Stoneridge Commerce Center Specific Plan (SP No. 239, A1)

TRAFFIC IMPACT ANALYSIS

COUNTY OF RIVERSIDE

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LIST OF ABBREVIATED TERMS

(1)	Reference
ADT	Average Daily Traffic
CA MUTCD	California Manual on Uniform Traffic Control Devices
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
CMP	Congestion Management Program
DIF	Development Impact Fee
EAP	Existing Plus Ambient Growth Plus Project
EAPC	Existing Plus Ambient Growth Plus Project Plus Cumulative
HCM	Highway Capacity Manual
ITE	Institute of Transportation Engineers
LOS	Level of Service
MCP	Mid-County Parkway
NCHRP	National Cooperative Highway Research Program
OPR	Office of Planning and Research
PCE	Passenger Car Equivalents
PHF	Peak Hour Factor
Project	Stoneridge Commerce Center Specific Plan
RCTC	Riverside County Transportation Commission
RIVCOM	Riverside County Transportation Analysis Model
RTA	Riverside Transit Authority
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
SB 743	Senate Bill 743
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
TA	Traffic Analysis
TAZ	Transportation Analysis Zone
TUMF	Transportation Uniform Mitigation Fee
WRCOG	Western Riverside Council of Governments
V/C	Volume to Capacity
VMT	Vehicle Miles Traveled

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1 INTRODUCTION

This report presents the results of the Traffic Analysis (TA) for the proposed Stoneridge Commerce Center Specific Plan (Specific Plan No. 239, Amendment No. 1) development ("Project"), which is located west of Lakeview Avenue between Ramona Expressway and Nuevo Road in the County of Riverside, as shown on Exhibits 1-1 and 1-2.

The purpose of this TA is to evaluate the potential deficiencies related to traffic and circulation system deficiencies that may result from the development of the proposed Project, and to recommend improvements to resolve identified deficiencies and to achieve acceptable circulation system operational conditions. This traffic study has been prepared in accordance with the County of Riverside's Traffic Analysis Guidelines for Level of Service and Vehicle Miles Traveled (December 2020) and through consultation with County of Riverside staff during the scoping process. (1) The approved Project Traffic Study Scoping agreement is provided in Appendix 1.1 of this TIA. As part of the scoping process, the County of Riverside has shared the scoping agreement with various commenting agencies and received comments from the City of Perris, City of Riverside, and Riverside County Transportation Commission (RCTC).

1.1 SUMMARY OF FINDINGS

The Project is proposing to construct the following improvements as design features in conjunction with development of the site:

- For Without Mid-County Parkway (MCP) alternative, Project to construct Antelope Road from Ramona Expressway to the Project's southern boundary at its ultimate full-section width as a Major Highway (118-foot right-of-way) in compliance with the circulation recommendations found in the County of Riverside General Plan Circulation Element. For With MCP, the Project would construct Antelope Road from the Project's southern boundary to the right-of-way for the future MCP interchange at Ramona Expressway. Project to construct Antelope Road from the Project's southern boundary to Nuevo Road with 32-feet of pavement on the east and west sides to facilitate site access in compliance with the circulation recommendations found in the County of Riverside General Plan Circulation Element.
- For Without MCP alternative only, Project to construct Ramona Expressway from Antelope Road to the Project's eastern boundary at its ultimate half-section width as an Expressway (184-foot to 220-foot right-of-way) in compliance with the circulation recommendations found in the County of Riverside General Plan Circulation Element.
- Project to construct Orange Avenue from the Project's western boundary to the Project's eastern boundary at its ultimate full-section width as an Arterial Highway (128-foot right-of-way) in compliance with the circulation recommendations found in the County of Riverside General Plan Circulation Element.
- Project to construct Street A from Ramona Expressway to Orange Avenue at its ultimate full-section width as a Local Street (60-foot right-of-way) in compliance with the circulation recommendations found in the County of Riverside General Plan Circulation Element. This improvement is applicable for the Without MCP alternative only.

EXHIBIT 1-1: PRELIMINARY LAND USE PLAN WITHOUT MID-COUNTY PARKWAY

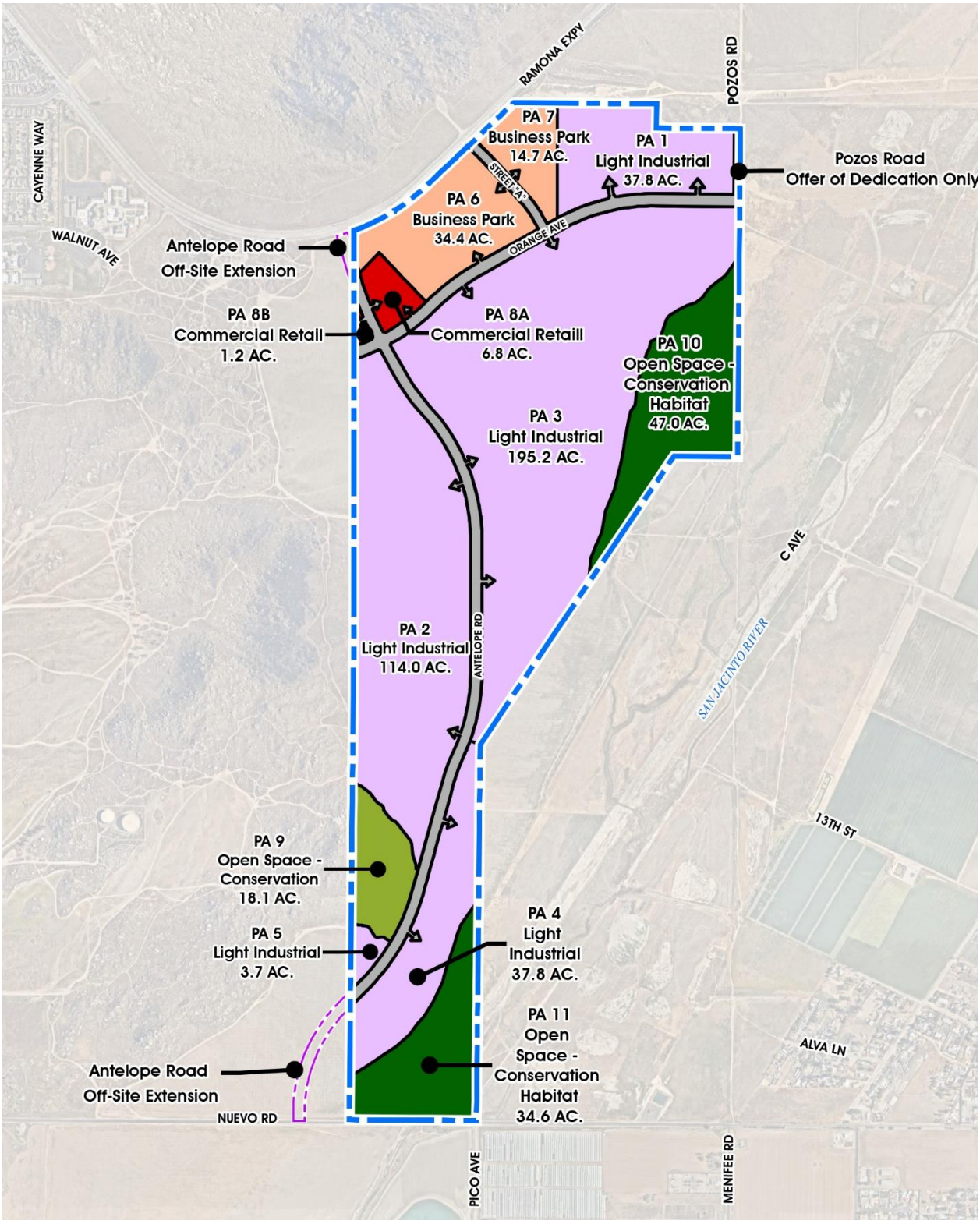
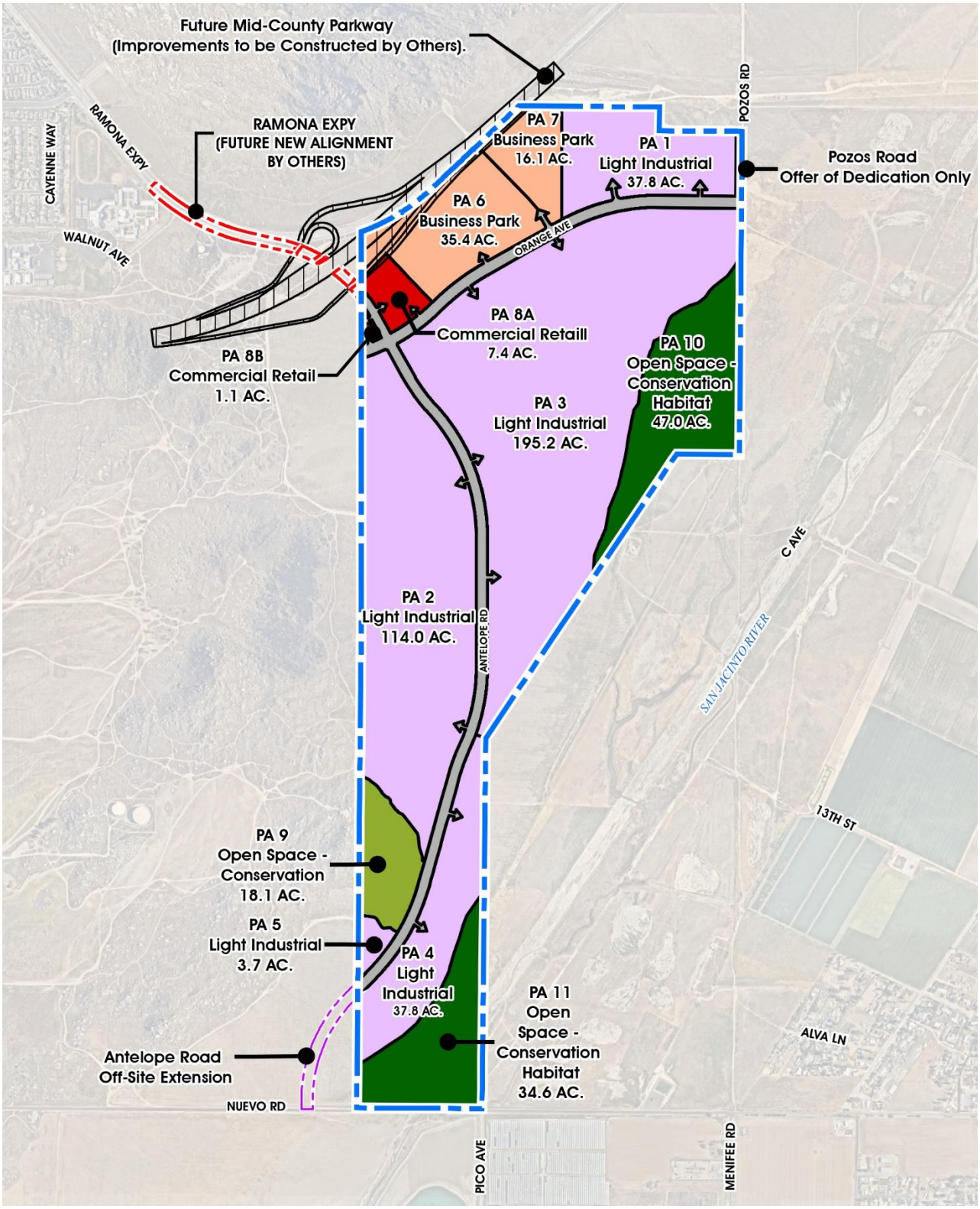


EXHIBIT 1-2: PRELIMINARY LAND USE PLAN WITH MID-COUNTY PARKWAY



- Project to install traffic signals at the intersections of Antelope Road & Ramona Expressway, Antelope Road & Nuevo Road, and Street A & Ramona Expressway.

Additional details and intersection lane geometrics are provided in Section 1.7 *Recommendations* of this report.

1.2 PROJECT OVERVIEW

The Project is proposing to amend the Specific Plan with a mix of industrial and commercial uses, as described below:

- Without MCP With Project (Proposed Project Land Use): 7,350,000 square feet of light industrial uses, 1,069,398 square feet of business park uses, and 121,968 square feet of commercial retail uses
- With MCP With Project (Alternative Project Land Use): 7,350,000 square feet of light industrial uses, 936,540 square feet of business park uses, 126,542 square feet of commercial retail uses

The Riverside County Transportation Commission (RCTC) is currently planning the construction of a regional, grade-separated transportation facility referred to as the MCP between the I-215 Freeway (at Placentia Avenue) and SR-79. The MCP is a long-range transportation improvement as RCTC has not yet identified or secured funding of the MCP and the future proposed interchanges. As such, timing of the future MCP is currently unknown.

A portion of the MCP and future interchange is planned in the northwestern portion of the site, which would affect the development proposed within Planning Areas 6, 7, and 8A of the proposed Project. In order to accommodate both the potential for the future construction of the MCP while also providing for development of the site in the event that the MCP is not constructed as currently planned, two land use concept plans have been developed for the site (Without and With MCP). A preliminary land use plan for the proposed Project Without MCP is shown on Exhibit 1-1. The preliminary land use plan for the proposed Project With MCP is shown on Exhibit 1-2.

The anticipated Project opening year is 2032. Vehicular access will be provided to Ramona Expressway and Nuevo Road via Antelope Road, while truck access will be provided via Ramona Expressway (to the east only) and Nuevo Road to the south. No truck access will be taken via Ramona Expressway within the City of Perris. Regional access to the Project site is available from the I-215 Freeway via the Harley Knox Boulevard, Ramona Expressway, future Placentia Avenue, Nuevo Road, Redlands Avenue, SR-74, Ethanac Road, and future Evans Road interchanges and SR-79 via Ramona Expressway.

Truck routes for neighboring agencies have been taken into consideration in the development of the trip distribution patterns for heavy trucks. Specifically, the City of Perris prohibits truck traffic along Ramona Expressway to access the I-215 Freeway. As such, 6 truck routes will be evaluated in the traffic study, which assume different truck route for the proposed Project.

The 6 truck routes that will be evaluated as part of this Project are described below:

- Alternative 1 (Applicant Alternative): assumes all westbound trucks utilize Antelope Road south, then travel west on Nuevo Road, south on Dunlap Drive, west on San Jacinto Avenue, and south on Redlands Avenue to access the I-215 Freeway.
- Alternative 2 (Applicant Alternative): assumes all westbound trucks utilize Antelope Road south, then travel east on Nuevo Road, south on Menifee Road, west on San Jacinto Avenue, and south on Redlands Avenue to access the I-215 Freeway.
- Alternative 3 (City of Perris Alternative): assumes all westbound trucks utilize Antelope Road south, then travel east on Nuevo Road, south on Menifee Road, and west on SR-74 to access the I-215 Freeway.
- Alternative 4 (City of Perris Alternative): assumes all westbound trucks utilize Antelope Road south, then travel east on Nuevo Road, south on Menifee Road, northwest on Matthews Road, and west on Ethanac Road to access the I-215 Freeway.
- Alternative 5 (Attorney General Alternative): assumes all westbound trucks utilize Antelope Road south, then travel east on Nuevo Road, south on Menifee Road, west on San Jacinto Avenue, south on future Evans Avenue to access the I-215 Freeway. It should be noted, Evans Road, south of San Jacinto Avenue, and the I-215 Freeway/Evans Avenue interchange do not currently exist. As such, the traffic study will assume these facilities are in place for trucks to access the I-215 Freeway.

The following truck route scenario will be evaluated for Horizon Year (2040) With MCP With Project traffic conditions only:

- Alternative 6 (Applicant Alternative): assumes all westbound trucks utilize the future MCP to access the I-215 Freeway.

Trips generated by the Project's proposed land uses have been estimated based on trip generation rates collected by the Institute of Transportation Engineers (ITE) Trip Generation Manual, (10th Edition, 2017) and the High Cube Warehouse Trip Generation Study (WSP, January 2019) were used to estimate the trip generation. (2) (3)

The proposed Project is anticipated to generate the following:

- Without MCP: 23,680 vehicle trip-ends per day with 1,641 AM peak hour trips and 2,098 PM peak hour trips (of which 4,444 trip-ends per day are associated with trucks with 214 AM peak hour truck trips and 219 PM peak hour truck trips).
- With MCP: 23,474 vehicle trip-ends per day with 1,619 AM peak hour trips and 2,080 PM peak hour trips (of which 4,366 trip-ends per day are associated with trucks with 212 AM peak hour truck trips and 214 PM peak hour truck trips).

The assumptions and methods used to estimate the Project's trip generation characteristics are discussed in greater detail in Section 4.1 *Project Trip Generation* of this report.

1.3 ANALYSIS SCENARIOS

For the purposes of this traffic study, potential deficiencies to traffic and circulation have been assessed for each of the following conditions:

- Existing (2022) Conditions
- Existing plus Ambient Growth plus Project (EAP) (2032) Conditions (Buildout of Proposed Project Land Use Plan) Alternatives 1-5
- Existing plus Ambient Growth plus Project plus Cumulative (EAPC) (2032) Conditions (Buildout of Proposed Project Land Use Plan) Alternatives 1-5
- Horizon Year (2040) Without Project (Without MCP)
- Horizon Year (2040) With Project (Project Buildout Without MCP) Alternatives 1-5
- Horizon Year (2040) Without Project (With MCP)
- Horizon Year (2040) With Project (Buildout of Alternative Project With MCP) Alternative 6

1.3.1 EXISTING (2022) CONDITIONS

Information for Existing (2022) conditions is disclosed to represent the baseline traffic conditions as they existed at the time this report was prepared. Traffic counts were conducted in 2022 when local schools were in session and operating on a typical bell schedule (no closures related to the COVID-19 pandemic). Traffic counts were collected based on vehicle classification and were converted to passenger car equivalent (PCE). Use of PCE accounts for the effects of large trucks present within the existing study area. By their size alone, these vehicles occupy the same space as two or more passenger cars. In addition, the time it takes for them to accelerate and slow-down is also much longer than for passenger cars and varies depending on the type of vehicle and number of axles.

1.3.2 EXISTING PLUS AMBIENT GROWTH PLUS PROJECT (2032) CONDITIONS

The EAP (2032) conditions analysis determines the potential circulation system deficiencies based on a comparison of the EAP traffic conditions to Existing conditions. The roadway network is similar to Existing conditions except for new connections to be constructed by the Project (does not assume the MCP). To account for background traffic growth, an ambient growth factor from Existing (2022) conditions of 21.9% (2 percent per year, compounded over 10 years) is included for EAP (2032) traffic conditions. The assumed ambient growth factor is based on the requirements per the County of Riverside traffic study guidelines. Consistent with Riverside County traffic study guidelines, the EAP analysis is intended to identify "Opening Year" deficiencies associated with the development of the proposed Project based on the expected background growth within the study area. For EAP (2032) traffic conditions, buildout of the Proposed Project land use plan has been evaluated (the MCP is a long-term facility that is not anticipated to be in place by 2032).

1.3.3 EXISTING PLUS AMBIENT GROWTH PLUS PROJECT PLUS CUMULATIVE (2032) CONDITIONS

The EAPC (2032) traffic conditions analysis determines the potential near-term cumulative circulation system deficiencies. The roadway network is similar to Existing conditions except for new connections to be constructed by the Project (does not assume the MCP). To account for background traffic growth, an ambient growth factor of 21.9% from Existing conditions are included for EAPC traffic conditions (2 percent per year, compounded over 10 years). For EAPC (2032) traffic conditions, buildout of the Proposed Project land use plan has been evaluated (the MCP is a long-term facility that is not anticipated to be in place by 2032).

Conservatively, the TIA estimates the area ambient traffic growth and then adds traffic generated by other known or probable related projects. These related projects are at least in part already accounted for in the assumed 21.9% of ambient growth; and some of these related projects may not be implemented and operational within the 2032 Opening Year time frame assumed for the Project. The resulting traffic growth utilized in the TA (21.9% ambient growth factor plus traffic generated by related projects) would therefore tend to overstate rather than understate background cumulative traffic deficiencies under 2032 conditions.

1.3.4 HORIZON YEAR (2040) CONDITIONS

Traffic projections for Horizon Year (2040) conditions were derived from the County of Riverside Transportation Analysis Model (RIVCOM) using accepted procedures for model forecast refinement and smoothing.

This scenario evaluates two network alternatives:

- The County's currently adopted General Plan, with the future MCP, and the proposed circulation network modifications proposed by the Project. The Alternative Project land use plan has been evaluated for the purposes of this network alternative.
- The County's currently adopted General Plan and the proposed circulation network modifications proposed by the Project (does not include MCP, in the event that it is not constructed by Horizon Year). The Proposed Project land use plan, which includes commercial retail and business park uses within MCP alignment, has been evaluated for the purposes of this network alternative.

The Horizon Year conditions analyses will be utilized to determine if improvements funded through regional transportation mitigation fee programs, such as the Western Riverside Council of Governments (WRCOG) Transportation Uniform Mitigation Fee (TUMF) and Development Impact Fee (DIF) programs, can accommodate the long-range cumulative traffic at the target level of service (LOS) identified in the County of Riverside (lead agency) General Plan. (4) Each of these regional transportation fee programs are discussed in more detail in Section 8 *Local and Regional Funding Mechanisms*.

1.4 STUDY AREA

To ensure that this TIA satisfies the County of Riverside's traffic study requirements, Urban Crossroads, Inc. prepared a project traffic study scoping package for review by County of Riverside staff prior to the preparation of this report.

The 87 study area intersections listed in Table 1-1 were selected for evaluation in this TIA based on consultation with County of Riverside staff. Exhibit 1-3 shows the study area utilized for the Without MCP conditions while Exhibit 1-4 shows the study area utilized for the With MCP conditions. The study area includes intersections where the Project is anticipated to contribute 50 or more peak hour trips per the County of Riverside's traffic study guidelines. (1) The "50 peak hour trip" criteria represent a minimum number of trips at which a typical intersection would have the potential to be substantively affected by a given development proposal. The 50 peak hour trip criterion is a traffic engineering rule of thumb that is accepted and widely used within Riverside County for estimating a potential area of influence (i.e., study area).

The intent of a Congestion Management Program (CMP) is to more directly link land use, transportation, and air quality, thereby prompting reasonable growth management programs that will effectively utilize new transportation funds, alleviate traffic congestion and related deficiencies, and improve air quality. The County of Riverside CMP became effective with the passage of Proposition 111 in 1990 and updated most recently updated in 2011. The RCTC adopted the 2011 CMP for the County of Riverside in December 2011. (5) CMP intersections are identified in Table 1-1. There are no study area intersections identified as a Riverside County CMP facility.

TABLE 1-1: INTERSECTION ANALYSIS LOCATIONS

ID	Intersection Location	Jurisdiction	CMP?
1	Harvill Av. & Cajalco Exwy.	County of Riverside	No
2	I-215 Southbound Ramps & Harley Knox Bl.	County of Riverside, Caltrans	No
3	I-215 Northbound Ramps & Harley Knox Bl.	Perris, Caltrans	No
4	I-215 Southbound Ramps & Ramona Exwy.	County of Riverside, Caltrans	No
5	I-215 Northbound Ramps & Ramona Exwy.	Perris, Caltrans	No
6	I-215 SB Ramps & Placentia Av. – Future Intersection	County of Riverside, Caltrans	No
7	I-215 NB Ramps & Placentia Av. – Future Intersection	Perris, Caltrans	No
8	I-215 SB Ramps & Nuevo Rd.	County of Riverside, Caltrans	No
9	I-215 NB Ramps & Nuevo Rd.	Perris, Caltrans	No
10	Western Wy. & Harley Knox Bl.	Perris	No
11	Webster Av. & Harley Knox Bl.	Perris	No
12	Webster Av. & Ramona Exwy.	Perris	No
13	Indian Av. & Harley Knox Bl.	Perris	No
14	Indian Av. & Ramona Exwy.	Perris	No
15	Indian Av. & Placentia Av.	Perris	No
16	Perris Bl. & Iris Av.	Moreno Valley	No
17	Perris Bl. & Krameria Av.	Moreno Valley	No
18	Perris Bl. & San Michele Rd.	Moreno Valley	No
19	Perris Bl. & Nandina Av.	Moreno Valley	No
20	Perris Bl. & Harley Knox Bl.	Perris	No
21	Perris Bl. & Markham St.	Perris	No
22	Perris Bl. & Ramona Exwy.	Perris	No
23	Perris Bl. & Morgan St.	Perris	No
24	Perris Bl. & Rider St.	Perris	No
25	Perris Bl. & Placentia Av.	Perris	No
26	Perris Bl. & Orange Av.	Perris	No
27	Perris Bl. & Nuevo Rd.	Perris	No
28	Redlands Av. & Harley Knox Bl.	Perris	No
29	Redlands Av. & Markham St.	Perris	No
30	Redlands Av. & Ramona Exwy.	Perris	No
31	Redlands Av. & Morgan St.	Perris	No
32	Redlands Av. & Rider St.	Perris	No
33	Redlands Av. & Placentia Av.	Perris	No
34	Redlands Av. & Orange Av.	Perris	No
35	Redlands Av. & Nuevo Rd.	Perris	No

ID	Intersection Location	Jurisdiction	CMP?
36	Murrieta Rd. & Nuevo Rd.	Perris	No
37	Lasselle St. & Iris Av.	Moreno Valley	No
38	Lasselle St. & Krameria Av.	Moreno Valley	No
39	Evans Rd. & Ramona Exwy.	Perris	No
40	Evans Rd. & Rider St.	Perris	No
41	Evans Rd. & Orange Av.	County of Riverside, Perris	No
42	Evans Rd. & Nuevo Rd.	Perris	No
43	Bradley Rd. & Ramona Exwy.	County of Riverside, Perris	No
44	Bradley Rd. & Rider St.	Perris	No
45	Dunlap Dr. & Orange Av.	County of Riverside, Perris	No
46	Dunlap Dr. & Nuevo Rd.	County of Riverside, Perris	No
47	Ramona Exwy. & Rider St.	County of Riverside, Perris	No
48	Antelope Rd. & Ramona Exwy. – Future Intersection	County of Riverside	No
49	MCP WB Ramps & Antelope Rd. – Future Intersection	County of Riverside	No
50	MCP EB Ramps & Antelope Rd. – Future Intersection	County of Riverside	No
51	Antelope Rd. & Nuevo Rd. – Future Intersection	County of Riverside	No
52	Street A & Ramona Exwy. – Future Intersection	County of Riverside	No
53	Menifee Rd./Reservoir Bl. & Nuevo Rd.	County of Riverside	No
54	Menifee Rd. & San Jacinto Av.	County of Riverside	No
55	Menifee Rd. & Ellis Rd.	County of Riverside	No
56	Menifee Rd. & Mapes Rd.	County of Riverside, Menifee	No
57	Menifee Rd. & Watson Rd.	Menifee	No
58	Menifee Rd. & Ethanac Rd. (SR-74)	Menifee	No
59	Bernasconi Rd. & Orange Av. – Future Intersection	County of Riverside	No
60	Lakeview Av. & Ramona Exwy.	County of Riverside	No
61	Lakeview Av. & Nuevo Rd.	County of Riverside	No
62	Montgomery Av. & Nuevo Rd.	County of Riverside	No
63	Hansen Av./Davis Rd. & Ramona Exwy.	County of Riverside	No
64	Hansen Av. & Contour Av.	County of Riverside	No
65	Bridge St. & Ramona Exwy.	County of Riverside	No
66	Warren Rd. & Ramona Exwy.	County of Riverside, San Jacinto	No
67	Sanderson Av. (SR-79) & Ramona Exwy.	San Jacinto, Caltrans	No
68	Indian Av. & Morgan St.	Perris	No
69	Indian Av. & Rider St.	Perris	No

ID	Intersection Location	Jurisdiction	CMP?
70	Murrieta Rd. & San Jacinto Av.	Perris	No
71	Redlands Av. & San Jacinto Av.	Perris	No
72	Redlands Av. & I-215 NB Ramps	Perris, Caltrans	No
73	Redlands Av. & I-215 SB Ramps	Perris, Caltrans	No
74	Evans Rd. & San Jacinto Av.	Perris	No
75	Evans Rd. & I-215 NB Ramps	Perris, Caltrans	No
76	Evans Rd. & I-215 SB Ramps	Perris, Caltrans	No
77	Dunlap Dr. & San Jacinto Av.	County of Riverside, Perris	No
78	I-215 SB Ramps & SR-74	Perris, Caltrans	No
79	I-215 NB Ramps & SR-74	Perris, Caltrans	No
80	Trumble Rd. & SR-74	County of Riverside	No
81	I-215 SB Ramps & Ethanac Rd.	Perris, Caltrans	No
82	I-215 NB Ramps & Ethanac Rd.	Perris, Caltrans	No
83	Encanto Dr. & Ethanac Rd.	Perris	No
84	Sherman Rd. & Ethanac Rd.	Perris, Menifee	No
85	Antelope Rd. & SR-74	Menifee	No
86	Antelope Rd. & Ethanac Rd.	Menifee	No
87	Menifee Rd. & Matthews Rd.	Menifee	No

EXHIBIT 1-3: LOCATION MAP WITHOUT MID-COUNTY PARKWAY

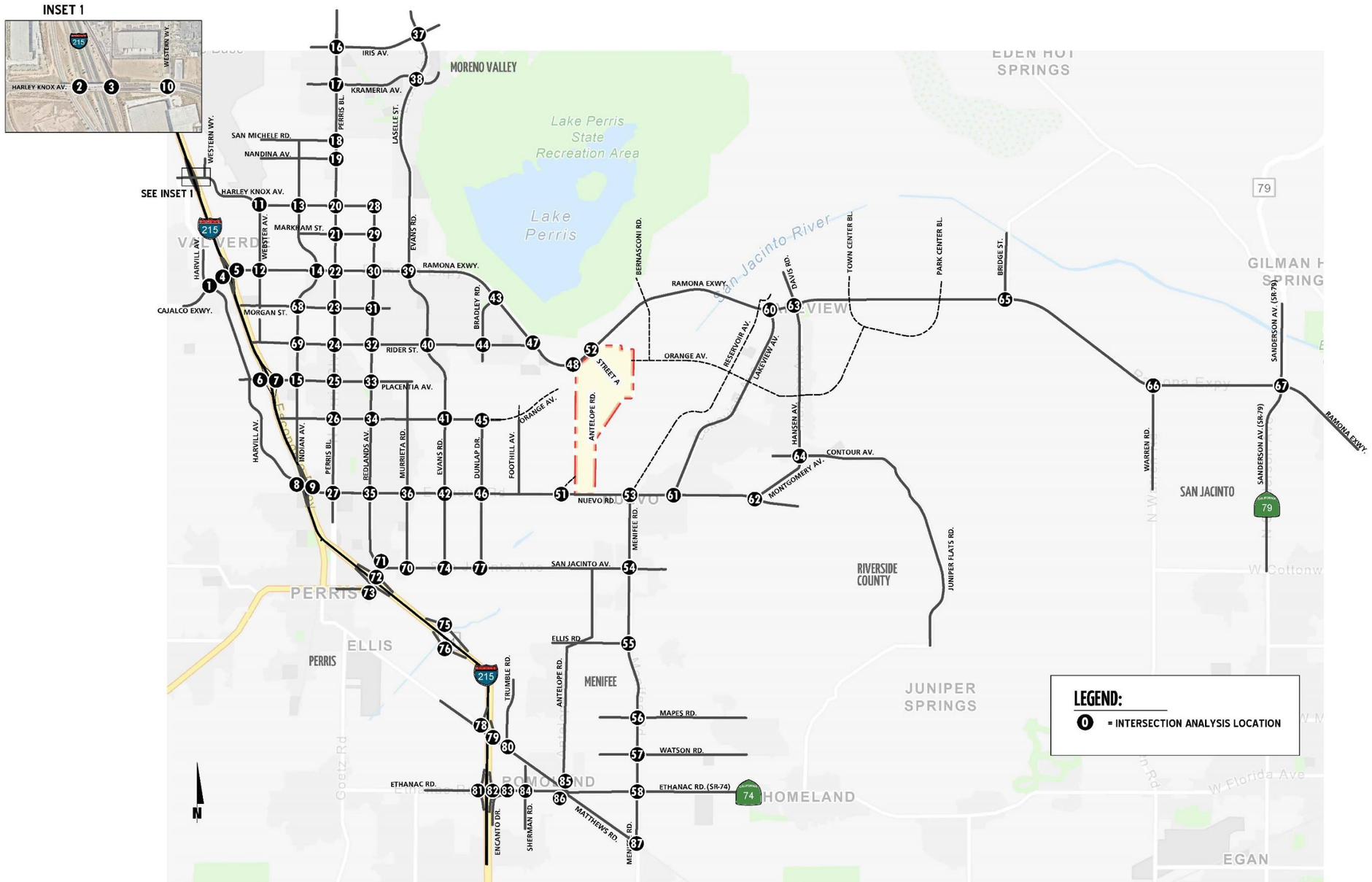
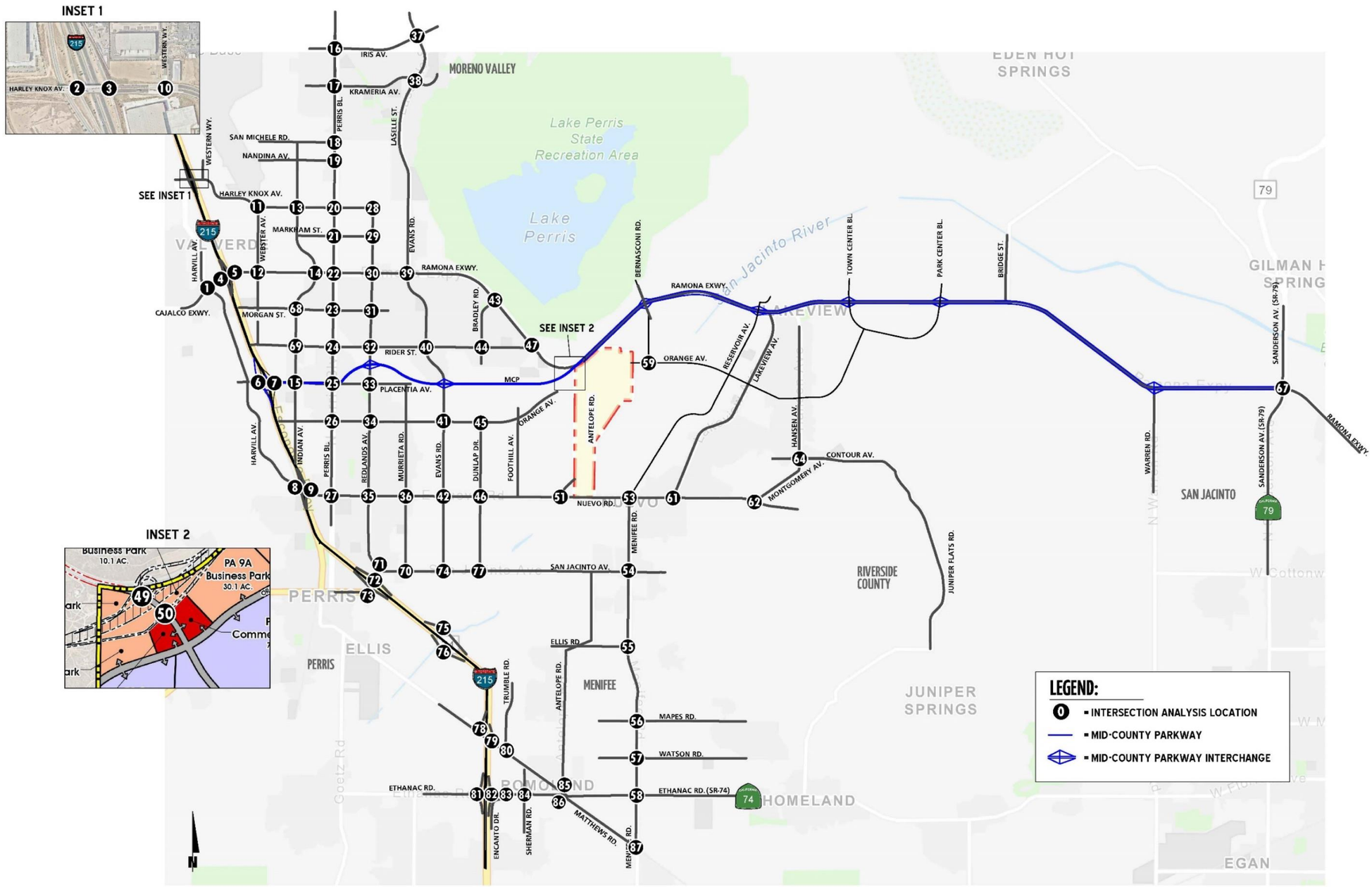


EXHIBIT 1-4: LOCATION MAP WITH MID-COUNTY PARKWAY



1.5 SENATE BILL 743 – VEHICLE MILES TRAVELED (VMT)

Senate Bill 743 (SB 743), approved in 2013, endeavors to change the way transportation impacts will be determined according to the California Environmental Quality Act (CEQA). The Office of Planning and Research (OPR) has recommended the use of vehicle miles traveled (VMT) as the replacement for automobile delay-based LOS. In December 2018, the Natural Resources Agency finalized updates to CEQA Guidelines to incorporate SB 743 (i.e., VMT). While a lead agency has the option to immediately apply the new VMT based analysis methodology and thresholds for the purposes of evaluating transportation impacts, statewide application of the new guidelines is required July 1, 2020.

California Department of Transportation (Caltrans) traffic impact study and VMT guidelines have been adopted in September 2020. (6) Caltrans acknowledges automobile delay is no longer considered a CEQA impact for development projects and VMT is now utilized for determining project impacts on the state highway system. The County of Riverside has also adopted their own VMT guidelines and thresholds in December 2020. (1) A VMT analysis for the Project has been prepared under separate cover. The LOS operations included in this TIA for intersections and freeway facilities are informational and may be used to support General Plan compliance but are not anticipated to support the environmental document for determining traffic impacts and mitigation measures.

1.6 DEFICIENCIES

1.6.1 EAP (2032) CONDITIONS

All study area intersections are anticipated to continue to operate at an acceptable LOS during the peak hours for EAP (2032) Alternative 1 traffic conditions, with the exception of the following intersections:

- Harvill Avenue & Cajalco Expressway (#1) – LOS E AM peak hour; LOS F PM peak hour
- I-215 Southbound Ramps & Harley Knox Boulevard (#2) – LOS F AM peak hour; LOS E PM peak hour
- I-215 Southbound Ramps & Ramona Expressway (#4) – LOS E PM peak hour only
- Redlands Avenue & Nuevo Road (#35) – LOS F AM peak hour only
- Dunlap Drive & Nuevo Road (#46) – LOS F AM peak hour only
- Menifee Road/Reservoir Road & Nuevo Road (#53) – LOS F AM peak hour only
- Menifee Road & San Jacinto Avenue (#54) – LOS E PM peak hour only
- Menifee Road & Mapes Road (#56) – LOSE PM peak hour only
- Menifee Road & Watson Road (#57) – LOS F AM peak hour; LOS E PM peak hour
- Murrieta Road & San Jacinto Avenue (#70) – LOS F AM peak hour only
- Redlands Avenue & San Jacinto Avenue (#71) – LOS F AM and PM peak hours
- Dunlap Drive & San Jacinto Avenue (#77) – LOS F AM and PM peak hours
- Sherman Road & Ethanac Road (#84) – LOS E AM peak hour; LOS F PM peak hour

- Menifee Road & Matthews Road (#87) – LOS E AM peak hour only

The intersection operations analysis results under EAP (2032) Alternative 2 conditions are consistent with EAP (2032) Alternative 1 conditions, with the exception of the following intersections:

- Dunlap Drive & Nuevo Road (#46) – no longer deficient under
- Antelope Road & Ramona Expressway (#51) – LOS F AM peak hour only

The intersection operations analysis results under EAP (2032) Alternative 3 conditions are consistent with EAP (2032) Alternative 1 conditions, with the exception of the following intersections:

- Antelope Road & Ramona Expressway (#51) – LOS F AM peak hour only
- Menifee Road & Ellis Road (#55) – LOS E AM peak hour; LOS F PM peak hour
- Murrieta Road & San Jacinto Avenue (#70) – no longer deficient
- Redlands Avenue & San Jacinto Avenue (#71) – no longer deficient
- Dunlap Drive & San Jacinto Avenue (#77) – no longer deficient

The intersection operations analysis results under EAP (2032) Alternative 4 conditions are consistent with EAP (2032) Alternative 1 conditions, with the exception of the following intersections:

- Dunlap Drive & Nuevo Road (#46) – no longer deficient under
- Antelope Road & Ramona Expressway (#51) – LOS F AM peak hour only
- Menifee Road & Ellis Road (#55) – LOS E AM peak hour; LOS F PM peak hour
- Murrieta Road & San Jacinto Avenue (#70) – no longer deficient
- Redlands Avenue & San Jacinto Avenue (#71) – no longer deficient
- Dunlap Drive & San Jacinto Avenue (#77) – no longer deficient
- I-215 Northbound Ramps & Ethanac Road (#82) – LOS E AM peak hour; LOS F PM peak hour
- Encanto Drive & Ethanac Road (#83) – LOS E AM peak hour; LOS F PM peak hour
- Antelope Road & Ethanac Road (#86) – LOS F AM peak hour; LOS E PM peak hour

The intersection operations analysis results under EAP (2032) Alternative 5 conditions are consistent with EAP (2032) Alternative 1 conditions, with the exception of the following intersections:

- Dunlap Drive & Nuevo Road (#46) – no longer deficient under
- Antelope Road & Ramona Expressway (#51) – LOS F AM peak hour only
- Murrieta Road & San Jacinto Avenue (#70) – no longer deficient
- Redlands Avenue & San Jacinto Avenue (#71) – no longer deficient

1.6.1 EAPC (2032) AND HORIZON YEAR (2040) CONDITIONS

For the detailed analysis of the deficiencies for EAPC (2032) and Horizon Year (2040), see Section 6 *EAPC (2032) Traffic Conditions*, and Section 7 *Horizon Year (2040) Traffic Conditions*.

1.7 RECOMMENDATIONS

1.7.1 SITE ADJACENT AND SITE ACCESS RECOMMENDATIONS

The following recommendations are based on the improvements needed to accommodate site access. Exhibit 1-6 shows the site adjacent recommendations.

Recommendation 1 – ***Antelope Road & Ramona Expressway (#48)*** – The following improvements are necessary to accommodate site access:

- Project to install a traffic signal.
- Project to construct dual northbound left turn lanes (with a minimum of 175-feet of storage for the inner left turn lane and a trap lane for the outer left turn lane) and a right turn lane (trap lane).
- Project to construct an eastbound right turn lane with a minimum of 350-feet of storage.
- Project to construct a westbound left turn lane with a minimum of 175-feet of storage.

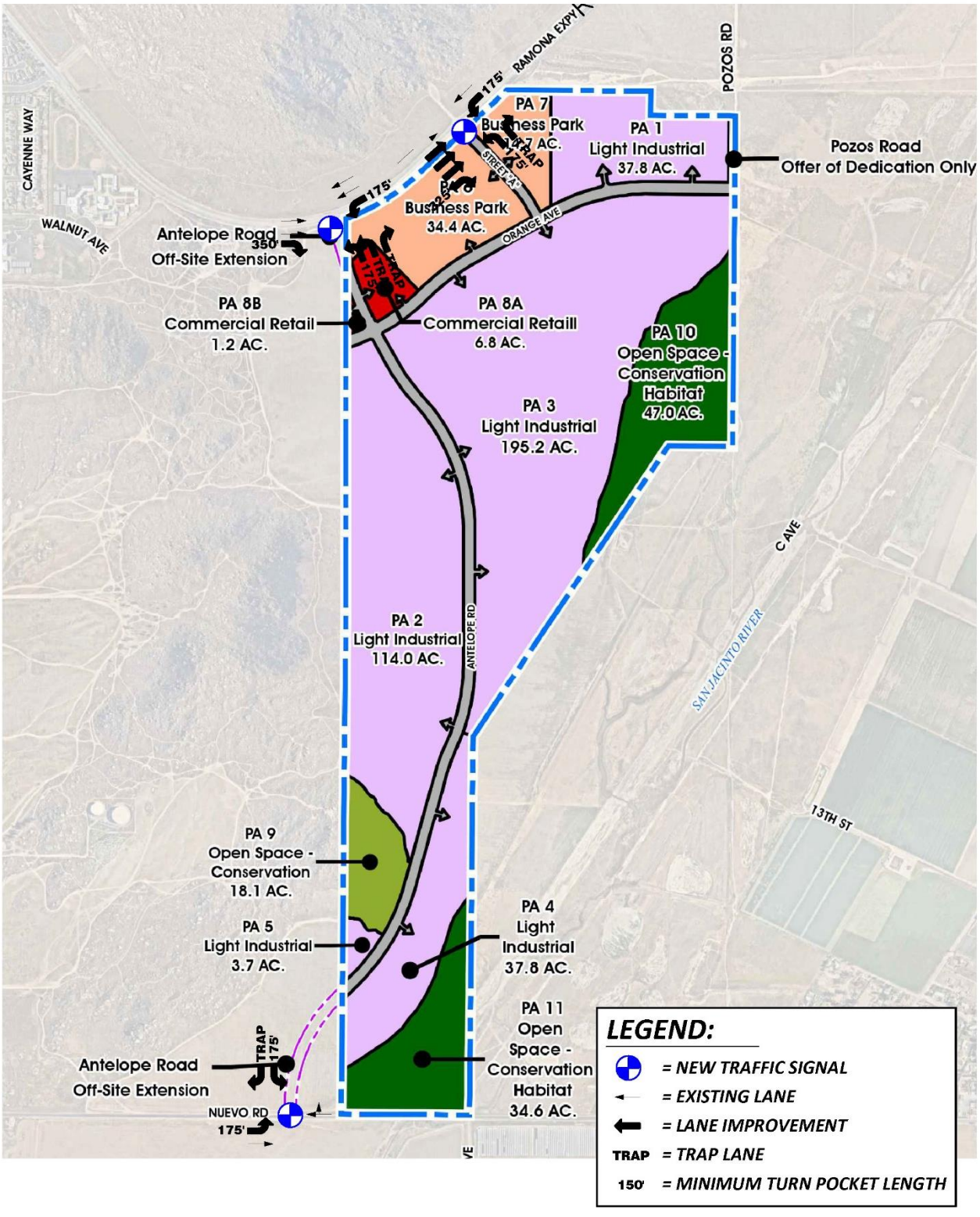
Recommendation 2 – ***Antelope Road & Nuevo Road (#51)*** – The following improvements are necessary to accommodate site access:

- Project to install a traffic signal.
- Project to construct a southbound left turn lane with a minimum of 175-feet of storage for the inner left turn lane and a right turn lane (trap lane).
- Project to construct an eastbound left turn lane with a minimum of 175-feet of storage.

Recommendation 3 – ***Street A & Ramona Expressway (#52)*** – The following improvements are necessary to accommodate site access (applicable for Without MCP alternative only):

- Project to install a traffic signal.
- Project to construct a northbound left turn lane with a minimum of 175-feet of storage and a right turn lane (trap lane).
- Project to construct an eastbound right turn lane with a minimum of 325-feet of storage and a 2nd, 3rd and 4th through lane. The 3rd and 4th through lanes will remain unstriped until such time in the future when Ramona Expressway is widened to the east with additional receiving lanes.
- Project to construct a westbound left turn lane with a minimum of 175-feet of storage.

EXHIBIT 1-6: SITE ADJACENT ROADWAY AND SITE ACCESS RECOMMENDATIONS



Recommendation 4 – Antelope Road is a north-south oriented roadway that bisects the Project. For Without MCP (Proposed Project), Project to construct Antelope Road from Ramona Expressway to the Project's southern boundary at its ultimate full-section width as a Major Highway (118-foot right-of-way) in compliance with the circulation recommendations found in the County of Riverside General Plan Circulation Element. For With MCP (Alternative Project), the Project would construct Antelope Road from the Project's southern boundary to the right-of-way for the future MCP interchange at Ramona Expressway. Project to construct Antelope Road from the Project's southern boundary to Nuevo Road with 32-feet of pavement on the east and west sides to facilitate site access in compliance with the circulation recommendations found in the County of Riverside General Plan Circulation Element.

Recommendation 5 – Ramona Expressway is an east-west oriented roadway located on the Project's northern boundary. For Without MCP only (Proposed Project), Project to construct Ramona Expressway from Antelope Road to the Project's eastern boundary at its ultimate half-section width as an Expressway (184-foot to 220-foot right-of-way) in compliance with the circulation recommendations found in the County of Riverside General Plan Circulation Element.

Recommendation 6 – Orange Avenue is an east-west oriented roadway that bisects the Project. Project to construct Orange Avenue from the Project's western boundary to the Project's eastern boundary at its ultimate full-section width as an Arterial Highway (128-foot right-of-way) in compliance with the circulation recommendations found in the County of Riverside General Plan Circulation Element.

Recommendation 7 – Street A is a north-south oriented roadway that bisects the Project. Project to construct Street A from Ramona Expressway to Orange Avenue at its ultimate full-section width as a Local Street (60-foot right-of-way) in compliance with the circulation recommendations found in the County of Riverside General Plan Circulation Element. This improvement is applicable for the Without MCP alternative only.

On-site traffic signing and striping should be implemented agreeable with the provisions of the California Manual on Uniform Traffic Control Devices (CA MUTCD) and in conjunction with detailed construction plans for the Project site.

Sight distance at each project access point should be reviewed with respect to standard Caltrans and County of Riverside sight distance standards at the time of preparation of final grading, landscape and street improvement plans.

1.7.2 OFF-SITE RECOMMENDATIONS

The recommended improvements needed to address the cumulative deficiencies identified under Existing (2022), EAP (2032), EAPC (2032), and Horizon Year (2040) traffic conditions are shown in the following tables:

- Table 1-2 for Alternative 1
- Table 1-3 for Alternative 2
- Table 1-4 for Alternative 3
- Table 1-5 for Alternative 4
- Table 1-6 for Alternative 5
- Table 1-7 for Alternative 6

For those improvements listed in and not constructed as part of the Project, the Applicant's responsibility for the Project's contributions towards deficient intersections is fulfilled through payment of fair share and/or TUMF/DIF fees (if applicable) that would be assigned to construction of the identified recommended improvements, or as identified in the Project's Conditions of Approval. The Project Applicant would be required to pay TUMF/DIF and/or fair share fees consistent with the County's requirements (see Section 8 *Local and Regional Funding Mechanisms*).

TABLE 1-2: SUMMARY OF IMPROVEMENTS BY ANALYSIS SCENARIO – ALTERNATIVE 1

#	Intersection Location	Jurisdiction	Recommended Improvements					Improvements in County DIF or TUMF[1,2]	Project Responsibility	Project Fair Share[4]
			Existing (2022)	EAP (2032)	EAPC (2032)	Horizon Year (2040) Without Project	Horizon Year (2040) With Project			
1	Harvill Av. & Cajalco Exwy.	County of Riverside	None	Add 3rd EB through lane Add 3rd WB through lane	Same Same	Same Same Add 4th EB through lane Add 4th WB through lane	Same Same Same Same	Yes (TUMF) Yes (TUMF) No No	Construct Construct Fair Share Fair Share	2.9%
2	I-215 Southbound Ramps & Harley Knox Bl.	County of Riverside, Caltrans	None	Add SB left turn lane	Same Restripe the WB approach to provide dual left turns and one through lane	Same Same	Same Same	Yes (TUMF)[3] Yes (TUMF)[3]	Fees Fees	--
3	I-215 Northbound Ramps & Harley Knox Bl.	County of Riverside, Caltrans	None	Add 2nd EB left turn lane	Same Add WB free right turn	Same Same	Same Same	Yes (TUMF)[3] Yes (TUMF)[3]	Fees Fees	--
4	I-215 Southbound Ramps & Ramona Exwy.	County of Riverside, Caltrans	None	Add 2nd WB left turn lane	Same Add 3rd EB through lane Stripe the EB right turn defacto lane Add 3rd WB through lane	Same Same Not Applicable Same Add 4th EB through lane Add 4th WB through lane Add EB free right turn lane	Same Same Not Applicable Same Same Same Same	Yes (TUMF) Yes (TUMF) No Yes (TUMF) No No No	Fees Fees Fair Share Fees Fair Share Fair Share Fair Share	2.2%
5	I-215 Northbound Ramps & Ramona Exwy.	Perris, Caltrans	None	None	Add 2nd EB left turn lane Add 3rd EB through lane Add 3rd WB through lane	Same Same Same Add 4th EB through lane Add 4th WB through lane Add 2nd NB right turn lane	Same Same Same Same Same Same	Yes (TUMF) Yes (TUMF) Yes (TUMF) No No No	Fees Fees Fees Fair Share Fair Share Fair Share	1.7%
6	I-215 SB Ramps & Placentia Av.	County of Riverside, Caltrans	None	Install a Traffic Signal[5] Add SB left turn lane[5] Add SB shared left-through lane[5] Add SB right turn lane[5] Add WB left turn lane[5]	Same Same Same Same Same Add 2nd WB left turn lane	Same Same Same Same Same Same	Same Same Same Same Same Same	Yes (TUMF) Yes (TUMF) Yes (TUMF) Yes (TUMF) Yes (TUMF) No	Fees Fees Fees Fees Fees Fair Share	7.0%
7	I-215 NB Ramps & Placentia Av.	Perris, Caltrans	None	Install a Traffic Signal[5] Add NB left turn lane[5] Add NB shared left-through lane[5] Add NB right turn lane[5] Add EB left turn lane[5] Add WB right turn lane[5]	Same Same Same Same Same Same	Same Same Same Same Same Same	Same Same Same Same Same Same	Yes (TUMF) Yes (TUMF) Yes (TUMF) Yes (TUMF) Yes (TUMF) Yes (TUMF)	Fees Fees Fees Fees Fees Fees	--
8	I-215 SB Ramps & Nuevo Rd.	County of Riverside, Perris, Caltrans	None	None	Modify the traffic signal to implement a 120-second cycle	Same	Same	No	Fair Share	6.4%

#	Intersection Location	Jurisdiction	Recommended Improvements					Improvements in County DIF or TUMF[1,2]	Project Responsibility	Project Fair Share[4]
			Existing (2022)	EAP (2032)	EAPC (2032)	Horizon Year (2040) Without Project	Horizon Year (2040) With Project			
12	Webster Av. & Ramona Exwy.	Perris	None	None	Add 4th EB through lane Restripe the WB approach to provide one left turn lane, three through lanes, and one shared through-right turn lane	Same Same	Same Same	No No	Fair Share Fair Share	1.8%
13	Indian Av. & Harley Knox Bl.	Perris	None	None	None	Add 2nd EB left turn lane	Same	No	Fair Share	1.0%
14	Indian Av. & Ramona Exwy.	Perris	None	None	Add 4th EB through lane Restripe the WB approach to provide one left turn lane, three through lanes, and one shared through-right turn lane	Same Same	Same Same	No No	Fair Share Fair Share	2.6%
16	Perris Bl. & Iris Av.	Moreno Valley	None	None	Add EB right turn lane	Same	Same	No	Fair Share	1.9%
17	Perris Bl. & Krameria Av.	Moreno Valley	None	None	None	Restripe the EB and WB approaches to accommodate a left and shared through-right turn lane Implement protected left turn phasing on the EB and WB approaches	Same Same	No No	Fair Share Fair Share	3.4%
20	Perris Bl. & Harley Knox Bl.	Perris	None	None	Add 2nd EB left turn lane	Same	Same	No	Fair Share	3.9%
22	Perris Bl. & Ramona Exwy.	Perris	None	None	Add 4th EB through lane Add 4th WB through lane	Same Same Restripe the NB approach to provide dual left turn lanes, two through lanes, and one shared through-right turn lane Restripe the SB approach to provide dual left turn lanes, two through lanes, and one shared through-right turn lane Add WB right turn lane Modify the traffic signal to implement overlap phasing for the WB right turn lane Modify the traffic signal to protect the EB and WB left turns	Same Same Same Same Same Same Same	Yes (TUMF) Yes (TUMF) No No No No No	Fees Fees Fair Share Fair Share Fair Share Fair Share Fair Share	3.6%
25	Perris Bl. & Placentia Av.	Perris	None	None	None	Stripe the 3rd NB through lane Add NB right turn lane Stripe the 3rd SB through lane	Same Same Same	Yes (TUMF) No Yes (TUMF)	Fees Fair Share Fees	13.9%
26	Perris Bl. & Orange Av.	Perris	None	None	None	Add 3rd NB through lane Stripe the 3rd SB through lane	Same Same	Yes (TUMF) Yes (TUMF)	Fees Fees	--

#	Intersection Location	Jurisdiction	Recommended Improvements					Improvements in County DIF or TUMF[1,2]	Project Responsibility	Project Fair Share[4]
			Existing (2022)	EAP (2032)	EAPC (2032)	Horizon Year (2040) Without Project	Horizon Year (2040) With Project			
27	Perris Bl. & Nuevo Rd.	Perris	None	None	Add 2nd NB left turn lane Restripe the WB approach to provide dual left turn lanes, two through lanes, and one shared through-right turn lane	Same Same	Same Same	No Yes (TUMF)	Fair Share Fees	8.8%
28	Redlands Av. & Harley Knox Bl.	Perris	None	None	None	Restripe the northbound approach to provide dual left turn lanes and one through lane	Same	No	Fair Share	0.0%
30	Redlands Av. & Ramona Exwy.	Perris	None	None	Add 2nd SB left turn lane Add 2nd EB left turn lane Add 4th EB through lane Add 2nd WB left turn lane Add 4th WB through lane	Same Same Same Same Same Add NB right turn lane Modify the traffic signal to implement overlap phasing for the WB right turn lane	Same Same Same Same Same Same Same	No No No No No No No	Fair Share Fair Share Fair Share Fair Share Fair Share Fair Share Fair Share	3.9%
33	Redlands Av. & Placentia Av.	Perris	None	None	None	Install a Traffic Signal	Same	No	Fair Share	29.3%
35	Redlands Av. & Nuevo Rd.	Perris	None	Stripe the 3rd EB through lane Stripe the 3rd WB through lane	Same Same Add SB left turn lane	Same Same Same	Same Same Same	Yes (TUMF) Yes (TUMF) No	Construct Construct Fair Share	29.3%
36	Murrieta Rd. & Nuevo Rd.	Perris	None	None	None	Restripe the EB approach to provide one left turn lane, two through lanes, and one shared through-right turn lane Restripe the WB approach to provide one left turn lane, two through lanes, and one shared through-right turn lane	Same Same	No No	Fair Share Fair Share	13.7%
37	Lasselle St. & Iris Av.	Moreno Valley	None	None	Modify the traffic signal to implement a 130-second cycle	Same	Same	No	Fair Share	2.3%
38	Lasselle St. & Krameria Av.	Moreno Valley	None	None	Restripe the NB approach to provide dual left turn lanes, one through lane, and one shared through-right turn lane Add 2nd EB left turn lane Modify the traffic signal to implement overlap phasing for the EB right turn lane Modify the traffic signal to implement a 130-second cycle	Same Same Same Add 2nd SB left turn lane	Same Same Same Same	No No No No	Fair Share Fair Share Fair Share Fair Share	4.1%

#	Intersection Location	Jurisdiction	Recommended Improvements					Improvements in County DIF or TUMF[1,2]	Project Responsibility	Project Fair Share[4]
			Existing (2022)	EAP (2032)	EAPC (2032)	Horizon Year (2040) Without Project	Horizon Year (2040) With Project			
39	Evans Rd. & Ramona Exwy.	Perris	None	None	Add 3rd WB through lane	Same	Same	No	Fair Share	6.7%
					Add 4th EB through lane	Same	Same	No	Fair Share	
					Add 4th WB through lane	Same	Same	No	Fair Share	
41	Evans Rd. & Orange Av.	County of Riverside, Perris	None	Add 2nd EB through lane	Same	Same	Same	No	Construct	--
				Add 2nd WB through lane	Same	Same	Same	No	Construct	
45	Dunlap Dr. & Orange Av.	County of Riverside, Perris	None	None	None	Install a Traffic Signal	Same	Yes (DIF)	Fees	57.0%
						Add NB left turn lane	Same	No	Fair Share	
						Restripe the EB approach to provide one through lane and one shared through-right turn lane	Same	No	Fair Share	
						Add WB left turn lane	Same	No	Fair Share	
						Add 2nd WB through lane	`	No	Fair Share	
46	Dunlap Dr. & Nuevo Rd.	County of Riverside, Perris	None	Restripe the EB approach to provide one left turn lane, one through lane, and one shared through-right turn lane	Same	Same	Same	Yes (TUMF)	Construct	16.4%
				Add 2nd WB through lane	Same	Same	Same	Yes (TUMF)	Construct	
					Add NB right turn lane	Same	Same	No	Fair Share	
					Add 3rd EB through lane	Same	Same	No	Fair Share	
					Add 2nd WB left turn lane	Same	Same	No	Fair Share	
					Add 3rd WB through lane	Same	Same	No	Fair Share	
						Add 2nd SB left turn lane	Same	No	Fair Share	
47	Ramona Exwy. & Rider St.	County of Riverside, Perris	None	None	Add 3rd NB through lane	Same	Same	No	Fair Share	9.4%
					Add 3rd SB through lane	Same	Same	No	Fair Share	
						Add 4th NB through lane	Same	No	Fair Share	
						Add 4th SB through lane	Same	No	Fair Share	
48	Antelope Rd. & Ramona Exwy.	County of Riverside	None	Install a Traffic Signal	Same	Same	Same	Yes (DIF)	Construct	10.4%
				Add NB left turn lane	Same	Same	Same	No	Construct	
				Add 2nd NB left turn lane	Same	Same	Same	No	Construct	
				Add NB right turn lane	Same	Same	Same	No	Construct	
				Add WB left turn lane	Same	Same	Same	No	Construct	
					Add 3rd EB through lane	Same	Same	Yes (TUMF)	Fees	
					Add EB right turn lane	Same	Same	No	Fair Share	
					Add 3rd WB through lane	Same	Same	Yes (TUMF)	Fees	
						Add 4th EB through lane	Same	No	Fair Share	
						Add 4th WB through lane	Same	No	Fair Share	
51	Antelope Rd. & Nuevo Rd.	County of Riverside	None	Install a Traffic Signal	Same	Same	Same	Yes (DIF)	Construct	19.5%
				Add SB left turn lane	Same	Same	Same	No	Construct	
				Add SB right turn lane	Same	Same	Same	No	Construct	
				Add EB left turn lane	Same	Same	Same	No	Construct	
				Add 2nd WB through lane	Same	Same	Same	Yes (TUMF)	Construct	
					Add 2nd EB left turn lane	Same	Same	No	Fair Share	
					Add 2nd EB through lane	Same	Same	Yes (TUMF)	Fees	
						Add 2nd SB left turn lane	Same	No	Fair Share	

#	Intersection Location	Jurisdiction	Recommended Improvements					Improvements in County DIF or TUMF[1,2]	Project Responsibility	Project Fair Share[4]
			Existing (2022)	EAP (2032)	EAPC (2032)	Horizon Year (2040) Without Project	Horizon Year (2040) With Project			
52	Street A & Ramona Exwy.	County of Riverside	None	Install a Traffic Signal Add NB left turn lane Add 2nd NB left turn lane Add NB right turn lane Add 2nd EB through lane Add 3rd EB through lane Add WB left turn lane	Same Same Same Same Same Same Same Add 2nd WB through lane Add 3rd WB through lane	Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable	Same Same Same Same Same Same Same Same Same Add 4th EB through lane Add 4th WB through lane	No No No No Yes (TUMF) Yes (TUMF) No Yes (TUMF) Yes (TUMF) No No	Construct Construct Construct Construct Construct Construct Construct Fees Fees Construct Fair Share	5.5%
53	Menifee Rd./Reservoir Bl. & Nuevo Rd.	County of Riverside	None	Install a Traffic Signal Add WB left turn lane	Same Same Add NB left turn lane	Same Same Same Add 2nd NB left turn lane Add 2nd NB through lane Add SB left turn lane Add SB through lane Add 2nd SB through lane Add EB left turn lane Add 2nd EB left turn lane Add 3rd EB left turn lane Add EB right turn lane Add 2nd WB left turn lane Modify the traffic signal to implement overlap phasing for the SB and EB right turn lanes	Same Same Same Same Same Same Same Same Same Same Same Same Same Same Same	Yes (DIF) No No No Yes (TUMF) No No No No No No No No No No	Construct Construct Fair Share Fair Share Fees Fair Share Fair Share Fair Share Fair Share Fair Share Fair Share Fair Share Fair Share Fair Share Fair Share	6.2%
54	Menifee Rd. & San Jacinto Av.	County of Riverside	None	Install a Traffic Signal Add NB left turn lane Add SB left turn lane Restripe the EB approach to provide one left turn lane and one shared through-right turn lane Add WB left turn lane	Same Same Same Same Same Add 2nd SB through lane	Same Same Same Same Same Same Same Add 2nd NB through lane Add 2nd SB through lane	Same Same Same Same Same Same Same Same Same	Yes (DIF) No No No No Yes (TUMF) Yes (TUMF)	Construct Construct Construct Construct Construct Fees Fees	12.1%
56	Menifee Rd. & Mapes Rd.	County of Riverside, Menifee	None	Install a Traffic Signal Add EB left turn lane Add WB left turn lane	Same Same Same	Same Same Same Add 2nd NB through lane Add 2nd SB through lane	Same Same Same Same Same	Yes (DIF) No No Yes (TUMF) Yes (TUMF)	Construct Construct Construct Fees Fees	--
57	Menifee Rd. & Watson Rd.	Menifee	Install a Traffic Signal Add NB left turn lane Add SB left turn lane Add EB left turn lane Add WB left turn lane	Same Same Same Same Same	Same Same Same Same Same	Same Same Same Same Same Add 2nd NB through lane Add 2nd SB through lane	Same Same Same Same Same Same Same	No No No No No Yes (TUMF) Yes (TUMF)	Fair Share Fair Share Fair Share Fair Share Fair Share Fees Fees	9.5%

#	Intersection Location	Jurisdiction	Recommended Improvements					Improvements in County DIF or TUMF[1,2]	Project Responsibility	Project Fair Share[4]
			Existing (2022)	EAP (2032)	EAPC (2032)	Horizon Year (2040) Without Project	Horizon Year (2040) With Project			
58	Menifee Rd. & Ethanac Rd. (SR-74)	Menifee	Add SB left turn lane	Same	Same	Same	Same	No	Fair Share	3.3%
			Modify the traffic signal to protect the NB and SB left turns	Same	Same	Same	Same	No	Fair Share	
				Add NB right turn lane	Same	Same	Same	No	Construct	
					Add 2nd NB left turn lane	Same	Same	No	Fair Share	
					Add 3rd EB through lane	Same	Same	Yes (TUMF)	Fees	
					Add 2nd WB left turn lane	Same	Same	No	Fair Share	
					Add 3rd WB through lane	Same	Same	Yes (TUMF)	Fees	
					Add 2nd NB through lane	Same	Same	No	Fair Share	
					Add 2nd SB through lane	Same	Same	Yes (TUMF)	Fees	
						Add 2nd EB left turn lane	Same	No	Fair Share	
						Modify the traffic signal to implement overlap phasing for the NB right turn lane	Same	No	Fair Share	
						Add 2nd SB left turn lane	Same	No	Fair Share	
						Add SB right turn lane	Same	No	Fair Share	
59	Bernasconi Rd. & Orange Av.	County of Riverside	None	None	None	Install a Traffic Signal	Same	Yes (DIF)	Fees	3.9%
						Add SB left turn lane	Same	No	Fair Share	
						Add 2nd SB left turn lane	Same	No	Fair Share	
						Add SB right turn lane	Same	No	Fair Share	
						Add EB left turn lane	Same	No	Fair Share	
						Add 2nd EB left turn lane	Same	No	Fair Share	
						Add EB through lane	Same	No	Fair Share	
						Add 2nd EB through lane	Same	No	Fair Share	
						Add WB through lane	Same	No	Fair Share	
						Add 2nd WB through lane	Same	No	Fair Share	
60	Lakeview Av. & Ramona Exwy.	County of Riverside	None	None	Add 2nd EB through lane	Same	Same	Yes (TUMF)	Fees	2.7%
					Add 3rd EB through lane	Same	Same	Yes (TUMF)	Fees	
					Add 2nd WB through lane	Same	Same	Yes (TUMF)	Fees	
					Add 3rd WB through lane	Same	Same	Yes (TUMF)	Fees	
						Add 2nd NB left turn lane	Same	No	Fair Share	
						Add NB free right turn lane	Same	No	Fair Share	
						Add SB left turn lane	Same	No	Fair Share	
						Add SB through lane	Same	No	Fair Share	
						Add SB right turn lane	Same	No	Fair Share	
						Add EB left turn lane	Same	No	Fair Share	
						Add 2nd WB left turn lane	Same	No	Fair Share	
						Add 4th EB through lane	Same	No	Fair Share	
						Add 4th WB through lane	Same	No	Fair Share	
61	Lakeview Av. & Nuevo Rd.	County of Riverside	None	Install a Traffic Signal	Same	Same	Same	No	Construct	10.1%
				Add SB left turn lane	Same	Same	Same	No	Construct	
				Add EB left turn lane	Same	Same	Same	No	Construct	
						Modify the traffic signal to implement overlap phasing for the SB right turn lane	Same	No	Fair Share	
63	Hansen Av./Davis Rd. & Ramona Exwy.	County of Riverside	None	None	Add 3rd EB through lane	Same	Same	Yes (TUMF)	Fees	3.3%
					Add 3rd WB through lane	Same	Same	Yes (TUMF)	Fees	
						Add 4th EB through lane	Same	No	Fair Share	
						Add 4th WB through lane	Same	No	Fair Share	

#	Intersection Location	Jurisdiction	Recommended Improvements					Improvements in County DIF or TUMF[1,2]	Project Responsibility	Project Fair Share[4]
			Existing (2022)	EAP (2032)	EAPC (2032)	Horizon Year (2040) Without Project	Horizon Year (2040) With Project			
65	Bridge St. & Ramona Exwy.	County of Riverside	Install a Traffic Signal	Same	Same	Same	Same	Yes (DIF)	Fees	2.5%
					Add 2nd EB through lane	Same	Same	Yes (TUMF)	Fees	
					Add 3rd EB through lane	Same	Same	Yes (TUMF)	Fees	
					Add 2nd WB through lane	Same	Same	Yes (TUMF)	Fees	
					Add 3rd WB through lane	Same	Same	Yes (TUMF)	Fees	
						Add 4th EB through lane	Same	No	Fair Share	
						Add 4th WB through lane	Same	No	Fair Share	
66	Warren Rd. & Ramona Exwy.	County of Riverside, San Jacinto	None	None	Add 2nd NB left turn lane	Same	Same	No	Fair Share	2.9%
					Add 3rd EB through lane	Same	Same	Yes (TUMF)	Fees	
					Add 2nd WB left turn lane	Same	Same	No	Fair Share	
					Add 3rd WB through lane	Same	Same	Yes (TUMF)	Fees	
						Add 4th EB through lane	Same	No	Fair Share	
						Add 4th WB through lane	Same	No	Fair Share	
67	Sanderson Av. (SR-79) & Ramona Exwy.	San Jacinto	Add 3rd SB through lane	Same	Same	Same	Same	Yes (TUMF)	Fees	2.6%
			Add 3rd NB through lane	Same	Same	Same	Same	No	Fair Share	
			Add SB free right turn	Same	Same	Same	Same	No	Fair Share	
			Add 3rd EB through lane	Same	Same	Same	Same	Yes (TUMF)	Fees	
			Add 3rd WB through lane	Same	Same	Same	Same	Yes (TUMF)	Fees	
					Add 4th NB through lane	Same	Same	No	Fair Share	
					Add 4th SB through lane	Same	Same	No	Fair Share	
						Add NB free right turn	Same	No	Fair Share	
						Add EB free right turn	Same	No	Fair Share	
						Add WB free right turn	Same	No	Fair Share	
						Add 3rd EB left turn lane	Same	No	Fair Share	
70	Murrieta Rd. & San Jacinto Av.	Perris	None	Install a Traffic Signal	Same	Same	Same	No	Construct	14.2%
					Add 2nd EB through lane	Same	Same	No	Fair Share	
					Add 2nd WB through lane	Same	Same	No	Fair Share	
71	Redlands Av. & San Jacinto Av.	Perris	None	Modify the traffic signal to implement overlap phasing for the NB right turn	Same	Same	Same	No	Construct	9.6%
					Add 2nd NB right turn lane	Same	Same	No	Fair Share	
						Add 3rd WB left turn lane	Same	No	Fair Share	
72	Redlands Av. & I-215 NB Ramps	Perris, Caltrans	None	None	Modify the traffic signal to implement a 120-second cycle	Same	Same	No	Fair Share	9.8%
74	Evans Rd. & San Jacinto Av.	Perris	None	None	None	Install a Traffic Signal	Same	No	Fair Share	11.8%
						Add NB left turn lane	Same	No	Fair Share	
						Add NB through lane	Same	Yes (TUMF)	Fees	
						Add 2nd NB through lane	Same	Yes (TUMF)	Fees	
						Add SB left turn lane	Same	No	Fair Share	
						Add 2nd SB through lane	Same	Yes (TUMF)	Fees	
						Add EB left turn lane	Same	No	Fair Share	
						Add 2nd EB through lane	Same	No	Fair Share	
						Add WB left turn lane	Same	No	Fair Share	
						Add 2nd WB through lane	Same	No	Fair Share	

#	Intersection Location	Jurisdiction	Recommended Improvements					Improvements in County DIF or TUMF[1,2]	Project Responsibility	Project Fair Share[4]
			Existing (2022)	EAP (2032)	EAPC (2032)	Horizon Year (2040) Without Project	Horizon Year (2040) With Project			
77	Dunlap Dr. & San Jacinto Av.	County of Riverside, Perris	None	Install a Traffic Signal Add EB left turn lane	Same Same	Same Same Add SB left turn lane Add 2nd EB left turn lane Add 2nd EB through lane Add 2nd WB through lane	Same Same Same Same Same Same	No No No No No No	Construct Construct Fair Share Fair Share Fair Share Fair Share	24.6%
78	I-215 SB Ramps & SR-74	Perris, Caltrans	None	None	Add 2nd SB through lane	Same	Same	No	Fair Share	0.0%
80	Trumble Rd. & SR-74	County of Riverside, Caltrans	None	None	Add 2nd EB left turn lane	Same	Same	No	Fair Share	0.0%
82	I-215 NB Ramps & Ethanac Rd.	Perris, Caltrans	None	None	Add NB left turn lane	Same Add NB right turn lane Add 2nd NB right turn lane Add 2nd EB through lane Add 3rd EB through lane Add EB free right turn lane Add 2nd WB through lane Add 3rd WB through lane Add WB free right turn lane	Same Same Same Same Same Same Same Same Same	Yes (TUMF) Yes (TUMF) Yes (TUMF) Yes (TUMF) Yes (TUMF) Yes (TUMF) Yes (TUMF) Yes (TUMF) Yes (TUMF)	Fees Fees Fees Fees Fees Fees Fees Fees Fees	--
83	Encanto Dr. & Ethanac Rd.	Perris	None	None	Install a Traffic Signal	Same Add 2nd EB through lane Add 3rd EB through lane Add 2nd WB through lane Add 3rd WB through lane	Same Same Same Same Same	No No No No No	Fair Share Fair Share Fair Share Fair Share Fair Share	0.0%
84	Sherman Rd. & Ethanac Rd.	Perris, Menifee	None	Add EB left turn lane	Same Install a Traffic Signal Add WB left turn lane	Same Same Same Add NB left turn lane Add SB left turn lane Add 2nd EB through lane Add 3rd EB through lane Add 2nd WB through lane Add 3rd WB through lane	Same Same Same Same Same Same Same Same Same	No No No No No No No No No	Construct Fair Share Fair Share Fair Share Fair Share Fair Share Fair Share Fair Share Fair Share	0.0%
86	Antelope Rd. & Ethanac Rd.	Menifee	None	None	Add NB left turn lane Add SB left turn lane Add EB left turn lane Add WB left turn lane	Same Same Same Same Install a Traffic Signal Add 2nd EB through lane Add 3rd EB through lane Add 2nd WB through lane Add 3rd WB through lane	Same Same Same Same Same Same Same Same Same	No No No No No No No No No	Fair Share Fair Share Fair Share Fair Share Fair Share Fair Share Fair Share Fair Share Fair Share	0.0%

#	Intersection Location	Jurisdiction	Recommended Improvements					Improvements in County DIF or TUMF[1,2]	Project Responsibility	Project Fair Share[4]
			Existing (2022)	EAP (2032)	EAPC (2032)	Horizon Year (2040) Without Project	Horizon Year (2040) With Project			
87	Menifee Rd. & Matthews Rd.	Menifee	None	Add NB left turn lane	Same	Same	Same	No	Construct	0.0%
					Add 2nd NB through lane	Same	Same	No	Fair Share	
					Add 2nd SB through lane	Same	Same	No	Fair Share	
						Install a Traffic Signal	Same	No	Fair Share	

[1] Improvements included in TUMF Nexus, or County of Riverside DIF fee programs.

[2] Program improvements constructed by project may be eligible for fee credit. In lieu fee payment is at discretion of County. Represents the fair share percentage for the Project during the most impacted peak hour.

[3] Although the interchange is identified as a TUMF interchange, the interchange is not currently identified on the Central Zone 5-Year Transportation Improvement Program Amendment (adopted June 30, 2016).

[4] Program improvements constructed by project may be eligible for fee credit, at discretion of County. See Table 8-1 for Fair Share Calculations.

[5] Improvement planned to be constructed as part of the I-215 Freeway/Placentia Avenue interchange project, which is anticipated to be completed in 2022.

TABLE 1-3: SUMMARY OF IMPROVEMENTS BY ANALYSIS SCENARIO – ALTERNATIVE 2

#	Intersection Location	Jurisdiction	Recommended Improvements					Improvements in County DIF or TUMF[1,2]	Project Responsibility	Project Fair Share[4]
			Existing (2022)	EAP (2032)	EAPC (2032)	Horizon Year (2040) Without Project	Horizon Year (2040) With Project			
1	Harvill Av. & Cajalco Exwy.	County of Riverside	None	Add 3rd EB through lane Add 3rd WB through lane	Same Same	Same Same Add 4th EB through lane Add 4th WB through lane	Same Same Same Same	Yes (TUMF) Yes (TUMF) No No	Construct Construct Fair Share Fair Share	2.9%
2	I-215 Southbound Ramps & Harley Knox Bl.	County of Riverside, Caltrans	None	Add SB left turn lane	Same Restripe the WB approach to provide dual left turns and one through lane	Same Same	Same Same	Yes (TUMF)[3] Yes (TUMF)[3]	Fees Fees	--
3	I-215 Northbound Ramps & Harley Knox Bl.	County of Riverside, Caltrans	None	Add 2nd EB left turn lane	Same Add WB free right turn	Same Same	Same Same	Yes (TUMF)[3] Yes (TUMF)[3]	Fees Fees	--
4	I-215 Southbound Ramps & Ramona Exwy.	County of Riverside, Caltrans	None	Add 2nd WB left turn lane	Same Add 3rd EB through lane Stripe the EB right turn defacto lane Add 3rd WB through lane	Same Same Not Applicable Same Add 4th EB through lane Add 4th WB through lane Add EB free right turn lane	Same Same Not Applicable Same Same Same Same	Yes (TUMF) Yes (TUMF) No Yes (TUMF) No No No	Fees Fees Fair Share Fees Fair Share Fair Share Fair Share	2.2%
5	I-215 Northbound Ramps & Ramona Exwy.	Perris, Caltrans	None	None	Add 2nd EB left turn lane Add 3rd EB through lane Add 3rd WB through lane	Same Same Same Add 4th EB through lane Add 4th WB through lane Add 2nd NB right turn lane	Same Same Same Same Same Same	Yes (TUMF) Yes (TUMF) Yes (TUMF) No No No	Fees Fees Fees Fair Share Fair Share Fair Share	1.7%
6	I-215 SB Ramps & Placentia Av.	County of Riverside, Caltrans	None	Install a Traffic Signal[5] Add SB left turn lane[5] Add SB shared left-through lane[5] Add SB right turn lane[5] Add WB left turn lane[5]	Same Same Same Same Same Add 2nd WB left turn lane	Same Same Same Same Same Same	Same Same Same Same Same Same	Yes (TUMF) Yes (TUMF) Yes (TUMF) Yes (TUMF) Yes (TUMF) No	Fees Fees Fees Fees Fees Fair Share	7.0%
7	I-215 NB Ramps & Placentia Av.	Perris, Caltrans	None	Install a Traffic Signal[5] Add NB left turn lane[5] Add NB shared left-through lane[5] Add NB right turn lane[5] Add EB left turn lane[5] Add WB right turn lane[5]	Same Same Same Same Same Same	Same Same Same Same Same Same	Same Same Same Same Same Same	Yes (TUMF) Yes (TUMF) Yes (TUMF) Yes (TUMF) Yes (TUMF) Yes (TUMF)	Fees Fees Fees Fees Fees Fees	--
8	I-215 SB Ramps & Nuevo Rd.	County of Riverside, Perris, Caltrans	None	None	Modify the traffic signal to implement a 120-second cycle	Same	Same	No	Fair Share	6.4%

#	Intersection Location	Jurisdiction	Recommended Improvements					Improvements in County DIF or TUMF[1,2]	Project Responsibility	Project Fair Share[4]
			Existing (2022)	EAP (2032)	EAPC (2032)	Horizon Year (2040) Without Project	Horizon Year (2040) With Project			
12	Webster Av. & Ramona Exwy.	Perris	None	None	Add 4th EB through lane Restripe the WB approach to provide one left turn lane, three through lanes, and one shared through-right turn lane	Same Same	Same Same	No No	Fair Share Fair Share	1.8%
13	Indian Av. & Harley Knox Bl.	Perris	None	None	None	Add 2nd EB left turn lane	Same	No	Fair Share	1.0%
14	Indian Av. & Ramona Exwy.	Perris	None	None	Add 4th EB through lane Restripe the WB approach to provide one left turn lane, three through lanes, and one shared through-right turn lane	Same Same	Same Same	No No	Fair Share Fair Share	2.6%
16	Perris Bl. & Iris Av.	Moreno Valley	None	None	Add EB right turn lane	Same	Same	No	Fair Share	1.9%
17	Perris Bl. & Krameria Av.	Moreno Valley	None	None	None	Restripe the EB and WB approaches to accommodate a left and shared through-right turn lane Implement protected left turn phasing on the EB and WB approaches	Same Same	No No	Fair Share Fair Share	3.4%
20	Perris Bl. & Harley Knox Bl.	Perris	None	None	Add 2nd EB left turn lane	Same	Same	No	Fair Share	3.9%
22	Perris Bl. & Ramona Exwy.	Perris	None	None	Add 4th EB through lane Add 4th WB through lane	Same Same Restripe the NB approach to provide dual left turn lanes, two through lanes, and one shared through-right turn lane Restripe the SB approach to provide dual left turn lanes, two through lanes, and one shared through-right turn lane Add WB right turn lane Modify the traffic signal to implement overlap phasing for the WB right turn lane Modify the traffic signal to protect the EB and WB left turns	Same Same Same Same Same Same Same	Yes (TUMF) Yes (TUMF) No No No No No	Fees Fees Fair Share Fair Share Fair Share Fair Share Fair Share	3.6%
25	Perris Bl. & Placentia Av.	Perris	None	None	None	Stripe the 3rd NB through lane Add NB right turn lane Stripe the 3rd SB through lane	Same Same Same	Yes (TUMF) No Yes (TUMF)	Fees Fair Share Fees	13.9%
26	Perris Bl. & Orange Av.	Perris	None	None	None	Add 3rd NB through lane Stripe the 3rd SB through lane	Same Same	Yes (TUMF) Yes (TUMF)	Fees Fees	--

#	Intersection Location	Jurisdiction	Recommended Improvements					Improvements in County DIF or TUMF[1,2]	Project Responsibility	Project Fair Share[4]
			Existing (2022)	EAP (2032)	EAPC (2032)	Horizon Year (2040) Without Project	Horizon Year (2040) With Project			
27	Perris Bl. & Nuevo Rd.	Perris	None	None	Add 2nd NB left turn lane Restripe the WB approach to provide dual left turn lanes, two through lanes, and one shared through-right turn lane	Same Same	Same Same	No Yes (TUMF)	Fair Share Fees	8.8%
28	Redlands Av. & Harley Knox Bl.	Perris	None	None	None	Restripe the northbound approach to provide dual left turn lanes and one through lane	Same	No	Fair Share	0.0%
30	Redlands Av. & Ramona Exwy.	Perris	None	None	Add 2nd SB left turn lane Add 2nd EB left turn lane Add 4th EB through lane Add 2nd WB left turn lane Add 4th WB through lane	Same Same Same Same Same Add NB right turn lane Modify the traffic signal to implement overlap phasing for the WB right turn lane	Same Same Same Same Same Same Same	No No No No No No No	Fair Share Fair Share Fair Share Fair Share Fair Share Fair Share Fair Share	3.9%
33	Redlands Av. & Placentia Av.	Perris	None	None	None	Install a Traffic Signal	Same	No	Fair Share	29.3%
35	Redlands Av. & Nuevo Rd.	Perris	None	Stripe the 3rd EB through lane Stripe the 3rd WB through lane	Same Same Add SB left turn lane	Same Same Same	Same Same Same	Yes (TUMF) Yes (TUMF) No	Construct Construct Fair Share	29.3%
36	Murrieta Rd. & Nuevo Rd.	Perris	None	None	None	Restripe the EB approach to provide one left turn lane, two through lanes, and one shared through-right turn lane Restripe the WB approach to provide one left turn lane, two through lanes, and one shared through-right turn lane	Same Same	No No	Fair Share Fair Share	13.7%
37	Lasselle St. & Iris Av.	Moreno Valley	None	None	Modify the traffic signal to implement a 130-second cycle	Same	Same	No	Fair Share	2.3%
38	Lasselle St. & Krameria Av.	Moreno Valley	None	None	Restripe the NB approach to provide dual left turn lanes, one through lane, and one shared through-right turn lane Add 2nd EB left turn lane Modify the traffic signal to implement overlap phasing for the EB right turn lane Modify the traffic signal to implement a 130-second cycle	Same Same Same Add 2nd SB left turn lane	Same Same Same Same	No No No No	Fair Share Fair Share Fair Share Fair Share	4.1%

#	Intersection Location	Jurisdiction	Recommended Improvements					Improvements in County DIF or TUMF[1,2]	Project Responsibility	Project Fair Share[4]
			Existing (2022)	EAP (2032)	EAPC (2032)	Horizon Year (2040) Without Project	Horizon Year (2040) With Project			
39	Evans Rd. & Ramona Exwy.	Perris	None	None	Add 3rd WB through lane Add 4th EB through lane Add 4th WB through lane	Same Same Same	Same Same Same	No No No	Fair Share Fair Share Fair Share	6.7%
41	Evans Rd. & Orange Av.	County of Riverside, Perris	None	Add 2nd EB through lane Add 2nd WB through lane	Same Same	Same Same	Same Same	No No	Construct Construct	--
45	Dunlap Dr. & Orange Av.	County of Riverside, Perris	None	None	None	Install a Traffic Signal Add NB left turn lane Restripe the EB approach to provide one through lane and one shared through-right turn lane Add WB left turn lane Add 2nd WB through lane	Same Same Same Same `	Yes (DIF) No No No No	Fees Fair Share Fair Share Fair Share Fair Share	57.0%
46	Dunlap Dr. & Nuevo Rd.	County of Riverside, Perris	None	None	Restripe the EB approach to provide one left turn lane, one through lane, and one shared through-right turn lane Add 2nd WB through lane Add NB right turn lane Add 3rd EB through lane Add 2nd WB left turn lane Add 3rd WB through lane	Same Same Same Same Same Same Add 2nd SB left turn lane	Same Same Same Same Same Same Same	Yes (TUMF) Yes (TUMF) No No No No No	Fees Fees Fair Share Fair Share Fair Share Fair Share Fair Share	16.4%
47	Ramona Exwy. & Rider St.	County of Riverside, Perris	None	None	Add 3rd NB through lane Add 3rd SB through lane	Same Same Add 4th NB through lane Add 4th SB through lane	Same Same Same Same	No No No No	Fair Share Fair Share Fair Share Fair Share	9.4%
48	Antelope Rd. & Ramona Exwy.	County of Riverside	None	Install a Traffic Signal Add NB left turn lane Add 2nd NB left turn lane Add NB right turn lane Add WB left turn lane	Same Same Same Same Same Add 3rd EB through lane Add EB right turn lane Add 3rd WB through lane	Same Same Same Same Same Same Same Same Add 4th EB through lane Add 4th WB through lane	Same Same Same Same Same Same Same Same Same Same	Yes (DIF) No No No No Yes (TUMF) No Yes (TUMF) No No	Construct Construct Construct Construct Construct Fees Fair Share Fees Fair Share Fair Share	10.4%
51	Antelope Rd. & Nuevo Rd.	County of Riverside	None	Install a Traffic Signal Add SB left turn lane Add SB right turn lane Add EB left turn lane Add 2nd WB through lane	Same Same Same Same Same Add 2nd EB through lane	Same Same Same Same Same Same Add 2nd SB left turn lane	Same Same Same Same Same Same Same	Yes (DIF) No No No Yes (TUMF) Yes (TUMF) No	Construct Construct Construct Construct Construct Fees Fair Share	19.5%

#	Intersection Location	Jurisdiction	Recommended Improvements					Improvements in County DIF or TUMF[1,2]	Project Responsibility	Project Fair Share[4]
			Existing (2022)	EAP (2032)	EAPC (2032)	Horizon Year (2040) Without Project	Horizon Year (2040) With Project			
52	Street A & Ramona Exwy.	County of Riverside	None	Install a Traffic Signal Add NB left turn lane Add 2nd NB left turn lane Add NB right turn lane Add 2nd EB through lane Add 3rd EB through lane Add WB left turn lane	Same Same Same Same Same Same Same Add 2nd WB through lane Add 3rd WB through lane	Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable	Same Same Same Same Same Same Same Same Same Add 4th EB through lane Add 4th WB through lane	No No No No Yes (TUMF) Yes (TUMF) No Yes (TUMF) Yes (TUMF) No No	Construct Construct Construct Construct Construct Construct Construct Fees Fees Construct Fair Share	5.5%
53	Menifee Rd./Reservoir Bl. & Nuevo Rd.	County of Riverside	None	Install a Traffic Signal Add WB left turn lane Add EB right turn lane	Same Same Same Add NB left turn lane	Same Same Same Same Add 2nd NB left turn lane Add 2nd NB through lane Add SB left turn lane Add SB through lane Add 2nd SB through lane Add EB left turn lane Add 2nd EB left turn lane Add 3rd EB left turn lane Add 2nd WB left turn lane Modify the traffic signal to implement overlap phasing for the SB and EB right turn lanes	Same Same Same Same Same Same Same Same Same Same Same Same Same Same Same	Yes (DIF) No No No No Yes (TUMF) No No No No No No No No	Construct Construct Construct Fair Share Fair Share Fees Fair Share Fair Share Fair Share Fair Share Fair Share Fair Share Fair Share Fair Share	11.5%
54	Menifee Rd. & San Jacinto Av.	County of Riverside	None	Install a Traffic Signal Add NB left turn lane Add SB left turn lane Restripe the EB approach to provide one left turn lane and one shared through-right turn lane Add WB left turn lane Add 2nd EB left turn lane	Same Same Same Same Same Same	Same Same Same Same Same Same Modify the traffic signal to implement overlap phasing for the SB right turn lane	Same Same Same Same Same Same Same	Yes (DIF) No No No No No No	Construct Construct Construct Construct Construct Construct Fair Share	16.9%
56	Menifee Rd. & Mapes Rd.	County of Riverside, Menifee	None	Install a Traffic Signal Add EB left turn lane Add WB left turn lane	Same Same Same	Same Same Same Add 2nd NB through lane Add 2nd SB through lane	Same Same Same Same Same	Yes (DIF) No No Yes (TUMF) Yes (TUMF)	Construct Construct Construct Fees Fees	--

#	Intersection Location	Jurisdiction	Recommended Improvements					Improvements in County DIF or TUMF[1,2]	Project Responsibility	Project Fair Share[4]
			Existing (2022)	EAP (2032)	EAPC (2032)	Horizon Year (2040) Without Project	Horizon Year (2040) With Project			
57	Menifee Rd. & Watson Rd.	Menifee	Install a Traffic Signal	Same	Same	Same	Same	No	Fair Share	11.2%
			Add NB left turn lane	Same	Same	Same	Same	No	Fair Share	
			Add SB left turn lane	Same	Same	Same	Same	No	Fair Share	
			Add EB left turn lane	Same	Same	Same	Same	No	Fair Share	
			Add WB left turn lane	Same	Same	Same	Same	No	Fair Share	
						Add 2nd NB through lane	Same	Yes (TUMF)	Fees	
						Add 2nd SB through lane	Same	Yes (TUMF)	Fees	
58	Menifee Rd. & Ethanac Rd. (SR-74)	Menifee	Add SB left turn lane	Same	Same	Same	Same	No	Fair Share	3.3%
			Modify the traffic signal to protect the NB and SB left turns	Same	Same	Same	Same	No	Fair Share	
				Add NB right turn lane	Same	Same	Same	No	Construct	
					Add 2nd NB left turn lane	Same	Same	No	Fair Share	
					Add 3rd EB through lane	Same	Same	Yes (TUMF)	Fees	
					Add 2nd WB left turn lane	Same	Same	No	Fair Share	
					Add 3rd WB through lane	Same	Same	Yes (TUMF)	Fees	
					Add 2nd NB through lane	Same	Same	No	Fair Share	
					Add 2nd SB through lane	Same	Same	Yes (TUMF)	Fees	
						Add 2nd EB left turn lane	Same	No	Fair Share	
						Modify the traffic signal to implement overlap phasing for the NB right turn lane	Same	No	Fair Share	
						Add 2nd SB left turn lane	Same	No	Fair Share	
						Add SB right turn lane	Same	No	Fair Share	
59	Bernasconi Rd. & Orange Av.	County of Riverside	None	None	None	Install a Traffic Signal	Same	Yes (DIF)	Fees	3.9%
						Add SB left turn lane	Same	No	Fair Share	
						Add 2nd SB left turn lane	Same	No	Fair Share	
						Add SB right turn lane	Same	No	Fair Share	
						Add EB left turn lane	Same	No	Fair Share	
						Add 2nd EB left turn lane	Same	No	Fair Share	
						Add EB through lane	Same	No	Fair Share	
						Add 2nd EB through lane	Same	No	Fair Share	
						Add WB through lane	Same	No	Fair Share	
						Add 2nd WB through lane	Same	No	Fair Share	
60	Lakeview Av. & Ramona Exwy.	County of Riverside	None	None	Add 2nd EB through lane	Same	Same	Yes (TUMF)	Fees	2.7%
					Add 3rd EB through lane	Same	Same	Yes (TUMF)	Fees	
					Add 2nd WB through lane	Same	Same	Yes (TUMF)	Fees	
					Add 3rd WB through lane	Same	Same	Yes (TUMF)	Fees	
						Add 2nd NB left turn lane	Same	No	Fair Share	
						Add NB free right turn lane	Same	No	Fair Share	
						Add SB left turn lane	Same	No	Fair Share	
						Add SB through lane	Same	No	Fair Share	
						Add SB right turn lane	Same	No	Fair Share	
						Add EB left turn lane	Same	No	Fair Share	
						Add 2nd WB left turn lane	Same	No	Fair Share	
						Add 4th EB through lane	Same	No	Fair Share	
						Add 4th WB through lane	Same	No	Fair Share	

#	Intersection Location	Jurisdiction	Recommended Improvements					Improvements in County DIF or TUMF[1,2]	Project Responsibility	Project Fair Share[4]
			Existing (2022)	EAP (2032)	EAPC (2032)	Horizon Year (2040) Without Project	Horizon Year (2040) With Project			
61	Lakeview Av. & Nuevo Rd.	County of Riverside	None	Install a Traffic Signal Add SB left turn lane Add EB left turn lane	Same Same Same	Same Same Same Modify the traffic signal to implement overlap phasing for the SB right turn lane	Same Same Same Same	No No No No	Fair Share Fair Share Fair Share Fair Share	10.1%
63	Hansen Av./Davis Rd. & Ramona Exwy.	County of Riverside	None	None	Add 3rd EB through lane Add 3rd WB through lane	Same Same Add 4th EB through lane Add 4th WB through lane	Same Same Same Same	Yes (TUMF) Yes (TUMF) No No	Fees Fees Fair Share Fair Share	3.3%
65	Bridge St. & Ramona Exwy.	County of Riverside	Install a Traffic Signal	Same	Same Add 2nd EB through lane Add 3rd EB through lane Add 2nd WB through lane Add 3rd WB through lane	Same Same Same Same Same Add 4th EB through lane Add 4th WB through lane	Same Same Same Same Same Same Same	Yes (DIF) Yes (TUMF) Yes (TUMF) Yes (TUMF) Yes (TUMF) No No	Fees Fees Fees Fees Fees Fair Share Fair Share	2.5%
66	Warren Rd. & Ramona Exwy.	County of Riverside, San Jacinto	None	None	Add 2nd NB left turn lane Add 3rd EB through lane Add 2nd WB left turn lane Add 3rd WB through lane	Same Same Same Same Add 4th EB through lane Add 4th WB through lane	Same Same Same Same Same Same	No Yes (TUMF) No Yes (TUMF) No No	Fair Share Fees Fair Share Fees Fair Share Fair Share	2.9%
67	Sanderson Av. (SR-79) & Ramona Exwy.	San Jacinto	Add 3rd SB through lane Add 3rd NB through lane Add SB free right turn Add 3rd EB through lane Add 3rd WB through lane	Same Same Same Same Same	Same Same Same Same Same Add 4th NB through lane Add 4th SB through lane	Same Same Same Same Same Same Same Add NB free right turn Add EB free right turn Add WB free right turn Add 3rd EB left turn lane	Same Same Same Same Same Same Same Same Same Same Same	Yes (TUMF) No No Yes (TUMF) Yes (TUMF) No No No No No No	Fees Fair Share Fair Share Fees Fees Fair Share Fair Share Fair Share Fair Share Fair Share Fair Share	2.6%
70	Murrieta Rd. & San Jacinto Av.	Perris	None	Install a Traffic Signal	Same Add 2nd EB through lane Add 2nd WB through lane	Same Same Same	Same Same Same	No No No	Fair Share Fair Share Fair Share	
71	Redlands Av. & San Jacinto Av.	Perris	None	Modify the traffic signal to implement overlap phasing for the NB right turn	Same Add 2nd NB right turn lane	Same Same Add 3rd WB left turn lane	Same Same Same	No No No	Fair Share Fair Share Fair Share	9.6%
72	Redlands Av. & I-215 NB Ramps	Perris, Caltrans	None	None	Modify the traffic signal to implement a 120-second cycle	Same	Same	No	Fair Share	9.8%

#	Intersection Location	Jurisdiction	Recommended Improvements					Improvements in County DIF or TUMF[1,2]	Project Responsibility	Project Fair Share[4]
			Existing (2022)	EAP (2032)	EAPC (2032)	Horizon Year (2040) Without Project	Horizon Year (2040) With Project			
74	Evans Rd. & San Jacinto Av.	Perris	None	None	None	Install a Traffic Signal	Same	No	Fair Share	11.8%
						Add NB left turn lane	Same	No	Fair Share	
						Add NB through lane	Same	Yes (TUMF)	Fees	
						Add 2nd NB through lane	Same	Yes (TUMF)	Fees	
						Add SB left turn lane	Same	No	Fair Share	
						Add 2nd SB through lane	Same	Yes (TUMF)	Fees	
						Add EB left turn lane	Same	No	Fair Share	
						Add 2nd EB through lane	Same	No	Fair Share	
						Add WB left turn lane	Same	No	Fair Share	
						Add 2nd WB through lane	Same	No	Fair Share	
77	Dunlap Dr. & San Jacinto Av.	County of Riverside, Perris	None	Install a Traffic Signal	Same	Same	Same	No	Fair Share	24.6%
				Add EB left turn lane	Same	Same	Same	No	Fair Share	
						Add SB left turn lane	Same	No	Fair Share	
						Add 2nd EB left turn lane	Same	No	Fair Share	
						Add 2nd EB through lane	Same	No	Fair Share	
						Add 2nd WB through lane	Same	No	Fair Share	
78	I-215 SB Ramps & SR-74	Perris, Caltrans	None	None	Add 2nd SB through lane	Same	Same	No	Fair Share	0.0%
80	Trumble Rd. & SR-74	County of Riverside, Caltrans	None	None	Add 2nd EB left turn lane	Same	Same	No	Fair Share	0.0%
82	I-215 NB Ramps & Ethanac Rd.	Perris, Caltrans	None	None	Add NB left turn lane	Same	Same	Yes (TUMF)	Fees	--
						Add NB right turn lane	Same	Yes (TUMF)	Fees	
						Add 2nd NB right turn lane	Same	Yes (TUMF)	Fees	
						Add 2nd EB through lane	Same	Yes (TUMF)	Fees	
						Add 2nd NB right turn lane	Same	Yes (TUMF)	Fees	
						Add 2nd EB through lane	Same	Yes (TUMF)	Fees	
						Add 3rd EB through lane	Same	Yes (TUMF)	Fees	
						Add EB free right turn lane	Same	Yes (TUMF)	Fees	
						Add 2nd WB through lane	Same	Yes (TUMF)	Fees	
						Add 3rd WB through lane	Same	Yes (TUMF)	Fees	
						Add WB free right turn lane	Same	Yes (TUMF)	Fees	
83	Encanto Dr. & Ethanac Rd.	Perris	None	None	Install a Traffic Signal	Same	Same	No	Fair Share	0.0%
						Add 2nd EB through lane	Same	No	Fair Share	
						Add 3rd EB through lane	Same	No	Fair Share	
						Add 2nd WB through lane	Same	No	Fair Share	
						Add 3rd WB through lane	Same	No	Fair Share	
84	Sherman Rd. & Ethanac Rd.	Perris, Menifee	None	Add EB left turn lane	Same	Same	Same	No	Fair Share	0.0%
					Install a Traffic Signal	Same	Same	No	Fair Share	
					Add WB left turn lane	Same	Same	No	Fair Share	
						Add NB left turn lane	Same	No	Fair Share	
						Add SB left turn lane	Same	No	Fair Share	
						Add 2nd EB through lane	Same	No	Fair Share	
						Add 3rd EB through lane	Same	No	Fair Share	
						Add 2nd WB through lane	Same	No	Fair Share	
						Add 3rd WB through lane	Same	No	Fair Share	

#	Intersection Location	Jurisdiction	Recommended Improvements					Improvements in County DIF or TUMF[1,2]	Project Responsibility	Project Fair Share[4]
			Existing (2022)	EAP (2032)	EAPC (2032)	Horizon Year (2040) Without Project	Horizon Year (2040) With Project			
86	Antelope Rd. & Ethanac Rd.	Menifee	None	None	Add NB left turn lane	Same	Same	No	Fair Share	0.0%
					Add SB left turn lane	Same	Same	No	Fair Share	
					Add EB left turn lane	Same	Same	No	Fair Share	
					Add WB left turn lane	Same	Same	No	Fair Share	
						Install a Traffic Signal	Same	No	Fair Share	
						Add 2nd EB through lane	Same	No	Fair Share	
						Add 3rd EB through lane	Same	No	Fair Share	
						Add 2nd WB through lane	Same	No	Fair Share	
						Add 3rd WB through lane	Same	No	Fair Share	
87	Menifee Rd. & Matthews Rd.	Menifee	None	Add NB left turn lane	Same	Same	Same	No	Fair Share	0.0%
					Add 2nd NB through lane	Same	Same	No	Fair Share	
					Add 2nd SB through lane	Same	Same	No	Fair Share	
						Install a Traffic Signal	Same	No	Fair Share	

[1] Improvements included in TUMF Nexus, or County of Riverside DIF fee programs.

