

4.13 TRANSPORTATION AND TRAFFIC

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This section presents the environmental setting and impact analysis for transportation and traffic in the vicinity of the Revised Project components. The impact analysis within this section focuses on the 230-kV transmission line underground component only. The overhead 230-kV transmission line relocation from the east to west side of Wineville Avenue between Cantu-Galleano Ranch Road and Landon Drive is not analyzed in this section as it is essentially the same as the Proposed Project and would utilize the same construction methodology and result in the same transportation and traffic impacts as described in the 2013 RTPR EIR. Similarly, construction at Distribution Line Relocations #7 and #8 was analyzed in the 2013 RTRP EIR and is not considered further in this section. The design modifications at Distribution Line Relocations #7 and #8 would not result in a substantive change to the transportation and traffic assumptions and analysis presented in the 2013 RTRP EIR. Appendix K presents the Traffic Impact Study for RTRP and the Supplemental Traffic Analysis for RTRP Technical Memorandum.

4.13.1 Consideration of Scoping Comments

The public expressed concerns regarding traffic impacts during public scoping for this Subsequent EIR. Table 4.13-1 summarizes the scoping comments received regarding transportation and traffic impacts and identifies how and where these comments have been addressed.

Table 4.13-1 Scoping Comments Related to Transportation and Traffic Impacts

Summary of Comment	Location Comment is Addressed
A Traffic Control Plan should be put into place with the Riverside County Transmission Commission and California Highway Patrol.	Traffic Control Plans would be implemented under MM TRANS-06, which is discussed in Section 4.13.8: Revised Project Impact Analysis. Refer to Impacts Traffic-a through Traffic-b.
Project will increase traffic.	This Subsequent EIR transportation and traffic analysis considers increases in traffic associated with the Revised Project. Refer to Section 4.13.8: Revised Project Impact Analysis.
Concern regarding damage to the lines from vehicles.	This Subsequent EIR discusses safety standards to minimize the potential of vehicles damaging utility poles. Refer to Section 4.13.8 Revised Project Impact Analysis, Impact Traffic-d.

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4.13.2 Definitions

Roadway Classifications

Roadways are classified into the following functional classifications (City of Jurupa Valley, 2017):

- **Urban Arterial.** An urban arterial is a roadway with six or eight lanes that serves through traffic where access from other streets or roadways is limited to approximately one-quarter mile intervals.
- **Arterial.** An arterial roadway is a divided roadway with two to four lanes that serves through traffic. Access from abutting property is kept at a minimum and intersections with other streets or roadways are limited to approximately one-quarter mile intervals.
- **Major.** A major roadway has four lanes and serves property zoned for major industrial and commercial uses or serves through traffic. Intersections with other streets or roadways may be limited to approximately 660-foot intervals.
- **Secondary.** A secondary roadway has four lanes with no turn lanes and serves through traffic along longer routes between major traffic-generating areas or serves property zoned for multiple residential, secondary industrial, or commercial uses. Intersections with other streets and roadways may be limited to 330-foot intervals.
- **Collector.** Collector roadways are two-lane roadways that serve intensive residential land uses, multiple-family dwellings, or convey traffic through an area to roads of equal or similar classification or higher. A collector street may also serve as a cul-de-sac in industrial or commercial use areas.
- **Local.** Local roadways are primarily two-lane, low-volume roadways that serve residential neighborhoods. In Jurupa Valley, local streets are intended to safely accommodate equestrians, pedestrians, bicyclists and motor vehicles in a manner that preserves and enhances the character of the community in which they are located.

Congestion Management Program Roadways

Congestion Management Program (CMP) roadways are routes included in the Riverside County Transportation Commission (RCTC) CMP of special interest or concern. At a minimum, all state highways and principal arterials are CMP roadways. Limonite Avenue and Etiwanda Avenue are CMP roadways and I-15 is a CMP highway within the Revised Project area. RCTC established LOS standards and monitors CMP road performance relative to the LOS standards.

Level of Service

LOS is a scale that measures the operational effectiveness of a roadway or intersection. Roadways and intersections are rated at various LOS to describe the roadway operating condition. LOS ratings range from LOS A, indicating excellent operating conditions with little delay to motorists, to LOS F, which represents congested conditions with excessive vehicle delay. LOS E is typically defined as the operating “capacity” of a roadway. The LOS analysis methodology and acceptable LOS is determined by each jurisdiction.

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Riverside County Transportation Commission Circulation Management Plan

The RCTC CMP states that the current CMP LOS standard for the Riverside region shall be LOS E. A lower standard, LOS F, is allowed in circumstances when the roadway segment or intersection was operating at this level in 1991. The facilities that operated at LOS F are exempt from CMP deficiency plan requirements. Where a roadway or highway segment that did not operate at LOS F in 1991 falls to LOS F, a deficiency plan must be prepared (RCTC, 2011).

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Table 4.13-2 lists the definitions of LOS for local roads and the average control delay in the City of Jurupa Valley.

Table 4.13-2 Level of Service Definitions in the City of Jurupa Valley

LOS	Signalized Intersections Average Control Delay ^a	Unsignalized Intersections Average Control Delay ^a	Roadway Segment Volume to Capacity Ratio	Description of Traffic Flow
A	0 - 10	≤10	0.000 – 0.600	Very few or no delays occur.
B	10.1 - 20	>10 to ≤15	0.601 – 0.700	This LOS represents stable operation.
C	20.1 - 35	>15 to ≤25	0.701 – 0.800	This LOS still represents stable operating conditions.
D	35.1 - 55	>25 to ≤35	0.801 – 0.900	This LOS encompasses a zone of increasing restriction approaching instability at the intersection.
E	55.1 - 80	>35 to ≤50	0.901 – 1.000	Capacity occurs at the upper end of this LOS.
F	80 or more; or volume to capacity ratio greater than 1	>50; or volume to capacity ratio greater than 1	>1.000	This LOS describes forced flow operations at low speeds, where volumes exceed capacity.

Notes:

^a Delay is measured in seconds.

Source: (KOA Corporation, 2017b; City of Jurupa Valley, 2017)

Bicycle Route Classes

The Mobility Element of the City of Jurupa Valley’s General Plan defines bicycle routes in the following classes (City of Jurupa Valley, 2017).

- Class I Bikeways, or Shared Use Paths.** Shared use paths are facilities separated from motor vehicle traffic by an open space or barrier, either within the highway ROW or within an independent ROW. Bicyclists, pedestrians, joggers, and skaters often use these paths. Shared-use paths are appropriate in areas not well served by the street system, such as in long, relatively uninterrupted corridors like

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waterways, utility corridors, and rail lines. They are often elements of a community trail plan. Shared use paths may also be integrated into the street network with new subdivisions.

- **Class II, or Bike Lanes.** Bike lanes are portions of the traveled roadway designated with striping, stencils, and signs for preferential use by bicyclists. They may be used on roadways where bicycle travel and demand is substantial. Where on-street parking is provided, bike lanes are striped on the left side of the parking lane. In California bike lanes are designated as Class II bikeways.
- **Class III, or Shared Roadways.** A shared roadway is a street in which bicyclists ride in the same travel lanes as other traffic. There are no specific dimensions for shared roadway lanes. On narrow travel lanes, motorists have to cross over into the adjacent travel lane to pass a cyclist. Shared roadways work well and are common on low-volume, low-speed neighborhood residential streets, rural roads, and even many low-volume highways. In California, shared roadways are known as Class III bikeways.
- **Class IV, or Separated Bikeways.** A separated bikeway or “cycle track” is for the exclusive use of bicycles and includes a separation required between the bikeway and through vehicle traffic. This separation may include grade separation, flexible posts, inflexible barriers, or on-street parking. Separated bikeways typically operate as one-way bikeway facilities in the same direction as vehicular traffic on the same side of the roadway.

Peak-Hour Traffic

In an urban setting, traffic volumes typically peak twice a day, once during the morning commute and once during the evening commute. These peak traffic periods are referred to as the AM Peak Period and the PM Peak Period, and are usually between the hours of 7 am to 9 am and 5 pm to 7 pm, respectively (Caltrans, 2016). The peak-hour traffic is the highest total volume count over four consecutive 15-minute periods during either the AM Peak Period or the PM Peak Period.

4.13.3 Environmental Setting

Regional Setting

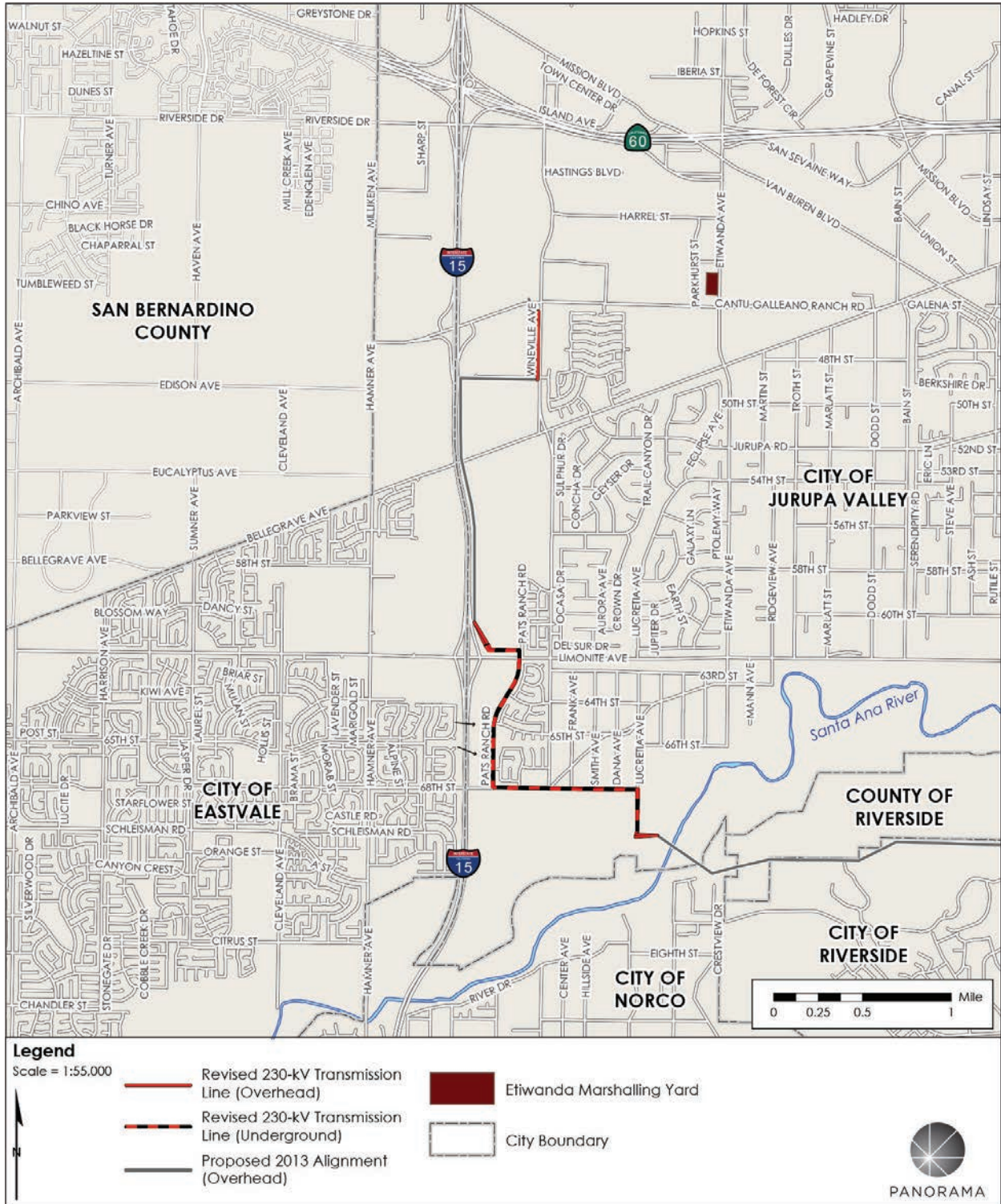
Roadway Network

The regional setting for the Revised Project includes the cities within the northwest corner of Riverside County. The Revised Project underground 230-kV transmission line would be located in the City of Jurupa Valley. Bordering communities include the cities of Norco and Eastvale. Figure 4.13-1 shows the regional roadway network in the Revised Project area.

The Revised Project area includes state highways and arterial, major, urban, secondary, collectors, and local roadways. I-15 and SR-60 are state highways. Etiwanda Avenue, from Limonite Avenue to the San Bernardino County line, and Limonite Avenue, from the San Bernardino County line to Mission Boulevard are principal arterials.

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Figure 4.13-1 Regional Roadway Network



Source: (ESRI, 2017; SCE, 2017)

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Table 4.13-3 contains annual average daily traffic (AADT) volumes for the regional state highways. The traffic count data is more than a year old; however, this traffic data is representative of the current traffic volume on area roads because the annual growth rate is less than 2 percent per year in the area (U.S. Census, 2016).

Table 4.13-3 Regional Highway

Road	Lanes	Location Description	2015 Peak Hour Traffic	2015 AADT
I-15	6	Norco, 2nd Street to Norco, 6th Street	10,500	151,000
		Norco, 6th Street to Limonite Avenue	10,500	151,000
		Limonite Avenue to SR-60	10,300	148,000
SR-60	6	I-15 to Van Buren Boulevard	14,400	162,000 to 192,000
		Van Buren Boulevard to Etiwanda Avenue	11,800	157,000
		Etiwanda Avenue to Mission Boulevard	12,800	170,000

Source: (Caltrans, 2015)

Revised Project Setting

Roadway Network

Roadways affected by the Revised Project would be located within the City of Jurupa Valley. Table 4.13-4 provides a summary of the existing traffic volume and LOS for roadways located in the Revised Project area. Table 4.13-5 identifies the existing LOS and the current vehicle delay for the AM and PM peak hours for intersections in the Revised Project area and along potential detour routes including intersections that construction vehicles would be expected to travel on. Figure 4.13-2 shows traffic count locations for roadway intersections and roadway segments in the Revised Project area. The traffic volumes presented are a snapshot of the traffic situation on area roads for the day the traffic data was collected. Variability in the volume of traffic on area roads is expected on a day-to-day basis.

Commercial Truck Circulation

The City of Jurupa Valley explicitly permits commercial trucks on 68th Street (between I-15 and Wineville Avenue), Wineville Avenue, Limonite Avenue, Bellegrave Avenue, and Cantu-Galleano Ranch Road. Trucks are not allowed on Holmes Avenue or Etiwanda Avenue between Bellegrave Avenue and Riverside Drive (City of Jurupa Valley, 2017).

Emergency Response

Police response times from the Jurupa Valley Sheriff's station averaged approximately 8 minutes for Priority 1 (i.e., threatening to life or property) and 21.5 minutes for Priority 2 calls (i.e., urgent but not life threatening), in 2015 (City of Jurupa Valley, 2017). The desired response time in urban areas for emergency medical transport is less than 10 minutes and less than 12 minutes for transport and first response in the County (County of Riverside EMS Agency, 2014). The desired response time in urban area for fire suppression services is 10 minutes for 90 percent of all fires (County of Riverside, 1986).

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Table 4.13-4 Existing Traffic Volumes and LOS in the Revised Project Area

Letter	Roadway Segment	Road Classification	Total Volume	Capacity	LOS
A	Limonite Avenue West of Pats Ranch Road and I-15	Urban	42,196	53,900	C
B	Limonite Avenue West of Wineville Avenue	Urban	30,973	53,900	A
C	Pats Ranch Road North of 65th Street	Secondary	7,089	25,900	A
D	68th Street West of Pats Ranch Road	Major	11,312	34,100	A
E	68th Street East of Pats Ranch Road	Major	6,181	34,100	A
F	68th Street East of Wineville Avenue	Collector	1,150	13,000	A
G	Wineville Avenue South of Cantu-Galleano Ranch Road	Major	8,294	34,100	A
H	Cantu-Galleano Ranch Road East of Wineville Avenue	Major	7,118	34,100	A
I	Wineville Avenue South of 64th Street	Major	2,994	34,100	A

Source: (KOA Corporation, 2017b)

Table 4.13-5 Existing LOS for Intersections in the Revised Project Area

Number	Study Intersections	AM Peak		PM Peak	
		Delay ^a	LOS	Delay ^a	LOS
1	I-15 SB Ramps/ Limonite Avenue	25.9	C	30.3	C
2	I-15 NB Ramps/ Limonite Avenue	31.6	C	31.5	C
3	Pats Ranch Road/ Limonite Avenue	25.5	C	31.0	C
4	Wineville Avenue/ Limonite Avenue	20.1	C	15.8	B
5	Pats Ranch Road/ Mall Entrance	8.2	A	17.3	B
6	Pats Ranch Road/ 65th Street	19.6	B	19.0	B
7	Pats Ranch Road/ 68th Street	21.0	C	16.9	B
8	Carnelian Street/ 68th Street ^b	12.3	B	8.5	A
9	Wineville Avenue/ Holmes Ave and 68th Street ^b	14.5	B	11.2	B
10	Etiwanda Avenue/ Cantu-Galleano Ranch Road	10.5	B	13.8	B
11	Wineville Avenue/ Cantu-Galleano Ranch Road	30.7	C	28.5	C
12	Wineville Avenue/ Bellegrave Avenue	18.7	B	18.1	B
13	Wineville Avenue/ 64th Street ^b	3.0	A	3.3	A
14	Wineville Avenue/ 65th Street ^b	9.3	A	8.7	A

Notes:

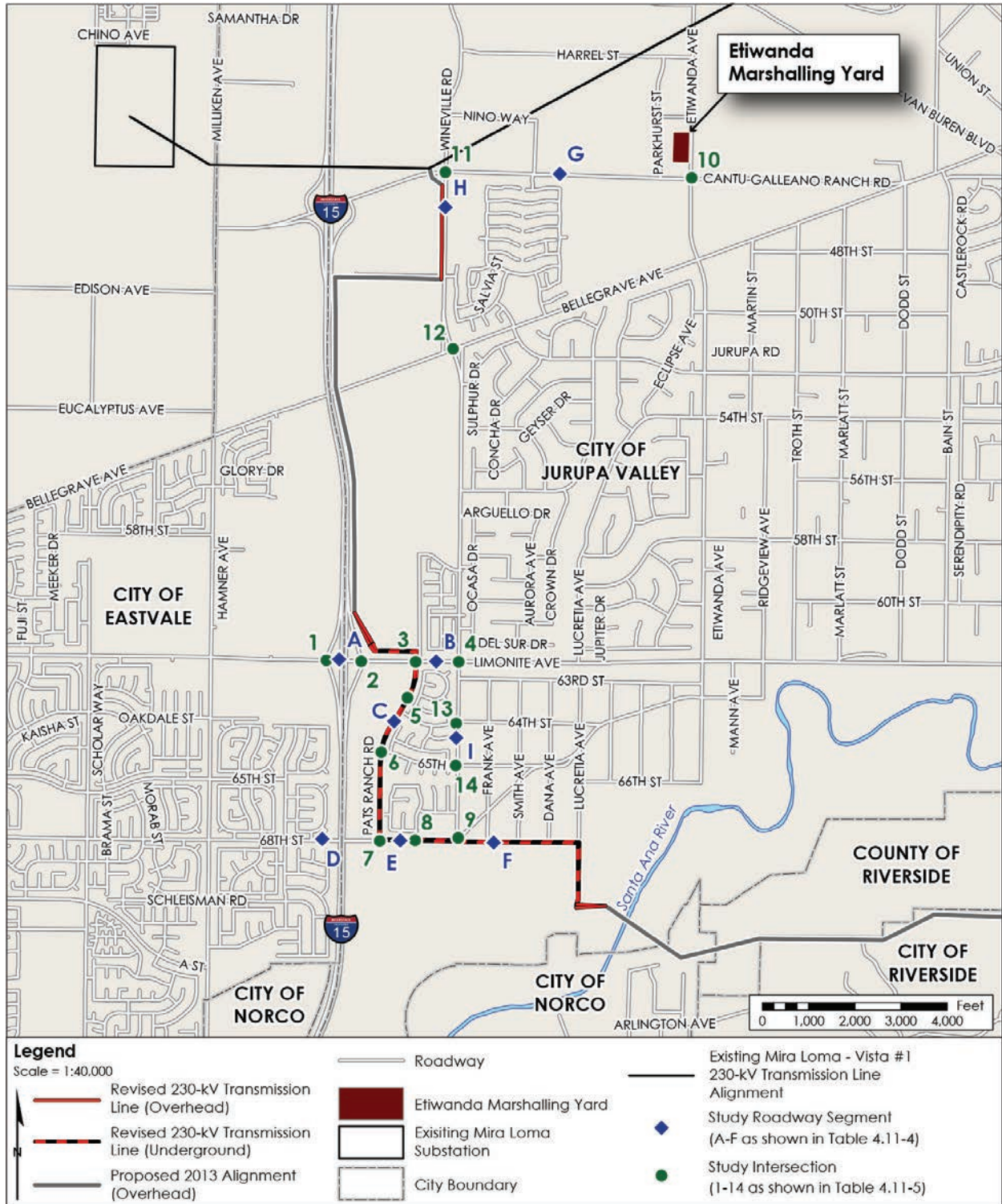
^a Delay is measured in seconds.

^b Stop-controlled intersection.

Source: (KOA Corporation, 2017b)

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Figure 4.13-2 Local Roadway Segments and Intersections in the Revised Project Area



Source: (ESRI, 2017; SCE, 2017; KOA Corporation, 2017a)

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Bicycle Routes and Facilities

Bicycles are permitted on all roads in the State of California except when prohibited or restricted by Caltrans or other local authority on freeways or expressways (Vehicle Code [VEH] § 21960). Local roadways in the Revised Project area are assumed to be available for use by bicycles, as no signs are presents prohibiting or restricting bicycle use (California Vehicle Code Section 21200). As such, the roadways in the vicinity of the Revised Project components effectively function as a bicycle network, regardless of whether or not a bikeway stripe, stencil, or sign is present on a given street. The City of Jurupa Valley has very few existing designated bicycle facilities (City of Jurupa Valley, 2017). As shown in Figure 4.13-3, a Class II bike lane is designated on Bellegrave Avenue between Wineville Avenue and Hot Creek Road. No Class I Bike Paths are identified in the Revised Project area (County of Riverside, 2015). A combination trail (regional/Class I bike path) is shown on Figure 4.12-1 in Section 4.12: Recreation and is not discussed further in section.

