

4.14 TRANSPORTATION AND CIRCULATION

4.14.1 Introduction

This section describes the potential transportation and circulation impacts resulting from the implementation of the SAP and PRSP. This analysis considers the transportation effects specific to the PRSP area, as well as the effects of the entire SAP area.

This section describes the existing transportation system in the vicinity of the project site and evaluates the potential impacts on the system associated with implementation of the project. The analysis includes roadway, transit, bicycle, and pedestrian components of the overall transportation system. Impacts are evaluated under near-term (present-day) conditions with and without the project, and cumulative (year 2036) conditions with and without the project. The traffic analysis focuses on a specific project study area for transportation and circulation, which is defined in Section 4.14.2, “Environmental Setting,” below.

This section was prepared by Fehr & Peers, transportation consultants, in May 2018 and updated in November 2018. It summarizes information presented in the *Sunset Area Plan and Placer Ranch Transportation Impact Study* also prepared by Fehr & Peers in 2018. The full Transportation Impact Study is included as Appendix M and provides additional detailed information related to the transportation and traffic analysis.

The following scenarios are analyzed in this EIR (a Super Cumulative scenario is provided for informational purposes in the Transportation Impact Study included as Appendix M):

- ▲ Existing Conditions – represents the baseline condition, against which project impacts are measured. The existing conditions represent conditions in fall 2016. This information is presented in Section 4.14.2, “Environmental Setting.”
- ▲ Existing Plus PRSP Conditions – analyzes the transportation and traffic effects associated with implementation and buildout of the PRSP. This scenario reflects buildout of the PRSP added directly to existing (2016) conditions to isolate the effects of the PRSP against the existing baseline. Therefore, this scenario does not account for the incremental nature of project implementation (i.e., buildout of the PRSP would occur over time) or changes that would occur outside the project in the study area (i.e., installation of programmed off-site transportation facilities or development of other development projects).
- ▲ Existing Plus Project Buildout Conditions – analyzes the transportation and traffic effects associated with implementation and buildout of the SAP, including the PRSP. Similar to Existing Plus PRSP conditions, this scenario evaluates buildout of the SAP added to existing (2016) conditions. Therefore, it is intended to isolate the effects of the SAP against the existing baseline but does not account for the incremental development of the plan area over time.
- ▲ Cumulative No Project Conditions – analyzes conditions for a cumulative scenario (year 2036), which includes reasonably foreseeable land uses and planned transportation improvement projects, without implementation of the proposed project. The horizon year of the cumulative scenario (2036) is consistent with the horizon year of the current Sacramento Area Council of Governments (SACOG) Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS), which takes into account population and employment forecasts, adopted land use plans (e.g., general plans), and funded transportation projects that are anticipated to occur within the next 20 years. The cumulative plus project analyses are compared to the cumulative no project scenario to isolate the project’s incremental cumulative effect on transportation and traffic.
- ▲ Cumulative Plus PRSP Conditions – analyzes cumulative conditions (year 2036) with implementation and buildout of the PRSP. This scenario includes a detailed transportation and traffic analysis to understand the cumulative traffic effects of the PRSP for a project-level CEQA analysis.

- ▲ Cumulative Plus Project Buildout Conditions – evaluates cumulative conditions with implementation and buildout of the SAP, including the PRSP, which includes 100 percent completion of all development for land use designations and transportation improvement projects within the SAP. Since buildout of the SAP is anticipated to occur over an extended time period (i.e., 80+ years) based on current market forecasts, the current travel models with their 20-year horizons are not equipped to accurately forecast detailed traffic conditions associated with an 80+ year buildout timeframe. Therefore, this scenario is evaluated at a lesser level of detail, consistent with §15130(b) of the CEQA Guidelines, in recognition of the higher level of uncertainty associated with this level of development and a timeframe that would occur well beyond 20 years. This scenario is intended to describe the overall cumulative travel effects of the buildout of the SAP using trip generation and ADT forecasts to provide a cumulative impact analysis.
- ▲ Cumulative Plus PRSP Plus SAP (20-Year Project) Conditions – analyzes cumulative conditions (year 2036) with implementation of the SAP, including the PRSP. This includes buildout of the PRSP and forecasted land uses and transportation improvement projects within the net SAP area that would occur by year 2036. Since the buildout of the SAP would occur over 80+ years, this “20-year project” cumulative scenario is intended to provide a more realistic analysis of the project’s cumulative effects in 20 years. The 20-year horizon was selected in accordance with the horizon year of the regional MTP/SCS, the regional travel model, and local general plans. The amount of development anticipated to occur in the SAP area over 20 years is based on a market analysis prepared by EPS.

Important terms for specific parts of the project are discussed in detail in Section 4.0, “Approach to the Environmental Analysis.” The following brief discussion is intended to remind the reader how those terms are defined and used in the EIR analysis, including this section. “SAP area” refers to the entire SAP area, which includes the PRSP area. “Net SAP area” refers to the portion of the SAP area outside the PRSP area. The “project” encompasses the entirety of the SAP, including the PRSP and all associated off-site improvements. “Project area” refers to the entire area covered by the project. Unlike most of the other technical sections in this EIR, the analysis in this section does not discuss the impacts associated with only the net SAP area. Instead, the SAP area is discussed in its entirety. This section also does not include separate analyses of the Pleasant Grove Retention Facility and off-site utility improvements, because these facilities are not traffic-generating elements of the project. Off-site roadway improvements, however, are integrated into the traffic analysis, and in some cases, the off-site roadway improvements are identified as mitigation measures.

As discussed in Chapter 1, “Introduction,” the PRSP land use plan has been slightly revised since circulation of the NOP. Changes primarily relate to increasing the distance between the landfill property and land designated for residential uses, modifying the density of proposed residential areas, reducing the proposed commercial intensity, slightly decreasing the acreage of open space, and increasing the acreage of parks to meet County parkland provision standards. The size of the PRSP area (2,213 acres) has not changed since release of the NOP, and the overall area of development would be nearly identical. Several technical memoranda (see Appendix P) were prepared to update the calculations in response to the revised PRSP, including updated traffic information. The revised vehicle trip generation and vehicle miles traveled (VMT) calculations in the traffic memorandum reflect the revised land use plan and are presented in this section of the Draft EIR. The results presented in the traffic memorandum demonstrate that the trip generation and VMT forecasts for the revised land use plan are less than for the previously proposed land use plan. Because the trip generation and VMT forecasts presented in this section (and in the traffic study included as Appendix M) are based on the previous PRSP land use plan, the analysis in this section identifies levels that are higher than would occur under the revised land use plan. Therefore, the analysis of VMT effects and traffic impacts presented in this section (and in the traffic study) adequately covers and may slightly overstate the VMT effects and traffic impacts of the revised land use plan. The discussions below related to trip generation and VMT present the differences between the previous PRSP land use plan and the revised land use plan.

4.14.2 Environmental Setting

This section describes existing regional and local environmental conditions relevant to transportation and circulation.

PROJECT STUDY AREA

The process of establishing the study area was a collaboration between the EIR consultants and Placer County staff and took into consideration comments from the Cities of Roseville, Rocklin, and Lincoln, Sacramento and Sutter Counties, California Department of Transportation (Caltrans), as well as Notice of Preparation comment letters. Identification of the study area considered the project's expected travel characteristics, including number of vehicle trips, the directionality of those vehicle trips, and primary travel routes to/from the project area. Exhibit 4.14-1 shows the study area, SAP area, and PRSP area.

The analysis includes traffic operations at 220 study intersections, six roadway segments, and 43 freeway facilities in the following seven jurisdictions:

- ▲ Placer County,
- ▲ City of Roseville,
- ▲ City of Rocklin,
- ▲ City of Lincoln,
- ▲ Sutter County,
- ▲ Sacramento County, and
- ▲ Caltrans.

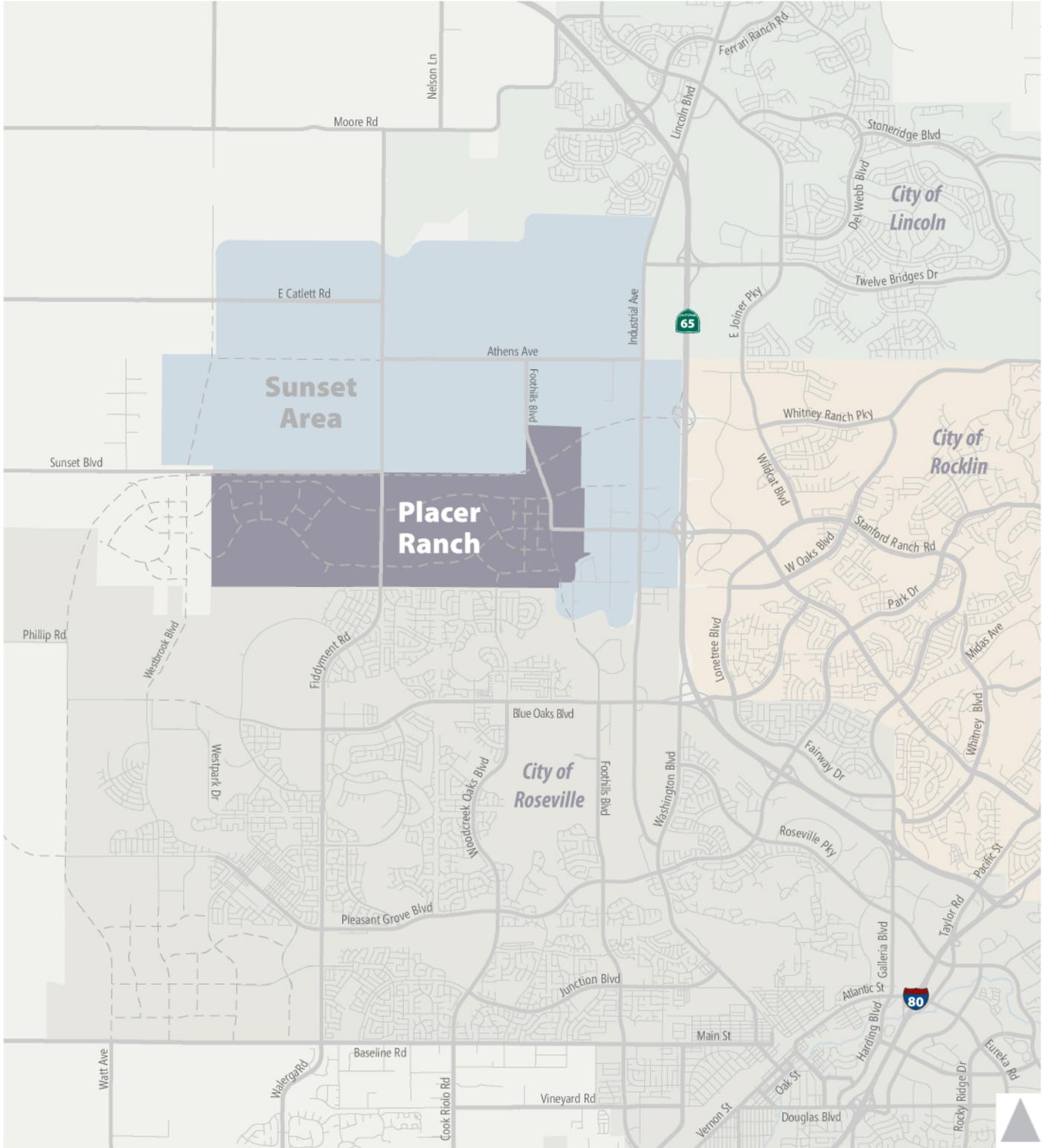
All study intersections and freeway facilities were analyzed during the weekday a.m. and p.m. peak hour. Study roadway segments are analyzed based on average daily traffic (ADT) volumes. This report also presents ADT volumes on arterial streets throughout the City of Roseville, on study freeway segments, and within the vicinity of the project site for informational purposes.

Appendix M contains a complete list of the study intersections, roadway segments, and freeway facilities.

ROADWAY NETWORK

The study area is served by a system of arterial streets and state highways. Exhibit 4.14-2 displays the existing number of travel lanes on the major roadways in the project area. Key roadways within this system that would serve trips associated with the proposed project include the following:

- ▲ I-80 is an east-west interstate freeway that provides regional access to Placer County. I-80 connects south Placer County to Sacramento and San Francisco to the west and Auburn, Sierra Nevada communities, Reno, and beyond to the east. I-80 has a major interchange with SR 65, which provides access to the Cities of Roseville, Rocklin, and Lincoln as well as the unincorporated Sunset Area. West of SR 65, I-80 is an eight-lane freeway plus two high-occupancy vehicle (HOV) lanes. The HOV lanes end just east of SR 65, at which point I-80 becomes a six-lane freeway as it travels east towards Rocklin Road.
- ▲ SR 65 is a north-south state highway that begins at I-80 and extends north through Placer County to SR 70 south of Marysville. SR 65 is a four-lane freeway from I-80 to the at-grade intersection with Nelson Lane. It continues as a four-lane divided highway from Nelson Lane to north of Wise Road. North of Wise Road, it becomes a two-lane state highway connecting the area to Yuba County and Marysville to the north. SR 65 provides regional access to the project site via interchanges at Blue Oaks Boulevard, Sunset Boulevard, Whitney Ranch Parkway/Placer Parkway (future), and Twelve Bridges Drive.
- ▲ Athens Avenue is an east-west arterial roadway that connects Fiddymont Road to Industrial Avenue. It is generally a two-lane rural roadway, except adjacent to Thunder Valley Casino to Industrial Avenue, where it is a four-lane divided arterial.
- ▲ Sunset Boulevard is an east-west arterial roadway that connects the Sunset Area to SR 65 and Rocklin. From Foothills Boulevard North to just west of SR 65, it is a two-lane rural arterial with an existing bridge over the North Branch of Pleasant Grove Creek and a grade-separated overcrossing of the Union Pacific Railroad (UPRR) and Industrial Avenue. East of SR 65, Sunset Boulevard is generally a six-lane divided arterial, except immediately east of SR 65 near Atherton Road/University Avenue where it narrows to a four-lane arterial for a short ¼-mile segment.



- Placer Ranch Specific Plan
- Future Roadways
- Sunset Area Plan

Source: Image provided by Fehr & Peers in 2018



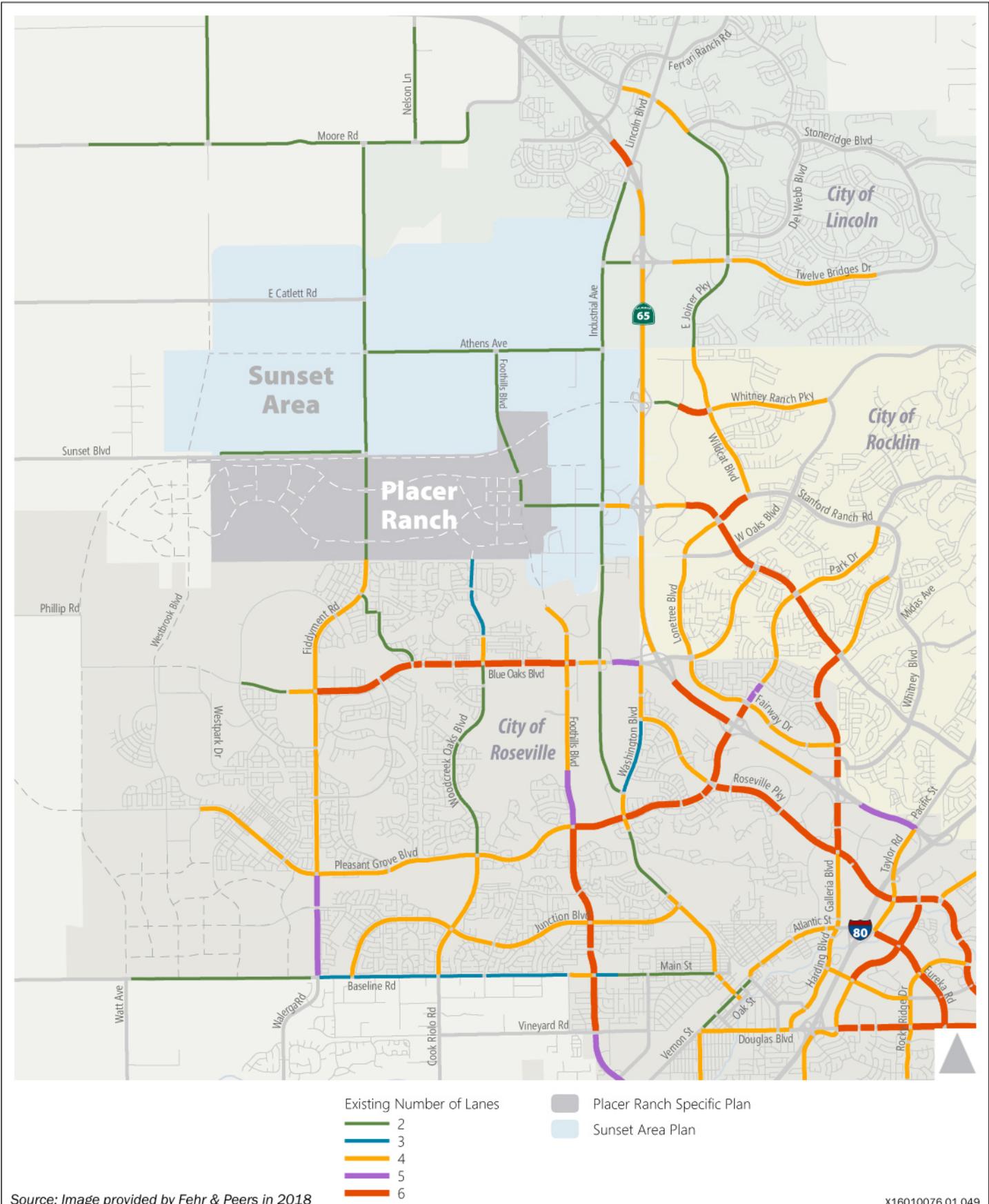


Exhibit 4.14-2

Existing Roadway Network



- ▲ Blue Oaks Boulevard is an east-west arterial roadway in northern Roseville. From its current western terminus at Hayden Parkway, it runs east into Rocklin to its eastern terminus at Sunset Boulevard. It is a six-lane divided arterial from Fiddymont Road to Foothills Boulevard. East of Foothills Boulevard, it narrows to a four-lane arterial over a grade-separated overcrossing of Industrial Avenue and the UPRR before widening back to five lanes (two lanes westbound, three lanes eastbound) to SR 65. East of SR 65, Blue Oaks Boulevard is generally a four-lane divided arterial as it travels into Rocklin.
- ▲ Fiddymont Road is a north-south arterial roadway that extends from Moore Road south into Roseville to Baseline Road. South of Baseline Road, it becomes Walerga Road traveling south into Sacramento County. North of Roseville, it is a two-lane rural roadway. Within the City of Roseville, it is generally a four-lane divided arterial.
- ▲ Woodcreek Oaks Boulevard is a north-south arterial roadway that extends from its current northern terminus at the Roseville city limits south to Baseline Road. South of Baseline Road, it becomes Cook Riolo Road traveling south to PFE Road. Woodcreek Oaks Boulevard is a two- to four-lane divided arterial, with four-lane segments generally south of Pleasant Grove Boulevard and two-lane segments generally north of Pleasant Grove Boulevard. At the time of this analysis, the City of Roseville was constructing the widening of Woodcreek Oaks Boulevard from Crimson Ridge Way to Blue Oaks Boulevard to a four-lane divided arterial.
- ▲ Foothills Boulevard is a north-south arterial roadway that consists of two separate segments in the study area. The northern segment is a 1.5-mile long two-lane divided roadway between Athens Avenue and Sunset Boulevard fully within the SAP area. The southern segment begins approximately 1 mile south of Sunset Boulevard and 0.5 mile north of Blue Oaks Boulevard just south of Pleasant Grove Creek. This segment stretches south from Pleasant Grove Creek to Cirby Way through the City of Roseville as a four- to six-lane divided arterial. South of Cirby Way, it becomes Roseville Road traveling south into Citrus Heights and Sacramento County. Today, the northern segment is Foothills Boulevard North while the southern segment is Foothills Boulevard. Placer County and the City of Roseville intend to connect the two segments into a continuous north-south arterial roadway. At that time, the northern segment would be changed to Foothills Boulevard.
- ▲ Industrial Avenue is a north-south arterial that begins at SR 65 in Lincoln and extends south to Washington Boulevard in the City of Roseville. It is generally a two-lane arterial roadway that parallels the UPRR and provides access to light industrial uses and public facilities that are located between Industrial Avenue and SR 65.

It is important to note that the several road names were included in exhibits and studies without review by Placer County Road Naming and Addressing Division for consistency with the Road Naming Policy (Placer County Resolution 86-125) and Addressing Ordinance (Article 15.308 – Placer County Code). The following names will change because they are already in use in an incorporated city or already reserved for another project:

- ▲ Campus Park Boulevard,
- ▲ University Village Drive, and
- ▲ Town Center Lane.

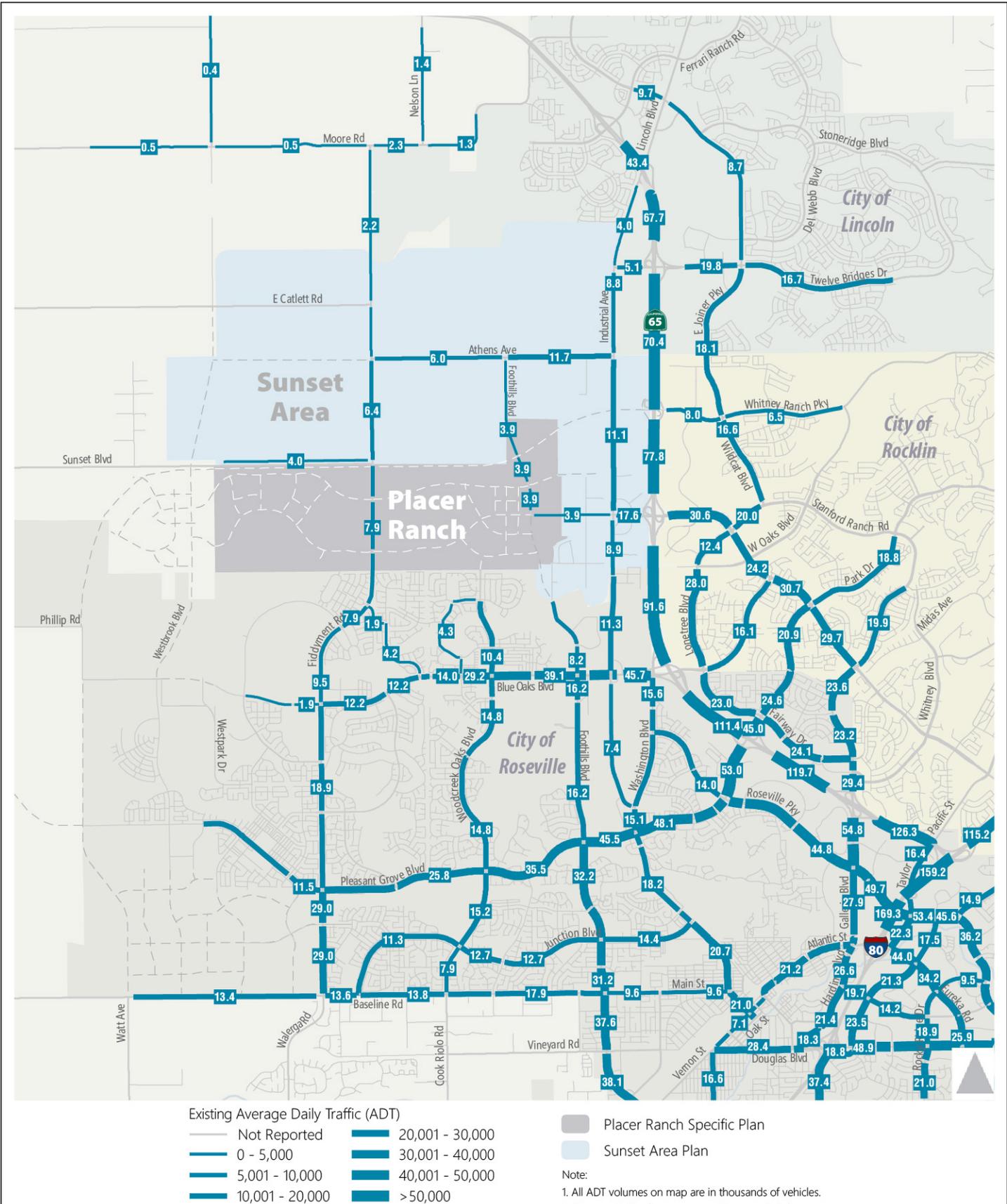
For the sake of consistency with the various earlier studies and reports, the names will remain in this document but will be replaced with generic placeholders on the Proposed Vesting Large Lot Tentative Map.

TRAFFIC DATA COLLECTION

Traffic volumes were collected at all study intersections and roadway segments between 2014 and 2016. Morning (7:00 a.m. to 9:00 a.m.) and evening (4:00 p.m. to 6:00 p.m.) peak period turning movement counts were collected at the study intersections.

Existing Traffic Volumes

Exhibit 4.14-3 presents the ADT volumes on roadways in the study area.



Source: Image provided by Fehr & Peers in 2018

X16010076 01 050

Exhibit 4.14-3

Average Daily Traffic – Existing Conditions



TRAFFIC OPERATIONS ANALYSIS

The traffic operations analysis uses level of service (LOS) as the primary measure of performance. Automobile LOS is a qualitative description of traffic flow from the perspective of motorists. The Highway Capacity Manual (HCM) defines six levels of service from LOS A representing the least congested traffic conditions to LOS F representing the most congested traffic conditions. These grades represent the perspective of drivers and are an indication of the comfort and convenience associated with driving, as well as speed, travel time, traffic interruptions, and freedom to maneuver.

Methodology

Roadway Operations

The analysis of roadway segments within Placer County is conducted in accordance with daily traffic volume thresholds established in the *Placer County Countywide General Plan EIR, Transportation and Circulation* (1994). Table 4.14-1 presents these daily traffic volume LOS thresholds.

Table 4.14-1 Roadway Segment Level of Service Thresholds – Placer County

Roadway Type	Daily Two-Way Volume Thresholds				
	LOS A	LOS B	LOS C	LOS D	LOS E
Placer County Roadways¹					
4-lane Expressway ²	25,200	42,480	54,720	66,960	72,000
4-lane Arterial – High Access Control ³	24,000	28,000	32,000	36,000	40,000
6-lane Arterial – High Access Control ³	36,000	42,000	48,000	54,000	60,000
8-lane Arterial – High Access Control ³	48,000	56,000	64,000	72,000	80,000
2-lane Arterial – Moderate Access Control ⁴	10,800	12,600	14,400	16,200	18,000
4-lane Arterial – Moderate Access Control ⁴	21,600	25,200	28,800	32,400	36,000
6-lane Arterial – Moderate Access Control ⁴	32,400	37,800	43,200	48,600	54,000

Note:

1. Placer County study roadways analyzed as moderate access control facilities based on thresholds contained in *Riolo Vineyards Specific Plan DEIR* (Placer County 2008).
2. “Freeway – Level Terrain” capacity class used for a 4-lane Expressway classification. Freeway – Level Terrain is defined in the Countywide General Plan Final EIR as roadways with 0 stops per mile, no driveway access, and speeds of 55 to 65 miles per hour (mph).
3. High access controlled arterials are defined in the Countywide General Plan Final EIR as roadways with 1-2 stops per mile, limited driveway access, and speeds of 35 to 50 mph.
4. Moderate access controlled arterials are defined in the Countywide General Plan Final EIR as roadways with 2-4 stops per mile, moderate driveway access, and speeds of 30 to 35 mph.

Source: Placer County 1994

It should be noted that the daily traffic volume LOS thresholds presented above for arterials are planning-level thresholds that represent typical conditions seen on expressways and arterials. These do not account for conditions where a roadway may have a higher or lower capacity based on a unique circumstance. By comparison, the intersection operations analysis methodology described earlier in this report considers more detailed and site-specific factors such as signal operations (including phasing, timing, coordination [or lack thereof], etc.), peak hour factors, and heavy vehicle percentages.

Intersection Operations

Signalized Intersections

As noted above, this analysis includes facilities in seven jurisdictions. These agencies employ different methodologies to analyze traffic operations at intersections. The City of Roseville uses procedures described in the HCM 2000 (Transportation Research Board 2000), while the Cities of Rocklin and Lincoln, Placer

County, Sutter County, and Caltrans use procedures described in the HCM 2010 (Transportation Research Board 2010). Per the HCM methodology, the LOS for signalized intersections is determined by the weighted average control delay, measured in seconds per vehicle, experienced by all vehicles passing through the intersection.

The analysis of intersections in Sacramento County uses the Circular 212 methodology. The Circular 212 methodology is a planning-level analysis tool that calculates an overall intersection LOS based on the volume-to-capacity ratio of critical turning movements.

Table 4.14-2 presents the control delay range for each LOS for signalized intersections used in the HCM methodology, as well as the volume-to-capacity thresholds used in the Circular 212 methodology.

Table 4.14-2 Levels of Service Definitions – Signalized Intersections

Level of Service	Description	HCM Average Control Delay ¹	Circular 212 V/C Ratio ²
A	Volume-to-capacity ratio is low and either progression is exceptionally favorable or cycle length is very short. Most vehicles arrive during the green phase and travel through the intersection without stopping.	≤ 10	< 0.60
B	Volume-to-capacity ratio is low and either progression is highly favorable or the cycle length is short. More vehicles stop than with LOS A.	>10 to 20	≥ 0.60 to 0.69
C	Progression is favorable or the cycle length is moderate. Individual cycle failures (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear at this level. The number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.	>20 to 35	≥ 0.70 to 0.79
D	Volume-to-capacity ratio is high and either progression is ineffective or the cycle length is long. Many vehicles stop and individual cycle failures are noticeable.	>35 to 55	≥ 0.80 to 0.89
E	Volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long. Individual cycle failures are frequent.	>55 to 80	≥ 0.90 to 0.99
F	Volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.	>80	≥1.0

Notes:

¹ Average control delay presented in seconds per vehicle.

² V/C ratio = volume-to-capacity ratio

Sources: Transportation Research Board 1980, 2010;

Unsignalized Intersections

The analysis of traffic operations at unsignalized intersections applies the procedures described in Chapter 17 of HCM 2000 and Chapters 19 and 20 of HCM 2010, depending on the presiding jurisdiction's preferred methodology. Similar to signalized intersections, the HCM methodology for unsignalized intersections reports the LOS based on the control delay experienced by motorists traveling through the intersection. For all-way stop-controlled intersections, this study reports the weighted average control delay for all motorists traveling through the intersections. For side-street stop-controlled intersections, this study reports the following:

- ▲ Overall weighted average control delay for movements yielding the right-of-way for side-street stop-controlled intersections under Placer County's jurisdiction, consistent with Placer County's Impact Analysis Methodology of Assessment memorandum; and
- ▲ Average control delay for the lane group with the greatest delay for intersections in all other jurisdictions (i.e., City of Roseville, City of Lincoln, and Caltrans).

Table 4.14-3 presents the control delay range for each LOS for unsignalized intersections.

Table 4.14-3 Levels of Service Definitions – Unsignalized Intersections

Level of Service	Average Control Delay ¹
A	≤ 10
B	>10 to 15
C	>15 to 25
D	>25 to 35
E	>35 to 50
F	>50

Notes: Average control delay presented in seconds per vehicle.

Source: Transportation Research Board 2010

Freeway Operations

Per Caltrans standards, existing conditions for freeway segment operations were evaluated using methodologies from the HCM 2010. The LOS for a freeway segment is based on the vehicle density (passenger cars per lane per mile) as shown in Table 4.14-4. Per Caltrans standards, the performance of freeway ramp weaving segments was analyzed using the Leisch method as defined in the *2010 Highway Design Manual* (Caltrans 2017a).

Table 4.14-4 Freeway Level of Service Definitions

Level of Service	Description	Density (pcpmpl) ¹	
		Mainline	Ramp Junction
A	Free-flow operations. Drivers are almost completely unimpeded in their ability to maneuver within the traffic stream.	≤ 11	≤ 10
B	Free-flow speeds are maintained. The ability to maneuver within the traffic stream is only slightly restricted.	> 11 to 18	> 10 to 20
C	Traffic flow with speeds at or near free-flow speed. The freedom to maneuver within the traffic stream is noticeably restricted, and lane changes require more care and vigilance on the part of the driver.	> 18 to 26	> 20 to 28
D	Speeds begin to decline slightly with increasing flows. Freedom to maneuver within the traffic stream is noticeably limited.	> 26 to 35	> 28 to 35
E	Operations at or near capacity. There are virtually no useable gaps within the traffic stream, leaving little room to maneuver.	> 35 to 45	> 35
F	Breakdown in vehicular flow. Vehicular demand exceeds capacity.	> 45 or Demand exceeds capacity	Demand exceeds capacity ²

Notes:

¹ Density is expressed in passenger car equivalents per mile per lane (pcpmpl).

² Occurs when freeway demand exceeds upstream (diverge) or downstream (merge) freeway segment capacity, or if off-ramp demand exceeds off-ramp capacity.

Source: Transportation Research Board 2010

Freeway Off-Ramp Queuing

This study reports the 95th percentile queues at freeway off-ramps using the Synchro 9 traffic operations analysis software and SimTraffic micro-simulation module of the Synchro 9 software. Both Synchro and SimTraffic report the 95th percentile queue length in feet. This report assumes that each vehicle in the queue uses approximately 25 feet. These 95th percentile queue estimates are then compared to the storage length on the freeway off-ramp, as measured via aerial imagery from the limit line of the off-ramp terminal intersection to the off-ramp gore point at the mainline.

Existing Roadway Operations

Table 4.14-5 presents the number of lanes, ADT volume, v/c ratio, and LOS for the six study roadway segments. All study roadway segments are two-lane arterials with moderate access control. Roadway volumes were obtained from a variety of sources including counts provided by Placer County that were collected in 2013–2014 and volumes shown in recent environmental documents. As shown, all study roadway segments operate at LOS B or better, except for the two-lane segment of Walerga Road from Baseline Road southerly to the Sacramento County line, which currently operates unacceptably at LOS F.

Table 4.14-5 Placer County Roadway Level of Service – Existing Conditions

Segment	Type	Existing Conditions		
		Average Daily Traffic	V/C Ratio	LOS
Sunset Boulevard: Foothills Boulevard North to Industrial Avenue	Two-Lane Moderate Access Control Arterial	3,900	0.22	A
Fiddymment Road: Sunset Boulevard West to SAP boundary	Two-Lane Moderate Access Control Arterial	6,400	0.36	A
Industrial Avenue: Roseville city limits to Sunset Boulevard	Two-Lane Moderate Access Control Arterial	8,900	0.49	A
Industrial Avenue: Sunset Boulevard to Athens Avenue	Two-Lane Moderate Access Control Arterial	11,100	0.62	B
Foothills Boulevard North: Athens Avenue to Sunset Boulevard	Two-Lane Moderate Access Control Arterial	3,900	0.22	A
Walerga Road: Baseline Road to Sacramento County Line	Two-Lane Moderate Access Control Arterial	18,200	1.01	F

Note: LOS = level of service; V/C ratio = volume-to-capacity ratio
 Values rounded to the nearest 100 vehicles.
BOLD text indicates unacceptable roadway operations.
 Source: Fehr & Peers 2018

Existing Intersection Operations

This analysis evaluates traffic operations at 220 existing intersections in seven jurisdictions. The following presents the a.m. and p.m. peak hour LOS analysis results for these intersections by jurisdiction.

Placer County

Table 4.14-6 presents the LOS results for study intersections in Placer County under existing conditions. Most Placer County study intersections currently operate acceptably during both peak hours, with the exception of the following two which operate at LOS E or F:

- ▲ Baseline Road / Locust Road, and
- ▲ PFE Road / Watt Avenue.

Table 4.14-6 Intersection Operations – Placer County – Existing Conditions

Intersection	Traffic Control	LOS Standard	Peak Hour	Existing Conditions	
				Delay ¹	LOS
Baseline Road/Locust Road	AWSC	D	AM	53	F
			PM	49	E
Industrial Avenue/Placer Corporate Drive	Signal	D	AM	8	A
			PM	10	A
Industrial Avenue/South Loop Road	Signal	C	AM	8	A
			PM	10	A
PFE Road/Watt Avenue	AWSC	D	AM	85	F
			PM	17	C

Table 4.14-6 Intersection Operations – Placer County – Existing Conditions

Intersection	Traffic Control	LOS Standard	Peak Hour	Existing Conditions	
				Delay ¹	LOS
PFE Road/Walerga Road	Signal	D	AM PM	41 31	D C
Sunset Boulevard/South Loop Road/Placer Corporate Drive	SSSC	D	AM PM	11 17	B ² C ²
Sunset Boulevard West/Fiddymont Road	AWSC	C	AM PM	10 13	B B
Athens Avenue/Fiddymont Road	AWSC	C	AM PM	11 14	B B
Athens Avenue/Industrial Avenue	Signal	C	AM PM	11 12	B B
Athens Avenue/ Foothills Boulevard North	SSSC	C	AM PM	10 11	B B
Sunset Boulevard/Cincinnati Avenue	Signal	C	AM PM	18 21	B C

Notes: LOS = Level of Service. AWSC = All-Way Stop Control; SSSC = Side-Street Stop Control

BOLD text indicates unacceptable intersection operations.

¹ For signalized and AWSC intersections, the table reports the weighted average intersection control delay for all approaches in seconds per vehicle. For SSSC intersections, the overall weighted average control delay for the movements yielding the right-of-way is reported. Intersection LOS and delay are calculated based on the procedures and methodology contained in the HCM 2010 (Transportation Research Board 2010).

² Field observations reveal that operations at the adjacent SR 65 Southbound Ramps/Sunset Boulevard intersection affects conditions at the Sunset Boulevard/South Loop Road/Placer Corporate Drive intersection, resulting in delays that exceed the reported value on northbound South Loop Road.

Source: Fehr & Peers 2018

City of Roseville

The majority of the intersections analyzed for this report are located in the City of Roseville. The City of Roseville’s LOS policy focuses on operations at signalized intersections, establishing a policy that calls for maintaining LOS C or better operations at a minimum of 70 percent of all signalized intersections during the a.m. and p.m. peak hours. Therefore, this study analyzes a.m. and p.m. peak hour operations at all signalized study intersections in the City of Roseville.

Table 4.14-7 summarizes the a.m. and p.m. peak hour operations at the signalized study intersections in the City of Roseville. Detailed delay and LOS calculations for each intersection can be found in Appendix M. As shown, 97 percent of the signalized intersections currently operate at LOS C or better during the a.m. peak hour. During the p.m. peak hour, 84 percent of the signalized intersections operate at LOS C or better. Of the 16 percent of intersections not operating at LOS C or better during the p.m. peak hour, a large majority are operating at LOS D.

Table 4.14-7 Signalized Intersection Operations – City of Roseville – Existing Conditions

Level of Service	AM Peak Hour	PM Peak Hour
Total Intersections	160	160
LOS A-C	155 (97%)	134 (84%)
LOS D	5 (3%) ▲ Cirby Way/Sunrise Avenue ▲ Cirby Way/Riverside Avenue ▲ Douglas Boulevard/ E. Roseville Parkway	23 (14%) ▲ Cirby Way/Sunrise Avenue ▲ Cirby Way/Foothills Boulevard ▲ Cirby Way/Riverside Avenue ▲ Cirby Way/Vernon Street ▲ Lead Hill Boulevard/North Sunrise Avenue ▲ Fairway Drive/Pleasant Grove Boulevard ▲ Highland Pointe Drive/ Pleasant Grove Boulevard

Table 4.14-7 Signalized Intersection Operations – City of Roseville – Existing Conditions

Level of Service	AM Peak Hour	PM Peak Hour	
	<ul style="list-style-type: none"> ▲ Douglas Boulevard/ Sierra College Boulevard ▲ Blue Oaks Boulevard/ Washington Boulevard 	<ul style="list-style-type: none"> ▲ Douglas Boulevard/Eureka Road ▲ Douglas Boulevard/Rocky Ridge Drive ▲ Douglas Boulevard/Sunrise Avenue ▲ Douglas Boulevard/ East Roseville Parkway ▲ Douglas Boulevard/ Sierra College Boulevard ▲ Baseline Road/Main Street/ Foothills Boulevard ▲ Pleasant Grove Boulevard/ Foothills Boulevard ▲ Roseville Parkway/Galleria Boulevard 	<ul style="list-style-type: none"> ▲ Roseville Parkway/Creekside Ridge Drive ▲ Roseville Parkway/N. Sunrise Avenue ▲ Roseville Parkway/Reserve Drive ▲ Roseville Parkway/Secret Ravine Parkway ▲ Roseville Parkway/Taylor Road ▲ Five Star Boulevard/Stanford Ranch Road ▲ Blue Oaks Boulevard/ Washington Boulevard ▲ Eureka Road/Taylor Road/ I-80 EB Off-Ramp
LOS E	0	2 (1%) <ul style="list-style-type: none"> ▲ Baseline Road/Fiddymont Road ▲ Pleasant Grove Boulevard/Roseville Parkway 	
LOS F	0	1 (1%) <ul style="list-style-type: none"> ▲ Douglas Boulevard/Harding Boulevard 	
Percent operating at LOS D, E, or F	3%	16%	

Notes: Includes 11 signalized intersections at Caltrans ramps located within the City of Roseville. Does not include the eight signalized intersections located in the City's Pedestrian Overlay District (POD). Intersection LOS and delay are calculated based on the procedures and methodology contained in the HCM 2010 (Transportation Research Board 2010).

Source: Fehr & Peers 2018

While the City of Roseville’s LOS policy does not mention unsignalized intersections, the City of Roseville requested that several unsignalized intersections near the SAP area be included in the analysis. Table 4.14-8 presents the LOS results for unsignalized study intersections in the City of Roseville under existing conditions. Most City of Roseville study unsignalized intersections currently operate at LOS C or better during both peak hours, with the exception of the following three intersections, which operate at LOS D or LOS F:

- ▲ Junction Boulevard/Park Regency Drive,
- ▲ Woodcreek Oaks Boulevard/Painted Desert Drive, and
- ▲ Industrial Avenue/Alantown Drive.

Table 4.14-8 Unsignalized Intersection Operations – City of Roseville– Existing Conditions

Intersection	Traffic Control	LOS Standard	Peak Hour	Existing Conditions	
				Delay ¹	LOS
Junction Boulevard/Park Regency Drive	SSSC	C	AM PM	19 (141) 3 (23)	C (F) A (C)
Woodcreek Oaks Boulevard/Crimson Ridge Way	SSSC	C	AM PM	1 (17) 1 (14)	A (C) A (B)
Woodcreek Oaks Boulevard/Hop Scotch Way	SSSC	C	AM PM	9 (13) 6 (10)	A (B) A (A)
Woodcreek Oaks Boulevard/Northpark Drive	AWSC	C	AM PM	13 10	B A
Woodcreek Oaks Boulevard/Parkside Way	SSSC	C	AM PM	5 (14) 2 (16)	A (B) A (C)

Table 4.14-8 Unsignalized Intersection Operations – City of Roseville– Existing Conditions

Intersection	Traffic Control	LOS Standard	Peak Hour	Existing Conditions	
				Delay ¹	LOS
Woodcreek Oaks Boulevard/Painted Desert Drive	SSSC	C	AM PM	10 (99) 2 (26)	A (F) A (D)
Fiddymment Road/Parkland Way	SSSC	C	AM PM	4 (16) 2 (19)	A (C) A (C)
Industrial Avenue/Alantown Drive	SSSC	C	AM PM	5 (18) 3 (27)	A (C) A (D)

Notes: LOS = Level of Service. AWSC = All-Way Stop Control; SSSC = Side-Street Stop Control

BOLD text indicates unacceptable intersection operations.

¹ For AWSC intersections, the table reports the weighted average intersection control delay for all approaches in seconds per vehicle. For SSSC intersections, the LOS and control delay for the movement with the highest control delay is shown in parentheses next to the overall average intersection LOS and delay. Intersection LOS and delay is calculated based on the procedures and methodology contained in the HCM 2010 (Transportation Research Board 2010).

Source: Fehr & Peers 2018

City of Rocklin

Table 4.14-9 presents the LOS results for study intersections in the City of Rocklin under existing conditions. The City of Rocklin’s LOS policy applies to the p.m. peak hour. Therefore, this analysis presents the LOS results for the weekday p.m. peak hour only. Most City of Rocklin study intersections currently operate at LOS C or better during the p.m. peak hour, with the exception of the following four which operate at LOS D:

- ▲ Blue Oaks Boulevard/Lonetree Boulevard/Fairway Drive,
- ▲ Pacific Street/Sunset Boulevard,
- ▲ Park Drive/Sunset Boulevard, and
- ▲ Stanford Ranch Road/Sunset Boulevard.

Table 4.14-9 Intersection Operations – City of Rocklin – Existing Conditions

Intersection	Traffic Control	LOS Standard	Peak Hour	Existing Conditions	
				Delay ¹	LOS
Blue Oaks Boulevard/Lonetree Boulevard/Fairway Drive	Signal	C	PM	41	D
Sunset Boulevard/Lonetree Boulevard/Stanford Ranch Road	Signal	C	PM	25	C
Blue Oaks Boulevard/Sunset Boulevard	Signal	C	PM	24	C
Park Drive/Sunset Boulevard	Signal	C	PM	43	D
Stanford Ranch Road/Sunset Boulevard	Signal	C	PM	35	D
Whitney Ranch Parkway/Wildcat Boulevard	Signal	C	PM	16	B
University Avenue/Whitney Ranch Parkway	AWSC	C	PM	9	A
Sunset Boulevard/University Avenue/Atherton Drive	Signal	C	PM	20	B
Pacific St./Sunset Boulevard	Signal	C	PM	47	D
Stanford Ranch Road/Wildcat Boulevard	Signal	C	PM	17	B

Notes: LOS = Level of Service. AWSC = All-Way Stop Control

BOLD text indicates unacceptable intersection operations.

¹ For signalized and AWSC intersections, the table reports the weighted average intersection control delay for all approaches in seconds per vehicle. Intersection LOS and delay are calculated based on the procedures and methodology contained in the HCM 2010 (Transportation Research Board 2010).

Source: Fehr & Peers 2018

City of Lincoln

Table 4.14-10 presents the LOS results for study intersections in the City of Lincoln under existing conditions. Similar to Rocklin, the City of Lincoln's LOS policy applies to the weekday p.m. peak hour. Therefore, this analysis presents the LOS results for the p.m. peak hour only. All City of Lincoln study intersections currently operate at LOS C or better during the p.m. peak hour.

Table 4.14-10 Intersection Operations – City of Lincoln – Existing Conditions

Intersection	Traffic Control	LOS Standard	Peak Hour	Existing Conditions	
				Delay ¹	LOS
Joiner Parkway/Ferrari Ranch Road	Signal	C	PM	18	B
Fiddymment Road/Moore Road	AWSC	C	PM	8	A
Ferrari Ranch Road/Sorrento Parkway	AWSC	C	PM	8	A
Ferrari Ranch Road/Groveland Lane	Signal	C	PM	19	B
Industrial Avenue/Twelve Bridges Drive	AWSC	C	PM	15	B
Dowd Road/Moore Road	SSSC	C	PM	3 (9)	A (A)
Nelson Road/ Moore Road	SSSC	C	PM	4 (9)	A (A)
Lincoln Boulevard/Sterling Parkway	Signal	C	PM	8	A
Joiner Parkway/Twelve Bridges Drive	Signal	C	PM	22	C

Notes: LOS = Level of Service. AWSC = All-Way Stop Control; SSSC = Side-Street Stop Control

¹ For signalized and AWSC intersections, the table reports the weighted average intersection control delay for all approaches in seconds per vehicle. For SSSC intersections, the LOS and control delay for the movement with the highest control delay is shown in parentheses next to the overall average intersection LOS and delay. Intersection LOS and delay are calculated based on the procedures and methodology contained in the HCM 2010 (Transportation Research Board 2010).

Source: Fehr & Peers 2018

Sutter County

Table 4.14-11 presents the LOS results for study intersections in Sutter County under existing conditions. Both Sutter County study intersections currently operate at LOS F during both peak hours.

- ▲ Pleasant Grove Road (North)/Baseline Road, and
- ▲ Pleasant Grove Road (South)/Baseline Road.

Table 4.14-11 Intersection Operations – Sutter County– Existing Conditions

Intersection	Traffic Control	LOS Standard	Peak Hour	Existing Conditions	
				Delay ¹	LOS
Pleasant Grove Road N./Baseline Road	AWSC	D	AM	51	F
			PM	39	F
Pleasant Grove Road S./Baseline Road	AWSC	D	AM	53	F
			PM	45	F

Notes: LOS = Level of Service. AWSC = All-Way Stop Control

BOLD text indicates unacceptable intersection operations.

¹ For AWSC intersections, the table reports the weighted average intersection control delay for all approaches in seconds per vehicle. Intersection LOS and delay is calculated based on the procedures and methodology contained in the HCM 2010 (Transportation Research Board 2010).

Source: Fehr & Peers 2018

Sacramento County

Table 4.14-12 presents the LOS results for study intersections in Sacramento County under existing conditions. As noted in the methodology section above, the analysis of intersections in Sacramento County uses the Circular 212 methodology, which determines LOS based on the volume-to-capacity ratio of critical turning movements. Therefore, the volume-to-capacity ratio is presented instead of control delay. All Sacramento County study intersections currently operate at LOS D or better during both peak hours.

Table 4.14-12 Intersection Operations – Sacramento County- Existing Conditions

Intersection	Traffic Control	LOS Standard	Peak Hour	Existing Conditions	
				V/C ¹	LOS
Watt Avenue/Elverta Road	Signal	E	AM	0.43	A
			PM	0.45	A
Walerga Road/Elverta Road	Signal	E	AM	0.69	B
			PM	0.69	B
Watt Avenue/Antelope Road	Signal	E	AM	0.68	B
			PM	0.70	C
Walerga Road/Antelope Road	Signal	E	AM	0.65	B
			PM	0.74	C
Watt Avenue/Elkhorn Boulevard	Signal	E	AM	0.65	B
			PM	0.60	A
Walerga Road/Elkhorn Boulevard	Signal	E	AM	0.63	B
			PM	0.89	D

Notes: LOS = Level of Service.

¹ The table reports the overall intersection v/c ratio for signalized intersections. Intersection LOS and v/c ratio is calculated based on the procedures and methodology contained in the Transportation Research Board Circular No. 212 – Interim Materials on Highway Capacity (Transportation Research Board 1980).

Source: Fehr & Peers 2018

Caltrans

Table 4.14-13 presents the LOS results for study intersections under Caltrans jurisdiction under existing conditions. Eleven of the Caltrans intersections are in Roseville and five are in Rocklin. While these intersections are under Caltrans jurisdiction, the City of Roseville and City of Rocklin apply their LOS C policy to these intersections. This is consistent with Caltrans *District System Management and Development Plan*, which allows local agencies to set a higher LOS threshold standard than the Caltrans minimum acceptable LOS identified in Caltrans Transportation Concept Reports (TCR). Therefore, these intersections are analyzed with an LOS C standard instead of Caltrans LOS E standard identified in the SR 65 TCR. All Caltrans study intersections currently operate at LOS C or better during both peak hours except the following two intersections, which operate at LOS D and are located in Roseville:

- ▲ Blue Oaks Boulevard/Washington Boulevard, and
- ▲ Eureka Road/Taylor Road/I-80 EB Off-Ramp.

Table 4.14-13 Intersection Operations – Caltrans – Existing Conditions

Intersection	Traffic Control	LOS Standard ¹	Peak Hour	Existing Conditions	
				Delay ²	LOS
Blue Oaks Boulevard/Washington Boulevard	Signal	C	AM PM	36 42	D D
Douglas Boulevard/I-80 EB Ramps	Signal	C	AM PM	5 6	A A
Douglas Boulevard/I-80 WB Off-Ramp	Signal	C	AM PM	28 26	C C
Atlantic St./I-80 WB On-Ramp	Signal	C	AM PM	9 8	A A
Pleasant Grove Boulevard/SR 65 NB Off-Ramp	Signal	C	AM PM	19 19	B B
Pleasant Grove Boulevard/SR 65 SB Off-Ramp	Signal	C	AM PM	12 15	B B
I-80 WB Off-Ramp/Riverside Avenue	Signal	C	AM PM	10 6	B A
SR 65 NB On-Ramp/Stanford Ranch Road	Signal	C	AM PM	9 31	A C
SR 65 SB On-Ramp/Galleria Boulevard	Signal	C	AM PM	6 23	A C
Eureka Road/Taylor Road/I-80 EB Off-Ramp	Signal	C	AM PM	29 51	C D
I-80 EB Off-Ramp/Orlando Avenue/Riverside Avenue	Signal	C	AM PM	22 27	C C
Twelve Bridges Boulevard/SR 65 SB Ramps	Signal	E	AM PM	10 7	A A
Twelve Bridges Boulevard/SR 65 NB Ramps	Signal	E	AM PM	5 7	A A
Whitney Ranch Parkway/SR 65 SB Ramps	Free	C	AM PM	0 0	A A
Whitney Ranch Parkway/SR 65 NB Ramps	SSSC	C	AM PM	0 (11) 0 (9)	A (B) A (A)
Sunset Boulevard/SR 65 SB Ramps	Signal	C	AM PM	8 7	A A
Sunset Boulevard/SR 65 NB Ramps	Signal	C	AM PM	11 8	B A
Blue Oaks Boulevard/SR 65 NB Ramps	Signal	C	AM PM	8 11	A B
Riego Road/SR 99 SB Ramps	Signal	D	AM PM	8 8	A A
Riego Road/SR 99 NB Ramps	Signal	D	AM PM	5 6	A A
SR 65/Nelson Lane	Signal	E	AM PM	22 20	C C
Ferrari Ranch Road/SR 65 SB Ramps	Signal	E	AM PM	4 4	A A
Ferrari Ranch Road/SR 65 NB Ramps	Signal	E	AM PM	9 10	A A

Table 4.14-13 Intersection Operations – Caltrans – Existing Conditions

Intersection	Traffic Control	LOS Standard ¹	Peak Hour	Existing Conditions	
				Delay ²	LOS
Lincoln Boulevard/SR 65 SB On-Ramp	Signal	E	AM	6	A
			PM	6	A
Lincoln Boulevard/SR 65 NB Off-Ramp	Signal	E	AM	3	A
			PM	3	A

Notes: LOS = Level of Service, SSSC = Side-Street Stop Control

BOLD text indicates unacceptable intersection operations.

¹ For Caltrans intersections located in the City of Roseville, this study applies the City of Roseville’s LOS C standard instead of Caltrans LOS E standard.

² For signalized intersections, the table reports the weighted average intersection control delay for all approaches in seconds per vehicle. For SSSC intersections, the LOS and control delay for the movement with the highest control delay is shown in parentheses next to the overall average intersection LOS and delay. Intersection LOS and delay is calculated based on the procedures and methodology contained in the HCM 2010 (Transportation Research Board 2010).

Source: Fehr & Peers 2018

Existing Freeway Operations

Table 4.14-14 presents the a.m. and p.m. peak hour operations at study freeway facilities. The following freeway facilities currently operate unacceptably at LOS F during the a.m. and/or p.m. peak hours:

- ▲ SR 65 Northbound: I-80 to Galleria Boulevard,
- ▲ SR 65 Northbound: Galleria Boulevard off-ramp,
- ▲ SR 65 Northbound: Galleria Boulevard on-ramp,
- ▲ SR 65 Northbound: Pleasant Grove Boulevard off-ramp,
- ▲ SR 65 Southbound: Blue Oaks Boulevard to Pleasant Grove Boulevard,
- ▲ SR 65 Southbound: Pleasant Grove Boulevard loop on-ramp,
- ▲ SR 65 Southbound: Pleasant Grove Boulevard slip on-ramp,
- ▲ I-80 Eastbound: SR 65 Northbound off-ramp, and
- ▲ I-80 Westbound: SR 65 Northbound off-ramp.

Table 4.14-14 Freeway Operations – Existing Conditions

Freeway Segment	Segment Type	Peak Hour	Existing Conditions	
			Density ¹	LOS
SR 65 Northbound				
I-80 to Galleria Boulevard	Basic	AM	-	F
		PM	-	F ²
Galleria Boulevard Off-Ramp	Diverge	AM	-	F
		PM	-	F
Galleria Boulevard On-Ramp	Merge	AM	-	F
		PM	39	E
Pleasant Grove Boulevard Off-Ramp	Diverge	AM	-	F
		PM	-	F
Pleasant Grove Boulevard On to Blue Oaks Boulevard Off-Ramp	Weave	AM	N/A	D
		PM	N/A	D
Blue Oaks Boulevard Loop On-Ramp	Merge	AM	28	D
		PM	31	D

Table 4.14-14 Freeway Operations – Existing Conditions

Freeway Segment	Segment Type	Peak Hour	Existing Conditions	
			Density ¹	LOS
Blue Oaks Boulevard On to Sunset Boulevard Off-Ramp	Basic	AM	25	C
		PM	29	D
Sunset Boulevard Off-Ramp	Diverge	AM	19	B
		PM	22	C
Sunset Boulevard Loop On-Ramp	Merge	AM	15	B
		PM	27	C
Sunset Boulevard Slip On-Ramp	Merge	AM	14	B
		PM	28	C
Whitney Ranch Parkway Slip Off-Ramp	Diverge	AM	18	B
		PM	33	D
Whitney Ranch Parkway Slip On-Ramp	Merge	AM	18	B
		PM	32	D
Whitney Ranch Parkway to Twelve Bridges Road	Basic	AM	14	B
		PM	29	D
Twelve Bridges Drive Off-Ramp	Diverge	AM	18	B
		PM	34	D
Twelve Bridges Drive On-Ramp to Lincoln Boulevard Off-Ramp	Weave	AM	N/A	A
		PM	N/A	C
Lincoln Boulevard Off-Ramp to Lane Add	Basic	AM	9	A
		PM	18	B
SR 65 Southbound				
Lane Drop to Lincoln Boulevard On-Ramp	Basic	AM	17	B
		PM	10	A
Lincoln Boulevard On-Ramp to Twelve Bridges Drive Off-Ramp	Weave	AM	N/A	C
		PM	N/A	B
Twelve Bridges Drive Loop On-Ramp	Merge	AM	27	C
		PM	20	B
Twelve Bridges Drive to Whitney Ranch Parkway	Basic	AM	24	C
		PM	17	C
Whitney Ranch Parkway Loop On-Ramp	Merge	AM	31	D
		PM	22	C
Sunset Boulevard Off-Ramp	Diverge	AM	21	C
		PM	11	B
Sunset Boulevard Loop On-Ramp	Merge	AM	25	C
		PM	23	C
Sunset Boulevard Slip On-Ramp	Merge	AM	21	C
		PM	22	C
Sunset Boulevard Slip On-Ramp to Blue Oaks Boulevard Off-Ramp	Basic	AM	25	C
		PM	26	C
Blue Oaks Boulevard Off-Ramp	Diverge	AM	30	D
		PM	31	D
Blue Oaks Boulevard Loop On-Ramp	Merge	AM	25	C
		PM	26	C

Table 4.14-14 Freeway Operations – Existing Conditions

Freeway Segment	Segment Type	Peak Hour	Existing Conditions	
			Density ¹	LOS
Blue Oaks Boulevard On to Pleasant Grove Off	Weave ²	AM PM	N/A N/A	F ³ F ³
Pleasant Grove Boulevard Loop On-Ramp	Merge	AM PM	- -	F ³ F ³
Pleasant Grove Boulevard Slip On-Ramp	Merge	AM PM	- -	F ³ F ³
Galleria Boulevard Off-Ramp	Diverge	AM PM	37 38	E E
Galleria Boulevard On-Ramp	Merge	AM PM	23 28	C D
Galleria Boulevard to I-80	Basic	AM PM	21 25	C C
I-80 Eastbound				
Eureka Road On-Ramp to Taylor Road Off-Ramp	Weave	AM PM	N/A N/A	B D
Taylor Road to SR 65	Basic	AM PM	19 31	C D
SR 65 NB Off-Ramp	Diverge	AM PM	34 -	D F
SR 65 SB On-Ramp	Merge	AM PM	23 37	C E
SR 65 SB On-Ramp to Lane Drop	Basic	AM PM	13 25	B C
Lane Drop to Rocklin Road	Basic	AM PM	18 38	B E
I-80 Westbound				
Rocklin Road to SR 65 NB Off-Ramp	Basic	AM PM	28 20	D C
SR 65 NB Off-Ramp	Diverge	AM PM	22 -	C F ⁴
SR 65 SB On-Ramp & Taylor Road On-Ramp to Atlantic St. Off-Ramp	Weave	AM PM	N/A N/A	C B

Notes: LOS = Level of Service.

BOLD text indicates unacceptable freeway segment operations.

“-” = density is not reported for segments that operate at LOS F.

N/A = not applicable because density is not calculated for weave segments using the Leisch method.

- The table reports segment density in passenger car equivalents per mile per lane (pcpmpl), which is calculated based on the procedures and methodology contained in the HCM 2010 (Transportation Research Board 2010).
- Field observations reveal that recurring congestion at the I-80 WB on-ramp onto SR 65 NB and SR 65 NB off-ramp to Galleria Boulevard/Stanford Ranch Road causes traffic on SR 65 NB to queue back, resulting in unserved vehicular queues. Therefore, the results are shown as LOS F.
- Field observations reveal that recurring congestion at the Pleasant Grove Boulevard loop on-ramp and slip on-ramp merges onto SR 65 SB and the SR 65 SB off-ramp to Galleria Boulevard/Stanford Ranch Road causes traffic on SR 65 SB to queue back, resulting in unserved vehicular queues. Therefore, the results are shown as LOS F.
- Field observations reveal that recurring congestion at the I-80 WB on-ramp merge onto SR 65 NB causes traffic on the SR 65 NB to queue back to I-80 EB, resulting in unserved vehicular queues. Therefore, results are shown as LOS F.