[2] Program improvements constructed by project may be eligible for fee credit. In lieu fee payment is at discretion of County. Represents the fair share percentage for the Project during the most impacted peak hour.

[3] Although the interchange is identified as a TUMF interchange, the interchange is not currently identified on the Central Zone 5-Year Transportation Improvement Program Amendment (adopted June 30, 2016).

[4] Program improvements constructed by project may be eligible for fee credit, at discretion of County. See Table 8-2 for Fair Share Calculations.

[5] Improvement planned to be constructed as part of the I-215 Freeway/Placentia Avenue interchange project, which is anticipated to be completed in 2022.

TABLE 1-4: SUMMARY OF IMPROVEMENTS BY ANALYSIS SCENARIO – ALTERNATIVE 3

#	Intersection Location	Jurisdiction	Recommended Improvements					Improvements in County DIF or TUMF[1,2]	Project Responsibility	Project Fair Share[4]
			Existing (2022)	EAP (2032)	EAPC (2032)	Horizon Year (2040) Without Project	Horizon Year (2040) With Project			
1	Harvill Av. & Cajalco Exwy.	County of Riverside	None	Add 3rd EB through lane Add 3rd WB through lane	Same Same	Same Same Add 4th EB through lane Add 4th WB through lane	Same Same Same Same	Yes (TUMF) Yes (TUMF) No No	Construct Construct Fair Share Fair Share	2.9%
2	I-215 Southbound Ramps & Harley Knox Bl.	County of Riverside, Caltrans	None	Add SB left turn lane	Same Restripe the WB approach to provide dual left turns and one through lane	Same Same	Same Same	Yes (TUMF)[3] Yes (TUMF)[3]	Fees Fees	--
3	I-215 Northbound Ramps & Harley Knox Bl.	County of Riverside, Caltrans	None	Add 2nd EB left turn lane	Same Add WB free right turn	Same Same	Same Same	Yes (TUMF)[3] Yes (TUMF)[3]	Fees Fees	--
4	I-215 Southbound Ramps & Ramona Exwy.	County of Riverside, Caltrans	None	Add 2nd WB left turn lane	Same Add 3rd EB through lane Stripe the EB right turn defacto lane Add 3rd WB through lane	Same Same Not Applicable Same Add 4th EB through lane Add 4th WB through lane Add EB free right turn lane	Same Same Not Applicable Same Same Same Same	Yes (TUMF) Yes (TUMF) No Yes (TUMF) No No No	Fees Fees Fair Share Fees Fair Share Fair Share Fair Share	2.2%
5	I-215 Northbound Ramps & Ramona Exwy.	Perris, Caltrans	None	None	Add 2nd EB left turn lane Add 3rd EB through lane Add 3rd WB through lane	Same Same Same Add 4th EB through lane Add 4th WB through lane Add 2nd NB right turn lane	Same Same Same Same Same Same	Yes (TUMF) Yes (TUMF) Yes (TUMF) No No No	Fees Fees Fees Fair Share Fair Share Fair Share	1.7%
6	I-215 SB Ramps & Placentia Av.	County of Riverside, Caltrans	None	Install a Traffic Signal[5] Add SB left turn lane[5] Add SB shared left-through lane[5] Add SB right turn lane[5] Add WB left turn lane[5]	Same Same Same Same Same Add 2nd WB left turn lane	Same Same Same Same Same Same	Same Same Same Same Same Same	Yes (TUMF) Yes (TUMF) Yes (TUMF) Yes (TUMF) Yes (TUMF) No	Fees Fees Fees Fees Fees Fair Share	7.0%
7	I-215 NB Ramps & Placentia Av.	Perris, Caltrans	None	Install a Traffic Signal[5] Add NB left turn lane[5] Add NB shared left-through lane[5] Add NB right turn lane[5] Add EB left turn lane[5] Add WB right turn lane[5]	Same Same Same Same Same Same	Same Same Same Same Same Same	Same Same Same Same Same Same	Yes (TUMF) Yes (TUMF) Yes (TUMF) Yes (TUMF) Yes (TUMF) Yes (TUMF)	Fees Fees Fees Fees Fees Fees	--
8	I-215 SB Ramps & Nuevo Rd.	County of Riverside, Perris, Caltrans	None	None	Modify the traffic signal to implement a 120-second cycle	Same	Same	No	Fair Share	6.4%

#	Intersection Location	Jurisdiction	Recommended Improvements					Improvements in County DIF or TUMF[1,2]	Project Responsibility	Project Fair Share[4]
			Existing (2022)	EAP (2032)	EAPC (2032)	Horizon Year (2040) Without Project	Horizon Year (2040) With Project			
12	Webster Av. & Ramona Exwy.	Perris	None	None	Add 4th EB through lane Restripe the WB approach to provide one left turn lane, three through lanes, and one shared through-right turn lane	Same Same	Same Same	No No	Fair Share Fair Share	1.8%
13	Indian Av. & Harley Knox Bl.	Perris	None	None	None	Add 2nd EB left turn lane	Same	No	Fair Share	1.0%
14	Indian Av. & Ramona Exwy.	Perris	None	None	Add 4th EB through lane Restripe the WB approach to provide one left turn lane, three through lanes, and one shared through-right turn lane	Same Same	Same Same	No No	Fair Share Fair Share	2.6%
16	Perris Bl. & Iris Av.	Moreno Valley	None	None	Add EB right turn lane	Same	Same	No	Fair Share	1.9%
17	Perris Bl. & Krameria Av.	Moreno Valley	None	None	None	Restripe the EB and WB approaches to accommodate a left and shared through-right turn lane Implement protected left turn phasing on the EB and WB approaches	Same Same	No No	Fair Share Fair Share	3.4%
20	Perris Bl. & Harley Knox Bl.	Perris	None	None	Add 2nd EB left turn lane	Same	Same	No	Fair Share	3.9%
22	Perris Bl. & Ramona Exwy.	Perris	None	None	Add 4th EB through lane Add 4th WB through lane	Same Same Restripe the NB approach to provide dual left turn lanes, two through lanes, and one shared through-right turn lane Restripe the SB approach to provide dual left turn lanes, two through lanes, and one shared through-right turn lane Add WB right turn lane Modify the traffic signal to implement overlap phasing for the WB right turn lane Modify the traffic signal to protect the EB and WB left turns	Same Same Same Same Same Same Same	Yes (TUMF) Yes (TUMF) No No No No No	Fees Fees Fair Share Fair Share Fair Share Fair Share Fair Share	3.6%
25	Perris Bl. & Placentia Av.	Perris	None	None	None	Stripe the 3rd NB through lane Add NB right turn lane Stripe the 3rd SB through lane	Same Same Same	Yes (TUMF) No Yes (TUMF)	Fees Fair Share Fees	13.9%
26	Perris Bl. & Orange Av.	Perris	None	None	None	Add 3rd NB through lane Stripe the 3rd SB through lane	Same Same	Yes (TUMF) Yes (TUMF)	Fees Fees	--

#	Intersection Location	Jurisdiction	Recommended Improvements					Improvements in County DIF or TUMF[1,2]	Project Responsibility	Project Fair Share[4]
			Existing (2022)	EAP (2032)	EAPC (2032)	Horizon Year (2040) Without Project	Horizon Year (2040) With Project			
27	Perris Bl. & Nuevo Rd.	Perris	None	None	Add 2nd NB left turn lane Restripe the WB approach to provide dual left turn lanes, two through lanes, and one shared through-right turn lane	Same Same	Same Same	No Yes (TUMF)	Fair Share Fees	8.8%
28	Redlands Av. & Harley Knox Bl.	Perris	None	None	None	Restripe the northbound approach to provide dual left turn lanes and one through lane	Same	No	Fair Share	0.0%
30	Redlands Av. & Ramona Exwy.	Perris	None	None	Add 2nd SB left turn lane Add 2nd EB left turn lane Add 4th EB through lane Add 2nd WB left turn lane Add 4th WB through lane	Same Same Same Same Same Add NB right turn lane Modify the traffic signal to implement overlap phasing for the WB right turn lane	Same Same Same Same Same Same Same	No No No No No No No	Fair Share Fair Share Fair Share Fair Share Fair Share Fair Share Fair Share	3.9%
33	Redlands Av. & Placentia Av.	Perris	None	None	None	Install a Traffic Signal	Same	No	Fair Share	29.3%
35	Redlands Av. & Nuevo Rd.	Perris	None	Stripe the 3rd EB through lane Stripe the 3rd WB through lane	Same Same Add SB left turn lane	Same Same Same	Same Same Same	Yes (TUMF) Yes (TUMF) No	Construct Construct Fair Share	29.3%
36	Murrieta Rd. & Nuevo Rd.	Perris	None	None	None	Restripe the EB approach to provide one left turn lane, two through lanes, and one shared through-right turn lane Restripe the WB approach to provide one left turn lane, two through lanes, and one shared through-right turn lane	Same Same	No No	Fair Share Fair Share	13.7%
37	Lasselle St. & Iris Av.	Moreno Valley	None	None	Modify the traffic signal to implement a 130-second cycle	Same	Same	No	Fair Share	2.3%
38	Lasselle St. & Krameria Av.	Moreno Valley	None	None	Restripe the NB approach to provide dual left turn lanes, one through lane, and one shared through-right turn lane Add 2nd EB left turn lane Modify the traffic signal to implement overlap phasing for the EB right turn lane Modify the traffic signal to implement a 130-second cycle	Same Same Same Add 2nd SB left turn lane	Same Same Same Same	No No No No	Fair Share Fair Share Fair Share Fair Share	4.1%

#	Intersection Location	Jurisdiction	Recommended Improvements					Improvements in County DIF or TUMF[1,2]	Project Responsibility	Project Fair Share[4]
			Existing (2022)	EAP (2032)	EAPC (2032)	Horizon Year (2040) Without Project	Horizon Year (2040) With Project			
39	Evans Rd. & Ramona Exwy.	Perris	None	None	Add 3rd WB through lane Add 4th EB through lane Add 4th WB through lane	Same Same Same	Same Same Same	No No No	Fair Share Fair Share Fair Share	6.7%
41	Evans Rd. & Orange Av.	County of Riverside, Perris	None	Add 2nd EB through lane Add 2nd WB through lane	Same Same	Same Same	Same Same	No No	Construct Construct	--
45	Dunlap Dr. & Orange Av.	County of Riverside, Perris	None	None	None	Install a Traffic Signal Add NB left turn lane Restripe the EB approach to provide one through lane and one shared through-right turn lane Add WB left turn lane Add 2nd WB through lane	Same Same Same Same `	Yes (DIF) No No No No	Fees Fair Share Fair Share Fair Share Fair Share	57.0%
46	Dunlap Dr. & Nuevo Rd.	County of Riverside, Perris	None	Restripe the EB approach to provide one left turn lane, one through lane, and one shared through-right turn lane Add 2nd WB through lane	Same Same Add NB right turn lane Add 3rd EB through lane Add 2nd WB left turn lane Add 3rd WB through lane	Same Same Same Same Same Same Add 2nd SB left turn lane	Same Same Same Same Same Same Same	Yes (TUMF) Yes (TUMF) No No No No No	Construct Construct Fair Share Fair Share Fair Share Fair Share Fair Share	15.4%
47	Ramona Exwy. & Rider St.	County of Riverside, Perris	None	None	Add 3rd NB through lane Add 3rd SB through lane	Same Same Add 4th NB through lane Add 4th SB through lane	Same Same Same Same	No No No No	Fair Share Fair Share Fair Share Fair Share	9.4%
48	Antelope Rd. & Ramona Exwy.	County of Riverside	None	Install a Traffic Signal Add NB left turn lane Add 2nd NB left turn lane Add NB right turn lane Add WB left turn lane	Same Same Same Same Add 3rd EB through lane Add EB right turn lane Add 3rd WB through lane	Same Same Same Same Same Same Same Add 4th EB through lane Add 4th WB through lane	Same Same Same Same Same Same Same Same Same	Yes (DIF) No No No No Yes (TUMF) No Yes (TUMF) No No	Construct Construct Construct Construct Construct Fees Fair Share Fees Fair Share Fair Share	10.4%
51	Antelope Rd. & Nuevo Rd.	County of Riverside	None	Install a Traffic Signal Add SB left turn lane Add SB right turn lane Add EB left turn lane Add 2nd WB through lane	Same Same Same Same Same Add 2nd EB left turn lane Add 2nd EB through lane	Same Same Same Same Same Same Same Add 2nd SB left turn lane	Same Same Same Same Same Same Same Same	Yes (DIF) No No No Yes (TUMF) No Yes (TUMF) No	Construct Construct Construct Construct Construct Fair Share Fees Fair Share	19.5%

#	Intersection Location	Jurisdiction	Recommended Improvements					Improvements in County DIF or TUMF[1,2]	Project Responsibility	Project Fair Share[4]
			Existing (2022)	EAP (2032)	EAPC (2032)	Horizon Year (2040) Without Project	Horizon Year (2040) With Project			
52	Street A & Ramona Exwy.	County of Riverside	None	Install a Traffic Signal Add NB left turn lane Add 2nd NB left turn lane Add NB right turn lane Add 2nd EB through lane Add 3rd EB through lane Add WB left turn lane	Same Same Same Same Same Same Same Add 2nd WB through lane Add 3rd WB through lane	Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable	Same Same Same Same Same Same Same Same Same Add 4th EB through lane Add 4th WB through lane	No No No No Yes (TUMF) Yes (TUMF) No Yes (TUMF) Yes (TUMF) No No	Construct Construct Construct Construct Construct Construct Construct Fees Fees Construct Fair Share	5.5%
53	Menifee Rd./Reservoir Bl. & Nuevo Rd.	County of Riverside	None	Install a Traffic Signal Add WB left turn lane Add EB right turn lane	Same Same Same Add NB left turn lane	Same Same Same Same Add 2nd NB left turn lane Add 2nd NB through lane Add SB left turn lane Add SB through lane Add 2nd SB through lane Add EB left turn lane Add 2nd EB left turn lane Add 3rd EB left turn lane Add 2nd WB left turn lane Modify the traffic signal to implement overlap phasing for the SB and EB right turn lanes	Same Same Same Same Same Same Same Same Same Same Same Same Same Same Same	Yes (DIF) No No No No Yes (TUMF) No No No No No No No No No	Construct Construct Construct Fair Share Fair Share Fees Fair Share Fair Share Fair Share Fair Share Fair Share Fair Share Fair Share Fair Share Fair Share	10.4%
54	Menifee Rd. & San Jacinto Av.	County of Riverside	None	Install a Traffic Signal Add NB left turn lane Add SB left turn lane Restripe the EB approach to provide one left turn lane and one shared through-right turn lane Add WB left turn lane	Same Same Same Same Same Add 2nd SB through lane	Same Same Same Same Same Same	Same Same Same Same Same Same	Yes (DIF) No No No No Yes (TUMF)	Construct Construct Construct Construct Construct Fees	20.9%
55	Menifee Rd. & Ellis Rd.	County of Riverside	None	Install a Traffic Signal Add NB left turn lane Add SB left turn lane	Same Same Same	Same Same Same Add 2nd NB through lane Add 2nd SB through lane	Same Same Same Same Same	Yes (DIF) No No Yes (TUMF) Yes (TUMF)	Construct Construct Construct Fees Fees	--
56	Menifee Rd. & Mapes Rd.	County of Riverside, Menifee	None	Install a Traffic Signal Add EB left turn lane Add WB left turn lane	Same Same Same	Same Same Same Add 2nd NB through lane Add 2nd SB through lane	Same Same Same Same Same	Yes (DIF) No No Yes (TUMF) Yes (TUMF)	Construct Construct Construct Fees Fees	--

#	Intersection Location	Jurisdiction	Recommended Improvements					Improvements in County DIF or TUMF[1,2]	Project Responsibility	Project Fair Share[4]
			Existing (2022)	EAP (2032)	EAPC (2032)	Horizon Year (2040) Without Project	Horizon Year (2040) With Project			
57	Menifee Rd. & Watson Rd.	Menifee	Install a Traffic Signal	Same	Same	Same	Same	No	Fair Share	20.3%
			Add NB left turn lane	Same	Same	Same	Same	No	Fair Share	
			Add SB left turn lane	Same	Same	Same	Same	No	Fair Share	
			Add EB left turn lane	Same	Same	Same	Same	No	Fair Share	
			Add WB left turn lane	Same	Same	Same	Same	No	Fair Share	
						Add 2nd NB through lane	Same	Yes (TUMF)	Fees	
						Add 2nd SB through lane	Same	Yes (TUMF)	Fees	
58	Menifee Rd. & Ethanac Rd. (SR-74)	Menifee	Add SB left turn lane	Same	Same	Same	Same	No	Fair Share	9.5%
			Modify the traffic signal to protect the NB and SB left turns	Same	Same	Same	Same	No	Fair Share	
				Add NB right turn lane	Same	Same	Same	No	Construct	
				Add SB right turn lane	Same	Same	Same	No	Construct	
				Add 2nd EB left turn lane	Same	Same	Same	No	Construct	
					Add 3rd EB through lane	Same	Same	Yes (TUMF)	Fees	
					Add 2nd WB left turn lane	Same	Same	No	Fair Share	
					Add 3rd WB through lane	Same	Same	Yes (TUMF)	Fees	
					Add 2nd NB through lane	Same	Same	No	Fair Share	
					Add 2nd SB through lane	Same	Same	Yes (TUMF)	Fees	
						Add 2nd NB left turn lane	Same	No	Fair Share	
						Add EB right turn lane	Same	No	Fair Share	
						Modify the traffic signal to implement overlap phasing for the NB and EB right turn lanes	Same	No	Fair Share	
						Add 2nd SB left turn lane	Same	No	Fair Share	
59	Bernasconi Rd. & Orange Av.	County of Riverside	None	None	None	Install a Traffic Signal	Same	Yes (DIF)	Fees	3.9%
						Add SB left turn lane	Same	No	Fair Share	
						Add 2nd SB left turn lane	Same	No	Fair Share	
						Add SB right turn lane	Same	No	Fair Share	
						Add EB left turn lane	Same	No	Fair Share	
						Add 2nd EB left turn lane	Same	No	Fair Share	
						Add EB through lane	Same	No	Fair Share	
						Add 2nd EB through lane	Same	No	Fair Share	
						Add WB through lane	Same	No	Fair Share	
						Add 2nd WB through lane	Same	No	Fair Share	
60	Lakeview Av. & Ramona Exwy.	County of Riverside	None	None	Add 2nd EB through lane	Same	Same	Yes (TUMF)	Fees	2.7%
					Add 3rd EB through lane	Same	Same	Yes (TUMF)	Fees	
					Add 2nd WB through lane	Same	Same	Yes (TUMF)	Fees	
					Add 3rd WB through lane	Same	Same	Yes (TUMF)	Fees	
						Add 2nd NB left turn lane	Same	No	Fair Share	
						Add NB free right turn lane	Same	No	Fair Share	
						Add SB left turn lane	Same	No	Fair Share	
						Add SB through lane	Same	No	Fair Share	
						Add SB right turn lane	Same	No	Fair Share	
						Add EB left turn lane	Same	No	Fair Share	
						Add 2nd WB left turn lane	Same	No	Fair Share	
						Add 4th EB through lane	Same	No	Fair Share	
						Add 4th WB through lane	Same	No	Fair Share	

#	Intersection Location	Jurisdiction	Recommended Improvements					Improvements in County DIF or TUMF[1,2]	Project Responsibility	Project Fair Share[4]
			Existing (2022)	EAP (2032)	EAPC (2032)	Horizon Year (2040) Without Project	Horizon Year (2040) With Project			
61	Lakeview Av. & Nuevo Rd.	County of Riverside	None	Install a Traffic Signal Add SB left turn lane Add EB left turn lane	Same Same Same	Same Same Same Modify the traffic signal to implement overlap phasing for the SB right turn lane	Same Same Same Same	No No No No	Construct Construct Construct Fair Share	10.1%
63	Hansen Av./Davis Rd. & Ramona Exwy.	County of Riverside	None	None	Add 3rd EB through lane Add 3rd WB through lane	Same Same Add 4th EB through lane Add 4th WB through lane	Same Same Same Same	Yes (TUMF) Yes (TUMF) No No	Fees Fees Fair Share Fair Share	3.3%
65	Bridge St. & Ramona Exwy.	County of Riverside	Install a Traffic Signal	Same	Same Add 2nd EB through lane Add 3rd EB through lane Add 2nd WB through lane Add 3rd WB through lane	Same Same Same Same Same Add 4th EB through lane Add 4th WB through lane	Same Same Same Same Same Same Same	Yes (DIF) Yes (TUMF) Yes (TUMF) Yes (TUMF) Yes (TUMF) No No	Fees Fees Fees Fees Fees Fair Share Fair Share	2.5%
66	Warren Rd. & Ramona Exwy.	County of Riverside, San Jacinto	None	None	Add 2nd NB left turn lane Add 3rd EB through lane Add 2nd WB left turn lane Add 3rd WB through lane	Same Same Same Same Add 4th EB through lane Add 4th WB through lane	Same Same Same Same Same Same	No Yes (TUMF) No Yes (TUMF) No No	Fair Share Fees Fair Share Fees Fair Share Fair Share	2.9%
67	Sanderson Av. (SR-79) & Ramona Exwy.	San Jacinto	Add 3rd SB through lane Add 3rd NB through lane Add SB free right turn Add 3rd EB through lane Add 3rd WB through lane	Same Same Same Same Same	Same Same Same Same Same Add 4th NB through lane Add 4th SB through lane	Same Same Same Same Same Same Same Add NB free right turn Add EB free right turn Add WB free right turn Add 3rd EB left turn lane	Same Same Same Same Same Same Same Same Same Same Same	Yes (TUMF) No No Yes (TUMF) Yes (TUMF) No No No No No No	Fees Fair Share Fair Share Fees Fees Fair Share Fair Share Fair Share Fair Share Fair Share Fair Share	2.6%
70	Murrieta Rd. & San Jacinto Av.	Perris	None	Install a Traffic Signal	Same	Same Add 2nd EB through lane Add 2nd WB through lane	Same Same Same	No No No	Construct Fair Share Fair Share	0.0%
71	Redlands Av. & San Jacinto Av.	Perris	None	Modify the traffic signal to implement overlap phasing for the NB right turn	Same	Same Add 3rd WB left turn lane	Same Same	No No	Construct Fair Share	0.0%
72	Redlands Av. & I-215 NB Ramps	Perris, Caltrans	None	None	Modify the traffic signal to implement a 120-second cycle	Same	Same	No	Fair Share	0.0%

#	Intersection Location	Jurisdiction	Recommended Improvements					Improvements in County DIF or TUMF[1,2]	Project Responsibility	Project Fair Share[4]
			Existing (2022)	EAP (2032)	EAPC (2032)	Horizon Year (2040) Without Project	Horizon Year (2040) With Project			
74	Evans Rd. & San Jacinto Av.	Perris	None	None	None	Install a Traffic Signal	Same	No	Fair Share	0.0%
						Add NB left turn lane	Same	No	Fair Share	
						Add NB through lane	Same	Yes (TUMF)	Fees	
						Add 2nd NB through lane	Same	Yes (TUMF)	Fees	
						Add SB left turn lane	Same	No	Fair Share	
						Add 2nd SB through lane	Same	Yes (TUMF)	Fees	
						Add EB left turn lane	Same	No	Fair Share	
						Add 2nd EB through lane	Same	No	Fair Share	
						Add WB left turn lane	Same	No	Fair Share	
						Add 2nd WB through lane	Same	No	Fair Share	
77	Dunlap Dr. & San Jacinto Av.	County of Riverside, Perris	None	Install a Traffic Signal	Same	Same	Same	No	Construct	0.0%
				Add EB left turn lane	Same	Same	Same	No	Construct	
						Add SB left turn lane	Same	No	Fair Share	
						Add 2nd EB through lane	Same	No	Fair Share	
						Add 2nd WB through lane	Same	No	Fair Share	
78	I-215 SB Ramps & SR-74	Perris, Caltrans	None	None	Add 2nd SB through lane	Same	Same	No	Fair Share	7.7%
79	I-215 NB Ramps & SR-74	County of Riverside, Perris, Caltrans	None	None	None	Add SB left turn lane	Same	No	Fair Share	11.0%
80	Trumble Rd. & SR-74	County of Riverside, Caltrans	None	None	Add 2nd EB left turn lane	Same	Same	No	Fair Share	10.8%
						Add EB right turn lane	Same	No	Fair Share	
						Modify the traffic signal to implement overlap phasing for the SB right turn lane	Same	No	Fair Share	
82	I-215 NB Ramps & Ethanac Rd.	Perris, Caltrans	None	None	Add NB left turn lane	Same	Same	Yes (TUMF)	Fees	--
						Add NB right turn lane	Same	Yes (TUMF)	Fees	
						Add 2nd NB right turn lane	Same	Yes (TUMF)	Fees	
						Add 2nd EB through lane	Same	Yes (TUMF)	Fees	
						Add 3rd EB through lane	Same	Yes (TUMF)	Fees	
						Add EB free right turn lane	Same	Yes (TUMF)	Fees	
						Add 2nd WB through lane	Same	Yes (TUMF)	Fees	
						Add 3rd WB through lane	Same	Yes (TUMF)	Fees	
						Add WB free right turn lane	Same	Yes (TUMF)	Fees	
83	Encanto Dr. & Ethanac Rd.	Perris	None	None	Install a Traffic Signal	Same	Same	No	Fair Share	0.0%
						Add 2nd EB through lane	Same	No	Fair Share	
						Add 3rd EB through lane	Same	No	Fair Share	
						Add 2nd WB through lane	Same	No	Fair Share	
						Add 3rd WB through lane	Same	No	Fair Share	

#	Intersection Location	Jurisdiction	Recommended Improvements					Improvements in County DIF or TUMF[1,2]	Project Responsibility	Project Fair Share[4]
			Existing (2022)	EAP (2032)	EAPC (2032)	Horizon Year (2040) Without Project	Horizon Year (2040) With Project			
84	Sherman Rd. & Ethanac Rd.	Perris, Menifee	None	Add EB left turn lane	Same	Same	Same	No	Construct	0.0%
					Install a Traffic Signal	Same	Same	No	Fair Share	
					Add WB left turn lane	Same	Same	No	Fair Share	
						Add NB left turn lane	Same	No	Fair Share	
						Add SB left turn lane	Same	No	Fair Share	
						Add 2nd EB through lane	Same	No	Fair Share	
						Add 3rd EB through lane	Same	No	Fair Share	
						Add 2nd WB through lane	Same	No	Fair Share	
						Add 3rd WB through lane	Same	No	Fair Share	
86	Antelope Rd. & Ethanac Rd.	Menifee	None	None	Add NB left turn lane	Same	Same	No	Fair Share	0.0%
					Add SB left turn lane	Same	Same	No	Fair Share	
					Add EB left turn lane	Same	Same	No	Fair Share	
					Add WB left turn lane	Same	Same	No	Fair Share	
						Install a Traffic Signal	Same	No	Fair Share	
						Add 2nd EB through lane	Same	No	Fair Share	
						Add 3rd EB through lane	Same	No	Fair Share	
						Add 2nd WB through lane	Same	No	Fair Share	
						Add 3rd WB through lane	Same	No	Fair Share	
87	Menifee Rd. & Matthews Rd.	Menifee	None	Add NB left turn lane	Same	Same	Same	No	Construct	0.0%
					Add 2nd NB through lane	Same	Same	No	Fair Share	
					Add 2nd SB through lane	Same	Same	No	Fair Share	
						Install a Traffic Signal	Same	No	Fair Share	

[1] Improvements included in TUMF Nexus, or County of Riverside DIF fee programs.

[2] Program improvements constructed by project may be eligible for fee credit. In lieu fee payment is at discretion of County. Represents the fair share percentage for the Project during the most impacted peak hour.

[3] Although the interchange is identified as a TUMF interchange, the interchange is not currently identified on the Central Zone 5-Year Transportation Improvement Program Amendment (adopted June 30, 2016).

[4] Program improvements constructed by project may be eligible for fee credit, at discretion of County. See Table 8-3 for Fair Share Calculations.

[5] Improvement planned to be constructed as part of the I-215 Freeway/Placentia Avenue interchange project, which is anticipated to be completed in 2022.

TABLE 1-5: SUMMARY OF IMPROVEMENTS BY ANALYSIS SCENARIO – ALTERNATIVE 4

#	Intersection Location	Jurisdiction	Recommended Improvements					Improvements in County DIF or TUMF[1,2]	Project Responsibility	Project Fair Share[4]
			Existing (2022)	EAP (2032)	EAPC (2032)	Horizon Year (2040) Without Project	Horizon Year (2040) With Project			
1	Harvill Av. & Cajalco Exwy.	County of Riverside	None	Add 3rd EB through lane Add 3rd WB through lane	Same Same	Same Same Add 4th EB through lane Add 4th WB through lane	Same Same Same Same	Yes (TUMF) Yes (TUMF) No No	Construct Construct Fair Share Fair Share	2.9%
2	I-215 Southbound Ramps & Harley Knox Bl.	County of Riverside, Caltrans	None	Add SB left turn lane	Same Restripe the WB approach to provide dual left turns and one through lane	Same Same	Same Same	Yes (TUMF)[3] Yes (TUMF)[3]	Fees Fees	--
3	I-215 Northbound Ramps & Harley Knox Bl.	County of Riverside, Caltrans	None	Add 2nd EB left turn lane	Same Add WB free right turn	Same Same	Same Same	Yes (TUMF)[3] Yes (TUMF)[3]	Fees Fees	--
4	I-215 Southbound Ramps & Ramona Exwy.	County of Riverside, Caltrans	None	Add 2nd WB left turn lane	Same Add 3rd EB through lane Stripe the EB right turn defacto lane Add 3rd WB through lane	Same Same Not Applicable Same Add 4th EB through lane Add 4th WB through lane Add EB free right turn lane	Same Same Not Applicable Same Same Same Same	Yes (TUMF) Yes (TUMF) No Yes (TUMF) No No No	Fees Fees Fair Share Fees Fair Share Fair Share Fair Share	2.2%
5	I-215 Northbound Ramps & Ramona Exwy.	Perris, Caltrans	None	None	Add 2nd EB left turn lane Add 3rd EB through lane Add 3rd WB through lane	Same Same Same Add 4th EB through lane Add 4th WB through lane Add 2nd NB right turn lane	Same Same Same Same Same Same	Yes (TUMF) Yes (TUMF) Yes (TUMF) No No No	Fees Fees Fees Fair Share Fair Share Fair Share	1.7%
6	I-215 SB Ramps & Placentia Av.	County of Riverside, Caltrans	None	Install a Traffic Signal[5] Add SB left turn lane[5] Add SB shared left-through lane[5] Add SB right turn lane[5] Add WB left turn lane[5]	Same Same Same Same Same Add 2nd WB left turn lane	Same Same Same Same Same Same	Same Same Same Same Same Same	Yes (TUMF) Yes (TUMF) Yes (TUMF) Yes (TUMF) Yes (TUMF) No	Fees Fees Fees Fees Fees Fair Share	7.0%
7	I-215 NB Ramps & Placentia Av.	Perris, Caltrans	None	Install a Traffic Signal[5] Add NB left turn lane[5] Add NB shared left-through lane[5] Add NB right turn lane[5] Add EB left turn lane[5] Add WB right turn lane[5]	Same Same Same Same Same Same	Same Same Same Same Same Same	Same Same Same Same Same Same	Yes (TUMF) Yes (TUMF) Yes (TUMF) Yes (TUMF) Yes (TUMF) Yes (TUMF)	Fees Fees Fees Fees Fees Fees	--
8	I-215 SB Ramps & Nuevo Rd.	County of Riverside, Perris, Caltrans	None	None	Modify the traffic signal to implement a 120-second cycle	Same	Same	No	Fair Share	6.4%

#	Intersection Location	Jurisdiction	Recommended Improvements					Improvements in County DIF or TUMF[1,2]	Project Responsibility	Project Fair Share[4]
			Existing (2022)	EAP (2032)	EAPC (2032)	Horizon Year (2040) Without Project	Horizon Year (2040) With Project			
12	Webster Av. & Ramona Exwy.	Perris	None	None	Add 4th EB through lane Restripe the WB approach to provide one left turn lane, three through lanes, and one shared through-right turn lane	Same Same	Same Same	No No	Fair Share Fair Share	1.8%
13	Indian Av. & Harley Knox Bl.	Perris	None	None	None	Add 2nd EB left turn lane	Same	No	Fair Share	1.0%
14	Indian Av. & Ramona Exwy.	Perris	None	None	Add 4th EB through lane Restripe the WB approach to provide one left turn lane, three through lanes, and one shared through-right turn lane	Same Same	Same Same	No No	Fair Share Fair Share	2.6%
16	Perris Bl. & Iris Av.	Moreno Valley	None	None	Add EB right turn lane	Same	Same	No	Fair Share	1.9%
17	Perris Bl. & Krameria Av.	Moreno Valley	None	None	None	Restripe the EB and WB approaches to accommodate a left and shared through-right turn lane Implement protected left turn phasing on the EB and WB approaches	Same Same	No No	Fair Share Fair Share	3.4%
20	Perris Bl. & Harley Knox Bl.	Perris	None	None	Add 2nd EB left turn lane	Same	Same	No	Fair Share	3.9%
22	Perris Bl. & Ramona Exwy.	Perris	None	None	Add 4th EB through lane Add 4th WB through lane	Same Same Restripe the NB approach to provide dual left turn lanes, two through lanes, and one shared through-right turn lane Restripe the SB approach to provide dual left turn lanes, two through lanes, and one shared through-right turn lane Add WB right turn lane Modify the traffic signal to implement overlap phasing for the WB right turn lane Modify the traffic signal to protect the EB and WB left turns	Same Same Same Same Same Same Same	Yes (TUMF) Yes (TUMF) No No No No No	Fees Fees Fair Share Fair Share Fair Share Fair Share Fair Share	3.6%
25	Perris Bl. & Placentia Av.	Perris	None	None	None	Stripe the 3rd NB through lane Add NB right turn lane Stripe the 3rd SB through lane	Same Same Same	Yes (TUMF) No Yes (TUMF)	Fees Fair Share Fees	13.9%
26	Perris Bl. & Orange Av.	Perris	None	None	None	Add 3rd NB through lane Stripe the 3rd SB through lane	Same Same	Yes (TUMF) Yes (TUMF)	Fees Fees	--

#	Intersection Location	Jurisdiction	Recommended Improvements					Improvements in County DIF or TUMF[1,2]	Project Responsibility	Project Fair Share[4]
			Existing (2022)	EAP (2032)	EAPC (2032)	Horizon Year (2040) Without Project	Horizon Year (2040) With Project			
27	Perris Bl. & Nuevo Rd.	Perris	None	None	Add 2nd NB left turn lane Restripe the WB approach to provide dual left turn lanes, two through lanes, and one shared through-right turn lane	Same Same	Same Same	No Yes (TUMF)	Fair Share Fees	8.8%
28	Redlands Av. & Harley Knox Bl.	Perris	None	None	None	Restripe the northbound approach to provide dual left turn lanes and one through lane	Same	No	Fair Share	0.0%
30	Redlands Av. & Ramona Exwy.	Perris	None	None	Add 2nd SB left turn lane Add 2nd EB left turn lane Add 4th EB through lane Add 2nd WB left turn lane Add 4th WB through lane	Same Same Same Same Same Add NB right turn lane Modify the traffic signal to implement overlap phasing for the WB right turn lane	Same Same Same Same Same Same Same	No No No No No No No	Fair Share Fair Share Fair Share Fair Share Fair Share Fair Share Fair Share	3.9%
33	Redlands Av. & Placentia Av.	Perris	None	None	None	Install a Traffic Signal	Same	No	Fair Share	29.3%
35	Redlands Av. & Nuevo Rd.	Perris	None	Stripe the 3rd EB through lane Stripe the 3rd WB through lane	Same Same Add SB left turn lane	Same Same Same	Same Same Same	Yes (TUMF) Yes (TUMF) No	Construct Construct Fair Share	29.3%
36	Murrieta Rd. & Nuevo Rd.	Perris	None	None	None	Restripe the EB approach to provide one left turn lane, two through lanes, and one shared through-right turn lane Restripe the WB approach to provide one left turn lane, two through lanes, and one shared through-right turn lane	Same Same	No No	Fair Share Fair Share	13.7%
37	Lasselle St. & Iris Av.	Moreno Valley	None	None	Modify the traffic signal to implement a 130-second cycle	Same	Same	No	Fair Share	2.3%
38	Lasselle St. & Krameria Av.	Moreno Valley	None	None	Restripe the NB approach to provide dual left turn lanes, one through lane, and one shared through-right turn lane Add 2nd EB left turn lane Modify the traffic signal to implement overlap phasing for the EB right turn lane Modify the traffic signal to implement a 130-second cycle	Same Same Same Add 2nd SB left turn lane	Same Same Same Same	No No No No	Fair Share Fair Share Fair Share Fair Share	4.1%

#	Intersection Location	Jurisdiction	Recommended Improvements					Improvements in County DIF or TUMF[1,2]	Project Responsibility	Project Fair Share[4]
			Existing (2022)	EAP (2032)	EAPC (2032)	Horizon Year (2040) Without Project	Horizon Year (2040) With Project			
39	Evans Rd. & Ramona Exwy.	Perris	None	None	Add 3rd WB through lane	Same	Same	No	Fair Share	6.7%
					Add 4th EB through lane	Same	Same	No	Fair Share	
					Add 4th WB through lane	Same	Same	No	Fair Share	
41	Evans Rd. & Orange Av.	County of Riverside, Perris	None	Add 2nd EB through lane	Same	Same	Same	No	Construct	--
				Add 2nd WB through lane	Same	Same	Same	No	Construct	
45	Dunlap Dr. & Orange Av.	County of Riverside, Perris	None	None	None	Install a Traffic Signal	Same	Yes (DIF)	Fees	57.0%
						Add NB left turn lane	Same	No	Fair Share	
						Restripe the EB approach to provide one through lane and one shared through-right turn lane	Same	No	Fair Share	
						Add WB left turn lane	Same	No	Fair Share	
						Add 2nd WB through lane	`	No	Fair Share	
46	Dunlap Dr. & Nuevo Rd.	County of Riverside, Perris	None	Restripe the EB approach to provide one left turn lane, one through lane, and one shared through-right turn lane	Same	Same	Same	Yes (TUMF)	Construct	11.0%
				Add 2nd WB through lane	Same	Same	Same	Yes (TUMF)	Construct	
					Add NB right turn lane	Same	Same	No	Fair Share	
					Add 3rd EB through lane	Same	Same	No	Fair Share	
					Add 2nd WB left turn lane	Same	Same	No	Fair Share	
					Add 3rd WB through lane	Same	Same	No	Fair Share	
						Add 2nd SB left turn lane	Same	No	Fair Share	
47	Ramona Exwy. & Rider St.	County of Riverside, Perris	None	None	Add 3rd NB through lane	Same	Same	No	Fair Share	9.4%
					Add 3rd SB through lane	Same	Same	No	Fair Share	
						Add 4th NB through lane	Same	No	Fair Share	
						Add 4th SB through lane	Same	No	Fair Share	
48	Antelope Rd. & Ramona Exwy.	County of Riverside	None	Install a Traffic Signal	Same	Same	Same	Yes (DIF)	Construct	9.4%
				Add NB left turn lane	Same	Same	Same	No	Construct	
				Add 2nd NB left turn lane	Same	Same	Same	No	Construct	
				Add NB right turn lane	Same	Same	Same	No	Construct	
				Add WB left turn lane	Same	Same	Same	No	Construct	
					Add 3rd EB through lane	Same	Same	Yes (TUMF)	Fees	
					Add EB right turn lane	Same	Same	No	Fair Share	
					Add 3rd WB through lane	Same	Same	Yes (TUMF)	Fees	
						Add 4th EB through lane	Same	No	Fair Share	
						Add 4th WB through lane	Same	No	Fair Share	
51	Antelope Rd. & Nuevo Rd.	County of Riverside	None	Install a Traffic Signal	Same	Same	Same	Yes (DIF)	Construct	19.5%
				Add SB left turn lane	Same	Same	Same	No	Construct	
				Add SB right turn lane	Same	Same	Same	No	Construct	
				Add EB left turn lane	Same	Same	Same	No	Construct	
				Add 2nd WB through lane	Same	Same	Same	Yes (TUMF)	Construct	
					Add 2nd EB through lane	Same	Same	Yes (TUMF)	Fees	
						Add 2nd SB left turn lane	Same	No	Fair Share	

#	Intersection Location	Jurisdiction	Recommended Improvements					Improvements in County DIF or TUMF[1,2]	Project Responsibility	Project Fair Share[4]
			Existing (2022)	EAP (2032)	EAPC (2032)	Horizon Year (2040) Without Project	Horizon Year (2040) With Project			
52	Street A & Ramona Exwy.	County of Riverside	None	Install a Traffic Signal Add NB left turn lane Add 2nd NB left turn lane Add NB right turn lane Add 2nd EB through lane Add 3rd EB through lane Add WB left turn lane	Same Same Same Same Same Same Same Add 2nd WB through lane Add 3rd WB through lane	Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable	Same Same Same Same Same Same Same Same Same Add 4th EB through lane Add 4th WB through lane	No No No No Yes (TUMF) Yes (TUMF) No Yes (TUMF) Yes (TUMF) No No	Construct Construct Construct Construct Construct Construct Construct Fees Fees Construct Fair Share	4.9%
53	Menifee Rd./Reservoir Bl. & Nuevo Rd.	County of Riverside	None	Install a Traffic Signal Add WB left turn lane Add EB right turn lane	Same Same Same Add NB left turn lane	Same Same Same Same Add 2nd NB left turn lane Add 2nd NB through lane Add SB left turn lane Add SB through lane Add 2nd SB through lane Add EB left turn lane Add 2nd EB left turn lane Add 3rd EB left turn lane Add 2nd WB left turn lane Modify the traffic signal to implement overlap phasing for the SB and EB right turn lanes	Same Same Same Same Same Same Same Same Same Same Same Same Same Same Same	Yes (DIF) No No No No Yes (TUMF) No No No No No No No No No	Construct Construct Construct Fair Share Fair Share Fees Fair Share Fair Share Fair Share Fair Share Fair Share Fair Share Fair Share Fair Share Fair Share	11.5%
54	Menifee Rd. & San Jacinto Av.	County of Riverside	None	Install a Traffic Signal Add NB left turn lane Add SB left turn lane Restripe the EB approach to provide one left turn lane and one shared through-right turn lane Add WB left turn lane	Same Same Same Same Same Add 2nd SB through lane	Same Same Same Same Same Same	Same Same Same Same Same Same	Yes (DIF) No No No No Yes (TUMF)	Construct Construct Construct Construct Construct Fees	20.9%
55	Menifee Rd. & Ellis Rd.	County of Riverside	None	Install a Traffic Signal Add NB left turn lane Add SB left turn lane	Same Same Same	Same Same Same Add 2nd NB through lane Add 2nd SB through lane	Same Same Same Same Same	Yes (DIF) No No Yes (TUMF) Yes (TUMF)	Construct Construct Construct Fees Fees	--
56	Menifee Rd. & Mapes Rd.	County of Riverside, Menifee	None	Install a Traffic Signal Add EB left turn lane Add WB left turn lane	Same Same Same	Same Same Same Add 2nd NB through lane Add 2nd SB through lane	Same Same Same Same Same	Yes (DIF) No No Yes (TUMF) Yes (TUMF)	Construct Construct Construct Fees Fees	--

#	Intersection Location	Jurisdiction	Recommended Improvements					Improvements in County DIF or TUMF[1,2]	Project Responsibility	Project Fair Share[4]
			Existing (2022)	EAP (2032)	EAPC (2032)	Horizon Year (2040) Without Project	Horizon Year (2040) With Project			
57	Menifee Rd. & Watson Rd.	Menifee	Install a Traffic Signal	Same	Same	Same	Same	No	Fair Share	20.3%
			Add NB left turn lane	Same	Same	Same	Same	No	Fair Share	
			Add SB left turn lane	Same	Same	Same	Same	No	Fair Share	
			Add EB left turn lane	Same	Same	Same	Same	No	Fair Share	
			Add WB left turn lane	Same	Same	Same	Same	No	Fair Share	
						Add 2nd NB through lane	Same	Yes (TUMF)	Fees	
						Add 2nd SB through lane	Same	Yes (TUMF)	Fees	
58	Menifee Rd. & Ethanac Rd. (SR-74)	Menifee	Add SB left turn lane	Same	Same	Same	Same	No	Fair Share	9.5%
			Modify the traffic signal to protect the NB and SB left turns	Same	Same	Same	Same	No	Fair Share	
				Add NB right turn lane	Same	Same	Same	No	Construct	
					Add 2nd NB left turn lane	Same	Same	No	Fair Share	
					Add 3rd EB through lane	Same	Same	Yes (TUMF)	Fees	
					Add 2nd WB left turn lane	Same	Same	No	Fair Share	
					Add 3rd WB through lane	Same	Same	Yes (TUMF)	Fees	
					Add 2nd NB through lane	Same	Same	No	Fair Share	
					Add 2nd SB through lane	Same	Same	Yes (TUMF)	Fees	
						Add 2nd EB left turn lane	Same	No	Fair Share	
						Modify the traffic signal to implement overlap phasing for the NB right turn lane	Same	No	Fair Share	
						Add 2nd SB left turn lane	Same	No	Fair Share	
						Add SB right turn lane	Same	No	Fair Share	
						Add 3rd NB through lane	Same	No	Fair Share	
						Add 3rd SB through lane	Same	No	Fair Share	
59	Bernasconi Rd. & Orange Av.	County of Riverside	None	None	None	Install a Traffic Signal	Same	Yes (DIF)	Fees	3.9%
						Add SB left turn lane	Same	No	Fair Share	
						Add 2nd SB left turn lane	Same	No	Fair Share	
						Add SB right turn lane	Same	No	Fair Share	
						Add EB left turn lane	Same	No	Fair Share	
						Add 2nd EB left turn lane	Same	No	Fair Share	
						Add EB through lane	Same	No	Fair Share	
						Add 2nd EB through lane	Same	No	Fair Share	
						Add WB through lane	Same	No	Fair Share	
						Add 2nd WB through lane	Same	No	Fair Share	
60	Lakeview Av. & Ramona Exwy.	County of Riverside	None	None	Add 2nd EB through lane	Same	Same	Yes (TUMF)	Fees	2.7%
					Add 3rd EB through lane	Same	Same	Yes (TUMF)	Fees	
					Add 2nd WB through lane	Same	Same	Yes (TUMF)	Fees	
					Add 3rd WB through lane	Same	Same	Yes (TUMF)	Fees	
						Add 2nd NB left turn lane	Same	No	Fair Share	
						Add NB free right turn lane	Same	No	Fair Share	
						Add SB left turn lane	Same	No	Fair Share	
						Add SB through lane	Same	No	Fair Share	
						Add SB right turn lane	Same	No	Fair Share	
						Add EB left turn lane	Same	No	Fair Share	
						Add 2nd WB left turn lane	Same	No	Fair Share	
						Add 4th EB through lane	Same	No	Fair Share	
						Add 4th WB through lane	Same	No	Fair Share	

#	Intersection Location	Jurisdiction	Recommended Improvements					Improvements in County DIF or TUMF[1,2]	Project Responsibility	Project Fair Share[4]
			Existing (2022)	EAP (2032)	EAPC (2032)	Horizon Year (2040) Without Project	Horizon Year (2040) With Project			
61	Lakeview Av. & Nuevo Rd.	County of Riverside	None	Install a Traffic Signal Add SB left turn lane Add EB left turn lane	Same Same Same	Same Same Same Modify the traffic signal to implement overlap phasing for the SB right turn lane	Same Same Same Same	No No No No	Construct Construct Construct Fair Share	10.1%
63	Hansen Av./Davis Rd. & Ramona Exwy.	County of Riverside	None	None	Add 3rd EB through lane Add 3rd WB through lane	Same Same Add 4th EB through lane Add 4th WB through lane	Same Same Same Same	Yes (TUMF) Yes (TUMF) No No	Fees Fees Fair Share Fair Share	3.3%
65	Bridge St. & Ramona Exwy.	County of Riverside	Install a Traffic Signal	Same	Same Add 2nd EB through lane Add 3rd EB through lane Add 2nd WB through lane Add 3rd WB through lane	Same Same Same Same Same Add 4th EB through lane Add 4th WB through lane	Same Same Same Same Same Same Same	Yes (DIF) Yes (TUMF) Yes (TUMF) Yes (TUMF) Yes (TUMF) No No	Fees Fees Fees Fees Fees Fair Share Fair Share	2.5%
66	Warren Rd. & Ramona Exwy.	County of Riverside, San Jacinto	None	None	Add 2nd NB left turn lane Add 3rd EB through lane Add 2nd WB left turn lane Add 3rd WB through lane	Same Same Same Same Add 4th EB through lane Add 4th WB through lane	Same Same Same Same Same Same	No Yes (TUMF) No Yes (TUMF) No No	Fair Share Fees Fair Share Fees Fair Share Fair Share	2.9%
67	Sanderson Av. (SR-79) & Ramona Exwy.	San Jacinto	Add 3rd SB through lane Add 3rd NB through lane Add SB free right turn Add 3rd EB through lane Add 3rd WB through lane	Same Same Same Same Same	Same Same Same Same Same Add 4th NB through lane Add 4th SB through lane	Same Same Same Same Same Same Same Add NB free right turn Add EB free right turn Add WB free right turn Add 3rd EB left turn lane	Same Same Same Same Same Same Same Same Same Same Same	Yes (TUMF) No No Yes (TUMF) Yes (TUMF) No No No No No No	Fees Fair Share Fair Share Fees Fees Fair Share Fair Share Fair Share Fair Share Fair Share Fair Share	2.6%
70	Murrieta Rd. & San Jacinto Av.	Perris	None	Install a Traffic Signal	Same	Same Add 2nd EB through lane Add 2nd WB through lane	Same Same Same	No No No	Construct Fair Share Fair Share	0.0%
71	Redlands Av. & San Jacinto Av.	Perris	None	Modify the traffic signal to implement overlap phasing for the NB right turn	Same	Same	Same	No	Construct	0.0%
72	Redlands Av. & I-215 NB Ramps	Perris, Caltrans	None	None	Modify the traffic signal to implement a 120-second cycle	Same	Same	No	Fair Share	0.0%

#	Intersection Location	Jurisdiction	Recommended Improvements					Improvements in County DIF or TUMF[1,2]	Project Responsibility	Project Fair Share[4]
			Existing (2022)	EAP (2032)	EAPC (2032)	Horizon Year (2040) Without Project	Horizon Year (2040) With Project			
74	Evans Rd. & San Jacinto Av.	Perris	None	None	None	Install a Traffic Signal	Same	No	Fair Share	0.0%
						Add NB left turn lane	Same	No	Fair Share	
						Add NB through lane	Same	Yes (TUMF)	Fees	
						Add 2nd NB through lane	Same	Yes (TUMF)	Fees	
						Add SB left turn lane	Same	No	Fair Share	
						Add 2nd SB through lane	Same	Yes (TUMF)	Fees	
						Add EB left turn lane	Same	No	Fair Share	
						Add 2nd EB through lane	Same	No	Fair Share	
						Add WB left turn lane	Same	No	Fair Share	
						Add 2nd WB through lane	Same	No	Fair Share	
77	Dunlap Dr. & San Jacinto Av.	County of Riverside, Perris	None	Install a Traffic Signal	Same	Same	Same	No	Construct	0.0%
				Add EB left turn lane	Same	Same	Same	No	Construct	
						Add SB left turn lane	Same	No	Fair Share	
						Add 2nd EB left turn lane	Same	No	Fair Share	
						Add 2nd EB through lane	Same	No	Fair Share	
						Add 2nd WB through lane	Same	No	Fair Share	
78	I-215 SB Ramps & SR-74	Perris, Caltrans	None	None	Add 2nd SB through lane	Same	Same	No	Fair Share	0.0%
80	Trumble Rd. & SR-74	County of Riverside, Caltrans	None	None	Add 2nd EB left turn lane	Same	Same	No	Fair Share	0.0%
81	I-215 SB Ramps & Ethanac Rd.	Perris, Caltrans	None	None	Add SB left turn lane	Same	Same	Yes (TUMF)	Fees	--
						Add 2nd SB right turn lane	Same	Yes (TUMF)	Fees	
						Add 2nd EB through lane	Same	Yes (TUMF)	Fees	
						Add EB free right turn lane	Same	Yes (TUMF)	Fees	
						Add 2nd WB through lane	Same	Yes (TUMF)	Fees	
						Add WB free right turn lane	Same	Yes (TUMF)	Fees	
82	I-215 NB Ramps & Ethanac Rd.	Perris, Caltrans	None	Add NB left turn lane	Same	Same	Same	Yes (TUMF)	Fees	--
						Add NB right turn lane	Same	Yes (TUMF)	Fees	
						Add 2nd NB right turn lane	Same	Yes (TUMF)	Fees	
						Add 2nd EB through lane	Same	Yes (TUMF)	Fees	
						Add 3rd EB through lane	Same	Yes (TUMF)	Fees	
						Add EB free right turn lane	Same	Yes (TUMF)	Fees	
						Add 2nd WB through lane	Same	Yes (TUMF)	Fees	
						Add 3rd WB through lane	Same	Yes (TUMF)	Fees	
						Add WB free right turn lane	Same	Yes (TUMF)	Fees	
83	Encanto Dr. & Ethanac Rd.	Perris	None	Install a Traffic Signal	Same	Same	Same	No	Construct	20.7%
						Add 2nd EB through lane	Same	No	Fair Share	
						Add 3rd EB through lane	Same	No	Fair Share	
						Add 2nd WB through lane	Same	No	Fair Share	
						Add 3rd WB through lane	Same	No	Fair Share	

#	Intersection Location	Jurisdiction	Recommended Improvements					Improvements in County DIF or TUMF[1,2]	Project Responsibility	Project Fair Share[4]
			Existing (2022)	EAP (2032)	EAPC (2032)	Horizon Year (2040) Without Project	Horizon Year (2040) With Project			
84	Sherman Rd. & Ethanac Rd.	Perris, Menifee	None	Add EB left turn lane	Same	Same	Same	No	Construct	19.8%
				Install a Traffic Signal	Same	Same	Same	No	Construct	
				Add WB left turn lane	Same	Same	Same	No	Construct	
						Add NB left turn lane	Same	No	Fair Share	
						Add SB left turn lane	Same	No	Fair Share	
						Add 2nd EB through lane	Same	No	Fair Share	
						Add 3rd EB through lane	Same	No	Fair Share	
						Add 2nd WB through lane	Same	No	Fair Share	
						Add 3rd WB through lane	Same	No	Fair Share	
86	Antelope Rd. & Ethanac Rd.	Menifee	None	Install a Traffic Signal	Same	Same	Same	No	Construct	25.8%
				Add EB left turn lane	Same	Same	Same	No	Construct	
				Add WB left turn lane	Same	Same	Same	No	Construct	
					Add NB left turn lane	Same	Same	No	Fair Share	
					Add SB left turn lane	Same	Same	No	Fair Share	
						Install a Traffic Signal	Same	No	Fair Share	
						Add 2nd EB through lane	Same	No	Fair Share	
						Add 3rd EB through lane	Same	No	Fair Share	
						Add 2nd WB through lane	Same	No	Fair Share	
						Add 3rd WB through lane	Same	No	Fair Share	
87	Menifee Rd. & Matthews Rd.	Menifee	None	Install a Traffic Signal	Same	Same	Same	No	Construct	12.7%
				Add NB left turn lane	Same	Same	Same	No	Construct	
				Add SB right turn lane	Same	Same	Same	No	Construct	
					Add 2nd NB through lane	Same	Same	No	Fair Share	
					Add 2nd SB through lane	Same	Same	No	Fair Share	
					Add EB left turn lane	Same	Same	No	Fair Share	
					Modify the traffic signal to implement overlap phasing for the SB right turn lane	Same	Same	No	Fair Share	

[1] Improvements included in TUMF Nexus, or County of Riverside DIF fee programs.

[2] Program improvements constructed by project may be eligible for fee credit. In lieu fee payment is at discretion of County. Represents the fair share percentage for the Project during the most impacted peak hour.

[3] Although the interchange is identified as a TUMF interchange, the interchange is not currently identified on the Central Zone 5-Year Transportation Improvement Program Amendment (adopted June 30, 2016).

[4] Program improvements constructed by project may be eligible for fee credit, at discretion of County. See Table 8-4 for Fair Share Calculations.

[5] Improvement planned to be constructed as part of the I-215 Freeway/Placentia Avenue interchange project, which is anticipated to be completed in 2022.

TABLE 1-6: SUMMARY OF IMPROVEMENTS BY ANALYSIS SCENARIO – ALTERNATIVE 5

#	Intersection Location	Jurisdiction	Recommended Improvements					Improvements in County DIF or TUMF[1,2]	Project Responsibility	Project Fair Share[4]
			Existing (2022)	EAP (2032)	EAPC (2032)	Horizon Year (2040) Without Project	Horizon Year (2040) With Project			
1	Harvill Av. & Cajalco Exwy.	County of Riverside	None	Add 3rd EB through lane Add 3rd WB through lane	Same Same	Same Same Add 4th EB through lane Add 4th WB through lane	Same Same Same Same	Yes (TUMF) Yes (TUMF) No No	Construct Construct Fair Share Fair Share	2.9%
2	I-215 Southbound Ramps & Harley Knox Bl.	County of Riverside, Caltrans	None	Add SB left turn lane	Same Restripe the WB approach to provide dual left turns and one through lane	Same Same	Same Same	Yes (TUMF)[3] Yes (TUMF)[3]	Fees Fees	--
3	I-215 Northbound Ramps & Harley Knox Bl.	County of Riverside, Caltrans	None	Add 2nd EB left turn lane	Same Add WB free right turn	Same Same	Same Same	Yes (TUMF)[3] Yes (TUMF)[3]	Fees Fees	--
4	I-215 Southbound Ramps & Ramona Exwy.	County of Riverside, Caltrans	None	Add 2nd WB left turn lane	Same Add 3rd EB through lane Stripe the EB right turn defacto lane Add 3rd WB through lane	Same Same Not Applicable Same Add 4th EB through lane Add 4th WB through lane Add EB free right turn lane	Same Same Not Applicable Same Same Same Same	Yes (TUMF) Yes (TUMF) No Yes (TUMF) No No No	Fees Fees Fair Share Fees Fair Share Fair Share Fair Share	2.2%
5	I-215 Northbound Ramps & Ramona Exwy.	Perris, Caltrans	None	None	Add 2nd EB left turn lane Add 3rd EB through lane Add 3rd WB through lane	Same Same Same Add 4th EB through lane Add 4th WB through lane Add 2nd NB right turn lane	Same Same Same Same Same Same	Yes (TUMF) Yes (TUMF) Yes (TUMF) No No No	Fees Fees Fees Fair Share Fair Share Fair Share	1.7%
6	I-215 SB Ramps & Placentia Av.	County of Riverside, Caltrans	None	Install a Traffic Signal[5] Add SB left turn lane[5] Add SB shared left-through lane[5] Add SB right turn lane[5] Add WB left turn lane[5]	Same Same Same Same Same Add 2nd WB left turn lane	Same Same Same Same Same Same	Same Same Same Same Same Same	Yes (TUMF) Yes (TUMF) Yes (TUMF) Yes (TUMF) Yes (TUMF) No	Fees Fees Fees Fees Fees Fair Share	7.0%
7	I-215 NB Ramps & Placentia Av.	Perris, Caltrans	None	Install a Traffic Signal[5] Add NB left turn lane[5] Add NB shared left-through lane[5] Add NB right turn lane[5] Add EB left turn lane[5] Add WB right turn lane[5]	Same Same Same Same Same Same	Same Same Same Same Same Same	Same Same Same Same Same Same	Yes (TUMF) Yes (TUMF) Yes (TUMF) Yes (TUMF) Yes (TUMF) Yes (TUMF)	Fees Fees Fees Fees Fees Fees	--
8	I-215 SB Ramps & Nuevo Rd.	County of Riverside, Perris, Caltrans	None	None	Modify the traffic signal to implement a 120-second cycle	Same	Same	No	Fair Share	6.4%

#	Intersection Location	Jurisdiction	Recommended Improvements					Improvements in County DIF or TUMF[1,2]	Project Responsibility	Project Fair Share[4]
			Existing (2022)	EAP (2032)	EAPC (2032)	Horizon Year (2040) Without Project	Horizon Year (2040) With Project			
12	Webster Av. & Ramona Exwy.	Perris	None	None	Add 4th EB through lane Restripe the WB approach to provide one left turn lane, three through lanes, and one shared through-right turn lane	Same Same	Same Same	No No	Fair Share Fair Share	1.8%
13	Indian Av. & Harley Knox Bl.	Perris	None	None	None	Add 2nd EB left turn lane	Same	No	Fair Share	1.0%
14	Indian Av. & Ramona Exwy.	Perris	None	None	Add 4th EB through lane Restripe the WB approach to provide one left turn lane, three through lanes, and one shared through-right turn lane	Same Same	Same Same	No No	Fair Share Fair Share	2.6%
16	Perris Bl. & Iris Av.	Moreno Valley	None	None	Add EB right turn lane	Same	Same	No	Fair Share	1.9%
17	Perris Bl. & Krameria Av.	Moreno Valley	None	None	None	Restripe the EB and WB approaches to accommodate a left and shared through-right turn lane Implement protected left turn phasing on the EB and WB approaches	Same Same	No No	Fair Share Fair Share	3.4%
20	Perris Bl. & Harley Knox Bl.	Perris	None	None	Add 2nd EB left turn lane	Same	Same	No	Fair Share	3.9%
22	Perris Bl. & Ramona Exwy.	Perris	None	None	Add 4th EB through lane Add 4th WB through lane	Same Same Restripe the NB approach to provide dual left turn lanes, two through lanes, and one shared through-right turn lane Restripe the SB approach to provide dual left turn lanes, two through lanes, and one shared through-right turn lane Add WB right turn lane Modify the traffic signal to implement overlap phasing for the WB right turn lane Modify the traffic signal to protect the EB and WB left turns	Same Same Same Same Same Same Same	Yes (TUMF) Yes (TUMF) No No No No No	Fees Fees Fair Share Fair Share Fair Share Fair Share Fair Share	3.6%
25	Perris Bl. & Placentia Av.	Perris	None	None	None	Stripe the 3rd NB through lane Add NB right turn lane Stripe the 3rd SB through lane	Same Same Same	Yes (TUMF) No Yes (TUMF)	Fees Fair Share Fees	13.9%
26	Perris Bl. & Orange Av.	Perris	None	None	None	Add 3rd NB through lane Stripe the 3rd SB through lane	Same Same	Yes (TUMF) Yes (TUMF)	Fees Fees	--

#	Intersection Location	Jurisdiction	Recommended Improvements					Improvements in County DIF or TUMF[1,2]	Project Responsibility	Project Fair Share[4]
			Existing (2022)	EAP (2032)	EAPC (2032)	Horizon Year (2040) Without Project	Horizon Year (2040) With Project			
27	Perris Bl. & Nuevo Rd.	Perris	None	None	Add 2nd NB left turn lane Restripe the WB approach to provide dual left turn lanes, two through lanes, and one shared through-right turn lane	Same Same	Same Same	No Yes (TUMF)	Fair Share Fees	8.8%
28	Redlands Av. & Harley Knox Bl.	Perris	None	None	None	Restripe the northbound approach to provide dual left turn lanes and one through lane	Same	No	Fair Share	0.0%
30	Redlands Av. & Ramona Exwy.	Perris	None	None	Add 2nd SB left turn lane Add 2nd EB left turn lane Add 4th EB through lane Add 2nd WB left turn lane Add 4th WB through lane	Same Same Same Same Same Add NB right turn lane Modify the traffic signal to implement overlap phasing for the WB right turn lane	Same Same Same Same Same Same Same	No No No No No No No	Fair Share Fair Share Fair Share Fair Share Fair Share Fair Share Fair Share	3.9%
33	Redlands Av. & Placentia Av.	Perris	None	None	None	Install a Traffic Signal	Same	No	Fair Share	29.3%
35	Redlands Av. & Nuevo Rd.	Perris	None	Stripe the 3rd EB through lane Stripe the 3rd WB through lane	Same Same Add SB left turn lane	Same Same Same	Same Same Same	Yes (TUMF) Yes (TUMF) No	Construct Construct Fair Share	29.3%
36	Murrieta Rd. & Nuevo Rd.	Perris	None	None	None	Restripe the EB approach to provide one left turn lane, two through lanes, and one shared through-right turn lane Restripe the WB approach to provide one left turn lane, two through lanes, and one shared through-right turn lane	Same Same	No No	Fair Share Fair Share	13.7%
37	Lasselle St. & Iris Av.	Moreno Valley	None	None	Modify the traffic signal to implement a 130-second cycle	Same	Same	No	Fair Share	2.3%
38	Lasselle St. & Krameria Av.	Moreno Valley	None	None	Restripe the NB approach to provide dual left turn lanes, one through lane, and one shared through-right turn lane Add 2nd EB left turn lane Modify the traffic signal to implement overlap phasing for the EB right turn lane Modify the traffic signal to implement a 130-second cycle	Same Same Same Add 2nd SB left turn lane	Same Same Same Same	No No No No	Fair Share Fair Share Fair Share Fair Share	4.1%

#	Intersection Location	Jurisdiction	Recommended Improvements					Improvements in County DIF or TUMF[1,2]	Project Responsibility	Project Fair Share[4]
			Existing (2022)	EAP (2032)	EAPC (2032)	Horizon Year (2040) Without Project	Horizon Year (2040) With Project			
39	Evans Rd. & Ramona Exwy.	Perris	None	None	Add 3rd WB through lane Add 4th EB through lane Add 4th WB through lane	Same Same Same	Same Same Same	No No No	Fair Share Fair Share Fair Share	6.7%
41	Evans Rd. & Orange Av.	County of Riverside, Perris	None	Add 2nd EB through lane Add 2nd WB through lane	Same Same	Same Same	Same Same	No No	Construct Construct	--
45	Dunlap Dr. & Orange Av.	County of Riverside, Perris	None	None	None	Install a Traffic Signal Add NB left turn lane Restripe the EB approach to provide one through lane and one shared through-right turn lane Add WB left turn lane Add 2nd WB through lane	Same Same Same Same `	Yes (DIF) No No No No	Fees Fair Share Fair Share Fair Share Fair Share	57.0%
46	Dunlap Dr. & Nuevo Rd.	County of Riverside, Perris	None	Restripe the EB approach to provide one left turn lane, one through lane, and one shared through-right turn lane Add 2nd WB through lane	Same Same	Same Same Add 2nd SB left turn lane	Same Same Same	Yes (TUMF) Yes (TUMF) No	Construct Construct Fair Share	11.5%
47	Ramona Exwy. & Rider St.	County of Riverside, Perris	None	None	Add 3rd NB through lane Add 3rd SB through lane	Same Same Add 4th NB through lane Add 4th SB through lane	Same Same Same Same	No No No No	Fair Share Fair Share Fair Share Fair Share	15.8%
48	Antelope Rd. & Ramona Exwy.	County of Riverside	None	Install a Traffic Signal Add NB left turn lane Add 2nd NB left turn lane Add NB right turn lane Add WB left turn lane	Same Same Same Same Same Add 3rd EB through lane Add EB right turn lane Add 3rd WB through lane	Same Same Same Same Same Same Same Same Add 4th EB through lane Add 4th WB through lane	Same Same Same Same Same Same Same Same Same Same	Yes (DIF) No No No No Yes (TUMF) No Yes (TUMF) No No	Construct Construct Construct Construct Construct Fees Fair Share Fees Fair Share Fair Share	16.2%
51	Antelope Rd. & Nuevo Rd.	County of Riverside	None	Install a Traffic Signal Add SB left turn lane Add SB right turn lane Add EB left turn lane Add 2nd WB through lane	Same Same Same Same Same Add 2nd EB through lane	Same Same Same Same Same Same Add 2nd SB left turn lane	Same Same Same Same Same Same Same	Yes (DIF) No No No Yes (TUMF) Yes (TUMF) No	Construct Construct Construct Construct Construct Fees Fair Share	14.9%

#	Intersection Location	Jurisdiction	Recommended Improvements					Improvements in County DIF or TUMF[1,2]	Project Responsibility	Project Fair Share[4]
			Existing (2022)	EAP (2032)	EAPC (2032)	Horizon Year (2040) Without Project	Horizon Year (2040) With Project			
52	Street A & Ramona Exwy.	County of Riverside	None	Install a Traffic Signal Add NB left turn lane Add 2nd NB left turn lane Add NB right turn lane Add 2nd EB through lane Add 3rd EB through lane Add WB left turn lane	Same Same Same Same Same Same Same Add 2nd WB through lane Add 3rd WB through lane	Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable	Same Same Same Same Same Same Same Same Same Add 4th EB through lane Add 4th WB through lane	No No No No Yes (TUMF) Yes (TUMF) No Yes (TUMF) Yes (TUMF) No No	Construct Construct Construct Construct Construct Construct Construct Fees Fees Construct Fair Share	8.3%
53	Menifee Rd./Reservoir Bl. & Nuevo Rd.	County of Riverside	None	Install a Traffic Signal Add WB left turn lane Add EB right turn lane	Same Same Same Add NB left turn lane	Same Same Same Same Add 2nd NB left turn lane Add 2nd NB through lane Add SB left turn lane Add SB through lane Add 2nd SB through lane Add EB left turn lane Add 2nd EB left turn lane Add 3rd EB left turn lane Add 2nd WB left turn lane Modify the traffic signal to implement overlap phasing for the SB and EB right turn lanes	Same Same Same Same Same Same Same Same Same Same Same Same Same Same Same	Yes (DIF) No No No No Yes (TUMF) No No No No No No No No	Construct Construct Construct Fair Share Fair Share Fees Fair Share Fair Share Fair Share Fair Share Fair Share Fair Share Fair Share Fair Share	6.7%
54	Menifee Rd. & San Jacinto Av.	County of Riverside	None	Install a Traffic Signal Add NB left turn lane Add SB left turn lane Restripe the EB approach to provide one left turn lane and one shared through-right turn lane Add WB left turn lane	Same Same Same Same Same Add 2nd SB through lane Add 2nd EB left turn lane Modify the traffic signal to implement overlap phasing for the SB right turn lane	Same Same Same Same Same Same Same Same	Same Same Same Same Same Same Same Same	Yes (DIF) No No No No Yes (TUMF) No No	Construct Construct Construct Construct Construct Fees Fair Share Fair Share	10.9%
55	Menifee Rd. & Ellis Rd.	County of Riverside	None	Install a Traffic Signal Add NB left turn lane Add SB left turn lane	Same Same Same	Same Same Same Add 2nd NB through lane Add 2nd SB through lane	Same Same Same Same Same	Yes (DIF) No No Yes (TUMF) Yes (TUMF)	Construct Construct Construct Fees Fees	--
56	Menifee Rd. & Mapes Rd.	County of Riverside, Menifee	None	Install a Traffic Signal Add EB left turn lane Add WB left turn lane	Same Same Same	Same Same Same Add 2nd NB through lane Add 2nd SB through lane	Same Same Same Same Same	Yes (DIF) No No Yes (TUMF) Yes (TUMF)	Construct Construct Construct Fees Fees	--

#	Intersection Location	Jurisdiction	Recommended Improvements					Improvements in County DIF or TUMF[1,2]	Project Responsibility	Project Fair Share[4]
			Existing (2022)	EAP (2032)	EAPC (2032)	Horizon Year (2040) Without Project	Horizon Year (2040) With Project			
57	Menifee Rd. & Watson Rd.	Menifee	Install a Traffic Signal	Same	Same	Same	Same	No	Fair Share	9.9%
			Add NB left turn lane	Same	Same	Same	Same	No	Fair Share	
			Add SB left turn lane	Same	Same	Same	Same	No	Fair Share	
			Add EB left turn lane	Same	Same	Same	Same	No	Fair Share	
			Add WB left turn lane	Same	Same	Same	Same	No	Fair Share	
						Add 2nd NB through lane	Same	Yes (TUMF)	Fees	
						Add 2nd SB through lane	Same	Yes (TUMF)	Fees	
58	Menifee Rd. & Ethanac Rd. (SR-74)	Menifee	Add SB left turn lane	Same	Same	Same	Same	No	Fair Share	3.4%
			Modify the traffic signal to protect the NB and SB left turns	Same	Same	Same	Same	No	Fair Share	
				Add NB right turn lane	Same	Same	Same	No	Construct	
						Add 2nd NB left turn lane	Same	No	Fair Share	
					Add 3rd EB through lane	Same	Same	Yes (TUMF)	Fees	
					Add 2nd WB left turn lane	Same	Same	No	Fair Share	
					Add 3rd WB through lane	Same	Same	Yes (TUMF)	Fees	
					Add 2nd NB through lane	Same	Same	No	Fair Share	
					Add 2nd SB through lane	Same	Same	Yes (TUMF)	Fees	
						Add 2nd EB left turn lane	Same	No	Fair Share	
						Modify the traffic signal to implement overlap phasing for the NB right turn lane	Same	No	Fair Share	
						Add 2nd SB left turn lane	Same	No	Fair Share	
						Add SB right turn lane	Same	No	Fair Share	
59	Bernasconi Rd. & Orange Av.	County of Riverside	None	None	None	Install a Traffic Signal	Same	Yes (DIF)	Fees	4.0%
						Add SB left turn lane	Same	No	Fair Share	
						Add 2nd SB left turn lane	Same	No	Fair Share	
						Add SB right turn lane	Same	No	Fair Share	
						Add EB left turn lane	Same	No	Fair Share	
						Add 2nd EB left turn lane	Same	No	Fair Share	
						Add EB through lane	Same	No	Fair Share	
						Add 2nd EB through lane	Same	No	Fair Share	
						Add WB through lane	Same	No	Fair Share	
						Add 2nd WB through lane	Same	No	Fair Share	
60	Lakeview Av. & Ramona Exwy.	County of Riverside	None	None	Add 2nd EB through lane	Same	Same	Yes (TUMF)	Fees	2.7%
					Add 3rd EB through lane	Same	Same	Yes (TUMF)	Fees	
					Add 2nd WB through lane	Same	Same	Yes (TUMF)	Fees	
					Add 3rd WB through lane	Same	Same	Yes (TUMF)	Fees	
						Add 2nd NB left turn lane	Same	No	Fair Share	
						Add NB free right turn lane	Same	No	Fair Share	
						Add SB left turn lane	Same	No	Fair Share	
						Add SB through lane	Same	No	Fair Share	
						Add SB right turn lane	Same	No	Fair Share	
						Add EB left turn lane	Same	No	Fair Share	
						Add 2nd WB left turn lane	Same	No	Fair Share	
						Add 4th EB through lane	Same	No	Fair Share	
						Add 4th WB through lane	Same	No	Fair Share	

#	Intersection Location	Jurisdiction	Recommended Improvements					Improvements in County DIF or TUMF[1,2]	Project Responsibility	Project Fair Share[4]
			Existing (2022)	EAP (2032)	EAPC (2032)	Horizon Year (2040) Without Project	Horizon Year (2040) With Project			
61	Lakeview Av. & Nuevo Rd.	County of Riverside	None	Install a Traffic Signal Add SB left turn lane Add EB left turn lane	Same Same Same	Same Same Same Modify the traffic signal to implement overlap phasing for the SB right turn lane	Same Same Same Same	No No No No	Construct Construct Construct Fair Share	10.1%
63	Hansen Av./Davis Rd. & Ramona Exwy.	County of Riverside	None	None	Add 3rd EB through lane Add 3rd WB through lane	Same Same Add 4th EB through lane Add 4th WB through lane	Same Same Same Same	Yes (TUMF) Yes (TUMF) No No	Fees Fees Fair Share Fair Share	3.3%
65	Bridge St. & Ramona Exwy.	County of Riverside	Install a Traffic Signal	Same	Same Add 2nd EB through lane Add 3rd EB through lane Add 2nd WB through lane Add 3rd WB through lane	Same Same Same Same Same Add 4th EB through lane Add 4th WB through lane	Same Same Same Same Same Same Same	Yes (DIF) Yes (TUMF) Yes (TUMF) Yes (TUMF) Yes (TUMF) No No	Fees Fees Fees Fees Fees Fair Share Fair Share	2.5%
66	Warren Rd. & Ramona Exwy.	County of Riverside, San Jacinto	None	None	Add 2nd NB left turn lane Add 3rd EB through lane Add 2nd WB left turn lane Add 3rd WB through lane	Same Same Same Same Add 4th EB through lane Add 4th WB through lane	Same Same Same Same Same Same	No Yes (TUMF) No Yes (TUMF) No No	Fair Share Fees Fair Share Fees Fair Share Fair Share	2.9%
67	Sanderson Av. (SR-79) & Ramona Exwy.	San Jacinto	Add 3rd SB through lane Add 3rd NB through lane Add SB free right turn Add 3rd EB through lane Add 3rd WB through lane	Same Same Same Same Same	Same Same Same Same Same Add 4th NB through lane Add 4th SB through lane	Same Same Same Same Same Same Same Add NB free right turn Add EB free right turn Add WB free right turn Add 3rd EB left turn lane	Same Same Same Same Same Same Same Same Same Same Same	Yes (TUMF) No No Yes (TUMF) Yes (TUMF) No No No No No No	Fees Fair Share Fair Share Fees Fees Fair Share Fair Share Fair Share Fair Share Fair Share Fair Share	2.6%
70	Murrieta Rd. & San Jacinto Av.	Perris	None	Install a Traffic Signal	Same Add 2nd EB through lane Add 2nd WB through lane	Same Same Same	Same Same Same	No No No	Construct Fair Share Fair Share	0.0%
71	Redlands Av. & San Jacinto Av.	Perris	None	Modify the traffic signal to implement overlap phasing for the NB right turn	Same	Same	Same	No	Construct	--
72	Redlands Av. & I-215 NB Ramps	Perris, Caltrans	None	None	Modify the traffic signal to implement a 120-second cycle	Same	Same	No	Fair Share	0.0%

#	Intersection Location	Jurisdiction	Recommended Improvements					Improvements in County DIF or TUMF[1,2]	Project Responsibility	Project Fair Share[4]
			Existing (2022)	EAP (2032)	EAPC (2032)	Horizon Year (2040) Without Project	Horizon Year (2040) With Project			
74	Evans Rd. & San Jacinto Av.	Perris	None	Construct a NB shared left-through-right turn lane	Same	Same	Same	No	Construct	0.0%
						Install a Traffic Signal	Same	No	Fair Share	
						Add NB left turn lane	Same	No	Fair Share	
						Add NB through lane	Same	Yes (TUMF)	Fees	
						Add 2nd NB through lane	Same	Yes (TUMF)	Fees	
						Add SB left turn lane	Same	No	Fair Share	
						Add 2nd SB through lane	Same	Yes (TUMF)	Fees	
						Add EB left turn lane	Same	No	Fair Share	
						Add 2nd EB through lane	Same	No	Fair Share	
						Add WB left turn lane	Same	No	Fair Share	
						Add 2nd WB through lane	Same	No	Fair Share	
75	Evans Rd. & I-215 NB Ramps	Perris, Caltrans	None	Install a Traffic Signal	Same	Same	Same	No	Construct	--
				Add NB left turn lane	Same	Same	Same	No	Construct	
				Add NB through lane	Same	Same	Same	Yes (TUMF)	Construct	
				Add 2nd NB through lane	Same	Same	Same	Yes (TUMF)	Construct	
				Add SB through lane	Same	Same	Same	Yes (TUMF)	Construct	
				Add 2nd SB through lane	Same	Same	Same	Yes (TUMF)	Construct	
				Add WB left turn lane	Same	Same	Same	No	Construct	
				Add WB through lane	Same	Same	Same	No	Construct	
76	Evans Rd. & I-215 SB Ramps	Perris, Caltrans	None	Install a Traffic Signal	Same	Same	Same	No	Construct	--
				Add NB through lane	Same	Same	Same	Yes (TUMF)	Construct	
				Add 2nd NB through lane	Same	Same	Same	Yes (TUMF)	Construct	
				Add SB left turn lane	Same	Same	Same	No	Construct	
				Add SB through lane	Same	Same	Same	Yes (TUMF)	Construct	
				Add 2nd SB through lane	Same	Same	Same	Yes (TUMF)	Construct	
				Add EB left turn lane	Same	Same	Same	No	Construct	
				Add EB through lane	Same	Same	Same	No	Construct	
77	Dunlap Dr. & San Jacinto Av.	County of Riverside, Perris	None	Install a Traffic Signal	Same	Same	Same	No	Construct	0.0%
				Add EB left turn lane	Same	Same	Same	No	Construct	
						Add 2nd EB through lane	Same	No	Fair Share	
						Add 2nd WB through lane	Same	No	Fair Share	
78	I-215 SB Ramps & SR-74	Perris, Caltrans	None	None	Add 2nd SB through lane	Same	Same	No	Fair Share	0.0%
80	Trumble Rd. & SR-74	County of Riverside, Caltrans	None	None	Add 2nd EB left turn lane	Same	Same	No	Fair Share	0.0%
82	I-215 NB Ramps & Ethanac Rd.	Perris, Caltrans	None	None	Add NB left turn lane	Same	Same	Yes (TUMF)	Fees	--
						Add NB right turn lane	Same	Yes (TUMF)	Fees	
						Add 2nd NB right turn lane	Same	Yes (TUMF)	Fees	
						Add 2nd EB through lane	Same	Yes (TUMF)	Fees	
						Add 3rd EB through lane	Same	Yes (TUMF)	Fees	
						Add EB free right turn lane	Same	Yes (TUMF)	Fees	
						Add 2nd WB through lane	Same	Yes (TUMF)	Fees	
						Add 3rd WB through lane	Same	Yes (TUMF)	Fees	
						Add WB free right turn lane	Same	Yes (TUMF)	Fees	

#	Intersection Location	Jurisdiction	Recommended Improvements					Improvements in County DIF or TUMF[1,2]	Project Responsibility	Project Fair Share[4]
			Existing (2022)	EAP (2032)	EAPC (2032)	Horizon Year (2040) Without Project	Horizon Year (2040) With Project			
83	Encanto Dr. & Ethanac Rd.	Perris	None	None	Install a Traffic Signal	Same	Same	No	Fair Share	0.0%
						Add 2nd EB through lane	Same	No	Fair Share	
						Add 3rd EB through lane	Same	No	Fair Share	
						Add 2nd WB through lane	Same	No	Fair Share	
						Add 3rd WB through lane	Same	No	Fair Share	
84	Sherman Rd. & Ethanac Rd.	Perris, Menifee	None	Add EB left turn lane	Same	Same	Same	No	Construct	0.0%
					Install a Traffic Signal	Same	Same	No	Fair Share	
					Add WB left turn lane	Same	Same	No	Fair Share	
						Add NB left turn lane	Same	No	Fair Share	
						Add SB left turn lane	Same	No	Fair Share	
						Add 2nd EB through lane	Same	No	Fair Share	
						Add 3rd EB through lane	Same	No	Fair Share	
						Add 2nd WB through lane	Same	No	Fair Share	
						Add 3rd WB through lane	Same	No	Fair Share	
86	Antelope Rd. & Ethanac Rd.	Menifee	None	None	Add NB left turn lane	Same	Same	No	Fair Share	0.0%
					Add SB left turn lane	Same	Same	No	Fair Share	
					Add EB left turn lane	Same	Same	No	Fair Share	
					Add WB left turn lane	Same	Same	No	Fair Share	
						Install a Traffic Signal	Same	No	Fair Share	
						Add 2nd EB through lane	Same	No	Fair Share	
						Add 3rd EB through lane	Same	No	Fair Share	
						Add 2nd WB through lane	Same	No	Fair Share	
						Add 3rd WB through lane	Same	No	Fair Share	
87	Menifee Rd. & Matthews Rd.	Menifee	None	Add NB left turn lane	Same	Same	Same	No	Construct	0.0%
					Add 2nd NB through lane	Same	Same	No	Fair Share	
					Add 2nd SB through lane	Same	Same	No	Fair Share	
						Install a Traffic Signal	Same	No	Fair Share	

[1] Improvements included in TUMF Nexus, or County of Riverside DIF fee programs.

[2] Program improvements constructed by project may be eligible for fee credit. In lieu fee payment is at discretion of County. Represents the fair share percentage for the Project during the most impacted peak hour.

[3] Although the interchange is identified as a TUMF interchange, the interchange is not currently identified on the Central Zone 5-Year Transportation Improvement Program Amendment (adopted June 30, 2016).

[4] Program improvements constructed by project may be eligible for fee credit, at discretion of County. See Table 8-5 for Fair Share Calculations.

[5] Improvement planned to be constructed as part of the I-215 Freeway/Placentia Avenue interchange project, which is anticipated to be completed in 2022.

TABLE 1-7: SUMMARY OF IMPROVEMENTS BY ANALYSIS SCENARIO – ALTERNATIVE 6

Note: Improvements identified in *italics* are consistent with the improvements identified for Alternative 1 (see Table 1-4).

#	Intersection Location	Jurisdiction	Horizon Year (2040) Without Project	Horizon Year (2040) With Project	Improvements in County DIF or TUMF[1,2]	Project Responsibility	Project Fair Share[4]
1	Harvill Av. & Cajalco Exwy.	County of Riverside	*Add 3rd EB through lane* *Add 3rd WB through lane*	Same Same	Yes (TUMF) Yes (TUMF)	Construct Construct	--
2	I-215 Southbound Ramps & Harley Knox Bl.	County of Riverside, Caltrans	*Restripe the WB approach to provide dual left turns and one through lane*	Same	Yes (TUMF)[3]	Fees	--
3	I-215 Northbound Ramps & Harley Knox Bl.	County of Riverside,	*Add 2nd EB left turn lane*	Same	Yes (TUMF)[3]	Fees	--
4	I-215 Southbound Ramps & Ramona Exwy.	County of Riverside,	*Add 3rd EB through lane* *Add 3rd WB through lane*	Same Same	Yes (TUMF) Yes (TUMF)	Fees Fees	--
5	I-215 Northbound Ramps & Ramona Exwy.	Perris, Caltrans	*Add 3rd EB through lane* *Add 3rd WB through lane*	Same Same	Yes (TUMF) Yes (TUMF)	Fees Fees	--
6	I-215 SB Ramps & Placentia Av.	County of Riverside, Caltrans	*Install a Traffic Signal*[5] *Add SB left turn lane*[5] *Add SB shared left-through lane*[5] *Add SB right turn lane*[5] *Add WB left turn lane*[5]	Same Same Same Same Same	Yes (TUMF) Yes (TUMF) Yes (TUMF) Yes (TUMF) Yes (TUMF)	Fees Fees Fees Fees Fees	--
7	I-215 NB Ramps & Placentia Av.	Perris, Caltrans	*Install a Traffic Signal*[5] *Add NB left turn lane*[5] *Add NB shared left-through lane*[5] *Add NB right turn lane*[5] *Add EB left turn lane*[5] *Add WB right turn lane*[5]	Same Same Same Same Same Same	Yes (TUMF) Yes (TUMF) Yes (TUMF) Yes (TUMF) Yes (TUMF) Yes (TUMF)	Fees Fees Fees Fees Fees Fees	--
12	Webster Av. & Ramona Exwy.	Perris	*Add 4th EB through lane* *Restripe the WB approach to provide one left turn lane, three through lanes, and one shared through-right turn lane* Add 2nd EB left turn lane Modify the traffic signal to implement overlap phasing for the SB right turn lane	Same Same Same Same	No No No No	Fair Share Fair Share Fair Share Fair Share	3.7%

#	Intersection Location	Jurisdiction	Horizon Year (2040) Without Project	Horizon Year (2040) With Project	Improvements in County DIF or TUMF[1,2]	Project Responsibility	Project Fair Share[4]
14	Indian Av. & Ramona Exwy.	Perris	*Add 4th EB through lane* *Restripe the WB approach to provide one left turn lane, three through lanes, and one shared through-right turn lane*	Same Same	No No	Fair Share Fair Share	4.4%
16	Perris Bl. & Iris Av.	Moreno Valley	*Add EB right turn lane*	Same	No	Fair Share	2.8%
20	Perris Bl. & Harley Knox Bl.	Perris	*Add 2nd EB left turn lane*	Same	No	Fair Share	3.5%
22	Perris Bl. & Ramona Exwy.	Perris	*Add 4th EB through lane* *Add 4th WB through lane*	Same Same	Yes (TUMF) Yes (TUMF)	Fees Fees	--
25	Perris Bl. & Placentia Av.	Perris	*Stripe the 3rd NB through lane* *Add NB right turn lane* *Stripe the 3rd SB through lane* Add 2nd EB through lane Add EB right turn lane Restripe the WB approach to provide one left turn lane, one through lane, and one shared through-right turn lane Modify the traffic signal to implement overlap phasing for the EB right turn lane	Same Same Same Same Same Same Same	Yes (TUMF) No Yes (TUMF) Yes (TUMF) No Yes (TUMF) No	Fees Fair Share Fees Fees Fair Share Fees Fair Share	0.0%
26	Perris Bl. & Orange Av.	Perris	*Add 3rd NB through lane* *Stripe the 3rd SB through lane* Restripe the EB approach to provide one left turn lane, one through lane, and one shared through-right turn lane	Same Same Same	Yes (TUMF) Yes (TUMF) No	Fees Fees Fair Share	3.8%
27	Perris Bl. & Nuevo Rd.	Perris	*Add 2nd NB left turn lane*	Same	No	Fair Share	2.5%
28	Redlands Av. & Harley Knox Bl.	Perris	*Restripe the northbound approach to provide dual left turn lanes and one through lane*	Same	No	Fair Share	0.0%
33	Redlands Av. & Placentia Av.	Perris	*Install a Traffic Signal*	Same	No	Fair Share	0.0%
35	Redlands Av. & Nuevo Rd.	Perris	*Add SB left turn lane*	Same	No	Fair Share	9.7%

#	Intersection Location	Jurisdiction	Horizon Year (2040) Without Project	Horizon Year (2040) With Project	Improvements in County DIF or TUMF[1,2]	Project Responsibility	Project Fair Share[4]
36	Murrieta Rd. & Nuevo Rd.	Perris	*Restripe the EB approach to provide one left turn lane, two through lanes, and one shared through-right turn lane* *Restripe the WB approach to provide one left turn lane, two through lanes, and one shared through-right turn lane*	Same Same	No No	Fair Share Fair Share	8.8%
38	Lasselle St. & Krameria Av.	Moreno Valley	*Modify the traffic signal to implement a 130-second cycle*	Same	No	Fair Share	12.5%
39	Evans Rd. & Ramona Exwy.	Perris	*Add 3rd WB through lane*	Same	No	Fair Share	10.9%
41	Evans Rd. & Orange Av.	County of Riverside, Perris	*Add 2nd EB through lane* *Add 2nd WB through lane* Add 2nd NB through lane Add 2nd SB through lane	Same Same Same Same	No No Yes (TUMF) Yes (TUMF)	Construct Construct Fees Fees	--
45	Dunlap Dr. & Orange Av.	County of Riverside, Perris	None	*Install a Traffic Signal* *Add NB left turn lane* *Restripe the EB approach to provide one through lane and one shared through-right turn lane* *Add WB left turn lane* *Add 2nd WB through lane*	Yes (DIF) No No No No	Fees Fair Share Fair Share Fair Share Fair Share	37.6%
51	Antelope Rd. & Nuevo Rd.	County of Riverside	*Install a Traffic Signal* *Add SB left turn lane* *Add SB right turn lane* *Add EB left turn lane* *Add 2nd WB through lane* *Add 2nd EB left turn lane* *Add 2nd EB through lane*	Same Same Same Same Same Same Same	Yes (DIF) No No No Yes (TUMF) No Yes (TUMF)	Construct Construct Construct Construct Construct Fair Share Fees	30.0%
53	Menifee Rd./Reservoir Bl. & Nuevo Rd.	County of Riverside	*Install a Traffic Signal* *Add WB left turn lane* *Add NB left turn lane* *Add 2nd NB left turn lane* *Add 2nd NB through lane* *Add SB left turn lane* *Add SB through lane* *Add 2nd SB through lane* *Add EB left turn lane* *Add 2nd EB left turn lane* *Add EB right turn lane* *Modify the traffic signal to implement overlap phasing for the EB right turn lane*	Same Same Same Same Same Same Same Same Same Same Same Same	Yes (DIF) No No No Yes (TUMF) No No No No No No No	Construct Construct Fair Share Fair Share Fees Fair Share Fair Share Fair Share Fair Share Fair Share Fair Share Fair Share	11.5%

#	Intersection Location	Jurisdiction	Horizon Year (2040) Without Project	Horizon Year (2040) With Project	Improvements in County DIF or TUMF[1,2]	Project Responsibility	Project Fair Share[4]
54	Menifee Rd. & San Jacinto Av.	County of Riverside	*Install a Traffic Signal*	Same	Yes (DIF)	Construct	--
			Add NB left turn lane	Same	No	Construct	
			Add SB left turn lane	Same	No	Construct	
			Restripe the EB approach to provide one left turn lane and one shared through-right turn lane	Same	No	Construct	
			Add WB left turn lane	Same	No	Construct	
			Add 2nd SB through lane	Same	Yes (TUMF)	Fees	
56	Menifee Rd. & Mapes Rd.	County of Riverside, Menifee	*Install a Traffic Signal*	Same	Yes (DIF)	Construct	--
			Add EB left turn lane	Same	No	Construct	
			Add WB left turn lane	Same	No	Construct	
			Add 2nd NB through lane	Same	Yes (TUMF)	Fees	
			Add 2nd SB through lane	Same	Yes (TUMF)	Fees	
57	Menifee Rd. & Watson Rd.	Menifee	*Install a Traffic Signal*	Same	No	Fair Share	7.6%
			Add NB left turn lane	Same	No	Fair Share	
			Add SB left turn lane	Same	No	Fair Share	
			Add EB left turn lane	Same	No	Fair Share	
			Add WB left turn lane	Same	No	Fair Share	
			Add 2nd NB through lane	Same	Yes (TUMF)	Fees	
			Add 2nd SB through lane	Same	Yes (TUMF)	Fees	
58	Menifee Rd. & Ethanac Rd. (SR-74)	Menifee	*Add SB left turn lane*	Same	No	Fair Share	4.9%
			Modify the traffic signal to protect the NB and SB left turns	Same	No	Fair Share	
			Add NB right turn lane	Same	No	Construct	
			Add 2nd NB left turn lane	Same	No	Fair Share	
			Add 3rd EB through lane	Same	Yes (TUMF)	Fees	
			Add 2nd WB left turn lane	Same	No	Fair Share	
			Add 3rd WB through lane	Same	Yes (TUMF)	Fees	
			Add 2nd NB through lane	Same	No	Fair Share	
			Add 2nd SB through lane	Same	Yes (TUMF)	Fees	
			Add 2nd EB left turn lane	Same	No	Fair Share	
			Modify the traffic signal to implement overlap phasing for the NB right turn lane	Same	No	Fair Share	
			Add 2nd SB left turn lane	Same	No	Fair Share	
59	Bernasconi Rd. & Orange Av.	County of Riverside	*Install a Traffic Signal*	Same	Yes (DIF)	Fees	14.1%
			Add SB left turn lane	Same	No	Fair Share	
			Add EB left turn lane	Same	No	Fair Share	
			Add EB through lane	Same	No	Fair Share	
			Add WB through lane	Same	No	Fair Share	

#	Intersection Location	Jurisdiction	Horizon Year (2040) Without Project	Horizon Year (2040) With Project	Improvements in County DIF or TUMF[1,2]	Project Responsibility	Project Fair Share[4]
60	Lakeview Av. & Ramona Exwy.	County of Riverside	*Add 2nd EB through lane* *Add 2nd WB through lane*	Same Same	Yes (TUMF) Yes (TUMF)	Fees Fees	--
61	Lakeview Av. & Nuevo Rd.	County of Riverside	*Install a Traffic Signal* *Add SB left turn lane* *Add EB left turn lane* *Modify the traffic signal to implement overlap phasing for the SB right turn lane*	Same Same Same Same	No No No No	Construct Construct Construct Fair Share	65.5%
65	Bridge St. & Ramona Exwy.	County of Riverside	*Install a Traffic Signal* *Add 2nd EB through lane* *Add 2nd WB through lane*	Same Same Same	Yes (DIF) Yes (TUMF) Yes (TUMF)	Fees Fees Fees	--
67	Sanderson Av. (SR-79) & Ramona Exwy.	San Jacinto	*Add 3rd SB through lane* *Add 3rd NB through lane* *Add 3rd EB left turn lane* *Add 3rd EB through lane* *Add 3rd WB through lane* *Add 4th NB through lane* *Add 4th SB through lane* Modify the traffic signal to implement overlap phasing for the NB, SB, EB, and WB right turns	Same Same Same Same Same Same Same Same	Yes (TUMF) No No Yes (TUMF) Yes (TUMF) No No No	Fees Fair Share Fair Share Fees Fees Fair Share Fair Share Fair Share	1.4%
70	Murrieta Rd. & San Jacinto Av.	Perris	*Install a Traffic Signal* *Add 2nd EB through lane* *Add 2nd WB through lane*	Same Same Same	No No No	Construct Fair Share Fair Share	0.0%
71	Redlands Av. & San Jacinto Av.	Perris	*Modify the traffic signal to implement overlap phasing for the NB right turn*	Same	No	Construct	--
74	Evans Rd. & San Jacinto Av.	Perris	*Install a Traffic Signal* *Add NB left turn lane* *Add NB through lane* *Add 2nd NB through lane* *Add SB left turn lane* *Add 2nd SB through lane* *Add EB left turn lane* *Add 2nd EB through lane* *Add WB left turn lane* *Add 2nd WB through lane*	Same Same Same Same Same Same Same Same Same Same	No No Yes (TUMF) Yes (TUMF) No Yes (TUMF) No No No No	Fair Share Fair Share Fees Fees Fair Share Fees Fair Share Fair Share Fair Share Fair Share	0.0%

#	Intersection Location	Jurisdiction	Horizon Year (2040) Without Project	Horizon Year (2040) With Project	Improvements in County DIF or TUMF[1,2]	Project Responsibility	Project Fair Share[4]
77	Dunlap Dr. & San Jacinto Av.	County of Riverside, Perris	*Install a Traffic Signal* *Add EB left turn lane* *Add 2nd EB through lane* *Add 2nd WB through lane*	Same Same Same Same	No No No No	Construct Construct Fair Share Fair Share	0.0%
81	I-215 SB Ramps & Ethanac Rd.	Perris, Caltrans	Add SB left turn lane Add 2nd SB right turn lane Add 2nd EB through lane Add EB free right turn lane Add 2nd WB through lane Add WB free right turn lane	Same Same Same Same Same Same	Yes (TUMF) Yes (TUMF) Yes (TUMF) Yes (TUMF) Yes (TUMF) Yes (TUMF)	Fees Fees Fees Fees Fees Fees	--
82	I-215 NB Ramps & Ethanac Rd.	Perris, Caltrans	*Add NB left turn lane* *Add NB right turn lane* *Add 2nd NB right turn lane* *Add 2nd EB through lane* *Add 3rd EB through lane* *Add EB free right turn lane* *Add 2nd WB through lane* *Add 3rd WB through lane* *Add WB free right turn lane*	Same Same Same Same Same Same Same Same Same	Yes (TUMF) Yes (TUMF) Yes (TUMF) Yes (TUMF) Yes (TUMF) Yes (TUMF) Yes (TUMF) Yes (TUMF) Yes (TUMF)	Fees Fees Fees Fees Fees Fees Fees Fees Fees	--
83	Encanto Dr. & Ethanac Rd.	Perris	*Install a Traffic Signal* *Add 2nd EB through lane* *Add 3rd EB through lane* *Add 2nd WB through lane* *Add 3rd WB through lane*	Same Same Same Same Same	No No No No No	Fair Share Fair Share Fair Share Fair Share Fair Share	0.0%
84	Sherman Rd. & Ethanac Rd.	Perris, Menifee	*Add EB left turn lane* *Install a Traffic Signal* *Add WB left turn lane* *Add 2nd EB through lane* *Add 3rd EB through lane* *Add 2nd WB through lane* *Add 3rd WB through lane*	Same Same Same Same Same Same Same	No No No No No No No	Construct Fair Share Fair Share Fair Share Fair Share Fair Share Fair Share	0.0%
86	Antelope Rd. & Ethanac Rd.	Menifee	*Add NB left turn lane* *Add SB left turn lane* *Add EB left turn lane* *Add WB left turn lane* *Install a Traffic Signal* *Add 2nd EB through lane* *Add 3rd EB through lane* *Add 2nd WB through lane* *Add 3rd WB through lane*	Same Same Same Same Same Same Same Same Same	No No No No No No No No No	Fair Share Fair Share Fair Share Fair Share Fair Share Fair Share Fair Share Fair Share Fair Share	0.0%

#	Intersection Location	Jurisdiction	Horizon Year (2040) Without Project	Horizon Year (2040) With Project	Improvements in County DIF or TUMF[1,2]	Project Responsibility	Project Fair Share[4]
87	Menifee Rd. & Matthews Rd.	Menifee	*Add NB left turn lane*	Same	No	Construct	0.0%
			Add 2nd NB through lane	Same	No	Fair Share	
			Add 2nd SB through lane	Same	No	Fair Share	
			Install a Traffic Signal	Same	No	Fair Share	

[1] Improvements included in TUMF Nexus, or County of Riverside DIF fee programs.

