

3.14 Transportation and Traffic

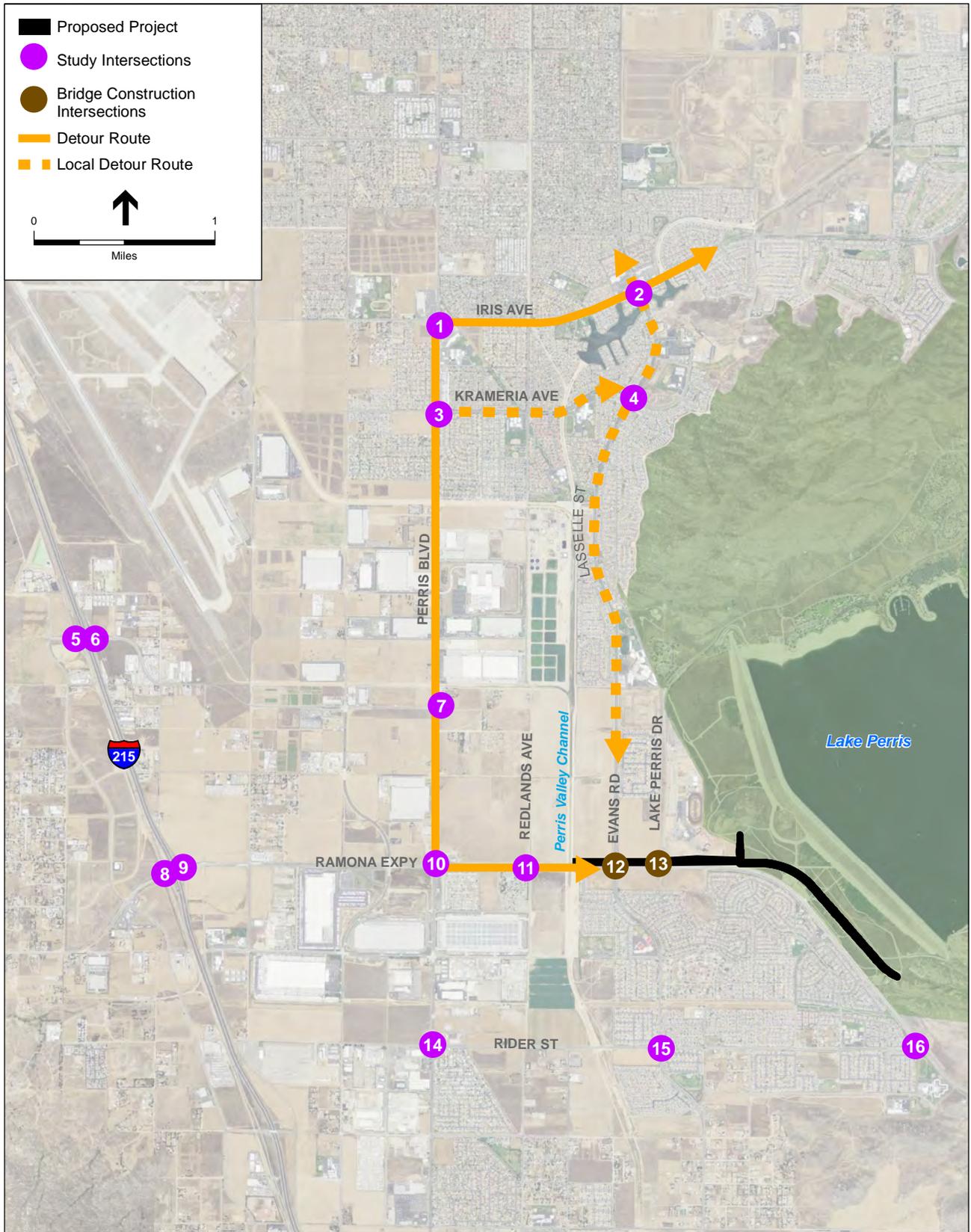
This section assesses potential transportation and traffic impacts based on information supplied by the Department of Water Resources (DWR), the Riverside County Transportation Commission (RCTC), California Department of Transportation (Caltrans), and the City of Perris Department of Engineering. In addition, the analysis contained in this section is also based on the Traffic Study prepared for the California Department of Water Resources Lake Perris Emergency Release Facility Project included in Appendix F (KOA 2016).

3.14.1 Environmental Setting

The project area lies partially within unincorporated Riverside County and partially within the City of Perris. The roadway network on which construction workers and construction vehicles (including trucks that would transport equipment and material) would travel to access the worksite consists of regional highways and local roadways.

The project proposes two options for bridge construction activities at Lake Perris Drive and Evans Road. Option A includes partial lane closures during construction of the bridges and Option B proposes full roadway closures. Full closure of access to the Lake Perris Fairground via Avalon Parkway would also be required during construction of the box culvert at this location. Bridges and/or box culverts would be constructed independently of each other. A total of 16 intersections were analyzed for traffic impact conditions during construction. These intersections are listed below and are depicted on **Figure 3.14-1**.

1. Perris Boulevard and Iris Avenue
2. Lasselle Street and Iris Avenue
3. Perris Boulevard and Krameria Avenue
4. Lasselle Street and Krameria Avenue
5. I-215 Southbound Ramps and Harley Knox Boulevard
6. I-215 Northbound Ramps and Harley Knox Boulevard
7. Perris Boulevard and Harley Knox Boulevard
8. I-215 Southbound Ramps and Ramona Expressway
9. I-215 Northbound Ramps and Ramona Expressway
10. Perris Boulevard and Ramona Expressway
11. Redlands Avenue and Ramona Expressway
12. Evans Road and Ramona Expressway (bridge construction intersection)
13. Lake Perris Drive and Ramona Expressway (bridge construction intersection)
14. Perris Boulevard and Rider Street
15. Evans Road and Rider Street
16. Ramona Expressway and Rider Street



SOURCE: ESRI.

Perris Dam Emergency Release Facility . 120083.02

Figure 3.14-1
Study Intersections and Detour Route

Due to the potential for full-road closures and to alleviate traffic constraints during partial road closures at Evans Road, a detour route was analyzed within the Traffic Study. The detour would route cars towards Perris Boulevard to the west of Evans Road, as the primary detour route, with east-west connections to the north along Krameria Avenue and Iris Avenue. This detour would not be required for bridge/box culvert construction at Lake Perris Drive or Avalon Parkway where a local detour adjacent to the construction area would be provided.

This Section summarizes existing traffic conditions within these roadways and intersections that may be directly or indirectly affected by the temporary road closures.

Existing Traffic Circulation Network

Regional Roadways

Interstate 215 (I-215) is a north-south freeway that connects the cities of Murrieta and Sun City to the south of the project site and Moreno Valley, Riverside, and San Bernardino to the north. I-215 provides full access ramps with the Ramona Expressway approximately 3 to 4 miles west of the project site. It is expected that most project-generated traffic would use I-215 to reach Ramona Expressway.

State Route (SR) 60 is an east-west freeway, north of Lake Perris that runs from Interstate 10 (I-10) near the Los Angeles River in Los Angeles east to I-10 near Beaumont in Riverside County.

SR 74 is an east-west freeway that connects Interstate 5 (I-5) in San Juan Capistrano (Orange County) east to Palm Desert (Riverside County). SR 74 is to the south of the project site and passes through the city of Perris.

Local Roadways

The **Ramona Expressway** is an east-west arterial that runs from I-215 in Perris to SR 74 in Hemet. In the project area, Ramona Expressway follows the outline of Lake Perris around its south shore. There are six travel lanes west of Evans Road, four lanes east of Evans Road to east of Rider Street where the road narrows to two lanes.

Evans Road is a four-lane north-south arterial, with a third northbound lane adjacent to the subdivision north of Marbella Gate.

Lake Perris Drive is a collector roadway that provides access from Ramona Expressway to the Lake Perris State Recreation Area (SRA) and the Lake Perris Fairgrounds, with four travel lanes close to Ramona Expressway, narrowing to two lanes south of East Markham Street.

Avalon Parkway is a two-lane collector roadway that provides secondary access from Ramona Expressway to the Lake Perris SRA and the Lake Perris Fairgrounds, via Fair Way.

Perris Boulevard is a six lane north-south primary arterial that runs between the cities of Moreno Valley and Perris and has a center one-way left turn lane.

Iris Avenue is a six lane, divided major arterial that runs east to west in the City of Moreno Valley.

Lasselle Street is a four-lane, north-south divided arterial that travels in the City of Moreno Valley.

Krameria Avenue is a four-lane, east-west arterial in the City of Perris.

Harley Knox Boulevard is a two-lane, east-west primary arterial that runs between Harvill Avenue and Redlands Avenue in the City of Perris.

Rider Street is a two lane, east-west secondary arterial that runs between North Perris Boulevard and Ramona Expressway in the City of Perris.

