

APPENDIX C

Traffic Report

TRAFFIC IMPACT ANALYSIS

ROCKLIN CROSSINGS

ROCKLIN, CALIFORNIA

DRAFT

LSA

March 2007

TRAFFIC IMPACT ANALYSIS

ROCKLIN CROSSINGS
ROCKLIN, CALIFORNIA

Submitted to:
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INTRODUCTION

This report presents the results of an analysis by LSA Associates, Inc. (LSA) of the traffic impacts associated with the proposed Rocklin Crossings project in the City of Rocklin (City), California. The project proposes the construction of an approximately 543,500-square-foot (sf) commercial/retail center on a 49.53± acre site at the southeast corner of Interstate 80 (I-80) and Sierra College Boulevard. The proposed regional shopping center will include two major tenants, currently expected to be Wal-Mart Supercenter and The Home Depot. The project is located west of and directly adjacent to the proposed Rocklin 60 residential project.

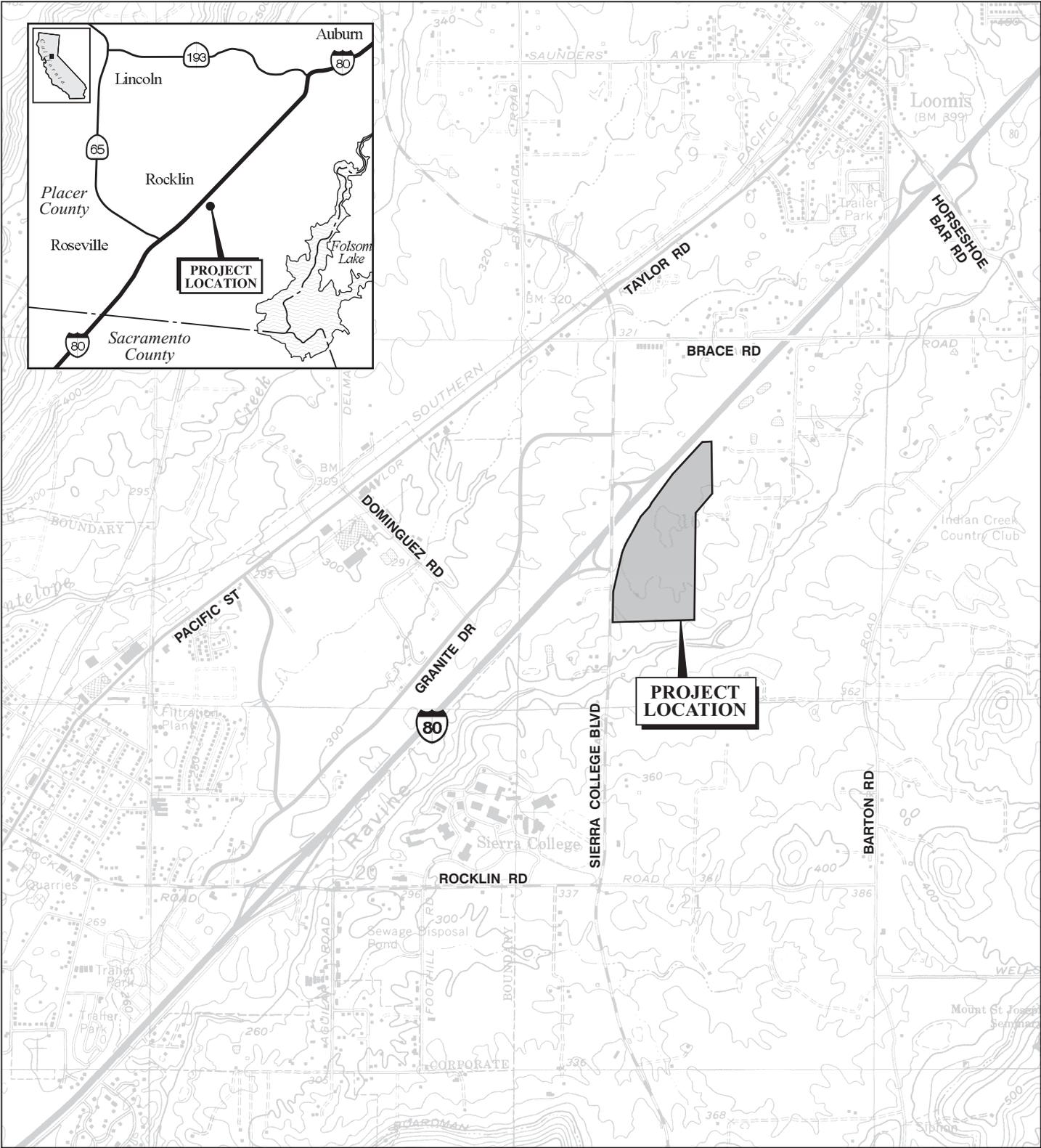
This analysis examines the traffic impacts expected to result from the addition of vehicle traffic generated by the proposed project on the existing, existing plus approved projects, and cumulative (year 2025) traffic condition at surrounding intersections and roadway segments. “Approved projects,” in this context, are land use and infrastructure projects that have received all discretionary approvals requiring environmental review. Traffic volumes and levels of service (LOS) for year 2025 conditions were determined using the City of Rocklin Traffic Model. Potential mitigation measures for facilities significantly impacted by the project are identified in this study.

