

**WARNER RANCH  
TRAFFIC IMPACT STUDY**  
**3810-06-002 (SP), 3800-06-009 (GPA), 3600-06-011 (R), 3100-5508 (TM), 3300-  
06-016 (MUP), 3500-11-007 (S), 3000-06-040 (AD), 3910-0602020 (ER)**

May 2013



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May 2013

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## GLOSSARY OF TERMS AND ACRONYMS

<b>Acronyms</b>	<b>Definitions</b>
AASHTO	American Association of State Highway and Transportation Officials
ADA	Americans with Disabilities Act
ADT	Average Daily Traffic
APE	Area of Potential Effect
AWSC	All-way Stop-Controlled
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
CMP	Congestion Management Program
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EPA	U.S. Environmental Protection Agency
FEIR	Final Environmental Impact Report
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
GIS	Geographic Information Systems
HCM	2000 Highway Capacity Manual
HUD	U.S. Department of Housing and Urban Development
ILV	Intersecting Lane Volume
ITS	Intelligent Transportation Systems
LOS	Level of Service
MHPA	Multi-Habitat Planning Area
MOA	Memorandum of Agreement
MOE	Measure of Effectiveness
MOU	Memorandum of Understanding
mph	miles per hour
MTDB	Metropolitan Transit Development Board
NOC	Notice of Completion
NOP	Notice of Preparation
PCE	Passenger Car Equivalent
pcphgpl	passenger cars per hour of green per lane
PeMS	Performance Measurement Systems
RTP	Regional Transportation Plan
SANDAG	San Diego Association of Governments
SANTEC	San Diego Traffic Engineers' Council
sf	square feet
SR	State Route
TIF	Transportation Impact Fee
TIS	Traffic Impact Study
TWSC	Two-way Stop Controlled
V/C	Volume-to-Capacity ratio

## EXECUTIVE SUMMARY

This traffic impact analysis has been prepared for the proposed Warner Ranch development project, a 780 unit residential project that includes a small park and a fire station. The proposed development is located in the unincorporated County of San Diego in the Warner Ranch Specific Plan Area, approximately five miles east of Interstate 15. The project is adjacent to State Route 76 just west of Pala Temecula Road. Access to the project site is provided by State Route 76. State Route 76 and Pala Temecula Road are arterials that connect the project to other arterials. Interstate 15 provides regional access to the project site.

The traffic study is prepared in accordance with the *County of San Diego Report Format and Content Requirements (Transportation and Traffic)* and the *County of San Diego Guidelines for Determining Significance (Transportation and Traffic, August, 2011)*.

Traffic counts for the project were taken in March, June and October of 2009 and an update of the base counts was commissioned in November of 2010 to verify that no substantial growth in volumes has occurred since that time. The project is estimated to generate 7,540 total daily trips to and from the site. The trip generation rates used in this analysis are determined based on rates contained in the *(SANDAG) (Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region (2002)*. This manual provides standards and recommendations for the probable traffic generation of various land uses based upon local, regional and nationwide studies of existing developments in comparable settings.

Trip distribution and assignment is the process of identifying the probable destinations, directions and traffic routes that project related traffic will likely affect. The trip distribution and assignment for this project is based on SANDAG's computerized travel forecast model (Series 11 Select Zone analysis). In some cases engineering judgment was used to modify the SANDAG Select Zone. Based on SANDAG's model, 61.7% of the project traffic will travel west on State Route 76 towards Interstate 15; 8% will travel east towards Lilac Road and Pauma Valley; 12.5% will travel north on Pala Temecula Road; and 17.8% will be served by jobs, schools, shopping and churches in the Pala community.

The project is evaluated for potential direct and cumulative impacts as well as conformance with both the previously adopted and adopted General Plan. The traffic study indicates that the project will cause several direct impacts to State Route 76 west of Interstate 15, and there are cumulative impacts as well. The project is dependent on the implementation of the State Route 76 west of Interstate 15 which will address its direct impacts. The State Route 76 East Project is a Transnet funded Caltrans improvement project that runs from South Mission Road to Interstate 15. The current proposal is to improve State Route 76 to a four-lane conventional highway and have six-lanes plus turn pockets at the interchange. The project is scheduled for completion in 2015. Cumulative impacts could be addressed by the implementation of the County's Adopted General Plan Mobility Element, which involves further improvements to State Route 76 to the west of Mission Road as a 6 lane Prime Arterial; however, neither funding for a design exists to affect that further improvement. To the east of Interstate 15 the adopted Mobility Element continues the improvements that already exist between the freeway and a point approximately 0.7 miles east of Pankey Road, and this is identified as a 4 lane major roadway all the way eastward in our study area to Couser Canyon Road where the improvements would end. Abutting improvements being made by the project shall be made along State Route 76 at the project frontage, and a signalized entrance point to the project is being proposed.

## CHAPTER 1 THE PROJECT

This traffic impact analysis has been prepared for the proposed Warner Ranch development project. The proposed development is located in the unincorporated County of San Diego in the Warner Ranch Specific Plan Area, approximately five miles east of Interstate 15.

The project is adjacent to State Route 76 just west of Pala Temecula Road. Access to the project site is provided by State Route 76. State Route 76 and Pala Temecula Road are arterials that connect the project to other arterials. Interstate 15 provides regional access to the project site.

Figure 1-1 shows the project vicinity and study area. Figure 1-2 shows the project site plan.

### PROJECT DESCRIPTION

The proposed development includes 534 single-family detached homes, 246 multi-family condominiums (condominiums), a small park and a fire station. The proposed development is expected to generate approximately 7,570 daily trips with 618 occurring in the AM peak hour and 756 occurring in the PM peak hour. The trip generation is shown below in the trip generation table.

### STUDY AREA

The study area for this project includes those locations that are expected to be affected by this project. The scope of the study area is based on the County of San Diego Guidelines which specifies that an intersection or roadway segment should be analyzed if it will carry 25 peak hour peak direction project trips. The study area is shown in Figure 1-1. The specific study area includes eighteen roadway segments, twenty intersections, two freeway mainlines.

#### Roadway Segments

- State Route 76 between E. Vista Way and N. River Road
- State Route 76 between N. River Road and Camino Del Rey/Olive Hill Rd
- State Route 76 between Camino Del Rey/Olive Hill Rd and S. Mission Road
- State Route 76 between S. Mission Road and Gird Road
- State Route 76 between Gird Road and Old Highway 395
- State Route 76 between Old Highway 395 and I-15 SB Ramp
- State Route 76 between I-15 Ramps
- State Route 76 between I-15 NB Ramp and Pankey Road
- State Route 76 between Pankey Road and Horse Ranch Creek Road
- State Route 76 between Horse Ranch Creek Road and Rice Canyon
- State Route 76 between Rice Canyon and Couser Canyon
- State Route 76 between Couser Canyon and W. Pala Mission Road
- State Route 76 between W. Pala Mission Road and E. Pala Mission Road
- State Route 76 between E. Pala Mission Road and Lilac Road
- State Route 76 between Lilac Road and Adams Drive
- State Route 76 between Adams Drive and Cole Grade Road
- W. Pala Mission Road between State Route 76 and Pala Temecula Road
- Pala Temecula Road north of Pala Mission Road

**Intersections**

- State Route 76 / E. Vista Way
- State Route 76 / N. River Road
- State Route 76 / Camino Del Rey/Olive Hill Road
- State Route 76 / S. Mission Road
- State Route 76 / Gird Road
- State Route 76 / Old Highway 395
- State Route 76 / I-15 SB Ramp
- State Route 76 / I-15 NB Ramp
- State R Route 76 / Pankey Road
- State Route 76 / Horse Ranch Creek Road
- State Route 76 / Rice Canyon Road
- State Route 76 / Couser Canyon Road
- State Route 76 / Project Driveway
- State Route 76 / W. Pala Mission Road
- W. Pala Mission Road/ Pala Temecula Road
- State Route 76 / Brittian Road
- State Route 76/ E. Pala Missions Road
- State Route 76/ Lilac Road
- State Route 76 / Adams Drive
- State Route 76 / Cole Grade Road

**Freeway Mainlines**

- Interstate 15 north of State Route 76
- Interstate 15 south of State Route 76

**PROJECT TRIP GENERATION**

Trip generation is a measure or forecast of the number of trips that begin or end at the project site. The traffic generated is a function of the extent and type of development proposed for the site. These trips will result in some traffic increases on the streets where they occur. Vehicular traffic generation characteristics for projects are estimated based on established rates. These rates identify the probable traffic generation of various land uses based studies of developments in comparable settings. The rates used in this analysis are determined based on rates contained in the *(SANDAG) (Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region (2002.)* This manual provides standards and recommendations for the probable traffic generation of various land uses based upon local, regional and nationwide studies of existing developments in comparable settings.

As shown in Table 1-1 each single family dwelling unit is expected to generate 10 trips a day. Each multi-family unit is expected to generate 8 trips a day. The small park is expected to generate 50 trips per acre per day. The fire station is expected to generate 50 trips per day. Appendix B contains excerpts from this manual.

**Table 1-1  
Project Trip Generation**

Land Use	Intensity	Unit	Rate/Trips	Daily Trips	AM Peak Hour			PM Peak Hour		
					Total	In	Out	Total	In	Out
Single Family (3-6 DU/acre)	534	dwelling unit	Rate	10	8%	30%	70%	10%	70%	30%
			Trips	5,340	428	129	300	534	374	161
Condominium (6-20 DU/acre)	246	dwelling unit	Rate	8	8%	20%	80%	10%	70%	30%
			Trips	1,968	158	32	127	197	138	60
Developed Park	4.23	AC	Rate	50	13%	50%	50%	9%	50%	50%
			Trips	212	28	14	14	20	10	10
Fire Station	1	Station	Rate	50	8%	60%	40%	10%	40%	60%
			Trips	50	4	3	2	5	2	3
<b>Totals</b>				<b>7,570</b>	<b>618</b>	<b>178</b>	<b>443</b>	<b>756</b>	<b>524</b>	<b>234</b>

Source: SANDAG

## TRIP DISTRIBUTION AND ASSIGNMENT

Trip distribution and assignment is the process of identifying the probable destinations, directions and traffic routes that project related traffic will likely affect. Trip distribution and assignment information can be estimated from observed traffic patterns, experience or through use of a computerized travel forecast model. Once the proposed developments trips have been estimated, they are assigned to the study area network. The trip distribution and assignment for this project is based on SANDAG's computerized travel forecast model (Series 11 Select Zone analysis).

This project many potential local services to link up to in the community of Pala, which begins half a mile to the east. The Pala community has is its own village center with many services (i.e. live-work-play opportunities) that interact with and support the residential uses of the proposed project. The model also shows only modest growth in the adjacent zones between now and the year 2030. These services include:

- Employment at Pala Casino (or further east at Pauma Casino);
- Education at the Vivian Banks Charter School, the Ashwet Patia School, the Pala State Preschool;
- Limited shopping at the Pala Store (including produce, groceries, sundries), the Pala Minimart and additional shopping and entertainment at the casino;
- Other services including a Catholic Church, the Pala Buffet, a fire station, Wells Fargo Bank, play fields.

SANDAG's transportation model, which is used to determine the trip distribution of the project, indicates that 19% of residential trips are home-to-work, 12% are home-to-school, 19% are shopping-related, and the remaining 50% have other trip purposes (including home-to-other, work-to-other, other-to-other, etc.). Nonetheless, rather conservative assumptions regarding local trip connections have been assumed, and most travel to and from the project further away on State Route 76.

**Table 1-2  
Local Trip Making By Purpose**

Trip Purpose	Total %	Local Capture	Total Local
Home-Work	19%	50%	10%
Home-School	12%	40%	5%
Home-Shop	19%	60%	11%
Home-Other	32%	60%	19%
Other	18%	10%	2%
Total	100%		47%

The trip distribution and assignment for the project-related trips is shown in Figure 1-3. Figure 1-4 shows the daily project trips while Figures 1-5 and 1-6 show peak hour project trips. Appendix B contains the select zone model, illustrations of any model adjustments and traffic analysis zone (TAZ) land use information for the existing and year 2030 land uses.

### **PROJECT ACCESS**

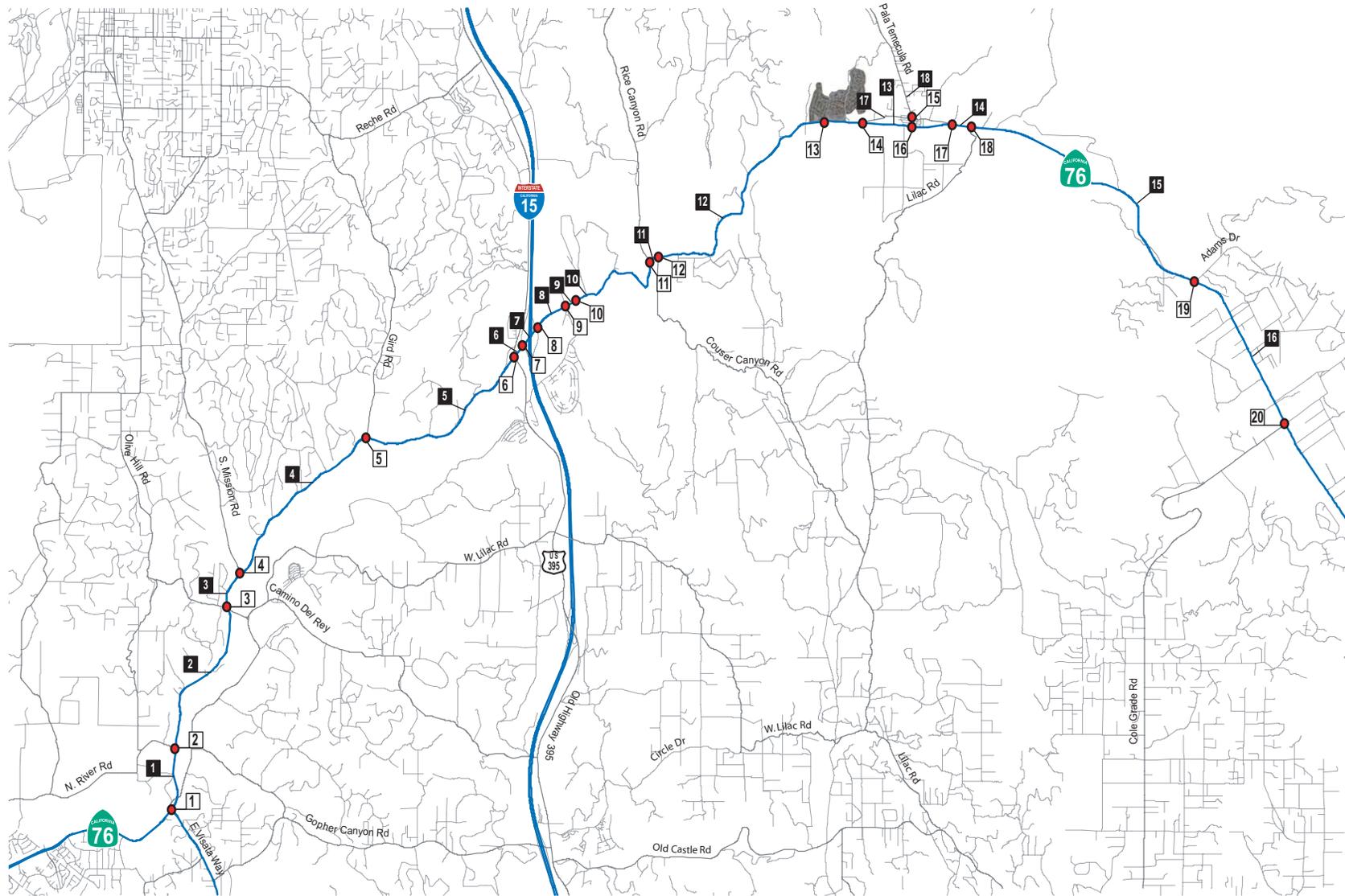
The proposed project will take access off State Route 76 via a signalized intersection. This is the only public access point including the fire station. Refer to the conceptual plan showing the signal, access point, and acceleration and deceleration lanes in Appendix K. Two emergency access driveways also serve the site along State Route 76. These access points are closed for public use and controlled in a manner satisfactory to Caltrans and the County Engineer. Regional access is provided by State Route 76 (south of the project site) and Interstate 15 (west of the project site).

### **SIGHT DISTANCE**

The main entrance will be positively controlled by a signalized intersection. The intersection will be designed to meet County standards.

### **PARKING**

The County of San Diego requires that two parking spaces be provided per dwelling unit.