Source: Fehr & Peers 2018

Existing Freeway Off-Ramp Queuing

Table 4.14-15 presents the a.m. and p.m. peak hour 95th percentile queues on freeway off-ramps. Table 4.14-15 also shows the off-ramp lengths, which are estimated by measuring the distance from the gore point where the off-ramp departs from the freeway mainline to the limit line at the ramp terminal intersection with the local street. The off-ramp length is defined as the storage capacity for off-ramp queuing. As shown, all study freeway off-ramps currently have sufficient storage for existing queues.

Table 4.14-15 Peak Hour Freeway Off-Ramp Queuing – Existing Conditions

Freeway Off-Ramp	Ramp Length ¹	95 th Percentile Queue	
		AM Peak Hour	PM Peak Hour
SR 65 NB Off-Ramp at Pleasant Grove Boulevard	1,575 feet	125 feet	225 feet ³
SR 65 NB Off-Ramp at Blue Oaks Boulevard (East)	2,000 feet	125 feet	275 feet
SR 65 NB Off-Ramp at Sunset Boulevard	1,475 feet	300 feet	75 feet
SR 65 NB Off-Ramp at Whitney Ranch Parkway	1,300 feet	25 feet	25 feet
SR 65 NB Off-Ramp at Twelve Bridges Drive	1,550 feet	50 feet	125 feet
SR 65 NB Off-Ramp at Lincoln Boulevard	2,100 feet	25 feet	25 feet
SR 65 NB Off-Ramp at Ferrari Ranch Road	1,625 feet	100 feet	125 feet
SR 65 SB Off-Ramp at Ferrari Ranch Road	1,550 feet	50 feet	75 feet
SR 65 SB Off-Ramp at Twelve Bridges Drive	1,525 feet	250 feet	75 feet
SR 65 SB Off-Ramp at Sunset Boulevard	1,500 feet	275 feet	100 feet
SR 65 SB Off-Ramp at Blue Oaks Boulevard	2,250 feet	150 feet	200 feet ³
SR 65 SB Off-Ramp at Pleasant Grove Boulevard	1,600 feet	175 feet	300 feet ³
SR 65 SB Off-Ramp at Galleria Boulevard (SB)	1,875 feet	150 feet	275 feet ³
I-80 EB Off-Ramp at Auburn Boulevard/Riverside Avenue	1,625 feet	125 feet	225 feet ³
I-80 EB Off-Ramp at Douglas Boulevard (WB)	1,150 feet	200 feet	100 feet
I-80 EB Off-Ramp at Eureka Road	1,725 feet	350 feet	325 feet ³
I-80 WB Off-Ramp at Douglas Boulevard	1,550 feet	775 feet	725 feet
I-80 WB Off-Ramp at Riverside Avenue	1,325 feet	225 feet	200 feet ³

Notes:

- ¹ The ramp length is estimated by measuring the distance from the gore point where the off-ramp departs from the mainline to the limit line at the ramp terminal intersection with the local street, as measured from aerial imagery. Distance is reported in feet.
- ² 95th Percentile Queue calculated using Synchro software, unless otherwise noted. Queue is reported in feet and rounded up to the nearest 25-foot interval.
- ³ Maximum queue, as calculated using the average of 10 SimTraffic microsimulation runs, reported instead of the 95th percentile queue calculated by Synchro.

Source: Fehr & Peers 2018

VEHICLE MILES OF TRAVEL

VMT is a measure of transportation network use. It is directly related to fuel consumption and is routinely used as an input for estimating air pollution emissions, greenhouse gases, and energy consumption for environmental impact purposes.

The transportation and traffic analysis includes VMT estimates prepared for the air quality, greenhouse gas, and energy sections of this report. The analysis uses the SACOG SACMET travel forecasting model as well as the Placer County travel forecasting model to estimate VMT. The travel forecasting model is divided into

travel analysis zones to represent specific geographic areas in the SACOG region. This study reports the VMT generated by the travel analysis zones that correspond to the project.

The VMT presented in this report is a “full accounting” of the trips to and from the project, tracking the lengths of trips from their origin to their destination. It does not include any trips that only pass through the SAP area or do not start or end in the SAP area (external-to-external trips).

This study also evaluates the project’s effect on VMT by calculating the VMT for the West Placer region both with and without the project. For purposes of this study, the West Placer region is defined as the cities of Lincoln, Rocklin, Roseville, and Loomis as well as the unincorporated county west of Folsom Lake and Newcastle, south of the Bear River, and east of Sutter County. The analysis uses residential population and non-residential employment data inputs for the SACMET travel forecasting model to calculate VMT per service population (total residents and employees).

Table 4.14-16 presents the existing daily VMT per service population estimate for the SAP area and West Placer County.

Table 4.14-16 Sunset Area & West Placer VMT per Service Population – Existing Conditions

Geography	Service Population ¹	Daily VMT	Daily VMT per Service Population
Sunset Area	6,312	466,763	73.95
West Placer County	368,503	9,478,392	25.72

Notes: ¹ Service population = residential population + employment + university students; based on data from SACOG’s SACMET travel forecasting model.

Source: Fehr & Peers 2018

TRANSIT SYSTEM

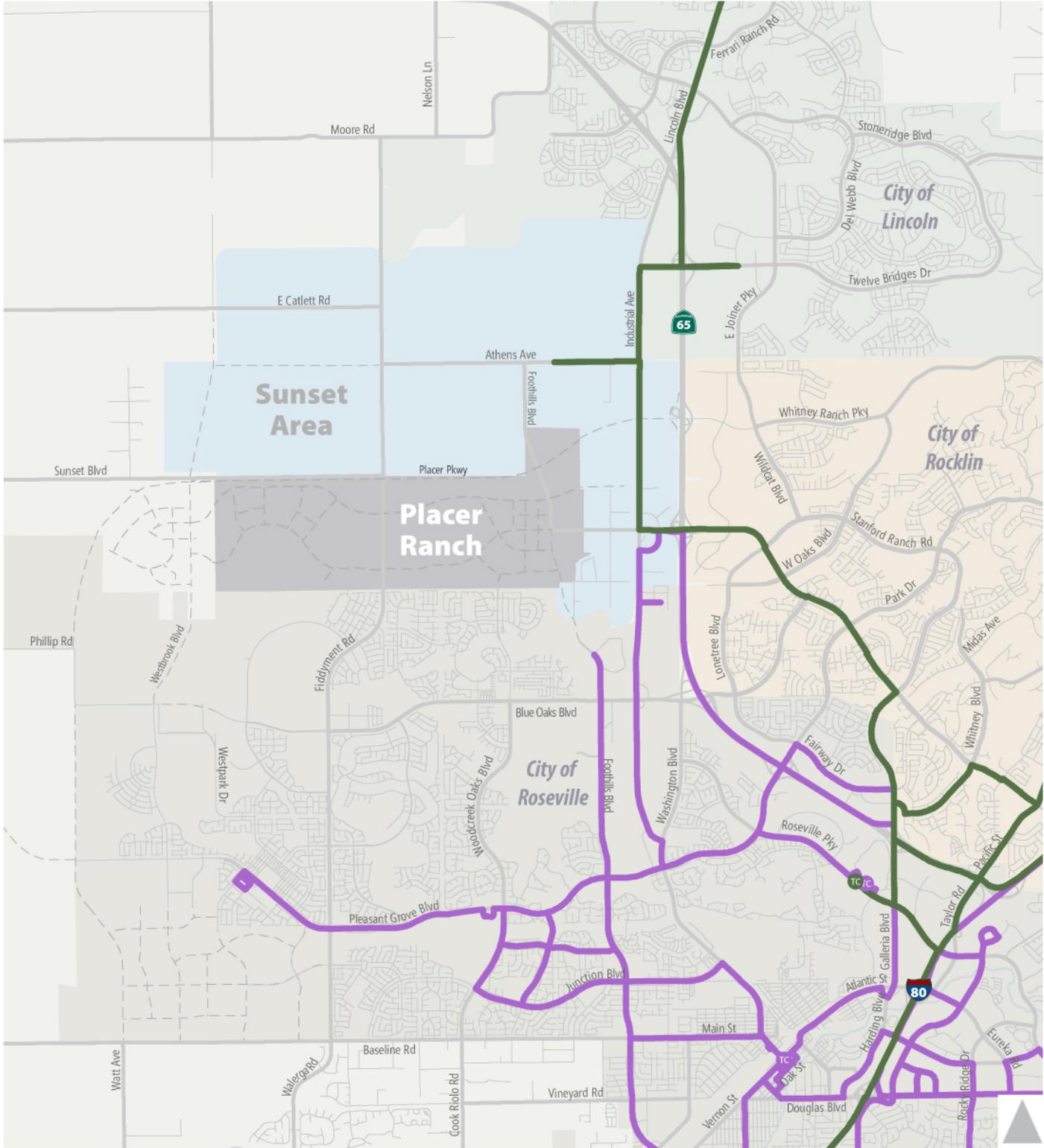
Local transit service within the study area is provided by Placer County Transit and Roseville Transit. Existing transit service is limited given the current lack of development within the study area. Placer County Transit provides service along Industrial Avenue north to Athens Avenue at Thunder Valley Casino. Roseville Transit only serves the southeastern corner of the Sunset Area along Industrial Avenue, South Loop Road, and Sunset Boulevard. No existing transit service is offered within one-half mile of the PRSP area.

Exhibit 4.14-4 displays the existing transit service offered within the study area.

BICYCLE AND PEDESTRIAN SYSTEM

Existing bicycle and pedestrian infrastructure is confined to developed areas surrounding the Sunset Area, which include developed areas of Roseville and Rocklin to the south and east, respectively. Due to a lack of existing development within the Sunset Area, no bicycle and pedestrian facilities currently exist.

Exhibit 4.14-5 shows the existing bicycle and trail facilities within the study area.



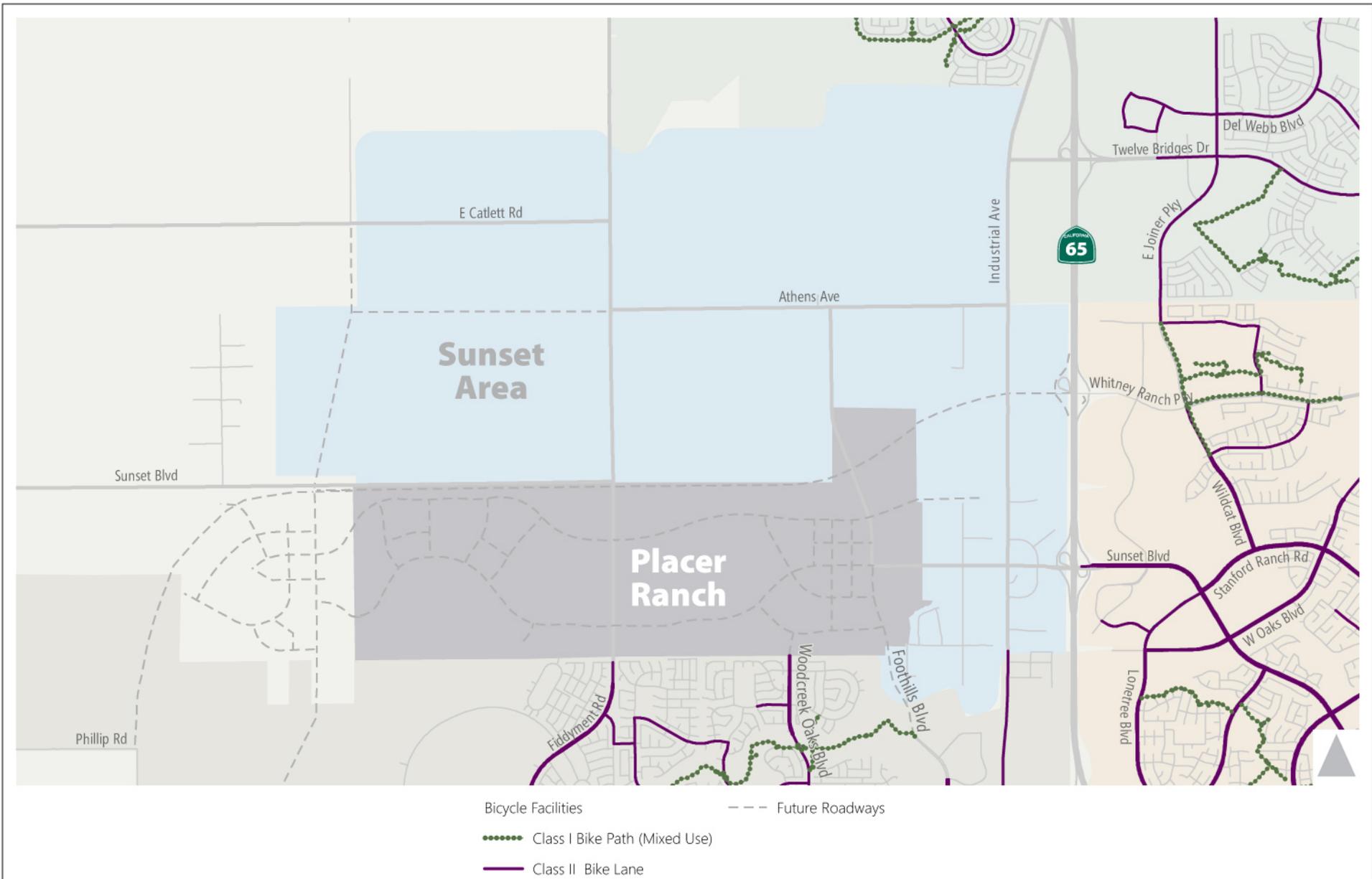
- TC Roseville Transit Center
- TC Placer County Transit Center
- Roseville Transit Route
- Placer County Transit Route
- - - Future Roadways

Source: Image provided by Fehr & Peers in 2018

Exhibit 4.14-4

Existing Transit Facilities





Source: Image provided by Fehr & Peers in 2018

X16010076 01 052

Exhibit 4.14-5

Existing Bicycle Facilities



4.14.3 Regulatory Setting

FEDERAL PLANS, POLICIES, REGULATIONS, AND LAWS

There are no federal laws or regulations that are relevant to potential transportation impacts of the proposed project.

STATE PLANS, POLICIES, REGULATIONS, AND LAWS

Caltrans has primary responsibility for the state highway system in California. This includes the study area's regional freeways and highways, including I-80 and SR 65. As such, the following Caltrans (District 3) planning and policy documents provide guidance on expectations for these routes related to traffic operations relevant to this analysis and the potential effects of the proposed project.

District System Management and Development Plan

The *District System Management and Development Plan* (Caltrans 2013a) sets forth the long-term (20-year) policy direction for Caltrans - District 3 related to system maintenance, system completion, and congestion relief. The plan emphasizes that much of the state highway system was built many years ago and is reaching the end of its expected useful life. The plan also supports complete streets development, but only includes performance expectations related to vehicle travel. In the plan, Caltrans accepts that traffic congestion is a normal part of urban and sometimes even rural travel and is often a reflection of a vibrant local economy. Caltrans also acknowledges that it is not practical, desirable, or possible to build sufficient highway capacity to eliminate all traffic congestion, but that congestion does need to be managed and minimized. The plan identifies priority congestion relief projects that make targeted operational improvements at traffic bottlenecks and other problem locations. This includes a bus/carpool lane network in the Sacramento region freeways to maximize the number of people traveling in a corridor while minimizing the number of vehicles. Priority congestion relief projects for study area freeways include:

- ▲ bus/carpool lanes on SR 65 from Galleria Boulevard to Industrial Avenue (i.e., Lincoln Boulevard), and
- ▲ installing ramp meters on SR 65 and I-80.

The plan outlines the transportation planning policies that guide how District 3 evaluates existing and future transportation systems within the District. This includes performance measures and threshold standards for evaluating the degree of congestion and determine the needed system improvements. The plan acknowledges that the "Concept LOS" and "Concept Facility" in Caltrans TCRs are typically used to identify the minimum level of operations acceptable for each route segment. The plan notes that the typical Concept LOS standards in District 3 are LOS D in rural areas and LOS E in urban areas, although the TCR for each state route may set final thresholds. Furthermore, local agencies may set a higher LOS standard consistent with community wishes and other local concerns.

The document notes that once facilities worsen to LOS F, it becomes difficult to measure further degradation to any degree of accuracy. Therefore, other performance measures can be used to define thresholds for system planning and CEQA purposes. These include: vehicle travel time, vehicle hours of delay (VHD), travel reliability (i.e., the degree of variation in travel time due to congestion and non-recurring events), and lost productivity (i.e., ability of corridor to deliver travelers/good movement). The document mentions the need to develop thresholds of significance (but does not include any) to use these measures for defining significant impacts for facilities not operating at the Concept LOS.

Transportation Concept Report, Interstate 80

The *Transportation Concept Report, Interstate 80* (Caltrans 2017b) documents existing operations on I-80 at LOS E and LOS F within the study area. The report also indicates a Concept LOS E for this corridor. The Concept LOS represents the minimum acceptable service conditions over the next 20 years. Per the *District System Management and Development Plan* described above, the Concept LOS is used as the LOS

threshold standard for I-80. The I-80 TCR identifies improvements at the I-80/SR 65 interchange as programmed to occur between 2021-2036.

Transportation Concept Report, State Route 65

The *Transportation Concept Report, State Route 65* (Caltrans 2017c) documents existing operations on SR 65 at LOS F south of Blue Oaks Boulevard and LOS D from Nelson Lane to Blue Oaks Boulevard within the study area. The report also indicates a Concept LOS E for this corridor through the entire study area. As noted above, this Concept LOS is used as the LOS threshold standard for SR 65. The SR 65 TCR identifies improvements at the I-80/SR 65 interchange as programmed to occur between 2021-2036. It also identifies the SR 65 Capacity & Operational Improvements as programmed with proposed completion in 2020.

Transportation Concept Report, State Route 99

The *Transportation Concept Report, State Route 99* (Caltrans 2017d) documents existing operations on SR 99 at LOS D from I-5 to the Sacramento-Sutter County line and LOS C north of the Sutter County line. The report also indicates a Concept LOS D in Sutter County.

The LOS data presented in the TCRs identified above are based on daily volume-to-capacity comparisons and do not necessarily consider specific operational characteristics (e.g., length of weave sections, peak hour factors, etc.) within the I-80, SR 65, and SR 99 corridors. Nevertheless, these data are valuable in understanding Caltrans' expectations of their current and projected operating performance.

Caltrans District 3 State Highway Bicycle Facility Plan

The *Caltrans District 3 State Highway Bicycle Facility Plan* (Caltrans 2013b) identifies the vision for bicycle use of State Highways as well as a detailed inventory of existing facilities and needed improvements. The plan notes that bicycle facilities are generally not appropriate in areas with limited access and high vehicular speeds, such as urban freeways. Both I-80 and SR 65 meet this definition in the study area. In these cases, the plan notes that Caltrans consults with local governments to identify alternative routes to segments closed to bicycles.

Senate Bill 743

Senate Bill 743, passed in 2013, requires the California Governor's Office of Planning and Research (OPR) to develop new CEQA guidelines that address traffic metrics under CEQA. As stated in the Legislation, upon adoption of the new guidelines, "automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment pursuant to this division, except in locations specifically identified in the guidelines, if any." OPR is currently updating its CEQA Guidelines to implement SB 743 and is proposing that VMT be the primary metric used in identifying transportation impacts for CEQA analyses.

REGIONAL PLANS AND PROGRAMS

SACOG is responsible for the preparation of, and updates to, the 2016 MTP/SCS (SACOG 2016) and the corresponding Metropolitan Transportation Improvement Program for the six-county Sacramento region. The MTP/SCS provides a 20-year transportation vision and corresponding list of projects. The Metropolitan Transportation Improvement Program identifies short-term projects (7-year horizon) in more detail. The current MTP/SCS was adopted by the SACOG board in 2016 and has a horizon year of 2036.

LOCAL PLANS, POLICIES, REGULATIONS, AND LAWS

Placer County

Placer County General Plan

The *Placer County General Plan* (Placer County 2013) provides long-range direction and policies for the use of land within Placer County. With regard to the transportation and circulation system serving the project,

this document establishes an overall roadway system including a roadway functional classification system and designates a series of transit corridors generally along I-80 and SR 65. In addition, six modal goals are presented, each of which is supported by numerous policies and implementation programs. For the purposes of this DEIR, the goals and policies of this document are used in developing the impact significance criteria.

Placer County has established minimum acceptable LOS thresholds for roadways and intersections in the *Placer County General Plan*. Policy 3.A.7 establishes the following LOS thresholds.

- ▲ **Policy 3.A.7:** The County shall develop and maintain its roadway system to maintain the following minimum levels of service (LOS), or as otherwise specified in a community or specific plan).
 - a) LOS “C” on rural roadways, except within one-half mile of state highways where the standard shall be LOS “D.”
 - b) LOS “C” on urban/suburban roadways except within one-half mile of state highways where the standard shall be LOS “D.”
 - c) An LOS no worse than specified in the Placer County Congestion Management Program (CMP) for the state highway system.

Policy 3.A.7 permits the County to allow temporary slippage from LOS C at specific locations until adequate funding has been collected for the construction of programmed improvements. Further, the County may grant exceptions to these LOS standards where it finds that the improvements or other measures required to achieve the LOS standards are unacceptable based on established criteria. In allowing any exceptions to the standards, the County shall consider the following factors:

- ▲ The number of hours per day that the intersection or roadway segment would operate at conditions worse than the standard.
- ▲ The ability of the required improvement to significantly reduce peak hour delay and improve traffic operations.
- ▲ The right-of-way needs and the physical impacts on surrounding properties.
- ▲ The visual aesthetics of the required improvement and its impact on community identity and character.
- ▲ Environmental impacts including air quality and noise impacts.
- ▲ Construction and right-of-way acquisition costs.
- ▲ The impacts on general safety.
- ▲ The impacts of the required construction phasing and traffic maintenance.
- ▲ The impacts on quality of life as perceived by residents.
- ▲ Consideration of other environmental, social, or economic factors on which the County may base findings to allow an exceedance of the standards.

Exceptions to the standards will be allowed only after all feasible measures and options are explored, including alternative forms of transportation.

Dry Creek/West Placer Community Plan

Several of the study intersections are located within the Dry Creek/West Placer Community Plan. The Transportation and Circulation Element for the Dry Creek/West Placer Community Plan was updated in July 2011 to account for the effects of proposed and approved developments.

As noted above, Policy 3.A.7 in the Placer County General Plan (2013) allows community plans or specific plans to establish their own LOS thresholds within plan boundaries. In light of this, the Transportation and Circulation Element for the Dry Creek/West Placer Community Plan establishes a LOS standard for the Dry Creek/West Placer Community Plan as described in Goal 6 and Policy 9 below.

GOAL 6: The Capital Improvement Program (CIP) shall be sufficient to maintain LOS D on the Community Plan area roadway network – given the projected buildout of the Community Plan area and implementation of the CIP, except for the following arterial roadways, roadway segments, and intersections that will operate at the listed LOS when fully improved.

Arterial Roadways

- ▲ Baseline Road – Sutter County Line to Walerga Road/Fiddymont Road: LOS E
- ▲ Watt Avenue – Sacramento County Line to Baseline Road: LOS F

Roadway Segments

- ▲ Cook-Riolo Road – Vineyard Road to Baseline Road: LOS E
- ▲ Cook-Riolo Road – PFE Road to Vineyard Road: LOS F
- ▲ N. Antelope Road – PFE Road to Sacramento County Line: LOS E
- ▲ PFE Road – Cook-Riolo Road to N. Antelope Road: LOS F
- ▲ Vineyard Road – Cook-Riolo Road to Foothills Blvd: LOS F

Intersections

- ▲ Baseline Road / Watt Avenue: LOS F
- ▲ Baseline Road / Walerga Road / Fiddymont Road: LOS F
- ▲ PFE Road/Cook-Riolo Road: LOS F
- ▲ PFE Road/Walerga Road: LOS F
- ▲ PFE Road/Antelope Road: LOS F

Based on this LOS policy, roadway improvements in the Community Plan area would have an adverse impact if the following were to occur.

- ▲ The LOS would worsen from acceptable A, B, C, D, or E (for the selected locations identified above) to unacceptable E or F.
- ▲ Any worsening of LOS E or F conditions as measured by increased v/c ratio of 0.05 for roadways and signalized intersections or by increased delay of 5 seconds for unsignalized intersections.
- ▲ **Policy 9:** The LOS on roadways and intersections identified in the Capital Improvement Program (CIP) shall be at LOS D. Specific exceptions to this standard will be roadways and intersections that shall be LOS E or F as defined by Goal 6.

Sunset Industrial Area Plan

The SIA Plan, adopted in 1997, refines and implements the goals and policies of the Placer County General Plan for the SIA. The proposed SAP analyzed in this Draft EIR would update and supersede the current SIA Plan. However, for purposes of this analysis, the goals and policies in the SIA Plan currently apply until the proposed SAP is adopted.

Policy 2.B.1 in the Transportation & Circulation Section of the SIA Plan establishes the following LOS standard for the SIA Plan.

- ▲ **Policy 2.B.1:** Maintain a level “C” service standard on Plan Area roadways. Exceptions to level of service “C” will be allowed at locations within one-half mile of state highways where the standard shall be level of service “D.” Other exceptions may be appropriate on a case-by-case basis where specific factors shall be considered (see Policy 3.A.7 in the *Countywide General Plan – Policy Document*).

Placer County Impact Analysis Methodology of Assessment

The *Placer County Impact Analysis Methodology of Assessment* memorandum (Placer County 2015) identifies the general procedures for traffic impact analyses in the county. The Placer County Department of Public Works and Facilities (DPWF) prepared the memorandum to ensure that project associated mitigation(s) are proportionate to the level of impact a specific project has on an intersection or roadway. This Draft EIR uses the traffic impact assessment criteria outlined in the *Impact Analysis Methodology of Assessment* memorandum in assessing the significance of project traffic impacts for Placer County facilities.

Placer County Regional Bikeway Plan

The *Placer County General Plan* calls for the development of a comprehensive bikeway system that would provide connections between the major urban areas of the county, with linkages to bikeway systems in other jurisdictions. The County adopted the *Placer County Regional Bikeway Plan* in 2002 to provide guidelines for the development of a countywide network of bicycle facilities and design standards (based on Caltrans standards) for new bicycle facilities. The *Placer County Regional Bikeway Plan* was adopted by the Board of Supervisors in October 2018.

City of Roseville

Roseville General Plan

The *City of Roseville General Plan 2035* (City of Roseville 2016) serves as a long-term policy guide for the physical, economic, and environmental growth of Roseville. With regard to the transportation and circulation system, the General Plan presents five modal topics – Functional Classification, Level of Service, Transit, Transportation Systems Management, and Bikeways/Trails – each of which is supported by goals, policies, and implementation measures. For the purposes of this Draft EIR, the goals and policies of this document are used in developing the impact significance criteria.

The *City of Roseville General Plan 2035* includes the following goal and policy related to transportation and circulation that are relevant to this analysis.

Level of Service GOAL 1: Maintain an adequate level of transportation service for all of Roseville’s residents and employees through a balanced transportation system, which considers automobiles, transit, bicyclists, and pedestrians.

- ▲
Level of Service Policy 1: Maintain a level of service (LOS) “C” standard at a minimum of 70 percent of all signalized intersections and roadway segments in the City during the p.m. peak hours. Exceptions to the LOS “C” standard may be considered for intersections where the City finds that the required improvements are unacceptable based on established criteria identified in the implementation measures. In addition, Pedestrian Districts may be exempted from the LOS standard.

The Implementation Measures for this policy notes that the City strives to maintain LOS C at all locations during the weekday a.m. and p.m. peak hours.

City of Rocklin

Rocklin General Plan

The *City of Rocklin General Plan* (City of Rocklin 2012) is Rocklin’s comprehensive and long-term plan for the physical development of the city. The Circulation Element of the General Plan provides a description of existing streets, highways, transit services, bicycle/pedestrian facilities, and other transportation services and facilities within the city. It also provides a plan for future transportation, transit, and bicycle/pedestrian facilities necessary to accommodate and serve the development envisioned in the General Plan Land Use Element.

The Circulation Element also contains goals and policies for the performance of the transportation system. Policy C-10 in the *City of Rocklin General Plan* establishes the following LOS standard for City of Rocklin intersections.

▲ Policy C-10:

- a) Maintain a minimum traffic Level of Service “C” for all signalized intersections during the PM peak hour on an average weekday, except in the circumstances described in C-10.B and C. below.
- b) Recognizing that some signalized intersections within the City serve and are impacted by development located in adjacent jurisdictions, and that these impacts are outside the control of the City, a development project which is determined to result in a Level of Service worse than “C” may be approved, if the approving body finds (1) the diminished level of service is an interim situation which will be alleviated by the implementation of planned improvements or (2) based on the specific circumstances described in Section C. below, there are no feasible street improvements that will improve the Level of Service to “C” or better as set forward in the Action Plan for the Circulation Element.
- c) All development in another jurisdiction outside of Rocklin’s control which creates traffic impacts in Rocklin should be required to construct all mitigation necessary in order to maintain a LOS C in Rocklin unless the mitigation is determined to be infeasible by the Rocklin City Council. The standard for determining the feasibility of the mitigation would be whether or not the improvements create unusual economic, legal, social, technological, physical or other similar burdens and considerations.”

City of Lincoln

Lincoln General Plan

The *City of Lincoln General Plan* (City of Lincoln 2008) contains the goals and policies to guide future development within the city and its Planning Area. It also identifies a full set of implementation measures that will ensure policies of the General Plan are carried out. The Transportation and Circulation Element of the Lincoln General Plan identifies goals, policies, and implementation measures needed to ensure an adequate and functional transportation and circulation system. This includes automobile travel, public transit, aviation, and trails for bicyclists and pedestrians.

The Transportation and Circulation Element also contains goals and policies for the performance of the transportation system. Policy T-2.3 in the *City of Lincoln General Plan* establishes the following LOS standard for City of Lincoln intersections.

- #### ▲ Policy T-2.3:
- Strive to maintain a LOS C at all signalized intersections in the City during the p.m. peak hours. Exceptions to this standard may be considered for intersections where the city determines that the required road improvements are not acceptable (i.e., due to factors such as the cost of improvements exceeding benefits achieved, results are contrary to achieving a pedestrian design, or other factors) or that based upon overriding considerations regarding project benefits, an alternative LOS may be accepted. For purposes of this policy, City intersections along McBean Park Drive between East Avenue and G Street, and G Street between First Street and Seventh Street, are excluded from the LOS C standard, and will operate at a lower LOS.

Sutter County

Sutter County General Plan

The *Sutter County General Plan* (Sutter County 2011) presents a vision for development in the county through 2030 and beyond. The Mobility chapter of the Sutter County General Plan identifies a transportation system designed to support the Land Use Diagram for the General Plan’s horizon year of 2030, which includes planned future roadway widenings and changes to roadway functional classifications in the unincorporated county. It also includes a discussion of transit, freight, bikeways, and pedestrian facilities.

Sutter County has established minimum acceptable LOS standards for roadways and intersections in the *Sutter County General Plan*. Policy M-2.5 establishes the following LOS standard.

- ▲ **Policy M-2.5:** Develop and manage the County roadway segments and intersections to maintain LOS D or better during peak hour, and LOS C or better at all other times. Adjust for seasonality. These standards shall apply to all County roadway segments and intersections, unless otherwise addressed in an adopted specific plan or community plan.

Sacramento County

Sacramento County General Plan

The *Sacramento County General Plan of 2005-2030* (Sacramento County 2011) is a guide for growth and development in the unincorporated county through 2030 and beyond. The Circulation Element of the Sacramento County General Plan was recently amended in September 2017 and provides the framework for Sacramento County decisions concerning the countywide transportation system. The Circulation Element includes a discussion of multiple modes of transportation, including personal vehicles, transit, bikeways, pedestrian facilities, rail transportation, and air transportation.

Sacramento County has established minimum acceptable LOS standards for roadways and intersections in the *Sacramento County General Plan*. Policy CI-9 establishes the following LOS standard.

- ▲ **Policy CI-9:** Plan and design the roadway system in a manner that meets Level of Service (LOS) D on rural roadways and LOS E on urban roadways, unless it is infeasible to implement project alternatives or mitigation measures that would achieve LOS D on rural roadways or LOS E on urban roadways. The urban areas are those areas within the Urban Service Boundary as shown in the Land Use Element of the Sacramento County General Plan. The areas outside the Urban Service Boundary are considered rural.

All Sacramento County study intersections contained in this Draft EIR are within the Urban Service Boundary; therefore, the analysis applies a LOS E standard.

4.14.4 Analysis, Impacts, and Mitigation

STANDARDS OF SIGNIFICANCE

This analysis uses significance criteria based on the applicable policies contained in the general plans for Placer County, Roseville, Rocklin, Lincoln, Sutter County, and Sacramento County. The significance criteria also consider the *Placer County Impact Analysis Methodology of Assessment* memorandum (Placer County 2015), standards in Caltrans planning documents, criteria used in previously adopted environmental documents, professional judgment, and example criteria provided in the CEQA Guidelines Appendix G. These criteria are used to assess project specific effects as well as the evaluation of cumulative impacts.

The proposed project would result in a significant impact related to transportation and circulation if it would:

Roadway System

Placer County

1. Cause a signalized intersection or roadway in Placer County (located outside the Dry Creek Community Plan or beyond one-half mile of a state highway) to worsen from LOS C or better to LOS D or worse during the a.m. or p.m. peak hours (for intersections) or on a daily basis (for roadways).
2. Cause an unsignalized intersection in Placer County (located outside the Dry Creek Community Plan or beyond one-half mile of a state highway) to worsen from LOS C or better to LOS D or worse during the a.m. or p.m. peak hours and cause the intersection to meet the California Manual on Uniform Traffic Control Devices (MUTCD) peak hour traffic signal warrant.

3. Cause a signalized intersection or roadway in Placer County (located within the Dry Creek Community Plan or one-half mile of a state highway) to worsen from LOS D or better to LOS E or worse during the a.m. or p.m. peak hours (for intersections) or on a daily basis (for roadways).
4. Cause an unsignalized intersection or roadway in Placer County (located within the Dry Creek Community Plan or one-half mile of a state highway) to worsen from LOS D or better to LOS E or worse during the a.m. or p.m. peak hours and cause the intersection to meet the MUTCD peak hour traffic signal warrant.
5. Cause a signalized intersection in Placer County that is already (or projected to be) operating at an unacceptable LOS during the a.m. or p.m. peak hours to experience an increase in the overall average intersection delay of 4 seconds or greater.
6. If the PFE Road / Walerga Road intersection is already operating at LOS F during the a.m. or p.m. peak hours when fully improved (i.e., under cumulative conditions), cause it to experience an increase in the overall average intersection delay of 4 seconds or greater.
7. Cause a roadway in Placer County that is already (or projected to be) operating at an unacceptable LOS on a daily basis to experience an increase in v/c ratio of 0.05 or greater.
8. Increase the average daily traffic (ADT) volume by 100 or more project generated trips per lane on a roadway segment in Placer County that is currently (or projected to be) operating at an unacceptable LOS on a daily basis.
9. Cause an unsignalized intersection in Placer County that is already (or projected to be) operating unacceptably during the a.m. or p.m. peak hours and meets the MUTCD peak hour traffic signal warrant to experience a 2.5-second or greater increase in delay.

City of Roseville

1. Cause a signalized intersection in Roseville to be degraded as follows under existing or 2036 Cumulative Conditions during the a.m. or p.m. peak hours:
 - a. For intersections currently operating at LOS C or better: worsen operations to LOS D or worse.
 - b. For intersections that currently operate at less than LOS C: cause operations to further worsen by one or more service levels.
 - c. For intersections that currently operate at LOS F: cause intersection delay to worsen by 12.5 seconds or greater.
2. Cause the overall percentage of signalized intersections throughout the City of Roseville operating at LOS C or better during the a.m. and p.m. peak hours to fall below 70 percent.
3. Cause an unsignalized intersection in Roseville to be degraded as follows under existing or 2036 Cumulative Conditions during the a.m. or p.m. peak hours:
 - a. For intersections currently operating at LOS C or better: worsen operations to LOS D or worse and meet the MUTCD peak hour signal warrant.
 - b. For intersections that currently operate at less than LOS C: cause operations to further worsen by one or more service levels and meet the MUTCD peak hour signal warrant.
 - c. For intersections that currently operate at LOS F: cause intersection delay to worsen by 12.5 seconds or greater and meet the MUTCD peak hour signal warrant.

The above City of Roseville criteria are also applied to Caltrans intersections located in the City of Roseville.

City of Rocklin

1. Cause a signalized intersection in Rocklin to worsen from LOS C or better to LOS D or worse during the p.m. peak hour.
2. Cause a signalized intersection in Rocklin that is already (or projected to be) operating at LOS D or worse during the p.m. peak hour to experience a 5-second or greater increase in delay.

The above City of Rocklin criteria are also applied to Caltrans intersections located in or adjacent to the City of Rocklin.

City of Lincoln

1. Cause a signalized or unsignalized intersection in Lincoln to worsen from LOS C or better to LOS D or worse during the p.m. peak hour.
2. Cause a signalized or unsignalized intersection in Lincoln that is already (or projected to be) operating at LOS D or worse during the p.m. peak hour to experience a 5-second or greater increase in delay.

Sutter County

1. Cause an intersection in Sutter County to worsen from LOS D or better to LOS E or worse during the a.m. or p.m. peak hours.
2. Cause an intersection in Sutter County that is already (or projected to be) operating unacceptably during the a.m. or p.m. peak hours to experience a 5-second or greater increase in delay.

Sacramento County

1. Cause an intersection in Sacramento County to worsen from LOS E or better to LOS F during the a.m. or p.m. peak hours.
2. Cause an intersection in Sacramento County that is already (or projected to be) operating unacceptably during the a.m. or p.m. peak hours to experience a 0.05 or greater increase in v/c ratio.

Caltrans

The following standards do not specify the specific standards for each of the freeway segments. Please refer to the Regulatory Setting discussion above for the detailed standards.

1. Cause a facility maintained by Caltrans to worsen from acceptable to unacceptable operations during the a.m. or p.m. peak hours.
2. Worsen unacceptable operations to a significant degree (as indicated by a change in the applicable performance measure) at a facility maintained by Caltrans during the a.m. or p.m. peak hours.
3. For freeway facilities already operating at LOS F, cause an increase in peak hour volume equivalent to 20 vehicles per hour per travel lane (i.e., two travel lanes = 40 vehicles per hour).
4. Cause traffic at an off-ramp maintained by Caltrans to queue back to the mainline, or add traffic to an off-ramp that already queues back to the mainline.

Transit System

1. Create demand for public transit service above that which is provided or planned.
2. Disrupt existing public transit services or facilities.
3. Interfere with planned public transit services or facilities.

Bicycle/Pedestrian System

1. Disrupt or interfere with existing or planned bicycle/pedestrian facilities.
2. Create an inconsistency with policies related to bicycle or pedestrian systems set forth in a general plan or other adopted policy document.

ANALYSIS METHODOLOGY

This section begins by describing the aspects of the proposed project that are relevant to the analysis of transportation and circulation effects. It presents the project’s trip generating land uses and circulation improvements. It then describes the methods used to analyze expected transportation conditions associated with implementation of the proposed project.

Project Trip Generation and Transportation Improvements

The following provides information on the proposed trip generating land uses and circulation improvements for the SAP and PRSP.

Proposed Land Uses

The land use inputs for the proposed project are based on a combination of two sources:

- ▲ PRSP Specific Plan Preliminary Public Review Draft (Placer County 2018a) and
- ▲ Sunset Industrial Area Land Use Phasing (EPS 2017).

Table 3-4 in Chapter 3, “Project Description,” identifies the proposed land uses for the 2,213-acre PRSP area. Table 4.14-17 presents the proposed land uses in the remaining 5,888 acres of the SAP area. Table 4.14-18 summarizes the total land use inputs for the entire 8,101-acre SAP area.

Land Use Designation	Acres	Floor Area/Units
General Commercial	34.2	218,900 SF
Entertainment Mixed Use ¹	516.8	-
Medium Density Residential		375 DUs
Non-Residential Entertainment Mixed Use		3,061,600 SF
Business Park	147.3	929,600 SF
Innovation Center ²	1,244.7	-
High Density Residential		2,083 DUs
Non-Residential Innovation Center		11,998,500 SF
Eco-Industrial	927.4	7,916,600 SF
Light Industrial	749.9	3,525,300 SF
Public Facility	6.3	-
Preserve/Mitigation Reserve	1,943.4	-
Urban Reserve	320.4	-

Notes: DU = dwelling units; SF = square feet

¹ Entertainment Mixed Use is anticipated to include some medium density residential development, per the Sunset Industrial Area Land Use Phasing

² Innovation Center is anticipated to include some high density residential development, per the Sunset Industrial Area Land Use Phasing

Source: EPS 2017

Table 4.14-18 Proposed Project Land Use Summary¹

Land Use Type	PRSP Area	Net SAP Area	Total SAP Area
Single-Family Residential ²	3,096 DUs	375 DUs	3,471 DUs
Age-Restricted Residential	720 DUs	-	720 DUs
Multi-Family Residential ³	2,011 DUs	2,083 DUs	4,094 DUs
Retail ⁴	2,162.3 ksf	218.9 ksf	2,381.2 ksf
Office ⁵	1,232.2 ksf	929.6 ksf	2,161.8 ksf
Industrial ⁶	1,609.1 ksf	11,411.9 ksf	13,051.0 ksf
Innovation Center/R&D ⁷	1,340.9 ksf	11,998.5 ksf	13,339.4 ksf
Entertainment Mixed Use	-	3,061.6 ksf	3,061.6 ksf
University	30,000 students	-	30,000 students
Schools	32.0 acres	-	32.0 acres
Public Facilities	9.9 acres	6.3 acres	16.2 acres
Parks, Open Space, & Reserve	324.2 acres	2,263.8 acres	2,588.0 acres

Notes: DU = dwelling units; ksf = thousand square feet

¹ Note that the land uses in this table reflect the previous PRSP land use plan. See discussion in the Introduction above regarding the relationship of this traffic analysis to the previous and current PRSP land use plans.

² Per the project proponent, all medium-density residential uses are assumed to be single-family (versus multi-family) so as to provide a conservative analysis and to offer enhanced environmental clearance for greater flexibility of product types.

³ All high-density residential uses are assumed to be multi-family residential.

⁴ All commercial uses (General Commercial, commercial components of Commercial Mixed Use and Campus Park) assumes a highest trip-generating condition of 100% retail space.

⁵ Office uses include office components of Commercial Mixed Use and Campus Park in the PRSP area and Business Park in the net SAP area.

⁶ Industrial uses include light industrial and warehouse components of Campus Park in the PRSP area and light industrial and eco-industrial land uses in the net SAP area.

⁷ Innovation Center/Research & Development includes the Research & Development component of Campus Park in the PRSP area and Innovation Center in the net SAP area.

Sources: Placer County 2018a, 2018b

Proposed Roadway Access

Access to the PRSP area would be provided via the following existing streets:

- ▲ Sunset Boulevard easterly to SR 65,
- ▲ Fiddymont Road southerly into the City of Roseville,
- ▲ Fiddymont Road northerly toward Athens Avenue,
- ▲ Foothills Boulevard North northerly toward Athens Avenue, and
- ▲ Woodcreek Oaks Boulevard southerly into the City of Roseville.

Outside of the PRSP area, the following existing roadways would provide access to the net SAP area:

- ▲ Twelve Bridges Drive easterly to SR 65 via Industrial Avenue,
- ▲ Industrial Avenue northerly toward Twelve Bridges Drive and Lincoln Boulevard,
- ▲ Industrial Avenue southerly toward the City of Roseville,
- ▲ Catlett Road westerly toward Sutter County,
- ▲ Sunset Boulevard West westerly toward Sutter County, and
- ▲ Fiddymont Road northerly toward Moore Road.

Proposed Transportation Improvements

Within the PRSP area, the following roadway changes would occur:

- ▲ Sunset Boulevard would be widened to six lanes east of Foothills Boulevard North and would be extended westerly as a four-lane arterial to Fiddymont Road and as a two-lane arterial west of Fiddymont Road.

- ▲ Fiddymment Road would be widened to six lanes within the PRSP area.
- ▲ Foothills Boulevard North would be widened to six lanes from the PRSP boundary between Athens Avenue and the Placer Parkway alignment to the southern edge of the PRSP area.

The PRSP also proposes to construct several new arterial streets, including Campus Park Boulevard, University Village Drive, Maple Park Drive, and College Park Drive. Woodcreek Oaks Boulevard would be extended northerly from its current terminus at the Roseville city limits into the PRSP area and its new terminus at College Park Drive. Exhibit 4.14-6 displays the proposed roadway network within the PRSP area.

In addition to the roadway widening proposed in the PRSP, the SAP proposes to widen the following existing roadways in the net SAP area:

- ▲ Athens Avenue would be widened to four lanes from Fiddymment Road Foothills Boulevard North and widened to six lanes from Foothills Boulevard North to Industrial Avenue.
- ▲ Fiddymment Road would be widened to four lanes from Placer Parkway northerly to the SAP boundary.
- ▲ Foothills Boulevard North would be widened to six lanes from Athens Avenue southerly through the PRSP area.
- ▲ Sunset Boulevard would be widened to six lanes from Foothills Boulevard North to SR 65.
- ▲ Industrial Avenue would be widened to four lanes from Athens Avenue southerly to the City of Roseville city limits.

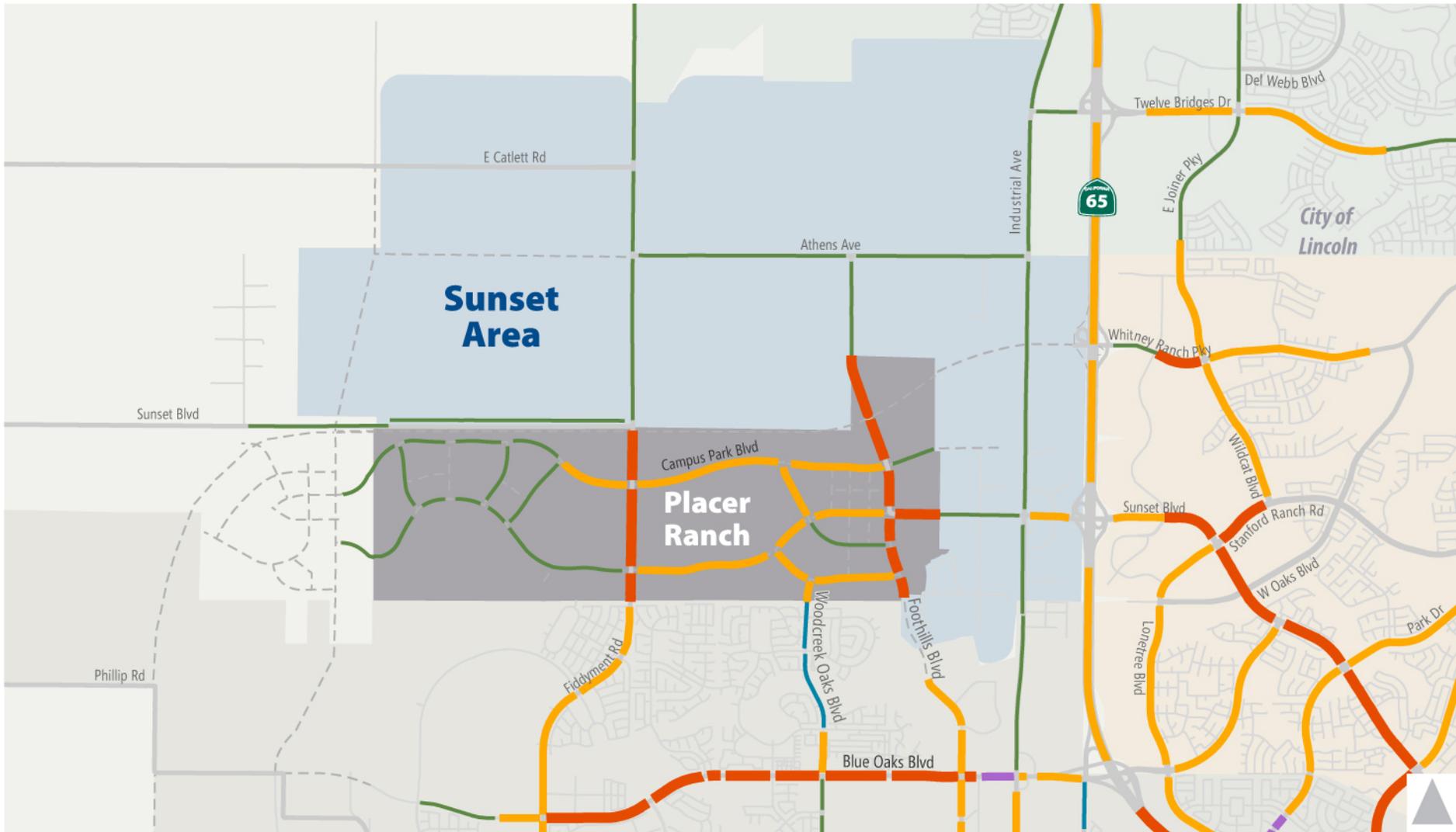
In addition, Dowd Road would be extended southerly to Sunset Boulevard West as a four-lane arterial, where it would meet the Westbrook Boulevard alignment. Exhibit 4.14-7 displays the proposed roadway network for the SAP.

Bikeway, Pedestrian, and Transit Improvements

In addition to the roadway network improvements described above, the PRSP proposes a bicycle and pedestrian system that includes of a network of shared-use paths that link the university site at the center of the Specific Plan with the neighborhoods, Campus Park, University Town Center, and recreational hubs in the community. (Shared-use paths are called Class I multi-use trails in the Traffic Study, included as Appendix M.) Class II bike lanes are incorporated on all arterial and collector roadways. This network of bikeways and trails would connect to existing Class II bike lanes on Fiddymment Road and Woodcreek Oaks Boulevard leading into the PRSP area from the City of Roseville.

Sidewalks are also included along all public streets. Along major roadways, sidewalks serve as shared use paths and the sidewalks are generally 10 feet wide, with wider 12-foot-wide sidewalks adjacent to the university site. These wide sidewalks are a key component of both pedestrian and bicycle mobility within the specific plan area and would serve pedestrian and bicycle travel demand within the PRSP area.

Bus pull-outs and shelters are planned at frequent locations along arterial streets throughout the PRSP area, including Campus Park Boulevard, Sunset Boulevard, Fiddymment Road, and Foothills Boulevard. A future Placer County Transit Master Plan for the area will determine where transit routes will be established to serve the PRSP area. In addition, a future bus rapid transit (BRT) route is proposed to provide an express bus service through the PRSP area and western Placer County. The South Placer Regional Transportation Authority has identified several potential routes for BRT service, which includes an east-west connection through the PRSP area. Conceptually, BRT would operate on arterial streets in the PRSP, such as Foothills Boulevard, Campus Park Boulevard, and Placer Parkway. BRT service would connect the net SAP and PRSP areas to transit hubs in the region, including light rail facilities in Sacramento County, as well as provide service to downtown Sacramento employment centers.



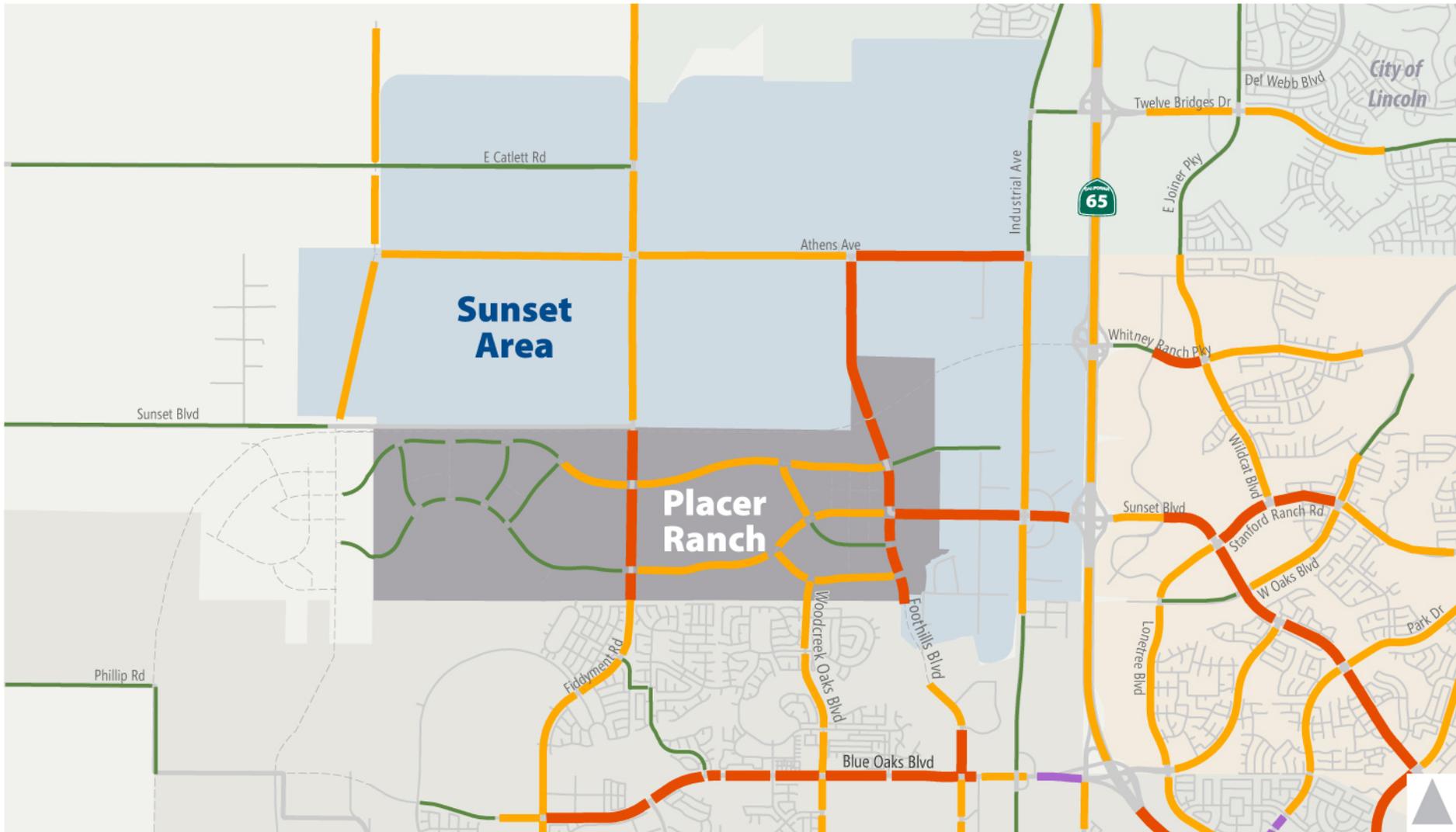
Source: Image provided by Fehr & Peers in 2018

X16010076 01 053

Exhibit 4.14-6

Placer Ranch Specific Plan Roadway Network





Source: Image provided by Fehr & Peers in 2018

Exhibit 4.14-7



The SAP proposes a bicycle and pedestrian system that includes a network of shared-use paths and Class II on-street bike lanes that link employment-supporting uses with residential development in South Placer County. shared-use paths are proposed along major vehicular routes along Foothills Boulevard and Fiddymment Road, and along segments of Athens Avenue. Class II bike lanes should be incorporated on all arterial and collector roadways, including Foothills Boulevard, Athens Avenue, Industrial Avenue, Fiddymment Road, and Dowd Road. This network of bikeways and trails would connect to existing Class II bike lanes on Fiddymment Road and Woodcreek Oaks Boulevard leading into the PRSP area to/from the City of Roseville, and to existing Class II bike lanes on Twelve Bridges Drive in the City of Lincoln.

The Sunset Area is currently served by Roseville Transit's "S" line and the Placer County Transportation's Lincoln/Sierra College bus route along Industrial Boulevard and SR 65. Existing Roseville Transit lines "S," "M," and "R" will be extended/expanded to serve the Sunset Area west of SR 65. All major employment centers within the SAP area will include bus stops. Additionally, a BRT line is proposed within the SAP area to provide service to regional employment centers and transit hubs. This BRT route would provide transit connectivity through the PRSP and net SAP areas, and along Placer Parkway and Foothills Boulevard.

Proposed Sunset Area Plan Goals and Policies

GOAL TM-1: Roadways and Traffic: To develop a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways for safe and convenient travel.

- ▲ **Policy TM-1.1: Complete Street Design.** The County shall require the design of all arterial, collector, and local streets in the Sunset Area to address the needs of all potential users and all modes of travel within the street right-of-way. This will include the following:

 - a) Sidewalks and curbs to ensure pedestrian convenience, comfort, and safety.
 - b) Off-street, separated shared-use pathways and on-street Class II Bike Lanes to accommodate the needs of both commuter and recreational cyclists.
 - c) Transit accessibility and transit priority to enhance the convenience and efficiency of transit services.
 - d) Shade trees and planting strips to add to the comfort of users and to enhance the aesthetic appeal of streets.
- ▲ **Policy TM-1.2: Level of Service.** The County shall maintain a level of service (LOS) E standard at major intersections within the Plan Area, as defined by the Department of Public Works and Facilities. The major roadways within the Plan Area (Figure 2-1 Circulation Diagram) are planned to operate acceptably and further analysis will not be required except on a case-by-case basis where specific factors will be considered (e.g. proposed rezone). Analysis shall conform to the Placer County Transportation Impact Analysis Guidelines.
- ▲ **Policy TM-1.3: Level of Service Coordination.** The County shall coordinate with neighboring jurisdictions to plan for acceptable and compatible levels of service on roadway facilities that connect the Sunset Area with adjacent areas.
- ▲ **Policy TM-1.4: Vehicle Miles Traveled.** Consistent with SB 743, the County shall use vehicle miles traveled (VMT) to evaluate the transportation impacts of new development proposals, in accordance with the adoption timelines defined in SB 743. Required traffic impact analysis may also consider the total number of trips generated and the resulting impact on traffic volumes and congestion (e.g., LOS), but VMT shall provide the basis for determining appropriate mitigation measures to meet CEQA requirements. Analysis shall conform to the Placer County Transportation Impact Analysis Guidelines.
- ▲ **Policy TM-1.5: Capital Improvement Funding.** The County shall provide for sufficient capital improvements to meet the target for vehicle miles traveled (VMT) and greenhouse gas reductions.

- ▲ **Policy TM-1.6: Right-of-Way Preservation.** The County shall preserve right-of-way for all transportation and circulation facilities depicted on the Sunset Area Plan Circulation Diagram (Figure 2-1) and described in Table 2-1. As appropriate, this will include requiring development projects to dedicate property.
- ▲ **Policy TM-1.7: Internal Street Connectivity.** The County shall require large private developments (e.g., office parks, apartment complexes, retail centers) to provide internal streets and parking lots that connect to the existing public roadway system at County-approved locations and provide a seamless transition to existing and planned transportation facilities.
- ▲ **Policy TM-1.8: Network Connectivity/Continuity.** The County shall coordinate with the cities of Roseville, Rocklin, and Lincoln and the Placer County Transportation Planning Agency to ensure that arterial and collector roads are designed to provide connections between the Sunset Area and adjacent areas. This will include establishing parallel facilities that provide alternatives to relying on regional facilities (i.e., SR 65, Placer Parkway) for local trips.
- ▲ **Policy TM-1.9: Additional Traffic Impact Mitigation.** The County shall require applicants for land development projects to demonstrate consistency with the land use assumptions of the EIR for this Plan. For projects that exceed these assumptions, the County will require additional traffic analysis and mitigation of impacts identified in the analysis. Mitigation could include contribution to funding of transportation system improvement (e.g., traffic fees, VMT fees) and/or dedication of right-of-way for future improvements.
- ▲ **Policy TM-1.10: Transportation Systems Management Programs.** The County shall promote the use of transportation systems management (TSM) programs directed at increasing the efficiency of the transportation system. This includes the requirement that proposed development projects meet the County's trip reduction ordinance (TRO), which is aimed at increasing average vehicle occupancy and promoting use of transit and active transportation.
- ▲ **Policy TM-1.11: Autonomous Vehicle Technology.** The County shall monitor the development of autonomous vehicle technology, actively participate in regional discussions regarding the potential effects of autonomous vehicles, and consider the impacts of this new technology on signage, speed limits, signal timing, and roadway design standards within the Sunset Area.

GOAL TM-2: Active Transportation: To support bicycling and walking in the Sunset Area by providing safe and convenient routes and facilities.

- ▲ **Policy TM-2.1: Transportation Facility Design.** With the exception of limited access expressways (e.g., Placer Parkway), the County shall require the design of all future roads, bridges, and facilities to accommodate bicycle and pedestrian travel, with a preference for shared-use paths.
- ▲ **Policy TM-2.2: New Development Connectivity.** The County shall require new development to include a system of sidewalks, trails, and bikeways that link all land uses, provide accessibility to parks and schools, and connect to all existing and planned external street and trail facilities. Land use and development applications will need to demonstrate how proposed facilities will connect with the major connector nodes and corridor trails, as depicted in Figure 2-3(of the SAP).
- ▲ **Policy TM-2.3: Pedestrian and Bicycle Safety.** The County shall require safe street and intersection crossings for bicyclists and pedestrians that include traffic signals, signal timing to enable safe crossings, enhanced crosswalk facilities with painted and textured and/or raised surfaces, pedestrian and bike activated signals, pedestrian refuge islands and medians, and intersection crossing guidelines consistent with the Americans with Disabilities Act.
- ▲ **Policy TM-2.4: Supportive Land Uses.** The County shall encourage land use types and forms that facilitate the use of alternate modes of transportation, multi-modal facilities, and the development of complete streets.