This analysis has been prepared in consultation with City staff and is consistent with the objectives and methodologies set forth in the City’s General Plan Transportation Element and applicable provisions of the California Environmental Quality Act (CEQA). This analysis also recommends mitigation measures based on the project’s effects under the existing plus approved projects and cumulative (2025) scenarios.

PROJECT DESCRIPTION

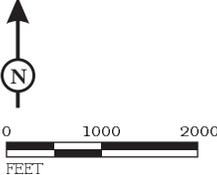
The proposed project is a regional shopping center including two major tenants (presently expected to be a Wal-Mart Supercenter and The Home Depot). The proposed project will be built on a 49.53± acre site at the southeast corner of Interstate 80 (I-80) and Sierra College Boulevard. The location of the proposed project is shown in Figure 1. The site is currently undeveloped. Up to 543,500 sf of retail/commercial structures will be constructed. The proposed Wal-Mart Supercenter would consist of 206,000 sf of main building area with a 25,353 sf garden center. The Home Depot store would be 106,278 sf with a 34,760 sf garden center. The remaining 171,109 sf would be made up of smaller retail and restaurant-type uses. Traveler-serving uses such as gas stations and a hotel may also be provided. The project site plan is shown in Figure 2.

Although the Sierra College Boulevard/I-80 interchange reconstruction project is not part of the proposed project description, this project will significantly affect access to Rocklin Crossings. The Sierra College Boulevard/I-80 interchange project will widen the bridge over I-80, reconstruct the on- and off-ramps, and include full widening of Sierra College Boulevard across the northerly portion of the frontage of the Rocklin Crossings project. The main access into Rocklin Crossings will be constructed as part of the Sierra College Boulevard overcrossing project and dedicated as a City right-of-way. The Sierra College Boulevard/I-80 interchange reconstruction project is underway and will be completed prior to the opening of Rocklin Crossings.



LSA

FIGURE 1



SOURCE: USGS 7.5' Quad - Rocklin, Ca.