LEGEND	
	Study Intersection
	Study Segment

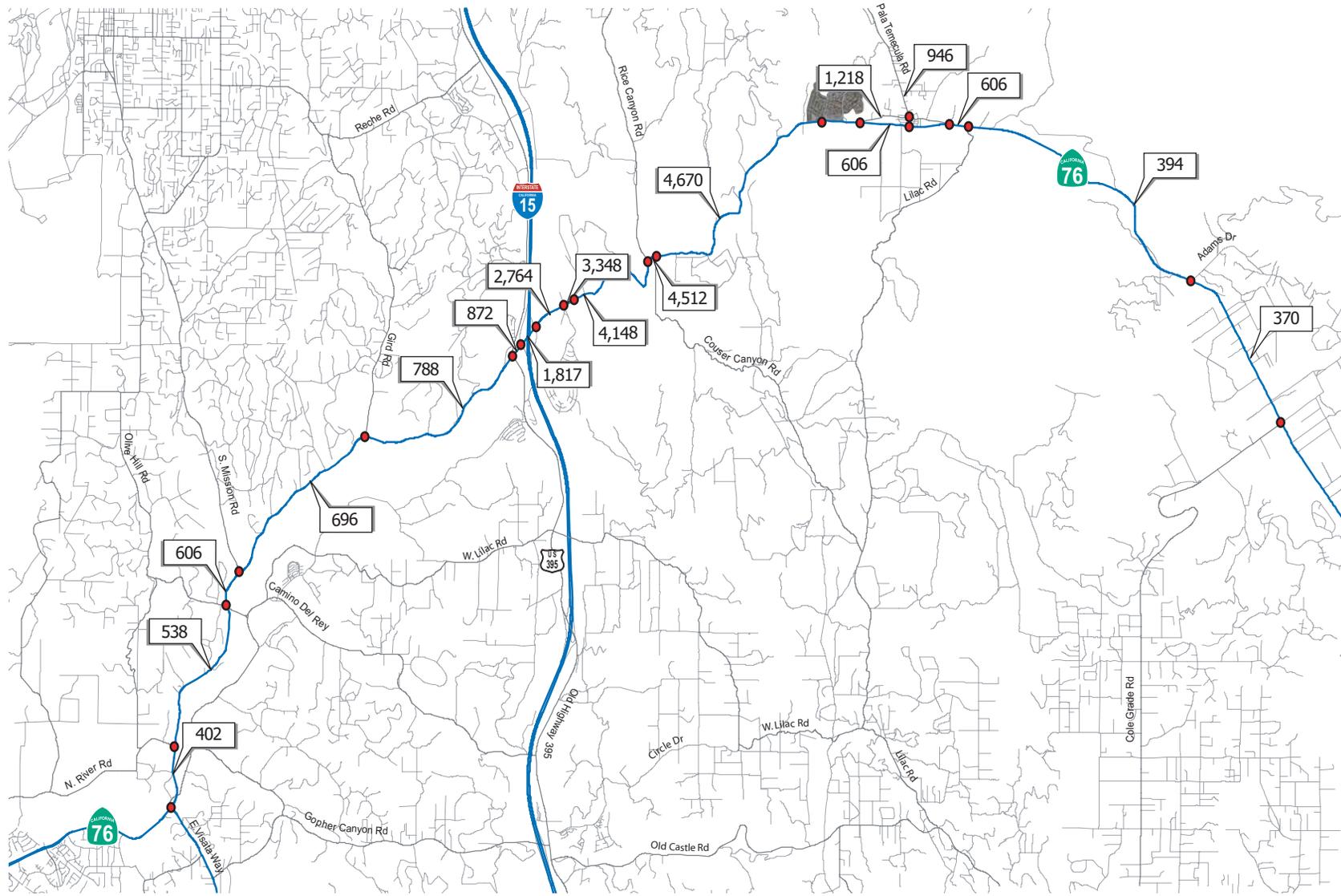
Figure 1-1  
Project Study Area





Figure 1-2  
Project Site Plan





LEGEND	
	Project Daily Trips

Figure 1-4  
Daily Project Trips



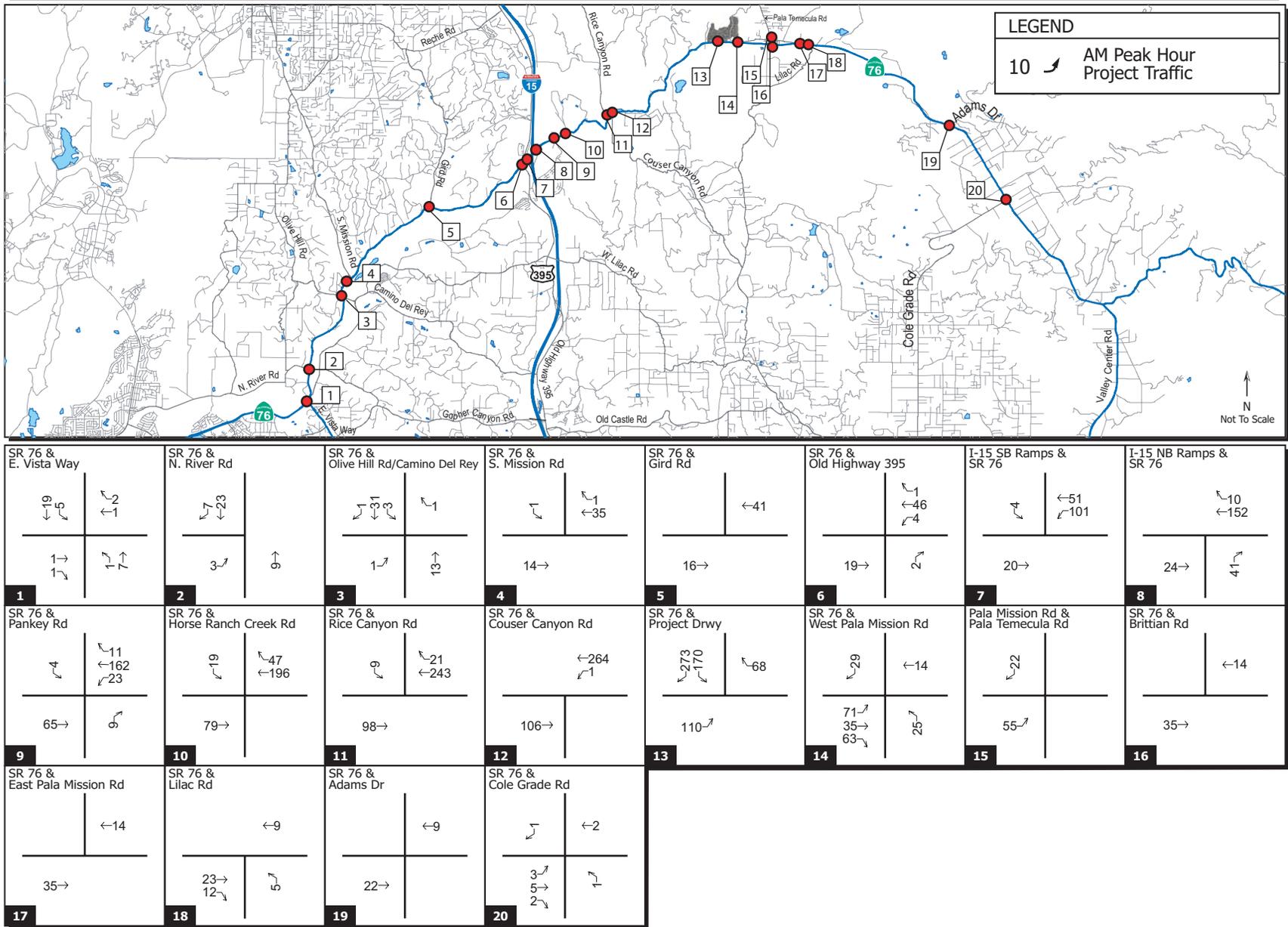


Figure 1-5  
 AM Peak Hour Project Trips

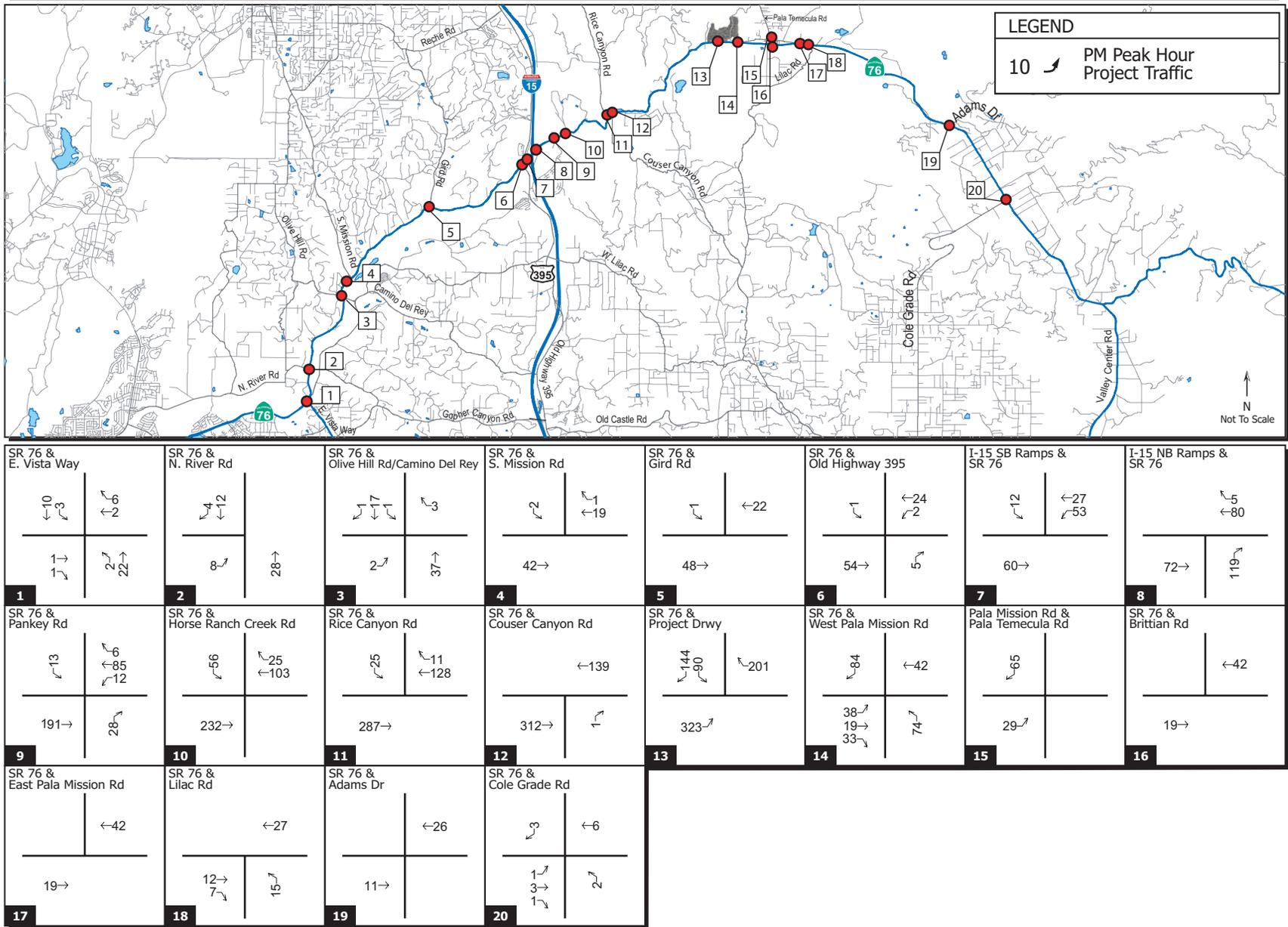


Figure 1-6  
 PM Peak Hour Project Trips

## CHAPTER 2 METHODOLOGIES

This chapter documents the methodologies and assumptions used to conduct the traffic impact analysis for the project. The study methodology and analysis is based on the *County of San Diego Report Format and Content Requirements (Transportation and Traffic)* and the *County of San Diego Guidelines for Determining Significance (Transportation and Traffic)* adopted in April 24, 2011. The guidelines are used to determine the project's conformance and evaluate whether a project's impacts are perceptible to the average driver. This section contains the following background information:

- Study scenarios
- Study time periods
- Capacity analysis methodologies

### STUDY SCENARIOS

This report presents an analysis of the following scenarios:

- Existing Conditions
- Existing Conditions With Project
- Cumulative Conditions
- Cumulative Conditions With Project
- Previously Adopted General Plan Conditions
- Previously Adopted General Plan Conditions With Project
- Adopted General Plan Conditions
- Adopted General Plan Conditions With Project

### ANALYSIS METHODOLOGIES

Street system operating conditions are typically described in terms of "level of service." Level of service is a report-card scale used to indicate the quality of traffic flow on roadway segments and at intersections. Level of service (LOS) ranges from LOS A (free flow, little congestion) to LOS F (forced flow, extreme congestion). A more detailed description of the concepts described in this section is provided in Appendix A of this document. The following methods are outlined in this publication and used in this study.

#### **Roadway Segment Capacity Analysis**

The County of San Diego has published daily traffic volume standards for roadways within its jurisdiction. To determine service levels on study area roadway segments, we compared the appropriate average daily traffic thresholds for level of service to the daily capacity of the study area roadway segments, and the existing and future volumes in the study area. The thresholds for determining level of service used in this analysis are summarized in Appendix A.

#### **Regionally Significant Arterial Analysis**

The regional association of governments (SANDAG) Congestion Management Program (CMP) identifies the regionally significant circulation network. The SANDAG CMP requires that all large projects generating over 2,400 average daily trips perform a detailed analysis of any CMP roadways within the project study area.

### **Intersection Capacity Analysis**

The analysis of peak hour intersection performance was conducted using the Traffix analysis software program, which uses methodologies defined in the 2000 Highway Capacity Manual (HCM) to calculate results. Level of service (LOS) for intersections is determined by control delay. Control delay is defined as the total elapsed time from when a vehicle stops at the end of a queue to the time the vehicle departs from the stop line. The total elapsed time includes the time required for the vehicle to travel from the last-in-queue position to the first-in-queue position, including deceleration of vehicles from free-flow speed to the speed of vehicles in the queue. Appendix A lists the HCM delay/LOS criteria for both signalized and unsignalized intersections.

#### **Signalized Intersections**

The HCM analysis methodology for evaluating signalized intersections is based on the “operational analysis” procedure. This technique uses 1,900 passenger cars per hour of green per lane (pcphgpl) as the maximum saturation flow of a single lane at an intersection. This saturation flow rate is adjusted to account for lane width, on-street parking, conflicting pedestrian flow, traffic composition, (e.g., the percentage of vehicles that are trucks) and shared lane movements (e.g., through and right-turn movements from the same lane). Average control delay is calculated by taking a volume-weighted average of all the delays for all vehicles entering the intersection.

#### **All-way Stop-controlled (AWSC) Intersections**

The HCM analysis methodology for evaluating all-way Stop-controlled intersections is based on the degree of conflict for each independent approach created by the opposing approach and each conflicting approach. Level of Service for AWSC intersections is also based on the average control delay. However, AWSC intersections have different threshold values than those applied to signalized intersections. This is based on the rationale that drivers expect AWSC intersections to carry lower traffic volumes than at signalized intersections. Therefore, a higher level of delay is acceptable at a signalized intersection for the same LOS.

#### **Two-way Stop-controlled (TWSC) Intersections**

The HCM analysis methodology for evaluating two-way Stop-controlled (TWSC) intersections is based on gap acceptance and conflicting traffic for vehicles stopped on the minor-street approaches. The critical gap (or minimum gap that would be acceptable) is defined as the minimum time interval in the major-street traffic stream that allows intersection entry for one minor-street vehicle. Average control delay and LOS for the “worst approach” are reported. Level of service is not defined for the intersection as a whole.

#### **Freeway Mainline Level of Service**

The method for calculating freeway level of service is based on the volume-to-capacity (v/c) ratio using the following equation:

$$v/c = \frac{(\text{ADT} * \text{Peak hour percent} * \text{Directional factor}) / \text{Truck factor}}{\text{Capacity}}$$

where:

ADT = average daily traffic volume (2-way);

Peak hour percent = the proportion of ADT that occurs during the peak hour (not specifically AM or PM);

Directional factor = the proportion of peak hour traffic traveling in the peak direction;

Truck factor = a reduction in capacity to account for heavy vehicles and grades; and

Capacity = 2,300 vehicles per hour per lane.

The resultant v/c ratios are compared to the standard v/c thresholds for level of service contained in Appendix A.

**Analysis of Significance**

To determine direct project impacts, the County of San Diego has developed a series of thresholds based on allowable increases in volume-to-capacity ratios that become more stringent as level of service worsens. Appendix A summarizes these thresholds. Where roadway segments and intersections operate at LOS D or better impacts are not considered significant.

The August, 2011 Guidelines define the threshold of significance as on average the addition of one car per lane every 2.4 – 4.8 minutes during peak hour conditions depending on the level of service of the roadway. In most cases, this increase would result in changes to traffic flow that would not be noticeable to the average driver and, therefore, would not constitute a significant impact on the roadway.

## CHAPTER 3 EXISTING CONDITIONS

### TRAFFIC VOLUMES

The intersection turning movement counts were conducted during the weekday morning peak period from 7:00 AM to 9:00 AM and during the weekday evening peak period from 4:00 PM to 6:00 PM in June of 2009, October of 2009 and November of 2010. Average daily traffic volumes were obtained through machine data collection. Freeway mainline volumes were collected from Caltrans online volume databank and are representative of 2008 freeway volumes. Count data can be found in Appendix C. The resultant existing weekday morning and evening peak hour intersection volumes are shown in Figures 3-4 and 3-5. The daily traffic volumes are shown in Figure 3-3.

### ROADWAY NETWORK

The principal roadways in the project study area are described briefly below. The description includes the physical characteristics, adjacent land uses, and traffic control devices along these roadways. The existing roadway geometry and control conditions are shown in Figure 3-1 and 3-2. Additional details regarding specific intersection operating conditions can be found on the capacity analysis worksheets in Appendix D.

*State Route 76* runs east/west connecting several of the northern communities in San Diego County. State Route 76 varies in its classification from a 2 lane highway, to a 4 lane collector, to a 4 lane major. Specifics regarding the classifications can be seen in the segment analysis sections of each chapter. The roadway does provide project access to adjacent land uses. It has a painted median. The posted speed limit is 55 MPH. State Route 76 provides project access. The adjacent land uses on the project access road includes: fronting residential, and open space.

*Old Highway 395* runs north/south running parallel to Interstate 15. It has a functional classification of a 2 lane collector with 1 lane in each direction. The roadway does provide access to adjacent uses. It has a painted median. The posted speed limit is 50 MPH.

*Pala Mission Road* runs east/ west connecting SR-76 to Pala Temecula Road. It has a functional classification of a 2 lane local road with 1 lane in each direction. The roadway does provide access to adjacent uses. It has a painted median. The posted speed limit is 25 MPH.

*Pala Temecula Road* runs north/ south connecting the Pala community to the City of Temecula. It has a functional classification of a 2 lane rural collector with 1 lane in each direction. The roadway does provide access to adjacent uses. The posted speed limit is 30 MPH.

Tables 3-1 to 3-4 show the LOS results. Existing with project intersection volumes are shown in Figures 3-6 through 3-8.

**Table 3-1  
Existing With Project Roadway Segment Conditions**

Roadway Segment	Lanes/ Class	LOS E Capacity	Existing			Existing + Project			Δ Traffic	Δ v/c	Direct Impact?	CMP Impact?
			ADT	V/C	LOS	ADT	V/C	LOS				
<b>State Route 76</b>												
E. Vista Way to N. River Road	2SR	22,900	28,805	1.258	F	29,207	1.275	F	402	0.018	Yes	No
N. River Road to Camino Del Rey	2SR	22,900	39,736	1.735	F	40,274	1.759	F	538	0.023	Yes	Yes
Camino Del Rey to S. Mission Road	2SR	22,900	39,316	1.717	F	39,922	1.743	F	606	0.026	Yes	Yes
S. Mission Road to Gird Road	2SR	22,900	26,752	1.168	F	27,448	1.199	F	696	0.030	Yes	Yes
Gird Road to Old Hwy 395	2SR	22,900	23,789	1.039	F	24,577	1.073	F	788	0.034	Yes	Yes
Old Hwy 395 to I-15 SB Ramp	4C	34,200	29,407	0.860	D	30,279	0.885	D	872	0.025	No	No
I-15 SB Ramp to I-15 NB Ramp	2SR	22,900	19,359	0.845	E	21,176	0.925	E	1,817	0.079	Yes	Yes
I-15 NB Ramp to Pankey Road	4MR	37,000	11,031	0.298	A	13,795	0.373	A	2,764	0.075	No	No
Pankey Road to Horse Ranch Creek Road	4MR	37,000	11,031	0.298	A	14,379	0.389	A	3,348	0.090	No	No
Horse Ranch Creek Road to Rice Canyon Road	2SR	22,900	11,031	0.482	C	15,179	0.663	D	4,148	0.181	No	No
Rice Canyon Road to Couser Canyon Road	2SR	22,900	11,031	0.482	C	15,543	0.679	D	4,512	0.197	No	No
Couser Canyon Road to W. Pala Mission Road	2SR	22,900	10,224	0.446	C	14,894	0.650	D	4,670	0.204	No	No
W. Pala Mission Road to E. Pala Mission Road	2SR	22,900	10,329	0.451	C	10,935	0.478	C	606	0.026	No	No
E. Pala Mission Road to Lilac Road	2SR	22,900	8,821	0.385	C	9,427	0.412	C	606	0.026	No	No
Lilac Road to Adams Drive	2SR	22,900	9,456	0.413	C	9,850	0.430	C	394	0.017	No	No
Adams Drive to Cole Grade Road	2SR	22,900	9,090	0.397	C	9,460	0.413	C	370	0.016	No	No
<b>W. Pala Mission Road</b>												
State Route 76 and Pala Temecula Road	2RC	16,200	4,711	0.291	C	5,929	0.366	C	1,218	0.075	No	No
<b>Pala Temecula Road</b>												
Pala Mission Road to Trujillo Road	2RC	16,200	8,318	0.513	D	9,264	0.572	D	946	0.058	No	No

Note: 2RC: 2-lane Rural Collector; 2SR: 2-lanes State Route; 2SR w/ LTL: 2-lane State Route w/ Left-turn Lanes; 4C: 4-lane Collector; 4M: 4-lane Major; 6PA: 6-lane Prime Arterial.

**Table 3-2  
Existing With Project Intersection Conditions AM Peak Hour**

Intersection	Existing		Existing + Project		Δ Trips	Δ Delay	Direct Impact?	CMP Impact?	
	Delay	LOS	Delay	LOS					
<b>AM Peak Hour</b>									
1. SR 76 / E. Vista Way	84.1	F	88.1	F	NA	4.0	Yes	Yes	
2. SR 76/N. River Road	21.1	C	22.3	C	NA	1.2	No	No	
3. SR 76/Olive Hill Road/Camino Del Rey	36.7	D	38.1	D	NA	1.4	No	No	
4. SR 76/ S. Mission Road	28.8	C	29.0	C	NA	0.2	No	No	
5. SR 76/ Gird Road	13.4	B	13.5	B	NA	0.1	No	No	
6. Old Highway 395 / SR 76	31.1	C	31.3	C	NA	0.2	No	No	
7. I-15 / SR 76 SB Ramp	31.1	C	44.2	D	NA	13.1	No	No	
8. I-15 / SR 76 NB Ramp	23.6	C	28.4	C	NA	4.8	No	No	
9. SR 76 / Pankey Road <sup>1</sup>	12.3	B	14.6	B	4	2.3	No	No	
10. SR 76 / Horse Ranch Creek Rd	N/A	N/A	N/A	N/A	N/A	N/A	No	No	
11. SR 76 / Rice Canyon Road <sup>1</sup>	11.2	B	16.0	C	9	4.8	No	No	
12. SR 76 / Couser Canyon Road <sup>1</sup>	12.3	B	17.4	C	0	5.1	No	No	
13. SR 76/Driveway	0.5	A	18.8	B	NA	18.3	No	No	
14. SR 76 / W. Pala Mission Road	26.4	C	28.5	C	NA	2.1	No	No	
15. Pala Mission Rd./ Pala Temecula Road <sup>1</sup>	9.7	A	10.4	B	0	0.7	No	No	
16. SR 76 / Brittian Road <sup>1</sup>	9.1	A	9.2	A	0	0.1	No	No	
17. SR 76/ E. Pala Mission Road <sup>1</sup>	12.5	B	13.2	B	0	0.7	No	No	
18. SR 76/ Lilac Road <sup>1</sup>	11.8	B	12.3	B	5	0.5	No	No	
19. SR 76 / Adams Drive <sup>1</sup>	10.1	B	10.2	B	0	0.1	No	No	
20. SR 76 / Cole Grade Road <sup>1</sup>	17.0	C	17.5	C	1	0.5	No	No	

<sup>1</sup> Significance of unsignalized intersections is determined by the number of added project trips to the critical movement.

Note: The change in trips added to the critical movement are only reported for intersections operating at LOS E or F.

**Table 3-3  
Existing With Project Intersection Conditions PM Peak Hour**

Intersection	Existing		Existing + Project		Δ Trips	Δ Delay	Direct Impact?	CMP Impact?
	Delay	LOS	Delay	LOS				
<b>PM Peak Hour</b>								
1. SR 76 / E. Vista Way	68.7	E	71.9	E	NA	3.2	Yes	Yes
2. SR 76/N. River Road	34.5	C	37.0	D	NA	2.5	No	No
3. SR 76/Olive Hill Road/Camino Del Rey	40.7	D	42.6	D	NA	1.9	No	No
4. SR 76/ S. Mission Road	31.9	C	34.1	C	NA	2.2	No	No
5. SR 76/ Gird Road	11.6	B	12.0	B	NA	0.4	No	No
6. Old Highway 395 / SR 76	30.8	C	31.3	C	NA	0.5	No	No
7. I-15 / SR 76 SB Ramp	58.8	E	74.6	E	NA	15.8	Yes	Yes
8. I-15 / SR 76 NB Ramp	51.1	D	60.1	E	NA	9.0	Yes	Yes
9. SR 76 / Pankey Road <sup>1</sup>	13.1	B	19.8	C	13	6.7	No	No
10. SR 76 / Horse Ranch Creek Rd	N/A	N/A	N/A	N/A	NA	N/A	No	No
11. SR 76 / Rice Canyon Road <sup>1</sup>	13.3	B	26.7	D	25	13.4	No	No
12. SR 76 / Couser Canyon Road <sup>1</sup>	14.8	B	23.9	C	0	9.1	No	No
13. SR 76/Driveway	0.5	A	11.5	B	NA	11.0	No	No
14. SR 76 / W. Pala Mission Road	27.6	C	32.2	C	NA	4.6	No	No
15. Pala Mission Rd./ Pala Temecula Road <sup>1</sup>	11.2	B	12.7	B	0	1.5	No	No
16. SR 76 / Brittian Road <sup>1</sup>	10.1	B	10.5	B	0	0.4	No	No
17. SR 76/ E. Pala Mission Road <sup>1</sup>	16.7	C	18.4	C	0	1.7	No	No
18. SR 76/ Lilac Road <sup>1</sup>	13.1	B	15.7	C	15	2.6	No	No
19. SR 76 / Adams Drive <sup>1</sup>	13.4	B	13.8	B	0	0.4	No	No
20. SR 76 / Cole Grade Road <sup>1</sup>	17.9	C	18.5	C	2	0.6	No	No

<sup>1</sup> Significance of unsignalized intersections is determined by the number of added project trips to the critical movement.

Note: The change in trips added to the critical movement are only reported for intersections operating at LOS E or F.

**Table 3-4  
Existing With Project Freeway Mainline Conditions**

Segment	Direction/ Lanes	Capacity	Grade (%)	Truck Proportion (%)	Truck Factor	Existing			Existing + Project			Δ V/C	Direct Impact?
						Peak Hour PCE <sup>1</sup>	V/C	LOS	Peak Hour PCE <sup>1</sup>	V/C	LOS		
<b>AM Peak Hour</b>													
Interstate 15 North of SR 76	South/4	9,200	1.00%	2.00%	0.9901	6,569	0.714	C	6,583	0.716	C	0.002	No
Interstate 15 South of SR 76	South/4	9,200	1.00%	2.00%	0.9901	6,195	0.673	C	6,338	0.689	C	0.015	No
<b>PM Peak Hour</b>													
Interstate 15 North of SR 76	North/4	9,200	1.00%	2.00%	0.9901	6,283	0.683	C	6,300	0.685	C	0.002	No
Interstate 15 South of SR 76	North/4	9,200	1.00%	2.00%	0.9901	6,094	0.662	C	6,268	0.681	C	0.019	No

