	10%	(5:5)	3.6
Neighborhood Shopping Center (Less than 10 acres, less than 100,000 sq. ft., w/usually grocery & drugstore, cleaners, beauty & barber shop, & fast food services)		120/1000 sq. ft., 1200/acre* **	4%	(6:4)	10%	(5:5)	
Commercial Shops	[45:40:15]						4.2
Specialty Retail/Strip Commercial		40/1000 sq. ft., 400/acre*	3%	(6:4)	9%	(5:5)	
Electronics Superstore		60/1000 sq. ft**			10%	(5:5)	
Factory Outlet		40/1000 sq. ft.**	3%	(7:3)	9%	(5:5)	
Supermarket		150/1000 sq. ft., 2000/acre* **	4%	(7:3)	10%	(5:5)	
Drugstore		90/1000 sq. ft.**	4%	(6:4)	10%	(5:5)	
Convenience Market (16-18 hours)		800/1000 sq. ft.**	8%	(5:5)	9%	(5:5)	
Convenience Market (24 hours)		700/1000 sq. ft.**	9%	(5:5)	7%	(5:5)	
Convenience Market (w/gasoline pumps)		850/1000 sq. ft., 550/vehicle fueling space**	8%	(5:5)	7%	(5:5)	
Discount Club		80/1000 sq. ft., 600/acre* **	1%	(7:3)	9%	(5:5)	
Discount Store		50/1000 sq. ft., 800/acre**	3%	(6:4)	8%	(5:5)	
Furniture Store		6/1000 sq. ft., 100/acre**	4%	(7:3)	9%	(5:5)	
Lumber Store		30/1000 sq. ft., 150/acre**	7%	(6:4)	9%	(5:5)	
Home Improvement Superstore		40/1000 sq. ft.**	5%	(6:4)	9%	(5:5)	
Hardware/Paint Store		50/1000 sq. ft., 800/acre**	2%	(6:4)	9%	(5:5)	
Garden Nursery		40/1000 sq. ft., 80/acre**	3%	(6:4)	10%	(5:5)	
Mixed Use: Commercial (w/supermarket)/Residential		(110/1000 sq. ft., 2000/acre* (commercial only) (6/dwelling unit, 200/acre* (residential only)	3% 8%	(6:4) (3:7)	9% 13%	(5:5) (6:4)	
EDUCATION							
University (4 years)	[91:8:0]	2.5/student, 100 acre*	10%	(9:2)	9%	(3:7)	8.9
Junior College (2 years)	[82:7:1]	1.6/student, 10/1000 sq. ft., 80/acre*	12%	(9:1)	8%	(4:6)	9.0
High School	[75:19:6]	1.8/student, 13/1000 sq. ft., 50/acre* **	24%	(7:3)	12%	(3:7)	4.0
Middle/Junior High	[63:25:12]	1.4/student, 12/1000 sq. ft. 40/acre**	30%	(6:4)	9%	(4:6)	5.0
Elementary	[67:25:10]	1.2/student, 14/1000 sq. ft., 60/acre**	28%	(6:4)	7%	(3:7)	3.4
Day Care	[20:60:14]	5/child, 80/1000 sq. ft.**	17%	(5:5)	16%	(5:5)	3.7
FINANCIAL[3]	[35:42:23]						3.4
Bank (Walk-in only)		150/1000 sq. ft., 1000/acre* **	4%	(7:3)	8%	(4:6)	
with Drive-Through		200/1000 sq. ft., 1500/acre*	5%	(6:4)	10%	(5:5)	
Drive-Through only		250 (125 one-way)/lane*	3%	(5:5)	13%	(5:5)	
Savings & Loan		80/1000 sq. ft., 600/acre**	2%		9%		
Drive-Through only		100 (50 one-way)/lane**	4%		15%		
HOSPITAL	[73:25:2]						6.3
General		17/bed, 20/1000 sq. ft., 250/acre*	8%	(7:3)	10%	(3:7)	
Convalescent/Nursing		3/bed**	7%	(6:4)	7%	(4:6)	
INDUSTRIAL							
Industrial/Business Park (commercial included)	[79:19:2]	16/1000 sq. ft., 200/acre* **	12%	(9:2)	12%	(2:8)	9.0
Industrial Park (no commercial)		7/1000 sq. ft., 80/acre**	11%	(9:1)	12%	(2:8)	
[illegible]	[illegible]	10/1000 sq. ft., 120/acre*	14%	(8:2)	15%	(3:7)	11.7

LAND USE	TRIP CATEGORIES (PRIMARY:DIVERTED:PASS-BY)[f]	ESTIMATED WEEKDAY VEHICLE TRIP GENERATION RATE (DRIVEWAY)	HIGHEST PEAK HOUR % (plus IN:OUT ratio) Between 6:00-9:30 A.M.		Between 3:00-6:30 P.M.		TRIP LENGTH (Miles)[i]
LIBRARY	(44:44:12)	60/1000 sq. ft., 400/acre*'	2%	(7:3)	10%	(5:5)	3.8
LODGING	(56:38:4)						7.0
Hotel (w/convention facilities/restaurant)		10/occupied room, 300/acre	6%	(6:4)	8%	(6:4)	
Motel		9/occupied room, 200/acre*	8%	(4:6)	8%	(6:4)	
Resort Hotel		8/occupied room, 100/acre*	5%	(6:4)	7%	(4:6)	
Business Hotel		7/occupied room**	8%	(4:6)	9%	(6:4)	
MILITARY	(92:16:2)	2.6/military & civilian personnel*	9%	(6:1)	10%	(2:8)	11.2
OFFICE							
Standard Commercial Office (less than 100,000 sq. ft.)	(77:19:4)	20/1000 sq. ft.,[e] 300/acre*	14%	(9:1)	13%	(2:8)	8.0
Large (High-Rise) Commercial Office (more than 100,000 sq. ft., 6+ stories)	(82:16:3)	17/1000 sq. ft.,[e] 600/acre*	13%	(9:1)	14%	(2:8)	10.0
Office Park (average 400,000 sq. ft.)		12/1000 sq.ft.,[e] 200/acre**	13%	(8:1)	13%	(2:8)	
Single Tenant Office		14/1000 sq. ft., 100/acre*	16%	(8:1)	16%	(2:8)	8.0
Corporate Headquarters		7/1000 sq. ft., 110/acre*	17%	(9:1)	16%	(1:9)	
Government (Civic Center)	(60:34:16)	30/1000 sq. ft.**	8%	(9:1)	12%	(3:7)	8.0
Post Office							
Central/Walk-In Only		90/1000 sq. ft.**	6%		7%		
Community (not including mail drop lane)		200/1000 sq. ft., 1300/acre*	8%	(6:4)	9%	(5:5)	
Community (w/mail drop lane)		300/1000 sq. ft., 2000/acre*	7%	(5:5)	10%	(5:5)	
Mail Drop Lane only		1500 (750 one-way)/lane*	7%	(5:5)	12%	(5:5)	
Department of Motor Vehicles		100/1000 sq. ft., 800/acre**	8%	(6:4)	10%	(4:6)	
Medical-Dental	(80:30:10)	50/1000 sq. ft., 600/acre*	8%	(8:2)	11%	(3:7)	6.4
PARKS	(86:20:6)		4%		8%		5.4
City (developed)		50/acre*					
Regional (developed)		20/acre*					
Neighborhood/County (undeveloped)		5/acre (add for specific sport uses), 8/picnic site* **					
State (average 1000 acres)		1/acre, 10/picnic site**					
Amusement (Theme)		80/acre, 130/acre (swimmer only)**			8%	(6:4)	
San Diego Zoo		115/acre*					
Sea World		80/acre*					
RECREATION							8.3
Beach, Ocean or Bay	(52:39:9)	600/1000 ft. shoreline, 80/acre*					
Beach, Lake (fresh water)		50/1000 ft. shoreline, 5/acre*					
Bowling Center		30/1000 sq. ft., 300/acre, 30/lane**	7%	(7:3)	11%	(4:6)	
Campground		4/campsite**	4%		8%		
Golf Course		7/acre, 40/hole, 700/course**	6%	(8:2)	8%	(3:7)	
Driving Range only		70/acre, 14/tee box*	3%	(7:3)	8%	(5:5)	
Marinas		4/berth, 20/acre* **	3%	(3:7)	7%	(6:4)	
Multi-purpose (miniature golf, video arcade, batting cage, etc.)		90/acre	2%		6%		
Racquetball/Health Club		30/1000 sq. ft., 300/acre, 40/court*	4%	(6:4)	9%	(6:4)	
Tennis Courts		16/acre, 90/court**	6%		11%	(5:5)	
Sports Facilities							
Outdoor Stadium		50/acre, 0.2/seat*					
Indoor Arena		30/acre, 0.1/seat*					
Racetrack		40/acre, 0.6 seat*					
Theaters (multiplex w/marinas)	(66:17:17)	80/1000 sq. ft., 1.0/seat, 300/screen*	1/2%		8%	(6:4)	8.1
RESIDENTIAL	(86:11:3)						7.9
Estate, Urban or Rural (average 1-2 DU/acre)		12/dwelling unit*[h]	8%	(3:7)	10%	(7:3)	
Single Family Detached (average 3-6 DU/acre)		10/dwelling unit*[h]	8%	(3:7)	10%	(7:3)	
Condominium (or any multi-family 6-20 DU/acre)		8/dwelling unit*[h]	8%	(2:8)	10%	(7:3)	
Apartment (or any multi-family units more than 20 DU/acre)		6/dwelling unit*[h]	8%	(2:8)	9%	(7:3)	
Military Housing (off-base, multi-family)							
(less than 6 DU/acre)		8/dwelling unit	7%	(3:7)	8%	(6:4)	
(6-20 DU/acre)		6/dwelling unit	7%	(3:7)	9%	(6:4)	
Mobile Home							
Family		8/dwelling unit, 40/acre*	8%	(3:7)	11%	(6:4)	
Adults Only		3/dwelling unit, 20/acre*	9%	(3:7)	10%	(6:4)	
Retirement Community		4/dwelling unit**	6%	(4:6)	7%	(6:4)	
Congregate Care Facility		2/dwelling unit**	3%	(6:4)	6%	(5:5)	
RESTAURANT[a]	(61:37:12)						4.7
Quality		100/1000 sq. ft., 3/seat, 500/acre* **	1%	(6:4)	8%	(7:3)	
Sit-down, high turnover		160/1000 sq. ft., 6/seat, 1000/acre* **	6%	(5:5)	8%	(6:4)	
Fast Food (w/drive-through)		660/1000 sq. ft., 20/seat, 3000/acre* **	7%	(5:5)	7%	(5:5)	
Fast Food (without drive-through)		700/1000 sq. ft.**	6%	(6:4)	7%	(5:5)	
Delicatessen (7am-4pm)		160/1000 sq. ft., 11/seat*	9%	(6:4)	3%	(3:7)	
TRANSPORTATION							
Bus Depot		25/1000 sq. ft.**					
Truck Terminal		10/1000 sq. ft., 7/bay, 80/acre**	9%	(4:6)	8%	(5:5)	
Waterport/Marina Terminal		170/berth, 12/acre**					
Transit Station (Light Rail w/parking)		300/acre, 2nd/parking space (4/occupied)**	14%	(7:3)	15%	(3:7)	
Park & Ride Lots		(400/acre (800/paved acre), (5/parking space (8/occupied)* **	14%	(7:3)	16%	(3:7)	

* Primary source: *San Diego Traffic Generators.*

** Other sources: *ITE Trip Generation Report (6th Edition)*, Trip Generation Rates (other agencies and publications), various SANDAG & CALTRANS studies, reports and estimates.

[f] Trip category percentage ratios are daily from local household surveys, often cannot be applied to very specific land uses, and do not include non-resident drivers (draft SANDAG *Analysis of Trip Diversion*, revised November, 1990):
PRIMARY - one trip directly between origin and primary destination.
DIVERTED - linked trip (having one or more stops along the way to a primary destination) whose distance compared to direct distance ≥ 1 mile.
PASS-BY - undiverted or diverted < 1 mile.

[i] Trip lengths are average weighted for all trips to and from general land use site. (All trips system-wide average length = 6.9 miles)

[a] Fitted curve equation: $\ln(T) = 0.756 \ln(x) + 5.25$ } T = total trips, x = 1,000 sq. ft.

[e] Fitted curve equation: $\ln(T) = 0.756 \ln(x) + 3.95$

[h] Fitted curve equation: $t = -2.169 \ln(d) + 12.05$ t = trips/DU, d = density (DU/acre), DU = dwelling unit

*' Suggested PASS-BY (undiverted or diverted <1 mile) percentages for trip rate reductions only during P.M. peak period (based on combination of local data/review and Other sources**):

COMMERCIAL/RETAIL	
Regional Shopping Center	20%
Community " "	30%
Neighborhood " "	40%
Specialty Retail/Strip Commercial (other)	10%
Supermarket	40%
Convenience Market	50%
Discount Club/Store	30%

APPENDIX E

Existing Plus Project HCS Worksheets

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*Justin Schlaefli*	Intersection	*Ash St. / Pine St. (SR-78)*
Agency/Co.	*USAI*	Jurisdiction	*County of San Diego*
Date Performed	*6/15/2006*	Analysis Year	*2004*
Analysis Time Period	*1 E+P AM*		
Project Description	*Montecito Ranch*		
East/West Street:	*Ash Street*	North/South Street:	*Pine Street (SR-78)*
Intersection Orientation:	*North-South*	Study Period (hrs):	*0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	81	582	2	2	429	15
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	90	646	2	2	476	16
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	1	1	0	1	1	0
Configuration	L		TR	L		TR
Upstream Signal		0			0	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	3	13	6	23	18	113
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	3	14	6	25	20	125
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L	L		LTR			LTR	
v (vph)	90	2		23			170	
C (m) (vph)	1053	922		146			281	
v/c	0.09	0.00		0.16			0.60	
95% queue length	0.28	0.01		0.54			3.64	
Control Delay	8.7	8.9		34.2			35.6	
LOS	A	A		D			E	
Approach Delay	--	--	34.2			35.6		
Approach LOS	--	--	D			E		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*Justin Schlaefli*	Intersection	*Ash St. / Pine St. (SR-78)*
Agency/Co.	*USAI*	Jurisdiction	*County of San Diego*
Date Performed	*06/15/2006*	Analysis Year	*2004*
Analysis Time Period	*1 E+P PM*		
Project Description	*Montecito Ranch*		
East/West Street:	*Ash Street*	North/South Street:	*Pine Street (SR-78)*
Intersection Orientation:	*North-South*	Study Period (hrs):	*0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	134	441	4	5	624	28
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	148	490	4	5	693	31
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	1	1	0	1	1	0
Configuration	L		TR	L		TR
Upstream Signal		0			0	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	5	20	2	20	12	81
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	5	22	2	22	13	90
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L	L		LTR			LTR	
v (vph)	148	5		29			125	
C (m) (vph)	864	1052		87			181	
v/c	0.17	0.00		0.33			0.69	
95% queue length	0.62	0.01		1.28			4.19	
Control Delay	10.0	8.4		65.8			60.3	
LOS	B	A		F			F	
Approach Delay	--	--	65.8			60.3		
Approach LOS	--	--	F			F		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*Justin Schlaefli*	Intersection	*Olive St. / Pine St.*
Agency/Co.	*USAI*	Jurisdiction	*County of San Diego*
Date Performed	*06/15/2006*	Analysis Year	*2006*
Analysis Time Period	*2 E+P AM*		
Project Description	*Montecito Ranch*		
East/West Street:	*Olive Street*	North/South Street:	*Pine Street (SR-78)*
Intersection Orientation:	*North-South*	Study Period (hrs):	*0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	5	630	2	25	520	8
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	5	700	2	27	577	8
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	1	1	0	1	1	0
Configuration	L		TR	L		TR
Upstream Signal		0			0	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	3	1	20	10	1	7
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	3	1	22	11	1	7
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L	L		LTR			LTR	
v (vph)	5	27		26			19	
C (m) (vph)	973	881		303			155	
v/c	0.01	0.03		0.09			0.12	
95% queue length	0.02	0.09		0.28			0.41	
Control Delay	8.7	9.2		18.0			31.4	
LOS	A	A		C			D	
Approach Delay	--	--	18.0			31.4		
Approach LOS	--	--	C			D		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*Justin Schlaefli*	Intersection	*Olive St. / Pine St. (SR-78)*
Agency/Co.	*USAI*	Jurisdiction	*County of San Diego*
Date Performed	*06/15/2006*	Analysis Year	*2006*
Analysis Time Period	*2 E+P PM*		
Project Description	*Montecito Ranch*		
East/West Street:	*Olive Street*	North/South Street:	*Pine Street (SR-78)*
Intersection Orientation:	*North-South*	Study Period (hrs):	*0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	9	545	6	16	680	12
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	10	605	6	17	755	13
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	1	1	0	1	1	0
Configuration	L		TR	L		TR
Upstream Signal		0			0	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	3	1	26	13	1	6
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	3	1	28	14	1	6
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L	L		LTR			LTR	
v (vph)	10	17		32			21	
C (m) (vph)	832	952		331			123	
v/c	0.01	0.02		0.10			0.17	
95% queue length	0.04	0.05		0.32			0.59	
Control Delay	9.4	8.9		17.0			40.2	
LOS	A	A		C			E	
Approach Delay	--	--	17.0			40.2		
Approach LOS	--	--	C			E		

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SHORT REPORT

General Information		Site Information	
Analyst	Justin Schlaefli	Intersection	Main St. / Pine St/ 10th St.
Agency or Co.	Urban Systems	Area Type	All other areas
Date Performed	06/15/2006	Jurisdiction	County of San Diego
Time Period	3 E+P AM	Analysis Year	2006

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	1	2	0	1	1	1	0	1	0
Lane group	L	TR		L	TR		L	T	R		LTR	
Volume (vph)	205	462	64	65	588	79	151	194	67	82	131	234
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0	2.0		2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0	2.0		2.0	
Arrival type	3	3		3	3		3	3	3		3	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0		3.0	
Ped/Bike/RTOR Volume	10	0	0	10	0	11	10	0	0	10	0	34
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0		12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0	0		0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0		3.0	

Phasing	Excl. Left	Thru & RT	03	04	NB Only	SB Only	07	08
Timing	G = 10.0	G = 17.0	G =	G =	G = 9.0	G = 20.0	G =	G =
	Y = 4	Y = 4	Y =	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 72.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	228	584		72	729		168	216	74		459	
Lane group cap.	246	820		246	823		221	233	408		476	
v/c ratio	0.93	0.71		0.29	0.89		0.76	0.93	0.18		0.96	
Green ratio	0.14	0.24		0.14	0.24		0.13	0.13	0.26		0.28	
Unif. delay d1	30.6	25.3		27.8	26.6		30.5	31.2	20.5		25.6	
Delay factor k	0.44	0.28		0.11	0.41		0.31	0.44	0.11		0.47	
Increm. delay d2	38.1	2.9		0.7	11.4		14.3	39.5	0.2		32.1	
PF factor	1.000	1.000		1.000	1.000		1.000	1.000	1.000		1.000	
Control delay	68.7	28.2		28.5	38.0		44.7	70.7	20.7		57.8	
Lane group LOS	E	C		C	D		D	E	C		E	
Apprch. delay	39.6			37.1			53.1			57.8		
Approach LOS	D			D			D			E		
Intersec. delay	44.5			Intersection LOS						D		

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SHORT REPORT

General Information		Site Information	
Analyst	*Jacob Swim*	Intersection	*Main St./ Pine St. / 10th St.*
Agency or Co.	*Urban Systems*	Area Type	*All other areas*
Date Performed	*10/5/2007*	Jurisdiction	*County of San Diego*
Time Period	*3 E+P PM*	Analysis Year	*2007*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	1	2	0	1	2	0	1	1	1	0	1	0
Lane Group	L	TR		L	TR		L	T	R		LTR	
Volume (vph)	244	883	132	72	609	95	139	170	107	112	178	307
% Heavy Vehicles	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Pretimed/Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup Lost Time	2.0	2.0		2.0	2.0		2.0	2.0	2.0		2.0	
Extension of Effective Green	2.0	2.0		2.0	2.0		2.0	2.0	2.0		2.0	
Arrival Type	3	3		3	3		3	3	3		3	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0		3.0	
Ped/Bike/RTOR Volume	10	0	20	10	0	10	10	0	16	10	0	45
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0		12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/Hour												
Bus Stops/Hour	0	0		0	0		0	0	0		0	
Minimum Pedestrian Time		3.3			3.3			3.3			3.3	

Phasing	Excl. Left	EB Only	Thru & RT	04	NB Only	SB Only	07	08
Timing	G = 5.0	G = 7.0	G = 20.0	G =	G = 10.0	G = 35.0	G =	G =
	Y = 4	Y = 0	Y = 4	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 93.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	257	1047		76	730		146	179	96		581	
Lane Group Capacity	297	1005		95	749		190	200	165		647	
v/c Ratio	0.87	1.04		0.80	0.97		0.77	0.89	0.58		0.90	
Green Ratio	0.17	0.29		0.05	0.22		0.11	0.11	0.11		0.38	
Uniform Delay d_1	37.5	33.0		43.5	36.2		40.4	41.0	39.5		27.3	
Delay Factor k	0.39	0.50		0.34	0.48		0.32	0.42	0.17		0.42	
Incremental Delay d_2	22.4	39.9		37.0	26.6		17.2	36.3	5.1		15.4	
PF Factor	1.000	1.000		1.000	1.000		1.000	1.000	1.000		1.000	
Control Delay	59.9	72.9		80.5	62.9		57.6	77.3	44.6		42.7	
Lane Group LOS	E	E		F	E		E	E	D		D	
Approach Delay	70.3			64.5			63.0			42.7		
Approach LOS	E			E			E			D		
Intersection Delay	62.7			Intersection LOS						E		

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SHORT REPORT

General Information		Site Information	
Analyst	*Jacob Swim*	Intersection	*Main St. / Montecito Rd.*
Agency or Co.	*Urban Systems*	Area Type	*All other areas*
Date Performed	*11/7/07*	Jurisdiction	*County of San Diego*
Time Period	*4 E+P AM*	Analysis Year	*2007*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	1	2	0	1	2	0	0	1	0	0	1	0
Lane Group	L	TR		L	TR			LTR			LTR	
Volume (vph)	193	661	30	8	903	98	16	6	26	157	11	231
% Heavy Vehicles	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Pretimed/Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup Lost Time	2.0	2.0		2.0	2.0			2.0			2.0	
Extension of Effective Green	2.0	2.0		2.0	2.0			2.0			2.0	
Arrival Type	3	3		3	3			3			3	
Unit Extension	3.0	3.0		3.0	3.0			3.0			3.0	
Ped/Bike/RTOR Volume	10	0	0	10	0	0	10	0	0	10	0	35
Lane Width	12.0	12.0		12.0	12.0			12.0			12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/Hour												
Bus Stops/Hour	0	0		0	0			0			0	
Minimum Pedestrian Time		3.3			3.3			3.3			3.3	

Phasing	Excl. Left	Thru & RT	03	04	NB Only	SB Only	07	08
Timing	G = 10.0	G = 29.0	G =	G =	G = 5.0	G = 23.0	G =	G =
	Y = 4	Y = 4	Y =	Y =	Y = 4	Y = 4	Y =	Y =

Duration of Analysis (hrs) = *0.25* Cycle Length C = *83.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	214	767		9	1112			54			404	
Lane Group Capacity	213	1231		213	1219			100			466	
v/c Ratio	1.00	0.62		0.04	0.91			0.54			0.87	
Green Ratio	0.12	0.35		0.12	0.35			0.06			0.28	
Uniform Delay d_1	36.5	22.5		32.3	25.8			37.9			28.5	
Delay Factor k	0.50	0.21		0.11	0.43			0.14			0.40	
Incremental Delay d_2	62.9	1.0		0.1	10.5			5.8			15.8	
PF Factor	1.000	1.000		1.000	1.000			1.000			1.000	
Control Delay	99.4	23.4		32.3	36.3			43.7			44.3	
Lane Group LOS	F	C		C	D			D			D	
Approach Delay	40.0			36.2			43.7			44.3		
Approach LOS	D			D			D			D		
Intersection Delay	39.1			Intersection LOS						D		

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SHORT REPORT

General Information		Site Information	
Analyst	*Justin Schlaefli*	Intersection	*Main St. / Montecito Rd.*
Agency or Co.	*Urban Systems*	Area Type	*All other areas*
Date Performed	*11/7/07*	Jurisdiction	*County of San Diego*
Time Period	*4 E+P PM*	Analysis Year	*2007*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	1	2	0	1	2	0	0	1	0	0	1	0
Lane Group	L	TR		L	TR			LTR			LTR	
Volume (vph)	278	1080	79	35	896	84	49	36	59	114	31	184
% Heavy Vehicles	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Pretimed/Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup Lost Time	2.0	2.0		2.0	2.0			2.0			2.0	
Extension of Effective Green	2.0	2.0		2.0	2.0			2.0			2.0	
Arrival Type	3	3		3	3			3			3	
Unit Extension	3.0	3.0		3.0	3.0			3.0			3.0	
Ped/Bike/RTOR Volume	10	0	10	10	0	0	10	0	9	10	0	27
Lane Width	12.0	12.0		12.0	12.0			12.0			12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/Hour												
Bus Stops/Hour	0	0		0	0			0			0	
Minimum Pedestrian Time		3.3			3.3			3.3			3.3	

Phasing	Excl. Left	Thru & RT	03	04	NB Only	SB Only	07	08
Timing	G = 16.0	G = 41.0	G =	G =	G = 12.0	G = 19.0	G =	G =
	Y = 4	Y = 4	Y =	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 104.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	309	1277		39	1089			150			335	
Lane Group Capacity	272	1385		272	1379			199			308	
v/c Ratio	1.14	0.92		0.14	0.79			0.75			1.09	
Green Ratio	0.15	0.39		0.15	0.39			0.12			0.18	
Uniform Delay d_1	44.0	30.0		38.1	27.7			44.6			42.5	
Delay Factor k	0.50	0.44		0.11	0.34			0.31			0.50	
Incremental Delay d_2	96.3	10.4		0.2	3.2			15.0			76.7	
PF Factor	1.000	1.000		1.000	1.000			1.000			1.000	
Control Delay	140.3	40.4		38.3	30.9			59.6			119.2	
Lane Group LOS	F	D		D	C			E			F	
Approach Delay	59.9			31.2			59.6			119.2		
Approach LOS	E			C			E			F		
Intersection Delay	55.9			Intersection LOS						E		

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TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*Jacob Swim*
Agency/Co.	*USAI*
Date Performed	*11/07/2007*
Analysis Time Period	*5 E+P AM*

Site Information

Intersection	*Montecito Rd. / Montecito Way*
Jurisdiction	*County of San Diego*
Analysis Year	*2007*

Project Description *Montecito Ranch*

East/West Street: *Montecito Road* | North/South Street: *Montecito Way*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	2	14			35	114
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR (veh/h)	2	15	0	0	38	126
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LT					TR
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				156		1
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR (veh/h)	0	0	0	173	0	1
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	0	0	0	0	0
Configuration					LR	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT						LR	
v (veh/h)	2						174	
C (m) (veh/h)	1391						838	
v/c	0.00						0.21	
95% queue length	0.00						0.78	
Control Delay (s/veh)	7.6						10.4	
LOS	A						B	
Approach Delay (s/veh)	--	--				10.4		
Approach LOS	--	--				B		

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TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*Jacob Swim*
Agency/Co.	*USAI*
Date Performed	*11/07/2007*
Analysis Time Period	*5 E+P PM*

Site Information

Intersection	*Montecito Rd. / Montecito Way*
Jurisdiction	*County of San Diego*
Analysis Year	*2007*

Project Description *Montecito Ranch*

East/West Street: *Montecito Road* | North/South Street: *Montecito Way*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	2	43			15	183
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR (veh/h)	2	47	0	0	16	203
Percent Heavy Vehicles	2	–	–	2	–	–
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LT					TR
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				101		1
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR (veh/h)	0	0	0	112	0	1
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	0	0	0	0	0
Configuration					LR	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT						LR	
v (veh/h)	2						113	
C (m) (veh/h)	1328						787	
v/c	0.00						0.14	
95% queue length	0.00						0.50	
Control Delay (s/veh)	7.7						10.3	
LOS	A						B	
Approach Delay (s/veh)	–	–				10.3		
Approach LOS	–	–				B		

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SHORT REPORT

General Information		Site Information	
Analyst	*Justin Schlaefli*	Intersection	*Highland Valley Rd. / SR-67*
Agency or Co.	*Urban Systems*	Area Type	*All other areas*
Date Performed	*06/15/2006*	Jurisdiction	*County of San Diego*
Time Period	*6 E+P AM*	Analysis Year	*2006*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	1	1	0	1	1	0	1	1	1	1	1	1
Lane Group	L	TR		L	TR		L	T	R	L	T	R
Volume (vph)	83	8	7	420	33	30	2	518	65	30	1118	115
% Heavy Vehicles	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Pretimed/Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup Lost Time	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Arrival Type	3	3		3	3		3	3	3	3	3	3
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	0	0	0	10	0	0	10	0	0	10	0	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/Hour												
Bus Stops/Hour	0	0		0	0		0	0	0	0	0	0
Minimum Pedestrian Time		3.2			3.3			3.3			3.3	

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 13.0	G = 8.0	G =	G =	G = 7.0	G = 50.0	G =	G =
	Y = 4	Y = 4	Y =	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 94.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	87	15		442	67		2	545	68	32	1177	121
Lane Group Capacity	245	147		245	143		132	991	835	132	991	835
v/c Ratio	0.36	0.10		1.80	0.47		0.02	0.55	0.08	0.24	1.19	0.14
Green Ratio	0.14	0.09		0.14	0.09		0.07	0.53	0.53	0.07	0.53	0.53
Uniform Delay d_1	36.7	39.7		40.5	41.0		40.3	14.6	10.8	41.0	22.0	11.2
Delay Factor k	0.11	0.11		0.50	0.11		0.11	0.15	0.11	0.11	0.50	0.11
Incremental Delay d_2	0.9	0.3		377.6	2.4		0.0	0.7	0.0	1.0	94.7	0.1
PF Factor	1.000	1.000		1.000	1.000		1.000	1.000	1.000	1.000	1.000	1.000
Control Delay	37.6	40.0		418.1	43.4		40.4	15.2	10.8	42.0	116.7	11.2
Lane Group LOS	D	D		F	D		D	B	B	D	F	B
Approach Delay	37.9			368.8			14.8			105.3		
Approach LOS	D			F			B			F		
Intersection Delay	133.3			Intersection LOS						F		

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SHORT REPORT

General Information		Site Information	
Analyst	*Justin Schlaefli*	Intersection	*Highland Valley Rd. / SR-67*
Agency or Co.	*Urban Systems*	Area Type	*All other areas*
Date Performed	*06/15/2006*	Jurisdiction	*County of San Diego*
Time Period	*6 E+P PM*	Analysis Year	*2006*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	1	1	0	1	1	0	1	1	1	1	1	1
Lane Group	L	TR		L	TR		L	T	R	L	T	R
Volume (vph)	176	53	10	60	10	33	4	858	196	48	592	43
% Heavy Vehicles	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Pretimed/Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup Lost Time	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Arrival Type	3	3		3	3		3	3	3	3	3	3
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	0	0	0	10	0	0	10	0	0	10	0	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/Hour												
Bus Stops/Hour	0	0		0	0		0	0	0	0	0	0
Minimum Pedestrian Time		3.2			3.3			3.3			3.3	

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 13.0	G = 5.0	G =	G =	G = 5.0	G = 66.0	G =	G =
	Y = 4	Y = 4	Y =	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 105.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	185	67		63	46		4	903	206	51	623	45
Lane Group Capacity	219	87		219	79		84	1171	995	84	1171	995
v/c Ratio	0.84	0.77		0.29	0.58		0.05	0.77	0.21	0.61	0.53	0.05
Green Ratio	0.12	0.05		0.12	0.05		0.05	0.63	0.63	0.05	0.63	0.63
Uniform Delay d_1	45.0	49.4		41.8	49.0		47.7	14.1	8.3	49.0	10.9	7.5
Delay Factor k	0.38	0.32		0.11	0.17		0.11	0.32	0.11	0.19	0.13	0.11
Incremental Delay d_2	25.0	33.6		0.7	10.5		0.2	3.2	0.1	12.0	0.5	0.0
PF Factor	1.000	1.000		1.000	1.000		1.000	1.000	1.000	1.000	1.000	1.000
Control Delay	70.0	83.0		42.5	59.5		48.0	17.3	8.4	61.0	11.4	7.5
Lane Group LOS	E	F		D	E		D	B	A	E	B	A
Approach Delay	73.4			49.7			15.8			14.6		
Approach LOS	E			D			B			B		
Intersection Delay	23.7			Intersection LOS						C		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	Justin Schlaefli	Intersection	Archie Moore Rd. / SR-67
Agency/Co.	Urban Systems	Jurisdiction	County of San Diego
Date Performed	10/05/2007	Analysis Year	2006
Analysis Time Period	7 E+P AM		

Project Description 5703 Montecito Ranch

East/West Street: Archie Moore Rd. | North/South Street: SR-67

Intersection Orientation: North-South | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	78	410			1407	40
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR (veh/h)	78	410	0	0	1407	40
Percent Heavy Vehicles	2	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	1	2	0	0	1	1
Configuration	L	T			T	R
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	24		144			
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR (veh/h)	24	0	144	0	0	0
Percent Heavy Vehicles	2	0	2	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	1	0	1	0	0	0
Configuration	L		R			

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L					L		R
v (veh/h)	78					24		144
C (m) (veh/h)	464					62		129
v/c	0.17					0.39		1.12
95% queue length	0.60					1.45		8.35
Control Delay (s/veh)	14.3					95.8		180.3
LOS	B					F		F
Approach Delay (s/veh)	--	--				168.3		
Approach LOS	--	--				F		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*Justin Schlaefli*	Intersection	*Archie Moore Rd. / SR-67*
Agency/Co.	*Urban Systems*	Jurisdiction	*County of San Diego*
Date Performed	*10/05/2007*	Analysis Year	*2006*
Analysis Time Period			

Project Description *5703 Montecito Ranch*

East/West Street: *Archie Moore Rd.* North/South Street: *SR-67*

Intersection Orientation: *North-South* Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*196*	*1323*			*549*	*33*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*196*	*1323*	*0*	*0*	*549*	*33*
Percent Heavy Vehicles	*2*	–	–	*0*	–	–
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*1*	*2*	*0*	*0*	*1*	*1*
Configuration	*L*	*T*			*T*	*R*
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*37*		*59*			
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*37*	*0*	*59*	*0*	*0*	*0*
Percent Heavy Vehicles	*2*	*0*	*2*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*1*	*0*	*1*	*0*	*0*	*0*
Configuration	*L*		*R*			

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*					*L*		*R*
v (veh/h)	*196*					*37*		*59*
C (m) (veh/h)	*988*					*77*		*480*
v/c	*0.20*					*0.48*		*0.12*
95% queue length	*0.74*					*1.99*		*0.42*
Control Delay (s/veh)	*9.5*					*89.0*		*13.5*
LOS	*A*					*F*		*B*
Approach Delay (s/veh)	–	–				*42.6*		
Approach LOS	–	–				*E*		

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APPENDIX F

Summary of Other Projects Used for Analysis

APPENDIX F

SUMMARY OF OTHER PROJECTS

F-1 INTRODUCTION/PARTICIPANTS/METHODOLOGY

F-2 MAJOR USE PERMITS (MUP'S)

F-3 SITE PLAN REVIEW (STP'S)

F-4 TENTATIVE MAPS (TM'S)

F-5 TENTATIVE PARCEL MAPS (TPM'S)

F-6 COMBINED OTHER PROJECTS

APPENDIX F-1

INTRODUCTION/PARTICIPANTS/METHODOLOGY

F-1-A INTRODUCTION

To complete this analysis, Regional CMP Traffic Study Guidelines require the identification of other projects that may affect traffic conditions in the near term. Small individual projects may not by themselves result in a significant impact. However, on a cumulative basis, these individual projects may have a significant impact, particularly on SR-78 (Pine Street) and SR-67 (Main Street) in the central area of Ramona.

To quantify the cumulative effect of "other projects", a three step process was followed. First, a database review was conducted by county staff to identify possible significant other projects. Second, a series of meetings and discussions with traffic consultants doing projects in the vicinity of Ramona was completed. Third, a composite database was developed for review by county public works and planning staff. These efforts resulted in a composite estimate of cumulative "other projects" traffic for the Ramona area. See D-7.

F-1-B PARTICIPANTS

As described in the preceding section of this appendix, all traffic engineering consultants that typically work in the San Diego area were contacted to determine if they had projects or previously worked on projects in the Ramona area. The following consultants provided information for this overall effort to quantify traffic impacts due to other projects.

	NAME	COMPANY	PHONE
1.	Jim Federhart	Federhart Associates	(619) 226-0625
2.	Tom Graves	Graves Engineering	(858) 565-9512
3.	Chris Mendiara	Linscott Law & Greenspan	(619) 299-3090
4.	Lisa Carr	Linscott Law & Greenspan	(619) 299-3090
5.	Rick Crafts	RCE Traffic Engineering	(619) 589-9151
6.	Andy Schlaefli	Urban Systems Associates, Inc.	(858) 560-4911

F-1-C METHODOLOGY

Table A shows the results from county staff database review. As shown on the table, forty-nine (49) projects; six (6) MUP's, two (2) STP's, twenty-one (21) TM's and twenty (20) TPM's were identified as potential other projects. Traffic consultants then collectively reviewed the list to determine project location, traffic generation and distribution characteristics, which projects may have already been completed or partially built that there was no new traffic generation potential and no double counting of traffic impacts. Also, the traffic consultants grouped projects by geographic area and developed either specific or composite traffic distribution patterns for the other projects. This effort resulted in a consolidated other projects traffic estimate for both SR-78 and SR-67. Also during this process, additional projects were identified. A total of sixty (60) projects are accounted for in this analysis. This information was then provided to and reviewed with county planning and public works staff.

Following county staff review and validation, the resulting other projects traffic estimates were produced and subsequently used for project traffic studies. The other projects daily and peak hour traffic estimates are summarized in Section D-7 of this appendix. These results were then used for subsequent cumulative impacts studies for all projects in the Ramona area.

LIST OF PROJECTS IN RAMONA WITH TRAFFICE RELATED IMPACTS
as of September 17, 2004

Project #	Project Name	Acreage	Aplication Status	Number of Lots/Units or Square Foolage	Description	Parcel #	Community Plan
MUP 70-379 W2	Salvation Army Camp	562	Active	N/A	summer camp and retreat center	322-030-02,10, and 322-060-01, 08	Ramona
MUP 78-121-06	Grace Community Church	Not Listed	Active	N/A	Add parking lot, driveway, shade strucutre, add to church new classrooms (modular)	284-310-01	Ramona
MUP 89-019	Ramona Mobile Oil-Car Wash	1.2	Approved 4/24/2003	N/A	change car wash-add pumps	282-222-13, 14, 15, 16	Ramona
MUP 96-017	Ramona Disposal Service	Not Listed	Active	N/A	Ramona Disposal Service / Transfer Station increase in capacity to 700 tons per day	281-121-21	Ramona
MUP 00-004	Kevin O'Conner 535 Haverford Rd.	4.74	Approved 9/1/2000	N/A	mup for boyne valley ranch for group care	279-180-25	Ramona
MUP 00-031	Winterview-3rd Replacement	Not Listed	Approved 4/5/2002	36 lots	Landscape Plan - TM 5224	288-250-25	Ramona
MUP 02-005	Rancho Canada Bed and Breakfast	5	Active	N/A	BED & BREAKFAST (Monte Vista Ranch) in Ramona	328-010-02, 328-020-08, 09, 328-021-01, portion of 328-070-01	Ramona
MUP 03-035	Mountain Valley Ranch	portion of 25.48	Active	1	Equestrian Center on SR 78 in Ramona	portion of 281-484-43	Ramona
MUP 03-086	Hellman Changing Options Group Care	0.92	Approved 2/20/2004	N/A	group care	281-460-21	Ramona
MUP 03-094	Nielsen MUP	1.74	Active	N/A	MUP for auto yard	281-121-26	Ramona
STP 85-003	Canyon Crest Apts.	9.63	Active	N/A	Converting Existing and Adding Senior Apartment Housing	281-160-23	Ramona
STP 00-013	SSA Enterprises	0.62	Approved 10/9/2001	12 units	12 Unit Apartment Complex (see CG 4279)	281-342-01	Ramona
STP 00-100 MUP 71-396W2	Ramona Airport Expansion				500 ADT		Ramona
STP 01-004	Alamo Mini Storage- Easement Vacations (No New Trips)	4.78	Approved 9/9/2002	N/A	B, "D", "S", site plan	281-130-03	Ramona
STP 01-022	Olympic Public Storage	4.02	Approved 9/4/2003	2	Improvement plans for UY 4422	281-182-03, 04	Ramona
STP 01-030	Daniel Vengler	0.72	Approved 2/14/2003	3882 sq.ft.	union bank building 3882 sf (see CG 4521)	282-262-17	Ramona
STP 01-074	Burch Business Church	9.13	Approved 2/21/2003	34,500 sq.ft	34,500 office,operations and storage space for construction and light manufacturing	281-122-25	Ramona
STP 01-083	Express Car Wish Site Plan	2	Approved 11/25/2002	N/A	STP for Car Wash	281-262-16	Ramona
STP 02-040	Barron STP	Not Listed	Active	5	ramona D5 and B for auto body shop	281-351-04, 05, 06, 07, 08	Ramona
STP 02-064	Souza Site Plan- One Stop Rental Site Plan (trips accounted for under TM)	4.21	Active	N/A	B & D site plan for industrial park in Ramona	281-122-21, 22	Ramona
STP 02-077	Ramona Library	6.79	Approved 12/22/2003	N/A	county library	281-191-04, 05, 06, and 281-182-06, 12, 13	Ramona
STP 03-044	Big Apple Bagles	0.4	Active	N/A	retail center	282-141-56	Ramona
STP 03-077	The Meurs Building	Not Listed	Approved 3/22/2004	N/A	B Site Plan for Comm. Bldg.	281-402-05	Ramona
STP 03-079	Olive St Self Storage	4.49	Active	N/A	Site plan B and S for self storage on Olive Street in Ramona	281-065-19	Ramona
STP 03-081	Ramona Automotive	1	Active	N/A	auto repair / fully enclosed	282-211-04	Ramona
STP 04-048	Ramona Fitness	Not Listed	Active	N/A	Ramona fitness center	281-352-13	Ramona
TM 4844	Black Canyon	60.34	Active	45 lots	Habitat Loss Permit - Replaces HLP 01-013	244-120-40 th 47, 279-131-26, 28, 29, 244-140-01 thru 19, 244-141-01 thru 12, 244-142-01 th 14	Ramona
TM 4862	Luelf Ranch in Ramona Dye Road	393	Active	98 lots	98 lots on 393 acres also includes a	Not listed	Ramona

Updated by DPLU Staff,
September 17, 2004

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EIGHTY PROJECTS

1/3

LIST OF PROJECTS IN RAMONA WITH TRAFFICE RELATED IMPACTS
as of September 17, 2004

TM 4962	M.D.S.DEV.CORP./DECA	75.82	Active	30 lots	RAMONA replacement RP5 relocation of rd and open space easement to be vacated	279-121-45	Ramona
TM 5008	Ramona Ridge Estates	219	Active	25 lots	25 LOT SUBDIVISION	286-041-04	Ramona
TM 5136	Welsh TM	14.8	Approved 8/28/1998	12 lots	add bldg pads	282-342-16, 17, 19	Ramona
TM 5188	Brisson	3.75	Approved 2/20/2003	15 lots	15 Lots	284-202-09, 10	Ramona
TM 5194	TEYSSIER TM	289	Active	37 lots	37 LOT SUBDIVISION	279-030-02, 06, 07, 08, 10, 11, 279-010-09, 19	Ramona
TM 5198	A NATURAL HIGH INC	147.68	Active	38 lots	Replacement Map	277-111-09, 277-121-05, 08	Ramona
TM 5235	Monte Vista Oaks	40,425.70	Active	670 lots	Res. subdivision with a guest lodge, etc.	328-070-31, 03, 020-021-01, 328-020-08, 09, 328-090-01, 328-010-02, 327-130-02, 329-030-02, 328-100-01, 328-050-01, 327-030-03	Ramona
TM 5244	Stonecrest Development Inc.	69.57	Approved 2/5/04	14 lots	14 lot tm no prior er #	279-093-41	Ramona
TM 5250	MONTECITO RANCH	935	Active	417 lots	417 sfd on 935 ac with historical park and school	Not listed	Ramona
TM 5253	Oak Country Estates	768	Active	57 lots	formerly highland valley estates	382-011-03 thru 06, 379-192-15, 379-010-08, 33	Ramona
TM 5254	Development Venture/ Rainbird Rd	327	Active	67 lots	replace TM withdraw vesting request(STP)	288-090-15, 331-031-08	Ramona
TM 5257	Sunset Vista	9.57	Active	7 lots	7 lot major subdivision	284-032-17	Ramona
TM 5267	ROBERTS TM	48.26	Active (replaced)	8 lots	8 LOT SUB.	278-091-70, 72	Ramona
TM 5294	SPITSBERGER SUBDIVISION	137.53	Active	21 lots	ER review for SPA 03-004	327-031-02	Ramona
TM 5302	ELLIOT TM	21.6	Active	77 lots	TM FOR 77 LOTS assigned under REZ 04-02	282-261-62, 282-370-01, 02, 19, 20	Ramona
TM 5307	LAKESIDE VENTURES TM	202	Active	8 lots	8 lot subdivision	388-202-25, 26	Ramona
TM 5311	Meadow Builders	8.27	Active	12 lots	12 lot tm	284-320-79	Ramona
TM 5329	Mt. Woodson, The Gallery	84.15	Active	22 lots	single-family residence	Not listed	Ramona
TM 5344	805 PROPERTIES PAA/ Cumming Ranch	682.02	Active	136 lots	PAA TO CHANGE FROM .25 TO 1AC ZONING.	282-010-30, 43, 282-021-01, 02, 282-022-01, 282-041-09	Ramona
TM 5347	Nickel Creek	10.1	Active	45 units	Replacement map for 45 Condominiums on 4 lots	281-100-29, 34	Ramona
TM 5368	Maple Street Business Park Condos	2.87	Active	16 lots	Tentative Map 16 lot split	281-121-13, 23	Ramona
TM 5378	ESTATES AT MCDONALD PARK TM	12.77	Active	11 lots	ESTATES AT MCDONALD PARK TM	282-341-02, 17	Ramona
TPM 19982 TE	Koury- Old Julian Highway	17.03	Approved 10/9/2002	4 lots	Ramona off of Julian hwy	281-490-41	Ramona
TPM 20299 RPL	Fenton Ranch (TM 4979) Bandy Canyon	302	Approved 6/23/1999	N/A	16251 Bandy Canyon Rd between Ysabel Creek Rd and Hwy 78	276-040-02, 04, 06	Ramona
TPM 20316	Brinkler- Airmail Lane	8.87	Approved 10/20/2003	2 lots	2 Parcel minor subdivision on Garjan Lane	278-351-09	Ramona
TPM 20370	Lynn Thomas	8.53	Approved 10/22/1998	2 lots	2 LOT MINOR SUBDIVISION	277-111-37	Ramona
TPM 20401	RCDK Reality II	45.22	Approved 3/3/2000	4 lots	4 LOT SUBDIVISION	283-055-24	Ramona
TPM 20402	Lee	8.32	Approved 1/28/1999	2 lots	2 LOT MINOR SUBDIVISION	277-111-38	Ramona
TPM 20466	Sgobassi	19.82	Approved 9/22/2003	2 lots	SGOBASSI TPM	276-023-15	Ramona
TPM 20496	Quisenberry	17.1	Approved 10/4/2000	4 lots	4 lot minor subdivision	283-055-58	Ramona
TPM 20499 RPL2	Bagley/ Quisenberry- Caryn Ct.	37.46	Approved 8/22/2001	4 lots	Not Listed	279-092-02	Ramona
TPM 20564 RPL3	Mc Candlers- Pahl's Way	41.1	Active	5 lots	4 LOTS PLUS DES. REMAINDER PARCEL	279-151-11, 15	Ramona
TPM 20598	Dahl	3.52	Approved 2/26/2003	4 lots	4+	281-030-52	Ramona
TPM 20616	BORYSEWICZ, EDWARD	67.1	Approved 2/3/2003	4 lots	TPM 4 PARCELS AND REMAINDER , APN 327-011-36	327-011-36	Ramona

Updated by DPLU Staff. 34

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LIST OF PROJECTS IN RAMONA WITH TRAFFICE RELATED IMPACTS

as of September 17, 2004

TPM 20650	Huber TPM	12.88	Approved 8/12/2003	3 lots	3 PARCEL LOT SPLIT	283-061-32	Ramona
TPM 20656	Humphus- Barnell Road	2.53	Active	4 lots	Not Listed	284-310-17	Ramona
TPM 20665	Bush TPM	1.02	Approved 10/20/2003	4 lots	4 lot subdivision	284-173-31	Ramona
TPM 20679 RPL	Herold- Hillcrest Lane	4.68	Active	4 lots	4 lots	284-270-06	Ramona
TPM 20692	Means- Salida Del Sol	38.07	Active	3 lots	3 lots over 10ac in GP category 20	277-100-53	Ramona
TPM 20703 RPL	Herold- Ashley Lane	2.5	Active	4 lots	4 lots	284-031-01	Ramona
TPM 20724	Quisenberry	1.26	Active	4 lots	4 lots replacement map	282-273-23	Ramona
TPM 20747	KVAAS- Rainbird Road	60	Active	5 lots	TPM to create 4 lots plus a remainder	331-040-21, 22	Ramona
TPM 20749	Saffian- Lilac Road	20	Active	4 lots	TPM to create four lots	244-100-13	Ramona
TPM 20760	Ledesma- Ledesma Lane	2.53	Active	4 lots	4 lot minor subdivision	282-320-08	Ramona
TPM 20766 RPL	Wakeman- Old Julian Road	21.41	Active	5 lots	4 lots plus remainder	284-070-83, 84	Ramona
TPM 20769	Thompson- Haverford Road	11.97	Active	2 lots	2 lots	279-180-12	Ramona
TPM 20770	Taylor- Hwy 67	34.67	Active	5 lots	4 lots and remainder	278-411-09	Ramona
TPM 20771 RPL	718 Tenth Street	1.01	Active	4 lots	Not Listed	284-173-32	Ramona
TPM 20792	McDonald- Hanson Way	11.32	Active	5 lots	4+remainder	282-341-17	Ramona
TPM 20801	Herman- El Paso Street	10.11	Active	4 lots	TPM for 4 lots	281-522-15	Ramona
TPM 20808	Young- Sixteenth Street	1.77	Active	5 lots	4 plus remainder	282-273-07	Ramona
TPM 20809	Bates- Bandy Canyon/ Highland Valley	30.33	Active	5 lots	Not Listed	276-023-08	Ramona

The projects listed above represent County projects that were either approved or active within the Ramona Coummunity Planning boundaries as of September 17, 2004. This list only includes projects that were included in the Urban Systems Associates Report, dated July 26, 2004 and historical data ending in September 17, 2004 in County databases including LDMS, KIVA and the GIS Discretionary Project Layer. The number of lots and square footage has not been verified with active case files.

Updated by DPLU Staff,
September 17, 2004

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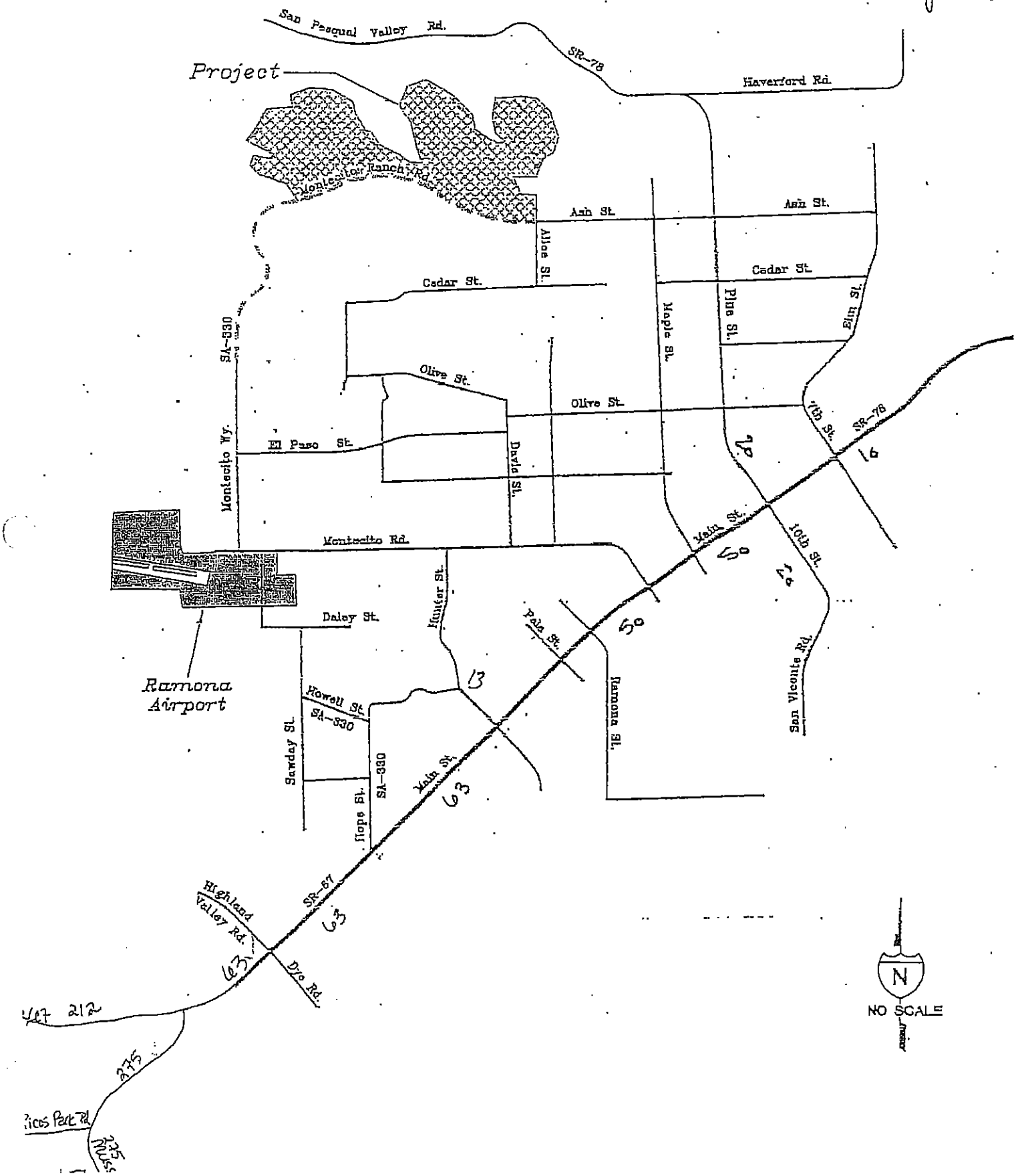
APPENDIX F-2

MAJOR USE PERMITS (MUP'S)

Th following Major Use Permits have been incorporated into this analysis.

1.	70-379	Salvation Army Camp
2.	96-017	Ramona Disposal Service
3.	02-005	Rancho Canada Bed and Breakfast
4.	03-035	Mountain Valley Ranch

MUP-70-379 W2.
Salvation Army Camp



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Subject RAMONA CUMULATIVE Page# ___ of ___

Job# Salvation Army Camp Job Name MUP 70-379 W2

Prepared by ___ Date ___

Highland Valley Rd SR67 — 10/3 1/1 — Dye Rd	Hope St. (SA-330) SR67 — 10/3 — Main St 1/1 —	Hunter St. Main St. — 8/2 1/1 —
Pala St. Main St. — 8/2 1/1 —	Ramona St. Main St. — 8/2 1/1 —	Montecito Rd. Main St. — 8/2 1/1 —
Maple St. Main St. — 8/2 1/1 —	Pine St. Main St. — 8/2 1/1 —	7th St. Main St.

MUP 70-379 W2

TRAFFIC IMPACT ANALYSIS
SALVATION ARMY
SIERRA DEL MAR DIVISIONAL CAMP
RAMONA, CALIFORNIA

Prepared by:

LINSCOTT LAW & GREENSPAN
ENGINEERS

1565 Hotel Circle South, Suite 310
San Diego, CA 92108
(619) 299-3090

October 15, 2002
Revised February 27, 2003
Revised June 18, 2003
JPK/JB/lc
3-99-0865

LINSCOTT LAW & GREENSPAN
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TRAFFIC IMPACT ANALYSIS
SALVATION ARMY
SIERRA DEL MAR DIVISIONAL CAMP
RAMONA, CALFORNIA

INTRODUCTION

The following traffic study has been prepared to determine and evaluate the traffic impacts on the local circulation system due to the expansion of the existing Salvation Army Sierra Del Mar Divisional Camp. The site is located on the west side of Mussey Grade Road approximately 1.5 miles south of SR 67. Direct access to the site is via the existing unimproved road to the main facility. Figure 1 shows the general vicinity of the project. Figure 2 shows a more detailed project area map. A conceptual site plan sketch has been developed as shown on Figure 3.

Included in this traffic analysis is:

- Project Description;
- Existing conditions assessment;
- Project traffic generation/distribution/assignment;
- Intersection and street segment capacity analysis;
- Special event traffic;
- Parking;
- On-site circulation/access, and;
- Conclusions/Recommendations

PROJECT DESCRIPTION

The existing Sierra Del Mar Divisional Camp is proposed to be expanded in several phases. Currently, the camp is used year-round, with a weekly summer camp during the summer months, and retreat center for the balance of the year.

SUMMER (ON-SEASON)

The current typical summer camp population is approximately 115 youth campers and 50 staff. Generally, the campers arrive on Monday afternoons between 2:00 and 4:00 PM in passenger vans holding 15 campers each. The campers then leave on Saturday mornings between 9:00 and 10:00 AM. Staff arrives on Mondays and departs on Saturdays, at different times than the campers. One-half of the staff generally remains on-site for the duration of the summer. These characteristics are expected to continue into the future.

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RETREAT (OFF-SEASON)

The current typical retreat population of the camp is approximately 90 people, including 5 staff members. Generally, retreat groups arrive on Friday evenings, with a maximum of one-half arriving during the PM peak period (between 4 and 6 PM), and one-half arriving later. The groups typically leave on Sundays around midday.
For the purpose of this analysis, a maximum future retreat capacity of 175 persons was assumed for buildout of the project.

The average future summer camp population would be 573 guests (523 campers/50 staff), but the site could have 748 guests total when the retreat facility is rented or used for Salvation Army functions concurrently with the summer camp.

The existing Salvation Army Divisional Camp and Retreat operates year-round, with operations generally divided into two seasons: 1) Camp (summer), which includes youth camping for eight weeks during mid-June to mid-August; and 2) Retreat, which includes Salvation Army group retreats and private rentals for the balance of the year. The current typical summer population is approximately 165 people (115 youth campers and 50 staff). The campers stay for one week, and generally arrive on Monday afternoons (between 2:00 and 4:00 p.m.) in passenger vans and buses and depart on Saturday morning (between 9:00 and 10:00 a.m.). Camp staff generally arrives on Monday MORNINGS and departs on SATURDAY AFTERNOONS, with one-half remaining for the duration of the season. The typical retreat population is approximately 90 people, including five staff members. The retreat groups generally arrive on Friday evenings, with half arriving during the evening and the remaining half arriving later. These groups leave on Sundays around midday. Most retreat visitors arrive by van or carpool.

EXISTING STREET SYSTEM

According to the County of San Diego Public Road Standards, Prime Arterials should be 102 feet wide in 122 feet of Right-of-Way (R/W), providing six thru lanes, a raised median and curbside parking. Major Roads should be 78 feet wide in 98 feet of R/W, providing four thru lanes, a raised median and curbside parking. Collectors should be 64 feet wide in 84 feet of R/W providing four thru lanes with curbside parking or four thru lanes with a left-turn lane. Light Collectors should be 40 feet wide in 60 feet of R/W, providing two thru lanes with a left-turn lane. Bike lanes add 10 feet to both the road width and the R/W. The following is a description of the roadways in the project area. Figure 4 shows an existing conditions diagram.

State Route (SR) 67 is generally a two lane undivided highway in the project area with a posted speed of 55 mph. In the project area, SR 67 is unsignalized at Mussey Grade Road, and signalized at Dye Road/Highland Valley Road.

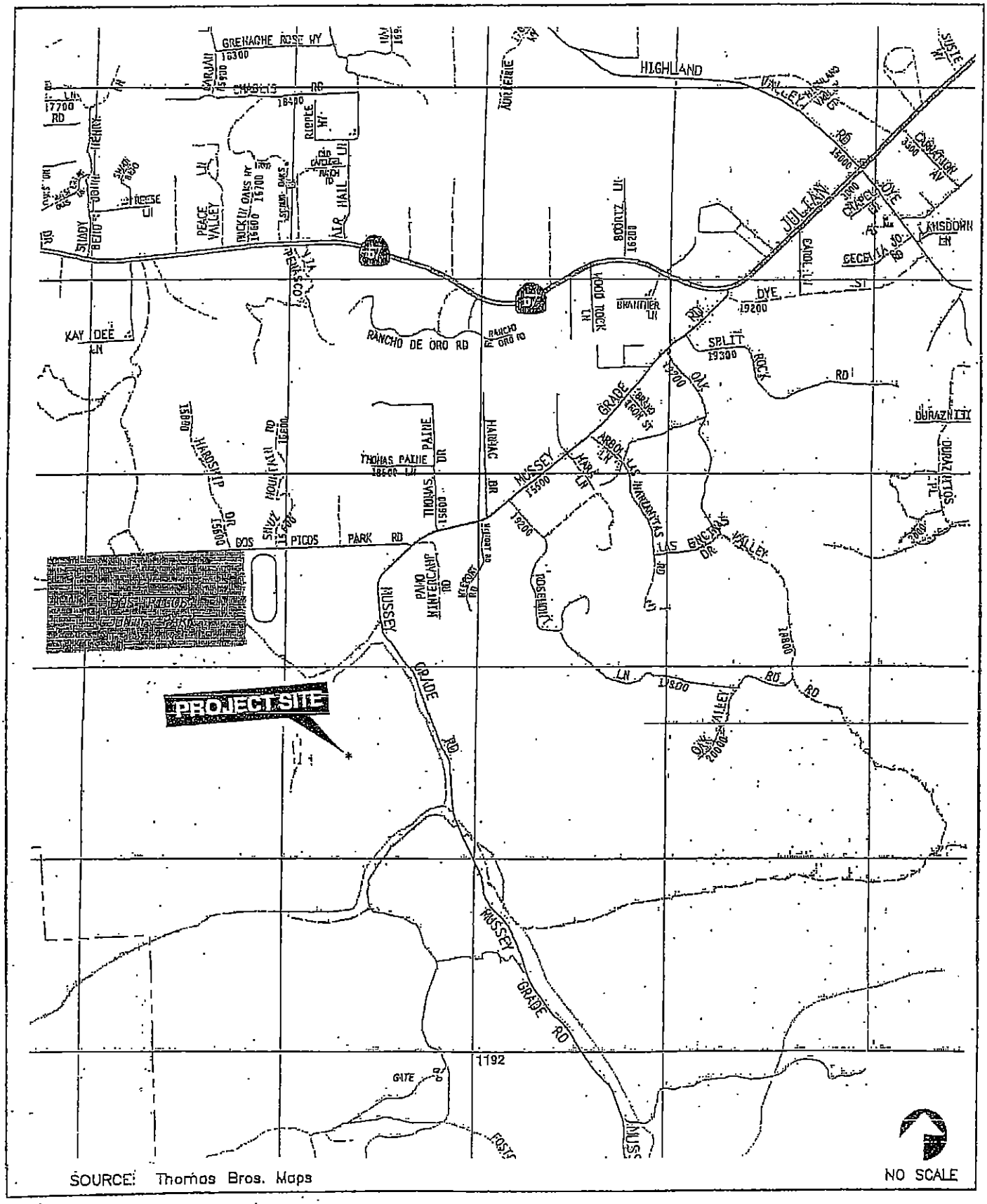

Figure 2

PROJECT AREA MAP

TABLE 2

WEEKDAY PROJECT TRAFFIC GENERATION

	AMOUNT	VOR[1]	INBOUND TRIPS	ADT[2]	AM PEAK[5] HOUR TRIPS		PM PEAK[5] HOUR TRIPS	
					IN	OUT	IN	OUT
Campers	523	15	35	70	0	0	0	0
Retreat Center Guests	175	2.33[4]	80	160	0	0	20	0
Staff	25[3]	2	12	25	10	0	0	0
Miscellaneous/Deliveries	10	1	10	20	1	1	1	1
TOTAL				275	11	1	21	1

Notes:

1. Vehicle Occupancy Rate = number of passengers per vehicle.
2. ADT = Average Daily Traffic.
3. Total staff is 50, about half of which arrive/depart weekly.
4. Retreat users are as follows: 40% Vanpool (15/van), 40% carpool (2/car) and 20% drive alone (1/car). This equals 175 guests arriving in 75 vehicles, which averages to 2.33 guests per vehicle. Ultimately, 50% of the total users arrive between 4 and 6 PM, or 25% during the peak hour. Thus, 20 of 80 (25%) of the inbound trips occur during the peak hour, one day a week.
5. The peak hour trip factors are based on the project description on pages 1 and 5 of this report. The arrival of carpools and retreat guests does not occur between 7 and 9 in the morning, and therefore, the AM peak hour trip estimates are zero.

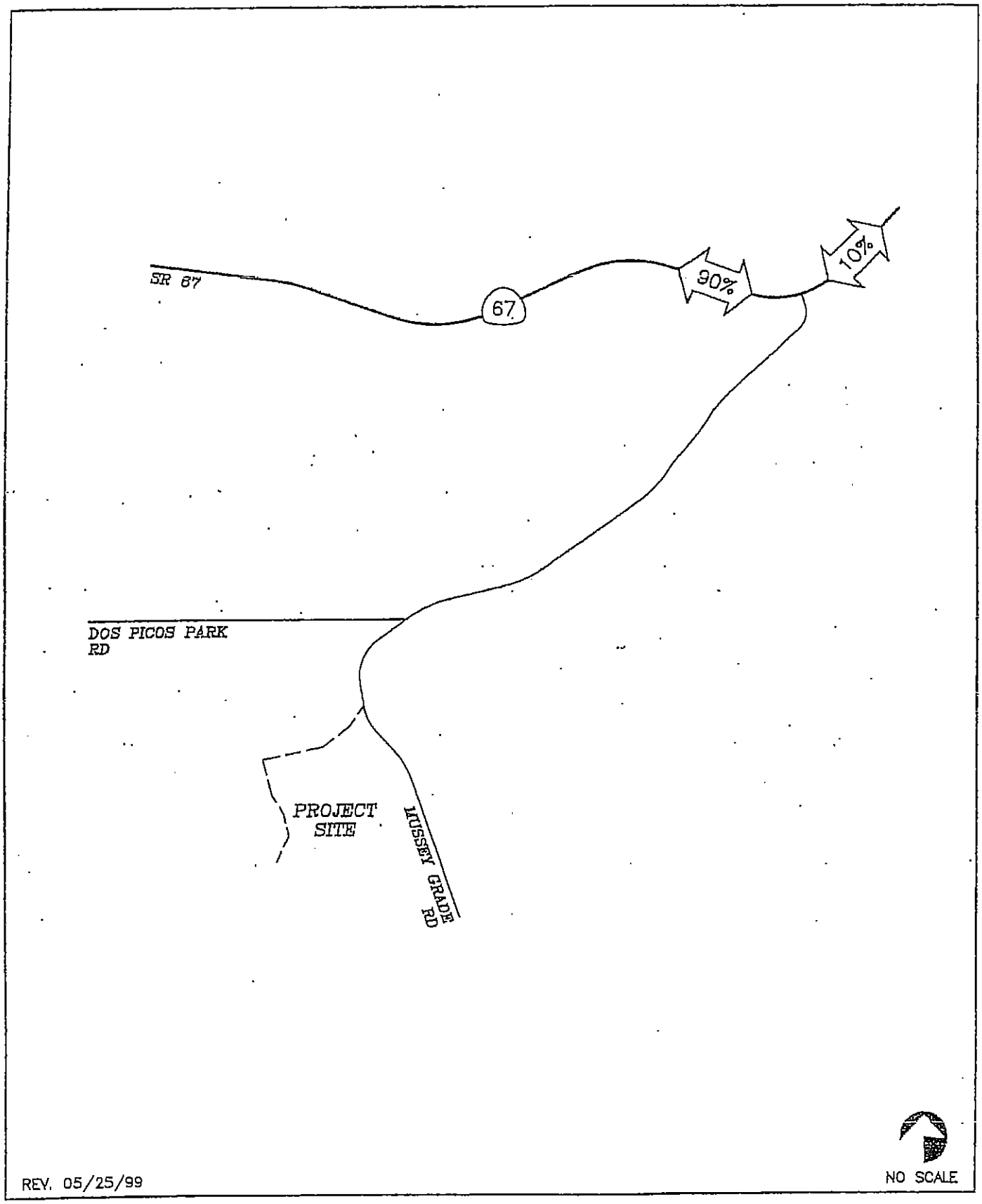

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Figure 6a

"ODOUR" TRAFFIC DISTRIBUTION

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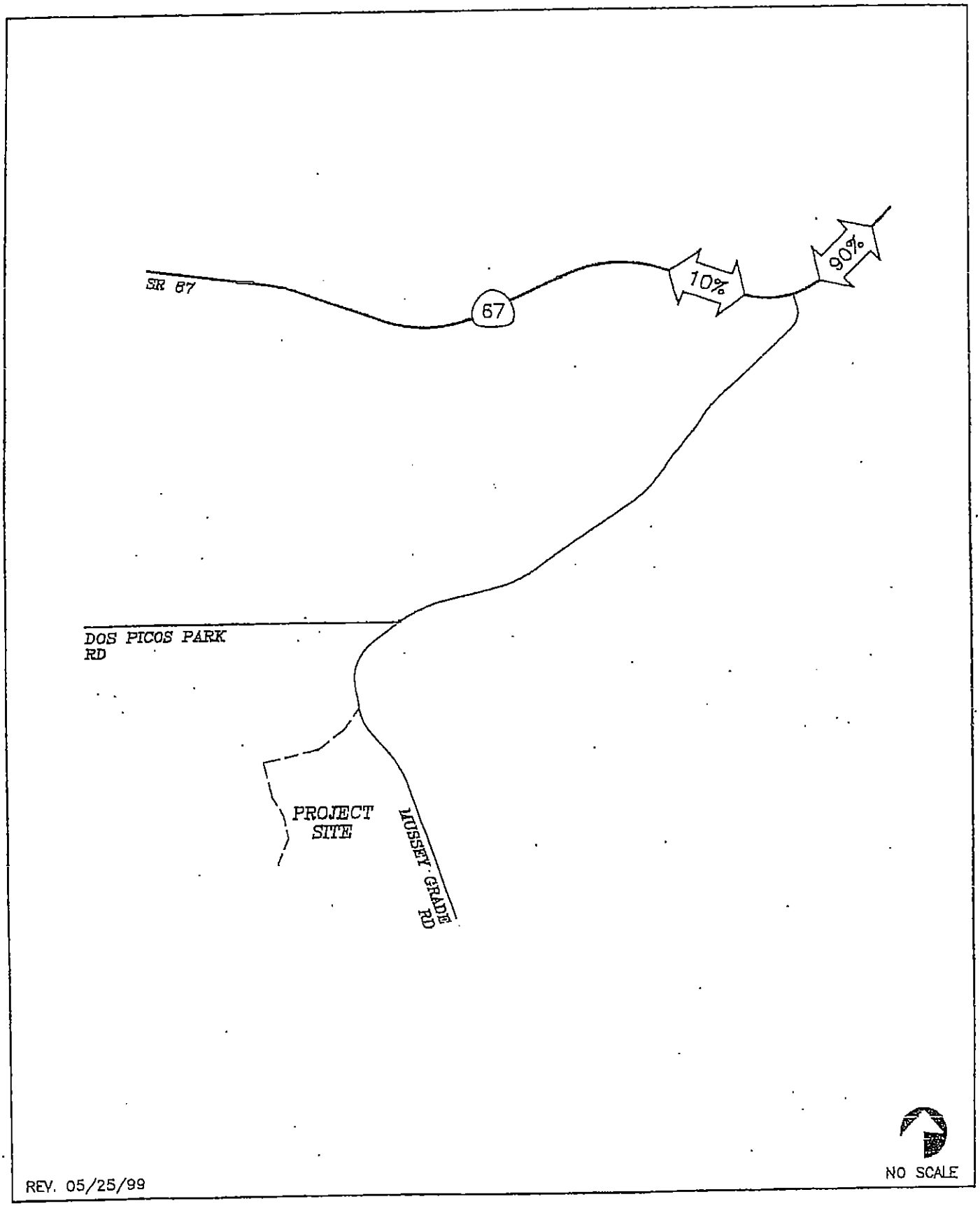

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Figure 6b

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STATE/MISCELLANEOUS TRAFFIC DISTRIBUTION

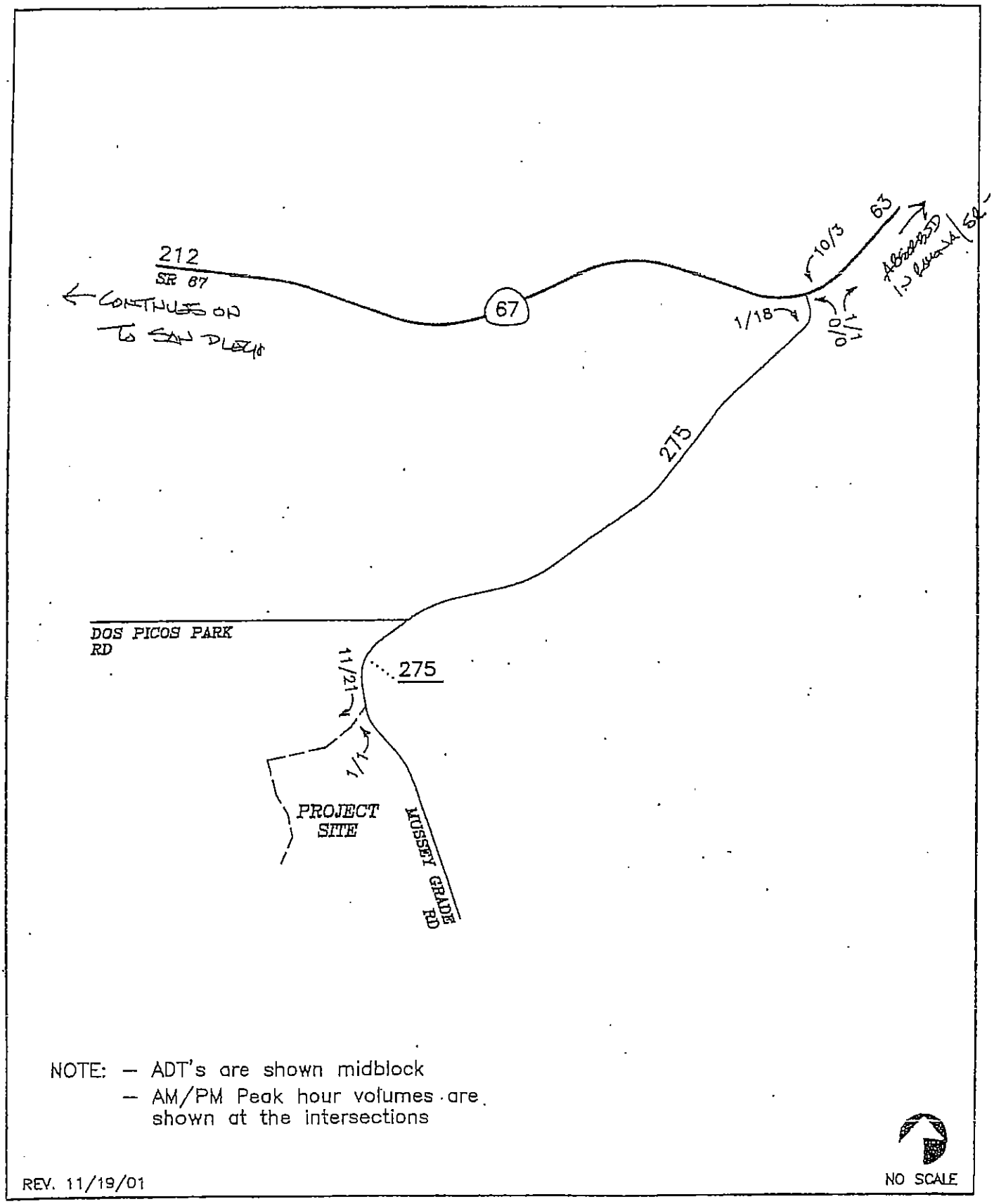

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Figure 7

PROJECT TRAFFIC VOLUMES

MUP 70-379 W2 Salvation Army

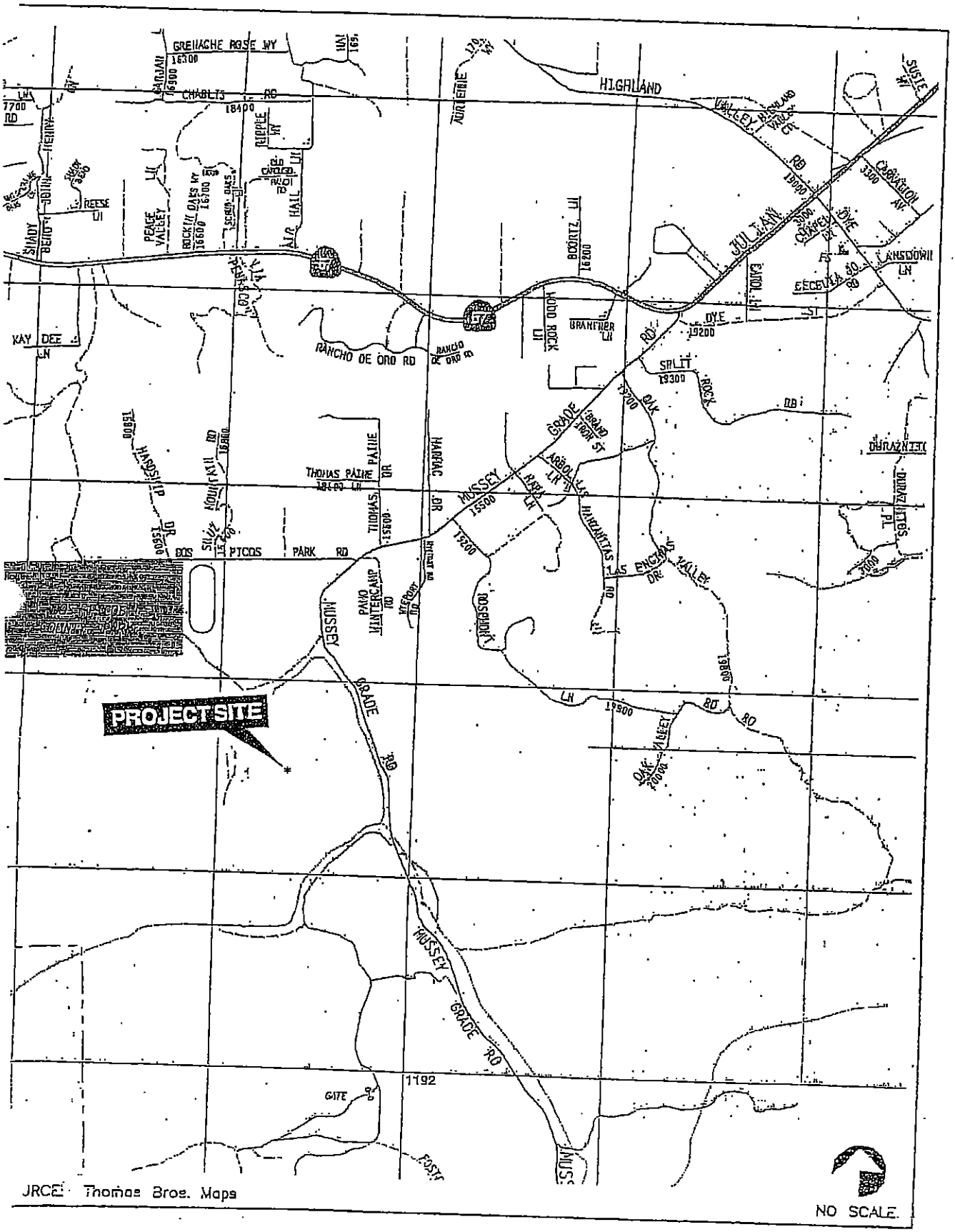

Figure 2

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RETREAT (OFF-SEASON)

The current typical retreat population of the camp is approximately 90 people, including 5 staff members. Generally, retreat groups arrive on Friday evenings, with a maximum of one-half arriving during the PM peak period (between 4 and 6 PM), and one-half arriving later. The groups typically leave on Sundays around midday.
For the purpose of this analysis, a maximum future retreat capacity of 175 persons was assumed for buildout of the project.

The average future summer camp population would be 573 guests (523 campers/50 staff), but the site could have 748 guests total when the retreat facility is rented or used for Salvation Army functions concurrently with the summer camp.

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EXISTING STREET SYSTEM

According to the County of San Diego Public Road Standards, Prime Arterials should be 102 feet wide in 122 feet of Right-of-Way (R/W), providing six thru lanes, a raised median and curbside parking. Major Roads should be 78 feet wide in 98 feet of R/W, providing four thru lanes, a raised median and curbside parking. Collectors should be 64 feet wide in 84 feet of R/W providing four thru lanes with curbside parking or four thru lanes with a left-turn lane. Light Collectors should be 40 feet wide in 60 feet of R/W, providing two thru lanes with a left-turn lane. Bike lanes add 10 feet to both the road width and the R/W. The following is a description of the roadways in the project area. Figure 4 shows an existing conditions diagram.

State Route (SR) 67 is generally a two lane undivided highway in the project area with a posted speed of 55 mph. In the project area, SR 67 is unsignalized at Mussey Grade Road and signalized at Dye Road/Highland Valley Road.

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Mussey Grade Road is a two-lane undivided road in the project area. Mussey Grade Road is not classified on the County of San Diego Circulation Element; however, it is classified on the County's Bicycle Element to have a bike lane. Mussey Grade Road generally has 12-foot lanes with 4.5-foot paved shoulders. The posted speed limit is 50 mph near SR 67, and curbside parking is generally not available. The shoulder width decreases further south on Mussey Grade Road. Mussey Grade Road dead-ends at the San Vicente Reservoir.

Measurements of the width of Mussey Grade Road was conducted at several locations as follows:

- At Brand Iron Street—32 feet
- At Mara Lane—32 feet
- At Dos Picos Road—36 feet
- North of Mahogany Ranch Road—31 feet
- South of Mahogany Ranch Road—26 feet
- North of Salvation Army Entrance—28 feet

The narrowest width of Mussey Grade Road is 26 feet with 1–3 foot shoulders.

Except for a relatively short section, the existing Mussey Grade Road meets the County's Public Road Interim Standards of 28 feet of width. Widening the 26-foot wide section is not recommended since there are constraints of a stream on the west side and an embankment on the east side and since the 2 feet of widening would be of very minimal benefit.

EXISTING TRAFFIC VOLUMES

Table 1 is a summary of the most recent available daily traffic counts (ADT's) from County of San Diego count records. Additional machine counts were conducted by Traffic Data Services (TDS) on Mussey Grade Road. Manual traffic counts were conducted by TDS during the AM and PM peak hours at the SR 67/Mussey Grade Road intersection.

Figure 5 shows the existing traffic volumes on a peak hour and daily basis. Appendix A contains copies of the intersection manual count sheets and road tube count summaries.

PROJECT TRAFFIC GENERATION

Table 2 shows the traffic generation calculations for the proposed project. The existing camp is used year-round with two distinct types of activities depending on the time of year

TABLE 1

AVERAGE DAILY TRAFFIC VOLUMES

STREET SEGMENT	DATE	VOLUME
SR 67		
s/o Mussey Grade Road	2000	24,300 [1]
Mussey Grade Road to Highland Valley Road	2000	24,300 [1]
Mussey Grade Road		
s/o SR 67	1999	2,270 [2]
s/o Dos Picos Park Road	1999	850 [2]

NOTES: s/o = south of, etc.

SOURCE: 1. County of San Diego records.
2. Traffic Data Services machine counts, February 3-5, 1999.

("On-Season" during the summer months and "Off-Season" for the balance of the year). However, it is possible that both the summer camp and Retreat Center uses could occur simultaneously. Therefore, the project traffic generation was calculated for the maximum number of potential users, 748. Consideration was given to the means by which camp occupants arrive, by utilizing a Vehicle Occupancy Ratio (VOR). This ratio accounts for multiple occupants in vehicles (i.e. carpools, vanpools, busses), which is an important aspect of this project's day-to-day operations. Many of the occupants will arrive via passenger vans and carpools.

Based on past experience for events at the site, the applicant estimates that 40% of retreat guests arrive by van, 40% by carpool, while 20% are single occupancy. To further substantiate these percentages, data was obtained from the existing 78-acre Oakbridge Camp, which is located a few miles from the site. The EIR for the expansion of the camp was certified on December 4, 2002 (P77-055W). The Oakbridge Camp tracks their arrivals in terms of number of guests and number of vehicles. Appendix B shows the results. This camp is smaller but is also in a rural setting and since both are youth camps and the activities at the two camps are similar, it is logical that the carpool and vanpool arrival percentages would be similar. This table shows that the Oakbridge Camp average auto occupancy was 2.7, and their average van occupancy was 14.6. These occupancy rates closely match the rates assumed in Table 2 of 2.33 and 15.0 respectively. The project applicant will prepare an annual report, detailing the future observed vanpool and carpool percentages.

The project traffic generation for the camp at buildout assumes that all 748 users (campers, staff and Retreat Center users) are present. The traffic study addresses the impacts to the street system during the daily and peak hours of a weekday. The youth camp component of the project generates very little traffic (if any) on weekdays while the Retreat Center component generates some peak-hour traffic on Fridays. Overall, neither component of the project contributes much traffic to the weekday commuter peak-hour condition in the area because of the weekend nature of both uses.

Table 1 shows that there are no weekday peak-hour trips generated by the campers, since they all arrive on Monday afternoons before the peak hour. The Retreat Center guests are shown to arrive in part during the PM peak hour, since only half of the guests typically arrive during the 4-6 PM time frame, of which half again are expected to arrive within the peak hour. There are no AM trips associated with the Retreat Center users, as they leave on Sundays. One-half of the staff is assumed to arrive/depart weekly, with 10 assumed to arrive during the AM peak hour. Finally, it is assumed that there will be an average of 10 Miscellaneous/Delivery trips on any given weekday, of which one round-trip is assumed during both the AM and PM peak hours.

The "miscellaneous" row in Table 2 accounts for trips such as deliveries and supply pick-up.

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PROJECT TRAFFIC DISTRIBUTION/ASSIGNMENT

The project-generated traffic was distributed to the street system based on pro access, the characteristics of the roadway system, conversations with current staff, the project site's relative location to metropolitan areas. Ninety (90) percent of the Ret Center guest trips were estimated to come from the west, while ninety (90) percent of staff trips were estimated to come from the east. Figure 6a shows the regional tr distribution for the "groups", while Figure 6b shows the "staff" and "miscellaneous" distribution. Figure 7 shows the assignment of total project traffic based on th distributions. Figure 8 shows the existing + project traffic volumes.

The pick-up/drop-off points for the Camp are determined by the local branch of Salvation Army of which there are several in San Diego County. They vary from wee week.

NEAR TERM CUMULATIVE PROJECTS

Based on a detailed review of potential projects in the project area, ten cumul projects were found to be located in the vicinity of the Sierra Del Mar Divisional C study area that could have an impact on the operations at the SR 67/Mussey Grade F intersection. These projects are either approved for development or their approva development is pending.

Ramona Airport is a proposed expansion of the Ramona Airport. The expan consists of adding 420 acres of general aviation, 10 acres for forest departr services, 24.2 acres of industrial/commercial development, and 7 spaces for a heli The Final Environmental Impact Report for the Ramona Airport Master Pan (M 1997) determined that the project would generate 3075 ADT with 112 inboun outbound trips during the AM peak hour and 109 inbound/110 outbound trips durin PM peak hour. The industrial/commercial development portion was taken out since portion of the project will not be developed due to its impact on endangered speci the area.

The Ramona Elementary School project proposes to construct an elementary s with a maximum enrollment of 750 students, kindergarten through grade six. The p is to be developed on approximately 52 acres of land located east of SR 67 nea southwest corner of the Boundary Avenue/Hunter Street intersection. Acce proposed via two driveways on Boundary Avenue and one via Dye Road to Eque Trail. The project is calculated to generate 1,050 ADT with 180 inbound/115 outb trips during the AM peak hour and 25 inbound/50 outbound trips during the PM LLC conducted a traffic study for the project in August 2000.

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The Borysewicz Property (TPM 20616) is the proposed development of 5 single-family residential lots on approximately 66 acres of land located east of Mussey Grade Road. The project is calculated to generate 60 ADT with 2 inbound/3 outbound trips during the AM peak hour and 4 inbound/2 outbound trips during the PM peak hour. LLG conducted a traffic study for the project in August 2000.

Mahogany Ranch (TM 5080 RPL1) is a proposed 13-unit estate subdivision located just east of the existing Salvation Army Divisional Camp on Mussey Grade Road. The project is calculated to generate 156 ADT with 4 inbound/9 outbound trips during the AM peak hour and 11 inbound/5 outbound trips during the PM peak hour.

Barona Mesa Estates (BC 99-0074) proposes to construct an estimated 47 single - family dwelling units located at the easterly end of San Vicente Road. Since a portion of the project was occupied at the time the existing counts were conducted an assumption of 25 new single family houses were assumed in this traffic study. It was estimated that the project would generate 300 ADT with 10 inbound/15 outbound trips during the AM peak hour and 20 inbound/10 outbound trips during the PM peak hour.

Friery Residential (TM 5172) proposes to develop 15 residential lots on a 66-acre site located at the eastern terminus of Tombil Road, east of Wildcat Canyon Road. The project is calculated to generate 180 ADT with 4 inbound/10 outbound trips during the AM peak hour and 13 inbound/5 outbound trips during the PM peak hour.

RCDK Realty II (TPM 20401) is a proposed 4-lot single-family residential development on 45.22 acres located southeast of SR 67, southwest of Rancho Maria Lane. The project is calculated to generate 48 ADT with 1 inbound/3 outbound trips during the AM peak hour and 4 inbound/1 outbound trips during the PM peak hour.

Quisenberry (TPM 20496) is a proposed 4-lot single-family residential development on 17 acres, located of SR 67 at the terminus of Rancho Maria Lane. The project is calculated to generate 48 ADT with 1 inbound/3 outbound trips during the AM peak hour and 4 inbound/1 outbound trips during the PM peak hour.

Velocity Paintball (MUP P99008) is a proposed 37-acre paintball team sport park located east of SR 67 on the southwest corner of the Warnock Drive/San Vicente Road intersection.

Coble (TPM 20421) is a proposed 4-lot single-family residential development on 18.83 acres, located generally south of SR 67 and west of the Friery Residential subdivision project. The project is calculated to generate 48 ADT with 1 inbound/3 outbound trips during the AM peak hour and 4 inbound/1 outbound trips during the PM peak hour.

TABLE 3

CUMULATIVE PROJECT TRAFFIC GENERATION SUMMARY

USE	SIZE	DAILY TRIP ENDS (ADT)		AM PEAK HOUR				PM PEAK HOUR			
		RATE	VOLUME	% OF ADT	IN:OUT SPLIT	VOLUME IN	VOLUME OUT	% OF ADT	IN:OUT SPLIT	VOLUME IN	VOLUME OUT
Ramona Airport	420 Planes	7	2,940	6%	6:3	106	71	7%	5:5	103	103
General Aviation	10 Acres	10	100	6%	7:3	4	2	7%	5:5	3	4
Forest Department	7 Spaces	5	35	8%	7:3	2	1	16%	5:5	3	3
Heliport	750 Students	1.4	1,050	28%	6:4	180	115	7%	3:7	25	50
) Elementary School	5 DU	12	60	8%	3:7	2	3	10%	7:3	4	2
) Borysewicz Property	13 DU	12	156	8%	3:7	4	9	10%	7:3	11	5
) Mahogany Ranch	25 DU	12	300	8%	3:7	10	15	10%	7:3	20	10
5) Barona Mesa Estates	15 DU	12	180	8%	3:7	4	10	10%	7:3	13	5
6) Friery Residential Subdivision	4 DU	12	48	8%	3:7	1	3	10%	7:3	4	1
7) RCDK Realty II	4 DU	12	48	8%	3:7	1	3	10%	7:3	4	1
8) Quisenberry	37 Acres	-	50	-	-	5	5	-	-	5	5
9) Velocity Paintball	4 DU	12	48	8%	3:7	1	3	10%	7:3	4	1
10) Coble											
TOTAL	-		5,015			320	240			199	190

...AUDAC Brief Guide, July 1998.

TABLE 4

UNSIGNALIZED INTERSECTION OPERATIONS

INTERSECTION	PEAK HOUR	MOVEMENT	EXISTING		EXISTING + PROJECT		DELAY INCREASE (seconds)	SIGNIFICANT IMPACT?	EXISTING + PROJECT + CUMULATIVE PROJECTS	
			DELAY	LOS	DELAY	LOS			DELAY	LOS
R 67/Mussey Grade Road	AM	NB L	36.1	E	37.7	E	1.6	NO	61.6	F
		WB L	8.5	A	8.6	A	0.1	NO	8.9	A
	PM	NB L	45.8	E	46.2	E	0.4	NO	61.6	F
		WB L	14.3	B	14.6	B	0.3	NO	15.7	C

DELAY is measured in seconds.
LOS = Level of Service.
NB = Northbound, L = Left-turn

UNSIGNALIZED

0.0	≤	10.0	A
10.1	to	15.0	B
15.1	to	25.0	C
25.1	to	35.0	D
35.1	to	50.0	E
	>	50.0	F

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Table 3 shows a summary of the cumulative projects traffic generation. Individu assignments were done for each project. Figure 9 shows the total assignment cumulative project traffic. Figure 10 shows the existing + project + near-term cumulativ projects traffic volumes.

SIGNIFICANCE CRITERIA

County traffic significance thresholds used to evaluate traffic impacts that would resu from project development and cumulative traffic are as follows:

- The County General Plan Public Facilities Element states that a discretiona project will only be approved if the existing Level of Service (LOS) on off-site a on-site abutting Circulation Element roads is not reduced below LOS Appropriate mitigation measures must be provided only if a Proposed Proje would <u>significantly impact congestion</u> on roads that currently, or as a result the project, operate at LOS E or F. Appropriate mitigation includes a fair-sha contribution in the form of road improvements or a fair share contribution to a established fee program or projects.

Therefore, if the project does not "significantly impact congestion", no project cumulative impact is calculated at a particular location.

TRAFFIC ANALYSIS METHODOLOGY

The traffic analysis assesses one key intersection and several street segments in t project area. The SR 67/Mussey Grade Road unsignalized intersection is analyzed in t report:

The <u>unsignalized intersection</u> was analyzed by determining the delay and Levels Service based on Chapter 17 of the 2000 Highway Capacity Manual (HCM). The Caltra ILV method was *not* utilized since the intersection is unsignalized. The ILV methodolo only applies to signalized intersections. Appendix C contains the unsignaliz intersection analysis. Table 4 shows a summary of the unsignalized intersecti operations during the AM and PM peak hour. This table reports an overall delay a Level of Service (LOS) for the minor street approach.

The <u>street segments</u> were assessed by comparing the street segment volume to t capacity of the roadway based on County of San Diego standards. Table 5 is description of the various street segment LOS thresholds. Table 6 shows a summary the street segment Levels of Service in the project area. Appendix D contains a ta depicting the County's LOS thresholds.

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The following is a description of the existing, existing + project, and Year 2015 street system operations.

EXISTING OPERATIONS

Table 4 shows a summary of the existing operations at the key unsignalized intersection. This table shows that the level of service for the northbound approach from Mussey Grade Road to SR 67 is LOS E during both the AM and PM peak hours. This is due to the high volume of peak hour traffic on SR 67. The westbound left-turn movement is calculated to operate at LOS B or better during the AM and PM peak hours.
Table 6 shows a summary of the existing daily operations on the key street segments in the project area. This table shows SR 67 currently operates at LOS F. Appendix C shows that for non-circulation element roads such as Mussey Grade Road, the capacity at LOS C is 4,500 ADT (residential collector). Table 5 shows that the two existing daily traffic volumes on Mussey Grade Road are 2,270 and 850, within the capacity of the roadway. Therefore, a Level of Service C+ was assigned since the LOS is not precisely ascertainable from the table.

EXISTING + PROJECT OPERATIONS

Table 4 shows that the addition of the very small amount of project traffic is calculated to increase the approach delay for the northbound approach by 1.6 seconds and 0.4 seconds for the AM and PM peak hours, respectively at the SR 67/Mussey Grade Road intersection. The westbound left-turn movement continues to operate at LOS B or better during the AM and PM peak hours.

Table 6 shows that the addition of project traffic to the existing condition increases the V/C ratio by a maximum of 0.01 on SR 67. This increase is considered <u>not significant</u>. The Mussey Grade Road street segments remain at LOS C+, as the addition of project traffic does not breach the 4,500 ADT threshold for LOS C.

The significance of project impacts is discussed later in this study.

EXISTING + PROJECT + NEAR TERM CUMULATIVE PROJECTS OPERATIONS

Table 4 shows that the addition of the near term cumulative projects traffic is calculated to degrade the northbound approach delay at the SR 67/Mussey Grade Road intersection to LOS F. The westbound left-turn movement is calculated to operate at LOS C or better during the AM and PM peak hours.

Table 6 shows that the addition of near term cumulative projects traffic to the existing + project condition increases the V/C ratio by a maximum of 0.11 on the LOS F-operating [illegible] of SR 67. The Mussey Grade Road street segments remain at LOS C+, as the

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TOTAL AREA

The total parking spaces required for the retreat center is 105 spaces, even if the retreat and summer camp are run concurrently, since the campers are dropped off at the site and their vehicles do not park. A special event with a maximum of 748 guests is calculated to require a total of 320 spaces. Approximately 300 parking spaces (188 designated; 112 overflow spaces) would be provided on the site with the proposed project. Since the overflow parking will be provided as open fields, and spaces were calculated using acreage required for parking lots, i.e. including lanes, etc., the shortfall of 20 spaces could be accommodated in the existing parking area with a valet-type arrangement that maximized the parking yield from the designated area of approximately 2.05 acres. Parking impacts would be less than significant.

SR 67 SIGNIFICANCE

Table 7 shows the results of a peak hour two-lane arterial analysis on two segments of SR 67 between Archie Moore Road and Dye Road. This table shows that the existing peak hour Level of Service is LOS F. Since the degradation in average travel speed on SR 67 is a maximum of only 0.2 mph, and this magnitude of change would not be noticeable to the average driver, the project's near-term cumulative impact to SR 67 is considered not significant. The LOS F segment generally extends from Dye Road to Archie Moore Road, a length of about 2.8 miles. A 0.2 mph decrease in speed on SR 67 equates to an additional 10 seconds over the 2.8 mile length and would not be noticeable to the average driver. Therefore, the potential cumulative impacts to SR 67 are considered not significant. Appendix E contains the calculation sheets.

ON-SITE CIRCULATION/ACCESS

Regional access to the site is via Mussey Grade Road to SR 67. The site access is currently a gated, private graded dirt road to Mussey Grade Road. Once on-site, a main dirt road provides access to the various portions of the camp.

The interior circulation concept for the Salvation Army Specific Plan consists of a network of meandering, county-style roads. Primary ingress/egress to the site would remain from the existing entry and main dirt access road off of Mussey Grade Road. Portions of the access road would be improved to a 24-foot-wide paved asphalt access road designed in accordance with County fire standards. A new road is envisioned to spur off the existing main road, towards the new hub of the camp, and would replace the existing access roads to the cabins as well as a portion of the main road that currently extends to the existing Ranch House. Several secondary access road branches would branch off of the main access road, providing access to specific areas of the site. The roadway locations and sizes are designed to facilitate the efficient movement of motor vehicles throughout the site, including emergency vehicles.

Emergency access would continue to be provided by the main access road, as well as a secondary emergency access road located south of the property, that parallels the Wildwood Ranch northern property boundary.

The on-site circulation will operate well.

The sight distance of the project entrance/Mussey Grade Road intersection is adequate based on an analysis by the Civil Engineer contained in Appendix F.

SIGNIFICANCE OF IMPACTS/MITIGATION MEASURES

The significance of traffic impacts for the Salvation Army project is based on the County of San Diego Public Facilities Element which states that a significant impact would occur if "new development would significantly impact congestion on roads at LOS E or F, either currently or as a result of the project."

The northbound left-turn at the SR 67/Mussey Grade Road intersection currently operates at LOS E during the AM and PM peak hours and the project does add traffic to this intersection. However, the project only adds a very small amount of traffic, and there are several reasons why the Salvation Army project will *not* "significantly impact congestion" at this location, as outlined below:

1) The entire SR 67/Mussey Grade Road intersection does *not* operate at LOS E. In fact, there are six movements at the intersection (eastbound thru, westbound thru, eastbound right, westbound left, northbound left, northbound right) and only one operates at LOS E, the northbound (side street) left. The other five movements operate at LOS C or better. In other words, it is not accurate to state that the SR 67/Mussey Grade Road intersection operates at LOS E since only one minor street movement operates at LOS E. Appendix G contains an analysis of the SR 67/Mussey Grade Road intersection using the Highway Capacity Manual. This analysis shows that the overall average delay at this intersection is very small (and correlates to LOS B) since the majority of movements at the intersection do not experience delay.

2) A large part of the reason poor operations occur at the SR 67/Mussey Grade Road intersection is that traffic queues back from the SR 67/Dye Road intersection westerly past the Mussey Grade Road intersection during the PM peak period due to insufficient capacity at the SR 67/Dye Road intersection. Consequently, improvements at the SR 67/Mussey Grade Road intersection (such as a traffic signal) would not resolve the insufficient capacity at the SR 67/Dye Road intersection. It should be noted that the PM peak period backup on SR 67 at Dye Road actually makes it easier to turn onto SR 67 from Mussey Grade Road as compared to turning into moving SR 67 traffic since traffic on

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SR 67 is stopped or moving more slowly. The project will not impac existing PM peak hour eastbound queue since this queue is the resu deficiencies at the Dye Road intersection. Since project traffic will turn onto Mussey Grade Road, no negative impacts to the existing eastb queue from Dye Road are expected.

3) The project is anticipated to add a total of 34 peak hour trips (AM and P the SR 67/Mussey Grade Road intersection (Page 10 of Traffic Study) an existing total peak hour traffic at this location is 3912 trips (Page 9 of T Study). Therefore, only a 0.87% increase in traffic is calculated. The addi 34 peak hour trips are less than the day-to-day fluctuation in traffic on SI and therefore, would not be noticeable to drivers. In addition, the project re in only a worst-case 1.6-second increase in delay. This would also n noticeable to drivers. Thus, the project would not "significantly ir congestion" at the SR 67/Mussey Grade Road intersection. In addition, F 7 shows that the project will *not add any* traffic to the critical movement intersection, the northbound left-turn. This is because the Camp and R outbound movements occur on Sundays, not weekdays.

4) The Youth Camp portion of the project is mainly a weekend activity that o in the summertime. Campers are typically shuttled to the camp via pass vans and busses that accommodate a minimum of fifteen campers each, reduces the overall number of trips to/from the site. There are many days the youth camp generates virtually zero trips since the guests will alrea there. Another function at the project site, the retreat center, generates little peak hour traffic other than on days when guests arrive and leave. will be many days of the year when the retreat center will generate virtuall trips since the guests will already be there.

The project will continue to implement a program that limits weekday pea trips. The following project features have been incorporated into the pro order to reduce or eliminate traffic impacts and will be conditions of the Major Use Permit:

- Special events (atypical full occupancy events) shall occur no mor four times per year
- Youth campers, who comprise the majority of camp users, shall cont be transported to and from the camp via bus or vanpool.
- Bus, van or carpool will be the recommended mode of transportatior retreat guests. This shall be included in the retreat rental contract.

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- The current camp staff, camper and retreat user arrival and departure schedule (see paragraph below), or a schedule with equivalent or fewer peak-hour traffic trips, shall be continued with project implementation.

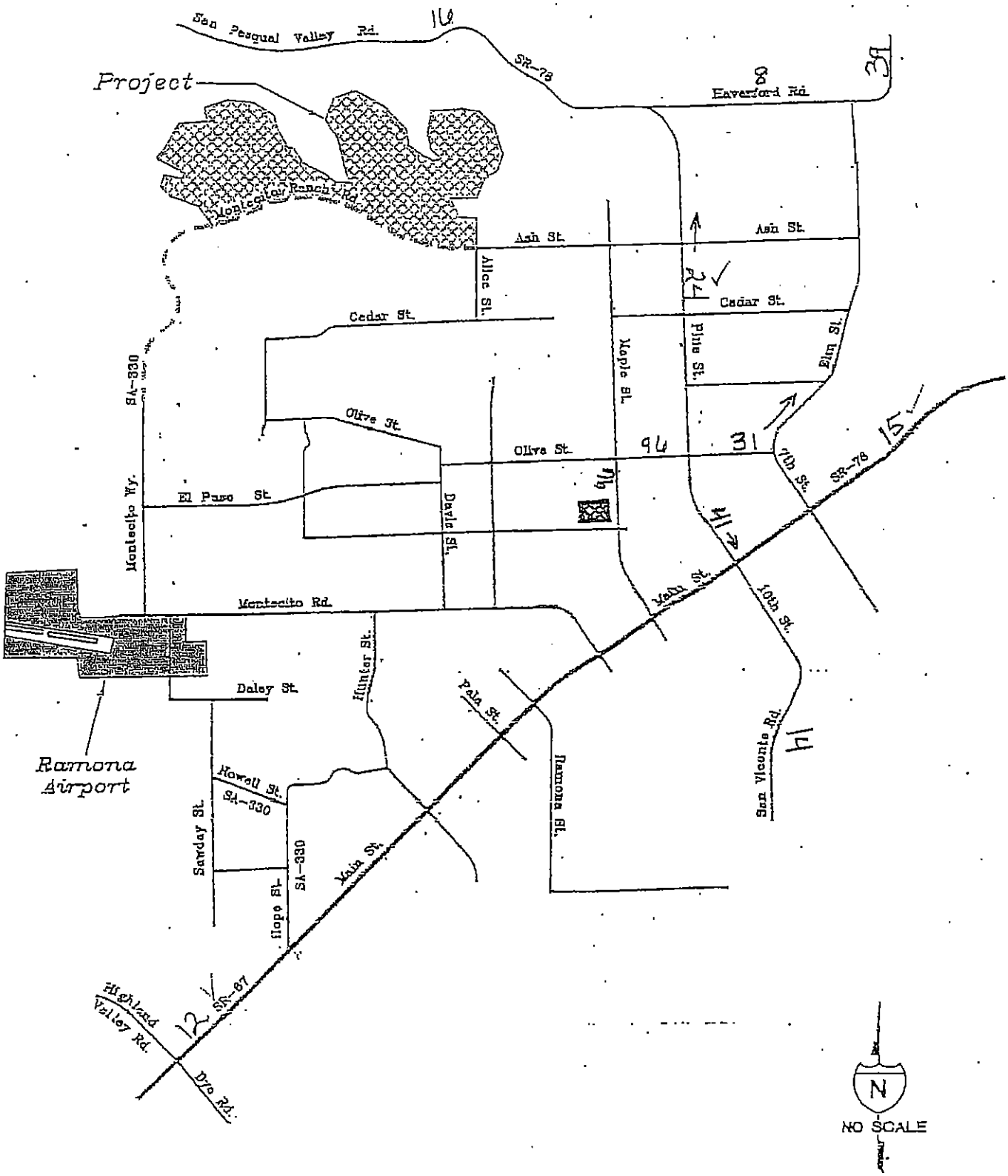
The Salvation Army Divisional Camp and Retreat currently operates and will continue to operate year-round with the proposed project expansion, with operations generally divided into two seasons: 1) Camp (summer), which includes youth camping for eight weeks during mid-June to mid-August; and 2) Retreat, which includes Salvation Army group retreats and private rentals for the balance of the year. The campers stay for one week, and generally arrive on Monday afternoons (between 2:00 and 4:00 p.m.) in passenger vans and buses and depart on Saturday morning (between 9:00 and 10:00 a.m.), thereby avoiding peak commuter hours. Camp staff generally arrives on Monday mornings and departs on Saturday afternoons, with one-half remaining for the duration of the season. The retreat groups generally arrive on Friday evenings (after 6 PM), with half arriving during the evening and the remaining half arriving later. These groups leave on Sundays around midday. The assumed Vehicle Occupancy Rates are substantiated by data obtained from the Oakbridge Camp (see Appendix B).

5) Caltrans accident data shows that two accidents occurred on SR 67 near Mussey Grade Road within the last three years. Using the Caltrans formula for calculating accident rates, it was calculated that the accident rate in the immediate vicinity of Mussey Grade Road is 0.07 accidents per million vehicles entering the intersection. The *expected* accident rate for a rural "tee" unsignalized intersection is 0.22 accidents per million vehicles entering the intersection, based on Caltrans rates published in 1998 Accident Data on California State Highway.

This comparison of calculated accident rates versus expected accident rates indicates the actual rate of accidents at the SR 67/Mussey Grade Road intersection is approximately one-third the State average for similar intersections. Therefore, the accident rate for the SR 67/Mussey Grade Road intersection is much less than the expected accident rate at similar locations, indicating that a significant cumulative impact would not be calculated in terms of accident rates.

Based on the discussion above and data contained in the traffic study, there is ample evidence that the project does *not* "significantly impact congestion on roads at LOS E or F." Due to the very small amount of trips the project adds to the street system, and due to the fact that the majority of traffic is generated on weekends and during non-peak commuter periods, the project impacts would *not* be cumulatively considerable. Therefore, no significant cumulative impacts are determined due to the project and mitigation is not necessary or warranted. However, the project should be required to

MUP 94-017 W3
Ramona Disposal Ser.



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MUP 96-017 W3

TRAFFIC ASSESSMENT
RAMONA TRANSFER FACILITY EXPANSION
RAMONA, CALIFORNIA

February 3, 2004

Prepared by:

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JB/dt
3-03-1353

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TRAFFIC ASSESSMENT
RAMONA TRANSFER STATION EXPANSION
RAMONA, CALIFORNIA
February 3, 2004

1.0 Introduction

The following traffic assessment has been prepared to determine and evaluate the traffic impacts on the local circulation system due to the expansion of the Ramona Transfer Station. This study analyzes street segments in the vicinity to determine potential impacts related to the increased traffic generated by the expansion.

Figure 1 shows the general location of the project, while Figure 2 shows a more detailed project area map.

2.0 Project Description

The existing Ramona Disposal Transfer Station is located on the northwest corner of the Maple Street/Walnut Street intersection in the community of Ramona. The project site currently has access to Maple Street, which will remain as the access point with the expansion. The transfer station currently processes 370 tons of waste per day. With this operation, there are transfer trucks carrying waste to the Ramona landfill on Pamo Road, collection trucks bringing in waste from throughout the county, and individuals self-hauling waste to the site. There is also traffic generated by the site employees and people visiting the buy-back center. The transfer station is proposing to expand operations to process 700 tons of waste per day, the capacity of the existing facility. With the expansion of operations, there will be an increase of transfer trucks, collection trucks, and self-haul trucks. There will be no increase in personnel or buy-back center traffic with the proposed expansion.

Figure 3 shows the project site plan. The facility will remain unchanged with the proposed expansion.

2.1 Truck Routing

The transfer trucks all travel to the Ramona Landfill located on Pamo Road. The transfer trucks will be routed to the landfill via Olive Street to Elm Street to Haverford Road to Pamo Road. Even though most trucks will use this route to access the landfill, some will use SR-78 to Haverford Road. The collection trucks go to many locations

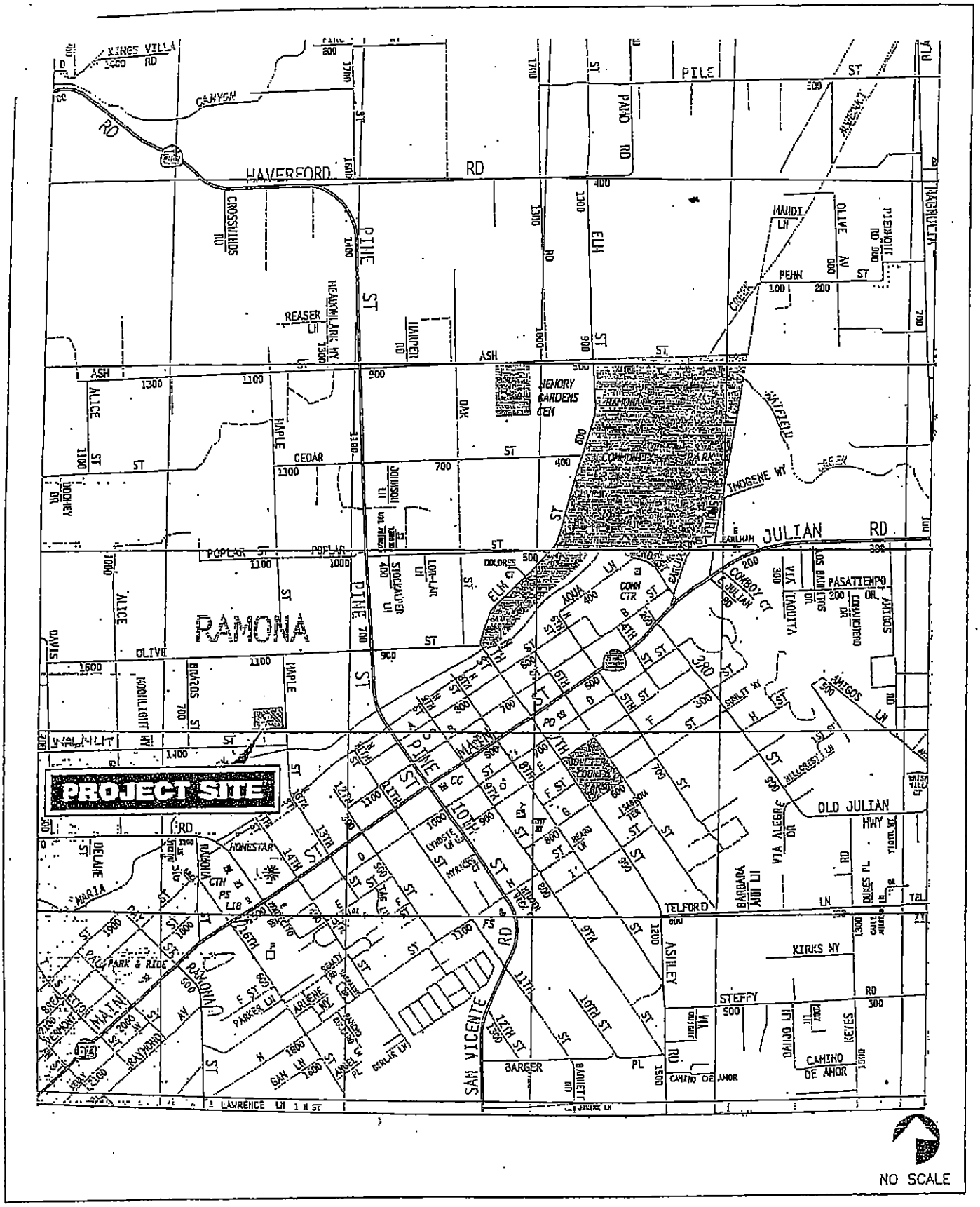

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Figure 2

PROJECT AREA MAP

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TABLE 2

ANTICIPATED TRAFFIC VOLUMES

VEHICLES	POST EXPANSION VOLUME[1]	EXISTING SITE VOLUME[2]	EXPANSION ONLY VOLUME
Incoming Waste Matirial Trips			
Collection Truck Trips	60	32	28
1 ton+ Self Haul Vehicle Trips	30	24	6
Public Vehicle Trips (Cars/Pick-ups)	32	27	5
Out-going Waste Material Trips			
Transfer Truck Trips	30	17	13
Material Recovery Operation Trips	4	2	2
Buy-Back Center Trips	30	30	0
Personnel Trips	34	34	0
TOTAL TRIPS	220	166	54

1. Post vehicle expansion volumes are estimated by Ramona Disposal.
2. Existing site volumes are the average of the two bussiest days of the year, October 10th and 17th, 2003.

4.2 Passenger Car Equivalent (PCE)

Passenger Car Equivalent (PCE) is defined as the number of passenger cars that are displaced by a single heavy vehicle of a particular type under the prevailing traffic conditions. Heavy vehicles have a greater traffic impact than passenger cars since: (1) they are larger than passenger cars, and therefore, occupy more roadway space; and (2) their performance characteristics are generally inferior to passenger cars, leading to the formation of downstream gaps in the traffic stream (especially on upgrades) which cannot always be effectively filled by normal passing maneuvers. Therefore, a PCE factor was applied to the generated truck trips. Based on Exhibit 21.8 in the Highway Capacity Manual, a PCE value of 3.0 was used for transfer trucks, 1.5 was used for collection trucks, 1.2 was used for the 1+ ton self-haul vehicles. Table 3 shows the PCE value for each vehicle type and the corresponding PCE volumes.

TABLE 3

PASSENGER CAR EQUIVALENT (PCE) VOLUMES

VEHICLES	EXPANSION VOLUME	PASSENGER CAR EQUIVALENT (PCE)	PCE EXPANSION VOLUME
Incoming Waste Material Trips			
Collection Truck Trips	28	1.5	42
1 ton+ Self Haul Vehicle Trips	6	1.2	7
Public Vehicle Trips (Cars/Pick-ups)	5	1.0	5
Out-going Waste Material Trips			
Transfer Truck Trips	13	3.0	39
Material Recovery Operation Trips	2	1.5	3
TOTAL TRIPS	[illegible]	[illegible]	[illegible]

The PCE project traffic was assigned to the local street system based on the distribution shown on **Figure 6**. **Figure 7** shows the project traffic assignment, which includes the PCE factor.

4.3 Project Traffic Distribution

The most efficient route between the project site and the Ramona landfill does not include the congested SR-67. To get to the landfill, transfer trucks will be directed to use Olive Street to Elm Street to Haverford Road to Pamo Road. A few transfer trucks will use SR-78 to Haverford Road. The collection trucks will travel to several areas throughout the County, with a few using SR-67 to get to and from their collection zones. The additional public self-haul trips were distributed to the project site based on the location of the general area population. **Figure 6** shows the project traffic distribution percentage for each type of vehicle accessing the project site.

5.0 Traffic Analysis Methodology

Level of service (LOS) is the term used to denote the different operating conditions which occur on a given roadway segment under various traffic volume loads. It is a qualitative measure of the effect of a number of factors including roadway geometries, speed, travel delay, freedom to maneuver, and safety. Level of service provides an index to the operational qualities of a roadway segment. Level of service designations range from A to F, with LOS A representing the best operating conditions and LOS F representing the worst operating conditions.

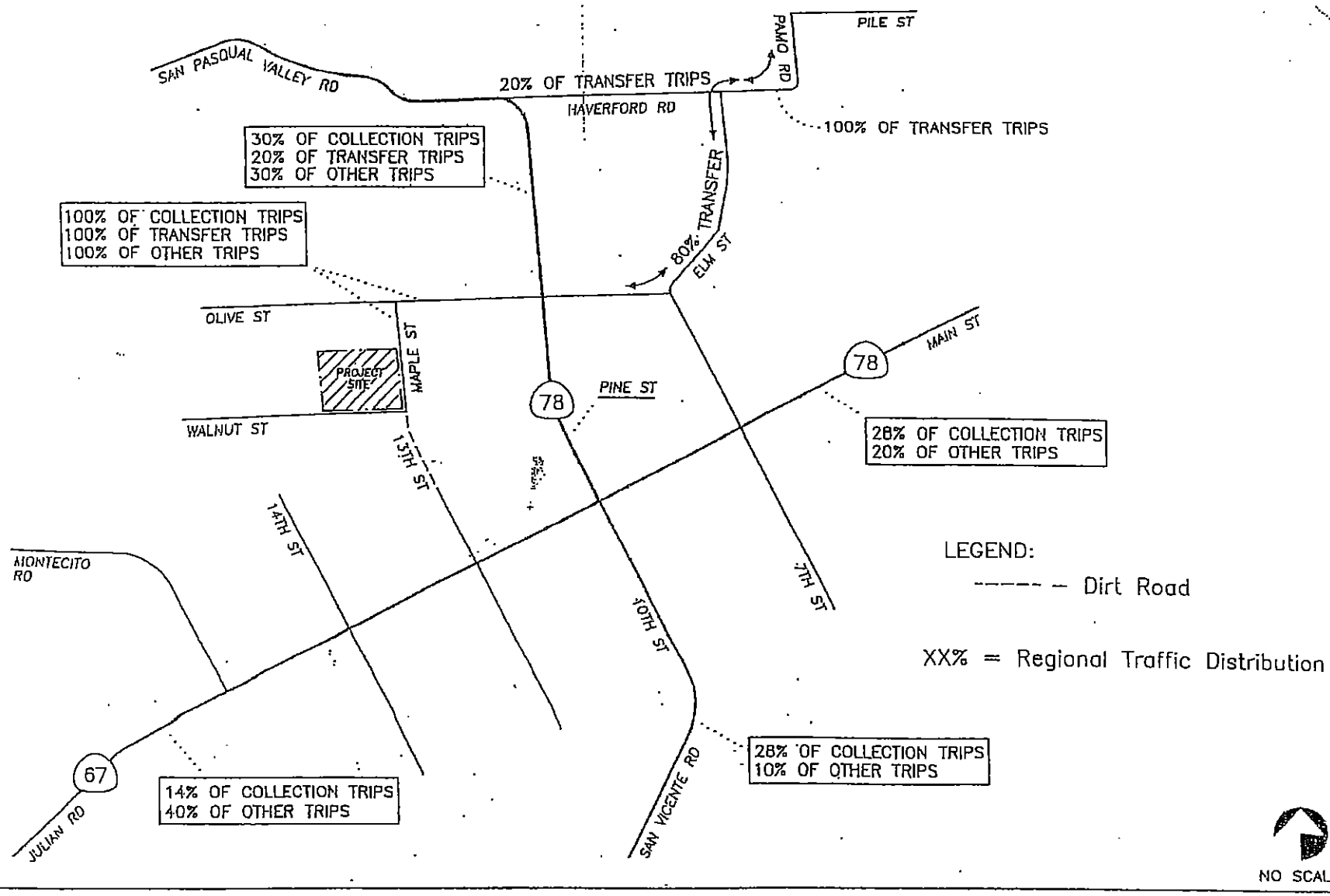

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Figure 6
TRIP DISTRIBUTION

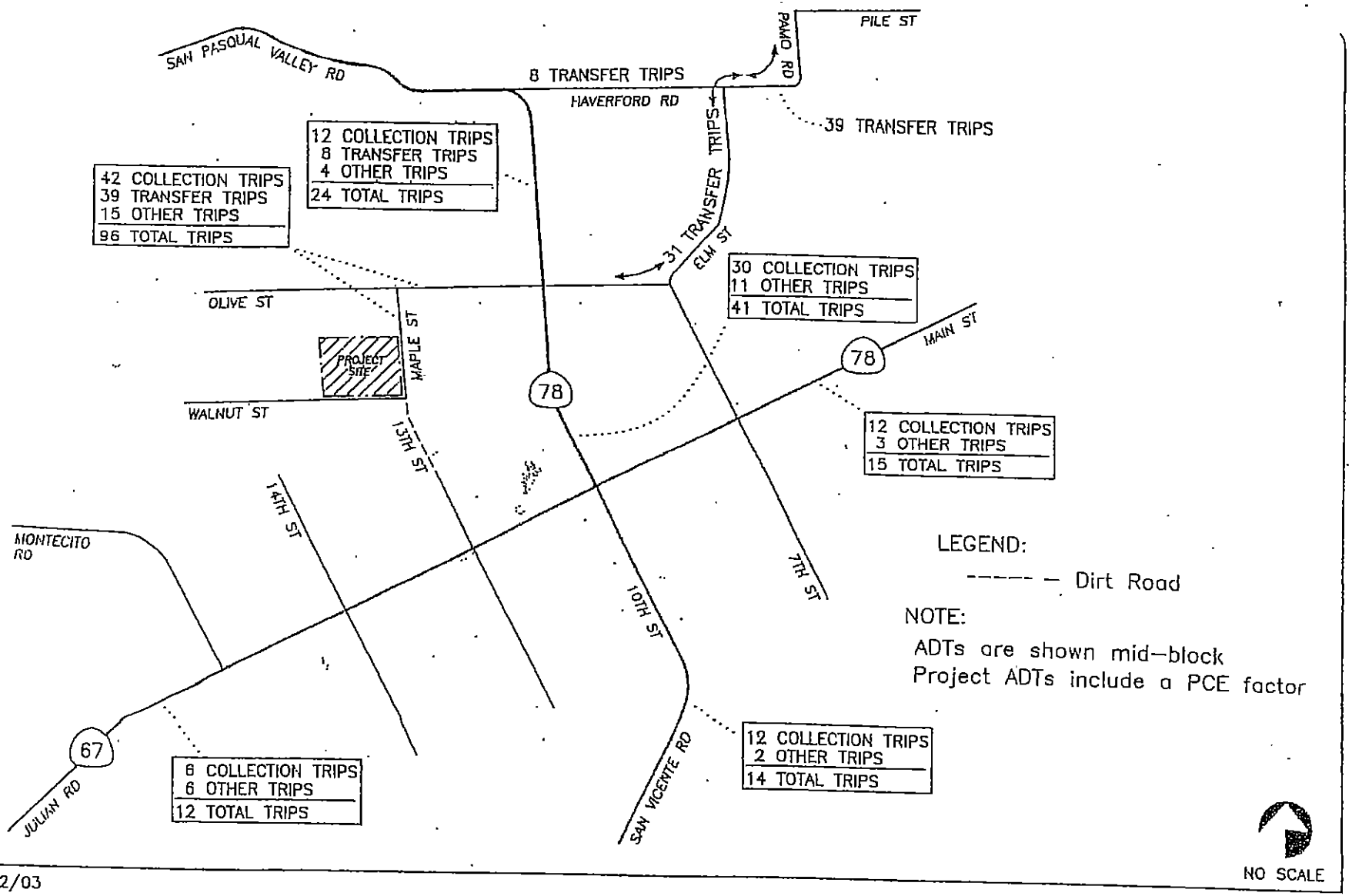

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Figure 7

PROJECT TRAFFIC VOLUMES
ADTs

RAMONA TRANSFER STATION

MUP- 02-005

Description of Proposed Project

Rancho Cañada Bed and Breakfast

Environmental Initial Study Application

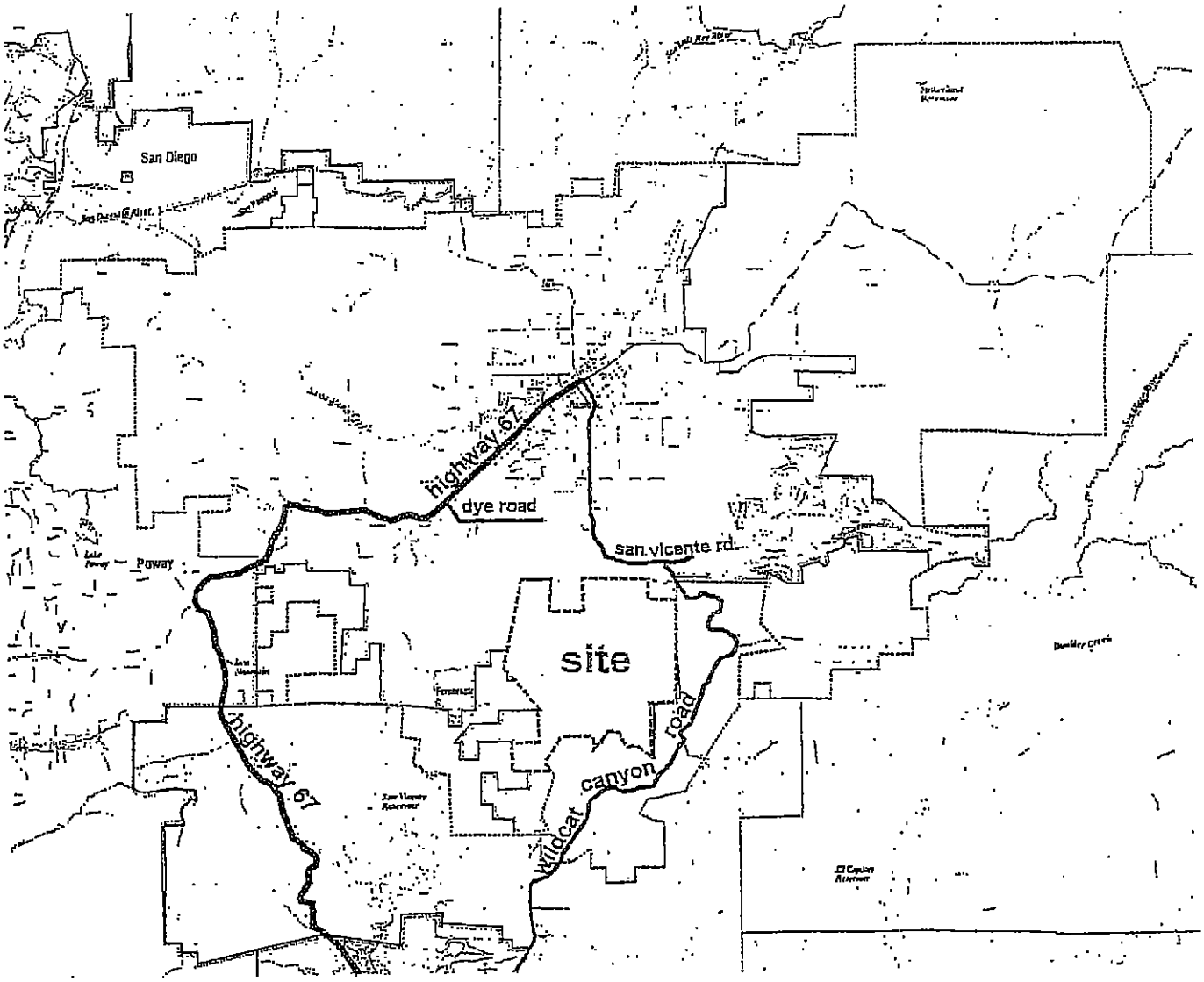
The concept for the Rancho Cañada Bed and Breakfast is to provide a country retreat for overnight guests. The facility will offer a true "eco/agri-tourism" destination in the context of adaptive reuse. In addition to the rooms, we will offer varied hiking opportunities on over ten miles of trails on the property and the near-by attractions of Ramona and the surrounding area.