- ▲ **Policy TM-2.5: Bicycle Parking.** The County shall require safe and convenient bicycle parking for all new or modified public and private developments and businesses.
- ▲ **Policy TM-2.6: End of Trip Facilities.** The County shall encourage incorporation of cycling-friendly facilities such as showers, secure weather-protected bike lockers, storage lockers for other gear, and changing spaces for all new for all new or modified public and private developments and businesses.
- ▲ **Policy TM-2.7: Regional Connectivity.** The County shall work to promote and facilitate bicycle and pedestrian connections between the Sunset Area networks and the active transportation networks of nearby communities. This will include connecting existing facilities in adjacent areas with new facilities in the Sunset Area.
- ▲ **Policy TM-2.8: Grant Funding.** The County shall identify regional, State, and Federal funding programs and secure funding for pedestrian and bicycle facilities and programs, if possible.
- ▲ **Policy TM-2.9: Placer Parkway Grade Separations.** With implementation of Placer Parkway, the County shall pursue funding opportunities to ensure provision of grade separations across Placer Parkway to accommodate bicycle and pedestrian facilities.

GOAL TM-3: Transit and Shared Mobility: To plan for efficient and convenient local and regional transportation services that meet the unique needs of the Sunset Area while minimizing reliance on personal automobiles.

- ▲ **Policy TM-3.1: Transit Service Planning.** The County shall collaborate with the Placer County Transportation Planning Agency to update its Long-Range Transit Master Plan to include transit service to the Sunset Area. This update would include a funding mechanism for the establishment and operation costs of transit service to the Sunset Area.
- ▲ **Policy TM-3.2: Public and Private Transportation.** The County shall encourage public- and privately-owned transit systems, such as taxicabs, ridesharing companies, employer shuttles and other micro-transit, and private bus companies, to provide additional transit services, particularly to serve special needs populations, including senior citizens and the mobility impaired.
- ▲ **Policy TM-3.3: Employer Shuttles.** The County shall encourage major employers to establish shuttle services, van pools, and other forms of micro-transit to connect with major destinations and transit hubs within the Sunset Area.

GOAL TM-4: Parking: To ensure the provision of adequate, well-located, and efficient parking for employees and customers of Sunset Area businesses, residents, and visitors.

- ▲ **Policy TM-4.1: Shared-Use Parking.** The County shall encourage shared-use parking facilities to more efficiently use parking lots.
- ▲ **Policy TM-4.2: Consolidation of Off-Street Parking.** The County shall encourage consolidation of off-street parking within mixed-use areas in the Plan area.
- ▲ **Policy TM-4.3: Credit for Off-Site Parking Requirements.** The County shall allow properties that contribute to off-site community parking facilities or transit service to be given credit for satisfying their individual parking requirements.

GOAL TM-5: Goods Movement: To encourage the safe and efficient movement of goods to support the local economy while minimizing impacts on residential neighborhoods and local traffic patterns.

- ▲ **Policy TM-5.1: Truck Routes.** The County shall maintain and update its commercial truck route map as needed to ensure the needs of Sunset Area businesses are met while minimizing potential adverse impacts to residential areas.
- ▲ **Policy TM-5.2: Encourage Trucks to Use Highways.** The County shall encourage major employers and trucking companies to maximize use of highways where they are viable alternatives to local truck routes.
- ▲ **Policy TM-5.3: Off-Peak Deliveries.** The County shall encourage business owners that depend on on-street loading to schedule deliveries during off-peak traffic periods.
- ▲ **Policy TM-5.4: Railroad Crossing Grade Separations.** To the extent possible, the County shall require the grade separation of main line railroads and major arterial streets. The County will maximize the use of available State and Federal funds for grade-separated railroad crossings and encourage railroad companies to pay their equitable share of any such projects.

Placer Ranch Specific Plan Trip Generation

PRSP vehicular trip generation was estimated using trip rates contained in the Placer County travel demand model. As shown in Table 4.14-19, PRSP would generate approximately 216,000 gross daily trips, 13,000 gross a.m. peak hour trips, and 17,000 gross p.m. peak hour trips. (It should be noted that the trip generation estimates shown in Table 4.14-19 reflect the previously proposed PRSP land use plan. As described in the memorandum prepared by Fehr & Peers, and included in Appendix P, the trip generation for the currently proposed PRSP land use plan would generate nearly 17,000 fewer daily trips than the previously proposed PRSP land use plan, and over 1,000 fewer a.m. peak hour trips, and over 1,400 fewer p.m. peak hour trips. Therefore, because the traffic analysis in this section relies on the trip generation estimates for the previously proposed PRSP land use plan, it is a conservative analysis.)

Table 4.14-19 Placer Ranch Specific Plan Trip Generation

Trip Type	Vehicle Trip Ends ¹						
	Daily ⁴	AM Peak Hour			PM Peak Hour		
		Inbound	Outbound	Total	Inbound	Outbound	Total
Gross Trips	216,399	8,454	4,594	13,048	6,870	10,059	16,929
Internal Trips ²	54,458 (25%)	1,402	1,402	2,804 (21%)	1,940	1,940	3,880 (23%)
External Trips ³	161,941 (75%)	7,052	3,192	10,244 (79%)	4,930	8,119	13,049 (77%)

Notes:

1. Percentages show project trip-end proportions that are internal versus external.
2. Internal trips consist of trips that start and end within the project site. Each internal trip has two trip ends within the project – the “outbound” trip end (i.e., origin) and “inbound” trip end (i.e., destination).
3. External trips reflect trip ends that either begin (i.e., outbound or origin of trip) or end (i.e., inbound or destination of trip) in the project.
4. Daily trips are presented in trip ends (i.e., 54,458 daily internal trip ends correspond to 27,229 internal trips).

Source: Fehr & Peers 2018

Project Traffic Forecasts

The project land uses and roadway network improvements are added to the base year version of the Placer County travel demand model to reflect existing plus project conditions. For the SAP, full buildout land uses and roadway network improvements are included in the entire plan area. For the PRSP, buildout of the PRSP, including land uses and roadway network improvements, is included, but the net SAP area is kept as is.

The Placer County travel demand model was run with these inputs to forecast the change in travel behavior at study intersections, roadways, and freeway facilities. The change in traffic between the base year version of the Placer County model and the existing plus project travel model is added to existing volumes to yield the existing plus project traffic forecasts using the following formula:

$$\text{Existing Plus Project Forecast} = \text{Existing Traffic Count} + \\ (\text{"Existing Plus Project" Raw Model Volume} - \text{Base Year Raw Model Volume})$$

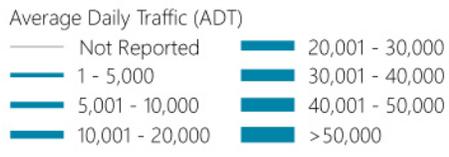
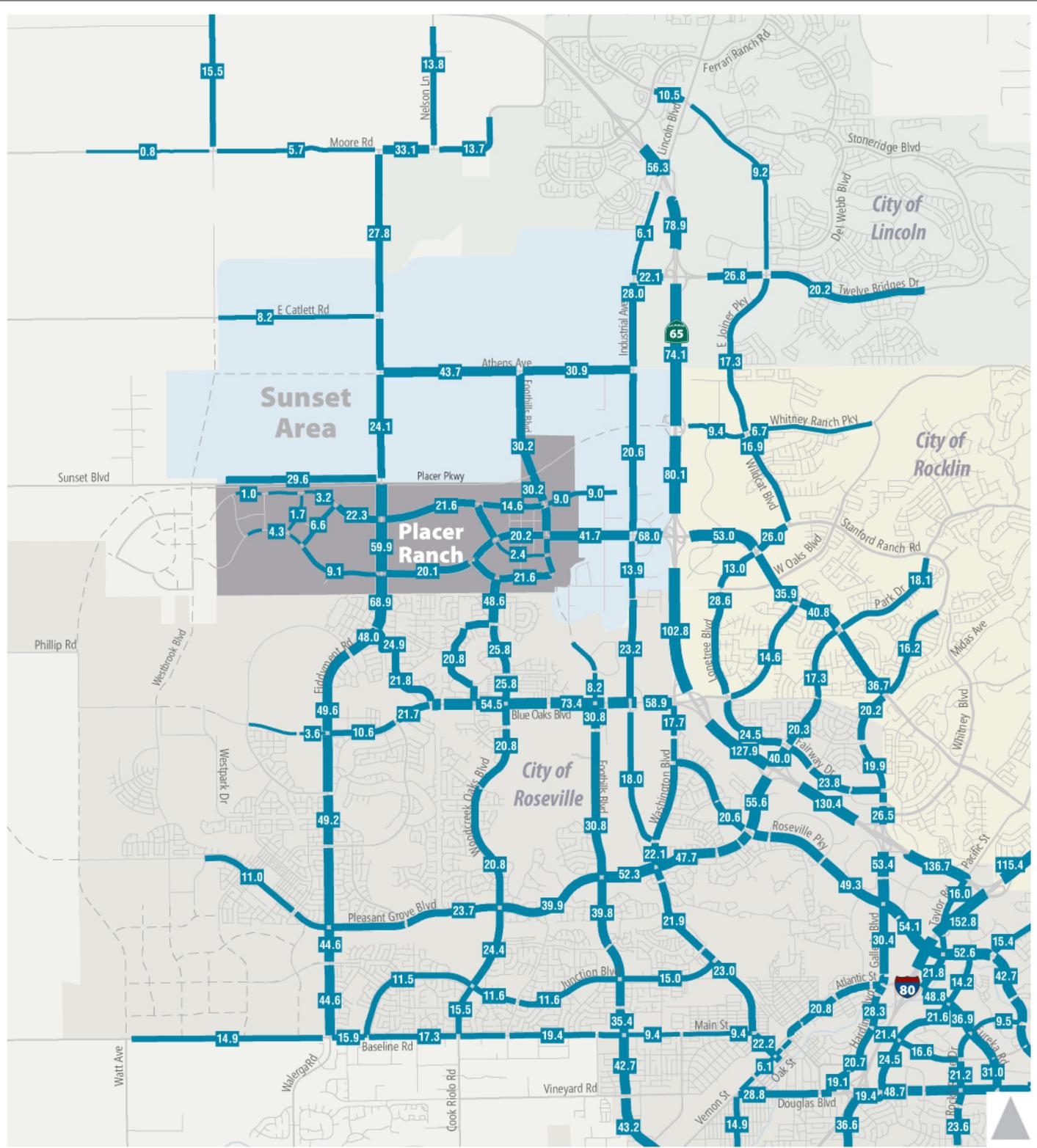
The Placer County traffic model considers the effect that the project could have on sub-regional travel patterns. Therefore, this traffic forecasting process is not a simple layering of project trips on top of existing volumes. For instance, the introduction of new retail/office within the project could cause some residents of West Roseville to shop or work in the Sunset Area, versus travel to comparable destinations elsewhere (e.g., along the SR 65 corridor). In addition, external vehicle trips added by the project to certain roadways (e.g., Sunset Boulevard) could cause a redistribution of background traffic to less busy roadways. The forecasts also consider the potential for background traffic to become redistributed in response to the new public street connection of Sunset Boulevard west to Fiddymont Road.

Existing Plus Sunset Area Plan Buildout

Exhibit 4.14-8 presents the ADT forecasts for roadways in the study area under existing plus SAP buildout conditions. Exhibit 4.14-9 displays the change in ADT on roadways in the study area between existing and existing plus SAP buildout conditions. This exhibit is analogous to a trip distribution figure. It shows the greatest increase in traffic occurring on segments of Fiddymont Road, Athens Avenue, Sunset Boulevard, Blue Oaks Boulevard east of Crocker Ranch Road, Moore Road east of Fiddymont Road, and Foothills Boulevard. Changes in traffic volumes gradually decrease on segments further from the SAP area. As described above, the redistribution of trips caused by SAP buildout results in decreases on certain roadways. For example, decreases on SR 65 north of Sunset Boulevard can be attributed to the model anticipating a shift in trips from the north traveling to shopping or employment in the Sunset Area via Nelson Lane and Fiddymont Road instead of traveling to destinations further south in Roseville and Rocklin.

Existing Plus Placer Ranch Specific Plan

Exhibit 4.14-10 presents the ADT forecasts for roadways in the study area under existing plus PRSP conditions. Exhibit 4.14-11 displays the change in ADT on roadways in the study area between existing and existing plus PRSP conditions. This exhibit is analogous to a trip distribution figure. It shows the greatest increase in traffic occurring on segments of Fiddymont Road, Sunset Boulevard, and Blue Oaks Boulevard east of Woodcreek Oaks Boulevard near PRSP. Similar to the SAP area, changes in traffic volumes gradually decrease on segments further from the PRSP area, and the redistribution of trips caused by the PRSP also results in decreases on certain roadways.



Note:
 1. All ADT volumes on map are in thousands of vehicles.
 2. Freeway ADT volumes represent two-way total.

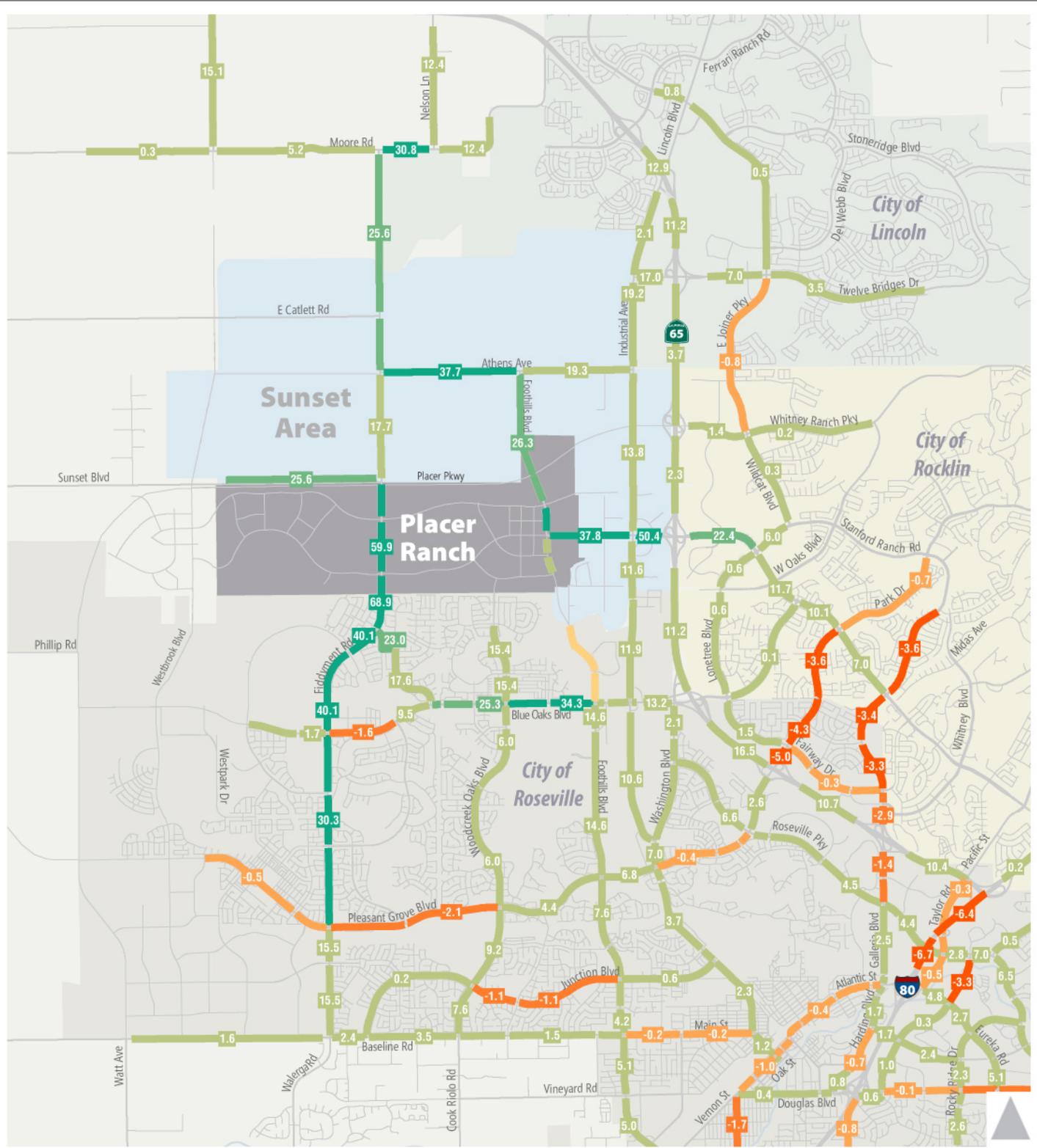
Source: Image provided by Fehr & Peers in 2018

X16010076 01 055

Exhibit 4.14-8

Average Daily Traffic – Existing Plus Project Buildout Conditions





Change in Average Daily Traffic (ADT)

— Not Reported	— No Change
— 30,001 - 68,900	— -1 - -1,000
— 20,001 - 30,000	— -1,001 - -3,000
— 1 - 20,000	— -3,001 - -6,730

Placer Ranch Specific Plan
 Sunset Area Plan

Note:

- All ADT volumes on map are in thousands of vehicles.
- Freeway ADT volumes represent two-way total.

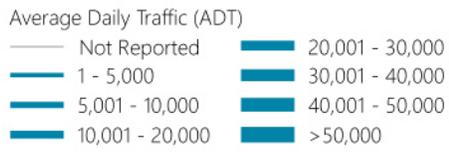
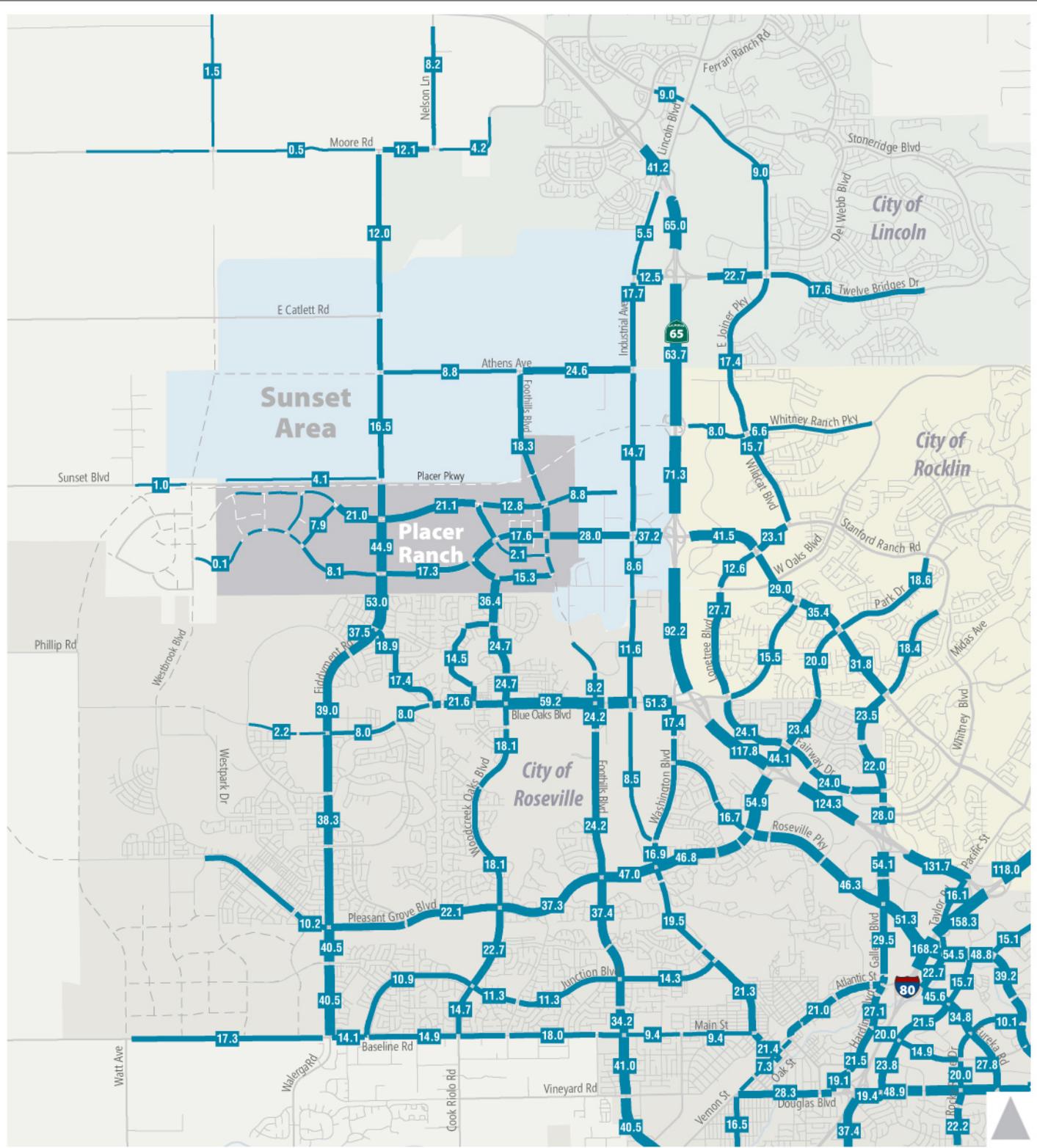
Source: Image provided by Fehr & Peers in 2018

X16010076 01 056

Exhibit 4.14-9

Change in Average Daily Traffic – Existing and Existing Plus Project Buildout Conditions





Placer Ranch Specific Plan
 Sunset Area Plan

Note:
 1. All ADT volumes on map are in thousands of vehicles.
 2. Freeway ADT volumes represent two-way total.

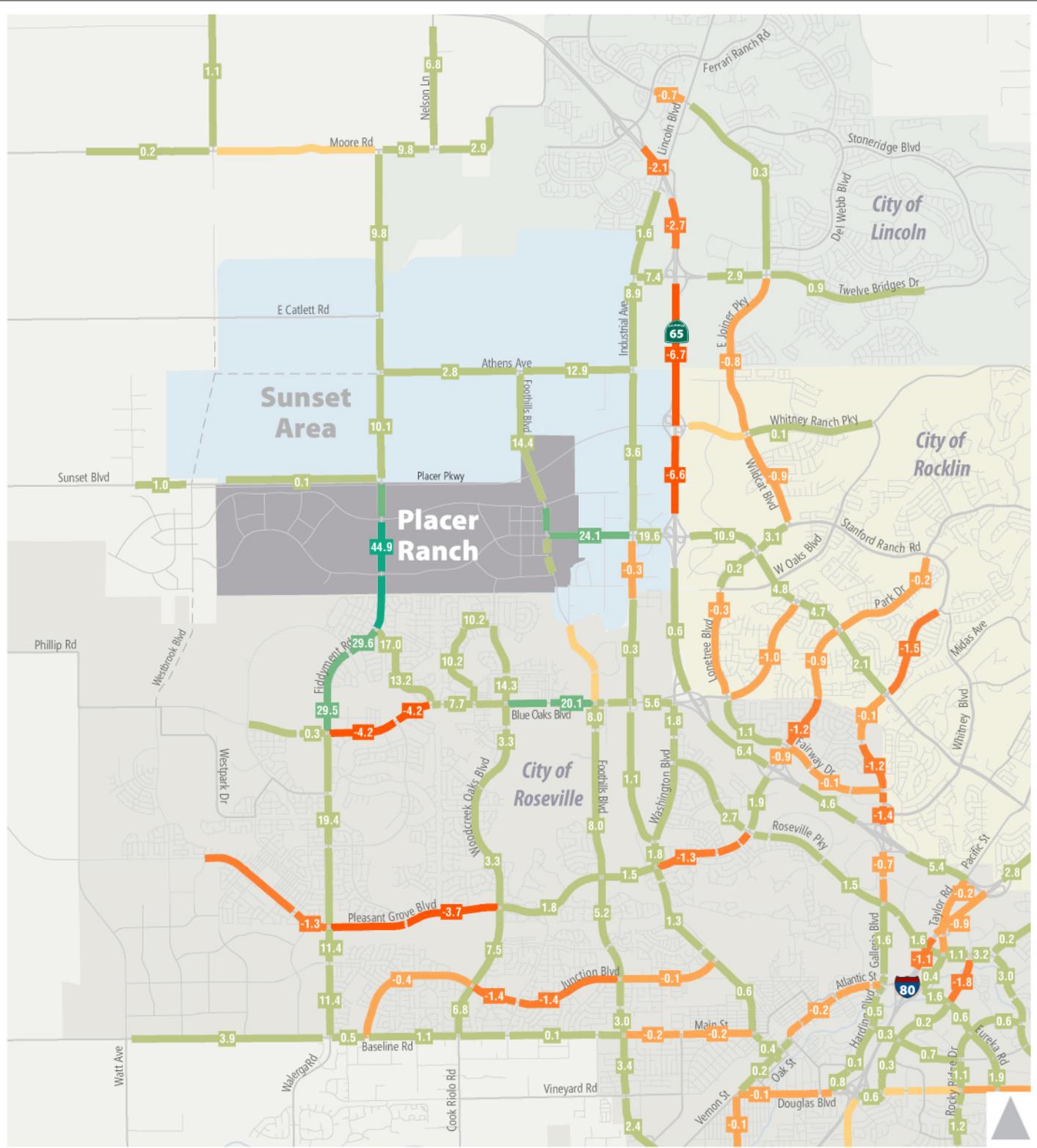
Source: Image provided by Fehr & Peers in 2018

X16010076 01 057

Exhibit 4.14-10

Average Daily Traffic – Existing Plus Placer Ranch Specific Plan Conditions





Change in Average Daily Traffic (ADT)

— Not Reported	— No Change
— 30,001 - 53,000	— -1 - -1,000
— 20,001 - 30,000	— -1,001 - -3,000
— 1 - 20,000	— -3,001 - -6,730

- Placer Ranch Specific Plan
- Sunset Area Plan

Note:
 1. All ADT volumes on map are in thousands of vehicles.
 2. Freeway ADT volumes represent two-way total.

Source: Image provided by Fehr & Peers in 2018

X16010076 01 058

Exhibit 4.14-11

Change in Average Daily Traffic – Existing and Existing Plus Placer Ranch Specific Plan Conditions



IMPACTS AND MITIGATION MEASURES

The following impact analysis addresses the effects of the proposed project on existing traffic conditions (i.e., the Existing Plus Project Condition). As noted in the introduction, these existing plus project analyses are intended to isolate the effects of the proposed project by directly adding buildout to existing (2016) conditions for CEQA purposes. However, these scenarios do not reflect the incremental nature of project implementation (i.e., development within the plan area would occur over time), and therefore do not account for changes that would occur outside the project in the surrounding study area as the project develops. It should also be noted that off-site improvements, including the Pleasant Grove Retention Facility and utility extensions, are not traffic-generating improvements. Regarding off-site roadway improvements, these are integrated into the traffic evaluation, and in some cases, the off-site roadway improvements are identified as mitigation measures. For these reasons, this section does not include a separate impact evaluation for off-site improvements.

Impact 4.14-1: Impacts to roadway operations in Placer County

Vehicle trips generated by the proposed project would increase traffic volumes on study roadway segments in Placer County, causing several roadway segments to worsen from an acceptable LOS C or better to an unacceptable LOS D or worse. The traffic generated by the proposed project would also increase the v/c ratio by more than 0.05 for the study roadway segment of Walerga Road, which operates at an unacceptable LOS F under existing conditions. This would be a **significant** impact.

Table 4.14-20 presents the existing plus project ADT volume, v/c ratio, and LOS for the study roadway segments located in Placer County. Most of the study roadway segments are located within the SAP area outside of the PRSP. Therefore, the study roadway segments have the same classification for existing plus PRSP as existing conditions, as shown in Table 4.14-20.

The SAP includes improvements for several study roadway segments, as described in the Project Transportation Improvements above and shown in Table 4.14-20 below. Hence, most of the study roadway segments have more lanes under the existing plus SAP buildout scenario than existing conditions.

In addition to the roadways segments shown in Table 4.14-20, this study reviewed the forecasted ADT levels for arterial roadways within the SAP area, including the PRSP area. This includes Fiddymment Road, Foothills Boulevard North, Athens Avenue, Campus Park Boulevard, Sunset Boulevard, Maple Park Drive, University Village Drive, and College Park Drive.

Table 4.14-20 Placer County Roadway Level of Service – Existing Plus Project Conditions

Segment	Existing Conditions				Existing Plus SAP Buildout				Existing Plus PRSP			
	Class	ADT	V/C	LOS	Class	ADT	V/C	LOS	Class	ADT	V/C	LOS
Sunset Boulevard: Foothills Boulevard North to Industrial Avenue	2-Lane Arterial	3,900	0.22	A	6-lane Arterial	41,700	0.77	C	2-Lane Arterial	28,000	1.56	F
Fiddymment Road: Sunset Boulevard W. to SAP boundary	2-Lane Arterial	6,400	0.36	A	4-lane Arterial	24,100	0.67	B	2-Lane Arterial	16,500	0.92	E
Industrial Avenue: Roseville City Limits to Sunset Boulevard	2-Lane Arterial	8,900	0.49	A	4-lane Arterial	13,900	0.39	A	2-Lane Arterial	8,600	0.48	A
Industrial Avenue: Sunset Boulevard to Athens Avenue	2-Lane Arterial	11,100	0.62	B	4-lane Arterial	20,600	0.57	A	2-Lane Arterial	14,700	0.82	D
Foothills Boulevard North: Athens Avenue to Sunset Boulevard	2-Lane Arterial	3,900	0.22	A	6-lane Arterial	30,200	0.56	A	2-Lane Arterial	18,300	1.02	F
Walerga Road: Baseline Road to Sacramento County Line	2-Lane Arterial	18,200	1.01	F	2-lane Arterial	20,600	1.14	F	2-Lane Arterial	19,900	1.11	F

Note: ADT = average daily traffic; V/C = volume-to-capacity ratio; LOS = level of service
 Values rounded to the nearest 100 vehicles.

BOLD text indicates unacceptable operations.

UNDERLINED text indicates significantly impacted roadway segment.

Source: Fehr & Peers 2018

SAP Area

Buildout of the SAP land uses would further degrade the existing LOS F conditions on the two-lane segment of Walerga Road south of Baseline Road. Since the addition of vehicle trips generated by project buildout would increase the v/c ratio by more than 0.05, this would be a significant impact.

In reviewing the arterial roadways not shown in Table 4.14-20 within the SAP area, including the PRSP area, most arterials would provide acceptable operations and adequately serve the forecasted traffic demand under existing plus SAP buildout conditions based on the forecasted ADTs, planned number of lanes, and the thresholds presented in Table 4.14-1. However, the following roadway segments would operate at LOS D, E, or F.

- ▲ Fiddymment Road: Roseville city limits to Sunset Boulevard West
- ▲ Athens Avenue: Fiddymment Road to Foothills Boulevard North
- ▲ Sunset Boulevard: Placer Corporate Drive/South Loop Road to SR 65

Currently, Placer County's LOS C standard applies to roadways in the SAP area. However, policy TM-1.2 in the SAP would allow LOS E conditions at major intersection within the plan area. With adoption of the SAP, the applicable level of service standard would become LOS E. Consequently, the Fiddymment Road segment which would operate at LOS D with buildout of the proposed project would operate at an acceptable LOS with the adoption of the SAP. However, the following segments would continue to operate at an unacceptable LOS F. This would be a significant impact.

- ▲ Athens Avenue: Fiddymment Road to Foothills Boulevard North
- ▲ Sunset Boulevard: Placer Corporate Drive/South Loop Road to SR 65

PRSP Area

Since the PRSP does not include widening the study roadway segments, the buildout of the PRSP would result in more significant impacts to roadway operations than the buildout of the SAP when measured against existing conditions. In addition to the significant impact on Walerga Road south of Baseline Road identified under the SAP, the addition of PRSP would cause the following roadway segments shown in Table 4.14-20 to degrade from an acceptable LOS B or better to unacceptable LOS D, E, or F operations under existing plus PRSP conditions. This would be a significant impact.

- ▲ Sunset Boulevard: Foothills Boulevard North to Industrial Avenue
- ▲ Fiddymment Road: Sunset Boulevard West to SAP boundary
- ▲ Industrial Avenue: Sunset Boulevard to Athens Avenue
- ▲ Foothills Boulevard North: Athens Avenue to Sunset Boulevard

In reviewing the arterial roadways within the PRSP, all arterials within the PRSP would provide acceptable operations and adequately serve the forecasted traffic demand under existing plus PRSP conditions based on the forecasted ADTs, planned number of lanes, and the thresholds presented in Table 4.14-1. However, the following roadway segment outside of the PRSP area but within the SAP area would operate at LOS F. This would be a significant impact.

- ▲ Athens Avenue: Foothills Boulevard North to Industrial Avenue

Phase I of Placer Parkway

As described previously in this section, buildout of the PRSP and buildout of the SAP would worsen traffic operations on Athens Avenue, Sunset Boulevard, and intersections along Fiddymment Road, Blue Oaks Boulevard, Woodcreek Oaks Boulevard, Industrial Avenue, Athens Avenue, and Twelve Bridges Drive under existing plus PRSP conditions and existing plus SAP buildout conditions. The addition of projects trips would result in over-capacity traffic conditions on Sunset Boulevard and degrade operations at intersections along Blue Oaks Boulevard, Woodcreek Oaks Boulevard, Industrial Avenue, Fiddymment Road, Athens Avenue, and Twelve Bridges Drive to unacceptable LOS D, LOS E, and LOS F conditions. (Specific LOS are described above.)

The County is currently in the final design stage for Phase I of Placer Parkway. The County is attempting to secure funding for construction and anticipates construction to begin in 2020. Phase I of Placer Parkway is planned as a 4-lane expressway easterly from Foothills Boulevard North to SR 65 connecting to the existing Whitney Ranch Parkway interchange. This includes improvements at the SR 65 / Whitney Ranch Parkway/Placer Parkway interchange to provide full access to Placer Parkway, including a SR 65 southbound off-ramp and SR 65 southbound slip on-ramp. This will provide an additional access point that directly connects the net SAP and PRSP areas to SR 65. In combination with the improvements described in Mitigation Measures 4.14-1a and 4.14-1b below, Phase I of Placer Parkway will reduce traffic demand on adjacent and parallel roadways, including Athens Avenue, Sunset Boulevard, Blue Oaks Boulevard, Woodcreek Oaks Boulevard, Industrial Avenue, Fiddymont Road, and Twelve Bridges Drive. This will improve operations at multiple study intersections and roadways to acceptable levels under both existing plus PRSP conditions and existing plus SAP buildout conditions.

The Placer Parkway project is funded in part by South Placer Regional Transportation Authority (SPRTA) and Tier II Placer Parkway fees. Prior to issuance of building permits, project proponents of future development projects within the PRSP and net SAP areas, shall pay the applicable SPRTA and Tier II Placer Parkway fees, which will provide funding for Placer Parkway.

If funding is secured for Phase I of Placer Parkway, construction is anticipated to be complete by 2022. Therefore, mitigation will be in place that will improve operations on Athens Avenue, Sunset Boulevard, and intersections along Blue Oaks Boulevard, Woodcreek Oaks Boulevard, Industrial Avenue, Fiddymont Road, Athens Avenue, and Twelve Bridges Drive. However, if the project is approved and begins developing before the opening of Phase I of Placer Parkway, the proposed project would temporarily worsen operations on these roadways. Approximately 25 percent of the PRSP could be developed before operations would be degraded to a significant level on these facilities. Therefore, this impact would be **significant and unavoidable in the short-term**, if more than 25 percent of the PRSP is developed and Phase I of Placer Parkway is not yet completed and open to traffic. Upon completion of Phase I of Placer Parkway in combination with the improvements to Sunset Boulevard and Foothills Boulevard described in Mitigation Measures 4.14-1a and 4.14-1b respectively, the traffic operations on Athens Avenue, Sunset Boulevard, and at these intersections would be improved and the project impact would be reduced to **less than significant**.

Walerga Road

Trips generated by buildout of the PRSP and buildout of the SAP would exacerbate existing LOS F operations on the two-lane segment of Walerga Road south of Baseline Road to Sacramento County. The Dry Creek Benefit District of the Placer County Countywide CIP (Placer County 2018c) includes funding for the widening of Walerga Road to six lanes from Baseline Road to the Sacramento County line. Since this improvement is in the Countywide CIP, Placer County is currently collecting and will continue to collect traffic impact fees that will ultimately fund the construction of this improvement. Placer County has structured its Countywide CIP to have development within each benefit district cover the cost of improvements for that district. Therefore, widening of Walerga Road is fully funded by future development in the Dry Creek Benefit District. As a result, the traffic impact fees paid by project proponents for land development in the PRSP and SAP areas, which are located in the Sunset Benefit District, would not go towards widening Walerga Road.

This segment of Walerga Road operates at LOS F under existing conditions. Therefore, if the proposed project is approved and begins developing before the widening of Walerga Road to four lanes, the proposed project would temporarily worsen unacceptable operations on the two-lane segment of Walerga Road south of Baseline Road to Sacramento County. No other options to mitigate this impact during the short-term are available. Therefore, this impact would be **significant and unavoidable in the short-term** until Walerga Road is widened to at least four lanes. Upon completion of the Walerga Road widening, the traffic operations on Walerga Road would be improved and the project impact would be reduced to **less than significant**.

Mitigation Measures

Mitigation Measure 4.14-1a: Widen Sunset Boulevard to four lanes from PRSP boundary to Placer Corporate Drive/South Loop Road (Net SAP Area and PRSP Area)

The Placer County Countywide CIP (Placer County 2018c) includes funding for the widening of Sunset Boulevard to four lanes from Cincinnati Avenue to SR 65. Prior to issuance of building permits, project proponents of development projects within the SAP area, including the PRSP area, shall pay the applicable countywide traffic impact fees that are in effect in this area (Sunset District) pursuant to the applicable ordinances and resolutions, which will provide funding towards this improvement. The constructing party shall be eligible for fee credits for the applicable countywide traffic impact fees, as determined by DPWF.

Mitigation Measure 4.14-1b: Construct extension of Foothills Boulevard as a four-lane arterial between PRSP area and its current northern terminus in City of Roseville (PRSP Area)

This improvement is not fully funded through a known fee program. Placer County proposes to include this improvement in an update to the Placer County Countywide CIP and countywide traffic impact fee, which will be adopted concurrently with the PRSP and SAP. With the inclusion of this improvement into the Countywide CIP, project proponents of future development projects within the SAP area, including the PRSP area, shall pay the applicable countywide traffic impact fees prior to the issuance of building permits, which will provide funding for this improvement. The constructing party shall be eligible for fee credits for the applicable countywide traffic impact fees, as determined by DPWF.

Significance after Mitigation

Sunset Boulevard

Approximately 25 percent of development in the PRSP could be developed before operations would be degraded to a significant level on Sunset Boulevard and at the intersections along Industrial Avenue, Athens Avenue, and Blue Oaks Boulevard that benefit as a result of this improvement. Based on the anticipated amount of funding to be generated by the TIF program, there will not be sufficient funds to construct the identified improvement until 45 percent of the development in the PRSP occurs, as measured in dwelling unit equivalents. Therefore, this impact would be **significant and unavoidable in the short-term**, if more than 25 percent of the PRSP is developed and this improvement is not yet completed and open to traffic.

Completion of this improvement would improve operations on Sunset Boulevard to LOS C. This improvement would also shift traffic demand from Industrial Avenue, Athens Avenue, and Blue Oaks Boulevard by providing more capacity on a more direct route to PRSP, thereby improving operations at impacted intersections along these corridors. The widening on Sunset Boulevard would also improve operations at impacted intersections along Sunset Boulevard.

Foothills Boulevard

Approximately 50 percent of development in the PRSP area could be developed before operations would be degraded to a significant level on the regional roadways identified above. Based on the anticipated amount of funding to be generated by the TIF program, there will not be sufficient funds to construct the identified improvement until 75 percent of the development in the PRSP area occurs, as measured in dwelling unit equivalents. Therefore, this impact and the impacts addressed by this improvement would remain **significant and unavoidable in the short-term** before the Foothills Boulevard extension being constructed.

Completion of this improvement would provide another north-south connection to PRSP from Blue Oaks Boulevard, reducing traffic demand on Fiddymont Road and Woodcreek Oaks Boulevard. This improvement, in combination with Phase I of Placer Parkway and the improvements identified in Mitigation Measures 4.14-1a and 4.14-10 shift traffic demand from impacted roadways resulting in the following improved roadway operations:

- ▲ Fiddymont Road: Sunset Boulevard West to Sunset Area Boundary – improves to LOS C

- ▲ Industrial Avenue: Sunset Boulevard to Athens Avenue – improves to LOS B
- ▲ Foothills Boulevard North: Athens Avenue to Sunset Boulevard – improves to LOS A

The section of the Foothills Boulevard extension within the City of Roseville has already been approved by the City as part of the Foothills Business Park Annexation project for which the City certified an EIR.

Overall Significance after Mitigation

As noted above, this impact would be **significant and unavoidable in the short-term** from the time that these roadway facilities begin operating at LOS D or worse until the planned opening of Phase I of Placer Parkway, widening to Walerga Road, and improvements identified in Mitigation Measures 4.14-1a and 4.14-1b. However, the completion of these improvements would result in acceptable operations (i.e., LOS C or better) at significantly impacted roadway facilities. Therefore, these mitigation measures would reduce this impact to **less than significant**.

Impact 4.14-2: Impacts to intersection operations in Placer County

Vehicle trips generated by the proposed project would cause traffic operations at study intersections in Placer County to be degraded from an acceptable LOS to an unacceptable LOS. The traffic generated by the proposed project would also significantly increase delay by 4 seconds or more at intersections already operating at an unacceptable LOS E or F. This would be a **significant** impact.

Table 4.14-21 presents the existing plus project a.m. and p.m. peak hour operations for the study intersections located in Placer County. This includes 11 new signalized intersections that are proposed within the project that do not exist today.

Table 4.14-21 Intersection Operations – Placer County – Existing Plus Project Conditions

Intersection	Traffic Control	LOS Standard	Peak Hour	Existing Conditions		Existing Plus SAP Buildout		Existing Plus PRSP	
				Delay ¹	LOS	Delay ¹	LOS	Delay ¹	LOS
Baseline Road/Locust Road	AWSC	D	AM	53	F	<u>72</u>	F	47	E
			PM	49	E	51	F	40	E
Industrial Avenue/Placer Corporate Drive	Signal	D	AM	8	A	<u>133</u>	F	8	A
			PM	10	A	<u>166</u>	F	10	B
Industrial Avenue/South Loop Road	Signal	C	AM	8	A	<u>65</u>	E	9	A
			PM	10	A	<u>260</u>	F	13	B
PFE Road/Watt Avenue	AWSC	D	AM	85	F	<u>>300</u>	F	<u>182</u>	F
			PM	17	C	<u>157</u>	F	<u>45</u>	E
PFE Road/Walerga Road	Signal	D	AM	41	D	<u>136</u>	F	<u>96</u>	F
			PM	31	C	<u>76</u>	E	<u>79</u>	E
Sunset Boulevard/South Loop Road/Placer Corporate Drive	SSSC	D	AM	11	B ²	<u>>300</u>	F	15	B
			PM	17	C ²	<u>>300</u>	F	<u>109</u>	F
Sunset Boulevard West/Fiddymont Road	AWSC	C	AM	10	B	<u>>300</u>	F	18	C
			PM	13	B	<u>>300</u>	F	<u>339</u>	F
Athens Avenue/Fiddymont Road	AWSC	C	AM	11	B	<u>>300</u>	F	16	C
			PM	14	B	<u>>300</u>	F	<u>331</u>	F
Athens Avenue/Industrial Avenue	Signal	C	AM	11	B	<u>>300</u>	F	16	B
			PM	12	B	<u>>300</u>	F	<u>52</u>	D
Athens Avenue/ Foothills Boulevard North	SSSC	C	AM	10	B	<u>>300</u>	F	11	B
			PM	11	B	<u>>300</u>	F	<u>185</u>	F

Table 4.14-21 Intersection Operations – Placer County – Existing Plus Project Conditions

Intersection	Traffic Control	LOS Standard	Peak Hour	Existing Conditions		Existing Plus SAP Buildout		Existing Plus PRSP	
				Delay ¹	LOS	Delay ¹	LOS	Delay ¹	LOS
Sunset Boulevard/Cincinnati Avenue	Signal	C	AM PM	18 21	B C	>300 >300	F F	195 297	F F
Campus Park Boulevard/Maple Park Drive	Signal	C	AM PM	Does Not Exist		14 15	B B	22 27	C C
Campus Park Boulevard/ Fiddymment Road	Signal	C	AM PM	Does Not Exist		94 154	F F	28 161	C F
Campus Park Boulevard/ University Village Drive	Signal	C	AM PM	Does Not Exist		27 35	C C	23 26	C C
Campus Park Boulevard/Foothills Boulevard North	Signal	C	AM PM	Does Not Exist		21 46	C D	19 22	B C
Sunset Boulevard/Maple Park Drive	Signal	C	AM PM	Does Not Exist		20 14	B B	19 20	B C
Sunset Boulevard/Fiddymment Road	Signal	C	AM PM	Does Not Exist		90 143	F F	26 82	C F
Sunset Boulevard/College Park Drive	Signal	C	AM PM	Does Not Exist		62 57	E E	33 110	C F
Sunset Boulevard/University Village Drive	Signal	C	AM PM	Does Not Exist		64 79	E E	25 101	C F
Sunset Boulevard/Foothills Boulevard North	Signal	C	AM PM	Not Analyzed		48 32	D C	29 24	C C
College Park Drive/Woodcreek Oaks Boulevard	Signal	C	AM PM	Does Not Exist		40 102	D F	28 250	C F
College Park Drive/Foothills Boulevard North	Signal	C	AM PM	Does Not Exist		39 15	D B	15 13	B B

Notes: LOS = Level of Service. AWSC = All-Way Stop Control; SSSC = Side-Street Stop Control

BOLD text indicates unacceptable intersection operations.

UNDERLINED text indicates significantly impacted study intersection.

¹ For signalized and AWSC intersections, the table reports the weighted average intersection control delay for all approaches in seconds per vehicle. For SSSC intersections, the overall weighted average control delay for the movements yielding the right-of-way is reported. Intersection LOS and delay are calculated based on the procedures and methodology contained in the HCM 2010 (Transportation Research Board 2010).

² Field observations reveal that operations at the adjacent SR 65 Southbound Ramps/Sunset Boulevard intersection affects conditions at the Sunset Boulevard/South Loop Road/Placer Corporate Drive intersection, resulting in delays that exceed the reported value on northbound South Loop Road.

Source: Fehr & Peers 2018

SAP Area

Buildout of the SAP would cause the following degradations in traffic operations at study intersections in Placer County during the a.m. and/or p.m. peak hour. This would be a significant impact.

- ▲ Locust Road / Baseline Road experiences an increase in delay from 53 seconds per vehicle to 72 seconds per vehicle while operating at LOS F and meeting the MUTCD peak hour signal warrant during the a.m. peak hour.
- ▲ Industrial Avenue / Placer Corporate Drive degrades from LOS A to LOS F during both a.m. and p.m. peak hours.
- ▲ Industrial Avenue / South Loop Road degrades from LOS A to LOS E during the a.m. peak hour and degrades from LOS A to LOS F during the p.m. peak hour.

- ▲ PFE Road / Watt Avenue experiences an increase in delay from 85 seconds per vehicle to 492 seconds per vehicle while operating at LOS F during the a.m. peak hour; degrades from LOS C to LOS F during the p.m. peak hour; and meets MUTCD peak hour signal warrant during both a.m. and p.m. peak hours.
- ▲ PFE Road / Walerga Road degrades from LOS D to LOS F during the a.m. peak hour and LOS C to LOS E during the p.m. peak hour.
- ▲ Sunset Boulevard / South Loop Road/Placer Corporate Drive degrades from LOS B to LOS F during the a.m. peak hour; degrades from LOS C to LOS F during the p.m. peak hour; and meets MUTCD peak hour signal warrant during both a.m. and p.m. peak hours.
- ▲ Sunset Boulevard West / Fiddymont Road degrades from LOS A to LOS F during the a.m. peak hour; degrades from LOS B to LOS F during the p.m. peak hour; and meets MUTCD peak hour signal warrant during both a.m. and p.m. peak hours.
- ▲ Athens Avenue / Fiddymont Road degrades from LOS B to LOS F and meets MUTCD peak hour signal warrant during both a.m. and p.m. peak hours.
- ▲ Athens Avenue / Industrial Avenue degrades from LOS B to LOS F during both a.m. and p.m. peak hours.
- ▲ Athens Avenue / Foothills Boulevard North degrades from LOS B to LOS F and meets MUTCD peak hour signal warrant during both a.m. and p.m. peak hours.
- ▲ Sunset Boulevard / Cincinnati Avenue degrades from LOS B to LOS F during the a.m. peak hour, and LOS C to LOS F during the p.m. peak hour.

In addition, the following new intersections (i.e., currently nonexistent) that would be created within the PRSP would operate at an unacceptable LOS. This would be a significant impact.

- ▲ Campus Park Boulevard / Fiddymont Road operates at LOS F during both a.m. and p.m. peak hours.
- ▲ Sunset Boulevard / Fiddymont Road operates at LOS F during both a.m. and p.m. peak hours.
- ▲ Sunset Boulevard / College Park Drive operates at LOS E during both a.m. and p.m. peak hours.
- ▲ Sunset Boulevard / University Village Drive operates at LOS E during both a.m. and p.m. peak hours.
- ▲ Sunset Boulevard / Foothills Boulevard North operates at LOS D during the a.m. peak hour.
- ▲ College Park Drive / Woodcreek Oaks Boulevard operates at LOS D during the a.m. peak hour and LOS F during the p.m. peak hour.
- ▲ College Park Drive / Foothills Boulevard North operates at LOS D during the a.m. peak hour.

PRSP Area

Buildout of PRSP would cause the following degradations in traffic operations at study intersections in Placer County during the a.m. and/or p.m. peak hour. This would be a significant impact.

- ▲ PFE Road / Watt Avenue experiences an increase in delay from 85 seconds per vehicle to 182 seconds per vehicle while operating at LOS F during the a.m. peak hour; degrades from LOS C to LOS E during the p.m. peak hour; and meets MUTCD peak hour signal warrant during both a.m. and p.m. peak hours.
- ▲ PFE Road / Walerga Road degrades from LOS D to LOS F during the a.m. peak hour and LOS C to LOS E during the p.m. peak hour.
- ▲ Sunset Boulevard / South Loop Road/Placer Corporate Drive degrades from LOS C to LOS F and meets MUTCD peak hour signal warrant during the p.m. peak hour.

- ▲ Sunset Boulevard West / Fiddymment Road degrades from LOS B to LOS F and meets MUTCD peak hour signal warrant during the p.m. peak hour.
- ▲ Athens Avenue / Fiddymment Road degrades from LOS B to LOS F and meets MUTCD peak hour signal warrant during the p.m. peak hour.
- ▲ Athens Avenue / Industrial Avenue degrades from LOS B to LOS D during the p.m. peak hour.
- ▲ Athens Avenue / Foothills Boulevard North degrades from LOS B to LOS F and meets MUTCD peak hour signal warrant during the p.m. peak hour.
- ▲ Sunset Boulevard / Cincinnati Avenue degrades from LOS B to LOS F during the a.m. peak hour, and LOS C to LOS F during the p.m. peak hour.

In addition, the following new intersections (i.e., currently nonexistent) that would be created within the PRSP would operate at an unacceptable LOS. This would be a significant impact.

- ▲ Campus Park Boulevard / Fiddymment Road operates at LOS F during the p.m. peak hour,
- ▲ Sunset Boulevard / Fiddymment Road operates at LOS F during the p.m. peak hour,
- ▲ Sunset Boulevard / College Park Drive operates at LOS F during the p.m. peak hour,
- ▲ Sunset Boulevard / University Village Drive operates at LOS F during the p.m. peak hour, and
- ▲ College Park Drive / Woodcreek Oaks Boulevard operates at LOS F during the p.m. peak hour.

Improvements Funded by the Dry Creek Benefit District of the Placer County Countywide CIP

Trips generated by buildout of the PRSP and buildout of the SAP would degrade operations at intersections in the Dry Creek Benefit District of the Placer County Countywide CIP, including:

- ▲ Walerga Road / PFE Road to LOS F during the a.m. peak hour and LOS E during the p.m. peak hour, and
- ▲ Watt Avenue / PFE Road to LOS F during the a.m. and p.m. peak hour under existing plus SAP buildout conditions; LOS F during the a.m. peak hour and LOS E during the p.m. peak hour under existing plus PRSP conditions.

As noted under Impact 4.14-1, the Dry Creek Benefit District of the Placer County Countywide CIP (Placer County 2018c) includes funding for the widening of Walerga Road to six lanes from Baseline Road to the Sacramento County line. It also includes funding for installing a traffic signal at the Watt Avenue / PFE Road intersection. Placer County is currently collecting and will continue to collect traffic impact fees that will ultimately fund these improvements. These improvements would be fully funded by future development in the Dry Creek Benefit District. As a result, the traffic impact fees paid by project proponents for land development in the PRSP and SAP areas, which are located in the Sunset Benefit District, would not go towards these improvements.

The Walerga Road / PFE Road intersection operates at LOS D during the a.m. peak hour and LOS C during the p.m. peak hour under existing conditions. Similarly, the Watt Avenue / PFE Road intersection operates at LOS F during the a.m. peak hour and LOS C during the p.m. peak hour under existing conditions. Therefore, if the proposed project is approved and begins developing before these improvements are implemented, the proposed project would temporarily worsen unacceptable operations at these intersections. No other options to mitigate this impact during the short-term are available.

Therefore, this impact would be **significant and unavoidable in the short-term** until:

- ▲ Walerga Road is widened to at least four lanes through PFE Road, and
- ▲ The traffic signal is installed at Watt Avenue / PFE Road.

Upon completion of the Walerga Road widening, the traffic operations at Walerga Road / PFE Road would be improved to an acceptable LOS (i.e., LOS D or better). Similarly, installing a traffic signal at Watt Avenue / PFE Road would improve operations to an acceptable LOS. Therefore, the project impact would be reduced to **less than significant**.

Mitigation Measures

Implement Mitigation Measures 4.14-1a (Net SAP Area and PRSP Area) and 4.14-1b (PRSP Area). Widening Sunset Boulevard to 4 lanes (Mitigation Measure 4.14-1a) would improve operations to an acceptable LOS C or better at the Sunset Boulevard / Cincinnati Avenue intersection. Widening Sunset Boulevard in connection with the opening of Phase I of Placer Parkway to traffic would also shift traffic demand from the Athens Avenue / Industrial Avenue intersection, which would improve operations to an acceptable LOS C. Furthermore, these two improvements in connection with the extension of Foothills Boulevard (Mitigation Measure 4.14-1b) would improve operations to an acceptable LOS C or better at the following project intersections.

- ▲ Campus Park Boulevard / Fiddymont Road
- ▲ Sunset Boulevard / College Park Drive
- ▲ Sunset Boulevard / University Village Drive
- ▲ College Park Drive / Woodcreek Oaks Boulevard

Study intersections on Industrial Avenue in Placer County would also experience reduced through traffic volumes from the SR 65 widening identified in Mitigation Measure 4.14-10 (Net SAP Area and PRSP Area). See Mitigation Measures 4.14-2a through 4.14-2c below for measures that are necessary to mitigate Impact 4.14-2 in addition to Mitigation Measures 4.14-1a, 4.14-1b, and 4.14-10.

Mitigation Measure 4.14-2a: Contribute fair share of feasible physical improvements (Net SAP Area and PRSP Area)

Project proponents of future development projects within the SAP area, including the PRSP area, shall be responsible for the project's fair share of all feasible physical improvements necessary and available to reduce the severity of the project's significant impacts to traffic operations at study intersections in Placer County, as identified in the traffic analysis above, consistent with the policies and exceptions set forth in the Transportation and Circulation Element of the Placer County General Plan. The project proponent's contribution towards such improvements may take any, or some combination, of the following forms:

- ▲ For intersections within or adjacent to the boundaries of the SAP area, including the PRSP area, construction of intersection improvements which may be eligible for fee credits and/or reimbursement, coordinated by the County, from other fee-paying development projects with respect to roadways and intersections that would also serve fee-paying development projects other than the SAP and PRSP.
- ▲ Construction of roadway and intersection improvements outside the boundaries of the SAP area but within unincorporated Placer County, subject in some instances to future reimbursement, coordinated by the County, from other fee-paying development projects where the intersection improvements at issue would also serve fee-paying development projects other than the SAP and PRSP.
- ▲ Payment of applicable countywide traffic impact fees to Placer County in amounts that constitute the SAP's and PRSP's fair share contributions to the construction of intersection improvements to be built within unincorporated Placer County, consistent with the Placer County Countywide CIP and as determined by DPWF. This includes improvements that would be included in an update to the Placer County Countywide CIP and countywide traffic impact fee that the County will adopt concurrently with the SAP and PRSP.

Mitigation Measure 4.14-2b: Pay applicable City/County Baseline Road fee (Net SAP Area and PRSP Area)

Consistent with Mitigation Measure 4.14-2a, project proponents of future development projects within the SAP area shall pay the applicable City/County Baseline Road fee, which would provide funding for constructing

improvements to Baseline Road. This includes widening Baseline Road to 4 lanes (2 eastbound and 2 westbound) through the Locust Road intersection before buildout of the SAP.

Mitigation Measure 4.14-2c: Adopt update to Placer County Countywide CIP and countywide traffic impact fee (Net SAP Area and PRSP Area)

Consistent with Mitigation Measure 4.14-2a, the County shall adopt an update to the Placer County Countywide CIP and countywide traffic impact fee concurrently with the SAP and PRSP to include installing traffic signals and capacity-enhancing improvements currently not included in any known fee program at the following intersections:

- ▲ Industrial Avenue / Placer Corporate Drive (net SAP area),
- ▲ Industrial Avenue / South Loop Road (net SAP area),
- ▲ Sunset Boulevard / South Loop Road/Placer Corporate Drive (net SAP and PRSP areas),
- ▲ Sunset Boulevard West / Fiddymont Road (net SAP and PRSP areas),
- ▲ Athens Avenue / Fiddymont Road (net SAP and PRSP areas), and
- ▲ Athens Avenue / Foothills Boulevard North (net SAP and PRSP areas).

Prior to issuance of building permits, project proponents of future development projects within the SAP area, including the PRSP area, shall pay the applicable countywide traffic impact fees, as determined by DPWF, which will provide funding for improvements at the above intersections.

Significance after Mitigation

City/County Baseline Road Fee Program

The City/County Baseline Road Fee Program includes funding for widening Baseline Road to four lanes from the Sutter County line easterly to the Placer Vineyards Specific Plan, through the Locust Road intersection. Prior to issuance of building permits, project proponents of future development projects within the SAP area shall pay the applicable City/County Baseline Road fee, which will provide funding for widening Baseline Road from the Sutter County line to east of Locust Road. The constructing party shall be eligible for fee credits for the applicable traffic impact fees. Completion of this improvement would improve operations to an acceptable LOS C at the Baseline Road / Locust Road intersection during the a.m. and p.m. peak hours. Since this would result in acceptable operations (i.e., acceptable LOS), it would mitigate the associated intersection impact to a **less-than-significant** level.

Intersection Improvements

Capacity-enhancing improvements to the intersections listed above are not included in any known fee program. Placer County proposes to include improvements at these intersections in an update to the Placer County Countywide CIP and countywide traffic impact fee, which will be adopted concurrently with the PRSP and SAP. This would include the following improvements at the following intersections:

- ▲ Industrial Avenue / Placer Corporate Drive:
 - Widen the northbound and westbound approaches to accommodate one right-turn lane and two right-turn lanes, respectively.
 - Modify signal to provide right-turn overlap phase for westbound right-turn movement and prohibit conflicting southbound U-turn movement.
- ▲ Industrial Avenue / South Loop Road:
 - Widen the southbound approach to accommodate two left-turn lanes.
- ▲ Sunset Boulevard / South Loop Road/Placer Corporate Drive:
 - Install a partial traffic signal that controls eastbound and northbound approaches, including a phase for eastbound through and northbound right-turn movements. This partial traffic signal would retain

the existing southbound side-street stop control configuration with free movement for the westbound approach.

- ▲ Sunset Boulevard West / Fiddymment Road:
 - Install a traffic signal.
- ▲ Athens Avenue / Fiddymment Road:
 - Install a traffic signal with protected left-turn phasing for southbound left-turn movements.
 - Widen the southbound approach to accommodate a left-turn lane.
 - Widen the westbound approach to accommodate a right-turn lane.
- ▲ Athens Avenue / Foothills Boulevard North:
 - Install a traffic signal.

With the inclusion of these improvements into the Countywide CIP, project proponents of future development projects within the SAP area, including the PRSP area, shall pay the applicable countywide traffic impact fees before the issuance of building permits, which will provide funding for these improvements. The constructing party shall be eligible for fee credits for the applicable countywide traffic impact fees. Since these improvements are not in the current Countywide CIP, this impact would be **significant and unavoidable in the short-term** until the Countywide CIP update is adopted with the improvements included. Upon adoption of the updated Countywide CIP, the payment of applicable countywide traffic impact fees would collect funds towards the improvements. Since these improvements would be funded through the updated Countywide CIP and would restore operations to an acceptable level, it would mitigate the associated intersection impacts to a **less-than-significant** level.

Intersections That Continue to Operate at LOS D or Worse

While Mitigation Measures 4.14-1a and 4.14-1b would shift traffic demand from the Sunset Boulevard / Fiddymment Road intersection, it would continue to operate at LOS D during the p.m. peak hour. Further widening of the intersection is not prudent or feasible given the proposed roadway cross-sections, proposed active transportation (i.e., walking and biking) infrastructure, and policy direction in SAP policy TM-1.1 to require all streets in the SAP area to address the needs of all modes of travel. Currently, Placer County's LOS C standard applies to this intersection, which is located within the PRSP. However, policy TM-1.2 in the SAP would allow LOS E conditions at major intersections within the SAP area. Since this intersection is located within the PRSP area, which is within the SAP area, the LOS D conditions at this intersection would be considered acceptable with adoption of the SAP. However, since Policy TM-1.2 is not currently in effect, the LOS D operations would remain unacceptable until the SAP is adopted. Therefore, these traffic operations would be a **significant and unavoidable impact in the short term** until the SAP is adopted. Upon adoption of the SAP, the application of Policy TM-1.2 would make these operations acceptable and reduce the impact to **less than significant**.