<sup>1</sup>Passenger Car Equivalent

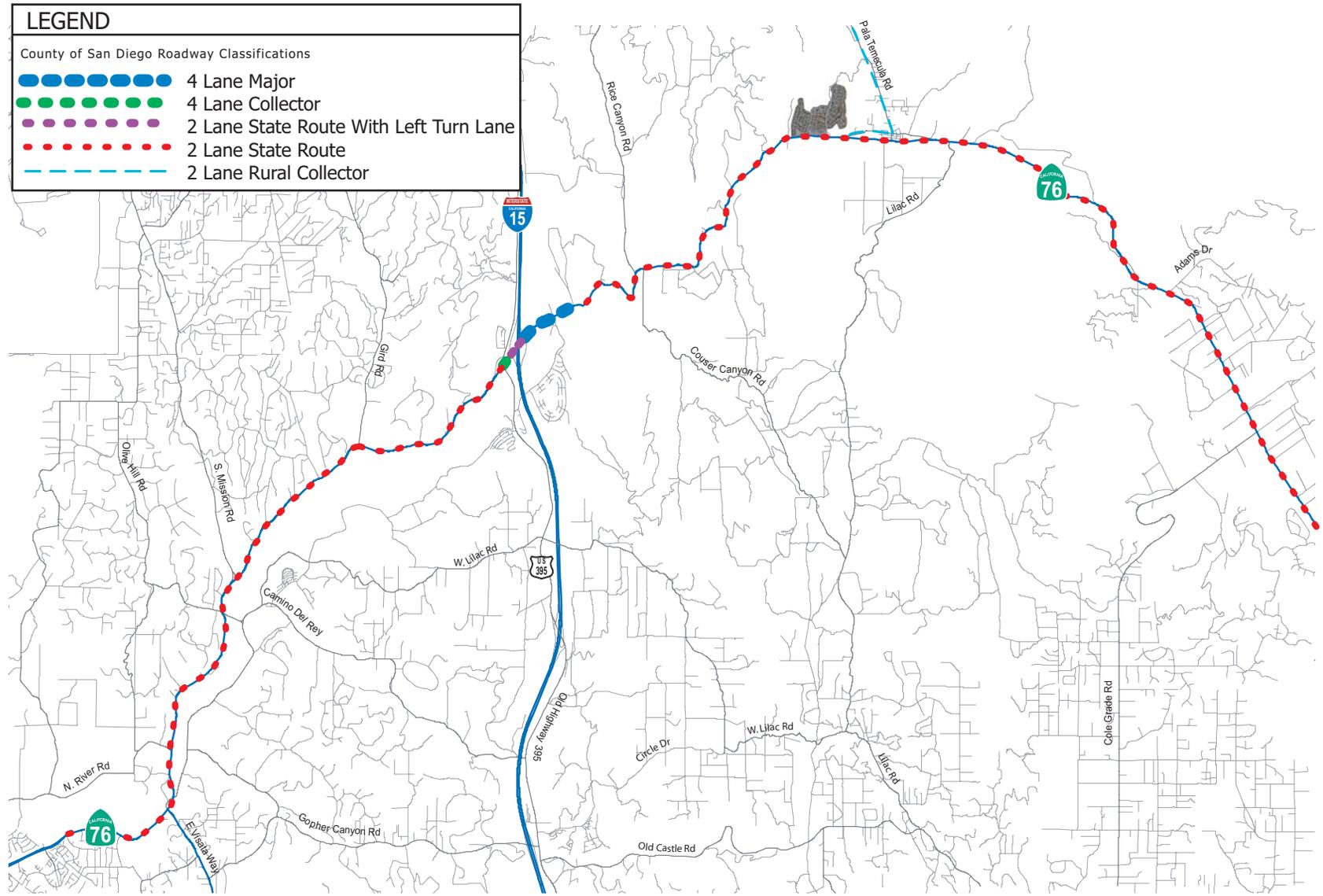


Figure 3-1  
Existing Circulation Network



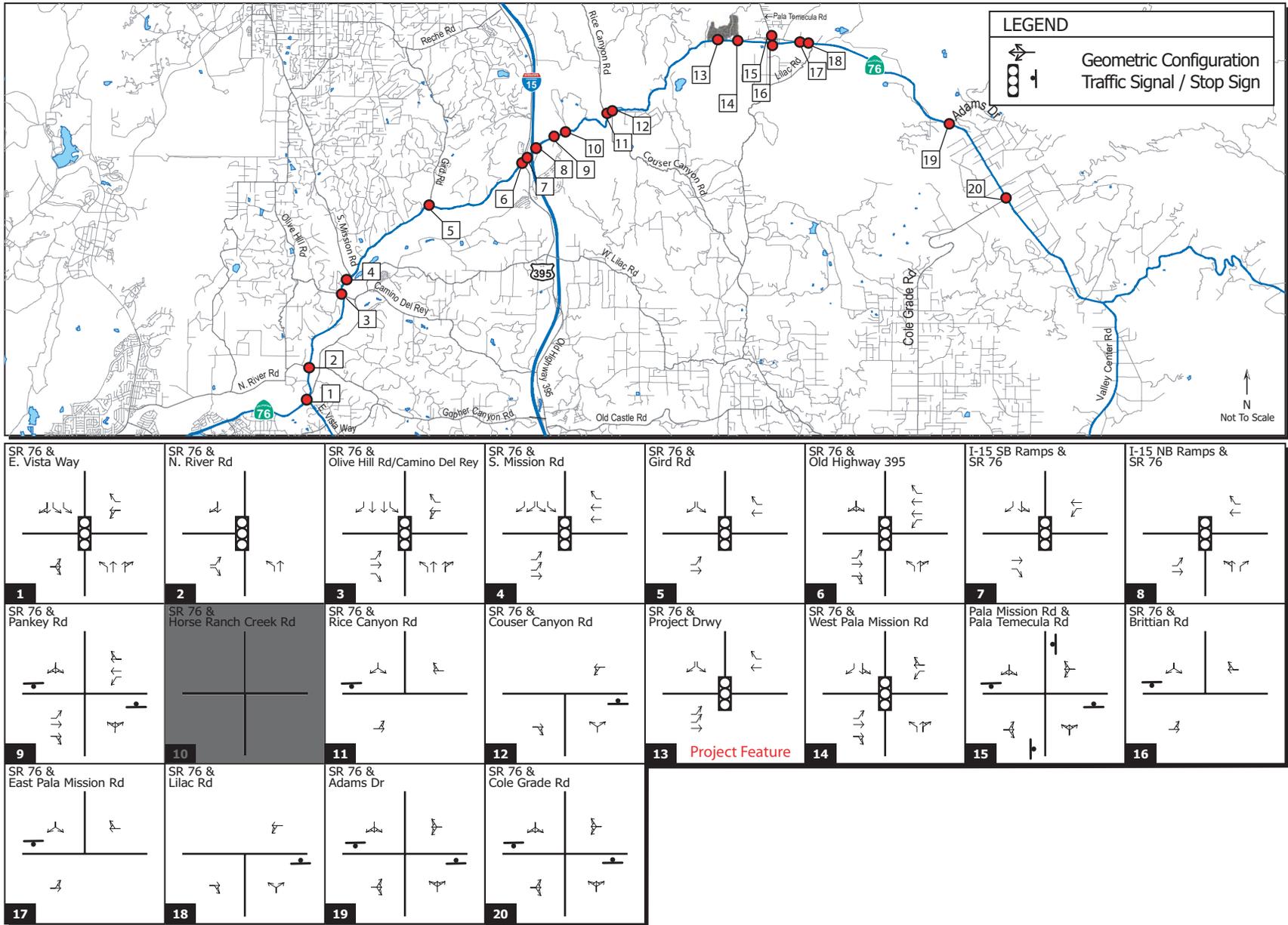
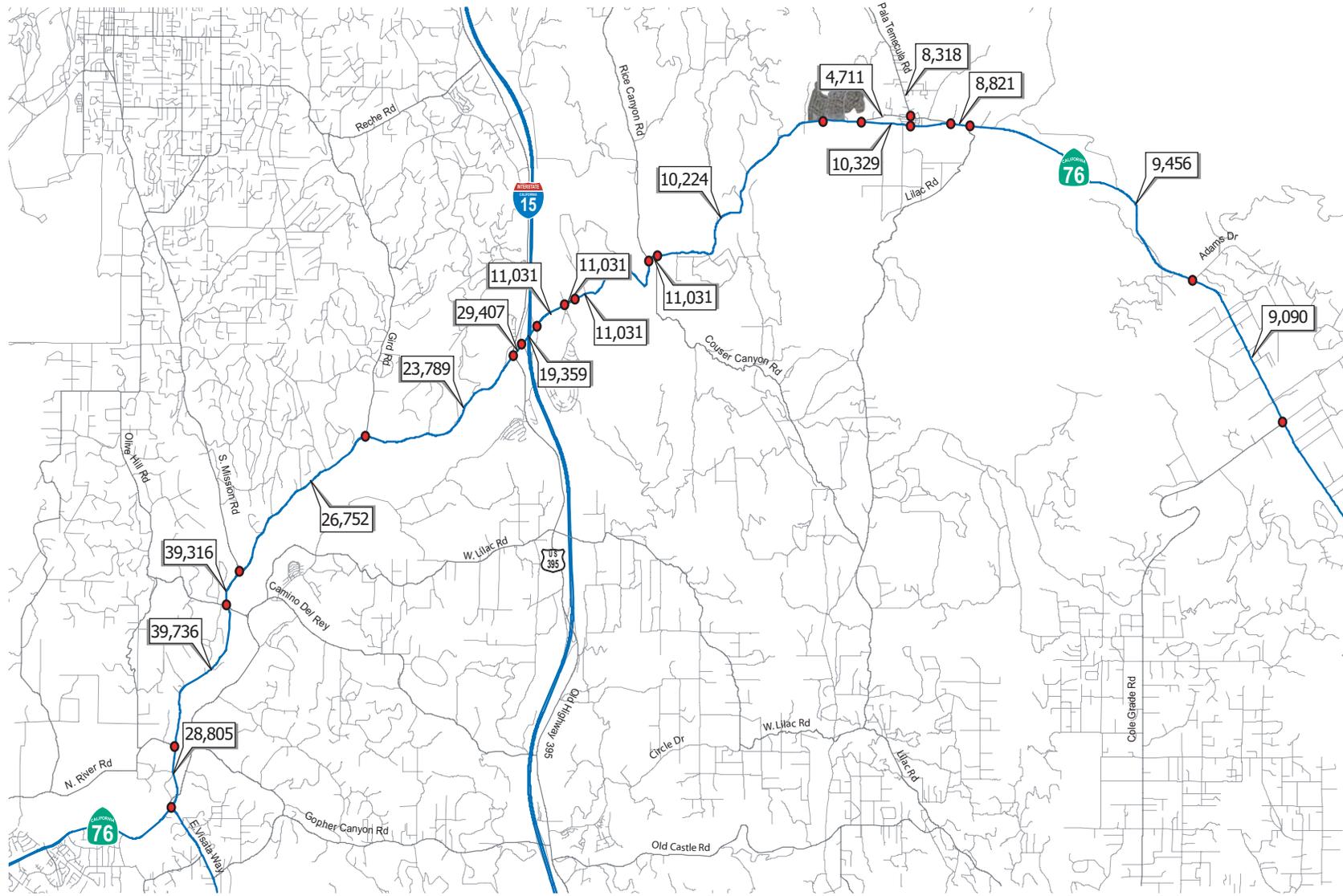


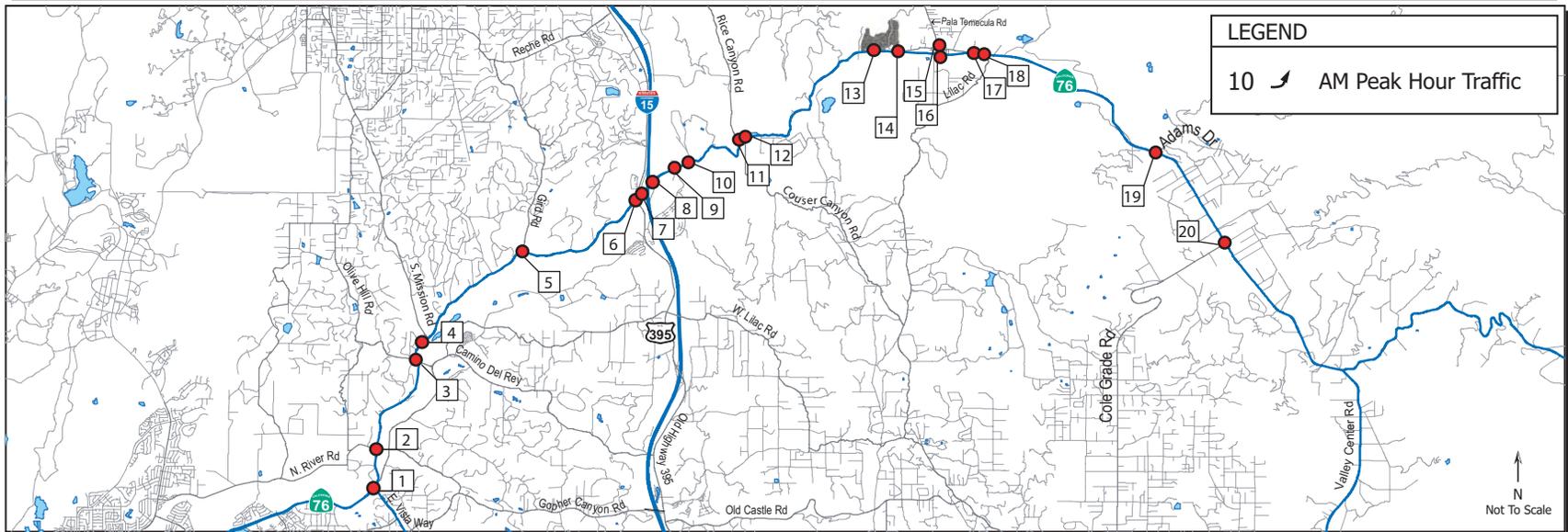
Figure 3-2  
Existing Geometric Configuration



LEGEND	
	ADT(1000s)
1,526	

Figure 3-3  
Existing Roadway Segment Volumes





<p>SR 76 &amp; E. Vista Way</p> <table border="1"> <tr> <td>10</td> <td>293</td> </tr> <tr> <td>841</td> <td>26</td> </tr> <tr> <td>304</td> <td>284</td> </tr> <tr> <td>7</td> <td>98</td> </tr> <tr> <td>162</td> <td>543</td> </tr> <tr> <td>215</td> <td>292</td> </tr> </table> <p><b>1</b></p>	10	293	841	26	304	284	7	98	162	543	215	292	<p>SR 76 &amp; N. River Rd</p> <table border="1"> <tr> <td>139</td> <td>78</td> </tr> <tr> <td>953</td> <td>799</td> </tr> <tr> <td>91</td> <td>57</td> </tr> </table> <p><b>2</b></p>	139	78	953	799	91	57	<p>SR 76 &amp; Olive Hill Rd/Camino Del Rey</p> <table border="1"> <tr> <td>47</td> <td>252</td> </tr> <tr> <td>1004</td> <td>81</td> </tr> <tr> <td>457</td> <td>47</td> </tr> <tr> <td>87</td> <td>62</td> </tr> <tr> <td>174</td> <td>687</td> </tr> <tr> <td>75</td> <td>84</td> </tr> </table> <p><b>3</b></p>	47	252	1004	81	457	47	87	62	174	687	75	84	<p>SR 76 &amp; S. Mission Rd</p> <table border="1"> <tr> <td>678</td> <td>83</td> </tr> <tr> <td>104</td> <td>748</td> </tr> <tr> <td>489</td> <td>511</td> </tr> </table> <p><b>4</b></p>	678	83	104	748	489	511	<p>SR 76 &amp; Gird Rd</p> <table border="1"> <tr> <td>111</td> <td>40</td> </tr> <tr> <td>57</td> <td>768</td> </tr> <tr> <td>53</td> <td>599</td> </tr> </table> <p><b>5</b></p>	111	40	57	768	53	599	<p>SR 76 &amp; Old Highway 395</p> <table border="1"> <tr> <td>49</td> <td>95</td> </tr> <tr> <td>76</td> <td>60</td> </tr> <tr> <td>229</td> <td>53</td> </tr> <tr> <td>48</td> <td>123</td> </tr> <tr> <td>486</td> <td>61</td> </tr> <tr> <td>41</td> <td>56</td> </tr> </table> <p><b>6</b></p>	49	95	76	60	229	53	48	123	486	61	41	56	<p>I-15 SB Ramps &amp; SR 76</p> <table border="1"> <tr> <td>558</td> <td>243</td> </tr> <tr> <td>4</td> <td>78</td> </tr> <tr> <td>79</td> <td></td> </tr> <tr> <td>518</td> <td>401</td> </tr> <tr> <td>329</td> <td>201</td> </tr> </table> <p><b>7</b></p>	558	243	4	78	79		518	401	329	201	<p>I-15 NB Ramps &amp; SR 76</p> <table border="1"> <tr> <td>59</td> <td>176</td> </tr> <tr> <td>1</td> <td></td> </tr> <tr> <td>137</td> <td>1</td> </tr> <tr> <td>124</td> <td></td> </tr> </table> <p><b>8</b></p>	59	176	1		137	1	124	
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Figure 3-4  
Existing AM Peak Hour Intersection Volumes

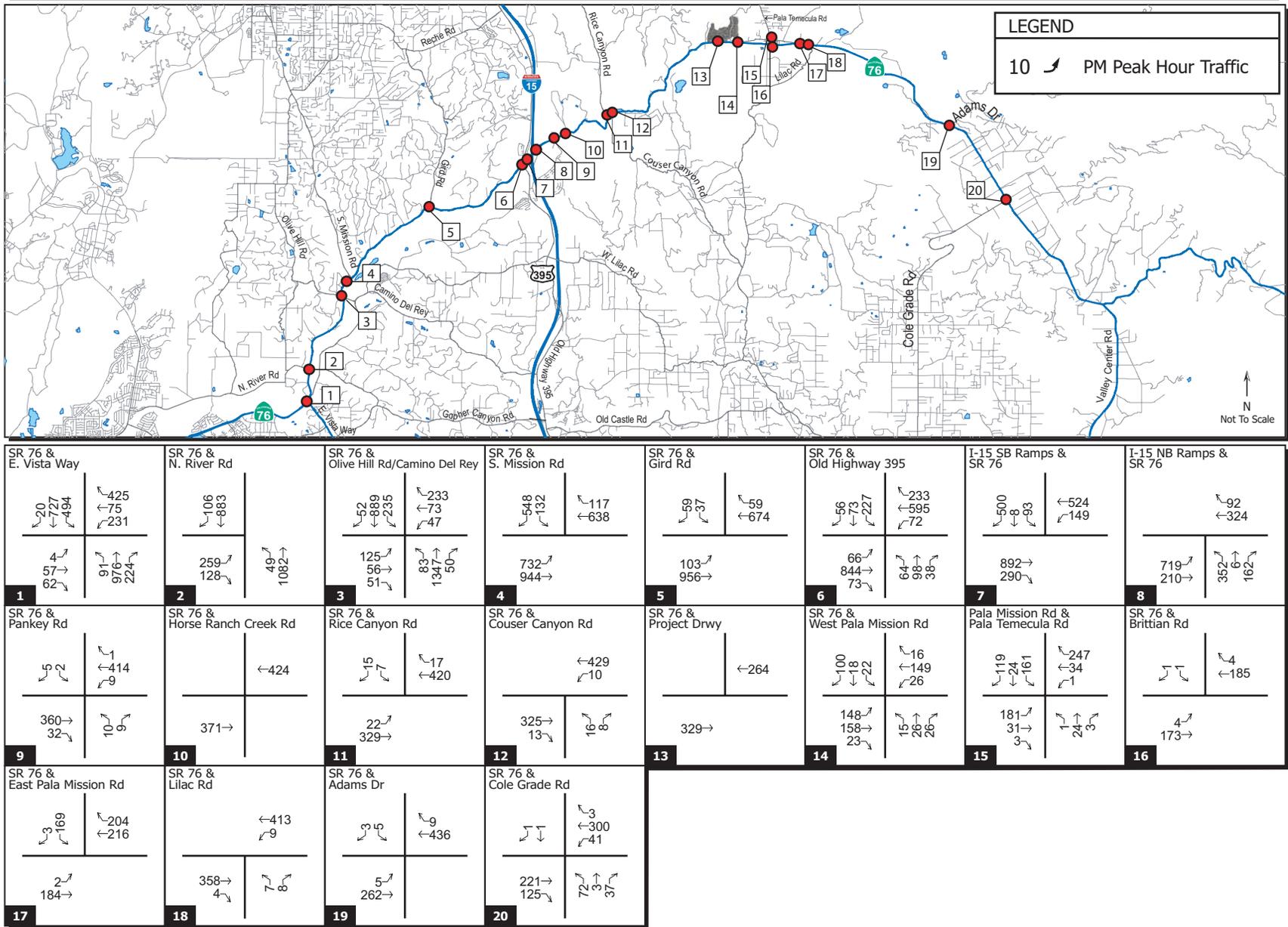


Figure 3-5  
Existing PM Peak Hour Intersection Volumes

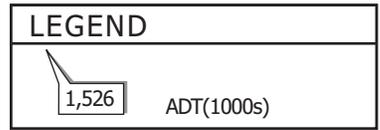
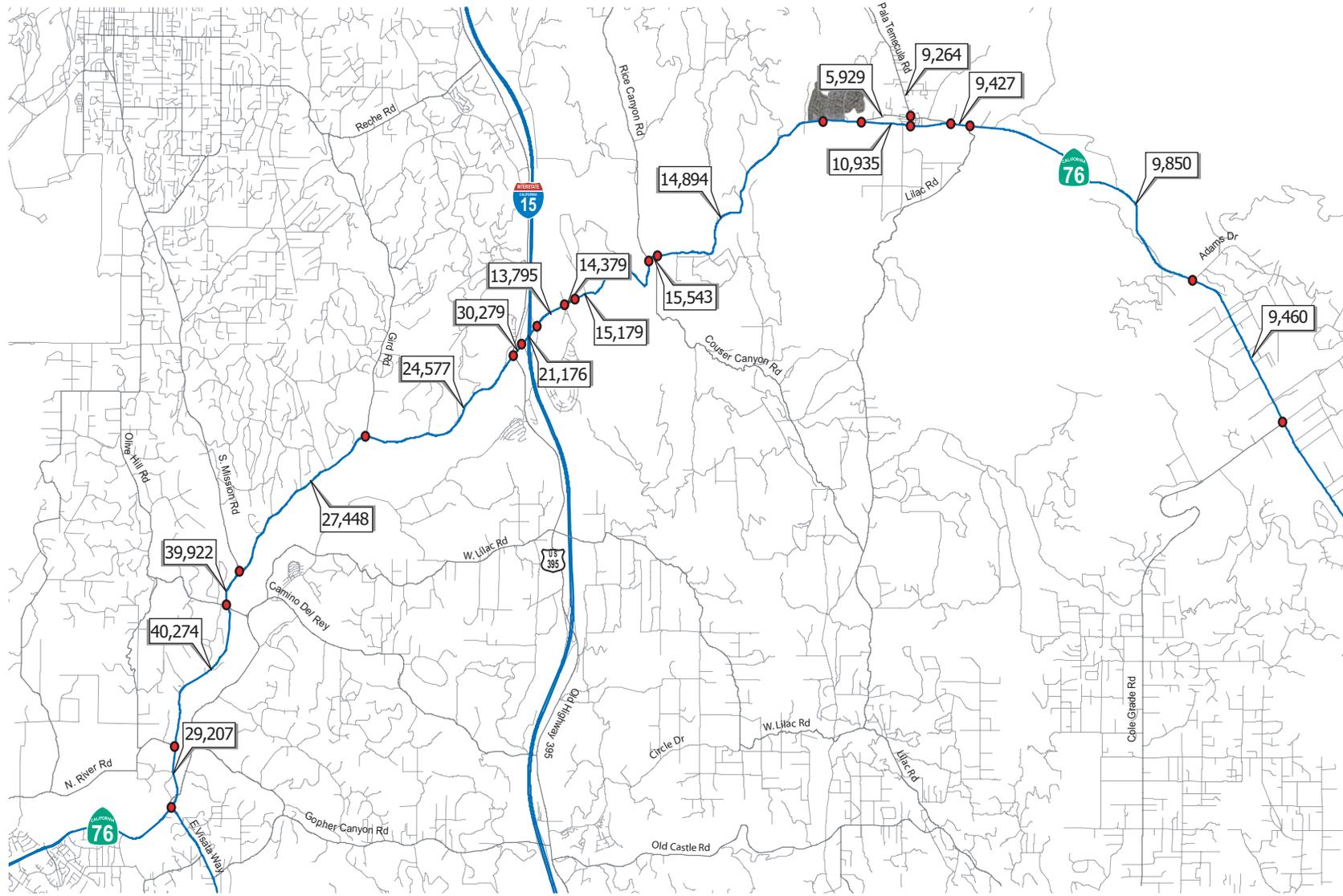