Traffic Volumes

The most recent data published by Caltrans (August 2014) indicates the average daily traffic volume on I-215 south and north of the Ramona Expressway is about 103,000 and 117,000 vehicles, respectively. The average daily traffic volume on SR 60 west of Perris Boulevard (Moreno Valley) is about 87,000 to 106,000 vehicles, and on SR 74 in the vicinity of I-215, it is about 21,000 vehicles.

Automatic machine traffic counts were conducted for this project (Appendix F) over a 72-hour period (Thursday–Saturday) on the Ramona Expressway, Evans Road, and Lake Perris Drive.¹ **Table 3.14-1** shows the daily and peak-hour traffic volumes on those roads on a weekday (Thursday) and a weekend day (Saturday). Daily traffic volumes for both weekday and weekend traffic are similar at the intersections impacted by bridge construction, with the exception of Lake Perris Drive (north of the Ramona Expressway). Volume along this road is greatly increased during the weekend days due to visitorship of the Lake Perris SRA and Lake Perris Fairgrounds.

**TABLE 3.14-1
 WEEKDAY VS. WEEKEND TRAFFIC VOLUMES AT BRIDGE CONSTRUCTION INTERSECTIONS**

Roadway	Weekday Traffic Volume ^a		Weekend Traffic Volume ^b	
	Daily	Peak-Hour ^c	Daily	Peak-Hour ^c
Ramona Expressway, west of Evans Road	32,720	2,558	32,000	2,019
Ramona Expressway, east of Avalon Parkway	19,350	1,665	16,440	1,045
Evans Road, north of Ramona Expressway	22,270	2,437	15,430	1,038
Lake Perris Drive, north of Ramona Expressway	890	105	5,060	714

^a Weekday traffic volumes are based on data collected on Thursday, September 5, 2013.

^b Weekend traffic volumes are based on data collected on Saturday, September 7, 2013.

^c The peak-hour traffic volume is the highest hourly volume during the period between 7:00 a.m. and 7:00 p.m., Monday through Friday, when project construction activities generally would occur.

In early January 2016, supplemental traffic counts were conducted that focused on daily vehicle volumes of roadways with the potential to be impacted by the proposed closures at Evans Road. These included counts at the direct impact site (Evans Road and Ramona Expressway) as well as,

¹ Estimated daily traffic volume is based on automatic machine counts conducted over a 72-hour (3-day) period (Thursday through Saturday, September 5–7, 2013).

the proposed detour route along Perris Boulevard. **Table 3.14-2** compares the peak to daily ratios of vehicle traffic volumes (KOA, 2016 included in Appendix F). The time period between 7:00 – 9:00 a.m. is considered to be the AM peak time period and the time period between 3:00 – 6:00 p.m. is considered to be the PM peak time period.

**TABLE 3.14-2
 TRAFFIC VOLUMES ON LOCAL AREA ROADWAYS**

Roadway	Weekday Traffic Volume ^a				
	Daily	Peak-Hour AM ^c	Percent	Peak-Hour PM ^d	Percent
Perris Boulevard, north of Ramona Expressway	26,496	3,425	12.9	5,521	20.8
Evans Road, north of Ramona Expressway	21,533	3,234	15.0	5,148	23.9
Ramona Expressway, east of Perris Boulevard	32,638	3,666	11.2	6,580	20.1
Ramona Expressway, west of Perris Boulevard	39,818	4,624	11.6	7,794	19.6

^a Weekday traffic volumes were collected by KOA on January 12, 2016.

^c The AM peak-hour traffic volume is the highest hourly volume during the period between 7:00 a.m. and 9:00 a.m.

^d The PM peak-hour traffic volume is the highest hourly volume during the period between 3:00 p.m. and 6:00 p.m.

SOURCE: KOA 2016

These volumes were collected to obtain an understanding of the peak to daily ratios of volumes and how project construction requiring roadway closures and detours might affect peak commute traffic periods versus mid-day and evening periods. As shown on Table 3.14-2, the volume of vehicles trips that fall within peak time periods range from 11.2 to 15.0 percent of the total daily volume (KOA 2016, Technical Memo included in Appendix F).

As shown on **Table 3.14-3** there is a sizeable reduction in hourly volumes outside of the peak time (7:00 – 9:00 a.m. and 3:00 – 6:00 p.m.), particularly before 7:00 a.m., between 9:00 a.m. and noon, and after 6:00 p.m.

**TABLE 3.14-3
 DAILY VEHICLE VOLUME BY HOUR**

Time*	Perris Blvd (north of Ramona Expwy)	Evans Rd (north of Ramona Expwy)	Ramona Expwy (east of Perris Blvd)	Ramona Expwy (west of Perris Blvd)
00:00	181	138	303	346
01:00	157	69	222	271
02:00	157	53	258	337
03:00	384	142	607	777
04:00	1,171	366	1,221	1,622
05:00	1,181	503	1,505	1,876
06:00	1,243	1,496	1,844	2,311
07:00	2,150	2,243	2,080	2,524
08:00	1,275	991	1,586	2,100
09:00	1,026	789	1,373	1,816
10:00	1,041	665	1,298	1,653
11:00	1,088	842	1,386	1,649
12:00	1,201	855	1,562	1,903
13:00	1,891	1,069	1,824	2,150
14:00	1,810	1,659	1,978	2,364
15:00	1,747	1,970	2,116	2,602
16:00	1,859	1,602	2,201	2,566
17:00	1,915	1,612	2,263	2,626
18:00	1,542	1,380	2,076	2,426
19:00	983	1,050	1,527	1,788
20:00	739	781	1,171	1,427
21:00	508	603	933	1,109
22:00	862	406	837	1,004
23:00	385	249	512	571
TOTAL	26,496	21,533	32,683	39,818

* Highlighted times correspond to the AM peak time of 7:00 a.m. to 9:00 a.m. and PM peak time of 3:00 p.m. to 6:00 p.m.

SOURCE: KOA, 2016

Level of Service

Level of service (LOS) is an expression of a transportation facility's operations and is dictated by the relationship between capacity and traffic volumes. LOS is generally defined using the letter grades A through F (**Table 3.14-4**). These levels reflect that conditions rapidly deteriorate as traffic approaches the absolute capacity of a thoroughfare.

**TABLE 3.14-4
LEVEL OF SERVICE DEFINITIONS (2000 HIGHWAY CAPACITY MANUAL)**

Level of Service	Description
A	Represents free flow. Individual vehicles are virtually unaffected by the presence of others in the traffic stream.
B	Is in the range of stable flow, but the presence of other vehicles in the traffic stream begins to be noticeable. Freedom to select desired speeds is relatively unaffected, but there is a slight decline in the freedom to maneuver.
C	Is in the range of stable flow, but marks the beginning of the range of flow in which the operation of individual vehicles becomes significantly affected by interactions with other vehicles in the traffic stream.
D	Is a crowded segment of roadway with a large number of vehicles restricting mobility and a stable flow. Speed and freedom to maneuver are severely restricted, and the driver experiences a generally poor level of comfort and convenience.
E	Represents operating conditions at or near the level capacity. All speeds are reduced to a low, but relatively uniform value. Small increases in flow will cause breakdowns in traffic movement.
F	Is used to define forced or breakdown flow (stop-and-go gridlock). This condition exists when the amount of traffic approaches a point that exceeds the amount that can travel to a destination. Operations within the queues are characterized by stop and go waves, and they are extremely unstable.

SOURCE: 2000 Highway Capacity Manual

Existing Conditions AM and PM Peak-Hour LOS of Intersections

Existing LOS for the proposed project area intersections are summarized in **Table 3.14-5**.

**TABLE 3.14-5
EXISTING 2015 CONDITIONS AM & PM PEAK-HOUR LOS OF INTERSECTIONS**

No. ^a	Intersection	AM Peak-Hour		PM Peak-Hour	
		Delay	LOS	Delay	LOS
1	Perris Blvd/Iris Ave	25.5	C	30.8	C
2	Lasselle St/Iris Ave	35.9	D	32.4	C
3	Perris Blvd/Krameria Ave	24.6	C	19.2	B
4	Lasselle St/Krameria Ave	24.8	C	17.7	B
5	I-215 SB Ramps/Harley Knox Blvd	22.2	C	29.1	C
6	I-215 NB Ramps/Harley Knox Blvd	13.8	B	18.5	B
7	Perris Blvd/Harley Knox Blvd	30.6	C	28.5	C
8	I-215 SB Ramps/Ramona Expwy	18.4	B	27.8	C
9	I-215 NB Ramps/Ramona Expwy	97.1	F	32.8	C
10	Perris Blvd/Ramona Expwy	55.8	E	46.5	D
11	Redlands Ave/Ramona Expwy	5.0	A	3.4	A
12	Evans Rd/Ramona Expwy	76.6	E	45.9	D
13	Lake Perris Dr/Ramona Expwy ^b	3.2	A	2.7	A
14	Perris Blvd/Rider St	20.4	C	17.7	B
15	Evans Rd/Rider St	36.7	D	28.4	C
16	Ramona Expwy/Rider St	14.4	B	10.1	B

^aIntersection numbers correlate to Figure 3.14-1

^bExisting conditions, does not account for special events

NOTE: Delay shown in seconds.