[2] Program improvements constructed by project may be eligible for fee credit. In lieu fee payment is at discretion of County. Represents the fair share percentage for the Project during the most impacted peak ho

[3] Although the interchange is identified as a TUMF interchange, the interchange is not currently identified on the Central Zone 5-Year Transportation Improvement Program Amendment (adopted June 30, 2016).

[4] Program improvements constructed by project may be eligible for fee credit, at discretion of County. See Table 8-6 for Fair Share Calculations.

[5] Improvement planned to be constructed as part of the I-215 Freeway/Placentia Avenue interchange project, which is anticipated to be completed in 2022.

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1.8 FEASIBILITY OF ALTERNATIVES

As discussed in Section 1.2 *Project Overview*, there are 6 alternatives evaluated in this TA:

- Alternative 1 (Applicant Alternative): assumes all westbound trucks utilize Antelope Road south, then travel west on Nuevo Road, south on Dunlap Drive, west on San Jacinto Avenue, and south on Redlands Avenue to access the I-215 Freeway.
- Alternative 2 (Applicant Alternative): assumes all westbound trucks utilize Antelope Road south, then travel east on Nuevo Road, south on Menifee Road, west on San Jacinto Avenue, and south on Redlands Avenue to access the I-215 Freeway.
- Alternative 3 (City of Perris Alternative): assumes all westbound trucks utilize Antelope Road south, then travel east on Nuevo Road, south on Menifee Road, and west on SR-74 to access the I-215 Freeway.
- Alternative 4 (City of Perris Alternative): assumes all westbound trucks utilize Antelope Road south, then travel east on Nuevo Road, south on Menifee Road, northwest on Matthews Road, and west on Ethanac Road to access the I-215 Freeway.
- Alternative 5 (Attorney General Alternative): assumes all westbound trucks utilize Antelope Road south, then travel east on Nuevo Road, south on Menifee Road, west on San Jacinto Avenue, south on future Evans Avenue to access the I-215 Freeway. It should be noted, Evans Road, south of San Jacinto Avenue, and the I-215 Freeway/Evans Avenue interchange do not currently exist. As such, the traffic study will assume these facilities are in place for trucks to access the I-215 Freeway.

The following truck route scenario will be evaluated for Horizon Year (2040) With MCP With Project traffic conditions only:

- Alternative 6 (Applicant Alternative): assumes all westbound trucks utilize the future MCP to access the I-215 Freeway.

This section discusses the feasibility of each of the alternatives.

1.8.1 ALTERNATIVE 1

This truck route alternative utilizes existing truck routes and all roadways are currently built (i.e., Nuevo Road, Dunlap Drive, San Jacinto Avenue). Exhibit 1-7 shows the truck turning templates assuming a WB-67 truck for the turns along the Alternative 1 truck route. As shown on Exhibit 1-7, the wide turning radius of trucks can be accommodated through widening of the pavement. As such, this alternative is identified as being feasible.

1.8.2 ALTERNATIVE 2

Similar to Alternative 1, this truck route alternative utilizes existing truck routes and all roadways are currently built (i.e., Nuevo Road, Menifee Road, San Jacinto Avenue). Exhibit 1-8 shows the truck turning templates assuming a WB-67 truck for the turns along the Alternative 2 truck route. As shown on Exhibit 1-8, the wide turning radius of trucks can be accommodated through widening of the pavement. As such, this alternative is identified as being feasible.

EXHIBIT 1-7: ALTERNATIVE 1 TRUCK ROUTES

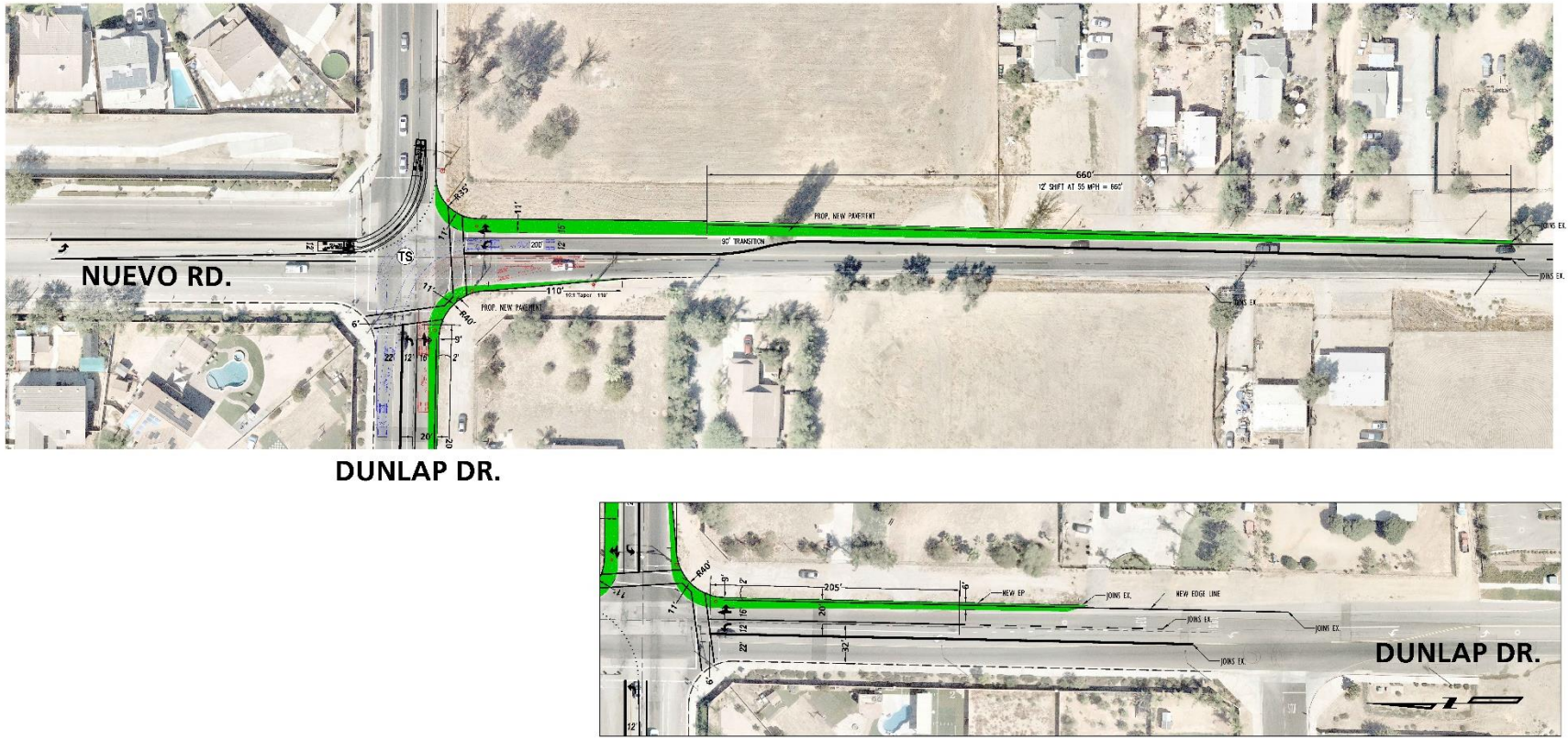
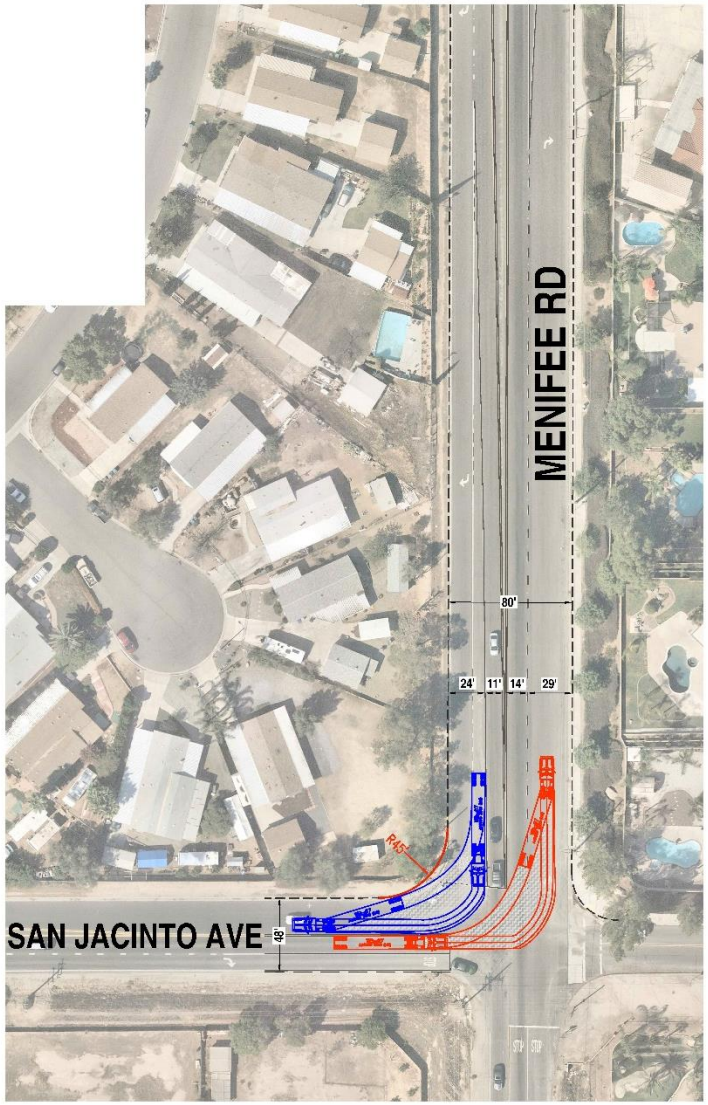
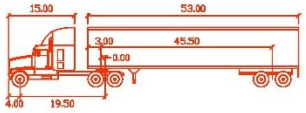
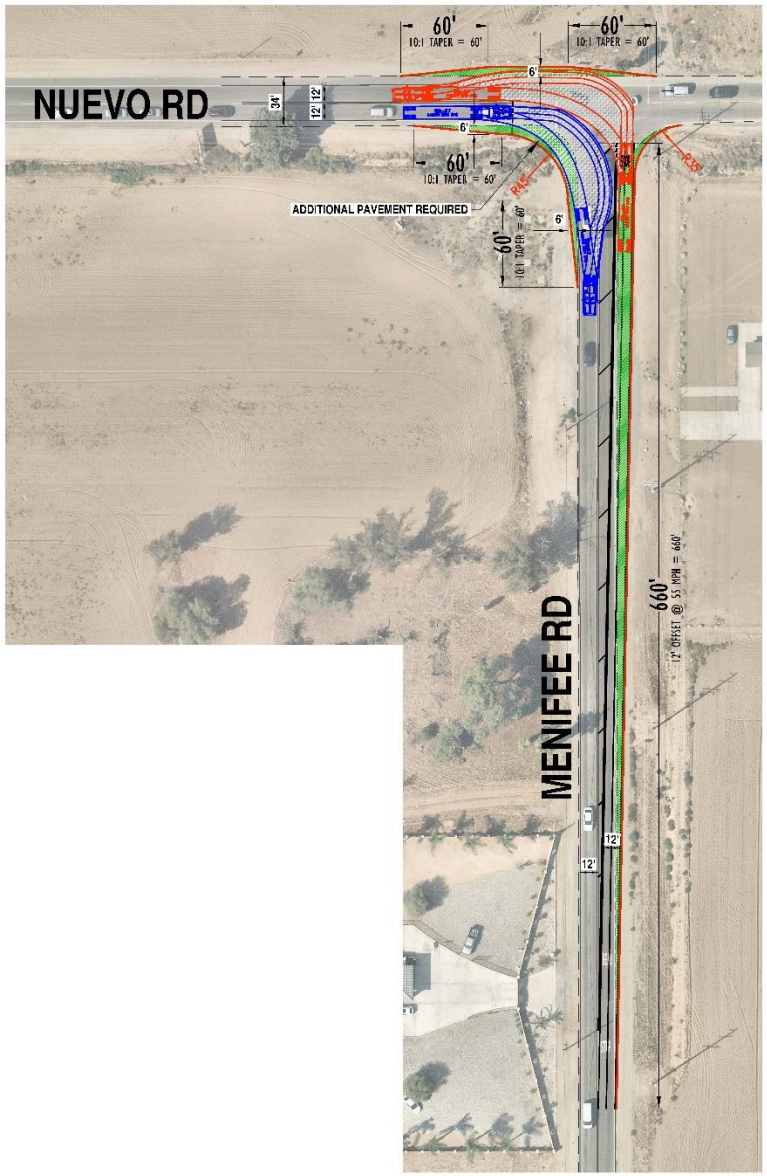
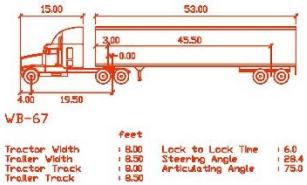


EXHIBIT 1-8: ALTERNATIVE 2 TRUCK ROUTES






NUEVO RD
MENIFEE RD
60'
10:1 TAPER = 60'
ADDITIONAL PAVEMENT REQUIRED
660'
12' OFFSET @ 55 MPH = 660'
34'
12' 12'
6'
12'
R45'


15.00
53.00
3.00
45.50
0.00
4.00
19.50
WB-67
feet
Tractor Width : 8.00
Trailer Width : 8.50
Tractor Track : 9.00
Trailer Track : 8.50
Lock to Lock Time : 6.0
Steering Angle : 28.4
Articulating Angle : 75.0

1.8.3 ALTERNATIVE 3

This truck route utilizes existing roadways within the County of Riverside and City of Menifee. Although Ethanac Road is a designated truck route within the City of Menifee, Ethanac Road does not connect through from Menifee Road to the I-215 Freeway. As such, truck traffic must either utilize SR-74 to the north or Ethanac Road via Matthews Road to the south. Neither of these roadways (SR-74 and Matthews Road) are classified as truck routes within the City of Menifee. As such, this alternative is considered infeasible since truck traffic cannot utilize existing truck routes within the City of Menifee.

1.8.4 ALTERNATIVE 4

This truck route utilizes existing roadways within the County of Riverside and City of Menifee. As discussed in Section 1.8.3 *Alternative* 3, Ethanac Road is a designated truck route within the City of Menifee, Ethanac Road does not connect through from Menifee Road to the I-215 Freeway. As such, truck traffic must either utilize SR-74 to the north or Ethanac Road via Matthews Road to the south. Neither of these roadways (SR-74 and Matthews Road) are classified as truck routes within the City of Menifee. As such, this alternative is considered infeasible since truck traffic cannot utilize existing truck routes within the City of Menifee.

1.8.5 ALTERNATIVE 5

This truck route utilizes a future interchange at the I-215 Freeway via a future southern extension of Evans Road. It should be noted, Evans Road does not exist south of San Jacinto Avenue and is currently an unpaved roadway between San Jacinto Avenue and Nuevo Road. A future interchange would require coordination between Caltrans and RCTC and secured funding from both agencies. Since the Project would be unable to construct the interchange as part of the Project design features, this truck route is considered infeasible under near-term conditions. Additionally, based on the Riverside County Transportation Analysis Model (RIVCOM), a future interchange is anticipated at the I-215 Freeway at Ellis Avenue. Given the close proximity of these future interchanges (within approximately 500 feet of each other), it is unlikely Caltrans and the County would support both interchanges simultaneously. As such, a future interchange at Evans Road is considered infeasible.

1.8.6 ALTERNATIVE 6

This truck route utilizes the future MCP and is only considered for long-range 2040 conditions. The MCP has previously been studied through the CEQA process. However, the timing of the MCP construction is unclear, funding has not been secured by the RCTC, and construction has not yet begun. Since this alternative is only considered for long-range 2040 conditions, it is not classified as feasible or infeasible at this time, but should be considered at some time in the future when funding for the MCP is secured.

1.9 TRUCK ROUTING MANAGEMENT PLAN

it is recommended the Project Applicant prepare a truck route management plan. Implementation of the truck management plan would require coordination between the tenant and its drivers via signage or handouts with information about the interim truck routes. In conjunction with the signage/handouts showing the interim truck route plan, it is recommended that the Project tenant implement an ongoing driver education program where the dispatchers inform the truck drivers about the approved truck route and reinforce that use of Kimball Avenue by truck traffic entering the Project is prohibited.

2 METHODOLOGIES

This section of the report presents the methodologies used to perform the traffic analyses summarized in this report. The methodologies described are generally consistent with County of Riverside and Caltrans traffic study guidelines. (1) (6)

2.1 LEVEL OF SERVICE

Traffic operations of roadway facilities are described using the term "Level of Service" (LOS). LOS is a qualitative description of traffic flow based on several factors such as speed, travel time, delay, and freedom to maneuver. Six levels are typically defined ranging from LOS A, representing completely free-flow conditions, to LOS F, representing breakdown in flow resulting in stop-and-go conditions. LOS E represents operations at or near capacity, an unstable level where vehicles are operating with the minimum spacing for maintaining uniform flow.

2.2 INTERSECTION CAPACITY ANALYSIS

The definitions of LOS for interrupted traffic flow (flow restrained by the existence of traffic signals and other traffic control devices) differ slightly depending on the type of traffic control. The LOS is typically dependent on the quality of traffic flow at the intersections along a roadway. The Highway Capacity Manual (HCM) methodology expresses the LOS at an intersection in terms of delay time for the various intersection approaches. (7) The HCM uses different procedures depending on the type of intersection control.

2.2.1 SIGNALIZED INTERSECTIONS

County of Riverside, City of Perris, City of Moreno Valley, City of Menifee, and City of San Jacinto

The County of Riverside, City of Perris, City of Moreno Valley, City of Menifee, and City of San Jacinto require signalized intersection operations analysis based on the methodology described in the HCM (6th Edition). Intersection LOS operations are based on an intersection's average control delay. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. For signalized intersections LOS is directly related to the average control delay per vehicle and is correlated to a LOS designation as described in Table 2-1. Study area intersections have been evaluated using the Synchro (Version 10) analysis software package.

The traffic modeling and signal timing optimization software package Synchro (Version 10) is utilized to analyze signalized intersections. Synchro is a macroscopic traffic software program that is based on the signalized intersection capacity analysis as specified in the HCM. Macroscopic level models represent traffic in terms of aggregate measures for each movement at the study intersections. Equations are used to determine measures of effectiveness such as delay and queue length. The level of service and capacity analysis performed by Synchro takes into consideration optimization and coordination of signalized intersections within a network.

TABLE 2-1: SIGNALIZED INTERSECTION LOS THRESHOLDS

Description	Average Control Delay (Seconds), V/C ≤ 1.0	Level of Service, V/C ≤ 1.0	Level of Service, V/C > 1.0
Operations with very low delay occurring with favorable progression and/or short cycle length.	0 to 10.00	A	F
Operations with low delay occurring with good progression and/or short cycle lengths.	10.01 to 20.00	B	F
Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.01 to 35.00	C	F
Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	35.01 to 55.00	D	F
Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	55.01 to 80.00	E	F
Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths	80.01 and up	F	F

Source: HCM, 6th Edition

A saturation flow rate of 1900 has been utilized for all study area intersections located within the study area. The peak hour traffic volumes are adjusted using a peak hour factor (PHF) to reflect peak 15-minute volumes. Common practice for LOS analysis is to use a peak 15-minute rate of flow. However, flow rates are typically expressed in vehicles per hour. The PHF is the relationship between the peak 15-minute flow rate and the full hourly volume (e.g. PHF = [Hourly Volume] / [4 x Peak 15-minute Flow Rate]). The use of a 15-minute PHF produces a more detailed analysis as compared to analyzing vehicles per hour. Existing PHFs have been used for all analysis scenarios. Per the HCM, PHF values over 0.95 often are indicative of high traffic volumes with capacity constraints on peak hour flows while lower PHF values are indicative of greater variability of flow during the peak hour. (7)

2.2.2 UNSIGNALIZED INTERSECTIONS

The County of Riverside, City of Perris, City of Moreno Valley, City of Menifee, and City of San Jacinto require the operations of unsignalized intersections be evaluated using the methodology described the HCM. (7) The LOS rating is based on the weighted average control delay expressed in seconds per vehicle (see Table 2-2).

TABLE 2-2: UNSIGNALIZED INTERSECTION LOS THRESHOLDS

Description	Average Control Delay Per Vehicle (Seconds)	Level of Service, V/C ≤ 1.0	Level of Service, V/C > 1.0
Little or no delays.	0 to 10.00	A	F
Short traffic delays.	10.01 to 15.00	B	F
Average traffic delays.	15.01 to 25.00	C	F
Long traffic delays.	25.01 to 35.00	D	F
Very long traffic delays.	35.01 to 50.00	E	F
Extreme traffic delays with intersection capacity exceeded.	> 50.00	F	F

Source: HCM, 6th Edition

At two-way or side-street stop-controlled intersections, LOS is calculated for each controlled movement and for the left turn movement from the major street, as well as for the intersection as a whole. For approaches composed of a single lane, the delay is computed as the average of all movements in that lane. For all-way stop controlled intersections, LOS is computed for the intersection as a whole.

2.3 TRAFFIC SIGNAL WARRANT ANALYSIS METHODOLOGY

The term "signal warrants" refers to the list of established criteria used by the Caltrans and other public agencies to quantitatively justify or ascertain the potential need for installation of a traffic signal at an otherwise unsignalized intersection. This TIA uses the signal warrant criteria presented in the latest edition of the Caltrans California Manual on Uniform Traffic Control Devices *(CA MUTCD)*. (8)

The signal warrant criteria for Existing conditions are based upon several factors, including volume of vehicular and pedestrian traffic, frequency of accidents, and location of school areas. The Caltrans CA MUTCD indicates that the installation of a traffic signal should be considered if one or more of the signal warrants are met. (8) Specifically, this TIA utilizes the Peak Hour Volume-based Warrant 3 as the appropriate representative traffic signal warrant analysis for existing study area intersections for all analysis scenarios. Warrant 3 is appropriate to use for this TIA because it provides specialized warrant criteria for intersections with rural characteristics (e.g. located in communities with populations of less than 10,000 persons or with adjacent major streets operating above 40 miles per hour). For the purposes of this study, the speed limit was the basis for determining whether Urban or Rural warrants were used for a given intersection.

Future intersections that do not currently exist have been assessed regarding the potential need for new traffic signals based on future average daily traffic (ADT) volumes, using the Caltrans planning level ADT-based signal warrant analysis worksheets.

Traffic signal warrant analyses were performed for the following unsignalized study area intersection shown in Table 2-3:

TABLE 2-3: TRAFFIC SIGNAL WARRANT ANALYSIS LOCATIONS

ID	Intersection Location	Jurisdiction
6	I-215 SB Ramps & Placentia Av. – Future Intersection	County of Riverside, Caltrans
7	I-215 NB Ramps & Placentia Av. – Future Intersection	Perris, Caltrans
15	Indian Av. & Placentia Av.	Perris
22	Perris Bl. & Ramona Exwy.	Perris
31	Redlands Av. & Morgan St.	Perris
32	Redlands Av. & Rider St.	Perris
33	Redlands Av. & Placentia Av.	Perris
45	Dunlap Dr. & Orange Av.	County of Riverside, Perris
48	Antelope Rd. & Ramona Exwy. – Future Intersection	County of Riverside
49	MCP WB Ramps & Antelope Rd. – Future Intersection	County of Riverside
50	MCP EB Ramps & Antelope Rd. – Future Intersection	County of Riverside
51	Antelope Rd. & Nuevo Rd. – Future Intersection	County of Riverside
52	Street A & Ramona Exwy. – Future Intersection	County of Riverside
53	Menifee Rd./Reservoir Bl. & Nuevo Rd.	County of Riverside
54	Menifee Rd. & San Jacinto Av.	County of Riverside
55	Menifee Rd. & Ellis Rd.	County of Riverside
56	Menifee Rd. & Mapes Rd.	County of Riverside, Menifee
57	Menifee Rd. & Watson Rd.	Menifee
59	Bernasconi Rd. & Orange Av. – Future Intersection	County of Riverside
61	Lakeview Av. & Nuevo Rd.	County of Riverside
62	Montgomery Av. & Nuevo Rd.	County of Riverside
64	Hansen Av. & Contour Av.	County of Riverside
65	Bridge St. & Ramona Exwy.	County of Riverside
70	Murrieta Rd. & San Jacinto Av.	Perris
77	Dunlap Dr. & San Jacinto Av.	Perris
83	Encanto Dr. & Ethanac Rd.	Menifee
84	Sherman Rd. & Ethanac Rd.	Perris, Menifee
86	Antelope Rd. & Ethanac Rd.	Menifee
87	Menifee Rd. & Matthews Rd.	Menifee

The Existing conditions traffic signal warrant analysis is presented in the subsequent section, Section 3 *Area Conditions* of this report. The traffic signal warrant analyses for future conditions are presented in Section 5 *EAP (2032) Traffic Conditions,* Section 6 *EAPC (2032) Traffic Conditions,* and Section 7 *Horizon Year (2040) Traffic Conditions* of this report.

It is important to note that a signal warrant defines the minimum condition under which the installation of a traffic signal might be warranted. Meeting this threshold condition does not require that a traffic control signal be installed at a particular location, but rather, that other traffic factors and conditions be evaluated in order to determine whether the signal is truly justified. It should also be noted that signal warrants do not necessarily correlate with LOS. An intersection may satisfy a signal warrant condition and operate at or above acceptable LOS or operate below acceptable LOS and not meet a signal warrant.

2.4 FREEWAY OFF-RAMP QUEUING ANALYSIS

Consistent with Caltrans requirements, the 95th percentile queuing of vehicles has been assessed at the off-ramps to determine potential queuing deficiencies at the freeway ramp intersections at the I-215 Freeway at Harley Knox Boulevard, Ramona Expressway, Placentia Avenue, Nuevo Road, Redlands Avenue, SR-74, and Ethanac Road interchanges, and the future I-215 Evans Road at interchange for future conditions. Specifically, the queuing analysis is utilized to identify any potential queuing and "spill back" onto the I-215 Freeway mainline from the off-ramps.

The traffic progression analysis tool and HCM intersection analysis program, Synchro, has been used to assess the potential deficiencies/needs of the intersections with traffic added from the proposed Project. Storage (turn-pocket) length recommendations at the ramps have been based upon the 95th percentile queue resulting from the Synchro progression analysis. The footnote from the Synchro output sheets indicates if the 95th percentile cycle exceeds capacity. Traffic is simulated for two complete cycles of the 95th percentile traffic in Synchro in order to account for the effects of spillover between cycles. In practice, the 95th percentile queue shown will rarely be exceeded and the queues shown with the footnote are acceptable for the design of storage bays.

Although only the 95th percentile queue has been reported in the tables, the 50th percentile queue can be found in the appendix alongside the 95th percentile queue for each ramp location. The queue length reported is for the lane with the highest queue in the lane group. The 50th percentile or average queue represents the typical queue length for peak hour traffic conditions, while the 95th percentile queue is derived from the average queue plus 1.65 standard deviations. The 95th percentile queue is not necessarily ever observed it is simply based on statistical calculations.

2.5 MINIMUM LEVEL OF SERVICE (LOS)

2.5.1 COUNTY OF RIVERSIDE

The definition of an intersection deficiency has been obtained from the County of Riverside General Plan. Riverside County General Plan Policy C 2.1 states that the County will maintain the following County-wide target LOS:

The following minimum target levels of service have been designated for the review of development proposals in the unincorporated areas of Riverside County with respect to transportation impacts on roadways designated in the Riverside County Circulation Plan which

are currently County maintained, or are intended to be accepted into the County maintained roadway system:

- *LOS C shall apply to all development proposals in any area of the Riverside County not located within the boundaries of an Area Plan, as well as those areas located within the following Area Plans: REMAP, Eastern Coachella Valley, Desert Center, Palo Verde Valley, and those non-Community Development areas of the Elsinore, Lake Mathews/Woodcrest, Mead Valley and Temescal Canyon Area Plans.*
- *LOS D shall apply to all development proposals located within any of the following Area Plans: Eastvale, Jurupa, Highgrove, Reche Canyon/Badlands, Lakeview/Nuevo, Sun City/Menifee Valley, Harvest Valley/Winchester, Southwest Area, The Pass, San Jacinto Valley, Western Coachella Valley and those Community Development Areas of the Elsinore, Lake Mathews/Woodcrest, Mead Valley and Temescal Canyon Area Plans.*
- *LOS E may be allowed by the Board of Supervisors within designated areas where transit-oriented development and walkable communities are proposed.*

The applicable minimum LOS utilized for the purposes of this analysis is LOS D per the County-wide target LOS for projects located within the Lakeview/Nuevo area plan.

2.5.2 CITY OF PERRIS

The definition of an intersection deficiency has been obtained from the City of Perris General Plan:

LOS D along all City maintained roads (including intersections) and LOS D along I-215 and SR-74 (including intersections with local streets and roads). An exception to the local road standard is LOS E, at intersections of any Arterials and Expressways with SR-74, the Ramona-Cajalco Expressway, or at I-215 Freeway ramps. (10)

LOS E may be allowed within the boundaries of the Downtown Specific Plan Area to the extent that it would support transit-oriented development and walkable communities. Increased congestion in this area will facilitate an increase in transit ridership and encourage development of a complementary mix of land uses within a comfortable walking distance from light rail stations.

2.5.3 CITY OF MORENO VALLEY

The definition of an intersection deficiency in the City of Moreno Valley is based on the City of Moreno Valley General Plan Circulation Element. The City of Moreno Valley General Plan states that target LOS C or LOS D be maintained along City roads (including intersections) wherever possible. LOS D is applicable to intersections and roadway segments that are adjacent to freeway on/off ramps and/or adjacent to employment generating land uses. Boundary intersections are assumed to be LOS D. LOS C is applicable to all other intersections and roadway segments. (11)

2.5.4 CITY OF MENIFEE

Per Policy C-1.2 of the City of Menifee General Plan, the following LOS will be utilized for study area intersections located within the City: Require development to achieve a peak hour LOS D or

better at intersections, except at constrained intersections within close proximity to the I-215 Freeway, where LOS E may be permitted. (12)

2.5.5 CITY OF SAN JACINTO

Per the City of San Jacinto General Plan, the City has established a peak hour LOS D or better as acceptable for all intersections along the designated street and highway systems. (13)

2.5.6 CALTRANS

Caltrans endeavors to maintain a target LOS at the transition between LOS C and LOS D on state highway facilities, however, Caltrans acknowledges that this may not always be feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS. Consistent with the County of Riverside minimum LOS of LOS D, LOS D will be used as the target LOS for both arterial-to-freeway ramps and freeway mainline segments and ramp junctions.

2.6 DEFICIENCY CRITERIA

2.6.1 INTERSECTIONS

This section outlines the methodology used in this analysis related to identifying circulation system deficiencies. The following deficiency criteria has been utilized for the County of Riverside. To determine whether the addition of project-related traffic at a study intersection would result in a deficiency, the following will be utilized:

- A deficiency occurs at study area intersections if the pre-Project condition is at or better than LOS D (i.e., acceptable LOS), and the addition of project trips causes the peak hour LOS of the study area intersection to operate at unacceptable LOS (i.e., LOS E or F). Per the County of Riverside traffic study guidelines, for intersections currently operating at unacceptable LOS (LOS E or F), a deficiency will occur if the Project contributes 50 or more peak hour trips to pre-project traffic conditions.

2.6.2 CALTRANS FACILITIES

To determine whether the addition of project traffic to freeway facilities would result in a deficiency, the following will be utilized:

- The traffic study finds that the LOS of a segment will degrade from D or better to E or F.
- The traffic study finds that the project will exacerbate an already deficient condition (i.e., contributing 50 or more peak hour trips). A segment that is operating at or near capacity is deemed to be deficient.

2.7 PROJECT FAIR SHARE CALCULATION METHODOLOGY

Improvements found to be included in the TUMF and/or DIF will be identified as such. For improvements that do not appear to be in either of the pre-existing fee programs, a fair share contribution based on the Project's proportional share may be imposed in order to address the Project's share of deficiencies in lieu of construction. It should be noted that fair share calculations are for informational purposes only and the County Traffic Engineer will determine the appropriate improvements to be implemented by a project (to be identified in the conditions of approval).

If the intersection is currently operating at acceptable LOS under Existing traffic conditions, the Project's fair share cost of improvements would be determined based on the following equation, which is the ratio of Project traffic to new traffic, where new traffic is total future traffic less existing baseline traffic:

Project Fair Share % = Project Traffic / (Horizon Year (2040) Total Traffic – Existing (2022) Traffic)

If the intersection does not currently exist, but will be constructed sometime in the future, the Project's fair share cost of improvements would be determined based on the following equation, which is the ratio of Project traffic to total future traffic:

Project Fair Share % = Project Traffic / (Horizon Year (2040) Total Traffic)

3 AREA CONDITIONS

This section provides a summary of the existing circulation network, the County of Riverside General Plan Circulation Network, and a review of existing peak hour intersection operations, traffic signal warrant, and off-ramp queuing analyses.

3.1 EXISTING CIRCULATION NETWORK

Pursuant to the scoping agreement with County of Riverside staff (Appendix 1.1), the study area includes a total of 87 existing and future intersections as shown previously on Exhibit 1-2, where the Project is anticipated to contribute 50 or more peak hour trips or has been added at the direction of County staff. Exhibit 3-1 illustrates the study area intersections located near the proposed Project and identifies the number of through traffic lanes for existing roadways and intersection traffic controls.

3.2 GENERAL PLAN CIRCULATION ELEMENTS

As noted previously, the Project site is located within the County of Riverside. The roadway classifications and planned (ultimate) roadway cross-sections of the major roadways within the study area, as identified on County of Riverside General Plan Circulation Element, are described subsequently. Exhibit 3-2 shows the County of Riverside General Plan Circulation Element and Exhibit 3-3 illustrates the County of Riverside General Plan roadway cross-sections.

Expressways can accommodate eight travel lanes. These facilities serve regional through traffic where anticipated traffic volumes exceed four-lane capacity. Access from abutting property is generally restricted. The following roadway is classified as an Expressway within the study area:

- Ramona Expressway

Urban Arterial Highways can accommodate six or eight travel lanes. These facilities provide capacity for heavy through traffic where volumes are anticipated to exceed four-lane capacity. Urban arterial highways provide limited access to other roadways. The following roadways are classified as an Urban Arterial Highway within the study area:

- Menifee Road
- San Jacinto Avenue
- Nuevo Road

Arterial Highways can accommodate six travel lines. These facilities primarily serve through traffic to which access from abutting property shall be kept at a minimum. The following roadway is classified as an Arterial Highway within the study area:

- Orange Avenue

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EXHIBIT 3-1: EXISTING NUMBER OF THROUGH LANES AND INTERSECTION CONTROLS (PAGE 1 OF 5)

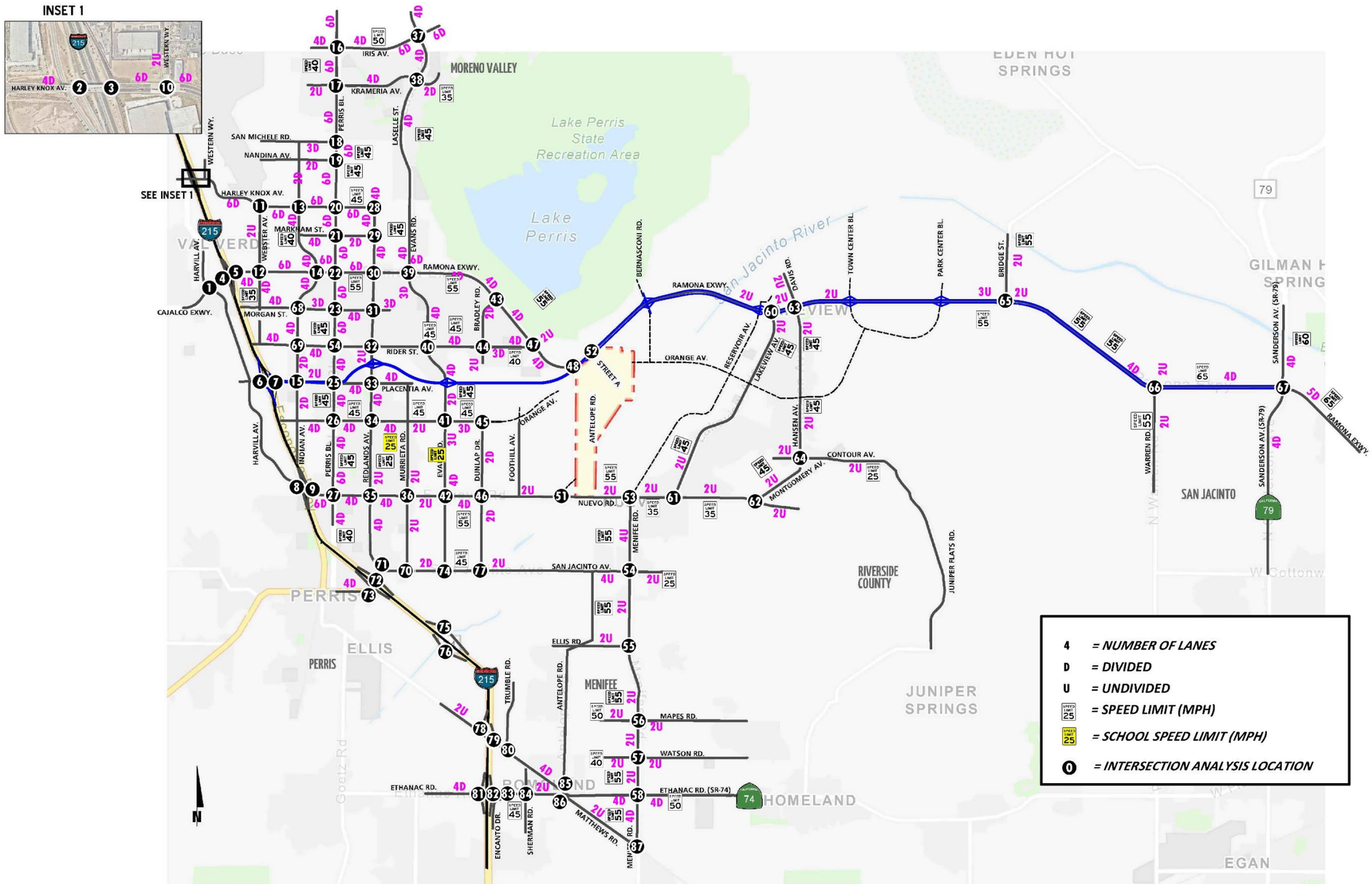

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EXHIBIT 3-1: EXISTING NUMBER OF THROUGH LANES AND INTERSECTION CONTROLS (PAGE 2 OF 5)

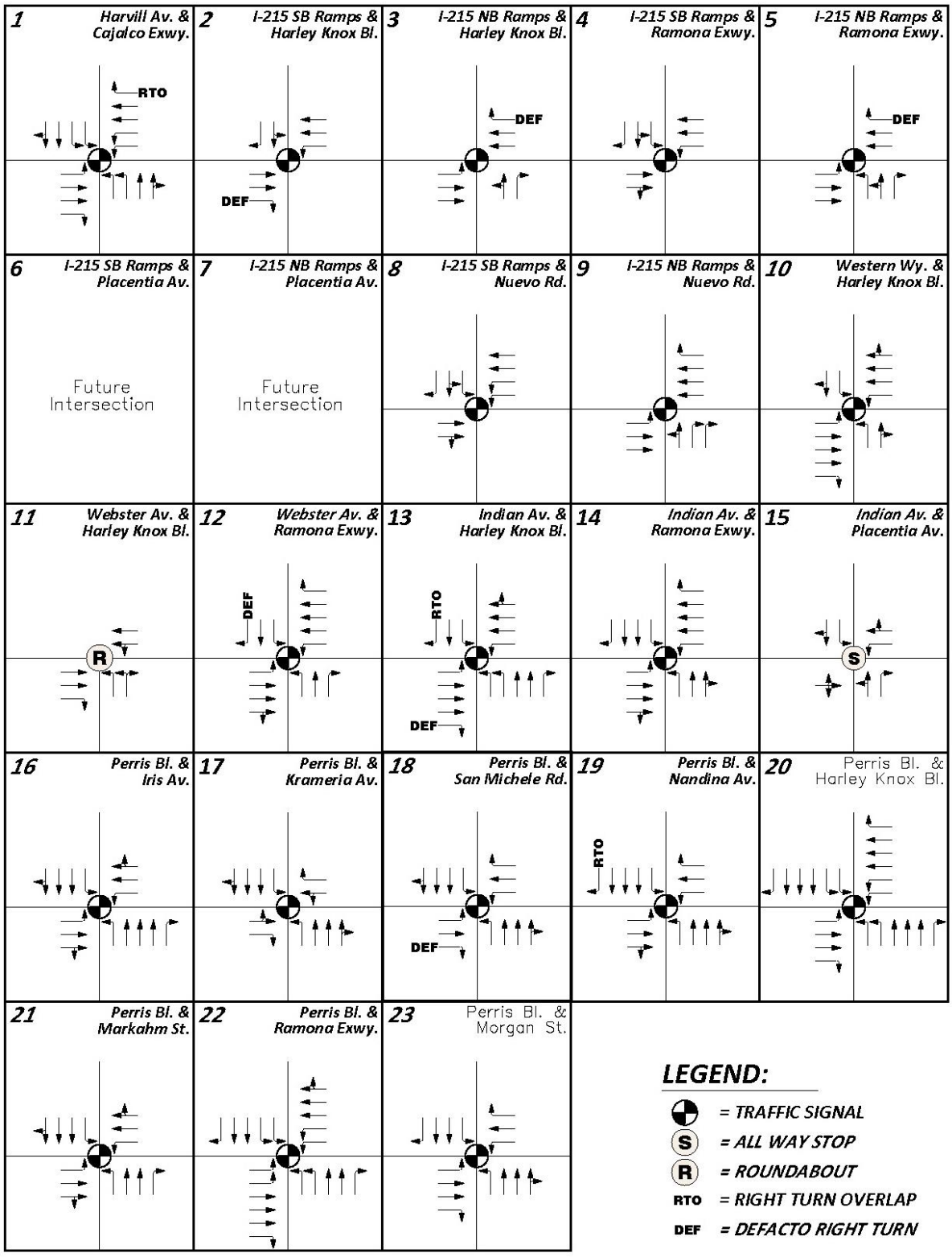


EXHIBIT 3-1: EXISTING NUMBER OF THROUGH LANES AND INTERSECTION CONTROLS (PAGE 3 OF 5)

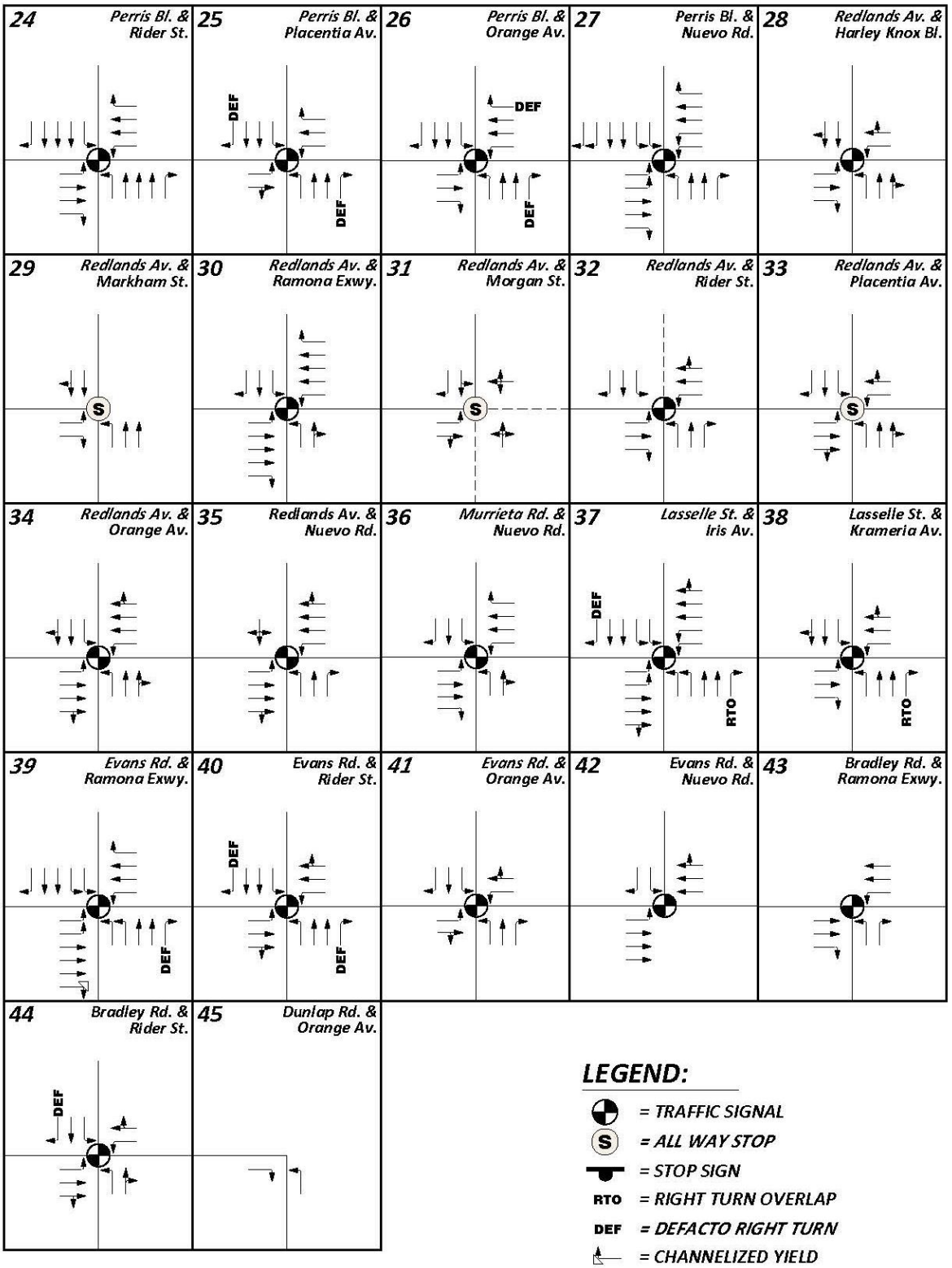


EXHIBIT 3-1: EXISTING NUMBER OF THROUGH LANES AND INTERSECTION CONTROLS (PAGE 4 OF 5)

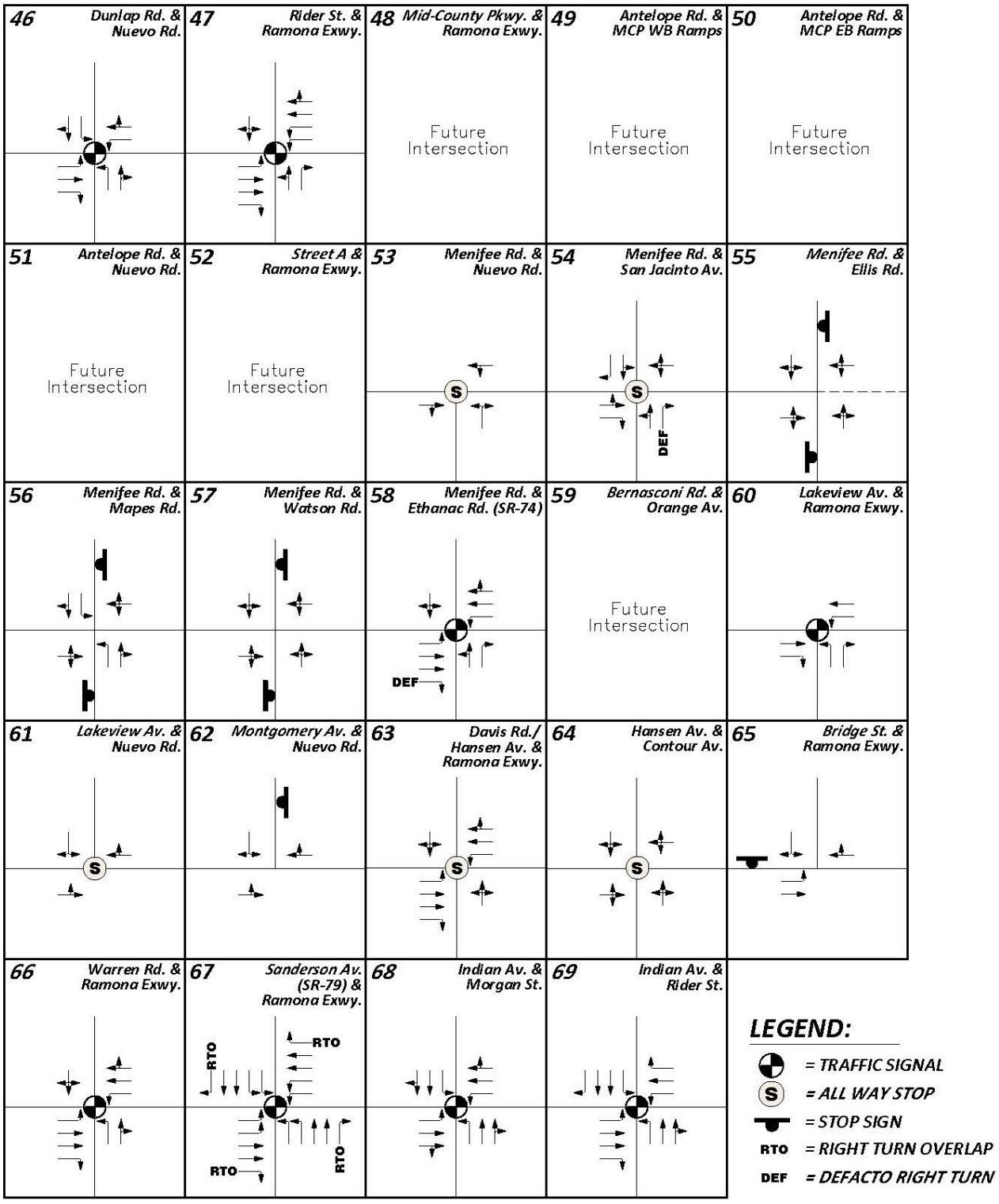


EXHIBIT 3-1: EXISTING NUMBER OF THROUGH LANES AND INTERSECTION CONTROLS (PAGE 5 OF 5)

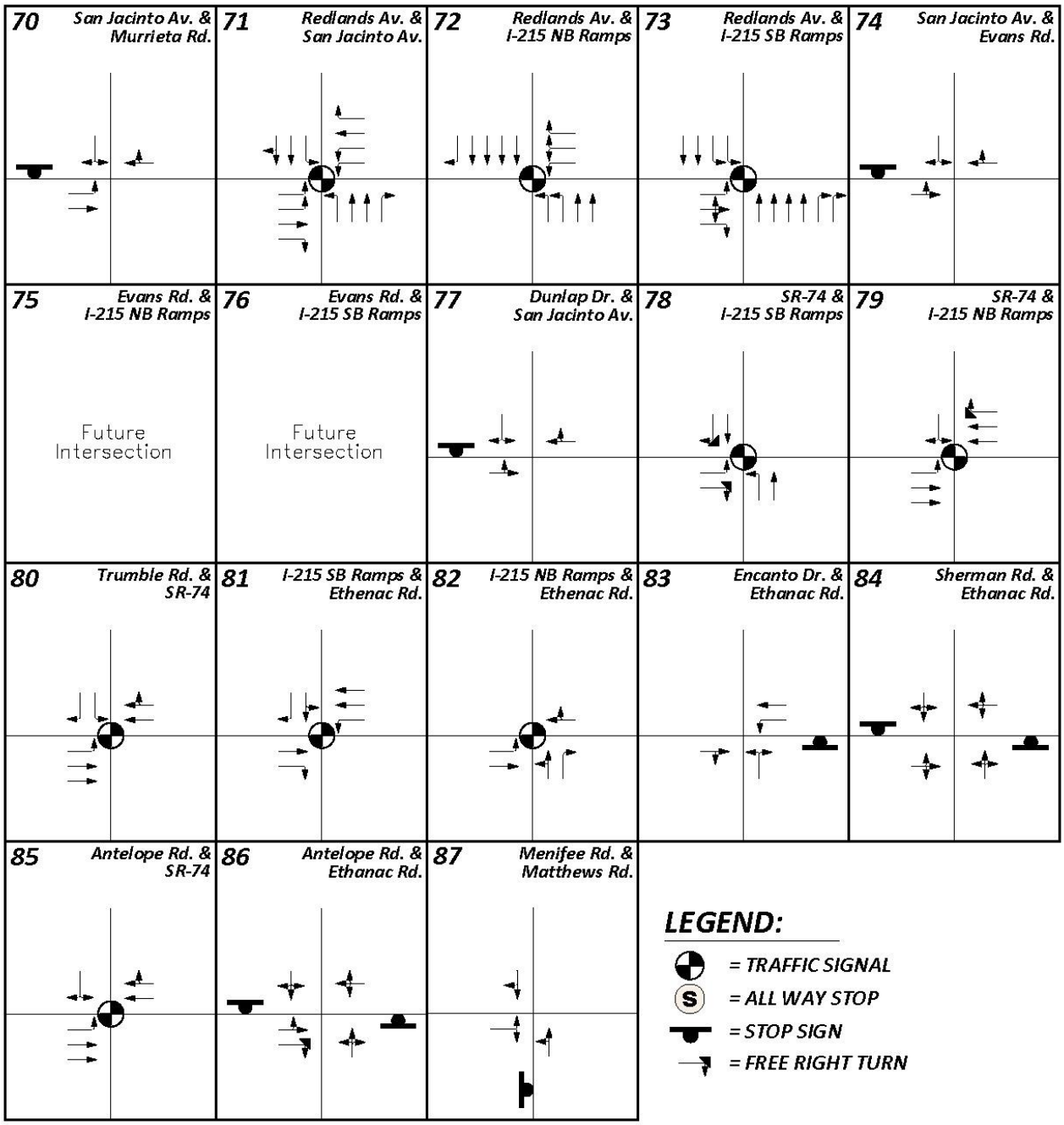


EXHIBIT 3-2: COUNTY OF RIVERSIDE GENERAL PLAN CIRCULATION ELEMENT

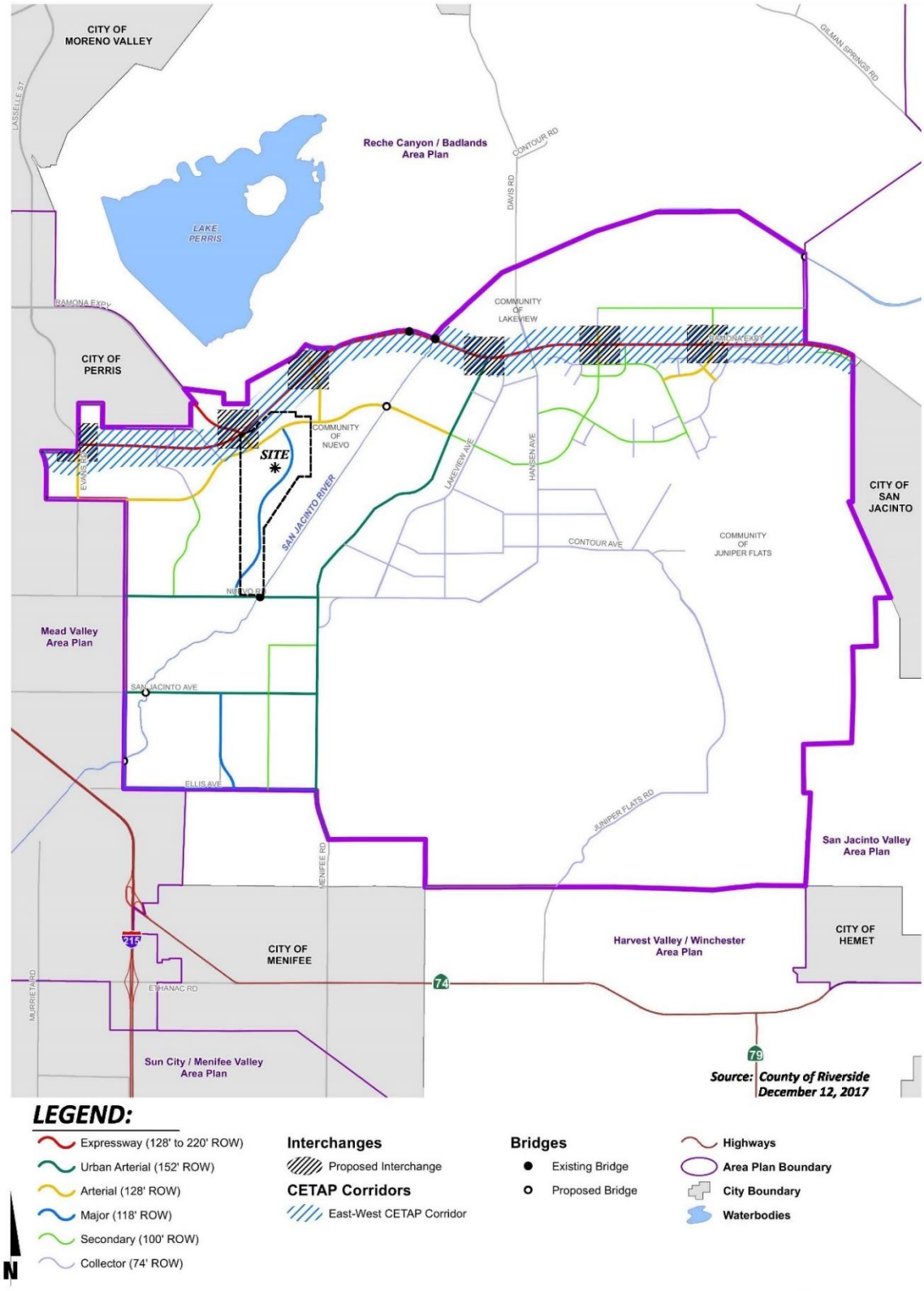
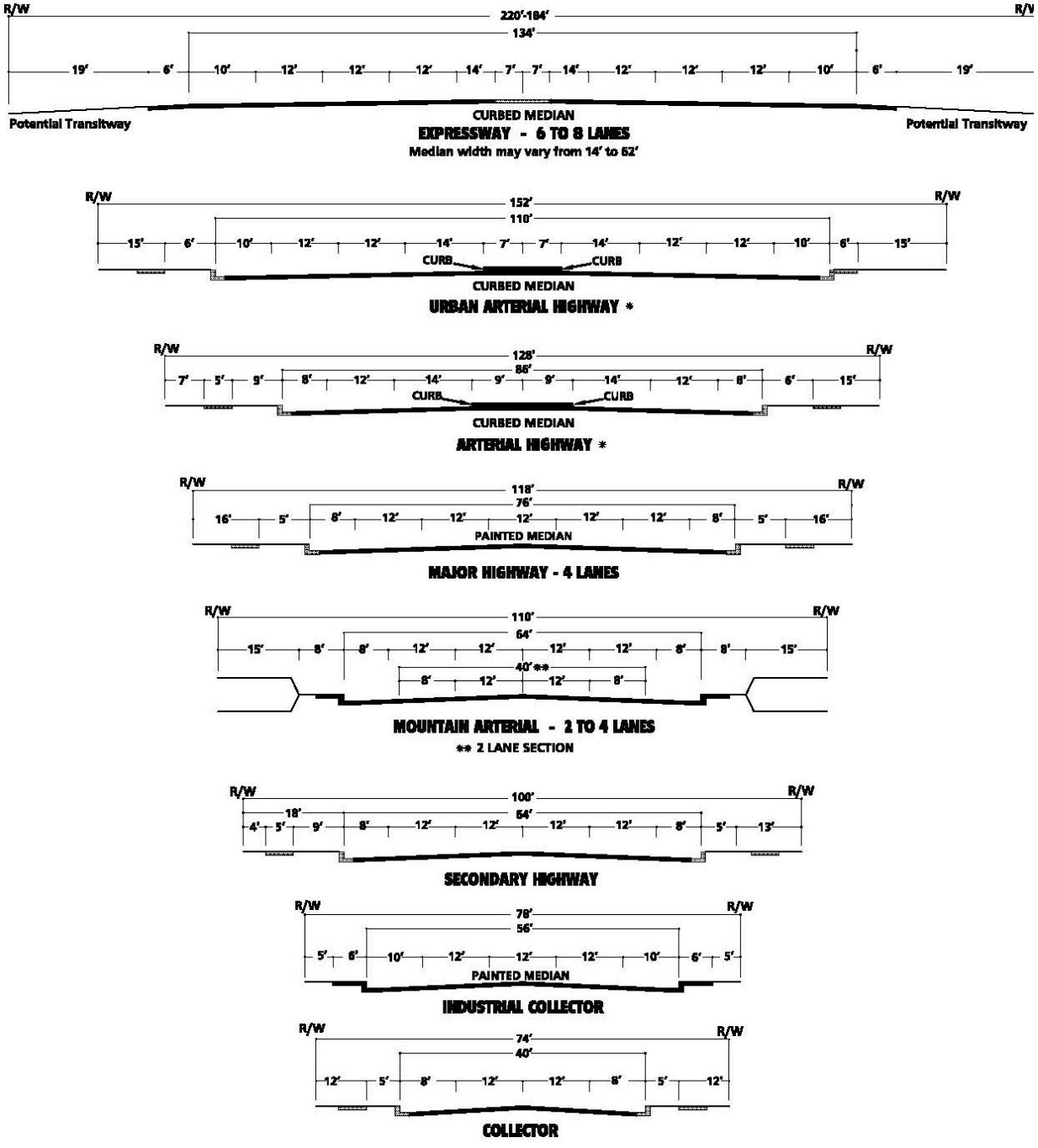


EXHIBIT 3-3: COUNTY OF RIVERSIDE GENERAL PLAN ROADWAY CROSS-SECTIONS



* IMPROVEMENTS MAY BE RECONFIGURED TO ACCOMMODATE EXCLUSIVE TRANSIT LANES OR ALTERNATIVE LANE ARRANGEMENTS ADDITIONAL RIGHT OF WAY MAY BE REQUIRED AT INTERSECTIONS TO ACCOMMODATE ULTIMATE IMPROVEMENTS FOR STATE HIGHWAYS SHALL CONFORM TO CALTRANS DESIGN STANDARDS.

NOT TO SCALE

SOURCE: COUNTY OF RIVERSIDE December 12, 2017

Major Highways can accommodate four travel lanes. These facilities serve property zoned for major industrial and commercial uses, or to serve through traffic. The following roadway is classified as a Major Highway within the study area:

- Antelope Road

3.3 CITY OF PERRIS, CITY OF MORENO VALLEY, CITY OF MENIFEE, AND CITY OF SAN JACINTO GENERAL PLAN CIRCULATION ELEMENT

Exhibits 3-4 and 3-5 show the City of Perris General Plan Circulation Element and roadway cross-sections, respectively. Exhibits 3-6 and 3-7 show the City of Moreno Valley General Plan Circulation Element and roadway cross-sections, respectively. Exhibits 3-8 and 3-9 show the City of Menifee General Plan Circulation Element and roadway cross-sections, respectively. Exhibits 3-10 and 3-11 show the City of San Jacinto General Plan Circulation Element and roadway cross-sections, respectively.

3.4 TRUCK ROUTES

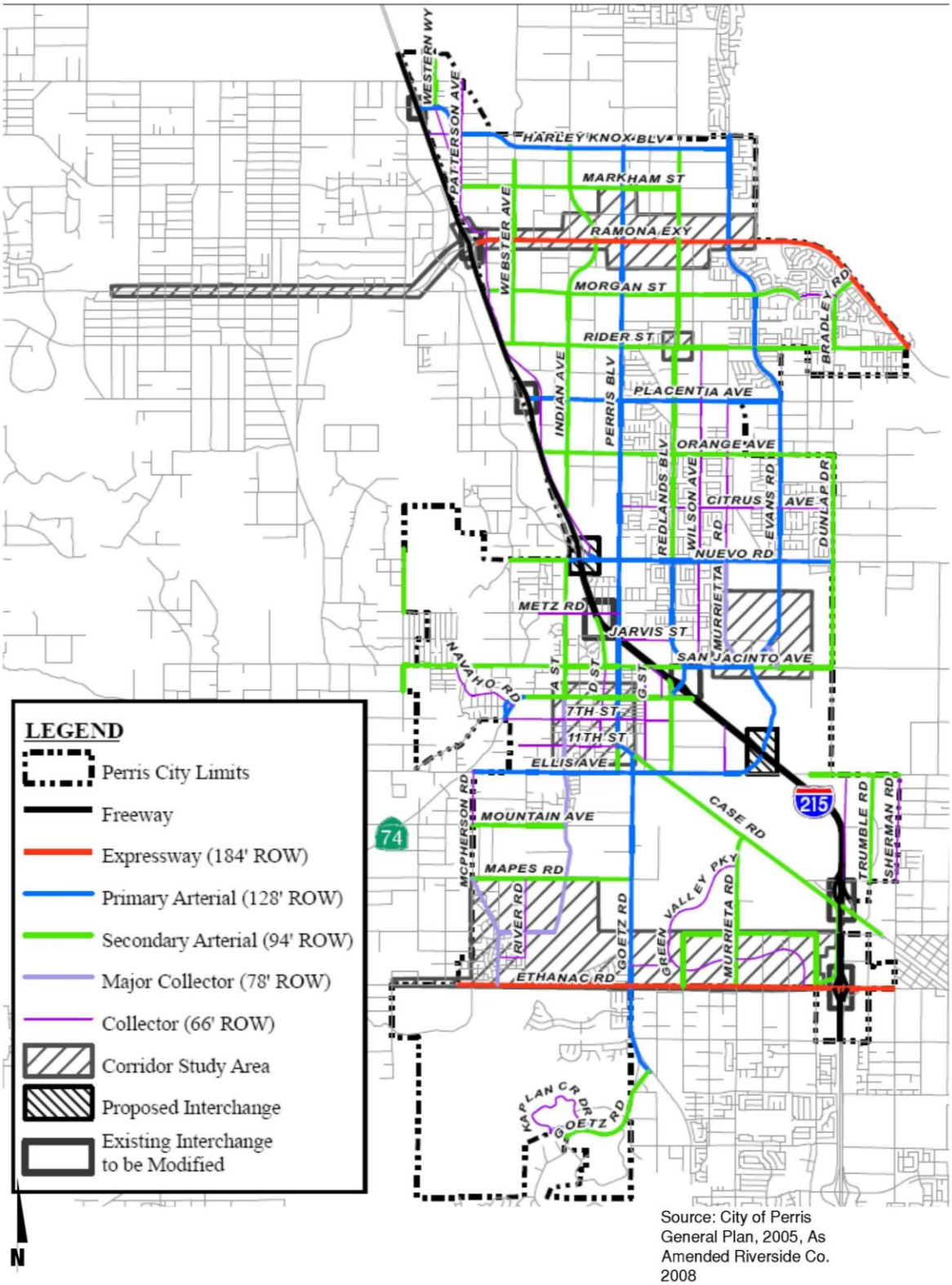
The County of Riverside's General Plan does not provide designated truck routes. Truck routes for the proposed Project have been determined based on discussions with County staff. Ramona Expressway is no longer a truck route within the City of Perris. As such, Project truck traffic has been routed to avoid utilizing Ramona Expressway.

The City of Moreno Valley and City of Menifee truck routes are shown on Exhibits 3-13 and 3-14, respectively. These truck routes serve both the proposed Project and future cumulative development projects throughout the study area. It should be noted, although Ethanac Road is a truck route within the City of Menifee, Ethanac Road does not extend through from Menifee Road to the I-215 Freeway. As such, truck traffic must utilize Menifee Road south to Matthews Road, then north to reach SR-74. However, these portions of Menifee Road and Matthews Road are not identified as truck routes within the City of Menifee General Plan.

3.5 BICYCLE & PEDESTRIAN FACILITIES

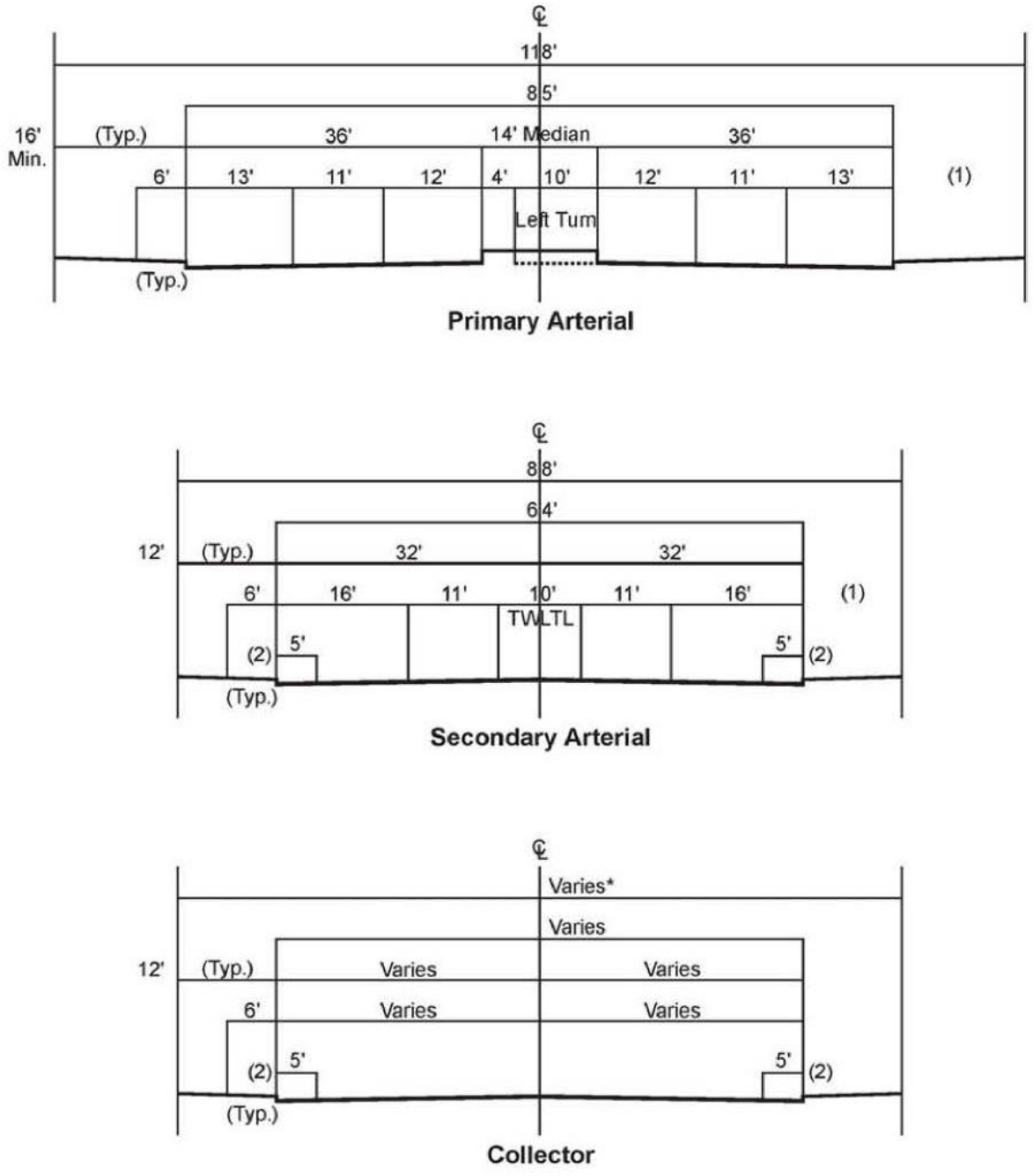
In an effort to promote alternative modes of transportation, the County of Riverside also includes a trails and bikeway system. The trails and bikeway system, shown on Exhibit 3-15, shows the proposed trails connected with major features within the County. There is a proposed community trail and design guidelines trail along Ramona Expressway, along the Project's frontage. There is a proposed community trail that bisects the Project site. Field observations conducted in 2022 indicates nominal pedestrian and bicycle activity within the study area. The City of Perris proposed bikeways and trails are shown on Exhibit 3-16, the City of Moreno Valley Bike Plan is shown on Exhibit 3-17, the City of Menifee Bikeway and Community Pedestrian network is shown on Exhibit 3-18, and the City of San Jacinto Bikeway Plan is shown on Exhibit 3-19.

EXHIBIT 3-4: CITY OF PERRIS GENERAL PLAN CIRCULATION ELEMENT



Source: City of Perris General Plan, 2005, As Amended Riverside Co. 2008

EXHIBIT 3-5: CITY OF PERRIS GENERAL PLAN ROADWAY CROSS-SECTIONS



Legend

(1) No stopping any time both sides.

(2) Bike lane where designated.

* The width of the collector street can range from 40 feet to 64 feet curb-to-curb.

TWLTL = Two Way Left Turn Lane

Source: City of Perris General Plan 8-2008

EXHIBIT 3-6: CITY OF MORENO VALLEY GENERAL PLAN CIRCULATION ELEMENT

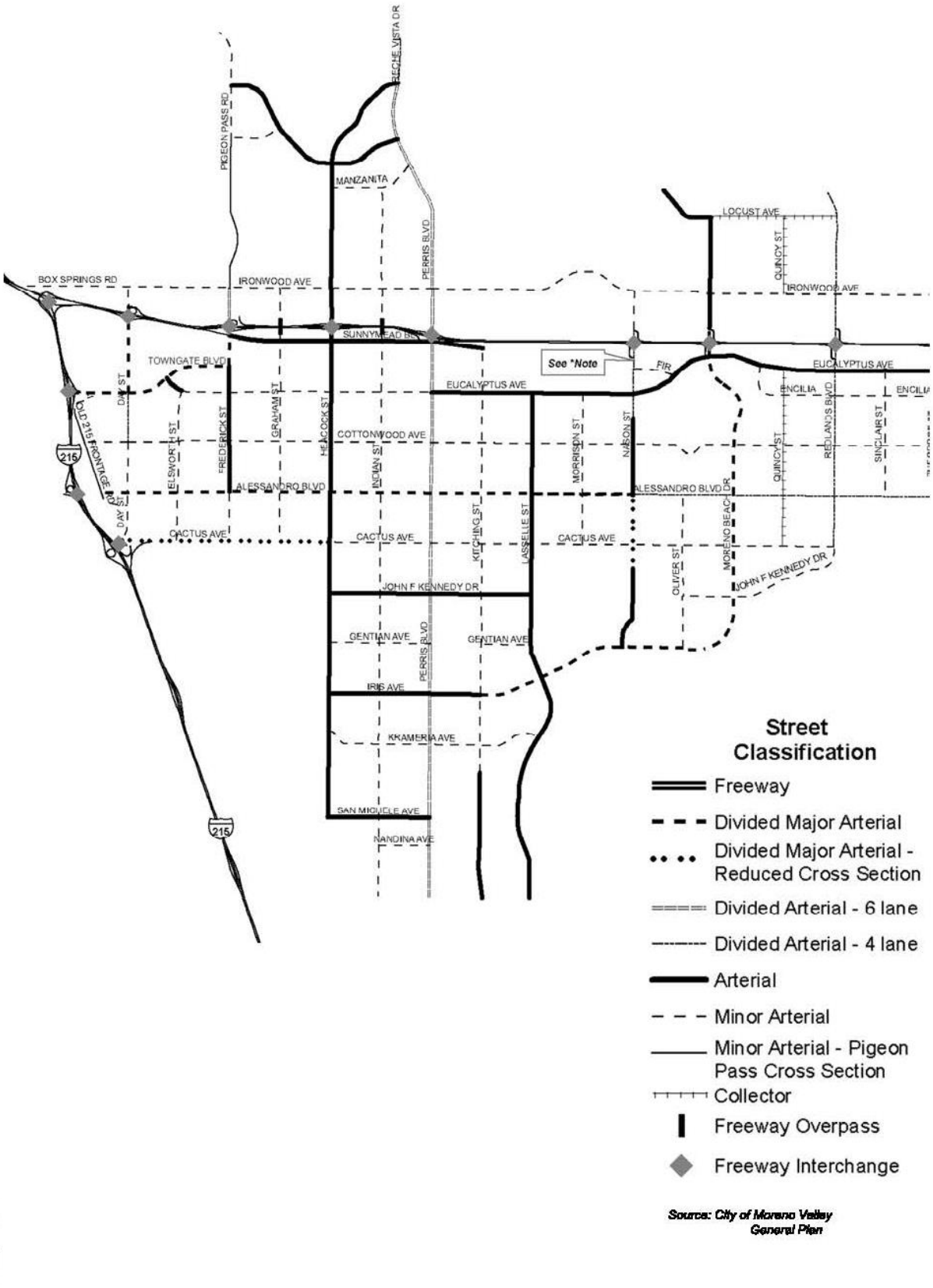
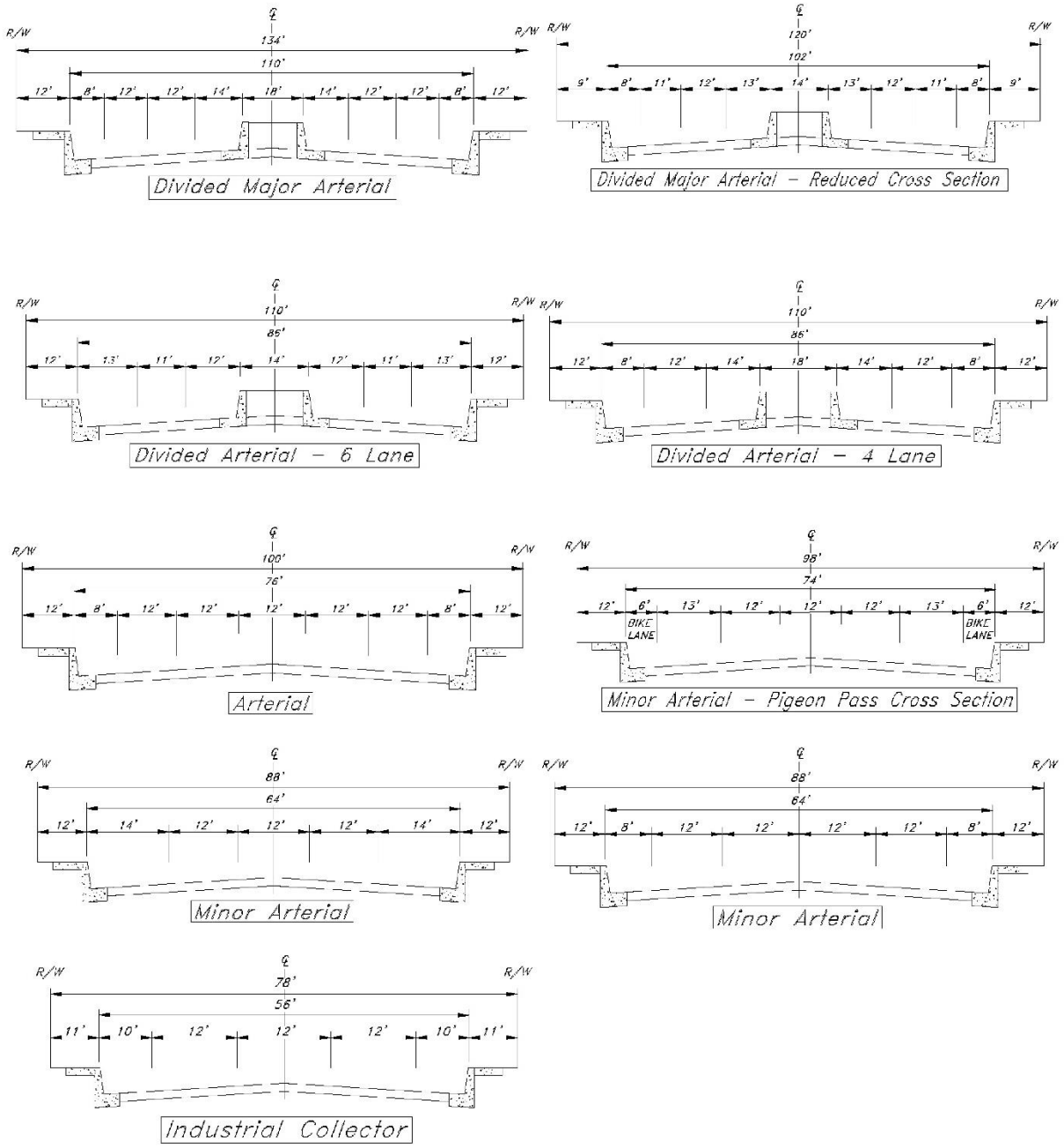


EXHIBIT 3-7: CITY OF MORENO VALLEY GENERAL PLAN ROADWAY CROSS-SECTIONS



Source: City of Moreno Valley General Plan

EXHIBIT 3-8: CITY OF MENIFEE GENERAL PLAN CIRCULATION ELEMENT

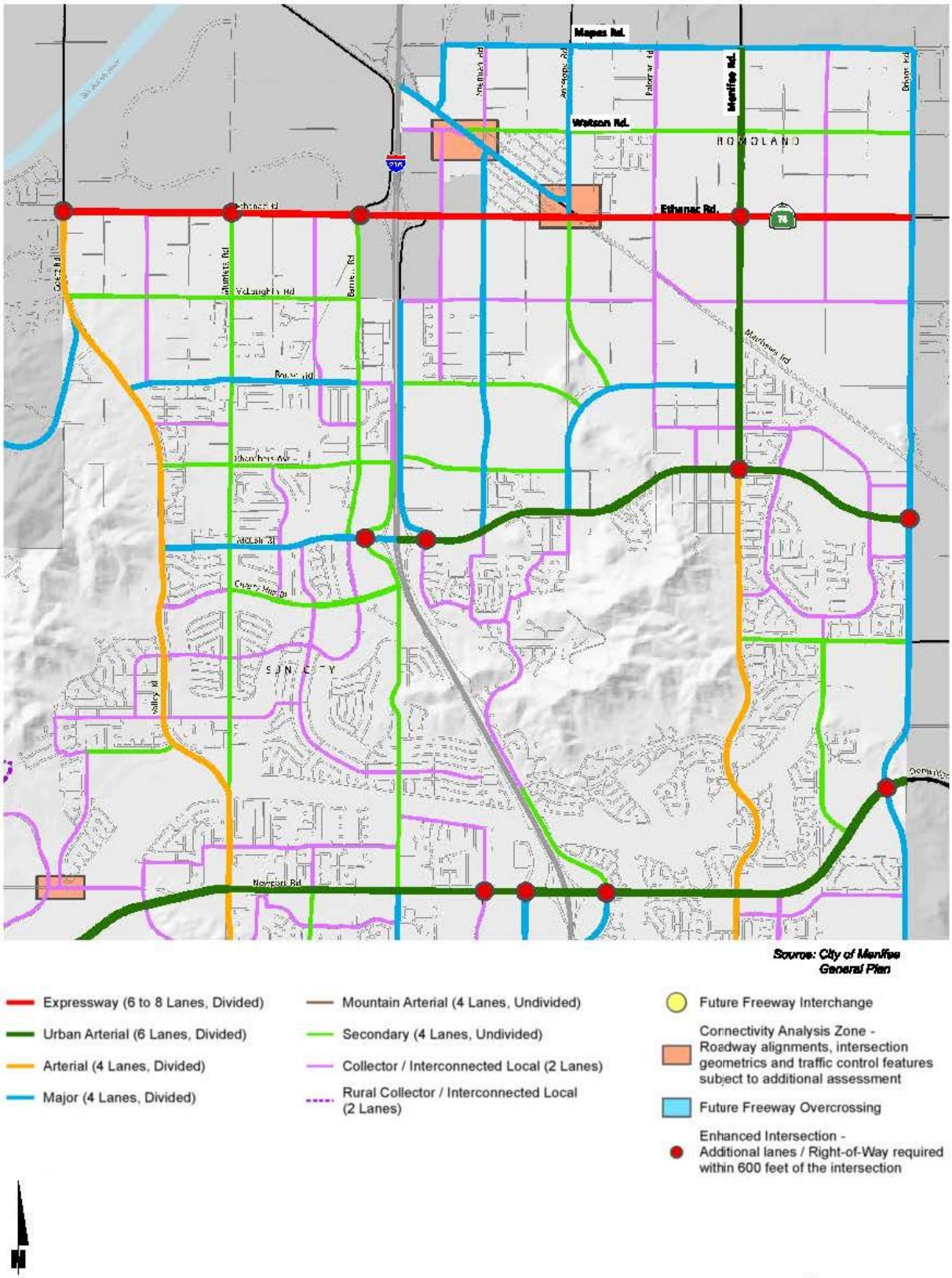
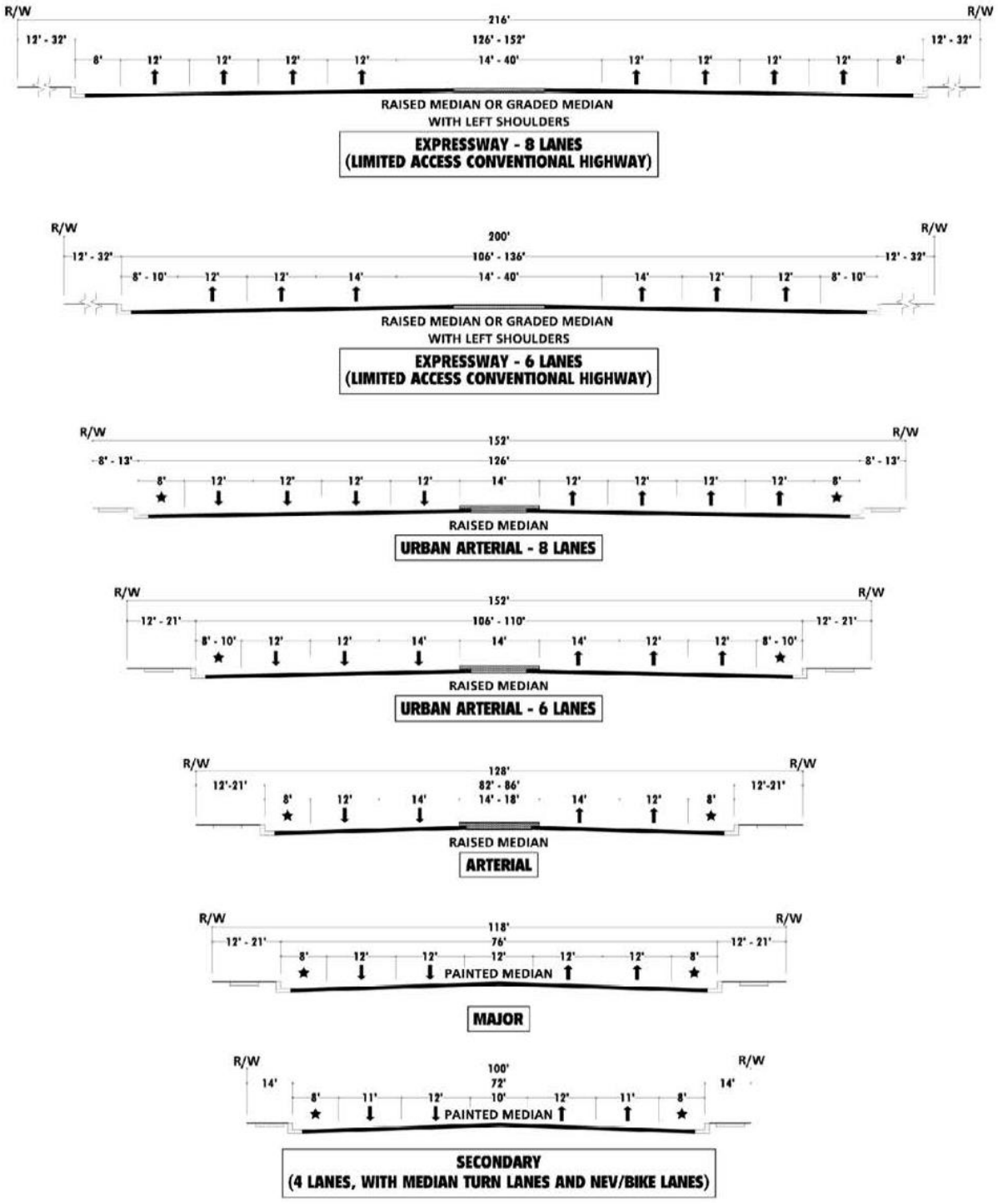


EXHIBIT 3-9: CITY OF MENIFEE GENERAL PLAN ROADWAY CROSS-SECTIONS



NOTES:

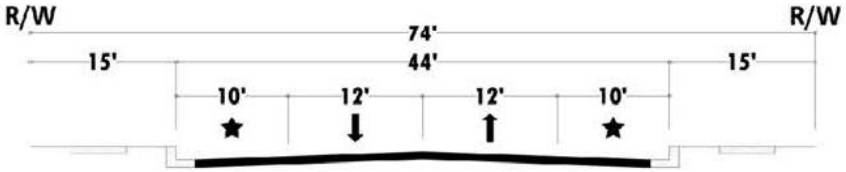
These standard sections are for typical roadway segments and may vary slightly based on intersection land requirements, physical site constraints, and/or environmental issues. Proposed roadway sections should always provide the greatest width possible. Any deviation from these sections is at the discretion of City Engineer.

Sidewalks may be curb-adjacent or separated from roadway by a landscaped parkway.

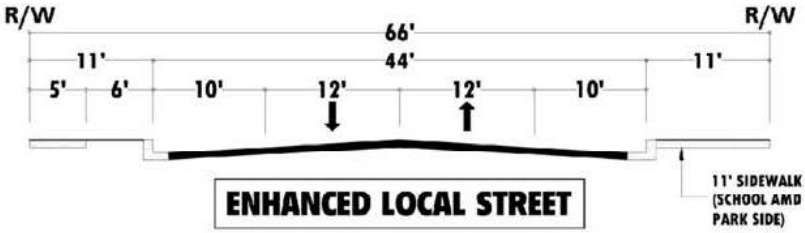
★ Shoulders may accommodate exclusive bike lanes, shared NEV/bike lanes, or on-street parking subject to approval by City Engineer.

Source: City of Menifee General Plan

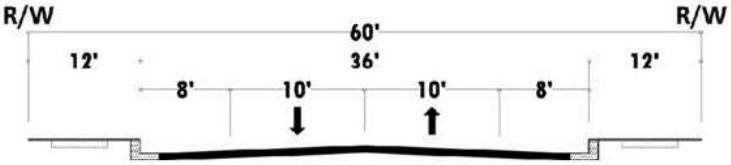
INDUSTRIAL COLLECTOR



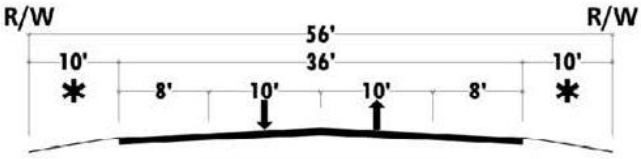
COLLECTOR



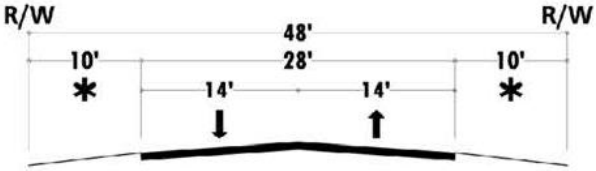
ENHANCED LOCAL STREET



GENERAL LOCAL



RURAL COLLECTOR



RURAL LOCAL

NOTES:

These standard sections are for typical roadway segments and may vary slightly based on intersection land requirements, physical site constraints, and/or environmental issues. Proposed roadway sections should always provide the greatest width possible. Any deviation from these sections is at the discretion of City Engineer.

Sidewalks may be curb-adjacent or separated from roadway by a landscaped parkway.

★ Shoulders may accommodate exclusive bike lanes, shared NEV/bike lanes, or on-street parking subject to approval by City Engineer.

✱ Rural Parkways may accommodate pedestrian dirt paths and/or equestrian trails subject to approval by City Engineer.

