5.15 TRANSPORTATION

This section of the draft environmental impact report (DEIR) evaluates the potential for implementation of the Agua Mansa Commerce Park Specific Plan to result in transportation and traffic impacts in the cities of Jurupa Valley, Colton, Riverside, and Rialto and the unincorporated San Bernardino County.

The analysis in this section is based in part on the following technical report(s):

- *K1 -Agua Mansa Commerce Park Traffic Impact Analysis* (TIA), prepared by Ganddini, October 9, 2018
- *K2 -Agua Mansa Commerce Park Supplemental Traffic Analysis,* prepared by Ganddini, August 7, 2019
- *K3 -Agua Mansa Commerce Park (AMCP) Transportation Impact Summary,* prepared by Urban Crossroads, September 29, 2019

A complete copy of these studies are in the technical appendices to this Draft EIR (Appendix K). The traffic studies were developed in conjunction with City of Jurupa Valley Engineering Department staff and is consistent with the Riverside County's Traffic Impact Analysis Preparation Guide (2008). Caltrans and the cities of Jurupa Valley, Colton, Riverside, and Rialto and unincorporated Riverside County require use of the Highway Capacity Manual (HCM 2010) methodology for the analysis of traffic conditions. Table 5.15-1, *Intersection and Ramp Level of Service Descriptions*, provides a description of the level of service (LOS) associated with the delay in seconds per vehicle (sec/veh).

Table 5.15-1 Intersection and Ramp Level of Service Descriptions

LOS	Description	Intersection Control Delay (seconds/vehicle)		Ramp Density (passenger cars/ mile / lane)
		Signalized Intersections	Unsignalized Intersections	
A	**Excellent operation**. All approaches to the intersection appear quite open, turning movements are easily made, and nearly all drivers find freedom of operation.	≤ 10	≤ 10	≤ 10
B	**Very good operation**. Many drivers begin to feel somewhat restricted within platoons of vehicles. This represents stable flow. An approach to an intersection may occasionally be fully utilized and traffic queues start to form.	>10 and < 20	>10 and < 15	>10 and ≤ 20
C	**Good operation**. Occasionally drivers may have to wait more than 60 seconds, and back-ups may develop behind turning vehicles. Most drivers feel somewhat restricted.	>20 and < 35	>15 and < 25	>20 and ≤ 28
D	**Fair operation**. Cars are sometimes required to wait more than 60 seconds during short peaks. There are no long-standing traffic queues.	>35 and < 55	>25 and < 35	>28 and ≤ 35
E	**Poor operation.** Some long-standing vehicular queues develop on critical approaches to intersections. Delays may be up to several minutes.	>55 and < 80	>35 and < 50	>35
F	**Forced flow**. Represents jammed conditions. Backups form locations downstream or on the cross street may restrict or prevent movement of vehicles out of the intersection approach lanes; therefore, volumes carried are not predictable. Potential for stop and go type traffic flow.	> 80	> 50	Demand Exceeds Capacity

Source: Ganddini 2018.

Terminology

The following are definitions for terms used throughout this section:

- **Congestion Management Plan (CMP).** A federally mandated program within metropolitan planning areas to address and manage congestion through the implementation of strategies not calling for major capital investments.
- **Highway Capacity Manual (HCM).** The HCM provides methods for quantifying highway capacity, serving as a fundamental reference on concepts, performance measures, and analysis techniques for evaluating the multimodal operation of streets, highways, freeways, and off-street pathways. The methodology used to assess the operation of intersections is based on the HCM.
- **Institute of Transportation Engineers (ITE).** An international society of professionals in transportation and traffic engineering. The organization publishes the Trip Generation Manual, which provides trip generation data.
- **Levels of Service (LOS).** Roadway capacity is generally limited by the ability to move vehicles through intersections. A level of service (LOS) is a standard performance measurement to describe the operating characteristics of a street system in terms of the level of congestion or delay experienced by motorists. Service levels range from A through F, which relate to traffic conditions from best (uncongested, free-flowing conditions) to worst (total breakdown with stop-and-go operation).
- **Passenger Car Equivalent (PCE).** The impact that a mode of transport has on traffic variables (such as headway, speed, density) compared to a single car. Industrial, warehousing, and other truck-intensive projects convert truck movements into PCE. For light duty trucks (such as service vehicles, buses, RV's and dual rear wheels) use a PCE of 1.5. For medium duty trucks with 3 axles use a PCE of 2.0. For heavy duty trucks with 4 axles, use a PCE of 3.0.
- **Vehicles Miles Traveled (VMT).** The number of vehicle miles of travel is an indicator of the travel levels on the roadway system by motor vehicles. This estimate is based upon traffic volume counts and roadway length.

5.15.1 Environmental Setting

5.15.1.1 REGULATORY BACKGROUND

The regulatory framework is used to inform decision makers about the regulatory agencies/policies that affect transportation in the City of Jurupa Valley. Major policy documents impacting the transportation system in Jurupa Valley include laws at the state level and planning documents at a regional level. State and regional laws, regulations, plans, or guidelines that are applicable to the proposed project are summarized below.

State Regulations

Senate Bill 743

On September 27, 2013, SB 743 was signed into law, starting a process that fundamentally changed transportation impact analysis as part of CEQA compliance. The legislature found that with the adoption of the SB 375, the state had signaled its commitment to encourage land use and transportation planning decisions and investments that reduce vehicle miles traveled (VMT) and thereby contribute to the reduction of GHG emissions, as required by the California Global Warming Solutions Act of 2006 (Assembly Bill [AB 32]).

SB 743 eliminates auto delay, LOS, and other similar measures of vehicular capacity or traffic congestion as the sole basis for determining significant impacts under CEQA. As part of the new CEQA Guidelines, the new criteria "shall promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses" (Public Resources Code Section 21099(b)(1)).

Pursuant to SB 743, the Natural Resources Agency adopted revisions to the CEQA Guidelines to implement SB 743 on December 28, 2018. The revised CEQA Guidelines establish new criteria for determining the significance of transportation impacts. Under the new Guidelines, VMT-related metric(s) that evaluate the significance of transportation-related impacts under CEQA for development projects, land use plans, and transportation infrastructure projects are required beginning on July 1, 2020. The legislation does not preclude the application of local general plan policies, zoning codes, conditions of approval, or any other planning requirements that require evaluation of LOS, but these metrics may no longer constitute the sole basis for determining transportation impacts under CEQA.

California Department of Transportation

Intersections within incorporated cities associated with freeway on- and off-ramps fall under Caltrans jurisdiction. Caltrans approves the planning, design, and construction of improvements for all state-controlled facilities. Caltrans utilizes the Highway Capacity Manual 6 (HCM 6) methodology to evaluate intersections within its jurisdiction. LOS criteria for unsignalized intersections differ from LOS criteria for signalized intersections as signalized intersections are designed for heavier traffic and therefore a greater delay. Unsignalized intersections are also associated with more uncertainty for users, as delays are less predictable, which can reduce users' delay tolerance. For state-controlled intersections, LOS standards and impact criteria specified by Caltrans will apply (see Table 5.15-1).

As stated in the "Guide for the Preparation of Traffic Impact Studies" (2002), "Caltrans endeavors to maintain a target LOS at the transition between LOS 'C' and LOS 'D' on State highway facilities." Consistent with the City and County requirements, this analysis defines LOS E or F as deficient for state highway facilities.

Regional Regulations

Southern California Association of Governments

The Southern California Association of Governments (SCAG) is a council of governments representing Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura counties. SCAG is the federally

recognized metropolitan planning organization for this region, which encompasses over 38,000 square miles. SCAG is a regional planning agency and a forum for addressing regional issues concerning transportation, the economy, community development, and the environment. SCAG is also the regional clearinghouse for projects requiring environmental documentation under federal and state law. In this role, SCAG reviews proposed development and infrastructure projects to analyze their impacts on regional planning programs.

Every four years SCAG updates the Regional Transportation Plan (RTP) for the six-county region that includes Los Angeles, San Bernardino, Riverside, Orange, Ventura, and Imperial counties. On April 7, 2016, the SCAG's Regional Council adopted the 2016-2040 Regional Transportation Plan / Sustainable Communities Strategy (2016 RTP/SCS). The SCS outlines a development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce greenhouse gas emissions from transportation (excluding goods movement). Current and recent transportation plan goals generally focus on balanced transportation and land use planning that:

- Maximize mobility and accessibility for all people and goods in the region.
- Ensure travel safety and reliability for all people and goods in the region.
- Preserve and ensure a sustainable regional transportation system.
- Maximize the productivity of our transportation system.
- Protect the environment and health of residents by improving air quality and encouraging active transportation (e.g., bicycling and walking).
- Encourage land use and growth patterns that facilitate transit and active transportation.

Through implementation of the strategies in the RTP/SCS, SCAG anticipates lowering greenhouse gas emissions below 2005 levels by 8 percent by 2020, 18 percent by 2035, and 22 percent by 2040. Land use strategies to achieve the region's targets include planning for new growth around high quality transit areas and "livable corridors," and creating neighborhood mobility areas to integrate land use and transportation and plan for more active lifestyles (SCAG 2016)

Riverside County Congestion Management Program

In its role as Riverside County's Congestion Management Agency, the Riverside County Transportation Commission (RCTC) prepares and periodically updates the county's Congestion Management Program (CMP) to meet federal Congestion Management Process guidelines. The CMP in effect in Riverside County was approved by the RCTC in 2011. The CMP is currently under review and is planned to be incorporated in the Commission's Long Range Transportation Plan, which is anticipated to be completed by early 2019. All freeways and selected arterial roadways in the county are designated elements of the CMP system of highways and roadways. There are several freeways and arterial roadways in the CMP system in the study area, and these are discussed in detail in the impact analysis. RCTC has adopted a minimum level of service threshold of LOS "E" for CMP facilities.

Local Regulations

County of Riverside Transportation Mitigation Uniform Fee

The County of Riverside has a Transportation Mitigation Uniform Fee (TUMF), which is administered by the Western Regional Council of Governments (WRCOG). Under the TUMF, WRCOG collects fees from new development with the purpose of funding transportation improvements such as roadway widening, new roadways, intersection improvements, traffic signalization, etc., for the purpose of mitigating future growth.

County of San Bernardino

The definition of an intersection deficiency has been obtained from the County of San Bernardino General Plan Circulation Element. The General Plan states that peak hour intersection operations of LOS D or better are generally acceptable. Therefore, any intersection operating at LOS E or F will be considered deficient.

City of Jurupa Valley

General Plan Policies

The specific policies outlined in the City of Jurupa Valley's General Plan Mobility Element that are related to transportation and that apply to the proposed project are listed in a General Plan Consistency Analysis table in EIR Subsection 5.09.

Performance Standard

The City of Jurupa Valley General Plan Mobility Element Policy ME 1.1.2 states:

> Maintain at least a Level of Service (LOS) D or better at all intersections, except where flexibility is warranted based on a multi-modal LOS evaluation, or where LOS E is deemed appropriate to accommodate complete streets/multi-modal facilities.

Development Impact Fee Program

The City of Jurupa Valley has a Development Impact Fee Program that collects fees from new development with the purpose of funding traffic signals and roadway construction in order to mitigate future growth in the City, as specified in the City of Jurupa Valley Mobility Element.

City of Colton

The definition of an intersection deficiency has been obtained from the City of Colton General Plan Mobility Element. The General Plan states that peak hour intersection operations of Tab LOS D or better are generally acceptable. Therefore, any intersection operating at LOS E to F will be considered deficient.

City of Rialto

The City of Rialto 2010 General Plan Update (Circulation Element) contains the following policies applicable to Level of Service standards within the City:

- **Policy 4-1.20:** Design City streets so that signalized intersections operate at Level of Service (LOS) D or better during the morning and evening peak hours, and require new development to mitigate traffic impacts that degrade LOS below that level. The one exception will be Riverside Avenue south of the Metrolink tracks all the way to the City's southern border, which can operate at LOS E.

- **Policy 4-1.21:** Design City streets so that unsignalized intersections operate with no vehicular movement having an average delay greater than 120 seconds during the morning and evening peak hours, and require new development to mitigate traffic impacts that increase delay above that level.

Based on the above thresholds, signalized study intersections and roadway segments operating at LOS E or F are considered deficient. Unsignalized study intersections operating at LOS F with greater than 120 seconds of delay are considered deficient

City of Riverside

The definition of an intersection deficiency has been obtained from the City of Riverside General Plan Circulation and Community Mobility Element, which states that LOS D is the maximum acceptable threshold for study intersections including a roadway of collector or higher classification. LOS C is the maximum threshold in other cases.

5.15.1.2 EXISTING CONDITIONS

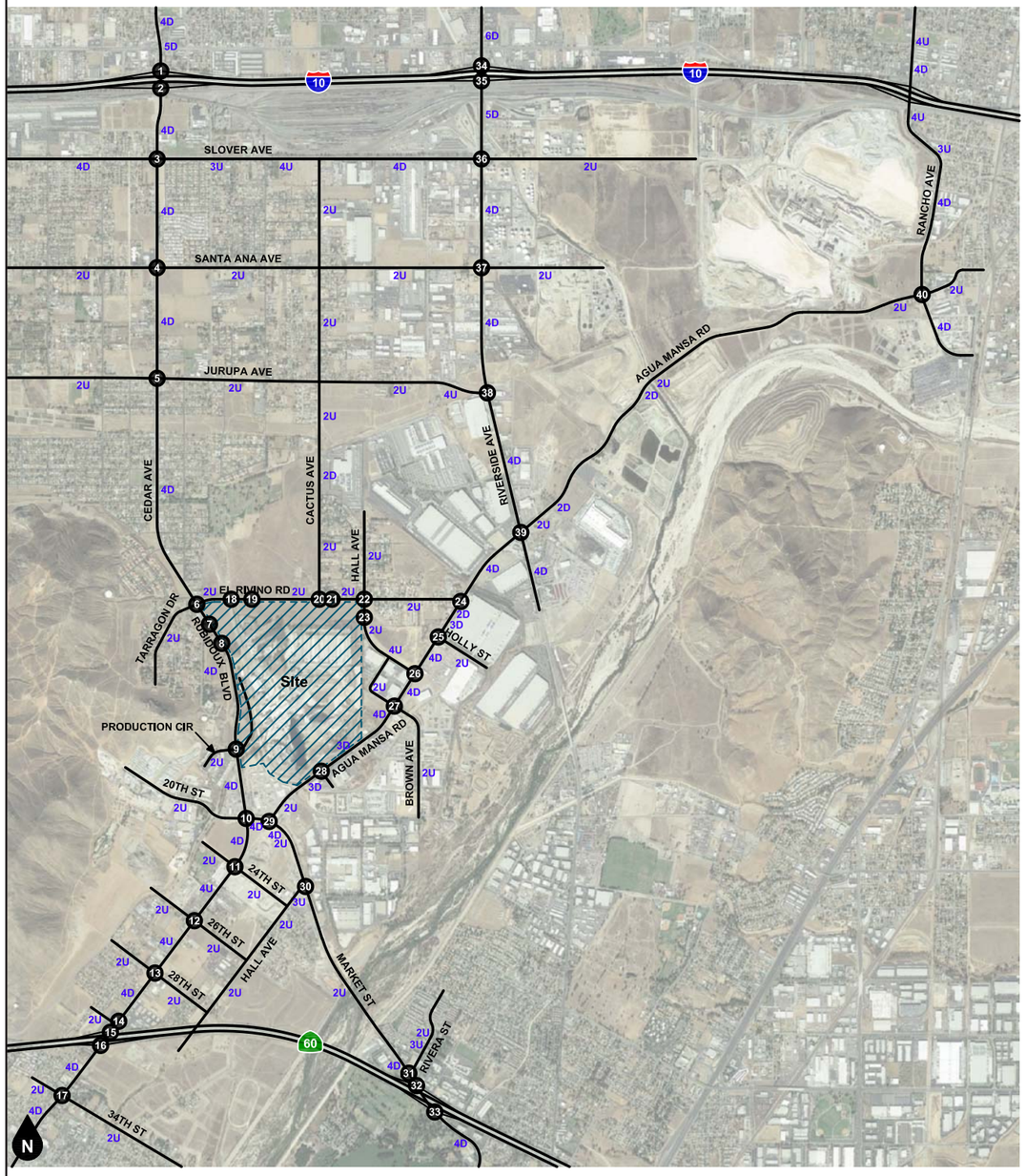
Traffic Study Area

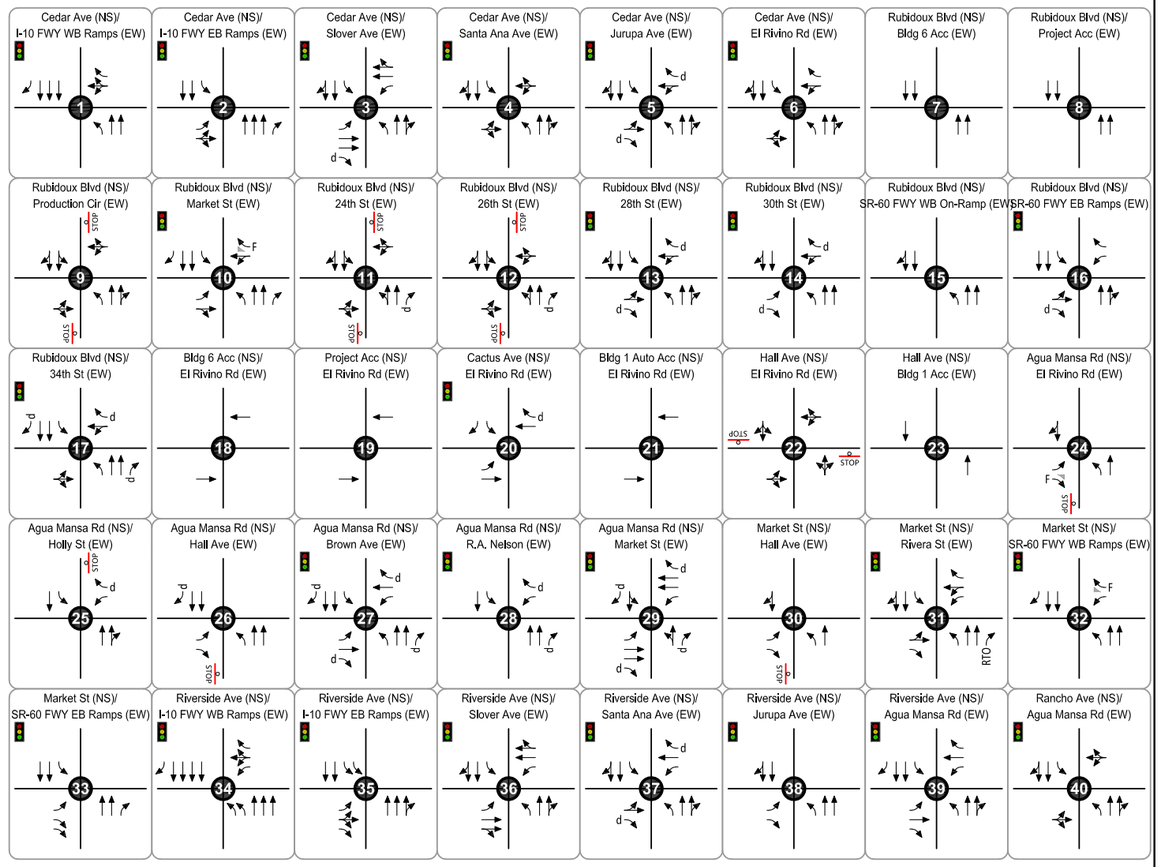
Regional access to the project site is provided by Interstate 10 (I-10) to the north and SR-60 to the south of the project site. Local north-south circulation is provided by Cedar Avenue, Rubidoux Boulevard, Cactus Avenue, Hall Avenue, Market Street, and Riverside Avenue. Local east-west circulation is provided by Slover Avenue, Santa Ana Avenue, Jurupa Avenue, El Rivino Road, and Agua Mansa Road. Figure 5.15-1, *Existing Roadway Conditions*, identifies the existing circulation system in the project study area and study area intersections.

Intersections

Table 5.15-2, *Study Area Intersections*, identifies the intersections in the project's study area. Most of the study intersections are under the jurisdiction of the City of Jurupa Valley; the remaining intersections are under the jurisdiction of Caltrans, the County of San Bernardino, and the cities of Rialto, Riverside, Colton, and Rialto.

Figure 5.15-1 - Existing Roadway Conditions





Legend

- Traffic Signal
- Stop Sign
- #D #-Lane Divided Roadway
- #U #-Lane Undivided Roadway
- Existing Lane
- RTO Right Turn Overlap
- F Free Right Turn Lane
- d De Facto Right Turn Lane

NOT TO SCALE

Source: Ganddini Group, Inc, 2018

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Table 5.15-2 Study Area Intersections

No.	Intersection	Jurisdiction
1	Cedar Avenue at I-10 WB Ramps	CAL
2	Cedar Avenue at I-10 EB Ramps	CAL
3	Cedar Avenue at Slover Avenue	SB
4	Cedar Avenue at Santa Ana Avenue	SB
5	Cedar Avenue at Jurupa Avenue	SB
6	Cedar Avenue/ Rubidoux Boulevard at Tarragona Drive/El Rivino Road	JV
7	Rubidoux Boulevard at Building 6 Access	JV
8	Rubidoux Boulevard at Project Access	JV
9	Rubidoux Boulevard at Production Circle	JV
10	Rubidoux Boulevard at 20th Street/Market Street	JV
11	Rubidoux Boulevard at 24th Street	JV
12	Rubidoux Boulevard at 26th Street	JV
13	Rubidoux Boulevard at 28th Street	JV
14	Rubidoux Boulevard at 30th Street/SR-60 WB Off-Ramp	CAL
15	Rubidoux Boulevard at SR 60 WB Ramp	CAL
16	Rubidoux Boulevard at SR-60 EB Ramps	CAL
17	Rubidoux Boulevard at 34th Street	JV
18	El Rivino Road at Building 6 Access	JV/SB
19	El Rivino Road at Project Access	JV/RIA
20	El Rivino Road at Cactus Avenue /Project Access	JV/RIA /SB
21	El Rivino Road at Building 1 Auto Access	JV/SB
22	El Rivino Road at Hall Avenue	JV/SB
23	Hall Avenue at Building 1 Access	JV
24	Agua Mansa Road at El Rivino Road	RIA/SB
25	Agua Mansa Road at Holly Place	SB
26	Agua Mansa Road at Hall Avenue	JV/SB
27	Agua Mansa Road at Brown Avenue	JV/SB
28	Agua Mansa Road at R.A. Nelson	JV
29	Agua Mansa Road at Market Street	JV
30	Market Street at Hall Avenue	JV
31	Market Street at Rivera Street	RIV
32	Market Street at SR-60 WB Ramps	CAL
33	Market Street at SR-60 EB Ramps	CAL
34	Riverside Avenue at I-10 WB Ramps	CAL
35	Riverside Avenue at I-10 Freeway EB Ramps	CAL
36	Riverside Avenue at Slover Avenue	RIA
37	Riverside Avenue at Santa Ana Avenue	RIA
38	Riverside Avenue at Jurupa Avenue	RIA
39	Riverside Avenue at Agua Mansa Road	RIA/COL
40	Rancho Avenue at Agua Mansa Road	COL

Source: Ganddini 2018.
Notes: CAL: Caltrans; COL: Colton, JV: Jurupa Valley; RIA: Rialto; RIV: Riverside; SB: Unincorporated San Bernardino County; WB: westbound; EB: eastbound; SR-60: State Route 60; I-10: Interstate 10

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Several of the intersections in Table 5.15-2 are on the state highway system and under Caltrans jurisdiction:

- Market Street at SR 60 WB On- and Off-Ramps
- Market Street at SR 60 EB On- and Off-Ramps
- Rubidoux Boulevard at SR 60 WB On- and Off-Ramps
- Rubidoux Boulevard at SR 60 EB On- and Off-Ramps
- Cedar Avenue at I-10 WB On- and Off-Ramps
- Cedar Avenue at I-10 EB On- and Off-Ramps
- Riverside Avenue at I-10 WB On- and Off-Ramps
- Riverside Avenue at I-10 EB On- and Off-Ramps

Roadway Segments

Table 5.15-3, *Study Area Roadway Segments*, identifies the roadway segments in the project's study area.

Table 5.15-3 Study Area Roadway Segments

No.	Roadway Segment	Jurisdiction*
1	Rubidoux Boulevard between El Rivino Road to Production Circle	JV
2	Rubidoux Boulevard between Production Circle to 20th Street	JV
3	Rubidoux Boulevard between 20th Street to 24th Street	JV
4	Rubidoux Boulevard between 24th Street to 26th Street	JV
5	Rubidoux Boulevard between 26th Street to 28th Street	JV
6	Rubidoux Boulevard between 28th Street to 30th Street	JV
7	El Rivino Road between Cedar Avenue to Cactus Avenue	JV/RIA/SB
8	El Rivino Road between Cactus Avenue to Hall Avenue	JV/SB
9	El Rivino Road between Hall Avenue to Agua Mansa Road	JV/SB
10	Hall Avenue between El Rivino Road to Agua Mansa Road	JV
11	Market Street between Rubidoux Boulevard to Agua Mansa Road	JV
12	Market Street between Agua Mansa Road to Hall Avenue	JV
13	Market Street between Hall Avenue to Rivera Street	JV/RIV
14	Agua Mansa Road between Market Street to Brown Avenue	JV
15	Agua Mansa Road between Brown Avenue to Hall Avenue	JV/SB
16	Agua Mansa Road between Hall Avenue to El Rivino Road	JV/SB

Source: Ganddini 2018.
Notes: CAL: Caltrans; COL: Colton, JV: Jurupa Valley; RIA: Rialto; RIV: Riverside; SB: Unincorporated San Bernardino County; WB: westbound; EB: eastbound; SR-60: State Route 60; I-10: Interstate 10

In addition, the study area includes the following freeway mainline segments on SR-60, which is in the state highway system under Caltrans jurisdiction:

- SR 60 westbound between Main Street to Market Street
- SR 60 westbound between Market Street to Rubidoux Boulevard
- SR 60 westbound between Rubidoux Boulevard to Valley Way
- SR 60 eastbound between Valley Way to Rubidoux Boulevard
- SR 60 eastbound between Rubidoux Boulevard to Market Street
- SR 60 eastbound between Market Street to Main Street

Existing Traffic Level of Service

Intersections

Existing peak hour intersection turning movement volumes are based upon morning peak period and evening peak period intersection turning movement counts conducted in January/February/May/August 2017 during typical weekday conditions. Study intersections were counted between 6:30 AM and 9:30 AM for the morning peak period and from 3:30 PM and 6:30 PM for the evening peak period. At the request of City of Jurupa Valley staff, the turning movement volumes were increased by an annual ambient growth rate of 1 percent over a one-year period to reflect existing (2018) conditions. Intersection turning movement count worksheets are provided in Appendix C of the TIA (see Appendix K of this DEIR). Figure 5.15-2, *Existing AM Peak Hour Intersection Volumes*, and Figure 5.15-3, *Existing PM Peak Hour Intersection Volumes*, show the existing morning and evening peak hour intersection turning movement volumes, respectively. The morning and evening peak hour LOS for existing traffic conditions are shown in Table 5.15-4, *Existing Intersection Delay and Level of Service*.

Table 5.15-4 Existing Intersection Delay and Level of Service

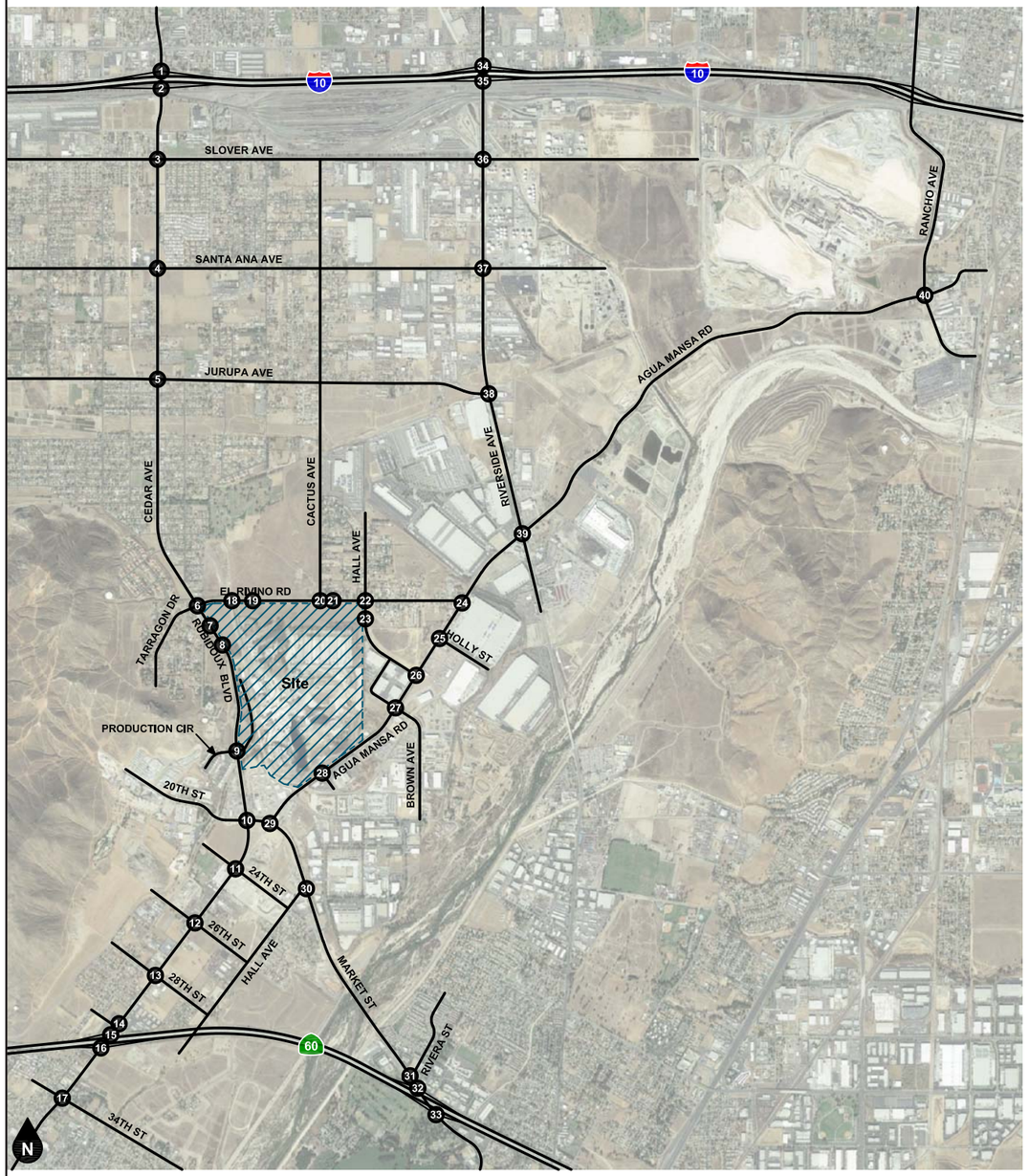
ID	Study Intersection	Jurisdiction	Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay[3,2]	LOS[5]	Delay[1,2]	LOS[5]
1.	Cedar Ave at I-10 Freeway WB Ramps	CAL	TS	54.5	D	35.6	D
2.	Cedar Ave at I-10 Freeway EB Ramps	CAL	TS	43.4	D	36.1	D
3.	Cedar Ave at Slover Ave	SB	TS	17.5	B	17.4	B
4.	Cedar Ave at Santa Ana Ave	SB	TS	10.4	B	11.3	B
5.	Cedar Ave at Jurupa Ave	SB	TS	28.1	C	31.0	C
6.	Cedar Ave / Rubidoux Blvd at Tarragona Dr / El Rivino Rd	JV	TS	11.3	B	19.4	B
9.	Rubidoux Blvd at Production Circle	JV	CSS	**69.3**	**F**	**99.9**	**F**
10.	Rubidoux Blvd at 20th St / Market St	JV	TS	27.7	C	37.8	D
11.	Rubidoux Blvd at 24th St	JV	CSS	**43.5**	**E**	**99.9**	**F**
12.	Rubidoux Blvd at 26th St	JV	CSS	33.6	D	**55.5**	**F**
13.	Rubidoux Blvd at 28th St	JV	TS	47.5	D	40.3	D

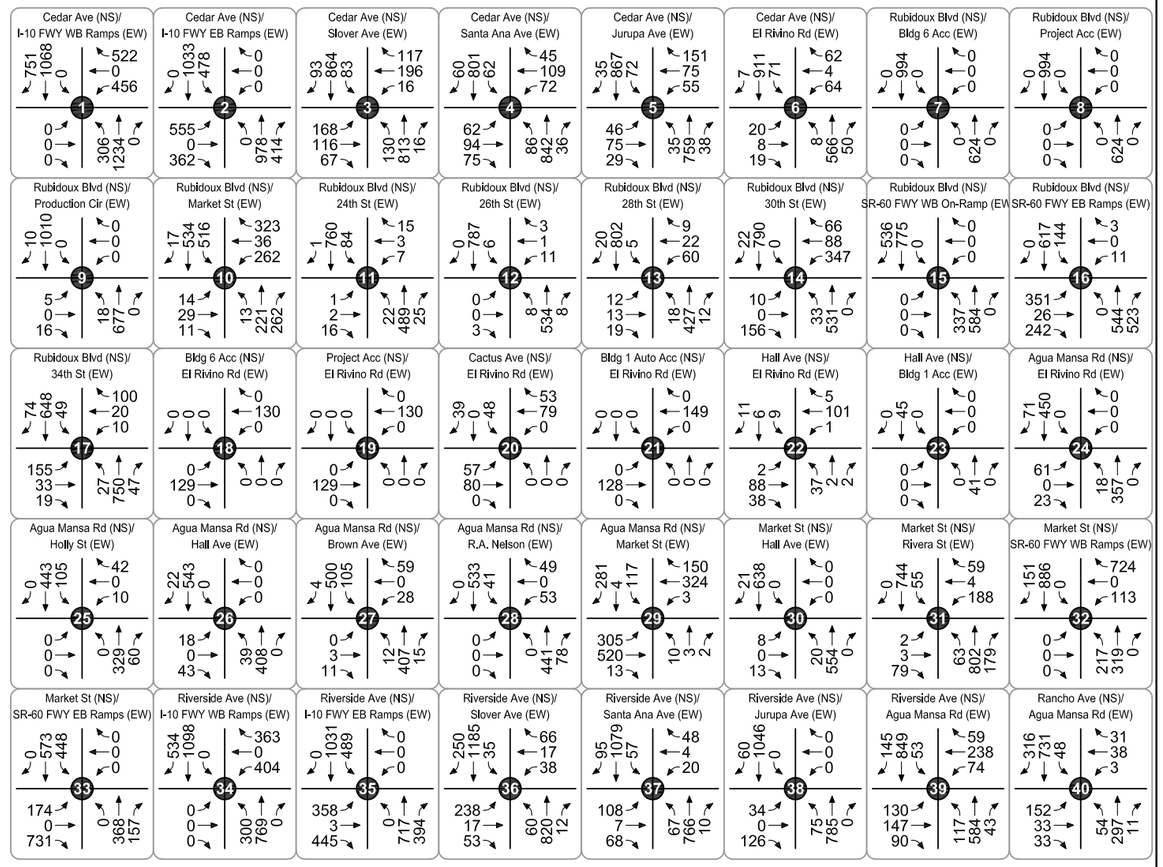
Table 5.15-4 Existing Intersection Delay and Level of Service

ID	Study Intersection	Jurisdiction	Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay[3,1,2]	LOS[5]	Delay[1,2]	LOS[5]
14.	Rubidoux Blvd at 30th St / SR-60 Freeway WB Off-Ramp	CAL	TS	20.1	C	24.8	C
15.	Rubidoux Blvd at SR-60 Freeway WB On-Ramp	CAL	UN	**44.5**	**E**	20.1	C
16.	Rubidoux Blvd at SR-60 Freeway EB Ramps	CAL	TS	30.5	C	33.7	C
17.	Rubidoux Blvd at 34th St	JV	TS	10.5	B	10.5	B
20.	Cactus Ave / Project Access at El Rivino Rd	JV / RIA / SB	TS	9.5	A	9.4	A
22.	Hall Ave at El Rivino Rd	JV / SB	CSS	11.1	B	17.4	C
24.	Agua Mansa Rd at El Rivino Rd	RIA / SB	CSS	28.9	D	**56.3**	**F**
25.	Agua Mansa Rd at Holly Place	SB	CSS	13.5	B	20.4	C
26.	Agua Mansa Rd at Hall Ave	JV / SB	CSS	12.2	B	13.2	B
27.	Agua Mansa Rd at Brown Ave	JV / SB	TS	10.1	B	14.2	B
28.	Agua Mansa Rd at R.A. Nelson	JV	TS	7.8	A	3.6	A
29.	Agua Mansa Rd at Market St	JV	TS	49.8	D	**99.9**	**F**
30.	Market St at Hall Ave	JV	CSS	28.2	D	**54.2**	**F**
31.	Market St at Rivera St	RIV	TS	19.6	B	22.6	C
32.	Market St at SR-60 Freeway WB Ramps	CAL	TS	10.8	B	16.5	B
33.	Market St at SR-60 Freeway EB Ramps	CAL	TS	19.3	B	31.2	C
34.	Riverside Ave at I-10 Freeway WB Ramps	CAL	TS	21.3	C	12.2	B
35.	Riverside Ave at I-10 Freeway EB Ramps	CAL	TS	18.5	B	19.8	B
36.	Riverside Ave at Slover Ave	RIA	TS	20.9	C	19.7	B
37.	Riverside Ave at Santa Ana Ave	RIA	TS	10.0	B	9.2	A
38.	Riverside Ave at Jurupa Ave	RIA	TS	7.5	A	7.0	A
39.	Riverside Ave at Agua Mansa Rd	RIA / COL	TS	8.7	A	8.4	A
40.	Rancho Ave at Agua Mansa Rd	COL	TS	9.7	A	16.4	B

Source: Ganddini 2018.
Notes: CAL: Caltrans; COL: Colton, JV: Jurupa Valley; RIA: Rialto; RIV: Riverside; SB: Unincorporated San Bernardino County; WB: westbound; EB: eastbound; SR-60: State Route 60; I-10: Interstate 10; TS: Traffic Signal; CSS: Cross Street Stop; AWS: All Way Stop; LOS: level of service
Bold: Exceeds LOS D significance criteria.
[1] Delay is shown in seconds/vehicle. Delay is reported for unsignalized study intersections and all study intersections within California Department of Transportation jurisdiction. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, Level of Service is based on average delay of the worst individual lane (or movements sharing a lane).
[2] 99.9-F = Delay High, Intersection Unstable, Level of Service F.