SOURCE: KOA, 2016

Proposed Project Trip Generation

The Traffic Study (KOA 2016), included project trip generation calculations for construction employee vehicle trips and construction truck trip estimates. The trip generation totals were determined based on the most intense period of construction activity for the project.

The project construction efforts would require approximately 120 truck deliveries per day for excavation activities, 50 truck deliveries for building work and 4 truck deliveries for rip-rap activities. A maximum total of approximately 174 truck deliveries per day would be required.

In converting trucks to passenger car equivalents, a Passenger Car Equivalent (PCE) factor of 2.5 was assumed. This factoring was used to increase truck volumes due to the additional roadway space and design capacity utilized by larger and slower trucks. The determination was based on conservative factors defined by the Southern California Association of Governments (SCAG) Heavy Duty Truck Model. For the 174 required truck deliveries, each would generate 2.5 inbound trips and 2.5 outbound trips. The total number of truck trips for the proposed project would be estimated at approximately 870 (174 truck deliveries times PCE of 2.5 for both inbound and outbound trips).

In calculating peak-hour trips for the project, it was assumed that a majority of the construction employees would arrive and depart the construction work areas by personal vehicles (approximately 236 daily trips). The morning arrival by employees was assumed to overlap the AM peak-hour by 50 percent, with the remaining 50 percent of employees assumed to be at the site before 7:00 a.m. The same would occur during the PM peak-hour, with 50 percent of employees assumed to depart the site before 4:00 p.m. Therefore, the same reduction was taken for both peak periods.

During project construction activity, daily truck haul activities would occur over an 8-hour period that would begin during the AM peak period, and would be complete during the PM peak period. End-of-workday trips were assumed to overlap the traditional peak of street traffic during the 4:00 p.m. to 6:00 p.m. time period. All of the inbound and outbound truck trips were assumed to occur evenly during the regular eight hours of construction.

Refer to **Table 3.14-6** for daily project trip generation totals (see Traffic Study in Appendix F).

**TABLE 3.14-6
 PROJECT TRIP GENERATION TOTALS**

Trip Generation	Peak Month 20xx Daily Trips			AM Peak-Hour						PM Peak-Hour					
	Trucks*	Employees	Total	Truck Trips*		Employee Trips		Total Trips		Truck Trips*		Employee Trips		Total Trips	
				In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Field Personnel	-	236	236	0	0	59	0	59	0	0	0	0	59	0	59
Truck Delivery	870	-	870	54	54	0	0	54	54	54	54	0	0	54	54
TOTAL TRIPS	870	236	1,106	54	54	59	0	113	54	54	54	54	0	59	113

*Truck trips are assumed to be evenly distributed into 8 working hours. Truck trips include a PCE factor of 2.5.

SOURCE: KOA, 2016

Transit Service

The project area is served by Riverside Transit Agency (RTA) buses. RTA Route 41 operates on Evans Road, crossing the Ramona Expressway, and on the Ramona Expressway west of North Perris Boulevard. RTA Route 19 operates on the Ramona Expressway west of North Perris Boulevard; weekend service is provided to the Lake Perris Fairgrounds via the Ramona Expressway. The closest bus stop to the proposed project site is located along RTA Route 41 on Evans Road, south of Ramona Expressway.

3.14.2 Regulatory Framework

State

California Department of Transportation

Caltrans manages interregional transportation, including management and construction of the California highway system. In addition, Caltrans is responsible for permitting and regulation of the use of state roadways. The project area includes roadways that fall under Caltrans' jurisdiction (e.g., I-215, SR 60, and SR 74).

Caltrans' construction practices require temporary traffic control planning "when the normal function of the roadway, or a private road open to public travel, is suspended" (Caltrans, 2012). In addition, Caltrans requires that permits be obtained for transportation of oversized loads and transportation of certain materials, and for construction-related traffic disturbance.

2012–2035 Regional Transportation Plan/Sustainable Communities Strategy: Toward a Sustainable Future

For the past three decades, the Southern California Association of Governments (SCAG) has prepared Regional Transportation Plans (RTPs) with the primary goal of increasing mobility. SCAG has placed a great emphasis on sustainability and integrated planning in the 2012–2035

Regional Transportation Plan/Sustainable Communities Strategy. The vision encompasses three principles: mobility, economy, and sustainability. SCAG develops, maintains, and updates the RTP on a 3-year cycle.

Local

County of Riverside

The proposed project is located within unincorporated Riverside County and is governed by the Riverside County General Plan. The Circulation Element of the County General Plan includes policies for transportation planning and development of facilities to support development in a manner that addresses a move from sprawl to more concentrated urban development (Riverside County, 2008).

Congestion Management Program

Riverside County supports the Riverside Congestion Management Program (CMP), created in compliance with Proposition 111 that aims to more directly link land use, transportation, and air quality to promote reasonable growth management programs. The purpose of the state-mandated CMP is to monitor roadway congestion and assess the overall performance of the region's transportation system. Based upon this assessment, the CMP contains specific strategies and improvements to reduce traffic congestion and improve the performance of a multimodal transportation system. Examples of strategies include increased emphasis on public transportation and rideshare programs, mitigating the impacts of new development, and better coordinating land use and transportation planning decisions.

3.14.3 Impacts and Mitigation Measures

Significance Criteria

For the purposes of this Draft EIR and consistent with Appendix G of the California Environmental Quality Act (CEQA) Guidelines, a project that would cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system is considered to have a significant impact on the environment. The project is also considered to have a potentially significant impact if it would:

- Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation, including mass transit and nonmotorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit
- Conflict with an applicable congestion management program, including but not limited to LOS standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways
- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks

- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)
- Result in inadequate emergency access
- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities

Methodology

Peak-Hour Performance Criteria

Based on the Traffic Study (KOA 2016) prepared for the proposed project and in recognition that the proposed project is not a development project resulting in permanent LOS impacts, the threshold of significance applied to the proposed project is the change in level of service to LOS F, which presents at-capacity or over-capacity conditions.

Impact Analysis

Impact 3.14-1: The project could have a significant impact if it would conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation, including mass transit and nonmotorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.

The proposed project is located in an unincorporated portion of western Riverside County and partially within the City of Perris. The County of Riverside Circulation Element and Congestion Management Plan monitor traffic congestion in the County and identify measures to minimize congestion. Similarly, the City of Perris Circulation Element identifies design goals for the local traffic network. The proposed project would not alter the local roadway configuration or traffic volume once constructed. The proposed project would not permanently disrupt bus stops or bike lanes. The local and regional plans apply to operational traffic, managing future development with roadway and public transit support needs.

The project would construct new bridges on Evans Road and Lake Perris Drive, and a box culvert at Avalon Parkway, replacing the same number and function of lanes that exist under current conditions. Operation of the proposed project would result in no impact. Therefore, the following analysis focuses on construction-related impacts.

In order to construct the replacement bridge structures or box culverts, Avalon Parkway, Evans Road, and Lake Perris Drive would have to be fully- or partially-closed immediately north of Ramona Expressway. The Avalon Parkway box culvert construction would occur in one phase and would require full closure of the Avalon Parkway entrance to the Lake Perris Fairgrounds north of Ramona Expressway.

The Evans Road bridge construction would occur either in two phases (Option A), or one phase (Option B). The two-phase construction approach of Option A can be accomplished by constructing the bridge in either two or three parts (see **Figures 3.14-2** and **3.14-3**). The one-

phase construction approach of Option B requires a detour on existing streets to the west of Evans Road. The primary detour route would be located along Perris Boulevard with east to west connections via Krameria Avenue and Iris Avenue (see Figure 3.14-1 and Appendix F).

The Lake Perris Drive bridge construction would occur either in two phases (Option A, see **Figure 3.14-4**) or one phase requiring a local detour at the construction site (Option B, see **Figure 3.14-5**).

