

2.10 Traffic

A traffic impact analysis was conducted by J. Arnold Torma and Rogelio Pelavo of KOA Corporation, a consultant on the County CEQA Consultant List approved for the preparation of traffic analyses. The resulting report, entitled “Shadow Run Ranch Traffic Impact Study,” dated December 2013, is included as Appendix L to this DEIR.

2.10.1 Existing Conditions

The project proposes the subdivision of 248.26 acres into 44 residential lots and three open space lots located in the unincorporated community of Pala/Pauma in San Diego County. The project is located along State Route 76/Pala Road (SR76) near its intersection with Adams Drive. SR76 connects the site to Interstate 15 (I15) to the west and Pauma and Valley Center to the east. Figure 2-10-1, “Circulation Network,” illustrates the local and regional circulation network near the project site.

The principal roadways within the specific study area are:

Adams Drive is a private two-lane roadway located southeast of the project site. It is not classified in the County of San Diego Mobility Element. Adams Drive is maintained under a County Road Maintenance District. Widths range from approximately 18 to 24 feet. Bike lanes are not provided on Adams Drive and on-street parking is generally not possible. There is no posted speed limit on Adams Drive.

State Route 76 (SR76) 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 of the Mobility Element. 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.

Pala Mission Road runs east/west connecting SR76 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.

The roadway segments within the project’s study area include the following:

- State Route 76 between I-15 South Bound (SB) and North Bound (NB) Ramps

- SR 76 between I-15 NB Ramps and Pankey Road
- SR76 between Pankey Road and/Horse Ranch Creek Road
- SR76 between Horse Ranch Creek Road 0.7 miles east of Pankey Road and Rice Canyon
- SR76 between Rice Canyon Road and Couser Canyon Road
- SR76 between Couser Canyon Road and W. Pala Mission Road
- SR76 between W. Pala Mission Road and E. Pala Mission Road
- SR76 between E. Pala Mission Road and Lilac Road
- SR76 between Lilac Road and Project Access
- SR76 between Project Access and Adams Drive
- SR76 between Adams Drive and Cole Grade Road
- W. Pala Mission Road between SR76 and Pala Temecula Road
- Pala Temecula Road to Trujillo Road

Under existing conditions, the majority of segments operate at LOS C or better with the following exceptions:

- SR76, from I-15 SB ramps to I-15 NB ramps– LOS E
- Pala Mission Road to Trujillo Road – LOS D

Peak-hour intersection performance measures the length of delays at intersections when they are experiencing the highest volume of use. The intersections within the project's specific study area include:

- I-15/SR76 SB Ramps
- I-15/ SR76 NB Ramps
- SR76 / Pankey Road
- SR76 / Horse Ranch Creek Road
- SR 76 / Rice Canyon Road
- SR 76 / Couser Canyon Road
- SR76 / Warner Ranch Driveway
- SR76 / W. Pala Mission Road (west)
- W. Pala Mission Road/ Pala Temecula Road
- SR76 / Brittian Road

- SR76/ E. Pala Missions Road
- SR76/ Lilac Road
- SR76/Project Access
- SR76 / Adams Drive
- SR76 / Cole Grade Road

Under existing conditions, all intersections operate at LOS C or better with the following exceptions:

- SR 76 / I-15 SB Ramps – LOS E (PM peak hour)
- SR 76 / I-15 NB Ramps – LOS D (PM peak hour)

2.10.2 Analysis of Project Effects and Determination as to Significance

2.10.2.1 Guidelines for the Determination of Significance

The analysis of potential traffic impacts is based on the County of San Diego Guidelines for Determining the Significance and Report Format and Content Requirements for Transportation and Traffic, last updated August 24, 2011.

The guidelines specify that a project will have significant impacts if:

For on-site Mobility Element roads:

1. The additional or redistributed ADT generated by the proposed land development project will cause on-site Mobility Element Roads to operate below LOS C during peak traffic hours.

For off-site Mobility Element roads:

2. The additional or redistributed ADT generated by the proposed project will significantly increase congestion on a Mobility Element Road or State Highway currently operating at LOS E or LOS F, or will cause a Mobility Element Road or State Highway to operate at LOS E or LOS F as a result of the proposed project as identified in Table 2-10-1, or
3. The additional or redistributed ADT generated by the proposed project will cause a residential street to exceed its design capacity.

**Table 2-10-1
Allowable Increases on Congested Road Segments**

Level of Service	Two-Lane Roadway	Four-Lane Road	Six-Lane Road
Los E	200 ADT	400 ADT	600 ADT
Los F	100 ADT	200 ADT	300 ADT
Notes:			
1. By adding proposed project trips to all other trips from a list of projects, this same table must be 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.			
2. 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 signalized intersections:

4. 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 the Table 2-10-2

**Table 2-10-2
Allowable Increases on Congested Intersections**

Level of Service	Signalized	Unsignalized
LOS E	Delay of 2 seconds or less	20 or less peak hour trips on a critical movement
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
Notes:		
1. A critical movement is an intersection movement (right turn, left turn, through-movement) that experiences excessive queues, which typically operate at LOS F. Also if a project adds significant volume to a minor roadway approach, a gap study should be provided that details the headways between vehicles on the major roadway.		
2. 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 is responsible for mitigating its share of the cumulative impact.		
3. The County may also determine impacts have occurred on roads even when a project’s direct or cumulative impacts do not trigger an unacceptable level of service, when such traffic uses a significant amount of remaining road capacity.		
4. For determining significance at signalized intersections 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.		