It should be noted that the LOS E conditions permitted under Policy TM-1.2 would not result in significant secondary traffic impacts. In developing Policy TM-1.2, the County acknowledges the benefits of allowing lower levels of service to promote development patterns that reduce VMT and support a variety of transportation modes, including walking, biking, and transit, as compared to requiring a higher level of service that would accommodate more vehicles but may also require widening roads and would result in increased VMT, greenhouse gas emissions, and reduce the attractiveness and feasibility of non-auto travel modes. Furthermore, since LOS E conditions represent, by definition, near capacity conditions (i.e., not over-capacity conditions), allowing LOS E operations at major intersections would still serve traffic demand and not result in a roadway network that experiences severe gridlock and hampers all modes of travel.

Overall Significance after Mitigation

This impact would be **significant** from the time that project trips cause these intersections to begin operating at an unacceptable LOS (i.e., LOS D for intersections with a LOS C standard, or LOS E for intersections with an LOS D standard); or in the case of intersections that already operate at an unacceptable LOS, from the time that project trips result in a significant increase in delay as defined in the significance criteria for Placer

County intersections. As noted above, this impact would remain **significant and unavoidable in the short-term** until the applicable roadway network improvements identified in the Dry Creek Benefit District of the Placer County Countywide CIP as well as improvements identified in Mitigation Measures 4.14-1a (Net SAP Area and PRSP Area) and 4.14-1b (PRSP Area) are implemented. Similarly, the intersections that would be improved by projects not currently in the Placer County Countywide CIP but are proposed to be included as part of Mitigation Measure 4.14-2c would remain **significant and unavoidable in the short-term** until the Countywide CIP update is adopted with the improvements included.

The improvements identified in Mitigation Measure 4.14-2b are included in existing traffic impact fee programs. The improvements identified in Mitigation Measure 4.14-2c are proposed to be included in an update to the Placer County Countywide CIP and countywide traffic impact fee.

The Sunset Boulevard / Fiddymont Road intersection would continue to operate at LOS D with implementation of feasible mitigation measures. However, policy TM-1.2 in the SAP would allow LOS E conditions at major intersections within the SAP area. Consequently, the LOS D conditions at this intersection would remain a **significant and unavoidable impact in the short-term** until adoption of the SAP.

Implementation of Mitigation Measures 4.14-1a, 4.14-1b, and 4.14-2a through 4.14-2c would result in acceptable LOS C or better operations at impacted Placer County intersections. Therefore, the impact to traffic operations at study intersections in Placer County would be mitigated to **less than significant** through a combination of the adoption of the PRSP and SAP and the updated Countywide CIP (Mitigation Measure 4.14-2c) and the payment of applicable impact fees to fund these improvements as specified in Mitigation Measures 4.14-2a through 4.14-2c.

Impact 4.14-3: Impacts to signalized intersection operations in the City of Roseville

Vehicle trips generated by the proposed project would cause signalized study intersections in the City of Roseville to be degraded from an acceptable LOS C or better to an unacceptable LOS D or worse. In addition, the traffic generated by the proposed project would cause signalized study intersections in the City of Roseville that are already operating at an unacceptable LOS D or worse to degrade one or more service level (i.e., LOS D to LOS E, LOS E to LOS F, etc.). The Douglas Boulevard / Harding Boulevard intersection, which operates at LOS F during the p.m. peak hour under existing conditions, would experience an increase in delay of 14 seconds per vehicle under existing plus PRSP conditions. Furthermore, the percentage of signalized intersections in the City of Roseville operating at LOS C or better would be reduced from 84 percent to 68 percent during the p.m. peak hour under existing plus SAP conditions. These increases in delay, degradations in LOS, and reduction in percentage of signalized intersections operating at LOS C or better would be a **significant** impact.

SAP Area

Table 4.14-22 summarizes the a.m. and p.m. peak hour operations at all signalized intersections in Roseville under existing plus SAP buildout conditions. Buildout of the SAP land uses would cause multiple signalized intersections in the City of Roseville currently operating at an acceptable LOS C or better to be degraded to an unacceptable LOS D or worse during the a.m. and/or p.m. peak hours. In addition, several intersections that already operate at an unacceptable LOS D or worse under existing conditions would be degraded by one or more service level during the a.m. and/or p.m. peak hours. These intersections are shown in bold in Table 4.14-22 below. Furthermore, the percentage of signalized intersections in the City of Roseville operating at LOS C or better would be reduced from 84 percent to 68 percent during the p.m. peak hour under existing plus SAP conditions.

Table 4.14-22 Signalized Intersection Operations – City of Roseville – Existing Plus SAP Buildout Conditions

Level of Service	AM Peak Hour	PM Peak Hour
Total Intersections	160	160
LOS A-C	133 (83%)	109 (68%)
	13 (8%)	16 (10%)
LOS D	<ul style="list-style-type: none"> ▲ <u>Blue Oaks Boulevard/Diamond Creek Boulevard</u> ▲ <u>Cirby Way/Foothills Boulevard</u> ▲ <u>Cirby Way/Vernon St.</u> ▲ <u>Douglas Boulevard/Sunrise Avenue</u> ▲ Douglas Boulevard/E. Roseville Parkway ▲ <u>Hayden Parkway (North)/Fiddymnt Road</u> ▲ <u>Baseline Road/Main St./ Foothills Boulevard</u> ▲ <u>Pleasant Grove Boulevard/Fiddymnt Road</u> ▲ <u>Pleasant Grove Boulevard/Washington Boulevard</u> ▲ <u>S. Cirby Way/Old Auburn Road</u> ▲ Blue Oaks Boulevard/Washington Boulevard ▲ <u>I-80 EB Off-Ramp/Oriando Avenue/Riverside Avenue</u> ▲ <u>Baseline Road/Watt Avenue</u> 	<ul style="list-style-type: none"> ▲ Cirby Way/Sunrise Avenue ▲ <u>Cirby Way/Melody Ln.</u> ▲ <u>Cirby Way/Northridge Drive</u> ▲ Douglas Boulevard/Sierra College Boulevard ▲ <u>Hayden Parkway (South)/Fiddymnt Road</u> ▲ Baseline Road/Main St./Foothills Boulevard ▲ Lead Hill Boulevard/N. Sunrise Avenue ▲ Highland Pointe Drive/Pleasant Grove Boulevard ▲ Roseville Parkway/N. Sunrise Avenue ▲ <u>Eureka Road/Roseville Parkway</u> ▲ <u>Eureka Road/Sierra College Boulevard</u> ▲ Five Star Boulevard/Stanford Ranch Road ▲ Blue Oaks Boulevard/ Washington Boulevard ▲ <u>Pleasant Grove Boulevard/SR 65 SB Off-Ramp</u> ▲ <u>I-80 WB Off-Ramp/Riverside Avenue</u> ▲ <u>SR 65 NB On-Ramp/Stanford Ranch Road</u>
LOS E	<p>8 (5%)</p> <ul style="list-style-type: none"> ▲ <u>Blue Oaks Boulevard/Woodcreek Oaks Boulevard</u> ▲ <u>Cirby Way/Sunrise Avenue</u> ▲ <u>Douglas Boulevard/Eureka Road</u> ▲ <u>Douglas Boulevard/Rocky Ridge Drive</u> ▲ <u>Douglas Boulevard/Sierra College Boulevard</u> ▲ <u>Atkinson Road/Foothills Boulevard</u> ▲ <u>Pleasant Grove Boulevard/Roseville Parkway</u> ▲ <u>Old Auburn Road/Sierra College Boulevard</u> 	<p>13 (8%)</p> <ul style="list-style-type: none"> ▲ <u>Blue Oaks Boulevard/Fiddymnt Road</u> ▲ <u>Cirby Way/Foothills Boulevard</u> ▲ <u>Junction Boulevard/Foothills Boulevard</u> ▲ <u>Roseville Parkway/Galleria Boulevard</u> ▲ <u>Fairway Drive/Pleasant Grove Boulevard</u> ▲ <u>Pleasant Grove Boulevard/Washington Boulevard</u> ▲ <u>Pleasant Grove Boulevard/Woodcreek Oaks Boulevard</u> ▲ <u>Roseville Parkway/Reserve Drive</u> ▲ <u>Roseville Parkway/ Washington Boulevard</u> ▲ <u>Old Auburn Road/Sierra College Boulevard</u> ▲ <u>Fairway Drive/Stanford Ranch Road</u> ▲ <u>Canevari Drive/Arsenault Drive/Woodcreek Oaks Boulevard</u> ▲ <u>Eureka Road/Taylor Road/I-80 EB Off-Ramp</u>
LOS F	<p>6 (4%)</p> <ul style="list-style-type: none"> ▲ <u>Baseline Road/Fiddymnt Road</u> ▲ <u>Blue Oaks Boulevard/Fiddymnt Road</u> ▲ <u>Blue Oaks Boulevard/Foothills Boulevard</u> ▲ <u>Cirby Way/Riverside Avenue</u> 	<p>22 (14%)</p> <ul style="list-style-type: none"> ▲ <u>Baseline Road/Fiddymnt Road</u> ▲ <u>Blue Oaks Boulevard/Crocker Ranch Road</u> ▲ <u>Blue Oaks Boulevard/New Meadow Drive</u> ▲ <u>Blue Oaks Boulevard/Diamond Creek Boulevard</u> ▲ Douglas Boulevard/Harding Boulevard ▲ <u>Del Webb Boulevard/Village Green Drive/Fiddymnt Road</u> ▲ <u>Hayden Parkway (North)/Fiddymnt Road</u>

Table 4.14-22 Signalized Intersection Operations – City of Roseville – Existing Plus SAP Buildout Conditions

Level of Service	AM Peak Hour	PM Peak Hour	
	<ul style="list-style-type: none"> ▲ <u>Pleasant Grove Boulevard/Foothills Boulevard</u> ▲ <u>Baseline Road/Woodcreek Oaks Boulevard</u> 	<ul style="list-style-type: none"> ▲ <u>Blue Oaks Boulevard/Foothills Boulevard</u> ▲ <u>Blue Oaks Boulevard/Woodcreek Oaks Boulevard</u> ▲ <u>Cirby Way/Riverside Avenue</u> ▲ <u>Cirby Way/Vernon St.</u> ▲ <u>Douglas Boulevard/Eureka Road</u> ▲ <u>Douglas Boulevard/Rocky Ridge Drive</u> ▲ <u>Douglas Boulevard/Sunrise Avenue</u> ▲ <u>Douglas Boulevard/E. Roseville Parkway</u> 	<ul style="list-style-type: none"> ▲ <u>Pleasant Grove Boulevard/Foothills Boulevard</u> ▲ <u>Pleasant Grove Boulevard/Fiddymont Road</u> ▲ <u>Market St./Pleasant Grove Boulevard</u> ▲ <u>Pleasant Grove Boulevard/Roseville Parkway</u> ▲ <u>Roseville Parkway/Taylor Road</u> ▲ <u>Baseline Road/Woodcreek Oaks Boulevard</u> ▲ <u>Baseline Road/Watt Avenue</u>
Percent operating at LOS D, E, or F	17%	32%	

Notes: Includes 11 signalized intersections at Caltrans ramps located within the City of Roseville. Does not include the eight signalized intersections located in the City's Pedestrian Overlay District (POD). Intersection LOS and delay are calculated based on the procedures and methodology contained in the HCM 2010 (Transportation Research Board 2010).

Intersections in **bold and underlined** text indicate a significant impact.

Source: Fehr & Peers 2018

PRSP Area

Table 4.14-23 summarizes the a.m. and p.m. peak hour operations at all signalized intersections in Roseville under existing plus PRSP buildout conditions. Buildout of the PRSP would cause multiple signalized intersections in the City of Roseville currently operating at an acceptable LOS C or better to be degraded to an unacceptable LOS D or worse during the a.m. and/or p.m. peak hours. In addition, several intersections that already operate at an unacceptable LOS D or worse under existing conditions would be degraded by one or more service level during the a.m. and/or p.m. peak hours. Furthermore, the Douglas Boulevard / Harding Boulevard intersection, which operates at LOS F during the p.m. peak hour under existing conditions, would experience an increase in delay of 14 seconds per vehicle under existing plus PRSP conditions. These intersections are shown in bold in Table 4.14-23 below. However, the percentage of signalized intersections in the City of Roseville operating at LOS C or better would remain above 70 percent – 93 percent during the a.m. peak hour and 79 percent during the p.m. peak hour.

Table 4.14-23 Signalized Intersection Operations – City of Roseville – Existing Plus Placer Ranch Specific Plan Conditions

Level of Service	AM Peak Hour	PM Peak Hour
Total Intersections	160	160
LOS A-C	149 (93%)	126 (79%)
LOS D	7 (4%)	24 (15%)
	<ul style="list-style-type: none"> ▲ <u>Blue Oaks Boulevard/Fiddymont Road</u> ▲ <u>Blue Oaks Boulevard/Diamond Creek Boulevard</u> ▲ Cirby Way/Sunrise Avenue ▲ Douglas Boulevard/E. Roseville Parkway 	<ul style="list-style-type: none"> ▲ <u>Blue Oaks Boulevard/Foothills Boulevard</u> ▲ Cirby Way/Sunrise Avenue ▲ Cirby Way/Foothills Boulevard ▲ Cirby Way/Riverside Avenue ▲ Douglas Boulevard/Eureka Road ▲ Highland Pointe Drive/Pleasant Grove Boulevard ▲ <u>Pleasant Grove Boulevard/Washington Boulevard</u> ▲ Roseville Parkway/N. Sunrise Avenue ▲ Roseville Parkway/Reserve Drive

Table 4.14-23 Signalized Intersection Operations – City of Roseville – Existing Plus Placer Ranch Specific Plan Conditions

Level of Service	AM Peak Hour	PM Peak Hour
	<ul style="list-style-type: none"> ▲ Douglas Boulevard/Sierra College Boulevard ▲ <u>Baseline Road/Woodcreek Oaks Boulevard</u> ▲ Blue Oaks Boulevard/ Washington Boulevard 	<ul style="list-style-type: none"> ▲ Douglas Boulevard/Rocky Ridge Drive ▲ Douglas Boulevard/Sunrise Avenue ▲ Douglas Boulevard/Sierra College Boulevard ▲ Baseline Road/Main St./Foothills Boulevard ▲ <u>Junction Boulevard/Foothills Boulevard</u> ▲ Roseville Parkway/Galleria Boulevard ▲ Lead Hill Boulevard/N. Sunrise Avenue ▲ Fairway Drive/Pleasant Grove Boulevard ▲ Roseville Parkway/Secret Ravine Parkway ▲ Roseville Parkway/Taylor Road ▲ <u>Eureka Road/Sierra College Boulevard</u> ▲ <u>Old Auburn Road/Sierra College Boulevard</u> ▲ Five Star Boulevard/Stanford Ranch Road ▲ Blue Oaks Boulevard/ Washington Boulevard ▲ <u>Baseline Road/Watt Avenue</u>
LOS E	<p style="text-align: center;">3 (2%)</p> <ul style="list-style-type: none"> ▲ <u>Blue Oaks Boulevard/Foothills Boulevard</u> ▲ <u>Cirby Way/Riverside Avenue</u> ▲ <u>Pleasant Grove Boulevard/Foothills Boulevard</u> 	<p style="text-align: center;">7 (4%)</p> <ul style="list-style-type: none"> ▲ <u>Blue Oaks Boulevard/Diamond Creek Boulevard</u> ▲ <u>Blue Oaks Boulevard/Woodcreek Oaks Boulevard</u> ▲ <u>Douglas Boulevard/E. Roseville Parkway</u> ▲ <u>Pleasant Grove Boulevard/Fiddymment Road</u> ▲ Pleasant Grove Boulevard/Roseville Parkway ▲ <u>Pleasant Grove Boulevard/Woodcreek Oaks Boulevard</u> ▲ <u>Eureka Road/Taylor Road/I-80 EB Off-Ramp</u>
LOS F	<p style="text-align: center;">1 (1%)</p> <ul style="list-style-type: none"> ▲ <u>Baseline Road/Fiddymment Road</u> 	<p style="text-align: center;">3 (2%)</p> <ul style="list-style-type: none"> ▲ <u>Baseline Road/Fiddymment Road</u> ▲ <u>Douglas Boulevard/Harding Boulevard</u> ▲ <u>Pleasant Grove Boulevard/ Foothills Boulevard</u>
Percent operating at LOS D, E, or F	7%	21%

Notes: Includes 11 signalized intersections at Caltrans ramps located within the City of Roseville. Does not include the eight signalized intersections located in the City's Pedestrian Overlay District (POD). Intersection LOS and delay are calculated based on the procedures and methodology contained in the HCM 2010 (Transportation Research Board 2010).

Intersections in **bold and underlined** text indicate a significant impact.

Source: Fehr & Peers 2018

Mitigation Measures

Implement Mitigation Measures 4.14-1a (Net SAP Area and PRSP Area), 4.14-1b (PRSP Area), and 4.14-10 (Net SAP Area and PRSP Area). These measures include widening Sunset Boulevard, extending Foothills Boulevard between the PRSP area and City of Roseville, and capacity enhancements to SR 65, including payment of fees. These improvements in combination with the planned opening of Phase I of Placer Parkway would shift traffic demand from the following City of Roseville intersections, which would improve operations to an acceptable LOS C or better:

- ▲ Blue Oaks Boulevard / Fiddymment Road,
- ▲ Blue Oaks Boulevard / Diamond Creek Boulevard,

- ▲ Blue Oaks Boulevard / New Meadow Drive,
- ▲ Cirby Way / Riverside Avenue,
- ▲ Baseline Road / Woodcreek Oaks Boulevard, and
- ▲ Baseline Road / Watt Avenue.

Mitigation Measure 4.14-3: Pay impact fees associated with signalized intersections in City of Roseville to Placer County (Net SAP Area and PRSP Area)

Prior to building permit issuance, project proponents of individual development projects within the SAP area, including the PRSP area, shall pay impact fees to Placer County in amounts that constitute the SAP area's fair share contribution to the construction of transportation facilities and/or improvements at the following signalized intersections within the City of Roseville:

- ▲ Baseline Road / Fiddymment Road (net SAP and PRSP areas),
- ▲ Blue Oaks Boulevard / Crocker Ranch Road (net SAP area),
- ▲ Blue Oaks Boulevard / Fiddymment Road (net SAP and PRSP areas),
- ▲ Blue Oaks Boulevard / New Meadow Drive (net SAP area),
- ▲ Blue Oaks Boulevard / Diamond Creek Boulevard (net SAP and PRSP areas),
- ▲ Blue Oaks Boulevard / Foothills Boulevard (net SAP and PRSP areas),
- ▲ Blue Oaks Blvd / Woodcreek Oaks Boulevard (net SAP and PRSP areas),
- ▲ Cirby Way / Sunrise Avenue (net SAP area),
- ▲ Cirby Way / Foothills Boulevard (net SAP area),
- ▲ Cirby Way / Melody Lane (net SAP area),
- ▲ Cirby Way / Northridge Drive (net SAP area),
- ▲ Cirby Way / Riverside Avenue (net SAP and PRSP areas),
- ▲ Cirby Way / Vernon Street (net SAP area),
- ▲ Douglas Boulevard / Eureka Road (net SAP area),
- ▲ Douglas Boulevard / Rocky Ridge Drive (net SAP area),
- ▲ Douglas Boulevard / Sunrise Avenue (net SAP area),
- ▲ Douglas Boulevard / East Roseville Parkway (net SAP and PRSP areas),
- ▲ Douglas Boulevard / Harding Boulevard (PRSP area),
- ▲ Douglas Boulevard / Sierra College Boulevard (net SAP area),
- ▲ Del Webb Boulevard / Village Green Drive / Fiddymment Road (net SAP area),
- ▲ Hayden Parkway (North) / Fiddymment Road (net SAP area),
- ▲ Hayden Parkway (South) / Fiddymment Road (net SAP area),
- ▲ Baseline Road / Main Street / Foothills Boulevard (net SAP area),
- ▲ Atkinson Road / Foothills Boulevard (net SAP area),
- ▲ Junction Boulevard / Foothills Boulevard (net SAP and PRSP areas),
- ▲ Pleasant Grove Boulevard / Foothills Boulevard (net SAP and PRSP areas),
- ▲ Roseville Parkway / Galleria Boulevard (net SAP area),
- ▲ Fairway Drive / Pleasant Grove Boulevard (net SAP area),
- ▲ Pleasant Grove Boulevard / Fiddymment Road (net SAP and PRSP areas),
- ▲ Market Street / Pleasant Grove Boulevard (net SAP area),
- ▲ Pleasant Grove Boulevard / Roseville Parkway (net SAP area),
- ▲ Pleasant Grove Boulevard / Washington Boulevard (net SAP and PRSP areas),
- ▲ Pleasant Grove Boulevard / Woodcreek Oaks Boulevard (net SAP and PRSP areas),
- ▲ Roseville Parkway / Reserve Drive (net SAP area),
- ▲ Roseville Parkway / Taylor Road (net SAP area),
- ▲ Eureka Road / Roseville Parkway (net SAP area),
- ▲ Roseville Parkway / Washington Boulevard (net SAP area),
- ▲ S. Cirby Way / Old Auburn Road (net SAP area),
- ▲ Eureka Road / Sierra College Boulevard (net SAP and PRSP areas),
- ▲ Old Auburn Road / Sierra College Boulevard (net SAP and PRSP areas),
- ▲ Fairway Drive / Stanford Ranch Road (net SAP area),
- ▲ Baseline Road / Woodcreek Oaks Boulevard (net SAP and PRSP areas),

- ▲ Canevari Drive / Arsenault Drive / Woodcreek Oaks Boulevard (net SAP area),
- ▲ Pleasant Grove Boulevard / SR 65 SB Off-Ramp (net SAP area),
- ▲ I-80 WB Off-Ramp / Riverside Avenue (net SAP area),
- ▲ SR 65 NB On-Ramp / Stanford Ranch Road (net SAP area),
- ▲ Eureka Road / Taylor Road/I-80 Eastbound Off-Ramp (net SAP and PRSP areas),
- ▲ I-80 EB Off-Ramp / Orlando Avenue / Riverside Avenue (net SAP area), and
- ▲ Watt Avenue / Baseline Road (net SAP and PRSP areas).

Placer County, in working with the City of Roseville to provide funding for improvements not already subject to an existing interagency fee program, shall negotiate in good faith with the City of Roseville to enter into additional fair and reasonable arrangements with the intention of achieving, within a reasonable time period after approval of the SAP, including the PRSP, commitment for the provision of adequate fair share mitigation from the SAP/PRSP for significant impacts on City of Roseville intersections. In reaching an accommodation with the City of Roseville, the County and City, in order to better ensure an effective sub-regional approach to mitigating transportation-related impacts, may choose to include within the same agreements or JPA (if a JPA is formed) additional public agencies with whom it must work to mitigate transportation-related impacts, such as Sacramento County, Sutter County, and Caltrans. As the County strives to achieve agreement(s) with one or more of these other agencies, the County shall insist that “fair share” fee obligations be reciprocal, in the sense that the other local agencies, in accepting fair share contributions from the SAP/PRSP developers, must agree to require new development occurring in their own jurisdictions to make fair share contributions towards mitigating the significant effects of such development on the County’s transportation network. Any such arrangement(s), with just the City of Roseville or with additional agencies, shall account for existing inter-agency fee programs in order to avoid requiring redundant mitigation or fee payments exceeding fair share mitigation levels.

The County intends that its arrangement(s) with the City of Roseville and any other agencies shall permit the participating agencies’ flexibility in providing cross-jurisdictional credits and reimbursements consistent with the general “fair share” mitigation standard, and require an updated model run incorporating the best available information in order to obtain the most accurate, up-to-date impact assessment feasible and to generate the most accurate, up-to-date estimates of regional fair share contributions. These arrangements, moreover, should also include provisions that allow for periodic updates to the traffic modeling on which fair share payment calculations depend in order to account for (i) newly approved projects cumulatively contributing to transportation-related impacts and that therefore should contribute to the funding of necessary improvements, (ii) additional physical improvements necessitated in whole or in part by newly approved projects, (iii) changing cost calculations for the construction of needed improvements based on changes in the costs of materials, labor, and other inputs. The County will monitor traffic volumes and coordinate with the City of Roseville regarding traffic mitigation fees to fund regional improvements.

The implementation of improvements at the impacted intersections listed above vary by location based on the type of improvement, and whether the improvement is included in a known fee program. Therefore, the project’s contribution toward such improvements may take one of the following forms:

- (a) The widening of Blue Oaks Boulevard to eight lanes from Woodcreek Oaks Boulevard to SR 65, as included in the City of Roseville CIP, would restore operations to an acceptable LOS C or better during the a.m. and p.m. peak hours at the following intersection. This improvement is considered feasible because it is identified in the City of Roseville CIP, which is funded by the City of Roseville’s Traffic Mitigation Fee (TMF).
 - ▲ Blue Oaks Boulevard / Foothills Boulevard (net SAP and PRSP areas)
- (b) The capacity-enhancing improvements to the intersections listed below are included in the City of Roseville CIP, which is funded by the City of Roseville’s TMF. These enhancements are considered feasible because they are funded through an adopted fee program. These improvements would restore operations to an acceptable LOS C or better for intersections that operate at LOS C or better under existing conditions. Similarly, these improvements would restore operations to the LOS under existing conditions or better for intersections that currently operate at an unacceptable LOS D, E, or F.

- ▲ Douglas Boulevard / Sierra College Boulevard (net SAP area)
 - Widen southbound approach to accommodate a right-turn pocket
 - ▲ Pleasant Grove Boulevard / Foothills Boulevard (PRSP)
 - Modify the westbound approach to convert the outside left-turn lane to a third westbound through lane, resulting in 2 left-turn lanes, 3 through lanes, and 1 right-turn lane on the westbound approach
 - ▲ Roseville Parkway / Galleria Boulevard (net SAP area)
 - Widen the eastbound and westbound approaches to accommodate a fourth through lane
 - ▲ Pleasant Grove Boulevard / Woodcreek Oaks Boulevard (PRSP area)
 - Widen the eastbound approach to accommodate a third through lane
 - ▲ Blue Oaks Boulevard / Washington Boulevard (net SAP area)
 - Widen the eastbound and westbound approaches to accommodate a fourth through lane
 - Widen the northbound approach to accommodate a second right-turn lane

(c) The capacity-enhancing improvements to the intersections listed below are included in the City/County Baseline Road Fee Program. These improvements are considered feasible because they are funded through an adopted fee program. These improvements would restore operations to an acceptable LOS C or better during the a.m. and p.m. peak hours.

 - ▲ Baseline Road / Fiddymont Road (PRSP area)
 - Modify the eastbound approach to accommodate a second left-turn lane
 - Modify the westbound approach to accommodate a second left-turn lane and third through lane
 - Modify signal to provide right-turn overlap phase for the westbound, northbound, and southbound right-turn movements, and prohibit the conflicting U-turn movements
 - ▲ Watt Avenue / Baseline Road (net SAP area)
 - Widen the eastbound and westbound approaches to accommodate two through lanes
 - Widen the westbound approach to accommodate two left-turn lanes

(d) The capacity-enhancing improvements to the intersection listed below is included in the SPRTA fee program and the City of Roseville CIP, which is funded by the City of Roseville's TMF. These improvements are considered feasible because they are funded through an adopted fee program. These improvements would restore operations to an acceptable LOS C or better during the a.m. and p.m. peak hours.

 - ▲ Eureka Road / Sierra College Boulevard (net SAP area)
 - Widen the northbound and southbound approaches to accommodate a third through lane
 - ▲ Old Auburn Road / Sierra College Boulevard (net SAP area)
 - Widen the northbound and southbound approaches to accommodate a third through lane

(e) Capacity-enhancing improvements to the intersections listed below are not included in any known fee program, including the City of Roseville's TMF program. These improvements would restore operations to an acceptable LOS C or better for intersections that operate at LOS C or better under existing conditions. Similarly, these improvements would restore operations to the LOS under existing conditions or better for intersections that currently operate at an unacceptable LOS D, E, or F. The following enhancements are necessary only to mitigate the traffic impacts for buildout of the SAP and are not necessary to mitigate traffic impacts from the buildout of the PRSP.

- ▲ Baseline Road / Fiddymment Road
 - Widen the northbound approach to accommodate one left-turn lane, two through lanes, and a shared through/right-turn lane
- ▲ Blue Oaks Boulevard / Woodcreek Oaks Boulevard
 - Widen the eastbound and westbound approaches to accommodate a fourth through lane, as identified in the City of Roseville's CIP for widening Blue Oaks Boulevard to eight lanes
 - Restripe the southbound approach to accommodate three left-turn lanes, one through lane, and one through/right-turn lane
 - Modify signal to provide right-turn overlap phases for the westbound and northbound right-turn movements, and prohibit the conflicting U-turn movements
- ▲ Cirby Way / Riverside Avenue
 - Widen the eastbound approach to accommodate a third eastbound through lane
 - Widen the northbound approach to accommodate a third left-turn lane
 - Widen the westbound approach to accommodate a third left-turn lane and right-turn pocket
 - Modify signal to provide right-turn overlap phases for the northbound and southbound right-turn movements, and prohibit the conflicting U-turn movements
- ▲ Cirby Way / Vernon Street
 - Widen the eastbound approach to accommodate a right-turn pocket
 - Widen the southbound approach to accommodate a second right-turn lane
 - Modify signal to provide right-turn overlap phases for the southbound right-turn movement and prohibit the conflicting U-turn movements
- ▲ Douglas Boulevard / Rocky Ridge Drive
 - Widen the northbound and southbound approaches to accommodate a third through lane
 - Modify signal to provide right-turn overlap phases for the northbound and southbound right-turn movements, and prohibit the conflicting U-turn movements
- ▲ Douglas Boulevard / Sunrise Avenue
 - Widen northbound approach to accommodate a right-turn pocket
 - Widen the southbound approach to accommodate a second right-turn lane
- ▲ Lead Hill Boulevard / N. Sunrise Avenue
 - Modify signal to provide right-turn overlap phases for the southbound and eastbound right-turn movements, and prohibit the conflicting U-turn movements
- ▲ Pleasant Grove Boulevard / Fiddymment Road
 - Widen the southbound approach to accommodate a third through lane
 - Modify signal to provide right-turn overlap phases for the northbound, eastbound, and westbound right-turn movements, and prohibit the conflicting U-turn movements
- ▲ Pleasant Grove Boulevard / Roseville Parkway
 - Widen the westbound approach to accommodate a fourth through lane

the City of Roseville. The signal timing improvements would include modification of timings to optimize use of the signal cycle to provide more green time allocation for critical movements.

- ▲ Blue Oaks Boulevard / Crocker Ranch Road (net SAP area)
- ▲ Blue Oaks Boulevard / Fiddymment Road (net SAP area)
- ▲ Blue Oaks Boulevard / Diamond Creek Boulevard (net SAP area)
- ▲ Cirby Way / Sunrise Avenue (net SAP area)
- ▲ Cirby Way / Foothill Boulevard (net SAP area)
- ▲ Douglas Boulevard / Eureka Road (net SAP area)
- ▲ Douglas Boulevard / Santa Clara Drive (net SAP area)
- ▲ Douglas Boulevard / Sierra Gardens Drive (net SAP area)
- ▲ Douglas Boulevard / E. Roseville Parkway (net SAP and PRSP areas)
- ▲ Del Webb Boulevard / Village Green Drive / Fiddymment Avenue (net SAP area)
- ▲ Baseline Road / Main Street / Foothills Boulevard (net SAP area)
- ▲ Junction Boulevard / Foothills Boulevard (net SAP and PRSP areas)
- ▲ Pleasant Grove Boulevard / Foothills Boulevard (net SAP area)
- ▲ Pleasant Grove Boulevard / Fiddymment Road (PRSP area)
- ▲ Pleasant Grove Boulevard / Washington Boulevard (PRSP area)
- ▲ Antelope Creek Drive / Galleria Boulevard (net SAP area)
- ▲ Fairway Drive / Pleasant Grove Boulevard (net SAP area)
- ▲ Pleasant Grove Boulevard / Woodcreek Oaks Boulevard (net SAP area)
- ▲ Roseville Parkway / Creekside Ridge Drive (net SAP area)
- ▲ Roseville Parkway / N. Sunrise Avenue (net SAP area)
- ▲ Roseville Parkway / Reserve Drive (net SAP area)
- ▲ Roseville Parkway / Washington Boulevard (net SAP area)
- ▲ S. Cirby Way / Old Auburn Road (net SAP area)
- ▲ Canevari Drive/Arsenault Drive / Woodcreek Oaks Boulevard (net SAP area)

Significance after Mitigation

Mitigation Measure 4.14-3 would result in acceptable LOS C or better operations for intersections that operate at LOS C or better under existing conditions. Similarly, these improvements would improve operations to the existing LOS or better for intersections that operate at an unacceptable LOS D, E, or F under existing conditions. Furthermore, the improvements listed in under items (a) through (d) above are included in adopted fee programs; therefore, those improvements are considered feasible. Similarly, the signal timing improvements identified under item (f) above would occur through the City of Roseville's regular maintenance of their traffic signals; therefore, they are considered feasible.

However, the improvements listed in Mitigation Measure 4.14-3 would require approvals from and implementation by the City of Roseville. Since these improvements are not within Placer County's jurisdiction to control, it cannot be guaranteed that these improvements will be implemented. Therefore, this impact remains **significant and unavoidable**.

Impact 4.14-4: Impacts to unsignalized intersection operations in the City of Roseville

Vehicle trips generated by the buildout of the SAP would cause the unsignalized intersections at Woodcreek Oaks Boulevard / Northpark Drive, Woodcreek Oaks Boulevard / Parkside Way, Fiddymment Road / Angus Drive/Parkland Way, and Industrial Avenue / Alantown Drive in the City of Roseville to be degraded from an acceptable LOS C or better to an unacceptable LOS F and meet the MUTCD peak hour signal warrant. Similarly, vehicle trips generated by the PRSP would cause the unsignalized intersections at Woodcreek Oaks Boulevard / Northpark Drive, Woodcreek Oaks Boulevard / Parkside Way, and Fiddymment Road / Angus Drive/Parkland Way in the City of Roseville to be degraded from an acceptable LOS C or better to an unacceptable LOS F and meet the MUTCD peak hour signal warrant.

In addition, the Junction Boulevard /Park Regency Drive, which operates at LOS F during the a.m. peak hour under existing conditions, would experience an increase in delay of more than 88 seconds per vehicle and meet the MUTCD peak hour signal warrant under existing plus SAP conditions. Similarly, the Woodcreek Oaks Boulevard / Painted Desert Drive intersection, which operates at LOS F during the a.m. peak hour under existing conditions, would experience an increase in delay of more than 200 seconds per vehicle and meet the MUTCD peak hour signal warrant under existing plus SAP buildout and existing plus PRSP conditions. These increases in delay and degradations in LOS and would be a **significant** impact.

Table 4.14-24 presents the existing plus project a.m. and p.m. peak hour operations for the unsignalized study intersections located in the City of Roseville.

Table 4.14-24 Unsignalized Intersection Operations – City of Roseville – Existing Plus Project Conditions

Intersection	Traffic Control	LOS Standard	Peak Hour	Existing Conditions		Existing Plus SAP Buildout		Existing Plus PRSP	
				Delay ¹	LOS	Delay ¹	LOS	Delay ¹	LOS
Junction Boulevard/Park Regency Drive	SSSC	C	AM PM	19 (141) 3 (23)	C (F) A (C)	40 (229) 3 (23)	A (F) A (C)	18 (132) 3 (23)	C (F)² A (C)
Woodcreek Oaks Boulevard/Crimson Ridge Way	SSSC	C	AM PM	1 (17) 1 (14)	A (C) A (B)	1 (27) 1 (29)	A (D)² A (D)²	0 (17) 0 (19)	A (C) A (C)
Woodcreek Oaks Boulevard/Hop Scotch Way	SSSC	C	AM PM	9 (13) 6 (10)	A (B) A (A)	1 (12) 1 (44)	A (B) A (E)²	1 (20) 11 (534)	A (C) B (F)²
Woodcreek Oaks Boulevard/Northpark Drive	AWSC	C	AM PM	13 10	B A	>300 >300	F F	613 518	F F
Woodcreek Oaks Boulevard/Parkside Way	SSSC	C	AM PM	5 (14) 2 (16)	A (B) A (C)	>300 (>300) 21 (101)	F (F) C (F)	69 (462) 2 (17)	E (F) A (C)
Woodcreek Oaks Boulevard/Painted Desert Drive	SSSC	C	AM PM	10 (99) 2 (26)	A (F) A (D)	51 (>300) 9 (69)	F (F) A (F)²	22 (401) 11 (351)	C (F) B (F)
Fiddymment Road/Parkland Way	SSSC	C	AM PM	4 (16) 2 (19)	A (C) A (C)	80 (>300) 249 (>300)	F (F) F (F)	22 (1253) 116 (573)	C (F) F (F)
Industrial Avenue/Alantown Drive	SSSC	C	AM PM	5 (18) 3 (27)	A (C) A (D)	39 (249) 25 (236)	E (F) D (F)	2 (22) 2 (27)	A (C) A (D)

Notes: LOS = Level of Service. AWSC = All-Way Stop Control; SSSC = Side-Street Stop Control

BOLD text indicates unacceptable intersection operations.

UNDERLINED text indicates significantly impacted study intersection.

1. For AWSC intersections, the table reports the weighted average intersection control delay for all approaches in seconds per vehicle. For SSSC intersections, the LOS and control delay for the movement with the highest control delay is shown in parentheses next to the overall average intersection LOS and delay. Intersection LOS and delay is calculated based on the procedures and methodology contained in the HCM 2010 (Transportation Research Board 2010).

2. Not a significant impact because the intersection does not meet the MUTCD peak hour signal warrant.

Source: Fehr & Peers 2018

SAP Area

Buildout of the SAP would degrade traffic operations at the unsignalized intersections in the City of Roseville shown in **bold and underlined** text in Table 4.14-24. In addition, traffic generated by implementing the SAP would cause operations at the following unsignalized intersections in the City of Roseville to degrade such that MUTCD peak hour signal warrants would be met. This would be a significant impact.

- ▲ Junction Boulevard / Park Regency Drive experiences an increase in delay from 141 seconds to 229 seconds while operating at LOS F during the a.m. peak hour.
- ▲ Woodcreek Oaks Boulevard / Northpark Drive degrades from LOS B to LOS F during the a.m. peak hour and degrades from LOS A to LOS F during the p.m. peak hour.

- ▲ Woodcreek Oaks Boulevard / Parkside Way degrades from LOS B to LOS F during the a.m. peak hour.
- ▲ Woodcreek Oaks Boulevard / Painted Desert Drive experiences an increase in delay from 99 seconds to 302 seconds while operating at LOS F during the a.m. peak hour.
- ▲ Fiddymment Road / Parkland Way / Angus Drive degrades from LOS C to LOS F during both peak hours.
- ▲ Industrial Avenue / Alantown Drive degrades from LOS C to LOS F during the a.m. peak hour, and from LOS D to LOS F during the p.m. peak hour.

PRSP Area

Buildout of the PRSP would cause degradations in traffic operations at the unsignalized intersections in the City of Roseville shown in **bold and underlined** text in Table 4.14-24. In addition, traffic generated by the PRSP would cause the following unsignalized intersections in the City of Roseville to degrade in traffic operations and meet the MUTCD peak hour signal warrant. This would be a significant impact.

- ▲ Woodcreek Oaks Boulevard / Northpark Drive degrades from LOS B to LOS F during the a.m. peak hour, and from LOS A to LOS F during the p.m. peak hour.
- ▲ Woodcreek Oaks Boulevard / Parkside Way degrades from LOS B to LOS F during the a.m. peak hour.
- ▲ Woodcreek Oaks Boulevard / Painted Desert Drive experiences an increase in delay from 99 seconds to 401 seconds while operating at LOS F during the a.m. peak hour and degrades from LOS D to LOS F during the p.m. peak hour.
- ▲ Fiddymment Road / Parkland Way/Angus Drive degrades from LOS C to LOS F during both peak hours.

Mitigation Measures

Implement Mitigation Measure 4.14-1b (PRSP Area). The extension of Foothills Boulevard between the PRSP area and City of Roseville would shift traffic demand from Woodcreek Oaks Boulevard to Foothills Boulevard. With this reduction in traffic on Woodcreek Oaks Boulevard, the Woodcreek Oaks Boulevard / Northpark Drive and Woodcreek Oaks Boulevard / Parkside Way intersections would no longer meet the MUTCD peak hour signal warrant under existing plus PRSP conditions.

The City of Roseville installed a traffic signal at the Fiddymment Road / Parkland Way/Angus Drive intersection, which became operational in 2016 during preparation of the traffic analysis for this report. With this signal in place, traffic operations are restored to an acceptable LOS with buildout of the PRSP and no additional mitigation is necessary. However, additional capacity enhancements would be necessary to restore operations to an acceptable LOS with buildout of the SAP. The City of Roseville does not intend to widen the intersection beyond its current configuration in the future. Recent land development and transportation improvements at this intersection and along Fiddymment Road would make further widening of this intersection infeasible. Therefore, this intersection would continue to operate at an unacceptable LOS with buildout of the SAP.

The City of Roseville is also widening Woodcreek Oaks Boulevard to 4 lanes (2 northbound and 2 southbound), and the developer-installed traffic signal at the Woodcreek Oaks Boulevard / Painted Desert Drive intersection became operational in late 2017. With this signal in place, traffic operations are restored to an acceptable LOS with buildout of the PRSP and net SAP areas and no additional mitigation is necessary.

Mitigation Measure 4.14-4: Pay impact fees associated with unsignalized intersections in City of Roseville to Placer County (Net SAP Area and PRSP Area)

Prior to building permit issuance, project proponents of individual development projects within the SAP area shall pay impact fees to Placer County in amounts that constitute the SAP area's fair share contribution to the installation of traffic signals at the following unsignalized intersections within the City of Roseville.

- ▲ Woodcreek Oaks Boulevard / Northpark Drive (SAP area)
- ▲ Woodcreek Oaks Boulevard / Parkside Way (SAP area)
- ▲ Industrial Avenue / Alantown Drive (SAP area)

As with Mitigation Measure 4.14-3, Placer County, in working with the City of Roseville to provide funding for improvements not already subject to an existing interagency fee program, shall negotiate in good faith with the City of Roseville to enter into additional fair and reasonable arrangements with the intention of achieving, within a reasonable time period after approval of the SAP, including the PRSP, commitment for the provision of adequate fair share mitigation from the SAP/PRSP for significant impacts on City of Roseville intersections. In reaching an accommodation with the City of Roseville, the County and City, in order to better ensure an effective sub-regional approach to mitigating transportation-related impacts, may choose to include within the same agreements or JPA (if a JPA is formed) additional public agencies with whom it must work to mitigate transportation-related impacts, such as Sacramento County, Sutter County, and Caltrans. As the County strives to achieve agreement(s) with one or more of these other agencies, the County shall insist that "fair share" fee obligations be reciprocal, in the sense that the other local agencies, in accepting fair share contributions from the SAP/PRSP developers, must agree to require new development occurring in their own jurisdictions to make fair share contributions towards mitigating the significant effects of such development on the County's transportation network. Any such arrangement(s), with just the City of Roseville or with additional agencies, shall account for existing inter-agency fee programs in order to avoid requiring redundant mitigation or fee payments exceeding fair share mitigation levels.

The County intends that its arrangement(s) with the City of Roseville and any other agencies shall permit the participating agencies' flexibility in providing cross-jurisdictional credits and reimbursements consistent with the general "fair share" mitigation standard, and require an updated model run incorporating the best available information in order to obtain the most accurate, up-to-date impact assessment feasible and to generate the most accurate, up-to-date estimates of regional fair share contributions. These arrangements, moreover, should also include provisions that allow for periodic updates to the traffic modeling on which fair share payment calculations depend in order to account for (i) newly approved projects cumulatively contributing to transportation-related impacts and that therefore should contribute to the funding of necessary improvements, (ii) additional physical improvements necessitated in whole or in part by newly approved projects, (iii) changing cost calculations for the construction of needed improvements based on changes in the costs of materials, labor, and other inputs. The County will monitor traffic volumes and coordinate with the City of Roseville regarding traffic mitigation fees to fund regional improvements.

Significance after Mitigation

Installing traffic signals at the three intersections listed above is included in the City of Roseville CIP, which is funded by the City of Roseville's TMF. These enhancements are considered feasible because they are funded through an adopted fee program. These improvements would result in acceptable LOS C or better operations for the three intersections listed above.

Overall Significance after Mitigation

Mitigation Measure 4.14-4 would result in acceptable LOS C or better operations. The improvements identified in Mitigation Measure 4.14-4 are included in the City of Roseville's CIP and TMF program. However, the improvements listed in Mitigation Measure 4.14-4 would require implementation by the City of Roseville. As such, this mitigation would require approvals from and implementation by the City of Roseville. Since these improvements are not within Placer County's jurisdiction to control, it cannot be guaranteed that these improvements will be implemented. Therefore, this impact remains **significant and unavoidable**.

Impact 4.14-5: Impacts to intersection operations in the City of Rocklin

Vehicle trips generated by buildout of the proposed SAP would cause study intersections in the City of Rocklin to be degraded from an acceptable LOS C or better to an unacceptable LOS D or E during the p.m. peak hour. In addition, vehicle trips generated by buildout of the proposed SAP would cause study intersections in the City of Rocklin that are already operating at LOS D to experience an increase in delay of 5 seconds or more. These degradations in LOS and increases in delay at intersections already operating at an unacceptable LOS would be a **significant** impact.

Table 4.14-25 presents the existing plus project p.m. peak hour operations for the study intersections located in the City of Rocklin.

Table 4.14-25 Intersection Operations – City of Rocklin – Existing Plus Project Conditions

Intersection	Traffic Control	LOS Standard	Peak Hour	Existing Conditions		Existing Plus SAP Buildout		Existing Plus PRSP	
				Delay ¹	LOS	Delay ¹	LOS	Delay ¹	LOS
Blue Oaks Boulevard/Lonetree Boulevard/Fairway Drive	Signal	C	PM	41	D	43	D	38	D
Sunset Boulevard/Lonetree Boulevard/W. Stanford Ranch Road	Signal	C	PM	25	C	56	E	31	C
Blue Oaks Boulevard/Sunset Boulevard	Signal	C	PM	24	C	34	C	22	C
Park Drive/Sunset Boulevard	Signal	C	PM	43	D	48	D	47	D
Stanford Ranch Road/Sunset Boulevard	Signal	C	PM	35	D	43	D	39	D
Whitney Ranch Parkway/Wildcat Boulevard	Signal	C	PM	16	B	14	B	16	B
University Avenue/Whitney Ranch Parkway	AWSC	C	PM	9	A	9	A	9	A
Sunset Boulevard/University Avenue/Atherton Drive	Signal	C	PM	20	B	36	D	21	C
Pacific St./Sunset Boulevard	Signal	C	PM	47	D	58	E	44	D
W. Stanford Ranch Road/Wildcat Boulevard	Signal	C	PM	17	B	20	C	17	B

Notes: LOS = Level of Service. AWSC = All-Way Stop Control

BOLD text indicates unacceptable intersection operations.

UNDERLINED text indicates significantly impacted study intersection.

¹ For signalized and AWSC intersections, the table reports the weighted average intersection control delay for all approaches in seconds per vehicle. Intersection LOS and delay are calculated based on the procedures and methodology contained in the HCM 2010 (Transportation Research Board 2010).

Source: Fehr & Peers 2018

SAP Area

Buildout of the SAP would cause the following degradations in traffic operations at study intersections in the City of Rocklin during the p.m. peak hour. This would be a significant impact.

- ▲ Sunset Boulevard / Lonetree Boulevard/W. Stanford Ranch Road degrades from LOS C to LOS E.
- ▲ Park Drive / Sunset Boulevard continues to operate at LOS D and experiences a 5-second increase in delay.
- ▲ Stanford Ranch Road / Sunset Boulevard continues to operate at LOS D and experiences an 8-second increase in delay.
- ▲ Sunset Boulevard / University Avenue/Atherton Drive degrades from LOS B to LOS D.
- ▲ Pacific Street / Sunset Boulevard degrades from LOS D to LOS E and experiences an 11-second increase in delay.

The following intersection continues to operate at LOS D with buildout of the SAP and experiences a 2-second increase in delay. Since this is less than the City of Rocklin's 5-second threshold, this would be a less-than-significant impact.

- ▲ Blue Oaks Boulevard / Lonetree Boulevard/Fairway Drive continues to operate at LOS D and experiences a 2-second increase in delay.

PRSP Area

Four study intersections in the City of Rocklin would continue to operate at LOS D during the p.m. peak hour with buildout of the PRSP. However, all four of these intersections would experience an increase in delay of 4 seconds or less. Therefore, this would be a less-than-significant impact.

Mitigation Measures

Mitigation Measure 4.14-5: Pay impact fees associated with signalized intersections in City of Rocklin to Placer County (Net SAP Area and PRSP Area)

Prior to building permit issuance, project proponents of individual development projects within the SAP area, including the PRSP area, shall pay impact fees to Placer County in amounts that constitute the SAP area's fair share contribution to the construction of transportation facilities and/or improvements in the City of Rocklin identified below.

Placer County, in working with the City of Rocklin to provide funding for improvements not already subject to an existing interagency fee program, shall negotiate in good faith with the City of Rocklin to enter into additional fair and reasonable arrangements with the intention of achieving, within a reasonable time period after approval of the SAP, including the PRSP, commitment for the provision of adequate fair share mitigation from the SAP/PRSP for significant impacts on City of Rocklin intersections. In reaching an accommodation with the City of Rocklin, the County and City, in order to better ensure an effective sub-regional approach to mitigating transportation-related impacts, may choose to include within the same agreements or JPA (if a JPA is formed) additional public agencies with whom it must work to mitigate transportation-related impacts, such as Sacramento County, Sutter County, and Caltrans. As the County strives to achieve agreement(s) with one or more of these other agencies, the County shall insist that "fair share" fee obligations be reciprocal, in the sense that the other local agencies, in accepting fair share contributions from the SAP/PRSP developers, must agree to require new development occurring in their own jurisdictions to make fair share contributions towards mitigating the significant effects of such development on the County's transportation network. Any such arrangement(s), with just the City of Rocklin or with additional agencies, shall account for existing inter-agency fee programs in order to avoid requiring redundant mitigation or fee payments exceeding fair share mitigation levels.

The County intends that its arrangement(s) with the City of Rocklin and any other agencies shall permit the participating agencies' flexibility in providing cross-jurisdictional credits and reimbursements consistent with the general "fair share" mitigation standard, and require an updated model run incorporating the best available information in order to obtain the most accurate, up-to-date impact assessment feasible and to generate the most accurate, up-to-date estimates of regional fair share contributions. These arrangements, moreover, should also include provisions that allow for periodic updates to the traffic modeling on which fair share payment calculations depend in order to account for (i) newly approved projects cumulatively contributing to transportation-related impacts and that therefore should contribute to the funding of necessary improvements, (ii) additional physical improvements necessitated in whole or in part by newly approved projects, (iii) changing cost calculations for the construction of needed improvements based on changes in the costs of materials, labor, and other inputs. The County will monitor traffic volumes and coordinate with the City of Rocklin regarding traffic mitigation fees to fund regional improvements.

The necessary capacity enhancements to mitigate the increased delay caused by buildout of the SAP at the impacted intersections listed above would include:

- ▲ Sunset Boulevard / Lonetree Boulevard/W. Stanford Ranch Road:

- Widen the northbound approach to accommodate a third left-turn lane.
- Modify signal to provide right-turn overlap phase for the northbound, eastbound, and westbound right-turn movements, and prohibit the conflicting U-turn movements.
- ▲ Park Drive / Sunset Boulevard:
 - Optimize the signal timing splits.
- ▲ Stanford Ranch Road / Sunset Boulevard:
 - Modify signal to provide right-turn overlap phase for the southbound, eastbound, and westbound right-turn movements, and prohibit the conflicting U-turn movements,
- ▲ Sunset Boulevard / University Avenue/Atherton Drive:
 - Widen Sunset Boulevard to 6 lanes from SR 65 to east of University Avenue,
- ▲ Pacific Street / Sunset Boulevard:
 - Widen the eastbound approach to accommodate a second left-turn lane.

Significance after Mitigation

Mitigation Measures 4.14-5 would result in acceptable LOS C or better operations at the Sunset Boulevard / Lonetree Boulevard/W. Stanford Ranch Road, Stanford Ranch Road / Sunset Boulevard, and Sunset Boulevard / University Avenue/Atherton Drive intersections. It would also reduce delay at the Park Drive / Sunset Boulevard and Pacific Street / Sunset Boulevard intersections to their existing delay levels or better.

However, the improvements listed in Mitigation Measure 4.14-5 would require approvals from and implementation by the City of Rocklin. Since this improvement is not within Placer County’s jurisdiction to control, it cannot be guaranteed that this improvement will be implemented. Therefore, this impact remains **significant and unavoidable**.

Impact 4.14-6: Impacts to intersection operations in the City of Lincoln

Vehicle trips generated by the proposed project would cause study intersections in the City of Lincoln to be degraded from an acceptable LOS C or better to an unacceptable LOS F during the p.m. peak hour. This degradation in LOS would be a **significant** impact.

Table 4.14-26 presents the existing plus project p.m. peak hour operations for the study intersections located in the City of Lincoln.

Table 4.14-26 Intersection Operations – City of Lincoln – Existing Plus Project Conditions

Intersection	Traffic Control	LOS Standard	Peak Hour	Existing Conditions		Existing Plus SAP Buildout		Existing Plus PRSP	
				Delay ¹	LOS	Delay ¹	LOS	Delay ¹	LOS
Joiner Parkway/Ferrari Ranch Road	Signal	C	PM	18	B	17	B	17	B
Fiddymont Road/Moore Road	AWSC	C	PM	8	A	>300	F	89	F
Ferrari Ranch Road/Sorrento Parkway	AWSC	C	PM	8	A	21	C	24	C
Ferrari Ranch Road/Groveland Ln.	Signal	C	PM	19	B	18	B	20	B
Industrial Avenue/Twelve Bridges Drive	AWSC	C	PM	15	B	>300	F	126	F
Dowd Road/Moore Road	SSSC	C	PM	3 (9)	A (A)	>300 (>300)	F (F)	7 (10)	A (B)
Nelson Road/ Moore Road	SSSC	C	PM	4 (9)	A (A)	6 (14)	A (B)	6 (14)	A (B)

Table 4.14-26 Intersection Operations – City of Lincoln – Existing Plus Project Conditions

Lincoln Boulevard/Sterling Parkway	Signal	C	PM	8	A	6	A	8	A
Joiner Parkway/Twelve Bridges Drive	Signal	C	PM	22	C	24	C	23	C

Notes: LOS = Level of Service. AWSC = All-Way Stop Control; SSSC = Side-Street Stop Control

BOLD text indicates unacceptable intersection operations.

UNDERLINED text indicates significantly impacted study intersection.

¹. For signalized and AWSC intersections, the table reports the weighted average intersection control delay for all approaches in seconds per vehicle. For SSSC intersections, the LOS and control delay for the movement with the highest control delay is shown in parentheses next to the overall average intersection LOS and delay. Intersection LOS and delay are calculated based on the procedures and methodology contained in the HCM 2010 (Transportation Research Board 2010).

Source: Fehr & Peers 2018

SAP Area

Buildout of the SAP would cause the following degradations in traffic operations at study intersections in the City of Lincoln during the p.m. peak hour. This would be a significant impact.

- ▲ Fiddymment Road / Moore Road degrades from LOS A to LOS F
- ▲ Industrial Avenue / Twelve Bridges Drive degrades from LOS B to LOS E
- ▲ Dowd Road / Moore Road degrades from LOS A to LOS F

PRSP Area

Buildout of the PRSP would cause the following degradations in traffic operations at study intersections in the City of Lincoln during the p.m. peak hour. This would be a significant impact.

- ▲ Fiddymment Road / Moore Road degrades from LOS A to LOS E
- ▲ Industrial Avenue / Twelve Bridges Drive degrades from LOS B to LOS E

Phase I of Placer Parkway

Construction of Phase I of Placer Parkway (previously approved) would shift traffic demand from the impacted intersections of Fiddymment Road / Moore Road and Industrial Avenue / Twelve Bridges Drive, improving operations to an acceptable LOS. Therefore, this would mitigate the significant impacts to traffic operations at intersections in the City of Lincoln under existing plus PRSP conditions. Further details regarding the construction of Phase I of Placer Parkway is described under Impact 4.14-1.

Mitigation Measures

Mitigation Measure 4.14-6: Pay impact fees associated with unsignalized intersections in City of Lincoln to Placer County (Net SAP Area and PRSP Area)

Prior to building permit issuance, project proponents of individual development projects within the SAP area shall pay impact fees to Placer County in amounts that constitute the SAP area's fair share contribution to the installation of a traffic signal at the Dowd Road / Moore Road intersection.

Placer County, in working with the City of Lincoln to provide funding for improvements not already subject to an existing interagency fee program, shall negotiate in good faith with the City of Lincoln to enter into additional fair and reasonable arrangements with the intention of achieving, within a reasonable time period after approval of the SAP, including the PRSP, commitment for the provision of adequate fair share mitigation from the SAP/PRSP for significant impacts on City of Lincoln intersections. In reaching an accommodation with the City of Lincoln, the County and City, in order to better ensure an effective sub-regional approach to mitigating transportation-related impacts, may choose to include within the same agreements or JPA (if a JPA is formed) additional public agencies with whom it must work to mitigate transportation-related impacts, such as Sacramento County, Sutter County, and Caltrans. As the County strives to achieve agreement(s) with one or more of these other agencies, the County shall insist that "fair share" fee obligations be reciprocal, in the sense that the other local agencies, in accepting fair share contributions from the SAP/PRSP developers, must agree to require new development occurring in their own jurisdictions to make fair share contributions towards

mitigating the significant effects of such development on the County's transportation network. Any such arrangement(s), with just the City of Lincoln or with additional agencies, shall account for existing inter-agency fee programs in order to avoid requiring redundant mitigation or fee payments exceeding fair share mitigation levels.

The County intends that its arrangement(s) with the City of Lincoln and any other agencies shall permit the participating agencies' flexibility in providing cross-jurisdictional credits and reimbursements consistent with the general "fair share" mitigation standard, and require an updated model run incorporating the best available information in order to obtain the most accurate, up-to-date impact assessment feasible and to generate the most accurate, up-to-date estimates of regional fair share contributions. These arrangements, moreover, should also include provisions that allow for periodic updates to the traffic modeling on which fair share payment calculations depend in order to account for (i) newly approved projects cumulatively contributing to transportation-related impacts and that therefore should contribute to the funding of necessary improvements, (ii) additional physical improvements necessitated in whole or in part by newly approved projects, (iii) changing cost calculations for the construction of needed improvements based on changes in the costs of materials, labor, and other inputs. The County will monitor traffic volumes and coordinate with the City of Lincoln regarding traffic mitigation fees to fund regional improvements.

Installation of a traffic signal at this intersection would improve operations to LOS B during the a.m. peak hour and LOS C during the p.m. peak hour. However, it is not included in any known fee program. This intersection is currently located within the unincorporated Placer County within the City of Lincoln sphere of influence. If this impact is triggered before annexation into the City of Lincoln, the County shall require the traffic signal to be installed prior to the issuance of building permits for further development that may further degrade operations at this intersection. If annexed into the City of Lincoln, this mitigation measure would require Placer County, on behalf of the project proponent, to negotiate in good faith with the City of Lincoln to identify the fair share funding contribution.

Significance after Mitigation

As noted above, construction of Phase I of Placer Parkway would address the significant impacts to traffic operations at study intersections in Lincoln under existing plus PRSP conditions. As noted in the description of Phase I of Placer Parkway under Impact 4.14-1, this first phase of Placer Parkway is anticipated to be constructed by 2022. If operations at these City of Lincoln intersections are degraded to an unacceptable LOS by project trips before the completion of Phase I of Placer Parkway, this impact would be **significant and unavoidable in the short-term** until Phase I of Placer Parkway is completed. Once Phase I of Placer Parkway is open to traffic, operations at these City of Lincoln intersections would be restored to an acceptable level of service. Therefore, the impacts under existing plus PRSP conditions would be mitigated to a **less-than-significant** level under existing plus PRSP conditions.

Mitigation Measure 4.14-6 would require approvals from and implementation by other agencies. Since this improvement is not within Placer County's jurisdiction to control, it cannot be guaranteed that this improvement will be implemented. Therefore, this impact remains **significant and unavoidable** under existing plus SAP buildout conditions.

Impact 4.14-7: Impacts to intersection operations in Sutter County

Vehicle trips generated by the proposed project would cause study intersections in Sutter County that are already operating at an unacceptable LOS F to experience a greater than 5-second increase in delay. This would be a **significant** impact.

Table 4.14-27 presents the existing plus project a.m. and p.m. peak hour operations for the study intersections located in Sutter County.

Table 4.14-27 Intersection Operations – Sutter County – Existing Plus Project Conditions

Intersection	Traffic Control	LOS Standard	Peak Hour	Existing Conditions		Existing Plus SAP Buildout		Existing Plus PRSP	
				Delay ¹	LOS	Delay ¹	LOS	Delay ¹	LOS
Pleasant Grove Road N./Baseline Road	AWSC	D	AM PM	51	F	49	E	45	E
				39	F	<u>102</u>	F	<u>64</u>	F
Pleasant Grove Road S./Baseline Road	AWSC	D	AM PM	53	F	<u>86</u>	F	50	F
				45	E	42	E	49	E

Notes: LOS = Level of Service. AWSC = All-Way Stop Control

BOLD text indicates unacceptable intersection operations.