Figure 5.15-2 - Existing AM Peak Hour Intersection Volumes





Legend

(#) Study Intersection

NOT TO SCALE

Source: Ganddini Group, Inc, 2018

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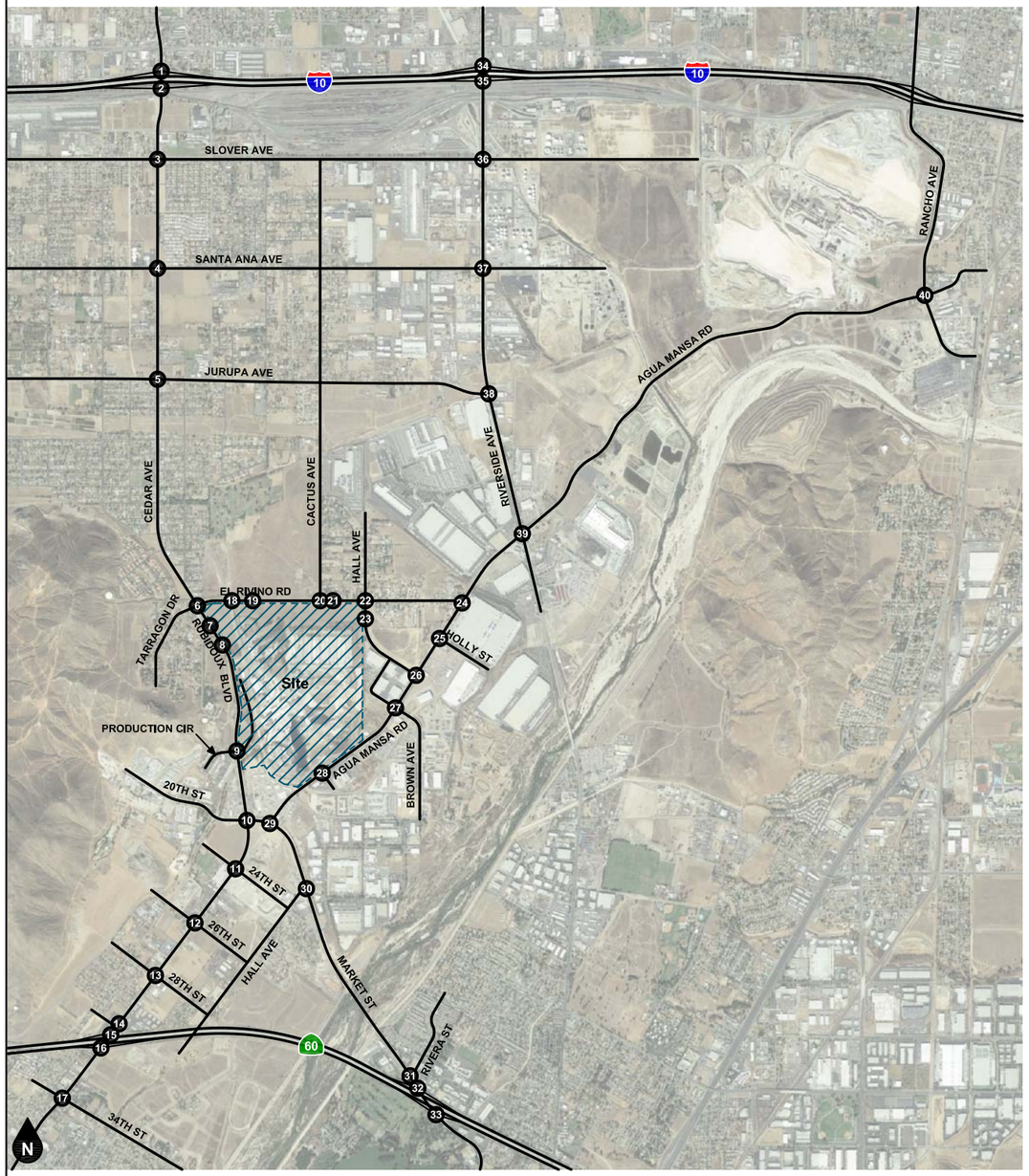
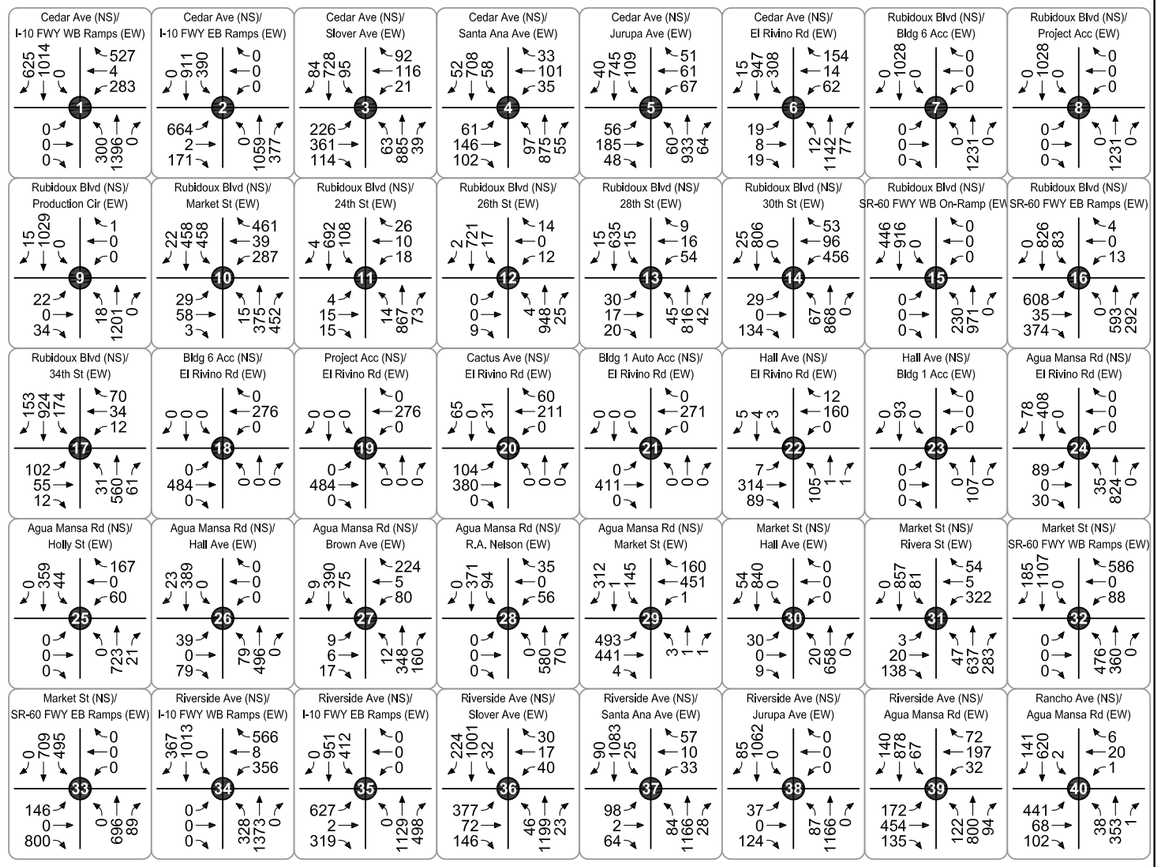
Figure 5.15-3 - Existing PM Peak Hour Intersection Volumes





Legend

(#) Study Intersection

NOT TO SCALE

Source: Ganddini Group, Inc, 2018

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As shown in Table15.5-4, the study intersections currently operate within acceptable levels of service (D or better) during the morning and evening peak hours for existing traffic conditions, except for the following study intersections that currently operate at unacceptable LOS during the peak hours

- #9. Rubidoux Boulevard at Production Circle/Project Access (AM and PM peak hours)
- #11. Rubidoux Boulevard at 24th Street (AM and PM peak hours)
- #12. Rubidoux Boulevard at 26th Street (PM peak hours)
- #15. Rubidoux Boulevard at SR-60 Freeway WB On-Ramp (AM peak hour)
- #24. Agua Mansa Road at El Rivino Road (PM peak hour)
- #29. Agua Mansa Road at Market Street (PM peak hour)
- #30. Market Street at Hall Avenue (PM peak hour)

Roadway Segments

Figure 5.15-4, *Existing Daily Traffic Volumes*, depicts actual and estimated existing average daily traffic volumes. Existing average daily traffic volumes have been based upon Caltrans' 2016 Traffic Counts on California State Highway System and 24-hour roadway segment counts conducted in May/August 2017 (see Appendix C of the TIA) for the freeway segments and roadway segments that have been analyzed in this report as part of the roadway segment analysis.[1] At the request of City of Jurupa Valley staff, the roadway segment counts were increased by an annual ambient growth rate of 1 percent over a one-year period to reflect existing (2018) conditions. The existing daily capacity analyses for roadway segments in the vicinity of the project are shown in Table 5.15-5, *Existing Daily Roadway Capacity Analysis*. For existing traffic conditions, the study roadway segments currently operate at acceptable LOS, except for the following segment, which currently operates at an unacceptable Level of Service:

- Market Street between Hall Avenue to Rivera Street

Table 5.15-5 Existing Daily Roadway Capacity Analysis

Roadway Segment	Jurisdiction	Roadway Standards[1]			Roadway Segment				Capacity Threshold	LOS
		Class	L	Capacity	L	Class[2]	ADT	V/C		
Rubidoux Boulevard										
Btwn El Rivino Rd and Production Circle	JV	MH	4	34,100	4	34,100	22,300	0.65	Acceptable	B
Btwn Production Circle and 20th St	JV	MH	4	34,100	4	34,100	22,000	0.65	Acceptable	B
Btwn 20th St and 24th St	JV	MH	4	34,100	4	34,100	18,800	0.55	Acceptable	A
Btwn 24th St and 26th St	JV	MH	4	34,100	4	34,100	19,600	0.57	Acceptable	A
Btwn 26th St and 28th St	JV	MH	4	34,100	4	34,100	20,200	0.59	Acceptable	A
Btwn 28th St and 30th St	JV	MH	4	34,100	4	34,100	21,800	0.64	Acceptable	B

[1] The 24-hour roadway segment counts are classification counts for a two-day period within the City of Jurupa Valley and one-day outside of the City of Jurupa Valley limits.

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TRANSPORTATION

Table 5.15-5 Existing Daily Roadway Capacity Analysis

Roadway Segment	Jurisdiction	Roadway Standards[1]			Roadway Segment				Capacity Threshold	LOS
		Class	L	Capacity	L	Class[2]	ADT	V/C		
El Rivino Road										
Btwn Cedar Ave and Cactus Ave	JV / RIA / SB	SH	4	25,900	2	13,000	4,300	0.33	Acceptable	A
Btwn Cactus Ave and Hall Ave	JV /SB	SH	4	25,900	2	13,000	4,000	0.31	Acceptable	A
Btwn Hall Ave and Agua Mansa Rd	JV / SB	SH	4	25,900	2	13,000	3,100	0.24	Acceptable	A
Hall Avenue										
Btwn El Rivino Rd and Agua Mansa Rd	JV	NC[1]	4	25,900	2	13,000	1,100	0.08	Acceptable	A
Market Street										
Btwn Rubidoux Blvd and Agua Mansa Rd	JV	MH	4	34,100	4	34,100	22,200	0.65	Acceptable	B
Btwn Agua Mansa Rd and Hall Ave	JV	MH	4	34,100	2	18,000	17,000	0.94	Approaches Capacity	**E**
Btwn Hall Ave and Rivera St	JV / RIV	MH	4	34,100	2	18,000	23,600	1.31	**Potentially Exceeds Capacity**	**F**
Agua Mansa Road										
Btwn Market St and Brown Ave	JV	SH	4	25,900	2	13,000	11,300	0.87	Approaches Capacity	D
Btwn Brown Ave and Hall Ave	JV / SB	SH	4	25,900	4	25,900	12,300	0.47	Acceptable	A
Btwn Hall Ave and El Rivino Rd	JV / SB	SH	4	25,900	2	18,000	12,800	0.71	Acceptable	C

Source: Ganddini 2018.

Notes: Btwn: between; Class: classification; L: lanes; ADT: average daily trips; V/C: volume-to-capacity ratio; LOS: level of service; JV: Jurupa Valley; RIA: Rialto; RIV: Riverside; SB: Unincorporated San Bernardino County; MH: Major Highway; SH: Secondary Highway; NC: Not Classified

Bold: Exceeds significance criteria.

0.00– 0.80 = Acceptable Capacity. This represents a range of free flow to stable flow, where the unrestricted speed and freedom to maneuver begins to become more limited by the increase in traffic. In general, the driver experiences only minor inconvenience, and traffic flow is quick but light during off-peak hours.

0.81 – 1.00 = Approaches Capacity. This represents high-density but stable flow, where speed and freedom to maneuver are restricted. In general, the driver experiences a degree of inconvenience during peak hours, and traffic flow is slow but steady during peak hours.

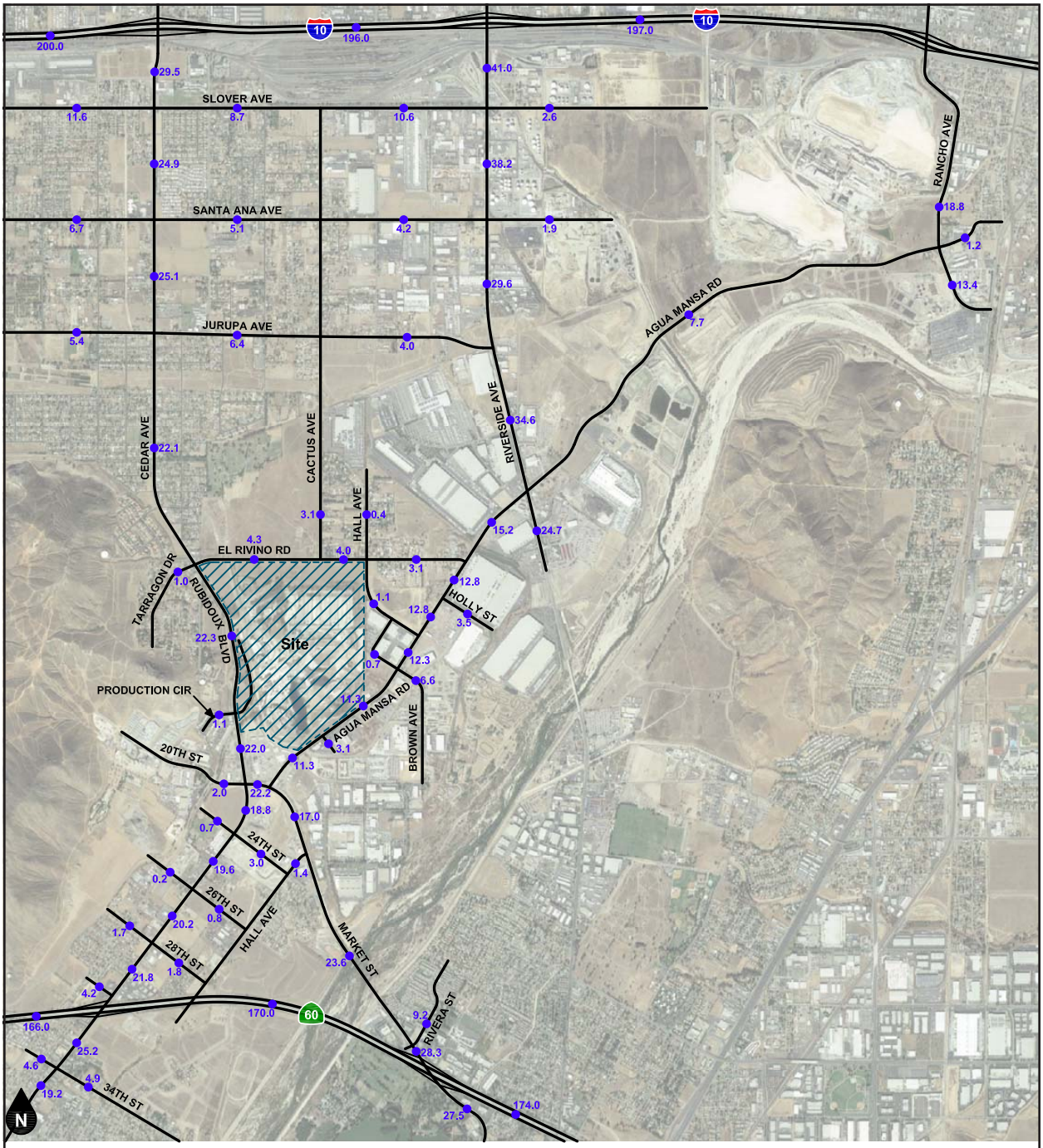
1.00 + = Potentially Exceeds Capacity. This is used to define forced or breakdown flow during peak hours. This condition exists wherever the amount of traffic exceeds the amount which can reasonably be handled by the roadway. In general, the driver experiences a high degree of inconvenience, and traffic flow is extremely slow with stop-and-go flow and traffic queues begin to form. This condition is typical of the breakdown in flow which occurs when an accident is present on the roadway.

[1] Equivalent to a Secondary for County of Riverside Roadway Classifications based on existing curb-to-curb and lane

[2] Roadway maximum capacity at Level of Service "E" for roadway classification. Capacity adjustment to reflect the number of existing number of travel lanes and is based on existing lane geometrics, existing roadway design, points of conflict, and existing curb-to-curb widths to determine the nearest roadway classification and capacity.

Figure 5.15-4 - Existing Daily Traffic Volumes

5. Environmental Analysis



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●## Vehicles Per Day (1,000's)

NOT TO SCALE

Source: Ganddini Group, Inc, 2018

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Alternative Modes of Transportation

Existing Pedestrian and Bicycle Circulation

The Jurupa Area Plan trails and bikeway system is shown on Figure 17 in the TIA (see Appendix K) and includes both multipurpose trails and bicycle routes. Existing pedestrian facilities adjacent to the project site are shown on Figure 18 of the TIA (see Appendix K). On July 5, 2018, the City Council adopted a resolution approving the City's Circulation Master Plan for Bicyclists and Pedestrians that identified a system of 43 recommended bicycle facility segments including a combination of off-street facilities and on-street bike lanes and bike routes. The plan is consistent with AB1348 that requires local jurisdictions to provide for accommodation of all users of the roadway including vehicular traffic, pedestrians, bicyclists and public transportation.

Existing Transit Service

The study area is currently served by Riverside Transit Agency Route 29 along Rubidoux Boulevard, Market Street, Hall Avenue, and 24th Street—also, Riverside Transit Agency Route 49 along Mission Boulevard (south of SR-60). Figure 19 in the TIA (see Appendix K) shows the existing transit routes in the project vicinity.

5.15.2 Thresholds of Significance

5.15.2.1 APPENDIX G THRESHOLDS

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

T-1 Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.

T-2 Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b).

T-3 Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

T-4 Result in inadequate emergency access.

5.15.2.2 OTHER SIGNIFICANCE CRITERIA

The following significance criteria have been established to evaluate environmental impacts in the project area and are utilized in this DEIR.

Cities of Jurupa Valley, Colton, Rialto, and Riverside and County of San Bernardino

Intersections

The minimum level of service applicable to the study area intersections is LOS D. Therefore, any intersection operating at LOS E or worse will be considered deficient. An impact is considered significant if the project-

related traffic causes an intersection to move from an acceptable level of service to an unacceptable level of service. An impact would also occur where an intersection is already operating at a deficient LOS E or worse, and the proposed project adds additional delay to the intersection. If a significant impact occurs, mitigation is required to bring the intersection back to an acceptable level of service or to the "no-project" condition (condition without implementation of the proposed project). It should be noted that for any roadway segment or intersection located in multiple jurisdictions, the roadway segment or intersection has been analyzed in accordance to City of Jurupa Valley standards since the City of Jurupa Valley is the lead agency.

Segments

Roadway segments are considered to operate at an acceptable level when the average daily traffic volumes do not exceed the roadway capacities as specified by the roadway classification. The City of Jurupa Valley General Plan (2017) roadway capacities as specified by the roadway classifications are shown in Table 1 in the TIA (see Appendix K). The City of Jurupa Valley along with the City of Riverside utilize the County of Riverside roadway capacities. For roadway segments located in multiple jurisdictions, City of Jurupa Valley roadway capacities and classifications have been given preference since the City of Jurupa Valley is the lead agency.

Caltrans

For the purposes of this analysis, the same thresholds (LOS D) have also been applied to all intersections in all jurisdictions, including the Caltrans ramp-to arterial intersections. A level of service analysis for freeway on and off-ramps is included in this analysis. If a state highway facility is operating at less than the target LOS, the existing LOS is to be maintained

Caltrans has determined that all state-owned facilities that operate below LOS D should be identified and improved to an acceptable LOS. The Caltrans Traffic Impact Study Guidelines states that if an existing state-owned facility operates at less than LOS D, the existing service level should be maintained. Based on Caltrans criteria, a project's impact is considered significant if the project causes the LOS to change from an acceptable LOS (i.e., LOS D or better) to a deficient LOS (i.e., LOS E or F).

5.15.3 Applicable Policies and Design Features

Applicable regulatory requirements, plans, policies, and programs (PPPs) and conditions of approval for transportation and traffic impacts are identified below

5.15.3.1 PLANS, POLICIES, OR PROGRAMS (PPP)

These include existing regulatory requirements, such as plans, policies, or programs, applied to the project based on federal, state, or local law currently in place and which effectively reduce impacts related to transportation. These requirements are included in the project's Mitigation Monitoring and Reporting Program to ensure compliance:

PPP T-1 Prior to the issuance of any building permits, the project proponent shall make required per-unit fee payments associated with the Western Riverside County Transportation Uniform Mitigation Fees (TUMF), and the City of Jurupa Valley Development Impact Fee (DIF).

PPP T-2 The project shall comply with City's Development Impact Fee program, which requires payment of a development mitigation fee to assist in providing revenue that the City can use to fund transportation improvements such as roads, bridges, major improvements and traffic signals. The Project Applicant shall pay fees in accordance with Municipal Code Chapter 3.75.

PPP T-3 The Proposed Project's construction activities will be conducted in accordance with the provision of traffic-control devices in compliance with the California Manual for Uniform Traffic Control Devices (MUTCD) to ensure traffic safety on public streets, highways, pedestrian walkways, and bikeways.

PPP-T-4 The proposed project's construction contractor will be required to comply with all City of Jurupa Valley standard conditions pertaining to construction including work hours, traffic control plan, haul route, and access. Where possible, construction related trips will be restricted to off-peak hours.

PPP-T-5 The proposed project's construction contractor will be required to obtain an oversized-vehicle transportation permit, if necessary, from Caltrans.

5.15.3.2 PROJECT DESIGN FEATURES

The Project Design Features (PDFs) shall be included as Conditions of Approval for the project. These PDFs have also been incorporated in the Mitigation Measures (as Mitigation Measure T-1 in each respective alternative scenario) and will be included in the Mitigation Monitoring and Reporting Program.

PDF T-1 The proposed project will construct a west bound right-turn lane at Rubidoux Boulevard at the Building 6 Access (Intersection #7).

PDF T-2 The proposed project will provide the following improvement on Rubidoux Boulevard at the project access (Intersection #8):

- Construct a northbound right-turn lane
- Construct a southbound left-turn lane
- Construct a westbound left-turn lane
- Construct a westbound right-turn lane
- Install a traffic signal

PDF T-3 The proposed project will provide the following improvement on El Rivino Road at the Building 6 access (Intersection #18):

- Construct a northbound right-turn lane
- Construct a second eastbound through lane
- Construct an eastbound right-turn lane

- Construct a westbound left-turn lane

PDF T-4 The proposed project will provide the following improvement on El Rivino Road at the project access (Intersection #19):

- Construct a northbound left-turn lane
- Construct a northbound right-turn lane
- Construct a second eastbound through lane
- Construct an eastbound right-turn lane
- Construct a westbound left-turn lane
- Install a traffic signal (Site Access Alternatives 1A and 2A only)

PDF T-5 The proposed project will provide the following improvement on El Rivino Road at the Cactus Avenue/project access (Intersection #20):

- Construct a northbound left-turn lane
- Construct a northbound shared through/right-turn lane
- Construct a second eastbound through lane
- Construct an eastbound right-turn lane
- Construct a westbound left-turn lane

PDF T-6 The proposed project will provide the following improvement on El Rivino Road at the Building 1 auto access (Intersection #21):

- Construct a northbound right-turn lane
- Construct a second eastbound through lane
- Construct an eastbound right-turn lane
- Construct a westbound left-turn lane

PDF T-7 The proposed project will provide the following improvement on Hall Avenue at the Building 1 access (Intersection #23):

- Construct a northbound left-turn lane
- Construct a southbound right-turn lane
- Construct an eastbound left-turn lane
- Construct an eastbound right-turn lane

PDF T-8 The proposed project includes conceptual street improvements that will be installed along Rubidoux Boulevard, El Rivino Road, and Hall Avenue, as shown in Figure 5.15-5, *Circulation Recommendations – Alternatives 1 and 2*, for Alternative 1 and Alternative 2 and Figure 5.15-6, *Circulation Recommendations – Site Access Alternatives 1A and 2A*, for Alternative 1A and Alternative 2A.

5.15.4 Environmental Impacts

5.15.4.1 METHODOLOGY

The TIA prepared for the proposed project provides a detailed analysis of potential traffic and circulation impacts. Each study intersection was analyzed for the following scenarios:

- Existing
- Existing Plus Project Conditions
- Near-Term Year 2020 Without Project Conditions
- Near-Term Year 2020 With Project Conditions
- Future Year 2035 Without Project Conditions
- Future Year 2035 With Project Conditions

The traffic report analyzes existing and future weekday daily, AM peak hour and PM peak hour traffic conditions for a near-term (Year 2020) and long-term (Year 2035) traffic setting upon completion of the proposed project. Study intersections are analyzed using the HCM methodology (see Appendix K for a detailed description of the intersection delay methodology).

Project Trip Generation

Project trip generation based upon rates obtained from the Institute of Transportation Engineers' (ITE) Trip Generation Manual, 10th edition (2017), and the City of Fontana's Truck Trip Generation Study (2003) (Ganddini 2018). Truck trips are converted to passenger car equivalent (PCE) using factors obtained from the San Bernardino County Transportation Authority (SBCTA; formerly known as the San Bernardino Associated Governments) (see Appendix K).

Alternative 1

Under Alternative 1, the Industrial Park district would allow for 4,216,000 square feet of industrial park uses, 200,000 square feet of business park uses, 64,000 square feet of research and development, and a 70.9-acre recreational park. As shown in Table 5.15-6, *Project Trip Generation in PCE – Alternative 1*, Alternative 1 is forecast to generate a total of approximately 11,376 PCE daily trips, 746 PCE trips of which will occur during the morning peak hour, and 868 PCE trips of which will occur during the evening peak hour.

Table 5.15-6 Project Trip Generation in PCE – Alternative 1

Land Use	Size	Unit	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Building 1 - Cars	1,500.000	TSF	1,302	56	19	75	28	65	93
Building 1 – Trucks[1]	1,500.000	TSF	2,021	88	30	118	43	99	142
Building 2 - Cars	1,330.000	TSF	1,154	49	16	65	25	58	83
Building 2 – Trucks[1]	1,330.000	TSF	1,792	76	25	101	36	91	127
Building 3 - Cars	690.000	TSF	599	26	9	35	13	30	43
Building 3 – Trucks[1]	690.000	TSF	929	43	13	56	21	46	67
Building 4 - Cars	465.000	TSF	404	17	6	23	9	20	29
Building 4 – Trucks[1]	465.000	TSF	627	25	10	35	13	33	46
Building 5 - Cars	231.000	TSF	201	9	3	12	4	10	14
Building 5- Trucks[1]	231.000	TSF	311	13	3	16	8	16	24
Building 6 - Cars	200.000	TSF	780	97	13	110	13	86	99
Building 6 – Trucks[1]	200.000	TSF	479	61	10	71	10	52	62
Research and Development	64.000	TSF	721	20	7	27	4	27	31
Regional Park[2]	71.3	AC	56	1	1	2	4	4	8
Total			11,376	581	165	746	231	637	868

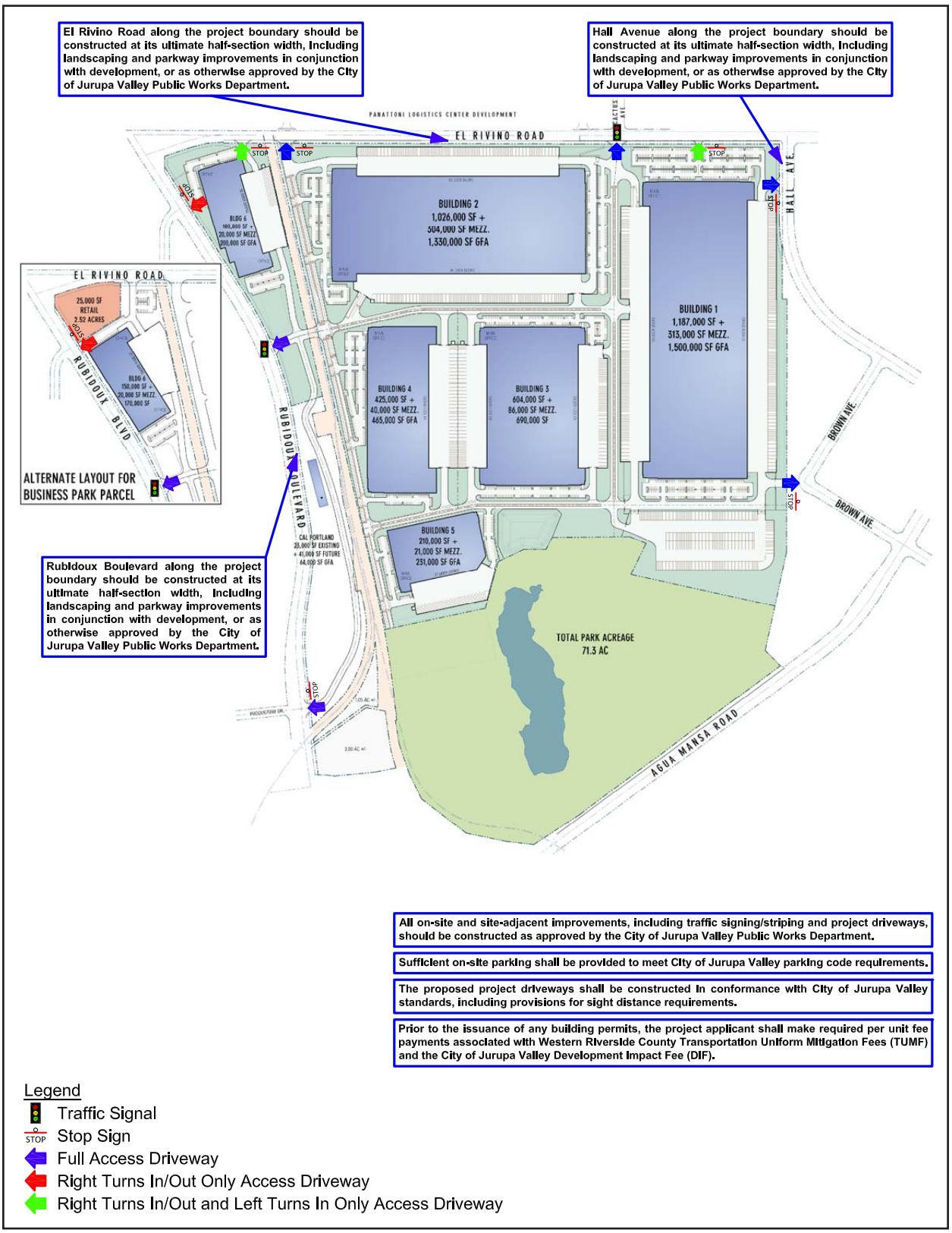
Source: Ganddini 2018.
Notes: AC: acre; TSF: thousand square feet
[1] Truck trips are shown as PCE (see Appendix K).
[2] The recreational component of the project is 70.9-acres. The traffic study evaluates a 71.3-acre park; and therefore, trip generation associated with this project component is conservative

Alternative 2

Under Alternative 2, the Industrial Park district would allow for 4,216,000 square feet of industrial park uses, 150,000 square feet of business park uses, 25,000 square feet of retail, 65,000 square feet of research and development, and a 70.9-acre recreational park. In order to analyze a conservative scenario in terms of the assignment of trips, the traffic volumes from the commercial retail portion of the project site have not been reduced as a result of pass-by trips. As shown in Table 5.15-7, *Project Trip Generation in PCE – Alternative 2*, Alternative 2 is forecast to generate a total of approximately 13,176 PCE daily trips, 657 PCE trips of which will occur during the morning peak hour, and 874 PCE trips of which will occur during the evening peak hour.

Figure 5.15-5 - Circulation Recommendations Alternative 1 and 2

5. Environmental Analysis



NOT TO SCALE

Source: Ganddini Group, Inc, 2018

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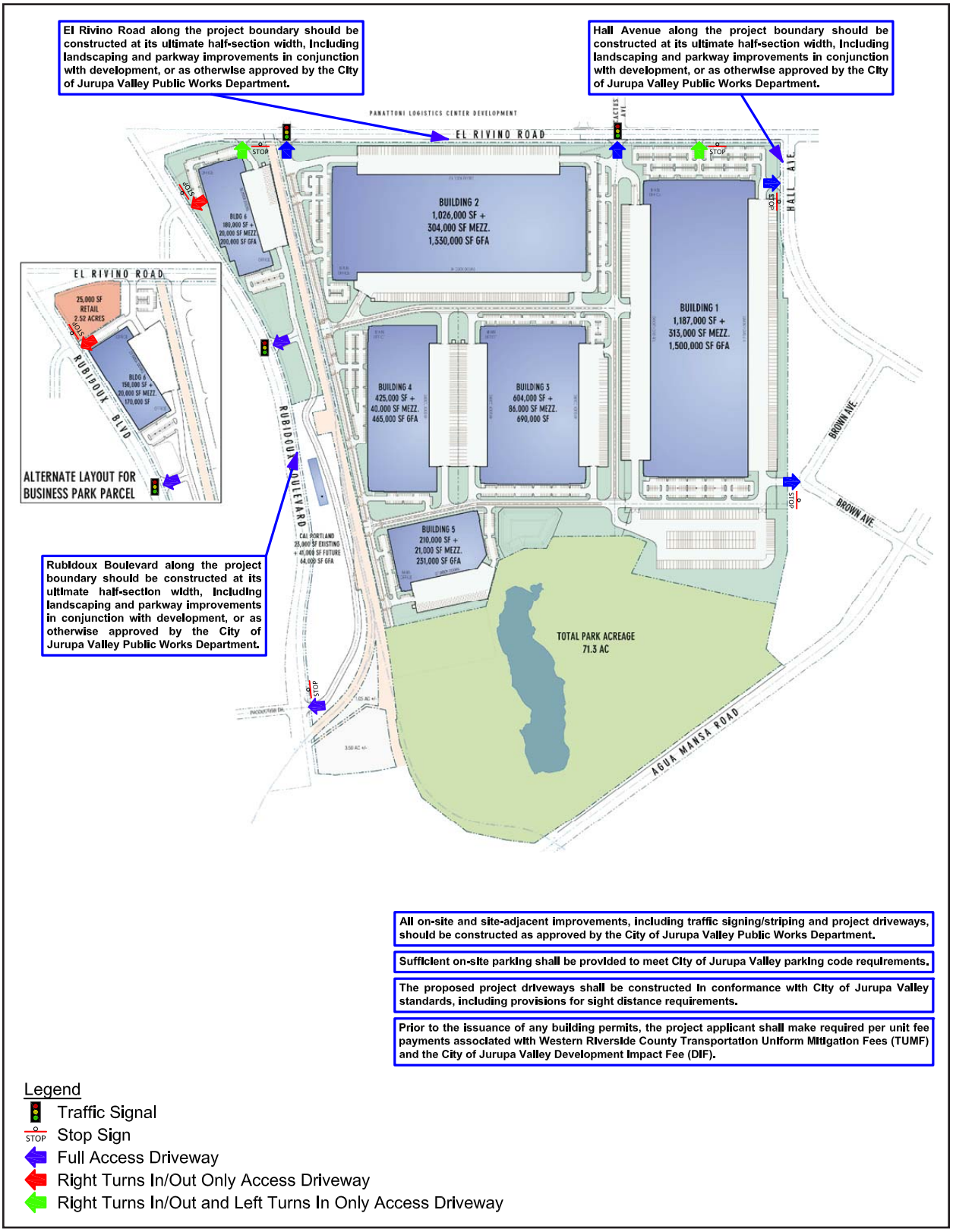
Figure 5.15-6 - Circulation Recommendations Site Access Alternative 1A and 2A

5. Environmental Analysis



NOT TO SCALE

Source: Ganddini Group, Inc, 2018

5. Environmental Analysis
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Table 5.15-7 Project Trip Generation in PCE – Alternative 2

Land Use	Size	Unit	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Building 1 - Cars	1,500.000	TSF	1,302	56	19	75	28	65	93
Building 1 – Trucks[1]	1,500.000	TSF	2,021	88	30	118	43	99	142
Building 2 - Cars	1,330.000	TSF	1,154	49	16	65	25	58	83
Building 2 – Trucks[1]	1,330.000	TSF	1,792	76	25	101	36	91	127
Building 3 - Cars	690.000	TSF	599	26	9	35	13	30	43
Building 3 – Trucks[1]	690.000	TSF	929	43	13	56	21	46	67
Building 4 - Cars	465.000	TSF	404	17	6	23	9	20	29
Building 4 – Trucks[1]	465.000	TSF	627	25	10	35	13	33	46
Building 5 - Cars	231.000	TSF	201	9	3	12	4	10	14
Building 5- Trucks[1]	231.000	TSF	311	13	3	16	8	16	24
Business Park	170.000	TSF	2,115	41	27	68	32	39	71
Commercial Retail	25.000	TSF	944	15	9	24	46	50	96
Research and Development	64.000	TSF	721	20	7	27	4	27	31
Regional Park[2]	71.3	AC	56	1	1	2	4	4	8
Total			**13,176**	**479**	**178**	**657**	**286**	**588**	**874**

Source: Ganddini 2018.
Notes: AC: acre; TSF: thousand square feet
[1] Truck trips are shown as PCE (see Appendix K).
[2] The recreational component of the project is 70.9-acres. The traffic study evaluates a 71.3-acre park; and therefore, trip generation associated with this project component is conservative

Trip Distribution and Assignment

Figures 20 to 41 in the TIA (see Appendix K) show the forecast directional distributions of the project generated trips for Alternative 1 and 2 for specific buildings and uses. The project trip distributions are based upon RivTAM select zone traffic model runs and refined by City of Jurupa Valley Engineering Department staff. The trip distributions have been separated for cars and trucks for industrial land uses as these trips have different distributional patterns. Based on the identified trip generation and distributions, project average daily traffic volumes have been calculated and are shown on Figures 5.15-7 and 5.15-8 for Alternative 1 and 2, respectively. Morning and evening peak hour intersection turning movement volumes expected from the project for Alternative 1 are shown on Figures 44 and 45 in the TIA, respectively. Morning and evening peak hour intersection turning movement volumes expected from the project for Alternative 2 are shown on Figures 46 and 47 in the TIA, respectively.