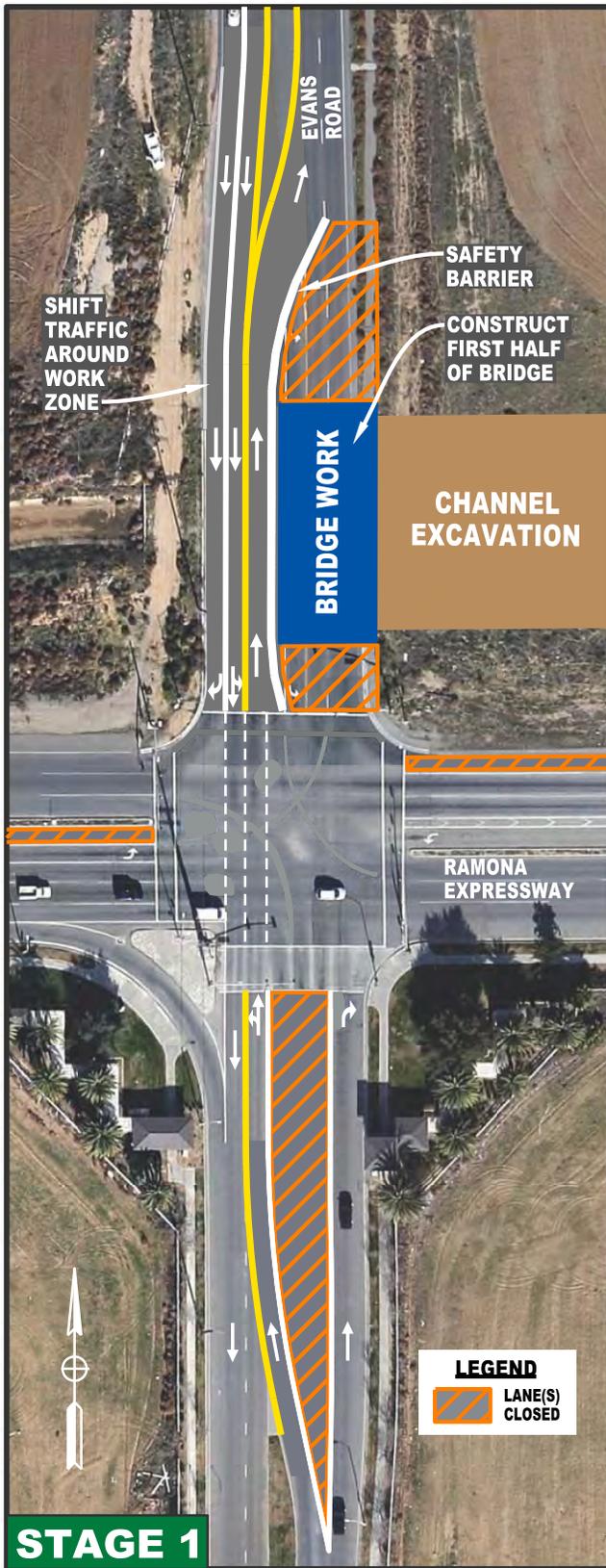
Construction of bridges in phases requiring partial road closures would take approximately 24 months, while bridge construction requiring full road closures would take approximately 12 months. Therefore, Option B would impact traffic for half as long as under Option A.

As part of the proposed project, DWR would require that the contractor implement measures to reduce traffic impacts, including the preparation of a Traffic Management Plan. The Traffic Management Plan would identify specific traffic control measures to ensure access and safety on the local roadway network (Ramona Expressway, Avalon Parkway, Lake Perris Drive, and Evans Road) and within the Lake Perris SRA and Lake Perris Fairgrounds. The Traffic Management Plan would include the following elements at a minimum:

- A schedule of lane closures over the construction period
- For partial road closure options, measures to maintain traffic flow at all times across the construction zone, including lane re-stripping and channelization; installation of temporary safety barriers and crash cushions; advance warning signs and message boards; and temporary re-programming of traffic signals.
- Lane closure notifications to the County of Riverside Department of Transportation, City of Perris, and local emergency services providers

In addition, DWR would post signs at affected roads and on the DWR website indicating the schedule for temporary lane closures and alternate routing for access.

The Traffic Study (included in Appendix F) analyzed impacts to LOS at sixteen intersections along the detour route and around the project area for partial road closures (Option A) and full roadway closures (Option B). The following discussions summarize the results of the Traffic Study.



SOURCE: DWR

Perris Dam Emergency Release Facility . 120083.02

Figure 3.14-2

Option A - Partial Closure at Evans Road (2-part Construction)

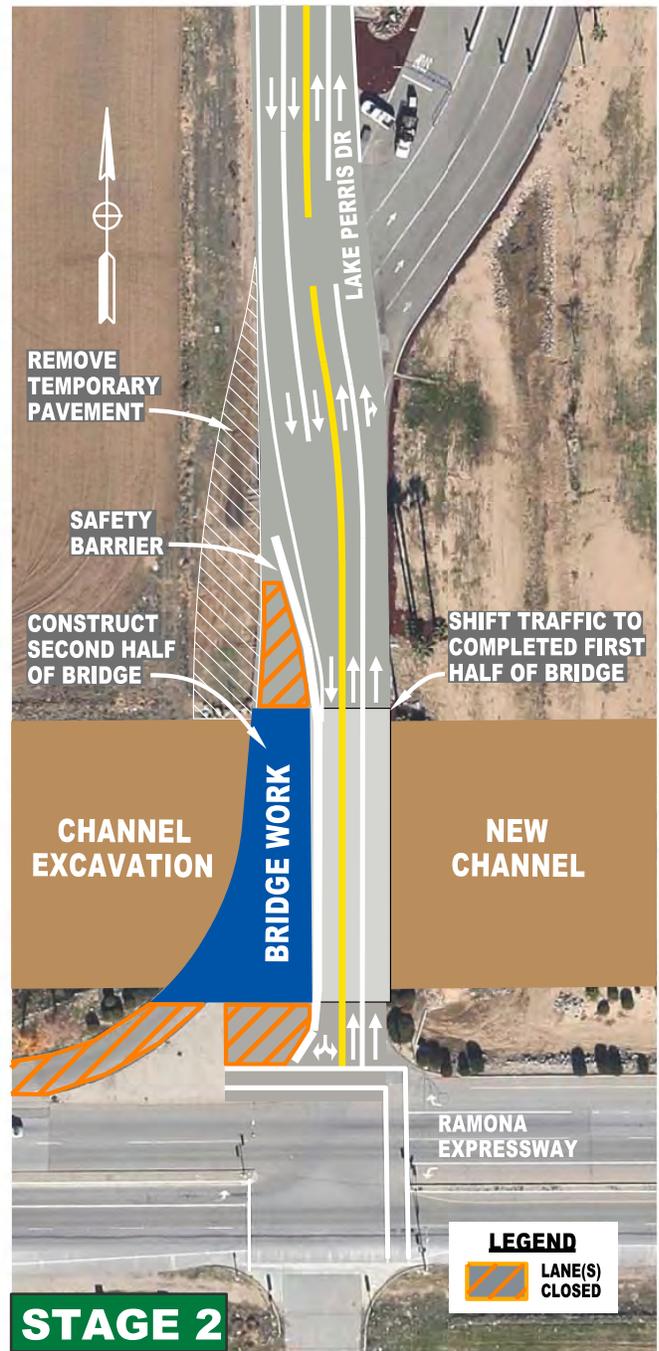
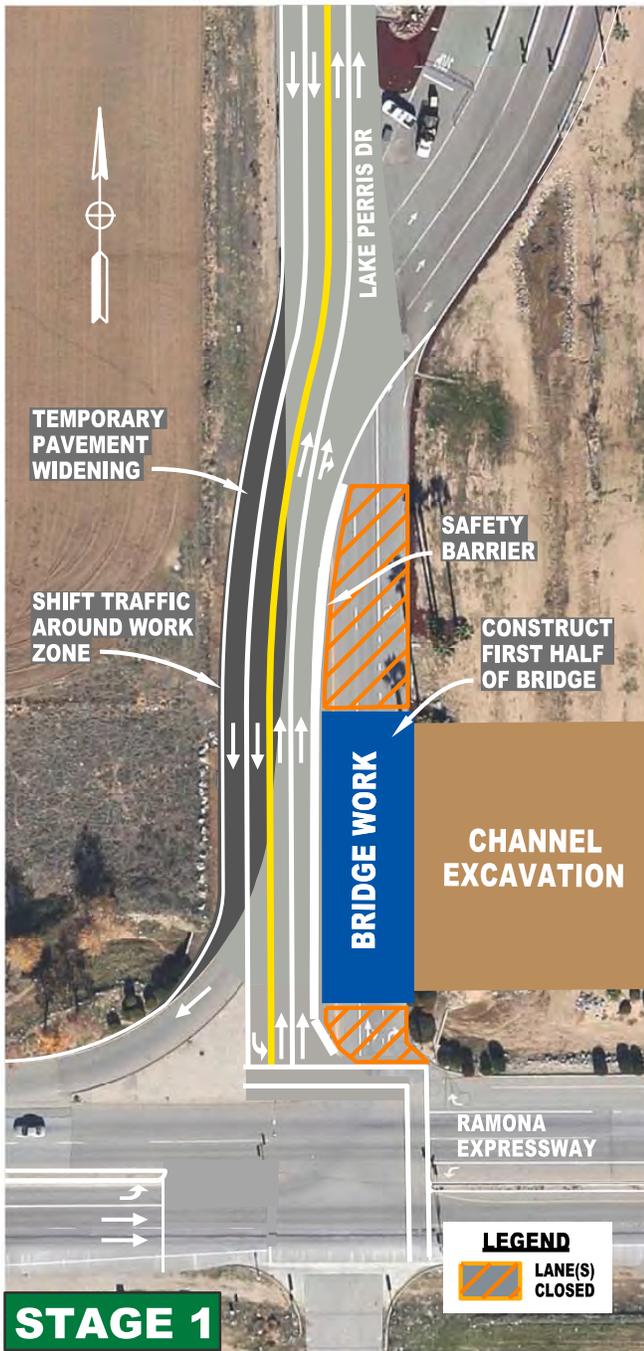