UNDERLINED text indicates significantly impacted study intersection.

¹ For AWSC intersections, the table reports the weighted average intersection control delay for all approaches in seconds per vehicle. Intersection LOS and delay is calculated based on the procedures and methodology contained in the HCM 2010 (Transportation Research Board 2010).

Source: Fehr & Peers 2018

SAP Area

Buildout of the SAP would exacerbate existing unacceptable operations at the following study intersections in Sutter County during the a.m. or p.m. peak hour. This would be a significant impact.

- ▲ Pleasant Grove Road North / Baseline Road degrades from LOS E to LOS F during the p.m. peak hour and experiences an increase in delay from 39 seconds per vehicle to 102 seconds per vehicle.
- ▲ Pleasant Grove Road South / Baseline Road experiences an increase in delay from 53 seconds per vehicle to 78 seconds per vehicle while continuing to operate at LOS F during the a.m. peak hour.

PRSP Area

Buildout of the PRSP would exacerbate existing unacceptable operations at the following study intersection in Sutter County during the a.m. or p.m. peak hour. This would be a significant impact.

- ▲ Pleasant Grove Road North / Baseline Road degrades from LOS E to LOS F during the p.m. peak hour and experiences an increase in delay from 39 seconds per vehicle to 64 seconds per vehicle.

The following intersection continues to operate at an unacceptable LOS E or LOS F with buildout of the PRSP, but experiences less than a 5-second increase in delay. Therefore, this would be a less-than-significant impact.

- ▲ Pleasant Grove Road South / Baseline Road experiences a decrease in delay from 53 seconds per vehicle to 45 seconds per vehicle during the a.m. peak hour, and experiences an increase in delay from 45 seconds per vehicle to 49 seconds per vehicle during the p.m. peak hour.

Improvements Funded by the Dry Creek Benefit District of the Placer County Countywide CIP

Trips generated by buildout of the PRSP area and buildout of the net SAP area would degrade operations at Baseline Road / Pleasant Grove Road North and Baseline Road / Pleasant Grove Road South intersections in Sutter County. The Dry Creek District of the Placer County Countywide CIP includes funding to provide to Sutter County for improvements along Baseline Road at Pleasant Grove Road. These improvements include widening Baseline Road to four lanes and signaling the Pleasant Grove Road North and Pleasant Grove Road South intersections. These intersections are also approved to be signaled as mitigation for the Placer Vineyards development.

As noted under Impact 4.14-1, Placer County has structured its Countywide CIP to have development within each benefit district cover the cost of improvements for that district. Therefore, traffic impact fees from future development in the Dry Creek Benefit District would fully fund Placer County's contribution towards these improvements. Since the SAP area, including the PRSP area, is located in the Sunset Benefit District of the Countywide CIP, traffic impact fees paid by project proponents for land development in the PRSP and net SAP areas would go towards improvements in the Sunset Benefit District and would not go towards these improvements.

Widening Baseline Road to four lanes and signaling the Pleasant Grove Road North and Pleasant Grove Road South intersections would restore operations to LOS A during the a.m. peak hour and LOS B during the p.m. peak hour at both the Baseline Road / Pleasant Grove Road North and Baseline Road / Pleasant Grove Road South intersections with buildout of the SAP. With buildout of the PRSP, installing a traffic signal at the Baseline Road / Pleasant Grove Road North intersection would be sufficient to improve operations to an acceptable LOS without widening Baseline Road.

Both the Baseline Road / Pleasant Grove Road North and Baseline Road / Pleasant Grove Road South intersections operate at LOS F under existing conditions. Therefore, if the proposed project is approved and begins developing before the signalization of these intersections, the proposed project would temporarily worsen unacceptable operations. No other options to mitigate this impact during the short-term are available. Therefore, this impact would remain **significant and unavoidable in the short-term** until these intersections are signalized. Upon signalization, the traffic operations would be improved, and the project impact would be reduced to **less than significant**.

Mitigation Measures

As noted above, traffic impact fees from future development in the Dry Creek Benefit District of Placer County Countywide CIP would fund Placer County’s contribution towards widening Baseline Road and signaling the Baseline Road / Pleasant Grove Road North and Baseline Road / Pleasant Grove Road South intersections. These improvements would mitigate the proposed project’s impact to traffic operations at Sutter County intersections. No other options to mitigate this impact during the short-term are available and no additional mitigation would be required.

Significance after Mitigation

Improvements to Baseline Road / Pleasant Grove Road North and Baseline Road / Pleasant Grove Road South funded by traffic impact fees from future development in the Dry Creek Benefit District of Placer County Countywide CIP would result in acceptable LOS C or better operations at study intersections in Sutter County. However, these improvements would require approvals from and implementation by Sutter County. Since this improvement is not within Placer County’s jurisdiction to control, it cannot be guaranteed that this improvement will be implemented. Therefore, this impact remains **significant and unavoidable**.

Impact 4.14-8: Impacts to intersection operations in Sacramento County

All study intersections in Sacramento County would continue to operate at an acceptable LOS E or better with vehicle trips generated by the proposed project. This would be a **less-than-significant** impact.

Table 4.14-28 presents the existing plus project a.m. and p.m. peak hour operations for the study intersections located in Sacramento County.

Table 4.14-28 Intersection Operations – Sacramento County – Existing Plus Project Conditions

Intersection	Traffic Control	LOS Standard	Peak Hour	Existing Conditions		Existing Plus SAP Buildout		Existing Plus PRSP	
				V/C ¹	LOS	V/C ¹	LOS	V/C ¹	LOS
Watt Avenue/Elverta Road	Signal	E	AM	0.43	A	0.57	A	0.48	A
			PM	0.45	A	0.55	A	0.46	A
Walerga Road/Elverta Road	Signal	E	AM	0.69	B	0.66	B	0.70	C
			PM	0.69	B	0.79	C	0.77	C
Watt Avenue/Antelope Road	Signal	E	AM	0.68	B	0.65	B	0.67	B
			PM	0.70	C	0.75	C	0.68	B
Walerga Road/Antelope Road	Signal	E	AM	0.65	B	0.69	B	0.64	B
			PM	0.74	C	0.75	C	0.77	C
Watt Avenue/Elkhorn Boulevard	Signal	E	AM	0.65	B	0.46	A	0.64	B
			PM	0.60	A	0.66	B	0.58	A

Table 4.14-28 Intersection Operations – Sacramento County – Existing Plus Project Conditions

Intersection	Traffic Control	LOS Standard	Peak Hour	Existing Conditions		Existing Plus SAP Buildout		Existing Plus PRSP	
				V/C ¹	LOS	V/C ¹	LOS	V/C ¹	LOS
Walerga Road/Elkhorn Boulevard	Signal	E	AM	0.63	B	0.72	C	0.66	B
			PM	0.89	D	0.91	E	0.91	E

Notes: LOS = Level of Service.

BOLD text indicates unacceptable intersection operations.

UNDERLINED text indicates significantly impacted study intersection.

¹ The table reports the overall intersection v/c ratio for signalized intersections. Intersection LOS and v/c ratio is calculated based on the procedures and methodology contained in the Transportation Research Board Circular No. 212 – Interim Materials on Highway Capacity (Transportation Research Board 1980).

Source: Fehr & Peers 2018

SAP Area

All of the study intersections in Sacramento County would continue to operate at an acceptable LOS E or better with buildout of the SAP. Therefore, the project would have a less-than-significant impact.

PRSP Area

All of the study intersections in Sacramento County would continue to operate at an acceptable LOS E or better with buildout of the PRSP. Therefore, the project would have a less-than-significant impact.

Mitigation Measures

No mitigation is required.

Impact 4.14-9: Impacts to intersection operations under Caltrans jurisdiction

Vehicle trips generated by buildout of the proposed project would cause study intersections under Caltrans Jurisdiction to be degraded to a significant degree. This would be a **significant** impact.

Table 4.14-29 presents the existing plus project a.m. and p.m. peak hour operations for the study intersections under Caltrans jurisdiction.

Table 4.14-29 Intersection Operations – Caltrans – Existing Plus Project Conditions

Intersection	Traffic Control	LOS Standard ¹	Peak Hour	Existing Conditions		Existing Plus SAP Buildout		Existing Plus PRSP	
				Delay ²	LOS	Delay ²	LOS	Delay ²	LOS
Blue Oaks Boulevard/Washington Boulevard	Signal	C	AM	36	D	55	D	38	D
			PM	42	D	55	D	36	D
Douglas Boulevard/I-80 EB Ramps	Signal	C	AM	5	A	5	A	6	A
			PM	6	A	7	A	6	A
Douglas Boulevard/I-80 WB Off-Ramp	Signal	C	AM	28	C	27	C	26	C
			PM	26	C	35	C	26	C
Atlantic St./I-80 WB On-Ramp	Signal	C	AM	9	A	9	A	9	A
			PM	8	A	8	A	8	A
Pleasant Grove Boulevard/SR 65 NB Off-Ramp	Signal	C	AM	19	B	21	C	24	C
			PM	19	B	30	C	23	C
Pleasant Grove Boulevard/SR 65 SB Off-Ramp	Signal	C	AM	12	B	12	B	11	B
			PM	15	B	39	D	14	B
I-80 WB Off-Ramp/Riverside Avenue	Signal	C	AM	10	B	13	B	12	B
			PM	6	A	43	D	18	B

Table 4.14-29 Intersection Operations – Caltrans – Existing Plus Project Conditions

Intersection	Traffic Control	LOS Standard ¹	Peak Hour	Existing Conditions		Existing Plus SAP Buildout		Existing Plus PRSP	
				Delay ²	LOS	Delay ²	LOS	Delay ²	LOS
SR 65 NB On-Ramp/Stanford Ranch Road	Signal	C	AM PM	9 31	A C	17 44	B D	9 24	A C
SR 65 SB On-Ramp/Galleria Boulevard	Signal	C	AM PM	6 23	A C	7 27	A C	7 23	A C
Eureka Road/Taylor Road/I-80 EB Off-Ramp	Signal	C	AM PM	29 51	C D	34 57	C E	27 55	C E
I-80 EB Off-Ramp/Orlando Avenue/Riverside Avenue	Signal	C	AM PM	22 27	C C	40 28	D C	25 27	C C
Twelve Bridges Boulevard/SR 65 SB Ramps	Signal	E	AM PM	10 7	A A	20 26	C C	12 7	B A
Twelve Bridges Boulevard/SR 65 NB Ramps	Signal	E	AM PM	5 7	A A	12 9	B A	6 6	A A
Whitney Ranch Parkway/SR 65 SB Ramps	Free	E	AM PM	0 0	A A	0 0	A A	0 0	A A
Whitney Ranch Parkway/SR 65 NB Ramps	SSSC	E/C ³	AM PM	0 (11) 0 (9)	A (B) A (A)	4 (11) 0 (9)	A (B) A (A)	0 (12) 0 (10)	A (B) A (A)
Sunset Boulevard/SR 65 SB Ramps	Signal	E	AM PM	8 7	A A	97 76	F E	10 7	B A
Sunset Boulevard/SR 65 NB Ramps	Signal	E/C ³	AM PM	11 8	B A	70 224	E F	13 9	B A
Blue Oaks Boulevard/SR 65 NB Ramps	Signal	E/C ³	AM PM	8 11	A B	12 15	B B	8 11	A B
Riego Road/SR 99 SB Ramps	Signal	D	AM PM	8 8	A A	8 8	A A	8 8	A A
Riego Road/SR 99 NB Ramps	Signal	D	AM PM	5 6	A A	5 5	A A	5 6	A A
SR 65/Nelson Lane	Signal	E	AM PM	22 20	C C	29 55	C D	22 25	C C
Ferrari Ranch Road/SR 65 SB Ramps	Signal	E	AM PM	4 4	A A	6 5	A A	3 4	A A
Ferrari Ranch Road/SR 65 NB Ramps	Signal	E	AM PM	9 10	A A	11 15	B B	9 7	A A
Lincoln Boulevard/SR 65 SB On-Ramp	Signal	E	AM PM	6 6	A A	6 6	A A	6 1	A A
Lincoln Boulevard/SR 65 NB Off-Ramp	Signal	E	AM PM	3 3	A A	3 3	A A	3 3	A A

Notes: LOS = Level of Service. SSSC = Side-Street Stop Control

BOLD text indicates unacceptable intersection operations.

UNDERLINED text indicates significantly impacted study intersection.

¹ For Caltrans intersections located in the City of Roseville, this study applies the City of Roseville's LOS C standard instead of Caltrans LOS E standard.

² For signalized intersections, the table reports the weighted average intersection control delay for all approaches in seconds per vehicle. For SSSC intersections, the LOS and control delay for the movement with the highest control delay is shown in parentheses next to the overall average intersection LOS and delay. Intersection LOS and delay is calculated based on the procedures and methodology contained in the HCM 2010 (Transportation Research Board 2010).

³ Caltrans intersections located in the City of Rocklin are analyzed with Caltrans LOS E standard during the a.m. peak hour and the City of Rocklin's LOS C standard during the p.m. peak hour, per the City of Rocklin's LOS policy.

Source: Fehr & Peers 2018

SAP Area

Buildout of the SAP would cause the following study intersections under Caltrans jurisdiction to degrade to an unacceptable LOS F, per the Concept LOS E identified in the SR 65 TCR. This would be a significant impact.

- ▲ Sunset Boulevard / SR-65 Southbound Ramps degrades from LOS A to LOS F during the a.m. peak hour.
- ▲ Sunset Boulevard / SR-65 Northbound Ramps degrades from LOS A to LOS F during the p.m. peak hour.

This analysis applies the City of Rocklin's LOS C standard during the p.m. peak hour to Caltrans intersections within or adjacent to Rocklin. The Sunset Boulevard / SR-65 Northbound ramps intersection is located adjacent to the City of Rocklin just outside of the city limits. Therefore, the LOS F operations at Sunset Boulevard / SR-65 Northbound Ramps during the p.m. peak hour would also be considered unacceptable by the City of Rocklin.

In addition, buildout of the SAP would degrade the following Caltrans intersections in the City of Roseville to LOS D or LOS E during the a.m. peak hour and p.m. peak hour. While this would be acceptable based on Caltrans Concept LOS in the SR 65 and I-80 TCRs, it would be unacceptable based on City of Roseville standards and noted in Tables 4.14-31, 4.14-24, and 4.14-25 above.

- ▲ Pleasant Grove Boulevard / SR 65 Southbound Off-Ramp degrades from LOS B to LOS D during the p.m. peak hour.
- ▲ I-80 Westbound Off-Ramp / Riverside Avenue degrades from LOS A to LOS D during the p.m. peak hour.
- ▲ SR 65 Northbound On-Ramp / Stanford Ranch Road degrades from LOS C to LOS D during the p.m. peak hour.
- ▲ Eureka Road / I-80 Eastbound Off-Ramp/Taylor Road degrades from LOS D to LOS E during the p.m. peak hour.
- ▲ I-80 Eastbound Off-Ramp/Orlando Avenue / Riverside Avenue degrades from LOS C to LOS D during the a.m. peak hour.

These intersections are analyzed with the City of Roseville's LOS C standard and are included within the City's 70 percent LOS C policy, as presented under Impact 4.14-3. However, they are technically under Caltrans jurisdiction. Therefore, implementing mitigation improvements to these intersections would require Caltrans approval and coordination between Placer County, Caltrans, and the City of Roseville.

PRSP Area

All of the Caltrans study intersections would operate at an acceptable LOS D or LOS E or better with buildout of the PRSP. Per the SR 65 and I-80 TCRs, LOS E is the Concept LOS, and therefore the acceptable LOS standard at ramp intersections along these freeways. Per the SR 99 TCR, LOS D is the Concept LOS in Sutter County, and therefore the acceptable LOS standard at the SR 99 / Riego Road interchange. Therefore, the project would have a less-than-significant impact.

However, buildout of the PRSP would degrade the following Caltrans intersection in the City of Roseville to LOS E during the p.m. peak hour. While this would be acceptable based on the I-80 TCR Concept LOS, it would be unacceptable based on City of Roseville standards and noted in Table 4.14-29 above. This intersection is analyzed with the City of Roseville's LOS C standard and is included within the City's 70 percent LOS C policy, as presented under Impact 4.14-3. However, it is under Caltrans jurisdiction. Therefore, implementing mitigation improvements to this intersection would require Caltrans approval and coordination between Placer County, Caltrans, and the City of Roseville.

- ▲ Eureka Road / I-80 Eastbound Off-Ramp/Taylor Road degrades from LOS D to LOS E during the p.m. peak hour.

Mitigation Measures

Mitigation Measure 4.14-9: Pay impact fees to Placer County toward construction of improvements at highway ramp terminal intersections (Net SAP Area and PRSP Area)

Prior to building permit issuance, project proponents of individual development projects within the SAP area, shall pay impact fees in effect to Placer County in amounts that constitute the SAP area's fair share contribution to the construction of improvements at the federal or state highway ramp terminal intersections identified below, which are needed in part because of the SAP. Placer County shall coordinate with their regional partners to modify an existing or adopt a new regional fee program to include the improvements identified that constitute the region's fair share toward the identified improvements.

The necessary capacity enhancements to mitigate the increased delay caused by buildout of the SAP at the impacted intersections listed above would include:

- ▲ Pleasant Grove Boulevard / SR 65 Southbound Ramps:
 - Widen the southbound approach to accommodate a second right-turn lane.
 - Widen the eastbound approach to accommodate a right-turn lane.
- ▲ I-80 Westbound Off-Ramp / Riverside Avenue:
 - Widen the northbound approach to accommodate a third through lane.
 - Widen the westbound approach to accommodate a second right-turn lane.
- ▲ SR 65 Northbound Ramps / Stanford Ranch Road:
 - Widen the northbound approach to accommodate a third through lane and two left-turn lanes.
 - Widen the southbound approach to accommodate a right-turn lane.
- ▲ Eureka Road / Taylor Road/I-80 Eastbound Off-Ramp:
 - Widen the eastbound approach to accommodate a third through lane.
 - Widen the southbound approach to accommodate a second right-turn lane.
- ▲ I-80 Eastbound Off-Ramp/Orlando Avenue / Riverside Avenue:
 - Widen the northbound approach to accommodate a third through lane.
- ▲ Sunset Boulevard / SR 65 Southbound Ramps:
 - Modify the eastbound approach to accommodate a second eastbound right-turn pocket.
 - Modify the southbound approach to accommodate a second left-turn pocket.

Significance after Mitigation

Mitigation Measure 4.14-9 would result in acceptable LOS C or better operations at all of the intersections listed in Mitigation Measure 4.14-9, except Eureka Road / Taylor Road/I-80 Eastbound Off-Ramp, which would operate at LOS D during the p.m. peak hour, as it currently operates under existing conditions. Therefore, these improvements would mitigate the impact to operations at Caltrans intersections.

However, the improvements listed in Mitigation Measure 4.14-9 would require approvals from Caltrans and either the City of Roseville or City of Rocklin, depending on the location of the intersection. Similarly, it would require implementation by these other agencies. Since this improvement is not within Placer County's jurisdiction to control, it cannot be guaranteed that this improvement will be implemented. Therefore, this impact remains **significant and unavoidable**.

Impact 4.14-10: Impacts to freeway operations

Vehicle trips generated by the proposed project would cause traffic operations on study freeway facilities maintained by Caltrans to be degraded from an acceptable LOS E or better to an unacceptable LOS F during the a.m. and/or p.m. peak hour. Furthermore, increases in traffic generated by the proposed project would exacerbate existing unacceptable LOS F conditions on study freeway facilities maintained by Caltrans. This would be a **significant** impact.

Table 4.14-30 presents the existing plus project a.m. and p.m. peak hour operations for the study freeway facilities.

Table 4.14-30 Freeway Operations – Existing Plus Project Conditions

Freeway Segment	Segment Type	Peak Hour	Existing Conditions		Existing Plus SAP Buildout		Existing Plus PRSP	
			Density ¹	LOS	Density ¹	LOS	Density ¹	LOS
SR 65 Northbound								
I-80 to Galleria Boulevard	Basic	AM PM	- -	F F ²	- 44	F E	- -	F F ^{2,5}
Galleria Boulevard Off-Ramp	Diverge	AM PM	- -	F F	- 42	F E	- -	F F ⁵
Galleria Boulevard On-Ramp	Merge	AM PM	- 39	F E	- 39	F E	- 39	F E
Pleasant Grove Boulevard Off-Ramp	Diverge	AM PM	- -	F F	- 17	F B	- -	F F ⁵
Pleasant Grove Boulevard On to Blue Oaks Boulevard Off-Ramp	Weave	AM PM	N/A N/A	D D	N/A N/A	F E	N/A N/A	E D
Blue Oaks Boulevard Loop On-Ramp	Merge	AM PM	28 31	D D	- 31	F D	30 30	D D
Blue Oaks Boulevard On to Sunset Boulevard Off-Ramp	Basic	AM PM	25 29	C D	- 30	F D	28 28	D D
Sunset Boulevard Off-Ramp	Diverge	AM PM	19 22	B C	- 8	F A	21 21	C C
Sunset Boulevard Loop On-Ramp	Merge	AM PM	15 27	B C	23 29	C D	13 24	B C
Sunset Boulevard Slip On-Ramp	Merge	AM PM	14 28	B C	27 29	C D	14 27	B C
Whitney Ranch Parkway Slip Off-Ramp	Diverge	AM PM	18 33	B D	29 34	D D	18 33	B D
Whitney Ranch Parkway Slip On-Ramp	Merge	AM PM	18 32	B D	31 32	D D	18 32	B D
Whitney Ranch Parkway to Twelve Bridges Road	Basic	AM PM	14 29	B D	25 29	C D	14 28	B C
Twelve Bridges Drive Off-Ramp	Diverge	AM PM	18 34	B D	31 34	D D	18 33	B D
Twelve Bridges Drive On-Ramp to Lincoln Boulevard Off-Ramp	Weave	AM PM	N/A N/A	A C	N/A N/A	C D	N/A N/A	A C
Lincoln Boulevard Off-Ramp to Lane Add	Basic	AM PM	9 18	A B	18 18	C B	9 18	A B

Table 4.14-30 Freeway Operations – Existing Plus Project Conditions

Freeway Segment	Segment Type	Peak Hour	Existing Conditions		Existing Plus SAP Buildout		Existing Plus PRSP	
			Density ¹	LOS	Density ¹	LOS	Density ¹	LOS
SR 65 Southbound								
Lane Drop to Lincoln Boulevard On-Ramp	Basic	AM PM	17 10	B A	17 17	B B	15 12	B B
Lincoln Boulevard On-Ramp to Twelve Bridges Drive Off-Ramp	Weave	AM PM	N/A N/A	C B	N/A N/A	C D	N/A N/A	B A
Twelve Bridges Drive Loop On-Ramp	Merge	AM PM	27 20	C B	28 32	C D	24 22	C C
Twelve Bridges Drive to Whitney Ranch Parkway	Basic	AM PM	24 17	C C	25 26	C C	21 19	C C
Whitney Ranch Parkway Loop On-Ramp	Merge	AM PM	31 22	D C	32 32	D D	28 24	C C
Sunset Boulevard Off-Ramp	Diverge	AM PM	21 11	C B	- 8	A A	18 14	B B
Sunset Boulevard Loop On-Ramp	Merge	AM PM	25 23	C C	25 27	C C	22 22	C C
Sunset Boulevard Slip On-Ramp	Merge	AM PM	21 22	C C	27 -	C F	20 22	C C
Sunset Boulevard Slip On-Ramp to Blue Oaks Boulevard Off-Ramp	Basic	AM PM	25 26	C C	25 -	C E	24 26	C D
Blue Oaks Boulevard Off-Ramp	Diverge	AM PM	30 31	D D	30 -	D E	29 32	C D
Blue Oaks Boulevard Loop On-Ramp	Merge	AM PM	25 26	C C	26 -	C E	25 29	C C
Blue Oaks Boulevard On to Pleasant Grove Off	Weave ²	AM PM	N/A N/A	F ³ F ³	N/A N/A	D E ³	N/A N/A	F ^{3,5} E ³
Pleasant Grove Boulevard Loop On-Ramp	Merge	AM PM	- -	F ³ F ³	30 -	D E	- -	F ^{3,5} E ³
Pleasant Grove Boulevard Slip On-Ramp	Merge	AM PM	- -	F ³ F ³	34 -	D E	- -	F ^{3,5} E ³
Galleria Boulevard Off-Ramp	Diverge	AM PM	37 38	E E	38 -	E E	37 -	E E
Galleria Boulevard On-Ramp	Merge	AM PM	23 28	C D	34 -	D E	23 32	C D
Galleria Boulevard to I-80	Basic	AM PM	21 25	C C	37 -	E E	20 30	C D
I-80 Eastbound								
Eureka Road On-Ramp to Taylor Road Off-Ramp	Weave	AM PM	N/A N/A	B D	N/A N/A	B B	N/A N/A	B C
Taylor Road to SR 65	Basic	AM PM	19 31	C D	19 23	C C	21 29	C D
SR 65 NB Off-Ramp	Diverge	AM PM	34 -	D F	- 37	E E	38 -	E F ⁵
SR 65 SB On-Ramp	Merge	AM PM	23 37	C E	15 18	B B	23 -	C E

Table 4.14-30 Freeway Operations – Existing Plus Project Conditions

Freeway Segment	Segment Type	Peak Hour	Existing Conditions		Existing Plus SAP Buildout		Existing Plus PRSP	
			Density ¹	LOS	Density ¹	LOS	Density ¹	LOS
SR 65 SB On-Ramp to Lane Drop	Basic	AM PM	13 25	B C	13 25	B C	14 25	B C
Lane Drop to Rocklin Road	Basic	AM PM	18 38	B E	12 12	B B	18 39	B E
I-80 Westbound								
Rocklin Road to SR 65 NB Off-Ramp	Basic	AM PM	28 20	D C	19 19	C C	28 21	D C
SR 65 NB Off-Ramp	Diverge	AM PM	22 -	C F ⁴	19 -	B F ⁴	23 -	C F ⁴
SR 65 SB On-Ramp & Taylor Road On-Ramp to Atlantic St. Off-Ramp	Weave	AM PM	N/A N/A	C B	N/A N/A	C C	N/A N/A	B B

Notes: LOS = Level of Service.

BOLD text indicates unacceptable freeway segment operations.

UNDERLINED text indicates significantly impacted freeway segment.

“-” = density is not reported for segments that operate at LOS F.

N/A = not applicable because density is not calculated for weave segments using the Leisch method.

- The table reports segment density in passenger car equivalents per mile per lane (pcpmpl), which is calculated based on the procedures and methodology contained in the HCM 2010 (Transportation Research Board 2010).
- Field observations reveal that recurring congestion at the I-80 WB on-ramp onto SR 65 NB and SR 65 NB off-ramp to Galleria Boulevard/Stanford Ranch Road causes traffic on SR 65 NB to queue back, resulting in unserved vehicular queues. Therefore, the results are shown as LOS F.
- Field observations reveal that recurring congestion at the Pleasant Grove Boulevard loop on-ramp and slip on-ramp merges onto SR 65 SB and the SR 65 SB off-ramp to Galleria Boulevard/Stanford Ranch Road causes traffic on SR 65 SB to queue back, resulting in unserved vehicular queues. Therefore, the results are shown as LOS F.
- Field observations reveal that recurring congestion at the I-80 WB on-ramp merge onto SR 65 NB causes traffic on the SR 65 NB to queue back to I-80 EB, resulting in unserved vehicular queues. Therefore, results are shown as LOS F.
- Not a significant impact because the addition of the project does not result in an increase in peak hour traffic volume that is considered significant, as defined in the significance criteria.

Source: Fehr & Peers 2018

SAP Area

Buildout of the SAP would degrade operations at study freeway segments to LOS F as identified below. Buildout of the SAP would also add traffic in excess of 20 vehicles per hour per travel lane at study freeway segments already operating at LOS F during the a.m. and/or p.m. peak hour as identified below. This would exacerbate the current LOS F operations. This would be a significant impact.

A.M. Peak Hour

- ▲ SR 65 Northbound: I-80 to Sunset Boulevard – degrades multiple segments from LOS D or better to LOS F; increases peak hour traffic by 1,600 to over 2,000 vehicles per hour on segments already operating at LOS F
- ▲ I-80 Eastbound at SR 65 Northbound off-ramp – degrades from LOS D to LOS F

P.M. Peak Hour

- ▲ SR 65 Northbound: Pleasant Grove Boulevard to Blue Oaks Boulevard – degrades from LOS D to LOS F
- ▲ SR 65 Southbound: Sunset Boulevard to I-80 – degrades multiple segments from LOS E or better to LOS F; increases peak hour traffic by 1,100 to 1,500 vehicles per hour on segments already operating at LOS F
- ▲ I-80 Westbound at SR 65 Northbound off-ramp – increases peak hour traffic on a segment already operating at LOS F

PRSP Area

Buildout of the PRSP would degrade operations at study freeway segments to LOS F as identified below. Buildout of the PRSP would also add traffic in excess of 20 vehicles per hour per travel lane at study freeway segments already operating at LOS F during the a.m. and/or p.m. peak hour as identified below. This would exacerbate the current LOS F operations. This would be a significant impact.

A.M. Peak Hour

- ▲ SR 65 Northbound: I-80 to Pleasant Grove Boulevard – increases peak hour traffic by 570 to 610 vehicles per hour on segments already operating at LOS F

P.M. Peak Hour

- ▲ SR 65 Southbound: Blue Oaks Boulevard to Galleria Boulevard – degrades operations at the Galleria Boulevard off-ramp from LOS E to LOS F; increases peak hour traffic by 450 to 530 vehicles per hour on segments already operating at LOS F
- ▲ I-80 Eastbound at SR 65 Southbound on-ramp – degrades from LOS C to LOS F
- ▲ I-80 Westbound at SR 65 Northbound off-ramp – increases peak hour traffic by 70 vehicles on a segment already operating at LOS F

Mitigation Measures**Mitigation Measure 4.14-10: Contribute fair share of feasible physical improvements to freeway operations (Net SAP Area and PRSP Area)**

Prior to building permit issuance, project proponents of individual development projects within the SAP area shall be responsible for the project's fair share of all feasible physical improvements necessary and available to reduce the severity of the project's significant traffic impacts to freeway operations as identified in this traffic analysis consistent with the policies and exceptions set forth in the Transportation and Circulation Element of the Placer County General Plan. This may include any, or some combination of, the following forms:

- ▲ Payment of impact fees to the South Placer Regional Transportation Authority (SPRTA) in amounts that constitute the SAP area's fair share contribution to the construction of transportation facilities funded through fees collected by the SPRTA for Tier 1 and/or Tier 2 projects. This includes the following transportation projects that would directly improve operations on SR 65 and I-80:
 - SR 65 Widening,
 - I-80/SR 65 Interchange, and
 - I-80/Rocklin Road Interchange
- ▲ Payment of other adopted and applicable regional impact fees that would provide improvements to freeway facilities that are affected by multiple jurisdictions, such as the Highway 65 JPA Fee, which provides funding for interchange improvements along SR 65.
- ▲ Placer County shall coordinate with their regional partners to modify an existing or adopt a new regional fee program to include the improvements identified that will constitute the region's fair share toward the identified improvements.

Significance after Mitigation

Phases 1a-1c of the I-80 / SR 65 interchange improvements and Phases 1 and 2 of the SR 65 Widening projects, both of which receive funding from the SPRTA fee program, would address the impacts identified above. However, the SPRTA fee program only contributes a portion of the funding needed for these projects. According to the I-80/SR 65 Interchange Improvements Project website (PCTPA 2018a), Phase 1a of the I-80/SR 65 interchange improvements is funded and planned to begin construction in 2018. However, future phases, including construction of Phases 1b and 1c are dependent on availability of funding for

construction. The PCTPA website (PCTPA 2018b) also indicates that funding is currently being sought for the SR 65 Widening project.

Overall Significance after Mitigation

As noted above, the Highway 65 JPA Fee and SPRTA fee would only provide partial funding for the SR 65 Widening Project and I-80/SR 65 Interchange Improvements, which are necessary to improve operations and mitigate the project's significant impacts. Because the remaining funding necessary for these improvements have not been identified, this impact would be **significant and unavoidable**.

Impact 4.14-11: Impacts to freeway off-ramp queuing

Vehicle trips generated by the proposed project would increase queueing on freeway off-ramps. However, all queues on freeway off-ramps would remain within the length of the off-ramp and not extend beyond the ramp gore point onto the mainline. Therefore, this would be a **less-than-significant** impact.

Table 4.14-31 presents the existing plus project off-ramp queuing results within the study area during the a.m. and p.m. peak hours. As shown, all study freeway off-ramp queues would continue to remain within the available storage area with the addition of the project.

Table 4.14-31 Peak Hour Freeway Off-Ramp Queuing – Existing Plus Project Conditions

Freeway Off-Ramp	Ramp Length ¹	95 th Percentile Queue ²					
		Existing Conditions		Existing Plus SAP Buildout		Existing Plus PRSP	
		AM	PM	AM	PM	AM	PM
SR 65 NB Off-Ramp at Pleasant Grove Boulevard	1,575 feet	125 feet	225 feet ³	125 feet	225 feet ³	125 feet	200 feet ³
SR 65 NB Off-Ramp at Blue Oaks Boulevard (East)	2,000 feet	125 feet	275 feet	200 feet	300 feet	125 feet	275 feet
SR 65 NB Off-Ramp at Sunset Boulevard	1,475 feet	300 feet	75 feet	650 feet	375 feet	325 feet	150 feet
SR 65 NB Off-Ramp at Whitney Ranch Parkway	1,300 feet	25 feet	25 feet	50 feet	50 feet	25 feet	25 feet
SR 65 NB Off-Ramp at Twelve Bridges Drive	1,550 feet	50 feet	125 feet	175 feet	350 feet	75 feet	275 feet
SR 65 NB Off-Ramp at Lincoln Boulevard	2,100 feet	25 feet	25 feet	50 feet	50 feet	25 feet	25 feet
SR 65 NB Off-Ramp at Ferrari Ranch Road	1,625 feet	100 feet	125 feet	150 feet	350 feet	100 feet	125 feet
SR 65 SB Off-Ramp at Ferrari Ranch Road	1,550 feet	50 feet	75 feet	75 feet	100 feet	50 feet	75 feet
SR 65 SB Off-Ramp at Twelve Bridges Drive	1,525 feet	250 feet	75 feet	400 feet	150 feet	350 feet	100 feet
SR 65 SB Off-Ramp at Sunset Boulevard	1,500 feet	275 feet	100 feet	475 feet	475 feet	275 feet	100 feet
SR 65 SB Off-Ramp at Blue Oaks Boulevard	2,250 feet	150 feet	200 feet ³	15 feet	200 feet ³	150 feet	175 feet ³
SR 65 SB Off-Ramp at Pleasant Grove Boulevard	1,600 feet	175 feet	300 feet ³	175 feet	675 feet ³	175 feet	350 feet ³
SR 65 SB Off-Ramp at Galleria Boulevard (SB)	1,875 feet	150 feet	275 feet ³	150 feet	175 feet ³	150 feet	250 feet ³
I-80 EB Off-Ramp at Auburn Boulevard/Riverside Avenue	1,625 feet	125 feet	225 feet ³	150 feet	225 feet ³	125 feet	225 feet ³
I-80 EB Off-Ramp at Douglas Boulevard (WB)	1,150 feet	200 feet	100 feet	125 feet	300 feet	150 feet	100 feet
I-80 EB Off-Ramp at Eureka Road	1,725 feet	350 feet	325 feet ³	375 feet	450 feet ³	350 feet	375 feet ³
I-80 WB Off-Ramp at Douglas Boulevard	1,550 feet	775 feet	725 feet	775 feet	850 feet	750 feet	750 feet
I-80 WB Off-Ramp at Riverside Avenue	1,325 feet	225 feet	200 feet ³	250 feet	1,175 feet ³	225 feet	225 feet ³

Notes:

1. The ramp length is estimated by measuring the distance from the gore point where the off-ramp departs from the mainline to the limit line at the ramp terminal intersection with the local street, as measured from aerial imagery. Distance is reported in feet.
2. 95th Percentile Queue calculated using Synchro software, unless otherwise noted. Queue is reported in feet and rounded up to the nearest 25-foot interval.
3. Maximum queue, as calculated using the average of 10 SimTraffic microsimulation runs, reported instead of the 95th percentile queue calculated by Synchro.

Source: Fehr & Peers 2018

SAP Area

As shown in Table 4.14-31 all study freeway off-ramp queues would continue to remain within the available storage area with the addition of Sunset Area trips. Therefore, the project would have a less-than-significant impact on freeway off-ramp queuing.

PRSP Area

As shown in Table 4.14-31 all study freeway off-ramp queues would continue to remain within the available storage area with the addition of PRSP trips. Therefore, implementing the PRSP would have a less-than-significant impact on freeway off-ramp queuing.

Mitigation Measures

No mitigation is required.

Impact 4.14-12: Impacts to vehicle miles traveled

Implementation of the proposed project would result in new daily vehicle travel, which would add VMT to the study area. With the proposed project’s increase in residential population and employment to the study area, the proposed project would result in a reduction in daily VMT per service population generated by the SAP area. However, since overall daily VMT would be increased, this would be a **significant** impact.

Placer County has not yet established a significance threshold for VMT to measure against. Therefore, this study compares the project generated VMT per capita to the total VMT per capita forecasted for the SACOG region, as documented in the SACOG 2016 MTP/SCS. Per the SACOG 2016 MTP/SCS, the total VMT per capita in the SACOG region is 25.1 daily miles per person as of 2012.

The Placer County traffic forecasting model used to forecast traffic levels at study roadways, intersections, and freeway facilities is used in combination with SACOG’s SACMET model to estimate and forecast the project-generated VMT.

SAP Area

Table 4.14-32 compares the existing conditions VMT estimate with the forecasted VMT under existing plus SAP buildout conditions. The existing plus SAP buildout data include buildout of the PRSP. As shown in Table 4.14-32, the service population (i.e., residential population, employment, and university student population) and daily VMT generated by buildout of the SAP would be substantially higher than existing conditions for the SAP area. However, the daily VMT per service population would be less than 50 percent of existing conditions because of the addition of a mix of residential units, employment uses, and services within the SAP area, including the PRSP area.

Table 4.14-32 Project Generated VMT – Existing Plus Sunset Area Plan Buildout Conditions

Scenario	Service Population ¹	Daily VMT	Daily VMT per Service Population
Existing Conditions	6,747	466,763	69.18
Existing Plus Sunset Area Buildout	119,806	4,091,283	34.15
Change	+113,059	+3,624,520	-35.03

Notes: VMT presented in this table represents VMT generated by uses in the Sunset Area, including existing uses and the SAP.

¹ Service population = residential population + employment + university students; based on data from SACOG’s SACMET travel forecasting model.

Source: Fehr & Peers 2018

PRSP Area

Table 4.14-33 compares the existing conditions VMT estimate with the forecasted VMT under existing plus PRSP conditions. The existing plus PRSP data include buildout of the PRSP only. As shown in Table 4.14-33, the service population and daily VMT generated by buildout of the PRSP would be substantially higher than

existing conditions for the SAP area. However, the daily VMT per service population would be less than 40 percent of existing conditions because of the addition of a mix of residential units, employment uses, the university campus, and local and regional-serving retail and services within the PRSP area.

Table 4.14-33 Project Generated VMT – Existing Plus Placer Ranch Specific Plan Conditions

Scenario	Service Population ¹	Daily VMT	Daily VMT per Service Population
Existing Conditions	6,747	466,763	69.18
Existing Plus PRSP	64,142	1,777,675	27.71
Change	+57,395	+1,310,912	-41.47

Notes: VMT presented in this table represents VMT generated by uses in the Sunset Area, including existing uses and the PRSP.

¹ Service population = residential population + employment + university students; based on data from SACOG’s SACMET travel forecasting model.

Source: Fehr & Peers 2018

Mitigation Measures

Mitigation Measure 4.14-12a: Demonstrate compliance with Placer County’s Trip Reduction Program (Net SAP Area and PRSP Area)

Prior to building permit issuance, a Transportation Demand Management Plan (TDMP) shall be submitted for DPWF review and must be approved by DPWF prior to Improvement Plan approval. Any non-residential development that is subject to the County Trip Reduction Ordinance (Chapter 10, Article 10.20, and Placer County Code) must prepare a TDMP. The number of employees at the site shall be determined by an employee-per-square-foot formula provided by DPWF in consultation with the project proponent.

Mitigation Measure 4.14-12b: Identify feasible steps to ensure that proposed development will comply with Placer County travel demand management policies, objectives, and performance requirements (Net SAP Area and PRSP Area)

Prior to building permit issuance, the County shall require project proponents of future development projects within the SAP area, including the PRSP area, to identify feasible steps to ensure that the proposed development will comply with Placer County travel demand management (TDM) policies, objectives, and performance requirements. This may include:

- In conjunction with tentative subdivision approval, recorded codes, covenants and restrictions (CC&Rs) shall include provisions to:
 - Guarantee adherence to Placer County travel demand management (TDM) policies and objectives.
 - The perpetual implementation of TCMs regardless of property ownership.
 - Inform all subsequent property owners of the requirements imposed herein.
 - Identify potential consequences of nonperformance.
 - Require that space use agreements (i.e., lease documents) shall also include provisions for the site as a means to inform and commit tenants to, and participate in, helping specific applicable developments meet Placer County TDM performance requirements.

The TCMs identified as part of Mitigation Measures 4.14-12a and 4.14-12b would reduce VMT, as stated in the purpose of the Trip Reduction Ordinance (Article 10.20.020 of the Placer County Code) and supported by data compiled in the California Air Pollution Control Officers Association (CAPCOA) *Quantifying Greenhouse Gas Mitigation Measures* document. Per Article 10.20.070 of the Placer County Code, the required TCMs may include the following:

- ▲ Designation of an employee transportation coordinator (ETC).
- ▲ Posting of ridesharing information, including:
 - Posters or flyers encouraging the use of ridesharing and referrals to sources of information concerning ridesharing.
 - The names and phone numbers of the ETC, transportation management association, and the County TCM coordinator.
- ▲ Posting (by employers) or providing to employers (by project controllers) of alternative transportation mode information, including:
 - Current schedules, rates (including procedures for obtaining transit passes), and routes of mass transit service to the common work location or employment site.
 - The location of all bicycle routes within at least a five-mile radius of the facility.
- ▲ Distribution of commuter matching service applications to employees (by employers) or to employers (by project controllers). The South Placer TMA and Caltrans Sacramento Rideshare each maintain regional computer databases to match commuters with common cross streets. Each provides rideshare applications to employers for distribution and then directly mails the match lists to the employees. The South Placer TMA provides rideshare matchlisting for destinations within Placer County, while Caltrans Sacramento Rideshare provides matchlisting for out-of-county destinations. Credit will be given if the ETC distributes the applications annually to all employees or employers, as applicable, and upon hiring to all new employees.
- ▲ Bicycle Parking Facilities. Unless there are overriding considerations specific to the employment site, sufficient bicycle parking must be supplied for employees. To receive credit, the employer must provide bicycle parking for all bicycle commuters, as determined by survey of employees, or two percent of employment, whichever is less. The bicycle parking facilities shall be, at minimum, Class II stationary bike racks.
- ▲ Preferential Carpool/Vanpool Parking. Unless there are overriding considerations specific to the employment site, parking spaces for four percent of employees must be painted “Carpool Parking” or “Vanpool Parking” and must be, with the exception of handicapped and customer parking, the spaces with most convenient access to the employee entrances. The ETC shall be responsible for monitoring the spaces.

In addition to the required TCMs identified above, Article 10.20.070 of the Placer County Code identifies 18 optional TCMs and strongly encourages the application of other trip reduction measures that are not explicitly identified in the code.

Significance after Mitigation

As shown in Tables 4.14-32 and 4.14-33, buildout of the net SAP and PRSP areas would result in a lower VMT per capita for the project area than the existing VMT per capita generated by existing development in the Sunset Area. However, the project-generated VMT per capita levels (34.15 under existing plus SAP buildout conditions; and 27.71 under existing plus PRSP conditions) would continue to remain above the SACOG regional total VMT per capita (25.1 per the SACOG 2016 MTP/SCS).

The implementation of Mitigation Measures 4.14-12a and 4.14-12b would result in the application of TCMs which would reduce project-generated VMT below levels reported in Tables 4.14-32 and 4.14-33. However, the reduction in project-generated VMT will vary depending on the TCMs implemented by future development and the TCMs anticipated effectiveness as outlined in CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures* document. The most robust and aggressive set of TCMs will at best result in a 15 percent reduction in VMT in a suburban context, such as that of the proposed project. However, these most robust measures are also often infeasible in this suburban context because of surrounding economic, transportation, demographic, and political factors in suburban areas. For example, the following represent a small sampling of some of the most robust and aggressive TCMs:

- ▲ implementing a mandatory commute trip reduction program that requires employers to meet specific trip reduction targets, conduct annual monitoring and reporting, and conduct some corrective action or be penalized for not meeting trip reduction targets;
- ▲ requiring priced parking for on-street and off-street parking; and
- ▲ requiring unbundled parking costs for multifamily residential development.

The lower density development in the proposed project's suburban context corresponds with higher vehicle use, reduced use and attractiveness of alternatives to vehicle travel, such as transit, biking, and walking, and a lower cost of land and a market which supports the provision of free parking. This makes some of the most aggressive TCMs like those listed above infeasible.

Based on the required TCMs identified in Article 10.20.070 of the Placer County Code, this study estimates that the required TCMs would reduce VMT by 1 percent. However, that reduction would only apply to VMT generated by large employers and employment sites subject to the mandatory participation in the Trip Reduction Ordinance and does not apply to residential uses. Therefore, the required TCMs would have a less than 1 percent reduction in project-generated VMT.

While the implementation of Mitigation Measures 4.14-12a and 4.14-12b would reduce project-generated VMT, it would remain above the regional average VMT per capita as documented in the SACOG 2016 MTP/SCS. Therefore, this impact would remain **significant and unavoidable**.

Impact 4.14-13: Impacts to transit

Implementation of the proposed project would increase residential population, non-residential employment, university faculty and students, and local and regional serving retail uses and services in the SAP area. This increase in population, employment, students, and attractions would result in an increased demand for transit use. This is a potentially **significant** impact.

SAP Area

Existing transit service to the SAP area is limited to the Industrial Avenue corridor and Thunder Valley Casino because of the lack of urban development, attractions, and demand for transit service in the net SAP area. Therefore, the proposed SAP describe several planned transit service expansions to serve the SAP area to support future development and transit travel to and from the SAP area. The SAP acknowledges the completed conceptual plans by PCTPA for a BRT line that would run through the SAP area and provide express commuter service between regional employment centers and transit hubs. This BRT service, as conceptualized, would provide a high-quality transit service between the SAP area and key destinations and transit hubs in the region, including the Westfield Galleria at Roseville and Watt Avenue Regional Transit light-rail station. Furthermore, policy TM-3.1 in the SAP gives the County the responsibility to collaborate with PCTPA to update its Long-Range Transit Master Plan to include transit service to the SAP area, including a funding mechanism for establishing and operating transit service to the SAP area.

PRSP Area

Similar to the SAP, the PRSP acknowledges PCTPA's completed conceptual plans for BRT service through the PRSP area, including a possible alignment along Placer Parkway, Campus Park Boulevard, and Foothills Boulevard. This alignment would serve employment and activity centers in the PRSP area, including the university and campus park parkway district in the PRSP area, which would include retail, research and development, and office/corporate campus uses. Furthermore, it would provide express, high-capacity transit service connecting the PRSP area with key destinations and transit hubs in the City of Roseville (the nearest major population center) and the region, including the Westfield Galleria at Roseville and Watt Avenue Regional Transit light-rail station. The PRSP also facilitates transit use by concentrating high-intensity uses, such as high-density residential, commercial mixed-use, and campus park land uses in proximity to major transportation corridors and potential transit stops. Furthermore, the PRSP notes that bus turnouts and shelters are planned at frequent locations along arterial roadways to serve transit users. Similar to the SAP, the PRSP acknowledges that a future Transit Master Plan will be required for the PRSP that will determine where transit routes will be established to adequately serve future transit demand in the PRSP area.

Mitigation Measures

Mitigation Measure 4.14-13a: Prepare a transit master plan for SAP area (Net SAP Area and PRSP Area)

The County shall prepare a transit master plan for the SAP area, including the PRSP area. The transit master plan will be a County-led effort but may also be done in collaboration with PCTPA when PCTPA updates its Long-Range Transit Master Plan. Roseville Transit will also be consulted. The transit master plan shall identify how transit service will be delivered to the SAP and ensure that the service adequately serves transit demand in the SAP.

Mitigation Measure 4.14-13b: Establish a Community Service Area (CSA) Zone of Benefit (ZOB) or annex into an existing CSA ZOB to fund transit services for the PRSP area (PRSP Area)

Prior to Improvement Plan approval or Final Map recordation for subdivision projects, a Community Service Area (CSA) Zone of Benefit (ZOB) shall be established by the project proponent, or the project proponent shall annex into an existing CSA ZOB to fund the cost of transit services proposed by the Transit Master Plan. This will include any related capital costs for buses, passenger amenities, and facilities.

The Transit Master Plan shall identify how transit service will be delivered to the PRSP area and will be prepared in collaboration with Placer County Transit and Placer County staff and submitted to the County for approval. The County shall review the Transit Master Plan and ensure that the proposed service and facilities adequately serves transit demand in the PRSP area. The County shall also require project proponents to either form a CSA ZOB or annex into an existing CSA ZOB to fund the cost of transit services that are proposed by the Transit Master Plan.

Significance after Mitigation

Implementation of Mitigation Measures 4.14-13a and 4.14-13b will ensure that adequate transit service is provided to serve demand generated by the proposed project. Therefore, these measures would reduce this impact to a **less-than-significant** level.

Impact 4.14-14: Impacts to bicycle and pedestrian facilities

Implementation of the proposed project would not disrupt or interfere with existing or planned bicycle and pedestrian facilities, nor would it result in unsafe conditions for bicyclists or pedestrians. Further, the project would not create an inconsistency with any adopted policies related to bicycle or pedestrian systems. This would be a **less-than-significant** impact.

SAP Area

The SAP proposes a bicycle and pedestrian system that includes a network of shared-use paths and Class II on-street bike lanes that link employment-supporting uses with residential development in South Placer County. Shared-use paths are proposed along major vehicular routes along Foothills Boulevard and Fiddymont Road, and along segments of Athens Avenue. Class II bike lanes would be incorporated on all arterial and collector roadways, including Foothills Boulevard, Athens Avenue, Industrial Avenue, Fiddymont Road, and Dowd Road. This network of bikeways and trails would connect to existing Class II bike lanes on Fiddymont Road and Woodcreek Oaks Boulevard leading into the PRSP area to/from the City of Roseville, and to existing Class II bike lanes on Twelve Bridges Drive in the City of Lincoln.

The SAP also includes policies requiring all future roads, bridges, and facilities in the SAP area to accommodate bicycle and pedestrian travel with a preference for shared-use paths. New development would be required to include a system of sidewalks, trails, and bikeways to link all land uses, provide accessibility to parks and schools, and connect to all existing and planned external street and trail facilities. The SAP policies would require safe and convenient bicycle parking and encourages incorporation of end-of-trip facilities, such as showers and lockers for all new or modified public and private developments and businesses. The SAP also addresses the potential barrier of Placer Parkway cutting through the SAP area by promoting grade-separated pedestrian and bicycle connections across Placer Parkway. The impact is less than significant.

PRSP Area

The PRSP proposes a bicycle and pedestrian system that includes of a network of shared-use paths that link the university site at the center of the Specific Plan with the neighborhoods, Campus Park, University Town Center, and recreational hubs in the community. Class II bike lanes are incorporated on all arterial and collector roadways. This network of bikeways and trails would connect to existing Class II bike lanes on Fiddymont Road and Woodcreek Oaks Boulevard leading into the PRSP area from the City of Roseville.

Shared-use paths along major roadways are generally 10 feet wide, with wider 12-foot-wide shared-use paths adjacent to the university site. These wide shared-use paths are a key component of pedestrian and bicycle mobility within the PRSP area and would serve pedestrian and bicycle travel demand within the PRSP area. The impact is less than significant.

Mitigation Measures

No mitigation is required.

CUMULATIVE IMPACTS

Cumulative impacts refer to the incremental effect of the proposed project when viewed in connection with the effects of past, present, and reasonably foreseeable future projects. This cumulative impact analysis does not rely on any list of specific pending, reasonably foreseeable development proposals in the general vicinity of the proposed project. As described below, this cumulative assessment relies on existing and future land development projections as well as reasonably foreseeable transportation improvements that are contained in adopted local general plans and regional transportation plans. The regional transportation plans also take into account demographic projections developed by the state.

For transportation and traffic impacts, the geographic focus of the cumulative analysis is the study area identified in Exhibit 4.4-1, including the study roadway segments, intersections, and freeway facilities.

Land Use and Transportation Inputs

The cumulative analysis uses the Placer County 2036 travel forecasting model to forecast traffic conditions with past, present, and reasonably foreseeable future projects. As noted above, the Placer County 2036 travel forecasting model includes land development projections that are based on adopted local general plans and specific plans. This includes the following land use inputs.

Land Use Inputs

- ▲ Build-out of City of Roseville (existing city including approved specific plans)
- ▲ Build-out of Regional University Specific Plan
- ▲ Build-out of Phase 1 of Placer Vineyards
- ▲ Build-out of Campus Oaks in Roseville
- ▲ Build-out of Amoruso Ranch Specific Plan
- ▲ 2036 levels of residential market absorption in City of Lincoln
- ▲ Build-out of residential and 2036 market absorption levels of non-residential in City of Rocklin
- ▲ SACOG 2036 market absorption for specific projects outside of South Placer County including the Elverta Specific Plan (Sacramento County), Johnson Ranchos (Wheatland), and Sutter Pointe (Sutter County)

Transportation Inputs

In addition to the land use inputs above, the Placer County 2036 travel forecasting model also includes roadway extensions and widenings funded through various funding sources, including but not limited to the South Placer Regional Transportation Authority (SPRTA) fee program, the Placer Countywide Capital Improvement Program (CIP), City/County fee program, and the CIPs for the local agencies in the study area. This analysis also includes Tier 1 projects identified in the SACOG 2036 MTP/SCS, which are anticipated to be funded and constructed over the next 20 years. The following is a list of major roadway improvements within the study area that are assumed in place (see Appendix M for details regarding the planning origins and funding status of these planned improvements):

- ▲ I-80 improvements including new auxiliary lanes on I-80 eastbound from SR 65 to Rocklin Road and on I-80 westbound from Douglas Boulevard to Riverside Avenue.
- ▲ Full construction of the I-80 / SR 65 Interchange Improvement project, including widening of all four freeway-to-freeway ramps, new auxiliary lanes on SR 65 northbound and southbound from I-80 to Pleasant Grove Boulevard, and a new HOV-to-HOV direct connector.
- ▲ SR 65 is widened to six continuous lanes and auxiliary lanes in each direction between I-80 and Blue Oaks Boulevard.
- ▲ New auxiliary lanes on SR 65 from Blue Oaks Boulevard to Lincoln Boulevard.
- ▲ Baseline Road is widened to four lanes from the Sutter County line to Watt Avenue and six lanes from Watt Avenue to Fiddymont Road.
- ▲ Riego Road is widened to four lanes from SR 99 to Placer County line.
- ▲ SR 99/Riego Road interchange is constructed (recently completed).
- ▲ Watt Avenue is widened to six lanes between Baseline Road and Sacramento County line, and to four lanes from the county line to Antelope Road.
- ▲ Walerga Road is widened to six lanes between Baseline Road and Sacramento County line.
- ▲ Santucci Boulevard is constructed as six lanes from Baseline Road to Blue Oaks Boulevard.

- ▲ Blue Oaks Boulevard is widened to eight lanes from SR 65 to Woodcreek Oaks Boulevard, and six lanes from Woodcreek Oaks Boulevard to Santucci Boulevard.
- ▲ Placer Parkway Phase 1 is constructed as four lanes from SR 65 to Foothills Boulevard.
- ▲ Sunset Boulevard is widened to four lanes from west of SR 65 to Cincinnati Avenue.
- ▲ Sunset Boulevard is widened to six lanes east of SR 65.
- ▲ Foothills Boulevard is extended as a two-lane arterial from its current terminus in the City of Roseville north to Sunset Boulevard connecting to Foothills Boulevard North. With this connection, the road name Foothills Boulevard North will be changed to Foothills Boulevard.

The regional roadway improvements listed above include projects identified in the Tier 1 SACOG MTP/SCS project list, such as the I-80/SR 65 Interchange Improvement project, SR 65 widening project, and others. This list is a financially constrained project list of reasonably foreseeable projects based on the cost estimate and funding information used in the SACOG MTP/SCS. Therefore, these roadway projects are included in the cumulative conditions scenario.

Exhibit 4.14-12 displays the cumulative roadway network within the project area.

Traffic Forecasts

This analysis uses the Placer County travel forecasting model to forecast cumulative (year 2036) traffic volumes within the study area. This cumulative version of the model includes the land uses and planned and funded roadway improvements described above. The future year travel model was updated to remove any growth in land use in the SAP area, including the PRSP area, to represent a “Cumulative No Project” condition. Land use and roadway improvements associated with the proposed project were then added to the Cumulative No Project model to create a “Cumulative Plus Project” travel model. A few “plus project” cumulative travel models were created to reflect the cumulative scenarios described below.

A forecasting procedure known as the “difference method” was utilized to develop future year forecasts. The difference method takes the difference between future year and base year traffic volumes from the model and adds them to existing traffic volumes at the study intersections to develop future year forecasts. This method corrects any potential anomalies within the model and assures an accurate estimation of future year traffic volumes. This forecasting procedure is calculated as follows:

$$\text{Cumulative Forecast} = \text{Existing Traffic Count} + (\text{Cumulative Raw Model Volume} - \text{Base Year Raw Model Volume})$$

Cumulative Scenarios

This analysis includes the following four cumulative scenarios:

- ▲ Cumulative No Project Conditions: assumes future conditions without the SAP or PRSP. A description of the reasonably foreseeable future land developments and roadway improvements included in this scenario are described above in the Land Use and Transportation Inputs.
- ▲ Cumulative Plus PRSP Conditions: assumes Cumulative No Project Conditions plus full buildout of the PRSP.
- ▲ Cumulative Plus PRSP plus SAP (20-Year Project) Conditions: assumes Cumulative No Project Conditions plus full buildout of the PRSP and 20 years of development in the SAP area, based on a market analysis prepared by EPS.

- ▲ **Cumulative Plus SAP Buildout Conditions:** assumes Cumulative No Project Conditions plus full buildout of the proposed project (the entire SAP including the PRSP).

All four cumulative scenarios include the same land development and roadway improvements in the SACOG region that are reasonably foreseeable within the next 20 years (see Land Use and Roadway Network Inputs below) for the areas outside of the project. The only difference between each scenario is how much development and which roadway improvements within the SAP area are included.

Cumulative No Project

The Cumulative No Project scenario assumes no additional land development in the Sunset Area (i.e., existing land uses with no new development). Exhibit 4.14-13 presents the ADT forecasts for roadways in the study area cumulative no project conditions.

Cumulative Plus Placer Ranch Specific Plan

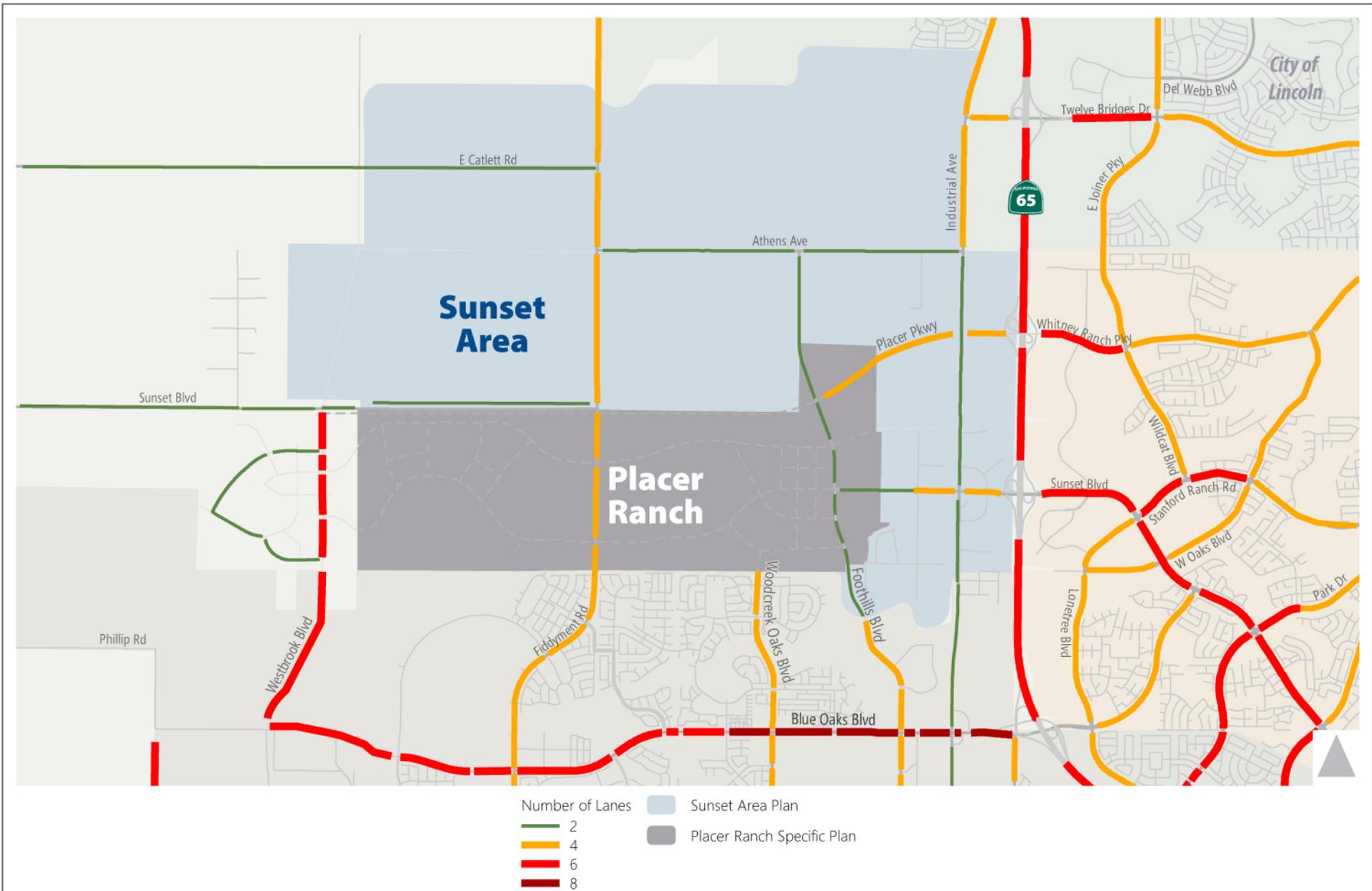
The Cumulative Plus PRSP scenario isolates buildout of the PRSP to evaluate the PRSP's individual contribution to cumulative transportation-related impacts. To isolate the contribution of the PRSP, this scenario assumes no additional land development in the net SAP area.