Site Access Alternative 1A and 2A

Connectivity between Buildings 1 through 5 (Industrial Park) and Rubidoux Boulevard may not be possible because access across the railroad spur line may not be granted. If access across the rail line is not permitted, then trip distribution for the project would be altered slightly from the analysis for Alternatives 1 and 2. "Site Access Alternative 1A" and "Site Access Alternative 2A" are analyzed for the following intersections:

- #6. Cedar Ave / Rubidoux Blvd at Tarragona Dr / El Rivino Rd

- #7. Rubidoux Blvd at Building 6 Access
- #8. Rubidoux Blvd at Project Access
- #9. Rubidoux Blvd at Production Circle
- #10. Rubidoux Blvd at 20th St / Market St
- #18. Building 6 Access at El Rivino Rd
- #19. Project Access at El Rivino Rd
- #20. Cactus Ave / Project Access at El Rivino Rd
- #21. Building 1 Auto Access at El Rivino Rd
- #22. Hall Ave at El Rivino Rd
- #23. Hall Ave at Building 1 Access
- #26. Agua Mansa Rd at Hall Ave
- #27. Agua Mansa Rd at Brown Ave
- #28. Agua Mansa Rd at R.A. Nelson / Regional Park Access
- #29. Agua Mansa Rd at Market St

"Site Access Alternative 1A" and "Site Access Alternative 2A" are analyzed for the following roadway segments:

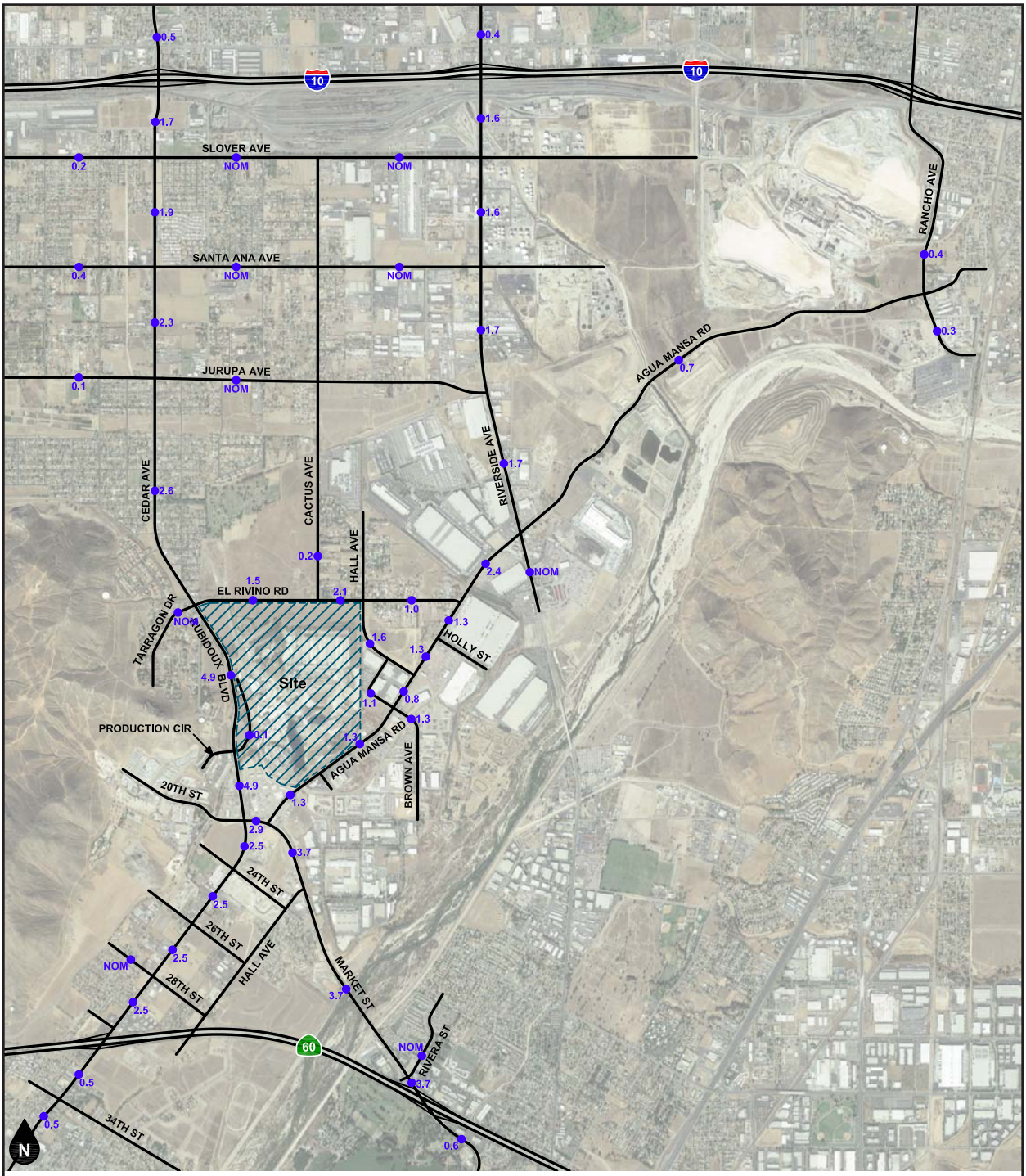
- Rubidoux Boulevard between El Rivino Road to Production Circle
- Rubidoux Boulevard between Production Circle to 20th Street
- El Rivino Road between Cedar Avenue to Cactus Avenue
- El Rivino Road between Cactus Avenue to Hall Avenue
- Hall Avenue between El Rivino Road to Agua Mansa Road
- Market Street between Rubidoux Boulevard to Agua Mansa Road
- Agua Mansa Road between Market Street to Brown Avenue
- Agua Mansa Road between Brown Avenue to Hall Avenue

The remaining study area roadway segments and intersections are not affected by this analysis as the trip distributions do not change apart from the identified project access and project adjacent intersections identified. Figures 77 to 88 in the TIA (see Appendix K) show the forecast directional distributions of the project generated trips for Site Access Alternative 1A and 2A.

Based on the identified trip generation and distributions, project average daily traffic volumes have been calculated and shown on Figure 89 in the TIA for Site Access Alternative 1A and Figure 90 in the TIA for Site Access Alternative 2A. Morning and evening peak hour intersection turning movement volumes expected from the project for the Site Access Alternative 1A are shown on Figures 91 and 92 in the TIA, respectively. Morning and evening peak hour intersection turning movement volumes expected from the project for the Site Access Alternative 2A are shown on Figures 93 and 94 in the TIA, respectively.

Figure 5.15-7 - Project Average Daily Traffic Volumes - Alternative 1

5. Environmental Analysis



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● ## Vehicles Per Day (1,000's)

NOM Nominal; Less Than 50 Vehicles Per Day

0 3,500

Scale (Feet)

Source: Ganddini Group, Inc., October, 2018

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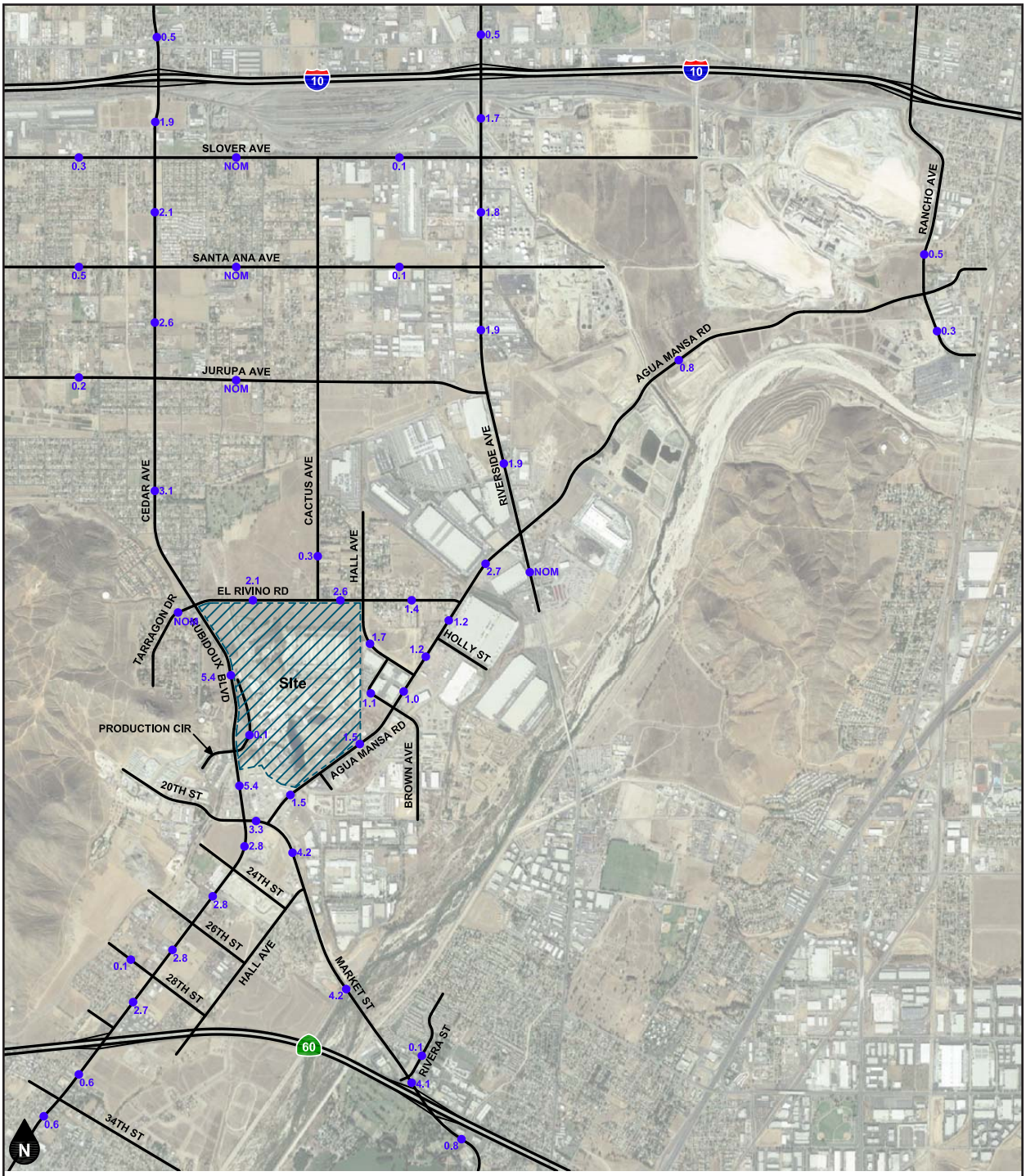
Figure 5.15-8 - Project Average Daily Traffic Volumes - Alternative 2

5. Environmental Analysis



Source: Ganddini Group, Inc., October, 2018

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Traffic Forecasting

To assess future traffic conditions, existing traffic volumes are combined with project trips, ambient growth, and other development trips.

Future traffic conditions were modeled using the RivTAM Travel Demand Model. RivTAM utilizes socio-economic data based on the proposed land uses for this analysis. Average daily traffic volume forecasts were determined using the growth increment approach on the RivTAM Year 2008 and Year 2035 average daily traffic volume forecasts (see Appendix E of the TIA). Linear growth between the Year 2008 base condition and the forecast Year 2035 condition was assumed. Since the increment between Year 2018 and Year 2035 is 17 years of the 27-year time frame, a factor of 0.63 (i.e. 17/27) was used. For the "with project" scenarios, project trips were manually added to the traffic volumes in the model.

For segments and intersections in the City of Jurupa Valley and the City of Riverside, the forecast methodology is based on the factors and procedures in the Riverside County Transportation Department Traffic Impact Analysis Preparation Guide. For intersections and segments in the City of Rialto, City of Colton, and unincorporated San Bernardino County, the forecast methodology is based on the factors and procedures in the San Bernardino County Congestion Management Program 2016 Update. The Year 2035 peak hour factor has been adjusted upward to 1.00 for intersections in Jurupa Valley. This is to account for the effects of congestion on peak spreading. Peak spreading refers to the tendency of traffic to spread more evenly across time as congestion increases. For study intersections in San Bernardino County, the Year 2035 peak hour factor has been adjusted to 0.95 per County of San Bernardino traffic impact analysis guidelines.

Cumulative Traffic Conditions

A list of other developments in the project vicinity were provided by City of Jurupa Valley, City of Rialto, City of Fontana, City of Colton, City of Riverside, and County of San Bernardino staffs. The other development trips have been aggregated into 31 traffic analysis zones (TAZ). Table 11, Other Trip Generation, in the TIA (see Appendix K) shows the forecast trip generation by traffic analysis zone for other developments forecast to add future traffic volumes to the study area. Figure 4-4, *Areawide Cumulative Projects*, shows the location of related projects analyzed in the traffic analysis. Appendix I in the TIA includes the trip distributions for the other development. Average daily traffic volumes forecast to be generated by other developments are depicted on Figure 49 in the TIA. Figures 50 and 51 in the TIA show the morning and evening peak hour intersection turning movement volumes for other developments, respectively.

Planned Improvements

The Rubidoux Boulevard/SR-60 interchange has two planned alternative improvements included in Appendix H of the TIA (see Appendix K). For the purposes of this traffic impact analysis, Alternative 2 (tight diamond configuration) has been utilized as part of the interchange improvements to mitigate deficient ramp intersections in the 2035 future forecasts.

The following improvement are necessary to mitigate impacts at the cedar Avenue/I-10 Freeway interchange:

- Cedar Avenue/I-10 WB Ramp:
  - Construct second WB right turn lane
  - Construct WB left turn lane
- Cedar Avenue/I-10 EB Ramp
  - Construct EB right turn lane

Although these improvements are generally funded and included in the San Bernardino County Transportation Authority (SBCTA) Measure I Improvement Program, the most recently available materials from the SBCTA website indicate a $7.3M funding shortfall for these improvements and also suggest that the completion of construction is potentially being delayed. A fair share contribution is included as a mitigation measure for the proposed project.

5.15.4.2 IMPACT ANALYSIS

The following impact analysis addresses thresholds for which the project could result in potentially significant impacts.

Impact T-1	Threshold: Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

This analysis describes the proposed project's direct impacts on the circulation network in the project vicinity for the following scenarios:

1. Existing Plus Project.
2. Near-Term 2020
3. Horizon Year 2035

EXISTING PLUS PROJECT ANALYSIS

A direct project impact is defined when an intersection currently operates at acceptable LOS during the peak hours for existing traffic conditions, and the intersection is projected to operate at unacceptable LOS during the peak hours with the addition of project traffic (Existing Plus Project traffic conditions).

Existing Plus Project – Intersections

Alternative 1

"Existing Plus Project – Alternative 1" morning and evening peak hour intersection turning movement volumes are shown in Figures 54 and 55 in the TIA, respectively (see Appendix K). The existing plus project intersection LOS analysis for Alternative 1 is shown in Table 5.15-8, *Existing Plus Project Intersection Delay and Level of Service – Alternative 1*. For "Existing Plus Project – Alternative 1" traffic conditions, the study intersections are

projected to operate within acceptable LOS (D or better) during the morning and evening peak hours, with the exception of the intersections listed below. In cases where the intersection would operate at an acceptable LOS without the proposed project, the intersection is noted with 'direct impact' (the project causes the LOS to degrade to an unacceptable level).

- #1. Cedar Avenue at I-10 Freeway WB Ramps (AM peak hour) – **Direct Impact**
- #9. Rubidoux Boulevard at Production Circle (AM and PM peak hour)
- #10. Rubidoux Boulevard at 20th Street/Market Street (PM peak hour) – **Direct Impact**
- #11. Rubidoux Boulevard at 24th Street (AM and PM peak hour)
- #12. Rubidoux Boulevard at 26th Street (AM and PM peak hour)
- #15. Rubidoux Boulevard at SR-60 Freeway WB On-Ramp (AM peak hour)
- #24. Agua Mansa Road at El Rivino Road (AM and PM peak hour)
- #29. Agua Mansa Road at Market Street (AM and PM peak hour)
- #30. Market Street at Hall Avenue (AM and PM peak hour)

Table 5.15-8 Existing Plus Project Intersection Delay and Level of Service – Alternative 1

			Existing				Existing Plus Project			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
ID	Study Intersection	Jurisdiction	Delay[3,1,2]	LOS[5]	Delay[1,2]	LOS[5]	Delay[3,1,2]	LOS[5]	Delay[1,2]	LOS[5]
1.	Cedar Ave at I-10 Freeway WB Ramps	CAL	54.5	D	35.6	D	**56.5**	**E**	40.4	D
2.	Cedar Ave at I-10 Freeway EB Ramps	CAL	43.4	D	36.1	D	47.3	D	37.2	D
3.	Cedar Ave at Slover Ave	SB	17.5	B	17.4	B	18.1	B	18.1	B
4.	Cedar Ave at Santa Ana Ave	SB	10.4	B	11.3	B	11.2	B	12.2	B
5.	Cedar Ave at Jurupa Ave	SB	28.1	C	31.0	C	34.2	C	42.0	D
6.	Cedar Ave / Rubidoux Blvd at Tarragona Dr / El Rivino Rd	JV	11.3	B	19.4	B	13.2	B	22.8	C
7.	Rubidoux at Building 6 Access	JV	NA	NA	NA	NA	10.5	B	14.7	B
8.	Rubidoux at Project Access	JV	NA	NA	NA	NA	6.3	A	9.1	A
9.	Rubidoux Blvd at Production Circle	JV	**69.3**	**F**	**99.9**	**F**	**99.9**	**F**	**99.9**	**F**
10.	Rubidoux Blvd at 20th St / Market St	JV	27.7	C	37.8	D	30.5	C	**58.4**	**E**
11.	Rubidoux Blvd at 24th St	JV	**43.5**	**E**	**99.9**	**F**	**54.7**	**F**	**99.9**	**F**
12.	Rubidoux Blvd at 26th St	JV	**33.6**	**D**	**55.5**	**F**	**41.8**	**E**	**73.1**	**F**
13.	Rubidoux Blvd at 28th St	JV	47.5	D	40.3	D	48.3	D	42.5	D
14.	Rubidoux Blvd at 30th St / SR-60 Freeway WB Off-Ramp	CAL	20.1	C	24.8	C	20.7	C	28.4	C
15.	Rubidoux Blvd at SR-60 Freeway WB On-Ramp	CAL	**44.5**	**E**	20.1	C	**50.0**	**E**	24.7	C
16.	Rubidoux Blvd at SR-60 Freeway EB Ramps	CAL	30.5	C	33.7	C	39.3	D	40.4	D

Table 5.15-8 Existing Plus Project Intersection Delay and Level of Service – Alternative 1

ID	Study Intersection	Jurisdiction	Existing				Existing Plus Project			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
			Delay[3,1,2]	LOS[5]	Delay[1,2]	LOS[5]	Delay[3,1,2]	LOS[5]	Delay[1,2]	LOS[5]
17.	Rubidoux Blvd at 34th St	JV	10.5	B	10.5	B	10.6	B	10.5	B
18.	Building 6 Access at El Rivino Rd	JV	NA	NA	NA	NA	8.8	A	10.2	B
19.	Project Access at El Rivino Rd	JV	NA	NA	NA	NA	10.4	B	16.0	C
20.	Cactus Ave / Project Access at El Rivino Rd	JV / RIA / SB	9.5	A	9.4	A	9.6	A	8.6	A
21.	Building 1 Auto Access at El Rivino Rd	JV	NA	NA	NA	NA	8.8	A	10.0	B
22.	Hall Ave at El Rivino Rd	JV / SB	11.1	B	17.4	C	13.1	B	24.2	C
23.	Hall Ave at Building 1 Access	JV	NA	NA	NA	NA	9.5	A	10.3	B
24.	Agua Mansa Rd at El Rivino Rd	RIA / SB	28.9	D	**56.3**	**F**	**45.5**	**E**	**99.9**	**F**
25.	Agua Mansa Rd at Holly Place	SB	13.5	B	20.4	C	14.2	B	23.6	C
26.	Agua Mansa Rd at Hall Ave	JV / SB	12.2	B	13.2	B	12.7	B	15.3	C
27.	Agua Mansa Rd at Brown Ave	JV / SB	10.1	B	14.2	B	11.2	B	15.3	B
28.	Agua Mansa Rd at R.A. Nelson	JV	7.8	A	3.6	A	7.5	A	3.5	A
29.	Agua Mansa Rd at Market St	JV	49.8	D	**99.9**	**F**	**57.0**	**E**	**99.9**	**F**
30.	Market St at Hall Ave	JV	28.2	D	**54.2**	**F**	**39.5**	**E**	**97.6**	**F**
31.	Market St at Rivera St	RIV	19.6	B	22.6	C	19.0	B	22.3	C
32.	Market St at SR-60 Freeway WB Ramps	CAL	10.8	B	16.5	B	10.9	B	19.1	B
33.	Market St at SR-60 Freeway EB Ramps	CAL	19.3	B	31.2	C	21.6	C	44.3	D
34.	Riverside Ave at I-10 Freeway WB Ramps	CAL	21.3	C	12.2	B	23.7	C	12.6	B
35.	Riverside Ave at I-10 Freeway EB Ramps	CAL	18.5	B	19.8	B	19.1	B	21.6	C
36.	Riverside Ave at Slover Ave	RIA	20.9	C	19.7	B	22.8	C	20.8	C
37.	Riverside Ave at Santa Ana Ave	RIA	10.0	B	9.2	A	10.4	B	9.4	A
38.	Riverside Ave at Jurupa Ave	RIA	7.5	A	7.0	A	7.7	A	7.0	A
39.	Riverside Ave at Agua Mansa Rd	RIA / COL	8.7	A	8.4	A	10.3	B	12.9	B
40.	Rancho Ave at Agua Mansa Rd	COL	9.7	A	16.4	B	10.7	B	19.0	B

Source: Ganddini 2018.

Notes: CAL: Caltrans; COL: Colton, JV: Jurupa Valley; RIA: Rialto; RIV: Riverside; SB: Unincorporated San Bernardino County; WB: westbound; EB: eastbound; SR-60: State Route 60; I-10: Interstate 10; TS: Traffic Signal; CSS: Cross Street Stop; AWS: All Way Stop; LOS: level of service

Bold: Exceeds LOS D significance criteria. Bold Underline: Project Direct Impact.

[1] Delay is shown in seconds/vehicle. Delay is reported for un-signalized study intersections and all study intersections within California Department of Transportation jurisdiction. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, Level of Service is based on average delay of the worst individual lane (or movements sharing a lane).

[2] 99.9-F = Delay High, Intersection Unstable, Level of Service F.

Level of Significance before Mitigation: Improvements required for Intersections #s 9, 10, 11, 12, 15, 29 and 30 are programmed within existing fee programs (DIF and/or TUMF), and therefore impacts to these intersections would be less than significant under this scenario. The improvements for Intersection #1 have been generally funded but a shortfall for funding has been identified. Impacts to Intersection #1, therefore, and to Intersection # 24which is not included within a fee program, would be Potentially Significant even after implementation of MM Alt1 T-3.

Alternative 2

"Existing Plus Project – Alternative 1" morning and evening peak hour intersection turning movement volumes are shown in Figures 56 and 57 in the TIA, respectively (see Appendix K). The Existing Plus Project Intersection LOS analysis for Alternative 2 is shown in Table 5.15-9, *Existing Plus Project Intersection Delay and Level of Service Analysis – Alternative 2*. For "Existing Plus Project – Alternative 2" traffic conditions, the study intersections are projected to operate within acceptable LOS (D or better) during the morning and evening peak hours, except for the study intersections listed below. In cases where the intersection would operate at an acceptable LOS without the proposed project, the intersection is noted with 'direct impact' (the project causes the LOS to degrade to an unacceptable level):

- #1. Cedar Avenue at I-10 Freeway WB Ramps (AM and PM peak hour) – **Direct Impact**
- #9. Rubidoux Boulevard at Production Circle (AM and PM peak hour)
- #11. Rubidoux Boulevard at 24th Street (AM and PM peak hour)
- #12. Rubidoux Boulevard at 26th Street (AM and PM peak hour)
- #15. Rubidoux Boulevard at SR-60 Freeway WB On-Ramp (AM peak hour)
- #24. Agua Mansa Road at El Rivino Road (AM and PM peak hour)
- #29. Agua Mansa Road at Market Street (AM and PM peak hour)
- #30. Market Street at Hall Avenue (AM and PM peak hour)

Table 5.15-9 Existing Plus Project Intersection Delay and Level of Service – Alternative 2

			Existing				Existing Plus Project			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
ID	Study Intersection	Jurisdiction	Delay[3,1,2]	LOS[5]	Delay[1,2]	LOS[5]	Delay[3,1,2]	LOS[5]	Delay[1,2]	LOS[5]
1.	Cedar Ave at I-10 Freeway WB Ramps	CAL	54.5	D	35.6	D	**56.4**	**E**	39.2	D
2.	Cedar Ave at I-10 Freeway EB Ramps	CAL	43.4	D	36.1	D	45.8	D	37.1	D
3.	Cedar Ave at Slover Ave	SB	17.5	B	17.4	B	18.0	B	18.0	B
4.	Cedar Ave at Santa Ana Ave	SB	10.4	B	11.3	B	11.1	B	12.3	B
5.	Cedar Ave at Jurupa Ave	SB	28.1	C	31.0	C	26.4	C	30.5	C
6.	Cedar Ave / Rubidoux Blvd at Tarragona Dr / El Rivino Rd	JV	11.3	B	19.4	B	13.1	B	23.4	C
7.	Rubidoux at Building 6 Access	JV	NA	NA	NA	NA	10.6	B	15.2	C
8.	Rubidoux at Project Access	JV	NA	NA	NA	NA	6.0	A	8.1	A

5. Environmental Analysis
TRANSPORTATION

Table 5.15-9 Existing Plus Project Intersection Delay and Level of Service – Alternative 2

ID	Study Intersection	Jurisdiction	Existing				Existing Plus Project			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
			Delay[3,1,2]	LOS[5]	Delay[1,2]	LOS[5]	Delay[3,1,2]	LOS[5]	Delay[1,2]	LOS[5]
9.	Rubidoux Blvd at Production Circle	JV	**69.3**	**F**	**99.9**	**F**	**99.9**	**F**	**99.9**	**F**
10.	Rubidoux Blvd at 20th St / Market St	JV	27.7	C	37.8	D	30.4	C	54.4	D
11.	Rubidoux Blvd at 24th St	JV	**43.5**	**E**	**99.9**	**F**	**53.1**	**F**	**99.9**	**F**
12.	Rubidoux Blvd at 26th St	JV	**33.6**	**D**	**55.5**	**F**	**40.7**	**E**	**73.2**	**F**
13.	Rubidoux Blvd at 28th St	JV	47.5	D	40.3	D	48.5	D	36.5	D
14.	Rubidoux Blvd at 30th St / SR-60 Freeway WB Off-Ramp	CAL	20.1	C	24.8	C	20.7	C	28.0	C
15.	Rubidoux Blvd at SR-60 Freeway WB On-Ramp	CAL	**44.5**	**E**	20.1	C	**50.3**	**F**	24.1	C
16.	Rubidoux Blvd at SR-60 Freeway EB Ramps	CAL	30.5	C	33.7	C	35.1	D	41.0	D
17.	Rubidoux Blvd at 34th St	JV	10.5	B	10.5	B	10.5	B	10.5	B
18.	Building 6 Access at El Rivino Rd	JV	NA	NA	NA	NA	8.8	A	10.2	B
19.	Project Access at El Rivino Rd	JV	NA	NA	NA	NA	10.4	B	16.2	C
20.	Cactus Ave / Project Access at El Rivino Rd	JV / RIA / SB	9.5	A	9.4	A	9.4	A	8.7	A
21.	Building 1 Auto Access at El Rivino Rd	JV	NA	NA	NA	NA	8.8	A	10.0	B
22.	Hall Ave at El Rivino Rd	JV / SB	11.1	B	17.4	C	12.7	B	24.5	C
23.	Hall Ave at Building 1 Access	JV	NA	NA	NA	NA	9.5	A	10.4	B
24.	Agua Mansa Rd at El Rivino Rd	RIA / SB	28.9	D	**56.3**	**F**	44.3	**E**	**99.9**	**F**
25.	Agua Mansa Rd at Holly Place	SB	13.5	B	20.4	C	14.1	B	23.1	C
26.	Agua Mansa Rd at Hall Ave	JV / SB	12.2	B	13.2	B	12.7	B	15.0	B
27.	Agua Mansa Rd at Brown Ave	JV / SB	10.1	B	14.2	B	11.2	B	15.3	B
28.	Agua Mansa Rd at R.A. Nelson	JV	7.8	A	3.6	A	7.5	A	3.4	A
29.	Agua Mansa Rd at Market St	JV	49.8	D	**99.9**	**F**	**99.9**	**F**	**99.9**	**F**
30.	Market St at Hall Ave	JV	28.2	D	**54.2**	**F**	**37.6**	**E**	**96.8**	**F**
31.	Market St at Rivera St	RIV	19.6	B	22.6	C	19.1	B	22.4	C
32.	Market St at SR-60 Freeway WB Ramps	CAL	10.8	B	16.5	B	10.9	B	18.6	B
33.	Market St at SR-60 Freeway EB Ramps	CAL	19.3	B	31.2	C	21.3	C	42.5	D
34.	Riverside Ave at I-10 Freeway WB Ramps	CAL	21.3	C	12.2	B	23.2	C	12.6	B
35.	Riverside Ave at I-10 Freeway EB Ramps	CAL	18.5	B	19.8	B	19.2	B	21.3	C
36.	Riverside Ave at Slover Ave	RIA	20.9	C	19.7	B	22.4	C	20.7	C

Table 5.15-9 Existing Plus Project Intersection Delay and Level of Service – Alternative 2

ID	Study Intersection	Jurisdiction	Existing				Existing Plus Project			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
			Delay[3,1,2]	LOS[5]	Delay[1,2]	LOS[5]	Delay[3,1,2]	LOS[5]	Delay[1,2]	LOS[5]
37.	Riverside Ave at Santa Ana Ave	RIA	10.0	B	9.2	A	10.3	B	9.4	A
38.	Riverside Ave at Jurupa Ave	RIA	7.5	A	7.0	A	7.7	A	7.0	A
39.	Riverside Ave at Agua Mansa Rd	RIA / COL	8.7	A	8.4	A	10.3	B	12.3	B
40.	Rancho Ave at Agua Mansa Rd	COL	9.7	A	16.4	B	10.6	B	19.0	B

Source: Ganddini 2018.
Notes: CAL: Caltrans; COL: Colton, JV: Jurupa Valley; RIA: Rialto; RIV: Riverside; SB: Unincorporated San Bernardino County; WB: westbound; EB: eastbound; SR-60: State Route 60; I-10: Interstate 10; TS: Traffic Signal; CSS: Cross Street Stop; AWS: All Way Stop; LOS: level of service
Bold: Exceeds LOS D significance criteria. Bold Underline: Project Direct Impact.
[1] Delay is shown in seconds/vehicle. Delay is reported for un-signalized study intersections and all study intersections within California Department of Transportation jurisdiction. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, Level of Service is based on average delay of the worst individual lane (or movements sharing a lane).
[2] 99.9-F = Delay High, Intersection Unstable, Level of Service F.

Level of Significance before Mitigation: Improvements required for Intersections #s 9, 11, 12, 15, 29 and 30 are programmed within existing fee programs (DIF and/or TUMF); therefore, impacts to these intersections would be less than significant under this scenario. The improvements for Intersection #1 have been generally funded in San Bernardino County, but a funding shortfall has been identified. The impacts to this intersection, therefore, and impacts to Intersection # 24, which is not included within a fee program would be Potentially Significant even after implementation of MM Alt 2 T-3.

Site Access Alternative 1A

Connectivity between Buildings 1 through 5 (Industrial Park) and Rubidoux Boulevard may not be possible because access across the railroad spur line may not be granted. "Existing Plus Project – Site Access Alternative 1A" morning and evening peak hour intersection turning movement volumes are shown for Site Access Alternative 1A on Figures 97 and 98 in the TIA, respectively (see Appendix K). The existing plus project intersection LOS analysis for the Site Access Alternative 1A is shown in Table 5.15-10, *Existing Plus Project Intersection Delay and Level of Service – Site Access Alternative 1*. Note that only the intersections potentially affected by this site access alternative were evaluated (intersections not listed would have the same impact as included for Alternative 1). For "Existing Plus Project – Site Access Alternative 1" traffic conditions, the study intersections are projected to operate within acceptable LOS (D or better) during the morning and evening peak hours, except for the following study intersections:

- #9. Rubidoux Boulevard at Production Circle (AM and PM peak hour)
- #10. Rubidoux Boulevard at 20th Street/Market Street (PM peak hour) – **Direct Impact**
- #29. Agua Mansa Road at Market Street (AM and PM peak hour)

Table 5.15-10 Existing Plus Project Intersection Delay and Level of Service – Site Access Alternative 1A

ID	Study Intersection	Jurisdiction	Existing				Existing Plus Project Site Access Alternative 1A			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
			Delay[3,1,2]	LOS[5]	Delay[1,2]	LOS[5]	Delay[3,1,2]	LOS[5]	Delay[1,2]	LOS[5]
6.	Cedar Ave / Rubidoux Blvd at Tarragona Dr / El Rivino Rd	JV	11.3	B	19.4	B	17.1	B	34.8	C
7.	Rubidoux at Building 6 Access	JV	NA	NA	NA	NA	11.2	B	14.9	B
8.	Rubidoux at Project Access	JV	NA	NA	NA	NA	4.4	A	5.8	A
9.	Rubidoux Blvd at Production Circle	JV	**69.3**	**F**	**99.9**	**F**	99.9	F	99.9	F
10.	Rubidoux Blvd at 20th St / Market St	JV	27.7	C	37.8	D	31.4	C	**64.6**	**E**
18.	Building 6 Access at El Rivino Rd	JV	NA	NA	NA	NA	9.4	A	10.6	B
19.	Project Access at El Rivino Rd	JV	NA	NA	NA	NA	5.1	A	6.7	A
20.	Cactus Ave / Project Access at El Rivino Rd	JV / RIA / SB	9.5	A	9.4	A	9.7	A	9.8	A
21.	Building 1 Auto Access at El Rivino Rd	JV	NA	NA	NA	NA	8.8	A	10.0	A
22.	Hall Ave at El Rivino Rd	JV / SB	11.1	B	17.4	C	13.2	B	25.5	D
23.	Hall Ave at Building 1 Access	JV	NA	NA	NA	NA	9.6	A	10.5	B
25.	Agua Mansa Rd at Holly Place	SB	13.5	B	20.4	C	14.2	B	23.6	C
26.	Agua Mansa Rd at Hall Ave	JV / SB	12.2	B	13.2	B	12.7	B	15.3	C
27.	Agua Mansa Rd at Brown Ave	JV / SB	10.1	B	14.2	B	11.6	B	15.7	B
28.	Agua Mansa Rd at R.A. Nelson	JV	7.8	A	3.6	A	7.4	A	3.4	A
29.	Agua Mansa Rd at Market St	JV	49.8	D	**99.9**	**F**	99.9	F	99.9	F

Source: Ganddini 2018.
Notes: CAL: Caltrans; COL: Colton, JV: Jurupa Valley; RIA: Rialto; RIV: Riverside; SB: Unincorporated San Bernardino County; WB: westbound; EB: eastbound; SR-60: State Route 60; I-10: Interstate 10; TS: Traffic Signal; CSS: Cross Street Stop; AWS: All Way Stop; LOS: level of service
Bold: Exceeds LOS D significance criteria. Bold Underline: Project Direct Impact.
[1] Delay is shown in seconds/vehicle. Delay is reported for un-signalized study intersections and all study intersections within California Department of Transportation jurisdiction. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, Level of Service is based on average delay of the worst individual lane (or movements sharing a lane).
[2] 99.9-F = Delay High, Intersection Unstable, Level of Service F.

Level of Significance before Mitigation: Intersections #s 7, 8 ,9, 18, 19, 20, 21, and 23 are all locations where the project developer will be constructing necessary improvements. Intersections #s 9, 10, 11, 12, 15, 29, and 30 are programmed within existing fee programs (DIF and/or TUMF), and therefore impacts to these intersections would be less than significant under this scenario. The improvements for Intersection #1 have been generally funded in San Bernardino County, but a funding shortfall has been identified. Impacts to Intersection # 1, and t Intersection # 24, which is not included within a fee program would be Potentially Significant even after implementation of MM Alt1A T-3.