The existing buildings are located on one legal parcel on the 4,200-acre Monte Vista Ranch in Ramona. The ranch buildings were constructed prior to 1936 and have been historically refurbished and will accommodate the allowed use as a bed and breakfast. There will be five units available for nightly rental.

The structures that will house the bed and breakfast are located approximately one mile within the Ranch and will be accessed by the existing driveway through the Ranch property from Chuck Wagon Road.

Parking will be within the compound. There will be little or no impact to surrounding properties due to the isolation of the operation. The very limited traffic will be during non-peak travel times. ∴ no volumes applied to total cumulative maps.

The project site structures currently exist. Only limited fine grading for landscaping and pathways in existing disturbed non-native areas is proposed. No native vegetation will be disturbed.



Source: OGDEN Environmental and Energy Services

monte vista ranch

vicinity map

MUP 02-005

II. PROJECT DESCRIPTION

A. DESCRIBE IN DETAIL THE MAIN FEATURES OF THE PROJECT. This description should adequately reflect the ultimate use of the site in terms of all construction and development, verified by submitted drawings/plans. If the project will be phased, the anticipated phasing schedule should be described.

Please see attached project description

B. PROPOSED SITE UTILIZATION

1. Total area +/- 5 acres.

2. Net acres (total area minus area of public street and dedication) N/A acres.

3. Number of buildings 4 Height 16' maximum Stories 1

4. Number of attached residential units 0 Detached 4

5. Total floor area of: Commercial uses +/- 4,000 Industrial uses 0

6. Number of off-street parking spaces 12+

C. TOPOGRAPHY AND GRADING – Attach copy of grading plan for AEIS.

1. Percent of site previously graded not known

2. Slope Classification

County projects gradient	Existing topography	After grading
0 – 15%	✓ %	____ %
16 – 25%	____ %	____ %
Over 25%	____ %	____ %

3. Area to be graded N/A acres.

4. Volume of cutting N/A cubic yards, maximum cut slope ratio ____ & height ____

5. Volume of cutting N/A cubic yards, maximum fill slope ratio ____ & height ____

6. Volume of soil imported or exported (specify) N/A

7. Retaining wall(s). Length N/A Face height ____ feet

8. Is the site upstream of a domestic water reservoir? yes

* No ✓

D. DESCRIBE ALL OFF-SITE IMPROVEMENTS NECESSARY TO IMPLEMENT THE PROJECT AND THEIR POINTS OF ACCESS OR CONNECTION TO THE PROJECT SITE. These improvements include: new streets, street widening, extension of gas, electric, sewer and water lines, cut and fill slopes and pedestrian and bicycle paths.

None

III. ADDITIONAL INFORMATION

A. PROJECT RELATIONSHIP TO AREAS WITHIN 1/4 OF SUBJECT PROPERTY.
Give compass direction in blanks where applicable.

1. Private dwellings — Multiple dwellings — Commercial — Industrial —

Mobilehome park — Vacant ✓ Agriculture ✓ Indian Reservation — School —

B. ENVIRONMENTAL SETTING

1. Does the project involve:
   A. the burning of wastes? No
   B. the siting of any schools? No
   C. storage, use or emission of hazardous wastes? No
   D. a highway or freeway project? No

2. Is the project within 2 miles of any airport? No

3. Is the project within an agricultural preserve? No

4. Does the property have any open space easements? No

5. Describe the most recent use of the project site.

agriculture / private residence

6. Describe surrounding land uses and environmental setting (e.g., land uses, topography, vegetation, proximity to major infrastructure and geographical features?

Open land for grazing and limited agriculture.

IV. FOR COMMERCIAL & INDUSTRIAL PROJECTS ONLY (Includes Day Care Centers and Cottage Industries)

A. PROJECT OPERATIONS

1. Number of average daily automobile trips generated by the project _____

2. Facilities to be open on weekdays from 7 a.m. to 24 Hours - Lodging Facility p.m. On weekends from ____ a.m. to ___ p.m.

3. Total number of employees +/- 3 Each shift +/- 3

4. Number of clients, customers or users EACH weekday 10 maximum

5. Radius of the service area – miles.

6. Total floor area +/- 4,000 square feet. Types of uses Bed and Breakfast

7. Number of off-site parking spaces provided none

B. INDUSTRIAL WASTE

1. Will industrial waste be discharged? No If yes, attach a discussion of the provisions for disposal.

2. Will the project result in the use or discharge of hazardous materials including hazardous air emissions (e.g., chemicals, dust, smoke, etc.)? No

3. If yes, attach a discussion of the pollutants mandated for control and any special permits required. Also answer "a" and "b" below.

   a. What type of material(s)? –

   b. How often? –

C. MISCELLANEOUS

1. Could the project result in the emission of any substances or energy such as odor, vibration, glare, or electrical disturbance? No

2. Will project generate noise which could be heard outside the project? No

3. If the project involves the storage of dangerous materials (e.g., liquefied petroleum) what safety measures have been taken? –

SUBMIT THIS COMPLETED APPLICATION TO THE

B. ENVIRONMENTAL SETTING (continued)

7: Describe the environmental conditions on-site (vegetation, amount of disturbance, grading, structures, drainage swales etc.).

existing disturbed non native vegetation.

8. Will the project be within 500 feet of an existing or future major roadway or train track?

A. If yes, identify. No

B. Give any elevation differential. —

C. If yes, describe any natural or man-made features which would shield the project site from noise.

—

9. List any other potential noise sources which could affect the project (e.g., industrial projects nearby) and give the approximate distances. N/A

10. Will the project be served by wells? yes If no, what district will provide water? —

11. Will the project have on-site sewage disposal? yes If no, what district will provide sewer service?

—

12. What fire protection agency will serve the project? Ramona

13. Must the project annex to any of these agencies? No If so, which one(s)? —

MUP 03-035

TRAFFIC

Mountain Valley Ranch, Inc.
842 Hwy 78
Ramona, Ca 92065

Department of Planning and Land Use
5201 Ruffin Road, Suite B
San Diego, CA 92123-1666

Re: MUP Application No 03-035

FOCUSED TRAFFIC ANALYSIS – RESUBMITTAL

Find attached a copy of the Traffic impact report previously submitted. Please make note of the following in response to the initial review and scoping letter of our project, in particular page 7, Section F Focused Traffic Analysis:

- This project will not result in degradation of the level of service of affected roads.
- The traffic volume will not create an excess to current limits.
- The traffic volume created by our events is minimal, and will not create a hazard for pedestrians and bicyclists on affected roads.
- The entrance to the Arena Facility is on Magnolia Ave, not State Route 78.
- Note that the attached study was completed on a Holiday weekend, thus showing higher than normal volumes, which were still well within volume limitations.
- Consider that SR78 is a main corridor to the desert and mountain areas for tourist and vacation travel.
- This is an existing facility, not a proposed development.
- Traffic created by our events is primarily trucks with horse trailers, that reside in Ramona – and should be considered as part of the normal traffic volume.

Respectfully submitted,

Selena Roberts
Mountain Valley Ranch, Inc.
Program Manager

Cc: Karen Howard

* No Volumes (ADTs + Peak Hour) Applied to total because the volumes for this job occur on off-peak turned (we

Darnell & ASSOCIATES, INC.
TRANSPORTATION PLANNING & TRAFFIC ENGINEERING

March 20, 2002

Mr. Jeff Barfield
RBF Consulting
9755 Clairemont Mesa Blvd., Suite 100
San Diego, CA 92124

D&A Ref. No: 020202

Subject: Traffic Impact Report for Mountain Valley Ranch

Dear Mr. Barfield:

In accordance with your authorization, Darnell & Associates, Inc. (D&A) has prepared this traffic impact analysis for the proposed major use permit to allow equestrian/rodeo and other local community events for the property described as Mountain Valley Ranch located at the northeast corner of Magnolia Avenue and State Route 78 in the County of San Diego (Ramona vicinity). The following paragraphs discuss existing traffic, potential worst-case trip generation and associated impacts.

PROJECT DESCRIPTION

The project consists predominately of open space for arenas, parking, agriculture (pumpkins), a variety of sheds, barns, animal pens, and two (2) houses. The project will make some improvements on the site to include the expansion of one of the existing houses and its garage, and the addition of a game room, a concession stand, a swimming pool, a riding arena, a hay shed, a new barn, and some new animal pens. This impact study is based on potential patronage for outdoor events such as rodeos, food cook-offs, weddings, equestrian events, etc.

The project is located on the northeast corner of Magnolia Avenue and State Route (SR) 78. A general vicinity map is provided on Figure 1. The project site plan is shown on Figure 2. As shown on the project site plan, the site currently has access to SR-78 as well as Magnolia Avenue. For the purposes of this study, it is assumed that Magnolia Avenue will operate as the main project access to demonstrate worst-case traffic scenarios.

EXISTING TRAFFIC

Intersection peak hour traffic counts were conducted for the intersection of SR-78/Magnolia Avenue for the following study hours on Friday, February 15, and Saturday, February 16, 2002:

Friday Afternoon:	5:30pm-7:30pm
Friday Evening:	9:00pm-10:30pm
Saturday Morning:	7:30am-9:30am
Saturday Afternoon:	4:00pm-6:00pm

1446 FRONT STREET • THIRD FLOOR • SAN DIEGO, CA 92101
PHONE: 619-233-9373 • FAX: 619-233-4034

Daily traffic (24-hour) volumes were collected on Friday and Saturday, February 15-16, 2002.

Although these times do not reflect the typical adjacent street peak hours for the area, these times were chosen based on the operational times of potential events occurring on the subject property. These count days also fall on one of the busiest weekends of the year as travelers are destined for the mountain and desert areas for President's Day Weekend.

Existing traffic counts which reflect Friday volumes are provided on Figure 3. Saturday volumes are posted on Figure 4.

Count data sheets are available in the appendix to this report.

PROJECT TRAFFIC

Traffic attributable to the proposed project events were estimated based on potential patrons for the worst-case traffic events. Following is a general list of planned activities to occur on site:

Summer Series Youth Rodeo - held July through September on Friday nights 6:30-10:00 p.m., attendance up to 1,000 patrons with all parking on site.

Hoot & Holler Days - held on a Saturday in May, cosponsored by the Chamber of Commerce, and kicks of Ramona's larger rodeo (not held on this property). Includes a chili cook-off, tack swap and other events. Attendance estimated at 500 patrons.

School Rodeo - held in April evenings for youth and adults for about 40 participants.

3-Man Team Penning Rodeo - held in September, including 50 trailers and less than 500 patrons.

Rainbow Riders - held every Tuesday for adult equestrian drill team with 12 patrons.

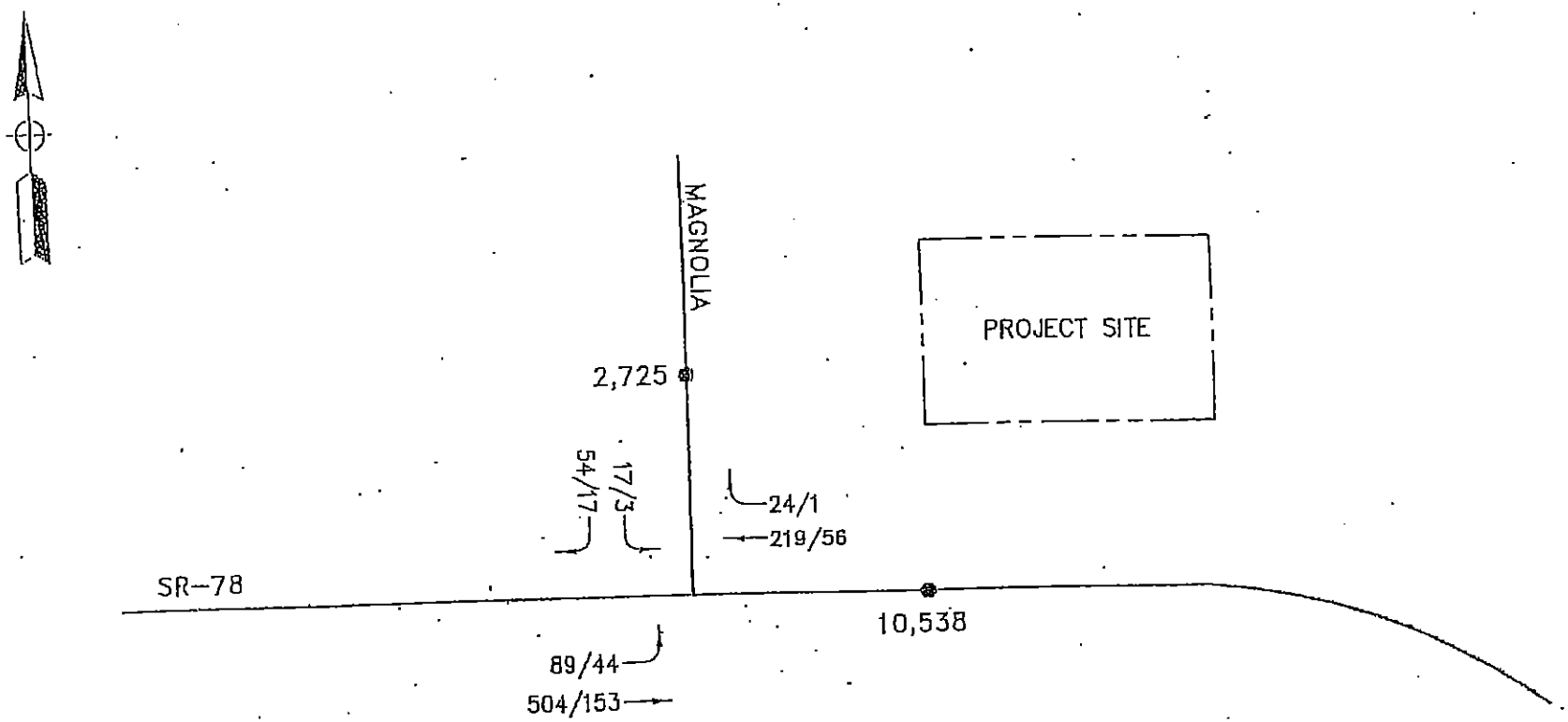
Seasonal Weddings - held in barn as requested.

Roping Events - held every Wednesday night from 6:30-8:30 for 10-15 patrons.

Mother's Day Team Roping - held on Mother's Day for 100 patrons.

Barrel Races - three held per year with less than 500 patrons attending.

Using the potential event patronage established above, we estimated project traffic for the worst-case attendance on Friday and Saturday. The Summer Youth Rodeo for up to 1,000 patrons occurs on Friday and was added to the Friday afternoon and Friday evening street traffic. The Saturday event with the highest patronage was the Hoot & Holler Days which will generate approximately 500 patrons.



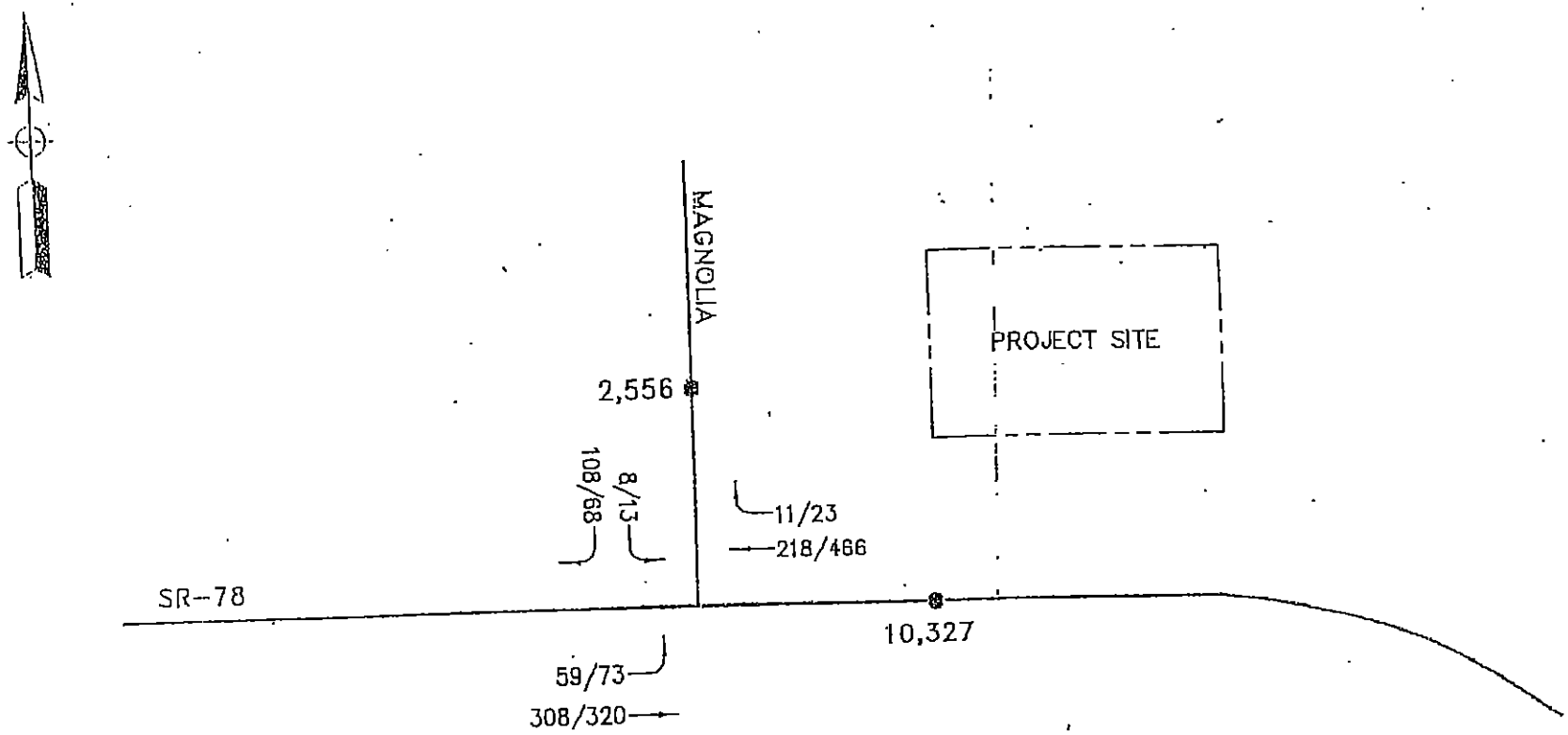
LEGEND

FRIDAY PM PK = 5:30-6:30 P.M.
FRIDAY EVE PK = 9:00-10:00 P.M.
XX/YY = FRIDAY PM/EVE VOLUME
Z,ZZZ = FRIDAY DAILY VOLUME

Darnell & ASSOCIATES, INC.

020202AA 03-20-02 SRN

FIGURE 3
EXISTING FRIDAY TRAFFIC



LEGEND

SATURDAY AM PK = 8:30-9:30 A.M.
SATURDAY PM PK = 4:30-5:30 P.M.
XX/YY = SATURDAY AM/PM VOLUME
Z,ZZZ = SATURDAY ADT

Darnell & ASSOCIATES, INC.

FIGURE 4
EXISTING SATURDAY TRAFFIC

Based on the type of events on site, it was assumed that a vehicle occupancy rate of 2.0 persons per vehicle was conservative. Using this occupancy rate, Table 1 summarizes the potential trip generation for the project during the days and times detailed above.

TABLE 1
TRIP GENERATION SUMMARY

Summer Youth Rodeo (FRI): ADT: 1 trip per patron; PM = 50% in; EVE = 50% out
Hoot & Holler Days (SAT): ADT: 1 trip per patron; AM = 50% in; PM = 50% out

Trip Generation Calculation

Friday Trip Potential

Land Use	Density	ADT	PM Peak			EVE Peak		
			Total	In	Out	Total	In	Out
Summer Rodeo	1000 patrons	1000	500	500	0	500	0	500

Saturday Trip Potential

Land Use	Density	ADT	AM Peak			PM Peak		
			Total	In	Out	Total	In	Out
Hoot & Holler	500 patrons	500	250	250	0	250	0	250

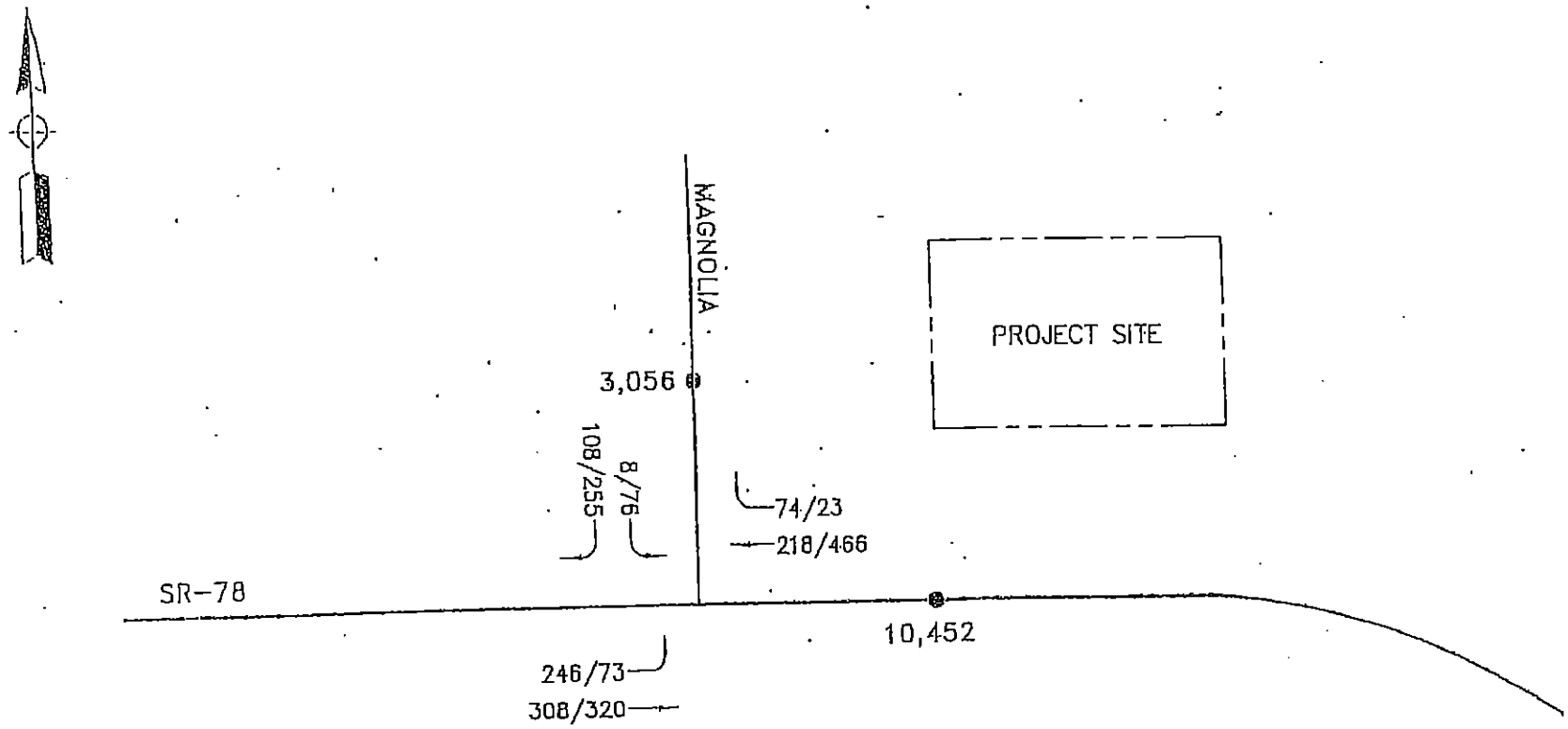
Rates estimated based on patronage
Vehicle occupancy of 2.0 persons is included in trip rates
ADT = Average Daily Traffic

As shown on Table 1, the Summer Youth Rodeo will generate 1,000 daily trips, with 500 of these trips applied to the entering volumes during the Friday afternoon peak, and 500 vehicles exiting during the Friday evening peak. For the purposes of this study, all project traffic was diverted through the intersection of SR-78/Magnolia Avenue.

For the Saturday peak traffic, the Hoot & Holler Days will generate approximately 500 trips per day, with 250 arriving in the Saturday morning peak, and 250 exiting during the Saturday afternoon peak. As before, all project traffic is diverted through the main intersection at SR-78/Magnolia Avenue.

PROJECT TRAFFIC

Project related traffic was then assigned to the existing traffic volumes at the intersection of SR-78/Magnolia Avenue for each time period described. A distribution of project traffic was assumed at 25% east and 75% west.



LEGEND

SATURDAY AM = 8:30-9:30 A.M.
SATURDAY PM = 4:30-5:30 P.M.
XX/YY = AM/PM TRAFFIC
Z,ZZZ = DAILY TRAFFIC

Darnell & ASSOCIATES, INC.

020202AA 03-20-02 SRN

FIGURE 6

EXISTING + HOOT-HOLLER SATURDAY TRAFFIC

Daily Traffic

The 24-hour daily traffic on street segments was also analyzed for operation using the traffic counts collected on President's Day weekend and comparing these volumes to the capacity of the roadways as defined by the County of San Diego's Public Road Standards. Table 3 summarizes the street segment operation for the short term condition. As shown on Table 3, all roadway segments will operate at LOS D or better with or without the proposed project. The project is not a significant part of traffic attributable to SR-78 based on the County of San Diego's 2% volume to capacity increase threshold.

TABLE 3
SUMMARY OF STREET SEGMENT OPERATION

Segment	Existing		Plus Project	
	24-hour Volume	V/C LOS	24-hour Volume	V/C LOS
Friday Traffic				
SR-78 east of Magnolia	10538	0.650/LOS D	10788	0.666/LOS D
Magnolia north of SR-78	2725	0.606/LOS C	3725	0.828/LOS C
Saturday Traffic				
SR-78 east of Magnolia	10327	0.637/LOS D	10452	0.645/LOS D
Magnolia north of SR-78	2556	0.568/LOS C	3056	0.679/LOS C

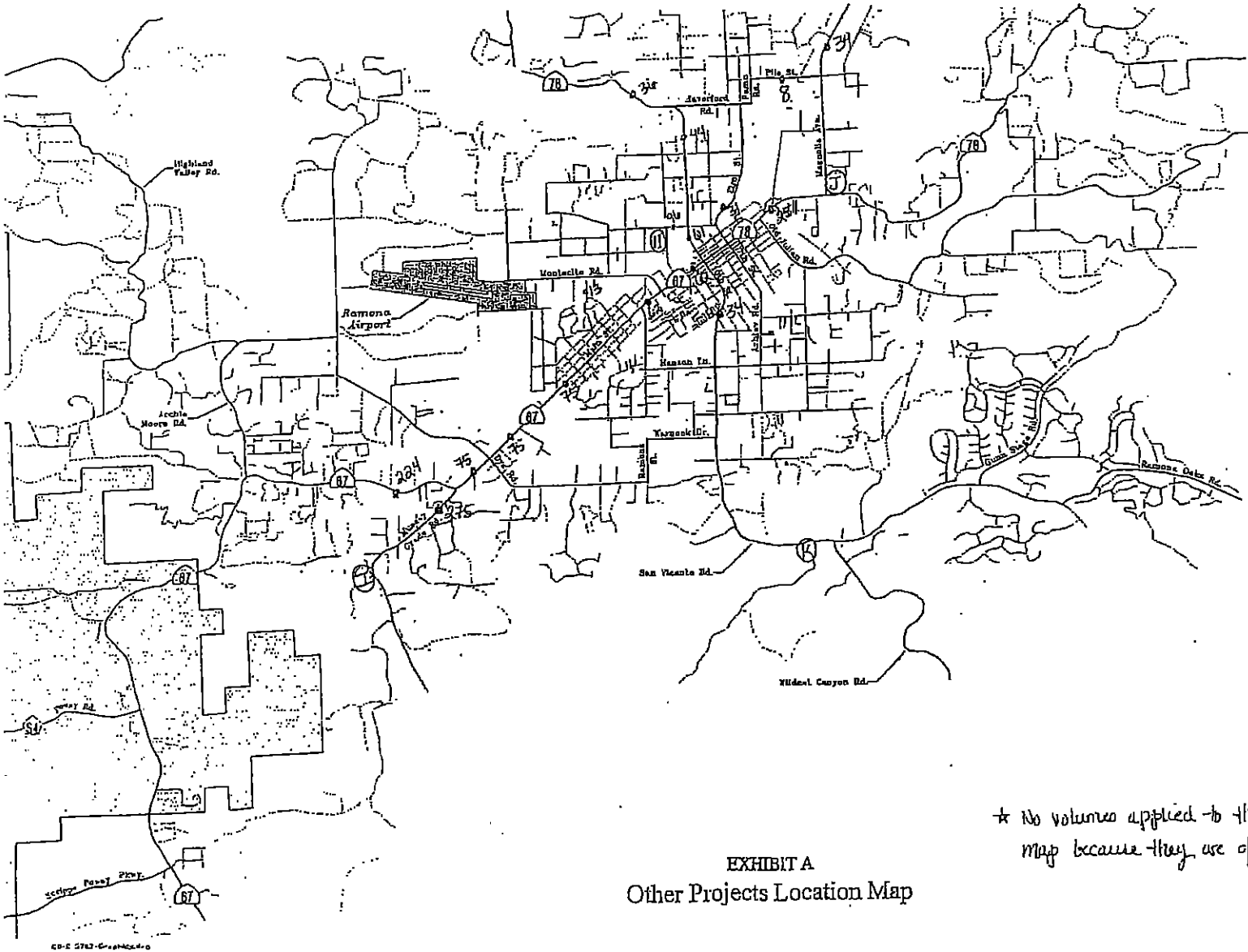
Vol. = 24-hour traffic volume
V/C = volume to capacity ratio
LOS = level of service per County Public Road Standards
SR-78 is a two lane highway with maximum capacity of 16,200 vehicles
Magnolia is a two lane residential street with a maximum capacity of 4,500 vehicles

SUMMARY OF FINDINGS

- Traffic counts for the area were conducted on President's Day weekend which demonstrated a high volume of traffic oriented toward the mountains/deserts and is considered reflective of seasonally high traffic volumes.

- Traffic potential from the proposed project was estimated with worst case patronage and assigned to a single access point. All project traffic was assigned to enter and exit during the peak hours to present a worst-case scenario for analysis at SR-78/Magnolia Avenue.

LLG – MUP's



LEGEND

(H) MUP 94-017 Ramona Disposal Service

(I) MUP 70-379 Salvation Army Camp

* (J) MUP 03-035 Mountain Valley Ranch, Inc.

* (K) MUP 02-005 Rancho Cuita

* No volumes applied to the total cumulative map because they are off-peak.

N
NO SCALE

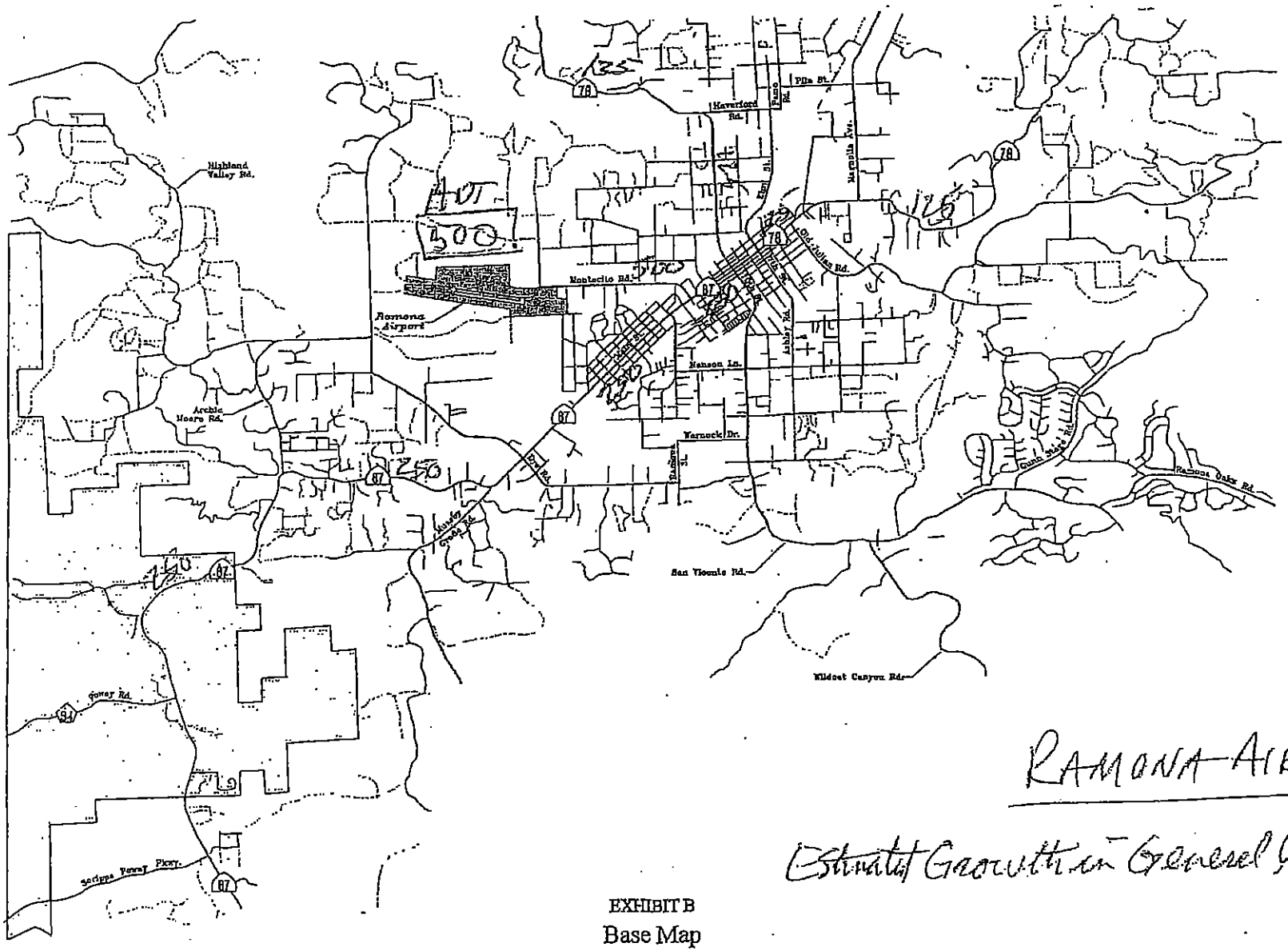
EXHIBIT A
Other Projects Location Map

APPENDIX F-3

SITE PLAN REVIEW (STP'S)

The following STP'S have been incorporated where appropriate into this analysis.

1. 01-004 Easement Vacations (No New Trips)
2. 00-100 Ramona Airport - 500 ADT
3. 02-064 One Stop Rental Site Plan - Trips accounted for under TM
4. 03-044 Big Apple Bagels (No New Trips)



RAMONA AIRPORT

Estimated Growth in General Aviation

EXHIBIT B
Base Map

C8-5 3703-Graphics.dwg

APPENDIX F-4

TENTATIVE MAPS (TM'S)

The following tentative maps (listed in numbered order) have been incorporated into this evaluation.

1	TM 4844
2	TM 4862
3	TM 4962
4	TM 5136
5	TM 5188
6	TM 5194
7	TM 5235
8	TM 5198
9	TM 5244
10	TM 5250
11	TM 5253
12	TM 5254
13	TM 5257
14	TM 5267
15	TM 5294
16	TM 5302
17	TM 5307
18	TM 5311
19	TM 5329
20	TM 5344
21	TM 5347
22	TM 5378

23	The Grove
24	Oak Tree Ranch
25	One Stop Rental
26	Santa Ysabel Casino
27	Boundary Avenue School
28	O Pierce / RHS Expansion
29	TM
30	TM
31	TM
32	TM
33	TM
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36	TM
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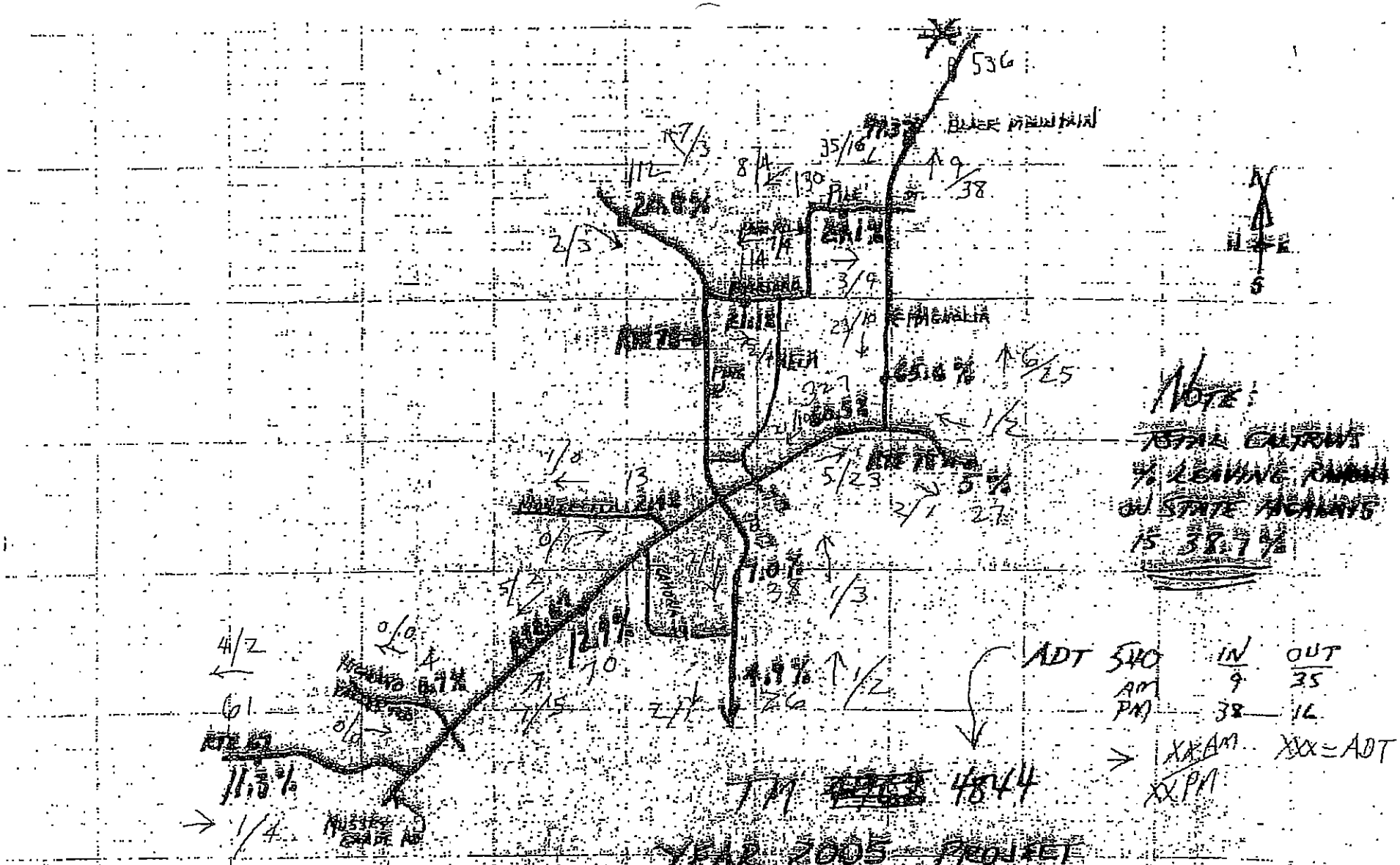
38	TM
39	TM
40	TM
41	TM
42	TM
43	TM
44	TM



YEAR 2005 PROJECT
TRAFFIC DISTRIBUTION
PERCENTAGES

FROM SANDAG YEAR 2005

FIGURE 9

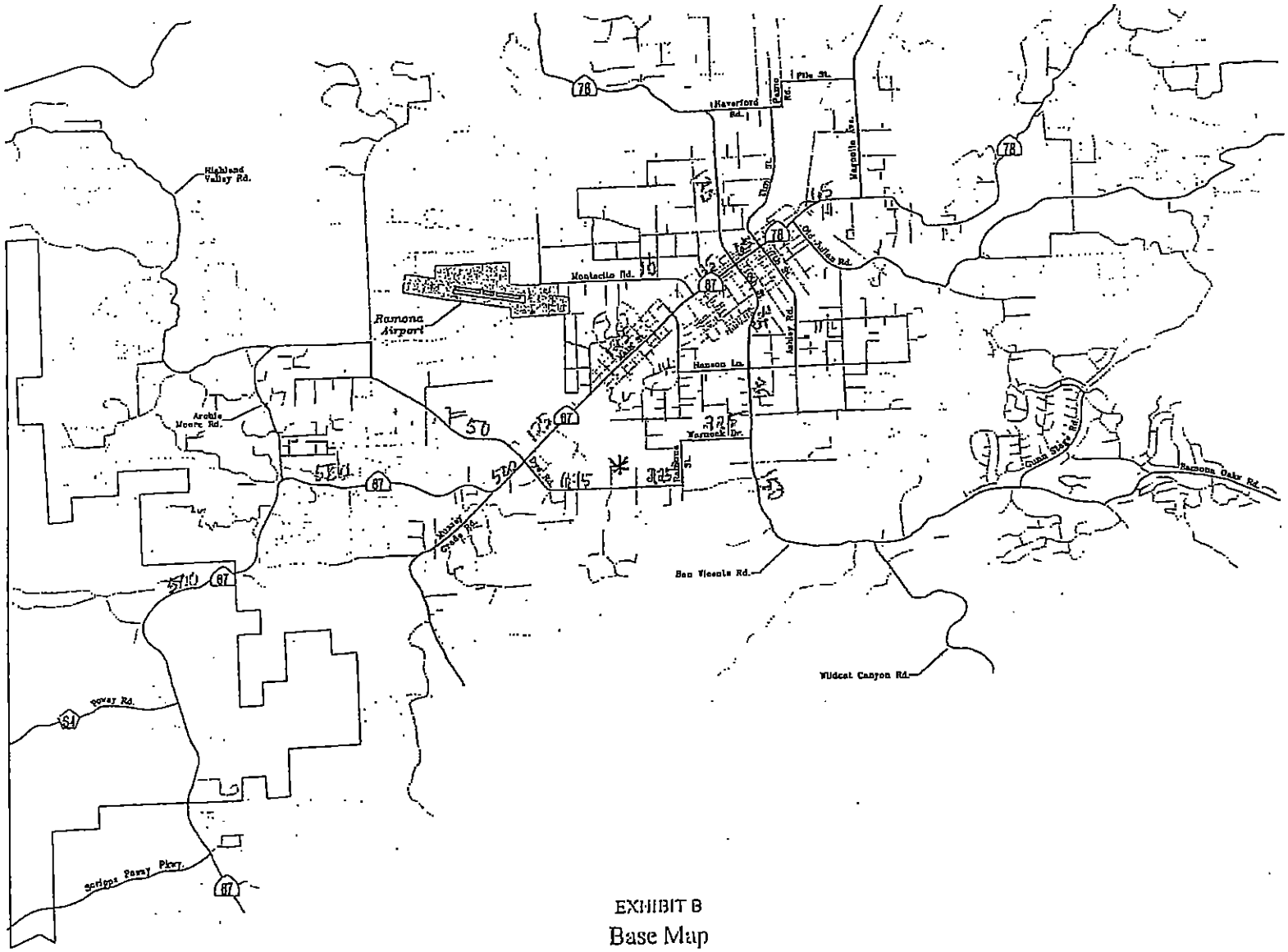


EXHIBIT B
Base Map

NO SCALE

TM 4862 = (900 ADT)
Leuff Ranch

LINSCOTT LAW & GREENSPAN
ENGINEERS

Subject: RAMONA CUMULATIVE Page# ___ of ___

Job# ___ Job Name ___

Prepared by ___ Date ___

Highland Valley Rd SR67 Dye Rd	Hope St. (SA-330) SR67 Main St	Hunter St. Main St.
Pala St. Main St.	Ramona St. Main St.	Montecito Rd. Main St.
Maple St. Main St.	Pine St. Main St.	7th St. Main St.

TM 4862

LAUREN M. WASSERMAN
DIRECTOR
(619) 694-2962

County of San Diego

DEPARTMENT OF PLANNING AND LAND USE

MAIN OFFICE
5201 RUFFIN ROAD, SUITE B, SAN DIEGO, CALIFORNIA 92123-1666
INFORMATION (619) 694-2960

FIELD OFFICE
334 VIA VERA CRUZ
SUITE 150
SAN MARCOS
CALIFORNIA 92069-2038
(619) 591-9092

Date Prepared: July 2, 1992

WN 2154

FINAL ENVIRONMENTAL IMPACT REPORT

PROJECT: Luelf Ranch

PERMIT: SP 89-002, TM 4862RPL3, R91-002
LOG #: 89-3-7

The Board of Supervisors has reviewed the enclosed draft Supplemental Environmental Impact Report (SEIR). Based on that draft, public and agency comments received, and staff analysis, the Board finds that:

1. The attached final SEIR has been completed in compliance with the California Environmental Quality Act (CEQA), and reflects the independent judgment of this Board, and that this Board has reviewed and considered the information contained therein prior to approving the project.

2. The project will have the following environmental impacts:

   Significant and mitigable:

   Archaeological Resources
   Biological Resources
   Traffic Circulation
   Geology/Grading/Visual Quality
   Hydrology/Drainage/Groundwater

3. The Mitigation Measures presented in the EIR discussion have been made conditions of the project approval.

Date Certified: 9/16/92

LAUREN M. WASSERMAN, Director
Department of Planning and Land Use

preparation and protection; temporary fencing of adjacent native habitat; habitat acreage lost, added, enhanced and total acreage revegetated; monitoring and reporting; success criteria; maintenance (including replacement); detailed estimates of costs; secured agreement for a five year period from the installation of plantings; and documentation of revegetation experience of biologist preparing and supervising the program.

2B. Prior to recordation of the Final Map, the subdivider shall provide to the satisfaction of the Director, Department of Planning and Land Use documentation which shows that the subdivider has entered into escrow for the transfer of ownership of Lot 91 immediately following recordation of the Final Map to a conservancy/land trust or public agency satisfactory to the Department of Planning and Land Use. If this is demonstrated to the satisfaction of the Department to be infeasible, the applicant shall provide evidence that a homeowners association has been established and will receive ownership of, and will maintain, the said open space lot for wildlife habitat. Escrow documentation (instructions) shall include the following information to the grantee of Lot 91: The open space easement shall be maintained and managed for wildlife and shall prohibit brushing, clearing, grading, placement of structures, fencing or any other thing, and vegetation additions or removal, within the boundaries of the easement except to allow the implementation and maintenance of an approved Revegetation and Oak Management Plan for the revegetation and management of riparian and oak woodland.

2C. The "D" (Design Review) Designator, which will be applied to the entire site, contains provisions that lot development avoid impacts to isolated Engelmann oaks and scrub live oaks greater than six feet, wherever feasible. Unavoidable impacts shall be mitigated by 5:1 replacement using 5 and 15 gallon stock. See the language of the "D" Designator in Mitigation Measure 4.A.

3. TRAFFIC CIRCULATION

Finding: There would be a significant environmental impact which can be mitigated to an insignificant level by the following mitigation measures.

Discussion: The principal roads utilized by the project are: Dye Road from which the project takes access, State Highway 67, and Ramona Street/Warnock Drive. Dye Road is designated on the Circulation Element as a Major Road (4 lane divided roadway) but is currently a 2 lane highway with approximately 24 feet of pavement within a 60 foot right-of-way. Inter-regional access to the Ramona community is from the southwest via Route 67 and from the northwest via Route 78. Route 67, a two lane route connecting west to Poway Road and south to Lakeside, is currently experiencing congestion at peak hours. Route 67 is currently a 2 lane highway within 60 feet of right-of-way between the Ramona business district and points west. The section of Route 67 north of Mussey Grade

is classified as a Collector Road in the Circulation Element with a 84 foot right-of-way and 63 foot roadway. Ramona Street/Warnock Drive, east of the project site, is currently a 2 lane highway within a 60 foot right-of-way but is classified as a Rural Collector (84 foot right-of-way with future 40 foot roadway).

The proposed project would generate approximately 900 Average Daily Trips (ADT), thereby increasing the existing ADTs from 5,500 to 6,175 on Dye Road west of the project site and from 4,080 to 4,305 ADTs east of the project site. There would also be an increase of 500 ADT to the existing 21,450 ADTs on Route 67 south of Dye Road. The impact of project traffic on local roads at buildout would be an incremental increase of 4.3% and 1.5%, respectively, to the west and east of the project along Dye Road, and 1.1% and 1.8%, respectively, north and west of Dye Road on Route 67. Impacts to regional roadways such as State Highway 67 will need to be addressed through regional solutions. The following mitigations, which will contribute to the reduction in road congestion and facilitate traffic flow, are expected to mitigate project impacts with respect to traffic circulation.

Mitigation Measures:

3A. The following conditions shall be incorporated in the Specific Plan:

1. The project half of Dye Road (SA 300) abutting the project shall be dedicated and improved in accordance with its classification on the Circulation Element of the General Plan.

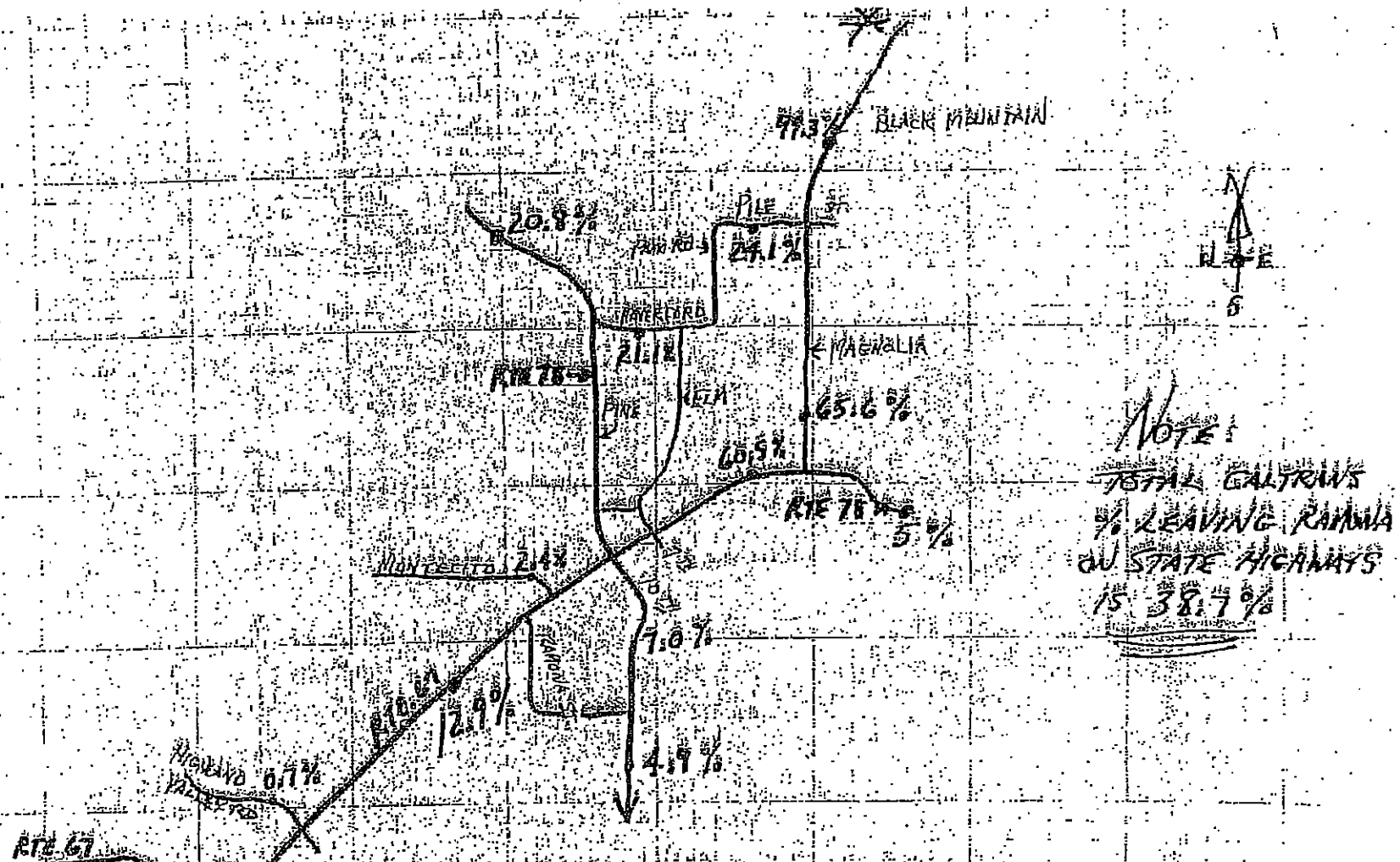
2. Public streets shall be dedicated and improved to the satisfaction of the Director of the Department of Public Works in accordance with the County standards in effect when a Tentative Map is processed.

3. Riding and hiking trails shall be dedicated and improved to the satisfaction of the Director of the Department of Public Works in accordance with standards in effect when a Tentative Map is processed.

4. The applicant shall participate in the cost of future traffic signal installations at locations to be determined when a Tentative Map is processed.

5. Private street easements shall be developed to the satisfaction of the Director of the Department of Public Works in accordance with the County standards in effect when a Tentative Map is processed.

6. A drainage fee shall be charged in accordance with the Drainage Fee Ordinance in effect when a Tentative Map is processed.

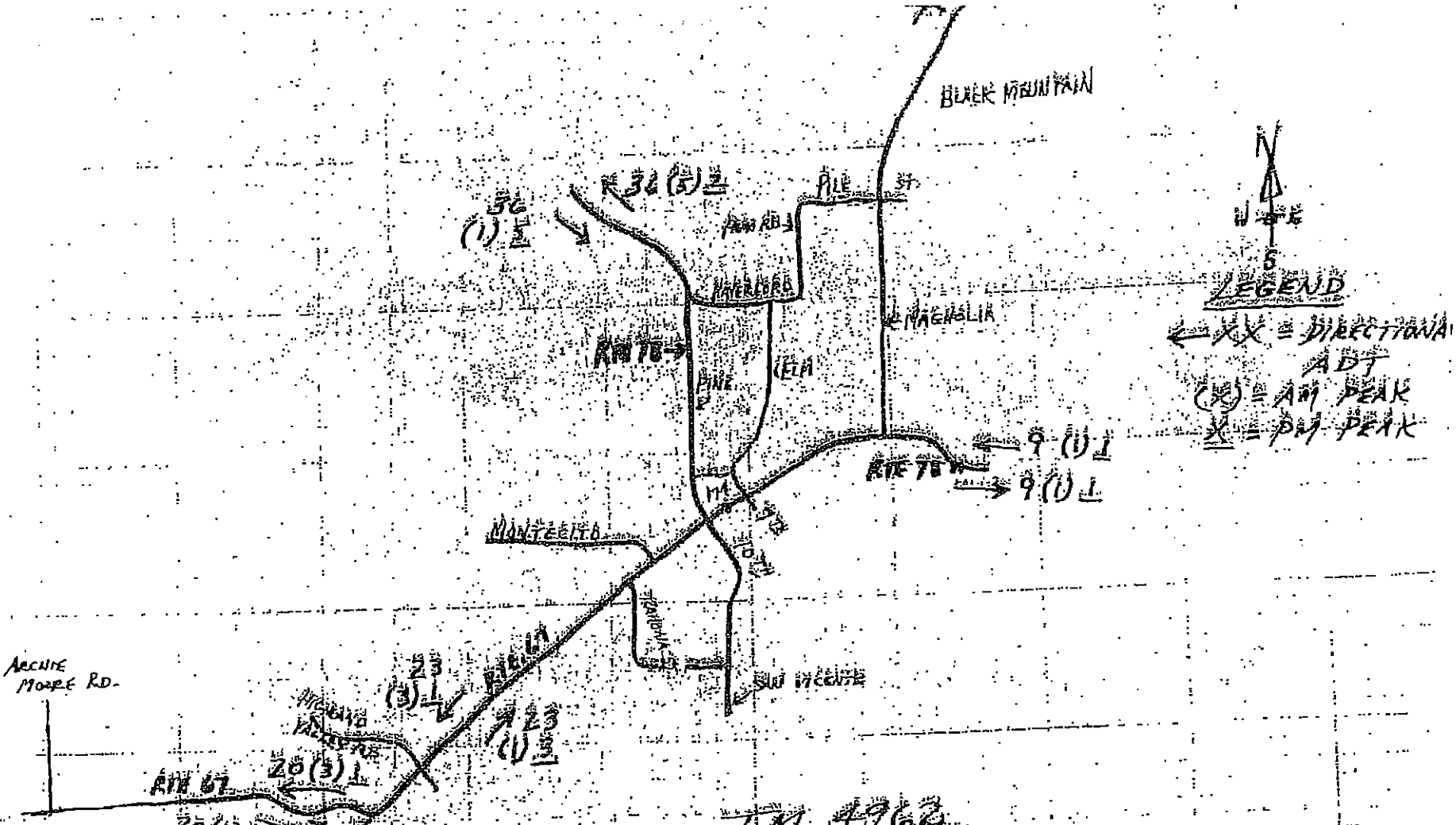


TM 4962

YEAR 2005 PROJECT
TRAFFIC DISTRIBUTION
PERCENTAGES

FROM SANDAG YEAR 2005

FIGURE 6



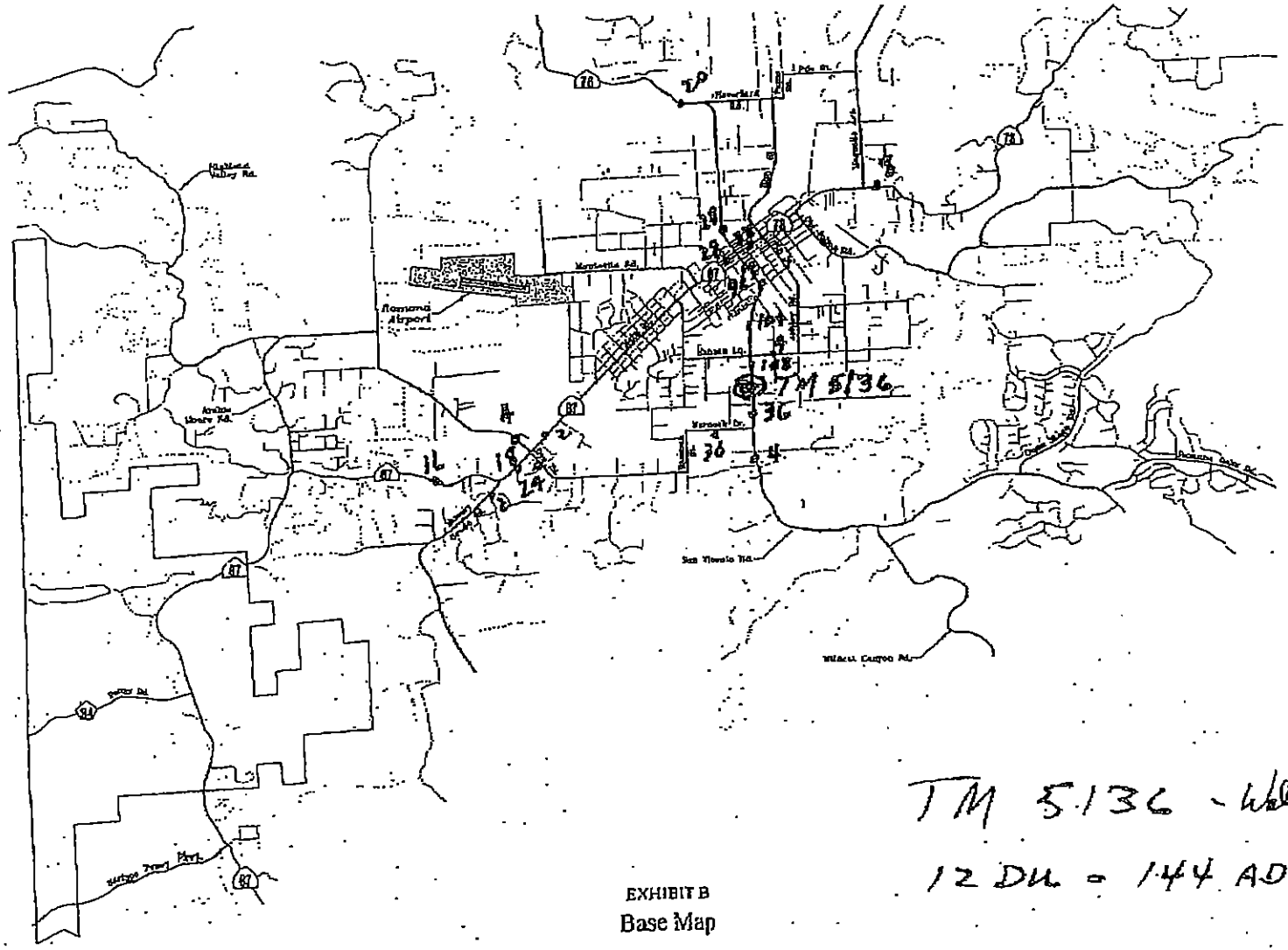
TM 4763

CALTRANS HIGHWAYS

PROJECT TRAFFIC ONLY

DIRECTIONAL ADT AND PEAK HOURS

FIGURE 11



TM 5136 - Webster

12 DU = 144 ADT

N

NO SCALE

EXHIBIT B

Base Map

For Andy

7/14/04

Jim F.

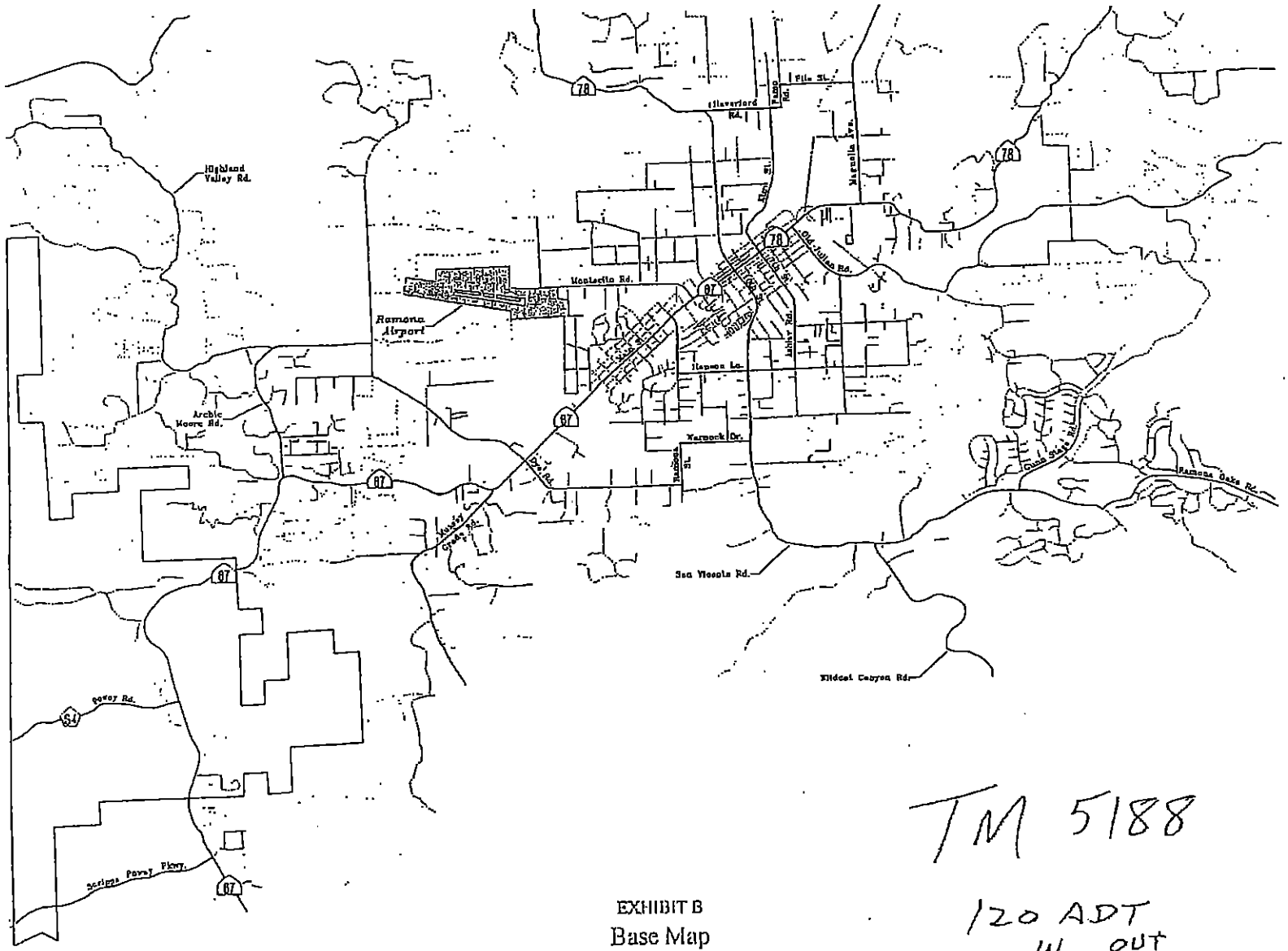


EXHIBIT B
Base Map

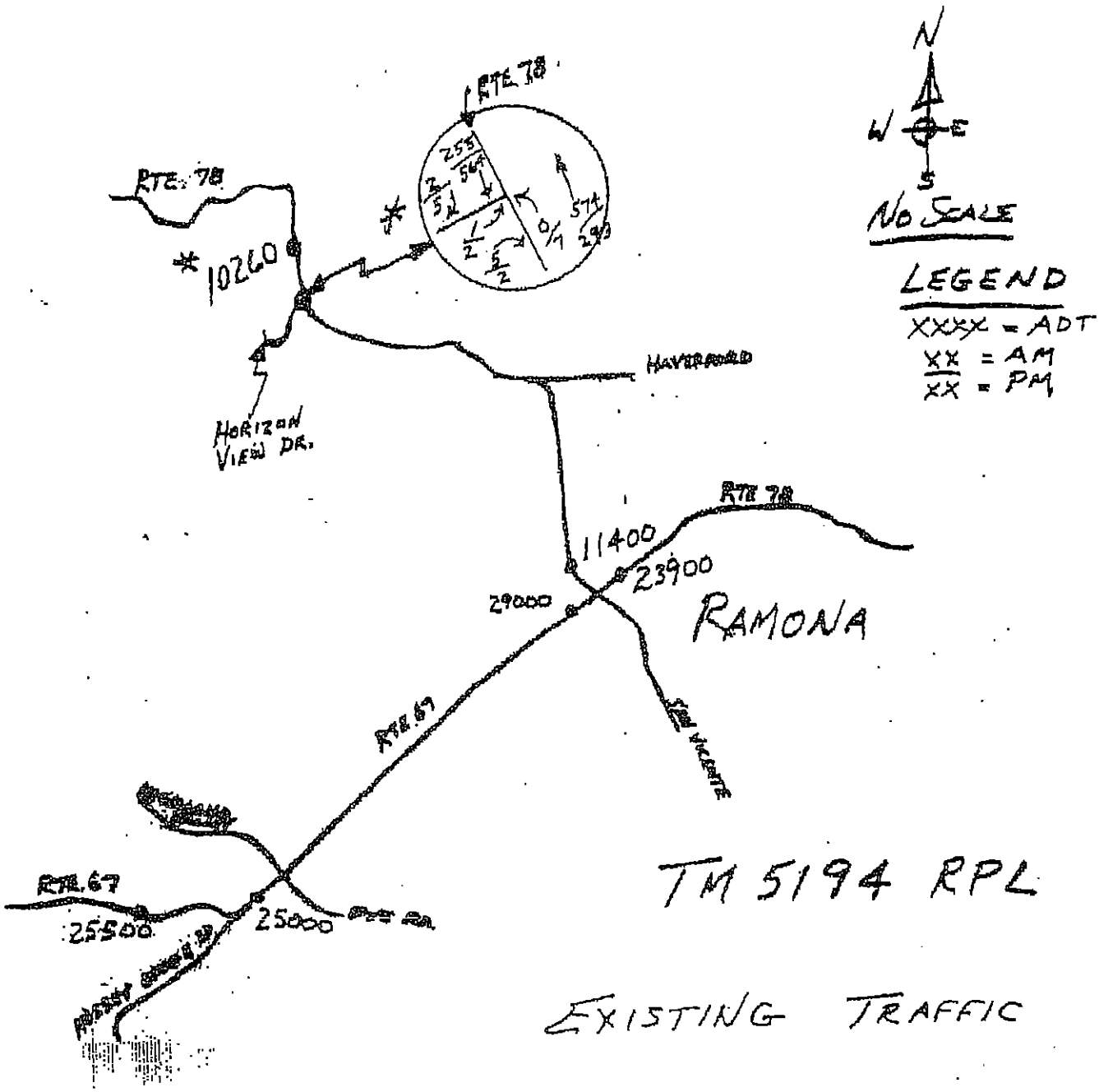
TM 5188

120 ADT

	IN	OUT
AM	3	7
PM	8	4

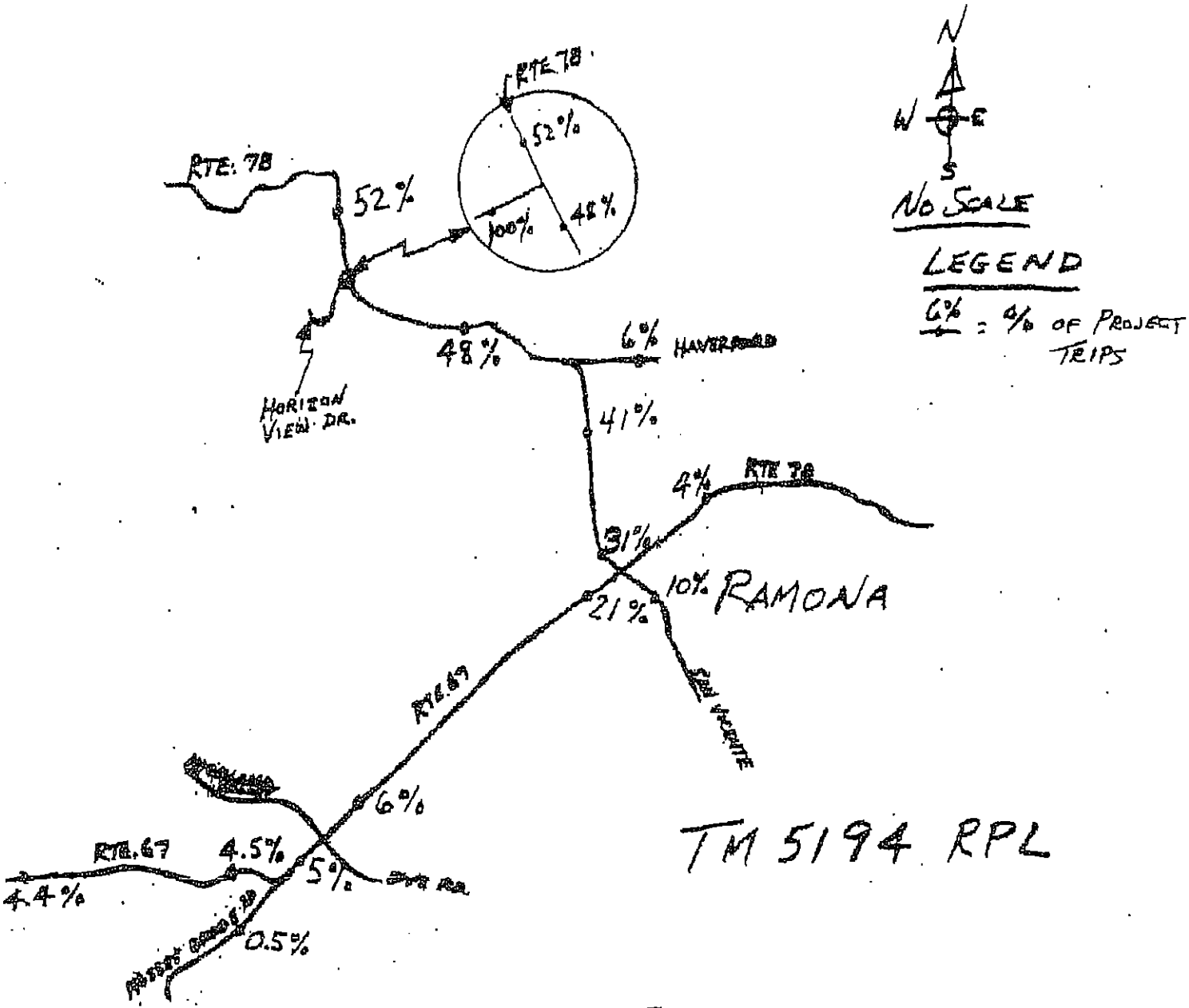
N
NO SCALE

C8-E 3783-Graphics.dwg



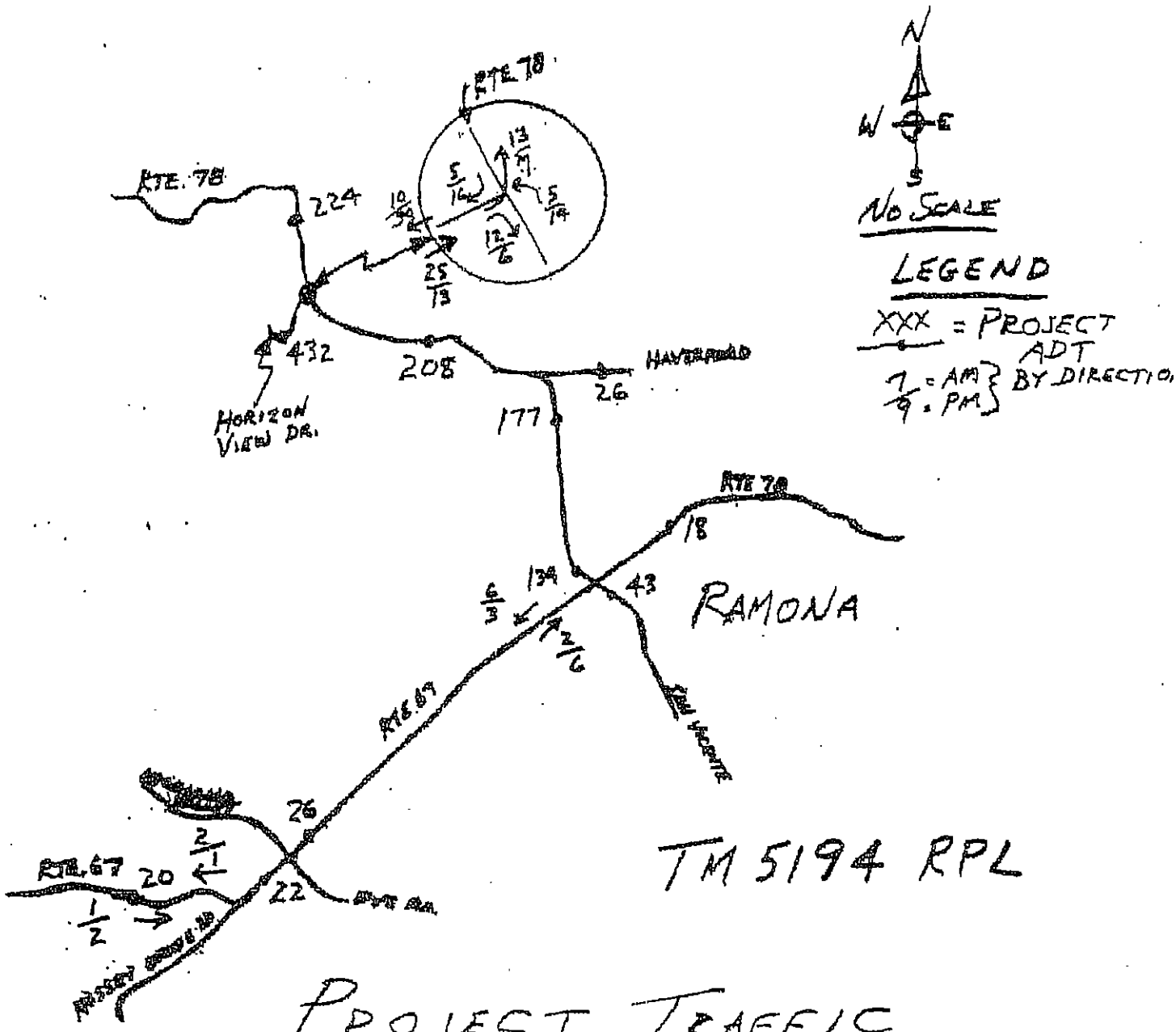
COUNTS BY CALTRANS EXCEPT
* BY THIS CONSULTANT ON 3/11/08

FIGURE 4



ESTIMATED PROJECT DISTRIBUTION PERCENTAGES

FIGURE 6



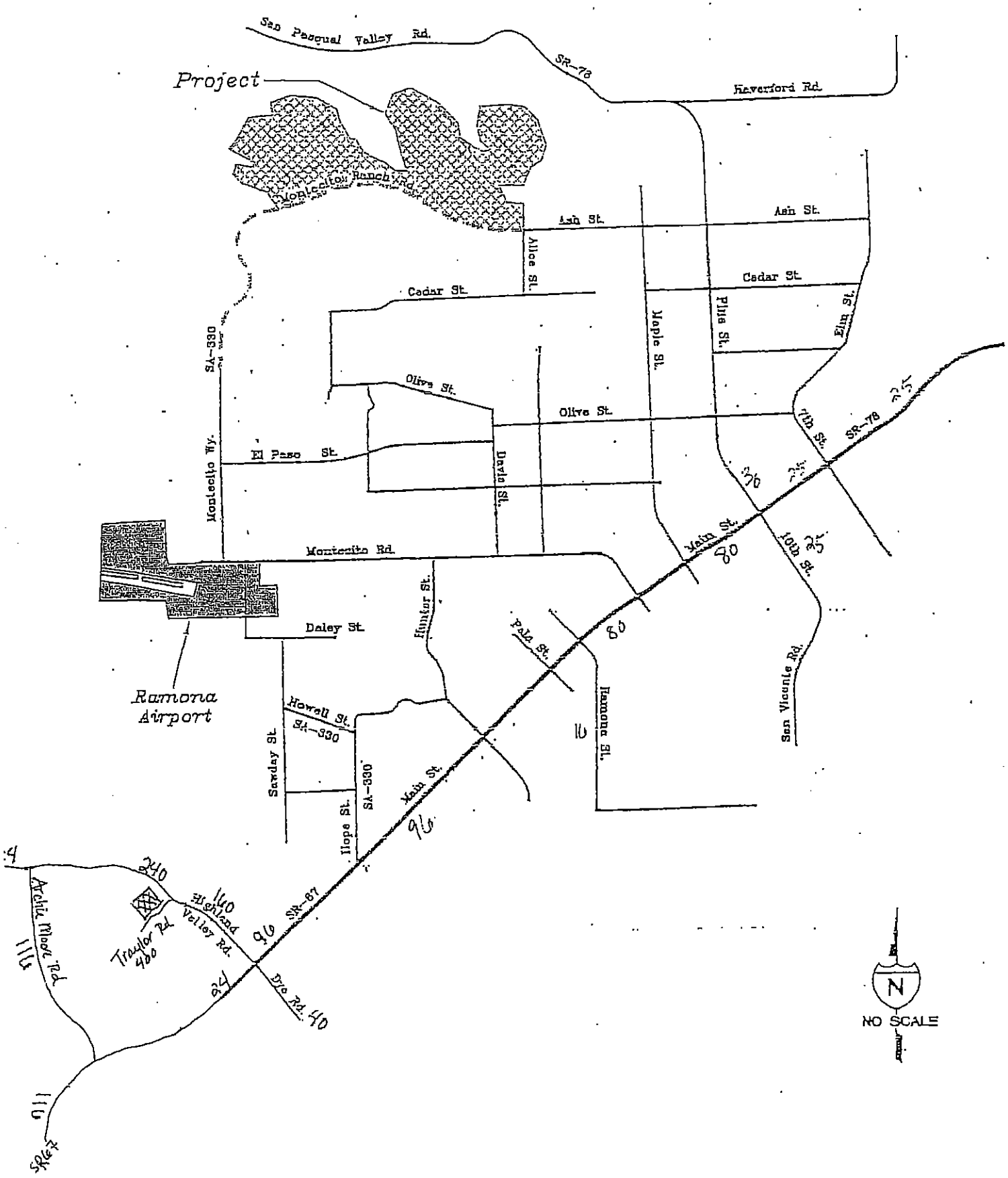
PROJECT TRAFFIC

ASSIGNMENT

(PROJECT ONLY)

GUIDE 7

TM 5198
A Natural High II



- DESCRIPTION
- GENERATION
- ASSUMPTIONS (NO PHV?)

SUMMARY

PROJECT SYNOPSIS

Location

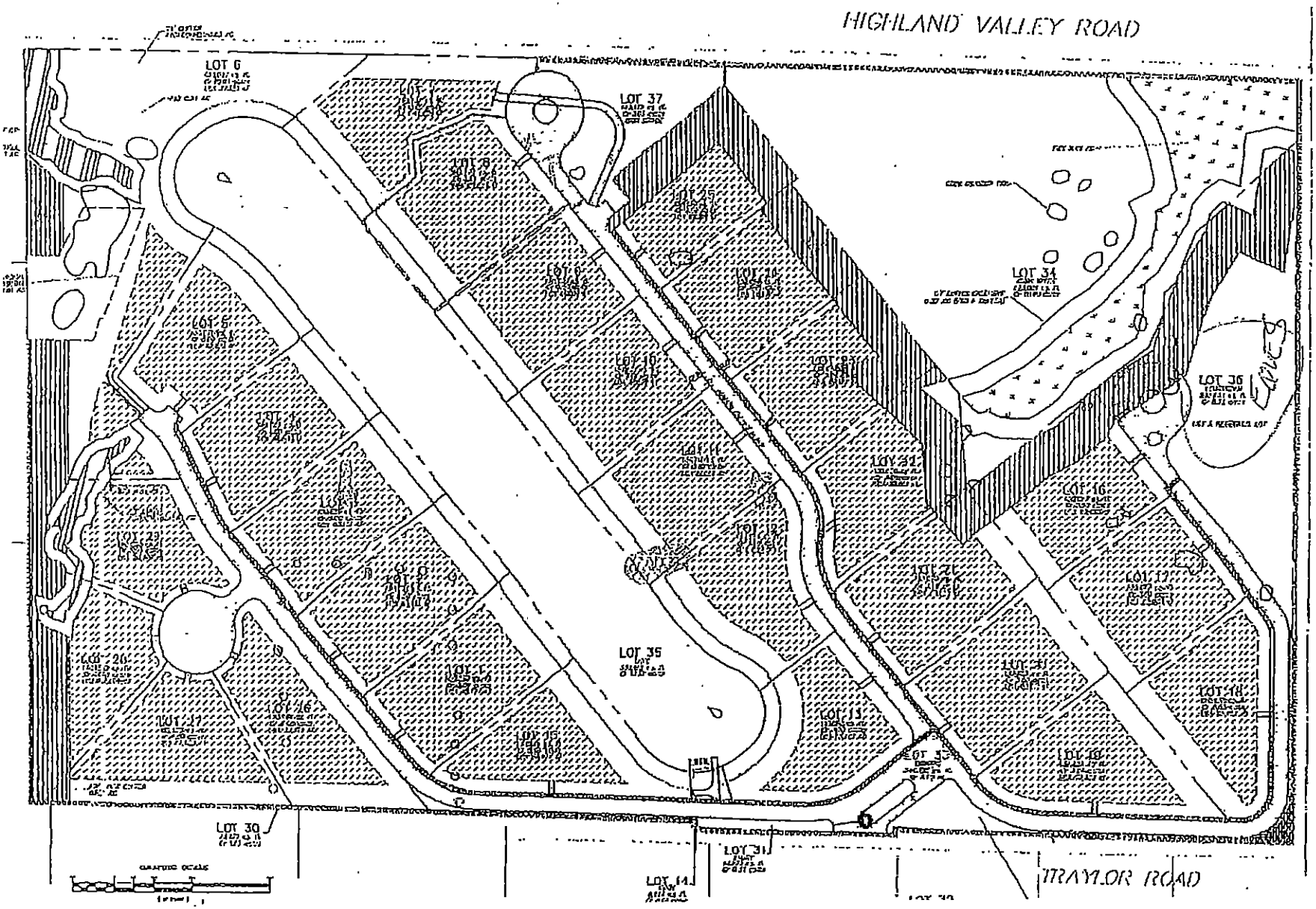
The Rancho Esquilago Estates project is located in the central portion of San Diego County within the unincorporated community of Ramona. It is accessed via State Route (SR) 67 regionally and locally by Highland Valley Road to Traylor Road. Located at the southwestern edge of the Santa Maria Valley, the proposed project site is bounded on the north and east by Highland Valley Road and on the south by Traylor Road.

Description

The proposed project is a rural-residential development on 147.3 acres which includes 28 residential lots, associated recreation uses, and over 63 acres of open space with approximately 3 lots exceeding 3 acres. The 28 residential lots would have a minimum lot size of 3 acres. Fourteen residential lots would border the proposed lake. The lots would be grouped in the western portion of the site to allow for the preservation of biological, agricultural, and visual resources in the northeastern portion of the property, as well as preservation of connectivity with offsite open lands to the east and northeast.

The recreation uses would consist of a recreation lake, an equestrian facility, and equestrian trails. A private 12.78-acre lake is proposed for recreational use, which would include water skiing, swimming, fishing and boating. The lake would be approximately 260 feet wide, 2,000 feet long, and 7 feet deep and would hold roughly 107,218 cubic yards of water. The lake would use tertiary treated water from the Mount Woodson Tertiary Treatment Plant.

The project proposes several equestrian-related structures on 6.52 acres. The primary feature of the equestrian facility would be an approximately 13,833 square-foot, covered riding arena. Also proposed is a stable with ten stalls, tack room, restroom, office, and grooming area; an outdoor riding ring and a fenced pasture with a covered shade area. The entire lot would be fenced, however the facility would connect with equestrian trails onsite and County equestrian trails around the site. A water trough would be provided at the fenced boundary with the proposed trail so people using the pubic trails could water their horses.



David Martz 636-456-0179
p.03

Trip Generation —

he Residential Estate AM peak hour trip generation is 8% of ADT inbound-outbound ratio of 3:7). The PM peak hour trip generation is 10% of ADT inbound-outbound ratio of (7:3). The pecial Use on Lot 36 AM peak hour trip generation is estimated at 15% of ADT inbound-utbound ratio of (5:5) and PM peak hour generation is 10% and inbound-outbound ration of 6:4). See Table 2, below.

TABLE 2
Rancho Esquilago Estates ADT/Peak Hour Traffic Generation

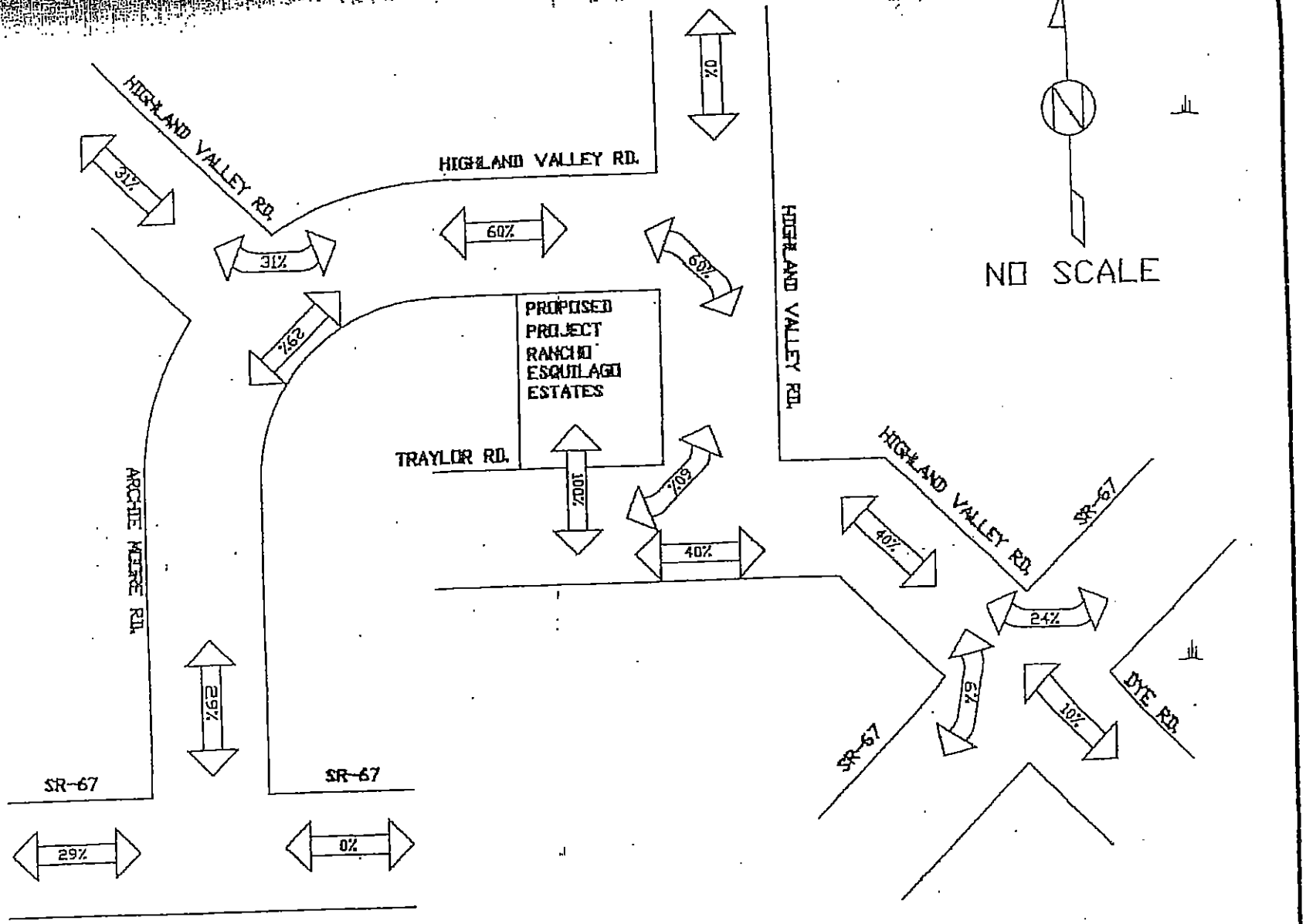
Land Use (SANDAG)	# of Lots	Rate	ADT	AM Peak	PM Peak
Residential Estate				8% (3:7)	10% (7:3)
Lot 1-13; 15-29	28	12/DU	336	27 (In 8:19 Out)	34 (In 24:10 Out)
Lot 36 Caretaker / Eques	1	12/DU	12	1 (In 0: 1 Out)	2 (In 2: 0 Out)
Special Use - Lot 36				15% (5:5)	10% (6:4)
Non-Project Use - 10 Stalls or Pasture Space		4/Stall	40	6 (In 3:3 Out)	4 (In 2: 2 Out)
Employees - 3 Employees		4/Emp	12	2 (In 1:1 Out)	1 (In 1: 0 Out)
TOTALS:			400	36 (In 12:24 Out)	46 (In 29:12 Out)

d. Trip Distribution Pattern

To determine the projected directional distribution of project-generated traffic, Graves Engineering on 1/17/01 performed manual counts of turning movements at the intersections of SR 67/Highland Valley Road; Highland Valley Road/Traylor Road; Highland Valley Road/Rangeland Road; and Archie Moore Road/Highland Valley Road. See turning movements as depicted in Figure 11.

Based upon traffic flows showing in and out of Traylor Road and Rangeland Road onto Highland Valley Road, the project traffic distribution pattern is shown on Figure 12.

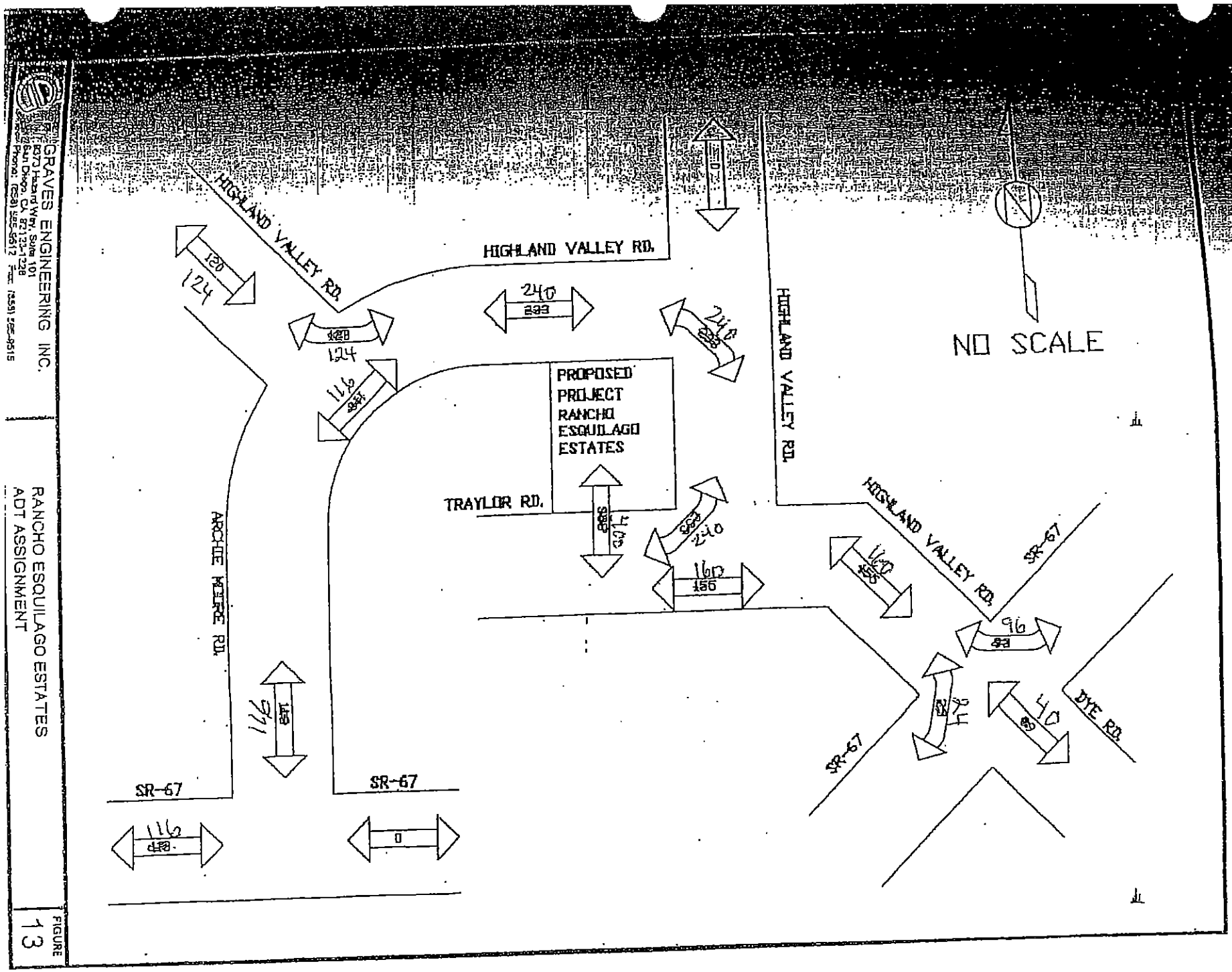
The project will distribute trips from Traylor Road northbound and westbound on Highland Valley Road — 60%. (240 ADT; 22 AM Peak Hour trips and 25 PM Peak Hour trips)



GRAVES ENGINEERING INC.
5075 Hazard Way, Suite 101
San Diego, CA 92123-1226
Phone: (858) 565-6517 Fax: (858) 565-8515

RANCHO ESQUILAGO ESTATES
TRIP DISTRIBUTION PATTERN

FIGURE 12



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San Diego, CA 92123-1228
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RANCHO ESQUILAGO ESTATES
ADT ASSIGNMENT

FIGURE
13

Monte Vista Ranch

TM 5235

1.2 Project Description

The Monte Vista Ranch project proposes the development of 655 single-family dwelling units, a private equestrian center and two lodgings (the Rancho Canada Guest Ranch and the Country Inn) on the existing 4,422-acre Monte Vista Ranch. Substantial open space is proposed, as is a fire station. The proposed conceptual lotting study shows the project comprised of fourteen neighborhoods in three "villages", as well as the "Johnson Ranch" area. Access to the public roadways is proposed via two existing roadways, Lagewaart Road and Chuck Wagon Road. **Table 1–1** shows a summary of the proposed land uses:

TABLE 1–1
PROJECT DESCRIPTION

Component	Residential	Other Use
-East Village	136 lots	-Fire Station
-West Village	127 lots	-(none)
-South Village	389 lots	-Equestrian Center & Country Inn
-Johnson Ranch	3 lots	-Rancho Canada Guest Ranch
Total	**655 lots**	

Source: T&B Planning Consultants, 5-21-04

Figure 1-3 shows the project land-plan.

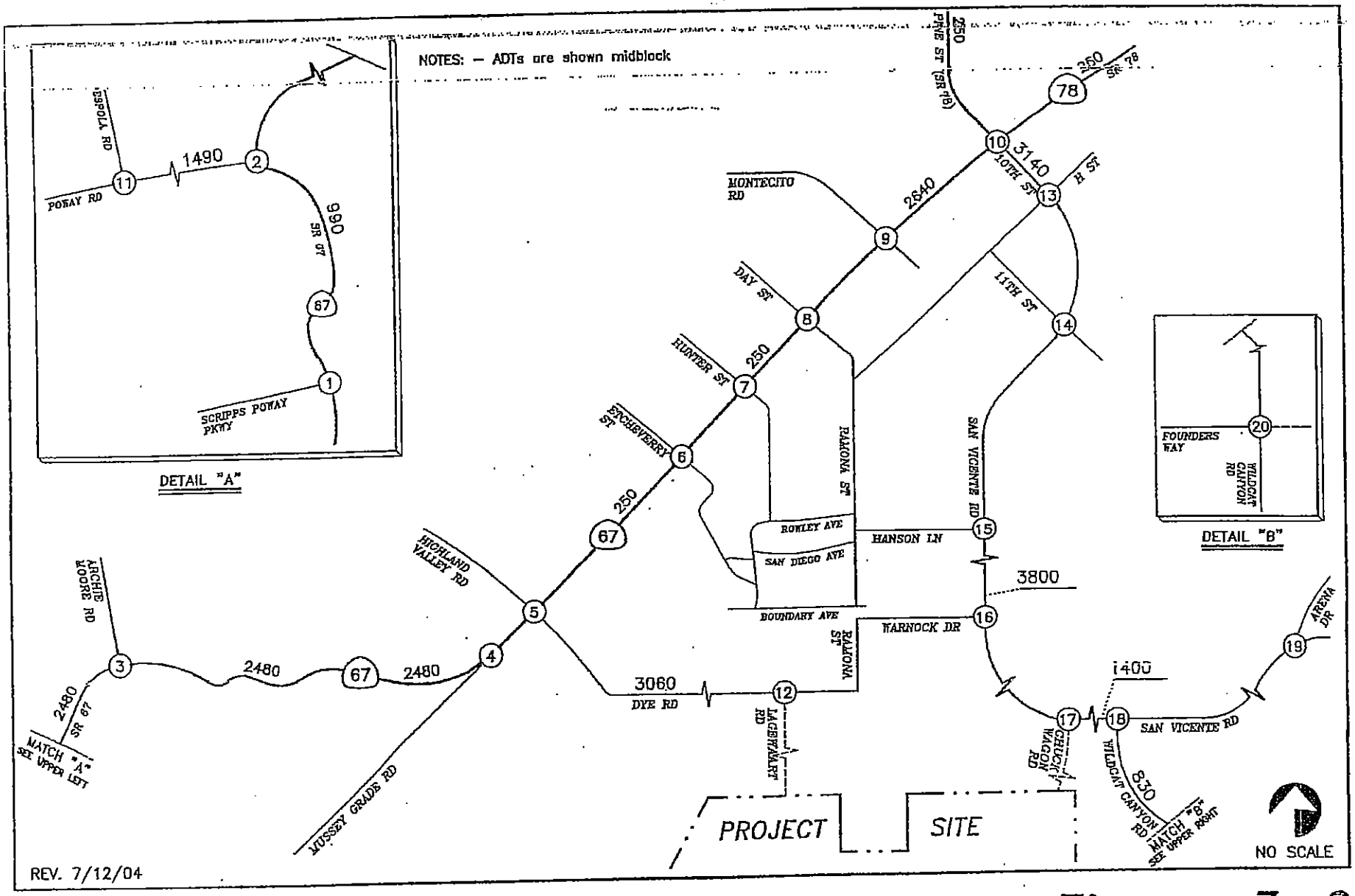
TABLE 5–1
PROJECT TRIP GENERATION

Use	Trip Rate[1]	Weekday ADT[2]	AM Peak Hour Volume		PM Peak Hour Volume	
			In	Out	In	Out
Estate (655-units)	Rate = 12 trips/unit AM - 8% of ADT {30:70}[3] PM - 10% of ADT {70:30}	7,860	190	440	550	235
Resort Hotel (50-units)	Rate = 8trips/occupied room AM - 5% of ADT {60:40}[3] PM - 7% of ADT {40:60}	400	15	10	10	20
Project Total		*8,260*	*205*	*450*	*560*	*255*

General Notes:

ADTs are rounded to the nearest "10", peak hour volumes to the nearest "5"

1. Based on the *SANDAG (not so) Brief Guide of Vehicular Traffic Generation Rates For the San Diego Region* , (April 2002).
2. Traffic volumes expressed in vehicles per day.
3. Ratio denotes in:out traffic split.



REV. 7/12/04

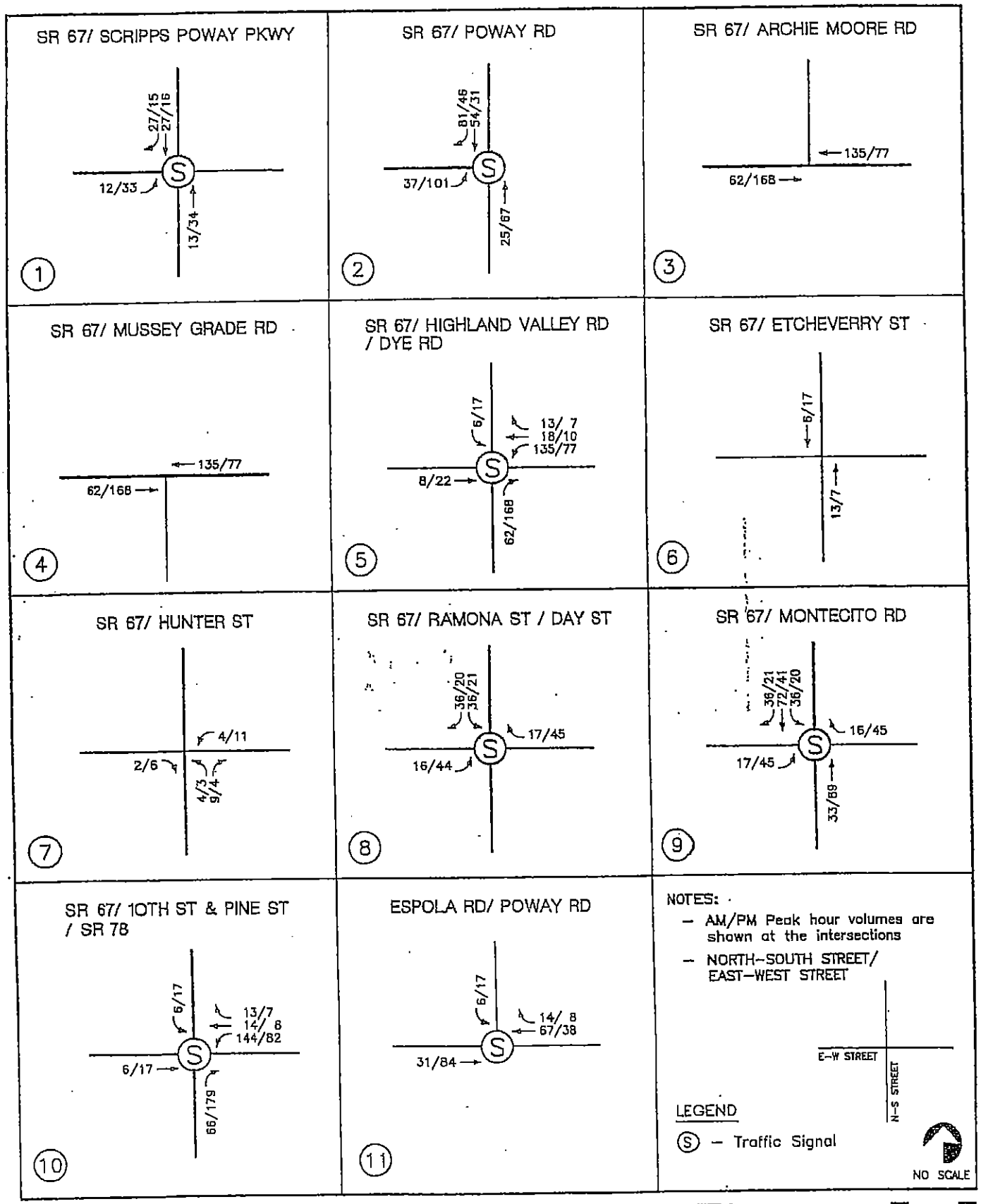
LLG1422–FIG3–2.DWG

Figure 3–2

PROJECT TRAFFIC VOLUMES
ADTs

TM5285 MONTE VISTA RANCH

LINSCOTT LAW & GREENSPAN
ENGINEERS



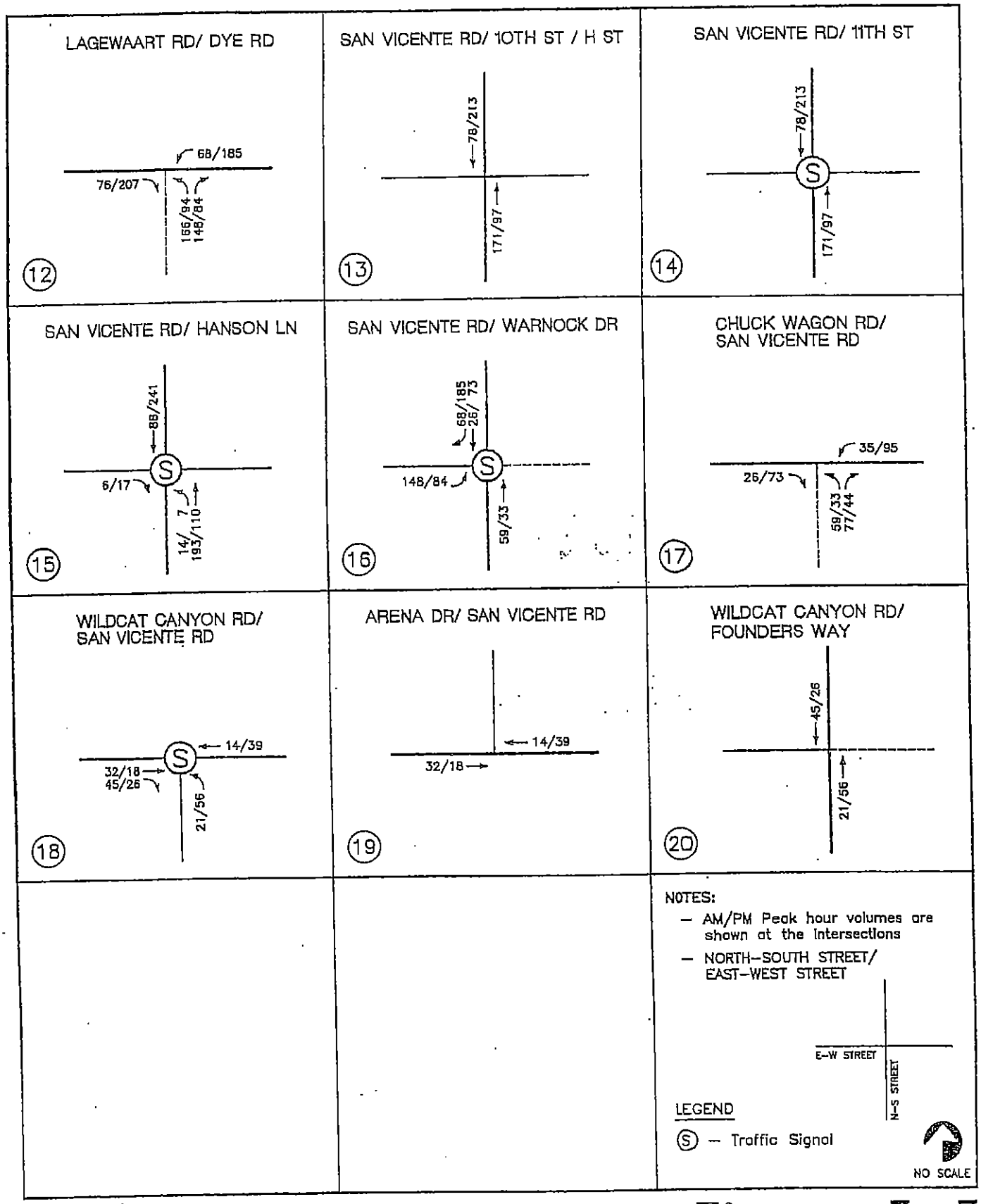
REV. 7/12/04
LLG1422–FIG3–3.DWG

LINSCOTT LAW & GREENSPAN

Figure 3–3

(1 OF 2)

PROJECT TRAFFIC VOLUMES



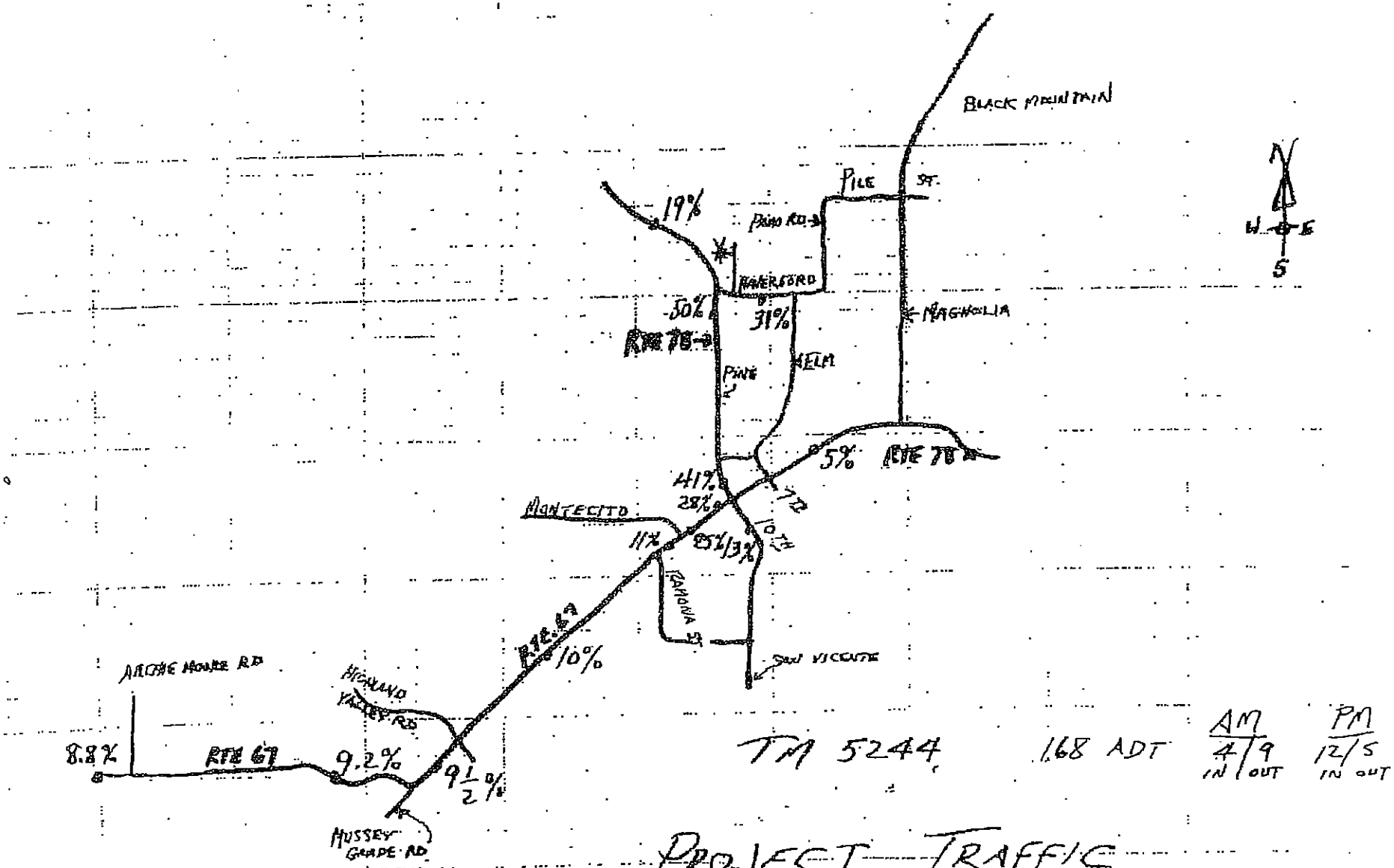
REV. 7/12/04
LLG1422–FIG3–3.DWG

LINSCOTT LAW & GREENSPAN

Figure 3–3

(2 OF 2)

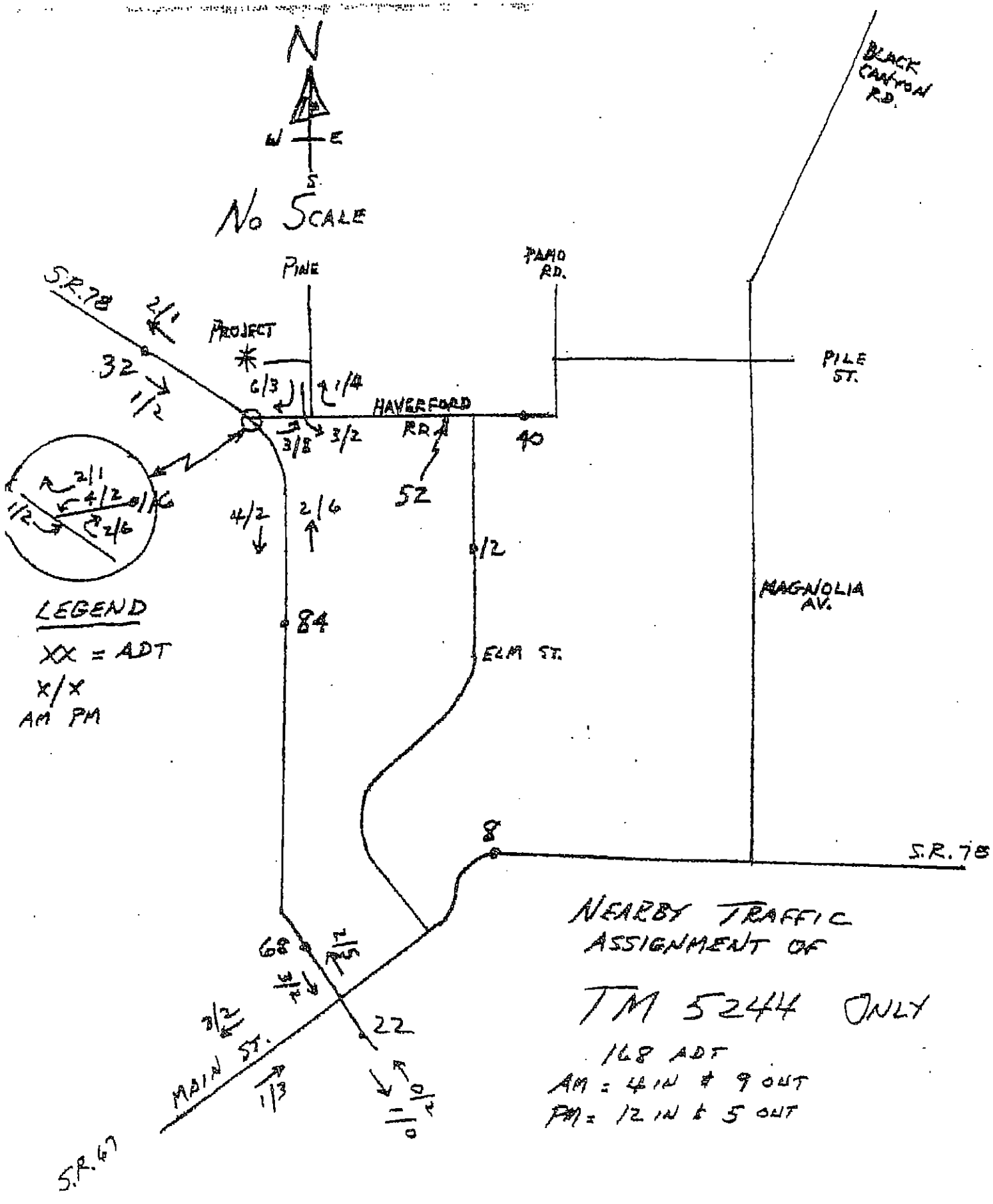
PROJECT TRAFFIC VOLUMES



PROJECT TRAFFIC DISTRIBUTION PERCENTAGES

FROM SANDAG CITIES/COUNTY FORECAST

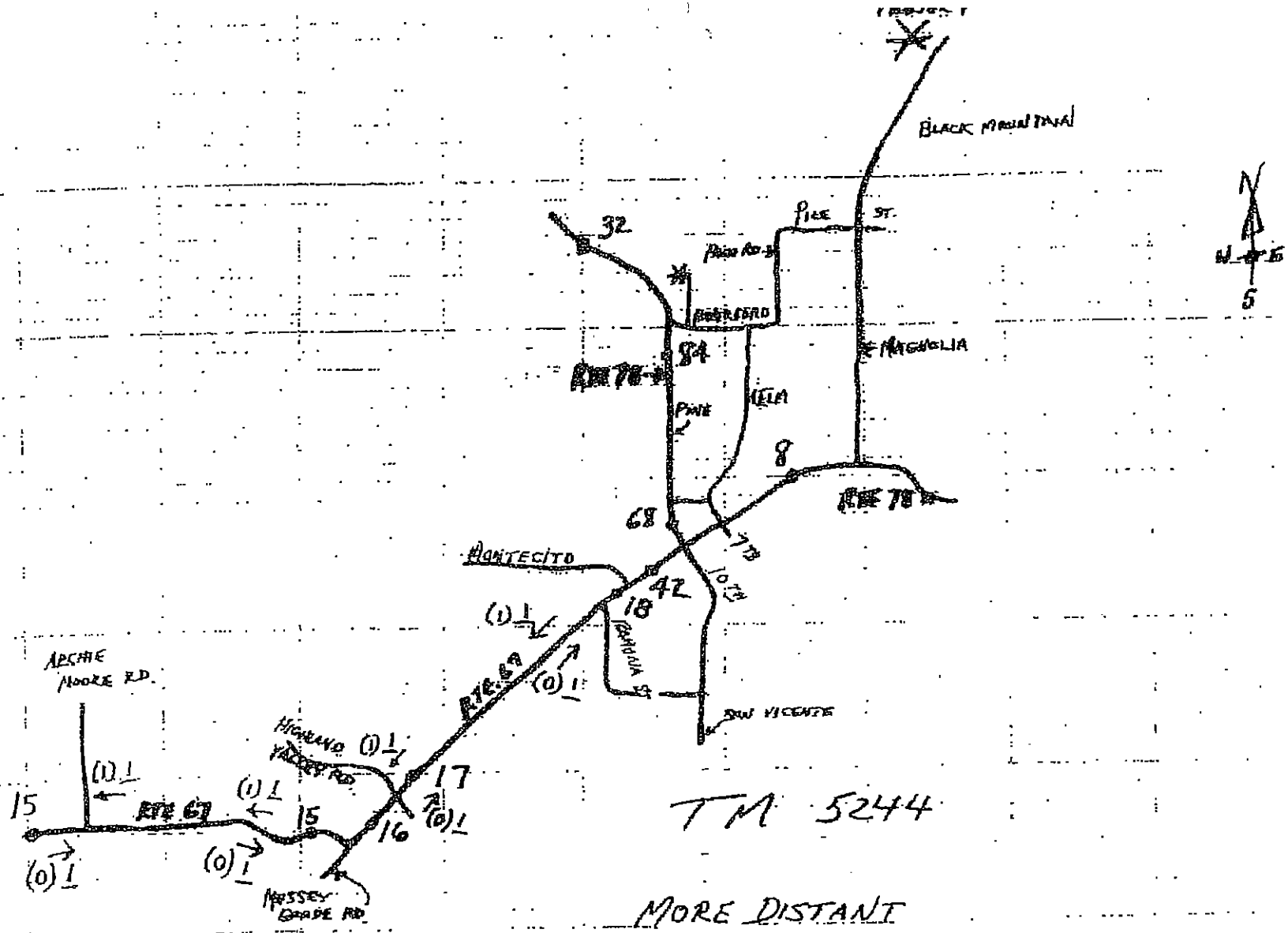
FIGURE 4



NEARBY TRAFFIC ASSIGNMENT OF

TM 5244 ONLY

168 ADT
AM = 4 IN & 9 OUT
PM = 12 IN & 5 OUT



TM 5244

MORE DISTANT
PROJECT TRAFFIC ONLY
XX = ADT = 168 ADT
(X) = AM = 4 IN & 9 OUT
X = PM = 12 IN & 5 OUT

FIGURE 6

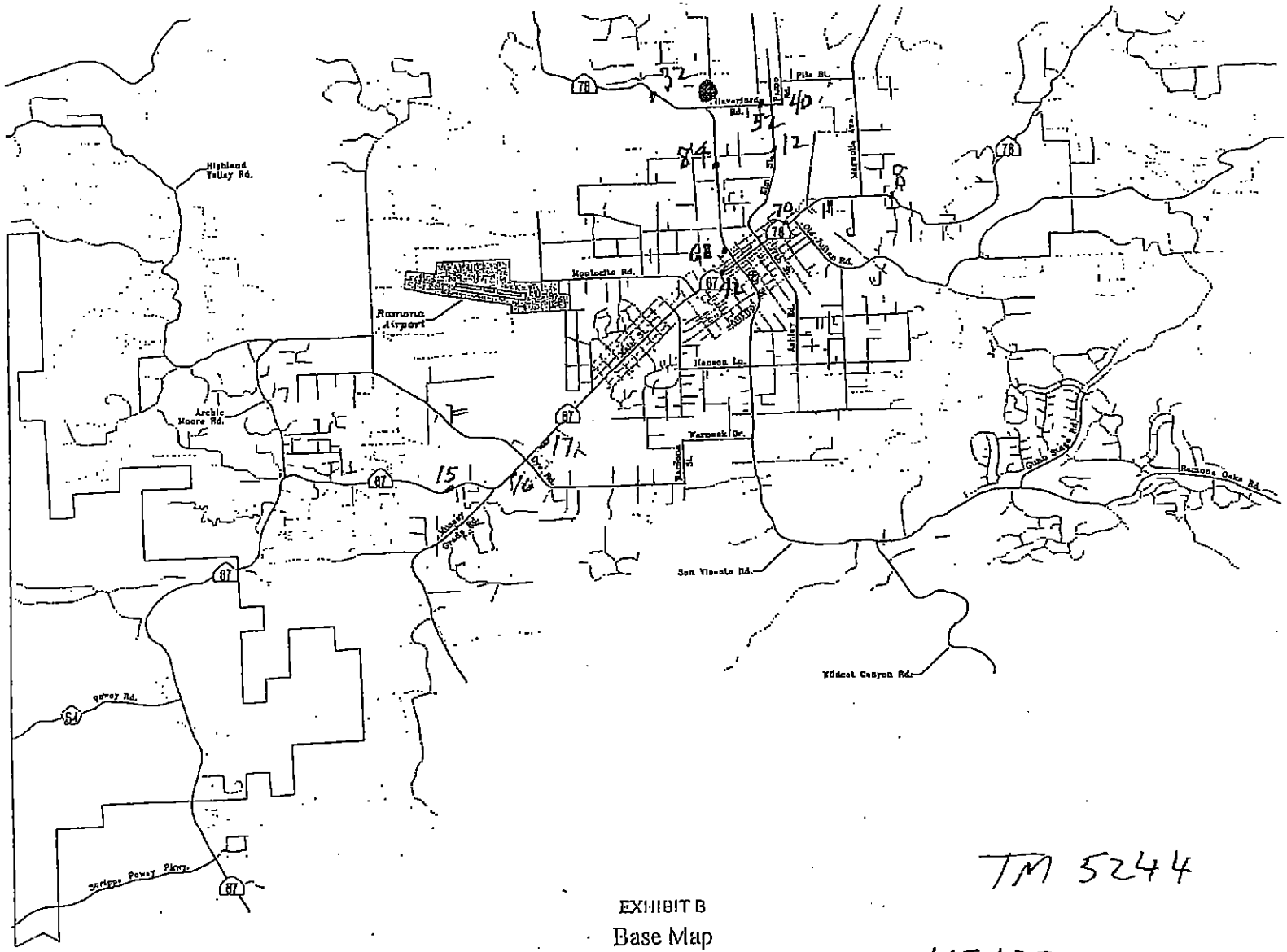


EXHIBIT B
Base Map

TM 5244

168 ADT IN OUT
AM 4 9
PM 12 5

NO SCALE

TM 5250

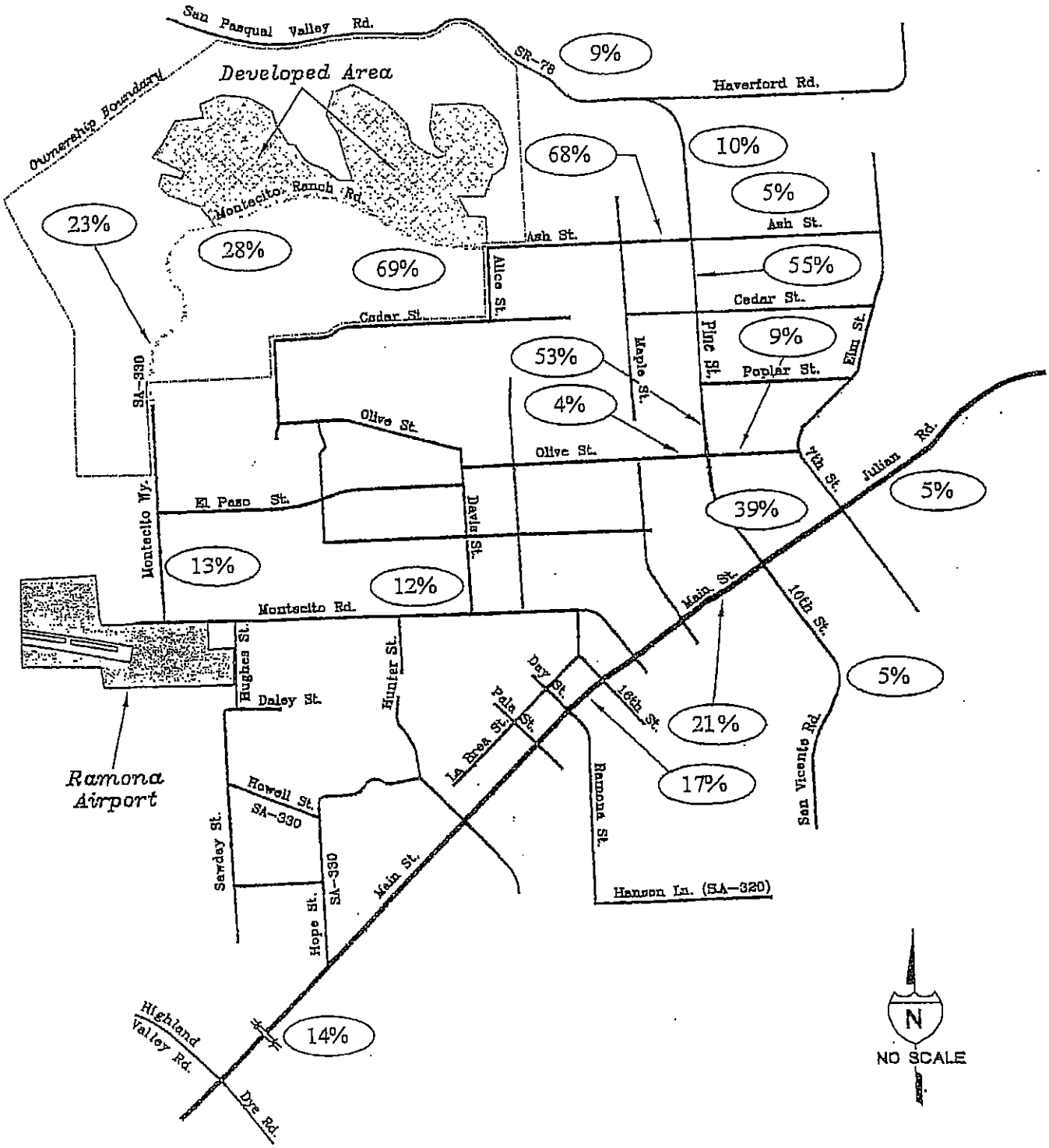


FIGURE 5-1

Project Only Traffic Distribution Percentages

CD-T 5703-Graphics_3.dwg

1/3

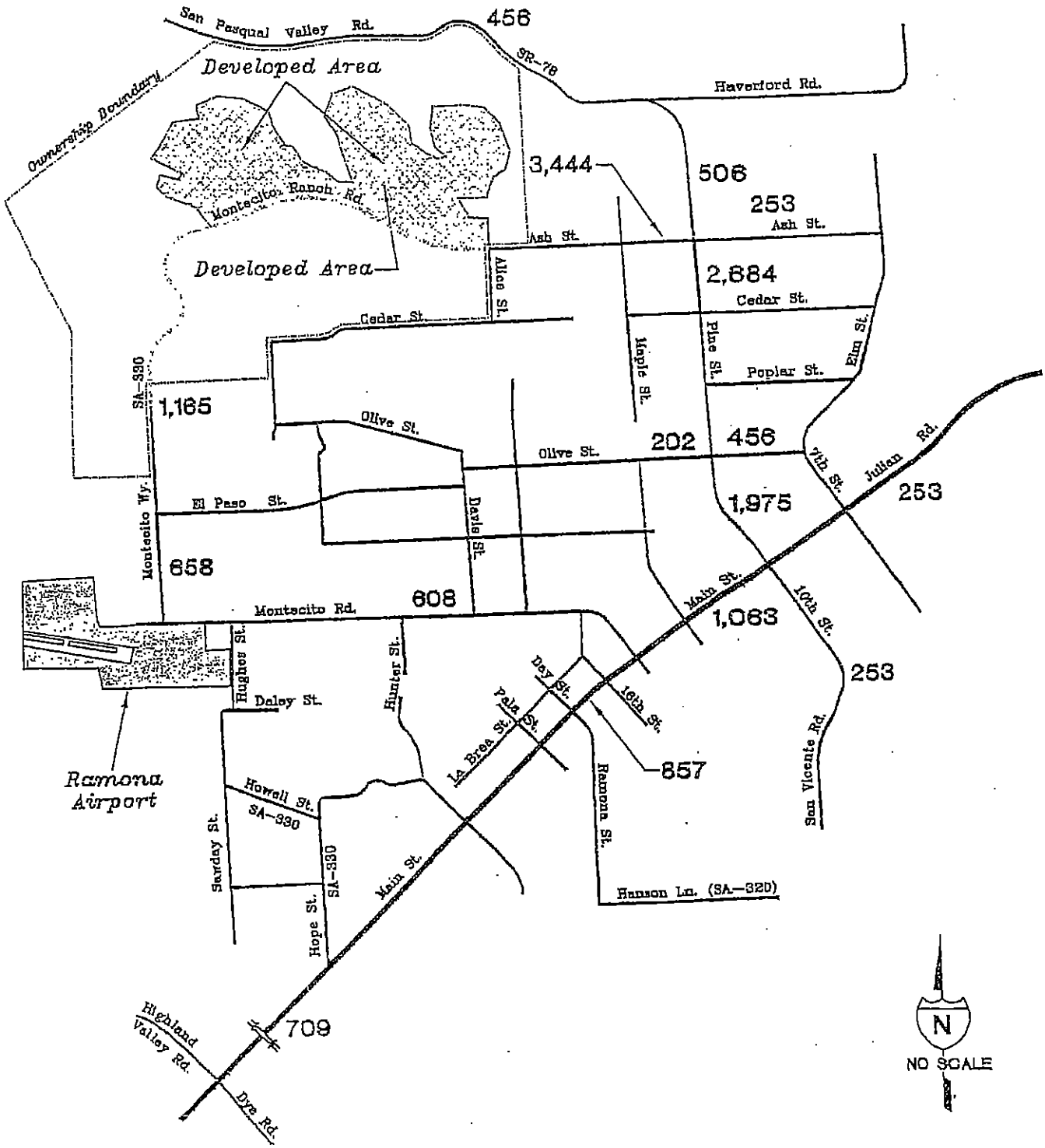
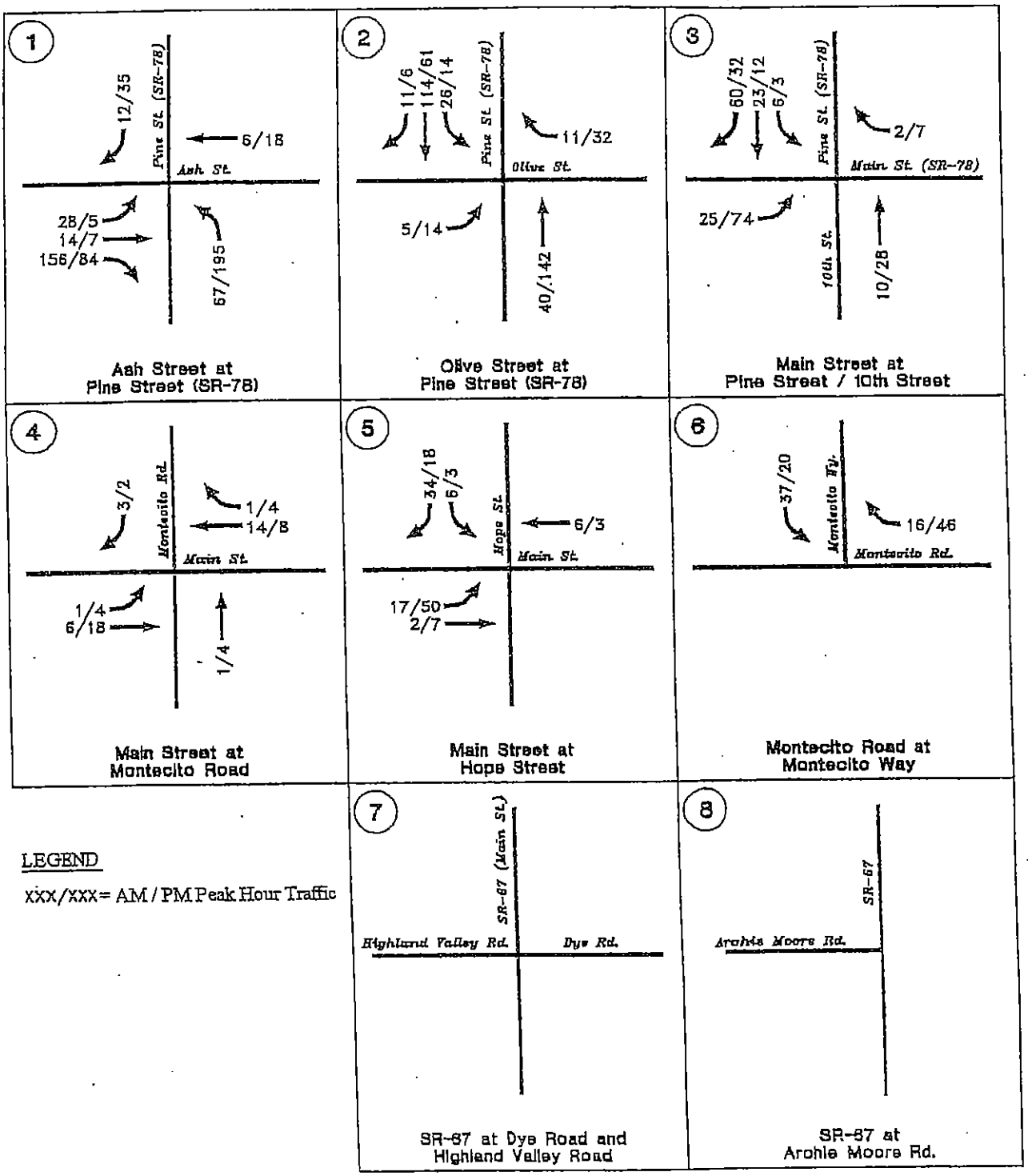


FIGURE 5-2

Project Only Average Daily Traffic

CD-T 5703-Graphics_Ddwg

2/3



LEGEND

XXX/XXX= AM / PM Peak Hour Traffic

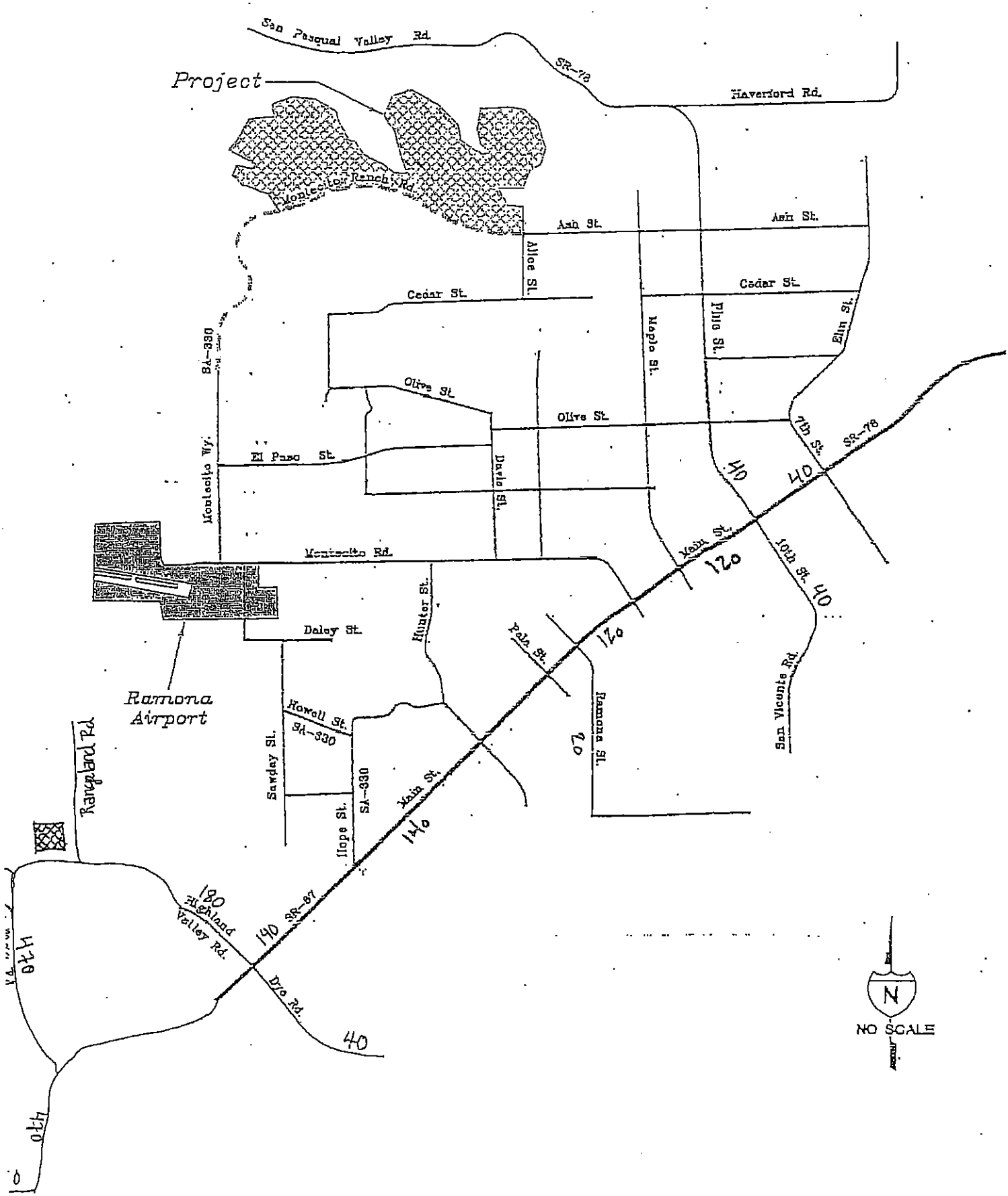
FIGURE 5-3

Project Only AM/PM Peak Hour Traffic

CD-T 5703-Graphics_8.dwg

3/2

TM 5253
Oak Country Est



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TM 5253

- DESCRIPTION
- GENERATION
- ASSIGNMENT

TRAFFIC IMPACT ANALYSIS
OAK COUNTRY ESTATES
RAMONA, CALIFORNIA

Prepared by:

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~~November 3, 2003~~February 11, 2004
JB/CM
3-00-1024

LINSCOTT LAW & GREENSPAN
ENGINEERS

TRAFFIC IMPACT ANALYSIS
OAK COUNTRY ESTATES
RAMONA, CALIFORNIA

INTRODUCTION

This traffic impact study has been prepared to determine the potential impacts on the local circulation system due to the development of the Oak Country Estates residential development in Ramona. The project site is located generally north of Highway 67 on the northwest corner of the Rangeland Road/Highland Valley Road intersection. Figure 1 shows a vicinity map. Figure 2 shows a more detailed project area map. The additional traffic generated by the project has been added to the existing on-street traffic volumes and the traffic impacts were analyzed at seven key intersections and several street segments within the project area.

