TRAFFIC STUDY

For

West Lilac Residential Subdivision (TM 5276)

Prepared For: The County of San Diego

Submitted To:
West Lilac Farms, LLC
2419 Swanfield Court
Thousand Oaks, CA 91361

Prepared By:
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Revised: May 11, 2005
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D&A Ref. No. 030411

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COUNTY OF SAN DIEGO

Submitted To:

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Darnell & Associates, Inc.
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September 25, 2009
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EXECUTIVE SUMMARY

The developer proposes to construct a twenty-eight (28) lot single-family estate residential subdivision south of West Lilac Road between Via Ararat Drive and Aqueduct Road in the Bonsall Community of San Diego County. As this report will show, the proposed project is estimated to generate 336 average daily trips, 27 AM peak hour trips, and 34 PM peak hour trips.

This report will also show that the proposed project does not have any significant direct roadway or intersection impacts.

The project is part of the cumulative need for improvements and will be required to pay the County Traffic Impact Fees (TIF) based on the density of development in order to fully mitigate all cumulative and future impacts.

As part of the development of the project, the developer proposes to widen Aqueduct Road to 24 feet of pavement on 28 feet of graded width. The proposed improvements will bring the cross-section of Aqueduct Road up to the County's Private Road Standards.

The developer also proposes to widen Via Ararat Drive to provide 22.5 feet of pavement. It should be noted that the County's Private Road Standards require 24 feet of pavement, thus even with the proposed improvements the cross-section of Via Ararat Drive will not comply with County standards. A design exception has been submitted and approved.

The project also proposes to install flashing beacons on West Lilac (approximately 750 feet east and west of Via Ararat and above the intersection) to warn drivers of the school bus stop, as well as advance warning of the intersection. Note that the school bus stop frequency and direction has been recently modified by the school district and will only pick up and drop off students while traveling eastbound on West Lilac and stopping on the south side of the road.

SECTION I – INTRODUCTION

PROJECT DESCRIPTION

The developer proposes to construct a twenty-eight (28) lot single-family estate residential subdivision south of West Lilac Road between Via Ararat Drive and Aqueduct Road in the Bonsall Community of San Diego County. As currently designed, the project site will be divided into two sections. The northern section of the project consists of 17 dwelling units with the primary access being provided via one access point, Street "A", on Aqueduct Road. The southern section of the project consists of 11 dwelling units with the primary access being provided via one access point, Street "D", on Via Ararat Drive. Street "A" will extend from Aqueduct Road southwesterly to connect the two sections of the project. A vicinity map showing the proposed project is provided on Figure 1 and the proposed site plan is illustrated in Figure 2.

CONGESTION MANAGEMENT PROGRAM

Based on the approval of Proposition 111 in 1990, regulations require the preparation, implementation and annual updating of a Congestion Management Program (CMP) in each of California's urbanized counties. The original CMP for the San Diego region was adopted in 1991 and has been updated periodically as an element of the Regional Transportation Plan (RTP). One required element of the CMP is a process to evaluate the transportation and traffic impacts of large projects on the regional transportation system. That process is undertaken by local agencies, project applicants and traffic consultants through a transportation impact report usually conducted as part of the CEQA project review process. Authority for local land use decisions including project approvals and any required mitigation remains the responsibility of local jurisdictions.

The criteria for which a project is subject to the regulations as set forth in the CMP are determined by the trip generation potential for the project. Currently, the threshold is 2,400 average daily trips (ADT) or 200 peak hour trips. The proposed project will generate 336 average daily trips, 27 AM peak hour trips, and 34 PM peak hour trips (see Section III), and is therefore, not subject to CMP guidelines for traffic impact studies.

SCENARIOS STUDIED

The traffic scenarios analyzed in this report are identified as follows:

Existing Conditions refers to that condition which exists on the ground today, including existing traffic and existing lane configurations at intersections and roadway segments.

Existing Plus Project Conditions refers to that condition which includes the project traffic added onto existing volumes.

Cumulative Conditions refers to that scenario which includes 3-year growth based on the County General Plan traffic model. This condition does not include the proposed project.

Cumulative Plus Project Conditions refers to that scenario which includes the project added to the near term cumulative condition.

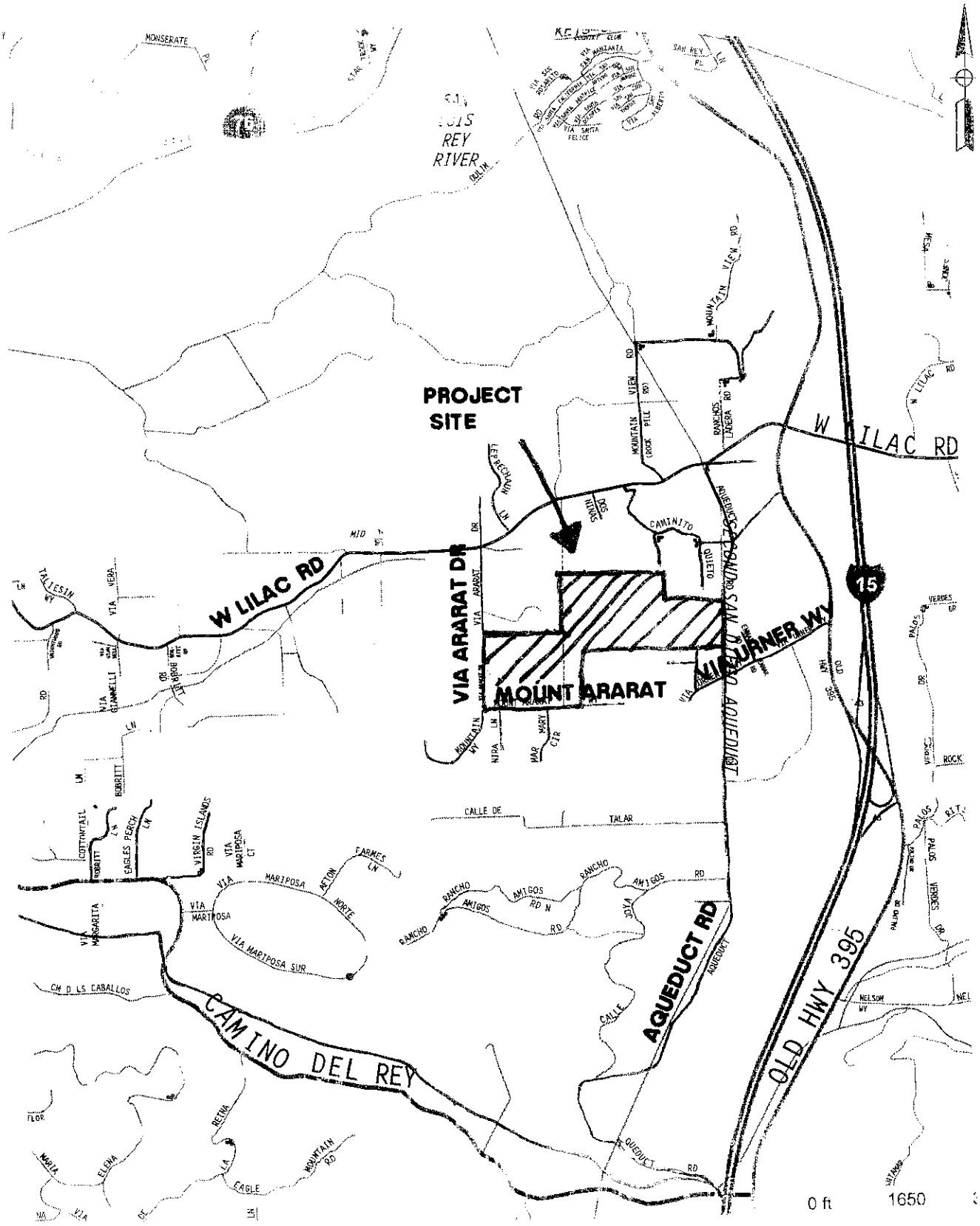

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FIGURE 1

VICINITY MAP

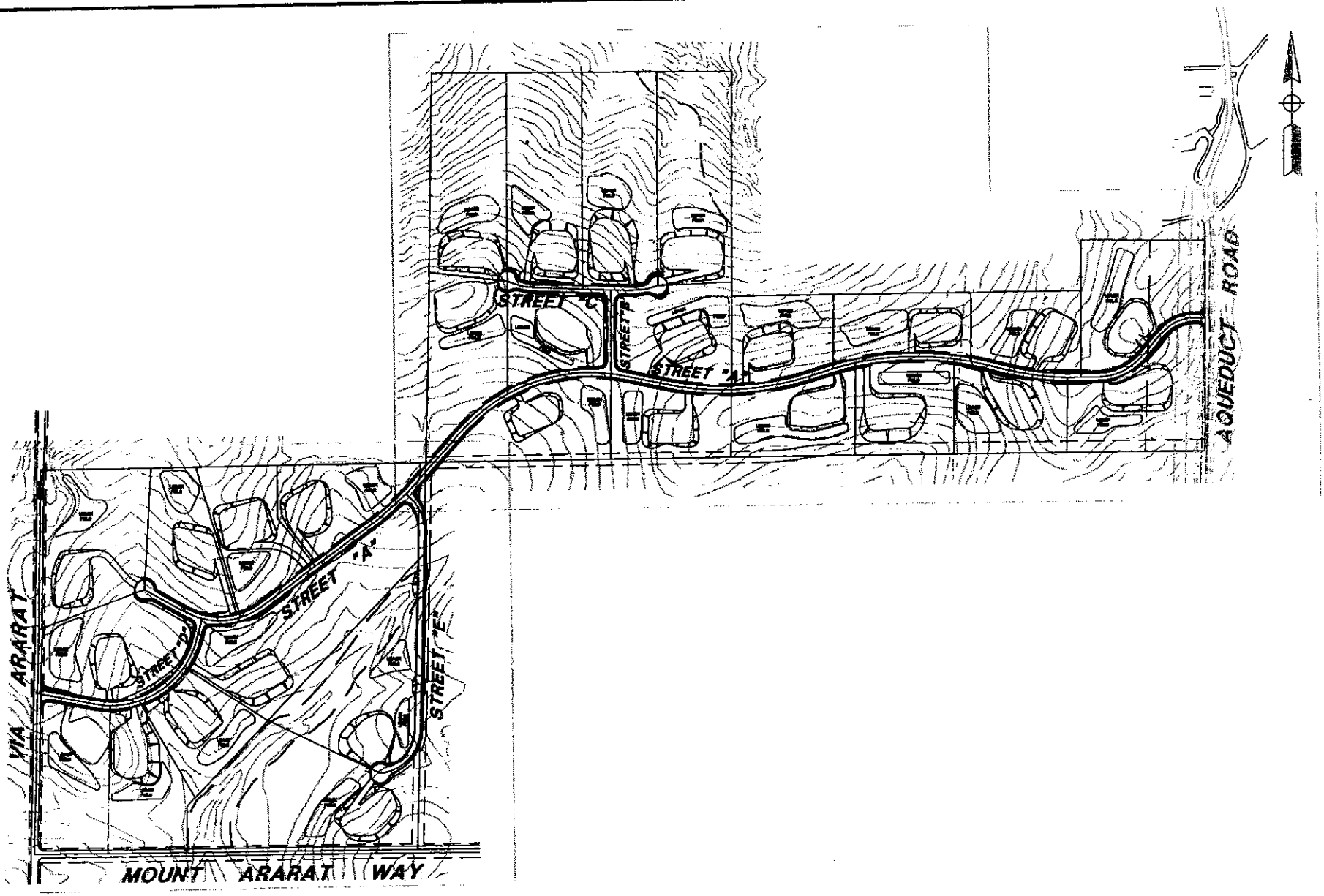

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FIGURE 2

SITE PLAN

LEVEL OF SERVICE

Level of Service (LOS) is a professional industry standard by which the operating conditions of a given roadway segment or intersection are measured. Level of Service is defined on a scale of A to F; where LOS A represents the best operating conditions and LOS F represents the worst operating conditions. LOS A facilities are characterized as having free flowing traffic conditions with no restrictions on maneuvering or operating speeds; traffic volumes are low and travel speeds are high. LOS F facilities are characterized as having forced flow with many stoppages and low operating speeds. Table 1 shows the average daily traffic volumes (ADT) and delay ranges that are equivalent to each level of service.

Table 1 - Level of Service Ranges

LOS	Intersections		Roadway Segments
	Signalized- Delay (Seconds/Vehicle)[1]	Unsignalized Delay (Seconds/Vehicle)[1]	Average Daily Traffic (ADT)[2]
A	Less than or Equal to 10.0	Less than or Equal to 10.0	Less Than 1,900
B	10.1 to 20.0	10.1 to 15.0	1,901 to 4,100
C	20.1 to 35.0	15.1 to 25.0	4,101 to 7,100
D	35.1 to 55.0	25.1 to 35.0	7,101 to 10,900
E	55.1 to 80.0	35.1 to 50.0	10,901 to 16,200
F	Greater Than 80.0	Greater Than 50.1	Greater Than 16,200

[1] The delay ranges shown are based on the 2000 Highway Capacity Manual (HCM)
[2] The volume ranges are based on the County of San Diego Circulation Element of a Light Collector, the average daily volume ranges for the other roadway classifications has been provided in Appendix A.
LOS = Level of Service; mph = miles per hour

According to page XII-4-15 of the San Diego County General Plan *Public Facility Element* "A LOS 'C', which allows for stable traffic flow with room to maneuver, is a generally accepted level to strive for in new development. ... However, there are some cases where development cannot achieve a LOS "C" on off-site roadways. For instance, there are areas where the existing development pattern precludes the addition of lanes or other mitigation or when the community is opposed to certain improvements to maintain a LOS 'C'. ... In these cases a Level of Service 'D' is acceptable on off-site roadways." A copy of excerpts from the County's *Public Facility Element* can be found in Appendix A.

ANALYSIS METHODOLOGY

The roadway segment daily LOS was determined by comparing the traffic volumes under each traffic scenario to the capacity of the roadway according to its roadway cross-section and classification. For the purpose of this report, the daily traffic volumes of the roadway segments in the vicinity of the project were compared to the County of San Diego Level of Service classification thresholds. The daily (24 hour) traffic count sheets and a copy of the "Summary of County of San Diego Public Road Standards" are included in Appendix A.

The Synchro Software, version 6.0, was utilized to analyze the morning and afternoon peak hour conditions of the intersections in the project vicinity. It should be noted that Synchro, version 6.0, is based on the methodologies outlined in the 2000 Highway Capacity Manual (HCM). The signalized intersection methodology defines LOS based on delay using variables such as lane configuration, traffic volumes and signal timings. The unsignalized intersection methodology defines LOS based on the longest delay experienced by any single movement.

REPORT ORGANIZATION

Following this section, Section II evaluates the existing roadway characteristics and traffic conditions surrounding the project area. Section III examines the project trip generation and distribution assumptions. Section IV analyzes the traffic for existing plus project conditions and cumulative traffic conditions. Section V addresses project access and on-site circulation. Section VI provides a summary of the potential construction traffic impacts. Section VII provides recommended mitigation measures and Section VIII summarizes the report's findings and conclusions.

SECTION II - EXISTING CONDITIONS

This section of the traffic study is intended to assess the existing conditions of the roadways and intersections within the vicinity of the project to determine travel flow and/or delay difficulties, if any, that exist prior to adding the traffic generated by the proposed project. The existing conditions analysis establishes a base condition which is used to assess the other scenarios discussed in this report.

Darnell & Associates, Inc. (D&A) conducted a field review of the area surrounding the project in September 2008. The existing roadway geometrics are illustrated in Figure 3.

EXISTING ROADWAY CHARACTERISTICS

The key segments analyzed in the study area are identified below:

Camino Del Rey (SA 100) is an east-west two-lane undivided circulation element roadway with a posted speed limit of 45 mph. The existing cross-section of Camino Del Rey is equivalent to that of a Light Collector Road, capacity of 10,900 ADT at LOS D. In the proposed County of San Diego Circulation Element, Camino Del Rey between State Route 76 and West Lilac Road has the ultimate classification of a 4.2A (four lane boulevard) with a capacity of 27,000 daily vehicles at LOS D. Between West Lilac Road and Old Highway 395, Camino Del Rey has the ultimate circulation element classification of a 2.2C (two-lane collector with two way turn lane) and a capacity of 13,500 ADT at LOS D.

West Lilac Road (SC 270.2) is an east-west two-lane undivided circulation element roadway with little to no shoulder. The posted speed limit on West Lilac Road between Via Ararat and Old Highway 395 is 45 mph. The existing cross-section of West Lilac Road is equivalent to that of a Light Collector Road, capacity of 10,900 ADT at LOS D. In the proposed County of San Diego Circulation Element, West Lilac Road has the ultimate classification of a 2.2E (two lane Collector Road) with bike lanes, and a capacity of 10,900 vehicles at LOS D.

Old Highway 395 is generally constructed as a north-south two-lane undivided circulation element roadway. The section of Old Highway 395 just north of West Lilac Road provides an additional southbound truck climbing lane. The posted speed limit on Old Highway 395 from State Route 76 (Pala Road) to Via Urner Way is 45 miles per hour (mph). The existing cross-section of Old Highway 395 is equivalent to that of a Light Collector Road, capacity of 10,900 ADT at LOS D. In the proposed County of San Diego Circulation Element, Old Highway 395 has the ultimate classification of a 2.1D (two lane collector with center turn lanes) and a capacity of 15,000 ADT at LOS D.

Via Ararat Drive is a north-south two-lane undivided private road with no center line stripe. Currently Via Ararat Drive is approximately twenty (20) feet wide which does not meet the County's Private Road Standards. As part of the project development, however, the developer proposes to widen Via Ararat Drive to 22.5 feet of pavement. Even with the proposed improvements, the cross-section of Via Ararat Drive will not comply with County standards. Therefore, the applicant has submitted a design exception request to the County for their review and consideration. (See Section V for more details on the proposed improvements to Via Ararat Drive.). This design change was approved by the County and the Deer Springs Fire Protection District in September and October 2005. These approvals are included in Appendix D. Via Ararat Drive has an estimated maximum capacity of 2,500 ADT at LOS C.

Aqueduct Road is a north-south two-lane undivided private road with no center line stripe. Currently Aqueduct Road is approximately twenty (20) feet wide which does not meet the County's Private Road Standards. As part of the project development, however, the developer proposes to widen Via Ararat Drive to 24 feet of pavement on 28 feet of graded width. The proposed improvements will bring the cross-section of Aqueduct Road up to the County's Private Road Standards. Aqueduct Road has an estimated maximum capacity of 2,500 ADT at LOS C.

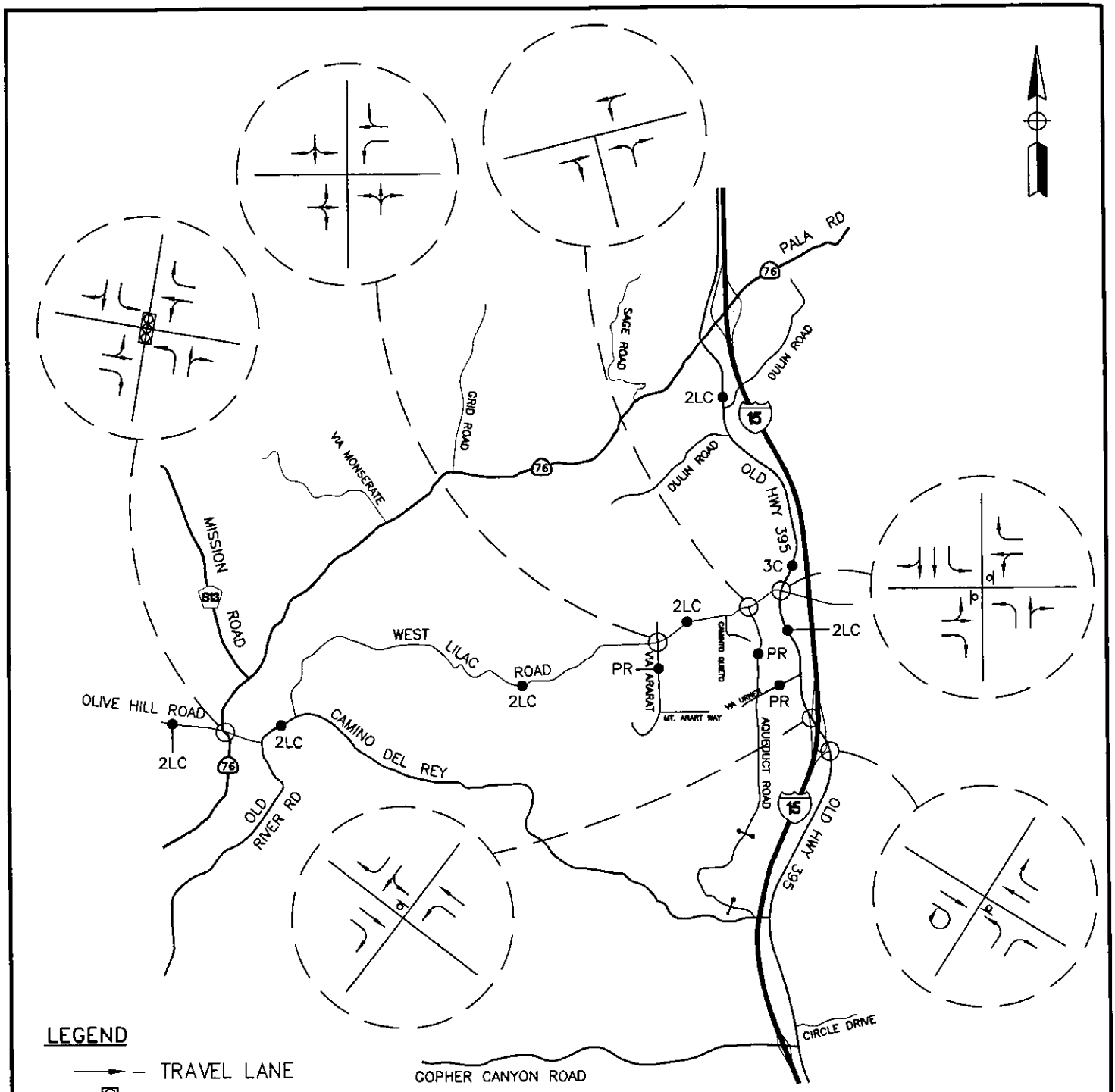

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FIGURE 3

EXISTING CONDITIONS

Via Urner Way is an east-west two-lane undivided non-circulation element private road with no center-line stripe and a posted speed limit of 25 mph. Via Urner Way has an estimated maximum capacity of 2,500 ADT at LOS C.

ROADWAY SEGMENT DAILY TRAFFIC

Twenty-four (24) hour traffic counts were collected in September 2008. Figure 4 presents the existing conditions traffic volumes used in this analysis. Count summaries are included in Appendix A.

KEY INTERSECTIONS

The key intersections analyzed in the study area are identified below:

- State Route 76 (Mission Road)/Olive Hill Road-Camino Del Rey (signalized);
- West Lilac Road/Via Ararat Drive (uncontrolled, assumed stop control on minor street);
- West Lilac Road/Aqueduct Road (uncontrolled, assumed stop control on minor street);
- West Lilac Road/Old Highway 395 (two-way stop-controlled);
- Old Highway 395/Interstate 15 Southbound Ramps (one-way stop-controlled); and
- Old Highway 395/Interstate 15 Northbound Ramps (one-way stop-controlled).

INTERSECTION TRAFFIC COUNTS

Morning and afternoon peak hour turn counts were collected in September 2008. Figure 4 presents the existing conditions traffic volumes used in this analysis. Count summaries are included in Appendix A.

EXISTING LEVEL OF SERVICE CONDITIONS

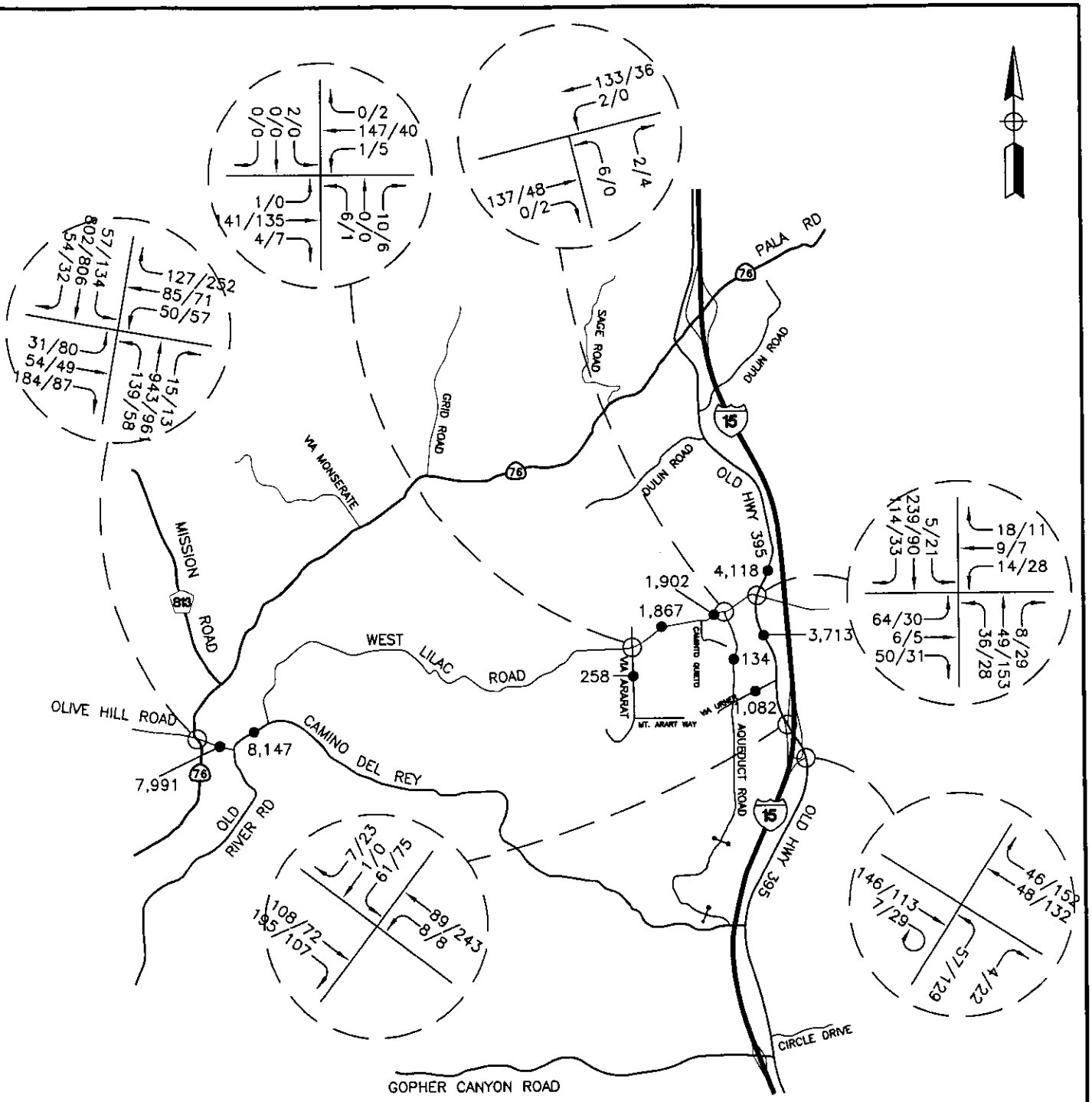
Roadway Segments

The existing daily roadway segment levels of service are summarized in Table 2. As can be seen in Table 2, all roadway segments analyzed currently operate at LOS D or better.

Intersections

The existing conditions Levels of Service for the key intersections were calculated utilizing the lane geometrics shown in Figure 3. The results of the Synchro analysis are summarized in Table 3. A copy of the Synchro worksheets for existing conditions can be found in Appendix D.

As can be seen from Table 3, all intersections analyzed currently operate at LOS C or better during both the AM and PM peak hours.



LEGEND

XX/YY – AM/PM PEAK HOUR TURN VOLUMES

● Z,ZZZ – AVERAGE DAILY TRAFFIC

→ – DIRECTION OF TRAVEL

●—● – GATE

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FIGURE 4

EXISTING TRAFFIC VOLUMES

Table 2 - Existing Roadway Segment Level of Service Summary				
Segment	Class	LOS D Capacity	Existing Conditions	
			ADT	LOS
Old Hwy 395: Dulin/West Lilac	Light Collector	10,900	4,174	C
Old Hwy 395: West Lilac/Via Urner	Light Collector	10,900	4,280	C
West Lilac: Camino del Rey/Via Ararat	Light Collector	10,900	2,121	B
West Lilac: Via Ararat/Aqueduct Rd	Light Collector	10,900	2,130	B
West Lilac: Aqueduct/Old Hwy 395	Light Collector	10,900	2,292	B
Camino del Rey: Mission/Old River	Light Collector	10,900	9,840	D
Camino del Rey: Old River/West Lilac	Light Collector	10,900	9,517	D
Via Ararat: West Lilac/Mt Ararat	Residential	1,500	326	>C
Aqueduct: West Lilac/Via Urner	Residential	1,500	253	>C
Via Urner: Aqueduct/Old Hwy 395	Residential	1,500	956	>C

LOS=level of service; ADT=Average daily traffic; >C = Better than LOS C;

LOS D Capacity per County of San Diego Public Road Standards

Table 3 - Existing Intersection Level of Service Summary

Intersections	Critical Movement	Existing Delay sec/veh	Existing LOS
AM PEAK HOUR			
Camino del Rey/Mission Rd (Signal)	Intersection	30.6	C
West Lilac/Via Ararat (TWSC)	NB	11.0	B
	SB	11.5	B
West Lilac/Aqueduct (OWSC)	NB	11.2	B
West Lilac/Old Hwy 395 (TWSC)	EB	14.0	B
	WB	11.6	B
	NB	8.1	A
	SB	7.3	A
Old Hwy 395/I-15 SB (OWSC)	SB	10.1	B
Old Hwy 395/I-15 NB (OWSC)	NB	9.8	A
PM PEAK HOUR			
Camino del Rey/Mission Rd (Signal)	Intersection	32.3	C
West Lilac/Via Ararat (TWSC)	NB	9.9	A
	SB	10.3	B
West Lilac/Aqueduct (OWSC)	NB	9.7	A
West Lilac/Old Hwy 395 (TWSC)	EB	14.0	B
	WB	11.2	B
	NB	7.6	A
	SB	7.5	A
Old Hwy 395/I-15 SB (OWSC)	SB	11.2	B
Old Hwy 395/I-15 NB (OWSC)	NB	10.9	B

Delay is measured in seconds per vehicle; LOS=level of service;
TWSC=Two Way Stop Control; OWSC=One Way Stop Control
EB=Eastbound; WB=Westbound; NB=Northbound; SB=Southbound
Delay and LOS calculated using SYNCHRO

SECTION III - PROJECT RELATED CONDITIONS

TRIP GENERATION

Trip generation to/from the proposed development was calculated based on the trip generation rates published by the San Diego Association of Governments' (SANDAG) *(Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region*, April 2002. Table 4 summarizes the trip generation rates and calculations for the proposed project.

As shown in Table 4, the proposed project is estimated to generate 336 average daily trips, 27 AM peak hour trips, and 34 PM peak hour trips.

Table 4 - Trip Generation Rates and Calculations Summary

Trip Generation Rates

Land Use	Daily	AM Peak Hour			PM Peak Hour		
		Total - % of Daily	% In	% Out	Total - % of Daily	% In	% Out
Estate Residential	12 Trips/DU	8%	30%	70%	10%	70%	30%

Trip Generation

Land Use	Total No. of Units	Daily	AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out
Estate Residential	28 DUs	336	27	8	19	34	24	10

Trip Generation Rates are based on SANDAG's *(Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region*, April 2002

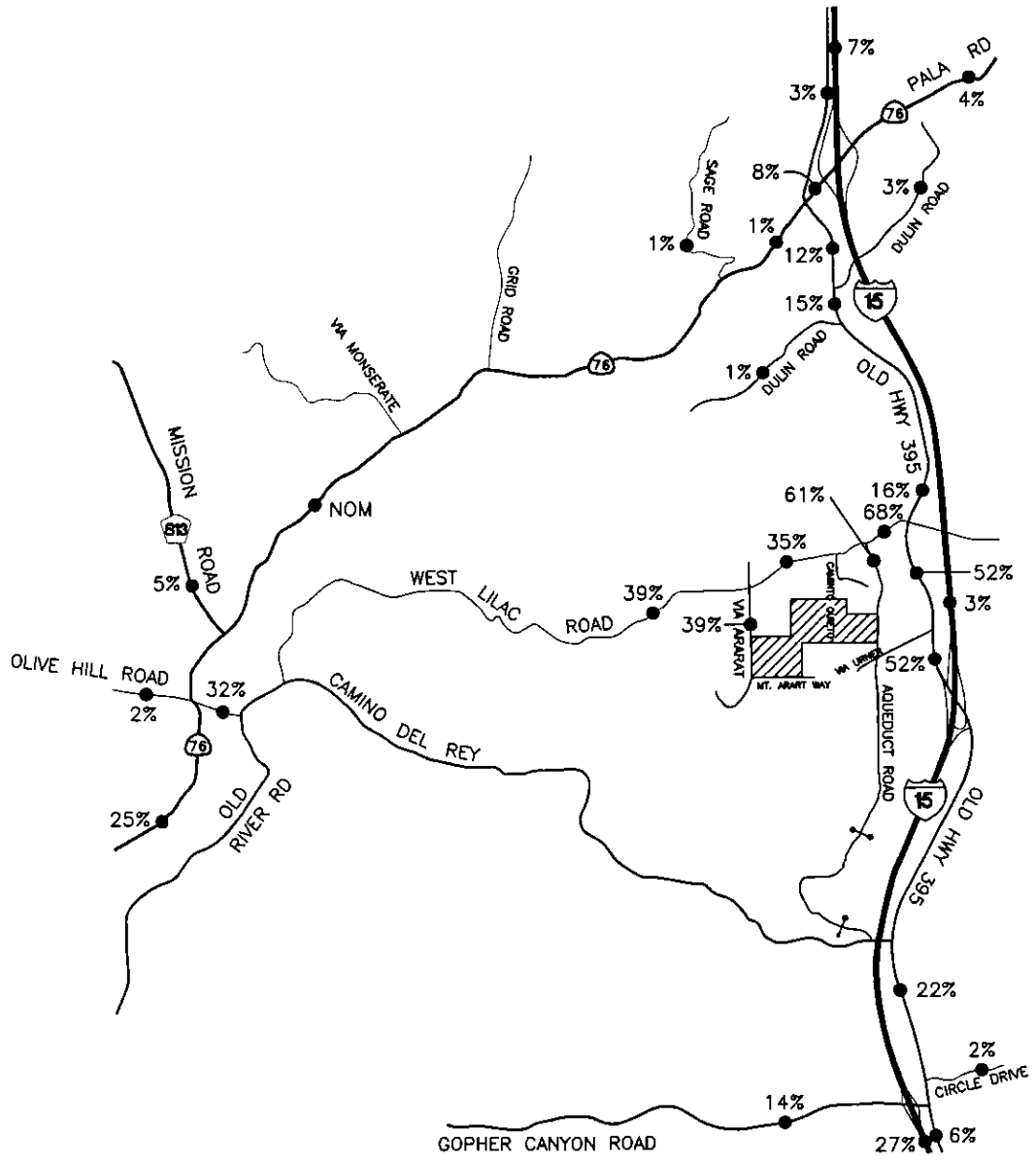
TRIP DISTRIBUTION/TRIP ASSIGNMENT

The general trip distribution to/from the project site was based on the SANDAG 2005 Select Zone forecast. While the trip distribution for specific routes were based on field investigation of the existing roadway conditions.

Field investigations found that Aqueduct Road is gated south of the project site; therefore, project traffic would not be able to utilize this route. The SANDAG Select Zone forecast, however, assigned four percent (4%) of the project traffic south on Aqueduct Road to Camino Del Rey and then west on Camino Del Rey. Since Aqueduct Road is gated to the south of the project, D&A redistributed this traffic to travel north on Aqueduct Road to West Lilac Road at which point it would continue west.

Concerns have been raised about the project traffic utilizing the private road Via Urner Way located south of the project's access on Aqueduct Road as a cut-through route to get to Old Highway 395. Although it is unlikely that residents of the proposed project would actually utilize Via Urner Way, the developer has agreed to install a Left Turn only sign at the project's access (Street "A") exiting onto Aqueduct Road. The Left Turn only signage will direct the project's traffic to travel north on Aqueduct Road and away from Via Urner Way.

Figure 5 illustrates the trip distribution percentages on the existing roadway network and Figure 6 illustrates the project related traffic volumes. The impacts associated with the addition of project traffic are discussed in the following section, Section IV.



LEGEND

- ● XX% – DISTRIBUTION PERCENTAGE
- ▨ – PROJECT SITE
- ●—● – GATE
- NOM – NOMINAL

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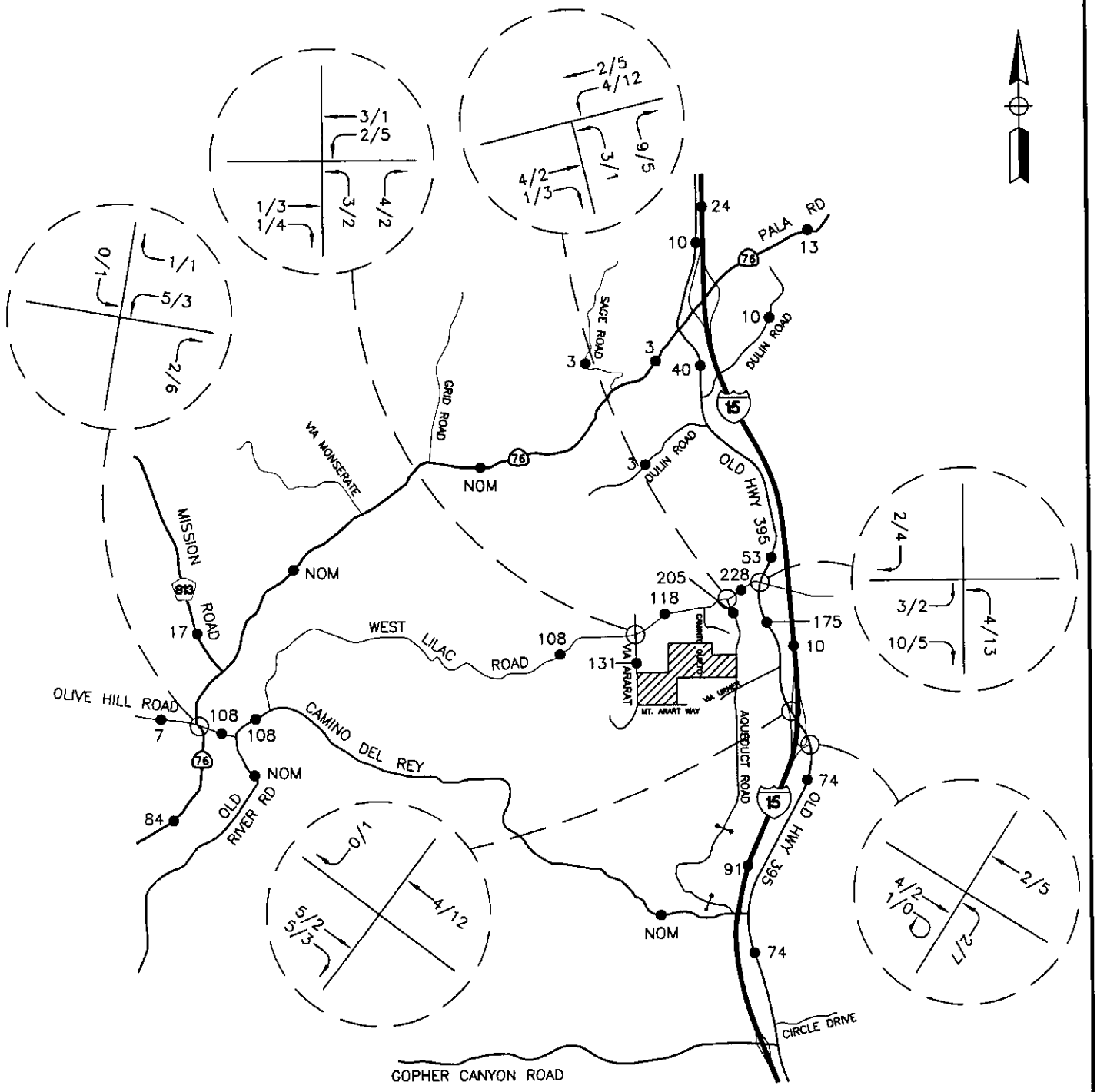
FIGURE 5

TRIP DISTRIBUTION



LEGEND

XX/YY – AM/PM PEAK HOUR TURN VOLUMES

● Z,ZZZ – AVERAGE DAILY TRAFFIC

——→ – DIRECTION OF TRAVEL

▨ – PROJECT SITE

●——● – GATE

NOM – NOMINAL

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FIGURE 6

PROJECT RELATED TRAFFIC VOLUMES

STUDY AREA

To determine the study area for the project D&A utilized the County of San Diego's criteria which recommends the inclusion of all transportation facilities that receive 25 or more two-way peak hour trips from the proposed project. If this criterion were used alone, however, only the study area would be focused on the project's access points off Via Ararat Drive and Aqueduct Road. Thus, to address the concerns of the local community, the study area was expanded to include the key intersections and roadway segments previously defined in Section II.

SECTION IV – IMPACTS

PUBLIC FACILITIES ELEMENT IN COUNTY

According to page XII-4-20 and 21 of the *Public Facility Element* for San Diego County, a discretionary project which has a significant impact on roadways will be required, as a condition of approval, to make "improvements or other measures necessary to mitigate traffic impacts to avoid reduction in the existing Level of Service below 'D' on off-site and on-site abutting Circulation Element roads. New development that would significantly impact congestion on roads at LOS 'E' or 'F', either currently or as a result of the project, will be denied unless improvements are scheduled to increase the LOS to 'D' or better or appropriate mitigation is provided. Appropriate mitigation would include a fair share contribution in the form of road improvements or a fair share contribution to an established program or project. If impacts cannot be mitigated, the project will be denied unless a specific statement of overriding findings is made pursuant to Section 15091(b) and 15093 of the State CEQA Guidelines."

The *Public Facility Element* for the County of San Diego also requires that all on-site Circulation Element roads operate at Level of Service C or better. If the Level of Service at an on-site Circulation Element road is reduced below LOS C, the proposed project must provide appropriate mitigation measures. A copy of excerpts from the County's *Public Facility Element* can be found in Appendix A.

LEVELS OF SIGNIFICANCE STANDARDS

Although the *Public Facility Element (PFE)* sets standards as to which level of service roadways and intersections must operate within the County (i.e. requires operation of LOS D or better), it does not establish a guideline to evaluate whether a project is significant if it adds traffic to a roadway facility that is currently operating at an unacceptable LOS E or F. Thus, the *County of San Diego Guidelines for Determining Significance, Second Revision June 30, 2009* was developed to evaluate the significance of traffic impacts on roadways and intersections which are currently operating at LOS E or F. A summary of the County's Guidelines is provided in Table 5. Excerpts from the County's Guidelines are provided in Appendix A.

Table 5 - Measures of Significant Project Impacts

LOS	Allowable Increase on Congested Roads and Intersections				
	Intersections		Road Segments		
	Signalized	Unsignalized	2-Lane Road	4-Lane Road	6-Lane Road
LOS E	Delay of 2 seconds or less	20 or less peak hour trips on a critical movement	200 ADT	400 ADT	600 ADT
LOS F	Either a Delay of 1 second, or 5 peak hour trips or less on a critical movement	5 or less peak hour trips on a critical movement	100 ADT	200 ADT	300 ADT

Notes:
- A critical movement is an intersection movement (right turn, left turn, through-movement) that experiences excessive queues, which typically operate at LOS F.
- 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 additional trips must mitigate a share of the cumulative impacts.
- 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.
- For determining significance at signalized intersection with LOS F conditions, the analysis must evaluate both the delay and the number of trips on a critical movement, exceedance of either criteria result in a significant impact.

ADT = Average Daily Traffic; LOS = Level of Service, sec = Seconds of Delay per Vehicle

It should be noted that the significance guidelines summarized in Table 5 are currently only utilized by the County of San Diego to determine if a project has a significant direct and/or future impact. A project is considered to have a significant cumulative impact if it adds any traffic to a roadway segment and/or intersection that operates at LOS E or F under cumulative conditions and the total cumulative traffic added to the roadway segment and/or intersection exceeds the value identified in Table 5.