5. Based upon an evaluation of existing accident rates, the signal priority list, intersection geometrics, proximity of adjacent driveways, sight distance or

other facts, the project would significantly impact the operations of the intersection.

For unsignalized intersections:

6. 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 an unsignalized intersection to operate below LOS D, or
7. 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
8. 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
9. 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
10. Based upon an evaluation of existing accident rates, the signal priority list, intersection geometrics, proximity of adjacent driveways, the sight distance or other factors, the project would significantly impact the operations of the intersection.

2.10.2.2 Analysis

Street system operating conditions are typically described in terms of ‘Level of Service’ (LOS), which 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).

The traffic report analyzed the project in light of the following scenarios:

1. Existing conditions, reflecting traffic patterns as they currently exist
2. Existing conditions plus project conditions, reflecting how existing conditions would change with the addition of the project’s projected anticipated traffic impacts
3. Cumulative plus project conditions, reflecting future traffic conditions based on existing conditions and anticipated project traffic impacts, plus future projects known to be underway that will also contribute to the overall traffic scenario for the area.

The methods used to determine LOS are outlined in the traffic impact study and listed here:

1. Roadway Segment Capacity Analysis: wherein roadway capacities established by the County of San Diego are used to determine existing and future anticipated traffic volumes in the area.
2. Intersection Capacity Analysis: the Traffix analysis software was used in the study. The software uses methodologies defined in the 2000 Highway Capacity Manual (HCM) to calculate results. LOS for intersections is determined by control delay, which 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 start line. Criteria for signalized and unsignalized intersections are provided in Appendix A of the traffic study.
3. 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 as the maximum saturation flow of a single lane at an intersection. This saturation flow rate is adjusted to account for a number of variables which impact the flow of traffic.
4. All-way Stop-controlled (AWSC) Intersections: The HCM analysis methodology for evaluating AWSC intersections is based on degree of conflict for each independent approach created by the opposing approach and each conflicting approach. LOS for AWSC intersections is also based on the average control delay. The threshold values for AWSC intersections are generally lower than those for signalized intersections with the same LOS, based on the rationale that drivers expect AWSC intersections to carry lower traffic volumes than signalized intersections.
5. Two-way Stop-controlled (TWSC) Intersections: The HCM analysis methodology for evaluating 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. LOS is not defined for the intersection as a whole.

The guidelines were used to determine the project’s conformance with County of San Diego Public Facility Element policies and evaluate whether a project’s impacts are perceptible to the average driver.

Project Trip Generation

The traffic impact analysis forecasts the number of vehicle trips that are projected to begin or end at the project site, which is called the project’s ‘trip generation.’ These trips are added to existing traffic patterns, and therefore are expected to result in some traffic increases on the streets where they occur. The estimates found in the current analysis rely on standard rates established 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.

Table 2-10-3, “Project Trip Generation” summarizes the trips generated by the Proposed Project:

**Table 2-10-3
Project Trip Generation**

Land Use	Intensity	Rate/ Trips	Daily Trips	AM Peak Hour			PM Peak Hour		
				Total	In	Out	Total	In	Out
Residential (Estate, Urban, or Rural)	44	Rate	12	8%	30%	70%	10%	70%	30%
		Trips	528	42	13	30	53	37	16
Total			528	42	13	30	53	37	16

As shown in Table 2-10-3, the project would add 528 ADT to the circulation network, with 42 trips occurring during the AM peak hour, and 53 trips occurring during the PM peak hour.

Project Trip Distribution

Trip distribution identified the probable destinations, directions, or traffic routes that project-related traffic would likely affect. In this case, the project trip distribution was estimated from observed traffic patterns and considerations of surrounding land uses. Figure 2-10-2, “Trip Distribution,” shows the project trip generation. As shown, it is expected that 70 percent of the project traffic will use SR76 west of the project, and 30 percent of the project traffic will use SR76 east of the project.

Road Segment Analysis

The Existing With Project scenario reflects traffic volumes when expected project traffic is added to existing traffic volumes. Table 2-10-4, “Existing with Project Roadway Segment Conditions,” summarizes the existing roadway segments both with and without the Proposed Project.

Guideline 1: The additional or redistributed ADT generated by the proposed land development project will cause on-site Mobility Element Roads to operate below LOS C.

The project contains no Mobility Element Roads. Therefore Guideline 1 does not apply and impacts are less than significant. Mitigation is not required.

Guideline 2: The additional or redistributed ADT generated by the proposed land development project will significantly increase congestion on a Mobility Element Road or State Highway currently operating at LOS E or LOS F, or will cause a Mobility Element Road or State Highway to operate at LOS E or LOS F as a result of the proposed project..