SOURCE: DWR

Perris Dam Emergency Release Facility . 120083.02

Figure 3.14-3

Option A - Partial Closure at Evans Road (3-part Construction)

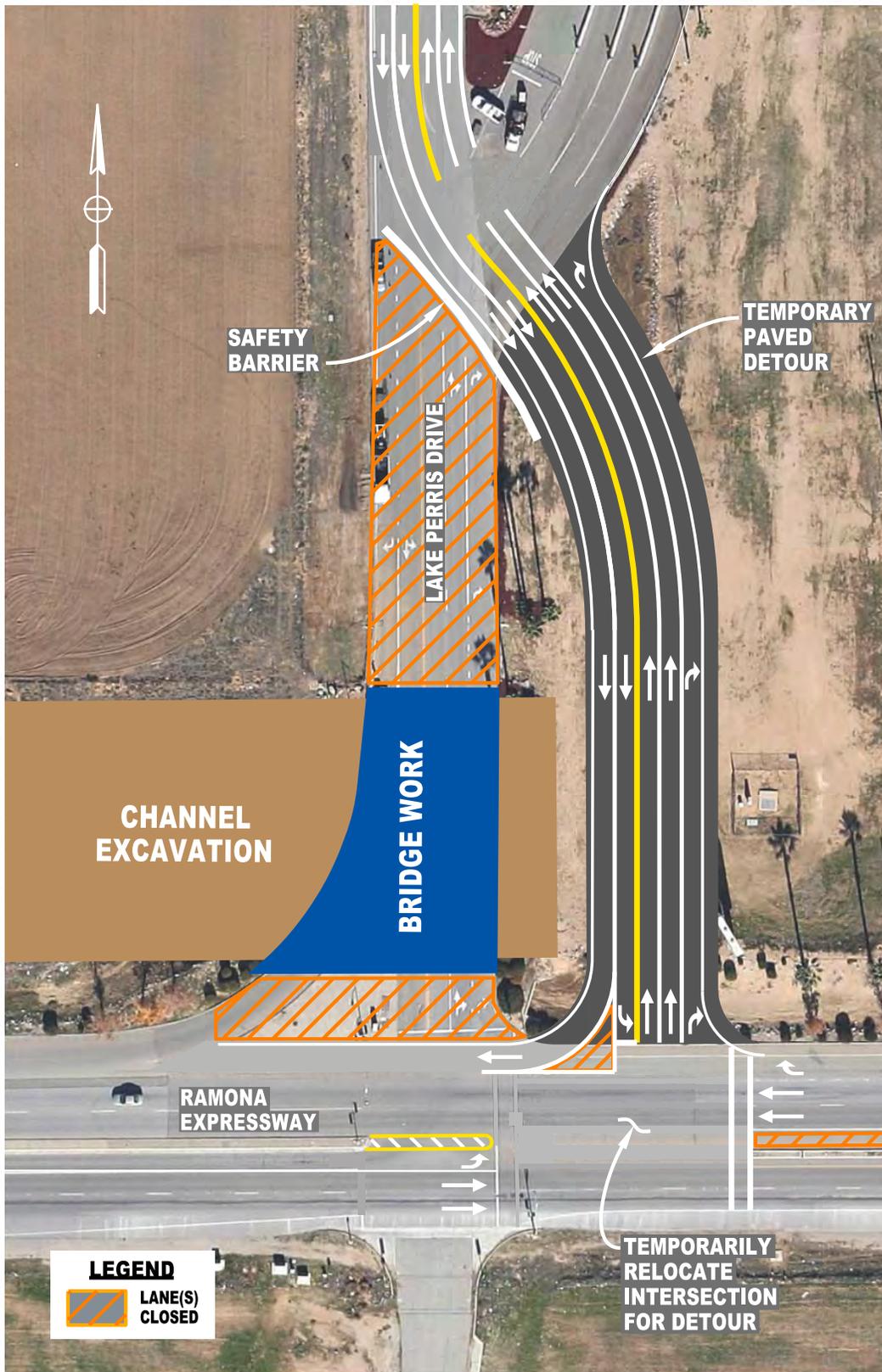


SOURCE: DWR

Perris Dam Emergency Release Facility . 120083.02

Figure 3.14-4

Option A - Partial Closure at Lake Perris Drive



SOURCE: DWR

Perris Dam Emergency Release Facility . 120083.02

Figure 3.14-5

Option B - Full Closure at Lake Perris Drive

Option A – Partial Closure

The partial lane closure construction option at Evans Road and/or Lake Perris Drive would allow for traffic movement through each construction zone during construction activities. The following discussions evaluate impacts under Option A – Partial Closure for the Lake Perris Bridge and Evans Road Bridge construction efforts.

Evans Road Bridge Construction

Under Option A – Partial Closure, the bridge construction at Evans Road would close a combination of the north and southbound lanes, and reconfigure the remaining lanes for reduced two-way traffic (see Figures 3.14-2 and 3.14-3). Partial road closure at Evans Road would result in a diversion of some traffic to other local roadways.

The partial lane closure would result in significant LOS impacts (LOS F) to five of the 16 intersections studied which includes the four intersections shown in **Table 3.14-7**, plus the proposed project intersection at Evans Road/Ramona Expressway. (The Traffic Study in Appendix F provides results for all intersections studied.) Delays related to the proposed project construction would result in significant impacts during the AM peak-hour only for each of these intersections.

**TABLE 3.14-7
EXISTING PLUS PROJECT CONSTRUCTION TRAFFIC INTERSECTION LOS COMPARISON
OPTION A – PARTIAL CLOSURE (EVANS ROAD)**

No. ^a	Intersection		Existing Conditions 2015		Existing plus Project		Change in Delay	Significant Impact?
			Delay	LOS	Delay	LOS		
1	Perris Boulevard and Iris Avenue	AM	25.5	C	81.4	F	55.9	Yes
		PM	30.8	C	53.1	D	22.3	No
3	Perris Boulevard and Krameria Avenue	AM	24.6	C	100.2	F	75.6	Yes
		PM	19.2	B	32.9	C	13.7	No
9	I-215 NB Ramps and Ramona Expressway	AM	97.1	F	89.8	F	-7.3	Yes
		PM	32.8	C	33.1	C	0.3	No
10	Perris Boulevard and Ramona Expressway	AM	55.8	E	115.7	F	59.9	Yes
		PM	46.5	D	54.6	D	8.1	No

^aIntersection numbers correlate to Figure 3.14-1

^bWorst case scenario shown (Two-part Construction Phase I)

SOURCE: KOA, 2016, Note: Delays shown in seconds

The Evans Road/Ramona Expressway intersection (proposed construction intersection) currently operates at LOS E during the AM peak-hour and LOS D during the PM peak-hour (refer Table 3.14-5). Under Option A, during construction of the bridge at Evans Road, the LOS at this intersection would be significantly worsened because of lane reductions. For both two-part and

three part scenarios, the LOS at the Evans Road/Ramona Expressway intersection would worsen to LOS F during the AM peak-hour and LOS E during the PM peak-hour. In addition, Evans Road is a significant commuter route that has heavy peak-hour traffic, and traffic turning from Ramona Expressway onto Evans Road would be subject to delays on Ramona Expressway in both directions. Impacts to this intersection during the PM peak-hour would be considered significant.

Implementation of Mitigation Measure TRANS-1 would reduce impacts at two of the four significantly impacted intersections along the detour route to less than significant with mitigation. These intersections would improve to LOS C or better, as shown on **Table 3.14-8**. No mitigation measures were determined feasible for the I-215 northbound ramps/Ramona Expressway intersection within the scope of the proposed project. These intersections would benefit from mitigation measures incorporated at other intersections along the detour route.