Roadway Segments

As shown in Table 5, per the County's Guidelines, "[t]raffic volume increases from public or private projects that result in one or more of the following criteria will have a significant traffic volume or level of service traffic impact on a road segment:

-
-
- The additional or redistributed ADT generated by the proposed project will significantly increase congestion on a Circulation Element Road or State Highway currently operating at LOS E or LOS F, or will cause a Circulation Element Road or State Highway to operate at a LOS E or LOS F as a result of the proposed project as identified in Table [5], or
- The additional or redistributed ADT generated by the proposed project will cause a residential street to exceed its design capacity."

As discussed on pages 13 and 14 of the *County of San Diego Guidelines for Determining Significance, Second Revision June 30, 2009*, an increase of the daily thresholds established for roadway segments operating at LOS E would result in only one additional car every 2.4 minutes per lane while the thresholds established for roadway segments operating at LOS F would result in only one additional car every 4.8 minutes. Therefore, the thresholds identified in Table 5, in most cases, would result in changes to traffic flow that would not be noticeable to the average driver and would thus not constitute a significant impact on the roadway.

The County guidelines also states that "For large projects, controversial projects and/or projects which are preparing Environmental Impact Reports, more detailed evaluations to verify the applicability of the significance thresholds for the individual project conditions may be necessary. Additional evaluations may include analysis of vehicle headways, speeds, average gaps, queues, delay, and/or other factors."

Signalized Intersections

"Traffic volume increases from public or private projects that result in one or more of the following criteria will have a significant traffic volume or level of service traffic impact on a signalized intersection":

- "The additional or redistributed ADT generated by the proposed project will significantly increase congestion on a signalized intersection currently operating at LOS E or LOS F, or will cause a signalized intersection to operate at a LOS E or LOS F as identified in Table [5]."

- Based upon an evaluation of existing accident rates, the signal priority list, intersection geometrics, proximity of adjacent driveways, sight distance or other factors, the project would significantly impact the operations of the intersection."

As discussed on page 16 of the *County of San Diego Guidelines for Determining Significance, Second Revision June 30, 2009*, an increase in delay of two seconds or less, the threshold established for signalized intersections operating at LOS E, "...is a small fraction of the typical cycle length for a signalized intersection that ranges between 60 and 120 seconds. The likelihood of increased queues forming due to the additional two seconds of delay is low." Thus, the increase in delay of two (2) seconds or less, on average, would result in changes to traffic flow that would not be noticeable to the average driver and would thus not constitute a significant impact. Since small changes and disruptions to the traffic flow at a signalized intersection can have a greater effect on the overall intersection operation when the intersection is operating at LOS F, versus LOS E, a more stringent guideline of one (1) second of delay was established for intersections operating at LOS F.

The five (5)-peak hour trip threshold, established for the critical movement of a signalized intersection operating at LOS F, when spread out over the peak hour, results in an increase of one (1) vehicle every 12 minutes or 720 seconds. This increase would not be noticeable to the average driver because one additional vehicle during a 12-minute interval on average would clear the traffic signal cycles well within the 12-minute period. Further, even if all five (5) additional peak hour vehicles arrived at the same time, these trips would also, on average, clear the traffic cycle and the existing queue lengths would be re-established. Thus, the increase of five (5) peak hour trips to a critical movement at a signalized intersection, on average, would result in changes to traffic flow that would not be noticeable to the average driver and would thus not constitute a significant impact. (See page 17 of the County's *Guidelines for Determining Significance* provided in Appendix A.)

Unsignalized Intersections

"Traffic volume increases from public or private projects that result in one or more of the following criteria will have a significant impact at an unsignalized intersection as listed in Table [5] and described as text below:"

- "The additional or redistributed ADT generated by the proposed project will add 21 or more peak hour trips to a critical movement of an unsignalized intersection, and cause the unsignalized intersection to operate below LOS D, or

- The additional or redistributed ADT generated by the proposed project will add 21 or more peak hour trips to a critical movement of an unsignalized intersection currently operating at LOS E, or

- The additional or redistributed ADT generated by the proposed project will add 6 or more peak hour trips to a critical movement of an unsignalized intersection, and cause the unsignalized intersection to operate at LOS F, or

- The additional or redistributed ADT generated by the proposed project will add 6 or more peak hour trips to a critical movement of an unsignalized intersection currently operating at LOS F, or

- Based upon an evaluation of existing accident rates, the signal priority list, intersection geometrics, proximity of adjacent driveways, sight distance or other factors, the project would significantly impact the operations of the intersection."

As discussed on pages 18 and 19 of the *County of San Diego Guidelines for Determining Significance, Second Revision June 30, 2009,* the addition of 20 peak hour trips to a critical movement, would result in an increase of one (1) vehicle every 3.0 minutes or 180 seconds. "Assuming the average wait time for a vehicle in the critical movement queue is less than 3.0 minutes, which is typical for LOS E conditions; this would not be noticeable to the average driver and would not be considered a significant impact." Five (5) – trips spread out over an hour would result in an increase of one (1) vehicle every 12.0 minutes or 720 seconds. "This typically exceeds the average wait time in the queue and would not be noticeable to the average driver." (See page 18 and 19 of the County's *Guidelines for Determining Significance* provided in Appendix A.)

EXISTING PLUS PROJECT CONDITIONS

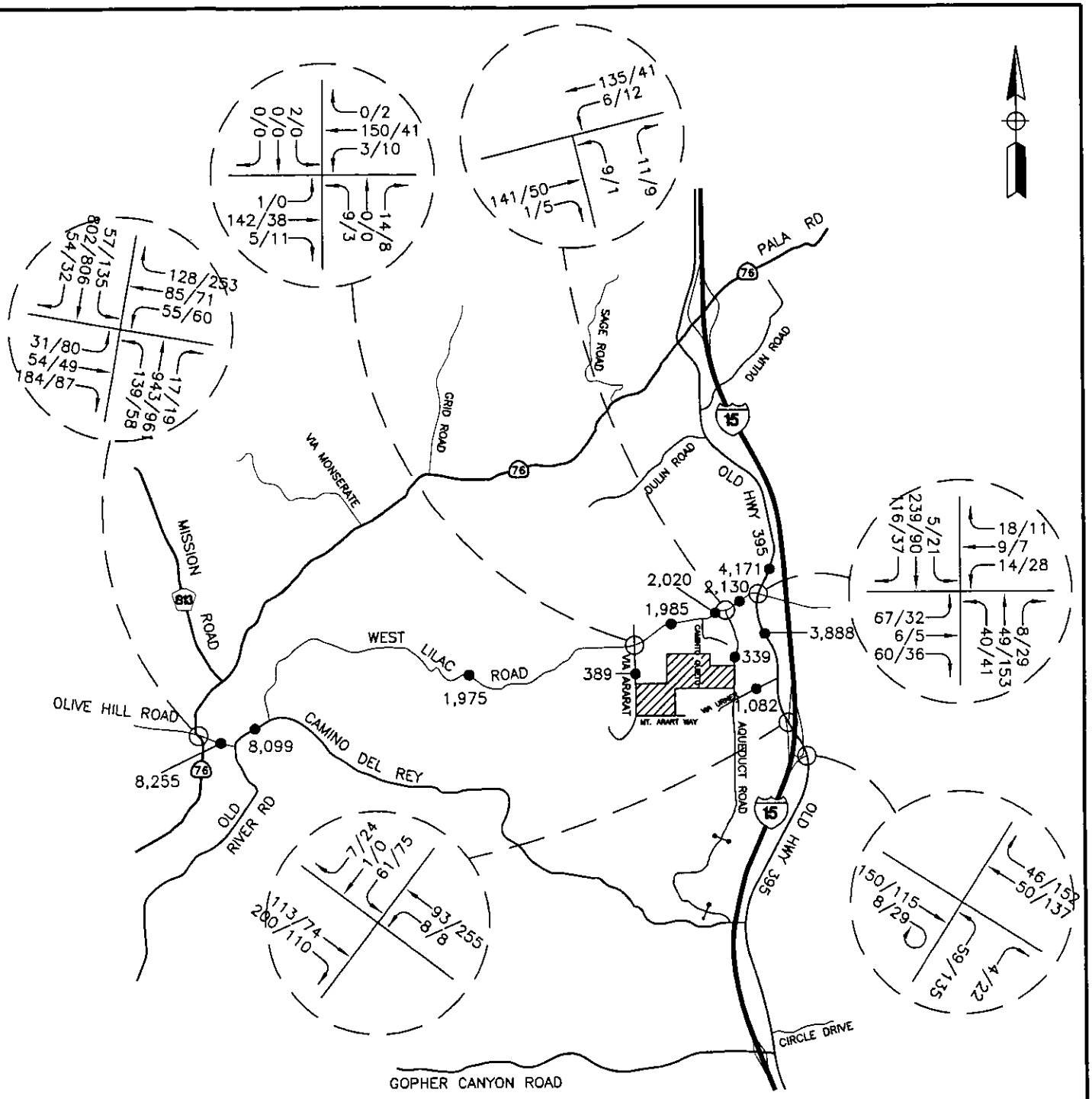
The daily and peak hour turn volumes for existing plus project conditions are illustrated in Figure 7.

Roadway Segments

The roadway segments were analyzed with the traffic generated from the proposed project added to existing traffic volumes. The roadway segments daily levels of service are summarized in Table 6.

As shown in Table 6, all key roadway segments analyzed continue to operate at an acceptable LOS D or better with the addition of the proposed project and is therefore not considered to have a direct impact.

In addition the proposed project will add less than 100 ADT to all other roadway segments that were not analyzed in Table 6. Since this is less than the County's threshold identified in Table 5, the proposed project will not have any significant direct roadway segment impacts.



LEGEND

XX/YY – AM/PM PEAK HOUR TURN VOLUMES
● Z,ZZZ – AVERAGE DAILY TRAFFIC
——→ – DIRECTION OF TRAVEL
▨ – PROJECT SITE
●——● – GATE
NOM – NOMINAL

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FIGURE 7

EXISTING + PROJECT TRAFFIC VOLUMES

Table 6 - Existing Plus Project Roadway Segment Level of Service Summary

Segment	LOS D Capacity	Existing		Existing Plus Project				
		ADT	LOS	ADT	LOS	Proj. Traffic	Proj. Signif?	Impact Type
Old Hwy 395: Dulin/West Lilac	10,900	4,174	C	4,227	C	53	No	None
Old Hwy 395: West Lilac/Via Urner	10,900	4,280	C	4,455	C	175	No	None
West Lilac: Camino del Rey/Via Ararat	10,900	2,121	B	2,229	B	108	No	None
West Lilac: Via Ararat/Aqueduct Rd	10,900	2,130	B	2,248	B	118	No	None
West Lilac: Aqueduct/Old Hwy 395	10,900	2,292	B	2,520	B	228	No	None
Camino del Rey: Mission/Old River	10,900	9,840	D	9,948	D	108	No	None
Camino del Rey: Old River/West Lilac	10,900	9,517	D	9,625	D	108	No	None
Via Ararat: West Lilac/Mt Ararat	1,500	326	>C	457	>C	131	No	None
Aqueduct: West Lilac/Via Urner	1,500	253	>C	458	>C	205	No	None
Via Urner: Aqueduct/Old Hwy 395	1,500	956	>C	956	>C	0	No	None

LOS=level of service; ADT=Average daily traffic; >C = Better than LOS C;

Proj. Signif? = Project significance based on County Standards (Yes or No)

LOS D Capacity per County of San Diego Public Road Standards

Intersections

The intersections were analyzed with the traffic generated from the proposed project added to existing traffic volumes. The intersections' levels of service for existing plus project conditions are summarized in Table 7. A copy of the Synchro worksheets for existing plus project conditions can be found in Appendix E.

As shown in Table 7, all intersections analyzed continue to operate at LOS C or better during both the AM and PM peak hours with the addition of project traffic.

Table 7 - Existing Plus Project Intersection Level of Service Summary

Intersections	Crit. Mvmt.	Existing		Existing Plus Project					
		Delay sec/veh	LOS	Delay sec/veh	LOS	Δ Delay	Max Crit Mvmt	Proj. Signif?	Impact Type
AM PEAK HOUR									
Camino del Rey/Mission Rd (Signal)	Int.	30.6	C	32.8	D	2.2	5	No	None
West Lilac/Via Ararat (TWSC)	NB	11.0	B	11.1	B	0.1	4	No	None
	SB	11.5	B	11.6	B	0.1			
West Lilac/Aqueduct (OWSC)	NB	11.2	B	10.5	B	-0.7	9	No	None
West Lilac/Old Hwy 395 (TWSC)	EB	14.0	B	14.1	B	0.1	10	No	None
	WB	11.6	B	11.8	B	0.2			
	NB	8.1	A	8.1	A	0.0			
	SB	7.3	A	7.3	A	0.0			
Old Hwy 395/I-15 SB (OWSC)	SB	10.1	B	10.2	B	0.1	5	No	None
Old Hwy 395/I-15 NB (OWSC)	NB	9.8	A	9.9	A	0.1	4	No	None
PM PEAK HOUR									
Camino del Rey/Mission Rd (Signal)	Int.	32.3	C	32.9	C	0.6	6	No	None
West Lilac/Via Ararat (TWSC)	NB	9.9	A	10.0	B	0.1	5	No	None
	SB	10.3	B	10.5	B	0.2			
West Lilac/Aqueduct (OWSC)	NB	9.7	A	9.8	A	0.1	12	No	None
West Lilac/Old Hwy 395 (TWSC)	EB	14.0	B	14.7	B	0.7	13	No	None
	WB	11.2	B	11.5	B	0.3			
	NB	7.6	A	7.6	A	0.0			
	SB	7.5	A	7.5	A	0.0			
Old Hwy 395/I-15 SB (OWSC)	SB	11.2	B	11.3	B	0.1	12	No	None
Old Hwy 395/I-15 NB (OWSC)	NB	10.9	B	11.1	B	0.2	7	No	None

Delay is measured in seconds per vehicle; Δ Delay=change in delay; LOS=level of service;
TWSC = Two Way Stop Control; OWSC = One Way Stop Control
Max Critical Movement = maximum vehicles in single critical movement
EB=Eastbound; WB=Westbound; NB=Northbound; SB=Southbound; Delay and LOS calculated using SYNCHRO
Project significance based on County thresholds

CUMULATIVE IMPACTS

The County of San Diego has developed an overall programmatic solution that addresses existing and projected future road deficiencies in the unincorporated portions of San Diego County. This program includes the adoption of a Transportation Impact Fee (TIF) program to fund improvements to roadways necessary to mitigate potential cumulative impacts caused by traffic from future development. Based on SANDAG regional growth and land use forecasts, the SANDAG Regional Transportation Model was utilized to analyze projected build-out (Year 2030) development conditions on the existing circulation element roadway network throughout the unincorporated area of the County. Based on the results of the traffic modeling, funding necessary to construct transportation facilities that will mitigate cumulative impacts from new development was identified. Existing roadway deficiencies will be corrected through improvement projects funded by other public funding sources, such as TransNet, gas tax, and grants. Potential cumulative impacts to the region's freeways have been addressed in SANDAG's Regional Transportation Plan (RTP). This plan, which considers freeway buildout over the next 30 years, will use funds from TransNet, state and federal funding to improve freeways to projected level of service objectives in the RTP.

The proposed project generates 336 average daily trips. These trips will be distributed on circulation element roadways in the County that were analyzed by the TIF program, some of which currently or are projected to operate at inadequate levels of service. The potential growth represented by the proposed project was included in the growth projections upon which the TIF program is based. Therefore, payment of the TIF, which will be required at issuance of building permits, in combination with other components of the program described above, will mitigate potential cumulative traffic impacts to less than significant.

County Transportation Impact Fee (TIF) Report

On January 30, 2008, the County Board of Supervisors approved and adopted the *County of San Diego Transportation Impact Fee Report* written by Boyle Engineering Corporation in conjunction with Wilson & Company and the County of San Diego was prepared to assess the indirect, cumulative traffic impacts throughout the unincorporated areas of the County of San Diego.

The SANDAG regional land use forecasts and traffic models were used to determine the amount of expected future development and types of transportation improvements needed. The SANDAG forecasts utilized within the TIF report based the residential land use assumptions on the proposed General Plan 2020 (GP 2020) build-out growth estimates from October 2004 and the non-residential land use assumptions were based on the SANDAG Series 10 2030 projection and remaining vacant developable land data. The proposed project is consistent with both the existing and proposed GP 2020 land use designations and was thus included in the analysis within the County TIF report.

For purposes of the County TIF program, the unincorporated area of San Diego County was divided into three regions: North, South, and East. "The TIF program differentiates between 'local' transportation facilities (collectors and minor streets) that benefit 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 area – in this case the North, South or East region." The proposed project is located in the Bonsall Community.

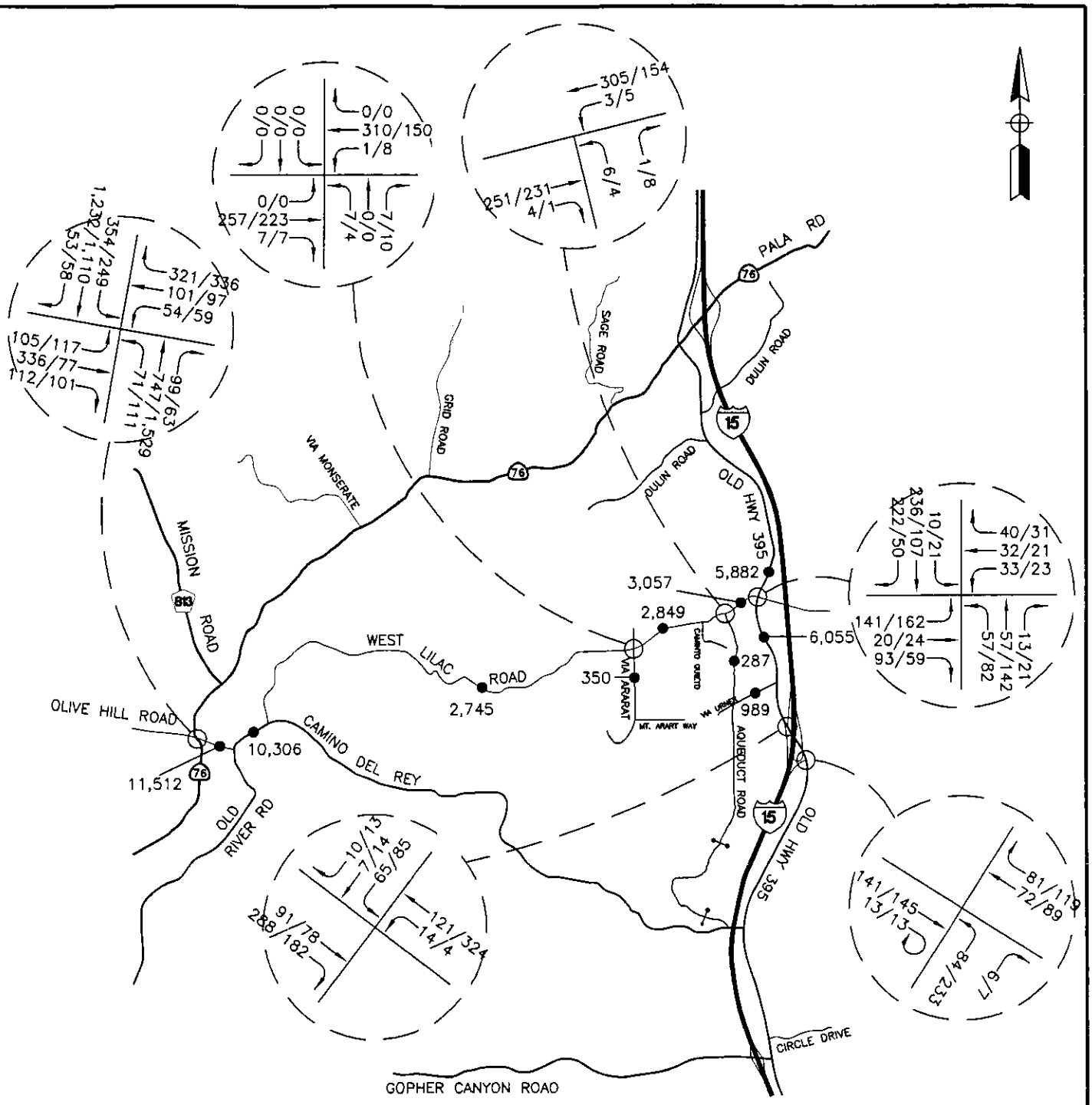
In September 2005, the County of San Diego adopted an "Addendum to Transportation Impact Fee Reports Adding a Portion of State Route 76 & Certain Interstate 15 Ramps to TIF Fees for North Region". The addendum included improvement on State Route 76 from 2 lanes to 4 lanes between Interstate 15 and Couser Canyon Road. In addition, the addendum included various interchange/ramp modifications at the State Route 76/Interstate 15 interchange.

The County TIF report analyzed all of the Circulation Element roadways within the County of San Diego under existing and buildout conditions. Under buildout conditions, the TIF report found deficiencies on Old Highway 395 from Dulin Road to the interchange with I-15/Old Highway 395. Since the proposed project will add traffic to these roadway segments, it is considered to be part of a significant cumulative impact.

As previously stated, the proposed project was included in the analysis within the County TIF report, thus payment of the County Transportation Impact Fee will mitigate the project's cumulative impacts. The "local" portion of the TIF payment will mitigate the project's cumulative impacts to Old Highway 395 and the "regional" portion of the TIF payment will mitigate the project's cumulative impacts to SR-76.

Roadway Segments

The County TIF report analyzed all of the Circulation Element roadways within the County of San Diego under existing and buildout conditions. Under buildout conditions, the TIF report found that portions of Old Highway 395 would operate at deficient levels of service and thus included in the TIF program. Since the proposed project will add traffic to these roadway segments, it is considered to be part of a significant cumulative impact.



LEGEND

XX/YY – AM/PM PEAK HOUR TURN VOLUMES

● Z,ZZZ – AVERAGE DAILY TRAFFIC

→ – DIRECTION OF TRAVEL

●—● – GATE

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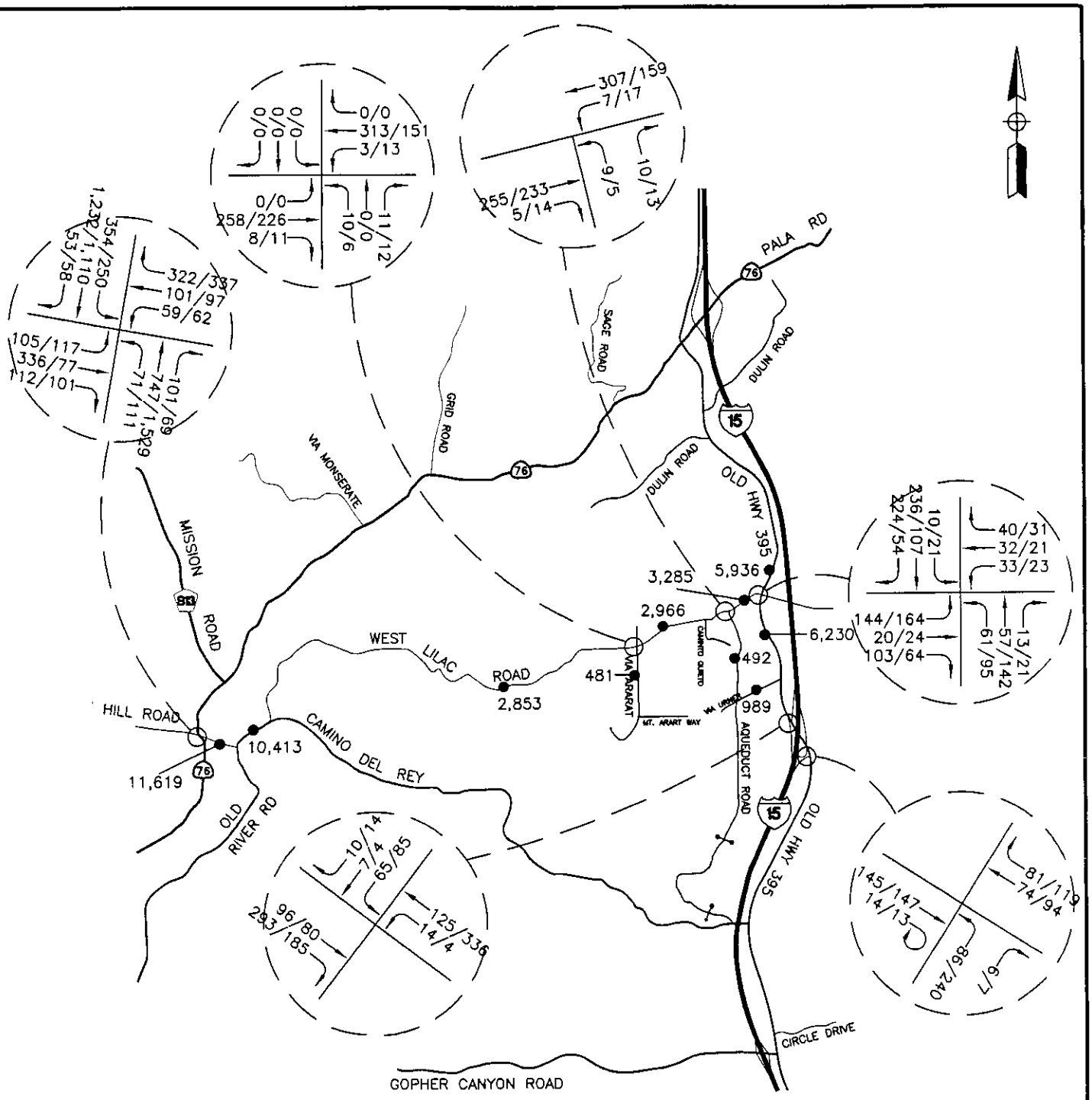
FIGURE 8

CUMULATIVE (NO PROJECT) TRAFFIC VOLUMES



LEGEND

XX/YY – AM/PM PEAK HOUR TURN VOLUMES

● Z,ZZZ – AVERAGE DAILY TRAFFIC

→ – DIRECTION OF TRAVEL

●—● – GATE

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FIGURE 9

CUMULATIVE PLUS TRAFFIC VOLUMES

Table 10 - Cumulative Intersection Level of Service Summary

Intersections	Existing (A)		Cuml. w/o Project (B)		Cuml. + Project (C)		Cuml. Contribution (C)-(A)		Project Contribution (C)-(B)	
	Delay sec/veh	LOS	Delay sec/veh	LOS	Delay sec/veh	LOS	Δ Delay	Cuml. Impact?	Δ Delay	Cuml. Signif?
AM PEAK HOUR										
Camino del Rey/Mission Rd	30.6	C	47.8	D	48.2	D	17.6	No	0.4	No
West Lilac/Via Ararat	11.0	B	12.3	B	12.4	B	1.4	No	0.1	No
	11.5	B	12.9	B	13.0	B	1.5	No	0.1	
West Lilac/Aqueduct	11.2	B	12.6	B	11.6	B	0.4	No	-1.0	No
West Lilac/Old Hwy 395	14.0	B	23.6	C	24.4	C	10.4	No	0.8	No
	11.6	B	14.2	B	14.6	B	3.0	No	0.4	
	8.1	A	8.6	A	8.6	A	0.5	No	0.0	
	7.3	A	7.4	A	7.4	A	0.1	No	0.0	
Old Hwy 395/I-15 SB	10.1	B	11.0	B	11.2	B	1.1	No	0.2	No
Old Hwy 395/I-15 NB	9.8	A	10.6	B	10.7	B	0.9	No	0.1	No
PM PEAK HOUR										
Camino del Rey/Mission Rd	32.3	C	48.7	D	49.5	D	17.2	No	0.8	No
West Lilac/Via Ararat	9.9	A	10.4	B	10.7	B	0.8	No	0.3	No
	10.3	B	11.1	B	11.2	B	0.9	No	0.1	
West Lilac/Aqueduct	9.7	A	10.2	B	10.3	B	0.6	No	0.1	No
West Lilac/Old Hwy 395	14.0	B	23.0	C	25.3	D	11.3	No	2.3	No
	11.2	B	13.2	B	13.7	B	2.5	No	0.5	
	7.6	A	7.7	A	7.8	A	0.2	No	0.1	
	7.5	A	7.6	A	7.6	A	0.1	No	0.0	
Old Hwy 395/I-15 SB	11.2	B	13.2	B	13.4	B	2.2	No	0.2	No
Old Hwy 395/I-15 NB	10.9	B	12.9	B	13.2	B	2.3	No	0.3	No

Delay is measured in seconds per vehicle; Δ Delay=change in delay; LOS=level of service;
Delay and LOS calculated using SYNCHRO;
Project significance based on County thresholds;

SECTION V - PROJECT ACCESS, SIGHT DISTANCE, & ON-SITE CIRCULATION

PROJECT ACCESS

As was illustrated in Figure 2 located in Section I, the project proposes to provide one access point off Aqueduct Road at Street "A" and one access point off Via Ararat Drive at Street "D". Both access roads will be designed to provide one lane of ingress and one lane of egress. Due to the low volume of traffic on Aqueduct Road and Via Ararat Drive (less than 400 ADT), the conflicting turn volumes at the project access roads will be light. Thus both access roads are expected to operate at an acceptable level of service without the addition of acceleration/deceleration lanes.

To address the concern that residents of the project will utilize the private road Via Urner Way located south of the project's access on Aqueduct Road as a cut-through route to get to Old Highway 395, the developer has agreed to install a Left Turn only sign at the project's access (Street "A") exiting onto Aqueduct Road. The Left Turn only signage will direct the project's traffic to travel north on Aqueduct Road and away from Via Urner Way.

As discussed in Section II, Via Ararat Drive and Aqueduct Road are currently only twenty (20) feet wide which does not meet the County's private road standards. As part of the project development, however, the developer proposes to widen Via Ararat Drive to 24 feet of pavement on 28 feet of graded width. The proposed improvements will bring the cross-section of Aqueduct Road up to the County's Private Road Standards. The proposed grading plan for the planned improvements to Aqueduct Road is provided in Appendix D.

In order for Via Ararat Drive to be widened to provide the 24 feet of pavement as required by the County's Private Road, the existing overhead power line along the west side of the roadway would need to be placed underground. Since this would be cost prohibitive, the developer is proposing to relocate the existing power poles and provide 22.5 feet of pavement.

Although the 22.5 feet of pavement does not comply with County standards, the proposed improvements would be adequate and safe. The reasons for determining that the improvements would be safe is that the projected traffic volumes on Via Ararat Drive under existing plus project conditions is only 389 daily vehicles. Further, the typical residential street which is 36 feet wide provides a 20 foot (20') travel way and an eight foot (8') parking lane on each side of the roadway. Thus, the proposed improvements to Via Ararat Drive would provide a larger unobstructed pavement width than the typical residential street. For additional safety it is recommended that the following actions be included in the improvement plans: (1) place a 4-inch (4") white edge line along each side of the roadway; and (2) place delineators at each power pole or arrange to place reflective markings on each pole. The proposed grading plan for the planned improvements to Via Ararat Drive is provided in Appendix B.

It should be noted that the proposed improvement plans for Via Ararat Drive required a design exception to reduce the pavement width to 22.5 feet. The County has approved the design exception since the last iteration of this report.

SIGHT DISTANCE

In response to comments received from the County of San Diego, Darnell & Associates, Inc. (D&A) reevaluated the prevailing speeds and available sight distance on West Lilac Road at Via Ararat Drive. Speed surveys conducted by D&A found that the 85th percentile speed of westbound traffic on West Lilac Road just east of Via Ararat Drive was 36 miles per hour. (A copy of the speed survey is provided in Appendix B.)

Based on the County of San Diego's requirements for corner sight distance, 10 feet of sight distance is required for every mile per hour of speed. Thus, based on the prevailing speed of 36 miles per hour, 360 feet of corner sight distance would be required at the West Lilac Road/Via Ararat Drive intersection. Field investigations conducted on August 18, 2005 found there to be in excess of 360 feet of sight distance looking west of the West Lilac Road/Via Ararat intersection; however due to the existing grade of the road there is only approximately 220 feet of sight distance looking east of the West Lilac Road/Via Ararat intersection. Thus, corner sight distance requirements are satisfied looking to the west of the intersection, but not to the east of the intersection.

Since, corner sight distance were not satisfied looking to the east of the intersection, D&A also calculated the minimum stopping sight distance, utilizing the 85th percentile travel speed, required based on the Association of State Highway and Transportation Officials' (AASHTO's) criteria. Table 11 shows the stopping sight distance calculations assuming a level grade, a braking-reaction time of 1.5 seconds, and a deceleration rate of 11.2 feet per second squared. As can be seen in Table 11, the minimum stopping sight distance required looking to the east of the West Lilac Road/Via Ararat intersection is 204 feet.

Table 11 - Stopping Sight Distance Requirements Per AASHTO

Location	Speed - V [(a)] (mph)	Reaction Time - t (seconds)	Deceleration Rate - a (ft/sec^2)	Reaction Distance - d_1 (feet)	Braking Distance - d_2 (feet)	**Stopping Sight Distance - d (feet)**
West Lilac e/o Via Ararat						
Westbound	36	1.5	11.2	79	124	**204**

(a) Speeds are based on the speed surveys conducted by D&A in August 2005
Note: All calculations assume the grade is level
e/o = East of; $d_1 = 1.47Vt$; $d_2 = 1.075\ (V^2 \div a)$; $d = d_1 + d_2$

As discussed above, field investigations conducted on August 18, 2005 found there to be approximately 220 feet of sight distance looking east of the West Lilac Road/Via Ararat intersection. Therefore, there is adequate stopping sight distance provided at the intersection. Further, a 132-foot long, 10-foot wide acceleration lane for traffic turning left from northbound Via Ararat onto westbound West Lilac Road has just recently been constructed. The acceleration lane provides for a safe movement for vehicles to turn left from Via Ararat and enter the acceleration lane, then accelerate to merge in with westbound traffic on West Lilac Road. The addition of the acceleration lane increases the total stopping sight distance to approximately 380 feet plus the lane transition. The analysis and conclusions discussed above are consistent with the County's approval of an exception to a road standard and/or modification to project conditions for TPM 20541 dated June 25, 2004 to reduce the sight distance to 220 feet with the construction of an acceleration lane for traffic leaving Via Ararat Drive traveling west on West Lilac Road. These improvements have been constructed by TPM 20541, therefore it can be concluded that sight distance looking east on West Lilac Road satisfies the County's criteria. A copy of the approved design exception is presented in Appendix I.

Discussions with the school district determined that they have changed bussing operations along West Lilac Road. School bus stops now occur only for eastbound busses on West Lilac, stopping on the south-side of the street (west of Via Ararat). It should be noted that the students picked up and dropped off are located south of West Lilac Road and do not use West Lilac Road.

ON-SITE CIRCULATION

As currently designed, the project site will be divided into two sections. The northern section of the project consists of 17 dwelling units with the primary access being provided via one access point, Street "A", on Aqueduct Road. The southern section of the project consists of 11 dwelling units with the primary access being provided via one access point, Street "D", on Via Ararat Drive. Street "A" will extend from Aqueduct Road southwesterly to connect the two sections of the project.

SECTION VI – CONSTRUCTION TRAFFIC

J.T. Kruer & Company provided details on the type of equipment, number of equipment, and the duration of each activity that are anticipated to be required for the grading operation, the site preparation/development, and the house construction activities associated with the development of the proposed project. (A copy of the report prepared by J.T. Kruer & Company is provided in Attachment C.) Based on the information provided by J.T. Kruer & Company, D&A estimated the two-way average daily trips that would be generated during each phase of construction. Table 12 provides a summary of the construction related traffic in passenger car equivalents (PCEs).

Table 12 - Summary of Construction Traffic Daily Trips

Construction Phase	Daily Trips – ADT (PCE)	Duration of Activity (Days)
Grading Operation		
Clear & Grub	152	8
Remedial & Mass E-Scrapers	80	12
Finish Grading	46	11
Total Grading:	**278**	**31**
Site Preparation/Development		
Wet Utilities -Piper Installation	47	11
Wet Utilities-Structure Installation	14	8
Dry Utilities – Conduit Installation	36	9
Dry Utilities – Concrete Products	16	2
Landscape Operations	50	18
Support Operations/Site Work	9	72
Total Site Prep:	**172**	**201**
Street Improvements – Balancing/Base		
Balancing/Base	262	6
Support Operations/Site Work	9	6
Total Street Improvements-Balancing-Base:	**271**	6
Street Improvements – Asphalt Paving & Dyke		
Asphalt Paving & Dyke	278	4
Support Operations/Site Work	9	4
Total Street Improvements-Asphalt Paving & Dyke:	**287**	4
House Construction		
Foundation	38	15
Framing & Structural	54	30
Electrical, Plumbing, Mech.	50	35
Finish, Flat Work, Yards	76	20
Support Operations/House Construction	9	130
Total Maximum House Construction:	**227**	

PCE = Passenger Car Equivalent Trips, assumes that one (1) trip made by every large construction vehicle such as a Dump Truck, etc. is the equivalent to two (2) passenger car equivalent trips
See Appendix C for a detailed summary of the calculations of the construction traffic

As shown in Table 12 assuming all three stages of the grading operation occurred simultaneously, which is unlikely since the finish grading operation would not occur at the same time as the clearing and grubbing stage, the grading operation is estimated to generate approximately 278 average daily PCE trips. Since this is less than the 336 ADT that would be generated by the proposed project once it is developed and all 28 homes are fully occupied (see Section III), the potential traffic impacts associated with the grading operation would be less than those analyzed for the proposed project.

Table 12 also shows that the Site Preparation/Development stage of construction is estimated to generate 172 average daily PCE trips, while the first stages of the street improvements (balancing/base work) would generate approximately 271 ADT, and the final stages of the street improvements (asphalt paving & dyke) would generate approximately 287 ADT. Since the traffic generated by each of these phases of construction are less than the 336 ADT that would be generated by the proposed project once it is

developed and all 28 homes are fully occupied the potential traffic impacts associated with the site preparation and street improvements would be less than those analyzed for the proposed project.

If all phases of the housing construction were to occur simultaneously, which is unlikely, the construction of one (1) housing construction cycle is estimated to generate a maximum of 227 average daily trips. This is approximately 109 fewer daily trips than what would be generated by the proposed project once all 28 homes are built and fully occupied (i.e. 336 ADT when occupied – 227 ADT construction = 109 ADT).

In reality, each phase of the housing construction would occur on different days, so the highest volume of traffic that would occur on any one day during the housing construction would be during the Finish, Flat Work, Yards Phase of the House Construction which would yield at most 85 ADT (76 ADT for the finish, Flat Work, Yards + 9 ADT for Support Operations = 85 ADT).

It should be noted that there is the potential for some of the homes built in the earlier phases of development to be occupied while the houses towards the later phases of construction are still under construction, thus yielding an overlap of residential and construction traffic. Per the report prepared by J.T. Kruer & Company, based on typical constraints including sales absorption and construction financing requirements, one housing construction cycle/phase would typically include the production/construction of five (5) houses per five (5) month construction cycle. (A copy of the J.T. Kruer & Company report is provided in Attachment C.)

If it was assumed that 5 houses were developed every cycle/phase, the worst-case scenario would have 25 homes built and occupied while 3 homes were under construction. This would net approximately 385 average daily trips being added to the roadway network (i.e. 25 residential homes X 12 trips/DU + 85 trips per construction traffic = 385 ADT). This is 49 ADT more than what would be generated by the proposed project once all 28 homes are built and fully occupied (i.e. 385 ADT – 336 ADT = 49 ADT).

Calculations provided in Appendix A illustrate the construction traffic associated with the Finish, Flat Work, Yards Phase of the House Construction would generate approximately 32 trips during the AM and PM peak hours. Five (5) occupied homes would generate 24 AM peak hour trips and 30 PM peak hour trips. Thus the combination of 25 occupied homes, plus the construction traffic would net 56 AM peak hour trips and 62 PM peak hour trips. This is 29 more AM peak hour trips and 28 more PM peak hour trips more than what would be generated by the proposed project once all 28 homes are built and fully occupied (i.e. 28 occupied homes would generate 27 AM peak hour trips and 34 PM peak hour trips).

At this time it is not known where the construction traffic will come to/from; however, even if 100% of the 85 ADT generated by the construction traffic was assigned to the key roadway segments, and the traffic generated by the 25 occupied residential homes were distributed as illustrated in Figure 5 provided in Section III, all key roadway segments would continue to operate at an acceptable LOS D or better. (Please see Table 13 for a summary of the roadway segment level of service results.) Thus it is concluded that the traffic generated by the construction of the proposed West Lilac Farms Subdivision will not create any significant direct roadway segment impacts.

Table 13 – Existing Plus Construction Traffic Segment Level of Service Summary

Segment	LOS D Capacity	Existing		Residential Traffic (25 Homes)		Construction Traffic (a)	Existing + Residential Traffic + Construction Traffic				
		ADT	LOS	% Distribution	ADT	ADT	ADT	LOS	Proj. Traffic	Proj. Signif?	Impact Type
Old Hwy 395: Dulin/West Lilac	10,900	4,174	C	16%	48	85	4,307	C	133	No	None
Old Hwy 395: West Lilac/Via Urner	10,900	4,280	C	52%	156	85	4,521	C	241	No	None
West Lilac: Camino del Rey/Via Ararat	10,900	2,121	B	32%	96	85	2,302	B	181	No	None
West Lilac: Via Ararat/Aqueduct Rd	10,900	2,130	B	35%	105	85	2,320	B	190	No	None
West Lilac: Aqueduct/Old Hwy 395	10,900	2,292	B	68%	204	85	2,581	B	289	No	None
Camino del Rey: Mission/Old River	10,900	9,840	D	32%	96	85	10,021	D	181	No	None
Camino del Rey: Old River/West Lilac	10,900	9,517	D	32%	96	85	9,698	D	181	No	None
Via Ararat: West Lilac/Mt Ararat	1,500	326	>C	39%	117	85	528	>C	202	No	None
Aqueduct: West Lilac/Via Urner	1,500	253	>C	61%	183	85	521	>C	268	No	None
Via Urner: Aqueduct/Old Hwy 395	1,500	956	>C	0%	0	0	956	>C	0	No	None

LOS=level of service; ADT=Average daily traffic;
>C=Better than LOS C; <C = Worse than LOS C; >D = Better than LOS D; <D = Worse than LOS D
Cuml. Impact? = Cumulative significance based on County Standards (Yes or No); Proj Impact = impact type; Cuml=cumulative
LOS D Capacity per County of San Diego Public Road Standards
(a) Construction Traffic Assumes that 100% of construction traffic is assigned to each roadway segment to assess the worst-case scenario

To assess whether the construction traffic would have a direct impact on the intersections on the intersections, the key intersections were analyzed under existing plus the traffic 25 of the houses from the project plus the construction traffic (32 Peak hour trips) based on the following two distribution alternatives: (1) Assumed 100% of the construction traffic was distributed to/from the west; and (2) Assumed 100% of the construction traffic was distributed to/from the east. The traffic generated by the 25 occupied residential homes was distributed as illustrated in Figure 5 provided in Section III. The results of the intersection analysis are summarized in Table 14. As shown in Table 14, all key intersections continue to operate at an acceptable LOS D or better. Thus it is concluded that the traffic generated by the construction of the proposed West Lilac Farms Subdivision will not create any significant direct intersection impacts. (A copy of the synchro analysis worksheets for existing plus construction traffic are provided in Appendix H.)