Equestrian Trails

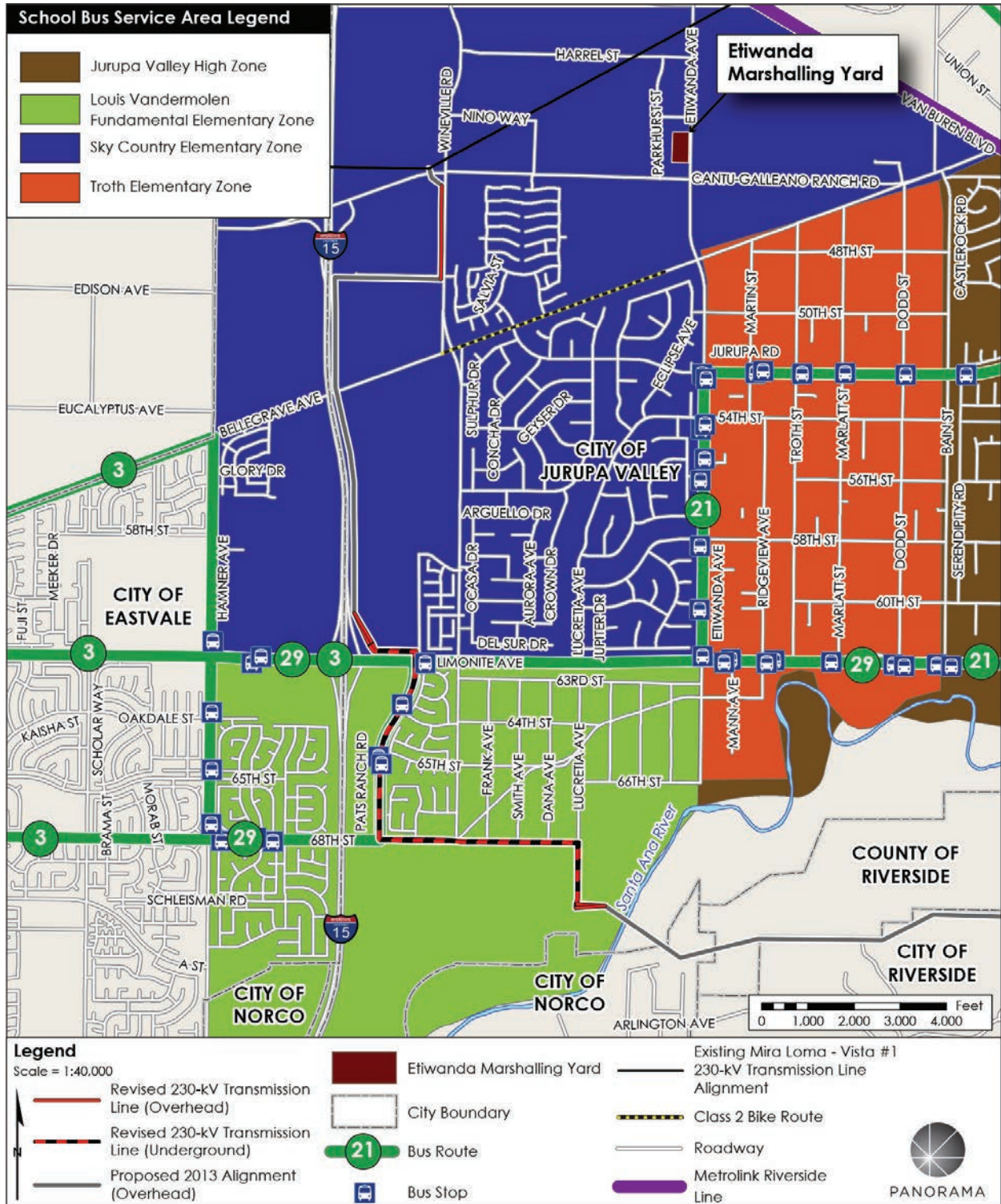
A full description of equestrian trails in the City of Jurupa Valley is provided in Section 4.12: Recreation. Figure 4.12-1 and Figure 4.12-2 show the locations of the equestrian trails. In the Revised Project area, equestrian trails are located along the south side of 68th Street and along the east side of Wineville Avenue. Equestrian trails are also located along the north sides of Limonite Avenue and Bellegrave Avenue, east of Wineville Avenue.

Public Transit and School Bus Routes

Public transit routes located within the Revised Project area and the operating period for each route are provided in Table 4.13-6. Public transit routes within the Revised Project area are operated by the Riverside Transit Agency (RTA) and Metrolink. School buses from four nearby schools use roadways in the Revised Project area to transport students to and from school. Figure 4.13-3 show the public transit routes and area served by school buses in the Revised Project area.

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Figure 4.13-3 Bicycle Facilities, Public Transit Routes, and School Bus Service Area in the Revised Project Area



Source: (ESRI, 2017; SCE, 2017; RTA, 2017; County of Riverside, 2016; Google, Inc., 2017)

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Table 4.13-6 Public Transit and School Bus Routes in the Revised Project Area

Route	Provider	Operating Period
Public Transit		
Route 3	Riverside Transit Agency	Monday - Sunday
Route 21	Riverside Transit Agency	Monday - Sunday
Route 29	Riverside Transit Agency	Monday - Sunday
Riverside Line: 400 Series	Metrolink	Monday - Friday
School Bus		
School bus	Louis Vandermolen Fundamental Elementary	Monday – Friday (when school is in session)
School bus	Troth Elementary	Monday – Friday (when school is in session)
School bus	Sky Country Elementary	Monday – Friday (when school is in session)
School bus	Jurupa Valley High	Monday – Friday (when school is in session)

Source: (RTA, 2016; Metrolink, 2016; KOA Corporation, 2017b)

4.13.4 Regulatory Setting

Federal

Title 49 of the CFR addresses safety considerations for the transport of goods, materials, and substances and governs the transportation of hazardous materials, including types of materials and marking of the transportation vehicles.

State

Interstate highways are governed by the FHWA in the U.S. DOT. They provide research, technical assistance, standards, and financial assistance to state and local agencies for the design, construction, and maintenance of roads.

In the State of California, the “Streets and Highways Code § 70-86” gives responsibility for meeting or exceeding the FHWA guidelines to the California Transportation Commission and thereby to Caltrans. The Division of Transportation Planning within Caltrans is therefore primarily responsible for the maintenance, development, and support of transportation facilities within the State. However, the Division of Transportation Planning also partners with counties and cities in planning, managing, and maintaining the transportation system (Caltrans, 2013).

Local

City of Jurupa Valley

2017 Draft General Plan

The City of Jurupa Valley adopted the 2017 Draft General Plan on August 17, 2017. The Mobility Element of the General Plan identifies goals and policies pertaining to transportation

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and traffic. The following policies and goals are relevant to the Revised Project (City of Jurupa Valley, 2017):

Policy ME 2.1

Roadway system. Require that the City's mobility corridors:

- a. Accommodate public transit, motor vehicles, bicyclists, equestrians and pedestrians within the public right-of-way wherever feasible, using multi-modal, "complete streets" design strategies.
- b. 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.
- c. Be designed to meet the needs of the existing population and business activities, as designated by the Land Use Element and in accordance with the Mobility Corridor concept and to maintain consistency with the Master Plan of Streets and Trails (to be developed).
- d. Be designed so that new roadways, ramps, traffic control devices, bridges or similar facilities, and significant changes to such facilities, are designed to accommodate multi-modal facilities in a balanced manner.
- e. Be maintained in accordance with best practices and the City's Street Improvement Program.

Policy ME 2.11

Target Levels of Service. Until a multi-modal based metric is adopted, City will maintain the following target Levels of Service, or "LOS":

- a. LOS C along all City maintained roads and conventional state highways. As an exception, LOS D may be allowed in designated areas, only at intersections of any combination of Secondary Highways, Major Highways, Arterials, Urban Arterials, Express ways, conventional state highways or freeway ramp intersections.
- b. LOS E may be allowed in designated village centers to the extent that it would support transit-oriented development and walkable communities. LOS F is not considered an acceptable level of service.

Program CSSF 1.1.6

Fire Response Agreements. Review inter-jurisdictional fire response agreements, and improve firefighting resources as recommended in the County Fire Protection Master Plan, to keep pace with development and to ensure that:

- a. Fire reporting and response times do not exceed those listed in the County Fire Protection Master Plan identified for each of the development densities described;

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4.13.5 Applicant's Environmental Protection Elements

SCE has proposed EPEs to reduce environmental impacts. The EPEs that avoid or reduce potentially significant impacts of the Revised Project will be incorporated as part of any CPUC project approval, and SCE will be required to adhere to the EPEs as well as any identified mitigation measures. The EPEs are included in the MMRP for the Revised Project (refer to Chapter 9: Mitigation Monitoring and Reporting Plan of this Subsequent EIR), and the implementation of the EPEs would be monitored and documented in the same manner as mitigation measures. The EPEs that are applicable to the transportation and traffic analysis are provided in Table 4.13-7.

Table 4.13-7 Environmental Protection Elements for Transportation and Traffic

Environmental Protection Element	Requirements
EPE TRANS-01: Minimize Street Use	Construction activities would be designed to minimize work on, or use of, local streets.
EPE TRANS-02: Incorporate Protective Measures	Any construction or installation work requiring the crossing of a local street, highway, or rail line would incorporate the use of guard poles, netting, or similar means to protect moving traffic and structures from the activity. If necessary to ensure the safety of construction crews and the traveling public on state highways, continuous traffic breaks operated by the California Highway Patrol would be planned and provided.
EPE TRANS-03: Prepare Traffic Control Plans	Traffic control and other management plans would be prepared to minimize project impacts on local streets. Traffic control and other management plans would be prepared to minimize Proposed Project impacts on local streets and bike lanes, railroad operations (Union Pacific, Metrolink), emergency services, transit bus operations, recreation facilities, school bus operations and other planned roadway projects. The plans would be developed in collaboration with the responsible agencies of these transportation modes, programs, and projects. The plans will include provisions to accommodate emergency response vehicles at all times, such as immediately stopping work for emergency vehicle passage, short detours, and alternate routes.
EPE TRANS-04: Repair Damaged Streets	Any damage to local streets caused as a result of project construction would be repaired and restored to preconstruction conditions.

4.13.6 2013 RTRP EIR Mitigation Measures

The 2013 RTRP EIR included mitigation measures to reduce transportation and traffic impacts, including MM TRANS-01 through MM TRANS-05 (refer to Table 3.2.15-5 in the 2013 RTRP EIR). The 2013 mitigation measures that avoid or reduce potentially significant impacts of the Revised Project will be incorporated as part of any CPUC project approval, and SCE will be required to adhere to them. Incorporated 2013 RTRP EIR mitigation measures, along with any additional new mitigation measures, are included in the MMRP for the Revised Project (refer to Chapter 9: Mitigation Monitoring and Reporting Plan of this Subsequent EIR).

4.13.7 CEQA Significance Criteria

Appendix G of CEQA Guidelines (14 CCR 15000 *et seq.*) provides guidance on assessing whether a project would have significant impacts on the environment. Changes to the Proposed

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Project or changes in baseline conditions that were not analyzed in the 2013 RTRP EIR require additional analysis to fully disclose potential impacts of the Revised Project. The CPUC prepared an Initial Study Checklist (refer to Appendix B of this Subsequent EIR) to identify the new potentially significant or increased impacts that may occur as a result of the Revised Project elements or changes in baseline conditions. The Initial Study Checklist indicated that the Revised Project has the potential for new or increased impacts under the significance criteria included below. CEQA significance criteria are lettered below to match the criteria lettering in the 2013 RTRP EIR. Consistent with Appendix G, the Revised Project would have significant impacts on transportation and traffic if it would:

- a. Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including, but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit
- b. Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways
- d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)
- e. Result in inadequate emergency access
- f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities

Impact Thresholds

Exceedance of the acceptable LOS defined by the applicable agency would be a significant impact under CEQA. The lowest acceptable LOS for roadways within the City of Jurupa Valley is LOS D (County of Riverside, 2015; City of Jurupa Valley, 2017). The lowest acceptable LOS for CMP roadways is LOS E (RCTC, 2011). The acceptable LOS thresholds are used in conjunction with criteria a. and b. (above) to determine whether thresholds are exceeded.

4.13.8 Revised Project Impact Analysis

Approach to Impact Analysis

Overview

This impact analysis considers whether implementation of the Revised Project would result in significant traffic impacts, and focuses on reasonably foreseeable effects of the Revised Project as compared with baseline conditions. The analysis uses significance criteria based on the CEQA Appendix G Guidelines, the LOS criteria were added to address Jurupa Valley and County standards. The potential direct and indirect effects of the Revised Project are addressed

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below, and the cumulative effects are addressed in Chapter 5: Cumulative Impacts. Refer to the 2013 RTRP EIR for analysis of other elements of the Proposed Project.

The significance of an impact is first considered prior to application of EPEs and a significance determination is made. The implementation of EPEs is then considered when determining whether impacts would be significant and thus would require mitigation. Mitigation measures included in the 2013 RTRP EIR, with modifications when appropriate, and/or additional new mitigation measures are identified to reduce significant impacts of the Revised Project.

Traffic Counts

Intersection turn movement manual counts were conducted at the study intersections on October 4th (Tuesday) and December 4th (Tuesday) of 2016. Peak period turning movement counts were collected between the hours of 7:00 am to 9:00 am and 3:00 pm to 6:00 pm. Additional counts were conducted on April 4th (Tuesday) of 2017 during the peak turning movements of 7:00 am to 9:00 am and 1:00 pm to 3:00 pm. The results of counts were utilized to determine existing weekday AM and PM peak-hour conditions. One-day weekday 24-hour automatic counts were collected at six locations in 2016 and three more locations in April 2017 (KOA Corporation, 2017b).

Construction Year 2021 Baseline Conditions

The 2016 and 2017 existing conditions data was updated to the year 2021 conditions, or baseline conditions, to represent the year construction would begin. An ambient growth factor of 2 percent per year (based on the Riverside County's Transportation Analysis Model, RivTAM) was added to the existing traffic counts to estimate baseline conditions in 2021. The overall growth of 10 percent (2 percent per year for 5 years) adjusts the existing 2016 and 2017 traffic counts to establish baseline conditions. This higher growth rate accounts for potential new developments that might not have been considered in the traffic study. In addition, the peak hour factor¹ is assumed to be 0.92 for the all the study intersections for the baseline condition (KOA Corporation, 2017b).

LOS Criteria

Signalized Intersections

Study area intersections were analyzed using the software package Synchro (Version 9.1, Build 909). The LOS analysis for signalized intersections was performed using optimized signal timing for existing traffic conditions. Signal timing optimization considered pedestrian safety and signal coordination requirements. Appropriate time for pedestrian crossings was also considered in the signalized intersection analysis. Signal timing for study area intersections was

¹ The peak hour factor accounts for the short-term traffic fluctuations that often occur during an hour. The peak hour factor provides the relationship between the peak rate of flow within the peak hour, generally using a peak 15-minute rate of flow, and the hourly volume during the maximum-volume hour of the day.

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requested and utilized. Where signal timing was unavailable, the local accepted standards were utilized in lieu of actual signal timing (KOA Corporation, 2017b).

Unsignalized Intersections

The City of Jurupa Valley requires the operations of unsignalized intersections to be evaluated using the methodology described in Chapter 19 and Chapter 20 of the Highway Capacity Manual 2010. The LOS rating is based on the weighted average control delay expressed in seconds per vehicle, as shown in Table 4.13-2. At two-way or side-street stop-controlled intersections, LOS is calculated for each controlled movement and for the left turn movement from the major street, as well as for the intersection as a whole. For approaches composed of a single lane, the delay is computed as the average of all movements in that lane. For all-way stop-controlled intersections, LOS is computed for the intersection as a whole. LOS values range from LOS A to LOS F (KOA Corporation, 2017b).

Roadway Segments

The City of Jurupa Valley uses the criteria established by Riverside County Congestion Management Plan to assess the LOS of the street segments. The criteria are based on the 1999 Modified Highway Capacity Manual for two-way Annual Daily Traffic values for various roadway classification of the streets. The roadway classification ranges from Collector streets to Freeways indicating the Capacity of each of the roadway classes with number of lanes. By using the ultimate Capacity (LOS E) as the denominator, the LOS of each of the segments are determined by dividing the total average daily traffic by the ultimate capacity. The resultant volume to capacity ratio is used to determine the corresponding LOS. Table 4.13-2 shows the LOS definitions for roadway segments (KOA Corporation, 2017b).

Vehicle Queuing Analysis

Closure of a lane along Limonite Avenue during the AM and PM peak hours would result in backups (vehicle queues), in either the east- or westbound direction, depending on which lane is closed. Vehicular queuing projections were estimated utilizing SimTraffic micro-simulation which is an extension of Synchro. Developed by Trafficware, Simtraffic software utilizes all field obtained inputs from Synchro intersection LOS including signal timing, phasing, and volumes to simulate traffic flows through the study intersections and corridor. Vehicle queuing projections are provided in terms of the 95th percentile queue lengths. Calculated vehicle queues would not be exceeded 95 percent of the time. Intersections are designed using the 95th percentile queue lengths for maximum storage capacity. The available storage lengths for vehicle turn lanes was based on measurements recorded in the field and corroborated by from aerial photographs of the corridor(s) (Omni Means, 2017).

Summary of Impacts

Table 4.13-8 provides a summary of the CEQA significance criteria and impacts on transportation and traffic that would occur during construction, operation, and maintenance of the Revised Project.

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Table 4.13-8 Summary of Revised Project Impacts on Transportation and Traffic

Significance Criterion	Project Phase	Significance before EPEs	Significance after EPEs and before Mitigation	Significance after Mitigation
Impact Traffic-a: Would the Revised Project conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including, but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	Construction	Significant	Significant EPE TRANS-03	Significant and Unavoidable MM TRANS-02 MM TRANS-02A MM TRANS-06
	Operation and Maintenance	Less than Significant	---	---
Impact Traffic-b: Would the Revised Project conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	Construction	Significant	Significant EPE TRANS-03	Significant and Unavoidable MM TRANS-02 MM TRANS-02A MM TRANS-06
	Operation and Maintenance	Less than Significant	---	---
Impact Traffic-d: Would the Revised Project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	Construction	Significant	Significant EPE TRANS-03 EPE TRANS-04	Less than Significant MM TRANS-02 MM TRANS-02A MM TRANS-06 MM TRANS-07
	Operation and Maintenance	Less than Significant	---	---
Impact Traffic-e: Would the Revised Project result in inadequate emergency access?	Construction	Significant	Significant EPE TRANS-03	Less than Significant MM TRANS-06
	Operation and Maintenance	Less than Significant	---	---

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Significance Criterion	Project Phase	Significance before EPEs	Significance after EPEs and before Mitigation	Significance after Mitigation
Impact Traffic-f: Would the Revised Project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	Construction	Significant	Significant EPE TRANS-03	Less than Significant MM TRANS-04 MM TRANS-05 MM TRANS-06 MM TRANS-08
	Operation and Maintenance	Less than Significant	---	---

Impact Discussion

Impact Traffic-a: Would the Revised Project conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including, but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	Significance Determination
	Construction: <i>Significant and Unavoidable</i>
	Operation & Maintenance: <i>Less than Significant</i>

Construction

Roadway Intersections

Construction Traffic

Project construction traffic would include worker vehicle trips and truck traffic. Workers would arrive at the Etiwanda Marshalling Yard prior to the AM peak hour. Due to the uncertainty regarding which route each worker would take to the Etiwanda Marshalling Yard, the trips associated with workers arriving are not considered in the following analysis. Workers would transit to Revised Project component work sites from the Etiwanda Marshalling Yard in construction vehicles. Equipment and materials would be hauled to and from the Etiwanda Marshalling Yard and along I-15.

Based on the overall proposed and Revised Project schedule (refer to Appendix A), many construction activities could occur concurrently, which would result in varying increases in numbers of vehicle and truck trips on roadways throughout the Proposed Project area.

The following Revised Project construction activities would generate the most trips along Revised Project area roadways and intersections and could occur concurrently:

- Underground vault installation
- Duct bank installation
- Underground cable installation

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- Cable splicing
- Cable terminating

If the crossing of Limonite Avenue was conducted using jack and bore techniques, the jack and bore activities could occur concurrently with underground vault installation and would add an additional 12 vehicles to the road per day. Vehicles and equipment used for construction activities would increase daily and peak hour trips from construction. The daily and peak hour trips that would be generated during these activities were adjusted to Passenger Car Equivalents (PCE) to account for the greater effect trucks have on roadway operations, as shown in Table 4.13-9. A detailed breakdown of the Revised Project trips by vehicle type, is included in Appendix L.

Table 4.13-9 Revised Project Construction Trip Generation ^a

Activity	Daily Trips		AM Peak Hour			PM Peak Hour		
	Travel To/ From Etiwanda Marshalling Yard	Travel To/ From I- 15	In	Out	Total	In	Out	Total
Underground 230-kV Transmission Line								
Underground Vault Installation	75	120	62.5	12.5	75	12.5	62.5	75
Duct Bank Installation	85	70	62.5	10	72.5	10	62.5	72.5
Underground Cable Installation	30	5	17.5	0	17.5	0	17.5	17.5
Cable Splicing	30	10	17.5	0	17.5	0	17.5	17.5
Cable Terminating	20	5	12.5	0	12.5	0	12.5	12.5
Total	240	210	172.5	22.5	195	22.5	172.5	195

Note:

^a All trip values are adjusted to PCE.

Source: (KOA Corporation, 2017b; Omni Means, 2017)

Construction traffic associated with the relocated overhead 230-kV transmission line on Wineville Avenue would affect fewer intersections than the underground 230-kV transmission line and would be consistent with the overhead alignment construction traffic analyzed in the 2013 RTRP EIR. The concurrent construction of overhead and underground 230-kV transmission lines would generate more traffic than the traffic from concurrent construction activities along the Revised Project underground 230-kV alignment alone by approximately 2 percent more daily vehicle trips.

The roadway intersections and segments north of Bellegrave Avenue would be affected by trips generated from concurrent overhead and underground 230-kV transmission lines. The additional trips would not cause any intersections to be reduced to LOS E or LOS F. All other

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construction phases would generate less construction traffic than the vehicle trips analyzed in this section. The trips generated during construction would be distributed along local and regional roadways, dependent upon the delivery of materials and components under construction, as shown in Figure 4.13-4. This analysis builds on the assumption that during construction of the underground 230-kV transmission line, the delivery of materials would be via I-15 with 50 percent terminating at 68th Street west of Wineville Avenue/ Holmes Street and 50 percent terminating east of Wineville Avenue/ Holmes Street on 68th Street. It is further assumed that the crew trips would originate from Etiwanda Marshalling Yard and 50 percent would terminate at 68th Street west of Wineville Avenue/ Holmes Street and 50 percent would terminate east of Wineville Avenue/ Holmes Street on 68th Street.

Workers, material hauling, equipment delivery, and water delivery during construction would increase the number of vehicles on local roadways. The AM and PM peak hour intersection LOS that would occur with the addition of construction traffic is shown in Table 4.13-10. Revised Project construction activities would cause moderate increases in vehicle delays. Concurrent construction of jack and bore would not cause the LOS to deteriorate at any intersection. All study intersections would maintain an LOS of D or better during the AM and PM peak hours. Workers may arrive during the AM or PM peak hours which could exacerbate intersection operations, but not significantly so. *The impact from Revised Project construction traffic on intersection operations would be less than significant.*

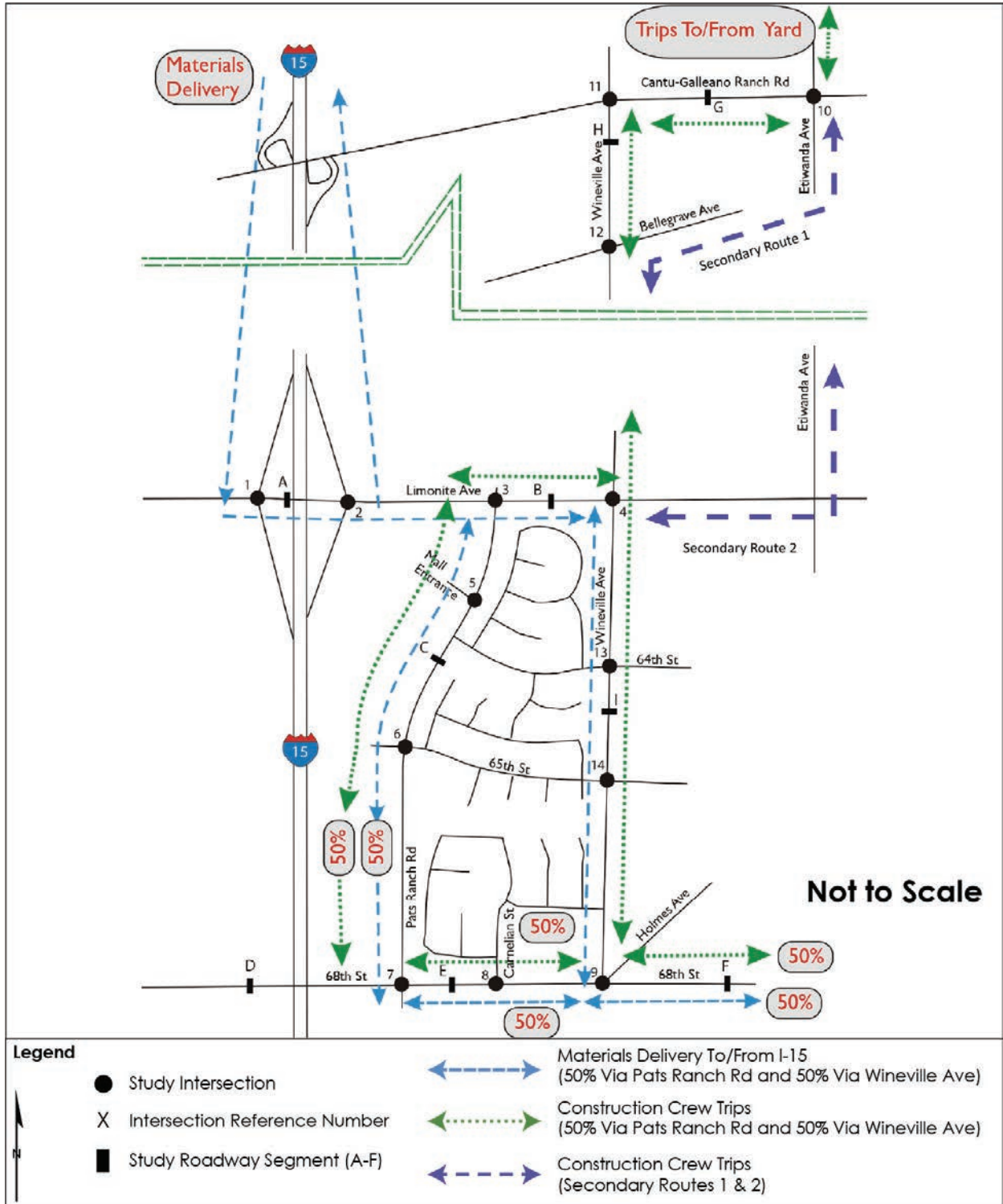
Road Closures

Vault installation would require work spaces up to 100 feet wide, as feasible, but constrained by the extent of public roadways and sidewalks. Vault installation would require road closures, which would occur over the course of up to 7 work days for each vault. Closures along 68th Street and Pats Ranch Road would occur during vault installation. Duct bank installation would require work spaces up to 30 feet wide, similarly constrained by the size of public roadways and sidewalks. Segments of Pats Ranch Road and 68th Street would be closed to permit installation of one or more vault structures. Segments of 68th Street would be closed during duct bank installation.