**TABLE 3.14-8
 EXISTING CONDITIONS PLUS PROJECT CONSTRUCTION WITH MITIGATION MEASURE
 OPTION A – PARTIAL CLOSURE (EVANS ROAD)^a**

No. ^b	Intersection	Peak-Hour	Existing Conditions 2015	Existing plus Project	Significant Impact?	With Implementation of Mitigation Measures	Significant Impact after Mitigation?
			LOS	LOS		LOS	
1	Perris Boulevard and Iris Avenue	AM	C	F	Yes	C	No
		PM	C	D	No	C	No
3	Perris Boulevard and Krameria Avenue	AM	C	F	Yes	C	No
		PM	B	C	No	B	No
9	I-215 NB Ramps and Ramona Expressway	AM	F	F	Yes	NA ^c	Yes
		PM	C	C	No		No
10	Perris Boulevard and Ramona Expressway	AM	E	F	Yes	F	Yes
		PM	D	D	No	C	No

^a For delay calculations, refer to the Traffic Study in Appendix F.

^b Intersection numbers correlate to Figure 3.14-1

^c Not applicable, mitigation measures were determined to be infeasible within the scope of the construction project.

SOURCE: KOA, 2016

Although the construction activities would result in traffic delays while the bridges are being constructed, no permanent impacts to traffic or intersection LOS would occur. Construction-related impacts would be short term and only impact traffic for the 24-month construction period for partial closure at Evans Road north of the Ramona Expressway. Further, implementation of the Traffic Management Plan would reduce impacts during construction of the proposed project. Nevertheless, even with implementation of mitigation measures, impacts and potential significant delays to heavy commuter routes on Evans Road, the Ramona Expressway and other intersections

within the vicinity of construction activities, would remain significant and unavoidable during construction.

Lake Perris Drive Bridge Construction

Option A at Lake Perris Drive would close some of the ingress/egress lanes into the Lake Perris SRA during phased construction of the bridge, while still allowing reduced two-way traffic access to the Lake Perris SRA and Lake Perris Fairgrounds (Figure 3.14-4). The existing Lake Perris Drive/Ramona Expressway intersection is currently operating at LOS A during the AM peak-hour and PM peak-hour (Table 3.14-5). During construction of the bridge at Lake Perris Drive, the LOS for AM and PM peak-hour would remain the same (normal, weekday traffic).

However, Lake Perris Drive provides the main point of access for both the Lake Perris SRA and the Lake Perris Fairgrounds. Thus, during lane closures at Lake Perris Drive and the Ramona Expressway intersection, LOS is expected to worsen significantly when events occur at the Lake Perris Fairgrounds, or when major weekend activity occurs at the Lake Perris SRA and/or Lake Perris Fairgrounds. As shown on Table 3.14-1, at Lake Perris Drive, traffic volume is greatly increased during the weekend (5,060) as compared to a weekday day (890).

Although the construction activities would result in traffic delays while the bridges are being constructed, no permanent impacts to traffic, intersection LOS, or Lake Perris SRA access would occur. Construction-related impacts would be short-term, impacting traffic for the 24-month construction period (Option A, partial closure at Lake Perris Drive). In addition, implementation of the Traffic Management Plan would assist in minimizing traffic impacts. DWR would also coordinate the lane closure schedule with the Lake Perris Fairgrounds to minimize lane closures during peak events, to the extent feasible.

In summary, partial closure at Lake Perris Drive would not significantly impact normal, weekday peak-hour traffic. However, impacts related to the intersection of Lake Perris Drive and Ramona Expressway would be significant and unavoidable when special events are held at the Lake Perris SRA or Lake Perris Fairgrounds and during weekends of high SRA visitorship.

Option B – Full Closure

Evans Road Bridge Construction

With Option B, the entire north leg of the Evans Road intersection would be fully closed. All vehicles traveling to and from the north would be diverted west to the detour on Perris Boulevard. **Table 3.14-9** shows the results of the LOS analysis for the full closure option (Option B) at Evans Road, and at the study intersections that resulted in significant impacts (for all intersection impacts refer to Appendix F).

Option B construction would result in 6 impaired study intersections with LOS F during the AM peak-hour (one of which is also impaired during the PM peak-hour), in addition to completely closing Evans Road. Under existing conditions, the intersection of Evans Road and Ramona Expressway operates at LOS E or better. Due to closure of the northern portion of Evans Road, the LOS at this intersection is expected to improve to LOS D during the AM peak-hour and LOS C during the PM peak-hour. Nonetheless, the intersection would be impacted by the full closure.

**TABLE 3.14-9
 EXISTING PLUS PROJECT CONSTRUCTION TRAFFIC INTERSECTION LOS COMPARISON
 OPTION B – FULL CLOSURE (EVANS ROAD)**

No. ^a	Intersection	Existing Conditions 2015		Existing plus Project		Change in Delay	Significant Impact?
		Delay	LOS	Delay	LOS		
1	Perris Boulevard and Iris Avenue	25.5	C	176.1	F	150.6	Yes
		30.8	C	132.8	F	102.0	Yes
3	Perris Boulevard and Krameria Avenue	24.6	C	173.4	F	148.8	Yes
		19.2	B	52.5	D	33.3	No
4	Lasselle Street and Krameria Avenue	24.8	C	97.4	F	72.6	Yes
		17.7	B	23.1	C	5.4	No
7	Perris Boulevard and Harley Knox Road	30.6	C	130.1	F	99.5	Yes
		28.5	C	41.3	D	12.8	No
9	I-215 NB Ramps and Ramona Expressway	97.1	F	106.0	F	8.9	Yes
		32.8	C	39.0	D	6.2	No
10	Perris Boulevard and Ramona Expressway	55.8	E	174.1	F	118.3	Yes
		46.5	D	76.4	E	29.9	No

^a Intersection numbers correlate to Figure 3.14-1
 NOTE: Delays shown in seconds

SOURCE: KOA, 2016

DWR would require that the contractor implement measures to reduce traffic impacts, including the preparation of a Traffic Management Plan. In addition, DWR would post signs at affected roads (and on the DWR website) indicating the schedule for temporary lane closures and alternate routing for access. Implementation of Mitigation Measure TRANS-1 would reduce the significance at 2 of the 6 significantly impacted intersections to less than significant with mitigation. These intersections would improve to LOS D or better as shown on **Table 3.14-10**. The intersections of Perris Boulevard/Krameria Avenue, Perris Boulevard/Harley Knox Road, and Perris Boulevard/Ramona Expressway would result in increased delays at LOS F, and would be considered a significant impact during construction.

No direct mitigation measures were determined to be feasible within the scope of the proposed project for intersections with the I-215. These intersections would benefit from mitigation measures incorporated at other intersections along the detour route. Nevertheless, the intersection of I-215 northbound ramp/Ramona Expressway would also result in increased delays at LOS F due to construction and would be considered a significant impact.

**TABLE 3.14-10
EXISTING CONDITIONS PLUS PROJECT CONSTRUCTION WITH MITIGATION MEASURE
OPTION B – FULL CLOSURE (EVANS ROAD)^a**

No. ^b	Intersection	Peak-Hour	Existing Conditions 2015	Existing plus Project	Significant Impact?	With Implementation of Mitigation Measures	Significant Impact after Mitigation?
			LOS	LOS		LOS	
1	Perris Boulevard and Iris Avenue	AM	C	F	Yes	D	No
		PM	C	F	Yes	D	No
3	Perris Boulevard and Krameria Avenue	AM	C	F	Yes	F	Yes
		PM	B	D	No	C	No
4	Lasselle Street and Krameria Avenue	AM	C	F	Yes	C	No
		PM	B	C	No	B	No
7	Perris Boulevard and Harley Knox Road	AM	C	F	Yes	F	Yes
		PM	C	D	No	C	No
9	I-215 NB Ramps and Ramona Expressway	AM	F	F	Yes	NA ^c	Yes
		PM	C	D	No		No
10	Perris Boulevard and Ramona Expressway	AM	E	F	Yes	F	Yes
		PM	D	E	No	D	No

^a For delay calculations, refer to the Traffic Study in Appendix F.

^b Intersection numbers correlate to Figure 3.14-1

^c Not applicable, mitigation measures were determined to be infeasible within the scope of the construction project.

SOURCE: KOA, 2016

Lake Perris Drive Bridge Construction

Option B construction at Lake Perris Drive would involve a full roadway closure at Lake Perris Drive immediately north of Ramona Expressway. Under this option, a temporary local detour would be constructed (see Figure 3.14-5) to serve as a detour around the construction zone during the closure period. A temporary signalized intersection and 5-lane paved road would be constructed just to the east of Lake Perris Drive within the Lake Perris Fairgrounds property (currently a dirt lot used for overflow event parking). The temporary road would maintain the full current capacity of Lake Perris Drive, with no change in the traffic conditions and would maintain full access to the Lake Perris SRA and the Lake Perris Fairgrounds.