Site Access Alternative 2A

Connectivity between Buildings 1 through 5 (Industrial Park) and Rubidoux Boulevard may not be possible because access across the railroad spur line may not be granted. "Existing Plus Project – Alternative 2A" morning and evening peak hour intersection turning movement volumes are shown for Site Access Alternative 2A on Figures 99 and 100 in the TIA, respectively (see Appendix K). The Existing Plus Project Intersection LOS analysis for Site Access Alternative 2A is shown in Table 5.15-11, *Existing Plus Project Intersection Delay and Level of Service Analysis – Site Access Alternative 2A*. Note that only the intersections potentially affected by this site access alternative were evaluated (intersections not listed would have the same impact as included for Alternative 2). For "Existing Plus Project – Site Access Alternative 2A" traffic conditions, the study intersections are projected to operate within acceptable LOS (D or better) during the morning and evening peak hours, except for the following study intersections:

- #9. Rubidoux Boulevard at Production Circle (AM and PM peak hour)
- #10. Rubidoux Boulevard at 20th Street/Market Street (PM peak hour) – **Direct Impact**
- #29. Agua Mansa Road at Market Street (AM and PM peak hour)

Table 5.15-11 Existing Plus Project Intersection Delay and Level of Service – Site Access Alternative 2A

			Existing				Existing Plus Project Site Access Alternative 2A			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
ID	Study Intersection	Jurisdiction	Delay[3,1,2]	LOS[5]	Delay[1,2]	LOS[5]	Delay[3,1,2]	LOS[5]	Delay[1,2]	LOS[5]
6.	Cedar Ave / Rubidoux Blvd at Tarragona Dr / El Rivino Rd	JV	11.3	B	19.4	B	17.0	B	36.5	D
7.	Rubidoux at Building 6 Access	JV	NA	NA	NA	NA	11.2	B	15.4	C
8.	Rubidoux at Project Access	JV	NA	NA	NA	NA	4.2	A	4.5	A
9.	Rubidoux Blvd at Production Circle	JV	**69.3**	**F**	**99.9**	**F**	**99.9**	**F**	**99.9**	**F**
10.	Rubidoux Blvd at 20th St / Market St	JV	27.7	C	37.8	D	31.3	C	**58.9**	**E**
18.	Building 6 Access at El Rivino Rd	JV	NA	NA	NA	NA	9.4	A	10.6	B
19.	Project Access at El Rivino Rd	JV	NA	NA	NA	NA	5.2	A	6.7	A
20.	Cactus Ave / Project Access at El Rivino Rd	JV / RIA / SB	9.5	A	9.4	A	9.5	A	9.9	A
21.	Building 1 Auto Access at El Rivino Rd	JV	NA	NA	NA	NA	8.8	A	10.0	B
22.	Hall Ave at El Rivino Rd	JV / SB	11.1	B	17.4	C	12.8	B	25.9	D
23.	Hall Ave at Building 1 Access	JV	NA	NA	NA	NA	9.6	A	10.6	B
25.	Agua Mansa Rd at Holly Place	SB	13.5	B	20.4	C	14.1	B	23.1	C
26.	Agua Mansa Rd at Hall Ave	JV / SB	12.2	B	13.2	B	12.7	B	14.9	B
27.	Agua Mansa Rd at Brown Ave	JV / SB	10.1	B	14.2	B	11.6	B	15.7	B

Table 5.15-11 Existing Plus Project Intersection Delay and Level of Service – Site Access Alternative 2A

ID	Study Intersection	Jurisdiction	Existing				Existing Plus Project Site Access Alternative 2A			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
			Delay[3,1,2]	LOS[5]	Delay[1,2]	LOS[5]	Delay[3,1,2]	LOS[5]	Delay[1,2]	LOS[5]
28.	Agua Mansa Rd at R.A. Nelson	JV	7.8	A	3.6	A	7.4	A	3.4	A
29.	Agua Mansa Rd at Market St	JV	49.8	D	**99.9**	**F**	**99.9**	**F**	**99.9**	**F**

Source: Ganddini 2018.
Notes: CAL: Caltrans; COL: Colton, JV: Jurupa Valley; RIA: Rialto; RIV: Riverside; SB: Unincorporated San Bernardino County; WB: westbound; EB: eastbound; SR-60: State Route 60; I-10: Interstate 10; TS: Traffic Signal; CSS: Cross Street Stop; AWS: All Way Stop; LOS: level of service
Bold: Exceeds LOS D significance criteria. Bold Underline: Project Direct Impact.
[1] Delay is shown in seconds/vehicle. Delay is reported for un-signalized study intersections and all study intersections within California Department of Transportation jurisdiction. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, Level of Service is based on average delay of the worst individual lane (or movements sharing a lane).
[2] 99.9-F = Delay High, Intersection Unstable, Level of Service F.

Level of Significance before Mitigation: Intersections #s 7, 8 ,9, 18, 19, 20, 21, and 23 are all locations where the project developer will be constructing necessary improvements. The improvements for Intersection #1 have been fully funded and improvements required for Intersections #s 9, 10, 11, 12, 15, 29, and 30 are programmed within existing fee programs (DIF and/or TUMF); therefore, impacts to these intersections would be less than significant under this scenario. Impacts to Intersection # 24, however, are not included within a fee program and impacts would be Potentially Significant even after implementation of MM Alt2A T-3.

Existing Plus Project – Roadway Segments

Alternative 1

"Existing Plus Project – Alternative 1" average daily traffic volumes are shown on Figure 52 in the TIA (see Appendix K). The existing plus project roadway segment analysis for Alternative 1 is shown in Table 5.15-12, *Existing Plus Project Daily Roadway Capacity Analysis – Alternative 1*. For "Existing Plus Project – Alternative 1" traffic conditions, the study roadway segments are projected to operate at acceptable LOS, except for the following roadway segments:

- Market Street, Agua Mansa Road to Hall Avenue
- Market Street, Hall Avenue to Rivera Street

Table 5.15-12 Existing Plus Project Daily Roadway Capacity Analysis – Alternative 1

Roadway Segment	Jurisdiction	Existing Roadway Segment				Existing Plus Project Roadway Segment			
		ADT	V/C	Threshold Capacity	LOS	ADT	V/C	Capacity Threshold	LOS
Rubidoux Boulevard									
Btwn El Rivino Rd and Production Circle	JV	22,300	0.65	Acceptable	B	27,200	0.80	Acceptable	C
Btwn Production Circle and 20th St	JV	22,000	0.65	Acceptable	B	26,900	0.79	Acceptable	C
Btwn 20th St and 24th St	JV	18,800	0.55	Acceptable	A	21,300	0.62	Acceptable	B
Btwn 24th St and 26th St	JV	19,600	0.57	Acceptable	A	22,100	0.65	Acceptable	B
Btwn 26th St and 28th St	JV	20,200	0.59	Acceptable	A	22,700	0.67	Acceptable	B
Btwn 28th St and 30th St	JV	21,800	0.64	Acceptable	B	24,300	0.71	Acceptable	C
El Rivino Road									
Btwn Cedar Ave and Cactus Ave	JV / RIA / SB	4,300	0.33	Acceptable	A	5,800	0.45	Acceptable	A
Btwn Cactus Ave and Hall Ave	JV /SB	4,000	0.31	Acceptable	A	6,100	0.47	Acceptable	A
Btwn Hall Ave and Agua Mansa Rd	JV / SB	3,100	0.24	Acceptable	A	4,100	0.32	Acceptable	A
Hall Avenue									
Btwn El Rivino Rd and Agua Mansa Rd	JV	1,100	0.08	Acceptable	A	2,700	0.21	Acceptable	A
Market Street									
Btwn Rubidoux Blvd and Agua Mansa Rd	JV	22,200	0.65	Acceptable	B	25,100	0.74	Acceptable	C
Btwn Agua Mansa Rd and Hall Ave	JV	17,000	0.94	Approaches Capacity	**E**	20,700	1.15	**Potentially Exceeds Capacity**	**F**
Btwn Hall Ave and Rivera St	JV / RIV	23,600	1.31	**Potentially Exceeds Capacity**	**F**	27,300	1.52	**Potentially Exceeds Capacity**	**F**
Agua Mansa Road									
Btwn Market St and Brown Ave	JV	11,300	0.87	Approaches Capacity	D	12,600	0.97	Approaches Capacity	E
Btwn Brown Ave and Hall Ave	JV / SB	12,300	0.47	Acceptable	A	13,100	0.51	Acceptable	A
Btwn Hall Ave and El Rivino Rd	JV / SB	12,800	0.71	Acceptable	C	14,100	0.78	Acceptable	C

Source: Ganddini 2018.
Notes: Btwn: between; Class: classification; L: lanes; ADT: average daily trips; V/C: volume-to-capacity ratio; LOS: level of service; JV: Jurupa Valley; RIA: Rialto; RIV: Riverside; SB: Unincorporated San Bernardino County; MH: Major Highway; SH: Secondary Highway; NC: Not Classified
Bold: Exceeds LOS E significance criteria.
[1] Equivalent to a Secondary for County of Riverside Roadway Classifications based on existing curb-to-curb and lane
[2] Roadway maximum capacity at Level of Service "E" for roadway classification. Capacity adjustment to reflect the number of existing number of travel lanes and is based on existing lane geometrics, existing roadway design, points of conflict, and existing curb-to-curb widths to determine the nearest roadway classification and capacity.

Level of Significance before Mitigation: With implementation of MM Alt1 T-4, Impact T-1 for Roadway Segments is Less than Significant.

Alternative 2

"Existing Plus Project – Alternative 2" daily traffic volumes are shown on Figure 53 in the TIA (see Appendix K). The existing plus project roadway segment analysis for Alternative 2 is shown in Table 5.15-13, *Existing Plus Project Daily Roadway Capacity Analysis – Alternative 2*. For "Existing Plus Project – Alternative 2" traffic conditions, the study roadway segments are projected to operate at acceptable LOS, except for the following roadway segments:

- Market Street, Agua Mansa Road to Hall Avenue
- Market Street, Hall Avenue to Rivera Street

Table 5.15-13 Existing Plus Project Daily Roadway Capacity Analysis – Alternative 2

Roadway Segment	Jurisdiction	Existing Roadway Segment				Existing Plus Project Roadway Segment			
		ADT	V/C	Threshold Capacity	LOS	ADT	V/C	Capacity Threshold	LOS
Rubidoux Boulevard									
Btwn El Rivino Rd and Production Circle	JV	22,300	0.65	Acceptable	B	27,700	0.81	Approaches Capacity	D
Btwn Production Circle and 20th St	JV	22,000	0.65	Acceptable	B	27,400	0.80	Approaches Capacity	D
Btwn 20th St and 24th St	JV	18,800	0.55	Acceptable	A	21,600	0.63	Acceptable	B
Btwn 24th St and 26th St	JV	19,600	0.57	Acceptable	A	22,400	0.66	Acceptable	B
Btwn 26th St and 28th St	JV	20,200	0.59	Acceptable	A	23,000	0.67	Acceptable	B
Btwn 28th St and 30th St	JV	21,800	0.64	Acceptable	B	24,500	0.72	Acceptable	C
El Rivino Road									
Btwn Cedar Ave and Cactus Ave	JV / RIA / SB	4,300	0.33	Acceptable	A	6,400	0.49	Acceptable	A
Btwn Cactus Ave and Hall Ave	JV /SB	4,000	0.31	Acceptable	A	6,600	0.51	Acceptable	A
Btwn Hall Ave and Agua Mansa Rd	JV / SB	3,100	0.24	Acceptable	A	4,500	0.35	Acceptable	A
Hall Avenue									
Btwn El Rivino Rd and Agua Mansa Rd	JV	1,100	0.08	Acceptable	A	2,800	0.22	Acceptable	A
Market Street									
Btwn Rubidoux Blvd and Agua Mansa Rd	JV	22,200	0.65	Acceptable	B	25,500	0.75	Acceptable	C
Btwn Agua Mansa Rd and Hall Ave	JV	17,000	0.94	Approaches Capacity	**E**	21,200	1.18	**Potentially Exceeds Capacity**	**F**

Table 5.15-13 Existing Plus Project Daily Roadway Capacity Analysis – Alternative 2

Roadway Segment	Jurisdiction	Existing Roadway Segment				Existing Plus Project Roadway Segment			
		ADT	V/C	Threshold Capacity	LOS	ADT	V/C	Capacity Threshold	LOS
Btwn Hall Ave and Rivera St	JV / RIV	23,600	1.31	**Potentially Exceeds Capacity**	**F**	27,800	1.54	**Potentially Exceeds Capacity**	**F**
Agua Mansa Road									
Btwn Market St and Brown Ave	JV	11,300	0.87	Approaches Capacity	D	12,800	0.98	Approaches Capacity	E
Btwn Brown Ave and Hall Ave	JV / SB	12,300	0.47	Acceptable	A	13,300	0.51	Acceptable	A
Btwn Hall Ave and El Rivino Rd	JV / SB	12,800	0.71	Acceptable	C	14,000	0.78	Acceptable	C

Source: Ganddini 2018.
Notes: Btwn: between; Class: classification; L: lanes; ADT: average daily trips; V/C: volume-to-capacity ratio; LOS: level of service; JV: Jurupa Valley; RIA: Rialto; RIV: Riverside; SB: Unincorporated San Bernardino County; MH: Major Highway; SH: Secondary Highway; NC: Not Classified
Bold: Exceeds LOS E significance criteria.
[1] Equivalent to a Secondary for County of Riverside Roadway Classifications based on existing curb-to-curb and lane
[2] Roadway maximum capacity at Level of Service "E" for roadway classification. Capacity adjustment to reflect the number of existing number of travel lanes and is based on existing lane geometrics, existing roadway design, points of conflict, and existing curb-to-curb widths to determine the nearest roadway classification and capacity.

Level of Significance before Mitigation: With implementation of MM Alt2 T-4 would be Less than Significant.

Site Access Alternative 1A

Connectivity between Buildings 1 through 5 (Industrial Park) and Rubidoux Boulevard may not be possible because access across the railroad spur line may not be granted. "Existing Plus Project – Site Access Alternative 1A" average daily traffic volumes are depicted on Figure 95 in the TIA for Site Access Alternative 1A (see Appendix K). The existing plus project roadway segment analysis for Site Access Alternative 1A is shown in Table 5.15-14, *Existing Plus Project Daily Roadway Capacity Analysis – Site Access Alternative 1A*. For "Existing Plus Project – Site Access Alternative 1A" traffic conditions, the study roadway segments are projected to operate at acceptable LOS.

Table 5.15-14 Existing Plus Project Daily Roadway Capacity Analysis – Site Access Alternative 1A

Roadway Segment	Jurisdiction	Existing Roadway Segment				Existing Plus Project Site Access Alternative 1A Roadway Segment			
		ADT	V/C	Threshold Capacity	LOS	ADT	V/C	Capacity Threshold	LOS
Rubidoux Boulevard									
Btwn El Rivino Rd and Production Circle	JV	22,300	0.65	Acceptable	B	26,900	0.79	Acceptable	C
Btwn Production Circle and 20th St	JV	22,000	0.65	Acceptable	B	26,500	0.78	Acceptable	C
El Rivino Road									
Btwn Cedar Ave and Cactus Ave	JV / RIA / SB	4,300	0.33	Acceptable	A	10,200	0.78	Acceptable	C
Btwn Cactus Ave and Hall Ave	JV /SB	4,000	0.31	Acceptable	A	6,400	0.49	Acceptable	A
Hall Avenue									
Btwn El Rivino Rd and Agua Mansa Rd	JV	1,100	0.08	Acceptable	A	2,600	0.20	Acceptable	A
Market Street									
Btwn Rubidoux Blvd and Agua Mansa Rd	JV	22,200	0.65	Acceptable	B	25,300	0.74	Acceptable	C
Agua Mansa Road									
Btwn Market St and Brown Ave	JV	11,300	0.87	Approaches Capacity	D	13,000	1.00	Potentially Exceeds Capacity	E
Btwn Brown Ave and Hall Ave	JV / SB	12,300	0.47	Acceptable	A	13,000	0.50	Acceptable	A

Source: Ganddini 2018.
Notes: Btwn: between; Class: classification; L: lanes; ADT: average daily trips; V/C: volume-to-capacity ratio; LOS: level of service; JV: Jurupa Valley; RIA: Rialto; RIV: Riverside; SB: Unincorporated San Bernardino County; MH: Major Highway; SH: Secondary Highway; NC: Not Classified
Bold: Exceeds LOS E significance criteria.
[1] Equivalent to a Secondary for County of Riverside Roadway Classifications based on existing curb-to-curb and lane
[2] Roadway maximum capacity at Level of Service "E" for roadway classification. Capacity adjustment to reflect the number of existing number of travel lanes and is based on existing lane geometrics, existing roadway design, points of conflict, and existing curb-to-curb widths to determine the nearest roadway classification and capacity.

Level of Significance before Mitigation: Less than Significant (for the segments identified in Table 5.15-14).

Site Access Alternative 2A

Connectivity between Buildings 1 through 5 (Industrial Park) and Rubidoux Boulevard may not be possible because access across the railroad spur line may not be granted. "Existing Plus Project – Site Access Alternative 2A" average daily traffic volumes are depicted on Figure 96 in the TIA for Site Access Alternative 2A (see Appendix K). The existing plus project roadway segment analysis for Site Access Alternative 2A is shown in Table 5.15-15, *Existing Plus Project Daily Roadway Capacity Analysis – Site Access Alternative 2A*. For "Existing Plus Project – Site Access Alternative 2A" traffic conditions, the study roadway segments are projected to operate at acceptable LOS, except for the following roadway segments:

- Agua Mansa Road, Market Street to Brown Avenue

Table 5.15-15 Existing Plus Project Daily Roadway Capacity Analysis – Site Access Alternative 2A

Roadway Segment	Jurisdiction	Existing Roadway Segment				Existing Plus Project Site Access Alternative 2A Roadway Segment			
		ADT	V/C	Threshold Capacity	LOS	ADT	V/C	Capacity Threshold	LOS
Rubidoux Boulevard									
Btwn El Rivino Rd and Production Circle	JV	22,300	0.65	Acceptable	B	27,400	0.80	Approaches Capacity	D
Btwn Production Circle and 20th St	JV	22,000	0.65	Acceptable	B	27,100	0.79	Acceptable	C
El Rivino Road									
Btwn Cedar Ave and Cactus Ave	JV / RIA / SB	4,300	0.33	Acceptable	A	10,900	0.84	Approaches Capacity	D
Btwn Cactus Ave and Hall Ave	JV /SB	4,000	0.31	Acceptable	A	7,000	0.54	Acceptable	A
Hall Avenue									
Btwn El Rivino Rd and Agua Mansa Rd	JV	1,100	0.08	Acceptable	A	2,700	0.21	Acceptable	A
Market Street									
Btwn Rubidoux Blvd and Agua Mansa Rd	JV	22,200	0.65	Acceptable	B	25,700	0.75	Acceptable	C
Agua Mansa Road									
Btwn Market St and Brown Ave	JV	11,300	0.87	Approaches Capacity	D	13,200	1.02	**Potentially Exceeds Capacity**	**F**
Btwn Brown Ave and Hall Ave	JV / SB	12,300	0.47	Acceptable	A	13,200	0.51	Acceptable	A

Source: Ganddini 2018.
Notes: Btwn: between; Class: classification; L: lanes; ADT: average daily trips; V/C: volume-to-capacity ratio; LOS: level of service; JV: Jurupa Valley; RIA: Rialto; RIV: Riverside; SB: Unincorporated San Bernardino County; MH: Major Highway; SH: Secondary Highway; NC: Not Classified
Bold: Exceeds LOS E significance criteria.
[1] Equivalent to a Secondary for County of Riverside Roadway Classifications based on existing curb-to-curb and lane
[2] Roadway maximum capacity at Level of Service "E" for roadway classification. Capacity adjustment to reflect the number of existing number of travel lanes and is based on existing lane geometrics, existing roadway design, points of conflict, and existing curb-to-curb widths to determine the nearest roadway classification and capacity.

Level of Significance before Mitigation: With implementation of MM Alt2A T-2, Impact T-1 is Less than Significant.

NEAR-TERM 2020 ANALYSIS

This analysis describes the proposed project's cumulative impacts on the circulation network in the project vicinity for the "Near-Term 2020" scenario. "Near-Term 2020 – Without Project" morning and evening peak hour intersection turning movement volumes are shown on Figures 59 and 60 in the TIA, respectively (see Appendix K), and average daily traffic volumes are shown in Figure 58 in the TIA (see Appendix K).

Near-Term 2020 – Intersections

Alternative 1

"Near-Term 2020 – Alternative 1" morning and evening peak hour intersection turning movement volumes are shown on Figures 63 and 64 in the TIA, respectively (see Appendix K). The year 2020 intersection LOS analysis for Alternative 1 is shown in Table 5.15-16, *Near-Term 2020 Intersection Delay and Level of Service – Alternative 1*. For "Near-Term Year 2020 – Alternative 1" traffic conditions, the study intersections are projected to operate within acceptable LOS (D or better) during the morning and evening peak hours, except for the following study intersections:

- #1. Cedar Avenue at I-10 Freeway WB Ramps (AM and PM peak hour)
- #2. Cedar Avenue at I-10 Freeway EB Ramps (AM peak hour)
- #5. Cedar Avenue at Jurupa Avenue (PM peak hour)
- #9. Rubidoux Boulevard at Production Circle (AM and PM peak hour)
- #10. Rubidoux Boulevard at 20th Street/Market Street (AM and PM peak hour)
- #11. Rubidoux Boulevard at 24th Street (AM and PM peak hour)
- #12. Rubidoux Boulevard at 26th Street (AM and PM peak hour)
- #14. Rubidoux Boulevard at 30th Street/SR-60 Freeway WB Off-Ramp (PM peak hour)
- #15. Rubidoux Boulevard at SR-60 Freeway WB On-Ramp (AM and PM peak hour)
- #16. Rubidoux Boulevard at SR-60 Freeway EB Ramps (AM peak hour)
- #22. Hall Avenue at El Rivino Road (PM peak hour)
- #24. Agua Mansa Road at El Rivino Road (AM and PM peak hour)
- #29. Agua Mansa Road at Market Street (AM and PM peak hour)
- #30. Market Street at Hall Avenue (AM and PM peak hour)
- #33. Market Street at SR-60 Freeway EB Ramps (PM peak hour)

Table 5.15-16 Near-Term Year 2020 Intersection Delay and Level of Service – Alternative 1

			Year 2020 No Project				Year 2020 With Project			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
ID	Study Intersection	Jurisdiction	Delay[3,1,2]	LOS[5]	Delay[1,2]	LOS[5]	Delay[3,1,2]	LOS[5]	Delay[1,2]	LOS[5]
1.	Cedar Ave at I-10 Freeway WB Ramps	CAL	**83.1**	**F**	**64.2**	**E**	**85.3**	**F**	**72.0**	**E**
2.	Cedar Ave at I-10 Freeway EB Ramps	CAL	**62.5**	**E**	49.5	D	**67.4**	**E**	50.9	D
3.	Cedar Ave at Slover Ave	SB	25.2	C	29.1	C	27.1	C	32.1	C
4.	Cedar Ave at Santa Ana Ave	SB	14.1	B	16.4	B	15.8	B	18.6	B
5.	Cedar Ave at Jurupa Ave	SB	**61.1**	**E**	**92.7**	**F**	54.9	D	**99.9**	**F**
6.	Cedar Ave / Rubidoux Blvd at Tarragona Dr / El Rivino Rd	JV	14.0	B	28.8	C	16.0	B	39.2	D
7.	Rubidoux at Building 6 Access	JV	NA	NA	NA	NA	11.7	B	16.3	C

Table 5.15-16 Near-Term Year 2020 Intersection Delay and Level of Service – Alternative 1

ID	Study Intersection	Jurisdiction	Year 2020 No Project				Year 2020 With Project			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
			Delay[3,1,2]	LOS[5]	Delay[1,2]	LOS[5]	Delay[3,1,2]	LOS[5]	Delay[1,2]	LOS[5]
8.	Rubidoux at Project Access	JV	NA	NA	NA	NA	6.4	A	9.8	A
9.	Rubidoux Blvd at Production Circle	JV	**99.9**	**F**	**99.9**	**F**	**99.9**	**F**	**99.9**	**F**
10.	Rubidoux Blvd at 20th St / Market St	JV	**70.8**	**E**	**99.9**	**F**	**92.5**	**F**	**99.9**	**F**
11.	Rubidoux Blvd at 24th St	JV	**85.4**	**F**	**99.9**	**F**	**99.9**	**F**	**99.9**	**F**
12.	Rubidoux Blvd at 26th St	JV	**59.7**	**F**	**99.9**	**F**	**79.0**	**F**	**99.9**	**F**
13.	Rubidoux Blvd at 28th St	JV	25.1	C	34.3	C	24.2	C	38.1	D
14.	Rubidoux Blvd at 30th St / SR-60 Freeway WB Off-Ramp	CAL	30.1	C	**73.6**	**E**	31.8	C	**76.9**	**E**
15.	Rubidoux Blvd at SR-60 Freeway WB On-Ramp	CAL	**99.9**	**F**	**43.7**	**E**	**99.9**	**F**	**64.3**	**F**
16.	Rubidoux Blvd at SR-60 Freeway EB Ramps	CAL	48.0	D	48.8	D	**99.9**	**F**	54.4	D
17.	Rubidoux Blvd at 34th St	JV	11.5	B	11.5	B	11.6	B	11.6	B
18.	Building 6 Access at El Rivino Rd	JV	NA	NA	NA	NA	9.4	A	10.6	B
19.	Project Access at El Rivino Rd	JV	NA	NA	NA	NA	12.6	B	21.6	C
20.	Cactus Ave / Project Access at El Rivino Rd	JV / RIA / SB	11.7	B	12.2	B	12.7	B	13.0	B
21.	Building 1 Auto Access at El Rivino Rd	JV	NA	NA	NA	NA	9.0	A	10.7	B
22.	Hall Ave at El Rivino Rd	JV / SB	13.0	B	25.8	D	16.8	C	**46.7**	**E**
23.	Hall Ave at Building 1 Access	JV	NA	NA	NA	NA	10.1	B	11.1	B
24.	Agua Mansa Rd at El Rivino Rd	RIA / SB	**53.6**	**F**	**99.9**	**F**	**99.9**	**F**	**99.9**	**F**
25.	Agua Mansa Rd at Holly Place	SB	14.5	B	24.3	C	15.3	C	28.8	D
26.	Agua Mansa Rd at Hall Ave	JV / SB	13.5	B	15.9	C	14.2	B	20.1	C
27.	Agua Mansa Rd at Brown Ave	JV / SB	10.5	B	14.7	B	11.6	B	16.2	B
28.	Agua Mansa Rd at R.A. Nelson	JV	4.3	A	3.4	A	4.2	A	3.3	A
29.	Agua Mansa Rd at Market St	JV	**99.9**	**F**	**99.9**	**F**	**99.9**	**F**	**99.9**	**F**
30.	Market St at Hall Ave	JV	**51.2**	**F**	**99.9**	**F**	**76.7**	**F**	**99.9**	**F**
31.	Market St at Rivera St	RIV	17.1	B	25.3	C	20.0	B	26.0	C
32.	Market St at SR-60 Freeway WB Ramps	CAL	12.3	B	24.2	C	12.5	B	34.1	C
33.	Market St at SR-60 Freeway EB Ramps	CAL	28.6	C	**58.8**	**E**	33.8	C	**89.2**	**F**
34.	Riverside Ave at I-10 Freeway WB Ramps	CAL	29.3	C	14.6	B	33.1	C	15.0	B

Table 5.15-16 Near-Term Year 2020 Intersection Delay and Level of Service – Alternative 1

ID	Study Intersection	Jurisdiction	Year 2020 No Project				Year 2020 With Project			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
			Delay[3,1,2]	LOS[5]	Delay[1,2]	LOS[5]	Delay[3,1,2]	LOS[5]	Delay[1,2]	LOS[5]
35.	Riverside Ave at I-10 Freeway EB Ramps	CAL	24.2	C	31.1	C	25.6	C	38.7	D
36.	Riverside Ave at Slover Ave	RIA	47.2	D	33.5	C	54.2	D	38.2	D
37.	Riverside Ave at Santa Ana Ave	RIA	12.1	B	11.7	B	12.6	B	12.1	B
38.	Riverside Ave at Jurupa Ave	RIA	8.8	A	8.1	A	9.2	A	8.2	A
39.	Riverside Ave at Agua Mansa Rd	RIA / COL	16.6	B	17.8	B	21.0	C	32.7	C
40.	Rancho Ave at Agua Mansa Rd	COL	12.7	B	26.4	C	13.9	B	32.0	C

Source: Ganddini 2018.
Notes: CAL: Caltrans; COL: Colton, JV: Jurupa Valley; RIA: Rialto; RIV: Riverside; SB: Unincorporated San Bernardino County; WB: westbound; EB: eastbound; SR-60: State Route 60; I-10: Interstate 10; TS: Traffic Signal; CSS: Cross Street Stop; AWS: All Way Stop; LOS: level of service
Bold: Exceeds LOS D significance criteria.
1 Delay is shown in seconds/vehicle. Delay is reported for un-signalized study intersections and all study intersections within California Department of Transportation jurisdiction. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, Level of Service is based on average delay of the worst individual lane (or movements sharing a lane).
2 99.9-F = Delay High, Intersection Unstable, Level of Service F.

Level of Significance before Mitigation: Improvements required for Intersections #s 9, 10, 11, 12, 14, 15, 16 29, and 30 are programmed within existing fee programs (DIF and/or TUMF); therefore, impacts to these intersections would be less than significant under this scenario. The improvements for Intersections #s 1 and 2 have been generally funded in San Bernardino County, but a funding shortfall has been identified. Impacts to Intersections #'s 1 and 2, therefore, and Intersection #'s 5, 24, 22, and 33, which are not included within a fee program and would be Potentially Significant even after implementation of MM Alt1 T-3 (which includes fair share payments for these intersection improvements).

Alternative 2

"Near-Term 2020 – Alternative 2" morning and evening peak hour intersection turning movement volumes are shown on Figures 65 and 66 in the TIA, respectively (see Appendix K). The year 2020 intersection LOS analysis for Alternative 2 is shown in Table 5.15-17, *Near-Term 2020 Intersection Delay and Level of Service – Alternative 2*. For "Near-Term Year 2020 – Alternative 2" traffic conditions, the study intersections are projected to operate within acceptable LOS (D or better) during the morning and evening peak hours, except for the following study intersections:

- #1. Cedar Avenue at I-10 Freeway WB Ramps (AM and PM peak hour)
- #2. Cedar Avenue at I-10 Freeway EB Ramps (AM peak hour)
- #5. Cedar Avenue at Jurupa Avenue (PM peak hour)
- #9. Rubidoux Boulevard at Production Circle (AM and PM peak hour)
- #10. Rubidoux Boulevard at 20th Street/Market Street (AM and PM peak hour)

- #11. Rubidoux Boulevard at 24th Street (AM and PM peak hour)
- #12. Rubidoux Boulevard at 26th Street (AM and PM peak hour)
- #14. Rubidoux Boulevard at 30th Street/SR-60 Freeway WB Off-Ramp (PM peak hour)
- #15. Rubidoux Boulevard at SR-60 Freeway WB On-Ramp (AM and PM peak hour)
- #16. Rubidoux Boulevard at SR-60 Freeway EB Ramps (AM peak hour)
- #22. Hall Avenue at El Rivino Road (PM peak hour)
- #24. Agua Mansa Road at El Rivino Road (AM and PM peak hour)
- #29. Agua Mansa Road at Market Street (AM and PM peak hour)
- #30. Market Street at Hall Avenue (AM and PM peak hour)
- #33. Market Street at SR-60 Freeway EB Ramps (PM peak hour)

Table 5.15-17 Near-Term Year 2020 Intersection Delay and Level of Service – Alternative 2

			Year 2020 No Project				Year 2020 With Project			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
ID	Study Intersection	Jurisdiction	Delay[3,1,2]	LOS[5]	Delay[1,2]	LOS[5]	Delay[3,1,2]	LOS[5]	Delay[1,2]	LOS[5]
1.	Cedar Ave at I-10 Freeway WB Ramps	CAL	**83.1**	**F**	**64.2**	**E**	**85.2**	**F**	**70.9**	**E**
2.	Cedar Ave at I-10 Freeway EB Ramps	CAL	**62.5**	**E**	49.5	D	**66.2**	**E**	50.6	D
3.	Cedar Ave at Slover Ave	SB	25.2	C	29.1	C	26.8	C	31.7	C
4.	Cedar Ave at Santa Ana Ave	SB	14.1	B	16.4	B	15.5	B	18.7	B
5.	Cedar Ave at Jurupa Ave	SB	**61.1**	**E**	**92.7**	**F**	53.3	D	**99.9**	**F**
6.	Cedar Ave / Rubidoux Blvd at Tarragona Dr / El Rivino Rd	JV	14.0	B	28.8	C	15.9	B	39.9	D
7.	Rubidoux at Building 6 Access	JV	NA	NA	NA	NA	11.8	B	17.0	C
8.	Rubidoux at Project Access	JV	NA	NA	NA	NA	6.1	A	8.6	A
9.	Rubidoux Blvd at Production Circle	JV	**99.9**	**F**	**99.9**	**F**	**99.9**	**F**	**99.9**	**F**
10.	Rubidoux Blvd at 20th St / Market St	JV	**70.8**	**E**	**99.9**	**F**	**92.9**	**F**	**99.9**	**F**
11.	Rubidoux Blvd at 24th St	JV	**85.4**	**F**	**99.9**	**F**	**99.9**	**F**	**99.9**	**F**
12.	Rubidoux Blvd at 26th St	JV	**59.7**	**F**	**99.9**	**F**	**76.0**	**F**	**99.9**	**F**
13.	Rubidoux Blvd at 28th St	JV	25.1	C	34.3	C	24.3	C	44.6	D
14.	Rubidoux Blvd at 30th St / SR-60 Freeway WB Off-Ramp	CAL	30.1	C	**73.6**	**E**	31.8	C	**76.4**	**E**
15.	Rubidoux Blvd at SR-60 Freeway WB On-Ramp	CAL	**99.9**	**F**	**43.7**	**E**	**99.9**	**F**	**61.7**	**F**
16.	Rubidoux Blvd at SR-60 Freeway EB Ramps	CAL	48.0	D	48.8	D	**99.9**	**F**	55.0	D
17.	Rubidoux Blvd at 34th St	JV	11.5	B	11.5	B	11.6	B	11.6	B
18.	Building 6 Access at El Rivino Rd	JV	NA	NA	NA	NA	9.4	A	10.6	B

Table 5.15-17 Near-Term Year 2020 Intersection Delay and Level of Service – Alternative 2

			Year 2020 No Project				Year 2020 With Project			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
ID	Study Intersection	Jurisdiction	Delay[3,1,2]	LOS[5]	Delay[1,2]	LOS[5]	Delay[3,1,2]	LOS[5]	Delay[1,2]	LOS[5]
19.	Project Access at El Rivino Rd	JV	NA	NA	NA	NA	12.5	B	21.9	C
20.	Cactus Ave / Project Access at El Rivino Rd	JV / RIA / SB	11.7	B	12.2	B	12.5	B	13.1	B
21.	Building 1 Auto Access at El Rivino Rd	JV	NA	NA	NA	NA	9.0	A	10.8	B
22.	Hall Ave at El Rivino Rd	JV / SB	13.0	B	25.8	D	15.9	C	**47.6**	**E**
23.	Hall Ave at Building 1 Access	JV	NA	NA	NA	NA	10.0	A	11.2	B
24.	Agua Mansa Rd at El Rivino Rd	RIA / SB	**53.6**	**F**	**99.9**	**F**	**99.9**	**F**	**99.9**	**F**
25.	Agua Mansa Rd at Holly Place	SB	14.5	B	24.3	C	15.2	C	28.1	D
26.	Agua Mansa Rd at Hall Ave	JV / SB	13.5	B	15.9	C	14.2	B	19.3	C
27.	Agua Mansa Rd at Brown Ave	JV / SB	10.5	B	14.7	B	11.6	B	16.3	B
28.	Agua Mansa Rd at R.A. Nelson	JV	4.3	A	3.4	A	4.2	A	3.2	A
29.	Agua Mansa Rd at Market St	JV	**99.9**	**F**	**99.9**	**F**	**99.9**	**F**	**99.9**	**F**
30.	Market St at Hall Ave	JV	**51.2**	**F**	**99.9**	**F**	**72.3**	**F**	**99.9**	**F**
31.	Market St at Rivera St	RIV	17.1	B	25.3	C	17.6	B	26.1	C
32.	Market St at SR-60 Freeway WB Ramps	CAL	12.3	B	24.2	C	12.5	B	32.2	C
33.	Market St at SR-60 Freeway EB Ramps	CAL	28.6	C	**58.8**	**E**	33.3	C	**85.5**	**F**
34.	Riverside Ave at I-10 Freeway WB Ramps	CAL	29.3	C	14.6	B	32.2	C	15.0	B
35.	Riverside Ave at I-10 Freeway EB Ramps	CAL	24.2	C	31.1	C	25.7	C	37.2	D
36.	Riverside Ave at Slover Ave	RIA	47.2	D	33.5	C	53.0	D	37.4	D
37.	Riverside Ave at Santa Ana Ave	RIA	12.1	B	11.7	B	12.4	B	12.0	B
38.	Riverside Ave at Jurupa Ave	RIA	8.8	A	8.1	A	9.1	A	8.2	A
39.	Riverside Ave at Agua Mansa Rd	RIA / COL	16.6	B	17.8	B	20.7	C	30.5	C
40.	Rancho Ave at Agua Mansa Rd	COL	12.7	B	26.4	C	13.8	B	31.8	C

Source: Ganddini 2018.

Notes: CAL: Caltrans; COL: Colton, JV: Jurupa Valley; RIA: Rialto; RIV: Riverside; SB: Unincorporated San Bernardino County; WB: westbound; EB: eastbound; SR-60: State Route 60; I-10: Interstate 10; TS: Traffic Signal; CSS: Cross Street Stop; AWS: All Way Stop; LOS: level of service

Bold: Exceeds LOS D significance criteria.

[1] Delay is shown in seconds/vehicle. Delay is reported for un-signalized study intersections and all study intersections within California Department of Transportation jurisdiction. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, Level of Service is based on average delay of the worst individual lane (or movements sharing a lane).

[2] 99.9-F = Delay High, Intersection Unstable, Level of Service F.

Level of Significance before Mitigation: Improvements required for Intersections #s 9, 10, 11, 12, 14, 15, 16, 29, and 30 are programmed within existing fee programs (DIF and/or TUMF); therefore, impacts to these intersections would be less than significant under this scenario. Impacts to Intersection #10 are within DIF/TUMF programs and also require a fair share payment from the Caterpillar project. Impacts to this intersection are less than significant. The improvements for Intersections #s 1 and 2 have been generally funded in San Bernardino County, but a funding shortfall has been identified. Impacts to Intersections #'s 1 and 2, therefore, along with impacts to Intersection #s 5, 24, 22, and 33, that are not included within a fee program would be Potentially Significant even after implementation of MM Alt2 T-3 (which includes fair share payments for these intersection improvements).