Figure 3-6  
Existing Roadway Segment Volumes With Project



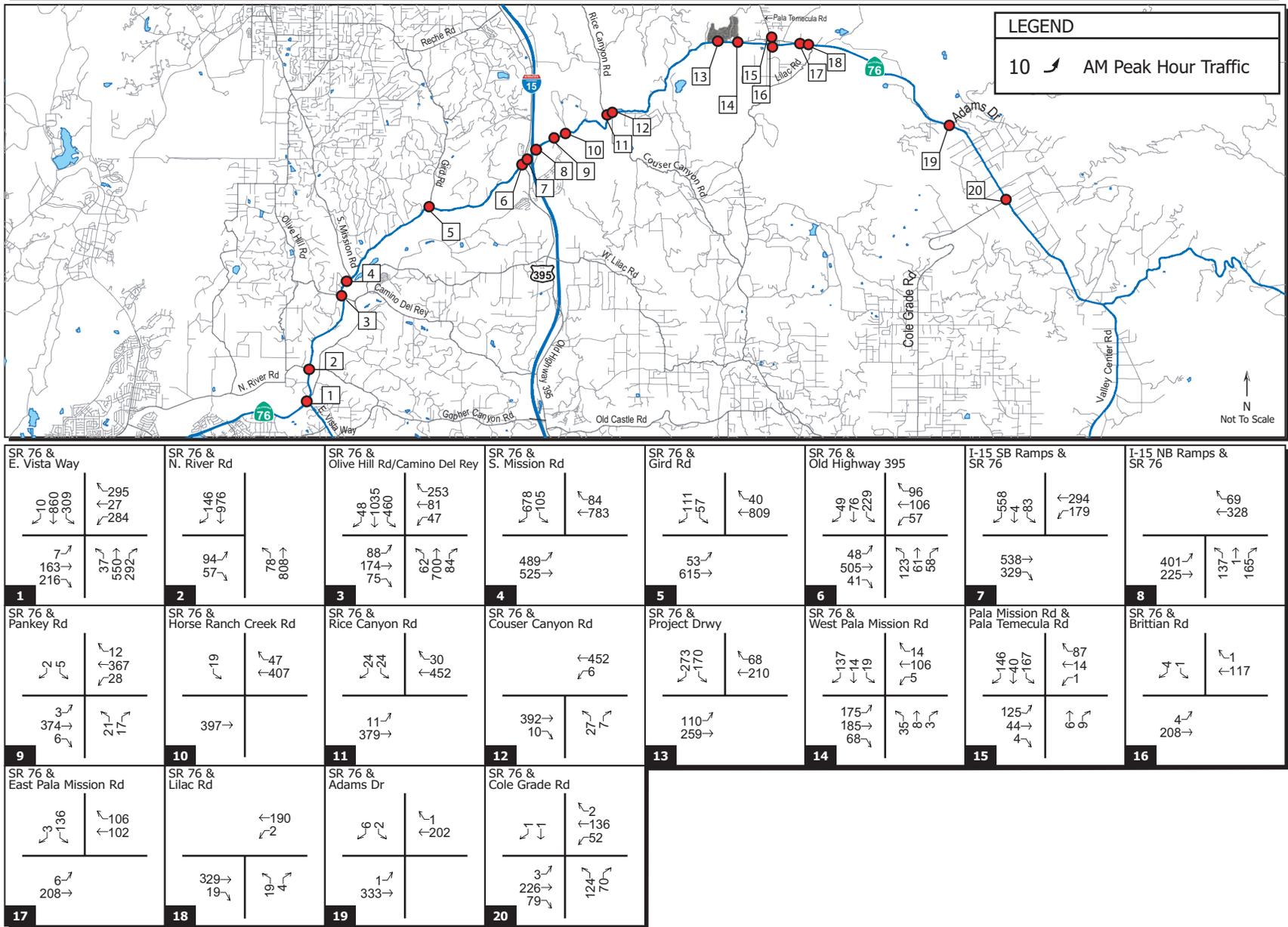


Figure 3-7  
Existing AM Peak Hour Intersection Volumes With Project

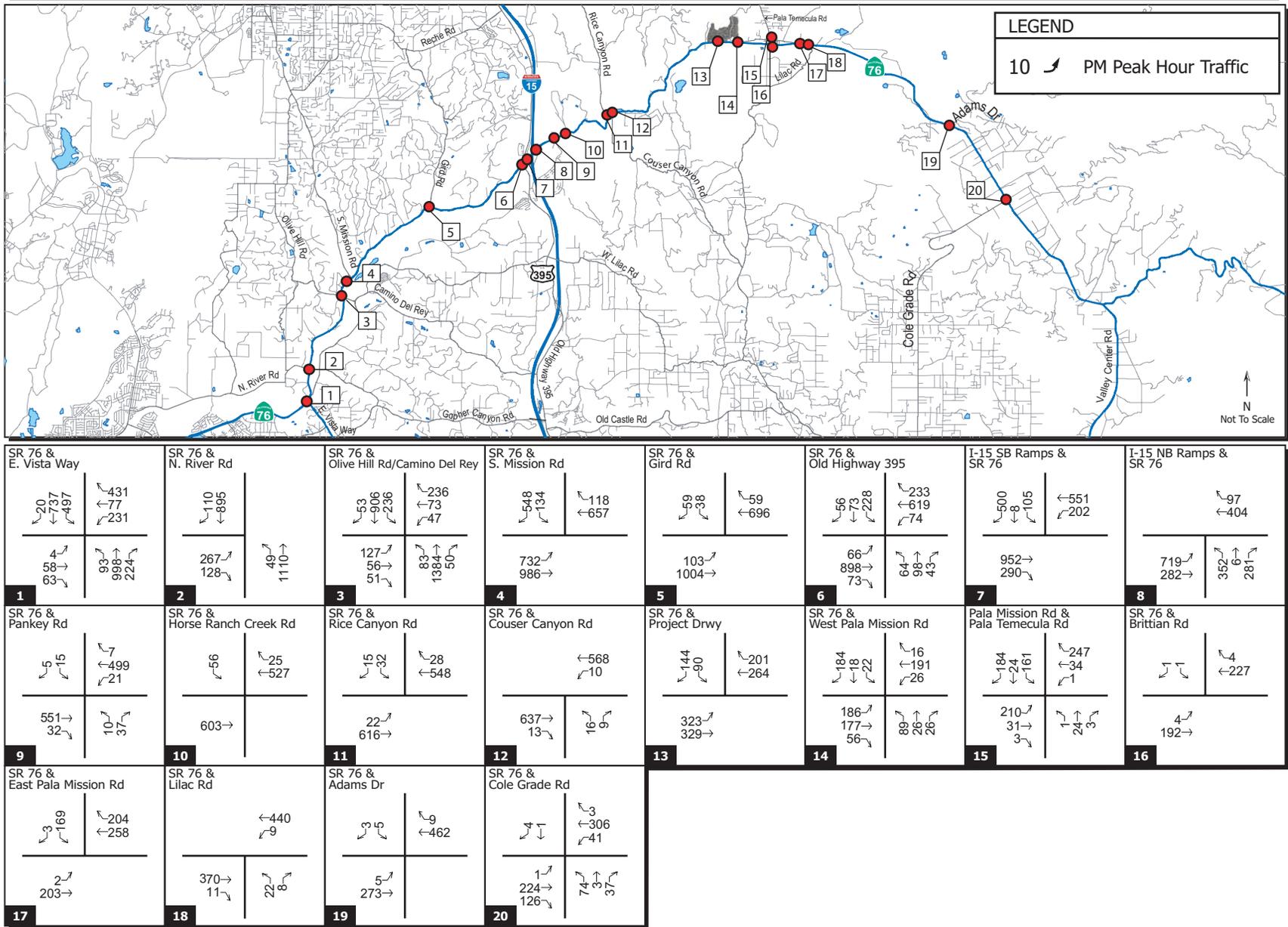


Figure 3-8  
Existing PM Peak Hour Intersection Volumes With Project

## **CHAPTER 4 CUMULATIVE CONDITIONS**

Cumulative conditions represent opening day of the proposed project. Project traffic is added to the Cumulative base volumes to create the “with project” scenario.

### **CUMULATIVE TRAFFIC VOLUMES**

Traffic growth on roadways is a function of the expected land development, economic activity, and changes in demographics. Several methods can be used to estimate this growth.

For this analysis we have conservatively assumed that every parcel builds out to the General Plan designation; and that all General Plan Amendments within the study area are approved and implemented; and that the five casinos in the study area are built to their ultimate planned densities.

The SANDAG Series 11 is a Year 2030 development forecast, which assumes development of each parcel consistent to its General Plan land use. This is then applied to the existing counts. Then, any project requiring a General Plan Amendment is added to the model forecast, including the five casinos in the study area. Table 4-1 shows a list of General Plan Amendments and casino cumulative projects. Appendix E contains the exhaustive list of all cumulative projects within the project study area along with additional information on volume development.

**Table 4-1  
Cumulative Projects - General Plan Amendments and Casinos**

Name	Permit #	Description
Campus Park West	TM 5424	Residential, Commercial, Office, and Park
Meadowood	TM 5354	Residential, School, and Park
Olive Hill	TM 4976	Residential
Pala Mesa Highlands	TM 5187	Residential, Community Center, and Park
Pala Mesa Resort	TM 5534	Hotel
Palomar Community College	MUP 87-021	Community College
Passerelle / Campus Park	TM 5338	Residential, Commercial, Office, Park, and Sports Complex
Rancho Lilac	TM 5385	Residential, Commercial, Fire Station, Sheriff Annex, Park, and Agriculture
----	TM 5263	Residential
Spanish Valley Ranch (Loranda)	TM 5173	Residential
Vista Valley Country Club	MUP 77-128	Club House
----	TM 5166	Residential
Hidden Meadows	TM 5175 TM 5176	Residential
San Pasqual Casino	----	Casino, Hotel, and Restaurant
Rincon Casino	----	Casino, Hotel, and Restaurant
Pala Casino	----	Casino and Restaurant
Pauma Casino	----	Casino, Hotel, Restaurant, and Office
Santa Ysabel Casino	----	Casino and Restaurant
La Jolla Casino	----	Casino, Hotel, and Restaurant
Segal Ranch	TM 5173	Residential, Market, and Community Park

Note: This is a partial list of cumulative projects that includes General Plan Amendment projects and casinos. The complete list of cumulative projects can be found in Appendix E.

## **CUMULATIVE CIRCULATION NETWORK**

The following circulation network changes consisting of planned intersections improvements with some of the cumulative projects are assumed and will apply for this chapter:

State Route 76 / Pankey Road

State Route 76 / Horse Ranch Creek Road

The effect of the proposed project on the study area circulation network shown in Figure 4-1 was evaluated. Figures 4-2 through 4-4 show the cumulative roadway segment and intersection conditions with the proposed project. Tables 4-2 through 4-5 show the cumulative segment, intersection and freeway mainline analysis respectively.

**Table 4-2  
Cumulative With Project Roadway Segment Conditions**

Roadway Segment	Lanes/ Class	LOS E Capacity	Existing			Existing + Cumulative			Existing + Cumulative + Project			Δ Traffic	Δ v/c	Cumulative Impact?	CMP Impact?
			ADT	V/C	LOS	ADT	V/C	LOS	ADT	V/C	LOS				
<b>State Route 76</b>															
E. Vista Way to N. River Road	2SR	22,900	28,805	1.258	F	57,106	2.494	F	57,108	2.494	F	402	0.018	Yes	No
N. River Road to Camino Del Rey	2SR	22,900	39,736	1.735	F	67,436	2.945	F	67,438	2.945	F	538	0.023	Yes	Yes
Camino Del Rey to S. Mission Road	2SR	22,900	39,316	1.717	F	73,554	3.212	F	73,556	3.212	F	606	0.026	Yes	Yes
S. Mission Road to Gird Road	2SR	22,900	26,752	1.168	F	49,548	2.164	F	49,550	2.164	F	696	0.030	Yes	Yes
Gird Road to Old Hwy 395	2SR	22,900	23,789	1.039	F	43,614	1.905	F	43,618	1.905	F	788	0.034	Yes	Yes
Old Hwy 395 to I-15 SB Ramp	4C	34,200	29,407	0.860	D	42,781	1.251	F	42,785	1.251	F	872	0.025	Yes	Yes
I-15 SB Ramp to I-15 NB Ramp	2SR	22,900	19,359	0.845	E	35,628	1.556	F	35,627	1.556	F	1,817	0.079	Yes	Yes
I-15 NB Ramp to Pankey Road	4MR	37,000	11,031	0.298	A	33,563	0.907	E	33,575	0.907	E	2,764	0.075	Yes	Yes
Pankey Road to Horse Ranch Creek Road	4MR	37,000	11,031	0.298	A	32,771	0.886	D	32,787	0.886	D	3,348	0.090	No	No
Horse Ranch Creek Road to Rice Canyon Road	2SR	22,900	11,031	0.482	C	33,493	1.463	F	33,509	1.463	F	4,148	0.181	Yes	Yes
Rice Canyon Road to Couser Canyon Road	2SR	22,900	11,031	0.482	C	33,802	1.476	F	33,820	1.477	F	4,512	0.197	Yes	Yes
Couser Canyon Road to W. Pala Mission Road	2SR	22,900	10,224	0.446	C	34,010	1.485	F	34,028	1.486	F	4,670	0.204	Yes	Yes
W. Pala Mission Road to E. Pala Mission Road	2SR	22,900	10,329	0.451	C	23,580	1.030	F	23,582	1.030	F	606	0.026	Yes	Yes
E. Pala Mission Road to Lilac Road	2SR	22,900	8,821	0.385	C	25,904	1.131	F	25,906	1.131	F	606	0.026	Yes	Yes
Lilac Road to Adams Drive	2SR	22,900	9,456	0.413	C	25,390	1.109	F	25,392	1.109	F	394	0.017	Yes	No
Adams Drive to Cole Grade Road	2SR	22,900	9,090	0.397	C	24,376	1.064	F	24,376	1.064	F	370	0.016	Yes	No
<b>W. Pala Mission Road</b>															
State Route 76 and Pala Temecula Road	2RC	16,200	4,711	0.291	C	7,206	0.445	D	7,210	0.445	D	1,218	0.075	No	No
<b>Pala Temecula Road</b>															
Pala Mission Road to Trujillo Road	2RC	16,200	8,318	0.513	D	10,752	0.664	D	10,756	0.664	D	946	0.058	No	No

Note: 2RC: 2-lane Rural Collector; 2SR: 2-lanes State Route; 4C: 4-lane Collector; 4MR: 4-lane Major

**Table 4-3  
Cumulative With Project Intersection Conditions AM Peak Hour**

Intersection	Existing		Existing + Cumulative		Existing + Cumulative + Project		Δ Trips	Δ Delay	Cumulative Impact?	CMP Impact?
	Delay	LOS	Delay	LOS	Delay	LOS				
AM Peak Hour										
1. SR 76 / E. Vista Way	84.1	F	252.1	F	256.6	F	NA	4.5	Yes	Yes
2. SR 76/N. River Road	21.1	C	220.3	F	226.7	F	NA	6.4	Yes	Yes
3. SR 76/Olive Hill Road/Camino Del Rey	36.7	D	136.4	F	139.3	F	NA	2.9	Yes	Yes
4. SR 76/ S. Mission Road	28.8	C	184.9	F	188.9	F	NA	4.0	Yes	Yes
5. SR 76/ Gird Road	13.4	B	165.7	F	173.4	F	NA	7.7	Yes	Yes
6. Old Highway 395 / SR 76	31.1	C	160.4	F	162.7	F	NA	2.3	Yes	Yes
7. I-15 / SR 76 SB Ramp	31.1	C	197.6	F	221.1	F	NA	23.5	Yes	Yes
8. I-15 / SR 76 NB Ramp	23.6	C	95.8	F	127.7	F	NA	31.9	Yes	Yes
9. SR 76 / Pankey Road	10.7	B	21.0	C	22.0	C	4	1.0	No	No
10. SR 76 / Horse Ranch Creek Road	N/A	N/A	17.9	B	18.2	B	N/A	0.3	No	No
11. SR 76 / Rice Canyon Road <sup>1</sup>	11.2	B	114.7	F	465.8	F	9	351.1	Yes	Yes
12. SR 76 / Couser Canyon Road <sup>1</sup>	12.3	B	69.3	F	232.7	F	0	163.4	No <sup>2</sup>	Yes
13. SR 76/Driveway	0.5	A	1.6	A	17.8	B	NA	16.2	No	No
14. SR 76 / W. Pala Mission Road	26.4	C	23.9	C	25.3	C	NA	1.4	No	No
15. Pala Mission Rd./ Pala Temecula Road <sup>1</sup>	9.7	A	13.3	B	15.2	C	0	1.9	No	No
16. SR 76 / Brittan Road <sup>1</sup>	9.1	A	10.8	B	11.0	B	0	0.2	No	No
17. SR 76/ E. Pala Mission Road <sup>1</sup>	12.5	B	34.0	D	39.5	E	0	5.5	No <sup>2</sup>	Yes
18. SR 76/ Lilac Road <sup>1</sup>	11.8	B	25.8	D	28.5	D	5	2.7	No	No
19. SR 76 / Adams Drive <sup>1</sup>	10.1	B	13.9	B	14.2	B	0	0.3	No	No
20. SR 76 / Cole Grade Road <sup>1</sup>	17.0	C	287.0	F	307.2	F	1	20.2	No <sup>2</sup>	Yes

<sup>1</sup> Significance of unsignalized intersections is determined by the number of added project trips to the critical movement.

<sup>2</sup> Intersection is not a direct impact. Significance criteria for unsignalized intersections are based upon a minimum number of trips added to a critical movement at an unsignalized intersection( 20 at LOS E and 5 at LOS F), as seen in Table 2 of Chapter 4 in the *County of San Diego Guidelines for Determining Significance*.

Note: The change in trips added to the critical movement are only reported for unsignalized intersections operating at LOS E or F.

**Table 4-4  
Cumulative With Project Intersection Conditions PM Peak Hour**

Intersection	Existing		Existing + Cumulative		Existing + Cumulative + Project		Δ Trips	Δ Delay	Cumulative Impact?	CMP Impact?
	Delay	LOS	Delay	LOS	Delay	LOS				
PM Peak Hour										
1. SR 76 / E. Vista Way	68.7	E	248.2	F	253.9	F	NA	5.7	Yes	Yes
2. SR 76/N. River Road	34.5	C	310.1	F	318.4	F	NA	8.3	Yes	Yes
3. SR 76/Olive Hill Road/Camino Del Rey	40.7	D	206.5	F	211.1	F	NA	4.6	Yes	Yes
4. SR 76/ S. Mission Road	31.9	C	283.8	F	290.7	F	NA	6.9	Yes	Yes
5. SR 76/ Gird Road	11.6	B	241.7	F	251.7	F	NA	10.0	Yes	Yes
6. Old Highway 395 / SR 76	30.8	C	240.0	F	246.5	F	NA	6.5	Yes	Yes
7. I-15 / SR 76 SB Ramp	58.8	E	335.5	F	357.9	F	NA	22.4	Yes	Yes
8. I-15 / SR 76 NB Ramp	51.1	D	240.0	F	272.9	F	NA	32.9	Yes	Yes
9. SR 76 / Pankey Road	11.1	B	29.1	C	33.2	C	13	4.1	No	No
10. SR 76 / Horse Ranch Creek Road	N/A	N/A	18.7	B	19.7	B	NA	1.0	No	No
11. SR 76 / Rice Canyon Road <sup>1</sup>	13.3	B	531.2	F	Over flow	F	25	N/A	Yes	Yes
12. SR 76 / Couser Canyon Road <sup>1</sup>	14.8	B	297.6	F	933.8	F	0	636.2	No <sup>2</sup>	Yes
13. SR 76/Driveway	0.5	A	2.3	A	19.3	B	NA	17.0	No	No
14. SR 76 / W. Pala Mission Road	27.6	C	25.0	C	35.5	D	NA	10.5	No	No
15. Pala Mission Rd./ Pala Temecula Road <sup>1</sup>	11.2	B	17.3	C	22.5	C	0	5.2	No	No
16. SR 76 / Brittan Road <sup>1</sup>	10.1	B	19.3	C	20.5	C	0	1.2	No	No
17. SR 76/ E. Pala Mission Road <sup>1</sup>	16.7	C	512.9	F	600.1	F	0	87.2	No <sup>2</sup>	Yes
18. SR 76/ Lilac Road <sup>1</sup>	13.1	B	93.0	F	167.6	F	15	74.6	Yes	Yes
19. SR 76 / Adams Drive <sup>1</sup>	13.4	B	32.3	D	33.9	D	0	1.6	No	No
20. SR 76 / Cole Grade Road <sup>1</sup>	17.9	C	967.0	F	Over flow	F	2	N/A	No <sup>2</sup>	Yes

<sup>1</sup> Significance of unsignalized intersections is determined by the number of added project trips to the critical movement.

<sup>2</sup> Intersection is not a direct impact. Significance criteria for unsignalized intersections are based upon a minimum number of trips added to a critical movement at an unsignalized intersection ( 20 at LOS E and 5 at LOS F), as seen in Table 2 of Chapter 4 in the *County of San Diego Guidelines for Determining Significance*.

Note: The change in trips added to the critical movement are only reported for unsignalized intersections operating at LOS E or F.

**Table 4-5  
Cumulative With Project Freeway Mainline Conditions**

Segment	Direction/ Lanes	Capacity	Grade (%)	Truck Proportion (%)	Truck Factor	Existing			Existing + Cumulative			Existing + Cumulative + Project			Δ V/C	Direct Impact?
						Peak Hour PCE <sup>1</sup>	V/C	LOS	Peak Hour PCE <sup>1</sup>	V/C	LOS	Peak Hour PCE <sup>1</sup>	V/C	LOS		
<b>AM Peak Hour</b>																
Interstate 15 North of SR 76	South/4	9,200	1.00%	2.00%	0.9901	6,569	0.714	C	8,444	0.918	D	8,458	0.919	D	0.002	No
Interstate 15 South of SR 76	South/4	9,200	1.00%	2.00%	0.9901	6,195	0.673	C	7,707	0.838	D	7,849	0.853	D	0.015	No
<b>PM Peak Hour</b>																
Interstate 15 North of SR 76	North/4	9,200	1.00%	2.00%	0.9901	6,283	0.683	C	8,895	0.967	E	8,912	0.969	E	0.002	No
Interstate 15 South of SR 76	North/4	9,200	1.00%	2.00%	0.9901	6,094	0.662	C	7,763	0.844	D	7,936	0.863	D	0.019	No