Source: City of Menifee General Plan

EXHIBIT 3-10: CITY OF SAN JACINTO GENERAL PLAN CIRCULATION ELEMENT

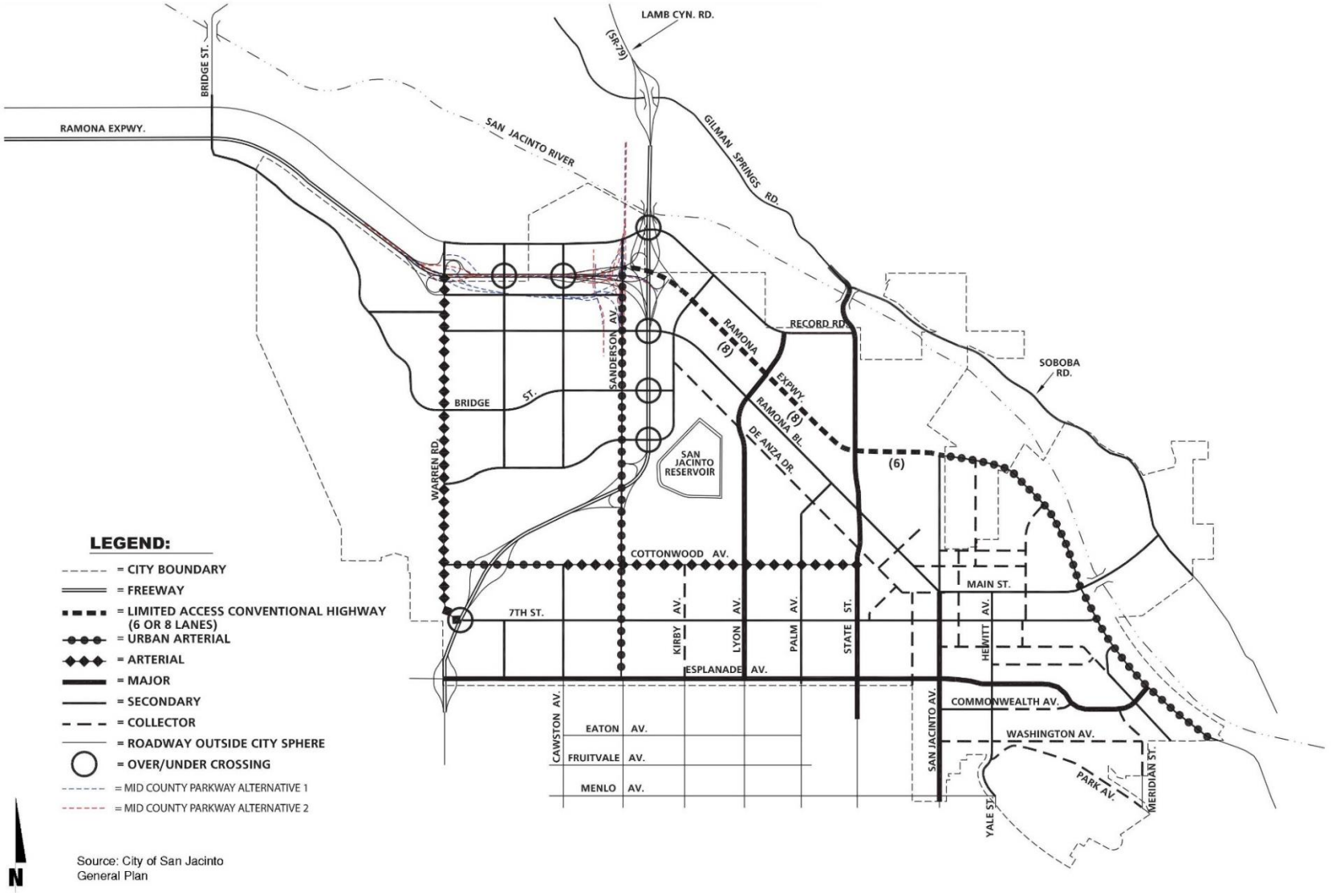
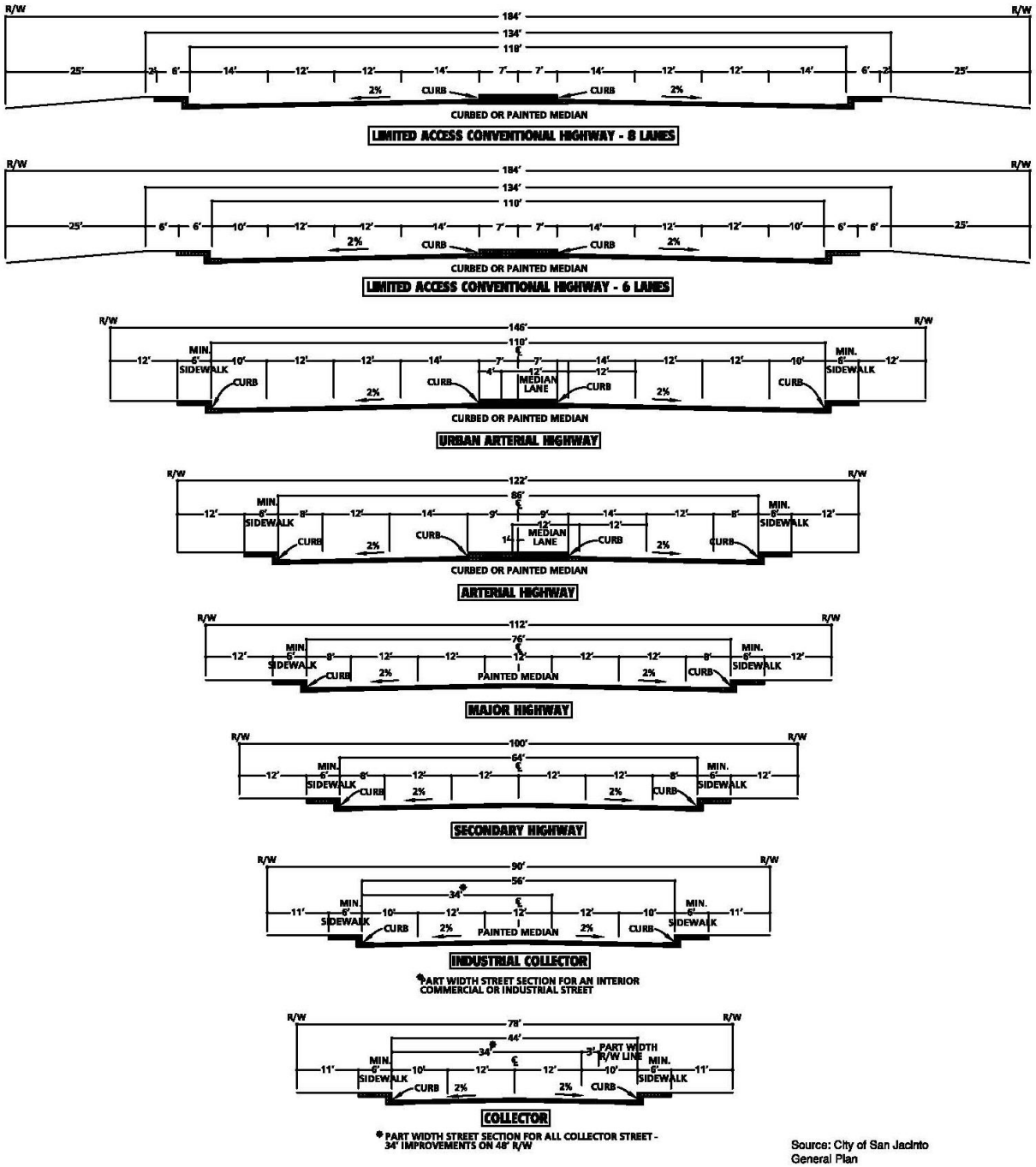
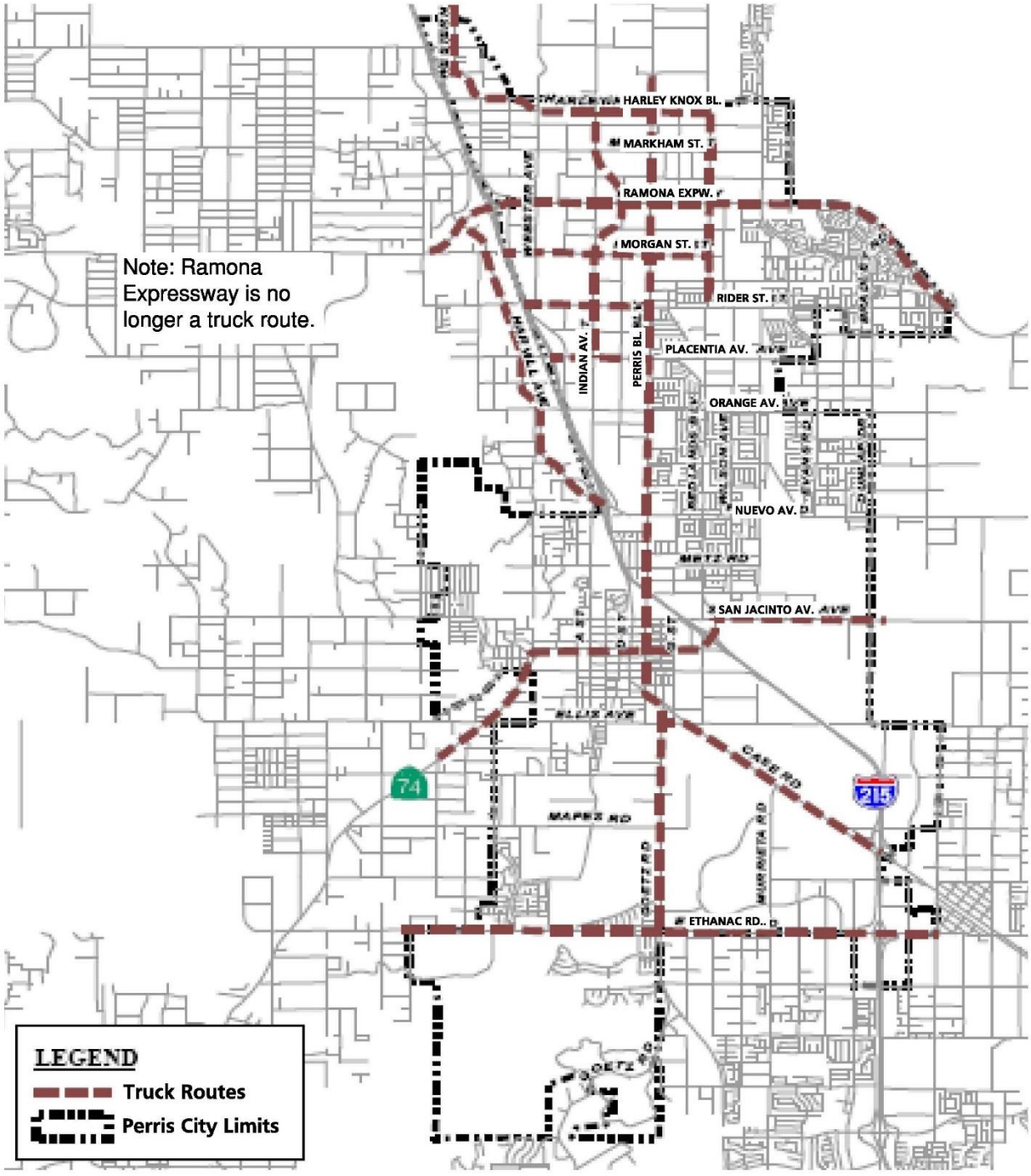


EXHIBIT 3-11: CITY OF SAN JACINTO GENERAL PLAN ROADWAY CROSS-SECTIONS



Source: City of San Jacinto General Plan

EXHIBIT 3-12: CITY OF PERRIS TRUCK ROUTES



Source: City of Perris General Plan

EXHIBIT 3-13: CITY OF MORENO VALLEY TRUCK ROUTES

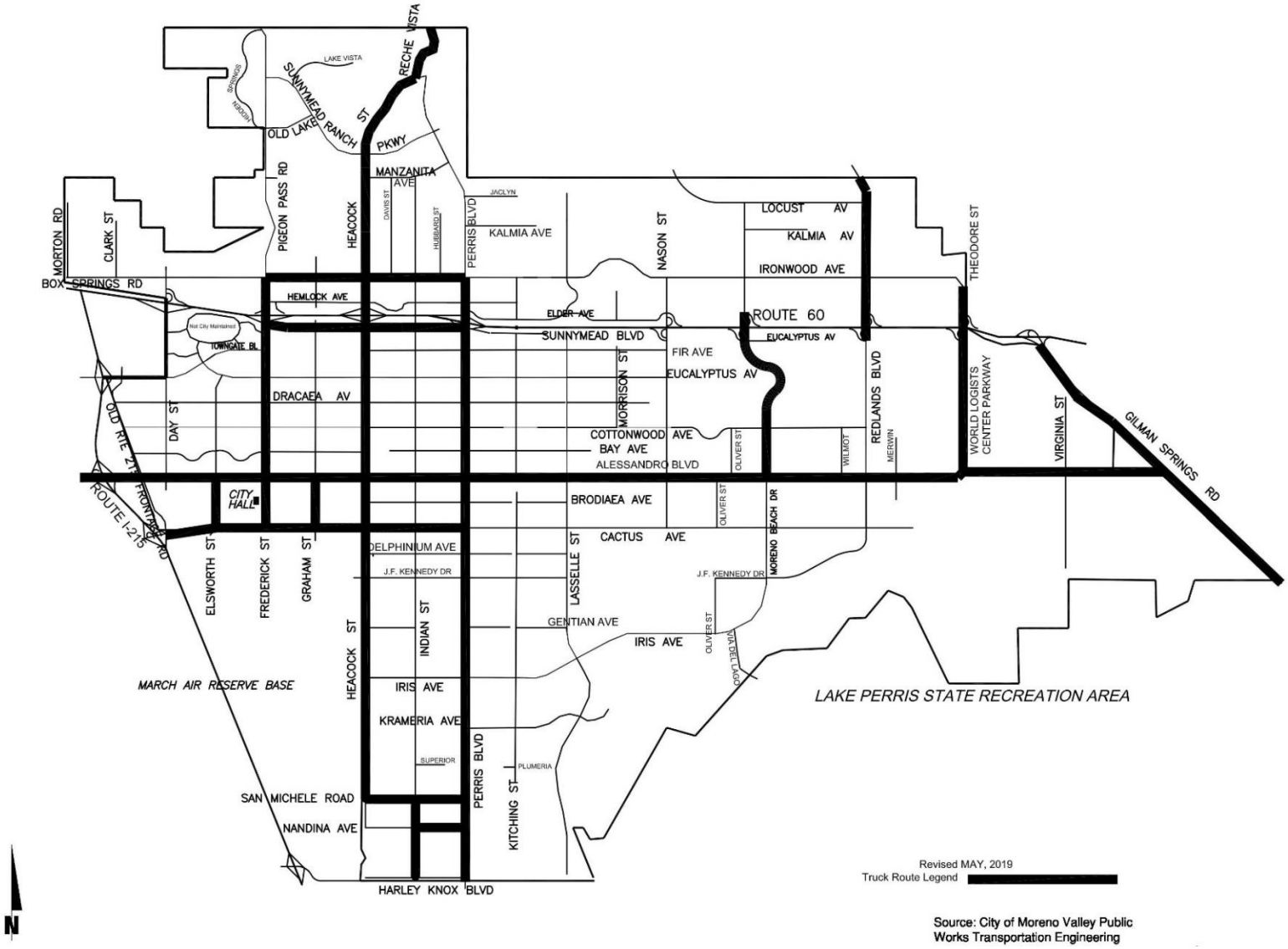
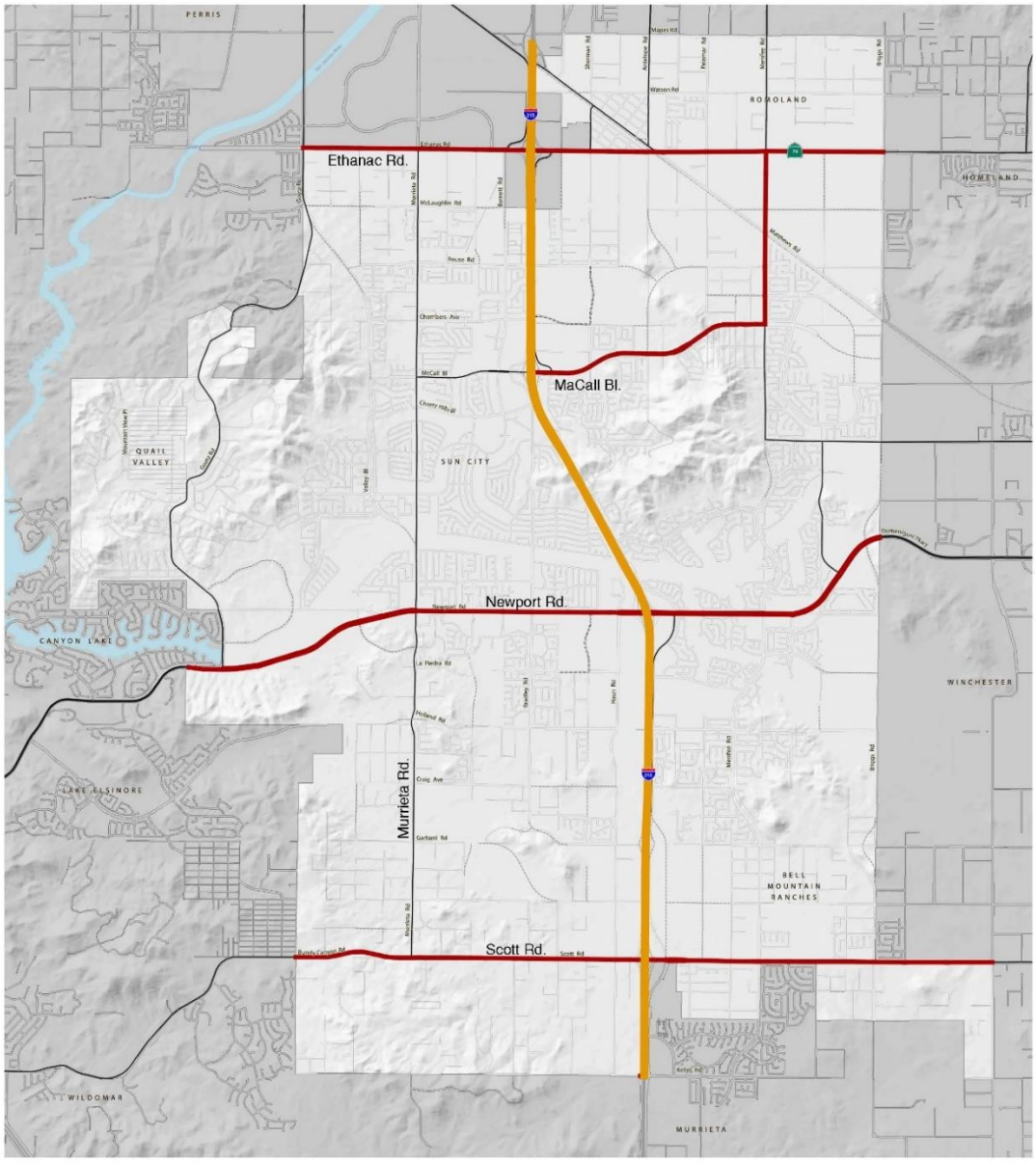


EXHIBIT 3-14: CITY OF MENIFEE TRUCK ROUTES



Source: City of Menifee General Plan

LEGEND:

Truck Route

I-215 Freeway Corridor

N

EXHIBIT 3-15: COUNTY OF RIVERSIDE GENERAL PLAN TRAILS AND BIKEWAY

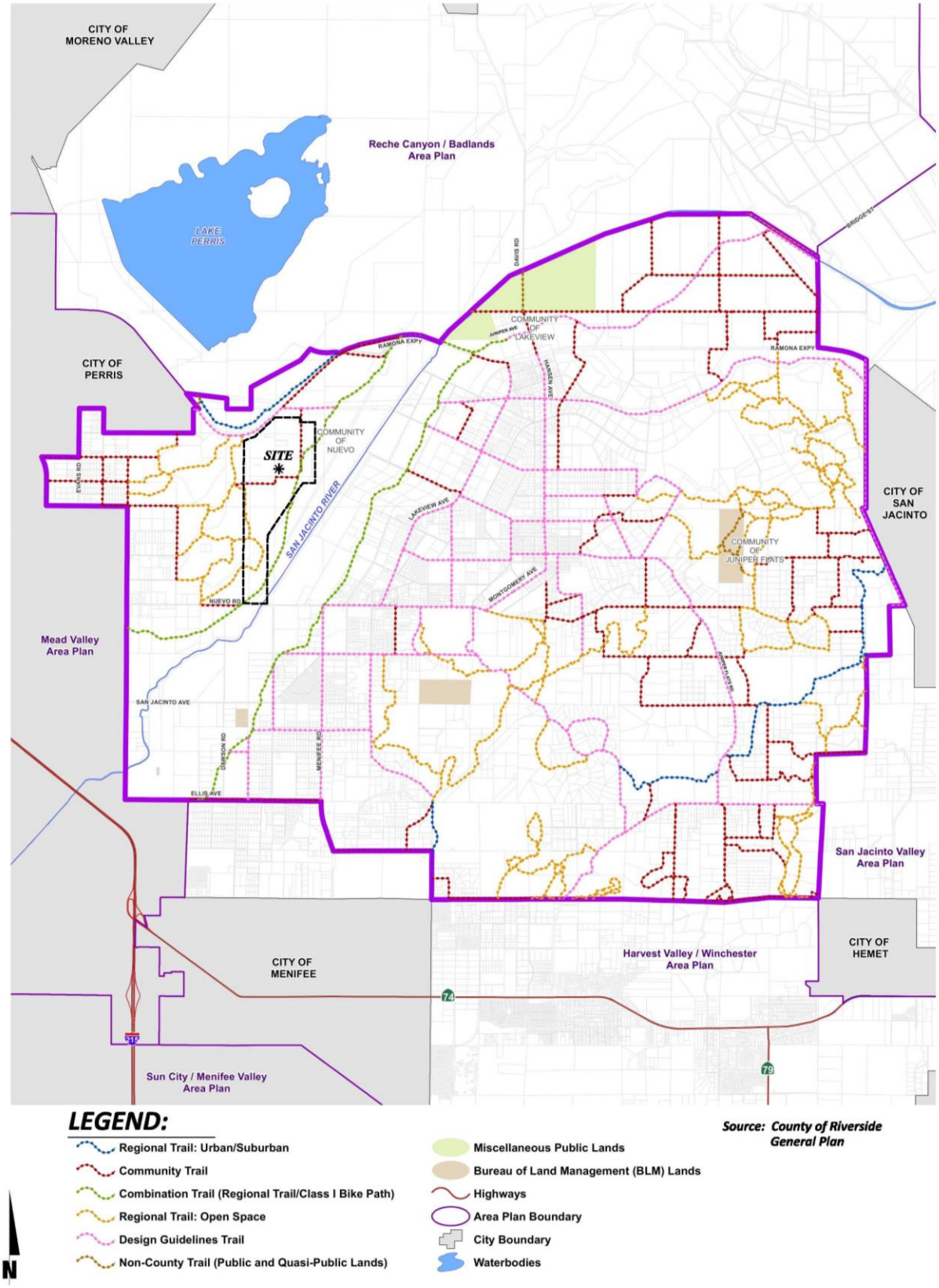
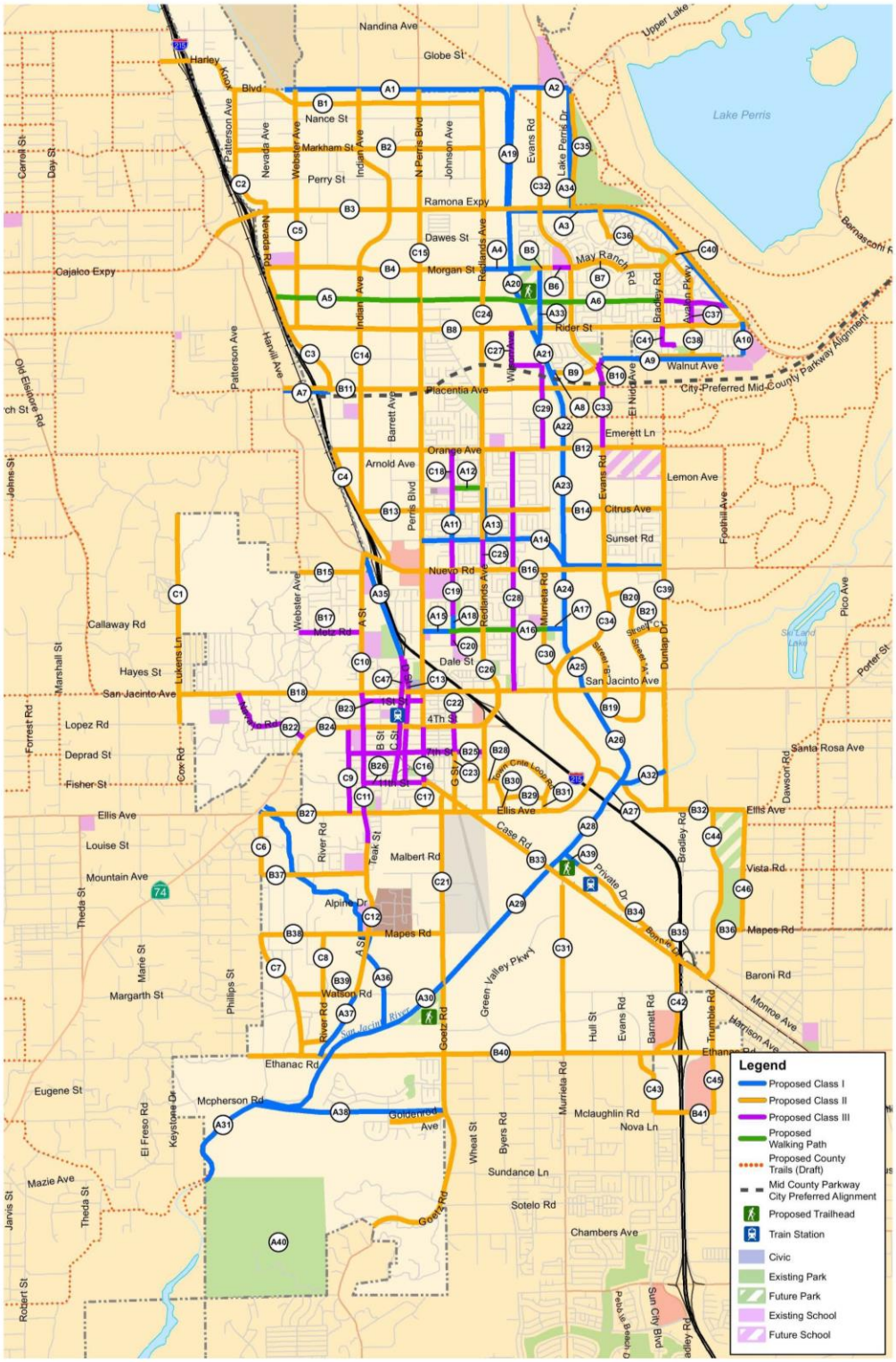


EXHIBIT 3-16: CITY OF PERRIS PROPOSED BIKEWAYS AND TRAIL IMPROVEMENTS



Source: City of Perris
Trails Master Plan

EXHIBIT 3-17: CITY OF MORENO VALLEY BIKE PLAN

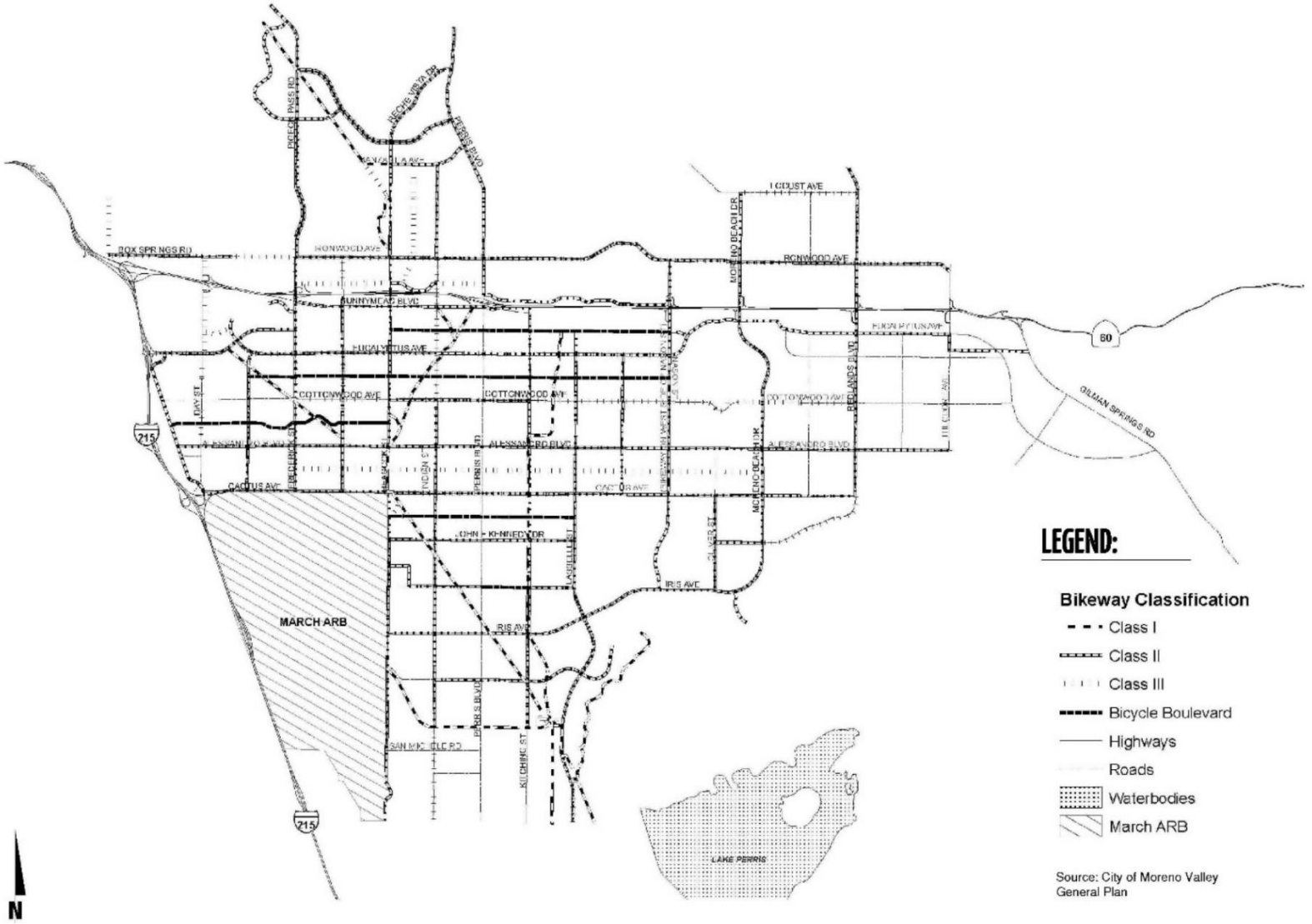
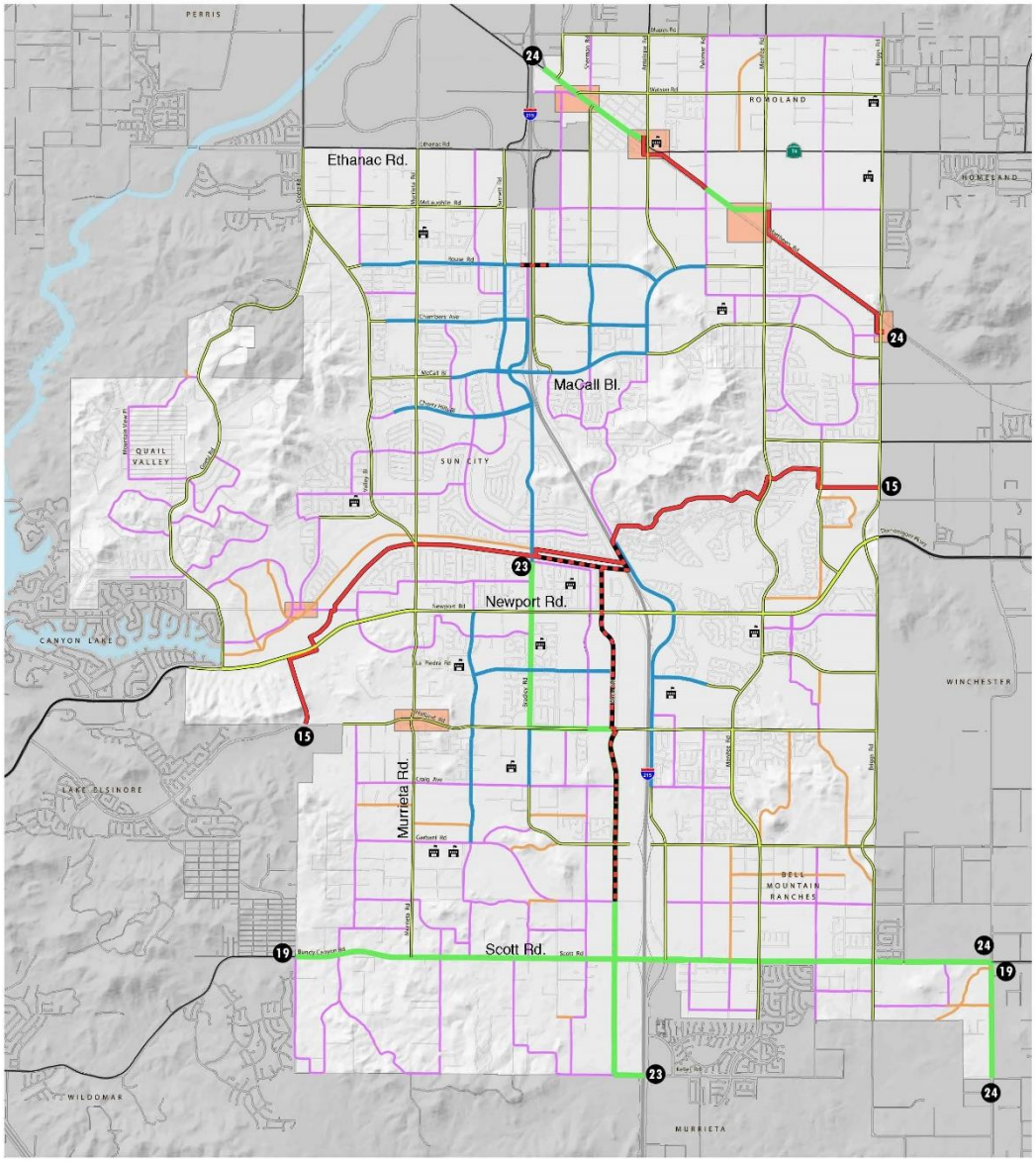


EXHIBIT 3-18: CITY OF MENIFEE BIKEWAY AND COMMUNITY PEDESTRIAN NETWORK



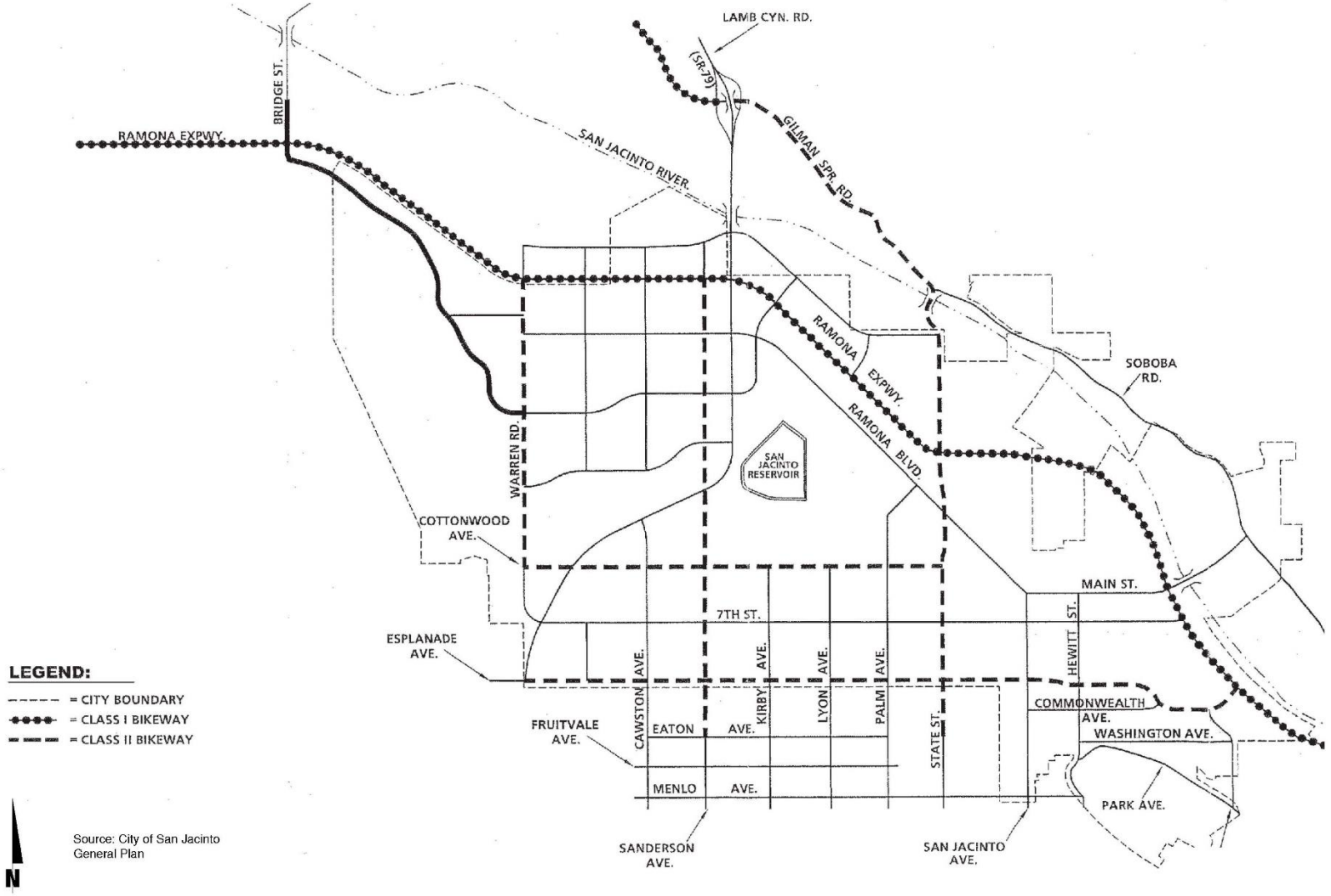
Source: City of Menifee General Plan

LEGEND:

- Subregional Route - Off-Road Bike Trail (Class I)
- Subregional Route - On-Street Bike Lanes (Class II)
- Community Off-Road Bike Trail (Class I)
- Community On-Street NEV/Bike Lanes (Class II)
- Community On-Street Bike Lanes (Class II)
- Community Hiking / Biking Trail Opportunity
- Class III Bike Routes
- Connectivity Analysis Zone - Trail alignments and traffic control features subject to additional assessment
- Existing Schools
- 24 Subregional Route Number (WRCOG Non-Motorized Transportation Plan)

N

EXHIBIT 3-19: CITY OF SAN JACINTO GENERAL PLAN BIKEWAY PLAN



3.6 TRANSIT SERVICE

The County of Riverside is currently served by the Riverside Transit Authority (RTA), a public transit agency serving the unincorporated Riverside County region. RTA Route 30 runs along Walnut Avenue, Sherman Road, and Rider Street, as shown on Exhibit 3-20. However, there are currently no existing bus routes that serve the roadways within the study area in close proximity to the proposed Project. Transit service is reviewed and updated by RTA periodically to address ridership, budget and community demand needs. Changes in land use can affect these periodic adjustments which may lead to either enhanced or reduced service where appropriate. As such, it is recommended that the Project Applicant work in conjunction with RTA to potentially accommodate bus service to the site.

3.7 EXISTING TRAFFIC COUNTS

The intersection LOS analysis is based on the traffic volumes observed during the peak hour conditions using traffic count data collected in April, August, and October, 2022, when local schools were in session and operating on a typical bell schedule. The following peak hours were selected for analysis:

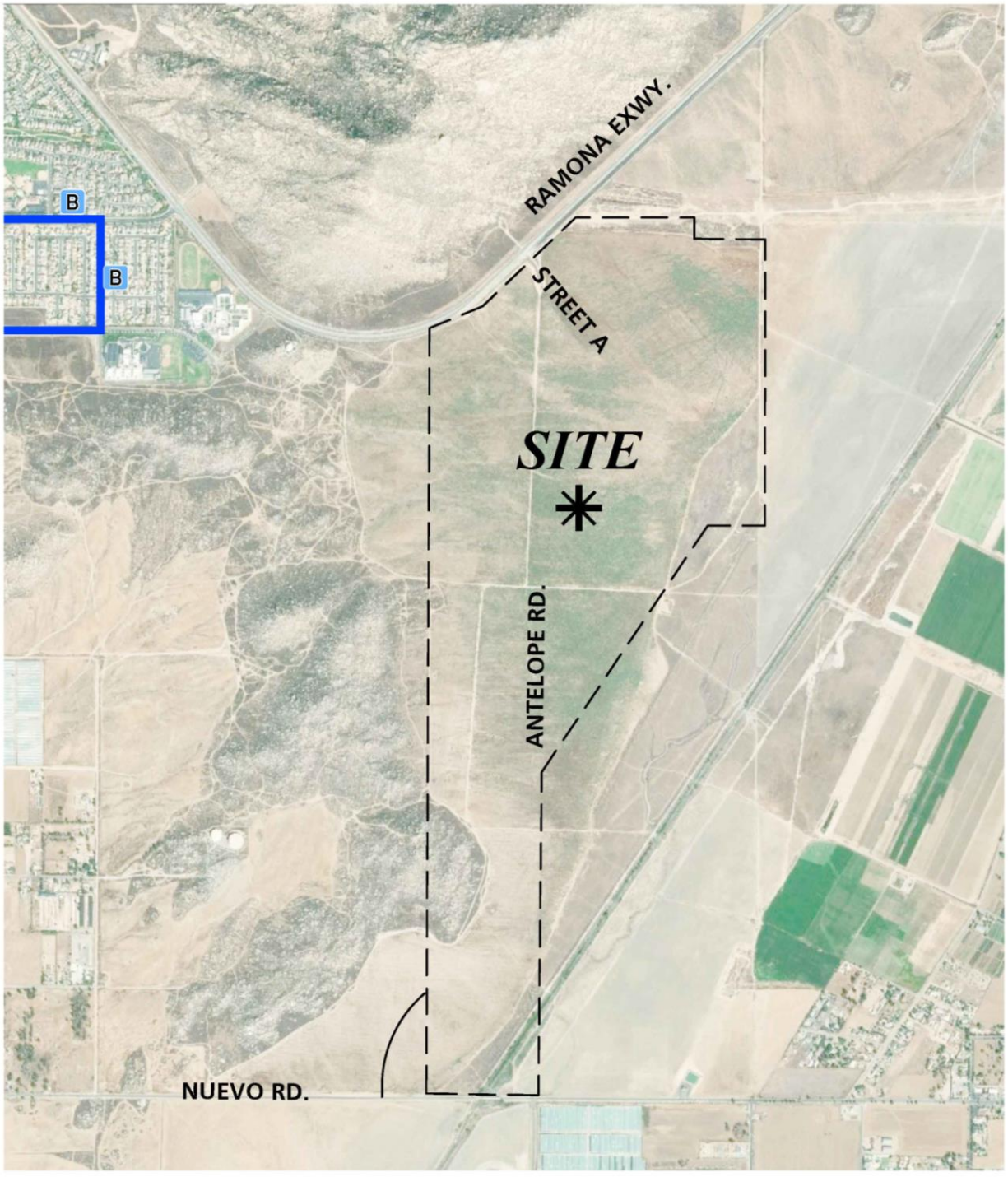
- Weekday AM Peak Hour (peak hour between 7:00 AM and 9:00 AM)
- Weekday PM Peak Hour (peak hour between 4:00 PM and 6:00 PM)

Adjustments to the 2022 traffic counts were not made since local schools and businesses were operating normally and not affected by any closures associated with the COVID-19 pandemic.

The raw manual peak hour turning movement traffic count data sheets are included in Appendix 3.1. These raw turning volumes have been flow conserved between intersections with limited access, no access, and where there are currently no uses generating traffic. The traffic counts collected in 2022 include the vehicle classifications as shown below:

- Passenger Cars
- 2-Axle Trucks
- 3-Axle Trucks
- 4 or More Axle Trucks

EXHIBIT 3-20: EXISTING TRANSIT ROUTES



To represent the effect large trucks, buses, and recreational vehicles have on traffic flow, all trucks were converted into passenger car equivalent (PCE). By their size alone, these vehicles occupy the same space as two or more passenger cars. In addition, the time it takes for them to accelerate and slow-down is also much longer than for passenger cars and varies depending on the type of vehicle and number of axles. For this analysis, the following PCE factors have been used to estimate each turning movement: 1.5 for 2-axle trucks, 2.0 for 3-axle trucks, and 3.0 for 4+-axle trucks. These factors are consistent with the values recommended for use in the County of Riverside transportation analysis guidelines. (1)

Where actual 24-hour tube count data was not available, Existing ADT volumes were based upon factored intersection peak hour counts collected by Urban Crossroads, Inc. using the following formula for each intersection leg:

Weekday PM Peak Hour (Approach Volume + Exit Volume) x 11.69 = Leg Volume

A comparison of the PM peak hour and daily traffic volumes of various roadway segments within the study area indicated that the peak-to-daily relationship is approximately 8.56 percent. As such, the above equation utilizing a factor of 11.69 estimates the ADT volumes on the study area roadway segments assuming a peak-to-daily relationship of approximately 8.56 percent (i.e., 1/0.0856 = 11.69) and was assumed to sufficiently estimate ADT volumes for planning-level analyses. Existing ADT, weekday AM and weekday PM peak hour intersection volumes (in actual vehicles) are graphically provided in Appendix 3.2. For the purposes of this analysis, PCE volumes have been utilized.

3.8 EXISTING (2022) INTERSECTION OPERATIONS ANALYSIS

Existing peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2.2 *Intersection Capacity Analysis* of this report. The intersection operations analysis results are summarized in Table 3-1 which indicates that all of the study area intersections are currently operating at an acceptable LOS during the peak hours (i.e., LOS D or better), with the exception of the following intersections:

- I-215 Northbound Ramps & Harley Knox Boulevard (#3) – LOS F AM peak hour only
- Menifee Road/Reservoir Boulevard & Nuevo Road (#53) – LOS F AM peak hour only
- Menifee Road & Ethanac Road (SR-74) (#58) – LOS E AM peak hour only
- Lakeview Avenue & Nuevo Road (#61) – LOS E AM peak hour only
- Bridge Street & Ramona Expressway (#65) – LOS E AM and PM peak hours
- Sanderson Avenue (SR-79) & Ramona Expressway (#67) – LOS F AM and PM peak hours

The intersection operations analysis worksheets are included in Appendix 3.2 of this TIA.

3.9 EXISTING (2022) TRAFFIC SIGNAL WARRANTS ANALYSIS

Traffic signal warrants for Existing traffic conditions are based on existing peak hour intersection turning volumes. The following unsignalized study area intersections currently warrant a traffic signal for Existing (2022) traffic conditions:

- Menifee Road/Reservoir Boulevard & Nuevo Road (#53)
- Menifee Road & San Jacinto Avenue (#54)
- Menifee Road & Mapes Road (#56)
- Lakeview Avenue & Nuevo Road (#61)
- Bridge Street & Ramona Expressway (#65)
- Murrieta Road & San Jacinto Avenue (#70)
- Dunlap Drive & San Jacinto Avenue (#77)
- Encanto Drive & Ethanac Road (#83)
- Sherman Road & Ethanac Road (#84)
- Antelope Road & Ethanac Road (#86)
- Menifee Road & Matthews Road (#87)

Existing conditions traffic signal warrant analysis worksheets are provided in Appendix 3.3.

TABLE 3-1: INTERSECTION ANALYSIS FOR EXISTING (2022) CONDITIONS

#	Intersection	Traffic Control[3]	Delay[2] (secs.) AM	Delay[2] (secs.) PM	Level of Service AM	Level of Service PM	Acceptable LOS[4]
1	Harvill Av. & Cajalco Exwy.	TS	39.8	34.9	D	C	D
2	I-215 Southbound Ramps & Harley Knox Bl.	TS	51.8	39.2	D	D	D
3	I-215 Northbound Ramps & Harley Knox Bl.	TS	**>156.9**	19.7	**F**	B	D
4	I-215 Southbound Ramps & Ramona Exwy.	TS	28.7	43.7	C	D	D
5	I-215 Northbound Ramps & Ramona Exwy.	TS	20.3	20.1	C	C	D
6	I-215 SB Ramps & Placentia Av.	Future Intersection					
7	I-215 NB Ramps & Placentia Av.	Future Intersection					
8	I-215 SB Ramps & Nuevo Rd.	TS	19.7	25.6	B	C	D
9	I-215 NB Ramps & Nuevo Rd.	TS	17.1	9.6	B	A	D
10	Western Wy. & Harley Knox Bl.	TS	12.2	9.2	B	A	D
11	Webster Av. & Harley Knox Bl.	RA	6.4	7.2	A	A	D
12	Webster Av. & Ramona Exwy.	TS	18.0	20.7	B	C	D
13	Indian Av. & Harley Knox Bl.	TS	22.9	27.1	C	C	D
14	Indian Av. & Ramona Exwy.	TS	18.8	22.3	B	C	D
15	Indian Av. & Placentia Av.	AWS	10.9	9.7	B	A	D
16	Perris Bl. & Iris Av.	TS	30.3	31.9	C	C	D
17	Perris Bl. & Krameria Av.	TS	25.8	22.4	C	C	D
18	Perris Bl. & San Michele Rd.	TS	11.6	14.0	B	B	D
19	Perris Bl. & Nandina Av.	TS	10.8	14.3	B	B	D
20	Perris Bl. & Harley Knox Bl.	TS	23.1	29.9	C	C	D
21	Perris Bl. & Markham St.	TS	12.7	16.5	B	B	D
22	Perris Bl. & Ramona Exwy.	TS	34.3	27.5	C	C	D
23	Perris Bl. & Morgan St.	TS	10.6	12.1	B	B	D
24	Perris Bl. & Rider St.	TS	17.3	17.7	B	B	D
25	Perris Bl. & Placentia Av.	TS	15.5	16.2	B	B	D
26	Perris Bl. & Orange Av.	TS	20.4	37.6	C	D	D
27	Perris Bl. & Nuevo Rd.	TS	35.3	41.2	D	D	D
28	Redlands Av. & Harley Knox Bl.	TS	14.5	16.3	B	B	D
29	Redlands Av. & Markham St.	TS	5.2	6.6	A	A	D
30	Redlands Av. & Ramona Exwy.	TS	23.0	26.8	C	C	D
31	Redlands Av. & Morgan St.	AWS	11.4	10.0	B	A	D
32	Redlands Av. & Rider St.	TS	19.2	18.0	B	B	D
33	Redlands Av. & Placentia Av.	AWS	12.5	12.0	B	B	D
34	Redlands Av. & Orange Av.	TS	17.9	17.5	B	B	D
35	Redlands Av. & Nuevo Rd.	TS	25.5	14.5	C	B	D
36	Murrieta Rd. & Nuevo Rd.	TS	23.4	17.3	C	B	D
37	Lasselle St. & Iris Av.	TS	30.0	29.7	C	C	D
38	Lasselle St. & Krameria Av.	TS	29.5	34.2	C	C	D
39	Evans Rd. & Ramona Exwy.	TS	23.7	23.4	C	C	D
40	Evans Rd. & Rider St.	TS	22.7	20.3	C	C	D
41	Evans Rd. & Orange Av.	TS	20.1	23.7	C	C	D
42	Evans Rd. & Nuevo Rd.	TS	15.7	12.6	B	B	D
43	Bradley Rd. & Ramona Exwy.	TS	7.5	6.9	A	A	D
44	Bradley Rd. & Rider St.	TS	17.3	15.6	B	B	D
45	Dunlap Dr. & Orange Av.	CSS	10.0	10.4	B	B	D

#	Intersection	Traffic Control[3]	Delay[2] (secs.) AM	Delay[2] (secs.) PM	Level of Service AM	Level of Service PM	Acceptable LOS[4]
46	Dunlap Dr. & Nuevo Rd.	TS	19.7	19.5	B	B	D
47	Ramona Exwy. & Rider St.	TS	10.7	10.9	B	B	D
48	Antelope Rd. & Ramona Exwy.	Future Intersection					
49	MCP WB Ramps & Antelope Rd.	Future Intersection					
50	MCP EB Ramps & Antelope Rd.	Future Intersection					
51	Antelope Rd. & Nuevo Rd.	Future Intersection					
52	Street A & Ramona Exwy.	Future Intersection					
53	Menifee Rd./Reservoir Bl. & Nuevo Rd.	AWS	**54.4**	25.9	**F**	D	D
54	Menifee Rd. & San Jacinto Av.	AWS	13.1	15.1	B	C	D
55	Menifee Rd. & Ellis Rd.	CSS	13.0	14.2	B	B	D
56	Menifee Rd. & Mapes Rd.	CSS	18.8	22.9	C	C	D
57	Menifee Rd. & Watson Rd.	CSS	33.1	19.4	D	C	D
58	Menifee Rd. & Ethanac Rd. (SR-74)	TS	**76.0**	35.7	**E**	D	D
59	Bernasconi Rd. & Orange Av.	Future Intersection					
60	Lakeview Av. & Ramona Exwy.	TS	15.0	17.6	B	B	D
61	Lakeview Av. & Nuevo Rd.	AWS	**36.2**	31.8	**E**	D	D
62	Montgomery Av. & Nuevo Rd.	CSS	11.2	11.2	B	B	D
63	Hansen Av./Davis Rd. & Ramona Exwy.	TS	11.7	10.6	B	B	D
64	Hansen Av. & Contour Av.	AWS	10.6	9.3	B	A	D
65	Bridge St. & Ramona Exwy.	CSS	**40.8**	**35.6**	**E**	**E**	D
66	Warren Rd. & Ramona Exwy.	TS	17.2	14.7	B	B	D
67	Sanderson Av. (SR-79) & Ramona Exwy.	TS	**82.1**	**79.7**	**F**	**E**	D
68	Indian Av. & Morgan St.	TS	21.4	19.3	C	B	D
69	Indian Av. & Rider St.	TS	15.0	15.5	B	B	D
70	Murrieta Rd. & San Jacinto Av.	CSS	18.2	12.4	C	B	D
71	Redlands Av. & San Jacinto Av.	TS	25.3	24.9	C	C	D
72	Redlands Av. & I-215 NB Ramps	TS	12.1	14.0	B	B	D
73	Redlands Av. & I-215 SB Ramps	TS	10.0	10.5	A	B	D
74	Evans Rd. & San Jacinto Av.	Future Intersection					
75	Evans Rd. & I-215 NB Ramps	Future Intersection					
76	Evans Rd. & I-215 SB Ramps	Future Intersection					
77	Dunlap Dr. & San Jacinto Av.	CSS	17.6	19.2	C	C	D
78	I-215 SB Ramps & SR-74	TS	11.0	14.2	B	B	D
79	I-215 NB Ramps & SR-74	TS	9.8	10.2	A	B	D
80	Trumble Rd. & SR-74	TS	14.7	14.5	B	B	D
81	I-215 SB Ramps & Ethanac Rd.	TS	11.9	13.2	B	B	D
82	I-215 NB Ramps & Ethanac Rd.	TS	17.2	21.5	B	C	D
83	Encanto Dr. & Ethanac Rd.	CSS	18.7	20.7	C	C	D
84	Sherman Rd. & Ethanac Rd.	CSS	28.8	31.9	D	D	D
85	Antelope Rd. & SR-74	TS	11.6	10.5	B	B	D
86	Antelope Rd. & Ethanac Rd.	CSS	19.5	14.3	C	B	D
87	Menifee Rd. & Matthews Rd.	CSS	19.0	13.4	C	B	D

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; d = Defacto Right Turn Lane; > = Right Turn Overlap

[2] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all-way stop control. For intersections with cross

[3] AWS = All-way Stop; CSS = Cross-street Stop; RA = Roundabout; TS = Traffic Signal

[4] Minimum acceptable LOS for each applicable jurisdiction.

3.10 EXISTING (2022) OFF-RAMP QUEUING ANALYSIS

Queuing analysis findings for Existing (2022) conditions are presented in Table 3-2. It is important to note that off-ramp lengths are consistent with the measured distance between the intersection and the freeway mainline. As shown in Table 3-2, there are no movements that are currently experiencing queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows. Worksheets for Existing (2022) traffic conditions off-ramp queuing analysis are provided in Appendix 3.4.

3.11 IMPROVEMENTS

Improvement strategies have been recommended at intersections and off-ramps that have been identified as deficient under Existing (2022) traffic conditions in an effort to achieve an acceptable LOS.

3.11.1 IMPROVEMENTS TO ADDRESS DEFICIENCIES AT INTERSECTIONS

Table 3-3 indicates the physical improvements needed to address LOS deficiencies at each of the study area intersections under Existing (2022) traffic conditions. The improvements are identified to improve the Existing (2022) deficiencies back to acceptable levels. Intersection analysis worksheets for Existing (2022) traffic conditions, with improvements, are provided in Appendix 3.5.

3.11.2 IMPROVEMENTS TO ADDRESS DEFICIENCIES ON OFF-RAMP QUEUES

As shown previously in Table 3-2, there are currently no peak hour queuing issues under Existing (2022) traffic conditions. As such, no improvements have been identified.

TABLE 3-2: PEAK HOUR FREEWAY OFF-RAMP QUEUING SUMMARY FOR EXISTING (2022) CONDITIONS

Intersection	Movement	Available Stacking Distance (Feet)	95th Percentile Queue (Feet)		Acceptable? [1]	
			AM Peak Hour	PM Peak Hour	AM	PM
I-215 Southbound Ramps & Harley Knox Bl.	SBL/T	1,330	453 [2]	321 [2]	Yes	Yes
	SBR	270	37	43	Yes	Yes
I-215 Southbound Ramps & Ramona Exwy.	SBL	530	310	600 [2,3]	Yes	Yes
	SBL/T	1,100	311	603 [2]	Yes	Yes
	SBR	530	65	59	Yes	Yes
I-215 Southbound Ramps & Placentia Av.	SBL	Future Interchange				
	SBL/T					
	SBR					
I-215 Southbound Ramps & Nuevo Rd.	SBL	550	128	217	Yes	Yes
	SBL/T	1,010	128	218	Yes	Yes
	SBR	330	36	34	Yes	Yes
I-215 Northbound Ramps & Harley Knox Bl.	NBL/T	1,120	20	24	Yes	Yes
	NBR	265	24	54	Yes	Yes
I-215 Northbound Ramps & Ramona Exwy.	NBL	520	141	149	Yes	Yes
	NBL/T	1,120	141	151	Yes	Yes
	NBR	520	423 [2]	414 [2]	Yes	Yes
I-215 Northbound Ramps & Placentia Av.	NBL	Future Interchange				
	NBL/T					
	NBR					
I-215 Northbound Ramps & Nuevo Rd.	NBL/T	1,100	259	96	Yes	Yes
	NBR	370	165	142	Yes	Yes
I-215 Northbound Ramps & Redlands Av.	WBL	1,225	253 [2]	261 [2]	Yes	Yes
	WBL/T/R	790	191 [2]	153 [2]	Yes	Yes
	WBR	415	63	141 [2]	Yes	Yes
I-215 Southbound Ramps & Redlands Av.	EBL	1,140	67	90	Yes	Yes
	EBL/T/R	775	17	39	Yes	Yes
	EBR	185	14	34	Yes	Yes

Intersection	Movement	Available Stacking Distance (Feet)	95th Percentile Queue (Feet)		Acceptable? [1]	
			AM Peak Hour	PM Peak Hour	AM	PM
I-215 Northbound Ramps & Evans Rd.	WBL	Future Interchange				
	WBT/R					
I-215 Southbound Ramps & Evans Rd.	EBL	Future Interchange				
	EBT/R					
I-215 Southbound Ramps & SR-74	SBT	2,275	340	640	Yes	Yes
	SBR	215	19	18	Yes	Yes
I-215 Northbound Ramps & SR-74	SBL/R	1,510	81	172	Yes	Yes
I-215 Southbound Ramps & Ethanac Rd.	SBL/T	1,365	136	198	Yes	Yes
	SBR	240	65	158	Yes	Yes
I-215 Northbound Ramps & Ethanac Rd.	NBL/T	1,550	302	376	Yes	Yes
	NBR	240	45	56	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where

[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

[3] Although 95th percentile queue is anticipated to exceed the available storage for the turn lane, the adjacent through lane has sufficient storage to accommodate any spillover without spilling back and affecting the I-215 Freeway mainline.

TABLE 3-3: INTERSECTION ANALYSIS FOR EXISTING (2022) CONDITIONS WITH IMPROVEMENTS

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
41	Evans Rd. & Orange Av.																	
	- Without Improvements	TS	1	1	1	1	1	1	1	1	0	1	1	0	**20.1**	23.7	**C**	C
	- With Improvements	TS	1	**2**	1	1	**2**	**0**	1	**2**	0	1	**2**	0	45.9	19.4	D	B
57	Menifee Rd. & Watson Rd.																	
	- Without Improvements	CSS	0	1	0	0	1	0	0	1	0	0	1	0	**33.1**	**19.4**	**D**	**C**
	- With Improvements	**TS**	**1**	1	0	**1**	1	0	**1**	1	0	**1**	1	0	15.5	13.6	B	B
58	Menifee Rd. & Ethanac Rd. (SR-74)																	
	- Without Improvements	TS	0	1	1	0	1	0	1	2	0	1	2	0	**76.0**	35.7	**E**	D
	- With Improvements[4]	TS	1	1	1	**1**	1	0	1	2	0	1	2	0	29.9	26.6	C	C
65	Bridge St. & Ramona Exwy.																	
	- Without Improvements	CSS	0	0	0	0	1	0	1	1	0	0	1	0	40.8	**35.6**	E	**E**
	- With Improvements	**TS**	0	0	0	0	1	0	1	1	0	0	1	0	11.4	3.0	B	A
67	Sanderson Av. (SR-79) & Ramona Exwy.																	
	- Without Improvements	TS	2	2	1>	2	2	1>	2	2	1>	2	2	1>	**82.1**	**79.7**	**F**	**E**
	- With Improvements	TS	2	**3**	1>	2	**3**	**1>>**	2	**3**	1>	2	**3**	1>	30.8	26.3	C	C

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; > = Right-Turn Overlap Phasing; >> = Free-Right Turn Lane; **1** = Improvement

[2] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all-way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements

[3] CSS = Cross-street Stop; AWS = All-way Stop; TS = Traffic Signal; **TS** = Improvements

[4] Improvement includes modifying the traffic signal to protect the northbound and southbound left turns.

4 PROJECTED FUTURE TRAFFIC

This section presents the traffic volumes estimated to be generated by the Project's trip assignment onto the study area roadway network. The Project is proposing to amend the Specific Plan with a mix of industrial and commercial uses, as described below:

Without Mid-County Parkway (MCP)

- 2,940,000 square feet of High-Cube Cold Storage Warehouse use (40% of the total Light Industrial square footage).
- 2,940,000 square feet of High-Cube Fulfillment Center Warehouse use (40% of the total Light Industrial square footage).
- 735,000 square feet of High-Cube Warehouse use (10% of the total Light Industrial square footage).
- 735,000 square feet of Manufacturing use (10% of the total Light Industrial square footage).
- 427,759 square feet of Warehousing use (40% of the total Business Park square footage).
- 641,639 square feet of Industrial Park use (60% of the total Business Park square footage).
- 121,968 square feet of Commercial Retail uses.

With MCP

- 2,940,000 square feet of High-Cube Cold Storage Warehouse use (40% of the total Light Industrial square footage).
- 2,940,000 square feet of High-Cube Fulfillment Center Warehouse use (40% of the total Light Industrial square footage).
- 735,000 square feet of High-Cube Warehouse use (10% of the total Light Industrial square footage).
- 735,000 square feet of Manufacturing use (10% of the total Light Industrial square footage).
- 374,616 square feet of Warehousing use (40% of the total Business Park square footage).
- 561,924 square feet of Industrial Park use (60% of the total Business Park square footage).
- 126,542 square feet of commercial retail uses.

The RCTC is currently planning the construction of the MCP, a regional, grade-separated transportation facility between the I-215 Freeway (at Placentia Avenue) and SR-79. The MCP is a long-range transportation improvement as RCTC has not yet identified or secured funding of the MCP and the future proposed interchanges. As such, timing of the future MCP is currently unknown.

A portion of the MCP and future interchange is planned in the northwestern portion of the site, which would affect the development proposed within Planning Areas 6, 7, and 8A of the proposed Project. In order to accommodate both the potential for the future construction of the MCP while also providing for development of the site in the event that the MCP is not constructed as currently planned, two land use concept plans have been developed for the site (Without and With MCP).

The anticipated Project opening year is 2032. Vehicular and truck traffic access will be provided to Ramona Expressway and Nuevo Road via Antelope Road. Regional access to the Project site is available from the I-215 Freeway via the Harley Knox Boulevard, Ramona Expressway, Placentia Avenue, Nuevo Road, Redlands Avenue. SR-74, Ethanac Road, and future Evans Road interchanges and SR-79 via Ramona Expressway. For the purposes of this analysis, the land use plan for the Proposed Project land use plan has been evaluated for EAP and EAPC traffic conditions, as the Project would not build within the MCP alignment until such time it was certain that the MCP would not be developed. The EAP and EAPC traffic conditions assumes the existing roadway network (no MCP alignment is assumed to be in place). For Horizon Year (2040) traffic conditions, the operations analysis has been conducted for both Without MCP and With MCP roadway network. The Without MCP conditions evaluates buildout of the Proposed Project land use plan with development within the MCP alignment, whereas the With MCP conditions evaluates buildout of the Alternative Project land use plan (without development within the MCP alignment).

4.1 PROJECT TRIP GENERATION

Trip generation represents the amount of traffic that is attracted and produced by a development and is based upon the specific land uses planned for a given project. Trip generation rates (in Actual Vehicles and PCE) for the Project are shown in Table 4-1. These estimates are based on the trip-generation statistics published in the Institute of Transportation Engineers (ITE) Trip Generation Manual, (11th Edition, 2021) and the High Cube Warehouse Trip Generation Study (WSP, January 2019) were used to estimate the trip generation. (2) (3)

For purposes of the TA, the following ITE land use codes and vehicle mixes will be utilized for the light industrial and business park areas:

- ITE land use code 140 (Manufacturing) is an area where the primary activity is the conversion of raw materials or parts into finished products. Size and type of activity may vary substantially from one facility to another. In addition to the actual production of goods, manufacturing facilities generally also have office, warehouse, research, and associated functions. The vehicle mix has been obtained from the ITE's Trip Generation Manual Supplement (dated February 2020). This study provides the following vehicle mix: AM Peak Hour: 92.0% passenger cars and 8.0% trucks; PM Peak Hour: 93.0% passenger cars and 7.0% trucks; Weekday Daily: 90.0% passenger cars and 10.0% trucks. The truck percentages were further broken down by axle type per the following SCAQMD recommended truck mix: 2-Axle = 16.7%; 3-Axle = 20.7%; 4+-Axle = 62.6%.
- ITE land use code 150 (Warehousing) vehicle mix has been obtained from the ITE's Trip Generation Manual Supplement (dated February 2020). This study provides the following vehicle mix: AM Peak Hour: 87.0% passenger cars and 13.0% trucks; PM Peak Hour: 85.0% passenger cars and 15.0% trucks; Weekday Daily: 73.0% passenger cars and 27.0% trucks. The truck percentages were further broken down by axle type per the following SCAQMD recommended truck mix: 2-Axle = 16.7%; 3-Axle = 20.7%; 4+-Axle = 62.6%.
- ITE land use code 154 (High-Cube Transload and Short-Term Storage Warehouse) data regarding the truck percentage and vehicle mix has been obtained from the ITE's Trip Generation Manual Supplement (dated February 2020). This study provides the following vehicle mix: AM Peak Hour: 80.0% passenger cars and 20.0% trucks; PM Peak Hour: 84.0% passenger cars and 16.0% trucks; Weekday Daily: 84.0% passenger cars and 16.0% trucks. The truck percentages were further broken down by axle type per the following SCAQMD recommended truck mix: 2-Axle = 16.7%; 3-Axle = 20.7%; 4+-Axle = 62.6%.
- ITE land use code 157 (High-Cube Cold Storage Warehouse) includes warehouses characterized by the storage and/or consolidation of manufactured goods (and to a lesser extent, raw materials) prior to their distribution to retail locations or other warehouses. High-cube cold storage warehouses are facilities typified by temperature-controlled environments for frozen food or other perishable products. The High-Cube Cold Storage Warehouse vehicle mix (passenger cars versus trucks) has been obtained from the ITE's Trip Generation Manual Supplement (dated February 2020). This study provides the following vehicle mix: AM Peak Hour: 73.0% passenger cars and 27.0% trucks; PM Peak Hour: 77.0% passenger cars and 23.0% trucks; Weekday Daily: 65.0% passenger cars and 35.0% trucks. The truck percentages were further broken down by axle type per the following SCAQMD recommended truck mix: 2-Axle = 34.7%; 3-Axle = 11.0%; 4+-Axle = 54.3%.

- High-Cube Fulfillment Center Warehouse: The ITE Trip Generation Manual Supplement (February 2020) has trip generation rates for high-cube fulfillment center use for both non-sort and sort facilities (ITE land use code 155). While there is sufficient data to support use of the trip generation rates for non-sort facilities, the sort facility rate appears to be unreliable because they are based on limited data (i.e., one to two surveyed sites). The proposed Project is speculative and whether a non-sort or sort facility end-user would occupy the buildings is not known at this time. Lastly, the ITE Trip Generation Manual recommends the use of local data sources where available. As such, the best available source for high-cube fulfilment center use would be the trip-generation statistics published in the High-Cube Warehouse Trip Generation Study (WSP, January 29, 2019) which was commissioned by the Western Riverside Council of Governments (WRCOG) in support of the Transportation Uniform Mitigation Fee (TUMF) update in the County of Riverside. The WSP trip generation rates were published in January 2019 and are based on data collected at 11 local high-cube fulfillment center sites located throughout Southern California (specifically Riverside County and San Bernardino County). However, the WSP study does not include a split for inbound and outbound vehicles, as such, the inbound and outbound splits per the ITE Trip Generation Manual for Land Use Code 154 have been utilized.
- Based on the types of uses anticipated to be developed within the business park area, the trip generation rates for ITE land use code 130 (Industrial Park) has been used. The vehicle mix has been obtained from the ITE's Trip Generation Manual Supplement (dated February 2020). This study provides the following vehicle mix: AM Peak Hour: 88.0% passenger cars and 12.0% trucks; PM Peak Hour: 90.0% passenger cars and 10.0% trucks; Weekday Daily: 85.0% passenger cars and 15.0% trucks. The truck percentages were further broken down by axle type per the following SCAQMD recommended truck mix: 2-Axle = 16.7%; 3-Axle = 20.7%; 4+-Axle = 62.6%.

The following ITE land use codes will be utilized in order to calculate a conservative trip generation for the commercial retail area:

- Free-Standing Discount Superstore (ITE Land Use Code 813)
- Shopping Center (ITE Land Use Code 820)

PCE factors were applied to the trip generation rates for heavy trucks (large 2-axles, 3-axles, 4+-axles). PCEs allow the typical "real-world" mix of vehicle types to be represented as a single, standardized unit, such as the passenger car, to be used for the purposes of capacity and level of service analyses.

As the project is proposed to include shopping center, gas station, and other complementary uses, pass-by percentages have been obtained from the ITE Trip Generation Handbook (3rd Edition, 2021). (17)

TABLE 4-1: PROJECT TRIP GENERATION RATES

Land Use[1]	Units[2]	ITE LU Code	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Actual Vehicle Trip Generation Rates									
Manufacturing[3]	TSF	140	0.517	0.163	0.680	0.229	0.511	0.740	4.750
Passenger Cars (AM=95.6%, PM=95.9%, Daily=90.5%)			0.500	0.150	0.650	0.217	0.493	0.710	4.300
2-Axle Trucks (AM=0.74%, PM=0.69%, Daily=1.59%)			0.003	0.002	0.005	0.002	0.003	0.005	0.075
3-Axle Trucks (AM=0.91%, PM=0.85%, Daily=1.97%)			0.003	0.003	0.006	0.003	0.004	0.006	0.093
4+-Axle Trucks (AM=3.73%, PM=2.56%, Daily=5.94%)			0.011	0.008	0.019	0.008	0.011	0.019	0.282
Warehousing[3]	TSF	150	0.131	0.039	0.170	0.050	0.130	0.180	1.710
Passenger Cars (AM=88.2%, PM=83.3%, Daily=64.9%)			0.120	0.030	0.150	0.034	0.116	0.150	1.110
2-Axle Trucks (AM=1.97%, PM=2.79%, Daily=5.86%)			0.002	0.001	0.003	0.003	0.002	0.005	0.100
3-Axle Trucks (AM=2.44%, PM=3.46%, Daily=7.27%)			0.002	0.002	0.004	0.003	0.003	0.006	0.124
4+-Axle Trucks (AM=7.39%, PM=10.45%, Daily=21.97%)			0.007	0.006	0.013	0.010	0.009	0.019	0.376
High-Cube Transload and Short-Term Storage Warehouse[3]	TSF	154	0.062	0.018	0.080	0.028	0.072	0.100	1.400
Passenger Cars (AM=75.0%, PM=90.0%, Daily=94.3%)			0.052	0.008	0.060	0.023	0.067	0.090	1.180
2-Axle Trucks (AM=4.2%, PM=1.7%, Daily=2.6%)			0.002	0.001	0.003	0.001	0.001	0.002	0.037
3-Axle Trucks (AM=5.2%, PM=2.1%, Daily=3.3%)			0.002	0.002	0.004	0.001	0.001	0.002	0.046
4+-Axle Trucks (AM=15.7%, PM=6.3%, Daily=9.8%)			0.006	0.007	0.013	0.003	0.003	0.006	0.138
High-Cube Cold Storage Warehouse[3]	TSF	157	0.085	0.025	0.110	0.034	0.086	0.120	2.120
Passenger Cars (AM=72.7%, PM=75.0%, Daily=64.6%)			0.076	0.004	0.080	0.019	0.071	0.090	1.370
2-Axle Trucks (AM=9.5%, PM=8.7%, Daily=12.3%)			0.003	0.007	0.010	0.005	0.005	0.010	0.260
3-Axle Trucks (AM=3.0%, PM=2.8%, Daily=3.9%)			0.001	0.002	0.003	0.002	0.001	0.003	0.083
4+-Axle Trucks (AM=14.8%, PM=13.6%, Daily=19.2%)			0.005	0.011	0.016	0.008	0.008	0.016	0.407
High-Cube Fulfillment Center Warehouse[4]	TSF	--	0.089	0.033	0.122	0.050	0.115	0.165	2.129
Passenger Cars (AM=84.4%, PM=87.3%, Daily=82.2%)			0.079	0.024	0.103	0.040	0.104	0.144	1.750
2-4 Axle Trucks (AM=6.6%, PM=6.7%, Daily=7.6%)			0.004	0.004	0.008	0.005	0.006	0.011	0.162
5+-Axle Trucks (AM=9.0%, PM=6.0%, Daily=10.2%)			0.005	0.006	0.011	0.005	0.005	0.010	0.217
Industrial Park[3]	TSF	130	0.275	0.065	0.340	0.075	0.265	0.340	3.370
Passenger Cars (AM=88.2%, PM=88.2%, Daily=83.1%)			0.257	0.043	0.300	0.060	0.240	0.300	2.800
2-Axle Trucks (AM=2.0%, PM=2.0%, Daily=2.8%)			0.003	0.004	0.007	0.003	0.004	0.007	0.095
3-Axle Trucks (AM=2.4%, PM=2.4%, Daily=3.5%)			0.004	0.005	0.008	0.003	0.005	0.008	0.118
4+-Axle Trucks (AM=7.4%, PM=7.4%, Daily=10.6%)			0.011	0.014	0.025	0.010	0.016	0.025	0.357
Free-Standing Discount Superstore	TSF	813	1.04	0.82	1.86	2.12	2.21	4.33	50.52
Strip Retail Plaza (<40,000 SF)	TSF	822	1.42	0.94	2.36	3.30	3.29	6.59	54.45

Passenger Car Equivalent (PCE) Trip Generation Rates[5]									
Manufacturing[3]	TSF	140	0.517	0.163	0.680	0.229	0.511	0.740	4.750
Passenger Cars			0.500	0.150	0.650	0.217	0.493	0.710	4.300
2-Axle Trucks (PCE = 1.5)			0.005	0.003	0.008	0.003	0.004	0.008	0.113
3-Axle Trucks (PCE = 2.0)			0.006	0.006	0.012	0.005	0.007	0.012	0.186
4+-Axle Trucks (PCE = 3.0)			0.033	0.023	0.056	0.023	0.033	0.056	0.845
Warehousing[3]	TSF	150	0.131	0.039	0.170	0.050	0.130	0.180	1.710
Passenger Cars			0.120	0.030	0.150	0.034	0.116	0.150	1.110
2-Axle Trucks (PCE = 1.5)			0.003	0.002	0.005	0.005	0.003	0.008	0.150
3-Axle Trucks (PCE = 2.0)			0.004	0.004	0.008	0.006	0.006	0.012	0.248
4+-Axle Trucks (PCE = 3.0)			0.021	0.017	0.038	0.030	0.026	0.056	1.127
High-Cube Transload and Short-Term Storage Warehouse[3]	TSF	154	0.062	0.018	0.080	0.028	0.072	0.100	1.400
Passenger Cars			0.052	0.008	0.060	0.023	0.067	0.090	1.180
2-Axle Trucks (PCE = 1.5)			0.003	0.002	0.005	0.002	0.001	0.003	0.055
3-Axle Trucks (PCE = 2.0)			0.004	0.004	0.008	0.002	0.002	0.004	0.091
4+-Axle Trucks (PCE = 3.0)			0.018	0.020	0.038	0.009	0.010	0.019	0.413
High-Cube Cold Storage Warehouse[3]	TSF	157	0.085	0.025	0.110	0.034	0.086	0.120	2.120
Passenger Cars			0.076	0.004	0.080	0.019	0.071	0.090	1.370
2-Axle Trucks (PCE = 1.5)			0.005	0.011	0.016	0.008	0.008	0.016	0.390
3-Axle Trucks (PCE = 2.0)			0.002	0.005	0.007	0.004	0.003	0.007	0.165
4+-Axle Trucks (PCE = 3.0)			0.015	0.034	0.049	0.024	0.025	0.049	1.222
High-Cube Fulfillment Center Warehouse[4]	TSF	--	0.089	0.033	0.122	0.050	0.115	0.165	2.129
Passenger Cars			0.079	0.024	0.103	0.040	0.104	0.144	1.750
2-4 Axle Trucks (PCE = 2.0)			0.008	0.008	0.016	0.010	0.012	0.022	0.324
5+-Axle Trucks (PCE = 3.0)			0.016	0.017	0.033	0.014	0.016	0.030	0.651
Industrial Park[3]	TSF	130	0.275	0.065	0.340	0.075	0.265	0.340	3.370
Passenger Cars			0.257	0.043	0.300	0.060	0.240	0.300	2.800
2-Axle Trucks (PCE = 1.5)			0.005	0.006	0.010	0.004	0.006	0.010	0.143
3-Axle Trucks (PCE = 2.0)			0.007	0.009	0.017	0.006	0.010	0.017	0.236
4+-Axle Trucks (PCE = 3.0)			0.034	0.041	0.075	0.029	0.047	0.075	1.070

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, Eleventh Edition (2021).

[2] TSF = thousand square feet

[3] Vehicle Mix Source: ITE Trip Generation Handbook Supplement (2020), Appendix C.
Truck Mix: South Coast Air Quality Management District's (SCAQMD) recommended truck mix, by axle type.
Normalized % - Without Cold Storage: 16.7% 2-Axle trucks, 20.7% 3-Axle trucks, 62.6% 4-Axle trucks.
Normalized % - With Cold Storage: 34.7% 2-Axle trucks, 11.0% 3-Axle trucks, 54.3% 4-Axle trucks.

[4] Vehicle Mix Source: High Cube Warehouse Trip Generation Study, WSP, January 29, 2019.
Inbound and outbound split source: ITE Trip Generation Manual, Tenth Edition (2017) for ITE Land Use Code 154.

[5] PCE factors: 2-axle = 1.5; 3-axle = 2.0; 4+-axle = 3.0.

The trip generation summary illustrating daily and peak hour trip generation estimates for the proposed Project in actual vehicles and PCE for Without MCP conditions are shown in Table 4-2 and Table 4-3, respectively. The trip generation summary illustrating daily and peak hour trip generation estimates for the proposed Project in actual vehicles and PCE for With MCP conditions are shown in Table 4-4 and Table 4-5, respectively. The proposed Project is anticipated to generate the following:

- Without MCP: 23,680 vehicle trip-ends per day with 1,641 AM peak hour trips and 2,098 PM peak hour trips (of which 4,444 trip-ends per day are associated with trucks with 214 AM peak hour truck trips and 219 PM peak hour truck trips) (see Table 4-2).
- With MCP: 23,474 vehicle trip-ends per day with 1,619 AM peak hour trips and 2,080 PM peak hour trips (of which 4,366 trip-ends per day are associated with trucks with 212 AM peak hour truck trips and 214 PM peak hour truck trips) (see Table 4-4).

The operations analyses for the purposes of this TA utilize the PCE trip generation consistent with the County's guidelines and other traffic studies prepared in the County of Riverside.

4.2 PROJECT TRIP DISTRIBUTION

The Project trip distribution represents the directional orientation of traffic to and from the Project site. Trip distribution is the process of identifying the probable destinations, directions or traffic routes that will be utilized by Project traffic. The potential interaction between the planned land uses and surrounding regional access routes are considered, to identify the route where the Project traffic would distribute. Given the different characteristics of travel patterns between passenger cars and trucks, separate distribution patterns have been utilized for this TA.

Passenger Cars

The passenger car trip distribution for near-term and long-range conditions, Without MCP, are shown on Exhibits 4-1 and 4-2, respectively. The development of the Project is affected by the proposed grade-separated MCP along the existing Placentia Avenue/Ramona Expressway alignment. The MCP is a long-range proposed facility. However, the initial phase of the MCP is underway with the construction of the Placentia Avenue and I-215 Freeway interchange by RCTC in conjunction with Caltrans District 8. The interchange is anticipated to be completed by late 2022, as such, the interchange will be in place by the proposed Project's Opening Year (2032). The passenger car trip distribution for long-range conditions, with the proposed MCP, is shown on Exhibit 4-3. Passenger car trip distribution patterns for both near-term and long-range (With MCP) traffic conditions have been developed based on a select zone run of the traffic analysis zone (TAZ) containing the Project from the RIVCOM.

TABLE 4-2: PROJECT (WITHOUT MID-COUNTY PARKWAY) TRIP GENERATION SUMMARY (ACTUAL VEHICLES)

Land Use	Quantity	Units[1]	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
High-Cube Cold Storage (40% - LI)	2,940.000	TSF							
Passenger Cars:			223	12	235	56	209	265	4,028
Truck Trips:									
2-axle:			9	22	31	15	16	31	766
3-axle:			3	7	10	6	4	10	244
4+-axle:			15	33	48	24	24	48	1,198
- Truck Trips			27	62	89	45	44	89	2,208
SUBTOTAL TRIPS (Actual) [2]			**250**	**74**	**324**	**101**	**253**	**354**	**6,236**
High-Cube Fulfillment (40% - LI)	2,940.000	TSF							
Passenger Cars:			233	70	303	119	305	424	5,146
Truck Trips:									
2-4 axle:			12	12	24	15	17	32	476
5+-axle:			16	16	32	14	16	30	638
- Truck Trips			28	28	56	29	33	62	1,114
TOTAL TRIPS (Actual) [2]			**261**	**98**	**359**	**148**	**338**	**486**	**6,260**
High-Cube Warehouse (10% - LI)	735.000	TSF							
Passenger Cars:			38	6	44	17	49	66	868
Truck Trips:									
2-axle:			1	1	2	1	0	1	28
3-axle:			1	2	3	1	1	2	34
4+-axle:			4	5	9	2	2	4	102
- Truck Trips			6	8	14	4	3	7	164
SUBTOTAL TRIPS (Actual) [2]			**44**	**14**	**58**	**21**	**52**	**73**	**1,032**
Manufacturing (10% - LI)	735.000	TSF							
Passenger Cars:			367	110	477	160	362	522	3,162
Truck Trips:									
2-axle:			2	1	3	2	2	4	55
3-axle:			2	2	4	2	3	5	68
4+-axle:			8	6	14	6	8	14	207
- Truck Trips			12	9	21	10	13	23	330
SUBTOTAL TRIPS (Actual) [2]			**379**	**119**	**498**	**170**	**375**	**545**	**3,492**
Warehouse (40% - BP)	427.759	TSF							
Passenger Cars:			51	13	64	15	49	64	476
Truck Trips:									
2-axle:			1	1	2	1	1	2	44
3-axle:			1	1	2	1	1	2	54
4+-axle:			3	2	5	4	4	8	162
- Truck Trips			5	4	9	6	6	12	260
SUBTOTAL TRIPS (Actual) [2]			**56**	**17**	**73**	**21**	**55**	**76**	**736**
Industrial Park (60% - BP)	641.639	TSF							
Passenger Cars:			165	27	192	38	154	192	1,798
Truck Trips:									
2-axle:			2	2	4	2	3	5	62
3-axle:			2	3	5	2	3	5	76
4+-axle:			7	9	16	6	10	16	230
- Truck Trips			11	14	25	10	16	26	368
SUBTOTAL TRIPS (Actual) [2]			**176**	**41**	**217**	**48**	**170**	**218**	**2,166**
Free-Standing Discount Superstore	100.000	TSF	104	82	186	212	221	433	5,052
Pass-by Reduction (PM/Daily = 29%)			0	0	0	-61	-61	-123	-1,466
SUBTOTAL TRIPS (Actual) [2]			**104**	**82**	**186**	**151**	**160**	**310**	**3,586**
Commercial Retail	21.968	TSF	31	21	52	72	72	144	1,196
Pass-by Reduction (PM/Daily = 40%)			0	0	0	-29	-29	-58	-480
SUBTOTAL TRIPS (Actual) [2]			**31**	**21**	**52**	**43**	**43**	**86**	**716**
SUBTOTAL (COMMERCIAL USES ONLY) TRIPS (Actual) [2]			**135**	**103**	**238**	**194**	**203**	**396**	**4,302**
Internal Capture (NCHRP Tool)			-63	-63	-126	-25	-25	-50	-544
Passenger Cars (Industrial)			*1,014*	*175*	*1,189*	*380*	*1,103*	*1,483*	*14,934*
Passenger Cars (Commercial)			*135*	*103*	*238*	*194*	*203*	*396*	*4,302*
Trucks (Industrial)			*89*	*125*	*214*	*104*	*115*	*219*	*4,444*
TOTAL TRIPS (Actual) [2]			**1,238**	**403**	**1,641**	**678**	**1,421**	**2,098**	**23,680**

[1] TSF = thousand square feet

[2] TOTAL TRIPS = Passenger Cars + Truck Trips.

TABLE 4-3: PROJECT (WITHOUT MID-COUNTY PARKWAY) TRIP GENERATION SUMMARY (PCE)

Land Use	Quantity	Units[1]	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
High-Cube Cold Storage (40% - LI)	2,940.000	TSF							
Passenger Cars:			223	12	235	56	209	265	4,028
Truck Trips:									
2-axle:			13	33	46	22	24	46	1,148
3-axle:			6	14	20	12	8	20	486
4+-axle:			44	100	144	71	73	144	3,592
- Truck Trips			63	147	210	105	105	210	5,226
SUBTOTAL TRIPS (PCE) [2]			**286**	**159**	**445**	**161**	**314**	**475**	**9,254**
High-Cube Fulfillment (40% - LI)	2,940.000	TSF							
Passenger Cars:			233	70	303	119	305	424	5,146
Truck Trips:									
2-4 axle:			23	24	47	30	34	64	954
5+-axle:			48	49	97	41	47	88	1,914
- Truck Trips			71	73	144	71	81	152	2,868
SUBTOTAL TRIPS (PCE) [2]			**304**	**143**	**447**	**190**	**386**	**576**	**8,014**
High-Cube Warehouse (10% - LI)	735.000	TSF							
Passenger Cars:			38	6	44	17	49	66	868
Truck Trips:									
2-axle:			2	1	3	1	1	2	42
3-axle:			3	3	6	1	2	3	68
4+-axle:			13	14	27	7	7	14	304
- Truck Trips			18	18	36	9	10	19	414
SUBTOTAL TRIPS (PCE) [2]			**56**	**24**	**80**	**26**	**59**	**85**	**1,282**
Manufacturing (10% - LI)	735.000	TSF							
Passenger Cars:			367	110	477	160	362	522	3,162
Truck Trips:									
2-axle:			3	2	5	2	3	5	84
3-axle:			4	5	9	4	5	9	138
4+-axle:			24	17	41	17	24	41	622
- Truck Trips			31	24	55	23	32	55	844
SUBTOTAL TRIPS (PCE) [2]			**398**	**134**	**532**	**183**	**394**	**577**	**4,006**
Warehousing (40% - BP)	427.759	TSF							
Passenger Cars:			51	13	64	15	49	64	476
Truck Trips:									
2-axle:			1	1	2	2	1	3	64
3-axle:			2	2	4	3	3	6	106
4+-axle:			9	7	16	13	11	24	482
- Truck Trips			12	10	22	18	15	33	652
SUBTOTAL TRIPS (PCE) [2]			**63**	**23**	**86**	**33**	**64**	**97**	**1,128**
Industrial Park (60% - BP)	641.639	TSF							
Passenger Cars:			165	27	192	38	154	192	1,798
Truck Trips:									
2-axle:			3	4	7	2	4	6	92
3-axle:			5	6	11	4	7	11	152
4+-axle:			22	27	49	18	30	48	688
- Truck Trips			30	37	67	24	41	65	932
SUBTOTAL TRIPS (PCE) [2]			**195**	**64**	**259**	**62**	**195**	**257**	**2,730**
Free-Standing Discount Superstore	100.000	TSF	104	82	186	212	221	433	5,052
Pass-by Reduction (PM/Daily = 29%)			0	0	0	-61	-61	-123	-1,466
SUBTOTAL TRIPS (PCE) [2]			**104**	**82**	**186**	**151**	**160**	**310**	**3,586**
Commercial Retail	21.968	TSF	31	21	52	72	72	144	1,196
Pass-by Reduction (PM/Daily = 40%)			0	0	0	-29	-29	-58	-480
SUBTOTAL TRIPS (PCE) [2]			**31**	**21**	**52**	**43**	**43**	**86**	**716**
SUBTOTAL (COMMERCIAL USES ONLY) TRIPS (Actual) [2]			**135**	**103**	**238**	**194**	**203**	**396**	**4,302**
Internal Capture (NCHRP Tool)			-63	-63	-126	-25	-25	-50	-544
Passenger Cars (Industrial)			*1,014*	*175*	*1,189*	*380*	*1,103*	*1,483*	*14,934*
Passenger Cars (Commercial)			*135*	*103*	*238*	*194*	*203*	*396*	*4,302*
Trucks (Industrial) (PCE)			*225*	*309*	*534*	*250*	*284*	*534*	*10,936*
TOTAL TRIPS (PCE) [2]			**1,374**	**587**	**1,961**	**824**	**1,590**	**2,413**	**30,172**

[1] TSF = thousand square feet

[2] TOTAL TRIPS = Passenger Cars + Truck Trips.

TABLE 4-4: PROJECT (WITH MID-COUNTY PARKWAY) TRIP GENERATION SUMMARY (ACTUAL VEHICLES)

Land Use	Quantity	Units[1]	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
High-Cube Cold Storage (40% - LI)	2,940.000	TSF							
Passenger Cars:			223	12	235	56	209	265	4,028
Truck Trips:									
2-axle:			9	22	31	15	16	31	766
3-axle:			3	7	10	6	4	10	244
4+-axle:			15	33	48	24	24	48	1,198
- Truck Trips			27	62	89	45	44	89	2,208
SUBTOTAL TRIPS (Actual) [2]			**250**	**74**	**324**	**101**	**253**	**354**	**6,236**
High-Cube Fulfillment (40% - LI)	2,940.000	TSF							
Passenger Cars:			233	70	303	119	305	424	5,146
Truck Trips:									
2-4 axle:			12	12	24	15	17	32	476
5+-axle:			16	16	32	14	16	30	638
- Truck Trips			28	28	56	29	33	62	1,114
TOTAL TRIPS (Actual) [2]			**261**	**98**	**359**	**148**	**338**	**486**	**6,260**
High-Cube Warehouse (10% - LI)	735.000	TSF							
Passenger Cars:			38	6	44	17	49	66	868
Truck Trips:									
2-axle:			1	1	2	1	0	1	28
3-axle:			1	2	3	1	1	2	34
4+-axle:			4	5	9	2	2	4	102
- Truck Trips			6	8	14	4	3	7	164
SUBTOTAL TRIPS (Actual) [2]			**44**	**14**	**58**	**21**	**52**	**73**	**1,032**
Manufacturing (10% - LI)	735.000	TSF							
Passenger Cars:			367	110	477	160	362	522	3,162
Truck Trips:									
2-axle:			2	1	3	2	2	4	55
3-axle:			2	2	4	2	3	5	68
4+-axle:			8	6	14	6	8	14	207
- Truck Trips			12	9	21	10	13	23	330
SUBTOTAL TRIPS (Actual) [2]			**379**	**119**	**498**	**170**	**375**	**545**	**3,492**
Warehouse (40% - BP)	374.616	TSF							
Passenger Cars:			45	11	56	13	43	56	416
Truck Trips:									
2-axle:			1	1	2	1	1	2	38
3-axle:			1	1	2	1	1	2	48
4+-axle:			3	2	5	4	3	7	142
- Truck Trips			5	4	9	6	5	11	228
SUBTOTAL TRIPS (Actual) [2]			**50**	**15**	**65**	**19**	**48**	**67**	**644**
Industrial Park (60% - BP)	561.924	TSF							
Passenger Cars:			145	24	169	33	135	168	1,574
Truck Trips:									
2-axle:			2	2	4	1	2	3	54
3-axle:			2	3	5	2	3	5	66
4+-axle:			6	8	14	5	9	14	202
- Truck Trips			10	13	23	8	14	22	322
SUBTOTAL TRIPS (Actual) [2]			**155**	**37**	**192**	**41**	**149**	**190**	**1,896**
Free-Standing Discount Superstore	100.000	TSF	104	82	186	212	221	433	5,052
Pass-by Reduction (PM/Daily = 29%)			0	0	0	-61	-61	-123	-1,466
SUBTOTAL TRIPS (Actual) [2]			**104**	**82**	**186**	**151**	**160**	**310**	**3,586**
Commercial Retail	26.542	TSF	38	25	63	88	87	175	1,446
Pass-by Reduction (PM/Daily = 40%)			0	0	0	-35	-35	-70	-580
SUBTOTAL TRIPS (Actual) [2]			**38**	**25**	**63**	**53**	**52**	**105**	**866**
SUBTOTAL (COMMERCIAL USES ONLY) TRIPS (Actual) [2]			**142**	**107**	**249**	**203**	**211**	**415**	**4,452**
Internal Capture (NCHRP Tool)			-63	-63	-126	-25	-25	-50	-538
Passenger Cars (Industrial)			*988*	*170*	*1,158*	*373*	*1,078*	*1,451*	*14,656*
Passenger Cars (Commercial)			*142*	*107*	*249*	*203*	*211*	*415*	*4,452*
Trucks (Industrial)			*88*	*124*	*212*	*102*	*112*	*214*	*4,366*
TOTAL TRIPS (Actual) [2]			**1,218**	**401**	**1,619**	**678**	**1,401**	**2,080**	**23,474**

[1] TSF = thousand square feet

[2] TOTAL TRIPS = Passenger Cars + Truck Trips.

TABLE 4-5: PROJECT (WITH MID-COUNTY PARKWAY) TRIP GENERATION SUMMARY (PCE)

Land Use	Quantity	Units[1]	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
High-Cube Cold Storage (40% - LI)	2,940.000	TSF							
Passenger Cars:			223	12	235	56	209	265	4,028
Truck Trips:									
2-axle:			13	33	46	22	24	46	1,148
3-axle:			6	14	20	12	8	20	486
4+-axle:			44	100	144	71	73	144	3,592
- Truck Trips			63	147	210	105	105	210	5,226
SUBTOTAL TRIPS (PCE)[2]			**286**	**159**	**445**	**161**	**314**	**475**	**9,254**
High-Cube Fulfillment (40% - LI)	2,940.000	TSF							
Passenger Cars:			233	70	303	119	305	424	5,146
Truck Trips:									
2-4 axle:			23	24	47	30	34	64	954
5+-axle:			48	49	97	41	47	88	1,914
- Truck Trips			71	73	144	71	81	152	2,868
SUBTOTAL TRIPS (PCE)[2]			**304**	**143**	**447**	**190**	**386**	**576**	**8,014**
High-Cube Warehouse (10% - LI)	735.000	TSF							
Passenger Cars:			38	6	44	17	49	66	868
Truck Trips:									
2-axle:			2	1	3	1	1	2	42
3-axle:			3	3	6	1	2	3	68
4+-axle:			13	14	27	7	7	14	304
- Truck Trips			18	18	36	9	10	19	414
SUBTOTAL TRIPS (PCE)[2]			**56**	**24**	**80**	**26**	**59**	**85**	**1,282**
Manufacturing (10% - LI)	735.000	TSF							
Passenger Cars:			367	110	477	160	362	522	3,162
Truck Trips:									
2-axle:			3	2	5	2	3	5	84
3-axle:			4	5	9	4	5	9	138
4+-axle:			24	17	41	17	24	41	622
- Truck Trips			31	24	55	23	32	55	844
SUBTOTAL TRIPS (PCE)[2]			**398**	**134**	**532**	**183**	**394**	**577**	**4,006**
Warehousing (40% - BP)	374.616	TSF							
Passenger Cars:			45	11	56	13	43	56	416
Truck Trips:									
2-axle:			1	1	2	2	1	3	56
3-axle:			1	2	3	2	2	4	94
4+-axle:			8	6	14	11	10	21	422
- Truck Trips			10	9	19	15	13	28	572
SUBTOTAL TRIPS (PCE)[2]			**55**	**20**	**75**	**28**	**56**	**84**	**988**
Industrial Park (60% - BP)	561.924	TSF							
Passenger Cars:			145	24	169	33	135	168	1,574
Truck Trips:									
2-axle:			3	3	6	2	3	5	80
3-axle:			4	5	9	4	6	10	134
4+-axle:			19	23	42	16	26	42	602
- Truck Trips			26	31	57	22	35	57	816
SUBTOTAL TRIPS (PCE)[2]			**171**	**55**	**226**	**55**	**170**	**225**	**2,390**
Free-Standing Discount Superstore	100.000	TSF	104	82	186	212	221	433	5,052
Pass-by Reduction (PM/Daily = 29%)			0	0	0	-61	-61	-123	-1,466
SUBTOTAL TRIPS (PCE)[2]			**104**	**82**	**186**	**151**	**160**	**310**	**3,586**
Commercial Retail	26.542	TSF	38	25	63	88	87	175	1,446
Pass-by Reduction (PM/Daily = 40%)			0	0	0	-35	-35	-70	-580
SUBTOTAL TRIPS (PCE)[2]			**38**	**25**	**63**	**53**	**52**	**105**	**866**
SUBTOTAL (COMMERCIAL USES ONLY) TRIPS (Actual)[2]			**142**	**107**	**249**	**203**	**211**	**415**	**4,452**
Internal Capture (NCHRP Tool)			-63	-63	-126	-25	-25	-50	-538
Passenger Cars (Industrial)			*988*	*170*	*1,158*	*373*	*1,078*	*1,451*	*14,656*
Passenger Cars (Commercial)			*142*	*107*	*249*	*203*	*211*	*415*	*4,452*
Trucks (Industrial) (PCE)			*219*	*302*	*521*	*245*	*276*	*521*	*10,740*
TOTAL TRIPS (PCE)[2]			**1,349**	**579**	**1,928**	**821**	**1,565**	**2,387**	**29,848**

[1] TSF = thousand square feet

[2] TOTAL TRIPS = Passenger Cars + Truck Trips.