Rocklin Crossings
Project Location

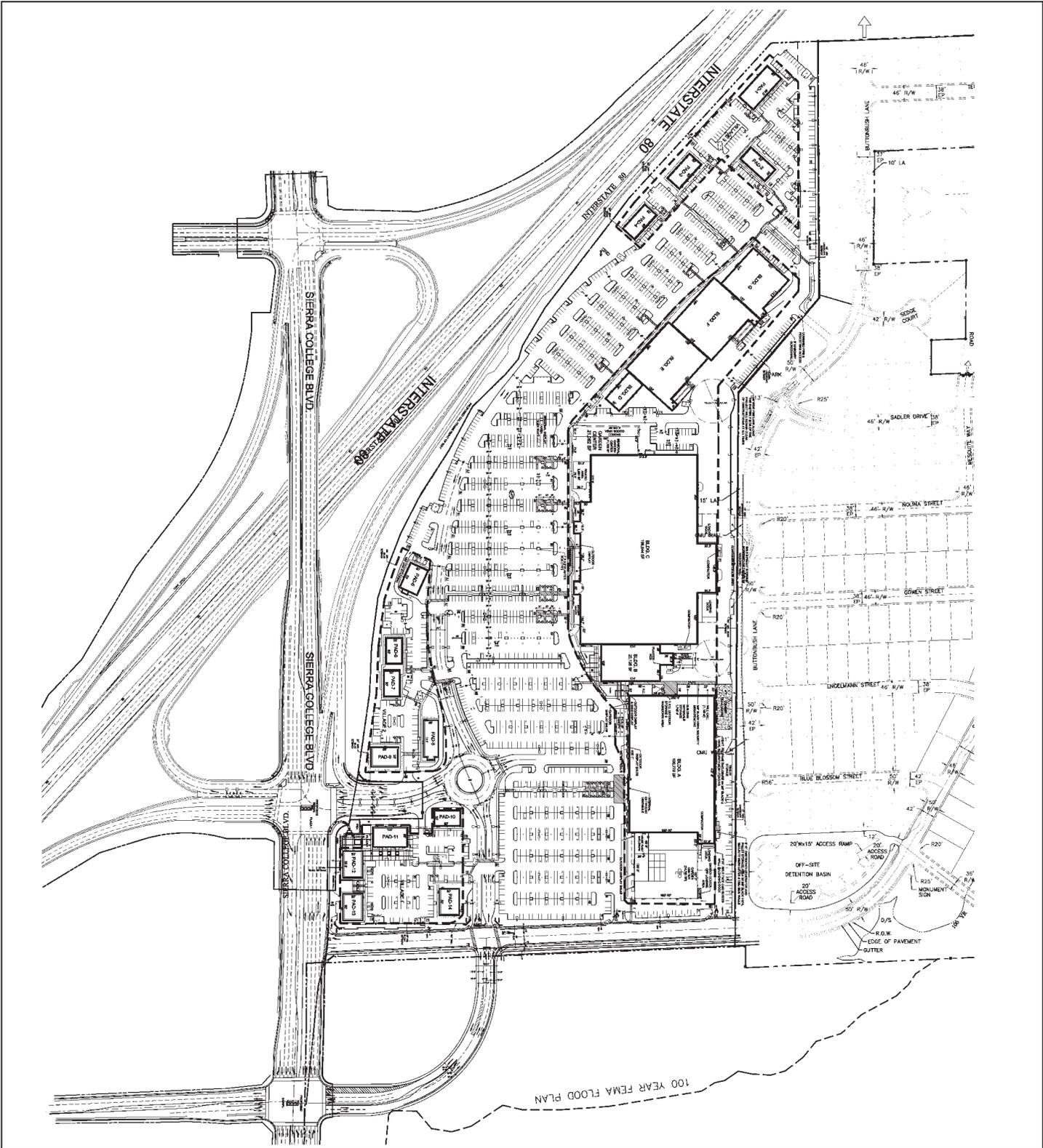
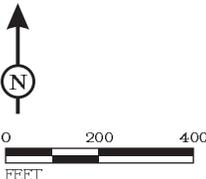


FIGURE 2

LSA



SOURCE: RSC Engineering

Rocklin Crossings
Site Plan

Three project access locations to Rocklin Crossings will be provided from Sierra College Boulevard. The northernmost project access would form the east leg of the planned I-80 eastbound/Sierra College Boulevard ramp. The middle access will provide right turns into and out of the project only. The southernmost access point will align with the future extension of Dominguez Road over I-80.

METHODOLOGY

The traffic impact analysis is based on intersection levels of service for the following scenarios:

- € Existing
- € Existing plus Project
- € Existing plus Approved Projects (Baseline)
- € Existing plus Approved Projects (Baseline) plus Project
- € Year 2025
- € Year 2025 plus Project

Intersection LOS Methodology. *Traffix* computer software was utilized to determine the levels of service (LOS) at signalized and unsignalized study area intersections based on the Circular 212 “Critical Movement Analysis” (CMA) planning methodology and HCM 2000 Methodology, respectively. This methodology is approved by the City and is consistent with the method used for previous traffic impact analyses prepared for projects in the City.

The CMA methodology compares the amount of traffic an intersection is able to process (capacity) to the level of traffic during peak hours (volume). The resulting volume-to-capacity ratio (v/c) is expressed in terms of LOS, where LOS A represents free-flow activity and LOS F represents overcapacity operation. The CMA methodology provides a planning level assessment of the traffic volume at an intersection and is used by many cities and agencies within California for the purposes of traffic impact analysis. Some of the cities and agencies besides Rocklin that utilize the Circular 212 CMA methodology include West Sacramento, Fairfield, Roseville, Union City, San Carlos, the Contra Costa Transportation Authority, and the City/County Associations of Governments of San Mateo County. In addition, a number of agencies throughout the state utilize the Intersection Capacity Utilization (ICU) methodology, which is similar to the Circular 212 CMA methodology but does not take into account the effects of signal phasing on the LOS. Utilization of a methodology that calculates v/c ratio has proven to be an accurate method of disclosing traffic impacts of development projects.

LOS is a qualitative assessment of the quantitative effects of such factors as traffic volume, roadway geometrics, and signal phasing on roadway and intersection operations. LOS criteria for signalized intersections are presented below.