Included in this traffic assessment is the following:

- Project description;
- Existing conditions assessment;
- Project traffic generation/distribution/assignment;
- Cumulative projects discussion;
- Intersection/street segment capacity analysis;
- Project Access/On-site Circulation Discussion;
- Queuing Analysis;
- Alternative ~~1 Project~~ Projects Discussion;
- Circulation Element Roadway Right-of-way Dedication, and;
- Significance of Impacts/Mitigation Measures

PROJECT DESCRIPTION

Proposed Project – The proposed project consists of 57 lots on approximately 768 acres. 52 lots are located on the western half of the project site, within the (21) Specific Plan Area (SPA). The minimum lot size in this area is 2-gross-acres. The northwestern 125 acres, designated as (20) General Agriculture, consists of five residential lots. The minimum lot size in this area is 10-gross-acres and 40-gross-acres. All residential lots are accessed from the same project entrance off Highland Valley Road. The project is proposed to be developed with estate lots to the west of the Santa Maria Creek. The project's maximum density shall not exceed 0.10 (one dwelling unit per ten acres) within the (21) SPA. A system of riding and hiking trails are proposed that border the project site along Highland Valley Road and Rangeland Road, and traverse the project site within the western half, extending from Highland Valley Road to the property adjacent to the northern boundary. Figure 3a shows the proposed project's site plan.

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ENGINEERS

TABLE 2

PROJECT ALTERNATIVES
TRAFFIC GENERATION

LAND USE	SIZE	DAILY TRIP ENDS (ADT)		AM PEAK HOUR				PM PEAK HOUR			
		RATE	VOLUME	% OF ADT	IN:OUT SPLIT	VOLUME IN	VOLUME OUT	% OF ADT	IN:OUT SPLIT	VOLUME IN	VOLUME OUT
Proposed Project	60 DU[1]	12	720	8%	3:7	20	40	10%	7:3	50	20
Reduced Intensity (Alternative 1)	55 DU	12	660	8%	3:7	15	35	10%	7:3	45	20
Reduced Noise Impact Alternative (Alternative 2)	51 DU	12	610	8%	3:7	15	35	10%	7:3	40	20

SOURCE: SANDAG Brief Guide, July 1998.
DU = Dwelling Unit
Rate is a trip-end dwelling unit of "estate home".
Trip-ends are one-way movements, entering or leaving.
ADTs are rounded to the nearest 10, peak hour trips to the nearest 5.
1. The current proposed project is for 57-units, 3 less than the project analyzed in this report. Therefore, results from this analysis are conservative.

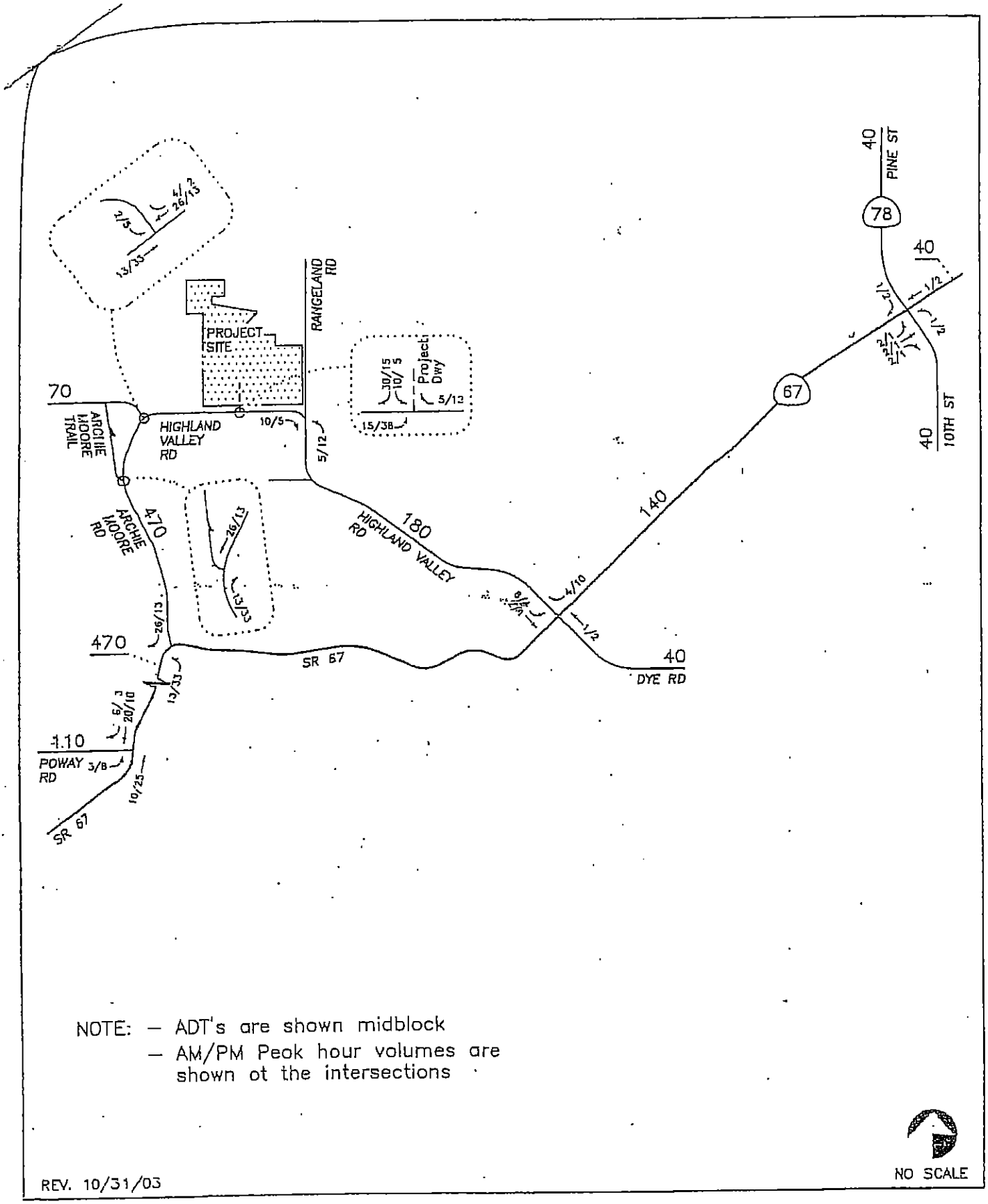

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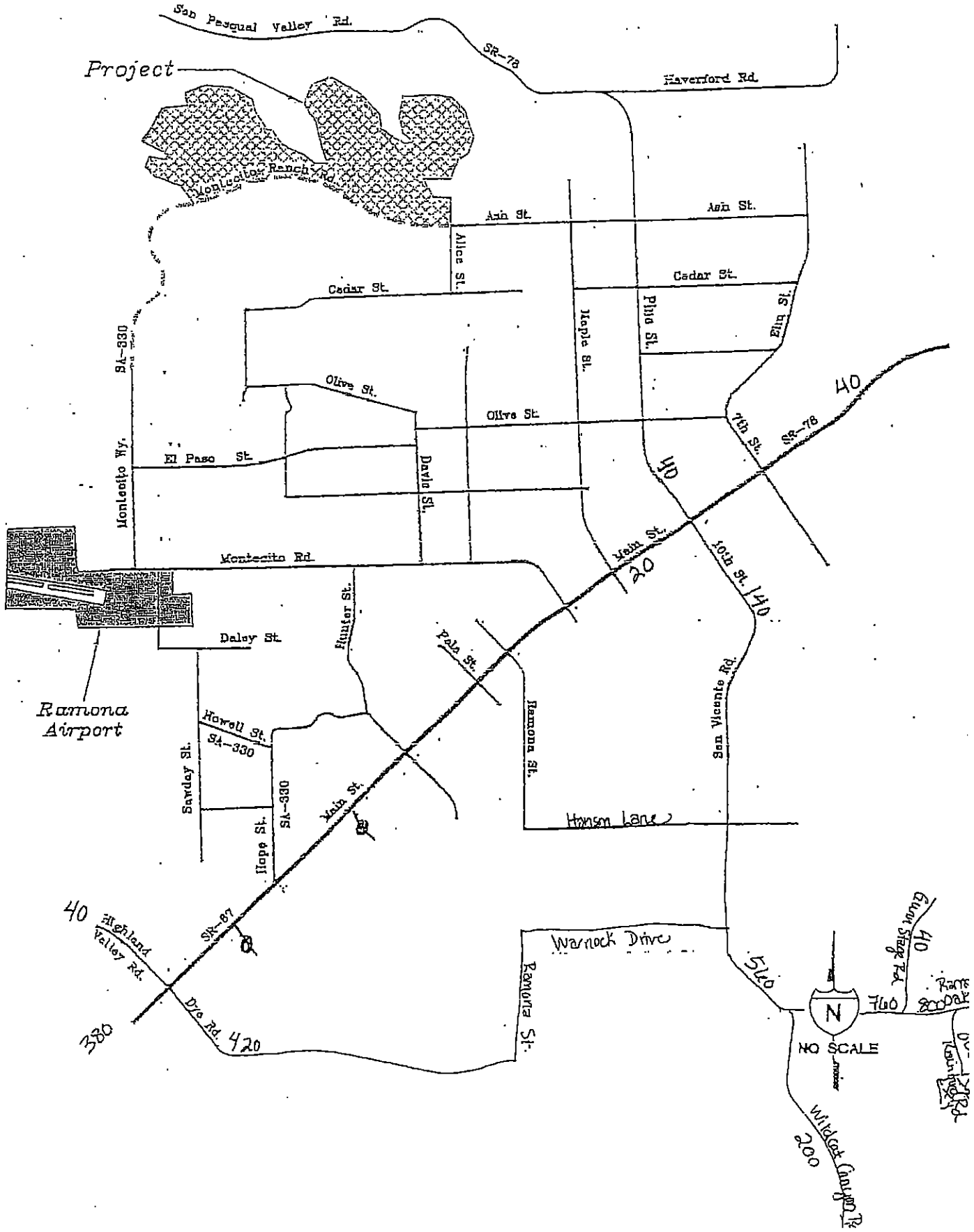
Figure 7

PROPOSED PROJECT TRAFFIC VOLUMES
AM/PM PEAK HOURS & ADT's

TM 5254
Rainbird Rd



TM 5254 RP1

WORKING COPY

- DESCRIPTION
- GENERATION
- ASSUMPTIONS

TRAFFIC IMPACT ANALYSIS

SADDLE CREEK RANCH

RAMONA, CALIFORNIA

May 13, 2003

Prepared by:

LINSCOTT LAW & GREENSPAN

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May 13, 2003
JR/ar/dt
3-02-1164

LINSCOTT LAW & GREENSPAN
ENGINEERS

TRAFFIC IMPACT ANALYSIS
SADDLE CREEK RANCH PROJECT
RAMONA, CALIFORNIA
May 13, 2003

1.0 INTRODUCTION

This traffic impact study has been prepared to determine the potential impacts on the local circulation system due to the development of the Saddle Creek Ranch Project residential development in Ramona. The project site is located south of San Diego County Estates. Figure 1 shows a vicinity map. Figure 2 shows a more detailed project area map. The additional traffic generated by the project has been added to the existing on-street traffic volumes and the traffic impacts were analyzed at six key intersections and several street segments within the project area.

Included in this traffic assessment is the following:

- Project description;
- Existing conditions assessment;
- Project traffic generation/distribution/assignment;
- Cumulative projects discussion;
- Intersection/street segment capacity analysis;
- Project Access Discussion;
- Significance of Impacts/Mitigation Measures, and
- Conclusions

1.1 Project Location

The site is located generally south of Ramona Oaks Road at the terminus of Rainbird Road. Figure 1 shows the general vicinity of the project. Figure 2 shows a more detailed project area map.

1.2 Project Description

The Proposed Project would develop 66 residential lots on approximately 327 acres. Figure 3 shows a conceptual site plan for the project.

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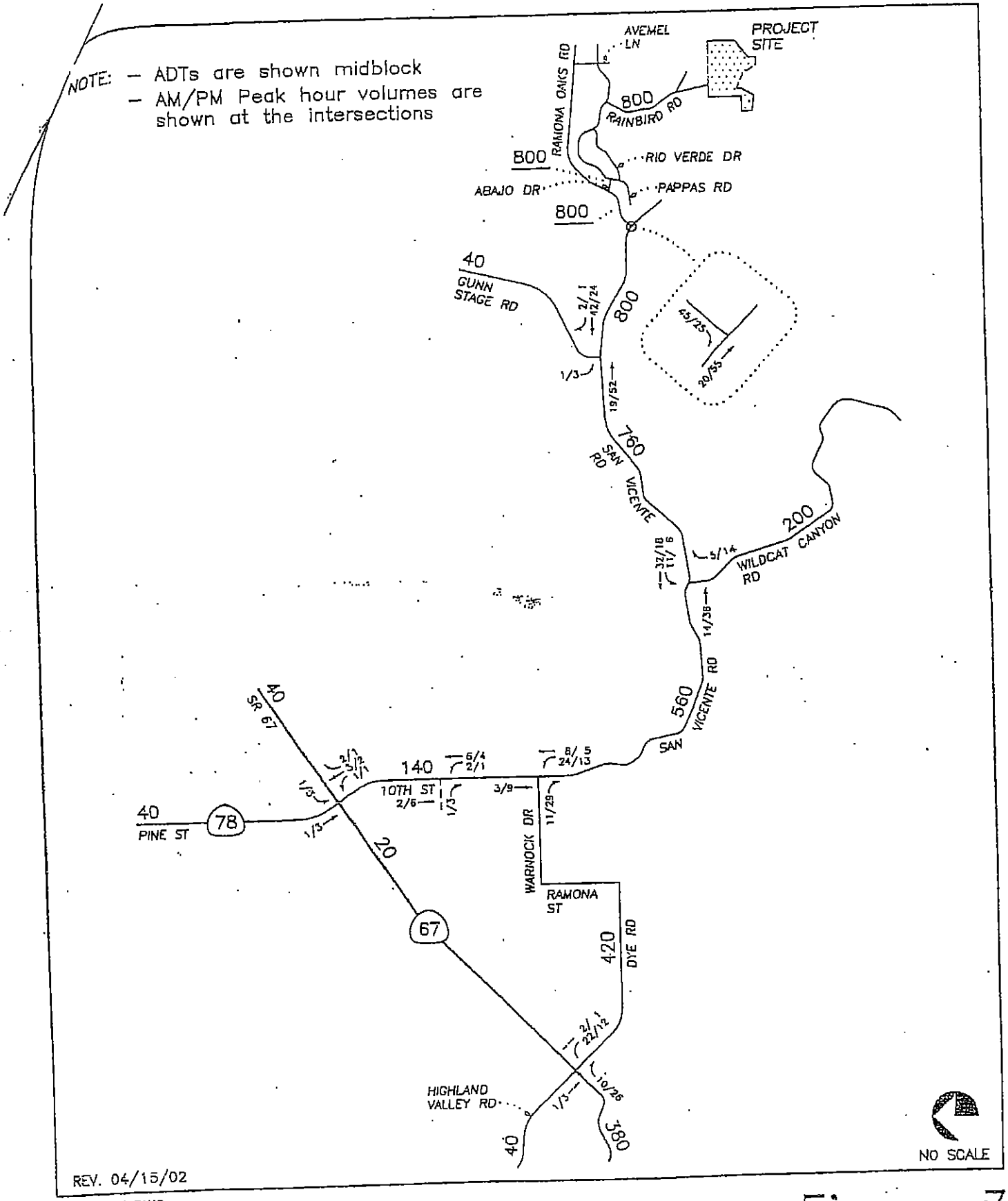
ENGINEERS

TABLE 2

SADDLE CREEK RANCH TRAFFIC GENERATION

LAND USE	SIZE	DAILY (ADT)		AM PEAK HOUR					PM PEAK HOUR				
		RATE	VOLUME	% OF ADT	IN-OUT SPLIT IN	IN-OUT SPLIT OUT	VOLUME IN	VOLUME OUT	% OF ADT	IN-OUT SPLIT IN	IN-OUT SPLIT OUT	VOLUME IN	VOLUME OUT
Residential	66 du	12	800	8%	30%	70%	20	45	10%	70%	30%	55	25

SOURCE: SANDAG Brief Guide, April 2002.
DU = Dwelling Unit
Rate is a trip-end per dwelling unit of "estate home"
ADTs are rounded to the nearest 10, peak hour trips to the nearest 5.

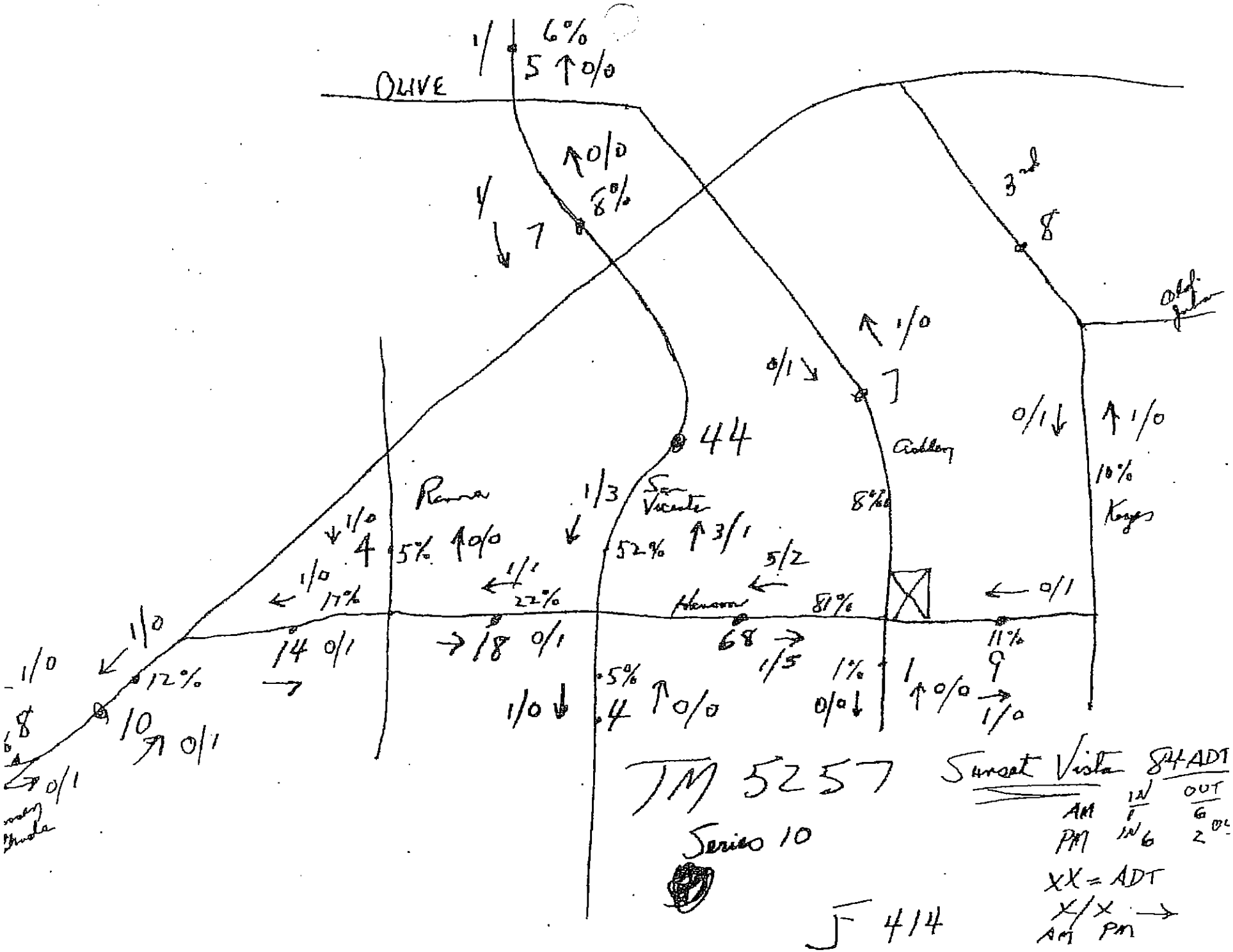


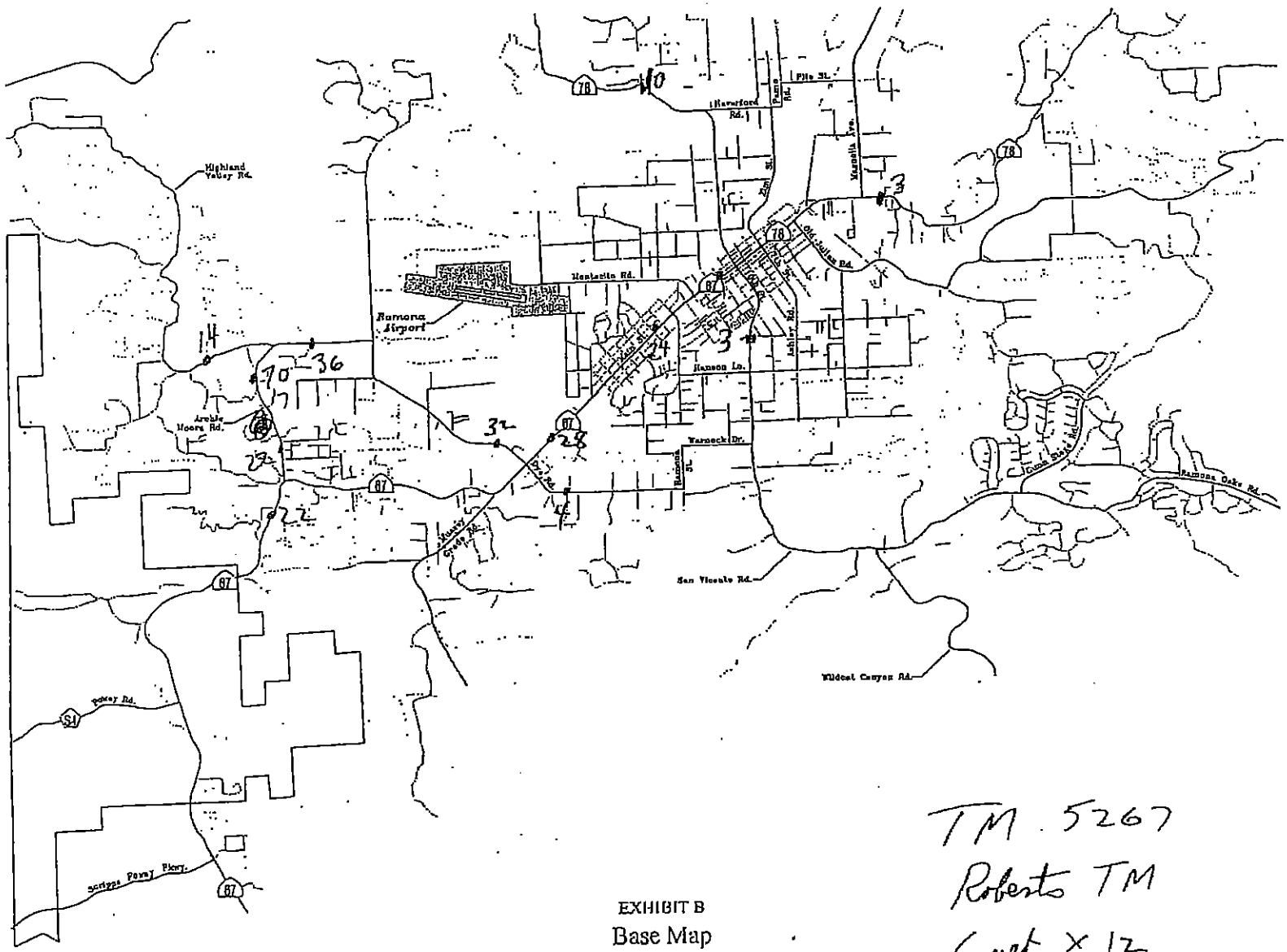
REV. 04/15/02

FIG1164.DWG

Figure 7

PROPOSED PROJECT TRAFFIC VOLUMES
AM/PM PEAK HOURS & ADT's


OLIVE
1/
6%
5 ↑0/0
↑0/0
8%
1/
↓ 7
3rd
8
Old Julian
↑1/0
0/1↘
7
44
Ashley
0/1↓
↑1/0
10%
Keyes
Ramona
1/3
San Vicente
8%
↓1/0
4
5%
↑0/0
52%
↑3/1
5/2
1/0
17%
1/1
22%
Hanover
81%
0/1
1/0
14 0/1
18 0/1
68
1/5
11%
9
1/0
12%
5%
1%
1
↑0/0
1/0
1/0↓
4
↑0/0
0/0↓
1/0
8
10
↗0/1
0/1
TM 5257
Series 10
J 414
Sunset Vista 84 ADT
AM IN 1 OUT 6
PM IN 6 2 OUT
XX = ADT
X/X →
AM PM

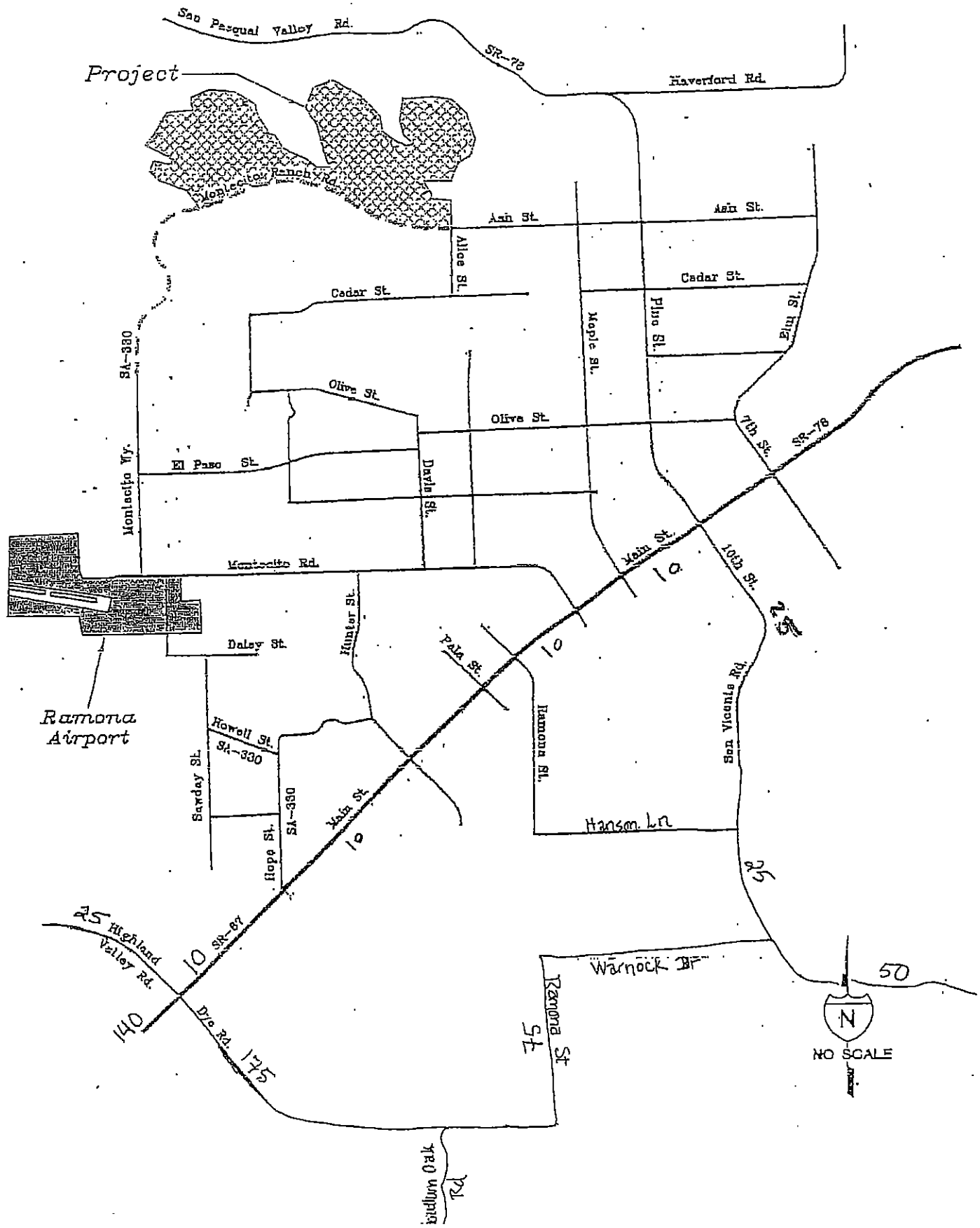


TM 5267
Roberto TM
6 net x 12
72 ADT

EXHIBIT B
Base Map

CB-E 3703-Graphics U-p

TM 5294
Spitsberger Subdivision



Originals

- DESCRIPTION
- HONORATION
- ASSIGNMENT

TM 5294

SPITZBERGER AKA

TRAFFIC IMPACT ANALYSIS
EMERALD OAKS SUBDIVISION
RAMONA, CALIFORNIA
March 24, 2003

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JB/JN
3-03-1271

LINSCOTT LAW & GREENSPAN
ENGINEERS

2.0 Project Description

The proposed project consists of the construction of 21 homes on 137.5 acres. The project is located at the terminus of Southern Oaks Road, south of Dye Road in the community of Ramona. This existing site is currently undeveloped. Access to the project site is an extension of Southern Oak Road.

Figure 3 shows the conceptual site plan.

4.0 Project Traffic

4.1 Project Traffic Generation

Trip generation estimates for the proposed development were calculated based on SANDAG rates provided in the *Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region, April 2002*. Project trips were calculated using the trip rate for single-family detached estate homes of 12.0 / Dwelling Unit. Table 2 shows the project is calculated to generate approximately 250 ADT with 6 inbound / 14 outbound trips during the AM peak hour and 18 inbound / 7 outbound trips during the PM peak hour.

Table 2
PROJECT TRIP GENERATION SUMMARY

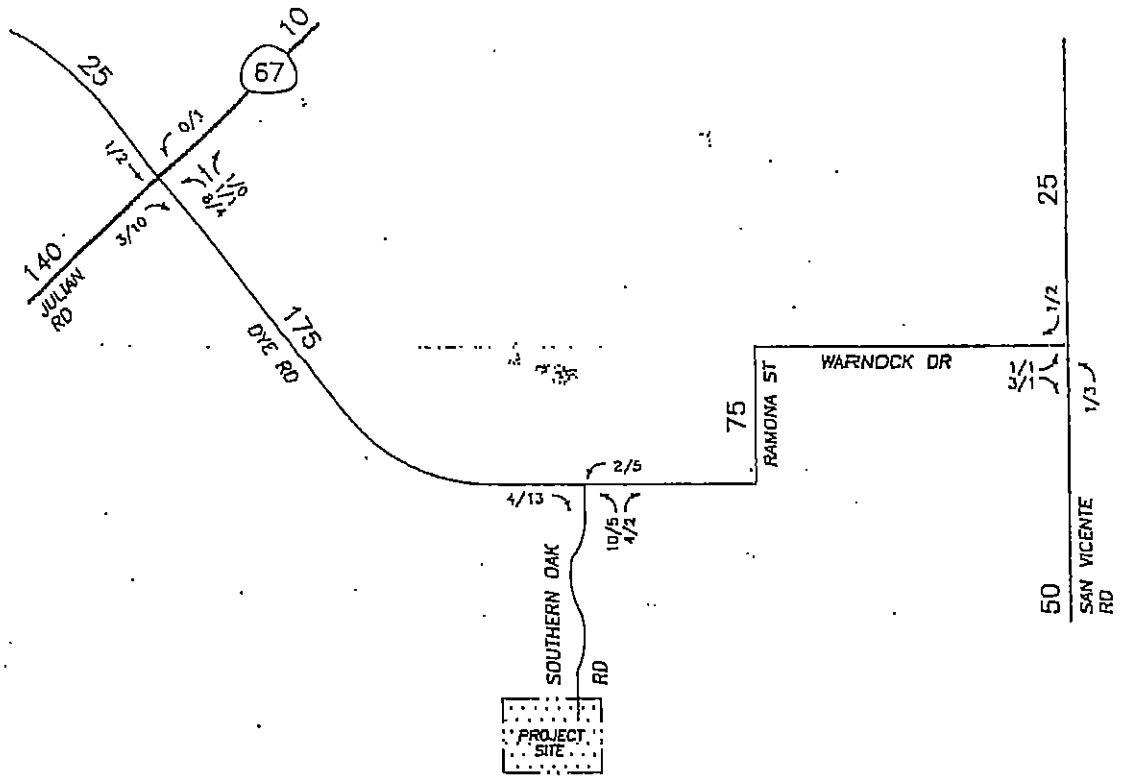
LAND USE	SIZE	DAILY TRIP ENDS		AM PEAK HOUR TRIPS				PM PEAK HOUR TRIPS			
		RATE	ADT	% of ADT	IN:OUT SPLIT	VOLUME IN	VOLUME OUT	% of ADT	IN:OUT SPLIT	VOLUME IN	VOLUME OUT
Single-Family	21	12.0 / DU	250	8%	30:70	6	14	10%	70:30	18	7

NOTES:
1 SOURCE: SANDAG Trip Generation Brief Guide (April 2002).
2 DU – Dwelling Unit
3 Rate is a trip-end per dwelling unit.

4.2 Project Traffic Distribution /Assignment

The generated project traffic was distributed and assigned to the street system based on project access, the characteristics of the roadway system, the proximity of the project to SR 67, employment, retail, and educational opportunities. Figure 6 presents the estimated project traffic distribution in the site environs.

The assignment of project traffic to the surrounding circulation system was based on the estimated distribution and is illustrated in Figure 7. Figure 8 shows the existing + project traffic volumes.



NOTES: – ADTs are shown midblock
– AM/PM Peak hour volumes are shown at the intersections

NO SCALE

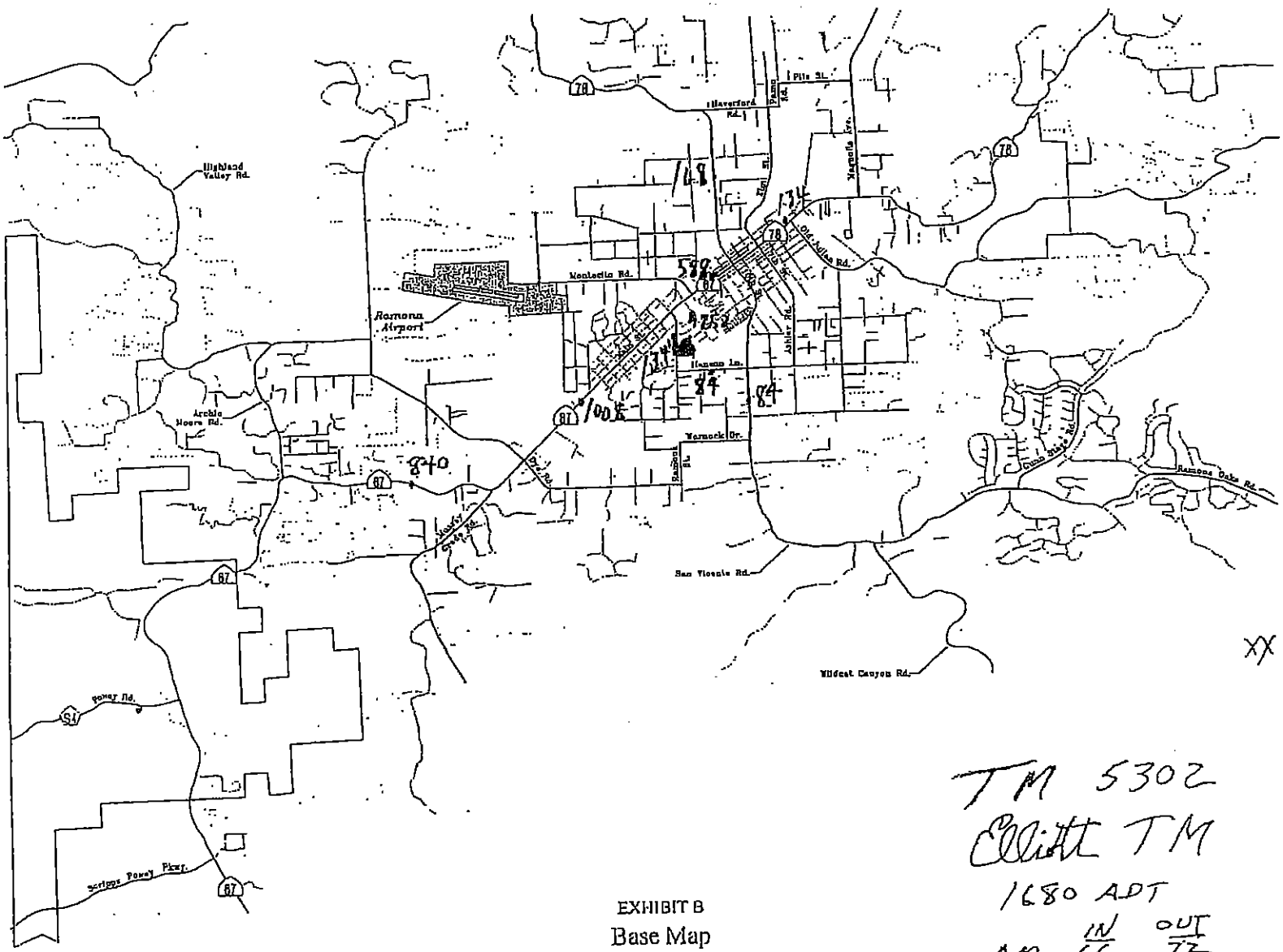
REV. 03/12/03

FIG1271.DWG

Figure 7

PROJECT TRAFFIC VOLUMES
AM/PM PEAK HOURS & ADTs

LINSCOTT LAW &



XX = ADT

TM 5302
Elliott TM
1680 ADT

	IN	OUT
AM	66	72
PM	85	69

FROM VRPA

EXHIBIT B
Base Map

N
NO SCALE

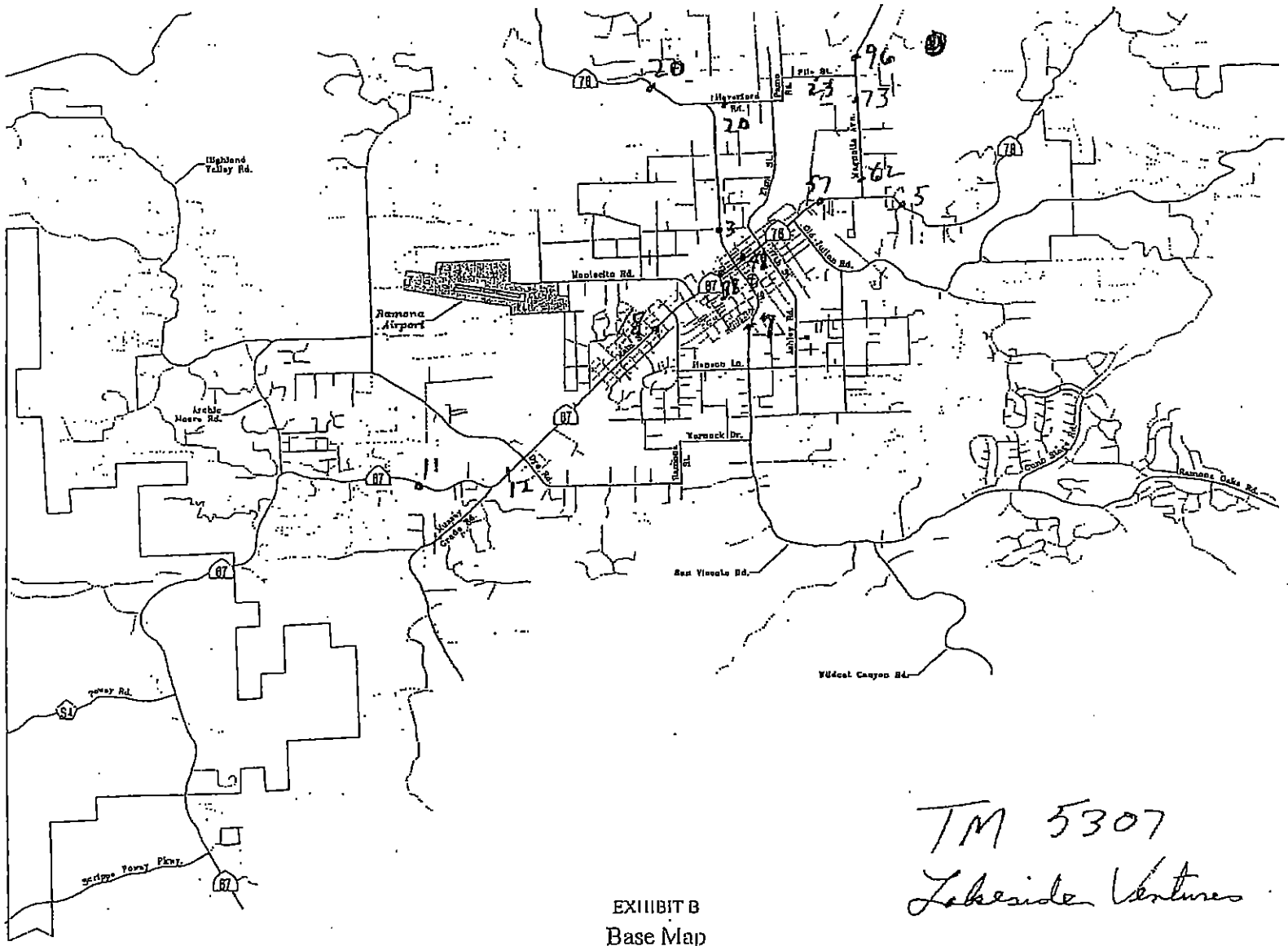


EXHIBIT B
Base Map

TM 5307
Lakeside Ventures

96 ADT

	IN	OUT
AM	2	6
PM	7	3

N
NO SCALE

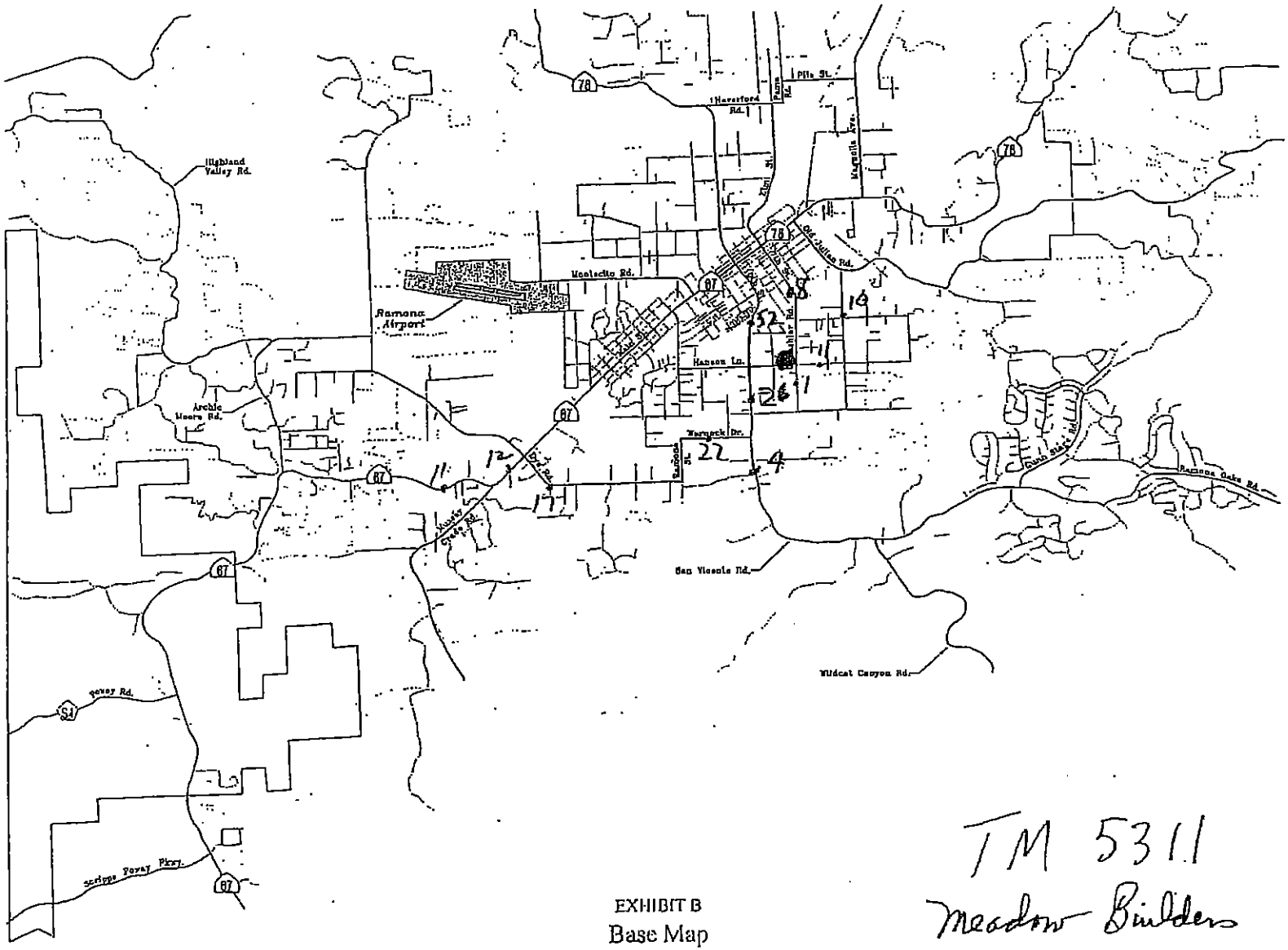


EXHIBIT B
Base Map

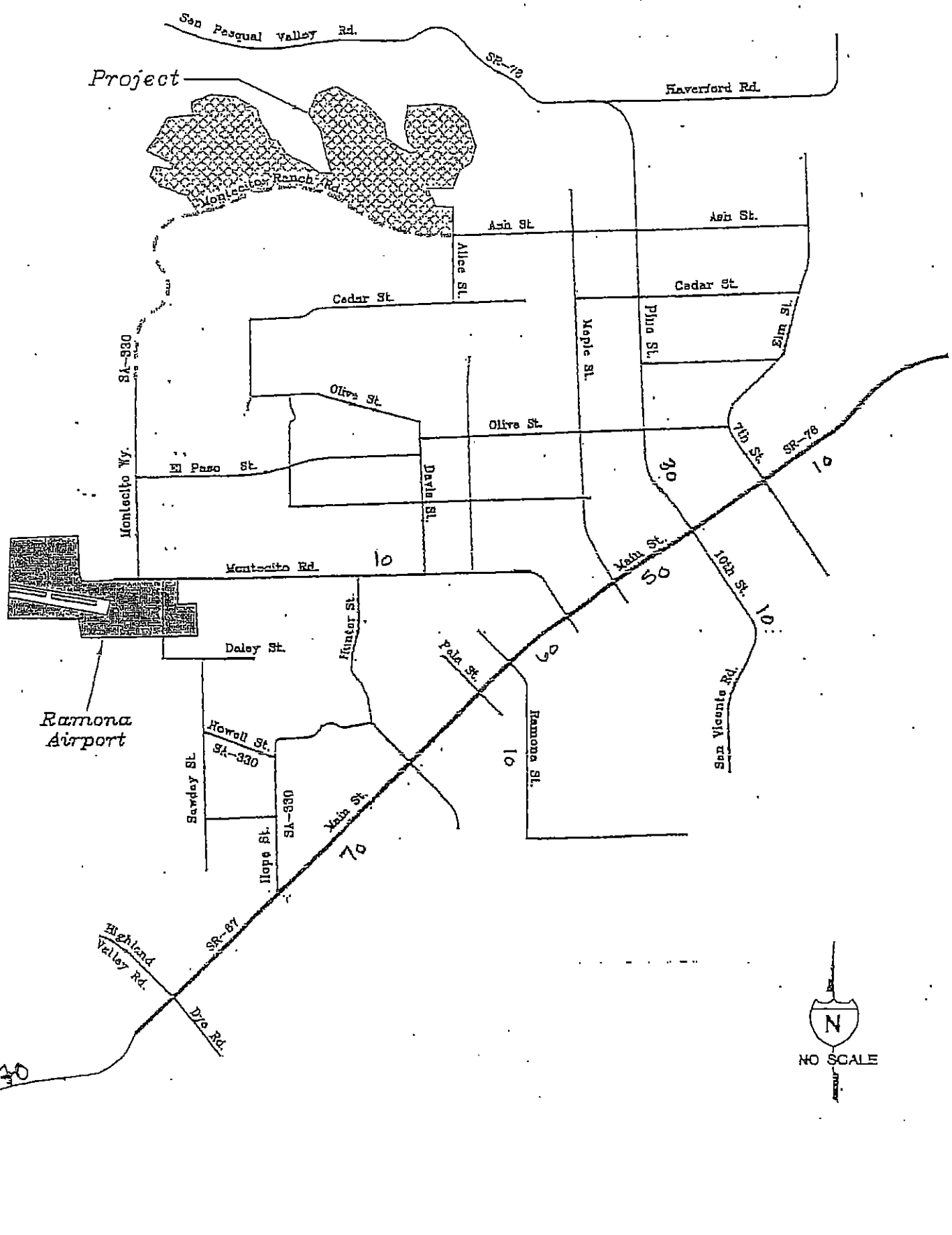
TM 5311
Meadow Builders

100 ADT

	IN	OUT
AM	2	6
PM	7	3

N
NO SCALE

TM 5329
Mt. Woodson



GARY L. PRYOR
DIRECTOR
(858) 69[illegible]

County of San Diego

DEPARTMENT OF PLANNING AND LAND USE

5201 RUFFIN ROAD- SUITE B- SAN DIEGO- CALIFORNIA 92123-1666
INFORMATION (858) 694-2960
TOLL FREE (800) 411-0017

SAN MARCOS OFFICE
338 VIA VERA CRUZ - SUITE 201
SAN MARCOS- CA 92069-2620
(760) 471-0730

EL CAJON OFFICE
200 EAST MAIN ST - SIXTH FLOOR
EL CAJON- CA 92020-3912
(619) 441-4030

- DESCRIPTION
- LOCATION
- ASSIGNMENTS (2 ACTS)

September 17, 2003

TM 5329

Lee Vance
224 Seeman Drive
Encinitas, California 92024

CASE NUMBERS: TM5329, AD03-058, and S03-053
ACCOUNT NUMBERS: WN#7316, WE#2098, ENV#03-09-020, CP#17151
PROJECT NAME: MT. WOODSON, THE GALLERY

The Department of Planning and Land Use (DPLU) has reviewed your application for a Tentative Map, an Administrative Permit, and a Site Plan and has determined that your application is complete pursuant to Section 65943 of the Government Code. The Department is providing you with this letter as a guide for the further processing of this application.

This letter lists those concerns that have been identified and specifies any revisions and additional information that may be necessary to process this application: Additionally, an estimated time schedule and estimated cost of processing this application have been included as well as draft DPW conditions that will likely be made part of any resolution of approval.

1. PROJECT DESCRIPTION

The 84.15-acre property is located west of Highway 67, between Archie Moore Road and Mount Woodson Road and is developed with a single-family residence, a second dwelling unit and several accessory buildings, which will be remain after the completion of this project. The applicant submitted a Tentative Map to subdivide the 84-acre site into 22 lots and one 40-acre open space lot. The eastern 44 acres is zoned A70, Limited Agricultural Use Regulation, and allows one residence per two acres. The eastern section is within the San Diego County General Plan Designation of (17) Estate, which also allows one residence per two acres, if the site is under 25 percent slope gradient. The property averages 17 percent slope gradient. The project includes an Administrative Permit for Lot Area Averaging

LINSCOTT LAW & GREENSPAN ENGINEERS

4.0 Project Traffic

4.1 TRIP GENERATION SUMMARY

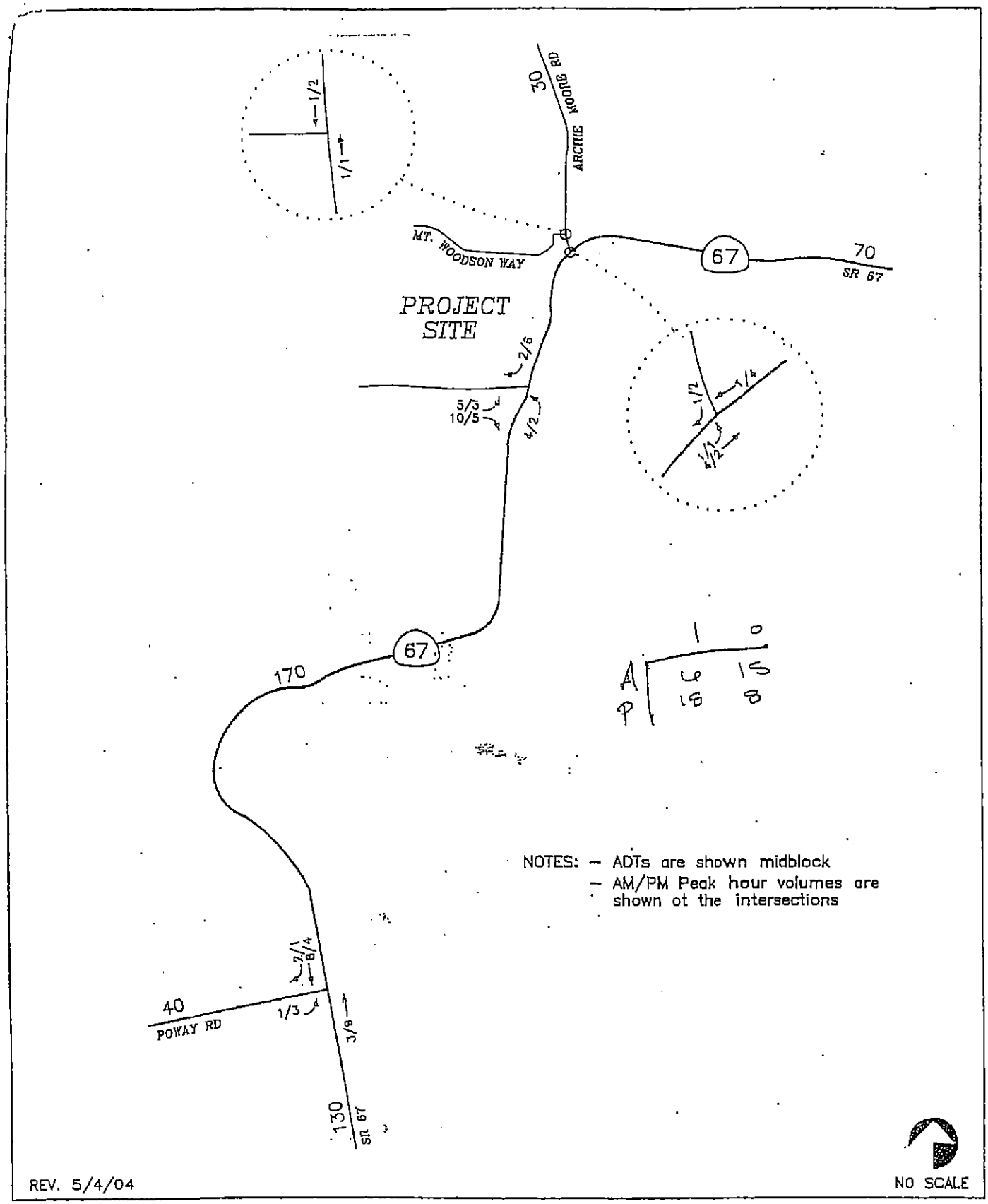
TABLE 2

PROJECT TRIP GENERATION SUMMARY

LAND USE	SIZE	DAILY TRIP ENDS		AM PEAK HOUR TRIPS				PM PEAK HOUR TRIPS			
		RATE[1]	ADT	% of ADT	IN:OUT SPLIT	VOLUME IN	VOLUME OUT	% of ADT	IN:OUT SPLIT	VOLUME IN	VOLUME OUT
Single-Family	22	12.0 / DU	264	8%	30:70	6	15	10%	70:30	18	8
~~Single-Family~~	~~22~~	~~10.0 / DU~~	~~220~~	~~8%~~	~~30:70~~	~~5~~	~~13~~	~~10%~~	~~70:30~~	~~15~~	~~7~~

Notes:
1. SOURCE: SANDAG Trip Generation Brief Guide (April 2002).
2. DU – Dwelling Unit
3. Rate is a trip-end per dwelling unit.

	I	O
A	6	15
P	18	8



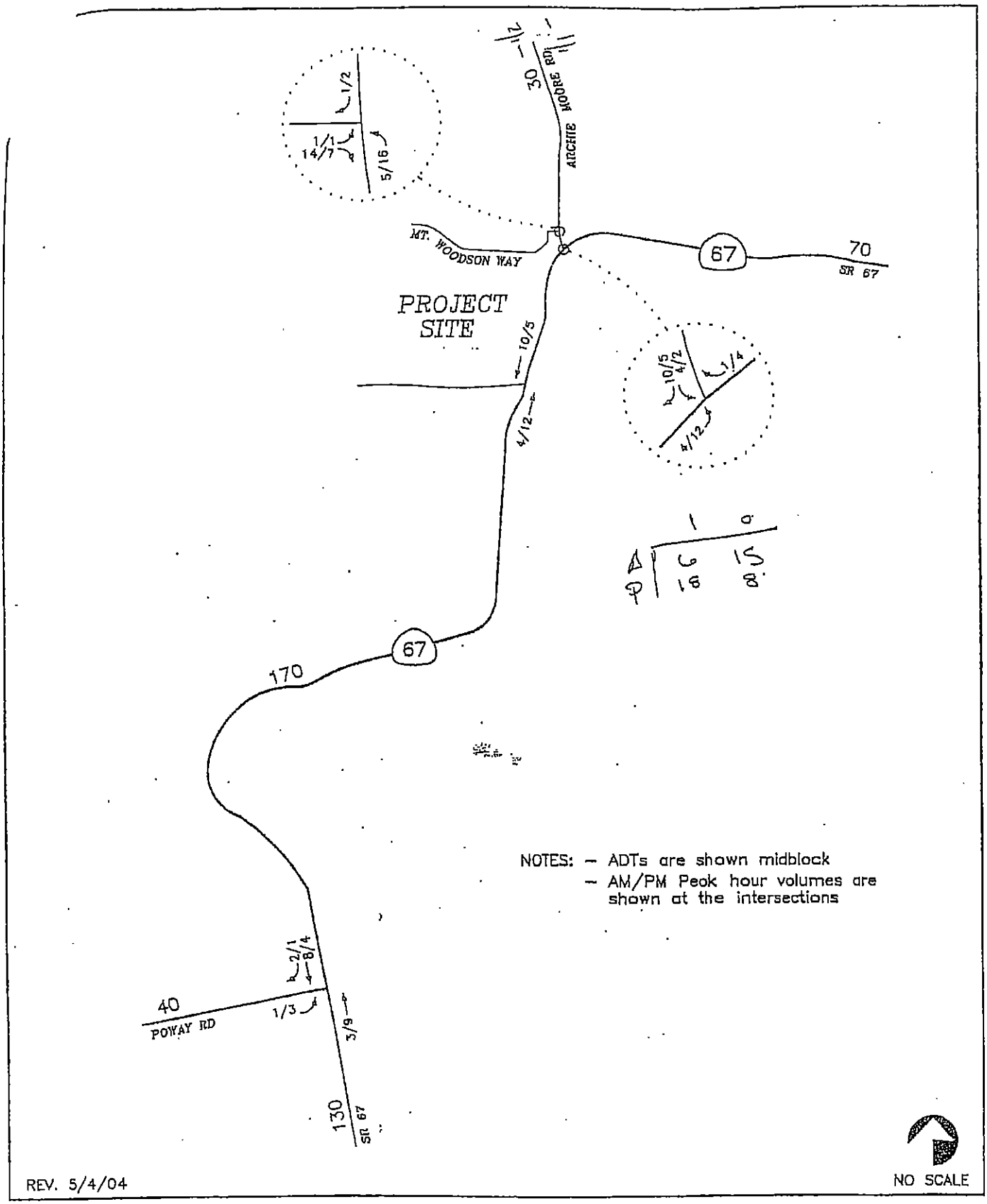
REV. 5/4/04

LLG1410_FIG7a.DWG

Figure 7a

ALT. #1 – SR 67 ACCESS POINT
PROJECT TRAFFIC VOLUMES

LINSCOTT LAW &



LLG1410_FIG7a.DWG

Figure 7b

ALT. #2 – MT. WOODSON WAY ACCESS POINT
PROJECT TRAFFIC VOLUMES
AM/PM PEAK HOUR VOLUMES & ADTs

LINSCOTT LAW &

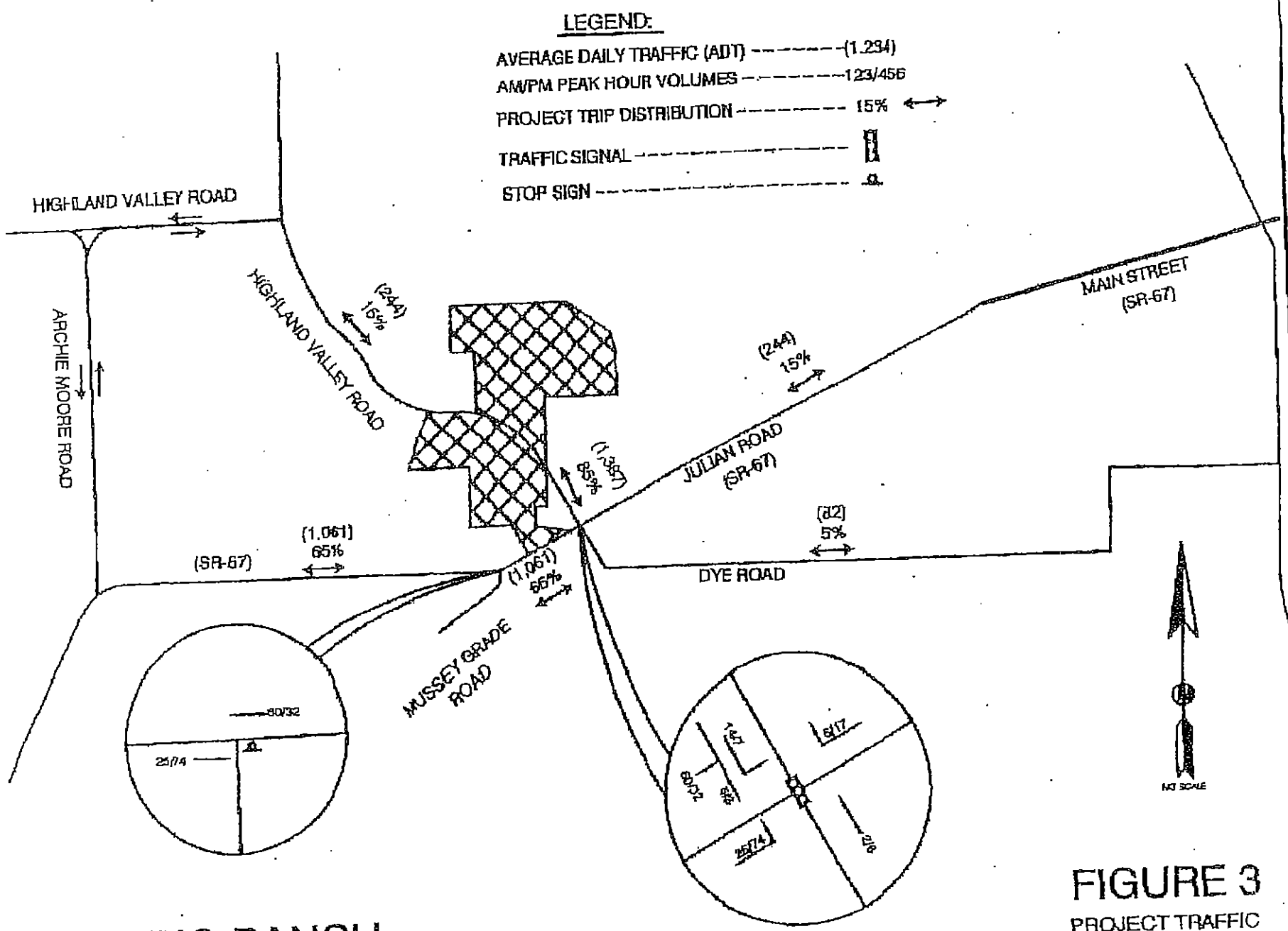
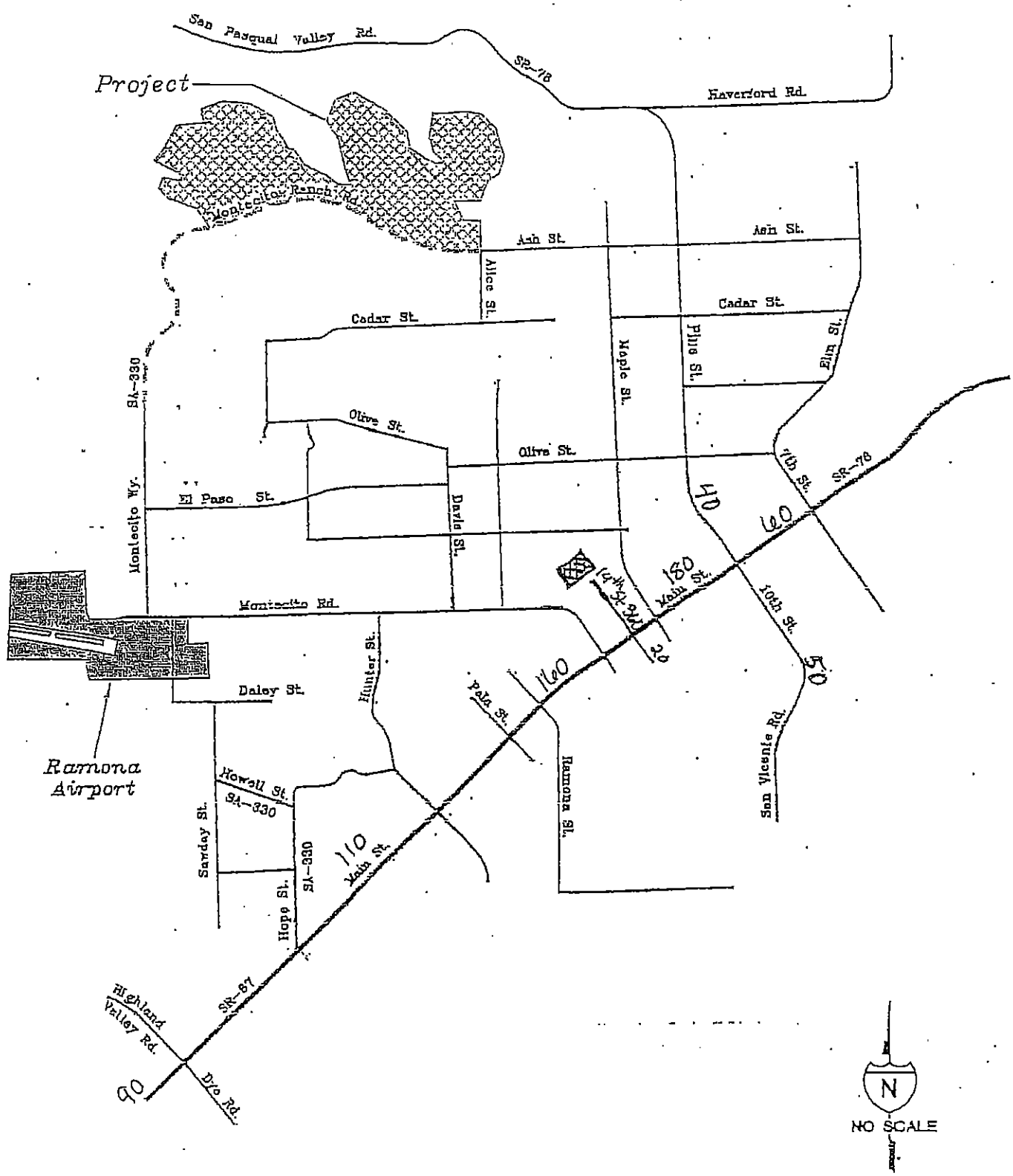


FIGURE 3

PROJECT TRAFFIC

CUMMING RANCH

TM 5347
Nickel Creek



- DESCRIPTION
- LOCATION
- ASSIGNMENT

TM 5347

TRAFFIC IMPACT ANALYSIS
NICKEL CREEK CONDOMINIUMS
RAMONA, CALIFORNIA

April 8, 2004

Prepared by:

LINSCOTT LAW & GREENSPAN
ENGINEERS

1565 Hotel Circle South, Suite 310
San Diego, CA 92108
(619) 299-3090

JB/JN
3-04-1396

LINSCOTT, LAW & GREENSPAN
ENGINEERS

2.0 Project Description

The project proposes to construct 45 multi-family condominium units on 137.5 acres. The project is located at the terminus (cul-de-sac) of 14th Street, north of SR 67 in the community of Ramona. This existing site is currently undeveloped. Access to the project site is proposed via 14th Street only.

Figure 3 shows the site plan.

LINSCOTT LAW & GREENSPAN
ENGINEERS

4.0 Project Traffic

4.1 Project Traffic Generation

Trip generation estimates for the proposed development were calculated based on SANDAG rates provided in the *Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region, April 2002.* Project trips were calculated using the trip rate for condominiums of 8.0 / Dwelling Unit. Table 2 shows the project is calculated to generate approximately 360 ADT with 6 inbound / 23 outbound trips during the AM peak hour and 22 inbound / 10 outbound trips during the PM peak hour.

Table 2
PROJECT TRIP GENERATION SUMMARY

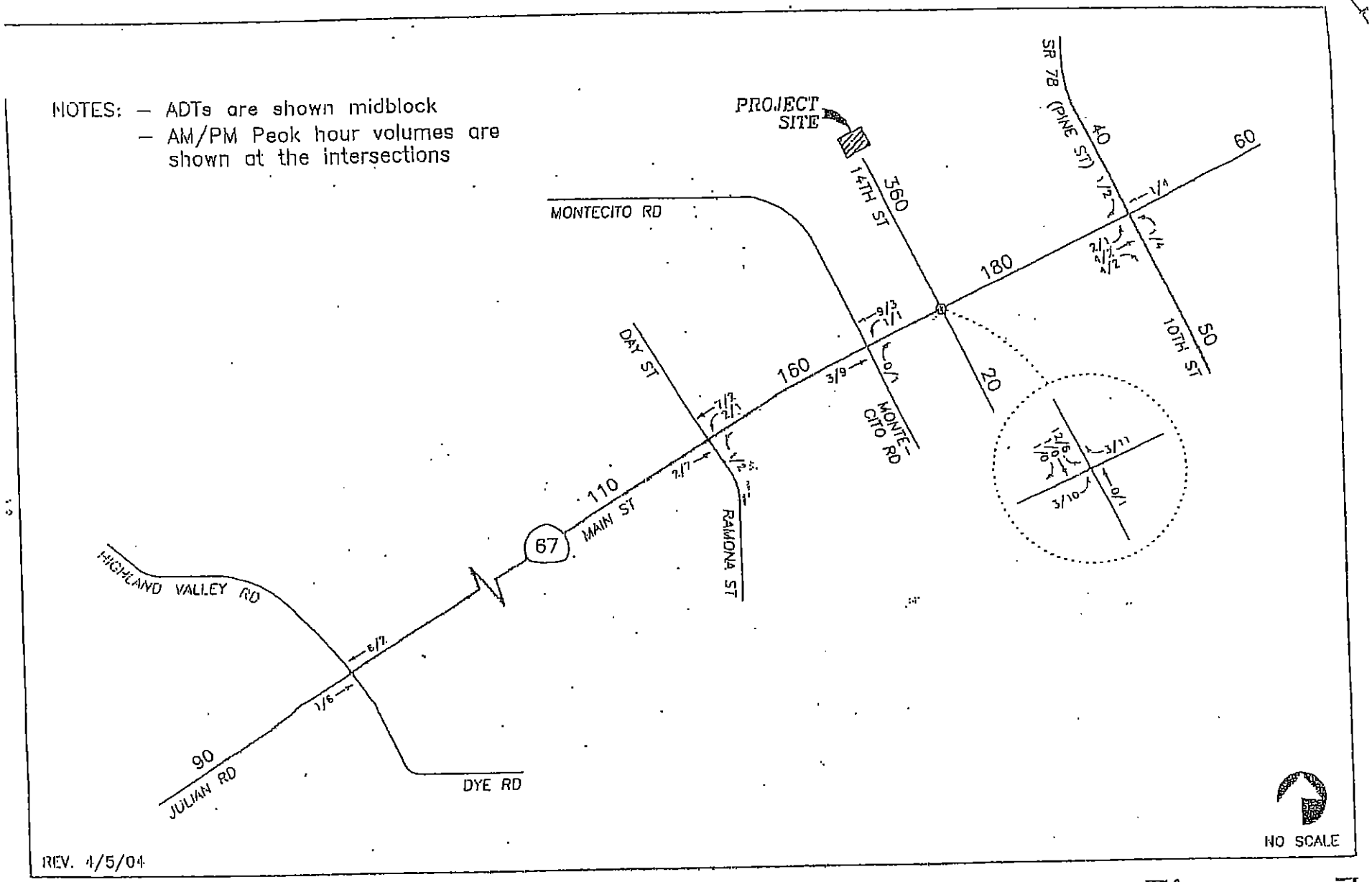
LAND USE	SIZE	DAILY TRIP ENDS		AM PEAK HOUR TRIPS				PM PEAK HOUR TRIPS			
		RATE	ADT	% of ADT	IN:OUT SPLIT	VOLUME IN	VOLUME OUT	% of ADT	IN:OUT SPLIT	VOLUME IN	VOLUME OUT
Condominiums	45	8.0 / DU	360	8%	20:80	6	23	9%	70:30	22	10

NOTES:
1 SOURCE: SANDAG Trip Generation Brief Guide (April 2002).
2 DU – Dwelling Unit
3 Rate is a trip-end per dwelling unit.

4.2 Project Traffic Distribution

The project traffic was distributed to the street system based on project access, the characteristics of the roadway system, local and non-local employment, retail, and educational opportunities, and existing traffic counts on 14th Street at SR 67. Based on the project characteristics, Figure 6 presents the estimated project traffic distribution in the site environs.

Based on the fact that the project is multi-family in nature as opposed to single family, it is estimated that 25% of project traffic will be oriented to/from the south towards the City of San Diego.



LLG1396.DWG

LINSCOTT LAW & GREENSPAN

Figure 7

PROJECT TRAFFIC VOLUMES
AM/PM PEAK HOURS & ADTs

NICKEL CREEK CONDOMINIUMS

LINSCOTT LAW & GREENSPAN
ENGINEERS

HANSON LANE
TM 5378

2.0 PROJECT DESCRIPTION

The Hanson Lane project is a residential land use development. The project site is currently vacant.

2.1 Project Location

The Hanson Lane Project site is located south of Hanson Lane and east of School Daze Lane in the Community of Ramona. Access to the site will be via a private drive that will be located in part along an existing easement to Hanson Lane. Ramona Street and San Vicente Road are the major roadways near the site.

2.2 Project Description

The project proposes to construct eleven (11) single-family homes. The lot size varies from 0.5 acres to 1.44 acres, with most lots at least 1.0 acre or larger. The project is consistent with the existing zoning, and no discretionary permit is required.

FIGURE 2-1 (BF) SHOWS THE PROJECT SITE PLAN.

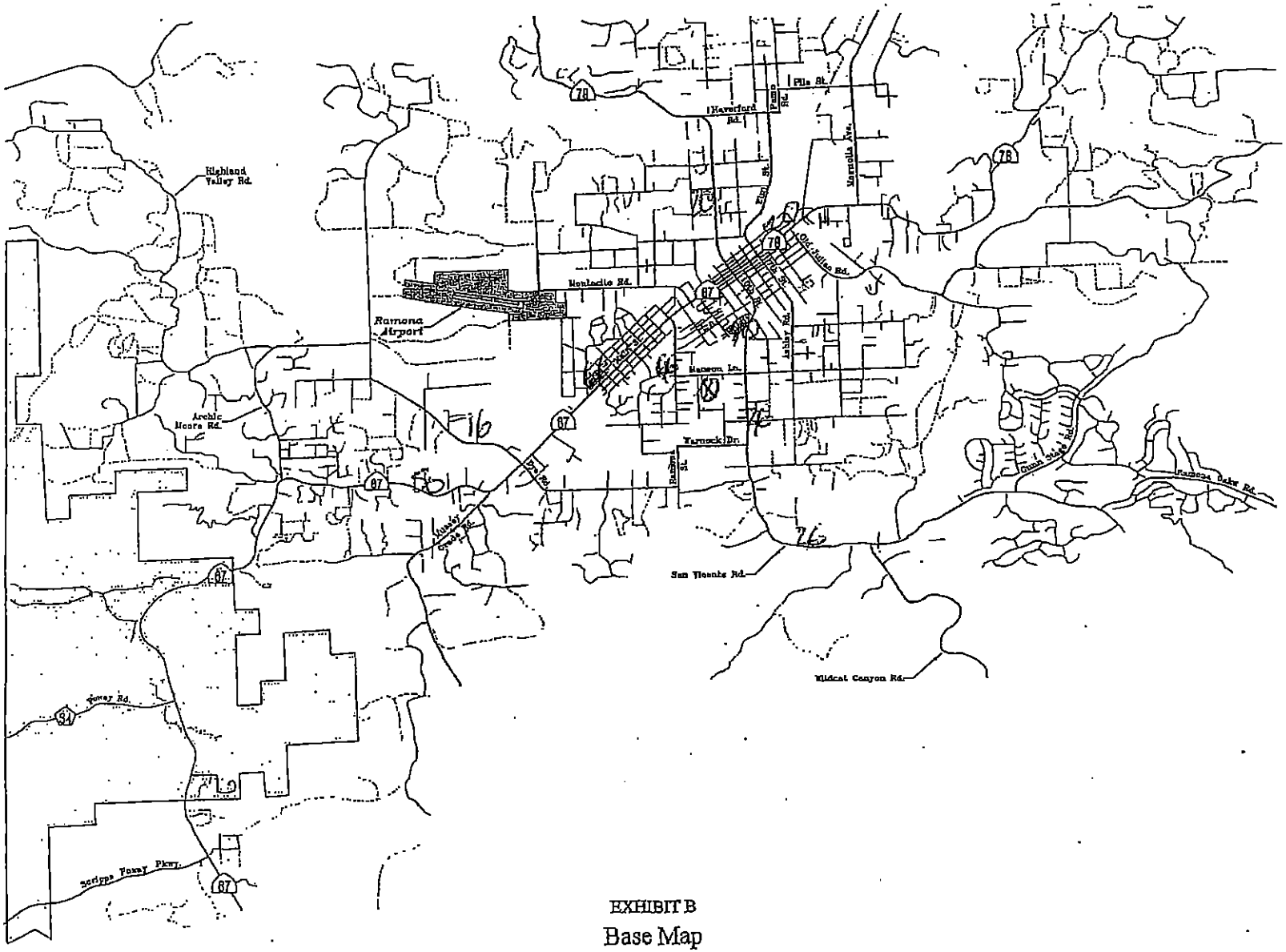
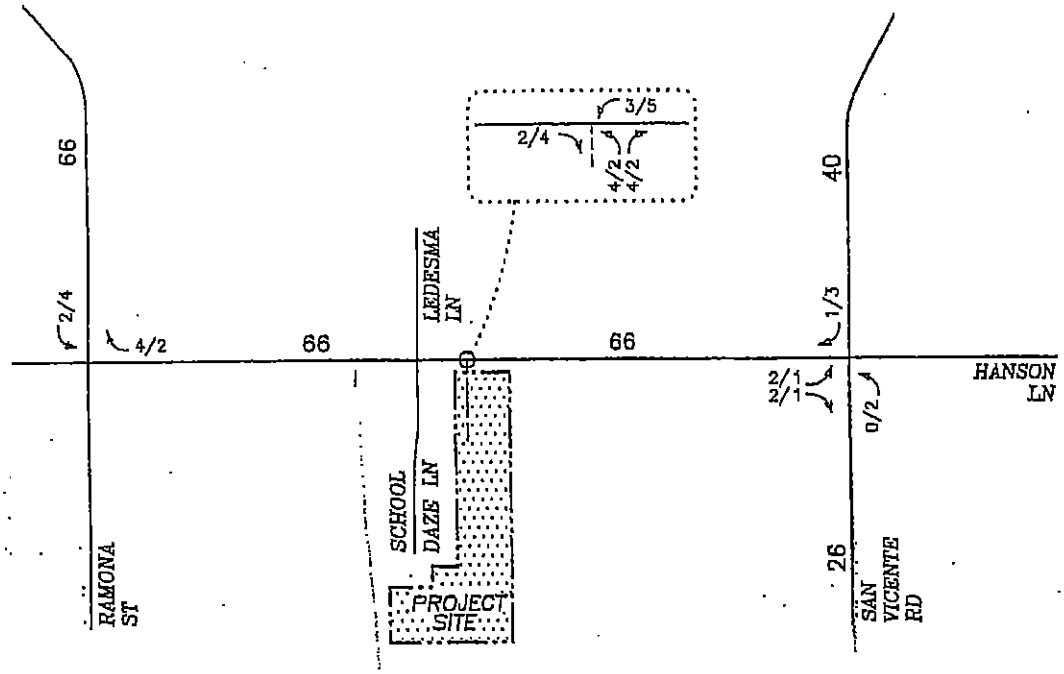


EXHIBIT B
Base Map

N
NO SCALE

TM5378
HANSEN LANE



NOTES: – ADTs are shown midblock
– AM/PM Peak hour volumes are shown at the intersections

NO SCALE

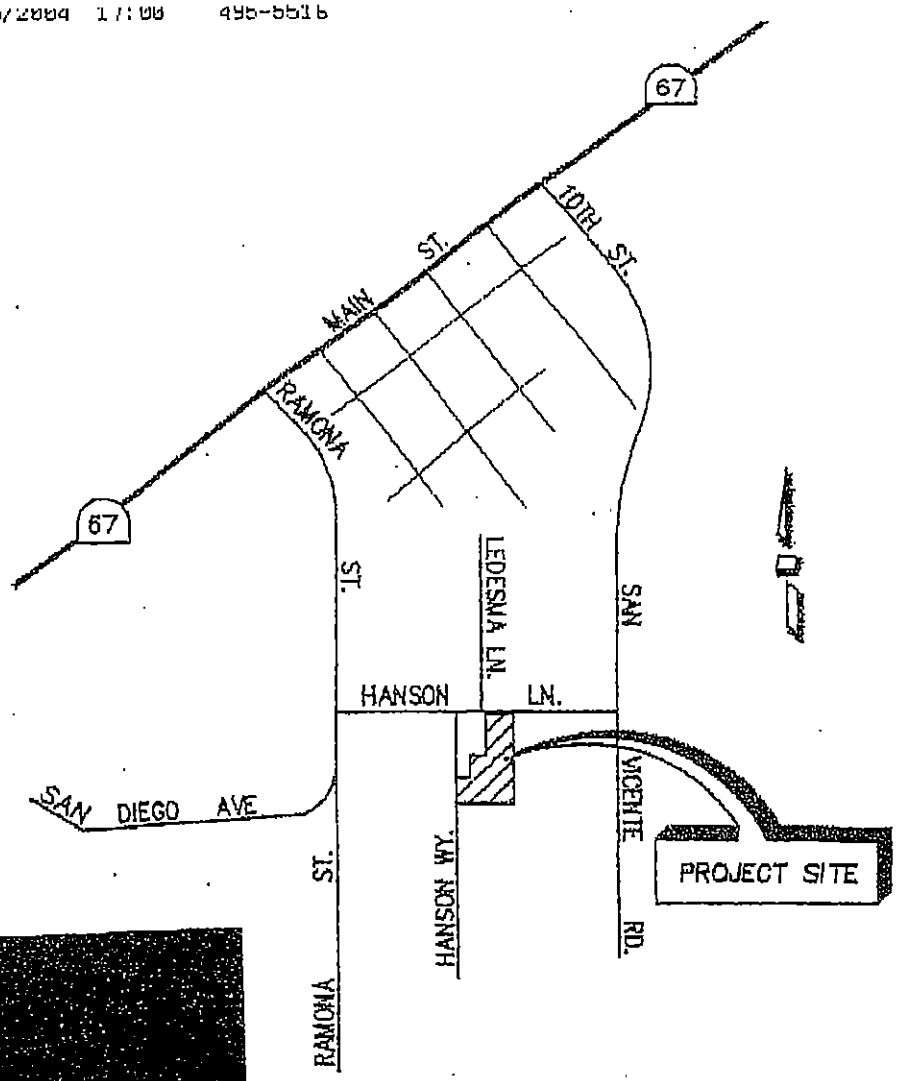
REV. 6/8/04

LLG1017_FIG6-2.DWG

Figure 6–2

PROJECT TRAFFIC ASSIGNMENT
AM/PM PEAK HOURS & ADTs

INSCOTT LAW &



POUNTNEY PSOMAS

VICINITY MAP

NOT TO SCALE

TM 5378

Peter J. Pountney, PE
Regional Office Manager

4455 Murphy Canyon Road
Suite 200
San Diego, CA 92123-4379

858.576.9200
858.563.1738 Fax
ppountney@pcg-psomas.com

1/858/576 9200

Information and Engineering Solutions

POUNTNEY
PSOMAS
Information and Engineering Solutions

4455 MURPHY CANYON ROAD, SUITE 200
SAN DIEGO, CA 92123 (858) 576-9200

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SDC DPLU RCVD 6/1/04

1792\012\DRAWINGS\PSNMS\TENTATIVE MAP\1792TM01.dwg 05/25/2004 03:13:54 PM PDT

TM 5378

06/25/2004 17:00 495-5516 PAGE 03

Kyra Jeo

02 08 076307 06/01/04 03:50PM
4900 TRUST FUND DEPOSITS $3,910.
Work Auth: WN7677
REF: 04-09-011
4900 TRUST FUND DEPOSITS $1,780.
Work Auth: WN7677
REF: TM5378
4900 TRUST FUND DEPOSITS $5,420.
Work Auth: DPW
REF: TM5378
4900 TRUST FUND DEPOSITS DP $110.
Work Auth: PARK
REF: TM5378
4900 SEWER SUBTRACTION DE $2,400
REF: TM5378

CP 04-00216516

COUNTY OF SAN DIEGO • DEPARTMENT OF PLANNING AND LAND USE
5201 RUFFIN ROAD, SUITE B, SAN DIEGO, CA 92123-1666 • (858) 565-5981 • (888) 267-8770
FAX: (858) 495-5550 • www.sdcounty.ca.gov

DISCRETIONARY PROJECT APPLICATION

Case Numbers	DPLU	DPW	DEH	PARKS	OTHER
TM 5378	1780 F/D 4900	5420 D 4900	2400 F/D	110 D	F/D
	F/D	D	F/D	D	F/D
	F/D	D	F/D	D	F/D
	F/D	D	F/D	D	F/D
ENV # 04-09-011	3910 D 4900				
WN # 7677	D				

DEPARTMENT USE ONLY

5690. + 5420 + 2400 + 110 = 13620.
DPLU DPW DEH PARKS/OTHER TOTAL

Have you had a pre-application conference? YES [X] NO [ ] If yes, Planner's name: Ed Gowens

Is this project the subject of a code violation? YES [ ] NO [X] If yes, provide copy of Violation Notice.

Financial responsibility: Owner [X] Applicant [X] Engineer [ ] Taxpayer ID# or SSN 33-0889592

Owner Name Richard F. Bottomley, Jr / Jason DeLeo Phone (760) 789-5347

Address 15750 Thomas Paine Drive

City Ramona State CA Zip 92065

Owner's E-mail Address HBottomley@AdNC.Com Owner's Fax Number ( ) N/A

Applicant Name JH Partners (if different from owner) Phone (760) 789-5347

Address 15750 Thomas Paine Drive

City Ramona State CA Zip 92065

Applicant's E-mail Address JHPartners@Cox.NET Applicant's Fax Number (760) 789-5305

Engineer Name Pountney Psomas Phone (858) 576-9200

Address 4455 Murphy Canyon Road Suite 200

City San Diego State CA Zip 92123

Engineer's E-mail Address dKeltner@PCG-psomas.com Engineer's Fax Number (858) 565-1738

Project Contact Person David R. Keltner Phone (858) 576-9200

Address 4455 Murphy Canyon Road Suite 200

City San Diego State CA Zip 92123

Project Name Estates at McDonald Park

Project Address & Nearest Cross Street 1602 & 1666 Hanson Lane / Cross St = Hanson Way

Assessor's Parcel No. 282-341-02-00 / 282-341-17-00

I declare under penalty of perjury under the laws of the State of California that the statements made as part of this application are true and correct. I hereby agree to provide the identification as required by Chapter 2 of Division 6 of Title 8 of the San Diego County Code.

Jack Bottomley / JH Partners 5/27/04
Signature of owner of Authorized Agent, if Agent signs, attach Letter of Authorization.

Dick Bottomley
Print or type Signator's Name

SDC DPLU RCVD 6/1/04

TM 5378

FOR DEPARTMENT USE ONLY

	Existing	Proposed
General Plan Designation	3 / 1	
Regional Category	CUDA	

For Administrative Permits and Use Permits
Describe use: Tm: 11 lots

	ZONE	(02)	(17)	
USE REGULATIONS		RR2	970	
NEIGHBORHOOD REGULATIONS/Animal		J	L	
DEVELOPMENT REGULATIONS	Density	2	1	
	Lot Size	15 AC	1 AC	
	Building Type	C	C	
	Maximum Floor Area	–	–	
	Floor Area Ratio	–	–	
	Height	G	G	
	Lot Coverage	–	–	
	Setback	G	C	
	Open Space	–	–	
SPECIAL AREA REGULATIONS		PURF	–	

Thomas Bros 1172 F1 Tax Rate Area 65010

Total Acres 12.77 No. of lots 2

Planning Group Ramona Supervisor District 2

Community Plan Ramona

Related Cases? YES ☐ NO ☑ If yes, list case number(s)

Linked Cases? ☐ ☑ If yes, list case number(s)

Is the project in a Specific Plan? YES ☐ NO ☑ If yes, name Plan

Is the project within 1/2 mile of a regional park? YES ☐ NO ☑

Is the project within 1 mile of an airport? ☐ ☑

Is the project within 1 mile of a highway? ☐ ☑

Is the project within 1 mile of a city? ☐ ☑ If yes, name City

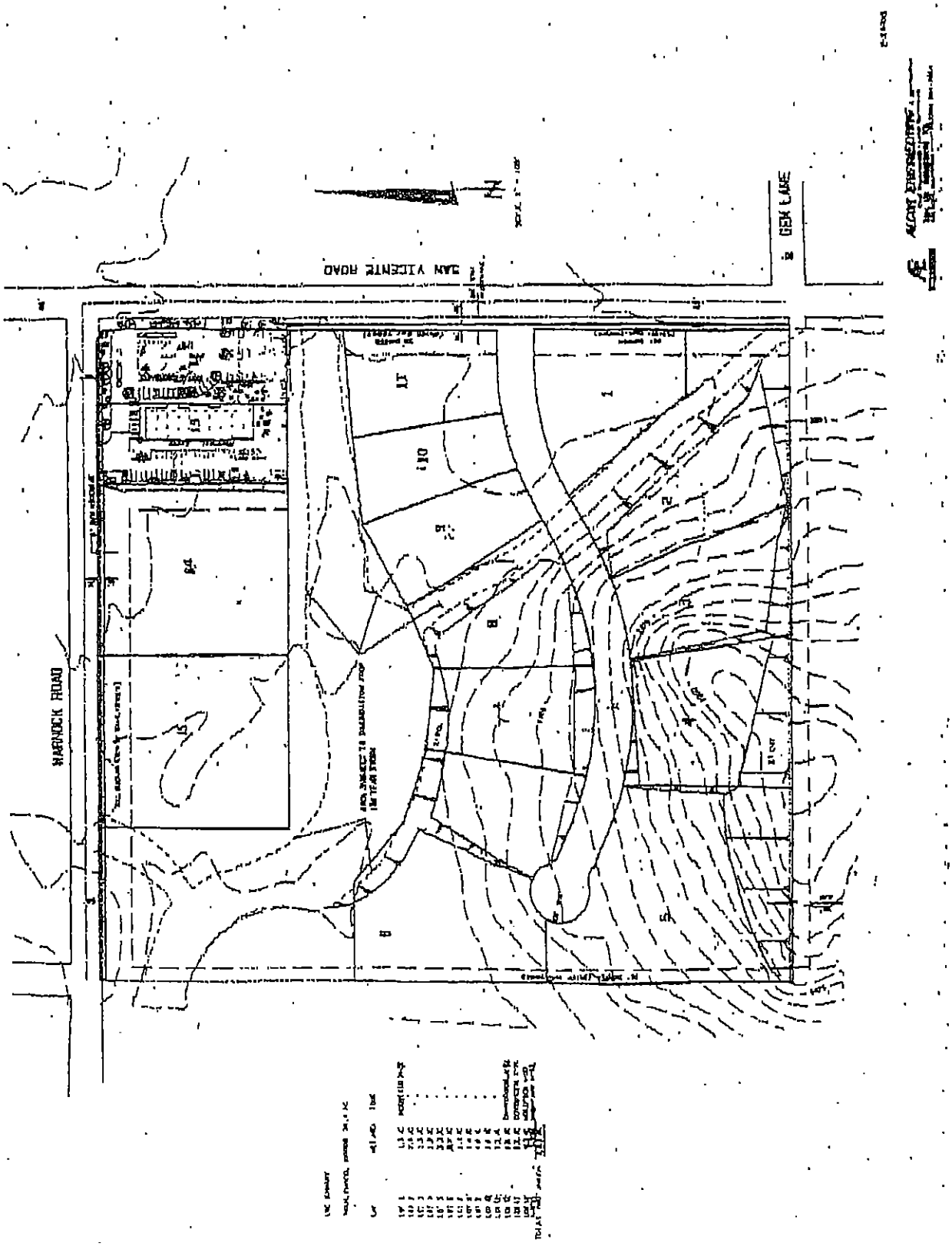
Is the project within a city sphere of influence? ☐ ☑ If yes, name City

Is the project proposed for septic ☐ or sewer? ☑

Is the project subject to the County Groundwater Ordinance? YES ☐ NO ☑

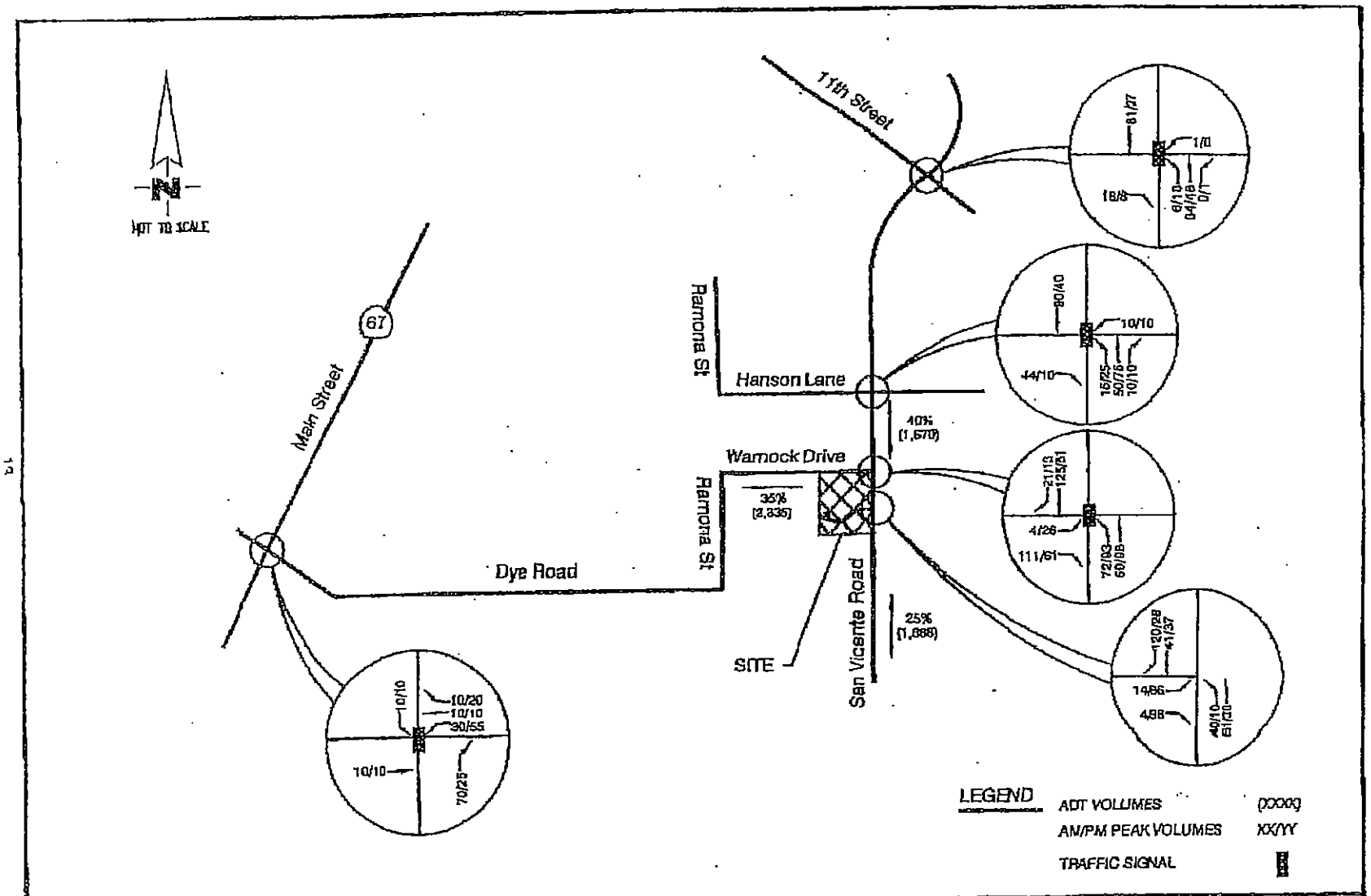
FOR PLANNER ASSIGNMENT, PLEASE CALL (858) 594-3292 M. Venable 6/1/04
Technician Initials Date

Technician's comments: GIS



THE GROVE

1/21



RCE TRAFFIC AND TRANSPORTATION ENGINEERING

PROJECT TRIP DISTRIBUTION

FIGURE 4

PROJECT TRIP GENERATION:

1. **Lots 1 thru 11:** (20.1 acres)

   Sandag Land use: Industrial Park (no commercial)

   Trip Generation:

ADT	=	80/ acre X 20.1 acres		=	1,608 trips
ADT (minus 2% pass-by)				=	1,575 trips
AM peak	=	11% (9:1)	X (1,608)	=	177 trips (159; 18)
PM peak	=	12% (2:8)	X (1,608)	=	192 trips (38: 154)

2. **Lot 12:** (1.2 acres)

   Sandag Land Use: Convenience Market w/ gas pumps

   Trip Generation:

ADT	=	850/ 1000 s.f. X 6,000		=	5,100 trips
ADT (minus 15% pass-by)				=	4,335 trips
AM peak	=	6% (5:5)	X (5,100)	=	306 trips (153; 153)
PM peak	=	7% (5:5)	X (5,100)	=	356 trips (178: 178)
PM peak (minus 50% pass-by)				=	178 trips (89: 89)

3. **Lot 13:** (1.2 acres)

   Sandag Land Use: Specialty Retail/ Strip Commercial

ADT	=	40/ 1000 s.f. X 10,000		=	400 trips
ADT (minus 15% pass-by)				=	340 trips
AM peak	=	3% (6:4)	X (400)	=	12 trips (7; 5)
PM peak	=	9% (5:5)	X (400)	=	36 trips (18; 18)
PM peak (minus 10% pass-by)				=	32 trips (16; 16)

4. **Lots 14 & 15:** (5.4 acres)

   Sandag Land use: Industrial Park (no commercial)

   Trip Generation:

ADT	=	80/ acre X 5.4 acres		=	432 trips
ADT (minus 2% pass-by)				=	423 trips
AM peak	=	11% (9:1)	X (432)	=	48 trips (43; 5)
PM peak	=	12% (2:8)	X (432)	=	52 trips (10: 42)

5. <u>Total Project Trip Generation:</u>

ADT = 1,575 + 4,335 + 340 + 423 = **6,673 trips**

AM peak:

177 trips (159; 18) + 306 trips (153; 153) + 12 trips (7; 5) + 48 trips (43; 5)=

AM peak = 543 (362: 181)

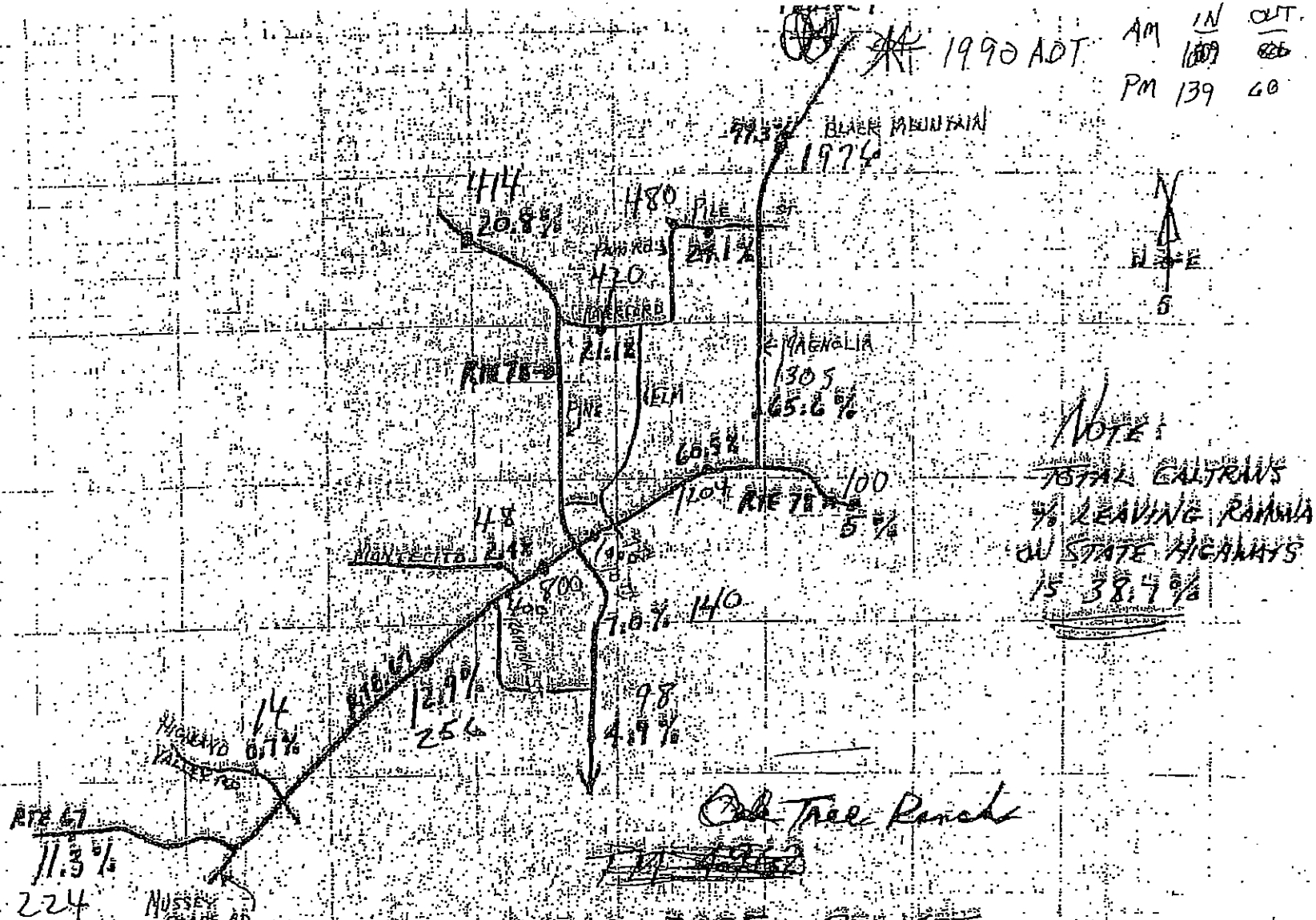
PM peak:

192 trips (38: 154) + 178 trips (89: 89) + 32 trips (16: 16) + 52 trips (10: 42)=

PM peak = 454 (153: 301)

1990 ADT

	IN	OUT
AM	1609	886
PM	139	60



NOTE:
TOTAL CALTRANS % LEAVING RAMONA ON STATE HIGHWAYS IS 38.7%

Oak Tree Ranch

~~EM 1990~~

YEAR 2005 PROJECT TRAFFIC DISTRIBUTION PERCENTAGES

FROM SANDAG YEAR 2005

FIGURE 6

RCE TRAFFIC AND TRANSPORTATION ENGINEERING

9255 DILLON DRIVE
LA MESA, CALIFORNIA 91941
Tel. (619) 589-9151
Fax. (619 589-9208

June 17, 2004

Mario H. Orso
Department of Transportation - Planning Department
1450 Frazee Road – Suite 506
San Diego, California 92108

Subject: One Stop Rental

Dear Mr. Orso,

In response to your March 24th letter, I have prepared this study to address traffic and grading/right-of-way impacts related to the improvement of the existing landscape rental and supply yard as proposed.

PROPOSED PROJECT:

Currently the site contains an existing building and portable structures which are in severe disrepair and are in need of replacement. Many of the uses existing on the current site now occur outdoors. The project proposes the removal of the existing site structures and the construction of approximately 21,300 square feet of building area. Please refer to the attached grading plan for proposed building locations and site grading.

RIGHT-OF-WAY REQUIREMENTS:

The project site fronts on Pine Street (SR-78) which is currently a two-lane facility. Per the County of San Diego Circulation Element, the ultimate classification for Pine Street in this area is a four-lane major road. Studies were performed to determine the ultimate right-of-way requirements along the project frontage to accommodate road widening and slope grading.

As can be seen on the attached grading plan, with site grades shown, the future roadway improvements can be accommodated within the proposed 51' (half width) proposed future right-of-way along the project frontage.

TRAFFIC GENERATION:

The land uses proposed for the site are regulated by the "M54" zoning regulations which call for heavy industrial uses. Using the Sandag Land Use category of "Industrial – Industrial Park (commercial included)", which is estimated to generate

1/2

2. 16 trips per 1000 square feet of building area, the total traffic generation of the proposed site is calculated as follows:

(16 trips/1000 sf) X (21,300 sf) = 341 trips

Existing traffic counts were performed during business hours at the project driveways to determine daily traffic generation of the existing site. Refer to the attached traffic counts dated 5/25/04.

The results of this count show a current average daily traffic rate of 278 trips

Therefore, the estimated net increase of average daily traffic by the proposed site is as follows:

341 trips – 278 trips = 63 trips

TRAFFIC IMPACTS:

EXISTING CONDITIONS:

Current (2001) Average Weekday Traffic Volumes (AWTV) counts for Pine Street (SR-78) along the project frontage is 10,900. This translates to a Level of Service (LOS) D per the County of San Diego Public Road Standards for a two-lane light collector. The addition of the 63 trips generated by the project will not significantly affect this existing LOS.

FUTURE CONDITIONS:

Future (2030) forecast ADT volumes for Pine Street (SR-78) along the project frontage is estimated at 19,000. This translates to a LOS B per County standards for a four-lane major road. The addition of the 63 trips generated by this project will not affect this LOS.

CONCLUSIONS:

Based on the analysis performed, it is my opinion that the estimated additional traffic generated by the project as proposed will not have significant adverse impacts to the adjacent roadways. Also, if the site grading is performed as proposed, the proposed 51' future right-of-way will be sufficient for future widening and grading associated with ultimate improvements to Pine Street (SR-78).

Please feel free to call me if you have questions or require additional information.