To evaluate intersection operations as a result of roadway closures, a hypothetical “worst case” scenario was modeled where Pats Ranch Road would be closed to all vehicle traffic between Limonite Avenue and 68th Street to allow for vault installation. Road closures during vault installation would affect shorter segments of roadways along the underground alignment, such as Pats Ranch Road between 65th Street and 68th Street, rather than the entire length of Pats Ranch Road from Limonite Avenue to 68th Street. A detour analysis was conducted to provide a perspective regarding what types of impacts at intersections could be expected, dependent upon which segment of Pats Ranch Road is closed. The modeling diverts all vehicle traffic on Pats Ranch Road to Limonite Avenue, Wineville Avenue, and 68th Street during these construction activities. The results of the modeling were then analyzed to determine what would occur during closure of each shorter segment of roadway (Omni Means, 2017).

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Figure 4.13-4 Revised Project Construction Trip Distribution



Source: (KOA Corporation, 2017b; Omni Means, 2017)

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Table 4.13-10 Changes in Level of Service with Revised Project Construction Traffic

Number	Study Intersections	Baseline				Baseline Plus Construction Traffic				Change in Delay ^a	
		AM Peak		PM Peak		AM Peak		PM Peak		AM Peak	PM Peak
		Delay ^a	LOS	Delay ^a	LOS	Delay ^a	LOS	Delay ^a	LOS		
1	I-15 SB Ramps/ Limonite Avenue	31.6	C	43.7	C	33.3	C	44.0	D	1.7	0.3
2	I-15 NB Ramps/ Limonite Avenue	35.2	D	45.4	D	35.2	D	46.8	D	0.0	1.4
3	Pats Ranch Road/ Limonite Avenue	27.5	C	40.0	D	33.5	C	44.4	D	6.0	4.4
4	Wineville Avenue/ Limonite Avenue	21.6	C	25.1	C	24.7	C	29.6	C	3.1	4.5
5	Pats Ranch Road/ Mall Entrance	8.2	A	17.8	B	8.8	A	16.2	B	0.6	----
6	Pats Ranch Road/ 65th Street	19.6	B	19.3	B	18.3	B	18.8	B	----	----
7	Pats Ranch Road/ 68th Street	18.5	B	17.9	B	22.1	C	18.6	B	3.6	0.7
8	Carnelian Street/ 68th Street ^b	10.3	B	8.4	A	11.9	B	8.9	A	1.6	0.5
9	Wineville Avenue/ Holmes Ave and 68th Street ^b	12.5	B	11.6	B	15.0	B	12.2	B	2.5	0.6
10	Etiwanda Avenue/ Cantu-Galleano Ranch Road	14.8	B	17.1	B	15.3	B	17.5	B	0.5	0.4
11	Wineville Avenue/ Cantu-Galleano Ranch Road	32.3	C	28.4	C	32.3	C	29.7	C	0.0	1.3
12	Wineville Avenue/ Bellegrave Avenue	18.8	B	18.1	B	19.5	B	19.2	B	0.7	1.1
13	Wineville Avenue/ 64th Street ^b	3.0	A	3.4	A	11.8	B	3.4	A	8.8	0.0
14	Wineville Avenue/ 65th Street ^b	8.7	A	8.4	A	9.3	A	9.1	A	0.6	0.7

Notes:

^a Delay is measured in seconds.

^b Stop-controlled intersection.

Source: (KOA Corporation, 2017b; Omni Means, 2017)

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Pats Ranch Road was evaluated based on its greater roadway segment length, higher number of major street access and road connections (Mall Entrance, 65th Street, 64th Street, and Ivory Street), increased residential and commercial-retail access, and higher number of signalized and non-signalized intersections when compared to 68th Street. As such, an analysis of a road closure along Pats Ranch Road would result in greater intersection impacts than closures along 68th Street.

Vehicle traffic diverted from Pats Ranch Road onto Limonite Avenue, Wineville Avenue, and 68th Street, would decrease the intersection LOS for the AM and PM peak hour at several intersections, as shown in Table 4.13-11. A LOS E or F could be expected at the following six intersections during the AM and/or AM peak hours:

- Pats Ranch Road/ Limonite Avenue
- Wineville Avenue/ Limonite Avenue
- Carnelian Street/ 68th Street
- Wineville Avenue/ 68th Street/ Holmes Avenue
- Wineville Avenue/ 64th Street
- Wineville Avenue/ 65th Street

A reduction to LOS E or F would exceed the City of Jurupa Valley's traffic threshold. Diverted vehicle traffic from Pats Ranch Road onto Wineville Avenue and 68th Street would contribute vehicles to critical through-traffic and turning lanes at these locations causing increased vehicle delays and congestion.

Impacts on all six intersections would likely not occur simultaneously as only a segment of Pats Ranch Road would be closed at any one time. For example, a closure on Pats Ranch Road between 65th Street and 68th Street could result in significant decreases in intersection operations at Carnelian Street/ 68th Street, Wineville Avenue/ 68th Street and Holmes Avenue, and Wineville Avenue/ 65th Street. This closure would not necessarily result in significant decreases in intersection operations at Wineville Avenue/ 64th Street and Wineville Avenue/ 65th Street because vehicle traffic could take different routes dependent upon the destination of the vehicles.

Roadway segment closures along 68th Street, between Pats Ranch Road and Wineville Avenue, would result in decreased operation of several intersections including 68th Street/ Pats Ranch Road, Carnelian Street/ 68th Street, and Wineville Avenue/ 68th Street and Holmes Avenue. In addition, north- and south-bound traffic on Pats Ranch Road and Wineville Avenue intending to travel east or west on 68th Street, would be diverted at 65th Street. Because of these potential traffic diversions, it is anticipated that overall intersection LOS at 65th Street/ Pats Ranch Road and 65th Street/ Wineville Avenue would degrade.

Closures of 68th Street to the east of Wineville Avenue/ Holmes Avenue would not be expected to result in a significant decrease in intersection LOS due to the lower volume of vehicles that travel along that segment of 68th Street and because there are fewer regional connections. This segment east of Wineville Avenue provides access primarily to residential and recreational

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Table 4.13-11 Changes in Level of Service with Pats Ranch Road Closure

Study Intersections		Baseline Plus Construction Traffic Detour Around Pats Ranch Road				Change in Delay ^a	
		AM Peak		PM Peak		AM Peak	PM Peak
		Delay ^a	LOS	Delay ^a	LOS		
1	I-15 SB Ramps/ Limonite Avenue	33.3	C	44.0	D	1.7	0.3
2	I-15 NB Ramps/ Limonite Avenue	35.2	D	46.8	D	0.0	1.4
3	Pats Ranch Road/ Limonite Avenue	17.2	B	17.5	B	-10.3 ^c	-22.5 ^c
4	Wineville Avenue/ Limonite Avenue	99.4	F	106.1	F	77.8	81.0
5	Pats Ranch Road/ Mall Entrance ^d	---	---	---	---	---	---
6	Pats Ranch Road/ 65th Street ^d	---	---	---	---	---	---
7	Pats Ranch Road/ 68th Street	31.6	C	21.2	C	13.1	3.3
8	Carnelian Street/ 68th Street ^b	83.7	F	163	F	73.4	154.6
9	Wineville Avenue/ Holmes Ave and 68th Street ^b	142.0	F	78.9	F	129.5	67.3
10	Etiwanda Avenue/ Cantu-Galleano Ranch Road	15.3	B	17.5	B	0.5	0.4
11	Wineville Avenue/ Cantu-Galleano Ranch Road	32.3	C	29.7	C	0.0	1.3
12	Wineville Avenue/ Bellegrave Avenue	19.5	B	19.2	B	0.7	1.1
13	Wineville Avenue/ 64th Street ^b	24.7	C	60.7	F	21.7	57.3
14	Wineville Avenue/ 65th Street ^b	46.6	E	113.1	F	37.9	104.7

Notes:

^a Delay is measured in seconds.

^b Stop-controlled intersection.

^c The decrease in delay compared to baseline conditions is because there are no critical turning movements onto Pats Ranch Road from Limonite Avenue.

^d With roadway closure on Pats Ranch Road, traffic volumes at the Mall Entrance and 65th Street would be greatly reduced. However, due to construction activities (including one-way traffic, flagman, and traffic control) it is estimated that overall vehicle delays would be LOS D or better with access to local and business traffic (only).

Source: (KOA Corporation, 2017b; Omni Means, 2017)

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areas (e.g., Goose Creek Golf Club). Most diverted traffic intending to travel east of Wineville Avenue would likely use Holmes Avenue to access the adjacent residential streets (e.g., Frank Avenue, Smith Avenue, Dana Avenue) and/or Etiwanda Avenue farther east. The diverted traffic effects on intersection operations as a result of road closure detours around segments of Pats Ranch Road and 68th Street would be significant due to the drop in LOS to E or F at several intersections, dependent upon which roadway segment is closed along the underground alignment.

SCE would implement EPE TRANS-03, which includes preparation of a traffic control plan to minimize impacts. The specific control measures that would be included in the traffic control plan are not identified in detail. The impact would remain potentially significant after implementation of EPEs. MM TRANS-02 restricts construction lane closures and roadway obstructions to off-peak hours; however, this measure only applies to CMP roadways including Limonite Avenue and Etiwanda Road, and does not include other high-volume roadway classifications in the City of Jurupa Valley. MM TRANS-02A further restricts construction lane and road closures, and roadway obstructions to off-peak hours for all affected roadways. Implementation of MM TRANS-02 and MM TRANS-02A would ensure that road closures on all City of Jurupa Valley roadways do not occur during the AM and PM peak hours. Intersection operations during the peak hour would not be affected, but due to the high volume of traffic, particularly on Limonite Avenue, off-peak intersection operations could still be significantly delayed. *The impact on intersection operations from road closures would be potentially significant and unavoidable.*

Lane Closures

Duct bank installation would require lane closures along 68th Street, Pats Ranch Road, and across Limonite Avenue for up to 270 work days. Jack and bore activities (if jack and bore techniques were used for the crossing of Limonite Avenue) would also require lane closures on Pats Ranch Road on either side of Limonite Avenue for approximately 20 work days. Traffic approaching road segments where lanes are closed would experience increased delays and may cause the LOS for these intersections to decrease. Most of the intersections that would be affected by increased delays during lane closures (e.g., Pats Ranch Road/ Mall Entrance, Pats Ranch Road/ 65th Street, Pats Ranch Road/ 68th Street, Carnelian Street/ 68th Street, and Wineville Avenue/ Holmes Ave and 68th Street) would experience LOS C or better with the addition of construction traffic.

Construction traffic would decrease the LOS at several intersections to LOS D. Workers may arrive during the AM or PM peak hours which could further decrease intersection operations. Lane closures on Pats Ranch Road to the south of Limonite Avenue are anticipated to have the greatest impact due to the volumes of traffic. The lane closures, would increase traffic delays at Pats Ranch Road/ Limonite Avenue to below LOS D during the PM peak hour as shown in Table 4.13-12. Impacts to intersections along Limonite Avenue would also occur during closures crossing Limonite Avenue at Pats Ranch Road. Intersection operations could deteriorate to below LOS D. Due to the low volume of mostly local traffic that travels along Pats Ranch Road to the north of Limonite Avenue, lane closures in that area during jack and bore

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Table 4.13-12 Changes in Level of Service with Construction Traffic and Pats Ranch Road Lane Closures

Number	Study Intersections	Baseline Plus Construction Traffic Lane Closure on Pats Ranch Road				Change in Delay ^a	
		AM Peak		PM Peak		AM Peak	PM Peak
		Delay ^a	LOS	Delay ^a	LOS		
Northbound Closure							
3	Pats Ranch Road/ Limonite Avenue	40.0	D	85.7	F	12.5	45.7
5	Pats Ranch Road/ Mall Entrance	9.5	A	18.7	B	1.3	0.9
6	Pats Ranch Road/ 65th Street	18.9	B	19.4	B	----	01
7	Pats Ranch Road/ 68th Street	22.1	C	15.2	B	3.6	----
Southbound Closure							
3	Pats Ranch Road/ Limonite Avenue	29.7	C	44.4	D	2.2	4.4
5	Pats Ranch Road/ Mall Entrance	9.2	A	17.8	B	1.0	----
6	Pats Ranch Road/ 65th Street	18.4	B	19.6	B	-----	0.3
7	Pats Ranch Road/ 68th Street	23.3	C	18.6	B	4.8	0.7

Notes:

^a Delay is measured in seconds.

Source: (Omni Means, 2017)

would not be expected to deteriorate intersection operations. Lane closures would result in a significant impact on intersection operations south of the Pats Ranch Road/Limonite Avenue intersection.

SCE would implement EPE TRANS-03, which includes preparation of a traffic control plan to minimize impacts but the plan does not identify specific control measures to minimize the impact on the Pats Ranch Road/ Limonite Avenue intersection operations. The impact would remain significant.

MM TRANS-02 restricts construction lane closures and roadway obstructions to off-peak hours; however, this measure only applies to CMP roadways, including Limonite Avenue and Etiwanda Road, and does not include other high-volume roadway classifications in the City of Jurupa Valley. MM TRANS-02A further restricts construction lane and road closures, and roadway obstructions to off-peak hours for all affected roadways. Implementation of MM TRANS-02 and MM TRANS-02A would ensure that road closures on all City of Jurupa Valley roadways do not occur during the AM and PM peak hours. Due to the significant delays caused by loss of a through-lane on Pats Ranch Road, significant delays could occur at intersections during off-peak hours. *The impact on intersection operations from lane closures would be potentially significant and unavoidable.*

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An analysis of the effect vehicle delay due to lane closures would have on traffic hazards is addressed under Impact Traffic-d.

Roadway Segments

Construction Traffic

The LOS of roadway segments with the addition of Revised Project construction traffic is shown in Table 4.13-13. No change to the LOS of roadway operations would occur during construction of the Revised Project. Roadway capacities would remain within established significance thresholds with all roadway segments operating at LOS A or LOS B with the exception of the Limonite Avenue segment west of Pats Ranch Road and I-15, which would remain at LOS D. ***The impact on roadway operations from construction traffic would be less than significant.***

Road Closures

During construction, signs would direct motorists to use detours to avoid road closures along the underground 230-kV transmission line alignment. Detours would likely divert traffic to parallel roadways including Wineville Avenue and Limonite Avenue. Daily traffic along 68th Street west of Pats Ranch Road would be approximately 12,400 vehicles under baseline conditions. Diverted traffic from 68th Street would result in a potential increase of over 2,100 vehicles a day, in addition to construction traffic on Limonite Avenue west of Pats Ranch Road and I-15, reducing the service level to LOS E. Overall average daily traffic (ADT) on the roadway segment would increase to at least 48,510 vehicles and result in LOS E conditions. The Wineville Avenue roadway segment between 68th Street and Limonite Avenue can accommodate over 27,000 vehicles per day before dropping to LOS E. Pats Ranch Road between 68th Street and Limonite Avenue would have daily traffic volumes of approximately 7,800 vehicles per day. Diverted traffic from Pats Ranch Road would not result in deterioration of adjacent roadway segments to below LOS E. All other roadway segments would operate at LOS B or better.

Revised Project road closures along 68th Street between Pats Ranch Road and Wineville Avenue would be anticipated to substantially increase daily traffic along the Limonite Avenue segment west of Pats Ranch Road and I-15, resulting in a significant impact.

SCE would implement EPE TRANS-03, which includes preparation of a traffic control plan to minimize impacts but does not identify specific control measures to minimize the impact from detoured traffic on the Limonite Avenue segment west of Pats Ranch Road and I-15.

Implementation of MM TRANS-06 would reduce construction traffic during the peak periods by up to 37 percent in the Revised Project area. MM TRANS-06 requires preparation of Traffic Control Plans that include erection of signs to clearly designate detours and for workers to carpool to and from Etiwanda Yard, which would reduce traffic but would not increase the LOS of the Limonite Avenue segment west of Pats Ranch Road and I-15. ***The impact on roadway segment operation from detoured traffic as a result of road closures would remain significant and unavoidable.***

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Table 4.13-13 Changes in Daily Traffic Volumes with Revised Project Construction Traffic

Letter	Roadway Segment	Baseline Volume	Baseline LOS	Baseline Plus Construction Traffic Volume	Change in Volume	Baseline Plus Construction Volume to Capacity Ratio	Baseline Plus Construction LOS
A	Limonite Avenue West of Pats Ranch Road and I-15	46,416	D	46,521	105	0.863	D
B	Limonite Avenue West of Wineville Avenue	34,070	B	34,295	225	0.636	B
C	Pats Ranch Road North of 65th Street	7,798	A	8,023	225	0.310	A
D	68th Street West of Pats Ranch Road	12,443	A	12,443	0	0.365	A
E	68th Street East of Pats Ranch Road	6,799	A	7,024	225	0.206	A
F	68th Street East of Wineville Avenue	1,265	A	1,490	225	0.114	A
G	Wineville Avenue South of Cantu-Galleano Ranch Road	9,123	A	9,363	240	0.275	A
H	Cantu-Galleano Ranch Road East of Wineville Avenue	7,830	A	8,070	240	0.237	A
I	Wineville Avenue South of 64th Street	3,293	A	3,518	225	0.103	A

Source: (KOA Corporation, 2017b; Omni Means, 2017)

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Lane Closures

Partial closures along the underground 230-kV transmission line alignment could result in a small portion of traffic using alternative routes to avoid the roadway segment. A small increase in traffic along parallel roadway segments to avoid lane closures, such as along Wineville Avenue, Limonite Avenue, or residential roadways would not appreciably reduce the LOS for any segment. *The impact on roadway operations from Revised Project construction traffic and lane closures would be less than significant.*

Operation and Maintenance

The Revised Project would not require any SCE personnel to be present during operation of the new transmission facilities. Inspection and maintenance would be performed by SCE staff on a routine and as-needed basis (refer to Section 2.5: Operation and Maintenance of the Subsequent EIR). Roadway intersections and segments would not be significantly impacted by periodic and low numbers of vehicles needed for inspection and maintenance of the underground 230-kV transmission line. Lane closures during inspections would not significantly increase the number of vehicles on parallel roadway segments. *Operation and maintenance of the underground 230-kV transmission line would have a less than significant impact on LOS.*

Mitigation Measures: MM TRANS-02, MM TRANS-02A, and MM TRANS-06

Significance after Mitigation: Significant and Unavoidable

Impact Traffic-b: Would the Revised Project conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	Significance Determination
	Construction: <i>Significant and Unavoidable</i>
	Operation & Maintenance: <i>Less than Significant</i>

Construction

Overview

Construction of the Revised Project would increase vehicle traffic on roadways and at intersections in the Revised Project area. Limonite Avenue and Etiwanda Avenue are CMP roadways and I-15 is a CMP highway within the Revised Project area.

Construction Traffic

CMP Roadway

The LOS at intersections along Limonite Avenue and Etiwanda Avenue under baseline conditions and with the increase in traffic from construction, is shown in Table 4.13-10. Construction traffic would decrease the LOS at several CMP roadway intersections, but not to below an LOS of E. The LOS of a CMP roadway would not decrease with the addition of construction traffic. *The impact on a CMP roadway would be less than significant.*

CMP Highway

I-15 segment between the Limonite Avenue on- and off-ramps and the SR-60 interchange are projected to be operating at LOS D during the peak hour following construction of the I-15 High

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Occupancy Toll Lane Project. Construction is anticipated to be completed by 2020 (Caltrans, 2016). Construction of the Revised Project would add up to 73 peak hour delivery vehicle trips² on I-15, increasing traffic volumes in this segment by less than 1 percent³. The addition of construction traffic to this segment of I-15 would not result in a drop in LOS and would not conflict with the RCTC CMP. *The impact on a CMP highway would be less than significant.*

Road Closures

Impact Traffic-a analyzes the impact from road closures on intersection operations and roadway segments. Road closures would divert traffic to adjacent streets. Detoured traffic around a road closure on Pats Ranch Road would result in a decrease in LOS at Wineville Avenue/ Limonite Avenue to below LOS E during the peak period, as shown in Table 4.13-11. This decrease in LOS could occur when segments of Pats Ranch Road to the north of 65th Street or 64th Street are closed. Due to the proximity to Limonite Avenue and distance to other east-west roadways most the daily traffic from 68th Street is assumed to detour around 68th Street onto Limonite Avenue. Limonite Avenue west of Pats Ranch Road and I-15 would degrade to below LOS E. The potential impact on a CMP roadway from road closures could be significant.

SCE would implement EPE TRANS-03, which includes preparation of a traffic control plan to minimize impacts but does not identify specific control measures to minimize the impact from detoured traffic. The impact would remain significant.

MM TRANS-02 and MM TRANS-02A restricts construction road closures to off-peak hours for all roadways. MM TRANS-06 requires preparation of Traffic Control Plans that include a provision to time worker commutes and material deliveries to avoid peak hours. Peak hour intersection operations along Limonite Avenue would not decrease as a result of the mitigation measures; however, non-peak hour traffic on Limonite Avenue could still remain below LOS E as a result of detours during construction. *The impact on a CMP roadway from road closures would be potentially significant and unavoidable.*

Lane Closures

CMP Roadway

Impact Traffic-a analyzes the impact from lane closures on intersection operations and roadway segments. Vehicle delays due to lane closures on Pats Ranch Road to the south of Limonite Avenue would reduce intersection operations at Pats Ranch Road/ Limonite Avenue to below LOS E. Lane closures would not decrease the LOS for any CMP roadway segment to below LOS E. Impact Traffic-d provides an analysis of the impact on vehicles from lane closure during construction on Limonite Avenue, at the intersection of Pats Ranch Road. As analyzed, vehicle queues along Limonite Avenue would increase in the east- and westbound directions,

² Vehicle trips are presented in PCE.

³ Assuming peak volumes of between approximately 9,000 and 12,000 along this I-15 segment in 2020 (Caltrans, 2016).