One roadway within the study area, SR 76 between the I-15 Northbound and Southbound Ramps, currently operates at LOS E. The project is shown to contribute 135 additional ADT to this segment, which does not exceed the threshold of 200 ADT as defined in Table 2-10-1. As shown in Table 2-10-4, this roadway is shown to continue to operate at LOS E with or without the additional project traffic. Therefore Guideline 2 is not exceeded and direct impacts are less than significant. No mitigation is required.

Guideline 3: The additional redistributed ADT generated by the proposed project will cause a residential street to exceed its design capacity.

The project is expected to generate a total of 528 ADT, which will be distributed over two access points and internal streets. Most traffic generated by the project will use the SR 76/Haas Grove Lane intersection because it provides the most direct route to SR 76 both east and westbound. Maximum peak hour traffic using Adams Drive in the AM peak hour is currently 10 trips while PM trips are 23. With the addition of the project entry as Haas View Way/Adams Drive, AM and PM peak hour trips will be 17 and 21 respectively. Adams Drive is not classified on the County's Mobility Element, although it is a maintained roadway within County Road Maintenance District 6. The roadway segment from the project intersection to the Adams Drive /SR 76 intersection consists of a 24 foot wide two lane road paved road with asphalt curbs. Due to the low level of traffic placed on the roadway, Adams Drive will not be negatively impacted by the project. Guideline 3 is not exceeded and impacts are not significant. Guideline 3 is not exceeded and impacts are less than significant. No mitigation is required.

Guideline 4: 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 LOS E or

The results of the analysis are shown in Table 2-10-5, “Existing With Project Intersection Conditions.” As shown in Table 2-10-5, and as disclosed in section 2-10-1, Existing Conditions, above, one signalized intersection in the study area currently operates at LOS E or lower:

- SR 76 / I-15 SB Ramps – LOS E (PM peak hour)

As shown in the table, the addition of project traffic to this or any other intersections in the study area will not result in a significant increase in congestion at those intersections. All other intersections analyzed in Table 2-10-5 will continue to operate at LOS D or better with addition of project traffic.

Therefore Guideline 4 is not exceeded and impacts are less than significant. Mitigation is not required.

Guideline 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 operations of the intersection.

As discussed above, two signalized intersections in the project’s study area currently operate below LOS D. As shown in the table referenced above, none of these signalized intersections will experience a change in LOS with the inclusion of the expected project-generated traffic. The project does not propose any modifications to these intersections and therefore would have no effect on intersection geometrics or proximity to adjacent driveways.

Therefore, Guideline 5 for signalized intersections is not exceeded and direct impacts are less than significant. Mitigation is not required.

Guideline 6: 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 an unsignalized intersection to operate below LOS D, or

Guideline 7: 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

Guideline 8: 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

Guideline 9: 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

No unsignalized intersections in the project study area operate at LOS D, E, or F, and the project’s contributing traffic will not cause any unsignalized intersection to

operate at LOS D, E, or F. Guidelines 6, 7, 8, and 9 are not exceeded, impacts are less than significant, and no mitigation is necessary.

Guideline 10: Based upon an evaluation of existing accident rates, the signal priority list, intersection geometrics, proximity of adjacent driveways, the sight distance or other factors, the project would significantly impact the operations of the intersection.

The remaining unsignalized intersections currently operate at LOS C or better, and will not experience a change in LOS as a result of the project. These intersections are:

- SR76 / Pankey Road
- SR76 / Horse Ranch Creek Road
- SR 76 / Rice Canyon Road
- SR 76 / Couser Canyon Road
- SR76 / Warner Ranch Driveway
- W. Pala Mission Road/ Pala Temecula Road
- SR76 / Brittian Road
- SR76/ E. Pala Missions Road
- SR76/ Lilac Road
- SR76/Project Driveway
- SR76 / Adams Drive
- SR76 / Cole Grade Road

The project will be have primary access to public roads via the proposed Haas Grove Lane/ SR 76 intersection.

Corner and Stopping Sight Distance

Corner sight distance, also known as ‘intersection sight distance’ or ‘decision sight distance,’ is the distance from a potential point of conflict to the locations where both vehicles can see each other. The spacing within the intersection should be such that the vehicle with right-of-way should have enough room/time to avoid the vehicle without right-of-way should it enter the intersection out of turn. Corner sight distance for left turns from a major road is generally less than that required from minor roads.

Sight stopping distance is the distance from the point of potential conflict to the locations where both vehicles can see each other. The sight distance should allow enough time for the vehicle with the right-of-way to come to a complete stop if necessary should the vehicle without right-of-way enter the intersection out of turn.

Primary Access

Table 2-10-6, “Existing Configuration Sight Distance Summary Primary Access,” shows the existing configuration sight distance at the primary project access, assuming the proposed realignment of Adams Drive with SR 76. As shown in Table 2-10-6, depending on the maneuver, sight distance requirements vary from 540 feet to 645 feet. Therefore, the sight distance at the primary project access is adequate and no safety impacts are identified. The analysis also concluded that the primary access point has adequate corner sight distance based upon field measurements.