Site Access Alternative 1A

Connectivity between Buildings 1 through 5 (Industrial Park) and Rubidoux Boulevard may not be possible because access across the railroad spur line may not be granted. "Near-Term Year 2020 – Site Access Alternative 1A" morning and evening peak hour intersection turning movement volumes are shown for Site Access Alternative 1A on Figures 103 and 104 in the TIA, respectively (see Appendix K).

The year 2020 intersection LOS analysis for Site Access Alternative 1A is shown in Table 5.15-18, *Near-Term 2020 Intersection Delay and Level of Service – Site Access Alternative 1A*. Note that only the intersections potentially affected by this site access alternative were evaluated (intersections not listed would have the same impact as Alternative 1). For "Near-Term Year 2020 – Site Access Alternative 1A" traffic conditions, the study intersections are projected to operate within acceptable LOS (D or better) during the morning and evening peak hours, except for the following study intersections:

- #6. Cedar Avenue at Tarragona Drive/El Rivino Road (PM peak hour)
- #9. Rubidoux Boulevard at Production Circle (AM and PM peak hour)
- #10. Rubidoux Boulevard at 20th Street/Market Street (AM and PM peak hour)
- #22. Hall Avenue at El Rivino Road (PM peak hour)
- #29. Agua Mansa Road at Market Street (AM and PM peak hour)

Table 5.15-18 Near-Term Year 2020 Intersection Delay and Level of Service – Site Access Alternative 1A

ID	Study Intersection	Jurisdiction	Year 2020 No Project				Year 2020 With Project Site Access Alternative 1A			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
			Delay[3,1,2]	LOS[5]	Delay[1,2]	LOS[5]	Delay[3,1,2]	LOS[5]	Delay[1,2]	LOS[5]
6.	Cedar Ave / Rubidoux Blvd at Tarragona Dr / El Rivino Rd	JV	14.0	B	28.8	C	22.5	C	**77.6**	**E**
7.	Rubidoux at Building 6 Access	JV	NA	NA	NA	NA	12.5	B	16.6	C
8.	Rubidoux at Project Access	JV	NA	NA	NA	NA	4.4	A	5.6	A
9.	Rubidoux Blvd at Production Circle	JV	**99.9**	**F**	**99.9**	**F**	**99.9**	**F**	**99.9**	**F**
10.	Rubidoux Blvd at 20th St / Market St	JV	**70.8**	**E**	**99.9**	**F**	**99.8**	**F**	**99.9**	**F**
18.	Building 6 Access at El Rivino Rd	JV	NA	NA	NA	NA	10.1	B	11.0	B
19.	Project Access at El Rivino Rd	JV	NA	NA	NA	NA	5.2	A	6.5	A
20.	Cactus Ave / Project Access at El Rivino Rd	JV / RIA / SB	11.7	B	12.2	B	12.9	B	14.2	B
21.	Building 1 Auto Access at El Rivino Rd	JV	NA	NA	NA	NA	9.0	A	10.7	B
22.	Hall Ave at El Rivino Rd	JV / SB	13.0	B	25.8	D	17.0	C	**50.2**	**F**
23.	Hall Ave at Building 1 Access	JV	NA	NA	NA	NA	10.2	B	11.4	B
25.	Agua Mansa Rd at Holly Place	SB	14.5	B	24.3	C	15.3	C	28.8	D
26.	Agua Mansa Rd at Hall Ave	JV / SB	13.5	B	15.9	C	14.3	B	20.1	C
27.	Agua Mansa Rd at Brown Ave	JV / SB	10.5	B	14.7	B	11.9	B	16.6	B
28.	Agua Mansa Rd at R.A. Nelson	JV	4.3	A	3.4	A	4.2	A	3.3	A
29.	Agua Mansa Rd at Market St	JV	**99.9**	**F**	**99.9**	**F**	**99.9**	**F**	**99.9**	**F**

Source: Ganddini 2018.
Notes: CAL: Caltrans; COL: Colton, JV: Jurupa Valley; RIA: Rialto; RIV: Riverside; SB: Unincorporated San Bernardino County; WB: westbound; EB: eastbound; SR-60: State Route 60; I-10: Interstate 10; TS: Traffic Signal; CSS: Cross Street Stop; AWS: All Way Stop; LOS: level of service
Bold: Exceeds LOS D significance criteria.
[1] Delay is shown in seconds/vehicle. Delay is reported for un-signalized study intersections and all study intersections within California Department of Transportation jurisdiction. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, Level of Service is based on average delay of the worst individual lane (or movements sharing a lane).
[2] 99.9-F = Delay High, Intersection Unstable, Level of Service F.

Level of Significance before Mitigation: Improvements required for Intersections #s 6, 9, 10, 11, 12, 14, 15, 16, 29, and 30 are programmed within existing fee programs (DIF and/or TUMF); therefore, impacts to these intersections would be less than significant under this scenario. The improvements for Intersections #s 1 and 2 have been generally funded in San Bernardino County, but a funding shortfall has been identified. Impacts to these intersection, therefore, in addition to Intersections #s 5, 24, 22, and 33, that are not included within a fee program would be Potentially Significant even after implementation of MM Alt1A T-3 (which includes fair share payments for these intersection improvements).

Site Access Alternative 2A

Connectivity between Buildings 1 through 5 (Industrial Park) and Rubidoux Boulevard may not be possible because access across the railroad spur line may not be granted. "Near-Term Year 2020 – Alternative 2A" morning and evening peak hour intersection turning movement volumes are shown for Site Access Alternative 2A on Figures 105 and 106 in the TIA, respectively (see Appendix K).

The year 2020 intersection LOS analysis for Site Access Alternative 2A is shown in Table 5.15-19, *Near-Term 2020 Intersection Delay and Level of Service – Site Access Alternative 2A*. Note that only the intersections potentially affected by this site access alternative were evaluated (intersections not listed would have the same impact as Alternative 2).For "Near-Term Year 2020 – Site Access Alternative 2A" traffic conditions, the study intersections are projected to operate within acceptable LOS (D or better) during the morning and evening peak hours, except for the following study intersections:

- #6. Cedar Avenue at Tarragona Drive/El Rivino Road (PM peak hour)
- #9. Rubidoux Boulevard at Production Circle (AM and PM peak hour)
- #10. Rubidoux Boulevard at 20th Street/Market Street (AM and PM peak hour)
- #22. Hall Avenue at El Rivino Road (PM peak hour)
- #29. Agua Mansa Road at Market Street (AM and PM peak hour)

Table 5.15-19 Near-Term Year 2020 Intersection Delay and Level of Service – Site Access Alternative 2A

			Year 2020 No Project				Year 2020 With Project Site Access Alternative 2A			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
ID	Study Intersection	Jurisdiction	Delay[3,1,2]	LOS[5]	Delay[1,2]	LOS[5]	Delay[3,1,2]	LOS[5]	Delay[1,2]	LOS[5]
6.	Cedar Ave / Rubidoux Blvd at Tarragona Dr / El Rivino Rd	JV	14.0	B	28.8	C	26.5	C	84.8	F
7.	Rubidoux at Building 6 Access	JV	NA	NA	NA	NA	12.6	B	17.3	C
8.	Rubidoux at Project Access	JV	NA	NA	NA	NA	4.2	A	4.3	A
9.	Rubidoux Blvd at Production Circle	JV	**99.9**	**F**	**99.9**	**F**	99.9	F	99.9	F
10.	Rubidoux Blvd at 20th St / Market St	JV	**70.8**	**E**	**99.9**	**F**	99.9	F	99.9	F
18.	Building 6 Access at El Rivino Rd	JV	NA	NA	NA	NA	10.2	B	11.1	B
19.	Project Access at El Rivino Rd	JV	NA	NA	NA	NA	5.2	A	6.5	A
20.	Cactus Ave / Project Access at El Rivino Rd	JV / RIA / SB	11.7	B	12.2	B	12.7	B	14.3	B
21.	Building 1 Auto Access at El Rivino Rd	JV	NA	NA	NA	NA	9.0	A	10.7	B
22.	Hall Ave at El Rivino Rd	JV / SB	13.0	B	25.8	D	16.2	C	53.1	F
23.	Hall Ave at Building 1 Access	JV	NA	NA	NA	NA	10.1	B	11.4	B
25.	Agua Mansa Rd at Holly Place	SB	14.5	B	24.3	C	15.2	C	28.1	D
26.	Agua Mansa Rd at Hall Ave	JV / SB	13.5	B	15.9	C	14.2	B	19.3	C

Table 5.15-19 Near-Term Year 2020 Intersection Delay and Level of Service – Site Access Alternative 2A

ID	Study Intersection	Jurisdiction	Year 2020 No Project				Year 2020 With Project Site Access Alternative 2A			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
			Delay[3,1,2]	LOS[5]	Delay[1,2]	LOS[5]	Delay[3,1,2]	LOS[5]	Delay[1,2]	LOS[5]
27.	Agua Mansa Rd at Brown Ave	JV / SB	10.5	B	14.7	B	11.9	B	16.7	B
28.	Agua Mansa Rd at R.A. Nelson	JV	4.3	A	3.4	A	4.2	A	3.2	A
29.	Agua Mansa Rd at Market St	JV	**99.9**	**F**	**99.9**	**F**	99.9	F	99.9	F

Source: Ganddini 2018.
Notes: CAL: Caltrans; COL: Colton, JV: Jurupa Valley; RIA: Rialto; RIV: Riverside; SB: Unincorporated San Bernardino County; WB: westbound; EB: eastbound; SR-60: State Route 60; I-10: Interstate 10; TS: Traffic Signal; CSS: Cross Street Stop; AWS: All Way Stop; LOS: level of service
Bold: Exceeds LOS D significance criteria.
[1] Delay is shown in seconds/vehicle. Delay is reported for un-signalized study intersections and all study intersections within California Department of Transportation jurisdiction. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, Level of Service is based on average delay of the worst individual lane (or movements sharing a lane).
[2] 99.9-F = Delay High, Intersection Unstable, Level of Service F.

Level of Significance before Mitigation: The improvements for Intersections #s 1 and 2 have been fully funded and improvements required for Intersections #s 6, 9, 10, 11, 12, 14, 15, 16, 29, and 30 are programmed within existing fee programs (DIF and/or TUMF), and therefore impacts to these intersections would be less than significant under this scenario. Impacts to Intersections # 5, 24, 22, and 33, , however, are not included within a fee program and would be Potentially Significant even after implementation of MM Alt2A T-3 (which includes fair share payments for these intersection improvements).

Near Term 2020 – Roadway Segments

Alternative 1

"Near-Term 2020 – Alternative 1" average daily traffic volumes are shown on Figure 61 in the TIA (see Appendix K). The near-term year 2020 roadway segment analysis for Alternative 1 is shown in Table 5.15-20, *Near-Term 2020 Daily Roadway Capacity Analysis – Alternative 1*. For "Near-Term Year 2020 – Alternative 1" traffic conditions, the study roadway segments are projected to operate at acceptable LOS, except for the following roadway segments:

- Rubidoux Boulevard, El Rivino Road to Production Circle
- Rubidoux Boulevard, Production Circle to 20th Street
- Market Street, Agua Mansa Road to Hall Avenue
- Market Street, Hall Avenue to Rivera Street
- Agua Mansa Road, Market Street to Brown Avenue

Table 5.15-20 Near-Term 2020 Daily Roadway Capacity Analysis – Alternative 1

Roadway Segment	Jurisdiction	Year 2020 No Project Roadway Segment				Year 2020 With Project Roadway Segment			
		ADT	V/C	Threshold Capacity	LOS	ADT	V/C	Capacity Threshold	LOS
Rubidoux Boulevard									
Btwn El Rivino Rd and Production Circle	JV	30,100	0.88	Approaches Capacity	D	35,000	1.03	**Potentially Exceeds Capacity**	**F**
Btwn Production Circle and 20th St	JV	29,800	0.87	Approaches Capacity	D	34,700	1.02	**Potentially Exceeds Capacity**	**F**
Btwn 20th St and 24th St	JV	25,000	0.73	Acceptable	C	27,500	0.81	Approaches Capacity	D
Btwn 24th St and 26th St	JV	25,800	0.76	Acceptable	C	28,300	0.83	Approaches Capacity	D
Btwn 26th St and 28th St	JV	26,700	0.78	Acceptable	C	29,200	0.86	Approaches Capacity	D
Btwn 28th St and 30th St	JV	28,100	0.82	Approaches Capacity	D	30,600	0.90	Approaches Capacity	D
El Rivino Road									
Btwn Cedar Ave and Cactus Ave	JV / RIA / SB	10,100	0.78	Acceptable	C	11,600	0.89	Approaches Capacity	D
Btwn Cactus Ave and Hall Ave	JV /SB	6,000	0.46	Acceptable	A	8,100	0.62	Acceptable	B
Btwn Hall Ave and Agua Mansa Rd	JV / SB	4,100	0.32	Acceptable	A	5,100	0.39	Acceptable	A
Hall Avenue									
Btwn El Rivino Rd and Agua Mansa Rd	JV	2,500	0.19	Acceptable	A	4,100	0.32	Acceptable	A
Market Street									
Btwn Rubidoux Blvd and Agua Mansa Rd	JV	29,700	0.87	Approaches Capacity	D	32,600	0.96	Approaches Capacity	E
Btwn Agua Mansa Rd and Hall Ave	JV	25,700	1.43	**Potentially Exceeds Capacity**	**F**	29,400	1.63	**Potentially Exceeds Capacity**	**F**
Btwn Hall Ave and Rivera St	JV / RIV	35,000	1.94	**Potentially Exceeds Capacity**	**F**	38,700	2.15	**Potentially Exceeds Capacity**	**F**
Agua Mansa Road									
Btwn Market St and Brown Ave	JV	15,600	1.20	**Potentially Exceeds Capacity**	**F**	16,900	1.30	**Potentially Exceeds Capacity**	**F**

Table 5.15-20 Near-Term 2020 Daily Roadway Capacity Analysis – Alternative 1

Roadway Segment	Jurisdiction	Year 2020 No Project Roadway Segment				Year 2020 With Project Roadway Segment			
		ADT	V/C	Threshold Capacity	LOS	ADT	V/C	Capacity Threshold	LOS
Btwn Brown Ave and Hall Ave	JV / SB	16,600	0.64	Acceptable	B	17,400	0.67	Acceptable	B
Btwn Hall Ave and El Rivino Rd	JV / SB	15,900	0.88	Approaches Capacity	D	17,200	0.96	Approaches Capacity	E

Source: Ganddini 2018.
Notes: Btwn: between; Class: classification; L: lanes; ADT: average daily trips; V/C: volume-to-capacity ratio; LOS: level of service; JV: Jurupa Valley; RIA: Rialto; RIV: Riverside; SB: Unincorporated San Bernardino County; MH: Major Highway; SH: Secondary Highway; NC: Not Classified
Bold: Exceeds LOS E significance criteria.
[1] Equivalent to a Secondary for County of Riverside Roadway Classifications based on existing curb-to-curb and lane
[2] Roadway maximum capacity at Level of Service "E" for roadway classification. Capacity adjustment to reflect the number of existing number of travel lanes and is based on existing lane geometrics, existing roadway design, points of conflict, and existing curb-to-curb widths to determine the nearest roadway classification and capacity.

Level of Significance before Mitigation: Even with implementation of MM Alt1 T-4, this impact would be potentially significant because the required Market Street improvements are not fully covered by TUMF and DIF fees. Additionally, under cumulative conditions, Rubidoux Boulevard, between El Rivino Road and Production Circle and also between Production Circle and 20th Street segments are shown to exceed capacity at the City's General Plan ultimate width for this roadway.. This impact would be significant.

Alternative 2

"Near-Term 2020 – Alternative 2" average daily traffic volumes are shown on Figure 62 in the TIA (see Appendix K). The near-term year 2020 roadway segment analysis for Alternative 2 is shown in Table 5.15-21, *Near-Term 2020 Daily Roadway Capacity Analysis – Alternative 2*. For "Near-Term Year 2020 – Alternative 2" traffic conditions, the study roadway segments are projected to operate at acceptable LOS, except for the following roadway segments:

- Rubidoux Boulevard, El Rivino Road to Production Circle
- Rubidoux Boulevard, Production Circle to 20th Street
- Market Street, Agua Mansa Road to Hall Avenue
- Market Street, Hall Avenue to Rivera Street
- Agua Mansa Road, Market Street to Brown Avenue

Table 5.15-21 Near-Term 2020 Daily Roadway Capacity Analysis – Alternative 2

Roadway Segment	Jurisdiction	Year 2020 No Project Roadway Segment				Year 2020 With Project Roadway Segment			
		ADT	V/C	Threshold Capacity	LOS	ADT	V/C	Capacity Threshold	LOS
Rubidoux Boulevard									
Btwn El Rivino Rd and Production Circle	JV	30,100	0.88	Approaches Capacity	D	35,500	1.04	**Potentially Exceeds Capacity**	**F**
Btwn Production Circle and 20th St	JV	29,800	0.87	Approaches Capacity	D	35,200	1.03	**Potentially Exceeds Capacity**	**F**
Btwn 20th St and 24th St	JV	25,000	0.73	Acceptable	C	27,800	0.82	Approaches Capacity	D
Btwn 24th St and 26th St	JV	25,800	0.76	Acceptable	C	28,600	0.84	Approaches Capacity	D
Btwn 26th St and 28th St	JV	26,700	0.78	Acceptable	C	29,500	0.87	Approaches Capacity	D
Btwn 28th St and 30th St	JV	28,100	0.82	Approaches Capacity	D	30,800	0.90	Approaches Capacity	E
El Rivino Road									
Btwn Cedar Ave and Cactus Ave	JV / RIA / SB	10,100	0.78	Acceptable	C	12,200	0.94	Approaches Capacity	E
Btwn Cactus Ave and Hall Ave	JV /SB	6,000	0.46	Acceptable	A	8,600	0.66	Acceptable	B
Btwn Hall Ave and Agua Mansa Rd	JV / SB	4,100	0.32	Acceptable	A	5,500	0.42	Acceptable	A
Hall Avenue									
Btwn El Rivino Rd and Agua Mansa Rd	JV	2,500	0.19	Acceptable	A	4,200	0.32	Acceptable	A
Market Street									
Btwn Rubidoux Blvd and Agua Mansa Rd	JV	29,700	0.87	Approaches Capacity	D	33,000	0.97	Approaches Capacity	E
Btwn Agua Mansa Rd and Hall Ave	JV	25,700	1.43	**Potentially Exceeds Capacity**	**F**	29,900	1.66	**Potentially Exceeds Capacity**	**F**
Btwn Hall Ave and Rivera St	JV / RIV	35,000	1.94	**Potentially Exceeds Capacity**	**F**	39,200	2.18	**Potentially Exceeds Capacity**	**F**
Agua Mansa Road									
Btwn Market St and Brown Ave	JV	15,600	1.20	**Potentially Exceeds Capacity**	**F**	17,100	1.32	**Potentially Exceeds Capacity**	**F**

Table 5.15-21 Near-Term 2020 Daily Roadway Capacity Analysis – Alternative 2

Roadway Segment	Jurisdiction	Year 2020 No Project Roadway Segment				Year 2020 With Project Roadway Segment			
		ADT	V/C	Threshold Capacity	LOS	ADT	V/C	Capacity Threshold	LOS
Btwn Brown Ave and Hall Ave	JV / SB	16,600	0.64	Acceptable	B	17,600	0.68	Acceptable	B
Btwn Hall Ave and El Rivino Rd	JV / SB	15,900	0.88	Approaches Capacity	D	17,100	0.95	Approaches Capacity	E

Source: Ganddini 2018.
Notes: Btwn: between; Class: classification; L: lanes; ADT: average daily trips; V/C: volume-to-capacity ratio; LOS: level of service; JV: Jurupa Valley; RIA: Rialto; RIV: Riverside; SB: Unincorporated San Bernardino County; MH: Major Highway; SH: Secondary Highway; NC: Not Classified
Bold: Exceeds LOS E significance criteria.
[1] Equivalent to a Secondary for County of Riverside Roadway Classifications based on existing curb-to-curb and lane
[2] Roadway maximum capacity at Level of Service "E" for roadway classification. Capacity adjustment to reflect the number of existing number of travel lanes and is based on existing lane geometrics, existing roadway design, points of conflict, and existing curb-to-curb widths to determine the nearest roadway classification and capacity.

Level of Significance before Mitigation: Even with implementation of MM Alt2 T-4 this impact would be potentially significant because the required Market Street improvements are not fully covered by TUMF and DIF fees. Additionally, under cumulative conditions, Rubidoux Boulevard, between El Rivino Road and Production Circle and also between Production Circle and 20th Street segments are shown to exceed capacity at the City's General Plan ultimate width for this roadway..

Site Access Alternative 1A

Connectivity between Buildings 1 through 5 (Industrial Park) and Rubidoux Boulevard may not be possible because access across the railroad spur line may not be granted. "Near-Term Year 2020 – Site Access Alternative 1A" average daily traffic volumes are depicted on Figure 101 in the TIA for Site Access Alternative 1A (see Appendix K).

The near-term year 2020 roadway segment analysis for Site Access Alternative 1A is shown in Table 5.15-22, *Near-Term 2020 Daily Roadway Capacity Analysis – Site Access Alternative 1A*. For "Near-Term Year 2020 – Site Access Alternative 1A" traffic conditions, the study roadway segments are projected to operate at acceptable LOS, except for the following roadway segments:

- Rubidoux Boulevard, El Rivino Road to Production Circle
- Rubidoux Boulevard, Production Circle to 20th Street
- El Rivino Road, Cedar Avenue to Cactus Avenue
- Agua Mansa Road, Market Street to Brown Avenue

Table 5.15-22 Near-Term 2020 Daily Roadway Capacity Analysis – Site Access Alternative 1A

Roadway Segment	Jurisdiction	Year 2020 No Project Roadway Segment				Year 2020 With Project Site Access Alternative 1A Roadway Segment			
		ADT	V/C	Threshold Capacity	LOS	ADT	V/C	Capacity Threshold	LOS
Rubidoux Boulevard									
Btwn El Rivino Rd and Production Circle	JV	30,100	0.88	Approaches Capacity	D	34,600	1.01	**Potentially Exceeds Capacity**	**F**
Btwn Production Circle and 20th St	JV	29,800	0.87	Approaches Capacity	D	34,300	1.01	**Potentially Exceeds Capacity**	**F**
El Rivino Road									
Btwn Cedar Ave and Cactus Ave	JV / RIA / SB	10,100	0.78	Acceptable	C	16,000	1.23	**Potentially Exceeds Capacity**	**F**
Btwn Cactus Ave and Hall Ave	JV /SB	6,000	0.46	Acceptable	A	8,400	0.65	Acceptable	B
Hall Avenue									
Btwn El Rivino Rd and Agua Mansa Rd	JV	2,500	0.19	Acceptable	A	4,000	0.31	Acceptable	A
Market Street									
Btwn Rubidoux Blvd and Agua Mansa Rd	JV	29,700	0.87	Approaches Capacity	D	32,800	0.96	Approaches Capacity	E
Agua Mansa Road									
Btwn Market St and Brown Ave	JV	15,600	1.20	**Potentially Exceeds Capacity**	**F**	17,300	1.33	**Potentially Exceeds Capacity**	**F**
Btwn Brown Ave and Hall Ave	JV / SB	16,600	0.64	Acceptable	B	17,300	0.67	Acceptable	B

Source: Ganddini 2018.
Notes: Btwn: between; Class: classification; L: lanes; ADT: average daily trips; V/C: volume-to-capacity ratio; LOS: level of service; JV: Jurupa Valley; RIA: Rialto; RIV: Riverside; SB: Unincorporated San Bernardino County; MH: Major Highway; SH: Secondary Highway; NC: Not Classified
Bold: Exceeds LOS E significance criteria.
[1] Equivalent to a Secondary for County of Riverside Roadway Classifications based on existing curb-to-curb and lane
[2] Roadway maximum capacity at Level of Service "E" for roadway classification. Capacity adjustment to reflect the number of existing number of travel lanes and is based on existing lane geometrics, existing roadway design, points of conflict, and existing curb-to-curb widths to determine the nearest roadway classification and capacity.

Level of Significance before Mitigation: Even with implementation of MM Alt1A T-4, impacts to roadway segments for this alternative would be potentially significant. Fair share improvements for Agua Mansa at El Rivino Road and associated with Intersection #24 are not within the City's jurisdiction and are not programmed improvements. Additionally, under cumulative conditions, Rubidoux Boulevard, between El Rivino Road and Production Circle and also between Production Circle and 20th Street segments are shown to exceed capacity at the City's General Plan ultimate width for this roadway..

Site Access Alternative 2A

Connectivity between Buildings 1 through 5 (Industrial Park) and Rubidoux Boulevard may not be possible because access across the railroad spur line may not be granted. "Near-Term Year 2020 – Site Access Alternative

2A" average daily traffic volumes are depicted on Figure 102 in the TIA for Site Access Alternative 2A (see Appendix K).

The near-term year 2020 roadway segment analysis for Site Access Alternative 2A is shown in Table 5.15-23, *Near-Term 2020 Daily Roadway Capacity Analysis – Site Access Alternative 2A*. For "Near-Term Year 2020 – Site Access Alternative 2A" traffic conditions, the study roadway segments are projected to operate at acceptable LOS, except for the following roadway segments:

- Rubidoux Boulevard, El Rivino Road to Production Circle
- Rubidoux Boulevard, Production Circle to 20th Street
- El Rivino Road, Cedar Avenue to Cactus Avenue
- Agua Mansa Road, Market Street to Brown Avenue

Table 5.15-23 Near-Term 2020 Daily Roadway Capacity Analysis – Site Access Alternative 2A

		Year 2020 No Project Roadway Segment				Year 2020 With Project Site Access Alternative 2A Roadway Segment			
Roadway Segment	Jurisdiction	ADT	V/C	Threshold Capacity	LOS	ADT	V/C	Capacity Threshold	LOS
Rubidoux Boulevard									
Btwn El Rivino Rd and Production Circle	JV	30,100	0.88	Approaches Capacity	D	35,200	1.03	**Potentially Exceeds Capacity**	**F**
Btwn Production Circle and 20th St	JV	29,800	0.87	Approaches Capacity	D	34,900	1.02	**Potentially Exceeds Capacity**	**F**
El Rivino Road									
Btwn Cedar Ave and Cactus Ave	JV / RIA / SB	10,100	0.78	Acceptable	C	16,700	1.28	**Potentially Exceeds Capacity**	**F**
Btwn Cactus Ave and Hall Ave	JV /SB	6,000	0.46	Acceptable	A	9,000	0.69	Acceptable	B
Hall Avenue									
Btwn El Rivino Rd and Agua Mansa Rd	JV	2,500	0.19	Acceptable	A	4,100	0.32	Acceptable	A
Market Street									
Btwn Rubidoux Blvd and Agua Mansa Rd	JV	29,700	0.87	Approaches Capacity	D	33,200	0.97	Approaches Capacity	E
Agua Mansa Road									
Btwn Market St and Brown Ave	JV	15,600	1.20	**Potentially Exceeds Capacity**	**F**	17,500	1.35	**Potentially Exceeds Capacity**	**F**
Btwn Brown Ave and Hall Ave	JV / SB	16,600	0.64	Acceptable	B	17,500	0.68	Acceptable	B

Source: Ganddini 2018.
Notes: Btwn: between; Class: classification; L: lanes; ADT: average daily trips; V/C: volume-to-capacity ratio; LOS: level of service; JV: Jurupa Valley; RIA: Rialto; RIV: Riverside; SB: Unincorporated San Bernardino County; MH: Major Highway; SH: Secondary Highway; NC: Not Classified
Bold: Exceeds LOS E significance criteria.
[1] Equivalent to a Secondary for County of Riverside Roadway Classifications based on existing curb-to-curb and lane
[2] Roadway maximum capacity at Level of Service "E" for roadway classification. Capacity adjustment to reflect the number of existing number of travel lanes and is based on existing lane geometrics, existing roadway design, points of conflict, and existing curb-to-curb widths to determine the nearest roadway classification and capacity.

Level of Significance before Mitigation: Even with implementation of MM Alt2A T-4, impacts to roadway segments for this alternative would be potentially significant. Fair share improvements for Agua Mansa at El Rivino Road and associated with intersection #24 are not within the City's jurisdiction and are not programmed improvements. Additionally, under cumulative conditions, Rubidoux Boulevard, between El Rivino Road and Production Circle and also between Production Circle and 20th Street segments are shown to exceed capacity at the City's General Plan ultimate width for this roadway..

HORIZON YEAR 2035 ANALYSIS

This analysis describes the proposed project's cumulative impacts on the circulation network in the project vicinity for the "Horizon Year 2035" scenario. "Horizon Year 2035 – Without Project" morning and evening peak hour intersection turning movement volumes are shown on Figures 68 and 69 in the TIA, respectively (see Appendix K), and average daily segment volumes are shown in Figure 67 in the TIA (see Appendix K).

Horizon Year 2035 – Intersections

Alternative 1

"Horizon Year 2035 – Alternative 1" morning and evening peak hour intersection turning movement volumes are shown on Figures 72 and 73 in the TIA, respectively. The horizon year 2035 intersection LOS analysis for Alternative 1 is shown in Table 5.15-24, *Horizon Year 2035 Intersection Delay and Level of Service – Alternative 1*. For "Horizon Year 2035 – Alternative 1" traffic conditions, the study intersections are projected to operate within acceptable LOS (D or better) during the morning and evening peak hours, except for the following study intersections:

- #1. Cedar Avenue at I-10 Freeway WB Ramps (AM and PM peak hour)
- #2. Cedar Avenue at I-10 Freeway EB Ramps (AM peak hour)
- #5. Cedar Avenue at Jurupa Avenue (AM peak hour)
- #9. Rubidoux Boulevard at Production Circle (AM and PM peak hour)
- #10. Rubidoux Boulevard at 20th Street/Market Street (AM and PM peak hour)
- #11. Rubidoux Boulevard at 24th Street (AM and PM peak hour)
- #12. Rubidoux Boulevard at 26th Street (AM and PM peak hour)
- #13. Rubidoux Boulevard at 28th Street (PM peak hour)
- #22. Hall Avenue at El Rivino Road (PM peak hour)
- #24. Agua Mansa Road at El Rivino Road (AM and PM peak hour)
- #25. Agua Mansa Road at Holly Place (PM peak hour)
- #29. Agua Mansa Road at Market Street (AM and PM peak hour)
- #30. Market Street at Hall Avenue (AM and PM peak hour)
- #32. Market Street at SR-60 Freeway WB Ramps (PM peak hour)
- #33. Market Street at SR-60 Freeway EB Ramps (PM peak hour)
- #36. Riverside Avenue at Slover Avenue (PM peak hour)

Table 5.15-24 Horizon Year 2035 Intersection Delay and Level of Service – Alternative 1

ID	Study Intersection	Jurisdiction	Year 2035 No Project				Year 2035 With Project			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
			Delay[3,1,2]	LOS[5]	Delay[1,2]	LOS[5]	Delay[3,1,2]	LOS[5]	Delay[1,2]	LOS[5]
1.	Cedar Ave at I-10 Freeway WB Ramps	CAL	**79.6**	**E**	**61.5**	**E**	**81.6**	**F**	**69.5**	**E**
2.	Cedar Ave at I-10 Freeway EB Ramps	CAL	**61.8**	**E**	49.0	D	**66.2**	**E**	51.8	D
3.	Cedar Ave at Slover Ave	SB	40.8	D	48.2	D	41.5	D	50.1	D
4.	Cedar Ave at Santa Ana Ave	SB	29.8	C	31.2	C	30.6	C	34.2	C
5.	Cedar Ave at Jurupa Ave	SB	**73.4**	**E**	**99.9**	**F**	**91.2**	**F**	27.3	C
6.	Cedar Ave / Rubidoux Blvd at Tarragona Dr / El Rivino Rd	JV	12.6	B	27.5	C	13.4	B	37.1	D
7.	Rubidoux at Building 6 Access	JV	0.0	A	0.0	A	11.4	B	16.1	C
8.	Rubidoux at Project Access	JV	0.0	A	0.0	A	6.2	A	9.4	A
9.	Rubidoux Blvd at Production Circle	JV	**93.5**	**F**	**99.9**	**F**	**99.9**	**F**	**99.9**	**F**
10.	Rubidoux Blvd at 20th St / Market St	JV	**99.9**	**F**	**99.9**	**F**	**99.9**	**F**	**99.9**	**F**
11.	Rubidoux Blvd at 24th St	JV	**99.9**	**F**	**99.9**	**F**	**99.9**	**F**	**99.9**	**F**
12.	Rubidoux Blvd at 26th St	JV	**81.5**	**F**	**99.9**	**F**	**99.9**	**F**	**99.9**	**F**
13.	Rubidoux Blvd at 28th St	JV	32.5	C	**78.4**	**E**	34.7	C	**85.1**	**F**
14.	Rubidoux Blvd at 30th St / SR-60 Freeway WB Off-Ramp	CAL	17.0	C	16.5	C	17.5	C	18.5	C
15.	Rubidoux Blvd at SR-60 Freeway WB On-Ramp	CAL	21.9	C	14.7	B	23.1	C	17.2	B
16.	Rubidoux Blvd at SR-60 Freeway EB Ramps	CAL	33.7	C	43.6	D	34.1	C	48.6	D
17.	Rubidoux Blvd at 34th St	JV	12.5	B	12.1	B	12.6	B	12.1	B
18.	Building 6 Access at El Rivino Rd	JV	0.0	A	0.0	A	9.3	A	10.5	B
19.	Project Access at El Rivino Rd	JV	0.0	A	0.0	A	12.3	B	20.7	C
20.	Cactus Ave / Project Access at El Rivino Rd	JV / RIA / SB	13.0	B	16.6	B	14.0	B	18.8	B
21.	Building 1 Auto Access at El Rivino Rd	JV	0.0	A	0.0	A	9.3	A	12.2	B
22.	Hall Ave at El Rivino Rd	JV / SB	12.6	B	**58.6**	**F**	15.2	C	**99.9**	**F**
23.	Hall Ave at Building 1 Access	JV	0.0	A	0.0	A	10.6	B	12.8	B
24.	Agua Mansa Rd at El Rivino Rd	RIA / SB	**46.2**	**E**	**99.9**	**F**	**75.7**	**F**	**99.9**	**F**
25.	Agua Mansa Rd at Holly Place	SB	16.2	C	**36.8**	**E**	17.1	C	**45.8**	**E**
26.	Agua Mansa Rd at Hall Ave	JV / SB	15.5	C	22.6	C	16.4	C	32.1	D
27.	Agua Mansa Rd at Brown Ave	JV / SB	10.6	B	14.1	B	11.8	B	15.3	B

Table 5.15-24 Horizon Year 2035 Intersection Delay and Level of Service – Alternative 1

ID	Study Intersection	Jurisdiction	Year 2035 No Project				Year 2035 With Project			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
			Delay[3,1,2]	LOS[5]	Delay[1,2]	LOS[5]	Delay[3,1,2]	LOS[5]	Delay[1,2]	LOS[5]
28.	Agua Mansa Rd at R.A. Nelson	JV	3.8	A	3.4	A	3.8	A	3.4	A
29.	Agua Mansa Rd at Market St	JV	**99.9**	**F**	**99.9**	**F**	**99.9**	**F**	**99.9**	**F**
30.	Market St at Hall Ave	JV	**53.8**	**F**	**99.9**	**F**	**82.3**	**F**	**99.9**	**F**
31.	Market St at Rivera St	RIV	17.0	B	26.3	C	17.4	B	26.3	C
32.	Market St at SR-60 Freeway WB Ramps	CAL	12.4	B	50.5	D	12.6	B	**66.6**	**E**
33.	Market St at SR-60 Freeway EB Ramps	CAL	30.6	C	**91.0**	**F**	36.1	D	**99.9**	**F**
34.	Riverside Ave at I-10 Freeway WB Ramps	CAL	21.9	C	22.2	C	22.7	C	22.6	C
35.	Riverside Ave at I-10 Freeway EB Ramps	CAL	26.9	C	40.2	D	26.7	C	43.5	D
36.	Riverside Ave at Slover Ave	RIA	31.6	C	**57.3**	**E**	34.8	C	**62.6**	**E**
37.	Riverside Ave at Santa Ana Ave	RIA	11.9	B	12.5	B	12.1	B	13.0	B
38.	Riverside Ave at Jurupa Ave	RIA	9.7	A	9.9	A	10.0	A	10.1	B
39.	Riverside Ave at Agua Mansa Rd	RIA / COL	22.4	C	32.7	C	21.6	C	50.7	D
40.	Rancho Ave at Agua Mansa Rd	COL	21.7	C	43.1	D	21.7	C	49.3	D

Source: Ganddini 2018.
Notes: CAL: Caltrans; COL: Colton, JV: Jurupa Valley; RIA: Rialto; RIV: Riverside; SB: Unincorporated San Bernardino County; WB: westbound; EB: eastbound; SR-60: State Route 60; I-10: Interstate 10; TS: Traffic Signal; CSS: Cross Street Stop; AWS: All Way Stop; LOS: level of service
Bold: Exceeds LOS D significance criteria.
[1] Delay is shown in seconds/vehicle. Delay is reported for un-signalized study intersections and all study intersections within California Department of Transportation jurisdiction. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, Level of Service is based on average delay of the worst individual lane (or movements sharing a lane).
[2] 99.9-F = Delay High, Intersection Unstable, Level of Service F.

Level of Significance before Mitigation: Improvements required for Intersections #s 9, 10, 11, 12, 13, 25, 29, 30 and 31 are programmed within existing fee programs (DIF and/or TUMF). Therefore, impacts to these intersections would be less than significant under this scenario. The improvements for Intersections #s 1 and 2 have been generally funded in San Bernardino County, but funding shortfalls have been identified. The impacts to these intersections, therefore, and impacts to Intersections #s 5, 24, 22, , 33 and 36, that are not included within a fee program would be Potentially Significant even after implementation of MM Alt1 T-1 (which includes fair share payments for these intersection improvements).