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EXHIBIT 4-1: PROJECT (NEAR-TERM PASSENGER CAR) TRIP DISTRIBUTION

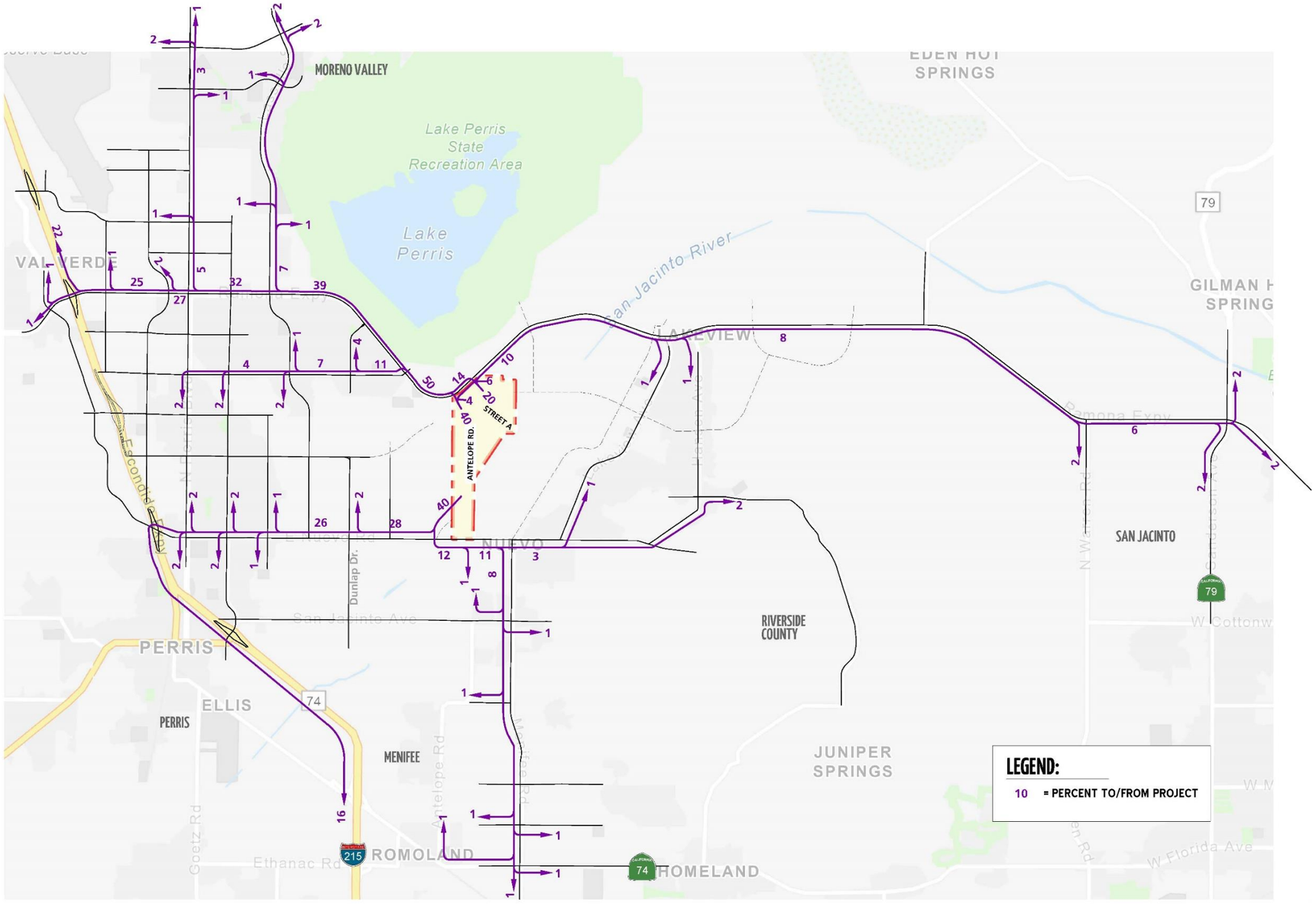


EXHIBIT 4-2: PROJECT (LONG-RANGE PASSENGER CAR) TRIP DISTRIBUTION WITHOUT MCP

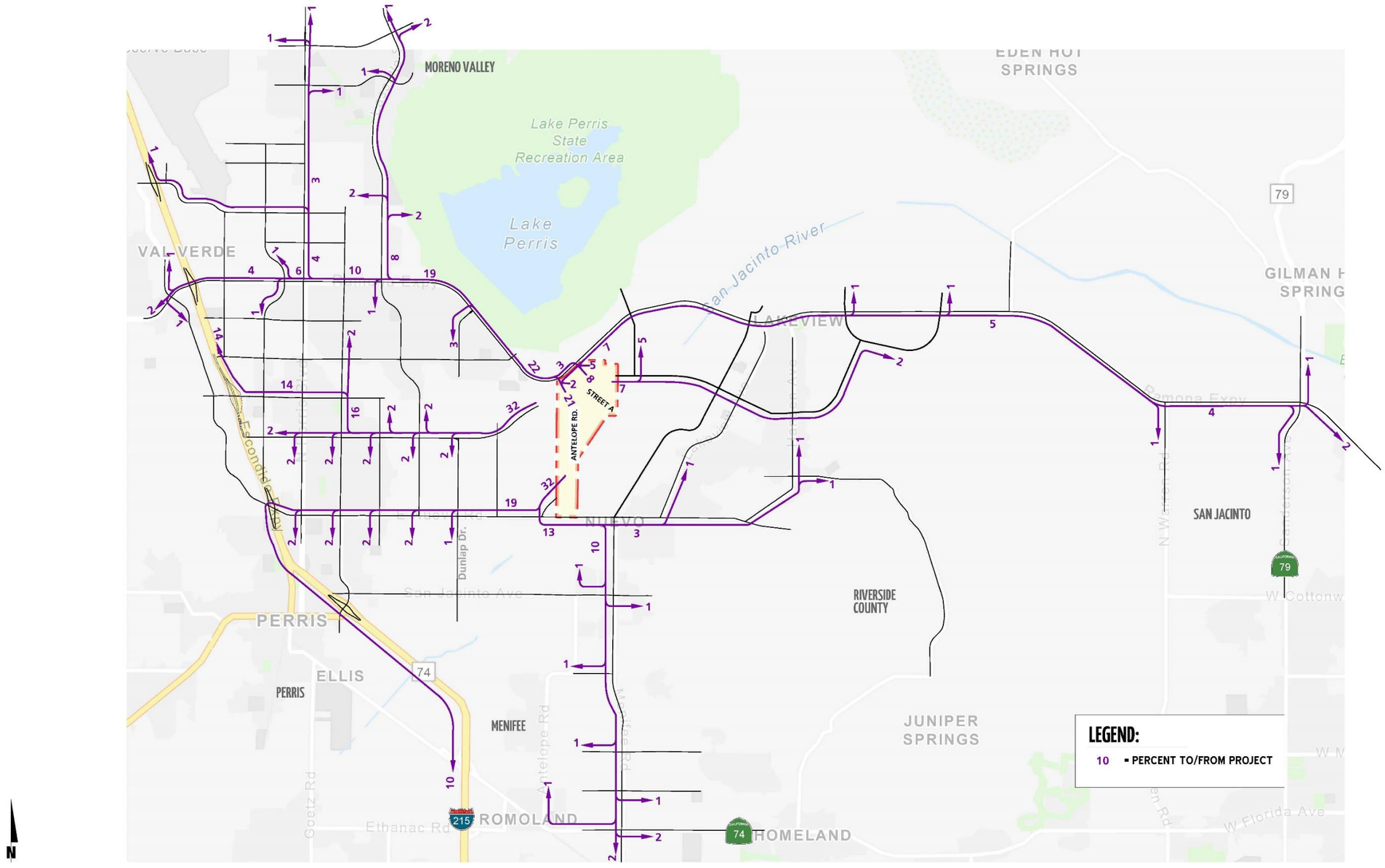
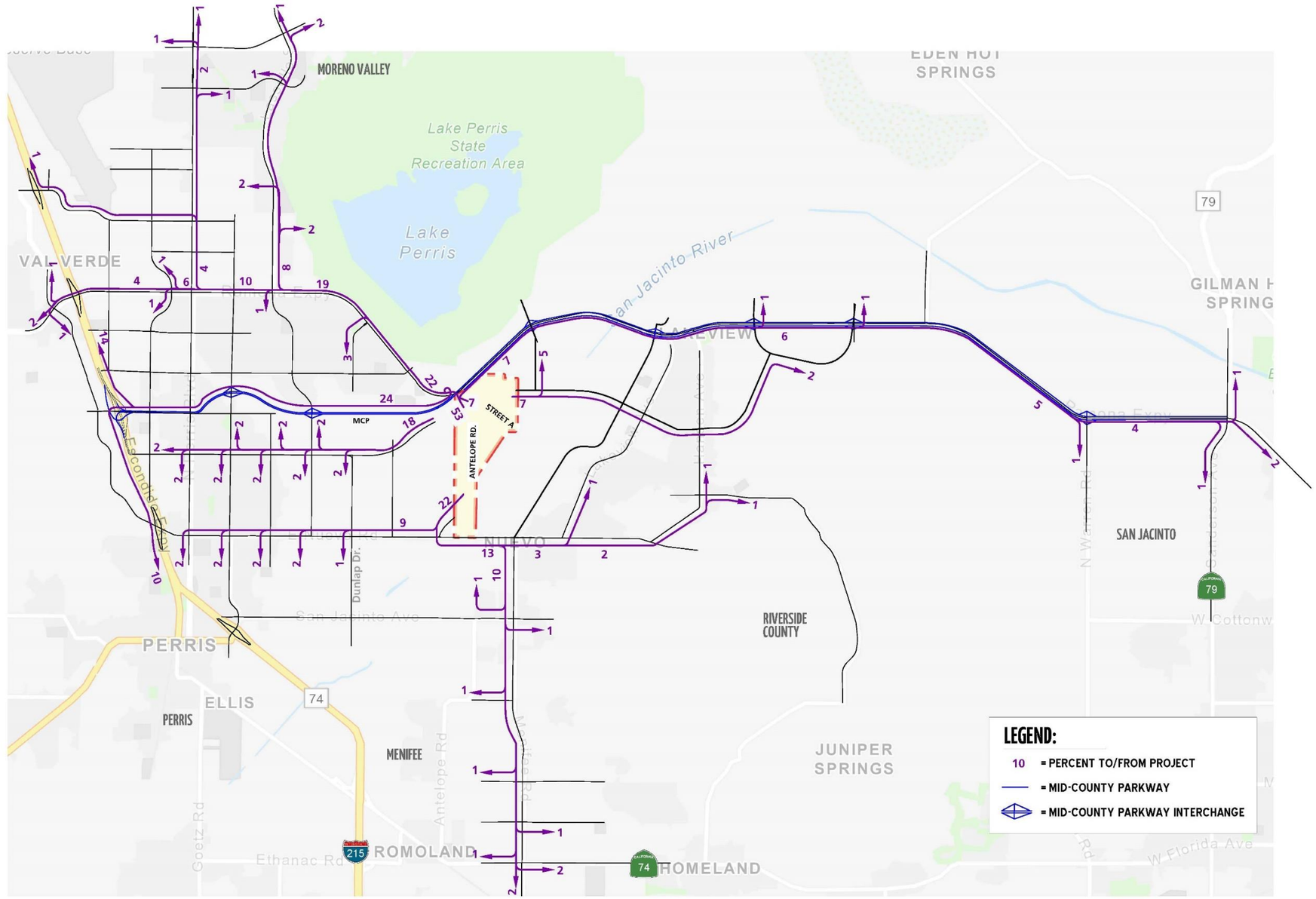


EXHIBIT 4-3: PROJECT (LONG-RANGE PASSENGER CAR) TRIP DISTRIBUTION WITH MCP



Trucks

Truck routes for neighboring agencies have been taken into consideration in the development of the trip distribution patterns for heavy trucks. Specifically, the City of Perris prohibits truck traffic along Ramona Expressway to access the I-215 Freeway. As such, 6 truck routes have been evaluated in the traffic study, which assume different truck route for the proposed Project. The 6 truck routes that have been evaluated as part of this Project are described below:

- Alternative 1 (Applicant Alternative): assumes all westbound trucks utilize Antelope Road south, then travel west on Nuevo Road, south on Dunlap Drive, west on San Jacinto Avenue, and south on Redlands Avenue to access the I-215 Freeway.
- Alternative 2 (Applicant Alternative): assumes all westbound trucks utilize Antelope Road south, then travel east on Nuevo Road, south on Menifee Road, west on San Jacinto Avenue, and south on Redlands Avenue to access the I-215 Freeway.
- Alternative 3 (City of Perris Alternative): assumes all westbound trucks utilize Antelope Road south, then travel east on Nuevo Road, south on Menifee Road, and west on SR-74 to access the I-215 Freeway.
- Alternative 4 (City of Perris Alternative): assumes all westbound trucks utilize Antelope Road south, then travel east on Nuevo Road, south on Menifee Road, northwest on Matthews Road, and west on Ethanac Road to access the I-215 Freeway.
- Alternative 5 (Attorney General Alternative): assumes all westbound trucks utilize Antelope Road south, then travel east on Nuevo Road, south on Menifee Road, west on San Jacinto Avenue, south on future Evans Avenue to access the I-215 Freeway. It should be noted, Evans Road, south of San Jacinto Avenue, and the I-215 Freeway/Evans Avenue interchange do not currently exist. As such, the traffic study will assume these facilities are in place for trucks to access the I-215 Freeway.

The following truck route scenario will be evaluated for Horizon Year (2040) With MCP With Project traffic conditions only:

- Alternative 6 (Applicant Alternative): assumes all westbound trucks utilize the future MCP to access the I-215 Freeway.

The proposed Project (Truck) trip distributions for each of the truck routes are shown on the following exhibits:

- Exhibit 4-4: Project (Truck) Trip Distribution – Alternative 1
- Exhibit 4-5: Project (Truck) Trip Distribution – Alternative 2
- Exhibit 4-6: Project (Truck) Trip Distribution – Alternative 3
- Exhibit 4-7: Project (Truck) Trip Distribution – Alternative 4
- Exhibit 4-8: Project (Truck) Trip Distribution – Alternative 5
- Exhibit 4-9: Project (Truck) Trip Distribution – Alternative 6

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EXHIBIT 4-4: PROJECT (TRUCK) TRIP DISTRIBUTION – ALTERNATIVE 1

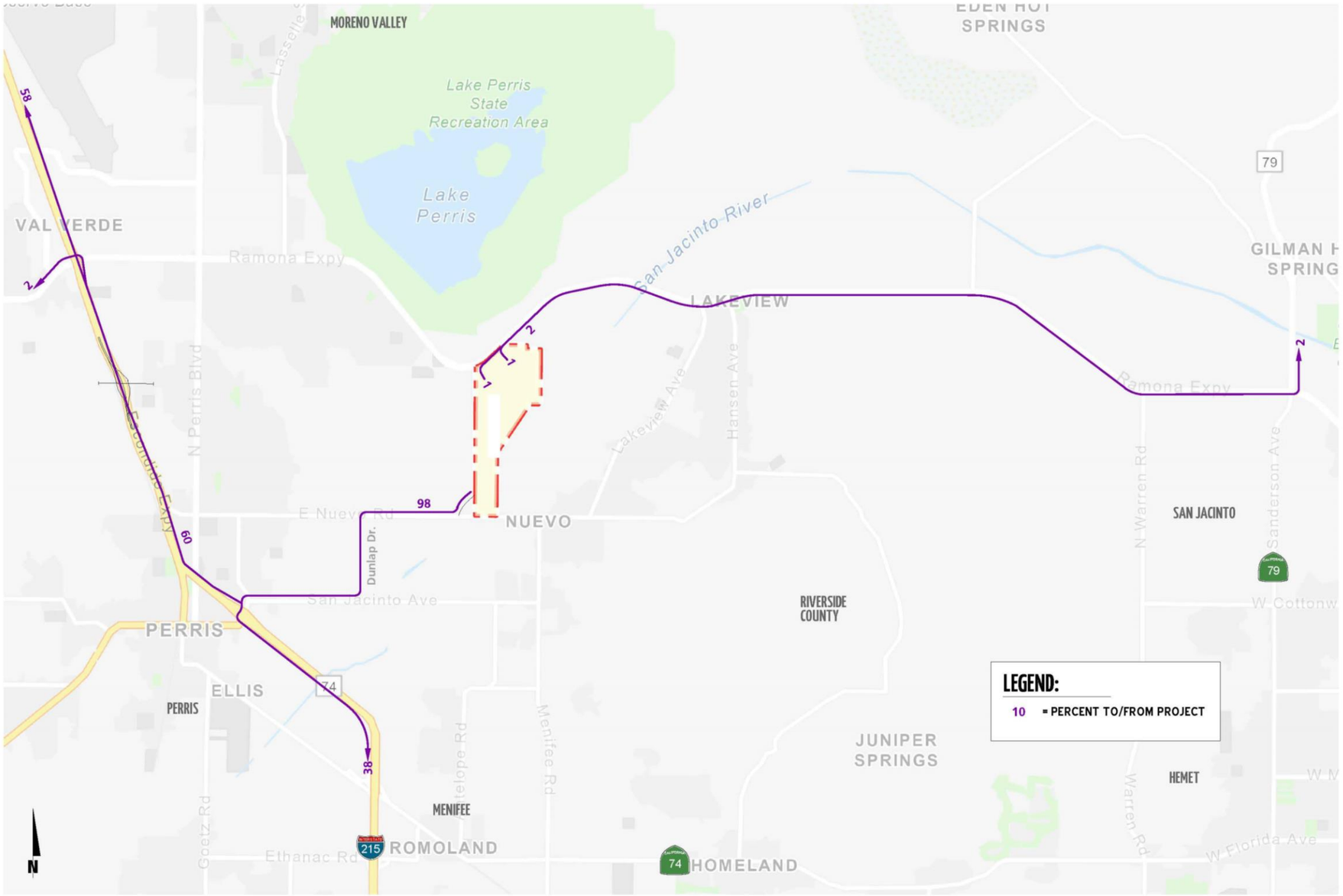


EXHIBIT 4-5: PROJECT (TRUCK) TRIP DISTRIBUTION – ALTERNATIVE 2

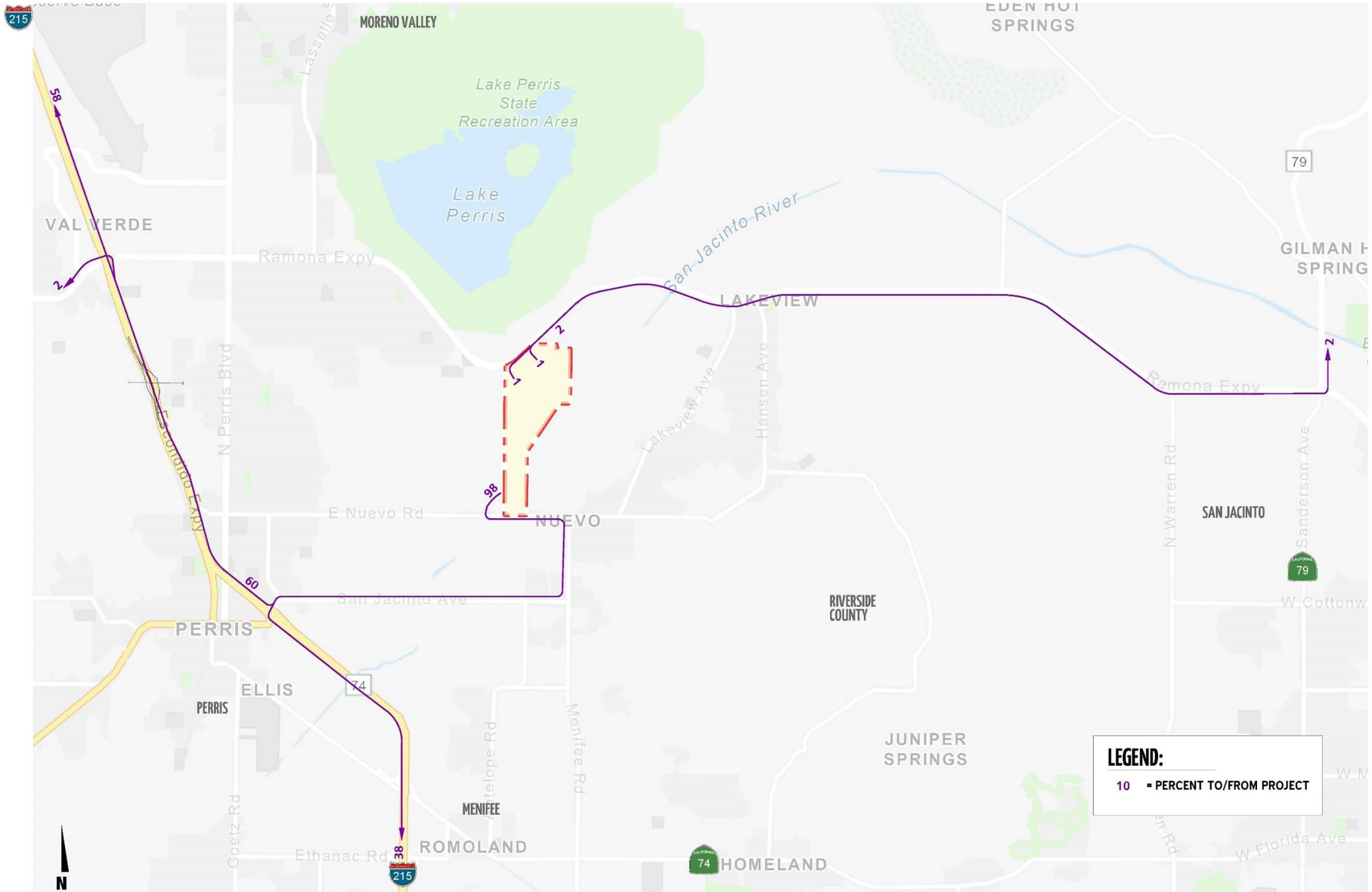


EXHIBIT 4-6: PROJECT (TRUCK) TRIP DISTRIBUTION – ALTERNATIVE 3

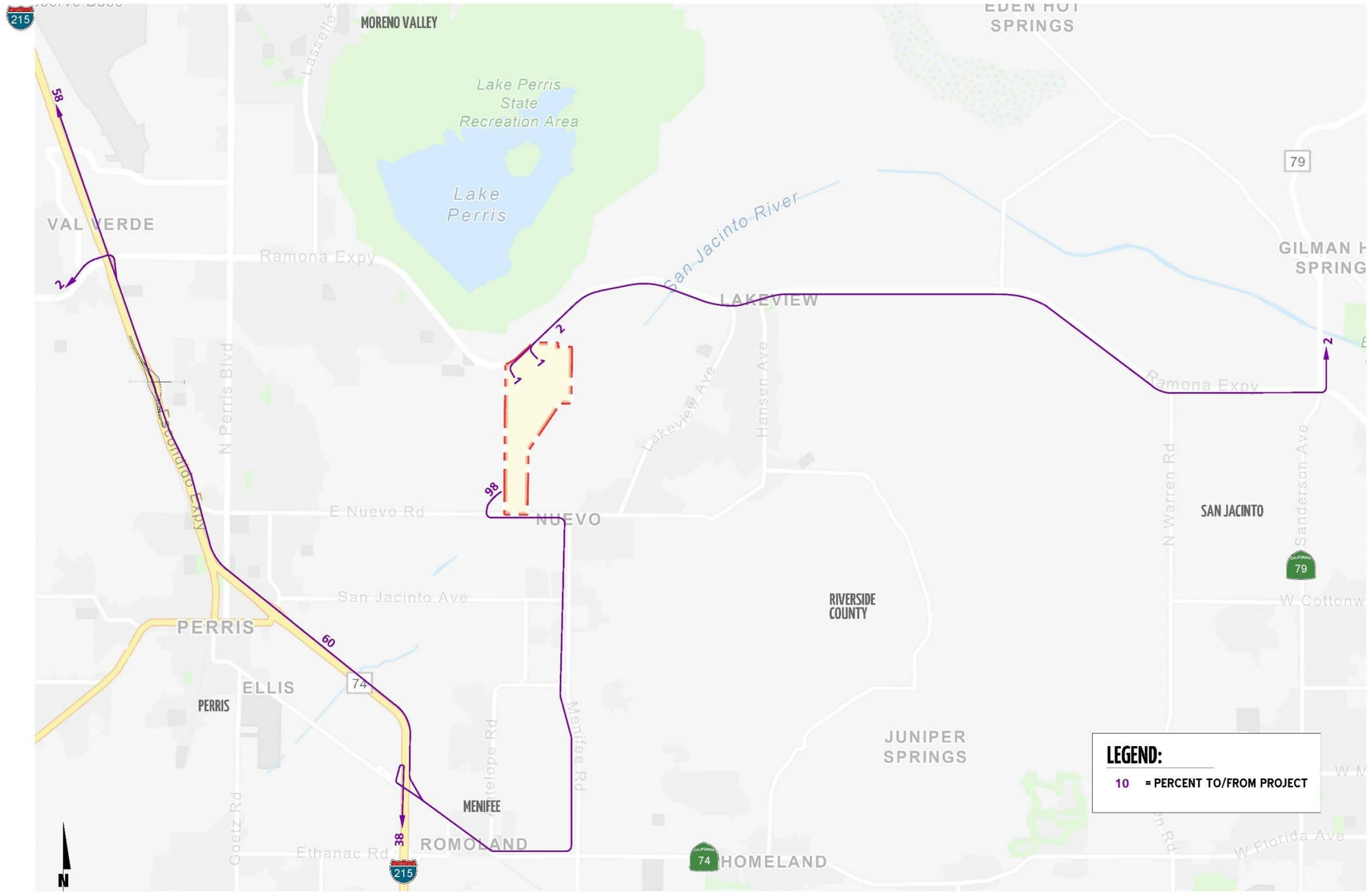


EXHIBIT 4-7: PROJECT (TRUCK) TRIP DISTRIBUTION – ALTERNATIVE 4

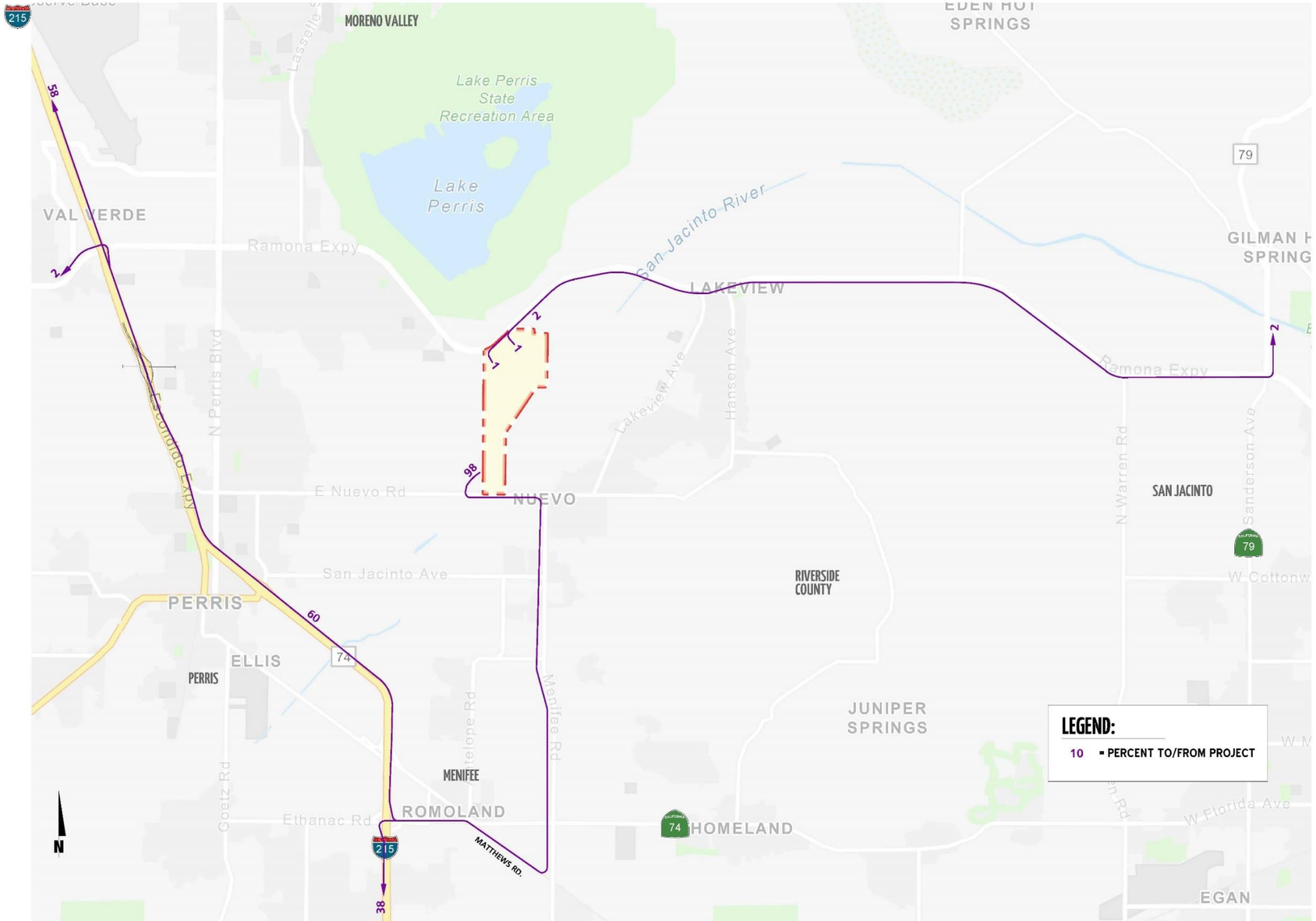


EXHIBIT 4-8: PROJECT (TRUCK) TRIP DISTRIBUTION – ALTERNATIVE 5

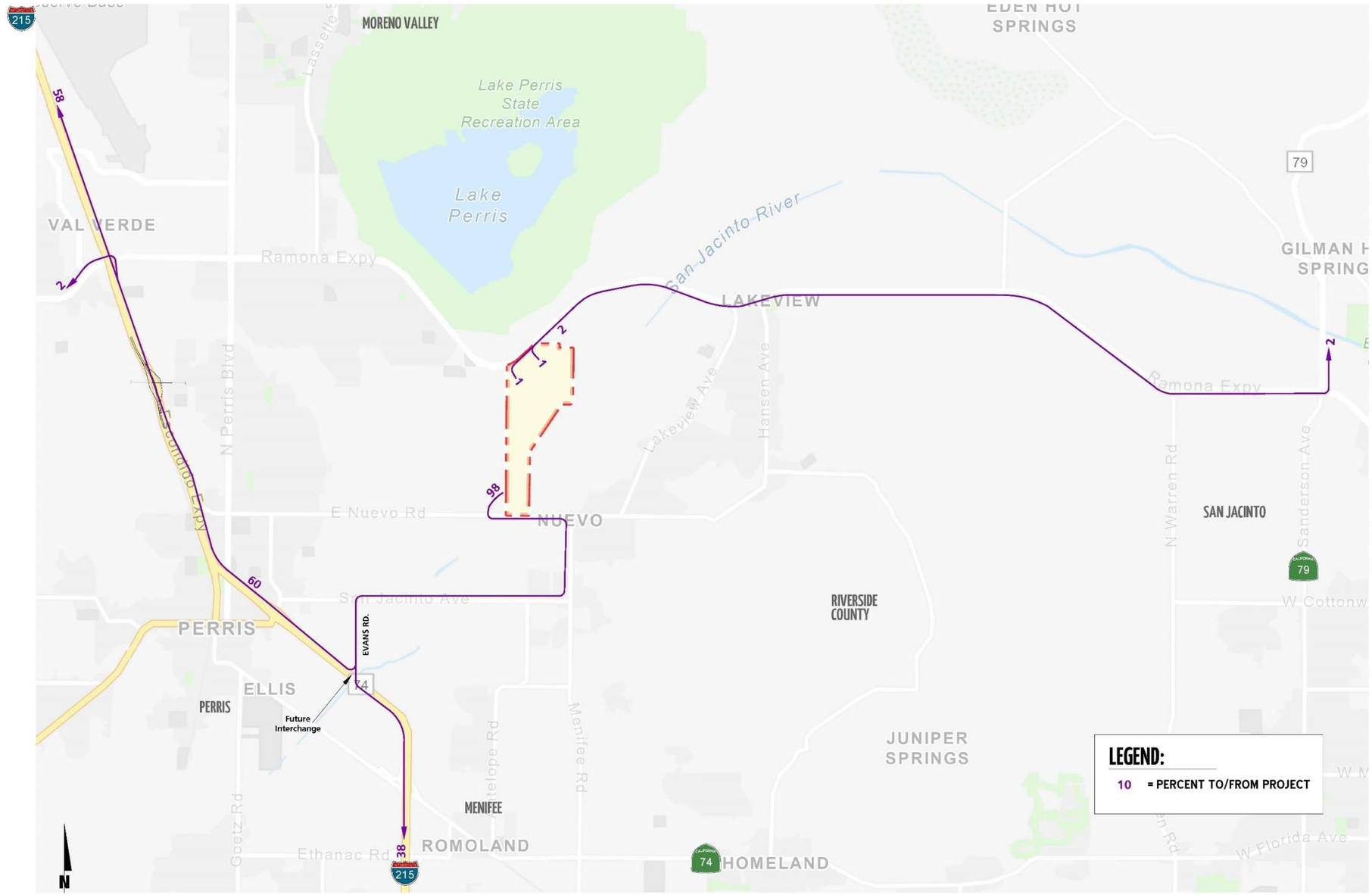
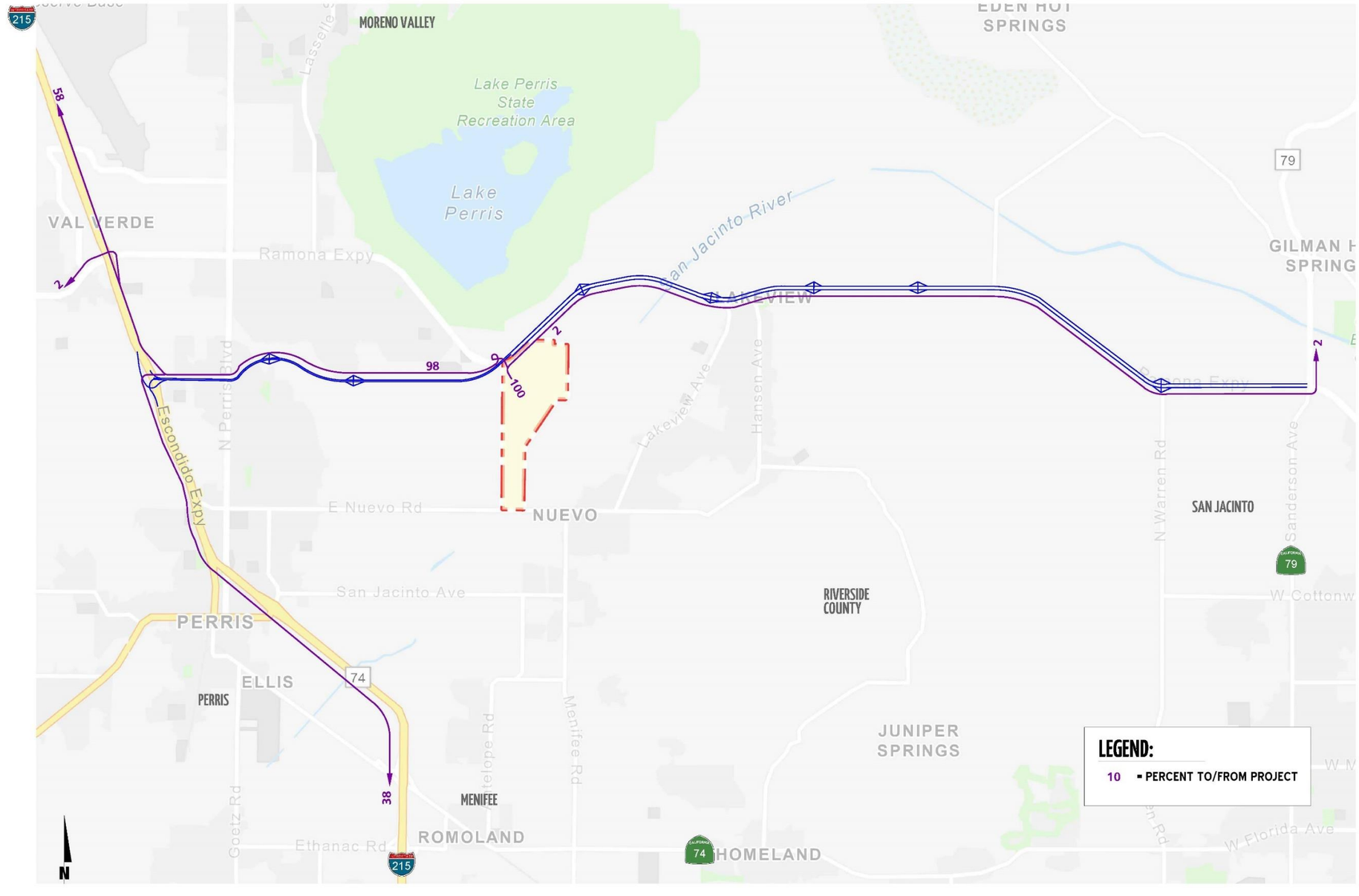


EXHIBIT 4-9: PROJECT (TRUCK) TRIP DISTRIBUTION – ALTERNATIVE 6



As noted previously, the development of the Project is affected by the proposed grade-separated MCP along the existing Placentia Avenue/Ramona Expressway alignment. The MCP is a long-range proposed facility. However, the initial phase of the MCP is underway with the construction of the Placentia Avenue and I-215 Freeway interchange by RCTC in conjunction with Caltrans District 8. The interchange is anticipated to be completed by late 2022, as such, the interchange will be in place by the proposed Project's Opening Year (2032).

The long-range travel patterns for both passenger cars and trucks assume the completion of the proposed grade-separated facility between the I-215 Freeway and SR-79 (including various interchanges along the proposed alignment), in conjunction with other anticipated long-range circulation improvements, such as the extension of Orange Avenue to the east of the existing terminus.

4.3 MODAL SPLIT

The traffic reducing potential of public transit, walking, or bicycling have not been considered in this TA. Essentially, the traffic projections are "conservative" in that these alternative travel modes might be able to reduce the forecasted traffic volumes (employee trips only).

4.4 PROJECT TRIP ASSIGNMENT

The assignment of traffic from the Project area to the adjoining roadway system is based upon the Project trip generation, trip distribution, and the arterial highway and local street system improvements that would be in place by the time of initial occupancy of the Project. Based on the identified Project traffic generation and trip distribution patterns, Project Only ADT and peak hour intersection turning movement volumes, in actual vehicles, for each of the alternatives are provided graphically in the following appendices:

- Appendix 4.1 for Alternative 1
- Appendix 4.2 for Alternative 2
- Appendix 4.3 for Alternative 3
- Appendix 4.4 for Alternative 4
- Appendix 4.5 for Alternative 5
- Appendix 4.6 for Alternative 6

4.5 BACKGROUND TRAFFIC

Future year traffic forecasts have been based upon a background (ambient) growth factor of 2% per year for 2032 traffic conditions. The ambient growth factor is intended to approximate traffic growth. The total ambient growth is 21.9% for 2032 traffic conditions (compounded growth of 2 percent per year over 10 years). This ambient growth rate is added to existing traffic volumes to account for area-wide growth not reflected by cumulative development projects.

Ambient growth has been added to daily and peak hour traffic volumes on surrounding roadways, in addition to traffic generated by the development of future projects that have been approved but not yet built and/or for which development applications have been filed and are under consideration by governing agencies.

The currently adopted Southern California Association of Governments (SCAG) 2020 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) (May 2020) growth forecasts for the County of Riverside identifies projected growth in population of 370,500 in 2016 to 525,600 in 2045, or a 41.9 percent increase over the 29-year period. (18) The change in population equates to roughly a 1.21 percent growth rate, compounded annually. Similarly, growth over the same 29-year period in households is projected to increase by 59.2 percent, or 1.62 percent annual growth rate. Finally, growth in employment over the same 29-year period is projected to increase by 83.4 percent, or a 2.11 percent annual growth rate. This results in an average of 1.65 percent annual growth rate. As such, the 2.0 percent per year ambient growth rate utilized in this TA would appear to conservatively estimate annual traffic growth, and overstate as opposed to understate future traffic forecasts.

4.6 CUMULATIVE DEVELOPMENT TRAFFIC

A cumulative project list was developed for the purposes of this analysis through consultation with planning and engineering staff from the County of Riverside, City of Perris, City of Moreno Valley, and City of Menifee. The cumulative project list includes known and foreseeable projects that are anticipated to contribute traffic to the study area intersections.

Where applicable, cumulative projects anticipated to contribute measurable traffic (i.e. 50 or more peak hour trips) to study area intersections have been manually added to the study area network to generate EAPC forecasts. In other words, this list of cumulative development projects has been reviewed to determine which projects would likely contribute measurable traffic through the study area intersections (e.g., those cumulative projects in close proximity to the proposed Project). For the purposes of this analysis, the cumulative projects that were determined to affect one or more of the study area intersections are shown on Exhibit 4-10, listed in Table 4-6, and have been considered for inclusion.

EXHIBIT 4-10: CUMULATIVE DEVELOPMENT LOCATION MAP

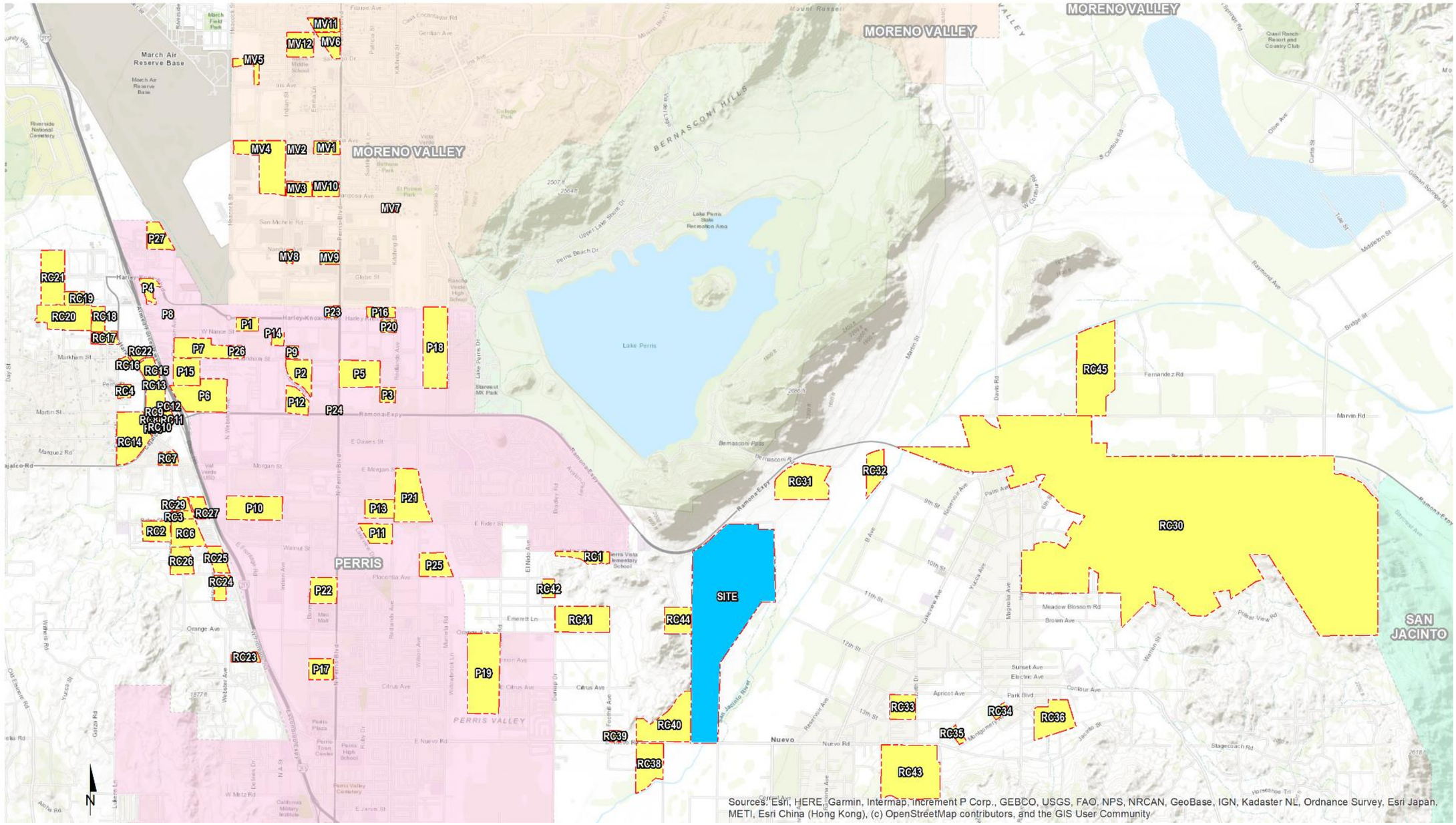


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TABLE 4-6: CUMULATIVE DEVELOPMENT LAND USE SUMMARY

No.	Project Name / Case Number	Land Use[1]	Quantity	Units[2]	Location
Riverside County					
RC1	McCanna Hills / TTM 33978	SFDR	63	DU	SWC OF SHERMAN AVE. & WALNUT AVE.
RC2	PP26293	High-Cube Warehouse	612.481	TSF	SWC OF PATTERSON AVE. & RIDER ST.
RC3	PPT180023: Rider Commerce Center	Warehousing	204.330	TSF	NEC OF PATTERSON AVE. & RIDER ST.
RC4	PPT180025: Seaton Commerce Center	High-Cube Warehouse	210.800	TSF	SEC OF SEATON AV. & PERRY ST.
RC5	Farmer Boys/Retail Shop	Retail	16.306	TSF	NEC OF HARVILL AVE. & CAJALCO RD.
		Fast-Food with Drive Thru	3.252	TSF	
RC6	PP26173	High-Cube Warehouse	423.665	TSF	SWC OF HARVILL AVE. & RIDER ST.
RC7	Val Verde Logistics Center	High-Cube Warehouse	280.308	TSF	NWC OF HARVILL AVE. & OLD CAJALCO RD.
RC8	Majestic Freeway Business Center - Building 5	Warehousing	40.000	TSF	NEC OF HARVILL AVE. & MESSENIA LN.
RC9	Majestic Freeway Business Center - Building 6	Warehousing	72.000	TSF	NORTH OF MESSENIA LN., EAST OF HARVILL AVE.
RC10	Majestic Freeway Business Center - Building 7	Warehousing	80.000	TSF	NORTH OF CAJALCO EXWY., EAST OF HARVILL AVE.
RC11	Majestic Freeway Business Center - Building 8	Warehousing	110.000	TSF	NORTH OF CAJALCO EXWY., EAST OF HARVILL AVE.
RC12	Majestic Freeway Business Center - Building 9	Warehousing	45.000	TSF	EAST OF MESSENIA LN., NORTH OF HARVILL AVE.
RC13	Majestic Freeway Business Center - Building 10	High-Cube Warehouse	600.000	TSF	SEC OF HARVILL AVE. & PERRY ST.
RC14	Majestic Freeway Business Center - Buildings 1, 3 & 4	Warehousing	48.930	TSF	NWC OF HARVILL AVE. & CAJALCO RD.
		High-Cube Warehouse	1195.740	TSF	
RC15	Majestic Freeway Business Center - Building 11	High-Cube Warehouse	391.045	TSF	NEC OF HARVILL AVE. & PERRY ST.
RC16	Majestic Freeway Business Center - Building 15	Warehousing	90.279	TSF	NWC OF HARVILL AVE. & COMMERCE CENTER DR.
RC17	Majestic Freeway Business Center - Building 19	Warehousing	364.560	TSF	SWC OF HARVILL AVE. & OLD OLEANDER AVE.
RC18	Majestic Freeway Business Center - Building 20	Warehousing	425.830	TSF	SWC OF HARVILL AVE. & OLD OLEANDER AVE.
RC19	Majestic Freeway Business Center - Building 21,22	Warehousing	241.059	TSF	NEC OF DECKER RD. & OLD OLEANDER AVE.
RC20	Knox Logistics Center	High-Cube Warehouse	1259.410	TSF	NWC OF DECKER RD. & OLD OLEANDER AVE.
RC21	Oleander Business Park	High-Cube Warehouse	680.000	TSF	NWC OF DECKER RD. & HARLEY KNOX BLVD.
RC22	Majestic Freeway Business Center - Building 12	Warehousing	154.751	TSF	NEC OF HARVILL AVE. & COMMERCE CENTER DR.
RC23	Harvill Distribution Center	High-Cube Warehouse	345.103	TSF	EAST OF HARVILL AVE., SOUTH OF ORANGE ST.
RC24	PP26241	Warehousing	23.600	TSF	SEC OF HARVILL AVE. & PLACENTIA ST.
RC25	PP26220	Warehousing	66.000	TSF	EAST OF HARVILL AVE., NORTH OF PLACENTIA ST.
RC26	Barker Logistics	High-Cube Warehouse	699.630	TSF	SWC OF PATTERSON AVE. & PLACENTIA ST.
RC27	Harvill / Rider Warehouse	High-Cube Warehouse	284.746	TSF	NORTH OF RIDER ST., WEST OF HARVILL AV.
		General Light Industrial	50.249	TSF	
RC28	Placentia Logistics	High-Cube Warehouse	274.190	TSF	NWC OF HARVILL AV. & PLACENTIA AV.
RC29	Dedeaux Harvill	Truck Terminal	55.700	TSF	NORTH OF RIDER ST., WEST OF HARVILL AV.
RC30	The Villages of Lakeview	Multifamily Residential	8,725	DU	SOUTH OF RAMONA EXWY., EAST OF LAKEVIEW AV.
		Office	825.000	TSF	
		Retail	555.000	TSF	
		School	114.2	AC	
		Public Facilities	49.7	AC	
		Open Space	82.0	AC	
RC31	TR29315	SFDR	318	DU	SEC OF POZOS RD. & MARTIN ST.
RC32	SP00183	SFDR	450	DU	SOUTH OF RAMONA EXWY., EAST OF MARTIN ST.
		Retail	10.0	AC	
RC33	TR33372	SFDR	98	DU	NWC OF NORTH DR. & THIRTEENTH ST.
RC34	TR26205	SFDR	148	DU	NORTH OF NUEVO RD. AND WEST OF HANSEN AV.
RC35	TR32165	SFDR	76	DU	NORTH OF NUEVO RD. AND WEST OF HANSEN AV.
RC36	TR32065	SFDR	99	DU	NORTH OF NUEVO RD. AND EAST OF HANSEN AV.
RC37	TR36030	SFDR	314	DU	SWC OF PASSAGE RD. & NUEVO RD.
RC38	TR36665	SFDR	587.000	DU	SWC OF DAWSON RD. & NUEVO RD.
RC39	TR26976	SFDR	389	DU	NEC OF FOOTHILL BL. & NUEVO RD.
		Retail	12.0	TSF	
RC40	TR33427	SFDR	291	DU	NORTH OF NUEVO RD. AND WEST OF PICO AV.
RC41	TR33976	Multifamily Residential	207	DU	SOUTH OF WATER AV. AND WEST OF PICO AV.
RC42	TR33978	SFDR	139	DU	NORTH OF WATER AV. AND WEST OF PICO AV.
RC43	TR36030	SFDR	314	DU	SWC OF PASSAGE RD. & NUEVO RD.
RC44	TR32372	SFDR	803	DU	SOUTH OF RAMONA EXWY. AND WEST OF PICO AV.
RC45	SP00366	Mixed Use	636.9	AC	NORTH OF MARVIN RD. AND EAST OF 5TH ST.

City of Perris					
P1	Bargemann / DPR 07-09-0018	Warehousing	173.000	TSF	NEC OF WEBSTER & NANCE
P2	Duke 2 / DPR 16-00008	High-Cube Warehouse	669.000	TSF	NEC OF INDIAN & MARKHAM
P3	First Perry / DPR 16-00013	High-Cube Warehouse	240.000	TSF	SWC OF REDLANDS AVE. & PERRY ST.
P4	Gateway / DPR 16-00003	High-Cube Warehouse	400.000	TSF	SOUTH OF HARLEY KNOX BLVD., EAST OF HWY. 215
P6	OLC 1 / DPR 12-10-0005	High-Cube Warehouse	1,455.000	TSF	WEST OF WEBSTER AVE., NORTH OF RAMONA EXWY.
P5	Duke Realty - Perris & Markham	High-Cube Warehouse	1,189.860	TSF	SEC OF PERRIS BL. & MARKHAM ST.
P7	OLC2 / DPR 14-01-0015	High-Cube Warehouse	1,037.000	TSF	WEST OF WEBSTER AVE., NORTH OF MARKHAM ST.
P8	Canyon Steel	Manufacturing	28.124	TSF	NWC OF PATTERSON AVE. & CALIFORNIA AVE.
P9	Markham Industrial / DPR 16-00015	Warehousing	170.000	TSF	NEC OF INDIAN AVE. & MARKHAM ST.
P10	Rados / DPR 07-0119	High-Cube Warehouse	1,200.000	TSF	NWC OF INDIAN AVE. & RIDER ST.
P11	Rider 1 / DPR 16-0365	High-Cube Warehouse	350.000	TSF	SWC OF REDLANDS AVE. & RIDER ST.
P12	Indian/Ramona Warehouse	High-Cube Warehouse	428.730	TSF	NORTH OF RAMONA EXWY., WEST OF INDIAN AVE.
P13	Rider 3 / DPR 06-0432	High-Cube Warehouse	640.000	TSF	NORTH OF RIDER ST., WEST OF REDLANDS
P14	Westcoast Textile / DPR 16-00001	Warehousing	180.000	TSF	SWC OF INDIAN ST. & NANCE ST.
P15	Duke at Patterson / DPR 17-00001	High-Cube Warehouse	811.000	TSF	SEC OF PATTERSON AVE. & MARKHAM ST.
P16	Harley Knox Commerce Park / DPR 16-004	High-Cube Warehouse	386.278	TSF	NWC OF HARLEY KNOX BLVD. & REDLANDS AVE.
P17	Perris Marketplace / DPR 05-0341	Commercial Retail	520.000	TSF	WEST OF PERRIS BLVD. AT AVOCADO AVE.
P18	Stratford Ranch Residential / TTM 36648	SFDR	270	DU	WEST OF EVANS RD. AT MARKHAM ST.
P19	Pulte Residential / TTM 30850	SFDR	496	DU	WEST OF EVANS RD. AT CITRUS AVE.
P20	Perris Circle 3	Warehousing	210.900	TSF	NWC OF REDLANDS AVE. & NANCE AVE.
P21	Rider 2 and 4	High-Cube Warehouse	1,376.721	TSF	NWC OF REDLANDS AVE. AND RIDER ST.
P22	Weinerschnitzel / CUP 17-05083	Fast-Food Restaurant	2.000	TSF	WEST OF PERRIS BL., SOUTH OF PLACENTIA AVE.
P23	March Plaza / CUP16-05165	Commercial Retail	47.253	TSF	NWC OF PERRIS BL. AND HARLEY KNOX BL.
P24	Cali Express Carwash / CUP 16-05258	Carwash	5.600	TSF	NWC OF PERRIS BL. AND RAMONA EXWY.
P25	Wilson Industrial / DPR 19-00007	High-Cube Warehouse	303.000	TSF	SEC OF WILSON AVE. AND RIDER ST.
P26	Integra Expansion / MMOD 17-05075	High-Cube Warehouse	273.000	TSF	NCE OF MARKHAM ST. AND WEBSTER AVE.
P27	Western Industrial / DRP 19-00003	High-Cube Warehouse	250.000	TSF	NEC or WESTERN WY. AND NANDINA AVE.
City of Moreno Valley					
MV1	PEN18-0042	SFDR	2	DU	SEC OF INDIAN ST. & KRAMERIA AVE.
MV2	Tract 33024	SFDR	8	DU	SEC OF INDIAN ST. & KRAMERIA AVE.
MV3	Tract 32716	SFDR	57	DU	NEC OF INDIAN ST. & MARIPOSA AVE.
MV4	Prologis 1	High-Cube Warehouse	1000.000	TSF	NEC OF INDIAN AVE. & MARIPOSA AVE.
MV5	Moreno Valley Industrial Park	High-Cube Warehouse	207.684	TSF	NEC OF HEACOCK ST. & IRIS AVE.
MV6	Moreno Valley Walmart	Retail	193.000	TSF	SWC OF PERRIS BLVD. & GENTIAN AVE.
MV7	Moreno Valley Utility Substation	High-Cube Warehouse	PUBLIC	TSF	NWC OF EDWIN RD. & KITCHING ST.
MV8	Phelan Development	High-Cube Warehouse	98.210	TSF	SEC OF INDIAN ST. & NANDINA AVE.
MV9	Nandina Industrial Center	High-Cube Warehouse	335.966	TSF	SOUTH OF NANDINA AVE., WEST OF PERRIS BLVD.
MV10	Tract 31442	SFDR	63	DU	NWC OF PERRIS BLVD. & MARIPOSA AVE.
MV11	Tract 22180	SFDR	140	DU	NORTH OF GENTIAN AVE., EAST OF INDIAN ST.
MV12	Tract 36760	SFDR	221	DU	SEC OF INDIAN ST. & GENTIAN AVE.

[1] SFDR = Single Family Detached Residential

[2] DU = Dwelling Units; TSF = Thousand Square Feet; AC = Acres

Although it is unlikely that all of these cumulative projects would be fully built and occupied by Year 2032, they have been included in an effort to conduct a conservative analysis and overstate as opposed to understate potential traffic deficiencies. Any other cumulative projects located beyond the cumulative study area that are not expected to contribute measurable traffic to study area intersections have not been included since the traffic would dissipate due to the distance from the Project site and study area intersections. Any additional traffic generated by other projects not on the cumulative projects list is accounted for through background ambient growth factors that have been applied to the peak hour volumes at study area intersections as discussed in Section 4.5 *Background Traffic*. Cumulative Only ADT and peak hour intersection turning movement volumes are provided graphically in Appendix 4.7.

4.7 NEAR-TERM TRAFFIC CONDITIONS

The "buildup" approach combines existing traffic counts with a background ambient growth factor to forecast EAP (2032) and EAPC (2032) traffic conditions. An ambient growth factor of 21.9% accounts for background (area-wide) traffic increases that occur over time up to the year 2032 from the year 2022 (2.0 percent per year growth rate, compounded over a 10-year period). Traffic volumes generated by the Project are then added to assess the near-term traffic conditions. The 2032 roadway network is similar to the Existing conditions roadway network, with the exception of future driveways proposed to be developed by the Project and the I-215 Freeway/Placentia Avenue interchange. However, the near-term (2032) conditions do not assume the MCP would be completed and operational.

The near-term traffic analysis includes the following traffic conditions, with the various traffic components:

- Existing Plus Ambient Growth Plus Project (2032)
  - Existing 2022 counts
  - Ambient growth traffic (21.9%)
  - Project traffic

- Existing Plus Ambient Growth Plus Project Plus Cumulative (2032)
  - Existing 2022 counts
  - Ambient growth traffic (21.9%)
  - Cumulative Development traffic
  - Project traffic

4.8 HORIZON YEAR (2040) CONDITIONS

"Buildout" traffic projections for Horizon Year conditions are based on traffic model forecasts and were derived from the RIVTCOM using accepted procedures for model forecast refinement and smoothing for study area intersections located within the County of Riverside. The Horizon Year traffic conditions analyses was utilized to determine if improvements funded through regional transportation mitigation fee programs, such as the TUMF, can accommodate the long-range traffic at the target LOS identified in the County of Riverside General Plan.

The traffic forecasts reflect the area-wide growth anticipated between Existing (2022) conditions and Horizon Year (2040) traffic conditions. In most instances the traffic model zone structure is not designed to provide accurate turning movements along arterial roadways unless refinement and reasonableness checking is performed. Therefore, the Horizon Year peak hour forecasts were refined using the model derived long range forecasts, base (validation) year model forecasts, along with existing peak hour traffic count data collected at each analysis location in 2022. The RIVCOM has a base (validation) year of 2012 and a horizon (future forecast) year of 2040. The RIVCOM 2040 model utilized for the purposes of this analysis assumes buildout of the County of Riverside and includes the future MCP.

The refined future peak hour approach and departure volumes obtained from the model output data are then entered into a spreadsheet program consistent with the National Cooperative Highway Research Program (NCHRP Report 255), along with initial estimates of turning movement proportions. A linear programming algorithm is used to calculate individual turning movements which match the known directional roadway segment forecast volumes computed in the previous step. This program computes a likely set of intersection turning movements from intersection approach counts and the initial turning proportions from each approach leg.

Since the RIVCOM 2040 model includes the MCP network, the Horizon Year (2040) Without MCP traffic forecasts were estimated utilizing 1.65 percent per year, compounded annually (or 13.99 percent total) from EAPC (2032) traffic conditions. As previously discussed in Section 4.5 *Background Traffic*, the currently adopted SCAG 2020 RTP/SCS growth forecasts for the County of Riverside identifies a projected average growth of 1.65 percent per year. Typically, the model growth is prorated and is subsequently added to the existing (base validation) traffic volumes to represent Horizon Year traffic conditions. In an effort to conduct a conservative analysis, reductions to traffic forecasts from either Existing, EAP, and EAPC traffic conditions were not assumed as part of the Without MCP conditions analysis. As such, in conjunction with the addition of cumulative projects that are not consistent with the General Plan, additional growth has also been applied on a movement-by-movement basis, where applicable, to estimate reasonable Horizon Year forecasts. Horizon Year turning volumes were compared to EAPC (2032) volumes in order to ensure a minimum growth as a part of the refinement process. The minimum growth includes any additional growth between EAPC (2032) and Horizon Year (2040) traffic conditions that is not accounted for by the traffic generated by cumulative development projects and ambient growth rates assumed between Existing (2022) and EAPC (2032) conditions.

The future Horizon Year (2040) Without Project Without MCP and With MCP peak hour turning movements were then reviewed by Urban Crossroads, Inc. for reasonableness, and in some cases, were adjusted to achieve flow conservation, reasonable growth, and reasonable diversion between parallel routes. Flow conservation checks ensure that traffic flow between two closely spaced intersections, such as two adjacent driveway locations, is verified in order to make certain that vehicles leaving one intersection are entering the adjacent intersection and that there is no unexplained loss of vehicles. The result of this traffic forecasting procedure is a series of traffic volumes which are suitable for traffic operations analysis.

RIVCOM does not include a truck component or have data that is unusually low. As such, in an effort to conduct a conservative analysis, the presence of trucks has been accounted for based on the manual volume adjustments made to demonstrate growth above EAPC (2032) traffic forecasts, which are presented and evaluated in PCE (see Section 3.7 *Existing Traffic Counts* for discussion on PCE). As such, the Horizon Year (2040) forecasts are also assumed to be in PCE for the purposes of this analysis. Post-processing worksheets for Horizon Year (2040) Without Project traffic conditions are provided in Appendix 4.8.

5 EAP (2032) TRAFFIC CONDITIONS

This section discusses the methods used to develop EAP (2032) traffic forecasts, and the resulting intersection operations, traffic signal, and off-ramp queuing warrant analyses.

5.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for EAP (2032) conditions are consistent with those shown previously on Exhibit 3-1, with the exception of the following:

- Project driveways and those facilities assumed to be constructed by the Project to provide site access are also assumed to be in place for EAP conditions only (e.g., intersection and roadway improvements at the Project's frontage and driveways).
- The I-215 Freeway/Placentia Avenue interchange is assumed to be completed and in place.
- Note: The MCP is not assumed to be in place for EAP (2032) conditions.

5.2 EAP (2032) TRAFFIC VOLUME FORECASTS

This scenario includes Existing (2022) traffic volumes plus an ambient growth factor of 21.9% and the addition of Project traffic. The weekday ADT volumes and peak hour volumes, in actual vehicles, which can be expected for EAP (2032) traffic conditions are provided graphically in the following appendices:

- Appendix 5.1 for Alternative 1
- Appendix 5.2 for Alternative 2
- Appendix 5.3 for Alternative 3
- Appendix 5.4 for Alternative 4
- Appendix 5.5 for Alternative 5

Note: Alternative 6 is only evaluated under Horizon Year (2040) traffic conditions. EAP (2032) traffic conditions assumes that the MCP is not constructed and operational, and that no development will occur on-site within the MCP alignment.

5.3 INTERSECTION OPERATIONS ANALYSIS

LOS calculations were conducted for the study intersections to evaluate their operations under EAP conditions with roadway and intersection geometrics consistent with Section 5.1 *Roadway Improvements*. As shown in Table 5-1, all study area intersections are anticipated to continue to operate at an acceptable LOS during the peak hours for EAP (2032) Alternative 1 traffic conditions, with the exception of the following intersections:

- Harvill Avenue & Cajalco Expressway (#1) – LOS E AM peak hour; LOS F PM peak hour
- I-215 Southbound Ramps & Harley Knox Boulevard (#2) – LOS F AM peak hour; LOS E PM peak hour
- I-215 Southbound Ramps & Ramona Expressway (#4) – LOS E PM peak hour only
- Redlands Avenue & Nuevo Road (#35) – LOS F AM peak hour only
- Dunlap Drive & Nuevo Road (#46) – LOS F AM peak hour only
- Menifee Road/Reservoir Road & Nuevo Road (#53) – LOS F AM peak hour only
- Menifee Road & San Jacinto Avenue (#54) – LOS E PM peak hour only
- Menifee Road & Mapes Road (#56) – LOSE PM peak hour only
- Menifee Road & Watson Road (#57) – LOS F AM peak hour; LOS E PM peak hour
- Murrieta Road & San Jacinto Avenue (#70) – LOS F AM peak hour only
- Redlands Avenue & San Jacinto Avenue (#71) – LOS F AM and PM peak hours
- Dunlap Drive & San Jacinto Avenue (#77) – LOS F AM and PM peak hours
- Sherman Road & Ethanac Road (#84) – LOS E AM peak hour; LOS F PM peak hour
- Menifee Road & Matthews Road (#87) – LOS E AM peak hour only

As shown in Table 5-1, the intersection operations analysis results under EAP (2032) Alternative 2 conditions are consistent with EAP (2032) Alternative 1 conditions, with the exception of the following intersections:

- Dunlap Drive & Nuevo Road (#46) – no longer deficient under
- Antelope Road & Ramona Expressway (#51) – LOS F AM peak hour only

As shown in Table 5-2, the intersection operations analysis results under EAP (2032) Alternative 3 conditions are consistent with EAP (2032) Alternative 1 conditions, with the exception of the following intersections:

- Antelope Road & Ramona Expressway (#51) – LOS F AM peak hour only
- Menifee Road & Ellis Road (#55) – LOS E AM peak hour; LOS F PM peak hour
- Murrieta Road & San Jacinto Avenue (#70) – no longer deficient
- Redlands Avenue & San Jacinto Avenue (#71) – no longer deficient
- Dunlap Drive & San Jacinto Avenue (#77) – no longer deficient

TABLE 5-1: INTERSECTION ANALYSIS FOR EAP (2032) ALTERNATIVES 1 & 2 CONDITIONS

#	Intersection	Traffic Control[2]	Existing (2022)				EAP (2032) - Alternative 1				EAP (2032) - Alternative 2				Acceptable LOS[4]
			Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service		
			AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	
1	Harvill Av. & Cajalco Exwy.	TS	39.8	34.9	D	C	**55.6**	**98.4**	**E**	**F**	Not Analyzed[6]				D
2	I-215 Southbound Ramps & Harley Knox Bl.	TS	51.8	39.2	D	D	**95.0**	**74.6**	**F**	**E**	Not Analyzed[6]				D
3	I-215 Northbound Ramps & Harley Knox Bl.	TS	**>156.9**	19.7	**F**	B	**>200.0**	46.3	**F**	D	Not Analyzed[6]				D
4	I-215 Southbound Ramps & Ramona Exwy.	TS	28.7	43.7	C	D	38.5	**70.7**	D	**E**	Not Analyzed[6]				D
5	I-215 Northbound Ramps & Ramona Exwy.	TS	20.3	20.1	C	C	37.6	46.1	D	D	Not Analyzed[6]				D
6	I-215 SB Ramps & Placentia Av.	TS[3]	Future Intersection				23.7	36.2	C	D	Not Analyzed[6]				D
7	I-215 NB Ramps & Placentia Av.	TS[3]	Future Intersection				21.1	28.6	C	C	Not Analyzed[6]				D
8	I-215 SB Ramps & Nuevo Rd.	TS	19.7	25.6	B	C	21.4	36.3	C	D	Not Analyzed[6]				D
9	I-215 NB Ramps & Nuevo Rd.	TS	17.1	9.6	B	A	21.0	13.3	C	B	Not Analyzed[6]				D
10	Western Wy. & Harley Knox Bl.	TS	12.2	9.2	B	A	16.5	9.8	B	A	Not Analyzed[6]				D
11	Webster Av. & Harley Knox Bl.	RA	6.4	7.2	A	A	7.8	9.0	A	A	Not Analyzed[6]				D
12	Webster Av. & Ramona Exwy.	TS	18.0	20.7	B	C	21.2	27.3	C	C	Not Analyzed[6]				D
13	Indian Av. & Harley Knox Bl.	TS	22.9	27.1	C	C	28.6	46.4	C	D	Not Analyzed[6]				D
14	Indian Av. & Ramona Exwy.	TS	18.8	22.3	B	C	21.8	28.5	C	C	Not Analyzed[6]				D
15	Indian Av. & Placentia Av.	AWS	10.9	9.7	B	A	12.6	9.7	B	A	Not Analyzed[6]				D
16	Perris Bl. & Iris Av.	TS	30.3	31.9	C	C	45.9	31,8	D	C	Not Analyzed[6]				D
17	Perris Bl. & Krameria Av.	TS	25.8	22.4	C	C	35.8	22.4	D	C	Not Analyzed[6]				D
18	Perris Bl. & San Michele Rd.	TS	11.6	14.0	B	B	12.5	14.0	B	B	Not Analyzed[6]				D
19	Perris Bl. & Nandina Av.	TS	10.8	14.3	B	B	11.4	14.3	B	B	Not Analyzed[6]				D
20	Perris Bl. & Harley Knox Bl.	TS	23.1	29.9	C	C	33.1	47.8	C	D	Not Analyzed[6]				D
21	Perris Bl. & Markham St.	TS	12.7	16.5	B	B	13.8	18.2	B	B	Not Analyzed[6]				D
22	Perris Bl. & Ramona Exwy.	TS	34.3	27.5	C	C	54.2	43.1	D	D	Not Analyzed[6]				D
23	Perris Bl. & Morgan St.	TS	10.6	12.1	B	B	11.1	12.9	B	B	Not Analyzed[6]				D
24	Perris Bl. & Rider St.	TS	17.3	17.7	B	B	18.4	19.2	B	B	Not Analyzed[6]				D
25	Perris Bl. & Placentia Av.	TS	15.5	16.2	B	B	16.4	16.2	B	B	Not Analyzed[6]				D
26	Perris Bl. & Orange Av.	TS	20.4	37.6	C	D	24.9	37.6	C	D	Not Analyzed[6]				D
27	Perris Bl. & Nuevo Rd.	TS	35.3	41.2	D	D	43.9	41.2	D	D	Not Analyzed[6]				D
28	Redlands Av. & Harley Knox Bl.	TS	14.5	16.3	B	B	18.6	19.2	B	B	Not Analyzed[6]				D
29	Redlands Av. & Markham St.	TS	5.2	6.6	A	A	5.7	7.5	A	A	Not Analyzed[6]				D
30	Redlands Av. & Ramona Exwy.	TS	23.0	26.8	C	C	27.5	39.1	C	D	Not Analyzed[6]				D
31	Redlands Av. & Morgan St.	AWS	11.4	10.0	B	A	13.9	11.2	B	B	Not Analyzed[6]				D
32	Redlands Av. & Rider St.	TS	19.2	18.0	B	B	22.8	20.4	C	C	Not Analyzed[6]				D
33	Redlands Av. & Placentia Av.	AWS	12.5	12.0	B	B	16.0	15.2	C	C	Not Analyzed[6]				D
34	Redlands Av. & Orange Av.	TS	17.9	17.5	B	B	19.3	17.5	B	B	Not Analyzed[6]				D
35	Redlands Av. & Nuevo Rd.	TS	25.5	14.5	C	B	**146.7**	14.5	**F**	B	Not Analyzed[6]				D
36	Murrieta Rd. & Nuevo Rd.	TS	23.4	17.3	C	B	38.9	17.3	D	B	Not Analyzed[6]				D
37	Lasselle St. & Iris Av.	TS	30.0	29.7	C	C	42.8	29.7	D	C	Not Analyzed[6]				D
38	Lasselle St. & Krameria Av.	TS	29.5	34.2	C	C	51.1	34.2	D	C	Not Analyzed[6]				D
39	Evans Rd. & Ramona Exwy.	TS	23.7	23.4	C	C	35.6	23.4	D	C	Not Analyzed[6]				D
40	Evans Rd. & Rider St.	TS	22.7	20.3	C	C	30.0	22.9	C	C	Not Analyzed[6]				D
41	Evans Rd. & Orange Av.	TS	20.1	23.7	C	C	22.4	23.7	C	C	Not Analyzed[6]				D
42	Evans Rd. & Nuevo Rd.	TS	15.7	12.6	B	B	20.3	12.6	C	B	Not Analyzed[6]				D
43	Bradley Rd. & Ramona Exwy.	TS	7.5	6.9	A	A	8.3	7.3	A	A	Not Analyzed[6]				D
44	Bradley Rd. & Rider St.	TS	17.3	15.6	B	B	23.8	27.9	C	C	Not Analyzed[6]				D
45	Dunlap Dr. & Orange Av.	CSS	10.0	10.4	B	B	10.5	10.4	B	B	Not Analyzed[6]				D

#	Intersection	Traffic Control[2]	Existing (2022)				EAP (2032) - Alternative 1				EAP (2032) - Alternative 2				Acceptable LOS[4]
			Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service		
			AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	
46	Dunlap Dr. & Nuevo Rd.	TS	19.7	19.5	B	B	**>100.0**	19.5	**F**	B	19.7	27.2	B	C	D
47	Ramona Exwy. & Rider St.	TS	10.7	10.9	B	B	13.9	14.2	B	B	Not Analyzed[6]				D
48	Antelope Rd. & Ramona Exwy.	**TS**	Future Intersection				8.2	19.5	A	B	Not Analyzed[6]				D
49	MCP WB Ramps & Antelope Rd.		Not Analyzed[5]				Not Analyzed[5]				Not Analyzed[5]				
50	MCP EB Ramps & Antelope Rd.		Not Analyzed[5]				Not Analyzed[5]				Not Analyzed[5]				
51	Antelope Rd. & Nuevo Rd.	**TS**	Future Intersection				51.0	39.0	D	D	**99.6**	42.4	**F**	D	D
52	Street A & Ramona Exwy.	**TS**	Future Intersection				14.8	15.1	B	B	Not Analyzed[6]				D
53	Menifee Rd./Reservoir Bl. & Nuevo Rd.	AWS	54.4	25.9	F	D	**>100.0**	25.9	**F**	D	**54.4**	**>100.0**	**F**	**F**	D
54	Menifee Rd. & San Jacinto Av.	AWS	13.1	15.1	B	C	21.1	**38.5**	C	**E**	**73.8**	**>100.0**	**F**	**F**	D
55	Menifee Rd. & Ellis Rd.	CSS	13.0	14.2	B	B	17.3	20.8	C	C	Not Analyzed[6]				D
56	Menifee Rd. & Mapes Rd.	CSS	18.8	22.9	C	C	33.5	**48.5**	D	**E**	Not Analyzed[6]				D
57	Menifee Rd. & Watson Rd.	CSS	33.1	19.4	D	C	**>100.0**	**39.2**	**F**	**E**	Not Analyzed[6]				D
58	Menifee Rd. & Ethanac Rd. (SR-74)	TS	**76.0**	35.7	**E**	D	**149.9**	**77.0**	**F**	**E**	Not Analyzed[6]				D
59	Bernasconi Rd. & Orange Av.		Future Intersection				Future Intersection				Future Intersection				
60	Lakeview Av. & Ramona Exwy.	TS	15.0	17.6	B	B	33.6	46.2	C	D	Not Analyzed[6]				D
61	Lakeview Av. & Nuevo Rd.	AWS	**36.2**	31.8	**E**	D	**>100.0**	31.8	**F**	D	Not Analyzed[6]				D
62	Montgomery Av. & Nuevo Rd.	CSS	11.2	11.2	B	B	12.4	11.2	B	B	Not Analyzed[6]				D
63	Hansen Av./Davis Rd. & Ramona Exwy.	TS	11.7	10.6	B	B	12.9	11.6	B	B	Not Analyzed[6]				D
64	Hansen Av. & Contour Av.	AWS	10.6	9.3	B	A	13.4	9.3	B	A	Not Analyzed[6]				D
65	Bridge St. & Ramona Exwy.	CSS	**40.8**	**35.6**	**E**	**E**	**>100.0**	**>100.0**	**F**	**F**	Not Analyzed[6]				D
66	Warren Rd. & Ramona Exwy.	TS	17.2	14.7	B	B	26.0	23.8	C	C	Not Analyzed[6]				D
67	Sanderson Av. (SR-79) & Ramona Exwy.	TS	**82.1**	**79.7**	**F**	**E**	**161.3**	**166.2**	**F**	**F**	Not Analyzed[6]				D
68	Indian Av. & Morgan St.	TS	21.4	19.3	C	B	26.6	19.3	C	B	Not Analyzed[6]				D
69	Indian Av. & Rider St.	TS	15.0	15.5	B	B	15.5	15.5	B	B	Not Analyzed[6]				D
70	Murrieta Rd. & San Jacinto Av.	CSS	18.2	12.4	C	B	**>100.0**	23.9	**F**	C	Not Analyzed[6]				D
71	Redlands Av. & San Jacinto Av.	TS	25.3	24.9	C	C	**90.0**	**101.0**	**F**	**F**	Not Analyzed[6]				D
72	Redlands Av. & I-215 NB Ramps	TS	12.1	14.0	B	B	16.3	36.1	B	D	Not Analyzed[6]				D
73	Redlands Av. & I-215 SB Ramps	TS	10.0	10.5	A	B	13.1	14.1	B	B	Not Analyzed[6]				D
74	Evans Rd. & San Jacinto Av.		Future Intersection				Future Intersection				Future Intersection				
75	Evans Rd. & I-215 NB Ramps		Future Intersection				Future Intersection				Future Intersection				
76	Evans Rd. & I-215 SB Ramps		Future Intersection				Future Intersection				Future Intersection				D
77	Dunlap Dr. & San Jacinto Av.	CSS	17.6	19.2	C	C	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	D
78	I-215 SB Ramps & SR-74	TS	11.0	14.2	B	B	13.1	23.2	B	C	Not Analyzed[6]				D
79	I-215 NB Ramps & SR-74	TS	9.8	10.2	A	B	9.9	11.9	A	B	Not Analyzed[6]				D
80	Trumble Rd. & SR-74	TS	14.7	14.5	B	B	21.9	20.1	C	C	Not Analyzed[6]				D
81	I-215 SB Ramps & Ethanac Rd.	TS	11.9	13.2	B	B	13.2	17.7	B	B	Not Analyzed[6]				D
82	I-215 NB Ramps & Ethanac Rd.	TS	17.2	21.5	B	C	26.2	41.7	C	D	Not Analyzed[6]				D
83	Encanto Dr. & Ethanac Rd.	CSS	18.7	20.7	C	C	25.9	31.4	D	D	Not Analyzed[6]				D
84	Sherman Rd. & Ethanac Rd.	CSS	28.8	31.9	D	D	**47.9**	**61.5**	**E**	**F**	Not Analyzed[6]				D
85	Antelope Rd. & SR-74	TS	11.6	10.5	B	B	12.6	10.6	B	B	Not Analyzed[6]				D
86	Antelope Rd. & Ethanac Rd.	CSS	19.5	14.3	C	B	27.9	16.8	D	C	Not Analyzed[6]				D
87	Menifee Rd. & Matthews Rd.	CSS	19.0	13.4	C	B	**36.4**	16.5	**E**	C	Not Analyzed[6]				D

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all-way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[2] AWS = All-way Stop; CSS = Cross-street Stop; RA = Roundabout; TS = Traffic Signal; **TS** = Improvement

[3] A traffic signal is assumed as part of the I-215 Freeway/Placentia Avenue interchange project. The I-215 Freeway/Placentia Avenue interchange project is anticipated to be completed by 2022. As such, these improvements have been assumed to be in place for EAP (2030) conditions.

[4] Minimum acceptable LOS for each applicable jurisdiction.

[5] Intersection will be constructed when the Mid-County Parkway is constructed. As such, the intersection does not exist under this scenario.

[6] Intersection not evaluated for this alternative.

TABLE 5-2: INTERSECTION ANALYSIS FOR EAP (2032) ALTERNATIVES 3 & 4 CONDITIONS

#	Intersection	Traffic Control[2]	Existing (2022)				EAP (2032) - Alternative 3				EAP (2032) - Alternative 4				Acceptable LOS[4]
			Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service		
			AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	
1	Harvill Av. & Cajalco Exwy.	TS	39.8	34.9	D	C	Not Analyzed[7]				Not Analyzed[7]				D
2	I-215 Southbound Ramps & Harley Knox Bl.	TS	51.8	39.2	D	D	Not Analyzed[7]				Not Analyzed[7]				D
3	I-215 Northbound Ramps & Harley Knox Bl.	TS	>156.9	19.7	F	B	Not Analyzed[7]				Not Analyzed[7]				D
4	I-215 Southbound Ramps & Ramona Exwy.	TS	28.7	43.7	C	D	Not Analyzed[7]				Not Analyzed[7]				D
5	I-215 Northbound Ramps & Ramona Exwy.	TS	20.3	20.1	C	C	Not Analyzed[7]				Not Analyzed[7]				D
6	I-215 SB Ramps & Placentia Av.	TS[3]	Future Intersection				Not Analyzed[7]				Not Analyzed[7]				D
7	I-215 NB Ramps & Placentia Av.	TS[3]	Future Intersection				Not Analyzed[7]				Not Analyzed[7]				D
8	I-215 SB Ramps & Nuevo Rd.	TS	19.7	25.6	B	C	Not Analyzed[7]				Not Analyzed[7]				D
9	I-215 NB Ramps & Nuevo Rd.	TS	17.1	9.6	B	A	Not Analyzed[7]				Not Analyzed[7]				D
10	Western Wy. & Harley Knox Bl.	TS	12.2	9.2	B	A	Not Analyzed[7]				Not Analyzed[7]				D
11	Webster Av. & Harley Knox Bl.	RA	6.4	7.2	A	A	Not Analyzed[7]				Not Analyzed[7]				D
12	Webster Av. & Ramona Exwy.	TS	18.0	20.7	B	C	Not Analyzed[7]				Not Analyzed[7]				D
13	Indian Av. & Harley Knox Bl.	TS	22.9	27.1	C	C	Not Analyzed[7]				Not Analyzed[7]				D
14	Indian Av. & Ramona Exwy.	TS	18.8	22.3	B	C	Not Analyzed[7]				Not Analyzed[7]				D
15	Indian Av. & Placentia Av.	AWS	10.9	9.7	B	A	Not Analyzed[7]				Not Analyzed[7]				D
16	Perris Bl. & Iris Av.	TS	30.3	31.9	C	C	Not Analyzed[7]				Not Analyzed[7]				D
17	Perris Bl. & Krameria Av.	TS	25.8	22.4	C	C	Not Analyzed[7]				Not Analyzed[7]				D
18	Perris Bl. & San Michele Rd.	TS	11.6	14.0	B	B	Not Analyzed[7]				Not Analyzed[7]				D
19	Perris Bl. & Nandina Av.	TS	10.8	14.3	B	B	Not Analyzed[7]				Not Analyzed[7]				D
20	Perris Bl. & Harley Knox Bl.	TS	23.1	29.9	C	C	Not Analyzed[7]				Not Analyzed[7]				D
21	Perris Bl. & Markham St.	TS	12.7	16.5	B	B	Not Analyzed[7]				Not Analyzed[7]				D
22	Perris Bl. & Ramona Exwy.	TS	34.3	27.5	C	C	Not Analyzed[7]				Not Analyzed[7]				D
23	Perris Bl. & Morgan St.	TS	10.6	12.1	B	B	Not Analyzed[7]				Not Analyzed[7]				D
24	Perris Bl. & Rider St.	TS	17.3	17.7	B	B	Not Analyzed[7]				Not Analyzed[7]				D
25	Perris Bl. & Placentia Av.	TS	15.5	16.2	B	B	Not Analyzed[7]				Not Analyzed[7]				D
26	Perris Bl. & Orange Av.	TS	20.4	37.6	C	D	Not Analyzed[7]				Not Analyzed[7]				D
27	Perris Bl. & Nuevo Rd.	TS	35.3	41.2	D	D	Not Analyzed[7]				Not Analyzed[7]				D
28	Redlands Av. & Harley Knox Bl.	TS	14.5	16.3	B	B	Not Analyzed[7]				Not Analyzed[7]				D
29	Redlands Av. & Markham St.	TS	5.2	6.6	A	A	Not Analyzed[7]				Not Analyzed[7]				D
30	Redlands Av. & Ramona Exwy.	TS	23.0	26.8	C	C	Not Analyzed[7]				Not Analyzed[7]				D
31	Redlands Av. & Morgan St.	AWS	11.4	10.0	B	A	Not Analyzed[7]				Not Analyzed[7]				D
32	Redlands Av. & Rider St.	AWS	**19.2**	18.0	**B**	B	Not Analyzed[7]				Not Analyzed[7]				D
33	Redlands Av. & Placentia Av.	AWS	12.5	12.0	B	B	Not Analyzed[7]				Not Analyzed[7]				D
34	Redlands Av. & Orange Av.	TS	17.9	17.5	B	B	Not Analyzed[7]				Not Analyzed[7]				D
35	Redlands Av. & Nuevo Rd.	TS	25.5	14.5	C	B	Not Analyzed[7]				Not Analyzed[7]				D
36	Murrieta Rd. & Nuevo Rd.	TS	23.4	17.3	C	B	Not Analyzed[7]				Not Analyzed[7]				D
37	Lasselle St. & Iris Av.	TS	30.0	29.7	C	C	Not Analyzed[7]				Not Analyzed[7]				D
38	Lasselle St. & Krameria Av.	TS	29.5	34.2	C	C	Not Analyzed[7]				Not Analyzed[7]				D
39	Evans Rd. & Ramona Exwy.	TS	23.7	23.4	C	C	Not Analyzed[7]				Not Analyzed[7]				D
40	Evans Rd. & Rider St.	TS	22.7	20.3	C	C	Not Analyzed[7]				Not Analyzed[7]				D
41	Evans Rd. & Orange Av.	TS	**20.1**	23.7	**C**	C	Not Analyzed[7]				Not Analyzed[7]				D
42	Evans Rd. & Nuevo Rd.	TS	15.7	12.6	B	B	Not Analyzed[7]				Not Analyzed[7]				D
43	Bradley Rd. & Ramona Exwy.	TS	7.5	6.9	A	A	Not Analyzed[7]				Not Analyzed[7]				D
44	Bradley Rd. & Rider St.	TS	17.3	15.6	B	B	Not Analyzed[7]				Not Analyzed[7]				D
45	Dunlap Dr. & Orange Av.	CSS	10.0	10.4	B	B	Not Analyzed[7]				Not Analyzed[7]				D

#	Intersection	Traffic Control[2]	Existing (2022)				EAP (2032) - Alternative 3				EAP (2032) - Alternative 4				Acceptable LOS[4]
			Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service		
			AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	
46	Dunlap Dr. & Nuevo Rd.	TS	19.7	19.5	B	B	Not Analyzed[7]				Not Analyzed[7]				D
47	Ramona Exwy. & Rider St.	TS	10.7	10.9	B	B	Not Analyzed[7]				Not Analyzed[7]				D
48	Antelope Rd. & Ramona Exwy.	**TS**	Future Intersection				Not Analyzed[7]				Not Analyzed[7]				D
49	MCP WB Ramps & Antelope Rd.		Not Analyzed[6]				Not Analyzed[6]				Not Analyzed[6]				
50	MCP EB Ramps & Antelope Rd.		Not Analyzed[6]				Not Analyzed[6]				Not Analyzed[6]				
51	Antelope Rd. & Nuevo Rd.	**TS**	Future Intersection				**99.6**	42.4	**F**	D	**99.6**	42.4	**F**	D	D
52	Street A & Ramona Exwy.	**TS**	Future Intersection				Not Analyzed[7]				Not Analyzed[7]				D
53	Menifee Rd./Reservoir Bl. & Nuevo Rd.	AWS	54.4	25.9	F	D	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	D
54	Menifee Rd. & San Jacinto Av.	AWS	13.1	15.1	B	C	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	D
55	Menifee Rd. & Ellis Rd.	CSS	13.0	14.2	B	B	**36.4**	**51.8**	**E**	**F**	**36.4**	**51.8**	**E**	**F**	D
56	Menifee Rd. & Mapes Rd.	CSS	18.8	22.9	C	C	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	D
57	Menifee Rd. & Watson Rd.	CSS	**33.1**	**19.4**	**D**	**C**	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	D
58	Menifee Rd. & Ethanac Rd. (SR-74)	TS	**76.0**	35.7	**E**	D	**>200.0**	**158.4**	**F**	**F**	**>200.0**	**156.4**	**F**	**F**	D
59	Bernasconi Rd. & Orange Av.		Future Intersection				Future Intersection				Future Intersection				
60	Lakeview Av. & Ramona Exwy.	TS	15.0	17.6	B	B	Not Analyzed[7]				Not Analyzed[7]				D
61	Lakeview Av. & Nuevo Rd.	AWS	36.2	31.8	E	D	Not Analyzed[7]				Not Analyzed[7]				D
62	Montgomery Av. & Nuevo Rd.	CSS	11.2	11.2	B	B	Not Analyzed[7]				Not Analyzed[7]				D
63	Hansen Av./Davis Rd. & Ramona Exwy.	TS	11.7	10.6	B	B	Not Analyzed[7]				Not Analyzed[7]				D
64	Hansen Av. & Contour Av.	AWS	10.6	9.3	B	A	Not Analyzed[7]				Not Analyzed[7]				D
65	Bridge St. & Ramona Exwy.	CSS	40.8	**35.6**	E	**E**	Not Analyzed[7]				Not Analyzed[7]				D
66	Warren Rd. & Ramona Exwy.	TS	17.2	14.7	B	B	Not Analyzed[7]				Not Analyzed[7]				D
67	Sanderson Av. (SR-79) & Ramona Exwy.	TS	**82.1**	**79.7**	**F**	**E**	Not Analyzed[7]				Not Analyzed[7]				D
68	Indian Av. & Morgan St.	TS	21.4	19.3	C	B	Not Analyzed[7]				Not Analyzed[7]				D
69	Indian Av. & Rider St.	TS	15.0	15.5	B	B	Not Analyzed[7]				Not Analyzed[7]				D
70	Murrieta Rd. & San Jacinto Av.	CSS	18.2	12.4	C	B	30.9	14.7	D	B	30.9	14.7	D	B	D
71	Redlands Av. & San Jacinto Av.	TS	25.3	24.9	C	C	35.2	37.0	D	D	35.2	37.0	D	D	D
72	Redlands Av. & I-215 NB Ramps	TS	12.1	14.0	B	B	14.6	22.1	B	C	14.6	22.1	B	C	D
73	Redlands Av. & I-215 SB Ramps	TS	10.0	10.5	A	B	10.9	11.8	B	B	10.9	11.8	B	B	D
74	Evans Rd. & San Jacinto Av.		Future Intersection				Future Intersection				Future Intersection				D
75	Evans Rd. & I-215 NB Ramps		Future Intersection				Future Intersection				Future Intersection				D
76	Evans Rd. & I-215 SB Ramps		Future Intersection				Future Intersection				Future Intersection				D
77	Dunlap Dr. & San Jacinto Av.	CSS	17.6	19.2	C	C	29.2	34.8	D	D	29.2	34.8	D	D	D
78	I-215 SB Ramps & SR-74	TS	11.0	14.2	B	B	14.3	35.6	B	D	Not Analyzed[7]				D
79	I-215 NB Ramps & SR-74	TS	9.8	10.2	A	B	10.3	15.7	B	B	Not Analyzed[7]				D
80	Trumble Rd. & SR-74	TS	14.7	14.5	B	B	30.3	28.0	C	C	Not Analyzed[7]				D
81	I-215 SB Ramps & Ethanac Rd.	TS	11.9	13.2	B	B	Not Analyzed[7]				26.4	30.2	C	C	D
82	I-215 NB Ramps & Ethanac Rd.	TS	17.2	21.5	B	C	Not Analyzed[7]				**69.4**	**93.9**	**E**	**F**	D
83	Encanto Dr. & Ethanac Rd.	CSS	18.7	20.7	C	C	Not Analyzed[7]				**46.7**	**69.3**	**E**	**F**	D
84	Sherman Rd. & Ethanac Rd.	CSS	28.8	31.9	D	D	Not Analyzed[7]				**>100.0**	**>100.0**	**F**	**F**	D
85	Antelope Rd. & SR-74	TS	11.6	10.5	B	B	14.5	10.6	B	B	Not Analyzed[7]				D
86	Antelope Rd. & Ethanac Rd.	CSS	19.5	14.3	C	B	Not Analyzed[7]				**>100.0**	**37.0**	**F**	**E**	D
87	Menifee Rd. & Matthews Rd.	CSS	19.0	13.4	C	B	Not Analyzed[7]				**>100.0**	**>100.0**	**F**	**F**	D

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all-way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[2] AWS = All-way Stop; CSS = Cross-street Stop; RA = Roundabout; TS = Traffic Signal; **TS** = Improvement

[3] A traffic signal is assumed as part of the I-215 Freeway/Placentia Avenue interchange project. The I-215 Freeway/Placentia Avenue interchange project is anticipated to be completed by 2022. As such, these improvements have been assumed to be in place for EAP (2030) conditions.

[4] Minimum acceptable LOS for each applicable jurisdiction.

[5] The Nuevo Road widening is anticipated to be completed by the end of 2020. As such, the Nuevo Road widening is assumed under EAP (2030) traffic conditions.

[6] Intersection will be constructed when the Mid-County Parkway is constructed. As such, the intersection does not exist under this scenario.

[7] Intersection not evaluated for this alternative.

As shown in Table 5-2, the intersection operations analysis results under EAP (2032) Alternative 4 conditions are consistent with EAP (2032) Alternative 1 conditions, with the exception of the following intersections:

- Dunlap Drive & Nuevo Road (#46) – no longer deficient under
- Antelope Road & Ramona Expressway (#51) – LOS F AM peak hour only
- Menifee Road & Ellis Road (#55) – LOS E AM peak hour; LOS F PM peak hour
- Murrieta Road & San Jacinto Avenue (#70) – no longer deficient
- Redlands Avenue & San Jacinto Avenue (#71) – no longer deficient
- Dunlap Drive & San Jacinto Avenue (#77) – no longer deficient
- I-215 Northbound Ramps & Ethanac Road (#82) – LOS E AM peak hour; LOS F PM peak hour
- Encanto Drive & Ethanac Road (#83) – LOS E AM peak hour; LOS F PM peak hour
- Antelope Road & Ethanac Road (#86) – LOS F AM peak hour; LOS E PM peak hour

As shown in Table 5-3, the intersection operations analysis results under EAP (2032) Alternative 5 conditions are consistent with EAP (2032) Alternative 1 conditions, with the exception of the following intersections:

- Dunlap Drive & Nuevo Road (#46) – no longer deficient under
- Antelope Road & Ramona Expressway (#51) – LOS F AM peak hour only
- Murrieta Road & San Jacinto Avenue (#70) – no longer deficient
- Redlands Avenue & San Jacinto Avenue (#71) – no longer deficient

The intersection operations analysis worksheets for EAP (2032) traffic conditions for each alternative are included in the following Appendices:

- Appendix 5.1 for Alternative 1
- Appendix 5.2 for Alternative 2
- Appendix 5.3 for Alternative 3
- Appendix 5.4 for Alternative 4
- Appendix 5.5 for Alternative 5

TABLE 5-3: INTERSECTION ANALYSIS FOR EAP (2032) ALTERNATIVES 5 & 6 CONDITIONS

#	Intersection	Traffic Control[2]	Existing (2022)				EAP (2032) - Alternative 5				EAP (2032) - Alternative 6				Acceptable LOS[4]
			Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service		
			AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	
1	Harvill Av. & Cajalco Exwy.	TS	39.8	34.9	D	C	Not Analyzed[5]				Not Analyzed[5]				D
2	I-215 Southbound Ramps & Harley Knox Bl.	TS	51.8	39.2	D	D	Not Analyzed[5]				Not Analyzed[5]				D
3	I-215 Northbound Ramps & Harley Knox Bl.	TS	>156.9	19.7	F	B	Not Analyzed[5]				Not Analyzed[5]				D
4	I-215 Southbound Ramps & Ramona Exwy.	TS	28.7	43.7	C	D	Not Analyzed[5]				Not Analyzed[5]				D
5	I-215 Northbound Ramps & Ramona Exwy.	TS	20.3	20.1	C	C	Not Analyzed[5]				Not Analyzed[5]				D
6	I-215 SB Ramps & Placentia Av.	TS[3]	Future Intersection				Not Analyzed[5]				Not Analyzed[5]				D
7	I-215 NB Ramps & Placentia Av.	TS[3]	Future Intersection				Not Analyzed[5]				Not Analyzed[5]				D
8	I-215 SB Ramps & Nuevo Rd.	TS	19.7	25.6	B	C	Not Analyzed[5]				Not Analyzed[5]				D
9	I-215 NB Ramps & Nuevo Rd.	TS	17.1	9.6	B	A	Not Analyzed[5]				Not Analyzed[5]				D
10	Western Wy. & Harley Knox Bl.	TS	12.2	9.2	B	A	Not Analyzed[5]				Not Analyzed[5]				D
11	Webster Av. & Harley Knox Bl.	RA	6.4	7.2	A	A	Not Analyzed[5]				Not Analyzed[5]				D
12	Webster Av. & Ramona Exwy.	TS	18.0	20.7	B	C	Not Analyzed[5]				Not Analyzed[5]				D
13	Indian Av. & Harley Knox Bl.	TS	22.9	27.1	C	C	Not Analyzed[5]				Not Analyzed[5]				D
14	Indian Av. & Ramona Exwy.	TS	18.8	22.3	B	C	Not Analyzed[5]				Not Analyzed[5]				D
15	Indian Av. & Placentia Av.	AWS	10.9	9.7	B	A	Not Analyzed[5]				Not Analyzed[5]				D
16	Perris Bl. & Iris Av.	TS	30.3	31.9	C	C	Not Analyzed[5]				Not Analyzed[5]				D
17	Perris Bl. & Krameria Av.	TS	25.8	22.4	C	C	Not Analyzed[5]				Not Analyzed[5]				D
18	Perris Bl. & San Michele Rd.	TS	11.6	14.0	B	B	Not Analyzed[5]				Not Analyzed[5]				D
19	Perris Bl. & Nandina Av.	TS	10.8	14.3	B	B	Not Analyzed[5]				Not Analyzed[5]				D
20	Perris Bl. & Harley Knox Bl.	TS	23.1	29.9	C	C	Not Analyzed[5]				Not Analyzed[5]				D
21	Perris Bl. & Markham St.	TS	12.7	16.5	B	B	Not Analyzed[5]				Not Analyzed[5]				D
22	Perris Bl. & Ramona Exwy.	TS	34.3	27.5	C	C	Not Analyzed[5]				Not Analyzed[5]				D
23	Perris Bl. & Morgan St.	TS	10.6	12.1	B	B	Not Analyzed[5]				Not Analyzed[5]				D
24	Perris Bl. & Rider St.	TS	17.3	17.7	B	B	Not Analyzed[5]				Not Analyzed[5]				D
25	Perris Bl. & Placentia Av.	TS	15.5	16.2	B	B	Not Analyzed[5]				Not Analyzed[5]				D
26	Perris Bl. & Orange Av.	TS	20.4	37.6	C	D	Not Analyzed[5]				Not Analyzed[5]				D
27	Perris Bl. & Nuevo Rd.	TS	35.3	41.2	D	D	Not Analyzed[5]				Not Analyzed[5]				D
28	Redlands Av. & Harley Knox Bl.	TS	14.5	16.3	B	B	Not Analyzed[5]				Not Analyzed[5]				D
29	Redlands Av. & Markham St.	TS	5.2	6.6	A	A	Not Analyzed[5]				Not Analyzed[5]				D
30	Redlands Av. & Ramona Exwy.	TS	23.0	26.8	C	C	Not Analyzed[5]				Not Analyzed[5]				D
31	Redlands Av. & Morgan St.	AWS	11.4	10.0	B	A	Not Analyzed[5]				Not Analyzed[5]				D
32	Redlands Av. & Rider St.	AWS	**19.2**	18.0	**B**	B	Not Analyzed[5]				Not Analyzed[5]				D
33	Redlands Av. & Placentia Av.	AWS	12.5	12.0	B	B	Not Analyzed[5]				Not Analyzed[5]				D
34	Redlands Av. & Orange Av.	TS	17.9	17.5	B	B	Not Analyzed[5]				Not Analyzed[5]				D
35	Redlands Av. & Nuevo Rd.	TS	25.5	14.5	C	B	Not Analyzed[5]				Not Analyzed[5]				D
36	Murrieta Rd. & Nuevo Rd.[5]	TS	23.4	17.3	C	B	Not Analyzed[5]				Not Analyzed[5]				D
37	Lasselle St. & Iris Av.	TS	30.0	29.7	C	C	Not Analyzed[5]				Not Analyzed[5]				D
38	Lasselle St. & Krameria Av.	TS	29.5	34.2	C	C	Not Analyzed[5]				Not Analyzed[5]				D
39	Evans Rd. & Ramona Exwy.	TS	23.7	23.4	C	C	Not Analyzed[5]				Not Analyzed[5]				D
40	Evans Rd. & Rider St.	TS	22.7	20.3	C	C	Not Analyzed[5]				Not Analyzed[5]				D
41	Evans Rd. & Orange Av.	TS	**20.1**	23.7	**C**	C	Not Analyzed[5]				Not Analyzed[5]				D
42	Evans Rd. & Nuevo Rd.[5]	TS	15.7	12.6	B	B	Not Analyzed[5]				Not Analyzed[5]				D
43	Bradley Rd. & Ramona Exwy.	TS	7.5	6.9	A	A	Not Analyzed[5]				Not Analyzed[5]				D
44	Bradley Rd. & Rider St.	TS	17.3	15.6	B	B	Not Analyzed[5]				Not Analyzed[5]				D
45	Dunlap Dr. & Orange Av.	CSS	10.0	10.4	B	B	Not Analyzed[5]				Not Analyzed[5]				D

#	Intersection	Traffic Control[2]	Existing (2022)				EAP (2032) - Alternative 5				EAP (2032) - Alternative 6				Acceptable LOS[4]
			Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service		
			AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	
46	Dunlap Dr. & Nuevo Rd.	TS	19.7	19.5	B	B	25.8	27.2	C	C	Not Analyzed[5]				D
47	Ramona Exwy. & Rider St.	TS	10.7	10.9	B	B	Not Analyzed[5]				Not Analyzed[5]				D
48	Antelope Rd. & Ramona Exwy.	**TS**	Future Intersection				Not Analyzed[5]				Not Analyzed[5]				D
49	MCP WB Ramps & Antelope Rd.		Not Analyzed[6]				Not Analyzed[5]				Not Analyzed[5]				
50	MCP EB Ramps & Antelope Rd.		Not Analyzed[6]				Not Analyzed[5]				Not Analyzed[5]				
51	Antelope Rd. & Nuevo Rd.	**TS**	Future Intersection				**99.6**	42.4	**F**	D	Not Analyzed[5]				D
52	Street A & Ramona Exwy.	**TS**	Future Intersection				Not Analyzed[5]				Not Analyzed[5]				D
53	Menifee Rd./Reservoir Bl. & Nuevo Rd.	AWS	54.4	25.9	F	D	**>100.0**	**>100.0**	**F**	**F**	Not Analyzed[5]				D
54	Menifee Rd. & San Jacinto Av.	AWS	13.1	15.1	B	C	**73.8**	**>100.0**	**F**	**F**	Not Analyzed[5]				D
55	Menifee Rd. & Ellis Rd.	CSS	13.0	14.2	B	B	Not Analyzed[5]				Not Analyzed[5]				D
56	Menifee Rd. & Mapes Rd.	CSS	18.8	22.9	C	C	Not Analyzed[5]				Not Analyzed[5]				D
57	Menifee Rd. & Watson Rd.	CSS	**33.1**	**19.4**	**D**	**C**	Not Analyzed[5]				Not Analyzed[5]				D
58	Menifee Rd. & Ethanac Rd. (SR-74)	TS	**76.0**	35.7	**E**	D	Not Analyzed[5]				Not Analyzed[5]				D
59	Bernasconi Rd. & Orange Av.		Future Intersection				Future Intersection				Future Intersection				
60	Lakeview Av. & Ramona Exwy.	TS	15.0	17.6	B	B	Not Analyzed[5]				Not Analyzed[5]				D
61	Lakeview Av. & Nuevo Rd.	AWS	36.2	31.8	E	D	Not Analyzed[5]				Not Analyzed[5]				D
62	Montgomery Av. & Nuevo Rd.	CSS	11.2	11.2	B	B	Not Analyzed[5]				Not Analyzed[5]				D
63	Hansen Av./Davis Rd. & Ramona Exwy.	TS	11.7	10.6	B	B	Not Analyzed[5]				Not Analyzed[5]				D
64	Hansen Av. & Contour Av.	AWS	10.6	9.3	B	A	Not Analyzed[5]				Not Analyzed[5]				D
65	Bridge St. & Ramona Exwy.	CSS	40.8	**35.6**	E	**E**	Not Analyzed[5]				Not Analyzed[5]				D
66	Warren Rd. & Ramona Exwy.	TS	17.2	14.7	B	B	Not Analyzed[5]				Not Analyzed[5]				D
67	Sanderson Av. (SR-79) & Ramona Exwy.	TS	**82.1**	**79.7**	**F**	**E**	Not Analyzed[5]				Not Analyzed[5]				D
68	Indian Av. & Morgan St.	TS	21.4	19.3	C	B	Not Analyzed[5]				Not Analyzed[5]				D
69	Indian Av. & Rider St.	TS	15.0	15.5	B	B	Not Analyzed[5]				Not Analyzed[5]				D
70	Murrieta Rd. & San Jacinto Av.	CSS	18.2	12.4	C	B	30.9	14.7	D	B	Not Analyzed[5]				D
71	Redlands Av. & San Jacinto Av.	TS	25.3	24.9	C	C	35.2	37.0	D	D	Not Analyzed[5]				D
72	Redlands Av. & I-215 NB Ramps	TS	12.1	14.0	B	B	14.6	22.1	B	C	Not Analyzed[5]				D
73	Redlands Av. & I-215 SB Ramps	TS	10.0	10.5	A	B	10.9	11.8	B	B	Not Analyzed[5]				D
74	Evans Rd. & San Jacinto Av.	**TS**	Future Intersection				13.4	20.5	B	C	Not Analyzed[5]				D
75	Evans Rd. & I-215 NB Ramps	**TS**	Future Intersection				6.4	6.6	A	A	Not Analyzed[5]				D
76	Evans Rd. & I-215 SB Ramps	**TS**	Future Intersection				6.5	6.4	A	A	Not Analyzed[5]				D
77	Dunlap Dr. & San Jacinto Av.	CSS	17.6	19.2	C	C	**>200.0**	**>100.0**	**F**	**F**	Not Analyzed[5]				D
78	I-215 SB Ramps & SR-74	TS	11.0	14.2	B	B	Not Analyzed[5]				Not Analyzed[5]				D
79	I-215 NB Ramps & SR-74	TS	9.8	10.2	A	B	Not Analyzed[5]				Not Analyzed[5]				D
80	Trumble Rd. & SR-74	TS	14.7	14.5	B	B	Not Analyzed[5]				Not Analyzed[5]				D
81	I-215 SB Ramps & Ethanac Rd.	TS	11.9	13.2	B	B	Not Analyzed[5]				Not Analyzed[5]				D
82	I-215 NB Ramps & Ethanac Rd.	TS	17.2	21.5	B	C	Not Analyzed[5]				Not Analyzed[5]				D
83	Encanto Dr. & Ethanac Rd.	CSS	18.7	20.7	C	C	Not Analyzed[5]				Not Analyzed[5]				D
84	Sherman Rd. & Ethanac Rd.	CSS	28.8	31.9	D	D	Not Analyzed[5]				Not Analyzed[5]				D
85	Antelope Rd. & SR-74	TS	11.6	10.5	B	B	Not Analyzed[5]				Not Analyzed[5]				D
86	Antelope Rd. & Ethanac Rd.	CSS	19.5	14.3	C	B	Not Analyzed[5]				Not Analyzed[5]				D
87	Menifee Rd. & Matthews Rd.	CSS	19.0	13.4	C	B	Not Analyzed[5]				Not Analyzed[5]				D

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all-way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[2] AWS = All-way Stop; CSS = Cross-street Stop; RA = Roundabout; TS = Traffic Signal; **TS** = Improvement

[3] A traffic signal is assumed as part of the I-215 Freeway/Placentia Avenue interchange project. The I-215 Freeway/Placentia Avenue interchange project is anticipated to be completed by 2022. As such, these improvements have been assumed to be in place for EAP (2032) conditions.