Guideline 10 is not exceeded, impacts are not significant, and no mitigation will be required.

2.10.3 Cumulative Impacts

The County of San Diego has adopted an overarching programmatic approach to address existing and projected future road deficiencies in the unincorporated area of San Diego County. This program includes the adoption of a Transportation Impact Fee (TIF) to fund improvements to roadways in order to mitigate potential cumulative impacts anticipated by traffic from future development.

Based on the results of the TIF traffic modeling, funding was identified which would provide for the necessary construction of transportation facilities that will mitigate cumulative impacts from new development. 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 the TransNet, state, and federal funding to improve freeways to projected level of service objectives in the RTP.

The project generates 528 daily trips. Some of these trips will use roadways that were found in the course of the cumulative analysis to operate at inadequate levels of service.

Table 2-10-7, “Cumulative with Project Roadway Segment Conditions,” shows the existing, existing plus cumulative, and existing plus cumulative plus project traffic and the attendant changes anticipated to those intersections’ LOS. In summary the table shows impacts to the following road segments:

2.10.4 Roadway Segments

- SR-76 from Horse Ranch Creek Road to Rice Canyon Road
- SR-76 from Rice Canyon to Couser Canyon
- 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 Rd

- SR-76 from Lilac Rd to Adams Drive

These six roadway segments currently operate at LOS C and will experience a change to LOS F with or without the addition of project related traffic. Therefore impacts would occur even if the project were not to go forward. However, the project contributes to these impacts and therefore impacts must be addressed. Guideline 2 is exceeded and impacts are significant. (**Impact TR-1**). Mitigation is required.

Table 2-10-8, “Cumulative with Project Intersection Conditions,” summarizes the cumulative intersection analysis. As shown in Table 2-10-8, just one intersection, SR 76/E. Pala Drive will go from LOS D to E as a result of the project:

2.10.5 Intersections

- SR-76 / I-15 SB Ramps
- SR-76 / I-15 NB Ramps

The potential growth represented by this 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 be required. (**TR-1**) By paying the TIF, the project’s contribution to the cumulative impact can be rendered less than cumulatively considerable.

2.10.6 Significance of Impacts Prior to Mitigation

No direct impacts are anticipated from the Proposed Project.

TR-1 The project may contribute to a cumulative impact.

2.10.7 Mitigation

M-TR-1

Prior to the issuance of building permits, the proposed project shall participate in the County’s Transportation Impact Fee (TIF) program by paying applicable development fees.