Sincerely,

Rick Crafts, CE, TE

SANTA YSABEL CASINO

Santa Ysabel Indian Reservation

June 1, 2004

3400 ADT

Draft Traffic Impact Analysis

Prepared for:

Tierra Environmental Services
9903 Businesspark Avenue, Suite E
San Diego, CA 92131

Prepared by:

LOS Engineering, Inc.
660 Ash Street, San Diego, CA 92101
Phone 619-890-1253, Fax 619-374-7247

Job #412

11

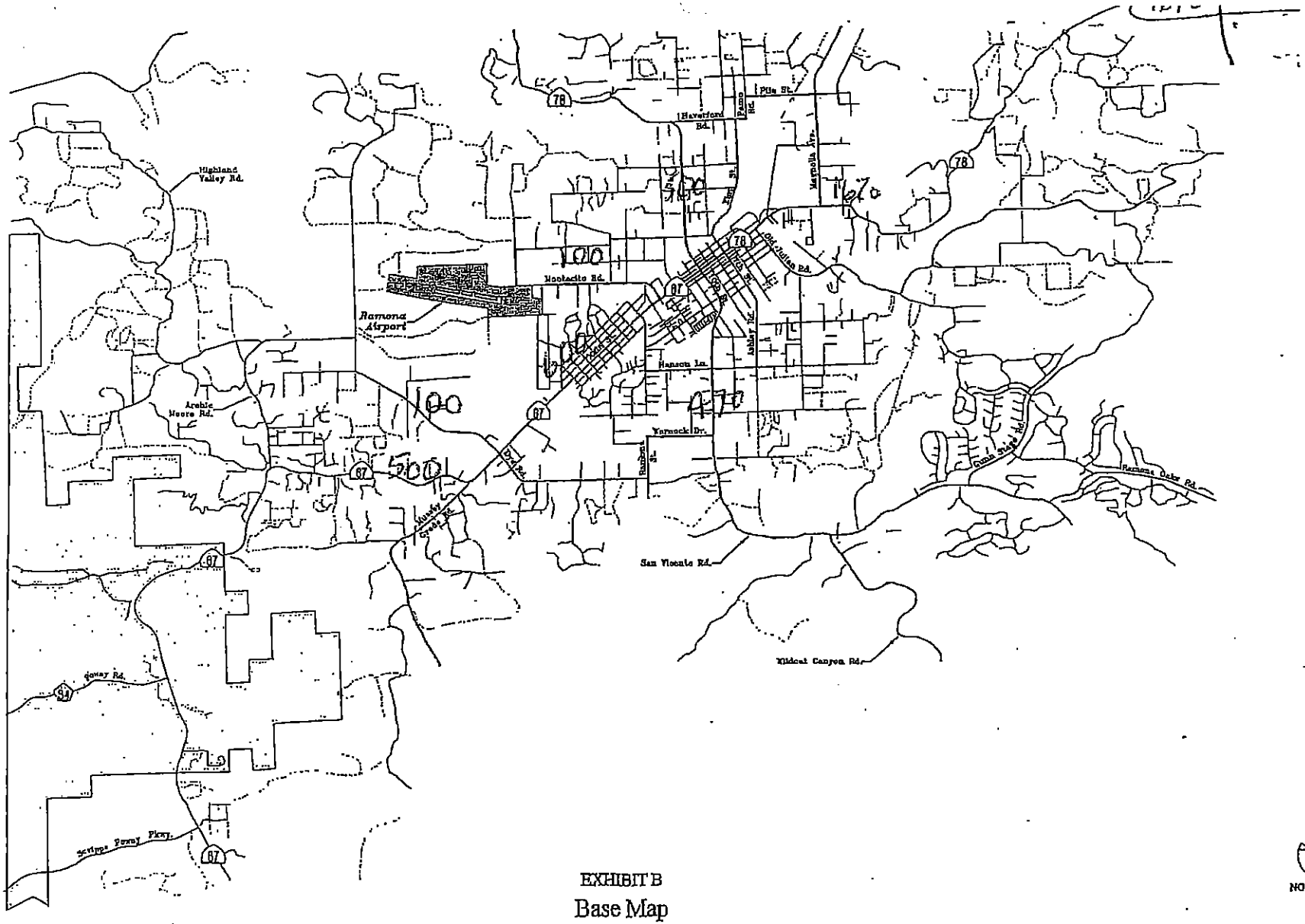


EXHIBIT B

Base Map

N

NO SCALE

SANTA YSABEL CASINO

Figure 6: Project Volumes

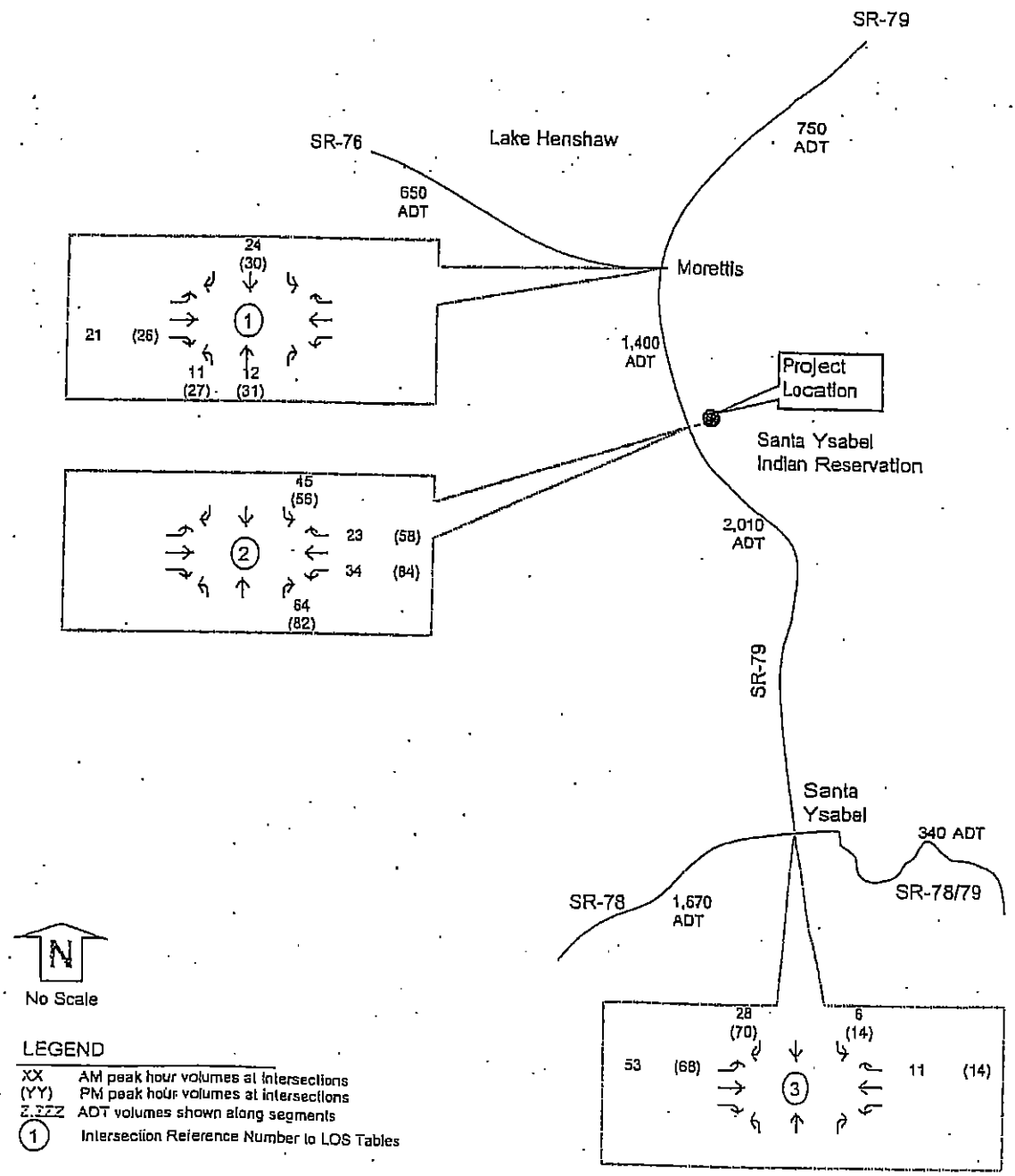
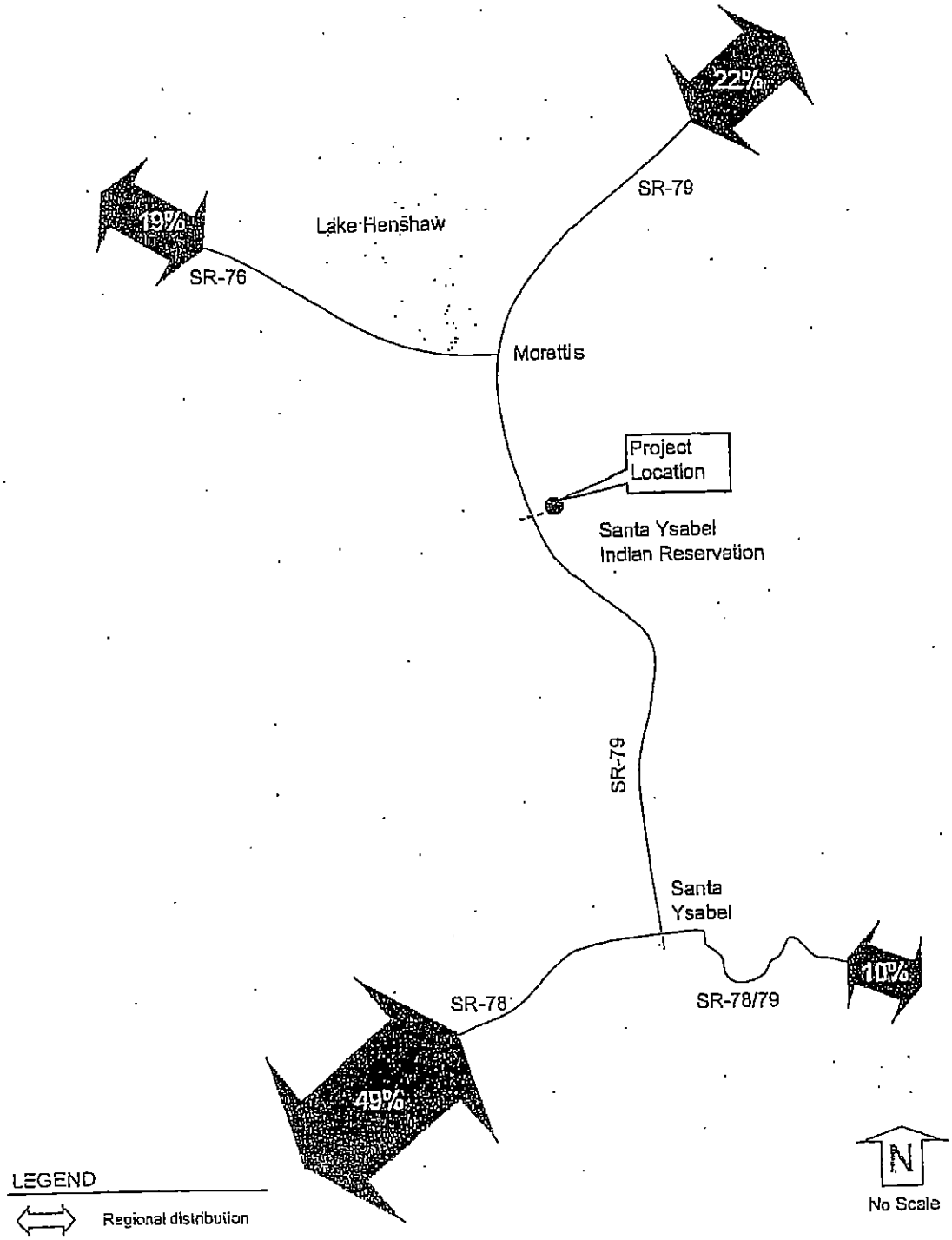


Figure 5: Project Distribution



Boundary Avenue School

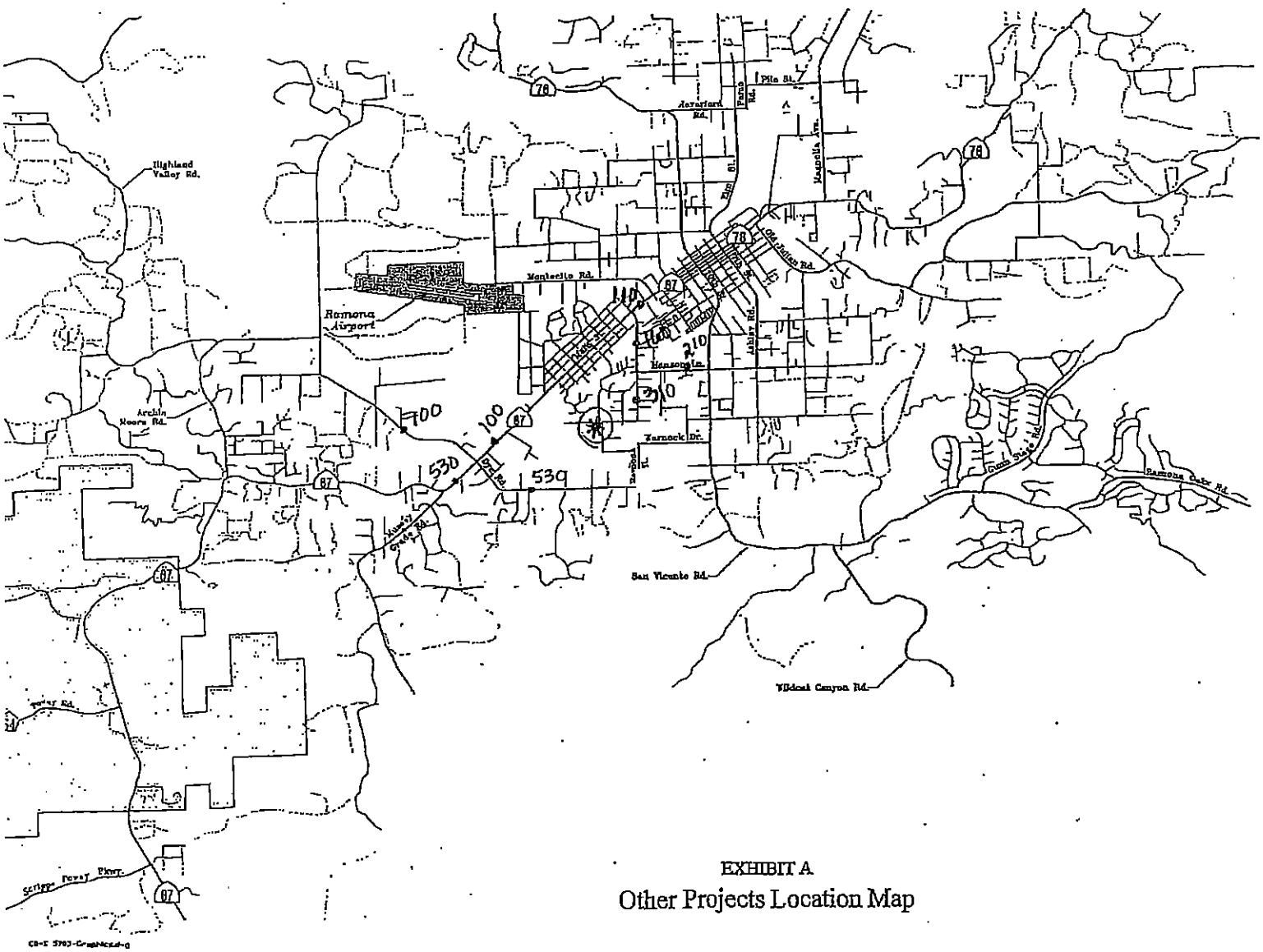


EXHIBIT A

Other Projects Location Map

TRAFFIC IMPACT ANALYSIS
RAMONA ELEMENTARY SCHOOL
RAMONA, CALIFORNIA

Prepared by:

LINSCOTT LAW & GREENSPAN
ENGINEERS
1565 Hotel Circle South, Suite 310
San Diego, CA 92108
(619) 299-3090

August 31, 2000
JB/RA/ja
3-001013

LINSCOTT
LAW &
GREENSPAN
ENGINEERS

TRAFFIC IMPACT ANALYSIS
RAMONA ELEMENTARY SCHOOL
RAMONA, CALIFORNIA

INTRODUCTION

The following traffic study has been prepared to determine and evaluate the potential traffic impacts on the local circulation system due to the development of the proposed 750 student Ramona Elementary School in the Ramona Community of San Diego County. The project site is located near the southwest corner of Boundary Avenue/ Hunter Street. Project access is planned on Boundary Avenue via one driveway at the southern portion of the project. **Figure 1** shows the general vicinity of the project. **Figure 2** shows a more detailed project area map.

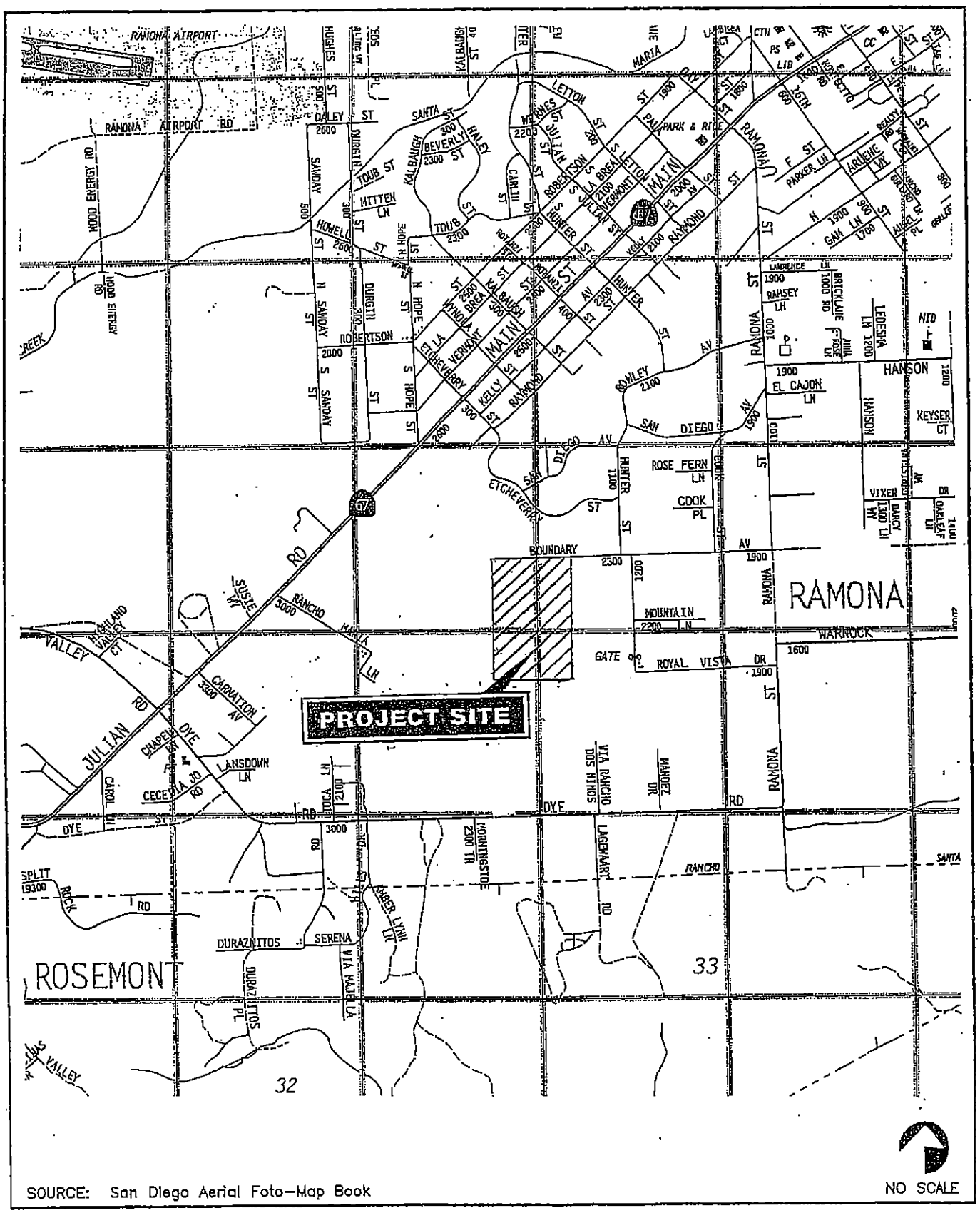
The traffic generated by the project has been added to the existing on-street traffic volumes and the traffic impacts have been analyzed on several street segments and eight key intersections in the project area.

Included in this traffic analysis are:

- Existing conditions description;
- Project traffic generation/distribution/assignment;
- Cumulative projects discussion;
- Short-term intersection and street segment capacity analysis;
- Long-term street segment capacity analysis:
- Significance of Impacts discussion; and
- Recommended mitigation measures

PROJECT DESCRIPTION

The project proposes to construct an elementary school with a maximum enrollment of 750 students, kindergarten through grade five. The project is to be developed on approximately 52 acres of land located in the Ramona Community of San Diego County. Access is proposed via one driveway on Boundary Avenue. Figure 3 shows a conceptual site plan.



SOURCE: San Diego Aerial Foto-Map Book

Figure 2

PROJECT AREA MAP

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LINSCOTT LAW & GREENSPAN ENGINEERS

TABLE 2

PROJECT TRAFFIC GENERATION

USE	SIZE	DAILY TRIP ENDS (ADT)		AM PEAK HOUR				PM PEAK HOUR			
		RATE	VOLUME	% OF ADT	IN:OUT SPLIT	VOLUME IN	VOLUME OUT	% OF ADT	IN:OUT SPLIT	VOLUME IN	VOLUME OUT
ementary School	750 students	1.4	1050	28%	6:4	180	115	7%	3:7	25	50

NOTE: 1) Trip rate is per student and based on the SANDAG rate which includes approximately sixty percent of the students at the site being bussed to school via school buses. However, this particular school will have approximately 45% of the students bussed. Therefore, a rate per student of 1.4 was used instead of 1.2 to reflect the 15% change.

2) All ADT's are rounded to the nearest 10 and peak hours to the nearest 5.

3) Trip-ends are one-way traffic movements, entering or leaving.

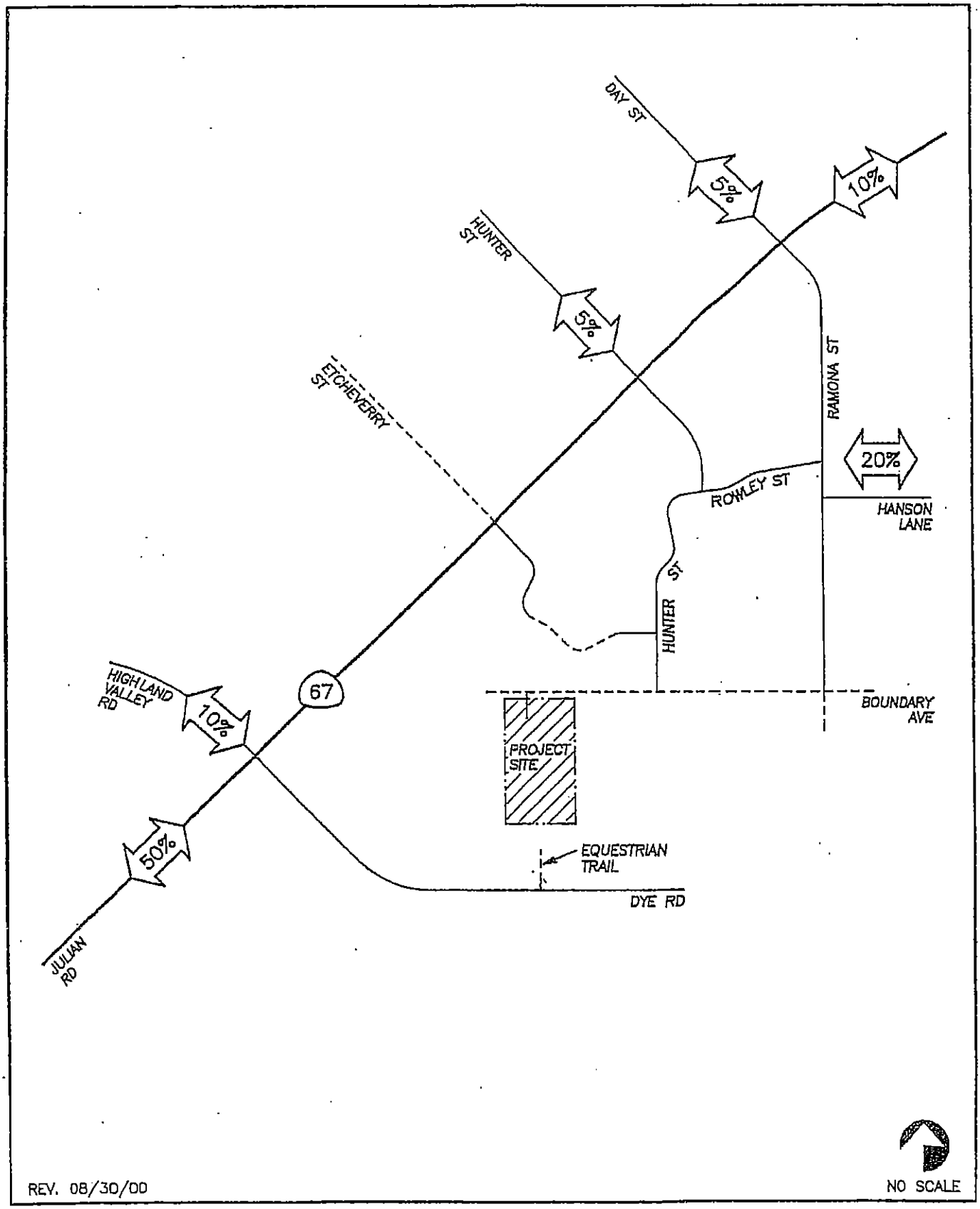

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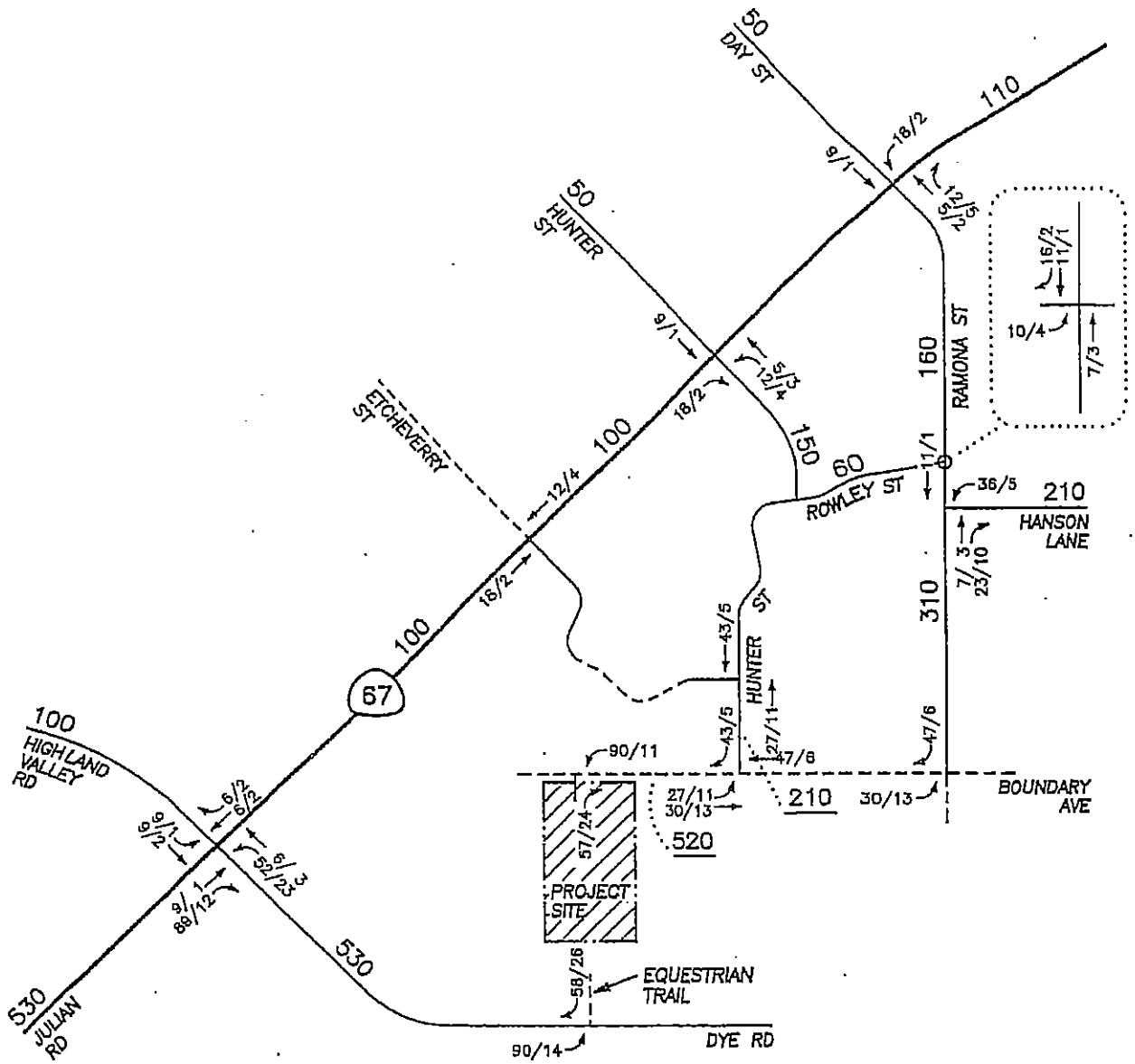
Figure 6

PROJECT TRAFFIC DISTRIBUTION

LINSCOTT LAW &



NOTE: – ADT's are shown midblock
– AM/PM Peak hour volumes are shown at the intersections

NO SCALE

REV. 08/31/00

LLG1013.DWG

Figure 7

PROJECT TRAFFIC VOLUMES

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ENGINEERS

TRAFFIC IMPACT ANALYSIS
RECONSTRUCTION AND EXPANSION OF OLIVE PEIRCE MIDDLE SCHOOL AND RAMONA HIGH SCHOOL
RAMONA, CALIFORNIA
April 16, 2003

1.0 INTRODUCTION

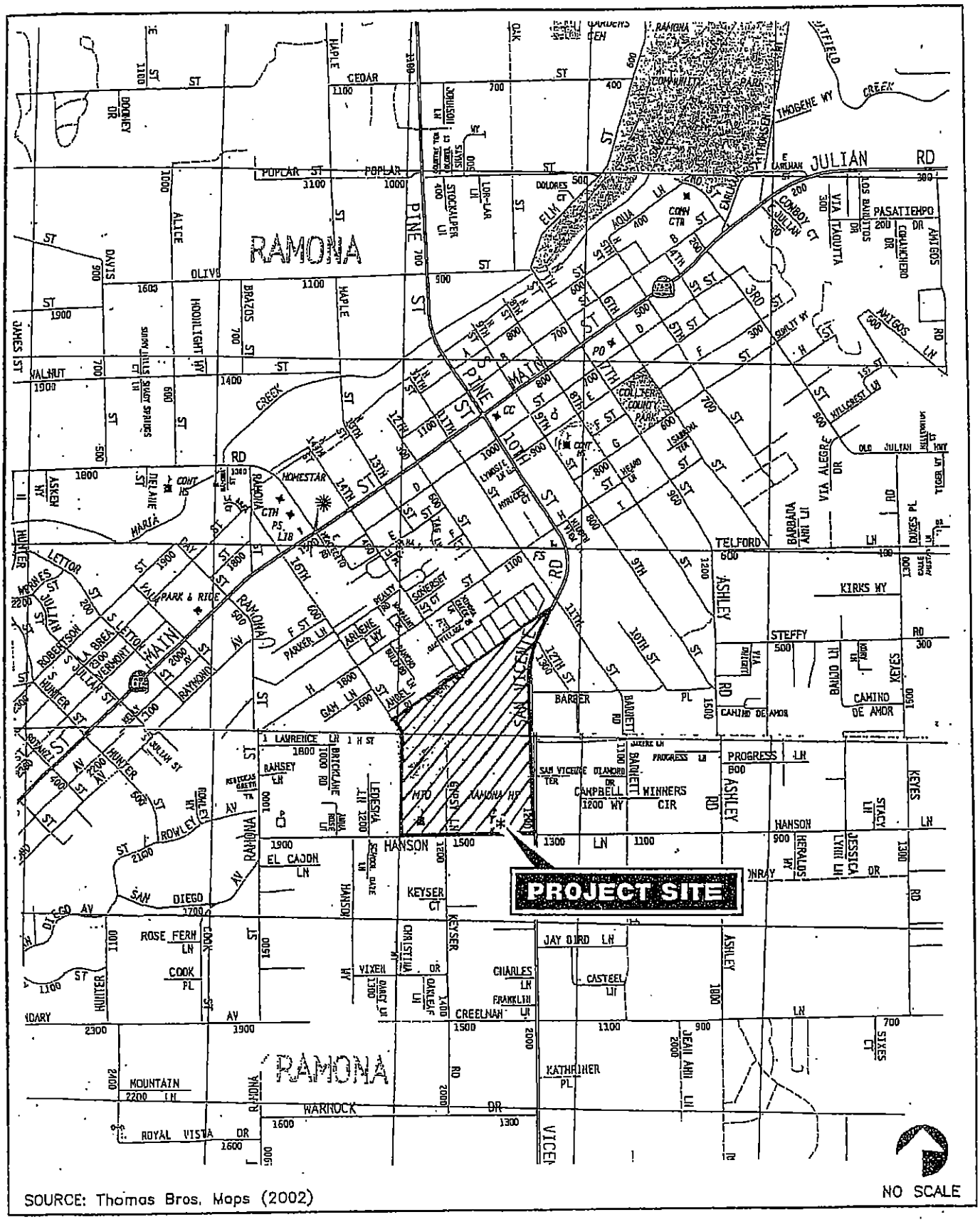
This traffic impact study has been prepared to determine the potential impacts on the local circulation system due to the proposed reconstruction and expansion of the existing Olive Peirce Middle School (O.P.M.S.) and Ramona High School (R.H.S.) in Ramona. The project site is located on Hanson Lane, south of H Street, between Ramona Street and San Vicente Road. **Figure 1** shows a vicinity map. **Figure 2** shows a more detailed project area map. The additional traffic generated by the project has been added to the existing on-street traffic volumes and the traffic impacts were analyzed during on a daily and peak-hour basis at 12-key intersections and several street segments within the project area.

Included in this traffic assessment is the following:

- Project description;
- Existing conditions assessment;
- Project traffic generation/distribution/assignment;
- Cumulative projects discussion;
- Intersection/street segment capacity analysis;
- CMP Arterial analysis;
- Year 2020 analysis;
- Project Access Discussion;
- Significance of Impacts/Mitigation Measures, and
- Conclusions

1.1 Project Location

The existing Olive Peirce Middle School and Ramona High School are located on Hanson Lane, south of H Street between Ramona Street and San Vicente Road. Both schools take direct access to Hanson Lane via a series of driveways, and Ramona High School currently has an additional unimproved parking lot on the west side of San Vicente Road, north of Hanson Lane (referred to as the "Ag" lot). An unimproved



SOURCE: Thomas Bros. Maps (2002)

FIG1186.DWG

Figure 2

PROJECT AREA MAP

LINSCOTT

LINSCOTT LAW & GREENSPAN
ENGINEERS

TABLE 2
PROJECT TRAFFIC GENERATION

ALTERNATIVE A

LAND USE	SIZE	DAILY RATE	AVERAGE DAILY TRAFFIC (ADT)	AM PEAK HOUR % OF ADT	AM PEAK HOUR IN:OUT SPLIT	AM PEAK HOUR VOLUME IN	AM PEAK HOUR VOLUME OUT	PM PEAK HOUR % OF ADT	PM PEAK HOUR IN:OUT SPLIT	PM PEAK HOUR VOLUME IN	PM PEAK HOUR VOLUME OUT
High School	3,500	1.82	6,360	25%	–	1,280	310	5%	–	205	130
Middle School	1,600	2.38	3,800	30%	–	605	535	4%	–	75	60
Total	5,100		10,160			1,885	845			280	190
Existing School Generation			6,500			1,055	505			155	105
Net Increase			3,660			830	340			125	85

ALTERNATIVE B → Chosen for EIR

LAND USE	SIZE	DAILY RATE	AVERAGE DAILY TRAFFIC (ADT)	AM PEAK HOUR % OF ADT	AM PEAK HOUR IN:OUT SPLIT	AM PEAK HOUR VOLUME IN	AM PEAK HOUR VOLUME OUT	PM PEAK HOUR % OF ADT	PM PEAK HOUR IN:OUT SPLIT	PM PEAK HOUR VOLUME IN	PM PEAK HOUR VOLUME OUT
High School	3,000	1.82	5,460	25%	–	1,100	270	5%	–	175	110
Middle School	1,600	2.38	3,800	30%	–	605	535	4%	–	75	60
Total	4,600		9,260			1,705	805			250	170
Existing School Generation			6,500			1,055	505			155	105
Net Increase			2,760			650	300			95	65

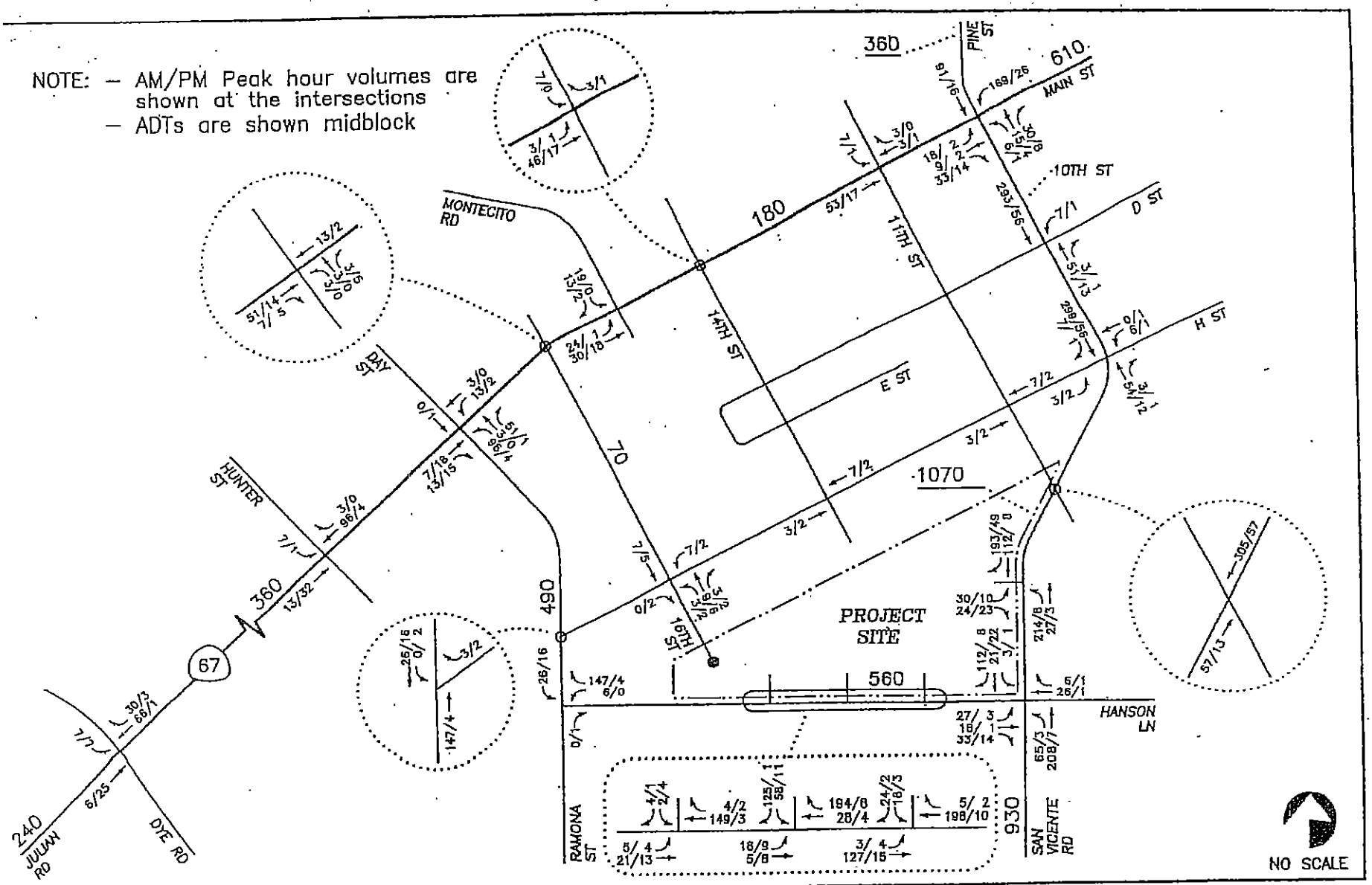
ALTERNATIVE C

LAND USE	SIZE	DAILY RATE	AVERAGE DAILY TRAFFIC (ADT)	AM PEAK HOUR % OF ADT	AM PEAK HOUR IN:OUT SPLIT	AM PEAK HOUR VOLUME IN	AM PEAK HOUR VOLUME OUT	PM PEAK HOUR % OF ADT	PM PEAK HOUR IN:OUT SPLIT	PM PEAK HOUR VOLUME IN	PM PEAK HOUR VOLUME OUT
High School	2,800	1.82	5,100	25%	–	1,020	255	5%	–	155	100
Middle School	1,600	2.38	3,800	30%	–	605	535	4%	–	75	60
Total	4,400		8,900			1,625	790			230	160
Existing School Generation			6,500			1,055	505			155	105
Net Increase			2,100			570	285			75	55

ALTERNATIVE D

LAND USE	SIZE	DAILY RATE	AVERAGE DAILY TRAFFIC (ADT)	AM PEAK HOUR % OF ADT	AM PEAK HOUR IN:OUT SPLIT	AM PEAK HOUR VOLUME IN	AM PEAK HOUR VOLUME OUT	PM PEAK HOUR % OF ADT	PM PEAK HOUR IN:OUT SPLIT	PM PEAK HOUR VOLUME IN	PM PEAK HOUR VOLUME OUT
High School	2,400	1.82	4,370	25%	–	880	215	5%	–	140	90
Middle School	1,400	2.38	3,330	30%	–	525	465	4%	–	65	30
Total	3,800		7,700			1,405	680			205	120
Existing School Generation			6,500			1,055	505			155	105
Net Increase			1,200			350	175			50	15

Source: Based on factored LLG driveway counts taken Thursday May 30th 2002.



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G1186.DWG

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REENSPAN
GINEERS

Figure 10

PROJECT ALTERNATIVE "B" TRAFFIC VOLUMES
AM/PM PEAK HOURS & ADTs

RECONSTRUCTION & EXPANSION OF O.P.M.S. & R.H.S.

Olive Peirce Middle School and
Ramona High School Expansion

LEGEND

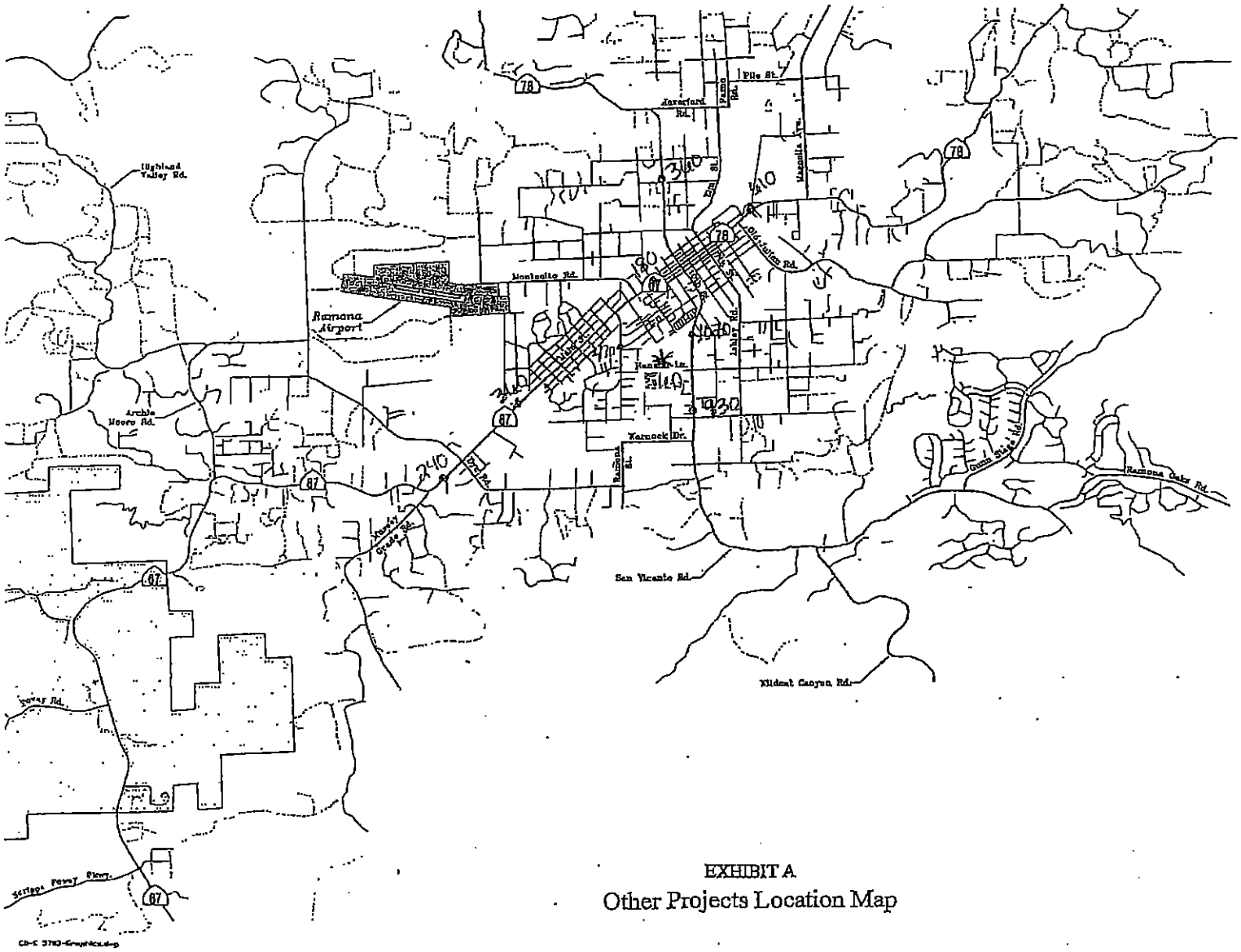


EXHIBIT A
Other Projects Location Map

N
NO SCALE

APPENDIX F-5

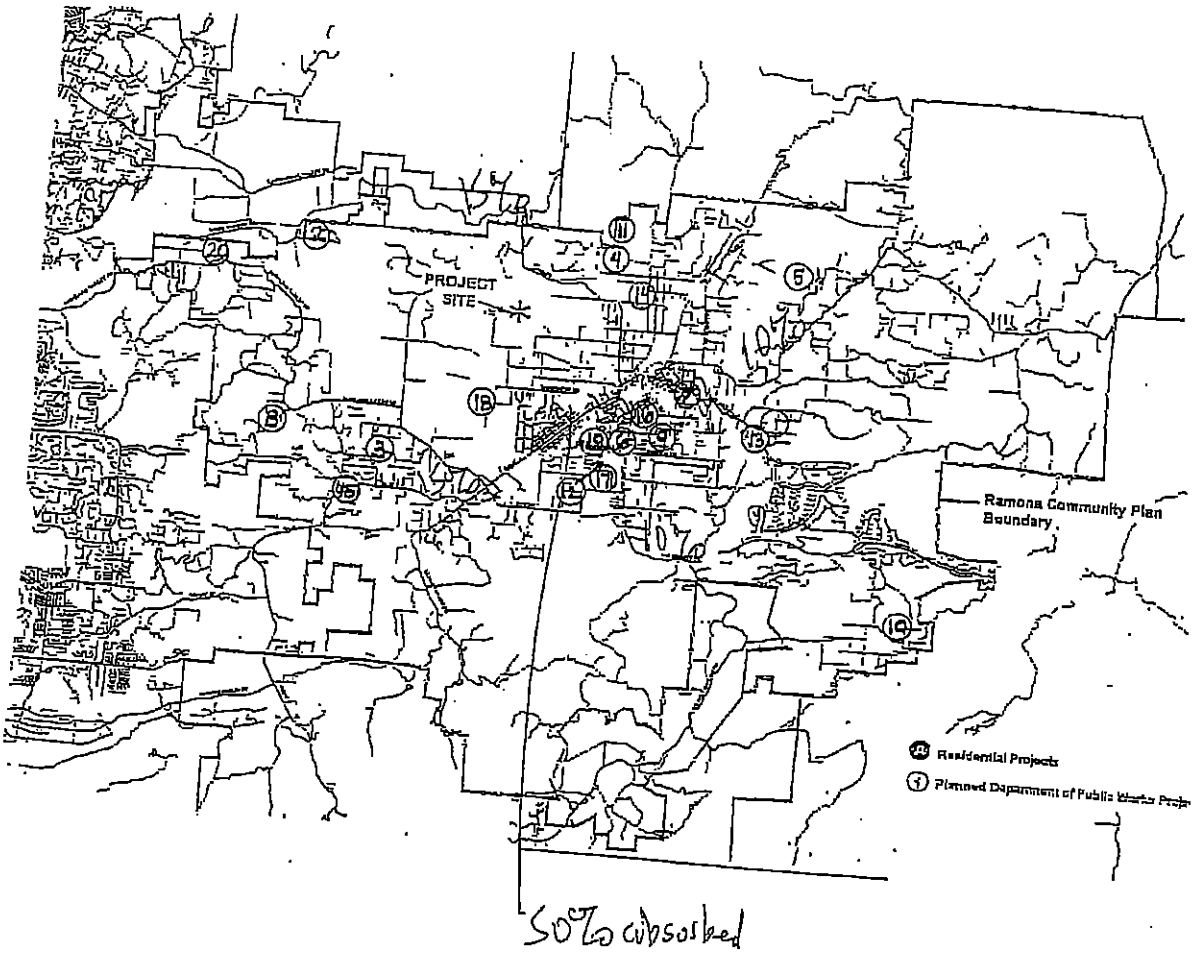
TENTATIVE PARCEL MAPS

This appendix identifies twenty-four (24) tentative parcel maps (TPM), provides the location for each map, and provides a daily traffic distribution for each.

The distribution for each TPM is based on extensive local knowledge and experience along with the location. Distribution assumptions and average daily traffic (ADT) volumes are noted at the bottom of each worksheet. A traffic generation rate of twelve (12) trips per unit was also assumed so that conservative impact analysis is provided. Also, all trips were distributed to the road system and no trips were assumed to match up, be internal, or not impact the external road system.

CUMULATIVE TPMs — RAMONA AREA

Application	Project Name	Acreage	Approval	# of Lots
1. TPM 19982 TE	Koury — Old Julian Hwy	17.03 AC	10-9-02	4
2. TPM 20299 Rpl	Fenton Ranch (TM 4979) Bandy Canyon	302 AC	6-23-99	9
3. TPM 20318	Brinkler — Airmail Lane		10-20-03	2
4. TPM 20498 Rpl2	Bagley/Quisenberry — Caryn Ct.	37.46 AC	8-22-01	4
5. TPM 20564 Rpl3	McCandlers — Pahl's Way	41 AC	Active	5
6. TPM 20656	Humphus — Barnett Road	2.53 AC	Active	4
7. TPM 20679 Rpl	Herold — Hillcrest Lane	4.68 AC	Active	4
8. TPM 20692	Means — Salida Del Sol	38.07 AC	Active	3
9. TPM 20703 Rpl	Herold — Ashley Road	2.5 AC	Active	4
10. TPM 20747	KVAAS — Rainbird Road	60 AC	Active	5
11. TPM 20749	Saffian — Lilac Road	20 AC	Active	4
12. TPM 20760	Ledesma — Ledesma Lane	2.53 AC	Active	4
13. TPM 20766 Rpl	Wakeman — Old Julian Road	21.41 AC	Active	5
14. TPM 20769	Thompson Haverford Road	11.97 AC	Active	2
15. TPM 20770	Taylor — Hwy 67	34.67 AC	Active	5
16. TPM 20771 Rpl	718 Tenth Street	1.01 AC	Active	4
17. TPM 20792	McDonald — Hanson Way	11.32 AC	Active	5
18. TPM 20801	Herman — El Paso Street	10.11 AC	Active	4
19. TPM 20808	Young — Sixteenth Street	1.77 AC	Active	5
20. TPM 20809	Bates — Bandy Canyon/Highland Valley	30.33 AC	Active	5
21. TPM 20370	Lynn Thomas			
22. TPM 20401	RCDK Realty II			
23. TPM 20402	Lee			
24. TPM 20496	Quisenberry			



SOURCE

Base Map From Helix Environmental

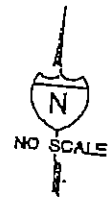
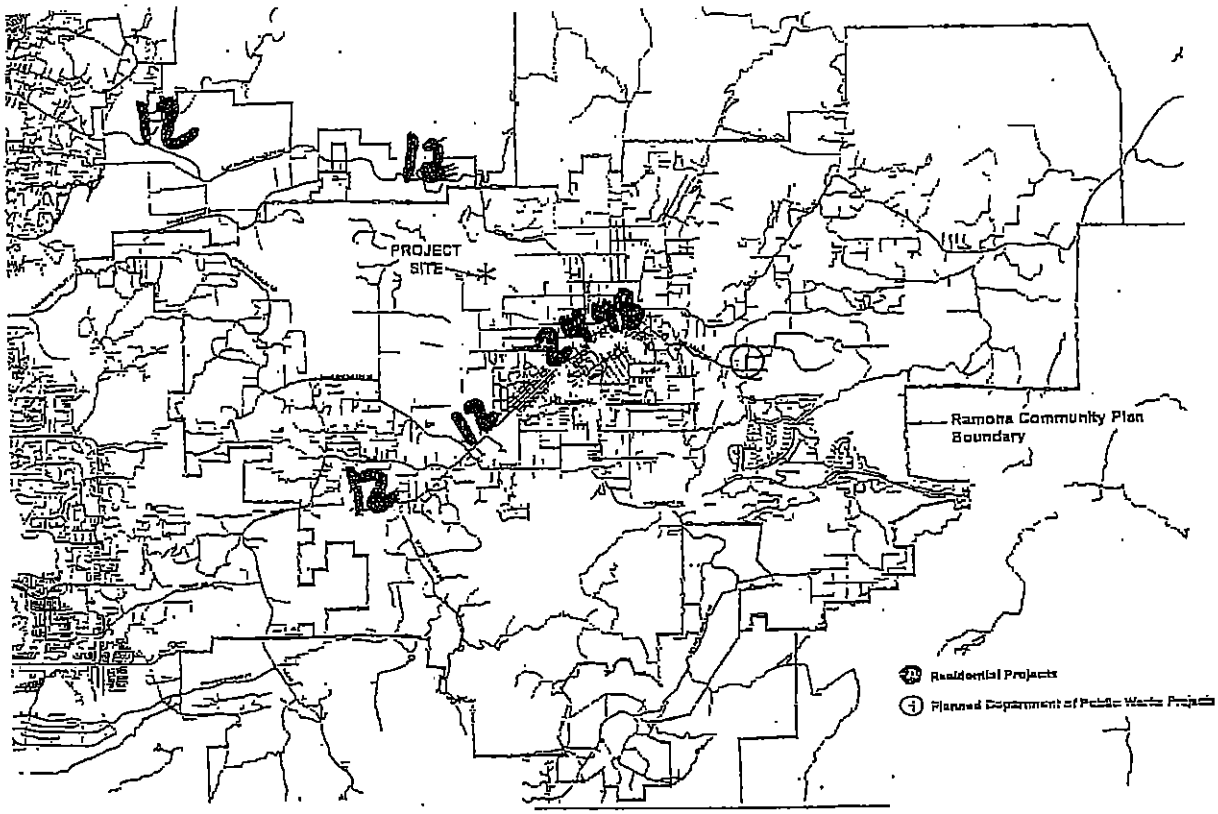


FIGURE 7-1
Other Project Locations

CD-S 5703-Graphics.dwg



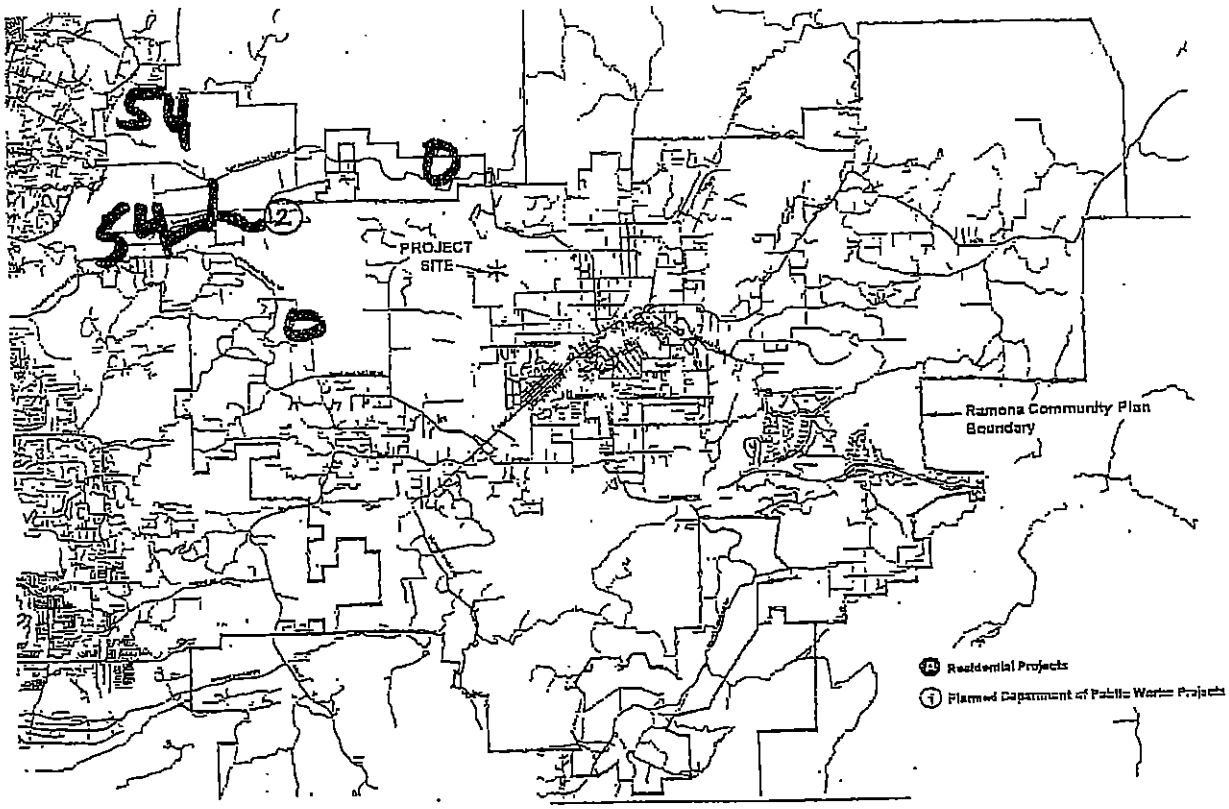
SOURCE
Base Map From Helix Environmental

FIGURE 7-1
Other Project Locations

CD-1 5703-Graphics.dwg

① TPM 19982 TE
4 lots x 12 = 48 ADT

25% Esc
25% SD
50% RAMONA

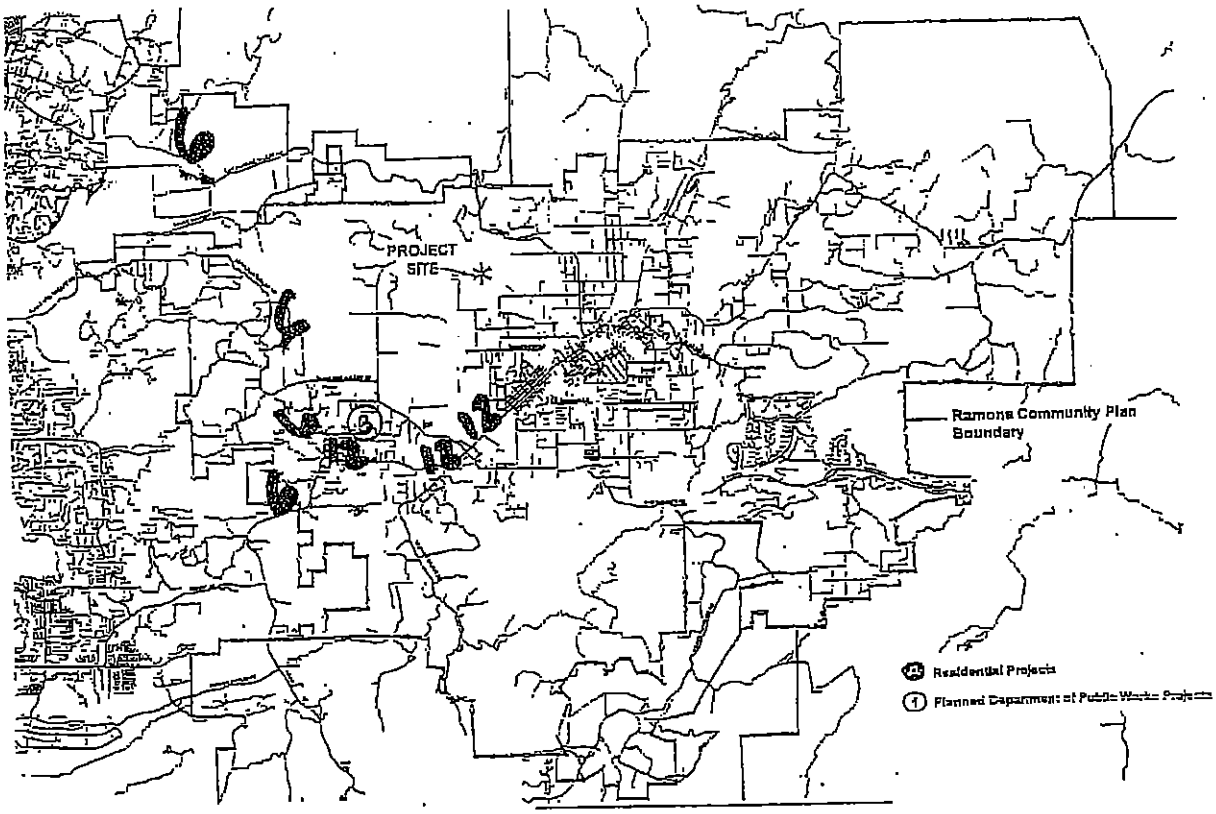


SOURCE
Base Map From Helix Environmental

FIGURE 7-1
Other Project Locations

CD-1 5703-Graphics.dwg

② TPM 20299 Rpl 100% west
9 lots x 12 = 108



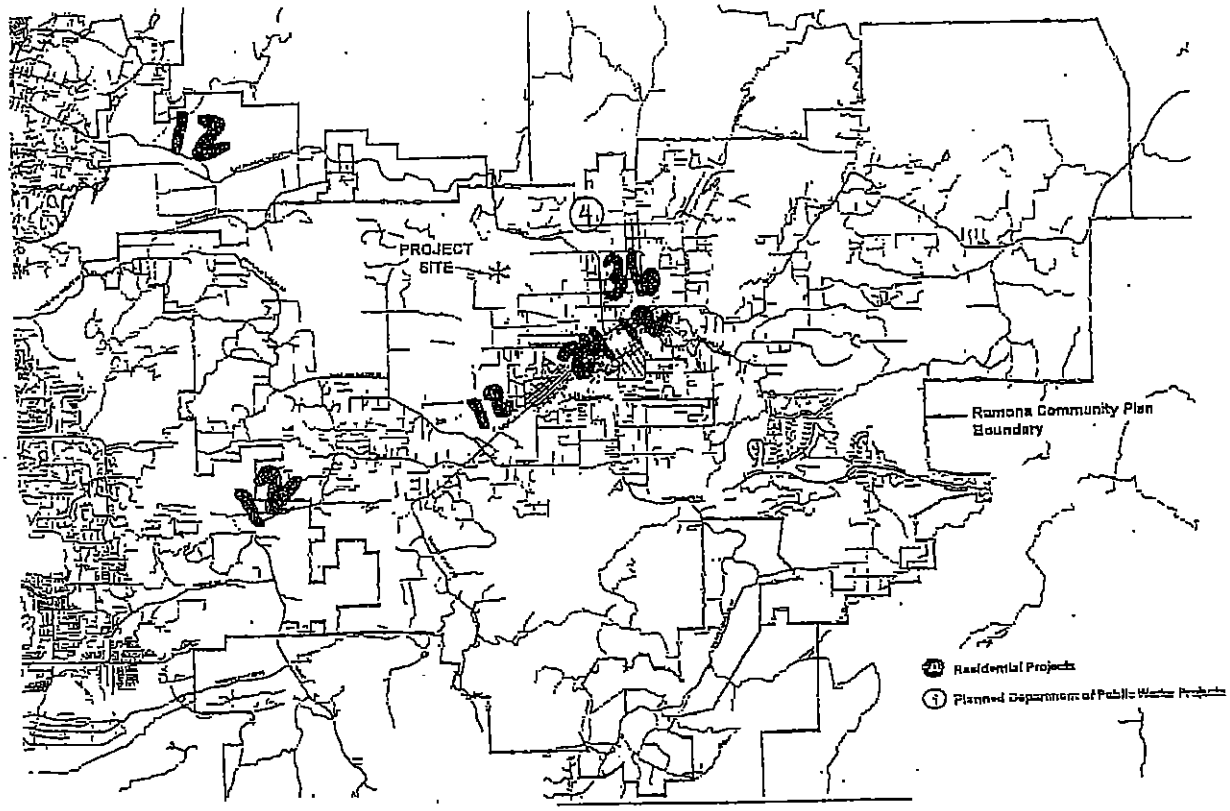
SOURCE
Base Map From Helix Environmental

FIGURE 7-1
Other Project Locations

CD-5 3703-Graphics.dwg

③ TPM 20318
2 lots x 12 = 24

25% ESL
25% SD
50% RAMONA



SOURCE
Base Map From Helix Environmental

FIGURE 7-1
Other Project Locations

CD-1 5703-Graphics.dwg

(4) TPM 20498 RP12
4 lots x 12 = 48 ADT

25% ESC
25% SD
50% RM

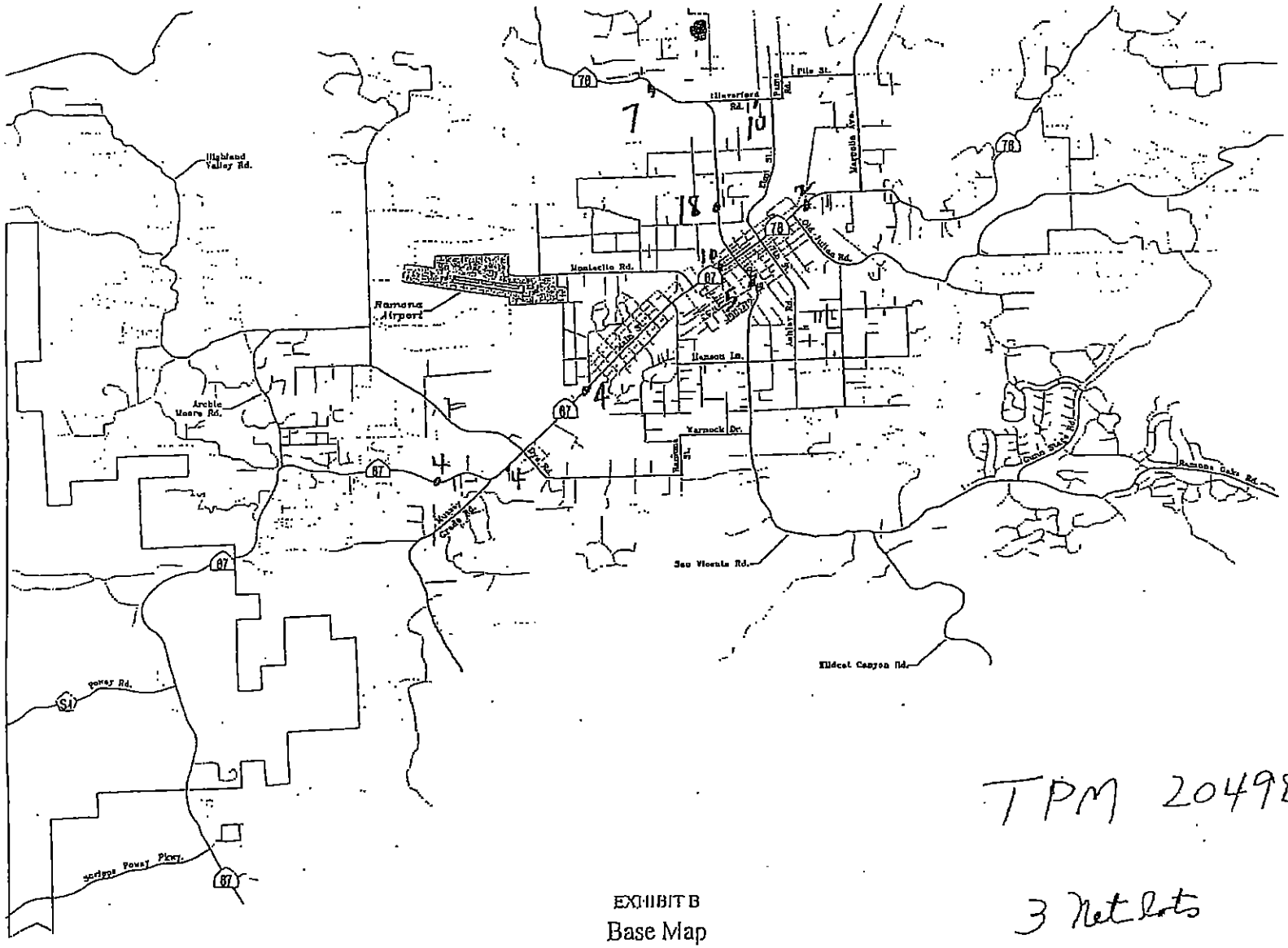


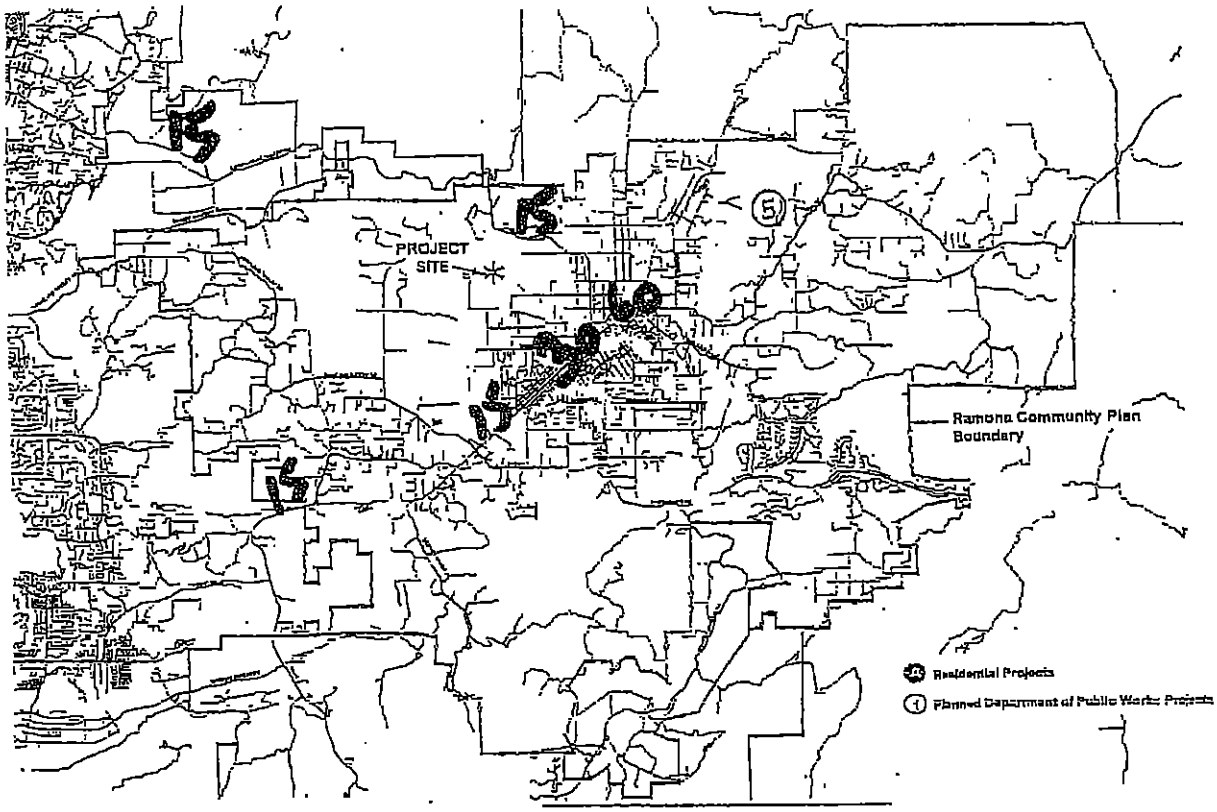
EXHIBIT B
Base Map

TPM 20498

3 Net lots

36 ADT
IN OUT
AM
PM

NO SCALE



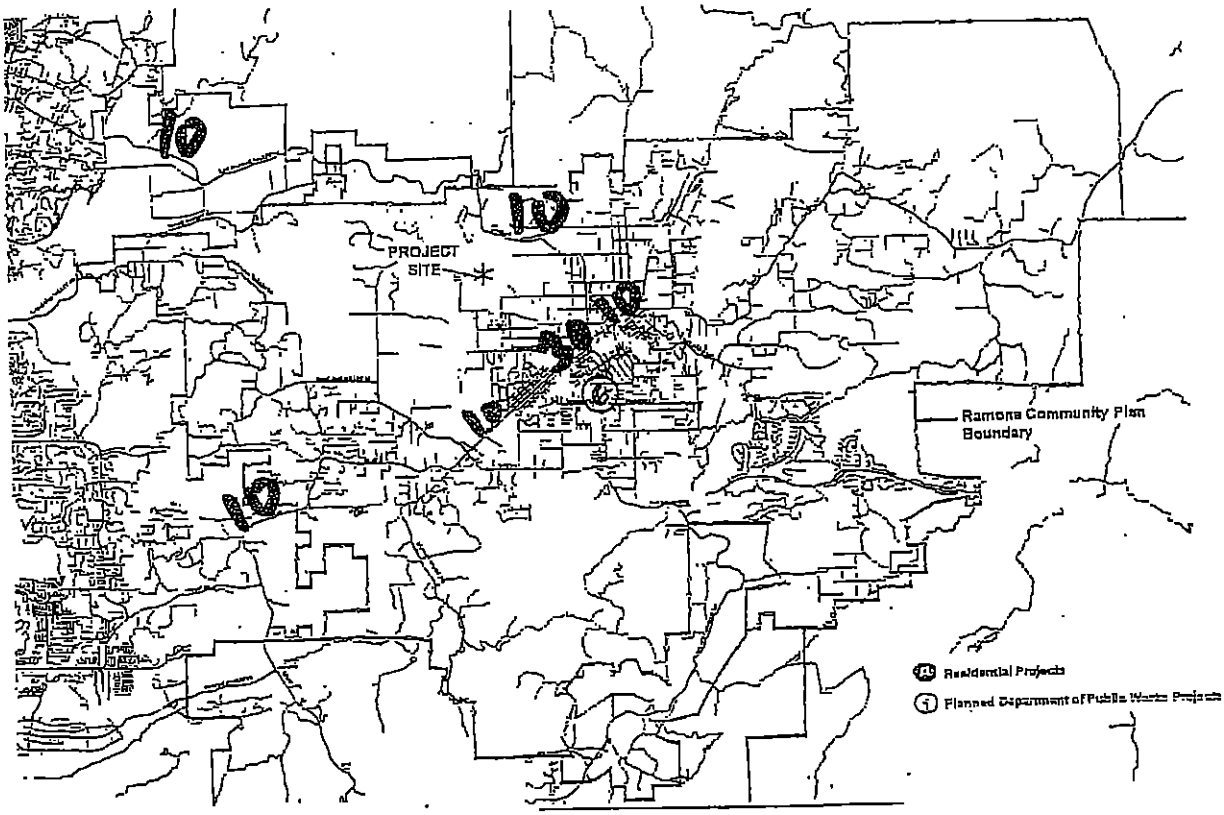
SOURCE
Base Map From Helix Environmental

FIGURE 7-1
Other Project Locations

CD-1 5703-Graphics.dwg

(5) TPM 20564 Rp13
5 lots x 12 = 60 ADT

25% ESC
25% SD
50% Rm



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Base Map From Helix Environmental

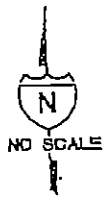


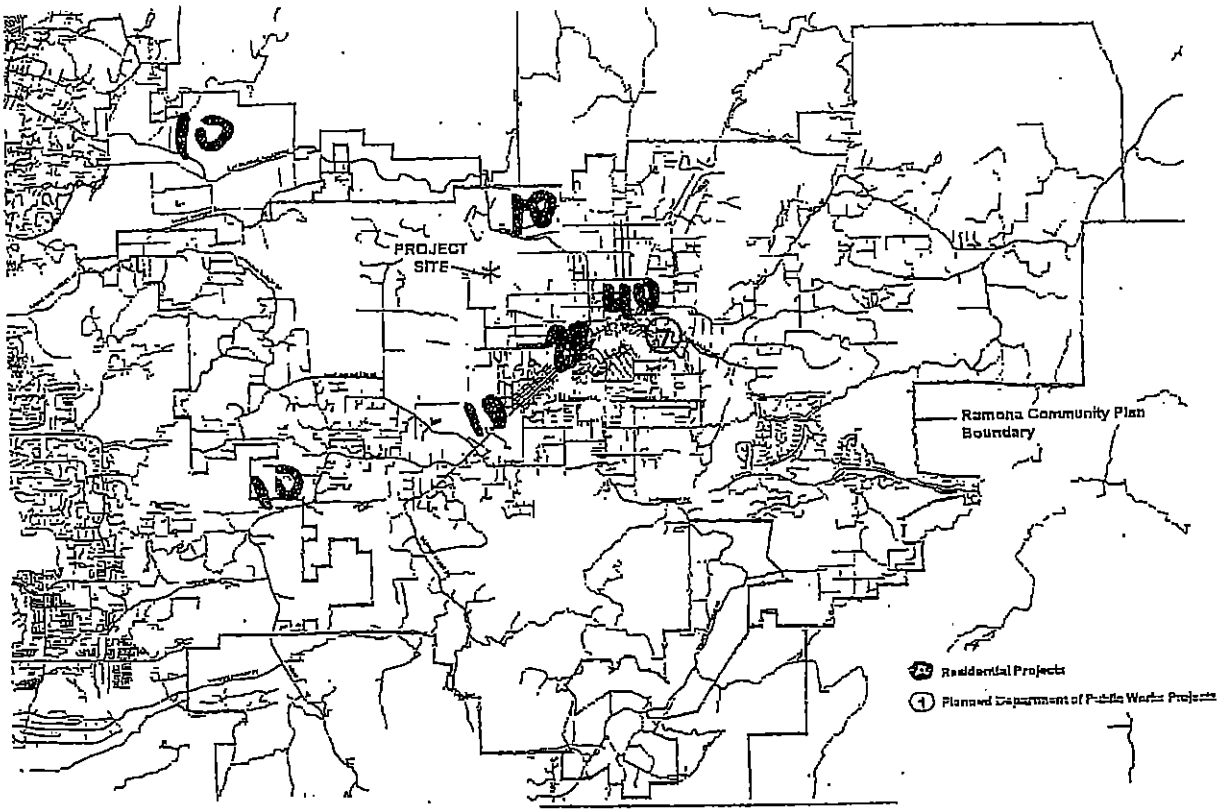
FIGURE 7-1
Other Project Locations

CD-1 5702-Graphics.dwg

(6) TPM 20656

40 lots × 10/lot = 40 ADT

25% E
25% SD
50% RM



SOURCE
Base Map From Helix Environmental

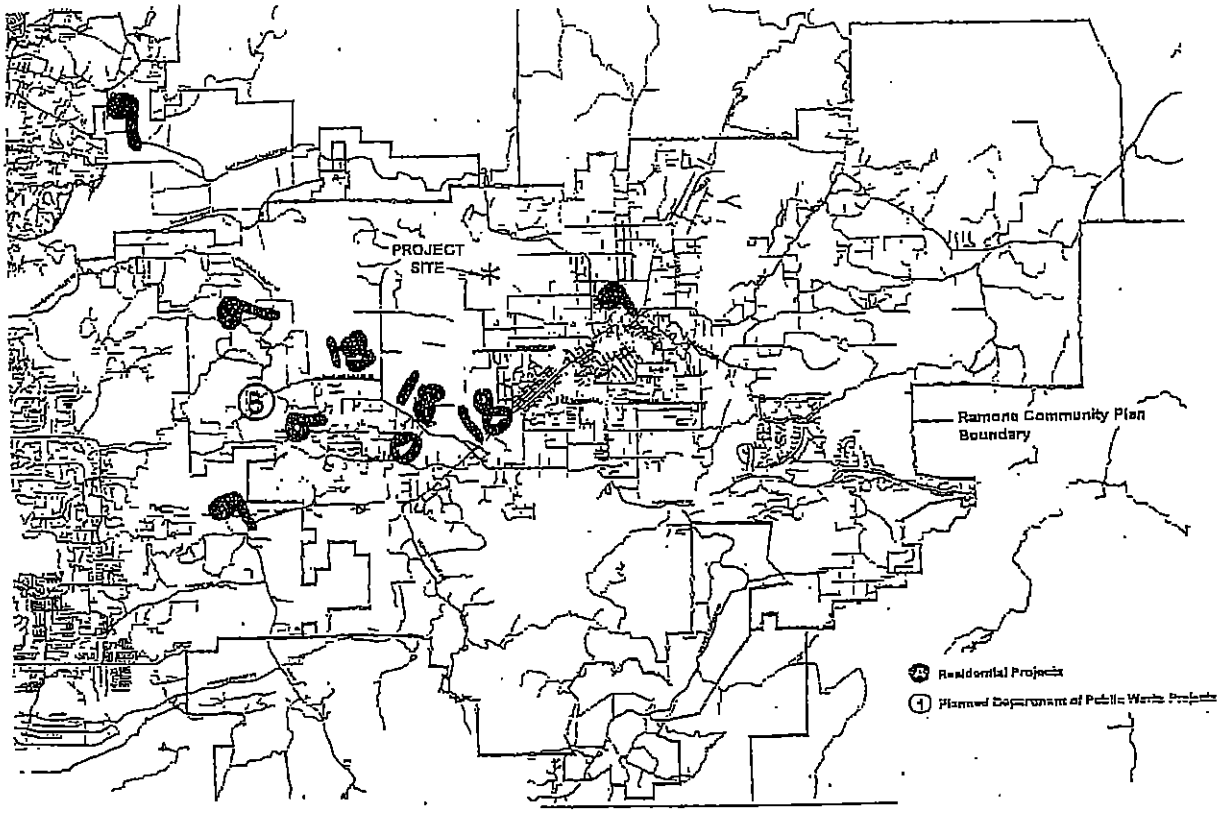
FIGURE 7-1
Other Project Locations

CD-1 5703-Graphics.wng

(7) TPM 20679 Rpl

4 lots x 10/lot = 40 ADT

25% GSL
25% SD
50% Rlm



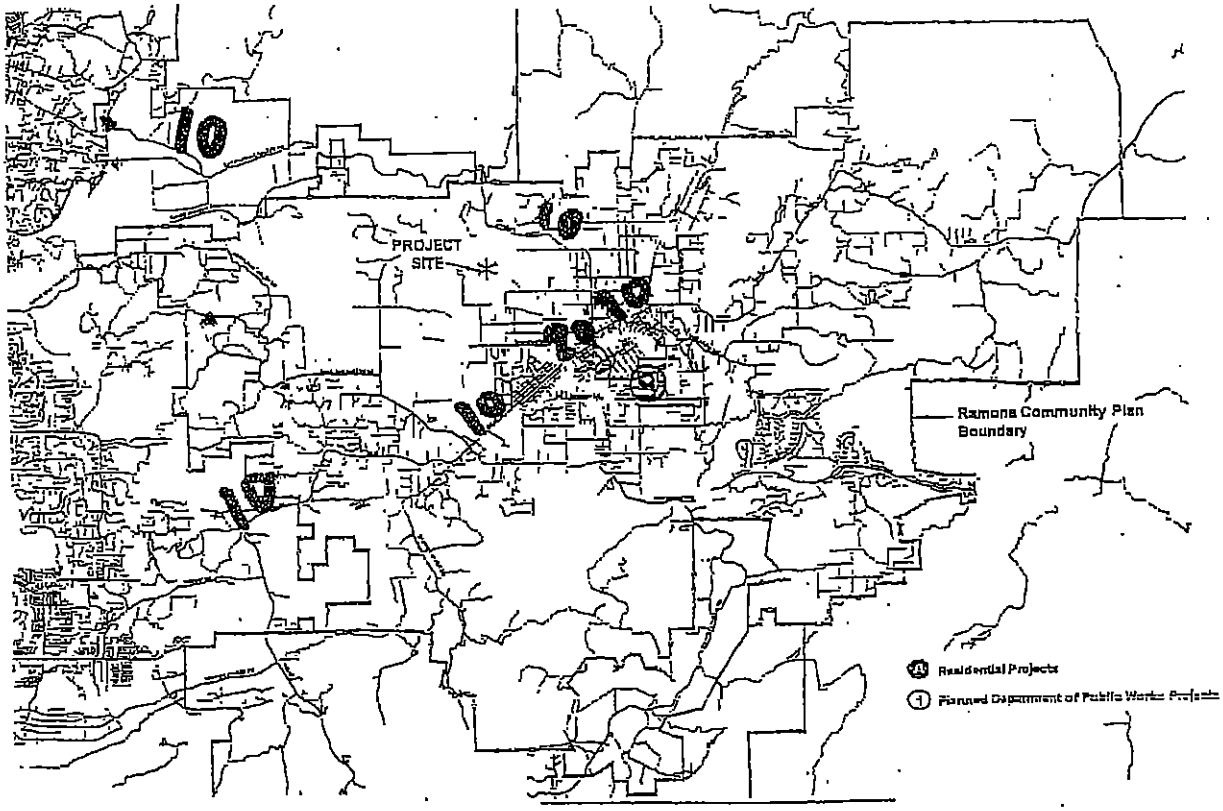
SOURCE
Base Map From Helix Environmental

FIGURE 7-1
Other Project Locations

C9-S 5702-Graphics.dwg

(8) TPM 20692
3 lots x 12 = 36 ADT

25% ESC
25% SD
50% RM



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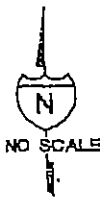
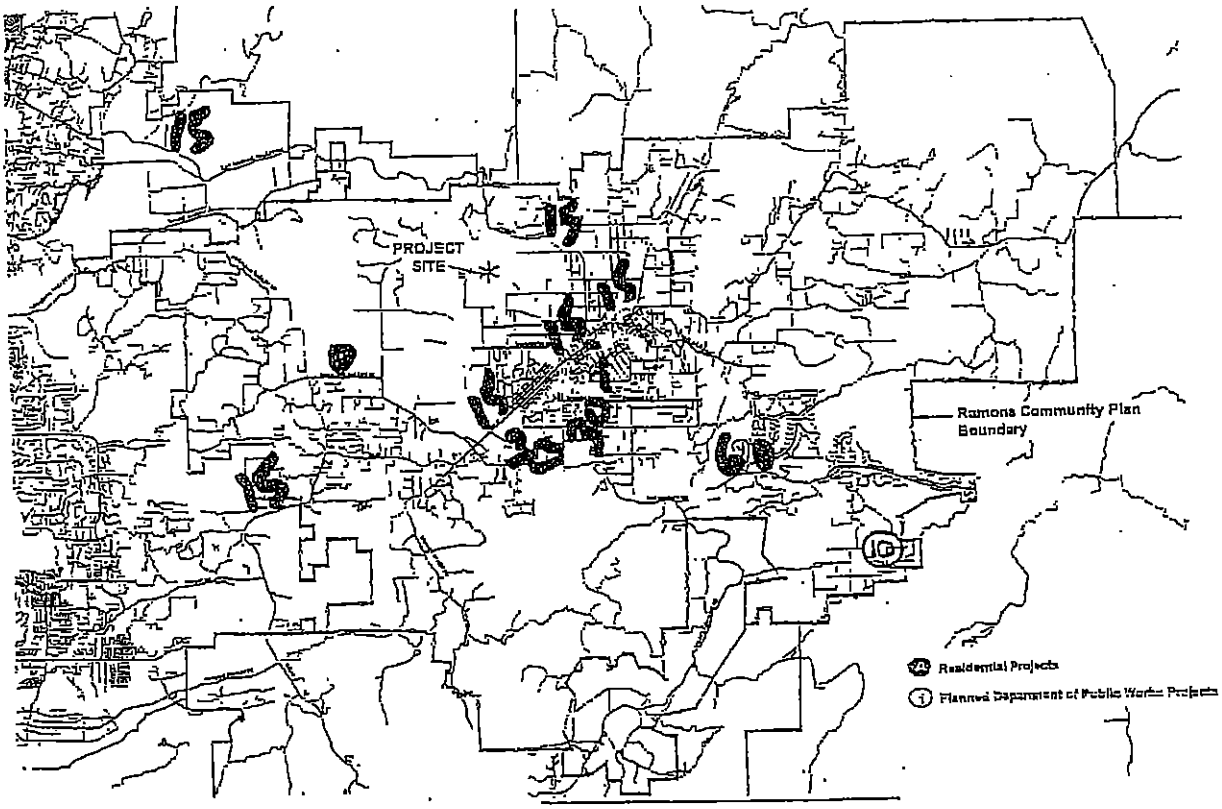


FIGURE 7-1
Other Project Locations

CD-5 5703-Graphics.dwg

(9) TPM 20703 Rpl
41 lots x 10/lot = 40 ADT

25 E
25 SD
50 R



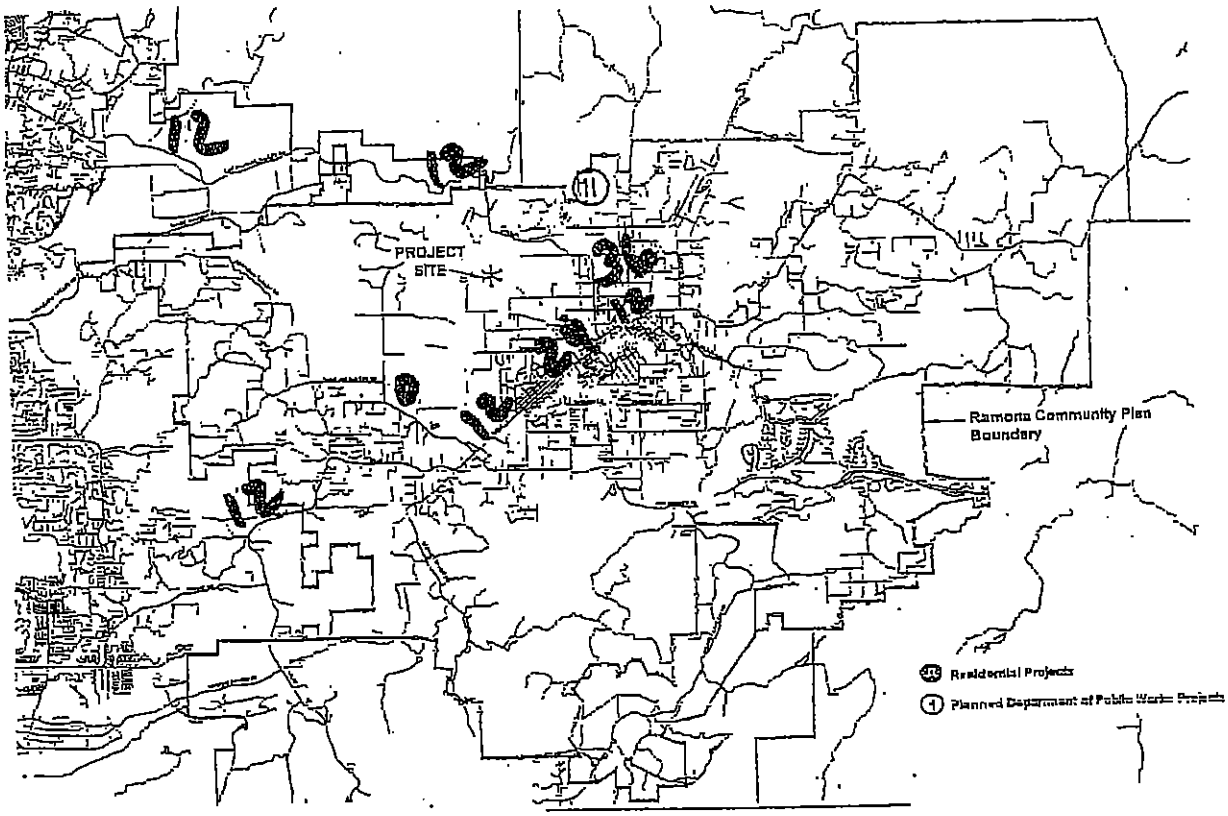
SOURCE
Base Map From Helix Environmental

FIGURE 7-1
Other Project Locations

CD-S 5703-Graphics.dwg

(10) TPM 20747
Slots x12 = 60 ADT

25 E
25 SD
50 RM



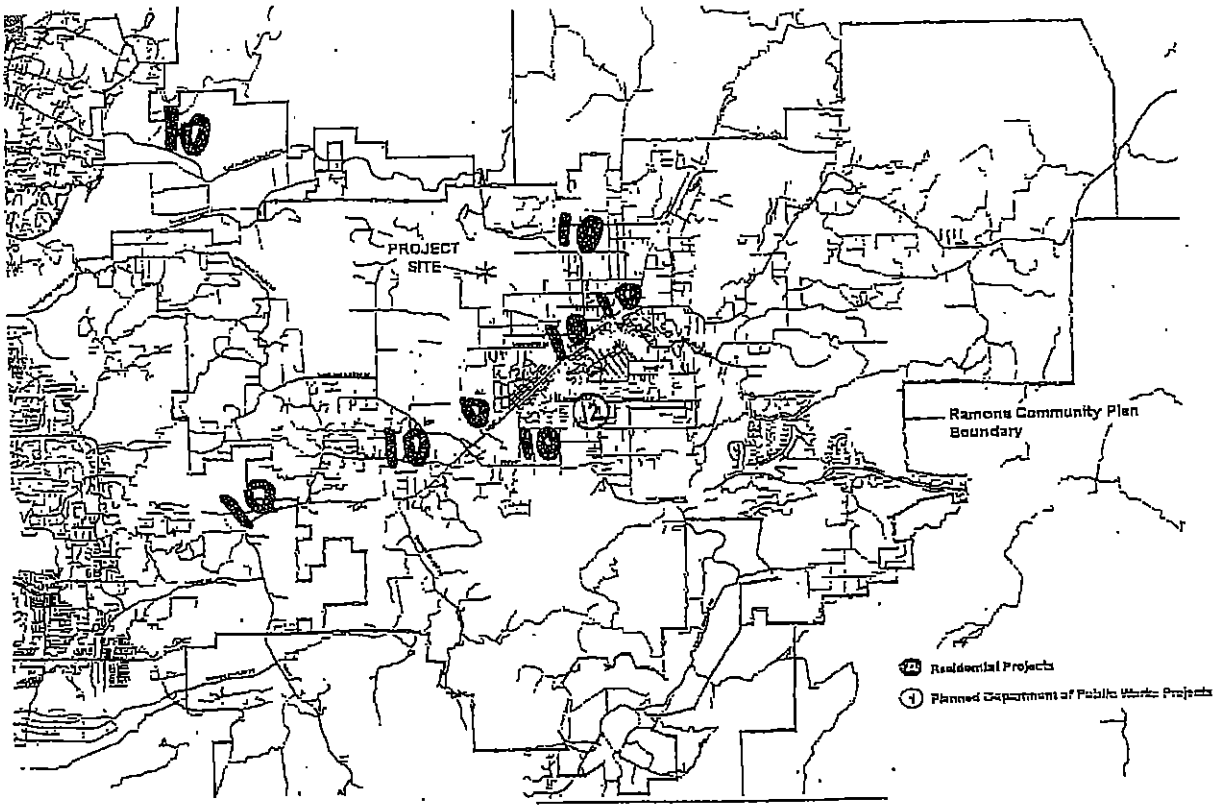
SOURCE
Base Map From Helix Environmental

FIGURE 7-1
Other Project Locations

C9-S 5703-Graphics.dwg

(11) TPM 20749
41 lots x 12/lot = 48 ADT

25 E
25 SD
50 RM

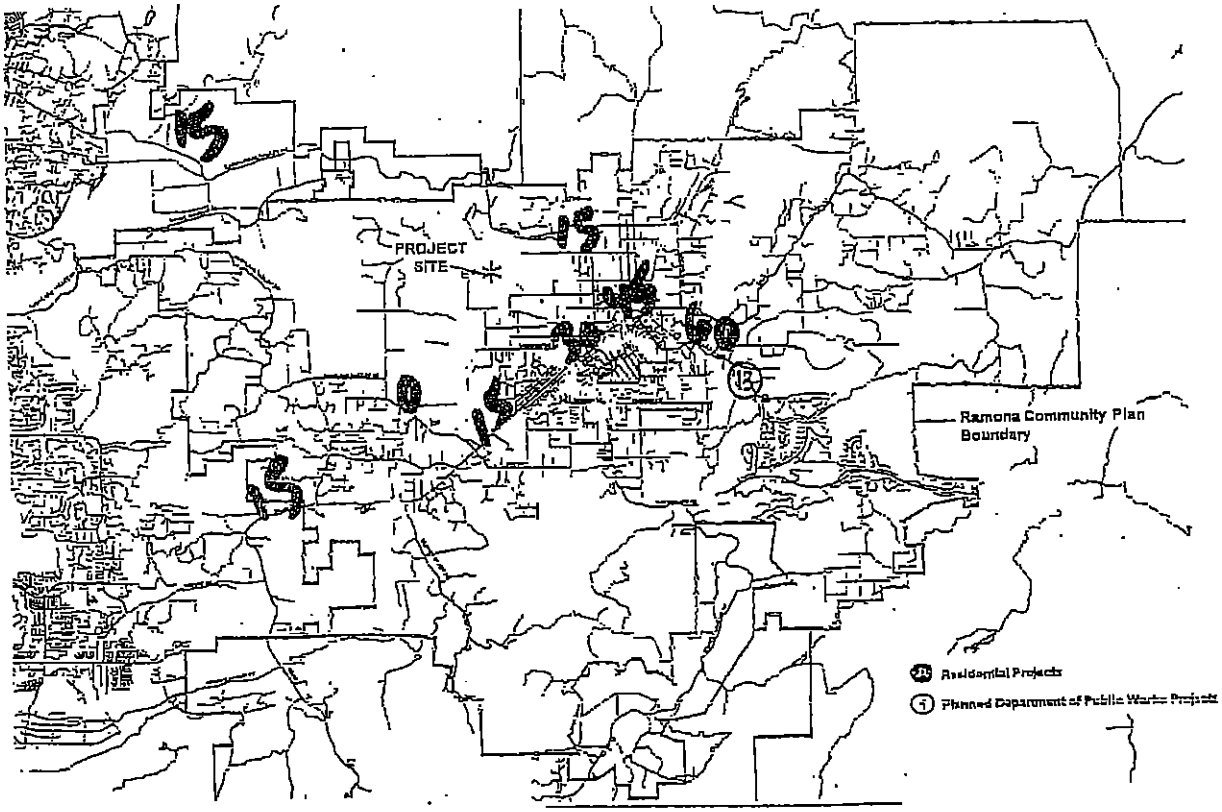


SOURCE
Base Map From Helix Environmental

FIGURE 7-1
Other Project Locations

CD-1 5703-Graphics.dwg

(12) TPM 20760
4 lots x 10/lot = 40 AC
25% E
25 SD
50 Rm



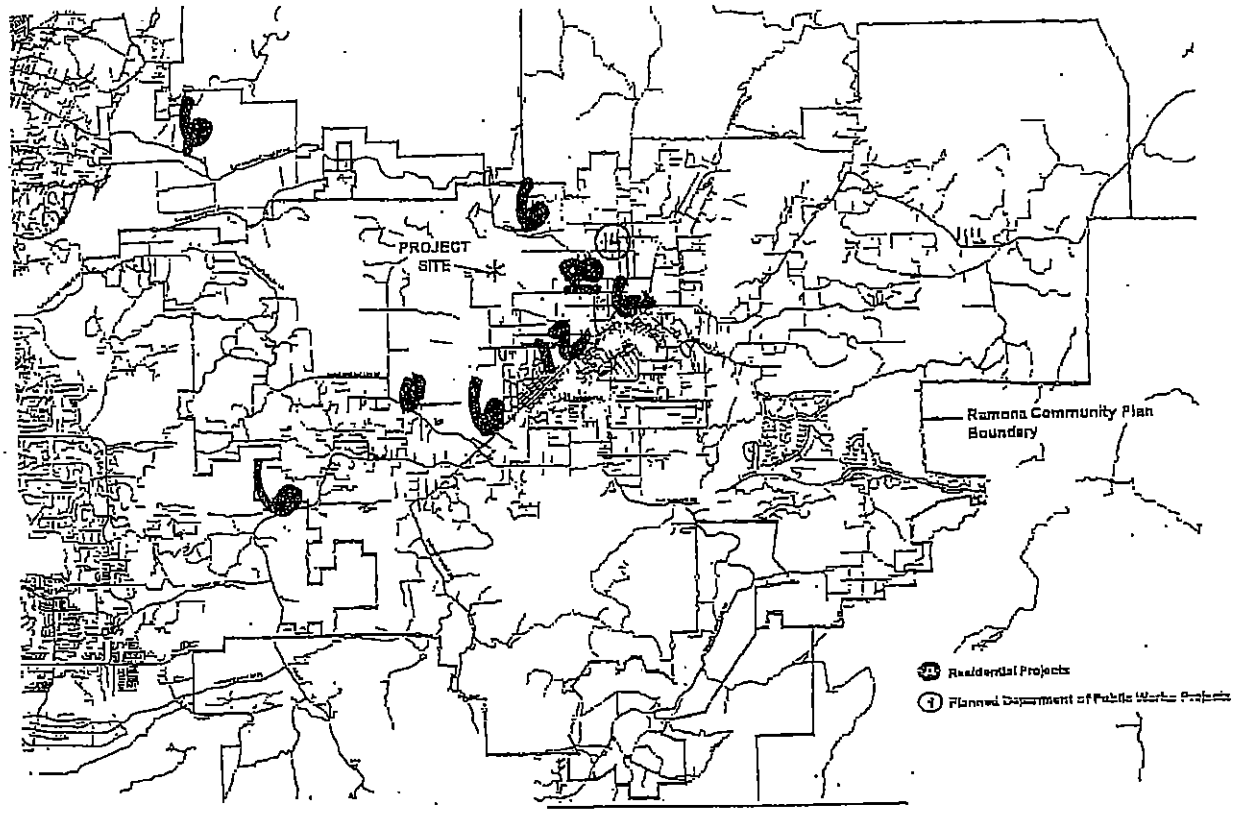
SOURCE
Base Map From Helix Environmental

FIGURE 7-1
Other Project Locations

CD-2 5703-Graphics.dwg

(13) TPM 20766 Rpl
5 lots x 12 = 60 ADT

25 E
25 S
50 Rm



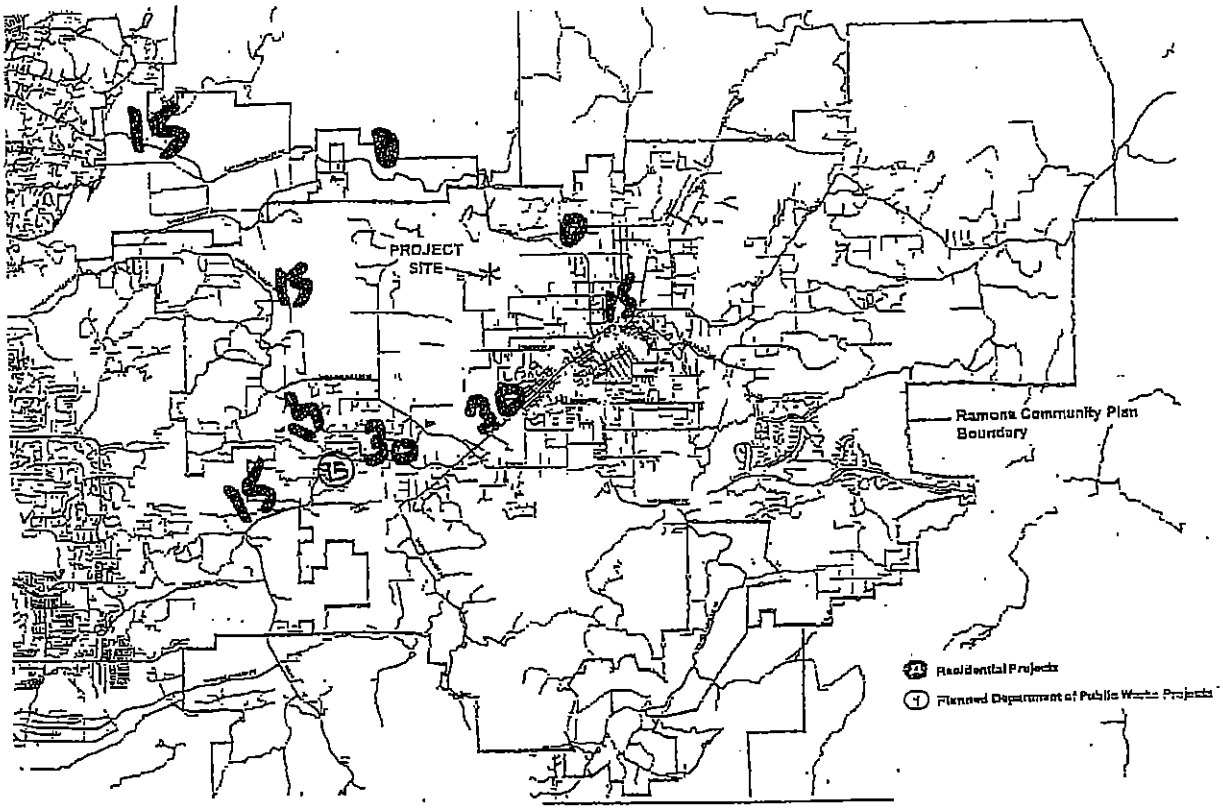
SOURCE
Base Map From Helix Environmental

FIGURE 7-1
Other Project Locations

CD-5 5703-Graphics.chg

(14) TPM 20769
2 lots × 12 = 24 ADT

25 E
25 SD
50 P.M



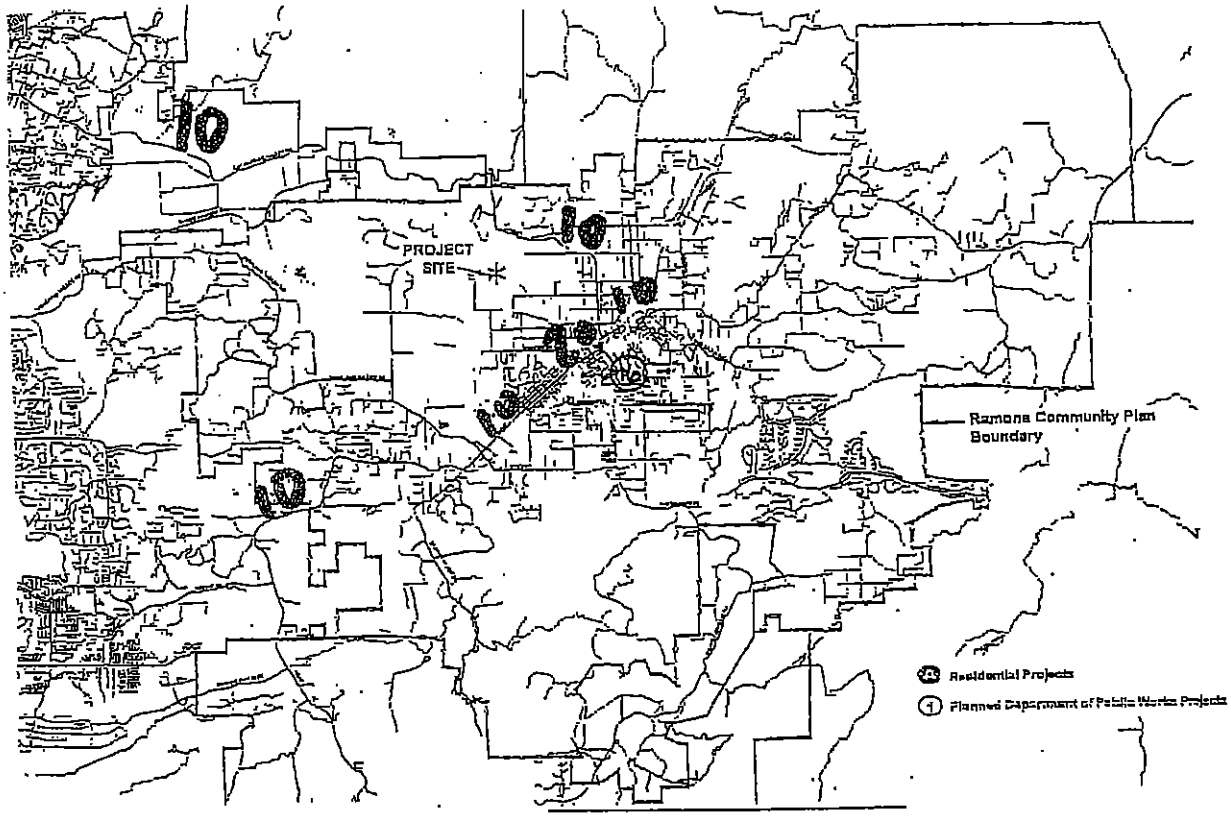
SOURCE
Base Map From Helix Environmental

FIGURE 7-1
Other Project Locations

CD-5 5703-Graphics.dwg

(15) TPM 20770
5 lots x 12 = 60 ADT

25 E
25 SD
50 RM



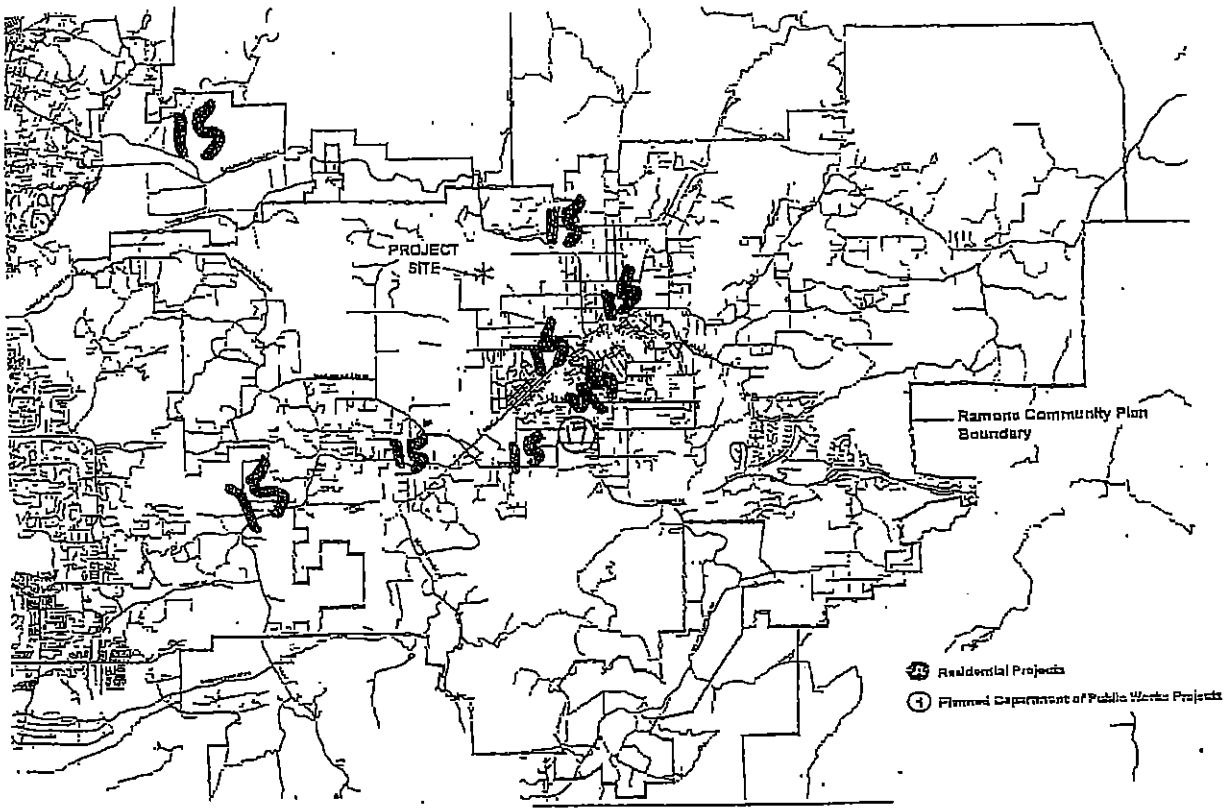
SOURCE
Base Map From Helix Environmental

FIGURE 7-1
Other Project Locations

CD-1 5703-Graphics.dwg

(16) TPM 20771 Rpl
41 lots x 10/ = 40 ADT

25 E
25 SD
50 RM



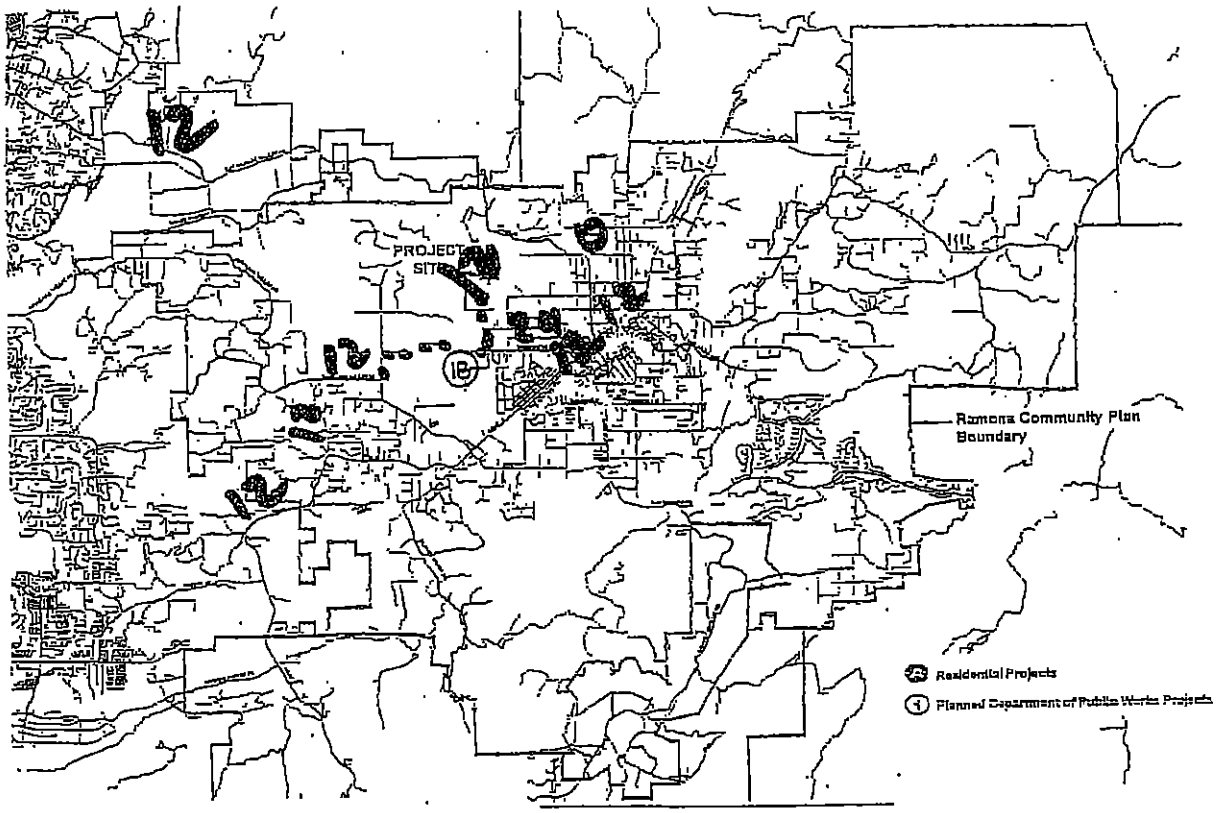
SOURCE
Base Map From Helix Environmental

FIGURE 7-1
Other Project Locations

CD-1 5703-Graphics.wpg

(17) TPM 20792
Slots x 12 = 60 ADT

25 E
25 SD
50 RM

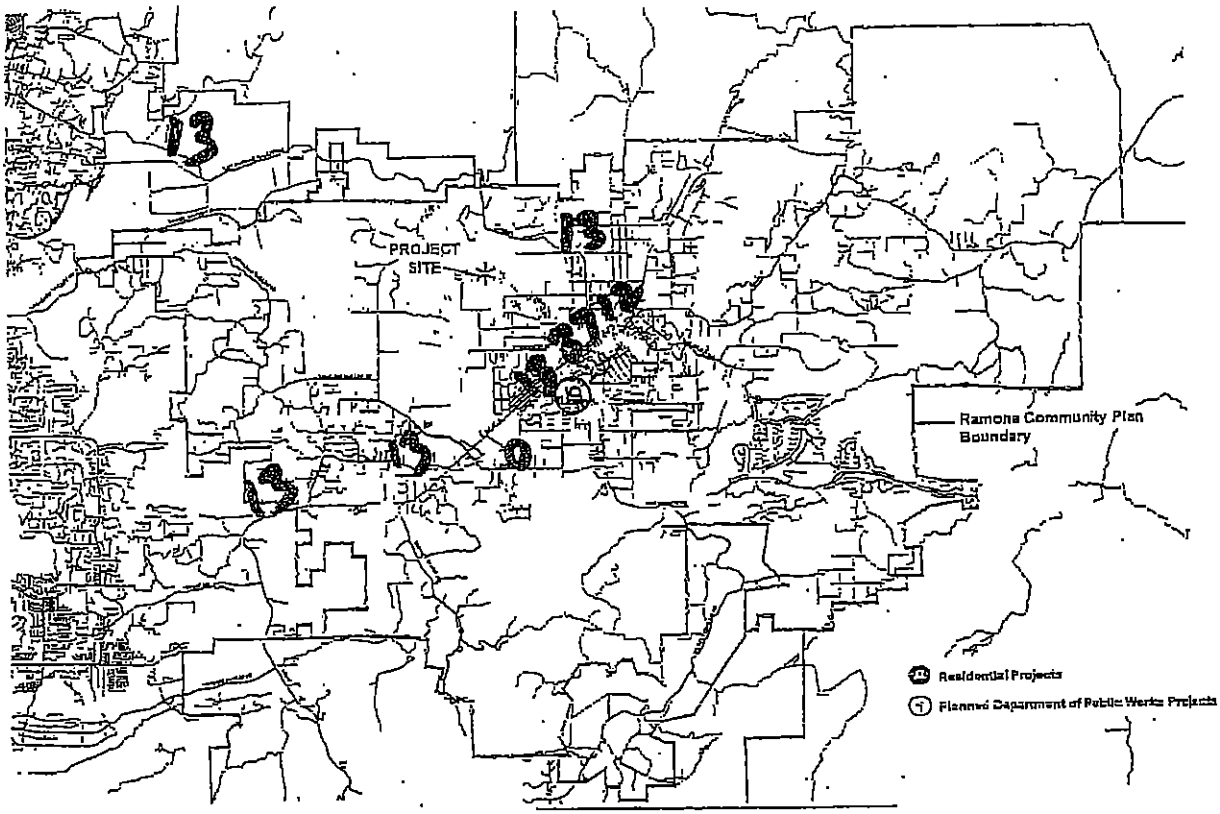


SOURCE
Base Map From Helix Environmental

FIGURE 7-1
Other Project Locations

CD-5 5703-Graphics.dwg

(18) TPM 20801
46 lots x 12 = 48 ADT

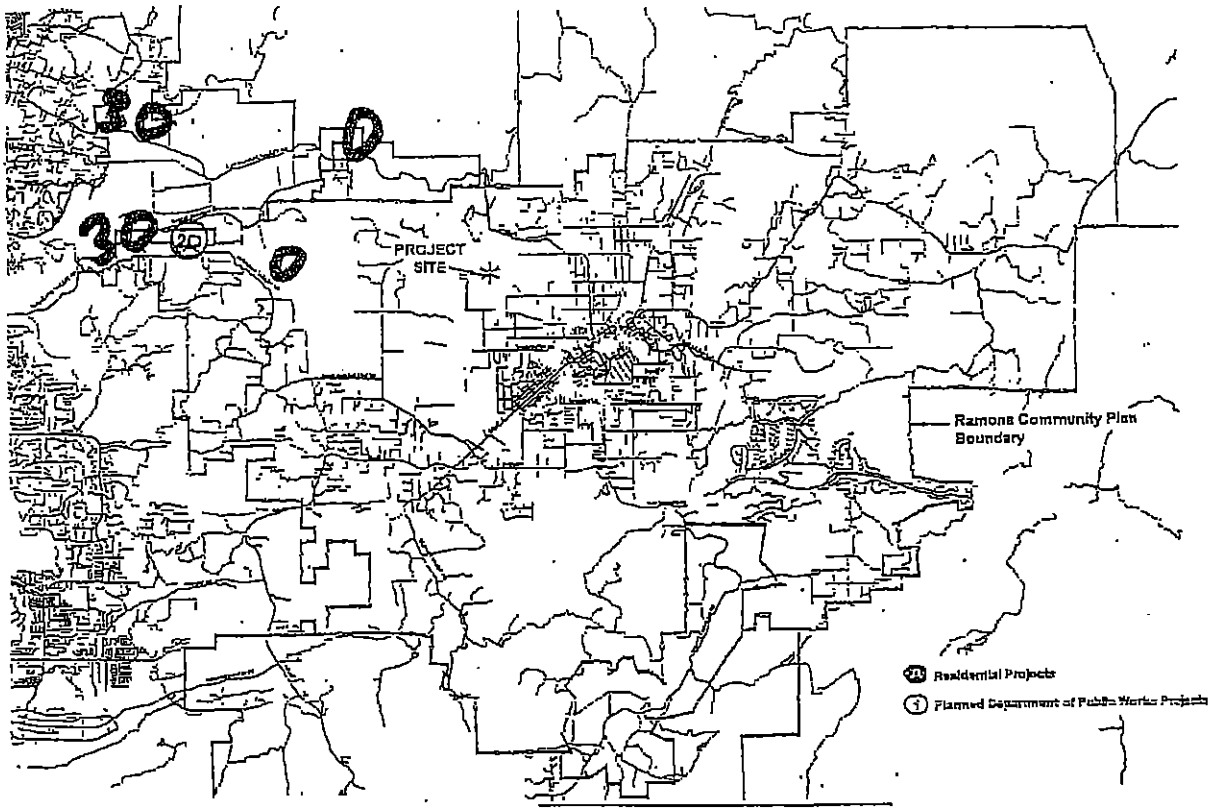


SOURCE
Base Map From Helix Environmental

FIGURE 7-1
Other Project Locations

CD-S 5702-Graphics.dwg

(19) TPM 20808 25 E
5 lots x 10 = 50 ADT 25 SD
50 RM



SOURCE
Base Map From Helix Environmental

FIGURE 7-1
Other Project Locations

CD-5 5703-Graphics.dwg

(20) TPM 20809
56 lots × 12 = 60 ADT 100% West

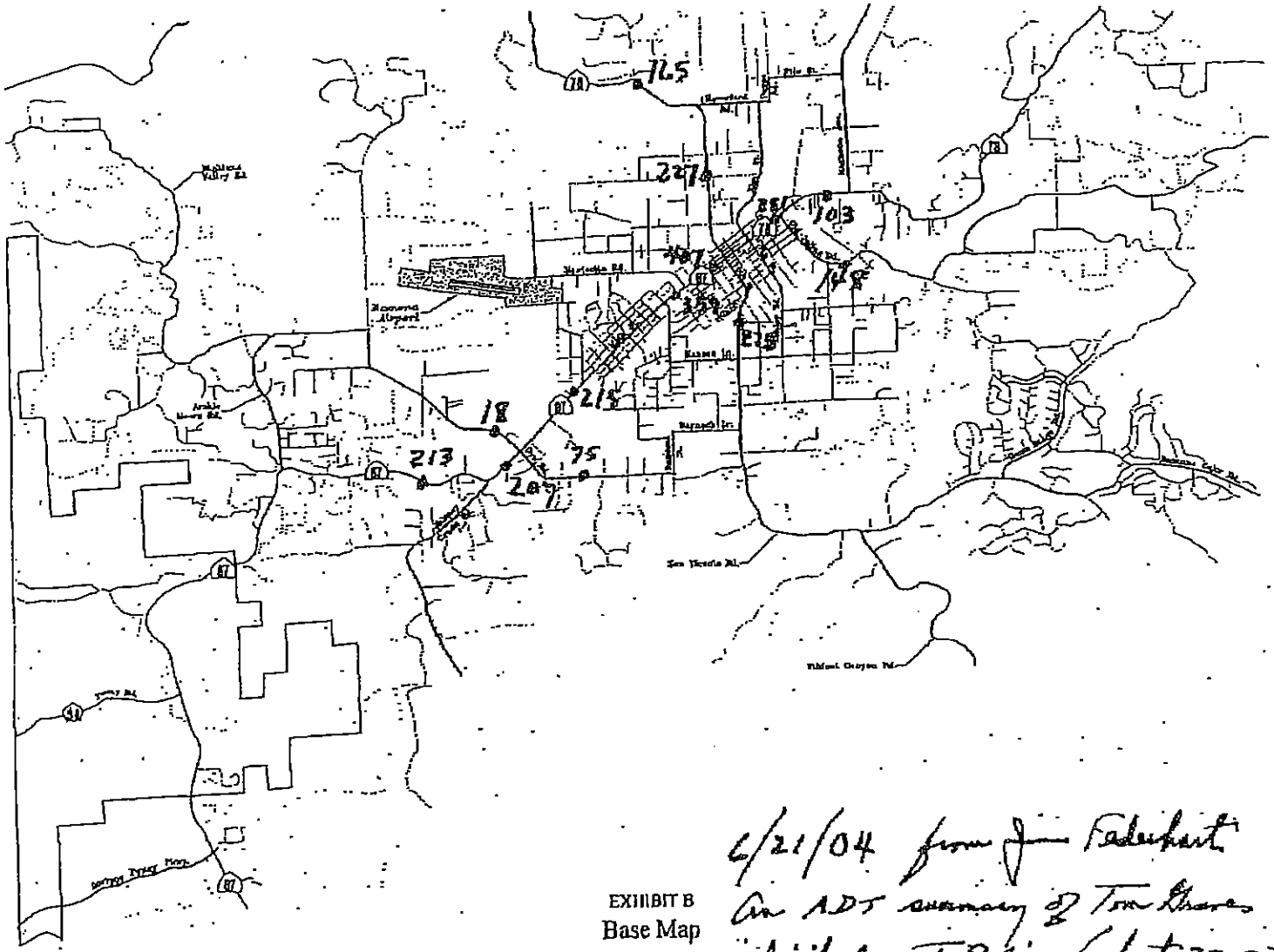
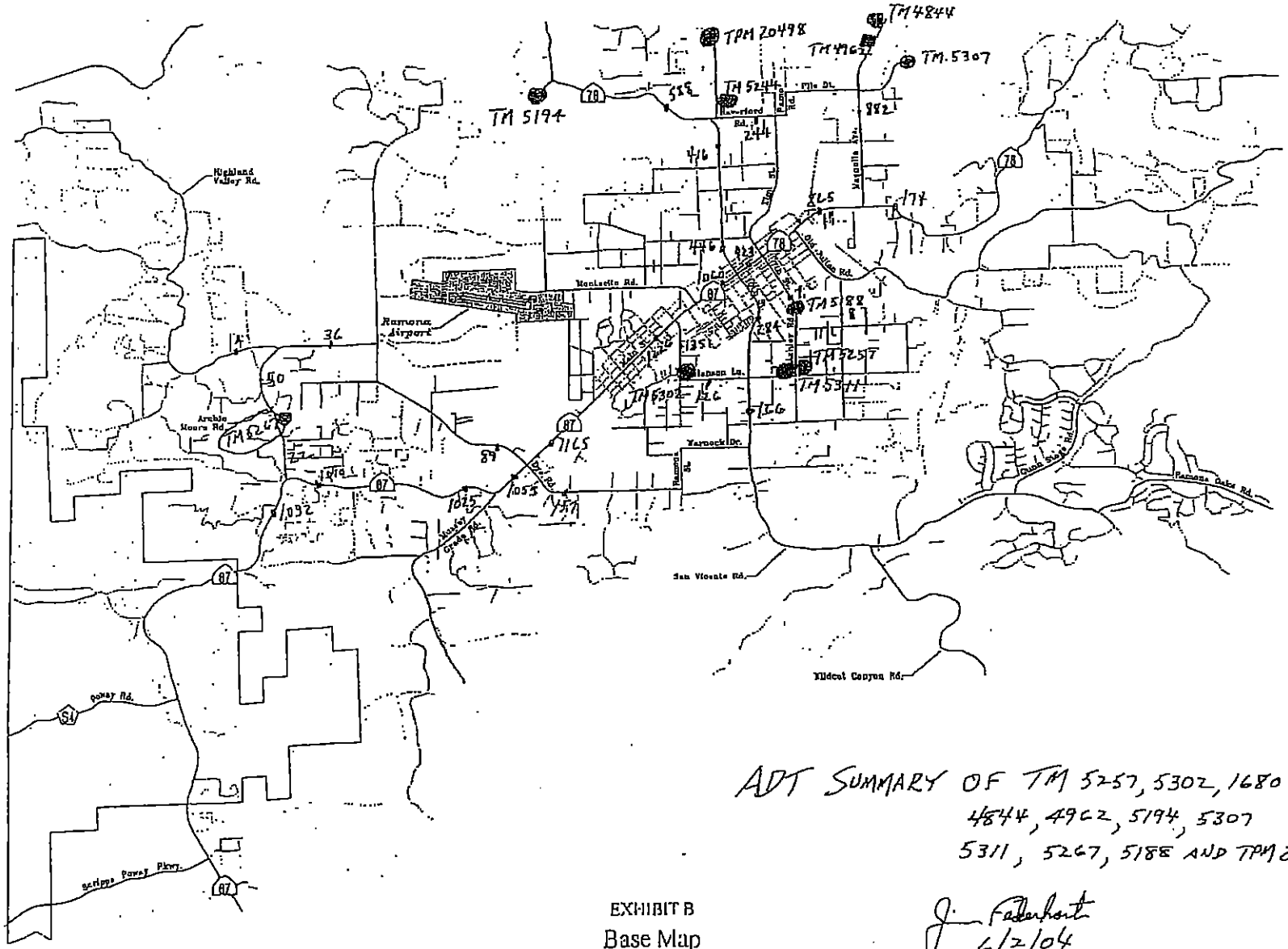


EXHIBIT B
Base Map

6/21/04 from Jim Federhart
An ADT summary of Tom Graves
individual TPM's (about 20 of them)

N
NO SCALE

To: Andy S.
from Jim F.



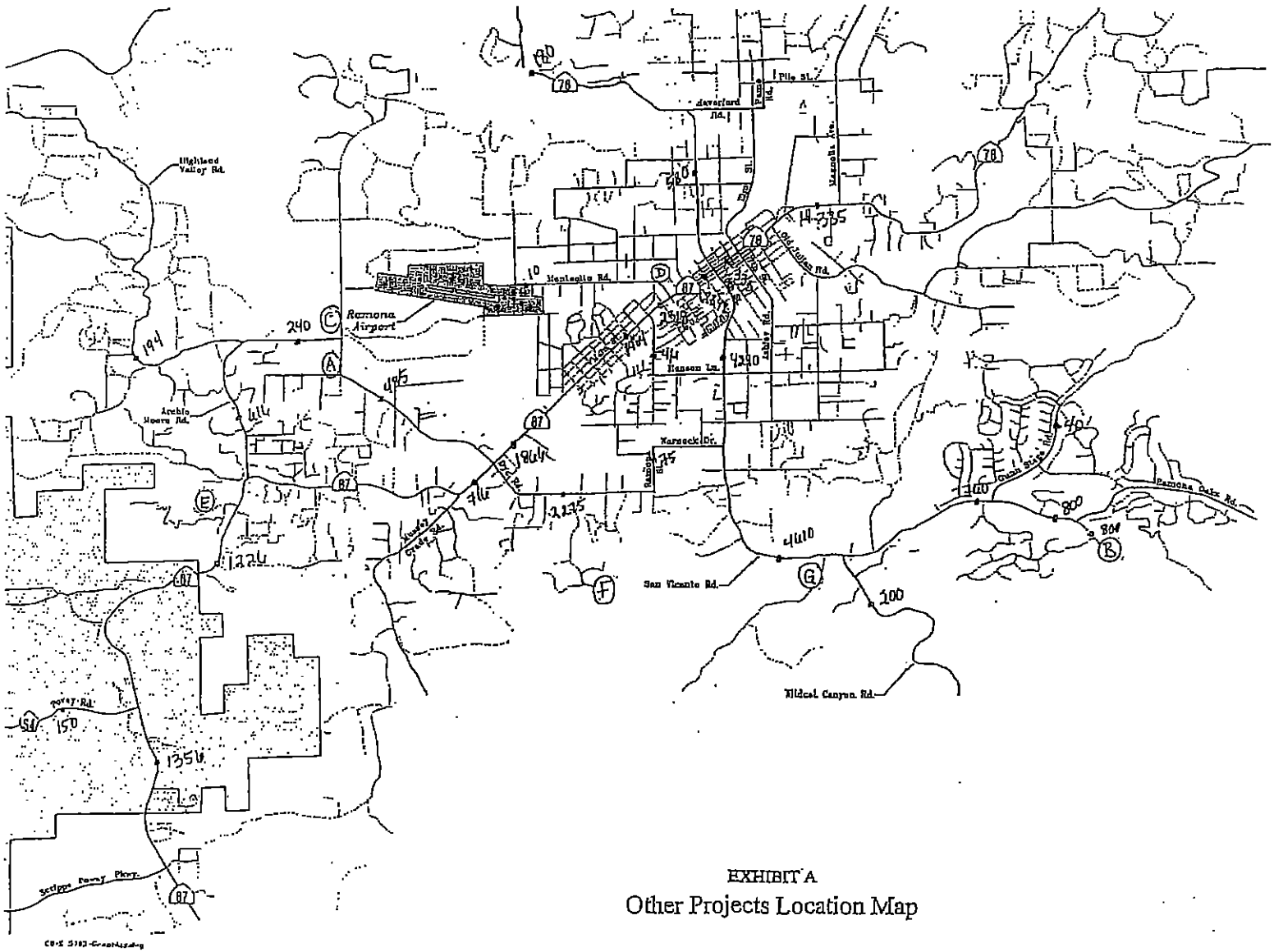
ADT SUMMARY OF TM 5257, 5302, 1680
4844, 4962, 5194, 5307
5311, 5267, 5188 AND TPM 20498

EXHIBIT B
Base Map

J. Federhart
6/2/04

N
NO SCALE

WLG - TMs



LEGEND

- (A) TM 5198 A Natural High Inc
- (B) TM 5254 Rainbird Rd.
- (C) TM 5253 Oak Country Estates
- (D) TM 5317 Nickel Creek
- (E) TM 5329 Mt. Woodson
- (F) TM 5294 Spitsbergen Subdivision
- (G) TM 5235 Monte Vista Ranch

N
NO SCALE

EXHIBIT A
Other Projects Location Map

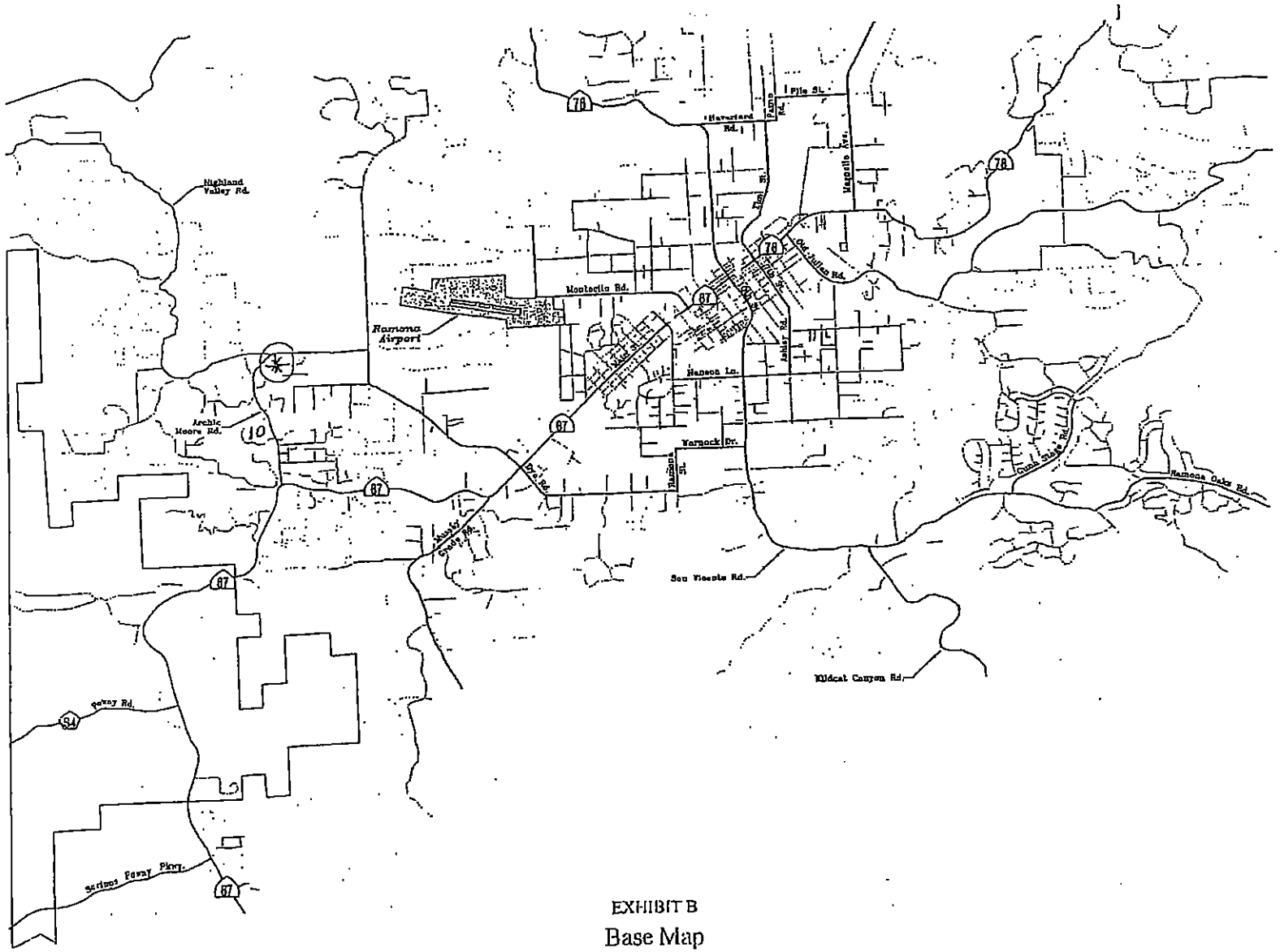


EXHIBIT B
Base Map

TPM 20370
Lynn Thomas
(.10 ADT)

TM 20370

GARY PRYOR
DIRECTOR
(619) 694-2962

County of San Diego

DEPARTMENT OF PLANNING AND LAND USE

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EL CAJON OFFICE
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EL CAJON, CA 92020-3912
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NEGATIVE DECLARATION

August 27, 1998

FINAL

Project Name: Lynn Thomas Tentative Parcel Map

Project Number(s): TPM 20370, Log No. 98-09-010

The Negative Declaration for this project is comprised of this form along with the Environmental Initial Study which includes the following forms (attached):

a. Initial Study Form
b. Environmental Analysis Form

1. California Environmental Quality Act Negative Declaration Findings:

Changes in the project plans or mitigation measures agreed to by the applicant would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur and there is no substantial evidence before the decision-making authority that the project as revised may have a significant effect on the environment.