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depending on which lane is closed. Longer vehicle queues due to lane closures on Limonite Avenue or Pats Ranch Road could decrease the LOS of Limonite Avenue intersections in the area. The impact on a CMP roadway intersection from lane closures would be significant.

SCE would implement EPE TRANS-03, which includes preparation of a traffic control plan to minimize impacts but does not identify specific control measures to minimize the impact on the Pats Ranch Road/ Limonite Avenue intersection. The impact would remain significant.

MM TRANS-02 restricts construction lane closures and roadway obstructions to off-peak hours along CMP roadways such as Limonite Avenue and Etiwanda Road. MM TRANS-02A further restricts construction lane closures and roadway obstructions to off-peak hours for all roadways. MM TRANS-06 requires preparation of Traffic Control Plans that include a provision to time worker commutes and material deliveries to avoid peak hours. Peak hour LOS on segments and intersections along Limonite Avenue would be increased to an LOS E or better during peak hours with implementation of MM TRANS-02, MM TRANS-02A, and MM TRANS-06; however, non-peak hour intersection queues could be significantly affected. *The impact on a CMP roadway from lane closures would be potentially significant and unavoidable.*

CMP Highway

Lane closures during construction of the Revised Project would not impact a CMP highway. A lane closure in the eastbound direction, would result in an increased vehicle queue length, which would be accommodated by existing vehicle storage space between Pats Ranch Road and the I-15 freeway ramp. Lane closures during the peak hours would not result in a backup of vehicles that could affect the I-15 freeway ramp. *The impact on a CMP highway from lane closures would be less than significant.*

Operation and Maintenance

The Revised Project would not require any SCE personnel to be present during operation of the new transmission facilities. Inspection and maintenance would be performed by SCE staff on a routine and as-needed basis (refer to Section 2.5: Operation and Maintenance of the Subsequent EIR). Vaults are not proposed within Limonite Avenue. Lane closures would not affect operation of Limonite Avenue. CMP roadway and highways would not be significantly impacted by periodic and low numbers of vehicles needed for inspection and maintenance of the transmission line. *Operation and maintenance of the transmission line would have a less than significant impact on CMP roadways and highways.*

Mitigation Measures: MM TRANS-02, MM TRANS-02A, and MM TRANS-06

Significance after Mitigation: Significant and Unavoidable

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<p>Impact Traffic-d: Would the Revised Project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?</p>	Significance Determination
	<p>Construction: <i>Less than Significant with Mitigation</i></p> <p>Operation & Maintenance: <i>Less than Significant</i></p>

Construction

Construction Truck Traffic

Large trucks, including equipment and material delivery trucks, dump trucks, and water trucks, traveling along City of Jurupa Valley roadways to and from Revised Project work sites could increase traffic hazards because large trucks take up a greater area in roadways and have larger blind spots than typical passenger vehicles. Large trucks also have various maneuverability and stopping limitations, particularly when hauling heavy loads, and can slow traffic movement when turning due to their large turning radii. Large flatbed trucks delivering project materials such as TSP and LST structural pieces may create temporary obstructions if they are stopped in travel lanes outside of marked lane closures during offloading. Operating large trucks on busy urban roadways would increase the risk and severity of traffic hazards and conflicts with transportation facilities.

The impact from large trucks traversing regional freeways and local roads identified by the City of Jurupa Valley, detailed in Section 4.13.3 above, for commercial truck use would be less than significant because these roadways are well-established trucking routes with relatively gradual turns and the roadways currently support high levels of traffic volume. Large trucks traveling on these roadway facilities would not substantially increase traffic hazards.

The potential for traffic hazards and conflicts with transportation facilities from large truck operation would be the greatest during peak commute periods when traffic volume is generally greater for all modes of transportation. Use of roadways by construction trucks not identified as a commercial truck route, including Etiwanda Avenue or Pats Ranch Road, could result in a significant traffic hazard to other vehicles particularly during the peak hours.

MM TRANS-02 restricts construction lane closures and roadway obstructions to off-peak hours; however, this measure only applies to CMP roadways including Limonite Avenue and Etiwanda Road, not including other high-volume roadway classifications in the City of Jurupa Valley. MM TRANS-02A further restricts construction lane closures and roadway obstructions to off-peak hours for all impacted roadways. MM TRANS-06 requires preparation of Traffic Control Plans that include requirements for material delivery vehicles to avoid the peak hour and for vehicles to travel at safe speeds dependent upon weather and road conditions. *The traffic hazard impact from construction trucks traveling on roadways during peak hours would be less than significant with mitigation.*

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Road Closure

Road closures would occur along 68th Street and Pats Ranch Road during installation of the vaults. As analyzed under Impact Traffic-a, several intersections would experience extensive delays as a result of detours around road closures on Pats Ranch Road. Vehicle queuing could block intersections along Wineville Avenue. Due to the capacity and volume of traffic along Pats Ranch Road and 68th Street, extensive vehicle queuing is not anticipated during the off-peak hours. Construction of the Revised Project could result in a significant traffic hazard impact due to vehicle queues during closures of 68th Street and Pats Ranch Road if road closures occur during the peak hours.

MM TRANS-02 restricts construction lane closures and roadway obstructions to off-peak hours; however, this measure only applies to CMP roadways including Limonite Avenue and Etiwanda Road, not including other high-volume roadway classifications in the City of Jurupa Valley. MM TRANS-02A further restricts construction lane closures and roadway obstructions to off-peak hours for all impacted roadways. Implementation of mitigation requires that lane closures on City of Jurupa Valley roadways are avoided during the AM and PM peak hours. *The traffic hazard impact from vehicle queues due to lane closures would be less than significant with mitigation.*

Lane Closure

Lane closures would occur along 68th Street, Pats Ranch Road, and Limonite Avenue during trenching and installation of the underground duct banks, and jack and bore. Underground construction activities would cross Limonite Avenue, the highest volume roadway in the Revised Project area, in a north-south direction at the intersection with Pats Ranch Road. A vehicle queuing analysis was performed for the roadway assuming a reduction in a single vehicle travel lane. A one-lane reduction in eastbound and westbound through-traffic during underground duct bank installation was assumed in order to analyze the impacts of closures to Limonite Avenue. One lane of through-traffic was eliminated from the eastbound direction on Limonite Avenue and one lane of through-traffic was eliminated from the westbound direction on Limonite Avenue to conduct the analysis. These lane closures are not assumed to occur concurrently. As construction progresses across Limonite Avenue along Pats Ranch Road, it assumed that only one direction of traffic would be affected at a time. Closure of a lane during the AM and PM peak hours would result in backups along Limonite Avenue, in either the east- or westbound direction, depending on which lane is closed. Table 4.13-14 shows the calculated traffic queue lengths under baseline conditions and during construction when one lane is closed.

More than 1,000 feet of vehicle storage space is available on Limonite Avenue, under existing conditions, between the I-15 freeway ramp and Pats Ranch Road. Vehicle queues in the eastbound direction, as a result of closure of one lane during construction, could be accommodated with existing storage capacity on Limonite Avenue without affecting the I-15 freeway ramp junctions to the west. The Limonite Avenue segment between the Pats Ranch Road and Wineville Avenue intersections provides 800 feet of vehicle storage under existing conditions. The vehicle queue resulting from closure of a lane in the westbound direction

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Table 4.13-14 Limonite Avenue at Pats Ranch Road Lane Closure Queues

Pats Ranch Road/ Limonite Avenue	Baseline Conditions		Lane Closure		Net Change	
	AM Peak (feet)	PM Peak (feet)	AM Peak (feet)	PM Peak (feet)	AM Peak (feet)	PM Peak (feet)
Eastbound	250	273	421	378	171	105
Westbound	710	266	822	889	112	623

Source: (KOA Corporation, 2017b; Omni Means, 2017)

during construction would result in vehicle queues in excess of the storage space available. Vehicles could block the Wineville Avenue/ Limonite Avenue intersection. Construction of the Revised Project could result in a significant traffic hazard impact due to vehicle queues if lane closures occur during the peak hours.

MM TRANS-02 restricts construction lane closures and roadway obstructions to off-peak hours; however, this measure only applies to CMP roadways including Limonite Avenue and Etiwanda Road, not including other high-volume roadway classifications in the City of Jurupa Valley. MM TRANS-02A further restricts construction lane closures and roadway obstructions to off-peak hours for all impacted roadways. Implementation of MM TRANS-02 and MM TRANS-02A requires that lane closures on City of Jurupa Valley roadways are avoided during the AM and PM peak hours. The peak hour vehicle queues exceed the existing vehicle storage space by 22 to 89 feet. Off-peak vehicle queues are anticipated to be substantially shorter. *The traffic hazard impact from vehicle queues due to lane closures would be less than significant with mitigation.*

Construction Activities in the Roadway

An open trench as well as the presence of construction equipment, workers, and vehicles in proximity to flowing traffic may confuse or pose a distraction for drivers and would pose a hazard if a vehicle entered the active work area. The impact could be significant.

SCE would implement EPE TRANS-03, which includes preparation of a traffic control plan to minimize impacts. The specific control measures that would be included in the traffic control plan to reduce hazards around active work areas are not identified in detail. Not enough information is available to indicate how the impacts would be minimized to less than significant by EPE TRANS-03 implementation. The impact on driver safety due to the presence of construction equipment and an open trench would remain significant.

MM TRANS-06 requires appropriate signage alerting drivers to lane closures and storage of construction equipment, which would minimize the hazard to drivers from construction activities in roadways. *Traffic hazard impact on drivers due to work in the roadway would be less than significant with mitigation.*

Road Conditions

Excavation and trenching for the installation of underground vault structures, manholes, and duct banks would be backfilled and repaved to match adjacent paved surfaces following

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construction; however, heavy trucks and equipment have the potential to damage local roadways along the Revised Project construction routes and at underground work sites. Damaged roads may create significant traffic hazards if drivers respond by swerving to avoid potholes or other roadway damage. Inadequate roadway repairs after the completion of construction, which could also leave potholes or divots, have the potential to cause a significant traffic hazard for vehicles.

SCE would implement EPE TRANS-04, which requires repairs of local streets to preconstruction conditions. Roadway conditions prior to construction may not be acceptable or meet the City of Jurupa Valley's construction standards. Roadway impacts could remain significant following implementation of EPE TRANS-04 because construction standards are not specified.

MM TRANS-07 requires a pre-construction survey of roadways along the construction traffic routes and underground 230-kV transmission line alignment. MM TRANS-07 also requires that these roadways are repaired to the City of Jurupa Valley's construction standards within 60 days of construction completion. *Traffic hazard impacts resulting from poor roadway conditions would be less than significant with mitigation.*

Operation and Maintenance

The Revised Project would not require any SCE personnel to be present during operation of the new transmission facilities. Inspection and maintenance would be performed by SCE staff on a routine and as-needed basis (refer to Section 2.5: Operation and Maintenance of the Subsequent EIR).

Large trucks, which could pose a traffic hazard, would not be used or required during routine operation and maintenance. Inspections of the underground 230-kV transmission line would require lane closures of small segments along 68th Street and Pats Ranch Road where vaults are located on public roads. Lane closures at individual vaults would occur for less than a day and would be isolated to the area where the vaults are located. SCE would also implement standard traffic control procedures for working in roadways. Additional safety standards for operation and maintenance of the Revised Project's components include precautions for avoiding direct contact with conductive objects in the project vicinity, including vehicles, such as protective bollards in front of conductors on riser poles. *The traffic hazard impact from lane closures would be less than significant.*

Mitigation Measures: MM TRANS-02, MM TRANS-02A, MM TRANS-06, and MM TRANS-07

Significance after Mitigation: Less than Significant

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Impact Traffic-e: Would the Revised Project result in inadequate emergency access?	Significance Determination
	Construction: <i>Less than Significant with Mitigation</i> Operation & Maintenance: <i>Less than Significant</i>

Construction

Road closures would occur during vault installation along segments of 68th Street and Pats Ranch Road. Installation of each vault would require road closures for up to 7 work days.

Duct bank installation would require lane closures along 68th Street, Pats Ranch Road, and across Limonite Avenue at the intersection with Pats Ranch Road and road closures along 68th Street to the east of Wineville Avenue/Holmes Avenue. Road work requiring lane or road closures along the 2-mile underground alignment would occur for up to approximately 270 work days and would affect, at various times, access to residences, local roads leading to residential subdivisions (along 68th Street and Pats Ranch Road), and access to a large commercial shopping center is accessible from Pats Ranch Road. Construction activities, including temporary lane and road closures, would block ingress and egress to residential communities and commercial areas, which would restrict or slow emergency vehicles. Response times for emergency vehicles could fall below the desired response times identified in Section 4.13-4 when responding to calls in the area of lane or road closures, resulting in a significant impact on emergency access.

SCE would implement EPE TRANS-03, which includes preparation of traffic control plans with provisions to accommodate emergency response vehicles at all times. Accommodation measures would include such as immediately stopping work for emergency vehicle passage, short detours, and alternate routes. EPE TRANS-03 lacks sufficient detail to assure that impacts on emergency access would be reduced to less than significant. The impact would remain significant with implementation of the EPE.

MM TRANS-06 requires SCE to notify residences within 300 feet of lane or road closures and emergency agencies at least 7 days prior to closures. MM TRANS-06 also requires that access for local businesses, residences, and emergency personnel must be maintained. Furthermore, the contractor would clear roads of construction equipment, materials, and vehicles in the event of an emergency to permit evacuation and access by emergency personnel. ***The impact on emergency access due to lane and road closures would be less than significant with mitigation.***

Operation and Maintenance

The Revised Project would not require any SCE personnel to be present during operation of the new transmission facilities. Inspection and maintenance would be performed by SCE staff on a routine and as-needed basis (refer to Section 2.5: Operation and Maintenance of the Subsequent EIR). Lane closures would occur during vault inspection. Closures would last for less than a day at individual vaults. Emergency access would not be affected because vehicles would be

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directed around the inspection area. The inspection activities would not block emergency traffic. *The impact on emergency access due to lane closures would be less than significant.*

Mitigation Measures: MM TRANS-06

Significance after Mitigation: Less than Significant

<p>Impact Traffic-f: Would the Revised Project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?</p>	Significance Determination
	Construction: <i>Less than Significant with Mitigation</i>
	Operation & Maintenance: <i>Less than Significant</i>

Construction

Public Transit

Construction of the underground 230-kV transmission line would result in lane and road closures along Pats Ranch Road and lane closures across Limonite Avenue. North- and southbound bus stops serving RTA bus lines 29 and 3 are located north of the 64th Street intersection and south of the 65th Street intersection. An eastbound bus stop serving RTA bus line 29 is located on Limonite Avenue, directly east of Limonite Avenue/Pats Ranch Road intersection (refer to Figure 4.13-3).

Partial or full roadway closures would increase the travel time for RTA bus lines 29 and 3 as well as close one or more bus stops, limiting user access to public transit. The impact from lane and road closures on public transit would be significant.

SCE would implement EPE TRANS-03, which includes preparation of a traffic control plan to minimize impacts. The specific control measures that would be included in the traffic control plan are not identified in detail to determine whether the impact on public transit would be minimized. The impact would remain potentially significant after implementation of the EPE.

MM TRANS-04 requires one lane of traffic flow to be maintained using flagmen to permit transit operation during construction or to provide an adequate detour route. The impact on public transit would remain significant as measures regarding how riders would be informed of detours and how much notice would be required is not described in MM TRANS-04.

MM TRANS-08 requires signs identifying when and for how long closures are expected and where the closest serviceable bus stop for the bus line will be. *The impact on public transit would be less than significant with mitigation.*

School Bus Service Area

Lane and road closures would occur within an area served by school buses for Louis Vandermolen Fundamental Elementary (refer to Figure 4.13-3). School buses may be delayed or unable to access pickup locations for students. Students may be unable to reach pickup locations due to sidewalk closures. Under these circumstances, the impact on school bus service would be significant.

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SCE would implement EPE TRANS-03, which includes preparation of a traffic control plan to minimize impacts. The specific control measures that would be included in the traffic control plan are not identified in detail to determine whether the impact on school bus service would be minimized. The impact would remain potentially significant after implementation of the EPE.

MM TRANS-06 requires SCE to notify schools providing school bus service to areas with lane or road closures at least seven days prior to closures. MM TRANS-08 requires signs detailing when and for how long closures are expected and where the pedestrian detours are located. *The impact on school buses and students from lane and road closures would be less than significant with mitigation.*

Bicycle Facilities

No Class I or Class II bicycle facilities are designated along the underground 230-kV transmission line alignment; however, Bellegrave Avenue west of Wineville Avenue is designated as a Class II bicycle route. The Class II bicycle route would not be directly affected by road or lane closures. Bicyclists along 68th Street and Pats Ranch Road may use vehicle lanes during construction. Lane and road closures along these roadways have the potential to limit bicycle access to commercial or residential uses. Lane closures would consolidate the space in the roadway that bicyclists and cars share, increasing the potential hazards to bicyclist safety. The presence of construction equipment and open trenches also has the potential to pose a hazard to bicyclists. The impact from underground construction on bicyclist use and safety would be potentially significant.

SCE would implement EPE TRANS-03, which includes preparation of a traffic control plan to minimize impacts. The specific control measures that would be included in the traffic control plan are not identified in detail to determine whether the impact on bicycle facilities would be minimized. The impact would remain potentially significant after implementation of the EPE.

MM TRANS-05 requires bicycle access along Class II routes to be maintained during closures or to provide a diversion for bicyclists around the construction closure but does not specify measures for bicyclists on Class III roadways. MM TRANS-08 requires “share the road” signs and clear bicyclist detour signs to be posted along all routes that bicyclists may use. *The impact on bicycle use and safety would be less than significant with mitigation.*

Pedestrian Facilities

Sidewalks may be closed during construction of the underground 230-kV transmission line, dependent upon space needed. Vault installations would likely require sidewalk closures. Closures could occur along 68th Street and Pats Ranch Road. Sidewalk closures could create a hazard for pedestrians as they navigate around the work area potentially walking within or across roadways to reach their destinations or other passable sidewalks. Pedestrians would also be impacted at roadway intersections where construction may restrict cross-street access. The impact from sidewalk and roadway intersection closures on pedestrian safety would be potentially significant.

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SCE would implement EPE TRANS-03, which includes preparation of a traffic control plan to minimize impacts. The specific control measures that would be included in the traffic control plan are not identified in detail to determine whether the impact on pedestrian facilities would be minimized. The impact would remain potentially significant after implementation of the EPE.

MM TRANS-08 requires signs identifying when and for how long closures are expected and where the pedestrian detours are located. *The impact on pedestrian safety would be less than significant with mitigation.*

Equestrian Trails

Equestrian trails may be located behind the curb along one side of individual roadways. Equestrian trails may be closed during construction of the underground 230-kV transmission line, dependent upon space needed for vault installations (Refer also to Impact Recreation-01 in Section 4.12: Recreation). Equestrian trails would also be impacted at roadway intersections where construction may restrict cross-street access. Trail and roadway crossing closures could create a hazard for equestrians. The impact from trail closures on equestrian safety would be potentially significant.

SCE would implement EPE TRANS-03, which includes preparation of a traffic control plan to minimize impacts. The specific control measures that would be included in the traffic control plan are not identified in detail to determine whether the impact on equestrian trails would be minimized. The impact would remain potentially significant after implementation of the EPE.

MM TRANS-08 requires signs detailing when and for how long closures are expected and where the equestrian detours are located. *The impact on equestrian safety would be less than significant with mitigation.*

Operation and Maintenance

The Revised Project would not require any SCE personnel to be present during operation of the new transmission facilities. Inspection and maintenance would be performed by SCE staff on a routine and as-needed basis (refer to Section 2.5: Operation and Maintenance of the Subsequent EIR).

Lane closures during vault inspections would have the potential to slow bus travel or impede bus stops along Pats Ranch Road. Closures could reduce the safety of bicyclists traveling along 68th Street or Pats Ranch Road. Sidewalk closures would not occur during inspections. Temporary lane closures would be limited to the area immediately surrounding the vault access point and SCE would implement standard traffic control procedures during inspections. The temporary vault access would not affect any mode of public transit or bicycle access. *The impact on public transit and bicycle safety would be less than significant.*

Mitigation Measures: MM TRANS-04, MM TRANS-05, MM TRANS-06, and MM TRANS-08

Significance after Mitigation: Less than Significant

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4.13.9 Revised Project Mitigation Measures

MM TRANS-02: Avoid Peak-Period Construction (from 2013 RTRP EIR)

To minimize traffic congestion and delays during construction, RPU and SCE shall restrict all necessary lane closures or obstructions on major roadways (i.e., Congestion Management Plan roadways) associated with project construction activities to off-peak periods. Lane closures shall be avoided during the 6:00 a.m. to 9:00 a.m. timeframe and the 3:30 to 6:30 p.m. timeframe, or as otherwise defined within the TMPs.

Applicable Locations: Construction of the underground 230-kV transmission line within Limonite Avenue

Performance Standards and Timing:

- **Prior to Construction:** N/A
- **During Construction:** Restrict lane closures and other obstructions on CMP roadways to off-peak periods
- **Following Construction:** N/A

MM TRANS-02A: Avoid Peak-Period Closures and Obstructions on All Roadways

To minimize traffic congestion and delays during construction and maintenance of the underground 230-kV transmission line, SCE shall schedule all necessary road or lane closures or obstructions on all roadways associated with project construction and maintenance activities during off-peak periods. Road and lane closures shall be avoided during the 6:00 a.m. to 9:00 a.m. timeframe and the 3:30 to 6:30 p.m. timeframe, or as otherwise defined within CPUC and City-approved traffic control plans.

Applicable Locations: Construction of the underground 230-kV transmission line

Performance Standards and Timing:

- **Prior to Construction:** N/A
- **During Construction:** Restrict road and lane closures and other obstructions on all roads to off-peak periods
- **Following Construction:** Restrict road and lane closures and other obstructions on all roads to off-peak periods

MM TRANS-04: Bus Transit Route (from 2013 RTRP EIR)

Provide construction closures that keep at least one lane of traffic open with reversible flow (via flagmen) during times of transit line operation, unless an adequate detour route can be found within 0.25 mile of the closure point.

Applicable Locations: Underground 230-kV transmission line alignment along bus routes

Performance Standards and Timing:

- **Prior to Construction:** N/A
- **During Construction:** (1) Maintain one lane of traffic open with reversible flow, or (2) Provide an adequate detour route within 0.25 mile
- **Following Construction:** N/A

MM TRANS-05: Roadway with Class I or Class II Bicycle Facility (from 2013 RTRP EIR)

Provide construction closures that allow for continued bicycle access within the existing facilities during all times, or provide a safe diversion of the bicycle facility around the construction zone.

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Applicable Locations: Limonite Avenue approaching the intersection with Pats Ranch Road from the west

Performance Standards and Timing:

- **Prior to Construction:** N/A
- **During Construction:** (1) Either permit bicycle access through Pats Ranch Road/ Limonite Avenue during lane closures crossing this intersection, or (2) Provide a safe diversion of the bicycle facility around the construction zone
- **Following Construction:** N/A

Prior to the start of construction, SCE shall submit Motorized and Non-Motorized Traffic Control Plans (TCPs) to all agencies with jurisdiction (e.g., City of Jurupa Valley) over public roads that would be directly affected by construction activities (where road closures or encroachments would be necessary) for review and approval at least 60 days prior to commencing construction activities.