Table 14 - Existing Plus Construction Traffic Intersection Level of Service Summary

Intersections	Crit. Mvmt.	Existing		Existing + Residential Traffic (25 Homes) + Construction Traffic											
				Alternative 1 – 100% from West						Alternative 1 – 100% from East					
		Delay sec/veh	LOS	Delay sec/veh	LOS	Δ Delay	Max Crit Mvmt	Proj. Signif?	Impact Type	Delay sec/veh	LOS	Δ Delay	Max Crit Mvmt	Proj. Signif?	Impact Type
AM PEAK HOUR															
Camino del Rey/Mission Rd (Signal)	Int.	30.6	C	35.1	D	4.5	39	No	None	34.1	C	3.5	12	No	None
West Lilac/Via Ararat (TWSC)	NB	11.0	B	11.3	B	0.3	6	No	None	11.3	B	0.3	6	No	None
	SB	11.5	B	11.7	B	0.2	0			11.7	B	0.2	0		
West Lilac/Aqueduct (OWSC)	NB	11.2	B	11.2	B	0.0	10	No	None	11.2	B	0.0	6	No	None
West Lilac/Old Hwy 395 (TWSC)	EB	14.0	B	14.2	B	0.2	12	No	None	15.6	C	1.6	12	No	None
	WB	11.6	B	11.8	B	0.2	0			12.5	B	0.9	0		
	NB	8.1	A	8.1	A	0.0	4			8.2	A	0.1	31		
	SB	7.3	A	7.3	A	0.0	2			7.3	A	0.0	7		
Old Hwy 395/I-15 SB (OWSC)	SB	10.1	B	10.1	B	0.0	0	No	None	10.1	B	0.0	12	No	None
Old Hwy 395/I-15 NB (OWSC)	NB	9.8	A	9.9	A	0.1	2	No	None	10.0	B	0.2	14	No	None
PM PEAK HOUR															
Camino del Rey/Mission Rd (Signal)	Int.	32.3	C	34.1	C	1.8	40	No	None	33.2	C	0.9	8	No	None
West Lilac/Via Ararat (TWSC)	NB	9.9	A	10.9	B	1.0	24	No	None	9.9	A	0.0	14	No	None
	SB	10.3	B	10.5	B	0.2	0			10.5	B	0.2	0		
West Lilac/Aqueduct (OWSC)	NB	9.7	A	10.3	B	0.6	17	No	None	9.7	A	0.0	11	No	None
West Lilac/Old Hwy 395 (TWSC)	EB	14.0	B	14.5	B	0.5	6	No	None	14.0	B	0.0	38	No	None
	WB	11.2	B	11.5	B	0.3	0			11.7	B	0.5	0		
	NB	7.6	A	7.6	A	0.0	11			7.6	A	0.0	11		
	SB	7.5	A	7.5	A	0.0	3			7.5	A	0.0	3		
Old Hwy 395/I-15 SB (OWSC)	SB	11.2	B	11.3	B	0.1	1	No	None	11.5	B	0.3	1	No	None
Old Hwy 395/I-15 NB (OWSC)	NB	10.9	B	11.2	B	0.3	6	No	None	11.2	B	0.3	6	No	None

Delay is measured in seconds per vehicle; Δ Delay=change in delay; LOS=level of service;
TWSC = Two Way Stop Control; OWSC = One Way Stop Control
Max Critical Movement = maximum vehicles in single critical movement
EB=Eastbound; WB=Westbound; NB=Northbound; SB=Southbound; Delay and LOS calculated using SYNCHRO
Project significance based on County thresholds

SECTION VIII - PROJECT MITIGATION

ROADWAY SEGMENTS

Direct Impacts

- The proposed project does not have any significant direct roadway segment impacts. Thus mitigation by the proposed project is not required.

Cumulative Impacts

- To mitigate the project's cumulative roadway segment impacts, the developer will pay the County of San Diego Traffic Impact Fees.

Construction Impacts

- The proposed project does not have any significant roadway segment impacts during construction. Thus mitigation by the proposed project is not required.

INTERSECTIONS

Direct Impacts

- The proposed project does not have any significant direct intersection impacts. Thus mitigation by the proposed project is not required.

Cumulative Impacts

- To mitigate the project's cumulative intersection impacts, the developer will pay the County of San Diego Traffic Impact Fees.

Construction Impacts

- The proposed project does not have any significant intersection impacts during construction. Thus mitigation by the proposed project is not required.

PROJECT FRONTAGE IMPROVEMENTS

- As part of the development of the project, the developer proposes to widen Aqueduct Road to 24 feet of pavement on 28 feet of graded width. The proposed improvements will bring the cross-section of Aqueduct Road up to the County's Private Road Standards. A copy of the proposed improvement plan for Aqueduct Road is provided in Appendix B.

- The developer also proposes to widen Via Ararat Drive to provide 22.5 feet of pavement. It should be noted that the County's Private Road Standards require 24 feet of pavement, thus even with the proposed improvements the cross-section of Via Ararat Drive will not comply with County standards. Therefore, the applicant submitted a design exception request to the County for their review and consideration, which was approved in September 2005 by the County. A copy of the proposed improvement plan for Via Ararat Drive and the approval of this design by the County and the Deer Springs Fire Protection District are provided in Appendix B.

- The developer will install a Left Turn only sign at the project's access (Street "A") exiting onto Aqueduct Road to direct the residents away from Via Urner Way.

SECTION VII - SUMMARY OF FINDINGS AND CONCLUSIONS

- The developer proposes to construct a twenty-eight (28) lot single-family estate residential subdivision south of West Lilac Road between Via Ararat Drive and Aqueduct Road in the Bonsall Community of San Diego County.

- The proposed project is estimated to generate 336 average daily trips, 27 AM peak hour trips, and 34 PM peak hour trips.

- The proposed project does not have any significant direct roadway or intersection impacts.

- To mitigate the project's cumulative impacts, the developer will pay the Traffic Impact Fees as discussed in Section VII.

- The proposed project does not have any significant roadway or intersection impacts during construction.

- As part of the development of the project, the developer proposes to widen Aqueduct Road to 24 feet of pavement on 28 feet of graded width. The proposed improvements will bring the cross-section of Aqueduct Road up to the County's Private Road Standards.

- The developer also proposes to widen Via Ararat Drive to provide 22.5 feet of pavement. It should be noted that the County's Private Road Standards require 24 feet of pavement, thus even with the proposed improvements the cross-section of Via Ararat Drive will not comply with County standards. A design exception has been submitted and approved.

- A design exception for Corner Sight Distance looking east on West Lilac Road from Via Ararat has been previously approved and the required improvements have been installed. Therefore corner sight distance at West Lilac Road and Via Ararat was found to satisfy County requirements.

APPENDIX A

- 24-Hour Segment Counts
- AM/PM Peak Hour Turn Counts
- County of San Diego Level of Service Thresholds
- Excerpts from the County's Private Road Standards
- Excerpts from the *Public Facilities Element*
- Excerpts from the County's *Guidelines for Determining Significance*

- 24-Hour Segment Counts

MetroCount Traffic Executive
Event Counts

EventCount-321 – E sh (ENU)

Datasets:

Site:	**[8067.A] CAMINO DEL REY (MISSION RD-OLD RIVER RD) NORTHBOUND**
Input A:	1 - North bound. - Added to totals. (1)
Input B:	3 - South bound. - Subtracted from totals. (-1)
Survey Duration:	20:53 Tuesday, September 02, 2008 => 19:40 Friday, September 05, 2008
File:	C:\Users\Gus\True Count\Projects\8067 DA LILAC\8067.A05Sep2008.EC0 (Regular)
Identifier:	T575QTP3 MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm:	Event Count
Data type:	Axle sensors - Split (Count)

Profile:

Filter time:	**0:00 Wednesday, September 03, 2008 => 0:00 Thursday, September 04, 2008**
Name:	TC Default Profile
Scheme:	Count events divided by two.
Units:	Non metric (ft, mi, ft/s, mph, lb, ton)
In profile:	Events = 15065 / 37271 (40.42%)

* **Wednesday, September 03, 2008=4617, 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	
15	**8**	**9**	**1**	**23**	**62**	**158**	**335**	**348**	**220**	**217**	**261**	**255**	**270**	**377**	**404**	**429**	**374**	**273**	**211**	**153**	**117**	**61**	**36**	
7	4	3	1	5	6	23	66	**144**	47	50	65	67	55	57	89	93	81	63	57	49	47	17	10	-
3	1	2	0	7	11	24	78	**91**	47	54	60	63	54	76	110	102	95	66	60	31	22	14	13	-
4	2	2	0	5	18	48	**78**	47	63	61	64	68	85	104	108	113	120	71	46	43	23	16	10	-
1	1	2	0	6	27	63	**113**	66	63	52	72	57	76	140	97	121	79	73	48	30	25	14	3	-

AM Peak 0730 - 0830 (426), AM PHF=0.74

MetroCount Traffic Executive
Event Counts

EventCount-322 -- English (ENU)

Datasets:

Site:	**[8067.A] CAMINO DEL REY (MISSION RD-OLD RIVER RD) SOUTHBOUND**
Input A:	1 - North bound. - Excluded from totals. (0)
Input B:	3 - South bound. - Added to totals. (1)
Survey Duration:	20:53 Tuesday, September 02, 2008 => 19:40 Friday, September 05, 2008
File:	C:\Users\Gus\True Count\Projects\8067 DA LILAC\8067.A05Sep2008.EC0 (Regular)
Identifier:	T575QTP3 MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm:	Event Count
Data type:	Axle sensors - Split (Count)

Profile:

Filter time:	**0:00 Wednesday, September 03, 2008 => 0:00 Thursday, September 04, 2008**
Name:	TC Default Profile
Scheme:	Count events divided by two.
Units:	Non metric (ft, mi, ft/s, mph, lb, ton)
In profile:	Events = 15065 / 37271 (40.42%)

*** Wednesday, September 03, 2008=5223, 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	
15	**6**	**6**	**7**	**48**	**137**	**384**	**672**	**437**	**218**	**245**	**256**	**284**	**311**	**402**	**357**	**317**	**314**	**252**	**207**	**155**	**106**	**55**	**32**	
3	0	1	2	3	25	59	122	**150**	65	60	65	58	70	87	81	77	89	58	54	42	27	18	6	-
2	2	3	1	8	34	91	**147**	120	46	66	61	77	92	110	86	83	78	78	61	48	27	12	11	-
6	3	1	0	19	37	112	**162**	86	56	59	60	73	79	109	94	77	73	65	46	26	27	12	7	-
4	1	1	4	18	41	122	**241**	81	51	60	70	76	70	96	94	80	74	51	46	39	25	13	8	-

AM Peak 0715 - 0815 (700), AM PHF=0.73

MetroCount Traffic Executive
Event Counts

EventCount-324 -- English (ENU)

Datasets:

Site:	**[8067.B] CAMINO DEL REY (OLD RIVER RD-LILAC RD) EASTBOUND**
Input A:	4 - West bound. - Excluded from totals. (0)
Input B:	2 - East bound. - Added to totals. (1)
Survey Duration:	21:04 Tuesday, September 02, 2008 => 19:38 Friday, September 05, 2008
File:	C:\Users\Gus\True Count\Projects\8067 DA LILAC\8067.B05Sep2008.EC0 (Regular)
Identifier:	S1079HQH MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm:	Event Count
Data type:	Axle sensors - Split (Count)

Profile:

Filter time:	**0:00 Wednesday, September 03, 2008 => 0:00 Thursday, September 04, 2008**
Name:	TC Default Profile
Scheme:	Count events divided by two.
Units:	Non metric (ft, mi, ft/s, mph, lb, ton)
In profile:	Events = 14357 / 35433 (40.52%)

*** Wednesday, September 03, 2008=4840, 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	**8**	**4**	**7**	**41**	**141**	**243**	**436**	**375**	**175**	**214**	**226**	**247**	**289**	**454**	**376**	**353**	**351**	**276**	**232**	**171**	**109**	**61**	**38**	
1	0	1	1	1	22	47	64	**170**	43	43	57	53	54	63	89	83	86	75	66	51	27	19	8	-
3	2	2	1	9	34	64	64	**86**	36	63	48	61	64	65	94	93	97	73	57	50	30	15	14	-
6	3	0	1	17	39	61	**122**	58	51	49	60	62	118	168	98	97	92	66	50	27	26	13	9	-
3	3	1	4	14	46	71	**186**	61	45	59	61	71	53	158	95	80	76	62	59	43	26	14	7	-

AM Peak 0730 - 0830 (564), AM PHF=0.76

MetroCount Traffic Executive
Event Counts

EventCount-323 -- English (ENU)

Datasets:

Site:	**[8067.B] CAMINO DEL REY (OLD RIVER RD-LILAC RD) WESTBOUND**
Input A:	4 - West bound. - Added to totals. (1)
Input B:	2 - East bound. - Subtracted from totals. (-1)
Survey Duration:	21:04 Tuesday, September 02, 2008 => 19:38 Friday, September 05, 2008
File:	C:\Users\Gus\True Count\Projects\8067 DA LILAC\8067.B05Sep2008.EC0 (Regular)
Identifier:	S1079HQH MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm:	Event Count
Data type:	Axle sensors - Split (Count)

Profile:

Filter time:	**0:00 Wednesday, September 03, 2008 => 0:00 Thursday, September 04, 2008**
Name:	TC Default Profile
Scheme:	Count events divided by two.
Units:	Non metric (ft, mi, ft/s, mph, lb, ton)
In profile:	Events = 14357 / 35433 (40.52%)

*** Wednesday, September 03, 2008=4677, 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	
15	**4**	**8**	**4**	**31**	**88**	**233**	**575**	**406**	**209**	**215**	**241**	**220**	**275**	**301**	**361**	**390**	**331**	**255**	**196**	**130**	**94**	**60**	**35**	
6	2	2	1	6	11	30	81	**163**	39	55	60	52	54	66	76	83	79	56	50	36	30	18	12	-
4	1	2	0	9	15	45	**95**	90	43	53	47	54	60	82	105	101	82	76	51	26	20	13	11	-
4	1	2	1	9	29	74	**154**	65	66	57	62	63	80	71	89	95	90	65	42	40	21	18	9	-
1	0	2	2	7	33	84	**245**	88	61	50	72	51	81	82	91	108	80	58	53	28	23	11	3	-

AM Peak 0715 - 0815 (657), AM PHF=0.67

MetroCount Traffic Executive
Event Counts

EventCount-326 -- English (ENU)

Datasets:

Site:	**[8067.C] LILAC RD (WEST OF VIA ARARAT DR) EASTBOUND**
Input A:	4 - West bound. - Excluded from totals. (0)
Input B:	2 - East bound. - Added to totals. (1)
Survey Duration:	21:26 Tuesday, September 02, 2008 => 19:41 Friday, September 05, 2008
File:	C:\Users\Gus\True Count\Projects\8067 DA LILAC\8067.C05Sep2008.EC0 (Regular)
Identifier:	S014F2C9 MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm:	Event Count
Data type:	Axle sensors - Split (Count)

Profile:

Filter time:	**0:00 Wednesday, September 03, 2008 => 0:00 Thursday, September 04, 2008**
Name:	TC Default Profile
Scheme:	Count events divided by two.
Units:	Non metric (ft, mi, ft/s, mph, lb, ton)
In profile:	Events = 3202 / 7713 (41.51%)

*** Wednesday, September 03, 2008=1080, 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**	**1**	**14**	**29**	**63**	**94**	**166**	**34**	**31**	**36**	**40**	**46**	**72**	**169**	**94**	**58**	**38**	**38**	**32**	**12**	**8**	**5**	
0	0	0	0	0	4	14	9	**113**	10	8	7	13	11	6	73	20	18	13	5	13	1	2	1	-
0	0	0	1	2	1	17	9	**32**	6	11	11	8	9	14	59	20	17	4	9	9	3	1	0	-
0	0	0	0	8	7	19	**21**	14	8	5	12	6	15	14	20	23	14	14	6	6	2	3	2	-
0	0	0	0	4	17	13	**55**	7	10	7	6	13	11	38	17	31	9	7	18	4	6	2	2	-

AM Peak 0730 - 0830 (221), AM PHF=0.49

MetroCount Traffic Executive
Event Counts

EventCount-325 -- English (ENU)

Datasets:

Site:	**[8067.C] LILAC RD (WEST OF VIA ARARAT DR) WESTBOUND**
Input A:	4 - West bound. - Added to totals. (1)
Input B:	2 - East bound. - Subtracted from totals. (-1)
Survey Duration:	21:26 Tuesday, September 02, 2008 => 19:41 Friday, September 05, 2008
File:	C:\Users\Gus\True Count\Projects\8067 DA LILAC\8067.C05Sep2008.EC0 (Regular)
Identifier:	S014F2C9 MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm:	Event Count
Data type:	Axle sensors - Split (Count)

Profile:

Filter time:	**0:00 Wednesday, September 03, 2008 => 0:00 Thursday, September 04, 2008**
Name:	TC Default Profile
Scheme:	Count events divided by two.
Units:	Non metric (ft, mi, ft/s, mph, lb, ton)
In profile:	Events = 3202 / 7713 (41.51%)

*** Wednesday, September 03, 2008=1041, 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	**2**	**0**	**0**	**2**	**12**	**39**	**188**	**106**	**30**	**26**	**34**	**42**	**54**	**109**	**102**	**103**	**66**	**54**	**31**	**19**	**9**	**7**	**5**	
0	2	0	0	0	2	0	17	**66**	5	6	10	9	12	24	27	27	18	9	12	4	2	2	1	-
0	0	0	0	1	1	9	**35**	12	6	7	9	5	14	19	26	29	20	14	6	7	2	1	2	-
1	0	0	0	1	2	13	**57**	15	11	7	6	13	11	33	30	21	13	8	6	4	3	2	1	-
0	0	0	0	0	7	17	**79**	13	8	6	9	15	17	33	19	26	15	23	7	4	2	2	1	-

AM Peak 0715 - 0815 (237), AM PHF=0.75

MetroCount Traffic Executive
Event Counts

EventCount-327 -- English (ENU)

Datasets:

Site:	**[8067.D] LILAC RD (ARARAT DR-AQUADUCT RD) EASTBOUND**
Input A:	2 - East bound. - Added to totals. (1)
Input B:	4 - West bound. - Subtracted from totals. (-1)
Survey Duration:	9:44 Wednesday, September 03, 2008 => 19:42 Friday, September 05, 2008
File:	C:\Users\Gus\True Count\Projects\8067 DA LILAC\8067.D05Sep2008.EC0 (Regular)
Identifier:	T5450FAN MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm:	Event Count
Data type:	Axle sensors - Split (Count)

Profile:

Filter time:	**0:00 Thursday, September 04, 2008 => 0:00 Friday, September 05, 2008**
Name:	TC Default Profile
Scheme:	Count events divided by two.
Units:	Non metric (ft, mi, ft/s, mph, lb, ton)
In profile:	Events = 3347 / 6982 (47.94%)

*** Thursday, September 04, 2008=909, 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**	**0**	**11**	**21**	**75**	**81**	**130**	**42**	**32**	**28**	**39**	**70**	**157**	**55**	**43**	**41**	**29**	**14**	**15**	**18**	**1**	**3**	
0	0	0	0	0	2	18	13	**93**	18	11	13	11	18	50	5	13	17	9	4	1	3	0	2	-
1	1	0	0	0	3	20	12	**22**	9	9	8	10	10	68	17	12	12	9	2	7	5	0	0	-
1	0	0	0	7	6	18	6	**9**	9	7	3	9	9	19	19	5	12	6	6	5	9	1	0	-
0	1	0	0	4	10	19	**50**	6	6	5	4	9	33	20	14	13	0	5	2	2	1	0	1	-

AM Peak 0745 - 0845 (174), AM PHF=0.47

MetroCount Traffic Executive
Event Counts

EventCount-328 -- English (ENU)

Datasets:

Site:	**[8067.D] LILAC RD (ARARAT DR-AQUADUCT RD) WESTBOUND**
Input A:	2 - East bound. - Excluded from totals. (0)
Input B:	4 - West bound. - Added to totals. (1)
Survey Duration:	9:44 Wednesday, September 03, 2008 => 19:42 Friday, September 05, 2008
File:	C:\Users\Gus\True Count\Projects\8067 DA LILAC\8067.D05Sep2008.EC0 (Regular)
Identifier:	T5450FAN MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm:	Event Count
Data type:	Axle sensors - Split (Count)

Profile:

Filter time:	**0:00 Thursday, September 04, 2008 => 0:00 Friday, September 05, 2008**
Name:	TC Default Profile
Scheme:	Count events divided by two.
Units:	Non metric (ft, mi, ft/s, mph, lb, ton)
In profile:	Events = 3347 / 6982 (47.94%)

*** Thursday, September 04, 2008=1221, 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**	**2**	**1**	**2**	**15**	**53**	**216**	**103**	**41**	**44**	**50**	**64**	**102**	**82**	**83**	**103**	**82**	**48**	**51**	**33**	**22**	**17**	**3**	
0	0	0	0	0	2	5	20	**71**	17	5	9	9	30	27	17	22	23	12	7	7	6	7	0	-
1	1	2	0	2	5	14	**43**	9	5	6	10	12	21	30	22	25	24	14	22	9	9	0	2	-
2	0	0	0	0	5	20	**75**	11	10	15	13	12	26	13	31	36	17	14	11	5	4	6	1	-
0	0	0	1	0	3	14	**78**	12	9	18	18	31	25	12	13	20	10	8	11	12	3	4	0	-

AM Peak 0715 - 0815 (267), AM PHF=0.86

MetroCount Traffic Executive
Event Counts

EventCount-330 -- English (ENU)

Datasets:

Site:	**[8067.E] LILAC RD (AQUADUCT RD-HWY-395) EASTBOUND**
Input A:	4 - West bound. - Excluded from totals. (0)
Input B:	2 - East bound. - Added to totals. (1)
Survey Duration:	10:17 Wednesday, September 03, 2008 => 19:44 Friday, September 05, 2008
File:	C:\Users\Gus\True Count\Projects\8067 DA LILAC\8067.E05Sep2008.EC0 (Regular)
Identifier:	R513P5FW MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm:	Event Count
Data type:	Axle sensors - Split (Count)

Profile:

Filter time:	**0:00 Thursday, September 04, 2008 => 0:00 Friday, September 05, 2008**
Name:	TC Default Profile
Scheme:	Count events divided by two.
Units:	Non metric (ft, mi, ft/s, mph, lb, ton)
In profile:	Events = 3404 / 7058 (48.23%)

*** Thursday, September 04, 2008=1110, 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	**2**	**1**	**3**	**10**	**14**	**73**	**108**	**153**	**59**	**39**	**46**	**50**	**84**	**169**	**72**	**62**	**65**	**35**	**22**	**17**	**21**	**1**	**3**	
0	0	0	0	0	2	16	20	**106**	22	12	18	14	21	53	11	15	26	8	4	2	4	0	2	-
1	1	1	0	0	5	17	19	**24**	12	8	13	12	16	71	18	17	17	13	5	4	6	0	0	-
0	0	0	3	6	4	18	12	**14**	15	12	3	12	13	25	25	16	19	9	9	5	10	1	0	-
0	1	0	0	4	3	20	**57**	9	10	7	12	12	34	20	18	14	3	5	4	6	1	0	1	-

AM Peak 0745 - 0845 (201), AM PHF=0.47

MetroCount Traffic Executive
Event Counts

EventCount-329 -- English (ENU)

Datasets:

Site:	**[8067.E] LILAC RD (AQUADUCT RD-HWY-395) WESTBOUND**
Input A:	4 - West bound. - Added to totals. (1)
Input B:	2 - East bound. - Subtracted from totals. (-1)
Survey Duration:	10:17 Wednesday, September 03, 2008 => 19:44 Friday, September 05, 2008
File:	C:\Users\Gus\True Count\Projects\8067 DA LILAC\8067.E05Sep2008.EC0 (Regular)
Identifier:	R513P5FW MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm:	Event Count
Data type:	Axle sensors - Split (Count)

Profile:

Filter time:	**0:00 Thursday, September 04, 2008 => 0:00 Friday, September 05, 2008**
Name:	TC Default Profile
Scheme:	Count events divided by two.
Units:	Non metric (ft, mi, ft/s, mph, lb, ton)
In profile:	Events = 3404 / 7058 (48.23%)

*** Thursday, September 04, 2008=1182, 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**	**2**	**3**	**11**	**60**	**199**	**103**	**42**	**44**	**47**	**68**	**104**	**94**	**74**	**86**	**74**	**51**	**42**	**29**	**24**	**16**	**4**	
1	0	0	0	0	0	6	24	**70**	19	8	13	11	36	33	13	26	23	13	7	7	7	9	1	-
1	1	1	1	2	3	14	**37**	9	6	9	9	15	19	35	22	26	20	13	18	10	9	0	2	-
1	0	0	0	0	5	23	**68**	12	11	12	11	12	23	14	30	21	16	16	10	4	5	4	1	-
0	0	0	1	1	3	17	**70**	12	6	15	14	30	26	12	9	13	15	9	7	8	3	3	0	-

AM Peak 0715 - 0815 (245), AM PHF=0.88

MetroCount Traffic Executive
Event Counts

EventCount-331 -- English (ENU)

Datasets:

Site:	**[8067.F] OLD HWY-395 (NORTH OF LILAC RD) NORTHBOUND**
Input A:	1 - North bound. - Added to totals. (1)
Input B:	0 - Unused or unknown. - Excluded from totals. (0)
Survey Duration:	10:35 Wednesday, September 03, 2008 => 19:45 Friday, September 05, 2008
File:	C:\Users\Gus\True Count\Projects\8067 DA LILAC\8067.F.N05Sep2008.EC0 (Regular)
Identifier:	R5098KCT MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm:	Event Count
Data type:	Axle sensors - Separate (Count)

Profile:

Filter time:	**0:00 Thursday, September 04, 2008 => 0:00 Friday, September 05, 2008**
Name:	TC Default Profile
Scheme:	Count events divided by two.
Units:	Non metric (ft, mi, ft/s, mph, lb, ton)
In profile:	Events = 2024 / 4158 (48.68%)

*** Thursday, September 04, 2008=2023, 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	**2**	**3**	**4**	**12**	**20**	**64**	**115**	**150**	**71**	**65**	**90**	**107**	**141**	**179**	**176**	**235**	**196**	**127**	**99**	**68**	**55**	**21**	**15**	
1	0	1	2	1	3	11	23	**88**	28	14	26	25	21	53	22	72	49	38	25	25	16	7	5	-
2	1	0	1	1	6	13	23	**33**	14	14	19	31	28	68	51	53	48	31	35	15	16	3	0	-
3	0	2	0	2	2	14	**24**	11	14	19	21	28	38	41	58	63	54	33	23	16	15	3	6	-
2	1	0	1	8	9	26	**45**	18	15	18	24	23	54	17	45	47	45	25	16	12	8	8	4	-

AM Peak 0730 - 0830 (190), AM PHF=0.54

MetroCount Traffic Executive
Event Counts

EventCount-332 -- English (ENU)

Datasets:

Site:	**[8067.F] OLD HWY-395 (NORTH OF LILAC RD) SOUTHBOUND**
Input A:	3 - South bound. - Added to totals. (1)
Input B:	0 - Unused or unknown. - Excluded from totals. (0)
Survey Duration:	10:37 Wednesday, September 03, 2008 => 19:47 Friday, September 05, 2008
File:	C:\Users\Gus\True Count\Projects\8067 DA LILAC\8067.F.S05Sep2008.EC0 (Regular)
Identifier:	R8319BB9 MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm:	Event Count
Data type:	Axle sensors - Separate (Count)

Profile:

Filter time:	**0:00 Thursday, September 04, 2008 => 0:00 Friday, September 05, 2008**
Name:	TC Default Profile
Scheme:	Count events divided by two.
Units:	Non metric (ft, mi, ft/s, mph, lb, ton)
In profile:	Events = 2152 / 4323 (49.78%)

*** Thursday, September 04, 2008=2151, 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	
6	**6**	**3**	**5**	**20**	**105**	**225**	**330**	**179**	**126**	**96**	**95**	**107**	**122**	**111**	**127**	**142**	**100**	**82**	**73**	**41**	**25**	**20**	**5**	
2	1	2	0	2	16	37	69	**77**	37	19	21	22	29	31	34	34	29	21	19	11	7	7	1	-
0	3	1	0	4	23	72	**63**	26	30	30	19	29	29	37	32	35	31	29	25	9	5	6	2	-
4	0	0	3	5	28	52	**99**	51	33	20	32	20	33	23	33	38	22	22	8	10	7	3	0	-
0	2	0	2	9	38	64	**99**	25	26	27	23	36	31	20	28	35	18	10	21	11	6	4	2	-

AM Peak 0715 - 0815 (338), AM PHF=0.85

MetroCount Traffic Executive
Event Counts

EventCount-333 -- English (ENU)

Datasets:

Site:	**[8067.G] OLD HWY-395 (SOUTH OF LILAC RD) NORTHBOUND**
Input A:	1 - North bound. - Added to totals. (1)
Input B:	0 - Unused or unknown. - Excluded from totals. (0)
Survey Duration:	11:40 Wednesday, September 03, 2008 => 19:48 Friday, September 05, 2008
File:	C:\Users\Gus\True Count\Projects\8067 DA LILAC\8067.G.N05Sep2008.EC0 (Demo L)
Identifier:	V239JE7M MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm:	Event Count
Data type:	Axle sensors - Separate (Count)

Profile:

Filter time:	**0:00 Thursday, September 04, 2008 => 0:00 Friday, September 05, 2008**
Name:	TC Default Profile
Scheme:	Count events divided by two.
Units:	Non metric (ft, mi, ft/s, mph, lb, ton)
In profile:	Events = 2107 / 4180 (50.41%)

*** Thursday, September 04, 2008=2106, 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	
11	1	2	4	6	16	81	84	78	77	85	99	123	142	131	203	252	214	162	126	76	68	44	21	
1	0	1	1	1	2	10	13	27	34	23	24	**26**	31	35	42	82	52	44	38	24	20	18	2	-
5	1	0	1	2	2	18	23	16	13	20	18	**29**	28	41	54	60	57	33	41	18	23	4	5	-
2	0	1	0	0	5	29	20	14	12	18	32	**37**	37	34	55	62	52	49	27	14	17	9	8	-
3	0	0	2	3	7	24	28	21	18	24	**25**	31	46	21	52	48	53	36	20	20	8	13	6	-

AM Peak 1145 - 1245 (117), AM PHF=0.79

MetroCount Traffic Executive
Event Counts

EventCount-334 -- English (ENU)

Datasets:

Site:	**[8067.G] OLD HWY-395 (SOUTH OF LILAC RD) SOUTHBOUND**
Input A:	4 - West bound. - Added to totals. (1)
Input B:	2 - East bound. - Excluded from totals. (0)
Survey Duration:	11:39 Wednesday, September 03, 2008 => 19:49 Friday, September 05, 2008
File:	C:\Users\Gus\True Count\Projects\8067 DA LILAC\8067.G.S05Sep2008.EC0 (Demo L)
Identifier:	W139N0DA MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm:	Event Count
Data type:	Axle sensors - Separate (Count)

Profile:

Filter time:	**0:00 Thursday, September 04, 2008 => 0:00 Friday, September 05, 2008**
Name:	TC Default Profile
Scheme:	Count events divided by two.
Units:	Non metric (ft, mi, ft/s, mph, lb, ton)
In profile:	Events = 2174 / 4256 (51.08%)

*** Thursday, September 04, 2008=2174, 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	5	1	11	26	119	251	272	199	140	120	106	102	111	121	134	128	108	83	51	30	27	17	7	
0	2	1	1	2	17	54	**82**	73	37	23	26	20	34	28	28	27	34	21	9	7	8	4	2	-
4	2	0	0	3	23	**76**	61	38	33	36	28	32	26	44	28	31	29	26	19	6	6	4	1	-
1	0	0	8	7	35	**61**	59	60	35	30	29	28	22	25	45	35	27	21	12	10	7	3	1	-
0	1	0	2	14	44	**60**	70	28	35	31	23	22	27	24	33	35	18	13	11	7	6	6	3	-

AM Peak 0615 - 0715 (279), AM PHF=0.85

MetroCount Traffic Executive
Event Counts

EventCount-335 -- English (ENU)

Datasets:

Site:	**[8067.H] VIA ARARAT DR (SOUTH OF LILAC RD) NORTHBOUND**
Input A:	1 - North bound. - Added to totals. (1)
Input B:	3 - South bound. - Subtracted from totals. (-1)
Survey Duration:	21:40 Tuesday, September 02, 2008 => 19:42 Friday, September 05, 2008
File:	C:\Users\Gus\True Count\Projects\8067 DA LILAC\8067.H05Sep2008.EC0 (Base)
Identifier:	V273S0NX MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm:	Event Count
Data type:	Axle sensors - Split (Count)

Profile:

Filter time:	**0:00 Wednesday, September 03, 2008 => 0:00 Thursday, September 04, 2008**
Name:	TC Default Profile
Scheme:	Count events divided by two.
Units:	Non metric (ft, mi, ft/s, mph, lb, ton)
In profile:	Events = 505 / 1132 (44.61%)

*** Wednesday, September 03, 2008=149, 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	**0**	**0**	**0**	**3**	**2**	**9**	**7**	**5**	**9**	**4**	**10**	**14**	**14**	**10**	**15**	**9**	**7**	**9**	**6**	**8**	**2**	**3**	**2**	
1	0	0	0	0	0	2	2	1	6	0	2	**9**	4	0	4	2	2	2	2	3	1	2	2	-
0	0	0	0	1	0	3	2	3	1	0	2	**3**	5	3	2	5	1	2	0	4	0	0	0	-
0	0	0	0	1	0	2	2	0	2	4	**5**	0	1	0	4	1	3	5	1	1	0	1	0	-
0	0	0	0	1	2	2	1	1	0	0	**1**	2	4	7	5	1	1	0	3	0	1	0	0	-

AM Peak 1130 - 1230 (18), AM PHF=0.50

MetroCount Traffic Executive
Event Counts

EventCount-336 -- English (ENU)

Datasets:

Site:	**[8067.H] VIA ARARAT DR (SOUTH OF LILAC RD) SOUTHBOUND**
Input A:	1 - North bound. - Excluded from totals. (0)
Input B:	3 - South bound. - Added to totals. (1)
Survey Duration:	21:40 Tuesday, September 02, 2008 => 19:42 Friday, September 05, 2008
File:	C:\Users\Gus\True Count\Projects\8067 DA LILAC\8067.H05Sep2008.EC0 (Base)
Identifier:	V273S0NX MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm:	Event Count
Data type:	Axle sensors - Split (Count)

Profile:

Filter time:	**0:00 Wednesday, September 03, 2008 => 0:00 Thursday, September 04, 2008**
Name:	TC Default Profile
Scheme:	Count events divided by two.
Units:	Non metric (ft, mi, ft/s, mph, lb, ton)
In profile:	Events = 505 / 1132 (44.61%)

*** Wednesday, September 03, 2008=177, 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**	**4**	**4**	**17**	**6**	**11**	**7**	**6**	**14**	**7**	**13**	**15**	**19**	**20**	**11**	**6**	**3**	**2**	**4**	**3**	**5**	
0	0	0	0	1	0	**6**	1	2	0	0	2	0	5	3	5	6	2	0	0	2	1	0	1	-
0	0	0	0	1	1	**2**	2	4	2	0	5	4	6	3	4	6	0	3	0	0	0	0	0	-
0	0	0	0	2	1	**5**	1	4	4	6	7	1	0	2	6	5	2	2	1	0	0	3	2	-
0	0	0	0	0	2	**4**	2	1	1	0	0	2	2	7	4	3	7	1	2	0	3	0	2	-

AM Peak 0600 - 0700 (17), AM PHF=0.71

MetroCount Traffic Executive
Event Counts

EventCount-338 -- English (ENU)

Datasets:

Site:	**[8067.I] AQUEDUCT RD (SOUTH OF LILAC RD) NORTHBOUND**
Input A:	3 - South bound. - Excluded from totals. (0)
Input B:	1 - North bound. - Added to totals. (1)
Survey Duration:	10:01 Wednesday, September 03, 2008 => 19:44 Friday, September 05, 2008
File:	C:\Users\Gus\True Count\Projects\8067 DA LILAC\8067.I05Sep2008.EC0 (Base)
Identifier:	V280CRV3 MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm:	Event Count
Data type:	Axle sensors - Split (Count)

Profile:

Filter time:	**0:00 Thursday, September 04, 2008 => 0:00 Friday, September 05, 2008**
Name:	TC Default Profile
Scheme:	Count events divided by two.
Units:	Non metric (ft, mi, ft/s, mph, lb, ton)
In profile:	Events = 364 / 822 (44.28%)

*** Thursday, September 04, 2008=130, 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**	**3**	**1**	**4**	**7**	**11**	**2**	**6**	**1**	**17**	**4**	**7**	**7**	**12**	**25**	**9**	**4**	**0**	**7**	**3**	**0**	**0**	
0	0	0	0	0	0	0	8	0	1	0	**7**	0	4	1	3	0	7	2	0	3	0	0	0	-
0	0	0	1	0	0	2	1	1	0	1	**4**	0	0	1	1	4	1	2	0	1	1	0	0	-
0	0	0	2	1	0	0	2	1	3	0	**0**	3	2	0	2	17	0	0	0	3	2	0	0	-
0	0	0	0	0	4	5	0	0	2	0	**6**	1	1	5	6	4	1	0	0	0	0	0	0	-

AM Peak 1100 - 1200 (17), AM PHF=0.61

MetroCount Traffic Executive
Event Counts

EventCount-337 -- English (ENU)

Datasets:

Site:	**[8067.I] AQUEDUCT RD (SOUTH OF LILAC RD) SOUTHBOUND**
Input A:	3 - South bound. - Added to totals. (1)
Input B:	1 - North bound. - Subtracted from totals. (-1)
Survey Duration:	10:01 Wednesday, September 03, 2008 => 19:44 Friday, September 05, 2008
File:	C:\Users\Gus\True Count\Projects\8067 DA LILAC\8067.I05Sep2008.EC0 (Base)
Identifier:	V280CRV3 MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm:	Event Count
Data type:	Axle sensors - Split (Count)

Profile:

Filter time:	**0:00 Thursday, September 04, 2008 => 0:00 Friday, September 05, 2008**
Name:	TC Default Profile
Scheme:	Count events divided by two.
Units:	Non metric (ft, mi, ft/s, mph, lb, ton)
In profile:	Events = 364 / 822 (44.28%)

*** Thursday, September 04, 2008=123, 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**	**2**	**1**	**6**	**33**	**13**	**12**	**2**	**7**	**6**	**3**	**9**	**4**	**4**	**8**	**1**	**5**	**0**	**2**	**5**	**0**	**0**	
0	0	0	0	0	1	**7**	4	1	1	3	3	1	5	1	0	0	1	0	0	0	4	0	0	-
0	0	0	0	0	0	**1**	1	1	0	1	0	2	1	1	1	4	0	0	0	1	0	0	0	-
0	0	0	2	1	2	**18**	5	7	1	1	2	0	1	2	3	4	0	0	0	1	1	0	0	-
0	0	0	0	0	3	**7**	3	3	0	2	1	0	2	0	0	0	0	5	0	0	0	0	0	-

AM Peak 0600 - 0700 (33), AM PHF=0.46

MetroCount Traffic Executive
Event Counts

EventCount-340 -- English (ENU)

Datasets:

Site:	**[8067.J] VIA URNER WY (OLD HWY-395-AQUADUCT RD) EASTBOUND**
Input A:	4 - West bound. - Excluded from totals. (0)
Input B:	2 - East bound. - Added to totals. (1)
Survey Duration:	11:18 Wednesday, September 03, 2008 => 19:47 Friday, September 05, 2008
File:	C:\Users\Gus\True Count\Projects\8067 DA LILAC\8067.J05Sep2008.EC0 (Demo L)
Identifier:	W558TFAZ MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm:	Event Count
Data type:	Axle sensors - Split (Count)

Profile:

Filter time:	**0:00 Thursday, September 04, 2008 => 0:00 Friday, September 05, 2008**
Name:	TC Default Profile
Scheme:	Count events divided by two.
Units:	Non metric (ft, mi, ft/s, mph, lb, ton)
In profile:	Events = 1431 / 2758 (51.89%)

*** Thursday, September 04, 2008=474, 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	0	1	4	12	28	38	12	25	16	21	35	39	38	63	70	30	17	8	5	6	4	1	
0	0	0	0	0	0	5	**15**	5	10	8	4	10	8	6	11	17	13	5	2	2	2	2	0	-
0	0	0	0	1	3	**6**	3	2	3	2	4	4	13	8	6	12	9	5	4	1	2	2	0	-
0	0	0	0	2	5	**8**	7	3	9	0	8	11	7	15	27	24	4	3	2	2	0	0	1	-
0	1	0	1	1	4	**9**	13	2	3	6	5	10	11	9	19	17	4	4	0	0	2	0	0	-

AM Peak 0615 - 0715 (38), AM PHF=0.63

MetroCount Traffic Executive
Event Counts

EventCount-339 -- English (ENU)

Datasets:

Site:	**[8067.J] VIA URNER WY (OLD HWY-395-AQUADUCT RD) WESTBOUND**
Input A:	4 - West bound. - Added to totals. (1)
Input B:	2 - East bound. - Subtracted from totals. (-1)
Survey Duration:	11:18 Wednesday, September 03, 2008 => 19:47 Friday, September 05, 2008
File:	C:\Users\Gus\True Count\Projects\8067 DA LILAC\8067.J05Sep2008.EC0 (Demo L)
Identifier:	W558TFAZ MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm:	Event Count
Data type:	Axle sensors - Split (Count)

Profile:

Filter time:	**0:00 Thursday, September 04, 2008 => 0:00 Friday, September 05, 2008**
Name:	TC Default Profile
Scheme:	Count events divided by two.
Units:	Non metric (ft, mi, ft/s, mph, lb, ton)
In profile:	Events = 1431 / 2758 (51.89%)

*** Thursday, September 04, 2008=482, 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	2	0	0	4	24	59	39	31	25	19	34	22	26	34	49	33	20	16	14	16	6	5	3	
0	1	0	0	0	1	**10**	13	12	6	7	3	4	3	6	8	12	5	1	6	6	2	0	1	-
0	0	0	0	0	3	**23**	5	6	4	5	11	4	4	12	10	11	4	8	2	1	0	0	1	-
0	0	0	0	0	3	**13**	12	8	10	4	8	10	8	7	18	6	8	4	4	4	2	3	0	-
1	1	0	0	4	**17**	13	9	5	5	3	12	4	11	9	13	4	3	3	2	5	2	2	1	-

AM Peak 0545 - 0645 (63), AM PHF=0.68

- AM/PM Peak Hour Turn Counts

True Count

3401 First Ave #123
San Diego, CA 92103

File Name : 8067.06.OLD HWY 395.I-15 NB RAMPS
Site Code : 00000000
Start Date : 9/4/2008
Page No : 1

Groups Printed- Vehicles

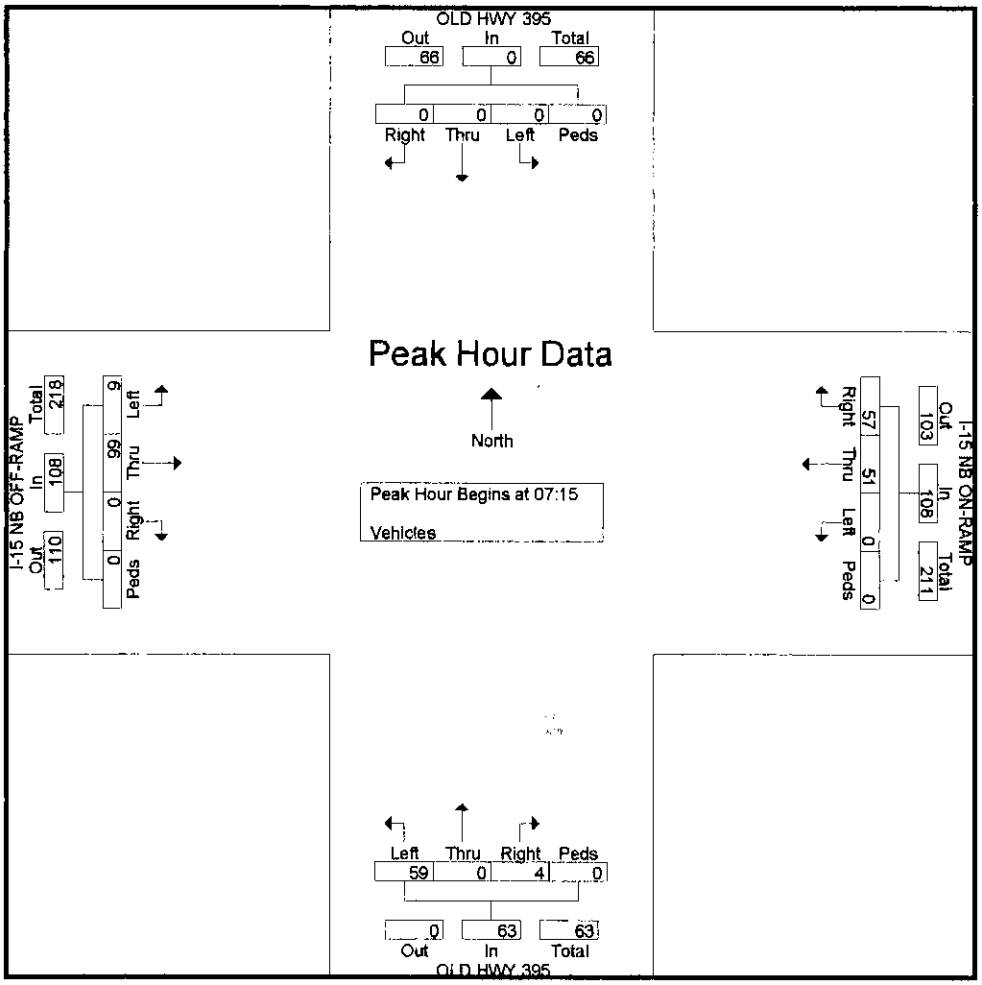
	OLD HWY 395 Southbound				I-15 NB ON-RAMP Westbound				OLD HWY 395 Northbound				I-15 NB OFF-RAMP Eastbound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
07:00	0	0	0	0	0	10	10	0	9	0	0	0	2	25	0	0	56
07:15	0	0	0	0	0	8	9	0	12	0	0	0	1	24	0	0	54
07:30	0	0	0	0	0	14	13	0	14	0	0	0	1	27	0	0	69
07:45	0	0	0	0	0	11	18	0	17	0	1	0	4	26	0	0	77
Total	0	0	0	0	0	43	50	0	52	0	1	0	8	102	0	0	256
08:00	0	0	0	0	0	18	17	0	16	0	3	0	3	22	0	0	79
08:15	0	0	0	0	0	6	13	0	6	0	1	0	0	17	0	0	43
08:30	0	0	0	0	0	4	13	0	14	0	3	0	1	19	0	0	54
08:45	0	0	0	0	0	7	8	0	16	0	1	0	0	21	0	0	53
Total	0	0	0	0	0	35	51	0	52	0	8	0	4	79	0	0	229
*** BREAK ***																	
14:00	0	0	0	0	0	11	11	0	23	0	1	0	5	22	0	0	73
14:15	0	0	0	0	0	12	15	0	34	0	3	0	1	15	0	0	80
14:30	0	0	0	0	0	10	13	0	17	0	0	0	1	16	0	0	57
14:45	0	0	0	0	0	14	6	0	12	0	1	0	0	20	0	0	53
Total	0	0	0	0	0	47	45	0	86	0	5	0	7	73	0	0	263
15:00	0	0	0	0	0	15	11	0	21	0	1	0	1	20	0	0	69
15:15	0	0	0	0	0	12	14	0	51	0	6	0	1	17	0	0	101
15:30	0	0	0	0	0	18	18	0	33	0	2	0	5	21	0	0	97
15:45	0	0	0	0	0	11	19	0	44	0	1	0	2	26	0	0	103
Total	0	0	0	0	0	56	62	0	149	0	10	0	9	84	0	0	370
16:00	0	0	0	0	0	19	24	0	48	0	1	0	1	32	0	0	125
16:15	0	0	0	0	0	15	23	0	39	0	1	0	1	23	0	0	102
16:30	0	0	0	0	0	17	16	0	34	0	3	0	1	24	0	0	95
16:45	0	0	0	0	0	14	15	0	36	0	4	0	2	22	0	0	93
Total	0	0	0	0	0	65	78	0	157	0	9	0	5	101	0	0	415
17:00	0	0	0	0	0	17	13	0	23	0	3	0	1	24	0	0	81
17:15	0	0	0	0	0	19	24	0	37	0	3	0	2	22	0	0	107
17:30	0	0	0	0	0	16	13	0	33	0	4	0	0	19	0	0	85
17:45	0	0	0	0	0	9	8	0	43	0	3	0	0	16	0	0	79
Total	0	0	0	0	0	61	58	0	136	0	13	0	3	81	0	0	352
Grand Total	0	0	0	0	0	307	344	0	632	0	46	0	36	520	0	0	1885
Apprch %	0	0	0	0	0	47.2	52.8	0	93.2	0	6.8	0	6.5	93.5	0	0	
Total %	0	0	0	0	0	16.3	18.2	0	33.5	0	2.4	0	1.9	27.6	0	0	