The cumulative plus PRSP scenario also assumes that Placer Parkway is extended west from Foothills Boulevard to Santucci Boulevard. This is identified as a Tier 1 fully funded project in SACOG's 2036 MTP/SCS; however, its construction through the study area will be predicated on development in the PRSP area. Therefore, it is not included in cumulative no project conditions, but is included in cumulative plus PRSP as well as cumulative plus PRSP plus SAP (20-Year project) and cumulative plus project buildout scenarios. The addition of Placer Parkway is also expected to cause a redistribution of trips from parallel east-west arterial roadways. Exhibit 4.14-14 displays the expected roadway network under cumulative plus PRSP conditions.

Exhibit 4.14-15 presents the ADT forecasts for roadways in the study area under cumulative plus PRSP conditions. Exhibit 4.14-16 presents the change in ADT on roadways in the study area between cumulative no project and cumulative plus PRSP conditions. It shows the greatest increase in traffic occurring on segments of Sunset Boulevard, Placer Parkway, Foothills Boulevard, and Fiddymont Road. As described above, the redistribution of trips caused by implementing the PRSP results in some decreases on certain roadways. In particular, the addition of Placer Parkway, combined with at-capacity conditions on Blue Oaks Boulevard under cumulative no project conditions, results in a decrease in traffic on Blue Oaks Boulevard as well as Athens Avenue.

Cumulative Plus Placer Ranch Specific Plan and Sunset Area Plan (20-Year Project)

Buildout of the SAP land uses is anticipated to occur over an extended time period (e.g., 80+ years) based on current market forecasts. However, currently available land use and traffic forecasting models for the region have a 20-year horizon (i.e., amount of development and roadway improvements that are reasonably foreseeable by 2036). Inserting an 80-year land development plan into a travel forecasting model with 20 years of land development in the remainder of the region would create an imbalance in the regional population and employment such that the resulting traffic forecasts produced by the travel model would not be meaningful. The level of employment alone in the proposed SAP would present the SAP area as a disproportionately large employment center requiring substantial shifts away from current employment centers including downtown Sacramento, Roseville, and Rancho Cordova. This would result in major changes in commute travel patterns (i.e., a substantial increase in commute trips in the region traveling to the SAP area with a corresponding substantial decrease in commute trips to current employment centers). Therefore, to present a reasonably foreseeable cumulative condition that is consistent with 20-year projections for the remainder of the study area, this analysis includes a "Cumulative Plus PRSP Plus SAP (20-Year Project)" scenario. This scenario includes buildout of the PRSP and 20 years of development in the SAP area, based on a market analysis prepared by EPS. A market analysis means that the level of population and employment growth in the project is tied directly to expected absorption rates tied to long-term economic activity.



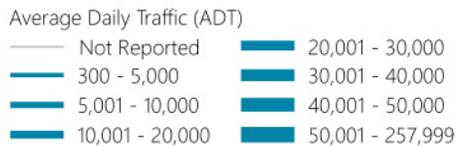
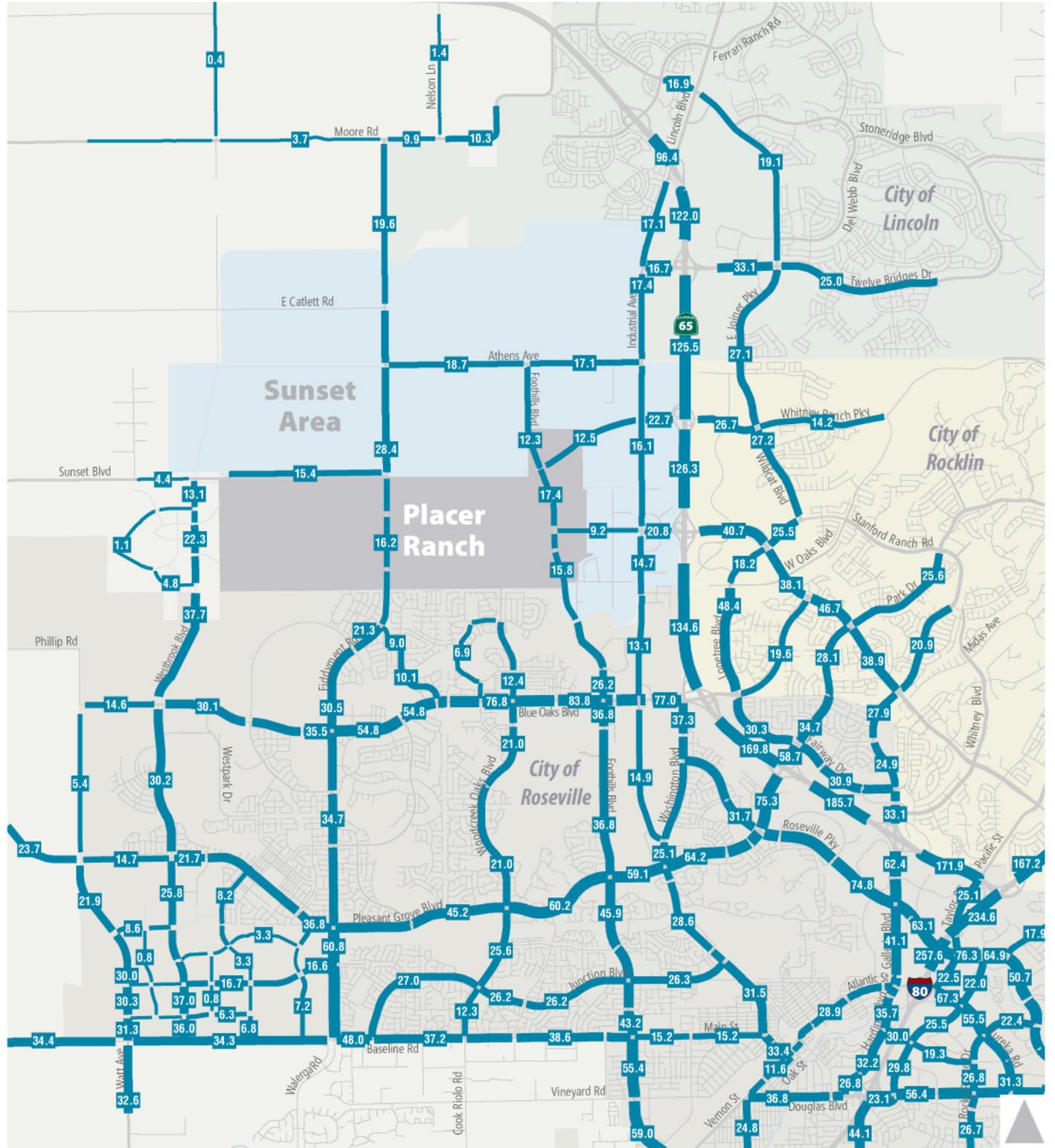
Source: Image provided by Fehr & Peers in 2018

X16010076 01 059

Exhibit 4.14-12

Cumulative No Project Roadway Network





Placer Ranch Specific Plan
Sunset Area Plan

Note:
1. All ADT volumes on map are in thousands of vehicles.
2. Freeway ADT volumes represent two-way total.

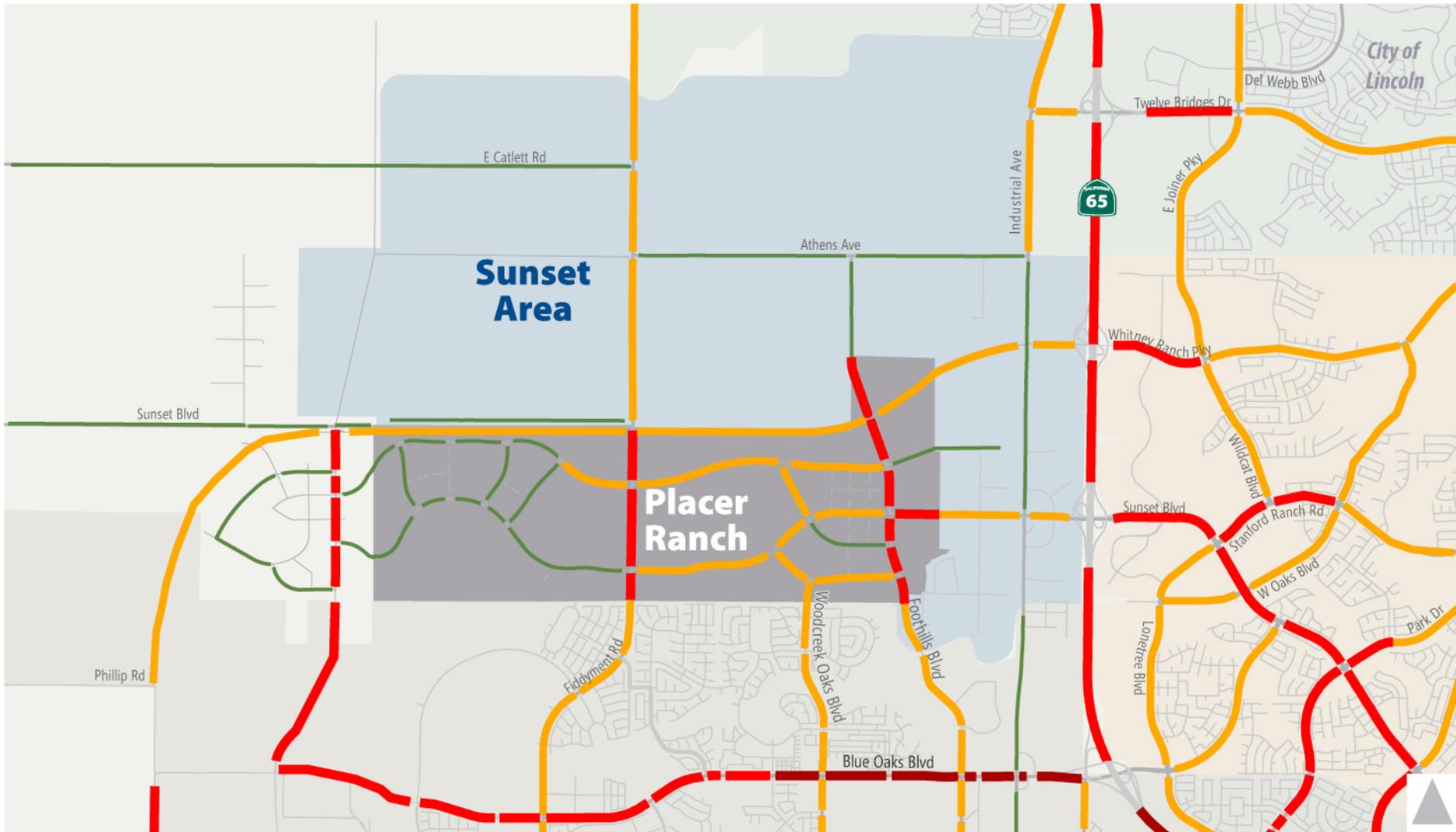
Source: Image provided by Fehr & Peers in 2018

X16010076 01 060

Exhibit 4.14-13

Average Daily Traffic – Cumulative No Project Conditions





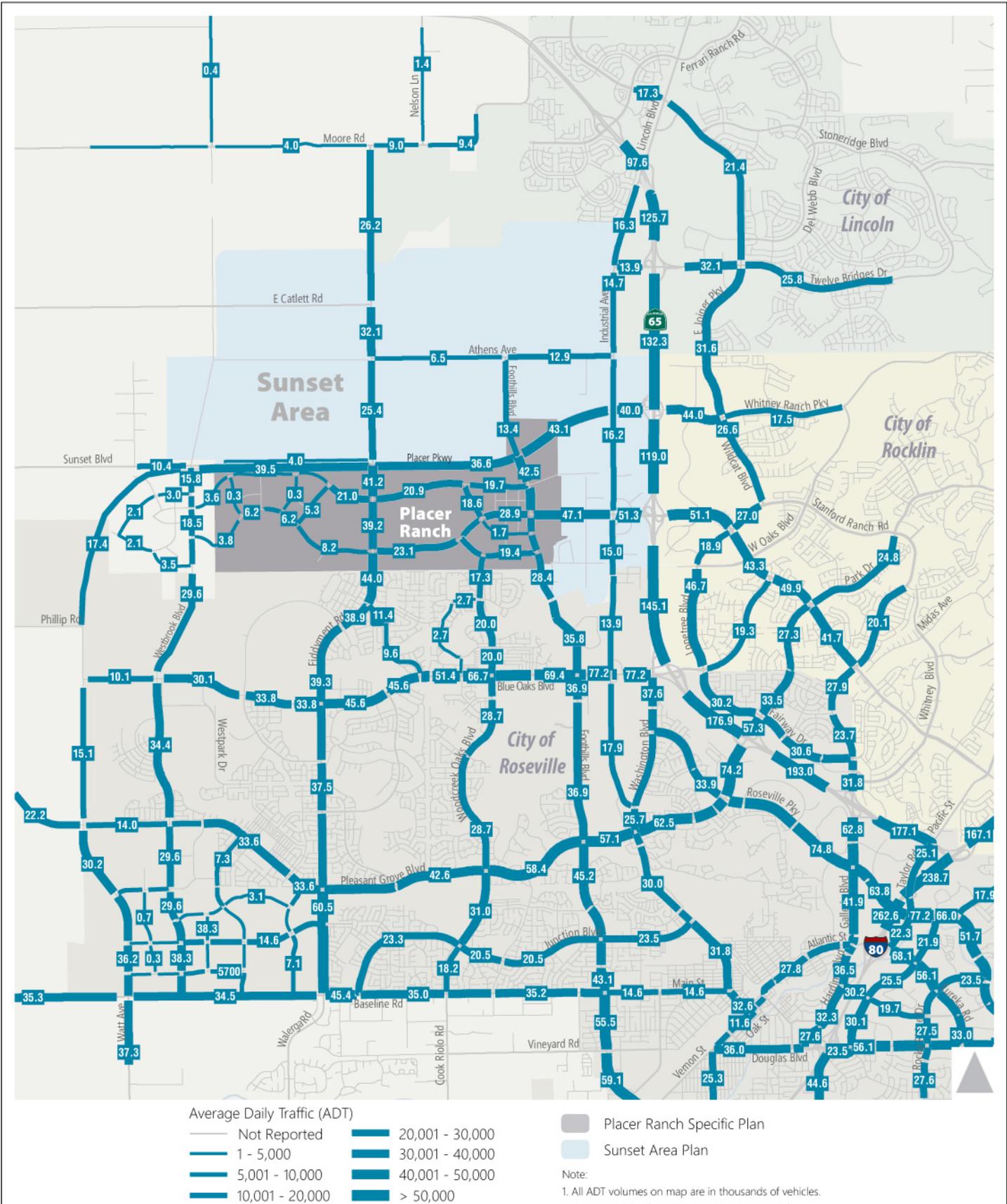
Source: Image provided by Fehr & Peers in 2018

X16010076 01 061

Exhibit 4.14-14

Cumulative Plus Placer Ranch Specific Plan Roadway Network





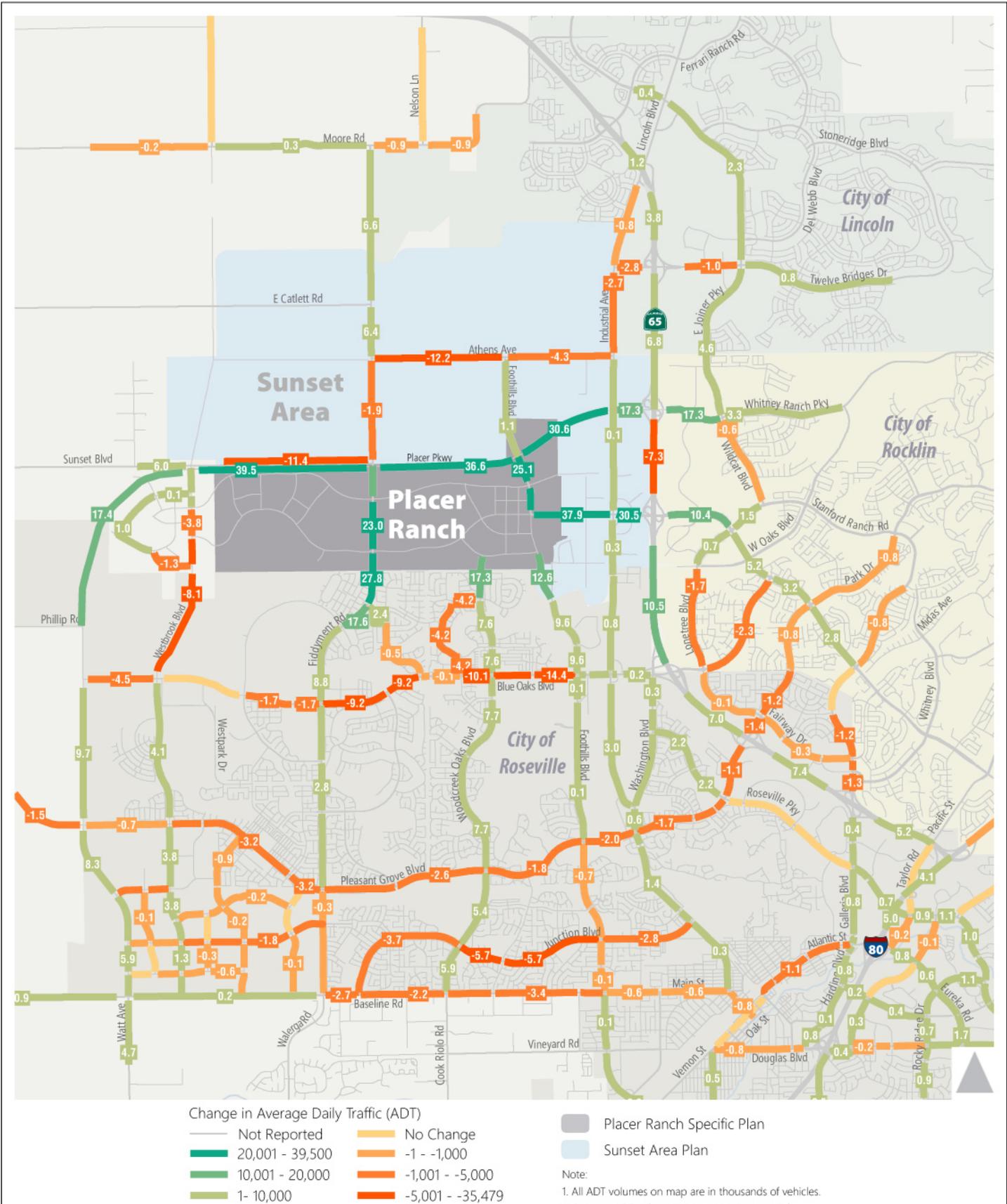
Source: Image provided by Fehr & Peers in 2018

X16010076 01 062

Exhibit 4.14-15

Average Daily Traffic – Cumulative Plus Placer Ranch Specific Plan Conditions





Source: Image provided by Fehr & Peers in 2018

X16010076 01 063

Exhibit 4.14-16

Change in Average Daily Traffic – Cumulative Plus Placer Ranch Specific Plan and Cumulative No Project Conditions



Table 4.14-34 presents the land use inputs for the Sunset Area (including the PRSP area) for the 20-year project scenario.

Table 4.14-34 Sunset Area Plan 20-Year Project Land Use Summary

Land Use Type	PRSP Area	Net SAP Area	Total SAP Area (20-Year Project)
Single-Family Residential ¹	3,096 DUs	320 DUs	3,416 DUs
Age-Restricted Residential	720 DUs	-	720 DUs
Multi-Family Residential ²	2,011 DUs	-	2,011 DUs
Retail ³	2,162.3 ksf	218.9 ksf	2,381.2 ksf
Office ⁴	1,232.2 ksf	929.6 ksf	2,161.8 ksf
Industrial ⁵	1,609.1 ksf	3,525.0 ksf	5,134.4 ksf
Innovation Center/R&D ⁶	1,340.9 ksf	-	1,340.9 ksf
Entertainment Mixed Use	-	2,615.4 ksf	2,615.4 ksf
University	30,000 students	-	30,000 students
Schools	32.0 acres	-	32.0 acres

Notes: DU = dwelling units; ksf = thousand square feet

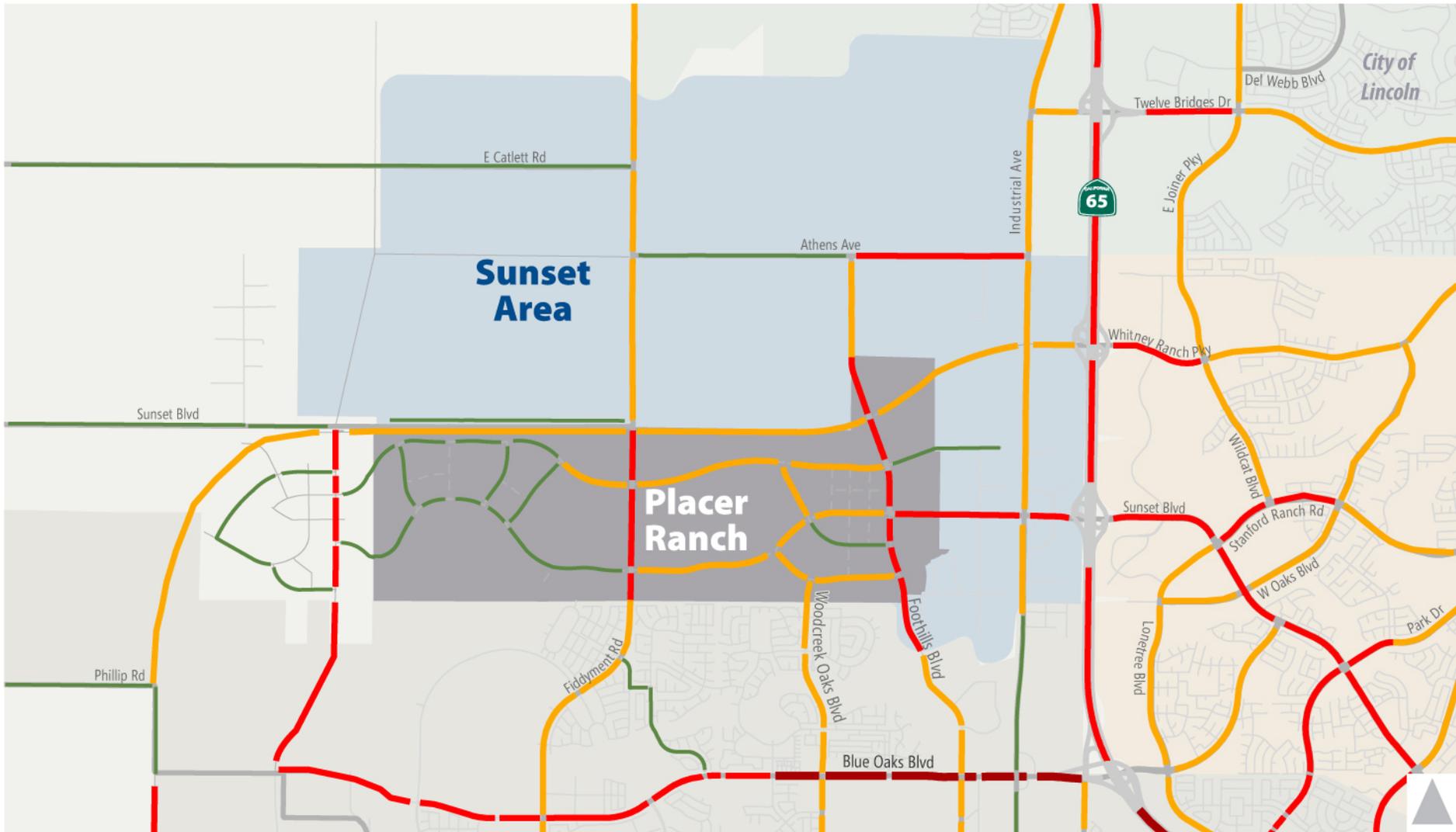
- ¹ Per the project proponent, all medium-density residential uses are assumed to be single-family (versus multi-family) so as to provide a conservative analysis and to offer enhanced environmental clearance for greater flexibility of product types.
- ² All high-density residential uses are assumed to be multi-family residential.
- ³ All commercial uses (General Commercial, commercial components of Commercial Mixed Use and Campus Park) assumes a highest trip-generating condition of 100% retail space.
- ⁴ Office uses include office components of Commercial Mixed Use and Campus Park in the PRSP area and Business Park in the net SAP area.
- ⁵ Industrial uses include light industrial and warehouse components of Campus Park in the PRSP area and light industrial and eco-industrial land uses in the net SAP area.
- ⁶ Innovation Center/Research & Development includes a Research & Development component of Campus Park in the PRSP and Innovation Center in the net SAP area.

Sources: MacKay & Somps 2016; Placer County 2018b

Exhibit 4.14-17 displays the expected roadway network under cumulative plus PRSP plus SAP (20-year Project) conditions. As noted above, this scenario includes the extension of Placer Parkway from Foothills Boulevard to Santucci Boulevard.

Exhibit 4.14-18 presents the ADT forecasts for roadways in the study area under cumulative plus PRSP plus SAP (20-year project) conditions. Exhibit 4.14-19 presents the change in ADT on roadways in the study area between cumulative no project and cumulative plus PRSP plus SAP (20-year Project) conditions. Similar to cumulative plus PRSP conditions, it shows the greatest increase in traffic occurring on segments of Sunset Boulevard, Placer Parkway, Foothills Boulevard, and Fiddymont Road. Unlike cumulative plus PRSP conditions, it also shows an increase in traffic on Athens Avenue and Industrial Avenue corresponding with the proposed development in the Sunset Area Entertainment and Mixed-Use District and Industrial Infill District.

The addition of Placer Parkway combined with at-capacity conditions on Blue Oaks Boulevard under cumulative no project conditions results in a decrease in traffic on Blue Oaks Boulevard under cumulative plus PRSP plus SAP (20-year Project) conditions.



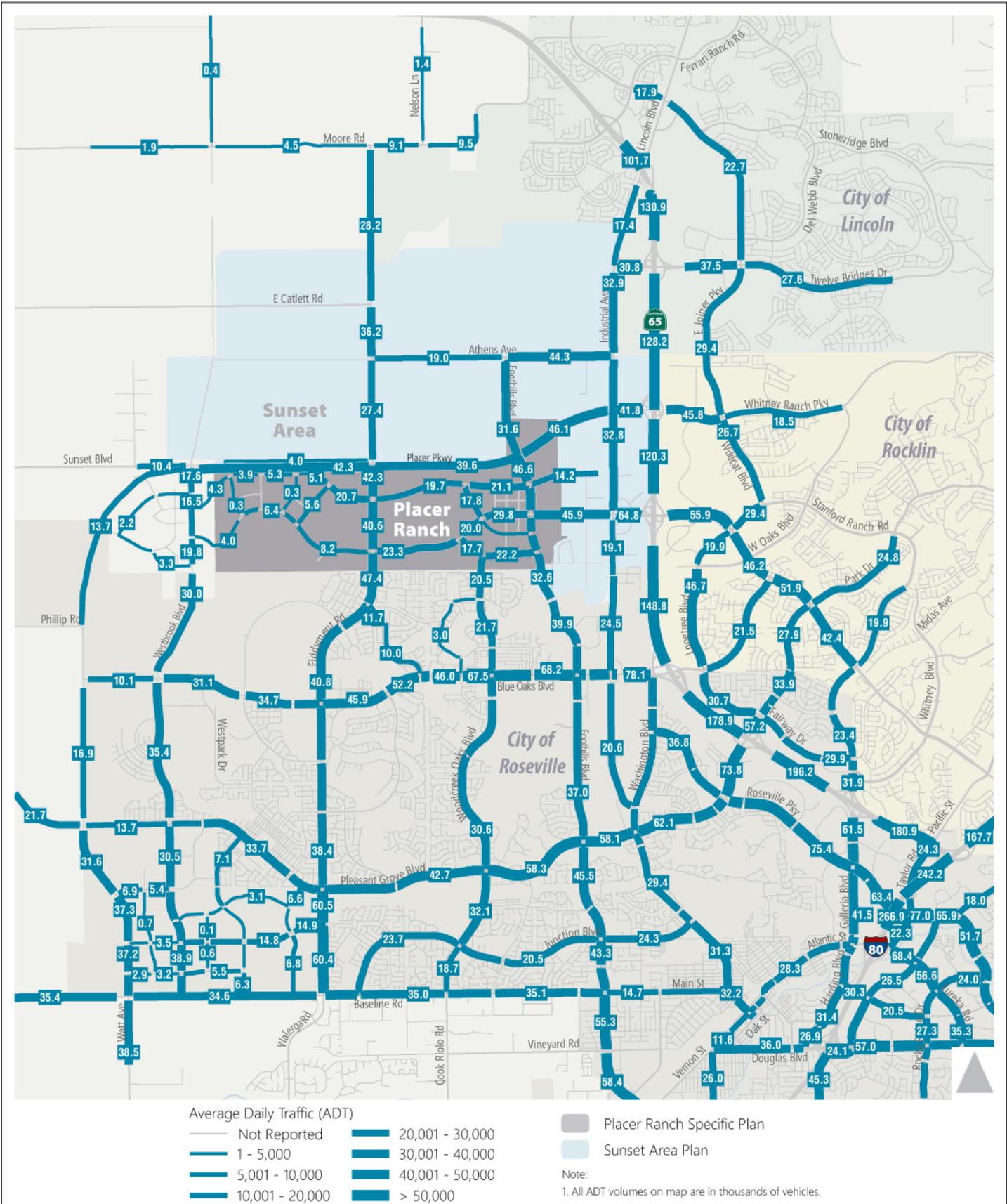
Source: Image provided by Fehr & Peers in 2018

X16010076 01 064

Exhibit 4.14-17

Cumulative Plus PRSP Plus SAP (20-Year Project) Roadway Network





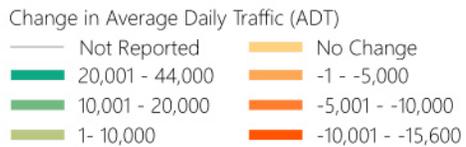
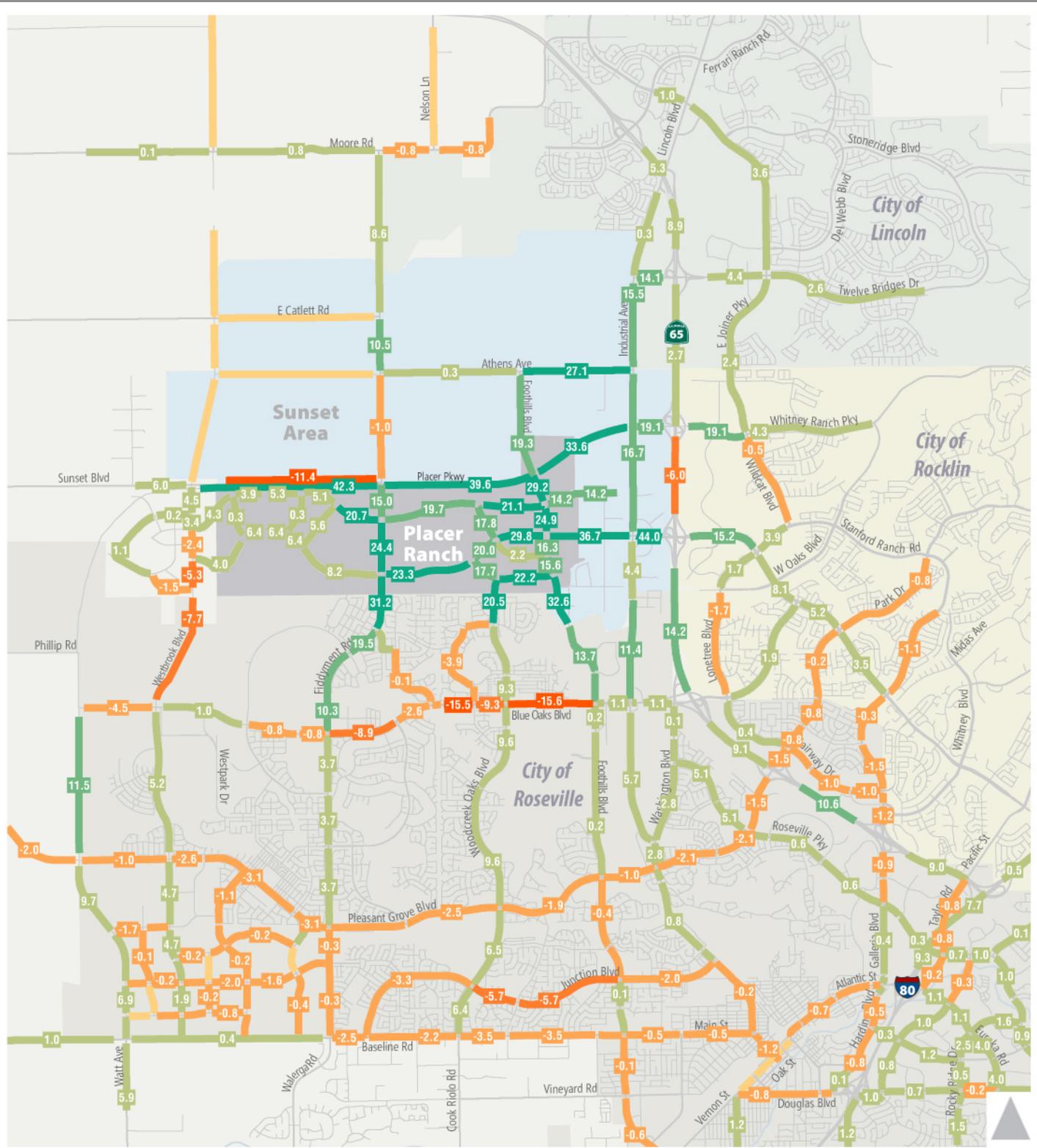
Source: Image provided by Fehr & Peers in 2018

X16010076 01 065

Exhibit 4.14-18

**Average Daily Traffic – Cumulative Plus PRSP Plus SAP
(20-Year Project) Conditions**





Note:
 1. All ADT volumes on map are in thousands of vehicles.
 2. Freeway ADT volumes represent two-way total.

Source: Image provided by Fehr & Peers in 2018

X16010076 01 066

Exhibit 4.14-19

Change in Average Daily Traffic – Cumulative Plus PRSP Plus SAP (20-Year Project) and Cumulative No Project Conditions



Cumulative Plus Sunset Area Plan Buildout

The Draft EIR also includes evaluation of a Cumulative Plus SAP Buildout Conditions scenario. This Cumulative Plus SAP Buildout Conditions scenario is analyzed at a lesser level of detail than the 20-year scenario, in recognition of the higher level of uncertainty associated with this level of development and a timeframe from buildout that would occur well beyond 20 years (i.e., 80+ years based on current market forecasts). This is consistent with Section 15130(b) of the State CEQA Guidelines, which allows for a lesser level of detail for cumulative conditions for these types of reasons. This is justified based on the following considerations:

- ▲ The SAP is being evaluated a programmatic level, and future environmental analysis for individual projects can provide more specificity when effects can be predicted with a greater level of accuracy, as appropriate.
- ▲ Travel behavior and transportation technology will change how travel occurs in 80+ years. However, insufficient data exist today to determine with any confidence the magnitude those changes may have on vehicle travel over an 80+ year timeframe. Therefore, it would be speculative to forecast of traffic conditions at a timeframe that corresponds with the market forecasted timeline for buildout of the SAP.
- ▲ The travel model limitations noted above (i.e., 80 years of land development in the SAP area with 20 years of development in the remainder of the study area) would result in an inaccurate portrayal of detailed traffic operations. Therefore, it is more appropriate to evaluate the SAP buildout using higher-level transportation metrics, such as trip generation and ADT levels, instead of detailed intersection operations or roadway and freeway segment operations per Section 15146 of the State CEQA Guidelines. The trip generation and ADT forecasts would not reflect the effect of changes in travel behavior and technology that would occur over 80+ years and would still be subject to the travel model limitations noted above. However, they are more appropriate metrics to use in this study to provide a sense for changes in travel and potential traffic impacts that would be caused by buildout of the SAP.

The trip generation for buildout of the SAP under cumulative conditions is estimated using trip rates contained in the Placer County travel demand model. Table 4.14-35 presents the change in trip generation between the Cumulative Plus PRSP Plus SAP (20-Year Project) scenario and the Cumulative Plus SAP Buildout scenario. As shown, buildout of the SAP would generate slightly more than double the amount of trips forecasted for the Cumulative Plus PRSP Plus SAP (20-Year Project) scenario.

Table 4.14-35 Trip Generation – Cumulative Plus Sunset Area Plan Scenarios

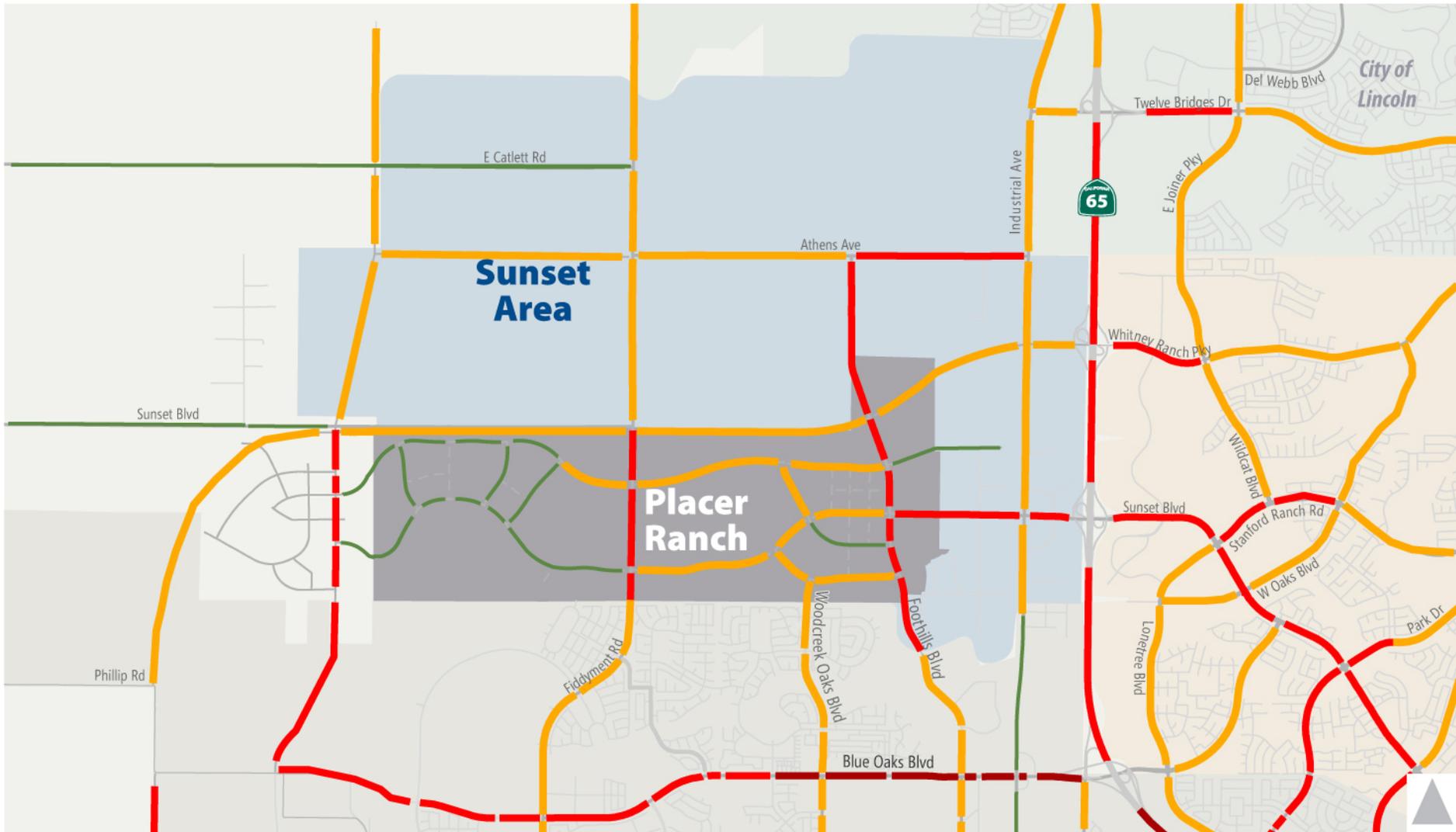
Scenario	Gross Vehicle Trip Ends ¹		
	Daily	A.M. Peak Hour	P.M. Peak Hour
Cumulative Plus PRSP Plus SAP (20-Year Project)	372,809	22,310	29,700
Cumulative Plus SAP Buildout	561,635	36,209	46,695
Change	+188,826	+13,899	+16,995

Notes: ¹ Number of vehicle trip ends based on results from the Placer County cumulative travel demand model.

The County’s travel demand model takes retail pass-by traffic into consideration by using a ‘pass-by adjusted’ trip rate. Pass-by trips to retail uses will occur but are not shown in this table because pass-by traffic will principally be taken from project-related trips on internal roadways.

Source: Fehr & Peers 2018

Exhibit 4.14-20 displays the expected roadway network under cumulative plus SAP buildout conditions. Exhibit 4.14-21 presents the ADT forecasts for roadways in the study area under cumulative plus SAP buildout conditions. Exhibit 4.14-22 presents the change in ADT on roadways in the study area between cumulative no project and cumulative plus SAP buildout conditions. This figure is analogous to a cumulative trip distribution figure.



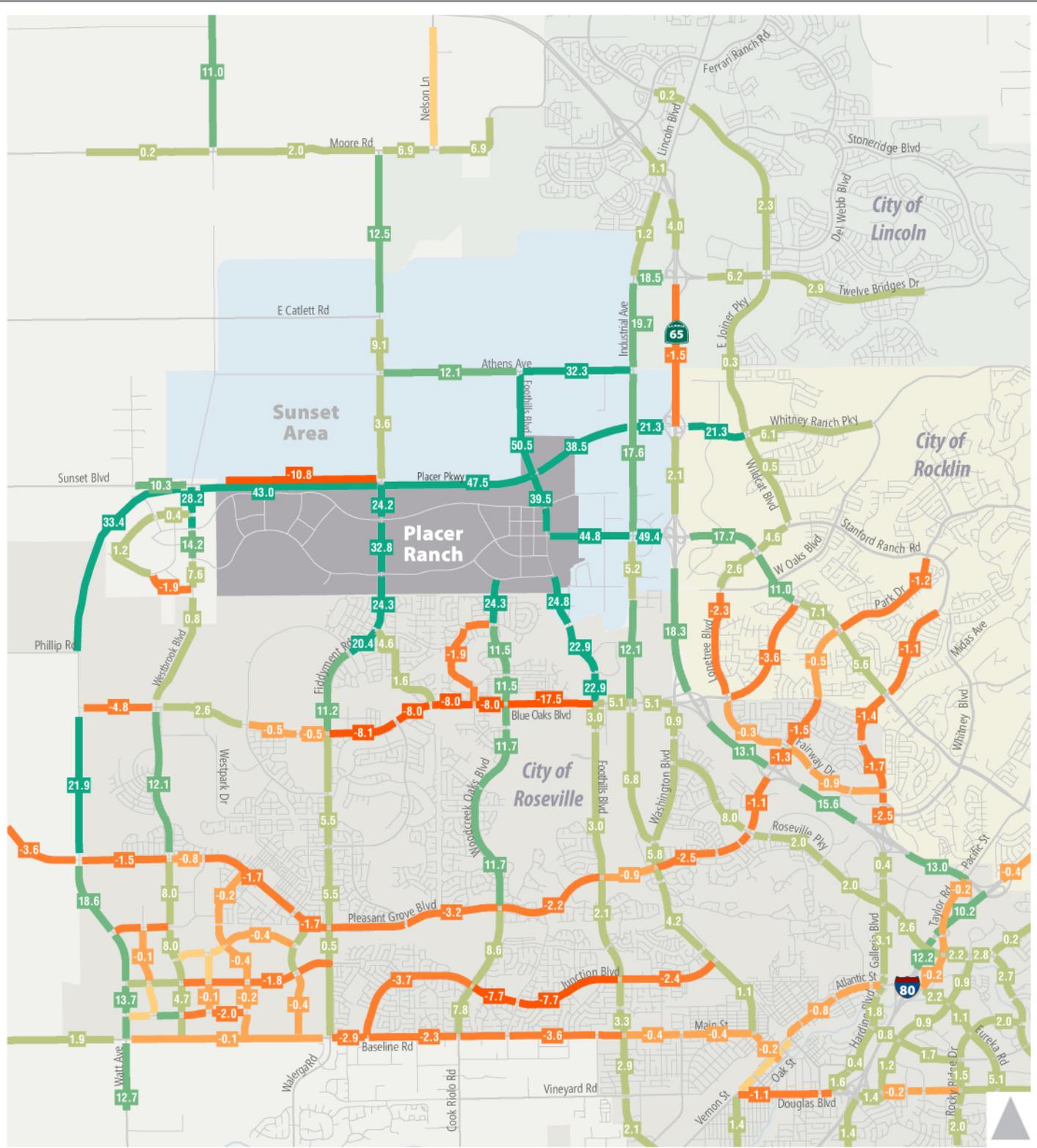
Source: Image provided by Fehr & Peers in 2018

X16010076 01 067

Exhibit 4.14-20

Cumulative Plus SAP Buildout Roadway Network





Change in Average Daily Traffic (ADT)

— Not Reported	— No Change
— 20,001 - 50,500	— -1 - -1,000
— 10,001 - 20,000	— -1,001 - -5,000
— 1 - 10,000	— -5,001 - -17,500

Placer Ranch Specific Plan
 Sunset Area Plan

Note:
 1. All ADT volumes on map are in thousands of vehicles.
 2. Freeway ADT volumes represent two-way total.

Source: Image provided by Fehr & Peers in 2018

X16010076 01 069

Exhibit 4.14-22

**Change in Average Daily Traffic – Cumulative Plus SAP
 Buildout and Cumulative No Project Conditions**



Exhibit 4.14-23 displays the change in ADT on roadways in the study area between cumulative plus PRSP plus SAP (20-year project) conditions and cumulative plus SAP buildout conditions. This figure shows the anticipated net change in travel as a result of buildout of the SAP. Logically, Exhibit 4.14-23 shows that the greatest increase in ADT as the result of SAP buildout are on roadways in and around the SAP area. This includes Fiddymment Road, Foothills Boulevard, Athens Avenue, Dowd Road, Westbrook Boulevard, and Placer Parkway. Notably, ADT also increases on major north-south roadways into Roseville, such as Santucci Boulevard, Westbrook Boulevard, Fiddymment Road, and Foothills Boulevard, as well as roadways in Rocklin that connect directly to the SAP area, such as Whitney Ranch Parkway and Sunset Boulevard. Intuitively, the magnitude of change in ADT decreases further from the SAP area. For example, an additional 9,200 ADT is forecasted to use Fiddymment Road in the PRSP area with buildout of the SAP under cumulative conditions, while the change on Fiddymment Road between Pleasant Grove Boulevard and Baseline Road is 800 ADT.

Cumulative Impact 4.14-15: Cumulative impacts to roadway operations in Placer County

Vehicle trips generated by buildout of the PRSP in combination with reasonably foreseeable projects would cause Sunset Boulevard from the PRSP area to SR 65 to be degraded from an acceptable LOS A to an unacceptable LOS F under cumulative conditions. Furthermore, buildout of the SAP when viewed in connection with reasonably foreseeable projects would result in over-capacity roadways in unincorporated Placer County. This would be a **significant** impact.

Table 4.14-36 presents the cumulative ADT volume, v/c ratio, and LOS for study roadway segments located in Placer County.

Table 4.14-36 Placer County Roadway Level of Service – Cumulative (2036) Conditions

Segment	Cumulative (2036) No Project Conditions				Cumulative Plus PRSP Plus SAP 20-Year Project (2036) Conditions				Cumulative Plus PRSP			
	Class	ADT	V/C	LOS	Class	ADT	V/C	LOS	Class	ADT	V/C	LOS
Sunset Boulevard: Foothills Boulevard to Industrial Avenue	4-lane Arterial	9,200	0.26	A	6-lane Arterial	45,900	0.85	D	4-lane Arterial	47,100	<u>1.31</u>	F
Fiddymment Road: Sunset Boulevard W. to SAP boundary	4-lane Arterial	28,400	0.79	C	4-lane Arterial	27,400	0.76	C	4-lane Arterial	26,500	0.74	C
Industrial Avenue: Roseville city limits to Sunset Boulevard	2-lane Arterial	14,700	0.82	D	4-lane Arterial	19,100	0.53	A	2-lane Arterial	15,000	<u>0.83</u>	D
Industrial Avenue: Sunset Boulevard to Athens Avenue	2-lane Arterial	16,100	0.89	D	4-lane Arterial	32,800	<u>0.91</u>	E	2-lane Arterial	16,200	0.90	D
Foothills Boulevard: Athens Avenue to Sunset Boulevard	2-lane Arterial	12,300	0.68	B	4-lane Arterial	31,600	<u>0.88</u>	D	2-lane Arterial	13,400	0.74	C
Walerga Road: Baseline Road to Sacramento County Line	6-lane Arterial	39,600	0.73	C	6-lane Arterial	40,700	0.75	C	6-lane Arterial	40,200	0.74	C

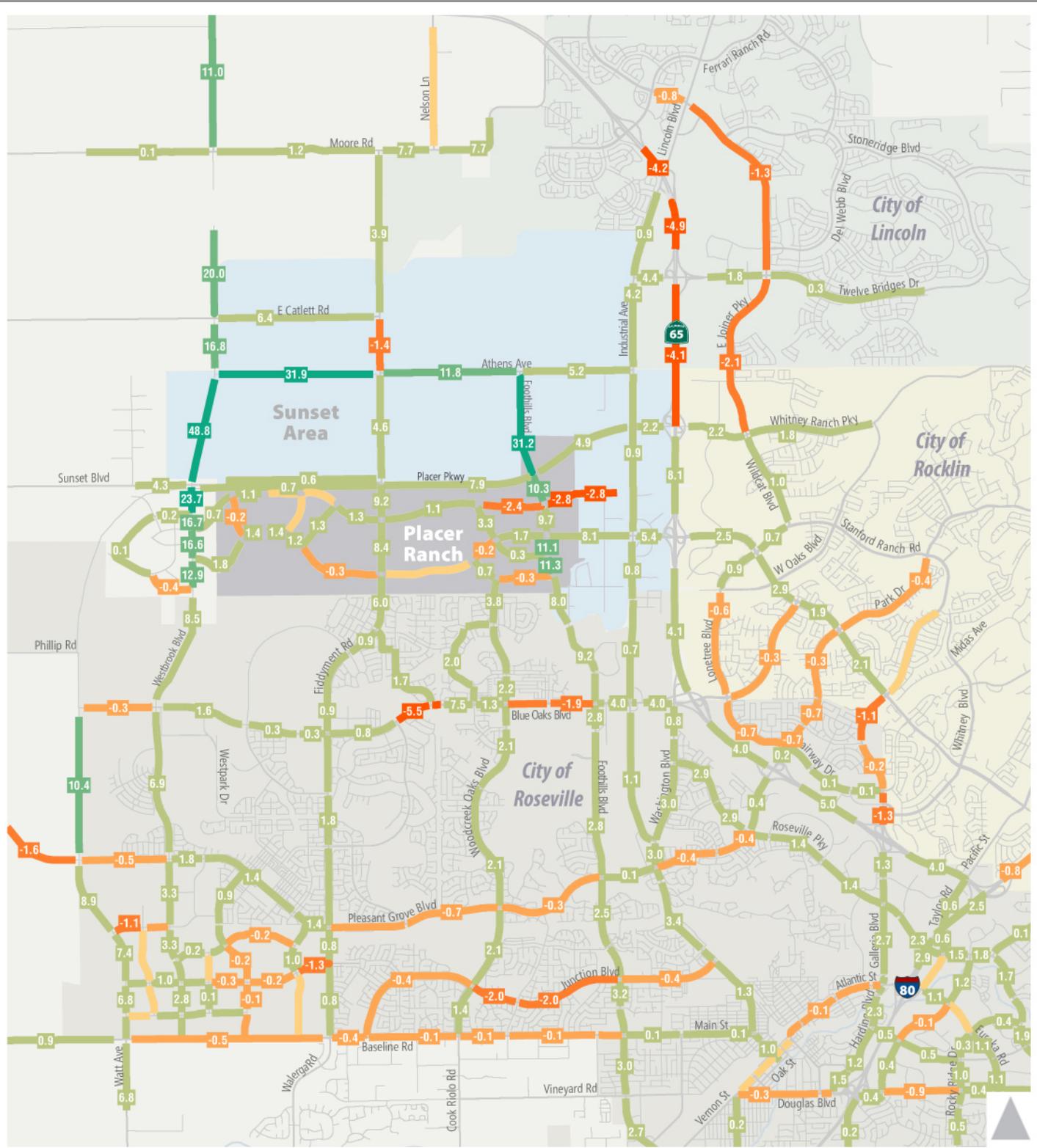
Note: ADT = average daily traffic; V/C = volume-to-capacity ratio; LOS = level of service

Values rounded to the nearest 100 vehicles.

BOLD text indicates unacceptable operations.

UNDERLINED text indicates significantly impacted roadway segment.

Source: Fehr & Peers 2018



Change in Average Daily Traffic (ADT)

— Not Reported	— No Change
— 20,001 - 38,900	— -1 - -1,000
— 10,001 - 20,000	— -1,001 - -2,500
— 1 - 10,000	— -2,501 - -5,500

Placer Ranch Specific Plan
Sunset Area Plan

Note:
1. All ADT volumes on map are in thousands of vehicles.
2. Freeway ADT volumes represent two-way total.

Source: Image provided by Fehr & Peers in 2018

X16010076 01 070

Exhibit 4.14-23

Change in Average Daily Traffic – Cumulative Plus SAP Buildout and Cumulative Plus PRSP Plus SAP (20-Year Project) Conditions



SAP Area

Cumulative Plus PRSP Plus SAP (20-Year Project)

Three of the six study roadway segments would operate at LOS C or better with the 20-year project land uses in the SAP. Industrial Avenue from Sunset Boulevard to Athens Avenue is expected to degrade from LOS D to LOS E. While the cumulative plus PRSP plus SAP (20-year project) volume-to-capacity ratio would increase by 0.02 compared to cumulative no project conditions, the ADT on Industrial Avenue from Sunset Boulevard to Athens Avenue would increase by 16,700 which is greater than the 100 ADT per lane threshold. Therefore, this would be a **significant** impact. Sunset Boulevard from Foothills Boulevard to Industrial Avenue is expected to degrade from LOS A to LOS D. Similarly, Foothills Boulevard from Athens Avenue to Sunset Boulevard is expected to degrade from LOS B to LOS D. These are also considered **significant** impacts.

In addition to the roadway segments shown in Table 4.14-35, this study reviewed the anticipated ADT levels for arterial roadways within the net SAP and PRSP areas under cumulative plus PRSP plus SAP (20-year project) conditions, as shown in Exhibit 4.14-18. This includes Fiddymment Road, Foothills Boulevard, Campus Park Boulevard, Sunset Boulevard, Athens Avenue, Maple Park Drive, University Village Drive, and College Park Drive. Based on the forecasted ADTs and planned number of lanes identified in the PRSP, most of the arterial roadways in the PRSP area would provide acceptable operations and adequately serve the forecasted traffic demand under cumulative plus PRSP plus SAP (20-year project) conditions. However, some segments of Fiddymment Road, Foothills Boulevard, and Sunset Boulevard within the PRSP area may operate near or just above the LOS C/D threshold based on the ADT thresholds in Table 4.14-1.

In the net SAP area, the following segments of Athens Avenue, Sunset Boulevard, and Fiddymment Road would operate at LOS D, E, or F:

- ▲ Athens Avenue: Foothills Boulevard to Industrial Avenue,
- ▲ Sunset Boulevard: Placer Corporate Drive/South Loop Road to SR 65, and
- ▲ Fiddymment Road: Athens Avenue to E. Catlett Road.

Currently, Placer County's LOS C standard applies to roadways in the SAP area. However, policy TM-1.2 in the SAP would allow LOS E conditions at major intersection within the plan area. With adoption of the SAP, the applicable level of service standard would become LOS E. Consequently, the Athens Avenue roadway segment which would operate at LOS D under cumulative plus PRSP plus SAP (20-year project) conditions would operate at an acceptable LOS with the adoption of the SAP. However, the following segments would continue to operate at an unacceptable LOS F. This would be a **significant** impact.

- ▲ Sunset Boulevard: Placer Corporate Drive/South Loop Road to SR 65, and
- ▲ Fiddymment Road: Athens Avenue to E. Catlett Road.

Cumulative Plus SAP Buildout

Buildout of the SAP when viewed in connection with reasonably foreseeable future projects would result in higher trip generation and higher ADT levels on Placer County roadways than the cumulative plus PRSP plus SAP (20-year project) scenario, as shown in Exhibit 4.14-21. In several cases, these higher ADT levels would exceed the LOS C threshold for roadways in Placer County, including:

- ▲ Fiddymment Road: Roseville city limits to Moore Road,
- ▲ Foothills Boulevard: Sunset Boulevard to Athens Avenue,
- ▲ Dowd Road: Sunset Boulevard West to Athens Avenue,
- ▲ Athens Avenue: Dowd Road to Industrial Avenue,
- ▲ Industrial Avenue: Sunset Boulevard to Athens Avenue,
- ▲ Sunset Boulevard: Foothills Boulevard to SR 65, and
- ▲ Watt Avenue: south of Baseline Road.

This would be a **significant** impact.

PRSP Area

Three of the six study roadway segments would operate at LOS C under cumulative plus PRSP conditions. The two study segments of Industrial Avenue from the Roseville city limits to Athens Avenue would continue to operate at LOS D. The ADT on Industrial Avenue from Sunset Boulevard to Athens Avenue would increase by 100 compared to cumulative no project conditions, which is less than the 100 ADT per lane threshold. Therefore, this would be a **less-than-significant** impact.

However, the ADT on Industrial Avenue from the Roseville city limits to Sunset Boulevard would increase by 300 compared to Cumulative No Project conditions, which is greater than the 100 ADT per lane threshold. Sunset Boulevard is expected to degrade from LOS A under cumulative no project conditions to LOS F under cumulative plus PRSP conditions. These would be a **significant** impact.

In addition to the roadway segments shown in Table 4.14-35, this study reviewed the anticipated ADT levels for arterial roadways within the net SAP and PRSP areas under cumulative plus PRSP conditions, as shown in Exhibit 4.14-15. This includes Fiddymment Road, Foothills Boulevard, Campus Park Boulevard, Sunset Boulevard, Athens Avenue, Maple Park Drive, University Village Drive, and College Park Drive. Based on the forecasted ADTs and planned number of lanes identified in the PRSP, most of the arterial roadways in the PRSP area would provide acceptable operations and adequately serve the forecasted traffic demand under cumulative plus PRSP conditions. However, some segments of Fiddymment Road, Foothills Boulevard, and Sunset Boulevard within the PRSP area may operate near or just above the LOS C/D threshold based on the ADT thresholds in Table 4.14-1.

In the net SAP area, the following segments of Sunset Boulevard and Fiddymment Road would operate at LOS D:

- ▲ Sunset Boulevard: Placer Corporate Drive/South Loop Road to SR 65, and
- ▲ Fiddymment Road: Athens Avenue to E. Catlett Road.

This would be a **significant** impact.

Roadways in the Dry Creek/West Placer Community Plan Area

As noted above, Watt Avenue south of Baseline Road is forecasted to exceed LOS C under cumulative plus SAP buildout conditions. However, Policy 9 of the Dry Creek/West Placer Community Plan allows LOS D operations for roadways in the Dry Creek/West Placer Community Plan. Furthermore, Goal 6 allows this segment of Watt Avenue to operate at LOS F once fully improved (i.e., as a 6-lane arterial with the CIP improvements, as analyzed under cumulative conditions). Therefore, this segment of Watt Avenue is permitted to operate at LOS F and no further widening of Watt Avenue is necessary.