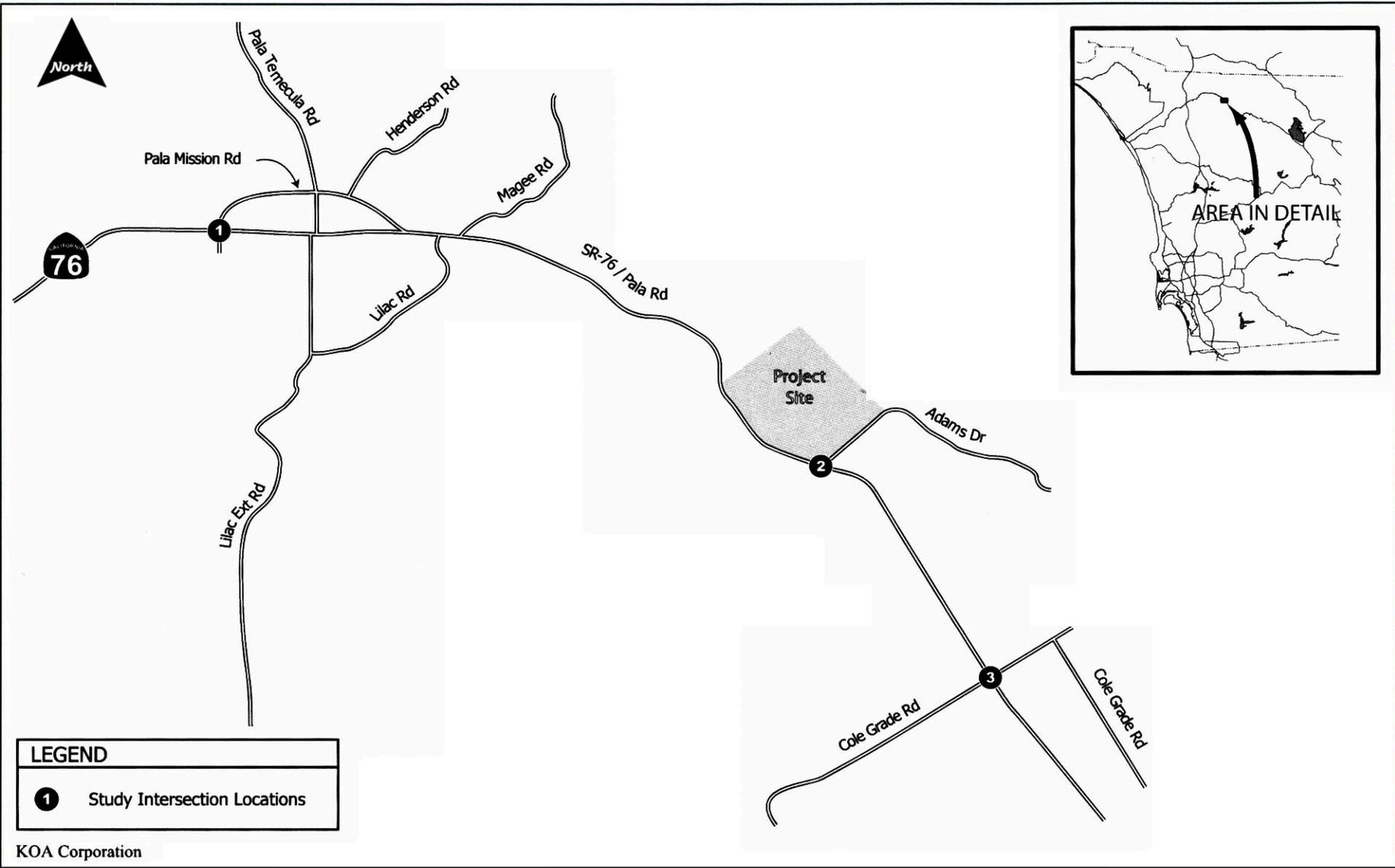
2.10.8 Conclusion

Analysis of existing roadway segment and peak-hour intersection performance was conducted by a County-approved consultant. The analysis found that all roadway segments and intersections are currently operating a LOS D or better, except for the road segment of SR76 between the northbound and southbound ramps. No direct impacts of any significance were identified.

A sight distance analysis was prepared for the project's primary access point. The analysis concluded that there is adequate site distance at the primary access point and no impacts are identified.

In the cumulative condition, the project the project was found to contribute to a significant impact to six study area roadway segments and two intersections. However, as a project that is accounted for in the growth projections for the area, payment of the TIF will be required. Payment of applicable development fees into the County's TIF program will mitigate the impact to below a level of significance. The TIF program involves the collection of development fees from project applicants to fund the construction of roadway facilities necessary to mitigate the cumulative traffic impacts of development project in the County of San Diego. Thus, cumulative impacts are mitigated to below a level of significance.

Adherence to the foregoing mitigation and recommendations will reduce project traffic impacts to below a level of significance. No further mitigation will be required.