At a minimum, the TCPs shall include the following details and traffic control measures:

- **Lane and Road Closures**
 - Details regarding the locations and timing of all temporary road and lane closures.
 - Implement standard safety practices, including installation of appropriate barriers between work zones and transportation facilities, placement of appropriate signage, cones, and use of traffic control devices.
 - Designate traffic detours for any road or lane closures with appropriate signage marking the detours.
- **Construction Traffic**
 - Time worker commutes and material deliveries to avoid peak (AM and PM) commuting hours.
 - Workers shall carpool to and from work sites and Etiwanda Marshalling Yard.
 - Plans for construction worker parking and transportation to work sites.
- **Traffic Safety**
 - Use flaggers and/or signage to guide vehicles through or around construction zones using proper techniques for construction activities including staging yard entrance and exit.
 - Store all equipment and materials in designated work areas in a manner that minimizes traffic obstructions and maximizes sign visibility.
 - Limit vehicles to safe speed levels according to posted speed limits, road conditions, and weather conditions.
 - Route trucks to avoid minor roads, where possible, to reduce congestion and potential asphalt damage.
- **Encroachment Permit**
 - Abide by encroachment permit conditions, which shall supersede conflicting provisions in the TCP.
- **Notification**
 - SCE shall notify local emergency personnel (i.e., fire departments, police departments, ambulance, and paramedic services), residents within 300 feet, and schools providing school bus service in the area (e.g., Troth Elementary and Louis Vandermolen Fundamental Elementary) at least 7 days prior to lane or road closures. The notice shall include location(s), date(s), time(s), and duration of closure(s), and a contact number for SCE project personnel.
- **Access**
 - Emergency access procedures shall be defined. SCE shall be ready at all times to accommodate emergency vehicles by maintaining a minimum of one lane clear or easily cleared on urban arterials and secondary roadways, immediately stopping work for emergency vehicle passage, providing short detours, and providing alternate routes developed in conjunction with local agencies.
 - SCE shall maintain travel through intersections at all times during construction, operation, and maintenance.

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- SCE or its construction contractors shall provide the ability to quickly lay a temporary steel plate trench bridge upon request in order to ensure driveway access to businesses and residences and shall provide continuous access to properties when not actively constructing the underground 230-kV transmission line. In the event of an emergency, steel plating shall be placed over underground work areas and vehicles/equipment shall be removed from the partially or fully closed roadways to the greatest extent feasible, as needed, to permit uninterrupted traffic flow. SCE or its construction contractor shall designate a job site manager responsible for ensuring emergency access. All workers shall be trained in emergency access procedures.

Applicable Locations: Underground 230-kV transmission line construction work areas and traffic routes

Performance Standards and Timing:

- **Prior to Construction:** (1) Prepare Motorized and Non-Motorized TCPs, (2) Submit TCPs to City of Jurupa Valley
- **During Construction:** Implement the traffic control measures detailed in the TCPs
- **Following Construction:** N/A

MM TRANS-07: Post-Construction Road and Sidewalk Repair

SCE shall conduct a pre-construction road and sidewalk condition assessment along roadways and sidewalks along the underground alignment and construction traffic routes, prior to construction. SCE shall submit the pre-construction road and sidewalk condition assessment to the CPUC and the City of Jurupa Valley no less than 30 days prior to construction. Following construction, SCE shall conduct a post-construction road and sidewalk condition assessment along 68th Street, Pats Ranch Road, Limonite Avenue, Wineville Avenue, Cantu-Galleano Ranch Road, and Etiwanda Avenue. If damage to roads occurs as a result of project construction or construction traffic, SCE shall restore damaged roadways and sidewalk (e.g., asphalt, curbs, and gutters) within 60 days after the completion of construction at their own expense under the direction of and to the construction standard of the City of Jurupa Valley to ensure that impacted roads are adequately repaired.

Applicable Locations: Underground 230-kV transmission line construction work areas and traffic routes

Performance Standards and Timing:

- **Prior to Construction:** Submit pre-construction road and sidewalk condition assessment covering applicable roadways to the CPUC and the City of Jurupa Valley no less than 30 days prior to construction
- **During Construction:** N/A
- **Following Construction:** (1) Conduct a post-construction road and sidewalk condition assessment along applicable roadways, (2) If damage is found, repair of damaged roadways and sidewalks will occur within 60 days of completion

MM TRANS-08: Public Transit, Bicycle, Equestrian, and Pedestrian Facilities

The following measures shall be implemented during construction, operation and maintenance of the underground 230-kV transmission line:

- SCE shall coordinate with Riverside Transit Authority to re-locate bus stops and/or re-route affected transit services via parallel streets during construction when affected transit service is subject to delays resulting from partial street closure or inaccessible transit stops due to full street closure.
- SCE shall post signs at the affected bus stops on Pats Ranch Road and Limonite Avenue. The signs shall be posted at least 2 weeks in advance of road or lane closures and shall indicate when the bus stops along Pats Ranch Road or Limonite Avenue would be unavailable and where the nearest bus stop for RTA bus lines 29 or 3 is located.
- SCE shall post signs at pedestrian/equestrian intersections at least 2 weeks in advance of construction that are anticipated to be affected by closures and/or detours. These signs shall state

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<p>the date range of construction and shall indicate the route of pedestrian/equestrian detours during construction.</p> <ul style="list-style-type: none"> • Warning signs shall be posted on sidewalks/trails where construction limits pedestrian/equestrian access and to identify which side of the street can be safely accessed at intersections prior to construction zones. • SCE or its construction contractors shall use “share the road” signs within the construction zones where partial closures would occur; obtain a temporary permit to allow bicyclists to use the sidewalks to bypass the construction zones where allowed by the local jurisdiction; and provide clear signs using the bicycle symbol to guide bicyclists to detour routes.
<p>Applicable Locations: Underground 230-kV transmission line alignment</p>
<p>Performance Standards and Timing:</p> <ul style="list-style-type: none"> • Prior to Construction: (1) Coordinate with the Riverside Transit Authority to re-locate bus stops and/or re-route affected transit services, (2) Post signs 2 weeks prior to construction, at bus stops and pedestrian/equestrian intersections that will be affected by closures and/or detours, (3) Notices will provide information regarding the duration of closure and detour/alternate routes, (4) Obtain a permit, if feasible, to allow bicyclists to use sidewalks to bypass construction areas • During Construction: (1) Erect “share the road” signs within construction zones where partial closures will occur, (2) Post signs informing pedestrians/equestrians of upcoming areas with limited pedestrian/equestrian access to permit safe crossing at intersections • Following Construction: (1) Post signs 2 weeks prior to construction, at bus stops and pedestrian intersections that will be affected by closures and/or detours, (2) Notices will provide information regarding the duration of closure and detour/alternate routes, (3) Erect “share the road” signs within construction zones where partial closures will occur

4.13.10 Alternatives Setting

Environmental Setting

Roads in Alternative Area

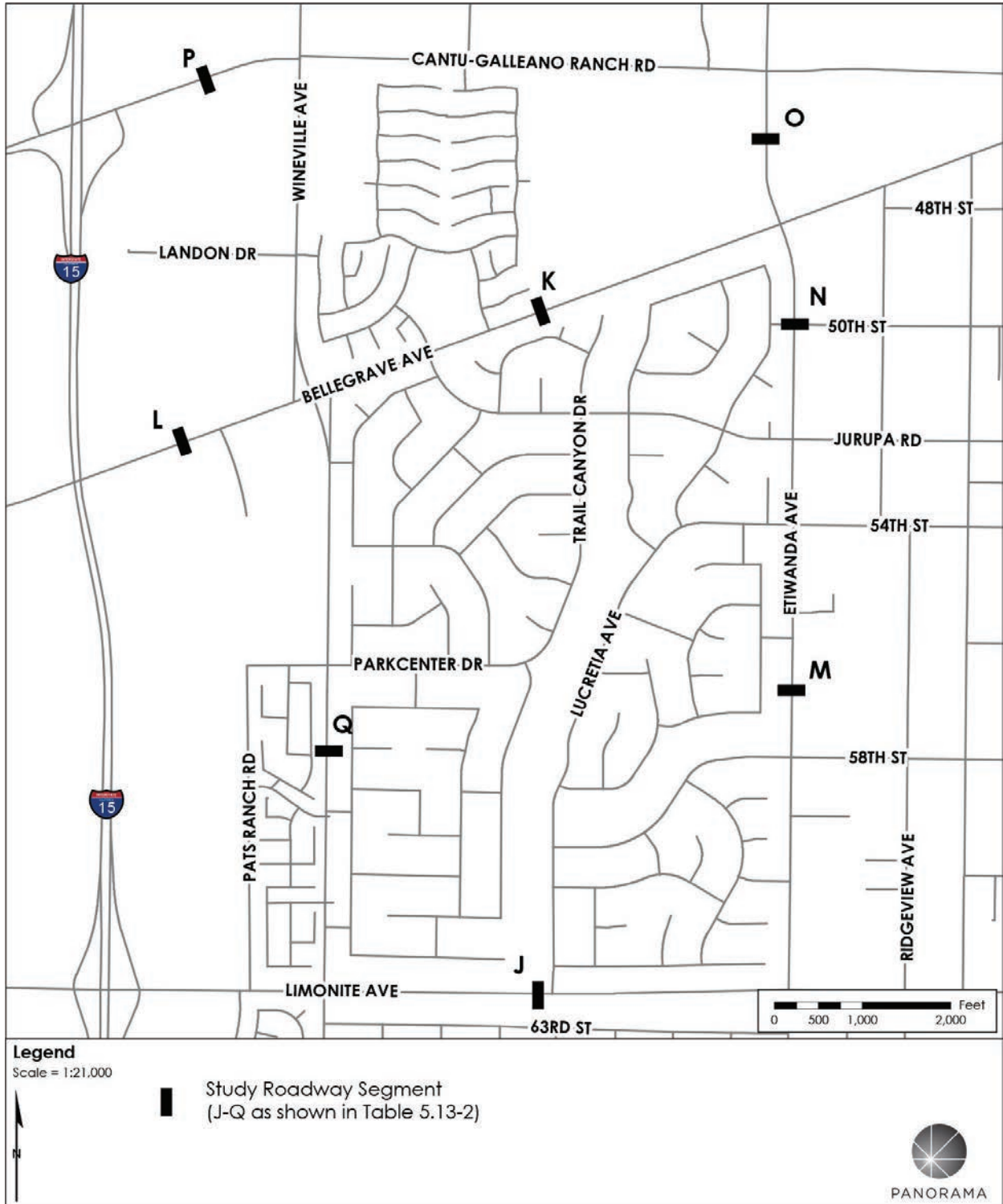
Alternatives 1, 2, and 4 are located in the roadway segments listed in Table 4.13-15 below. Alternative 3 is not located within roadways. The locations of the Alternative 1, 2, and 4 roadway segments are shown in Figure 4.13-5.

Table 4.13-15 Alternative Underground Transmission Line Locations within Roadways

Roadway Segment	Alternatives
Wineville Avenue - Cantu Galleano Ranch Road to Landon Drive	Alternatives 1, 2, and 4
Landon Drive – west of Wineville Avenue	Alternative 4
Wineville Avenue – Landon Drive to Bellegrave Avenue	Alternative 1
Bellegrave Avenue – Wineville Avenue to Pats Ranch Road	Alternative 1
Pats Ranch Road – Bellegrave Avenue to Limonite Avenue	Alternative 1
Wineville Avenue – Bellegrave Avenue to Limonite Avenue	Alternative 2
Limonite Avenue – Wineville Avenue to Pats Ranch Road	Alternative 2

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Figure 4.13-5 Local Roadway Segments in the Alternatives Area



Source: (City of Jurupa Valley, 2017)

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Traffic Volumes in Alternatives Area

Alternatives 1, 2, and 4 are located within roadways north and east of the Revised Project area. The traffic volume for roads north and east of the Revised Project was obtained and updated to reflect baseline traffic conditions at the time of construction. The 2016 traffic volume data was updated to baseline conditions (2021) by applying the ambient growth factor of 2 percent per year. The LOS under baseline conditions for additional roadway segments are shown in **Error! Not a valid bookmark self-reference.Error! Reference source not found..**

Bicycle Routes and Facilities

A Class II bike lane is designated on Bellegrave Avenue between Wineville Avenue and Hot Creek Road (refer to Figure 4.13-3).

Equestrian Facilities

Equestrian trails are located along the east side of Wineville Avenue. Equestrian trails are also located along the north sides of Limonite Avenue and Bellegrave Avenue, east of Wineville Avenue. Refer to Section 4.12: Recreation for detailed information.

Public Transit and School Bus Routes

RTA bus lines 29 and 3 traverse Limonite Avenue. Four schools provide school bus service in the area of the alternatives (refer to Figure 4.13-3).

Regulatory Setting

The regulatory settings for traffic and transportation under Alternatives 1 through 4 would include the federal, State, and City of Jurupa Valley policies and regulations identified for the Revised Project. Regulations that pertain to the City or County of Riverside are not applicable because none of the alternatives considered in this analysis occur in the City or unincorporated County Riverside.

Table 4.13-16 Baseline Conditions (2021) Traffic Volumes and LOS in the Alternatives Area

Letter	Roadway Segment	Road Classification	Capacity	Existing Volume	Baseline Volume	Baseline LOS
J	Limonite Avenue East of Wineville Avenue	4-Lane Major	34,100	22,764	25,040	C
K	Bellegrave Avenue East of Wineville Avenue	3-Lane Major	34,100	8,489	9,338	A
L	Bellegrave Avenue West of Wineville Avenue	3-Lane Major	34,100	16,747	18,422	A
M	Etiwanda Avenue Between Limonite Avenue and Jurupa Road	4-Lane Arterial	35,900	11,407	12,548	A

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Letter	Roadway Segment	Road Classification	Capacity	Existing Volume	Baseline Volume	Baseline LOS
N	Etiwanda Avenue Between Jurupa Road and Bellegrave Avenue	4-Lane Arterial	35,900	10,422	11,464	A
O	Etiwanda Avenue North of Bellegrave Avenue	3-Lane Major	34,100	11,130	12,243	A
P	Cantu-Galleano Ranch Road West of Wineville Avenue	6-Lane Urban Arterial	53,900	10,172	11,189	A
Q	Wineville Avenue Between Limonite Avenue and Bellegrave Avenue	3-Lane Major	34,100	4,340	4,774	A

Source: (City of Jurupa Valley, 2017)

4.13.11 Alternatives Impact Analysis

Alternatives Analysis Scope

The following analysis considers only the environmental impacts resulting from construction and operation of each alternative alignment segment. Any specific alternative replaces only a portion of the Revised Project and would require combination with the remaining unaffected segments of the Revised Project to form a complete alternative route through Jurupa Valley. Impacts resulting from construction and operation of the additional Revised Project elements necessary to form a complete alternative route are not considered in this section. A discussion of the environmental impacts resulting from construction and operation of the complete alternative route, comprised of each alternative alignment plus the unaffected Revised Project elements, is provided in Chapter 6: Comparison of Alternatives.

Impacts Avoided by the Alternatives

Alternatives 1 through 4 would be constructed in the same general area as the revised project and would have no impact on one CEQA Appendix G significance criteria:

- c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.

Helicopters would not be required to construct any portion of Alternatives 1 through 4. The alternatives would not place any poles within 2 miles of an airport. The impact associated with this significance criterion is not discussed further.

Alternative 1 Environmental Impacts and Mitigation Measures

Alternative 1 would install the Proposed Project transmission line underground within Wineville Avenue, Bellegrave Avenue, and Pats Ranch Road. The Alternative 1 underground

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transmission line would connect with the Revised Project underground transmission line within Pats Ranch Road.

<p>Impact Traffic-a: Would Alternative 1 conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including, but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?</p>	Significance Determination
	<p>Construction: <i>Significant and Unavoidable</i></p>
	<p>Operation & Maintenance: <i>Less than Significant</i></p>

Construction

Roadway Intersections

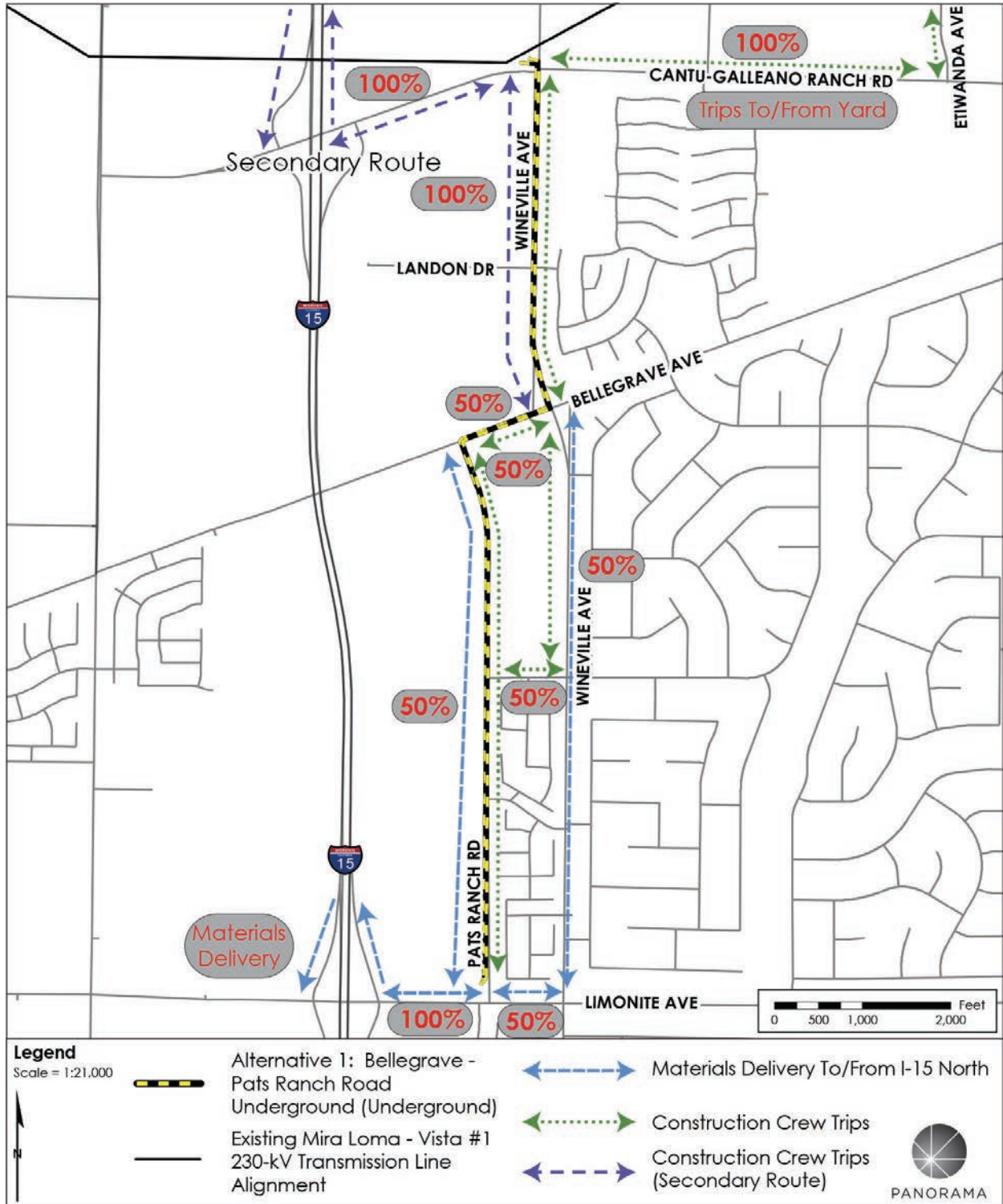
Construction Traffic

Construction equipment and vehicles that would be needed to construct Alternative 1 would be similar to the Revised Project (refer to Section 2.4.11 in Chapter 2: Project Description). The number of daily and peak hour trips that would be generated during construction of Alternative 1, adjusted to PCE, are assumed to be the same as the Revised Project.

The trips generated during Alternative 1 construction would be distributed along local and regional roadways, dependent upon the delivery of materials and components under construction, as shown in Figure 4.13-6. The trip distribution during construction of Alternative 1 could vary dependent upon which segment of the underground 230-kV line would be under construction. The construction route that would overlap the most with trips from construction of the Revised Project is described in detail here. Material delivery trucks would travel via I-15 with 50 percent traveling along Pats Ranch Road and terminating at Bellegrave Avenue, and 50 percent traveling along Wineville Avenue and Bellegrave Avenue terminating at Pats Ranch Road. Alternative construction routes using Cantu-Galleano Ranch Road, would be used during construction along Wineville Avenue and potentially Bellegrave Avenue. Crew trips would originate from Etiwanda Marshalling Yard and 50 percent would terminate at Limonite Avenue on Pats Ranch Road and 50 percent would terminate at Park Center Drive. The increase in daily and peak hour trips were added to the street network based on established trip assignments to determine impacts to roadway segments and intersections. The total peak hour trips that would travel down Wineville Avenue between Bellegrave Avenue and Limonite Avenue would be less than the Revised Project due to the different routes available for material delivery trucks and construction crews to travel along to reach the work areas. Wineville Avenue/ Bellegrave Avenue would still operate at LOS B. Impacts on intersection operations would be similar to or reduced compared to the Revised Project. *The impact from Alternative 1 construction traffic on intersection operations would be less than significant.*

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Figure 4.13-6 Alternative 1 Construction Trip Distribution



Source: (KOA Corporation, 2017; esri, 2017; SCE, 2017)

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Road Closures

Vault installation would require the same work spaces and construction duration as the Revised Project. Road closures would occur along Pats Ranch Road, Bellegrave Avenue, and Wineville Avenue during vault installation. Vehicle traffic diverted from these roadways during a road closure could decrease intersection LOS for the AM and PM peak hour.

Pats Ranch Road to the north of Limonite Avenue is not currently a through-street. The comparatively small quantity of residential traffic that uses Pats Ranch Road to access their homes, would not significantly decrease intersection operations along Wineville Avenue, south of Bellegrave Avenue, during closures along Pats Ranch Road. Intersection operations would not drop to LOS E or F due to detours during road closures along Pats Ranch Road.

Closures along Wineville Avenue, to the north of Bellegrave Avenue, would likely displace traffic to the nearest non-residential parallel road; Etiwanda Avenue. Traffic volumes at Cantu-Galleano Ranch Road/ Etiwanda Avenue were evaluated for excess capacity, to determine whether a closure along Wineville Avenue would result in a significant impact. Cantu-Galleano Ranch Road/ Etiwanda Avenue would be functioning at LOS B during both the AM and PM peak hours with construction crew traffic. The intersections along Wineville Avenue at Cantu-Galleano Ranch Road and Bellegrave Avenue carry less than 300 vehicles in each through-traffic direction during the peak hours. Four hundred peak hour vehicles were added to through-traffic approach volumes in each direction (i.e., north, south, east, and west directions)⁴ to provide an understanding regarding whether Cantu-Galleano Ranch Road/ Etiwanda Avenue has enough capacity to accommodate detoured traffic during a road closure along Wineville Avenue. With this increase in traffic, the intersection would only degrade to LOS C (28.6 seconds delay) during the AM peak hour and LOS C (27.9 seconds delay) during the PM peak hour. The intersection would likely be able to accommodate additional vehicle traffic generated from a detour around Wineville Avenue during construction of Alternative 1 (Omni Means, 2017). Intersection operations would not drop to LOS E or F due to detours during road closures along Wineville Avenue.

Traffic would detour around Bellegrave Avenue during a road closure either to Cantu-Galleano Ranch Road or Limonite Avenue. Wineville Avenue/ Cantu-Galleano Ranch Road would operate at LOS B during the peak hours with construction traffic and would continue to operate at an acceptable LOS with an increase in traffic due to road closure. The delay at Pats Ranch Road/ Limonite Avenue would be nearing the threshold to drop to LOS E with construction traffic. Additional traffic from vehicles detouring around Bellegrave Avenue onto Limonite Avenue could result in operation of some intersections, particularly Pats Ranch Road/ Limonite Avenue, dropping below LOS D. The impact on intersection operations would be significant.

⁴ Note that additional volumes were added to through-vehicle movements and not turning movements.