True Count

3401 First Ave #123
San Diego, CA 92103

File Name : 8067.06.OLD HWY 395.I-15 NB RAMPS
Site Code : 00000000
Start Date : 9/4/2008
Page No : 2

	OLD HWY 395 Southbound					I-15 NB ON-RAMP Westbound					OLD HWY 395 Northbound					I-15 NB OFF-RAMP Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 7:00:00 AM to 11:45:00 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 7:15:00 AM																					
7:15:00 AM	0	0	0	0	0	0	8	9	0	17	12	0	0	0	12	1	24	0	0	25	54
7:30:00 AM	0	0	0	0	0	0	14	13	0	27	14	0	0	0	14	1	**27**	0	0	28	69
7:45:00 AM	0	0	0	0	0	0	11	**18**	0	29	**17**	0	1	0	18	**4**	26	0	0	**30**	77
8:00:00 AM	0	0	0	0	0	0	**18**	17	0	**35**	16	0	**3**	0	**19**	3	22	0	0	25	**79**
Total Volume	0	0	0	0	0	0	51	57	0	108	59	0	4	0	63	9	99	0	0	108	279
% App. Total	0	0	0	0		0	47.2	52.8	0		93.7	0	6.3	0		8.3	91.7	0	0		
PHF	.000	.000	.000	.000	.000	.000	.708	.792	.000	.771	.868	.000	.333	.000	.829	.563	.917	.000	.000	.900	.883

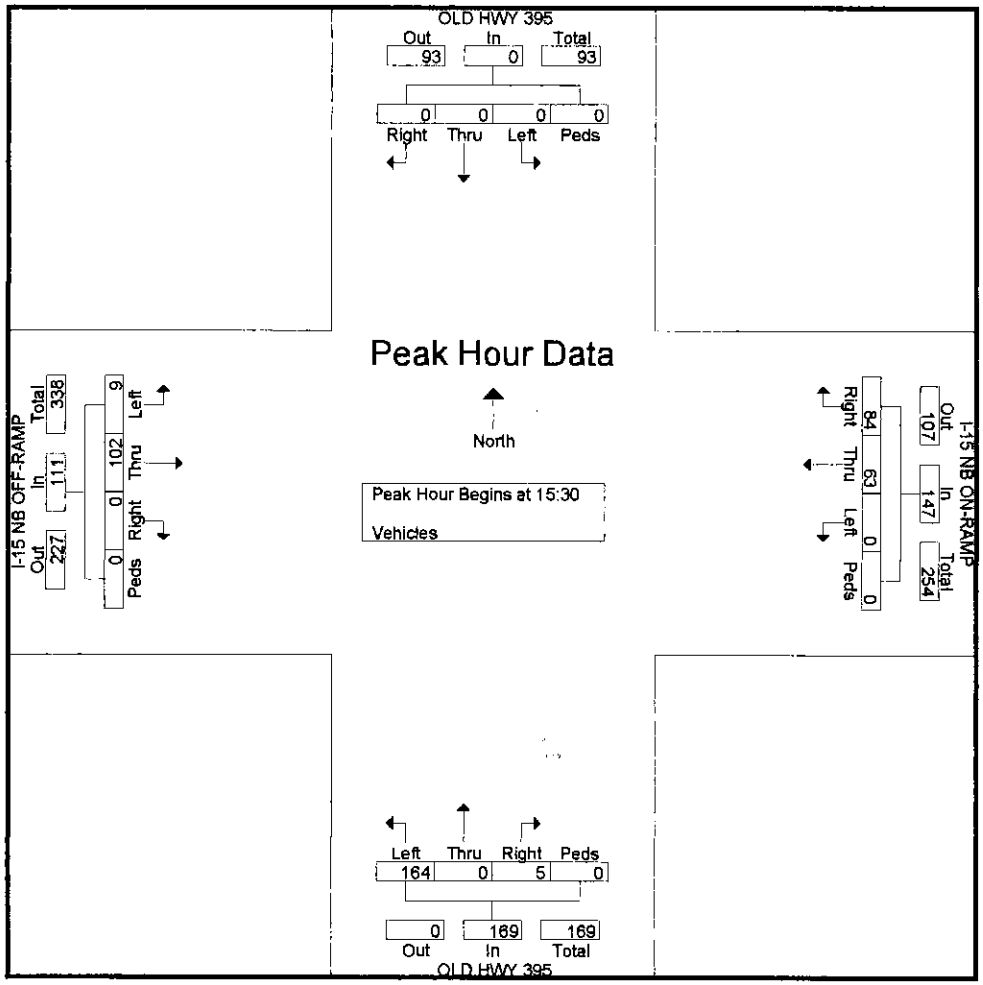


True Count

3401 First Ave #123
San Diego, CA 92103

File Name : 8067.06.OLD HWY 395.I-15 NB RAMPS
Site Code : 00000000
Start Date : 9/4/2008
Page No : 3

	OLD HWY 396 Southbound					I-15 NB ON-RAMP Westbound					OLD HWY 395 Northbound					I-15 NB OFF-RAMP Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00:00 PM to 6:45:00 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 3:30:00 PM																					
3:30:00 PM	0	0	0	0	0	0	18	18	0	36	33	0	**2**	0	35	**5**	21	0	0	26	97
3:45:00 PM	0	0	0	0	0	0	11	19	0	30	**44**	0	1	0	45	2	26	0	0	28	103
4:00:00 PM	0	0	0	0	0	0	**19**	**24**	0	**43**	**48**	0	1	0	**49**	1	**32**	0	0	**33**	**125**
4:15:00 PM	0	0	0	0	0	0	15	23	0	38	39	0	1	0	40	1	23	0	0	24	102
Total Volume	0	0	0	0	0	0	63	84	0	147	164	0	5	0	169	9	102	0	0	111	427
% App. Total	0	0	0	0		0	42.9	57.1	0		97	0	3	0		8.1	91.9	0	0		
PHF	.000	.000	.000	.000	.000	.000	.829	.875	.000	.855	.854	.000	.625	.000	.862	.450	.797	.000	.000	.841	.854



True Count

3401 First Ave #123
San Diego, CA 92103

File Name : 8067.05.OLD HWY 395.I-15 SB RAMPS
Site Code : 00000000
Start Date : 9/4/2008
Page No : 1

Groups Printed- Vehicles

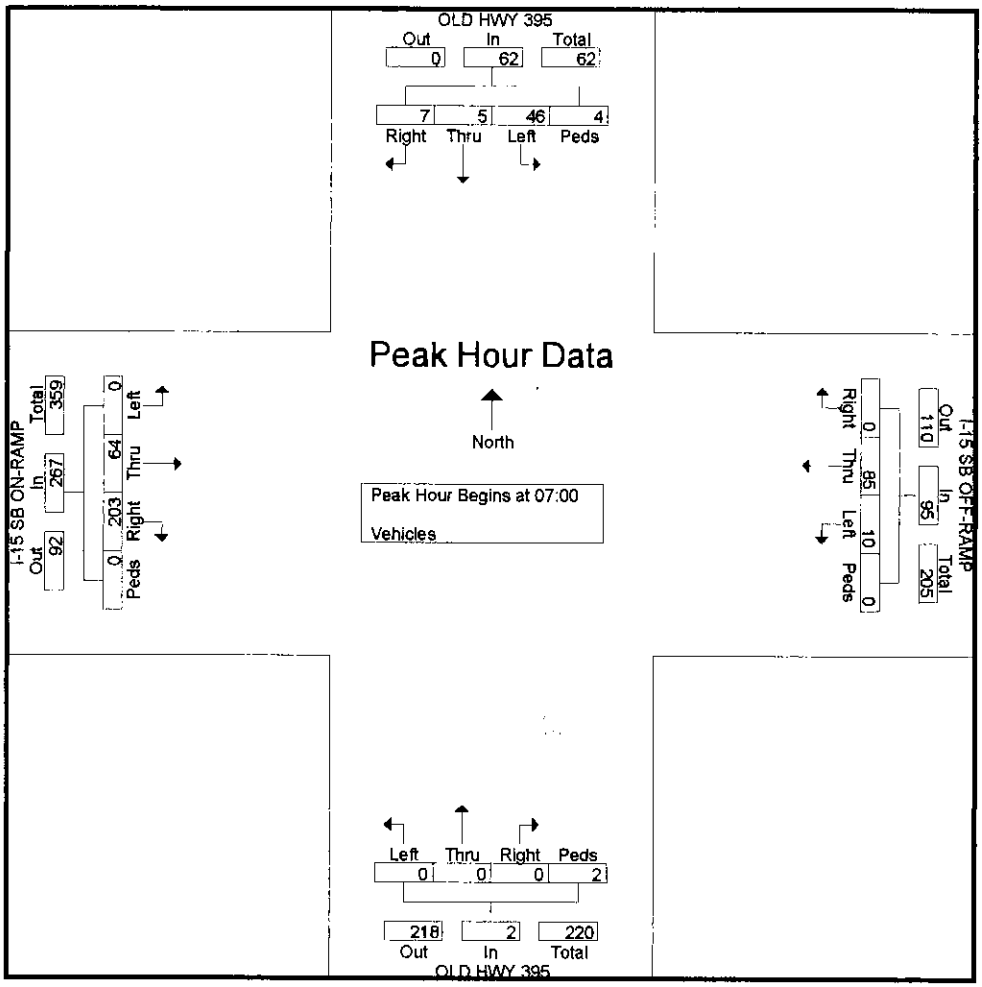
	OLD HWY 395 Southbound				I-15 SB OFF-RAMP Westbound				OLD HWY 395 Northbound				I-15 SB ON-RAMP Eastbound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
07:00	14	0	2	0	4	14	0	0	0	0	0	0	0	17	64	0	115
07:15	8	1	2	2	0	20	0	0	0	0	0	0	0	16	41	0	90
07:30	10	3	1	1	3	25	0	0	0	0	0	2	0	15	45	0	105
07:45	14	1	2	1	3	26	0	0	0	0	0	0	0	16	53	0	116
Total	46	5	7	4	10	85	0	0	0	0	0	2	0	64	203	0	426
08:00	7	3	1	0	2	28	0	0	0	0	0	0	0	17	51	0	109
08:15	7	2	3	0	2	14	0	0	0	0	0	0	0	12	24	0	64
08:30	7	1	1	0	0	18	0	0	0	0	0	0	0	15	41	0	83
08:45	6	2	1	0	1	22	0	0	0	0	0	0	0	12	17	0	61
Total	27	8	6	0	5	82	0	0	0	0	0	0	0	56	133	0	317
*** BREAK ***																	
14:00	8	0	2	0	0	30	0	0	0	0	0	0	0	15	20	0	75
14:15	6	2	1	0	1	45	0	0	0	0	0	0	0	10	30	0	95
14:30	10	0	2	0	2	30	0	0	0	0	0	0	0	9	25	0	78
14:45	14	0	0	0	1	24	0	0	0	0	0	0	0	8	18	0	65
Total	38	2	5	0	4	129	0	0	0	0	0	0	0	42	93	0	313
15:00	4	0	5	0	1	35	0	0	0	0	0	0	0	15	21	0	81
15:15	6	0	1	0	1	61	0	0	0	0	0	0	0	12	23	0	104
15:30	13	1	3	0	0	50	0	0	0	0	0	0	0	14	48	0	129
15:45	15	0	0	0	1	56	0	0	0	0	0	0	0	14	23	0	109
Total	38	1	9	0	3	202	0	0	0	0	0	0	0	55	115	0	423
16:00	20	1	4	0	1	63	0	0	0	0	0	0	0	16	35	1	141
16:15	12	1	2	0	1	59	0	0	0	0	0	0	0	11	22	0	108
16:30	12	0	0	0	2	46	0	0	0	0	0	0	0	11	31	0	102
16:45	9	0	2	0	1	49	0	0	0	0	0	1	0	15	25	0	102
Total	53	2	8	0	5	217	0	0	0	0	0	1	0	53	113	1	453
17:00	12	0	3	0	1	37	0	0	0	0	0	0	0	16	33	0	102
17:15	11	2	0	0	0	60	0	0	0	0	0	1	0	10	23	0	107
17:30	10	1	3	1	0	50	0	0	0	0	0	0	0	13	14	0	92
17:45	7	0	1	0	1	48	0	0	0	0	0	1	0	5	11	0	74
Total	40	3	7	1	2	195	0	0	0	0	0	2	0	44	81	0	375
Grand Total	242	21	42	5	29	910	0	0	0	0	0	5	0	314	738	1	2307
Apprch %	78.1	6.8	13.5	1.6	3.1	96.9	0	0	0	0	0	100	0	29.8	70.1	0.1	
Total %	10.5	0.9	1.8	0.2	1.3	39.4	0	0	0	0	0	0.2	0	13.6	32	0	

True Count

3401 First Ave #123
San Diego, CA 92103

File Name : 8067.05.OLD HWY 395.I-15 SB RAMPS
Site Code : 00000000
Start Date : 9/4/2008
Page No : 2

	OLD HWY 395 Southbound					I-15 SB OFF-RAMP Westbound					OLD HWY 395 Northbound					I-15 SB ON-RAMP Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 7:00:00 AM to 11:45:00 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 7:00:00 AM																					
7:00:00 AM	**14**	0	**2**	0	16	**4**	14	0	0	18	0	0	0	0	0	0	**17**	**64**	0	**81**	115
7:15:00 AM	8	1	2	**2**	13	0	20	0	0	20	0	0	0	0	0	0	16	41	0	57	90
7:30:00 AM	10	**3**	1	1	15	3	25	0	0	28	0	0	0	**2**	**2**	0	15	45	0	60	105
7:45:00 AM	14	1	2	1	**18**	3	**26**	0	0	**29**	0	0	0	0	0	0	16	53	0	69	**116**
Total Volume	46	5	7	4	62	10	85	0	0	95	0	0	0	2	2	0	64	203	0	267	426
% App. Total	74.2	8.1	11.3	6.5		10.5	89.5	0	0		0	0	0	100		0	24	76	0		
PHF	.821	.417	.875	.500	.861	.625	.817	.000	.000	.819	.000	.000	.000	.250	.250	.000	.941	.793	.000	.824	.918

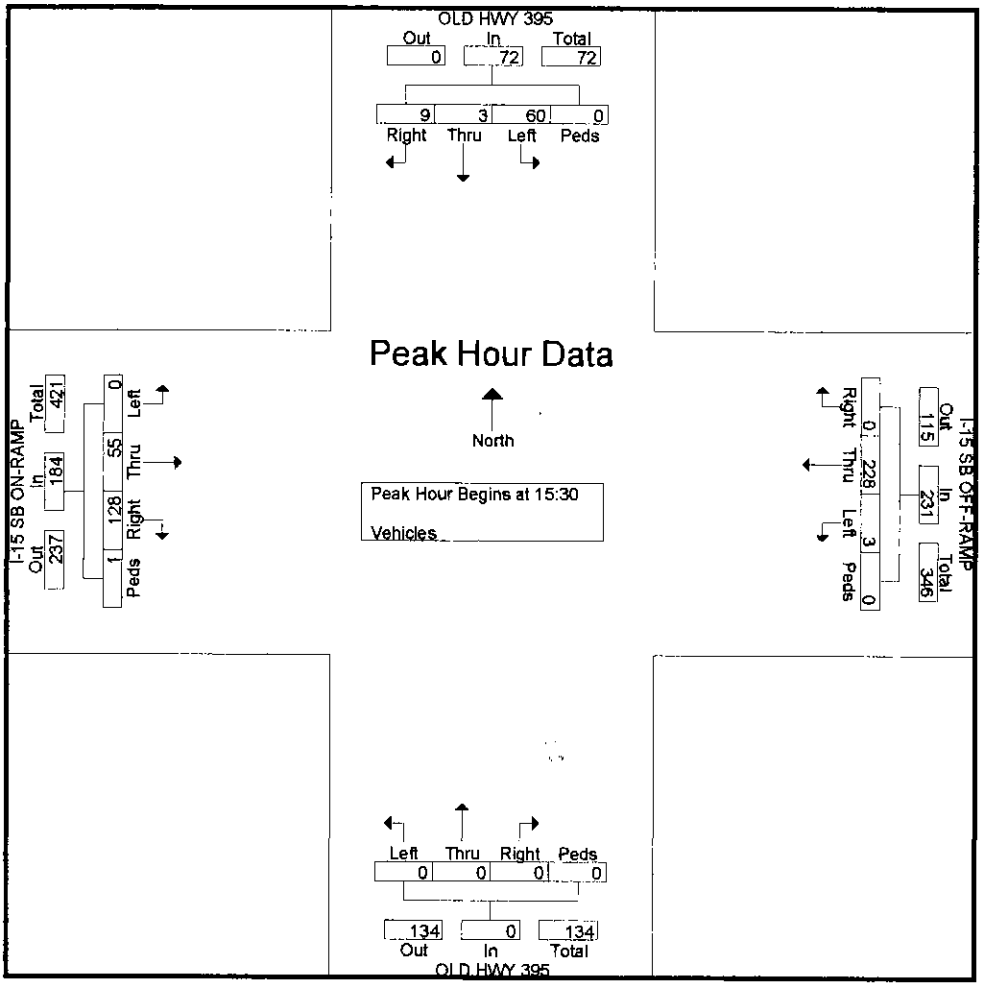


True Count

3401 First Ave #123
San Diego, CA 92103

File Name : 8067.05.OLD HWY 395.I-15 SB RAMPS
Site Code : 00000000
Start Date : 9/4/2008
Page No : 3

	OLD HWY 395 Southbound					I-15 SB OFF-RAMP Westbound					OLD HWY 395 Northbound					I-15 SB ON-RAMP Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00:00 PM to 5:45:00 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 3:30:00 PM																					
3:30:00 PM	13	1	3	0	17	0	50	0	0	50	0	0	0	0	0	0	14	48	0	62	129
3:45:00 PM	15	0	0	0	15	1	56	0	0	57	0	0	0	0	0	0	14	23	0	37	109
4:00:00 PM	20	1	4	0	25	1	63	0	0	64	0	0	0	0	0	0	16	35	1	52	141
4:15:00 PM	12	1	2	0	15	1	59	0	0	60	0	0	0	0	0	0	11	22	0	33	108
Total Volume	60	3	9	0	72	3	228	0	0	231	0	0	0	0	0	0	55	128	1	184	487
% App. Total	83.3	4.2	12.5	0		1.3	98.7	0	0		0	0	0	0		0	29.9	69.6	0.5		
PHF	.750	.750	.563	.000	.720	.750	.905	.000	.000	.902	.000	.000	.000	.000	.000	.000	.859	.667	.250	.742	.863



True Count

3401 First Ave #123
San Diego, CA 92103

File Name : 8067.04.OLD HWY 395.W LILAC RD
Site Code : 00000000
Start Date : 9/3/2008
Page No : 1

Groups Printed- Vehicles

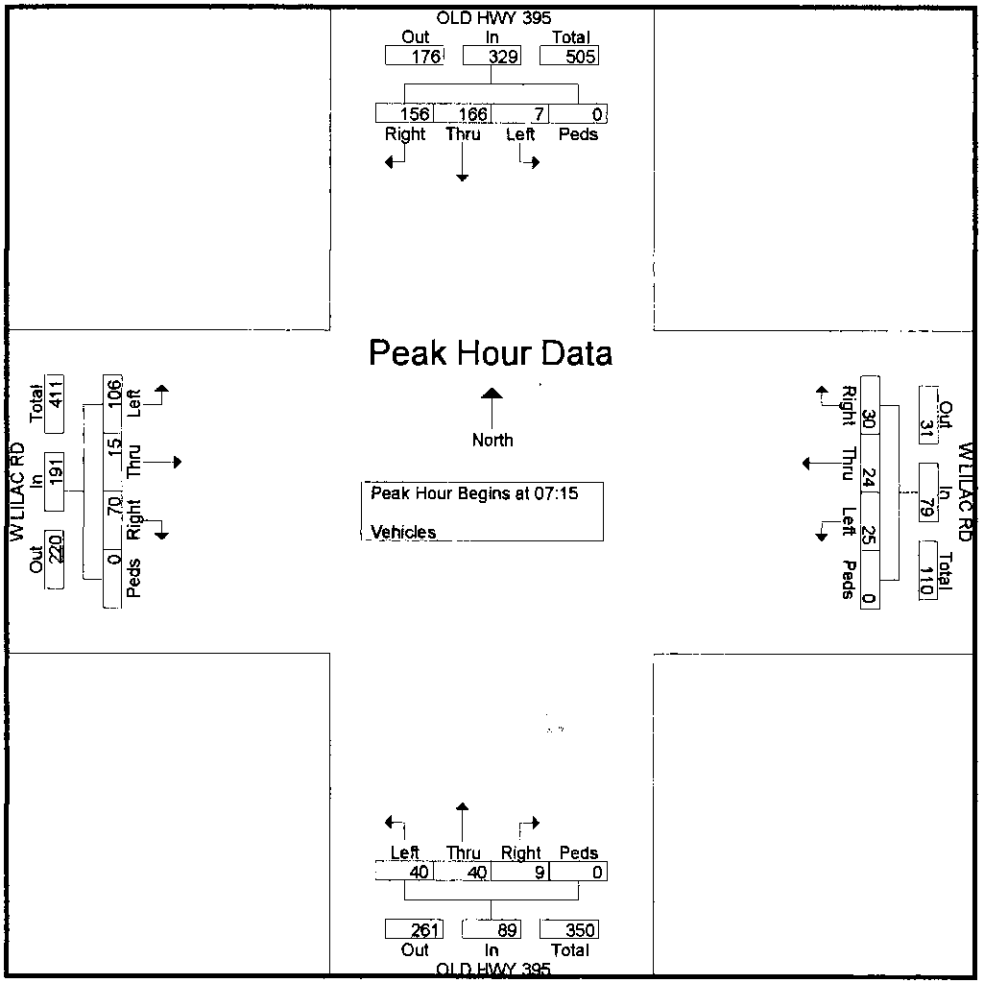
	OLD HWY 395 Southbound				W LILAC RD Westbound				OLD HWY 395 Northbound				W LILAC RD Eastbound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
07:00	2	42	9	0	7	4	5	0	4	5	1	0	3	2	10	0	94
07:15	2	36	26	0	8	5	7	0	9	16	4	0	4	2	10	0	129
07:30	3	42	50	0	7	10	11	0	2	9	2	0	10	2	10	0	158
07:45	1	46	47	0	5	8	6	0	14	6	3	0	35	2	13	0	186
Total	8	166	132	0	27	27	29	0	29	36	10	0	52	8	43	0	567
08:00	1	42	33	0	5	1	6	0	15	9	0	0	57	9	37	0	215
08:15	2	34	8	0	3	0	6	0	7	11	6	0	12	1	19	0	109
08:30	3	26	2	0	7	2	5	0	7	14	2	0	12	0	7	0	87
08:45	2	28	2	0	5	4	6	0	5	9	4	0	3	0	7	0	75
Total	8	130	45	0	20	7	23	0	34	43	12	0	84	10	70	0	486
*** BREAK ***																	
14:00	0	20	12	0	5	2	4	0	12	21	3	0	3	2	4	0	88
14:15	6	23	12	0	8	2	5	0	11	22	4	0	1	5	5	0	104
14:30	0	22	23	0	2	2	3	0	11	26	7	0	10	3	3	0	112
14:45	1	12	12	0	3	1	3	0	15	25	3	0	25	6	9	0	115
Total	7	77	59	0	18	7	15	0	49	94	17	0	39	16	21	0	419
15:00	3	27	11	0	7	8	5	0	11	20	3	0	55	3	16	0	169
15:15	6	14	8	0	4	4	5	0	15	24	5	0	30	6	14	0	135
15:30	5	22	4	0	3	3	10	0	17	31	4	0	12	3	5	0	119
15:45	8	18	4	0	2	1	4	0	15	29	8	0	6	4	11	0	110
Total	22	81	27	0	16	16	24	0	58	104	20	0	103	16	46	0	533
16:00	4	14	6	0	3	2	4	0	27	40	5	0	14	2	13	0	134
16:15	7	21	9	0	10	2	5	0	14	26	4	0	6	3	8	0	115
16:30	3	21	6	0	4	3	6	0	14	34	5	0	9	4	10	0	119
16:45	7	10	5	0	9	1	4	0	13	32	6	0	23	6	9	0	125
Total	21	66	26	0	26	8	19	0	68	132	20	0	52	15	40	0	493
17:00	7	12	6	0	7	0	5	0	11	34	7	0	11	7	11	0	118
17:15	6	8	5	0	6	1	6	0	15	28	4	0	7	4	8	0	98
17:30	4	9	2	0	6	2	3	0	14	22	6	0	4	6	9	0	87
17:45	4	7	3	0	4	1	4	0	12	19	3	0	5	3	7	0	72
Total	21	36	16	0	23	4	18	0	52	103	20	0	27	20	35	0	375
Grand Total	87	556	305	0	130	69	128	0	290	512	99	0	357	85	255	0	2873
Apprch %	9.2	58.6	32.2	0	39.8	21.1	39.1	0	32.2	56.8	11	0	51.2	12.2	36.6	0	
Total %	3	19.4	10.6	0	4.5	2.4	4.5	0	10.1	17.8	3.4	0	12.4	3	8.9	0	

True Count

3401 First Ave #123
San Diego, CA 92103

File Name : 8067.04.OLD HWY 395.W LILAC RD
Site Code : 00000000
Start Date : 9/3/2008
Page No : 2

	OLD HWY 395 Southbound					W LILAC RD Westbound					OLD HWY 395 Northbound					W LILAC RD Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 11:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15																					
07:15	2	36	26	0	64	**8**	5	7	0	20	9	**16**	4	0	**29**	4	2	10	0	16	129
07:30	**3**	42	**50**	0	**95**	7	**10**	**11**	0	**28**	2	9	2	0	13	10	2	10	0	22	158
07:45	1	**46**	47	0	94	5	8	6	0	19	14	6	3	0	23	35	2	13	0	50	186
08:00	1	42	33	0	76	5	1	6	0	12	**15**	9	0	0	24	**57**	**9**	**37**	0	**103**	**215**
Total Volume	7	166	156	0	329	25	24	30	0	79	40	40	9	0	89	106	15	70	0	191	688
% App. Total	2.1	50.5	47.4	0		31.6	30.4	38	0		44.9	44.9	10.1	0		55.5	7.9	36.6	0		
PHF	.583	.902	.780	.000	.866	.781	.600	.682	.000	.705	.667	.625	.563	.000	.767	.465	.417	.473	.000	.464	.800

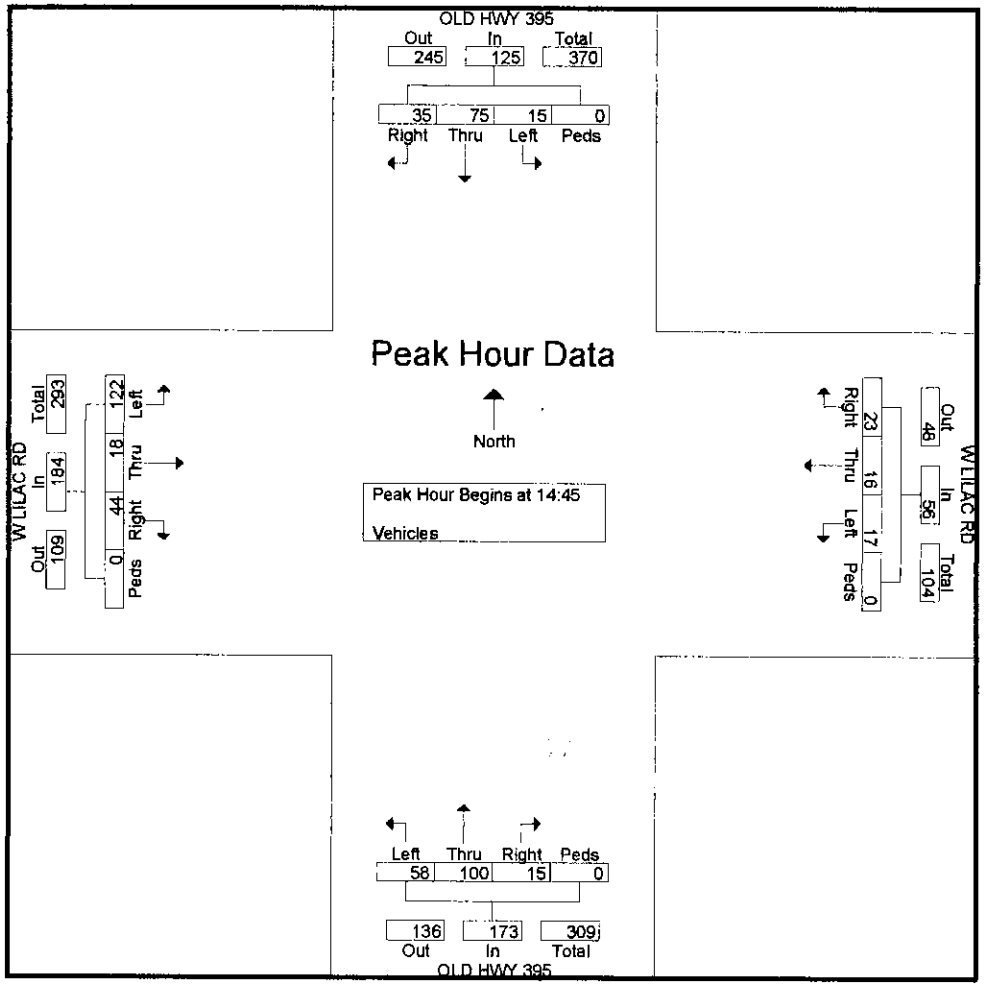


True Count

3401 First Ave #123
San Diego, CA 92103

File Name : 8067.04.OLD HWY 395.W LILAC RD
Site Code : 00000000
Start Date : 9/3/2008
Page No : 3

	OLD HWY 395 Southbound					W LILAC RD Westbound					OLD HWY 395 Northbound					W LILAC RD Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 14:45																					
14:45	1	12	12	0	25	3	1	3	0	7	15	25	3	0	43	25	6	9	0	40	115
15:00	3	27	11	0	41	7	8	5	0	20	11	20	3	0	34	55	3	16	0	74	169
15:15	6	14	8	0	28	4	4	5	0	13	15	24	5	0	44	30	6	14	0	50	135
15:30	5	22	4	0	31	3	3	10	0	16	17	31	4	0	52	12	3	5	0	20	119
Total Volume	15	75	35	0	125	17	16	23	0	56	58	100	15	0	173	122	18	44	0	184	538
% App. Total	12	60	28	0		30.4	28.6	41.1	0		33.5	57.8	8.7	0		66.3	9.8	23.9	0		
PHF	.625	.694	.729	.000	.762	.607	.500	.575	.000	.700	.853	.806	.750	.000	.832	.555	.750	.688	.000	.622	.796



True Count

3401 First Ave #123
San Diego, CA 92103

File Name : 8067.03.AQUADUCT RD.W LILAC RD
Site Code : 00000000
Start Date : 9/3/2008
Page No : 1

Groups Printed- Vehicles

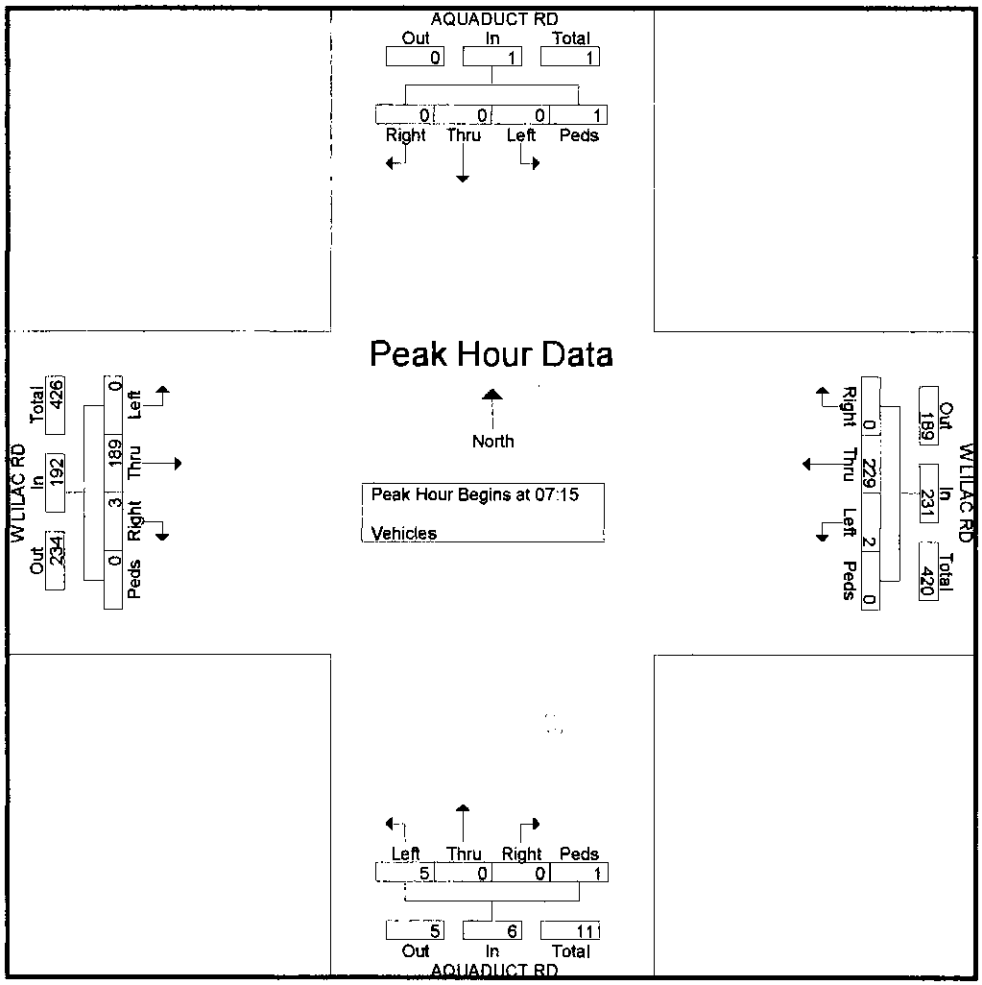
	AQUADUCT RD Southbound				W LILAC RD Westbound				AQUADUCT RD Northbound				W LILAC RD Eastbound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
07:00	0	0	0	0	0	14	0	0	2	0	0	0	0	16	0	0	32
07:15	0	0	0	0	1	45	0	0	1	0	0	0	0	14	0	0	61
07:30	0	0	0	1	0	60	0	0	2	0	0	1	0	19	0	0	83
07:45	0	0	0	0	0	68	0	0	1	0	0	0	0	55	3	0	127
Total	0	0	0	1	1	187	0	0	6	0	0	1	0	104	3	0	303
08:00	0	0	0	0	1	56	0	0	1	0	0	0	0	101	0	0	159
08:15	0	0	0	0	1	13	0	0	0	0	1	0	0	33	0	0	48
08:30	0	0	0	0	1	9	0	0	0	0	0	0	0	16	0	0	26
08:45	0	0	0	0	0	9	0	0	0	0	0	0	0	6	1	0	16
Total	0	0	0	0	3	87	0	0	1	0	1	0	0	156	1	0	249
*** BREAK ***																	
14:00	0	0	0	0	2	23	0	0	0	0	0	0	0	8	1	0	34
14:15	0	0	0	0	1	21	0	0	0	0	1	0	0	11	1	0	35
14:30	0	0	0	0	1	36	0	0	1	0	3	0	0	15	0	0	56
14:45	0	0	0	1	1	31	0	0	0	0	2	0	0	37	0	0	72
Total	0	0	0	1	5	111	0	0	1	0	6	0	0	71	2	0	197
15:00	0	0	0	3	1	26	0	0	3	0	1	0	0	78	1	0	113
15:15	0	0	0	0	1	23	0	0	0	0	1	2	0	44	0	0	71
15:30	0	0	0	0	0	22	0	0	2	0	1	0	0	19	0	0	44
15:45	0	0	0	0	1	18	0	0	0	0	0	0	0	19	1	0	39
Total	0	0	0	3	3	89	0	0	5	0	3	2	0	160	2	0	267
16:00	0	0	0	0	1	31	0	0	0	0	3	0	0	22	0	0	57
16:15	0	0	0	0	1	20	0	0	1	0	2	0	0	19	2	0	45
16:30	0	0	0	0	1	23	0	0	8	0	1	0	0	24	1	0	58
16:45	0	0	0	0	1	19	0	0	5	0	2	0	0	32	0	0	59
Total	0	0	0	0	4	93	0	0	14	0	8	0	0	97	3	0	219
17:00	0	0	0	0	0	17	0	0	4	0	1	0	0	28	2	0	52
17:15	0	0	0	0	1	18	0	0	5	0	2	0	0	19	0	0	45
17:30	0	0	0	0	2	15	0	0	2	0	1	0	0	17	1	0	38
17:45	0	0	0	0	0	13	0	0	2	0	0	0	0	14	0	0	29
Total	0	0	0	0	3	63	0	0	13	0	4	0	0	78	3	0	164
Grand Total	0	0	0	5	19	630	0	0	40	0	22	3	0	666	14	0	1399
Apprch %	0	0	0	100	2.9	97.1	0	0	61.5	0	33.8	4.6	0	97.9	2.1	0	
Total %	0	0	0	0.4	1.4	45	0	0	2.9	0	1.6	0.2	0	47.6	1	0	

True Count

3401 First Ave #123
San Diego, CA 92103

File Name : 8067.03.AQUADUCT RD.W LILAC RD
Site Code : 00000000
Start Date : 9/3/2008
Page No : 2

	AQUADUCT RD Southbound					W LILAC RD Westbound					AQUADUCT RD Northbound					W LILAC RD Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 11:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15																					
07:15	0	0	0	0	0	**1**	45	0	0	46	1	0	0	0	1	0	14	0	0	14	61
07:30	0	0	0	**1**	**1**	0	60	0	0	60	**2**	0	0	1	**3**	0	19	0	0	19	83
07:45	0	0	0	0	0	0	**68**	0	0	**68**	1	0	0	0	1	0	55	**3**	0	58	127
08:00	0	0	0	0	0	1	56	0	0	57	1	0	0	0	1	0	**101**	0	0	**101**	**159**
Total Volume	0	0	0	1	1	2	229	0	0	231	5	0	0	1	6	0	189	3	0	192	430
% App. Total	0	0	0	100		0.9	99.1	0	0		83.3	0	0	16.7		0	98.4	1.6	0		
PHF	.000	.000	.000	.250	.250	.500	.842	.000	.000	.849	.625	.000	.000	.250	.500	.000	.468	.250	.000	.475	.676

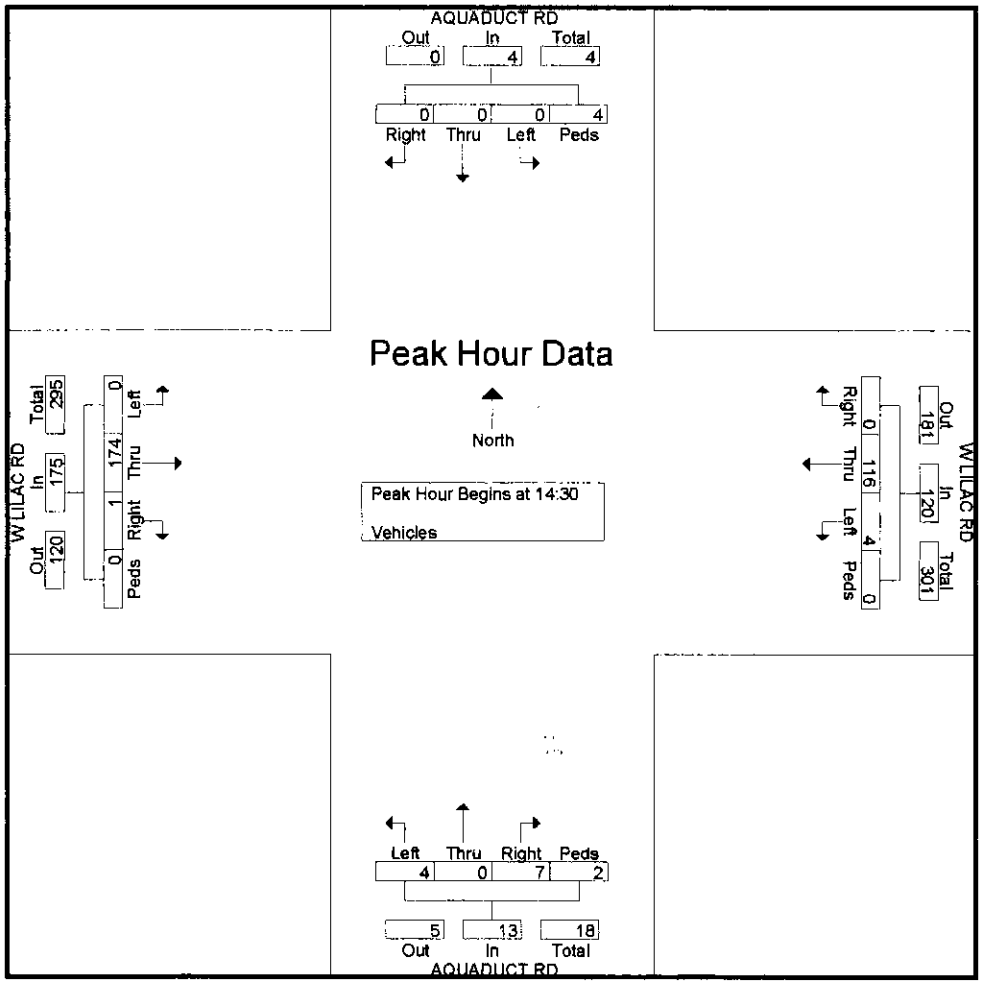


True Count

3401 First Ave #123
San Diego, CA 92103

File Name : 8067.03.AQUADUCT RD.W LILAC RD
Site Code : 00000000
Start Date : 9/3/2008
Page No : 3