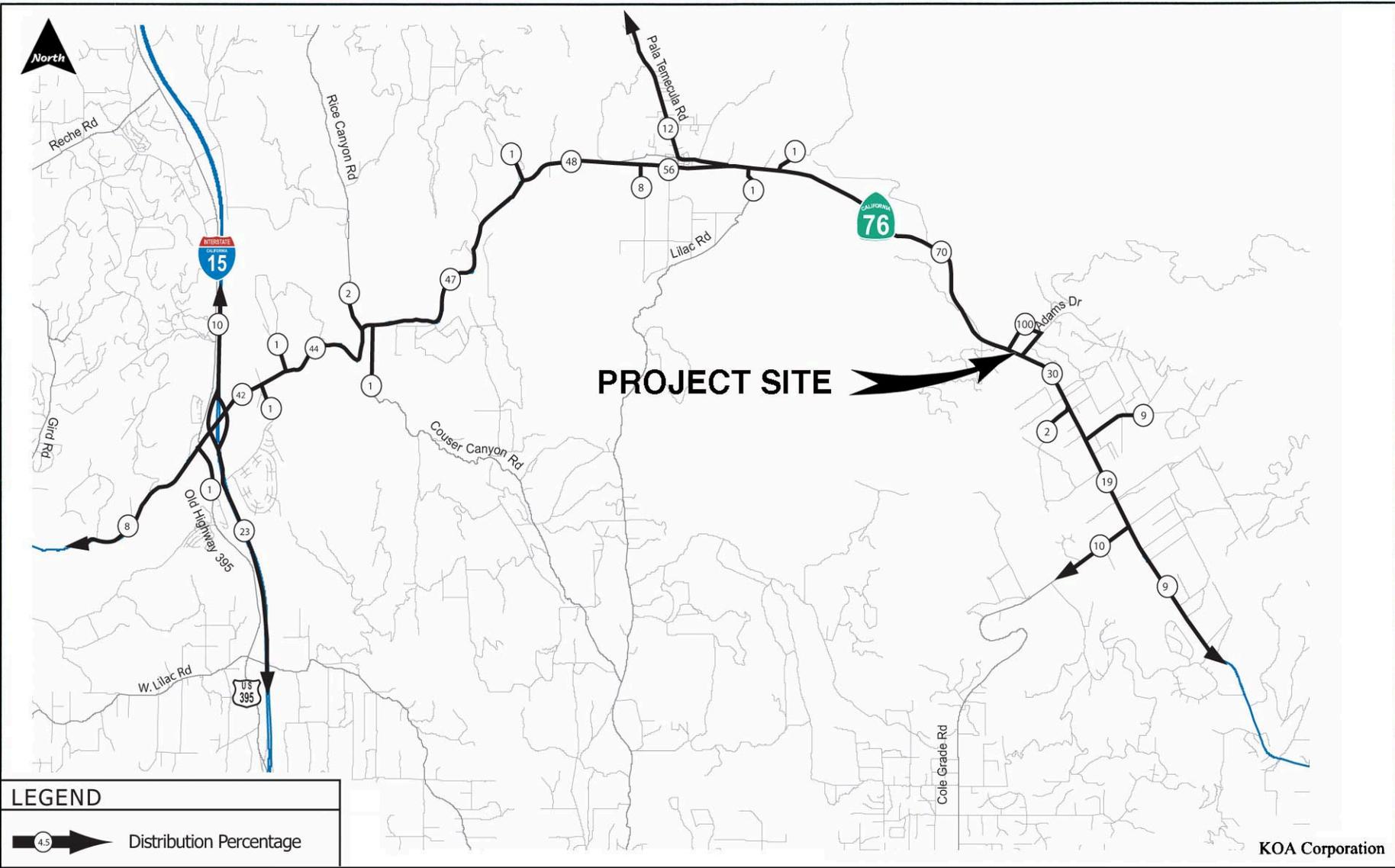
LEGEND	
1	Study Intersection Locations

KOA Corporation

Figure 2-10-1

Circulation Network





KOA Corporation

Figure 2-10-2

Trip Distribution



Roadway Segment	Lanes/ Class	LOS E Capacity	Existing			Existing + Project			Δ Traffic	Δ v/c	Direct Impact?
			ADT	V/C	LOS	ADT	V/C	LOS			
State Route 76											
I-15 SB Ramps to I-15 NB Ramps	2SR	22,900	19,359	0.845	E	19,494	0.851	E	135	0.006	No
I-15 NB Ramps to Pankey Road	4MR	37,000	11,031	0.298	A	11,263	0.304	A	232	0.006	No
Pankey Road to Horse Ranch Creek Road	4MR	37,000	11,031	0.298	A	11,263	0.304	A	232	0.006	No
Horse Ranch Creek Road to Rice Canyon Road	2SR	22,900	11,031	0.482	C	11,263	0.492	C	232	0.010	No
Rice Canyon Road to Couser Canyon Road	2SR	22,900	11,031	0.482	C	11,273	0.492	C	242	0.011	No
Couser Canyon Road to W. Pala Mission Road	2SR	22,900	10,224	0.446	C	10,478	0.458	C	254	0.011	No
W. Pala Mission Road to E. Pala Mission Road	2SR	22,900	10,329	0.451	C	10,625	0.464	C	296	0.013	No
E. Pala Mission Road to Lilac Road	2SR	22,900	8,821	0.385	C	9,181	0.401	C	360	0.016	No
Lilac Road to Adams Drive	2SR	22,900	9,456	0.413	C	9,826	0.429	C	370	0.016	No
Adams Drive to Cole Grade Road	2SR	22,900	9,090	0.397	C	9,248	0.404	C	158	0.007	No
W. Pala Mission Road											
State Route 76 and Pala Temecula Road	2RC	16,200	4,711	0.291	C	4,711	0.291	C	0	0.000	No
Pala Temecula Road											
Pala Mission Road to Trujillo Road	2RC	16,200	8,318	0.513	D	8,382	0.517	D	64	0.004	No