<sup>1</sup>Passenger Car Equivalent

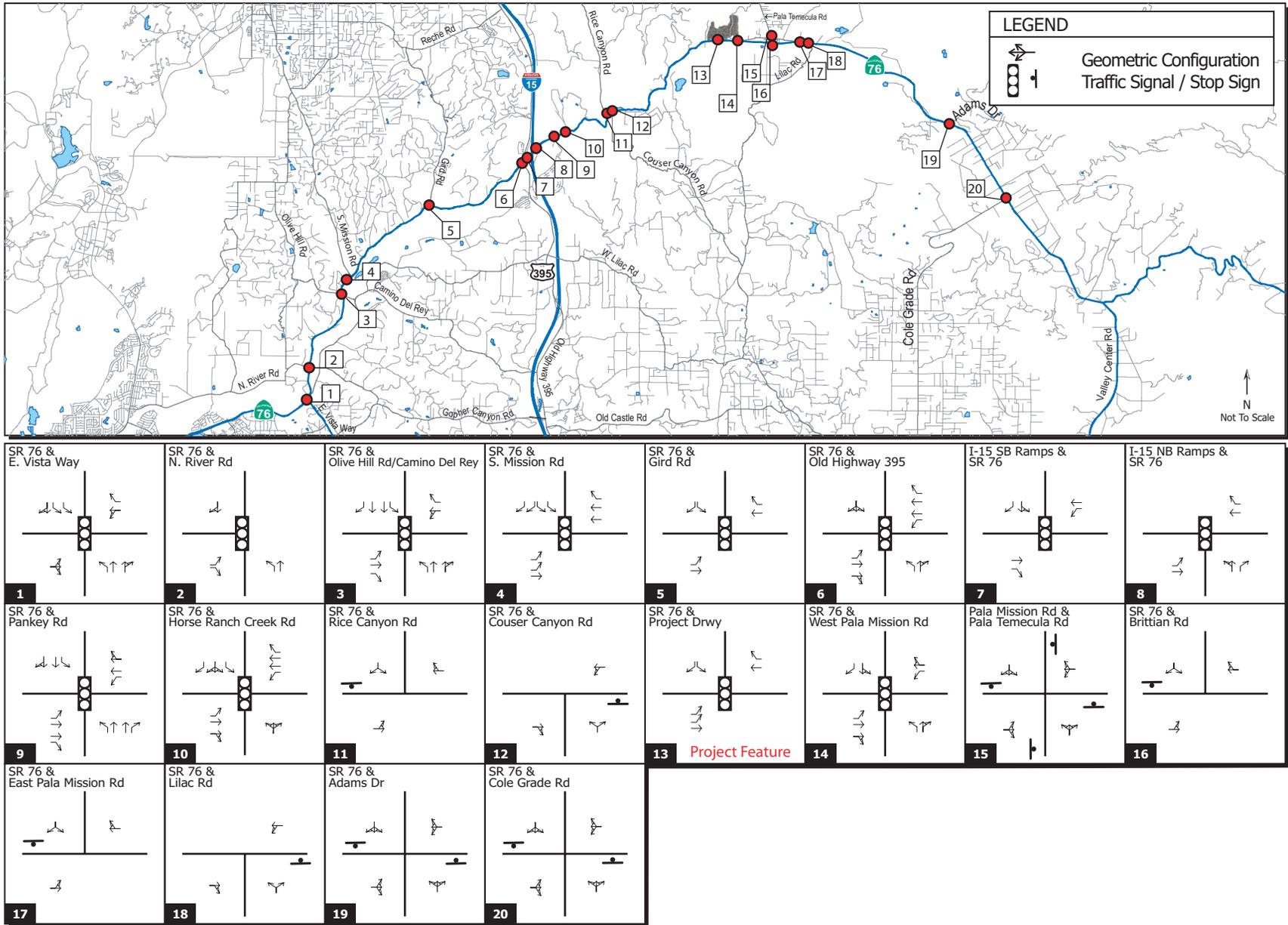
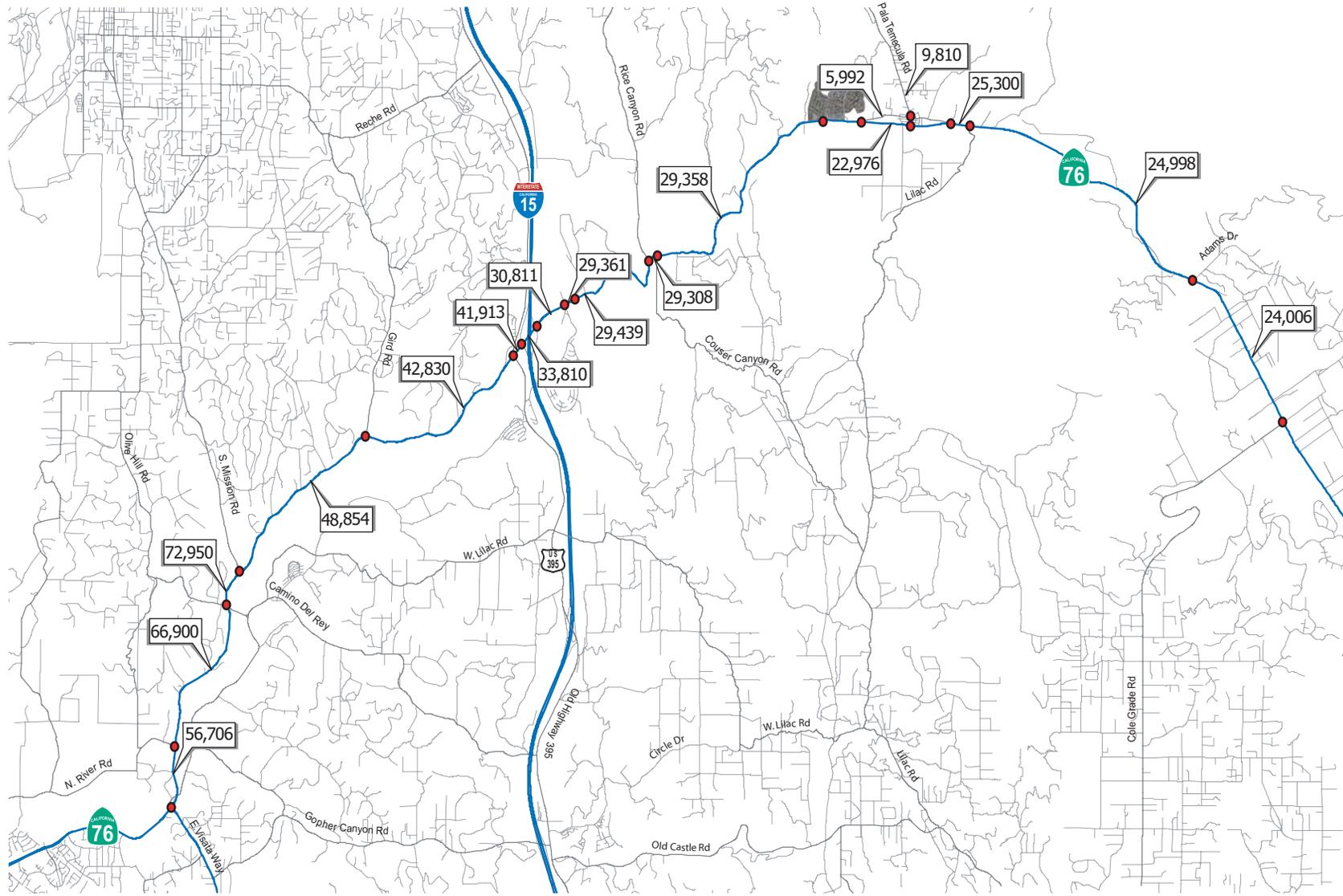


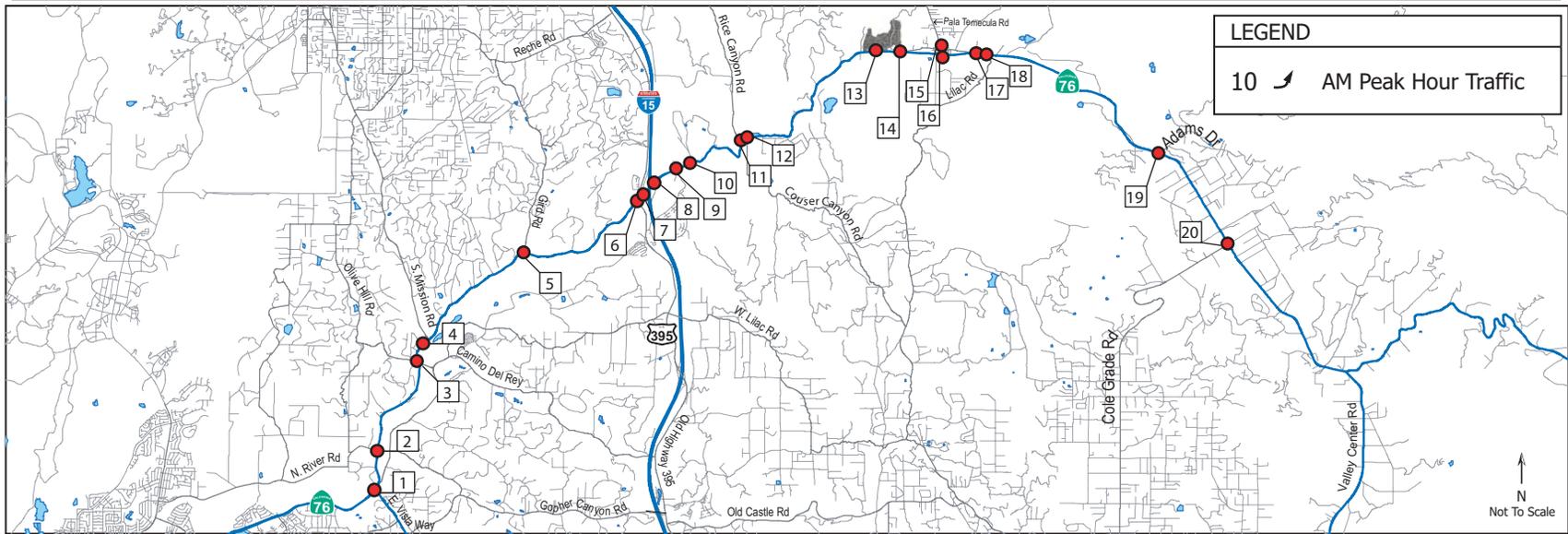
Figure 4-1  
Cumulative Geometric Configuration



LEGEND	
	ADT(1000s)

Figure 4-2  
Cumulative Roadway Segment Volumes Without Project





<p><b>1</b> SR 76 &amp; E. Vista Way</p> <table border="1"> <tr> <td>24</td> <td>1689</td> <td>321</td> <td>308</td> </tr> <tr> <td>9</td> <td>194</td> <td>286</td> <td>335</td> </tr> <tr> <td>80</td> <td>1099</td> <td>404</td> <td></td> </tr> </table>	24	1689	321	308	9	194	286	335	80	1099	404		<p><b>2</b> SR 76 &amp; N. River Rd</p> <table border="1"> <tr> <td>273</td> <td>1908</td> <td></td> <td></td> </tr> <tr> <td>143</td> <td>176</td> <td>155</td> <td>1613</td> </tr> </table>	273	1908			143	176	155	1613	<p><b>3</b> SR 76 &amp; Olive Hill Rd/Camino Del Rey</p> <table border="1"> <tr> <td>189</td> <td>2008</td> <td>571</td> <td>316</td> </tr> <tr> <td>177</td> <td>260</td> <td>209</td> <td>113</td> </tr> <tr> <td>133</td> <td>1383</td> <td>180</td> <td></td> </tr> </table>	189	2008	571	316	177	260	209	113	133	1383	180		<p><b>4</b> SR 76 &amp; S. Mission Rd</p> <table border="1"> <tr> <td>1072</td> <td>220</td> <td>189</td> <td></td> </tr> <tr> <td>775</td> <td>1348</td> <td>1962</td> <td></td> </tr> </table>	1072	220	189		775	1348	1962		<p><b>5</b> SR 76 &amp; Gird Rd</p> <table border="1"> <tr> <td>203</td> <td>104</td> <td>73</td> <td></td> </tr> <tr> <td>129</td> <td>1577</td> <td>2011</td> <td></td> </tr> </table>	203	104	73		129	1577	2011		<p><b>6</b> SR 76 &amp; Old Highway 395</p> <table border="1"> <tr> <td>119</td> <td>212</td> <td>554</td> <td>230</td> </tr> <tr> <td>116</td> <td>979</td> <td>109</td> <td>593</td> </tr> <tr> <td>311</td> <td>184</td> <td>182</td> <td>128</td> </tr> </table>	119	212	554	230	116	979	109	593	311	184	182	128	<p><b>7</b> I-15 SB Ramps &amp; SR 76</p> <table border="1"> <tr> <td>955</td> <td>4</td> <td>193</td> <td>744</td> </tr> <tr> <td>1045</td> <td>405</td> <td>274</td> <td></td> </tr> </table>	955	4	193	744	1045	405	274		<p><b>8</b> I-15 NB Ramps &amp; SR 76</p> <table border="1"> <tr> <td>181</td> <td></td> <td></td> <td></td> </tr> <tr> <td>686</td> <td>557</td> <td>280</td> <td>320</td> </tr> </table>	181				686	557	280	320				
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Figure 4-3  
Cumulative AM Peak Hour Intersection Volumes Without Project

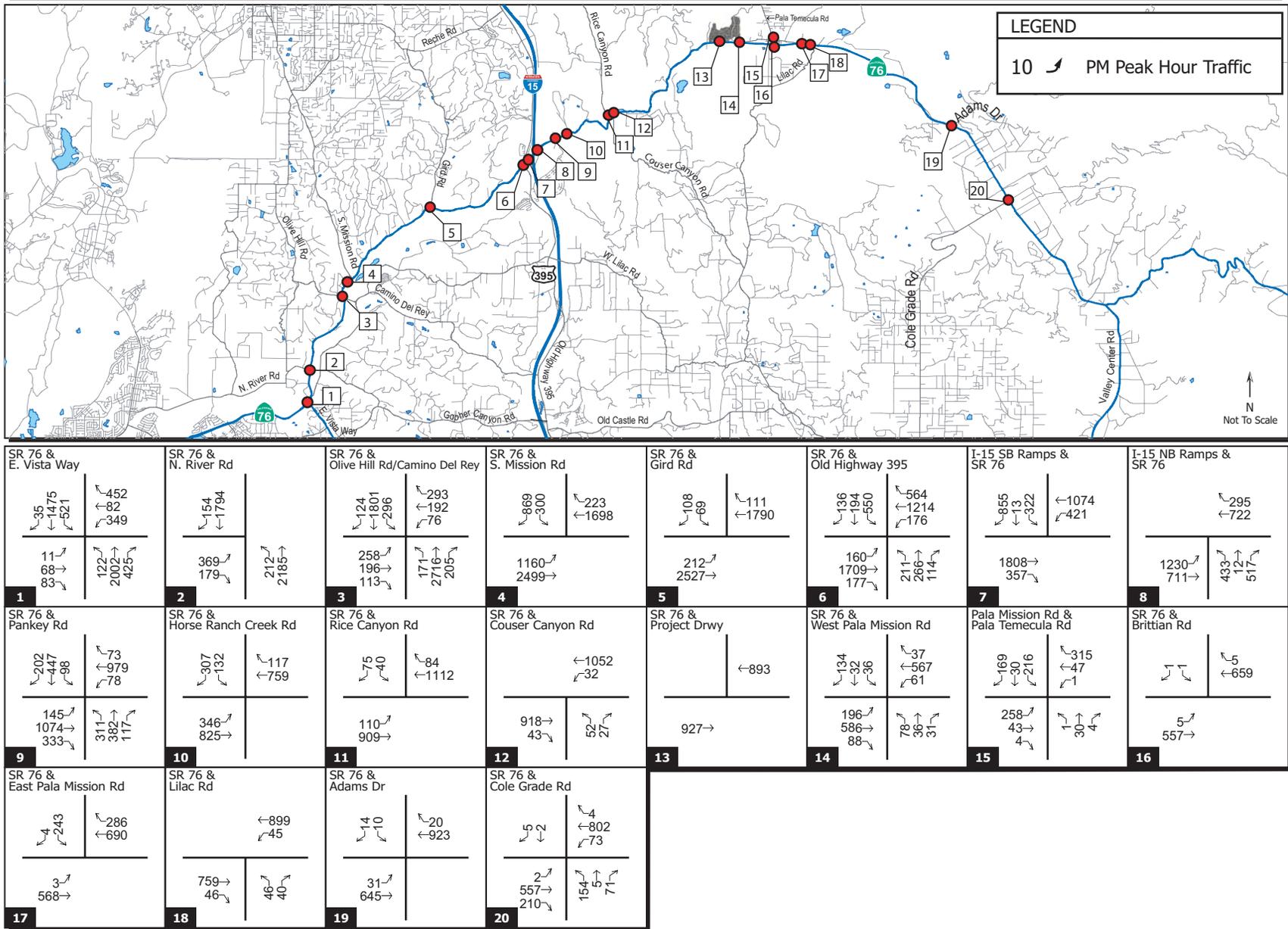
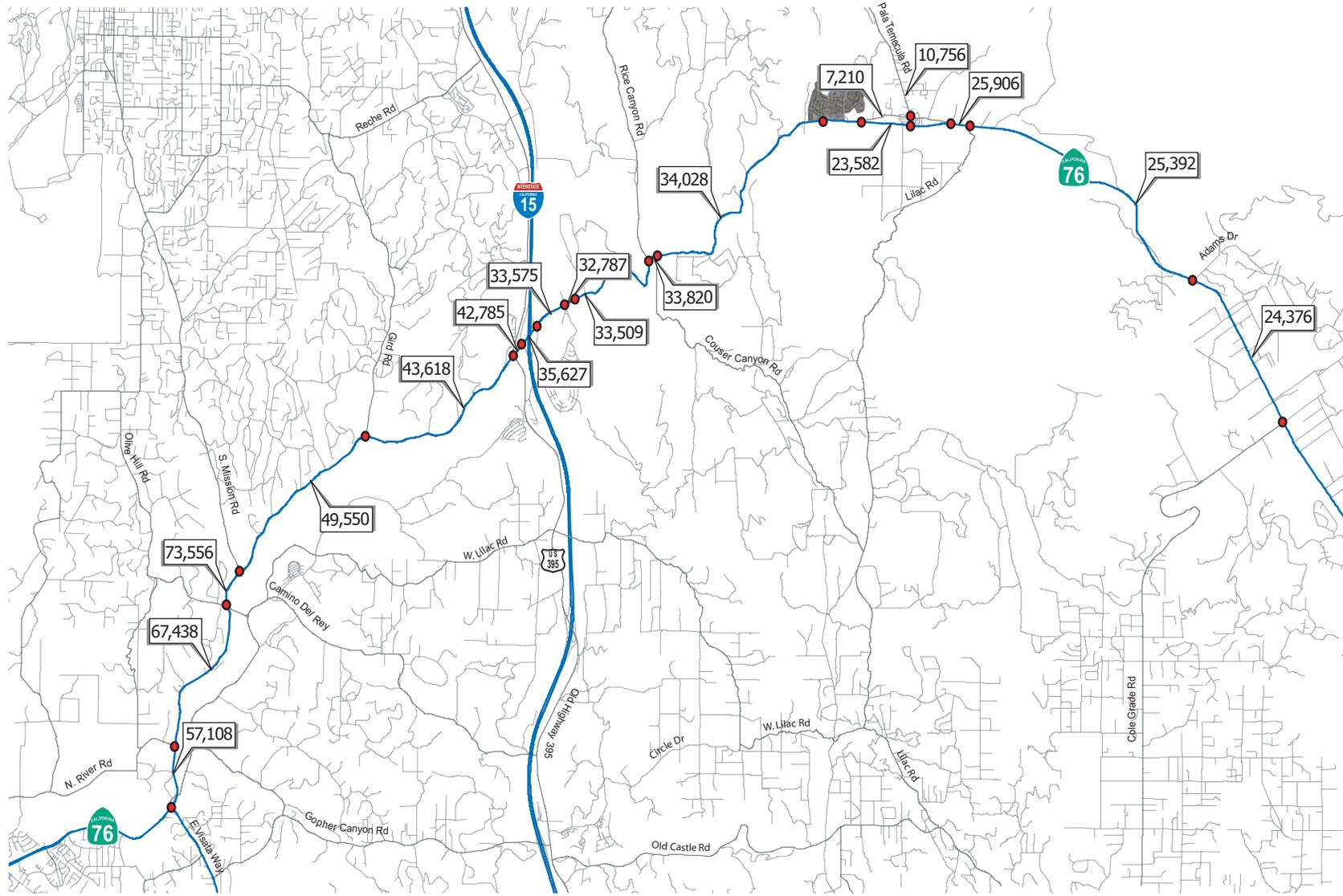


Figure 4-4  
Cumulative PM Peak Hour Intersection Volumes Without Project



**LEGEND**

1,526 ADT(1000s)

Figure 4-5  
Cumulative Roadway Segment Volumes With Project



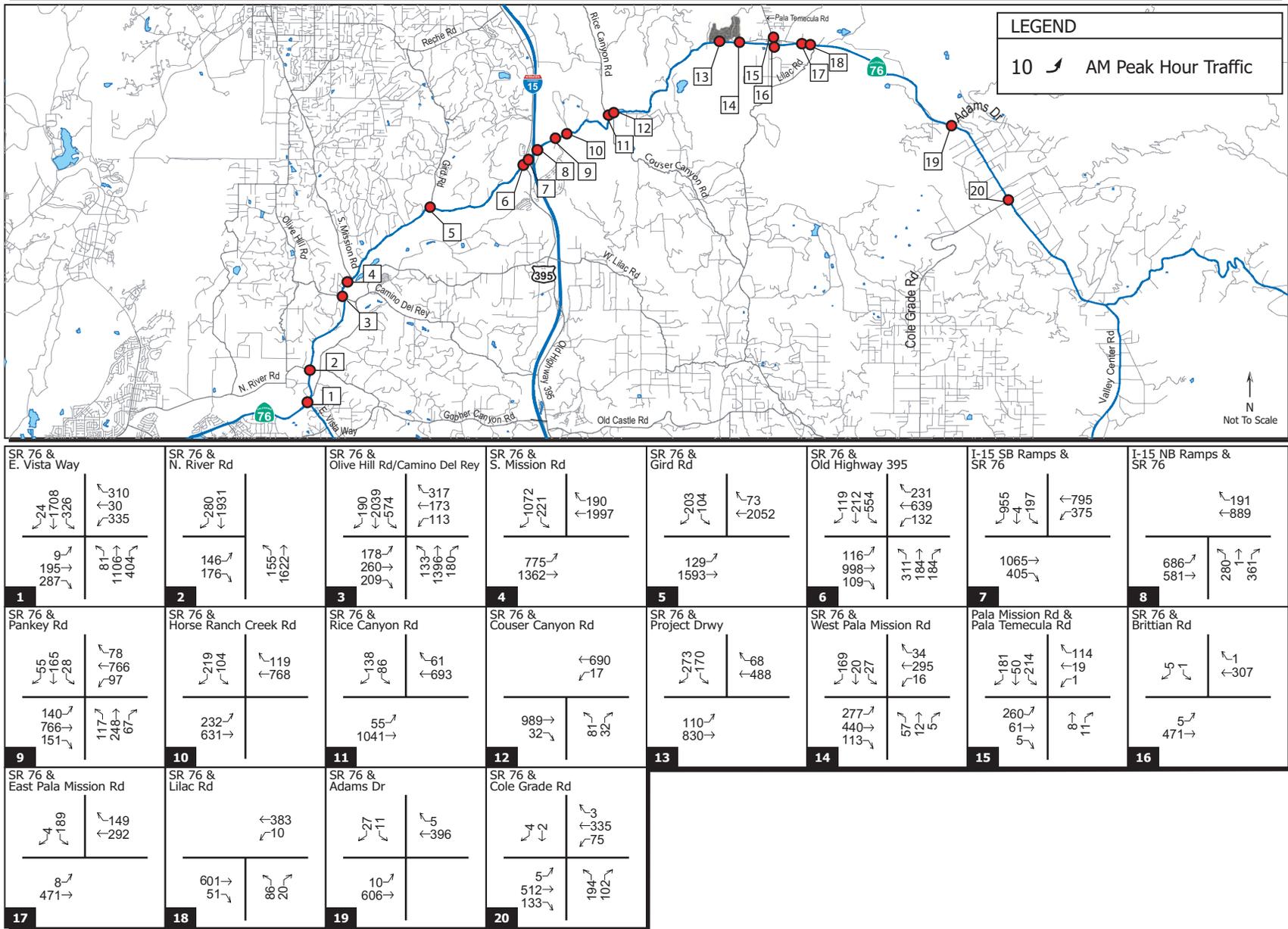


Figure 4-6  
Cumulative AM Peak Hour Intersection Volumes With Project

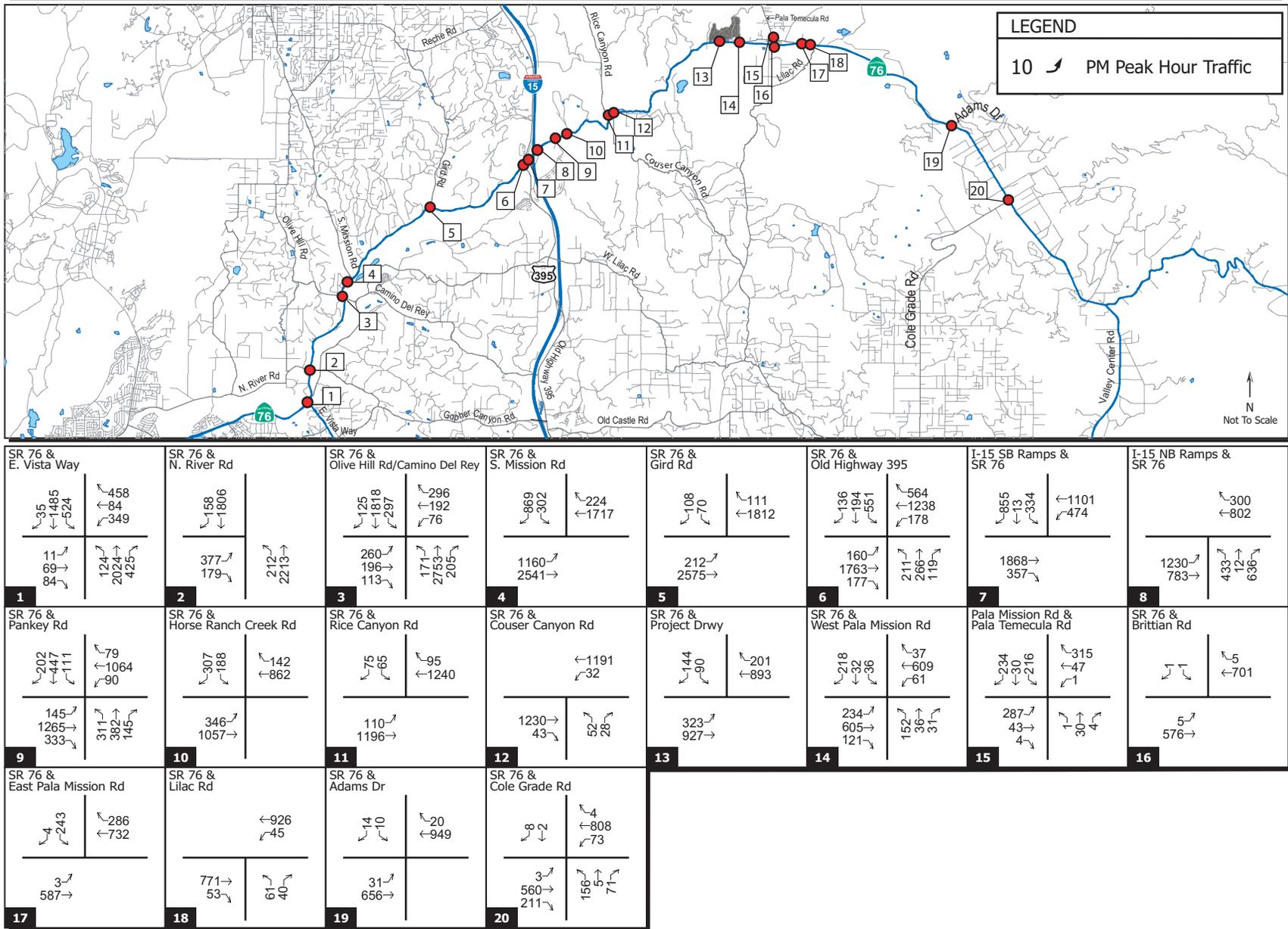


Figure 4-7  
Cumulative PM Peak Hour Intersection Volumes With Project

## **CHAPTER 5 PREVIOUSLY ADOPTED GENERAL PLAN CONDITIONS**

Previously Adopted General Plan conditions represent traffic conditions in 2030.