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MM TRANS-02 restricts construction lane closures and roadway obstructions on CMP roadways such as Limonite Avenue to off-peak hours. Implementation of MM TRANS-02 would reduce impacts at the intersection of Limonite and Pats Ranch Road by avoiding detours onto Limonite Avenue during the AM and PM peak hours. *The impact on intersection operations from road closures would be less than significant with mitigation.*

Lane Closures

Duct bank installation would require the same work spaces as the Revised Project. Lane closures would occur along Pats Ranch Road, Bellegrave Avenue, Wineville Avenue, and across Cantu-Galleano Ranch Road. Traffic approaching road segments where lanes are closed would experience increased delays and may cause the LOS for these intersections to decrease. Other intersections that would be affected by lane closures crossing through (i.e., Wineville Avenue/ Bellegrave Avenue and Wineville Avenue/ Cantu-Galleano Ranch Road) would experience LOS C or better with the addition of construction traffic. Most intersections experience a low volume of local traffic, such as Pats Ranch Road/ Boca Place.

Construction traffic would decrease the LOS at several intersections to LOS D. The delay at Pats Ranch Road/ Limonite Avenue is nearing the threshold to drop to LOS E. Workers may arrive during the AM or PM peak hours which could further decrease intersection operations. Additional delays at these intersections would further exacerbate the poor LOS, potentially reducing operation to below LOS D. The lane closures, could increase traffic delays resulting in a significant impact on intersection operations.

SCE would implement EPE TRANS-03 (Prepare Traffic Control Plans), but specific control measures to minimize the impact on intersections are not identified. The impact would remain significant.

MM TRANS-02A restricts construction lane and road closures, and roadway obstructions to off-peak hours for all affected roadways. Implementation of MM TRANS-02A would ensure that road closures on all City of Jurupa Valley roadways do not occur during the AM and PM peak hours, which would avoid the significant impact at the intersection of Limonite Avenue and Pats Ranch Road. *The impact on intersection operations from lane closures would be less than significant with mitigation.*

Roadway Segments

Construction Traffic

Construction traffic would be higher along Limonite Avenue, Pats Ranch Road, Wineville Avenue to the north of Limonite Avenue, Cantu-Galleano Ranch Road, and Etiwanda Avenue, resulting in a slight increase in the volume to capacity ratio for several roadway segments compared to those analyzed for the Revised Project. The LOS for all roadway segments would not decrease compared to baseline conditions, as shown in Table 4.13-17. *The impact on roadway segment operations from Alternative 1 construction traffic would be less than significant.*

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Table 4.13-17 Changes in Daily Traffic Volumes with Alternative 1 Construction Traffic

Letter	Roadway Segment ^a	Baseline Volume	Baseline LOS	Baseline Plus Construction Traffic Volume	Change in Volume	Baseline Plus Construction Volume to Capacity Ratio	Baseline Plus Construction LOS
A	Limonite Avenue West of Pats Ranch Road and I-15	46,416	D	46,521	105	0.863	D
B	Limonite Avenue West of Wineville Avenue	34,070	B	34,175	105	0.634	B
G	Wineville Avenue South of Cantu-Galleano Ranch Road	9,123	A	9,573	450	0.281	A
H	Cantu-Galleano Ranch Road East of Wineville Avenue	7,830	A	8,070	240	0.237	A
L	Bellegrave Avenue West of Wineville Avenue	18,422	A	18,542	120	0.544	A
Q	Wineville Avenue Between Limonite Avenue and Bellegrave Avenue	4,340	A	4,445 – 4,565	105 - 225	0.130 – 0.134	A

Notes:

^b Only roadway segments that would experience an increase in traffic as a result of Alternative 1 construction traffic are shown.

Source: (KOA Corporation, 2017; Omni Means, 2017)

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Road Closures

Detoured traffic around closures of Bellegrave Avenue could use either Limonite Avenue or Cantu-Galleano Ranch Road. Closures along Wineville Avenue between Bellegrave Avenue and Cantu-Galleano Ranch Road, would result in increased traffic along Etiwanda Avenue. A small amount of residential traffic would be diverted from Pats Ranch Road to Wineville Avenue during road closures. Daily traffic along Bellegrave Avenue to the west of Wineville Avenue would be approximately 18,000 vehicles. Diverted traffic from Bellegrave Avenue would result in an increase of over 2,100 vehicles a day, in addition to construction traffic on Limonite Avenue west of Pats Ranch Road. Overall ADT on the roadway segment would increase to at least 48,510 vehicles, which would result in LOS E conditions; the impact on LOS on Limonite Avenue would be significant. Traffic along Wineville Avenue between Bellegrave Avenue and Cantu-Galleano Ranch Road would be approximately 9,100 vehicles per day. Diversion of traffic along this roadway segment would not deteriorate nearby roadway segment operations, such as Etiwanda Avenue, to below LOS E. All other roadway segments, including along Cantu-Galleano Ranch Road, Etiwanda Avenue, and other segments of Limonite Avenue, under baseline conditions operate at LOS C or better, as shown in Table 4.13-13 (refer to Section 4.13.8: Revised Project Impact Analysis). Increased traffic as a result of detours around road closures, would not decrease the LOS along these segments. The impact from road closures on roadway segment operations would be significant.

SCE would implement EPE TRANS-03 (Prepare Traffic Control Plans) but specific control measures to minimize the impact from detoured traffic on the Limonite Avenue segment west of Pats Ranch Road are not identified. The impact would remain significant.

MM TRANS-06 requires signs to clearly designate detours and for workers to carpool to and from Etiwanda Yard, which would reduce traffic but would not increase the LOS of the Limonite Avenue segment west of Pats Ranch Road to above standards. *The impact on roadway segment operation from detoured traffic because of road closures would remain significant and unavoidable.*

Lane Closures

Partial closures along the underground 230-kV transmission line alignment could result in a small portion of traffic using alternative routes to avoid the roadway segment. A small increase in traffic along parallel roadway segments to avoid lane closures, such as along Wineville Avenue, Limonite Avenue, Etiwanda Avenue, or residential roadways would not appreciably reduce the LOS for any segment. *The impact on roadway operations from lane closures would be less than significant.*

Operation and Maintenance

The Proposed Project operation and maintenance activities would not increase to accommodate Alternative 1. One or two vehicles or trucks would be required to conduct inspections. Roadway intersections and segments operation would not be significantly impaired by inspection and maintenance activities. *The impact would be less than significant.*

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Mitigation Measures: MM TRANS-02, MM TRANS-02A, and MM TRANS-06 (refer to Section 4.13.9: Revised Project Mitigation Measures)

Significance after Mitigation: Significant and Unavoidable

Impact Traffic-b: Would Alternative 1 conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	Significance Determination
	Construction: <i>Less than Significant with Mitigation</i>
	Operation & Maintenance: <i>Less than Significant</i>

Construction

Overview

Limonite Avenue and Etiwanda Avenue are CMP roadways and I-15 is a CMP highway that would be part of the construction route used by trucks and vehicles to deliver materials, equipment, and crew to Alternative 1 work sites.

Construction Traffic

Construction of the Alternative 1 would add up to 73 peak hour delivery vehicle trips⁵ on I-15, increasing traffic volumes between Limonite and SR-60 by less than 1 percent⁶. The addition of construction traffic to this segment of I-15 would not decrease the LOS to below the standards. Construction traffic would not decrease the LOS of a CMP roadway or highway to below LOS E. *The impact would be less than significant.*

Road Closure

Impact Traffic-a analyzes the impact from road closures on intersection operations and roadway segments. Road closures would divert traffic to adjacent streets. Detoured traffic around a road closure on Bellegrave Avenue could result in a decrease in LOS at Pats Ranch Road/ Limonite Avenue to below LOS E during the peak period. Limonite Avenue west of Pats Ranch Road and I-15 would degrade to LOS E assuming that approximately half of the daily traffic from Bellegrave Avenue would detour around Bellegrave Avenue onto Limonite Avenue. The other half would detour onto Cantu-Galleano Ranch Road. No roadway segment would deteriorate to below LOS E. The potential impact on a CMP roadway intersection from road closures would be significant.

SCE would implement EPE TRANS-03 (Traffic Control Plans), which does not identify specific control measures to minimize the impact from detoured traffic. The impact would remain significant.

⁵ Vehicle trips are presented in PCE.

⁶ Assuming peak volumes of between approximately 9,000 and 12,000 along this I-15 segment in 2020 (Caltrans, 2016).

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MM TRANS-02 and MM TRANS-02A restricts construction road closures to off-peak hours for all roadways. MM TRANS-06 requires preparation of Traffic Control Plans that include a provision to time worker commutes and material deliveries to avoid peak hours. Peak hour LOS on segments and intersections along Limonite Avenue would be increased to an LOS E or better with implementation of mitigation. *The impact on a CMP roadway from road closures would be less than significant with mitigation.*

Lane Closure

Impact Traffic-a analyzes the impact from lane closures on intersection operations and roadway segments. Vehicle delays due to lane closures on Pats Ranch Road, in particular, would reduce the LOS at Pats Ranch Road/ Limonite Avenue to below LOS E. Lane closures would not decrease the LOS for any CMP roadway segment to below LOS E. The vehicle queues that could occur due to lane closures during construction across Cantu-Galleano Ranch Road would not result in a backup of vehicles that would affect the I-15 freeway ramps, as analyzed in greater detail under Impact Traffic-d. Lane closures during construction of Alternative 1 would not impact a CMP highway. *The impact on a CMP roadway or highway from lane closures due to Alternative 1 construction would be less than significant.*

Operation and Maintenance

Operation and maintenance activities would not increase to accommodate Alternative 1. One or two vehicles or trucks would be required to conduct yearly inspections. CMP roadway and highway operations would not be significantly impaired by inspection and maintenance activities. *Operation and maintenance of the transmission line would have a less than significant impact on CMP roadways and highways.*

Mitigation Measures: MM TRANS-02, MM TRANS-02A, and MM TRANS-06 (refer to Section 4.13.9: Revised Project Mitigation Measures)

Significance after Mitigation: Less than Significant

	Significance Determination
Impact Traffic-d: Would Alternative 1 substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	Construction: <i>Less than Significant with Mitigation</i>
	Operation & Maintenance: <i>Less than Significant</i>

Construction

Construction Truck Traffic

Large trucks traversing roadways identified for commercial truck use in the City of Jurupa Valley (i.e., Wineville Avenue, Limonite Avenue, and Cantu-Galleano Ranch Road) would not substantially increase traffic hazards. Construction trucks would need to use roadways either not identified for commercial truck use (Pats Ranch Road) or where commercial trucks are specifically excluded (Etiwanda Avenue) in order to access the work sites. Large trucks could result in temporary lane obstructions. Use of these roadways could result in a significant traffic hazard to other vehicles particularly during peak commuting hours.

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MM TRANS-02 restricts construction lane closures and roadway obstructions to off-peak hours; however, this measure only applies to CMP roadways including Limonite Avenue and Etiwanda Road, not including other high-volume roadway classifications in the City of Jurupa Valley. MM TRANS-02A further restricts construction lane closures and roadway obstructions to off-peak hours for all impacted roadways. MM TRANS-06 requires preparation of Traffic Control Plans that include requirements for material delivery vehicles to avoid the peak hour and for vehicles to travel at safe speeds dependent upon weather and road conditions. *The traffic hazard impact from construction would be less than significant with mitigation.*

Road Closure

Road closures would occur along Pats Ranch Road north of Limonite Avenue, Bellegrave Avenue, and Wineville Avenue to the north of Bellegrave Avenue. Due to the low volume of mostly local traffic along Pats Ranch Road to the north of Limonite Avenue, extensive vehicle queuing is not anticipated to occur. Closures along Pats Ranch Road would not block the Pats Ranch Road/ Limonite Avenue intersection. *The impact would be less than significant.*

Lane Closure

Lane closures would occur along Pats Ranch Road, Bellegrave Avenue, Wineville Avenue, and across Cantu-Galleano Ranch Road during construction of the underground duct banks. The proposed underground 230-kV line would cross Cantu-Galleano Ranch Road. A single lane is assumed to be closed at any one time during construction. Closure of a lane during the AM and PM peak hours would result in backups along Cantu-Galleano Ranch Road, in either the east- or westbound, dependent upon which lane is closed. Table 4.13-18 shows the traffic queue lengths under baseline conditions and during construction when one lane is closed.

More than 2,000 feet of vehicle storage space is available on Cantu-Galleano Ranch Road, under existing conditions, between the I-15 freeway ramp and Wineville Avenue. The Cantu-Galleano Ranch Road segment between the Wineville Avenue and Calle del Sol intersections provides 1,800 feet of vehicle storage under existing conditions. Vehicle queues in the eastbound and westbound direction, as a result of closure of one lane during construction, could be accommodated with existing storage capacity on Cantu-Galleano Ranch Road without affecting the I-15 freeway ramp junctions to the west. Vehicles would not block any intersections along Cantu-Galleano Ranch Road. *The traffic hazard impact from vehicle queues due to lane closures would be less than significant.*

Table 4.13-18 Cantu-Galleano Ranch Road at Wineville Avenue Closure Queues

Wineville Avenue/ Cantu-Galleano Ranch Road	Baseline Conditions		Lane Closure		Net Change	
	AM Peak (feet)	PM Peak (feet)	AM Peak (feet)	PM Peak (feet)	AM Peak (feet)	PM Peak (feet)
Eastbound	68	105	122	180	54	75
Westbound	119	122	262	215	143	93

Source: (KOA Corporation, 2017; Omni Means, 2017)

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Construction Activities in the Roadway

An open trench as well as the presence of construction equipment, workers, and vehicles in proximity to flowing traffic may confuse or pose a distraction for drivers and would pose a hazard if a vehicle entered the active work area. The impact could be significant.

SCE would implement EPE TRANS-03 (Prepare Traffic Control Plans), but not enough information is available to indicate how the impacts would be minimized to less than significant. The impact on driver safety due to the presence of construction equipment and an open trench would remain significant.

MM TRANS-06 requires appropriate signage alerting drivers to lane closures and storage of construction equipment, which would minimize the hazard to drivers from construction activities in roadways. *The traffic hazard impact on drivers due to work in the roadway would be less than significant with mitigation.*

Road Conditions

Damage to roadways from operation of construction vehicles and equipment, in combination with inadequate roadway repairs following underground construction, could result in a significant traffic hazard, similar to the Revised Project (refer to Section 4.13.8: Revised Project Impact Analysis, under Impact Traffic-d).

SCE would implement EPE TRANS-04 (Repair Damaged Streets), but roadway impacts could remain significant because construction standards are not specified.

MM TRANS-07 requires a pre-construction survey of roadways along the construction traffic routes and underground 230-kV transmission line alignment. MM TRANS-07 also requires that these roadways are repaired to the City of Jurupa Valley's construction standards within 60 days of construction completion. *Traffic hazard impacts resulting from poor roadway conditions would be less than significant with mitigation.*

Operation and Maintenance

Lane closures, during vault inspections, would occur for less than a day annually and would be isolated to the area where the vaults are located. SCE would also implement standard traffic control procedures for working in roadways. The impact of vault inspections and associated lane closures on traffic hazards would be less than significant. *The impact would be less than significant.*

Mitigation Measures: MM TRANS-02, MM TRANS-02A, MM TRANS-06, and MM TRANS-07 (refer to Section 4.13.9: Revised Project Mitigation Measures)

Significance after Mitigation: Less than Significant

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Impact Traffic-e: Would Alternative 1 result in inadequate emergency access?	Significance Determination
	<i>Construction: Less than Significant with Mitigation</i>
	<i>Operation & Maintenance: Less than Significant</i>

Construction

Road and lane closures would occur along segments of Pats Ranch Road, Bellegrave Avenue, and Wineville Avenue. Construction activities would block ingress to residential communities and commercial areas. Response times for emergency vehicles could fall below the five-minute response time for urban areas in Riverside County, resulting in a significant impact on emergency access.

SCE would implement EPE TRANS-03 (Prepare Traffic Control Plans), but the EPE lacks sufficient detail to assure that impacts on emergency access would be minimized to less than significant and the impact would remain potentially significant.

MM TRANS-06 requires SCE to maintain emergency access clear at all times during construction and notification of emergency service providers, residents, and schools prior to lane closures. *The impact on emergency access due to lane and road closures would be less than significant with mitigation.*

Operation and Maintenance

One to two vehicles or trucks would be required to conduct inspections annually during operation and maintenance. Lane closures would occur during vault inspection. The temporary lane closure during vault inspection would be isolated to the vault work area. Emergency access would not be affected because vehicles would be directed around the inspection area. The inspection activities would not block emergency traffic. *The impact on emergency access would be less than significant.*

Mitigation Measures: MM TRANS-06 (refer to Section 4.13.9: Revised Project Mitigation Measures)

Significance after Mitigation: Less than Significant

Impact Traffic-f: Would Alternative 1 conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	Significance Determination
	<i>Construction: Less than Significant with Mitigation</i>
	<i>Operation & Maintenance: Less than Significant</i>

Construction

Public Transit

No public transit or bus routes use roadways along the Alternative 1 alignment. Road and lane closures that occur during construction of Alternative 1 would not impede public transit routes or limit user access to public transit. *No impact would occur.*

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School Bus Service Area

Lane and road closures during Alternative 1 construction would occur within an area served by school buses for Jurupa Valley High and Sky Country Elementary (refer to Figure 4.13-3).

School buses may be delayed or unable to access pickup locations for students. Students may be unable to reach pickup locations as well. The impact on school bus service could be significant.

SCE would implement EPE TRANS-03 (Prepare Traffic Control Plans), but the specific control measures that would be included in the traffic control plan are not identified in detail to determine whether the impact on school bus service would be minimized. The impact would remain potentially significant after implementation of the EPE.

MM TRANS-06 requires SCE to notify schools providing school bus service to areas with lane or road closures at least seven days prior to closures, which will permit reasonable time for schools to address relocation of bus stops as necessary. *The impact on school buses and students from lane and road closures would be less than significant with mitigation.*

Bicycle Facilities

No Class I or Class II bicycle facilities are designated along the Alternative 1 underground alignment. The Class II bike lane designated on Bellegrave Avenue between Wineville Avenue and Hot Creek Road, would not be directly affected by road or lane closures. Bicyclists along Pats Ranch Road, Bellegrave Avenue, and Wineville Avenue may use vehicle lanes during construction, increasing the potential hazards to bicyclist safety. Lane and road closures along these roadways have the potential to limit bicycle access and construction has the potential to pose a hazard to bicyclists. The impact from underground construction on bicyclist use and safety would be potentially significant.

SCE would implement EPE TRANS-03 (Prepare Traffic Control Plans), but the specific control measures that would be included in the traffic control plan are not identified in detail to determine whether the impact on bicycle facilities would be minimized. The impact would remain potentially significant after implementation of the EPE.

MM TRANS-05 requires bicycle access along Class II routes to be maintained during closures or to provide a diversion for bicyclists around the construction closure. MM TRANS-08 requires “share the road” signs and clear bicyclist detour signs to be posted along all routes that bicyclists may use. *The impact on bicycle use and safety would be less than significant with mitigation.*

Pedestrian Facilities

Sidewalks may be closed during construction of the underground 230-kV transmission line, dependent upon space needed for construction vehicle and equipment access and the need to maintain pedestrian safety. Vault installations would likely require sidewalk closures. Closures could occur along Pats Ranch Road, Bellegrave Avenue, and Wineville Avenue. Sidewalk closures could create a hazard for pedestrians as they navigate around the work area potentially walking within or across roadways to reach their destinations or other passable sidewalks. Pedestrians would also be impacted at roadway intersections where construction may restrict

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cross-street access. The impact from sidewalk and roadway intersection closures on pedestrian safety would be potentially significant.

SCE would implement EPE TRANS-03 (Prepare Traffic Control Plans), but the specific control measures that would be included in the traffic control plan are not identified in detail to determine whether the impact on pedestrian facilities would be minimized. The impact would remain potentially significant after implementation of the EPE.

MM TRANS-08 requires signs identifying when and for how long closures are expected and where the pedestrian detours are located to allow pedestrian access around the construction area. *The impact on pedestrian safety would be less than significant with mitigation.*

Equestrian Trails

Equestrian trails are located behind the curb along one side of Wineville Avenue in the area of Alternative 1. Equestrian trails may be closed during construction of the underground 230-kV transmission line, dependent upon space needed for vault installations (Refer also to Impact Recreation-01 in Section 4.10: Recreation). Equestrian trails would also be impacted at roadway intersections where construction may restrict cross-street access. Trail and roadway crossing closures could create a hazard for equestrians. The impact from trail closures on equestrian safety would be potentially significant.

SCE would implement EPE TRANS-03 (Prepare Traffic Control Plans), but the specific control measures that would be included in the traffic control plan are not identified in detail to determine whether the impact on equestrian trails would be minimized. The impact would remain potentially significant after implementation of the EPE.

MM TRANS-08 requires signs detailing when and for how long closures are expected and where the equestrian detours are located. *The impact on equestrian safety would be less than significant with mitigation.*

Operation and Maintenance

One to two vehicles or trucks would be required to conduct inspections annually. Temporary lane closures would be limited to the area immediately surrounding the vault access point and SCE would implement standard traffic control procedures during inspections. The temporary vault access would not affect any mode of public transit or bicycle access. *The impact would be less than significant.*

Mitigation Measures: MM TRANS-05, MM TRANS-06, and MM TRANS-08 (refer to Section 4.13.9: Revised Project Mitigation Measures)

Significance after Mitigation: Less than Significant

Alternative 2 Environmental Impacts and Mitigation Measures

Alternative 2 would install the Proposed Project transmission line underground within Wineville Avenue and Limonite Avenue to connect with the Revised Project underground transmission line.

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<p>Impact Traffic-a: Would Alternative 2 conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including, but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?</p>	<p>Significance Determination</p>
	<p>Construction: <i>Significant and Unavoidable</i></p>
	<p>Operation & Maintenance: <i>Less than Significant</i></p>

Construction

Roadway Intersections

Construction Traffic

Similar to Alternative 1, daily and peak hour trips generated during construction of Alternative 2, adjusted to PCE, are assumed to be the same as the Revised Project. The trips generated during Alternative 2 construction would be distributed along local and regional roadways, dependent upon the delivery of materials and components under construction, as shown in Figure 4.13-7. The trip distribution during construction of Alternative 2 could vary dependent upon which segment of the underground 230-kV line would be under construction. Traffic from Etiwanda Marshalling Yard would travel along Wineville Avenue and Limonite Avenue, similar to the Revised Project. Delivery of materials would be via I-15 along Limonite Avenue and Wineville Avenue. The construction route that would increase the number of vehicles traveling along Wineville Avenue north of Limonite Avenue by up to 73 peak hour trips compared to the Revised Project. Wineville Avenue/ Bellegrave Avenue would not deteriorate to LOS E because even with Revised Project traffic, the intersection operates at LOS B.