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

Intersection	Existing		Existing + Project		Δ Trips	Δ Delay	Direct Impact?
	Delay	LOS	Delay	LOS			
AM Peak Hour							
1. I-15 / SR 76 SB Ramps	31.1	C	31.6	C	WBL - 7	0.5	No
2. I-15 / SR 76 NB Ramps	23.6	C	23.8	C	WBT - 10	0.2	No
3. SR 76 / Pankey Road ¹	12.3	B	12.4	B	NBLTR - 0	0.1	No
4. SR 76 / Horse Ranch Creek Rd	-	-	-	-	-	-	No
5. SR 76 / Rice Canyon Road ¹	11.2	B	11.3	B	SBLTR - 0	0.1	No
6. SR 76 / Couser Canyon Road ¹	12.3	B	12.5	B	NBLTR - 0	0.2	No
7. SR 76/Warner Ranch Driveway	0.5	A	0.5	A	EBT - 6	0.0	No
8. SR 76 / W. Pala Mission Road	26.4	C	26.3	C	WBT - 14	-0.1	No
9. Pala Mission Rd./ Pala Temecula Road ¹	9.7	A	9.7	A	SBLTR - 0	0.0	No
10. SR 76 / Brittian Road ¹	9.1	A	9.2	A	SBLTR - 0	0.1	No
11. SR 76/ E. Pala Mission Road ¹	12.5	B	12.9	B	SBLTR - 2	0.4	No
12. SR 76/ Lilac Road ¹	11.8	B	12.0	B	NBLTR - 0	0.2	No
13. SR 76 / Project Driveway ¹	0.0	A	9.9	A	SBLTR - 21	9.9	No
14. SR 76 / Adams Drive ¹	10.1	B	10.8	B	SBLTR - 9	0.7	No
15. SR 76 / Cole Grade Road ¹	17.0	C	17.2	C	NBLTR - 1	0.2	No
PM Peak Hour							
1. I-15 / SR 76 SB Ramps	58.8	E	59.7	E	EBR - 3	0.9	No ¹
2. I-15 / SR 76 NB Ramps	51.1	D	51.4	D	WBT - 5	0.3	No
3. SR 76 / Pankey Road ¹	13.1	B	13.4	B	NBLTR - 0	0.3	No
4. SR 76 / Horse Ranch Creek Rd	-	-	-	-	-	-	No
5. SR 76 / Rice Canyon Road ¹	13.3	B	13.7	B	SBLTR - 1	0.4	No
6. SR 76 / Couser Canyon Road ¹	14.8	B	15.1	C	NBLTR - 0	0.3	No
7. SR 76/Warner Ranch Driveway	0.5	A	0.5	A	EBT - 18	0.0	No
8. SR 76 / W. Pala Mission Road	27.6	C	27.4	C	WBT - 8	-0.2	No
9. Pala Mission Rd./ Pala Temecula Road ¹	11.2	B	11.3	B	SBLTR - 4	0.1	No
10. SR 76 / Brittian Road ¹	10.1	B	10.2	B	SBLTR - 0	0.1	No
11. SR 76/ E. Pala Mission Road ¹	16.7	C	17.7	C	SBLTR - 4	1.0	No
12. SR 76/ Lilac Road ¹	13.1	B	13.5	B	NBLTR - 0	0.4	No
13. SR 76 / Project Drive ¹	0.0	A	11.9	B	SBLTR - 12	11.9	No
14. SR 76 / Adams Drive ¹	13.4	B	13.6	B	SBLTR - 5	0.2	No
15. SR 76 / Cole Grade Road ¹	17.9	C	18.4	C	SBLTR - 4	0.5	No

¹County of San Diego Significant Traffic Impact Thresholds not met



Existing with Project Intersection Conditions

**Table
2-10-5**

Maneuver	Prevailing Speed	Existing Sight Distance (feet)				
		Type	Evasive Action	Needed	Available	Adequate?
Left turn from Project Driveway looking west	58 MPH	Corner	B slows for A	580* / 645**	700	Yes
		Stopping	----	540**	----	----
Right turn from Project Driveway looking east	58 MPH	Corner	C slows for A	580* / 645**	700	Yes
		Stopping	----	540**	----	----
Left Turn into Project Driveway looking east	58 MPH	Corner	----	----	----	----
		Stopping	B stops for D	540**	700	Yes

* Value from San Diego County Standards for Private Roads

** Value from AASHTO document: A Policy on Geometrics for Highways and Streets

Roadway Segment	Lanes/ Class	LOS E Capacity			Existing		Existing + Cumulative		Existing + Cumulative + Project		[X] Traffic		[X] v/c	Cumulative Impact?
		ADT	V/C	LOS	ADT	V/C	LOS	ADT	V/C	LOS				
State Route 76														
I-15 SB Ramps to I-15 NB Ramps	2SR	22,900	19,359	0.845	E	35,150	1,535	F	35,285	1,541	F	135	0.006	No ¹
I-15 NB Ramps to Pankey Road	4MR	37,000	11,031	0.298	A	32,805	0.887	D	33,037	0.893	D	232	0.006	No
Pankey Road to Horse Ranch Creek Road	4MR	37,000	11,031	0.298	A	31,921	0.863	D	32,153	0.869	D	232	0.006	No
Horse Ranch Creek Road to Rice Canyon Road	2SR	22,900	11,031	0.482	C	32,513	1,420	F	32,745	1,430	F	232	0.010	Yes
Rice Canyon Road to Couser Canyon Road	2SR	22,900	11,031	0.482	C	32,764	1,431	F	33,006	1,441	F	242	0.011	Yes
Couser Canyon Road to W. Pala Mission Road	2SR	22,900	10,224	0.446	C	32,946	1,439	F	33,200	1,450	F	254	0.011	Yes
W. Pala Mission Road to E. Pala Mission Road	2SR	22,900	10,329	0.451	C	23,166	1,012	F	23,462	1,025	F	296	0.013	Yes
E. Pala Mission Road to Lilac Road	2SR	22,900	8,821	0.385	C	25,438	1,111	F	25,798	1,127	F	360	0.016	Yes
Lilac Road to Project Access	2SR	22,900	9,456	0.413	C	24,958	1,090	F	25,326	1,106	F	368	0.016	Yes
Project Access to Adams Drive	2SR	22,900	9,456	0.413	C	24,958	1,090	F	25,084	1,095	F	126	0.006	No ¹
Adams Drive to Cole Grade Road	2SR	22,900	9,090	0.397	C	24,158	1,055	F	24,316	1,062	F	158	0.007	No ¹
W. Pala Mission Road														
State Route 76 and Pala Temecula Road	2RC	16,200	4,711	0.291	C	7,010	0.433	C	7,010	0.433	C	0	0.000	No
Pala Temecula Road														
Pala Mission Road to Trujillo Road	2RC	16,200	8,318	0.513	D	10,548	0.651	D	10,612	0.655	D	64	0.004	No