LOS Description

- A No approach phase is fully utilized by traffic, and no vehicle waits longer than one red indication. Typically, the approach appears quite open, turns are made easily, and nearly all drivers find freedom of operation.
- B This service level represents stable operation, where an occasional approach phase is fully utilized, and a substantial number are nearing full use. Many drivers begin to feel restricted within platoons of vehicles.
- C This level still represents stable operating conditions. Occasionally, drivers may have to wait through more than one red signal indication, and backups may develop behind turning vehicles. Most drivers feel somewhat restricted but not objectionably so.
- D This level encompasses a zone of increasing restriction approaching instability at the intersection. Delays to approaching vehicles may be substantial during short peaks within the peak period; however, enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive backups.
- E Capacity occurs at the upper end of this service level. It represents the most vehicles that any particular intersection approach can accommodate. Full utilization of every signal cycle is attained, no matter how great the demand.
- F This level describes forced flow operations at low speeds, where volumes exceed capacity. These conditions usually result from queues of vehicles backing up from a restriction downstream. Speeds are reduced substantially, and stoppages may occur for short or long periods due to the congestion. In the extreme case, speed can drop to zero.

The relationship between LOS and the v/c ratio for signalized intersections is as follows:

Level of Service	Volume to Capacity (CMA Methodology)
A	≤ 0.600
B	0.610–0.700
C	0.710–0.800
D	0.810–0.900
E	0.910–1.000
F	> 1.000

Because the CMA methodology does not provide an accurate representation of the LOS of an unsignalized intersection, the 2000 Highway Capacity Manual (HCM) methodology has been used to determine intersection levels of service at unsignalized intersections. For the unsignalized HCM methodology, the LOS is presented in terms of total intersection delay (at four-way stop intersections) and approach delay of the major and minor streets (at two-way stop intersections) in seconds per vehicle. The relationship of delay and LOS at unsignalized intersections is summarized below.

Level of Service	Unsignalized Intersection Delay per Vehicle (sec)
A	≤10.0
B	>10.0 and ≤15.0
C	>15.0 and ≤25.0
D	>25.0 and ≤35.0
E	>35.0 and ≤50.0
F	>50.0

The HCM methodology has also been used to determine LOS at the Caltrans controlled signalized I-80/Sierra College Boulevard freeway ramp intersections with Sierra College Boulevard. The HCM method is used by Caltrans for intersections it controls. The HCM analysis at the interchange ramp intersections is provided for purposes of comparison to the LOS analysis presented in the Caltrans Environmental Document and supporting focused interchange Traffic Study conducted in January 2003.

Roadway Level of Service Methodology. Roadway segment analysis in the project area was also conducted as part of this traffic study. To identify the project's impact on the operating condition of a roadway segment, an LOS ranking scale was used. The LOS is based on average daily traffic (ADT) roadway segment threshold capacities as presented below.

LOS	Roadway Segment Capacities: Two-Way Average Daily Traffic Volumes						
	Two-Lane Collector	Four-Lane Undivided Arterial	Four-Lane Divided Arterial	Four-Lane Restricted Access Arterial	Six-Lane Divided Arterial	Six-Lane Restricted Access Arterial	Four-Lane Freeway
A	9,000	18,000	20,250	21,600	30,315	30,315	37,600
B	10,700	21,300	23,625	25,200	36,000	36,000	52,800
C	12,000	24,000	27,000	28,800	40,500	40,500	68,000
D	13,500	27,000	30,375	32,400	45,560	45,560	76,000
E	15,000	30,000	33,750	36,000	50,525	50,525	80,000

The LOS E capacity shown in the above table represents an approximation of the number of vehicles that the roadway can comfortably carry on a daily basis before it is considered to be at capacity. If the ADT on a roadway segment exceeds the LOS E capacity, then the daily LOS of the roadway is considered to be LOS F. It is important to note that an ADT capacity must assume several critical characteristics of traffic, including the percentage of daily traffic in the peak hour and the directional split within that peak hour. Actual characteristics of a specific roadway can significantly influence the daily capacity as described later. To calculate the daily LOS for each roadway segment, the ADT on each segment was divided by the capacity of the segment (the LOS E capacity as shown in the above table) to determine the daily v/c ratio for each roadway. The v/c ratio was compared to the values in the table below to determine the daily LOS for each roadway segment.