### **PREVIOUSLY ADOPTED GENERAL PLAN TRAFFIC VOLUMES**

Traffic growth on area roadways is a function of the expected land development, economic activity, and changes in demographics. Several methods can be used to estimate this growth. For this analysis SANDAG Series 11 traffic forecast model was used to develop Previously Adopted General Plan base volumes. Appendix C contains detailed information about volume development.

### **PREVIOUSLY ADOPTED GENERAL PLAN CIRCULATION NETWORK**

The following circulation improvements are assumed under Previously Adopted General Plan conditions:

- State Route 76 from East Vista Way to Camino Del Rey: improvement from a 2 lane State Route to a 6 lane Expressway
- State Route 76 from Camino Del Rey to Old Highway 395: improvement from a 2 lane State Route to a 6 lane Prime Arterial
- State Route 76 from Old Highway 395 to I-15: improvement from a 4 lane Collector to a 6 lane Prime Arterial
- State Route 76 from Pankey Road to SR-79: improvement from a 2 lane State Route to a 4 lane Major Road

No other circulation network changes are assumed. Figure 5-1 shows the Previously Adopted General Plan circulation network.

The effect of the proposed project on the study area circulation network was evaluated. Figures 5-2 and 5-3 show the Previously Adopted General Plan roadway segment conditions without and with the proposed project. Table 5-2 shows the Previously Adopted General Plan segment conditions.

### **PREVIOUSLY ADOPTED GENERAL PLAN ZONING AND TRIP GENERATION**

The project site is made up of 501.27 acres, of which 262.57 acres are zoned for one dwelling unit per every two acres and 238.64 acres are zoned one dwelling unit per every four acres. Using this zoning and acreage 190 dwelling units could be built on the site under the Previously Adopted General Plan Zoning. Table 5-1 illustrates the trip making potential of the Previously Adopted General Plan and compares it to the proposed project.

**Table 5-1  
Previously Adopted General Plan Trip Generation Comparison**

Land Use	Intensity	Unit	Rate/Trips	Daily Trips	AM Peak Hour			PM Peak Hour		
					Total	In	Out	Total	In	Out
Estate (3-6 DU/acre)	190	dwelling unit	Rate Trips	12 2,280	8% 183	30% 55	70% 129	10% 228	70% 160	30% 69
<i>Previously Adopted General Plan</i>				<b>2,280</b>	<b>183</b>	<b>55</b>	<b>129</b>	<b>228</b>	<b>160</b>	<b>69</b>
Single Family (3-6 DU/acre)	534	dwelling unit	Rate Trips	10 5,340	8% 428	30% 129	70% 300	10% 534	70% 374	30% 161
Condominium (6-20 DU/acre)	246	dwelling unit	Rate Trips	8 1,968	8% 158	20% 32	80% 127	10% 197	70% 138	30% 60
Developed Park	4.23	AC	Rate Trips	50 212	13% 28	50% 14	50% 14	9% 20	50% 10	50% 10
Fire Station	1	Station	Rate Trips	50 50	8% 4	60% 3	40% 2	10% 5	40% 2	60% 3
<i>Proposed Project</i>				<b>7,570</b>	<b>618</b>	<b>178</b>	<b>443</b>	<b>756</b>	<b>524</b>	<b>234</b>
<b>Net Increase</b>				<b>5,290</b>	<b>435</b>	<b>123</b>	<b>314</b>	<b>528</b>	<b>364</b>	<b>165</b>

Source: SANDAG

**Table 5-2  
Previously Adopted General Plan With Project Roadway Segment Conditions**

Roadway Segment	Lanes/ Class	LOS E Capacity	Previously Adopted General Plan			With Project			Δ Traffic	Δ v/c	GP Non- Conformant?	CMP Sig?
			ADT	V/C	LOS	ADT	V/C	LOS				
<b>State Route 76</b>												
E. Vista Way to N. River Road	6E	108,000	56,000	0.519	C	56,281	0.521	C	281	0.003	No	No
N. River Road to Camino Del Rey	6E	108,000	66,000	0.611	C	66,376	0.615	C	376	0.003	No	No
Camino Del Rey to S. Mission Road	6E	108,000	72,000	0.667	D	72,423	0.671	D	423	0.004	No	No
S. Mission Road to Gird Road	6PA	57,000	48,000	0.842	D	48,486	0.851	D	486	0.009	No	No
Gird Road to Old Hwy 395	6PA	57,000	42,000	0.737	C	42,551	0.747	C	551	0.010	No	No
Old Hwy 395 to I-15 SB Ramp	6PA	57,000	41,000	0.719	C	41,609	0.730	C	609	0.011	No	No
I-15 SB Ramp to I-15 NB Ramp	6PA	57,000	31,000	0.544	B	32,270	0.566	B	1,270	0.022	No	No
I-15 NB Ramp to Pankey Road	4MR	37,000	24,000	0.649	B	25,932	0.701	C	1,932	0.052	No	No
Pankey Road to Horse Ranch Creek Road	4MR	37,000	30,000	0.811	D	32,340	0.874	D	2,340	0.063	No	No
Horse Ranch Creek Road to Rice Canyon Road	4MR	37,000	20,000	0.541	B	22,899	0.619	B	2,899	0.078	No	No
Rice Canyon Road to Couser Canyon Road	4MR	37,000	26,000	0.703	C	29,153	0.788	C	3,153	0.085	No	No
Couser Canyon Road to W. Pala Mission Road	4MR	37,000	27,000	0.730	C	30,263	0.818	D	3,263	0.088	No	No
W. Pala Mission Road to E. Pala Mission Road	4MR	37,000	19,000	0.514	B	19,423	0.525	B	423	0.011	No	No
E. Pala Mission Road to Lilac Road	4MR	37,000	21,000	0.568	B	21,423	0.579	B	423	0.011	No	No
Lilac Road to Adams Drive	4MR	37,000	21,000	0.568	B	21,275	0.575	B	275	0.007	No	No
Adams Drive to Cole Grade Road	4MR	37,000	21,000	0.568	B	21,259	0.575	B	259	0.007	No	No
<b>W. Pala Mission Road</b>												
State Route 76 and Pala Temecula Road	2RC	16,200	6,000	0.370	C	6,851	0.423	C	851	0.053	No	No
<b>Pala Temecula Road</b>												
Pala Mission Road to Trujillo Road	2RC	16,200	5,000	0.309	C	5,661	0.349	C	661	0.041	No	No

Note: 2RC: 2-lane Rural Collector; 4MR: 4-lane Major Road; 6PA: 6-lane Prime Arterial; 6E: 6-lane Expressway.

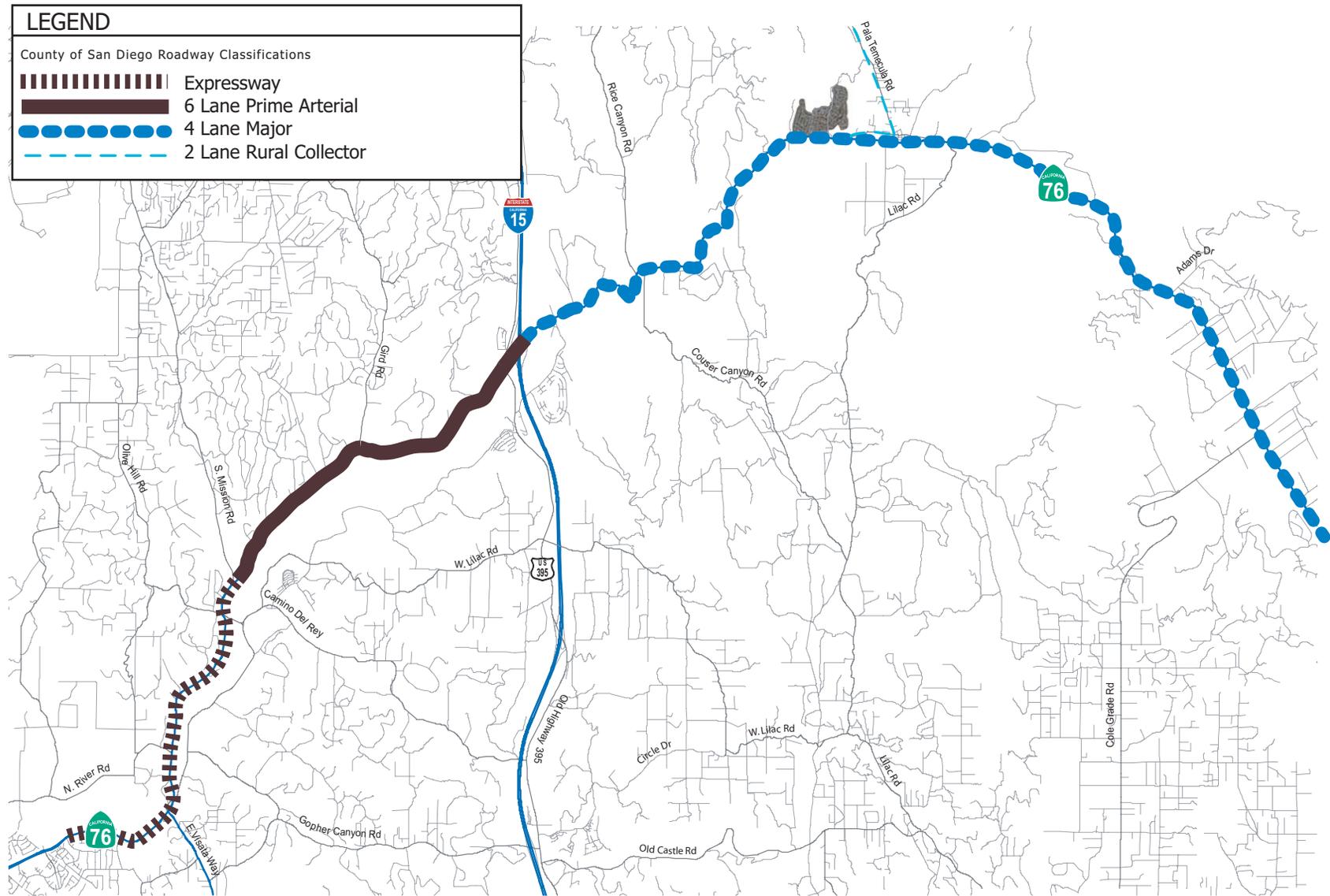
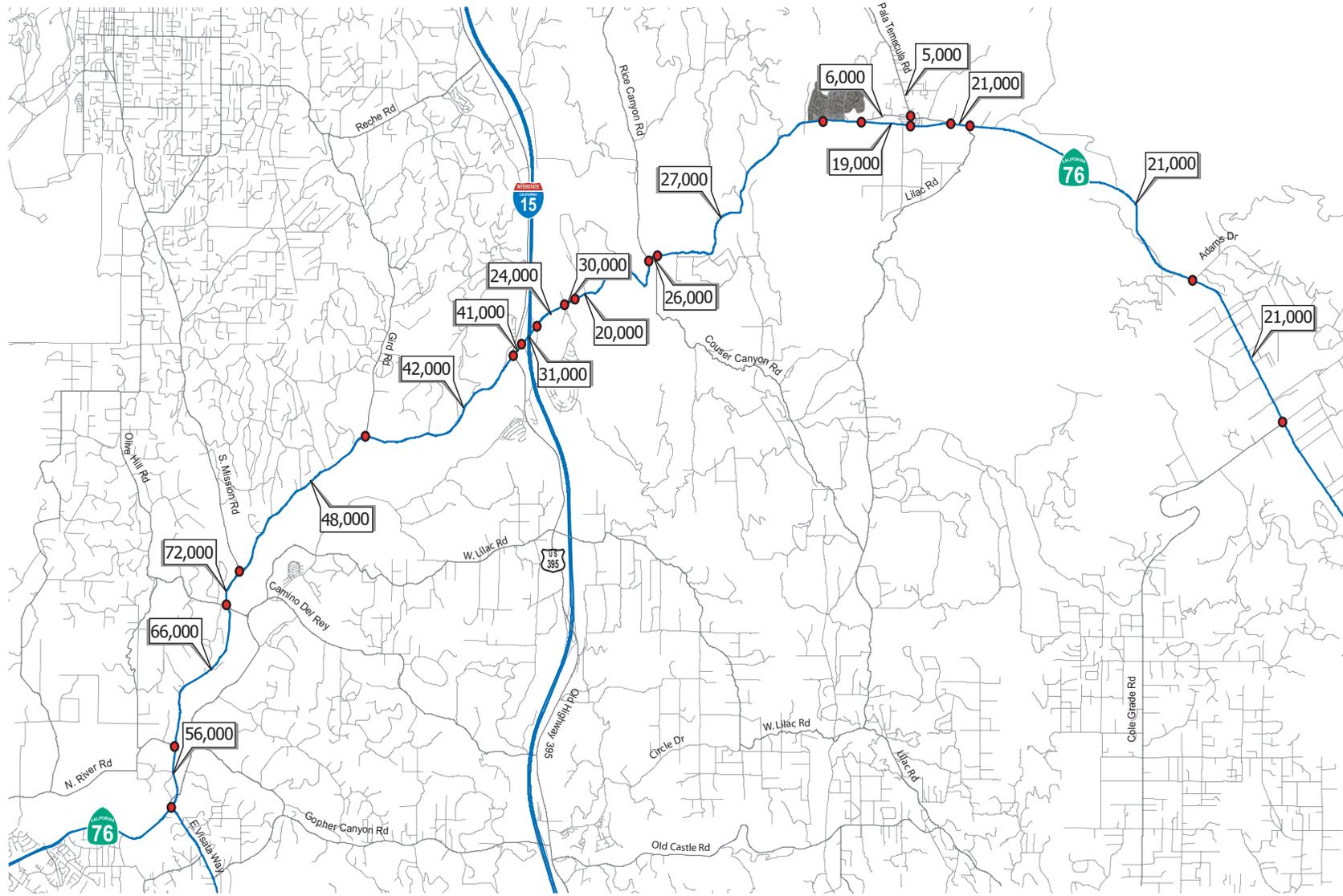


Figure 5-1  
Previously Adopted General Plan Circulation Network

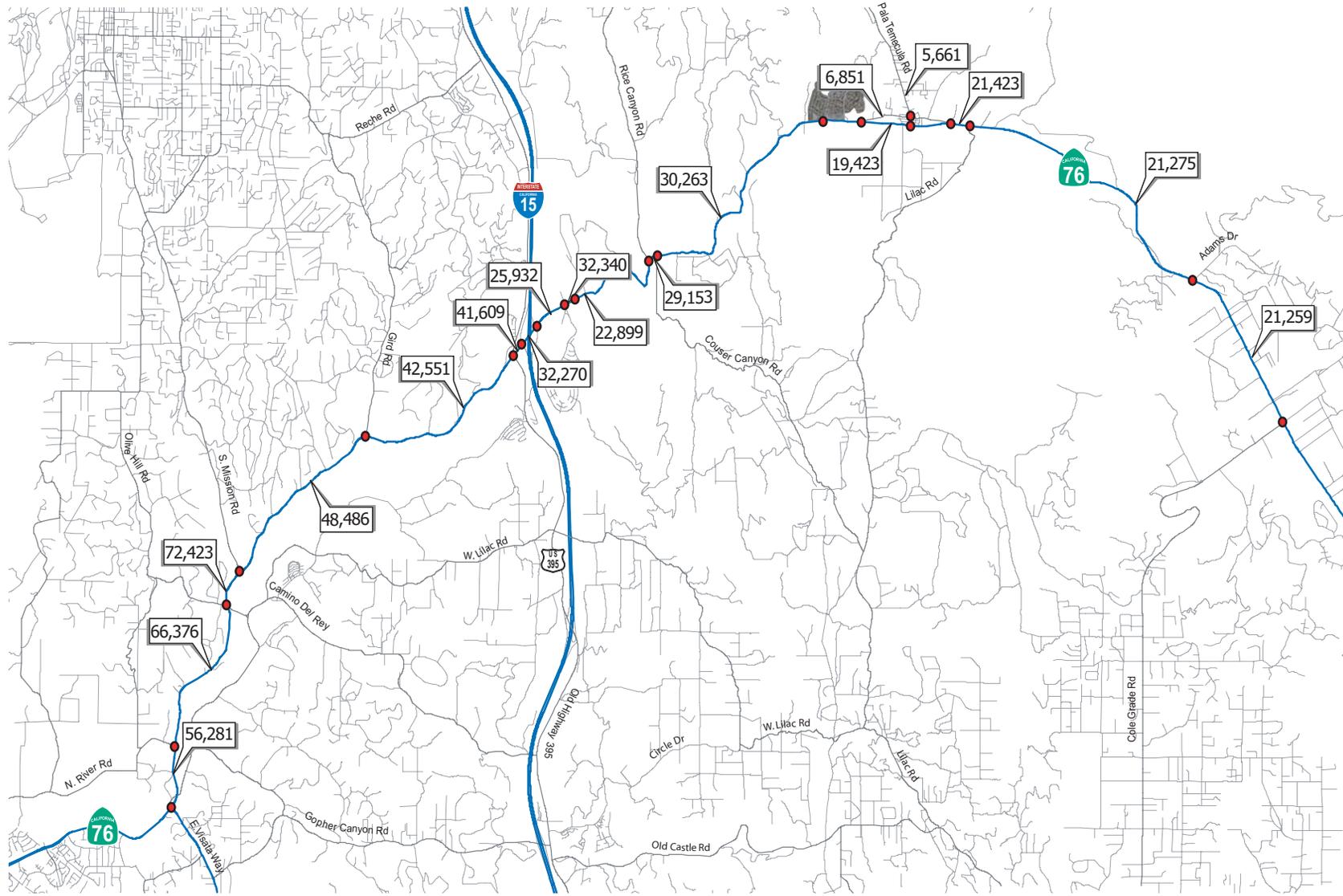




LEGEND	
	1,526 ADT(1000s)

Figure 5-2  
Previously Adopted General Plan Roadway Segment Volumes





LEGEND	
	ADT(1000s)

Figure 5-3  
Previously Adopted General Plan Roadway Segment Volumes With Project



## **CHAPTER 6**

### **ADOPTED GENERAL PLAN CONDITIONS**

Adopted General Plan conditions represent traffic conditions in 2030. This analysis reflects the conditions that are proposed in the Adopted General Plan. The Adopted General Plan represents a decrease in intensity of land use in the back country of the County and a down-grading of many roadway classifications that had yet to be widened to that degree.

#### **ADOPTED GENERAL PLAN TRAFFIC VOLUMES**

Traffic growth on area roadways is a function of the expected land development, economic activity, and changes in demographics. Several methods can be used to estimate this growth. For this analysis Adopted General Plan 2030 traffic forecast model was used to develop Adopted General Plan base volumes. Appendix C contains detailed information about volume development.

#### **ADOPTED GENERAL PLAN MOBILITY NETWORK**

The following circulation improvements are assumed under Adopted General Plan conditions:

- SR-76 from East Vista Way to Mission Road: improvement from a 2 lane State Route to a 6 lane Prime Arterial
- SR-76 from Mission Road to Old Highway 395: improvement from a 2 lane State Route to a 4 lane Major Road with a Raised Median
- SR-76 from Old Highway 395 to I-15: improvement from a 4 lane Collector to a 4 lane Major Road with a Raised Median
- SR-76 from Pankey Road to Couser Canyon Road : improvement from a 2 lane State Route to a 4 lane Major Road
- Pala Temecula Road from Pala Mission Road to Trujillo Road: improvement from a 2 lane Rural Collector to a 2 lane Light Collector with passing lane improvement options

No other circulation network changes are assumed. Figure 6-1 shows the Adopted General Plan mobility network.

The effect of the proposed project on the study area circulation network was evaluated. Figures 6-2 through 6-3 show the Adopted General Plan roadway segment conditions with and without the proposed project. Table 6-1 shows the Adopted General Plan segment conditions.

#### **ADOPTED GENERAL PLAN ZONING AND TRIP GENERATION**

The project site is made up of 501.27 acres and is zoned for one dwelling unit per every forty acres under the Adopted General Plan. Using this zoning and acreage 12 dwelling units could be built on the site under the proposed General Plan Zoning. Table 6-1 illustrates the trip making potential of the Adopted General Plan and compares it to the proposed project.

**Table 6-1  
Adopted General Plan Trip Generation Comparison**

<i>Land Use</i>	Intensity	Unit	Rate/Trips	Daily Trips	AM Peak Hour			PM Peak Hour		
					Total	In	Out	Total	In	Out
Estate (3-6 DU/acre)	12	dwelling unit	Rate Trips	12 144	8% 12	30% 4	70% 9	10% 15	70% 11	30% 5
<b><i>Adopted General Plan</i></b>				<b><i>144</i></b>	<b><i>12</i></b>	<b><i>4</i></b>	<b><i>9</i></b>	<b><i>15</i></b>	<b><i>11</i></b>	<b><i>5</i></b>
Single Family (3-6 DU/acre)	534	dwelling unit	Rate Trips	10 5,340	8% 428	30% 129	70% 300	10% 534	70% 374	30% 161
Condominium (6-20 DU/acre)	246	dwelling unit	Rate Trips	8 1,968	8% 158	20% 32	80% 127	10% 197	70% 138	30% 60
Developed Park	4.23	AC	Rate Trips	50 212	13% 28	50% 14	50% 14	9% 20	50% 10	50% 10
Fire Station	1	Station	Rate Trips	50 50	8% 4	60% 3	40% 2	10% 5	40% 2	60% 3
<b><i>Proposed Project</i></b>				<b><i>7,570</i></b>	<b><i>618</i></b>	<b><i>178</i></b>	<b><i>443</i></b>	<b><i>756</i></b>	<b><i>524</i></b>	<b><i>234</i></b>
<b>Net Increase</b>				<b><i>7,426</i></b>	<b><i>606</i></b>	<b><i>174</i></b>	<b><i>434</i></b>	<b><i>741</i></b>	<b><i>513</i></b>	<b><i>229</i></b>

Source: SANDAG

**Table 6-2  
Adopted General Plan With Project Roadway Segment Conditions**

Roadway Segment	Lanes/ Class	LOS E Capacity	Adopted General Plan			Adopted General Plan With Project			Δ Traffic	Δ v/c	GP Non- Conformant?	CMP Sig?
			ADT	V/C	LOS	ADT	V/C	LOS				
<b>State Route 76</b>												
E. Vista Way to N. River Road	6PA	57,000	47,333	0.830	D	47,727	0.837	D	394	0.007	No	No
N. River Road to Camino Del Rey	6PA	57,000	56,738	0.995	E	57,266	1.005	F	528	0.009	Yes	No
Camino Del Rey to S. Mission Road	6PA	57,000	60,567	1.063	F	61,161	1.073	F	594	0.010	Yes	No
S. Mission Road to Gird Road	4MR	37,000	41,889	1.132	F	42,572	1.151	F	683	0.018	Yes	No
Gird Road to Old Hwy 395	4MR	37,000	34,238	0.925	E	35,011	0.946	E	773	0.021	Yes	Yes
Old Hwy 395 to I-15 SB Ramp	4MR	37,000	36,503	0.987	E	37,358	1.010	F	855	0.023	Yes	Yes
I-15 SB Ramp to I-15 NB Ramp	4MR	37,000	29,068	0.786	C	30,850	0.834	D	1,782	0.048	No	No
I-15 NB Ramp to Pankey Road	4MR	37,000	27,154	0.734	C	29,865	0.807	D	2,711	0.073	No	No
Pankey Road to Horse Ranch Creek Road	4MR	37,000	24,894	0.673	C	28,178	0.762	C	3,284	0.089	No	No
Horse Ranch Creek Road to Rice Canyon Road	4MR	37,000	30,362	0.821	D	34,431	0.931	E	4,069	0.110	Yes	Yes
Rice Canyon Road to Couser Canyon Road	4MR	37,000	31,134	0.841	D	35,560	0.961	E	4,426	0.120	Yes	Yes
Couser Canyon Road to W. Pala Mission Road	2SR	22,900	25,450	1.111	F	30,031	1.311	F	4,581	0.200	Yes	Yes
W. Pala Mission Road to E. Pala Mission Road	2SR	22,900	22,482	0.982	E	23,076	1.008	F	594	0.026	Yes	Yes
E. Pala Mission Road to Lilac Road	2SR	22,900	17,504	0.764	E	18,098	0.790	E	594	0.026	Yes	Yes
Lilac Road to Adams Drive	2SR	22,900	13,396	0.585	C	13,783	0.602	C	387	0.017	No	No
Adams Drive to Cole Grade Road	2SR	22,900	16,807	0.734	E	17,170	0.750	E	363	0.016	Yes	No
<b>W. Pala Mission Road</b>												
State Route 76 and Pala Temecula Road	2RC	16,200	3,818	0.236	B	5,013	0.309	C	1,195	0.074	No	No
<b>Pala Temecula Road</b>												
Pala Mission Road to Trujillo Road	2LC	19,000	6,855	0.361	C	7,783	0.410	C	928	0.049	No	No

Note: 2LC: 2-lane Light Collector; 2RC: 2-lane Rural Collector; 2SR: 2-lanes State Route; 4MR: 4-lane Major Road; 6PA: 6-lane Prime Arterial.