[4] Minimum acceptable LOS for each applicable jurisdiction.

[5] Intersection will be constructed when the Mid-County Parkway is constructed. As such, the intersection does not exist under this scenario.

5.4 TRAFFIC SIGNAL WARRANTS ANALYSIS

Traffic signal warrants have been performed (based on CA MUTCD) for EAP (2032) traffic conditions based on daily volumes. The following additional unsignalized study area intersections are anticipated to meet planning-level ADT traffic signal warrants under EAP (2032) Alternative 1 traffic conditions, in addition to the intersections previously warranted under Existing (2022) traffic conditions:

Alternative 1

- Indian Avenue & Placentia Avenue (#15)
- Redlands Avenue & Placentia Avenue (#33)
- Menifee Road & Watson Avenue (#57)
- Lakeview Avenue & Nuevo Road (#61)

There are no additional unsignalized intersections anticipated to meet a traffic signal warrant under EAP (2032) traffic conditions Alternatives 2, 3, 4, and 5, in addition to those intersections previously identified under Existing (2022) and EAP (2032) Alternative 1 traffic conditions. The EAP (2032) conditions traffic signal warrant analysis worksheets are provided for each alternative are provided in the following appendices:

- Appendix 5.6 for Alternative 1
- Appendix 5.7 for Alternative 2
- Appendix 5.8 for Alternative 3
- Appendix 5.9 for Alternative 4
- Appendix 5.10 for Alternative 5

5.5 OFF-RAMP QUEUING ANALYSIS

As shown in Tables 5-4, 5-5, and 5-6, there are no movements anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows under EAP (2032) traffic conditions Alternatives 1, 2, 3, 4, and 5. Worksheets for EAP (2032) traffic conditions off-ramp queuing analysis are provided for each alternative in the following appendices:

- Appendix 5.11 for Alternative 1
- Appendix 5.12 for Alternative 2
- Appendix 5.13 for Alternative 3
- Appendix 5.14 for Alternative 4
- Appendix 5.15 for Alternative 5

TABLE 5-4: PEAK HOUR FREEWAY OFF-RAMP QUEUING SUMMARY FOR EAP (2032) ALTERNATIVE 1 & 2 CONDITIONS

Intersection	Movement	Available Stacking Distance (Feet)	Existing (2022)				EAP (2032) - Alternative 1				EAP (2032) - Alternative 2			
			95th Percentile Queue (Feet)		Acceptable?[1]		95th Percentile Queue (Feet)		Acceptable?[1]		95th Percentile Queue (Feet)		Acceptable?[1]	
			AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM
I-215 Southbound Ramps & Harley Knox Bl.	SBL/T	1,330	453 [2]	321 [2]	Yes	Yes	574 [2]	402 [2]	Yes	Yes	Not Evaluated[4]			
	SBR	270	37	43	Yes	Yes	41	48	Yes	Yes				
I-215 Southbound Ramps & Ramona Exwy.	SBL	530	310	600 [2,3]	Yes	Yes	630 [2,3]	725 [2,3]	Yes	Yes				
	SBL/T	1,100	311	603 [2]	Yes	Yes	630 [2]	730 [2]	Yes	Yes	Not Evaluated[4]			
	SBR	530	65	59	Yes	Yes	141	127	Yes	Yes				
I-215 Southbound Ramps & Placentia Av.	SBL	300	Future Interchange				171	343 [2,3]	Yes	Yes				
	SBL/T	1,450					114	261 [2]	Yes	Yes	Not Evaluated[4]			
	SBR	900					0	0	Yes	Yes				
I-215 Southbound Ramps & Nuevo Rd.	SBL	670	128	217	Yes	Yes	145	300 [2]	Yes	Yes				
	SBL/T	1010	128	218	Yes	Yes	146	302	Yes	Yes	Not Evaluated[4]			
	SBR	440	36	34	Yes	Yes	50	37 [2]	Yes	Yes				
I-215 Northbound Ramps & Harley Knox Bl.	NBL/T	1,120	20	24	Yes	Yes	22	27	Yes	Yes				
	NBR	265	24	54	Yes	Yes	5	73 [2]	Yes	Yes	Not Evaluated[4]			
I-215 Northbound Ramps & Ramona Exwy.	NBL	520	141	149	Yes	Yes	172	198	Yes	Yes				
	NBL/T	1,120	141	151	Yes	Yes	171	201	Yes	Yes	Not Evaluated[4]			
	NBR	520	423 [2]	414 [2]	Yes	Yes	589 [2,3]	466 [2]	Yes	Yes				
I-215 Northbound Ramps & Placentia Av.	NBL	600	Future Interchange				0	0	Yes	Yes				
	NBL/T	1,700					146	119	Yes	Yes	Not Evaluated[4]			
	NBR	1,200					86	206	Yes	Yes				
I-215 Northbound Ramps & Nuevo Rd.	NBL/T	1,100	259	96	Yes	Yes	331	97	Yes	Yes	Not Evaluated[4]			
	NBR	370	165	142	Yes	Yes	356 [2]	202	Yes	Yes				

Intersection	Movement	Available Stacking Distance (Feet)	Existing (2022)				EAP (2032) - Alternative 1				EAP (2032) - Alternative 2			
			95th Percentile Queue (Feet)		Acceptable? [1]		95th Percentile Queue (Feet)		Acceptable? [1]		95th Percentile Queue (Feet)		Acceptable? [1]	
			AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM
I-215 Northbound Ramps & Redlands Av.	WBL	1,225	253 [2]	261 [2]	Yes	Yes	351 [2]	330 [2]	Yes	Yes				
	WBL/T/R	790	191 [2]	153 [2]	Yes	Yes	268 [2]	350 [2]	Yes	Yes	Not Evaluated [4]			
	WBR	415	63	141 [2]	Yes	Yes	242 [2]	296 [2]	Yes	Yes				
I-215 Southbound Ramps & Redlands Av.	EBL	1,140	67	90	Yes	Yes	111	141	Yes	Yes				
	EBL/T/R	775	17	39	Yes	Yes	56	86	Yes	Yes	Not Evaluated [4]			
	EBR	185	14	34	Yes	Yes	41	72	Yes	Yes				
I-215 Northbound Ramps & Evans Rd.	WBL		Future Interchange				Future Interchange				Future Interchange			
	WBT/R													
I-215 Southbound Ramps & Evans Rd.	EBL		Future Interchange				Future Interchange				Future Interchange			
	EBT/R													
I-215 Southbound Ramps & SR-74	SBT	2,275	340	640	Yes	Yes	512	1,033 [2]	Yes	Yes	Not Evaluated [4]			
	SBR	215	19	18	Yes	Yes	24	22	Yes	Yes				
I-215 Northbound Ramps & SR-74	SBL/R	1,510	81	172	Yes	Yes	109	276	Yes	Yes	Not Evaluated [4]			
I-215 Southbound Ramps & Ethanac Rd.	SBL/T	1,365	136	198	Yes	Yes	174	249	Yes	Yes	Not Evaluated [4]			
	SBR	240	65	158	Yes	Yes	101	316 [3]	Yes	Yes				
I-215 Northbound Ramps & Ethanac Rd.	NBL/T	1,550	302	376	Yes	Yes	394 [2]	516 [2]	Yes	Yes	Not Evaluated [4]			
	NBR	240	45	56	Yes	Yes	48	61	Yes	Yes				

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

[3] Although 95th percentile queue is anticipated to exceed the available storage for the turn lane, the adjacent through lane has sufficient storage to accommodate any spillover without spilling back and affecting the I-215 Freeway mainline.

[4] Interchange not evaluated for this alternative.

TABLE 5-5: PEAK HOUR FREEWAY OFF-RAMP QUEUING SUMMARY FOR EAP (2032) ALTERNATIVE 3 & 4 CONDITIONS

Intersection	Movement	Available Stacking Distance (Feet)	Existing (2022)				EAP (2032) - Alternative 3				EAP (2032) - Alternative 4			
			95th Percentile Queue (Feet)		Acceptable? [1]		95th Percentile Queue (Feet)		Acceptable? [1]		95th Percentile Queue (Feet)		Acceptable? [1]	
			AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM
I-215 Southbound Ramps & Harley Knox Bl.	SBL/T	1,330	453 [2]	321 [2]	Yes	Yes	Not Evaluated [4]				Not Evaluated [4]			
	SBR	270	37	43	Yes	Yes								
I-215 Southbound Ramps & Ramona Exwy.	SBL	530	310	600 [2,3]	Yes	Yes								
	SBL/T	1,100	311	603 [2]	Yes	Yes	Not Evaluated [4]				Not Evaluated [4]			
	SBR	530	65	59	Yes	Yes								
I-215 Southbound Ramps & Placentia Av.	SBL	300												
	SBL/T	1,450	Future Interchange				Not Evaluated [4]				Not Evaluated [4]			
	SBR	900												
I-215 Southbound Ramps & Nuevo Rd.	SBL	670	128	217	Yes	Yes								
	SBL/T	1010	128	218	Yes	Yes	Not Evaluated [4]				Not Evaluated [4]			
	SBR	440	36	34	Yes	Yes								
I-215 Northbound Ramps & Harley Knox Bl.	NBL/T	1,120	20	24	Yes	Yes								
	NBR	265	24	54	Yes	Yes	Not Evaluated [4]				Not Evaluated [4]			
I-215 Northbound Ramps & Ramona Exwy.	NBL	520	141	149	Yes	Yes								
	NBL/T	1,120	141	151	Yes	Yes	Not Evaluated [4]				Not Evaluated [4]			
	NBR	520	423 [2]	414 [2]	Yes	Yes								
I-215 Northbound Ramps & Placentia Av.	NBL	600												
	NBL/T	1,700	Future Interchange				Not Evaluated [4]				Not Evaluated [4]			
	NBR	1,200												
I-215 Northbound Ramps & Nuevo Rd.	NBL/T	1,100	259	96	Yes	Yes	Not Evaluated [4]				Not Evaluated [4]			
	NBR	370	165	142	Yes	Yes								

Intersection	Movement	Available Stacking Distance (Feet)	Existing (2022)				EAP (2032) - Alternative 3				EAP (2032) - Alternative 4			
			95th Percentile Queue (Feet)		Acceptable? [1]		95th Percentile Queue (Feet)		Acceptable? [1]		95th Percentile Queue (Feet)		Acceptable? [1]	
			AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM
I-215 Northbound Ramps & Redlands Av.	WBL	1,225					322 [2]	330 [2]	Yes	Yes	322 [2]	330 [2]	Yes	Yes
	WBL/T/R	790					261 [2]	272 [2]	Yes	Yes	261 [2]	272 [2]	Yes	Yes
	WBR	415					174 [2]	241 [2]	Yes	Yes	174 [2]	241 [2]	Yes	Yes
I-215 Southbound Ramps & Redlands Av.	EBL	1,140					78	108	Yes	Yes	78	108	Yes	Yes
	EBL/T/R	775					27	54	Yes	Yes	27	54	Yes	Yes
	EBR	185					24	48	Yes	Yes	24	48	Yes	Yes
I-215 Northbound Ramps & Evans Rd.	WBL WBT/R		Future Interchange				Future Interchange				Not Evaluated[4]			
I-215 Southbound Ramps & Evans Rd.	EBL EBT/R		Future Interchange				Future Interchange				Not Evaluated[4]			
I-215 Southbound Ramps & SR-74	SBT	2,275	340	640	Yes	Yes	699	1,284 [2]	Yes	Yes	Not Evaluated[4]			
	SBR	215	19	18	Yes	Yes	25	22	Yes	Yes				
I-215 Northbound Ramps & SR-74	SBL/R	1,510	81	172	Yes	Yes	182	421	Yes	Yes	Not Evaluated[4]			
I-215 Southbound Ramps & Ethanac Rd.	SBL/T	1,365	136	198	Yes	Yes	Not Evaluated[4]				336 [2]	455 [2]	Yes	Yes
	SBR	240	65	158	Yes	Yes					99	316 [3]	Yes	Yes
I-215 Northbound Ramps & Ethanac Rd.	NBL/T	1,550	302	376	Yes	Yes	Not Evaluated[4]				394 [2]	516 [2]	Yes	Yes
	NBR	240	45	56	Yes	Yes					100	205	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

[3] Although 95th percentile queue is anticipated to exceed the available storage for the turn lane, the adjacent through lane has sufficient storage to accommodate any spillover without spilling back and affecting the I-215 Freeway mainline.

[4] Interchange not evaluated for this alternative.

TABLE 5-6: PEAK HOUR FREEWAY OFF-RAMP QUEUING SUMMARY FOR EAP (2032) ALTERNATIVE 5 & 6 CONDITIONS

Intersection	Movement[5]	Available Stacking Distance (Feet)[5]	Existing (2022)				EAP (2032) - Alternative 5				EAP (2032) - Alternative 6			
			95th Percentile Queue (Feet)		Acceptable?[1]		95th Percentile Queue (Feet)		Acceptable?[1]		95th Percentile Queue (Feet)		Acceptable?[1]	
			AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM
I-215 Southbound Ramps & Harley Knox Bl.	SBL/T	1,330	453 [2]	321 [2]	Yes	Yes	Not Evaluated[4]				Not Evaluated[4]			
	SBR	270	37	43	Yes	Yes								
I-215 Southbound Ramps & Ramona Exwy.	SBL	530	310	600 [2,3]	Yes	Yes								
	SBL/T	1,100	311	603 [2]	Yes	Yes	Not Evaluated[4]				Not Evaluated[4]			
	SBR	530	65	59	Yes	Yes								
I-215 Southbound Ramps & Placentia Av.	SBL	300												
	SBL/T	1,450	Future Interchange				Not Evaluated[4]				Not Evaluated[4]			
	SBR	900												
I-215 Southbound Ramps & Nuevo Rd.	SBL	670	128	217	Yes	Yes								
	SBL/T	1010	128	218	Yes	Yes	Not Evaluated[4]				Not Evaluated[4]			
	SBR	440	36	34	Yes	Yes								
I-215 Northbound Ramps & Harley Knox Bl.	NBL/T	1,120	20	24	Yes	Yes								
	NBR	265	24	54	Yes	Yes	Not Evaluated[4]				Not Evaluated[4]			
I-215 Northbound Ramps & Ramona Exwy.	NBL	520	141	149	Yes	Yes								
	NBL/T	1,120	141	151	Yes	Yes	Not Evaluated[4]				Not Evaluated[4]			
	NBR	520	423 [2]	414 [2]	Yes	Yes								
I-215 Northbound Ramps & Placentia Av.	NBL	600												
	NBL/T	1,700	Future Interchange				Not Evaluated[4]				Not Evaluated[4]			
	NBR	1,200												
I-215 Northbound Ramps & Nuevo Rd.	NBL/T	1,100	259	96	Yes	Yes	Not Evaluated[4]				Not Evaluated[4]			
	NBR	370	165	142	Yes	Yes								

Intersection	Movement[5]	Available Stacking Distance (Feet)[5]	Existing (2022)				EAP (2032) - Alternative 5				EAP (2032) - Alternative 6			
			95th Percentile Queue (Feet)		Acceptable?[1]		95th Percentile Queue (Feet)		Acceptable?[1]		95th Percentile Queue (Feet)		Acceptable?[1]	
			AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM
I-215 Northbound Ramps & Redlands Av.	WBL	1,225					322 [2]	330 [2]	Yes	Yes				
	WBL/T/R	790					261 [2]	272 [2]	Yes	Yes	Not Evaluated[4]			
	WBR	415					174 [2]	241 [2]	Yes	Yes				
I-215 Southbound Ramps & Redlands Av.	EBL	1,140					78	108	Yes	Yes				
	EBL/T/R	775					27	54	Yes	Yes	Not Evaluated[4]			
	EBR	185					24	48	Yes	Yes				
I-215 Northbound Ramps & Evans Rd.	**WBL**	**200**	Future Interchange				0	0	Yes	Yes	Not Evaluated[4]			
	WBT/R	**1,000**					0	0	Yes	Yes				
I-215 Southbound Ramps & Evans Rd.	**EBL**	**200**	Future Interchange				84	92	Yes	Yes	Not Evaluated[4]			
	EBT/R	**1,000**					0	0	Yes	Yes				
I-215 Southbound Ramps & SR-74	SBT	2,275	340	640	Yes	Yes	Not Evaluated[4]				Not Evaluated[4]			
	SBR	215	19	18	Yes	Yes								
I-215 Northbound Ramps & SR-74	SBL/R	1,510	81	172	Yes	Yes	Not Evaluated[4]				Not Evaluated[4]			
I-215 Southbound Ramps & Ethanac Rd.	SBL/T	1,365	136	198	Yes	Yes	Not Evaluated[4]				Not Evaluated[4]			
	SBR	240	65	158	Yes	Yes								
I-215 Northbound Ramps & Ethanac Rd.	NBL/T	1,550	302	376	Yes	Yes	Not Evaluated[4]				Not Evaluated[4]			
	NBR	240	45	56	Yes	Yes								

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

[3] Although 95th percentile queue is anticipated to exceed the available storage for the turn lane, the adjacent through lane has sufficient storage to accommodate any spillover without spilling back and affecting the I-215 Freeway mainline.

[4] Interchange not evaluated for this alternative.

[5] **200** = Improvement

5.6 RECOMMENDED IMPROVEMENTS

Improvement strategies have been recommended at intersections and off-ramps that have been identified as deficient under EAP (2032) traffic conditions in an effort to achieve an acceptable LOS. Since these improvements are required with the addition of Project traffic, the Project may be conditioned to provide the identified improvements. If the improvements are eligible under TUMF/DIF or other funding program, the Project can seek credits against its fee obligation.

5.6.1 IMPROVEMENTS TO ADDRESS DEFICIENCIES AT INTERSECTIONS

Table 5-7 indicates the physical improvements needed to address LOS deficiencies at each of the study area intersections under EAP (2032) traffic conditions. The improvements are identified to improve the EAP (2032) deficiencies back to acceptable levels. Intersection analysis worksheets for Existing (2022) traffic conditions, with improvements, are provided in the following appendices:

- Appendix 5.16 for Alternative 1
- Appendix 5.17 for Alternative 2
- Appendix 5.18 for Alternative 3
- Appendix 5.19 for Alternative 4
- Appendix 5.20 for Alternative 5

5.6.2 IMPROVEMENTS TO ADDRESS DEFICIENCIES ON OFF-RAMP QUEUES

As shown previously in Tables 5-4, 5-5, and 5-6, there are no anticipated peak hour queuing issues under EAP (2032) traffic conditions. As such, no improvements have been identified.

TABLE 5-7: INTERSECTION ANALYSIS FOR EAP (2032) CONDITIONS WITH IMPROVEMENTS

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
1	Harvill Av. & Cajalco Exwy.																	
	- Existing		Not Applicable															
	- Alternative 1 Improvements	TS	2	2	0	2	2	0	1	**3**	1	2	**3**	1>	33.0	42.1	C	D
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															
2	I-215 Southbound Ramps & Harley Knox Bl.																	
	- Existing		Not Applicable															
	- Alternative 1 Improvements	TS	0	0	0	**2**	1	**0**	0	2	d	1	2	0	24.3	29.5	C	C
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															
3	I-215 Northbound Ramps & Harley Knox Bl.																	
	- Existing	TS	0	1	1	0	0	0	**2**	2	0	0	2	d	19.8	11.5	B	B
	- Alternative 1 Improvements	TS	0	1	1	0	0	0	**2**	2	0	0	2	d	52.4	19.2	D	B
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															
4	I-215 Southbound Ramps & Ramona Exwy.																	
	- Existing		Not Applicable															
	- Alternative 1 Improvements	TS	0	0	0	1	1	1	0	2	d	**2**	2	0	32.1	33.9	C	C
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															
35	Redlands Av. & Nuevo Rd.																	
	- Existing		Not Applicable															
	- Alternative 1 Improvements	TS	1	1	1	0	1	0	1	**3**	0	1	**3**	0	54.2	13.4	D	B
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															
46	Dunlap Dr. & Nuevo Rd.																	
	- Existing		Not Applicable															
	- Alternative 1 Improvements	TS	1	1	0	1	1	0	1	**2**	**0**	1	**2**	0	36.1	42.2	D	D
	- Alternative 2 Improvements		Not Applicable															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Applicable															
	- Alternative 6 Improvements		Not Evaluated															

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
51	Antelope Rd. & Nuevo Rd.																	
	- Existing		Not Applicable															
	- Alternative 1 Improvements		Not Applicable															
	- Alternative 2 Improvements	TS	0	0	0	**1**	0	**1**	**1**	1	0	0	**2**	0	26.3	27.1	C	C
	- Alternative 3 Improvements	TS	0	0	0	**1**	0	**1**	**1**	1	0	0	**2**	0	26.3	27.1	C	C
	- Alternative 4 Improvements	TS	0	0	0	**1**	0	**1**	**1**	1	0	0	**2**	0	26.3	27.1	C	C
	- Alternative 5 Improvements	TS	0	0	0	**1**	0	**1**	**1**	1	0	0	**2**	0	26.3	27.1	C	C
	- Alternative 6 Improvements		Not Evaluated															
53	Menifee Rd./Reservoir Bl. & Nuevo Rd.																	
	- Existing		Not Applicable															
	- Alternative 1 Improvements	TS	0	1	0	0	0	0	0	1	0	**1**	1	0	39.3	41.8	D	D
	- Alternative 2 Improvements	TS	0	1	0	0	0	0	0	1	**1**	**1**	1	0	44.1	38.4	D	D
	- Alternative 3 Improvements	TS	0	1	0	0	0	0	0	1	**1**	**1**	1	0	44.1	38.4	D	D
	- Alternative 4 Improvements	TS	0	1	0	0	0	0	0	1	**1**	**1**	1	0	44.1	38.4	D	D
	- Alternative 5 Improvements	TS	0	1	0	0	0	0	0	1	**1**	**1**	1	0	44.1	38.4	D	D
	- Alternative 6 Improvements		Not Evaluated															
54	Menifee Rd. & San Jacinto Av.																	
	- Existing		Not Applicable															
	- Alternative 1 Improvements	TS	**1**	2	0	**1**	2	0	**1**	1	**0**	**1**	1	0	25.4	33.0	C	C
	- Alternative 2 Improvements	TS	**1**	2	0	**1**	2	0	**2**	1	**0**	**1**	1	0	29.5	29.1	C	C
	- Alternative 3 Improvements	TS	**1**	2	0	**1**	2	0	**1**	1	**0**	**1**	1	0	24.9	25.2	C	C
	- Alternative 4 Improvements	TS	**1**	2	0	**1**	2	0	**1**	1	**0**	**1**	1	0	24.9	25.2	C	C
	- Alternative 5 Improvements	TS	**1**	2	0	**1**	2	0	**2**	1	**0**	**1**	1	0	29.5	29.1	C	C
	- Alternative 6 Improvements		Not Evaluated															
55	Menifee Rd. & Ellis Rd.																	
	- Existing		Not Applicable															
	- Alternative 1 Improvements		Not Applicable															
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements	TS	**1**	1	0	**1**	1	0	0	1	0	0	1	0	6.9	6.2	A	A
	- Alternative 4 Improvements	TS	**1**	1	0	**1**	1	0	0	1	0	0	1	0	6.9	6.2	A	A
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															
56	Menifee Rd. & Mapes Rd.																	
	- Existing		Not Applicable															
	- Alternative 1 Improvements	TS	1	1	0	1	1	0	**1**	1	0	**1**	1	0	20.2	18.3	C	B
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements	TS	1	1	0	1	1	0	**1**	1	0	**1**	1	0	23.4	19.7	C	B
	- Alternative 4 Improvements	TS	1	1	0	1	1	0	**1**	1	0	**1**	1	0	23.4	19.7	C	B
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															
57	Menifee Rd. & Watson Rd.																	
	- Existing		Not Applicable															
	- Alternative 1 Improvements	TS	**1**	1	0	**1**	1	0	**1**	1	0	**1**	1	0	11.9	10.5	B	B
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements	TS	**1**	1	0	**1**	1	0	**1**	1	0	**1**	1	0	11.9	10.5	B	B
	- Alternative 4 Improvements	TS	**1**	1	0	**1**	1	0	**1**	1	0	**1**	1	0	11.9	10.5	B	B
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
58	Menifee Rd. & Ethanac Rd. (SR-74)																	
	- Existing	TS	1	1	1	**1**	1	0	1	2	0	1	2	0	36.0	25.9	D	C
	- Alternative 1 Improvements	TS	1	1	1	**1**	1	0	1	2	0	1	2	0	52.5	33.5	D	C
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements	TS	1	1	1	**1**	1	**1**	**2**	2	0	1	2	0	54.7	47.9	D	D
	- Alternative 4 Improvements	TS	1	1	1	**1**	1	0	1	2	0	1	2	0	54.5	41.7	D	D
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															
61	Lakeview Av. & Nuevo Rd.																	
	- Existing		Not Applicable															
	- Alternative 1 Improvements	**TS**	0	0	0	**1**	**0**	**1**	**1**	1	0	0	1	0	40.9	36.4	D	D
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															
65	Bridge St. & Ramona Exwy.																	
	- Existing	**TS**	0	0	0	0	1	0	1	1	0	0	1	0	11.4	1.2	B	A
	- Alternative 1 Improvements	**TS**	0	0	0	0	1	0	1	1	0	0	1	0	12.9	1.3	B	A
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															
67	Sanderson Av. (SR-79) & Ramona Exwy.																	
	- Existing	TS	2	**3**	1>	2	**3**	**1>>**	2	**3**	1>	2	**3**	1>	28.9	25.9	C	C
	- Alternative 1 Improvements	TS	2	**3**	1>	2	**3**	**1>>**	2	**3**	1>	2	**3**	1>	42.8	41.3	D	D
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															
70	Murrieta Rd. & San Jacinto Av.																	
	- Existing		Not Applicable															
	- Alternative 1 Improvements	**TS**	0	0	0	0	1	0	1	1	0	0	1	0	33.0	14.9	C	B
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															
71	Redlands Av. & San Jacinto Av.																	
	- Existing		Not Applicable															
	- Alternative 1 Improvements	TS	1	2	**1>**	1	2	0	2	1	1	2	1	1	51.9	35.8	D	D
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
77	Dunlap Dr. & San Jacinto Av.																	
	- Existing		Not Applicable															
	- Alternative 1 Improvements	**TS**	0	0	0	0	1	0	**1**	1	0	0	1	0	31.2	18.8	C	B
	- Alternative 2 Improvements	**TS**	0	0	0	0	1	0	**1**	1	0	0	1	0	6.2	5.2	A	A
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements	**TS**	0	0	0	0	1	0	**1**	1	0	0	1	0	23.5	15.8	C	B
	- Alternative 6 Improvements		Not Evaluated															
82	I-215 NB Ramps & Ethanac Rd.																	
	- Existing		Not Applicable															
	- Alternative 1 Improvements		Not Applicable															
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements	TS	**1**	1	1	0	0	0	1	1	0	0	1	0	36.8	47.9	D	D
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															
83	Encanto Dr. & Ethanac Rd.																	
	- Existing		Not Applicable															
	- Alternative 1 Improvements		Not Applicable															
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements	**TS**	0	1	0	0	0	0	0	1	0	1	1	0	15.0	19.1	B	B
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															
84	Sherman Rd. & Ethanac Rd.																	
	- Existing		Not Applicable															
	- Alternative 1 Improvements	CSS	0	1	0	0	1	0	**1**	1	0	0	1	0	24.2	29.2	C	D
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements	**TS**	0	1	0	0	1	0	**1**	1	0	**1**	1	0	15.3	16.5	B	B
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															
86	Antelope Rd. & Ethanac Rd.																	
	- Existing		Not Applicable															
	- Alternative 1 Improvements		Not Applicable															
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements	**TS**	0	1	0	0	1	0	**1**	1	1	**1**	1	0	12.3	9.2	B	A
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															
87	Menifee Rd. & Matthews Rd.																	
	- Alternative 1 Improvements	CSS	**1**	1	0	0	1	0	0	1	0	0	0	0	30.2	16.4	D	C
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements	**TS**	**1**	1	0	0	1	**1**	0	1	0	0	0	0	38.4	15.3	D	B
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; > = Right-Turn Overlap Phasing; >> = Free-Right Turn; **1** = Improvement

[2] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all-way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single

[3] CSS = Cross-street Stop; TS = Traffic Signal; **TS** = Improvements

6 EAPC (2032) TRAFFIC CONDITIONS

This section discusses the methods used to develop EAPC (2032) traffic forecasts, and the resulting intersection operations, traffic signal warrant, and off-ramp queuing analyses.

6.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for EAPC (2032) conditions are consistent with those shown previously on Exhibit 3-1, with the exception of the following:

- Project driveways and those facilities assumed to be constructed by the Project to provide site access are also assumed to be in place for EAP conditions only (e.g., intersection and roadway improvements at the Project's frontage and driveways). This also includes the construction of Antelope Road between Ramona Expressway and Nuevo Road.
- Driveways and those facilities assumed to be constructed by cumulative developments to provide site access are also assumed to be in place for EAPC (2032) conditions only (e.g., intersection and roadway improvements along the cumulative development's frontages).
- The I-215 Freeway/Placentia Avenue interchange is assumed to be completed and in place.
- Note: The MCP is not assumed to be in place for EAPC (2032) conditions.

6.2 EAPC (2032) TRAFFIC VOLUME FORECASTS

This scenario includes Existing (2022) traffic volumes plus an ambient growth factor of 21.9%, the addition of traffic generated by cumulative development projects, and the addition of Project traffic.

The weekday ADT volumes and peak hour volumes, in actual vehicles, which can be expected for EAPC (2032) traffic conditions are provided graphically in the following appendices:

- Appendix 6.1 for Alternative 1
- Appendix 6.2 for Alternative 2
- Appendix 6.3 for Alternative 3
- Appendix 6.4 for Alternative 4
- Appendix 6.5 for Alternative 5

Note: Alternative 6 is only evaluated under Horizon Year (2040) traffic conditions. EAPC (2032) traffic conditions assumes that the MCP is not constructed and operational, and that no development will occur on-site within the MCP alignment.

6.3 INTERSECTION OPERATIONS ANALYSIS

LOS calculations were conducted for the study intersections to evaluate their operations under EAPC (2032) conditions with roadway and intersection geometrics consistent with Section 6.1 *Roadway Improvements*. As shown in Table 6-1, all study area intersections are anticipated to continue to operate at an acceptable LOS during the peak hours for EAPC (2032) Alternative 1 traffic conditions, with the exception of the following intersections:

- Harvill Avenue & Cajalco Expressway (#1) – LOS F AM and PM peak hours
- I-215 Southbound Ramps & Harley Knox Boulevard (#2) – LOS F AM and PM peak hours
- I-215 Northbound Ramps & Harley Knox Boulevard (#3) – LOS F AM and PM peak hours
- I-215 Southbound Ramps & Ramona Expressway (#4) – LOS F AM and PM peak hours
- I-215 Northbound Ramps & Ramona Expressway (#5) – LOS F AM and PM peak hours
- I-215 Southbound Ramps & Placentia Avenue (#6) – LOS F PM peak hour only
- I-215 Northbound Ramps & Placentia Avenue (#7) – LOS E PM peak hour only
- I-215 Southbound Ramps & Nuevo Road (#8) – LOS E PM peak hour only
- Webster Avenue & Ramona Expressway (#12) – LOS F PM peak hour only
- Indian Avenue & Harley Knox Boulevard (#13) – LOS F AM and PM peak hours
- Indian Avenue & Ramona Expressway (#14) – LOS E AM peak hour; LOS F PM peak hour
- Perris Boulevard & Iris Avenue (#16) – LOS E AM and PM peak hours
- Perris Boulevard & Harley Knox Boulevard (#20) – LOS E PM peak hour only
- Perris Boulevard & Ramona Expressway (#22) – LOS F AM and PM peak hours
- Perris Boulevard & Nuevo Road (#27) – LOS E PM peak hour only
- Redlands Avenue & Ramona Expressway (#30) – LOS F AM and PM peak hours
- Redlands Avenue & Nuevo Road (#35) – LOS F AM peak hour only
- Lasselle Street & Iris Avenue (#37) – LOS E AM and PM peak hours
- Lasselle Street & Krameria Avenue (#38) – LOS F AM and PM peak hours
- Evans Road & Ramona Expressway (#39) – LOS F AM and PM peak hours
- Evans Road & Orange Avenue (#41) – LOS E PM peak hour only
- Dunlap Drive & Nuevo Road (#46) – LOS F AM and PM peak hours
- Ramona Expressway & Rider Street (#47) – LOS F PM peak hour only
- Antelope Road & Ramona Expressway (#48) – LOS F PM peak hour only
- Antelope Road & Nuevo Road (#51) – LOS F AM and PM peak hours
- Street A & Ramona Expressway (#52) – LOS F AM and PM peak hours
- Menifee Road/Reservoir Road & Nuevo Road (#53) – LOS F AM and PM peak hours
- Menifee Road & San Jacinto Avenue (#54) – LOS F AM and PM peak hours
- Menifee Road & Ellis Avenue (#55) – LOS F PM peak hour only
- Menifee Road & Mapes Road (#56) – LOS F AM and PM peak hours

TABLE 6-1: INTERSECTION ANALYSIS FOR EAPC (2032) ALTERNATIVES 1 & 2 CONDITIONS

#	Intersection	Traffic Control[2]	EAPC (2032) - Alternative 1				EAPC (2032) - Alternative 2				Acceptable LOS[4]
			Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service		
			AM	PM	AM	PM	AM	PM	AM	PM	
1	Harvill Av. & Cajalco Exwy.	TS	**110.9**	**140.3**	**F**	**F**	Not Analyzed[6]				D
2	I-215 Southbound Ramps & Harley Knox Bl.	TS	**>200.0**	**184.8**	**F**	**F**	Not Analyzed[6]				D
3	I-215 Northbound Ramps & Harley Knox Bl.	TS	**>200.0**	**>200.0**	**F**	**F**	Not Analyzed[6]				D
4	I-215 Southbound Ramps & Ramona Exwy.	TS	**90.2**	**>200.0**	**F**	**F**	Not Analyzed[6]				D
5	I-215 Northbound Ramps & Ramona Exwy.	TS	**198.5**	**>200.0**	**F**	**F**	Not Analyzed[6]				D
6	I-215 SB Ramps & Placentia Av.	**TS**[3]	25.8	**86.0**	C	**F**	Not Analyzed[6]				D
7	I-215 NB Ramps & Placentia Av.	**TS**[3]	44.7	**74.1**	D	**E**	Not Analyzed[6]				D
8	I-215 SB Ramps & Nuevo Rd.	TS	22.4	**56.3**	C	**E**	Not Analyzed[6]				D
9	I-215 NB Ramps & Nuevo Rd.	TS	21.1	13.1	C	B	Not Analyzed[6]				D
10	Western Wy. & Harley Knox Bl.	TS	20.5	11.6	C	B	Not Analyzed[6]				D
11	Webster Av. & Harley Knox Bl.	RA	12.2	26.0	B	D	Not Analyzed[6]				D
12	Webster Av. & Ramona Exwy.	TS	51.8	**89.4**	D	**F**	Not Analyzed[6]				D
13	Indian Av. & Harley Knox Bl.	TS	**149.5**	**133.4**	**F**	**F**	Not Analyzed[6]				D
14	Indian Av. & Ramona Exwy.	TS	**67.6**	**147.1**	**E**	**F**	Not Analyzed[6]				D
15	Indian Av. & Placentia Av.	AWS	12.8	11.2	B	B	Not Analyzed[6]				D
16	Perris Bl. & Iris Av.	TS	**57.2**	**55.9**	**E**	**E**	Not Analyzed[6]				D
17	Perris Bl. & Krameria Av.	TS	42.8	45.0	D	D	Not Analyzed[6]				D
18	Perris Bl. & San Michele Rd.	TS	12.8	32.2	B	C	Not Analyzed[6]				D
19	Perris Bl. & Nandina Av.	TS	12.4	27.8	B	C	Not Analyzed[6]				D
20	Perris Bl. & Harley Knox Bl.	TS	38.7	**71.7**	D	**E**	Not Analyzed[6]				D
21	Perris Bl. & Markham St.	TS	14.6	18.7	B	B	Not Analyzed[6]				D
22	Perris Bl. & Ramona Exwy.	TS	**160.8**	**156.4**	**F**	**F**	Not Analyzed[6]				D
23	Perris Bl. & Morgan St.	TS	12.0	13.8	B	B	Not Analyzed[6]				D
24	Perris Bl. & Rider St.	TS	21.0	23.2	C	C	Not Analyzed[6]				D
25	Perris Bl. & Placentia Av.	TS	19.4	49.7	B	D	Not Analyzed[6]				D
26	Perris Bl. & Orange Av.	TS	24.9	34.9	C	C	Not Analyzed[6]				D
27	Perris Bl. & Nuevo Rd.	TS	45.1	**61.5**	D	**E**	Not Analyzed[6]				D
28	Redlands Av. & Harley Knox Bl.	TS	40.3	49.1	D	D	Not Analyzed[6]				D
29	Redlands Av. & Markham St.	TS	8.1	11.4	A	B	Not Analyzed[6]				D
30	Redlands Av. & Ramona Exwy.	TS	**96.4**	**193.2**	**F**	**F**	Not Analyzed[6]				D
31	Redlands Av. & Morgan St.	AWS	19.0	15.3	C	C	Not Analyzed[6]				D
32	Redlands Av. & Rider St.	TS	25.7	22.1	C	C	Not Analyzed[6]				D
33	Redlands Av. & Placentia Av.	AWS	28.6	34.1	D	D	Not Analyzed[6]				D
34	Redlands Av. & Orange Av.	TS	19.3	18.0	B	B	Not Analyzed[6]				D
35	Redlands Av. & Nuevo Rd.	TS	**166.9**	33.9	**F**	C	Not Analyzed[6]				D
36	Murrieta Rd. & Nuevo Rd.	TS	44.7	22.4	D	C	Not Analyzed[6]				D
37	Lasselle St. & Iris Av.	TS	**74.3**	**75.3**	**E**	**E**	Not Analyzed[6]				D
38	Lasselle St. & Krameria Av.	TS	**99.9**	**145.0**	**F**	**F**	Not Analyzed[6]				D
39	Evans Rd. & Ramona Exwy.	TS	**147.5**	**107.1**	**F**	**F**	Not Analyzed[6]				D
40	Evans Rd. & Rider St.	TS	34.5	27.2	C	C	Not Analyzed[6]				D
41	Evans Rd. & Orange Av.	TS	22.4	**70.2**	C	**E**	Not Analyzed[6]				D
42	Evans Rd. & Nuevo Rd.	TS	25.9	21.0	C	C	Not Analyzed[6]				D
43	Bradley Rd. & Ramona Exwy.	TS	13.0	14.5	B	B	Not Analyzed[6]				D
44	Bradley Rd. & Rider St.	TS	27.8	29.4	C	C	Not Analyzed[6]				D
45	Dunlap Dr. & Orange Av.	CSS	10.5	11.1	B	B	Not Analyzed[6]				D

#	Intersection	Traffic Control[2]	EAPC (2032) - Delay[1] (secs.) AM	EAPC (2032) - Delay[1] (secs.) PM	EAPC (2032) - Level of Service AM	EAPC (2032) - Level of Service PM	EAPC (2032) - Delay[1] (secs.) AM	EAPC (2032) - Delay[1] (secs.) PM	EAPC (2032) - Level of Service AM	EAPC (2032) - Level of Service PM	Acceptable LOS[4]
46	Dunlap Dr. & Nuevo Rd.	TS	**>200.0**	**>200.0**	**F**	**F**	**>200.0**	**>200.0**	**F**	**F**	D
47	Ramona Exwy. & Rider St.	TS	31.7	**108.4**	C	**F**	Not Analyzed[6]				D
48	Antelope Rd. & Ramona Exwy.	**TS**	30.8	**88.1**	C	**F**	Not Analyzed[6]				D
49	MCP WB Ramps & Antelope Rd.		Not Analyzed[5]				Not Analyzed[5]				
50	MCP EB Ramps & Antelope Rd.		Not Analyzed[5]				Not Analyzed[5]				
51	Antelope Rd. & Nuevo Rd.	**TS**	**>200.0**	**>200.0**	**F**	**F**	**>200.0**	**>200.0**	**F**	**F**	D
52	Street A & Ramona Exwy.	**TS**	**>200.0**	**112.8**	**F**	**F**	Not Analyzed[6]				D
53	Menifee Rd./Reservoir Bl. & Nuevo Rd.	AWS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	D
54	Menifee Rd. & San Jacinto Av.	AWS	**>100.0**	**145.8**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	D
55	Menifee Rd. & Ellis Rd.	CSS	32.9	**59.2**	D	**F**	Not Analyzed[6]				D
56	Menifee Rd. & Mapes Rd.	CSS	**92.4**	**>100.0**	**F**	**F**	Not Analyzed[6]				D
57	Menifee Rd. & Watson Rd.	CSS	**>100.0**	**>100.0**	**F**	**F**	Not Analyzed[6]				D
58	Menifee Rd. & Ethanac Rd. (SR-74)	TS	**>200.0**	**>200.0**	**F**	**F**	Not Analyzed[6]				D
59	Bernasconi Rd. & Orange Av.		Future Intersection				Future Intersection				
60	Lakeview Av. & Ramona Exwy.	TS	**>200.0**	**>200.0**	**F**	**F**	Not Analyzed[6]				D
61	Lakeview Av. & Nuevo Rd.	AWS	**>100.0**	**>100.0**	**F**	**F**	Not Analyzed[6]				D
62	Montgomery Av. & Nuevo Rd.	CSS	12.4	12.5	B	B	Not Analyzed[6]				D
63	Hansen Av./Davis Rd. & Ramona Exwy.	TS	**101.1**	**116.8**	**F**	**F**	Not Analyzed[6]				D
64	Hansen Av. & Contour Av.	AWS	14.8	11.8	B	B	Not Analyzed[6]				D
65	Bridge St. & Ramona Exwy.	CSS	**>100.0**	**>100.0**	**F**	**F**	Not Analyzed[6]				D
66	Warren Rd. & Ramona Exwy.	TS	**92.4**	**131.8**	**F**	**F**	Not Analyzed[6]				D
67	Sanderson Av. (SR-79) & Ramona Exwy.	TS	**>200.0**	**>200.0**	**F**	**F**	Not Analyzed[6]				D
68	Indian Av. & Morgan St.	TS	25.7	18.7	C	B	Not Analyzed[6]				D
69	Indian Av. & Rider St.	TS	15.4	16.2	B	B	Not Analyzed[6]				D
70	Murrieta Rd. & San Jacinto Av.	CSS	**>100.0**	27.2	**F**	D	Not Analyzed[6]				D
71	Redlands Av. & San Jacinto Av.	TS	**164.6**	**184.1**	**F**	**F**	Not Analyzed[6]				D
72	Redlands Av. & I-215 NB Ramps	TS	21.9	**59.4**	C	**E**	Not Analyzed[6]				D
73	Redlands Av. & I-215 SB Ramps	TS	15.6	17.1	B	B	Not Analyzed[6]				D
74	Evans Rd. & San Jacinto Av.	**CSS**	16.2	14.0	C	B	Not Analyzed[7]				
75	Evans Rd. & I-215 NB Ramps		Future Intersection				Future Intersection				
76	Evans Rd. & I-215 SB Ramps		Future Intersection				Future Intersection				D
77	Dunlap Dr. & San Jacinto Av.	CSS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	D
78	I-215 SB Ramps & SR-74	TS	27.5	**72.1**	C	**E**	Not Analyzed[6]				D
79	I-215 NB Ramps & SR-74	TS	13.0	18.6	B	B	Not Analyzed[6]				D
80	Trumble Rd. & SR-74	TS	**59.1**	**59.8**	**E**	**E**	Not Analyzed[6]				D
81	I-215 SB Ramps & Ethanac Rd.	TS	13.6	32.7	B	C	Not Analyzed[6]				D
82	I-215 NB Ramps & Ethanac Rd.	TS	**65.0**	**86.4**	**E**	**F**	Not Analyzed[6]				D
83	Encanto Dr. & Ethanac Rd.	CSS	**>100.0**	**>100.0**	**F**	**F**	Not Analyzed[6]				D
84	Sherman Rd. & Ethanac Rd.	CSS	**65.8**	**>100.0**	**F**	**F**	Not Analyzed[6]				D
85	Antelope Rd. & SR-74	TS	12.6	10.6	B	B	Not Analyzed[6]				D
86	Antelope Rd. & Ethanac Rd.	CSS	**43.4**	10.5	**E**	C	Not Analyzed[6]				D
87	Menifee Rd. & Matthews Rd.	CSS	**84.6**	**76.6**	**F**	**F**	Not Analyzed[6]				D

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all-way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[2] AWS = All-way Stop; CSS = Cross-street Stop; RA = Roundabout; TS = Traffic Signal; **TS** = Improvement

[3] A traffic signal is assumed as part of the I-215 Freeway/Placentia Avenue interchange project. The I-215 Freeway/Placentia Avenue interchange project is anticipated to be completed by 2022. As such, these improvements have been assumed to be in place for EAP (2030) conditions.

[4] Minimum acceptable LOS for each applicable jurisdiction.

[5] Intersection will be constructed when the Mid-County Parkway is constructed. As such, the intersection does not exist under this scenario.

[6] Intersection not evaluated for this alternative.

- Menifee Road & Watson Road (#57) – LOS F AM and PM peak hours
- Menifee Road & Ethanac Road (SR-74) (#58) – LOS F AM and PM peak hours
- Lakeview Avenue & Ramona Expressway (#60) – LOS F AM and PM peak hours
- Lakeview Avenue & Nuevo Road (#61) – LOS F AM and PM peak hours
- Hansen Avenue/Davis Road & Ramona Expressway (#63) – LOS F AM and PM peak hours
- Bridge Street & Ramona Expressway (#65) – LOS F AM and PM peak hours
- Warren Road & Ramona Expressway (#66) – LOS F AM and PM peak hours
- Sanderson Avenue (SR-79) & Ramona Expressway (#67) – LOS F AM and PM peak hours
- Murrieta Road & San Jacinto Avenue (#70) – LOS F AM peak hour only
- Redlands Avenue & San Jacinto Avenue (#71) – LOS F AM and PM peak hours
- Redlands Avenue & I-21 Northbound Ramps (#72) – LOS F PM peak hour only
- Dunlap Drive & San Jacinto Avenue (#77) – LOS F AM and PM peak hours
- I-215 Southbound Ramps & SR-74 (#78) – LOS E PM peak hour only
- Trumble Road & SR-74 (#80) – LOS E AM and PM peak hours
- I-215 Northbound Ramps & Ethanac Road (#81) – LOS E PM peak hour only
- I-215 Northbound Ramps & Ethanac Road (#82) – LOS E AM peak hour only; LOS F PM peak hour only
- Encanto Drive & Ethanac Road (#83) – LOS F AM and PM peak hours
- Sherman Road & Ethanac Road (#84) – LOS F AM and PM peak hours
- Antelope Road & Ethanac Road (SR-74) (#86) – LOS E AM peak hour only
- Menifee Road & Matthews Road (#87) – LOS F AM and PM peak hours

As shown in Table 6-1, the intersection operations analysis results under EAP (2032) Alternative 2 conditions are consistent with the intersection operations analysis results under EAP (2032) Alternative 1 conditions.

As shown in Table 6-2, the intersection operations analysis results under EAP (2032) Alternative 3 conditions are consistent with EAP (2032) Alternative 1 conditions, with the exception of the following intersection:

- Redlands Avenue & I-21 Northbound Ramps (#72) – no longer deficient

As shown in Table 6-2, the intersection operations analysis results under EAP (2032) Alternative 4 conditions are consistent with EAP (2032) Alternative 1 conditions, with the exception of the following intersections:

- Redlands Avenue & I-21 Northbound Ramps (#72) – no longer deficient
- Antelope Road & Ethanac Road (#86) – LOS F AM peak hour; LOS E PM peak hour

TABLE 6-2: INTERSECTION ANALYSIS FOR EAPC (2032) ALTERNATIVES 3 & 4 CONDITIONS

#	Intersection	Traffic Control[2]	EAPC (2032) - Alternative 3				EAPC (2032) - Alternative 4				Acceptable LOS[4]
			Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service		
			AM	PM	AM	PM	AM	PM	AM	PM	
1	Harvill Av. & Cajalco Exwy.	TS	Not Analyzed[7]				Not Analyzed[7]				D
2	I-215 Southbound Ramps & Harley Knox Bl.	TS	Not Analyzed[7]				Not Analyzed[7]				D
3	I-215 Northbound Ramps & Harley Knox Bl.	TS	Not Analyzed[7]				Not Analyzed[7]				D
4	I-215 Southbound Ramps & Ramona Exwy.	TS	Not Analyzed[7]				Not Analyzed[7]				D
5	I-215 Northbound Ramps & Ramona Exwy.	TS	Not Analyzed[7]				Not Analyzed[7]				D
6	I-215 SB Ramps & Placentia Av.	TS[3]	Not Analyzed[7]				Not Analyzed[7]				D
7	I-215 NB Ramps & Placentia Av.	TS[3]	Not Analyzed[7]				Not Analyzed[7]				D
8	I-215 SB Ramps & Nuevo Rd.	TS	Not Analyzed[7]				Not Analyzed[7]				D
9	I-215 NB Ramps & Nuevo Rd.	TS	Not Analyzed[7]				Not Analyzed[7]				D
10	Western Wy. & Harley Knox Bl.	TS	Not Analyzed[7]				Not Analyzed[7]				D
11	Webster Av. & Harley Knox Bl.	RA	Not Analyzed[7]				Not Analyzed[7]				D
12	Webster Av. & Ramona Exwy.	TS	Not Analyzed[7]				Not Analyzed[7]				D
13	Indian Av. & Harley Knox Bl.	TS	Not Analyzed[7]				Not Analyzed[7]				D
14	Indian Av. & Ramona Exwy.	TS	Not Analyzed[7]				Not Analyzed[7]				D
15	Indian Av. & Placentia Av.	AWS	Not Analyzed[7]				Not Analyzed[7]				D
16	Perris Bl. & Iris Av.	TS	Not Analyzed[7]				Not Analyzed[7]				D
17	Perris Bl. & Krameria Av.	TS	Not Analyzed[7]				Not Analyzed[7]				D
18	Perris Bl. & San Michele Rd.	TS	Not Analyzed[7]				Not Analyzed[7]				D
19	Perris Bl. & Nandina Av.	TS	Not Analyzed[7]				Not Analyzed[7]				D
20	Perris Bl. & Harley Knox Bl.	TS	Not Analyzed[7]				Not Analyzed[7]				D
21	Perris Bl. & Markham St.	TS	Not Analyzed[7]				Not Analyzed[7]				D
22	Perris Bl. & Ramona Exwy.	TS	Not Analyzed[7]				Not Analyzed[7]				D
23	Perris Bl. & Morgan St.	TS	Not Analyzed[7]				Not Analyzed[7]				D
24	Perris Bl. & Rider St.	TS	Not Analyzed[7]				Not Analyzed[7]				D
25	Perris Bl. & Placentia Av.	TS	Not Analyzed[7]				Not Analyzed[7]				D
26	Perris Bl. & Orange Av.	TS	Not Analyzed[7]				Not Analyzed[7]				D
27	Perris Bl. & Nuevo Rd.	TS	Not Analyzed[7]				Not Analyzed[7]				D
28	Redlands Av. & Harley Knox Bl.	TS	Not Analyzed[7]				Not Analyzed[7]				D
29	Redlands Av. & Markham St.	TS	Not Analyzed[7]				Not Analyzed[7]				D
30	Redlands Av. & Ramona Exwy.	TS	Not Analyzed[7]				Not Analyzed[7]				D
31	Redlands Av. & Morgan St.	AWS	Not Analyzed[7]				Not Analyzed[7]				D
32	Redlands Av. & Rider St.	AWS	Not Analyzed[7]				Not Analyzed[7]				D
33	Redlands Av. & Placentia Av.	AWS	Not Analyzed[7]				Not Analyzed[7]				D
34	Redlands Av. & Orange Av.	TS	Not Analyzed[7]				Not Analyzed[7]				D
35	Redlands Av. & Nuevo Rd.	TS	Not Analyzed[7]				Not Analyzed[7]				D
36	Murrieta Rd. & Nuevo Rd.	TS	Not Analyzed[7]				Not Analyzed[7]				D
37	Lasselle St. & Iris Av.	TS	Not Analyzed[7]				Not Analyzed[7]				D
38	Lasselle St. & Krameria Av.	TS	Not Analyzed[7]				Not Analyzed[7]				D
39	Evans Rd. & Ramona Exwy.	TS	Not Analyzed[7]				Not Analyzed[7]				D
40	Evans Rd. & Rider St.	TS	Not Analyzed[7]				Not Analyzed[7]				D
41	Evans Rd. & Orange Av.	TS	Not Analyzed[7]				Not Analyzed[7]				D
42	Evans Rd. & Nuevo Rd.	TS	Not Analyzed[7]				Not Analyzed[7]				D
43	Bradley Rd. & Ramona Exwy.	TS	Not Analyzed[7]				Not Analyzed[7]				D
44	Bradley Rd. & Rider St.	TS	Not Analyzed[7]				Not Analyzed[7]				D
45	Dunlap Dr. & Orange Av.	CSS	Not Analyzed[7]				Not Analyzed[7]				D

#	Intersection	Traffic Control[2]	EAPC (2032) - Alternative 3				EAPC (2032) - Alternative 4				Acceptable LOS[4]
			Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service		
			AM	PM	AM	PM	AM	PM	AM	PM	
46	Dunlap Dr. & Nuevo Rd.	TS	Not Analyzed[7]				Not Analyzed[7]				D
47	Ramona Exwy. & Rider St.	TS	Not Analyzed[7]				Not Analyzed[7]				D
48	Antelope Rd. & Ramona Exwy.	**TS**	Not Analyzed[7]				Not Analyzed[7]				D
49	MCP WB Ramps & Antelope Rd.		Not Analyzed[6]				Not Analyzed[6]				
50	MCP EB Ramps & Antelope Rd.		Not Analyzed[6]				Not Analyzed[6]				
51	Antelope Rd. & Nuevo Rd.	**TS**	**>200.0**	**>200.0**	**F**	**F**	**>200.0**	**>200.0**	**F**	**F**	D
52	Street A & Ramona Exwy.	**TS**	Not Analyzed[7]				Not Analyzed[7]				D
53	Menifee Rd./Reservoir Bl. & Nuevo Rd.	AWS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	D
54	Menifee Rd. & San Jacinto Av.	AWS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	D
55	Menifee Rd. & Ellis Rd.	CSS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**51.8**	**E**	**F**	D
56	Menifee Rd. & Mapes Rd.	CSS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	D
57	Menifee Rd. & Watson Rd.	CSS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	A	**F**	D
58	Menifee Rd. & Ethanac Rd. (SR-74)	TS	**>200.0**	**>200.0**	**F**	**F**	**>200.0**	**156.4**	**F**	**F**	D
59	Bernasconi Rd. & Orange Av.		Future Intersection				Future Intersection				
60	Lakeview Av. & Ramona Exwy.	TS	Not Analyzed[7]				Not Analyzed[7]				D
61	Lakeview Av. & Nuevo Rd.	AWS	Not Analyzed[7]				Not Analyzed[7]				D
62	Montgomery Av. & Nuevo Rd.	CSS	Not Analyzed[7]				Not Analyzed[7]				D
63	Hansen Av./Davis Rd. & Ramona Exwy.	TS	Not Analyzed[7]				Not Analyzed[7]				D
64	Hansen Av. & Contour Av.	AWS	Not Analyzed[7]				Not Analyzed[7]				D
65	Bridge St. & Ramona Exwy.	CSS	Not Analyzed[7]				Not Analyzed[7]				D
66	Warren Rd. & Ramona Exwy.	TS	Not Analyzed[7]				Not Analyzed[7]				D
67	Sanderson Av. (SR-79) & Ramona Exwy.	TS	Not Analyzed[7]				Not Analyzed[7]				D
68	Indian Av. & Morgan St.	TS	Not Analyzed[7]				Not Analyzed[7]				D
69	Indian Av. & Rider St.	TS	Not Analyzed[7]				Not Analyzed[7]				D
70	Murrieta Rd. & San Jacinto Av.	CSS	**37.8**	15.9	**E**	C	**37.8**	15.9	**E**	C	D
71	Redlands Av. & San Jacinto Av.	TS	**78.2**	**93.8**	**E**	**F**	**78.2**	**93.8**	**E**	**F**	D
72	Redlands Av. & I-215 NB Ramps	TS	17.1	41.9	B	D	17.1	41.9	B	D	D
73	Redlands Av. & I-215 SB Ramps	TS	12.7	13.9	B	B	12.7	13.9	B	B	D
74	Evans Rd. & San Jacinto Av.		Future Intersection				Future Intersection				D
75	Evans Rd. & I-215 NB Ramps		Future Intersection				Future Intersection				D
76	Evans Rd. & I-215 SB Ramps		Future Intersection				Future Intersection				D
77	Dunlap Dr. & San Jacinto Av.	CSS	34.6	**44.3**	D	**E**	34.6	**44.3**	D	**E**	D
78	I-215 SB Ramps & SR-74	TS	36.5	**89.9**	D	**F**	Not Analyzed[7]				D
79	I-215 NB Ramps & SR-74	TS	16.0	28.8	B	C	Not Analyzed[7]				D
80	Trumble Rd. & SR-74	TS	**87.3**	**92.8**	**F**	**F**	Not Analyzed[7]				D
81	I-215 SB Ramps & Ethanac Rd.	TS	Not Analyzed[7]				30.7	**65.7**	C	**E**	D
82	I-215 NB Ramps & Ethanac Rd.	TS	Not Analyzed[7]				**143.7**	**162.9**	**F**	**F**	D
83	Encanto Dr. & Ethanac Rd.	CSS	Not Analyzed[7]				**>100.0**	**>100.0**	**F**	**F**	D
84	Sherman Rd. & Ethanac Rd.	CSS	Not Analyzed[7]				**>100.0**	**>100.0**	**F**	**F**	D
85	Antelope Rd. & SR-74	TS	14.5	10.8	B	B	Not Analyzed[7]				D
86	Antelope Rd. & Ethanac Rd.	CSS	Not Analyzed[7]				**>100.0**	**84.0**	**F**	**E**	D
87	Menifee Rd. & Matthews Rd.	CSS	Not Analyzed[7]				**>100.0**	**>100.0**	**F**	**F**	D

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all-way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[2] AWS = All-way Stop; CSS = Cross-street Stop; RA = Roundabout; TS = Traffic Signal; **TS** = Improvement

[3] A traffic signal is assumed as part of the I-215 Freeway/Placentia Avenue interchange project. The I-215 Freeway/Placentia Avenue interchange project is anticipated to be completed by 2022. As such, these improvements have been assumed to be in place for EAP (2030) conditions.

[4] Minimum acceptable LOS for each applicable jurisdiction.

[5] The Nuevo Road widening is anticipated to be completed by the end of 2020. As such, the Nuevo Road widening is assumed under EAP (2030) traffic conditions.

[6] Intersection will be constructed when the Mid-County Parkway is constructed. As such, the intersection does not exist under this scenario.

[7] Intersection not evaluated for this alternative.

TABLE 6-3: INTERSECTION ANALYSIS FOR EAPC (2032) ALTERNATIVES 5 & 6 CONDITIONS

#	Intersection	Traffic Control[2]	EAPC (2032) - Alternative 5				EAPC (2032) - Alternative 6				Acceptable LOS[4]
			Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service		
			AM	PM	AM	PM	AM	PM	AM	PM	
1	Harvill Av. & Cajalco Exwy.	TS	Not Analyzed[5]				Not Analyzed[5]				D
2	I-215 Southbound Ramps & Harley Knox Bl.	TS	Not Analyzed[5]				Not Analyzed[5]				D
3	I-215 Northbound Ramps & Harley Knox Bl.	TS	Not Analyzed[5]				Not Analyzed[5]				D
4	I-215 Southbound Ramps & Ramona Exwy.	TS	Not Analyzed[5]				Not Analyzed[5]				D
5	I-215 Northbound Ramps & Ramona Exwy.	TS	Not Analyzed[5]				Not Analyzed[5]				D
6	I-215 SB Ramps & Placentia Av.	TS[3]	Not Analyzed[5]				Not Analyzed[5]				D
7	I-215 NB Ramps & Placentia Av.	TS[3]	Not Analyzed[5]				Not Analyzed[5]				D
8	I-215 SB Ramps & Nuevo Rd.	TS	Not Analyzed[5]				Not Analyzed[5]				D
9	I-215 NB Ramps & Nuevo Rd.	TS	Not Analyzed[5]				Not Analyzed[5]				D
10	Western Wy. & Harley Knox Bl.	TS	Not Analyzed[5]				Not Analyzed[5]				D
11	Webster Av. & Harley Knox Bl.	RA	Not Analyzed[5]				Not Analyzed[5]				D
12	Webster Av. & Ramona Exwy.	TS	Not Analyzed[5]				Not Analyzed[5]				D
13	Indian Av. & Harley Knox Bl.	TS	Not Analyzed[5]				Not Analyzed[5]				D
14	Indian Av. & Ramona Exwy.	TS	Not Analyzed[5]				Not Analyzed[5]				D
15	Indian Av. & Placentia Av.	AWS	Not Analyzed[5]				Not Analyzed[5]				D
16	Perris Bl. & Iris Av.	TS	Not Analyzed[5]				Not Analyzed[5]				D
17	Perris Bl. & Krameria Av.	TS	Not Analyzed[5]				Not Analyzed[5]				D
18	Perris Bl. & San Michele Rd.	TS	Not Analyzed[5]				Not Analyzed[5]				D
19	Perris Bl. & Nandina Av.	TS	Not Analyzed[5]				Not Analyzed[5]				D
20	Perris Bl. & Harley Knox Bl.	TS	Not Analyzed[5]				Not Analyzed[5]				D
21	Perris Bl. & Markham St.	TS	Not Analyzed[5]				Not Analyzed[5]				D
22	Perris Bl. & Ramona Exwy.	TS	Not Analyzed[5]				Not Analyzed[5]				D
23	Perris Bl. & Morgan St.	TS	Not Analyzed[5]				Not Analyzed[5]				D
24	Perris Bl. & Rider St.	TS	Not Analyzed[5]				Not Analyzed[5]				D
25	Perris Bl. & Placentia Av.	TS	Not Analyzed[5]				Not Analyzed[5]				D
26	Perris Bl. & Orange Av.	TS	Not Analyzed[5]				Not Analyzed[5]				D
27	Perris Bl. & Nuevo Rd.	TS	Not Analyzed[5]				Not Analyzed[5]				D
28	Redlands Av. & Harley Knox Bl.	TS	Not Analyzed[5]				Not Analyzed[5]				D
29	Redlands Av. & Markham St.	TS	Not Analyzed[5]				Not Analyzed[5]				D
30	Redlands Av. & Ramona Exwy.	TS	Not Analyzed[5]				Not Analyzed[5]				D
31	Redlands Av. & Morgan St.	AWS	Not Analyzed[5]				Not Analyzed[5]				D
32	Redlands Av. & Rider St.	AWS	Not Analyzed[5]				Not Analyzed[5]				D
33	Redlands Av. & Placentia Av.	AWS	Not Analyzed[5]				Not Analyzed[5]				D
34	Redlands Av. & Orange Av.	TS	Not Analyzed[5]				Not Analyzed[5]				D
35	Redlands Av. & Nuevo Rd.	TS	Not Analyzed[5]				Not Analyzed[5]				D
36	Murrieta Rd. & Nuevo Rd.[5]	TS	Not Analyzed[5]				Not Analyzed[5]				D
37	Lasselle St. & Iris Av.	TS	Not Analyzed[5]				Not Analyzed[5]				D
38	Lasselle St. & Krameria Av.	TS	Not Analyzed[5]				Not Analyzed[5]				D
39	Evans Rd. & Ramona Exwy.	TS	Not Analyzed[5]				Not Analyzed[5]				D
40	Evans Rd. & Rider St.	TS	Not Analyzed[5]				Not Analyzed[5]				D
41	Evans Rd. & Orange Av.	TS	Not Analyzed[5]				Not Analyzed[5]				D
42	Evans Rd. & Nuevo Rd.[5]	TS	Not Analyzed[5]				Not Analyzed[5]				D
43	Bradley Rd. & Ramona Exwy.	TS	Not Analyzed[5]				Not Analyzed[5]				D
44	Bradley Rd. & Rider St.	TS	Not Analyzed[5]				Not Analyzed[5]				D
45	Dunlap Dr. & Orange Av.	CSS	Not Analyzed[5]				Not Analyzed[5]				D

#	Intersection	Traffic Control[2]	EAPC (2032) - Alternative 5				EAPC (2032) - Alternative 6				Acceptable LOS[4]
			Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service		
			AM	PM	AM	PM	AM	PM	AM	PM	
46	Dunlap Dr. & Nuevo Rd.	TS	**>200.0**	**>200.0**	**F**	**F**	Not Analyzed[5]				D
47	Ramona Exwy. & Rider St.	TS	Not Analyzed[5]				Not Analyzed[5]				D
48	Antelope Rd. & Ramona Exwy.	**TS**	Not Analyzed[5]				Not Analyzed[5]				D
49	MCP WB Ramps & Antelope Rd.		Not Analyzed[5]				Not Analyzed[5]				
50	MCP EB Ramps & Antelope Rd.		Not Analyzed[5]				Not Analyzed[5]				
51	Antelope Rd. & Nuevo Rd.	**TS**	**>200.0**	**>200.0**	**F**	**F**	Not Analyzed[5]				D
52	Street A & Ramona Exwy.	**TS**	Not Analyzed[5]				Not Analyzed[5]				D
53	Menifee Rd./Reservoir Bl. & Nuevo Rd.	AWS	**>100.0**	**>100.0**	**F**	**F**	Not Analyzed[5]				D
54	Menifee Rd. & San Jacinto Av.	AWS	**>100.0**	**>100.0**	**F**	**F**	Not Analyzed[5]				D
55	Menifee Rd. & Ellis Rd.	CSS	Not Analyzed[5]				Not Analyzed[5]				D
56	Menifee Rd. & Mapes Rd.	CSS	Not Analyzed[5]				Not Analyzed[5]				D
57	Menifee Rd. & Watson Rd.	CSS	Not Analyzed[5]				Not Analyzed[5]				D
58	Menifee Rd. & Ethanac Rd. (SR-74)	TS	Not Analyzed[5]				Not Analyzed[5]				D
59	Bernasconi Rd. & Orange Av.		Future Intersection				Future Intersection				
60	Lakeview Av. & Ramona Exwy.	TS	Not Analyzed[5]				Not Analyzed[5]				D
61	Lakeview Av. & Nuevo Rd.	AWS	Not Analyzed[5]				Not Analyzed[5]				D
62	Montgomery Av. & Nuevo Rd.	CSS	Not Analyzed[5]				Not Analyzed[5]				D
63	Hansen Av./Davis Rd. & Ramona Exwy.	TS	Not Analyzed[5]				Not Analyzed[5]				D
64	Hansen Av. & Contour Av.	AWS	Not Analyzed[5]				Not Analyzed[5]				D
65	Bridge St. & Ramona Exwy.	CSS	Not Analyzed[5]				Not Analyzed[5]				D
66	Warren Rd. & Ramona Exwy.	TS	Not Analyzed[5]				Not Analyzed[5]				D
67	Sanderson Av. (SR-79) & Ramona Exwy.	TS	Not Analyzed[5]				Not Analyzed[5]				D
68	Indian Av. & Morgan St.	TS	Not Analyzed[5]				Not Analyzed[5]				D
69	Indian Av. & Rider St.	TS	Not Analyzed[5]				Not Analyzed[5]				D
70	Murrieta Rd. & San Jacinto Av.	CSS	**37.8**	15.9	**E**	C	Not Analyzed[5]				D
71	Redlands Av. & San Jacinto Av.	TS	**78.2**	**93.8**	**E**	**F**	Not Analyzed[5]				D
72	Redlands Av. & I-215 NB Ramps	TS	17.1	41.9	C	D	Not Analyzed[5]				D
73	Redlands Av. & I-215 SB Ramps	TS	12.7	13.9	B	B	Not Analyzed[5]				D
74	Evans Rd. & San Jacinto Av.	**TS**	13.9	22.3	B	C	Not Analyzed[5]				D
75	Evans Rd. & I-215 NB Ramps	**TS**	6.4	6.6	A	A	Not Analyzed[5]				D
76	Evans Rd. & I-215 SB Ramps	**TS**	6.5	6.4	A	A	Not Analyzed[5]				D
77	Dunlap Dr. & San Jacinto Av.	CSS	**>200.0**	**>100.0**	**F**	**F**	Not Analyzed[5]				D
78	I-215 SB Ramps & SR-74	TS	Not Analyzed[5]				Not Analyzed[5]				D
79	I-215 NB Ramps & SR-74	TS	Not Analyzed[5]				Not Analyzed[5]				D
80	Trumble Rd. & SR-74	TS	Not Analyzed[5]				Not Analyzed[5]				D
81	I-215 SB Ramps & Ethanac Rd.	TS	Not Analyzed[5]				Not Analyzed[5]				D
82	I-215 NB Ramps & Ethanac Rd.	TS	Not Analyzed[5]				Not Analyzed[5]				D
83	Encanto Dr. & Ethanac Rd.	CSS	Not Analyzed[5]				Not Analyzed[5]				D
84	Sherman Rd. & Ethanac Rd.	CSS	Not Analyzed[5]				Not Analyzed[5]				D
85	Antelope Rd. & SR-74	TS	Not Analyzed[5]				Not Analyzed[5]				D
86	Antelope Rd. & Ethanac Rd.	CSS	Not Analyzed[5]				Not Analyzed[5]				D
87	Menifee Rd. & Matthews Rd.	CSS	Not Analyzed[5]				Not Analyzed[5]				D

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all-way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[2] AWS = All-way Stop; CSS = Cross-street Stop; RA = Roundabout; TS = Traffic Signal; **TS** = Improvement

[3] A traffic signal is assumed as part of the I-215 Freeway/Placentia Avenue interchange project. The I-215 Freeway/Placentia Avenue interchange project is anticipated to be completed by 2022. As such, these improvements have been assumed to be in place for EAP

[4] Minimum acceptable LOS for each applicable jurisdiction.

[5] Intersection will be constructed when the Mid-County Parkway is constructed. As such, the intersection does not exist under this scenario.

As shown in Table 6-3, the intersection operations analysis results under EAP (2032) Alternative 5 conditions are consistent with EAP (2032) Alternative 1 conditions, with the exception of the following intersection:

- Redlands Avenue & I-21 Northbound Ramps (#72) – no longer deficient

The intersection operations analysis worksheets for EAPC (2032) traffic conditions for each alternative are included in the following Appendices:

- Appendix 6.1 for Alternative 1
- Appendix 6.2 for Alternative 2
- Appendix 6.3 for Alternative 3
- Appendix 6.4 for Alternative 4
- Appendix 6.5 for Alternative 5

6.4 TRAFFIC SIGNAL WARRANTS ANALYSIS

Traffic signal warrants have been performed (based on CA MUTCD) for EAPC (2032) traffic conditions based on daily volumes. The intersection of Antelope Road & Ethanac Road (#86) is anticipated to meet a traffic signal warrant under EAPC (2032) conditions for Alternatives 1 and 4. There are no additional unsignalized intersections anticipated to meet a traffic signal under EAPC (2032) Alternative 3 conditions. It should be noted, all unsignalized study area intersections selected for evaluation under EAPC (2032) Alternatives 2 and 5 have previously been met under previously analysis scenarios.

The EAPC (2032) conditions traffic signal warrant analysis worksheets are provided for each alternative are provided in the following appendices:

- Appendix 6.9 for Alternative 1
- Appendix 6.10 for Alternative 2
- Appendix 6.11 for Alternative 3

6.5 OFF-RAMP QUEUING ANALYSIS

As shown in Table 6-4, the following movements are anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows under EAPC (2032) Alternative 1 traffic conditions:

- I-215 Southbound Ramps & Ramona Expressway (#4), southbound left turn lane – AM and PM peak hours
- I-215 Southbound Ramps & Ramona Expressway (#4), southbound left-through lane – PM peak hour only

There are no additional movements anticipated to experience queuing issues under EAPC (2032) Alternatives 3, 4, and 5 conditions, in additional to the movements identified under Alternative 1. It should be noted, off-ramp queues were not evaluated under Alternative 2 since there are no changes to the Project Only volumes at the study area off-ramps compared to Alternative 1. Worksheets for EAPC (2032) traffic conditions off-ramp queuing analysis are provided for each alternative in the following appendices:

- Appendix 6.9 for Alternative 1
- Appendix 6.10 for Alternative 3
- Appendix 6.11 for Alternative 4
- Appendix 6.12 for Alternative 5

TABLE 6-4: PEAK HOUR FREEWAY OFF-RAMP QUEUING SUMMARY FOR EAPC (2032) ALTERNATIVE 1 & 2 CONDITIONS

Intersection	Movement	Available Stacking Distance (Feet)	EAPC (2032) - Alternative 1				EAPC (2032) - Alternative 2			
			95th Percentile Queue (Feet)		Acceptable? [1]		95th Percentile Queue (Feet)		Acceptable? [1]	
			AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM
I-215 Southbound Ramps & Harley Knox Bl.	SBL/T	1,330	1,004 [2]	597 [2]	Yes	Yes	Not Evaluated[4]			
	SBR	270	171 [2]	60	Yes	Yes				
I-215 Southbound Ramps & Ramona Exwy.	SBL	530	**912** [2]	**1,370** [2]	**No**	**No**				
	SBL/T	1,100	914 [2]	**1,374** [2]	Yes	**No**	Not Evaluated[4]			
	SBR	530	390 [2]	205	Yes	Yes				
I-215 Southbound Ramps & Placentia Av.	SBL	300	248 [2]	478 [2]	Yes	Yes				
	SBL/T	1,450	182	404 [2]	Yes	Yes	Not Evaluated[4]			
	SBR	900	0	0	Yes	Yes				
I-215 Southbound Ramps & Nuevo Rd.	SBL	670	178	300 [2]	Yes	Yes				
	SBL/T	1010	181	302 [2]	Yes	Yes	Not Evaluated[4]			
	SBR	440	83	39	Yes	Yes				
I-215 Northbound Ramps & Harley Knox Bl.	NBL/T	1,120	80 [2]	48	Yes	Yes				
	NBR	265	216 [2]	243 [2]	Yes	Yes	Not Evaluated[4]			
I-215 Northbound Ramps & Ramona Exwy.	NBL	520	265	262	Yes	Yes				
	NBL/T	1,120	261	265	Yes	Yes	Not Evaluated[4]			
	NBR	520	720 [2,3]	580 [2,3]	Yes	Yes				
I-215 Northbound Ramps & Placentia Av.	NBL	600	0	0	Yes	Yes				
	NBL/T	1,700	141	119	Yes	Yes	Not Evaluated[4]			
	NBR	1,200	315 [2]	385 [2]	Yes	Yes				
I-215 Northbound Ramps & Nuevo Rd.	NBL/T	1,100	331	97	Yes	Yes	Not Evaluated[4]			
	NBR	370	390 [2,3]	202	Yes	Yes				
I-215 Northbound Ramps & Redlands Av.	WBL	1,225	388 [2]	340 [2]	Yes	Yes				
	WBL/T/R	790	336 [2]	439 [2]	Yes	Yes	Not Evaluated[4]			
	WBR	415	288 [2]	347 [2]	Yes	Yes				

Intersection	Movement	Available Stacking Distance (Feet)	EAPC (2032) - Alternative 1				EAPC (2032) - Alternative 2			
			95th Percentile Queue (Feet)		Acceptable?[1]		95th Percentile Queue (Feet)		Acceptable?[1]	
			AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM
I-215 Southbound Ramps & Redlands Av.	EBL	1,140	158 [2]	200 [2]	Yes	Yes				
	EBL/T/R	775	82	116	Yes	Yes	Not Evaluated[4]			
	EBR	185	65	98	Yes	Yes				
I-215 Northbound Ramps & Evans Rd.	WBL		Future Interchange				Future Interchange			
	WBT/R									
I-215 Southbound Ramps & Evans Rd.	EBL		Future Interchange				Future Interchange			
	EBT/R									
I-215 Southbound Ramps & SR-74	SBT	2,275	606	1,128 [2]	Yes	Yes	Not Evaluated[4]			
	SBR	215	48	36	Yes	Yes				
I-215 Northbound Ramps & SR-74	SBL/R	1,510	276	479	Yes	Yes	Not Evaluated[4]			
I-215 Southbound Ramps & Ethanac Rd.	SBL/T	1,365	190	546 [2]	Yes	Yes	Not Evaluated[4]			
	SBR	240	156	376 [2,3]	Yes	Yes				
I-215 Northbound Ramps & Ethanac Rd.	NBL/T	1,550	394 [2]	516 [2]	Yes	Yes	Not Evaluated[4]			
	NBR	240	48	164	Yes	Yes				

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

[3] Although 95th percentile queue is anticipated to exceed the available storage for the turn lane, the adjacent through lane has sufficient storage to accommodate any spillover without spilling back and affecting the I-215 Freeway mainline.

[4] Interchange not evaluated for this alternative.

TABLE 6-5: PEAK HOUR FREEWAY OFF-RAMP QUEUING SUMMARY FOR EAPC (2032) ALTERNATIVE 3 & 4 CONDITIONS

Intersection	Movement	Available Stacking Distance (Feet)	EAPC (2032) - Alternative 3				EAPC (2032) - Alternative 4			
			95th Percentile Queue (Feet)		Acceptable? [1]		95th Percentile Queue (Feet)		Acceptable? [1]	
			AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM
I-215 Southbound Ramps & Harley Knox Bl.	SBL/T	1,330	Not Evaluated[4]				Not Evaluated[4]			
	SBR	270								
I-215 Southbound Ramps & Ramona Exwy.	SBL	530								
	SBL/T	1,100	Not Evaluated[4]				Not Evaluated[4]			
	SBR	530								
I-215 Southbound Ramps & Placentia Av.	SBL	300								
	SBL/T	1,450	Not Evaluated[4]				Not Evaluated[4]			
	SBR	900								
I-215 Southbound Ramps & Nuevo Rd.	SBL	670								
	SBL/T	1010	Not Evaluated[4]				Not Evaluated[4]			
	SBR	440								
I-215 Northbound Ramps & Harley Knox Bl.	NBL/T	1,120	Not Evaluated[4]				Not Evaluated[4]			
	NBR	265								
I-215 Northbound Ramps & Ramona Exwy.	NBL	520								
	NBL/T	1,120	Not Evaluated[4]				Not Evaluated[4]			
	NBR	520								
I-215 Northbound Ramps & Placentia Av.	NBL	600								
	NBL/T	1,700	Not Evaluated[4]				Not Evaluated[4]			
	NBR	1,200								
I-215 Northbound Ramps & Nuevo Rd.	NBL/T	1,100	Not Evaluated[4]				Not Evaluated[4]			
	NBR	370								
I-215 Northbound Ramps & Redlands Av.	WBL	1,225	357 [2]	340 [2]	Yes	Yes	357 [2]	340 [2]	Yes	Yes
	WBL/T/R	790	285 [2]	362 [2]	Yes	Yes	285 [2]	362 [2]	Yes	Yes
	WBR	415	251 [2]	302 [2]	Yes	Yes	251 [2]	302 [2]	Yes	Yes

Intersection	Movement	Available Stacking Distance (Feet)	EAPC (2032) - Alternative 3				EAPC (2032) - Alternative 4			
			95th Percentile Queue (Feet)		Acceptable? [1]		95th Percentile Queue (Feet)		Acceptable? [1]	
			AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM
I-215 Southbound Ramps & Redlands Av.	EBL	1,140	107	137	Yes	Yes	107	137	Yes	Yes
	EBL/T/R	775	52	81	Yes	Yes	52	81	Yes	Yes
	EBR	185	44	70	Yes	Yes	44	70	Yes	Yes
I-215 Northbound Ramps & Evans Rd.	WBL WBT/R		Future Interchange				Not Evaluated [4]			
I-215 Southbound Ramps & Evans Rd.	EBL EBT/R		Future Interchange				Not Evaluated [4]			
I-215 Southbound Ramps & SR-74	SBT	2,275	878 [2]	1,379 [2]	Yes	Yes	Not Evaluated [4]			
	SBR	215	49	36	Yes	Yes				
I-215 Northbound Ramps & SR-74	SBL/R	1,510	403	671 [2]	Yes	Yes	Not Evaluated [4]			
I-215 Southbound Ramps & Ethanac Rd.	SBL/T	1,365	Not Evaluated [4]				365 [2]	820 [2]	Yes	Yes
	SBR	240					154	376 [2,3]	Yes	Yes
I-215 Northbound Ramps & Ethanac Rd.	NBL/T	1,550	Not Evaluated [4]				394 [2]	516 [2]	Yes	Yes
	NBR	240					137	294 [3]	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

[3] Although 95th percentile queue is anticipated to exceed the available storage for the turn lane, the adjacent through lane has sufficient storage to accommodate any spillover without spilling back and affecting the I-215 Freeway mainline.

[4] Interchange not evaluated for this alternative.

TABLE 6-6: PEAK HOUR FREEWAY OFF-RAMP QUEUING SUMMARY FOR EAPC (2032) ALTERNATIVE 5 & 6 CONDITIONS

Intersection	Movement[5]	Available Stacking Distance (Feet)[5]	EAPC (2032) - Alternative 5				EAPC (2032) - Alternative 6			
			95th Percentile Queue (Feet)		Acceptable?[1]		95th Percentile Queue (Feet)		Acceptable?[1]	
			AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM
I-215 Southbound Ramps & Harley Knox Bl.	SBL/T	1,330	Not Evaluated[4]				Not Evaluated[4]			
	SBR	270								
I-215 Southbound Ramps & Ramona Exwy.	SBL	530								
	SBL/T	1,100	Not Evaluated[4]				Not Evaluated[4]			
	SBR	530								
I-215 Southbound Ramps & Placentia Av.	SBL	300								
	SBL/T	1,450	Not Evaluated[4]				Not Evaluated[4]			
	SBR	900								
I-215 Southbound Ramps & Nuevo Rd.	SBL	670								
	SBL/T	1010	Not Evaluated[4]				Not Evaluated[4]			
	SBR	440								
I-215 Northbound Ramps & Harley Knox Bl.	NBL/T	1,120	Not Evaluated[4]				Not Evaluated[4]			
	NBR	265								
I-215 Northbound Ramps & Ramona Exwy.	NBL	520								
	NBL/T	1,120	Not Evaluated[4]				Not Evaluated[4]			
	NBR	520								
I-215 Northbound Ramps & Placentia Av.	NBL	600								
	NBL/T	1,700	Not Evaluated[4]				Not Evaluated[4]			
	NBR	1,200								
I-215 Northbound Ramps & Nuevo Rd.	NBL/T	1,100	Not Evaluated[4]				Not Evaluated[4]			
	NBR	370								

Intersection	Movement[5]	Available Stacking Distance (Feet)[5]	EAPC (2032) - Alternative 5				EAPC (2032) - Alternative 6			
			95th Percentile Queue (Feet)		Acceptable?[1]		95th Percentile Queue (Feet)		Acceptable?[1]	
			AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM
I-215 Northbound Ramps & Redlands Av.	WBL	1,225	357 [2]	340 [2]	Yes	Yes				
	WBL/T/R	790	285 [2]	362 [2]	Yes	Yes		Not Evaluated[4]		
	WBR	415	251 [2]	302 [2]	Yes	Yes				
I-215 Southbound Ramps & Redlands Av.	EBL	1,140	107	137	Yes	Yes				
	EBL/T/R	775	52	81	Yes	Yes		Not Evaluated[4]		
	EBR	185	44	70	Yes	Yes				
I-215 Northbound Ramps & Evans Rd.	**WBL**	**200**	0	0	Yes	Yes				
	WBT/R	**1,000**	0	0	Yes	Yes		Not Evaluated[4]		
I-215 Southbound Ramps & Evans Rd.	**EBL**	**200**	84	92	Yes	Yes				
	EBT/R	**1,000**	0	0	Yes	Yes		Not Evaluated[4]		
I-215 Southbound Ramps & SR-74	SBT	2,275								
	SBR	215		Not Evaluated[4]				Not Evaluated[4]		
I-215 Northbound Ramps & SR-74	SBL/R	1,510		Not Evaluated[4]				Not Evaluated[4]		
I-215 Southbound Ramps & Ethanac Rd.	SBL/T	1,365								
	SBR	240		Not Evaluated[4]				Not Evaluated[4]		
I-215 Northbound Ramps & Ethanac Rd.	NBL/T	1,550								
	NBR	240		Not Evaluated[4]				Not Evaluated[4]		

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

[3] Although 95th percentile queue is anticipated to exceed the available storage for the turn lane, the adjacent through lane has sufficient storage to accommodate any spillover without spilling back and affecting the I-215 Freeway mainline.

[4] Interchange not evaluated for this alternative.

[5] **200** = Improvement

6.6 RECOMMENDED IMPROVEMENTS

6.6.1 IMPROVEMENTS TO ADDRESS DEFICIENCIES AT INTERSECTIONS

Table 6-7 indicates the physical improvements needed to address LOS deficiencies at each of the study area intersections under EAPC (2032) traffic conditions. The improvements are identified to improve the EAPC (2032) deficiencies back to acceptable levels. Intersection analysis worksheets for Existing (2022) traffic conditions, with improvements, are provided in the following appendices:

- Appendix 6.13 for Alternative 1
- Appendix 6.14 for Alternative 2
- Appendix 6.15 for Alternative 3
- Appendix 6.16 for Alternative 4
- Appendix 6.17 for Alternative 5

6.6.2 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES ON OFF-RAMP QUEUES

As shown previously in Table 6-4, there is one off-ramp anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows under EAPC (2032) traffic conditions. Table 6-8 shows the effectiveness of the improvement strategies at the intersection that experiences off-ramp queuing issues under EAPC (2032) traffic conditions. With the proposed intersection improvements at the study area freeway ramp-to-arterial intersection (see Table 6-7), the analysis indicates that there are no queuing issues anticipated that may potentially "spill back" onto the I-215 Freeway mainline during the peak hours for EAPC (2032) traffic conditions (see Table 6-8). Off-ramp queuing analysis worksheets, with improvements, for EAPC (2032) are provided in Appendix 6.18.

TABLE 6-7: INTERSECTION ANALYSIS FOR EAPC (2032) CONDITIONS WITH IMPROVEMENTS

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
1	Harvill Av. & Cajalco Exwy.																	
	- Alternative 1 Improvements	TS	2	2	0	2	2	0	1	**3**	1	2	**3**	1>	44.5	53.6	D	D
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															
2	I-215 Southbound Ramps & Harley Knox Bl.																	
	- Alternative 1 Improvements	TS	0	0	0	**2**	1	**0**	0	2	d	**2**	**1**	0	41.2	27.7	D	C
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															
3	I-215 Northbound Ramps & Harley Knox Bl.																	
	- Alternative 1 Improvements	TS	0	1	1	0	0	0	**2**	2	0	0	2	**1>>**	12.0	13.6	B	B
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															
4	I-215 Southbound Ramps & Ramona Exwy.																	
	- Alternative 1 Improvements	TS	0	0	0	1	1	1	0	**3**	**1**	**2**	**3**	0	38.0	53.5	D	D
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															
5	I-215 Northbound Ramps & Ramona Exwy.																	
	- Alternative 1 Improvements	TS	1	1	**2**	0	0	0	**2**	**3**	0	0	**3**	1	52.8	54.3	D	D
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															
6	I-215 SB Ramps & Placentia Av.																	
	- Alternative 1 Improvements	**TS**	0	0	0	**1**	**1**	**1**	0	**2**	0	**2**	**2**	0	24.6	31.6	C	C
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															
8	I-215 SB Ramps & Nuevo Rd.																	
	- Alternative 1 Improvements[5]	TS	0	0	0	1	1	1	0	2	0	2	2	0	28.2	37.9	C	D
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
12	Webster Av. & Ramona Exwy.																	
	- Alternative 1 Improvements	TS	1	1	1	1	1	0	1	**4**	0	1	**4**	**0**	25.1	34.3	C	C
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															
13	Indian Av. & Harley Knox Bl.																	
	- Alternative 1 Improvements	TS	2	2	1	1	2	0	**2**	3	**0**	1	3	0	31.2	49.6	C	D
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															
14	Indian Av. & Ramona Exwy.																	
	- Alternative 1 Improvements[8]	TS	1	2	0	1	2	1	1	**4**	0	1	**4**	**0**	39.3	75.7	D	E
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															
16	Perris Bl. & Iris Av.																	
	- Alternative 1 Improvements	TS	1	3	1	1	3	0	1	2	**1**	1	2	0	42.4	41.7	D	D
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															
20	Perris Bl. & Harley Knox Bl.																	
	- Alternative 1 Improvements	TS	2	3	1	2	3	1	**2**	2	1	2	3	1	24.1	25.6	C	C
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															
22	Perris Bl. & Ramona Exwy.																	
	- Alternative 1 Improvements	TS	2	2	1	2	2	1	2	**4**	1	2	**4**	0	54.6	49.2	D	D
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															
27	Perris Bl. & Nuevo Rd.																	
	- Alternative 1 Improvements	TS	**2**	2	1	2	2	2>	2	2	1	2	**3**	**0**	43.7	54.4	D	D
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
30	Redlands Av. & Ramona Exwy.																	
	- Alternative 1 Improvements[8]	TS	1	1	0	**2**	1	1	**2**	**4**	1	**2**	**4**	1	29.1	67.9	C	E
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															
35	Redlands Av. & Nuevo Rd.																	
	- Alternative 1 Improvements	TS	1	1	1	**1**	1	0	1	**3**	0	1	**3**	0	46.8	26.0	D	C
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															
37	Lasselle St. & Iris Av.																	
	- Alternative 1 Improvements[6]	TS	2	2	1>	2	2	d	2	3	0	2	3	0	48.9	45.6	D	D
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															
38	Lasselle St. & Krameria Av.																	
	- Alternative 1 Improvements[7]	TS	**2**	2	**0**	1	2	0	**2**	1	**1>**	1	1	1	47.6	26.0	D	C
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															
39	Evans Rd. & Ramona Exwy.																	
	- Alternative 1 Improvements	TS	2	2	1	2	2	1	2	**4**	1	1	**4**	1	36.0	33.0	D	C
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															
41	Evans Rd. & Orange Av.																	
	- Alternative 1 Improvements	TS	1	1	1	1	1	1	1	**2**	0	1	**2**	0	18.9	28.0	B	C
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															
46	Dunlap Dr. & Nuevo Rd.																	
	- Alternative 1 Improvements	TS	1	1	**1**	1	1	0	1	**3**	**0**	**2**	**3**	0	23.9	46.5	C	D
	- Alternative 2 Improvements	TS	1	1	0	1	1	0	1	**3**	**0**	1	**3**	0	21.8	21.5	C	C
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements	TS	1	1	0	**2**	1	0	1	**2**	**0**	1	**2**	0	21.8	21.5	C	C
	- Alternative 6 Improvements		Not Evaluated															

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
47	Ramona Exwy. & Rider St.																	
	- Alternative 1 Improvements	TS	2	**3**	0	1	**3**	1	0	1	1	0	1	0	15.2	24.1	B	C
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															
48	Antelope Rd. & Ramona Exwy.																	
	- Alternative 1 Improvements	**TS**	**2**	0	**1**	0	0	0	0	**3**	**1**	**1**	**3**	0	10.6	27.0	B	C
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															
51	Antelope Rd. & Nuevo Rd.																	
	- Alternative 1 Improvements	**TS**	0	0	0	**1**	0	**1**	**2**	**2**	0	0	**2**	0	30.8	20.2	C	C
	- Alternative 2 Improvements	**TS**	0	0	0	**1**	0	**1**	**1**	**2**	0	0	**2**	0	51.0	34.6	D	C
	- Alternative 3 Improvements	**TS**	0	0	0	**1**	0	**1**	**1**	**2**	0	0	**2**	0	51.0	34.6	D	C
	- Alternative 4 Improvements	**TS**	0	0	0	**1**	0	**1**	**1**	**2**	0	0	**2**	0	51.0	34.6	D	C
	- Alternative 5 Improvements	**TS**	0	0	0	**1**	0	**1**	**1**	**2**	0	0	**2**	0	51.0	34.6	D	C
	- Alternative 6 Improvements		Not Evaluated															
52	Street A & Ramona Exwy.																	
	- Alternative 1 Improvements	**TS**	**2**	0	**1**	0	0	0	0	**3**	0	**1**	**3**	0	6.6	15.2	A	B
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															
53	Menifee Rd./Reservoir Bl. & Nuevo Rd.																	
	- Alternative 1 Improvements	**TS**	0	1	0	0	0	0	0	1	0	**1**	1	0	39.3	41.8	D	D
	- Alternative 2 Improvements	**TS**	**1**	**0**	**1**	0	0	0	0	1	**1**	**1**	1	0	24.0	24.1	C	C
	- Alternative 3 Improvements	**TS**	**1**	**0**	**1**	0	0	0	0	1	**1**	**1**	1	0	24.0	24.1	C	C
	- Alternative 4 Improvements	**TS**	**1**	**0**	**1**	0	0	0	0	1	**1**	**1**	1	0	24.0	24.1	C	C
	- Alternative 5 Improvements	**TS**	**1**	**0**	**1**	0	0	0	0	1	**1**	**1**	1	0	24.0	24.1	C	C
	- Alternative 6 Improvements		Not Evaluated															
54	Menifee Rd. & San Jacinto Av.																	
	- Alternative 1 Improvements	**TS**	**1**	2	0	**1**	**2**	**0**	**1**	1	**0**	**1**	1	0	33.6	41.8	C	D
	- Alternative 2 Improvements	**TS**	**1**	2	0	**1**	1	1	**2**	1	**0**	**1**	1	0	36.4	33.8	D	C
	- Alternative 3 Improvements	**TS**	**1**	2	0	**1**	**2**	**0**	**1**	1	**0**	**1**	1	0	32.8	54.9	C	D
	- Alternative 4 Improvements	**TS**	**1**	2	0	**1**	**2**	**0**	**1**	1	**0**	**1**	1	0	30.9	30.9	C	C
	- Alternative 5 Improvements	**TS**	**1**	2	0	**1**	**2**	**1>**	**2**	1	**0**	**1**	1	0	36.4	33.8	D	C
	- Alternative 6 Improvements		Not Evaluated															
55	Menifee Rd. & Ellis Rd.																	
	- Alternative 1 Improvements	**TS**	**1**	1	0	**1**	1	0	0	1	0	0	1	0	6.9	6.3	A	A
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements	**TS**	**1**	1	0	**1**	1	0	0	1	0	0	1	0	11.2	9.7	B	A
	- Alternative 4 Improvements	**TS**	**1**	1	0	**1**	1	0	0	1	0	0	1	0	11.2	9.7	B	A
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
56	Menifee Rd. & Mapes Rd.																	
	- Alternative 1 Improvements	**TS**	1	1	0	1	1	0	**1**	1	0	**1**	1	0	23.1	22.3	C	C
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements	**TS**	1	1	0	1	1	0	**1**	1	0	**1**	1	0	53.8	44.9	D	D
	- Alternative 4 Improvements	**TS**	1	1	0	1	1	0	**1**	1	0	**1**	1	0	53.8	44.9	D	D
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															
57	Menifee Rd. & Watson Rd.																	
	- Alternative 1 Improvements	**TS**	**1**	1	0	**1**	1	0	**1**	1	0	**1**	1	0	11.9	10.9	B	B
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements	**TS**	**1**	1	0	**1**	1	0	**1**	1	0	**1**	1	0	15.3	15.0	B	B
	- Alternative 4 Improvements	**TS**	**1**	1	0	**1**	1	0	**1**	1	0	**1**	1	0	15.3	15.0	B	B
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															
58	Menifee Rd. & Ethanac Rd. (SR-74)																	
	- Alternative 1 Improvements	TS	1	**2**	**1**	**1**	**2**	0	**2**	**3**	**0**	**2**	**3**	**0**	47.4	36.4	D	D
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements	TS	1	**2**	**1**	**1**	**2**	**1**	**2**	**3**	**0**	**2**	**3**	**0**	52.1	38.4	D	D
	- Alternative 4 Improvements	TS	1	**2**	**1**	**1**	**2**	0	**2**	**3**	**0**	**2**	**3**	**0**	54.2	41.6	D	D
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															
60	Lakeview Av. & Ramona Exwy.																	
	- Alternative 1 Improvements	TS	1	0	1	0	0	0	0	**3**	1	1	**3**	0	19.0	52.2	B	D
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															
61	Lakeview Av. & Nuevo Rd.																	
	- Alternative 1 Improvements	**TS**	0	0	0	**1**	**0**	**1**	**1**	1	0	0	1	0	40.9	37.0	D	D
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															
63	Hansen Av./Davis Rd. & Ramona Exwy.																	
	- Alternative 1 Improvements	TS	0	1	0	0	1	0	1	**3**	1	1	**3**	0	19.2	16.6	B	B
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															
65	Bridge St. & Ramona Exwy.																	
	- Alternative 1 Improvements	**TS**	0	0	0	0	1	0	1	**3**	0	0	**3**	0	31.4	26.0	C	C
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
66	Bridge St. & Ramona Exwy.																	
	- Alternative 1 Improvements	TS	**2**	1	0	0	1	0	1	**3**	1	**2**	**3**	1	26.1	34.4	C	C
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															
67	Sanderson Av. (SR-79) & Ramona Exwy.																	
	- Alternative 1 Improvements	TS	2	**4**	1>	2	**4**	**1>>**	2	**3**	1>	2	**3**	1>	53.6	54.0	D	D
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															
70	Murrieta Rd. & San Jacinto Av.																	
	- Alternative 1 Improvements	**TS**	0	0	0	0	1	0	1	**2**	0	0	**2**	0	37.8	15.4	D	B
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements	**TS**	0	0	0	0	1	0	1	1	0	0	1	0	19.3	13.3	B	B
	- Alternative 4 Improvements	**TS**	0	0	0	0	1	0	1	1	0	0	1	0	19.3	13.3	B	B
	- Alternative 5 Improvements	**TS**	0	0	0	0	1	0	1	1	0	0	1	0	19.3	13.3	B	B
	- Alternative 6 Improvements		Not Evaluated															
71	Redlands Av. & San Jacinto Av.																	
	- Alternative 1 Improvements	TS	1	2	**2>**	1	2	0	2	1	1	**3**	1	1	53.5	41.5	D	D
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements	TS	1	2	**1>**	1	2	0	2	1	1	2	1	1	36.1	31.8	D	C
	- Alternative 4 Improvements	TS	1	2	**1>**	1	2	0	2	1	1	2	1	1	36.1	31.8	D	C
	- Alternative 5 Improvements	TS	1	2	**1>**	1	2	0	2	1	1	2	1	1	36.1	31.8	D	C
	- Alternative 6 Improvements		Not Evaluated															
72	Redlands Av. & I-215 NB Ramps																	
	- Alternative 1 Improvements[4]	TS	2	2	0	0	4	1	0	0	0	1	1	1	18.5	24.7	B	C
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															
77	Dunlap Dr. & San Jacinto Av.																	
	- Alternative 1 Improvements	**TS**	0	0	0	0	1	0	**1**	1	0	0	1	0	33.9	19.5	C	B
	- Alternative 2 Improvements	**TS**	0	0	0	0	1	0	**1**	1	0	0	1	0	6.3	15.0	A	B
	- Alternative 3 Improvements	**TS**	0	0	0	0	1	0	**1**	1	0	0	1	0	6.0	13.4	A	B
	- Alternative 4 Improvements	**TS**	0	0	0	0	1	0	**1**	1	0	0	1	0	6.0	13.4	A	B
	- Alternative 5 Improvements	**TS**	0	0	0	0	1	0	**1**	1	0	0	1	0	6.3	15.0	A	B
	- Alternative 6 Improvements		Not Evaluated															
78	I-215 SB Ramps & SR-74																	
	- Alternative 1 Improvements	TS	1	1	0	0	**2**	1	1	0	1	0	0	0	15.8	19.9	B	B
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements	TS	1	1	0	0	**2**	1	1	0	1	0	0	0	16.5	21.6	B	C
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
80	Trumble Rd. & SR-74																	
	- Alternative 1 Improvements	TS	0	0	0	1	0	1	**2**	2	0	0	2	0	39.1	30.5	D	C
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements	TS	0	0	0	1	0	1	**2**	2	0	0	2	0	50.0	41.1	D	D
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															
81	I-215 SB Ramps & Ethanac Rd.																	
	- Alternative 1 Improvements		Not Evaluated															
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements	TS	0	0	0	**1**	1	1	0	1	1	1	2	0	13.8	33.8	B	C
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															
82	I-215 NB Ramps & Ethanac Rd.																	
	- Alternative 1 Improvements	TS	**1**	1	1	0	0	0	0	1	1	1	2	0	28.4	31.4	C	C
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements	TS	**1**	1	1	0	0	0	0	1	1	1	2	0	45.2	43.8	D	D
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															
83	Encanto Dr. & Ethanac Rd.																	
	- Alternative 1 Improvements	**TS**	0	1	0	0	0	0	0	1	0	1	1	0	35.1	31.6	D	C
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements	**TS**	0	1	0	0	0	0	0	1	0	1	1	0	41.9	42.5	D	D
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															
84	Sherman Rd. & Ethanac Rd.																	
	- Alternative 1 Improvements	**TS**	0	1	0	0	1	0	**1**	1	0	**1**	1	0	15.2	17.8	B	B
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements	**TS**	0	1	0	0	1	0	**1**	1	0	**1**	1	0	16.4	27.6	B	C
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															
86	Antelope Rd. & Ethanac Rd.																	
	- Alternative 1 Improvements	CSS	**1**	1	0	**1**	1	0	**1**	1	1	**1**	1	0	30.6	20.6	D	C
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements	**TS**	**1**	1	0	**1**	1	0	**1**	1	1	**1**	1	0	13.7	11.4	B	B
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															
87	Menifee Rd. & Matthews Rd.																	
	- Alternative 1 Improvements	CSS	**1**	**2**	0	0	**2**	0	0	1	0	0	0	0	23.1	20.6	C	C
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements	CSS	**1**	**2**	0	0	**2**	**1>**	**1**	**0**	**1**	0	0	0	25.5	16.0	C	B
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; > = Right-Turn Overlap Phasing; **1** = Improvement

[2] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all-way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single

[3] CSS = Cross-street Stop; TS = Traffic Signal; **TS** = Improvements

[4] Improvement consists of modifying the traffic signal to implement a 120-second cycle. No physical improvements are necessary.