¹ County of San Diego Significant Traffic Impact Thresholds not met based upon Table 3 of Chapter 4 in the County of San Diego Guidelines for Determining Significance

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



Cumulative with Project Roadway Segment Conditions

Table 2-10-7

Cumulative With Project Intersection Conditions

Intersection	Existing		Existing + Cumulative		Existing + Cumulative + Project		☑ Trips		☑ Delay		Cumulative Impact?
	Delay	LOS	Delay	LOS	Delay	LOS	Trips	LOS	Delay	LOS	
AM Peak Hour											
1. I-15/SR 76 SB Ramps	31.1	C	2153	F	217.1	F	F	WBEL-7	1.8		Yes
2. I-15/SR 76 NB Ramps	236	C	119.1	F	121.2	F	F	WBT-10	2.1		Yes
3. SR 76/Pankey Road ¹	123	B	252	C	25.1	C	C	NBLTR-0	0.1		No
4. SR 76/Horse Ranch Creek Rd ¹	-	-	21.9	C	21.8	C	C	-	0.1		No
5. SR 76/Rice Canyon Road ¹	112	B	341.0	F	361.8	F	F	SELTR-0	20.8		No
6. SR 76/Cousser Canyon Road ¹	123	B	167.8	F	170.3	F	F	NBLTR-0	11.5		No
7. SR 76/Warner Ranch Diverge ¹	0.5	A	23.7	C	23.6	C	C	EBT-6	0.1		No
8. SR 76/W. Pala Mission Road ¹	264	C	24.9	C	24.9	C	C	WBT-14	0.0		No
9. Pala Mission Rd/Pala Temocula Road ¹	97	A	14.7	B	14.8	B	B	SEL-0	0.1		No
10. SR 76/Bitter Road ¹	91	A	10.8	B	11.0	B	B	SELTR-0	0.2		No
11. SR 76/E. Pala Mission Road ¹	125	B	34.9	D	38.4	E	E	SELTR-2	3.5		No
12. SR 76/Like Road ¹	118	B	26.5	D	27.9	D	D	NBLTR-0	1.4		No
13. SR 76/Project Access ¹	0.0	A	0.0	A	13.5	B	B	SELTR-26	13.5		No
14. SR 76/Adams Drive ¹	101	B	13.0	B	14.4	B	B	SELTR-5	1.4		No
15. SR 76/Cole Grade Road ¹	17	C	266.6	F	266.6	F	F	NBLTR-1	9.0		No
PM Peak Hour											
1. I-15/SR 76 SB Ramps	588	E	32.5	F	30.5	F	F	EBR-3	1.0		Yes
2. I-15/SR 76 NB Ramps	51.1	D	263.4	F	265.5	F	F	WBT-5	2.1		Yes
3. SR 76/Pankey Road ¹	131	B	51.1	D	51.8	D	D	NBLTR-0	0.7		No
4. SR 76/Horse Ranch Creek Rd ¹	-	-	24.3	C	24.3	C	C	-	0.0		No
5. SR 76/Rice Canyon Road ¹	133	B	Overflow	F	Overflow	F	F	SELTR-1	N/A		No
6. SR 76/Cousser Canyon Road ¹	148	B	711.3	F	739.7	F	F	NBLTR-0	47.4		No
7. SR 76/Warner Ranch Diverge ¹	0.5	A	13.5	B	13.5	B	B	EBT-18	0.0		No
8. SR 76/W. Pala Mission Road ¹	276	C	32.5	C	32.6	C	C	WBT-8	0.1		No
9. Pala Mission Rd/Pala Temocula Road ¹	112	B	21.0	C	21.4	C	C	SELTR-4	0.4		No
10. SR 76/Bitter Road ¹	101	B	19.6	C	20.2	C	C	SELTR-0	0.6		No
11. SR 76/E. Pala Mission Road ¹	167	C	519.5	F	57.8	F	F	SELTR-4	58.3		No
12. SR 76/Like Road ¹	131	B	131.5	F	148.1	F	F	NBLTR-0	17.6		No
13. SR 76/Project Access ¹	0.0	A	0.0	A	2.6	D	D	SELTR-13	2.6		No
14. SR 76/Adams Drive ¹	134	B	33.6	D	35.5	E	E	SELTR-3	1.9		No
15. SR 76/Cole Grade Road ¹	17.9	C	948.2	F	995.3	F	F	SELTR-4	37.1		No

¹ Significance of unsignalized intersections is determined by the number of added project trips to the critical movement as seen in Table 2 of Chapter 4 in the County of San Diego Guidelines for Determining Significance.



Cumulative with Project Intersection Conditions

Table 2-10-8