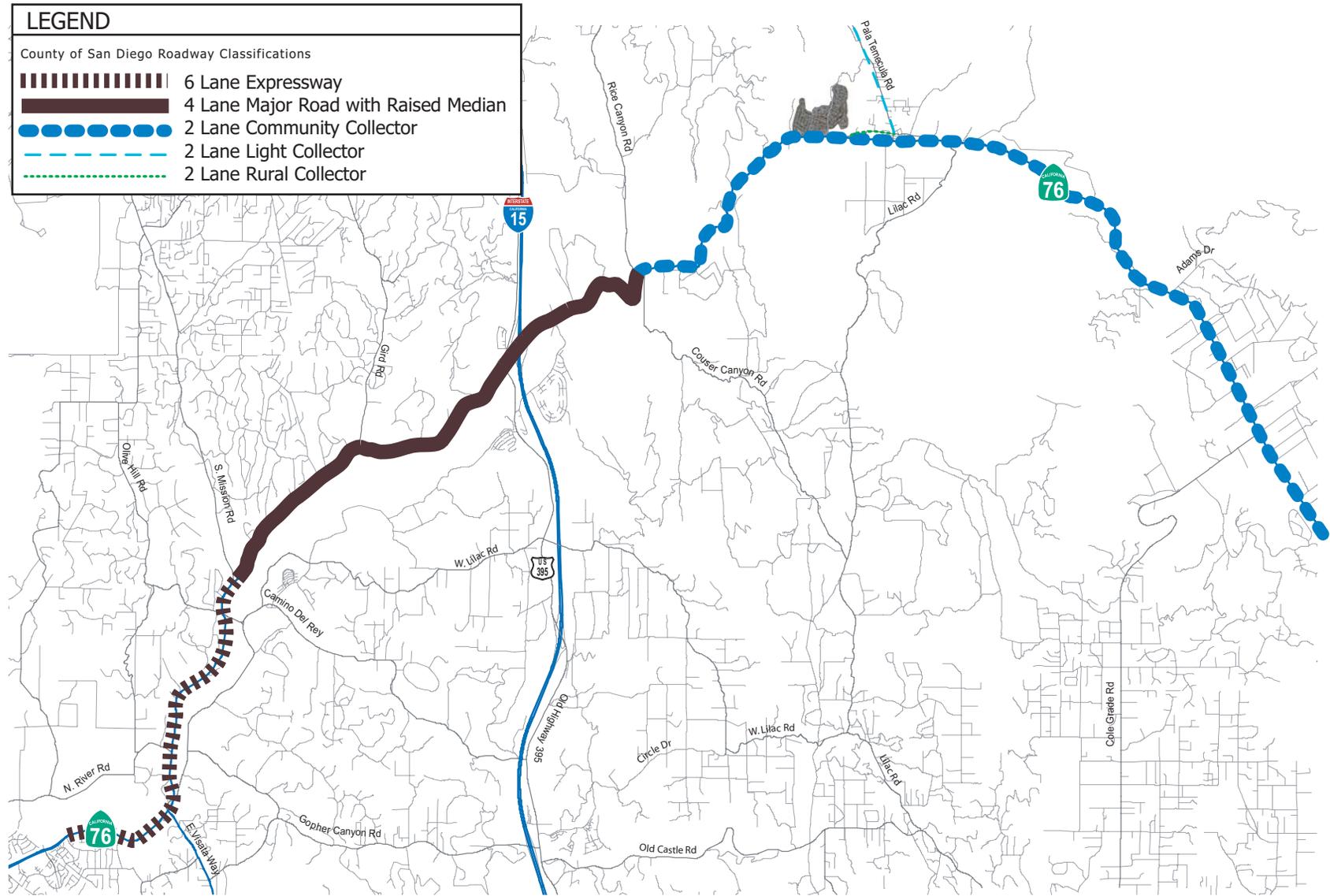
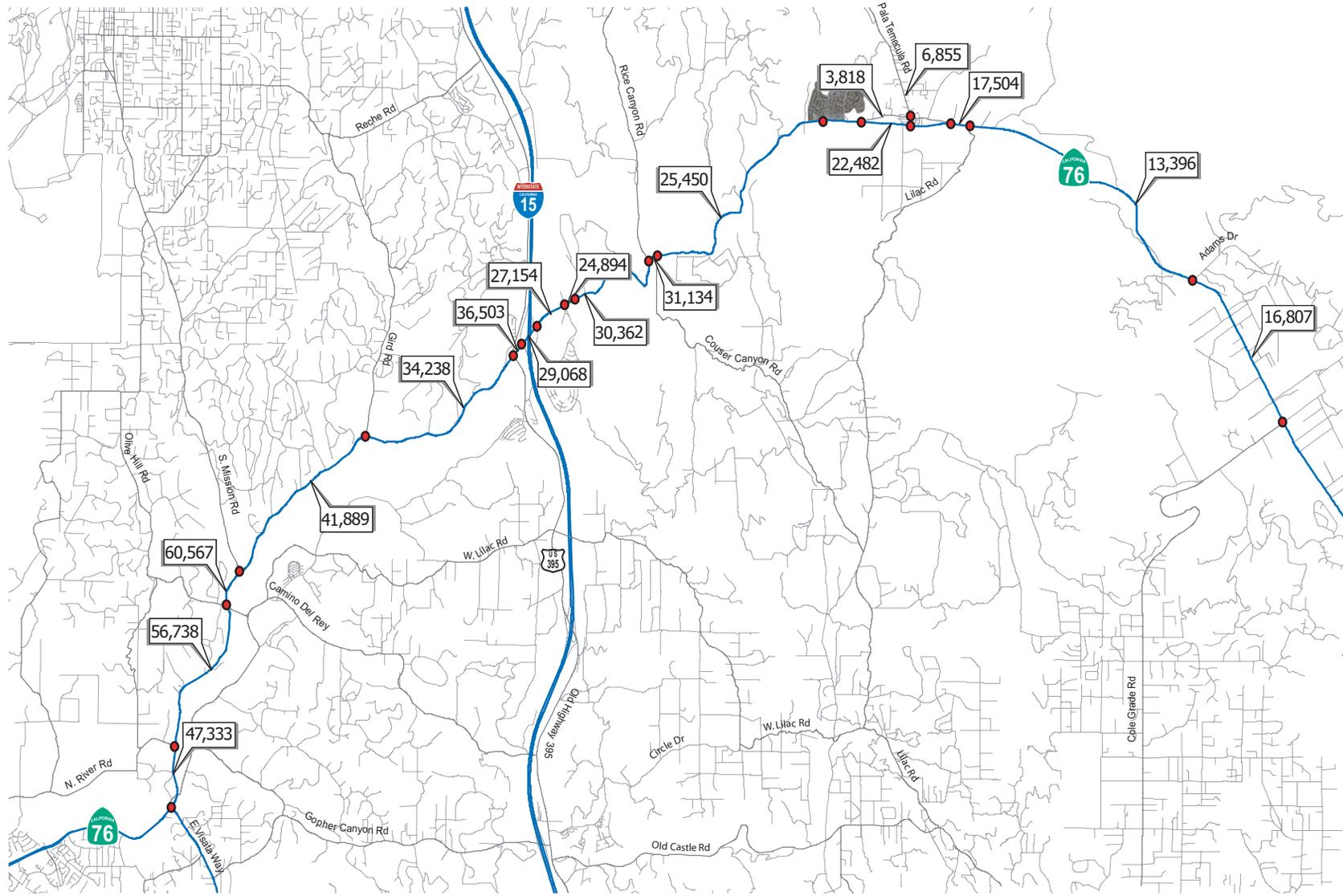


Figure 6-1  
Adopted General Plan Mobility Network





LEGEND	
	ADT(1000s)

Figure 6-2  
Adopted General Plan Roadway Segment Volumes



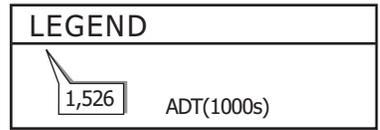
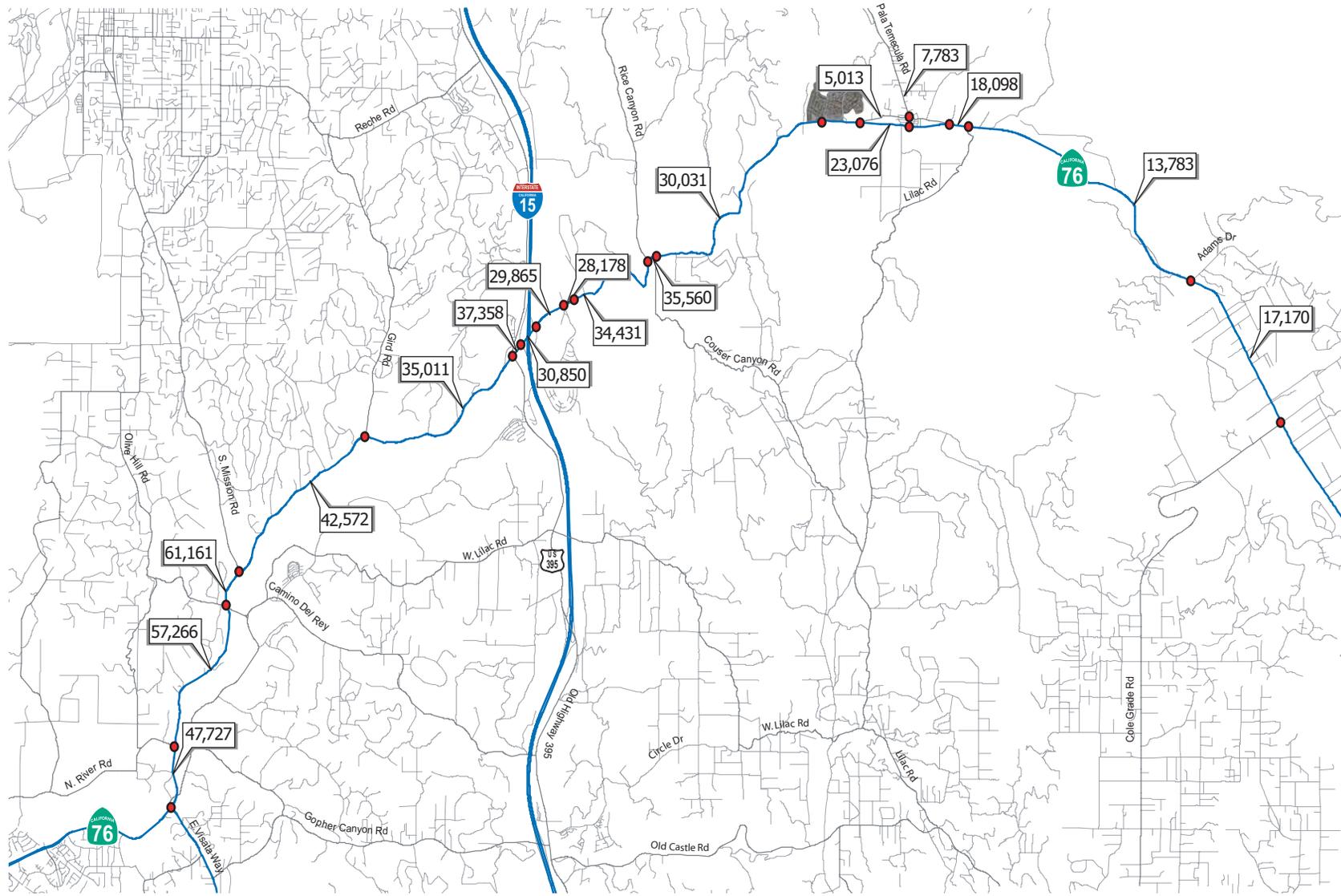


Figure 6-3  
Adopted General Plan Roadway Segment Volumes With Project



## **CHAPTER 7 TRANSIT & ON-SITE CIRCULATION**

### **ON-SITE CIRCULATION**

The project takes access via State Route 76 from a central, private roadway. The project site has two emergency only driveways. These access points are closed for public use and will be controlled in a manner satisfactory to Caltrans and the County Engineer. The two emergency-only driveways connect to SR-76 on either side of the main access point.

The main driveway is planned as a two lane road separated by a median with a 64-foot curb-to-curb width. The main driveway is estimated to serve 7,540 vehicles per day. The first side street from the main entrance leads to parking facilities for park uses. The second side street accesses the western edge of the development. This street has a curb-to-curb width of 36-feet. The main driveway ends at a T-intersection with an east-west street alignment.

Street 1 is estimated to carry less than 1,000 vehicles per day west of the main driveway and approximately 3,500 vehicles per day east of the main driveway. Stop signs will serve as positive control at internal intersections.

### **PEDESTRIAN**

The existing pedestrian network does not currently provide a continuous sidewalk connecting adjoining land uses along State Route 76. The project proponent will provide sidewalk, curb and gutter along the project frontage. All internal pedestrian networks will be constructed to meet County standards as they relate to pedestrians.

### **TRANSIT**

Transit service is offered by the North County Transit District (NCTD) throughout the urbanized area and into the more rural areas of North San Diego County through the mountain communities along the corridor. NCTD provides Route 389 that services the Pala community. The routes last scheduled bus stop is the Pala Casino where it then proceeds west on the State Route 76 to connect to Interstate 15 and travels north to the Escondido Transit Center. Any impacts to area transportation facilities/resources during the construction period of the project frontage are expected to be short-term in nature and, therefore, insignificant in terms of transportation network operations.

### **BICYCLE**

While recreational riders may be present on many of the back country roads, there are no dedicated bicycle lanes for them and they would follow standard vehicular rules of the road. A Class II bike lane is recommended under the San Diego County General Plan Mobility Element. No bicycle lanes currently exist along the project frontage. The project proponent will provide for a bicycle lane with the frontage improvements.

### **PARKING**

The parking for the project shall be identified on the project plans and will meet DPLU requirements.

## CHAPTER 8 IMPACTS AND MITIGATION

This chapter identifies significant impacts, project mitigation, and outlines the applicant's TIF contribution as well as their fair share contributions.

### **CONSTRUCTION IMPACTS**

It is not estimated that the project will require any street closures during construction. There are no sidewalks in the area, as such, sidewalk closures would not be an issue. In addition, construction impacts on the area are projected to be minimal since construction vehicles are estimated to contribute fewer vehicles during the peak hours than the project would after completion. Excess dirt haul from the widening of SR-76 by the project will be hauled to the project site and to another location to be determined. However, the traffic generated by the dirt haul is also estimated to contribute fewer vehicles during the peak hours than the project would after completion.

### **SIGNIFICANT IMPACTS**

The following intersections and roadway segments were found to be significantly impacted by the proposed project based on the significance criteria presented in Appendix A:

#### **Direct Impacts**

##### **Roadway Segments**

- SR-76 from East Vista Way to North River Road
- SR-76 from North River Road to Camino Del Rey
- SR-76 from Camino Del Rey to South Mission Road
- SR-76 from South Mission Road to Gird Road
- SR-76 from Gird Road to Old Highway 395
- SR-76 between I-15 Ramps

##### **Intersections**

- SR-76 / East Vista Way
- SR-76 / I-15 SB Ramp
- SR-76 / I-15 NB Ramp
- SR-76 / Project Driveway (being signalized as a project feature)

#### **Cumulative Impacts**

##### **Roadway Segments**

- SR-76 from West of E. Vista Way to North River Road
- SR-76 from North River Road to Camino Del Rey
- SR-76 from Camino Del Rey to South Mission Road
- SR-76 from South Mission Road to Gird Road
- SR-76 from Gird Road to Old Highway 395
- SR-76 between I-15 Ramps
- I-15 NB Ramp to Pankey Road
- SR-76 from Horse Ranch Creek Road to Rice Canyon Road
- SR-76 from Rice Canyon Road to Couser Canyon Road
- SR-76 from Couser Canyon Road to West Pala Mission Road
- SR-76 from West Pala Mission Road to East Pala Mission Road

- SR-76 from East Pala Mission Road to Lilac Road
- SR-76 from Lilac Road to Adams Drive
- SR-76 from Adams Drive to Cole Grade Road

#### Intersections

- SR-76 / East Vista Way
- SR-76 / North River Road
- SR-76 / Camino Del Rey
- SR-76 / South Mission Road
- SR-76 / Gird Road
- SR-76 / Old Highway 395
- SR-76 / I-15 SB Ramp
- SR-76 / I-15 NB Ramp
- SR-76 / Rice Canyon Road
- SR-76 / Couser Canyon Road
- SR-76 / East Pala Mission Road
- SR-76 / Lilac Road
- SR-76 / Cole Grade Road

**Table 8-1  
Direct Impacts and Mitigations**

ID#	Location	Mitigation Measure	Fully Mitigated?
<b>Direct Impacts</b>			
<b>Segment</b>			
1	SR-76: West of E. Vista Way to N. River Road	The Caltrans SR-76 Middle Project, which will widen SR-76 from two lanes to four lanes, shall be completed.	Yes
2	SR-76: N. River Road to Camino Del Rey		
3	SR-76: Camino Del Rey to S. Mission Rd		
4	SR-76: S. Mission Road to Gird Road	The Caltrans SR-76 East Project, which will widen SR-76 from two lanes to four lanes, shall be completed.	Yes
5	SR-76: Gird Road to Old Highway 395		
6	SR-76: I-15 SB Ramp to I-15 NB Ramp		
<b>Intersection</b>			
1	SR-76 / E. Vista Way	The Caltrans SR-76 Middle Project, which will widen SR-76 from two lanes to four lanes, shall be completed.	Yes
2	SR-76 / I-15 SB Ramp	The Caltrans SR-76 East Project, which will reconfigure the interchange, shall be completed.	Yes
3	SR-76 / I-15 NB Ramp		
4	SR-76 / Project Driveway <sup>1</sup>	Improve the project frontage and channelized/signalize the main public entrance intersection on SR-76 as a project feature.	Yes

<sup>1</sup> Signal warrants can be found in Appendix H

**Table 8-2A  
Cumulative Impacts and Mitigations**

ID#	Location	Mitigation Measure	Fully Mitigated?
<b>Cumulative Impacts</b>			
<b>Segment</b>			
1	SR-76: West of E. Vista Way to N. River Road	Participate in an update to the TIF program <sup>1</sup> and pay any new fees to ultimately improve this to a 6 lane primary arterial	Yes
2	SR-76: N. River Road to Camino Del Rey		
3	SR-76: Camino Del Rey to S. Mission Rd		
4	SR-76: S. Mission Road to Gird Road	Await the completion of the SR-76 East Project improvements to a 4 lane major roadway.	Yes <sup>2</sup>
5	SR-76: Gird Road to Old Highway 395		
6	SR-76: Old Highway 395 to I-15 SB Ramp		
7	SR-76: I-15 SB Ramp to I-15 NB Ramp		
8	I-15 NB Ramp to Pankey Road	Participate in an update to the TIF program <sup>1</sup> and pay any new fees to ultimately improve this to a 4 lane major roadway	Yes
9	SR-76: Horse Ranch Creek Road to Rice Canyon Road		
10	SR-76: Rice Canyon Road to Couser Canyon Road		
11	SR-76: Couser Canyon Road to W. Pala Mission Road	Provide abutting improvements at the project frontage and design and construct improvements including signalization at the intersection of SR-76 with Cole Grade Road.	No
12	SR-76: W. Pala Mission Road to E. Pala Mission Road		
13	SR-76: E. Pala Mission Road to Lilac Road		
14	SR-76: Lilac Road to Adams Drive		
15	SR-76: Adams Drive to Cole Grade Road		

<sup>1</sup>Note: An update is necessary to the TIF program since the project, like several others, is non-conformal to the currently adopted land use plan and existing TIF program.

<sup>2</sup>Note: Less than desirable levels of service have been disclosed and accepted for this portion of roadway in the recently adopted Mobility Element even after completion of the SR-76 East section improvements to a 4 lane expressway.

**Table 8-2B  
Cumulative Impacts and Mitigations**

ID#	Location	Mitigation Measure	Fully Mitigated?
<b>Cumulative Impacts</b>			
<b>Intersection</b>			
1	SR-76 / E. Vista Way	Participate in an update to the TIF program <sup>1</sup> and pay any new fees to ultimately improve this to a 6 lane primary arterial which will also reconfigure the intersections.	Yes
2	SR-76 / N. River Road		
3	SR-76 / Camino Del Rey		
4	SR-76 / S. Mission Road	Await the completion of the SR-76 East Project improvements to a 4 lane major roadway which will also reconfigure the intersections.	Yes <sup>2</sup>
5	SR-76 / Gird Road		
6	SR-76 / Old Highway 395		
7	SR-76 / I-15 SB Ramp	Make a fair-share contribution of 12.2% of the unfunded cost of approximately \$10M to be used by Caltrans to close the funding gap on the interchange improvements and intersections at the I-15/SR-76 interchange.	Yes
8	SR-76 / I-15 NB Ramp		
9	SR-76 / Rice Canyon Road <sup>1</sup>	Participate in an update to the TIF program <sup>1</sup> and pay any new fees to ultimately improve this to a 4 lane major roadway which will also reconfigure the intersections.	Yes
10	SR-76 / Couser Canyon Road		
11	SR-76 / E. Pala Mission Road <sup>1</sup>	No changes or improvements here since the improvements associated with this project are focused at the intersection of SR-76 at Cole Grade Road.	No
12	SR-76 / Lilac Road		
13	SR-76 / Cole Grade Road <sup>1</sup>	Design and construct improvements including signalization at the intersection of SR-76 with Cole Grade Road.	Yes

<sup>1</sup>Note: An update is necessary to the TIF program since the project, like several others, is non-conformal to the currently adopted land use plan and existing TIF program.

<sup>2</sup>Note: Less than desirable levels of service have been disclosed and accepted for this portion of roadway in the recently adopted Mobility Element even after completion of the SR-76 East section improvements to a 4 lane expressway.

## FAIR SHARE CONTRIBUTION

The project applicant shall make fair-share contributions for improvements at the I-15/SR-76 specified in Table 8-2.

**Table 8-3  
Fair Share Percentages**

Roadway Segment	Existing	Total Cumulative	Growth	Project	Fair Share
	ADT	ADT	ADT	ADT	% of Growth
<b>State Route 76</b>					
I-15 NB Ramp to Pankey Road <sup>1</sup>	11,031	33,575	22,544	2764	12.3%

<sup>1</sup>Note: This is the information on which to base the fair share contribution to the unfunded improvements at the I-15/SR76 interchange. The payments would be collected proportionally to the permits issued for the project.