[5] Improvement includes modifying the traffic signal to protect the eastbound and westbound left turns.

[6] Improvement consists of modifying the traffic signal to implement a 130-second cycle. No physical improvements are necessary.

[7] Improvement includes modifying the traffic signal to protect the northbound and southbound left turns.

[8] Per the City of Perris General Plan, LOS E is permitted at intersections along the Ramona-Cajalco Expressway.

TABLE 6-8: PEAK HOUR FREEWAY OFF-RAMP QUEUING SUMMARY FOR EAPC (2032) CONDITIONS WITH IMPROVEMENTS

Intersection	Movement	Available Stacking Distance (Feet)	EAPC (2032) - Alternative 1			
			95th Percentile Queue (Feet)		Acceptable? [1]	
			AM Peak Hour	PM Peak Hour	AM	PM
I-215 Southbound Ramps & Ramona Exwy.	SBL	530	633 [2,3]	699 [3]	Yes	Yes
	SBL/T	1,100	637 [2]	704	Yes	Yes
	SBR	530	257	92	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

[3] Although 95th percentile queue is anticipated to exceed the available storage for the turn lane, the adjacent through lane has sufficient storage to accommodate any spillover without spilling back and affecting the I-215 Freeway mainline.

[4] Interchange not evaluated for this alternative.

7 HORIZON YEAR (2040) TRAFFIC CONDITIONS

This section discusses the methods used to develop Horizon Year (2040) Without and With Project traffic forecasts, and the resulting intersection operations, traffic signal warrant, and off-ramp queuing analyses.

7.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for Horizon Year (2040) conditions are consistent with those shown previously on Exhibit 3-1, with the exception of the following:

- Project driveways and those facilities assumed to be constructed by the Project to provide site access are also assumed to be in place for Horizon Year (2040) conditions only (e.g., intersection and roadway improvements along the Project's frontage and driveways). This also includes the construction of Antelope Road between Ramona Expressway and Nuevo Road.
- Driveways and those facilities assumed to be constructed by cumulative developments to provide site access are also assumed to be in place for Horizon Year (2040) conditions only (e.g., intersection and roadway improvements along the cumulative development's frontages).
- The I-215 Freeway/Placentia Avenue interchange is assumed to be completed and in place.
- Street A is assumed to intersect with Ramona Expressway for Without MCP conditions only.
- The MCP is assumed to be constructed and in place for With MCP conditions only.
- The future extension of Orange Avenue to the east and west is assumed to be completed between the existing terminus at Dunlap Drive to the east into The Villages of Lakeview.

7.2 HORIZON YEAR (2040) WITHOUT MCP WITHOUT PROJECT TRAFFIC VOLUME FORECASTS

This scenario includes an ambient growth rate of 1.65 percent per year, compounded annually (or 13.99 percent total) from EAPC (2032) conditions (see Section 4.8 *Horizon Year Volume Development* of this TA for a detailed discussion on the methodology). The Horizon Year (2040) Without Project traffic forecasts reflect the future roadway network discussed in Section 7.1 *Roadway* Improvements and does not include the MCP. The weekday ADT and weekday AM and PM peak hour volumes which can be expected for Horizon Year (2040) Without MCP Without Project traffic conditions are provided graphically in Appendix 7.1.

7.4 HORIZON YEAR (2040) WITH MCP WITHOUT PROJECT TRAFFIC VOLUME FORECASTS

This scenario includes the refined post-processed volumes obtained from the RIVCOM consistent with the currently adopted General Plan Circulation Element (see Section 4.8 *Horizon Year Volume Development* of this TIA for a detailed discussion on the post-processing methodology). The Horizon Year (2040) Without Project traffic forecasts reflect the future roadway network contemplated by the County's General Plan, which includes the MCP. The weekday ADT and weekday AM and PM peak hour volumes which can be expected for Horizon Year (2040) With MCP Without Project traffic conditions are provided graphically in Appendix 7.2.

7.5 HORIZON YEAR (2040) WITH PROJECT TRAFFIC VOLUME FORECASTS

This scenario includes the Horizon Year (2040) Without MCP (Alternatives 1-5) or With MCP (Alternative 6) traffic forecasts plus proposed Project volumes. The weekday ADT and weekday AM and PM peak hour volumes, in actual vehicles, which can be expected for Horizon Year (2040) With Project traffic conditions are provided graphically in the following appendices:

- Appendix 7.3 for Alternative 1
- Appendix 7.4 for Alternative 2
- Appendix 7.5 for Alternative 3
- Appendix 7.6 for Alternative 4
- Appendix 7.7 for Alternative 5
- Appendix 7.8 for Alternative 6

7.6 INTERSECTION OPERATIONS ANALYSIS

7.6.1 HORIZON YEAR (2040) WITHOUT MCP TRAFFIC CONDITIONS

Level of service calculations were conducted for the study intersections to evaluate their operations under Horizon Year (2040) Without MCP Without Project traffic conditions with existing roadway and intersection geometrics consistent with those described under Section 7.1 *Roadway Improvements*. As shown in Table 7-1, the following study area intersections are anticipated to operate at an unacceptable LOS under Horizon Year (2040) Without MCP Without Project traffic conditions:

- Harvill Avenue & Cajalco Expressway (#1) – LOS F AM and PM peak hours
- I-215 Southbound Ramps & Harley Knox Boulevard (#2) – LOS F AM and PM peak hours
- I-215 Northbound Ramps & Harley Knox Boulevard (#3) – LOS F AM and PM peak hours
- I-215 Southbound Ramps & Ramona Expressway (#4) – LOS F AM and PM peak hours
- I-215 Northbound Ramps & Ramona Expressway (#5) – LOS F AM and PM peak hours
- I-215 Southbound Ramps & Placentia Avenue (#6) – LOS F PM peak hour only
- I-215 Southbound Ramps & Nuevo Road (#8) – LOS F PM peak hour only
- Webster Avenue & Ramona Expressway (#12) – LOS F AM and PM peak hours
- Indian Avenue & Harley Knox Boulevard (#13) – LOS F AM and PM peak hours
- Indian Avenue & Ramona Expressway (#14) – LOS F AM and PM peak hours
- Perris Boulevard & Iris Avenue (#16) – LOS E AM peak hour; LOS F PM peak hour
- Perris Boulevard & Krameria Avenue (#17) – LOS E AM and PM peak hours
- Perris Boulevard & Harley Knox Boulevard (#20) – LOS F PM peak hour only
- Perris Boulevard & Ramona Expressway (#22) – LOS F AM and PM peak hours
- Perris Boulevard & Placentia Avenue (#25) – LOS E PM peak hour only
- Perris Boulevard & Orange Avenue (#26) – LOS E PM peak hour only
- Perris Boulevard & Nuevo Road (#27) – LOS E AM peak hour; LOS F PM peak hour

TABLE 7-1: INTERSECTION ANALYSIS FOR HORIZON YEAR (2040) WITHOUT MID-COUNTY PARKWAY CONDITIONS

#	Intersection	Traffic Control[2]	2040 Without Project				2040 With Project (Alternative 1)				2040 With Project (Alternative 2)				Acceptable LOS[4]
			Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service		
			AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	
1	Harvill Av. & Cajalco Exwy.	TS	**147.1**	**>200.0**	**F**	**F**	**147.9**	**>200.0**	**F**	**F**	Not Analyzed[7]				D
2	I-215 Southbound Ramps & Harley Knox Bl.	TS	**>200.0**	**>200.0**	**F**	**F**	**>200.0**	**>200.0**	**F**	**F**	Not Analyzed[7]				D
3	I-215 Northbound Ramps & Harley Knox Bl.	TS	**>200.0**	**>200.0**	**F**	**F**	**>200.0**	**>200.0**	**F**	**F**	Not Analyzed[7]				D
4	I-215 Southbound Ramps & Ramona Exwy.	TS	**140.8**	**>200.0**	**F**	**F**	**146.2**	**>200.0**	**F**	**F**	Not Analyzed[7]				D
5	I-215 Northbound Ramps & Ramona Exwy.	TS	**>200.0**	**>200.0**	**F**	**F**	**>200.0**	**>200.0**	**F**	**F**	Not Analyzed[7]				D
6	I-215 SB Ramps & Placentia Av.	TS[3]	26.3	**114.5**	C	**F**	28.8	**129.6**	C	**F**	Not Analyzed[7]				D
7	I-215 NB Ramps & Placentia Av.	TS[3]	35.4	43.8	D	D	38.0	49.6	D	D	Not Analyzed[7]				D
8	I-215 SB Ramps & Nuevo Rd.	TS	25.8	**92.0**	C	**F**	26.5	**109.3**	C	**F**	Not Analyzed[7]				D
9	I-215 NB Ramps & Nuevo Rd.	TS	25.3	16.6	C	B	27.8	18.9	C	B	Not Analyzed[7]				D
10	Western Wy. & Harley Knox Bl.	TS	26.5	12.7	C	B	26.5	12.7	C	B	Not Analyzed[7]				D
11	Webster Av. & Harley Knox Bl.	RA	16.0	22.2	C	C	16.2	22.7	C	C	Not Analyzed[7]				D
12	Webster Av. & Ramona Exwy.	TS	**93.5**	**159.8**	**F**	**F**	**94.7**	**166.4**	**F**	**F**	Not Analyzed[7]				D
13	Indian Av. & Harley Knox Bl.	TS	**>200.0**	**136.2**	**F**	**F**	**>200.0**	**136.6**	**F**	**F**	Not Analyzed[7]				D
14	Indian Av. & Ramona Exwy.	TS	**121.3**	**>200.0**	**F**	**F**	**122.3**	**>200.0**	**F**	**F**	Not Analyzed[7]				D
15	Indian Av. & Placentia Av.	AWS	11.3	10.4	B	B	11.3	10.4	B	B	Not Analyzed[7]				D
16	Perris Bl. & Iris Av.	TS	**69.7**	**86.8**	**E**	**F**	**71.2**	**90.3**	**E**	**F**	Not Analyzed[7]				D
17	Perris Bl. & Krameria Av.	TS	**64.1**	**79.7**	**E**	**E**	**65.8**	**86.2**	**E**	**F**	Not Analyzed[7]				D
18	Perris Bl. & San Michele Rd.	TS	14.7	38.8	B	D	14.8	39.6	B	D	Not Analyzed[7]				D
19	Perris Bl. & Nandina Av.	TS	13.9	31.7	B	C	14.0	32.3	B	C	Not Analyzed[7]				D
20	Perris Bl. & Harley Knox Bl.	TS	53.9	**82.7**	D	**F**	53.9	**82.7**	D	**F**	Not Analyzed[7]				D
21	Perris Bl. & Markham St.	TS	15.9	19.4	B	B	16.0	19.7	B	B	Not Analyzed[7]				D
22	Perris Bl. & Ramona Exwy.	TS	**>200.0**	**>200.0**	**F**	**F**	**>200.0**	**>200.0**	**F**	**F**	Not Analyzed[7]				D
23	Perris Bl. & Morgan St.	TS	12.7	14.7	B	B	12.7	14.7	B	B	Not Analyzed[7]				D
24	Perris Bl. & Rider St.	TS	23.7	26.3	C	C	23.7	26.3	C	C	Not Analyzed[7]				D
25	Perris Bl. & Placentia Av.	TS	22.6	**75.0**	C	**E**	29.1	**80.2**	C	**F**	Not Analyzed[7]				D
26	Perris Bl. & Orange Av.	TS	32.6	**55.3**	C	**E**	34.9	**61.9**	C	**E**	Not Analyzed[7]				D
27	Perris Bl. & Nuevo Rd.	TS	**57.8**	**92.2**	**E**	**F**	**58.6**	**104.2**	**E**	**F**	Not Analyzed[7]				D
28	Redlands Av. & Harley Knox Bl.	TS	**87.1**	40.6	**F**	D	**87.1**	40.6	**F**	D	Not Analyzed[7]				D
29	Redlands Av. & Markham St.	TS	8.5	11.7	A	B	8.5	11.7	A	B	Not Analyzed[7]				D
30	Redlands Av. & Ramona Exwy.	TS	**150.8**	**>200.0**	**F**	**F**	**153.2**	**>200.0**	**F**	**F**	Not Analyzed[7]				D
31	Redlands Av. & Morgan St.	AWS	23.6	19.1	C	C	23.6	19.1	C	C	Not Analyzed[7]				D
32	Redlands Av. & Rider St.	AWS	29.5	25.1	C	C	29.7	25.5	C	C	Not Analyzed[7]				D
33	Redlands Av. & Placentia Av.	AWS	30.6	**49.1**	D	**E**	**47.3**	**76.0**	**E**	**F**	Not Analyzed[7]				D
34	Redlands Av. & Orange Av.	TS	20.5	19.1	C	B	28.4	21.3	C	C	Not Analyzed[7]				D
35	Redlands Av. & Nuevo Rd.	TS	**189.9**	**58.9**	**F**	**E**	**>200.0**	**69.6**	**F**	**E**	Not Analyzed[7]				D
36	Murrieta Rd. & Nuevo Rd.	TS	**64.7**	33.3	**E**	C	**80.7**	44.7	**F**	D	Not Analyzed[7]				D
37	Lasselle St. & Iris Av.	TS	**87.5**	**77.9**	**F**	**E**	**88.9**	**79.9**	**F**	**E**	Not Analyzed[7]				D
38	Lasselle St. & Krameria Av.	TS	**109.3**	**>200.0**	**F**	**F**	**112.7**	**>200.0**	**F**	**F**	Not Analyzed[7]				D
39	Evans Rd. & Ramona Exwy.	TS	**>200.0**	**>200.0**	**F**	**F**	**>200.0**	**>200.0**	**F**	**F**	Not Analyzed[7]				D
40	Evans Rd. & Rider St.	TS	41.6	37.5	D	D	41.6	37.5	D	D	Not Analyzed[7]				D
41	Evans Rd. & Orange Av.	TS	26.8	46.4	C	D	**66.4**	**144.1**	**E**	**F**	Not Analyzed[7]				D
42	Evans Rd. & Nuevo Rd.	TS	43.5	35.6	D	D	42.8	40.7	D	D	Not Analyzed[7]				D
43	Bradley Rd. & Ramona Exwy.	TS	33.1	42.3	C	D	34.3	50.7	C	D	Not Analyzed[7]				D
44	Bradley Rd. & Rider St.	TS	29.1	23.6	C	C	29.1	23.6	C	C	Not Analyzed[7]				D
45	Dunlap Dr. & Orange Av.	CSS	17.8	20.5	C	C	**>100.0**	**>100.0**	**F**	**F**	Not Analyzed[7]				D

#	Intersection	Traffic Control[2]	2040 Without Project				2040 With Project (Alternative 1)				2040 With Project (Alternative 2)				Acceptable LOS[4]
			Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service		
			AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	
46	Dunlap Dr. & Nuevo Rd.	TS	**>200.0**	**>200.0**	**F**	**F**	**>200.0**	**>200.0**	**F**	**F**	**>200.0**	**>200.0**	**F**	**F**	D
47	Ramona Exwy. & Rider St.	TS	**63.9**	**182.7**	**E**	**F**	**78.2**	**>200.0**	**E**	**F**	Not Analyzed[7]				D
48	Antelope Rd. & Ramona Exwy.	**TS**	Future Intersection				**64.4**	**180.7**	**E**	**F**	Not Analyzed[7]				D
49	MCP WB Ramps & Antelope Rd.		Not Analyzed[6]				Not Analyzed[5]				Not Analyzed[5]				D
50	MCP EB Ramps & Antelope Rd.		Not Analyzed[6]				Not Analyzed[5]				Not Analyzed[5]				D
51	Antelope Rd. & Nuevo Rd.	**TS**	Future Intersection				**>200.0**	**>200.0**	**F**	**F**	**>200.0**	**>200.0**	**F**	**F**	D
52	Street A & Ramona Exwy.	**TS**	Future Intersection				**>200.0**	**>200.0**	**F**	**F**	Not Analyzed[7]				D
53	Menifee Rd./Reservoir Bl. & Nuevo Rd.	AWS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	D
54	Menifee Rd. & San Jacinto Av.	AWS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	D
55	Menifee Rd. & Ellis Rd.	CSS	**55.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	Not Analyzed[7]				D
56	Menifee Rd. & Mapes Rd.	CSS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	Not Analyzed[7]				D
57	Menifee Rd. & Watson Rd.	CSS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	Not Analyzed[7]				D
58	Menifee Rd. & Ethanac Rd. (SR-74)	TS	**>200.0**	**>200.0**	**F**	**F**	**>200.0**	**>200.0**	**F**	**F**	Not Analyzed[7]				D
59	Bernasconi Rd. & Orange Av.	**TS**	**>200.0**	**>200.0**	**F**	**F**	**>200.0**	**>200.0**	**F**	**F**	Not Analyzed[8]				D
60	Lakeview Av. & Ramona Exwy.	TS	**>200.0**	**>200.0**	**F**	**F**	**>200.0**	**>200.0**	**F**	**F**	Not Analyzed[7]				D
61	Lakeview Av. & Nuevo Rd.	AWS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	Not Analyzed[7]				D
62	Montgomery Av. & Nuevo Rd.	CSS	12.9	13.4	B	B	13.2	13.9	B	B	Not Analyzed[7]				D
63	Hansen Av./Davis Rd. & Ramona Exwy.	TS	**165.3**	**>200.0**	**F**	**F**	**177.5**	**>200.0**	**F**	**F**	Not Analyzed[7]				D
64	Hansen Av. & Contour Av.	AWS	18.1	12.5	C	B	19.4	13.1	C	B	Not Analyzed[7]				D
65	Bridge St. & Ramona Exwy.	CSS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	Not Analyzed[7]				D
66	Warren Rd. & Ramona Exwy.	TS	**150.7**	**192.4**	**F**	**F**	**154.1**	**>200.0**	**F**	**F**	Not Analyzed[7]				D
67	Sanderson Av. (SR-79) & Ramona Exwy.	TS	**>200.0**	**>200.0**	**F**	**F**	**>200.0**	**>200.0**	**F**	**F**	Not Analyzed[7]				D
68	Indian Av. & Morgan St.	TS	32.0	18.8	C	B	32.0	18.8	C	B	Not Analyzed[7]				D
69	Indian Av. & Rider St.	TS	15.7	16.4	B	B	15.7	16.4	B	B	Not Analyzed[7]				D
70	Murrieta Rd. & San Jacinto Av.	CSS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	Not Analyzed[7]				D
71	Redlands Av. & San Jacinto Av.	TS	**>200.0**	**>200.0**	**F**	**F**	**>200.0**	**>200.0**	**F**	**F**	Not Analyzed[7]				D
72	Redlands Av. & I-215 NB Ramps	TS	38.8	**92.7**	D	**F**	52.4	**117.0**	D	**F**	Not Analyzed[7]				D
73	Redlands Av. & I-215 SB Ramps	TS	19.5	21.4	B	C	30.8	32.5	C	C	Not Analyzed[7]				D
74	Evans Rd. & San Jacinto Av.	**CSS**	23.0	11.1	C	B	**46.5**	12.8	**E**	B	Not Analyzed[7]				D
75	Evans Rd. & I-215 NB Ramps	**TS**	17.6	11.8	B	B	17.6	11.8	B	B	Not Analyzed[7]				D
76	Evans Rd. & I-215 SB Ramps	**TS**	6.5	6.5	A	A	6.5	6.5	A	A	Not Analyzed[7]				D
77	Dunlap Dr. & San Jacinto Av.	CSS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	D
78	I-215 SB Ramps & SR-74	TS	48.4	**118.1**	D	**F**	48.4	**118.1**	D	**F**	Not Analyzed[7]				D
79	I-215 NB Ramps & SR-74	TS	15.4	29.6	B	C	15.4	29.6	B	C	Not Analyzed[7]				D
80	Trumble Rd. & SR-74	TS	**98.0**	**97.8**	**F**	**F**	**98.0**	**97.8**	**F**	**F**	Not Analyzed[7]				D
81	I-215 SB Ramps & Ethanac Rd.	TS	20.6	54.2	C	D	20.6	54.2	C	D	Not Analyzed[7]				D
82	I-215 NB Ramps & Ethanac Rd.	TS	**120.4**	**145.2**	**F**	**F**	**120.4**	**145.2**	**F**	**F**	Not Analyzed[7]				D
83	Encanto Dr. & Ethanac Rd.	CSS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	Not Analyzed[7]				D
84	Sherman Rd. & Ethanac Rd.	CSS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	Not Analyzed[7]				D
85	Antelope Rd. & SR-74	TS	15.7	10.8	B	B	16.2	10.9	B	B	Not Analyzed[7]				D
86	Antelope Rd. & Ethanac Rd.	CSS	**>100.0**	27.8	**F**	D	**62.0**	27.8	**F**	D	Not Analyzed[7]				D
87	Menifee Rd. & Matthews Rd.	CSS	**62.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	Not Analyzed[7]				D

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all-way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[2] AWS = All-way Stop; CSS = Cross-street Stop; RA = Roundabout; TS = Traffic Signal; **TS** = Improvement

[3] A traffic signal is assumed as part of the I-215 Freeway/Placentia Avenue interchange project. The I-215 Freeway/Placentia Avenue interchange project is anticipated to be completed by 2022. As such, these improvements have been assumed to be in place for Horizon Year (2040) conditions.

[4] Minimum acceptable LOS for each applicable jurisdiction.

[5] The Nuevo Road widening is anticipated to be completed by the end of 2020. As such, the Nuevo Road widening is assumed under Horizon Year (2040) traffic conditions.

[6] Intersection will be constructed when the Mid-County Parkway is constructed. As such, the intersection does not exist under this scenario.

[7] Intersection not evaluated for this alternative.

- Perris Boulevard & Nuevo Road (#27) – LOS E AM peak hour; LOS F PM peak hour
- Redlands Avenue & Harley Knox Boulevard (#28) – LOS F AM peak hour only
- Redlands Avenue & Ramona Expressway (#30) – LOS F AM and PM peak hours
- Redlands Avenue & Placentia Avenue (#33) – LOS E PM peak hour only
- Redlands Avenue & Nuevo Road (#35) – LOS F AM peak hour; LOS E PM peak hour
- Murrieta Road & Nuevo Road (#36) – LOS E AM peak hour only
- Lasselle Street & Iris Avenue (#37) – LOS F AM peak hour; LOS E PM peak hour
- Lasselle Street & Krameria Avenue (#38) – LOS F AM and PM peak hours
- Evans Road & Ramona Expressway (#39) – LOS F AM and PM peak hours
- Dunlap Drive & Nuevo Road (#46) – LOS F AM and PM peak hours
- Ramona Expressway & Rider Street (#47) – LOS E AM peak hour; LOS F PM peak hour
- Antelope Road & Ramona Expressway (#48) – LOS F PM peak hour only
- Menifee Road/Reservoir Road & Nuevo Road (#53) – LOS F AM and PM peak hours
- Menifee Road & San Jacinto Avenue (#54) – LOS F AM and PM peak hours
- Menifee Road & Ellis Avenue (#55) – LOS F AM and PM peak hours
- Menifee Road & Mapes Road (#56) – LOS F AM and PM peak hours
- Menifee Road & Watson Road (#57) – LOS F AM and PM peak hours
- Menifee Road & Ethanac Road (SR-74) (#58) – LOS F AM and PM peak hours
- Bernasconi Road & Orange Avenue (#59) – LOS F AM and PM peak hours
- Lakeview Avenue & Ramona Expressway (#60) – LOS F AM and PM peak hours
- Lakeview Avenue & Nuevo Road (#61) – LOS F AM and PM peak hours
- Hansen Avenue/Davis Road & Ramona Expressway (#63) – LOS F AM and PM peak hours
- Bridge Street & Ramona Expressway (#65) – LOS F AM and PM peak hours
- Warren Road & Ramona Expressway (#66) – LOS F AM and PM peak hours
- Sanderson Avenue (SR-79) & Ramona Expressway (#67) – LOS F AM and PM peak hours
- Murrieta Road & San Jacinto Avenue (#70) – LOS F AM peak hour only
- Redlands Avenue & San Jacinto Avenue (#71) – LOS F AM and PM peak hours
- Redlands Avenue & I-21 Northbound Ramps (#72) – LOS F PM peak hour only
- Dunlap Drive & San Jacinto Avenue (#77) – LOS F AM and PM peak hours
- I-215 Southbound Ramps & SR-74 (#78) – LOS F PM peak hour only
- Trumble Road & SR-74 (#80) – LOS F AM and PM peak hours
- I-215 Northbound Ramps & Ethanac Road (#82) – LOS F AM and PM peak hours
- Encanto Drive & Ethanac Road (#83) – LOS F AM and PM peak hours
- Sherman Road & Ethanac Road (#84) – LOS F AM and PM peak hours
- Antelope Road & Ethanac Road (SR-74) (#86) – LOS F AM peak hour only
- Menifee Road & Matthews Road (#87) – LOS F AM and PM peak hours

As shown in Table 7-1, the intersection operations analysis results under Horizon Year (2040) With Project Alternative 1 Conditions are consistent with Horizon Year (2040) Without MCP Without Project conditions, with the exception of the following intersections:

- Evans Road & Orange Avenue (#41) – LOS E AM peak hour; LOS F PM peak hour
- Dunlap Drive & Orange Avenue (#45) – LOS F AM and PM peak hours

As shown in Table 7-1, the intersection operations analysis results under Horizon Year (2040) With Project Alternative 2 Conditions are consistent with the intersection operations analysis results under Horizon Year (2040) With Project Alternative 1 conditions.

As shown in Table 7-2, the intersection operations analysis results under Horizon Year (2040) With Project Alternative 3 conditions are consistent with Horizon Year (2040) With Project Alternative 1 Conditions, with the exception of the following intersections:

- I-215 NB Ramps & SR-74 (#79) – LOS E PM peak hour only

As shown in Table 7-2, the intersection operations analysis results under Horizon Year (2040) With Project Alternative 4 conditions are consistent with Horizon Year (2040) With Project Alternative 1 Conditions.

As shown in Table 7-3, the intersection operations analysis results under Horizon Year (2040) With Project Alternative 5 conditions are consistent with Horizon Year (2040) With Project Alternative 1 Conditions, with the exception of the following intersections:

- Evans Road & San Jacinto Avenue (#74) – no longer deficient

The intersection operations analysis worksheets for Horizon Year (2040) Without MCP traffic conditions for each alternative are included in the following Appendices:

- Appendix 7.1 for Horizon Year (2040) Without MCP Without Project
- Appendix 7.2 for Horizon Year (2040) Without MCP With Project Alternative 1
- Appendix 7.3 for Horizon Year (2040) Without MCP With Project Alternative 2
- Appendix 7.4 for Horizon Year (2040) Without MCP With Project Alternative 3
- Appendix 7.5 for Horizon Year (2040) Without MCP With Project Alternative 4
- Appendix 7.6 for Horizon Year (2040) Without MCP With Project Alternative 5

7.6.2 HORIZON YEAR (2040) WITH MCP TRAFFIC CONDITIONS

As shown in Table 7-4, the following study area intersections are anticipated to result in an unacceptable LOS under Horizon Year (2040) With MCP Without Project traffic conditions:

- Harvill Avenue & Cajalco Expressway (#1) – LOS F AM and PM peak hours
- I-215 Southbound Ramps & Harley Knox Boulevard (#2) – LOS E PM peak hour only
- I-215 Northbound Ramps & Harley Knox Boulevard (#3) – LOS F AM only
- I-215 Southbound Ramps & Ramona Expressway (#4) – LOS F PM only
- I-215 Northbound Ramps & Ramona Expressway (#5) – LOS F PM only
- Webster Avenue & Ramona Expressway (#12) – LOS F AM and PM peak hours

TABLE 7-2: INTERSECTION ANALYSIS FOR HORIZON YEAR (2040) WITHOUT MID-COUNTY PARKWAY CONDITIONS

#	Intersection	Traffic Control[2]	2040 Without Project				2040 With Project (Alternative 3)				2040 With Project (Alternative 4)				Acceptable LOS[4]
			Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service		
			AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	
1	Harvill Av. & Cajalco Exwy.	TS	**147.1**	**>200.0**	**F**	**F**	Not Analyzed[7]				Not Analyzed[7]				D
2	I-215 Southbound Ramps & Harley Knox Bl.	TS	**>200.0**	**>200.0**	**F**	**F**	Not Analyzed[7]				Not Analyzed[7]				D
3	I-215 Northbound Ramps & Harley Knox Bl.	TS	**>200.0**	**>200.0**	**F**	**F**	Not Analyzed[7]				Not Analyzed[7]				D
4	I-215 Southbound Ramps & Ramona Exwy.	TS	**140.8**	**>200.0**	**F**	**F**	Not Analyzed[7]				Not Analyzed[7]				D
5	I-215 Northbound Ramps & Ramona Exwy.	TS	**>200.0**	**>200.0**	**F**	**F**	Not Analyzed[7]				Not Analyzed[7]				D
6	I-215 SB Ramps & Placentia Av.	TS[3]	26.3	**114.5**	C	**F**	Not Analyzed[7]				Not Analyzed[7]				D
7	I-215 NB Ramps & Placentia Av.	TS[3]	35.4	43.8	D	D	Not Analyzed[7]				Not Analyzed[7]				D
8	I-215 SB Ramps & Nuevo Rd.	TS	25.8	**92.0**	C	**F**	Not Analyzed[7]				Not Analyzed[7]				D
9	I-215 NB Ramps & Nuevo Rd.	TS	25.3	16.6	C	B	Not Analyzed[7]				Not Analyzed[7]				D
10	Western Wy. & Harley Knox Bl.	TS	26.5	12.7	C	B	Not Analyzed[7]				Not Analyzed[7]				D
11	Webster Av. & Harley Knox Bl.	RA	16.0	22.2	C	C	Not Analyzed[7]				Not Analyzed[7]				D
12	Webster Av. & Ramona Exwy.	TS	**93.5**	**159.8**	**F**	**F**	Not Analyzed[7]				Not Analyzed[7]				D
13	Indian Av. & Harley Knox Bl.	TS	**>200.0**	**136.2**	**F**	**F**	Not Analyzed[7]				Not Analyzed[7]				D
14	Indian Av. & Ramona Exwy.	TS	**121.3**	**>200.0**	**F**	**F**	Not Analyzed[7]				Not Analyzed[7]				D
15	Indian Av. & Placentia Av.	AWS	11.3	10.4	B	B	Not Analyzed[7]				Not Analyzed[7]				D
16	Perris Bl. & Iris Av.	TS	**69.7**	**86.8**	**E**	**F**	Not Analyzed[7]				Not Analyzed[7]				D
17	Perris Bl. & Krameria Av.	TS	**64.1**	**79.7**	**E**	**E**	Not Analyzed[7]				Not Analyzed[7]				D
18	Perris Bl. & San Michele Rd.	TS	14.7	38.8	B	D	Not Analyzed[7]				Not Analyzed[7]				D
19	Perris Bl. & Nandina Av.	TS	13.9	31.7	B	C	Not Analyzed[7]				Not Analyzed[7]				D
20	Perris Bl. & Harley Knox Bl.	TS	53.9	**82.7**	D	**F**	Not Analyzed[7]				Not Analyzed[7]				D
21	Perris Bl. & Markham St.	TS	15.9	19.4	B	B	Not Analyzed[7]				Not Analyzed[7]				D
22	Perris Bl. & Ramona Exwy.	TS	**>200.0**	**>200.0**	**F**	**F**	Not Analyzed[7]				Not Analyzed[7]				D
23	Perris Bl. & Morgan St.	TS	12.7	14.7	B	B	Not Analyzed[7]				Not Analyzed[7]				D
24	Perris Bl. & Rider St.	TS	23.7	26.3	C	C	Not Analyzed[7]				Not Analyzed[7]				D
25	Perris Bl. & Placentia Av.	TS	22.6	**75.0**	C	**E**	Not Analyzed[7]				Not Analyzed[7]				D
26	Perris Bl. & Orange Av.	TS	32.6	**55.3**	C	**E**	Not Analyzed[7]				Not Analyzed[7]				D
27	Perris Bl. & Nuevo Rd.	TS	**57.8**	**92.2**	**E**	**F**	Not Analyzed[7]				Not Analyzed[7]				D
28	Redlands Av. & Harley Knox Bl.	TS	**87.1**	40.6	**F**	D	Not Analyzed[7]				Not Analyzed[7]				D
29	Redlands Av. & Markham St.	TS	8.5	11.7	A	B	Not Analyzed[7]				Not Analyzed[7]				D
30	Redlands Av. & Ramona Exwy.	TS	**150.8**	**>200.0**	**F**	**F**	Not Analyzed[7]				Not Analyzed[7]				D
31	Redlands Av. & Morgan St.	AWS	23.6	19.1	C	C	Not Analyzed[7]				Not Analyzed[7]				D
32	Redlands Av. & Rider St.	AWS	29.5	25.1	C	C	Not Analyzed[7]				Not Analyzed[7]				D
33	Redlands Av. & Placentia Av.	AWS	30.6	**49.1**	D	**E**	Not Analyzed[7]				Not Analyzed[7]				D
34	Redlands Av. & Orange Av.	TS	20.5	19.1	C	B	Not Analyzed[7]				Not Analyzed[7]				D
35	Redlands Av. & Nuevo Rd.	TS	**189.9**	**58.9**	**F**	**E**	Not Analyzed[7]				Not Analyzed[7]				D
36	Murrieta Rd. & Nuevo Rd.	TS	**64.7**	33.3	**E**	C	Not Analyzed[7]				Not Analyzed[7]				D
37	Lasselle St. & Iris Av.	TS	**87.5**	**77.9**	**F**	**E**	Not Analyzed[7]				Not Analyzed[7]				D
38	Lasselle St. & Krameria Av.	TS	**109.3**	**>200.0**	**F**	**F**	Not Analyzed[7]				Not Analyzed[7]				D
39	Evans Rd. & Ramona Exwy.	TS	**>200.0**	**>200.0**	**F**	**F**	Not Analyzed[7]				Not Analyzed[7]				D
40	Evans Rd. & Rider St.	TS	41.6	37.5	D	D	Not Analyzed[7]				Not Analyzed[7]				D
41	Evans Rd. & Orange Av.	TS	26.8	46.4	C	D	Not Analyzed[7]				Not Analyzed[7]				D
42	Evans Rd. & Nuevo Rd.	TS	43.5	35.6	D	D	Not Analyzed[7]				Not Analyzed[7]				D
43	Bradley Rd. & Ramona Exwy.	TS	33.1	42.3	C	D	Not Analyzed[7]				Not Analyzed[7]				D
44	Bradley Rd. & Rider St.	TS	29.1	23.6	C	C	Not Analyzed[7]				Not Analyzed[7]				D
45	Dunlap Dr. & Orange Av.	CSS	17.8	20.5	C	C	Not Analyzed[7]				Not Analyzed[7]				D

#	Intersection	Traffic Control[2]	2040 Without Project				2040 With Project (Alternative 3)				2040 With Project (Alternative 4)				Acceptable LOS[4]
			Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service		
			AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	
46	Dunlap Dr. & Nuevo Rd.	TS	**>200.0**	**>200.0**	**F**	**F**	Not Analyzed[7]				Not Analyzed[7]				D
47	Ramona Exwy. & Rider St.	TS	**63.9**	**182.7**	**E**	**F**	Not Analyzed[7]				Not Analyzed[7]				D
48	Antelope Rd. & Ramona Exwy.	**TS**	Future Intersection				Not Analyzed[7]				Not Analyzed[7]				D
49	MCP WB Ramps & Antelope Rd.		Not Analyzed[6]				Not Analyzed[6]				Not Analyzed[6]				D
50	MCP EB Ramps & Antelope Rd.		Not Analyzed[6]				Not Analyzed[6]				Not Analyzed[6]				D
51	Antelope Rd. & Nuevo Rd.	**TS**	Future Intersection				**>200.0**	**>200.0**	**F**	**F**	**>200.0**	**>200.0**	**F**	**F**	D
52	Street A & Ramona Exwy.	**TS**	Future Intersection				Not Analyzed[7]				Not Analyzed[7]				D
53	Menifee Rd./Reservoir Bl. & Nuevo Rd.	AWS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	D
54	Menifee Rd. & San Jacinto Av.	AWS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	D
55	Menifee Rd. & Ellis Rd.	CSS	**55.0**	**>100.0**	**F**	**F**	**36.4**	**>100.0**	**E**	**F**	**>100.0**	**>100.0**	**F**	**F**	D
56	Menifee Rd. & Mapes Rd.	CSS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	D
57	Menifee Rd. & Watson Rd.	CSS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	D
58	Menifee Rd. & Ethanac Rd. (SR-74)	TS	**>200.0**	**>200.0**	**F**	**F**	**>200.0**	**>200.0**	**F**	**F**	**>200.0**	**>200.0**	**F**	**F**	D
59	Bernasconi Rd. & Orange Av.	**TS**	**>200.0**	**>200.0**	**F**	**F**	Not Analyzed[7]				Not Analyzed[7]				D
60	Lakeview Av. & Ramona Exwy.	TS	**>200.0**	**>200.0**	**F**	**F**	Not Analyzed[7]				Not Analyzed[7]				D
61	Lakeview Av. & Nuevo Rd.	AWS	**>100.0**	**>100.0**	**F**	**F**	Not Analyzed[7]				Not Analyzed[7]				D
62	Montgomery Av. & Nuevo Rd.	CSS	12.9	13.4	B	B	Not Analyzed[7]				Not Analyzed[7]				D
63	Hansen Av./Davis Rd. & Ramona Exwy.	TS	**165.3**	**>200.0**	**F**	**F**	Not Analyzed[7]				Not Analyzed[7]				D
64	Hansen Av. & Contour Av.	AWS	18.1	12.5	C	B	Not Analyzed[7]				Not Analyzed[7]				D
65	Bridge St. & Ramona Exwy.	CSS	**>100.0**	**>100.0**	**F**	**F**	Not Analyzed[7]				Not Analyzed[7]				D
66	Warren Rd. & Ramona Exwy.	TS	**150.7**	**192.4**	**F**	**F**	Not Analyzed[7]				Not Analyzed[7]				D
67	Sanderson Av. (SR-79) & Ramona Exwy.	TS	**>200.0**	**>200.0**	**F**	**F**	Not Analyzed[7]				Not Analyzed[7]				D
68	Indian Av. & Morgan St.	TS	32.0	18.8	C	B	Not Analyzed[7]				Not Analyzed[7]				D
69	Indian Av. & Rider St.	TS	15.7	16.4	B	B	Not Analyzed[7]				Not Analyzed[7]				D
70	Murrieta Rd. & San Jacinto Av.	CSS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**45.6**	**F**	**E**	**>100.0**	**45.6**	**F**	**E**	D
71	Redlands Av. & San Jacinto Av.	TS	**>200.0**	**>200.0**	**F**	**F**	**128.8**	**147.8**	**F**	**F**	**128.8**	**147.8**	**F**	**F**	D
72	Redlands Av. & I-215 NB Ramps	TS	38.8	**92.7**	D	**F**	28.3	**72.2**	C	**E**	28.3	**72.2**	C	**E**	D
73	Redlands Av. & I-215 SB Ramps	TS	19.5	21.4	B	C	14.6	16.2	B	B	14.6	6.5	B	A	D
74	Evans Rd. & San Jacinto Av.	**CSS**	23.0	11.1	C	B	Not Analyzed[7]				Not Analyzed[7]				D
75	Evans Rd. & I-215 NB Ramps	**TS**	17.6	11.8	B	B	Not Analyzed[7]				Not Analyzed[7]				D
76	Evans Rd. & I-215 SB Ramps	**TS**	6.5	6.5	A	A	Not Analyzed[7]				Not Analyzed[7]				D
77	Dunlap Dr. & San Jacinto Av.	CSS	**>100.0**	**>100.0**	**F**	**F**	**68.2**	**>100.0**	**F**	**F**	**68.2**	**142.6**	**F**	**F**	D
78	I-215 SB Ramps & SR-74	TS	48.4	**118.1**	D	**F**	**82.3**	**173.0**	**F**	**F**	Not Analyzed[7]				D
79	I-215 NB Ramps & SR-74	TS	15.4	29.6	B	C	30.9	**69.7**	C	**E**	Not Analyzed[7]				D
80	Trumble Rd. & SR-74	TS	**98.0**	**97.8**	**F**	**F**	**179.0**	**184.5**	**F**	**F**	Not Analyzed[7]				D
81	I-215 SB Ramps & Ethanac Rd.	TS	20.6	54.2	C	D	Not Analyzed[7]				**107.3**	**155.5**	**F**	**F**	D
82	I-215 NB Ramps & Ethanac Rd.	TS	**120.4**	**145.2**	**F**	**F**	Not Analyzed[7]				**>200.0**	**>200.0**	**F**	**F**	D
83	Encanto Dr. & Ethanac Rd.	CSS	**>100.0**	**>100.0**	**F**	**F**	Not Analyzed[7]				**>200.0**	**>200.0**	**F**	**F**	D
84	Sherman Rd. & Ethanac Rd.	CSS	**>100.0**	**>100.0**	**F**	**F**	Not Analyzed[7]				**>100.0**	**>100.0**	**F**	**F**	D
85	Antelope Rd. & SR-74	TS	15.7	10.8	B	B	41.3	14.6	D	B	Not Analyzed[7]				D
86	Antelope Rd. & Ethanac Rd.	CSS	**>100.0**	27.8	**F**	D	Not Analyzed[7]				**>100.0**	**>100.0**	**F**	**E**	D
87	Menifee Rd. & Matthews Rd.	CSS	**62.0**	**>100.0**	**F**	**F**	Not Analyzed[7]				**>100.0**	**>100.0**	**F**	**F**	D

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all-way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[2] AWS = All-way Stop; CSS = Cross-street Stop; RA = Roundabout; TS = Traffic Signal; **TS** = Improvement

[3] A traffic signal is assumed as part of the I-215 Freeway/Placentia Avenue interchange project. The I-215 Freeway/Placentia Avenue interchange project is anticipated to be completed by 2022. As such, these improvements have been assumed to be in place for Horizon Year (2040) conditions.

[4] Minimum acceptable LOS for each applicable jurisdiction.

[5] The Nuevo Road widening is anticipated to be completed by the end of 2020. As such, the Nuevo Road widening is assumed under Horizon Year (2040) traffic conditions.

[6] Intersection will be constructed when the Mid-County Parkway is constructed. As such, the intersection does not exist under this scenario.

[7] Intersection not evaluated for this alternative.

TABLE 7-3: INTERSECTION ANALYSIS FOR HORIZON YEAR (2040) WITHOUT MID-COUNTY PARKWAY CONDITIONS

#	Intersection	Traffic Control[2]	2040 Without Project				2040 With Project (Alternative 5)				Acceptable LOS[4]
			Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service		
			AM	PM	AM	PM	AM	PM	AM	PM	
1	Harvill Av. & Cajalco Exwy.	TS	**147.1**	**>200.0**	**F**	**F**	Not Analyzed[7]				D
2	I-215 Southbound Ramps & Harley Knox Bl.	TS	**>200.0**	**>200.0**	**F**	**F**	Not Analyzed[7]				D
3	I-215 Northbound Ramps & Harley Knox Bl.	TS	**>200.0**	**>200.0**	**F**	**F**	Not Analyzed[7]				D
4	I-215 Southbound Ramps & Ramona Exwy.	TS	**140.8**	**>200.0**	**F**	**F**	Not Analyzed[7]				D
5	I-215 Northbound Ramps & Ramona Exwy.	TS	**>200.0**	**>200.0**	**F**	**F**	Not Analyzed[7]				D
6	I-215 SB Ramps & Placentia Av.	**TS[3]**	26.3	**114.5**	C	**F**	Not Analyzed[7]				D
7	I-215 NB Ramps & Placentia Av.	**TS[3]**	35.4	43.8	D	D	Not Analyzed[7]				D
8	I-215 SB Ramps & Nuevo Rd.	TS	25.8	**92.0**	C	**F**	Not Analyzed[7]				D
9	I-215 NB Ramps & Nuevo Rd.	TS	25.3	16.6	C	B	Not Analyzed[7]				D
10	Western Wy. & Harley Knox Bl.	TS	26.5	12.7	C	B	Not Analyzed[7]				D
11	Webster Av. & Harley Knox Bl.	RA	16.0	22.2	C	C	Not Analyzed[7]				D
12	Webster Av. & Ramona Exwy.	TS	**93.5**	**159.8**	**F**	**F**	Not Analyzed[7]				D
13	Indian Av. & Harley Knox Bl.	TS	**>200.0**	**136.2**	**F**	**F**	Not Analyzed[7]				D
14	Indian Av. & Ramona Exwy.	TS	**121.3**	**>200.0**	**F**	**F**	Not Analyzed[7]				D
15	Indian Av. & Placentia Av.	AWS	11.3	10.4	B	B	Not Analyzed[7]				D
16	Perris Bl. & Iris Av.	TS	**69.7**	**86.8**	**E**	**F**	Not Analyzed[7]				D
17	Perris Bl. & Krameria Av.	TS	**64.1**	**79.7**	**E**	**E**	Not Analyzed[7]				D
18	Perris Bl. & San Michele Rd.	TS	14.7	38.8	B	D	Not Analyzed[7]				D
19	Perris Bl. & Nandina Av.	TS	13.9	31.7	B	C	Not Analyzed[7]				D
20	Perris Bl. & Harley Knox Bl.	TS	53.9	**82.7**	D	**F**	Not Analyzed[7]				D
21	Perris Bl. & Markham St.	TS	15.9	19.4	B	B	Not Analyzed[7]				D
22	Perris Bl. & Ramona Exwy.	TS	**>200.0**	**>200.0**	**F**	**F**	Not Analyzed[7]				D
23	Perris Bl. & Morgan St.	TS	12.7	14.7	B	B	Not Analyzed[7]				D
24	Perris Bl. & Rider St.	TS	23.7	26.3	C	C	Not Analyzed[7]				D
25	Perris Bl. & Placentia Av.	TS	22.6	**75.0**	C	**E**	Not Analyzed[7]				D
26	Perris Bl. & Orange Av.	TS	32.6	**55.3**	C	**E**	Not Analyzed[7]				D
27	Perris Bl. & Nuevo Rd.	TS	**57.8**	**92.2**	**E**	**F**	Not Analyzed[7]				D
28	Redlands Av. & Harley Knox Bl.	TS	**87.1**	40.6	**F**	D	Not Analyzed[7]				D
29	Redlands Av. & Markham St.	TS	8.5	11.7	A	B	Not Analyzed[7]				D
30	Redlands Av. & Ramona Exwy.	TS	**150.8**	**>200.0**	**F**	**F**	Not Analyzed[7]				D
31	Redlands Av. & Morgan St.	AWS	23.6	19.1	C	C	Not Analyzed[7]				D
32	Redlands Av. & Rider St.	AWS	29.5	25.1	C	C	Not Analyzed[7]				D
33	Redlands Av. & Placentia Av.	AWS	30.6	**49.1**	D	**E**	Not Analyzed[7]				D
34	Redlands Av. & Orange Av.	TS	20.5	19.1	C	B	Not Analyzed[7]				D
35	Redlands Av. & Nuevo Rd.	TS	**189.9**	**58.9**	**F**	**E**	Not Analyzed[7]				D
36	Murrieta Rd. & Nuevo Rd.	TS	**64.7**	33.3	**E**	C	Not Analyzed[7]				D
37	Lasselle St. & Iris Av.	TS	**87.5**	**77.9**	**F**	**E**	Not Analyzed[7]				D
38	Lasselle St. & Krameria Av.	TS	**109.3**	**>200.0**	**F**	**F**	Not Analyzed[7]				D
39	Evans Rd. & Ramona Exwy.	TS	**>200.0**	**>200.0**	**F**	**F**	Not Analyzed[7]				D
40	Evans Rd. & Rider St.	TS	41.6	37.5	D	D	Not Analyzed[7]				D
41	Evans Rd. & Orange Av.	TS	26.8	46.4	C	D	Not Analyzed[7]				D
42	Evans Rd. & Nuevo Rd.	TS	43.5	35.6	D	D	Not Analyzed[7]				D
43	Bradley Rd. & Ramona Exwy.	TS	33.1	42.3	C	D	Not Analyzed[7]				D
44	Bradley Rd. & Rider St.	TS	29.1	23.6	C	C	Not Analyzed[7]				D
45	Dunlap Dr. & Orange Av.	CSS	17.8	20.5	C	C	Not Analyzed[7]				D

#	Intersection	Traffic Control[2]	2040 Without Project				2040 With Project (Alternative 5)				Acceptable LOS[4]
			Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service		
			AM	PM	AM	PM	AM	PM	AM	PM	
46	Dunlap Dr. & Nuevo Rd.	TS	**>200.0**	**>200.0**	**F**	**F**	**>200.0**	**>200.0**	**F**	**F**	D
47	Ramona Exwy. & Rider St.	TS	**63.9**	**182.7**	**E**	**F**	Not Analyzed[7]				D
48	Antelope Rd. & Ramona Exwy.	**TS**	Future Intersection				Not Analyzed[7]				D
49	MCP WB Ramps & Antelope Rd.		Not Analyzed[6]				Not Analyzed[7]				D
50	MCP EB Ramps & Antelope Rd.		Not Analyzed[6]				Not Analyzed[7]				D
51	Antelope Rd. & Nuevo Rd.	**TS**	Future Intersection				**>200.0**	**>200.0**	**F**	**F**	D
52	Street A & Ramona Exwy.	**TS**	Future Intersection				Not Analyzed[7]				D
53	Menifee Rd./Reservoir Bl. & Nuevo Rd.	AWS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	D
54	Menifee Rd. & San Jacinto Av.	AWS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	D
55	Menifee Rd. & Ellis Rd.	CSS	**55.0**	**>100.0**	**F**	**F**	Not Analyzed[7]				D
56	Menifee Rd. & Mapes Rd.	CSS	**>100.0**	**>100.0**	**F**	**F**	Not Analyzed[7]				D
57	Menifee Rd. & Watson Rd.	CSS	**>100.0**	**>100.0**	**F**	**F**	Not Analyzed[7]				D
58	Menifee Rd. & Ethanac Rd. (SR-74)	TS	**>200.0**	**>200.0**	**F**	**F**	Not Analyzed[7]				D
59	Bernasconi Rd. & Orange Av.	**TS**	**>200.0**	**>200.0**	**F**	**F**	Not Analyzed[7]				D
60	Lakeview Av. & Ramona Exwy.	TS	**>200.0**	**>200.0**	**F**	**F**	Not Analyzed[7]				D
61	Lakeview Av. & Nuevo Rd.	AWS	**>100.0**	**>100.0**	**F**	**F**	Not Analyzed[7]				D
62	Montgomery Av. & Nuevo Rd.	CSS	12.9	13.4	B	B	Not Analyzed[7]				D
63	Hansen Av./Davis Rd. & Ramona Exwy.	TS	**165.3**	**>200.0**	**F**	**F**	Not Analyzed[7]				D
64	Hansen Av. & Contour Av.	AWS	18.1	12.5	C	B	Not Analyzed[7]				D
65	Bridge St. & Ramona Exwy.	CSS	**>100.0**	**>100.0**	**F**	**F**	Not Analyzed[7]				D
66	Warren Rd. & Ramona Exwy.	TS	**150.7**	**192.4**	**F**	**F**	Not Analyzed[7]				D
67	Sanderson Av. (SR-79) & Ramona Exwy.	TS	**>200.0**	**>200.0**	**F**	**F**	Not Analyzed[7]				D
68	Indian Av. & Morgan St.	TS	32.0	18.8	C	B	Not Analyzed[7]				D
69	Indian Av. & Rider St.	TS	15.7	16.4	B	B	Not Analyzed[7]				D
70	Murrieta Rd. & San Jacinto Av.	CSS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**45.6**	**F**	**E**	D
71	Redlands Av. & San Jacinto Av.	TS	**>200.0**	**>200.0**	**F**	**F**	**128.8**	**147.8**	**F**	**F**	D
72	Redlands Av. & I-215 NB Ramps	TS	38.8	**92.7**	D	**F**	28.3	**72.2**	C	**E**	D
73	Redlands Av. & I-215 SB Ramps	TS	19.5	21.4	B	C	14.6	16.2	B	B	D
74	Evans Rd. & San Jacinto Av.	**CSS**	23.0	11.1	C	B	14.3	9.6	B	A	D
75	Evans Rd. & I-215 NB Ramps	**TS**	17.6	11.8	B	B	17.6	11.8	B	B	D
76	Evans Rd. & I-215 SB Ramps	**TS**	6.5	6.5	A	A	6.5	6.5	A	A	D
77	Dunlap Dr. & San Jacinto Av.	CSS	**>100.0**	**>100.0**	**F**	**F**	**>200.0**	**>100.0**	**F**	**F**	D
78	I-215 SB Ramps & SR-74	TS	48.4	**118.1**	D	**F**	Not Analyzed[7]				D
79	I-215 NB Ramps & SR-74	TS	15.4	29.6	B	C	Not Analyzed[7]				D
80	Trumble Rd. & SR-74	TS	**98.0**	**97.8**	**F**	**F**	Not Analyzed[7]				D
81	I-215 SB Ramps & Ethanac Rd.	TS	20.6	54.2	C	D	Not Analyzed[7]				D
82	I-215 NB Ramps & Ethanac Rd.	TS	**120.4**	**145.2**	**F**	**F**	Not Analyzed[7]				D
83	Encanto Dr. & Ethanac Rd.	CSS	**>100.0**	**>100.0**	**F**	**F**	Not Analyzed[7]				D
84	Sherman Rd. & Ethanac Rd.	CSS	**>100.0**	**>100.0**	**F**	**F**	Not Analyzed[7]				D
85	Antelope Rd. & SR-74	TS	15.7	10.8	B	B	Not Analyzed[7]				D
86	Antelope Rd. & Ethanac Rd.	CSS	**>100.0**	27.8	**F**	D	Not Analyzed[7]				D
87	Menifee Rd. & Matthews Rd.	CSS	**62.0**	**>100.0**	**F**	**F**	Not Analyzed[7]				D

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all-way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[2] AWS = All-way Stop; CSS = Cross-street Stop; RA = Roundabout; TS = Traffic Signal; **TS** = Improvement

[3] A traffic signal is assumed as part of the I-215 Freeway/Placentia Avenue interchange project. The I-215 Freeway/Placentia Avenue interchange project is anticipated to be completed by 2022. As such, these improvements have been assumed to be in place for Horizon Year (2040) conditions.

[4] Minimum acceptable LOS for each applicable jurisdiction.

[5] The Nuevo Road widening is anticipated to be completed by the end of 2020. As such, the Nuevo Road widening is assumed under Horizon Year (2040) traffic conditions.

[6] Intersection will be constructed when the Mid-County Parkway is constructed. As such, the intersection does not exist under this scenario.

[7] Intersection not evaluated for this alternative.

TABLE 7-4: INTERSECTION ANALYSIS FOR HORIZON YEAR (2040) WITH MID-COUNTY PARKWAY CONDITIONS

#	Intersection	Traffic Control[2]	2040 Without Project				2040 With Project (Alternative 6)				Acceptable LOS[4]
			Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service		
			AM	PM	AM	PM	AM	PM	AM	PM	
1	Harvill Av. & Cajalco Exwy.	TS	**130.1**	**159.6**	**F**	**F**	**136.6**	**165.5**	**F**	**F**	D
2	I-215 Southbound Ramps & Harley Knox Bl.	TS	22.2	**59.4**	C	**E**	23.7	**60.8**	C	**E**	D
3	I-215 Northbound Ramps & Harley Knox Bl.	TS	**144.8**	27.0	**F**	C	**146.6**	28.5	**F**	C	D
4	I-215 Southbound Ramps & Ramona Exwy.	TS	53.6	**138.7**	D	**F**	**60.4**	**142.2**	**E**	**F**	D
5	I-215 Northbound Ramps & Ramona Exwy.	TS	39.3	**101.5**	D	**F**	39.6	**105.9**	D	**F**	D
6	I-215 SB Ramps & Placentia Av.	**TS**[3]	22.3	30.7	C	C	22.3	30.7	C	C	D
7	I-215 NB Ramps & Placentia Av.	**TS**[3]	14.3	13.8	B	B	14.3	13.8	B	B	D
8	I-215 SB Ramps & Nuevo Rd.	TS	21.3	29.2	C	C	21.3	29.2	C	C	D
9	I-215 NB Ramps & Nuevo Rd.	TS	18.1	12.2	B	B	18.1	12.2	B	B	D
10	Western Wy. & Harley Knox Bl.	TS	7.5	8.9	A	A	7.5	8.9	A	A	D
11	Webster Av. & Harley Knox Bl.	RA	8.1	7.6	A	A	8.2	7.6	A	A	D
12	Webster Av. & Ramona Exwy.	TS	**156.6**	**192.0**	**F**	**F**	**157.4**	**192.8**	**F**	**F**	D
13	Indian Av. & Harley Knox Bl.	TS	33.2	43.1	C	D	33.2	43.8	C	D	D
14	Indian Av. & Ramona Exwy.	TS	31.0	**89.0**	C	**F**	31.3	**92.6**	C	**F**	D
15	Indian Av. & Placentia Av.	AWS	10.1	9.7	B	A	10.1	9.7	B	A	D
16	Perris Bl. & Iris Av.	TS	44.3	**76.6**	D	**E**	45.4	**79.3**	D	**E**	D
17	Perris Bl. & Krameria Av.	TS	37.5	42.4	D	D	38.7	43.6	D	D	D
18	Perris Bl. & San Michele Rd.	TS	11.6	14.0	B	B	11.6	14.0	B	B	D
19	Perris Bl. & Nandina Av.	TS	11.2	15.7	B	B	11.2	15.8	B	B	D
20	Perris Bl. & Harley Knox Bl.	TS	**71.5**	**109.0**	**E**	**F**	**74.3**	**109.3**	**E**	**F**	D
21	Perris Bl. & Markham St.	TS	13.2	14.1	B	B	13.3	14.4	B	B	D
22	Perris Bl. & Ramona Exwy.	TS	**65.3**	42.2	**E**	D	**69.6**	44.5	**E**	D	D
23	Perris Bl. & Morgan St.	TS	12.5	13.8	B	B	12.5	13.8	B	B	D
24	Perris Bl. & Rider St.	TS	24.5	24.5	C	C	24.5	24.5	C	C	D
25	Perris Bl. & Placentia Av.	TS	**>200.0**	**>200.0**	**F**	**F**	**>200.0**	**>200.0**	**F**	**F**	D
26	Perris Bl. & Orange Av.	TS	31.3	**124.1**	C	**F**	33.0	**125.4**	C	**F**	D
27	Perris Bl. & Nuevo Rd.	TS	**72.7**	**86.4**	**E**	**F**	**72.7**	**86.5**	**E**	**F**	D
28	Redlands Av. & Harley Knox Bl.	TS	**57.1**	13.7	**E**	B	**57.1**	13.7	**E**	B	D
29	Redlands Av. & Markham St.	TS	22.7	10.2	C	B	22.7	10.2	C	B	D
30	Redlands Av. & Ramona Exwy.	TS	31.7	33.2	C	C	31.8	34.5	C	C	D
31	Redlands Av. & Morgan St.	AWS	9.0	10.8	A	B	9.0	10.8	A	B	D
32	Redlands Av. & Rider St.	AWS	20.5	22.3	C	C	20.5	22.3	C	C	D
33	Redlands Av. & Placentia Av.	AWS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	D
34	Redlands Av. & Orange Av.	TS	31.5	43.6	C	D	33.8	47.7	C	D	D
35	Redlands Av. & Nuevo Rd.	TS	47.2	**65.1**	D	**E**	47.7	**71.2**	D	**E**	D
36	Murrieta Rd. & Nuevo Rd.	TS	50.4	**56.8**	D	**E**	54.3	**58.5**	D	**E**	D
37	Lasselle St. & Iris Av.	TS	36.5	48.5	D	D	37.8	49.7	D	D	D
38	Lasselle St. & Krameria Av.	TS	44.1	**144.2**	D	**F**	48.3	**149.6**	D	**F**	D
39	Evans Rd. & Ramona Exwy.	TS	**81.3**	**110.7**	**F**	**F**	**87.1**	**120.9**	**F**	**F**	D
40	Evans Rd. & Rider St.	TS	41.0	30.6	D	C	41.0	30.6	D	C	D
41	Evans Rd. & Orange Av.	TS	**154.0**	**154.9**	**F**	**F**	**185.8**	**>200.0**	**F**	**F**	D
42	Evans Rd. & Nuevo Rd.	TS	23.8	16.6	C	B	24.3	16.8	C	B	D
43	Bradley Rd. & Ramona Exwy.	TS	16.1	17.5	B	B	16.6	23.1	B	C	D
44	Bradley Rd. & Rider St.	TS	19.3	14.1	B	B	19.3	14.1	B	B	D
45	Dunlap Dr. & Orange Av.	CSS	20.3	26.0	C	D	**58.1**	**>100.0**	**F**	**F**	D

#	Intersection	Traffic Control[2]	2040 Without Project Delay[1] (secs.) AM	2040 Without Project Delay[1] (secs.) PM	2040 Without Project Level of Service AM	2040 Without Project Level of Service PM	2040 With Project (Alternative 6) Delay[1] (secs.) AM	2040 With Project (Alternative 6) Delay[1] (secs.) PM	2040 With Project (Alternative 6) Level of Service AM	2040 With Project (Alternative 6) Level of Service PM	Acceptable LOS[4]
46	Dunlap Dr. & Nuevo Rd.	TS	21.1	24.0	C	C	21.2	25.9	C	C	D
47	Ramona Exwy. & Rider St.	TS	20.3	41.5	C	D	21.6	54.1	C	D	D
48	Antelope Rd. & Ramona Exwy.	**TS**	Not Analyzed[5]				Not Analyzed[5]				D
49	MCP WB Ramps & Antelope Rd.		Future Intersection				9.8	7.2	A	A	D
50	MCP EB Ramps & Antelope Rd.		Future Intersection				11.8	25.9	B	C	D
51	Antelope Rd. & Nuevo Rd.	**TS**	Future Intersection				**107.9**	**92.2**	**F**	**F**	D
52	Street A & Ramona Exwy.	**TS**	Not Analyzed[5]				Not Analyzed[5]				D
53	Menifee Rd./Reservoir Bl. & Nuevo Rd.	AWS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	D
54	Menifee Rd. & San Jacinto Av.	AWS	**63.6**	**>100.0**	**F**	**F**	**81.2**	**>100.0**	**F**	**F**	D
55	Menifee Rd. & Ellis Rd.	CSS	**50.2**	**>100.0**	**F**	**F**	**59.8**	**>100.0**	**F**	**F**	D
56	Menifee Rd. & Mapes Rd.	CSS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	D
57	Menifee Rd. & Watson Rd.	CSS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	D
58	Menifee Rd. & Ethanac Rd. (SR-74)	TS	**>200.0**	**>200.0**	**F**	**F**	**>200.0**	**>200.0**	**F**	**F**	D
59	Bernasconi Rd. & Orange Av.	**TS**	10.4	10.6	B	B	12.3	11.9	B	B	D
60	Lakeview Av. & Ramona Exwy.	TS	**127.6**	**97.1**	**F**	**F**	**127.6**	**97.1**	**F**	**F**	D
61	Lakeview Av. & Nuevo Rd.	AWS	24.0	30.7	C	D	26.6	**41.2**	D	**E**	D
62	Montgomery Av. & Nuevo Rd.	CSS	11.7	11.9	B	B	12.0	12.3	B	B	D
63	Hansen Av./Davis Rd. & Ramona Exwy.	TS	11.6	12.0	B	B	11.6	12.0	B	B	D
64	Hansen Av. & Contour Av.	AWS	11.7	9.2	B	A	12.2	9.4	B	A	D
65	Bridge St. & Ramona Exwy.	CSS	32.9	**>100.0**	D	**F**	32.9	**>100.0**	D	**F**	D
66	Warren Rd. & Ramona Exwy.	TS	15.5	24.6	B	C	15.5	24.6	B	C	D
67	Sanderson Av. (SR-79) & Ramona Exwy.	TS	**>200.0**	**>200.0**	**F**	**F**	**>200.0**	**>200.0**	**F**	**F**	D
68	Indian Av. & Morgan St.	TS	28.7	19.2	C	B	28.7	19.2	C	B	D
69	Indian Av. & Rider St.	TS	15.5	16.1	B	B	15.5	16.1	B	B	D
70	Murrieta Rd. & San Jacinto Av.	CSS	**>100.0**	33.3	**F**	D	**>100.0**	33.3	**F**	D	D
71	Redlands Av. & San Jacinto Av.	TS	**115.1**	**120.4**	**F**	**F**	**115.1**	**120.4**	**F**	**F**	D
72	Redlands Av. & I-215 NB Ramps	TS	22.1	37.1	C	D	22.1	37.1	C	D	D
73	Redlands Av. & I-215 SB Ramps	TS	12.9	15.2	B	B	12.9	15.2	B	B	D
74	Evans Rd. & San Jacinto Av.	**CSS**	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	D
75	Evans Rd. & I-215 NB Ramps	**TS**	17.6	11.8	B	B	17.6	11.8	B	B	D
76	Evans Rd. & I-215 SB Ramps	**TS**	6.5	6.5	A	A	6.5	6.5	A	A	D
77	Dunlap Dr. & San Jacinto Av.	CSS	**45.4**	32.9	**E**	D	**45.4**	32.9	**E**	D	D
78	I-215 SB Ramps & SR-74	TS	17.9	38.6	B	D	17.9	38.6	B	D	D
79	I-215 NB Ramps & SR-74	TS	10.2	19.7	B	B	10.2	19.7	B	B	D
80	Trumble Rd. & SR-74	TS	41.9	27.0	D	C	41.9	27.0	D	C	D
81	I-215 SB Ramps & Ethanac Rd.	TS	39.8	**56.8**	D	**E**	39.8	**56.8**	D	**E**	D
82	I-215 NB Ramps & Ethanac Rd.	TS	**116.9**	**76.2**	**F**	**E**	**116.9**	**76.2**	**F**	**E**	D
83	Encanto Dr. & Ethanac Rd.	CSS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	D
84	Sherman Rd. & Ethanac Rd.	CSS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	D
85	Antelope Rd. & SR-74	TS	13.5	10.7	B	B	14.0	10.7	B	B	D
86	Antelope Rd. & Ethanac Rd.	CSS	**>100.0**	**39.9**	**F**	**E**	**>100.0**	**39.9**	D	**E**	D
87	Menifee Rd. & Matthews Rd.	CSS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	D

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all-way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[2] AWS = All-way Stop; CSS = Cross-street Stop; RA = Roundabout; TS = Traffic Signal; **TS** = Improvement

[3] A traffic signal is assumed as part of the I-215 Freeway/Placentia Avenue interchange project. The I-215 Freeway/Placentia Avenue interchange project is anticipated to be completed by 2022. As such, these improvements have been assumed to be in place for Horizon Year (2040) conditions.

[4] Minimum acceptable LOS for each applicable jurisdiction.

[5] Intersection will be constructed when the Mid-County Parkway is constructed. As such, the intersection does not exist under this scenario.

- Indian Avenue & Ramona Expressway (#14) – LOS F PM peak hour only
- Perris Boulevard & Iris Avenue (#16) – LOS F PM peak hour only
- Perris Boulevard & Harley Knox Boulevard (#20) – LOS E AM peak hour; LOS F PM peak hour
- Perris Boulevard & Ramona Expressway (#22) – LOS E AM peak hour only
- Perris Boulevard & Placentia Avenue (#25) – LOS F AM and PM peak hours
- Perris Boulevard & Orange Avenue (#26) – LOS F PM peak hour only
- Perris Boulevard & Nuevo Road (#27) – LOS E AM peak hour; LOS F PM peak hour
- Redlands Avenue & Harley Knox Boulevard (#28) – LOS E AM peak hour only
- Redlands Avenue & Placentia Avenue (#33) – LOS F AM and PM peak hours
- Redlands Avenue & Nuevo Road (#35) – LOS E PM peak hour only
- Murrieta Road & Nuevo Road (#36) – LOS E PM peak hour only
- Lasselle Street & Krameria Avenue (#38) – LOS F PM peak hour only
- Evans Road & Ramona Expressway (#39) – LOS F AM and PM peak hours
- Evans Road & Orange Avenue (#41) – LOS F AM and PM peak hours
- Menifee Road/Reservoir Road & Nuevo Road (#53) – LOS F AM and PM peak hours
- Menifee Road & San Jacinto Avenue (#54) – LOS F AM and PM peak hours
- Menifee Road & Ellis Avenue (#55) – LOS F AM and PM peak hours
- Menifee Road & Mapes Road (#56) – LOS F AM and PM peak hours
- Menifee Road & Watson Road (#57) – LOS F AM and PM peak hours
- Menifee Road & Ethanac Road (SR-74) (#58) – LOS F AM and PM peak hours
- Lakeview Avenue & Ramona Expressway (#60) – LOS F AM and PM peak hours
- Lakeview Avenue & Nuevo Road (#61) – LOS F AM and PM peak hours
- Bridge Street & Ramona Expressway (#65) – LOS F PM peak hour only
- Sanderson Avenue (SR-79) & Ramona Expressway (#67) – LOS F AM and PM peak hours
- Murrieta Road & San Jacinto Avenue (#70) – LOS F AM peak hour only
- Redlands Avenue & San Jacinto Avenue (#71) – LOS F AM and PM peak hours
- Evans Road & San Jacinto Avenue (#74) – LOS F AM and PM peak hours
- Dunlap Drive & San Jacinto Avenue (#77) – LOS E AM peak hour only
- I-215 SB Ramps & Ethanac Road (#81) – LOS E PM peak hour only
- I-215 Northbound Ramps & Ethanac Road (#82) – LOS F AM and PM peak hours
- Encanto Drive & Ethanac Road (#83) – LOS F AM and PM peak hours
- Sherman Road & Ethanac Road (#84) – LOS F AM and PM peak hours
- Antelope Road & Ethanac Road (SR-74) (#86) – LOS F AM peak hour; LOS E PM peak hour only
- Menifee Road & Matthews Road (#87) – LOS F AM and PM peak hours

As shown in Table 7-4, the intersection operations analysis results under Horizon Year (2040) With Project Alternative 6 conditions are consistent with Horizon Year (2040) With MCP Without Project Conditions, with the exception of the following intersections:

- Dunlap Drove & Orange Avenue (#45) – LOS F AM and PM peak hours
- Antelope Road & Nuevo Road (#51) – LOS F AM and PM peak hours
- Lakeview Avenue & Nuevo Road (#61) – LOS E PM peak hour only

The intersection operations analysis worksheets for Horizon Year (2040) Without MCP traffic conditions for each alternative are included in the following Appendices:

- Appendix 7.6 for Horizon Year (2040) With MCP Without Project
- Appendix 7.7 for Horizon Year (2040) With MCP With Project Alternative 6

7.7 TRAFFIC SIGNAL WARRANTS ANALYSIS

7.7.1 HORIZON YEAR (2040) WITHOUT MCP WITHOUT PROJECT TRAFFIC CONDITIONS

Traffic signal warrants have been performed (based on CA MUTCD) for Horizon Year (2040) traffic conditions based on daily volumes. The following additional unsignalized study area intersection is anticipated to meet planning-level ADT traffic signal warrants under Horizon Year (2040) Without MCP Without Project traffic conditions, in addition to the intersections warranted under previous analysis traffic conditions:

- Bernasconi Road & Orange Avenue (#59)

The Horizon Year (2040) conditions traffic signal warrant analysis worksheets are provided for each alternative are provided in the following appendices:

- Appendix 7.8 for Horizon Year (2040) Without MCP Without Project
- Appendix 7.9 for Horizon Year (2040) With MCP Without Project
- Appendix 7.10 for Horizon Year (2040) Without MCP With Project Alternative 1
- Appendix 7.11 for Horizon Year (2040) Without MCP With Project Alternative 3
- Appendix 7.12 for Horizon Year (2040) Without MCP With Project Alternative 4

7.8 OFF-RAMP QUEUING ANALYSIS

7.8.1 HORIZON YEAR (2040) WITHOUT MCP TRAFFIC CONDITIONS

As shown in Tables 7-5, 7-6, and 7-7, the following movements are anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows under Horizon Year (2040) Without MCP Without Project traffic conditions:

- I-215 Southbound Ramps & Ramona Expressway (#4), southbound left turn lane – AM and PM peak hours
- I-215 Southbound Ramps & Ramona Expressway (#4), southbound left-through lane – PM peak hour only

There are no additional movements anticipated to experience queuing issues under Horizon Year (2040) Without MCP With Project Alternatives 1, 3, 4, and 5 conditions, in additional to the movements identified under Alternative 1. It should be noted, off-ramp queues were not evaluated under Alternative 2 since there are no changes to the Project Only volumes at the study area off-ramps compared to Alternative 1. Worksheets for Horizon Year (2040) Without MCP traffic conditions off-ramp queuing analysis are provided for each alternative in the following appendices:

- Appendix 7.13 for Horizon Year (2040) Without MCP Without Project
- Appendix 7.14 for Horizon Year (2040) Without MCP With Project Alternative 1
- Appendix 7.15 for Horizon Year (2040) Without MCP With Project Alternative 3
- Appendix 7.16 for Horizon Year (2040) Without MCP With Project Alternative 4
- Appendix 7.17 for Horizon Year (2040) Without MCP With Project Alternative 5

7.8.2 HORIZON YEAR (2040) WITH MCP TRAFFIC CONDITIONS

As shown in Table 7-8, there are no movements that are anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows under Horizon Year (2040) With MCP traffic conditions. Worksheets for Horizon Year (2040) With MCP traffic conditions off-ramp queuing analysis are provided for each alternative in the following appendices:

- Appendix 7.18 for Horizon Year (2040) With MCP Without Project
- Appendix 7.19 for Horizon Year (2040) With MCP With Project Alternative 6

TABLE 7-5: PEAK HOUR FREEWAY OFF-RAMP QUEUING SUMMARY FOR HORIZON YEAR (2040) WITHOUT MID-COUNTY PARKWAY ALTERNATIVE 1 & 2 CONDITIONS

Intersection	Movement	Available Stacking Distance (Feet)	2040 Without Project				2040 With Project (Alternative 1)				2040 With Project (Alternative 2)			
			95th Percentile Queue (Feet)		Acceptable? [1]		95th Percentile Queue (Feet)		Acceptable? [1]		95th Percentile Queue (Feet)		Acceptable? [1]	
			AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM
I-215 Southbound Ramps & Harley Knox Bl.	SBL/T	1,330	1,183 [2]	693 [2]	Yes	Yes	1,193 [2]	699 [2]	Yes	Yes	Not Evaluated[4]			
	SBR	270	307 [2,3]	64	Yes	Yes	307 [2,3]	64	Yes	Yes				
I-215 Southbound Ramps & Ramona Exwy.	SBL	530	**1,088** [2]	**1,612** [2]	**No**	**No**	**1,088** [2]	**1,612** [2]	**No**	**No**				
	SBL/T	1,100	1,089 [2]	**1,615** [2]	Yes	**No**	1,089 [2]	**1,615** [2]	Yes	**No**	Not Evaluated[4]			
	SBR	530	498 [2]	247	Yes	Yes	498 [2]	247	Yes	Yes				
I-215 Southbound Ramps & Placentia Av.	SBL	300	310 [2,3]	557 [2,3]	Yes	Yes	425 [2,3]	617 [2,3]	Yes	Yes				
	SBL/T	1,450	215	484 [2]	Yes	Yes	341 [2]	533 [2]	Yes	Yes	Not Evaluated[4]			
	SBR	900	0	0	Yes	Yes	0	0	Yes	Yes				
I-215 Southbound Ramps & Nuevo Rd.	SBL	670	208	369 [2]	Yes	Yes	208	369 [2]	Yes	Yes				
	SBL/T	1010	208	370 [2]	Yes	Yes	208	370 [2]	Yes	Yes	Not Evaluated[4]			
	SBR	440	100	60	Yes	Yes	100	60	Yes	Yes				
I-215 Northbound Ramps & Harley Knox Bl.	NBL/T	1,120	92 [2]	53	Yes	Yes	92 [2]	53	Yes	Yes	Not Evaluated[4]			
	NBR	265	255 [2]	320 [2,3]	Yes	Yes	255 [2]	320 [2,3]	Yes	Yes				
I-215 Northbound Ramps & Ramona Exwy.	NBL	520	311	305	Yes	Yes	313	310	Yes	Yes				
	NBL/T	1,120	305	310	Yes	Yes	308	313	Yes	Yes	Not Evaluated[4]			
	NBR	520	879 [2,3]	720 [2,3]	Yes	Yes	879 [2,3]	720 [2,3]	Yes	Yes				
I-215 Northbound Ramps & Placentia Av.	NBL	600	0	0	Yes	Yes	0	0	Yes	Yes				
	NBL/T	1,700	161	138	Yes	Yes	161	138	Yes	Yes	Not Evaluated[4]			
	NBR	1,200	449 [2]	476 [2]	Yes	Yes	493 [2]	476 [2]	Yes	Yes				
I-215 Northbound Ramps & Nuevo Rd.	NBL/T	1,100	441 [2]	104	Yes	Yes	441 [2]	103	Yes	Yes	Not Evaluated[4]			
	NBR	370	500 [2,3]	227	Yes	Yes	578 [2,3]	253	Yes	Yes				

Intersection	Movement	Available Stacking Distance (Feet)	2040 Without Project				2040 With Project (Alternative 1)				2040 With Project (Alternative 2)			
			95th Percentile Queue (Feet)		Acceptable?[1]		95th Percentile Queue (Feet)		Acceptable?[1]		95th Percentile Queue (Feet)		Acceptable?[1]	
			AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM
I-215 Northbound Ramps & Redlands Av.	WBL	1,225	454 [2]	400 [2]	Yes	Yes	483 [2]	400 [2]	Yes	Yes				
	WBL/T/R	790	424 [2]	530 [2]	Yes	Yes	469 [2]	590 [2]	Yes	Yes	Not Evaluated[4]			
	WBR	415	352 [2]	418 [2,3]	Yes	Yes	384 [2]	472 [2,3]	Yes	Yes				
I-215 Southbound Ramps & Redlands Av.	EBL	1,140	189 [2]	243 [2]	Yes	Yes	263 [2]	313 [2]	Yes	Yes				
	EBL/T/R	775	101	153 [2]	Yes	Yes	183 [2]	250 [2]	Yes	Yes	Not Evaluated[4]			
	EBR	185	80	123	Yes	Yes	80	135 [2]	Yes	Yes				
I-215 Northbound Ramps & Evans Rd.	**WBL**	**200**	26	18	Yes	Yes	26	18	Yes	Yes				
	WBT/R	**1,000**	0	0	Yes	Yes	0	0	Yes	Yes	Not Evaluated[4]			
I-215 Southbound Ramps & Evans Rd.	**EBL**	**200**	38	48	Yes	Yes	38	48	Yes	Yes				
	EBT/R	**1,000**	0	0	Yes	Yes	0	0	Yes	Yes	Not Evaluated[4]			
I-215 Southbound Ramps & SR-74	SBT	2,275	839 [2]	1,407 [2]	Yes	Yes	839 [2]	1,407 [2]	Yes	Yes				
	SBR	215	55	40	Yes	Yes	55	40	Yes	Yes	Not Evaluated[4]			
I-215 Northbound Ramps & SR-74	SBL/R	1,510	372	638 [2]	Yes	Yes	372	638 [2]	Yes	Yes	Not Evaluated[4]			
I-215 Southbound Ramps & Ethanac Rd.	SBL/T	1,365	216	668 [2]	Yes	Yes	216	668 [2]	Yes	Yes				
	SBR	240	244 [3]	542 [2,3]	Yes	Yes	244 [3]	542 [2,3]	Yes	Yes	Not Evaluated[4]			
I-215 Northbound Ramps & Ethanac Rd.	NBL/T	1,550	493 [2]	642	Yes	Yes	493 [2]	642 [2]	Yes	Yes				
	NBR	240	72	232	Yes	Yes	72	232	Yes	Yes	Not Evaluated[4]			

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

[3] Although 95th percentile queue is anticipated to exceed the available storage for the turn lane, the adjacent through lane has sufficient storage to accommodate any spillover without spilling back and affecting the I-215 Freeway mainline.

[4] Interchange not evaluated for this alternative.

TABLE 7-6: PEAK HOUR FREEWAY OFF-RAMP QUEUING SUMMARY FOR HORIZON YEAR (2040) WITHOUT MID-COUNTY PARKWAY ALTERNATIVE 3 & 4 CONDITIONS

Intersection	Movement	Available Stacking Distance (Feet)	2040 Without Project				2040 With Project (Alternative 3)				2040 With Project (Alternative 4)			
			95th Percentile Queue (Feet)		Acceptable? [1]		95th Percentile Queue (Feet)		Acceptable? [1]		95th Percentile Queue (Feet)		Acceptable? [1]	
			AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM
I-215 Southbound Ramps & Harley Knox Bl.	SBL/T	1,330	1,183 [2]	693 [2]	Yes	Yes	Not Evaluated[4]				Not Evaluated[4]			
	SBR	270	307 [2,3]	64	Yes	Yes								
I-215 Southbound Ramps & Ramona Exwy.	SBL	530	**1,088** [2]	**1,612** [2]	**No**	**No**								
	SBL/T	1,100	1,089 [2]	**1,615** [2]	Yes	**No**	Not Evaluated[4]				Not Evaluated[4]			
	SBR	530	498 [2]	247	Yes	Yes								
I-215 Southbound Ramps & Placentia Av.	SBL	300	310 [2,3]	557 [2,3]	Yes	Yes								
	SBL/T	1,450	215	484 [2]	Yes	Yes	Not Evaluated[4]				Not Evaluated[4]			
	SBR	900	0	0	Yes	Yes								
I-215 Southbound Ramps & Nuevo Rd.	SBL	670	208	369 [2]	Yes	Yes								
	SBL/T	1010	208	370 [2]	Yes	Yes	Not Evaluated[4]				Not Evaluated[4]			
	SBR	440	100	60	Yes	Yes								
I-215 Northbound Ramps & Harley Knox Bl.	NBL/T	1,120	92 [2]	53	Yes	Yes	Not Evaluated[4]				Not Evaluated[4]			
	NBR	265	255 [2]	320 [2,3]	Yes	Yes								
I-215 Northbound Ramps & Ramona Exwy.	NBL	520	311	305	Yes	Yes								
	NBL/T	1,120	305	310	Yes	Yes	Not Evaluated[4]				Not Evaluated[4]			
	NBR	520	879 [2,3]	720 [2,3]	Yes	Yes								
I-215 Northbound Ramps & Placentia Av.	NBL	600	0	0	Yes	Yes								
	NBL/T	1,700	161	138	Yes	Yes	Not Evaluated[4]				Not Evaluated[4]			
	NBR	1,200	449 [2]	476 [2]	Yes	Yes								
I-215 Northbound Ramps & Nuevo Rd.	NBL/T	1,100	441 [2]	104	Yes	Yes	Not Evaluated[4]				Not Evaluated[4]			
	NBR	370	500 [2,3]	227	Yes	Yes								

Intersection	Movement	Available Stacking Distance (Feet)	2040 Without Project				2040 With Project (Alternative 3)				2040 With Project (Alternative 4)			
			95th Percentile Queue (Feet)		Acceptable?[1]		95th Percentile Queue (Feet)		Acceptable?[1]		95th Percentile Queue (Feet)		Acceptable?[1]	
			AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM
I-215 Northbound Ramps & Redlands Av.	WBL	1,225	454 [2]	400 [2]	Yes	Yes	418 [2]	400 [2]	Yes	Yes	418 [2]	400 [2]	Yes	Yes
	WBL/T/R	790	424 [2]	530 [2]	Yes	Yes	376 [2]	449 [2]	Yes	Yes	376 [2]	449 [2]	Yes	Yes
	WBR	415	352 [2]	418 [2,3]	Yes	Yes	311 [2]	369 [2]	Yes	Yes	311 [2]	369 [2]	Yes	Yes
I-215 Southbound Ramps & Redlands Av.	EBL	1,140	189 [2]	243 [2]	Yes	Yes	121	177 [2]	Yes	Yes	121	177 [2]	Yes	Yes
	EBL/T/R	775	101	153 [2]	Yes	Yes	64	102	Yes	Yes	64	102	Yes	Yes
	EBR	185	80	123	Yes	Yes	55	88	Yes	Yes	55	88	Yes	Yes
I-215 Northbound Ramps & Evans Rd.	**WBL**	**200**	26	18	Yes	Yes	Not Evaluated[4]				Not Evaluated[4]			
	WBT/R	**1,000**	0	0	Yes	Yes								
I-215 Southbound Ramps & Evans Rd.	**EBL**	**200**	38	48	Yes	Yes	Not Evaluated[4]				Not Evaluated[4]			
	EBT/R	**1,000**	0	0	Yes	Yes								
I-215 Southbound Ramps & SR-74	SBT	2,275	839 [2]	1,407 [2]	Yes	Yes	1,337 [2]	1,945 [2]	Yes	Yes	Not Evaluated[4]			
	SBR	215	55	40	Yes	Yes	57	41	Yes	Yes				
I-215 Northbound Ramps & SR-74	SBL/R	1,510	372	638 [2]	Yes	Yes	767 [2]	1,003 [2]	Yes	Yes	Not Evaluated[4]			
I-215 Southbound Ramps & Ethanac Rd.	SBL/T	1,365	216	668 [2]	Yes	Yes	Not Evaluated[4]				703 [2]	1,253 [2]	Yes	Yes
	SBR	240	244 [3]	542 [2,3]	Yes	Yes					244 [3]	542 [2]	Yes	Yes
I-215 Northbound Ramps & Ethanac Rd.	NBL/T	1,550	493 [2]	642	Yes	Yes	Not Evaluated[4]				493 [2]	642 [2]	Yes	Yes
	NBR	240	72	232	Yes	Yes					320 [3]	571 [2,3]	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

[3] Although 95th percentile queue is anticipated to exceed the available storage for the turn lane, the adjacent through lane has sufficient storage to accommodate any spillover without spilling back and affecting the I-215 Freeway mainline.

[4] Interchange not evaluated for this alternative.

TABLE 7-7: PEAK HOUR FREEWAY OFF-RAMP QUEUING SUMMARY FOR HORIZON YEAR (2040) WITHOUT MID-COUNTY PARKWAY ALTERNATIVE 5 CONDITIONS

Intersection	Movement	Available Stacking Distance (Feet)	2040 Without Project				2040 With Project (Alternative 5)			
			95th Percentile Queue (Feet)		Acceptable?[1]		95th Percentile Queue (Feet)		Acceptable?[1]	
			AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM
I-215 Southbound Ramps & Harley Knox Bl.	SBL/T	1,330	1,183 [2]	693 [2]	Yes	Yes	Not Evaluated[4]			
	SBR	270	307 [2,3]	64	Yes	Yes				
I-215 Southbound Ramps & Ramona Exwy.	SBL	530	**1,088** [2]	**1,612** [2]	**No**	**No**				
	SBL/T	1,100	1,089 [2]	**1,615** [2]	Yes	**No**	Not Evaluated[4]			
	SBR	530	498 [2]	247	Yes	Yes				
I-215 Southbound Ramps & Placentia Av.	SBL	300	310 [2,3]	557 [2,3]	Yes	Yes				
	SBL/T	1,450	215	484 [2]	Yes	Yes	Not Evaluated[4]			
	SBR	900	0	0	Yes	Yes				
I-215 Southbound Ramps & Nuevo Rd.	SBL	670	208	369 [2]	Yes	Yes				
	SBL/T	1010	208	370 [2]	Yes	Yes	Not Evaluated[4]			
	SBR	440	100	60	Yes	Yes				
I-215 Northbound Ramps & Harley Knox Bl.	NBL/T	1,120	92 [2]	53	Yes	Yes				
	NBR	265	255 [2]	320 [2,3]	Yes	Yes	Not Evaluated[4]			
I-215 Northbound Ramps & Ramona Exwy.	NBL	520	311	305	Yes	Yes				
	NBL/T	1,120	305	310	Yes	Yes	Not Evaluated[4]			
	NBR	520	879 [2,3]	720 [2,3]	Yes	Yes				
I-215 Northbound Ramps & Placentia Av.	NBL	600	0	0	Yes	Yes				
	NBL/T	1,700	161	138	Yes	Yes	Not Evaluated[4]			
	NBR	1,200	449 [2]	476 [2]	Yes	Yes				
I-215 Northbound Ramps & Nuevo Rd.	NBL/T	1,100	441 [2]	104	Yes	Yes	Not Evaluated[4]			
	NBR	370	500 [2,3]	227	Yes	Yes				

Intersection	Movement	Available Stacking Distance (Feet)	2040 Without Project				2040 With Project (Alternative 5)			
			95th Percentile Queue (Feet)		Acceptable? [1]		95th Percentile Queue (Feet)		Acceptable? [1]	
			AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM
I-215 Northbound Ramps & Redlands Av.	WBL	1,225	454 [2]	400 [2]	Yes	Yes	418 [2]	400 [2]	Yes	Yes
	WBL/T/R	790	424 [2]	530 [2]	Yes	Yes	376 [2]	449 [2]	Yes	Yes
	WBR	415	352 [2]	418 [2,3]	Yes	Yes	311 [2]	369 [2]	Yes	Yes
I-215 Southbound Ramps & Redlands Av.	EBL	1,140	189 [2]	243 [2]	Yes	Yes	121	177 [2]	Yes	Yes
	EBL/T/R	775	101	153 [2]	Yes	Yes	64	102	Yes	Yes
	EBR	185	80	123	Yes	Yes	55	88	Yes	Yes
I-215 Northbound Ramps & Evans Rd.	**WBL**	**200**	26	18	Yes	Yes	26	18	Yes	Yes
	WBT/R	**1,000**	0	0	Yes	Yes	0	0	Yes	Yes
I-215 Southbound Ramps & Evans Rd.	**EBL**	**200**	38	48	Yes	Yes	38	48	Yes	Yes
	EBT/R	**1,000**	0	0	Yes	Yes	0	0	Yes	Yes
I-215 Southbound Ramps & SR-74	SBT	2,275	839 [2]	1,407 [2]	Yes	Yes	Not Evaluated [4]			
	SBR	215	55	40	Yes	Yes				
I-215 Northbound Ramps & SR-74	SBL/R	1,510	372	638 [2]	Yes	Yes	Not Evaluated [4]			
I-215 Southbound Ramps & Ethanac Rd.	SBL/T	1,365	216	668 [2]	Yes	Yes	Not Evaluated [4]			
	SBR	240	244 [3]	542 [2,3]	Yes	Yes				
I-215 Northbound Ramps & Ethanac Rd.	NBL/T	1,550	493 [2]	642	Yes	Yes	Not Evaluated [4]			
	NBR	240	72	232	Yes	Yes				

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

[3] Although 95th percentile queue is anticipated to exceed the available storage for the turn lane, the adjacent through lane has sufficient storage to accommodate any spillover without spilling back and affecting the I-215 Freeway mainline.

[4] Interchange not evaluated for this alternative.

TABLE 7-8: PEAK HOUR FREEWAY OFF-RAMP QUEUING SUMMARY FOR HORIZON YEAR (2040) WITH MID-COUNTY PARKWAY ALTERNATIVE 5 CONDITIONS

Intersection	Movement	Available Stacking Distance (Feet)	2040 Without Project				2040 With Project (Alternative 6)			
			95th Percentile Queue (Feet)		Acceptable?[1]		95th Percentile Queue (Feet)		Acceptable?[1]	
			AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM
I-215 Southbound Ramps & Harley Knox Bl.	SBL/T	1,330	363 [2]	363 [2]	Yes	Yes	373 [2]	369 [2]	Yes	Yes
	SBR	270	41	65	Yes	Yes	41	65	Yes	Yes
I-215 Southbound Ramps & Ramona Exwy.	SBL	530	273	765 [2,3]	Yes	Yes	273	765 [2,3]	Yes	Yes
	SBL/T	1,100	273	769 [2]	Yes	Yes	273	769 [2]	Yes	Yes
	SBR	530	195	212	Yes	Yes	195	212	Yes	Yes
I-215 Southbound Ramps & Placentia Av.	SBL	300	165	328 [2,3]	Yes	Yes	165	328 [2,3]	Yes	Yes
	SBL/T	1,450	109	245 [2]	Yes	Yes	109	245 [2]	Yes	Yes
	SBR	900	0	0	Yes	Yes	0		Yes	Yes
I-215 Southbound Ramps & Nuevo Rd.	SBL	670	116	228	Yes	Yes	116	228	Yes	Yes
	SBL/T	1010	117	230	Yes	Yes	117	230	Yes	Yes
	SBR	440	38	33	Yes	Yes	38	33	Yes	Yes
I-215 Northbound Ramps & Harley Knox Bl.	NBL/T	1,120	337 [2]	85	Yes	Yes	337 [2]	85	Yes	Yes
	NBR	265	35	54	Yes	Yes	35	54	Yes	Yes
I-215 Northbound Ramps & Ramona Exwy.	NBL	520	157	176	Yes	Yes	161	180	Yes	Yes
	NBL/T	1,120	155	180	Yes	Yes	157	181	Yes	Yes
	NBR	520	616 [2,3]	562 [2,3]	Yes	Yes	616 [2,3]	562 [2,3]	Yes	Yes
I-215 Northbound Ramps & Placentia Av.	NBL	600	144	0	Yes	Yes	144	0	Yes	Yes
	NBL/T	1,700	77	120	Yes	Yes	77	120	Yes	Yes
	NBR	1,200	0	184	Yes	Yes	0	184	Yes	Yes
I-215 Northbound Ramps & Nuevo Rd.	NBL/T	1,100	261	87	Yes	Yes	261	87	Yes	Yes
	NBR	370	189	193	Yes	Yes	189	193	Yes	Yes

Intersection	Movement	Available Stacking Distance (Feet)	2040 Without Project				2040 With Project (Alternative 6)			
			95th Percentile Queue (Feet)		Acceptable? [1]		95th Percentile Queue (Feet)		Acceptable? [1]	
			AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM
I-215 Northbound Ramps & Redlands Av.	WBL	1,225	324 [2]	310 [2]	Yes	Yes	324 [2]	310 [2]	Yes	Yes
	WBL/T/R	790	275 [2]	374 [2]	Yes	Yes	275 [2]	374 [2]	Yes	Yes
	WBR	415	215 [2]	282 [2]	Yes	Yes	215 [2]	282 [2]	Yes	Yes
I-215 Southbound Ramps & Redlands Av.	EBL	1,140	97	223 [2]	Yes	Yes	97	223 [2]	Yes	Yes
	EBL/T/R	775	43	128 [2]	Yes	Yes	43	128 [2]	Yes	Yes
	EBR	185	37	116	Yes	Yes	37	116	Yes	Yes
I-215 Northbound Ramps & Evans Rd.	**WBL**	**200**	26	18	Yes	Yes	26	18	Yes	Yes
	WBT/R	**1,000**	0	0	Yes	Yes	0	0	Yes	Yes
I-215 Southbound Ramps & Evans Rd.	**EBL**	**200**	38	48	Yes	Yes	38	48	Yes	Yes
	EBT/R	**1,000**	0	0	Yes	Yes	0	0	Yes	Yes
I-215 Southbound Ramps & SR-74	SBT	2,275	726	1,062 [2]	Yes	Yes	726	1,062 [2]	Yes	Yes
	SBR	215	49	52	Yes	Yes	49	52	Yes	Yes
I-215 Northbound Ramps & SR-74	SBL/R	1,510	143	519 [2]	Yes	Yes	143	519 [2]	Yes	Yes
I-215 Southbound Ramps & Ethanac Rd.	SBL/T	1,365	178	235	Yes	Yes	178	235	Yes	Yes
	SBR	240	543 [2,3]	454 [2,3]	Yes	Yes	543 [2,3]	454 [2,3]	Yes	Yes
I-215 Northbound Ramps & Ethanac Rd.	NBL/T	1,550	353	470 [2]	Yes	Yes	353	470 [2]	Yes	Yes
	NBR	240	47	189	Yes	Yes	47	189	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

[3] Although 95th percentile queue is anticipated to exceed the available storage for the turn lane, the adjacent through lane has sufficient storage to accommodate any spillover without spilling back and affecting the I-215 Freeway mainline.

[4] Interchange not evaluated for this alternative.