This Negative Declaration reflects the independent judgment of the decision-making authority.

2. Required Mitigation Measures:

Refer to the attached Environmental Initial Study for the rationale for requiring the following measures:

a. Prior to the issuance of a grading permit, or approval of improvement plans in lieu of a grading permit, or on the Parcel Map the applicant shall:

increased density of idling cars from congested traffic within the vicinity of the project. Therefore, the project would not generate carbon monoxide in an amount that would significantly impact local or regional air quality standards. Any grading done for the project may be subject to dust control measures as a condition of approval of the permit from the Department of Public Works. Additionally, residential land uses are not land uses that are typically expected to emit any toxic air contaminant such as particulate matter. No other potential sources of air pollutants have been identified from the project. Additionally, the project is not expected to emit any toxic air contaminant or particulate matter based on project description and information submitted.

2. Would the proposal have the potential to significantly increase the exposure of people to any excessive levels of air pollutants? Less Than Significant Impact.

   There are no known sensitive receptors in the vicinity of the project. The project is not expected to generate noxious emissions that would effect any known receptor. The project will not subject future occupants to any harmful emissions.

3. Would the proposal potentially result in the emission of objectionable odors at a significant intensity over a substantial area? Less Than Significant Impact.

   No potential sources of objectionable odors have been identified within the proposed project. Thus the project is not expected to generate any significant levels of objectionable odors.

VI. TRANSPORTATION/CIRCULATION.

1. Would the proposal result in a potential degradation of the level of service in relation to the existing traffic volumes and road capacity? Less Than Significant Impact.

   The proposed project will generate 10 additional ADTs, which is a minor increase in relation to existing LOS on Archie Moore Road, the affected Circulation Element road identified in the San Diego County General Plan. Currently, Archie Moore Road operates with a LOS of A with less than 1,000 ADT. TM 4783RPL[3] has improved Archie Moore Road (and the private easement road Highland Meadow Court) through its Standard Conditions1-12 and Specific Conditions C.2.a and C.2.i. Thus, there will

not be an increase in traffic congestion that is significant relative to existing traffic loads and street capacities.

2. Would the proposal result in potentially significant effects to traffic safety due to existing substandard road conditions (e.g. limited sight distance, substandard curve radii, right of way deficiencies). Less Than Significant Impact.

   The proposed project will not significantly alter traffic safety on Archie Moore Road. TM 4783RPL[3] has improved Archie Moore Road (and the private easement road Highland Meadow Court) and mitigated all traffic safety issues through its Standard Conditions 1-12 and Specific Conditions C.2.a through C.2.e).

3. Would the proposal potentially result in insufficient parking capacity on-site or off-site? Less Than Significant Impact.

   The Zoning Ordinance Section 6758 Parking Schedule requires two on-site parking spaces for each dwelling unit. The proposed lots have sufficient area to provide at least two on-site parking spaces consistent with Zoning Ordinance requirements.

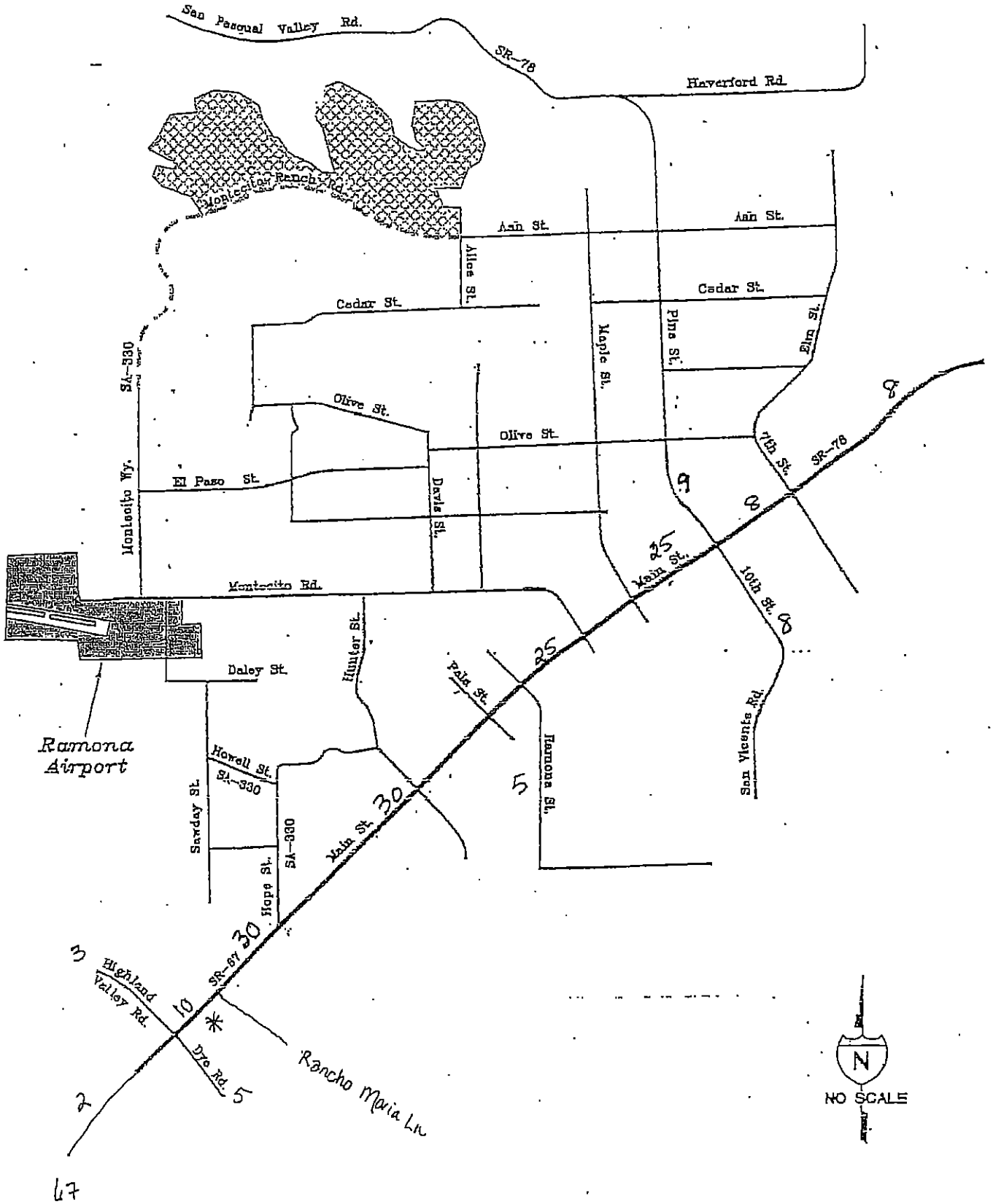
4. Would the proposal result in a potentially significant adverse increase in hazards or barriers for pedestrians or bicyclists? Less Than Significant Impact.

   The project will not result in an increase in hazards nor will it create barriers for pedestrians or bicyclists. The project will maintain existing pedestrian and bicyclist conditions established by TM 4783RPL[3] through its Standard Conditions 1-12 and Specific Conditions C.2.a through C.2.e).

VII. BIOLOGICAL RESOURCES.

1. Would the proposal result in potentially significant adverse effects, including noise from construction of the project, to an endangered, threatened or rare plant or animal species or their habitats? Less Than Significant Impact.

   Three different habitat types have been identified on the project site, Dense Coast live oak woodland, Southern mixed chaparral, and disturbed habitat. The entire portion of the dense Coast live oak woodland is within



TPM 20401

RCDK Realty II

LINSCOTT LAW & GREENSPAN
ENGINEERS

Subject RAMONA CUMULATIVE Page# ___ of ___

Job# ___ Job Name ___

Prepared by ___ Date ___

Highland Valley Rd SR67 Dye Rd	Hope St. (SA-370) SR67 Main St	Hunter St. Main St.
Pala St. Main St.	Ramona St. Main St.	Montecito Rd. Main St.
Maple St. Main St.	Pine St. Main St.	7th St. Main St.

TPM 20401

GARY L. PRYOR
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INFORMATION (858) 694-2960
TOLL FREE (800) 411-0017

NEGATIVE DECLARATION

FINAL

February 3, 2000

Project Name: RCDK Realty II Tentative Parcel Map

Project Number(s): TPM 20401; Log No. 98-09-016

This Document is Considered Draft Until it is Adopted by the Appropriate County of San Diego Decision-Making Body.

This Negative Declaration is comprised of this form along with the Environmental Initial Study that includes the following:

a. Initial Study Form
b. Environmental Analysis Form and attached extended studies for biological resources.

1. California Environmental Quality Act Negative Declaration Findings:

Find, that this Negative Declaration reflects the decision-making body's independent judgement and analysis, and; that the decision-making body has reviewed and considered the information contained in this Negative Declaration and the comments received during the public review period, and; on the basis of the whole record before the decision-making body (including this Negative Declaration) that there is no substantial evidence that the project will have a significant effect on the environment.

2. Required Mitigation Measures:

Refer to the attached Environmental Initial Study for the rationale for requiring the following measures:

None.

1. Would the proposal result in a potential degradation of the level of service of affected roadways in relation to the existing traffic volumes and road capacity?

   Less Than Significant Impact.
   The proposal will add approximately 40 ADT, based on the Guide to Vehicular Traffic Generation Rates published by SANDAG, to State Highway 67 which will not significantly alter the available capacity. Currently there is 23,000 ADT on State Highway 67 which is shown on the Circulation Element as a Collector Road. At Level of Service of "C" State Highway 67 should handle 27,400 ADT so there should be no degradation of the level of service.

2. Would the proposal result in potentially significant impacts to traffic safety (e.g., limited sight distance, curve radii, right-of-way)?

   Less Than Significant Impact.

   There is no substantial evidence that the project would provide a significant impact to traffic safety per standards outlined in the County Public and Private Road Standards.

3. Would the proposal potentially result in insufficient parking capacity on-site or off-site?

   Less Than Significant Impact.

   The Zoning Ordinance Section 6758 Parking Schedule requires two on-site parking spaces for each dwelling unit. The proposed lots have sufficient area to provide at least two on-site parking spaces consistent with The Zoning Ordinance.

4. Would the proposal result in a potentially significant hazard or barrier for pedestrians or bicyclists?

   Less Than Significant Impact.

   There is no substantial evidence that the project would provide a significant hazard or barrier to pedestrians or bicyclists per the County Public Road Standards.

VII. BIOLOGICAL RESOURCES

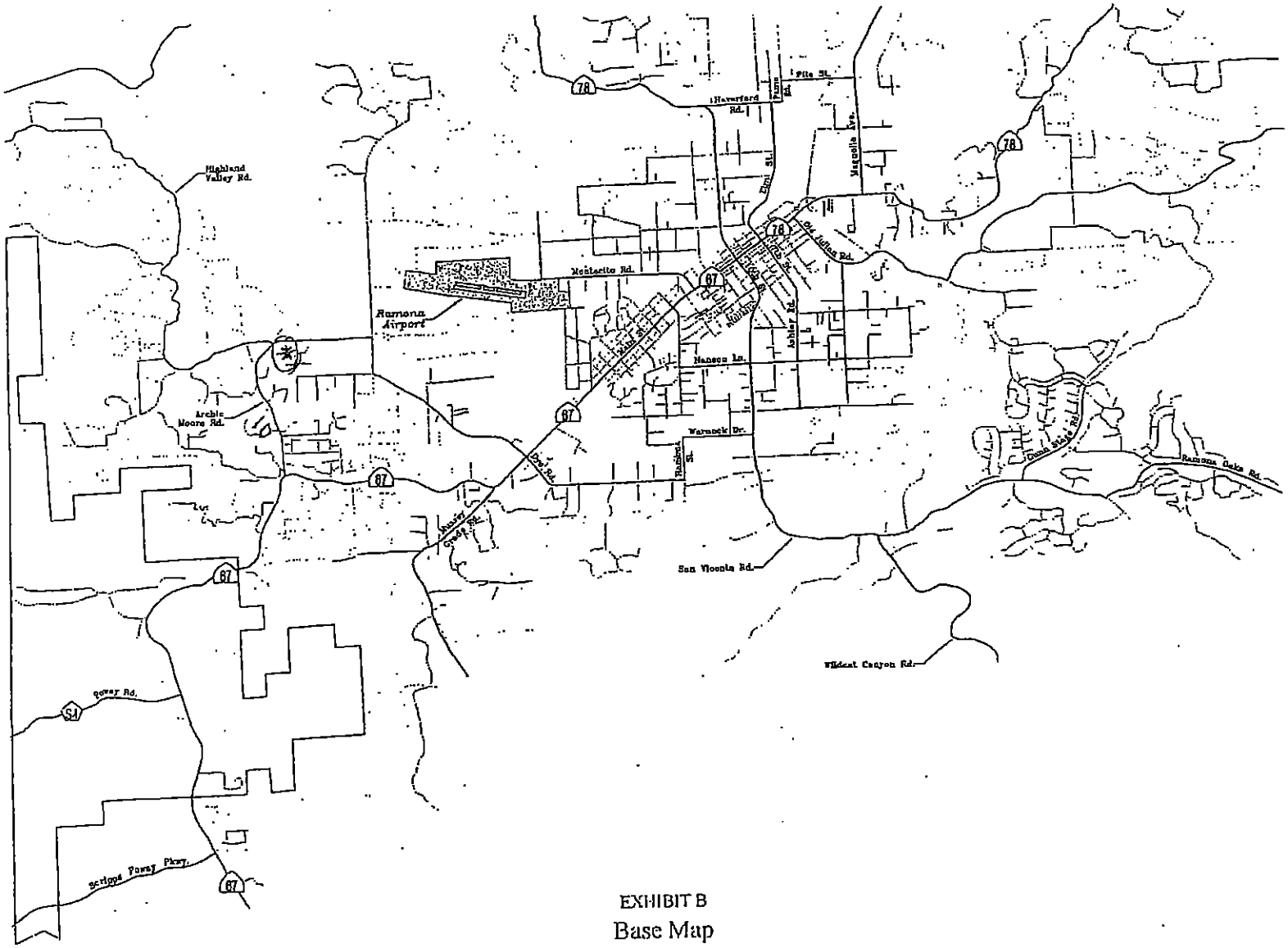

EXHIBIT B
Base Map

NO SCALE

TPM 20402
LEE
(10 ADT)

TPM 20402

GARY L. PRYOR
DIRECTOR
(619) 694-2962

County of San Diego

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(760) 471-0730

EL CAJON OFFICE
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EL CAJON, CA 92020-3912
(619) 441-4030

FILE COPY

FINAL

NEGATIVE DECLARATION

December 10, 1998

Project Name: Lee Tentative Parcel Map

Project Number(s): TPM 20402, Log No. 98-09-017

The Negative Declaration for this project is comprised of this form along with the Environmental Initial Study which includes the following forms (attached):

a. Initial Study Form
b. Environmental Analysis Form

1. California Environmental Quality Act Negative Declaration Findings:

   There is no substantial evidence that the project may have a significant effect on the environment.

   This Negative Declaration reflects the independent judgment of the decision-making authority.

2. Required Mitigation Measures:

   Refer to the attached Environmental Initial Study for the rationale for requiring the following measures:

   None Applicable.

No significant source of either stationary or indirect air pollutants has been identified from the project. The primary source of air pollutants would be generated from vehicle trips associated with the proposed project. The vehicle trips generated from the project will result in 40 Average Daily Trips (ADTs). According to the Bay Area Air Quality Management District CEQA Guidelines for Assessing the Air Quality Impacts of Projects and Plans, projects that generate less than 2,000 ADT are below the threshold of significance for reactive organic gases (ROG). Therefore, the vehicle trip emissions associated with the proposed project are not expected to significantly contribute to an existing or projected air quality violation. No other potential sources of air pollutants have been identified from the project. Additionally, the project is not expected to emit any toxic air contaminant or particulate matter based on project description and information submitted.

2. Would the proposal have the potential to significantly increase the exposure of people to any excessive levels of air pollutants?

Less Than Significant Impact.

The project is not located near any identified source of noxious emissions and will not expose people to excessive levels of air pollutants.

3. Would the proposal potentially result in the emission of objectionable odors at a significant intensity over a significant area?

Less Than Significant Impact.

No potential sources of objectionable odors have been identified within the proposed project. Thus, the project is not expected to generate any significant levels of objectionable odors.

VI. TRANSPORTATION/CIRCULATION

1. Would the proposal result in a potential degradation of the level of service of affected roadways in relation to the existing traffic volumes and road capacity?

Less Than Significant Impact.

The additional 10 ADT from the proposed project (added to the westerly 40 ADT generated by TM 4783RPL^3) will not significantly alter the available LOS capacity on Archie Moore Road. TM 4783RPL^3 has

improved Archie Moore Road (and the private road Highland Meadow Court) through its Standard Conditions C1 - 12 and Specific Condition C.2.a - C.2.i.

2. Would the proposal result in potentially significant impacts to traffic safety (e.g., limited sight distance, curve radii, right-of-way)?

Less Than Significant Impact.

The proposed project will not significantly alter traffic safety on Archie Moore Road. TM 4783RPL[3] has improved Archie Moore Road (and the private road Highland Meadow Court) through its Standard Conditions C1 - 12 and Specific Condition C.2.a - C.2.i.

3. Would the proposal potentially result in insufficient parking capacity on-site or off-site?

Less Than Significant Impact.

The Zoning Ordinance Section 6758 Parking schedule requires two on-site parking spaces for each dwelling unit. The proposed lots have sufficient area to provide at least two on-site parking spaces consistent with The Zoning Ordinance.

4. Would the proposal result in a potentially significant hazard or barrier for pedestrians or bicyclists?

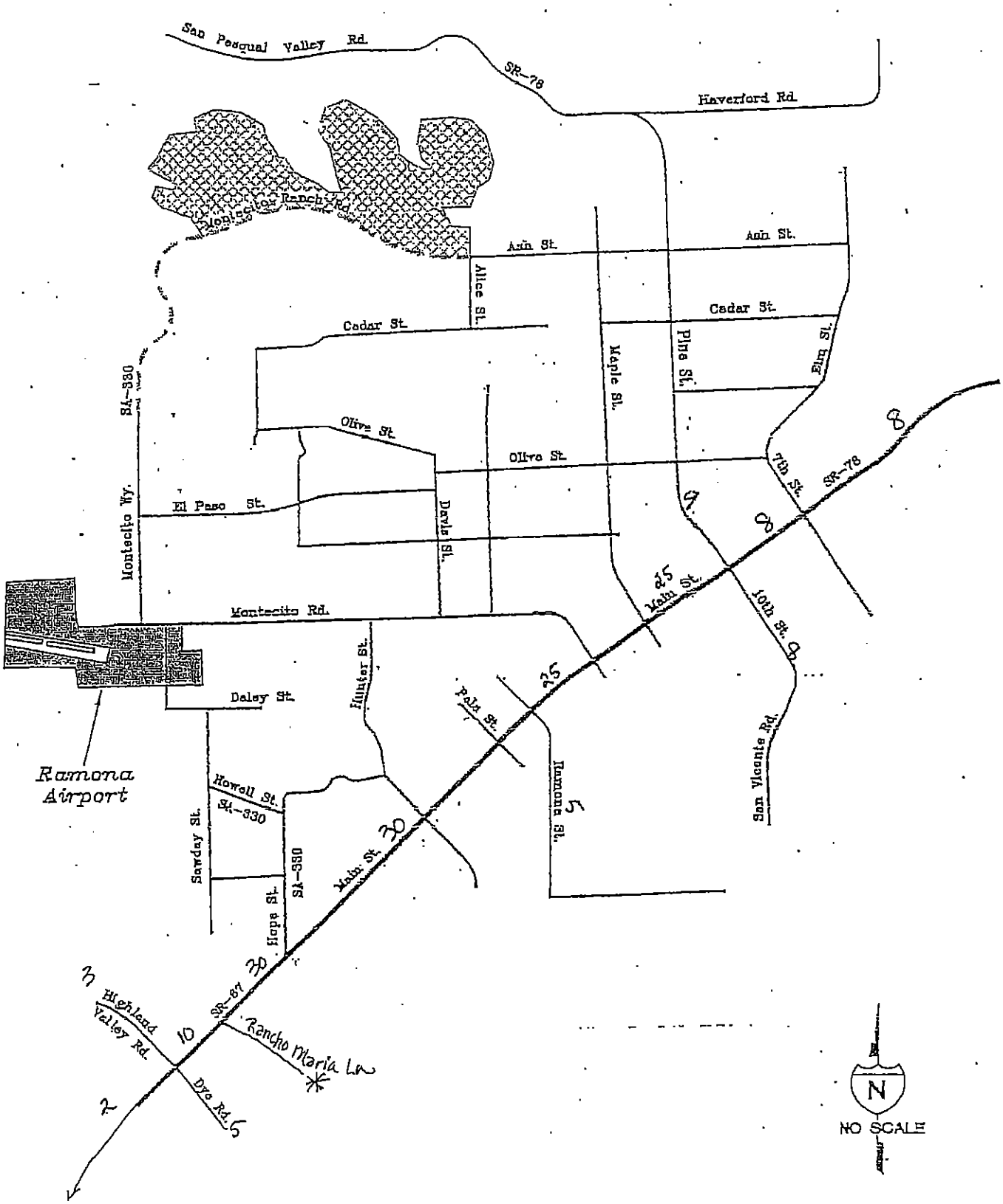
Less Than Significant Impact.

The proposed project will not increase hazards or barriers for pedestrian or bicyclists on Alpine Boulevard. The project will maintain existing pedestrian and bicyclist conditions Standard Conditions 1 - 12 and Specific Condition C.2.a - C.2.e.

VII. BIOLOGICAL RESOURCES

1. Would the proposal result in potentially significant adverse effects, including noise from construction or the project, to an endangered, threatened, or rare plant or animal species or their habitats?

Less Than Significant Impact.



TPM 20496
Quisenberry

LINSCOTT LAW & GREENSPAN
ENGINEERS

Subject RAMONA CUMULATIVE Page# ____ of ____

Job# ____ Job Name ____

Prepared by ____ Date ____

Highland Valley Rd. SR67 Dye Rd	Hope St. (St-370) SR67 Main St	Hunter St. Main St.
Pala St. Main St.	Ramona St. Main St.	Montecito Rd. Main St.
Maple St. Main St.	Pine St. Main St.	7th St. Main St.

TPM 20496

GARY L. PRYOR
DIRECTOR
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DEPARTMENT OF PLANNING AND LAND USE

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TOLL FREE (800) 411-0017

FILE COPY

NEGATIVE DECLARATION

FINAL

6-30-00

Project Name: Quisenberry Family Trust Tentative Parcel Map

Project Number(s): TPM 20496/ER 00-09-005

This Document is Considered Draft Until it is Adopted by the Appropriate County of San Diego Decision-Making Body.

This Negative Declaration is comprised of this form along with the Environmental Initial Study that includes the following:

a. Initial Study Form
b. Environmental Analysis Form and attached extended studies for biological resources

1. California Environmental Quality Act Negative Declaration Findings:

   Find, that this Negative Declaration reflects the decision-making body's independent judgement and analysis, and; that the decision-making body has reviewed and considered the information contained in this Negative Declaration and the comments received during the public review period, and; on the basis of the whole record before the decision-making body (including this Negative Declaration) that there is no substantial evidence that the project will have a significant effect on the environment.

2. Required Mitigation Measures:

   None required.

3. Critical Project Design Elements That Must Become Conditions of Approval:

   None required.

Quality Impacts of Projects and Plans, projects that generate less than 2,000 ADT are below the threshold of significance for reactive organic gases (ROG). Therefore, the vehicle trip emissions associated with the proposed project are not expected to significantly contribute to an existing or projected air quality violation. No other potential sources of air pollutants have been identified from the project. Additionally, the project is not expected to emit any toxic air contaminant or particulate matter based on project description and information submitted.

2. Would the proposal have the potential to significantly increase the exposure of people to any excessive levels of air pollutants?

Less Than Significant Impact.

DATA SOURCES USED AND RATIONALE FOR ANSWER:

Based on a site visit conducted on by Yara Fisher on February 17, 2000, the project is not located near any identified source of noxious emissions and will not expose people to excessive levels of air pollutants. Although agricultural activities are located to the east and west of the site, residential uses are currently adjacent to these agricultural activities and no excessive levels of air pollutants is anticipated from the surrounding uses. In addition, no sensitive receptors such as a school or a senior citizen establishment are proposed for this area.

3. Would the proposal potentially result in the emission of objectionable odors at a significant intensity over a significant area?

Less Than Significant Impact.

DATA SOURCES USED AND RATIONALE FOR ANSWER:

On a site visit conducted by Yara Fisher on February 17, 2000, no potential sources of objectionable odors were identified within the proposed project. Thus, the project is not expected to generate any significant levels of objectionable odors and the adjacent agricultural activities were not of the type generally associated with objectionable odors (e.g., egg ranches, dairies) .

VI. TRANSPORTATION/CIRCULATION

1. Would the proposal result in a potential degradation of the level of service of affected roadways in relation to the existing traffic volumes and road capacity?

Less Than Significant Impact.

DATA SOURCES USED AND RATIONALE FOR ANSWER

The proposed project would not result in a degradation of the level of service (LOS) of affected roadways. State Route 67 (SR 67) is a Collector Road with bike lanes on the San Diego County Circulation Element of the General Plan with a current LOS C (23,000 ADT) {threshold of 27,400 ADT for LOS D}. The total traffic volume from the project (40 ADT) would ultimately result in a total of 23,040 ADT. No impacts, degradation, or threshold increase in capacity is proposed for this project on State Route 67 (SR 67).

2. Would the proposal result in potentially significant impacts to traffic safety (e.g., limited sight distance, curve radii, right-of-way)?

Less Than Significant Impact.

DATA SOURCES USED AND RATIONALE FOR ANSWER

The project will not have any potential impacts to traffic safety. The project will be certified, by the private engineer, that it has adequate sight distance prior to final occupancy and that all driveways are built to County Standards. The applicant will be required to show adequate access for Rancho Maria Lane into State Route 67 (SR 67) and design and construct all private roads per the County Private Road Standards. In addition, according to the Building Division, the private easement road serving the project site must be named.

3. Would the proposal potentially result in insufficient parking capacity on-site or off-site?

Less Than Significant Impact.

DATA SOURCES USED AND RATIONALE FOR ANSWER:

The Zoning Ordinance Section 6758 Parking Schedule requires two on-site parking spaces for each dwelling unit. The proposed lots have sufficient area to provide at least two on-site parking spaces consistent with The Zoning Ordinance.

4. Would the proposal result in a potentially significant hazard or barrier for pedestrians or bicyclists?

Less Than Significant Impact.

DATA SOURCES USED AND RATIONALE FOR ANSWER:

The project will not have any significant increase in the volume of traffic on State Route 67 (SR 67) or other County roads in the area. The project does not propose any hazards or barriers for pedestrians or bicyclists, nor will it affect existing conditions on State Route 67 SR 67) or any other County road in the area for pedestrians or bicyclists. Any required improvements will be constructed to maintain existing conditions as it relates to pedestrians and bicyclists.

VII. BIOLOGICAL RESOURCES

1. Would the proposal result in potentially significant adverse effects, including noise from construction or the project, to an endangered, threatened, or rare plant or animal species or their habitats?

   Less Than Significant Impact.

   Although the site has been completely disturbed and contains no native vegetation or habitats; it was determined that the site and adjacent areas had the potential to support the following sensitive and/or protected species: Stephen's kangaroo rat, San Diego thornmint, quino checkerspot butterfly, golden eagle, and burrowing owl. According to the April 7, 2000 biological resources letter report prepared by Vince Scheidt, the site does not currently support Stephen's kangaroo rat, San Diego thornmint, quino checkerspot butterfly, golden eagle, or burrowing owl, nor is the site suitable to support these species. Also the site does not support any vernal pool habitat, although the drainage pattern does suggest the potential for Waters of the United States. The project is required to comply with Section 404 permitting requirements per the U.S. Army Corps of Engineers standards prior to project approval. This would avoid any impact to the potential Waters of the United States located on-site.

2. Does the project comply with the Sensitive Habitat Lands section (Article IV, Item 6) of the Resource Protection Ordinance?

   Not Applicable.

   No sensitive habitat lands were identified on the site as determined on a site visit conducted by Yara Fisher on February 17, 2000. Therefore, it

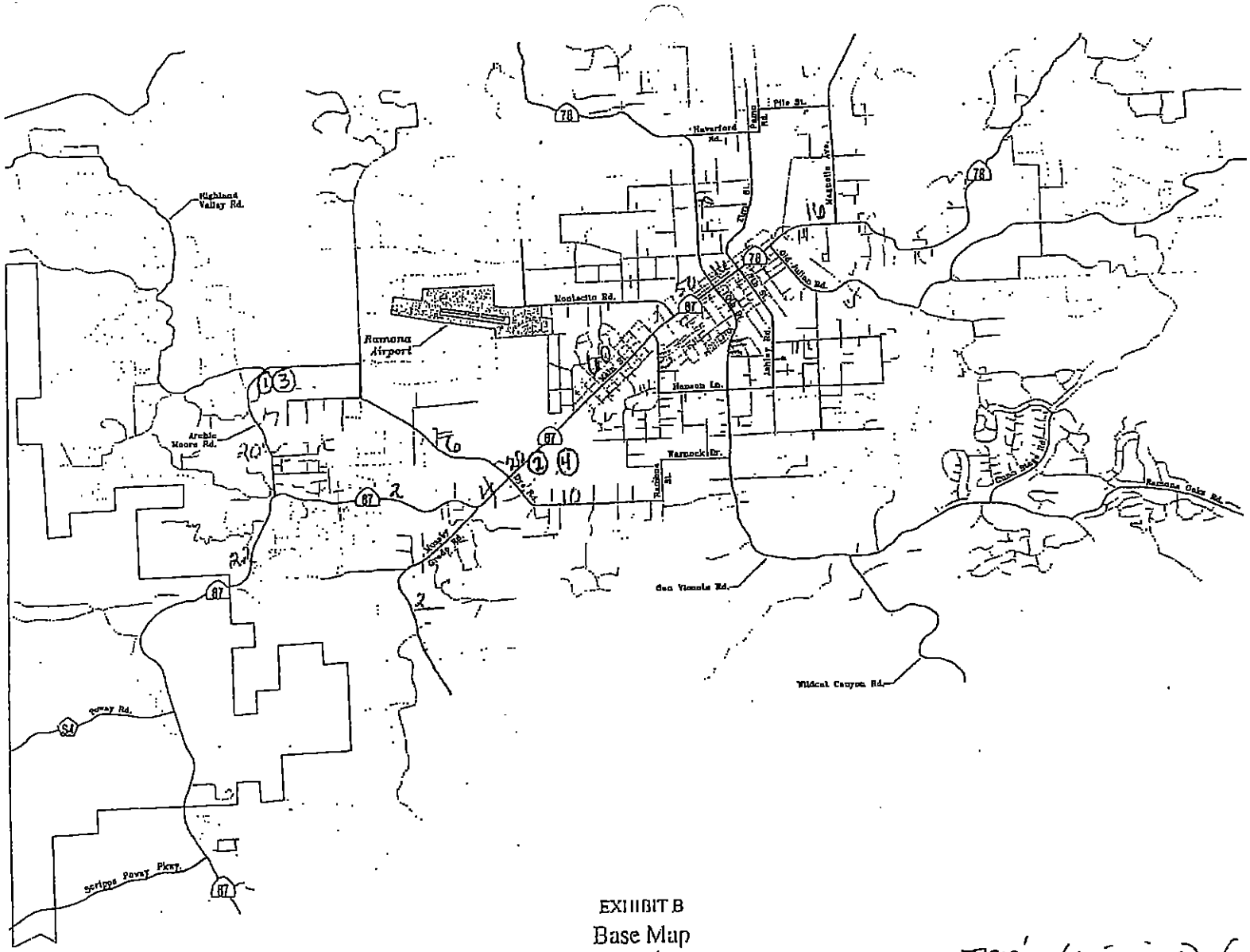


EXHIBIT B
Base Map

N
NO SCALE

TPM's (Additional) = (100 ADT total)

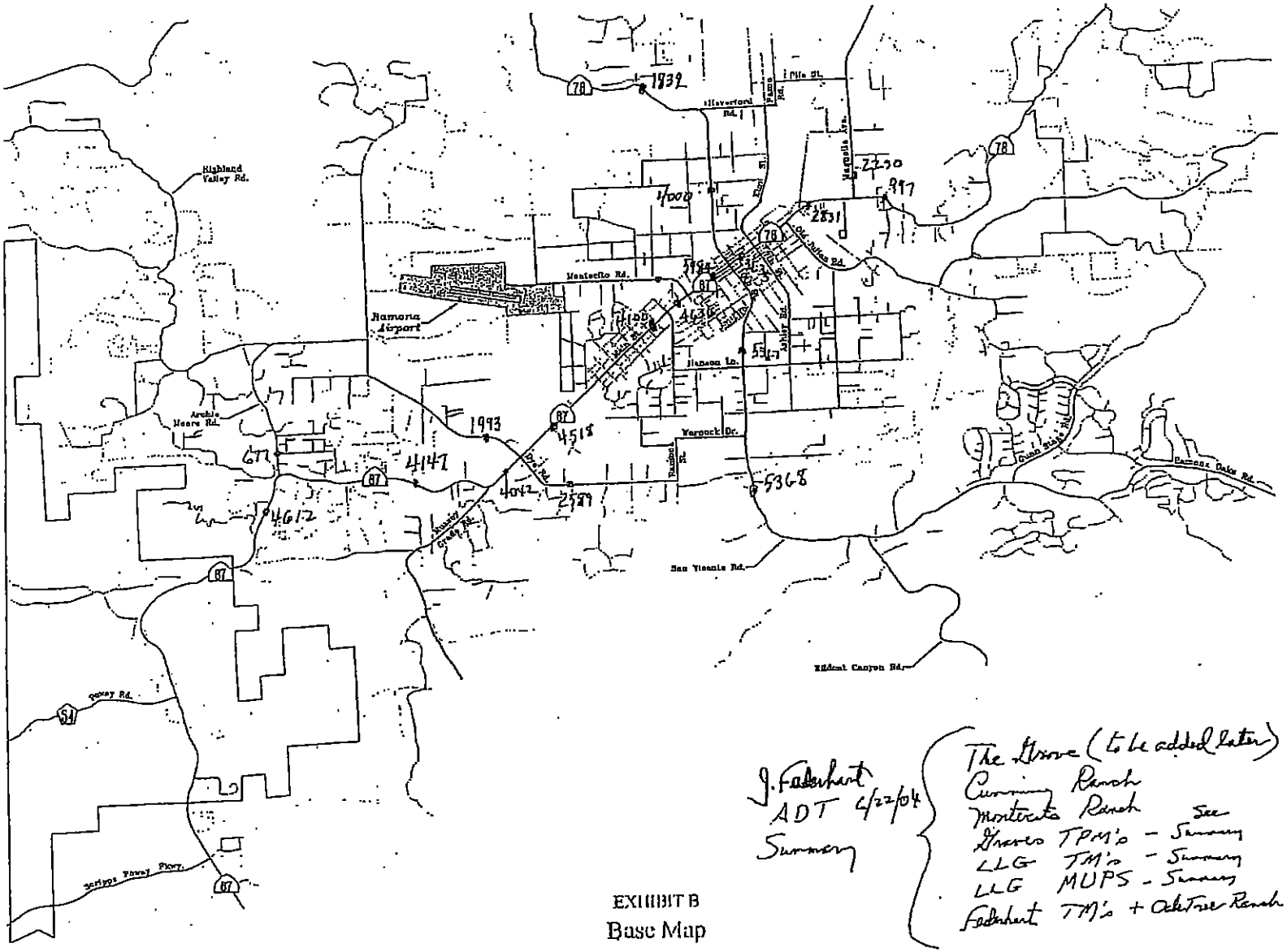
1. TPM 20370 Lynn Thomas
2. TPM 20401 RCDK Realty II
3. TPM 20402 Lee
4. TPM 20496 Quisenberry

APPENDIX F-6

COMBINED "OTHER PROJECTS"

This appendix incorporates all "Other Projects" of all types for the Ramona area. The following figure should be used for "Other Projects" analysis for all traffic impact studies in the Ramona area. If your project is already included in this appendix, it should be removed for analysis "Without Project".

The Ramona area is a dynamic changing area. For anyone that uses this "Other Projects" summary, must independently validate its use because new projects may be identified at any time. If the user becomes aware of any new projects, please advise one of the traffic engineers listed in Section F-1 of this appendix. The last update of this section occurred on July 26, 2004.



J. Fedderhart
ADT 4/22/04
Summary

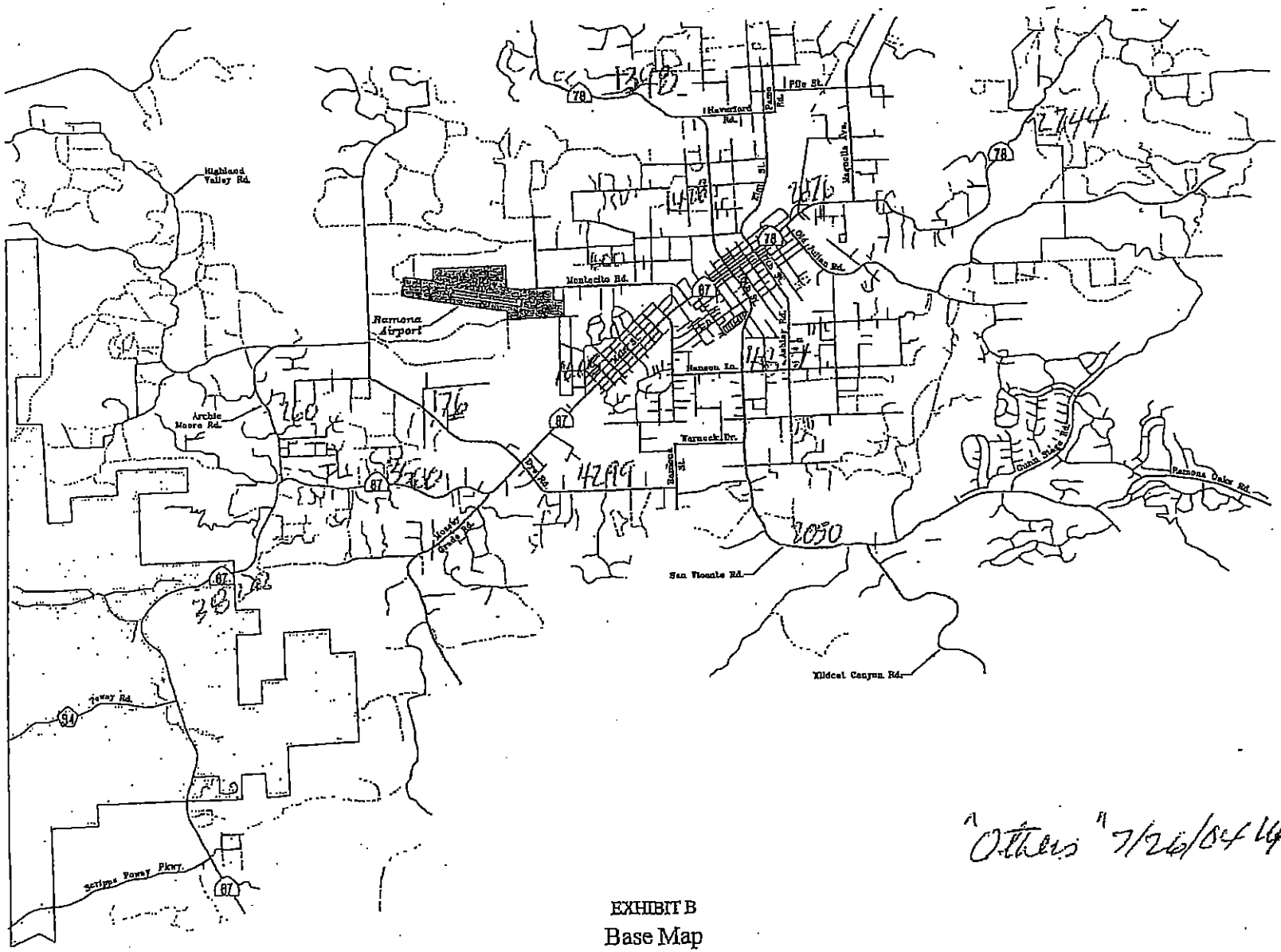
The Grove (to be added later)
Cuming Ranch
Montecito Ranch
See
Graves TPM's - Summary
LLG TM's - Summary
LLG MUPS - Summary
Fedderhart TM's + Oak Tree Ranch - Summary

Others still coming

N
NO SCALE

EXHIBIT B
Base Map

CB-E 3703-Graphics.dwg



"Others" 7/26/04 update

N
NO SCALE

EXHIBIT B
Base Map

CS-S 3783-Graphics.dwg

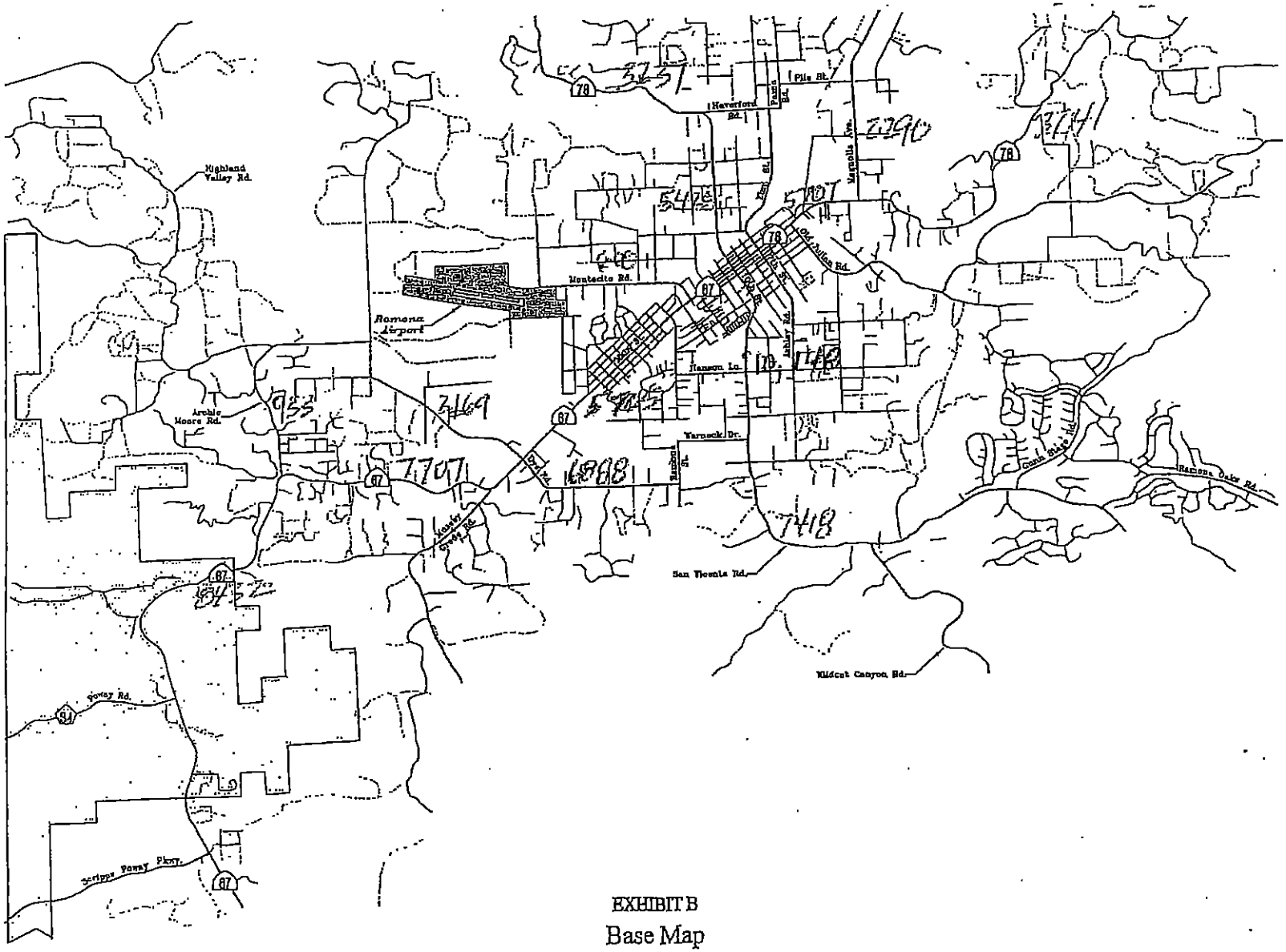


EXHIBIT B

Base Map

COMBINED TOTAL
7/26/04

APPENDIX G

Existing Plus Other Project HCS Worksheets

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*Devin Carlisto*	Intersection	*Ash St. / Pine St. (SR-78)*
Agency/Co.	*USAI*	Jurisdiction	*County of San Diego*
Date Performed	*7/4/2004*	Analysis Year	*2004*
Analysis Time Period	*1 E+OP AM*		
Project Description	*Montecito Ranch*		
East/West Street:	*Ash Street*	North/South Street:	*Pine Street (SR-78)*
Intersection Orientation:	*North-South*	Study Period (hrs):	*0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	8	851	2	2	727	4
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	8	945	2	2	807	4
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	1	1	0	1	1	0
Configuration	L		TR	L		TR
Upstream Signal		0			0	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	5	2	9	9	1	17
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	5	2	10	10	1	18
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L	L		LTR			LTR	
v (vph)	8	2		17			29	
C (m) (vph)	801	713		114			122	
v/c	0.01	0.00		0.15			0.24	
95% queue length	0.03	0.01		0.50			0.87	
Control Delay	9.5	10.1		42.0			43.5	
LOS	A	B		E			E	
Approach Delay	--	--	42.0			43.5		
Approach LOS	--	--	E			E		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*Devin Carlisto*	Intersection	*Ash St. / Pine St. (SR-8*
Agency/Co.	*USAI*	Jurisdiction	*County of San Diego*
Date Performed	*7/4/2004*	Analysis Year	*2004*
Analysis Time Period	*1 E+OP PM*		
Project Description	*Montecito Ranch*		
East/West Street:	*Ash Street*	North/South Street:	*Pine Street (SR-78)*
Intersection Orientation:	*North-South*	Study Period (hrs):	*0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	14	645	4	5	1057	9
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	15	716	4	5	1174	10
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	1	1	0	1	1	0
Configuration	L		TR	L		TR
Upstream Signal		0			0	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	8	1	3	15	2	32
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	8	1	3	16	2	35
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L	L		LTR			LTR	
v (vph)	15	5		12			53	
C (m) (vph)	580	867		49			97	
v/c	0.03	0.01		0.24			0.55	
95% queue length	0.08	0.02		0.83			2.49	
Control Delay	11.4	9.2		100.8			79.8	
LOS	B	A		F			F	
Approach Delay	--	--	100.8			79.8		
Approach LOS	--	--	F			F		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*Jacob Swim*	Intersection	*Olive St. / Pine St. (SR-78)*
Agency/Co.	*USAI*	Jurisdiction	*County of San Diego*
Date Performed	*3/09/2006*	Analysis Year	*2006*
Analysis Time Period	*2 E+OP AM*		
Project Description	*Montecito Ranch*		
East/West Street:	*Olive Street*	North/South Street:	*Pine Street (SR-78)*
Intersection Orientation:	*North-South*	Study Period (hrs):	*0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	5	976	2	5	736	1
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	5	1084	2	5	817	1
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	1	1	0	1	1	0
Configuration	L		TR	L		TR
Upstream Signal		0			0	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	5	1	10	8	1	12
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	5	1	11	8	1	13
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L	L		LTR			LTR	
v (vph)	5	5		17			22	
C (m) (vph)	796	632		100			94	
v/c	0.01	0.01		0.17			0.23	
95% queue length	0.02	0.02		0.58			0.84	
Control Delay	9.6	10.7		48.2			54.6	
LOS	A	B		E			F	
Approach Delay	--	--	48.2			54.6		
Approach LOS	--	--	E			F		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*Jacob Swim*	Intersection	*Olive St. / Pine St. (SR-78)*
Agency/Co.	*USAI*	Jurisdiction	*County of San Diego*
Date Performed	*3/09/2006*	Analysis Year	*2006*
Analysis Time Period	*2 E+OP PM*		
Project Description	*Montecito Ranch*		
East/West Street:	*Olive Street*	North/South Street:	*Pine Street (SR-78)*
Intersection Orientation:	*North-South*	Study Period (hrs):	*0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	9	772	6	4	1053	8
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	10	857	6	4	1170	8
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	1	1	0	1	1	0
Configuration	L		TR	L		TR
Upstream Signal		0			0	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	5	1	5	8	1	10
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	5	1	5	8	1	11
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L	L		LTR			LTR	
v (vph)	10	4		11			20	
C (m) (vph)	583	767		62			69	
v/c	0.02	0.01		0.18			0.29	
95% queue length	0.05	0.02		0.59			1.05	
Control Delay	11.3	9.7		75.2			77.2	
LOS	B	A		F			F	
Approach Delay	--	--	75.2			77.2		
Approach LOS	--	--	F			F		

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SHORT REPORT

General Information		Site Information	
Analyst	*Devin Carlisto*	Intersection	*Main St. / Pime St. / 10th St.*
Agency or Co.	*Urban Systems*	Area Type	*All other areas*
Date Performed	*7/4/2004*	Jurisdiction	*County of San Diego*
Time Period	*3 E+OP AM*	Analysis Year	*2004*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	1	2	0	1	1	1	0	1	0
Lane group	L	TR		L	TR		L	T	R		LTR	
Volume (vph)	294	659	165	168	729	120	187	291	96	103	268	241
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0	2.0		2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0	2.0		2.0	
Arrival type	3	3		3	3		3	3	3		3	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0		3.0	
Ped/Bike/RTOR Volume	10	0	17	10	0	12	10	0	0	10	0	24
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0		12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0	0		0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0		3.0	

Phasing	Excl. Left	Thru & RT	03	04	NB Only	SB Only	07	08
Timing	G = 13.0	G = 25.0	G =	G =	G = 13.0	G = 26.0	G =	G =
	Y = 4	Y = 4	Y =	Y =	Y = 4	Y = 4	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 93.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	309	850		177	881		197	306	101		618	
Lane group cap.	247	924		247	933		247	260	433		489	
v/c ratio	1.25	0.92		0.72	0.94		0.80	1.18	0.23		1.26	
Green ratio	0.14	0.27		0.14	0.27		0.14	0.14	0.28		0.28	
Unif. delay d1	40.0	33.0		38.2	33.3		38.7	40.0	25.8		33.5	
Delay factor k	0.50	0.44		0.28	0.46		0.34	0.50	0.11		0.50	
Increm. delay d2	141.9	14.1		9.6	17.6		16.6	112.3	0.3		134.3	
PF factor	1.000	1.000		1.000	1.000		1.000	1.000	1.000		1.000	
Control delay	181.9	47.1		47.8	50.9		55.3	152.3	26.1		167.8	
Lane group LOS	F	D		D	D		E	F	C		F	
Apprch. delay	83.0			50.4			99.6			167.8		
Approach LOS	F			D			F			F		
Intersec. delay	91.1			Intersection LOS						F		

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SHORT REPORT

General Information		Site Information	
Analyst	Devin Carlisto	Intersection	Main St. / Pinoe St. / 10th St
Agency or Co.	Urban Systems	Area Type	All other areas
Date Performed	7/4/2004	Jurisdiction	County of San Diego
Time Period	3 E+OP PM	Analysis Year	2004

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	1	2	0	1	1	1	0	1	0
Lane group	L	TR		L	TR		L	T	R		LTR	
Volume (vph)	329	1259	341	186	755	140	172	231	153	151	418	351
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0	2.0		2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0	2.0		2.0	
Arrival type	3	3		3	3		3	3	3		3	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0		3.0	
Ped/Bike/RTOR Volume	10		51	10		0	10	0	23	10	0	53
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0		12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0	0		0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0		3.0	

Phasing	Excl. Left	EB Only	Thru & RT	04	NB Only	SB Only	07	08
Timing	G = 5.0	G = 13.0	G = 38.0	G =	G = 11.0	G = 37.0	G =	G =
	Y = 4	Y = 0	Y = 4	Y =	Y = 4	Y = 4	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 120.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	346	1630		196	942		181	243	137		913	
Lane group cap.	325	1465		74	1097		162	171	204		541	
v/c ratio	1.06	1.11		2.65	0.86		1.12	1.42	0.67		1.69	
Green ratio	0.18	0.43		0.04	0.32		0.09	0.09	0.13		0.31	
Unif. delay d1	49.0	34.5		57.5	38.5		54.5	54.5	49.5		41.5	
Delay factor k	0.50	0.50		0.50	0.39		0.50	0.50	0.24		0.50	
Increm. delay d2	68.1	60.8		779.1	7.0		105.7	220.1	8.3		317.4	
PF factor	1.000	1.000		1.000	1.000		1.000	1.000	1.000		1.000	
Control delay	117.1	95.3		836.6	45.5		160.2	274.6	57.8		358.9	
Lane group LOS	F	F		F	D		F	F	E		F	
Apprch. delay	99.1			181.7			184.7			358.9		
Approach LOS	F			F			F			F		
Intersec. delay	181.8			Intersection LOS						F		

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SHORT REPORT

General Information		Site Information	
Analyst	Devin Carlisto	Intersection	Main Street / Montecito Road
Agency or Co.	Urban Systems	Area Type	All other areas
Date Performed	7/4/2004	Jurisdiction	County of San Diego
Time Period	4 E+OP AM	Analysis Year	2004

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	1	2	0	0	1	0	0	1	0
Lane group	L	TR		L	TR			LTR			LTR	
Volume (vph)	141	805	30	8	1141	106	21	7	32	182	11	169
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0			2.0			2.0	
Ext. eff. green	2.0	2.0		2.0	2.0			2.0			2.0	
Arrival type	3	3		3	3			3			3	
Unit Extension	3.0	3.0		3.0	3.0			3.0			3.0	
Ped/Bike/RTOR Volume	10	0	0	10	0	11	10	0	0	10	0	17
Lane Width	12.0	12.0		12.0	12.0			12.0			12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0			0			0	
Unit Extension	3.0	3.0		3.0	3.0			3.0			3.0	

Phasing	Excl. Left	Thru & RT	03	04	NB Only	SB Only	07	08
Timing	G = 8.0	G = 36.0	G =	G =	G = 5.0	G = 20.0	G =	G =
	Y = 4	Y = 4	Y =	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 85.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	157	927		9	1374			67			383	
Lane group cap.	167	1493		167	1484			97			399	
v/c ratio	0.94	0.62		0.05	0.93			0.69			0.96	
Green ratio	0.09	0.42		0.09	0.42			0.06			0.24	
Unif. delay d1	38.3	19.2		35.1	23.2			39.2			32.1	
Delay factor k	0.45	0.20		0.11	0.44			0.26			0.47	
Increm. delay d2	52.2	0.8		0.1	10.2			18.9			34.7	
PF factor	1.000	1.000		1.000	1.000			1.000			1.000	
Control delay	90.5	20.0		35.2	33.5			58.1			66.8	
Lane group LOS	F	B		D	C			E			E	
Apprch. delay	30.2			33.5			58.1			66.8		
Approach LOS	C			C			E			E		
Intersec. delay	37.2			Intersection LOS						D		

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SHORT REPORT

General Information		Site Information	
Analyst	Devin Carlisto	Intersection	Main Street / Montecito Road
Agency or Co.	Urban Systems	Area Type	All other areas
Date Performed	7/4/2004	Jurisdiction	County of San Diego
Time Period	4 E + OP PM	Analysis Year	2004

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	1	2	0	0	1	0	0	1	0
Lane group	L	TR		L	TR			LTR			LTR	
Volume (vph)	188	1316	79	35	1141	84	63	42	73	134	31	158
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0			2.0			2.0	
Ext. eff. green	2.0	2.0		2.0	2.0			2.0			2.0	
Arrival type	3	3		3	3			3			3	
Unit Extension	3.0	3.0		3.0	3.0			3.0			3.0	
Ped/Bike/RTOR Volume	10	0	12	10	0	13	10	0	12	10	0	18
Lane Width	12.0	12.0		12.0	12.0			12.0			12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0			0			0	
Unit Extension	3.0	3.0		3.0	3.0			3.0			3.0	

Phasing	Excl. Left	Thru & RT	03	04	NB Only	SB Only	07	08
Timing	G = 12.0	G = 43.0	G =	G =	G = 10.0	G = 19.0	G =	G =
	Y = 4	Y = 4	Y =	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	209	1536		39	1347			185			339	
Lane group cap.	212	1513		212	1511			172			322	
v/c ratio	0.99	1.02		0.18	0.89			1.08			1.05	
Green ratio	0.12	0.43		0.12	0.43			0.10			0.19	
Unif. delay d1	43.9	28.5		39.6	26.3			45.0			40.5	
Delay factor k	0.49	0.50		0.11	0.42			0.50			0.50	
Increm. delay d2	57.6	27.0		0.4	7.1			90.2			64.7	
PF factor	1.000	1.000		1.000	1.000			1.000			1.000	
Control delay	101.5	55.5		40.0	33.4			135.2			105.2	
Lane group LOS	F	E		D	C			F			F	
Apprch. delay	61.0			33.6			135.2			105.2		
Approach LOS	E			C			F			F		
Intersec. delay	58.5			Intersection LOS						E		

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TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*Devin Carlisto*
Agency/Co.	*USAI*
Date Performed	*7/4/2004*
Analysis Time Period	*5 E+OP AM*

Site Information

Intersection	*Montecito Road / Montecito Way*
Jurisdiction	*County of San Diego*
Analysis Year	*2004*

Project Description *Montecito Ranch*

East/West Street: *Montecito Road* | North/South Street: *Montecito Way*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	2	21	90	74	35	15
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate (veh/h)	2	23	0	0	38	16
Proportion of heavy vehicles, P_{HV}	2	–	–	2	–	–
Median type	Undivided					
RT Channelized?			0			0
Lanes	0	1	0	0	1	0
Configuration	LT					TR
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	306	25	144	25	24	1
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate (veh/h)	0	0	0	27	0	1
Proportion of heavy vehicles, P_{HV}	2	2	2	2	2	2
Percent grade (%)	0			0		
Flared approach		N			N	
Storage		0			0	
RT Channelized?			0			0
Lanes	0	0	0	0	0	0
Configuration					LR	

Control Delay, Queue Length, Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT						LR	
Volume, v (vph)	2						28	
Capacity, c_m (vph)	1525						894	
v/c ratio	0.00						0.03	
Queue length (95%)	0.00						0.10	

Control Delay (s/veh)	7.4						9.2	
LOS	A						A	
Approach delay (s/veh)	--	--				9.2		
Approach LOS	--	--				A		

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TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*Devin Carlisto*
Agency/Co.	*USAI*
Date Performed	*7/4/2004*
Analysis Time Period	*5 E+OP PM*

Site Information

Intersection	*Monteciot Road / Montecito Way*
Jurisdiction	*County of San Diego*
Analysis Year	*2004*

Project Description *Montecito Ranch*

East/West Street: *Montecito Road* | North/South Street: *Montecito Way*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	2	66	90	74	15	21
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate (veh/h)	2	73	0	0	16	23
Proportion of heavy vehicles, P_{HV}	2	–	–	2	–	–
Median type	Undivided					
RT Channelized?			0			0
Lanes	0	1	0	0	1	0
Configuration	LT					TR
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	306	25	144	26	24	1
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate (veh/h)	0	0	0	28	0	1
Proportion of heavy vehicles, P_{HV}	2	2	2	2	2	2
Percent grade (%)	0			0		
Flared approach		N			N	
Storage		0			0	
RT Channelized?			0			0
Lanes	0	0	0	0	0	0
Configuration					LR	

Control Delay, Queue Length, Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT						LR	
Volume, v (vph)	2						29	
Capacity, c_m (vph)	1545						858	
v/c ratio	0.00						0.03	
Queue length (95%)	0.00						0.10	

Control Delay (s/veh)	7.3						9.3	
LOS	A						A	
Approach delay (s/veh)	--	--				9.3		
Approach LOS	--	--				A		

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	Highland Valley Rd. / SR-67
Agency or Co.	Urban Systems	Area Type	All other areas
Date Performed	3/08/2006	Jurisdiction	County of San Diego
Time Period	6 E+OP AM	Analysis Year	2006

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	1	1	0	1	1	0	1	1	1	1	1	1
Lane Group	L	TR		L	TR		L	T	R	L	T	R
Volume (vph)	96	18	10	542	61	32	4	615	120	44	1472	188
% Heavy Vehicles	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Pretimed/Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup Lost Time	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Arrival Type	3	3		3	3		3	3	3	3	3	3
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	0	0	0	10	0	6	10	0	0	10	0	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/Hour												
Bus Stops/Hour	0	0		0	0		0	0	0	0	0	0
Minimum Pedestrian Time		3.2			3.3			3.3			3.3	

Phasing	Excl. Left	WB Only	Thru & RT	04	Excl. Left	Thru & RT	07	08
Timing	G = 16.0	G = 7.0	G = 5.0	G =	G = 5.0	G = 71.0	G =	G =
	Y = 4	Y = 0	Y = 4	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 120.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	101	30		571	91		4	647	126	46	1549	198
Lane Group Capacity	236	73		398	175		74	1102	930	74	1102	930
v/c Ratio	0.43	0.41		1.43	0.52		0.05	0.59	0.14	0.62	1.41	0.21
Green Ratio	0.13	0.04		0.22	0.10		0.04	0.59	0.59	0.04	0.59	0.59
Uniform Delay d_1	47.8	56.1		46.5	51.3		55.2	15.3	10.9	56.6	24.5	11.4
Delay Factor k	0.11	0.11		0.50	0.13		0.11	0.18	0.11	0.20	0.50	0.11
Incremental Delay d_2	1.2	3.7		209.5	2.8		0.3	0.8	0.1	15.0	188.0	0.1
PF Factor	1.000	1.000		1.000	1.000		1.000	1.000	1.000	1.000	1.000	1.000
Control Delay	49.0	59.8		256.0	54.0		55.5	16.2	10.9	71.6	212.5	11.6
Lane Group LOS	D	E		F	D		E	B	B	E	F	B
Approach Delay	51.5			228.3			15.5			186.7		
Approach LOS	D			F			B			F		
Intersection Delay	150.1			Intersection LOS						F		

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	Highland Valley Rd. / SR-67
Agency or Co.	Urban Systems	Area Type	All other areas
Date Performed	3/08/2006	Jurisdiction	County of San Diego
Time Period	6 E+OP PM	Analysis Year	2006

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	1	1	0	1	1	0	1	1	1	1	1	1
Lane Group	L	TR		L	TR		L	T	R	L	T	R
Volume (vph)	208	116	14	77	18	29	9	1019	361	92	774	64
% Heavy Vehicles	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Pretimed/Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup Lost Time	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Arrival Type	3	3		3	3		3	3	3	3	3	3
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	0	0	0	10	0	5	10	0	0	10	0	10
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/Hour												
Bus Stops/Hour	0	0		0	0		0	0	0	0	0	0
Minimum Pedestrian Time		3.2			3.3			3.3			3.3	

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 10.0	G = 5.0	G =	G =	G = 5.0	G = 43.0	G =	G =
	Y = 4	Y = 4	Y =	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 79.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	219	137		81	44		9	1073	380	97	815	57
Lane Group Capacity	224	116		224	103		112	1014	854	112	1014	854
v/c Ratio	0.98	1.18		0.36	0.43		0.08	1.06	0.44	0.87	0.80	0.07
Green Ratio	0.13	0.06		0.13	0.06		0.06	0.54	0.54	0.06	0.54	0.54
Uniform Delay d_1	34.4	37.0		31.6	35.6		34.8	18.0	10.8	36.7	14.6	8.5
Delay Factor k	0.48	0.50		0.11	0.11		0.11	0.50	0.11	0.40	0.35	0.11
Incremental Delay d_2	53.6	140.3		1.0	2.8		0.3	45.0	0.4	46.4	4.8	0.0
PF Factor	1.000	1.000		1.000	1.000		1.000	1.000	1.000	1.000	1.000	1.000
Control Delay	88.0	177.3		32.6	38.5		35.1	63.0	11.2	83.1	19.4	8.5
Lane Group LOS	F	F		C	D		D	E	B	F	B	A
Approach Delay	122.3			34.6			49.3			25.1		
Approach LOS	F			C			D			C		
Intersection Delay	49.6			Intersection LOS						D		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	USAI	Intersection	Archie Moore Rd. / SR-67
Agency/Co.	Urban Systems	Jurisdiction	County of San Diego
Date Performed	3/08/2006	Analysis Year	2006
Analysis Time Period	7 E+OP AM		

Project Description 5703 Montecito Ranch	
East/West Street: Archie Moore Rd.	North/South Street: SR-67
Intersection Orientation: North-South	Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	181	533			1930	70
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR (veh/h)	181	533	0	0	1930	70
Percent Heavy Vehicles	2	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	1	2	0	0	1	1
Configuration	L	T			T	R
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	24		205			
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR (veh/h)	24	0	205	0	0	0
Percent Heavy Vehicles	2	0	2	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	1	0	1	0	0	0
Configuration	L		R			

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L					L		R
v (veh/h)	181					24		205
C (m) (veh/h)	283					8		55
v/c	0.64					3.00		3.73
95% queue length	4.04					4.16		22.21
Control Delay (s/veh)	37.8					1805		1381
LOS	E					F		F
Approach Delay (s/veh)	--	--				1426		
Approach LOS	--	--				F		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	USAI	Intersection	Archie Moore Rd. / SR-67
Agency/Co.	Urban Systems	Jurisdiction	County of San Diego
Date Performed	3/08/2006	Analysis Year	2006
Analysis Time Period	7 E + 0P PM		

Project Description 5703 Montecito Ranch

East/West Street: Archie Moore Rd. | North/South Street: SR-67

Intersection Orientation: North-South | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	455	1803			738	63
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR (veh/h)	455	1803	0	0	738	63
Percent Heavy Vehicles	2	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	1	2	0	0	1	1
Configuration	L	T			T	R
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	36		84			
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR (veh/h)	36	0	84	0	0	0
Percent Heavy Vehicles	2	0	2	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	1	0	1	0	0	0
Configuration	L		R			

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L					L		R
v (veh/h)	455					36		84
C (m) (veh/h)	818					10		352
v/c	0.56					3.60		0.24
95% queue length	3.49					5.64		0.92
Control Delay (s/veh)	14.8					1912		18.4
LOS	B					F		C
Approach Delay (s/veh)	--	--				586.5		
Approach LOS	--	--				F		

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APPENDIX H

Existing Plus Other Projects Plus Project HCS Worksheets

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*Kat Villavicencio*	Intersection	*Ash Street at Pine Street*
Agency/Co.	*USAI*	Jurisdiction	*County of San Diego*
Date Performed	*061506*	Analysis Year	*2006*
Analysis Time Period	*1 E + O + P AM*		
Project Description	*Montecito Ranch*		
East/West Street:	*Ash Street*	North/South Street:	*Pine Street (SR-78)*
Intersection Orientation:	*North-South*	Study Period (hrs):	*0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	81	851	2	2	727	15
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	90	945	2	2	807	16
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	1	1	0	1	1	0
Configuration	L		TR	L		TR
Upstream Signal		0			0	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	5	13	9	26	18	120
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	5	14	10	28	20	133
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L	L		LTR			LTR	
v (vph)	90	2		29			181	
C (m) (vph)	793	713		49			113	
v/c	0.11	0.00		0.59			1.60	
95% queue length	0.38	0.01		2.28			13.52	
Control Delay	10.1	10.1		154.0			375.5	
LOS	B	B		F			F	
Approach Delay	--	--	154.0			375.5		
Approach LOS	--	--	F			F		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*Kat Villavicencio*	Intersection	*Ash Street at Pine Street*
Agency/Co.	*USAI*	Jurisdiction	*County of San Diego*
Date Performed	*061506*	Analysis Year	*2006*
Analysis Time Period	*1 E + O + P PM*		
Project Description	*Montecito Ranch*		
East/West Street:	*Ash Street*	North/South Street:	*Pine Street (SR-78)*
Intersection Orientation:	*North-South*	Study Period (hrs):	*0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*134*	*645*	*4*	*5*	*1057*	*28*
Peak-Hour Factor, PHF	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*
Hourly Flow Rate, HFR	*148*	*716*	*4*	*5*	*1174*	*31*
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*1*	*1*	*0*	*1*	*1*	*0*
Configuration	*L*		*TR*	*L*		*TR*
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*8*	*20*	*3*	*25*	*12*	*94*
Peak-Hour Factor, PHF	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*
Hourly Flow Rate, HFR	*8*	*22*	*3*	*27*	*13*	*104*
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*	*L*		*LTR*			*LTR*	
v (vph)	*148*	*5*		*33*			*144*	
C (m) (vph)	*569*	*867*		*19*			*40*	
v/c	*0.26*	*0.01*		*1.74*			*3.60*	
95% queue length	*1.03*	*0.02*		*4.50*			*16.31*	
Control Delay	*13.5*	*9.2*		*779.3*			*1379*	
LOS	*B*	*A*		*F*			*F*	
Approach Delay	--	--	*779.3*			*1379*		
Approach LOS	--	--	*F*			*F*		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*Jacob Swim*	Intersection	*Olive Street at Pine Street*
Agency/Co.	*Urban Systems*	Jurisdiction	*County of San Diego*
Date Performed	*10/5/2007*	Analysis Year	*2007*
Analysis Time Period	*2 E+OP + P AM*		

Project Description *Montecito Ranch*	
East/West Street: *Olive Street*	North/South Street: *Pine Street (SR-78)*
Intersection Orientation: *North-South*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	9	1030	2	25	813	8
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR (veh/h)	10	1144	2	27	903	8
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	1	1	0	1	1	0
Configuration	L		TR	L		TR
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	13	1	12	5	1	24
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR (veh/h)	14	1	13	5	1	26
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L	L		LTR			LTR	
v (veh/h)	10	27		32			28	
C (m) (veh/h)	735	599		108			50	
v/c	0.01	0.05		0.30			0.56	
95% queue length	0.04	0.14		1.13			2.15	
Control Delay (s/veh)	10.0	11.3		51.8			145.2	
LOS	A	B		F			F	
Approach Delay (s/veh)	--	--	51.8			145.2		
Approach LOS	--	--	F			F		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	Jacob Swim	Intersection	Olive Street / Pine Street
Agency/Co.	USAI	Jurisdiction	County of San Diego
Date Performed	10/05/2007	Analysis Year	2007
Analysis Time Period	2 E + O + P PM		

Project Description *Montecito Ranch*

East/West Street: *Olive Street* | North/South Street: *Pine Street (SR-78)*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	9	861	6	16	1099	12
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR (veh/h)	10	956	6	17	1221	13
Percent Heavy Vehicles	2	–	–	2	–	–
Median Type	Undivided					
RT Channelized			0			0
Lanes	1	1	0	1	1	0
Configuration	L		TR	L		TR
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	16	1	10	5	1	28
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR (veh/h)	17	1	11	5	1	31
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L	L		LTR			LTR	
v (veh/h)	10	17		37			29	
C (m) (veh/h)	555	703		112			35	
v/c	0.02	0.02		0.33			0.83	
95% queue length	0.06	0.07		1.30			2.94	
Control Delay (s/veh)	11.6	10.2		52.2			268.9	
LOS	B	B		F			F	
Approach Delay (s/veh)	–	–	52.2			268.9		
Approach LOS	–	–	F			F		

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SHORT REPORT

General Information		Site Information	
Analyst	*Jacob Swim*	Intersection	*Main St. / Pine St.*
Agency or Co.	*Urban Systems*	Area Type	*All other areas*
Date Performed	*10/5/2007*	Jurisdiction	*County of San Diego*
Time Period	*3 E + OP + P AM*	Analysis Year	*2007*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	1	2	0	1	2	0	1	1	1	0	1	0
Lane Group	L	TR		L	TR		L	T	R		LTR	
Volume (vph)	322	659	165	168	729	127	187	310	96	113	285	281
% Heavy Vehicles	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Pretimed/Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup Lost Time	2.0	2.0		2.0	2.0		2.0	2.0	2.0		2.0	
Extension of Effective Green	2.0	2.0		2.0	2.0		2.0	2.0	2.0		2.0	
Arrival Type	3	3		3	3		3	3	3		3	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0		3.0	
Ped/Bike/RTOR Volume	10	0	17	10	0	12	10	0	0	10	0	28
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0		12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/Hour												
Bus Stops/Hour	0	0		0	0		0	0	0		0	
Minimum Pedestrian Time		3.3			3.3			3.3			3.3	

Phasing	Excl. Left	EB Only	Thru & RT	04	NB Only	SB Only	07	08
Timing	G = 8.0	G = 4.0	G = 22.0	G =	G = 12.0	G = 26.0	G =	G =
	Y = 4	Y = 0	Y = 4	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 88.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	339	850		177	888		197	326	101		685	
Lane Group Capacity	311	998		161	869		241	254	211		515	
v/c Ratio	1.09	0.85		1.10	1.02		0.82	1.28	0.48		1.33	
Green Ratio	0.18	0.30		0.09	0.25		0.14	0.14	0.14		0.30	
Uniform Delay d_1	36.0	29.2		40.0	33.0		36.9	38.0	35.1		31.0	
Delay Factor k	0.50	0.38		0.50	0.50		0.36	0.50	0.11		0.50	
Incremental Delay d_2	77.3	7.2		100.0	36.2		19.4	154.1	1.7		161.5	
PF Factor	1.000	1.000		1.000	1.000		1.000	1.000	1.000		1.000	
Control Delay	113.3	36.4		140.0	69.2		56.3	192.1	36.8		192.5	
Lane Group LOS	F	D		F	E		E	F	D		F	
Approach Delay	58.3			80.9			124.1			192.5		
Approach LOS	E			F			F			F		
Intersection Delay	102.4			Intersection LOS						F		

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SHORT REPORT

General Information		Site Information	
Analyst	*Jacob Swim*	Intersection	*Main St. / Pine St.*
Agency or Co.	*Urban Systems*	Area Type	*All other areas*
Date Performed	*10/5/2007*	Jurisdiction	*County of San Diego*
Time Period	*3 E + OP + P PM*	Analysis Year	*2007*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	1	2	0	1	2	0	1	1	1	0	1	0
Lane Group	L	TR		L	TR		L	T	R		LTR	
Volume (vph)	375	1259	341	186	755	151	172	262	153	157	434	375
% Heavy Vehicles	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Pretimed/Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup Lost Time	2.0	2.0		2.0	2.0		2.0	2.0	2.0		2.0	
Extension of Effective Green	2.0	2.0		2.0	2.0		2.0	2.0	2.0		2.0	
Arrival Type	3	3		3	3		3	3	3		3	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0		3.0	
Ped/Bike/RTOR Volume	10	0	51	10	0	0	10	0	0	10	0	55
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0		12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/Hour												
Bus Stops/Hour	0	0		0	0		0	0	0		0	
Minimum Pedestrian Time		3.3			3.3			3.3			3.3	

Phasing	Excl. Left	EB Only	Thru & RT	04	NB Only	SB Only	07	08
Timing	G = 8.0	G = 15.0	G = 36.0	G =	G = 12.0	G = 34.0	G =	G =
	Y = 4	Y = 0	Y = 4	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 121.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	395	1630		196	954		181	276	161		959	
Lane Group Capacity	395	1450		117	1026		176	185	152		493	
v/c Ratio	1.00	1.12		1.68	0.93		1.03	1.49	1.06		1.95	
Green Ratio	0.22	0.42		0.07	0.30		0.10	0.10	0.10		0.28	
Uniform Delay d_1	47.0	35.0		56.5	41.3		54.5	54.5	54.5		43.5	
Delay Factor k	0.50	0.50		0.50	0.45		0.50	0.50	0.50		0.50	
Incremental Delay d_2	45.3	65.5		338.1	14.3		75.5	247.7	89.6		432.7	
PF Factor	1.000	1.000		1.000	1.000		1.000	1.000	1.000		1.000	
Control Delay	92.3	100.5		394.6	55.5		130.0	302.2	144.1		476.2	
Lane Group LOS	F	F		F	E		F	F	F		F	
Approach Delay	98.9			113.3			210.6			476.2		
Approach LOS	F			F			F			F		
Intersection Delay	193.1			Intersection LOS						F		

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SHORT REPORT

General Information		Site Information	
Analyst	*Jacob Swim*	Intersection	*Main St. / Montecito Rd.*
Agency or Co.	*Urban Systems*	Area Type	*All other areas*
Date Performed	*11/7/2007*	Jurisdiction	*County of San Diego*
Time Period	*4 E + OP + P AM*	Analysis Year	*2007*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	1	2	0	1	2	0	0	1	0	0	1	0
Lane Group	L	TR		L	TR			LTR			LTR	
Volume (vph)	212	817	30	8	1158	113	21	7	32	192	11	269
% Heavy Vehicles	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Pretimed/Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup Lost Time	2.0	2.0		2.0	2.0			2.0			2.0	
Extension of Effective Green	2.0	2.0		2.0	2.0			2.0			2.0	
Arrival Type	3	3		3	3			3			3	
Unit Extension	3.0	3.0		3.0	3.0			3.0			3.0	
Ped/Bike/RTOR Volume	10	0	0	10	0	17	10	0	0	10	0	40
Lane Width	12.0	12.0		12.0	12.0			12.0			12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/Hour												
Bus Stops/Hour	0	0		0	0			0			0	
Minimum Pedestrian Time		3.3			3.3			3.3			3.3	

Phasing	Excl. Left	Thru & RT	03	04	NB Only	SB Only	07	08
Timing	G = 12.0	G = 41.0	G =	G =	G = 5.0	G = 27.0	G =	G =
	Y = 4	Y = 4	Y =	Y =	Y = 4	Y = 4	Y =	Y =

Duration of Analysis (hrs) = 0.25 Cycle Length C = 101.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	236	941		9	1394			67			479	
Lane Group Capacity	210	1432		210	1422			81			450	
v/c Ratio	1.12	0.66		0.04	0.98			0.83			1.06	
Green Ratio	0.12	0.41		0.12	0.41			0.05			0.27	
Uniform Delay d_1	44.5	24.3		39.4	29.6			47.6			37.0	
Delay Factor k	0.50	0.23		0.11	0.48			0.37			0.50	
Incremental Delay d_2	99.3	1.1		0.1	19.3			48.0			60.6	
PF Factor	1.000	1.000		1.000	1.000			1.000			1.000	
Control Delay	143.8	25.4		39.5	48.9			95.6			97.6	
Lane Group LOS	F	C		D	D			F			F	
Approach Delay	49.2			48.8			95.6			97.6		
Approach LOS	D			D			F			F		
Intersection Delay	57.4			Intersection LOS						E		

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SHORT REPORT

General Information		Site Information	
Analyst	*Jacob Swim*	Intersection	*Main St. / Montecito Rd.*
Agency or Co.	*Urban Systems*	Area Type	*All other areas*
Date Performed	*11/7/2007*	Jurisdiction	*County of San Diego*
Time Period	*4 E + OP + P PM*	Analysis Year	*2007*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	1	2	0	1	2	0	0	1	0	0	1	0
Lane Group	L	TR		L	TR			LTR			LTR	
Volume (vph)	304	1335	79	35	1151	96	63	42	73	140	31	219
% Heavy Vehicles	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Pretimed/Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup Lost Time	2.0	2.0		2.0	2.0			2.0			2.0	
Extension of Effective Green	2.0	2.0		2.0	2.0			2.0			2.0	
Arrival Type	3	3		3	3			3			3	
Unit Extension	3.0	3.0		3.0	3.0			3.0			3.0	
Ped/Bike/RTOR Volume	10	0	0	10	0	11	10	0	7	10	0	33
Lane Width	12.0	12.0		12.0	12.0			12.0			12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/Hour												
Bus Stops/Hour	0	0		0	0			0			0	
Minimum Pedestrian Time		3.3			3.3			3.3			3.3	

Phasing	Excl. Left	EB Only	Thru & RT	04	NB Only	SB Only	07	08
Timing	G = 11.0	G = 4.0	G = 50.0	G =	G = 11.0	G = 20.0	G =	G =
	Y = 4	Y = 0	Y = 4	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 112.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	338	1571		39	1373			190			397	
Lane Group Capacity	294	1682		174	1567			168			301	
v/c Ratio	1.15	0.93		0.22	0.88			1.13			1.32	
Green Ratio	0.17	0.48		0.10	0.45			0.10			0.18	
Uniform Delay d_1	46.5	27.3		46.6	28.2			50.5			46.0	
Delay Factor k	0.50	0.45		0.11	0.40			0.50			0.50	
Incremental Delay d_2	99.3	10.1		0.7	5.9			109.0			165.0	
PF Factor	1.000	1.000		1.000	1.000			1.000			1.000	
Control Delay	145.8	37.5		47.2	34.1			159.5			211.0	
Lane Group LOS	F	D		D	C			F			F	
Approach Delay	56.6			34.5			159.5			211.0		
Approach LOS	E			C			F			F		
Intersection Delay	69.3			Intersection LOS						E		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*Jacob Swim*	Intersection	*Montecito Road @ Montecito Way*
Agency/Co.	*USAI*	Jurisdiction	*County of San Diego*
Date Performed	*11/7/2007*	Analysis Year	*2007*
Analysis Time Period	*5 E + O + P AM*		

Project Description *Montecito Ranch*

East/West Street: *Montecito Way* | North/South Street: *Montecito Road*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	2	21			35	114
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR (veh/h)	2	23	0	0	38	126
Percent Heavy Vehicles	2	–	–	2	–	–
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LT					TR
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				165		1
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR (veh/h)	0	0	0	183	0	1
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)	0			0		
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	0	0	0	0	0
Configuration					LR	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT						LR	
v (veh/h)	2						184	
C (m) (veh/h)	1391						829	
v/c	0.00						0.22	
95% queue length	0.00						0.85	
Control Delay (s/veh)	7.6						10.6	
LOS	A						B	
Approach Delay (s/veh)	–	–				10.6		
Approach LOS	–	–				B		

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TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*Jacob Swim*
Agency/Co.	*USAI*
Date Performed	*11/7/2007*
Analysis Time Period	*5 E + OP + P PM*

Site Information

Intersection	*Montecito Road @ Montecito Way*
Jurisdiction	*County of San Diego*
Analysis Year	*2007*

Project Description *Montecito Ranch*

East/West Street: *Montecito Way* | North/South Street: *Montecito Road*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	2	66			15	183
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR (veh/h)	2	73	0	0	16	203
Percent Heavy Vehicles	2	–	–	2	–	–
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LT					TR
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				110		1
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR (veh/h)	0	0	0	122	0	1
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	0	0	0	0	0
Configuration					LR	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT						LR	
v (veh/h)	2						123	
C (m) (veh/h)	1328						760	
v/c	0.00						0.16	
95% queue length	0.00						0.58	
Control Delay (s/veh)	7.7						10.6	
LOS	A						B	
Approach Delay (s/veh)	–	–				10.6		
Approach LOS	--	--				B		

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SHORT REPORT

General Information		Site Information	
Analyst	*Justin Schlaefli*	Intersection	*Highland Valley Rd. / SR-67*
Agency or Co.	*Urban Systems*	Area Type	*All other areas*
Date Performed	*06/15/2006*	Jurisdiction	*County of San Diego*
Time Period	*6 E+OP+P AM*	Analysis Year	*2006*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	1	1	0	1	1	0	1	1	1	1	1	1
Lane Group	L	TR		L	TR		L	T	R	L	T	R
Volume (vph)	105	18	10	542	61	39	4	657	120	54	1532	201
% Heavy Vehicles	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Pretimed/Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup Lost Time	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Arrival Type	3	3		3	3		3	3	3	3	3	3
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	0	0	10	0	6	10	0	0	10	0	11
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/Hour												
Bus Stops/Hour	0	0		0	0		0	0	0	0	0	0
Minimum Pedestrian Time		3.3			3.3			3.3			3.3	

Phasing	Excl. Left	WB Only	Thru & RT	04	Excl. Left	Thru & RT	07	08
Timing	G = 19.0	G = 4.0	G = 5.0	G =	G = 5.0	G = 71.0	G =	G =
	Y = 4	Y = 0	Y = 4	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 120.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	111	30		571	99		4	692	126	57	1613	200
Lane Group Capacity	280	70		398	129		74	1102	930	74	1102	930
v/c Ratio	0.40	0.43		1.43	0.77		0.05	0.63	0.14	0.77	1.46	0.22
Green Ratio	0.16	0.04		0.22	0.08		0.04	0.59	0.59	0.04	0.59	0.59
Uniform Delay d_1	45.4	56.1		46.5	54.5		55.2	15.9	10.9	56.9	24.5	11.5
Delay Factor k	0.11	0.11		0.50	0.32		0.11	0.21	0.11	0.32	0.50	0.11
Incremental Delay d_2	0.9	4.2		209.5	23.9		0.3	1.1	0.1	38.2	213.7	0.1
PF Factor	1.000	1.000		1.000	1.000		1.000	1.000	1.000	1.000	1.000	1.000
Control Delay	46.3	60.3		256.0	78.4		55.5	17.1	10.9	95.1	238.2	11.6
Lane Group LOS	D	E		F	E		E	B	B	F	F	B
Approach Delay	49.3			229.8			16.3			209.6		
Approach LOS	D			F			B			F		
Intersection Delay	161.7			Intersection LOS						F		

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SHORT REPORT

General Information		Site Information	
Analyst	*Jacob Swim*	Intersection	*Highland Valley Rd. / SR-67*
Agency or Co.	*Urban Systems*	Area Type	*All other areas*
Date Performed	*10/5/2007*	Jurisdiction	*County of San Diego*
Time Period	*6 E+OP+P PM*	Analysis Year	*2007*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	1	1	0	2	1	0	1	1	1	1	1	1
Lane Group	L	TR		L	TR		L	T	R	L	T	R
Volume (vph)	223	116	14	77	18	41	9	1088	361	98	810	72
% Heavy Vehicles	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Pretimed/Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup Lost Time	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Arrival Type	3	3		3	3		3	3	3	3	3	3
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	0	0	10	0	6	10	0	0	10	0	15
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/Hour												
Bus Stops/Hour	0	0		0	0		0	0	0	0	0	0
Minimum Pedestrian Time		3.3			3.3			3.3			3.3	

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 7.0	G = 5.0	G =	G =	G = 5.0	G = 76.0	G =	G =
	Y = 4	Y = 4	Y =	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 109.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	235	137		81	56		9	1145	380	103	853	60
Lane Group Capacity	114	83		221	71		81	1299	1255	81	1299	1096
v/c Ratio	2.06	1.65		0.37	0.79		0.11	0.88	0.30	1.27	0.66	0.05
Green Ratio	0.06	0.05		0.06	0.05		0.05	0.70	0.80	0.05	0.70	0.70
Uniform Delay d_1	51.0	52.0		48.9	51.5		49.9	13.0	2.9	52.0	9.2	5.2
Delay Factor k	0.50	0.50		0.11	0.34		0.11	0.41	0.11	0.50	0.23	0.11
Incremental Delay d_2	506.5	340.1		1.0	43.5		0.6	7.4	0.1	189.4	1.2	0.0
PF Factor	1.000	1.000		1.000	1.000		1.000	1.000	1.000	1.000	1.000	1.000
Control Delay	557.5	392.1		49.9	95.0		50.5	20.3	3.1	241.4	10.4	5.2
Lane Group LOS	F	F		D	F		D	C	A	F	B	A
Approach Delay	496.6			68.3			16.2			33.5		
Approach LOS	F			E			B			C		
Intersection Delay	82.7			Intersection LOS						F		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*Jacob Swim*	Intersection	*Archie Moore Rd. / SR-67*
Agency/Co.	*Urban Systems*	Jurisdiction	*County of San Diego*
Date Performed	*10/5/2007*	Analysis Year	*2007*
Analysis Time Period			

Project Description *5703 Montecito Ranch*

East/West Street: *Archie Moore Rd.*	North/South Street: *SR-67*
Intersection Orientation: *North-South*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*181*	*568*			*1980*	*80*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*181*	*568*	*0*	*0*	*1980*	*80*
Percent Heavy Vehicles	*2*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*1*	*2*	*0*	*0*	*1*	*1*
Configuration	*L*	*T*			*T*	*R*
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*31*		*205*			
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*31*	*0*	*205*	*0*	*0*	*0*
Percent Heavy Vehicles	*2*	*0*	*2*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*1*	*0*	*1*	*0*	*0*	*0*
Configuration	*L*		*R*			

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*					*L*		*R*
v (veh/h)	*181*					*31*		*205*
C (m) (veh/h)	*268*					*6*		*51*
v/c	*0.68*					*5.17*		*4.02*
95% queue length	*4.43*					*5.31*		*22.64*
Control Delay (s/veh)	*42.4*					*3050*		*1523*
LOS	*E*					*F*		*F*
Approach Delay (s/veh)	--	--				*1723*		
Approach LOS	--	--				*F*		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*Jacob Swim*	Intersection	*Archie Moore Rd. / SR-67*
Agency/Co.	*Urban Systems*	Jurisdiction	*County of San Diego*
Date Performed	*10/5/2007*	Analysis Year	*2007*
Analysis Time Period			

Project Description *5703 Montecito Ranch*

East/West Street: *Archie Moore Rd.* North/South Street: *SR-67*

Intersection Orientation: *North-South* Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	455	1866			768	69
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR (veh/h)	455	1866	0	0	768	69
Percent Heavy Vehicles	2	–	–	0	–	–
Median Type	Undivided					
RT Channelized			0			0
Lanes	1	2	0	0	1	1
Configuration	L	T			T	R
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	48		84			
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR (veh/h)	48	0	84	0	0	0
Percent Heavy Vehicles	2	0	2	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	1	0	1	0	0	0
Configuration	L		R			

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L					L		R
v (veh/h)	455					48		84
C (m) (veh/h)	793					9		336
v/c	0.57					5.33		0.25
95% queue length	3.71					7.33		0.97
Control Delay (s/veh)	15.5					2762		19.2
LOS	C					F		C
Approach Delay (s/veh)	–	–				1017		
Approach LOS	–	–				F		

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APPENDIX I

Series 10 Year 2030 Travel Forecast Plot

Intersection 1

Analyst: Kat Villavicencio
Intersection: Ash Street at Pine Street
Future Condition: Buildout + Project
Date: 6/15/2006
Company: Urban Systems
Project Number: 5703

turn movement	Buildout turn (v) AM	Buildout turn (v) PM	Project Only turn (v) AM	Project Only turn (v) PM	BO + P turn (v) AM	BO + P turn (v) PM
NLT	77	90	73	120	150	210
NTH	896	679	0	0	896	679
NRT	23	46	0	0	23	46
SLT	23	57	0	0	23	57
STH	813	1182	0	0	813	1,182
SRT	51	110	11	19	.62	129
ELT	11	7	17	10	28	17
ETH	1	17	17	10	18	27
ERT	10	38	103	62	113	100
WLT	6	9	0	0	6	9
WTH	23	1	11	19	34	20
WRT	9	3	0	0	9	3

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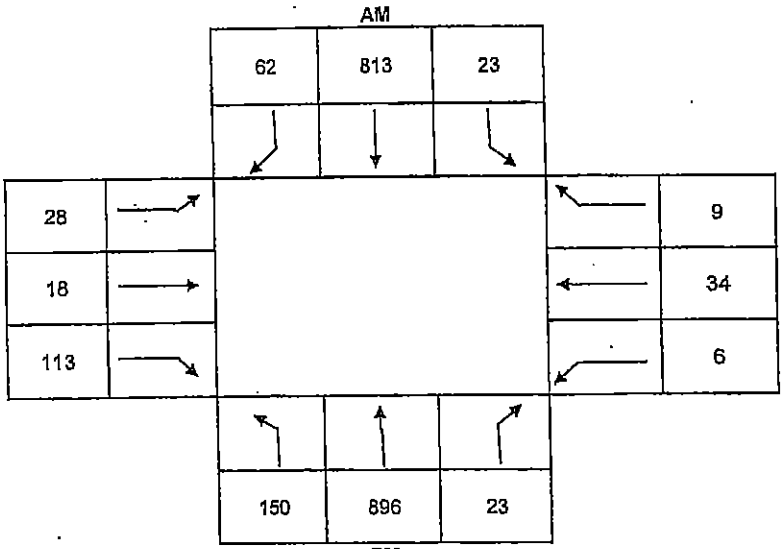

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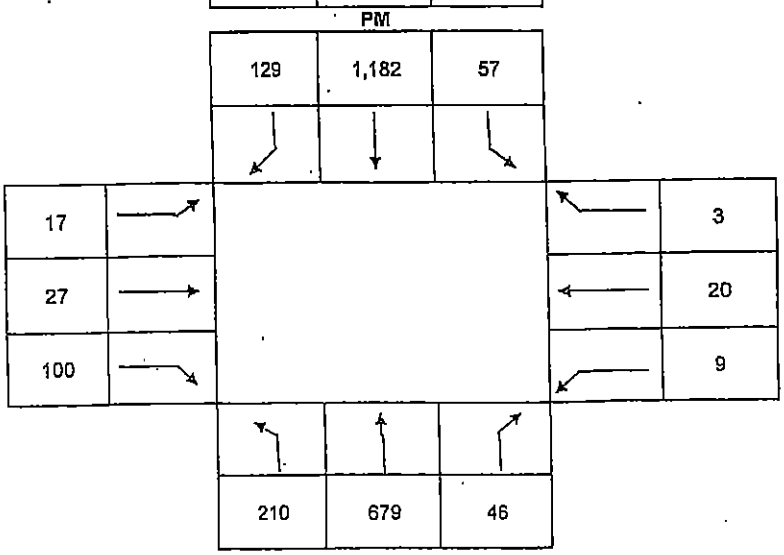

Intersection 2

Analyst: Kat Villavicencio
Intersection: Olive Street at Pine Street
Future Condition: Buildout + Project
Date: 6/15/2006
Company: Urban Systems
Project Number: 5703

turn movement	Buildout turn (v) AM	Buildout turn (v) PM	Project Only turn (v) AM	Project Only turn (v) PM	BO + P turn (v) AM	BO + P turn (v) PM
NLT	9	15	0	0	9	15
NTH	993	727	54	89	1,047	816
NRT	4	13	0	0	4	13
SLT	6	5	20	12	26	17
STH	740	1116	77	46	817	1,162
SRT	1	11	7	4	8	15
ELT	7	2	5	8	12	10
ETH	2	2	0	0	2	2
ERT	13	11	0	0	13	11
WLT	5	5	0	0	5	5
WTH	2	2	0	0	2	2
WRT	4	6	14	23	18	29

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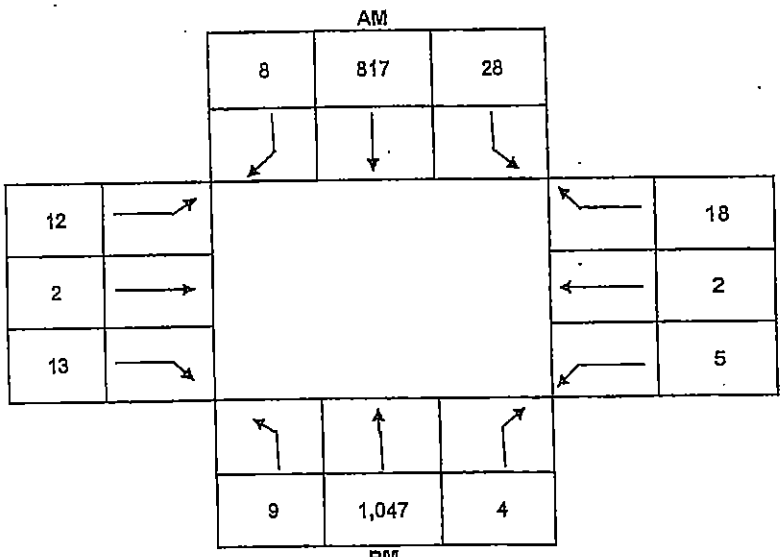

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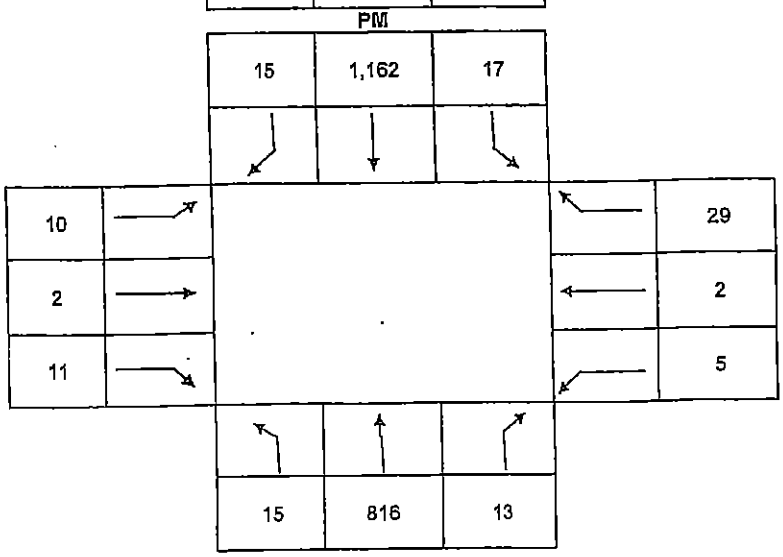
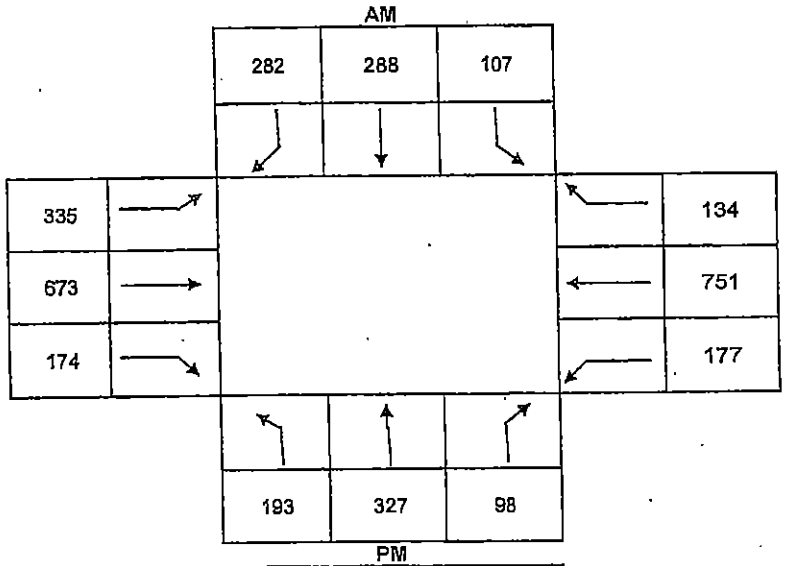


Intersection 3

Analyst: Kat Villavicencio
Intersection: Main Street at Pine Street/10th Street
Future Condition: Buildout + Project
Date: 6/15/2006
Company: Urban Systems
Project Number: 5703

turn movement	Buildout turn (v) AM	Buildout turn (v) PM	Project Only turn (v) AM	Project Only turn (v) PM	BO + P turn (v) AM	BO + P turn (v) PM
NLT	193	178	0	0	193	178
NTH	308	224	19	31	327	255
NRT	98	156	0	0	98	156
SLT	97	150	10	6	107	156
STH	261	429	27	16	288	445
SRT	242	359	40	24	282	383
ELT	307	317	28	46	335	363
ETH	673	1287	0	0	673	1,287
ERT	174	359	0	0	174	359
WLT	177	196	0	0	177	196
WTH	751	778	0	0	751	778
WRT	127	142	7	11	134	153

AM



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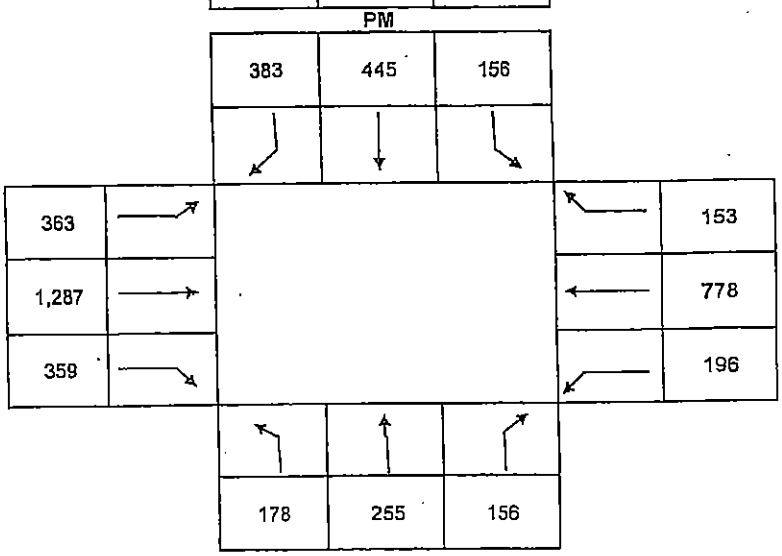
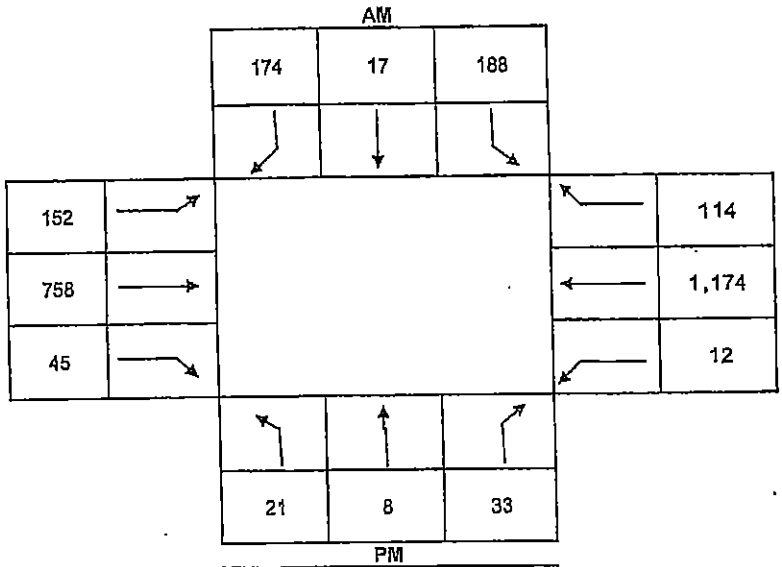


Intersection 4

Analyst: Kat Villavicencio
Intersection: Main Street at Montecito Road
Future Condition: Buildout + Project
Date: 6/15/2006
Company: Urban Systems
Project Number: 5703

turn movement	Buildout turn (v) AM	Buildout turn (v) PM	Project Only turn (v) AM	Project Only turn (v) PM	BO + P turn (v) AM	BO + P turn (v) PM
NLT	21	65	0	0	21	65
NTH	8	45	0	0	8	45
NRT	33	75	0	0	33	75
SLT	188	138	0	0	188	138
STH	17	47	0	0	17	47
SRT	174	164	0	0	174	164
ELT	152	199	0	0	152	199
ETH	751	1219	7	12	758	1,231
ERT	45	119	0	0	45	119
WLT	12	53	0	0	12	53
WTH	1164	1170	10	6	1,174	1,176
WRT	114	90	0	0	114	90

AM



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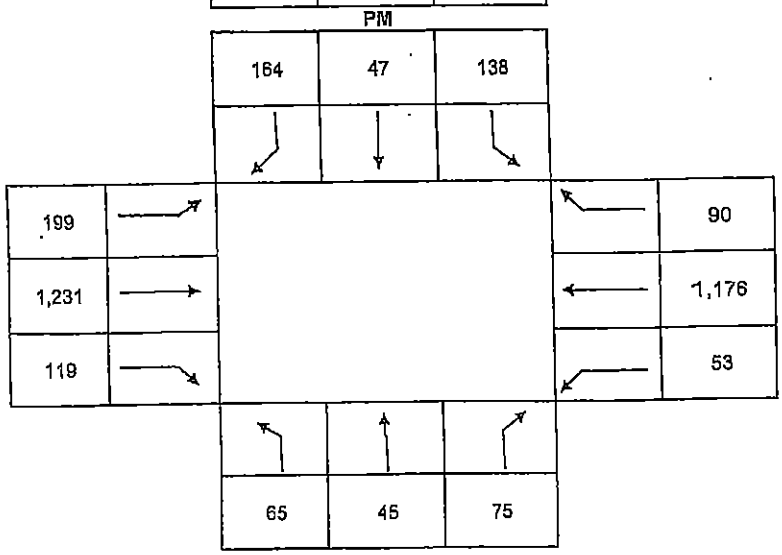
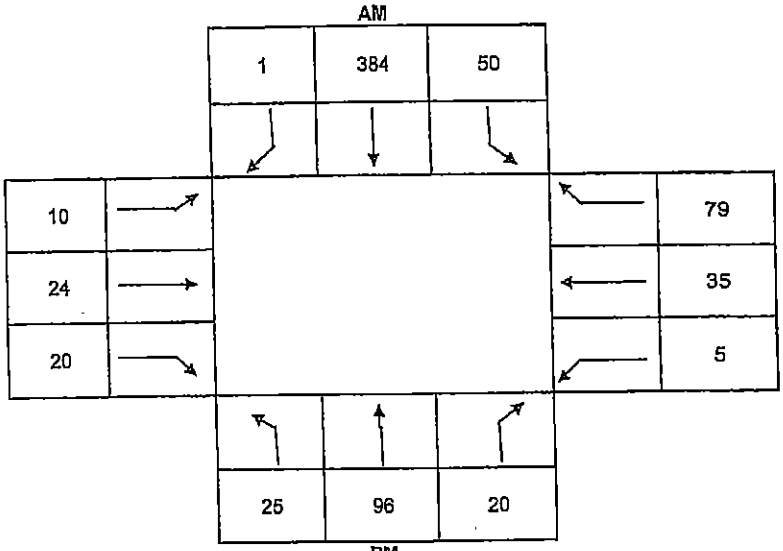


Intersection 5

Analyst: Kat Villavicendo
Intersection: Montecito Road at Montecito Way
Future Condition: Buildout + Project
Date: 6/15/2006
Company: Urban Systems
Project Number: 5703

turn movement	Buildout turn (v) AM	Buildout turn (v) PM	Project Only turn (v) AM	Project Only turn (v) PM	BO + P turn (v) AM	BO + P turn (v) PM
NLT	25	10	0	0	25	10
NTH	96	280	0	162	96	442
NRT	20	15	0	0	20	15
SLT	47	51	3	2	50	53
STH	244	120	140	84	384	204
SRT	1	1	0	0	1	1
ELT	10	10	0	0	10	10
ETH	24	84	0	0	24	84
ERT	20	50	0	0	20	50
WLT	5	10	0	0	5	10
WTH	35	15	0	0	35	15
WRT	77	105	2	4	79	109

AM



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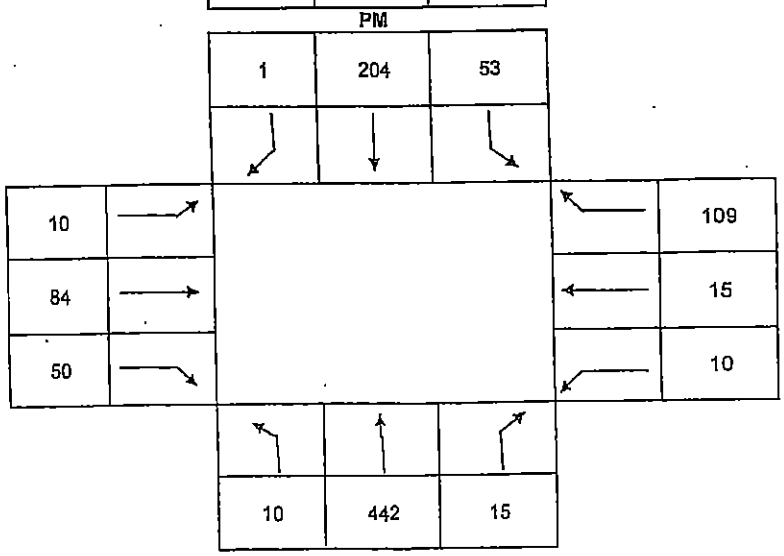
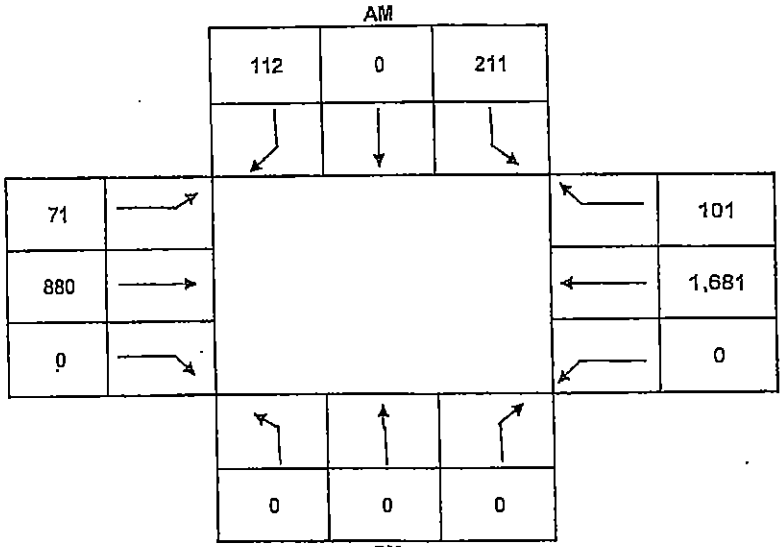


Intersection 6

Analyst: Kat Villavicencio
Intersection: Main Street (SR-67) at SA-330
Future Condition: Buildout + Project
Date: 6/15/2006
Company: Urban Systems
Project Number: 5703

turn movement	Buildout turn (v) AM	Buildout turn (v) PM	Project Only turn (v) AM	Project Only turn (v) PM	BO + P turn (v) AM	BO + P turn (v) PM
NLT	0	0	0	0	0	0
NTH	0	0	0	0	0	0
NRT	0	0	0	0	0	0
SLT	171	91	40	24	211	115
STH	0	0	0	0	0	0
SRT	28	93	84	50	112	143
ELT	12	35	59	97	71	132
ETH	880	1739	0	0	880	1,739
ERT	0	0	0	0	0	0
WLT	0	0	0	0	0	0
WTH	1681	1272	0	0	1,681	1,272
WRT	73	213	28	46	101	259

AM



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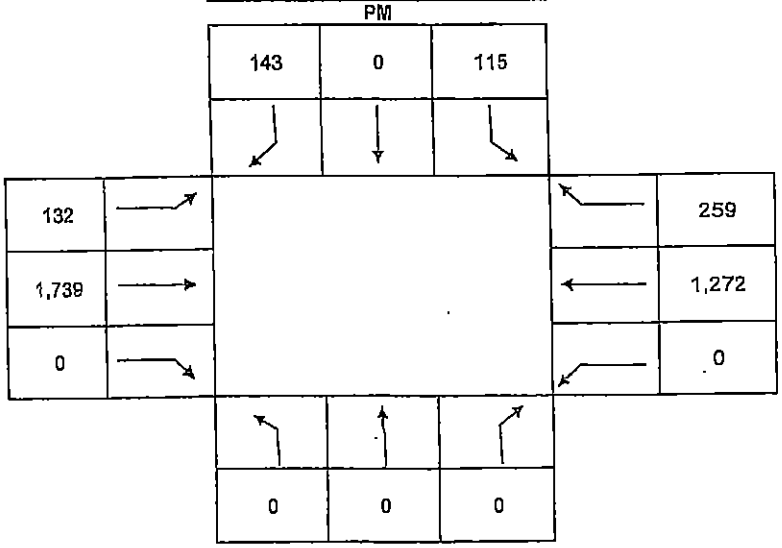
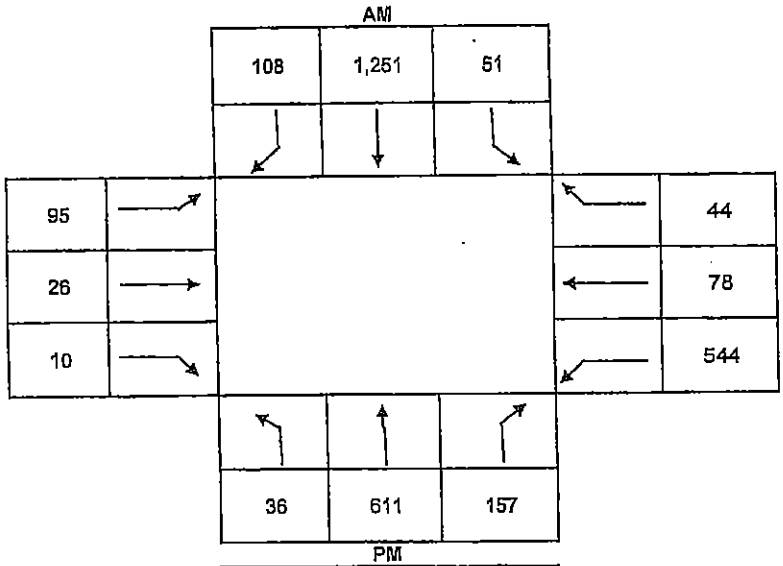


Intersection 7

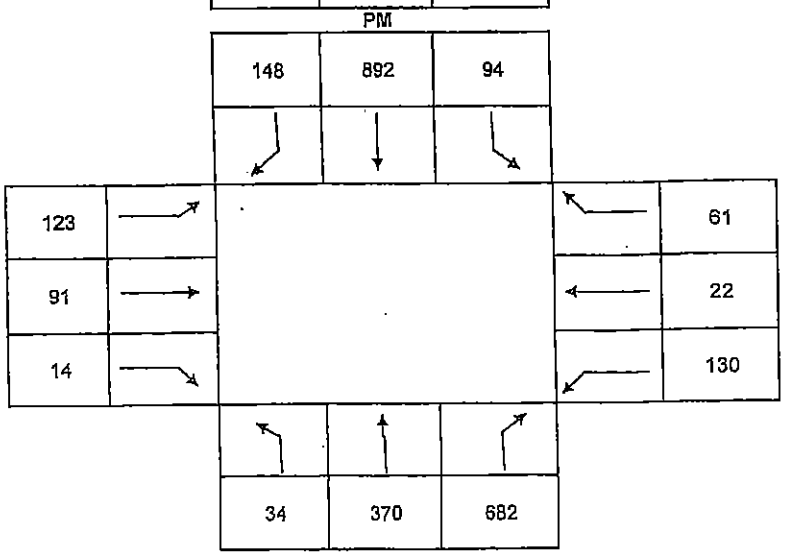
Analyst: Kat Villavicencio
Intersection: SR-67 at Dye Road and Highland Valley Road
Future Condition: Buildout + Project
Date: 6/15/2006
Company: Urban Systems
Project Number: 5703

turn movement	Buildout turn (v) AM	Buildout turn (v) PM	Project Only turn (v) AM	Project Only turn (v) PM	BO + P turn (v) AM	BO + P turn (v) PM
NLT	36	34	0	0	36	34
NTH	569	301	42	69	611	370
NRT	157	682	0	0	157	682
SLT	41	88	10	6	51	94
STH	1191	856	60	36	1,251	892
SRT	95	140	13	8	108	148
ELT	86	108	9	15	95	123
ETH	26	91	0	0	26	91
ERT	10	14	0	0	10	14
WLT	544	130	0	0	544	130
WTH	78	22	0	0	78	22
WRT	37	49	7	12	44	61

AM



PM

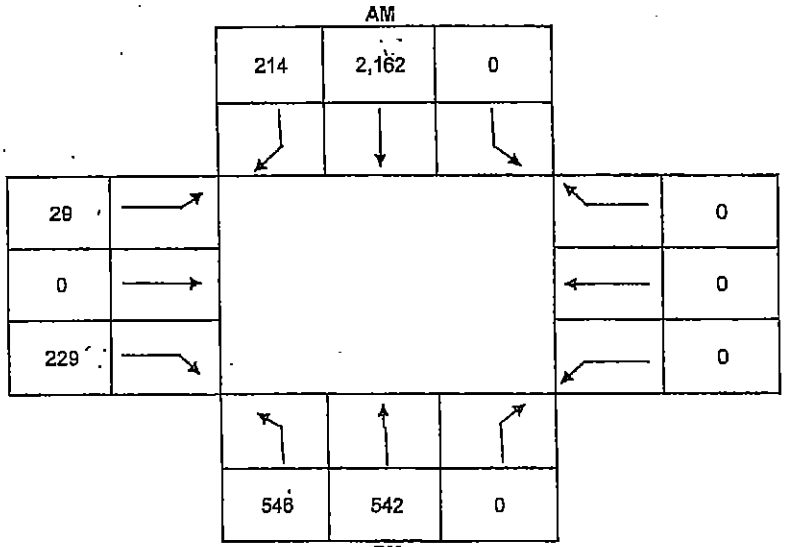


Intersection 8

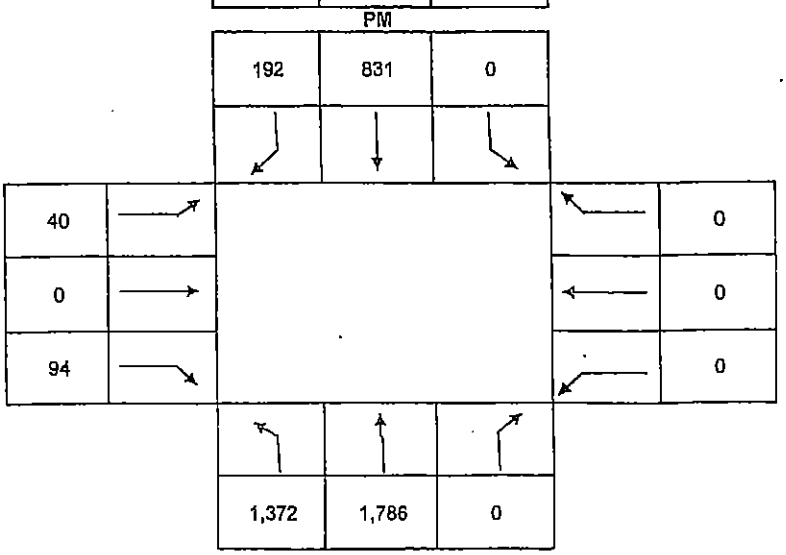
Analyst: Kat Villavicencio
Intersection: SR-67 at Archie Moore Road
Future Condition: Buildout + Project
Date: 6/15/2006
Company: Urban Systems
Project Number: 5703

turn movement	Buildout turn (v) AM	Buildout turn (v) PM	Project Only turn (v) AM	Project Only turn (v) PM	BO + P turn (v) AM	BO + P turn (v) PM
NLT	546	1372	0	0	546	1,372
NTH	507	1728	35	58	542	1,786
NRT	0	0	0	0	0	0
SLT	0	0	0	0	0	0
STH	2112	801	50	30	2,162	831
SRT	204	186	10	6	214	192
ELT	22	28	7	12	29	40
ETH	0	0	0	0	0	0
ERT	229	94	0	0	229	94
WLT	0	0	0	0	0	0
WTH	0	0	0	0	0	0
WRT	0	0	0	0	0	0

AM

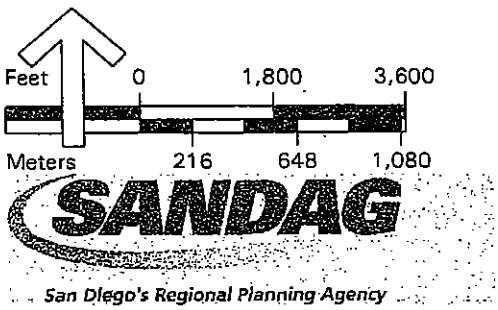


PM



Montecito Ranch

Select Zone Analysis



April 22, 2005

APPENDIX J

Year 2030 Without Project HCS Worksheets

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*Devin Carlisto*	Intersection	*1*
Agency/Co.	*USAI*	Jurisdiction	*County of San Diego*
Date Performed	*7/4/2004*	Analysis Year	*Build out*
Analysis Time Period	*AM*		
Project Description	*Montecito Ranch*		
East/West Street:	*Ash Street*	North/South Street:	*Pine Street (SR-78)*
Intersection Orientation:	*North-South*	Study Period (hrs):	*0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	77	896	23	23	813	51
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	85	995	25	25	903	56
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	1	1	0	1	1	0
Configuration	L		TR	L		TR
Upstream Signal		0			0	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	6	23	9	11	1	10
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	6	25	10	12	1	11
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L	L		LTR			LTR	
v (vph)	85	25		41			24	
C (m) (vph)	705	668		44			23	
v/c	0.12	0.04		0.93			1.04	
95% queue length	0.41	0.12		3.74			3.06	
Control Delay	10.8	10.6		257.3			442.6	
LOS	B	B		F			F	
Approach Delay	--	--	257.3			442.6		
Approach LOS	--	--	F			F		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*Devin Carlisto*	Intersection	*1*
Agency/Co.	*USAI*	Jurisdiction	*County of San Diego*
Date Performed	*7/4/2004*	Analysis Year	*Buildout*
Analysis Time Period	*PM*		
Project Description	*Montecito Ranch*		
East/West Street:	*Ash Street*	North/South Street:	*Pine Street (SR-78)*
Intersection Orientation:	*North-South*	Study Period (hrs):	*0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*90*	*679*	*46*	*57*	*1182*	*110*
Peak-Hour Factor, PHF	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*
Hourly Flow Rate, HFR	*100*	*754*	*51*	*63*	*1313*	*122*
Percent Heavy Vehicles	*2*	–	–	*2*	–	–
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*1*	*1*	*0*	*1*	*1*	*0*
Configuration	*L*		*TR*	*L*		*TR*
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*9*	*1*	*3*	*7*	*17*	*38*
Peak-Hour Factor, PHF	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*
Hourly Flow Rate, HFR	*10*	*1*	*3*	*7*	*18*	*42*
Percent Heavy Vehicles	*2*	*2*	*2*	*2*	*2*	*2*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*	*L*		*LTR*			*LTR*	
v (vph)	*100*	*63*		*14*			*67*	
C (m) (vph)	*465*	*805*		*4*			*41*	
v/c	*0.22*	*0.08*		*3.50*			*1.63*	
95% queue length	*0.81*	*0.25*		*3.00*			*6.89*	
Control Delay	*14.9*	*9.9*		*2784*			*526.9*	
LOS	*B*	*A*		*F*			*F*	
Approach Delay	--	--	*2784*			*526.9*		
Approach LOS	--	--	*F*			*F*		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*Jacob Swim*	Intersection	*Olive Street / Pine Street*
Agency/Co.	*USAI*	Jurisdiction	*County of San Diego*
Date Performed	*3/9/2006*	Analysis Year	*2006*
Analysis Time Period	*2 Build out AM*		
Project Description	*Montecito Ranch*		
East/West Street:	*Olive Street*	North/South Street:	*Pine Street (SR-78)*
Intersection Orientation:	*North-South*	Study Period (hrs):	*0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	9	993	4	6	740	1
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	10	1103	4	6	822	1
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	1	1	0	1	1	0
Configuration	L		TR	L		TR
Upstream Signal		0			0	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	5	2	4	7	2	13
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	5	2	4	7	2	14
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L	L		LTR			LTR	
v (vph)	10	6		11			23	
C (m) (vph)	793	620		64			96	
v/c	0.01	0.01		0.17			0.24	
95% queue length	0.04	0.03		0.57			0.86	
Control Delay	9.6	10.9		72.6			53.9	
LOS	A	B		F			F	
Approach Delay	--	--	72.6			53.9		
Approach LOS	--	--	F			F		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*Jacob Swim*	Intersection	*Olive Street / Pine Street*
Agency/Co.	*USAI*	Jurisdiction	*County of San Diego*
Date Performed	*3/9/2006*	Analysis Year	*2006*
Analysis Time Period	*2 Build out PM*		
Project Description	*Montecito Ranch*		
East/West Street:	*Olive Street*	North/South Street:	*Pine Street (SR-78)*
Intersection Orientation:	*North-South*	Study Period (hrs):	*0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*15*	*727*	*13*	*5*	*1116*	*11*
Peak-Hour Factor, PHF	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*
Hourly Flow Rate, HFR	*16*	*807*	*14*	*5*	*1240*	*12*
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*1*	*1*	*0*	*1*	*1*	*0*
Configuration	*L*		*TR*	*L*		*TR*
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*5*	*2*	*6*	*2*	*2*	*11*
Peak-Hour Factor, PHF	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*
Hourly Flow Rate, HFR	*5*	*2*	*6*	*2*	*2*	*12*
Percent Heavy Vehicles	*2*	*2*	*2*	*2*	*2*	*2*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*	*L*		*LTR*			*LTR*	
v (vph)	*16*	*5*		*13*			*16*	
C (m) (vph)	*546*	*794*		*59*			*97*	
v/c	*0.03*	*0.01*		*0.22*			*0.16*	
95% queue length	*0.09*	*0.02*		*0.75*			*0.56*	
Control Delay	*11.8*	*9.6*		*82.5*			*49.3*	
LOS	*B*	*A*		*F*			*E*	
Approach Delay	--	--	*82.5*			*49.3*		
Approach LOS	--	--	*F*			*E*		

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SHORT REPORT

General Information		Site Information	
Analyst	Devin Carlisto	Intersection	3
Agency or Co.	Urban Systems	Area Type	All other areas
Date Performed	7/4/2004	Jurisdiction	County of San Diego
Time Period	AM	Analysis Year	Build out

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	1	2	0	1	1	1	0	1	0
Lane group	L	TR		L	TR		L	T	R		LTR	
Volume (vph)	307	673	174	177	751	127	193	308	98	97	261	242
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0	2.0		2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0	2.0		2.0	
Arrival type	3	3		3	3		3	3	3		3	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0		3.0	
Ped/Bike/RTOR Volume	10	0	26	10	0	13	10	0	0	10	0	24
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0		12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0	0		0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0		3.0	