	AQUADUCT RD Southbound					W LILAC RD Westbound					AQUADUCT RD Northbound					W LILAC RD Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 14:30																					
14:30	0	0	0	0	0	**1**	**36**	0	0	**37**	1	0	**3**	0	**4**	0	15	0	0	15	56
14:45	0	0	0	1	1	1	31	0	0	32	0	0	2	0	2	0	37	0	0	37	72
15:00	0	0	0	**3**	**3**	1	26	0	0	27	**3**	0	1	0	4	0	**78**	**1**	0	**79**	**113**
15:15	0	0	0	0	0	1	23	0	0	24	0	0	1	**2**	3	0	44	0	0	44	71
Total Volume	0	0	0	4	4	4	116	0	0	120	4	0	7	2	13	0	174	1	0	175	312
% App. Total	0	0	0	100		3.3	96.7	0	0		30.8	0	53.8	15.4		0	99.4	0.6	0		
PHF	.000	.000	.000	.333	.333	1.000															



True Count

3401 First Ave #123
San Diego, CA 92103

File Name : 8067.02.LEPRECHAUN LN.W LILAC RD
Site Code : 00000000
Start Date : 9/3/2008
Page No : 1

Groups Printed- Vehicles

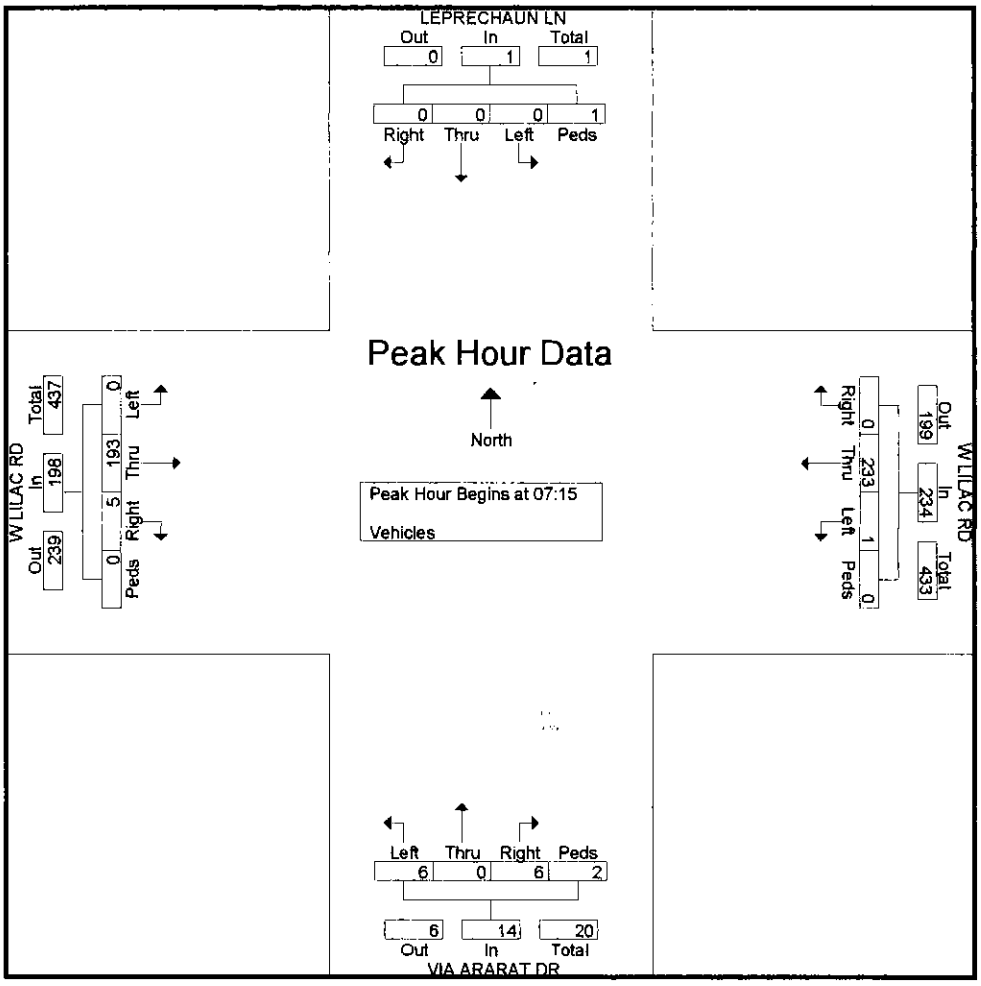
	LEPRECHAUN LN Southbound				W LILAC RD Westbound				VIA ARARAT DR Northbound				W LILAC RD Eastbound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
07:00	1	0	0	0	1	14	0	0	1	0	1	0	0	11	1	0	30
07:15	0	0	0	0	0	38	0	0	0	0	2	0	0	8	0	0	48
07:30	0	0	0	1	0	68	0	0	1	0	0	1	0	22	1	0	94
07:45	0	0	0	0	1	69	0	0	3	0	1	0	0	65	0	0	139
Total	1	0	0	1	2	189	0	0	5	0	4	1	0	106	2	0	311
08:00	0	0	0	0	0	58	0	0	2	0	3	1	0	98	4	0	166
08:15	0	0	0	0	0	11	0	0	1	0	1	0	0	26	1	0	40
08:30	0	0	0	0	0	12	0	0	2	0	2	0	0	10	0	0	26
08:45	0	0	0	0	3	9	0	0	1	0	0	0	0	6	0	0	19
Total	0	0	0	0	3	90	0	0	6	0	6	1	0	140	5	0	251
*** BREAK ***																	
14:00	0	0	0	0	1	20	0	0	2	0	0	0	0	6	0	0	29
14:15	0	0	0	0	0	18	0	0	2	0	1	0	0	10	2	0	33
14:30	0	0	0	0	1	35	0	0	1	0	1	0	0	18	1	0	57
14:45	0	0	0	1	1	26	0	0	1	0	3	0	0	30	2	0	64
Total	0	0	0	1	3	99	0	0	6	0	5	0	0	64	5	0	183
15:00	0	0	0	3	3	28	0	0	1	0	4	1	0	80	2	0	122
15:15	0	0	0	0	1	24	0	0	1	0	1	0	0	40	0	0	67
15:30	1	0	2	0	1	18	1	0	4	0	1	0	0	19	1	0	48
15:45	0	0	0	0	1	18	0	0	1	0	3	0	0	15	1	0	39
Total	1	0	2	3	6	88	1	0	7	0	9	1	0	154	4	0	276
16:00	0	0	0	0	1	28	0	0	4	0	2	0	0	17	2	0	54
16:15	0	0	0	0	4	22	0	0	2	0	3	0	0	21	1	0	53
16:30	0	0	0	0	1	27	0	0	2	0	2	0	0	24	1	0	57
16:45	0	0	0	0	1	20	0	0	1	0	1	0	0	24	0	0	47
Total	0	0	0	0	7	97	0	0	9	0	8	0	0	86	4	0	211
17:00	1	0	0	0	2	18	0	0	1	0	2	0	0	21	0	0	45
17:15	0	0	2	0	1	16	0	0	0	0	3	0	0	18	1	0	41
17:30	1	0	1	0	3	20	0	0	2	0	1	0	0	16	1	0	45
17:45	0	0	0	0	1	12	0	0	1	0	0	0	0	19	0	0	33
Total	2	0	3	0	7	66	0	0	4	0	6	0	0	74	2	0	164
Grand Total	4	0	5	5	28	629	1	0	37	0	38	3	0	624	22	0	1396
Apprch %	28.6	0	35.7	35.7	4.3	95.6	0.2	0	47.4	0	48.7	3.8	0	96.6	3.4	0	
Total %	0.3	0	0.4	0.4	2	45.1	0.1	0	2.7	0	2.7	0.2	0	44.7	1.6	0	

True Count

3401 First Ave #123
San Diego, CA 92103

File Name : 8067.02.LEPRECHAUN LN.W LILAC RD
Site Code : 00000000
Start Date : 9/3/2008
Page No : 2

	LEPRECHAUN LN Southbound					W LILAC RD Westbound					VIA ARARAT DR Northbound					W LILAC RD Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 11:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15																					
07:15	0	0	0	0	0	0	38	0	0	38	0	0	2	0	2	0	8	0	0	8	48
07:30	0	0	0	**1**	**1**	0	68	0	0	68	1	0	0	**1**	2	0	22	1	0	23	94
07:45	0	0	0	0	0	**1**	**69**	0	0	**70**	**3**	0	1	0	4	0	65	0	0	65	139
08:00	0	0	0	0	0	0	58	0	0	58	2	0	**3**	1	**6**	0	**98**	**4**	0	**102**	**166**
Total Volume	0	0	0	1	1	1	233	0	0	234	6	0	6	2	14	0	193	5	0	198	447
% App. Total	0	0	0	100		0.4	99.6	0	0		42.9	0	42.9	14.3		0	97.5	2.5	0		
PHF	.000	.000	.000	.250	.250	.250	.844	.000	.000	.836	.500	.000	.500	.500	.583	.000	.492	.313	.000	.485	.673

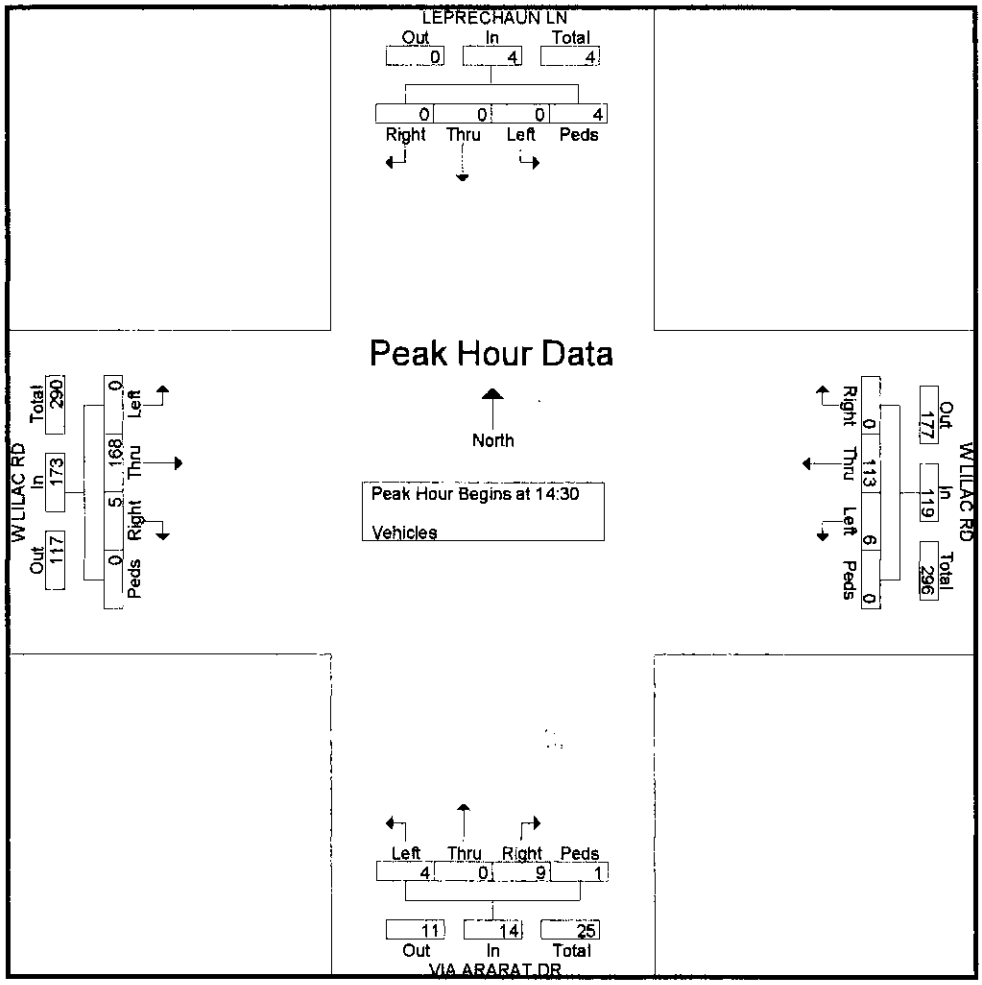


True Count

3401 First Ave #123
San Diego, CA 92103

File Name : 8067.02.LEPRECHAUN LN.W LILAC RD
Site Code : 00000000
Start Date : 9/3/2008
Page No : 3

	LEPRECHAUN LN Southbound					W LILAC RD Westbound					VIA ARARAT DR Northbound					W LILAC RD Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 14:30																					
14:30	0	0	0	0	0	1	**35**	0	0	**36**	**1**	0	1	0	2	0	18	1	0	19	57
14:45	0	0	0	1	1	1	26	0	0	27	1	0	3	0	4	0	30	**2**	0	32	64
15:00	0	0	0	**3**	**3**	**3**	28	0	0	31	1	0	**4**	**1**	**6**	0	**80**	2	0	**82**	**122**
15:15	0	0	0	0	0	1	24	0	0	25	1	0	1	0	2	0	40	0	0	40	67
Total Volume	0	0	0	4	4	6	113	0	0	119	4	0	9	1	14	0	168	5	0	173	310
% App. Total	0	0	0	100		5	95	0	0		28.6	0	64.3	7.1		0	97.1	2.9	0		
PHF	.000	.000	.000	.333	.333	.500	.807	.000	.000	.826	1.000										



True Count

3401 First Ave #123
San Diego, CA 92103

File Name : 8067.01.MISSION RD.CAMINO DEL REY
Site Code : 00000000
Start Date : 9/3/2008
Page No : 1

Groups Printed- Vehicles

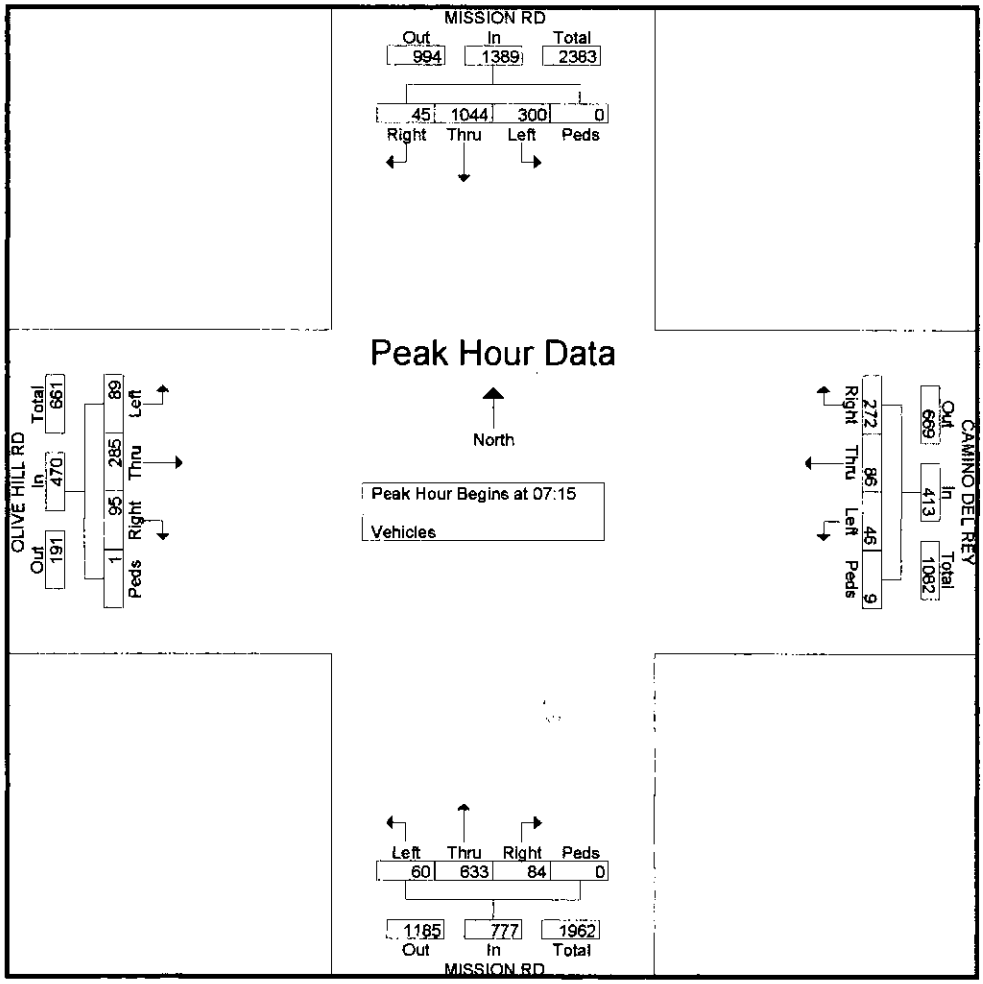
	MISSION RD Southbound				CAMINO DEL REY Westbound				MISSION RD Northbound				OLIVE HILL RD Eastbound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
07:00	88	253	9	0	8	12	42	1	10	162	9	1	15	34	26	0	670
07:15	87	278	14	0	6	15	48	0	10	180	14	0	20	65	25	0	762
07:30	62	219	14	0	10	12	58	5	16	151	28	0	22	77	19	1	694
07:45	68	237	11	0	10	20	78	0	15	148	27	0	26	98	18	0	756
Total	305	987	48	0	34	59	226	6	51	641	78	1	83	274	88	1	2882
08:00	83	310	6	0	20	39	88	4	19	154	15	0	21	45	33	0	837
08:15	67	304	13	0	8	17	54	7	13	140	15	0	24	33	24	0	719
08:30	41	249	6	1	7	6	32	2	7	167	16	0	19	17	34	0	604
08:45	41	269	8	2	12	9	38	0	22	166	11	0	23	21	24	2	648
Total	232	1132	33	3	47	71	212	13	61	627	57	0	87	116	115	2	2808
*** BREAK ***																	
14:00	69	155	6	0	1	11	47	1	12	218	14	0	15	13	15	0	577
14:15	65	161	9	0	6	14	50	0	21	207	27	0	23	21	19	0	623
14:30	59	189	11	0	10	22	90	3	21	214	15	0	23	23	20	0	700
14:45	55	183	13	0	5	26	114	0	21	265	17	0	26	21	33	0	779
Total	248	688	39	0	22	73	301	4	75	904	73	0	87	78	87	0	2679
15:00	61	208	11	0	8	23	56	1	25	239	12	0	25	18	19	0	706
15:15	44	224	8	0	13	28	69	2	24	307	19	3	35	13	13	0	802
15:30	62	204	18	1	7	23	72	0	31	310	28	1	25	8	16	0	806
15:45	65	247	11	0	13	19	72	1	25	293	12	0	32	19	24	0	833
Total	232	883	48	1	41	93	269	4	105	1149	71	4	117	58	72	0	3147
16:00	45	247	12	0	15	27	56	0	15	326	11	0	27	10	17	0	808
16:15	52	227	12	0	7	14	74	2	21	354	15	0	16	24	18	0	836
16:30	49	220	14	0	15	22	83	1	33	323	15	0	24	12	27	0	838
16:45	46	214	17	0	11	20	83	1	25	320	19	0	29	13	21	0	819
Total	192	908	55	0	48	83	296	4	94	1323	60	0	96	59	83	0	3301
17:00	58	224	11	1	9	15	59	0	24	305	14	0	22	12	35	0	789
17:15	50	209	12	1	12	17	64	1	20	280	12	1	25	10	12	0	726
17:30	51	185	12	0	12	16	70	0	19	317	11	0	22	9	23	2	749
17:45	54	229	15	1	9	13	59	0	30	321	11	1	16	7	14	0	780
Total	213	847	50	3	42	61	252	1	93	1223	48	2	85	38	84	2	3044
Grand Total	1422	5445	273	7	234	440	1556	32	479	5867	387	7	555	623	529	5	17861
Apprch %	19.9	76.2	3.8	0.1	10.3	19.5	68.8	1.4	7.1	87	5.7	0.1	32.4	36.4	30.9	0.3	
Total %	8	30.5	1.5	0	1.3	2.5	8.7	0.2	2.7	32.8	2.2	0	3.1	3.5	3	0	

True Count

3401 First Ave #123
San Diego, CA 92103

File Name : 8067.01.MISSION RD.CAMINO DEL REY
Site Code : 00000000
Start Date : 9/3/2008
Page No : 2

	MISSION RD Southbound					CAMINO DEL REY Westbound					MISSION RD Northbound					OLIVE HILL RD Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 7:00:00 AM to 11:45:00 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 7:15:00 AM																					
7:15:00 AM	**87**	278	**14**	0	379	6	15	48	0	69	10	**180**	14	0	**204**	20	65	25	0	110	762
7:30:00 AM	62	219	14	0	295	10	12	58	**5**	85	16	151	**28**	0	195	22	77	19	**1**	119	694
7:45:00 AM	68	237	11	0	316	10	20	78	0	108	15	148	27	0	190	**26**	**98**	18	0	**142**	756
8:00:00 AM	83	**310**	6	0	**399**	**20**	**39**	**88**	**4**	**151**	**19**	154	15	0	188	21	45	**33**	0	99	**837**
Total Volume	300	1044	45	0	1389	46	86	272	9	413	60	633	84	0	777	89	285	95	1	470	3049
% App. Total	21.6	75.2	3.2	0		11.1	20.8	65.9	2.2		7.7	81.5	10.8	0		18.9	60.6	20.2	0.2		
PHF	.862	.842	.804	.000	.870	.575	.551	.773	.450	.684	.789	.879	.750	.000	.952	.856	.727	.720	.250	.827	.911

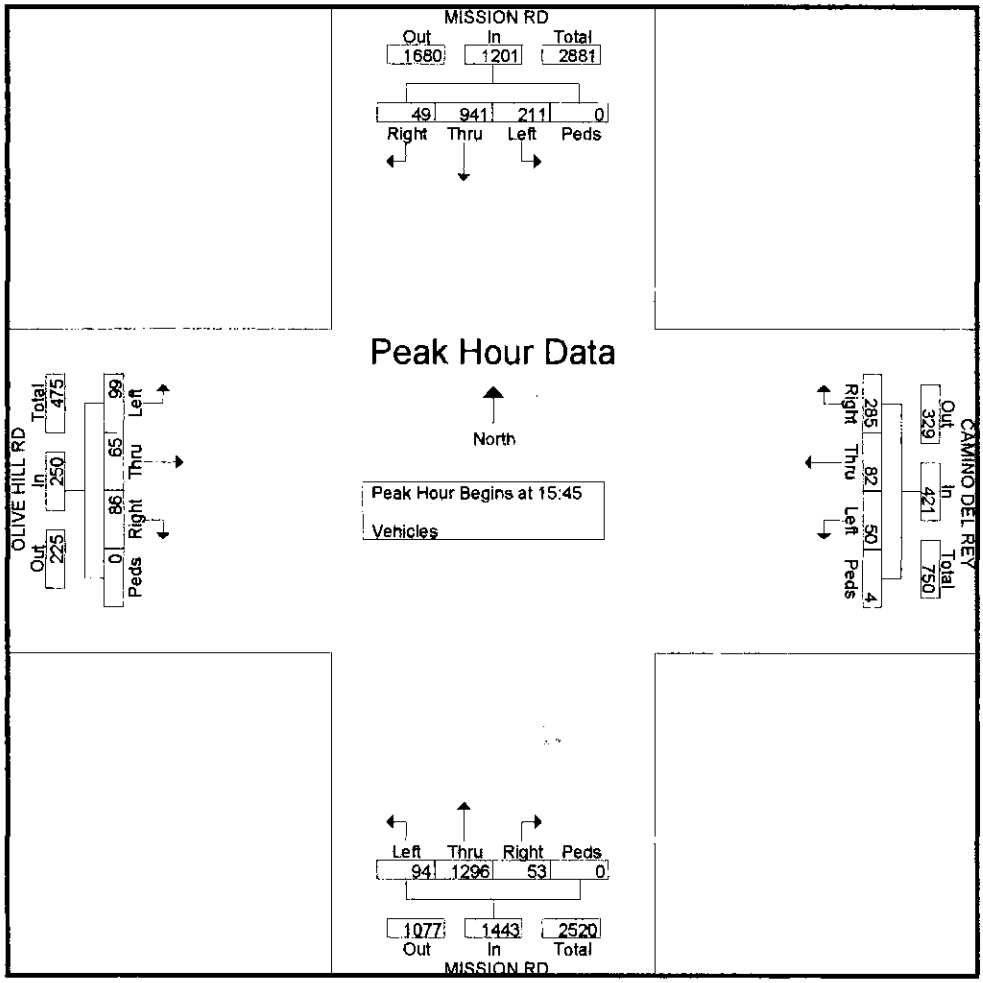


True Count

3401 First Ave #123
San Diego, CA 92103

File Name : 8067.01.MISSION RD.CAMINO DEL REY
Site Code : 00000000
Start Date : 9/3/2008
Page No : 3

	MISSION RD Southbound					CAMINO DEL REY Westbound					MISSION RD Northbound					OLIVE HILL RD Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00:00 PM to 4:45:00 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 3:45:00 PM																					
3:45:00 PM	**65**	**247**	11	0	**323**	13	19	72	1	105	25	293	12	0	330	**32**	19	24	0	**75**	833
4:00:00 PM	45	247	12	0	304	**15**	**27**	56	0	98	15	326	11	0	352	27	10	17	0	54	808
4:15:00 PM	52	227	12	0	291	7	14	74	**2**	97	21	**354**	**15**	0	**390**	16	**24**	18	0	58	836
4:30:00 PM	49	220	**14**	0	283	15	22	**83**	1	**121**	**33**	323	15	0	371	24	12	**27**	0	63	**838**
Total Volume	211	941	49	0	1201	50	82	285	4	421	94	1296	53	0	1443	99	65	86	0	250	3315
% App. Total	17.6	78.4	4.1	0		11.9	19.5	67.7	1		6.5	89.8	3.7	0		39.6	26	34.4	0		
PHF	.812	.952	.875	.000	.930	.833	.759	.858	.500	.870	.712	.915	.883	.000	.925	.773	.677	.796	.000	.833	.989



- Excerpts from the County's Private Road Standards

SAN DIEGO COUNTY
STANDARDS FOR PRIVATE ROADS

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS

TABLE 1

AVERAGE DAILY VEHICLE TRIPS

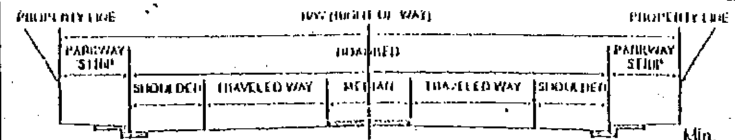
CIRCULATION ELEMENT ROADS		LEVEL OF SERVICE				
CLASS	X-SECTION	A	B	C	D	E
Expressway	126/146	<36,000	<54,000	<70,000	<86,000	<108,000
Prime Arterial	102/122	<22,200	<37,000	<44,600	<50,000	<57,000
Major Road	78/98	<14,800	<24,700	<29,600	<33,400	<37,000
Collector	64/84	<13,700	<22,800	<27,400	<30,800	<34,200
Town Collector	54/74	<3,000	<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 Mountain	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.

County of San Diego

SUMMARY OF COUNTY OF SAN DIEGO PUBLIC ROAD STANDARDS†



CLASS	CIRCULATION ELEMENT ROAD CROSS-SECTIONS									AVERAGE DAILY VEHICLE TRIPS (ADT) — LEVEL OF SERVICE (LOS)				
	Median	Traveled way	Shoulder	Parkway strip	Roadbed	R/W*	Min. curve radius	Max. grades	Min. design speed (mph)	A Free flow	B Steady flow	C Stable flow	D Approach unstable	E Unstable flow
EXPRESSWAY Divided highway with only selected public road access with full grade separations	34'	36'	10'	10'	126'	146'	1200'	6%	55	<36,000	<54,000	<70,000	<86,000	<100,000
PRIME ARTERIAL Divided highway, signalized intersections, access control, or extra lanes as required	14'	36'	0'	10'	102'	122'	1200'	6%	55	<22,200	<37,000	<44,600	<50,000	<57,000
MAJOR ROAD 4-lane divided road, access & parking controlled as necessary	14'	24'	0'	10'	78'	98'	1200'	7%	55	<14,800	<24,700	<29,600	<33,400	<37,000
COLLECTOR 4-lane undivided road	—	24'	0'	10'	64'	84'	700'	7%	[illegible]	<13,700	<22,000	<27,400	<30,000	<34,200
LIGHT COLLECTOR 2-lane undivided road	—	12'	0'	10'	40'	60'	700'	9%	45	<1,900	<4,100	<7,100	<10,900	<16,200
RURAL COLLECTOR 2 lane undivided road, extra R/W allows greater flexibility & upgrade	—	12'	0'	22'	40'	84'	500'	12%	40	<1,900	<4,100	<7,100	<10,900	<16,200
RURAL LIGHT COLLECTOR 2-lane undivided road, decreased "curve radii" standards	—	12'	8'	10'	40'	60'	500'	12%	40	<1,900	<4,100	<7,100	<10,900	<16,200
RURAL MOUNTAIN 2 lane undivided road appropriate only in rural mountain areas	—	12'	0'	30'	40'	100'	500'	12%	40	<1,900	<4,100	<7,100	<10,900	<16,200
RECREATIONAL PARKWAY Recreational routes for travel pleasure purposes	—	12'	0'	30'	40'	100'	400'	12%	25	<1,900	<4,100	<7,100	<10,900	<16,200
NON-CIRCULATION ROADS														
RESIDENTIAL COLLECTOR	—	12'	0'	10'	40'	60'	300'	12%	30	<4,500	Levels of service are not applied to non-circulation roads 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. Not all non-circulation road classifications are shown			
RESIDENTIAL STREET	—	12'	6'	10'	36'	56'	200'	15%	30	<1,500				
RESIDENTIAL LOOP/CUL-DE-SAC	—	12'	4'	10'	32'	52'	200'	15%	30	<200				

*Additional pavement and R/W may be required for C.F. Collectors and L.F. Collectors in Industrial/Commercial Zones, 4 and 12 ft., respectively. C.F. roads needing additional turn lanes require an additional 12 to 14 ft. of pavement and R/W for each lane. C.F. roads designated with bike lanes will require an additional 10 ft. of pavement and R/W.

†For full standards, refer to Public Road Standards, adopted by the Board of Supervisors on 2/26/92

- County of San Diego Level of Service Thresholds

ARTICLE III

IMPROVEMENT & DESIGN STANDARDS

Section 3.1 DESIGN STANDARDS

Roads shall be designed and improved in conformance with the following:

A) Where offers of dedication are to be accepted, the roads shall be designed and constructed in conformance with "COUNTY STANDARDS" corresponding to the road classification required.

B) Where offers of dedication are not to be accepted, the roads shall be designed and constructed in conformance with the following minimum standards:

NUMBER OF VEHICLE TRIPS PER DAY (ADT)

	750 or Less	751-2500
Graded Width	32ft.[1]	32ft.[1]
Improvement Width	24ft.[1]	24ft.[1]
Horizontal Radius	200ft.	300ft.
Vertical Design Speed	25 MPH	30 MPH
Maximum Grade	15%	15%
Minimum Length-Vertical Curve	40'	40'
Maximum Angle of Departure	7%[2]	7%[2]
Minimum Vertical Clearance	14.5"	14.5"

1 Based upon input from the local fire protection district, community planning and/or sponsor groups and the general public, the Director of Public Works may require that on-street parking be provided on roads serving areas with a minimum lot size of less than one (1) acre. Whenever on-street vehicle parking is required, on-street parking shall be provided by increasing the graded and improved width by six feet (6') for each side of the road in which on-street parking is to be provided in accordance with Sections 81.402 of Chapter 4, and 81.703 of Chapter 7, of the County Subdivision Ordinance. In order to accommodate on-street parking, the Director of Public Works may also, on a case by case basis, authorize the use of parking bays or mountable curbs (berms) in lieu of additional road widening. Where parking bays are provided, they shall be located to best accommodate the parking demand. Landscaping and/or curbing may be provided between parking bays provided that they will not obstruct required sight distance and/or restrict ingress and/or egress to and from the parking bays. In order to designate no-parking areas, striping and/or appropriate signage may be required.

2 The angle of departure is the smallest angle made between the road surface and a line drawn from the front point of the ground contact of the front tire for a pumper fire apparatus (as per Standard NFPA 1901) to any projection of the apparatus in front of the front axle. The angle of approach affects the road clearance of the vehicle when going over short steep grades such as found in a driveway entrance or crossing a high crowned road at right angles. Too low an angle of approach will result in scraping the apparatus body.

C) Where no dedications, offers of dedication, or irrevocable offers of dedication are required, the roads shall be designed and constructed to the following minimum standards:

NUMBER OF VEHICLE TRIPS PER DAY (ADT)

	100 or Less	101-750	751-2500
Graded Width	28ft.[2,3]	28 ft.[2,3]	28ft.[2,3]
Improvement Width	24ft.[1,2]	24ft.[1,2]	24ft.[1,2]
Horizontal Radius	100ft.[1]	150ft.[1]	200ft.[1]
Vertical Design Speed	20 MPH[1]	25 MPH[1]	30 MPH[1]
Maximum Grade	20%	20%	20%
Minimum Length-Vertical Curve	40'	40'	40'
Maximum Angle of Departure	7%[1]	7%[4]	7%[4]
Minimum Vertical Clearance	14.5"	14.5"	14.5"

D) Where it is determined that the number of trips per day on a particular road will exceed 2500 the Director of Public Works may require that the road be dedicated and improved in conformance with the "COUNTY OF SAN DIEGO PUBLIC ROAD STANDARDS".

1 May be reduced upon approval of the Director of Public Works. In such cases, the vertical design speed and the horizontal radius of curvature shall be a minimum of 15 MPH and a 60-foot horizontal radius, respectively.

2 Based upon input from the local fire protection district, community planning and/or sponsor groups and the general public, the Director of Public Works may require that on-street parking be provided on roads serving areas with a minimum lot size of less than one (1) acre. Whenever on-street vehicle parking is required, on-street parking shall be provided by increasing the graded and improved width by six feet (6') for each side of the road in which on-street parking is to be provided in accordance with Sections 81.402 of Chapter 4, and 81.703 of Chapter 7, of the County Subdivision Ordinance. In order to accommodate on-street parking, the Director of Public Works may also, on a case by case basis, authorize the use of parking bays or mountable curbs (berms) in lieu of additional road widening. Where parking bays are provided, they shall be located to best accommodate the parking demand. Landscaping and/or curbing may be provided between parking bays provided that they will not obstruct required sight distance and/or restrict ingress and/or egress to and from the parking bays. In order to designate no-parking areas, striping and/or appropriate signage may be required.

3 The graded width for on-site and off-site roads may be reduced, at the discretion of the Director of Public Works. However, the graded width shall not be less than the required improvement width as required by these standards.

4 The angle of departure is the smallest angle made between the road surface and a line drawn from the front point of the ground contact of the front tire for a pumper fire apparatus (as per Standard NFPA 1901) to any projection of the apparatus in front of the front axle. The angle of approach affects the road clearance of the vehicle when going over short steep grades such as found in a driveway entrance or crossing a high crowned road at right angles. Too low an angle of approach will result in scraping the apparatus body.

E) Where offers of dedication or irrevocable offers of dedication have been granted, the road shall be constructed on the centerline of such dedication.

F) All private roads shall be surfaced with asphaltic concrete over an aggregate base, except for private roads serving properties which are designated #18, #20, #23 or #24 on the County General Plan or serving an agricultural subdivision. The above private roads, which are not required to be surfaced with asphaltic concrete, shall be surfaced with a minimum of 6 inches of disintegrated granite.

Section 3.2 GENERAL REQUIREMENTS

A) Grading beyond the minimum graded width may be required to provide for adequate sight distance (See Section 3.2.H).

B) Where disintegrated granite (D.G.) surfacing is allowed, AC/AB in conformance with Section 3.11 of these standards shall be required where the road grades are 8.0% or greater, or under 1.0%.

C) The structural section shall be designed in conformance with Section 3.11 of these Standards.

D) RIGHT-OF-WAY RETURNS

1) The radii for right-of-way returns at the intersection of a private road with a public road or future public roads shall be a minimum 20 feet.

2) Where the angle of intersection of easement right-of-way lines is other than 90 degrees, or where a sight distance problem may be anticipated, an increased right-of-way line radius may be required.

E) STREET KNUCKLE ALLOWED

1) In any road dedicated, offered for dedication, or irrevocably offered for dedication, street knuckles may be used in accordance with County of San Diego Public Road Standards and San Diego County Design Standard Number DS-15.

2) Where no dedication, offer of dedication, or irrevocable offer of dedication is required, street knuckles may be used on a case by case basis.

F) MAXIMUM GRADE ALLOWED

Where no dedication, offer of dedication or irrevocable offer of dedication is required, the maximum gradient should not exceed 20.0%. Grades above 15% may also require mitigation from the local fire protection district, which will be enforced by the local fire authority. Based upon existing road conditions, topography, placement of existing utilities, environmental constraints and/or other pertinent factors the Director of Public Works may authorize a steeper grade (for a specified length), provided the maximum grade does not exceed 25%. Prior to any authorization, however, the Director shall obtain input from the local fire protection district.

G) SIGHT DISTANCE

1) Intersections of private roads with existing public roads (including those roads in which dedications and/or irrevocable offers of dedication have been offered)

a) Sight distance requirements at all intersections of private roads with public roads, shall conform to the intersectional sight distance criteria as provided below:

DISTANCE AT INTERSECTIONS	STANDARD CORNER SIGHT
Design Speed, MPH	Minimum Corner Intersection Sight Distance in Feet*
20	200
30	300
40	400
50	500
60	600

* Corner sight distance measured from a point on the minor road at least 10 feet from the edge of the major road pavement and measured from a height of eye of 3.5 feet on the minor road to a height of object of 4.25 feet on the major road. San Diego County Design Standards DS-20A and DS 20B shall also apply. The design speed used to determine the minimum sight distance requirement shall be the greater of the current prevailing speed (if known) and the minimum design speed of the respective road classification shown in Table 2 of the County of San Diego Public Road Standards

b) The line of sight shall be entirely within the dedications, or irrevocable offers of dedications provided, or, if there are no offers of dedication required, within the private easements provided.

2) Intersections of private roads with private roads

a) Engineer shall use appropriate engineering judgement to determine the appropriate corner sight distance. As a minimum, corner sight distance shall be provided in accordance with the stopping sight distance as determined by the American Association of State highway Officials (AASHTO) in the publication "A Policy on Geometric Design of Highways and Streets" dated 1984.

3) Modifications

The above sight distance standards will be applicable to the vast majority of cases, but they are not inflexible rules to which there is no modification. Occasionally, the Board of Supervisors or Director of Public Works may make modifications where the application of the standards is impractical or results in unreasonable hardship, such as to account for existing intersections which have been designed and constructed according to previous standards. Procedures for processing a modification request are provided in Section 1.4.

H) ROAD INTERSECTIONS

1) Intersections of private roads with a public non-Circulation Element road shall be offset at least 200 feet from the nearest adjacent road (measured centerline to centerline).

2) Intersections of private roads with roads shown on the Circulation Element of the San Diego County General Plan shall be offset at least 300 feet from the nearest adjacent road measured (centerline to centerline).

3) The angle between centerlines of an intersecting private road with a public road shall be as nearly a right angle as possible, but in no case less than 70 degrees or greater than 110 degrees. Where the angle between the centerlines is between 70 and 80 degrees or between 100 and 110 degrees, there shall be required on the acute angle corner of the intersection a taper to accommodate right-hand turning movements. Said taper shall be set back 5 feet at the exiting point of the curb return and extend 40 feet in such a manner as to safely allow completion of the right-hand turning movement.

I) ROAD NAME SIGNS

All private roads within major subdivisions and private roads serving four or more parcels shall be named. The developer shall install one road name sign at each intersection as a part of the improvements. Installation shall be in accordance with San Diego County Design Standard Number DS-13.

J) LIGHTING REQUIREMENTS

All development projects shall be required to transfer to Zone A of the San Diego County Street Lighting District, irrespective of roadway lighting requirements.

Section 3.3 CUL-DE-SACS/TURNAROUNDS

Cul-de-sacs or approved turnarounds shall be required at the end of all private roads except where the road will ultimately serve no more than 2 residences and the length of the private road is 150 feet or less.

➢ Excerpts from the *Public Facilities Element*

Part XII
Public Facility Element

San Diego County General Plan

Adopted
March 13, 1991
GPA 90-FE
Amended
June 10, 1992
GPA92-FE1

This Element was partially funded through the Community Development Block Grant program

ISSUES

1. Increases in the amount of automobile use have resulted in increased congestion on the region's roadways.

   Discussion: The dramatic rise in automobile use has far surpassed the ability of the County and other jurisdictions to upgrade and maintain the highway and road system. As the number of vehicles on the roadways has increased, the expansion of existing roadways and the construction of new roadways has not kept pace. Between 1978 and 1988, automobile registrations increased by 64% while increases in local street and road mileage only rose by 16%. As a result, certain roadways are functioning at a Level of Service "E" or "F" on a routine basis.

   A LOS "C", which allows for stable traffic flow with room to maneuver, is a generally accepted level to strive for in new development. At this level, traffic generally flows smoothly, although freedom to maneuver within the roadway is somewhat restricted and lane changes require additional care.

   However, there are some cases where development cannot achieve a LOS "C" on off-site roadways. For instance, there are areas where the existing development pattern precludes the addition of lanes or other mitigation or when the community is opposed to certain improvements to maintain a LOS "C". Additionally, there are existing roadways in the County that are currently operating below a LOS "C". Such cases are currently exceptions and generally occur when there is insufficient right-of-way to expand or modify a roadway or when the existing development in the area has generated more traffic than anticipated. In these cases a Level of Service "D" is acceptable on off-site roadways. At this level, small increases in flow cause substantial deterioration in service. Freedom to maneuver is limited and minor incidents can cause substantial interruption in the traffic flow.

   When the roadway system reaches a LOS "E" or "F", or new development would push it to LOS "E" or "F", new development should not be approved unless the project can mitigate the LOS "E" or contribute a fair share to a program to mitigate the project's impacts, unless a statement of overriding findings can be made.

   In order to control the amount of traffic on the roadways, and subsequently the amount of congestion, it is necessary to apply the LOS measurement to all roads that are impacted by a proposed project. The effect of a project on the road system varies from project to project. Due to the size and type of project, the type and capacity of roads serving the project, the amount of traffic generated by the development and the existing development pattern, the impact will vary from one project to another. To apply a LOS standard to only major or larger capacity roads or to within a specified geographic distance of a project could result in an inadequate review of the impacts of a project and create the potential for increased congestion. Therefore, project impacts should be assessed on a case-by-case basis.

GOAL

A SAFE, CONVENIENT, AND ECONOMICAL INTEGRATED TRANSPORTATION SYSTEM INCLUDING A WIDE RANGE OF TRANSPORTATION MODES.

OBJECTIVE 1:

A Level of Service "C" or better on County Circulation Element roads.

Policy 1.1: New development shall provide needed roadway expansion and improvements on-site to meet the demand created by the development, and to maintain a Level of Service "C" on Circulation Element Roads during peak traffic hours. New development shall provide off-site improvements designed to contribute to the overall achievement of a Level of Service "D" on Circulation Element Roads.

Implementation Measure 1.1.1: Review all development proposals to determine both their short-term and long-term impacts on the roadway system. The area of impact will be determined based on the size, type and location of the project; the traffic generated by the project; and the existing circulation and development pattern in the area. [DPW, DPLU]

Implementation Measure 1.1.2: Require, as a condition of approval of discretionary projects, improvements or other measures necessary to mitigate traffic impacts to avoid reduction in the existing Level of Service below "C" on on-site Circulation Element roads. [DPLU, DPW]

Implementation Measure 1.1.3: Require, as a condition of approval of discretionary projects which have a significant impact on roadways, improvements or other measures necessary to mitigate traffic impacts to avoid reduction in the existing Level of Service below "D" on off-site and on-site abutting Circulation Element roads. New development that would significantly impact congestion on roads at LOS "E" or "F", either currently or as a result of the project, will be denied unless improvements are scheduled to increase the LOS to "D" or better or appropriate mitigation is provided . Appropriate mitigation would include a fair share contribution in the form of road improvements or a fair share contribution to an established program or project. If impacts cannot be mitigated, the project will be denied unless a specific statement of overriding findings is made pursuant to Section 15091(b) and 15093 of the State CEQA Guidelines. [DPLU, DPW]

Implementation Measure 1.1.4: Whenever possible on development proposals, require that access to parcels adjacent to roads shown on the Circulation Element be limited to side streets in order to maintain through traffic flow. [DPW, DPLU]

- Excerpts from the County's *Guidelines for Determining Significance*

Part XV-A

Transportation/Traffic

Traffic

County of San Diego

Guidelines for Determining Significance

Adopted,

2.3 Regional and Local Traffic Impact Analysis Guidelines

San Diego Traffic Engineers' Council (SANTEC) and the Institute of Traffic Engineers (ITE)

The San Diego Traffic Engineers' Council (SANTEC) and the local chapter of the Institute of Traffic Engineers (ITE) have endorsed for use the "Guidelines of Traffic Impact Studies (TIS) in the San Diego Region." These guidelines were prepared by a traffic subcommittee formed by SANDAG. The purpose of the subcommittee was to develop a model set of guidelines for the analysis of traffic impacts for adoption and use by the various jurisdictions in the San Diego region. The goal was to foster more consistency in the assessment of traffic impacts in the San Diego region. These guidelines establish a LOS target of LOS D. Impacts would be identified for those projects that significantly increase the volume and or delay at intersections and road segments operating below LOS D (i.e. at LOS E of LOS F) either prior to or as a result of the proposed project. These guidelines have not been formally adopted by SANDAG or local jurisdictions, but are currently being used as a guideline by many local traffic-engineering consultants in the preparation of traffic impact studies in the San Diego Region.