7.9 DEFICIENCIES AND RECOMMENDED IMPROVEMENTS

7.9.1 IMPROVEMENTS TO ADDRESS DEFICIENCIES AT INTERSECTIONS

Tables 7-9 and 7-10 indicates the physical improvements needed to address LOS deficiencies at each of the study area intersections under Horizon Year (2040) Without MCP and With MCP traffic conditions, respectively. The improvements are identified to improve the EAPC (2032) deficiencies back to acceptable levels. Intersection analysis worksheets for Existing (2022) traffic conditions, with improvements, are provided in the following appendices:

- Appendix 7.20 for Horizon Year (2040) Without MCP Without Project
- Appendix 7.21 for Horizon Year (2040) With MCP Without Project
- Appendix 7.22 for Horizon Year (2040) Without MCP With Project Alternative 1
- Appendix 7.23 for Horizon Year (2040) Without MCP With Project Alternative 2
- Appendix 7.24 for Horizon Year (2040) Without MCP With Project Alternative 3
- Appendix 7.25 for Horizon Year (2040) Without MCP With Project Alternative 4
- Appendix 7.26 for Horizon Year (2040) Without MCP With Project Alternative 5
- Appendix 7.27 for Horizon Year (2040) With MCP With Project Alternative 6

7.9.2 IMPROVEMENTS TO ADDRESS OFF-RAMP QUEUES

As shown previously in Table 7-5, there are movements anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows under Horizon Year (2040) traffic conditions. Table 7-11 shows the effectiveness of the improvement strategies at the intersections that experience off-ramp queuing issues under Horizon Year (2040) Without MCP traffic conditions. With the proposed intersection improvements at the study area freeway ramp-to-arterial intersection (see Table 7-9) for Without MCP conditions, the analysis indicates that there are no queuing issues anticipated that may potentially "spill back" onto the I-215 Freeway mainline during the peak hours for both Without and With Project traffic conditions (see Table 7-11). Off-ramp queuing analysis worksheets with improvements for Horizon Year (2040) Without MCP Without Project and With Project Alternative 1 traffic conditions are provided in Appendices 7.28 and 7.29, respectively.

TABLE 7-7: INTERSECTION ANALYSIS FOR HORIZON YEAR (2040) WITHOUT MID-COUNTY PARKWAY CONDITIONS WITH IMPROVEMENTS

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
1	Harvill Av. & Cajalco Exwy.																	
	- 2040 Without Project	TS	2	2	0	2	2	0	**2**	**4**	1	2	**4**	1>	45.2	52.6	D	D
	- Alternative 1 Improvements	TS	2	2	0	2	2	0	**2**	**4**	1	2	**4**	1>	46.2	54.3	D	D
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
2	I-215 Southbound Ramps & Harley Knox Bl.																	
	- 2040 Without Project[4]	TS	0	0	0	**2**	1	**0**	0	2	d	**2**	**1**	0	40.4	39.7	D	D
	- Alternative 1 Improvements[4]	TS	0	0	0	**2**	1	**0**	0	2	d	**2**	**1**	0	40.8	39.8	D	D
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
3	I-215 Northbound Ramps & Harley Knox Bl.																	
	- 2040 Without Project[4]	TS	0	1	1	0	0	0	**2**	2	0	0	2	**1>>**	18.0	23.7	B	C
	- Alternative 1 Improvements[4]	TS	0	1	1	0	0	0	**2**	2	0	0	2	**1>>**	18.0	23.8	B	C
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
4	I-215 Southbound Ramps & Ramona Exwy.																	
	- 2040 Without Project	TS	0	0	0	**2**	1	1	0	**4**	**1>>**	**2**	**4**	0	31.9	45.7	C	D
	- Alternative 1 Improvements	TS	0	0	0	**2**	1	1	0	**4**	**1>>**	**2**	**4**	0	32.1	46.0	C	D
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
5	I-215 Northbound Ramps & Ramona Exwy.																	
	- 2040 Without Project	TS	1	1	**2**	0	0	0	**2**	**4**	0	0	**4**	1	52.7	48.5	D	D
	- Alternative 1 Improvements	TS	1	1	**2**	0	0	0	**2**	**4**	0	0	**4**	1	52.7	48.6	D	D
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
6	I-215 SB Ramps & Placentia Av.																	
	- 2040 Without Project	**TS**	0	0	0	**1**	**1**	**1**	0	**2**	0	**2**	**2**	0	24.5	34.9	C	C
	- Alternative 1 Improvements	**TS**	0	0	0	**1**	**1**	**1**	0	**2**	0	**2**	**2**	0	24.9	36.6	C	D
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
8	I-215 SB Ramps & Nuevo Rd.																	
	- 2040 Without Project[5]	TS	0	0	0	1	1	1	0	2	0	2	2	0	29.5	49.1	C	D
	- Alternative 1 Improvements[5]	TS	0	0	0	1	1	1	0	2	0	2	2	0	29.9	54.4	C	D
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
12	Webster Av. & Ramona Exwy.																	
	- 2040 Without Project[10]	TS	1	1	1	1	1	0	1	**4**	0	1	**4**	**0**	52.6	66.8	D	E
	- Alternative 1 Improvements[10]	TS	1	1	1	1	1	0	1	**4**	0	1	**4**	**0**	52.6	67.9	D	E
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
13	Indian Av. & Harley Knox Bl.																	
	- 2040 Without Project	TS	2	2	1	1	2	0	**2**	3	**0**	1	3	0	31.6	51.9	C	D
	- Alternative 1 Improvements	TS	2	2	1	1	2	0	**2**	3	**0**	1	3	0	31.6	52.3	C	D
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
14	Indian Av. & Ramona Exwy.																	
	- 2040 Without Project[10]	TS	1	2	0	1	2	1	1	**4**	0	1	**4**	**0**	59.5	70.5	E	E
	- Alternative 1 Improvements[10]	TS	1	2	0	1	2	1	1	**4**	0	1	**4**	**0**	60.1	74.0	E	E
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
16	Perris Bl. & Iris Av.																	
	- 2040 Without Project	TS	1	3	1	1	3	0	1	2	**1**	1	2	0	54.2	53.8	D	D
	- Alternative 1 Improvements	TS	1	3	1	1	3	0	1	2	**1**	1	2	0	54.5	54.7	D	D
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
17	Perris Bl. & Krameria Av.																	
	- 2040 Without Project[6]	TS	1	3	0	1	3	0	**1**	**1**	**0**	**1**	**1**	**0**	39.0	45.4	D	D
	- Alternative 1 Improvements[6]	TS	1	3	0	1	3	0	**1**	**1**	**0**	**1**	**1**	**0**	40.3	47.9	D	D
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
20	Perris Bl. & Harley Knox Bl.																	
	- 2040 Without Project	TS	2	3	1	2	3	1	**2**	2	1	2	3	1	29.6	43.0	C	D
	- Alternative 1 Improvements	TS	2	3	1	2	3	1	**2**	2	1	2	3	1	29.6	43.4	C	D
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
22	Perris Bl. & Ramona Exwy.																	
	- 2040 Without Project[10]	TS	2	**3**	**0**	2	**3**	**0**	2	**4**	1	2	**4**	**1>**	53.4	65.5	D	E
	- Alternative 1 Improvements[10]	TS	2	**3**	**0**	2	**3**	**0**	2	**4**	1	2	**4**	**1>**	57.2	68.7	E	E
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
25	Perris Bl. & Placentia Av.																	
	- 2040 Without Project	TS	1	**3**	**1**	1	**3**	1	1	1	0	1	1	1	19.1	39.6	B	D
	- Alternative 1 Improvements	TS	1	**3**	**1**	1	**3**	1	1	1	0	1	1	1	22.8	46.1	C	D
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
26	Perris Bl. & Orange Av.																	
	- 2040 Without Project	TS	1	**3**	**0**	1	**3**	1	1	1	1	1	2	d	25.6	37.6	C	D
	- Alternative 1 Improvements	TS	1	**3**	**0**	1	**3**	1	1	1	1	1	2	d	27.0	40.9	C	D
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
27	Perris Bl. & Nuevo Rd.																	
	- 2040 Without Project	TS	**2**	2	1	2	2	2>	2	2	1	2	**3**	**0**	42.0	50.3	D	D
	- Alternative 1 Improvements	TS	**2**	2	1	2	2	2>	2	2	1	2	**3**	**0**	42.6	54.2	D	D
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
28	Redlands Av. & Harley Knox Bl.																	
	- 2040 Without Project	TS	**2**	**1**	0	0	2	0	1	1	1	1	1	0	13.7	19.3	B	B
	- Alternative 1 Improvements	TS	**2**	**1**	0	0	2	0	1	1	1	1	1	0	13.7	19.3	B	B
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
30	Redlands Av. & Ramona Exwy.																	
	- 2040 Without Project	TS	1	1	**1**	**2**	1	1	**2**	**4**	1	**2**	**4**	**1>**	48.0	50.4	D	D
	- Alternative 1 Improvements	TS	1	1	**1**	**2**	1	1	**2**	**4**	1	**2**	**4**	**1>**	49.8	53.7	D	D
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
33	Redlands Av. & Placentia Av.																	
	- 2040 Without Project	**TS**	1	2	0	1	1	1	1	1	1	1	1	0	12.8	14.4	B	B
	- Alternative 1 Improvements	**TS**	1	2	0	1	1	1	1	1	1	1	1	0	13.7	14.4	B	B
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
35	Redlands Av. & Nuevo Rd.																	
	- 2040 Without Project	TS	1	1	1	**1**	1	0	1	**3**	0	1	**3**	0	46.2	38.7	D	D
	- Alternative 1 Improvements	TS	1	1	1	**1**	1	0	1	**3**	0	1	**3**	0	51.7	43.7	D	D
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
	- Alternative 6 Improvements		Not Evaluated															
36	Murrieta Rd. & Nuevo Rd.																	
	- 2040 Without Project	TS	1	1	1	0	1	0	1	**3**	**0**	1	**3**	**0**	43.0	24.7	D	C
	- Alternative 1 Improvements	TS	1	1	1	0	1	0	1	**3**	**0**	1	**3**	**0**	48.2	27.3	D	C
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
37	Lasselle St. & Iris Av.																	
	- 2040 Without Project[7]	TS	2	2	1>	2	2	d	2	3	0	2	3	0	53.4	49.2	D	D
	- Alternative 1 Improvements[7]	TS	2	2	1>	2	2	d	2	3	0	2	3	0	54.6	50.3	D	D
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
38	Lasselle St. & Krameria Av.																	
	- 2040 Without Project[8]	TS	**2**	2	**0**	**2**	2	0	**2**	1	**1>**	1	1	1	54.2	33.4	D	C
	- Alternative 1 Improvements[8]	TS	**2**	2	**0**	**2**	2	0	**2**	1	**1>**	1	1	1	54.4	35.4	D	D
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
39	Evans Rd. & Ramona Exwy.																	
	- 2040 Without Project[10]	TS	2	2	1	2	2	1	2	**4**	1	1	**4**	1	65.5	60.9	E	E
	- Alternative 1 Improvements[10]	TS	2	2	1	2	2	1	2	**4**	1	1	**4**	1	71.2	65.8	E	E
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
41	Evans Rd. & Orange Av.																	
	- 2040 Without Project		Not Applicable															
	- Alternative 1 Improvements	TS	1	1	1	1	1	1	1	**2**	0	1	**2**	0	22.6	54.6	C	D
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
45	Dunlap Dr. & Orange Av.																	
	- 2040 Without Project		Not Applicable															
	- Alternative 1 Improvements	**TS**	**1**	0	**1**	0	0	0	0	**2**	0	**1**	**2**	0	15.7	12.9	B	B
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
46	Dunlap Dr. & Nuevo Rd.																	
	- 2040 Without Project	TS	1	1	**1>**	**2**	1	0	1	**3**	**0**	**2**	**3**	0	25.3	31.7	C	C
	- Alternative 1 Improvements	TS	1	1	**1>**	**2**	1	0	1	**3**	**0**	**2**	**3**	0	36.7	48.8	D	D
	- Alternative 2 Improvements	TS	1	1	**1>**	**2**	1	0	1	**3**	**0**	**2**	**3**	0	22.0	26.3	C	C
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements	TS	1	1	0	**2**	1	0	1	**2**	**0**	1	**2**	0				
47	Ramona Exwy. & Rider St.																	
	- 2040 Without Project	TS	2	**4**	0	1	**4**	1	0	1	1	0	1	0	14.5	22.8	B	C
	- Alternative 1 Improvements	TS	2	**4**	0	1	**4**	1	0	1	1	0	1	0	15.0	23.5	B	C
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
48	Antelope Rd. & Ramona Exwy.																	
	- 2040 Without Project		Future Intersection															
	- Alternative 1 Improvements	**TS**	**2**	0	**1**	0	0	0	0	**4**	**1**	**1**	**4**	0	13.0	45.2	B	D
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
51	Antelope Rd. & Nuevo Rd.																	
	- 2040 Without Project		Future Intersection															
	- Alternative 1 Improvements	TS	0	0	0	**2**	0	**1>**	**2**	**2**	0	0	**2**	0	29.8	37.7	C	D
	- Alternative 2 Improvements	TS	0	0	0	**2**	0	**1>**	**1**	**2**	0	0	**2**	0	41.3	42.0	D	D
	- Alternative 3 Improvements	TS	0	0	0	**2**	0	**1>**	**1**	**2**	0	0	**2**	0	41.3	42.0	D	D
	- Alternative 4 Improvements	TS	0	0	0	**2**	0	**1>**	**1**	**2**	0	0	**2**	0	41.3	42.0	D	D
	- Alternative 5 Improvements	TS	0	0	0	**2**	0	**1>**	**1**	**2**	0	0	**2**	0	26.7	23.2	C	C
52	Street A & Ramona Exwy.																	
	- 2040 Without Project		Future Intersection															
	- Alternative 1 Improvements	TS	**2**	0	**1**	0	0	0	0	**4**	0	**1**	**4**	0	7.9	23.3	A	C
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
53	Menifee Rd./Reservoir Bl. & Nuevo Rd.																	
	- 2040 Without Project		Not Applicable															
	- Alternative 1 Improvements	TS	**2**	**2**	0	**1**	**2**	**1>**	**3**	**1**	**1>**	**2**	1	0	47.9	52.2	D	D
	- Alternative 2 Improvements	TS	**2**	**2**	0	**1**	**2**	**1>**	**3**	**1**	**1>**	**2**	1	0	54.8	50.6	D	D
	- Alternative 3 Improvements	TS	**2**	**2**	0	**1**	**2**	**1>**	**3**	**1**	**1>**	**2**	1	0	54.8	50.6	D	D
	- Alternative 4 Improvements	TS	**2**	**2**	0	**1**	**2**	**1>**	**3**	**1**	**1>**	**2**	1	0	54.8	50.6	D	D
	- Alternative 5 Improvements	TS	**2**	**2**	0	**1**	**2**	**1>**	**3**	**1**	**1>**	**2**	1	0	41.2	36.3	D	D
54	Menifee Rd. & San Jacinto Av.																	
	- 2040 Without Project		Not Applicable															
	- Alternative 1 Improvements	TS	**1**	2	0	**1**	**2**	**0**	**1**	1	**0**	**1**	1	0	31.6	35.1	C	D
	- Alternative 2 Improvements	TS	**1**	2	0	**1**	**2**	**1>**	**2**	1	**0**	**1**	1	0	40.0	38.9	D	D
	- Alternative 3 Improvements	TS	**1**	2	0	**1**	**2**	**0**	**1**	1	**0**	**1**	1	0	50.6	52.2	D	D
	- Alternative 4 Improvements	TS	**1**	2	0	**1**	**2**	**0**	**1**	1	**0**	**1**	1	0	50.6	52.2	D	D
	- Alternative 5 Improvements	TS	**1**	2	0	**1**	**2**	**1>**	**2**	1	**0**	**1**	1	0	27.1	28.9	C	C
55	Menifee Rd. & Ellis Rd.																	
	- 2040 Without Project	TS	**1**	**2**	0	**1**	**2**	0	0	1	0	0	1	0	5.2	4.4	A	A
	- Alternative 1 Improvements	TS	**1**	**2**	0	**1**	**2**	0	0	1	0	0	1	0	5.5	4.7	A	A
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements	TS	**1**	**2**	0	**1**	**2**	0	0	1	0	0	1	0	7.3	6.3	A	A
	- Alternative 4 Improvements	TS	**1**	**2**	0	**1**	**2**	0	0	1	0	0	1	0	7.3	6.3	A	A
	- Alternative 5 Improvements		Not Evaluated															
56	Menifee Rd. & Mapes Rd.																	
	- 2040 Without Project	TS	1	**2**	0	1	**2**	0	**1**	1	0	**1**	1	0	17.7	16.2	B	B
	- Alternative 1 Improvements	TS	1	**2**	0	1	**2**	0	**1**	1	0	**1**	1	0	18.0	16.3	B	B
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements	TS	1	**2**	0	1	**2**	0	**1**	1	0	**1**	1	0	23.3	19.8	C	B
	- Alternative 4 Improvements	TS	1	**2**	0	1	**2**	0	**1**	1	0	**1**	1	0	23.3	19.8	C	B
	- Alternative 5 Improvements		Not Evaluated															

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
57	Menifee Rd. & Watson Rd.																	
	- 2040 Without Project		Not Applicable															
	- Alternative 1 Improvements	**TS**	**1**	**2**	0	**1**	**2**	0	**1**	1	0	**1**	1	0	10.3	8.7	B	A
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements	**TS**	**1**	**2**	0	**1**	**2**	0	**1**	1	0	**1**	1	0	11.5	10.0	B	B
	- Alternative 4 Improvements	**TS**	**1**	**2**	0	**1**	**2**	0	**1**	1	0	**1**	1	0	11.5	10.0	B	B
	- Alternative 5 Improvements		Not Evaluated															
58	Menifee Rd. & Ethanac Rd. (SR-74)																	
	- 2040 Without Project	TS	**2**	**2**	**1>**	**2**	**2**	**1**	**2**	**3**	**0**	**2**	**3**	**0**	46.3	40.9	D	D
	- Alternative 1 Improvements	TS	**2**	**2**	**1>**	**2**	**2**	**1**	**2**	**3**	**0**	**2**	**3**	**0**	47.8	43.5	D	D
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements	TS	**2**	**2**	**1>**	**2**	**2**	**1**	**2**	**3**	**1>**	**2**	**3**	**0**	54.4	51.4	D	D
	- Alternative 4 Improvements	TS	**2**	**3**	**1>**	**2**	**3**	**1**	**2**	**3**	**0**	**2**	**3**	**0**	42.1	51.4	D	D
	- Alternative 5 Improvements		Not Evaluated															
59	Bernasconi Rd. & Orange Av.																	
	- 2040 Without Project	**TS**	0	0	0	**2**	0	**1**	**2**	**2**	0	0	**2**	0	23.8	40.8	C	D
	- Alternative 1 Improvements	**TS**	0	0	0	**2**	0	**1**	**2**	**2**	0	0	**2**	0	28.1	43.4	C	D
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
60	Lakeview Av. & Ramona Exwy.																	
	- 2040 Without Project	TS	**2**	**1**	**1>>**	**1**	**1**	**1**	**1**	**4**	1	**2**	**4**	0	46.1	36.1	D	D
	- Alternative 1 Improvements	TS	**2**	**1**	**1>>**	**1**	**1**	**1**	**1**	**4**	1	**2**	**4**	0	48.5	37.7	D	D
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
61	Lakeview Av. & Nuevo Rd.																	
	- 2040 Without Project	**TS**	0	0	0	**1**	**0**	**1>**	**1**	1	0	0	1	0	30.7	26.5	C	C
	- Alternative 1 Improvements	**TS**	0	0	0	**1**	**0**	**1>**	**1**	1	0	0	1	0	32.3	26.7	C	C
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
63	Hansen Av./Davis Rd. & Ramona Exwy.																	
	- 2040 Without Project	TS	0	1	0	0	1	0	1	**4**	1	1	**4**	0	19.5	18.2	B	B
	- Alternative 1 Improvements	TS	0	1	0	0	1	0	1	**4**	1	1	**4**	0	20.1	19.3	C	B
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
65	Bridge St. & Ramona Exwy.																	
	- 2040 Without Project	**TS**	0	0	0	0	1	0	1	**4**	0	0	**4**	0	35.8	50.9	D	D
	- Alternative 1 Improvements	**TS**	0	0	0	0	1	0	1	**4**	0	0	**4**	0	37.5	52.3	D	D
	- Alternative 2 Improvements	Not Evaluated																
	- Alternative 3 Improvements	Not Evaluated																
	- Alternative 4 Improvements	Not Evaluated																
	- Alternative 5 Improvements	Not Evaluated																
66	Bridge St. & Ramona Exwy.																	
	- 2040 Without Project	TS	**2**	1	0	0	1	0	1	**4**	1	**2**	**4**	1	28.1	32.3	C	C
	- Alternative 1 Improvements	TS	**2**	1	0	0	1	0	1	**4**	1	**2**	**4**	1	28.7	33.4	C	C
	- Alternative 2 Improvements	Not Evaluated																
	- Alternative 3 Improvements	Not Evaluated																
	- Alternative 4 Improvements	Not Evaluated																
	- Alternative 5 Improvements	Not Evaluated																
67	Sanderson Av. (SR-79) & Ramona Exwy.																	
	- 2040 Without Project[8]	TS	2	**4**	**1>>**	2	**4**	**1>>**	**3**	**3**	**1>>**	2	**3**	**1>>**	51.9	47.7	D	D
	- Alternative 1 Improvements[8]	TS	2	**4**	**1>>**	2	**4**	**1>>**	**3**	**3**	**1>>**	2	**3**	**1>>**	53.2	48.9	D	D
	- Alternative 2 Improvements	Not Evaluated																
	- Alternative 3 Improvements	Not Evaluated																
	- Alternative 4 Improvements	Not Evaluated																
	- Alternative 5 Improvements	Not Evaluated																
70	Murrieta Rd. & San Jacinto Av.																	
	- 2040 Without Project	**TS**	0	0	0	0	1	0	1	**2**	0	0	**2**	0	32.3	14.1	C	B
	- Alternative 1 Improvements	**TS**	0	0	0	0	1	0	1	**2**	0	0	**2**	0	44.8	16.6	D	B
	- Alternative 2 Improvements	Not Evaluated																
	- Alternative 3 Improvements	**TS**	0	0	0	0	1	0	1	**2**	0	0	**2**	0	21.0	13.1	C	B
	- Alternative 4 Improvements	**TS**	0	0	0	0	1	0	1	**2**	0	0	**2**	0	21.0	13.1	C	B
	- Alternative 5 Improvements	**TS**	0	0	0	0	1	0	1	**2**	0	0	**2**	0	21.0	13.1	C	B
71	Redlands Av. & San Jacinto Av.																	
	- 2040 Without Project	TS	1	2	**2>**	1	2	0	2	1	1	**3**	1	1	33.6	32.7	D	C
	- Alternative 1 Improvements	TS	1	2	**2>**	1	2	0	2	1	1	**3**	1	1	50.1	46.2	D	D
	- Alternative 2 Improvements	Not Evaluated																
	- Alternative 3 Improvements	TS	1	2	**1>**	1	2	0	2	1	1	2	1	1	47.1	36.6	D	D
	- Alternative 4 Improvements	TS	1	2	**1>**	1	2	0	2	1	1	2	1	1	47.1	36.6	D	D
	- Alternative 5 Improvements	TS	1	2	**1>**	1	2	0	2	1	1	2	1	1	47.1	36.6	D	D
72	Redlands Av. & I-215 NB Ramps																	
	- 2040 Without Project[5]	TS	2	2	0	0	4	1	0	0	0	1	1	1	23.5	35.5	C	D
	- Alternative 1 Improvements[5]	TS	2	2	0	0	4	1	0	0	0	1	1	1	30.1	50.6	C	D
	- Alternative 2 Improvements	Not Evaluated																
	- Alternative 3 Improvements[5]	TS	2	2	0	0	4	1	0	0	0	1	1	1	20.1	27.5	C	C
	- Alternative 4 Improvements[5]	TS	2	2	0	0	4	1	0	0	0	1	1	1	20.1	27.5	C	C
	- Alternative 5 Improvements[5]	TS	2	2	0	0	4	1	0	0	0	1	1	1	20.1	27.5	C	C

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
74	Evans Rd. & San Jacinto Av.																	
	- 2040 Without Project		Not Applicable															
	- Alternative 1 Improvements	**TS**	**1**	**2**	0	**1**	**2**	0	**1**	**2**	0	**1**	**2**	0	53.9	22.4	D	C
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Applicable															
77	Dunlap Dr. & San Jacinto Av.																	
	- 2040 Without Project	**TS**	0	0	0	**1**	**0**	**1**	**2**	**2**	0	0	**2**	0	18.8	14.4	B	B
	- Alternative 1 Improvements	**TS**	0	0	0	**1**	**0**	**1**	**2**	**2**	0	0	**2**	0	54.6	25.6	D	C
	- Alternative 2 Improvements	**TS**	0	0	0	0	1	0	**1**	**2**	0	0	**2**	0	16.3	13.7	B	B
	- Alternative 3 Improvements	**TS**	0	0	0	0	1	0	**1**	**2**	0	0	**2**	0	14.4	12.5	B	B
	- Alternative 4 Improvements	**TS**	0	0	0	0	1	0	**1**	**2**	0	0	**2**	0	14.4	12.5	B	B
	- Alternative 5 Improvements	**TS**	0	0	0	0	1	0	**1**	**2**	0	0	**2**	0	14.8	13.1	B	B
78	I-215 SB Ramps & SR-74																	
	- 2040 Without Project	TS	1	1	0	0	**2**	1	1	0	1	0	0	0	18.3	28.4	B	C
	- Alternative 1 Improvements	TS	1	1	0	0	**2**	1	1	0	1	0	0	0	18.3	28.4	B	C
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements	TS	1	1	0	0	**2**	1	1	0	1	0	0	0	22.7	40.7	C	D
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
79	I-215 NB Ramps & SR-74																	
	- 2040 Without Project		Not Applicable															
	- Alternative 1 Improvements		Not Applicable															
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements	TS	0	0	0	**1**	**0**	**1**	1	2	0	0	2	1>>	19.3	50.1	B	D
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
80	Trumble Rd. & SR-74																	
	- 2040 Without Project	TS	0	0	0	1	0	1	**2**	2	0	0	2	0	53.4	50.8	D	D
	- Alternative 1 Improvements	TS	0	0	0	1	0	1	**2**	2	0	0	2	0	53.4	50.8	D	D
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements	TS	0	0	0	1	0	**1>**	**2**	2	**1**	0	2	0	53.5	42.2	D	D
	- Alternative 4 Improvements		Not Evaluated															
	- Alternative 5 Improvements		Not Evaluated															
81	I-215 SB Ramps & Ethanac Rd.																	
	- 2040 Without Project		Not Applicable															
	- Alternative 1 Improvements		Not Applicable															
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements[11]	TS	0	0	0	**1**	1	**2**	0	**2**	**1>>**	0	**2**	**1>>**	9.7	13.5	A	B
	- Alternative 5 Improvements		Not Evaluated															

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
82	I-215 NB Ramps & Ethanac Rd.																	
	- 2040 Without Project[11]	TS	**1**	1	**2**	0	0	0	**0**	**3**	**1>>**	0	**3**	**1>>**	8.5	9.0	A	A
	- Alternative 1 Improvements[11]	TS	**1**	1	**2**	0	0	0	**0**	**3**	**1>>**	0	**3**	**1>>**	8.5	9.0	A	A
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements[11]	TS	**1**	1	**2**	0	0	0	**0**	**3**	**1>>**	0	**3**	**1>>**	8.9	10.2	A	B
	- Alternative 5 Improvements		Not Evaluated															
83	Encanto Dr. & Ethanac Rd.																	
	- 2040 Without Project	**TS**	0	1	0	0	0	0	0	**3**	0	1	**3**	0	14.2	14.4	B	B
	- Alternative 1 Improvements	**TS**	0	1	0	0	0	0	0	**3**	0	1	**3**	0	14.2	14.4	B	B
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements	**TS**	0	1	0	0	0	0	0	**3**	0	1	**3**	0	15.5	16.2	B	B
	- Alternative 5 Improvements		Not Evaluated															
84	Sherman Rd. & Ethanac Rd.																	
	- 2040 Without Project	**TS**	**1**	1	0	**1**	1	0	**1**	**3**	0	**1**	**3**	0	12.2	13.5	B	B
	- Alternative 1 Improvements	**TS**	**1**	1	0	**1**	1	0	**1**	**3**	0	**1**	**3**	0	12.2	13.5	B	B
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements	**TS**	**1**	1	0	**1**	1	0	**1**	**3**	0	**1**	**3**	0	12.2	14.5	B	B
	- Alternative 5 Improvements		Not Evaluated															
86	Antelope Rd. & Ethanac Rd.																	
	- 2040 Without Project	**TS**	**1**	1	0	**1**	1	0	**1**	**3**	**0**	**1**	**3**	0	10.6	9.2	B	A
	- Alternative 1 Improvements	**TS**	**1**	1	0	**1**	1	0	**1**	**3**	**0**	**1**	**3**	0	10.6	9.2	B	A
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements	**TS**	**1**	1	0	**1**	1	0	**1**	**3**	**0**	**1**	**3**	0	10.4	8.8	B	A
	- Alternative 5 Improvements		Not Evaluated															
87	Menifee Rd. & Matthews Rd.																	
	- 2040 Without Project	**TS**	**1**	**2**	0	0	**2**	0	0	1	0	0	0	0	24.8	15.8	C	B
	- Alternative 1 Improvements	**TS**	**1**	**2**	0	0	**2**	0	0	1	0	0	0	0	24.8	15.8	C	B
	- Alternative 2 Improvements		Not Evaluated															
	- Alternative 3 Improvements		Not Evaluated															
	- Alternative 4 Improvements	**TS**	**1**	**2**	0	0	**2**	**1>**	**1**	**0**	**1**	0	0	0	43.9	23.7	D	C
	- Alternative 5 Improvements		Not Evaluated															

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; >= Right-Turn Overlap Phasing; **1** = Improvement

[2] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all-way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single

[3] CSS = Cross-street Stop; TS = Traffic Signal; **TS** = Improvements

[4] Improvement includes modifying the traffic signal to implement a 120-second cycle.

[5] Improvement consists of modifying the traffic signal to implement a 120-second cycle. No physical improvements are necessary.

[6] Improvement includes modifying the traffic signal to protect the eastbound and westbound left turns.

[7] Improvement consists of modifying the traffic signal to implement a 130-second cycle. No physical improvements are necessary.

[8] Improvement includes modifying the traffic signal to implement a 130-second cycle.

[9] Improvement includes modifying the traffic signal to protect the northbound and southbound left turns.

[10] Per the City of Perris General Plan, LOS E is permitted at intersections along the Ramona-Cajalco Expressway.

[11] Improvements consistent with the planned interchange reconfiguration.

TABLE 7-8: INTERSECTION ANALYSIS FOR HORIZON YEAR (2040) WITH MID-COUNTY PARKWAY CONDITIONS WITH IMPROVEMENTS

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
1	Harvill Av. & Cajalco Exwy.																	
	- 2040 Without Project	TS	2	2	0	2	2	0	1	**3**	1	2	**3**	1	48.8	52.7	D	D
	- Alternative 6 Improvements	TS	2	2	0	2	2	0	1	**3**	1	2	**3**	1	49.5	54.5	D	D
2	I-215 Southbound Ramps & Harley Knox Bl.																	
	- 2040 Without Project	TS	0	0	0	0	1	1	0	2	d	**2**	**1**	0	20.0	25.0	B	C
	- Alternative 6 Improvements	TS	0	0	0	0	1	1	0	2	d	**2**	**1**	0	20.5	25.2	C	C
3	I-215 Northbound Ramps & Harley Knox Bl.																	
	- 2040 Without Project	TS	0	1	1	0	0	0	**2**	2	0	0	2	d	44.6	17.5	D	B
	- Alternative 6 Improvements	TS	0	1	1	0	0	0	**2**	2	0	0	2	d	44.9	17.8	D	B
4	I-215 Southbound Ramps & Ramona Exwy.																	
	- 2040 Without Project	TS	0	0	0	1	1	1	0	**3**	0	1	**3**	0	30.3	52.7	C	D
	- Alternative 6 Improvements	TS	0	0	0	1	1	1	0	**3**	0	1	**3**	0	30.3	53.5	C	D
5	I-215 Northbound Ramps & Ramona Exwy.																	
	- 2040 Without Project	TS	1	1	1	0	0	0	1	**3**	0	0	**3**	1	37.3	40.2	D	D
	- Alternative 6 Improvements	TS	1	1	1	0	0	0	1	**3**	0	0	**3**	1	38.2	40.5	D	D
12	Webster Av. & Ramona Exwy.																	
	- 2040 Without Project[5]	TS	1	1	1	1	1	**1>**	**2**	**4**	0	1	**4**	**0**	48.3	75.3	D	E
	- Alternative 6 Improvements[5]	TS	1	1	1	1	1	**1>**	**2**	**4**	0	1	**4**	**0**	50.8	76.7	D	E
14	Indian Av. & Ramona Exwy.																	
	- 2040 Without Project	TS	1	2	0	1	2	1	1	**4**	0	1	**4**	**0**	27.3	51.0	C	D
	- Alternative 6 Improvements	TS	1	2	0	1	2	1	1	**4**	0	1	**4**	**0**	27.6	54.9	C	D
16	Perris Bl. & Iris Av.																	
	- 2040 Without Project	TS	1	3	1	1	3	0	1	2	**1**	1	2	0	39.9	52.1	D	D
	- Alternative 6 Improvements	TS	1	3	1	1	3	0	1	2	**1**	1	2	0	40.4	54.0	D	D
20	Perris Bl. & Harley Knox Bl.																	
	- 2040 Without Project	TS	2	3	1	2	3	1	**2**	2	1	2	3	1	36.5	50.3	D	D
	- Alternative 6 Improvements	TS	2	3	1	2	3	1	**2**	2	1	2	3	1	36.6	51.5	D	D
22	Perris Bl. & Ramona Exwy.																	
	- 2040 Without Project	TS	2	2	1	2	2	1	2	**4**	1	2	**4**	0	44.0	36.8	D	D
	- Alternative 6 Improvements	TS	2	2	1	2	2	1	2	**4**	1	2	**4**	0	46.7	37.9	D	D
25	Perris Bl. & Placentia Av.																	
	- 2040 Without Project	TS	1	**3**	**1**	1	**3**	1	1	**2**	**1>**	1	**2**	**0**	38.8	52.0	D	D
	- Alternative 6 Improvements	TS	1	**3**	**1**	1	**3**	1	1	**2**	**1>**	1	**2**	**0**	38.8	52.0	D	D
26	Perris Bl. & Orange Av.																	
	- 2040 Without Project	TS	1	**3**	**0**	1	**3**	1	1	**2**	**0**	1	2	d	26.0	52.1	C	D
	- Alternative 6 Improvements	TS	1	**3**	**0**	1	**3**	1	1	**2**	**0**	1	2	d	27.2	54.9	C	D
27	Perris Bl. & Nuevo Rd.																	
	- 2040 Without Project	TS	**2**	2	1	2	2	2>	2	2	1	2	2	1	46.8	54.8	D	D
	- Alternative 6 Improvements	TS	**2**	2	1	2	2	2>	2	2	1	2	2	1	46.8	54.8	D	D
28	Redlands Av. & Harley Knox Bl.																	
	- 2040 Without Project	TS	**2**	**1**	0	0	2	0	1	1	1	1	1	0	22.3	13.1	C	B
	- Alternative 6 Improvements	TS	**2**	**1**	0	0	2	0	1	1	1	1	1	0	22.3	13.1	C	B
33	Redlands Av. & Placentia Av.																	
	- 2040 Without Project	**TS**	1	2	0	1	1	1	1	1	1	1	1	0	21.7	25.9	C	C
	- Alternative 6 Improvements	**TS**	1	2	0	1	1	1	1	1	1	1	1	0	21.7	25.9	C	C
35	Redlands Av. & Nuevo Rd.																	
	- 2040 Without Project	TS	1	1	1	**1**	1	0	1	3	0	1	3	0	52.1	37.2	D	D
	- Alternative 6 Improvements	TS	1	1	1	**1**	1	0	1	3	0	1	3	0	52.7	40.6	D	D

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
36	Murrieta Rd. & Nuevo Rd.																	
	- 2040 Without Project	TS	1	1	1	0	1	0	1	**3**	**0**	1	**3**	**0**	30.0	32.8	C	C
	- Alternative 6 Improvements	TS	1	1	1	0	1	0	1	**3**	**0**	1	**3**	**0**	31.0	34.7	C	C
38	Lasselle St. & Krameria Av.																	
	- 2040 Without Project[4,6]	TS	1	2	1>	1	2	0	1	1	1	1	1	1	28.9	**101.6**	C	**F**
	- Alternative 6 Improvements[4,6]	TS	1	2	1>	1	2	0	1	1	1	1	1	1	29.9	**105.2**	C	**F**
39	Evans Rd. & Ramona Exwy.																	
	- 2040 Without Project[5]	TS	2	2	1	2	2	1	2	3	1	1	**3**	1	39.2	56.5	D	E
	- Alternative 6 Improvements[5]	TS	2	2	1	2	2	1	2	3	1	1	**3**	1	42.8	61.8	D	E
41	Evans Rd. & Orange Av.																	
	- 2040 Without Project	TS	1	**2**	1	1	**2**	1	1	**2**	0	1	**2**	0	30.3	25.6	C	C
	- Alternative 6 Improvements	TS	1	**2**	1	1	**2**	1	1	**2**	0	1	**2**	0	34.8	28.9	C	C
45	Dunlap Dr. & Orange Av.																	
	- 2040 Without Project		Not Applicable															
	- Alternative 6 Improvements	**TS**	**1**	**0**	**1**	0	0	0	0	**2**	**0**	**1**	**2**	0	11.9	12.4	B	B
51	Antelope Rd. & Nuevo Rd.																	
	- 2040 Without Project		Future Intersection															
	- Alternative 6 Improvements	**TS**	0	0	0	**1**	0	**1**	**1**	**2**	0	0	**2**	0	16.6	29.2	B	C
53	Menifee Rd./Reservoir Bl. & Nuevo Rd.																	
	- 2040 Without Project	**TS**	**2**	**2**	0	**1**	**2**	0	**2**	**1**	**1>**	**1**	1	0	33.9	36.7	C	D
	- Alternative 6 Improvements	**TS**	**2**	**2**	0	**1**	**2**	0	**2**	**1**	**1>**	**1**	1	0	40.0	40.4	D	D
54	Menifee Rd. & San Jacinto Av.																	
	- 2040 Without Project	**TS**	**1**	2	0	**1**	**2**	**0**	**1**	1	**0**	**1**	1	0	24.5	34.0	C	C
	- Alternative 6 Improvements	**TS**	**1**	2	0	**1**	**2**	**0**	**1**	1	**0**	**1**	1	0	25.2	35.6	C	D
55	Menifee Rd. & Ellis Rd.																	
	- 2040 Without Project	**TS**	**1**	**2**	0	**1**	**2**	0	0	1	0	0	1	0	4.6	4.0	A	A
	- Alternative 6 Improvements	**TS**	**1**	**2**	0	**1**	**2**	0	0	1	0	0	1	0	4.9	4.4	A	A
56	Menifee Rd. & Mapes Rd.																	
	- 2040 Without Project	**TS**	1	**2**	0	1	**2**	0	**1**	1	0	**1**	1	0	21.0	25.6	C	C
	- Alternative 6 Improvements	**TS**	1	**2**	0	1	**2**	0	**1**	1	0	**1**	1	0	21.3	25.5	C	C
57	Menifee Rd. & Watson Rd.																	
	- 2040 Without Project	**TS**	**1**	**2**	0	**1**	**2**	0	**1**	1	0	**1**	1	0	14.4	11.4	B	B
	- Alternative 6 Improvements	**TS**	**1**	**2**	0	**1**	**2**	0	**1**	1	0	**1**	1	0	14.7	11.4	B	B
58	Menifee Rd. & Ethanac Rd. (SR-74)																	
	- 2040 Without Project	TS	**2**	**2**	**1>**	**2**	**2**	0	**2**	**3**	**0**	**2**	**3**	**0**	33.7	32.2	C	C
	- Alternative 6 Improvements	TS	**2**	**2**	**1>**	**2**	**2**	0	**2**	**3**	**0**	**2**	**3**	**0**	34.2	33.4	C	C
60	Lakeview Av. & Ramona Exwy.																	
	- 2040 Without Project	TS	1	1	0	1	1	0	1	**2**	1	1	**2**	0	41.2	31.1	D	C
	- Alternative 6 Improvements	TS	1	1	0	1	1	0	1	**2**	1	1	**2**	0	41.2	31.1	D	C
61	Lakeview Av. & Nuevo Rd.																	
	- 2040 Without Project		Not Applicable															
	- Alternative 6 Improvements	**TS**	0	0	0	**1**	**0**	**1>**	**1**	1	0	0	1	0	23.2	19.8	C	B
65	Bridge St. & Ramona Exwy.																	
	- 2040 Without Project	**TS**	0	0	0	0	1	0	1	**2**	0	0	**2**	0	8.7	11.2	A	B
	- Alternative 6 Improvements	**TS**	0	0	0	0	1	0	1	**2**	0	0	**2**	0	8.7	11.2	A	B
67	Sanderson Av. (SR-79) & Ramona Exwy.																	
	- 2040 Without Project	TS	2	**4**	**1>**	2	**4**	**1>**	**3**	**3**	**1>**	2	**3**	**1>**	54.2	45.4	D	D
	- Alternative 6 Improvements	TS	2	**4**	**1>**	2	**4**	**1>**	**3**	**3**	**1>**	2	**3**	**1>**	54.4	46.0	D	D
70	Murrieta Rd. & San Jacinto Av.																	
	- 2040 Without Project	**TS**	0	0	0	0	1	0	1	**2**	0	0	**2**	0	27.4	13.1	C	B
	- Alternative 6 Improvements	**TS**	0	0	0	0	1	0	1	**2**	0	0	**2**	0	27.4	13.1	C	B

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
71	Redlands Av. & San Jacinto Av.																	
	- 2040 Without Project	TS	1	2	**1>**	1	2	0	2	1	1	2	1	1	46.9	30.9	D	C
	- Alternative 6 Improvements	TS	1	2	**1>**	1	2	0	2	1	1	2	1	1	46.9	30.9	D	C
74	Evans Rd. & San Jacinto Av.																	
	- 2040 Without Project	**TS**	**1**	**2**	0	**1**	**2**	0	**1**	**2**	0	**1**	**2**	0	35.6	20.3	D	C
	- Alternative 6 Improvements	**TS**	**1**	**2**	0	**1**	**2**	0	**1**	**2**	0	**1**	**2**	0	35.6	20.3	D	C
77	Dunlap Dr. & San Jacinto Av.																	
	- 2040 Without Project	**TS**	0	0	0	0	1	0	**1**	**2**	0	0	**2**	0	11.7	6.9	B	A
	- Alternative 6 Improvements	**TS**	0	0	0	0	1	0	**1**	**2**	0	0	**2**	0	11.7	6.9	B	A
81	I-215 SB Ramps & Ethanac Rd.																	
	- 2040 Without Project	TS	0	0	0	**1**	1	**2**	0	**2**	**1>>**	0	**2**	**1>>**	39.1	47.6	D	D
	- Alternative 6 Improvements	TS	0	0	0	**1**	1	**2**	0	**2**	**1>>**	0	**2**	**1>>**	39.1	47.6	D	D
82	I-215 NB Ramps & Ethanac Rd.																	
	- 2040 Without Project	TS	**1**	1	**2**	0	0	0	**0**	**3**	**1>>**	0	**3**	**1>>**	10.4	10.6	B	B
	- Alternative 6 Improvements	TS	**1**	1	**2**	0	0	0	**0**	**3**	**1>>**	0	**3**	**1>>**	10.4	10.6	B	B
83	Encanto Dr. & Ethanac Rd.																	
	- 2040 Without Project	**TS**	0	1	0	0	0	0	0	**3**	0	1	**3**	0	13.2	10.7	B	B
	- Alternative 6 Improvements	**TS**	0	1	0	0	0	0	0	**3**	0	1	**3**	0	13.2	10.7	B	B
84	Sherman Rd. & Ethanac Rd.																	
	- 2040 Without Project	**TS**	0	1	0	0	1	0	**1**	**3**	0	**1**	**3**	0	13.5	13.3	B	B
	- Alternative 6 Improvements	**TS**	0	1	0	0	1	0	**1**	**3**	0	**1**	**3**	0	13.5	13.3	B	B
86	Antelope Rd. & Ethanac Rd.																	
	- 2040 Without Project	**TS**	**1**	1	0	**1**	1	0	**1**	**3**	**0**	**1**	**3**	0	10.9	8.6	B	A
	- Alternative 6 Improvements	**TS**	**1**	1	0	**1**	1	0	**1**	**3**	**0**	**1**	**3**	0	10.9	8.6	B	A
87	Menifee Rd. & Matthews Rd.																	
	- 2040 Without Project	**TS**	**1**	**2**	0	0	**2**	0	0	1	0	0	0	0	20.8	11.8	C	B
	- Alternative 6 Improvements	**TS**	**1**	**2**	0	0	**2**	0	0	1	0	0	0	0	20.8	11.8	C	B

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; > = Right-Turn Overlap Phasing; **1** = Improvement

[2] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all-way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single

[3] CSS = Cross-street Stop; TS = Traffic Signal; **TS** = Improvements

[4] Improvement consists of modifying the traffic signal to implement a 130-second cycle. No physical improvements are necessary.

[5] Per the City of Perris General Plan, LOS E is permitted at intersections along the Ramona-Cajalco Expressway.

[6] Per the City of Moreno Valley traffic study guidelines, improvements shall be identified to offset the increase in delay compared to Without Project conditions.

TABLE 7-9: PEAK HOUR OFF-RAMP QUEUING SUMMARY FOR HORIZON YEAR (2040) WITHOUT MID-COUNTY PARKWAY CONDITIONS WITH IMPROVEMENTS

Intersection	Movement	Available Stacking Distance (Feet)	2040 Without Project				2040 With Project (Alternative 1)			
			95th Percentile Queue (Feet)		Acceptable? [1]		95th Percentile Queue (Feet)		Acceptable? [1]	
			AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM
I-215 Southbound Ramps & Ramona Exwy.	SBL	530	418	675 [2,3]	Yes	Yes	418	675 [2,3]	Yes	Yes
	SBL/T	1,100	473	763 [2]	Yes	Yes	473	763 [2]	Yes	Yes
	SBR	530	345	196	Yes	Yes	345	196	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

[3] Although 95th percentile queue is anticipated to exceed the available storage for the turn lane, the adjacent through lane has sufficient storage to accommodate any spillover without spilling back and affecting the I-215 Freeway mainline.

[4] Interchange not evaluated for this alternative.

8 LOCAL AND REGIONAL FUNDING MECHANISMS

Transportation improvements within the County of Riverside are funded through a combination of improvements constructed by the Project, development impact fee programs or fair share contributions. Fee programs applicable to the Project are described below.

8.1 RIVERSIDE COUNTY TRANSPORTATION UNIFORM MITIGATION FEE (TUMF)

The TUMF program is administered by the WRCOG based upon a regional Nexus Study most recently updated in 2016 to address major changes in right of way acquisition and improvement cost factors. (4) This regional program was put into place to ensure that development pays its fair share and that funding is in place for construction of facilities needed to maintain the requisite level of service and critical to mobility in the region. TUMF is a truly regional mitigation fee program and is imposed and implemented in every jurisdiction in Western Riverside County.

8.2 COUNTY OF RIVERSIDE DEVELOPMENT IMPACT FEE (DIF) PROGRAM

The Project is located within the County's Lakeview/Nuevo Area Plan and therefore will be subject to County of Riverside DIF in an effort by the County to address development throughout its unincorporated area. The DIF program consists of two separate transportation components: the Roads, Bridges and Major Improvements component and the Traffic Signals component. Eligible facilities for funding by the County DIF program are identified on the County's Public Needs List, which currently extends through the year 2020. (19) A comprehensive review of the DIF program is now planned in order to update the nexus study. This will result in development of a revised "needs list" extending the program time horizon from 2010 to 2030.

The cost of signalizing DIF network intersections is identified under the Traffic Signals component of the DIF program. County staff generally defines DIF eligible intersections as those consisting of two intersecting general plan roadways. If the intersection meets this requirement, it is potentially eligible for up to $235,000 of credit, which is subject to negotiations with the County.

8.3 MEASURE A

Measure A, Riverside County's half-cent sales tax for transportation, was adopted by voters in 1988 and extended in 2002. It will continue to fund transportation improvements through 2039. Measure A funds a wide variety of transportation projects and services throughout the County. RCTC is responsible for administering the program. Measure A dollars are spent in accordance with a voter-approved expenditure plan that was adopted as part of the 1988 election.

8.4 FAIR SHARE CONTRIBUTION

Project improvements may include a combination of fee payments to established programs, construction of specific improvements, payment of a fair share contribution toward future improvements or a combination of these approaches. Improvements constructed by development may be eligible for a fee credit or reimbursement through the program where appropriate (to be determined at the City's discretion). When off-site improvements are identified with a minor share of responsibility assigned to proposed development, the approving jurisdiction may elect to collect a fair share contribution or require the development to construct improvements. Detailed fair share calculations, for each peak hour, have been provided in the following tables for the applicable deficient study area intersections:

- Table 8-1 for Alternative 1
- Table 8-2 for Alternative 2
- Table 8-3 for Alternative 3
- Table 8-4 for Alternative 4
- Table 8-5 for Alternative 5
- Table 8-6 for Alternative 6

These fees are collected with the proceeds solely used as part of a funding mechanism aimed at ensuring that regional highways and arterial expansions keep pace with the projected population increases.

At the request of the County, fair share has been calculated for each Planning Area (PA) based on the ADT volumes for both Without MCP and With MCP (see Section 4.1 *Project Trip Generation* for the Project ADT volumes). Table 8-7 shows the fair share percentage for each PA.

TABLE 8-1: PROJECT FAIR SHARE CALCULATIONS – ALTERNATIVE 1

#	Intersection		Existing (2022)	Project (Long-Range Without MCP)	Horizon Year (2040) Without MCP With Project	Total New Traffic	Project Fair Share
1	Harvill Av. & Cajalco Exwy.						
		AM:	2,760	61	5,023	2,263	2.7%
		PM:	3,281	80	6,012	2,731	**2.9%**
4	I-215 Southbound Ramps & Ramona Exwy.						
		AM:	2,326	62	5,097	2,771	**2.2%**
		PM:	3,036	80	6,770	3,734	2.1%
5	I-215 Northbound Ramps & Ramona Exwy.						
		AM:	2,853	60	6,413	3,560	**1.7%**
		PM:	3,457	77	8,006	4,549	1.7%
6	I-215 SB Ramps & Placentia Av.[1]						
		AM:	--	161	2,308	--	**7.0%**
		PM:	--	80	3,414	--	2.3%
8	I-215 SB Ramps & Nuevo Rd.						
		AM:	2,284	28	3,936	1,652	1.7%
		PM:	2,456	131	4,490	2,034	**6.4%**
12	Webster Av. & Ramona Exwy.						
		AM:	2,522	57	5,693	3,171	**1.8%**
		PM:	2,969	75	7,040	4,071	1.8%
13	Indian Av. & Harley Knox Bl.						
		AM:	1,535	15	3,134	1,599	0.9%
		PM:	1,774	19	3,594	1,820	**1.0%**
14	Indian Av. & Ramona Exwy.						
		AM:	2,412	85	5,698	3,286	**2.6%**
		PM:	2,906	113	7,560	4,654	2.4%
16	Perris Bl. & Iris Av.						
		AM:	3,061	28	4,868	1,807	1.5%
		PM:	3,284	38	5,320	2,036	**1.9%**
17	Perris Bl. & Krameria Av.						
		AM:	2,548	43	3,960	1,412	3.0%
		PM:	2,787	56	4,418	1,631	**3.4%**
20	Perris Bl. & Harley Knox Bl.						
		AM:	2,343	57	4,079	1,736	3.3%
		PM:	2,582	75	4,520	1,938	**3.9%**
22	Perris Bl. & Ramona Exwy.						
		AM:	3,754	143	7,794	4,040	3.5%
		PM:	4,058	187	9,221	5,163	**3.6%**
25	Perris Bl. & Placentia Av.						
		AM:	1,773	200	3,210	1,437	**13.9%**
		PM:	2,101	263	4,160	2,059	12.8%
27	Perris Bl. & Nuevo Rd.						
		AM:	3,153	172	5,207	2,054	8.4%
		PM:	3,716	225	6,270	2,554	**8.8%**
28	Redlands Av. & Harley Knox Bl.						
		AM:	609	0	1,531	922	**0.0%**
		PM:	542	0	1,154	612	0.0%
30	Redlands Av. & Ramona Exwy.						
		AM:	2,414	143	6,109	3,695	**3.9%**
		PM:	3,004	188	7,840	4,836	3.9%
33	Redlands Av. & Placentia Av.						
		AM:	862	229	1,730	868	26.4%
		PM:	808	300	1,833	1,025	**29.3%**

#	Intersection		Existing (2022)	Project (Long-Range Without MCP)	Horizon Year (2040) Without MCP With Project	Total New Traffic	Project Fair Share
35	Redlands Av. & Nuevo Rd.						
		AM:	2,718	200	4,688	1,970	10.2%
		PM:	2,446	263	4,608	2,162	**12.2%**
36	Murrieta Rd. & Nuevo Rd.						
		AM:	2,206	229	4,200	1,994	11.5%
		PM:	1,752	300	3,937	2,185	**13.7%**
37	Lasselle St. & Iris Av.						
		AM:	4,109	43	6,541	2,432	1.8%
		PM:	4,121	56	6,531	2,410	**2.3%**
38	Lasselle St. & Krameria Av.						
		AM:	2,938	56	4,830	1,892	3.0%
		PM:	2,802	75	4,638	1,836	**4.1%**
39	Evans Rd. & Ramona Exwy.						
		AM:	3,026	271	7,100	4,074	**6.7%**
		PM:	3,675	357	9,023	5,348	6.7%
45	Dunlap Dr. & Orange Av.						
		AM:	332	457	1,237	905	50.5%
		PM:	359	601	1,413	1,054	**57.0%**
46	Dunlap Dr. & Nuevo Rd.						
		AM:	1,158	481	4,085	2,927	**16.4%**
		PM:	1,196	572	4,908	3,712	15.4%
47	Ramona Exwy. & Rider St.						
		AM:	1,886	314	5,374	3,488	9.0%
		PM:	1,686	413	6,095	4,409	**9.4%**
48	Antelope Rd. & Ramona Exwy.						
		AM:	1,595	344	5,254	3,659	9.4%
		PM:	1,555	513	6,478	4,923	**10.4%**
51	Antelope Rd. & Nuevo Rd.						
		AM:	797	666	4,209	3,412	**19.5%**
		PM:	829	817	5,253	4,424	18.5%
52	Street A & Ramona Exwy.						
		AM:	1,595	146	4,572	2,977	4.9%
		PM:	1,555	221	5,591	4,036	**5.5%**
53	Menifee Rd./Reservoir Bl. & Nuevo Rd.						
		AM:	1,259	185	4,226	2,967	**6.2%**
		PM:	1,261	244	5,211	3,950	6.2%
54	Menifee Rd. & San Jacinto Av.						
		AM:	1,038	142	2,274	1,236	11.5%
		PM:	1,062	188	2,618	1,556	**12.1%**
57	Menifee Rd. & Watson Rd.						
		AM:	881	85	1,883	1,002	8.5%
		PM:	738	113	1,932	1,194	**9.5%**
58	Menifee Rd. & Ethanac Rd. (SR-74)						
		AM:	2,870	72	5,392	2,522	2.9%
		PM:	2,481	93	5,341	2,860	**3.3%**
59	Bernasconi Rd. & Orange Av.[1]						
		AM:	--	100	2,593	--	**3.9%**
		PM:	--	131	3,766	--	3.5%
60	Lakeview Av. & Ramona Exwy.						
		AM:	1,876	104	5,710	3,834	**2.7%**
		PM:	1,902	136	6,995	5,093	2.7%

#	Intersection		Existing (2022)	Project (Long-Range Without MCP)	Horizon Year (2040) Without MCP With Project	Total New Traffic	Project Fair Share
61	Lakeview Av. & Nuevo Rd.						
		AM:	1,179	43	1,751	572	7.5%
		PM:	1,060	56	1,612	552	**10.1%**
63	Hansen Av./Davis Rd. & Ramona Exwy.						
		AM:	1,862	104	5,040	3,178	**3.3%**
		PM:	1,867	136	6,304	4,437	3.1%
65	Bridge St. & Ramona Exwy.						
		AM:	1,881	75	4,869	2,988	**2.5%**
		PM:	1,938	99	5,838	3,900	2.5%
66	Warren Rd. & Ramona Exwy.						
		AM:	2,222	76	4,871	2,649	**2.9%**
		PM:	2,416	99	5,837	3,421	2.9%
67	Sanderson Av. (SR-79) & Ramona Exwy.						
		AM:	4,056	61	6,510	2,454	2.5%
		PM:	4,872	79	7,964	3,092	**2.6%**
70	Murrieta Rd. & San Jacinto Av.						
		AM:	1,189	210	2,937	1,748	12.0%
		PM:	1,135	215	2,653	1,518	**14.2%**
71	Redlands Av. & San Jacinto Av.						
		AM:	2,533	210	4,726	2,193	**9.6%**
		PM:	2,474	215	4,835	2,361	9.1%
72	Redlands Av. & I-215 NB Ramps						
		AM:	2,758	210	4,904	2,146	**9.8%**
		PM:	2,686	215	4,934	2,248	9.6%
74	Evans Rd. & San Jacinto Av.						
		AM:	705	210	3,363	2,658	7.9%
		PM:	783	215	2,598	1,815	**11.8%**
77	Dunlap Dr. & San Jacinto Av.						
		AM:	839	210	1,694	855	**24.6%**
		PM:	892	215	1,794	902	23.8%
78	I-215 SB Ramps & SR-74						
		AM:	1,376	0	2,478	1,102	**0.0%**
		PM:	1,605	0	2,909	1,304	0.0%
80	Trumble Rd. & SR-74						
		AM:	2,267	0	3,766	1,499	**0.0%**
		PM:	2,433	0	4,093	1,660	0.0%
83	Encanto Dr. & Ethanac Rd.						
		AM:	1,275	0	2,290	1,015	**0.0%**
		PM:	1,329	0	2,553	1,224	0.0%
84	Sherman Rd. & Ethanac Rd.						
		AM:	1,011	0	1,622	611	**0.0%**
		PM:	973	0	2,189	1,216	0.0%
86	Antelope Rd. & Ethanac Rd.						
		AM:	858	0	1,291	433	**0.0%**
		PM:	666	0	1,043	377	0.0%
87	Menifee Rd. & Matthews Rd.						
		AM:	1,516	0	2,730	1,214	**0.0%**
		PM:	1,079	0	2,311	1,232	0.0%

* Highest fair share percentage represented in **BOLD** and shown on Table 1-4.

[1] Fair share based on new traffic since the intersection does not currently exist.

TABLE 8-2: PROJECT FAIR SHARE CALCULATIONS – ALTERNATIVE 2

#	Intersection		Existing (2022)	Project (Long-Range Without MCP)	Horizon Year (2040) Without MCP With Project	Total New Traffic	Project Fair Share
1	Harvill Av. & Cajalco Exwy.						
		AM:	2,760	61	5,023	2,263	2.7%
		PM:	3,281	80	6,012	2,731	**2.9%**
4	I-215 Southbound Ramps & Ramona Exwy.						
		AM:	2,326	62	5,097	2,771	**2.2%**
		PM:	3,036	80	6,770	3,734	2.1%
5	I-215 Northbound Ramps & Ramona Exwy.						
		AM:	2,853	60	6,413	3,560	**1.7%**
		PM:	3,457	77	8,006	4,549	1.7%
6	I-215 SB Ramps & Placentia Av.[1]						
		AM:	--	161	2,308	--	**7.0%**
		PM:	--	80	3,414	--	2.3%
8	I-215 SB Ramps & Nuevo Rd.						
		AM:	2,284	28	3,936	1,652	1.7%
		PM:	2,456	131	4,490	2,034	**6.4%**
12	Webster Av. & Ramona Exwy.						
		AM:	2,522	57	5,693	3,171	**1.8%**
		PM:	2,969	75	7,040	4,071	1.8%
13	Indian Av. & Harley Knox Bl.						
		AM:	1,535	15	3,134	1,599	0.9%
		PM:	1,774	19	3,594	1,820	**1.0%**
14	Indian Av. & Ramona Exwy.						
		AM:	2,412	85	5,698	3,286	**2.6%**
		PM:	2,906	113	7,560	4,654	2.4%
16	Perris Bl. & Iris Av.						
		AM:	3,061	28	4,868	1,807	1.5%
		PM:	3,284	38	5,320	2,036	**1.9%**
17	Perris Bl. & Krameria Av.						
		AM:	2,548	43	3,960	1,412	3.0%
		PM:	2,787	56	4,418	1,631	**3.4%**
20	Perris Bl. & Harley Knox Bl.						
		AM:	2,343	57	4,079	1,736	3.3%
		PM:	2,582	75	4,520	1,938	**3.9%**
22	Perris Bl. & Ramona Exwy.						
		AM:	3,754	143	7,794	4,040	3.5%
		PM:	4,058	187	9,221	5,163	**3.6%**
25	Perris Bl. & Placentia Av.						
		AM:	1,773	200	3,210	1,437	**13.9%**
		PM:	2,101	263	4,160	2,059	12.8%
27	Perris Bl. & Nuevo Rd.						
		AM:	3,153	172	5,207	2,054	8.4%
		PM:	3,716	225	6,270	2,554	**8.8%**
28	Redlands Av. & Harley Knox Bl.						
		AM:	609	0	1,531	922	**0.0%**
		PM:	542	0	1,154	612	0.0%
30	Redlands Av. & Ramona Exwy.						
		AM:	2,414	143	6,109	3,695	**3.9%**
		PM:	3,004	188	7,840	4,836	3.9%
33	Redlands Av. & Placentia Av.						
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		PM:	808	300	1,833	1,025	**29.3%**

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		AM:	2,718	200	4,688	1,970	10.2%
		PM:	2,446	263	4,608	2,162	**12.2%**
36	Murrieta Rd. & Nuevo Rd.						
		AM:	2,206	229	4,200	1,994	11.5%
		PM:	1,752	300	3,937	2,185	**13.7%**
37	Lasselle St. & Iris Av.						
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		AM:	3,026	271	7,100	4,074	**6.7%**
		PM:	3,675	357	9,023	5,348	6.7%
45	Dunlap Dr. & Orange Av.						
		AM:	332	457	1,237	905	50.5%
		PM:	359	601	1,413	1,054	**57.0%**
46	Dunlap Dr. & Nuevo Rd.						
		AM:	1,158	481	4,085	2,927	**16.4%**
		PM:	1,196	572	4,908	3,712	15.4%
47	Ramona Exwy. & Rider St.						
		AM:	1,886	314	5,374	3,488	9.0%
		PM:	1,686	413	6,095	4,409	**9.4%**
48	Antelope Rd. & Ramona Exwy.						
		AM:	1,595	344	5,254	3,659	9.4%
		PM:	1,555	513	6,478	4,923	**10.4%**
51	Antelope Rd. & Nuevo Rd.						
		AM:	797	667	4,210	3,413	**19.5%**
		PM:	829	816	5,251	4,422	18.5%
52	Street A & Ramona Exwy.						
		AM:	1,595	146	4,572	2,977	4.9%
		PM:	1,555	221	5,591	4,036	**5.5%**
53	Menifee Rd./Reservoir Bl. & Nuevo Rd.						
		AM:	1,259	394	4,676	3,417	**11.5%**
		PM:	1,261	458	5,667	4,406	10.4%
54	Menifee Rd. & San Jacinto Av.						
		AM:	1,038	352	2,724	1,686	**20.9%**
		PM:	1,062	493	3,976	2,914	16.9%
57	Menifee Rd. & Watson Rd.						
		AM:	781	113	1,788	1,007	**11.2%**
		PM:	738	113	1,932	1,194	9.5%
58	Menifee Rd. & Ethanac Rd. (SR-74)						
		AM:	2,870	72	5,392	2,522	2.9%
		PM:	2,481	93	5,341	2,860	**3.3%**
59	Bernasconi Rd. & Orange Av.[1]						
		AM:	--	100	2,593	--	**3.9%**
		PM:	--	131	3,766	--	3.5%
60	Lakeview Av. & Ramona Exwy.						
		AM:	1,876	104	5,710	3,834	**2.7%**
		PM:	1,902	136	6,995	5,093	2.7%

#	Intersection		Existing (2022)	Project (Long-Range Without MCP)	Horizon Year (2040) Without MCP With Project	Total New Traffic	Project Fair Share
61	Lakeview Av. & Nuevo Rd.						
		AM:	1,179	43	1,751	572	7.5%
		PM:	1,060	56	1,612	552	**10.1%**
63	Hansen Av./Davis Rd. & Ramona Exwy.						
		AM:	1,862	104	5,040	3,178	**3.3%**
		PM:	1,867	136	6,304	4,437	3.1%
65	Bridge St. & Ramona Exwy.						
		AM:	1,881	75	4,869	2,988	**2.5%**
		PM:	1,938	99	5,838	3,900	2.5%
66	Warren Rd. & Ramona Exwy.						
		AM:	2,222	76	4,871	2,649	**2.9%**
		PM:	2,416	99	5,837	3,421	2.9%
67	Sanderson Av. (SR-79) & Ramona Exwy.						
		AM:	4,056	61	6,510	2,454	2.5%
		PM:	4,872	79	7,964	3,092	**2.6%**
70	Murrieta Rd. & San Jacinto Av.						
		AM:	1,189	210	2,937	1,748	12.0%
		PM:	1,135	215	2,653	1,518	**14.2%**
71	Redlands Av. & San Jacinto Av.						
		AM:	2,533	210	4,726	2,193	**9.6%**
		PM:	2,474	215	4,835	2,361	9.1%
72	Redlands Av. & I-215 NB Ramps						
		AM:	2,758	210	4,904	2,146	**9.8%**
		PM:	2,686	215	4,934	2,248	9.6%
74	Evans Rd. & San Jacinto Av.						
		AM:	705	210	3,363	2,658	7.9%
		PM:	783	215	2,598	1,815	**11.8%**
77	Dunlap Dr. & San Jacinto Av.						
		AM:	839	210	1,694	855	**24.6%**
		PM:	892	215	1,794	902	23.8%
78	I-215 SB Ramps & SR-74						
		AM:	1,376	0	2,478	1,102	**0.0%**
		PM:	1,605	0	2,909	1,304	0.0%
80	Trumble Rd. & SR-74						
		AM:	2,267	0	3,766	1,499	**0.0%**
		PM:	2,433	0	4,093	1,660	0.0%
83	Encanto Dr. & Ethanac Rd.						
		AM:	1,275	0	2,290	1,015	**0.0%**
		PM:	1,329	0	2,553	1,224	0.0%
84	Sherman Rd. & Ethanac Rd.						
		AM:	1,011	0	1,622	611	**0.0%**
		PM:	973	0	2,189	1,216	0.0%
86	Antelope Rd. & Ethanac Rd.						
		AM:	858	0	1,291	433	**0.0%**
		PM:	666	0	1,043	377	0.0%
87	Menifee Rd. & Matthews Rd.						
		AM:	1,516	0	2,730	1,214	**0.0%**
		PM:	1,079	0	2,311	1,232	0.0%

* Highest fair share percentage represented in **BOLD** and shown on Table 1-4.

[1] Fair share based on new traffic since the intersection does not currently exist.

TABLE 8-3: PROJECT FAIR SHARE CALCULATIONS – ALTERNATIVE 3

#	Intersection		Existing (2022)	Project (Long-Range Without MCP)	Horizon Year (2040) Without MCP With Project	Total New Traffic	Project Fair Share
1	Harvill Av. & Cajalco Exwy.						
		AM:	2,760	61	5,023	2,263	2.7%
		PM:	3,281	80	6,012	2,731	**2.9%**
4	I-215 Southbound Ramps & Ramona Exwy.						
		AM:	2,326	62	5,097	2,771	**2.2%**
		PM:	3,036	80	6,770	3,734	2.1%
5	I-215 Northbound Ramps & Ramona Exwy.						
		AM:	2,853	60	6,413	3,560	**1.7%**
		PM:	3,457	77	8,006	4,549	1.7%
6	I-215 SB Ramps & Placentia Av.[1]						
		AM:	--	161	2,308	--	**7.0%**
		PM:	--	80	3,414	--	2.3%
8	I-215 SB Ramps & Nuevo Rd.						
		AM:	2,284	28	3,936	1,652	1.7%
		PM:	2,456	131	4,490	2,034	**6.4%**
12	Webster Av. & Ramona Exwy.						
		AM:	2,522	57	5,693	3,171	**1.8%**
		PM:	2,969	75	7,040	4,071	1.8%
13	Indian Av. & Harley Knox Bl.						
		AM:	1,535	15	3,134	1,599	0.9%
		PM:	1,774	19	3,594	1,820	**1.0%**
14	Indian Av. & Ramona Exwy.						
		AM:	2,412	85	5,698	3,286	**2.6%**
		PM:	2,906	113	7,560	4,654	2.4%
16	Perris Bl. & Iris Av.						
		AM:	3,061	28	4,868	1,807	1.5%
		PM:	3,284	38	5,320	2,036	**1.9%**
17	Perris Bl. & Krameria Av.						
		AM:	2,548	43	3,960	1,412	3.0%
		PM:	2,787	56	4,418	1,631	**3.4%**
20	Perris Bl. & Harley Knox Bl.						
		AM:	2,343	57	4,079	1,736	3.3%
		PM:	2,582	75	4,520	1,938	**3.9%**
22	Perris Bl. & Ramona Exwy.						
		AM:	3,754	143	7,794	4,040	3.5%
		PM:	4,058	187	9,221	5,163	**3.6%**
25	Perris Bl. & Placentia Av.						
		AM:	1,773	200	3,210	1,437	**13.9%**
		PM:	2,101	263	4,160	2,059	12.8%
27	Perris Bl. & Nuevo Rd.						
		AM:	3,153	172	5,207	2,054	8.4%
		PM:	3,716	225	6,270	2,554	**8.8%**
28	Redlands Av. & Harley Knox Bl.						
		AM:	609	0	1,531	922	**0.0%**
		PM:	542	0	1,154	612	0.0%
30	Redlands Av. & Ramona Exwy.						
		AM:	2,414	143	6,109	3,695	**3.9%**
		PM:	3,004	188	7,840	4,836	3.9%
33	Redlands Av. & Placentia Av.						
		AM:	862	229	1,730	868	26.4%
		PM:	808	300	1,833	1,025	**29.3%**

#	Intersection		Existing (2022)	Project (Long-Range Without MCP)	Horizon Year (2040) Without MCP With Project	Total New Traffic	Project Fair Share
35	Redlands Av. & Nuevo Rd.						
		AM:	2,718	200	4,688	1,970	10.2%
		PM:	2,446	263	4,608	2,162	**12.2%**
36	Murrieta Rd. & Nuevo Rd.						
		AM:	2,206	229	4,200	1,994	11.5%
		PM:	1,752	300	3,937	2,185	**13.7%**
37	Lasselle St. & Iris Av.						
		AM:	4,109	43	6,541	2,432	1.8%
		PM:	4,121	56	6,531	2,410	**2.3%**
38	Lasselle St. & Krameria Av.						
		AM:	2,938	56	4,830	1,892	3.0%
		PM:	2,802	75	4,638	1,836	**4.1%**
39	Evans Rd. & Ramona Exwy.						
		AM:	3,026	271	7,100	4,074	**6.7%**
		PM:	3,675	357	9,023	5,348	6.7%
45	Dunlap Dr. & Orange Av.						
		AM:	332	457	1,237	905	50.5%
		PM:	359	601	1,413	1,054	**57.0%**
46	Dunlap Dr. & Nuevo Rd.						
		AM:	1,158	271	3,635	2,477	10.9%
		PM:	1,196	572	4,908	3,712	**15.4%**
47	Ramona Exwy. & Rider St.						
		AM:	1,886	314	5,374	3,488	9.0%
		PM:	1,686	413	6,095	4,409	**9.4%**
48	Antelope Rd. & Ramona Exwy.						
		AM:	1,595	344	5,254	3,659	9.4%
		PM:	1,555	513	6,478	4,923	**10.4%**
51	Antelope Rd. & Nuevo Rd.						
		AM:	797	667	4,210	3,413	**19.5%**
		PM:	829	816	5,251	4,422	18.5%
52	Street A & Ramona Exwy.						
		AM:	1,595	146	4,572	2,977	4.9%
		PM:	1,555	221	5,591	4,036	**5.5%**
53	Menifee Rd./Reservoir Bl. & Nuevo Rd.						
		AM:	1,259	185	4,226	2,967	6.2%
		PM:	1,261	458	5,667	4,406	**10.4%**
54	Menifee Rd. & San Jacinto Av.						
		AM:	1,038	352	2,723	1,685	**20.9%**
		PM:	1,062	403	3,076	2,014	20.0%
57	Menifee Rd. & Watson Rd.						
		AM:	881	295	2,333	1,452	**20.3%**
		PM:	738	328	2,388	1,650	19.9%
58	Menifee Rd. & Ethanac Rd. (SR-74)						
		AM:	2,870	282	5,842	2,972	**9.5%**
		PM:	2,481	308	5,799	3,318	9.3%
59	Bernasconi Rd. & Orange Av.[1]						
		AM:	--	100	2,593	--	**3.9%**
		PM:	--	131	3,766	--	3.5%
60	Lakeview Av. & Ramona Exwy.						
		AM:	1,876	104	5,710	3,834	**2.7%**
		PM:	1,902	136	6,995	5,093	2.7%

#	Intersection		Existing (2022)	Project (Long-Range Without MCP)	Horizon Year (2040) Without MCP With Project	Total New Traffic	Project Fair Share
61	Lakeview Av. & Nuevo Rd.						
		AM:	1,179	43	1,751	572	7.5%
		PM:	1,060	56	1,612	552	**10.1%**
63	Hansen Av./Davis Rd. & Ramona Exwy.						
		AM:	1,862	104	5,040	3,178	**3.3%**
		PM:	1,867	136	6,304	4,437	3.1%
65	Bridge St. & Ramona Exwy.						
		AM:	1,881	75	4,869	2,988	**2.5%**
		PM:	1,938	99	5,838	3,900	2.5%
66	Warren Rd. & Ramona Exwy.						
		AM:	2,222	76	4,871	2,649	**2.9%**
		PM:	2,416	99	5,837	3,421	2.9%
67	Sanderson Av. (SR-79) & Ramona Exwy.						
		AM:	4,056	61	6,510	2,454	2.5%
		PM:	4,872	79	7,964	3,092	**2.6%**
70	Murrieta Rd. & San Jacinto Av.						
		AM:	1,189	0	2,487	1,298	**0.0%**
		PM:	1,135	0	2,195	1,060	0.0%
71	Redlands Av. & San Jacinto Av.						
		AM:	2,533	0	4,276	1,743	**0.0%**
		PM:	2,474	0	4,378	1,904	0.0%
72	Redlands Av. & I-215 NB Ramps						
		AM:	2,758	0	4,455	1,697	**0.0%**
		PM:	2,686	0	4,476	1,790	0.0%
74	Evans Rd. & San Jacinto Av.						
		AM:	705	0	2,913	2,208	**0.0%**
		PM:	783	0	2,141	1,358	0.0%
77	Dunlap Dr. & San Jacinto Av.						
		AM:	839	0	1,244	405	**0.0%**
		PM:	892	0	1,336	444	0.0%
78	I-215 SB Ramps & SR-74						
		AM:	1,376	101	2,695	1,319	**7.7%**
		PM:	1,605	106	3,135	1,530	6.9%
79	I-215 NB Ramps & SR-74						
		AM:	2,223	210	4,139	1,916	**11.0%**
		PM:	2,408	215	4,464	2,056	10.5%
80	Trumble Rd. & SR-74						
		AM:	2,267	210	4,216	1,949	**10.8%**
		PM:	2,433	215	4,550	2,117	10.2%
83	Encanto Dr. & Ethanac Rd.						
		AM:	1,275	0	2,290	1,015	**0.0%**
		PM:	1,329	0	2,553	1,224	0.0%
84	Sherman Rd. & Ethanac Rd.						
		AM:	1,011	0	1,622	611	**0.0%**
		PM:	973	0	2,189	1,216	0.0%
86	Antelope Rd. & Ethanac Rd.						
		AM:	858	0	1,291	433	**0.0%**
		PM:	666	0	1,043	377	0.0%
87	Menifee Rd. & Matthews Rd.						
		AM:	1,516	0	2,730	1,214	**0.0%**
		PM:	1,079	0	2,311	1,232	0.0%

* Highest fair share percentage represented in **BOLD** and shown on Table 1-4.

[1] Fair share based on new traffic since the intersection does not currently exist.

TABLE 8-4: PROJECT FAIR SHARE CALCULATIONS – ALTERNATIVE 4

#	Intersection		Existing (2022)	Project (Long-Range Without MCP)	Horizon Year (2040) Without MCP With Project	Total New Traffic	Project Fair Share
1	Harvill Av. & Cajalco Exwy.						
		AM:	2,760	61	5,023	2,263	2.7%
		PM:	3,281	80	6,012	2,731	**2.9%**
4	I-215 Southbound Ramps & Ramona Exwy.						
		AM:	2,326	62	5,097	2,771	**2.2%**
		PM:	3,036	80	6,770	3,734	2.1%
5	I-215 Northbound Ramps & Ramona Exwy.						
		AM:	2,853	60	6,413	3,560	**1.7%**
		PM:	3,457	77	8,006	4,549	1.7%
6	I-215 SB Ramps & Placentia Av.[1]						
		AM:	--	161	2,308	--	**7.0%**
		PM:	--	80	3,414	--	2.3%
8	I-215 SB Ramps & Nuevo Rd.						
		AM:	2,284	28	3,936	1,652	1.7%
		PM:	2,456	131	4,490	2,034	**6.4%**
12	Webster Av. & Ramona Exwy.						
		AM:	2,522	57	5,693	3,171	**1.8%**
		PM:	2,969	75	7,040	4,071	1.8%
13	Indian Av. & Harley Knox Bl.						
		AM:	1,535	15	3,134	1,599	0.9%
		PM:	1,774	19	3,594	1,820	**1.0%**
14	Indian Av. & Ramona Exwy.						
		AM:	2,412	85	5,698	3,286	**2.6%**
		PM:	2,906	113	7,560	4,654	2.4%
16	Perris Bl. & Iris Av.						
		AM:	3,061	28	4,868	1,807	1.5%
		PM:	3,284	38	5,320	2,036	**1.9%**
17	Perris Bl. & Krameria Av.						
		AM:	2,548	43	3,960	1,412	3.0%
		PM:	2,787	56	4,418	1,631	**3.4%**
20	Perris Bl. & Harley Knox Bl.						
		AM:	2,343	57	4,079	1,736	3.3%
		PM:	2,582	75	4,520	1,938	**3.9%**
22	Perris Bl. & Ramona Exwy.						
		AM:	3,754	143	7,794	4,040	3.5%
		PM:	4,058	187	9,221	5,163	**3.6%**
25	Perris Bl. & Placentia Av.						
		AM:	1,773	200	3,210	1,437	**13.9%**
		PM:	2,101	263	4,160	2,059	12.8%
27	Perris Bl. & Nuevo Rd.						
		AM:	3,153	172	5,207	2,054	8.4%
		PM:	3,716	225	6,270	2,554	**8.8%**
28	Redlands Av. & Harley Knox Bl.						
		AM:	609	0	1,531	922	**0.0%**
		PM:	542	0	1,154	612	0.0%
30	Redlands Av. & Ramona Exwy.						
		AM:	2,414	143	6,109	3,695	**3.9%**
		PM:	3,004	188	7,840	4,836	3.9%
33	Redlands Av. & Placentia Av.						
		AM:	862	229	1,730	868	26.4%
		PM:	808	300	1,833	1,025	**29.3%**

#	Intersection		Existing (2022)	Project (Long-Range Without MCP)	Horizon Year (2040) Without MCP With Project	Total New Traffic	Project Fair Share
35	Redlands Av. & Nuevo Rd.						
		AM:	2,718	200	4,688	1,970	10.2%
		PM:	2,446	263	4,608	2,162	**12.2%**
36	Murrieta Rd. & Nuevo Rd.						
		AM:	2,206	229	4,200	1,994	11.5%
		PM:	1,752	300	3,937	2,185	**13.7%**
37	Lasselle St. & Iris Av.						
		AM:	4,109	43	6,541	2,432	1.8%
		PM:	4,121	56	6,531	2,410	**2.3%**
38	Lasselle St. & Krameria Av.						
		AM:	2,938	56	4,830	1,892	3.0%
		PM:	2,802	75	4,638	1,836	**4.1%**
39	Evans Rd. & Ramona Exwy.						
		AM:	3,026	271	7,100	4,074	**6.7%**
		PM:	3,675	357	9,023	5,348	6.7%
45	Dunlap Dr. & Orange Av.						
		AM:	332	457	1,237	905	50.5%
		PM:	359	601	1,413	1,054	**57.0%**
46	Dunlap Dr. & Nuevo Rd.						
		AM:	1,158	271	3,635	2,477	10.9%
		PM:	1,196	357	4,451	3,255	**11.0%**
47	Ramona Exwy. & Rider St.						
		AM:	1,886	314	5,374	3,488	9.0%
		PM:	1,686	413	6,095	4,409	**9.4%**
48	Antelope Rd. & Ramona Exwy.						
		AM:	1,595	344	5,254	3,659	**9.4%**
		PM:	1,555	453	6,418	4,863	9.3%
51	Antelope Rd. & Nuevo Rd.						
		AM:	797	667	4,210	3,413	**19.5%**
		PM:	829	816	5,251	4,422	18.5%
52	Street A & Ramona Exwy.						
		AM:	1,595	146	4,572	2,977	**4.9%**
		PM:	1,555	192	5,562	4,007	4.8%
53	Menifee Rd./Reservoir Bl. & Nuevo Rd.						
		AM:	1,259	394	4,676	3,417	**11.5%**
		PM:	1,261	458	5,667	4,406	10.4%
54	Menifee Rd. & San Jacinto Av.						
		AM:	1,038	352	2,723	1,685	**20.9%**
		PM:	1,062	403	3,076	2,014	20.0%
57	Menifee Rd. & Watson Rd.						
		AM:	881	295	2,333	1,452	**20.3%**
		PM:	738	328	2,388	1,650	19.9%
58	Menifee Rd. & Ethanac Rd. (SR-74)						
		AM:	2,870	281	5,841	2,971	**9.5%**
		PM:	2,481	308	5,799	3,318	9.3%
59	Bernasconi Rd. & Orange Av.[1]						
		AM:	--	100	2,593	--	**3.9%**
		PM:	--	131	3,766	--	3.5%
60	Lakeview Av. & Ramona Exwy.						
		AM:	1,876	104	5,710	3,834	**2.7%**
		PM:	1,902	136	6,995	5,093	2.7%

#	Intersection		Existing (2022)	Project (Long-Range Without MCP)	Horizon Year (2040) Without MCP With Project	Total New Traffic	Project Fair Share
61	Lakeview Av. & Nuevo Rd.						
		AM:	1,179	43	1,751	572	7.5%
		PM:	1,060	56	1,612	552	**10.1%**
63	Hansen Av./Davis Rd. & Ramona Exwy.						
		AM:	1,862	104	5,040	3,178	**3.3%**
		PM:	1,867	136	6,304	4,437	3.1%
65	Bridge St. & Ramona Exwy.						
		AM:	1,881	75	4,869	2,988	**2.5%**
		PM:	1,938	99	5,838	3,900	2.5%
66	Warren Rd. & Ramona Exwy.						
		AM:	2,222	76	4,871	2,649	**2.9%**
		PM:	2,416	99	5,837	3,421	2.9%
67	Sanderson Av. (SR-79) & Ramona Exwy.						
		AM:	4,056	61	6,510	2,454	2.5%
		PM:	4,872	79	7,964	3,092	**2.6%**
70	Murrieta Rd. & San Jacinto Av.						
		AM:	1,189	0	2,487	1,298	**0.0%**
		PM:	1,135	0	2,195	1,060	0.0%
71	Redlands Av. & San Jacinto Av.						
		AM:	2,533	0	4,276	1,743	**0.0%**
		PM:	2,474	0	4,378	1,904	0.0%
72	Redlands Av. & I-215 NB Ramps						
		AM:	2,758	0	4,455	1,697	**0.0%**
		PM:	2,686	0	4,476	1,790	0.0%
74	Evans Rd. & San Jacinto Av.						
		AM:	705	0	2,913	2,208	**0.0%**
		PM:	783	0	2,141	1,358	0.0%
77	Dunlap Dr. & San Jacinto Av.						
		AM:	839	0	1,244	405	**0.0%**
		PM:	892	0	1,336	444	0.0%
78	I-215 SB Ramps & SR-74						
		AM:	1,376	0	2,478	1,102	**0.0%**
		PM:	1,605	0	2,909	1,304	0.0%
80	Trumble Rd. & SR-74						
		AM:	2,267	0	3,766	1,499	**0.0%**
		PM:	2,433	0	4,093	1,660	0.0%
83	Encanto Dr. & Ethanac Rd.						
		AM:	1,275	210	2,290	1,015	**20.7%**
		PM:	1,329	215	3,010	1,681	12.8%
84	Sherman Rd. & Ethanac Rd.						
		AM:	1,011	210	2,072	1,061	**19.8%**
		PM:	973	215	2,646	1,673	12.9%
86	Antelope Rd. & Ethanac Rd.						
		AM:	858	210	1,741	883	23.8%
		PM:	666	215	1,500	834	**25.8%**
87	Menifee Rd. & Matthews Rd.						
		AM:	1,516	210	3,179	1,663	12.6%
		PM:	1,079	215	2,768	1,689	**12.7%**

* Highest fair share percentage represented in **BOLD** and shown on Table 1-4.

[1] Fair share based on new traffic since the intersection does not currently exist.

TABLE 8-5: PROJECT FAIR SHARE CALCULATIONS – ALTERNATIVE 5

#	Intersection		Existing (2022)	Project (Long-Range Without MCP)	Horizon Year (2040) Without MCP With Project	Total New Traffic	Project Fair Share
1	Harvill Av. & Cajalco Exwy.						
		AM:	2,760	61	5,023	2,263	2.7%
		PM:	3,281	80	6,012	2,731	**2.9%**
4	I-215 Southbound Ramps & Ramona Exwy.						
		AM:	2,326	62	5,097	2,771	**2.2%**
		PM:	3,036	80	6,770	3,734	2.1%
5	I-215 Northbound Ramps & Ramona Exwy.						
		AM:	2,853	60	6,413	3,560	**1.7%**
		PM:	3,457	77	8,006	4,549	1.7%
6	I-215 SB Ramps & Placentia Av.[1]						
		AM:	--	161	2,308	--	**7.0%**
		PM:	--	80	3,414	--	2.3%
8	I-215 SB Ramps & Nuevo Rd.						
		AM:	2,284	28	3,936	1,652	1.7%
		PM:	2,456	131	4,490	2,034	**6.4%**
12	Webster Av. & Ramona Exwy.						
		AM:	2,522	57	5,693	3,171	**1.8%**
		PM:	2,969	75	7,040	4,071	1.8%
13	Indian Av. & Harley Knox Bl.						
		AM:	1,535	15	3,134	1,599	0.9%
		PM:	1,774	19	3,594	1,820	**1.0%**
14	Indian Av. & Ramona Exwy.						
		AM:	2,412	85	5,698	3,286	**2.6%**
		PM:	2,906	113	7,560	4,654	2.4%
16	Perris Bl. & Iris Av.						
		AM:	3,061	28	4,868	1,807	1.5%
		PM:	3,284	38	5,320	2,036	**1.9%**
17	Perris Bl. & Krameria Av.						
		AM:	2,548	43	3,960	1,412	3.0%
		PM:	2,787	56	4,418	1,631	**3.4%**
20	Perris Bl. & Harley Knox Bl.						
		AM:	2,343	57	4,079	1,736	3.3%
		PM:	2,582	75	4,520	1,938	**3.9%**
22	Perris Bl. & Ramona Exwy.						
		AM:	3,754	143	7,794	4,040	3.5%
		PM:	4,058	187	9,221	5,163	**3.6%**
25	Perris Bl. & Placentia Av.						
		AM:	1,773	200	3,210	1,437	**13.9%**
		PM:	2,101	263	4,160	2,059	12.8%
27	Perris Bl. & Nuevo Rd.						
		AM:	3,153	172	5,207	2,054	8.4%
		PM:	3,716	225	6,270	2,554	**8.8%**
28	Redlands Av. & Harley Knox Bl.						
		AM:	609	0	1,531	922	**0.0%**
		PM:	542	0	1,154	612	0.0%
30	Redlands Av. & Ramona Exwy.						
		AM:	2,414	143	6,109	3,695	**3.9%**
		PM:	3,004	188	7,840	4,836	3.9%
33	Redlands Av. & Placentia Av.						
		AM:	862	229	1,730	868	26.4%
		PM:	808	300	1,833	1,025	**29.3%**

#	Intersection		Existing (2022)	Project (Long-Range Without MCP)	Horizon Year (2040) Without MCP With Project	Total New Traffic	Project Fair Share
35	Redlands Av. & Nuevo Rd.						
		AM:	2,718	200	4,688	1,970	10.2%
		PM:	2,446	263	4,608	2,162	**12.2%**
36	Murrieta Rd. & Nuevo Rd.						
		AM:	2,206	229	4,200	1,994	11.5%
		PM:	1,752	300	3,937	2,185	**13.7%**
37	Lasselle St. & Iris Av.						
		AM:	4,109	43	6,541	2,432	1.8%
		PM:	4,121	56	6,531	2,410	**2.3%**
38	Lasselle St. & Krameria Av.						
		AM:	2,938	56	4,830	1,892	3.0%
		PM:	2,802	75	4,638	1,836	**4.1%**
39	Evans Rd. & Ramona Exwy.						
		AM:	3,026	271	7,100	4,074	**6.7%**
		PM:	3,675	357	9,023	5,348	6.7%
45	Dunlap Dr. & Orange Av.						
		AM:	332	457	1,237	905	50.5%
		PM:	359	601	1,413	1,054	**57.0%**
46	Dunlap Dr. & Nuevo Rd.						
		AM:	1,158	281	3,645	2,487	11.3%
		PM:	1,196	376	4,470	3,274	**11.5%**
47	Ramona Exwy. & Rider St.						
		AM:	1,886	594	5,654	3,768	**15.8%**
		PM:	1,686	701	6,383	4,697	14.9%
48	Antelope Rd. & Ramona Exwy.						
		AM:	1,595	643	5,553	3,958	**16.2%**
		PM:	1,555	490	6,455	4,900	10.0%
51	Antelope Rd. & Nuevo Rd.						
		AM:	797	475	4,018	3,221	14.7%
		PM:	829	633	5,068	4,239	**14.9%**
52	Street A & Ramona Exwy.						
		AM:	1,595	257	4,683	3,088	**8.3%**
		PM:	1,555	251	5,621	4,066	6.2%
53	Menifee Rd./Reservoir Bl. & Nuevo Rd.						
		AM:	1,259	167	4,449	3,190	5.2%
		PM:	1,261	284	5,493	4,232	**6.7%**
54	Menifee Rd. & San Jacinto Av.						
		AM:	1,038	147	2,519	1,481	9.9%
		PM:	1,062	198	2,871	1,809	**10.9%**
57	Menifee Rd. & Watson Rd.						
		AM:	881	88	1,886	1,005	8.8%
		PM:	738	119	1,938	1,200	**9.9%**
58	Menifee Rd. & Ethanac Rd. (SR-74)						
		AM:	2,870	74	5,394	2,524	2.9%
		PM:	2,481	98	5,346	2,865	**3.4%**
59	Bernasconi Rd. & Orange Av.[1]						
		AM:	--	104	2,597	--	**4.0%**
		PM:	--	138	3,773	--	3.7%
60	Lakeview Av. & Ramona Exwy.						
		AM:	1,876	104	5,710	3,834	**2.7%**
		PM:	1,902	136	6,995	5,093	2.7%

#	Intersection		Existing (2022)	Project (Long-Range Without MCP)	Horizon Year (2040) Without MCP With Project	Total New Traffic	Project Fair Share
61	Lakeview Av. & Nuevo Rd.						
		AM:	1,179	43	1,751	572	7.5%
		PM:	1,060	56	1,612	552	**10.1%**
63	Hansen Av./Davis Rd. & Ramona Exwy.						
		AM:	1,862	104	5,040	3,178	**3.3%**
		PM:	1,867	136	6,304	4,437	3.1%
65	Bridge St. & Ramona Exwy.						
		AM:	1,881	75	4,869	2,988	**2.5%**
		PM:	1,938	99	5,838	3,900	2.5%
66	Warren Rd. & Ramona Exwy.						
		AM:	2,222	76	4,871	2,649	**2.9%**
		PM:	2,416	99	5,837	3,421	2.9%
67	Sanderson Av. (SR-79) & Ramona Exwy.						
		AM:	4,056	61	6,510	2,454	2.5%
		PM:	4,872	79	7,964	3,092	**2.6%**
70	Murrieta Rd. & San Jacinto Av.						
		AM:	1,189	0	2,487	1,298	**0.0%**
		PM:	1,135	0	2,195	1,060	0.0%
72	Redlands Av. & I-215 NB Ramps						
		AM:	2,533	0	4,276	1,743	**0.0%**
		PM:	2,686	0	4,476	1,790	0.0%
74	Evans Rd. & San Jacinto Av.						
		AM:	705	0	2,913	2,208	**0.0%**
		PM:	783	0	2,141	1,358	0.0%
77	Dunlap Dr. & San Jacinto Av.						
		AM:	839	0	1,484	645	**0.0%**
		PM:	892	0	1,579	687	0.0%
78	I-215 SB Ramps & SR-74						
		AM:	1,376	0	2,478	1,102	**0.0%**
		PM:	1,605	0	2,909	1,304	0.0%
80	Trumble Rd. & SR-74						
		AM:	2,267	0	3,766	1,499	**0.0%**
		PM:	2,433	0	4,093	1,660	0.0%
83	Encanto Dr. & Ethanac Rd.						
		AM:	1,275	0	2,290	1,015	**0.0%**
		PM:	1,329	0	2,553	1,224	0.0%
84	Sherman Rd. & Ethanac Rd.						
		AM:	1,011	0	1,622	611	**0.0%**
		PM:	973	0	2,189	1,216	0.0%
86	Antelope Rd. & Ethanac Rd.						
		AM:	858	0	1,291	433	**0.0%**
		PM:	666	0	1,043	377	0.0%
87	Menifee Rd. & Matthews Rd.						
		AM:	1,516	0	2,730	1,214	**0.0%**
		PM:	1,079	0	2,311	1,232	0.0%

* Highest fair share percentage represented in **BOLD** and shown on Table 1-4.

[1] Fair share based on new traffic since the intersection does not currently exist.

TABLE 8-6: PROJECT FAIR SHARE CALCULATIONS – ALTERNATIVE 6

#	Intersection		Existing (2022)	Project (Long-Range With MCP)	Horizon Year (2040) With MCP With Project	Total New Traffic	Project Fair Share
12	Webster Av. & Ramona Exwy.						
		AM:	2,522	56	4,772	2,250	2.5%
		PM:	2,969	75	5,001	2,032	**3.7%**
14	Indian Av. & Ramona Exwy.						
		AM:	2,412	84	4,352	1,940	4.3%
		PM:	2,906	113	5,475	2,569	**4.4%**
16	Perris Bl. & Iris Av.						
		AM:	3,061	28	4,130	1,069	2.6%
		PM:	3,284	38	4,661	1,377	**2.8%**
20	Perris Bl. & Harley Knox Bl.						
		AM:	2,343	56	5,000	2,657	2.1%
		PM:	2,582	75	4,726	2,144	**3.5%**
25	Perris Bl. & Placentia Av.						
		AM:	1,773	0	3,816	2,043	**0.0%**
		PM:	2,101	0	4,726	2,625	0.0%
26	Perris Bl. & Orange Av.						
		AM:	2,355	58	3,893	1,538	**3.8%**
		PM:	2,680	76	4,681	2,001	3.8%
27	Perris Bl. & Nuevo Rd.						
		AM:	3,153	29	4,870	1,717	1.7%
		PM:	3,716	38	5,211	1,495	**2.5%**
28	Redlands Av. & Harley Knox Bl.						
		AM:	609	0	1,100	491	**0.0%**
		PM:	542	0	666	124	0.0%
30	Redlands Av. & Ramona Exwy.						
		AM:	2,414	141	3,786	1,372	10.3%
		PM:	3,004	187	4,310	1,306	**14.3%**
33	Redlands Av. & Placentia Av.						
		AM:	862	0	1,778	916	**0.0%**
		PM:	808	0	2,037	1,229	0.0%
35	Redlands Av. & Nuevo Rd.						
		AM:	2,718	58	3,318	600	**9.7%**
		PM:	2,446	76	3,468	1,022	7.4%
36	Murrieta Rd. & Nuevo Rd.						
		AM:	2,206	85	3,246	1,040	8.2%
		PM:	1,752	113	3,042	1,290	**8.8%**
38	Lasselle St. & Krameria Av.						
		AM:	2,938	56	3,386	448	**12.5%**
		PM:	2,802	75	4,326	1,524	4.9%
39	Evans Rd. & Ramona Exwy.						
		AM:	3,026	267	5,897	2,871	9.3%
		PM:	3,675	355	6,923	3,248	**10.9%**
45	Dunlap Dr. & Orange Av.						
		AM:	332	254	1,065	733	34.7%
		PM:	359	336	1,252	893	**37.6%**
51	Antelope Rd. & Nuevo Rd.						
		AM:	797	310	1,832	1,035	**30.0%**
		PM:	829	411	2,354	1,525	27.0%
53	Menifee Rd./Reservoir Bl. & Nuevo Rd.						
		AM:	1,259	183	2,844	1,585	**11.5%**
		PM:	1,261	243	3,610	2,349	10.3%

#	Intersection		Existing (2022)	Project (Long-Range With MCP)	Horizon Year (2040) With MCP With Project	Total New Traffic	Project Fair Share
57	Menifee Rd. & Watson Rd.						
		AM:	881	85	2,028	1,147	7.4%
		PM:	738	112	2,221	1,483	**7.6%**
58	Menifee Rd. & Ethanac Rd. (SR-74)						
		AM:	2,870	72	4,504	1,634	4.4%
		PM:	2,481	95	4,415	1,934	**4.9%**
59	Bernasconi Rd. & Orange Av.[1]						
		AM:	--	100	800	--	12.5%
		PM:	--	131	931	--	**14.1%**
61	Lakeview Av. & Nuevo Rd.						
		AM:	1,179	43	1,136	-43	0.0%
		PM:	1,060	57	1,147	87	**65.5%**
67	Sanderson Av. (SR-79) & Ramona Exwy.						
		AM:	4,056	47	8,289	4,233	1.1%
		PM:	4,872	61	9,129	4,257	**1.4%**
70	Murrieta Rd. & San Jacinto Av.						
		AM:	1,189	0	2,602	1,413	**0.0%**
		PM:	1,135	0	2,186	1,051	0.0%
74	Evans Rd. & San Jacinto Av.						
		AM:	705	0	3,083	2,378	**0.0%**
		PM:	783	0	2,127	1,344	0.0%
77	Dunlap Dr. & San Jacinto Av.						
		AM:	839	0	2,397	1,558	**0.0%**
		PM:	892	0	1,681	789	0.0%
83	Encanto Dr. & Ethanac Rd.						
		AM:	1,275	0	2,174	899	**0.0%**
		PM:	1,329	0	2,100	771	0.0%
84	Sherman Rd. & Ethanac Rd.						
		AM:	1,011	0	1,698	687	**0.0%**
		PM:	973	0	1,505	532	0.0%
86	Antelope Rd. & Ethanac Rd.						
		AM:	858	0	1,681	823	**0.0%**
		PM:	666	0	1,290	624	0.0%
87	Menifee Rd. & Matthews Rd.						
		AM:	1,516	0	3,864	2,348	**0.0%**
		PM:	1,079	0	3,089	2,010	0.0%

* Highest fair share percentage represented in **BOLD** and shown on Table 1-4.

[1] Fair share based on new traffic since the intersection does not currently exist.

TABLE 8-7: PROJECT FAIR SHARE CALCULATIONS BY PLANNING AREA

PA	Project ADT	Project Fair Share
Without MCP		
1	1,669	7.0%
2	5,061	21.4%
3	8,620	36.4%
4	1,669	7.0%
6	1,761	7.4%
7	869	3.7%
8A	4,030	17.0%
With MCP		
1	1,669	7.1%
2	5,061	21.6%
3	8,620	36.7%
4	1,669	7.1%
6	1,477	6.3%
7	794	3.4%
8A	4,183	17.8%

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