Roadways in the SAP

Currently, Placer County's LOS C standard applies to roadways in the SAP area. However, policy TM-1.2 in the SAP would allow LOS E conditions within the SAP area. Based on the ADT thresholds presented in Table 4.14-1, the following roadway segments listed below would operate at LOS E or better:

Cumulative Plus PRSP Plus SAP (20-Year Project)

- ▲ Athens Avenue: Foothills Boulevard to Industrial Avenue
- ▲ Sunset Boulevard: Foothills Boulevard to Placer Corporate Drive/South Loop Road
- ▲ Industrial Avenue: Sunset Boulevard to Athens Avenue
- ▲ Foothills Boulevard: Athens Avenue to Sunset Boulevard
- ▲ Sunset Boulevard: University Village Drive to Foothills Boulevard
- ▲ Fiddymment Road: south of Sunset Boulevard

Cumulative Plus SAP Buildout

- ▲ Fiddymment Road: Roseville city limits to Moore Road
- ▲ Industrial Avenue: Sunset Boulevard to Athens Avenue
- ▲ Sunset Boulevard: University Village Drive to Foothills Boulevard
- ▲ Athens Avenue: Dowd Road to Industrial Avenue

Cumulative Plus PRSP

- ▲ Industrial Avenue: Roseville city limits to Athens Avenue
- ▲ Sunset Boulevard: University Village Drive to Foothills Boulevard
- ▲ Sunset Boulevard: Placer Corporate Drive/South Loop Road to SR 65
- ▲ Fiddymment Road: Athens Avenue to E. Catlett Road
- ▲ Fiddymment Road: south of Sunset Boulevard

These roadways would operate acceptably with adoption of the SAP. However, since Policy TM-1.2 is not currently in effect, the LOS D operations would remain unacceptable until the SAP is adopted. Therefore, these traffic operations would be a **significant and unavoidable impact in the short term** until the SAP is adopted. Upon adoption of the SAP, the application of Policy TM-1.2 would make these operations acceptable and reduce the impact to **less than significant**.

The following roadway segments would operate at LOS F based on the ADT thresholds presented in Table 4.14-1:

Cumulative Plus PRSP Plus SAP (20-Year Project)

- ▲ Sunset Boulevard: Placer Corporate Drive/South Loop Road to SR 65
- ▲ Fiddymment Road: Athens Avenue to E. Catlett Road

Cumulative Plus SAP Buildout

- ▲ Foothills Boulevard: Sunset Boulevard to Athens Avenue
- ▲ Dowd Road: Sunset Boulevard West to Athens Avenue
- ▲ Sunset Boulevard: Placer Corporate Drive/South Loop Road to SR 65

Cumulative Plus PRSP

- ▲ Sunset Boulevard: PRSP boundary to Placer Corporate Drive/South Loop Road

These would remain a **significant** impact.

Mitigation Measures

Implement Mitigation Measures 4.14-2a (Net SAP Area and PRSP Area) and 4.14-2c (Net SAP Area and PRSP Area). As noted in Mitigation Measure 4.14-2c, the County shall adopt an update to the Placer County Countywide CIP and countywide traffic impact fee concurrently with the SAP and PRSP to include capacity-enhancing improvements that are necessary to serve future traffic demand with the SAP, including the PRSP. This shall include improvements described below in Mitigation Measure 4.14-15a, which are not currently included in the Placer County Countywide CIP.

Mitigation Measure 4.14-15a: Pay impact fees to Placer County toward widening Sunset Boulevard to six lanes from PRSP area to SR 65 (PRSP Area)

Prior to building permit issuance, project proponents of individual development projects within the PRSP area shall pay impact fees to Placer County, as determined by DPWF, in amounts that constitute the PRSP's fair share towards widening Sunset Boulevard to 6 lanes from the PRSP area to SR 65.

Widening Sunset Boulevard to six lanes is not included in any known fee program. As noted in Mitigation Measure 4.14-2c, Placer County proposes to update the Placer County Countywide CIP and countywide traffic impact fee, which will be adopted concurrently with the PRSP and SAP. In this update, the County shall include widening Sunset Boulevard to 6 lanes from Foothills Boulevard to SR 65, as described in this mitigation measure. Since this improvement is not in the current Countywide CIP, this impact would be temporarily **significant and unavoidable** until the Countywide CIP update is adopted with the improvement included. Upon adoption of the updated Countywide CIP with the inclusion of this improvement, project proponents of future development projects within the SAP area, including the PRSP area, shall pay the

applicable countywide traffic impact fees prior to the issuance of building permits, which will provide funding towards this improvement.

This widening would improve operations on Sunset Boulevard to LOS D. While this improves operations, the roadway would continue to operate at an unacceptable LOS. Further widening of Sunset Boulevard to 8 lanes is not planned or feasible. Currently, Placer County's LOS C standard applies to this roadway. However, policy TM-1.2 in the SAP would allow LOS E conditions at major intersections within the SAP area. With adoption of the SAP, the applicable level of service standard would become LOS E. However, since this policy is not currently adopted, the LOS D operations would remain unacceptable until the SAP is adopted. Therefore, these traffic operations would be temporarily a **significant and unavoidable** impact until the SAP is adopted.

Mitigation Measure 4.14-15b: Require dedication of right of way to widen Fiddymment Road to six lanes from Athens Avenue to E. Catlett Road (Net SAP Area and PRSP Area)

Prior to Improvement Plan approval or Final Map recordation for subdivision projects, project proponents of individual development projects within the SAP area, including the PRSP area, shall dedicate sufficient right-of-way to widen Fiddymment Road to 6 lanes from Athens Avenue to E. Catlett Road in the future.

Widening Fiddymment Road to six lanes is not included in any known fee program. Placer County proposes to preserve sufficient right-of-way to potentially widen Fiddymment Road to six lanes from Athens Avenue to E. Catlett Road in the future. This widening would improve operations on Fiddymment Road to LOS B. However, the County does not anticipate collecting additional funding to construct this widening at this time. Since these improvements are not in the current Countywide CIP and would not be incorporated into the Countywide CIP at this time, this impact would remain **significant and unavoidable**.

Mitigation Measure 4.14-15c: Require dedication of right-of-way to widen Sunset Boulevard to eight lanes from Placer Corporate Drive/South Loop Road to SR 65 (Net SAP Area and PRSP Area)

Prior to Improvement Plan approval or Final Map recordation for subdivision projects, project proponents of individual development projects within the SAP area, including the PRSP area, shall dedicate sufficient right-of-way to widen Sunset Boulevard to 8 lanes from Placer Corporate Drive/South Loop Road to SR 65 in the future. Any development proposed on parcels affected by the future 8 lane facility shall be required as a condition of approval to provide an irrevocable offer of dedication to Placer County for a highway easement to accommodate the future 8 lane roadway improvements.

Widening Sunset Boulevard to eight lanes is not included in any known fee program. Placer County proposes to preserve sufficient right-of-way to potentially widen Sunset Boulevard to eight lanes from Placer Corporate Drive/South Loop Road to SR 65 in the future. This widening would improve operations on Sunset Boulevard to LOS D. However, the County does not anticipate collecting additional funding to construct this widening at this time. Since these improvements are not in the current Countywide CIP and would not be incorporated into the Countywide CIP at this time, this impact would remain **significant and unavoidable**.

Mitigation Measure 4.14-15d: Preserve right-of-way on major arterials in the unincorporated County to accommodate forecasted ADT levels (Net SAP Area and PRSP Area)

In addition to the widening and preservation of right-of-way identified in Mitigation Measures 4.14-15a through 4.14-15c, Placer County shall preserve right-of-way on major arterials in the unincorporated County to accommodate the forecasted ADT levels with buildout of the SAP. Prior to Improvement Plan approval or Final Map recordation for subdivision projects, project proponents of individual development projects within the SAP area, including the PRSP area, shall provide an irrevocable offer of dedication to Placer County for highway easements as necessary to accommodate the future roadway improvements. This includes:

- ▲ Fiddymment Road: Roseville city limits to Sunset Area Plan boundary – 6 lanes,
- ▲ Foothills Boulevard: Sunset Boulevard to Athens Avenue – 8 lanes, and
- ▲ Dowd Road: Sunset Boulevard West to Athens Avenue – 6 lanes

Placer County shall monitor development conditions in the SAP area, including the PRSP area, using dwelling unit equivalents. When dwelling unit equivalents exceed the amount analyzed in the cumulative plus PRSP plus SAP (20-year project) scenario, the County shall implement a traffic monitoring program that at a minimum includes:

- ▲ Fiddymment Road: Roseville city limits to Sunset Area Plan boundary,
- ▲ Foothills Boulevard: Sunset Boulevard to Athens Avenue, and
- ▲ Dowd Road: Sunset Boulevard West to Athens Avenue.

Significance after Mitigation

With Mitigation Measure 4.14-15a, traffic operations on Sunset Boulevard would improve to LOS D after widening to 6 lanes. Upon adoption of the SAP, the application of Policy TM-1.2 would make LOS D operations acceptable. Since Policy TM-1.2 is not currently in effect, the LOS D operations would remain unacceptable until the SAP is adopted. Therefore, these traffic operations would be a **significant and unavoidable impact in the short term** until the SAP is adopted.

Furthermore, this widening is not in the current Countywide CIP. Therefore, this impact would be temporarily **significant and unavoidable** until the Countywide CIP update is adopted with the widening included. Upon adoption of the SAP and the updated Countywide CIP, the application of Policy TM-1.2 would make the LOS D operations acceptable and the payment of applicable countywide traffic impact fees would fund the improvements. This would mitigate this impact to a **less-than-significant** level.

Mitigation Measures 4.14-15b through 4.14-15d would preserve right-of-way on Fiddymment Road, Sunset Boulevard, Foothills Boulevard, and Dowd Road for a potential future expansion of these roadways to accommodate the forecasted traffic demand that may occur as the SAP builds out over time. However, because of the inaccurate nature of forecasting traffic demand beyond the horizon of currently available traffic forecasting models, the forecasted ADT levels on these roadways may or may not come to fruition. Therefore, the physical roadway widening may or may not be necessary to serve future traffic demand at buildout of the SAP. Given the uncertainty of whether the physical roadway widening will be necessary, Mitigation Measures 4.14-15b through 4.14-15d do not include the funding or implementation for constructing the physical roadway widening; only obligating the County to preserve the right-of-way should the physical roadway widening become necessary in the distant future. Therefore, this impact would remain **significant and unavoidable**.

Cumulative Impact 4.14-16: Cumulative impacts to intersection operations in Placer County

Vehicle trips generated by the proposed project in combination with reasonably foreseeable projects would cause study intersections in Placer County to be degraded to a significant degree under cumulative conditions. This would be a **significant** impact.

Table 4.14-37 presents the cumulative a.m. and p.m. peak hour operations for the study intersections located in Placer County. This includes 11 new signalized intersections that are proposed within the project that do not exist today.

Intersection	Traffic Control	LOS Standard	Peak Hour	Cumulative (2036) No Project Conditions		Cumulative Plus PRSP Plus SAP 20-Year Project (2036) Conditions		Cumulative Plus PRSP	
				Delay ¹	LOS	Delay ¹	LOS	Delay ¹	LOS
Baseline Road/Locust Road	Signal	D	AM	12	B	11	B	11	B
			PM	22	C	14	B	14	B
Industrial Avenue/Placer Corporate Drive	Signal	D	AM	7	A	11	B	7	A
			PM	13	B	22	C	46	D
Industrial Avenue/South Loop Road	Signal	C	AM	7	A	12	B	8	A
			PM	10	A	20	B	11	B

Table 4.14-37 Intersection Operations – Placer County – Cumulative (2036) Conditions

Intersection	Traffic Control	LOS Standard	Peak Hour	Cumulative (2036) No Project Conditions		Cumulative Plus PRSP Plus SAP 20-Year Project (2036) Conditions		Cumulative Plus PRSP	
				Delay ¹	LOS	Delay ¹	LOS	Delay ¹	LOS
PFE Road/Watt Avenue	Signal	D	AM	93	F	51	D	95	F
			PM	74	E	26	C	69	E
PFE Road/Walerga Road	Signal	F	AM	130	F	131	F	120	F
			PM	77	E	78	E	69	E
Sunset Boulevard/South Loop Road/Placer Corporate Drive	SSSC	D	AM	13	B	<u>255</u>	F	<u>43</u>	E
			PM	15	B	<u>>600</u>	F	<u>262</u>	F
Sunset Boulevard West/Fiddymnt Road	AWSC	C	AM	95	F	96	F	115	F ³
			PM	173	F	110	F	82	F
Athens Avenue/Fiddymnt Road	AWSC	C	AM	307	F	<u>418</u>	F	270	F
			PM	296	F	<u>423</u>	F	224	F
Athens Avenue/Industrial Avenue	Signal	C	AM	14	B	28	C	12	B
			PM	12	B	<u>133</u>	F	11	B
Athens Avenue/N. Foothills Boulevard	SSSC	C	AM	16	C	15	B	10	B
			PM	525	F	400	F	240	F
Sunset Boulevard/Cincinnati Avenue	Signal	C	AM	19	B	<u>42</u>	D	19	B
			PM	18	B	<u>140</u>	F	21	C
Campus Park Boulevard/Maple Park Drive	Signal	C	AM	Does Not Exist		21	C	21	C
			PM	Does Not Exist		24	C	23	C
Campus Park Boulevard/Fiddymnt Road	Signal	C	AM	Does Not Exist		32	C	27	C
			PM	Does Not Exist		<u>47</u>	D	<u>45</u>	D
Campus Park Boulevard/University Village Drive	Signal	C	AM	Does Not Exist		23	C	22	C
			PM	Does Not Exist		25	C	28	C
Campus Park Boulevard/Foothills Boulevard	Signal	C	AM	Does Not Exist		29	C	24	C
			PM	Does Not Exist		<u>58</u>	E	<u>40</u>	D
Sunset Boulevard/Maple Park Drive	Signal	C	AM	Does Not Exist		17	B	17	B
			PM	Does Not Exist		21	C	21	C
Sunset Boulevard/Fiddymnt Road	Signal	C	AM	Does Not Exist		<u>42</u>	D	<u>37</u>	D
			PM	Does Not Exist		<u>46</u>	D	<u>38</u>	D
Sunset Boulevard/College Park Drive	Signal	C	AM	Does Not Exist		17	B	21	C
			PM	Does Not Exist		29	C	35	C
Sunset Boulevard/University Village Drive	Signal	C	AM	Does Not Exist		18	B	22	C
			PM	Does Not Exist		23	C	32	C
Sunset Boulevard/Foothills Boulevard	Signal	C	AM	Not Analyzed		<u>46</u>	D	<u>40</u>	D
			PM	Not Analyzed		<u>43</u>	D	<u>48</u>	D
College Park Drive/Woodcreek Oaks Boulevard	Signal	C	AM	Does Not Exist		15	B	26	C
			PM	Does Not Exist		32	C	25	C
College Park Drive/Foothills Boulevard	Signal	C	AM	Does Not Exist		25	C	28	C
			PM	Does Not Exist		31	C	25	C

Notes: LOS = Level of Service. AWSC = All-Way Stop Control; SSSC = Side-Street Stop Control

BOLD text indicates unacceptable intersection operations.

UNDERLINED text indicates significantly impacted study intersection.

¹ For signalized and AWSC intersections, the table reports the weighted average intersection control delay for all approaches in seconds per vehicle. For SSSC intersections, the overall weighted average control delay for the movements yielding the right-of-way is reported. Intersection LOS and delay are calculated based on the procedures and methodology contained in the HCM 2010 (Transportation Research Board 2010).

² Field observations reveal that operations at the adjacent SR 65 Southbound Ramps/Sunset Boulevard intersection affects conditions at the Sunset Boulevard/South Loop Road/Placer Corporate Drive intersection, resulting in delays that exceed the reported value on northbound South Loop Road.

Source: Fehr & Peers 2018

SAP Area

The projected 20-year land use that would occur with the SAP in connection with reasonably foreseeable projects would cumulatively degrade traffic operations at the following study intersections in Placer County during the a.m. and/or p.m. peak hour. This would be a significant impact.

- ▲ Sunset Boulevard / South Loop Road/Placer Corporate Drive degrades from LOS B to LOS F during the a.m. peak hour and LOS C to LOS F during the p.m. peak hour; and meets the MUTCD peak hour signal warrant during both the a.m. and p.m. peak hours.
- ▲ Athens Avenue / Fiddymont Road experiences an increase in delay from 307 seconds per vehicle to 418 seconds per vehicle during the a.m. peak hour, and from 296 seconds per vehicle to 423 seconds per vehicle during the p.m. peak hour, while continuing to operate at LOS F during both peak hours. The intersection also meets the MUTCD peak hour signal warrant during both the a.m. and p.m. peak hours.
- ▲ Athens Avenue / Industrial Avenue degrades from LOS B to LOS F during the p.m. peak hour.
- ▲ Sunset Boulevard / Cincinnati Avenue degrades from LOS B to LOS D during the a.m. peak hour and LOS B to LOS F during the p.m. peak hour.

In addition, the following new intersections (i.e., currently nonexistent) that would be created within the PRSP area would operate at an unacceptable LOS. This would be a significant impact.

- ▲ Campus Park Boulevard / Fiddymont Road operates at LOS D during the p.m. peak hour.
- ▲ Campus Park Boulevard / Foothills Boulevard operates at LOS E during the p.m. peak hour.
- ▲ Sunset Boulevard / Fiddymont Road operates at LOS D during the a.m. and p.m. peak hours.
- ▲ Sunset Boulevard / Foothills Boulevard operates at LOS D during the a.m. and p.m. peak hours.

PRSP Area

Buildout of the PRSP in connection with reasonably foreseeable projects would cumulatively degrade traffic operations at the following study intersections in Placer County during the a.m. and/or p.m. peak hour. This would be a significant impact.

- ▲ Sunset Boulevard / South Loop Road/Placer Corporate Drive degrades from LOS B to LOS F during the a.m. peak hour and LOS B to LOS F during the p.m. peak hour; and meets the MUTCD peak hour signal warrant during both the a.m. and p.m. peak hours.

In addition, the following new intersections (i.e., currently nonexistent) that would be created within the PRSP area would operate at an unacceptable LOS. This would be a significant impact.

- ▲ Campus Park Boulevard / Fiddymont Road operates at LOS D during the p.m. peak hour.
- ▲ Campus Park Boulevard / Foothills Boulevard operates at LOS D during the p.m. peak hour.
- ▲ Sunset Boulevard / Fiddymont Road operates at LOS D during the a.m. and p.m. peak hours.
- ▲ Sunset Boulevard / Foothills Boulevard operates at LOS D during the a.m. and p.m. peak hours.

Mitigation Measures

Implement Mitigation Measures 4.14-2a and 4.14-2c (Net SAP Area and PRSP Area). As noted in Mitigation Measure 4.14-2c, the County shall adopt an update to the Placer County Countywide CIP and countywide traffic impact fee concurrently with the SAP and PRSP to include capacity-enhancing improvements that are necessary to serve future traffic demand with the SAP, including PRSP. This shall include improvements described below in Mitigation Measure 4.14-16, which are not currently included in the Placer County Countywide CIP.

Mitigation Measure 4.14-16: Adopt update to Placer County Countywide CIP and countywide traffic impact fee to include installing traffic signals and capacity-enhancing improvements currently not included in known fee program (Net SAP Area and PRSP Area)

Consistent with Mitigation Measure 4.14-2a, the County shall adopt an update to the Placer County Countywide CIP and countywide traffic impact fee concurrently with the SAP and PRSP to include installing traffic signals and capacity-enhancing improvements currently not included in any known fee program at the following intersections:

- ▲ Sunset Boulevard / South Loop Road/Placer Corporate Drive (net SAP and PRSP areas),
- ▲ Athens Avenue / Fiddymment Road (net SAP area),
- ▲ Athens Avenue / Industrial Avenue (net SAP area),
- ▲ Athens Avenue / Foothills Boulevard North (net SAP area), and
- ▲ Sunset Boulevard / Cincinnati Avenue (net SAP area).

Prior to the issuance of building permits, project proponents of future development projects within the SAP area, including the PRSP area, shall pay the applicable countywide traffic impact fees, as determined by DPWF, which will provide funding for improvements at the above intersections.

Significance after Mitigation

As noted in Mitigation Measure 4.14-2a, capacity-enhancing improvements to the intersections listed above are not included in any known fee program. Placer County proposes to include improvements at these intersections in an update to the Placer County Countywide CIP and countywide traffic impact fee, which will be adopted concurrently with the PRSP and SAP. In addition to the improvements listed in Mitigation Measure 4.14-2a, the following improvements at the following intersections would be necessary to mitigate cumulative impacts:

- ▲ Sunset Boulevard / South Loop Road/Placer Corporate Drive
 - Install a partial traffic signal that controls the southern half of the intersection (eastbound and northbound approaches), as noted in in Mitigation Measure 4.14-2a.
 - Modify the northern half of the intersection as follows:
 - Maintain the westbound approach's current lane configuration of two through lanes and a trap free right-turn lane.
 - Modify the southbound approach to a free right-turn lane with a dedicated receiving lane on the westbound departure; this will result in three westbound lanes on Sunset Boulevard across the Industrial Avenue/UPRR overcrossing.
- ▲ Athens Avenue / Fiddymment Road
 - Install a traffic signal with protected left-turn phasing, as noted in in Mitigation Measure 4.14-2a.
 - Widen the southbound approach to accommodate two left-turn lanes.
 - Widen the westbound approach to include: 1 left-turn lane, 1 shared through-right turn lane, and 1 right-turn pocket.
- ▲ Athens Avenue / Industrial Avenue
 - Reconstruct the intersection as an elevated intersection, grade separated from the adjacent UPRR tracks.
 - Provide the following lane configurations:
 - Northbound: 2 left-turn lanes, 2 through lanes;

- Southbound: 2 through lanes, 1 right-turn lane; and
 - Eastbound: 2 left-turn lanes, 1 right-turn lane.
- Modify signal to provide right-turn overlap phase for the southbound and eastbound right-turn movements, and prohibit the conflicting U-turn movements.
- ▲ Athens Avenue / N. Foothills Boulevard
 - Install a traffic signal, as noted in in Mitigation Measure 4.14-2a.
 - ▲ Sunset Boulevard / Cincinnati Avenue
 - Widen the northbound and southbound approaches as follows: 2 left-turn lanes, 1 shared through/right-turn lane, 1 right-turn lane.
 - Widen the eastbound and westbound approaches as follows: 1 left-turn lane, 3 through lanes, 1 right-turn lane.
 - Modify the signal to operate the signal with split phasing for the northbound and southbound approaches.

Intersections That Continue to Operate at LOS D or Worse

As noted under Impact 4.14-16, several new intersections that would be created within the PRSP area would operate at LOS D or E during the a.m. and/or p.m. peak hours under cumulative plus project conditions. This includes:

- ▲ Campus Park Boulevard / Fiddymont Road,
- ▲ Campus Park Boulevard / Foothills Boulevard,
- ▲ Sunset Boulevard / Fiddymont Road, and
- ▲ Sunset Boulevard / Foothills Boulevard.

Further widening of these intersections is not prudent or feasible given the proposed roadway cross-sections, proposed active transportation (i.e., walking and biking) infrastructure, and policy direction in SAP policy TM-1.1 to require all streets in the SAP area to address the needs of all modes of travel. Currently, Placer County's LOS C standard applies to these intersections, which are located within the PRSP area. However, policy TM-1.2 in the SAP would allow LOS E conditions at major intersections within the SAP area. Since these intersections are located within the PRSP area, which is within the SAP area, the LOS D or E conditions at these intersections would be considered acceptable with adoption of the SAP. However, since Policy TM-1.2 is not currently in effect, the LOS D operations would remain unacceptable until the SAP is adopted. Therefore, these traffic operations would be a **significant and unavoidable impact in the short term** until the SAP is adopted. Upon adoption of the SAP, the application of Policy TM-1.2 would make these operations acceptable and reduce the impact to **less than significant**.

Overall Significance after Mitigation

Mitigation Measure 4.14-16 would result in acceptable LOS C or better operations under cumulative plus project conditions. The improvements identified in Mitigation Measure 4.14-16 are proposed to be included in an update to the Placer County Countywide CIP and countywide traffic impact fee. However, since these improvements are not in the current Countywide CIP, this impact would be temporarily **significant and unavoidable** until the Countywide CIP update is adopted with the improvements included. Upon adoption of the updated Countywide CIP, the payment of applicable countywide traffic impact fees would fund the improvements, which would mitigate this impact to a **less-than-significant** level.

Several new project intersections within the PRSP area would operate at LOS D or E under cumulative plus project conditions. However, policy TM-1.2 in the SAP would allow LOS E conditions at major intersections within the SAP area. Consequently, the LOS D conditions at these intersections would be considered acceptable with adoption of the SAP.

Therefore, the impact to traffic operations at these study intersections would be mitigated to **less than significant** with implementation of Mitigation Measure 4.14-16 and approval of the SAP and PRSP.

Cumulative Impact 4.14-17: Cumulative impacts to intersection operations in City of Roseville

The proposed project in combination with reasonably foreseeable projects would cause study intersections in the City of Roseville to be degraded to a significant degree under cumulative conditions. This would be a **significant** impact.

Under cumulative conditions, an additional 68 signalized intersections are anticipated to be installed within the City of Roseville when compared to existing conditions. This includes new signals at future intersections in the Sierra Vista, West Roseville, Creekview, and Amoruso Ranch Specific Plans as well as new signals at existing stop-controlled intersections.

Table 4.14-38 summarizes the a.m. and p.m. peak hour operations at all signalized intersections in Roseville under cumulative no project conditions. As shown, 88 percent of the signalized intersections are expected to operate at LOS C or better during the a.m. peak hour. During the p.m. peak hour, 73 percent of the signalized intersections are expected to operate at LOS C or better. Of the 27 percent of intersections not operating at LOS C or better during the p.m. peak hour, most are expected to operate at LOS D.

Table 4.14-38 Signalized Intersection Operations – City of Roseville – Cumulative No Project (2036) Conditions

Level of Service	AM Peak Hour	PM Peak Hour	
Total Intersections	228	228	
LOS A-C	200 (88%)	166 (73%)	
	18 (8%)	31 (13%)	
LOS D	<ul style="list-style-type: none"> ▲ Baseline Road/Fiddymment Road ▲ Blue Oaks Boulevard/Fiddymment Road ▲ Blue Oaks Boulevard/Woodcreek Oaks Boulevard ▲ Cirby Way/Sunrise Avenue ▲ Cirby Way/Vernon St. ▲ Douglas Boulevard/Eureka Road ▲ Douglas Boulevard/E. Roseville Parkway ▲ Douglas Boulevard/Sierra College Boulevard ▲ Roseville Parkway/Foothills Boulevard ▲ Junction Boulevard/Foothills Boulevard ▲ Pleasant Grove Boulevard/ Foothills Boulevard ▲ Roseville Parkway/Galleria Boulevard ▲ Junction Boulevard/Country Club Drive ▲ Fairway Drive/Pleasant Grove Boulevard ▲ Douglas Boulevard/I-80 WB Off-Ramp 	<ul style="list-style-type: none"> ▲ Baseline Road/Fiddymment Road ▲ Blue Oaks Boulevard/Fiddymment Road ▲ Blue Oaks Boulevard/Diamond Creek Boulevard ▲ Blue Oaks Boulevard/Woodcreek Oaks Boulevard ▲ Cirby Way/Rocky Ridge Drive ▲ Cirby Way/San Simeon Drive ▲ Cirby Way/Vernon St. ▲ Douglas Boulevard/Santa Clara Drive ▲ Douglas Boulevard/Sierra Gardens Drive ▲ Douglas Boulevard/Target Pkwy. ▲ Douglas Boulevard/E. Roseville Parkway ▲ Douglas Boulevard/Sierra College Boulevard ▲ Baseline Road/Main St./Foothills Boulevard ▲ Atkinson Road/Foothills Boulevard ▲ Junction Boulevard/Foothills Boulevard ▲ Antelope Creek Drive/Galleria Boulevard 	<ul style="list-style-type: none"> ▲ Junction Boulevard/Country Club Drive ▲ N. Sunrise Avenue/Automall Drive ▲ Pleasant Grove Boulevard/Fiddymment Road ▲ Pleasant Grove Boulevard/Gold Coast Drive/Hallissy Drive ▲ Pleasant Grove Boulevard/Woodcreek Oaks Boulevard ▲ Roseville Parkway/Creekside Ridge Drive ▲ Eureka Road/Roseville Parkway ▲ Roseville Parkway/Sierra College Boulevard ▲ Five Star Boulevard/Stanford Ranch Road ▲ Pleasant Grove Boulevard/SR 65 NB Off-Ramp ▲ Pleasant Grove Boulevard/Westbrook Boulevard ▲ Roseville Parkway/Gibson Drive (W) ▲ Westbrook Boulevard/Vista Glen Boulevard ▲ Westbrook Boulevard/Baseline Road

Table 4.14-38 Signalized Intersection Operations – City of Roseville – Cumulative No Project (2036) Conditions

Level of Service	AM Peak Hour	PM Peak Hour
	<ul style="list-style-type: none"> ▲ Eureka Road/Taylor Road/I-80 EB Off-Ramp ▲ Blue Oaks Boulevard/Westbrook Boulevard ▲ Roseville Parkway/Gibson Drive (W) 	<ul style="list-style-type: none"> ▲ Baseline Road/Watt Avenue
LOS E	<p style="text-align: center;">4 (2%)</p> <ul style="list-style-type: none"> ▲ Cirby Way/Riverside Avenue ▲ Baseline Road/Main St./ Foothills Boulevard ▲ Roseville Parkway/Taylor Road ▲ Gibson Road/Conference Center Drive 	<p style="text-align: center;">18 (8%)</p> <ul style="list-style-type: none"> ▲ Blue Oaks Boulevard/Foothills Boulevard ▲ Cirby Way/Sunrise Avenue ▲ Douglas Boulevard/Eureka Road ▲ Douglas Boulevard/Rocky Ridge Drive ▲ Douglas Boulevard/Sunrise Avenue ▲ Eureka Road/N. Sunrise Avenue ▲ Roseville Parkway/Foothills Boulevard ▲ Pleasant Grove Boulevard/Foothills Boulevard ▲ Pleasant Grove Boulevard/Washington Boulevard ▲ Roseville Parkway/Gibson Drive (E) ▲ Roseville Parkway/Reserve Drive ▲ Douglas Boulevard/I-80 WB Off-Ramp ▲ I-80 WB Off-Ramp/Riverside Avenue ▲ Eureka Road/Taylor Road/I-80 EB Off-Ramp ▲ I-80 EB Off-Ramp/Orlando Avenue/Riverside Avenue ▲ Washington Boulevard/Freedom Way ▲ Blue Oaks Boulevard/Walgreens Dwy. ▲ Blue Oaks Boulevard/Westbrook Boulevard
LOS F	<p style="text-align: center;">6 (2%)</p> <ul style="list-style-type: none"> ▲ Cirby Way/Foothills Boulevard ▲ Douglas Boulevard/Harding Boulevard ▲ Pleasant Grove Boulevard/Fiddymment Road ▲ Pleasant Grove Boulevard/ Roseville Parkway ▲ Baseline Road/Woodcreek Oaks Boulevard ▲ Fiddymment Road/Westhills Drive 	<p style="text-align: center;">13 (6%)</p> <ul style="list-style-type: none"> ▲ Cirby Way/Foothills Boulevard ▲ Cirby Way/Riverside Avenue ▲ Douglas Boulevard/Harding Boulevard ▲ Roseville Parkway/Galleria Boulevard ▲ Fairway Drive/Pleasant Grove Boulevard ▲ Pleasant Grove Boulevard/ Roseville Parkway ▲ Highland Pointe Drive/ Pleasant Grove Boulevard ▲ Roseville Parkway/N. Sunrise Avenue ▲ Roseville Parkway/Secret Ravine Parkway ▲ Roseville Parkway/Taylor Road ▲ Baseline Road/Woodcreek Oaks Boulevard ▲ Blue Oaks Boulevard/Washington Boulevard ▲ Fiddymment Road/Westhills Drive
Percent operating at LOS D, E, or F	12%	27%

Notes: Includes 11 signalized intersections at Caltrans ramps located within the City of Roseville. Does not include the eight signalized intersections located in the City's Pedestrian Overlay District (POD). Intersection LOS and delay are calculated based on the procedures and methodology contained in the HCM 2010 (Transportation Research Board 2010).

Source: Fehr & Peers 2018

Table 4.14-39 summarizes the a.m. and p.m. peak hour operations at all signalized intersections in Roseville under cumulative plus PRSP plus SAP (20-year Project) conditions. As shown, 89 percent of the signalized study intersections in the City of Roseville are expected to operate at LOS C or better during the a.m. peak hour under cumulative plus PRSP plus SAP (20-year Project) conditions. During the p.m. peak hour, 74 percent of intersections would operate at LOS C or better. Of the 26 percent of intersections not operating at LOS C or better, a majority would operate at LOS D.

Intersections that experience a cumulatively considerable significant impact caused by the project are shown in **bold and underlined** text. This includes intersections that degrade (i.e., from LOS C to LOS D, LOS D to LOS E, etc.) from cumulative no project conditions or experience an increase in delay of 12.5 seconds or greater if already operating at LOS F.

Table 4.14-39 Signalized Intersection Operations – City of Roseville – Cumulative Plus PRSP Plus SAP 20-Year Project (2036) Conditions

Level of Service	AM Peak Hour	PM Peak Hour
Total Intersections	228	228
LOS A-C	203 (89%)	168 (74%)
	14 (6%)	32 (14%)
LOS D	<ul style="list-style-type: none"> ▲ Baseline Road/Fiddymment Road ▲ Blue Oaks Boulevard/Fiddymment Road ▲ <u>Blue Oaks Boulevard/Foothills Boulevard</u> ▲ Cirby Way/Sunrise Avenue ▲ Cirby Way/Vernon St. ▲ Douglas Boulevard/E. Roseville Parkway ▲ Douglas Boulevard/Sierra College Boulevard ▲ Roseville Parkway/Foothills Boulevard ▲ Pleasant Grove Boulevard/Foothills Boulevard ▲ Roseville Parkway/Galleria Boulevard ▲ Fairway Drive/Pleasant Grove Boulevard ▲ Douglas Boulevard/I-80 WB Off-Ramp ▲ Eureka Road/Taylor Road/I-80 EB Off-Ramp ▲ <u>Westbrook Boulevard/Baseline Road</u> 	<ul style="list-style-type: none"> ▲ Baseline Road/Fiddymment Road ▲ Blue Oaks Boulevard/Fiddymment Road ▲ Cirby Way/Rocky Ridge Drive ▲ Cirby Way/Vernon St. ▲ Douglas Boulevard/Santa Clara Drive ▲ Douglas Boulevard/Sierra Gardens Drive ▲ Douglas Boulevard/Target Dwy. ▲ Douglas Boulevard/E. Roseville Parkway ▲ Douglas Boulevard/Sierra College Boulevard ▲ <u>Hayden Parkway (North)/Fiddymment Road</u> ▲ Baseline Road/Main St./Foothills Boulevard ▲ Junction Boulevard/Foothills Boulevard ▲ Antelope Creek Drive/Galleria Boulevard ▲ N. Sunrise Avenue/Automall Drive ▲ Pleasant Grove Boulevard/Fiddymment Road ▲ Pleasant Grove Boulevard/Washington Boulevard ▲ Pleasant Grove Boulevard/Woodcreek Oaks Boulevard ▲ Roseville Parkway/Creekside Ridge Drive ▲ Eureka Road/Roseville Parkway ▲ Roseville Parkway/Sierra College Boulevard ▲ <u>Roseville Parkway/Washington Boulevard</u> ▲ Five Star Boulevard/Stanford Ranch Road ▲ Pleasant Grove Boulevard/SR 65 NB Off-Ramp ▲ Washington Boulevard/Freedom Way ▲ <u>Blue Oaks Boulevard/Fidelity Way</u> ▲ <u>Fiddymment Road/Parkland Way</u> ▲ Blue Oaks Boulevard/Walgreens Dwy. ▲ Blue Oaks Boulevard/Westbrook Boulevard ▲ Pleasant Grove Boulevard/Westbrook Boulevard ▲ Westbrook Boulevard/Vista Glen Boulevard ▲ Westbrook Boulevard/Baseline Road ▲ Watt Avenue/Baseline Road
LOS E	<ul style="list-style-type: none"> ▲ Cirby Way/Riverside Avenue ▲ Douglas Boulevard/Harding Boulevard ▲ Baseline Road/Main St./Foothills Boulevard ▲ Pleasant Grove Boulevard/Fiddymment Road ▲ Pleasant Grove Boulevard/Roseville Parkway ▲ Roseville Parkway/Taylor Road ▲ Gibson Road/Conference Center Drive ▲ Fiddymment Road/Westhills Drive 	<ul style="list-style-type: none"> ▲ <u>Blue Oaks Boulevard/Woodcreek Oaks Boulevard</u> ▲ Cirby Way/Sunrise Avenue ▲ Douglas Boulevard/Eureka Road ▲ Douglas Boulevard/Rocky Ridge Drive ▲ Douglas Boulevard/Sunrise Avenue ▲ Eureka Road/N. Sunrise Avenue ▲ Roseville Parkway/Foothills Boulevard ▲ Pleasant Grove Boulevard/Foothills Boulevard ▲ Roseville Parkway/Gibson Drive (E) ▲ Roseville Parkway/Reserve Drive ▲ Roseville Parkway/Secret Ravine Parkway ▲ Blue Oaks Boulevard/Washington Boulevard ▲ Douglas Boulevard/I-80 WB Off-Ramp ▲ I-80 WB Off-Ramp/Riverside Avenue ▲ I-80 EB Off-Ramp/Orlando Avenue/Riverside Avenue ▲ Fiddymment Road/Westhills Drive

Table 4.14-39 Signalized Intersection Operations – City of Roseville – Cumulative Plus PRSP Plus SAP 20-Year Project (2036) Conditions

Level of Service	AM Peak Hour	PM Peak Hour
		▲ Highland Pointe Drive/Pleasant Grove Boulevard
LOS F	3 (1%) ▲ Cirby Way/Foothills Boulevard ▲ <u>Baseline Road/Woodcreek Oaks Boulevard</u> ▲ <u>Fiddymont Road/Parkland Way</u>	11 (5%) ▲ Blue Oaks Boulevard/Foothills Boulevard ▲ Roseville Parkway/N. Sunrise Avenue ▲ Roseville Parkway/Taylor Road ▲ <u>Baseline Road/Woodcreek Oaks Boulevard</u> ▲ <u>Eureka Road/Taylor Road/I-80 EB Off-Ramp</u> ▲ Douglas Boulevard/Harding Boulevard ▲ Fairway Drive/Pleasant Grove Boulevard ▲ <u>Pleasant Grove Boulevard/Roseville Parkway</u>
Percent operating at LOS D, E, or F	11%	25%

Notes: Includes 11 signalized intersections at Caltrans ramps located within the City of Roseville. Does not include the eight signalized intersections located in the City's Pedestrian Overlay District (POD). Intersection LOS and delay are calculated based on the procedures and methodology contained in the HCM 2010 (Transportation Research Board 2010).

Intersections in **bold and underlined** text indicate a significant impact.

Source: Fehr & Peers 2018

Table 4.14-40 summarizes the a.m. and p.m. peak hour operations at all signalized intersections in Roseville under cumulative plus PRSP conditions. As shown, 89 percent of the signalized study intersections in the City of Roseville are expected to operate at LOS C or better during the a.m. peak hour under cumulative plus PRSP plus SAP (20-year Project) conditions. During the p.m. peak hour, 76 percent of intersections would operate at LOS C or better. Of the 24 percent of intersections not operating at LOS C or better, a majority would operate at LOS D.

Intersections that experience a cumulatively considerable significant impact caused by implementing the PRSP are shown in **bold and underlined** text. This includes intersections that degrade (i.e., from LOS C to LOS D, LOS D to LOS E, etc.) from cumulative no project conditions or experience an increase in delay of 12.5 seconds or greater if already operating at LOS F.

Table 4.14-41 presents the cumulative a.m. and p.m. peak hour operations for the unsignalized study intersections located in the City of Roseville. By 2036, most of the study intersections in Roseville that are unsignalized under existing conditions become signalized and are reflected in Table 4.14-38 through Table 4.14-40. The Woodcreek Oaks Boulevard / Hop Scotch Way intersection is the only unsignalized City of Roseville study intersection that is anticipated to remain as an unsignalized intersection under cumulative conditions.

Table 4.14-40 Signalized Intersection Operations – City of Roseville – Cumulative Plus Placer Ranch Conditions

Level of Service	AM Peak Hour	PM Peak Hour
Total Intersections	228	228
LOS A-C	202 (89%)	172 (76%)
	15 (6%)	30 (13%)
LOS D	<ul style="list-style-type: none"> ▲ Baseline Road/Fiddymment Road ▲ Blue Oaks Boulevard/Fiddymment Road ▲ Blue Oaks Boulevard/Foothills Boulevard ▲ Cirby Way/Sunrise Avenue ▲ Cirby Way/Vernon St. ▲ Douglas Boulevard/E. Roseville Parkway ▲ Douglas Boulevard/Sierra College Boulevard ▲ Roseville Parkway/Foothills Boulevard ▲ Junction Boulevard/Foothills Boulevard ▲ Pleasant Grove Boulevard/ Foothills Boulevard ▲ Roseville Parkway/Galleria Boulevard ▲ Fairway Drive/Pleasant Grove Boulevard ▲ Douglas Boulevard/I-80 WB Off-Ramp ▲ Eureka Road/Taylor Road/I-80 EB Off-Ramp ▲ Roseville Parkway/Gibson Drive (W) 	<ul style="list-style-type: none"> ▲ Baseline Road/Fiddymment Road ▲ Blue Oaks Boulevard/Fiddymment Road ▲ Cirby Way/Rocky Ridge Drive ▲ Cirby Way/Vernon St. ▲ Douglas Boulevard/Rocky Ridge Drive ▲ Douglas Boulevard/Santa Clara Drive ▲ Douglas Boulevard/Sierra Gardens Drive ▲ Douglas Boulevard/Target Dwy. ▲ Douglas Boulevard/E. Roseville Parkway ▲ Douglas Boulevard/Sierra College Boulevard ▲ Junction Boulevard/Foothills Boulevard ▲ Antelope Creek Drive/Galleria Boulevard ▲ N. Sunrise Avenue/Automall Drive ▲ Pleasant Grove Boulevard/Fiddymment Road ▲ Pleasant Grove Boulevard/Washington Boulevard ▲ Pleasant Grove Boulevard/Woodcreek Oaks Boulevard ▲ Eureka Road/Roseville Parkway ▲ Roseville Parkway/Sierra College Boulevard ▲ Five Star Boulevard/Stanford Ranch Road ▲ Pleasant Grove Boulevard/SR 65 NB Off-Ramp ▲ I-80 WB Off-Ramp/Riverside Avenue ▲ Washington Boulevard/Freedom Way ▲ <u>Fiddymment Road/Parkland Way/Angus Drive</u> ▲ Blue Oaks Boulevard/Walgreens Dwy. ▲ Blue Oaks Boulevard/Westbrook Boulevard ▲ Pleasant Grove Boulevard/Westbrook Boulevard ▲ Roseville Parkway/Gibson Drive (W) ▲ Westbrook Boulevard/Vista Glen Boulevard ▲ Westbrook Boulevard/Baseline Road ▲ Baseline Road/Watt Avenue
LOS E	<p>7 (3%)</p> <ul style="list-style-type: none"> ▲ Cirby Way/Riverside Avenue ▲ Baseline Road/Main St./Foothills Boulevard ▲ Pleasant Grove Boulevard/Fiddymment Road ▲ Pleasant Grove Boulevard/Roseville Parkway ▲ Roseville Parkway/Taylor Road ▲ <u>Fiddymment Road/Parkland Way/ Angus Drive</u> ▲ Gibson Road/Conference Center Drive 	<p>15 (6%)</p> <ul style="list-style-type: none"> ▲ Blue Oaks Boulevard/Foothills Boulevard ▲ <u>Blue Oaks Boulevard/Woodcreek Oaks Boulevard</u> ▲ Cirby Way/Sunrise Avenue ▲ Douglas Boulevard/Eureka Road ▲ Douglas Boulevard/Sunrise Avenue ▲ Eureka Road/N. Sunrise Avenue ▲ Roseville Parkway/Foothills Boulevard ▲ Pleasant Grove Boulevard/Foothills Boulevard ▲ Fairway Drive/Pleasant Grove Boulevard ▲ Roseville Parkway/Gibson Drive (E) ▲ Roseville Parkway/Reserve Drive ▲ Blue Oaks Boulevard/Washington Boulevard ▲ Douglas Boulevard/I-80 WB Off-Ramp ▲ Eureka Road/Taylor Road/I-80 EB Off-Ramp ▲ I-80 EB Off-Ramp/Orlando Avenue/Riverside Avenue

Table 4.14-40 Signalized Intersection Operations – City of Roseville – Cumulative Plus Placer Ranch Conditions

Level of Service	AM Peak Hour	PM Peak Hour
LOS F	4 (2%) ▲ Cirby Way/Foothills Boulevard ▲ Douglas Boulevard/Harding Boulevard ▲ Baseline Road/Woodcreek Oaks Boulevard ▲ Fiddymment Road/Westhills Drive	11 (5%) ▲ Cirby Way/Foothills Boulevard ▲ Cirby Way/Riverside Avenue ▲ Douglas Boulevard/Harding Boulevard ▲ Roseville Parkway/Galleria Boulevard ▲ Pleasant Grove Boulevard/Roseville Parkway ▲ Highland Pointe Drive/ Pleasant Grove Boulevard ▲ Roseville Parkway/N. Sunrise Avenue ▲ Roseville Parkway/Secret Ravine Parkway ▲ Roseville Parkway/Taylor Road ▲ <u>Baseline Road/Woodcreek Oaks Boulevard</u> ▲ Fiddymment Road/Westhills Drive
Percent operating at LOS D, E, or F	11%	24%

Notes: Includes 11 signalized intersections at Caltrans ramps located within the City of Roseville. Does not include the eight signalized intersections located in the City's Pedestrian Overlay District (POD). Intersection LOS and delay are calculated based on the procedures and methodology contained in the HCM 2010 (Transportation Research Board 2010).

Intersections in **bold and underlined** text indicate a significant impact.

Source: Fehr & Peers 2018

Table 4.14-41 Unsignalized Intersection Operations – City of Roseville – Cumulative (2036) Conditions

Intersection	Traffic Control	LOS Standard	Peak Hour	Cumulative (2036) No Project Conditions		Cumulative Plus PRSP Plus SAP 20-Year Project (2036) Conditions		Cumulative Plus PRSP	
				Delay ¹	LOS	Delay ¹	LOS	Delay ¹	LOS
Woodcreek Oaks Boulevard/Hop Scotch Way	SSSC	C	AM	9 (12)	A (B)	<u>163 (>600)</u>	<u>F (F)</u>	<u>88 (532)</u>	<u>F (F)</u>
			PM	8 (12)	A (B)	<u>67 (>600)</u>	<u>E (F)²</u>	<u>58 (>600)</u>	<u>F (F)</u>

Notes: LOS = Level of Service. SSSC = Side-Street Stop Control

BOLD text indicates unacceptable intersection operations.

UNDERLINED text indicates significantly impacted study intersection.

¹ For AWSC intersections, the table reports the weighted average intersection control delay for all approaches in seconds per vehicle. For SSSC intersections, the LOS and control delay for the movement with the highest control delay is shown in parentheses next to the overall average intersection LOS and delay. Intersection LOS and delay is calculated based on the procedures and methodology contained in the HCM 2010 (Transportation Research Board 2010).

² Not a significant impact because the intersection does not meet the MUTCD peak hour signal warrant.

Source: Fehr & Peers 2018

SAP Area

Cumulative Plus PRSP Plus SAP (20-Year Project)

The projected 20-year land use that would occur with the SAP in connection with reasonably foreseeable projects would cumulatively degrade traffic operations at the signalized intersections in the City of Roseville shown in **bold and underlined** text in Table 4.14-39. In addition, traffic generated by the projected 20-year land use in the SAP in connection with reasonably foreseeable projects would cumulatively cause the unsignalized Woodcreek Oaks Boulevard / Hop Scotch Way intersection in the City of Roseville to degrade in traffic operations and meet the MUTCD peak hour signal warrant. This would be a significant impact.

Cumulative Plus SAP Buildout

Buildout of the SAP when viewed in connection with reasonably foreseeable future projects would result in higher trip generation and higher ADT levels on City of Roseville roadways than the cumulative plus PRSP plus SAP (20-year project) scenario, as shown in Exhibit 4.14-21. In several cases, these higher ADT levels would exceed the LOS C threshold for roadways shown in Table 4.14-1. The following roadways would see an increase in ADT greater than 1,000 ADT with buildout of the SAP and ADT levels exceeding the LOS C threshold:

- ▲ Fiddymont Road: north of Blue Oaks Boulevard,
- ▲ Woodcreek Oaks Boulevard: Junction Boulevard to Blue Oaks Boulevard,
- ▲ Foothills Boulevard: Cirby Way to Roseville city limits,
- ▲ Industrial Avenue: Washington Boulevard to Roseville city limits,
- ▲ Blue Oaks Boulevard: Foothills Boulevard to SR 65,
- ▲ Roseville Parkway: east of Pleasant Grove Boulevard, and
- ▲ Washington Boulevard: Industrial Avenue to Junction Boulevard.

There are several roadways in the City of Roseville that are forecasted to exceed the LOS C threshold for roadways shown in Table 4.14-1 but have minimal change, or in some cases a reduction, in traffic between the cumulative plus PRSP plus SAP (20-year project) scenario and cumulative plus SAP buildout scenario. Most of these roadways are located further from the project or because of their orientation (e.g., east-west arterials that are a few miles or more south of the SAP area) would be minimally used by project traffic. When there is minimal change in ADT forecasted between the cumulative plus PRSP plus SAP (20-year project) scenario and cumulative plus SAP buildout scenario, the analysis results from the cumulative plus PRSP plus SAP (20-year project) scenario would generally remain the same for the cumulative plus SAP buildout scenario.

PRSP Area

Buildout of the PRSP in connection with reasonably foreseeable projects would cumulatively cause degradations in traffic operations at the signalized intersections in the City of Roseville shown in **bold and underlined** text in Table 4.14-40. In addition, buildout of the PRSP in connection with reasonably foreseeable projects would cumulatively cause the following unsignalized Woodcreek Oaks Boulevard / Hop Scotch Way intersection in the City of Roseville to degrade in traffic operations and meet the MUTCD peak hour signal warrant. This would be a significant impact.

Mitigation Measures

Implement Mitigation Measure 4.14-3 (Net SAP Area and PRSP Area). The project proponents of individual development projects within the SAP area, including the PRSP area, shall pay their fair share costs towards improvements at impacted intersections in the City of Roseville under cumulative conditions. As noted in Mitigation Measure 4.14-3, a fair-share funding agreement to reduce impacts will be coordinated with the City of Roseville.

In addition to the improvements listed in Mitigation Measure 4.14-3, the improvements described in Mitigation Measure 4.14-17 below shall also be included.

Mitigation Measure 4.14-17: Pay impact fees to Placer County toward construction of transportation facilities and/or improvements at intersections in City of Roseville (Net SAP Area and PRSP Area)

Prior to building permit issuance, project proponents of future development projects within the SAP area, including the PRSP area, shall pay impact fees to Placer County, as determined by DPWF, in amounts that constitute the SAP area's fair share contribution to the construction of transportation facilities and/or improvements at the following intersections within the City of Roseville.

- ▲ Blue Oaks Boulevard / Foothills Boulevard,
- ▲ Blue Oaks Boulevard / Woodcreek Oaks Boulevard,

- ▲ Pleasant Grove Boulevard / Roseville Parkway,
- ▲ Fiddymment Road / Parkland Way/Angus Drive,
- ▲ Roseville Parkway / Washington Boulevard,
- ▲ Blue Oaks Boulevard / Fidelity Way, and
- ▲ Woodcreek Oaks Boulevard / Hop Scotch Way.

Placer County, in working with the City of Roseville to provide funding for improvements not already subject to an existing interagency fee program, shall negotiate in good faith with the City of Roseville to enter into additional fair and reasonable arrangements with the intention of achieving, within a reasonable time period after approval of the SAP, including the PRSP, commitment for the provision of adequate fair share mitigation from the SAP/PRSP for significant impacts on City of Roseville transportation facilities and improvements at intersections. In reaching an accommodation with the City of Roseville, the County and City, in order to better ensure an effective sub-regional approach to mitigating transportation-related impacts, may choose to include within the same agreements or JPA (if a JPA is formed) additional public agencies with whom it must work to mitigate transportation-related impacts, such as Sacramento County, Sutter County, and Caltrans. As the County strives to achieve agreement(s) with one or more of these other agencies, the County shall insist that “fair share” fee obligations be reciprocal, in the sense that the other local agencies, in accepting fair share contributions from the SAP/PRSP developers, must agree to require new development occurring in their own jurisdictions to make fair share contributions towards mitigating the significant effects of such development on the County’s transportation network. Any such arrangement(s), with just the City of Roseville or with additional agencies, shall account for existing inter-agency fee programs in order to avoid requiring redundant mitigation or fee payments exceeding fair share mitigation levels.

The County intends that its arrangement(s) with the City of Roseville and any other agencies shall permit the participating agencies’ flexibility in providing cross-jurisdictional credits and reimbursements consistent with the general “fair share” mitigation standard, and require an updated model run incorporating the best available information in order to obtain the most accurate, up-to-date impact assessment feasible and to generate the most accurate, up-to-date estimates of regional fair share contributions. These arrangements, moreover, should also include provisions that allow for periodic updates to the traffic modeling on which fair share payment calculations depend in order to account for (i) newly approved projects cumulatively contributing to transportation-related impacts and that therefore should contribute to the funding of necessary improvements, (ii) additional physical improvements necessitated in whole or in part by newly approved projects, (iii) changing cost calculations for the construction of needed improvements based on changes in the costs of materials, labor, and other inputs. The County will monitor traffic volumes and coordinate with the City of Roseville regarding traffic mitigation fees to fund regional improvements.

The necessary capacity enhancements to mitigate the project’s cumulatively considerable effects at the impacted intersections listed above would include:

- ▲ Blue Oaks Boulevard / Foothills Boulevard:
 - Widen the southbound approach to accommodate a third southbound left-turn lane.
 - Modify signal to provide right-turn overlap phase for westbound and eastbound right-turn movements, and prohibit conflicting U-turn movements.
- ▲ Blue Oaks Boulevard / Woodcreek Oaks Boulevard:
 - Increase the storage for the westbound left-turn lanes to a minimum of 500 feet.
- ▲ Pleasant Grove Boulevard / Roseville Parkway:
 - Modify the signal operations from the existing split phasing on Roseville Parkway to protected left-turn phasing.
- ▲ Fiddymment Road / Parkland Way/Angus Drive:
 - Modify the eastbound and westbound left-turn phasing from protected phasing to permitted phasing.

- ▲ Roseville Parkway / Washington Boulevard:
 - Widen the westbound and eastbound approaches to accommodate a third through lane.
- ▲ Blue Oaks Boulevard / Fidelity Way:
 - Widen the northbound approach to accommodate a second right-turn lane.
- ▲ Woodcreek Oaks Boulevard / Hop Scotch Way:
 - Install a traffic signal.

There are no feasible mitigations available for the remaining impacted intersection of Baseline Road / Woodcreek Oaks Boulevard. The intersection would be built to its ultimate configuration with four lanes on Baseline Road and westbound and eastbound left-turn and right-turn pockets under cumulative conditions. The south leg of the intersection is constrained by existing development, making it infeasible to widen the northbound or southbound approaches to accommodate additional through lanes or turn pockets. Signal timing adjustments would not reduce delay sufficiently to restore operations to a better LOS F.

Significance after Mitigation

Mitigation Measure 4.14-17 would result in acceptable LOS C or better operations for intersections that operate at LOS C or better under cumulative no project conditions. Similarly, these improvements would improve operations compared to the cumulative no project LOS for intersections that operate at an unacceptable LOS D, E, or F under cumulative no project conditions, except at Baseline Road / Woodcreek Oaks Boulevard, where no feasible mitigation is available. The improvements identified in Mitigation Measure 4.14-17 are not included in the City of Roseville's CIP and TMF program, and the improvements listed in Mitigation Measure 4.14-17 would require implementation by the City of Roseville. As such, this mitigation would require approvals from and implementation by the City of Roseville. Since these improvements are not within Placer County's jurisdiction to control, it cannot be guaranteed that these improvements will be implemented. Therefore, this impact remains **significant and unavoidable**.

Cumulative Impact 4.14-18: Cumulative impacts to intersection operations in City of Rocklin

The proposed project in combination with reasonably foreseeable projects would cause study intersections in the City of Rocklin to be degraded to a significant degree under cumulative conditions. This would be a **significant** impact.

Table 4.14-42 presents the cumulative p.m. peak hour operations for the study intersections located in the City of Rocklin.

Table 4.14-42 Intersection Operations – City of Rocklin – Cumulative (2036) Conditions

Intersection	Traffic Control	LOS Standard	Peak Hour	Cumulative (2036) No Project Conditions		Cumulative Plus PRSP Plus SAP 20-Year Project (2036) Conditions		Cumulative Plus PRSP	
				Delay ¹	LOS	Delay ¹	LOS	Delay ¹	LOS
Blue Oaks Boulevard/Lonetree Boulevard/Fairway Drive	Signal	C	PM	115	F	106	F	98	F
Sunset Boulevard/Lonetree Boulevard/Stanford Ranch Road	Signal	C	PM	46	D	65	E	56	E
Blue Oaks Boulevard/Sunset Boulevard	Signal	C	PM	34	C	35	C	34	C
Park Drive/Sunset Boulevard	Signal	C	PM	54	D	58	E	57	E
Stanford Ranch Road/Sunset Boulevard	Signal	C	PM	49	D	49	D	49	D
Whitney Ranch Parkway/Wildcat Boulevard	Signal	C	PM	35	C	35	C	38	D
University Avenue/Whitney Ranch Parkway	Signal	C	PM	24	C	33	C	24	C

Table 4.14-42 Intersection Operations – City of Rocklin – Cumulative (2036) Conditions

Intersection	Traffic Control	LOS Standard	Peak Hour	Cumulative (2036) No Project Conditions		Cumulative Plus PRSP Plus SAP 20-Year Project (2036) Conditions		Cumulative Plus PRSP	
				Delay ¹	LOS	Delay ¹	LOS	Delay ¹	LOS
Sunset Boulevard/University Avenue/Atherton Drive	Signal	C	PM	24	C	30	C	27	C
Pacific St./Sunset Boulevard	Signal	C	PM	98	F	<u>117</u>	F	<u>108</u>	F
Stanford Ranch Road/Wildcat Boulevard	Signal	C	PM	37	D	40	D	39	D

Notes: LOS = Level of Service.

BOLD text indicates unacceptable intersection operations.

UNDERLINED text indicates significantly impacted study intersection.

¹ For signalized and AWSC intersections, the table reports the weighted average intersection control delay for all approaches in seconds per vehicle. Intersection LOS and delay are calculated based on the procedures and methodology contained in the HCM 2010 (Transportation Research Board 2010).

Source: Fehr & Peers 2018

SAP Area

The projected 20-year land use that would occur with the SAP in connection with reasonably foreseeable projects would cumulatively degrade traffic operations at the following study intersection in the City of Rocklin during the p.m. peak hour. This would be a significant impact.

- ▲ Sunset Boulevard / Lonetree Boulevard/W. Stanford Ranch Road degrades from LOS D to LOS E and experiences a 21-second increase in delay compared to cumulative no project conditions.
- ▲ Pacific Street / Sunset Boulevard experiences a 19-second increase in delay compared to cumulative no project conditions while continuing to operate at LOS F.

The following intersections continue to operate at an unacceptable LOS with the 20-year project land uses in the SAP, but experience less than a 5-second increase in delay when compared to cumulative no project conditions. Therefore, this would be a less-than-significant impact.

- ▲ Blue Oaks Boulevard / Lonetree Boulevard/Fairway Drive experiences a 9-second decrease in traffic compared to cumulative no project conditions while continuing to operate at LOS F.
- ▲ Park Drive / Sunset Boulevard degrades from LOS D to LOS E, but experiences only a 4-second increase in delay compared to cumulative no project conditions.
- ▲ Stanford Ranch Road / Sunset Boulevard experiences no change in delay compared to cumulative no project conditions while continuing to operate at LOS D.
- ▲ Stanford Ranch Road / Wildcat Boulevard experiences a 3-second increase in delay compared to cumulative no project conditions while continuing to operate at LOS D.

PRSP Area

Buildout of the PRSP in connection with reasonably foreseeable projects would cumulatively degrade traffic operations at the following study intersections in the City of Rocklin during the p.m. peak hour. This would be a significant impact.

- ▲ Sunset Boulevard / Lonetree Boulevard/W. Stanford Ranch Road degrades from LOS D to LOS E and experiences a 10-second increase in delay compared to cumulative no project conditions.

- ▲ Whitney Ranch Parkway / Wildcat Boulevard degrades from LOS C to LOS D.
- ▲ Pacific Street / Sunset Boulevard experiences a 10-second increase in delay compared to cumulative no project conditions while continuing to operate at LOS F.

The following intersections continue to operate at an unacceptable LOS with buildout of the PRSP, but experience less than a five percent increase in traffic when compared to cumulative no project conditions. Therefore, this would be a less-than-significant impact.

- ▲ Blue Oaks Boulevard / Lonetree Boulevard/Fairway Drive experiences a 17-second decrease in delay compared to cumulative no project conditions while continuing to operate at LOS F.
- ▲ Park Drive / Sunset Boulevard degrades from LOS D to LOS E, but experiences only a 3-second increase in delay compared to cumulative no project conditions.
- ▲ Stanford Ranch Road / Sunset Boulevard experiences no change in delay compared to cumulative no project conditions while continuing to operate at LOS D.
- ▲ Stanford Ranch Road / Wildcat Boulevard experiences a 2-second increase in delay compared to cumulative no project conditions while continuing to operate at LOS D.