With construction of the local temporary detour and implementation of the Traffic Management Plan, impacts related to the construction of Option B at Lake Perris Drive would be considered less than significant and no additional mitigation is required.

Avalon Parkway Box Culvert Construction

A box culvert would be constructed at Avalon Parkway north of Ramona Expressway. This intersection is solely used for entrance into the Lake Perris Fairgrounds. During construction, this

Fairgrounds entrance would be closed for the duration of construction (approximately 12 months). The Lake Perris Fairground's main entrance is located off Lake Perris Drive. During the construction of the Avalon Parkway entrance, the Fairground's main entrance would be open and able to accommodate the flow of traffic entering and exiting the Fairgrounds. During larger planned events, traffic may be slightly worse than usual due to the closure of the Avalon Parkway entrance. DWR will work with the Fairgrounds to ensure the minimum impact feasible. Impacts from the construction of the Avalon Parkway box culvert would be temporary, requiring approximately 12 months. With implementation of the Traffic Management Plan, proper signage, and coordination with the Lake Perris Fairgrounds, impacts of a full roadway closure at Avalon Parkway would be considered less than significant.

Future Construction Conditions (Options A and B)

The Traffic Study analyzed future construction-related impacts to intersection LOS by conservatively forecasting that the project would be constructed by the year 2023. In order to forecast baseline traffic volumes for the year 2023 analysis, the 2015 current year peak-hour existing volumes were increased by a compounded ambient growth rate of 26.7 percent. This rate was applied as a compounded factor of 1.267. For a more detailed description of the standards used to analyze the future conditions refer to the Traffic Study in Appendix F.

Evans Road Bridge Construction

The future 2023 conditions are applicable to the Evans Road bridge construction component of the proposed project. **Table 3.14-11** presents the AM and PM peak-hour results of the future conditions at the study intersections. Under the analyzed future (2023) conditions, 8 of the 16 study intersections would operate at LOS F without the proposed project.

**TABLE 3.14-11
 FUTURE 2023 CONDITIONS AM & PM PEAK-HOUR LOS OF INTERSECTIONS**

Intersection	AM Peak-Hour		PM Peak-Hour	
	Delay	LOS	Delay	LOS
1 Perris Blvd/Iris Ave	50.4	D	75.8	E
2 Lasselle St/Iris Ave	52.3	D	45.4	D
3 Perris Blvd/Krameria Ave	54.0	D	40.6	D
4 Lasselle St/Krameria Ave	33.8	C	22.5	C
5 I-215 SB Ramps/Harley Knox Blvd	152.5	F	160.4	F
6 I-215 NB Ramps/Harley Knox Blvd	66.8	E	145.2	F
7 Perris Blvd/Harley Knox Blvd	88.8	F	44.0	D
8 I-215 SB Ramps/Ramona Expwy	79.2	E	173.1	F
9 I-215 NB Ramps/Ramona Expwy	216.2	F	230.0	F
10 Perris Blvd/Ramona Expwy	113.5	F	72.6	E
11 Redlands Ave/Ramona Expwy	16.3	C	13.5	B
12 Evans Rd/Ramona Expwy	141.9	F	58.7	E
13 Lake Perris Dr/Ramona Expwy	3.2	A	152.5	F
14 Perris Blvd/Rider St	25.5	D	23.6	C
15 Evans Rd/Rider St	46.7	D	29.2	C
16 Ramona Expwy/Rider St	14.4	B	10.1	B

NOTE: Delay shown in seconds.

SOURCE: KOA, 2016

With construction of the proposed project, delays would increase for Option A (partial road closures, **Table 3.14-12**) and Option B (full roadway closures, **Table 3.14-13**). For Option A (partial road closures), 9 out of the 16 study intersections would be significantly impacted by delay increases and a LOS of F during generally both AM and PM peak-hour travel. For Option B, 11 out of the 16 intersections would be significantly impacted by delay increases and result in a LOS of F during generally both AM and PM peak-hour travel.

**TABLE 3.14-12
 FUTURE 2023 CONDITIONS PLUS PROJECT CONSTRUCTION WITH MITIGATION MEASURE
 OPTION A – PARTIAL CLOSURE (EVANS ROAD)^a**

No. ^b	Intersection	Peak-Hour	Future 2023	Future 2023	Significant Impact?	With	Significant
			Conditions (no construction)	Conditions with Construction		Implementation of Mitigation Measures	
			LOS	LOS		LOS	
1	Perris Boulevard and Iris Avenue	AM	D	F	Yes	F	Yes
		PM	E	F	Yes	F	Yes
3	Perris Boulevard and Krameria Avenue	AM	D	F	Yes	F	Yes
		PM	D	F	Yes	F	Yes
4	Lasselle Street and Krameria Avenue	AM	C	F	Yes	E	No
		PM	C	C	No	C	No
5	I-215 Southbound Ramps and Harley Knox Boulevard	AM	F	F	Yes	NA ^c	Yes
		PM	F	F	Yes		Yes
6	I-215 Northbound Ramps and Harley Knox Boulevard	AM	E	E	No	NA ^c	No
		PM	F	F	Yes		Yes
7	Perris Boulevard and Harley Knox Boulevard	AM	F	F	Yes	F	Yes
		PM	D	E	No	E	No
8	I-215 Southbound Ramps and Ramona Expressway	AM	F	F	Yes	NA ^c	Yes
		PM	F	F	Yes		Yes
9	I-215 Northbound Ramps and Ramona Expressway	AM	F	F	Yes	NA ^c	Yes
		PM	F	F	Yes		Yes
10	Perris Boulevard and Ramona Expressway	AM	F	F	Yes	F	Yes
		PM	E	F	Yes	F	Yes

^a For delay calculations, refer to the Traffic Study in Appendix F.

^b Intersection numbers correlate to Figure 3.14-1

^c Not applicable, mitigation measures were determined to be infeasible within the scope of the construction project.

SOURCE: KOA, 2016

**TABLE 3.14-13
FUTURE 2023 CONDITIONS PLUS PROJECT CONSTRUCTION WITH MITIGATION MEASURE
OPTION B – FULL CLOSURE (EVANS ROAD)^a**

No. ^b	Intersection	Peak-Hour	Future 2023 Conditions (no construction)	Future 2023 Conditions with Construction	Significant Impact?	With Implementation of Mitigation Measures	Significant Impact after Mitigation?
			LOS	LOS		LOS	
1	Perris Boulevard and Iris Avenue	AM	D	F	Yes	F	Yes
		PM	E	F	Yes	F	Yes
2	Lasselle Street and Iris Avenue	AM	D	F	Yes	F	Yes
		PM	D	E	No	D	No
3	Perris Boulevard and Krameria Avenue	AM	D	F	Yes	F	Yes
		PM	D	F	Yes	F	Yes
4	Lasselle Street and Krameria Avenue	AM	C	F	Yes	F	Yes
		PM	C	D	No	C	No
5	I-215 Southbound Ramps and Harley Knox Boulevard	AM	F	F	Yes	NA ^c	Yes
		PM	F	F	Yes		Yes
6	I-215 Northbound Ramps and Harley Knox Boulevard	AM	E	F	Yes	NA ^c	Yes
		PM	F	F	Yes		Yes
7	Perris Boulevard and Harley Knox Boulevard	AM	F	F	Yes	F	Yes
		PM	D	F	Yes	F	Yes
8	I-215 Southbound Ramps and Ramona Expressway	AM	F	F	Yes	NA ^c	Yes
		PM	F	F	Yes		Yes
9	I-215 Northbound Ramps and Ramona Expressway	AM	F	F	Yes	NA ^c	Yes
		PM	F	F	Yes		Yes
10	Perris Boulevard and Ramona Expressway	AM	F	F	Yes	F	Yes
		PM	E	F	Yes	F	Yes
11	Redlands Avenue and Ramona Expressway	AM	C	F	Yes	F	Yes
		PM	B	D	No	C	No

^a For delay calculations, refer to the Traffic Study in Appendix F.

^b Intersection numbers correlate to Figure 3.14-1

^c Not applicable, mitigation measures were determined to be infeasible within the scope of the construction project.

SOURCE: KOA, 2016

Lake Perris Drive Bridge Construction

Similar to the current 2015 traffic conditions discussed above, impacts related to partial road closure (Option A) at Lake Perris Drive would be considered significant and unavoidable during

the PM peak-hour and weekend days when special events are occurring at the Lake Perris SRA or Lake Perris Fairgrounds, even with implementation of the Traffic Management Plan.

For Option B, impacts would be considered less than significant since a local detour would be created just east of the impacted roadway, temporarily replacing all existing lanes. With the local detour and implementation of the Traffic Management Plan, impacts would be considered less than significant.