Phasing	Excl. Left	Thru & RT	03	04	NB Only	SB Only	07	08
Timing	G = 10.0	G = 21.0	G =	G =	G = 11.0	G = 20.0	G =	G =
	Y = 4	Y = 4	Y =	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 78.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	323	864		186	911		203	324	103		606	
Lane group cap.	227	926		227	934		250	263	219		447	
v/c ratio	1.42	0.93		0.82	0.98		0.81	1.23	0.47		1.36	
Green ratio	0.13	0.27		0.13	0.27		0.14	0.14	0.14		0.26	
Unif. delay d1	34.0	27.8		33.1	28.2		32.5	33.5	30.8		29.0	
Delay factor k	0.50	0.45		0.36	0.48		0.35	0.50	0.11		0.50	
Increm. delay d2	214.0	15.9		20.6	23.5		18.1	132.9	1.6		174.2	
PF factor	1.000	1.000		1.000	1.000		1.000	1.000	1.000		1.000	
Control delay	248.0	43.7		53.7	51.8		50.6	166.4	32.4		203.2	
Lane group LOS	F	D		D	D		D	F	C		F	
Apprch. delay	99.3			52.1			107.2			203.2		
Approach LOS	F			D			F			F		
Intersec. delay	103.9			Intersection LOS						F		

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SHORT REPORT

General Information		Site Information	
Analyst	Devin Carlisto	Intersection	3
Agency or Co.	Urban Systems	Area Type	All other areas
Date Performed	7/4/2004	Jurisdiction	County of San Diego
Time Period	PM	Analysis Year	Existing

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	1	2	0	1	1	1	0	1	0
Lane group	L	TR		L	TR		L	T	R		LTR	
Volume (vph)	317	1287	359	196	778	142	178	224	156	150	429	359
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0	2.0		2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0	2.0		2.0	
Arrival type	3	3		3	3		3	3	3		3	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0		3.0	
Ped/Bike/RTOR Volume	10		54	10		21	10	0	0	10	0	54
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0		12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0	0		0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0		3.0	

Phasing	Excl. Left	EB Only	Thru & RT	04	NB Only	SB Only	07	08
Timing	G = 8.0	G = 5.0	G = 33.0	G =	G = 8.0	G = 27.0	G =	G =
	Y = 4	Y = 0	Y = 4	Y =	Y = 4	Y = 4	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 97.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	334	1676		206	946		187	236	164		931	
Lane group cap.	310	1350		146	1182		146	154	252		489	
v/c ratio	1.08	1.24		1.41	0.80		1.28	1.53	0.65		1.90	
Green ratio	0.18	0.39		0.08	0.34		0.08	0.08	0.16		0.28	
Unif. delay d1	40.0	29.5		44.5	29.0		44.5	44.5	37.9		35.0	
Delay factor k	0.50	0.50		0.50	0.34		0.50	0.50	0.23		0.50	
Increm. delay d2	73.3	115.1		220.4	4.0		168.5	269.5	5.8		414.4	
PF factor	1.000	1.000		1.000	1.000		1.000	1.000	1.000		1.000	
Control delay	113.3	144.6		264.9	33.0		213.0	314.0	43.7		449.4	
Lane group LOS	F	F		F	C		F	F	D		F	
Apprch. delay	139.4			74.5			206.3			449.4		
Approach LOS	F			E			F			F		
Intersec. delay	193.5			Intersection LOS						F		

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SHORT REPORT

General Information		Site Information	
Analyst	*Jacob Swim*	Intersection	*Main St. / Montecito Rd.*
Agency or Co.	*Urban Systems*	Area Type	*All other areas*
Date Performed	*11/7/07*	Jurisdiction	*County of San Diego*
Time Period	*4 Buildout AM*	Analysis Year	*2030*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	1	2	0	1	2	0	0	1	0	0	1	0
Lane Group	L	TR		L	TR			LTR			LTR	
Volume (vph)	152	751	45	12	1164	114	21	8	33	188	17	174
% Heavy Vehicles	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Pretimed/Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup Lost Time	2.0	2.0		2.0	2.0			2.0			2.0	
Extension of Effective Green	2.0	2.0		2.0	2.0			2.0			2.0	
Arrival Type	3	3		3	3			3			3	
Unit Extension	3.0	3.0		3.0	3.0			3.0			3.0	
Ped/Bike/RTOR Volume	10	0	0	10	0	11	10	0	5	10	0	26
Lane Width	12.0	12.0		12.0	12.0			12.0			12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/Hour												
Bus Stops/Hour	0	0		0	0			0			0	
Minimum Pedestrian Time		3.3			3.3			3.3			3.3	

Phasing	Excl. Left	Thru & RT	03	04	NB Only	SB Only	07	08
Timing	G = 8.0	G = 40.0	G =	G =	G = 5.0	G = 22.0	G =	G =
	Y = 4	Y = 4	Y =	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 91.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	169	884		13	1407			63			392	
Lane Group Capacity	156	1545		156	1538			91			412	
v/c Ratio	1.08	0.57		0.08	0.91			0.69			0.95	
Green Ratio	0.09	0.44		0.09	0.44			0.05			0.24	
Uniform Delay d_1	41.5	19.1		38.1	23.9			42.2			34.0	
Delay Factor k	0.50	0.17		0.11	0.43			0.26			0.46	
Incremental Delay d_2	96.1	0.5		0.2	8.9			20.2			32.1	
PF Factor	1.000	1.000		1.000	1.000			1.000			1.000	
Control Delay	137.6	19.6		38.4	32.8			62.4			66.0	
Lane Group LOS	F	B		D	C			E			E	
Approach Delay	38.5			32.8			62.4			66.0		
Approach LOS	D			C			E			E		
Intersection Delay	40.0			Intersection LOS						D		

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SHORT REPORT

General Information		Site Information	
Analyst	*Jacob Swim*	Intersection	*Main St. / Montecito Rd.*
Agency or Co.	*Urban Systems*	Area Type	*All other areas*
Date Performed	*11/7/07*	Jurisdiction	*County of San Diego*
Time Period	*4 Buildout PM*	Analysis Year	*2030*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	1	2	0	1	2	0	0	1	0	0	1	0
Lane Group	L	TR		L	TR			LTR			LTR	
Volume (vph)	199	1219	119	53	1170	90	65	45	75	138	47	164
% Heavy Vehicles	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Pretimed/Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup Lost Time	2.0	2.0		2.0	2.0			2.0			2.0	
Extension of Effective Green	2.0	2.0		2.0	2.0			2.0			2.0	
Arrival Type	3	3		3	3			3			3	
Unit Extension	3.0	3.0		3.0	3.0			3.0			3.0	
Ped/Bike/RTOR Volume	10	0	15	10	0	9	10	0	0	10	0	0
Lane Width	12.0	12.0		12.0	12.0			12.0			12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/Hour												
Bus Stops/Hour	0	0		0	0			0			0	
Minimum Pedestrian Time		3.3			3.3			3.3			3.3	

Phasing	Excl. Left	EB Only	Thru & RT	04	NB Only	SB Only	07	08
Timing	G = 5.0	G = 7.0	G = 43.0	G =	G = 17.0	G = 30.0	G =	G =
	Y = 4	Y = 0	Y = 4	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 118.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	209	1392		56	1317			194			367	
Lane Group Capacity	240	1484		75	1279			247			432	
v/c Ratio	0.87	0.94		0.75	1.03			0.79			0.85	
Green Ratio	0.14	0.42		0.04	0.36			0.14			0.25	
Uniform Delay d_1	50.0	32.5		55.9	37.5			48.7			41.9	
Delay Factor k	0.40	0.45		0.30	0.50			0.33			0.38	
Incremental Delay d_2	27.4	11.7		33.1	33.1			15.3			14.8	
PF Factor	1.000	1.000		1.000	1.000			1.000			1.000	
Control Delay	77.4	44.2		89.0	70.6			64.1			56.6	
Lane Group LOS	E	D		F	E			E			E	
Approach Delay	48.5			71.3			64.1			56.6		
Approach LOS	D			E			E			E		
Intersection Delay	59.1			Intersection LOS						E		

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TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*Jacob Swim*
Agency/Co.	*USAI*
Date Performed	*11/7/07*
Analysis Time Period	*5 Buildout AM*

Site Information

Intersection	*Montecito Rd. / Montecito Way*
Jurisdiction	*County of San Diego*
Analysis Year	*2030*

Project Description *Montecito Ranch*

East/West Street: *Montecito Road* | North/South Street: *Montecito Way*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	10	24			35	77
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR (veh/h)	11	26	0	0	38	85
Percent Heavy Vehicles	2	–	–	2	–	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LT					TR
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				47		1
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR (veh/h)	0	0	0	52	0	1
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	0	0	0	0	0
Configuration					LR	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT						LR	
v (veh/h)	11						53	
C (m) (veh/h)	1440						826	
v/c	0.01						0.06	
95% queue length	0.02						0.21	
Control Delay (s/veh)	7.5						9.7	
LOS	A						A	
Approach Delay (s/veh)	–	–				9.7		
Approach LOS	–	–				A		

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TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*Jacob Swim*
Agency/Co.	*USAI*
Date Performed	*11/7/07*
Analysis Time Period	*5 Buildout PM*

Site Information

Intersection	*Montecito Rd. / Montecito Way*
Jurisdiction	*County of San Diego*
Analysis Year	*2030*

Project Description *Montecito Ranch*

East/West Street: *Montecito Road* | North/South Street: *Montecito Way*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*10*	*84*			*15*	*105*
Peak-Hour Factor, PHF	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*11*	*93*	*0*	*0*	*16*	*116*
Percent Heavy Vehicles	*2*	–	–	*2*	–	–
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LT*					*TR*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				*51*		*1*
Peak-Hour Factor, PHF	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*56*	*0*	*1*
Percent Heavy Vehicles	*2*	*2*	*2*	*2*	*2*	*2*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration					*LR*	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*						*LR*	
v (veh/h)	*11*						*57*	
C (m) (veh/h)	*1429*						*763*	
v/c	*0.01*						*0.07*	
95% queue length	*0.02*						*0.24*	
Control Delay (s/veh)	*7.5*						*10.1*	
LOS	*A*						*B*	
Approach Delay (s/veh)	–	–				*10.1*		
Approach LOS	–	–				*B*		

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	Highland Valley Rd. / SR-67
Agency or Co.	Urban Systems	Area Type	All other areas
Date Performed	3/09/2006	Jurisdiction	County of San Diego
Time Period	6 BO AM	Analysis Year	2006

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	1	1	0	1	1	0	1	1	1	1	1	1
Lane Group	L	TR		L	TR		L	T	R	L	T	R
Volume (vph)	86	26	10	544	78	37	36	569	157	41	1191	95
% Heavy Vehicles	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Pretimed/Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup Lost Time	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Arrival Type	3	3		3	3		3	3	3	3	3	3
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	0	0	10	0	6	10	0	0	10	0	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/Hour												
Bus Stops/Hour	0	0		0	0		0	0	0	0	0	0
Minimum Pedestrian Time		3.3			3.3			3.3			3.3	

Phasing	Excl. Left	WB Only	Thru & RT	04	Excl. Left	Thru & RT	07	08
Timing	G = 17.0	G = 10.0	G = 5.0	G =	G = 5.0	G = 65.0	G =	G =
	Y = 4	Y = 0	Y = 4	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 118.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	91	38		573	115		38	599	165	43	1254	100
Lane Group Capacity	255	73		465	224		75	1026	1144	75	1026	864
v/c Ratio	0.36	0.52		1.23	0.51		0.51	0.58	0.14	0.57	1.22	0.12
Green Ratio	0.14	0.04		0.26	0.13		0.04	0.55	0.73	0.04	0.55	0.55
Uniform Delay d_1	45.6	55.3		43.5	48.1		55.3	17.5	4.8	55.5	26.5	12.7
Delay Factor k	0.11	0.13		0.50	0.12		0.12	0.18	0.11	0.17	0.50	0.11
Incremental Delay d_2	0.9	6.5		122.1	2.0		5.5	0.9	0.1	10.2	108.9	0.1
PF Factor	1.000	1.000		1.000	1.000		1.000	1.000	1.000	1.000	1.000	1.000
Control Delay	46.4	61.9		165.6	50.1		60.8	18.4	4.9	65.7	135.4	12.8
Lane Group LOS	D	E		F	D		E	B	A	E	F	B
Approach Delay	51.0			146.3			17.6			124.4		
Approach LOS	D			F			B			F		
Intersection Delay	97.9			Intersection LOS						F		

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	Highland Valley Rd. / SR-67
Agency or Co.	Urban Systems	Area Type	All other areas
Date Performed	3/09/2006	Jurisdiction	County of San Diego
Time Period	6 BO PM	Analysis Year	2006

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	1	1	0	1	1	0	1	1	1	1	1	1
Lane Group	L	TR		L	TR		L	T	R	L	T	R
Volume (vph)	108	91	14	130	22	49	34	301	682	88	856	140
% Heavy Vehicles	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Pretimed/Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup Lost Time	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Arrival Type	3	3		3	3		3	3	3	3	3	3
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	0	0	10	0	0	10	0	0	10	0	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/Hour												
Bus Stops/Hour	0	0		0	0		0	0	0	0	0	0
Minimum Pedestrian Time		3.3			3.3			3.3			3.3	

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 18.0	G = 5.0	G =	G =	G = 5.0	G = 76.0	G =	G =
	Y = 4	Y = 4	Y =	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 120.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	114	111		137	75		36	317	718	93	901	147
Lane Group Capacity	266	75		266	64		74	1180	1283	74	1180	995
v/c Ratio	0.43	1.48		0.52	1.17		0.49	0.27	0.56	1.26	0.76	0.15
Green Ratio	0.15	0.04		0.15	0.04		0.04	0.63	0.82	0.04	0.63	0.63
Uniform Delay d_1	46.3	57.5		47.0	57.5		56.2	9.7	3.7	57.5	15.6	8.9
Delay Factor k	0.11	0.50		0.12	0.50		0.11	0.11	0.16	0.50	0.32	0.11
Incremental Delay d_2	1.1	274.3		1.7	166.4		5.0	0.1	0.6	188.5	3.0	0.1
PF Factor	1.000	1.000		1.000	1.000		1.000	1.000	1.000	1.000	1.000	1.000
Control Delay	47.4	331.8		48.7	223.9		61.2	9.8	4.3	246.0	18.6	9.0
Lane Group LOS	D	F		D	F		E	A	A	F	B	A
Approach Delay	187.7			110.7			7.8			35.9		
Approach LOS	F			F			A			D		
Intersection Delay	43.4			Intersection LOS						D		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	Jacob Swim	Intersection	Archie Moore Rd. / SR-67
Agency/Co.	Urban Systems	Jurisdiction	County of San Diego
Date Performed	1/4/2008	Analysis Year	2030
Analysis Time Period	7 BO AM		

Project Description 5703 Montecito Ranch

East/West Street: Archie Moore Rd. | North/South Street: SR-67

Intersection Orientation: North-South | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	250	507			2112	204
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR (veh/h)	263	533	0	0	2223	214
Percent Heavy Vehicles	2	–	–	0	–	–
Median Type	Undivided					
RT Channelized			0			0
Lanes	1	2	0	0	1	1
Configuration	L	T			T	R
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	22		229			
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR (veh/h)	23	0	241	0	0	0
Percent Heavy Vehicles	2	0	2	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	1	0	1	0	0	0
Configuration	L		R			

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L					L		R
v (veh/h)	263					23		241
C (m) (veh/h)	190					0		35
v/c	1.38							6.89
95% queue length	15.49							28.88
Control Delay (s/veh)	249.2							2872
LOS	F					F		F
Approach Delay (s/veh)	–	–						
Approach LOS	–	–						

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*Jacob Swim*	Intersection	*Archie Moore Rd. / SR-67*
Agency/Co.	*Urban Systems*	Jurisdiction	*County of San Diego*
Date Performed	*1/4/2008*	Analysis Year	*2030*
Analysis Time Period	*7 BO+P PM*		

Project Description *5703 Montecito Ranch*	
East/West Street: *Archie Moore Rd.*	North/South Street: *SR-67*
Intersection Orientation: *North-South*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*495*	*1728*			*801*	*186*
Peak-Hour Factor, PHF	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*
Hourly Flow Rate, HFR (veh/h)	*521*	*1818*	*0*	*0*	*843*	*195*
Percent Heavy Vehicles	*2*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*1*	*2*	*0*	*0*	*1*	*1*
Configuration	*L*	*T*			*T*	*R*
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*28*		*94*			
Peak-Hour Factor, PHF	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*
Hourly Flow Rate, HFR (veh/h)	*29*	*0*	*98*	*0*	*0*	*0*
Percent Heavy Vehicles	*2*	*0*	*2*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*1*	*0*	*1*	*0*	*0*	*0*
Configuration	*L*		*R*			

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*					*L*		*R*
v (veh/h)	*521*					*29*		*98*
C (m) (veh/h)	*665*					*3*		*307*
v/c	*0.78*					*9.67*		*0.32*
95% queue length	*7.62*					*5.30*		*1.34*
Control Delay (s/veh)	*27.1*					*6159*		*22.1*
LOS	*D*					*F*		*C*
Approach Delay (s/veh)	--	--				*1423*		
Approach LOS	--	--				*F*		

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APPENDIX K

Year 2030 With Project HCS Worksheets

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*Jacob Swim*
Agency/Co.	*USAI*
Date Performed	*10/5/2007*
Analysis Time Period	*1 BO + P AM*

Site Information

Intersection	*Ash Street at Pine Street*
Jurisdiction	*County of San Diego*
Analysis Year	*2007*

Project Description *Montecito Ranch*

East/West Street: *Ash Street* | North/South Street: *Pine Street (SR-78)*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	150	896	23	23	813	62
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR (veh/h)	166	995	25	25	903	68
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	1	1	0	1	1	0
Configuration	L		TR	L		TR
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	28	18	113	6	34	9
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR (veh/h)	31	20	125	6	37	10
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L	L		LTR			LTR	
v (veh/h)	166	25		53			176	
C (m) (veh/h)	698	668		18			0	
v/c	0.24	0.04		2.94				
95% queue length	0.92	0.12		7.15				
Control Delay (s/veh)	11.8	10.6		1318				
LOS	B	B		F			F	
Approach Delay (s/veh)	--	--	1318					
Approach LOS	--	--	F					

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	Jacob Swim	Intersection	Ash Street at Pine Street
Agency/Co.	USAI	Jurisdiction	County of San Diego
Date Performed	10/5/2007	Analysis Year	2007
Analysis Time Period	1 BO + P PM		

Project Description Montecito Ranch

East/West Street: Ash Street	North/South Street: Pine Street (SR-78)
Intersection Orientation: North-South	Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	210	679	46	57	1182	129
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR (veh/h)	233	754	51	63	1313	143
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	1	1	0	1	1	0
Configuration	L		TR	L		TR
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	17	27	100	9	20	3
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR (veh/h)	18	30	111	10	22	3
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L	L		LTR			LTR	
v (veh/h)	233	63		35			159	
C (m) (veh/h)	456	805		0			0	
v/c	0.51	0.08						
95% queue length	2.84	0.25						
Control Delay (s/veh)	20.9	9.9						
LOS	C	A		F			F	
Approach Delay (s/veh)	--	--						
Approach LOS	--	--						

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*Jacob Swim*	Intersection	*Olive Street at Pine Street*
Agency/Co.	*Urban Systems*	Jurisdiction	*County of San Diego*
Date Performed	*10/5/2007*	Analysis Year	*2007*
Analysis Time Period	*2 BO + P AM*		

Project Description *Montecito Ranch*

East/West Street: *Olive Street* | North/South Street: *Pine Street (SR-78)*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	9	1047	4	26	817	8
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR (veh/h)	10	1163	4	28	907	8
Percent Heavy Vehicles	2	–	–	2	–	–
Median Type	Undivided					
RT Channelized			0			0
Lanes	1	1	0	1	1	0
Configuration	L		TR	L		TR
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	12	2	13	5	2	18
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR (veh/h)	13	2	14	5	2	20
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L	L		LTR			LTR	
v (veh/h)	10	28		27			29	
C (m) (veh/h)	733	588		86			51	
v/c	0.01	0.05		0.31			0.57	
95% queue length	0.04	0.15		1.18			2.20	
Control Delay (s/veh)	10.0	11.4		65.0			144.3	
LOS	A	B		F			F	
Approach Delay (s/veh)	–	–	65.0			144.3		
Approach LOS	–	–	F			F		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*Jacob Swim*	Intersection	*Olive Street at Pine Street*
Agency/Co.	*Urban Systems*	Jurisdiction	*County of San Diego*
Date Performed	*10/5/2007*	Analysis Year	*2007*
Analysis Time Period	*2 BO + P PM*		

Project Description *Montecito Ranch*

East/West Street: *Olive Street* North/South Street: *Pine Street (SR-78)*

Intersection Orientation: *North-South* Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*15*	*816*	*13*	*17*	*1162*	*15*
Peak-Hour Factor, PHF	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*16*	*906*	*14*	*18*	*1291*	*16*
Percent Heavy Vehicles	*2*	–	–	*2*	–	–
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*1*	*1*	*0*	*1*	*1*	*0*
Configuration	*L*		*TR*	*L*		*TR*
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*10*	*2*	*11*	*5*	*2*	*29*
Peak-Hour Factor, PHF	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*11*	*2*	*12*	*5*	*2*	*32*
Percent Heavy Vehicles	*2*	*2*	*2*	*2*	*2*	*2*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*	*L*		*LTR*			*LTR*	
v (veh/h)	*16*	*18*		*39*			*25*	
C (m) (veh/h)	*521*	*730*		*104*			*39*	
v/c	*0.03*	*0.02*		*0.38*			*0.64*	
95% queue length	*0.09*	*0.08*		*1.52*			*2.31*	
Control Delay (s/veh)	*12.1*	*10.1*		*59.0*			*198.6*	
LOS	*B*	*B*		*F*			*F*	
Approach Delay (s/veh)	–	–	*59.0*			*198.6*		
Approach LOS	–	–	*F*			*F*		

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SHORT REPORT

General Information		Site Information	
Analyst	Justin Schlaefli	Intersection	3
Agency or Co.	Urban Systems	Area Type	All other areas
Date Performed	06/15/2006	Jurisdiction	County of San Diego
Time Period	AM	Analysis Year	Build out + Project

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	1	2	0	1	1	1	0	1	0
Lane group	L	TR		L	TR		L	T	R		LTR	
Volume (vph)	335	673	174	177	751	134	193	327	98	107	288	282
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0	2.0		2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0	2.0		2.0	
Arrival type	3	3		3	3		3	3	3		3	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0		3.0	
Ped/Bike/RTOR Volume	10	0	0	10	0	20	10	0	0	10	0	37
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0		12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0	0		0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0		3.0	

Phasing	Excl. Left	EB Only	Thru & RT	04	NB Only	SB Only	07	08
Timing	G = 12.0	G = 4.0	G = 28.0	G =	G = 16.0	G = 31.0	G =	G =
	Y = 4	Y = 0	Y = 8	Y =	Y = 4	Y = 4	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 111.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	353	891		186	911		203	344	103		674	
Lane group cap.	306	987		191	875		255	269	224		487	
v/c ratio	1.15	0.90		0.97	1.04		0.80	1.28	0.46		1.38	
Green ratio	0.18	0.29		0.11	0.25		0.14	0.14	0.14		0.28	
Unif. delay d1	45.5	38.0		49.3	41.5		45.9	47.5	43.5		40.0	
Delay factor k	0.50	0.42		0.48	0.50		0.34	0.50	0.11		0.50	
Increm. delay d2	99.7	11.4		57.3	41.7		16.0	151.0	1.5		185.2	
PF factor	1.000	1.000		1.000	1.000		1.000	1.000	1.000		1.000	
Control delay	145.2	49.4		106.7	83.2		61.9	198.5	45.0		225.2	
Lane group LOS	F	D		F	F		E	F	D		F	
Apprch. delay	76.6			87.1			131.5			225.2		
Approach LOS	E			F			F			F		
Intersec. delay	116.8			Intersection LOS						F		

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SHORT REPORT

General Information		Site Information	
Analyst	Justin Schlaefli	Intersection	3
Agency or Co.	Urban Systems	Area Type	All other areas
Date Performed	06/15/2006	Jurisdiction	County of San Diego
Time Period	PM	Analysis Year	Build out + Project

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	1	2	0	1	1	1	0	1	0
Lane group	L	TR		L	TR		L	T	R		LTR	
Volume (vph)	363	1287	359	196	778	153	178	255	156	156	445	383
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0	2.0		2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0	2.0		2.0	
Arrival type	3	3		3	3		3	3	3		3	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0		3.0	
Ped/Bike/RTOR Volume	10		54	10		23	10	0	0	10	0	54
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0		12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0	0		0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0		3.0	

Phasing	Excl. Left	EB Only	Thru & RT	04	NB Only	SB Only	07	08
Timing	G = 8.0	G = 12.0	G = 32.0	G =	G = 10.0	G = 33.0	G =	G =
	Y = 4	Y = 0	Y = 4	Y =	Y = 4	Y = 4	Y =	Y =

Duration of Analysis (hrs) = 0.25 Cycle Length C = 111.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	382	1676		206	956		187	268	164		978	
Lane group cap.	383	1366		128	1000		159	168	248		521	
v/c ratio	1.00	1.23		1.61	0.96		1.18	1.60	0.66		1.88	
Green ratio	0.22	0.40		0.07	0.29		0.09	0.09	0.16		0.30	
Unif. delay d1	43.5	33.5		51.5	38.8		50.5	50.5	43.6		39.0	
Delay factor k	0.50	0.50		0.50	0.47		0.50	0.50	0.24		0.50	
Increm. delay d2	45.3	108.8		307.4	18.7		126.6	294.0	6.4		402.0	
PF factor	1.000	1.000		1.000	1.000		1.000	1.000	1.000		1.000	
Control delay	88.7	142.3		358.9	57.5		177.1	344.5	50.1		441.0	
Lane group LOS	F	F		F	E		F	F	D		F	
Apprch. delay	132.4			110.9			215.9				441.0	
Approach LOS	F			F			F				F	
Intersec. delay	200.6			Intersection LOS							F	

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SHORT REPORT

General Information		Site Information	
Analyst	*Jacob Swim*	Intersection	*Main St. / Montecito Rd.*
Agency or Co.	*Urban Systems*	Area Type	*All other areas*
Date Performed	*11/7/07*	Jurisdiction	*County of San Diego*
Time Period	*4 Buildout+Project AM*	Analysis Year	*2030*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	1	2	0	1	2	0	0	1	0	0	1	0
Lane Group	L	TR		L	TR			LTR			LTR	
Volume (vph)	223	763	45	12	1181	121	21	8	33	198	17	274
% Heavy Vehicles	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Pretimed/Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup Lost Time	2.0	2.0		2.0	2.0			2.0			2.0	
Extension of Effective Green	2.0	2.0		2.0	2.0			2.0			2.0	
Arrival Type	3	3		3	3			3			3	
Unit Extension	3.0	3.0		3.0	3.0			3.0			3.0	
Ped/Bike/RTOR Volume	10	0	0	10	0	17	10	0	0	10	0	41
Lane Width	12.0	12.0		12.0	12.0			12.0			12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/Hour												
Bus Stops/Hour	0	0		0	0			0			0	
Minimum Pedestrian Time		3.3			3.3			3.3			3.3	

Phasing	Excl. Left	Thru & RT	03	04	NB Only	SB Only	07	08
Timing	G = 12.0	G = 43.0	G =	G =	G = 8.0	G = 28.0	G =	G =
	Y = 4	Y = 4	Y =	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 107.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	235	850		13	1352			65			471	
Lane Group Capacity	199	1413		199	1407			124			441	
v/c Ratio	1.18	0.60		0.07	0.96			0.52			1.07	
Green Ratio	0.11	0.40		0.11	0.40			0.07			0.26	
Uniform Delay d_1	47.5	25.2		42.5	31.2			47.7			39.5	
Delay Factor k	0.50	0.19		0.11	0.47			0.13			0.50	
Incremental Delay d_2	121.1	0.7		0.1	15.6			4.0			62.2	
PF Factor	1.000	1.000		1.000	1.000			1.000			1.000	
Control Delay	168.6	26.0		42.6	46.8			51.7			101.7	
Lane Group LOS	F	C		D	D			D			F	
Approach Delay	56.9			46.8			51.7			101.7		
Approach LOS	E			D			D			F		
Intersection Delay	59.2			Intersection LOS						E		

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SHORT REPORT

General Information		Site Information	
Analyst	*Jacob Swim*	Intersection	*Main St. / Montecito Rd.*
Agency or Co.	*Urban Systems*	Area Type	*All other areas*
Date Performed	*11/7/07*	Jurisdiction	*County of San Diego*
Time Period	*4 Buildout+Project PM*	Analysis Year	*2030*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	1	2	0	1	2	0	0	1	0	0	1	0
Lane Group	L	TR		L	TR			LTR			LTR	
Volume (vph)	315	1238	119	53	1180	102	65	45	75	144	47	225
% Heavy Vehicles	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Pretimed/Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup Lost Time	2.0	2.0		2.0	2.0			2.0			2.0	
Extension of Effective Green	2.0	2.0		2.0	2.0			2.0			2.0	
Arrival Type	3	3		3	3			3			3	
Unit Extension	3.0	3.0		3.0	3.0			3.0			3.0	
Ped/Bike/RTOR Volume	10	0	17	10	0	0	10	0	0	10	0	34
Lane Width	12.0	12.0		12.0	12.0			12.0			12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/Hour												
Bus Stops/Hour	0	0		0	0			0			0	
Minimum Pedestrian Time		3.3			3.3			3.3			3.3	

Phasing	Excl. Left	Thru & RT	03	04	NB Only	SB Only	07	08
Timing	G = 15.0	G = 54.0	G =	G =	G = 10.0	G = 18.0	G =	G =
	Y = 4	Y = 4	Y =	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 113.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	332	1410		56	1349			194			402	
Lane Group Capacity	235	1674		235	1674			151			269	
v/c Ratio	1.41	0.84		0.24	0.81			1.28			1.49	
Green Ratio	0.13	0.48		0.13	0.48			0.09			0.16	
Uniform Delay d_1	49.0	25.8		43.9	25.0			51.5			47.5	
Delay Factor k	0.50	0.38		0.11	0.35			0.50			0.50	
Incremental Delay d_2	209.0	4.1		0.5	3.0			168.9			241.2	
PF Factor	1.000	1.000		1.000	1.000			1.000			1.000	
Control Delay	258.0	29.9		44.4	28.1			220.4			288.7	
Lane Group LOS	F	C		D	C			F			F	
Approach Delay	73.4			28.7			220.4			288.7		
Approach LOS	E			C			F			F		
Intersection Delay	87.3			Intersection LOS						F		

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TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*Jacob Swim*
Agency/Co.	*USAI*
Date Performed	*11/7/07*
Analysis Time Period	*5 Buildout+Project AM*

Site Information

Intersection	*Montecito Rd. / Montecito Way*
Jurisdiction	*County of San Diego*
Analysis Year	*2030*

Project Description *Montecito Ranch*

East/West Street: *Montecito Road* | North/South Street: *Montecito Way*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	10	24			35	176
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR (veh/h)	11	26	0	0	38	195
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LT					TR
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				187		1
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR (veh/h)	0	0	0	207	0	1
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	0	0	0	0	0
Configuration					LR	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT						LR	
v (veh/h)	11						208	
C (m) (veh/h)	1312						765	
v/c	0.01						0.27	
95% queue length	0.03						1.10	
Control Delay (s/veh)	7.8						11.5	
LOS	A						B	
Approach Delay (s/veh)	--	--				11.5		
Approach LOS	--	--				B		

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TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*Jacob Swim*
Agency/Co.	*USAI*
Date Performed	*11/7/07*
Analysis Time Period	*5 Buildout+Project PM*

Site Information

Intersection	*Montecito Rd. / Montecito Way*
Jurisdiction	*County of San Diego*
Analysis Year	*2030*

Project Description *Montecito Ranch*

East/West Street: *Montecito Road* North/South Street: *Montecito Way*

Intersection Orientation: *East-West* Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*10*	*84*			*15*	*267*
Peak-Hour Factor, PHF	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*11*	*93*	*0*	*0*	*16*	*296*
Percent Heavy Vehicles	*2*	–	–	*2*	–	–
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LT*					*TR*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				*135*		*1*
Peak-Hour Factor, PHF	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*150*	*0*	*1*
Percent Heavy Vehicles	*2*	*2*	*2*	*2*	*2*	*2*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration					*LR*	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*						*LR*	
v (veh/h)	*11*						*151*	
C (m) (veh/h)	*1228*						*675*	
v/c	*0.01*						*0.22*	
95% queue length	*0.03*						*0.85*	
Control Delay (s/veh)	*8.0*						*11.9*	
LOS	*A*						*B*	
Approach Delay (s/veh)	–	–				*11.9*		
Approach LOS	–	–				*B*		

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SHORT REPORT

General Information		Site Information	
Analyst	*Justin Schlaefli*	Intersection	*Highland Valley Rd. / SR-67*
Agency or Co.	*Urban Systems*	Area Type	*All other areas*
Date Performed	*06/15/2006*	Jurisdiction	*County of San Diego*
Time Period	*6 BO+P PM*	Analysis Year	*2006*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	1	1	0	1	1	0	1	1	1	1	1	1
Lane Group	L	TR		L	TR		L	T	R	L	T	R
Volume (vph)	123	91	14	130	22	61	34	370	682	94	892	148
% Heavy Vehicles	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Pretimed/Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup Lost Time	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Arrival Type	3	3		3	3		3	3	3	3	3	3
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	0	0	10	0	6	10	0	0	10	0	15
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/Hour												
Bus Stops/Hour	0	0		0	0		0	0	0	0	0	0
Minimum Pedestrian Time		3.3			3.3			3.3			3.3	

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 7.0	G = 5.0	G =	G =	G = 5.0	G = 76.0	G =	G =
	Y = 4	Y = 4	Y =	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 109.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	129	111		137	81		36	389	718	99	939	140
Lane Group Capacity	114	82		114	70		81	1299	1255	81	1299	1096
v/c Ratio	1.13	1.35		1.20	1.16		0.44	0.30	0.57	1.22	0.72	0.13
Green Ratio	0.06	0.05		0.06	0.05		0.05	0.70	0.80	0.05	0.70	0.70
Uniform Delay d_1	51.0	52.0		51.0	52.0		50.6	6.3	4.1	52.0	10.1	5.5
Delay Factor k	0.50	0.50		0.50	0.50		0.11	0.11	0.17	0.50	0.28	0.11
Incremental Delay d_2	124.0	219.9		148.3	156.4		3.9	0.1	0.6	171.3	2.0	0.1
PF Factor	1.000	1.000		1.000	1.000		1.000	1.000	1.000	1.000	1.000	1.000
Control Delay	175.0	271.9		199.3	208.4		54.5	6.4	4.7	223.3	12.1	5.5
Lane Group LOS	F	F		F	F		D	A	A	F	B	A
Approach Delay	219.9			202.7			6.9			29.1		
Approach LOS	F			F			A			C		
Intersection Delay	50.0			Intersection LOS						D		

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SHORT REPORT

General Information		Site Information	
Analyst	*Justin Schlaefli*	Intersection	*Highland Valley Rd. / SR-67*
Agency or Co.	*Urban Systems*	Area Type	*All other areas*
Date Performed	*06/15/2006*	Jurisdiction	*County of San Diego*
Time Period	*6 BO+P AM*	Analysis Year	*2005*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	1	1	0	1	1	0	1	1	1	1	1	1
Lane Group	L	TR		L	TR		L	T	R	L	T	R
Volume (vph)	95	26	10	544	78	44	36	611	157	51	1251	108
% Heavy Vehicles	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Pretimed/Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup Lost Time	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Arrival Type	3	3		3	3		3	3	3	3	3	3
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	0	0	10	0	0	10	0	0	10	0	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/Hour												
Bus Stops/Hour	0	0		0	0		0	0	0	0	0	0
Minimum Pedestrian Time		3.3			3.3			3.3			3.3	

Phasing	Excl. Left	WB Only	Thru & RT	04	Excl. Left	Thru & RT	07	08
Timing	G = 10.0	G = 14.0	G = 5.0	G =	G = 5.0	G = 70.0	G =	G =
	Y = 4	Y = 0	Y = 4	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 120.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	100	38		573	128		38	643	165	54	1317	114
Lane Group Capacity	148	72		413	276		74	1087	1335	74	1087	916
v/c Ratio	0.68	0.53		1.39	0.46		0.51	0.59	0.12	0.73	1.21	0.12
Green Ratio	0.08	0.04		0.23	0.16		0.04	0.58	0.85	0.04	0.58	0.58
Uniform Delay d_1	53.4	56.3		46.0	45.9		56.3	15.9	1.5	56.8	25.0	11.2
Delay Factor k	0.25	0.13		0.50	0.11		0.12	0.18	0.11	0.29	0.50	0.11
Incremental Delay d_2	11.6	7.1		188.8	1.2		6.0	0.9	0.0	30.4	103.9	0.1
PF Factor	1.000	1.000		1.000	1.000		1.000	1.000	1.000	1.000	1.000	1.000
Control Delay	65.0	63.5		234.8	47.1		62.3	16.8	1.6	87.2	128.9	11.3
Lane Group LOS	E	E		F	D		E	B	A	F	F	B
Approach Delay	64.6			200.5			15.8			118.4		
Approach LOS	E			F			B			F		
Intersection Delay	106.8			Intersection LOS						F		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	Jacob Swim	Intersection	SR-67 @ Archie Moore Rd.
Agency/Co.	Urban Systems	Jurisdiction	County of San Diego
Date Performed	1/4/2008	Analysis Year	2030
Analysis Time Period	7 BO+ P AM		

Project Description 5703 Montecito Ranch

East/West Street: Archie Moore Rd. | North/South Street: SR-67

Intersection Orientation: North-South | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	250	542			2162	214
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR (veh/h)	263	570	0	0	2275	225
Percent Heavy Vehicles	2	–	–	0	–	–
Median Type	Undivided					
RT Channelized			0			0
Lanes	1	2	0	0	1	1
Configuration	L	T			T	R
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	29		229			
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR (veh/h)	30	0	241	0	0	0
Percent Heavy Vehicles	2	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	1	0	1	0	0	0
Configuration	L		R			

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L					L		R
v (veh/h)	263					30		241
C (m) (veh/h)	179					0		33
v/c	1.47							7.30
95% queue length	16.48							29.11
Control Delay (s/veh)	287.1							3072
LOS	F					F		F
Approach Delay (s/veh)	–	–						
Approach LOS	–	–						

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	Jacob Swim	Intersection	SR-67 @ Archie Moore Rd.
Agency/Co.	Urban Systems	Jurisdiction	County of San Diego
Date Performed	1/4/2008	Analysis Year	2030
Analysis Time Period	7 BO+ P PM		

Project Description 5703 Montecito Ranch

East/West Street: Archie Moore Rd. | North/South Street: SR-67

Intersection Orientation: North-South | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	495	1786			831	192
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR (veh/h)	521	1880	0	0	874	202
Percent Heavy Vehicles	2	–	–	0	–	–
Median Type	Undivided					
RT Channelized			0			0
Lanes	1	2	0	0	1	1
Configuration	L	T			T	R
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	40		94			
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR (veh/h)	42	0	98	0	0	0
Percent Heavy Vehicles	2	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	1	0	1	0	0	0
Configuration	L		R			

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L					L		R
v (veh/h)	521					42		98
C (m) (veh/h)	644					2		297
v/c	0.81					21.00		0.33
95% queue length	8.26					7.19		1.40
Control Delay (s/veh)	29.9					12409		23.0
LOS	D					F		C
Approach Delay (s/veh)	–	–				3739		
Approach LOS	–	–				F		

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APPENDIX L

TDIF Information

ALTERNATIVE FEE SCHEDULES WITH PASS-BY TRIPS
ADDENDUM TO TRANSPORTATION IMPACT FEE REPORTS
(March 2005)

Description

The following addendum is applicable to the *County of San Diego Transportation Impact Fee Report* (January 2005) and *Fallbrook & Ramona Transportation Impact Fee Report* (January 2005), hereinafter referred to as the "TIF Reports," both of which were brought before the County of San Diego Board of Supervisors for consideration on January 12, 2005.

Alternative Fee Schedule

For the Board's further consideration, an alternative fee schedule has been developed for each community based in part on vehicle trip rate information contained in the *City of San Diego Trip Generation Manual* (May 2003). These vehicle trip rates differ from those presented in the TIF Reports in that the commercial rates have been adjusted (reduced) to reflect "cumulative trips" (i.e., total driveway trips excluding pass-by trips). These pass-by reductions also approximate those indicated in the SANDAG trip generation tables previously used in the Impact Fee studies.

The reduced trip rates per one thousand square-feet were changed as follows:

- General Commercial (including Retail & Dining) – was 40 trips, reduced to 36 trips
- Regional Shopping Center – was 50 trips, reduced to 38 trips
- Community Shopping Center – was 80 trips, reduced to 70 trips
- Neighborhood Shopping Center – was 120 trips, reduced to 60 trips

Development of the alternative fee schedules involved the following steps:

- Re-calculation of future growth potential in terms of equivalent dwelling units (EDUs) based on revised commercial trip rates.
- Re-calculation of unit cost per EDU (and unit cost per trip) for each community.
- Preparation of alternative fee schedules based on unit cost per trip and revised commercial trip rates.

A comparative analysis of the originally proposed and alternative TIF rates has been included as Attachment 1. The resultant alternative fee schedule for each community (with originally proposed fees in strikeout) has been included as Attachment 2.

Fallbrook Facilities Exhibit: Peppertree Lane

The County has indicated that portion of Peppertree Lane in the community of Fallbrook will be constructed as condition of nearby Peppertree Park Specific Plan development (SP 87-007). As such, this road was used in the original traffic modeling for Fallbrook. To present a better explanation this road, the Fallbrook TIF Facilities graphic, included as part of Appendix B-1 of the *Fallbrook & Ramona Transportation Impact Fee Report* (January 2005), has been modified to reflect this condition, see Attachment 3.

Ramona without "North By-pass" recommended alternative

The County has continued its review of alternatives to a "Northern Bypass" as discussed in the initial study. A better alternative has been proposed by a homeowners group and evaluated by County staff. This alternative relies upon a modified alignment of a road already on the circulation element of the General Plan, SA330. All facilities shown in the study and the addendum are for illustrative purposes only, and the implementing ordinance would still require route studies, environmental studies to consider all alternatives, and Board approval before selecting an option for actual project proposal. As shown on Attachment 4, this facility would provide a connection to State Route 78 without going through the downtown section of SR 67, and thus will relieve some of the expected congestion from future growth. Any facility along this route will likely have significant environmental and construction costs and those have been included in this alternative. This conceptual facility replaces the original "SA330" improvement listed in Table 4.8 of the "without Northern Bypass Alternative". With this addition, the "without Northern Bypass" becomes the preferred alternative, and the estimated costs of this option have been included in the alternative fee schedules shown as Attachment 2 with a slight reduction in Ramona impact fee amounts.

SUMMARY SHEET OF ALTERNATIVE PROPOSAL
(No changes to Facility Costs or Original Proposal)

COMMUNITY PLANNING AREA	REGION	FACILITY COSTS ($ Millions)				ORIGINAL PROPOSAL					ALTERNATIVE PROPOSAL				
		State Highways	Primes & Majors	Other Minor	Total	EDU Growth		TIF Rate ($/EDU)			EDU Growth		TIF Rate ($/EDU)		
						2004 - 2030	004 - Buildo	Regional	Local	Total	2004 - 2030	004 - Buildo	Regional	Local	Total
Alpine	South	$0.00	$1.55	$10.19	$11.74	-	+6,470	$2,859	$1,574	$4,433	-	+6,348	$2,945	$1,605	$4,550
Bonsall	North	$68.60	$27.19	$15.79	$111.79	-	+2,920	$4,731	$5,408	$10,139	-	+2,821	$4,857	$5,598	$10,455
Central Mountain	East	$38.79	$0.00	$0.00	$38.79	-	+875	$2,596	$0	$2,596	-	+666	$2,709	$0	$2,709
County Islands	South	$0.00	$0.00	$0.00	$0.00	-	+428	$2,859	$0	$2,859	-	+407	$2,945	$0	$2,945
Crest-Dehesa	South	$0.00	$22.00	$0.48	$22.48	-	+544	$2,859	$882	$3,741	-	+539	$2,945	$891	$3,836
Desert	East	$0.00	$0.00	$7.37	$7.37	-	+28,072	$2,596	$263	$2,859	-	+26,005	$2,709	$274	$2,983
Fallbrook	North	$24.66	$80.20	$72.41	$157.27	+13,909	+13,915	$4,731	$5,206	$9,937	+13,416	+13,422	$4,857	$5,398	$10,255
Jamul-Dulzura	South	$79.87	$0.00	$12.02	$91.89	-	+6,431	$2,859	$1,870	$4,729	-	+6,223	$2,945	$1,932	$4,877
Julian	East	$0.00	$0.00	$0.00	$0.00	-	+996	$2,596	$0	$2,596	-	+935	$2,709	$0	$2,709
Lakeside	South	$0.00	$2.36	$45.66	$48.02	-	+12,924	$2,859	$3,533	$6,392	-	+12,791	$2,945	$3,569	$6,514
Mountain Empire	East	$21.82	$0.00	$0.00	$21.82	-	+9,960	$2,596	$0	$2,596	-	+9,341	$2,709	$0	$2,709
North County Metro	North	$31.59	$16.81	$23.53	$71.93	-	+15,608	$4,731	$1,508	$6,239	-	+15,416	$4,857	$1,526	$6,383
North Mountain	East	$20.16	$0.00	$0.00	$20.16	-	+1,551	$2,596	$0	$2,596	-	+1,540	$2,709	$0	$2,709
Otay	South	$0.00	$50.21	$11.34	$61.54	-	+20,107	$2,859	$564	$3,423	-	+19,396	$2,945	$585	$3,530
Pala-Pauma	North	$18.59	$0.00	$4.22	$22.82	-	+4,259	$4,731	$992	$5,723	-	+4,042	$4,857	$1,045	$5,902
Pendleton-De Luz	North	$0.00	$5.27	$0.00	$5.27	-	+427	$4,731	$7	$4,738	-	+425	$4,857	$7	$4,864
Rainbow	North	$0.00	$0.00	$9.20	$9.20	-	+2,384	$4,731	$3,859	$8,590	-	+2,326	$4,857	$3,956	$8,813
Ramona	East	$27.29	$29.83	$52.12 [1]	$109.24	+10,129	+11,864	$2,596	$5,384	$7,980	+9,902	+11,512	$2,709	$5,284	$7,973
San Dieguito	North	$0.00	$6.70	$28.05	$34.75	-	+10,025	$4,731	$2,798	$7,529	-	+9,760	$4,857	$2,874	$7,731
Spring Valley	South	$0.00	$0.01	$2.49	$2.50	-	+4,433	$2,859	$562	$3,421	-	+4,241	$2,945	$587	$3,532
Sweetwater	South	$0.00	$0.00	$1.46	$1.46	-	+1,338	$2,859	$1,086	$3,945	-	+1,256	$2,945	$1,156	$4,101
Valle De Oro	South	$0.03	$0.00	$7.27	$7.31	-	+1,904	$2,859	$3,820	$6,679	-	+1,779	$2,945	$4,088	$7,033
Valley Center	North	$0.00	$27.12	$24.78	$51.90	-	+11,114	$4,731	$2,230	$6,961	-	+10,882	$4,857	$2,282	$7,139
TOTAL		$331.60	$249.26	$328.39	$909.24		+168,349					+162,952			

TIF PROGRAM	TOTAL COST ($ million)		
	Regional	Local	Total
County	$438.88	$203.86	$642.73
Fallbrook	$84.86	$72.41	$157.27
Ramona	$57.12	$52.12	$109.24
TOTAL	$580.86	$328.39	$909.24

TIF PROGRAM	COST RECOVERY ($ million)		
	Regional	Local	Total
County	$484.25	$203.88	$688.13
Fallbrook	$65.83	$72.41	$138.24
Ramona	$30.80	$54.53	$85.33
TOTAL	$580.86	$330.82	$911.70
	Full Cost Recovery		

TIF PROGRAM	COST RECOVERY ($ million)		
	Regional	Local	Total
County	$484.48	$203.86	$688.31
Fallbrook	$65.19	$72.42	$137.61
Ramona	$31.19	$52.12	$83.31
TOTAL	$580.86	$328.40	$909.23
	Full Cost Recovery		

TIF REGION	TOTAL COST ($ million)		
	Regional	Local	Total
North	$286.94	$178.00	$464.93
South	$158.03	$90.90	$248.93
East	$137.89	$59.48	$197.38
TOTAL	$580.86	$328.39	$909.24

[1] Original proposal based on $54.53 million in other minor (local) facility costs.

RAMONA LAND USE	ORIGINAL PROPOSAL	ALTERNATIVE PROPOSAL
Residential - Single Family	~~$7,980 / unit~~	$7,973 / unit
Residential - Condominium & Multi-Family [1]	~~$5,320 / unit~~	$5,315 / unit
Residential - Retirement Community	~~$2,660 / unit~~	$2,658 / unit
Commercial - General (including Retail & Dining)	~~$26.60 / sq ft~~	$23.92 / sq ft
Commercial - Regional Shopping Center	~~$33.25 / sq ft~~	$25.25 / sq ft
Commercial - Community Shopping Center	~~$53.20 / sq ft~~	$46.51 / sq ft
Commercial - Neighborhood Shopping Center	~~$79.80 / sq ft~~	$39.87 / sq ft
Industrial - General (including Business Parks)	~~$6.65 / sq ft~~	$6.64 / sq ft
Industrial - Manufacturing, Storage & Warehousing	~~$2.66 / sq ft~~	$2.66 / sq ft
Industrial - Research & Development	~~$5.32 / sq ft~~	$5.32 / sq ft
Office - Low Rise (up to 5 stories)	~~$13.30 / sq ft~~	$13.29 / sq ft
Office - High Rise (6 or more stories)	~~$11.31 / sq ft~~	$11.30 / sq ft
Recreation - Golf Course	~~$4,655 / acre~~	$4,651 / acre
Other	~~$665.00 / trip~~	$664.42 / trip

[1] Includes condominiums, duplexes, apartments, mobile homes and other multi-unit development.

Fallbrook & Ramona Transportation Impact Fee Report

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Executive Summary

Working with stakeholder groups, the County of San Diego (County) has identified the need to develop transportation impact fee (TIF) programs to mitigate the indirect, cumulative traffic impacts of development within the communities of Fallbrook and Ramona. State law allows such programs, and about 60% of the counties in California have implemented them. The proposed programs will fund the construction of identified transportation facilities and allocate the associated costs equitably among future developing properties. The programs will not pay for fixing existing deficiencies.

San Diego Association of Governments (SANDAG) regional land use forecasts and traffic models were used to determine the amount of expected future development and the types of transportation improvements needed. Future growth was evaluated on the basis of Equivalent Dwelling Units (EDU's), and it was found that future (year 2030) development in Fallbrook would equate to a total of 13,909 additional EDU's while in Ramona it would total 10,129 additional EDU's.

The TIF programs differentiate between "local" transportation facilities (collectors and minor streets) that benefit primarily the community in which they are located, and "regional" facilities (state routes, prime arterials, major roads, and other regionally significant roadways) that benefit both the community and surrounding areas. The Ramona future road network was analyzed with and without the Northern Bypass.

The following facility costs and TIF rates were determined:

- In Fallbrook, a total of $72.4M of local, TIF-eligible facilities was identified. For regional facilities, a total cost of $286.9M was assigned to the North region, which contains Fallbrook. The proposed TIF rate for Fallbrook is $9,937 per EDU.
- In Ramona, without the Northern Bypass a total of $27.4M of local, TIF-eligible facilities was identified. For regional facilities, a total cost of $137.9M was assigned to the East region, which contains Ramona. The proposed TIF rate for Ramona is $5,299 per EDU without the Northern Bypass.

- In Ramona, with the Northern Bypass $54.5M of TIF-eligible facilities was identified. The regional facilities cost is the same at $137.9M. The proposed TIF rate for Ramona is $7,980 per EDU with the Northern Bypass.

Further studies, including required environmental review, may result in the identification of different project alternatives with different costs. Also, the County is currently working on a general plan update (GP 2020). The Fallbrook and Ramona TIF program may be periodically reviewed and/or amended to accommodate such project changes. It is recommended that the TIF rates be indexed annually in order to keep up with future increases in the cost of construction.

Aside from TIF revenues, other revenue sources will be required to fund the non-eligible portions of the identified facilities (including existing deficiencies). Having TIF funds available can help the County leverage these other funding programs, especially state and federal grant programs.

The TIF programs will satisfy the requirement of the recently voter-enacted TransNet sales tax extension (Proposition A) for a $2,000 fee for each new single family dwelling unit for regional transportation facilities.

Report Summary

Introduction

The County of San Diego (County) has identified the need to develop transportation impact fee (TIF) programs to mitigate the indirect, cumulative traffic impacts of development within the communities of Fallbrook and Ramona (shown in Figure 1). State law allows such programs, and about 60% of the counties in California have implemented them. The primary functions of the proposed TIF programs are to fund the construction of identified transportation facilities and to allocate the costs equitably among future developing properties.

The TIF programs do not fund improvements to address existing deficiencies, which would continue to be the responsibility of existing developed land uses and government agencies, or the direct impacts of future development, which would continue to be the responsibility of individual development projects.

The County has determined that implementation of the TIF programs is exempt from the California Environmental Quality Act, although any proposed transportation improvements would require environmental studies and approvals. Through that process, project alternatives may emerge that are different than those currently included in the TIF programs.

Stakeholder groups played an important role in development of the TIF programs. Involved parties included representatives from the Fallbrook and Ramona Community Planning Groups, Building Industry Association, East County Construction Council, California Department of Transportation (Caltrans), and County transportation planners. Their involvement included discussions of the issues, input on specific candidate projects, review of draft work products, and attendance at a presentation on November 18, 2004, that summarized program concepts, methodology, proposed transportation projects and preliminary TIF rates.

Development Forecast

Analysis of land use changes between the present and the year 2030 provided the basis for determining both the amount of expected future development and the types of transportation improvements needed to address cumulative traffic impacts. San Diego Association of

Governments (SANDAG) regional land use forecasts indicate that both Fallbrook and Ramona contain a considerable amount of vacant, developable land, and corresponding growth potential. The projected land use changes are summarized in Table 1.

Fee Methodology

The goal of the fee methodology is to provide a normalized basis to spread the costs of proposed transportation improvements equitably to future development projects.

Estimated traffic trip generation rates were assigned to future changes in land use, and the trip generation rates were normalized to correspond to residential land use. Specifically, future development types were assigned factors that equate their projected traffic impact to that of a single family dwelling. This factor is measured in Equivalent Dwelling Units (EDU's). The trip generation rates and EDU factors are summarized in Table 2.

Based on these analyses, it is anticipated that future (year 2030) development in Fallbrook would equate to a total of 13,909 additional EDU's while in Ramona it would total 10,129 additional EDU's (see Table 3).

The TIF programs recognize that certain "local" transportation facilities (collectors and minor streets) benefit primarily the community in which they are located, while "regional" facilities (state routes, prime arterials, and major roads) benefit both the community and surrounding areas. Therefore, a portion of the total TIF fee was calculated based on the cost of local facilities and apportioned to development only within the boundary of each community, while the remainder of the fee was calculated based the need for regional facilities and apportioned to development within three TIF Regions covering the unincorporated areas of the County. Those three regions are shown in Figure 2 and are labeled North, South and East. Fallbrook is part of the North Region, and Ramona is located in the East Region. This regional aspect of the TIF programs has been coordinated with the separate *County of San Diego Transportation Impact Fee Report* (January 2005).

Traffic analyses provided a breakdown of existing roadway capacity, existing traffic demand, and future traffic demand. Those three factors

formed the basis for eliminating the cost of existing deficiencies from the TIF programs. Examples of these calculations are provided in this section of the report.

Identified Facilities

The SANDAG Regional Transportation Model was utilized to analyze base year (Year 2000) and projected Year 2030 development conditions on the Fallbrook and Ramona roadway networks. Modeling assumptions for the future road network and projected land use are summarized in this section of the report. The Ramona future road network was analyzed with and without the Northern Bypass. The *Fallbrook & Ramona Transportation Impact Fee (TIF) Program Transportation Needs Assessment*, included as Appendix A, contains additional detail relative to the traffic modeling analyses, approach, and overall findings.

Levels of Service (LOS) for the existing and future roadway networks are summarized on Figures 3 and 4. Based on the traffic modeling, facilities with ADT volumes attributable to future growth within the community were identified as eligible, either in whole or in part, for TIF funding. The TIF-eligible facilities are summarized in tabular form and depicted graphically in Appendices B-1 and B-2 for Fallbrook and Ramona, respectively. As already stated, further studies, including required environmental review, may result in the identification of different project alternatives with different costs. The Fallbrook and Ramona TIF program may be periodically reviewed and/or amended to accommodate such project changes.

County staff has reviewed the TIF facilities identified in this report and concluded that they do not conflict with current General Plan update (GP 2020) efforts. Upon adoption of GP 2020, it is recommended that the TIF programs be reviewed and updated accordingly.

Facility Cost Estimates

In order to calculate TIF rates for Fallbrook and Ramona, planning-level cost estimates were based on unit cost data generated from an analysis of several recent County roadway projects and available cost data from other local jurisdictions. Table 4 summarizes the applicable cost factors used to develop the facility cost estimates.

The Fallbrook and Ramona TIF facility cost estimates are presented in Appendices C-1 and C-2, respectively. Each facility cost estimate identifies the percent of the project eligible for TIF funding, and other funding sources committed, if any.

Funding Requirements

As already mentioned, the TIF programs differentiate between local and regional facilities. Each community's TIF rate includes a local and regional component:

- In Fallbrook, a total cost of $133.3M was identified for local facilities, of which $72.4M was considered to be TIF-eligible. This resulted in a Local TIF Rate of $5,206 per EDU. For regional facilities, a total cost of $286.9M was assigned to the North region, which contains Fallbrook; this resulted in a Regional TIF Rate of $4,731 per EDU. Thus the total combined TIF rate for Fallbrook is $9,937 per EDU.
- In Ramona, without the Northern Bypass a total cost of $75.9M was identified for local facilities, of which $27.4M was considered TIF-eligible. This resulted in a Local TIF Rate of $2,703 per EDU. For regional facilities, a total cost of $137.9M was assigned to the East region, which contains Ramona; this resulted in a Regional TIF Rate of $2,596 per EDU. Thus the total combined TIF rate for Ramona is $5,299 per EDU without the Northern Bypass.
- In Ramona, with the Northern Bypass a total cost of $98.4M was identified for local facilities, of which $54.5M was considered TIF-eligible. This resulted in a Local TIF Rate of $5,384 per EDU. The Regional TIF Rate is the same at $2,596 per EDU. Thus the total combined TIF rate for Ramona is $7,980 per EDU with the Northern Bypass.

Total estimated local facility costs, projected local growth, and calculated Local TIF Rates are summarized for Fallbrook and Ramona in Tables 5A and 5B, respectively. Total estimated regional facility costs, projected regional growth, and calculated Regional TIF Rates are summarized in Table 6. The combined TIF fees are summarized in Table 7. Appendices D-1 and D-2 contain total TIF fee schedules for Fallbrook and Ramona respectively.

Aside from TIF revenues, other revenue sources will be required to fund the non-eligible portions of the identified facilities (including

existing deficiencies). Potential funding sources are discussed in this section. Having TIF funds available can help the County leverage these other funding programs, especially state and federal grant programs.

It is recommended that the TIF rates be indexed annually in order to keep up with future increases in the cost of construction.

The Statewide Community Infrastructure Program (SCIP) is a development impact fee financing program. If the County were to join SCIP, developers could be reimbursed for fees paid in order to obtain a building permit, or fees could be funded prior to obtaining a building permit.

Program Implementation

This section summarizes information required to satisfy §66001 of the Mitigation Fee Act. This information includes the purpose of the fee, the use of the fee, reasonable use (benefit), reasonable need (burden), and reasonable apportionment.

This section further summarizes information to satisfy Capital Improvement Program (CIP) requirements set forth in §66002 of the Mitigation Fee Act. This information includes approximate location, size, time of availability, and estimated cost.

Collection of TIF funds and construction of identified TIF facilities may involve varying degrees of inter-agency coordination including Caltrans, SANDAG and local jurisdictions. The TIF programs will satisfy the requirement of the recently voter-enacted TransNet sales tax extension (Proposition A) for a $2,000 fee for each new single family dwelling unit for regional transportation facilities.

Introduction

Background

The County of San Diego (County), with input from community and industry stakeholder groups, has identified the need for additional transportation facilities to address the projected cumulative effects of future development within the communities of Fallbrook and Ramona (see Figure 1). The County has retained Boyle Engineering Corporation (Boyle) to develop transportation impact fee (TIF) programs for the communities of Fallbrook and Ramona to fund the construction of identified transportation facilities and allocate the costs equitably among future developing properties.

Transportation Impact Fees

An impact fee is a commonly used and well-accepted means of mitigating the impacts created by future growth. Public agencies regularly levy impact fees on new development to fund a variety of public facilities, including roads, sewer and water facilities, libraries, parks, and schools. A recent survey indicated that nearly 60% of California counties impose a TIF (*Impact Fee Survey*, compiled by Santa Barbara County Association of Governments, May 1997).

Transportation infrastructure needs can be characterized as existing deficiencies, direct impacts of future development, and indirect (cumulative) impacts of future development. Existing roadway deficiencies are the responsibility of existing developed land uses and government agencies, and should not be financed with impact fees. The proposed TIF programs are not intended to mitigate direct impacts, which will continued to be the responsibility of individual developments.

The rationale supporting creation of the proposed TIF programs is that future development within Fallbrook and Ramona is required by law to mitigate cumulative traffic impacts on each community's road network. Without a TIF, future development would cause a continued decrease in roadway level-of-service and overall network capacity. A TIF program is a suitable mechanism for identifying needed transportation facilities to mitigate these cumulative traffic impacts, and allocating the associated costs in an equitable fashion.

This report proposes a Fallbrook and Ramona TIF to be assessed on all new development associated with the generation of traffic. The

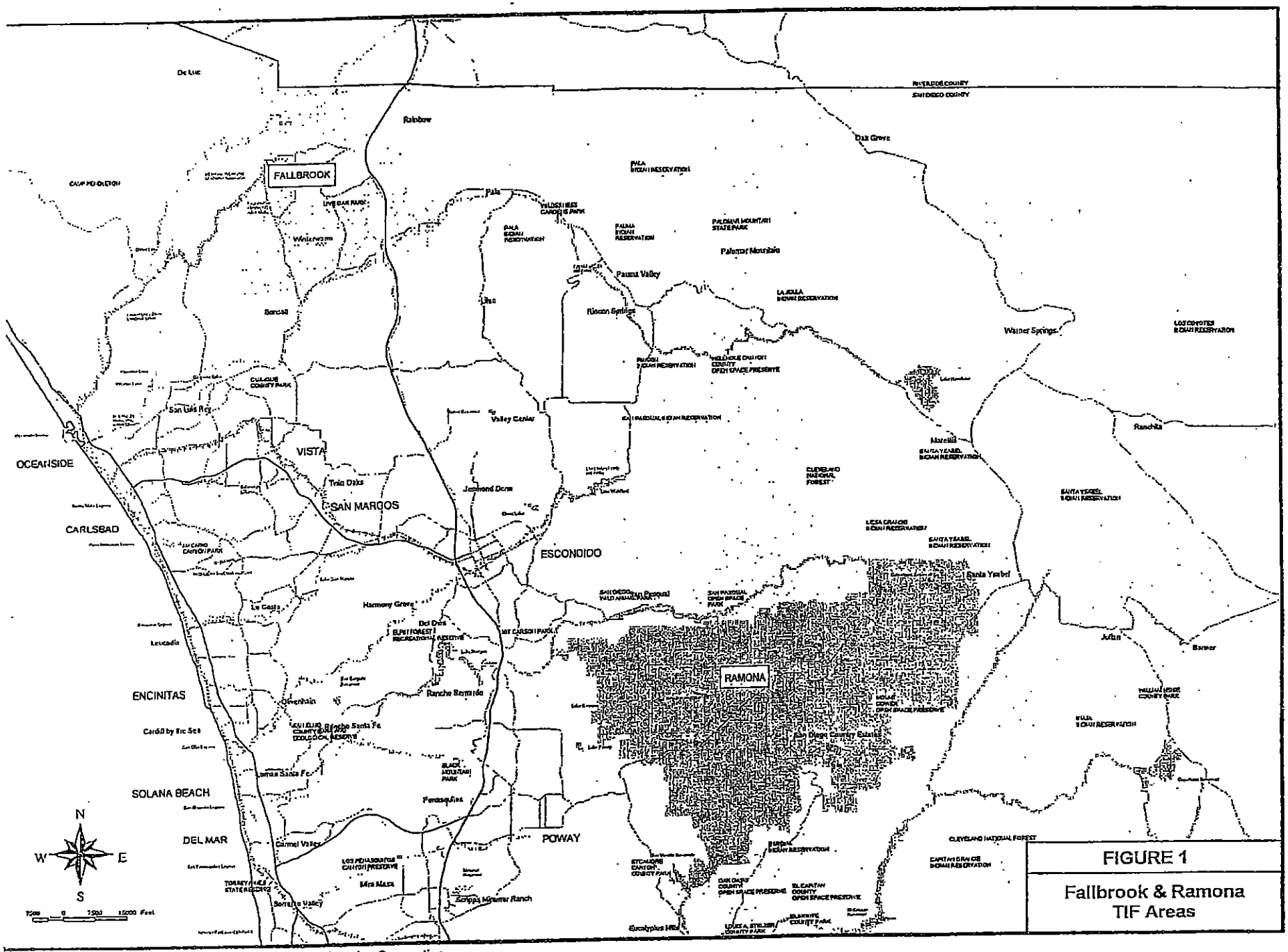


FIGURE 1

Fallbrook & Ramona TIF Areas

SOURCE: SANDAG, County of San Diego, and Boyle Engineering Corporation.

primary purpose of the TIF is twofold: (1) to fund the construction of identified facilities needed to reduce, or mitigate, projected cumulative traffic impacts resulting from future development within each community; and (2) to allocate the costs of these facilities equitably among future developing properties.

California Environmental Quality Act

The California Environmental Quality Act (CEQA) requires state and local agencies to identify the significant environmental impacts of their actions and to avoid or mitigate those impacts, if feasible. To that end, local agencies generally require that a project's potential direct and cumulative impacts, and corresponding mitigation measures, be identified as part of the required environmental review process.

Cumulative Impacts

Cumulative impacts are those impacts caused collectively by all development within the community. Cumulative impacts can result from individually minor, but collectively significant, projects taking place over a period of time (CEQA Guidelines §15355). The CEQA Guidelines recognize that "the only feasible mitigation for cumulative impacts may involve the adoption of ordinances or regulations rather than the imposition of conditions on a project-by-project basis" (CEQA Guidelines §15130(c)).

Recognizing that an individual development project is not wholly responsible for cumulative traffic impacts, each development project will be required to contribute to the mitigation in proportion to the project's estimated traffic generation rate. This report proposes a TIF to fund construction of identified transportation facilities in response to the total projected cumulative traffic impacts associated with future development within each community. Transportation facilities and other infrastructure necessary to mitigate the direct impacts of a given development project are not within the scope of the TIF.

Environmental Studies & Review

The facilities identified in this report are intended to provide increased road capacity to mitigate the cumulative traffic impacts of future development. No facilities will actually be constructed until necessary

environmental review has been conducted. Further studies, including environmental review, may show superior alternative projects that also meet the increased capacity need.

Exemption from CEQA Requirements

The rates collected through the TIF will be used on capital projects for transportation infrastructure necessary to maintain service within existing service areas. The County has determined that the act of adopting the proposed Fallbrook and Ramona TIF programs and establishing the proposed TIF rates is statutorily exempt from the requirements of CEQA under §15273(a)(4) of the CEQA Guidelines.

Statutory Framework

Development and implementation of impact fees must conform to the statutory requirements of California Government Code §§66000 et seq. (commonly referred to as the "Mitigation Fee Act"). Prior to establishing, increasing or imposing an impact fee, the Mitigation Fee Act requires the local agency to make the following findings:

- Identify the purpose of the fee (§66001 (a)(1)).
- Identify the use for the fee and the facilities to be built (§66001(a)(2)).
- Determine a reasonable relationship between the fee's use and the type of development project on which the fee is imposed (§66001(a)(3)).
- Determine a reasonable relationship between the need for the public facility and the type of development project (§66001(a)(4)).
- Determine a reasonable relationship between the amount of the fee and the cost of the facility attributable to development (§66001(b)).

For purposes of the Fallbrook and Ramona TIF programs, a statement of requisite findings is presented in the "Program Implementation" section of this report.

Stakeholder Group Participation

During the initial stages of developing this report, the County met with stakeholder groups to define the basic structure, major program concepts, and key elements of the program. Stakeholder groups

included representatives from the Fallbrook and Ramona Community Planning Groups, Building Industry Association, East County Construction Council, California Department of Transportation (Caltrans), and County transportation planners. Stakeholders participated in discussions about critical transportation needs and were instrumental in developing a list of potential improvement projects aimed at providing increased road capacity, including new alternate routes to areas of population and anticipated development. These potential projects were included during evaluations of traffic models and future traffic forecasts.

As development of the TIF programs continued, stakeholder communication was expanded to include a broader spectrum of interests. Status reports, and draft work products were distributed to a wide range of stakeholders, including engineers, consultants, attorneys, environmentalists, property owners and a variety of people in the development industry. On November 18, 2004, stakeholders were invited to a presentation summarizing program concepts, methodologies used in program development, proposed transportation projects and preliminary TIF rates.

Fee Development Process

The remainder of this report summarizes the process by which the proposed TIF was developed, as presented in the following sections:

- Development Forecast
- Fee Methodology
- Identified Facilities
- Facility Cost Estimates
- Funding Requirements
- Program Implementation

Development Forecast

Community Growth

One of the fundamental concepts supporting implementation of the Fallbrook and Ramona TIF is that new development within each community will generate the need for additional transportation facilities, or portions thereof. An evaluation of projected growth within each community is an essential component to the development of the TIF. Information relative to the future growth potential of each community serves several functions, including: .

- Facilitates the identification of infrastructure necessary to serve future growth.
- Provides a fundamental basis for apportioning costs of necessary infrastructure to future development.

Projected Development

San Diego Association of Governments (SANDAG) regional land use forecasts indicate that the Fallbrook and Ramona communities have a considerable amount of vacant developable land, and corresponding growth potential. Table 1 provides a summary of Year 2004 and projected Year 2030 land use data for Fallbrook and Ramona.

The land use data contained in Table 1 is based on *SANDAG Final 2030 Cities/County Forecast* (December 2003); some future residential unit values were revised based on more current data obtained from the County. SANDAG's forecast is intended to reflect the likely distribution of growth based on the currently adopted plans and policies of the 18 cities in the county and available information from the County General Plan update (GP 2020).

TABLE 1: Projected Development Summary

LAND USE	FALLBROOK			RAMONA		
	Year 2004 [1]	Year 2030	Change	Year 2004 [1]	Year 2030	Change
Single Family Residential (units)	11,031	15,175	+4,144	9,716	15,157	+5,441
Multi-Family Residential (units)	2,791	5,024	+2,233	1,448	1,762	+314
Mobile Home Residential (units)	1,109	1,223	+114	708	773	+65
All Residential (acres)	20,122.1	25,989.9	+5,867.8	26,867.8	62,237.7	+35,369.9
Agricultural & Extractive (acres)	3,078.6	2,725.3	-353.3	4,127.1	4,013.2	-113.9
Commercial/Services (acres)	622.2	770.1	+147.9	712.8	780.8	+68.0
Industrial (acres)	394.1	657.2	+263.1	462.1	599.8	+137.7
Office (acres)	24.0	24.6	+0.6	13.1	32.2	+19.1
Military Use (acres)	7.2	7.2	+0.0	0.0	0.0	+0.0
Parks (acres)	793.3	793.4	+0.1	5,127.0	5,127.0	+0.0
Roads & Freeways (acres)	1,809.7	1,809.7	+0.0	1,540.9	1,540.9	+0.0
Schools (acres)	144.7	187.7	+43.0	129.3	131.7	+2.4
Developed Area (acres)	26,995.9	32,965.1	+5,969.2	38,980.1	74,463.3	+35,483.2
Vacant Developable Area (acres)	6,831.6	862.4	-5,969.2	38,408.1	2,924.9	-35,483.2
Constrained Area [2] (acres)	2,258.6	2,258.6	+0.0	6,617.2	6,617.2	+0.0
TOTAL AREA (acres)	36,086.1	36,086.1	+0.0	84,005.4	84,005.4	+0.0

[1] Residential units from SANDAG Year 2004 estimate. Non-residential acreage based on average of 2000 and 2010 values.
[2] Vacant land not available for development for physical, public policy, or environmental reasons.

Fee Methodology

Trip Generation Rates

Trip generation rates are the cornerstone of most traffic modeling efforts. By definition, trip generation rates provide a relative measure of estimated vehicular volumes by land use and other property characteristics. The relationship between generation of trips and utilization of transportation facilities is clear. Trip generation rates are commonly used to apportion the benefits associated with transportation infrastructure improvements.

Equivalent dwelling units (EDU's) are a unit of measure representative of the estimated trip generation rate for a single family residence. By comparing the trip generation rate for a given land use to that of a single family residence, EDU's can be established for the various land uses. Table 2 summarizes trip generation rates and EDU equivalency factors for land uses with potential growth identified in Table 1.

TABLE 2: Trip Generation Rates & EDU Equivalencies

LAND USE	Trip Rate [1]	EDU Factor [2]
Single Family Residential	12 trips/unit	1.000 EDU/unit
Multi-Family Residential [3]	5 – 8 trips/unit	0.417 – 0.667 EDU/unit
Commercial/Services	400 trips/acre	33.333 EDU/acre
Industrial	150 trips/acre	12.500 EDU/acre
Office	300 trips/acre	25.000 EDU/acre
Parks	5 trips/acre	0.417 EDU/acre
Schools	50 trips/acre	4.167 EDU/acre

(1) Trip generation rates based on a review of data contained in *San Diego Traffic Generators Manual* (SANDAG, April 2002).

(2) EDU equivalency factor represents the ratio between the applicable trip rate (for the subject land use) and the Single Family Residential trip rate (i.e., 12 trips = 1 EDU).

(3) Includes condominiums, duplexes, apartments, mobile homes and other multi-unit development for modeling purposes.

Projected EDU's

The total cost of each TIF program (i.e., estimated cost of facilities, administration, etc.) will be funded through separate fee schedules applicable to future development within each community plan area. The TIF applicable to a given development project will be calculated as a function of estimated vehicular trip generation, expressed in terms

of EDU's. Table 3 provides a summary of projected EDU's attributable to future development within the communities of Fallbrook and Ramona.

TABLE 3: Projected EDU's Attributable to Future Development

LAND USE	FALLBROOK			RAMONA		
	Growth [1]	EDU Factor [2]	EDU's [3]	Growth [1]	EDU Factor [2]	EDU's [3]
Single Family Residential	+4,144 units	1.000 EDU/unit	4,144	+5,441 units	1.000 EDU/unit	5,441
Multi-Family Residential [4]	+2,233 units	0.583 EDU /unit	1,303	+314 units	0.583 EDU /unit	183
Mobile Home Residential	+114 units	0.417 EDU /unit	48	+65 units	0.417 EDU /unit	27
Agricultural & Extractive	-353.3 acres	--	--	-113.9 acres	--	--
Commercial/Services	+147.9 acres	33.333 EDU /acre	4,931	+68.0 acres	33.333 EDU /acre	2,267
Industrial	+263.1 acres	12.500 EDU /acre	3,289	+137.7 acres	12.500 EDU /acre	1,722
Office	+0.6 acres	25.000 EDU /acre	15	+19.1 acres	25.000 EDU /acre	479
Military Use	+0.0 acres	--	--	+0.0 acres	--	--
Parks	+0.1 acres	0.417 EDU /acre	0	+0.0 acres	0.417 EDU /acre	--
Roads & Freeways	+0.0 acres	--	--	+0.0 acres	--	--
Schools	+43.0 acres	4.167 EDU /acre	179	+2.4 acres	4.167 EDU /acre	10
		TOTAL	13,909		TOTAL	10,129

(1) Growth potential based on comparison of Year 2004 and projected Year 2030 land use data (see Table 1).
(2) EDU equivalency factor from Table 2 for subject land use.
(3) EDU's calculated based on growth potential (units or acres) multiplied by applicable EDU equivalency factor.
(4) Includes condominiums, duplexes, apartments and other multi-unit development.

Local & Regional Facilities

State routes, prime arterials, and major roads serve as the primary means for regional and inter-community vehicular travel. These "regional" facilities benefit a broader area than an individual community. By contrast, collectors and minor streets generally provide local access to the various areas within a community. As such, these "local" facilities tend to benefit only the individual communities within which they are located. Consistent with this concept, proposed TIF facilities are identified as either "local" or "regional" for purposes of equitably apportioning eligible costs.

As presented in the separate *County of San Diego Transportation Impact Fee Report* (January 2005), and generally depicted in Figure 2, the County is divided into the following three TIF Regions for facility identification and cost apportionment purposes: North, South and East. Fallbrook is part of the North Region, and Ramona is located in the East Region. The eligible costs of "regional" TIF facilities (i.e., state routes, prime arterials, major roads, and other regionally significant roadways) are apportioned to future growth throughout the applicable region, whereas eligible "local" TIF facility costs are apportioned to the community in which they are physically located.

Eligible Facility Costs

It is generally understood that many roadway improvements needed to accommodate future growth may also alleviate some existing deficiencies. The portion (percent) of an identified local facility that is eligible for TIF funding is based on the relative vehicular usage attributable to future growth, as illustrated in the following examples:

Example 1: Improvement to existing deficient road segment

Total Cost of Improvement	$1.0 million
	ADT
Existing Segment Capacity	16,700
Existing Traffic Volume	– 18,700
Existing Segment Surplus/(Deficiency)	(2,000)
Existing Traffic Volume	18,700
Future Growth Traffic Volume	+ 6,000
Future Segment Capacity Required	24,700
Future Segment Capacity Required	24,700
Existing Segment Capacity	– 16,700
Additional Capacity Needed	8,000

Percent of improvement cost eligible for TIF funding (TIF %):

$$\text{TIF \%} = \frac{\text{Future Growth Traffic Volume} - \text{Existing Segment Surplus (if any)}}{\text{Additional Capacity Needed}}$$

$$= (6{,}000 - 0) \div 8{,}000 = 75\%$$

RESULT: $750,000 eligible for TIF funding

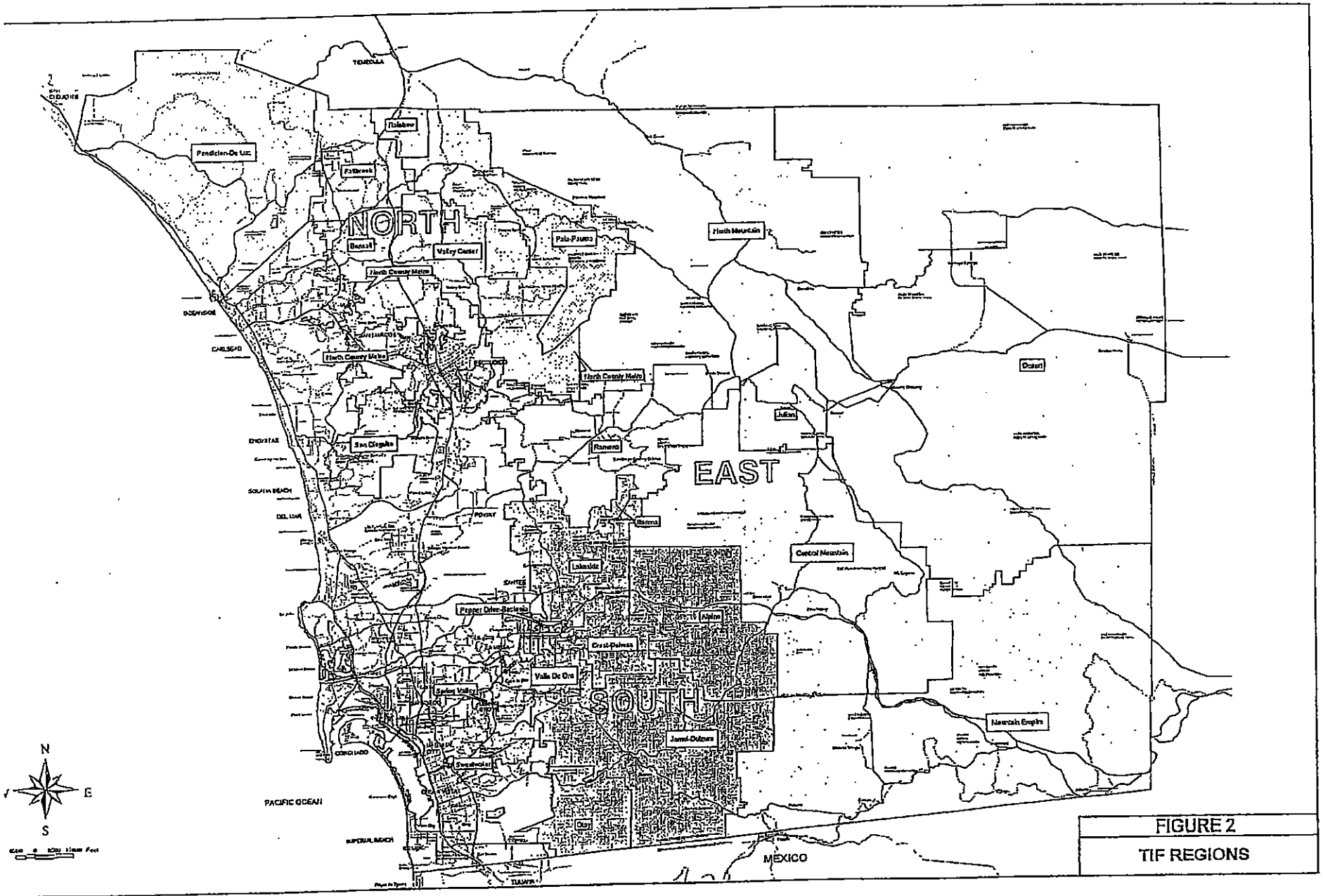


FIGURE 2

TIF REGIONS

E: SANDAG, County of San Diego, and Boyle Engineering Corporation.

Example 2: Improvement to existing adequate road segment

Total Cost of Improvement	$1.0 million
	ADT
Existing Segment Capacity	16,700
Existing Traffic Volume	− 14,700
Existing Segment Surplus/(Deficiency)	2,000
Existing Traffic Volume	14,700
Future Growth Traffic Volume	+ 6,000
Future Segment Capacity Required	20,700
Future Segment Capacity Required	20,700
Existing Segment Capacity	− 16,700
Additional Capacity Needed	4,000

Percent of improvement cost eligible for TIF funding (TIF %):

$$\text{TIF \%} = \frac{\text{Future Growth Traffic Volume} - \text{Existing Segment Surplus (if any)}}{\text{Additional Capacity Needed}}$$

$$= (6{,}000 - 2{,}000) \div 4{,}000 = 100\%$$

RESULT: **$1.0 million** (entire project) eligible for TIF funding

Example 3: New and/or modified intersections, or new road segment

Total Cost of Improvement	$1.0 million
	ADT
Existing Traffic Volume (on future facility)	14,700
Future Growth Traffic Volume	+ 6,000
Future Segment Capacity Required	20,700

Percent of improvement cost eligible for TIF funding (TIF %):

$$\text{TIF \%} = \frac{\text{Future Growth Traffic Volume}}{\text{Future Segment Capacity Required}}$$

$$= 6{,}000 \div 20{,}700 = 29\%$$

RESULT: $290,000 eligible for TIF funding

Identified Facilities

Traffic Modeling

The SANDAG Regional Transportation Model was utilized to analyze base year (Year 2000) and projected Year 2030 development conditions on the Fallbrook and Ramona roadway networks. Assumptions relative to the future road network and land use (trip generation) are summarized below.

Roadway Network Assumptions

Projected Year 2030 development conditions were modeled with the following network assumptions:

Fallbrook & Ramona Communities

- Currently built County General Plan Circulation Element roads
- Active County Capital Improvement Program (CIP) road projects
- Currently built non-circulation element roads critical to local circulation
- Candidate Projects (defined by stakeholder groups)
- Other facilities identified to address remaining network deficiencies.

Remainder of Unincorporated Areas (outside Fallbrook & Ramona)

- SANDAG Series 10 network reflecting Mobility 2030 "Reasonably Expected" funding scenario improvements through the Year 2030 (for state facilities)
- Build-out of the current County General Plan Circulation Element roadway network (for County facilities)
- Currently built non-circulation element roads critical to local circulation

Incorporated Areas

- SANDAG Series 10 network reflecting Mobility 2030 "Reasonably Expected" funding scenario improvements through the Year 2030

Land Use (Trip Generation) Assumptions

Utilizing SANDAG regional trip rate factors, future year development conditions were modeled with the following land use assumptions:

All County Unincorporated Areas

- SANDAG Series 10 Year 2030 land uses

Incorporated Areas

- SANDAG Series 10 Year 2030 land uses

Tribal Lands

- Build-out of known or currently proposed tribal gaming facilities

Areas Outside San Diego County

- Year 2030 levels of trip attractions/productions based on SANDAG Series 10 forecasts for Riverside, Orange and Imperial Counties, and Mexico

Reference is made to the *Fallbrook & Ramona Transportation Impact Fee (TIF) Program Transportation Needs Assessment* dated January 2005 (included as Appendix A), which contains additional detail relative to the traffic modeling approach, analyses, assumptions, and findings.

Level-of-Service Assessment

The adequacy of a roadway system is often measured in terms of level-of-service (LOS). LOS is based on a comparison of traffic volume to roadway capacity (see Appendix A, Section 2.2). The LOS standard for the Fallbrook and Ramona TIF programs is "D" or better. Ideally, the existing roadway system would adequately serve existing traffic demands, and the need for new and expanded transportation facilities would be generated solely by future growth. Recognizing that existing transportation facilities often do not have adequate capacity to support existing traffic demands and that new development should not bear the cost of fixing existing deficiencies, a preliminary assessment of both existing deficiencies and future transportation needs was completed.

Figure 3 and Figure 4 display roadways with deficient LOS (i.e., LOS "E" or worse) under Year 2000 conditions, for the communities of Fallbrook and Ramona, respectively. LOS exhibits for projected Year

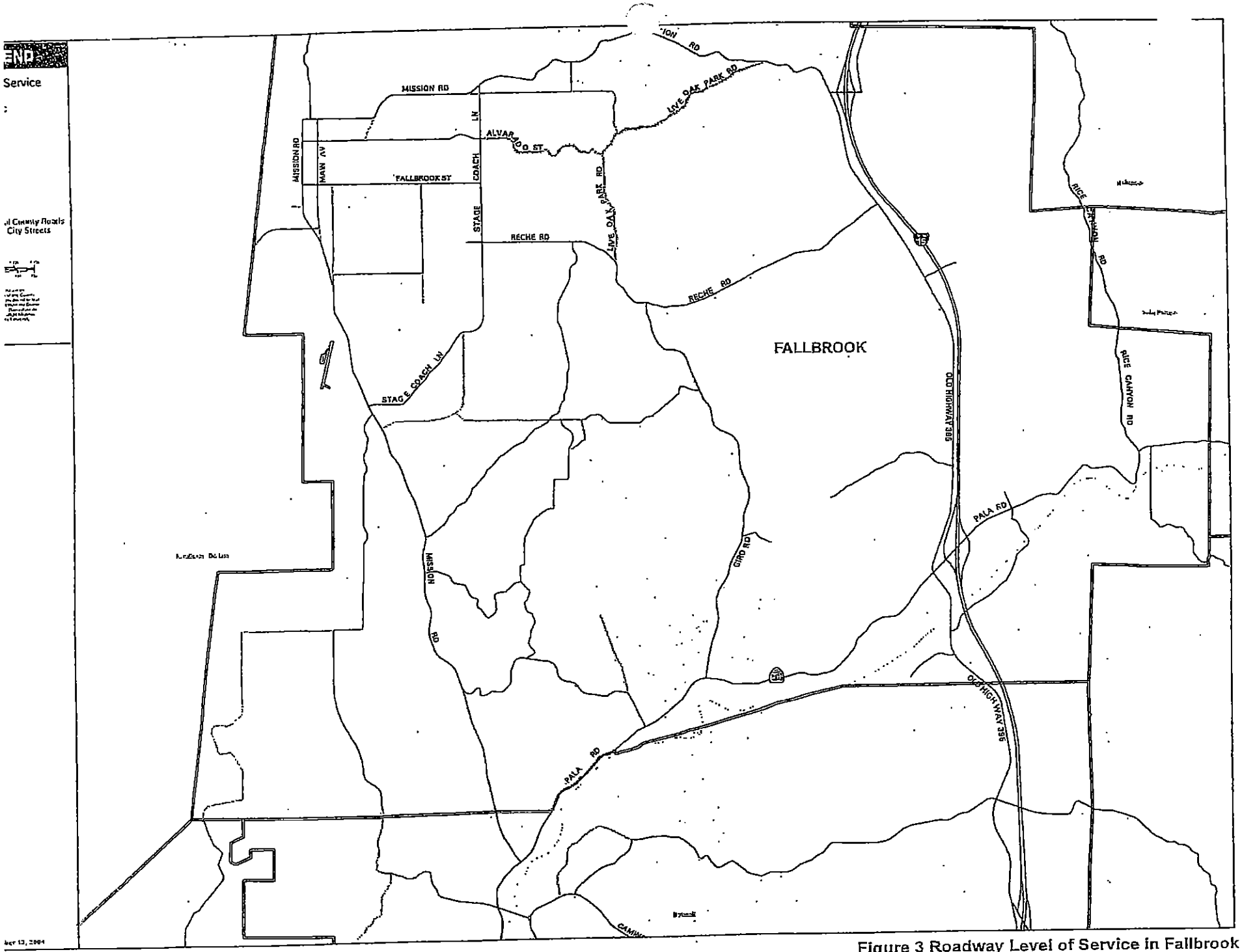


Figure 3 Roadway Level of Service in Fallbrook
Year 2000 Traffic Volumes
with Existing Network

County of San Diego
Transportation Impact Fee Program

WILSON &COMPANY

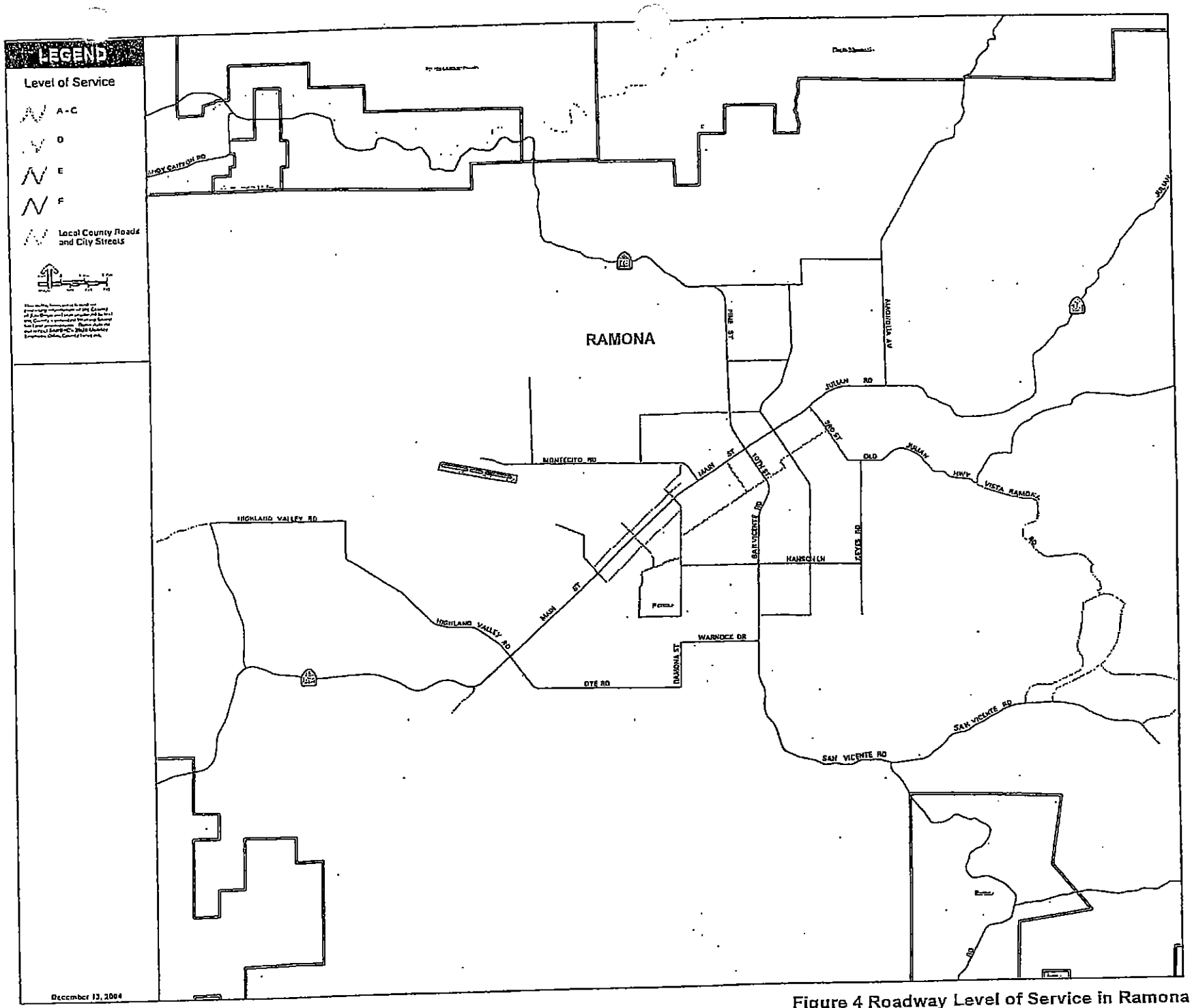


Figure 4 Roadway Level of Service in Ramona
Year 2000 Traffic Volumes
with Existing Network

County of San Diego
County of Transportation Impact Fee Program

WILSON & COMPANY

2030 conditions, and various roadway network configurations, are contained in Appendix A (Figure 3-1 and Figure 3-2 for Fallbrook, and Figure 4-1 through Figure 4-3 for Ramona).

Facility Identification Process

The proposed TIF program facilities were identified through the following process:

- Roadway system improvements required to meet LOS objectives for projected Year 2030 conditions were determined using the SANDAG Regional Transportation Model. Candidate projects previously identified by stakeholders were given consideration when developing the list of system improvements.
- For each facility, average daily traffic (ADT) volumes attributable to existing developed lands and future growth within the community were identified.
- Facilities with ADT volumes attributable to future growth within the community were identified as eligible, either in whole or in part, for TIF funding.

Program Facilities

The TIF program facilities identified for Fallbrook and Ramona are summarized in Appendix B-1 and Appendix B-2, respectively. Each facility has been assigned an identification number. Facilities with identification numbers containing an "A" or "B" prefix were identified from stakeholder input. "A" and "B" projects represent optional road network packages that were modeled. Facilities with identification numbers containing a "C" or "D" prefix were those that were added in order to adequately address outstanding LOS deficiencies. Each facility has also been identified as either "local" or "regional" for purposes of equitably apportioning eligible costs.

Additional information pertaining to identified program facilities can be found in Appendix A for Fallbrook (see Table 3.3 through Table 3.5) and Ramona (see Table 4.3 through Table 4.6). The Fallbrook and Ramona TIF facilities are conceptually depicted in Appendix B-1 and Appendix B-2, respectively.

The facilities identified in this report are intended to address future deficiencies in road capacity caused by the cumulative traffic impacts

of future development. Further studies, including required environmental review, may result in the identification of superior alternatives for dealing with cumulative traffic impacts. The Fallbrook and Ramona TIF program may be periodically reviewed and/or amended to allow funding construction of these superior alternatives.

General Plan 2020

The traffic forecasting analysis performed as part of this report was based on SANDAG Series 10 projected Year 2030 development. It should be noted that the County is currently in the process of updating the General Plan, as part of the General Plan (GP 2020) project. The County has reviewed the TIF facilities identified in this report and concluded that they do not conflict with current GP 2020 efforts. Upon adoption of GP 2020 (or any other significant modification to the existing General Plan), it is recommended that the development forecast, traffic modeling, and funding requirements to address future roadway demands be reviewed and updated accordingly.

Facility Cost Estimates

Cost Assumptions

In order to calculate TIF rates for Fallbrook and Ramona, it was necessary to develop cost estimates for each of the identified TIF facilities. These planning-level cost estimates were based on unit cost data generated from an analysis of several recent County roadway projects (with a variety of characteristics), and a review of available data from other local jurisdictions. Table 4 summarizes the applicable unit costs and other factors used to develop the facility cost estimates.

TABLE 4: Unit Costs Assumptions

ITEM	UNIT COST	DESCRIPTION
SURFACE IMPROVEMENTS		
▯ Roadway – Level Terrain	$810,000 / lane-mile	Roadway cost for various terrain conditions (includes cost of edge curb/gutters); applicable to road, shoulders & adjacent bike paths.
▯ Roadway – Rolling Terrain	$1.0M / lane-mile	
▯ Roadway – Mountainous Terrain	$1.35M / lane-mile	
▯ Parking Lot	$210,000 / acre	Parking lot pavement, striping & lighting.
INTERSECTIONS/SIGNALS		
▯ Intersection – State Route	$700,000 / each	New/modified intersection at State Route.
▯ Intersection – Major Road	$450,000 / each	New/modified intersection at major road.
▯ Signal – New	$150,000 / each	New signals (total for location).
▯ Signal – Modification	$80,000 / each	Modification of signals (total for location).
BRIDGE/RETAINING WALL STRUCTURES	$200 / square foot	Bridge and retaining wall structure costs.
RIGHT-OF-WAY		
▯ Undeveloped	$150,000 / acre	Undeveloped land with little/no adjacent uses.
▯ Rural	$450,000 / acre	Land with some adjacent uses.
▯ Urban	$875,000 / acre	Land constrained by existing adjacent uses.
UTILITIES		
▯ Minor	5% of construction	Minor impact to existing utilities.
▯ Moderate	12% of construction	Moderate impact to existing utilities.
▯ Major	20% of construction	Major impact to existing utilities.
ENVIRONMENTAL		
▯ Low	5% of construction	Low environmental costs.
▯ Medium	20% of construction	Medium environmental costs.
▯ High	45% of construction	High environmental costs.
PLANNING	10% of construction	Planning (includes General Plan amendments).
ENGINEERING	20% of construction	Design, permitting & construction oversight.
CONTINGENCY	10% of construction	Contingency costs.
PROJECT ADMINISTRATION	5% of construction	Project administration (County).

The unit cost assumptions contained in Table 4 are presented in September 2004 dollars. These costs are referenced to an *Engineering News Record* "Los Angeles Construction Cost Index" of 8,168 (September 2004).

Facility Cost Summaries

Planning-level cost estimates have been prepared for each identified TIF facility. The Fallbrook and Ramona TIF facility cost estimates are presented in Appendix C-1 and Appendix C-2, respectively. Each facility cost estimate identifies the percent of the project eligible for TIF funding, and other funding sources committed, if any.

Funding Requirements

Local Facilities

Each community's TIF rate includes a Local TIF Rate and a Regional TIF Rate. The purpose of the Local TIF Rate is to apportion eligible costs of local TIF facilities (i.e., collectors and other minor roads) to future growth within the community. Total estimated local facility costs, projected local growth, and calculated Local TIF Rates are summarized for Fallbrook and Ramona in Table 5A and Table 5B, respectively.

TABLE 5A: Fallbrook Local Facility Costs & TIF Rates

DESCRIPTION	Total [1]	Eligible [2]	Balance [3]
Local Facility Costs	$131,869,000	$70,993,000	$60,876,000
Program Administration (2%)	$1,420,000	$1,420,000	$0
Total Cost	$133,289,000	$72,413,000	$60,876,000
Estimated Local Growth		13,909 EDU's	
Local TIF Rate		$5,206 / EDU	

[1] Total local facility costs. Excludes cost of regional facilities (i.e., state routes, prime arterials, major roads, and other regionally significant roadways).
[2] Local facility costs eligible for TIF funding (based on relative percent attributable to new development).
[3] Balance of local facility costs requiring other (non-TIF) funding source(s).

TABLE 5B: Ramona Local Facility Costs & TIF Rates

DESCRIPTION	Without Northern Bypass [1]			With Northern Bypass [2]		
	Total [3]	Eligible [4]	Balance [5]	Total [3]	Eligible [4]	Balance [5]
Local Facility Costs	$75,360,000	$26,838,000	$48,522,000	$97,352,000	$53,462,000	$43,890,000
Program Administration (2%)	$537,000	$537,000	$0	$1,069,000	$1,069,000	$0
Total Cost	$75,897,000	$27,375,000	$48,522,000	$98,421,000	$54,531,000	$43,890,000
Estimated Local Growth		10,129 EDU's			10,129 EDU's	
Local TIF Rate		$2,703 / EDU			$5,384 / EDU	

[1] Includes "A", "C" and "D" projects (see Appendix B-2 and Appendix C-2).
[2] Includes "A", "B" and "C" projects (see Appendix B-2 and Appendix C-2).
[3] Total local facility costs. Excludes cost of regional facilities (i.e., state routes, prime arterials, major roads, and other regionally significant roadways).
[4] Local facility costs eligible for TIF funding (based on relative percent attributable to new development).
[5] Balance of local facility costs requiring other (non-TIF) funding source(s).

Regional Facilities

The purpose of the Regional TIF Rate is to apportion eligible costs of regional TIF facilities (i.e., state routes, prime arterials, major roads, and other regionally significant roadways) to future growth within the applicable region. Total estimated regional facility costs, projected regional growth, and calculated Regional TIF Rates are summarized in Table 6.

TABLE 6: Regional Facility Costs & TIF Rates

DESCRIPTION	TIF REGION [1]	
	North [2]	East [3]
Eligible Regional Facility Costs [4][5]	$286,930,000	$137,890,000
Estimated Regional Growth [6]	60,652 EDU's	53,118 EDU's
Regional TIF Rate	$4,731 / EDU	$2,596 / EDU

(1) Refer to Figure 2 for location of TIF Regions.
(2) Includes community of Fallbrook.
(3) Includes community of Ramona.
(4) Includes cost of eligible regional facilities identified as part of this report.
(5) Includes cost of other regional facilities (i.e., state routes, prime arterials, major roads and other regionally significant roadways) attributable to future growth identified in the *County of San Diego Transportation Impact Fee Report* (January 2005).
(6) Regional growth from the *County of San Diego Transportation Impact Fee Report* (January 2005).

Proposed Fee Rates

Table 7 summarizes the proposed total TIF rates for Fallbrook and Ramona based on the local and regional TIF rates identified in Table 5A, Table 5B and Table 6.

TABLE 7: Proposed Total TIF Rates

DESCRIPTION	FALLBROOK	RAMONA	
		Without Northern Bypass	With Northern Bypass
Local TIF Rate	$5,206 / EDU	$2,703 / EDU	$5,384 / EDU
Regional TIF Rate	$4,731 / EDU	$2,596 / EDU	$2,596 / EDU
Total TIF Rate	$9,937 / EDU	$5,299 / EDU	$7,980 / EDU

The TIF will be assessed on all new development associated with the generation of traffic. The TIF *does not* include a tiered or reduced rate structure to accommodate special types of development, such as those related to revitalization or economic development. Any credits and/or incentives for those kinds of development are not included in this program.

Other Funding Sources

The TIF is intended to fund identified transportation facilities, or portions thereof, needed to mitigate the cumulative traffic impacts of future development. Other revenue sources will be required to fund existing network deficiencies or portions of capacity not attributable to new growth. Sources of additional revenue may include:

- General and Special Taxes (including property taxes, TransNet, Gas Tax and other sales/use taxes).
- State and federal grant monies.
- County Service Area funding.
- Community Services District funding.
- Special assessments.

Table 8 summarizes annual TransNet and Gas Tax (Proposition 111) County revenues for the past five fiscal years.

TABLE 8: Historical TransNet & Gas Tax County Revenues

REVENUE SOURCE	FISCAL YEAR				
	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004
TransNet [1]	$9,351,646	$11,130,353	$12,791,116	$9,344,968	$11,729,475
Gas Tax	$40,385,012	$41,617,248	$43,385,617	$43,219,777	$43,983,514
COMBINED TOTAL	$49,736,658	$52,747,601	$56,176,733	$52,564,745	$55,712,989

[1] Proposition A (TransNet 40-year reauthorization) recently approved by voters on November 2, 2004.

In recent years, the County has allocated approximately 37% of the combined Gas Tax and TransNet revenue for building capital projects. The remaining 63% has been spent on operations and maintenance, repair, and traffic control activities. For Fiscal Year 2004-2005, approximately $19.5 million was allocated for construction of new

transportation projects. Maintaining this trend over a 25-year period would result in roughly $488 million for projects throughout the County.

TIF funds will be used for the specific improvements identified in this report to accommodate future growth, and non-TIF funds will be used to address existing deficiencies. Gas Tax and TranNet revenues will be the most reliable source of non-TIF funds. However, having TIF funds available can help the County leverage other funding sources, including state and federal grants. Grant programs often require a high level of difficult-to-find matching funds. Having a TIF program demonstrates a committed plan of action for road network improvements, and TIF revenue can provide a ready source of matching funds. Both of these factors can provide a competitive edge when competing for grants.

Annual Cost-Indexing

It is recommended the TIF rates be indexed annually in order to keep up with future increases in the cost of construction. The "Los Angeles Construction Cost Index" (LACCI) compiled by *Engineering News Record* (published by McGraw-Hill Publishing Company) is a regionally appropriate index, commonly referenced for such purposes. The TIF rates contained in this report have been calculated based on an LACCI of 8,168 (September 2004).

Indexing the rates to the LACCI is not intended to preclude the County from periodic evaluation and adjustment of the TIF rates to better reflect the cost of current construction and other unforeseen project cost increases.

Fee Schedules

The TIF applicable to a given project will be calculated as a function of estimated vehicular trip generation, expressed in terms of EDU's, multiplied by the applicable total TIF rate. Appendix D-1 and Appendix D-2 contains fee schedules for Fallbrook and Ramona, respectively, based in part on a review of estimated trip generation rates for various land uses as contained in SANDAG's *San Diego Traffic Generators Manual* (April 2002). Fees for land uses not explicitly identified in the fee schedule will be based on estimated trip

rates published in the *San Diego Traffic Generators Manual* and the "Other" land use category (see Appendix D).

Statewide Community Infrastructure Program

The Statewide Community Infrastructure Program (SCIP), sponsored by the League of California Cities (League) and the California State Association of Counties (CSAC), is a development impact fee financing program. SCIP offers tax-exempt pooled bond financing that provides economies of scale while greatly reducing cost of issuance and improving interest rates for projects of any size. Utilizing SCIP, developers can be reimbursed for fees paid in order to obtain a building permit, or fees can be funded prior to obtaining a building permit. SCIP offers the following impact fee financing alternatives:

- ***Reimbursement Program***: local agency receives impact fees at issuance of building permit; property owner is reimbursed by SCIP for eligible amount from bond proceeds.
- ***Pre-Funding Program***: impact fees set at time of approval of Tentative Map; local agency receives funds from SCIP after issuance of bonds.

Both of these programs involve the establishment of an assessment district into which applicant properties (or developments) will be required to annex. The property owner is reimbursed for the financed fees, and the bonds are payable through assessment installments levied on the landowner's property.

The California Statewide Communities Development Authority, a joint powers authority sponsored by the League and CSAC, funds these programs through the issuance of 30-year limited obligation bonds authorized by the Improvement Bond Act of 1915, with assessment liens imposed under the Municipal Improvement Act of 1913.

Some advantages of SCIP include:

- Pre-funding program can provide up front financing
- Better economies of scale due to pooled financing
- Tax-exempt financing available to smaller projects
- An alternative to fee deferral programs
- Lower costs and interest rates due to size and diversity
- SCIP handles all administration

Local agencies can become a member of SCIP by passing a resolution. After passage of the requisite resolution, individual developers or property owners can apply to SCIP for participation in eligible programs.

Program Implementation

Statement of Findings

The following information is provided to assist the County with satisfaction of the requisite statutory findings contained in §66001 of the Mitigation Fee Act:

Purpose of the Fee. The purpose of the TIF is to fund program implementation and construction of identified transportation facilities to mitigate the anticipated cumulative traffic impacts associated with future development within the communities of Fallbrook and Ramona.

Use of the Fee. The TIF will be used to fund program implementation and construction of certain local transportation facilities within the communities of Fallbrook and Ramona. The TIF will also be used to fund program implementation and construction of certain regional facilities within the applicable TIF region.

Reasonable Use (Benefit). Future development will have a significant, not easily mitigated, cumulative traffic impact on each community's local and regional road network. The TIF will be used to fund additional transportation infrastructure to accommodate future development and facilitate better traffic circulation within the communities of Fallbrook and Ramona, and the applicable region, and thus mitigate this cumulative impact.

Reasonable Need (Burden). Future development will have a significant, and not easily mitigated, cumulative traffic impact on each community's road network. The TIF will be used to fund additional transportation infrastructure alleviating some of the impacts associated with future development within the communities of Fallbrook and Ramona.

Reasonable Apportionment. The TIF facilities, or portions thereof, were identified based on an analysis of relative utilization by future development within the communities of Fallbrook and Ramona. The costs of TIF facilities will be apportioned to future development based on relative vehicular trip generation rates.

Capital Improvement Program

The following facility information is provided to assist the County with satisfaction of the Capital Improvement Program (CIP) requirements set forth in §66002 of the Mitigation Fee Act:

Approximate location. The approximate location of each identified transportation facility has been conceptually depicted and described in Appendix B-1 (Fallbrook) and Appendix B-2 (Ramona). Additional regional transportation facilities are conceptually depicted and described in the *County of San Diego Transportation Impact Fee Report* (January 2005), incorporated herein by reference.

Size. The size and/or characteristics of each identified transportation facility are provided in Appendix C-1 (Fallbrook) and Appendix C-2 (Ramona). Additional information pertaining to identified program facilities can also be found in Appendix A (see Table 3.3 through Table 3.5, and Table 4.3 through Table 4.6) The size of additional regional transportation facilities (expressed in terms of lane-miles) is contained in the *County of San Diego Transportation Impact Fee Report* (January 2005), incorporated herein by reference.

Time of Availability. The identified transportation facilities will be constructed based on availability of funding, and as necessary to address the cumulative traffic impacts of future development within the communities of Fallbrook and Ramona.

Estimated Cost. The estimated cost of each identified transportation facility (in September 2004 dollars) is provided in Appendix C-1 (Fallbrook) and Appendix C-2 (Ramona). Fee amounts included in the TIF program will fully fund the development portion of these costs. The estimated cost of additional regional transportation facilities is contained in the *County of San Diego Transportation Impact Fee Report* (January 2005), incorporated herein by reference.

Inter-Agency Coordination

Collection of TIF funds and construction of identified TIF facilities may involve varying degrees of inter-agency coordination. For example, Caltrans has jurisdiction over Highway 67 and State Route 76, portions of which may be improved as part of the TIF program.

The financial aspects and timing of construction activities for such projects will certainly require considerable attention and coordination.

The TransNet sales tax extension (Proposition A), recently approved by voters on November 2, 2004, requires local jurisdictions to collect a $2,000 fee for each new residential dwelling unit to fund the Regional Arterial System (as defined in SANDAG's most recent and adopted Regional Transportation Plan). Since State Routes and other facilities in the Regional Transportation Plan are included in the improvements for which the County TIF is collected, the County has determined that the obligation to collect the $2,000 fee is already met. In other words, there will be no additional fees collected beyond the County TIF amount in order to satisfy the TransNet requirement.

Montecito Ranch

APPENDIX B

TRAFFIC IMPACT ANALYSIS
(Volume 3 of 3 - Appendices M and N)

for the

DRAFT FINAL ENVIRONMENTAL IMPACT REPORT
SP01-001; VTM 5250RPL6; P04-045; P09-023; GPA 04-013; R04-022;
STP 08-019; ER 09-013; Log No. 01-09-013; SCH No. 2002021132

April 2010

APPENDIX M

ILV Analysis Worksheets

- ***Existing***
- ***Project Only***
- ***Near Term Cumulative***
- ***2030 Without Project***
- ***2030 With Project***
- ***Near Term Cumulative With Project (Phase)***

Traffic Signal Warrants

HCS Analysis Sheets - Mitigated Condition

Queueing Summary Worksheets

Mitigation Drawings

- ***D-Size (24"x36") Project Mitigation Drawings***
- ***CalTrans Improvements at Pine and Olive***
- ***Improvements by Cummings Ranch at Highland / Dye - Main Street (SR-67)***

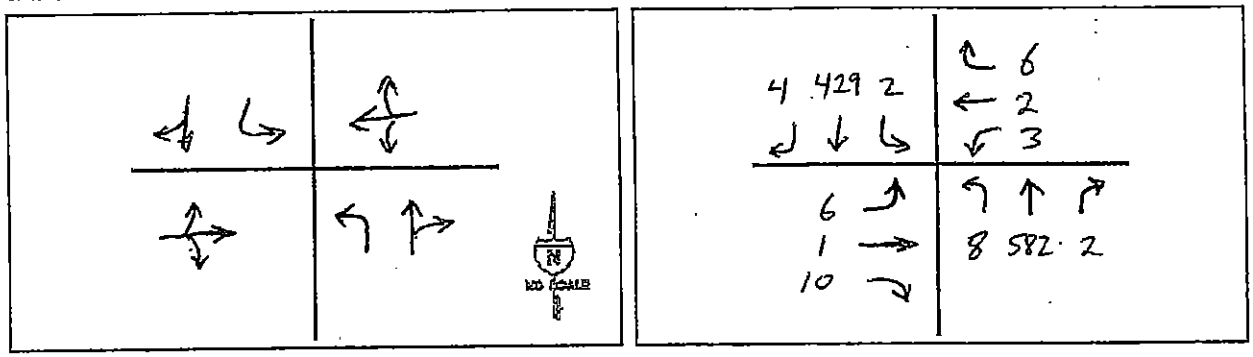
Signalized Intersection
CAPACITY ANALYSIS

INTERSECTION SR-78 (Pine) and Ash St. DIST. CO. RTE. P.M. Int. #1 AM

BY USAI DATE Feb. 15, 2007

TIME Existing (AM) PM

DIAGRAM AND TRAFFIC FLOWS:



LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
	11	2	431	
17		8	584	

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
	11			
17		8	584	

TOTAL OPERATING LEVEL (ILV/hr):

Σ
620

☒ < 1200 ILV/hr.

☐ > 1200 but < 1500 ILV/hr.

☐ > 1500 ILV/hr. (CAPACITY)

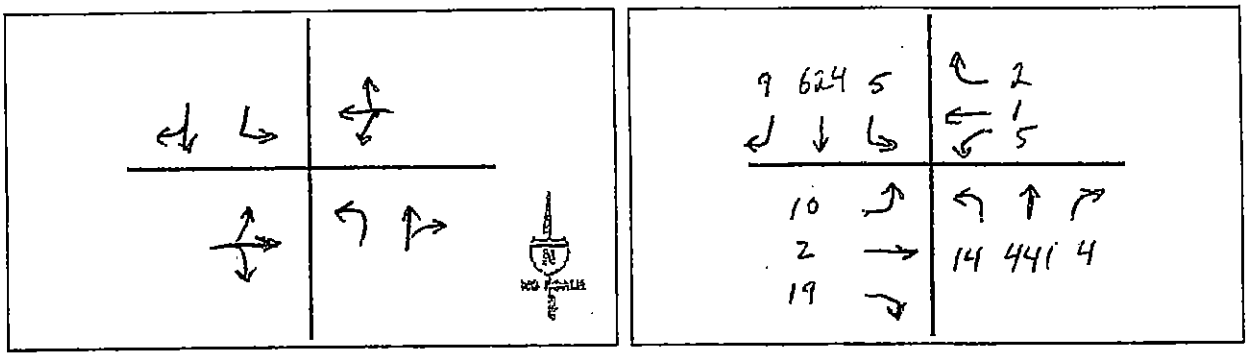
Signalized Intersection
CAPACITY ANALYSIS

INTERSECTION SR-78 (Pine) and Ash St. DIST. CO. RTE. P.M. Int. 1 PM

BY USAI DATE Feb. 15, 2007

TIME Existing ~~AM~~ PM

DIAGRAM AND TRAFFIC FLOWS:



LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
	8	5	629	
31		14	445	

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
	8		629	
31		14		

TOTAL OPERATING LEVEL (ILV/hr):

Σ
682

☒ < 1200 ILV/hr.

☐ > 1200 but < 1500 ILV/hr.

☐ > 1500 ILV/hr. (CAPACITY)

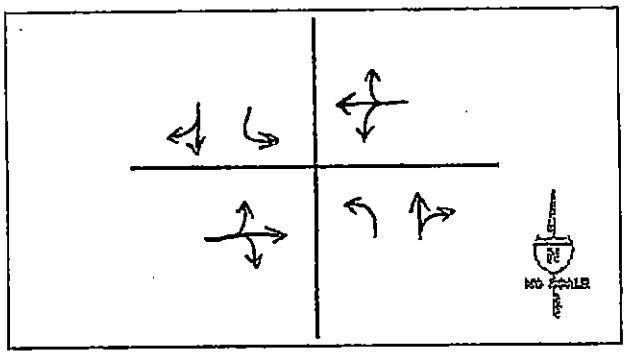
Signalized Intersection
CAPACITY ANALYSIS

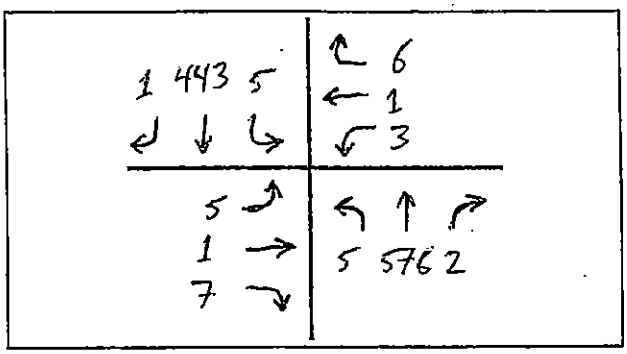
INTERSECTION SR-78 (Pine) and Olive St. DIST. CO. RTE. P.M. Int. #2 AM

BY USAI DATE Feb. 15, 2007

TIME Existing (AM) PM

DIAGRAM AND TRAFFIC FLOWS:





LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
	10	5	444	
13		5	578	

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
	10			
13		5	578	

TOTAL OPERATING LEVEL (ILV/hr):

Σ
606

- [x] < 1200 ILV/hr.
- [ ] > 1200 but < 1500 ILV/hr.
- [ ] > 1500 ILV/hr. (CAPACITY)

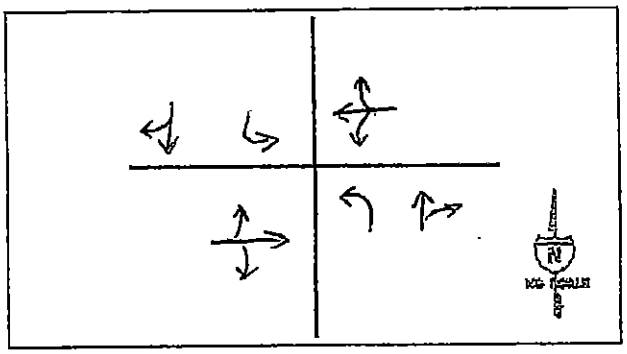
Signalized Intersection
CAPACITY ANALYSIS

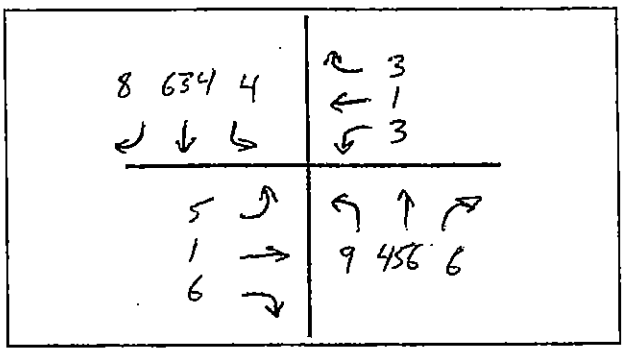
INTERSECTION SR-78 (Pine) and Olive St. DIST. CO. RTE. P.M. Int. #2 PM

BY USAI DATE Feb. 15, 2007

TIME Existing (AM) (PM)

DIAGRAM AND TRAFFIC FLOWS:





LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
	7	4	642	
12		9	462	

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
	7		642	
12		9		

TOTAL OPERATING LEVEL (ILV/hr):

Σ
670

- [x] < 1200 ILV/hr.
- [ ] > 1200 but < 1500 ILV/hr.
- [ ] > 1500 ILV/hr. (CAPACITY)

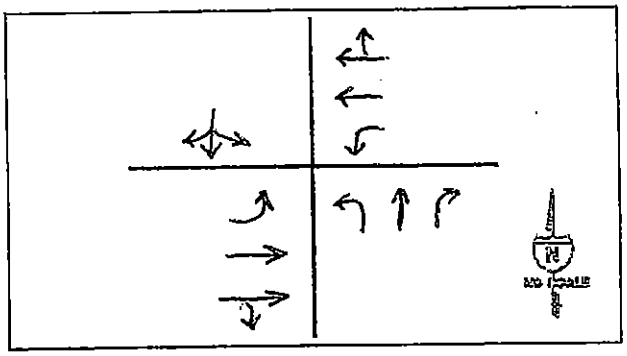
Signalized Intersection
CAPACITY ANALYSIS

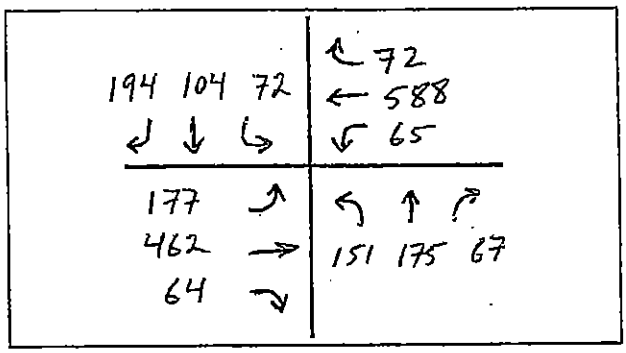
INTERSECTION Main St. & Pine St. DIST. CO. RTE. P.M. Int. #3 AM

BY USAI DATE Feb. 15, 2007

TIME Existing (AM) PM

DIAGRAM AND TRAFFIC FLOWS:





LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
65	330 330	370		
177	263 263		151 175 67	

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
	330	370		
177			175	

TOTAL OPERATING LEVEL (ILV/hr):

Σ
1,052

☒ < 1200 ILV/hr.

☐ > 1200 but < 1500 ILV/hr.

☐ > 1500 ILV/hr. (CAPACITY)

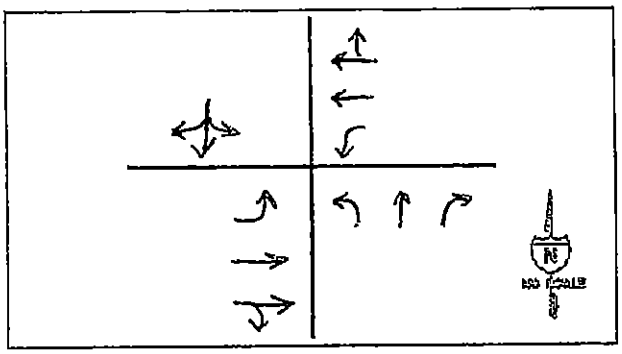
Signalized Intersection
CAPACITY ANALYSIS

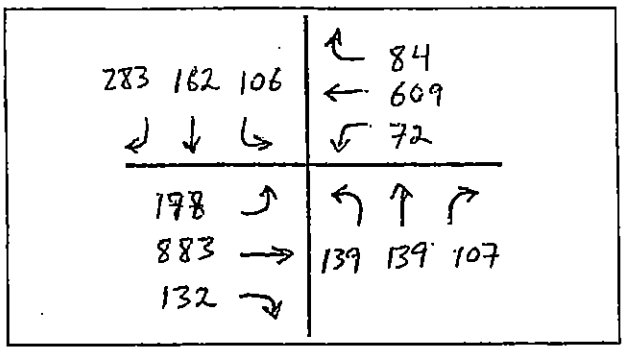
INTERSECTION Main St. & Pine St. DIST. CO. RTE. P.M. Int. #3 PM

BY USAI DATE Feb. 15, 2007

TIME Existing (AM) (PM)

DIAGRAM AND TRAFFIC FLOWS:





LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
72	346 347	551		
198	507 508		139 139 107	

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
		551		
198	508		139	

TOTAL OPERATING LEVEL (ILV/hr):

Σ
1,396

☐ < 1200 ILV/hr.

☒ > 1200 but < 1500 ILV/hr.

☐ > 1500 ILV/hr. (CAPACITY)

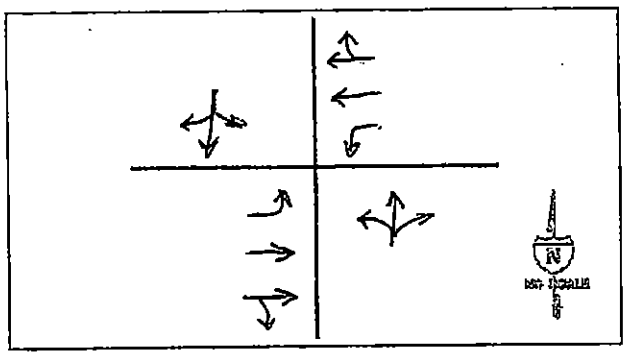
Signalized Intersection
CAPACITY ANALYSIS

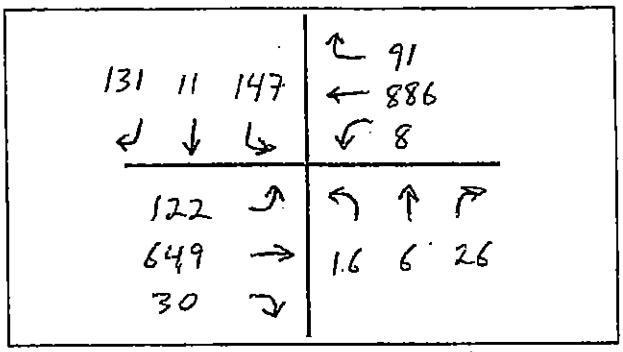
INTERSECTION Main St. @ Montecito Rd. DIST. CO. RTE. P.M. Int. # 4 AM

BY USAI DATE Feb. 15, 2007

TIME Existing (AM) PM

DIAGRAM AND TRAFFIC FLOWS:





LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
8	489 488	289		
122	339 340		48	

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
	488	289		
122			48	

TOTAL OPERATING LEVEL (ILV/hr):

Σ
947

☒ < 1200 ILV/hr.

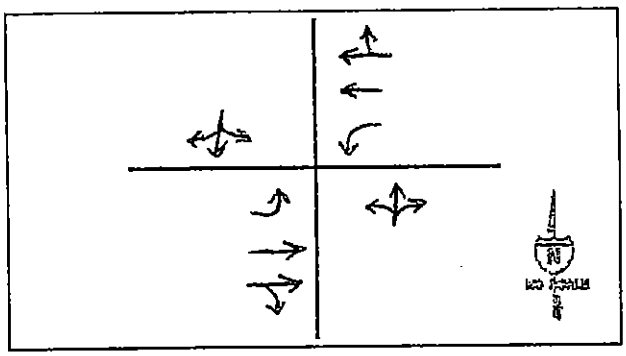
☐ > 1200 but < 1500 ILV/hr.

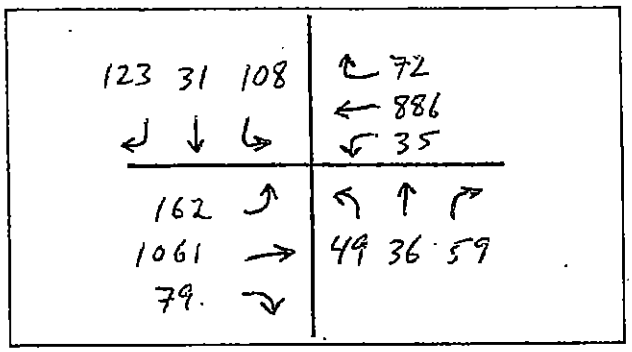
☐ > 1500 ILV/hr. (CAPACITY)

Signalized Intersection
CAPACITY ANALYSIS

INTERSECTION Main St. & Montecito Rd. DIST. CO. RTE. P.M. Int. # 4 PM
BY USAI DATE Feb. 15, 2007
TIME Existing (AM) (PM)

DIAGRAM AND TRAFFIC FLOWS:





LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
	35		479 479	262					
162		570 570					144		

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
				262					
162		570					144		

TOTAL OPERATING LEVEL (ILV/hr):

Σ
1,138

☒ < 1200 ILV/hr.

☐ > 1200 but < 1500 ILV/hr.