Mitigation Measures

Implement Mitigation Measure 4.14-10 (Net SAP Area and PRSP Area). Implementation of Phase 4 of the SR 65 Widening project identified under the mitigation discussion of Impact 4.14-23 would result in a shift of traffic from Wildcat Boulevard onto SR 65. This would result in acceptable LOS C operations during the p.m. peak hour at both Whitney Ranch Parkway / Wildcat Boulevard and Stanford Ranch Road / Wildcat Boulevard intersections under cumulative conditions. Mitigation Measure 4.14-23 would obligate project proponents of future development projects within the SAP area, including the PRSP area, to pay their fair share towards this improvement through the SPRTA fee program, applicable regional impact fee programs, and/or impact fees to Placer County.

Mitigation Measure 4.14-18a: Pay fair share cost toward modifying Sunset Boulevard/Lonetree Boulevard/W. Stanford Ranch Road intersection (Net SAP Area and PRSP Area)

Prior to building permit issuance, the project proponent shall pay their fair share cost towards modifying the Sunset Boulevard / Lonetree Boulevard/W. Stanford Ranch Road intersection as follows:

- ▲ Widen the southbound approach to add a second southbound right-turn lane, and
- ▲ Widen the northbound approach to add a second northbound left-turn lane.

This improvement would restore operations to LOS D during the p.m. peak hour.

Placer County, in working with the City of Rocklin to provide funding for improvements not already subject to an existing interagency fee program, shall negotiate in good faith with the City of Rocklin to enter into additional fair and reasonable arrangements with the intention of achieving, within a reasonable time period after approval of the SAP, including the PRSP, commitment for the provision of adequate fair share mitigation from the SAP/PRSP for significant impacts on City of Rocklin intersections. In reaching an accommodation with the City of Rocklin, the County and City, in order to better ensure an effective sub-regional approach to mitigating transportation-related impacts, may choose to include within the same agreements or JPA (if a JPA is formed) additional public agencies with whom it must work to mitigate transportation-related impacts, such as Sacramento County, Sutter County, and Caltrans. As the County strives to achieve agreement(s) with one or more of these other agencies, the County shall insist that “fair share” fee obligations be reciprocal, in the sense that the other local agencies, in accepting fair share contributions from the SAP/PRSP developers, must agree to require new development occurring in their own jurisdictions to make fair share contributions towards mitigating the significant effects of

such development on the County's transportation network. Any such arrangement(s), with just the City of Rocklin or with additional agencies, shall account for existing inter-agency fee programs in order to avoid requiring redundant mitigation or fee payments exceeding fair share mitigation levels.

The County intends that its arrangement(s) with the City of Rocklin and any other agencies shall permit the participating agencies' flexibility in providing cross-jurisdictional credits and reimbursements consistent with the general "fair share" mitigation standard, and require an updated model run incorporating the best available information in order to obtain the most accurate, up-to-date impact assessment feasible and to generate the most accurate, up-to-date estimates of regional fair share contributions. These arrangements, moreover, should also include provisions that allow for periodic updates to the traffic modeling on which fair share payment calculations depend in order to account for (i) newly approved projects cumulatively contributing to transportation-related impacts and that therefore should contribute to the funding of necessary improvements, (ii) additional physical improvements necessitated in whole or in part by newly approved projects, (iii) changing cost calculations for the construction of needed improvements based on changes in the costs of materials, labor, and other inputs. The County will monitor traffic volumes and coordinate with the City of Rocklin regarding traffic mitigation fees to fund regional improvements.

Mitigation Measure 4.14-18b: Pay fair share cost toward modifying Pacific Street/Sunset Boulevard intersection (Net SAP Area and PRSP Area)

Prior to building permit issuance, the project proponent shall pay their fair share cost towards modifying the Pacific Street / Sunset Boulevard intersection as follows:

- ▲ Restripe the eastbound approach of Sunset Boulevard to feature the following lane configuration as it approaches Pacific Street: two left-turn lanes, one shared through-left turn lane, and one right-turn pocket.

This improvement would restore operations to LOS E during the p.m. peak hour.

Placer County, in working with the City of Rocklin to provide funding for improvements not already subject to an existing interagency fee program, shall negotiate in good faith with the City of Rocklin to enter into additional fair and reasonable arrangements with the intention of achieving, within a reasonable time period after approval of the SAP, including the PRSP, commitment for the provision of adequate fair share mitigation from the SAP/PRSP for significant impacts on City of Rocklin intersections. In reaching an accommodation with the City of Rocklin, the County and City, in order to better ensure an effective sub-regional approach to mitigating transportation-related impacts, may choose to include within the same agreements or JPA (if a JPA is formed) additional public agencies with whom it must work to mitigate transportation-related impacts, such as Sacramento County, Sutter County, and Caltrans. As the County strives to achieve agreement(s) with one or more of these other agencies, the County shall insist that "fair share" fee obligations be reciprocal, in the sense that the other local agencies, in accepting fair share contributions from the SAP/PRSP developers, must agree to require new development occurring in their own jurisdictions to make fair share contributions towards mitigating the significant effects of such development on the County's transportation network. Any such arrangement(s), with just the City of Rocklin or with additional agencies, shall account for existing inter-agency fee programs in order to avoid requiring redundant mitigation or fee payments exceeding fair share mitigation levels.

The County intends that its arrangement(s) with the City of Rocklin and any other agencies shall permit the participating agencies' flexibility in providing cross-jurisdictional credits and reimbursements consistent with the general "fair share" mitigation standard, and require an updated model run incorporating the best available information in order to obtain the most accurate, up-to-date impact assessment feasible and to generate the most accurate, up-to-date estimates of regional fair share contributions. These arrangements, moreover, should also include provisions that allow for periodic updates to the traffic modeling on which fair share payment calculations depend in order to account for (i) newly approved projects cumulatively contributing to transportation-related impacts and that therefore should contribute to the funding of necessary improvements, (ii) additional physical improvements necessitated in whole or in part by newly approved projects, (iii) changing cost calculations for the construction of needed improvements based on changes in the

costs of materials, labor, and other inputs. The County will monitor traffic volumes and coordinate with the City of Rocklin regarding traffic mitigation fees to fund regional improvements.

Significance after Mitigation

Mitigation Measure 4.14-18 would require approvals from and implementation by other agencies. Furthermore, since this improvement is not included in a known fee program, there is no assurance that the remaining funds necessary for construction will be collected. Since this improvement is not within Placer County's jurisdiction to control, it cannot be guaranteed that this improvement will be implemented. As noted with Mitigation Measure 4.14-23, the remaining funding for Phase 4 of the SR 65 Widening project has not been identified. Therefore, the implementation of Phase 4 of the SR 65 Widening project is also not guaranteed. Therefore, this impact remains **significant and unavoidable**.

Cumulative Impact 4.14-19: Cumulative impacts to intersection operations in City of Lincoln

The proposed project in combination with reasonably foreseeable projects would cause study intersections in the City of Lincoln to be degraded to a significant degree under cumulative conditions. This would be a **significant** impact.

Table 4.14-43 presents the cumulative p.m. peak hour operations for the study intersections located in the City of Lincoln.

Table 4.14-43 Intersection Operations – City of Lincoln – Cumulative (2036) Conditions

Intersection	Traffic Control	LOS Standard	Peak Hour	Cumulative (2036) No Project Conditions		Cumulative Plus PRSP Plus SAP 20-Year Project (2036) Conditions		Cumulative Plus PRSP	
				Delay ¹	LOS	Delay ¹	LOS	Delay ¹	LOS
Joiner Parkway/Ferrari Ranch Road	Signal	C	PM	42	D	41	D	38	D
Fiddymont Road/Moore Road	Signal	C	PM	25	C	22	C	21	C
Ferrari Ranch Road/Sorrento Parkway	AWSC	C	PM	301	F	206	F	209	F
Ferrari Ranch Road/Groveland Ln.	Signal	C	PM	30	C	29	C	29	C
Industrial Avenue/Twelve Bridges Drive	Signal	C	PM	14	B	15	B	14	B
Dowd Road/Moore Road	SSSC	C	PM	2 (10)	A (B)	1 (11)	A (B)	2 (11)	A (B)
Nelson Road/ Moore Road	SSSC	C	PM	0 (14)	A (B)	0 (14)	A (B)	0 (12)	A (B)
Lincoln Boulevard/Sterling Parkway	Signal	C	PM	6	A	7	A	7	A
Joiner Parkway/Twelve Bridges Drive	Signal	C	PM	53	D	<u>65</u>	<u>E</u>	55	D

Notes: LOS = Level of Service. AWSC = All-Way Stop Control; SSSC = Side-Street Stop Control

BOLD text indicates unacceptable intersection operations.

UNDERLINED text indicates significantly impacted study intersection.

¹ For signalized and AWSC intersections, the table reports the weighted average intersection control delay for all approaches in seconds per vehicle. For SSSC intersections, the LOS and control delay for the movement with the highest control delay is shown in parentheses next to the overall average intersection LOS and delay. Intersection LOS and delay are calculated based on the procedures and methodology contained in the HCM 2010 (Transportation Research Board 2010).

Source: Fehr & Peers 2018

SAP Area

The projected 20-year land use that would occur with the SAP in connection with reasonably foreseeable projects would cumulatively degrade traffic operations at the following study intersection in the City of Lincoln during the p.m. peak hour. This would be a significant impact.

- Joiner Parkway / Twelve Bridges Drive degrades from LOS D to LOS E, and experiences an increase in average control delay from 53 seconds per vehicle to 65 seconds per vehicle compared to cumulative no project conditions.

The following intersections continue to operate at an unacceptable LOS with the 20-year project land uses in the SAP, but experience less than a 5-second increase in delay when compared to cumulative no project conditions. Therefore, this would be a less-than-significant impact.

- ▲ Joiner Parkway / Ferrari Ranch Road experiences a decrease in delay from 42 seconds to 41 seconds while continuing to operate at LOS D when compared to cumulative no project conditions.
- ▲ Ferrari Ranch Road / Sorrento Parkway experiences a decrease in delay from 301 seconds to 206 seconds while continuing to operate at LOS F when compared to cumulative no project conditions.

PRSP Area

The following study intersections in the City of Lincoln would continue to operate at an unacceptable LOS with buildout of the PRSP and reasonably foreseeable projects. However, these intersections would experience less than a 5-second increase in delay when compared to cumulative no project conditions. Therefore, this would be a less-than-significant impact.

- ▲ Joiner Parkway / Ferrari Ranch Road experiences a decrease in delay from 42 seconds to 38 seconds while continuing to operate at LOS D when compared to cumulative no project conditions.
- ▲ Ferrari Ranch Road / Sorrento Parkway experiences a decrease in delay from 301 seconds to 209 seconds while continuing to operate at LOS F when compared to cumulative no project conditions.
- ▲ Joiner Parkway / Twelve Bridges Drive experiences an increase in average control delay from 53 seconds to 55 seconds while continuing to operate at LOS D when compared to cumulative no project conditions.

Mitigation Measures

Mitigation Measure 4.14-19: Pay fair share cost toward striping second eastbound left-turn lane at Joiner Parkway/Twelve Bridges Drive intersection (Net SAP Area and PRSP Area)

Prior to building permit issuance, the project proponent shall pay their fair share cost towards striping a second eastbound left-turn lane at the Joiner Parkway / Twelve Bridges Drive intersection.

This improvement would restore operations to LOS D during the p.m. peak hour. The eastbound approach currently has a turn pocket wide enough to support dual eastbound left-turn lanes along with loop detectors to support this improvement. In addition, Joiner Parkway is planned to be widened to a four-lane roadway north of Twelve Bridges Drive, as identified in the Tier 1 SACOG MTP/SCS project list, which will provide adequate receiving lanes.

Placer County, in working with the City of Lincoln to provide funding for improvements not already subject to an existing interagency fee program, shall negotiate in good faith with the City of Lincoln to enter into additional fair and reasonable arrangements with the intention of achieving, within a reasonable time period after approval of the SAP, including the PRSP, commitment for the provision of adequate fair share mitigation from the SAP/PRSP for significant impacts on City of Lincoln intersections. In reaching an accommodation with the City of Lincoln, the County and City, in order to better ensure an effective sub-regional approach to mitigating transportation-related impacts, may choose to include within the same agreements or JPA (if a JPA is formed) additional public agencies with whom it must work to mitigate transportation-related impacts, such as Sacramento County, Sutter County, and Caltrans. As the County strives to achieve agreement(s) with one or more of these other agencies, the County shall insist that “fair share” fee obligations be reciprocal, in the sense that the other local agencies, in accepting fair share contributions from the SAP/PRSP developers, must agree to require new development occurring in their own jurisdictions to make fair share contributions towards mitigating the significant effects of such development on the County’s transportation network. Any such arrangement(s), with just the City of Lincoln or with additional agencies, shall account for existing inter-agency fee programs in order to avoid requiring redundant mitigation or fee payments exceeding fair share mitigation levels.

The County intends that its arrangement(s) with the City of Lincoln and any other agencies shall permit the participating agencies’ flexibility in providing cross-jurisdictional credits and reimbursements consistent with the general “fair share” mitigation standard, and require an updated model run incorporating the best available information in order to obtain the most accurate, up-to-date impact assessment feasible and to generate the most accurate, up-to-date estimates of regional fair share contributions. These arrangements, moreover, should also include provisions that allow for periodic updates to the traffic modeling on which fair share payment calculations depend in order to account for (i) newly approved projects cumulatively contributing to transportation-related impacts and that therefore should contribute to the funding of necessary improvements, (ii) additional physical improvements necessitated in whole or in part by newly approved projects, (iii) changing cost calculations for the construction of needed improvements based on changes in the costs of materials, labor, and other inputs. The County will monitor traffic volumes and coordinate with the City of Lincoln regarding traffic mitigation fees to fund regional improvements.

Significance after Mitigation

Since the improvement identified in Mitigation Measure 4.14-19 is feasible and would restore operations to cumulative no project levels, this mitigation would restore the impact to a **less-than-significant** level.

Cumulative Impact 4.14-20: Cumulative impacts to intersection operations in Sutter County

The proposed project in combination with reasonably foreseeable projects would not cumulatively degrade study intersections in Sutter County to an unacceptable level. Therefore, this would be a **less-than-significant** impact.

Table 4.14-44 presents the cumulative a.m. and p.m. peak hour operations for the study intersections located in Sutter County.

Table 4.14-44 Intersection Operations – Sutter County – Cumulative (2036) Conditions

Intersection	Traffic Control	LOS Standard	Peak Hour	Cumulative (2036) No Project Conditions		Cumulative Plus PRSP Plus SAP 20-Year Project (2036) Conditions		Cumulative Plus PRSP	
				Delay ¹	LOS	Delay ¹	LOS	Delay ¹	LOS
Pleasant Grove Road N./Baseline Road	Signal	D	AM	15	B	11	B	12	B
			PM	5	A	5	A	5	A
Pleasant Grove Road S./Baseline Road	Signal	D	AM	9	A	10	B	10	A
			PM	22	C	24	C	21	C

Notes: LOS = Level of Service.

BOLD text indicates unacceptable intersection operations.

UNDERLINED text indicates significantly impacted study intersection.

¹ For AWSC intersections, the table reports the weighted average intersection HCM control delay for all approaches in seconds per vehicle. Intersection LOS and delay is calculated based on the procedures and methodology contained in the HCM 2010 (Transportation Research Board 2010).

Source: Fehr & Peers 2018

SAP Area

All of the study intersections in Sutter County are expected to continue operating at an acceptable LOS D or better under cumulative plus PRSP plus SAP 20-Year project conditions. Therefore, this would be a **less-than-significant** impact.

PRSP Area

All of the study intersections in Sutter County are expected to continue operating at an acceptable LOS D or better under cumulative plus PRSP conditions. Therefore, this would be a **less-than-significant** impact.

Mitigation Measures

No mitigation is required.

Cumulative Impact 4.14-21: Cumulative impacts to intersection operations in Sacramento County

The proposed project would not significantly contribute to unacceptable operations at study intersections in Sacramento County. Therefore, this would be a **less-than-significant** impact.

Table 4.14-45 presents the cumulative a.m. and p.m. peak hour operations for the study intersections located in Sacramento County. While several of the study intersections operate at LOS F, none of the study intersections experience a 0.05 or greater increase in volume-to-capacity ratio.

Table 4.14-45 Intersection Operations – Sacramento County – Cumulative (2036) Conditions

Intersection	Traffic Control	LOS Standard	Peak Hour	Cumulative (2036) No Project Conditions		Cumulative Plus PRSP Plus SAP 20-Year Project (2036) Conditions		Cumulative Plus PRSP	
				V/C ¹	LOS	V/C ¹	LOS	V/C ¹	LOS
Watt Avenue/Elverta Road	Signal	E	AM PM	0.91 1.06	E F	0.92 1.02	E F	0.92 1.03	E F
Walerga Road/Elverta Road	Signal	E	AM PM	0.88 1.12	D F	0.85 1.11	D F	0.86 1.11	D F
Watt Avenue/Antelope Road	Signal	E	AM PM	1.05 1.05	F F	0.92 0.99	E E	1.04 1.07	F F
Walerga Road/Antelope Road	Signal	E	AM PM	0.67 0.85	B D	0.62 0.82	B D	0.65 0.83	B D
Watt Avenue/Elkhorn Boulevard	Signal	E	AM PM	0.98 1.03	E F	0.94 1.02	E F	0.95 1.03	E F
Walerga Road/Elkhorn Boulevard	Signal	E	AM PM	0.67 1.01	B F	0.76 0.98	C E	0.77 0.98	B E

Notes: LOS = Level of Service.

BOLD text indicates unacceptable intersection operations.

UNDERLINED text indicates significantly impacted study intersection.

¹ The table reports the overall intersection v/c ratio for signalized intersections. Intersection LOS and v/c ratio is calculated based on the procedures and methodology contained in the Transportation Research Board Circular No. 212 – Interim Materials on Highway Capacity (Transportation Research Board 1980).

Source: Fehr & Peers 2018

SAP Area

Three of the six study intersections in Sacramento County are forecasted to operate at LOS F under cumulative plus PRSP plus SAP 20-Year project conditions. However, none of these study intersections experience a 0.05 or greater increase in volume-to-capacity ratio from cumulative no project conditions. Therefore, this would be a **less-than-significant** impact.

PRSP Area

Four of the six study intersections in Sacramento County are forecasted to operate at LOS F under cumulative plus PRSP conditions. However, none of these study intersections experience a 0.05 or greater increase in volume-to-capacity ratio from cumulative no project conditions. Therefore, this would be a **less-than-significant** impact.

Mitigation Measures

No mitigation is required.

Cumulative Impact 4.14-22: Cumulative impacts to intersection operations under Caltrans jurisdiction

The proposed project in combination with reasonably foreseeable projects would cause study intersections under Caltrans jurisdiction to be degraded to a significant degree under cumulative conditions. This would be a **significant** impact.

Table 4.14-46 presents the cumulative a.m. and p.m. peak hour operations for the study intersections under Caltrans jurisdiction.

Table 4.14-46 Intersection Operations – Caltrans – Cumulative (2036) Conditions

Intersection	Traffic Control	LOS Standard ¹	Peak Hour	Cumulative (2036) No Project Conditions		Cumulative Plus PRSP Plus SAP 20-Year Project (2036) Conditions		Cumulative Plus PRSP	
				Delay ²	LOS	Delay ²	LOS	Delay ²	LOS
Blue Oaks Boulevard/ Washington Boulevard	Signal	C	AM	35	C	33	C	33	C
			PM	104	F	66	E	68	E
Douglas Boulevard/I-80 EB Ramps	Signal	C	AM	11	B	12	B	11	B
			PM	10	B	9	A	10	B
Douglas Boulevard/I-80 WB Off-Ramp	Signal	C	AM	48	D	50	D	48	D
			PM	61	E	78	E	68	E
Atlantic St./I-80 WB On-Ramp	Signal	C	AM	4	A	5	A	4	A
			PM	27	C	35	C	33	C
Pleasant Grove Boulevard/SR 65 NB Off-Ramp	Signal	C	AM	13	B	12	B	12	B
			PM	45	D	38	D	47	D
Pleasant Grove Boulevard/SR 65 SB Off-Ramp	Signal	C	AM	11	B	9	A	12	B
			PM	29	C	23	C	32	C
I-80 WB Off-Ramp/Riverside Avenue	Signal	C	AM	11	B	11	B	11	B
			PM	57	E	64	E	53	D
SR 65 NB On-Ramp/Stanford Ranch Road	Signal	C	AM	7	A	7	A	8	A
			PM	17	B	15	B	16	B
SR 65 SB On-Ramp/Galleria Boulevard	Signal	C	AM	19	B	17	B	19	B
			PM	23	C	18	B	19	B
Eureka Road/Taylor Road/I- 80 EB Off-Ramp	Signal	C	AM	43	D	53	D	43	D
			PM	69	E	83	E	77	E
I-80 EB Off-Ramp/Orlando Avenue/Riverside Avenue	Signal	C	AM	26	C	32	C	30	C
			PM	72	E	67	E	69	E
Twelve Bridges Boulevard/SR 65 SB Ramps	Signal	E	AM	9	A	10	B	9	A
			PM	10	A	10	A	9	A
Twelve Bridges Boulevard/SR 65 NB Ramps	Signal	E	AM	8	A	14	B	8	A
			PM	10	A	37	D	28	C
Placer Parkway/SR 65 SB Ramps	Signal	E	AM	6	A	74	E	47	D
			PM	7	A	113	F	122	F
Whitney Ranch Parkway/SR 65 NB Ramps	Signal	E/C ³	AM	20	B	18	B	17	B
			PM	13	B	12	B	14	B
Sunset Boulevard/SR 65 SB Ramps	Signal	C	AM	8	A	19	B	12	B
			PM	8	A	8	A	8	A

Table 4.14-46 Intersection Operations – Caltrans – Cumulative (2036) Conditions

Intersection	Traffic Control	LOS Standard ¹	Peak Hour	Cumulative (2036) No Project Conditions		Cumulative Plus PRSP Plus SAP 20-Year Project (2036) Conditions		Cumulative Plus PRSP	
				Delay ²	LOS	Delay ²	LOS	Delay ²	LOS
Sunset Boulevard/SR 65 NB Ramps	Signal	E/C ³	AM PM	14 9	B A	21 21	C C	17 14	B B
Blue Oaks Boulevard/SR 65 NB Ramps	Signal	E/C ³	AM PM	20 61	C E	19 49	B D	22 51	C D
Riego Road/SR 99 SB Ramps	Signal	E	AM PM	5 6	A A	6 6	A A	10 6	A A
Riego Road/SR 99 NB Ramps	Signal	E	AM PM	7 9	A A	7 8	A A	7 8	A A
SR 65/Nelson Lane	Signal	E	AM PM	124 108	F F	95 87	F F	96 88	F F
Ferrari Ranch Road/SR 65 SB Ramps	Signal	E	AM PM	143 13	F B	113 10	F B	109 11	F B
Ferrari Ranch Road/SR 65 NB Ramps	Signal	E	AM PM	17 52	B D	21 44	C D	20 43	B D
Lincoln Boulevard/SR 65 SB On-Ramp	Signal	E	AM PM	5 6	A A	5 6	A A	5 7	A A
Lincoln Boulevard/SR 65 NB Off-Ramp	Signal	E	AM PM	3 3	A A	4 3	A A	4 3	A A

Notes: LOS = Level of Service. SSSC = Side-Street Stop Control

BOLD text indicates unacceptable intersection operations.

UNDERLINED text indicates significantly impacted study intersection.

¹ For Caltrans intersections located in the City of Roseville, this analysis applies the City of Roseville’s LOS C standard instead of Caltrans LOS E standard.

² For signalized intersections, the table reports the weighted average intersection control delay for all approaches in seconds per vehicle. For SSSC intersections, the LOS and control delay for the movement with the highest control delay is shown in parentheses next to the overall average intersection LOS and delay. Intersection LOS and delay is calculated based on the procedures and methodology contained in the HCM 2010 (Transportation Research Board 2010).

³ Caltrans intersections located in the City of Rocklin are analyzed with Caltrans LOS E standard during the a.m. peak hour and the City of Rocklin’s LOS C standard during the p.m. peak hour, per the City of Rocklin’s LOS policy.

Source: Fehr & Peers 2018

SAP Area

The following study intersections under Caltrans jurisdiction would degrade to LOS F conditions with the 20-year project land uses in the SAP and reasonably foreseeable projects. This would be a significant impact.

- ▲ Eureka Road / Taylor Road/I-80 EB Off-Ramp degrades from LOS E to LOS F during the p.m. peak hour when compared to cumulative no project conditions.
- ▲ Placer Parkway / SR 65 Southbound Ramps degrades from LOS A to LOS F during the p.m. peak hour when compared to cumulative no project conditions.

The following study intersections under Caltrans jurisdiction would also operate at LOS F with the 20-year project land uses in the SAP and reasonably foreseeable projects. However, these intersections would experience a decrease in delay when compared to cumulative no project conditions because of a redistribution in traffic. Therefore, this would be a less-than-significant impact.

- ▲ SR 65 / Nelson Lane has a reduction in delay from 124 seconds to 97 seconds during the a.m. peak hour and from 108 seconds to 80 seconds during the p.m. peak hour while continuing to operate at LOS F during both peak hours when compared to cumulative no project conditions.
- ▲ Ferrari Ranch Road / SR 65 Southbound Ramps has a reduction in delay from 143 seconds to 122 seconds while continuing to operate at LOS F when compared to cumulative no project conditions during the a.m. peak hour.

In addition, the following Caltrans intersection adjacent to the City of Rocklin is expected to operate at LOS D during the p.m. peak hour. While acceptable per Caltrans standards, this is considered unacceptable based on the City of Rocklin's LOS C policy for the p.m. peak hour.

- ▲ Blue Oaks Boulevard / SR 65 Northbound Ramps improves from LOS E to LOS D during the p.m. peak hour when compared to cumulative no project conditions.

The following Caltrans intersections in the City of Roseville would continue operate at LOS D or LOS E with the 20-year project land uses in the SAP and reasonably foreseeable projects. While this would be acceptable based on Caltrans standards, it would be unacceptable based on City of Roseville standards and noted in Table 4.14-31 above. However, the LOS does not degrade from cumulative no project conditions at these intersections. Therefore, this would be a less-than-significant impact.

- ▲ Blue Oaks Boulevard / Washington Boulevard improves from LOS F to LOS E during the p.m. peak hour when compared to cumulative no project conditions.
- ▲ Douglas Boulevard / I-80 Westbound Off-Ramp continues to operate at LOS D during the a.m. peak hour and LOS E during the p.m. peak hour when compared to cumulative no project conditions.
- ▲ Pleasant Grove Boulevard / SR 65 Northbound Ramps continues to operate at LOS D during the p.m. peak hour when compared to cumulative no project conditions.
- ▲ I-80 Westbound Off-Ramp / Riverside Avenue continues to operate at LOS E during the p.m. peak hour when compared to cumulative no project conditions.
- ▲ I-80 Eastbound Off-Ramp/Orlando Avenue / Riverside Avenue continues to operate at LOS E during the p.m. peak hour when compared to cumulative no project conditions.

PRSP Area

Buildout of the PRSP in connection with reasonably foreseeable projects would cumulatively degrade traffic operations at the following study intersection under Caltrans jurisdiction to an unacceptable LOS, per the Concept LOS identified in the corresponding Caltrans TCR. This would be a significant impact.

- ▲ Placer Parkway / SR 65 Southbound Ramps degrades from LOS A to LOS F during the p.m. peak hour.

The following study intersections under Caltrans jurisdiction would operate at LOS F under cumulative plus PRSP conditions. However, these intersections would experience a decrease in delay when compared to cumulative no project conditions because of a redistribution in traffic. Therefore, this would be a less-than-significant impact.

- ▲ SR 65 / Nelson Lane has a reduction in delay from 124 seconds to 96 seconds during the a.m. peak hour and from 108 seconds to 88 seconds during the p.m. peak hour while continuing to operate at LOS F when compared to cumulative no project conditions.
- ▲ Ferrari Ranch Road / SR 65 Southbound Ramps has a reduction in delay from 143 seconds to 109 seconds while continuing to operate at LOS F when compared to cumulative no project conditions during the a.m. peak hour.

In addition, the following Caltrans intersections in the City of Roseville would continue operate at LOS D or LOS E under cumulative plus PRSP conditions. While this would be acceptable based on Caltrans standards, it would be unacceptable based on City of Roseville standards and noted in Table 4.14-31 above. However, the LOS does not degrade from cumulative no project conditions at these intersections. Therefore, this would be a less-than-significant impact.

- ▲ Blue Oaks Boulevard / Washington Boulevard improves from LOS F to LOS E during the p.m. peak hour when compared to cumulative no project conditions.
- ▲ Douglas Boulevard / I-80 Westbound Off-Ramp continues to operate at LOS D during the a.m. peak hour and LOS E during the p.m. peak hour when compared to cumulative no project conditions.
- ▲ Pleasant Grove Boulevard / SR 65 Northbound Ramps continues to operate at LOS D during the p.m. peak hour when compared to cumulative no project conditions.
- ▲ I-80 Westbound Off-Ramp / Riverside Avenue improves from LOS E to LOS D during the p.m. peak hour when compared to cumulative no project conditions.
- ▲ Eureka Road / Taylor Road/I-80 EB Off-Ramp continues to operate at LOS D during the a.m. peak hour and LOS E during the p.m. peak hour when compared to cumulative no project conditions.
- ▲ I-80 Eastbound Off-Ramp/Orlando Avenue / Riverside Avenue continues to operate at LOS E during the p.m. peak hour when compared to cumulative no project conditions.

Mitigation Measures

Mitigation Measure 4.14-22: Pay fair share cost toward signal modification at Placer Parkway/SR 65 southbound ramps intersection (Net SAP Area and PRSP Area)

Prior to building permit issuance, the project proponent shall pay their fair share cost towards the following signal modification at the Placer Parkway / SR 65 Southbound Ramps intersection:

- ▲ Restripe the southbound off-ramp approach to feature the following lane configuration: one left-turn lane, one shared through-right turn lane, and one right-turn lane.

This modification would improve operations to LOS B during the p.m. peak hour and maintain LOS B operations during the a.m. peak hour. This mitigation requires Placer County, on behalf of the project proponent, to negotiate in good faith with Caltrans to identify the fair share funding contribution and establish a means to provide this funding to Caltrans.

Significance after Mitigation

Mitigation Measure 4.14-22 would require approvals from and implementation by other agencies. Furthermore, since this improvement is not included in a known fee program, there is no assurance that the remaining funds necessary for construction will be collected. Since this improvement is not within Placer County's jurisdiction to control, it cannot be guaranteed that this improvement will be implemented.

Furthermore, there are no feasible mitigation measures to address the proposed project's impact to the Eureka Road / Taylor Road/I-80 EB Off-Ramp intersection. Therefore, this impact remains **significant and unavoidable**.

Cumulative Impact 4.14-23: Cumulative impacts to freeway operations

Vehicle trips generated by the proposed project in combination with reasonably foreseeable projects would cumulatively exacerbate unacceptable operations on study freeway facilities maintained by Caltrans. This would be a **significant** impact.

Table 4.14-47 presents the cumulative a.m. and p.m. peak hour operations for the study freeway facilities. As noted in the cumulative land use and transportation inputs, the cumulative conditions analysis includes a few capacity-enhancing projects on the regional freeway network, including Placer Parkway, capacity enhancements at the I-80/SR 65 interchange, and the first three phases of the SR 65 widening project. As a result of these improvements, several changes occur to the study freeway segments compared to existing conditions, including:

- ▲ Addition of on- and off-ramps at SR 65/Placer Parkway.
- ▲ Addition of a I-80 EB to SR 65 NB and SR 65 SB to I-80 WB HOV connector at the I-80/SR 65 interchange.
- ▲ Creation of a collector-distributor (CD) road that parallels I-80 eastbound from the Eureka Road off-ramp to the SR 65 interchange. The CD road creates a single I-80 eastbound off-ramp for Eureka Road and Taylor Road, and moves the Eureka Road on-ramp merge segment east of the SR 65 northbound off-ramp.
- ▲ Creates new weave segments along SR 65 where new auxiliary lanes are added.

Table 4.14-47 Freeway Operations - Cumulative (2036) Conditions

Freeway Segment	Segment Type	Peak Hour	Cumulative (2036) No Project Conditions		Cumulative Plus PRSP Plus SAP 20-Year Project (2036) Conditions		Cumulative Plus PRSP	
			Density ¹	LOS	Density ¹	LOS	Density ¹	LOS
SR 65 Northbound								
I-80 to Galleria Boulevard	Weave	AM PM	N/A N/A	D F	N/A N/A	F F ³	N/A N/A	E F ³
Galleria Boulevard On-Ramp	Merge	AM PM	29 33	D D	32 31	D D	31 33	D D
Galleria Boulevard to Lane Drop	Basic	AM PM	23 25	C C	27 23	D C	25 24	C C
Pleasant Grove Boulevard Off-Ramp	Diverge	AM PM	- -	F F	- -	F F ³	- -	F F ³
Pleasant Grove Boulevard On-Ramp	Merge	AM PM	37 -	E F	- 38	F E	- -	F F ³
Blue Oaks Boulevard Off-Ramp	Diverge	AM PM	- -	F F	- -	F F ³	- -	F F ³
Blue Oaks Boulevard On-Ramp	Merge	AM PM	- -	F F	- -	F F ³	- -	E E
Blue Oaks Boulevard On-Ramp to Sunset Boulevard Off-Ramp	Basic	AM PM	31 31	D D	41 31	E D	45 42	E E
Sunset Boulevard Off-Ramp	Diverge	AM PM	- -	F F	- -	F F ³	- -	F E
Sunset Boulevard Loop On-Ramp	Merge	AM PM	36 -	E F	35 -	E F ³	- -	F E
Sunset Boulevard to Whitney Ranch Parkway	Weave	AM PM	N/A N/A	E E	N/A N/A	D ² E	N/A N/A	E E
Placer Parkway Loop On-Ramp	Merge	AM PM	33 -	D F	37 -	E F ³	- -	E E

Table 4.14-47 Freeway Operations – Cumulative (2036) Conditions

Freeway Segment	Segment Type	Peak Hour	Cumulative (2036) No Project Conditions		Cumulative Plus PRSP Plus SAP 20-Year Project (2036) Conditions		Cumulative Plus PRSP	
			Density ¹	LOS	Density ¹	LOS	Density ¹	LOS
Whitney Ranch Parkway Slip On-Ramp to Twelve Bridges Road Off-Ramp	Weave	AM	21	C ²	31	D ²	30	D ²
		PM	37	E ²	-	F ²	-	F ²
Twelve Bridges Drive On-Ramp to Lincoln Boulevard Off-Ramp	Weave	AM	N/A	D ²	N/A	D	N/A	E
		PM	N/A	F ²	N/A	F ³	N/A	F
Lincoln Boulevard Off-Ramp to Lane Add	Basic	AM	26	C	27	D	36	E
		PM	-	F	-	F ³	-	F
SR 65 Southbound								
Lane Drop to Lincoln Boulevard On-Ramp	Basic	AM	-	F	-	F ³	-	F
		PM	29	D	29	D	31	D
Lincoln Boulevard On-Ramp to Twelve Bridges Drive Off-Ramp	Weave	AM	N/A	F	N/A	F ³	N/A	F
		PM	N/A	D	N/A	E	N/A	E
Twelve Bridges Drive to Placer Parkway	Weave	AM	32	D ²	-	F ²	-	F ²
		PM	26	C ²	32	D ²	N/A	E
Whitney Ranch Parkway Loop On-Ramp	Merge	AM	-	F	-	F ³	-	F ³
		PM	-	F	38	E	-	F ³
Placer Parkway Slip On-Ramp to Sunset Boulevard Off-Ramp	Weave	AM	N/A	F	N/A	F ³	N/A	E
		PM	27	D ²	N/A	D ²	-	F ²
Sunset Boulevard Loop On-Ramp	Merge	AM	-	F	-	E	-	F ³
		PM	-	F	-	F ³	-	F ³
Sunset Boulevard Slip On-Ramp to Blue Oaks Boulevard Off-Ramp	Weave	AM	30	D ²	N/A	E ⁴	N/A	F ^{2,4}
		PM	32	D ²	N/A	F ⁴	N/A	E ⁴
Blue Oaks Boulevard Off-Ramp to Lane Add	Basic	AM	-	F	42	E	-	F
		PM	-	F	-	F	-	F
Blue Oaks Boulevard Loop On-Ramp	Merge	AM	29	D	28	C	28	D
		PM	28	D	32	D	31	D
Blue Oaks Boulevard Slip On-Ramp	Merge	AM	37	E	36	E	37	E
		PM	37	E	-	F	-	F
Blue Oaks Boulevard to Pleasant Grove Boulevard	Basic	AM	25	C	24	C	26	C
		PM	26	C	30	D	29	D
Pleasant Grove Boulevard Off-Ramp	Diverge	AM	28	C	27	D	28	D
		PM	27	C	29	D	29	D
Pleasant Grove Boulevard Loop On-Ramp	Merge	AM	27	C	26	C	26	C
		PM	27	C	30	D	29	D
Pleasant Grove Boulevard Slip On-Ramp	Merge	AM	31	D	30	D	31	D
		PM	31	D	35	D	33	E
Pleasant Grove Boulevard to Galleria Boulevard	Basic	AM	26	C	25	C	26	C
		PM	26	D	30	D	29	D
Galleria Boulevard Off-Ramp	Diverge	AM	26	C	25	C	26	C
		PM	23	C	-	F	-	F

Table 4.14-47 Freeway Operations – Cumulative (2036) Conditions

Freeway Segment	Segment Type	Peak Hour	Cumulative (2036) No Project Conditions		Cumulative Plus PRSP Plus SAP 20-Year Project (2036) Conditions		Cumulative Plus PRSP	
			Density ¹	LOS	Density ¹	LOS	Density ¹	LOS
Galleria Boulevard to I-80	Weave	AM PM	N/A N/A	D F	N/A N/A	E E	N/A N/A	D E
I-80 Eastbound								
Eureka Road/Taylor Road Off-Ramp to SR 65 NB HOV Off-Ramp	Basic	AM PM	26 35	D E	30 32	D D	28 35	D D
SR 65 NB HOV Off-Ramp	Basic	AM PM	26 35	D E	30 32	D D	28 35	D D
SR 65 NB Off-Ramp	Diverge	AM PM	- -	F F	- -	F F³	- -	F F³
SR 65 NB Off-Ramp to Eureka Road On-Ramp	Basic	AM PM	16 22	C C	16 20	B C	16 21	B C
Eureka Road (CD Road) On-Ramp	Merge	AM PM	22 30	C D	22 29	C D	22 29	C D
Eureka Road On-Ramp to SR 65 SB On-Ramp	Basic	AM PM	18 26	C D	18 25	C C	18 26	C C
SR 65 SB On-Ramp	Basic	AM PM	31 -	D F	31 -	D F³	31 -	D F³
SR 65 to Rocklin Road	Basic	AM PM	26 35	C D	26 35	C D	26 40	C E
I-80 Westbound								
Rocklin Road to SR 65 NB Off-Ramp	Basic	AM PM	37 42	E E	37 41	E E	37 41	E E
SR 65 NB Off-Ramp	Diverge	AM PM	25 26	C C	25 25	C C	25 26	C C
SR 65 SB On-Ramp & Taylor Road On-Ramp to Atlantic St. Off-Ramp	Weave	AM PM	N/A N/A	F F	N/A N/A	F³ E	N/A N/A	F³ E

Notes: LOS = Level of Service.

BOLD text indicates unacceptable freeway segment operations.

UNDERLINED text indicates significantly impacted freeway segment.

“-” = density is not reported for segments that operate at LOS F.

N/A = not applicable because density is not calculated for weave segments using the Leisch method.

¹ The table reports segment density in passenger car equivalents per mile per lane (pcpmpl), which is calculated based on the procedures and methodology contained in the HCM 2010 (Transportation Research Board 2010).

² This segment is analyzed as a basic segment because the calculation is out of the realm of a weave segment for Leisch analysis. Basic segment LOS is calculated using HCM methodology and reported.

³ Not a significant impact because the addition of scenario project trips does not result in an increase in peak hour traffic volume that is considered significant, as defined in the significance criteria.

⁴ Note that for the No Project scenario, the Basic segment LOS is calculated using HCM methodology and reported. For the plus project scenario, the Weave segment LOS is calculated using the Leisch method and reported.

Source: Fehr & Peers 2018

SAP Area

The projected 20-year land use that would occur with the SAP in connection with reasonably foreseeable projects would cumulatively degrade traffic operations at study freeway segments to LOS F as identified below. The 20-year project would also result in an increase in traffic in excess of 20 vehicles per hour per

travel lane at study freeway segments already operating at LOS F when compared to cumulative no project conditions as identified below. This would be a significant impact.

A.M. Peak Hour

- ▲ SR 65 Northbound: I-80 Westbound to Stanford Ranch Road off-ramp – degrades from LOS D to LOS F when compared to cumulative no project conditions.
- ▲ SR 65 Northbound: Pleasant Grove Boulevard off-ramp diverge – results in an increase in peak hour traffic by 1,120 vehicles per hour while continuing to operate at LOS F when compared to cumulative no project conditions.
- ▲ SR 65 Northbound: Pleasant Grove Boulevard on-ramp to Blue Oaks Boulevard off-ramp – degrades from LOS E to LOS F at the Pleasant Grove Boulevard on-ramp merge when compared to cumulative no project conditions.
- ▲ SR 65 Northbound: Blue Oaks Boulevard off-ramp diverge – results in an increase in peak hour traffic by 980 vehicles per hour while continuing to operate at LOS F when compared to cumulative no project conditions.
- ▲ SR 65 Northbound: Blue Oaks Boulevard on-ramp merge – results in an increase in peak hour traffic by 960 vehicles per hour while continuing to operate at LOS F when compared to cumulative no project conditions.
- ▲ SR 65 Northbound: Sunset Boulevard off-ramp diverge – results in an increase in peak hour traffic by 960 vehicles per hour while continuing to operate at LOS F when compared to cumulative no project conditions.
- ▲ SR 65 Southbound: Twelve Bridges Drive to Placer Parkway – degrades from LOS D to LOS F when compared to cumulative no project conditions.
- ▲ I-80 Eastbound at SR 65 Northbound off-ramp – results in an increase in peak hour traffic by 560 vehicles per hour while continuing to operate at LOS F when compared to cumulative no project conditions.

P.M. Peak Hour

- ▲ SR 65 Northbound: Whitney Ranch Parkway slip on-ramp to Twelve Bridges Drive off-ramp – degrades from LOS E to LOS F when compared to cumulative no project conditions.
- ▲ SR 65 Southbound: Sunset Boulevard on-ramp to Blue Oaks Boulevard off-ramp – degrades from LOS D to LOS F when compared to cumulative no project conditions.
- ▲ SR 65 Southbound: Blue Oaks Boulevard off-ramp to lane add – results in an increase in peak hour traffic by 700 vehicles per hour on a segment already operating at LOS F when compared to cumulative no project conditions.
- ▲ SR 65 Southbound: Blue Oaks Boulevard on-ramp merge – degrades from LOS E to LOS F when compared to cumulative no project conditions.
- ▲ SR 65 Southbound: Galleria Boulevard off-ramp diverge – degrades from LOS C to LOS F when compared to cumulative no project conditions.
- ▲ SR 65 Southbound: Galleria Boulevard to I-80 – results in an increase in peak hour traffic by 850 vehicles per hour on a segment already operating at LOS F when compared to cumulative no project conditions.

- ▲ I-80 Westbound at SR 65 Southbound on-ramp – results in an increase in peak hour traffic by 280 vehicles on a segment already operating at LOS F when compared to cumulative no project conditions.

PRSP Area

Buildout of the PRSP in connection with reasonably foreseeable projects would cumulatively degrade traffic operations at study freeway segments to LOS F as identified below. Buildout of the PRSP would also result in an increase in traffic in excess of 20 vehicles per hour per travel lane at study freeway segments already operating at LOS F when compared to cumulative no project conditions as identified below. This would be a significant impact.

A.M. Peak Hour

- ▲ SR 65 Northbound: Pleasant Grove Boulevard off-ramp to Blue Oaks Boulevard on-ramp – degrades from LOS E to LOS F at the Pleasant Grove Boulevard on-ramp merge; results in an increase in peak hour traffic by 660 to 1,250 vehicles per hour on segments already operating at LOS F when compared to cumulative no project conditions.
- ▲ SR 65 Northbound: Sunset Boulevard off-ramp diverge – results in an increase in peak hour traffic by 1,250 vehicles per hour while continuing to operate at LOS F when compared to cumulative no project conditions.
- ▲ SR 65 Northbound: Sunset Boulevard on-ramp merge – degrades from LOS E to LOS F when compared to cumulative no project conditions.
- ▲ SR 65 Northbound: Placer Parkway on-ramp merge – degrades from LOS D to LOS F when compared to cumulative no project conditions.
- ▲ SR 65 Southbound: Ferrari Ranch Road to Twelve Bridges Drive – results in an increase in peak hour traffic by 180 to 290 vehicles per hour on segments already operating at LOS F when compared to cumulative no project conditions.
- ▲ SR 65 Southbound: Twelve Bridges Drive to Placer Parkway – degrades from LOS D to LOS F when compared to cumulative no project conditions.
- ▲ SR 65 Southbound: Sunset Boulevard slip on-ramp to Blue Oaks Boulevard off-ramp – degrades from LOS D to LOS F when compared to cumulative no project conditions.
- ▲ SR 65 Southbound: Blue Oaks Boulevard off-ramp to Lane Add – results in an increase of 410 vehicles while continuing to operate at LOS F when compared to cumulative no project conditions.
- ▲ I-80 Eastbound at SR 65 Northbound off-ramp – results in an increase of 410 vehicles while continuing to operate at LOS F when compared to cumulative no project conditions.

P.M. Peak Hour

- ▲ SR 65 Northbound: Blue Oaks Boulevard on-ramp merge and Sunset Boulevard off-ramp diverge – results in an increase of 990 vehicles while continuing to operate at LOS F when compared to cumulative no project conditions.
- ▲ SR 65 Northbound: Sunset Boulevard loop on-ramp merge to Ferrari Ranch Road – includes segments that degrade from LOS E to LOS F when compared to cumulative no project conditions, and segments that see an increase of 460 to 720 vehicles per hour on segments already operating at LOS F when compared to cumulative no project conditions.
- ▲ SR 65 Southbound: Placer Parkway to Sunset Boulevard – degrades from LOS D to LOS F when compared to cumulative no project conditions.

- ▲ SR 65 Southbound: Blue Oaks Boulevard to I-80 – degrades multiple segments from LOS E or better to LOS F; results in an increase in peak hour traffic by 390 to 630 vehicles per hour on segments already operating at LOS F when compared to cumulative no project conditions.
- ▲ I-80 Westbound at SR 65 Southbound on-ramp – results in an increase in peak hour traffic by 170 vehicles on a segment already operating at LOS F when compared to cumulative no project conditions.

Mitigation Measures

Implement Mitigation Measure 4.14-10 (Net SAP Area and PRSP Area). As noted in Mitigation Measure 4.14-10, project proponents of individual development projects within the SAP area, including the PRSP area, shall pay impact fees to SPRTA in amounts that constitute the SAP area's fair share contribution to the construction of transportation facilities funded through fees collected by SPRTA for Tier 1 and/or Tier 2 projects. This includes the SR 65 widening project.

As noted in the Land Use and Transportation Inputs discussion, the cumulative conditions analysis assumes full construction of the I-80 / SR 65 interchange improvements and Phases 1-3 of the SR 65 Widening project (widening to six continuous lanes and auxiliary lanes in each direction between I-80 and Blue Oaks Boulevard, as well as new auxiliary lanes from Blue Oaks Boulevard to Lincoln Boulevard) since these are included as a Tier 1 project in SACOG's 2036 MTP/SCS. These projects also receive partial funding from the SPRTA fee program.

In addition to these improvements, Phase 4 of the SR 65 Widening project (widening SR 65 to six continuous lanes in addition to aforementioned new auxiliary lanes from Blue Oaks Boulevard to Lincoln Boulevard) would be necessary to improve traffic operations under cumulative conditions for the segments of SR 65 cumulatively impacted by the proposed project.

However, the SPRTA fee program only contributes a portion of the funding needed for Phase 4 of the SR 65 Widening project. The PCTPA website (PCTPA 2018b) further indicates that funding is currently being sought for the SR 65 Widening project. Furthermore, the impacted segments of I-80 already reflect the known feasible improvements to I-80 including improvements with the I-80/SR 65 Interchange project and new auxiliary lanes on I-80 between SR 65 and Rocklin Road. No further planned improvements are identified, funded, or feasible.

Significance after Mitigation

Because the remaining funding necessary to construct Phase 4 of the SR 65 Widening Project has not been identified and the lack of feasible mitigation for the impacted segments of I-80, this impact would be **significant and unavoidable**.

Cumulative Impact 4.14-24: Cumulative impacts to freeway off-ramp queuing

The proposed project in combination with reasonably foreseeable projects would not result in queues on freeway off-ramps that extend beyond the ramp onto the mainline. Therefore, this would be a **less-than-significant** impact.

Table 4.14-48 presents the cumulative off-ramp queuing results within the study area during the a.m. and p.m. peak hours. As shown, a couple freeway off-ramps would exceed the off-ramp length and extend back to the freeway mainline under cumulative no project conditions. However, these queues are reduced with the project, and none of the freeway off-ramp queues would exceed the off-ramp length and extend back to the freeway mainline under cumulative plus project conditions.

Table 4.14-48 Peak Hour Freeway Off-Ramp Queuing – Cumulative (2036) Conditions

Freeway Off-Ramp	Ramp Length ¹	Cumulative (2036) No Project Conditions		Cumulative Plus PRSP Plus SAP 20-Year Project (2036) Conditions		Cumulative Plus PRSP	
		AM	PM	AM	PM	AM	PM
SR 65 NB Off-Ramp at Pleasant Grove Boulevard	1,575 feet	125 feet	1,600 feet³	125 feet	800 feet ³	125 feet	950 feet ³
SR 65 NB Off-Ramp at Blue Oaks Boulevard (East)	2,000 feet	325 feet	750 feet	300 feet	700 feet	300 feet	725 feet
SR 65 NB Off-Ramp at Sunset Boulevard	1,475 feet	500 feet	150 feet	600 feet	575 feet	375 feet	450 feet
SR 65 NB Off-Ramp at Whitney Ranch Parkway	1,300 feet	600 feet	350 feet	325 feet	225 feet	325 feet	300 feet
SR 65 NB Off-Ramp at Twelve Bridges Drive	1,550 feet	300 feet	425 feet	600 feet	1,225 feet	425 feet	575 feet
SR 65 NB Off-Ramp at Lincoln Boulevard	2,100 feet	25 feet	125 feet	25 feet	25 feet	25 feet	25 feet
SR 65 NB Off-Ramp at Ferrari Ranch Road	1,625 feet	225 feet	1,100 feet	350 feet	1,050 feet	325 feet	1,000 feet
SR 65 SB Off-Ramp at Ferrari Ranch Road	1,550 feet	725 feet	250 feet	725 feet	250 feet	700 feet	250 feet
SR 65 SB Off-Ramp at Twelve Bridges Drive	1,525 feet	300 feet	200 feet	300 feet	200 feet	250 feet	175 feet
SR 65 SB Off-Ramp at Placer Parkway	1,500 feet	100 feet	125 feet	650 feet	1,200 feet	475 feet	1,050 feet
SR 65 SB Off-Ramp at Sunset Boulevard	1,500 feet	375 feet	175 feet	350 feet	150 feet	350 feet	150 feet
SR 65 SB Off-Ramp at Blue Oaks Boulevard	2,250 feet	325 feet	1,675 feet ³	250 feet	900 feet ³	275 feet	900 feet ³
SR 65 SB Off-Ramp at Pleasant Grove Boulevard	1,600 feet	200 feet	275 feet ³	200 feet	150 feet ³	225 feet	300 feet ³
SR 65 SB Off-Ramp at Galleria Boulevard (SB)	1,875 feet	475 feet	225 feet ³	425 feet	325 feet ³	500 feet	250 feet ³
I-80 EB Off-Ramp at Auburn Boulevard/Riverside Avenue	1,625 feet	150 feet	350 feet ³	225 feet	325 feet ³	175 feet	350 feet ³
I-80 EB Off-Ramp at Douglas Boulevard (WB)	1,150 feet	275 feet	225 feet	275 feet	150 feet	300 feet	225 feet
I-80 EB Off-Ramp at Eureka Road	1,725 feet	275 feet	275 feet ³	300 feet	300 feet ³	300 feet	275 feet ³
I-80 WB Off-Ramp at Douglas Boulevard	1,550 feet	1,225 feet	1,200 feet	1,325 feet	1,425 feet	1,225 feet	1,350 feet
I-80 WB Off-Ramp at Riverside Avenue	1,325 feet	250 feet	1,350 feet³	275 feet	1,100 feet ³	250 feet	1,175 feet ³

Notes: **BOLD** text indicates a queue that is anticipated to exceed the off-ramp length and extend back to the freeway mainline.

¹ The ramp length is estimated by measuring the distance from the gore point where the off-ramp departs from the mainline to the limit line at the ramp terminal intersection with the local street, as measured from aerial imagery. Distance is reported in feet.

² 95th Percentile Queue calculated using Synchro software, unless otherwise noted. Queue is reported in feet and rounded up to the nearest 25-foot interval.

³ Maximum queue, as calculated using the average of 10 SimTraffic microsimulation runs, reported instead of the 95th percentile queue calculated by Synchro.

Source: Fehr & Peers 2018

SAP Area

As shown in Table 4.14-48, all freeway off-ramp queues are anticipated to remain within the available storage provided by the off-ramp under cumulative plus PRSP plus SAP 20-Year Project conditions. This includes a reduction in queue length at the SR 65 northbound off-ramp at Pleasant Grove Boulevard and I-80 westbound off-ramp at Riverside Avenue, where cumulative no project queues are anticipated to exceed available storage. Therefore, this would be a less-than-significant cumulative impact on freeway off-ramp queuing.

PRSP Area

As shown in Table 4.14-48, all freeway off-ramp queues are anticipated to remain within the available storage provided by the off-ramp under cumulative plus PRSP conditions. This includes a reduction in queue length at the SR 65 northbound off-ramp at Pleasant Grove Boulevard and I-80 westbound off-ramp at Riverside

Avenue, where cumulative no project queues are anticipated to exceed available storage. Therefore, implementing the PRSP would have a less-than-significant cumulative impact on freeway off-ramp queuing.

Mitigation Measures

No mitigation is required.

Cumulative Impact 4.14-25: Cumulative impacts to vehicle miles traveled

Implementation of the proposed project would result in new daily vehicle travel, which would add VMT to the study area. With the PRSP area’s increase in residential population and employment to the study area, implementing the PRSP would result in a reduction in daily VMT per service population generated by the SAP area. However, implementing the SAP would result in an increase in daily VMT per service population. Since overall daily VMT would be increased, this would be a **significant** impact.

As noted in Impact 4.14-12, Placer County has not yet established a significance threshold for VMT to measure against. Therefore, this study compares the project generated VMT per capita to the total VMT per capita forecasted for the SACOG region, as documented in the SACOG 2016 MTP/SCS. Per the SACOG 2016 MTP/SCS, the forecasted VMT per capita in the SACOG region for the 2036 horizon year of the MTP/SCS is 24.2 daily miles per person as of 2012.

The Placer County traffic forecasting model used to forecast traffic levels at study roadways, intersections, and freeway facilities is used in combination with SACOG’s SACMET model to estimate and forecast the project-generated VMT.

SAP Area

Cumulative Plus PRSP Plus SAP (20-Year Project)

Table 4.14-49 compares the cumulative no project conditions VMT estimate with the forecasted VMT under cumulative plus PRSP plus SAP (20-year project) conditions. The cumulative plus PRSP plus SAP (20-year project) includes buildout of the PRSP and 20 years of development in the net SAP area, including most of the entertainment mixed-use (EMU) district. As shown in Table 4.14-49, the service population (i.e., residential population, employment, and university student population) and daily VMT generated by buildout of the SAP would be substantially higher than cumulative no project conditions for the SAP area.

Table 4.14-49 Project Generated VMT – Cumulative Plus PRSP Plus SAP (20-Year Project) Conditions

Scenario	Service Population ¹	Daily VMT	Daily VMT per Service Population
Cumulative No Project Conditions	32,921	1,062,407	32.27
Cumulative Plus PRSP Plus SAP	80,122	3,053,544	38.11
Change	+47,201	+1,991,137	+5.84

Notes: VMT presented in this table represents VMT generated by uses in the Sunset Area, including existing uses and the SAP.

¹ Service population = residential population + employment + university students; based on data from SACOG’s SACMET travel forecasting model.

Source: Fehr & Peers 2018

While the land development within the project is projected to increase VMT and VMT per service population under this scenario, this largely driven by the types of uses included in the SAP. Specifically, the Entertainment and Mixed Use (EMU) District of the SAP would be a major draw consisting of entertainment-related uses and retail concepts to surround the existing Thunder Valley Casino and Hotel. Permitted uses in the EMU district include entertainment venues, super-regional destination retail, shopping, restaurants, recreational facilities, and lodging among others. Since several of these uses are highly specialized and unique, there are no equivalent model land use categories to represent them. Furthermore, they are highly varied and unique in their trip making activity. Without additional detail, accurately modeling a specific use (e.g., entertainment venue or super-regional destination retail) is not feasible. Therefore, this analysis used

the closest available model land use category for EMU—commercial/retail—to correspond with the shopping, restaurants, and lodging uses that are also permitted in the EMU district. Since retail attractions tend to draw from a shorter distance than a super-regional attraction, like an entertainment venue, the VMT presented in Table 4.14-49 may underestimate the VMT generated by the project, if a more regional attraction were constructed.

However, even as a commercial/retail use, the EMU district has an upward effect on the VMT and VMT per service population. This is the result of retail uses generating a significantly higher number of trips per employee for a non-residential use. Since the “per service population” metric only accounts for employees, not customers, the over 2.6 million square feet of commercial retail space in the EMU district inherently has an upward effect on VMT per service population.

Cumulative Plus SAP Buildout

Table 4.14-50 compares the cumulative no project conditions VMT estimate with the forecasted VMT under cumulative plus SAP buildout conditions. The cumulative plus SAP buildout data include buildout of the PRSP and net SAP areas. As shown in Table 4.14-50, the service population (i.e., residential population, employment, and university student population) and daily VMT generated by buildout of the SAP would be substantially higher than cumulative no project conditions for the SAP area.

Table 4.14-50 Project Generated VMT – Cumulative Plus Sunset Area Plan Conditions

Scenario	Service Population ¹	Daily VMT	Daily VMT per Service Population
Cumulative No Project Conditions	32,921	1,062,407	32.27
Cumulative Plus Sunset Area Buildout	119,806	4,962,222	41.42
Change	+86,885	+3,899,815	+9.15

Notes: VMT presented in this table represents VMT generated by uses in the Sunset Area, including existing uses and the SAP.

¹ Service population = residential population + employment + university students; based on data from SACOG’s SACMET travel forecasting model.

Source: Fehr & Peers 2018

PRSP Area

Table 4.14-51 compares the cumulative no project conditions VMT estimate with the forecasted VMT under cumulative plus PRSP conditions. The cumulative plus PRSP data include buildout of the PRSP only. As shown in Table 4.14-51, the service population and daily VMT generated by buildout of the PRSP would be higher than cumulative no project conditions for the SAP area. However, the daily VMT per service population would decrease from cumulative no project conditions due to the addition of a mix of residential units, employment uses, the university campus, and local and regional-serving retail and services within the PRSP area. (It should be noted that the VMT shown in Table 4.14-51 reflects the previous PRSP land use plan. According to the memorandum prepared by Fehr & Peers, included in Appendix P, the currently proposed PRSP land use plan would result in over 100,000 fewer VMT than the previous land use plan. Therefore, this analysis is conservative.)

Table 4.14-51 Project Generated VMT – Cumulative Plus Placer Ranch Specific Plan Conditions

Scenario	Service Population ¹	Daily VMT	Daily VMT per Service Population
Cumulative No Project Conditions	32,921	1,062,407	32.27
Cumulative Plus PRSP	64,142	1,444,322	22.52
Change	+31,221	+381,915	-9.75

Notes: VMT presented in this table represents VMT generated by uses in the Sunset Area, including existing uses and the PRSP.

¹ Service population = residential population + employment + university students; based on data from SACOG’s SACMET travel forecasting model.

Source: Fehr & Peers 2018

Mitigation Measures

Implement Mitigation Measures 4.14-12a and 4.14-12b (Net SAP Area and PRSP Area). Implementation of Mitigation Measures 4.14-12a and 4.14-12b would result in the application of TCMs, which would reduce project-generated VMT below levels forecasted in Tables 4.14-48, 4.14-49, and 4.14-50. However, as described in Mitigation Measures 4.14-12a and 4.14-12b, the TCMs will have a limited effect on overall VMT in large part because of the project's suburban context. Based on the required TCMs identified in the Placer County Trip Reduction Ordinance (Article 10.20.070 of the Placer County Code), this study estimates that the required TCMs would reduce VMT by 1 percent. However, that reduction would only apply to VMT generated by large employers and employment sites subject to the mandatory participation in the Trip Reduction Ordinance and does not apply to residential uses. Therefore, the required TCMs would have a less than 1 percent reduction in project-generated VMT overall.

While the implementation of Mitigation Measures 4.14-12a and 4.14-12b would reduce project-generated VMT, the SAP-generated VMT per capita would remain above the regional average VMT per capita as forecasted in the SACOG 2016 MTP/SCS. Therefore, this impact would remain **significant and unavoidable**.