Alternative 2

"Near-Term 2020 – Alternative 2" morning and evening peak hour intersection turning movement volumes are shown on Figures 74 and 75 in the TIA, respectively (see Appendix K). The horizon year 2035 intersection LOS analysis for Alternative 2 is shown in Table 5.15-25, *Horizon Year 2035 Intersection Delay and Level of Service*

– *Alternative 2*. For "Horizon Year 2035 – Alternative 2" traffic conditions, the study intersections are projected to operate within acceptable LOS (D or better) during the morning and evening peak hours, except for the following study intersections:

- #1. Cedar Avenue at I-10 Freeway WB Ramps (AM and PM peak hour)
- #2. Cedar Avenue at I-10 Freeway EB Ramps (AM peak hour)
- #5. Cedar Avenue at Jurupa Avenue (AM peak hour)
- #9. Rubidoux Boulevard at Production Circle (AM and PM peak hour)
- #10. Rubidoux Boulevard at 20th Street/Market Street (AM and PM peak hour)
- #11. Rubidoux Boulevard at 24th Street (AM and PM peak hour)
- #12. Rubidoux Boulevard at 26th Street (AM and PM peak hour)
- #13. Rubidoux Boulevard at 28th Street (PM peak hour)
- #22. Hall Avenue at El Rivino Road (PM peak hour)
- #24. Agua Mansa Road at El Rivino Road (AM and PM peak hour)
- #25. Agua Mansa Road at Holly Place (PM peak hour)
- #29. Agua Mansa Road at Market Street (AM and PM peak hour)
- #30. Market Street at Hall Avenue (AM and PM peak hour)
- #32. Market Street at SR-60 Freeway WB Ramps (PM peak hour)
- #33. Market Street at SR-60 Freeway EB Ramps (PM peak hour)
- #36. Riverside Avenue at Slover Avenue (PM peak hour)

Table 5.15-25 Horizon Year 2035 Intersection Delay and Level of Service – Alternative 2

			Year 2035 No Project				Year 2035 With Project			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
ID	Study Intersection	Jurisdiction	Delay[31,2]	LOS[5]	Delay[1,2]	LOS[5]	Delay[31,2]	LOS[5]	Delay[1,2]	LOS[5]
1.	Cedar Ave at I-10 Freeway WB Ramps	CAL	**79.6**	**E**	**61.5**	**E**	**81.4**	**F**	**68.5**	**E**
2.	Cedar Ave at I-10 Freeway EB Ramps	CAL	**61.8**	**E**	49.0	D	**65.1**	**E**	51.6	D
3.	Cedar Ave at Slover Ave	SB	40.8	D	48.2	D	41.3	D	49.7	D
4.	Cedar Ave at Santa Ana Ave	SB	29.8	C	31.2	C	31.2	C	37.4	D
5.	Cedar Ave at Jurupa Ave	SB	**73.4**	**E**	**99.9**	**F**	**88.0**	**F**	26.8	C
6.	Cedar Ave / Rubidoux Blvd at Tarragona Dr / El Rivino Rd	JV	12.6	B	27.5	C	13.3	B	38.8	D
7.	Rubidoux at Building 6 Access	JV	0.0	A	0.0	A	11.5	B	16.6	C
8.	Rubidoux at Project Access	JV	0.0	A	0.0	A	5.9	A	8.3	A
9.	Rubidoux Blvd at Production Circle	JV	**93.5**	**F**	**99.9**	**F**	**99.9**	**F**	**99.9**	**F**
10.	Rubidoux Blvd at 20th St / Market St	JV	**99.9**	**F**	**99.9**	**F**	**99.9**	**F**	**99.9**	**F**
11.	Rubidoux Blvd at 24th St	JV	**99.9**	**F**	**99.9**	**F**	**99.9**	**F**	**99.9**	**F**

Table 5.15-25 Horizon Year 2035 Intersection Delay and Level of Service – Alternative 2

ID	Study Intersection	Jurisdiction	Year 2035 No Project				Year 2035 With Project			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
			Delay[3,1,2]	LOS[5]	Delay[1,2]	LOS[5]	Delay[3,1,2]	LOS[5]	Delay[1,2]	LOS[5]
12.	Rubidoux Blvd at 26th St	JV	**81.5**	**F**	**99.9**	**F**	**99.9**	**F**	**99.9**	**F**
13.	Rubidoux Blvd at 28th St	JV	32.5	C	**78.4**	**E**	34.9	C	**85.4**	**F**
14.	Rubidoux Blvd at 30th St / SR-60 Freeway WB Off-Ramp	CAL	17.0	C	16.5	C	17.6	C	18.3	C
15.	Rubidoux Blvd at SR-60 Freeway WB On-Ramp	CAL	21.9	C	14.7	B	23.1	C	16.9	B
16.	Rubidoux Blvd at SR-60 Freeway EB Ramps	CAL	33.7	C	43.6	D	34.0	C	48.3	D
17.	Rubidoux Blvd at 34th St	JV	12.5	B	12.1	B	12.6	B	12.1	B
18.	Building 6 Access at El Rivino Rd	JV	0.0	A	0.0	A	9.4	A	10.6	B
19.	Project Access at El Rivino Rd	JV	0.0	A	0.0	A	12.2	B	21.0	C
20.	Cactus Ave / Project Access at El Rivino Rd	JV / RIA / SB	13.0	B	16.6	B	13.8	B	19.0	B
21.	Building 1 Auto Access at El Rivino Rd	JV	0.0	A	0.0	A	9.3	A	12.2	B
22.	Hall Ave at El Rivino Rd	JV / SB	12.6	B	**58.6**	**F**	14.7	B	**99.9**	**F**
23.	Hall Ave at Building 1 Access	JV	0.0	A	0.0	A	10.5	B	12.9	B
24.	Agua Mansa Rd at El Rivino Rd	RIA / SB	**46.2**	**E**	**99.9**	**F**	**74.3**	**F**	**99.9**	**F**
25.	Agua Mansa Rd at Holly Place	SB	16.2	C	**36.8**	**E**	17.0	C	**44.5**	**E**
26.	Agua Mansa Rd at Hall Ave	JV / SB	15.5	C	22.6	C	16.4	C	30.3	D
27.	Agua Mansa Rd at Brown Ave	JV / SB	10.6	B	14.1	B	11.8	B	15.3	B
28.	Agua Mansa Rd at R.A. Nelson	JV	3.8	A	3.4	A	3.8	A	3.3	A
29.	Agua Mansa Rd at Market St	JV	**99.9**	**F**	**99.9**	**F**	**99.9**	**F**	**99.9**	**F**
30.	Market St at Hall Ave	JV	**53.8**	**F**	**99.9**	**F**	**77.3**	**F**	**99.9**	**F**
31.	Market St at Rivera St	RIV	17.0	B	26.3	C	17.3	B	26.3	C
32.	Market St at SR-60 Freeway WB Ramps	CAL	12.4	B	50.5	D	12.6	B	**65.0**	**E**
33.	Market St at SR-60 Freeway EB Ramps	CAL	30.6	C	**91.0**	**F**	35.6	D	**99.9**	**F**
34.	Riverside Ave at I-10 Freeway WB Ramps	CAL	21.9	C	22.2	C	22.5	C	22.7	C
35.	Riverside Ave at I-10 Freeway EB Ramps	CAL	26.9	C	40.2	D	26.8	C	43.1	D
36.	Riverside Ave at Slover Ave	RIA	31.6	C	**57.3**	**E**	34.8	C	**61.9**	**E**
37.	Riverside Ave at Santa Ana Ave	RIA	11.9	B	12.5	B	12.0	B	12.9	B
38.	Riverside Ave at Jurupa Ave	RIA	9.7	A	9.9	A	10.0	A	10.1	B

Table 5.15-25 Horizon Year 2035 Intersection Delay and Level of Service – Alternative 2

ID	Study Intersection	Jurisdiction	Year 2035 No Project				Year 2035 With Project			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
			Delay[3,1,2]	LOS[5]	Delay[1,2]	LOS[5]	Delay[3,1,2]	LOS[5]	Delay[1,2]	LOS[5]
39.	Riverside Ave at Agua Mansa Rd	RIA / COL	22.4	C	32.7	C	21.4	C	52.7	D
40.	Rancho Ave at Agua Mansa Rd	COL	21.7	C	43.1	D	23.5	C	49.4	D

Source: Ganddini 2018.
Notes: CAL: Caltrans; COL: Colton, JV: Jurupa Valley; RIA: Rialto; RIV: Riverside; SB: Unincorporated San Bernardino County; WB: westbound; EB: eastbound; SR-60: State Route 60; I-10: Interstate 10; TS: Traffic Signal; CSS: Cross Street Stop; AWS: All Way Stop; LOS: level of service
Bold: Exceeds LOS D significance criteria.
1 Delay is shown in seconds/vehicle. Delay is reported for un-signalized study intersections and all study intersections within California Department of Transportation jurisdiction. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, Level of Service is based on average delay of the worst individual lane (or movements sharing a lane).
2 99.9-F = Delay High, Intersection Unstable, Level of Service F.

Level of Significance before Mitigation: Improvements required for Intersections #s 9, 11, 12, 13, 15, 25, 29, 30 and 31 are programmed within existing fee programs (DIF and/or TUMF). Therefore, impacts to these intersections would be less than significant under this scenario. Impacts to Intersection #10 are under the DIF/TUMF programs and also require a fair share payment from the Caterpillar project, and are less than significant. The improvements for Intersections #s 1 and 2 have been generally funded in San Bernardino County, but a funding shortfall has been identified. The impacts to these intersections, therefore, and impacts to Intersections # 5, 24, 22, 33 and 36, that are not included within a fee program would be Potentially Significant even after implementation of MM Alt1 T-3 (which includes fair share payments for these intersection improvements).

Site Access Alternative 1A

Connectivity between Buildings 1 through 5 (Industrial Park) and Rubidoux Boulevard may not be possible because access across the railroad spur line may not be granted. "Horizon Year 2035 – Site Access Alternative 1A" morning and evening peak hour intersection turning movement volumes are shown for Site Access Alternative 1A on Figures 109 and 110 in the TIA, respectively.

The horizon year 2035 intersection LOS analysis for Site Access Alternative 1A is shown in Table 5.15-26, *Horizon Year 2035 Intersection Delay and Level of Service – Site Access Alternative 1A*. Note that only the intersections potentially affected by this site access alternative were evaluated (intersections not listed would have the same impact as Alternative 1). For "Horizon Year 2035 – Site Access Alternative 1A" traffic conditions, the study intersections are projected to operate within acceptable LOS (D or better) during the morning and evening peak hours, except for the following study intersections:

- #6. Cedar Avenue at Tarragona Drive/El Rivino Road (PM peak hour)
- #9. Rubidoux Boulevard at Production Circle (AM and PM peak hour)
- #10. Rubidoux Boulevard at 20th Street/Market Street (AM and PM peak hour)
- #22. Hall Avenue at El Rivino Road (PM peak hour)
- #29. Agua Mansa Road at Market Street (AM and PM peak hour)

Table 5.15-26 Horizon Year 2035 Intersection Delay and Level of Service – Site Access Alternative 1A

ID	Study Intersection	Jurisdiction	Year 2035 No Project				Year 2035 With Project Site Access Alternative 1A			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
			Delay[3,1,2]	LOS[5]	Delay[1,2]	LOS[5]	Delay[3,1,2]	LOS[5]	Delay[1,2]	LOS[5]
6.	Cedar Ave / Rubidoux Blvd at Tarragona Dr / El Rivino Rd	JV	12.6	B	27.5	C	18.0	B	**77.9**	**E**
7.	Rubidoux at Building 6 Access	JV	0.0	A	0.0	A	12.1	B	16.4	C
8.	Rubidoux at Project Access	JV	0.0	A	0.0	A	4.4	A	5.5	A
9.	Rubidoux Blvd at Production Circle	JV	**93.5**	**F**	**99.9**	**F**	**99.9**	**F**	**99.9**	**F**
10.	Rubidoux Blvd at 20th St / Market St	JV	**99.9**	**F**	**99.9**	**F**	**99.9**	**F**	**99.9**	**F**
18.	Building 6 Access at El Rivino Rd	JV	0.0	A	0.0	A	10.0	A	10.9	B
19.	Project Access at El Rivino Rd	JV	0.0	A	0.0	A	5.1	A	6.4	A
20.	Cactus Ave / Project Access at El Rivino Rd	JV / RIA / SB	13.0	B	16.6	B	14.3	B	19.3	B
21.	Building 1 Auto Access at El Rivino Rd	JV	0.0	A	0.0	A	9.3	A	12.1	B
22.	Hall Ave at El Rivino Rd	JV / SB	12.6	B	**58.6**	**F**	15.4	C	**99.9**	**F**
23.	Hall Ave at Building 1 Access	JV	0.0	A	0.0	A	10.7	B	13.1	B
26.	Agua Mansa Rd at Hall Ave	JV / SB	15.5	C	22.6	C	16.5	C	31.8	D
27.	Agua Mansa Rd at Brown Ave	JV / SB	10.6	B	14.1	B	12.1	B	15.7	B
28.	Agua Mansa Rd at R.A. Nelson	JV	3.8	A	3.4	A	3.8	A	3.3	A
29.	Agua Mansa Rd at Market St	JV	**99.9**	**F**	**99.9**	**F**	**99.9**	**F**	**99.9**	**F**

Source: Ganddini 2018.
Notes: CAL: Caltrans; COL: Colton, JV: Jurupa Valley; RIA: Rialto; RIV: Riverside; SB: Unincorporated San Bernardino County; WB: westbound; EB: eastbound; SR-60: State Route 60; I-10: Interstate 10; TS: Traffic Signal; CSS: Cross Street Stop; AWS: All Way Stop; LOS: level of service
Bold: Exceeds LOS D significance criteria.
[1] Delay is shown in seconds/vehicle. Delay is reported for un-signalized study intersections and all study intersections within California Department of Transportation jurisdiction. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, Level of Service is based on average delay of the worst individual lane (or movements sharing a lane).
[2] 99.9-F = Delay High, Intersection Unstable, Level of Service F.

Level of Significance before Mitigation: Improvements required for Intersections #s 6, 9, 10, 11,, 12,13, 14, 16, 25, 29, and 30 are programmed within existing fee programs (DIF and/or TUMF); therefore, impacts to these intersections would be less than significant under this scenario. The improvements for Intersections #s 1 and 2 have been generally funded, but a funding shortfall has been identified. Impacts to these intersections, therefore, and to Intersections #s 5, 24, 22 and 36, that are not included within a fee program would be Potentially Significant even after implementation of MM Alt1A T-3 (which includes fair share payments for these intersection improvements).

Site Access Alternative 2A

Connectivity between Buildings 1 through 5 (Industrial Park) and Rubidoux Boulevard may not be possible because access across the railroad spur line may not be granted. "Horizon Year 2035 – Site Access Alternative 2A" morning and evening peak hour intersection turning movement volumes are shown for Site Access Alternative 2A on Figures 111 and 112 in the TIA, respectively (see Appendix K).

The horizon year 2035 intersection LOS analysis for Site Access Alternative 2A is shown in Table 5.15-27, *Horizon Year 2035 Intersection Delay and Level of Service – Site Access Alternative 2A*. Note that only the intersections potentially affected by this site access alternative were evaluated (intersections not listed would have the same impact as Alternative 2).For "Horizon Year 2035 – Site Access Alternative 2A" traffic conditions, the study intersections are projected to operate within acceptable LOS (D or better) during the morning and evening peak hours, except for the following study intersections:

- #6. Cedar Avenue at Tarragona Drive/El Rivino Road (PM peak hour)
- #9. Rubidoux Boulevard at Production Circle (AM and PM peak hour)
- #10. Rubidoux Boulevard at 20th Street/Market Street (AM and PM peak hour)
- #22. Hall Avenue at El Rivino Road (PM peak hour)
- #29. Agua Mansa Road at Market Street (AM and PM peak hour)

Table 5.15-27 Horizon Year 2035 Intersection Delay and Level of Service – Site Access Alternative 2A

			Year 2035 No Project				Year 2035 With Project Site Access Alternative 2A			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
ID	Study Intersection	Jurisdiction	Delay[3,1,2]	LOS[5]	Delay[1,2]	LOS[5]	Delay[3,1,2]	LOS[5]	Delay[1,2]	LOS[5]
6.	Cedar Ave / Rubidoux Blvd at Tarragona Dr / El Rivino Rd	JV	12.6	B	27.5	C	17.9	B	**82.0**	**F**
7.	Rubidoux at Building 6 Access	JV	0.0	A	0.0	A	12.2	B	16.9	C
8.	Rubidoux at Project Access	JV	0.0	A	0.0	A	4.2	A	4.2	A
9.	Rubidoux Blvd at Production Circle	JV	**93.5**	**F**	**99.9**	**F**	**99.9**	**F**	**99.9**	**F**
10.	Rubidoux Blvd at 20th St / Market St	JV	**99.9**	**F**	**99.9**	**F**	**99.9**	**F**	**99.9**	**F**
18.	Building 6 Access at El Rivino Rd	JV	0.0	A	0.0	A	10.0	B	11.0	B
19.	Project Access at El Rivino Rd	JV	0.0	A	0.0	A	5.1	A	8.8	A
20.	Cactus Ave / Project Access at El Rivino Rd	JV / RIA / SB	13.0	B	16.6	B	14.1	B	19.5	B
21.	Building 1 Auto Access at El Rivino Rd	JV	0.0	A	0.0	A	9.3	A	12.2	B
22.	Hall Ave at El Rivino Rd	JV / SB	12.6	B	**58.6**	**F**	14.8	B	**99.9**	**F**
23.	Hall Ave at Building 1 Access	JV	0.0	A	0.0	A	10.6	B	13.2	B
26.	Agua Mansa Rd at Hall Ave	JV / SB	15.5	C	22.6	C	16.4	C	30.0	D

Table 5.15-27 Horizon Year 2035 Intersection Delay and Level of Service – Site Access Alternative 2A

ID	Study Intersection	Jurisdiction	Year 2035 No Project				Year 2035 With Project Site Access Alternative 2A			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
			Delay[3,1,2]	LOS[5]	Delay[1,2]	LOS[5]	Delay[3,1,2]	LOS[5]	Delay[1,2]	LOS[5]
27.	Agua Mansa Rd at Brown Ave	JV / SB	10.6	B	14.1	B	12.1	B	15.7	B
28.	Agua Mansa Rd at R.A. Nelson	JV	3.8	A	3.4	A	3.8	A	3.3	A
29.	Agua Mansa Rd at Market St	JV	**99.9**	**F**	**99.9**	**F**	**99.9**	**F**	**99.9**	**F**

Source: Ganddini 2018.
Notes: CAL: Caltrans; COL: Colton, JV: Jurupa Valley; RIA: Rialto; RIV: Riverside; SB: Unincorporated San Bernardino County; WB: westbound; EB: eastbound; SR-60: State Route 60; I-10: Interstate 10; TS: Traffic Signal; CSS: Cross Street Stop; AWS: All Way Stop; LOS: level of service
Bold: Exceeds LOS D significance criteria.
[1] Delay is shown in seconds/vehicle. Delay is reported for un-signalized study intersections and all study intersections within California Department of Transportation jurisdiction. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, Level of Service is based on average delay of the worst individual lane (or movements sharing a lane).
[2] 99.9-F = Delay High, Intersection Unstable, Level of Service F.

Level of Significance before Mitigation: Improvements required for Intersections #s 6, 9, 11, 12, 13,15, 25, 29, and 30 are programmed within existing fee programs (DIF and/or TUMF); therefore, impacts to these intersections would be less than significant under this scenario. Impacts to Intersection #10 are under the DIF/TUMF programs and also require fair share to Caterpillar project, and are less than significant. The improvements for Intersections #s 1 and 2 have been fully funded in San Bernardino County, but a funding shortfall has been identified. Impacts to these intersections, therefore, and to Intersections #s 5, 24, 22, 33, and 36, that are not included within a fee program would be Potentially Significant even after implementation of MM Alt2A T-1 (which includes fair share payments for these intersection improvements).

Horizon Year 2035 – Roadway Segments

Alternative 1

"Near-Term 2020 – Alternative 1" average daily traffic volumes are shown on Figure 70 in the TIA (see Appendix K). The horizon year 2035 roadway segment analysis for Alternative 1 is shown in Table 5.15-28, *Horizon Year 2035 Daily Roadway Capacity Analysis – Alternative 1*. For "Horizon Year 2035 – Alternative 1" traffic conditions, the study roadway segments are projected to operate at acceptable LOS, except for the following roadway segments:

- Rubidoux Boulevard, El Rivino Road to Production Circle
- Rubidoux Boulevard, Production Circle to 20th Street
- Market Street, Agua Mansa Road to Hall Avenue
- Market Street, Hall Avenue to Rivera Street
- Agua Mansa Road, Market Street to Brown Avenue
- Agua Mansa Road, Hall Avenue to El Rivino Road

Table 5.15-28 Horizon Year 2035 Daily Roadway Capacity Analysis – Alternative 1

Roadway Segment	Jurisdiction	Year 2035 No Project Roadway Segment				Year 2035 With Project Roadway Segment			
		ADT	V/C	Threshold Capacity	LOS	ADT	V/C	Capacity Threshold	LOS
Rubidoux Boulevard									
Btwn El Rivino Rd and Production Circle	JV	30,100	0.88	Approaches Capacity	D	35,000	1.03	**Potentially Exceeds Capacity**	**F**
Btwn Production Circle and 20th St	JV	29,800	0.87	Approaches Capacity	D	34,700	1.02	**Potentially Exceeds Capacity**	**F**
Btwn 20th St and 24th St	JV	25,000	0.73	Acceptable	C	27,500	0.81	Approaches Capacity	D
Btwn 24th St and 26th St	JV	25,800	0.76	Acceptable	C	28,300	0.83	Approaches Capacity	D
Btwn 26th St and 28th St	JV	26,700	0.78	Acceptable	C	29,200	0.86	Approaches Capacity	D
Btwn 28th St and 30th St	JV	29,000	0.85	Approaches Capacity	D	31,500	0.92	Approaches Capacity	E
El Rivino Road									
Btwn Cedar Ave and Cactus Ave	JV / RIA / SB	11,400	0.88	Approaches Capacity	D	12,900	0.99	Approaches Capacity	E
Btwn Cactus Ave and Hall Ave	JV /SB	6,600	0.51	Acceptable	A	8,700	0.67	Acceptable	B
Btwn Hall Ave and Agua Mansa Rd	JV / SB	4,100	0.32	Acceptable	A	5,100	0.39	Acceptable	A
Hall Avenue									
Btwn El Rivino Rd and Agua Mansa Rd	JV	2,800	0.22	Acceptable	A	4,400	0.34	Acceptable	A
Market Street									
Btwn Rubidoux Blvd and Agua Mansa Rd	JV	29,800	0.87	Approaches Capacity	D	32,700	0.96	Approaches Capacity	E
Btwn Agua Mansa Rd and Hall Ave	JV	25,700	1.43	**Potentially Exceeds Capacity**	**F**	29,400	1.63	**Potentially Exceeds Capacity**	**F**
Btwn Hall Ave and Rivera St	JV / RIV	35,000	1.94	**Potentially Exceeds Capacity**	**F**	38,700	2.15	**Potentially Exceeds Capacity**	**F**
Agua Mansa Road									
Btwn Market St and Brown Ave	JV	19,900	1.53	**Potentially Exceeds Capacity**	**F**	21,200	1.63	**Potentially Exceeds Capacity**	**F**

Table 5.15-28 Horizon Year 2035 Daily Roadway Capacity Analysis – Alternative 1

Roadway Segment	Jurisdiction	Year 2035 No Project Roadway Segment				Year 2035 With Project Roadway Segment			
		ADT	V/C	Threshold Capacity	LOS	ADT	V/C	Capacity Threshold	LOS
Btwn Brown Ave and Hall Ave	JV / SB	20,900	0.81	Approaches Capacity	D	21,700	0.84	Approaches Capacity	D
Btwn Hall Ave and El Rivino Rd	JV / SB	19,600	1.09	**Potentially Exceeds Capacity**	**F**	20,900	1.16	**Potentially Exceeds Capacity**	**F**

Source: Ganddini 2018.
Notes: Btwn: between; Class: classification; L: lanes; ADT: average daily trips; V/C: volume-to-capacity ratio; LOS: level of service; JV: Jurupa Valley; RIA: Rialto; RIV: Riverside; SB: Unincorporated San Bernardino County; MH: Major Highway; SH: Secondary Highway; NC: Not Classified
Bold: Exceeds LOS E significance criteria.
[1] Equivalent to a Secondary for County of Riverside Roadway Classifications based on existing curb-to-curb and lane
[2] Roadway maximum capacity at Level of Service "E" for roadway classification. Capacity adjustment to reflect the number of existing number of travel lanes and is based on existing lane geometrics, existing roadway design, points of conflict, and existing curb-to-curb widths to determine the nearest roadway classification and capacity.

Level of Significance before Mitigation: Even with implementation of MM Alt1 T-4, this impact would be potentially significant because the required Market Street improvements are not fully covered by TUMF and DIF fees. Also, Agua Mansa road widening is a fair share improvement that is currently not a programmed improvement and partially within the County of San Bernardino's jurisdiction. Additionally, under cumulative conditions, Rubidoux Boulevard, between El Rivino Road and Production Circle and also between Production Circle and 20th Street segments are shown to exceed capacity at the City's General Plan ultimate width for this roadway.

Alternative 2

"Near-Term 2020 – Alternative 2" average daily traffic volumes are shown on Figure 71 in the TIA (see Appendix K). The horizon year 2035 roadway segment analysis for Alternative 2 is shown in Table 5.15-29, *Horizon Year 2035 Daily Roadway Capacity Analysis – Alternative 2*. For "Horizon Year 2035 – Alternative 2" traffic conditions, the study roadway segments are projected to operate at acceptable LOS, except for the following roadway segments:

- Rubidoux Boulevard, El Rivino Road to Production Circle
- Rubidoux Boulevard, Production Circle to 20th Street
- El Rivino Road, Cedar Avenue to Cactus Avenue
- Market Street, Agua Mansa Road to Hall Avenue
- Market Street, Hall Avenue to Rivera Street
- Agua Mansa Road, Market Street to Brown Avenue
- Agua Mansa Road, Hall Avenue to El Rivino Road

Table 5.15-29 Horizon Year 2035 Daily Roadway Capacity Analysis – Alternative 2

Roadway Segment	Jurisdiction	Year 2035 No Project Roadway Segment				Year 2035 With Project Roadway Segment			
		ADT	V/C	Threshold Capacity	LOS	ADT	V/C	Capacity Threshold	LOS
Rubidoux Boulevard									
Btwn El Rivino Rd and Production Circle	JV	30,100	0.88	Approaches Capacity	D	35,500	1.04	**Potentially Exceeds Capacity**	**F**
Btwn Production Circle and 20th St	JV	29,800	0.87	Approaches Capacity	D	35,200	1.03	**Potentially Exceeds Capacity**	**F**
Btwn 20th St and 24th St	JV	25,000	0.73	Acceptable	C	27,800	0.82	Approaches Capacity	D
Btwn 24th St and 26th St	JV	25,800	0.76	Acceptable	C	28,600	0.84	Approaches Capacity	D
Btwn 26th St and 28th St	JV	26,700	0.78	Acceptable	C	29,500	0.87	Approaches Capacity	D
Btwn 28th St and 30th St	JV	29,000	0.85	Approaches Capacity	D	31,700	0.93	Approaches Capacity	E
El Rivino Road									
Btwn Cedar Ave and Cactus Ave	JV / RIA / SB	11,400	0.88	Approaches Capacity	D	13,500	1.04	**Potentially Exceeds Capacity**	**F**
Btwn Cactus Ave and Hall Ave	JV /SB	6,600	0.51	Acceptable	A	9,200	0.71	Acceptable	C
Btwn Hall Ave and Agua Mansa Rd	JV / SB	4,100	0.32	Acceptable	A	5,500	0.42	Acceptable	A
Hall Avenue									
Btwn El Rivino Rd and Agua Mansa Rd	JV	2,800	0.22	Acceptable	A	4,500	0.35	Acceptable	A
Market Street									
Btwn Rubidoux Blvd and Agua Mansa Rd	JV	29,800	0.87	Approaches Capacity	D	33,100	0.97	Approaches Capacity	E
Btwn Agua Mansa Rd and Hall Ave	JV	25,700	1.43	**Potentially Exceeds Capacity**	**F**	29,900	1.66	**Potentially Exceeds Capacity**	**F**
Btwn Hall Ave and Rivera St	JV / RIV	35,000	1.94	**Potentially Exceeds Capacity**	**F**	39,200	2.18	**Potentially Exceeds Capacity**	**F**
Agua Mansa Road									
Btwn Market St and Brown Ave	JV	19,900	1.53	**Potentially Exceeds Capacity**	**F**	21,400	1.65	**Potentially Exceeds Capacity**	**F**

Table 5.15-29 Horizon Year 2035 Daily Roadway Capacity Analysis – Alternative 2

Roadway Segment	Jurisdiction	Year 2035 No Project Roadway Segment				Year 2035 With Project Roadway Segment			
		ADT	V/C	Threshold Capacity	LOS	ADT	V/C	Capacity Threshold	LOS
Btwn Brown Ave and Hall Ave	JV / SB	20,900	0.81	Approaches Capacity	D	21,900	0.85	Approaches Capacity	D
Btwn Hall Ave and El Rivino Rd	JV / SB	19,600	1.09	**Potentially Exceeds Capacity**	**F**	20,800	1.16	**Potentially Exceeds Capacity**	**F**

Source: Ganddini 2018.
Notes: Btwn: between; Class: classification; L: lanes; ADT: average daily trips; V/C: volume-to-capacity ratio; LOS: level of service; JV: Jurupa Valley; RIA: Rialto; RIV: Riverside; SB: Unincorporated San Bernardino County; MH: Major Highway; SH: Secondary Highway; NC: Not Classified
Bold: Exceeds LOS E significance criteria.
[1] Equivalent to a Secondary for County of Riverside Roadway Classifications based on existing curb-to-curb and lane
[2] Roadway maximum capacity at Level of Service "E" for roadway classification. Capacity adjustment to reflect the number of existing number of travel lanes and is based on existing lane geometrics, existing roadway design, points of conflict, and existing curb-to-curb widths to determine the nearest roadway classification and capacity.

Level of Significance before Mitigation: Even with implementation of MM Alt2 T-4, this impact would be potentially significant because the required Market Street improvements are not fully covered by TUMF and DIF fees. Also, Agua Mansa road widening is a fair share improvement that is currently not a programmed improvement and partially within the County of San Bernardino's jurisdiction. Additionally, under cumulative conditions, Rubidoux Boulevard, between El Rivino Road and Production Circle and also between Production Circle and 20th Street segments are shown to exceed capacity at the City's General Plan ultimate width for this roadway.

Site Access Alternative 1A

Connectivity between Buildings 1 through 5 (Industrial Park) and Rubidoux Boulevard may not be possible because access across the railroad spur line may not be granted. "Horizon Term Year 2035 – Site Access Alternative 1A" average daily traffic volumes are depicted on Figure 107 in the TIA for Site Access Alternative 1A (see Appendix K).

The horizon year 2035 roadway segment analysis for Site Access Alternative 1A is shown in Table 5.15-30, *Horizon Year 2035 Daily Roadway Capacity Analysis – Site Access Alternative 1A*. For "Horizon Year 2035 – Site Access Alternative 1A" traffic conditions, the study roadway segments are projected to operate at acceptable LOS, except for the following roadway segments:

- Rubidoux Boulevard, El Rivino Road to Production Circle
- Rubidoux Boulevard, Production Circle to 20th Street
- El Rivino Road, Cedar Avenue to Cactus Avenue
- Agua Mansa Road, Market Street to Brown Avenue

Table 5.15-30 Horizon Year 2035 Daily Roadway Capacity Analysis – Site Access Alternative 1A

Roadway Segment	Jurisdiction	Year 2035 No Project Roadway Segment				Year 2035 With Project Site Access Alternative 1A Roadway Segment			
		ADT	V/C	Threshold Capacity	LOS	ADT	V/C	Capacity Threshold	LOS
Rubidoux Boulevard									
Btwn El Rivino Rd and Production Circle	JV	30,100	0.88	Approaches Capacity	D	34,600	1.01	**Potentially Exceeds Capacity**	**F**
Btwn Production Circle and 20th St	JV	29,800	0.87	Approaches Capacity	D	34,300	1.01	**Potentially Exceeds Capacity**	**F**
El Rivino Road									
Btwn Cedar Ave and Cactus Ave	JV / RIA / SB	11,400	0.88	Approaches Capacity	D	17,300	1.33	**Potentially Exceeds Capacity**	**F**
Btwn Cactus Ave and Hall Ave	JV /SB	6,600	0.51	Acceptable	A	9,000	0.69	Acceptable	B
Hall Avenue									
Btwn El Rivino Rd and Agua Mansa Rd	JV	2,800	0.22	Acceptable	A	4,300	0.33	Acceptable	A
Market Street									
Btwn Rubidoux Blvd and Agua Mansa Rd	JV	29,800	0.87	Approaches Capacity	D	32,900	0.96	Approaches Capacity	E
Agua Mansa Road									
Btwn Market St and Brown Ave	JV	19,900	1.53	**Potentially Exceeds Capacity**	**F**	21,600	1.66	**Potentially Exceeds Capacity**	**F**
Btwn Brown Ave and Hall Ave	JV / SB	20,900	0.81	Approaches Capacity	D	21,600	0.83	Approaches Capacity	D

Source: Ganddini 2018.
Notes: Btwn: between; Class: classification; L: lanes; ADT: average daily trips; V/C: volume-to-capacity ratio; LOS: level of service; JV: Jurupa Valley; RIA: Rialto; RIV: Riverside; SB: Unincorporated San Bernardino County; MH: Major Highway; SH: Secondary Highway; NC: Not Classified
Bold: Exceeds LOS E significance criteria.
[1] Equivalent to a Secondary for County of Riverside Roadway Classifications based on existing curb-to-curb and lane
[2] Roadway maximum capacity at Level of Service "E" for roadway classification. Capacity adjustment to reflect the number of existing number of travel lanes and is based on existing lane geometrics, existing roadway design, points of conflict, and existing curb-to-curb widths to determine the nearest roadway classification and capacity.

Level of Significance before Mitigation: Even with implementation of MM Alt1A T-4, this impact would be potentially significant because the required Market Street improvements are not fully covered by TUMF and DIF fees. Also, Agua Mansa road widening is a fair share improvement that is currently not a programmed improvement and partially within the County of San Bernardino's jurisdiction. Additionally, under cumulative conditions, Rubidoux Boulevard, between El Rivino Road and Production Circle and also between Production Circle and 20th Street segments are shown to exceed capacity at the City's General Plan ultimate width for this roadway.

Site Access Alternative 2A

Connectivity between Buildings 1 through 5 (Industrial Park) and Rubidoux Boulevard may not be possible because access across the railroad spur line may not be granted. "Horizon Year 2020 – Site Access Alternative 2A" average daily traffic volumes are depicted on Figure 108 in the TIA for Site Access Alternative 2A (see Appendix K).

The horizon year 2035 roadway segment analysis for Site Access Alternative 2A is shown in Table 5.15-31, *Horizon Year 2035 Daily Roadway Capacity Analysis – Site Access Alternative 2A*. For "Horizon Year 2035 – Site Access Alternative 2A" traffic conditions, the study roadway segments are projected to operate at acceptable LOS, except for the following roadway segments:

- Rubidoux Boulevard, El Rivino Road to Production Circle
- Rubidoux Boulevard, Production Circle to 20th Street
- El Rivino Road, Cedar Avenue to Cactus Avenue
- Agua Mansa Road, Market Street to Brown Avenue

Table 5.15-31 Horizon Year 2035 Daily Roadway Capacity Analysis – Site Access Alternative 2A

		Year 2035 No Project Roadway Segment				Year 2035 With Project Site Access Alternative 2A Roadway Segment			
Roadway Segment	Jurisdiction	ADT	V/C	Threshold Capacity	LOS	ADT	V/C	Capacity Threshold	LOS
Rubidoux Boulevard									
Btwn El Rivino Rd and Production Circle	JV	30,100	0.88	Approaches Capacity	D	35,200	1.03	**Potentially Exceeds Capacity**	**F**
Btwn Production Circle and 20th St	JV	29,800	0.87	Approaches Capacity	D	34,900	1.02	**Potentially Exceeds Capacity**	**F**
El Rivino Road									
Btwn Cedar Ave and Cactus Ave	JV / RIA / SB	11,400	0.88	Approaches Capacity	D	18,000	1.38	**Potentially Exceeds Capacity**	**F**
Btwn Cactus Ave and Hall Ave	JV /SB	6,600	0.51	Acceptable	A	9,600	0.74	Acceptable	C
Hall Avenue									
Btwn El Rivino Rd and Agua Mansa Rd	JV	2,800	0.22	Acceptable	A	4,400	0.34	Acceptable	A
Market Street									
Btwn Rubidoux Blvd and Agua Mansa Rd	JV	29,800	0.87	Approaches Capacity	D	33,300	0.98	Approaches Capacity	E
Agua Mansa Road									
Btwn Market St and Brown Ave	JV	19,900	1.53	**Potentially Exceeds Capacity**	**F**	21,800	1.68	**Potentially Exceeds Capacity**	**F**

Table 5.15-31 Horizon Year 2035 Daily Roadway Capacity Analysis – Site Access Alternative 2A

Roadway Segment	Jurisdiction	Year 2035 No Project Roadway Segment				Year 2035 With Project Site Access Alternative 2A Roadway Segment			
		ADT	V/C	Threshold Capacity	LOS	ADT	V/C	Capacity Threshold	LOS
Btwn Brown Ave and Hall Ave	JV / SB	20,900	0.81	Approaches Capacity	D	21,800	0.84	Approaches Capacity	D

Source: Ganddini 2018.
Notes: Btwn: between; Class: classification; L: lanes; ADT: average daily trips; V/C: volume-to-capacity ratio; LOS: level of service; JV: Jurupa Valley; RIA: Rialto; RIV: Riverside; SB: Unincorporated San Bernardino County; MH: Major Highway; SH: Secondary Highway; NC: Not Classified
Bold: Exceeds LOS E significance criteria.
[1] Equivalent to a Secondary for County of Riverside Roadway Classifications based on existing curb-to-curb and lane
[2] Roadway maximum capacity at Level of Service "E" for roadway classification. Capacity adjustment to reflect the number of existing number of travel lanes and is based on existing lane geometrics, existing roadway design, points of conflict, and existing curb-to-curb widths to determine the nearest roadway classification and capacity.