Alternative 2 construction traffic would have a similar impact as described for the Revised Project. Refer to Impact Traffic-a in for a discussion of the impact on intersection operations from alternative and Revised Project construction traffic. *The impact would be less than significant.*

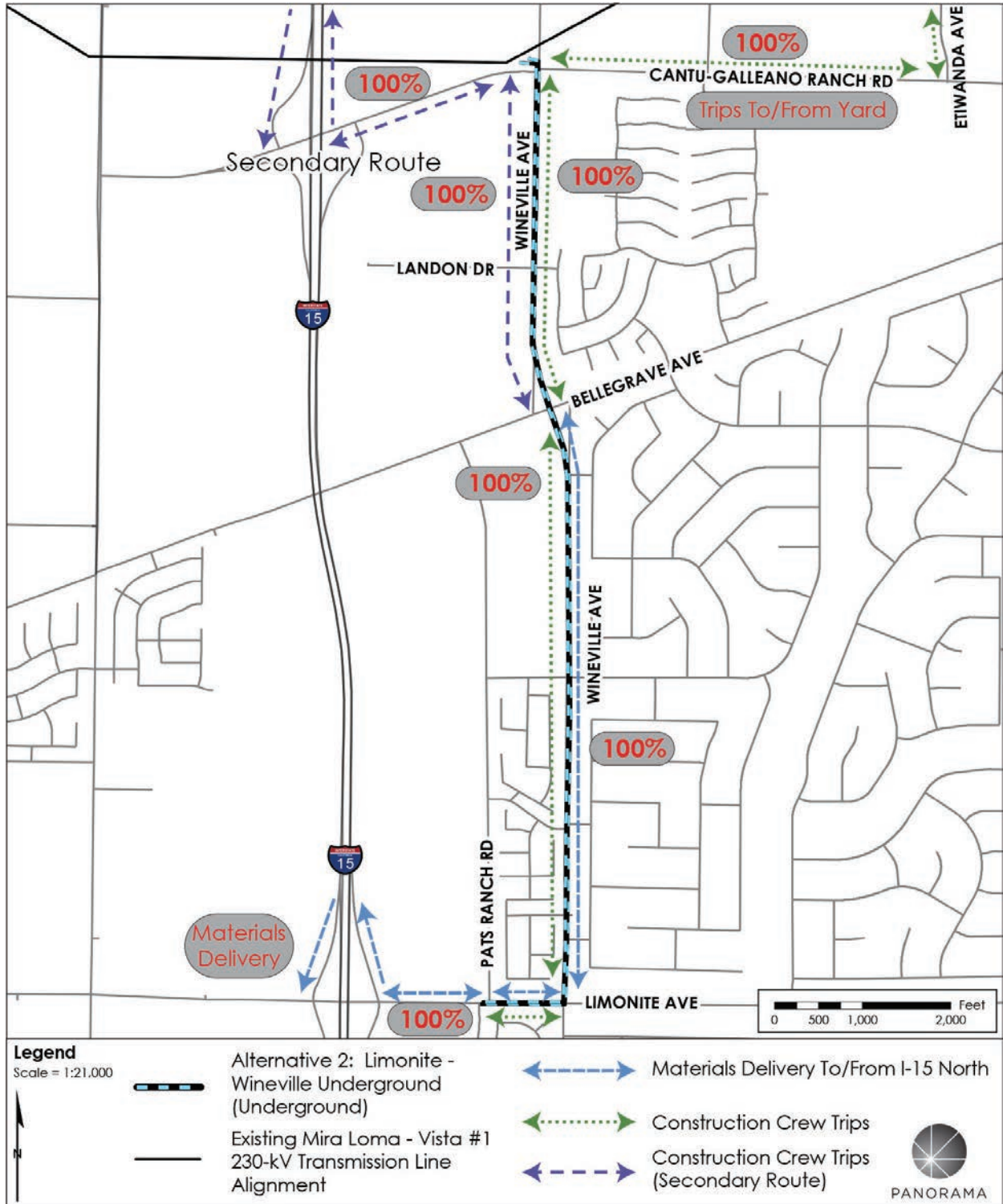
Road Closures

intersections along these roadways (i.e., Wineville Avenue/ Holmes Avenue and 68th Street) would increase delays. Intersection operations would substantially reduce, similar to the Revised Project analysis of a road closure along Pats Ranch Road and to the lane closure analysis shown below.

Closures along Wineville Avenue would displace through-traffic likely to the nearest non-residential parallel road; Etiwanda Avenue. Limonite Avenue/ Etiwanda Avenue is operating at LOS E during the AM and PM peak hours as of 2015 (City of Jurupa Valley, 2017). Additional vehicle traffic due to detours would contribute to the already poor intersection operations. Similar to Alternative 1, operation of Cantu-Galleano Ranch Road/ Etiwanda Avenue would not be reduced to below LOS D due to detoured traffic. Detours due to road closures along Wineville Avenue would worsen intersection operations at Limonite Avenue/ Etiwanda

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Figure 4.13-7 Alternative 2 Construction Trip Distribution



Source: (KOA Corporation, 2017; esri, 2017; SCE, 2017)

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Avenue. The impact on intersection operations from road closures on Wineville Avenue and Limonite Avenue would be potentially significant.

SCE would implement EPE TRANS-03 (Prepare Traffic Control Plans), but specific control measures to minimize the impact on intersections are not identified. The impact would remain significant.

MM TRANS-02A restricts construction lane and road closures, and roadway obstructions to off-peak hours for all affected roadways. Implementation of MM TRANS-02A would ensure that road closures on all City of Jurupa Valley roadways do not occur during the AM and PM peak hours. Intersection operations during the peak hour would not be affected, but due to the high volume of traffic, particularly on Limonite Avenue, off-peak intersection operations are assumed to still be significantly delayed. *The impact would remain significant and unavoidable with mitigation.*

Lane Closures

Duct bank installation would require the same work spaces as the Revised Project. Lane closures would occur along Limonite Avenue, Wineville Avenue, and across Cantu-Galleano Ranch Road. Traffic approaching road segments where lanes are closed would experience increased delays and may cause the LOS for these intersections to decrease.

Lane closures on Limonite Avenue, between Pats Ranch Road and Wineville Avenue, are anticipated to have the greatest impact due to the volumes of traffic on Limonite Avenue. Lane closure on Wineville Avenue would also cause intersection operations to decline. Lane closures, in combination with construction traffic from Alternative 2 would decrease intersection operations to below LOS D at Pats Ranch Road/ Limonite Avenue and Wineville Avenue/ Limonite Avenue, as shown in Table 4.13-19. Lane closures would cause a significant impact on intersection operation.

SCE would implement EPE TRANS-03 (Prepare Traffic Control Plans), but specific control measures to minimize the impact on intersections are not identified. The impact would remain significant.

MM TRANS-02 restricts construction lane closures and roadway obstructions to off-peak hours; however, this measure only applies to CMP roadways including Limonite Avenue and Etiwanda Road, and does not include other high-volume roadway classifications in the City of Jurupa Valley such as Wineville Avenue. MM TRANS-02A restricts construction lane and road closures, and roadway obstructions to off-peak hours for all affected roadways. Implementation of MM TRANS-02 and MM TRANS-02A would ensure that road closures on all City of Jurupa Valley roadways do not occur during the AM and PM peak hours, which would avoid the significant impact on intersections during the peak hour only. Due to the significant delays caused by loss of a through-lane on Limonite Avenue, significant delays during the off-peak intersection operations could occur. *The impact on intersection operations from lane closures would remain significant and unavoidable with mitigation.*

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Table 4.13-19 Changes in Level of Service with Alternative 2 Construction Traffic and Limonite Avenue Lane Closures

Number	Study Intersections	Baseline Plus Construction Traffic Lane Closure on Limonite Avenue				Change in Delay ^a	
		AM Peak		PM Peak		AM Peak	PM Peak
		Delay ^a	LOS	Delay ^a	LOS		
Westbound Closure							
3	Pats Ranch Road/ Limonite Avenue	157.0	F	93.7	F	129.5	53.7
4	Wineville Avenue/ Limonite Avenue	24.7	C	29.6	C	3.1	4.5
Eastbound Closure							
3	Pats Ranch Road/ Limonite Avenue	33.5	C	50.7	D	6.0	10.7
4	Wineville Avenue/ Limonite Avenue	26.4	C	115.6	F	4.8	90.5

Notes:

^c Delay is measured in seconds.

Source: (Omni Means, 2017)

Roadway Segments

Construction Traffic

Alternative 2 would require a similar number of construction vehicles and equipment to construct as Alternative 1 (refer to Impact-a for Alternative 1 above). The addition of construction vehicle and truck trips would not cause the LOS to decrease, as shown in Table 4.13-20. *The impact would be less than significant.*

Road and Lane Closures

Closures along Limonite Avenue would result in traffic detouring to 68th Street, Bellegrave Avenue, and potentially Cantu-Galleano Ranch Road. Closures along Wineville Avenue would result in traffic detouring to Etiwanda Avenue. Daily traffic along Limonite Avenue between Pats Ranch Road and Wineville Avenue would be approximately 34,100 vehicles under baseline conditions. Local traffic may divert onto 68th Street or Bellegrave Avenue, and traffic attempting to access the freeway would travel to Cantu-Galleano Ranch Road. Cantu-Galleano Ranch Road has a remaining capacity of approximately 37,300 vehicles per day before the roadway segment deteriorates to LOS E. Adequate capacity exists to accommodate up to 34,100 vehicles along these roadways. Operation of these roadway segments would decrease as a result of detoured traffic but not to below LOS D. All other roadway segments would operate at LOS B or better. Traffic volumes along Wineville Avenue between Limonite Avenue and Cantu-Galleano Ranch Road would be between 4,800 and 9,100 vehicles per day under baseline conditions. Roadway segments along Etiwanda Avenue have adequate capacity for between 18,500 and 20,800 vehicles to accommodate detoured traffic before deteriorating to LOS E. *The impact from road and lane closures would be less than significant.*

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Table 4.13-20 Changes in Daily Traffic Volumes with Alternative 2 Construction Traffic

Letter	Roadway Segment ^a	Baseline Volume	Baseline LOS	Baseline Plus Construction Traffic Volume	Change in Volume	Baseline Plus Construction Volume to Capacity Ratio	Baseline Plus Construction LOS
A	Limonite Avenue West of Pats Ranch Road/ I-15	46,416	D	46,521	105	0.863	D
B	Limonite Avenue West of Wineville Avenue	34,070	B	34,520	450	0.640	B
G	Wineville Avenue South of Cantu-Galleano Ranch Road	9,123	A	9,463	450	0.278	A
H	Cantu-Galleano Ranch Road East of Wineville Avenue	7,830	A	8,070	240	0.237	A
Q	Wineville Avenue Between Limonite Avenue and Bellegrave Avenue	4,340	A	4,790	450	0.140	A

Notes:

^d Only roadway segments that would experience an increase in traffic as a result of Alternative 1 construction traffic are shown.

Source: (KOA Corporation, 2017; Omni Means, 2017)

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Operation and Maintenance

The Proposed Project operation and maintenance activities would not increase to accommodate Alternative 2. One or two vehicles or trucks would be required to conduct inspections. Roadway intersections and segments operation would not be significantly impaired by inspection and maintenance activities. *The impact would be less than significant.*

Mitigation Measures: MM TRANS-02 and MM TRANS-02A (refer to Section 4.13.9: Revised Project Mitigation Measures)

Significance after Mitigation: Significant and Unavoidable

Impact Traffic-b: Would Alternative 2 conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	Significance Determination
	Construction: <i>Significant and Unavoidable</i>
	Operation & Maintenance: <i>Less than Significant</i>

Construction

Construction Traffic

Construction of the Alternative 2 would add up to 145 peak hour delivery vehicle trips⁷ on I-15, increasing traffic volumes between Limonite and SR-60 by less than 2 percent⁸. The addition of construction traffic to this segment of I-15 would not decrease the LOS to below the standards. Construction traffic would not decrease the LOS of a CMP roadway or highway to below LOS E. *The impact would be less than significant.*

Road Closure

CMP Roadway

Impact Traffic-a analyzes the impact from road closures on intersection operations and roadway segments. Road closures would divert traffic to adjacent streets. Closures of Wineville Avenue would result in traffic diverting to Etiwanda Avenue, which could result in deterioration of Limonite Avenue/ Etiwanda Avenue to below LOS E. Closures of Limonite Avenue could result in significant delays at intersections along Limonite Avenue. As analyzed above, significant delays at intersections, potentially to below LOS E, could occur during road closures. Detoured traffic around a road closure on Limonite Avenue or Wineville Avenue would not result in deterioration of CMP roadway segments to below LOS E. The impact would be potentially significant.

Refer to Impact Traffic-b of Alternative 1 for a discussion of the EPE and mitigation measures that would be implemented to reduce impacts on the intersection of CMP roadways during the

⁷ Vehicle trips are presented in PCE.

⁸ Assuming peak volumes of between approximately 9,000 and 12,000 along this I-15 segment in 2020 (Caltrans, 2016).

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peak hour. Due to the high traffic volumes on Limonite Avenue, off-peak intersection operations of CMP roadway intersections could remain below LOS E. *The impact would be significant and unavoidable with mitigation.*

CMP Highway

Traffic detouring around a closure on Limonite Avenue or Wineville Avenue may travel along I-15. Limonite Avenue is a high-volume roadway. Peak hour traffic volumes on Limonite Avenue are projected to be several thousand vehicles under baseline conditions. Closures could divert up to 46,400 vehicles to I-15 and other nearby roadways such as Cantu-Galleano Ranch Road. Peak hour operation of I-15 between Limonite Avenue and SR-60 in 2020 is anticipated to be LOS D. Operation of this highway segment would be even better during the off-peak. Additional traffic traveling on I-15 could decrease peak hour operation of roadway segment on I-15 to below LOS E. The potential impact on a CMP highway from road closures could be significant.

MM TRANS-02 restricts construction lane closures and roadway obstructions to off-peak hours, which would minimize the impact during the peak hours. Due to the capacity of I-15, off-peak traffic is not anticipated to decrease operation of the freeway segment to below LOS E. *The impact on CMP highway operations would be less than significant with mitigation.*

Lane Closure

CMP Roadway

Impact Traffic-a analyzes the impact from lane closures on intersection operations and roadway segments. Vehicle delays due to lane closures on Limonite Avenue and Wineville Avenue would reduce intersection operations at Pats Ranch Road/ Limonite Avenue and Wineville Avenue/ Limonite Avenue to below LOS E. Lane closures would not decrease the LOS for any CMP roadway segment to below LOS E. The impact on CMP roadway intersections from lane closures would be significant.

SCE would implement EPE TRANS-03, which includes preparation of a traffic control plan to minimize impacts but does not identify specific control measures to minimize the impact on the Limonite Avenue intersections. The impact would remain significant.

MM TRANS-02 restricts construction lane closures and roadway obstructions to off-peak hours along CMP roadways such as Limonite Avenue. MM TRANS-02A further restricts construction lane closures and roadway obstructions to off-peak hours for all roadways, including Wineville Avenue. MM TRANS-06 requires preparation of Traffic Control Plans that include a provision to time worker commutes and material deliveries to avoid peak hours. Peak hour LOS on segments and intersections along Limonite Avenue would be increased to an LOS E or better with implementation of mitigation. Due to the high traffic volumes on Limonite Avenue, off-peak intersection operations of CMP roadway intersections could remain below LOS E. *The impact on a CMP roadway from lane closures would be significant and unavoidable with mitigation.*

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CMP Highway

Impact Traffic-d, of the Alternative 1 analysis, discusses the impacts on vehicle queues from a lane closures across Cantu-Galleano Ranch Road at the intersection with Wineville Avenue. Adequate vehicle storage exists between these two intersections and the I-15 freeway ramp junctions. Vehicle backups would not disrupt vehicle entering or exiting I-15 or increase delays. Impact Traffic-d, of the Revised Project analysis, discusses the impacts on vehicles queues from a lane closure at Pats Ranch Road/ Limonite Avenue. As analyzed, vehicle queues would not backup onto the I-15 freeway ramps. Lane closures for Alternative 2 would be further to the east than analyzed for the Revised Project analysis. *The impact on a CMP highway from lane closures would be less than significant.*

Operation and Maintenance

Operation and maintenance of Alternative 2 would require the same activities and result in the same level of minimal impact as Alternative 1. Refer to Impact Traffic-b of Alternative 1 for a discussion of the impact, above. *The impact would be less than significant.*

Mitigation Measures: MM TRANS-02, MM TRANS-02A, and MM TRANS-06 (refer to Section 4.13.9: Revised Project Mitigation Measures)

Significance after Mitigation: Significant and Unavoidable

Impact Traffic-d: Would Alternative 2 substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	Significance Determination
	Construction: <i>Significant and Unavoidable</i>
	Operation & Maintenance: <i>Less than Significant</i>

Construction

Construction Truck Traffic

Large trucks traversing roadways identified for commercial truck use in the City of Jurupa Valley (i.e., Wineville Avenue, Limonite Avenue, and Cantu-Galleano Ranch Road) would not substantially increase traffic hazards. Construction trucks would need to use Etiwanda Avenue where commercial trucks are specifically excluded in order to access the work sites. Large trucks could result in temporary lane obstructions. Use of Etiwanda Avenue could result in a significant traffic hazard on other vehicles particularly during peak commuting hours.

MM TRANS-02 restricts construction lane closures and roadway obstructions along CMP roadways to off-peak hours. MM TRANS-06 requires preparation of Traffic Control Plans that include requirements for material delivery vehicles to avoid the peak hour and for vehicles to travel at safe speeds dependent upon weather and road conditions. *The traffic hazard impact from construction would be less than significant with mitigation.*

Road Closure

Closures along Limonite Avenue and Wineville Avenue would occur during vault construction. Limonite Avenue west of Pats Ranch Road and Wineville Avenue would experience large volumes of daily and peak hour traffic under baseline conditions. Road closures would result in

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diversion of up to 46,400 vehicles a day. A few thousand vehicle trips traverse the intersections to the west of Wineville Avenue during the peak hours. Vehicles could backup onto the I-15 offramps and I-15 due to closures on Limonite Avenue during peak and off-peak hours. Due to the lower volumes of daily traffic along Wineville Avenue, significant backups resulting in blocked intersections by traffic detouring around Wineville Avenue are not anticipated to occur. Traffic backups onto I-15 would pose a hazard to drivers due to the increased potential for accidents. The traffic hazard impact on drivers due to closures along Limonite Avenue could be significant.

MM TRANS-02 restricts construction lane closures and roadway obstructions to off-peak hours, which would minimize the traffic hazard impact during the peak hours. The highest volume of traffic occurs during the peak hour, but backups onto the I-15 freeway ramps could still occur during the off-peak. *The traffic hazard impact would be significant and unavoidable with mitigation.*

Lane Closure

Impact Traffic-d, of the Revised Project analysis, discusses the resultant vehicle queues from a lane closures across Limonite Avenue at the intersection with Pats Ranch Road. The longest queue length of over 600 feet is projected to occur in the westbound direction during the PM peak hour. The length of vehicle queues anticipated as a result of lane closures on Limonite could block intersection operations at Pats Ranch Road/ Limonite Avenue or Wineville Avenue/ Limonite Avenue during the peak hours, depending on the length and location of the land closure. Closures along Limonite Avenue and Wineville Avenue could result in backups affecting Wineville Avenue/ Limonite Avenue.

Impact Traffic-d, of the Alternative 1 analysis, discusses the projected vehicle queues from lane closures across Cantu-Galleano Ranch Road. No intersections along Cantu-Galleano Ranch Road would be blocked by vehicle queues caused by lane closures. Construction of Alternative 2 could result in a significant traffic hazard impact due to vehicle queues if lane closures occur during the peak hours.

MM TRANS-02 restricts construction lane closures and roadway obstructions along CMP roadways to off-peak hours. MM TRANS-06 requires preparation of Traffic Control Plans that include requirements for material delivery vehicles to avoid the peak hour and for vehicles to travel at safe speeds dependent upon weather and road conditions. *The traffic hazard impact from vehicle queues due to lane closures would be less than significant with mitigation.*

Construction Activities in the Roadway and Road Conditions

Alternative 2 would create similar traffic hazards as Alternative 1 from the presence of open trenches in the roadway and potential damage to the roadway during construction. Refer to Impact Traffic-d of Alternative 1 for a discussion of traffic hazard impacts from construction activities in the roadway and damage to the roadway, as well as the EPEs and mitigation measures that are required to reduce the impact. *The impact would be less than significant with mitigation.*

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Operation and Maintenance

Operation and maintenance of Alternative 2 would involve the same expected activities and frequency of vault access. The potential traffic hazard would be similar to the impact described for Alternative 1. Refer to Impact Traffic-d of Alternative 1 for a discussion of the traffic hazard impact from lane closures. *The impact would be less than significant.*

Mitigation Measures: MM TRANS-02 and MM TRANS-06 (refer to Section 4.13.9: Revised Project Mitigation Measures)

Significance after Mitigation: Significant and Unavoidable

Impact Traffic-e: Would Alternative 2 result in inadequate emergency access?	Significance Determination
	Construction: <i>Less than Significant with Mitigation</i>
	Operation & Maintenance: <i>Less than Significant</i>

Construction

Road and lane closures would occur along segments of Limonite Avenue and Wineville Avenue. Ingress and egress to residential communities and commercial areas could be blocked by closures and other construction activities, which would restrict or slow emergency vehicles.

SCE would implement EPE TRANS-03 (Prepare Traffic Control Plans), but the EPE lacks sufficient detail to assure that impacts on emergency access would be minimized to less than significant and the impact would remain potentially significant.

MM TRANS-06 requires SCE to maintain emergency access clear at all times during construction and requires notification of emergency service providers, residents, and schools prior to lane closures. *The impact on emergency access due to lane and road closures would be less than significant with mitigation.*

Operation and Maintenance

Operation and maintenance of Alternative 2 would require the same activities and frequency as described for Alternative 1. Refer to Impact Traffic-e of Alternative 1 for a discussion of the impact on emergency access. *The impact would be less than significant.*

Mitigation Measures: MM TRANS-06 (refer to Section 4.13.9: Revised Project Mitigation Measures)

Significance after Mitigation: Less than Significant

Impact Traffic-f: Would Alternative 2 conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	Significance Determination
	Construction: <i>Less than Significant with Mitigation</i>
	Operation & Maintenance: <i>Less than Significant</i>

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Construction

Public Transit

Construction of the underground 230-kV transmission line would result in lane and road closures along Limonite Avenue and Wineville Avenue. An eastbound bus stop serving RTA bus line 29 is located on Limonite Avenue, directly east of Pats Ranch Road/ Limonite Avenue intersection (refer to Figure 4.12-3 in Section 4.12: Transportation and Traffic).

Partial or full roadway closures would increase the travel time for RTA bus lines 29 and 3 as well as close one additional bus stop beyond the Revised Project, limiting user access to public transit. The impact from lane and road closures on public transit would be significant.

SCE would implement EPE TRANS-03 (Prepare Traffic Control Plans), but the impact would remain potentially significant after implementation of the EPE.

MM TRANS-04 and MM TRANS-08 require one lane of traffic flow to be maintained and signs identifying when and for how long closures are expected and where the closest serviceable bus stop for the bus line will be. *The impact on public transit would be less than significant with mitigation.*

School Bus Service Area

Lane and road closures during Alternative 2 construction would occur within an area served by school buses for Jurupa Valley High and Sky Country Elementary (refer to Figure 4.13-3).

Alternative 2 would have a similar impact on school bus transit as described for the Revised Project and Alternative 1. Refer to Impact Traffic-f of Alternative 1 for a discussion of the impact on school bus service, as well as the EPE and mitigation measures that are required to reduce the impact to less than significant. *The impact would be less than significant with mitigation.*

Bicycle Facilities

Similar to the Alternative 1 analysis, no Class I or Class II bicycle facilities are designated along the Alternative 2 underground alignment. Bicyclists along Limonite Avenue and Wineville Avenue may use vehicle lanes during construction, increasing the potential hazards to bicyclist safety. Alternative 2 would have a similar impact as described for Alternative 1. Refer to Impact Traffic-f of Alternative 1 for a discussion of the impact on bicycle facilities, as well as the EPE and mitigation measures that are required to reduce the impact to less than significant. *The impact would be less than significant with mitigation.*

Pedestrian Facilities and Equestrian Trails

Alternative 2 would have a similar impact on sidewalks and equestrian trails as described for Alternative 1. Refer to Impact Traffic-f of Alternative 1 for a discussion of the impact on pedestrian facilities and equestrian trails, as well as the EPE and mitigation measure that are required to reduce the impact to less than significant. *The impact would be less than significant with mitigation.*

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Operation and Maintenance

Operation and maintenance of Alternative 2 would require the same activities and frequency as Alternative 1 and would have a similar impact on public transit and facilities. Refer to Impact Traffic-f of Alternative 1 for a discussion of the impact on public transit and bicycle safety. *The impact would be less than significant.*

Mitigation Measures: MM TRANS-04, MM TRANS-05, MM TRANS-06, and MM TRANS-08 (refer to Section 4.13.9: Revised Project Mitigation Measures)

Significance after Mitigation: Less than Significant

Alternative 3 Environmental Impacts and Mitigation Measures

Alternative 3 involves extending the underground segment of the Revised Project by 0.25 mile along I-15 in the Revised Project alignment. The riser poles would be constructed at the north end of the extended underground segment.