California Department of Transportation (Caltrans)

The California Department of Transportation (Caltrans) has prepared a "Guide for the Preparation of Traffic Impact Studies." Objectives for the preparation of this guide include providing consistency and uniformity in the identification of traffic impacts generated by local land use proposals. In terms of level of service, "Caltrans endeavors to maintain a target LOS at the C/D cusp on State highway facilities. However, Caltrans acknowledges that this may not always be feasible. In these circumstances, Caltrans may consider setting the target LOS at the D/E cusp."

City of San Diego

The City of San Diego has prepared a "Traffic Impact Study Manual." The purpose is to provide guidelines to consultants on how to prepare traffic impact studies in the City of San Diego and to ensure consistency on the preparation of these studies. Impacts are identified if the proposed project will increase the traffic volume on a road segment above an identified allowable increase. The better the initial level of service on the road segment, the higher the allowable volume increase.

3.0 TYPICAL ADVERSE EFFECTS

Typical traffic related impacts are most often associated with traffic congestion on local roads and the regional circulation network. As the San Diego region grows, the number of vehicle trips that are generated by residents also grows. Historically, vehicle trips have been increasing at a faster rate than that of the population growth. It is forecasted that more than 23 million vehicle trips would be made in this region each weekday by the year 2020. The automobile is expected to remain the primary method of travel in the region, but new and widened freeways, increased trolley and bus service, better rail service, and additional highway improvements would alleviate some of the traffic

congestion. SANDAG's 2020 RTP details some of the regional improvements that are projected to occur within a twenty-year time frame. Impacts associated with traffic, pedestrian and bicycle safety are most often addressed at the project level.

4.0 GUIDELINES FOR DETERMINING SIGNIFICANCE

This section provides guidance for evaluating adverse environmental effects a project may have on traffic. The guidelines for determining significance are organized into six subject areas: direct vs. cumulative, road segments, intersections, ramps, hazards due to a design feature, and hazards to pedestrians and/or bicyclists.

4.1 Direct vs. Cumulative Impacts

The California Environmental Quality Act (CEQA) Guidelines states that environmental assessments must take in account the "whole of the action" involved, including on-site, off-site, construction, and operational impacts. Also, the environmental assessment must evaluate project-level and cumulative impacts, including direct and indirect impacts.

4.1.1 Direct

Direct impacts are impacts that would result solely from the implementation of the project. Since CEQA requires a plan to ground assessment, direct impacts are typically evaluated based upon a comparison of the existing plus project scenario to the existing scenario. When opening day and/or a phased scenario is planned, additional comparisons may also be made to determine significance. Where it can be demonstrated that other projects will reasonably come on-line prior to development of the proposed project, an opening day assessment scenario may be used in lieu of the existing plus project approach. Coordination with County staff is recommended to ensure that proper assumptions are used in the preparation of this assessment scenario. Direct impacts would occur when the significance criteria outlined herein is exceeded.

4.1.2 Cumulative

CEQA section 15130 provides guidance for assessment of cumulative impacts. Per this section, CEQA states that cumulative impact assessments should be based upon 1) a list of past, present and probable future projects producing related or cumulative impacts, (includes all projects and if necessary, those projects outside the control of the agency), or 2) a summary of projects contained in an adopted general plan or related planning document, or in a prior certified/adopted environmental document which described or evaluated regional or area wide conditions contributing to the cumulative impact. For most projects, the list of past, present and probable projects approach is used for the assessment of cumulative impacts.

For projects that will be implemented and constructed in the near term, the "list of projects" approach is typically used in the assessment and evaluation of cumulative impacts. The assessment of cumulative projects can also be based upon a summary of projections contained within an adopted General Plan or related planning documents. This is typically used when the project includes a change to the County's General Plan or Zoning Ordinance. Projects that include both a change to near term development and the County's General Plan or Zoning may be required to provide both levels of evaluation.

Section 15130(a) of the State CEQA Guidelines state that cumulative impacts of a project should be discussed when the project impacts, even though individually limited, are cumulatively considerable. Cumulatively considerable means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects. In evaluating cumulative traffic impacts two conditions must be evaluated: 1) will build-out of all near term projects result in a cumulative traffic impact and 2) does the amount of traffic generated by the individual proposed project contribute (even in a small part) to that cumulative impact. Both conditions must be met for an individual project to result in a cumulative traffic impact.

Cumulative traffic impacts are typically evaluated based upon a comparison of the near-term cumulative projects plus proposed project scenario (list of projects) to the existing scenario. If the traffic generated and/or redistributed from all the near term projects would result in a cumulative traffic impact then condition one is met. Condition two is evaluated based upon the traffic generated or redistributed by the proposed project and the list of projects onto a particular road segment and/or intersection. If the total amount of traffic generated and/or redistributed exceeds the values provided in Table 1, then the traffic would be considered cumulatively considerable and the individually proposed project would result in a cumulative traffic impact.

4.2 Road Segments

Exceedance of the following significance guidelines will be considered substantial evidence that private development and public improvement projects will have a significant traffic volume and/or level of service traffic impact on a road segment if:

- ***The additional or redistributed ADT generated by the proposed project will cause an adjacent or nearby County Circulation Element Road to operate below LOS D and will significantly increase congestion as identified in Table 1, and/or***
- ***The additional or redistributed ADT generated by the proposed project will cause a residential street to exceed its design capacity, and/or***

- *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.

Capacity is related to level of service. The capacity of a facility is the maximum number of persons or vehicles that can be expected to traverse a point or uniform section of road within a specified time frame under prevailing roadway, traffic and control conditions. The LOS E/LOS F threshold is identified as the capacity of the facility (roadway or intersection). Volume to capacity ratios are calculated based upon this capacity (LOS E/LOS F) threshold.

Levels of service are not applied to residential streets since their primary purpose is to serve abutting lots and not to carry through traffic. Congestion from the driver's perspective is typically not a concern. Compatibility of the traffic volumes on the local street in relation to the adjacent uses, however, may be an issue of concern. Recommended design capacities for residential non-Circulation Element streets are provided in the San Diego County Public Road Standards. For projects that will substantially increase traffic volumes on residential streets, a comparison of the traffic volumes on the residential streets with the recommended design capacity shall be provided.

The impact significance guidelines for road segments provided in Table 1 are based upon a general assessment and average conditions. These guidelines are based upon an assumed allowable 200 average daily trip (ADT) threshold per vehicle lane. Conservatively under worse case assumption this would be applied unidirectionally (project traffic only being assigned to one-side of the road). Using SANDAG's "Brief Guide for Vehicular Traffic Generation Rates for the San Diego Region" for most discretionary projects this would convert to less than 25 AM or PM peak hour trips. On average, during peak hour conditions, this would be only one additional car every 2.4 minutes. The addition of 200 ADT would, in most cases, not be noticeable to the average driver. Under extremely congested LOS F conditions, small changes and disruptions to the traffic flow can significantly affect traffic operations. Additional project traffic could increase the likelihood and/or frequency of these events. The allowable LOS F ADT threshold was, therefore, set at 50% of the LOS E threshold to provide a higher level of assurance that the traffic allowed under the threshold would not significantly impact traffic operation on the road segment.

For smaller discretionary projects, without controversy, the use of these guidelines is likely to be sufficient. For large projects, controversial projects and/or projects which are preparing Environmental Impact Reports, more detailed evaluations to verify the applicability of the significance thresholds for the individual project conditions may be necessary. Additional evaluations may include analysis of vehicle headways, speeds, average gaps, queues, delay, and/or other factors.

Projects that must prepare a CMP analysis, should also follow the CMP and SANTEC/ITE traffic impact analysis guidelines. A summary of these guidelines is provided in Table 2.

Table 2

Measure of Significant Project Traffic Impacts for Circulation Element Roads, Signalized Intersections, and Ramps

Level of Service With Project	Allowable Change due to Project Impact						
	Freeways		Roadway Segments*		Intersections**	Ramps***	Ramps with >15 min. delay
	V/C	Speed (mph)	V/C	Speed (mph)	Delay (sec.)	Delay (min.)	Delay (min.)
E & F	0.01	1	0.02	1	2	-	2

* For County arterials which are not identified in SANDAG's Regional Transportation Plan and Congestion Management Plan as regionally significant arterials, then significance may be measured based upon an increase in average daily traffic. The allowable change (ADT) due to project impacts in this instance would be identified in Table 1.

** Signalized intersections

*** See Attachment E for ramp metering analysis.

KEY
V/C = Volume to Capacity ratio
Speed = Speed measured in miles per hour
Delay = Average stopped delay per vehicle measured in seconds, or minutes
LOS = Level of Service
ADT = Average Daily Trips

4.3 Intersections

This section provides guidance for evaluating adverse environmental effects a project may have on signalized and unsignalized intersections.

4.3.1 Signalized

Exceedance of the following significance guidelines will be considered substantial evidence that private development and public improvement projects will have a significant volume and/or level of service traffic impact on a signalized intersection if:

- ***The additional or redistributed ADT generated by the proposed project will cause a signalized intersection to operate below LOS D and will significantly increase congestion as identified in Table 1, and/or***

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

Significance criteria for signalized intersections identified in Table 1 allows an increase in the overall delay at an intersection operating at LOS E of two seconds. An increased wait time of two seconds, on average, would not be noticeable to the average driver. For LOS F conditions, however, a guideline based upon the number of trips added to a critical movement was used. This threshold directly relates to the number of vehicles that can be added to an existing queue that forms at the intersection. A threshold of five trips (peak hour) per critical movement was used. The five trips spread out over the peak hour would not significantly increase the length of an existing queue and would not be noticeable to the average driver.

For smaller discretionary projects, without controversy, the use of these guidelines is likely to be sufficient. For large projects, controversial projects and/or projects which are preparing Environmental Impact Reports, more detailed evaluations to verify the applicability of the significance thresholds for the individual project conditions may be necessary. Additional evaluations may include analysis of vehicle headways, speeds, average gaps, queues, delay, and/or other factors.

4.3.2 Unsignalized

The operating parameters and conditions for unsignalized intersections differ dramatically from those of signalized intersections. Very small volume increases on one leg or turn/thru movement of an unsignalized intersection can substantially affect the calculated delay for the entire intersection. Significance criteria for unsignalized intersections was based upon a minimum overall number of trips added to a critical movement (such as a left turn lane estimated to operate at LOS E of LOS F) at an unsignalized intersection.

Exceedance of the following significance guidelines will be considered substantial evidence that private development and public improvement projects will have a significant volume and/or level of service traffic impact on a unsignalized intersection if:

- *The proposed project will generate 20 or more peak hour trips to a critical movement of an unsignalized intersection, and cause the unsignalized intersection to operate below LOS D, or*

- *The proposed project will generate 20 or more peak hour trips to a critical movement of an unsignalized intersection and the unsignalized intersection currently operates at LOS E, or*

- *The proposed project will generate 5 or more peak hour trips to a critical movement of an unsignalized intersection, and cause the unsignalized intersection to operate below LOS E, or*

- *The proposed project will generate 5 or more peak hour trips to a critical movement of an unsignalized intersection and the unsignalized intersection currently operates at LOS F, or*

- *Based upon an evaluation of existing accident rates, the signal priority list, intersection geometrics, proximity of adjacent driveways, sight distance and/or other factors, it is found that the generation rate less than those specified above would significantly impact the operations of the intersection.*

The significance guidelines for unsignalized intersections set a minimum overall number of trips added to a critical movement at an unsignalized intersection and are supported by significance criteria for unsignalized intersections that are also identified in Table 1. Since the operations of unsignalized intersections under congested conditions are heavily influenced by traffic volume increases on critical moves, the significance guidelines for unsignalized intersections were based upon the number of trips added to a critical move. As stated above, this guideline directly relates to the number of vehicles that can be added to an existing queue that forms at the intersection. A significance guideline of twenty trips (peak hour) per critical movement was used for LOS E conditions. Although delays drivers experience under LOS E condition may be extreme, they are not yet considered unacceptable. The twenty trips spread out over the peak hour would not likely cause the intersection delay and/or existing queue lengths to become unacceptable. The twenty trips (peak hour) would not be noticeable to the average driver. A significance guideline of five trips (peak hour) per critical movement was used for LOS F conditions. The five trips spread out over the peak hour would not significantly increase the length of an existing queue and would not be noticeable to the average driver

A peak hour increase of twenty peak hour trips to the critical movement of an unsignalized intersection would be, on average, one additional car every 3.0 minutes. Assuming the average wait time for a vehicle in the critical movement queue is less than 3.0 minutes, this would not be noticeable to the average driver.

For smaller discretionary projects, without controversy, use of these guidelines is likely to be sufficient. For large projects, controversial projects, and/or projects which are preparing Environmental Impact Reports, more detailed evaluations to verify the applicability of the significance guidelines for the individual project conditions may be necessary. Additional evaluations may include analysis of vehicle headways, speeds, average gaps, queues, delay, and/or other factors.

4.4 Ramps

Additional or redistributed ADT generated by the proposed project will significantly increase congestion at a freeway ramp. Table 2 may be used as a guide in determining significant increases in congestion on ramps. Since the analysis of delays at ramps is still in its infancy these values should not be considered as absolutes. Factors affecting these values may include ramp metering, location (rural vs. urban), ramp design, and the proximity of adjacent intersections. Coordination with Caltrans and the local jurisdiction should be conducted to determine appropriate impact criteria for the specific ramps being assessed.

4.5 Hazards Due to a Design Feature

The following significance guidelines will be considered substantial evidence that a proposed project will have a significant traffic hazard impact due to a design feature. The determination of significance shall be on a case-by-case basis, considering the following factors:

- *Design features/physical configurations of access roads adversely affect the safe transport of vehicles along the roadway.*
- *The percentage and/or magnitude of increased traffic on the road due to the proposed project affect the safety of the roadway.*
- *The physical conditions of the project site and surrounding area, such as curves, slopes, walls, landscaping or other barriers that could result in vehicle conflicts with other vehicles and/or stationary objects.*
- *The project does not conform to the requirements of the private or public road standards, as applicable.*

4.6 Hazards to Pedestrians and/or Bicyclists

The following significance guidelines will be considered substantial evidence that a proposed project will have a significant traffic hazard impact to pedestrians and/or bicyclists. The determination of significance shall be on a case-by-case basis, considering the following factors:

- *Design features/physical configurations adversely affect the visibility of pedestrians and/or bicyclists to drivers entering and exiting the site, and the visibility of cars to pedestrians and bicyclists.*
- *The amount of pedestrian activity at the project access points may adversely affect pedestrian safety.*

- *The project may result in the preclusion or substantial hindrance of the provision of a planned bike lane or pedestrian facility on a roadway adjacent to the project site.*

- *The percentage and/or magnitude of increased traffic on the road due to the proposed project may adversely affect pedestrian and bicycle safety.*

- *The physical conditions of the project site and surrounding area, such as curves, slopes, walls, landscaping or other barriers could result in vehicle/pedestrian, vehicle/bicycle conflicts.*

- *The project does not conform to the requirements of the private or public road standards, as applicable.*

- *The project may result in a substantial increase in pedestrian or bicycle activity without the presence of adequate facilities.*

5.0 GUIDELINES FOR PREPARING A TRAFFIC IMPACT STUDY (TIS)

A thorough traffic analysis will consider all aspects of a project (including all on- and off-site improvements). The analysis should identify whether these impacts are direct, indirect and/or cumulative in nature and determine whether the impacts are significant.

5.1 Overview of a Traffic Impact Study and General Contents

The purpose of a traffic impact study is to evaluate potential individual and cumulative traffic impacts that may result from a proposed project. Substantial increases in traffic volumes on and/or changes to the road network may cause congestion at existing and /or future roads and intersections. A detailed analysis of the traffic generated and/or redirected by a proposed project, assessment of potential impacts, and identification of mitigation measures for significant traffic impacts are the main focus of a traffic impact study.

The analysis of traffic issues, evaluation of traffic impacts, and development of mitigation measures for traffic impacts are complex tasks. The type and scope of a traffic impact study will vary based upon the size of a project, its location and other factors. Typically, a traffic impact study will include several components as outlined in Attachment B and summarized below:

5.1.1 Existing Conditions

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Documentation of the existing traffic volumes, levels of service, and geometrics for roads and intersections that may be potentially impacted by the proposed project must be provided. This assessment is typically based upon traffic counts that are less than two years old, unless it has been demonstrated that traffic volumes have not significantly changed since the prior counts were taken.

APPENDIX B

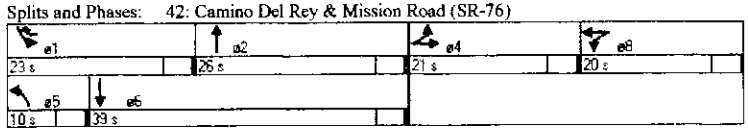
- Existing Conditions Analysis Worksheets

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50		50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850			0.850		0.982				0.850
Flt Protected	0.950				0.983		0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	0	1831	1583	1770	3476	0	1770	3539	1583
Flt Permitted	0.950				0.983		0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	0	1831	1583	1770	3476	0	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			103			260		15				49
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1973			1432			1974			1097	
Travel Time (s)		44.8			32.5			44.9			24.9	
Volume (vph)	89	285	95	46	86	272	60	633	84	300	1044	45
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	97	310	103	50	93	296	65	688	91	326	1135	49
Lane Group Flow (vph)	97	310	103	0	143	296	65	779	0	326	1135	49
Turn Type	Split		Perm	Split		pm+ov	Prot			Prot		Perm
Protected Phases	4	4		8	8	1	5	2		1	6	
Permitted Phases			4			8						6
Total Split (s)	21.0	21.0	21.0	20.0	20.0	23.0	10.0	26.0	0.0	23.0	39.0	39.0
Act Effct Green (s)	15.8	15.8	15.8		11.4	30.1	6.0	22.7		17.5	36.8	36.8
Actuated g/C Ratio	0.20	0.20	0.20		0.14	0.37	0.07	0.28		0.22	0.45	0.45
v/c Ratio	0.28	0.85	0.26		0.57	0.39	0.51	0.79		0.85	0.70	0.07
Control Delay	32.5	49.8	8.7		38.3	4.9	54.1	36.2		47.6	23.9	5.6
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	32.5	49.8	8.7		38.3	4.9	54.1	36.2		47.6	23.9	5.6
LOS	C	D	A		D	A	D	D		D	C	A
Approach Delay		38.2			15.8			37.5			28.4	
Approach LOS		D			B			D			C	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 80.9
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 30.6 Intersection LOS: C
Intersection Capacity Utilization 72.2% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 42: Camino Del Rey & Mission Road (SR-76)



Existing AM Peak
4: West Lilac Road & Via Ararat 10/20/2008

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	1	193	5	1	233	1	6	1	6	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	210	5	1	253	1	7	1	7	1	1	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	254			215			472	471	212	478	473	254
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	254			215			472	471	212	478	473	254
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			99	100	99	100	100	100
cM capacity (veh/h)	1311			1355			500	490	828	492	489	785

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1
Volume Total	216	1	254	14	3
Volume Left	1	1	0	7	1
Volume Right	5	0	1	7	1
cSH	1311	1355	1700	611	561
Volume to Capacity	0.00	0.00	0.15	0.02	0.01
Queue Length 95th (ft)	0	0	0	2	0
Control Delay (s)	0.0	7.7	0.0	11.0	11.5
Lane LOS	A	A		B	B
Approach Delay (s)	0.0	0.0		11.0	11.5
Approach LOS				B	B

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	22.3%	ICU Level of Service	A
Analysis Period (min)	15		

Existing AM Peak
22: West Lilac Road & Aquaduct Road 10/20/2008

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	189	3	2	229	5	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	205	3	2	249	5	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			209		460	207
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			209		460	207
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		99	100
cM capacity (veh/h)			1362		558	833

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	209	251	7
Volume Left	0	2	5
Volume Right	3	0	1
cSH	1700	1362	591
Volume to Capacity	0.12	0.00	0.01
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.0	0.1	11.2
Lane LOS		A	B
Approach Delay (s)	0.0	0.1	11.2
Approach LOS			B

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	23.6%	ICU Level of Service	A
Analysis Period (min)	15		

Existing AM Peak
9: West Lilac Road & Old Highway 395 10/20/2008

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	106	15	70	25	24	30	40	40	9	7	166	156
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	115	16	76	27	26	33	43	43	10	8	180	170
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	457	421	175	325	501	48	350			53		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	457	421	175	325	501	48	350			53		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	74	97	91	95	94	97	96			100		
cM capacity (veh/h)	437	501	838	519	452	1010	1206			1550		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	132	76	53	33	43	53	8	120	230
Volume Left	115	0	27	0	43	0	8	0	0
Volume Right	0	76	0	33	0	10	0	0	170
cSH	444	838	484	1010	1206	1700	1550	1700	1700
Volume to Capacity	0.30	0.09	0.11	0.03	0.04	0.03	0.00	0.07	0.14
Queue Length 95th (ft)	31	7	9	3	3	0	0	0	0
Control Delay (s)	16.5	9.7	13.4	8.7	8.1	0.0	7.3	0.0	0.0
Lane LOS	C	A	B	A	A		A		
Approach Delay (s)	14.0		11.6		3.6		0.2		
Approach LOS	B		B						

Intersection Summary			
Average Delay	5.8		
Intersection Capacity Utilization	36.3%	ICU Level of Service	A
Analysis Period (min)	15		

Existing AM Peak
35: Old Highway 395 & I-15 Southbound 10/20/2008

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	10	85	0	0	64	203	0	0	0	46	5	7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	11	92	0	0	70	221	0	0	0	50	5	8
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	290			92			194	184	70	184	404	92
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	290			92			194	184	70	184	404	92
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			100	100	100	94	99	99
cM capacity (veh/h)	1272			1502			749	704	993	772	531	965

Direction, Lane #	NB 1	NB 2	SB 1	SB 2	SW 1	SW 2
Volume Total	11	92	70	221	55	8
Volume Left	11	0	0	0	50	0
Volume Right	0	0	0	221	0	8
cSH	1272	1700	1700	1700	739	965
Volume to Capacity	0.01	0.05	0.04	0.13	0.07	0.01
Queue Length 95th (ft)	1	0	0	0	6	1
Control Delay (s)	7.9	0.0	0.0	0.0	10.3	8.8
Lane LOS	A				B	A
Approach Delay (s)	0.8		0.0		10.1	
Approach LOS					B	

Intersection Summary				
Average Delay	1.6			
Intersection Capacity Utilization	29.2%	ICU Level of Service	A	
Analysis Period (min)	15			

Existing AM Peak
13: Old Highway 395 & I-15 Northbound 10/20/2008

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↑	↱		↑	↱	↰		↱			
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	51	57	0	99	9	59	0	4	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	55	62	0	108	10	64	0	4	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	117			117			163	225	108	167	173	55
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	117			117			163	225	108	167	173	55
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			92	100	100	100	100	100
cM capacity (veh/h)	1471			1471			802	674	946	793	720	1011

Direction, Lane #	NB 1	NB 2	SB 1	SB 2	NE 1	NE 2
Volume Total	55	62	108	10	64	4
Volume Left	0	0	0	0	64	0
Volume Right	0	62	0	10	0	4
cSH	1700	1700	1700	1700	802	946
Volume to Capacity	0.03	0.04	0.06	0.01	0.08	0.00
Queue Length 95th (ft)	0	0	0	0	7	0
Control Delay (s)	0.0	0.0	0.0	0.0	9.9	8.8
Lane LOS					A	A
Approach Delay (s)	0.0		0.0		9.8	
Approach LOS					A	

Intersection Summary				
Average Delay	2.2			
Intersection Capacity Utilization	15.2%	ICU Level of Service		A
Analysis Period (min)	15			

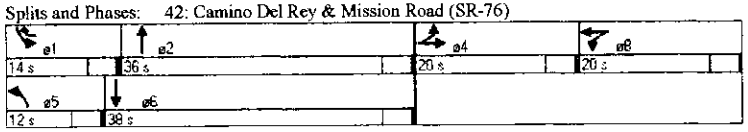
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50		50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850			0.850		0.994				0.850
Flt Protected	0.950				0.981		0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	0	1827	1583	1770	3518	0	1770	3539	1583
Flt Permitted	0.950				0.981		0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	0	1827	1583	1770	3518	0	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			93			170		5				53
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1973			1432			1974			1097	
Travel Time (s)		44.8			32.5			44.9			24.9	
Volume (vph)	99	65	86	50	82	285	94	1296	53	211	941	49
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	108	71	93	54	89	310	102	1409	58	229	1023	53
Lane Group Flow (vph)	108	71	93	0	143	310	102	1467	0	229	1023	53
Turn Type	Split		Perm	Split		pm+ov	Prot			Prot		Perm
Protected Phases	4	4		8	8	1	5	2		1	6	
Permitted Phases			4			8						6
Total Split (s)	20.0	20.0	20.0	20.0	20.0	14.0	12.0	36.0	0.0	14.0	38.0	38.0
Act Effct Green (s)	9.9	9.9	9.9		11.0	22.7	7.6	33.7		10.4	40.5	40.5
Actuated g/C Ratio	0.13	0.13	0.13		0.14	0.30	0.10	0.44		0.14	0.53	0.53
v/c Ratio	0.48	0.30	0.33		0.55	0.52	0.59	0.94		0.95	0.54	0.06
Control Delay	35.6	33.6	9.6		35.8	13.7	49.6	37.6		85.7	19.3	5.3
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	35.6	33.6	9.6		35.8	13.7	49.6	37.6		85.7	19.3	5.3
LOS	D	C	A		D	B	D	D		F	B	A
Approach Delay		26.2			20.7			38.4			30.4	
Approach LOS		C			C			D			C	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 76
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.95
Intersection Signal Delay: 32.3 Intersection LOS: C
Intersection Capacity Utilization 72.9% ICU Level of Service C
Analysis Period (min) 15

Existing PM Peak
42: Camino Del Rey & Mission Road (SR-76) 10/20/2008

Splits and Phases: 42: Camino Del Rey & Mission Road (SR-76)



West Lilac - 030411 10/20/2008 Existing PM Peak
Darnell & Associates, Inc. bh

Existing PM Peak
4: West Lilac Road & Via Ararat 10/20/2008

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	1	168	5	6	113	1	4	1	9	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	183	5	7	123	1	4	1	10	1	1	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	124			188			325	324	185	334	327	123
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	124			188			325	324	185	334	327	123
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			99	100	99	100	100	100
cM capacity (veh/h)	1463			1386			624	590	857	609	589	927

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1
Volume Total	189	7	124	15	3
Volume Left	1	7	0	4	1
Volume Right	5	0	1	10	1
cSH	1463	1386	1700	752	679
Volume to Capacity	0.00	0.00	0.07	0.02	0.00
Queue Length 95th (ft)	0	0	0	2	0
Control Delay (s)	0.0	7.6	0.0	9.9	10.3
Lane LOS	A	A		A	B
Approach Delay (s)	0.0	0.4		9.9	10.3
Approach LOS				A	B

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	19.9%	ICU Level of Service	A
Analysis Period (min)	15		

Existing PM Peak
22: West Lilac Road & Aquaduct Road 10/20/2008

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	174	1	4	116	4	7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	189	1	4	126	4	8
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			190		324	190
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			190		324	190
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		99	99
cM capacity (veh/h)			1384		667	852

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	190	130	12
Volume Left	0	4	4
Volume Right	1	0	8
cSH	1700	1384	774
Volume to Capacity	0.11	0.00	0.02
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.0	0.3	9.7
Lane LOS		A	A
Approach Delay (s)	0.0	0.3	9.7
Approach LOS			A

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	19.3%	ICU Level of Service	A
Analysis Period (min)	15		

Existing PM Peak
9: West Lilac Road & Old Highway 395 10/20/2008

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	122	18	44	17	16	23	58	100	15	15	75	35
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	133	20	48	18	17	25	63	109	16	16	82	38
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	402	384	60	374	395	117	120			125		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	402	384	60	374	395	117	120			125		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	73	96	95	96	97	97	96			99		
cM capacity (veh/h)	485	519	993	495	511	913	1466			1459		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	152	48	36	25	63	125	16	54	65
Volume Left	133	0	18	0	63	0	16	0	0
Volume Right	0	48	0	25	0	16	0	0	38
cSH	489	993	503	913	1466	1700	1459	1700	1700
Volume to Capacity	0.31	0.05	0.07	0.03	0.04	0.07	0.01	0.03	0.04
Queue Length 95th (ft)	33	4	6	2	3	0	1	0	0
Control Delay (s)	15.7	8.8	12.7	9.1	7.6	0.0	7.5	0.0	0.0
Lane LOS	C	A	B	A	A		A		
Approach Delay (s)	14.0		11.2		2.5		0.9		
Approach LOS	B		B						

Intersection Summary				
Average Delay	7.0			
Intersection Capacity Utilization	30.9%	ICU Level of Service	A	
Analysis Period (min)	15			

B-10

Existing PM Peak
35: Old Highway 395 & I-15 Southbound 10/20/2008

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	3	228	0	0	55	128	0	0	0	60	3	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	248	0	0	60	139	0	0	0	65	3	10
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	199			248			326	314	60	314	453	248
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	199			248			326	314	60	314	453	248
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	100	90	99	99
cM capacity (veh/h)	1373			1318			616	600	1006	637	501	791

Direction, Lane #	NB 1	NB 2	SB 1	SB 2	SW 1	SW 2
Volume Total	3	248	60	139	68	10
Volume Left	3	0	0	0	65	0
Volume Right	0	0	0	139	0	10
cSH	1373	1700	1700	1700	629	791
Volume to Capacity	0.00	0.15	0.04	0.08	0.11	0.01
Queue Length 95th (ft)	0	0	0	0	9	1
Control Delay (s)	7.6	0.0	0.0	0.0	11.4	9.6
Lane LOS	A				B	A
Approach Delay (s)	0.1		0.0		11.2	
Approach LOS					B	

Intersection Summary				
Average Delay	1.7			
Intersection Capacity Utilization	24.7%	ICU Level of Service	A	
Analysis Period (min)	15			

Existing PM Peak
13: Old Highway 395 & I-15 Northbound 10/20/2008

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↑	↱		↑	↱	↰		↱			
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	63	84	0	102	9	164	0	5	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	68	91	0	111	10	178	0	5	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	121			160			179	271	111	185	189	68
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	121			160			179	271	111	185	189	68
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			77	100	99	100	100	100
cM capacity (veh/h)	1467			1419			782	636	942	772	706	995

Direction, Lane #	NB 1	NB 2	SB 1	SB 2	NE 1	NE 2
Volume Total	68	91	111	10	178	5
Volume Left	0	0	0	0	178	0
Volume Right	0	91	0	10	0	5
cSH	1700	1700	1700	1700	782	942
Volume to Capacity	0.04	0.05	0.07	0.01	0.23	0.01
Queue Length 95th (ft)	0	0	0	0	22	0
Control Delay (s)	0.0	0.0	0.0	0.0	11.0	8.8
Lane LOS					B	A
Approach Delay (s)	0.0		0.0		10.9	
Approach LOS					B	

Intersection Summary				
Average Delay	4.3			
Intersection Capacity Utilization	21.1%	ICU Level of Service	A	
Analysis Period (min)	15			

APPENDIX C

- Existing + Project Conditions Analysis Worksheets

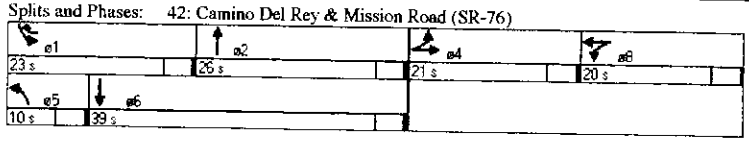
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50		50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850			0.850		0.982				0.850
Flt Protected	0.950				0.982		0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	0	1829	1583	1770	3476	0	1770	3539	1583
Flt Permitted	0.950				0.982		0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	0	1829	1583	1770	3476	0	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			103			260		15				49
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1973			1432			1974			1097	
Travel Time (s)		44.8			32.5			44.9			24.9	
Volume (vph)	89	285	95	51	86	273	60	633	86	300	1044	45
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	97	310	103	55	93	297	65	688	93	326	1135	49
Lane Group Flow (vph)	97	310	103	0	148	297	65	781	0	326	1135	49
Turn Type	Split		Perm	Split		pm+ov	Prot			Prot		Perm
Protected Phases	4	4		8	8	1	5	2		1	6	
Permitted Phases			4			8						6
Total Split (s)	21.0	21.0	21.0	20.0	20.0	23.0	10.0	26.0	0.0	23.0	39.0	39.0
Act Effct Green (s)	16.1	16.1	16.1		11.7	33.6	5.9	22.1		17.9	36.3	36.3
Actuated g/C Ratio	0.19	0.19	0.19		0.14	0.40	0.07	0.26		0.21	0.43	0.43
v/c Ratio	0.29	0.87	0.27		0.58	0.38	0.53	0.84		0.86	0.74	0.07
Control Delay	32.7	54.0	8.6		38.8	4.8	56.1	39.9		51.5	25.3	5.6
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	32.7	54.0	8.6		38.8	4.8	56.1	39.9		51.5	25.3	5.6
LOS	C	D	A		D	A	E	D		D	C	A
Approach Delay		40.8			16.1			41.1			30.3	
Approach LOS		D			B			D			C	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 84
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 32.8 Intersection LOS: C
Intersection Capacity Utilization 72.5% ICU Level of Service C
Analysis Period (min) 15

C-1

Splits and Phases: 42: Camino Del Rey & Mission Road (SR-76)



Existing+Project AM Peak
4: West Lilac Road & Via Ararat 10/20/2008

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	1	194	6	3	236	1	9	1	10	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	211	7	3	257	1	10	1	11	1	1	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	258			217			481	480	214	491	483	257
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	258			217			481	480	214	491	483	257
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			98	100	99	100	100	100
cM capacity (veh/h)	1307			1352			493	483	826	479	482	782

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1
Volume Total	218	3	258	22	3
Volume Left	1	3	0	10	1
Volume Right	7	0	1	11	1
cSH	1307	1352	1700	616	551
Volume to Capacity	0.00	0.00	0.15	0.04	0.01
Queue Length 95th (ft)	0	0	0	3	0
Control Delay (s)	0.0	7.7	0.0	11.1	11.6
Lane LOS	A	A		B	B
Approach Delay (s)	0.0	0.1		11.1	11.6
Approach LOS				B	B

Intersection Summary				
Average Delay	0.6			
Intersection Capacity Utilization	22.5%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	193	4	6	231	8	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	210	4	7	251	9	11
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			214		476	212
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			214		476	212
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		98	99
cM capacity (veh/h)			1356		545	828

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	214	258	20
Volume Left	0	7	9
Volume Right	4	0	11
cSH	1700	1356	673
Volume to Capacity	0.13	0.00	0.03
Queue Length 95th (ft)	0	0	2
Control Delay (s)	0.0	0.2	10.5
Lane LOS		A	B
Approach Delay (s)	0.0	0.2	10.5
Approach LOS			B

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	27.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	109	15	80	25	24	30	44	40	9	7	166	158
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	118	16	87	27	26	33	48	43	10	8	180	172
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	466	430	176	345	511	48	352			53		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	466	430	176	345	511	48	352			53		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	72	97	90	94	94	97	96			100		
cM capacity (veh/h)	428	493	837	494	444	1010	1203			1550		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	135	87	53	33	48	53	8	120	232
Volume Left	118	0	27	0	48	0	8	0	0
Volume Right	0	87	0	33	0	10	0	0	172
cSH	435	837	468	1010	1203	1700	1550	1700	1700
Volume to Capacity	0.31	0.10	0.11	0.03	0.04	0.03	0.00	0.07	0.14
Queue Length 95th (ft)	33	9	10	3	3	0	0	0	0
Control Delay (s)	16.9	9.8	13.7	8.7	8.1	0.0	7.3	0.0	0.0
Lane LOS	C	A	B	A	A		A		
Approach Delay (s)	14.1		11.8		3.8		0.2		
Approach LOS	B		B						

Intersection Summary				
Average Delay	6.0			
Intersection Capacity Utilization	36.5%	ICU Level of Service		A
Analysis Period (min)	15			

Existing+Project AM Peak
35: Old Highway 395 & I-15 Southbound 10/20/2008

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	10	89	0	0	69	208	0	0	0	46	5	7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	11	97	0	0	75	226	0	0	0	50	5	8
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	301			97			204	193	75	193	420	97
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	301			97			204	193	75	193	420	97
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			100	100	100	93	99	99
cM capacity (veh/h)	1260			1497			737	696	986	761	520	960

Direction, Lane #	NB 1	NB 2	SB 1	SB 2	SW 1	SW 2
Volume Total	11	97	75	226	55	8
Volume Left	11	0	0	0	50	0
Volume Right	0	0	0	226	0	8
cSH	1260	1700	1700	1700	728	960
Volume to Capacity	0.01	0.06	0.04	0.13	0.08	0.01
Queue Length 95th (ft)	1	0	0	0	6	1
Control Delay (s)	7.9	0.0	0.0	0.0	10.4	8.8
Lane LOS	A				B	A
Approach Delay (s)	0.8		0.0		10.2	
Approach LOS					B	

Intersection Summary				
Average Delay	1.5			
Intersection Capacity Utilization	29.5%	ICU Level of Service	A	
Analysis Period (min)	15			

Existing+Project AM Peak
13: Old Highway 395 & I-15 Northbound 10/20/2008

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↑	↱		↑	↱	↰		↱			
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	53	57	0	103	10	61	0	4	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	58	62	0	112	11	66	0	4	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	123			120			170	232	112	174	180	58
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	123			120			170	232	112	174	180	58
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			92	100	100	100	100	100
cM capacity (veh/h)	1464			1468			794	668	941	785	713	1009

Direction, Lane #	NB 1	NB 2	SB 1	SB 2	NE 1	NE 2
Volume Total	58	62	112	11	66	4
Volume Left	0	0	0	0	66	0
Volume Right	0	62	0	11	0	4
cSH	1700	1700	1700	1700	794	941
Volume to Capacity	0.03	0.04	0.07	0.01	0.08	0.00
Queue Length 95th (ft)	0	0	0	0	7	0
Control Delay (s)	0.0	0.0	0.0	0.0	9.9	8.8
Lane LOS					A	A
Approach Delay (s)	0.0		0.0		9.9	
Approach LOS					A	

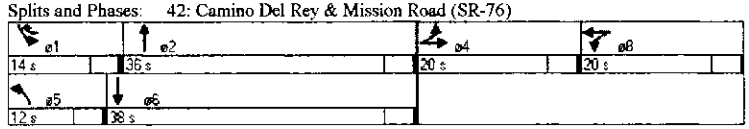
Intersection Summary			
Average Delay	2.2		
Intersection Capacity Utilization	15.5%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50		50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850			0.850		0.993				0.850
Flt Protected	0.950				0.981		0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	0	1827	1583	1770	3514	0	1770	3539	1583
Flt Permitted	0.950				0.981		0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	0	1827	1583	1770	3514	0	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			93			170		6				53
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1973			1432			1974			1097	
Travel Time (s)		44.8			32.5			44.9			24.9	
Volume (vph)	99	65	86	53	82	286	94	1296	59	212	941	49
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	108	71	93	58	89	311	102	1409	64	230	1023	53
Lane Group Flow (vph)	108	71	93	0	147	311	102	1473	0	230	1023	53
Turn Type	Split		Perm	Split		pm+ov	Prot			Prot		Perm
Protected Phases	4	4		8	8	1	5	2		1	6	
Permitted Phases			4			8						6
Total Split (s)	20.0	20.0	20.0	20.0	20.0	14.0	12.0	36.0	0.0	14.0	38.0	38.0
Act Effct Green (s)	10.0	10.0	10.0		11.1	22.7	7.6	33.7		10.4	40.4	40.4
Actuated g/C Ratio	0.13	0.13	0.13		0.14	0.30	0.10	0.44		0.14	0.53	0.53
v/c Ratio	0.48	0.30	0.33		0.57	0.53	0.59	0.94		0.95	0.54	0.06
Control Delay	35.7	33.7	9.6		36.0	13.7	49.7	38.6		86.5	19.4	5.4
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	35.7	33.7	9.6		36.0	13.7	49.7	38.6		86.5	19.4	5.4
LOS	D	C	A		D	B	D	D		F	B	A
Approach Delay		26.2			20.9			39.3			30.6	
Approach LOS		C			C			D			C	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 76
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.95
Intersection Signal Delay: 32.9 Intersection LOS: C
Intersection Capacity Utilization 73.4% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 42: Camino Del Rey & Mission Road (SR-76)



Existing+Project PM Peak
4: West Lilac Road & Via Ararat 10/20/2008

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	1	171	9	11	114	1	6	1	11	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	186	10	12	124	1	7	1	12	1	1	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	125			196			342	342	191	354	346	124
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	125			196			342	342	191	354	346	124
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			99	100	99	100	100	100
cM capacity (veh/h)	1462			1377			606	575	851	588	572	926

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1
Volume Total	197	12	125	20	3
Volume Left	1	12	0	7	1
Volume Right	10	0	1	12	1
cSH	1462	1377	1700	733	662
Volume to Capacity	0.00	0.01	0.07	0.03	0.00
Queue Length 95th (ft)	0	1	0	2	0
Control Delay (s)	0.0	7.6	0.0	10.0	10.5
Lane LOS	A	A		B	B
Approach Delay (s)	0.0	0.7		10.0	10.5
Approach LOS				B	B

Intersection Summary				
Average Delay	0.9			
Intersection Capacity Utilization	20.3%	ICU Level of Service		A
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	176	4	16	121	5	12
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	191	4	17	132	5	13
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			196		360	193
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			196		360	193
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		99	98
cM capacity (veh/h)			1377		631	848

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	196	149	18
Volume Left	0	17	5
Volume Right	4	0	13
cSH	1700	1377	770
Volume to Capacity	0.12	0.01	0.02
Queue Length 95th (ft)	0	1	2
Control Delay (s)	0.0	1.0	9.8
Lane LOS		A	A
Approach Delay (s)	0.0	1.0	9.8
Approach LOS			A

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	29.8%	ICU Level of Service	A
Analysis Period (min)	15		

Existing+Project PM Peak
9: West Lilac Road & Old Highway 395 10/20/2008

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	124	18	49	17	16	23	71	100	15	15	75	39
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	135	20	53	18	17	25	77	109	16	16	82	42
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	432	415	62	408	428	117	124			125		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	432	415	62	408	428	117	124			125		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	70	96	95	96	96	97	95			99		
cM capacity (veh/h)	457	493	990	461	485	913	1461			1459		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	154	53	36	25	77	125	16	54	70
Volume Left	135	0	18	0	77	0	16	0	0
Volume Right	0	53	0	25	0	16	0	0	42
cSH	461	990	472	913	1461	1700	1459	1700	1700
Volume to Capacity	0.33	0.05	0.08	0.03	0.05	0.07	0.01	0.03	0.04
Queue Length 95th (ft)	36	4	6	2	4	0	1	0	0
Control Delay (s)	16.7	8.8	13.2	9.1	7.6	0.0	7.5	0.0	0.0
Lane LOS	C	A	B	A	A		A		
Approach Delay (s)	14.7		11.5		2.9		0.9		
Approach LOS	B		B						

Intersection Summary				
Average Delay	7.3			
Intersection Capacity Utilization	31.7%	ICU Level of Service		A
Analysis Period (min)	15			

C-10

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	3	240	0	0	57	131	0	0	0	60	3	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	261	0	0	62	142	0	0	0	65	3	11
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	204			261			342	329	62	329	472	261
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	204			261			342	329	62	329	472	261
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	100	90	99	99
cM capacity (veh/h)	1367			1304			599	588	1003	623	489	778

Direction, Lane #	NB 1	NB 2	SB 1	SB 2	SW 1	SW 2
Volume Total	3	261	62	142	68	11
Volume Left	3	0	0	0	65	0
Volume Right	0	0	0	142	0	11
cSH	1367	1700	1700	1700	615	778
Volume to Capacity	0.00	0.15	0.04	0.08	0.11	0.01
Queue Length 95th (ft)	0	0	0	0	9	1
Control Delay (s)	7.6	0.0	0.0	0.0	11.6	9.7
Lane LOS	A				B	A
Approach Delay (s)	0.1		0.0		11.3	
Approach LOS					B	