☐ > 1500 ILV/hr. (CAPACITY)

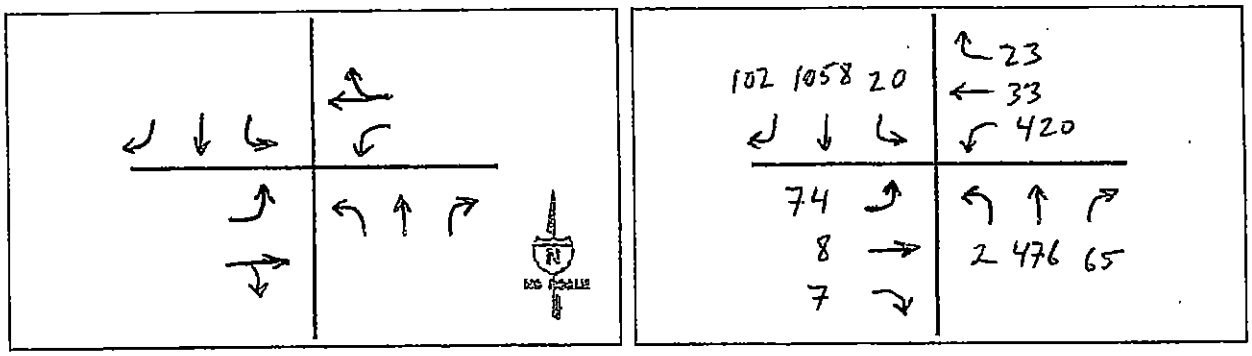
Signalized Intersection
CAPACITY ANALYSIS

INTERSECTION SR-67 @ Dye Rd/Highland Valley Rd. DIST. CO. RTE. P.M. Int. # 7 AM

BY USAI DATE Feb. 15, 2007

TIME Existing (AM) PM

DIAGRAM AND TRAFFIC FLOWS:



LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
	420		56	20		102 1058			
74		15			2		476 65		

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
	420		56	20		1058			

TOTAL OPERATING LEVEL (ILV/hr):

Σ
1,554

☐ < 1200 ILV/hr.

☐ > 1200 but < 1500 ILV/hr.

☒ > 1500 ILV/hr. (CAPACITY)

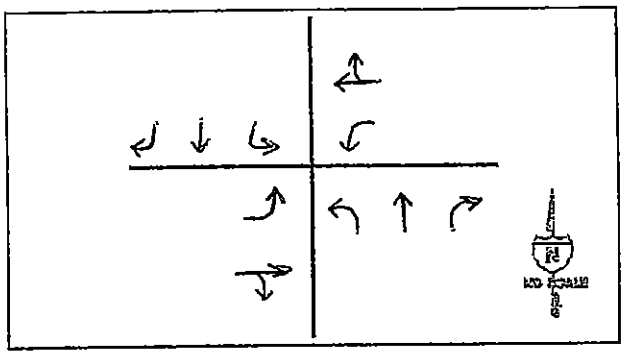
Signalized Intersection
CAPACITY ANALYSIS

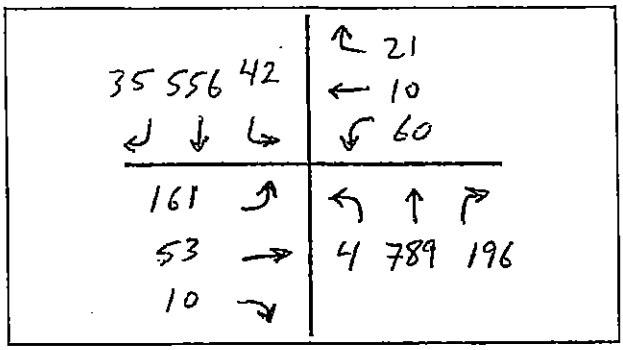
INTERSECTION SR-67 @ Dye Rd / Highland Valley Rd. DIST. CO. RTE. P.M. Int. #7 PM

BY USAI DATE Feb. 15, 2007

TIME Existing (AM) (PM)

DIAGRAM AND TRAFFIC FLOWS:





LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
60	31	42	35 556	
161	63	4	789 196	

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
		42		
161	63		789	

TOTAL OPERATING LEVEL (ILV/hr):

Σ
1,055

- [x] < 1200 ILV/hr.
- [ ] > 1200 but < 1500 ILV/hr.
- [ ] > 1500 ILV/hr. (CAPACITY)

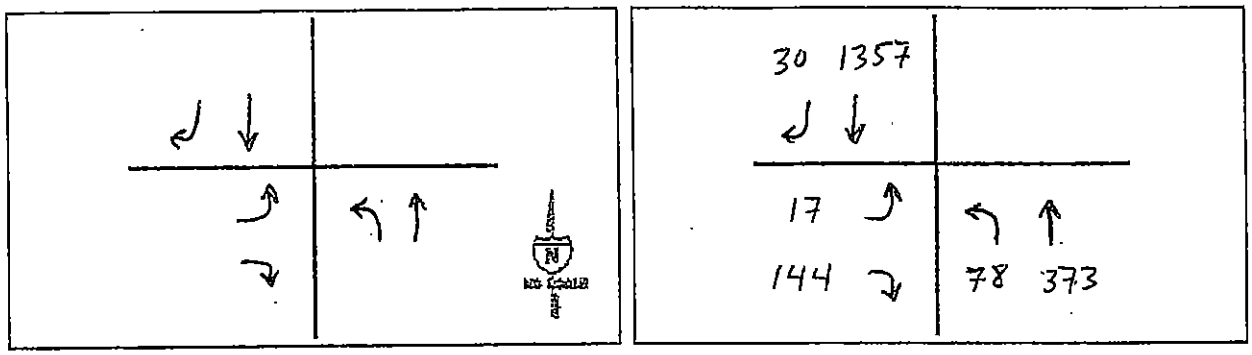
Signalized Intersection
CAPACITY ANALYSIS

INTERSECTION SR-67 @ Archie Moore Rd. DIST. CO. RTE. P.M. Int. # 8 AM

BY USAI DATE Feb. 15, 2007

TIME Existing (AM) PM

DIAGRAM AND TRAFFIC FLOWS:



LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
				30 1357					
17 144			78 78		295				

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
				1357					
144			78						

TOTAL OPERATING LEVEL (ILV/hr):

Σ
1,579

☐ < 1200 ILV/hr.

☐ > 1200 but < 1500 ILV/hr.

☒ > 1500 ILV/hr. (CAPACITY)

Signalized Intersection
CAPACITY ANALYSIS

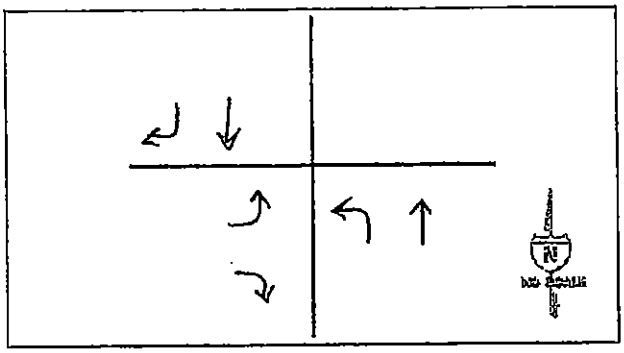
INTERSECTION SR-67 @ Archie Moore Rd

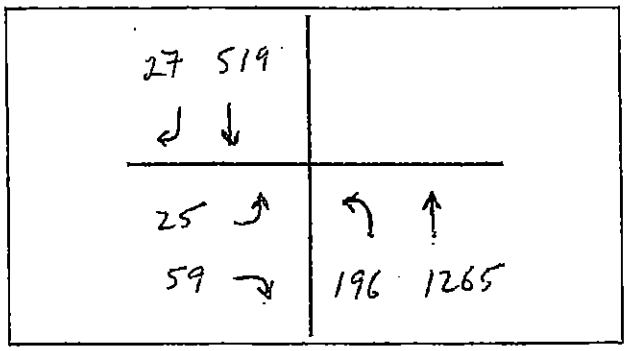
DIST. CO. RTE. P.M. Int. #8 PM

BY USAI DATE Feb. 15, 2007

TIME Existing (AM) (PM)

DIAGRAM AND TRAFFIC FLOWS:





LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
				27 519					
25 59			196 196		1,069				

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
59			196		1,069				

TOTAL OPERATING LEVEL (ILV/hr):

Σ
1,324

☐ < 1200 ILV/hr.

☒ > 1200 but < 1500 ILV/hr.

☐ > 1500 ILV/hr. (CAPACITY)

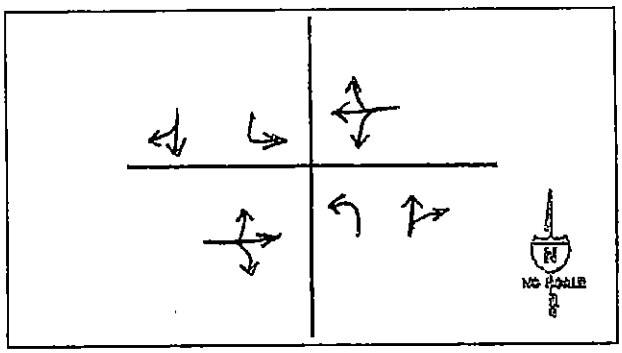
Signalized Intersection
CAPACITY ANALYSIS

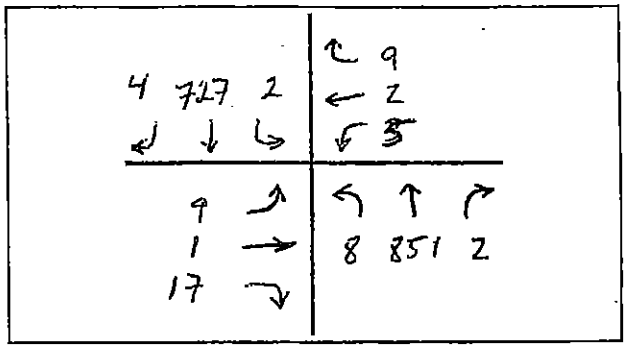
INTERSECTION SR-78 (Pine) and Ash St. DIST. CO. RTE. P.M. Int. #1 AM

BY USAI DATE Feb. 16, 2007

TIME Near Term (AM) PM

DIAGRAM AND TRAFFIC FLOWS:





LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
	16	2	731	
27		8	853	

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
	16			
27		8	853	

TOTAL OPERATING LEVEL (ILV/hr):

Σ
904

☒ < 1200 ILV/hr.

☐ > 1200 but < 1500 ILV/hr.

☐ > 1500 ILV/hr. (CAPACITY)

Signalized Intersection
CAPACITY ANALYSIS

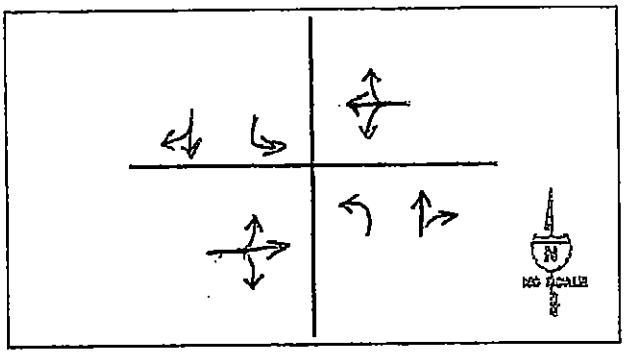
INTERSECTION SR-78 (Pine) and Ash St.

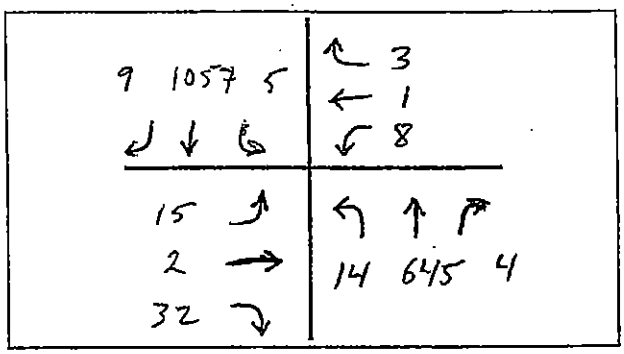
DIST. CO. RTE. P.M. Int. #1 PM

BY USAI DATE Feb. 16, 2007

TIME NT (AM) (PM)

DIAGRAM AND TRAFFIC FLOWS:





LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
			12	5		1066			
49					14		649		

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
			← 12			1066 ↓			
49 →					14				

TOTAL OPERATING LEVEL (ILV/hr):

Σ
1,141

☒ < 1200 ILV/hr.

☐ > 1200 but < 1500 ILV/hr.

☐ > 1500 ILV/hr. (CAPACITY)

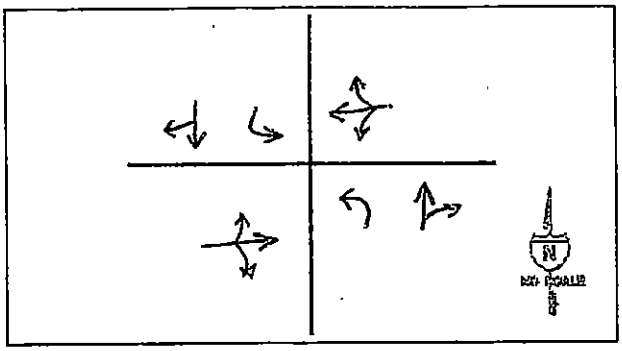
Signalized Intersection
CAPACITY ANALYSIS

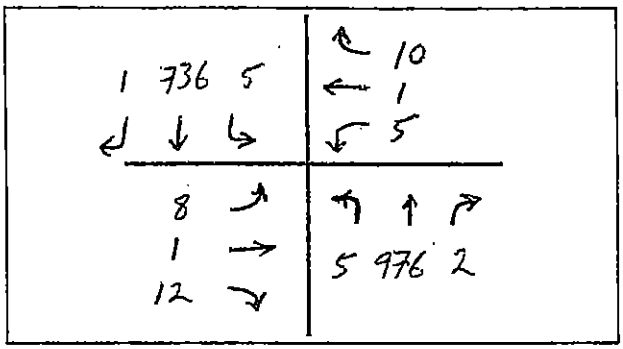
INTERSECTION SR-78 (Pine) and Olive St. DIST. CO. RTE. P.M. Int. #2 AM

BY USAI DATE Feb. 16, 2007

TIME NT (AM) PM

DIAGRAM AND TRAFFIC FLOWS:





LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
	16	5	737	
21		5	978	

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
	16			
21		5	978	

TOTAL OPERATING LEVEL (ILV/hr):

Σ
1,020

☒ < 1200 ILV/hr.

☐ > 1200 but < 1500 ILV/hr.

☐ > 1500 ILV/hr. (CAPACITY)

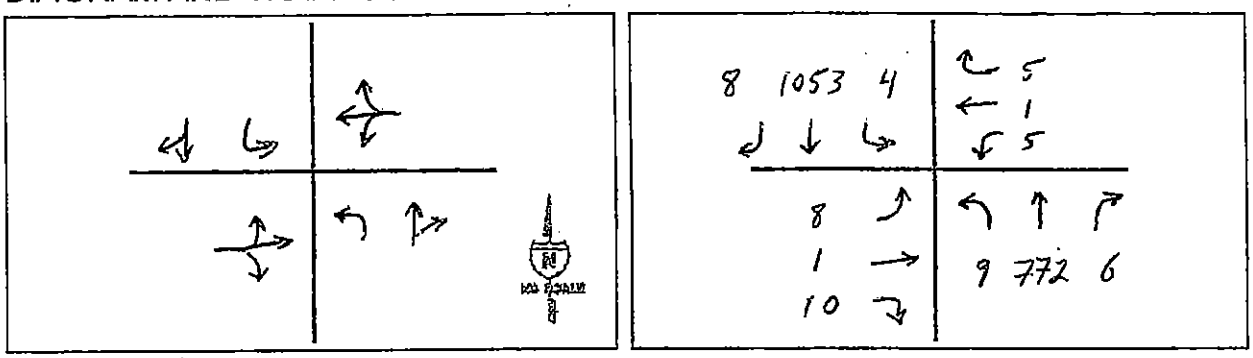
Signalized Intersection
CAPACITY ANALYSIS

INTERSECTION SR-78 (Pine) and Olive St. DIST. CO. RTE. P.M. Int. #2 PM

BY USAI DATE Feb. 16, 2007

TIME NT (AM) (PM)

DIAGRAM AND TRAFFIC FLOWS:



LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
	11	4	1061	
19		9	778	

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
	11		1061	
19		9		

TOTAL OPERATING LEVEL (ILV/hr):

Σ
1,100

☒ < 1200 ILV/hr.

☐ > 1200 but < 1500 ILV/hr.

☐ > 1500 ILV/hr. (CAPACITY)

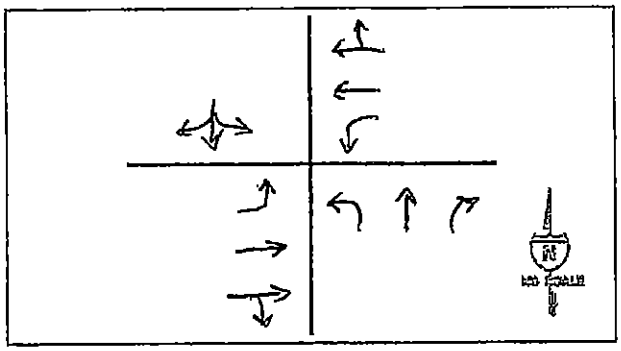
Signalized Intersection
CAPACITY ANALYSIS

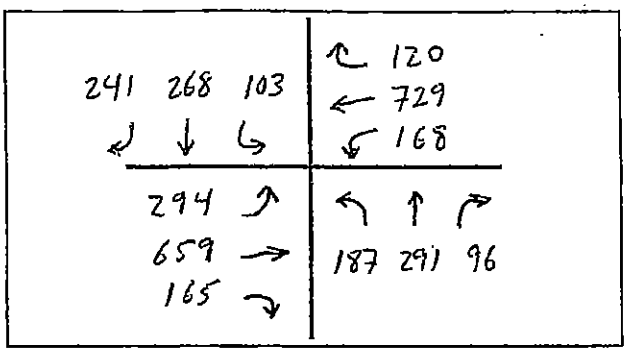
INTERSECTION Main St. & Pine St. DIST. CO. RTE. P.M. Int. #3 AM

BY USAI DATE Feb. 16, 2007

TIME NT (AM) PM

DIAGRAM AND TRAFFIC FLOWS:





LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
	168		425 424	612					
294		412 412					187 291 96		

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
			425	612					
294							291		

TOTAL OPERATING LEVEL (ILV/hr):

Σ
1,622

☐ < 1200 ILV/hr.

☐ > 1200 but < 1500 ILV/hr.

☒ > 1500 ILV/hr. (CAPACITY)

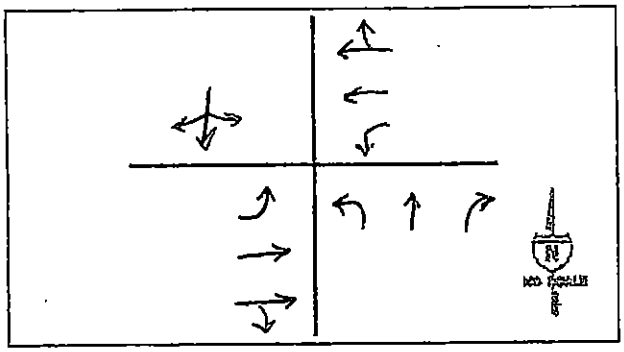
Signalized Intersection
CAPACITY ANALYSIS

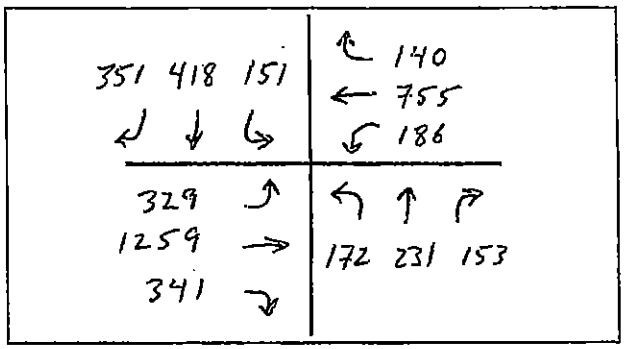
INTERSECTION Main St. & Pine St. DIST. CO. RTE. P.M. Int. #3 PM

BY USAI DATE Feb. 16, 2007

TIME NT (AM) (PM)

DIAGRAM AND TRAFFIC FLOWS:





LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
	186		448 447	920					
329		800 800					172 231/53		

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
				920					
329		800					231		

TOTAL OPERATING LEVEL (ILV/hr):

Σ
2,280

☐ < 1200 ILV/hr.

☐ > 1200 but < 1500 ILV/hr.

☒ > 1500 ILV/hr. (CAPACITY)

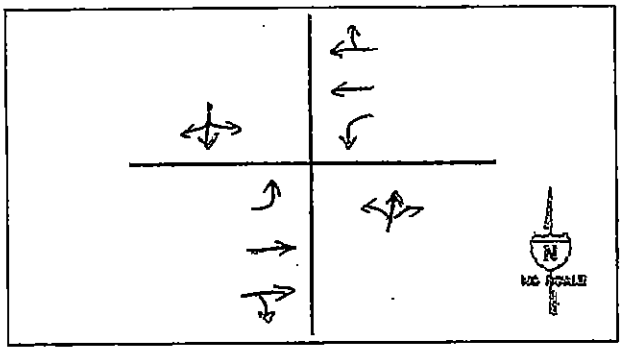
Signalized Intersection
CAPACITY ANALYSIS

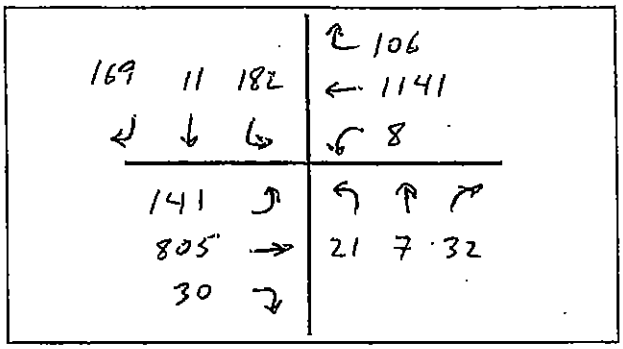
INTERSECTION Main St. & Montecito Rd. DIST. CO. RTE. P.M. Int. #4 AM

BY USAI DATE Feb. 16, 2007

TIME NT (AM) PM

DIAGRAM AND TRAFFIC FLOWS:





LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
8	624 623	362		
141	417 418		60	

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
	624	362		
141			60	

TOTAL OPERATING LEVEL (ILV/hr):

Σ
1,187

☒ < 1200 ILV/hr.

☐ > 1200 but < 1500 ILV/hr.

☐ > 1500 ILV/hr. (CAPACITY)

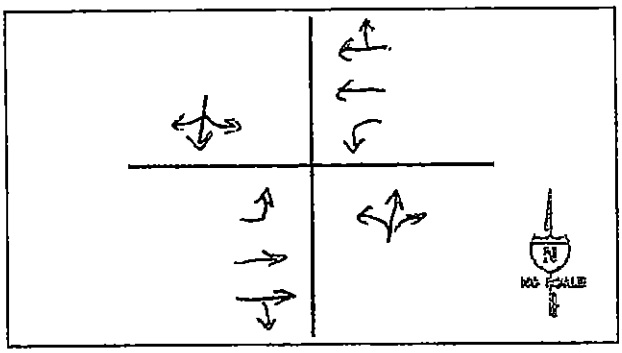
Signalized Intersection
CAPACITY ANALYSIS

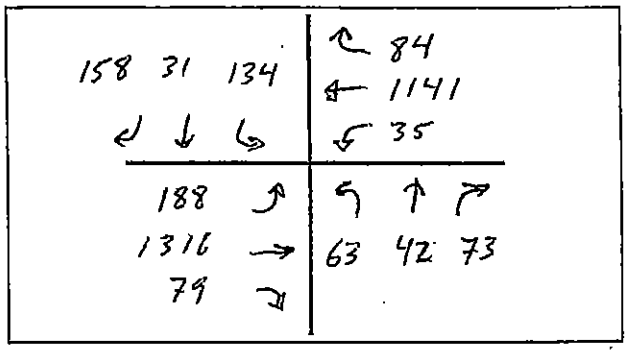
INTERSECTION Main St. & Monterito Rd. DIST. CO. RTE. P.M. Int. #4 PM

BY USKI DATE Feb. 16, 2007

TIME NT (AM) (PM)

DIAGRAM AND TRAFFIC FLOWS:





LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
	35		613 612	323					
188		697 698					178		

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
				323					
188		698					178		

TOTAL OPERATING LEVEL (ILV/hr):

Σ
1,387

☐ < 1200 ILV/hr.

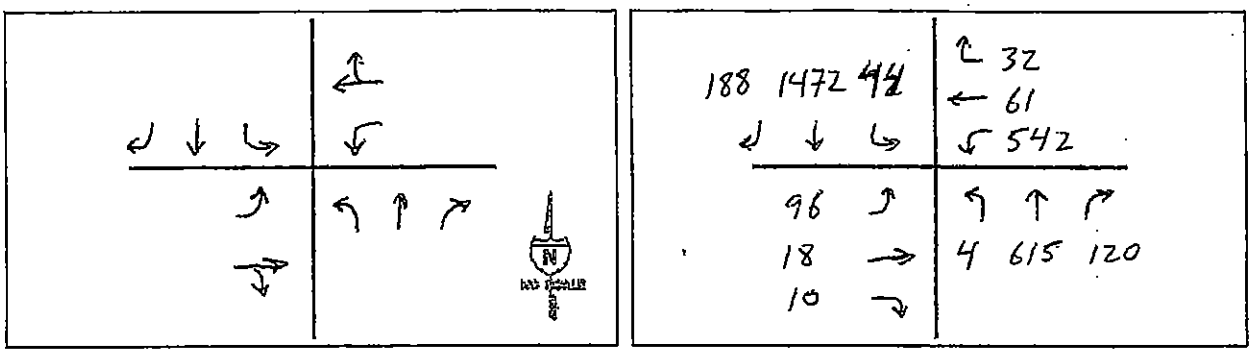
☒ > 1200 but < 1500 ILV/hr.

☐ > 1500 ILV/hr. (CAPACITY)

Signalized Intersection
CAPACITY ANALYSIS

INTERSECTION SR-67 @ Dye Rd./Highland Valley Rd. DIST. CO. RTE. P.M. Int. #7 AM
BY USAI DATE Feb. 16, 2007
TIME NT (AM) PM

DIAGRAM AND TRAFFIC FLOWS:



LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
	542		93	44		188 1472			
96		28			4		615 120		

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
	542		93	44		1472			

TOTAL OPERATING LEVEL (ILV/hr):

Σ
2,151

☐ < 1200 ILV/hr.

☐ > 1200 but < 1500 ILV/hr.

☒ > 1500 ILV/hr. (CAPACITY)

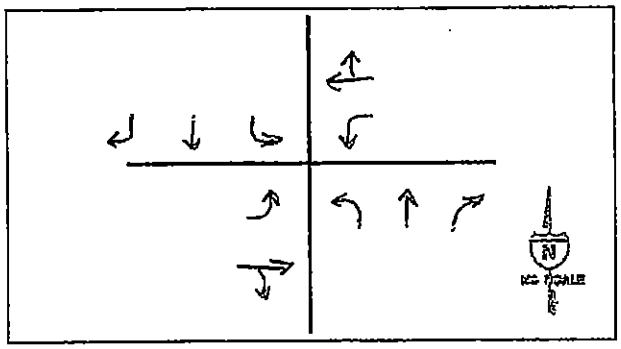
Signalized Intersection
CAPACITY ANALYSIS

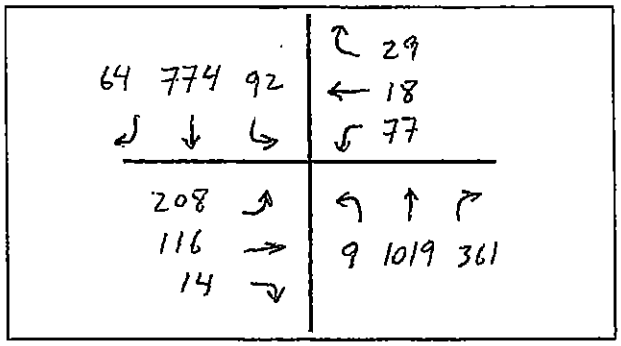
INTERSECTION SR-67 @ Dye Rd/Highland Valley Rd. DIST. CO. RTE. P.M. Int. #7 PM

BY USAI DATE Feb. 16, 2007

TIME NT (AM) (PM)

DIAGRAM AND TRAFFIC FLOWS:





LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
	77		47	92		64 774			
208		130			9		1019 361		

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
				92					
208		130					1019		

TOTAL OPERATING LEVEL (ILV/hr):

Σ
1,449

☐ < 1200 ILV/hr.

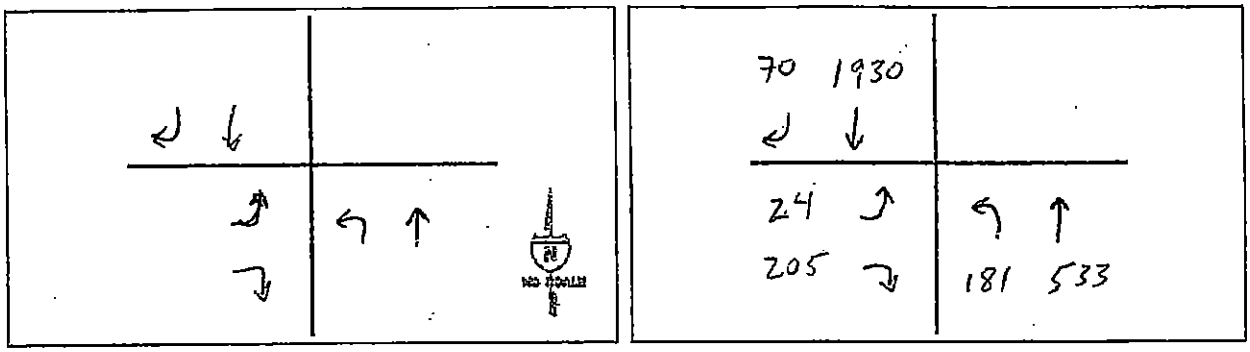
☒ > 1200 but < 1500 ILV/hr.

☐ > 1500 ILV/hr. (CAPACITY)

Signalized Intersection
CAPACITY ANALYSIS

INTERSECTION SR-67 @ Archie Moore Rd. DIST. CO. RTE. P.M. Int. # 8 AM
BY USAI DATE Feb. 16, 2007
TIME NT (AM) PM

DIAGRAM AND TRAFFIC FLOWS:



LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
		70 1930		
24 205	181 181	352		

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
		1930		
205	181			

TOTAL OPERATING LEVEL (ILV/hr):

Σ
2,316

☐ < 1200 ILV/hr.

☐ > 1200 but < 1500 ILV/hr.

☒ > 1500 ILV/hr. (CAPACITY)

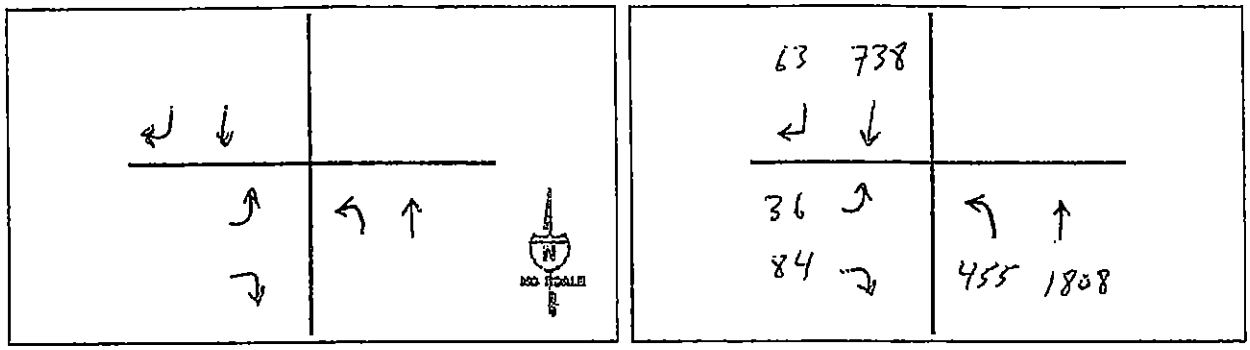
Signalized Intersection
CAPACITY ANALYSIS

INTERSECTION SR-67 @ Archie Moore Rd. DIST. CO. RTE. P.M. Int. # 8 PM

BY USAI DATE Feb. 16, 2007

TIME NT (AM) (PM)

DIAGRAM AND TRAFFIC FLOWS:



LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
				63 738					
36 84			455 455		1,353				

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
84			455		1353				

TOTAL OPERATING LEVEL (ILV/hr):

Σ
1,892

☐ < 1200 ILV/hr.

☐ > 1200 but < 1500 ILV/hr.

☒ > 1500 ILV/hr. (CAPACITY)

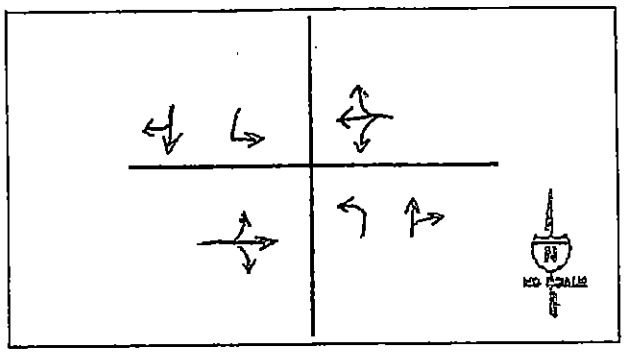
Signalized Intersection
CAPACITY ANALYSIS

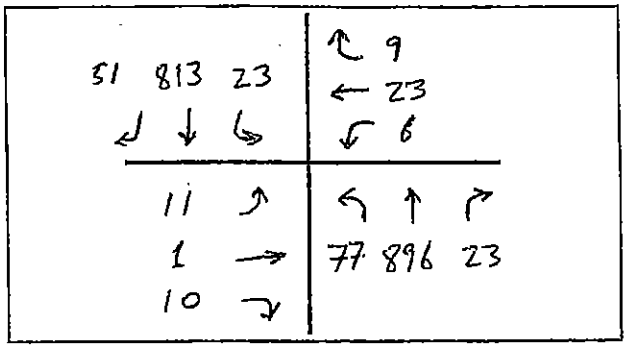
INTERSECTION SR-78 (Pine) and Ash St. DIST. CO. RTE. P.M. Int. #1 AM

BY USAI DATE Feb. 16, 2007

TIME 80 (AM) PM

DIAGRAM AND TRAFFIC FLOWS:





LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
	38	23	864	
22		77	919	

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
	← 38			
22 →		77	919	

TOTAL OPERATING LEVEL (ILV/hr):

Σ
1,056

☒ < 1200 ILV/hr.

☐ > 1200 but < 1500 ILV/hr.

☐ > 1500 ILV/hr. (CAPACITY)

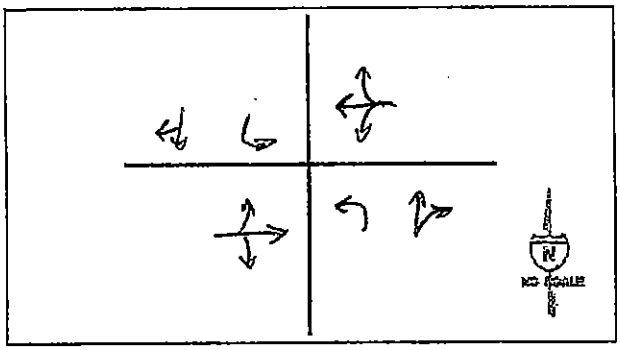
Signalized Intersection
CAPACITY ANALYSIS

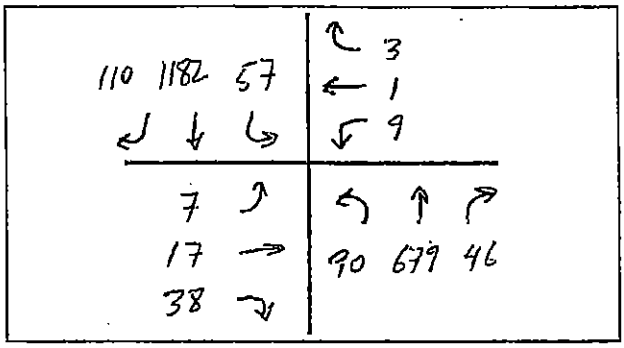
INTERSECTION SR-78 (Pine) and Ash St. DIST. CO. RTE. P.M. Int. # 1 PM

BY USAI DATE Feb. 16, 2007

TIME 80 (AM) (PM)

DIAGRAM AND TRAFFIC FLOWS:





LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
	13	57	1292	
62		90	725	

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
	13		1292	
62		90		

TOTAL OPERATING LEVEL (ILV/hr):

Σ
1,457

☐ < 1200 ILV/hr.

☒ > 1200 but < 1500 ILV/hr.

☐ > 1500 ILV/hr. (CAPACITY)

Signalized Intersection
CAPACITY ANALYSIS

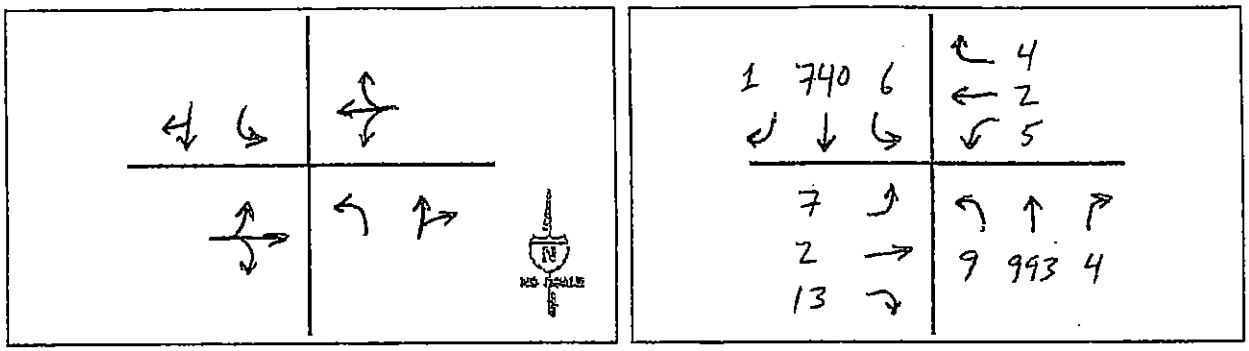
INTERSECTION SR-78 (Pine) and Olive

DIST. CO. RTE. P.M. Int. # 2 AM

BY USAI DATE Feb. 16, 2007

TIME 80 (AM) PM

DIAGRAM AND TRAFFIC FLOWS:



LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
	11	6	741	
22		9	997	

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
	11			
22		9	997	

TOTAL OPERATING LEVEL (ILV/hr):

Σ
1,039

☒ < 1200 ILV/hr.

☐ > 1200 but < 1500 ILV/hr.

☐ > 1500 ILV/hr. (CAPACITY)

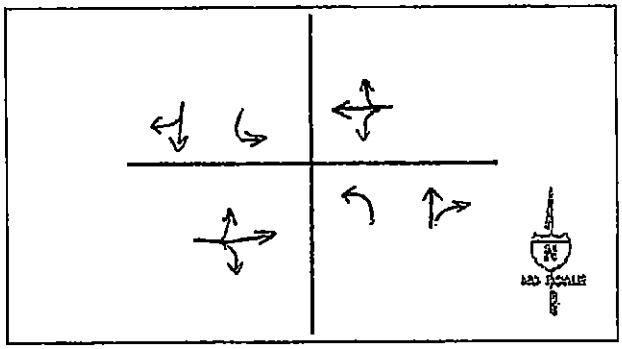
Signalized Intersection
CAPACITY ANALYSIS

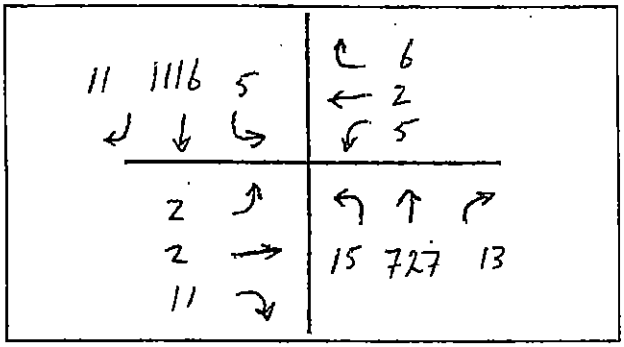
INTERSECTION SR-78 (Pine) and Olive St. DIST. CO. RTE. P.M. Int. # 2 PM

BY USAI DATE Feb. 15, 2007

TIME 80 (AM) (PM)

DIAGRAM AND TRAFFIC FLOWS:





LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
	13	5	1127	
15		15	740	

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
	13		1127	
15		15		

TOTAL OPERATING LEVEL (ILV/hr):

Σ
1,170

☒ < 1200 ILV/hr.

☐ > 1200 but < 1500 ILV/hr.

☐ > 1500 ILV/hr. (CAPACITY)

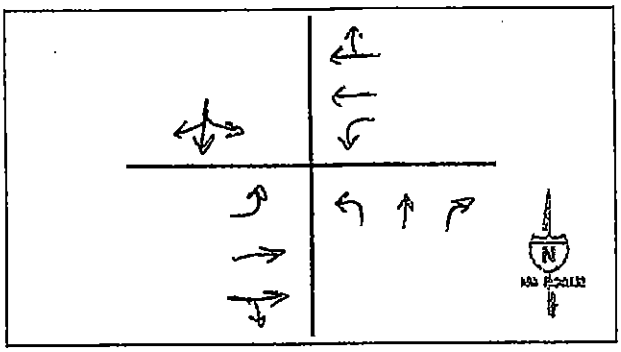
Signalized Intersection
CAPACITY ANALYSIS

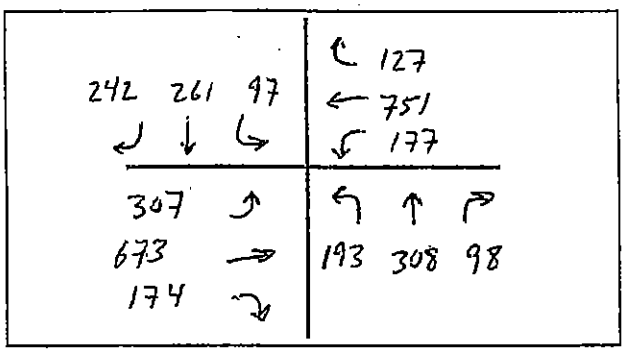
INTERSECTION Main St. & Pine St. DIST. CO. RTE. P.M. Int. # 3 AM

BY USAI DATE Feb. 16, 2007

TIME 80 (AM) PM

DIAGRAM AND TRAFFIC FLOWS:





LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
	177		439 439	600					
307		423 424					193 308 98		

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
			439	600					
307							308		

TOTAL OPERATING LEVEL (ILV/hr):

Σ
1,654

☐ < 1200 ILV/hr.

☐ > 1200 but < 1500 ILV/hr.

☒ > 1500 ILV/hr. (CAPACITY)

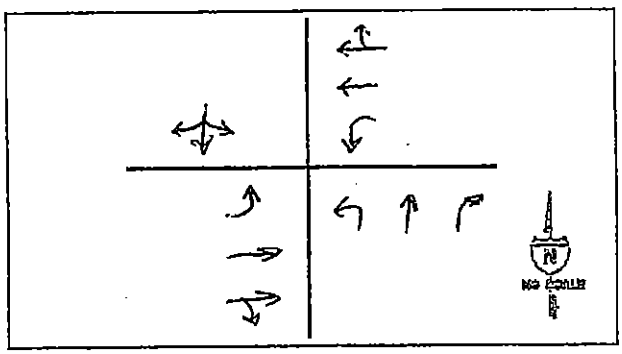
Signalized Intersection
CAPACITY ANALYSIS

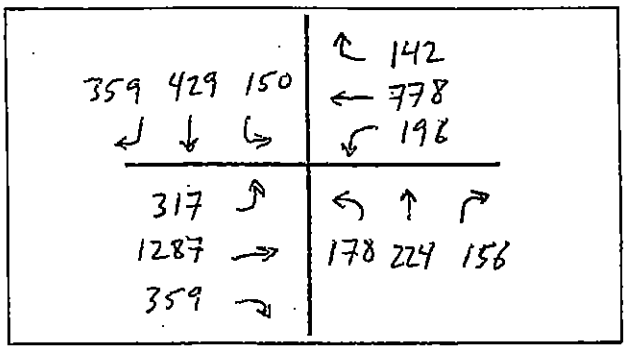
INTERSECTION Main St. @ Pine St. DIST. CO. RTE. P.M. Int. # 3 PM

BY USAI DATE Feb. 16, 2007

TIME 80 (AM) (PM)

DIAGRAM AND TRAFFIC FLOWS:





LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
196	460 460	938		
317	823 823		178 224 156	

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
		938		
317	823		224	

TOTAL OPERATING LEVEL (ILV/hr):

Σ
2,302

☐ < 1200 ILV/hr.

☐ > 1200 but < 1500 ILV/hr.

☒ > 1500 ILV/hr. (CAPACITY)

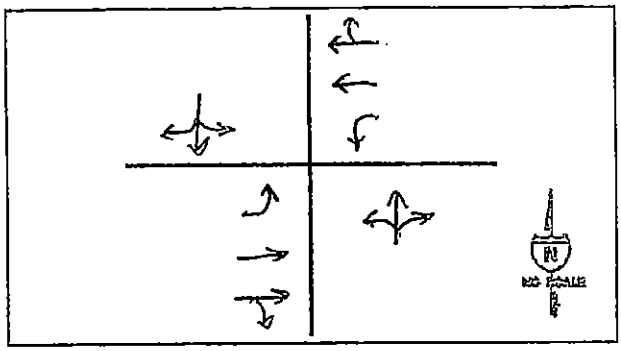
Signalized Intersection
CAPACITY ANALYSIS

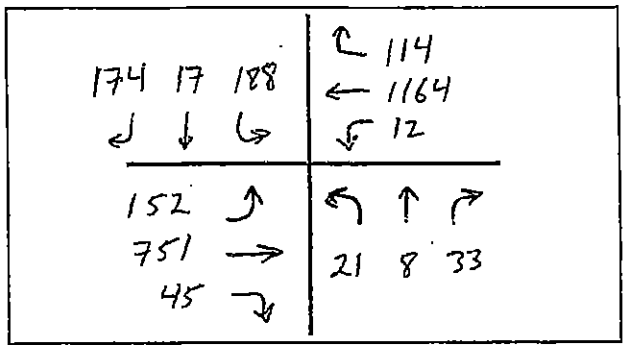
INTERSECTION Main St. @ Montecito Rd. DIST. CO. RTE. P.M. Int. # 4 AM

BY USAI DATE Feb. 16, 2007

TIME 80 (AM) PM

DIAGRAM AND TRAFFIC FLOWS:





LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
	12		639 639	379					
152		398 398					62		

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
			639	379					
152							62		

TOTAL OPERATING LEVEL (ILV/hr):

Σ
1,232

☐ < 1200 ILV/hr.

☒ > 1200 but < 1500 ILV/hr.

☐ > 1500 ILV/hr. (CAPACITY)

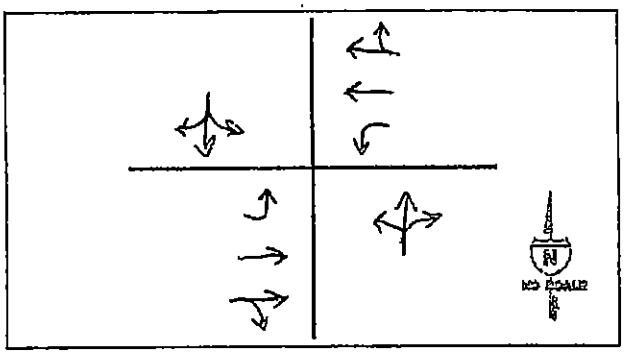
Signalized Intersection
CAPACITY ANALYSIS

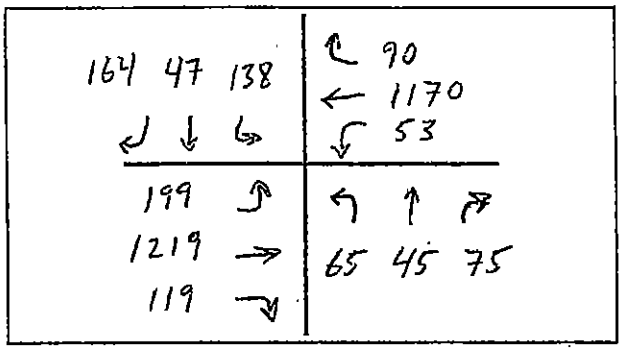
INTERSECTION Main St. @ Montecito Rd. DIST. CO. RTE. P.M. Int. # 4 PM

BY USRI DATE Feb. 16, 2007

TIME BO (AM) (PM)

DIAGRAM AND TRAFFIC FLOWS:





LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
	53		630 630	349					
199		669 669					185		

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
				349					
199		669					185		

TOTAL OPERATING LEVEL (ILV/hr):

Σ
1,402

☐ < 1200 ILV/hr.

☒ > 1200 but < 1500 ILV/hr.

☐ > 1500 ILV/hr. (CAPACITY)

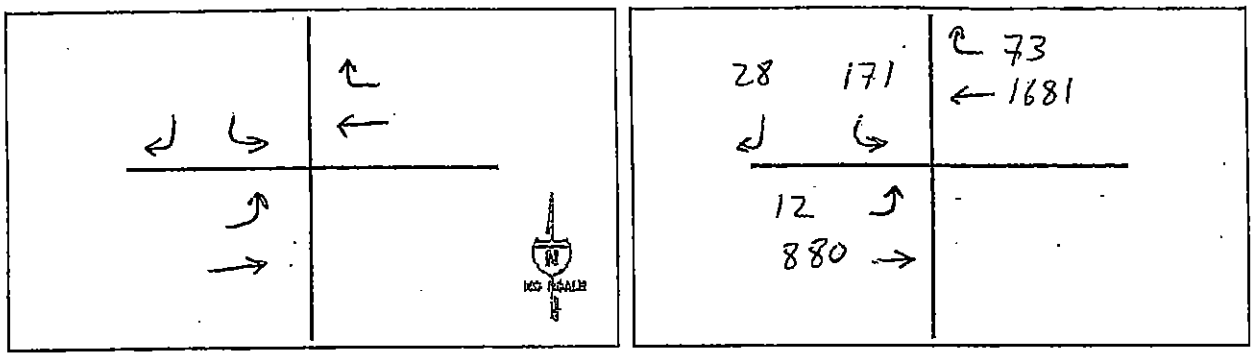
Signalized Intersection
CAPACITY ANALYSIS

INTERSECTION SR-67 (Main St) & SR-330 DIST. CO. RTE. P.M. Int. # 6 AM

BY USAI DATE Feb. 16, 2007

TIME 80 (AM) PM

DIAGRAM AND TRAFFIC FLOWS:



LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
	73 1681	28 171		
12 12	868			

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
	1681	171		
12				

TOTAL OPERATING LEVEL (ILV/hr):

Σ
1,864

☐ < 1200 ILV/hr.

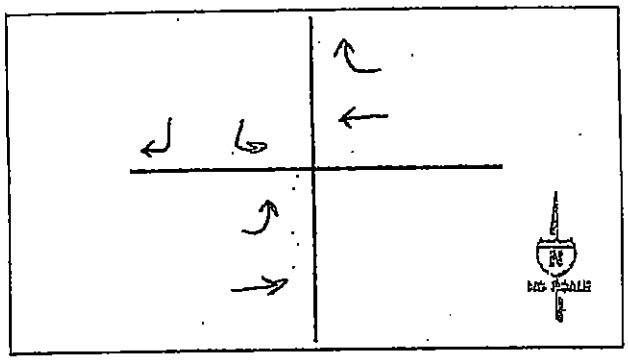
☐ > 1200 but < 1500 ILV/hr.

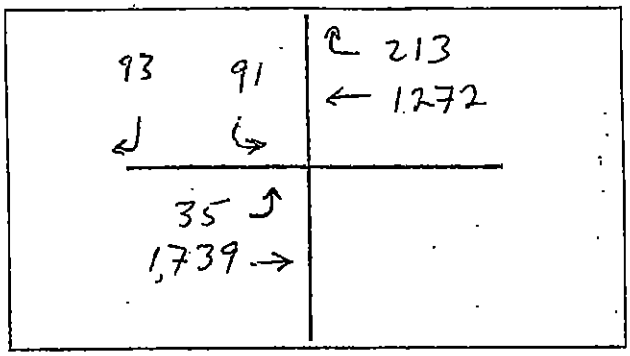
☒ > 1500 ILV/hr. (CAPACITY)

Signalized Intersection
CAPACITY ANALYSIS

INTERSECTION SR-67 (Main St) & SR-330 DIST. CO. RTE. P.M. Int. # 6 PM
BY USAI DATE Feb. 16, 2007
TIME 80 (AM) (PM)

DIAGRAM AND TRAFFIC FLOWS:





LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
			213 1272	93 91					
35 35		1704							

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
				91					
35		1704							

TOTAL OPERATING LEVEL (ILV/hr):

Σ
1,830

☐ < 1200 ILV/hr.

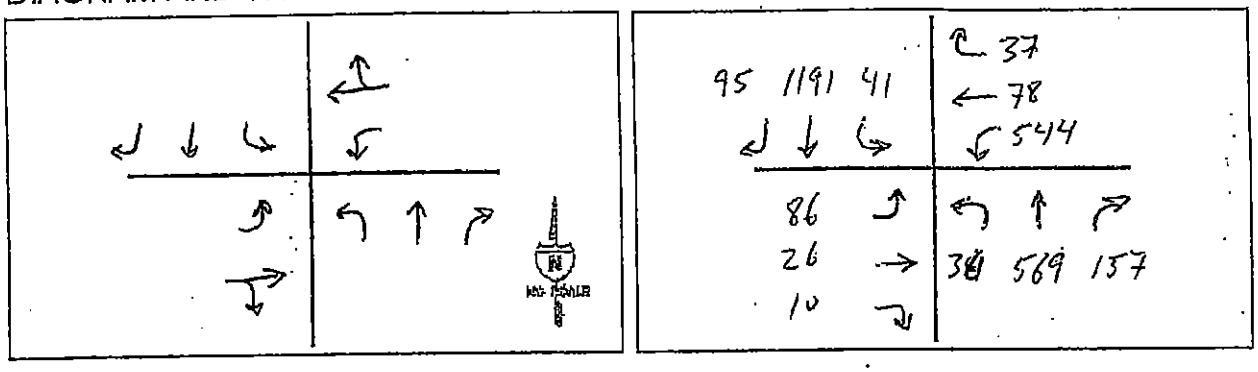
☐ > 1200 but < 1500 ILV/hr.

☒ > 1500 ILV/hr. (CAPACITY)

Signalized Intersection
CAPACITY ANALYSIS

INTERSECTION SR-67 @ Dye Rd/Highland Valley Rd. DIST. CO. RTE. P.M. Int. # 7 AM
BY USAI DATE Feb. 16, 2007
TIME 80 (AM) PM

DIAGRAM AND TRAFFIC FLOWS:



LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
	544		115	41		95 1191			
86		36			36		569 157		

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
	544		115	41		1191			

TOTAL OPERATING LEVEL (ILV/hr):

Σ
1,891

☐ < 1200 ILV/hr.

☐ > 1200 but < 1500 ILV/hr.

☒ > 1500 ILV/hr. (CAPACITY)

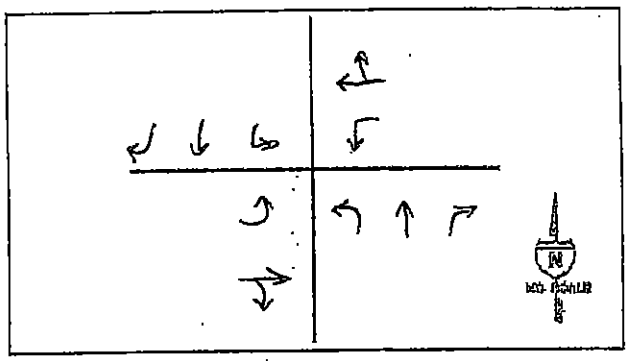
Signalized Intersection
CAPACITY ANALYSIS

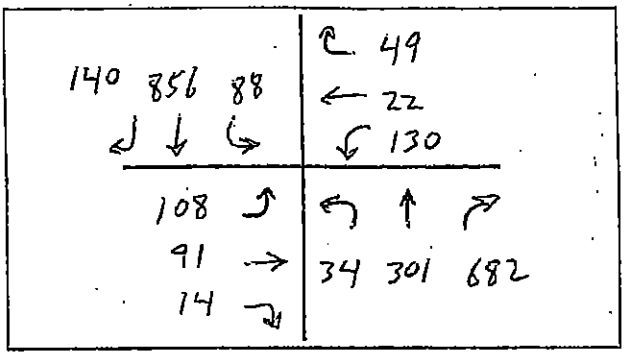
INTERSECTION SR-67 @ Dye Rd/Highland Valley Rd. DIST. CO. RTE. P.M. Int. # 7 PM

BY USAI DATE Feb. 16, 2007

TIME 80 (AM) (PM)

DIAGRAM AND TRAFFIC FLOWS:





LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
	130		71	88		140 856			
108		105			34		301 682		

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
	130			88		856			
		105							

TOTAL OPERATING LEVEL (ILV/hr):

Σ
1,179

☒ < 1200 ILV/hr.

☐ > 1200 but < 1500 ILV/hr.

☐ > 1500 ILV/hr. (CAPACITY)

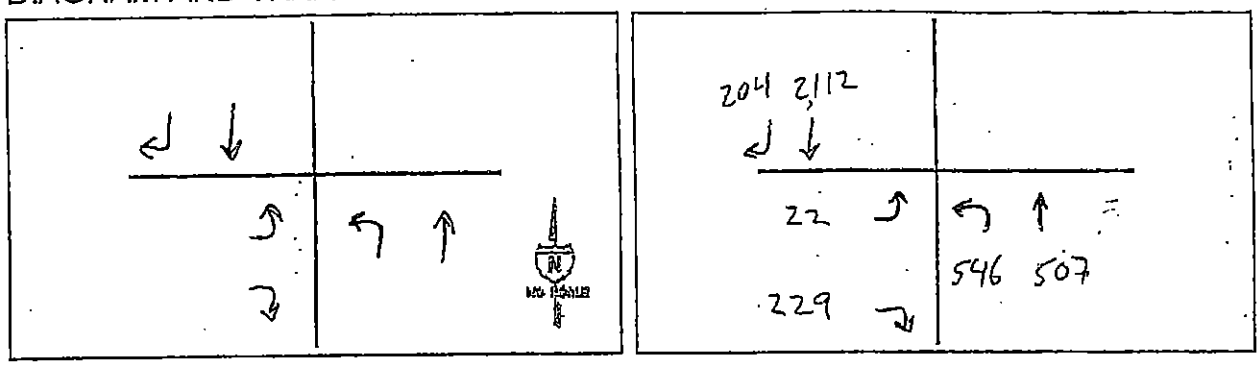
Signalized Intersection
CAPACITY ANALYSIS

INTERSECTION SR-67 @ Archie Moore Rd. DIST. CO. RTE. P.M. Int. # 8 AM

BY USAI DATE Feb. 16, 2007

TIME 80 (AM) PM

DIAGRAM AND TRAFFIC FLOWS:



LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
		204 2112		
22 229	546 507			

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
		2112		
229	546			

TOTAL OPERATING LEVEL (ILV/hr):

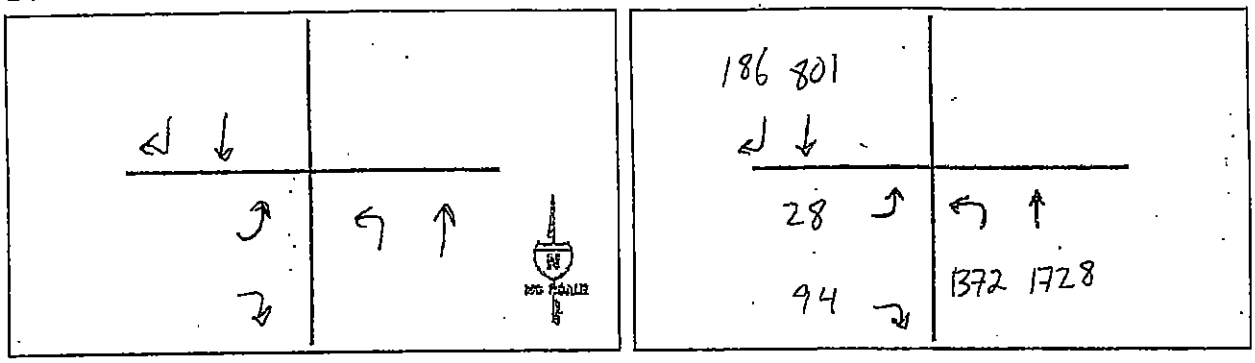
Σ
2,887

- ☐ < 1200 ILV/hr.
- ☐ > 1200 but < 1500 ILV/hr.
- ☒ > 1500 ILV/hr. (CAPACITY)

Signalized Intersection
CAPACITY ANALYSIS

INTERSECTION SR-67 @ Archie Moore Rd DIST. CO. RTE. P.M. Int. # 8 PM
BY USAI DATE Feb. 16, 2007
TIME 80 (AM) (PM)

DIAGRAM AND TRAFFIC FLOWS:



LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
		186 801		
28 94	1372 1728	356		

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
		801		
94	1372			

TOTAL OPERATING LEVEL (ILV/hr):

Σ
2,267

☐ < 1200 ILV/hr.

☐ > 1200 but < 1500 ILV/hr.

☒ > 1500 ILV/hr. (CAPACITY)

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

NEAR TERM CUMULATIVE WITH PROJECT CONDITION

COUNT DATE _____
CALC _____ DATE _____
CHK _____ DATE _____

DIST ___ CO ___ RTE ___ PM ___

LOCATION (1) Major St: ASH (SR 78)
Minor St: PINE

Critical Approach Speed _____ mph
Critical Approach Speed _____ mph

Speed limit or critical speed on major street traffic > 64 km/h (40 mph)..... ☐ or
In built up area of isolated community of < 10,000 population..... ☐ } RURAL (R)
☐ URBAN (U)

(Based on Estimated Average Daily Traffic - See Note)

	Minimum Requirements EADT			
	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
	Urban	Rural	Urban	Rural
URBAN ..X.. RURAL				
CONDITION A - Minimum Vehicular Volume				
Satisfied _____ Not Satisfied ..X..				
Number of lanes for moving traffic on each approach				
Major Street 16,793 / Minor Street 1400				
1 / 1	8,000	5,600	2,400	1,680
2 or More / 1	9,600	6,720	2,400	1,680
2 or More / 2 or More	9,600	6,720	3,200	2,240
1 / 2 or More	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied ..X.. Not Satisfied _____				
Number of lanes for moving traffic on each approach	Urban	Rural	Urban	Rural
Major Street 16,800 / Minor Street 1400				
1 / 1	12,000	8,400	1,200	850
2 or More / 1	14,400	10,080	1,200	850
2 or More / 2 or More	14,400	10,080	1,600	1,120
1 / 2 or More	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B	2 CONDITIONS 80%		2 CONDITIONS 80%	
Satisfied _____ Not Satisfied _____				
No one condition satisfied, but following conditions fulfilled 80% or more..... ___ A ___ B				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

NEARTERM CUMULATIVE WITH PROJECT CONDITION

COUNT DATE _____
CALC _____ DATE _____
CHK _____ DATE _____

DIST ____ CO ____ RTE ____ PM ____

LOCATION (2) Major St: PINE (SR76)
Minor St: OLIVE

Critical Approach Speed _____ mph
Critical Approach Speed _____ mph

Speed limit or critical speed on major street traffic > 64 km/h (40 mph)..... ☐ or
In built up area of isolated community of < 10,000 population..... ☐ } RURAL (R)
☐ URBAN (U)

(Based on Estimated Average Daily Traffic - See Note)

	Minimum Requirements EADT			
URBAN ...X... RURAL				
CONDITION A - Minimum Vehicular Volume Satisfied _____ Not Satisfied X	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Number of lanes for moving traffic on each approach	Urban	Rural	Urban	Rural
Major Street 9,100 / Minor Street 1400				
1 / 1	8,000	5,600	2,400	1,680
2 or More / 1	9,600	6,720	2,400	1,680
2 or More / 2 or More	9,600	6,720	3,200	2,240
1 / 2 or More	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic Satisfied X Not Satisfied _____	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Number of lanes for moving traffic on each approach	Urban	Rural	Urban	Rural
Major Street 9100 / Minor Street 1400				
1 / 1	12,000	8,400	1,200	850
2 or More / 1	14,400	10,080	1,200	850
2 or More / 2 or More	14,400	10,080	1,600	1,120
1 / 2 or More	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B Satisfied _____ Not Satisfied _____	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% or more..... A ____ B ____				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

NEAR TERM CUMULATIVE WITH PROJECT CONDITION

COUNT DATE _____
CALC _____ DATE _____
CHK _____ DATE _____

DIST ____ CO ____ RTE ____ PM ____

Major St: MONTICITO WAY (SA330)
Minor St: MONTECITO ROAD

Critical Approach Speed _____ mph
Critical Approach Speed _____ mph

Speed limit or critical speed on major street traffic > 64 km/h (40 mph)..... ☐ or
In built up area of isolated community of < 10,000 population..... ☐ } RURAL (R)
☐ URBAN (U)

(Based on Estimated Average Daily Traffic - See Note)

URBAN ..... X ..... RURAL	Minimum Requirements EADT			
CONDITION A - Minimum Vehicular Volume Satisfied _____ Not Satisfied X	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Number of lanes for moving traffic on each approach Major Street / Minor Street	Urban	Rural	Urban	Rural
Major Street 4520 / Minor Street 1566	8,000	5,600	2,400	1,680
1 / 1	9,600	6,720	2,400	1,680
2 or More / 2 or More	9,600	6,720	3,200	2,240
2 or More / 2 or More	8,000	5,600	3,200	2,240
1 / 2 or More				
CONDITION B - Interruption of Continuous Traffic Satisfied _____ Not Satisfied X	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Number of lanes for moving traffic on each approach Major Street / Minor Street	Urban	Rural	Urban	Rural
Major Street 4520 / Minor Street 1566	12,000	8,400	1,200	850
1 / 1	14,400	10,080	1,200	850
2 or More / 2 or More	14,400	10,080	1,600	1,120
2 or More / 2 or More	12,000	8,400	1,600	1,120
1 / 2 or More				
Combination of CONDITIONS A + B Satisfied _____ Not Satisfied X No one condition satisfied, but following conditions fulfilled 80% or more..... ____ A ____ B	2 CONDITIONS 80%		2 CONDITIONS 80%	

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

BU 2030 WITH PROJECT CONDITION

COUNT DATE _____
CALC _____ DATE _____
CHK _____ DATE _____

DIST ____ CO ____ RTE ____ PM ____

Major St: MONTECITO WAY (SA 330) Critical Approach Speed _____ mph
Minor St: MONTECITO ROAD Critical Approach Speed _____ mph

Speed limit or critical speed on major street traffic > 64 km/h (40 mph)..... ☐ or
In built up area of isolated community of < 10,000 population..... ☐ } RURAL (R)
☐ URBAN (U)

(Based on Estimated Average Daily Traffic - See Note)

	Minimum Requirements EADT			
URBAN ...X... RURAL				
CONDITION A - Minimum Vehicular Volume	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied _____ Not Satisfied ...X...				
Number of lanes for moving traffic on each approach	Urban	Rural	Urban	Rural
Major Street 7500 / Minor Street 3050				
1 / 1	8,000	5,600	2,400	1,680
2 or More / 1	9,600	6,720	2,400	1,680
2 or More / 2 or More	9,600	6,720	3,200	2,240
1 / 2 or More	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied _____ Not Satisfied ...X...				
Number of lanes for moving traffic on each approach	Urban	Rural	Urban	Rural
Major Street 7500 / Minor Street 3050				
1 / 1	12,000	8,400	1,200	850
2 or More / 1	14,400	10,080	1,200	850
2 or More / 2 or More	14,400	10,080	1,600	1,120
1 (63%) / 2 or More (100%)	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied ...X... Not Satisfied _____	2 CONDITIONS 80% ✓		2 CONDITIONS 80% ✓	
No one condition satisfied, but following conditions fulfilled 80% or more..... 94% (A) 80% (B)				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

NEARTERM CUMULATIVE WITH PROJECT CONDITION

COUNT DATE _____
CALC _____ DATE _____
CHK _____ DATE _____

DIST ____ CO ____ RTE ____ PM ____

LOCATION (6) Major St: MAIN ST. (SR67) Critical Approach Speed _____ mph
Minor St: NEW SA 330 Critical Approach Speed _____ mph

Speed limit or critical speed on major street traffic > 64 km/h (40 mph)..... ☐ or
In built up area of isolated community of < 10,000 population..... ☐ } RURAL (R)
☐ URBAN (U)

(Based on Estimated Average Daily Traffic - See Note)

	Minimum Requirements EADT			
URBAN ...X... RURAL				
CONDITION A - Minimum Vehicular Volume	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied _____ Not Satisfied X				
Number of lanes for moving traffic on each approach	Urban	Rural	Urban	Rural
Major Street / Minor Street 250				
1 / 1	8,000	5,600	2,400	1,680
2 or More / 1	9,600	6,720	2,400	1,680
2 or More / 2 or More	9,600	6,720	3,200	2,240
1 / 2 or More	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied X Not Satisfied _____				
Number of lanes for moving traffic on each approach	Urban	Rural	Urban	Rural
Major Street 56,000 / Minor Street 1250				
1 / 1	12,000	8,400	1,200	850
2 or More / 1	14,400	10,080	1,200	850
2 or More / 2 or More	14,400	10,080	1,600	1,120
1 / 2 or More	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B	2 CONDITIONS 80%		2 CONDITIONS 80%	
Satisfied _____ Not Satisfied _____				
No one condition satisfied, but following conditions fulfilled 80% or more..... ____ A ____ B				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

NEAR TERM CUMULATIVE WITH PROJECT CONDITION

COUNT DATE _____
CALC _____ DATE _____
CHK _____ DATE _____

DIST ____ CO ____ RTE ____ PM ____

LOCATION B

Major St: SR 67 Critical Approach Speed _____ mph
Minor St: ARCHIE MOORE Critical Approach Speed _____ mph

Speed limit or critical speed on major street traffic > 64 km/h (40 mph)..... ☐ or
In built up area of isolated community of < 10,000 population..... ☐ } RURAL (R)
☐ URBAN (U)

(Based on Estimated Average Daily Traffic - See Note)

	Minimum Requirements EADT			
URBAN ..X.. RURAL.....				
CONDITION A - Minimum Vehicular Volume	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied _____ Not Satisfied ..X..				
Number of lanes for moving traffic on each approach	Urban	Rural	Urban	Rural
Major Street 35000 / Minor Street 7200				
1 / 1	8,000	5,600	2,400	1,680
2 or More / 1	9,600	6,720	2,400	1,680
2 or More / 2 or More	9,600	6,720	3,200	2,240
1 / 2 or More	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied ..X.. Not Satisfied _____				
Number of lanes for moving traffic on each approach	Urban	Rural	Urban	Rural
Major Street 35000 / Minor Street 7200				
1 / 1	12,000	8,400	1,200	850
2 or More / 1	14,400	10,080	1,200	850
2 or More / 2 or More	14,400	10,080	1,600	1,120
1 / 2 or More	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B	2 CONDITIONS 80%		2 CONDITIONS 80%	
Satisfied _____ Not Satisfied _____				
No one condition satisfied, but following conditions fulfilled 80% or more..... ____ A ____ B				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Existing Lane Config.

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	Highland Valley Rd./ Main St.
Agency or Co.	Urban Systems	Area Type	All other areas
Date Performed	4/26/2005	Jurisdiction	County of San Diego
Time Period	7 EAM	Analysis Year	

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	1	1	0	1	1	0	1	1	1	1	1	1
Lane Group	L	TR		L	TR		L	T	R	L	T	R
Volume (vph)	132	9	10	409	46	28	10	507	84	131	974	109
% Heavy Vehicles	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Pretimed/Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup Lost Time	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Arrival Type	3	3		3	3		3	3	3	3	3	3
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	0	0	10	0	0	10	0	0	10	0	11
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/Hour												
Bus Stops/Hour	0	0		0	0		0	0	0	0	0	0
Minimum Pedestrian Time		3.3			3.3			3.3			3.3	

Phasing	Excl. Left	WB Only	Thru & RT	04	Excl. Left	Thru & RT	07	08
Timing	G = 14.0	G = 10.0	G = 5.0	G =	G = 9.0	G = 66.0	G =	G =
	Y = 4	Y = 0	Y = 4	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 120.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	147	21		454	82		11	563	93	146	1082	109
Lane Group Capacity	207	72		413	215		133	1025	863	133	1025	863
v/c Ratio	0.71	0.29		1.10	0.38		0.08	0.55	0.11	1.10	1.06	0.13
Green Ratio	0.12	0.04		0.23	0.13		0.08	0.55	0.55	0.08	0.55	0.55
Uniform Delay d_1	51.0	55.8		46.0	48.2		51.7	17.4	12.9	55.5	27.0	13.1
Delay Factor k	0.27	0.11		0.50	0.11		0.11	0.15	0.11	0.50	0.50	0.11
Incremental Delay d_2	10.8	2.2		73.9	1.1		0.3	0.6	0.1	106.7	44.0	0.1
PF Factor	1.000	1.000		1.000	1.000		1.000	1.000	1.000	1.000	1.000	1.000
Control Delay	61.8	58.0		119.9	49.4		51.9	18.0	13.0	162.2	71.0	13.1
Lane Group LOS	E	E		F	D		D	B	B	F	E	B
Approach Delay	61.4			109.1			17.9			76.2		
Approach LOS	E			F			B			E		
Intersection Delay	67.4			Intersection LOS						E		

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Existing Lane Config.

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	Highland Valley Rd./ Main St.
Agency or Co.	Urban Systems	Area Type	All other areas
Date Performed	4/26/2005	Jurisdiction	County of San Diego
Time Period	7 E PM	Analysis Year	

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	1	1	0	1	1	0	1	1	1	1	1	1
Lane Group	L	TR		L	TR		L	T	R	L	T	R
Volume (vph)	153	46	19	122	10	28	4	1075	362	43	699	49
% Heavy Vehicles	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Pretimed/Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup Lost Time	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Arrival Type	3	3		3	3		3	3	3	3	3	3
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	0	0	10	0	4	10	0	0	10	0	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/Hour												
Bus Stops/Hour	0	0		0	0		0	0	0	0	0	0
Minimum Pedestrian Time		3.3			3.3			3.3			3.3	

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 12.0	G = 5.0	G =	G =	G = 5.0	G = 72.0	G =	G =
	Y = 4	Y = 4	Y =	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 110.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	170	72		136	38		4	1194	402	48	777	54
Lane Group Capacity	193	78		193	70		80	1219	1028	80	1219	1028
v/c Ratio	0.88	0.92		0.70	0.54		0.05	0.98	0.39	0.60	0.64	0.05
Green Ratio	0.11	0.05		0.11	0.05		0.05	0.65	0.65	0.05	0.65	0.65
Uniform Delay d_1	48.3	52.3		47.3	51.4		50.2	18.3	8.8	51.5	11.3	6.8
Delay Factor k	0.41	0.44		0.27	0.14		0.11	0.48	0.11	0.19	0.22	0.11
Incremental Delay d_2	34.2	76.2		11.1	8.4		0.3	20.9	0.2	11.9	1.1	0.0
PF Factor	1.000	1.000		1.000	1.000		1.000	1.000	1.000	1.000	1.000	1.000
Control Delay	82.5	128.5		58.4	59.8		50.5	39.2	9.1	63.4	12.4	6.8
Lane Group LOS	F	F		E	E		D	D	A	E	B	A
Approach Delay	96.2			58.7			31.7			14.8		
Approach LOS	F			E			C			B		
Intersection Delay	33.6			Intersection LOS						C		

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Additional WB Left Turn

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	Highland Valley Rd./ Main St.
Agency or Co.	Urban Systems	Area Type	All other areas
Date Performed	4/26/2005	Jurisdiction	County of San Diego
Time Period	7 EAM	Analysis Year	

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	1	1	0	2	1	0	1	1	1	1	1	1
Lane Group	L	TR		L	TR		L	T	R	L	T	R
Volume (vph)	132	9	10	409	46	28	10	507	84	131	974	109
% Heavy Vehicles	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Pretimed/Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup Lost Time	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Arrival Type	3	3		3	3		3	3	3	3	3	3
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	0	0	10	0	0	10	0	0	10	0	11
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/Hour												
Bus Stops/Hour	0	0		0	0		0	0	0	0	0	0
Minimum Pedestrian Time		3.3			3.3			3.3			3.3	

Phasing	Excl. Left	WB Only	Thru & RT	04	Excl. Left	Thru & RT	07	08
Timing	G = 12.0	G = 5.0	G = 5.0	G =	G = 9.0	G = 68.0	G =	G =
	Y = 4	Y = 0	Y = 4	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 115.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	147	21		454	82		11	563	93	146	1082	109
Lane Group Capacity	185	75		628	146		139	1102	929	139	1102	929
v/c Ratio	0.79	0.28		0.72	0.56		0.08	0.51	0.10	1.05	0.98	0.12
Green Ratio	0.10	0.04		0.18	0.09		0.08	0.59	0.59	0.08	0.59	0.59
Uniform Delay d_1	50.3	53.3		44.3	50.4		49.2	13.8	10.2	53.0	22.9	10.3
Delay Factor k	0.34	0.11		0.28	0.16		0.11	0.12	0.11	0.50	0.49	0.11
Incremental Delay d_2	20.9	2.0		4.1	4.9		0.2	0.4	0.0	90.4	22.7	0.1
PF Factor	1.000	1.000		1.000	1.000		1.000	1.000	1.000	1.000	1.000	1.000
Control Delay	71.2	55.3		48.4	55.3		49.4	14.2	10.3	143.4	45.6	10.4
Lane Group LOS	E	E		D	E		D	B	B	F	D	B
Approach Delay	69.2			49.4			14.2			53.4		
Approach LOS	E			D			B			D		
Intersection Delay	43.9			Intersection LOS						D		

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Additional WB Left Turn

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	Highland Valley Rd./ Main St.
Agency or Co.	Urban Systems	Area Type	All other areas
Date Performed	4/26/2005	Jurisdiction	County of San Diego
Time Period	7E PM	Analysis Year	

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	1	1	0	2	1	0	1	1	1	1	1	1
Lane Group	L	TR		L	TR		L	T	R	L	T	R
Volume (vph)	153	46	19	122	10	28	4	1075	362	43	699	49
% Heavy Vehicles	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Pretimed/Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup Lost Time	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Arrival Type	3	3		3	3		3	3	3	3	3	3
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	0	0	10	0	4	10	0	0	10	0	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/Hour												
Bus Stops/Hour	0	0		0	0		0	0	0	0	0	0
Minimum Pedestrian Time		3.3			3.3			3.3			3.3	

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 11.0	G = 5.0	G =	G =	G = 5.0	G = 72.0	G =	G =
	Y = 4	Y = 4	Y =	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 109.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	170	72		136	38		4	1194	402	48	777	54
Lane Group Capacity	179	80		347	70		81	1231	1038	81	1231	1038
v/c Ratio	0.95	0.90		0.39	0.54		0.05	0.97	0.39	0.59	0.63	0.05
Green Ratio	0.10	0.05		0.10	0.05		0.05	0.66	0.66	0.05	0.66	0.66
Uniform Delay d_1	48.7	51.8		45.9	50.9		49.7	17.5	8.4	51.0	10.8	6.5
Delay Factor k	0.46	0.42		0.11	0.14		0.11	0.48	0.11	0.18	0.21	0.11
Incremental Delay d_2	52.6	68.0		0.7	8.4		0.3	18.8	0.2	11.1	1.1	0.0
PF Factor	1.000	1.000		1.000	1.000		1.000	1.000	1.000	1.000	1.000	1.000
Control Delay	101.4	119.8		46.6	59.3		50.0	36.3	8.7	62.1	11.8	6.5
Lane Group LOS	F	F		D	E		D	D	A	E	B	A
Approach Delay	106.8			49.4			29.4			14.2		
Approach LOS	F			D			C			B		
Intersection Delay	32.5			Intersection LOS						C		

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Transportation Studies, Inc.
1350 Reynolds Avenue
Suite 115
Irvine, CA. 92614

City: ROSEMONT
N-S Direction: SR-67 / MAIN STREET
E-W Direction: HIGHLAND VALLEY / DYE RD

File Name : H0701037
Site Code : 00004637
Start Date : 1/16/2007
Page No : 1

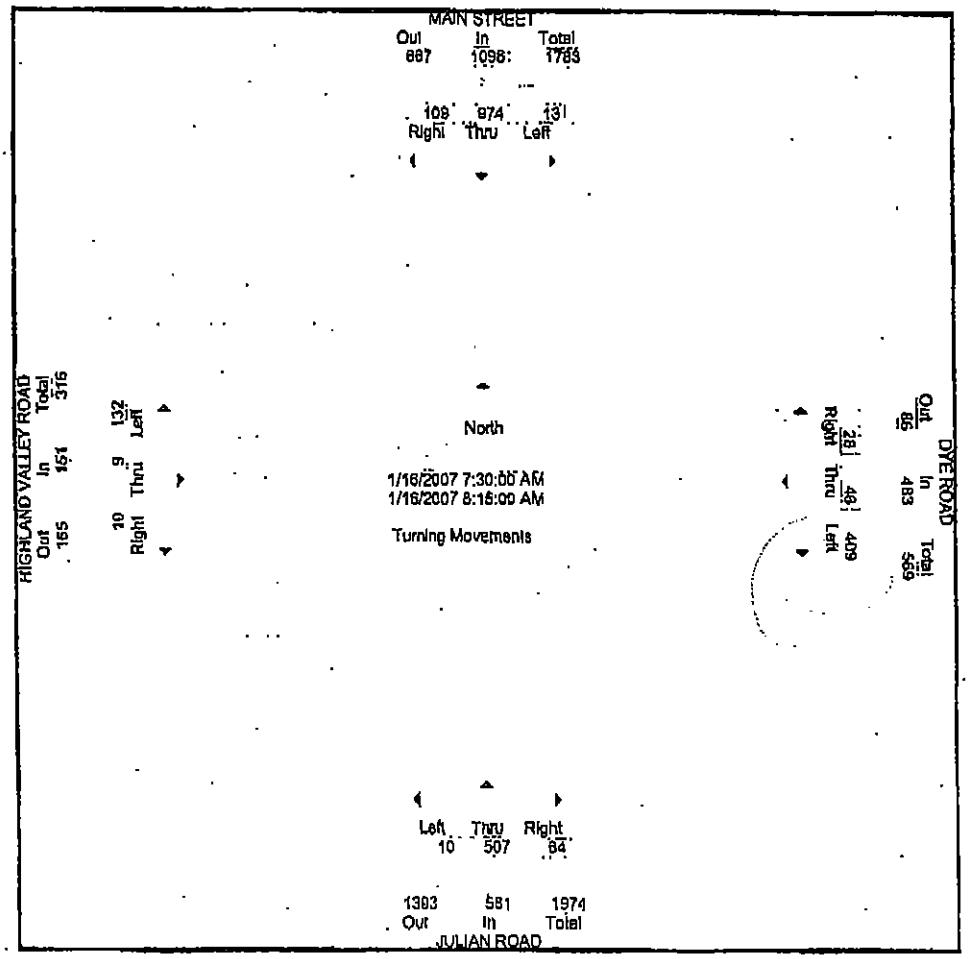
Groups Printed- Turning Movements

	MAIN STREET Southbound			DYE ROAD Westbound			JULIAN ROAD Northbound			HIGHLAND VALLEY ROAD Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	16	326	1	1	12	112	11	143	1	0	0	18	642
07:15 AM	16	301	0	7	12	124	16	112	0	0	1	17	606
07:30 AM	18	218	2	9	5	97	14	131	3	1	1	16	514
07:45 AM	30	249	2	8	11	114	14	103	1	3	0	13	548
Total	78	1095	5	25	40	447	55	489	5	4	2	85	2310
08:00 AM	33	244	2	7	15	90	17	142	4	0	6	53	613
08:15 AM	30	262	7	4	15	108	19	131	2	6	2	50	636
08:30 AM	13	204	1	6	6	72	14	122	1	4	3	27	473
08:45 AM	17	205	4	4	1	68	15	134	2	3	3	29	485
Total	93	915	14	21	37	338	65	529	9	13	14	159	2207
*** BREAK ***													
04:00 PM	14	188	18	3	0	42	87	257	0	7	20	64	700
04:15 PM	16	177	14	5	4	28	84	270	1	2	11	31	643
04:30 PM	7	149	7	11	3	32	92	249	3	6	9	37	605
04:45 PM	12	185	4	9	3	20	99	299	0	4	6	21	662
Total	49	699	43	28	10	122	362	1075	4	19	46	153	2610
05:00 PM	15	143	3	8	0	27	81	216	1	0	19	48	560
05:15 PM	15	180	11	8	0	20	107	261	0	3	22	66	691
05:30 PM	18	154	15	12	0	12	78	300	1	5	12	50	653
05:45 PM	17	191	13	14	1	21	86	249	0	2	29	60	683
Total	63	668	42	41	1	80	350	1026	2	10	82	222	2587
Grand Total	283	3377	104	115	88	987	832	3119	20	46	144	599	9714
Apprch %	7.5	89.7	2.8	9.7	7.4	82.9	21.0	78.5	0.5	5.8	18.3	75.9	
Total %	2.9	34.8	1.1	1.2	0.9	10.2	8.6	32.1	0.2	0.5	1.5	6.2	

Transportation Studies, Inc.
1350 Reynolds Avenue
Suite 115
Irvine, CA. 92614

File Name : H0701037
Site Code : 00004637
Start Date : 1/16/2007
Page No : 2

	MAIN STREET Southbound				DYE ROAD Westbound				JULIAN ROAD Northbound				HIGHLAND VALLEY ROAD Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Intersection	07:30 AM																
Volume	109	974	13	1096	28	46	409	483	64	507	10	581	10	9	132	151	2311
Percent	9.9	88.9	1.2		5.8	9.5	84.7		11.0	87.3	1.7		6.6	6.0	87.4		
08:15 Volume	30	262	7	299	4	15	108	127	19	131	2	152	6	2	50	58	836
Peak Factor																	0.908
High Int.	08:15 AM				07:45 AM				08:00 AM				08:00 AM				
Volume	30	262	7	299	8	11	114	133	17	142	4	163	0	6	53	59	
Peak Factor				0.916				0.908				0.891				0.840	

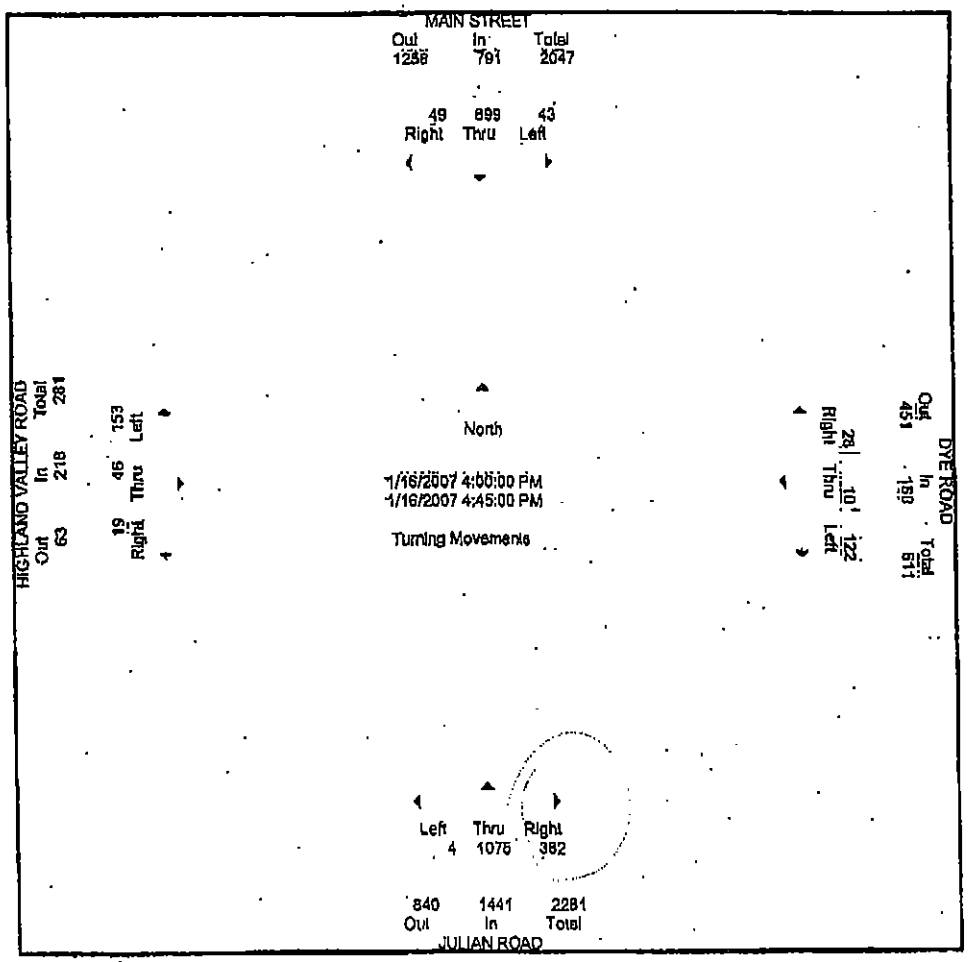


#7

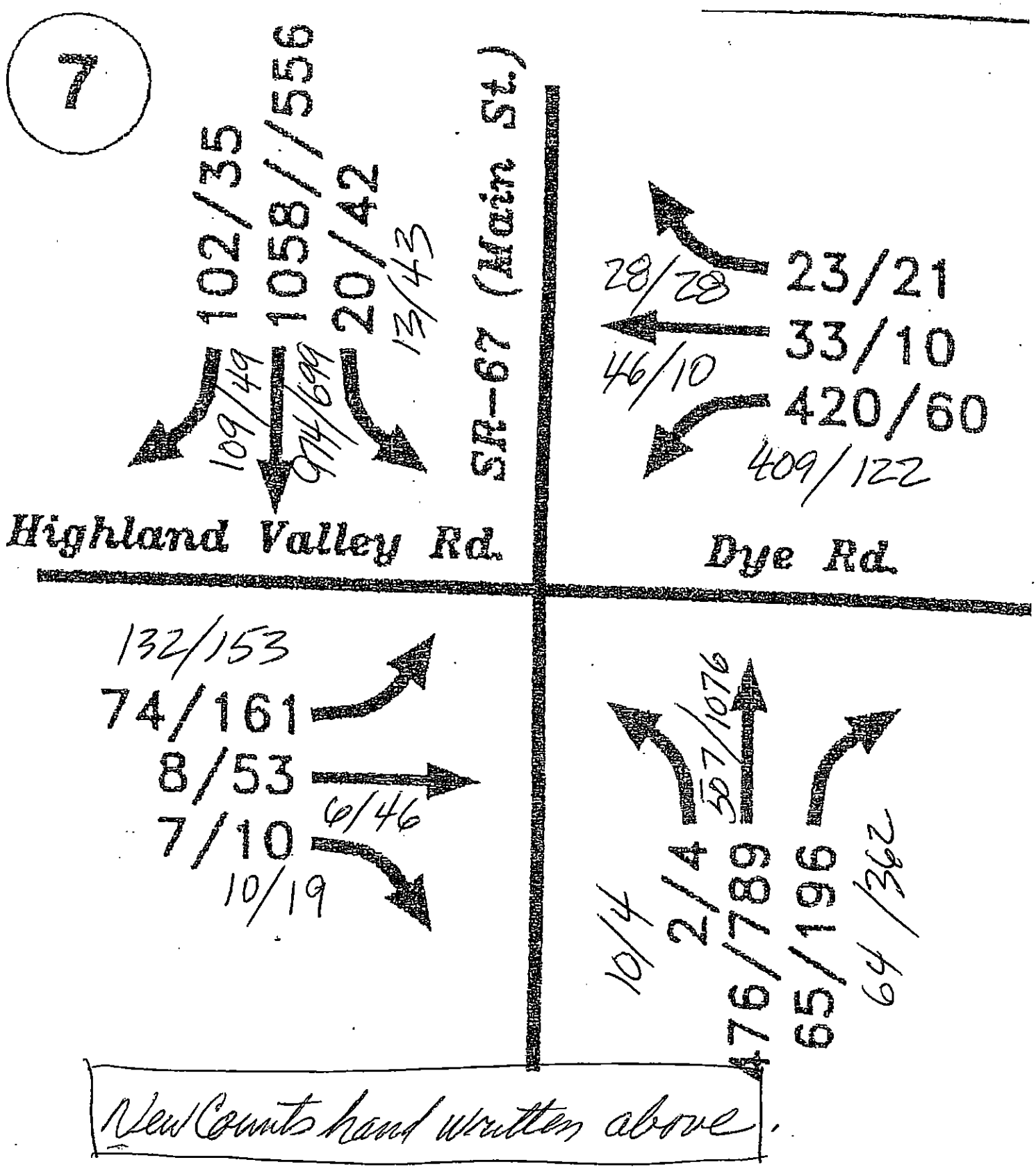
Transportation Studies, Inc.
1350 Reynolds Avenue
Suite 115
Irvine, CA. 92614

File Name : H0701037
Site Code : 00004637
Start Date : 1/16/2007
Page No : 3

	MAIN STREET Southbound				DYE ROAD Westbound				JULIAN ROAD Northbound				HIGHLAND VALLEY ROAD Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Intersection	04:00 PM																
Volume	49	899	43	791	28	10	122	160	362	1075	4	1441	19	46	153	218	2810
Percent	6.2	88.4	5.4		17.5	6.3	76.3		25.1	74.6	0.3		8.7	21.1	70.2		
04:00 Volume	14	188	18	220	3	0	42	45	87	257	0	344	7	20	64	91	700
Peak Factor																	0.932
High Int.	04:00 PM				04:30 PM				04:45 PM				04:00 PM				
Volume	14	188	18	220	11	3	32	46	99	299	0	398	7	20	64	91	
Peak Factor				0.899				0.870				0.905				0.599	



7



SR-67 at Dye Road and Highland Valley Road

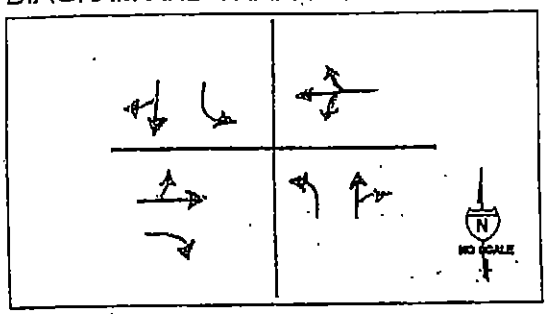
Signalized Intersection
CAPACITY ANALYSIS

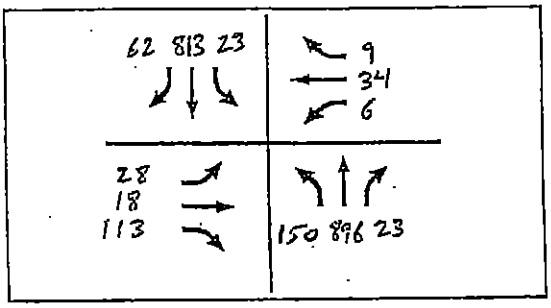
INTERSECTION Ash St. at Pine St. DIST. CO. RTE. P.M. Int. #1

BY USACE DATE June 19, 2006

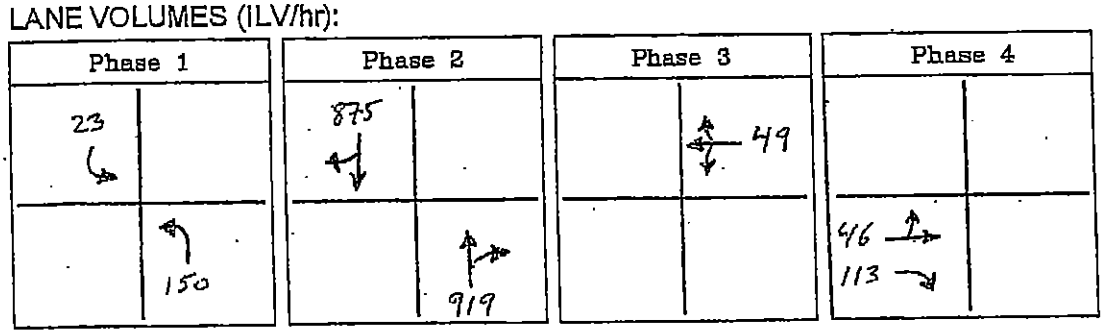
TIME 8:00 P (AM) PM

DIAGRAM AND TRAFFIC FLOWS:

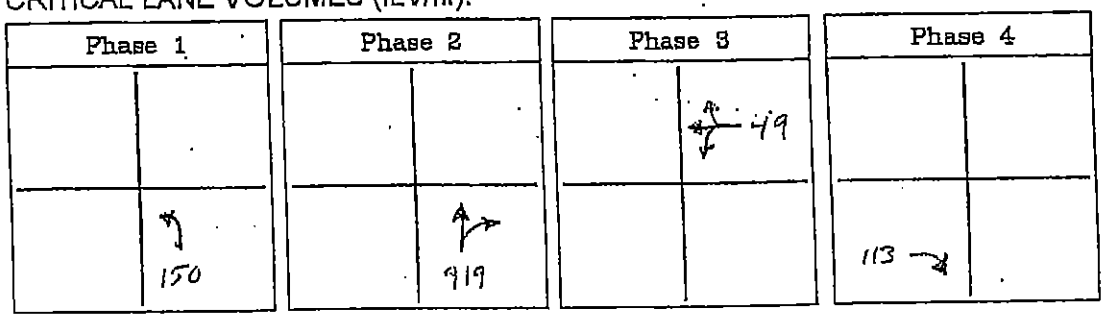




LANE VOLUMES (ILV/hr):



CRITICAL LANE VOLUMES (ILV/hr):



TOTAL OPERATING LEVEL (ILV/hr):

Σ
1,231

☒ < 1300 ILV/hr.

☐ > 1300 but < 1600 ILV/hr.

☐ > 1600 ILV/hr. (CAPACITY)

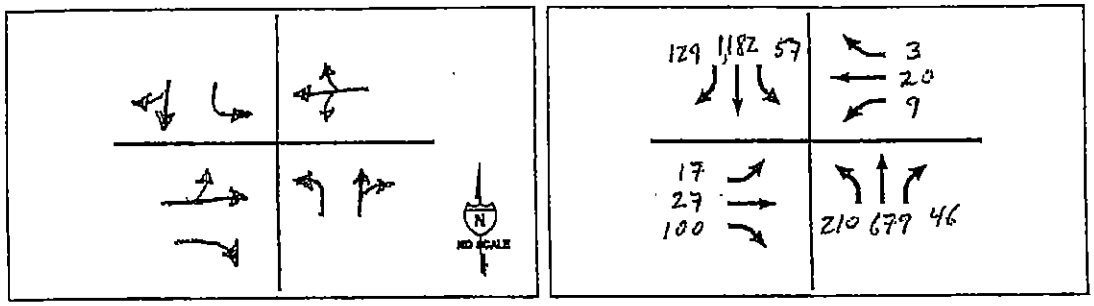
Signalized Intersection
CAPACITY ANALYSIS

INTERSECTION Ash St. at Pine St. DIST. CO. RTE. P.M. Int. #1

BY USAI DATE June 19, 2006

TIME 3:00 P AM (PM)

DIAGRAM AND TRAFFIC FLOWS:



LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4
57	1,311	32	44
210	725		100

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4
	1,311	32	
210			100

TOTAL OPERATING LEVEL (ILV/hr):

Σ
1,653

☐ < 1300 ILV/hr.

☒ > 1300 but < 1800 ILV/hr.

☐ > 1800 ILV/hr. (CAPACITY)

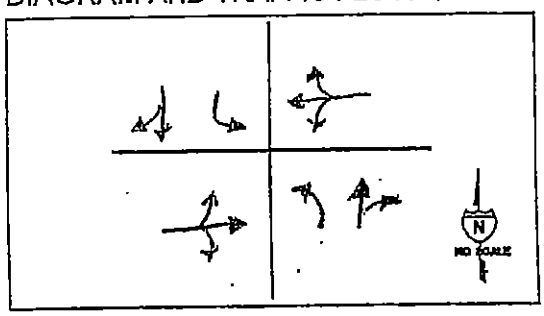
Signalized Intersection
CAPACITY ANALYSIS

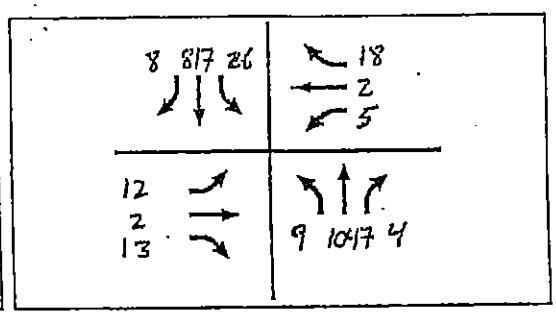
INTERSECTION Olive St. at Pine St. DIST. CO. RTE. P.M. Int. #2

BY USAI DATE June 19, 2006

TIME 807 P (AM) PM

DIAGRAM AND TRAFFIC FLOWS:





LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4	
26		825					25
	9		1,051	27			

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4	
26							25
			1,051	27			

TOTAL OPERATING LEVEL (ILV/hr):

Σ
1,129

☒ < 1500 ILV/hr.

☐ > 1500 but < 1500 ILV/hr.

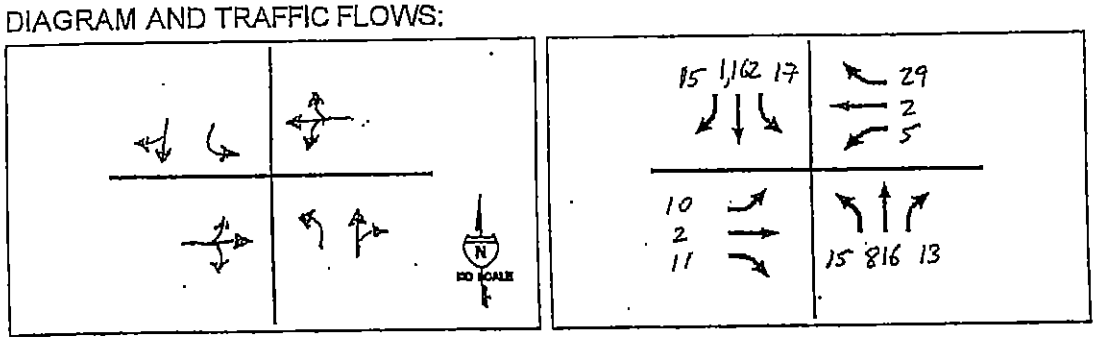
☐ > 1500 ILV/hr. (CAPACITY)

CD-Q 1503-Attachments.dwg

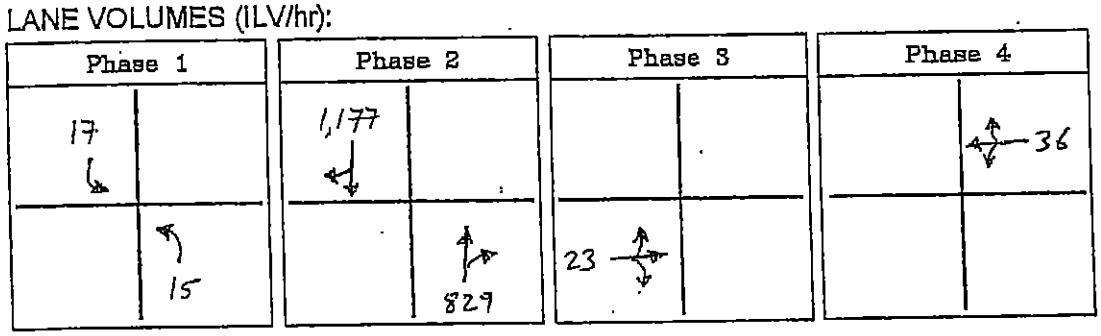
Signalized Intersection
CAPACITY ANALYSIS

INTERSECTION Olive St. at Pine St. DIST. CO. RTE. P.M. Int. #2
BY USAI DATE June 19, 2006
TIME 8:00 AM (PM)

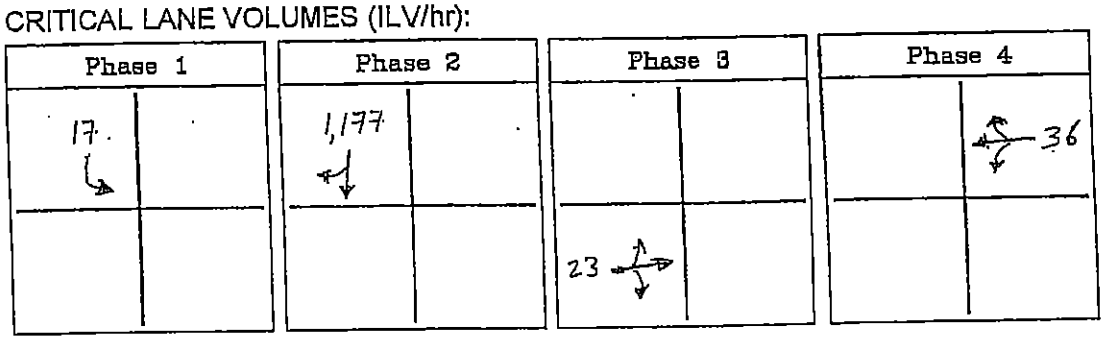
DIAGRAM AND TRAFFIC FLOWS:



LANE VOLUMES (ILV/hr):



CRITICAL LANE VOLUMES (ILV/hr):



TOTAL OPERATING LEVEL (ILV/hr):

Σ
1,253

☒ < 1200 ILV/hr.

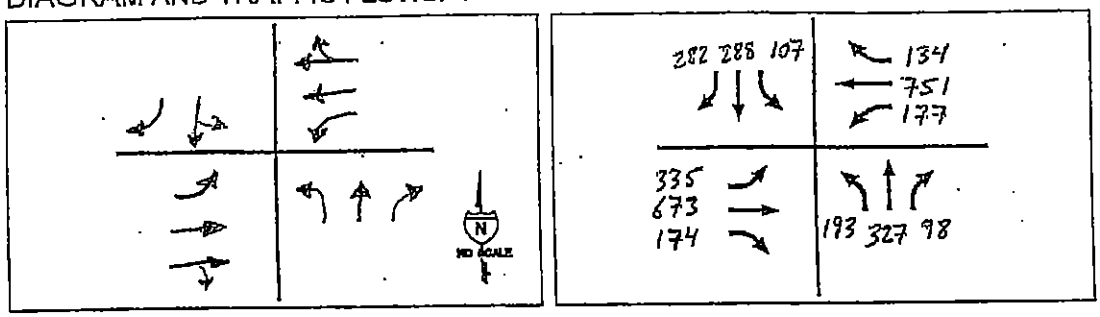
☐ > 1200 but < 1500 ILV/hr.

☐ > 1500 ILV/hr. (CAPACITY)

Signalized Intersection
CAPACITY ANALYSIS

INTERSECTION Main St. at Pine St/10th St. DIST. CO. RTE. P.M. Int. #3
BY USAI DATE June 19, 2006
TIME 8 0 + P (AM) PM

DIAGRAM AND TRAFFIC FLOWS:



LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4
177	510 375	282 395	
335	336 511		193 327 98

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4
		395	
335	511		327

TOTAL OPERATING LEVEL (ILV/hr):

Σ
1,568

☐ < 1300 ILV/hr.

☒ > 1300 but < 1800 ILV/hr.

☐ > 1800 ILV/hr. (CAPACITY)

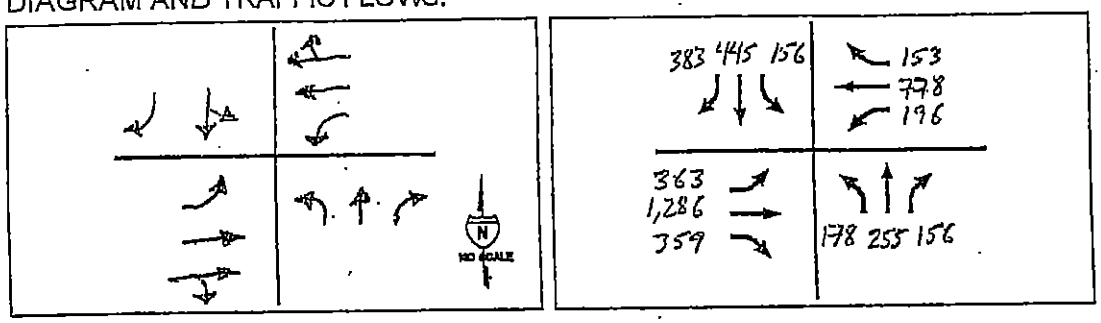
Signalized Intersection
CAPACITY ANALYSIS

INTERSECTION Main St. at Pine St/10th St. DIST. CO. RTE. P.M. Int. #3

BY USAI DATE June 19, 2006

TIME 80+P AM (PM)

DIAGRAM AND TRAFFIC FLOWS:



LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4
196	465 / 466	383 601	
363	823 / 823		178 255 156

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4
		601	
363	823		255

TOTAL OPERATING LEVEL (ILV/hr):

Σ
2042

☐ < 1200 ILV/hr.

☐ > 1200 but < 1800 ILV/hr.

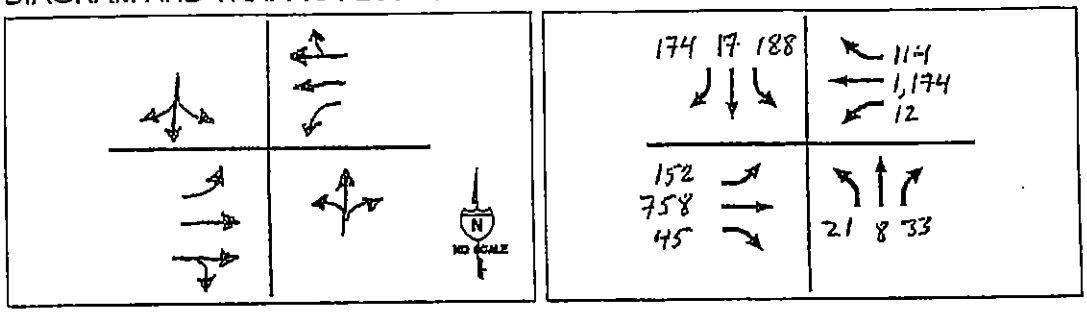
☒ > 1800 ILV/hr. (CAPACITY)

CD-Q 1503-Attachments.dwg

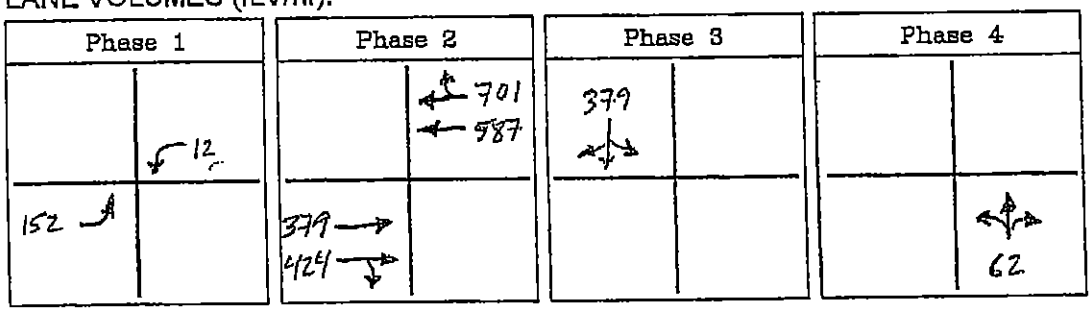
Signalized Intersection
CAPACITY ANALYSIS

INTERSECTION Main St. at Montecito Rd. DIST. CO. RTE. P.M. Int. #4
BY USAI DATE June 18, 2008
TIME 8:0+P (AM) PM

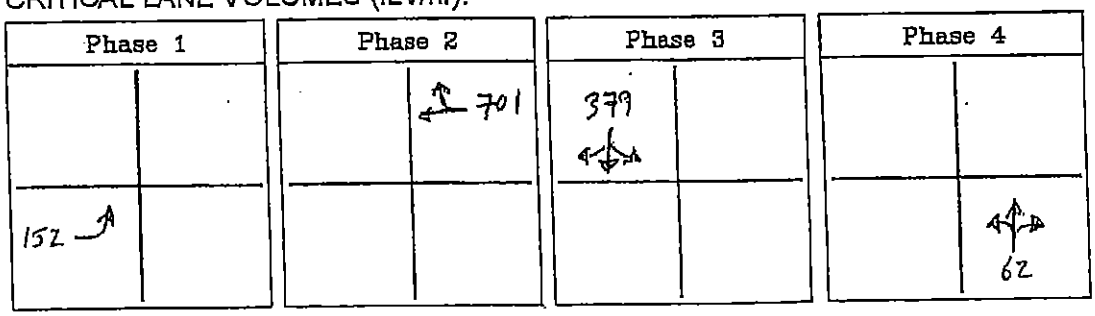
DIAGRAM AND TRAFFIC FLOWS:



LANE VOLUMES (ILV/hr):



CRITICAL LANE VOLUMES (ILV/hr):



TOTAL OPERATING LEVEL (ILV/hr):

Σ
1,294

☒ < 1300 ILV/hr.
☐ > 1300 but < 1500 ILV/hr.
☐ > 1500 ILV/hr. (CAPACITY)

CD-Q 1503-Attachments.dwg

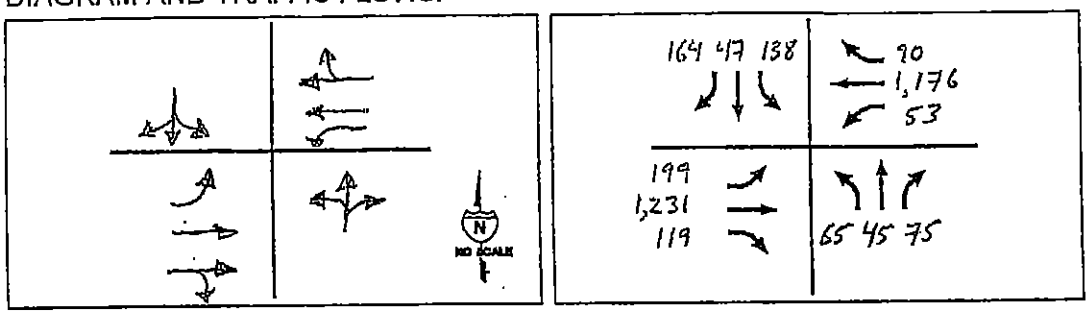
Signalized Intersection
CAPACITY ANALYSIS

INTERSECTION Main St. at Montecito Rd. DIST. CO. RTE. P.M. Int. # 4

BY USAI DATE June 19, 2006

TIME 3:04 P AM (PM)

DIAGRAM AND TRAFFIC FLOWS:



LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4
53	678 588	349	
199	615 735		185

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4
		349	
199	735		185

TOTAL OPERATING LEVEL (ILV/hr):

Σ
1,468

☒ < 1800 ILV/hr.

☐ > 1800 but < 1500 ILV/hr.

☐ > 1500 ILV/hr. (CAPACITY)

CD-Q 1503-Attachments.dwg

Signalized Intersection
CAPACITY ANALYSIS

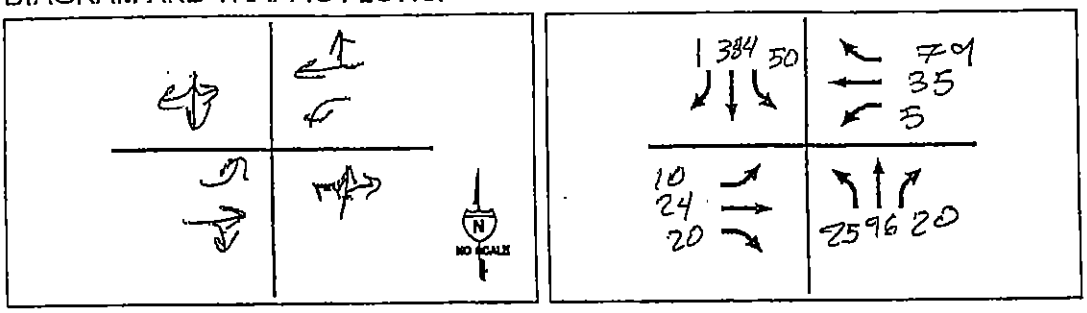
INTERSECTION Int. #5

DIST. CO. RTE. P.M.

BY JPS DATE 6/19/06

TIME 80+P (AM) PM

DIAGRAM AND TRAFFIC FLOWS:



LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4	
435					5		114
			141	10		44	

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4	
435							114
			141	10			

TOTAL OPERATING LEVEL (ILV/hr):

Σ
700

☒ < 1800 ILV/hr.

☐ > 1700 but < 1500 ILV/hr.

☐ > 1500 ILV/hr. (CAPACITY)

CD-Q 1503-Attachments.dwg

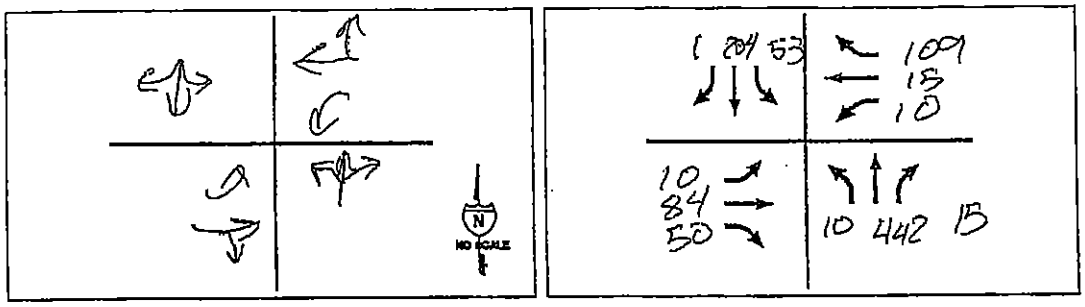
Signalized Intersection
CAPACITY ANALYSIS

INTERSECTION Int #5 DIST. CO. RTE. P.M. _____

BY JPS DATE 6/19/06

TIME 1:30+P AM PM

DIAGRAM AND TRAFFIC FLOWS:



LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4	
					10		124
			467	10		134	

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4	
258							
			467	10		134	

TOTAL OPERATING LEVEL (ILV/hr):

Σ
869

- [x] < 1300 ILV/hr.
- [ ] > 1300 but < 1500 ILV/hr.
- [ ] > 1500 ILV/hr. (CAPACITY)

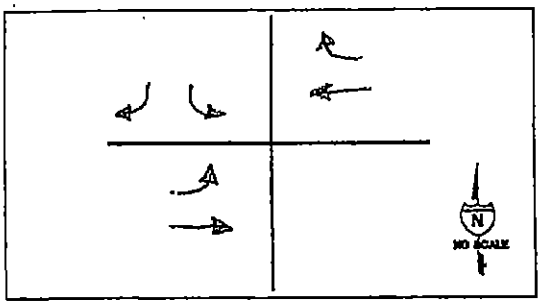
Signalized Intersection
CAPACITY ANALYSIS

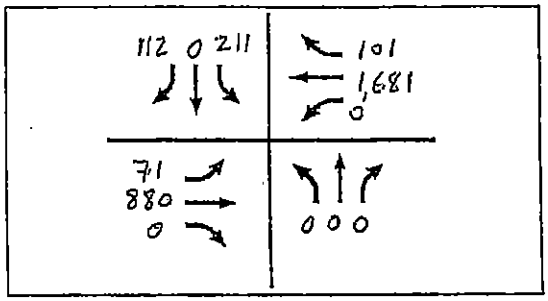
INTERSECTION Main St. at SA-330 DIST. CO. RTE. P.M. Int. #6

BY USAI DATE June 19, 2006

TIME 8:00 P (AM) PM

DIAGRAM AND TRAFFIC FLOWS:





LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4	
112 211			101				
		71	1,681				
		880					

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4	
211			1,681				

TOTAL OPERATING LEVEL (ILV/hr):

Σ
1,892

☐ < 1300 ILV/hr.

☐ > 1300 but < 1800 ILV/hr.

☒ > 1800 ILV/hr. (CAPACITY)

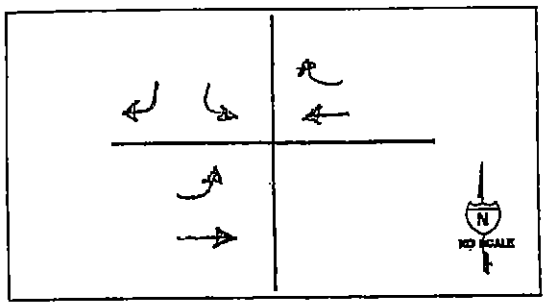
Signalized Intersection
CAPACITY ANALYSIS

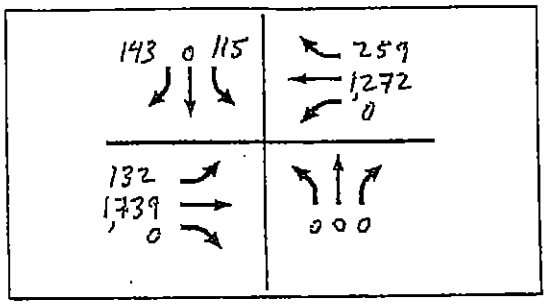
INTERSECTION Main St. at SR-330 DIST. CO. RTE. P.M. Int. #6

BY USAI DATE June 19, 2006

TIME 3:04 P AM (PM)

DIAGRAM AND TRAFFIC FLOWS:





LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4	
143 115			259 1,272				
		132 1,739					

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4	
143							
		1,739					

TOTAL OPERATING LEVEL (ILV/hr):

Σ
1,882

☐ < 1300 ILV/hr.

☐ > 1300 but < 1500 ILV/hr.

☒ > 1500 ILV/hr. (CAPACITY)

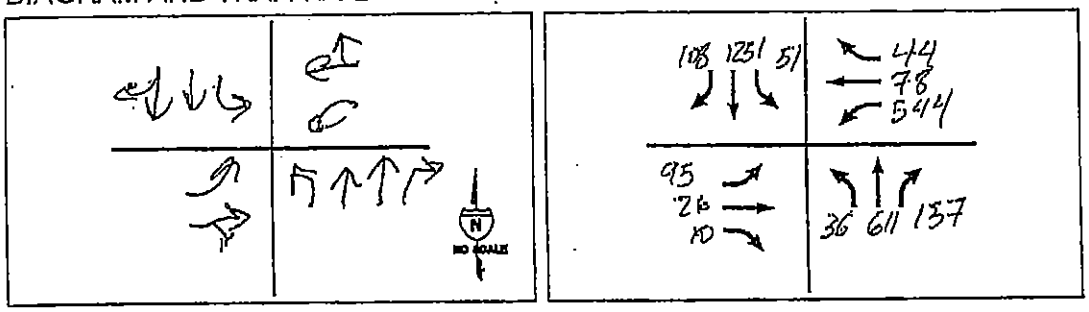
Signalized Intersection
CAPACITY ANALYSIS

INTERSECTION Int #7 DIST. CO. RTE. P.M.

BY JPS DATE 6/19/06

TIME 80+P (AM) PM

DIAGRAM AND TRAFFIC FLOWS:



LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4	
51		680			594		122
	36		376	95		36	

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4	
51		680			549		122

TOTAL OPERATING LEVEL (ILV/hr):

Σ
1397

- [x] < 1300 ILV/hr.
- [ ] > 1300 but < 1500 ILV/hr.
- [ ] > 1500 ILV/hr. (CAPACITY)

CD-Q 1503-Attachments.dwg

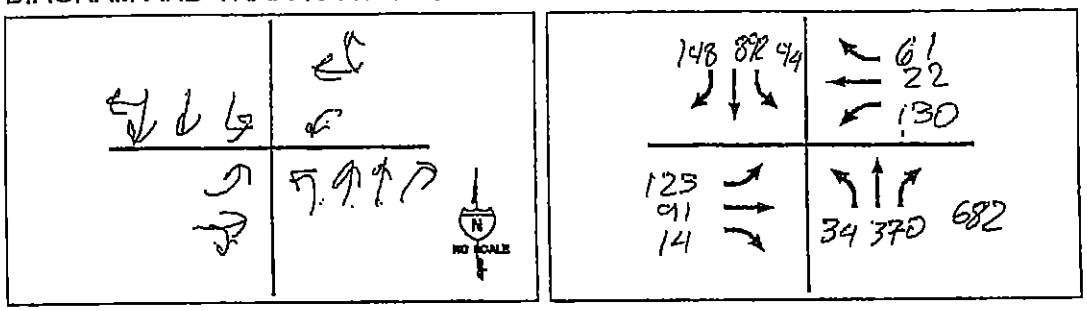
Signalized Intersection
CAPACITY ANALYSIS

INTERSECTION Int #7 DIST. CO. RTE. P.M.

BY JPS DATE 6/19/06

TIME 130+P AM (PM)

DIAGRAM AND TRAFFIC FLOWS:



LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4	
94		520			130		83
	34		682	123		105	

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4	
94					130		
			682			105	

TOTAL OPERATING LEVEL (ILV/hr):

Σ
1011

☒ < 1300 ILV/hr.

☐ > 1300 but < 1800 ILV/hr.

☐ > 1800 ILV/hr. (CAPACITY)

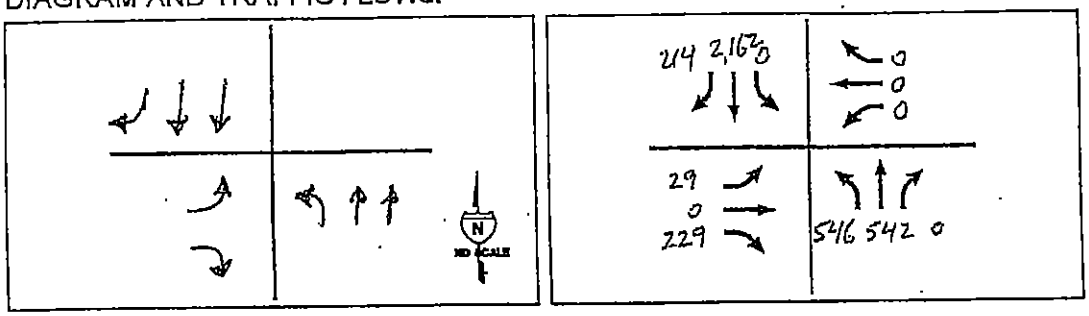
Signalized Intersection
CAPACITY ANALYSIS

INTERSECTION SR-67 at Archie Moore Rd. DIST. CO. RTE. P.M. Int. #8

BY USAI DATE June 19, 2006

TIME 30+P (AM) PM

DIAGRAM AND TRAFFIC FLOWS:



LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4
29 229	24 1081 1081	546 271 271	

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4
229	1,081	546	

TOTAL OPERATING LEVEL (ILV/hr):

Σ
1,856

☐ < 1300 ILV/hr.

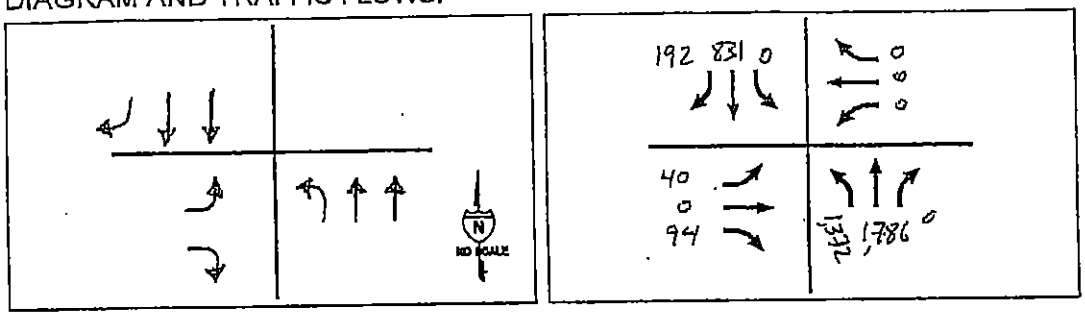
☐ > 1300 but < 1800 ILV/hr.

☒ > 1800 ILV/hr. (CAPACITY)

Signalized Intersection
CAPACITY ANALYSIS

INTERSECTION SR-67 at Archie Moore Rd. DIST. CO. RTE. P.M. Int. #8
BY USAI DATE June 19, 2006
TIME BO + P AM (PM)

DIAGRAM AND TRAFFIC FLOWS:



LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4
40 ↗ 94 ↘	192 415 416 ↓	1,372 ↑ 893 ↑ 893	

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4
94 ↘	416 ↓	1,372	

TOTAL OPERATING LEVEL (ILV/hr):

Σ
1,882

☐ < 1~~8~~700 ILV/hr.