Avalon Parkway Box Culvert Construction

Similar to current 2015 traffic conditions, impacts related to the box culvert construction at Avalon Parkway (full roadway closures) would be considered less than significant with implementation of the Traffic Management Plan since full access to the Lake Perris Fairgrounds would remain unchanged via Lake Perris Drive.

Non-Peak Hour Traffic

Table 3.14-3 summarizes traffic counts on Evans Road, Ramona Expressway, and Perris Boulevard over a 24-hour period. The traffic is the heaviest during the peak hours and remains high for most of the day. The data show that heavy traffic begins at 4 AM and continues through 6 PM on these roadway segments. Therefore, LOS impacts associated with the peak-hour analysis would extend through much of the day. Nonetheless, during the evenings and to some extent during the middle of the day, impacts would be reduced. Impacts associated with partial closure would be less than full closure since some traffic would be able to pass through the intersection with only moderate delays.

Summary

Evans Road Bridge Construction

Construction of the Evans Road Bridge would significantly impact peak-hour LOS at four intersections under both Option A and B. Impacts to peak-hour LOS at the affected intersections would be less under Option A – Partial Closure, but the effects would occur for twice the amount of time as under Option B (24 months compared with 12 months). Reduction of lanes or closure of all lanes for periods of time would result in significant delays on Evans Road under either Option A or B.

Impacts to non-peak hour traffic on Evans Road would be less under Option A since remaining lanes would accommodate through traffic. However, under Option B impacts to non-peak hour traffic would be significant since full closure would eliminate all through traffic on Evans Road.

Lake Perris Drive Bridge Construction

Construction of the Lake Perris Drive Bridge would not significantly impact peak-hour LOS under either Option A or B. However, Option A would result in significant and unavoidable delays during events at the Fairgrounds or during periods of high visitorship at the SRA.

Implementation of Mitigation Measure TRANS-1 would help reduce delays at impacted intersections for both Option A and Option B. Nevertheless, significant delays to the heavily-used commuter routes on Evans Road, Ramona Expressway and other intersections along the designated detour route would remain significant and unavoidable for both Options A and B.

Once constructed, no permanent impacts to traffic, intersection LOS, or Lake Perris SRA and Lake Perris Fairgrounds access would occur.

Avalon Parkway Box Culvert Construction

Construction of the Avalon Parkway box culvert would not significantly impact peak-hour LOS. During construction of the box culvert, the main entrance to the Lake Perris Fairgrounds along Lake Perris Drive would allow for ingress and egress for Fairgrounds events and would not impact local traffic. Once constructed, no permanent impacts to traffic or local access would occur. Impacts would be considered less than significant.

Mitigation Measure

TRANS-1: For proposed bridge construction at Evans Road (Option A or Option B), DWR shall implement the following measures for each designated intersection.

- *Perris Boulevard and Iris Avenue*
Create a new northbound right-turn overlap phase; change westbound, northbound, and southbound left-turn phasing to protected-permissive.
- *Lasselle Street and Iris Avenue*
At all approaches, change left-turn phases to protective-permissive.
- *Perris Boulevard and Krameria Avenue*
Restripe westbound approach to provide two left-turn lanes and a shared thru-right lane. Change westbound left-turn phase to protective permissive with eastbound phase remaining as permissive.
- *Lasselle Street and Krameria Avenue*
At all approaches, change left-turn phased to protected-permissive.
- *Perris Boulevard and Harley Knox Boulevard*
At northbound, southbound, and eastbound approaches, change left-turn phases to protected-permissive.
- *Perris Boulevard and Ramona Expressway*
At all approaches, change left-turn phasing to protected-permissive. Restripe northbound lanes to provide two left-turn lanes, two thru-lanes and one shared thru-right lane.
- *Redlands Avenue and Ramona Expressway (Option B only)*
At southbound and east bound approaches, change left-turn phase to protected-permissive. At northbound and southbound approaches, change right-turn phase to permissive-overlap.

Significance Determination: Significant and Unavoidable during construction.

Impact 3.14-2: The project could have a significant impact if it would conflict with an applicable congestion management program, including but not limited to LOS standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.

Impacts on traffic and transportation would occur during project construction as discussed under Impact 3.14-1 above. LOS standards for roadways that are part of the CMP network (e.g., the area freeways) are intended to regulate long-term traffic increases from operation of new development, and do not apply to temporary construction projects such as the proposed project. Furthermore, the proposed project would not generate new long-term traffic, and no LOS impacts would occur on CMP roadways or local roadways once the project is constructed. Therefore, the proposed project would not exceed LOS standards established by the Riverside County Transportation Commission for designated CMP roadways.

As assessed in the Traffic Study (Appendix F) and summarized in the discussion for Impact 3.14-1 above, vehicle trips to the site during construction would include worker commute, delivery of materials, and soil-hauling trips. The project would involve delivery and soil hauling trips to the construction sites. The number of truck trips would vary over the construction period, but is estimated to peak at about 167 (113 inbound and 54 outbound) trips occurring during the AM peak-hour and 167 (54 inbound and 113 outbound) trips occurring during the PM peak-hour (see Table 3.14-6). Approximately 118 workers would commute to the site daily (during the peak month) generating one inbound and one outbound trip for a total of 236 employee trips (Table 3.14-5). Most project-related traffic would access the sites off the Ramona Expressway from I-215.

As shown on Table 3.14-6, the peak-month daily vehicle trips would total about 1,106 passenger car equivalent trips (236 employee trips and 879 truck delivery trips, adjusted by a PCE factor of 2.5). Because the truck trips would be spread over the course of an 8-hour workday, the project could generate about 108 one-way truck trips per hour during peak days of soil hauling from the Western Segment to the SRA Segment. There would be a maximum of about 59 one-way worker trips during the AM peak-hour and 59 one-way worker trips in the evening, during the PM peak-hour. The addition of 54 one-way truck trips and 59 one-way worker trips during the peak AM or PM period would represent an overall increase of a maximum 17 percent to the local peak-hour traffic compared to existing conditions shown in Table 3.14-3. The addition of these trips to the local traffic volumes would not significantly impact roadway capacity or cause excessive delays.

Significance Determination: Less than Significant.

Impact 3.14-3: The project could have a significant impact if it would result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.

The proposed project would not intrude into airspace needed for safe air traffic patterns. In addition, the proposed project would not increase air-related commerce or traffic levels, as project

supplies would be obtained locally and transported via truck to the proposed project site. The proposed project would not cause any changes to air traffic patterns or levels and no impact would occur.

Significance Determination: No Impact.

Impact 3.14-4: The project could have a significant impact if it would substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

The design of bridges must provide adequate safety measures. Bridges would be designed and constructed to satisfy all County/City/Caltrans requirements. DWR would incorporate bridge design features that will accommodate the existing uses at the fairgrounds, including semi-tractor trailers (80,000 pounds).

Impacts associated with the short-term use of construction equipment could create hazards. The use of big trucks to transport equipment and material to and from the project worksite could affect pavement conditions on the designated haul routes by increasing the rate of road wear. The project's impacts are expected to be negligible because no substantial soil-hauling activities off-site would be required, and because area freeways (e.g., I-215, SR 60, and SR 74) and the Ramona Expressway were built to handle a mix of vehicle types, including heavy trucks.

Significance Determination: Less than Significant.

Impact 3.14-5: The project could have a significant impact if it would result in inadequate emergency access.

DWR would be required to prepare a Traffic Management Plan that would ensure proper emergency access is maintained during construction. Compliance with existing roadway safety regulations enforced by City/County/Caltrans would ensure safety of the local bridges and other roadway features once construction is completed. For the partial road closure option at both Evans Road and Lake Perris Drive, traffic flow would be reduced, but would continue to allow for traffic flow and emergency access. During full roadway closures (at all 3 bridge construction locations), emergency access would be diverted along planned detour routes. As described in Section 3.11 *Public Services, Utilities, and Services Systems*, these detour routes would be provided to each of the emergency services providers in advance. During the construction period, the potential for temporary impacts to emergency access would be rendered less than significant through implementation of the Traffic Management Plan. Once the proposed project is constructed, roadways and traffic would return to pre-project conditions and no impact would occur.

Significance Determination: Less than Significant.

Impact 3.14-6: The project could have a significant impact if it would conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

The proposed project, once constructed, would be contained entirely within the Lake Perris SRA, the southern portion of the Lake Perris Fairgrounds, and an existing right-of-way owned by DWR. Impacts to city streets would occur during construction of bridges or culverts at Avalon Parkway, Lake Perris Drive, and Evans Road, north of Ramona Expressway. However, once constructed, the proposed facilities would be located below the roadway and all roads would be returned to pre-project conditions. The implementation of the proposed project would not conflict with adopted polices, plans, or programs regarding public transit, bicycle, or pedestrian facilities. Therefore, impacts would be less than significant.

Significance Determination: Less than Significant.

References

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