Intersection Summary			
Average Delay	1.7		
Intersection Capacity Utilization	24.9%	ICU Level of Service	A
Analysis Period (min)	15		

Existing+Project PM Peak
13: Old Highway 395 & I-15 Northbound 10/20/2008

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↑	↱		↑	↱	↰		↱			
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	68	84	0	104	9	171	0	5	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	74	91	0	113	10	186	0	5	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	123			165			187	278	113	192	197	74
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	123			165			187	278	113	192	197	74
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			76	100	99	100	100	100
cM capacity (veh/h)	1464			1413			774	630	940	763	699	988

Direction, Lane #	NB 1	NB 2	SB 1	SB 2	NE 1	NE 2
Volume Total	74	91	113	10	186	5
Volume Left	0	0	0	0	186	0
Volume Right	0	91	0	10	0	5
cSH	1700	1700	1700	1700	774	940
Volume to Capacity	0.04	0.05	0.07	0.01	0.24	0.01
Queue Length 95th (ft)	0	0	0	0	23	0
Control Delay (s)	0.0	0.0	0.0	0.0	11.1	8.9
Lane LOS					B	A
Approach Delay (s)	0.0		0.0		11.1	
Approach LOS					B	

Intersection Summary				
Average Delay	4.4			
Intersection Capacity Utilization	21.6%	ICU Level of Service	A	
Analysis Period (min)	15			

APPENDIX D

- Speed Survey for West Lilac Road at Via Ararat Drive
- Preliminary Grading Plans for Via Ararat Drive
- Preliminary Grading Plans for Aqueduct Road

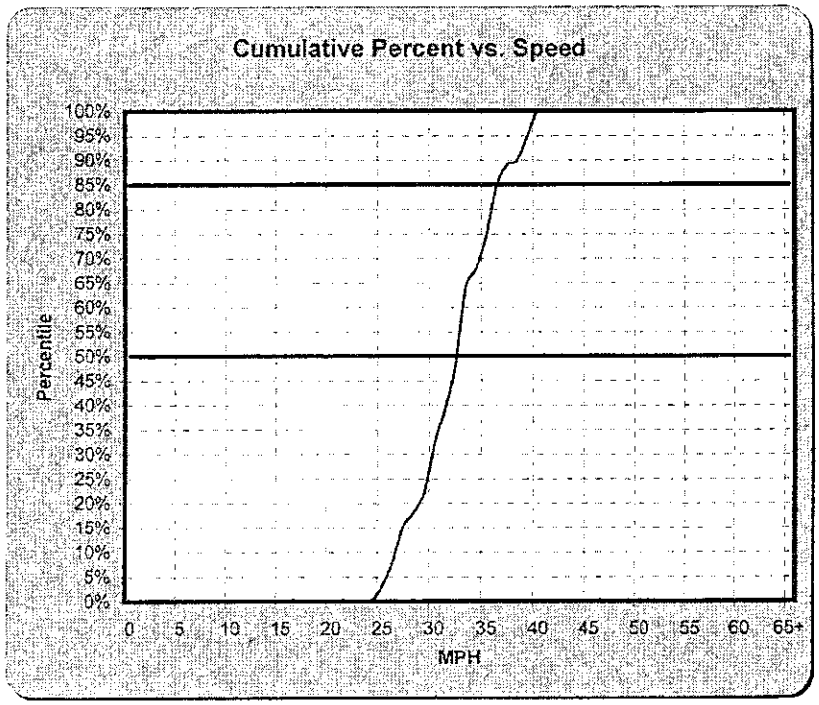
- Speed Survey for West Lilac Road at Via Ararat Drive

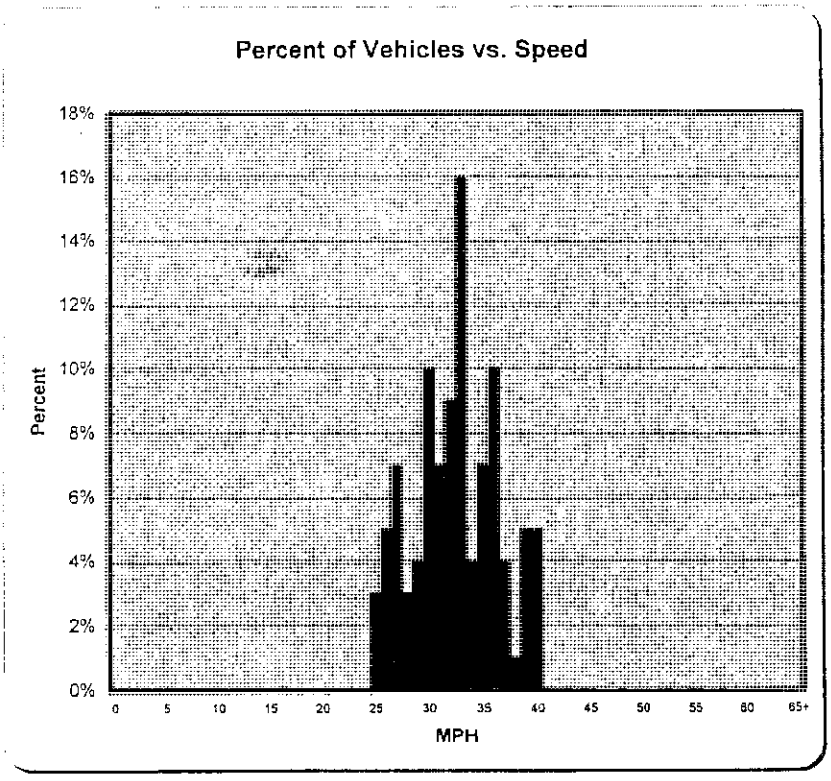
West Lilac Farms

East of Via Ararat

Date of Count:	8/10/2005	50th Percentile Speed:	33 mph	10 MPH Pace:	27 - 36 mph
Beginning Time:	10:00 AM - 4:00 PM	85th Percentile Speed:	36 mph	Percent Within Pace:	77.0%
Direction Counted:	Westbound	Average Speed:	32.5 mph	Percent Over Pace Speed:	15.0%
Posted Speed Limit:	N/A	Range of Speeds Observed:	25 - 40 mph	Percent Under Pace Speed:	8.0%
Observer:	Vonessa Centracchio	Number of Vehicles Observed:	100		

MPH	Number of Vehicles	Percent of Count	Cumulative Percent of Count
0	0	0.0%	0.0%
1	0	0.0%	0.0%
2	0	0.0%	0.0%
3	0	0.0%	0.0%
4	0	0.0%	0.0%
5	0	0.0%	0.0%
6	0	0.0%	0.0%
7	0	0.0%	0.0%
8	0	0.0%	0.0%
9	0	0.0%	0.0%
10	0	0.0%	0.0%
11	0	0.0%	0.0%
12	0	0.0%	0.0%
13	0	0.0%	0.0%
14	0	0.0%	0.0%
15	0	0.0%	0.0%
16	0	0.0%	0.0%
17	0	0.0%	0.0%
18	0	0.0%	0.0%
19	0	0.0%	0.0%
20	0	0.0%	0.0%
21	0	0.0%	0.0%
22	0	0.0%	0.0%
23	0	0.0%	0.0%
24	0	0.0%	0.0%
25	3	3.0%	3.0%
26	5	5.0%	8.0%
27	7	7.0%	15.0%
28	3	3.0%	18.0%
29	4	4.0%	22.0%
30	10	10.0%	32.0%
31	7	7.0%	39.0%
32	9	9.0%	48.0%
33	16	16.0%	64.0%
34	4	4.0%	68.0%
35	7	7.0%	75.0%
36	10	10.0%	85.0%
37	4	4.0%	89.0%
38	1	1.0%	90.0%
39	5	5.0%	95.0%
40	5	5.0%	100.0%
41	0	0.0%	100.0%
42	0	0.0%	100.0%
43	0	0.0%	100.0%
44	0	0.0%	100.0%
45	0	0.0%	100.0%
46	0	0.0%	100.0%
47	0	0.0%	100.0%
48	0	0.0%	100.0%
49	0	0.0%	100.0%
50	0	0.0%	100.0%
51	0	0.0%	100.0%
52	0	0.0%	100.0%
53	0	0.0%	100.0%
54	0	0.0%	100.0%
55	0	0.0%	100.0%
56	0	0.0%	100.0%
57	0	0.0%	100.0%
58	0	0.0%	100.0%
59	0	0.0%	100.0%
60	0	0.0%	100.0%
61	0	0.0%	100.0%
62	0	0.0%	100.0%
63	0	0.0%	100.0%
64	0	0.0%	100.0%
65+	0	0.0%	100.0%

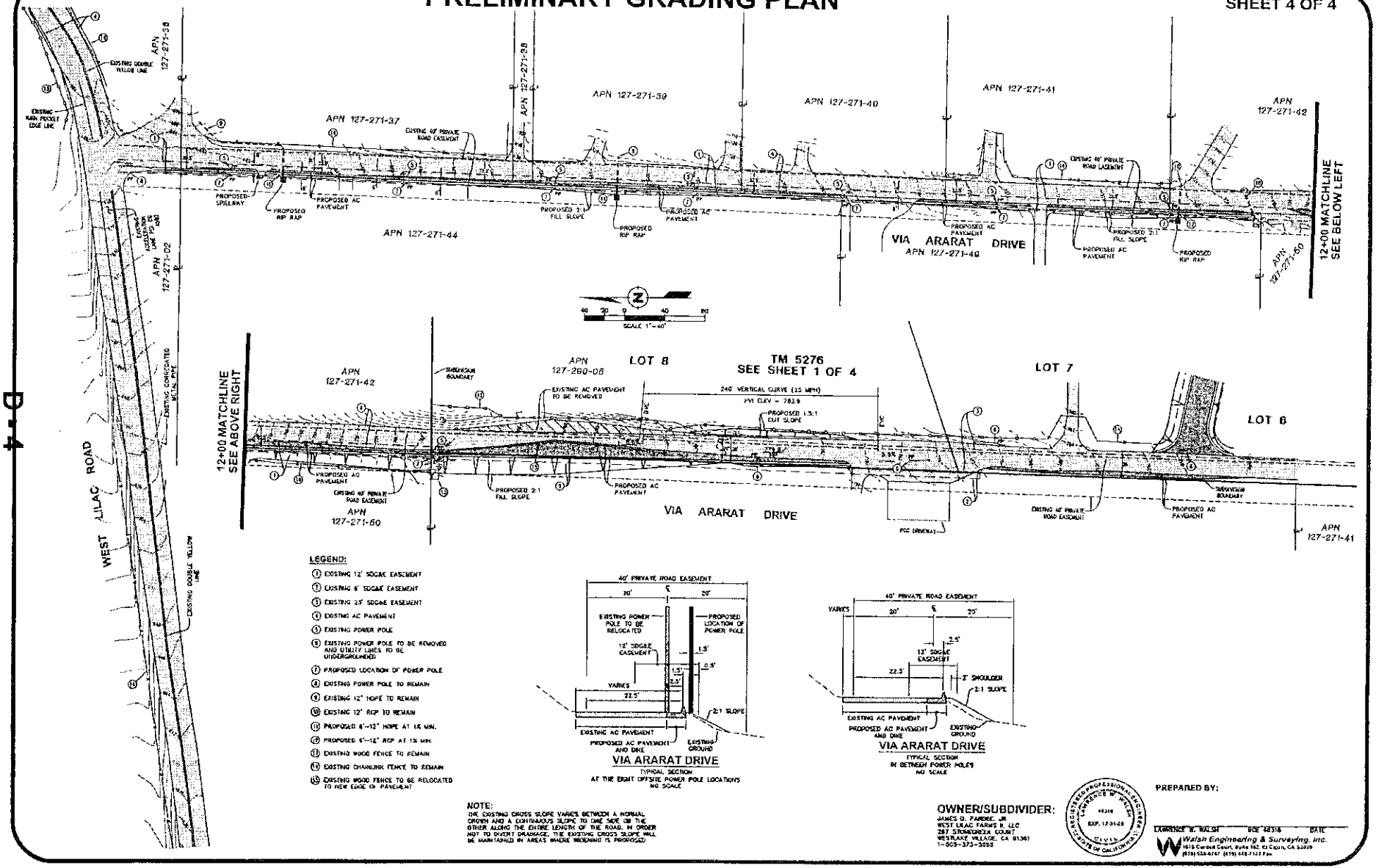




- Preliminary Grading Plans for Via Ararat Drive

PRELIMINARY GRADING PLAN

SHEET 4 OF 4



LEGEND:

1. EXISTING 12' SCE/AE EASEMENT
2. EXISTING 6' SCE/AE EASEMENT
3. EXISTING 25' SCE/AE EASEMENT
4. EXISTING AC PAVEMENT
5. EXISTING POWER POLE
6. EXISTING POWER POLE TO BE REMOVED AND UTILITY LINES TO BE UNDERGROUNDED
7. PROPOSED LOCATION OF POWER POLE
8. EXISTING POWER POLE TO REMAIN
9. EXISTING 12" HDPE TO REMAIN
10. EXISTING 12" RCP TO REMAIN
11. PROPOSED 6"-12" HDPE AT 1% MIN.
12. PROPOSED 6"-12" RCP AT 1% MIN.
13. EXISTING WOOD FENCE TO REMAIN
14. EXISTING CHAINLINK FENCE TO REMAIN
15. EXISTING WOOD FENCE TO BE RELOCATED TO NEW EDGE OF PAVEMENT

VIA ARARAT DRIVE

TYPICAL SECTION AT THE EIGHT OFFSITE POWER POLE LOCATIONS NO SCALE

VIA ARARAT DRIVE

TYPICAL SECTION IN BETWEEN POWER POLES NO SCALE

NOTE:

THE EXISTING CROSS SLOPE VARIES BETWEEN A NORMAL CROWN AND A CONTINUOUS SLOPE TO ONE SIDE OR THE OTHER ALONG THE ENTIRE LENGTH OF THE ROAD. IN ORDER NOT TO DIVERT DRAINAGE, THE EXISTING CROSS SLOPE WILL BE MAINTAINED IN AREAS WHERE WIDENING IS PROPOSED.

OWNER/SUBDIVIDER:

JAMES D. PARDINE, JR.
WEST LILAC FARMS II, LLC
287 STONEGREEK COURT
WESTLAKE VILLAGE, CA 91361
1-805-373-5955

REGISTERED PROFESSIONAL ENGINEER LAWRENCE W. WALSH No. 42316 EXP. 12-31-08 CIVIL STATE OF CALIFORNIA

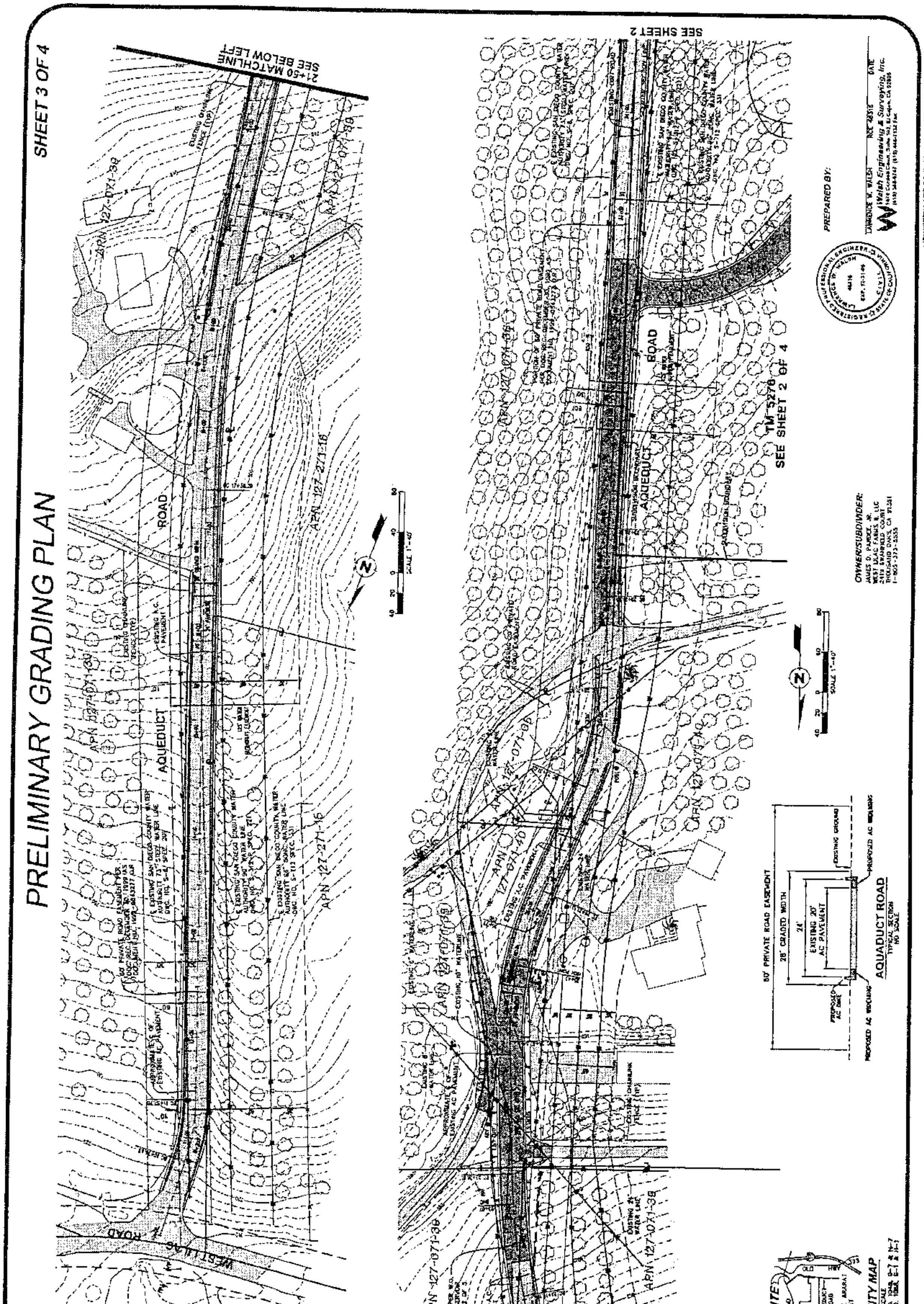
PREPARED BY:

LAWRENCE W. WALSH RCE 42316 DATE

Walsh Engineering & Surveying, Inc.
1619 Cordell Court, Suite 102, El Cajon, CA 92020
(619) 588-6747 (619) 448-7122 Fax

D-4

- Preliminary Grading Plans for Aqueduct Road


PRELIMINARY GRADING PLAN
SHEET 3 OF 4
21+50 MATCHLINE
SEE BELOW LEFT
21+50 MATCHLINE
SEE ABOVE RIGHT
SEE SHEET 2
AQUEDUCT
ROAD
TM 5276
SEE SHEET 2 OF 4
50' PRIVATE ROAD EASEMENT
28' GRADED WIDTH
24'
EXISTING 20' AC PAVEMENT
AQUADUCT ROAD
TYPICAL SECTION
NO SCALE
OWNER/SUBDIVIDER:
PREPARED BY:
VICINITY MAP
NO SCALE
SITE

APPENDIX E

- Near Term (No Project) Worksheets

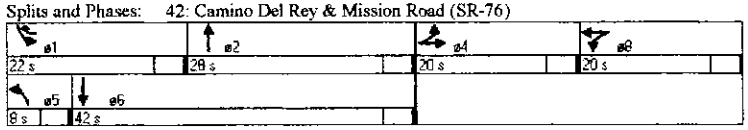
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50		50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850			0.850		0.982				0.850
Flt Protected	0.950				0.983		0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	0	1831	1583	1770	3476	0	1770	3539	1583
Flt Permitted	0.950				0.983		0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	0	1831	1583	1770	3476	0	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			122			202		16				58
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1973			1432			1974			1097	
Travel Time (s)		44.8			32.5			44.9			24.9	
Volume (vph)	105	336	112	54	101	321	71	747	99	354	1232	53
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	114	365	122	59	110	349	77	812	108	385	1339	58
Lane Group Flow (vph)	114	365	122	0	169	349	77	920	0	385	1339	58
Turn Type	Split		Perm	Split		pm+ov	Prot			Prot		Perm
Protected Phases	4	4		8	8	1	5	2		1	6	
Permitted Phases			4			8						6
Total Split (s)	20.0	20.0	20.0	20.0	20.0	22.0	8.0	28.0	0.0	22.0	42.0	42.0
Act Effct Green (s)	16.0	16.0	16.0		12.7	34.7	4.0	24.0		18.0	38.1	38.1
Actuated g/C Ratio	0.18	0.18	0.18		0.15	0.40	0.05	0.28		0.21	0.44	0.44
v/c Ratio	0.35	1.06	0.31		0.63	0.46	0.94	0.94		1.05	0.86	0.08
Control Delay	35.2	102.5	8.8		40.7	9.7	131.4	50.0		96.1	29.8	4.8
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	35.2	102.5	8.8		40.7	9.7	131.4	50.0		96.1	29.8	4.8
LOS	D	F	A		D	A	F	D		F	C	A
Approach Delay		70.7			19.9			56.3			43.3	
Approach LOS		E			B			E			D	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 86.8
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.06
Intersection Signal Delay: 47.8 Intersection LOS: D
Intersection Capacity Utilization 82.7% ICU Level of Service E
Analysis Period (min) 15

Near Term (No Project) AM Peak
42: Camino Del Rey & Mission Road (SR-76) 10/20/2008

Splits and Phases: 42: Camino Del Rey & Mission Road (SR-76)



West Lilac - 030411 10/20/2008 Near Term (No Project) AM Peak
Darnell & Associates, Inc. bh

Near Term (No Project) AM Peak
4: West Lilac Road & Via Ararat 10/20/2008

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	1	257	7	1	310	1	7	1	7	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	279	8	1	337	1	8	1	8	1	1	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	338			287			626	626	283	633	629	338
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	338			287			626	626	283	633	629	338
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			98	100	99	100	100	100
cM capacity (veh/h)	1221			1275			395	400	756	387	399	705

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1
Volume Total	288	1	338	16	3
Volume Left	1	1	0	8	1
Volume Right	8	0	1	8	1
cSH	1221	1275	1700	508	461
Volume to Capacity	0.00	0.00	0.20	0.03	0.01
Queue Length 95th (ft)	0	0	0	2	1
Control Delay (s)	0.0	7.8	0.0	12.3	12.9
Lane LOS	A	A		B	B
Approach Delay (s)	0.0	0.0		12.3	12.9
Approach LOS				B	B

Intersection Summary				
Average Delay	0.4			
Intersection Capacity Utilization	26.4%	ICU Level of Service		A
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	251	4	3	305	6	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	273	4	3	332	7	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			277		613	275
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			277		613	275
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		99	100
cM capacity (veh/h)			1286		455	764

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	277	335	8
Volume Left	0	3	7
Volume Right	4	0	1
cSH	1700	1286	483
Volume to Capacity	0.16	0.00	0.02
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.0	0.1	12.6
Lane LOS		A	B
Approach Delay (s)	0.0	0.1	12.6
Approach LOS			B

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	28.4%	ICU Level of Service	A
Analysis Period (min)	15		

E-3

Near Term (No Project) AM Peak
9: West Lilac Road & Old Highway 395 10/20/2008

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	141	20	93	33	32	40	57	57	13	10	236	222
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	153	22	101	36	35	43	62	62	14	11	257	241
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	646	599	249	455	712	69	498			76		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	646	599	249	455	712	69	498			76		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	49	94	87	91	90	96	94			99		
cM capacity (veh/h)	298	387	751	385	333	980	1062			1521		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	175	101	71	43	62	76	11	171	327
Volume Left	153	0	36	0	62	0	11	0	0
Volume Right	0	101	0	43	0	14	0	0	241
cSH	307	751	357	980	1062	1700	1521	1700	1700
Volume to Capacity	0.57	0.13	0.20	0.04	0.06	0.04	0.01	0.10	0.19
Queue Length 95th (ft)	83	12	18	3	5	0	1	0	0
Control Delay (s)	31.2	10.5	17.5	8.8	8.6	0.0	7.4	0.0	0.0
Lane LOS	D	B	C	A	A		A		
Approach Delay (s)	23.6		14.2		3.9		0.2		
Approach LOS	C		B						

Intersection Summary				
Average Delay	8.4			
Intersection Capacity Utilization	42.5%	ICU Level of Service		A
Analysis Period (min)	15			

Near Term (No Project) AM Peak
35: Old Highway 395 & I-15 Southbound 10/20/2008

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	14	121	0	0	91	288	0	0	0	65	7	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	15	132	0	0	99	313	0	0	0	71	8	11
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	412			132			276	261	99	261	574	132
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	412			132			276	261	99	261	574	132
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			100	100	100	90	98	99
cM capacity (veh/h)	1147			1454			653	635	957	685	423	918

Direction, Lane #	NB 1	NB 2	SB 1	SB 2	SW 1	SW 2
Volume Total	15	132	99	313	78	11
Volume Left	15	0	0	0	71	0
Volume Right	0	0	0	313	0	11
cSH	1147	1700	1700	1700	646	918
Volume to Capacity	0.01	0.08	0.06	0.18	0.12	0.01
Queue Length 95th (ft)	1	0	0	0	10	1
Control Delay (s)	8.2	0.0	0.0	0.0	11.3	9.0
Lane LOS	A				B	A
Approach Delay (s)	0.8		0.0		11.0	
Approach LOS					B	

Intersection Summary				
Average Delay	1.7			
Intersection Capacity Utilization	35.1%	ICU Level of Service	A	
Analysis Period (min)	15			

Near Term (No Project) AM Peak
13: Old Highway 395 & I-15 Northbound 10/20/2008

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	72	81	0	141	13	84	0	6	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	78	88	0	153	14	91	0	7	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	167			166			232	320	153	238	246	78
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	167			166			232	320	153	238	246	78
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			87	100	99	100	100	100
cM capacity (veh/h)	1410			1412			723	597	893	711	657	982

Direction, Lane #	NB 1	NB 2	SB 1	SB 2	NE 1	NE 2
Volume Total	78	88	153	14	91	7
Volume Left	0	0	0	0	91	0
Volume Right	0	88	0	14	0	7
cSH	1700	1700	1700	1700	723	893
Volume to Capacity	0.05	0.05	0.09	0.01	0.13	0.01
Queue Length 95th (ft)	0	0	0	0	11	1
Control Delay (s)	0.0	0.0	0.0	0.0	10.7	9.1
Lane LOS					B	A
Approach Delay (s)	0.0		0.0		10.6	
Approach LOS					B	

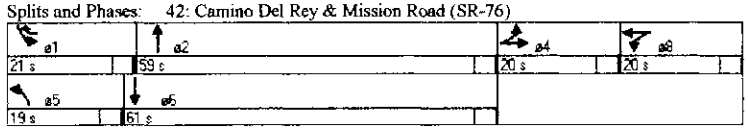
Intersection Summary				
Average Delay	2.4			
Intersection Capacity Utilization	18.7%	ICU Level of Service	A	
Analysis Period (min)	15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50		50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850			0.850		0.994				0.850
Flt Protected	0.950				0.981		0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	0	1827	1583	1770	3518	0	1770	3539	1583
Flt Permitted	0.950				0.981		0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	0	1827	1583	1770	3518	0	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			110			77		4				62
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1973			1432			1974			1097	
Travel Time (s)		44.8			32.5			44.9			24.9	
Volume (vph)	117	77	101	59	97	336	111	1529	63	249	1110	58
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	127	84	110	64	105	365	121	1662	68	271	1207	63
Lane Group Flow (vph)	127	84	110	0	169	365	121	1730	0	271	1207	63
Turn Type	Split		Perm	Split		pm+ov	Prot			Prot		Perm
Protected Phases	4	4		8	8	1	5	2		1	6	
Permitted Phases			4			8						6
Total Split (s)	20.0	20.0	20.0	20.0	20.0	21.0	19.0	59.0	0.0	21.0	61.0	61.0
Act Effet Green (s)	12.9	12.9	12.9		14.2	35.3	12.3	55.1		17.0	59.9	59.9
Actuated g/C Ratio	0.11	0.11	0.11		0.12	0.31	0.11	0.48		0.15	0.52	0.52
v/c Ratio	0.64	0.40	0.40		0.75	0.68	0.64	1.03		1.03	0.66	0.07
Control Delay	57.7	51.6	12.2		63.5	34.9	59.0	59.8		113.8	23.7	4.7
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	57.7	51.6	12.2		63.5	34.9	59.0	59.8		113.8	23.7	4.7
LOS	E	D	B		E	C	E	E		F	C	A
Approach Delay		40.5			44.0			59.7			38.8	
Approach LOS		D			D			E			D	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 115.3
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.03
Intersection Signal Delay: 48.7 Intersection LOS: D
Intersection Capacity Utilization 83.1% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 42: Camino Del Rey & Mission Road (SR-76)



Near Term (No Project) PM Peak
4: West Lilac Road & Via Ararat 10/20/2008

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	1	223	7	8	150	1	4	1	10	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	242	8	9	163	1	4	1	11	1	1	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	164			250			430	430	246	441	433	164
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	164			250			430	430	246	441	433	164
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			99	100	99	100	100	100
cM capacity (veh/h)	1414			1316			531	514	793	516	512	881

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1
Volume Total	251	9	164	16	3
Volume Left	1	9	0	4	1
Volume Right	8	0	1	11	1
cSH	1414	1316	1700	679	597
Volume to Capacity	0.00	0.01	0.10	0.02	0.01
Queue Length 95th (ft)	0	0	0	2	0
Control Delay (s)	0.0	7.8	0.0	10.4	11.1
Lane LOS	A	A		B	B
Approach Delay (s)	0.0	0.4		10.4	11.1
Approach LOS				B	B

Intersection Summary				
Average Delay	0.6			
Intersection Capacity Utilization	23.0%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	231	1	5	154	4	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	251	1	5	167	4	9
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			252		430	252
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			252		430	252
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		99	99
cM capacity (veh/h)			1313		580	787

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	252	173	13
Volume Left	0	5	4
Volume Right	1	0	9
cSH	1700	1313	703
Volume to Capacity	0.15	0.00	0.02
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.0	0.3	10.2
Lane LOS		A	B
Approach Delay (s)	0.0	0.3	10.2
Approach LOS			B

Intersection Summary			
Average Delay		0.4	
Intersection Capacity Utilization		22.2%	ICU Level of Service A
Analysis Period (min)		15	

Near Term (No Project) PM Peak
9: West Lilac Road & Old Highway 395 10/20/2008

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	162	24	59	23	21	31	82	142	21	21	107	50
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	176	26	64	25	23	34	89	154	23	23	116	54
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	567	545	85	525	560	166	171			177		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	567	545	85	525	560	166	171			177		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	50	94	93	93	94	96	94			98		
cM capacity (veh/h)	351	409	957	363	401	849	1404			1396		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	202	64	48	34	89	177	23	78	93
Volume Left	176	0	25	0	89	0	23	0	0
Volume Right	0	64	0	34	0	23	0	0	54
cSH	358	957	380	849	1404	1700	1396	1700	1700
Volume to Capacity	0.57	0.07	0.13	0.04	0.06	0.10	0.02	0.05	0.05
Queue Length 95th (ft)	83	5	11	3	5	0	1	0	0
Control Delay (s)	27.4	9.0	15.8	9.4	7.7	0.0	7.6	0.0	0.0
Lane LOS	D	A	C	A	A		A		
Approach Delay (s)	23.0		13.2		2.6		0.9		
Approach LOS	C		B						

Intersection Summary				
Average Delay	10.0			
Intersection Capacity Utilization	39.0%	ICU Level of Service	A	
Analysis Period (min)	15			

Near Term (No Project) PM Peak
35: Old Highway 395 & I-15 Southbound 10/20/2008

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	4	324	0	0	78	182	0	0	0	85	4	13
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	352	0	0	85	198	0	0	0	92	4	14
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	283			352			462	446	85	446	643	352
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	283			352			462	446	85	446	643	352
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	100	82	99	98
cM capacity (veh/h)	1280			1207			494	506	974	521	390	691

Direction, Lane #	NB 1	NB 2	SB 1	SB 2	SW 1	SW 2
Volume Total	4	352	85	198	97	14
Volume Left	4	0	0	0	92	0
Volume Right	0	0	0	198	0	14
cSH	1280	1700	1700	1700	514	691
Volume to Capacity	0.00	0.21	0.05	0.12	0.19	0.02
Queue Length 95th (ft)	0	0	0	0	17	2
Control Delay (s)	7.8	0.0	0.0	0.0	13.6	10.3
Lane LOS	A				B	B
Approach Delay (s)	0.1		0.0		13.2	
Approach LOS					B	

Intersection Summary				
Average Delay	2.0			
Intersection Capacity Utilization	29.5%	ICU Level of Service	A	
Analysis Period (min)	15			

Near Term (No Project) PM Peak
13: Old Highway 395 & I-15 Northbound 10/20/2008

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↑	↱		↑	↱	↰		↱			
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	89	119	0	145	13	233	0	7	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	97	129	0	158	14	253	0	8	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	172			226			254	384	158	262	268	97
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	172			226			254	384	158	262	268	97
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			64	100	99	100	100	100
cM capacity (veh/h)	1405			1342			699	550	888	685	638	960

Direction, Lane #	NB 1	NB 2	SB 1	SB 2	NE 1	NE 2
Volume Total	97	129	158	14	253	8
Volume Left	0	0	0	0	253	0
Volume Right	0	129	0	14	0	8
cSH	1700	1700	1700	1700	699	888
Volume to Capacity	0.06	0.08	0.09	0.01	0.36	0.01
Queue Length 95th (ft)	0	0	0	0	41	1
Control Delay (s)	0.0	0.0	0.0	0.0	13.0	9.1
Lane LOS					B	A
Approach Delay (s)	0.0		0.0		12.9	
Approach LOS					B	

Intersection Summary				
Average Delay	5.1			
Intersection Capacity Utilization	27.2%	ICU Level of Service	A	
Analysis Period (min)	15			

APPENDIX F

- Near Term (With Project) Worksheets

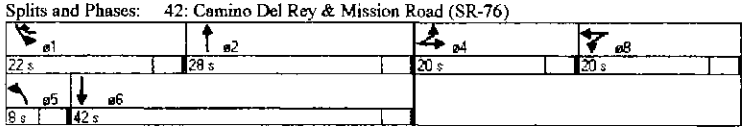
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50		50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850			0.850		0.982				0.850
Flt Protected	0.950				0.982		0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	0	1829	1583	1770	3476	0	1770	3539	1583
Flt Permitted	0.950				0.982		0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	0	1829	1583	1770	3476	0	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			122			202		16				58
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1973			1432			1974			1097	
Travel Time (s)		44.8			32.5			44.9			24.9	
Volume (vph)	105	336	112	59	101	322	71	747	101	354	1232	53
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	114	365	122	64	110	350	77	812	110	385	1339	58
Lane Group Flow (vph)	114	365	122	0	174	350	77	922	0	385	1339	58
Turn Type	Split		Perm	Split		pm+ov	Prot			Prot		Perm
Protected Phases	4	4		8	8	1	5	2		1	6	
Permitted Phases			4			8						6
Total Split (s)	20.0	20.0	20.0	20.0	20.0	22.0	8.0	28.0	0.0	22.0	42.0	42.0
Act Effct Green (s)	16.0	16.0	16.0		12.8	34.9	4.0	24.0		18.0	38.0	38.0
Actuated g/C Ratio	0.18	0.18	0.18		0.15	0.40	0.05	0.28		0.21	0.44	0.44
v/c Ratio	0.35	1.06	0.31		0.64	0.46	0.94	0.95		1.05	0.86	0.08
Control Delay	35.3	103.3	8.8		41.2	9.8	131.5	50.8		96.7	30.0	4.8
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	35.3	103.3	8.8		41.2	9.8	131.5	50.8		96.7	30.0	4.8
LOS	D	F	A		D	A	F	D		F	C	A
Approach Delay		71.2			20.2			57.0			43.6	
Approach LOS		E			C			E			D	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 86.9
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.06
Intersection Signal Delay: 48.2 Intersection LOS: D
Intersection Capacity Utilization 83.1% ICU Level of Service E
Analysis Period (min) 15

Near Term (With Project) AM Peak
42: Camino Del Rey & Mission Road (SR-76) 10/20/2008

Splits and Phases: 42: Camino Del Rey & Mission Road (SR-76)



West Lilac - 030411 10/20/2008 Near Term (With Project) AM Peak
Darnell & Associates, Inc. bh

Near Term (With Project) AM Peak
4: West Lilac Road & Via Ararat 10/20/2008

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	1	258	8	3	313	1	10	1	11	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	280	9	3	340	1	11	1	12	1	1	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	341			289			635	635	285	647	639	341
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	341			289			635	635	285	647	639	341
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			97	100	98	100	100	100
cM capacity (veh/h)	1218			1273			389	395	754	376	393	702

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1
Volume Total	290	3	341	24	3
Volume Left	1	3	0	11	1
Volume Right	9	0	1	12	1
cSH	1218	1273	1700	513	453
Volume to Capacity	0.00	0.00	0.20	0.05	0.01
Queue Length 95th (ft)	0	0	0	4	1
Control Delay (s)	0.0	7.8	0.0	12.4	13.0
Lane LOS	A	A		B	B
Approach Delay (s)	0.0	0.1		12.4	13.0
Approach LOS				B	B

Intersection Summary				
Average Delay	0.6			
Intersection Capacity Utilization	26.5%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	255	5	7	307	9	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	277	5	8	334	10	11
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			283		629	280
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			283		629	280
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		98	99
cM capacity (veh/h)			1280		444	759

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	283	341	21
Volume Left	0	8	10
Volume Right	5	0	11
cSH	1700	1280	568
Volume to Capacity	0.17	0.01	0.04
Queue Length 95th (ft)	0	0	3
Control Delay (s)	0.0	0.2	11.6
Lane LOS		A	B
Approach Delay (s)	0.0	0.2	11.6
Approach LOS			B

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	31.8%	ICU Level of Service	A
Analysis Period (min)	15		

Near Term (With Project) AM Peak
9: West Lilac Road & Old Highway 395 10/20/2008

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	144	20	103	33	32	40	61	57	13	10	236	224
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	157	22	112	36	35	43	66	62	14	11	257	243
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	655	609	250	474	723	69	500			76		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	655	609	250	474	723	69	500			76		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	46	94	85	90	89	96	94			99		
cM capacity (veh/h)	292	380	750	365	326	980	1060			1521		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	178	112	71	43	66	76	11	171	329
Volume Left	157	0	36	0	66	0	11	0	0
Volume Right	0	112	0	43	0	14	0	0	243
cSH	301	750	345	980	1060	1700	1521	1700	1700
Volume to Capacity	0.59	0.15	0.20	0.04	0.06	0.04	0.01	0.10	0.19
Queue Length 95th (ft)	89	13	19	3	5	0	1	0	0
Control Delay (s)	33.0	10.6	18.1	8.8	8.6	0.0	7.4	0.0	0.0
Lane LOS	D	B	C	A	A		A		
Approach Delay (s)	24.4		14.6		4.0		0.2		
Approach LOS	C		B						

Intersection Summary				
Average Delay	8.9			
Intersection Capacity Utilization	42.8%	ICU Level of Service		A
Analysis Period (min)	15			

Near Term (With Project) AM Peak
35: Old Highway 395 & I-15 Southbound 10/20/2008

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	14	125	0	0	96	293	0	0	0	65	7	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	15	136	0	0	104	318	0	0	0	71	8	11
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	423			136			285	271	104	271	589	136
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	423			136			285	271	104	271	589	136
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			100	100	100	90	98	99
cM capacity (veh/h)	1136			1448			643	627	950	675	415	913

Direction, Lane #	NB 1	NB 2	SB 1	SB 2	SW 1	SW 2
Volume Total	15	136	104	318	78	11
Volume Left	15	0	0	0	71	0
Volume Right	0	0	0	318	0	11
cSH	1136	1700	1700	1700	636	913
Volume to Capacity	0.01	0.08	0.06	0.19	0.12	0.01
Queue Length 95th (ft)	1	0	0	0	10	1
Control Delay (s)	8.2	0.0	0.0	0.0	11.5	9.0
Lane LOS	A				B	A
Approach Delay (s)	0.8		0.0		11.2	
Approach LOS					B	

Intersection Summary				
Average Delay	1.7			
Intersection Capacity Utilization	35.4%	ICU Level of Service	A	
Analysis Period (min)	15			

Near Term (With Project) AM Peak
13: Old Highway 395 & I-15 Northbound 10/20/2008

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↑	↱		↑	↱	↰		↱			
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	74	81	0	145	14	86	0	6	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	80	88	0	158	15	93	0	7	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	173			168			238	326	158	245	253	80
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	173			168			238	326	158	245	253	80
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			87	100	99	100	100	100
cM capacity (veh/h)	1404			1409			716	592	888	704	650	980

Direction, Lane #	NB 1	NB 2	SB 1	SB 2	NE 1	NE 2
Volume Total	80	88	158	15	93	7
Volume Left	0	0	0	0	93	0
Volume Right	0	88	0	15	0	7
cSH	1700	1700	1700	1700	716	888
Volume to Capacity	0.05	0.05	0.09	0.01	0.13	0.01
Queue Length 95th (ft)	0	0	0	0	11	1
Control Delay (s)	0.0	0.0	0.0	0.0	10.8	9.1
Lane LOS					B	A
Approach Delay (s)	0.0		0.0		10.7	
Approach LOS					B	

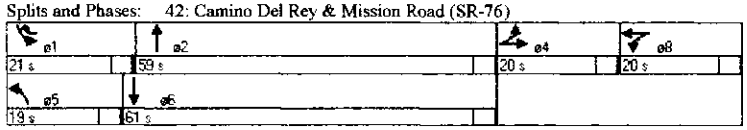
Intersection Summary				
Average Delay	2.4			
Intersection Capacity Utilization	19.1%	ICU Level of Service	A	
Analysis Period (min)	15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50		50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850			0.850		0.994				0.850
Flt Protected	0.950				0.981		0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	0	1827	1583	1770	3518	0	1770	3539	1583
Flt Permitted	0.950				0.981		0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	0	1827	1583	1770	3518	0	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			110			77		5				62
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1973			1432			1974			1097	
Travel Time (s)		44.8			32.5			44.9			24.9	
Volume (vph)	117	77	101	62	97	337	111	1529	69	250	1110	58
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	127	84	110	67	105	366	121	1662	75	272	1207	63
Lane Group Flow (vph)	127	84	110	0	172	366	121	1737	0	272	1207	63
Turn Type	Split		Perm	Split		pm+ov	Prot			Prot		Perm
Protected Phases	4	4		8	8	1	5	2		1	6	
Permitted Phases			4			8						6
Total Split (s)	20.0	20.0	20.0	20.0	20.0	21.0	19.0	59.0	0.0	21.0	61.0	61.0
Act Effct Green (s)	12.9	12.9	12.9		14.3	35.3	12.3	55.1		17.0	59.9	59.9
Actuated g/C Ratio	0.11	0.11	0.11		0.12	0.31	0.11	0.48		0.15	0.52	0.52
v/c Ratio	0.64	0.40	0.40		0.76	0.68	0.64	1.03		1.04	0.66	0.07
Control Delay	57.8	51.7	12.2		64.2	35.0	59.0	61.2		115.1	23.8	4.7
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	57.8	51.7	12.2		64.2	35.0	59.0	61.2		115.1	23.8	4.7
LOS	E	D	B		E	C	E	E		F	C	A
Approach Delay		40.6			44.3			61.1			39.1	
Approach LOS		D			D			E			D	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 115.4
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.04
Intersection Signal Delay: 49.5 Intersection LOS: D
Intersection Capacity Utilization 83.5% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 42: Camino Del Rey & Mission Road (SR-76)



Near Term (With Project) PM Peak
4: West Lilac Road & Via Ararat 10/20/2008

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	1	226	11	13	151	1	6	1	12	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	246	12	14	164	1	7	1	13	1	1	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	165			258			448	447	252	460	453	165
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	165			258			448	447	252	460	453	165
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			99	100	98	100	100	100
cM capacity (veh/h)	1413			1307			515	500	787	498	497	880

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1
Volume Total	259	14	165	21	3
Volume Left	1	14	0	7	1
Volume Right	12	0	1	13	1
cSH	1413	1307	1700	658	582
Volume to Capacity	0.00	0.01	0.10	0.03	0.01
Queue Length 95th (ft)	0	1	0	2	0
Control Delay (s)	0.0	7.8	0.0	10.7	11.2
Lane LOS	A	A		B	B
Approach Delay (s)	0.0	0.6		10.7	11.2
Approach LOS				B	B

Intersection Summary				
Average Delay	0.8			
Intersection Capacity Utilization	23.4%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	233	4	17	159	5	13
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	253	4	18	173	5	14
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			258		465	255
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			258		465	255
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		99	98
cM capacity (veh/h)			1307		548	783

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	258	191	20
Volume Left	0	18	5
Volume Right	4	0	14
cSH	1700	1307	700
Volume to Capacity	0.15	0.01	0.03
Queue Length 95th (ft)	0	1	2
Control Delay (s)	0.0	0.9	10.3
Lane LOS		A	B
Approach Delay (s)	0.0	0.9	10.3
Approach LOS			B

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	32.5%	ICU Level of Service	A
Analysis Period (min)	15		

Near Term (With Project) PM Peak
9: West Lilac Road & Old Highway 395 10/20/2008

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	164	24	64	23	21	31	95	142	21	21	107	54
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	178	26	70	25	23	34	103	154	23	23	116	59
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	597	575	88	559	593	166	175			177		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	597	575	88	559	593	166	175			177		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	46	93	93	93	94	96	93			98		
cM capacity (veh/h)	330	389	953	338	380	849	1399			1396		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	204	70	48	34	103	177	23	78	97
Volume Left	178	0	25	0	103	0	23	0	0
Volume Right	0	70	0	34	0	23	0	0	59
cSH	337	953	357	849	1399	1700	1396	1700	1700
Volume to Capacity	0.61	0.07	0.13	0.04	0.07	0.10	0.02	0.05	0.06
Queue Length 95th (ft)	94	6	11	3	6	0	1	0	0
Control Delay (s)	30.9	9.1	16.6	9.4	7.8	0.0	7.6	0.0	0.0
Lane LOS	D	A	C	A	A		A		
Approach Delay (s)	25.3		13.7		2.9		0.9		
Approach LOS	D		B						

Intersection Summary				
Average Delay	10.8			
Intersection Capacity Utilization	39.1%	ICU Level of Service	A	
Analysis Period (min)	15			

F-10

Near Term (With Project) PM Peak
35: Old Highway 395 & I-15 Southbound 10/20/2008

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	4	336	0	0	80	185	0	0	0	85	4	14
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	365	0	0	87	201	0	0	0	92	4	15
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	288			365			478	461	87	461	662	365
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	288			365			478	461	87	461	662	365
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	100	82	99	98
cM capacity (veh/h)	1274			1193			481	496	972	510	381	680

Direction, Lane #	NB 1	NB 2	SB 1	SB 2	SW 1	SW 2
Volume Total	4	365	87	201	97	15
Volume Left	4	0	0	0	92	0
Volume Right	0	0	0	201	0	15
cSH	1274	1700	1700	1700	502	680
Volume to Capacity	0.00	0.21	0.05	0.12	0.19	0.02
Queue Length 95th (ft)	0	0	0	0	18	2
Control Delay (s)	7.8	0.0	0.0	0.0	13.9	10.4
Lane LOS	A				B	B
Approach Delay (s)	0.1		0.0		13.4	
Approach LOS					B	

Intersection Summary				
Average Delay	2.0			
Intersection Capacity Utilization	29.7%	ICU Level of Service	A	
Analysis Period (min)	15			

Near Term (With Project) PM Peak
13: Old Highway 395 & I-15 Northbound 10/20/2008

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↑	↱		↑	↱	↰		↱			
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	94	119	0	147	13	240	0	7	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	102	129	0	160	14	261	0	8	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	174			232			262	391	160	270	276	102
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	174			232			262	391	160	270	276	102
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			62	100	99	100	100	100
cM capacity (veh/h)	1403			1336			691	544	885	677	631	953

Direction, Lane #	NB 1	NB 2	SB 1	SB 2	NE 1	NE 2
Volume Total	102	129	160	14	261	8
Volume Left	0	0	0	0	261	0
Volume Right	0	129	0	14	0	8
cSH	1700	1700	1700	1700	691	885
Volume to Capacity	0.06	0.08	0.09	0.01	0.38	0.01
Queue Length 95th (ft)	0	0	0	0	44	1
Control Delay (s)	0.0	0.0	0.0	0.0	13.3	9.1
Lane LOS					B	A
Approach Delay (s)	0.0		0.0		13.2	
Approach LOS					B	

Intersection Summary				
Average Delay	5.3			
Intersection Capacity Utilization	27.7%	ICU Level of Service	A	
Analysis Period (min)	15			

APPENDIX G

➢-Approved Sight Distance Design Exception for
West Lilac Road at Via Ararat

County of San Diego

DEPARTMENT OF PUBLIC WORKS

JOHN L. SNYDER
DIRECTOR

5555 OVERLAND AVE, SAN DIEGO, CALIFORNIA 92123-1295
(858) 694-2212 FAX: (858) 268-0461
Web Site: sdcdpw.org

June 25, 2004

Hadley Johnson
129 West Fig Street
Fallbrook, CA 92028

REQUEST FOR EXCEPTION TO A ROAD STANDARD AND/OR MODIFICATION TO PROJECT CONDITIONS – TPM 20541

Dear Mr. Johnson

Department of Public Works (DPW) has reviewed your request for an exception to road standards dated May 14, 2004 and DPW received on May 20, 2004. Your requested modification to project conditions to reduce the sight distance along West Lilac Road to two hundred twenty feet (220') in easterly direction from Via Ararat Drive with an acceleration lane for the mitigation. (Condition B.3.a)

DPW is able to support your request for modification to project condition to reduce the sight distance in easterly direction of West Lilac Road from Via Ararat Drive to two hundred twenty feet (220') with acceleration lane at the intersection of West Lilac Road and Via Ararat Drive. West Lilac Road is a rural light collector road on the San Diego County Circulation Element of the General Plan with an existing estimated of 2,100 ADTs at level of service B. Installation of acceleration lane will mitigate for the reduction in sight distance from 300 feet (300') to two hundred twenty feet (220'). The two hundred twenty feet (220') of sight distance and the acceleration lane will provide an adequate sight distance and safety for West Lilac users.