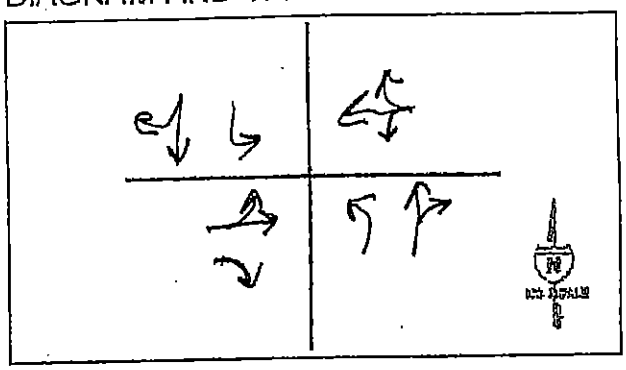
☐ > 1~~7~~700 but < 1~~8~~500 ILV/hr.

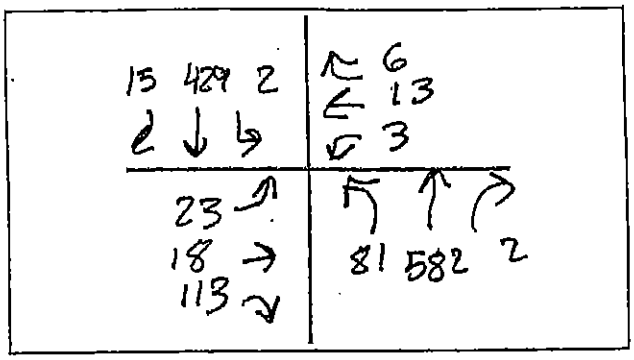
☒ > 1~~8~~00 ILV/hr. (CAPACITY)

Signalized Intersection
CAPACITY ANALYSIS

INTERSECTION Ash St. @ Pine DIST. CO. RTE. P.M. Int. #1
BY USAI DATE 10/23/06
TIME E+P (AM) PM

DIAGRAM AND TRAFFIC FLOWS:





LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
22		2	444	
	41 113	81	584	

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
22				
	113	81	584	

TOTAL OPERATING LEVEL (ILV/hr):

Σ
800

- [x] < 1200 ILV/hr.
- [ ] > 1200 but < 1500 ILV/hr.
- [ ] > 1500 ILV/hr. (CAPACITY)

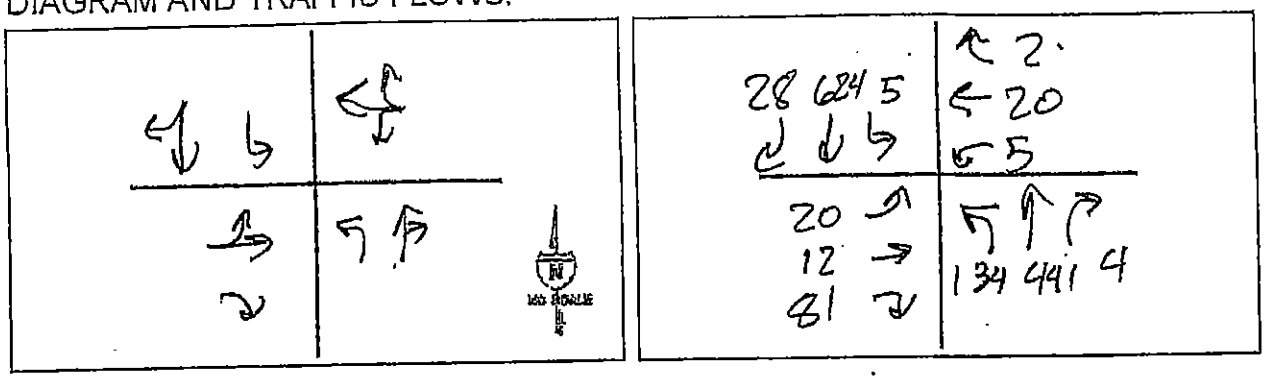
Signalized Intersection
CAPACITY ANALYSIS

INTERSECTION Ash @ Pine St. DIST. CO. RTE. P.M. INT. #1

BY USAI DATE 10/23/06

TIME E+P (AM) (PM)

DIAGRAM AND TRAFFIC FLOWS:



LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
			27	5		652			
22 81					134		445		

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
			27			652			
81					134				

TOTAL OPERATING LEVEL (ILV/hr):

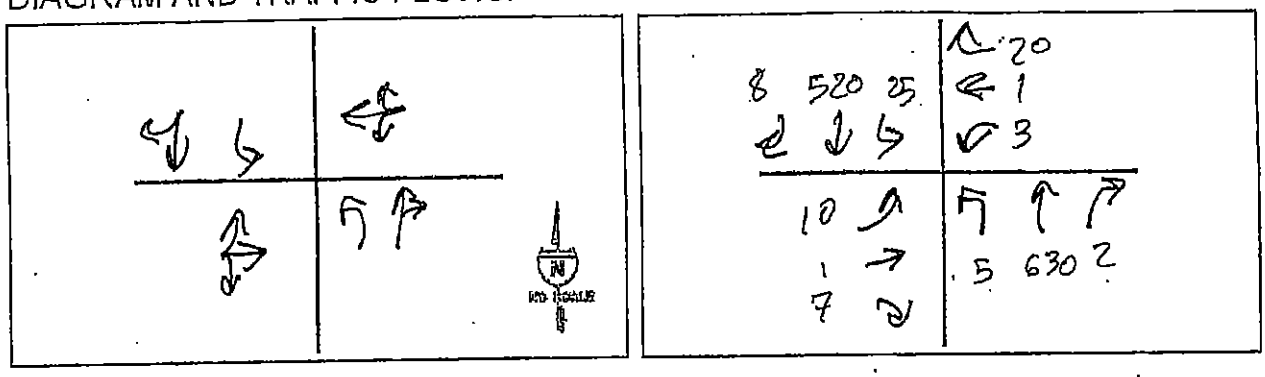
Σ
894

- [x] < 1200 ILV/hr.
- [ ] > 1200 but < 1500 ILV/hr.
- [ ] > 1500 ILV/hr. (CAPACITY)

Signalized Intersection
CAPACITY ANALYSIS

INTERSECTION Olive St. @ Pine St. DIST. CO. RTE. P.M. Int. #2
BY VSAI DATE 10/23/06
TIME E+P (AM) PM

DIAGRAM AND TRAFFIC FLOWS:



LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
			24	25		528			
18					5		632		

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
			24	25					
18							632		

TOTAL OPERATING LEVEL (ILV/hr):

Σ
699

- [x] < 1200 ILV/hr.
- [ ] > 1200 but < 1500 ILV/hr.
- [ ] > 1500 ILV/hr. (CAPACITY)

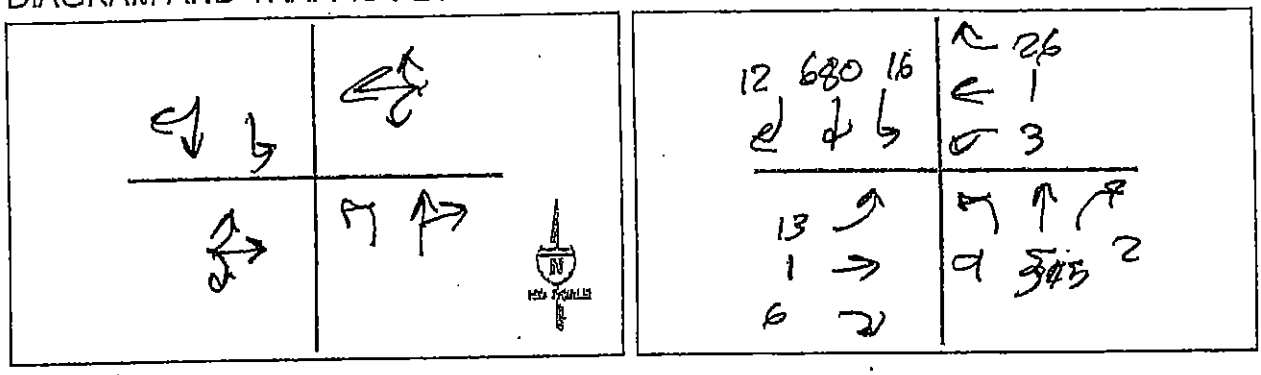
Signalized Intersection
CAPACITY ANALYSIS

INTERSECTION Olive @ Pine DIST. CO. RTE. P.M. Int #2

BY USAI DATE 10/23/06

TIME E+P (AM) (PM)

DIAGRAM AND TRAFFIC FLOWS:



LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
			30	16		692			
20					9		547		

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
			30	16		692			
20									

TOTAL OPERATING LEVEL (ILV/hr):

Σ
758

☒ < 1200 ILV/hr.

☐ > 1200 but < 1500 ILV/hr.

☐ > 1500 ILV/hr. (CAPACITY)

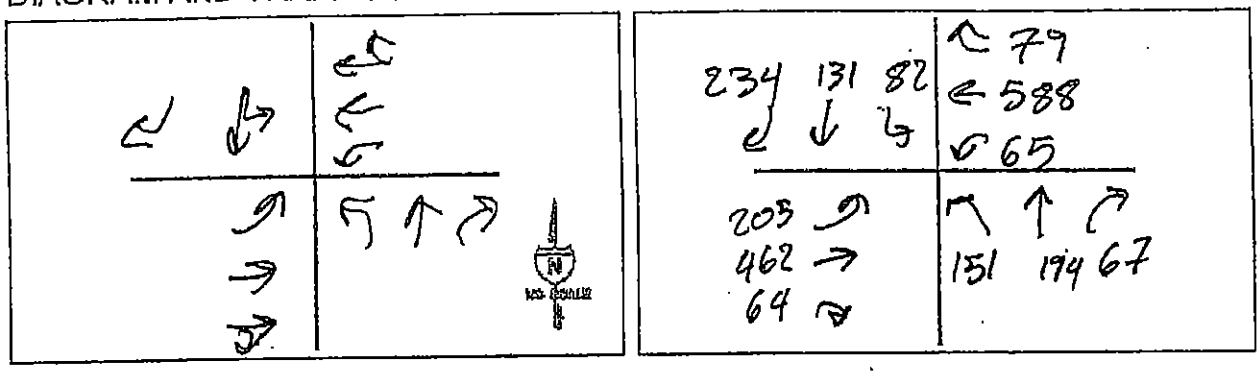
Signalized Intersection
CAPACITY ANALYSIS

INTERSECTION Main St. @ Pine DIST. CO. RTE. P.M. INT #3

BY USAL DATE 10/23/06

TIME E+P (AM) PM

DIAGRAM AND TRAFFIC FLOWS:



LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
	65		333 334	234 213					
203		263 263					151 194 67		

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
			334	234					
203							194		

TOTAL OPERATING LEVEL (ILV/hr):

Σ
967

☒ < 1200 ILV/hr.

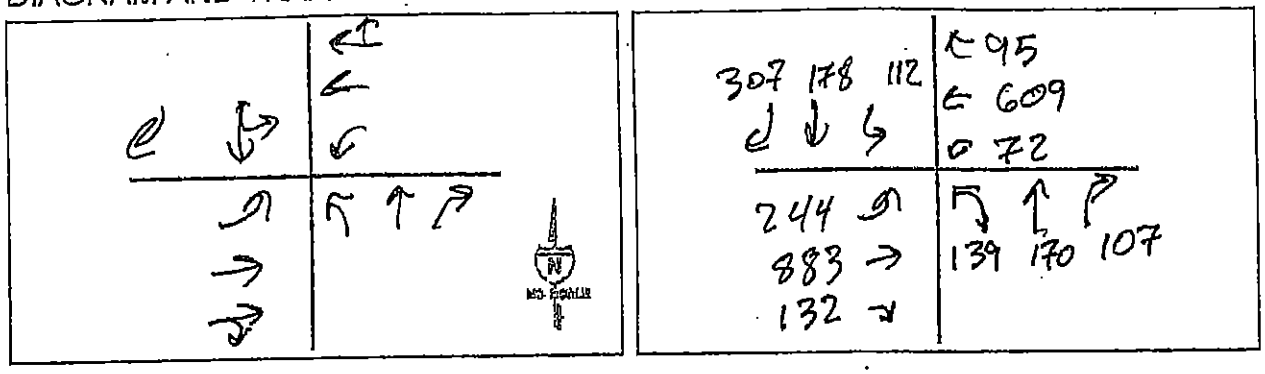
☐ > 1200 but < 1500 ILV/hr.

☐ > 1500 ILV/hr. (CAPACITY)

Signalized Intersection
CAPACITY ANALYSIS

INTERSECTION Main St. @ Pine DIST. CO. RTE. P.M. INT #3
BY VSAI DATE 10/23/06
TIME Etl (AM) (PM)

DIAGRAM AND TRAFFIC FLOWS:



LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
	72		352 352	307 290					
244		507 508					139 170 107		

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
				307					
244		508					170		

TOTAL OPERATING LEVEL (ILV/hr):

Σ
1229

☐ < 1200 ILV/hr.

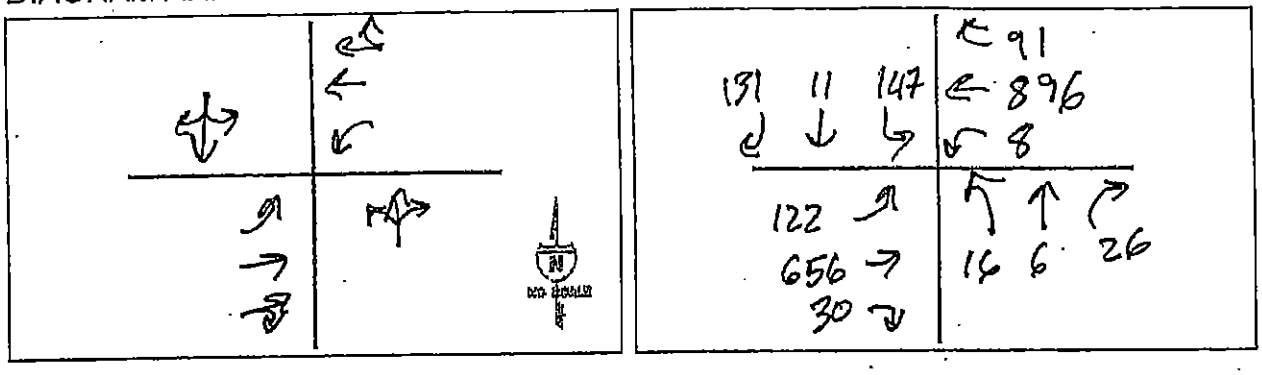
☒ > 1200 but < 1500 ILV/hr.

☐ > 1500 ILV/hr. (CAPACITY)

Signalized Intersection
CAPACITY ANALYSIS

INTERSECTION Main St. @ Montecito DIST. CO. RTE. P.M. Int. #4
BY VSAF DATE 10/23/06
TIME E+P (AM) PM

DIAGRAM AND TRAFFIC FLOWS:



LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
	8		493 494	289					
12		343 343					48		

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
			494	289					
12							48		

TOTAL OPERATING LEVEL (ILV/hr):

Σ
953

☒ < 1200 ILV/hr.

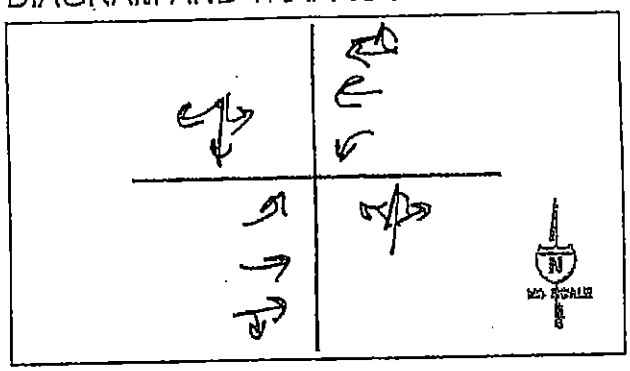
☐ > 1200 but < 1500 ILV/hr.

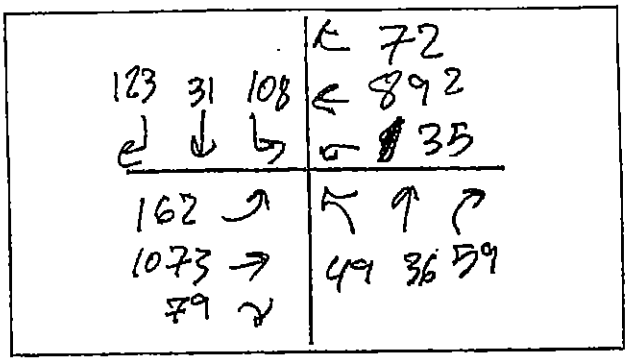
☐ > 1500 ILV/hr. (CAPACITY)

Signalized Intersection
CAPACITY ANALYSIS

INTERSECTION Main St. @ Montecito DIST. CO. RTE. P.M. INT #4
BY VSAI DATE 10/23/06
TIME E+P (AM) (PM)

DIAGRAM AND TRAFFIC FLOWS:





LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
262					35		482 482		
			144	162		576 576			

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
262									
			144	162		576			

TOTAL OPERATING LEVEL (ILV/hr):

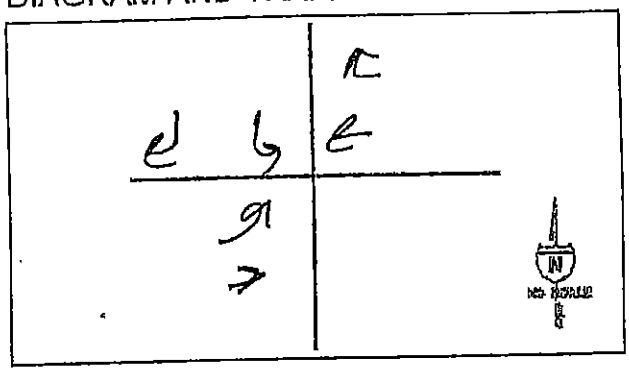
Σ
1144

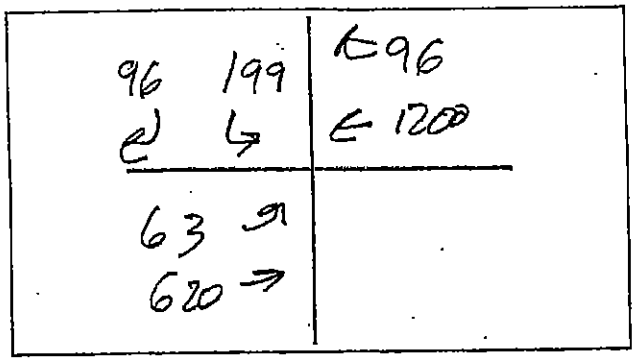
- [x] < 1200 ILV/hr.
- [ ] > 1200 but < 1500 ILV/hr.
- [ ] > 1500 ILV/hr. (CAPACITY)

Signalized Intersection
CAPACITY ANALYSIS

INTERSECTION Main St. @ SA-330 DIST. CO. RTE. P.M. Int. #6
BY USAI DATE 10/23/06
TIME E+P (AM) PM

DIAGRAM AND TRAFFIC FLOWS:





LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
96 199					96 1200				
		63 63		557					

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
199					1200				
		63							

TOTAL OPERATING LEVEL (ILV/hr):

Σ
1462

☐ < 1200 ILV/hr.

☒ > 1200 but < 1500 ILV/hr.

☐ > 1500 ILV/hr. (CAPACITY)

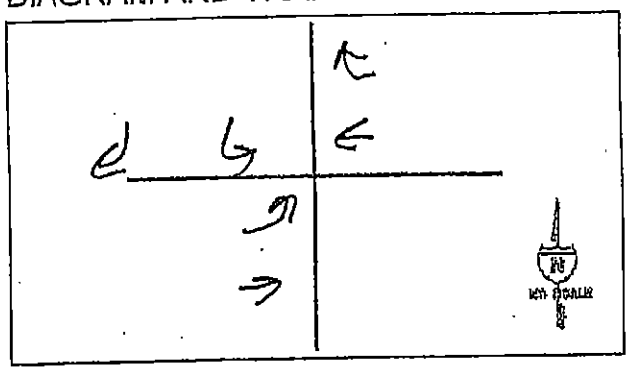
Signalized Intersection
CAPACITY ANALYSIS

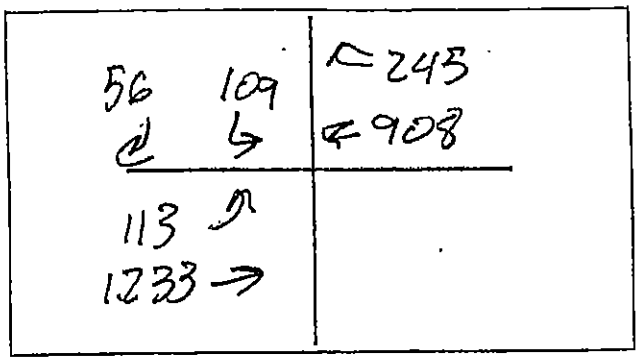
INTERSECTION Main St. @ SR-330 DIST. CO. RTE. P.M. INT #6

BY E+P DATE 10/23/06

TIME _____ (AM) (PM)

DIAGRAM AND TRAFFIC FLOWS:





LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
56 109		245		
	113	908		
	113	1120		

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
109				
	113	1120		

TOTAL OPERATING LEVEL (ILV/hr):

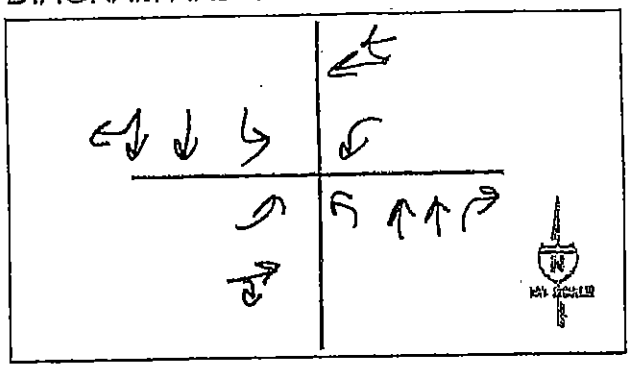
Σ
1342

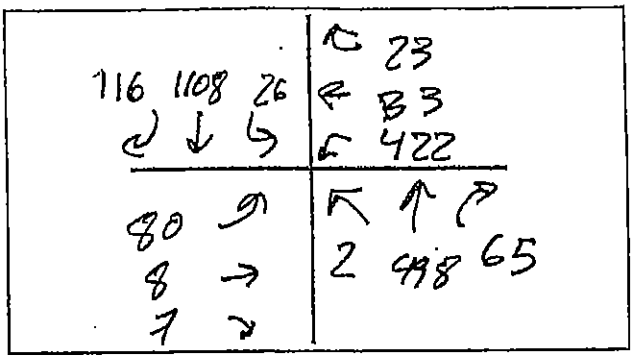
- ☐ < 1200 ILV/hr.
- ☒ > 1200 but < 1500 ILV/hr.
- ☐ > 1500 ILV/hr. (CAPACITY)

Signalized Intersection
CAPACITY ANALYSIS

INTERSECTION SR-67 @ Dye DIST. CO. RTE. P.M. INT #7
BY USAI DATE 10/23/06
TIME E+P (AM) PM

DIAGRAM AND TRAFFIC FLOWS:





LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
422	56	26	612 612	
80	13	2	282 281	

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
422	56	26	612	

TOTAL OPERATING LEVEL (ILV/hr):

Σ
1116

☒ < 1200 ILV/hr.

☐ > 1200 but < 1500 ILV/hr.

☐ > 1500 ILV/hr. (CAPACITY)

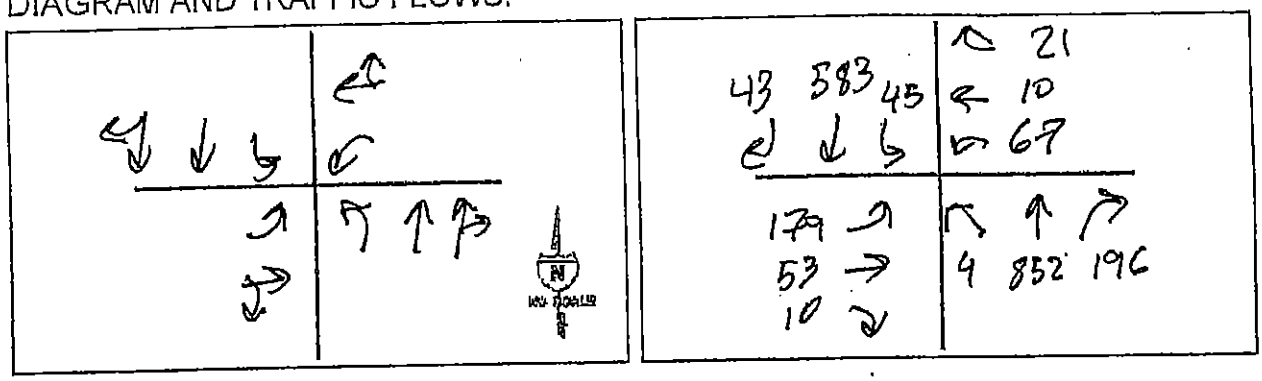
Signalized Intersection
CAPACITY ANALYSIS

INTERSECTION SR-67 @ Dye Rd. DIST. CO. RTE. P.M. INT #7

BY USAT DATE 10/23/06

TIME E+P (AM) PM

DIAGRAM AND TRAFFIC FLOWS:



LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
	67		31	45		313 313			
179		63			4		524 524		

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
				45					
179		63					524		

TOTAL OPERATING LEVEL (ILV/hr):

Σ
811

☒ < 1200 ILV/hr.

☐ > 1200 but < 1500 ILV/hr.

☐ > 1500 ILV/hr. (CAPACITY)

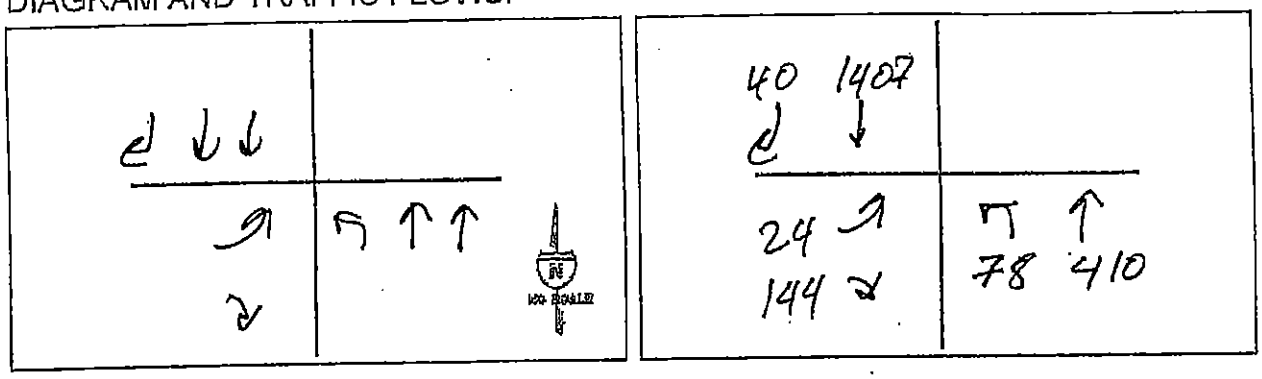
Signalized Intersection
CAPACITY ANALYSIS

INTERSECTION SR-67 @ Archie Moore DIST. CO. RTE. P.M. INT #8

BY USAI DATE 10/23/06

TIME E+P (AM) PM

DIAGRAM AND TRAFFIC FLOWS:



LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
				40 703 704					
24 144			78 78 78		127 127				

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
				704					
144			78						

TOTAL OPERATING LEVEL (ILV/hr):

Σ
926

- [x] < 1200 ILV/hr.
- [ ] > 1200 but < 1500 ILV/hr.
- [ ] > 1500 ILV/hr. (CAPACITY)

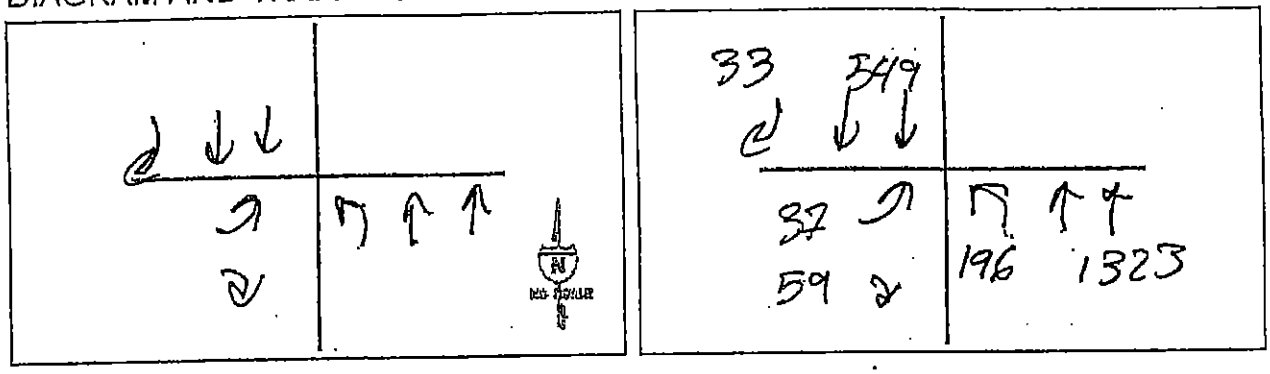
Signalized Intersection
CAPACITY ANALYSIS

INTERSECTION SR-67 @ Archie Moore DIST. CO. RTE. P.M. INT #8

BY JSAI DATE 10/23/06

TIME E+P (AM) (PM)

DIAGRAM AND TRAFFIC FLOWS:



LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
		33 274 275		
37 59	196 196 196	931 931		

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
59	196	931		

TOTAL OPERATING LEVEL (ILV/hr):

Σ
1180

- [x] < 1200 ILV/hr.
- [ ] > 1200 but < 1500 ILV/hr.
- [ ] > 1500 ILV/hr. (CAPACITY)

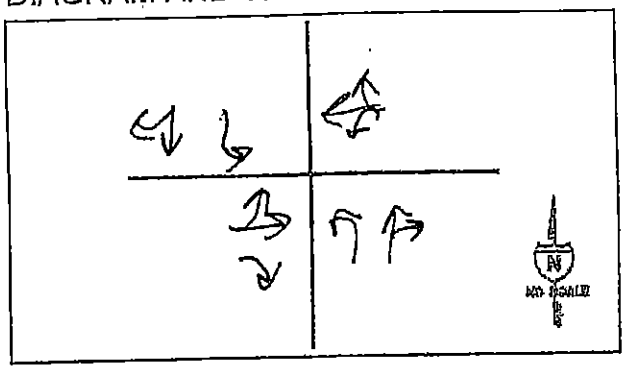
Signalized Intersection
CAPACITY ANALYSIS

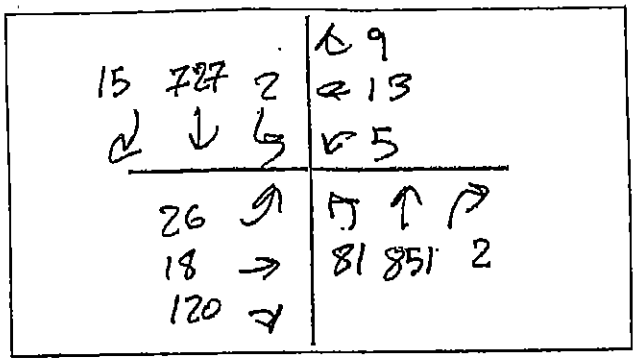
INTERSECTION Ash St. @ Pine St. DIST. CO. RTE. P.M. INT #1

BY USAI DATE 10/23/06

TIME E+OP+P (AM) PM

DIAGRAM AND TRAFFIC FLOWS:





LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
			27	2		742			
44 120					81		853		

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
			27						
120					81		853		

TOTAL OPERATING LEVEL (ILV/hr):

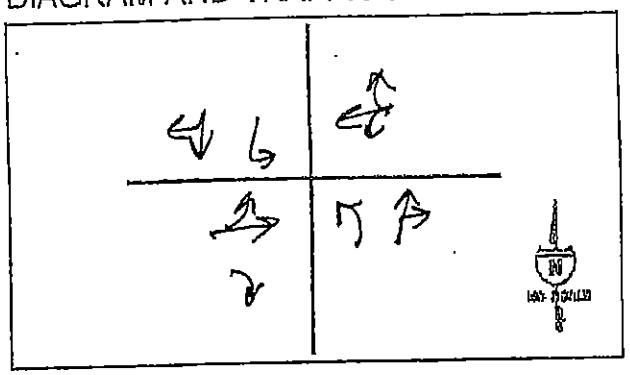
Σ
1081

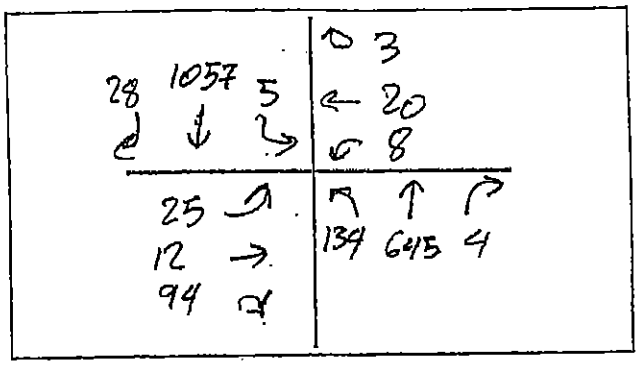
- [x] < 1200 ILV/hr.
- [ ] > 1200 but < 1 500 ILV/hr.
- [ ] > 1500 ILV/hr. (CAPACITY)

Signalized Intersection
CAPACITY ANALYSIS

INTERSECTION Ash St. @ Pine DIST. CO. RTE. P.M. Int. #1
BY USAI DATE 10/23/06
TIME E+O P+P (AM) (PM)

DIAGRAM AND TRAFFIC FLOWS:





LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
			31	5		1085			
37 94					134		649		

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
			31			1085			
94					134				

TOTAL OPERATING LEVEL (ILV/hr):

Σ
1344

☐ < 1200 ILV/hr.

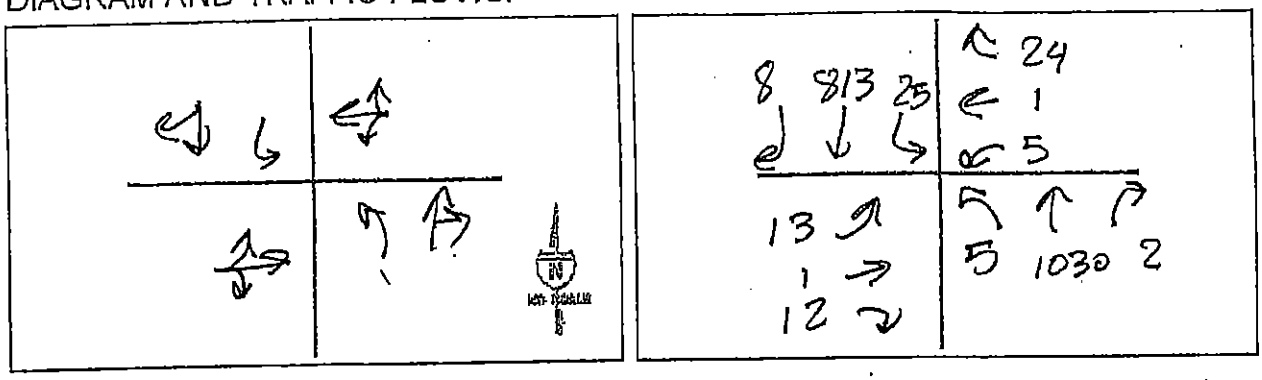
☒ > 1200 but < 1500 ILV/hr.

☐ > 1500 ILV/hr. (CAPACITY)

Signalized Intersection
CAPACITY ANALYSIS

INTERSECTION Olive St. @ Pine DIST. CO. RTE. P.M. Int #2
BY USAI DATE 10/23/06
TIME E+O/+P (AM) PM

DIAGRAM AND TRAFFIC FLOWS:



LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
			30	25		821			
26					5		1032		

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
			30	25					
26							1032		

TOTAL OPERATING LEVEL (ILV/hr):

Σ
1113

- [x] < 1200 ILV/hr.
- [ ] > 1200 but < 1500 ILV/hr.
- [ ] > 1500 ILV/hr. (CAPACITY)

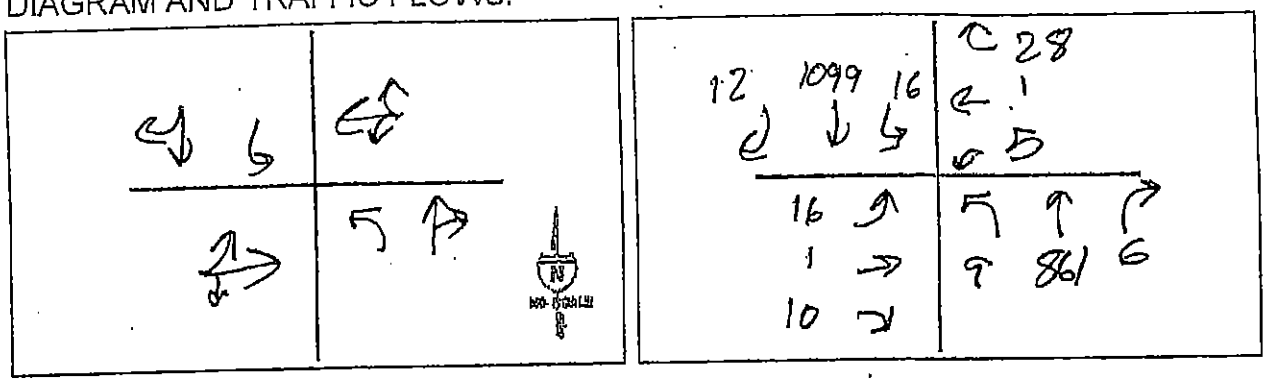
Signalized Intersection
CAPACITY ANALYSIS

INTERSECTION Olive St. @ Pine St. DIST. CO. RTE. P.M. Int #2

BY VSAI DATE 10/23/06

TIME 7:00PM (AM) (PM)

DIAGRAM AND TRAFFIC FLOWS:



LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
			34	16		1111			
27					9		867		

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
			34	16		1111			
27									

TOTAL OPERATING LEVEL (ILV/hr):

Σ
1188

☒ < 1200 ILV/hr.

☐ > 1200 but < 1500 ILV/hr.

☐ > 1500 ILV/hr. (CAPACITY)

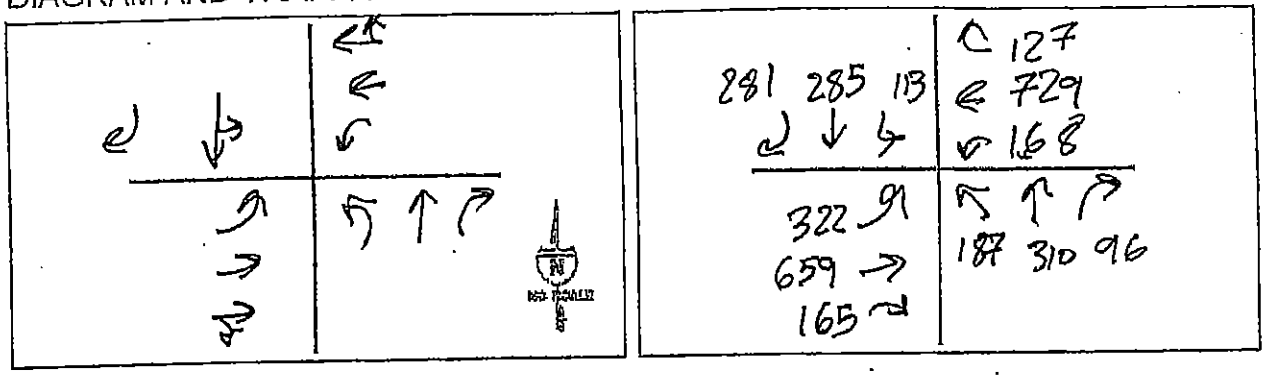
Signalized Intersection
CAPACITY ANALYSIS

INTERSECTION Main St. @ Pine St. DIST. CO. RTE. P.M. Int. #3

BY USAI DATE 10/23/06

TIME E+O P+P (AM) PM

DIAGRAM AND TRAFFIC FLOWS:



LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
	168		428 428	281 398					
322		412 412					187 310 96		

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
			428	398					
322							310		

TOTAL OPERATING LEVEL (ILV/hr):

Σ
1458

☐ < 1200 ILV/hr.

☒ > 1200 but < 1500 ILV/hr.

☐ > 1500 ILV/hr. (CAPACITY)

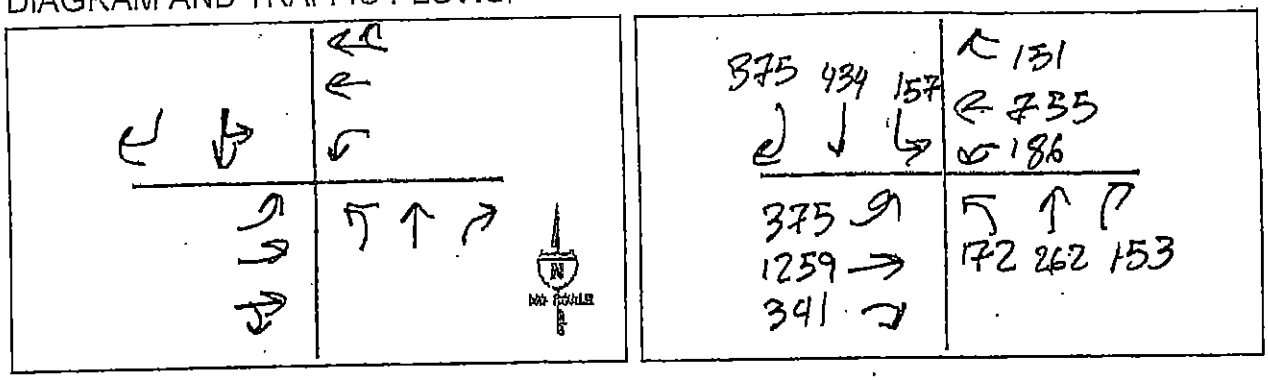
Signalized Intersection
CAPACITY ANALYSIS

INTERSECTION Main St. @ Pine St. DIST. CO. RTE. P.M. INT # 3

BY USAI DATE 10/23/06

TIME E+O P+P (AM) (PM)

DIAGRAM AND TRAFFIC FLOWS:



LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
375 591					186		453 453		
			172 262 153	375		800 800			

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
591									
			262	375		800			

TOTAL OPERATING LEVEL (ILV/hr):

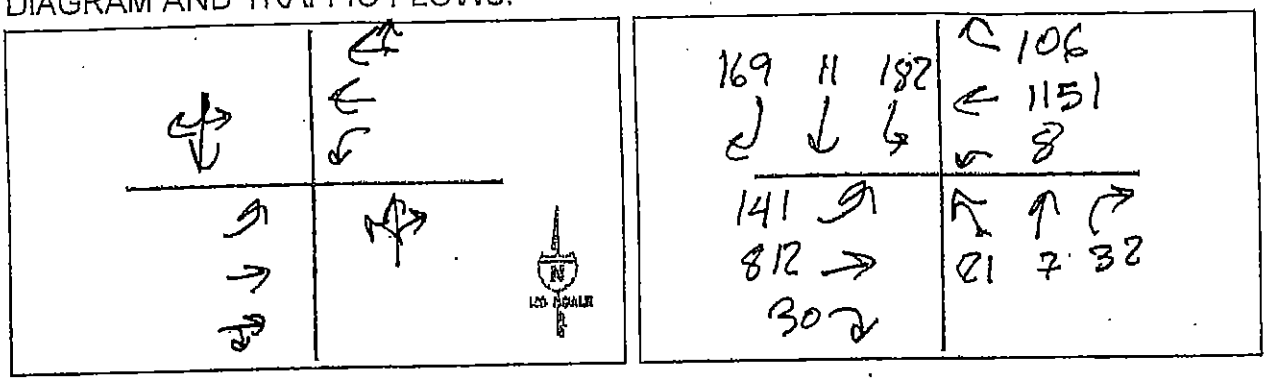
Σ
2028

- ☐ < 1200 ILV/hr.
- ☐ > 1200 but < 1500 ILV/hr.
- ☒ > 1500 ILV/hr. (CAPACITY)

Signalized Intersection
CAPACITY ANALYSIS

INTERSECTION Main St. @ Monterio DIST. CO. RTE. P.M. INT #4
BY USAI DATE 10/23/06
TIME E+O P+P (AM) PM

DIAGRAM AND TRAFFIC FLOWS:



LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
	8		629 628	362					
141		421 421					60		

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
			628	362					
141							60		

TOTAL OPERATING LEVEL (ILV/hr):

Σ
1191

☒ < 1200 ILV/hr.

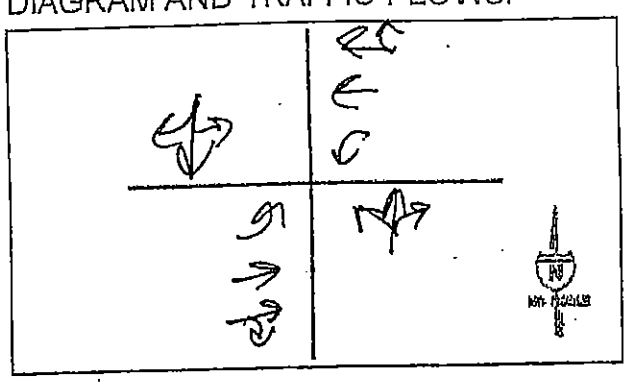
☐ > 1200 but < 1500 ILV/hr.

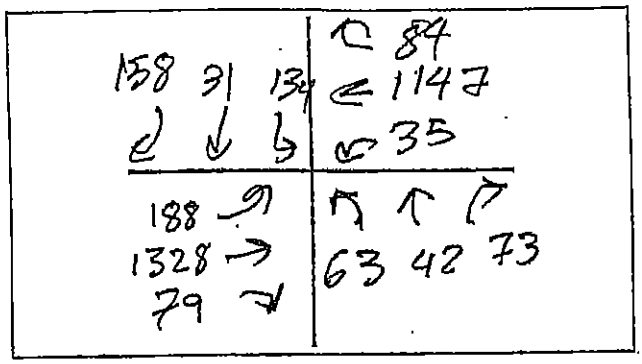
☐ > 1500 ILV/hr. (CAPACITY)

Signalized Intersection
CAPACITY ANALYSIS

INTERSECTION Main St. @ Montecito DIST. CO. RTE. P.M. Int. #4
BY USAI DATE 10/23/06
TIME E+OP+P (AM) (PM)

DIAGRAM AND TRAFFIC FLOWS:





LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
	35		615 616	323					
188		704 703					178		

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
				323					
188		703					178		

TOTAL OPERATING LEVEL (ILV/hr):

Σ
1393

☐ < 1200 ILV/hr.

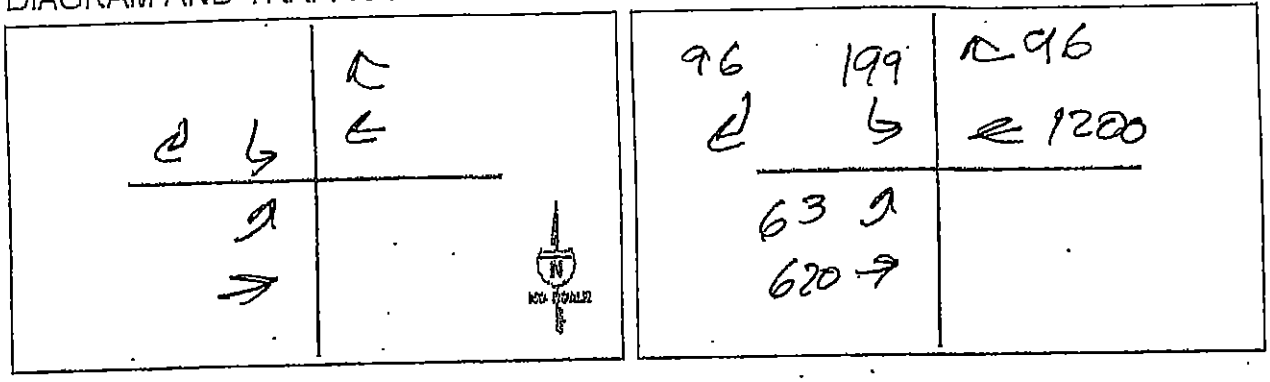
☒ > 1200 but < 1500 ILV/hr.

☐ > 1500 ILV/hr. (CAPACITY)

Signalized Intersection
CAPACITY ANALYSIS

INTERSECTION Main St. @SA-330 DIST. CO. RTE. P.M. Int. #6
BY USAI DATE 10/23/06
TIME E+OP+P (AM) PM

DIAGRAM AND TRAFFIC FLOWS:



LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
96 199		96 1200		
	63 63	557		

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
199		1200		
	63			

TOTAL OPERATING LEVEL (ILV/hr):

Σ
1462

☐ < 1200 ILV/hr.

☒ > 1200 but < 1500 ILV/hr.

☐ > 1500 ILV/hr. (CAPACITY)

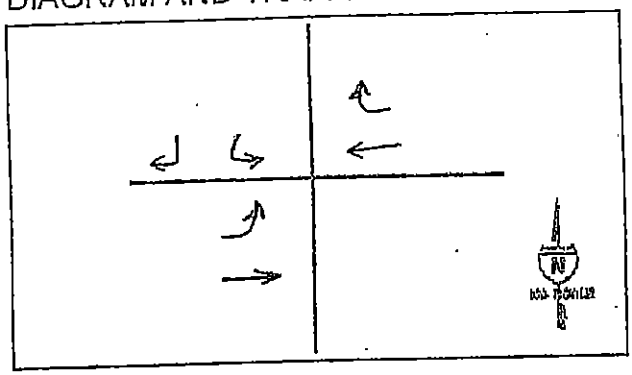
Signalized Intersection
CAPACITY ANALYSIS

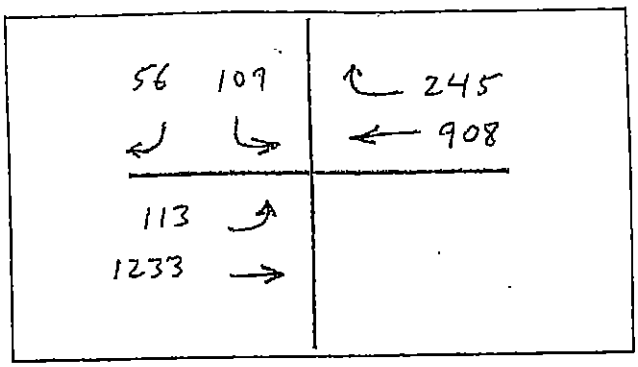
INTERSECTION Main St. at SR-330 DIST. CO. RTE. P.M. Int. #6 PM

BY USAI DATE October 23, 2006

TIME E+OP+P (AM) (PM)

DIAGRAM AND TRAFFIC FLOWS:





LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
56 109		245 908		
	113 113	1120		

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
109				
	NB	1120		

TOTAL OPERATING LEVEL (ILV/hr):

Σ
1342

☐ < 1200 ILV/hr.

☒ > 1200 but < 1500 ILV/hr.

☐ > 1500 ILV/hr. (CAPACITY)

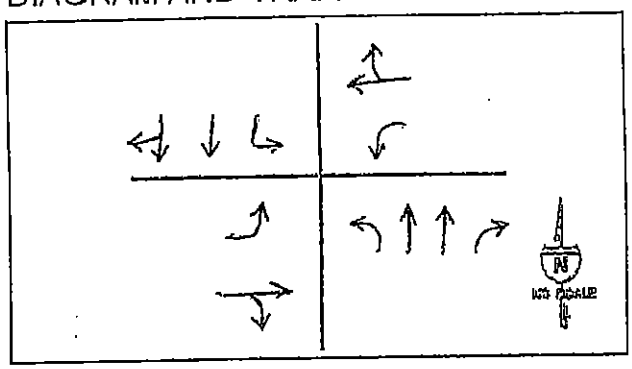
Signalized Intersection
CAPACITY ANALYSIS

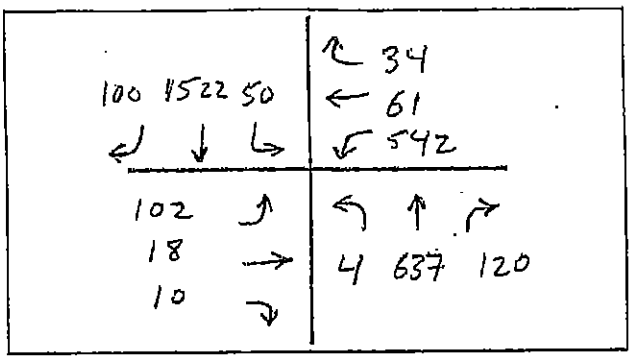
INTERSECTION SR-67 at Highland Valley Rd./Dye Rd. DIST. CO. RTE. P.M. Int. #7 AM

BY USAI DATE October 23, 2006

TIME E+OP+P (AM) PM

DIAGRAM AND TRAFFIC FLOWS:





LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
50		811 811			542		95		
	4		318, 319, 120	102		28			

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
50		811			542		95		

TOTAL OPERATING LEVEL (ILV/hr):

Σ
1498

☐ < 1200 ILV/hr.

☒ > 1200 but < 1500 ILV/hr.

☐ > 1500 ILV/hr. (CAPACITY)

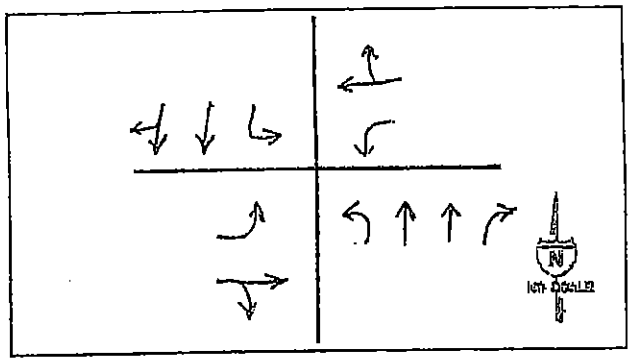
Signalized Intersection
CAPACITY ANALYSIS

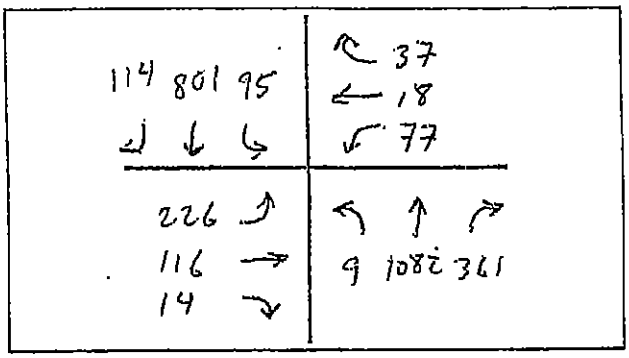
INTERSECTION SR-67 at. Highland Rd/ Dye Rd. DIST. CO. RTE. P.M. Int. # 7 PM

BY USAI DATE October 23, 2006

TIME E+O P+P (AM) PM

DIAGRAM AND TRAFFIC FLOWS:





LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
95		458 457			77		55		
	9		541 541 361	226		130			

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
95									
			541	226		130			

TOTAL OPERATING LEVEL (ILV/hr):

Σ
992

☒ < 1200 ILV/hr.

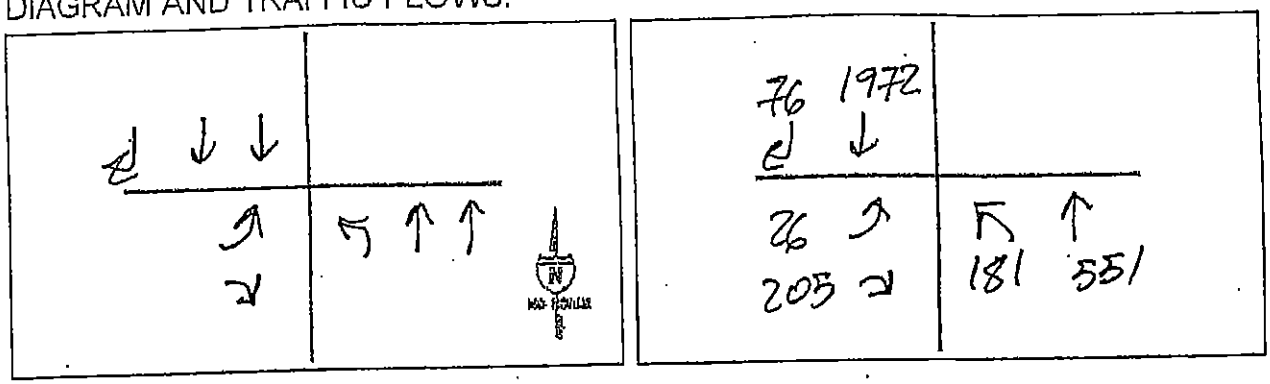
☐ > 1200 but < 1500 ILV/hr.

☐ > 1500 ILV/hr. (CAPACITY)

Signalized Intersection
CAPACITY ANALYSIS

INTERSECTION SR-67 @ Archie Moore DIST. CO. RTE. P.M. INT #8
BY USAI DATE 10/23/06
TIME E+OP+P (AM) PM

DIAGRAM AND TRAFFIC FLOWS:



LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
26 205	181 181	76 986 / 95		

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
205	181	986		

TOTAL OPERATING LEVEL (ILV/hr):

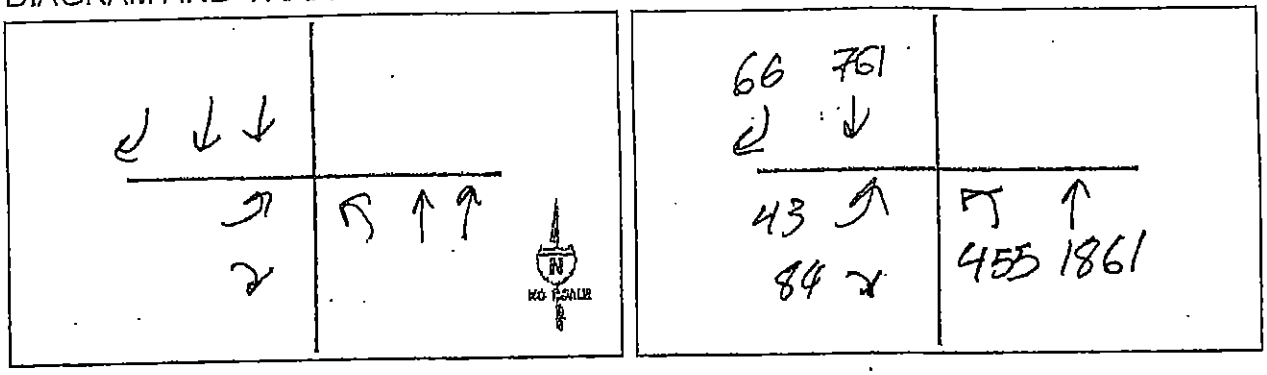
Σ
1372

- ☐ < 1200 ILV/hr.
- ☒ > 1200 but < 1500 ILV/hr.
- ☐ > 1500 ILV/hr. (CAPACITY)

Signalized Intersection
CAPACITY ANALYSIS

INTERSECTION SR-67 @ Archie Moore DIST. CO. RTE. P.M. INT #8
BY VSAI DATE 10/23/06
TIME E+O+P (AM) PM

DIAGRAM AND TRAFFIC FLOWS:



LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
				66 380 381					
43 84			455 455 455		475 476				

CRITICAL LANE VOLUMES (ILV/hr):

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
84			455		476				

TOTAL OPERATING LEVEL (ILV/hr):

Σ
1025

- [x] < 1200 ILV/hr.
- [ ] > 1200 but < 1500 ILV/hr.
- [ ] > 1500 ILV/hr. (CAPACITY)

005703 7/11/06 Ash at Pine Street Intersection

Figure 9-4
TRAFFIC SIGNAL WARRANTS

(Based on Estimated Average Daily Traffic - See Note)

URBAN ..... RURAL	Minimum Requirements EADT	
1. Minimum Vehicular Satisfied _____ Not Satisfied X	Vehicles per day on major street (total of both approaches)	Vehicles per day on higher-volume minor street approach (one direction only)
Number of lanes for moving traffic on each approach Major Street / Minor Street 1 ..... 16,793 ADT / 1 ..... 1400 ADT 2 or more ..... / 1 ..... 2 or more ..... / 2 or more ..... 1 ..... / 2 or more	Urban / Rural 8,000 / 5,600 9,600 / 6,720 9,600 / 6,720 8,000 / 5,600	Urban / Rural 2,400 / 1,680 2,400 / 1,680 3,200 / 2,240 3,200 / 2,240
2. Interuption of Continuous Traffic Satisfied X Not Satisfied _____	Vehicles per day on major street (total of both approaches)	Vehicles per day on higher-volume minor street approach (one direction only)
Number of lanes for moving traffic on each approach Major Street / Minor Street 1 ..... 16,800 ADT / 1 ..... 1400 ADT 2 or more ..... / 1 ..... 2 or more ..... / 2 or more ..... 1 ..... / 2 or more	Urban / Rural 12,000 / 8,400 14,400 / 10,080 14,400 / 10,080 12,000 / 8,400	Urban / Rural 1,200 / 850 1,200 / 850 1,600 / 1,120 1,600 / 1,120
3. Combination Satisfied _____ Not Satisfied _____ No one warrant satisfied, but following warrants fulfilled 80% or more ..... _____ 1 _____ 2	2 Warrants	2 Warrants

NOTE: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

OK

005703

Existing + Other Project + Project
7/11/06
Intersection #2
Pine at Olive

Figure 9-4
TRAFFIC SIGNAL WARRANTS

(Based on Estimated Average Daily Traffic - See Note)

URBAN ..... RURAL	Minimum Requirements EADT	
1. Minimum Vehicular Satisfied _____ Not Satisfied X	Vehicles per day on major street (total of both approaches)	Vehicles per day on higher-volume minor street approach (one direction only)
Number of lanes for moving traffic on each approach Major Street / Minor Street 1 19,100 / 1 1400 2 or more / 1 2 or more / 2 or more 1 / 2 or more	Urban / Rural 8,000 / 5,600 9,600 / 6,720 9,600 / 6,720 8,000 / 5,600	Urban / Rural 2,400 / 1,680 2,400 / 1,680 3,200 / 2,240 3,200 / 2,240
2. Interuption of Continuous Traffic Satisfied X Not Satisfied _____	Vehicles per day on major street (total of both approaches)	Vehicles per day on higher-volume minor street approach (one direction only)
Number of lanes for moving traffic on each approach Major Street / Minor Street 1 19,100 / 1 1400 2 or more / 1 2 or more / 2 or more 1 / 2 or more	Urban / Rural 12,000 / 8,400 14,400 / 10,080 14,400 / 10,080 12,000 / 8,400	Urban / Rural 1,200 / 850 1,200 / 850 1,600 / 1,120 1,600 / 1,120
3. Combination Satisfied _____ Not Satisfied _____ No one warrant satisfied, but following warrants fulfilled 80% or more ..... _____ 1 _____ 2	2 Warrants	2 Warrants

NOTE: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

Close
State Hwy
CD 72

605703

Existing + Other Projects + Project
7/11/06
Intersection #3
Montecito Way at Montecito

Figure 9-4
TRAFFIC SIGNAL WARRANTS

(Based on Estimated Average Daily Traffic - See Note)

URBAN ..... RURAL	Minimum Requirements EADT	
1. Minimum Vehicular Satisfied _____ Not Satisfied X	Vehicles per day on major street (total of both approaches)	Vehicles per day on higher-volume minor street approach (one direction only)
Number of lanes for moving traffic on each approach Major Street / Minor Street 1 4520 / 1 1566 2 or more / 1 2 or more / 2 or more 1 / 2 or more	Urban / Rural 8,000 / 5,600 9,600 / 6,720 9,600 / 6,720 8,000 / 5,600	Urban / Rural 2,400 / 1,680 2,400 / 1,680 3,200 / 2,240 3,200 / 2,240
2. Interuption of Continuous Traffic Satisfied _____ Not Satisfied X	Vehicles per day on major street (total of both approaches)	Vehicles per day on higher-volume minor street approach (one direction only)
Number of lanes for moving traffic on each approach Major Street / Minor Street 1 4520 / 1 1566 2 or more / 1 2 or more / 2 or more 1 / 2 or more	Urban / Rural 12,000 / 8,400 14,400 / 10,080 14,400 / 10,080 12,000 / 8,400	Urban / Rural 1,200 / 850 1,200 / 850 1,600 / 1,120 1,600 / 1,120
3. Combination Satisfied _____ Not Satisfied X No one warrant satisfied, but following warrants fulfilled 80% or more ..... _____ 1 _____ 2	2 Warrants	2 Warrants

NOTE: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

NO

Buildout (2030) + Project
7/11/06
Intersection #5
Montecito Way at Montecito Rd.

005703

Figure 9-4
TRAFFIC SIGNAL WARRANTS

(Based on Estimated Average Daily Traffic - See Note)

URBAN ..... RURAL	Minimum Requirements EADT			
1. Minimum Vehicular Satisfied _____ Not Satisfied X	Vehicles per day on major street (total of both approaches)		Vehicles per day on higher-volume minor street approach (one direction only)	
Number of lanes for moving traffic on each approach Major Street / Minor Street	Urban	Rural	Urban	Rural
1 7500 / 1 3050	8,000	5,600	2,400	1,680
2 or more / 1	9,600	6,720	2,400	1,680
2 or more / 2 or more	9,600	6,720	3,200	2,240
1 / 2 or more	8,000	5,600	3,200	2,240
2. Interuption of Continuous Traffic Satisfied _____ Not Satisfied X	Vehicles per day on major street (total of both approaches)		Vehicles per day on higher-volume minor street approach (one direction only)	
Number of lanes for moving traffic on each approach Major Street / Minor Street	Urban	Rural	Urban	Rural
1 7500 / 1 3050	12,000	8,400	1,200	850
2 or more / 1	14,400	10,080	1,200	850
2 or more / 2 or more	14,400	10,080	1,600	1,120
1 / 2 or more	12,000	8,400	1,600	1,120
3. Combination Satisfied X Not Satisfied _____ No one warrant satisfied, but following warrants fulfilled 80% or more ..... _____ 1 _____ 2	2 Warrants		2 Warrants	

NOTE: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

COMBO
@ B.O (2030)

Existing + Other Projects + Project
7/11/06 Main Street at SR-330
005703 Intersection #6

Figure 9-4
TRAFFIC SIGNAL WARRANTS

(Based on Estimated Average Daily Traffic - See Note)

URBAN ..... RURAL	Minimum Requirements EADT	
1. Minimum Vehicular Satisfied _____ Not Satisfied X	Vehicles per day on major street (total of both approaches)	Vehicles per day on higher-volume minor street approach (one direction only)
Number of lanes for moving traffic on each approach Major Street / Minor Street 1 36,000 / 1 1250 2 or more / 1 2 or more / 2 or more 1 / 2 or more	Urban / Rural 8,000 / 5,600 9,600 / 6,720 9,600 / 6,720 8,000 / 5,600	Urban / Rural 2,400 / 1,680 2,400 / 1,680 3,200 / 2,240 3,200 / 2,240
2. Interuption of Continuous Traffic Satisfied X Not Satisfied _____	Vehicles per day on major street (total of both approaches)	Vehicles per day on higher-volume minor street approach (one direction only)
Number of lanes for moving traffic on each approach Major Street / Minor Street 1 36,000 / 1 1250 2 or more / 1 2 or more / 2 or more 1 / 2 or more	Urban / Rural 12,000 / 8,400 14,400 / 10,080 14,400 / 10,080 12,000 / 8,400	Urban / Rural 1,200 / 850 1,200 / 850 1,600 / 1,120 1,600 / 1,120
3. Combination Satisfied _____ Not Satisfied _____ No one warrant satisfied, but following warrants fulfilled 80% or more ..... _____ 1 _____ 2	2 Warrants	2 Warrants

NOTE: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

Close
State HWY
SR67

005703

Existing + [illegible]
7/11/06 SR-67 at Archie Moore Rd.
Intersection #8

Figure 9-4
TRAFFIC SIGNAL WARRANTS

(Based on Estimated Average Daily Traffic - See Note)

URBAN ..... RURAL	Minimum Requirements EADT			
1. Minimum Vehicular Satisfied _____ Not Satisfied X	Vehicles per day on major street (total of both approaches)		Vehicles per day on higher-volume minor street approach (one direction only)	
Number of lanes for moving traffic on each approach Major Street / Minor Street	Urban	Rural	Urban	Rural
1 35,000 / 1 1200	8,000	5,600	2,400	1,680
2 or more / 1	9,600	6,720	2,400	1,680
2 or more / 2 or more	9,600	6,720	3,200	2,240
1 / 2 or more	8,000	5,600	3,200	2,240
2. Interuption of Continuous Traffic Satisfied X Not Satisfied _____	Vehicles per day on major street (total of both approaches)		Vehicles per day on higher-volume minor street approach (one direction only)	
Number of lanes for moving traffic on each approach Major Street / Minor Street	Urban	Rural	Urban	Rural
1 35,000 / 1 1200	12,000	8,400	1,200	850
2 or more / 1	14,400	10,080	1,200	850
2 or more / 2 or more	14,400	10,080	1,600	1,120
1 / 2 or more	12,000	8,400	1,600	1,120
3. Combination Satisfied _____ Not Satisfied _____ No one warrant satisfied, but following warrants fulfilled 80% or more ..... _____ 1 _____ 2	2 Warrants		2 Warrants	

NOTE: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

SR67
Close

HCS2000™ DETAILED REPORT

General Information		Site Information	
Analyst	Justin Schlaefli	Intersection	1
Agency or Co.	Urban Systems	Area Type	All other areas
Date Performed	06/15/2006	Jurisdiction	County of San Diego
Time Period	AM	Analysis Year	Existing + Project
		Project ID	Montecito Ranch

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	0	1	0	0	1	0	1	1	0	1	1	0
Lane group		LTR			LTR		L	TR		L	TR	
Volume, V (vph)	23	18	113	3	13	6	81	582	2	2	429	15
% Heavy vehicles, %HV	2	2	2	2	2	2	2	2	2	2	2	2
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Pretimed (P) or actuated (A)	A	A	A	A	A	A	A	A	A	A	A	A
Start-up lost time, l_1		2.0			2.0		2.0	2.0		2.0	2.0	
Extension of effective green, e		2.0			2.0		2.0	2.0		2.0	2.0	
Arrival type, AT		3			3		3	3		3	3	
Unit extension, UE		3.0			3.0		3.0	3.0		3.0	3.0	
Filtering/metering, I		1.000			1.000		1.000	1.000		1.000	1.000	
Initial unmet demand, Q_b		0.0			0.0		0.0	0.0		0.0	0.0	
Ped / Bike / RTOR volumes	10	0	17	10	0	0	10	0	0	10	0	6
Lane width		12.0			12.0		12.0	12.0		12.0	12.0	
Parking / Grade / Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B		0			0		0	0		0	0	
Min. time for pedestrians, G_p	3.3			3.3			3.3			3.3		

Phasing	EB Only	WB Only	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 13.0	G = 5.0	G =	G =	G = 7.0	G = 48.0	G =	G =

MITIGATED

Y = 4	Y = 4	Y =	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis, T = 0.25					Cycle Length, C = 89.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v		144			23		85	615		2	461	
Lane group capacity, c		239			98		139	1004		139	1002	
v/c ratio, X		0.60			0.23		0.61	0.61		0.01	0.46	
Total green ratio, g/C		0.15			0.06		0.08	0.54		0.08	0.54	
Uniform delay, d_1		35.6			40.2		39.7	14.1		37.8	12.6	
Progression factor, PF		1.000			1.000		1.000	1.000		1.000	1.000	
Delay calibration, k		0.19			0.11		0.20	0.20		0.11	0.11	
Incremental delay, d_2		4.2			1.2		7.7	1.1		0.0	0.3	
Initial queue delay, d_3		0.0			0.0		0.0	0.0		0.0	0.0	
Control delay		39.8			41.4		47.4	15.2		37.9	12.9	
Lane group LOS		D			D		D	B		D	B	
Approach delay	39.8			41.4			19.1			13.0		
Approach LOS	D			D			B			B		
Intersection delay	19.6			X_c = 0.58			Intersection LOS			B		

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Version 4.1f

HCS2000™ DETAILED REPORT

General Information		Site Information	
Analyst	Justin Schlaefli	Intersection	1
Agency or Co.	Urban Systems	Area Type	All other areas
Date Performed	06/15/2006	Jurisdiction	County of San Diego
Time Period	PM	Analysis Year	Existing + Project
		Project ID	Montecito Ranch

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	0	1	1	0	1	0	1	1	0	1	1	0
Lane group		LT	R		LTR		L	TR		L	TR	
Volume, V (vph)	20	12	81	5	20	2	134	441	4	5	624	5
% Heavy vehicles, %HV	2	2	2	2	2	2	2	2	2	2	2	2
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Pretimed (P) or actuated (A)	A	A	A	A	A	A	A	A	A	A	A	A
Start-up lost time, l_1		2.0	2.0		2.0		2.0	2.0		2.0	2.0	
Extension of effective green, e		2.0	2.0		2.0		2.0	2.0		2.0	2.0	
Arrival type, AT		3	3		3		3	5		3	5	
Unit extension, UE		3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Filtering/metering, I		1.000	1.000		1.000		1.000	1.000		1.000	1.000	
Initial unmet demand, Q_b		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Ped / Bike / RTOR volumes	10	0	17	10	0	0	10	0	0	10	0	0
Lane width		12.0	12.0		12.0		12.0	12.0		12.0	12.0	
Parking / Grade / Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B		0	0		0		0	0		0	0	
Min. time for pedestrians, G_p		3.3			3.3			3.3			3.3	

Phasing	EB Only	WB Only	03	04	Excl. Left	NB Only	Thru & RT	08
Timing	G = 8.0	G = 5.0	G =	G =	G = 5.0	G = 4.0	G = 79.0	G =

Y = 4	Y = 4	Y =	Y =	Y = 4	Y = 0	Y = 4	Y =	
Duration of Analysis, T = 0.25					Cycle Length, C = 117.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v		34	67		28		141	468		5	662	
Lane group capacity, c		124	100		77		197	1319		76	1257	
v/c ratio, X		0.27	0.67		0.36		0.72	0.35		0.07	0.53	
Total green ratio, g/C		0.07	0.07		0.04		0.11	0.71		0.04	0.68	
Uniform delay, d_1		51.7	53.2		54.5		50.2	6.6		53.8	9.6	
Progression factor, PF		1.000	1.000		1.000		1.000	0.172		1.000	0.154	
Delay calibration, k		0.11	0.24		0.11		0.28	0.11		0.11	0.13	
Incremental delay, d_2		1.2	16.0		2.9		11.7	0.2		0.4	0.4	
Initial queue delay, d_3		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Control delay		52.9	69.2		57.4		61.9	1.3		54.1	1.9	
Lane group LOS		D	E		E		E	A		D	A	
Approach delay	63.7			57.4			15.3			2.3		
Approach LOS	E			E			B			A		
Intersection delay	13.5			X_c = 0.55			Intersection LOS			B		

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Version 4.1f

HCS2000™ DETAILED REPORT

General Information		Site Information	
Analyst	Justin Schlaefli	Intersection	2
Agency or Co.	Urban Systems	Area Type	All other areas
Date Performed	06/15/2006	Jurisdiction	County of San Diego
Time Period	AM	Analysis Year	Existing + Project
		Project ID	Montecito Ranch

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	0	1	0	0	1	0	1	1	0	1	1	0
Lane group		LTR			LTR		L	TR		L	TR	
Volume, V (vph)	10	1	7	3	1	20	5	630	2	25	520	8
% Heavy vehicles, %HV	2	2	2	2	2	2	2	2	2	2	2	2
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Pretimed (P) or actuated (A)	A	A	A	A	A	A	A	A	A	A	A	A
Start-up lost time, l_1		2.0			2.0		2.0	2.0		2.0	2.0	
Extension of effective green, e		2.0			2.0		2.0	2.0		2.0	2.0	
Arrival type, AT		3			3		3	3		3	3	
Unit extension, UE		3.0			3.0		3.0	3.0		3.0	3.0	
Filtering/metering, I		1.000			1.000		1.000	1.000		1.000	1.000	
Initial unmet demand, Q_b		0.0			0.0		0.0	0.0		0.0	0.0	
Ped / Bike / RTOR volumes	10	0	0	10	0	0	10	0	0	10	0	0
Lane width		12.0			12.0		12.0	12.0		12.0	12.0	
Parking / Grade / Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B		0			0		0	0		0	0	
Min. time for pedestrians, G_p	3.3			3.3			3.3			3.3		

Phasing	EB Only	WB Only	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 5.0	G = 5.0	G =	G =	G = 5.0	G = 49.0	G =	G =

Y = 4	Y = 4	Y =	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis, T = 0.25					Cycle Length, C = 80.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v		19			25		5	665		26	555	
Lane group capacity, c		104			96		111	1140		111	1139	
v/c ratio, X		0.18			0.26		0.05	0.58		0.23	0.49	
Total green ratio, g/C		0.06			0.06		0.06	0.61		0.06	0.61	
Uniform delay, d_1		35.6			35.7		35.3	9.3		35.7	8.6	
Progression factor, PF		1.000			1.000		1.000	1.000		1.000	1.000	
Delay calibration, k		0.11			0.11		0.11	0.17		0.11	0.11	
Incremental delay, d_2		0.8			1.4		0.2	0.8		1.1	0.3	
Initial queue delay, d_3		0.0			0.0		0.0	0.0		0.0	0.0	
Control delay		36.4			37.2		35.4	10.1		36.8	8.9	
Lane group LOS		D			D		D	B		D	A	
Approach delay	36.4			37.2			10.3			10.1		
Approach LOS	D			D			B			B		
Intersection delay	11.1			X_c = 0.50			Intersection LOS			B		

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HCS2000™ DETAILED REPORT

General Information		Site Information	
Analyst	Justin Schlaefli	Intersection	2
Agency or Co.	Urban Systems	Area Type	All other areas
Date Performed	06/15/2006	Jurisdiction	County of San Diego
Time Period	PM	Analysis Year	Existing + Project
		Project ID	Montecito Ranch

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	0	1	0	0	1	0	1	1	0	1	1	0
Lane group		LTR			LTR		L	TR		L	TR	
Volume, V (vph)	13	1	6	3	1	26	9	545	6	16	680	12
% Heavy vehicles, %HV	2	2	2	2	2	2	2	2	2	2	2	2
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Pretimed (P) or actuated (A)	A	A	A	A	A	A	A	A	A	A	A	A
Start-up lost time, l_1		2.0			2.0		2.0	2.0		2.0	2.0	
Extension of effective green, e		2.0			2.0		2.0	2.0		2.0	2.0	
Arrival type, AT		3			3		3	3		3	3	
Unit extension, UE		3.0			3.0		3.0	3.0		3.0	3.0	
Filtering/metering, I		1.000			1.000		1.000	1.000		1.000	1.000	
Initial unmet demand, Q_b		0.0			0.0		0.0	0.0		0.0	0.0	
Ped / Bike / RTOR volumes	10	0	0	10	0	0	10	0	0	10	0	0
Lane width		12.0			12.0		12.0	12.0		12.0	12.0	
Parking / Grade / Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B		0			0		0	0		0	0	
Min. time for pedestrians, G_p	3.3			3.3			3.3			3.3		

Phasing	EB Only	WB Only	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 5.0	G = 5.0	G =	G =	G = 5.0	G = 60.0	G =	G =

Y = 4	Y = 4	Y =	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis, T = 0.25					Cycle Length, C = 91.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v		21			31		9	580		17	729	
Lane group capacity, c		93			83		97	1226		97	1225	
v/c ratio, X		0.23			0.37		0.09	0.47		0.18	0.60	
Total green ratio, g/C		0.05			0.05		0.05	0.66		0.05	0.66	
Uniform delay, d_1		41.1			41.5		40.8	7.7		41.0	8.7	
Progression factor, PF		1.000			1.000		1.000	1.000		1.000	1.000	
Delay calibration, k		0.11			0.11		0.11	0.11		0.11	0.18	
Incremental delay, d_2		1.2			2.8		0.4	0.3		0.9	0.8	
Initial queue delay, d_3		0.0			0.0		0.0	0.0		0.0	0.0	
Control delay		42.4			44.3		41.3	8.0		41.9	9.5	
Lane group LOS		D			D		D	A		D	A	
Approach delay	42.4			44.3			8.5			10.2		
Approach LOS	D			D			A			B		
Intersection delay	10.7			X_c = 0.53			Intersection LOS			B		

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HCS2000™ DETAILED REPORT

General Information		Site Information	
Analyst	Justin Schlaefli	Intersection	3
Agency or Co.	Urban Systems	Area Type	All other areas
Date Performed	06/15/2006	Jurisdiction	County of San Diego
Time Period	AM	Analysis Year	Existing + Project
		Project ID	Montecito Ranch

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	1	2	0	1	2	0	1	1	1	0	1	1
Lane group	L	TR		L	TR		L	T	R		LT	R
Volume, V (vph)	205	462	64	65	588	79	151	194	67	82	131	234
% Heavy vehicles, %HV	2	2	2	2	2	2	2	2	2	2	2	2
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Pretimed (P) or actuated (A)	A	A	A	A	A	A	A	A	A	A	A	A
Start-up lost time, l_1	2.0	2.0		2.0	2.0		2.0	2.0	2.0		2.0	2.0
Extension of effective green, e	2.0	2.0		2.0	2.0		2.0	2.0	2.0		2.0	2.0
Arrival type, AT	5	5		3	5		3	3	3		3	3
Unit extension, UE	3.0	3.0		3.0	3.0		3.0	3.0	3.0		3.0	3.0
Filtering/metering, I	1.000	1.000		1.000	1.000		1.000	1.000	1.000		1.000	1.000
Initial unmet demand, Q_b	0.0	0.0		0.0	0.0		0.0	0.0	0.0		0.0	0.0
Ped / Bike / RTOR volumes	10	0	12	10	0	11	10	0	7	10	0	23
Lane width	12.0	12.0		12.0	12.0		12.0	12.0	12.0		12.0	12.0
Parking / Grade / Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B	0	0		0	0		0	0	0		0	0
Min. time for pedestrians, G_p	3.3			3.3			3.3			3.3		

Phasing	Excl. Left	EB Only	Thru & RT	04	SB Only	NB Only	07	08
Timing	G = 11.0	G = 4.0	G = 26.0	G =	G = 20.0	G = 16.0	G =	G =

Y = 4	Y = 0	Y = 4	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis, T = 0.25					Cycle Length, C = 93.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v	216	541		68	691		159	204	63		224	222
Lane group capacity, c	362	1125		209	974		305	321	519		393	336
v/c ratio, X	0.60	0.48		0.33	0.71		0.52	0.64	0.12		0.57	0.66
Total green ratio, g/C	0.20	0.32		0.12	0.28		0.17	0.17	0.33		0.22	0.22
Uniform delay, d_1	33.5	25.3		37.6	30.1		35.0	35.8	21.5		32.7	33.4
Progression factor, PF	0.829	0.683		1.000	0.741		1.000	1.000	1.000		1.000	1.000
Delay calibration, k	0.19	0.11		0.11	0.27		0.13	0.22	0.11		0.16	0.24
Incremental delay, d_2	2.7	0.3		0.9	2.4		1.6	4.1	0.1		2.0	4.8
Initial queue delay, d_3	0.0	0.0		0.0	0.0		0.0	0.0	0.0		0.0	0.0
Control delay	30.5	17.6		38.5	24.7		36.6	39.9	21.6		34.6	38.2
Lane group LOS	C	B		D	C		D	D	C		C	D
Approach delay	21.2			26.0			36.0			36.4		
Approach LOS	C			C			D			D		
Intersection delay	28.2			X_c = 0.66			Intersection LOS			C		

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HCS2000™ DETAILED REPORT

General Information		Site Information	
Analyst	Justin Schlaefli	Intersection	3
Agency or Co.	Urban Systems	Area Type	All other areas
Date Performed	06/15/2006	Jurisdiction	County of San Diego
Time Period	PM	Analysis Year	Existing + Project
		Project ID	Montecito Ranch

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	1	2	0	1	2	0	1	1	1	0	1	1
Lane group	L	TR		L	TR		L	T	R		LT	R
Volume, V (vph)	244	883	132	72	609	95	139	170	107	112	178	307
% Heavy vehicles, %HV	2	2	2	2	2	2	2	2	2	2	2	2
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Pretimed (P) or actuated (A)	A	A	A	A	A	A	A	A	A	A	A	A
Start-up lost time, l_1	2.0	2.0		2.0	2.0		2.0	2.0	2.0		2.0	2.0
Extension of effective green, e	2.0	2.0		2.0	2.0		2.0	2.0	2.0		2.0	2.0
Arrival type, AT	3	3		3	3		3	3	3		3	3
Unit extension, UE	3.0	3.0		3.0	3.0		3.0	3.0	3.0		3.0	3.0
Filtering/metering, I	1.000	1.000		1.000	1.000		1.000	1.000	1.000		1.000	1.000
Initial unmet demand, Q_b	0.0	0.0		0.0	0.0		0.0	0.0	0.0		0.0	0.0
Ped / Bike / RTOR volumes	10	0	13	10	0	0	10	0	11	10	0	33
Lane width	12.0	12.0		12.0	12.0		12.0	12.0	12.0		12.0	12.0
Parking / Grade / Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B	0	0		0	0		0	0	0		0	0
Min. time for pedestrians, G_p	3.3			3.3			3.3			3.3		

Phasing	Excl. Left	EB Only	Thru & RT	04	NB Only	SB Only	07	08
Timing	G = 7.0	G = 12.0	G = 32.0	G =	G = 10.0	G = 21.0	G =	G =

Y = 4	Y = 0	Y = 4	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis, T = 0.25					Cycle Length, C = 98.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v	257	1054		76	741		146	179	101		305	288
Lane group capacity, c	415	1562		126	1132		181	190	267		392	765
v/c ratio, X	0.62	0.67		0.60	0.65		0.81	0.94	0.38		0.78	0.38
Total green ratio, g/C	0.23	0.45		0.07	0.33		0.10	0.10	0.17		0.21	0.49
Uniform delay, d_1	33.6	21.3		44.2	28.3		43.1	43.7	35.8		36.3	15.6
Progression factor, PF	1.000	1.000		1.000	1.000		1.000	1.000	1.000		1.000	1.000
Delay calibration, k	0.20	0.25		0.19	0.23		0.35	0.45	0.11		0.33	0.11
Incremental delay, d_2	2.8	1.2		7.9	1.4		22.9	48.8	0.9		9.6	0.3
Initial queue delay, d_3	0.0	0.0		0.0	0.0		0.0	0.0	0.0		0.0	0.0
Control delay	36.4	22.5		52.1	29.6		66.0	92.5	36.7		45.9	16.0
Lane group LOS	D	C		D	C		E	F	D		D	B
Approach delay	25.2			31.7			70.2			31.4		
Approach LOS	C			C			E			C		
Intersection delay	34.2			X_c = 0.71			Intersection LOS			C		

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HCS2000™ DETAILED REPORT

General Information		Site Information	
Analyst	Justin Schlaefli	Intersection	5
Agency or Co.	USAI	Area Type	All other areas
Date Performed	06/15/2006	Jurisdiction	County of San Diego
Time Period	AM	Analysis Year	Existing + Project mitagation
		Project ID	Montecito Ranch

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	1	1	0	1	1	0	0	1	0	0	1	0
Lane group	L	TR		L	TR			LTR			LTR	
Volume, V (vph)	2	14	0	0	35	17	5	99	0	19	140	1
% Heavy vehicles, %HV	2	2	2	2	2	2	2	2	2	2	2	2
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Pretimed (P) or actuated (A)	A	A	A	A	A	A	A	A	A	A	A	A
Start-up lost time, l_1	2.0	2.0		2.0	2.0			2.0			2.0	
Extension of effective green, e	2.0	2.0		2.0	2.0			2.0			2.0	
Arrival type, AT	3	3		3	3			3			3	
Unit extension, UE	3.0	3.0		3.0	3.0			3.0			3.0	
Filtering/metering, I	1.000	1.000		1.000	1.000			1.000			1.000	
Initial unmet demand, Q_b	0.0	0.0		0.0	0.0			0.0			0.0	
Ped / Bike / RTOR volumes	10	0	13	10	0	0	10	0	13	10	0	0
Lane width	12.0	12.0		12.0	12.0			12.0			12.0	
Parking / Grade / Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B	0	0		0	0			0			0	
Min. time for pedestrians, G_p	3.3			3.3			3.3			3.3		

Phasing	Excl. Left	Thru & RT	03	04	SB Only	NB Only	07	08
Timing	G = 5.0	G = 36.0	G =	G =	G = 36.0	G = 13.0	G =	G =

Y = 4	Y = 4	Y =	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis, T = 0.25					Cycle Length, C = 106.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v	2	16		0	58			116			178	
Lane group capacity, c	83	633		83	599			228			628	
v/c ratio, X	0.02	0.03		0.00	0.10			0.51			0.28	
Total green ratio, g/C	0.05	0.34		0.05	0.34			0.12			0.34	
Uniform delay, d_1	48.2	23.3		48.1	23.9			43.5			25.6	
Progression factor, PF	1.000	1.000		1.000	1.000			1.000			1.000	
Delay calibration, k	0.11	0.11		0.11	0.11			0.12			0.11	
Incremental delay, d_2	0.1	0.0		0.0	0.1			1.9			0.2	
Initial queue delay, d_3	0.0	0.0		0.0	0.0			0.0			0.0	
Control delay	48.3	23.3		48.1	24.0			45.4			25.8	
Lane group LOS	D	C		D	C			D			C	
Approach delay	26.1			24.0			45.4			25.8		
Approach LOS	C			C			D			C		
Intersection delay	31.7			X_c = 0.23			Intersection LOS			C		

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HCS2000™ DETAILED REPORT

General Information		Site Information	
Analyst	Justin Schlaefli	Intersection	5
Agency or Co.	USAI	Area Type	All other areas
Date Performed	06/15/2006	Jurisdiction	County of San Diego
Time Period	PM	Analysis Year	Existing + Project mitagation
		Project ID	Montecito Ranch

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	1	1	0	1	1	0	0	1	0	0	1	0
Lane group	L	TR		L	TR			LTR			LTR	
Volume, V (vph)	2	43	0	0	15	25	10	162	0	19	84	1
% Heavy vehicles, %HV	2	2	2	2	2	2	2	2	2	2	2	2
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Pretimed (P) or actuated (A)	A	A	A	A	A	A	A	A	A	A	A	A
Start-up lost time, l_1	2.0	2.0		2.0	2.0			2.0			2.0	
Extension of effective green, e	2.0	2.0		2.0	2.0			2.0			2.0	
Arrival type, AT	3	3		3	3			3			3	
Unit extension, UE	3.0	3.0		3.0	3.0			3.0			3.0	
Filtering/metering, I	1.000	1.000		1.000	1.000			1.000			1.000	
Initial unmet demand, Q_b	0.0	0.0		0.0	0.0			0.0			0.0	
Ped / Bike / RTOR volumes	10	0	13	10	0	23	10	0	13	10	0	0
Lane width	12.0	12.0		12.0	12.0			12.0			12.0	
Parking / Grade / Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B	0	0		0	0			0			0	
Min. time for pedestrians, G_p	3.3			3.3			3.3			3.3		

Phasing	Excl. Left	Thru & RT	03	04	SB Only	NB Only	07	08
Timing	G = 5.0	G = 36.0	G =	G =	G = 24.0	G = 39.0	G =	G =

Y = 4	Y = 4	Y =	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis, T = 0.25					Cycle Length, C = 120.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v	2	48		0	19			191			115	
Lane group capacity, c	74	559		74	549			604			369	
v/c ratio, X	0.03	0.09		0.00	0.03			0.32			0.31	
Total green ratio, g/C	0.04	0.30		0.04	0.30			0.32			0.20	
Uniform delay, d_1	55.2	30.2		55.1	29.7			30.5			41.0	
Progression factor, PF	1.000	1.000		1.000	1.000			1.000			1.000	
Delay calibration, k	0.11	0.11		0.11	0.11			0.11			0.11	
Incremental delay, d_2	0.1	0.1		0.0	0.0			0.3			0.5	
Initial queue delay, d_3	0.0	0.0		0.0	0.0			0.0			0.0	
Control delay	55.3	30.2		55.1	29.7			30.8			41.4	
Lane group LOS	E	C		E	C			C			D	
Approach delay	31.2			29.7			30.8			41.4		
Approach LOS	C			C			C			D		
Intersection delay	34.1			X_c = 0.22			Intersection LOS			C		

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HCS2000™ DETAILED REPORT

General Information		Site Information	
Analyst	Justin Schlaefli	Intersection	6
Agency or Co.	USAI	Area Type	All other areas
Date Performed	06/15/2006	Jurisdiction	County of San Diego
Time Period	AM	Analysis Year	Existing + Project mitagation
		Project ID	Montecito Ranch

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	1	1	0	0	1	1	0	0	0	1	0	1
Lane group	L	T			T	R				L		R
Volume, V (vph)	63	620			1200	96				199		96
% Heavy vehicles, %HV	2	2			2	2				2		2
Peak-hour factor, PHF	0.95	0.95			0.95	0.95				0.95		0.95
Pretimed (P) or actuated (A)	A	A			A	A				A		A
Start-up lost time, l_1	2.0	2.0			2.0	2.0				2.0		2.0
Extension of effective green, e	2.0	2.0			2.0	2.0				2.0		2.0
Arrival type, AT	3	3			3	3				3		3
Unit extension, UE	3.0	3.0			3.0	3.0				3.0		3.0
Filtering/metering, I	1.000	1.000			1.000	1.000				1.000	1.000	1.000
Initial unmet demand, Q_b	0.0	0.0			0.0	0.0				0.0		0.0
Ped / Bike / RTOR volumes				10	0	23	10			10	0	3
Lane width	12.0	12.0			12.0	12.0				12.0		12.0
Parking / Grade / Parking	N	0	N	N	0	N	N		N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B	0	0			0	0				0		0
Min. time for pedestrians, G_p				3.3			3.3			3.3		

Phasing	EB Only	Thru & RT	03	04	SB Only	06	07	08
Timing	G = 5.0	G = 58.0	G =	G =	G = 12.0	G =	G =	G =

Y = 4	Y = 4	Y =	Y =	Y = 4	Y =	Y =	Y =
Duration of Analysis, T = 0.25					Cycle Length, C = 87.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v	66	653			1263	77				209		98
Lane group capacity, c	102	1242			1242	1047				244		210
v/c ratio, X	0.65	0.53			1.02	0.07				0.86		0.47
Total green ratio, g/C	0.06	0.67			0.67	0.67				0.14		0.14
Uniform delay, d_1	40.1	7.4			14.5	5.1				36.7		34.6
Progression factor, PF	1.000	1.000			1.000	1.000				1.000		1.000
Delay calibration, k	0.22	0.13			0.50	0.11				0.39		0.11
Incremental delay, d_2	13.4	0.4			29.8	0.0				24.7		1.6
Initial queue delay, d_3	0.0	0.0			0.0	0.0		0.0		0.0	0.0	0.0
Control delay	53.5	7.9			44.3	5.1				61.4		36.2
Lane group LOS	D	A			D	A				E		D
Approach delay	12.1			42.1						53.3		
Approach LOS	B			D						D		
Intersection delay	34.4			X_c = 0.97			Intersection LOS			C		

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HCS2000™ DETAILED REPORT

General Information		Site Information	
Analyst	Justin Schlaefli	Intersection	6
Agency or Co.	USAI	Area Type	All other areas
Date Performed	06/15/2006	Jurisdiction	County of San Diego
Time Period	PM	Analysis Year	Existing + Project mitagation
		Project ID	Montecito Ranch

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	1	1	0	0	1	1	0	0	0	1	0	1
Lane group	L	T			T	R				L		R
Volume, V (vph)	113	1233			908	245				109		56
% Heavy vehicles, %HV	2	2			2	2				2		2
Peak-hour factor, PHF	0.95	0.95			0.95	0.95				0.95		0.95
Pretimed (P) or actuated (A)	A	A			A	A				A		A
Start-up lost time, l_1	2.0	2.0			2.0	2.0				2.0		2.0
Extension of effective green, e	2.0	2.0			2.0	2.0				2.0		2.0
Arrival type, AT	3	3			3	3				3		3
Unit extension, UE	3.0	3.0			3.0	3.0				3.0		3.0
Filtering/metering, I	1.000	1.000			1.000	1.000				1.000	1.000	1.000
Initial unmet demand, Q_b	0.0	0.0			0.0	0.0				0.0		0.0
Ped / Bike / RTOR volumes				10	0	23	10			10	0	3
Lane width	12.0	12.0			12.0	12.0				12.0		12.0
Parking / Grade / Parking	N	0	N	N	0	N	N		N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B	0	0			0	0				0		0
Min. time for pedestrians, G_p				3.3			3.3			3.3		

Phasing	EB Only	Thru & RT	03	04	SB Only	06	07	08
Timing	G = 5.0	G = 62.0	G =	G =	G = 8.0	G =	G =	G =

Y = 4	Y = 4	Y =	Y =	Y = 4	Y =	Y =	Y =
Duration of Analysis, T = 0.25					Cycle Length, C = 87.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v	119	1298			956	234				115		56
Lane group capacity, c	102	1328			1328	1120				163		138
v/c ratio, X	1.17	0.98			0.72	0.21				0.71		0.41
Total green ratio, g/C	0.06	0.71			0.71	0.71				0.09		0.09
Uniform delay, d_1	41.0	11.8			7.4	4.2				38.4		37.3
Progression factor, PF	1.000	1.000			1.000	1.000				1.000		1.000
Delay calibration, k	0.50	0.48			0.28	0.11				0.27		0.11
Incremental delay, d_2	140.8	19.4			1.9	0.1				13.0		1.9
Initial queue delay, d_3	0.0	0.0			0.0	0.0		0.0		0.0	0.0	0.0
Control delay	181.8	31.3			9.3	4.3				51.4		39.2
Lane group LOS	F	C			A	A				D		D
Approach delay	43.9			8.3						47.4		
Approach LOS	D			A						D		
Intersection delay	28.9			X_c = 0.96			Intersection LOS			C		

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General Information		Site Information	
Analyst	Justin Schlaefli	Intersection	Highland Valley Rd. / SR-67
Agency or Co.	Urban Systems	Area Type	All other areas
Date Performed	06/15/2006	Jurisdiction	County of San Diego
Time Period	7 E+P AM	Analysis Year	2006
		Project ID	5703 Montecito Ranch

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	1	1	0	1	1	0	1	2	1	1	2	0
Lane group	L	TR		L	TR		L	T	R	L	TR	
Volume, V (vph)	83	8	7	420	33	30	2	518	65	30	1118	115
% Heavy vehicles, %HV	2	2	2	2	2	2	2	2	2	2	2	2
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Pretimed (P) or actuated (A)	A	A	A	A	A	A	A	A	A	A	A	A
Start-up lost time, l_1	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Extension of effective green, e	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Arrival type, AT	3	3		3	3		3	3	3	3	3	
Unit extension, UE	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Filtering/metering, I	1.000	1.000		1.000	1.000		1.000	1.000	1.000	1.000	1.000	
Initial unmet demand, Q_b	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Ped / Bike / RTOR volumes	10	0	0	10	0	0	10	0	0	10	0	0
Lane width	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Parking / Grade / Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B	0	0		0	0		0	0	0	0	0	
Min. time for pedestrians, G_p	3.3			3.3			3.3			3.3		

Phasing	Excl. Left	WB Only	Thru & RT	04	Excl. Left	Thru & RT	07	08
Timing	G = 16.0	G = 19.0	G = 8.0	G =	G = 5.0	G = 52.0	G =	G =

Y = 4	Y = 0	Y = 4	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis, T = 0.25					Cycle Length, C = 116.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v	92	17		467	70		2	576	72	33	1370	
Lane group capacity, c	244	117		584	401		76	1590	972	76	1566	
v/c ratio, X	0.38	0.15		0.80	0.17		0.03	0.36	0.07	0.43	0.87	
Total green ratio, g/C	0.14	0.07		0.34	0.23		0.04	0.45	0.62	0.04	0.45	
Uniform delay, d_1	45.5	50.8		35.0	35.6		53.2	21.1	8.7	54.1	29.0	
Progression factor, PF	1.000	1.000		1.000	1.000		1.000	1.000	1.000	1.000	1.000	
Delay calibration, k	0.11	0.11		0.34	0.11		0.11	0.11	0.11	0.11	0.40	
Incremental delay, d_2	1.0	0.6		7.8	0.2		0.1	0.1	0.0	3.9	5.9	
Initial queue delay, d_3	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Control delay	46.4	51.4		42.7	35.8		53.3	21.2	8.8	58.1	34.9	
Lane group LOS	D	D		D	D		D	C	A	E	C	
Approach delay	47.2			41.8			19.9			35.4		
Approach LOS	D			D			B			D		
Intersection delay	33.5			X_c = 0.77			Intersection LOS			C		

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General Information		Site Information	
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Agency or Co.	Urban Systems	Area Type	All other areas
Date Performed	06/15/2006	Jurisdiction	County of San Diego
Time Period	7 E+P PM	Analysis Year	2006
		Project ID	5703 Montecito Ranch

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	1	1	0	1	1	0	1	2	1	1	2	0
Lane group	L	TR		L	TR		L	T	R	L	TR	
Volume, V (vph)	176	53	10	60	10	33	4	858	196	48	592	43
% Heavy vehicles, %HV	2	2	2	2	2	2	2	2	2	2	2	2
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Pretimed (P) or actuated (A)	A	A	A	A	A	A	A	A	A	A	A	A
Start-up lost time, l_1	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Extension of effective green, e	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Arrival type, AT	3	3		3	3		3	3	3	3	3	
Unit extension, UE	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Filtering/metering, I	1.000	1.000		1.000	1.000		1.000	1.000	1.000	1.000	1.000	
Initial unmet demand, Q_b	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Ped / Bike / RTOR volumes	10	0	0	10	0	0	10	0	0	10	0	0
Lane width	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Parking / Grade / Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B	0	0		0	0		0	0	0	0	0	
Min. time for pedestrians, G_p	3.3			3.3			3.3			3.3		

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 16.0	G = 10.0	G =	G =	G = 8.0	G = 52.0	G =	G =

Y = 4	Y = 4	Y =	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis, T = 0.25					Cycle Length, C = 102.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v	196	70		67	48		4	953	218	53	706	
Lane group capacity, c	278	177		278	158		139	1808	1107	139	1788	
v/c ratio, X	0.71	0.40		0.24	0.30		0.03	0.53	0.20	0.38	0.39	
Total green ratio, g/C	0.16	0.10		0.16	0.10		0.08	0.51	0.71	0.08	0.51	
Uniform delay, d_1	40.8	43.2		37.7	42.8		43.4	16.8	5.1	44.6	15.3	
Progression factor, PF	1.000	1.000		1.000	1.000		1.000	1.000	1.000	1.000	1.000	
Delay calibration, k	0.27	0.11		0.11	0.11		0.11	0.13	0.11	0.11	0.11	
Incremental delay, d_2	7.9	1.5		0.5	1.1		0.1	0.3	0.1	1.7	0.1	
Initial queue delay, d_3	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Control delay	48.6	44.6		38.1	43.9		43.5	17.0	5.2	46.4	15.5	
Lane group LOS	D	D		D	D		D	B	A	D	B	
Approach delay	47.6			40.5			14.9			17.6		
Approach LOS	D			D			B			B		
Intersection delay	20.9			X_c = 0.53			Intersection LOS			C		

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Agency or Co.	Urban Systems	Area Type	All other areas
Date Performed	06/15/2006	Jurisdiction	County of San Diego
Time Period	8 E+P AM	Analysis Year	2006
		Project ID	5703 Montecito Ranch

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	1	0	1	0	0	0	1	2	0	0	2	1
Lane group	L		R				L	T			T	R
Volume, V (vph)	24		144				78	410			1407	40
% Heavy vehicles, %HV	2		2				2	2			2	2
Peak-hour factor, PHF	0.90		0.90				0.90	0.90			0.90	0.90
Pretimed (P) or actuated (A)	A		A				A	A			A	A
Start-up lost time, l_1	2.0		2.0				2.0	2.0			2.0	2.0
Extension of effective green, e	2.0		2.0				2.0	2.0			2.0	2.0
Arrival type, AT	3		3				5	5			5	5
Unit extension, UE	3.0		3.0				3.0	3.0			3.0	3.0
Filtering/metering, I	1.000	1.000	1.000				1.000	1.000			1.000	1.000
Initial unmet demand, Q_b	0.0		0.0				0.0	0.0			0.0	0.0
Ped / Bike / RTOR volumes	10		0	10						10	0	0
Lane width	12.0		12.0				12.0	12.0			12.0	12.0
Parking / Grade / Parking	N	0	N	N		N	N	0	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B	0		0				0	0			0	0
Min. time for pedestrians, G_p	3.3			3.3						3.3		

Phasing	EB Only	02	03	04	NB Only	Thru & RT	07	08
Timing	G = 5.0	G =	G =	G =	G = 23.0	G = 60.0	G =	G =

Y = 4	Y =	Y =	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis, T = 0.25					Cycle Length, C = 100.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v	27		160				87	456			1563	44
Lane group capacity, c	89		507				407	3086			2128	1084
v/c ratio, X	0.30		0.32				0.21	0.15			0.73	0.04
Total green ratio, g/C	0.05		0.32				0.23	0.87			0.60	0.69
Uniform delay, d_1	45.8		25.7				31.2	1.0			14.3	4.9
Progression factor, PF	1.000		1.000				0.801	0.385			0.125	0.161
Delay calibration, k	0.11		0.11				0.11	0.11			0.29	0.11
Incremental delay, d_2	1.9		0.4				0.3	0.0			1.4	0.0
Initial queue delay, d_3	0.0	0.0	0.0		0.0		0.0	0.0			0.0	0.0
Control delay	47.7		26.1				25.2	0.4			3.1	0.8
Lane group LOS	D		C				C	A			A	A
Approach delay	29.2						4.4			3.1		
Approach LOS	C						A			A		
Intersection delay	5.5			X_c = 0.59			Intersection LOS			A		

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		Project ID	5703 Montecito Ranch

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	1	0	1	0	0	0	1	2	0	0	2	1
Lane group	L		R				L	T			T	R
Volume, V (vph)	37		59				196	1323			549	33
% Heavy vehicles, %HV	2		2				2	2			2	2
Peak-hour factor, PHF	0.90		0.90				0.90	0.90			0.90	0.90
Pretimed (P) or actuated (A)	A		A				A	A			A	A
Start-up lost time, l_1	2.0		2.0				2.0	2.0			2.0	2.0
Extension of effective green, e	2.0		2.0				2.0	2.0			2.0	2.0
Arrival type, AT	3		3				5	5			5	5
Unit extension, UE	3.0		3.0				3.0	3.0			3.0	3.0
Filtering/metering, I	1.000	1.000	1.000				1.000	1.000			1.000	1.000
Initial unmet demand, Q_b	0.0		0.0				0.0	0.0			0.0	0.0
Ped / Bike / RTOR volumes	10		0	10						10	0	0
Lane width	12.0		12.0				12.0	12.0			12.0	12.0
Parking / Grade / Parking	N	0	N	N		N	N	0	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B	0		0				0	0			0	0
Min. time for pedestrians, G_p	3.3			3.3						3.3		

Phasing	EB Only	02	03	04	NB Only	Thru & RT	07	08
Timing	G = 5.0	G =	G =	G =	G = 60.0	G = 21.0	G =	G =

Y = 4	Y =	Y =	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis, T = 0.25					Cycle Length, C = 98.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v	41		66				218	1470			610	37
Lane group capacity, c	90		1115				1084	3076			760	474
v/c ratio, X	0.46		0.06				0.20	0.48			0.80	0.08
Total green ratio, g/C	0.05		0.70				0.61	0.87			0.21	0.31
Uniform delay, d_1	45.2		4.5				8.4	1.5			36.5	24.2
Progression factor, PF	1.000		1.000				0.129	0.377			0.818	0.706
Delay calibration, k	0.11		0.11				0.11	0.11			0.35	0.11
Incremental delay, d_2	3.6		0.0				0.1	0.1			6.2	0.1
Initial queue delay, d_3	0.0	0.0	0.0		0.0		0.0	0.0			0.0	0.0
Control delay	48.8		4.5				1.2	0.7			36.1	17.1
Lane group LOS	D		A				A	A			D	B
Approach delay	21.5						0.7			35.0		
Approach LOS	C						A			D		
Intersection delay	10.7			X_c = 0.48			Intersection LOS			B		

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Queuing Summary (Year 2030 With Project)

No.	Location		Peak Volume*				Turn Pocket Length**			
			EB	WB	SB	NB	EB	WB	SB	NB
1	Ash St. at Pine St.	AM	X	X	23	150	X	X	100	150
		PM	X	X	57	210	X	X	100	250
2	Pine St. (SR-78) at Olive St.	AM	X	X	26	9	X	X	100	100
		PM	X	X	17	15	X	X	100	100
3	Pine St. (SR-78) at Main St.	AM	335	177	107	193	350	200	150	200
		PM	363	196	156	178	350	200	200	200
4	Main St. (SR-67) at Montecito Rd.	AM	152	114	X	X	150	150	X	X
		PM	199	90	X	X	200	100	X	X
5	Montecito Wy. at Montecito Rd.	AM	10	79	X	X	100	100	X	X
		PM	10	109	X	X	100	150	X	X
6	Main St. (SR-67) at SA-330	AM	71	X	112	X	100	X	150	X
		PM	132	X	143	X	150	X	150	X
7	SR-67 at Highland Valley Rd. / Dye	AM	95	544	51	36	100	2 x 250	100	100
		PM	123	130	94	34	150	150	100	100
8	SR-67 at Archie Moore Rd.	AM	29	X	X	546	100	X	X	2 x 250
		PM	40	X	X	1372	100	X	X	TBD

Notes:

x No separate left turn lane
* From intersection volume worksheets, attached
** Based on 100 foot minimum, 1 foot per vehicle turning in peak

APPENDIX N

Staff Recommended 2020 Circulation Element Amendments

Onsite Peak Hour Segment Analysis for Montecito Ranch Road

General Plan 2020

existing general plan map
proposed general plan maps
existing plan text
planning group
town center planning

RAMONA

The Ramona community plan area consists of approximately 84,000 acres situated east of the city of Poway and north of Lakeside. To the east lie the North Mountain and Central Mountain subregions.

Population Summary:

Existing Population[1]: 33,450

Proposed General Plan: 53,340

[1]Includes updated existing and projected group quarters population.

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Proposed GP2020 Circulation Element Road Types
Summary Table

		No. of Lanes	Design Speed (mph)	Threshold Capacity (ADT)	R-O-W width (feet)	Road bed width (feet)	Relationship to current road types
6.1	Expressway	6	65	86,000	146	126	Expressway
6.2	Prime Arterial	6	65	50,000	122	102	Prime Arterial
4.1	A. Major Road – Raised Median	4	55	33,400	98	78	Major Road
	B. Major Road – Intermittent Turn Lane	4	55	30,800	84-98	64	Collector
4.2	A. Boulevard – Raised Median	4	40	27,000	106	78	*New Type*
	B. Boulevard – Intermittent Turn Lane	4	40	25,000	92-106	64	*New Type*
2.1	A. Community Collector – Raised Median	2	45	15,000	74	54	Town Collector
	B. Community Collector – Continuous Turn Lane	2	45	13,500	74	54	Town Collector
	C. Community Collector – Intermittent Turn Lane	2	45	13,500	60-74	40-54	*New Type*
	D. Community Collector – Passing Lane Option	2	45	13,500	84	52	Rural Collector
	E. Community Collector	2	45	10,900	60	40	Light Collector
2.2	A. Light Collector – Raised Median	2	40	13,500	78	54	Town Collector
	B. Light Collector – Continuous Turn Lane	2	40	13,500	78	54	Town Collector
	C. Light Collector – Intermittent Turn Lane	2	40	13,500	64-78	40-54	*New Type*
	D. Light Collector – Passing Lane Option	2	40	13,500	88	52	Rural Collector
	E. Light Collector	2	40	10,900	64	40	Light Collector
	F. Light Collector – Reduced Shoulder	2	40	8,700	52 –	28	*New (similar to Rural Minor Road)*
2.3	A. Minor Collector – Raised Median	2	35	8,000	82	54	*New Type*
	B. Minor Collector – Intermittent Turn Lane	2	35	8,000	68-82	40-54	*New Type*
	C. Minor Collector	2	35	7,000	68	40	*New Type*

Ramona Circulation Element Update
Road Network Recommendations
June 1, 2006

	Road Segment (Existing Classification)	DPLU Staff Recommendation	T&T Subcommittee Recommendation	RCPG Recommendation (2006)
1a	SR67 CPA Boundary to Etcheverry Rd (4 lane Major Road)	Equivalent Classification (4 lane Major Road – int. turn lane)	Retain	Retain (4 lanes)
1b	SR67 Etcheverry Rd to Pine St (4 lane Major Road)	Equivalent Classification (4 lane Major Road – cont. turn lane)	Retain	Retain (4 lanes)
2	Archie Moore Road (2 lane Rural Collector)	Equivalent Classification (2 lane Community Collector – int. turn lane)	Retain	
3a	Highland Valley Road SR67 to Rangeland (2 lane Rural Collector)	Equivalent Classification (2 lane Community Collector)	Retain	
3b	Highland Valley Road Rangeland to Archie Moore (2 lane Rural Collector)	Equivalent Classification (2 lane Community Collector)	Retain	
3c	Highland Valley Road Archie Moore to CPA Boundary (non-CE road)	Add Segment (2 lane Community Collector)	Retain	
3d	Highland Valley Road Highland Valley to Mussey Grade (not on CE)	No CE Road	Add	
4a	SA603 Highland Valley to Rangeland (4 lane Major Road)	No CE Road	~~Delete~~ Retain 4.2B Failed	
4b	SA603 Montecito ~~Road~~ Way to SR-78 via Ash (4 lane Major Road)	No CE Road	Retain 2.1C (Two lane Cross Called OK	
4c	SA603 Montecito ~~Road~~ Way to Rangeland (4 lane Major Road)	No CE Road	Retain 2.1C ~~4.2B~~ Passed	
5	SA325 (Rangeland Rd) (4 lane Major Road)	No CE Road	Retain	

6a	SC931 Montecito Road extension (4 lane Major Road)	No CE Road	Delete ok yes & one	
6b	SC931 Ramona Airport to SR-67 Comm (2 lane Rural Collector) 2.1C	Equivalent Classification (2 lane Light Collector)	Retain 2.1C ok OK	
6c	SC931 Montecito Way (2 lane Rural Collector) 2.1C	Equivalent Classification (2 lane Light Collector) 2.	Retain ok	
7a	SA330 Montecito Road to SR-67 (2 lane Rural Collector)	Equivalent Classification (2 lane Light Collector)	Delete Failed	
7b	SA330 SR-67 to Hanson Lane Comm. (2 lane Rural Collector)	Equivalent Classification (2 lane Light Collector – realign to Boundary Rd) OK	Retain 2.1C OK for County CE	
8	Dye Street (2 lane Rural Collector)	Downgrade Classification (2 lane Community Collector)	Retain	
9a	Dye Road SR-67 to San Vicente Rd (4 lane Major Road)	Downgrade Classification (2 lane Community Collector – Int. Turn Lane)	Retain	Retain (4 lanes)
9b	Dye Road San Vicente Rd to Creelman Ln (4 lane Major Road)	Downgrade Classification (2 lane Community Collector – Int. Turn Lane)	Retain	Retain (4 lanes)
9c	Keyes Road Creelman Ln to SR-78 (4 lane Collector)	Downgrade Classification (2 lane Community Collector – Int. Turn Lane)	Retain	Retain (2 lanes)
10	Ramona Street (2 lane Rural Collector) Comm	Equivalent Classification (2 lane Light Collector – Int. Turn Lane) 2.2C	Retain ~~2.1C~~ ok	
11a	Hanson Lane Ramona St to San Vicente Rd (4 lane Collector)	Downgrade Classification (2 lane Light Collector – Int. Turn Lane) 2.2C OK	Retain Failed	
11b	Hanson Lane San Vicente Rd to Keyes Rd (4 lane Collector)	Downgrade Classification (2 lane Minor Collector – Int. Turn Lane) ~~2.3B~~ 2.3C OK	Retain	
12a	SR78/Pine Street CPA Boundary to Cedar St (2 lane Rural Collector)	Equivalent Classification (2 lane Community Collector – Int. Turn Lane)	Retain	Retain (2 lanes)
12b	SR78/Pine Street Cedar St to Main St	Equivalent Classification (4 lane Boulevard – Int. Turn Lane)	Retain	Retain (4 lanes)

	(4 lane Major Road)				VOTE
13a	SR78/Main Street Pine St to 3rd St (4 lane Major Road)	**Equivalent Classification** (4 lane Boulevard – Int. Turn Lane)	**Retain**	**Retain** (4 lanes)	
13b	SR78/Main Street 3rd St to Rancho Vista (4 lane Major Road)	**Downgrade Classification** (2 lane Community Collector – Int. Turn Lane)	**Retain**	**Retain** (4 lanes)	
13c	SR78/Main Street Rancho Vista to CPA Boundary (2 lane Rural Collector)	**Equivalent Classification** (2 lane Community Collector – Int. Turn Lane)	**Retain**	**Retain** (2 lanes)	
14a	San Vicente Rd Main St to Warnock Dr (4 lane Major Road)	**Downgrade Classification** (2 lane Community Collector – Cont. Turn Lane)	**Retain**	1st vote 2nd vote 2 lane within existing road	Didn't pass Unanimous
14b	San Vicente Rd Warnock Dr to Ramona Oak (4 lane Major Road)	**Downgrade Classification** (2 lane Community Collector – Int. Turn Lane)	**Retain** (Existing Cond.)	1st vote	Failed
15	Wildcat Canyon Rd (2 lane Rural Collector)	**Equivalent Classification** (2 lane Community Collector)	**Retain**	[illegible] is same Staff also retain	OK
16a	Haverford Rd/Pile St SR-78 to Magnolia (2 lane Rural Collector)	**Equivalent Classification** (2 lane Light Collector) 5 mph less	**Retain**	45 mph existing	OK
16b	Haverford Rd/Pile St Magnolia to Haverford (not a CE road)	**Equivalent Classification** (2 lane Light Collector)	**Add**		Failed
17	Cedar St SR-78 to Elm St Community 4T existing (2 lane Rural Collector)	**Remove from CE**	**Retain**		
18	Elm St SR-78 to Haverford Comm (2 lane Rural Collector)	**Equivalent Classification** (2 lane Light Collector) 40 [illegible]	**Retain**		OK
19a	7th St/Ashley Road SR-78 to Telford Comm. (2 lane Rural Collector)	**Equivalent Classification** (2 lane Minor Collector – int. turn lane)	**Retain**		OK
19b	7th St/Ashley Road Comm Telford to Warnock (2 lane Rural Collector)	**Equivalent Classification** (2 lane Minor Collector – int. turn lane)	**Retain**		OK
20	Magnolia Avenue/Black Canyon SR-78 to CPA Boundary (2 lane Rural Collector) Comm.	**Equivalent Classification** (2 lane Community Collector)	**Retain**		OK

21	3rd Street/Old Julian Hwy SR-78 to Keyes Rd (2 lane Rural Collector)	**Equivalent Classification** (2 lane Light Collector – int. turn lane)	**Retain**	OK
22	Old Julian Hwy Keyes Rd to Julian Rd (2 lane Rural Collector)	**Equivalent Classification** (2 lane Light Collector – int. turn lane)	**Retain**	OK
	Vista Ramona Rd Old Julian Hwy to San Vicente (not on CE)	**Add to CE** (2 lane Community Collector)	–	
	Painted Rock Rd (2 lane Light Collector)	**Remove from CE**	–	Failed

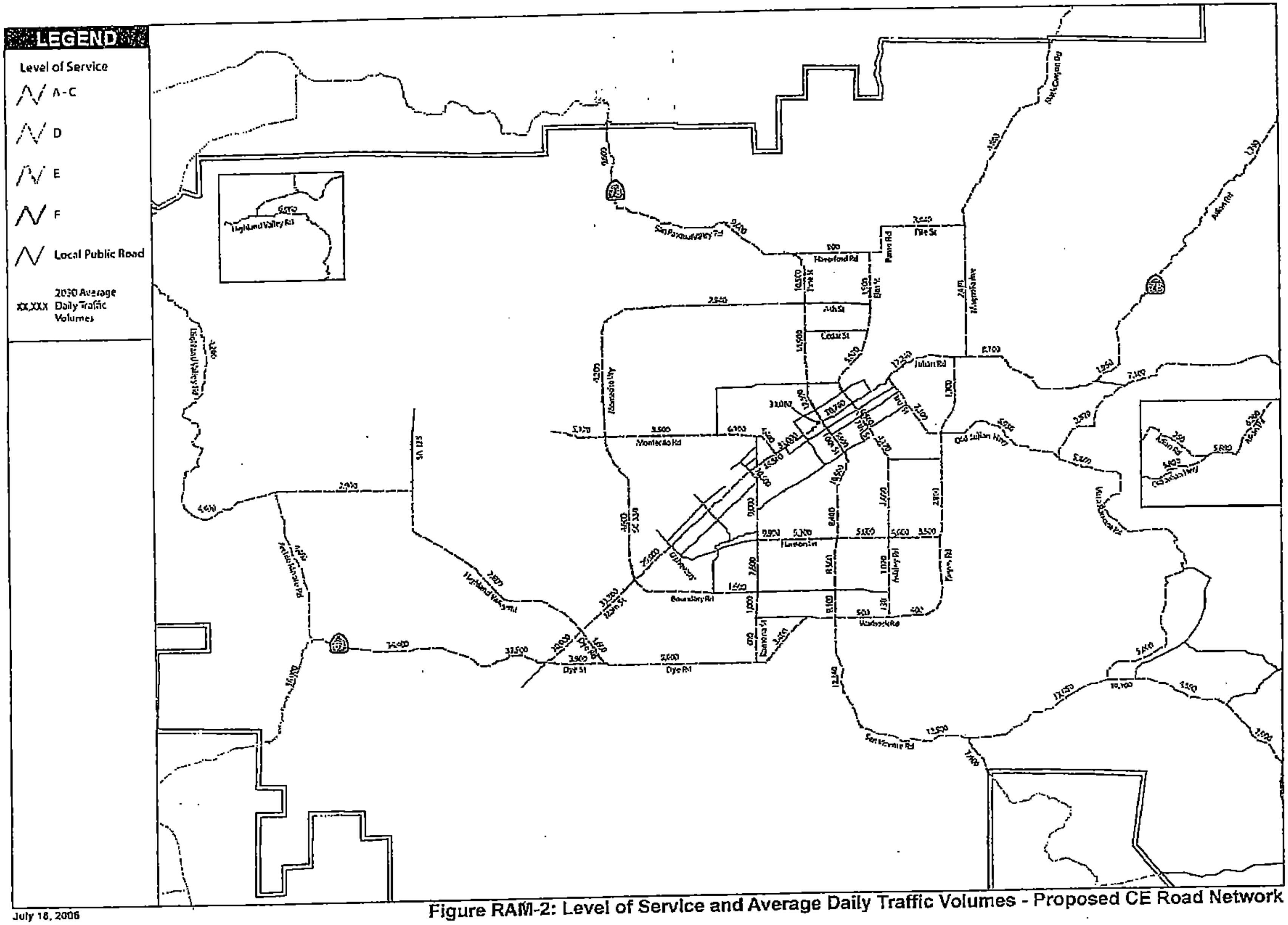
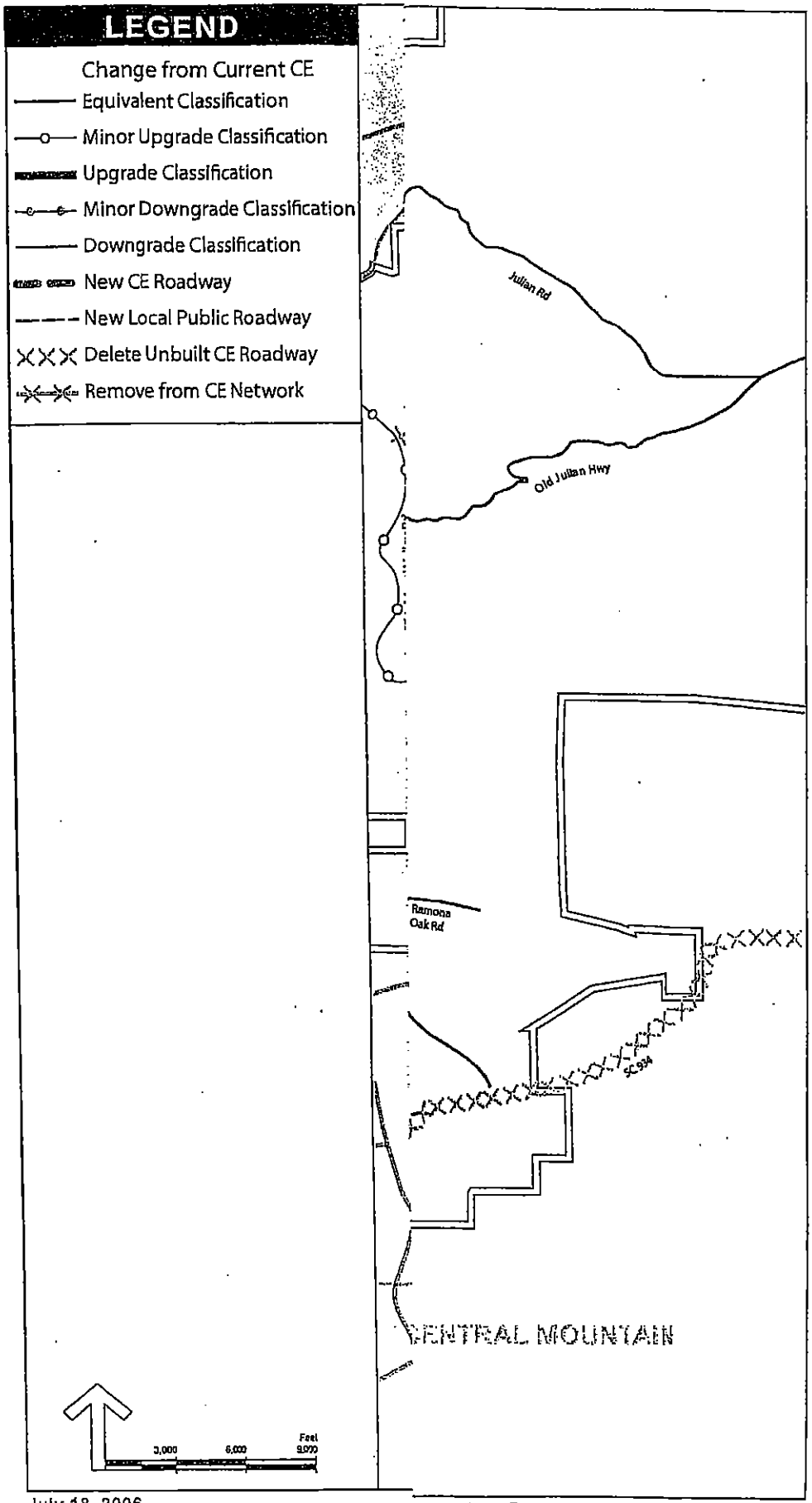


Figure RAM-2: Level of Service and Average Daily Traffic Volumes - Proposed CE Road Network



July 18, 2006

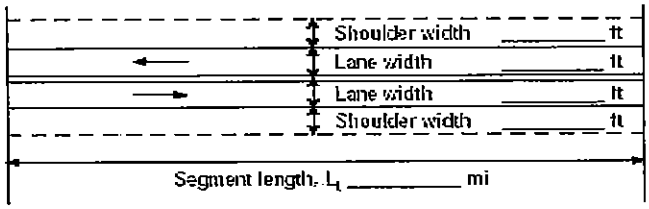
ges to Current CE Network

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	*Justin Schlaefli*	Highway	*Montecito Ranch Road*
Agency or Company	*USAI*	From/To	*project west/ montecito Road*
Date Performed	*2/4/2008*	Jurisdiction	*County of San Diego*
Analysis Time Period	*2030 with project*	Analysis Year	

Project Description: *Montecito Ranch*

Input Data



☐ Class I highway ☐ Class II highway

Terrain ☐ Level ☐ Rolling

Two-way hourly volume	*800* veh/h
Directional split	*70 / 30*
Peak-hour factor, PHF	*0.90*
No-passing zone	*100*
% Trucks and Buses , P_T	*5 %*
% Recreational vehicles, P_R	*1%*
Access points/ *mi*	*4*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.990*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*898*
v_p * highest directional split proportion[2] (pc/h)	*629*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	*45.0 mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*0.0 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*1.0 mi/h*
		Free-flow speed, FFS ($FSS=BFFS-f_{LS}-f_A$)	*44.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*2.8*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*34.2*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.995*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*893*
v_p * highest directional split proportion[2] (pc/h)	*625*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*54.4*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*13.6*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*68.0*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*C*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.28*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t$(V/PHF)	*167*

Peak-hour vehicle-miles of travel, VMT_{60}(veh-*mi*)=V*L_t	*600*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*4.9*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

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