**TIF UPDATE**

The County may also condition the project applicant to fund an update of the TIF program to help underwrite the cost of reflecting new, non-conformal projects in the updated fee program which would result in a new cost formulation for the TIF payment that the project would be subject to.

**SR-76 CORRIDOR IMPROVEMENTS**

There are several types of ultimate improvements that are envisioned to occur along the SR-76 corridor. In 1999 Caltrans completed the SR-76 West improvements extending from Oceanside to a location east of N. Santa Fe Avenue as a new, 4-lane facility or expressway. During the time this study was being prepared, Caltrans has also completed the SR-76 Middle improvements that extend from Bonsall to just east of Mission Road. The County's recently-adopted Mobility Element envisions the ultimate classification as being a 6-lane facility, however due to financial limitations, support, and the environmental clearance needed this option could not be delivered. Nonetheless, the TIF program is the means to help address the funding, and assuming that program is amended in the future it could also be collecting money from all of the cumulative projects to eventually achieve this additional project.

Caltrans will soon be undertaking the SR-76 East project which will extend the improvements to a 4-lane facility all the way easterly to I-15. This work is expected to be completed sometime in 2015 or thereabouts. However, the ultimate further improvement to a 6 lane facility has been considered in the recent General Plan Update and rejected as a matter of policy. Therefore, it is expected that the eventual traffic volumes in this area would exceed those typically associated with a 4-lane facility, and the consequences of doing so have been addressed in the environmental certification of the Mobility Element.

At the I-15 interchange with SR-76, Caltrans has recently begun to make improvements that will reconfigure the entire interchange. However, there is a funding shortfall or gap in the financing needed to ultimately complete those improvements. For that reason, several projects, including Warner Ranch, shall be expected to contribute a fair-share payment to help close that funding gap.

To the east of I-15 and extending to Couser Canyon Rd the currently adopted TIF program includes a project to bring the improvements to a 4-lane facility. Although that project has not yet been programmed, all participants in the TIF as well as any updated TIF would be participating in paying for the cost of those improvements.

Easterly of Couser Canyon Road there is no TIF or other project that will be making improvements other than those localized improvements associated with individual projects. An example includes the fronting improvements the Warner Ranch project will be making along with the signalized intersection for project access. A final localized intersection is also being proposed to be constructed by this project at the SR-76 at Cole Grade Road intersection to signalize and otherwise improve that location.

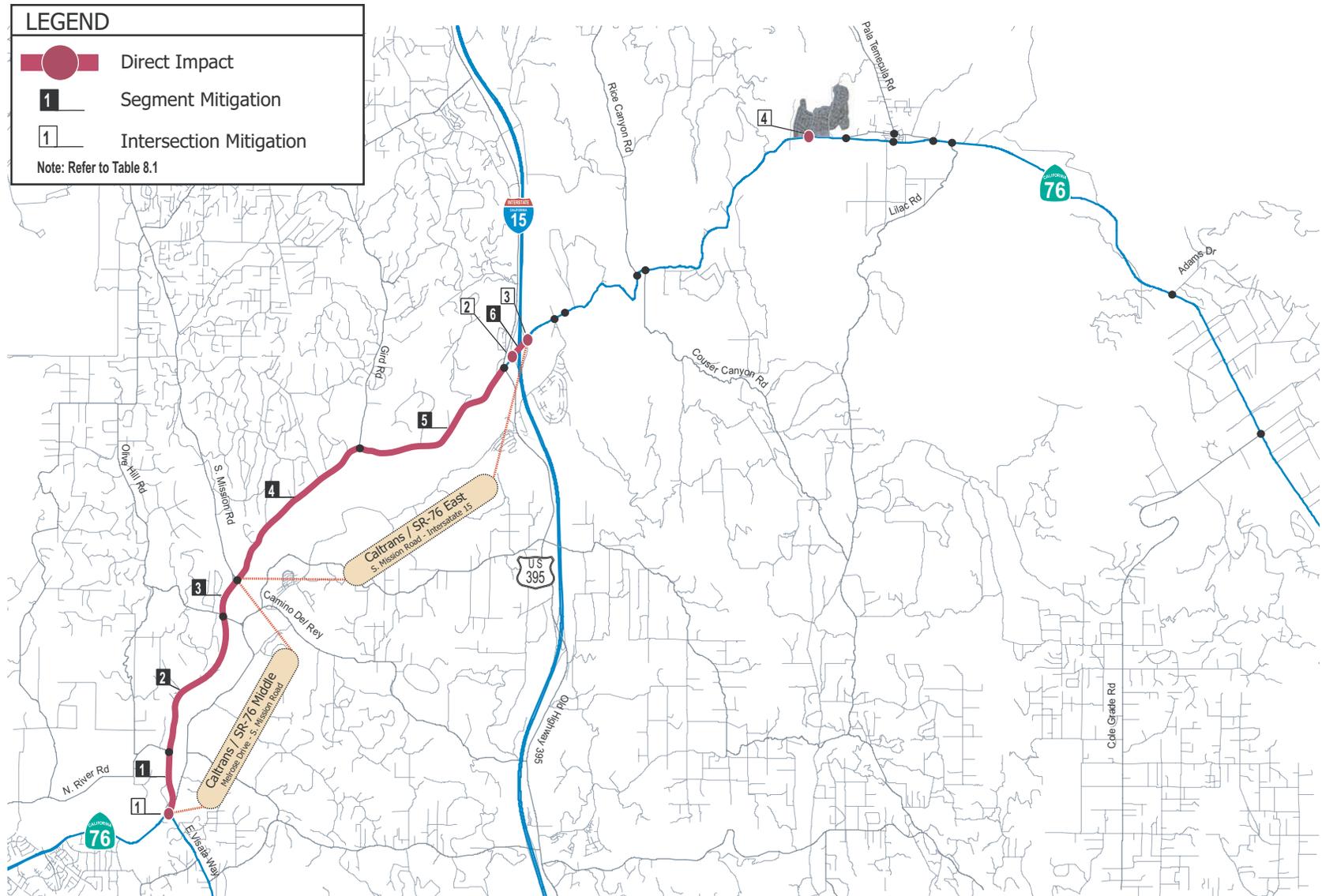


Figure 8-1  
Direct Impact Locations



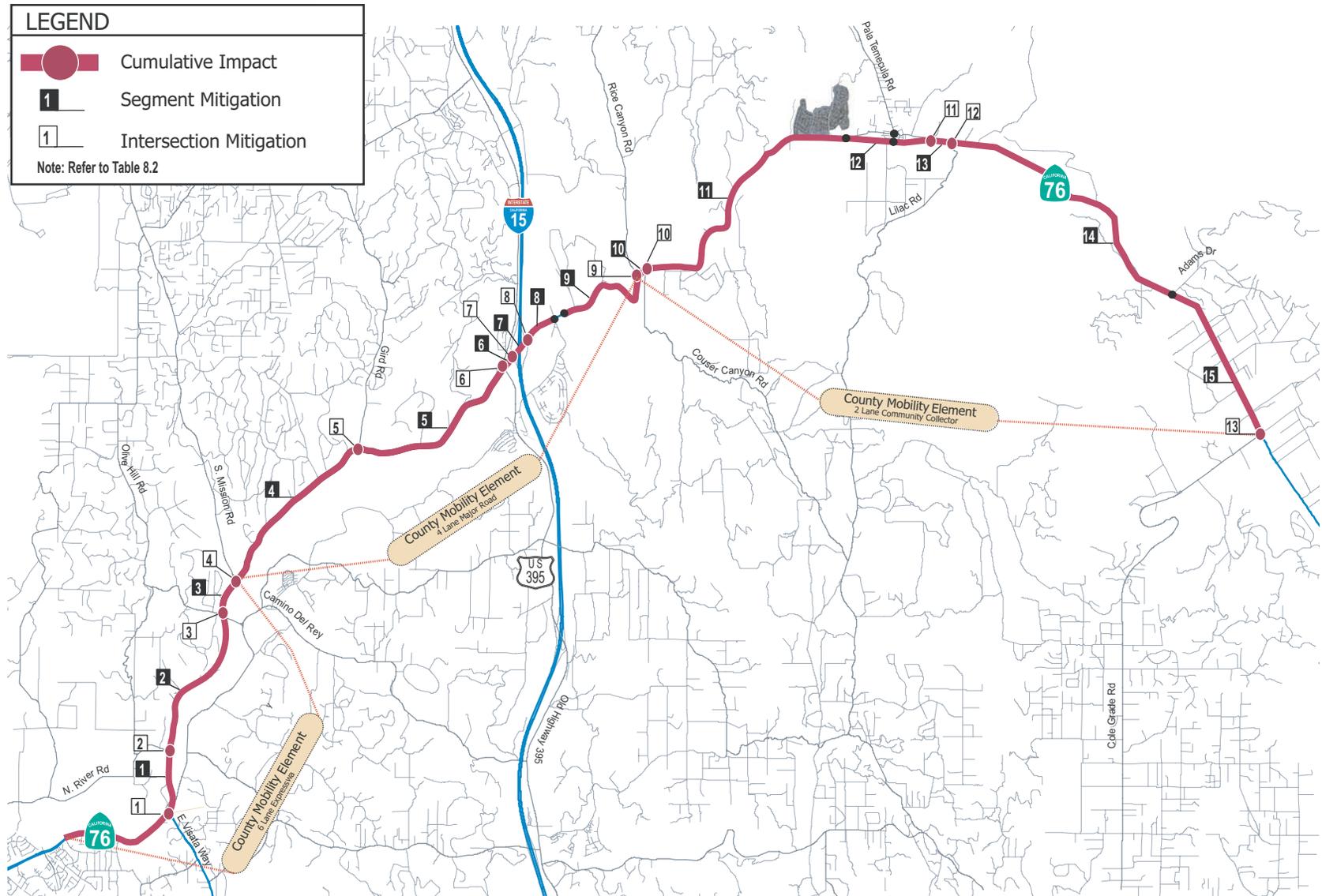


Figure 8-2  
Cumulative Impact Locations

## **CHAPTER 9**

### **SUMMARY OF ANALYSIS**

This chapter summarizes the operations at the study intersections and segments. Table 9-1 shows the summary of roadway segment conditions for each scenario, while Tables 9-2 and 9-3 show the summary of segment conditions after mitigation. Tables 9-4 and 9-5 show the summary of intersection conditions for each scenario, while Tables 9-6 and 9-7 shows the summary of intersection conditions after mitigation. Analysis worksheets for the mitigated scenarios are included in Appendix I.

**Table 9-1  
Summary of Roadway Segment Conditions**

Roadway Segment	Existing		Existing + Project		Existing + Cumulative		Existing + Cumulative + Project		Adopted General Plan		Adopted General Plan With Project	
	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS
<b>State Route 76</b>												
E. Vista Way to N. River Road	1.258	F	1.275	F	2.476	F	2.494	F	0.830	D	0.837	D
N. River Road to Camino Del Rey	1.735	F	1.759	F	2.921	F	2.945	F	0.995	E	1.005	F
Camino Del Rey to S. Mission Road	1.717	F	1.743	F	3.186	F	3.212	F	1.063	F	1.073	F
S. Mission Road to Gird Road	1.168	F	1.199	F	2.133	F	2.164	F	1.132	F	1.151	F
Gird Road to Old Hwy 395	1.039	F	1.073	F	1.870	F	1.905	F	0.925	E	0.946	E
Old Hwy 395 to I-15 SB Ramp	0.860	D	0.885	D	1.226	F	1.251	F	0.987	E	1.010	F
I-15 SB Ramp to I-15 NB Ramp	0.845	E	0.925	E	1.476	F	1.556	F	0.786	C	0.834	D
I-15 NB Ramp to Pankey Road	0.298	A	0.373	A	0.833	D	0.907	E	0.734	C	0.807	D
Pankey Road to Horse Ranch Creek Road	0.298	A	0.389	A	0.796	C	0.886	D	0.673	C	0.762	C
Horse Ranch Creek Road to Rice Canyon Road	0.482	C	0.663	D	1.282	F	1.463	F	0.821	D	0.931	E
Rice Canyon Road to Couser Canyon Road	0.482	C	0.679	D	1.280	F	1.477	F	0.841	D	0.961	E
Couser Canyon Road to W. Pala Mission Road	0.446	C	0.650	D	1.282	F	1.486	F	1.111	F	1.311	F
W. Pala Mission Road to E. Pala Mission Road	0.451	C	0.478	C	1.003	F	1.030	F	0.982	E	1.008	F
E. Pala Mission Road to Lilac Road	0.385	C	0.412	C	1.105	F	1.131	F	0.764	E	0.790	E
Lilac Road to Adams Drive	0.413	C	0.430	C	1.092	F	1.109	F	0.585	C	0.602	C
Adams Drive to Cole Grade Road	0.397	C	0.413	C	1.048	F	1.064	F	0.734	E	0.750	E
<b>W. Pala Mission Road</b>												
State Route 76 and Pala Temecula Road	0.291	C	0.366	C	0.370	C	0.445	D	0.236	B	0.309	C
<b>Pala Temecula Road</b>												
Pala Mission Road to Trujillo Road	0.513	D	0.572	D	0.606	D	0.664	D	0.361	C	0.410	C

**Table 9-2**  
**Summary of Mitigated Roadway Segments – Existing Plus Project Conditions**

Roadway Segment	Mitigated Lanes/ Class	LOS E Capacity	Existing			Existing + Project + Mitigation			Mitigated?	
			ADT	V/C	LOS	ADT	V/C	LOS		
<b>State Route 76</b>										
E. Vista Way to N. River Road	4MR	37,000	28,805	1.258	F	29,207	0.789	C	Yes	
N River Road to Camino Del Rey	4MR	37,000	39,736	1.735	F	40,274	1.088	F	Yes	
Camino Del Rey to S. Mission Road	4MR	37,000	39,316	1.717	F	39,922	1.079	F	Yes	
S. Mission Road to Gird Road	4MR	37,000	26,752	1.168	F	27,448	0.742	C	Yes	
Gird Road to Old Hwy 395	4MR	37,000	23,789	1.039	F	24,577	0.664	B	Yes	
I-15 SB Ramp to I-15 NB Ramp	4MR	37,000	19,359	0.845	E	21,176	0.572	B	Yes	

Note: 4MR: 4-lane Major Road

**Table 9-3  
Summary of Mitigated Roadway Segments – Cumulative Conditions**

Roadway Segment	Mitigated Lanes/ Class	LOS E Capacity	Existing + Cumulative			Existing + Cumulative + Project + Mitigation			Mitigated?
			ADT	V/C	LOS	ADT	V/C	LOS	
<b>State Route 76</b>									
E. Vista Way to N. River Road	4MR	37,000	56,706	2.476	F	57,108	1.543	F	Yes
N. River Road to Camino Del Rey	4MR	37,000	66,900	2.921	F	67,438	1.823	F	Yes
Camino Del Rey to S. Mission Road	4MR	37,000	72,950	3.186	F	73,556	1.988	F	Yes
S. Mission Road to Gird Road	4MR	37,000	48,854	2.133	F	49,550	1.339	F	Yes
Gird Road to Old Hwy 395	4MR	37,000	42,830	1.870	F	43,618	1.179	F	Yes
Old Hwy 395 to I-15 SB Ramp	4MR	37,000	41,913	1.226	F	42,785	1.156	F	Yes
I-15 SB Ramp to I-15 NB Ramp	4MR	37,000	33,810	1.476	F	35,627	0.963	E	Yes
I-15 NB Ramp to Pankey Road	4MR	37,000	30,811	0.833	D	33,575	0.907	E	Yes <sup>1</sup>
Horse Ranch Creek Road to Rice Canyon Road	4MR	37,000	29,361	1.282	F	33,509	0.906	E	Yes
Rice Canyon Road to Couser Canyon Road	4MR	37,000	29,308	1.280	F	33,820	0.914	E	Yes

Note: 4MR: 4-lane Major; 2SR: 2-lane state route

<sup>1</sup>The TIF update anticipated resulting from this project is assumed to include channelization necessary to connect with the I-15 ramps that would lead to adequate operations on this segment

**Table 9-4**  
**Summary of Intersection Conditions AM Peak Hour**

Intersection	Existing		Existing + Project		Existing + Cumulative		Existing + Cumulative + Project		
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	
<b>AM Peak Hour</b>									
1. SR 76 / E. Vista Way	84.1	F	88.1	F	252.1	F	256.6	F	
2. SR 76/N. River Road	21.1	C	22.3	C	220.3	F	226.7	F	
3. SR 76/Olive Hill Road/Camino Del Rey	36.7	D	38.1	D	136.4	F	139.3	F	
4. SR 76/ S. Mission Road	28.8	C	29.0	C	184.9	F	188.9	F	
5. SR 76/ Gird Road	13.4	B	13.5	B	165.7	F	173.4	F	
6. Old Highway 395 / SR 76	31.1	C	31.3	C	160.4	F	162.7	F	
7. I-15 / SR 76 SB Ramp	31.1	C	44.2	D	197.6	F	221.1	F	
8. I-15 / SR 76 NB Ramp	23.6	C	28.4	C	95.8	F	127.7	F	
9. SR 76 / Pankey Road	10.7	B	14.6	B	21.0	C	22.0	C	
10. SR 76 / Horse Ranch Creek Road	N/A	N/A	N/A	N/A	17.9	B	18.2	B	
11. SR 76 / Rice Canyon Road	11.2	B	16.0	C	114.7	F	465.8	F	
12. SR 76 / Couser Canyon Road	12.3	B	17.4	C	69.3	F	232.7	F	
13. SR 76/Driveway	0.5	A	18.8	B	1.6	A	17.8	B	
14. SR 76 / W. Pala Mission Road	26.4	C	28.5	C	23.9	C	25.3	C	
15. Pala Mission Rd./ Pala Temecula Road	9.7	A	10.4	B	13.3	B	15.2	C	
16. SR 76 / Brittan Road	9.1	A	9.2	A	10.8	B	11.0	B	
17. SR 76/ E. Pala Missions Road	12.5	B	13.2	B	34.0	D	39.5	E	
18. SR 76/ Lilac Road	11.8	B	12.3	B	25.8	D	28.5	D	
19. SR 76 / Adams Drive	10.1	B	10.2	B	13.9	B	14.2	B	
20. SR 76 / Cole Grade Road	17.0	C	17.5	C	287.0	F	307.2	F	

**Table 9-5  
Summary of Intersection Conditions PM Peak Hour**

Intersection	Existing		Existing + Project		Existing + Cumulative		Existing + Cumulative + Project		
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	
<b>PM Peak Hour</b>									
1. SR 76 / E. Vista Way	68.7	E	71.9	E	248.2	F	253.9	F	
2. SR 76/N. River Road	34.5	C	37.0	D	310.1	F	318.4	F	
3. SR 76/Olive Hill Road/Camino Del Rey	40.7	D	42.6	D	206.5	F	211.1	F	
4. SR 76/ S. Mission Road	31.9	C	34.1	C	283.8	F	290.7	F	
5. SR 76/ Gird Road	11.6	B	12.0	B	241.7	F	251.7	F	
6. Old Highway 395 / SR 76	30.8	C	31.3	C	240.0	F	246.5	F	
7. I-15 / SR 76 SB Ramp	58.8	E	74.6	E	335.5	F	357.9	F	
8. I-15 / SR 76 NB Ramp	51.1	D	60.1	E	240.0	F	272.9	F	
9. SR 76 / Pankey Road	11.1	B	19.8	C	29.1	C	33.2	C	
10. SR 76 / Horse Ranch Creek Road	N/A	N/A	N/A	N/A	18.7	B	19.7	B	
11. SR 76 / Rice Canyon Road	13.3	B	26.7	D	531.2	F	Overflow	F	
12. SR 76 / Couser Canyon Road	14.8	B	23.9	C	297.6	F	933.8	F	
13. SR 76/Driveway	0.5	A	11.5	B	2.3	A	19.3	B	
14. SR 76 / W. Pala Mission Road	27.6	C	32.2	C	25.0	C	35.5	D	
15. Pala Mission Rd./ Pala Temecula Road	11.2	B	12.7	B	17.3	C	22.5	C	
16. SR 76 / Brittian Road	10.1	B	10.5	B	19.3	C	20.5	C	
17. SR 76/ E. Pala Missions Road	16.7	C	18.4	C	512.9	F	600.1	F	
18. SR 76/ Lilac Road	13.1	B	15.7	C	93.0	F	167.6	F	
19. SR 76 / Adams Drive	13.4	B	13.8	B	32.3	D	33.9	D	
20. SR 76 / Cole Grade Road	17.9	C	18.5	C	967.0	F	Overflow	F	

**Table 9-6**  
**Summary of Mitigated Intersections – Existing Plus Project Conditions**

Intersection	Existing		Existing + Project		Existing + Project + Mitigation		Fully Mitigated?
	Delay	LOS	Delay	LOS	Delay	LOS	
<b>AM Peak Hour</b>							
1. SR 76 / E. Vista Way	84.1	F	88.1	F	39.2	D	Yes
<b>PM Peak Hour</b>							
1. SR 76 / E. Vista Way	68.7	E	71.9	E	44.9	D	Yes
7. I-15 / SR 76 SB Ramp	58.8	E	74.6	E	27.5	C	Yes
8. I-15 / SR 76 NB Ramp	51.1	D	60.1	E	27.9	C	Yes

**Table 9-7  
Summary of Mitigated Intersections – Cumulative Conditions**

Intersection	Existing		Existing + Cumulative + Project		Existing + Cumulative + Project + Mitigation		Fully Mitigated?
	Delay	LOS	Delay	LOS	Delay	LOS	
<b>AM Peak Hour</b>							
1. SR 76 / E. Vista Way	252.1	F	256.6	F	57.8	E	Yes
2. SR 76/N. River Road	220.3	F	226.7	F	27.5	C	Yes
3. SR 76/Olive Hill Road/Camino Del Rey	136.4	F	139.3	F	61.2	E	Yes
4. SR 76/ S. Mission Road	184.9	F	188.9	F	70.1	E	Yes
5. SR 76/ Gird Road	165.7	F	173.4	F	26.1	C	Yes
6. Old Highway 395 / SR 76	160.4	F	162.7	F	32.5	C	Yes
7. I-15 / SR 76 SB Ramp	197.6	F	221.1	F	42.3	D	Yes
8. I-15 / SR 76 NB Ramp	95.8	F	127.7	F	26.1	C	Yes
11. SR 76 / Rice Canyon Road	114.7	F	465.8	F	14.6	B	Yes
12. SR 76 / Couser Canyon Road	25.8	D	28.5	D	13.4	B	Yes
20. SR 76 / Cole Grade Road	287.0	F	307.2	F	19.7	B	Yes
<b>PM Peak Hour</b>							
1. SR 76 / E. Vista Way	248.2	F	253.9	F	106.9	F	Yes
2. SR 76/N. River Road	310.1	F	318.4	F	57.8	E	Yes
3. SR 76/Olive Hill Road/Camino Del Rey	206.5	F	211.1	F	105.7	F	Yes
4. SR 76/ S. Mission Road	283.8	F	290.7	F	52.3	D	Yes
5. SR 76/ Gird Road	241.7	F	251.7	F	24.1	C	Yes
6. Old Highway 395 / SR 76	240.0	F	246.5	F	39.9	D	Yes
7. I-15 / SR 76 SB Ramp	335.5	F	357.9	F	79.0	E	Yes
8. I-15 / SR 76 NB Ramp	240.0	F	272.9	F	45.5	D	Yes
11. SR 76 / Rice Canyon Road	531.2	F	Overflow	F	11.8	B	Yes
12. SR 76 / Couser Canyon Road	297.6	F	933.8	F	23.9	C	Yes
20. SR 76 / Cole Grade Road	967.0	F	Overflow	F	16.3	B	Yes

## **CHAPTER 10 RECOMMENDATIONS**

The proposed project consists of 534 single-family detached homes, 246 multi-family condominiums, a small park and a fire station. Based on the preceding analysis of this project we recommend the mitigation measures and fair share contributions described in Chapter 8.

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