If you have any questions or need additional information related to this request, please contact Nael Areigat, Project Manager at (858) 495-5747.

Sincerely,

CHANDRA WALLAR
Assistant Director

For

CW: NA:

cc: TPM 20541 File; Subdivision and Permit Inspection (MS 0382)

0071

OCT 11 2001

County of San Diego

JOHN L. SNYDER
DIRECTOR
(619) 694-2233
FAX: (619) 268-0461

DEPARTMENT OF PUBLIC WORKS

5555 OVERLAND AVE. SAN DIEGO, CALIFORNIA 92123-1295

COUNTY ENGINEER
COUNTY AIRPORTS
COUNTY ROAD COMMISSIONER
TRANSIT SERVICES
COUNTY SURVEYOR
FLOOD CONTROL
WASTEWATER MANAGEMENT

October 10, 2001

William Kam Surveying, Inc.
129 W. Fig Street
Fallbrook, CA 92028

REQUEST FOR EXCEPTION TO A ROAD STANDARD AND/OR MODIFICATION TO PROJECT CONDITIONS – TPM 20541

County Department of Public Works (DPW) has reviewed your application for Exception to Road Standard dated August 6, 2001, requesting the following conditions be changed:

1. (B.3.a) Reduction of sight distance along W. Lilac Road from Via Ararat Way from four hundred feet (400') to two hundred fifty feet (250'); and

2. (B.4.c, B.4.d, & C.1.c) Reduction in width of improved road surface for Via Ararat Drive and Mt. Ararat Way from twenty-four feet (24') to twenty feet (20').

Sight distance from Via Ararat Drive along W. Lilac Road is limited to the east. The westerly sight distance appears to be adequate. This request for modification can be supported in part to allow the sight distance to the east to be reduced to three hundred feet (300').

The current standards for Via Ararat Drive and Mt. Ararat Way require a minimum graded width of twenty-eight feet (28') and a minimum improved width of twenty-four feet (24'). Staff review indicates obstructions for such widths are limited in scope, and it appears these roads may be widened in most places. DPW is unable to support this request for modification.

If you have any questions or need additional information related to this request, please contact John R. Thomas at (858) 694-3246.

Sincerely,

Chandra Wallar

Chandra Wallar, Assistant Director

CW:jrt

cc: Construction Engineering (MS 090)
FILE TPM 20541
Sami Raya DPLU (0650)

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9-2

APPENDIX H

- Existing + Construction Traffic Conditions Analysis Worksheets

Existing + Construction Traffic (Alt 1)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50		50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850			0.850		0.979				0.850
Flt Protected	0.950				0.968		0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	0	1803	1583	1770	3465	0	1770	3539	1583
Flt Permitted	0.950				0.968		0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	0	1803	1583	1770	3465	0	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			103			260		19				49
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1973			1432			1974			1097	
Travel Time (s)		44.8			32.5			44.9			24.9	
Volume (vph)	89	285	95	90	46	273	60	633	102	316	1044	45
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	97	310	103	98	50	297	65	688	111	343	1135	49
Lane Group Flow (vph)	97	310	103	0	148	297	65	799	0	343	1135	49
Turn Type	Split		Perm	Split		pm+ov	Prot			Prot		Perm
Protected Phases	4	4		8	8	1	5	2		1	6	
Permitted Phases			4			8						6
Total Split (s)	21.0	21.0	21.0	20.0	20.0	23.0	10.0	26.0	0.0	23.0	39.0	39.0
Act Effct Green (s)	16.2	16.2	16.2		11.8	34.1	5.9	22.1		18.3	36.7	36.7
Actuated g/C Ratio	0.19	0.19	0.19		0.14	0.40	0.07	0.26		0.22	0.43	0.43
v/c Ratio	0.29	0.87	0.27		0.59	0.37	0.54	0.87		0.90	0.74	0.07
Control Delay	33.0	59.2	8.7		44.2	4.8	57.0	41.9		60.6	25.3	5.6
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	33.0	59.2	8.7		44.2	4.8	57.0	41.9		60.6	25.3	5.6
LOS	C	E	A		D	A	E	D		E	C	A
Approach Delay		44.0			17.9			43.1			32.6	
Approach LOS		D			B			D			C	

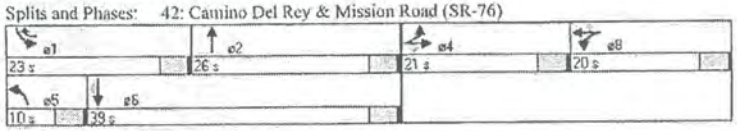
Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 84.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.90
Intersection Signal Delay: 35.1 Intersection LOS: D
Intersection Capacity Utilization 74.0% ICU Level of Service D
Analysis Period (min) 15

H-2

Existing+Res+Const-Alt1 AM Peak
42: Camino Del Rey & Mission Road (SR-76) 12/22/2008

Splits and Phases: 42: Camino Del Rey & Mission Road (SR-76)



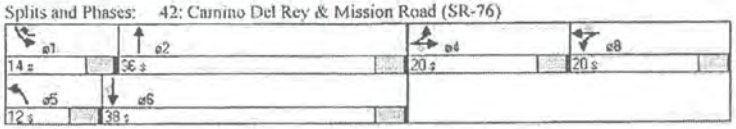
West Lilac - 030411 12/22/2008 Existing+Res+Const-Alt1 AM Peak
Darnell & Associates, Inc. bh/vsh

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50		50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850			0.850		0.994				0.850
Flt Protected	0.950				0.978		0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	0	1822	1583	1770	3518	0	1770	3539	1583
Flt Permitted	0.950				0.978		0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	0	1822	1583	1770	3518	0	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			93			170		5				53
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1973			1432			1974			1097	
Travel Time (s)		44.8			32.5			44.9			24.9	
Volume (vph)	99	65	86	68	82	301	94	1296	58	212	941	49
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	108	71	93	74	89	327	102	1409	63	230	1023	53
Lane Group Flow (vph)	108	71	93	0	163	327	102	1472	0	230	1023	53
Turn Type	Split		Perm	Split		pm+ov	Prot			Prot		Perm
Protected Phases	4	4		8	8	1	5	2		1	6	
Permitted Phases			4			8						6
Total Split (s)	20.0	20.0	20.0	20.0	20.0	14.0	12.0	36.0	0.0	14.0	38.0	38.0
Act Effct Green (s)	10.0	10.0	10.0		11.6	23.2	7.6	33.4		10.4	40.4	40.4
Actuated g/C Ratio	0.13	0.13	0.13		0.15	0.30	0.10	0.44		0.14	0.53	0.53
v/c Ratio	0.48	0.30	0.33		0.60	0.55	0.59	0.95		0.95	0.55	0.06
Control Delay	40.6	35.9	11.2		42.1	14.5	52.5	40.1		86.3	19.7	5.4
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	40.6	35.9	11.2		42.1	14.5	52.5	40.1		86.3	19.7	5.4
LOS	D	D	B		D	B	D	D		F	B	A
Approach Delay		29.3			23.7			40.9			30.9	
Approach LOS		C			C			D			C	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 76.2
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.95
Intersection Signal Delay: 34.1 Intersection LOS: C
Intersection Capacity Utilization 74.2% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 42: Camino Del Rey & Mission Road (SR-76)



H-3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	1	206	26	2	235	1	9	1	9	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	224	28	2	255	1	10	1	10	1	1	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	257			252			502	501	238	511	515	256
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	257			252			502	501	238	511	515	256
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			98	100	99	100	100	100
cM capacity (veh/h)	1308			1313			478	471	801	466	463	783

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1
Volume Total	253	2	257	21	3
Volume Left	1	2	0	10	1
Volume Right	28	0	1	10	1
cSH	1308	1313	1700	590	537
Volume to Capacity	0.00	0.00	0.15	0.04	0.01
Queue Length 95th (ft)	0	0	0	3	0
Control Delay (s)	0.0	7.7	0.0	11.3	11.7
Lane LOS	A	A		B	B
Approach Delay (s)	0.0	0.1		11.3	11.7
Approach LOS				B	B

Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	23.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	1	171	9	10	126	1	26	1	11	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	186	10	11	137	1	28	1	12	1	1	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	138			196			353	353	191	365	357	138
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	138			196			353	353	191	365	357	138
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			95	100	99	100	100	100
cM capacity (veh/h)	1446			1377			596	567	851	578	564	911

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1
Volume Total	197	11	138	41	3
Volume Left	1	11	0	28	1
Volume Right	10	0	1	12	1
cSH	1446	1377	1700	652	652
Volume to Capacity	0.00	0.01	0.08	0.06	0.00
Queue Length 95th (ft)	0	1	0	5	0
Control Delay (s)	0.0	7.6	0.0	10.9	10.5
Lane LOS	A	A		B	B
Approach Delay (s)	0.0	0.6		10.9	10.5
Approach LOS				B	B

Intersection Summary			
Average Delay	1.5		
Intersection Capacity Utilization	21.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	192	16	5	230	7	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	209	17	5	250	8	10
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			226		478	217
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			226		478	217
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		99	99
cM capacity (veh/h)			1342		544	822

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	226	255	17
Volume Left	0	5	8
Volume Right	17	0	10
cSH	1700	1342	672
Volume to Capacity	0.13	0.00	0.03
Queue Length 95th (ft)	0	0	2
Control Delay (s)	0.0	0.2	10.5
Lane LOS		A	B
Approach Delay (s)	0.0	0.2	10.5
Approach LOS			B

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	26.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	176	4	14	120	17	11
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	191	4	15	130	18	12
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			196		354	193
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			196		354	193
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		97	99
cM capacity (veh/h)			1377		636	848

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	196	146	30
Volume Left	0	15	18
Volume Right	4	0	12
cSH	1700	1377	706
Volume to Capacity	0.12	0.01	0.04
Queue Length 95th (ft)	0	1	3
Control Delay (s)	0.0	0.9	10.3
Lane LOS		A	B
Approach Delay (s)	0.0	0.9	10.3
Approach LOS			B

Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	28.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	109	15	79	25	24	30	44	40	9	7	166	158
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	118	16	86	27	26	33	48	43	10	8	180	172
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	466	430	176	343	511	48	352			53		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	466	430	176	343	511	48	352			53		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	72	97	90	95	94	97	96			100		
cM capacity (veh/h)	428	493	837	496	444	1010	1203			1550		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	135	86	53	33	48	53	8	120	232
Volume Left	118	0	27	0	48	0	8	0	0
Volume Right	0	86	0	33	0	10	0	0	172
cSH	435	837	469	1010	1203	1700	1550	1700	1700
Volume to Capacity	0.31	0.10	0.11	0.03	0.04	0.03	0.00	0.07	0.14
Queue Length 95th (ft)	33	9	10	3	3	0	0	0	0
Control Delay (s)	16.9	9.8	13.7	8.7	8.1	0.0	7.3	0.0	0.0
Lane LOS	C	A	B	A	A		A		
Approach Delay (s)	14.2		11.8		3.8		0.2		
Approach LOS	B		B						

Intersection Summary			
Average Delay	6.0		
Intersection Capacity Utilization	36.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	123	18	49	17	16	23	69	100	15	15	75	38
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	134	20	53	18	17	25	75	109	16	16	82	41
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	427	410	61	403	422	117	123			125		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	427	410	61	403	422	117	123			125		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	71	96	95	96	96	97	95			99		
cM capacity (veh/h)	461	497	991	465	489	913	1462			1459		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	153	53	36	25	75	125	16	54	68
Volume Left	134	0	18	0	75	0	16	0	0
Volume Right	0	53	0	25	0	16	0	0	41
cSH	465	991	477	913	1462	1700	1459	1700	1700
Volume to Capacity	0.33	0.05	0.08	0.03	0.05	0.07	0.01	0.03	0.04
Queue Length 95th (ft)	36	4	6	2	4	0	1	0	0
Control Delay (s)	16.5	8.8	13.2	9.1	7.6	0.0	7.5	0.0	0.0
Lane LOS	C	A	B	A	A		A		
Approach Delay (s)	14.5		11.5		2.8		0.9		
Approach LOS	B		B						

Intersection Summary			
Average Delay	7.2		
Intersection Capacity Utilization	31.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	10	88	0	0	68	208	0	0	0	46	5	7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	11	96	0	0	74	226	0	0	0	50	5	8
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	300			96			202	191	74	191	417	96
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	300			96			202	191	74	191	417	96
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			100	100	100	93	99	99
cM capacity (veh/h)	1261			1498			740	698	988	763	522	961

Direction, Lane #	NB 1	NB 2	SB 1	SB 2	SW 1	SW 2
Volume Total	11	96	74	226	55	8
Volume Left	11	0	0	0	50	0
Volume Right	0	0	0	226	0	8
cSH	1261	1700	1700	1700	730	961
Volume to Capacity	0.01	0.06	0.04	0.13	0.08	0.01
Queue Length 95th (ft)	1	0	0	0	6	1
Control Delay (s)	7.9	0.0	0.0	0.0	10.3	8.8
Lane LOS	A				B	A
Approach Delay (s)	0.8		0.0		10.1	
Approach LOS					B	

Intersection Summary			
Average Delay	1.5		
Intersection Capacity Utilization	29.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	3	238	0	0	57	130	0	0	0	60	3	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	259	0	0	62	141	0	0	0	65	3	11
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	203			259			340	327	62	327	468	259
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	203			259			340	327	62	327	468	259
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	100	90	99	99
cM capacity (veh/h)	1368			1306			602	590	1003	625	491	780

Direction, Lane #	NB 1	NB 2	SB 1	SB 2	SW 1	SW 2
Volume Total	3	259	62	141	68	11
Volume Left	3	0	0	0	65	0
Volume Right	0	0	0	141	0	11
cSH	1368	1700	1700	1700	617	780
Volume to Capacity	0.00	0.15	0.04	0.08	0.11	0.01
Queue Length 95th (ft)	0	0	0	0	9	1
Control Delay (s)	7.6	0.0	0.0	0.0	11.6	9.7
Lane LOS	A				B	A
Approach Delay (s)	0.1		0.0		11.3	
Approach LOS					B	

Intersection Summary			
Average Delay	1.7		
Intersection Capacity Utilization	24.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↑	↱		↑	↱	↰		↱			
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	53	57	0	103	10	61	0	4	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	58	62	0	112	11	66	0	4	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	123			120			170	232	112	174	180	58
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	123			120			170	232	112	174	180	58
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			92	100	100	100	100	100
cM capacity (veh/h)	1464			1468			794	668	941	785	713	1009

Direction, Lane #	NB 1	NB 2	SB 1	SB 2	NE 1	NE 2
Volume Total	58	62	112	11	66	4
Volume Left	0	0	0	0	66	0
Volume Right	0	62	0	11	0	4
cSH	1700	1700	1700	1700	794	941
Volume to Capacity	0.03	0.04	0.07	0.01	0.08	0.00
Queue Length 95th (ft)	0	0	0	0	7	0
Control Delay (s)	0.0	0.0	0.0	0.0	9.9	8.8
Lane LOS					A	A
Approach Delay (s)	0.0		0.0		9.9	
Approach LOS					A	

Intersection Summary			
Average Delay	2.2		
Intersection Capacity Utilization	15.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↑	↱		↑	↱	↰		↱			
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	68	84	0	114	9	170	0	5	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	74	91	0	124	10	185	0	5	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	134			165			198	289	124	203	208	74
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	134			165			198	289	124	203	208	74
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			76	100	99	100	100	100
cM capacity (veh/h)	1451			1413			761	621	927	750	689	988

Direction, Lane #	NB 1	NB 2	SB 1	SB 2	NE 1	NE 2
Volume Total	74	91	124	10	185	5
Volume Left	0	0	0	0	185	0
Volume Right	0	91	0	10	0	5
cSH	1700	1700	1700	1700	761	927
Volume to Capacity	0.04	0.05	0.07	0.01	0.24	0.01
Queue Length 95th (ft)	0	0	0	0	24	0
Control Delay (s)	0.0	0.0	0.0	0.0	11.2	8.9
Lane LOS					B	A
Approach Delay (s)	0.0		0.0		11.2	
Approach LOS					B	

Intersection Summary			
Average Delay	4.3		
Intersection Capacity Utilization	22.1%	ICU Level of Service	A
Analysis Period (min)	15		

Existing + Construction Traffic (Alt 2)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50		50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850			0.850		0.982				0.850
Flt Protected	0.950				0.968		0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	0	1803	1583	1770	3476	0	1770	3539	1583
Flt Permitted	0.950				0.968		0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	0	1803	1583	1770	3476	0	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			103			260		15				49
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1973			1432			1974			1097	
Travel Time (s)		44.8			32.5			44.9			24.9	
Volume (vph)	89	285	95	90	46	273	60	633	86	300	1044	45
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	97	310	103	98	50	297	65	688	93	326	1135	49
Lane Group Flow (vph)	97	310	103	0	148	297	65	781	0	326	1135	49
Turn Type	Split		Perm	Split		pm+ov	Prot			Prot		Perm
Protected Phases	4	4		8	8	1	5	2		1	6	
Permitted Phases			4			8						6
Total Split (s)	21.0	21.0	21.0	20.0	20.0	23.0	10.0	26.0	0.0	23.0	39.0	39.0
Act Effct Green (s)	16.2	16.2	16.2		11.8	33.7	5.9	22.2		17.9	36.4	36.4
Actuated g/C Ratio	0.19	0.19	0.19		0.14	0.40	0.07	0.26		0.21	0.43	0.43
v/c Ratio	0.29	0.87	0.27		0.58	0.38	0.53	0.84		0.87	0.74	0.07
Control Delay	33.0	58.9	8.8		44.1	4.8	56.8	39.9		56.8	25.4	5.6
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	33.0	58.9	8.8		44.1	4.8	56.8	39.9		56.8	25.4	5.6
LOS	C	E	A		D	A	E	D		E	C	A
Approach Delay		43.9			17.9			41.2			31.5	
Approach LOS		D			B			D			C	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 84.1
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 34.1 Intersection LOS: C
Intersection Capacity Utilization 72.6% ICU Level of Service C
Analysis Period (min) 15

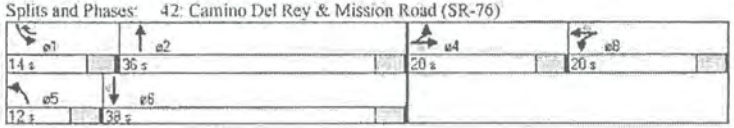
Splits and Phases: 42: Camino Del Rey & Mission Road (SR-76)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50		50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850			0.850		0.994				0.850
Flt Protected	0.950				0.981		0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	0	1827	1583	1770	3518	0	1770	3539	1583
Flt Permitted	0.950				0.981		0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	0	1827	1583	1770	3518	0	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			93			170		5				53
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1973			1432			1974			1097	
Travel Time (s)		44.8			32.5			44.9			24.9	
Volume (vph)	99	65	86	52	82	285	94	1296	58	212	941	49
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	108	71	93	57	89	310	102	1409	63	230	1023	53
Lane Group Flow (vph)	108	71	93	0	146	310	102	1472	0	230	1023	53
Turn Type	Split		Perm	Split		pm+ov	Prot			Prot		Perm
Protected Phases	4	4		8	8	1	5	2		1	6	
Permitted Phases			4			8						6
Total Split (s)	20.0	20.0	20.0	20.0	20.0	14.0	12.0	36.0	0.0	14.0	38.0	38.0
Act Effct Green (s)	10.0	10.0	10.0		11.1	22.7	7.6	33.7		10.4	40.5	40.5
Actuated g/C Ratio	0.13	0.13	0.13		0.14	0.30	0.10	0.44		0.14	0.53	0.53
v/c Ratio	0.48	0.30	0.33		0.56	0.52	0.59	0.94		0.95	0.54	0.06
Control Delay	40.3	35.6	11.1		41.0	13.7	52.2	38.3		86.5	19.4	5.4
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	40.3	35.6	11.1		41.0	13.7	52.2	38.3		86.5	19.4	5.4
LOS	D	D	B		D	B	D	D		F	B	A
Approach Delay		29.1			22.4			39.2			30.6	
Approach LOS		C			C			D			C	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 76
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.95
Intersection Signal Delay: 33.2 Intersection LOS: C
Intersection Capacity Utilization 73.3% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 42: Camino Del Rey & Mission Road (SR-76)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	1	194	6	12	235	1	9	1	9	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	211	7	13	255	1	10	1	10	1	1	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	257			217			499	499	214	509	502	256
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	257			217			499	499	214	509	502	256
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			98	100	99	100	100	100
cM capacity (veh/h)	1308			1352			476	468	826	465	467	783

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1
Volume Total	218	13	257	21	3
Volume Left	1	13	0	10	1
Volume Right	7	0	1	10	1
cSH	1308	1352	1700	595	538
Volume to Capacity	0.00	0.01	0.15	0.03	0.01
Queue Length 95th (ft)	0	1	0	3	0
Control Delay (s)	0.0	7.7	0.0	11.3	11.7
Lane LOS	A	A		B	B
Approach Delay (s)	0.0	0.4		11.3	11.7
Approach LOS				B	B

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	22.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↰			↔			↔	
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	1	171	9	10	114	1	6	1	21	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	186	10	11	124	1	7	1	23	1	1	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	125			196			340	340	191	362	344	124
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	125			196			340	340	191	362	344	124
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			99	100	97	100	100	100
cM capacity (veh/h)	1462			1377			608	577	851	573	574	926

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1
Volume Total	197	11	125	30	3
Volume Left	1	11	0	7	1
Volume Right	10	0	1	23	1
cSH	1462	1377	1700	772	657
Volume to Capacity	0.00	0.01	0.07	0.04	0.00
Queue Length 95th (ft)	0	1	0	3	0
Control Delay (s)	0.0	7.6	0.0	9.9	10.5
Lane LOS	A	A		A	B
Approach Delay (s)	0.0	0.6		9.9	10.5
Approach LOS				A	B

Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	20.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	192	4	27	240	7	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	209	4	29	261	8	10
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			213		530	211
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			213		530	211
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			98		98	99
cM capacity (veh/h)			1357		498	829

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	213	290	17
Volume Left	0	29	8
Volume Right	4	0	10
cSH	1700	1357	642
Volume to Capacity	0.13	0.02	0.03
Queue Length 95th (ft)	0	2	2
Control Delay (s)	0.0	1.0	10.8
Lane LOS		A	B
Approach Delay (s)	0.0	1.0	10.8
Approach LOS			B

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	37.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	186	4	14	120	5	33
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	202	4	15	130	5	36
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			207		365	204
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			207		365	204
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		99	96
cM capacity (veh/h)			1365		627	836

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	207	146	41
Volume Left	0	15	5
Volume Right	4	0	36
cSH	1700	1365	801
Volume to Capacity	0.12	0.01	0.05
Queue Length 95th (ft)	0	1	4
Control Delay (s)	0.0	0.9	9.7
Lane LOS		A	A
Approach Delay (s)	0.0	0.9	9.7
Approach LOS			A

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	28.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	109	15	79	25	24	30	71	40	9	7	166	163
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	118	16	86	27	26	33	77	43	10	8	180	177
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	528	492	179	402	576	48	358			53		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	528	492	179	402	576	48	358			53		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	69	96	90	94	93	97	94			100		
cM capacity (veh/h)	378	443	833	440	397	1010	1198			1550		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	135	86	53	33	77	53	8	120	237
Volume Left	118	0	27	0	77	0	8	0	0
Volume Right	0	86	0	33	0	10	0	0	177
cSH	385	833	418	1010	1198	1700	1550	1700	1700
Volume to Capacity	0.35	0.10	0.13	0.03	0.06	0.03	0.00	0.07	0.14
Queue Length 95th (ft)	39	9	11	3	5	0	0	0	0
Control Delay (s)	19.3	9.8	14.9	8.7	8.2	0.0	7.3	0.0	0.0
Lane LOS	C	A	B	A	A		A		
Approach Delay (s)	15.6		12.5		4.9		0.2		
Approach LOS	C		B						

Intersection Summary			
Average Delay	6.5		
Intersection Capacity Utilization	37.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	128	18	76	17	16	23	69	100	15	15	75	38
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	139	20	83	18	17	25	75	109	16	16	82	41
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	427	410	61	433	422	117	123			125		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	427	410	61	433	422	117	123			125		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	70	96	92	96	96	97	95			99		
cM capacity (veh/h)	461	497	991	429	489	913	1462			1459		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	159	83	36	25	75	125	16	54	68
Volume Left	139	0	18	0	75	0	16	0	0
Volume Right	0	83	0	25	0	16	0	0	41
cSH	465	991	457	913	1462	1700	1459	1700	1700
Volume to Capacity	0.34	0.08	0.08	0.03	0.05	0.07	0.01	0.03	0.04
Queue Length 95th (ft)	37	7	6	2	4	0	1	0	0
Control Delay (s)	16.7	9.0	13.6	9.1	7.6	0.0	7.5	0.0	0.0
Lane LOS	C	A	B	A	A		A		
Approach Delay (s)	14.0		11.7		2.8		0.9		
Approach LOS	B		B						

Intersection Summary			
Average Delay	7.5		
Intersection Capacity Utilization	31.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	10	103	0	0	68	208	0	0	0	46	5	19
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	11	112	0	0	74	226	0	0	0	50	5	21
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	300			112			231	208	74	208	434	112
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	300			112			231	208	74	208	434	112
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			100	100	100	93	99	98
cM capacity (veh/h)	1261			1478			698	683	988	745	511	941

Direction, Lane #	NB 1	NB 2	SB 1	SB 2	SW 1	SW 2
Volume Total	11	112	74	226	55	21
Volume Left	11	0	0	0	50	0
Volume Right	0	0	0	226	0	21
cSH	1261	1700	1700	1700	713	941
Volume to Capacity	0.01	0.07	0.04	0.13	0.08	0.02
Queue Length 95th (ft)	1	0	0	0	6	2
Control Delay (s)	7.9	0.0	0.0	0.0	10.5	8.9
Lane LOS	A				B	A
Approach Delay (s)	0.7		0.0		10.1	
Approach LOS					B	

Intersection Summary			
Average Delay	1.7		
Intersection Capacity Utilization	29.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	3	238	0	0	72	142	0	0	0	60	3	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	259	0	0	78	154	0	0	0	65	3	11
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	233			259			356	343	78	343	498	259
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	233			259			356	343	78	343	498	259
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	100	89	99	99
cM capacity (veh/h)	1335			1306			587	578	982	610	473	780

Direction, Lane #	NB 1	NB 2	SB 1	SB 2	SW 1	SW 2
Volume Total	3	259	78	154	68	11
Volume Left	3	0	0	0	65	0
Volume Right	0	0	0	154	0	11
cSH	1335	1700	1700	1700	601	780
Volume to Capacity	0.00	0.15	0.05	0.09	0.11	0.01
Queue Length 95th (ft)	0	0	0	0	10	1
Control Delay (s)	7.7	0.0	0.0	0.0	11.8	9.7
Lane LOS	A				B	A
Approach Delay (s)	0.1		0.0		11.5	
Approach LOS					B	

Intersection Summary			
Average Delay	1.6		
Intersection Capacity Utilization	25.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↑	↱		↑	↱	↰		↱			
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	56	57	0	103	10	73	0	4	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	61	62	0	112	11	79	0	4	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	123			123			173	235	112	177	184	61
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	123			123			173	235	112	177	184	61
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			90	100	100	100	100	100
cM capacity (veh/h)	1464			1464			790	666	941	781	711	1004

Direction, Lane #	NB 1	NB 2	SB 1	SB 2	NE 1	NE 2
Volume Total	61	62	112	11	79	4
Volume Left	0	0	0	0	79	0
Volume Right	0	62	0	11	0	4
cSH	1700	1700	1700	1700	790	941
Volume to Capacity	0.04	0.04	0.07	0.01	0.10	0.00
Queue Length 95th (ft)	0	0	0	0	8	0
Control Delay (s)	0.0	0.0	0.0	0.0	10.1	8.8
Lane LOS					B	A
Approach Delay (s)	0.0		0.0		10.0	
Approach LOS					B	

Intersection Summary			
Average Delay	2.5		
Intersection Capacity Utilization	16.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↑	↱		↑	↱	↰		↱			
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	68	84	0	117	21	170	0	5	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	74	91	0	127	23	185	0	5	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	150			165			201	292	127	207	224	74
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	150			165			201	292	127	207	224	74
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			76	100	99	100	100	100
cM capacity (veh/h)	1431			1413			757	618	923	747	675	988

Direction, Lane #	NB 1	NB 2	SB 1	SB 2	NE 1	NE 2
Volume Total	74	91	127	23	185	5
Volume Left	0	0	0	0	185	0
Volume Right	0	91	0	23	0	5
cSH	1700	1700	1700	1700	757	923
Volume to Capacity	0.04	0.05	0.07	0.01	0.24	0.01
Queue Length 95th (ft)	0	0	0	0	24	0
Control Delay (s)	0.0	0.0	0.0	0.0	11.3	8.9
Lane LOS					B	A
Approach Delay (s)	0.0		0.0		11.2	
Approach LOS					B	

Intersection Summary			
Average Delay	4.2		
Intersection Capacity Utilization	22.2%	ICU Level of Service	A
Analysis Period (min)	15		

APPENDIX I

- Design Modification Letter

County of San Diego

DEPARTMENT OF PUBLIC WORKS

JOHN L. SNYDER
DIRECTOR

5555 OVERLAND AVE, SAN DIEGO, CALIFORNIA 92123-1295
(858) 694-2212 FAX: (858) 268-0481
Web Site: sdcdpw.org

June 25, 2004

Hadley Johnson
129 West Fig Street
Fallbrook, CA 92028

REQUEST FOR EXCEPTION TO A ROAD STANDARD AND/OR MODIFICATION TO PROJECT CONDITIONS – TPM 20541

Dear Mr. Johnson

Department of Public Works (DPW) has reviewed your request for an exception to road standards dated May 14, 2004 and DPW received on May 20, 2004. Your requested modification to project conditions to reduce the sight distance along West Lilac Road to two hundred twenty feet (220') in easterly direction from Via Ararat Drive with an acceleration lane for the mitigation. (Condition B.3.a)

DPW is able to support your request for modification to project condition to reduce the sight distance in easterly direction of West Lilac Road from Via Ararat Drive to two hundred twenty feet (220') with acceleration lane at the intersection of West Lilac Road and Via Ararat Drive. West Lilac Road is a rural light collector road on the San Diego County Circulation Element of the General Plan with an existing estimated of 2,100 ADTs at level of service B. Installation of acceleration lane will mitigate for the reduction in sight distance from 300 feet (300') to two hundred twenty feet (220'). The two hundred twenty feet (220') of sight distance and the acceleration lane will provide an adequate sight distance and safety for West Lilac users.

If you have any questions or need additional information related to this request, please contact Nael Areigat, Project Manager at (858) 495-5747.

Sincerely,

CHANDRA WALLAR
Assistant Director

For

CW: NA:

cc: TPM 20541 File; Subdivision and Permit Inspection (MS 0382)

Darnell & ASSOCIATES, INC.
TRANSPORTATION PLANNING & TRAFFIC ENGINEERING

MEMORANDUM

DATE: August 8, 2011

TO: Sophia Habl Mitchell, HDR Engineering, Inc. E-Mail: Sophia.mitchell@hdrinc.com
CC: Wes Peltzer, Law Offices of Wesley W. Peltzer E-Mail: wwpeltzer@aol.com

FROM: Bill E. Darnell, P.E.

D&A Ref. No: 030411

RE: West Lilac Tentative Map (TM 5276/Log No. 02-02-002, SCH No. 2006091067) – Responses to County Counsel Comments on the Traffic Analysis

County Counsel asked that additional discussion be provided to discuss how the traffic analysis addressed the following threshold of significance in regards to unsignalized intersections:

- Traffic volume increases from public or private projects will have a significant impact at an unsignalized intersection if based upon an evaluation of existing accident rates, the signal priority list, intersection geometrics, proximity of adjacent driveways, sight distance or other factors, the project would significantly impact the operations of the intersection.

From discussions with County staff, the threshold of significance described above was intended to be utilized at locations where there were known safety concerns and was not intended to be utilized at all unsignalized intersections within the County. With that said, there are five (5) unsignalized intersections in the study area for the West Lilac project: (1) West Lilac Road/Via Ararat, (2) West Lilac Road/Aqueduct Road; (3) West Lilac Road/Old Highway 395; (4) Old Highway 395/I-15 Southbound Ramp; and (5) Old Highway 395/I-15 Northbound Ramp.

Detailed discussions on the intersection geometrics, sight distance, and safety issues at the West Lilac Road/Via Ararat Road intersection were provided in Darnell & Associates, Inc. (D&A) September 25, 2009 *Traffic Study for West Lilac Residential Subdivision (TM 5276).* A discussion on the remaining four intersections is provided below.

West Lilac Road/Aqueduct Road:

A field review of the area found that there are limited driveways along West Lilac Road just east and west of Aqueduct Road (two driveways to the west of Aqueduct Road and five driveways to the east of Aqueduct Road). With the exception of the two (2) driveways located immediately east and west of Aqueduct Road, all driveways are located more than 300 feet away from Aqueduct Road. The first driveway located just west of Aqueduct Road is located approximately 101 feet (101') to the west of Aqueduct Road on the north side of West Lilac Road. This driveway appears to serve as a secondary access to two (2) residential homes. The second closest driveway is located approximately 141 feet (141') to the east of Aqueduct Road on the north side of West Lilac Road. Since the traffic turning into/out of these driveways is nominal, the addition of the project traffic will not significantly impact the operation of these existing driveways.

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As discussed in the September 25, 2009 *Traffic Study for West Lilac Residential Subdivision (TM 5276)* Aqueduct Road is currently only 20 feet (20') wide; however, as part of the proposed project the applicant will widen Aqueduct Road such that it complies with the County of San Diego's Private Road Standards. Thus the addition of the proposed project will improve the existing geometrics at the West Lilac Road/Aqueduct Road intersection and thus not have a significant impact.

The West Lilac Road/Aqueduct Road intersection is not included on the County's signal priority list and based on the level of service analysis provided in the September 25, 2009 *Traffic Study for West Lilac Residential Subdivision (TM 5276),* a traffic signal is not required to provide acceptable levels of service at this intersections with or without the addition of the proposed project.

Field reviews indicate that there is adequate visibility for vehicles exiting Aqueduct Road onto West Lilac Road.

Based on the discussions above, the proposed project is deemed to have a less than significant impact at the West Lilac Road/Aqueduct Road intersection based on a review of the signal priority list, intersection geometrics, and proximity of adjacent driveways.

West Lilac Road/Old Highway 395

A field review found that there are limited driveways along Old Highway 395 and West Lilac Road in the vicinity of the West Lilac Road/Old Highway 395 intersection. There is one driveway located at the northwest corner of the West Lilac Road/Old Highway 395 intersection. This driveway just provides access to a small paved area that does not serve any specific building or use (i.e. it is not a designated park and ride lot and there are no buildings that can take access from this area). The other driveways on West Lilac Road are located more than 300 feet away from Old Highway 395 and the driveways on Old 395 are located in excess of 1300 feet south of West Lilac Road.

A review of the intersection geometrics along at the West Lilac Road/Old Highway 395 intersection find that there are adequate shoulders on Old Highway 395, painted edge lines on both West Lilac Road and Old Highway 395, dedicated left turn lanes on Old Highway 395, and dedicated right turn lanes on West Lilac Road. The intersection geometrics are in compliance with County standards and based on the level of service analysis provided in the September 25, 2009 *Traffic Study for West Lilac Residential Subdivision (TM 5276)* provide adequate levels of service with or without the addition of the proposed project.

The West Lilac Road/Old Highway 395 intersection is not included on the County's signal priority list and based on the level of service analysis provided in the September 25, 2009 *Traffic Study for West Lilac Residential Subdivision (TM 5276),* a traffic signal is not required to provide acceptable levels of service at this intersections with or without the addition of the proposed project.

Field reviews found that there is adequate visibility for the turning movements exiting West Lilac Road onto Old Highway 395.

Based on the discussions above, the proposed project is deemed to have a less than significant impact at the West Lilac Road/Old Highway 395 intersection based on a review of the signal priority list, intersection geometrics, and proximity of adjacent driveways.

West Lilac Road/I-15 Southbound Ramp

A field review found that there are no driveways on Old Highway 395 just north of or south of the I-15 Southbound Ramp. The closest intersection (other than the I-15 northbound ramp) is the Via Urner Way intersection which is located over 1600 feet to the north.

A review of the intersection geometrics along at the West Lilac Road/I-15 Southbound Ramp intersection find that there are adequate shoulders on Old Highway 395, painted edge lines on both Old Highway 395 and the I-15 Southbound Ramp, dedicated northbound left turn lane and southbound right turn lane on Old Highway 395, and dedicated right turn lanes exiting the southbound I-15 ramp. The intersection geometrics are in compliance with Caltrans standards and based on the level of service analysis provided in the September 25, 2009 *Traffic Study for West Lilac Residential Subdivision (TM 5276)* provide adequate levels of service with or without the addition of the proposed project.

The West Lilac Road/I-15 Southbound Ramp intersection is not included on the County's signal priority list and based on the level of service analysis provided in the September 25, 2009 *Traffic Study for West Lilac Residential Subdivision (TM 5276),* a traffic signal is not required to provide acceptable levels of service at this intersections with or without the addition of the proposed project.

Field reviews found that there is adequate visibility for the turning movements exiting the I-15 southbound ramp onto Old Highway 395.

Based on the discussions above, the proposed project is deemed to have a less than significant impact at the West Lilac Road/I-15 Southbound Ramp intersection based on a review of the signal priority list, intersection geometrics, and proximity of adjacent driveways.

West Lilac Road/I-15 Northbound Ramp

A field review found that there are no driveways on Old Highway 395 just north of or south of the I-15 Southbound Ramp. The closest intersection (other than the I-15 southbound ramp) is the Palos Verdes Drive intersection which is located approximately 760 feet to the south.

A review of the intersection geometrics along at the West Lilac Road/I-15 Northbound Ramp intersection find that there are adequate shoulders on Old Highway 395, painted edge lines on both Old Highway 395 and the I-15 Southbound Ramp, southbound right turn lane on Old Highway 395, and dedicated left turn lane and right turn lane exiting the northbound I-15 ramp. The intersection geometrics are in compliance with Caltrans standards and based on the level of service analysis provided in the September 25, 2009 *Traffic Study for West Lilac Residential Subdivision (TM 5276)* provide adequate levels of service with or without the addition of the proposed project.

The West Lilac Road/I-15 Northbound Ramp intersection is not included on the County's signal priority list and based on the level of service analysis provided in the September 25, 2009 *Traffic Study for West Lilac Residential Subdivision (TM 5276),* a traffic signal is not required to provide acceptable levels of service at this intersections with or without the addition of the proposed project.

Field reviews found that there is adequate visibility for the turning movements exiting the I-15 northbound ramp onto Old Highway 395.

Based on the discussions above, the proposed project is deemed to have a less than significant impact at the West Lilac Road/I-15 Northbound Ramp intersection based on a review of the signal priority list, intersection geometrics, and proximity of adjacent driveways.