Level of Significance before Mitigation: Even with implementation of MM Alt2A T-4 , this impact would be potentially significant because the required Market Street improvements are not fully covered by TUMF and DIF fees. Also, Agua Mansa road widening is a fair share improvement that is currently not a programmed improvement and partially within the County of San Bernardino's jurisdiction. Additionally, under cumulative conditions, Rubidoux Boulevard, between El Rivino Road and Production Circle and also between Production Circle and 20th Street segments are shown to exceed capacity at the City's General Plan ultimate width for this roadway.

TEMPORARY CONSTRUCTION TRAFFIC

This analysis describes the proposed project's temporary impacts on the circulation network in the project vicinity during construction activities.

Site development would require the use of haul trucks during site clearing, demolition, remediation, and excavation and the use of a variety of other construction vehicles throughout the construction work at the site. Transportation of heavy construction equipment and or materials, which requires the use of oversized vehicles, will require the appropriate transportation permit (see PPP T-5). It is anticipated that during construction approximately 12,660 tons of demolition materials will be exported—3,000 tons of concrete and masonry material, 6,660 tons of scrap metal, and 3,000 tons of mixed demolition debris (wood, drywall, roofing, insulation, and glass). Up to 20,000 cubic yards of contaminated soil is also expected to be exported.

Compared to the project trip generation, construction of the proposed project is expected to generate significantly less trips. The traffic impacts of construction activity will be minor and temporary. To further lessen the impact of construction traffic, the project will be required to comply with all standard conditions for the City of Jurupa Valley pertaining to construction activities; where possible, construction-related vehicle trips would be made in the off-peak hours (see PPP T-4). Additionally, a construction work site traffic control plan is required to be submitted to the City for review and approval prior to the start of any construction work (see PPP T-3). The plans are required to show the location of roadway, sidewalk, bike route, bus stop or driveway closures, traffic detours, haul routes, hours of operation, protective devices, warning signs, and access to abutting properties. Temporary traffic controls used around the construction area would adhere to the standards set forth in the California Manual of Uniform Traffic Control Devices (2014), and construction

activities should adhere to applicable local ordinances (see PPP T-4). Temporary construction impacts of the proposed project are less than significant.

Level of Significance before Mitigation: Less Than Significant.

Alternative Modes of Transportation Analysis

Existing Pedestrian and Bicycle Circulation

The Jurupa Area Plan trails and bikeway system is shown on Figure 17 in the TIA (see Appendix K) and includes both multipurpose trails and bicycle routes. Existing pedestrian facilities adjacent to the project site are shown on Figure 18 of the TIA (see Appendix K).

Existing Transit Service

The study area is currently served by Riverside Transit Agency Route 29 along Rubidoux Boulevard, Market Street, Hall Avenue, and 24th Street—also, Riverside Transit Agency Route 49 along Mission Boulevard (south of SR-60). Figure 19 in the TIA (see Appendix K) shows the existing transit routes in the project vicinity.

The proposed project is a Specific Plan that requires internal review with the City's General Plan policies regarding public transit, bicycle and pedestrian access, and facilities. As identified in the Specific Plan, the proposed project would concentrate employment in Riverside County, which provides an opportunity for the Riverside Transit Agency (RTA) to explore the feasibility of public transportation options for workers and visitors to the Specific Plan area. Additionally, the proposed project could accommodate bus stops and shelters provided by RTA, consistent with its transportation plans. The Specific Plan also includes lighting and design standards for pedestrian circulation in the parking lots to ensure visibility and separation of pedestrians from vehicular paths and connectivity to the onsite buildings. The proposed project would also comply with the applicable bicycle parking standards identified in the Specific Plan. The proposed project would not conflict with the City of Jurupa Valley's policies regarding complete streets and alternative transportation.

Level of Significance before Mitigation: Less than Significant.

Congestion Management Agencies

The following roadways in the project study area are identified on the Riverside County CMP roadway network:

- Rubidoux Boulevard
- Market Street
- Agua Mansa Road

The following roadways in the project study area are identified on the San Bernardino County CMP roadway network:

- Cedar Avenue
- Riverside Avenue

- Agua Mansa Road
- Rancho Avenue

Impacts to these segments were analyzed in accordance with CMP requirements and LOS standards as identified in Impacts T-1 (see Tables 5.15-8 through 5.14-31). As identified previously, the proposed project would have potentially significant impacts to intersections and segments, including segments that are included on the Riverside County and San Bernardino County CMP.

Level of Significance before Mitigation: Potentially Significant.

Caltrans

Main Line

RivTAM provides freeway projections for Year 2035. Table 5.15-32, *Horizon Year 2035 Freeway Mainline Operations Analysis – Alternative 1*, and Table 5.15-33, *Horizon Year 2035 Freeway Mainline Operations Analysis – Alternative 2*, presents the analysis for the Year 2035 morning (AM) and evening (PM) peak hour traffic conditions for Alternative 1 and Alternative 2, respectively. SR-60 currently provides three general use and one high occupancy vehicle lane in each direction within the study area. As shown in the table, one freeway segment is projected to operate at an unacceptable LOS for Year 2035 With Project – Alternative 1 and Year 2035 With Project – Alternative 2 traffic conditions:

- Eastbound (EB) SR-60 between from Market Street to Main Street (PM peak hour).

Table 5.15-32 Horizon Year 2035 Freeway Mainline Operations Analysis – Alternative 1

	AM Peak Hour Year 2035 W/O Project			AM Peak Hour Year 2035 W/Project			PM Peak Hour Year 2035 W/O Project			PM Peak Hour Year 2035 W/Project		
Segment	Trips	Vol/ Cap	LOS	Trips	Vol/ Cap	LOS	Trips	Vol/ Cap	LOS	Trips	Vol/ Cap	LOS
SR-60 WB Main Street to Market Street	8,017	0.94	E	8,137	0.96	E	7,982	0.94	E	8,004	0.94	E
SR-60 WB Market Street to Rubidoux Boulevard	7,833	0.92	D	7,837	0.92	D	7,933	0.93	E	7,933	0.93	E
SR-60 WB Rubidoux Boulevard to Valley Way	7,648	0.90	D	7,654	0.90	D	7,448	0.88	D	7,530	0.89	D
SR-60 EB Valley Way to Rubidoux Boulevard	7,435	0.87	D	7,504	0.88	D	8,206	0.97	E	8,218	0.97	E
SR-60 EB Rubidoux Boulevard to Valley Way	7,556	0.89	D	7,556	0.89	D	8,405	0.99	E	8,410	0.99	E
SR-60 EB Market Street to Main Street	7,572	0.89	D	7,583	0.89	D	8,601	1.01	**F**	8,743	1.03	**F**

Source: Ganddini 2018.
Notes: V/C: volume-to-capacity ratio; LOS: level of service; SR-60: State Route 60; WB: westbound; EB: eastbound
Bold: Exceeds LOS E significance criteria.

Table 5.15-33 Horizon Year 2035 Freeway Mainline Operations Analysis – Alternative 2

	AM Peak Hour Year 2035 W/O Project			AM Peak Hour Year 2035 W/Project			PM Peak Hour Year 2035 W/O Project			PM Peak Hour Year 2035 W/Project		
Segment	Trips	Vol/ Cap	LOS	Trips	Vol/ Cap	LOS	Trips	Vol/ Cap	LOS	Trips	Vol/ Cap	LOS
SR-60 WB Main Street to Market Street	8,017	0.94	E	8,107	0.95	E	7,982	0.94	E	8,006	0.94	E
SR-60 WB Market Street to Rubidoux Boulevard	7,833	0.92	D	7,835	0.92	D	7,933	0.93	E	7,933	0.93	E
SR-60 WB Rubidoux Boulevard to Valley Way	7,648	0.90	D	7,655	0.90	D	7,448	0.88	D	7,520	0.88	D
SR-60 EB Valley Way to Rubidoux Boulevard	7,435	0.87	D	7,487	0.88	D	8,206	0.97	E	8,220	0.97	E
SR-60 EB Rubidoux Boulevard to Valley Way	7,556	0.89	D	7,556	0.89	D	8,405	0.99	E	8,408	0.99	E
SR-60 EB Market Street to Main Street	7,572	0.89	D	7,584	0.89	D	8,601	1.01	**F**	8,723	1.03	**F**

Source: Ganddini 2018.
Notes: V/C: volume-to-capacity ratio; LOS: level of service; SR-60: State Route 60; WB: westbound; EB: eastbound
Bold: Exceeds LOS E significance criteria.

Level of Significance before Mitigation: Potentially Significant.

Merge/Diverge Analysis

A ramp junction is an area of competing traffic demands. Entering on-ramp vehicles merge into the adjacent traffic lane competing for space with upstream freeway traffic combining into one stream. In a merge area, individual on-ramp vehicles attempt to find gaps in the adjacent freeway lane traffic stream. The action of individual merging vehicles entering the traffic stream introduces turbulence to traffic flow in the vicinity of the ramp gore area. Approaching freeway vehicles move toward the left to avoid this turbulence, or create gaps for entering vehicles. Exiting off-ramp vehicles diverge from upstream traffic, separating into two streams. Exiting vehicles must occupy the lane adjacent to the freeway stream or the off-ramp. This has a redistributing effect on other freeway vehicles as they move left to avoid the turbulence of the immediate diverge area.

Ramps have a limited storage capacity. If capacity is exceeded at the merge point, local congestion and queuing occurs, which may ultimately spill back onto the roadway network. The same is true for diverging vehicles. If capacity is exceeded at the diverge point, queuing can back onto the freeway mainline. Both queuing scenarios should be avoided.

The merge/diverge analysis analyzes the following interchanges:

- I-10 at Cedar Avenue
- I-10 at Riverside Avenue
- SR-60 at Rubidoux Boulevard

- SR-60 at Market Street.

The Year 2035 traffic volume projections have been obtained from the RivTAM for Year 2035 traffic conditions. The freeway ramp merge/diverge analysis was conducted using the HCM 2010 methodology using the HCS+ software, version 6.65. The analysis is based on the typical weekday AM and PM peak hour traffic volumes for Buildout Year (2035) traffic conditions. Caltrans has defined LOS C as an acceptable level of service for ramp merging/diverging.

Table 5.15-34, *Horizon Year 2035 Freeway Merge/Diverge Analysis*, summarizes results of the merge/diverge analyses for the interchanges above based on the projected traffic data and existing area measurements. Many of the merge/diverge locations are projected to operate at LOS E or F since the projected freeway volumes exceed the capacity available based on the number of lanes currently provided.

Table 5.15-34 Horizon Year 2035 Freeway Merge/Diverge Analysis

	Year 2035 Without Project		Year 2035 With Project Alternative 1		Year 2035 With Project Alternative 2	
	Peak Hour Density- LOS		Peak Hour Density- LOS		Peak Hour Density- LOS	
Intersection	AM	PM	AM	PM	AM	PM
I-10 Freeway WB On-Ramp at Cedar Avenue Merge	**38.5-F**	24.4-C	**38.7-F**	26.1-C	**38.7-F**	26.0-C
I-10 Freeway WB Off-Ramp at Cedar Avenue Diverge	25.2-C	13.3-B	25.2-C	13.3-B	25.2-C	13.3-B
I-10 Freeway EB Off-Ramp at Cedar Avenue Diverge	11.8-B	25.5-C	12.3-B	25.7-C	12.2-B	25.7-C
I-10 Freeway EB On-Ramp at Cedar Avenue Merge	21.7-C	**37.7-F**	21.7-C	**37.7-F**	21.7-C	**37.7-F**
I-10 Freeway WB On-Ramp at Riverside Avenue Merge	25.0-C	16.3-B	25.0-C	16.4-B	25.0-C	16.4-B
I-10 Freeway WB Off-Ramp at Riverside Avenue Diverge	**36.6-F**	22.0-C	**37.2-F**	22.3-C	**37.1-F**	22.3-C
I-10 Freeway EB Off-Ramp at Riverside Avenue Diverge	12.0-B	**32.4-F**	12.0-B	**32.4-F**	12.0-B	**32.4-F**
10 Freeway EB On-Ramp at Riverside Avenue Merge	22.0-C	**39.4-F**	22.2-C	**40.1-F**	22.2-C	**40.0-F**
SR-60 Freeway WB On-Ramp at Rubidoux Boulevard Merge	**35.5-E**	33.2-D	**35.9-E**	34.4-D	**35.9-E**	34.4-D
SR-60 Freeway WB Off-Ramp at Rubidoux Boulevard Diverge	34.2-D	**35.1-E**	34.2-D	**35.2-E**	34.2-D	**35.2-E**
SR-60 Freeway EB Off-Ramp at Rubidoux Boulevard Diverge	33.6-D	**38.4-E**	34.5-D	**38.7-E**	34.4-D	**38.8-E**
SR-60 Freeway EB On-Ramp at Rubidoux Boulevard Merge	33.3-D	33.3-D	33.3-D	33.4-D	33.3-D	33.4-D
R-60 Freeway WB On-Ramp at Market Street Merge	31.2-D	**36.0-E**	31.2-D	**36.0-E**	31.2-D	36.0-E
SR-60 Freeway WB Off-Ramp at Market Street Diverge	**36.9-E**	**35.9-E**	**38.5-E**	**36.6-E**	**38.3-E**	**36.6-E**

Table 5.15-34 Horizon Year 2035 Freeway Merge/Diverge Analysis

Intersection	Year 2035 Without Project Peak Hour Density- LOS AM	Year 2035 Without Project Peak Hour Density- LOS PM	Year 2035 With Project Alternative 1 Peak Hour Density- LOS AM	Year 2035 With Project Alternative 1 Peak Hour Density- LOS PM	Year 2035 With Project Alternative 2 Peak Hour Density- LOS AM	Year 2035 With Project Alternative 2 Peak Hour Density- LOS PM
SR-60 Freeway EB Off-Ramp at Market Street Diverge	**35.9-E**	**38.9-E**	35.9-D	**38.9-E**	**35.9-E**	**38.9-E**
SR-60 Freeway EB On-Ramp at Market Street Merge	32.4-D	**36.4-F**	33.0-D	**38.2-F**	32.9-D	**38.0-F**

Source: Ganddini 2018
Notes: V/C: volume-to-capacity ratio; LOS: level of service; I-10: Interstate 10; SR-60: State Route 60; WB: westbound; EB: eastbound
Bold: Exceeds LOS D significance criteria.

Level of Significance before Mitigation: Potentially Significant.

Impact T-2 Threshold: Would the project conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?

On September 27, 2013, SB 743 was signed into law. The Legislature found that with adoption of the Sustainable Communities and Climate Protection Act of 2008 (SB 375), the state had signaled its commitment to encourage land use and transportation planning decisions and investments that reduce vehicle miles traveled (VMT) and thereby contribute to the reduction of greenhouse gas emissions (GHG), as required by the California Global Warming Solutions Act of 2006 (AB 32). Additionally, AB 1358, described above, requires local governments to plan for a balanced, multimodal transportation network that meets the needs of all users. SB 743 started a process that would fundamentally change transportation impact analysis as part of CEQA compliance. These changes will include the elimination of auto delay, level of service (LOS), and similar measures of vehicular capacity or traffic congestion as the basis for determining significant impacts under CEQA..

As part of the new CEQA Guidelines, the new criteria "shall promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses." OPR developed alternative metrics and thresholds based on VMT. The guidelines were certified by the Secretary of the Natural Resources Agency in December 2018, and automobile delay, as described solely by level of service of similar measures of vehicular capacity or traffic congestion, shall not be considered a significant impact on the environment. There is an opt-in period until July 1, 2020, for agencies to adopt new VMT-based criteria. As such, automobile delay is still considered a significant impact, and the City will continue to use the established LOS criteria for determining significant impacts.

For informational purposes, Table 5.9-35, *Project-Generated Daily Vehicle Miles Traveled,* shows the daily VMT generated by passenger vehicles and trucks associated with the project.

Table 5.15-35 Project-Generated Daily Vehicle Miles Traveled

Intersection	Passenger Vehicle Daily VMT	Truck Daily VMT	Total
Alternative 1	48,426	98,280	146,706
Alternative 2	69,580	89,800	159,380

Source: Urban Crossroads 2019

Because this EIR is circulated for public review before July 1, 2020, the City, as the lead agency, was not required to use a VMT metric in its analysis of traffic impacts. For this reason, this EIR uses a LOS metric in its traffic analysis, and is thus in compliance with the standards in effect at the time of its circulation.

Level of Significance before Mitigation: Less than significant.

Impact T-3 Threshold: Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

The Specific Plan provides a conceptual right-of-way improvement plan both within and outside the site. These new right-of-way improvements may include new turning lanes, curb-cuts and driveways, new traffic signals, bikeways, road rehabilitation, new traffic signs, entryway signage, emergency vehicle access, curb, gutters, sidewalks, parkway landscaping, and street trees. The Specific Plan includes a Circulation Plan (see Figure 3-6, *Circulation Plan*, in Chapter 3, *Project Description*) to facilitate vehicular access to the surrounding streets. The Circulation Plan identifies vehicular access points for trucks and autos and automobiles only (i.e., no truck ingress/egress) and truck restrictions.

Additionally, a spur of the Union Pacific Railroad (UPRR) for freight travel runs at length through the western portion of the site. The project includes an internal crossing between Buildings 1 through 5 (Industrial Park) and Rubidoux Boulevard that would warrant review by UPRR. The internal circulation includes special railroad safety features for internal streets and driveways crossing the railroad tracks. UPRR would need to grant an easement for new driveways and ingress/egress points that cross the rail line and may require design features to be installed to ensure safe travels/access over their railroad. Connectivity between Buildings 1 through 5 (Industrial Park) and Rubidoux Boulevard may not be possible because access across the railroad spur line by UPRR may not be granted. The project includes an alternative design (see Alternative 1A and Alternative 2A) in the event UPRR does not grant an easement.

As required by the City of Jurupa Valley, the proposed project would design new infrastructure in accordance with the City of Jurupa Valley and applicable Riverside County standards. All onsite and site-adjacent improvements, including traffic signing/striping and project driveways, sight distance requirements, are to be approved by the City of Jurupa Valley Public Works Department. With adherence to the design standards of the City and Riverside County and review of the proposed infrastructure improvements by City staff and UPRR, the proposed project would not substantially increase hazards.

Level of Significance before Mitigation: Less than significant.

Impact T-4 Threshold: Would the project result in inadequate emergency access?

Regional access is provided via several major roads and highways. Rubidoux Boulevard and Market Street provide access to SR-60. Agua Mansa Road provides access to Riverside Avenue and Rancho Avenue. Riverside Avenue to the east provides access to SR-60, I-10, and I-215 via Center Street. Rancho Avenue provides an alternate route to I-10 via Agua Mansa Road. The proposed connection to Brown Avenue, accessed via Agua Mansa Road or Hall Avenue, would provide one additional shared truck and automobile driveway into the Specific Plan area. Emergency access to the Specific Plan area is provided around each proposed building, through private streets, parking areas, and truck courts. As identified previously under Impact T-3, the roadways and internal circulation would be designed to meet City standards, including standards for emergency vehicle access. With adherence to the design standards of the City and review of the proposed infrastructure improvements by City staff, the proposed project would not substantially increase hazards.

Level of Significance before Mitigation: Less than Significant.

5.15.5 Cumulative Impacts

The analyses in Impact T-1 for each of the traffic scenarios evaluates traffic conditions at local jurisdictions, CMP, and state-controlled intersections for cumulative conditions with and without the project utilizing the HCM methodology. Cumulative traffic impacts consider the impacts of future growth and development in the City of Jurupa Valley and vicinity on the roadway system serving the area using the RivTAM subregional transportation model. The model scenarios include infrastructure changes and changes to socioeconomic data (population and employment) that generate the trips in the model. The future year scenario includes expected growth in population and employment of all cities in the study area and incorporates several cumulative projects, including major projects such as the Rio Vista Specific Plan and Market Street Commercial. Thus, the analysis of 2020 and 2035 conditions considered cumulative impacts of the project.

As identified in Impact T-1, the proposed project would result in cumulatively considerable impacts to the following intersections:

- #1. Cedar Avenue at I-10 westbound (WB) Ramps
- #2. Cedar Avenue at I-10 eastbound (EB) Ramps
- #5. Cedar Avenue at Jurupa Avenue
- #6. Rubidoux Boulevard at Tarragona Drive/ El Rivino Road (Site Access Alternative 1A and 2A only)
- #7. Rubidoux Boulevard at Building 6 Access
- #8 Rubidoux Boulevard at Project Access
- #10. Rubidoux Boulevard at 20th Street / Market Street
- #11. Rubidoux Boulevard at 24th Street
- #12. Rubidoux Boulevard at 26th Street
- #13. Rubidoux Boulevard at 28th Street
- #14. Rubidoux Boulevard at 30th Street / SR-60 WB Off-Ramp
- #16. Rubidoux Boulevard at SR-60 EB Ramps

- #18. Building 6 Access at El Rivino Road
- #19. Project Access at El Rivino Road
- #20. Cactus Avenue / Project Access at El Rivino Road
- #21. Building 1 Auto Access at El Rivino Road
- #22. Hall Avenue at El Rivino Road
- #23. Hall Avenue at Building 1 Access
- #24. Agua Mansa Road at El Rivino Road
- #25. Agua Mansa Road at Holly Place
- #29. Agua Mansa Road at Market Street
- #30. Market Street at Hall Avenue
- #32. Market Street at SR-60 WB Ramps
- #33. Market Street at SR-60 EB Ramps
- #36. Riverside Avenue at Slover Avenue

Furthermore, the proposed project would result in cumulatively considerable impacts to the following segments:

- Market Street between Agua Mansa Road and Hall Avenue
- Market Street between Hall Avenue and Rivera Street
- Agua Mansa Road between Market Street and Brown Avenue
- Agua Mansa Road between Hall Avenue and El Rivino Road
- El Rivino Road between Cedar Avenue and Cactus Avenue

Level of Significance before Mitigation: Potentially Significant.

5.15.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements, project design features, and standard conditions of approval, the following impacts would be less than significant: T-2, T-3, T-4, T-5, T-6, and T-7.

Without mitigation, the following impacts would be **potentially significant**:

- **Impact T-1** The Existing Plus Project Scenario would generate traffic volumes that would result in direct impacts and would cumulatively contribute to traffic congestion that exceeds the LOS standards at intersections and segments in the study area.
- **Impact T-1** The Near-Term (2020) Project Scenario would generate traffic volumes that would cumulatively contribute to traffic congestion that exceeds the LOS standards at intersections and segments in the study area.
- **Impact T-1** The Horizon Year (2035) Project Scenario would generate traffic volumes that would cumulatively contribute to traffic congestion that exceeds the LOS standards at intersections and segments in the study area.

- **Impact T-1** The project would generate traffic volumes that would cumulatively contribute to traffic congestion that exceeds the service standards of the San Bernardino County congestion management agency, Riverside County congestion management agency, and Caltrans.

5.15.7 Mitigation Measures

As briefly summarized in Section 5.15.1, applicable to this project are two distinct sets of fees that are collected for purposes of constructing transportation improvements to mitigate development project impacts to the transportation system. The two fee programs are the City of Jurupa Valley Development Impact Fee (DIF) program and the Transportation Uniform Mitigation Fee (TUMF) program. The TUMF program is a Riverside County countywide program.

5.15.7.1 CITY OF JURUPA VALLEY DEVELOPMENT IMPACT FEES

The City of Jurupa Valley incorporated on July 1, 2011. The City of Jurupa Valley's Municipal Code (JVMC) is codified by Ordinance 2018-12, and the City's DIF fees are included in the JVMC, Chapter 3.75. Chapter 3.75.060, Definitions, states that the City of Jurupa Valley utilizes the "Riverside County Public Facilities Needs List Through the Year 2010" (PFNL) as a basis to collect its DIF fees. The relevant excerpts from the PFNL are provided in Appendix K3, Attachment "B." The City collects DIF fees from development projects, based on land use, to ensure funds are available for the construction of all required infrastructure to support development/growth without impacting the City's General Fund.

5.15.7.2 TRANSPORTATION UNIFORM MITIGATION FEES

The City of Jurupa Valley is a member agency of the Western Riverside Council of Governments (WRCOG), which administers the Transportation Uniform Mitigation Fee (TUMF) program for its member agencies. The purpose of the WRCOG is to unify Western Riverside County so that it can speak with a collective voice on important issues that affect its members. Representatives from 18 cities, the Riverside County Board of Supervisors, the Eastern and Western Municipal Water Districts, and the Morongo Band of Mission Indians have seats on the WRCOG Executive Committee, the group that sets policy for the organization, and the Riverside County Superintendent of Schools is an ex-officio member. Recognizing that many issues related to growth are not constrained by political boundaries, WRCOG focuses on several regional matters, which include transportation infrastructure. WRCOG developed and administers the TUMF, a program that ensures that new development pays its fair share for the increased traffic that it creates. WRCOG requires all member agencies to collect TUMF fees. Included in the TUMF program are projects within the City of Jurupa Valley (Appendix K3, Attachment "C").

Both fee programs (DIF and TUMF) have been created and approved by the governing agencies to ensure sufficient funding is collected to construct the required infrastructure identified in each program. Therefore, by payment of each fee, project impacts are mitigated for improvements identified on each fee program. In cases where a project is conditioned to construct infrastructure identified on a fee program, the development project is eligible for fee credit.

Impact T-1 – Circulation System, Roadways

The following mitigation measures customized for each alternative are in addition to the requirement for the applicant to implement PDF T1 through PDF T8.

5.15.7.3 ALTERNATIVE 1

Intersections

Alt1 T-1 The project applicant shall construct the following intersection improvements prior to the issuance of the occupancy permit (each intersection is followed by its number as included in the traffic reports, Appendix K):

- Rubidoux Blvd./Building 6 access (#7):
  - Construct a westbound right turn lane
- Rubidoux Blvd. /Project Access (EW)(#8):
  - Construct NB RT (northbound right turn) lane
  - Construct SB LT (southbound left turn) lane
  - Construct WB LT (westbound left turn) lane
  - Construct WB RT (westbound right turn) lane
  - Construct new signal
- Rubidoux Blvd. @ Production Circle/Project Access (#9):
  - Construct new traffic signal (required by Cal Portland contingent upon development level and meeting signal warrant)
- Building 6 Access (NS)/El Rivino Road (#18):
  - Construct NB RT lane
  - Construct 2nd EB through lane
  - Construct EB RT lane
  - Construct WB LT lane
- Project Access (NS)/El Rivino Road (#19):
  - Construct NB LT lane
  - Construct NB RT lane
  - Construct 2nd EB through lane
  - Construct EB RT lane
  - Construct WB LT lane
- Cactus Avenue/Project Access @ El Rivino Road (#20):
  - Construct NB LT lane
  - Construct NB shared through/RT lane
  - Construct 2nd EB through lane

- Construct WB LT lane

- Building 1 Auto Access/El Rivino Road (#21):
  - Construct NB/RT lane
  - Construct 2nd EB through lane
  - Construct EB RT lane
  - Construct WB LT lane

- Hall Avenue/El Rivino Road (#22):
  - Construct NB LT lane
  - Construct EB LT lane
  - Construct WB LT lane
  - Construct new traffic signal

- Hall Avenue/Building 1 Access (EW) (#23)
  - Construct NB LT lane
  - Construct SB RT lane
  - Construct EB LT lane
  - Construct EB RT lane

Alt1 T-2 The project applicant shall pay DIF and TUMF fees that will fund the following improvements:

- Rubidoux Blvd. @ 20th Street/Market Street (#10)
  - Install NB RT overlap
  - Modify signal phasing
  - Construct 2 WB LT lanes
  - Traffic signal modification
  - Install NB RT overlap e
  - Construct 2nd SB LT lane

- Rubidoux Blvd. @ 24th Street (#11)
  - Construct new traffic signal
  - Construct NB LT lane
  - Construct SB LT lane

- Rubidoux Blvd. @ 26th Street (#12)
  - Construct NB LT lane
  - Construct SB LT lane
  - Construct new traffic signal

- Rubidoux Blvd. @ 28th Street (#13)
  - Construct EB LT lane
  - Construct WB LT lane

- Rubidoux Blvd. @ 30th Street / SR60 WB Off Ramp (#14)
  - Construct WB LT lane
- Rubidoux Blvd. @ SR60 WB Ramp (#15)
  - Construct new traffic signal
- Rubidoux Blvd. @ SR60 EB Ramp (#16)
  - Construct NB RT lane
  - Construct EB LT lane
- Agua Mansa Road @ Holly Street (#25)
  - Construct new traffic signal
- Agua Mansa Road @ Market Street (#29)
  - Construct SB LT lane
  - Construct SB Through lane
  - Construct second SB RT lane
- Market Street @ Hall Avenue (#30)
  - Construct N/S 2-Way LT median
  - Construct new traffic signal
- Market Street @ SR60 WB ramp (#32)
  - Restripe SB RT lane to Shared through/RT lane (2035 Requirement)

Alt1 T-3 The project applicant shall contribute fair share funding for the following intersection improvements prior to issuance of the first occupancy permit: Fair Share calculations are presented in Tables 49 and 50 of the TIA (Appendix K1).

- Hall Avenue/El Rivino Road (#22)
  - Construct EB LT lane
  - Construct WB LT lane
  - Construct new traffic signal
- Market Street/SR60 EB Ramps (#33) (Caltrans)
  - Construct 2nd SB LT lane
- Cedar Avenue/I-10 WB Ramp (#1) (Caltrans)
  - Construct 2nd WB RT lane
  - Construct WB LT lane
- Cedar Avenue/I-10 EB Ramp (#2) (Caltrans)
  - Construct EB RT lane

- Cedar Avenue @ Jurupa Avenue (#5)
  - Construct WB LT lane
  - Construct EB LT lane
- Agua Mansa Road/El Rivino Road (#24)(SB)
  - Construct new traffic signal
- Riverside Avenue @ Slover Avenue (#36)
  - Construct SB RT lane

Roadway Segments

Alt1 T-4 The project applicant shall contribute fair share (FS) funding or pay DIF/TUMF fees for the following roadway segment prior to issuance of the first occupancy permit:

- Agua Mansa Road between Market Street and Brown Avenue (2020 Requirement, DIF)
  - Construct two additional lanes to widen from two lanes to four lanes
- Agua Mansa Road between Hall Street and El Rivino Road (2035 Requirement, FS)
  - Construct two additional lanes to widen from two lanes to four lanes (east side pavement currently at ultimate; west wise widening only required (from S/O El Rivino Rd. to S/O Holly Street (approximately 1,200 ft)
- Rubidoux Blvd between El Rivino and Production Circle
  - Improve Rubidoux Blvd. along project frontage (east side from El Rivino Road to southerly edge of Parcel 7; included in PDF T-8)
- Market Street between Agua Mansa Road and Hall Avenue (DIF/TUMF)
  - Construct two additional lanes to widen from two lanes to four lanes
- Market Street between Hall Avenue and Rivera Street (DIF/TUMF/FS)
  - Construct two additional lanes to widen from two lanes to four lanes

5.15.7.4 ALTERNATIVE 2

Intersections

Alt2 T-1 The project applicant shall construct the following intersection improvements prior to the issuance of the occupancy permit (each intersection is followed by its number as included in the traffic reports, Appendix K):

- Rubidoux Blvd./Building 6 access (#7):
  - Construct a WB RT lane
- Rubidoux Blvd. /Project Access (EW)(#8):
  - Construct NB RT (northbound right turn) lane

- Construct SB LT (southbound left turn) lane
- Construct WB LT (westbound left turn) lane
- Construct WB RT (westbound right turn) lane
- Construct new signal

- Rubidoux Blvd. @ Production Circle/Project Access (#9)
  - Construct new traffic signal (required by Cal Portland contingent upon development level and meeting signal warrant)

- Building 6 Access (NS)/El Rivino Road (#18)
  - Construct NB RT lane
  - Construct 2nd EB through lane
  - Construct EB RT lane
  - Construct WB LT lane

- Project Access (NS)/El Rivino Road (#19)
  - Construct NB LT lane
  - Construct NB RT lane
  - Construct 2nd EB through lane
  - Construct EB RT lane
  - Construct WB LT lane

- Cactus Avenue/Project Access @ El Rivino Road (#20)
  - Construct NB LT lane
  - Construct NB shared through/RT lane
  - Construct 2nd EB through lane
  - Construct EB RT lane
  - Construct WB LT lane

- Building 1 Auto Access/El Rivino Road (#21)
  - Construct NB/RT lane
  - Construct 2nd EB through lane
  - Construct EB RT lane
  - Construct WB LT lane

- Hall Avenue/El Rivino Road (#22)
  - Construct NB LT lane
  - Construct EB LT lane
  - Construct WB LT lane
  - Construct new traffic signal

- Hall Avenue/Building 1 Access (EW) (#23)
  - Construct NB LT lane
  - Construct SB RT lane

- Construct EB LT lane
- Construct EB RT lane

Alt2 T-2 The project applicant shall pay DIF and TUMF fees that will fund the following improvements:

- Rubidoux Blvd. @ 20th Street/Market Street (#10)
  - Install NB RT overlap
  - Modify signal phasing
  - Construct 2 WB LT lanes
  - Traffic signal modification
  - Install NB RT overlap
  - Construct 2nd SB LT lane
- Rubidoux Blvd. @ 24th Street (#11)
  - Construct new traffic signal
  - Construct NB LT lane
  - Construct SB LT lane
- Rubidoux Blvd. @ 26th Street (#12)
  - Construct NB LT lane
  - Construct SB LT lane
    Construct new traffic signal
- Rubidoux Blvd. @ 28th Street (#13)
  - Construct EB LT lane
  - Construct WB LT lane
- Rubidoux Blvd. @ 30th Street / SR60 WB Off Ramp (#14)
  - Construct WB LT lane
- Rubidoux Blvd. @ SR60 WB Ramp (#15)
  - Construct new traffic signal
- Rubidoux Blvd. @ SR60 EB Ramp (#16)
  - Construct NB RT lane
  - Construct EB LT lane
- Agua Mansa Road @ Holly Street (#25)
  - Construct new traffic signal
- Agua Mansa Road @ Market Street (#29)
  - Construct SB LT lane
  - Construct SB Through lane
  - Construct second SB RT lane

- Market Street @ Hall Avenue (#30)
  - Construct N/S 2-Way LT median
  - Construct new traffic signal
- Market Street @ SR60 WB ramp (#32)
  - Restripe SB RT lane to Shared through/RT lane

Alt2 T-3 The project applicant shall contribute fair share funding for the following intersection improvements prior to issuance of the first occupancy permit:

- Hall Avenue/El Rivino Road (#22)
  - Construct EB LT lane
  - Construct WB LT lane
  - Construct new traffic signal
- Market Street/SR60 EB Ramps (#33) (Caltrans)
  - Construct 2nd SB LT lane
- Cedar Avenue/I-10 WB Ramp (#1) (Caltrans)
  - Construct 2nd WB RT lane
  - Construct WB LT lane
- Cedar Avenue/I-10 EB Ramp (#2) (Caltrans)
  - Construct EB RT lane
- Cedar Avenue @ Jurupa Avenue (#5)
  - Construct WB LT lane
  - Construct EB LT lane
- Agua Mansa Road/El Rivino Road (#24)(SB)
  - Construct new traffic signal
- Riverside Avenue @ Slover Avenue (#36)
  - Construct SB RT lane Roadway Segments

Alt2 T-4 The project applicant shall contribute fair share (FS) funding or pay DIF/TUMF fees for the following roadway segment prior to issuance of the first occupancy permit:

- Agua Mansa Road between Market Street and Brown Avenue (DIF)
  - Construct two additional lanes to widen from two lanes to four lanes
- Agua Mansa Road between Hall Street and El Rivino Road (FS)
  - Construct two additional lanes to widen from two lanes to four lanes (east side pavement currently at ultimate; west side widening only required from S/O El Rivino Rd. to S/O Holly Street (approximately 1,200 ft)

- El Rivino between Cedar Avenue and Cactus Avenue
  - Construct 1 additional EB lane to widen from 1 EB lane to 2 EB lanes and maintain 1 WB lane
- Market Street between Agua Mansa Road and Hall Avenue (DIF/TUMF)
  - Construct two additional lanes to widen from two lanes to four lanes
- Market Street between Hall Avenue and Rivera Street (DIF/TUMF/FS)
  - Construct two additional lanes to widen from two lanes to four lanes

5.15.7.5 ALTERNATIVE 1A

Intersections

Alt1A T-1 The project applicant shall construct the following intersection improvements prior to the issuance of the occupancy permit (each intersection is followed by its number as included in the traffic reports, Appendix K):

- Rubidoux Blvd./Building 6 access (#7):
  - Construct a westbound right turn lane
- Rubidoux Blvd. /Project Access (EW)(#8):
  - Construct NB RT (northbound right turn) lane
  - Construct SB LT (southbound left turn) lane
  - Construct WB LT (westbound left turn) lane
  - Construct WB RT (westbound right turn) lane
  - Construct new signal
- Rubidoux Blvd. @ Production Circle/Project Access (#9)
  - Construct new traffic signal (required by Cal Portland contingent upon development level and meeting signal warrant)
- Building 6 Access (NS)/El Rivino Road (#18)
  - Construct NB RT lane
  - Construct 2nd EB through lane
  - Construct EB RT lane
  - Construct WB LT lane
- Project Access (NS)/El Rivino Road (#19)
  - Construct NB LT lane
  - Construct NB RT lane
  - Construct 2nd EB through lane
  - Construct EB RT lane
  - Construct WB LT lane

- Cactus Avenue/Project Access @ El Rivino Road (#20)
  - Construct NB LT lane
  - Construct NB shared through/RT lane
  - Construct 2nd EB through lane
  - Construct WB LT lane
- Building 1 Auto Access/El Rivino Road (#21)
  - Construct NB/RT lane
  - Construct 2nd EB through lane
  - Construct EB RT lane
  - Construct WB LT lane
- Hall Avenue/El Rivino Road (#22)
  - Construct NB LT lane
  - Construct EB LT lane
  - Construct WB LT lane
  - Construct new traffic signal
- Hall Avenue/Building 1 Access (EW) (#23) (E+P Requirement)
  - Construct NB LT lane

Alt1A T-2 The project applicant shall pay DIF and TUMF fees prior to each building occupancy that will fund the following improvements:

- Rubidoux Blvd. @ Tarragon/El Rivino (#6)
  - Construct NB RT lane
  - Construct EB LT lane
  - Restripe WB Left/Thru lane to shared Thru/Right turn lane
  - Restripe WB Right turn lane to shared Thru/Right turn lane
- Rubidoux Blvd. @ 20th Street/Market Street (#10)
  - Install NB RT overlap
  - Modify signal phasing Construct 2 WB LT lanes Traffic signal modification
  - Construct 2nd SB LT lane
- Rubidoux Blvd. @ 24th Street (#11)
  - Construct new traffic signal
  - Construct NB LT lane
  - Construct SB LT lane
- Rubidoux Blvd. @ 26th Street (#12)
  - Construct NB LT lane
  - Construct SB LT lane
  - Construct new traffic signal

- Rubidoux Blvd. @ 28th Street (#13)
  - Construct EB LT lane
  - Construct WB LT lane
- Rubidoux Blvd. @ 30th Street / SR60 WB Off Ramp (#14)
  - Construct WB LT lane
- Rubidoux Blvd. @ SR60 WB Ramp (#15)
  - Construct new traffic signal
- Rubidoux Blvd. @ SR60 EB Ramp (#16)
  - Construct NB RT lane
  - Construct EB LT lane
- Agua Mansa Road @ Holly Street (#25)
  - Construct new traffic signal
- Agua Mansa Road @ Market Street (#29)
  - Construct SB LT lane
  - Construct SB Through lane
  - Construct second SB RT lane
- Market Street @ Hall Avenue (#30)
  - Construct N/S 2-Way LT median
  - Construct new traffic signal
- Market Street @ SR60 WB ramp (#32)
  - Restripe SB RT lane to Shared through/RT lane

Alt1A T-3 The project applicant shall contribute fair share funding for the following intersection improvements prior to issuance of the first occupancy permit:

- Hall Avenue/El Rivino Road (#22)
  - Construct EB LT lane
  - Construct WB LT lane
  - Construct new traffic signal
- Market Street/SR-60 EB Ramps (#33) (Caltrans)
  - Construct 2nd SB LT lane
- Cedar Avenue/I-10 WB Ramp (#1) (Caltrans)
  - Construct 2nd WB RT lane
  - Construct WB LT lane

- Cedar Avenue/I-10 EB Ramp (#2) (Caltrans)
  - Construct EB RT lane
- Cedar Avenue @ Jurupa Avenue (#5)
  - Construct WB LT lane
  - Construct EB LT lane
- Agua Mansa Road/El Rivino Road (#24)(SB)
  - Construct new traffic signal
- Riverside Avenue @ Slover Avenue (#36)
  - Construct SB RT lane

Roadway Segments

Alt1A T-4 The project applicant shall contribute fair share (FS) funding or pay DIF/TUMF fees for the following roadway segment prior to issuance of the first occupancy permit:

- Agua Mansa Road between Market Street and Brown Avenue (2020 Requirement, DIF)
  - Construct two additional lanes to widen from two lanes to four lanes
- Agua Mansa Road between Hall Street and El Rivino Road (2035 Requirement, DIF/FS)
  - Construct two additional lanes to widen from two lanes to four lanes (east side pavement currently at ultimate; west side widening only required from S/O El Rivino Rd. to S/O Holly Street (approximately 1,200 ft)
- El Rivino between Cedar Avenue and Cactus Avenue (2020 Requirement, FS)
  - Construct 1 additional EB lane to widen from 1 EB lane to 2 EB lanes and maintain 1 WB lane
- Improve Rubidoux Blvd. along project frontage (DIF)
  - east side from El Rivino Road to southerly edge of Parcel 7
- Market Street between Agua Mansa Road and Hall Avenue (2020 Requirement, DIF/TUMF)
  - Construct two additional lanes to widen from two lanes to four lanes
- Market Street between Hall Avenue and Rivera Street (DIF/TUMF/FS)
  - Construct two additional lanes to widen from two lanes to four lanes

5.15.7.6 ALTERNATIVE 2A

Intersections

Alt2A T-1 The project applicant shall construct the following intersection improvements prior to the issuance of the occupancy permit (each intersection is followed by its number as included in the traffic reports, Appendix K):

- Rubidoux Blvd./Building 6 access (#7):
  - Construct a westbound right turn lane
- Rubidoux Blvd. /Project Access (EW)(#8):
  - Construct NB RT lane
  - Construct SB LT lane
  - Construct WB LT lane
  - Construct WB RT lane
  - Construct new signal
- Rubidoux Blvd. @ Production Circle/Project Access (#9):
  - Construct new traffic signal (required by Cal Portland contingent upon development level and meeting signal warrant)
- Building 6 Access (NS)/El Rivino Road (#18):
  - Construct NB RT lane
  - Construct 2nd EB through lane
  - Construct EB RT lane
  - Construct WB LT lane
- Project Access (NS)/El Rivino Road (#19):
  - Construct NB LT lane
  - Construct NB RT lane
  - Construct 2nd EB through lane
  - Construct EB RT lane
  - Construct WB LT lane
- Cactus Avenue/Project Access @ El Rivino Road (#20):
  - Construct NB LT lane
  - Construct NB shared through/RT lane
  - Construct 2nd EB through lane
  - Construct WB LT lane
- Building 1 Auto Access/El Rivino Road (#21):
  - Construct NB/RT lane
  - Construct 2nd EB through lane

- Construct EB RT lane
- Construct WB LT lane

- Hall Avenue/El Rivino Road (#22):
  - Construct NB LT lane
  - Construct EB LT lane
  - Construct WB LT lane
  - Construct new traffic signal

- Hall Avenue/Building 1 Access (EW)(#23):
  - Construct NB LT lane
  - Construct SB RT lane
  - Construct EB LT lane
  - Construct EB RT lane

Alt2A T-2 The project applicant shall pay DIF and TUMF fees prior to each building occupancy that will fund the following improvements:

- Rubidoux Blvd. @ Tarragon/El Rivino (#6) (
  - Construct NB RT lane
  - Construct EB LT lane
  - Restripe WB Left/Thru lane to shared Thru/Right turn lane
  - Restripe WB Right turn lane to shared Thru/Right turn lane

- Rubidoux Blvd. @ 20th Street/Market Street (#10)
  - Install NB RT overlap
  - Modify signal phasing
  - Construct 2 WB LT lanes
  - Traffic signal modification
  - Construct 2nd SB LT lane

- Rubidoux Blvd. @ 24th Street (#11)
  - Construct new traffic signal
  - Construct NB LT lane
  - Construct SB LT lane

- Rubidoux Blvd. @ 26th Street (#12)
  - Construct NB LT lane
  - Construct SB LT lane
  - Construct new traffic signal

- Rubidoux Blvd. @ 28th Street (#13)
  - Construct EB LT lane
  - Construct WB LT lane

- Rubidoux Blvd. @ 30th Street / SR60 WB Off Ramp (#14)
  - Construct WB LT lane
- Rubidoux Blvd. @ SR60 WB Ramp (#15)
  - Construct new traffic signal
- Rubidoux Blvd. @ SR60 EB Ramp (#16)
  - Construct NB RT lane
  - Construct EB LT lane
- Agua Mansa Road @ Holly Street (#25)
  - Construct new traffic signal
- Agua Mansa Road @ Market Street (#29)
  - Construct SB LT lane
  - Construct SB Through lane
  - Construct second SB RT lane
- Market Street @ Hall Avenue (#30)
  - Construct N/S 2-Way LT median
  - Construct new traffic signal
- Market Street @ SR60 WB ramp (#32)
  - Restripe SB RT lane to Shared through/RT lane

Alt2A T-3 The project applicant shall contribute fair share funding for the following intersection improvements prior to issuance of the first occupancy permit:

- Market Street/SR60 EB Ramps (#33) (Caltrans)
  - Construct 2nd SB LT lane
- Cedar Avenue/I-10 WB Ramp (#1) (Caltrans)
  - Construct 2nd WB RT lane
  - Construct WB LT lane
- Cedar Avenue/I-10 EB Ramp (#2) (Caltrans)
  - Construct EB RT lane
- Cedar Avenue @ Jurupa Avenue (#5)
  - Construct WB LT lane
  - Construct EB LT lane
- Agua Mansa Road/El Rivino Road (#24)(SB)
  - Construct new traffic signal

- Riverside Avenue @ Slover Avenue (#36)
  - Construct SB RT lane

Roadway Segments

Alt2A T-4 The project applicant shall contribute fair share funding for the following roadway segment prior to issuance of the first occupancy permit:

- Agua Mansa Road between Market Street and Brown Avenue (DIF)
  - Construct two additional lanes to widen from two lanes to four lanes
- Agua Mansa Road between Hall Street and El Rivino Road (DIF/FS)
  - Construct two additional lanes to widen from two lanes to four lanes (east side pavement currently at ultimate; west side widening only required from S/O El Rivino Rd. to S/O Holly Street (approximately 1,200 ft)
- El Rivino between Cedar Avenue and Cactus Avenue
  - Construct 1 additional EB lane to widen from 1 EB lane to 2 EB lanes and maintain 1 WB lane
- Market Street between Agua Mansa Road and Hall Avenue (DIF/TUMF)
  - Construct two additional lanes to widen from two lanes to four lanes
- Market Street between Hall Avenue and Rivera Street (DIF/TUMF)
  - Construct two additional lanes to widen from two lanes to four lanes

Impact T-1

Caltrans' Main Line

The future construction of an additional eastbound general use lane or additional eastbound high occupancy vehicle lane would mitigate the deficient LOS to the SR-60 eastbound (EB) lanes. However, the Riverside County Transportation Commission (RCTC) does not have an improvement programmed for the SR-60 Freeway between Market Street and Main Street.

Caltrans' Merge/Diverge Analysis

Widening of the I-10 and the SR-60 in the both directions with one additional travel lane would accommodate the projected Year 2035 traffic conditions. Additionally, future potential interchange reconfigurations may be beneficial in reducing LOS.

5.15.8 Level of Significance After Mitigation

Site-specific circulation and access PDFs and Mitigation Measures are depicted on Figure 5.15-5, *Circulation Recommendations – Alternatives 1 and 2*, for Alternative 1 and Alternative 2. Site-specific circulation and access PDFs and Mitigation Measures are depicted on Figure 5.15-6, *Circulation Recommendations – Site Access Alternatives 1A and*

2A, for Alternative 1A and Alternative 2A. Intersection and roadway improvements outlined in PDFs and Mitigation Measures for each respective development alternative and site access alternative (1A and 2A) are summarized in Table 5.15-36, *Summary of Intersection Improvements – Alternatives 1 and 2*, for Alternatives 1 and 2 and Table 5.15-37, *Summary of Intersection Improvements – Site Access Alternatives 1A and 2A*, for Site Access Alternatives 1A and 2A. A more detailed list by project scenario, Existing, Year 2020, Year 2035 (all with and without project), of required project improvements (intersections and roadway segments) and funding sources is included in Appendix K(3), Attachments D–G. Additionally, prior to issuance of building permits, the project applicant would be required to make the required per unit fee payment associated with the Western Riverside County TUMF and the City of Jurupa Valley Development Impact Fee (DIF).

The traffic reports for this project have identified improvements required to mitigate project-related and cumulative impacts to less than significant. Such improvements can be categorized as follows:

1. Improvements required by project applicant.
2. Improvements that are programmed for DIF/TUMF fees.
3. Improvements designated for "fair share' contributions (not within fee programs and both within and outside of the City of Jurupa's jurisdiction).
4. Improvements deemed infeasible (lack of right of way, etc.).

Improvements/mitigation that falls within categories 1 and 2 are deemed mitigated to less than significant. Impacts that fall within categories 3 and 4 are deemed significant and unavoidable. Although fair share improvements may be likely and the appropriate responsibility is assigned to the project applicant, there is no guarantee that these improvements will be made or when they would be constructed. Similarly, impacts requiring improvements deemed infeasible would be significant and unavoidable.

The following summarizes the level of significance after mitigation for intersections and roadway segments, respectively.

5.15.8.1 INTERSECTIONS

Improvements Required of Project Applicant

For all development scenarios, the project applicant would be responsible for constructing 100 percent of the necessary 'Half Width" improvements for the following intersections: #s 7, 8, 9, 18, 19, 20, 21, and 23. These generally include locations that would provide project access. The project being constructed on the north side of El Rivino Road is responsible for all necessary improvements on the north side of El Rivino Road. In addition to project access improvements, the project may also construct through-lane improvements that are potentially eligible for DIF credit along Rubidoux Boulevard.

Intersections Eligible for Fee-Based Mitigation

For Alternatives 1 and 2, the second group of intersections (Intersections 10, 11, 12, 13, 14, 15, 16, 30, and 32) are locations that are included in the City of Jurupa Valley DIF program and/or the WRCOG TUMF program.

For Alternatives 1A and 2A, the second group of intersections (Intersections 6, 10, and 29) are locations that are included in the City of Jurupa Valley DIF program and/or the WRCOG TUMF program.

The project responsibility at these locations is to pay fees into the appropriate programs as described per each alternative. If the project constructs improvements at these intersections, credit / reimbursement for any such improvements is appropriate.

Fair Share Payments

The third group of intersections are locations where the project is not anticipating constructing the necessary improvements, and the locations are not included in an improvement program wherein mitigation requirements are satisfied through the payment of appropriate fair share amounts. Intersections in this third group are typically only impacted under future conditions for both No Project and With Project conditions, meaning that the project is only a small part of a cumulative impact. Nevertheless, due to the uncertainty and unknown timing of improvements to these intersections, the project's impacts would be significant and unavoidable.

Significant Intersection Impacts

Alternatives 1 and 2

- No. 22 – Hall Avenue/ El Rivino Road, City of Jurupa Valley
- No. 33 – Market Street/SR60 EB ramps, Caltrans
- No. 5 – Cedar Avenue/Jurupa Avenue, County of San Bernardino
- No. 24 – Agua Mansa Road/El Rivino Road, County of San Bernardino
- No. 36 – Riverside Avenue/Slover Avenue, City of Rialto
- No.1 – Cedar Avenue/I-10 WB ramps
- No. 2 – Cedar Avenue/I-10 EB ramps

Alternatives 1A and 2A

- Same as for Alternative 1 and 2 with the exception of Intersection No. 33 for which impacts would not be significant.

Per discussions with the San Bernardino County Transportation Authority (SBCTA), the improvements at the I-10/Cedar Avenue interchange (Intersections #1 and 2) are fully funded. The design completed by SBCTA includes the lane requirements needed to mitigate the project-related impacts. Construction completion is anticipated in 2021. It is recommended that the project offer a fair share contribution for intersections to mitigate project-related impacts at intersections outside of the City of Jurupa Valley.

Impacts that require fair share payments and are currently not included in any program (e.g., Capital Improvement Program), including those within the City of Jurupa Valley, would be considered significant and unavoidable and would require a statement of overriding considerations.

5.15.8.2 ROADWAY SEGMENTS

The project-related and cumulative impacts on area roadway segments are detailed in the Traffic Impact Analysis (Appendix K1) and described in summary tables A1-2, A2-2, A1 A-2 and A2A-2 in Appendix K3. Mitigation Measures for each respective scenario (Alternatives 1, 2, 1A, and 2A) in Section 5.15.7 detail the required improvements, fee programs, and fair share contributions required to mitigate the project's impacts on roadway segments.

The entire impacted segment of Rubidoux Boulevard is included in the City DIF program. Any improvements constructed by the project along Rubidoux Boulevard could therefore be eligible for DIF program credit.

Market Street from Rubidoux Boulevard to the Santa Ana River is included in the City DIF program. The same segment of Market Street is also included in the County of Riverside TUMF program. Payment of fees would adequately mitigate project impacts for the Market Street segment(s) that are included in the fee programs. Market Street from the southeast side of the Santa Ana River to Rivera Street is not included in the fee programs. A portion of this approximately quarter-mile-long roadway segment is already widened to four lanes.

Agua Mansa Road segment impacts are generally located within the area that is included in the City DIF program. There is a short segment from Holly Street to El Rivino Road that is not included in the City DIF program. This approximately 1,000-foot-long stretch of Agua Mansa Road is in unincorporated San Bernardino County. The fair share cost for this widening is addressed as part of the fair share cost estimate for the intersections of Agua Mansa Road at El Rivino Road (Intersection #24) and Agua Mansa Road at Holly Street (Intersection #25). Additionally, since Agua Mansa Road requires improvements (e.g., widening from a 2-lane facility to a 4-lane facility) for opening year (2020) without the project, the project shall mitigate its impact by paying DIF fees since this roadway is included in the City's DIF program.

In summary, the following project-related roadway impacts are dependent upon fair share funding and would be significant and unavoidable due to the uncertainty and unknown timing of improvements to these segments:

Significant Roadway Segment Impacts

Alternative 1

- Market Street between Hall Avenue and Rivera Street (City of Jurupa Valley and City of Riverside)
- Agua Mansa Road between Hall Street and El Rivino Road (City of Jurupa Valley and County of San Bernardino)

Alternative 2

- El Rivino between Cedar Avenue and Cactus Avenue (City of Jurupa Valley, City of Rialto, and County of San Bernardino)
- Market Street between Hall Avenue and Rivera Street (City of Jurupa Valley and City of Riverside)

- Agua Mansa Road between Hall Street and El Rivino Road (City of Jurupa Valley and County of San Bernardino)

Alternatives 1A and 2A

- El Rivino between Cedar Avenue and Cactus Avenue (City of Jurupa Valley, City of Rialto, and County of San Bernardino)
- Market Street between Hall Avenue and Rivera Street (City of Jurupa Valley and City of Riverside)
- Agua Mansa Road between Hall Street and El Rivino Road (City of Jurupa Valley and County of San Bernardino)

Table 5.15-36 Summary of Intersection Improvements – Alternatives 1 and 2

ID	Intersection	Juris	Improvement	Existing Plus Project (Impact T-1)		Year 2020 (Impact T-1)		Year 2035 (Impact T-1)		Funding Source			Significant Unavoidable
				Alt 1	Alt 2	Alt 1	Alt 2	Alt 1	Alt 2	Project Improvement (AMCP)	DIF/TUMF	Fair Share Contribution	
1.	Cedar Avenue (NS) at I-10 Freeway WB Ramps (EW)	CAL	Construct WBL turn lane			X	X	X	X			X	Yes
			Construct a second WBR turn lane	**X**	**X**	X	X	X	X			X	
2	Cedar Avenue (NS) at I-10 Freeway EB Ramps (EW)	CAL	Construct EBR turn lane			X	X	X	X			X	Yes
5	Cedar Avenue (NS) at Jurupa Avenue (EW)	SB	Construct EBL turn lane			X	X	X	X				Yes
			Construct WBL turn lane			X	X	X	X				
7	Rubidoux Boulevard (NS) at Building 6 Access (EW)	JV	Construct WBR turn lane	X	X	X	X	X	X	X			No
8	Rubidoux Boulevard (NS) at Project Access (EW)	JV	Construct NBR turn lane	X	X	X	X	X	X	X			No
			Construct SBL turn lane	X	X	X	X	X	X	X			
			Construct WBL turn lane	X	X	X	X	X	X	X			
			Construct WBR turn lane	X	X	X	X	X	X	X			
			Install traffic signal	X	X	X	X	X	X	X			
9	Rubidoux Blvd (NS) at Production Circle (EW)	JV	Construct New Signal. (Meets warrants, but mitigation not recommended) Required[3]										No

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Table 5.15-36 Summary of Intersection Improvements – Alternatives 1 and 2

ID	Intersection	Juris	Improvement	Existing Plus Project (Impact T-1)		Year 2020 (Impact T-1)		Year 2035 (Impact T-1)		Funding Source			Significant Unavoidable
				Alt 1	Alt 2	Alt 1	Alt 2	Alt 1	Alt 2	Project Improvement (AMCP)	DIF/TUMF	Fair Share Contribution	
10	Rubidoux Boulevard (NS) at 20th Street / Market Street (EW)	JV	Install NBR turn overlap	**X**	X	X	X	X	X		X		No
			Construct a second SBL turn lane			X	X	X	X		X		
			Construct two WBL turn lanes	X	X	X	X	X	X		X		
			Modify traffic signal phasing	X	X	X	X	X	X		X		
11	Rubidoux Boulevard (NS) at 24th Street (EW)	JV	Construct NBL turn lane			X	X	X	X		X		No
			Construct SBL turn lane			X	X	X	X		X		
			Install traffic signal	X	X	X	X	X	X		X		
12	Rubidoux Boulevard (NS) at 26th Street (EW)	JV	Construct NBL turn lane					X	X		X		No
			Construct SBL turn lane					X	X		X		
			Install traffic signal	X	X	X		X	X		X		
13	Rubidoux Boulevard (NS) at 28th Street (EW)	JV	Construct EBL turn lane					X	X		X		No
			Construct WBL turn lane					X	X		X		
14	Rubidoux Boulevard (NS) at 30th Street / SR-60 WB Off-Ramp (EW)	CAL	Construct a second WBL turn lane			X	X				X		No
15	Rubidoux Boulevard (NS) at SR-60 WB On-Ramp (EW)	CAL	Install traffic signal	X	X	X	X	X	X		X		No
16	Rubidoux Boulevard (NS) at SR-60 Freeway EB Ramps (EW)	CAL	Construct NBR turn lane			X	X				X		No
			Construct EBL turn lane			X	X				X		

Table 5.15-36 Summary of Intersection Improvements – Alternatives 1 and 2

ID	Intersection	Juris	Improvement	Existing Plus Project (Impact T-1)		Year 2020 (Impact T-1)		Year 2035 (Impact T-1)		Funding Source			Significant Unavoidable
				Alt 1	Alt 2	Alt 1	Alt 2	Alt 1	Alt 2	Project Improvement (AMCP)	DIF/TUMF	Fair Share Contribution	
18	Building 6 Access (NS) at El Rivino Road (EW)	JV / SB	Construct NBR turn lane	X	X	X	X	X	X	X			No
			Construct a second EBT lane	X	X	X	X	X	X	X			
			Construct EBR turn lane	X	X	X	X	X	X	X			
			Construct WBL turn lane	X	X	X	X	X	X	X			
19	Project Access (NS) at El Rivino Road (EW)	JV / RIA	Construct NBL turn lane	X	X	X	X	X	X	X			No
			Construct NBR turn lane	X	X	X	X	X	X	X			
			Construct a second EBT lane	X	X	X	X	X	X	X			
			Construct EBR turn lane	X	X	X	X	X	X	X			
			Construct WBL turn lane	X	X	X	X	X	X	X			
20	Cactus Avenue / Project Access (NS) at El Rivino Road (EW)	JV RIA SB	Construct NBL turn lane	X	X	X	X	X	X	X			No
			Construct NB shared/right turn lane	X	X	X	X	X	X	X			
			Construct a second EBT lane	X	X	X	X	X	X	X			
			Construct EBR turn lane	X	X	X	X	X	X	X			
			Construct a WB shared T/R turn lane[4]	X	X	X	X	X	X				
			Construct WBL turn lane	X	X	X	X	X	X	X			

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Table 5.15-36 Summary of Intersection Improvements – Alternatives 1 and 2

ID	Intersection	Juris	Improvement	Existing Plus Project (Impact T-1)		Year 2020 (Impact T-1)		Year 2035 (Impact T-1)		Funding Source			Significant Unavoidable
				Alt 1	Alt 2	Alt 1	Alt 2	Alt 1	Alt 2	Project Improvement (AMCP)	DIF/TUMF	Fair Share Contribution	
21	Building 1 Auto Access (NS) at El Rivino Road (EW)	JV SB	Construct NBR turn lane	X	X	X	X	X	X	X			No
			Construct a second EBT lane	X	X	X	X	X	X	X			
			Construct EBR turn lane	X	X	X	X	X	X	X			
			Construct WBL turn lane	X	X	X	X	X	X	X			
22	Hall Avenue (NS) at El Rivino Road (EW)	JV SB	Construct NBL turn lane			X	X	X	X	X			Yes
			Construct EBL turn lane			X	X	X	X			X	
			Construct WBL turn lane			X	X	X	X			X	
			Install traffic signal			X	X	X	X			X	
23	Hall Avenue (NS) at Building 1 Access	JV	Construct NBL turn lane	X	X	X	X	X	X	X			No
			Construct SBR turn lane	X	X	X	X	X	X	X			
			Construct EBL turn lane	X	X	X	X	X	X	X			
			Construct EBR turn lane	X	X	X	X	X	X	X			
24	Agua Mansa Road at El Rivino Road (EW)	RIA SB	Install traffic signal	X	X	X	X	X	X			X	**Yes**
25	Agua Mansa Road (NS) at Holly Place (EW)	SB	Install traffic signal					X	X		X		No

Table 5.15-36 Summary of Intersection Improvements – Alternatives 1 and 2

ID	Intersection	Juris	Improvement	Existing Plus Project (Impact T-1)		Year 2020 (Impact T-1)		Year 2035 (Impact T-1)		Funding Source			Significant Unavoidable
				Alt 1	Alt 2	Alt 1	Alt 2	Alt 1	Alt 2	Project Improvement (AMCP)	DIF/TUMF	Fair Share Contribution	
29	Agua Mansa Road (NS) at Market Street (EW)	JV	Construct SBL turn lane	X	X	X	X	X	X		X		**No**
			Construct SBT lane			X	X	X	X		X		
			Construct a second SBR turn lane					X	X		X		
30	Market Street (NS) at Hall Avenue (EW)	JV	Install traffic signal					X	X		X		**No**
30	Market Street at Hall Avenue		Construct N/S 2-Way LT Median	X	X						X		**No**
32	Market Street (NS) at SR-60 Freeway WB Ramps (EW)	CAL	Restripe SBR turn lane to shared T/R turn lane					X	X		X		**No**
33	Market Street (NS) at SR-60 Freeway EB Ramps (EW)	CAL	Construct a second SBL turn lane			X	X	X	X			X	**Yes**
36	Riverside Avenue (NS) at Slover Avenue (EW)	RIA	Construct SBR turn lane					X	X			X	**Yes**

Source: Ganddini 2018.

Notes: CAL: Caltrans; COL: Colton; JV: Jurupa Valley; RIA: Rialto; RIV: Riverside; SB: Unincorporated San Bernardino County; NB: northbound; SB: southbound; EB: eastbound; WB: westbound; L : left; T: through; R: right; Impr: improvement; Prog: program; Non-Prog: non-program; Alt: alternative; Juris: jurisdiction; SU: significant and unavoidable

Bold Underline: Project Direct Impact.

[1] Improvement relates to a project access point and the project is fully responsible for the construction of the improvement and are identified as Project Design Features (PDFs).

[2] Programed improvements include those identified WRCOG's TUMF Improvements from Jurupa Valley Center, County of San Bernardino Regional Transportation Development Mitigation Plan Report (2014), and SBCTA's Development Mitigation Nexus Study (2016).

[3] LOS impacts at intersections with heavy traffic movements on the major roadways and minimal movements on the minor roadway are not accurately reflected with the HCM methodology. Due to the disparate traffic volumes on each street, acceptable gaps will occur due to upstream/downstream signalized intersections, allowing traffic on the minor roadway to make their turning movements; however, HCM does not model these gaps in traffic. A traffic signal warrant analysis was conducted, and this intersection does not meet the California Manual on Uniform Traffic Control Devices traffic warrant criteria. Therefore, traffic signalization is not a recommended mitigation measure for this intersection.

[4] The widening of El Rivino Road for a second westbound through-lane is the responsibility of properties adjacent to El Rivino Road to the north of the roadway.

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Table 5.15-37 Summary of Intersection Improvements – Site Access Alternatives 1A and 2A

ID	Intersection	Juris	Improvement	Existing Plus Project Access Alternative (Impact T-1)		Year 2020 Project Access Alternative (Impact T-1)		Year 2035 Project Access Alternative (Impact T-1)		Funding Source			Significant Unavoidable
				Alt 1A	Alt 2A	Alt 1A	Alt 2A	Alt 1A	Alt 2A	Project-Improvement (AMCP)	DIF/TUMF	Fair Share Contribution	
1.	Cedar Avenue (NS) at I-10 Freeway WB Ramps (EW)	CAL	Construct WBL turn lane			X	X	X	X		X		No
			Construct a second WBR turn lane	**X**	**X**	X	X	X	X		X		
2	Cedar Avenue (NS) at I-10 Freeway EB Ramps (EW)	CAL	Construct EBR turn lane			X	X	X	X		X		No
5	Cedar Avenue (NS) at Jurupa Avenue (EW)	SB	Construct EBL turn lane Construct WB LT lane			X X	X X	X X	X X			X	Yes
6	Rubidoux Boulevard (NS) at Tarragona Drive (EW)	JV	Construct NBR turn lane			X	X	X	X		X		**No**
			Construct EBL turn lane			X	X	X	X		X		
			Restripe WB L/T lane to T/R turn lane			X	X	X	X		X		
			Restripe WBR turn lane to T/R turn lane			X	X	X	X		X		
7	Rubidoux Boulevard (NS) at Building 6 Access (EW)	JV	Construct WBR turn lane	X	X					X			No
8	Rubidoux Boulevard (NS) at Project Access (EW)	JV	Construct NBR turn lane	X	X	X	X	X	X	X			No
			Construct SBL turn lane	X	X	X	X	X	X	X			
			Construct WBL turn lane	X	X	X	X	X	X	X			
			Construct WBR turn lane	X	X	X	X	X	X	X			
			Install traffic signal	X	X	X	X	X	X	X			
9	Rubidoux Blvd (NS) at Production Circle (EW)	JV	Install traffic signal	X	X	X	X	X	X				No

Table 5.15-37 Summary of Intersection Improvements – Site Access Alternatives 1A and 2A

ID	Intersection	Juris	Improvement	Existing Plus Project Access Alternative (Impact T-1)		Year 2020 Project Access Alternative (Impact T-1)		Year 2035 Project Access Alternative (Impact T-1)		Funding Source			Significant Unavoidable
				Alt 1A	Alt 2A	Alt 1A	Alt 2A	Alt 1A	Alt 2A	Project-Improvement (AMCP)	DIF/TUMF	Fair Share Contribution	
10	Rubidoux Boulevard (NS) at 20th Street / Market Street (EW)	JV	Install NBR turn overlap	**X**	**X**	X	X	X	X		X		**No**
			Construct a second SBL turn lane			X	X	X	X		X		
			Construct two WBL turn lanes	**X**	**X**	X	X	X	X		X		
			Modify traffic signal phasing	**X**	**X**	X	X	X	X		X		
11	Rubidoux Boulevard (NS) at 24th Street (EW)	JV	Construct NBL turn lane			X	X	X	X		X		**No**
			Construct SBL turn lane			X	X	X	X		X		
			Install traffic signal	X	X	X	X	X	X		X		
12	Rubidoux Boulevard (NS) at 26th Street (EW)	JV	Construct NBL turn lane					X	X		X		**No**
			Construct SBL turn lane					X	X		X		
			Install traffic signal	X	X			X	X		X		
13	Rubidoux Boulevard (NS) at 28th Street (EW)	JV	Construct EBL turn lane					X	X		X		**No**
			Construct WBL turn lane								X		
14	Rubidoux Boulevard (NS) at 30th Street / SR-60 WB Off-Ramp (EW)	CAL	Construct a second WBL turn lane			X	X				X		No
15	Rubidoux Boulevard (NS) at SR-60 WB On-Ramp (EW)	CAL	Install traffic signal	X	X	X	X	X	X		X		No
16	Rubidoux Boulevard (NS) at SR-60 Freeway EB Ramps (EW)	CAL	Construct NBR turn lane			X	X				X		No
			Construct EBL turn lane			X	X				X		

Table 5.15-37 Summary of Intersection Improvements – Site Access Alternatives 1A and 2A

ID	Intersection	Juris	Improvement	Existing Plus Project Access Alternative (Impact T-1)		Year 2020 Project Access Alternative (Impact T-1)		Year 2035 Project Access Alternative (Impact T-1)		Funding Source			Significant Unavoidable
				Alt 1A	Alt 2A	Alt 1A	Alt 2A	Alt 1A	Alt 2A	Project-Improvement (AMCP)	DIF/TUMF	Fair Share Contribution	
18	Building 6 Access (NS) at El Rivino Road (EW)	JV / SB	Construct NBR turn lane	X	X	X	X	X	X	X			No
			Construct a second EBT lane	X	X	X	X	X	X	X			
			Construct EBR turn lane	X	X	X	X	X	X	X			
			Construct WBL turn lane	X	X	X	X	X	X	X			
19	Project Access (NS) at El Rivino Road (EW)	JV / RIA	Construct NBL turn lane	X	X	X	X	X	X	X			No
			Construct NBR turn lane	X	X	X	X	X	X	X			
			Construct a second EBT lane	X	X	X	X	X	X	X			
			Construct EBR turn lane	X	X	X	X	X	X	X			
			Construct WBL turn lane	X	X	X	X	X	X	X			
20	Cactus Avenue / Project Access (NS) atEl Rivino Road (EW)	JV RIA SB	Construct NBL turn lane	X	X	X	X	X	X	X			No
			Construct NB shared T/right turn lane	X	X	X	X	X	X	X			
			Construct a second EBT lane	X	X	X	X	X	X	X			
			Construct EBR turn lane	X	X	X	X	X	X	X			
			Construct a WB T/R turn lane[3]	X	X	X	X	X	X				
			Construct WBL turn lane	X	X	X	X	X	X	X			

Table 5.15-37 Summary of Intersection Improvements – Site Access Alternatives 1A and 2A

ID	Intersection	Juris	Improvement	Existing Plus Project Access Alternative (Impact T-1)		Year 2020 Project Access Alternative (Impact T-1)		Year 2035 Project Access Alternative (Impact T-1)		Funding Source			Significant Unavoidable
				Alt 1A	Alt 2A	Alt 1A	Alt 2A	Alt 1A	Alt 2A	Project-Improvement (AMCP)	DIF/TUMF	Fair Share Contribution	
21	Building 1 Auto Access (NS) at El Rivino Road (EW)	JV SB	Construct NBR turn lane	X	X	X	X	X	X	X			No
			Construct a second EBT lane	X	X	X	X	X	X	X			
			Construct EBR turn lane	X	X	X	X	X	X	X			
			Construct WBL turn lane	X	X	X	X	X	X	X			
22	Hall Avenue (NS) at El Rivino Road (EW)	JV SB	Construct NBL turn lane			X	X	X	X	X			**Yes**
			Construct SBL turn lane			X	X	X	X			X	
			Construct EBL turn lane			X	X	X	X			X	
			Construct WBL turn lane			X	X	X	X			X	
			Install traffic signal			X	X	X	X			X	
23	Hall Avenue (NS) at Building 1 Access	JV	Construct NBL turn lane	X	X	X	X	X	X	X			No
			Construct SBR turn lane	X	X	X	X	X	X	X			
			Construct EBL turn lane	X	X	X	X	X	X	X			
			Construct EBR turn lane	X	X	X	X	X	X	X			
24	Agua Mansa Road at El Rivino Road (EW)	RIA SB	Install traffic signal	X	X	X	X	X	X			X	**Yes**
25	Agua Mansa Road (NS) at Holly Place (EW)	SB	Install traffic signal					X	X			X	**Yes**
29	Agua Mansa Road (NS) at Market Street (EW)	JV	Construct SBL turn lane	X	X	X	X	X	X		X		**No**
			Construct SBT lane			X	X	X	X		X		

Table 5.15-37 Summary of Intersection Improvements – Site Access Alternatives 1A and 2A

ID	Intersection	Juris	Improvement	Existing Plus Project Access Alternative (Impact T-1)		Year 2020 Project Access Alternative (Impact T-1)		Year 2035 Project Access Alternative (Impact T-1)		Funding Source			Significant Unavoidable
				Alt 1A	Alt 2A	Alt 1A	Alt 2A	Alt 1A	Alt 2A	Project-Improvement (AMCP)	DIF/TUMF	Fair Share Contribution	
			Construct a second SBR turn lane					X	X			X	
30	Market Street (NS) at Hall Avenue (EW)	JV	Install traffic signal					X	X		x		**No**
30	Market Street (NS) at Hall Avenue (EW)	JV	Construct N/S 2-Way LT Median	x	x	x	x	X	X		x		**No**
32	Market Street (NS) at SR-60 Freeway WB Ramps (EW)	CAL	Restripe SBR turn lane to shared T/R turn lane					X	X		x		**No**
33	Market Street (NS) at SR-60 Freeway EB Ramps (EW)	CAL	Construct a second SBL turn lane			X	X	X	X			X	**Yes**
36	Riverside Avenue (NS) at Slover Avenue (EW)	RIA	Construct SBR turn lane					X	X			X	**Yes**

Source: Ganddini 2018.

Notes: CAL: Caltrans; COL: Colton; JV: Jurupa Valley; RIA: Rialto; RIV: Riverside; SB: Unincorporated San Bernardino County; NB: northbound; SB: southbound; EB: eastbound; WB: westbound; L : left; T: through; R: right; Impr: improvement; Prog: program; Non-Prog: non-program; Alt: alternative; Juris: jurisdiction; SU: significant and unavoidable

Shaded: These trip distributions do not change under Site Access Alternative 1A and 2A. Therefore, the improvements identified for Alternative 1 and 2 are applicable to the Site Access Alternatives.

Bold Underline: Project Direct Impact.

[1] Improvement relates to a project access point and the project is fully responsible for the construction of the improvement and are identified as Project Design Features (PDFs).

[2] Programed improvements include those identified WRCOG's TUMF Improvements from Jurupa Valley Center, County of San Bernardino Regional Transportation Development Mitigation Plan Report (2014), and SBCTA's Development Mitigation Nexus Study (2016).

[3] LOS impacts at intersections with heavy traffic movements on the major roadways and minimal movements on the minor roadway are not accurately reflected with the HCM methodology. Due to the disparate traffic volumes on each street, acceptable gaps will occur due to upstream/downstream signalized intersections, allowing traffic on the minor roadway to make their turning movements; however, HCM does not model these gaps in traffic. A traffic signal warrant analysis was conducted, and this intersection does not meet the California Manual on Uniform Traffic Control Devices traffic warrant criteria. Therefore, traffic signalization is not a recommended mitigation measure for this intersection.

[4] The widening of El Rivino Road for a second westbound through-lane is the responsibility of properties adjacent to El Rivino Road to the north of the roadway.

5.15.9 References

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