<p>Impact Traffic-a: Would Alternative 3 conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including, but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?</p>	Significance Determination
	Construction: <i>Less than Significant</i>
	Operation & Maintenance: <i>Less than Significant</i>

Construction

Roadway Intersections

Construction Traffic

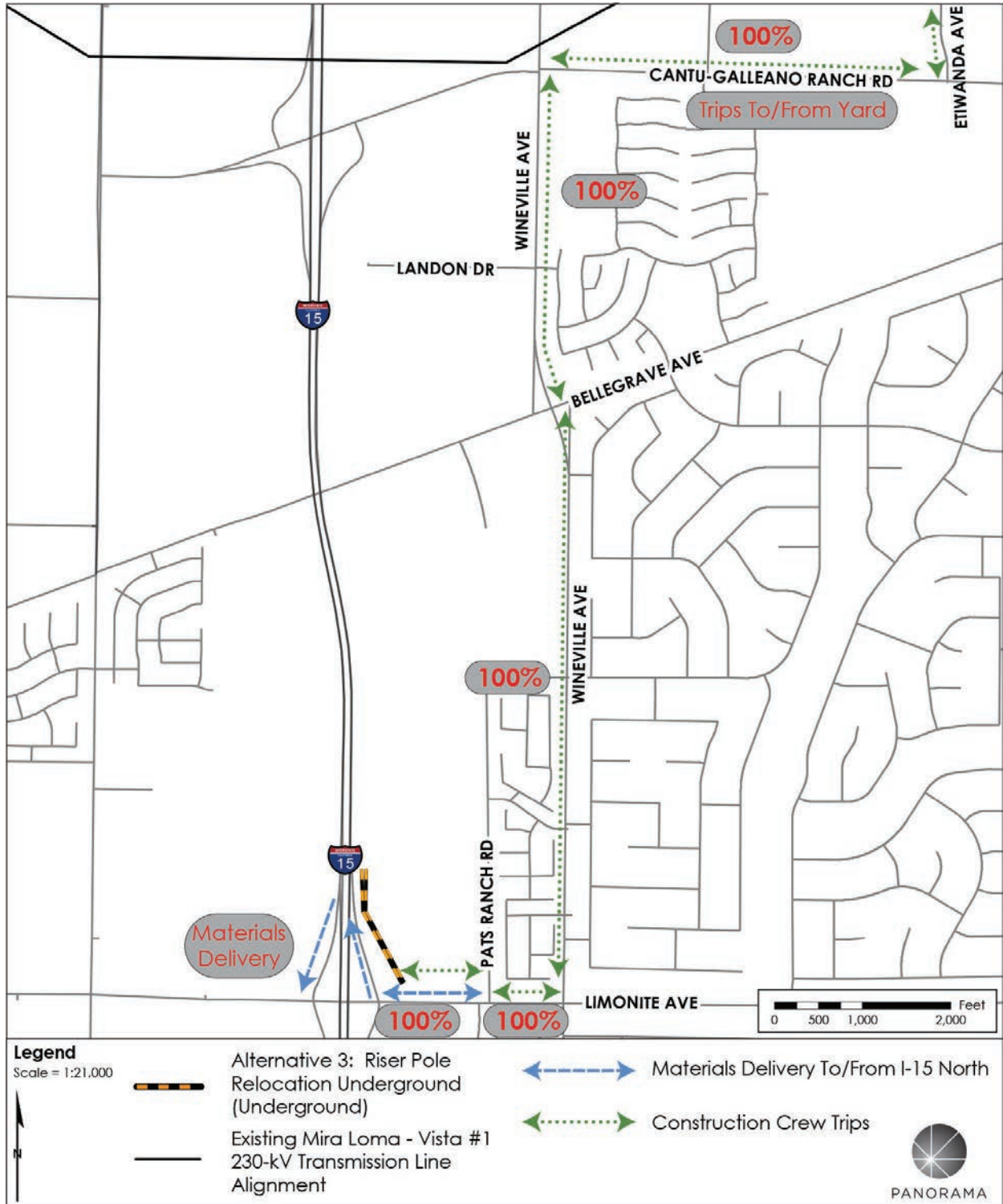
Construction equipment and vehicles that would be needed to construct Alternative 3 would be similar to the Revised Project. The number of daily and peak hour trips that would be generated during construction of Alternative 3, adjusted to PCE, are assumed to be the same as the Revised Project for each construction activity. Due to the short length of Alternative 3 and location in an unpaved area, only a few construction activities could occur simultaneously. Alternative 3 would therefore generate less than 450 daily trips assumed for other alternatives. The trips generated during Alternative 3 construction would be distributed along local and regional roadways as shown in Figure 4.13-8. The impact from construction traffic on intersections is described for Alternative 1 under Impact-a above. *The impact would be less than significant.*

Road and Lane Closures

Installation of vaults during construction of Alternative 3 would occur in unpaved areas to the east of I-15. Road and lane closures would not be required. *No impact would occur.*

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Figure 4.13-8 Alternative 3 Construction Trip Distribution



Source: (KOA Corporation, 2017; esri, 2017; SCE, 2017)

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Roadway Segments

Construction Traffic

The LOS for all roadway segments would not decrease. Alternative 3 would have a similar impact as described for Alternative 1. Refer to Impact Traffic-a of Alternative 1 for a discussion of the impact on roadway segment operations from Alternative 3 and Revised Project construction traffic. *The impact would be less than significant.*

Road and Lane Closures

Installation of vaults during construction of Alternative 3 would occur in unpaved areas to the east of I-15. Road and lane closures would not be required. *No impact would occur.*

Operation and Maintenance

Operation and maintenance of Alternative 3 would require one to two vehicles to travel to the area annually for inspections. No road or lane closures would be required. *The impact would be less than significant.*

Mitigation Measures: None Required

Impact Traffic-b: Would Alternative 3 conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	Significance Determination
	Construction: <i>Less than Significant</i>
	Operation & Maintenance: <i>No Impact</i>

Construction

Overview

Limonite Avenue and Etiwanda Avenue are CMP roadways and I-15 is a CMP highway that would be part of the construction route used by trucks and vehicles to deliver materials, equipment, and construction personnel to Alternative 3 work sites.

Construction Traffic

Peak hour trips from construction of Alternative 3 would account for less than 1 percent of the peak hour volumes on I-15 between Limonite and SR-60. Alternative 3 would not result in deterioration of the LOS on a CMP highway or CMP roadway to below LOS E. *The impact would be less than significant.*

Road and Lane Closures

Road and lane closures would not occur during construction of Alternative 3. *No impact on CMP roadways or highways would occur.*

Operation and Maintenance

Operation and maintenance of Alternative 3 would not occur within any CMP roadway. One to two vehicles would access the area during annual inspections. No lane closures would occur. *No impact would occur.*

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Mitigation Measures: None Required

Impact Traffic-d: Would Alternative 3 substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	Significance Determination
	<i>Construction: Less than Significant with Mitigation</i>
	<i>Operation & Maintenance: No Impact</i>

Construction

Construction Truck Traffic

Large trucks using roadways that permit commercial truck use in the City of Jurupa Valley (i.e., Wineville Avenue, Limonite Avenue, and Cantu-Galleano Ranch Road) would not substantially increase traffic hazards. Construction trucks would need to use Etiwanda Avenue where commercial trucks are specifically excluded in order to access the work sites. Large trucks could result in temporary lane obstructions. Use of Etiwanda Avenue could result in a significant traffic hazard to other vehicles particularly during peak commuting hours.

MM TRANS-02 restricts construction lane closures and roadway obstructions along CMP roadways to off-peak hours. MM TRANS-06 requires preparation of Traffic Control Plans that include requirements for material delivery vehicles to avoid the peak hour and for vehicles to travel at safe speeds dependent upon weather and road conditions. *The traffic hazard impact from construction would be less than significant with mitigation.*

Road and Lane Closures, and Construction Activities in Roadways

Lane or road closures and staging of equipment within roadways would not occur during construction of Alternative 3. *No impact would occur.*

Road Conditions

Alternative 3 would not involve construction in roadways resulting in deterioration, but heavy trucks and equipment could result in damage to local roadways. Damage to roadways could result in a significant traffic hazard, similar to the Revised Project (refer to Section 4.13.8: Revised Project Impact Analysis, under Impact Traffic-d).

SCE would implement EPE TRANS-04, which requires repairs of local streets to preconstruction conditions. Roadway conditions prior to construction may not be acceptable or meet the City of Jurupa Valley’s construction standards. Roadway impacts could remain significant following implementation of EPE TRANS-04 because construction standards are not specified.

MM TRANS-07 requires a pre-construction survey of roadways along the construction traffic routes and underground 230-kV transmission line alignment. MM TRANS-07 also requires that these roadways are repaired to the City of Jurupa Valley’s construction standards within 60 days of construction completion. *Traffic hazard impacts resulting from poor roadway conditions would be less than significant with mitigation.*

4.13 TRANSPORTATION AND TRAFFIC

Operation and Maintenance

Inspection of vaults installed during construction of Alternative 3 would not require lane closures or otherwise create a traffic hazard. *No impact would occur.*

Mitigation Measures: MM TRANS-02, MM TRANS-06 and MM TRANS-07 ((refer to Section 4.13.9: Revised Project Mitigation Measures)

Significance after Mitigation: Less than Significant

Alternative 4 Environmental Impacts and Mitigation Measures

Alternative 4 involves construction of a segment of underground transmission line that follows Wineville Avenue and Landon Drive. Two riser poles would be constructed at either end of the underground segment.

<p>Impact Traffic-a: Would Alternative 4 conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including, but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?</p>	Significance Determination
	Construction: <i>Less than Significant</i>
	Operation & Maintenance: <i>Less than Significant</i>

Construction

Roadway Intersections

Construction Traffic

Similar to Alternative 1, daily and peak hour trips generated during construction of Alternative 4, adjusted to PCE, are assumed to be the same as the Revised Project. The trips generated during Alternative 4 construction would be distributed along local and regional roadways, dependent upon the delivery of materials and components under construction, as shown in Figure 4.13-9. Alternative 4 would have a similar impact as described for Alternative 1. Refer to Impact Traffic-a of Alternative 1 for a discussion of the impact on intersection operations from alternative and Revised Project construction traffic. *The impact would be less than significant.*

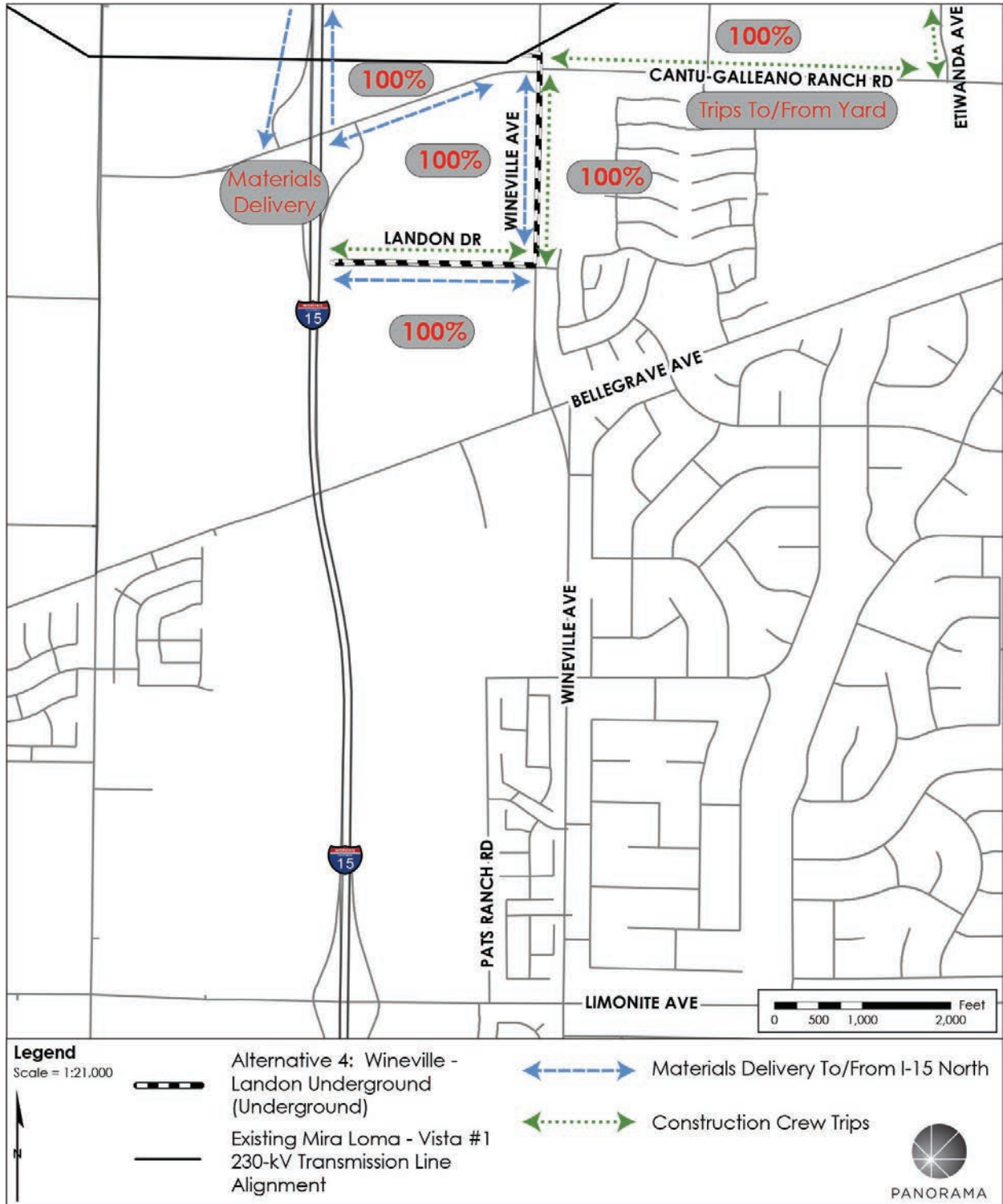
Road Closures

Vault installation would require the same work spaces and construction duration as the Revised Project. Road closures would occur along Wineville Avenue between Cantu-Galleano Ranch Road and Landon Drive, and along Landon Drive during vault installation. Vehicle traffic diverted from these roadways during a road closure could decrease intersection LOS during the AM and PM peak hour.

No change to intersection LOS during closures along Landon Drive would be expected as most commercial trucks exit the distribution center north of Landon Drive via either Cantu-Galleano Ranch Road and Wineville Avenue under baseline conditions. Similar to Alternative 1,

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Figure 4.13-9 Alternative 4 Construction Trip Distribution



Source: (KOA Corporation, 2017; esri, 2017; SCE, 2017)

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displaced traffic detouring around closures along Wineville Avenue would not reduce operation of Cantu-Galleano Ranch Road/ Etiwanda Avenue to below LOS D. Refer to Impact Traffic-a of Alternative 1 for a discussion of the impact on intersection operations from road closures on Wineville Avenue between Cantu-Galleano Ranch Road and Landon Drive. *The impact would be less than significant.*

Lane Closures

Traffic volumes during the peak hour are moderately low. Intersection operations along Wineville Avenue in the area of Alternative 4 are LOS B or C with construction traffic. Commercial trucks that use Landon Drive for access could temporarily use alternative access points on Wineville Avenue or Cantu-Galleano Ranch Road during lane closures. During lane closures along Wineville, commercial trucks could temporarily use Cantu-Galleano Ranch Road or be directly around the closure on Wineville to Landon Drive. Lane closures on Wineville Avenue and Landon Drive, and across Cantu-Galleano Ranch Road would not be anticipated to decrease intersection operations. *The impact would be less than significant.*

Roadway Segments

Construction Traffic

Alternative 4 would have a similar impact on roadway segment LOS from increased construction vehicle traffic as described for Alternative 1. Refer to Impact Traffic-a of Alternative 1 for a discussion of the impact on roadway segment operations from Alternative 4 and Revised Project construction traffic. *The impact would be less than significant.*

Road Closures

Alternative 4 would have a similar impact from closures of Wineville Avenue as described for Alternative 1. Parallel roadway segments along Etiwanda Avenue would not deteriorate to below LOS D due to detours around Wineville Avenue. Refer to Impact Traffic-a of Alternative 1 for a discussion of the impact on roadway segment operations from road closures along Wineville Avenue. Landon Drive is not a through street. Only a portion of the traffic volume along Wineville Avenue would divert down Landon Drive. Closure of Landon Drive would require the commercial trucks to use one of the other entrances to the facility. Traffic volumes on Wineville Avenue would not increase and the operation of the roadway segment would not deteriorate to below LOS D. *The impact would be less than significant.*

Lane Closures

Alternative 4 would have a similar impact as described for Alternative 1 for lane closures along Wineville Avenue and across Cantu-Galleano Ranch Road. Refer to Impact Traffic-a of Alternative 1 for a discussion of the impact on roadway segment operations from these lane closures. As stated above, a portion of the traffic volumes along Wineville Avenue diverts onto Landon Drive. As such, traffic volumes on Wineville Avenue would not increase during lane closures along Landon Drive. Roadway segment operations along Wineville Avenue would not deteriorate to below LOS D. *The impact would be less than significant.*

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Operation and Maintenance

Operation and maintenance of Alternative 4 would have a similar impact as described for Alternative 1. Refer to Impact Traffic-a of Alternative 1 for a discussion of the impact, above.

Mitigation Measures: None Required

Impact Traffic-b: Would Alternative 4 conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	Significance Determination
	Construction: <i>Less than Significant</i>
	Operation & Maintenance: <i>Less than Significant</i>

Construction

Overview

Etiwanda Avenue is a CMP roadway and I-15 is a CMP highway that would be part of the construction route used by trucks and vehicles to deliver materials, equipment, and crew to Alternative 4 work sites.

Construction Traffic

Alternative 4 would have a similar impact as described for Alternative 1. Refer to Impact Traffic-b of Alternative 1 for a discussion of the impact on CMP roadways and highways from construction traffic *The impact would be less than significant.*

Road Closures

Impact Traffic-a analyzes the impact from road closures on intersection operations and roadway segments. Road closures would divert traffic to adjacent streets. The LOS at intersections that could experience an increase in traffic due to detoured traffic, would not drop to below LOS E. *The impact would be less than significant.*

Lane Closures

Impact Traffic-a analyzes the impact from lane closures on intersection operations and roadway segments. None of the lane closures would decrease the LOS for a CMP roadway segment or intersection operations to below LOS E. Lane closures would not interfere with operation of a CMP highway. *The impact would be less than significant.*

Operation and Maintenance

Operation and maintenance of Alternative 4 would have a similar impact as described for Alternative 1. Refer to Impact Traffic-b of Alternative 1 for a discussion of the impact, above. *The impact would be less than significant.*

Mitigation Measures: None required.

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Impact Traffic-d: Would Alternative 4 substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	Significance Determination
	Construction: <i>Less than Significant with Mitigation</i>
	Operation & Maintenance: <i>Less than Significant</i>

Construction

Alternative 4 would have similar impacts from construction truck traffic, construction activities in roadways, road conditions, and closures on Wineville Avenue and across Cantu-Galleano Ranch Road, as described for Alternative 1. Lane and road closures on Landon could cause confusion for commercial truck drivers attempting to access the entrance along Landon Drive. Large commercial trucks stopping or slowing in the area of Landon Drive could cause vehicle backups down Wineville Avenue introducing a potential traffic hazard. Construction of Alternative 4 could result in a significant traffic hazard impact due to vehicle from lane and road closures on Landon Drive. MM TRANS-06 requires appropriate signage to designate traffic detours, which would eliminate potential confusion for commercial truck drivers. Refer to Impact Traffic-d of Alternative 1 for a discussion of traffic hazard impacts from closures on Wineville Avenue and across Cantu-Galleano Ranch Road, as well as the EPEs and mitigation measures that are required to reduce the impact to less than significant. *The impact would be less than significant with mitigation.*

Operation and Maintenance

Operation and maintenance of Alternative 4 would have a similar impact as described for Alternative 1. Refer to Impact Traffic-d of Alternative 1 for a discussion of the traffic hazard impact from temporary lane closures during annual inspections. *The impact would be less than significant.*

Mitigation Measures: MM TRANS-02, MM TRANS-02A, MM TRANS-06, and MM TRANS-07 (refer to Section 4.13.9: Revised Project Mitigation Measures)

Significance after Mitigation: Less than Significant

Impact Traffic-e: Would Alternative 4 result in inadequate emergency access?	Significance Determination
	Construction: <i>Less than Significant with Mitigation</i>
	Operation & Maintenance: <i>Less than Significant</i>

Construction

Road and lane closures would occur along segments of Landon Drive and Wineville Avenue. Alternative 4 would have a similar impact on emergency access along Wineville Avenue and Cantu-Galleano Ranch Road as described for Alternative 1. Refer to Impact Traffic-e of Alternative 1 for a discussion of the impact on emergency access, as well as the EPE and mitigation measure that are required to reduce the impact to less than significant with mitigation. *The impact would be less than significant with mitigation.*

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Operation and Maintenance

Operation and maintenance of Alternative 4 would have a similar impact as described for Alternative 1 due to annual inspection of vaults within roadways. Refer to Impact Traffic-e of Alternative 1 for a discussion of the impact on emergency access. *The impact would be less than significant.*

Mitigation Measures: MM TRANS-06 (refer to Section 4.13.9: Revised Project Mitigation Measures)

Significance after Mitigation: Less than Significant

Impact Traffic-f: Would Alternative 4 conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	Significance Determination
	Construction: <i>Less than Significant with Mitigation</i>
	Operation & Maintenance: <i>Less than Significant</i>

Construction

Public Transit

No public transit or bus routes use roadways along the Alternative 4 alignment. *No impact on alternative transit facilities would occur.*

School Bus Service Area

Lane and road closures during Alternative 4 construction would occur within an area served by school buses for Jurupa Valley High and Sky Country Elementary (refer to Figure 4.13-3).

Alternative 4 would have a similar impact on school bus service as described for Alternative 1. Refer to Impact Traffic-f of Alternative 1 for a discussion of the impact on school bus service, as well as the EPE and mitigation measures that are required to reduce the impact to less than significant. *The impact would be less than significant with mitigation.*

Bicycle Facilities

Similar to the Alternative 1 analysis, no Class I or Class II bicycle facilities are designated along the Alternative 4 underground alignment. Bicyclists along Wineville Avenue may use vehicle lanes during construction, increasing the potential hazards to bicyclist safety. Alternative 4 would have a similar impact as described for Alternative 1. Refer to Impact Traffic-f of Alternative 1 for a discussion of the impact on bicycle facilities, as well as the EPE and mitigation measures that are required to reduce the impact to less than significant. *The impact would be less than significant with mitigation.*

Pedestrian Facilities

Alternative 4 would have a similar impact on sidewalks as described for Alternative 1. Refer to Impact Traffic-f of Alternative 1 for a discussion of the impact on pedestrian facilities, as well as the EPE and mitigation measure that are required to reduce the impact to less than significant. *The impact would be less than significant with mitigation.*

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Equestrian Trails

Equestrian trails and crossings would not be impacted during construction of the Alternative 4 underground 230-kV transmission line. *No impact would occur.*

Operation and Maintenance

Operation and maintenance of Alternative 4 would have a similar impact on bicycle facilities as described for Alternative 1 due to annual inspections of vaults within roadways. Refer to Impact Traffic-f of Alternative 1 for a discussion of the impact on public transit and bicycle safety. *The impact would be less than significant.*

Mitigation Measures: MM TRANS-05, MM TRANS-06, and MM TRANS-08 (refer to Section 4.13.9: Revised Project Mitigation Measures)

Significance after Mitigation: Less than Significant

4.13.12 No Project Alternative Impact Analysis

Worker trips and truck traffic associated with construction would temporarily increase traffic on regional and local roadways. Operation of intersection and roadway segments is not expected to deteriorate to below the local jurisdiction's criteria due to the limited potential construction traffic. Traffic associated with inspection of new facilities or operation of the gas-fired power plant would be minimal. The No Project Alternative is not expected to require any construction work within roadways or otherwise cause road or lane closure. *The impact would be less than significant.*

4.13.13 References

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