Level of Service	Volume to Capacity Ratio
A	≤ 0.600
B	0.610–0.700
C	0.710–0.800
D	0.810–0.900
E	0.910–1.000
F	> 1.000

The daily LOS, as described above, is a planning-level threshold that is generally used to determine the overall cross-sections of roadways within a circulation network. While it can provide an indication of whether the existing or forecast volume might result in unsatisfactory operation of the roadway, it does not provide an accurate representation of the actual operation of the roadway, especially during the peak hours of the day. For purposes of this project impact analysis, the daily capacity was first examined to determine whether the roadway might exceed its theoretical daily capacity. If the roadway volume exceeded the daily capacity (v/c greater than 1.00), then the peak-hour v/c ratio was calculated. If the peak-hour capacity is also exceeded, the roadway segment is considered to be operating at an unsatisfactory LOS. Although the roadway segment may seem to be operating with unsatisfactory LOS when the daily volume is examined, it is not considered unsatisfactory LOS if the peak-hour traffic volumes does not exceed the capacity. This is because traffic along a roadway segment will be greatest during the peak commute hours. As a result, if traffic operations are satisfactory during the peak hour, when traffic volumes are highest, then the segment will also operate at satisfactory LOS during the remaining off-peak hours of the day.

Level of Service Standard. According to the City general plan circulation element, the city considers LOS C as the upper limit of satisfactory operations except for intersections (both signalized and unsignalized) and roadway segments located within 0.5 mile from direct access to an interstate freeway, where LOS D is considered satisfactory. Mitigation is required for any intersection or roadway segment where project traffic causes the intersection to deteriorate from satisfactory to unsatisfactory operation. The City does not have an adopted criterion that defines significant impact at an existing deficient intersection or roadway segment; therefore, criteria were developed in coordination with the City to address this potential condition. If an intersection or roadway segment is already operating at unsatisfactory level of service, an increase of 5 percent (addition of 0.05) to the v/c ratio or a change in letter grade would constitute a significant project impact. An increase of 0.05 in the v/c ratio would be considered a measurable worsening of the intersection or roadway operations and therefore would constitute a significant project impact. A change in letter grade would be considered a perceivable worsening to a motorist and therefore would constitute a significant project impact. If an unsignalized intersection is already operating at unsatisfactory LOS C (LOS D within 0.5 mile of freeway access), then the addition of more than 5 percent of the total traffic at the intersection or a change in letter grade would be considered a significant project impact.

The Town of Loomis was contacted to determine the LOS standard and significance criteria for intersections and roadway segments within the Town of Loomis. LSA was directed by Town staff to apply the same LOS standard and significance criteria to Loomis intersections and roadway segments as applied in the City of Rocklin.

Study Area. The study area was developed in consultation with the City and based on input received in response to the Notice of Preparation for the project. Arterial street intersections that were most likely to be impacted by travel to and from the project were included in the study area. Existing travel patterns in the project area that the project could impact were considered, including intersections located north of the study area within the Town of Loomis. Three intersections were added to the study area to ensure that the greatest area of potential impact was included in the study. In addition, segments of I-80 and SR-65 were added to the study area at the request of Caltrans. The freeway segment analysis is included in the “Special Issues” section of this report.

Of the 21 study area intersections, 12 are located within 0.5 mile from direct access to an interstate freeway while the remaining 9 intersections are outside of the 0.5-mile criterion. Levels of service will be analyzed at the following study area intersections for the a.m., p.m., and Saturday peak hours for each development scenario. Intersections within 0.5 mile from a freeway access location (where the LOS D standard would apply) are noted with an asterisk (*). The jurisdiction of intersections located outside of the City of Rocklin are indicated in parentheses after the intersection name.

1. Pacific Street/Rocklin Road
2. Granite Drive/Rocklin Road*
3. I-80 westbound ramp/Rocklin Road*
4. I-80 eastbound ramp/Rocklin Road*
5. Dominguez Road (Del Mar Avenue)/Pacific Street
6. Granite Drive/Dominguez Road
7. Sierra College Boulevard/Taylor Road* (Loomis)
8. Sierra College Boulevard/Brace Road* (Loomis)
9. Sierra College Boulevard/Granite Drive*
10. Sierra College Boulevard/I-80 Westbound Ramp*
11. Sierra College Boulevard/I-80 Eastbound Ramp*
12. Sierra College Boulevard/Dominguez Road* (Future Intersection)
13. Sierra College Boulevard/Rocklin Road
14. Horseshoe Bar Road/Taylor Road* (Loomis)
15. Horseshoe Bar Road/I-80 Westbound Ramp* (Loomis)
16. Horseshoe Bar Road/I-80 Eastbound Ramp* (Loomis)
17. Barton Road/Brace Road (Loomis)
18. Barton Road/Rocklin Road (Loomis)
19. Sierra College Boulevard/King Road (Loomis)
20. Sierra College Boulevard/English Colony Way (Placer County)
21. Taylor Road/King Road (Loomis)

The following roadway segments were included in the study area. Roadway segments located within 0.5 mile of direct access to an interstate freeway, where LOS D is considered satisfactory, are noted with an asterisk (*).

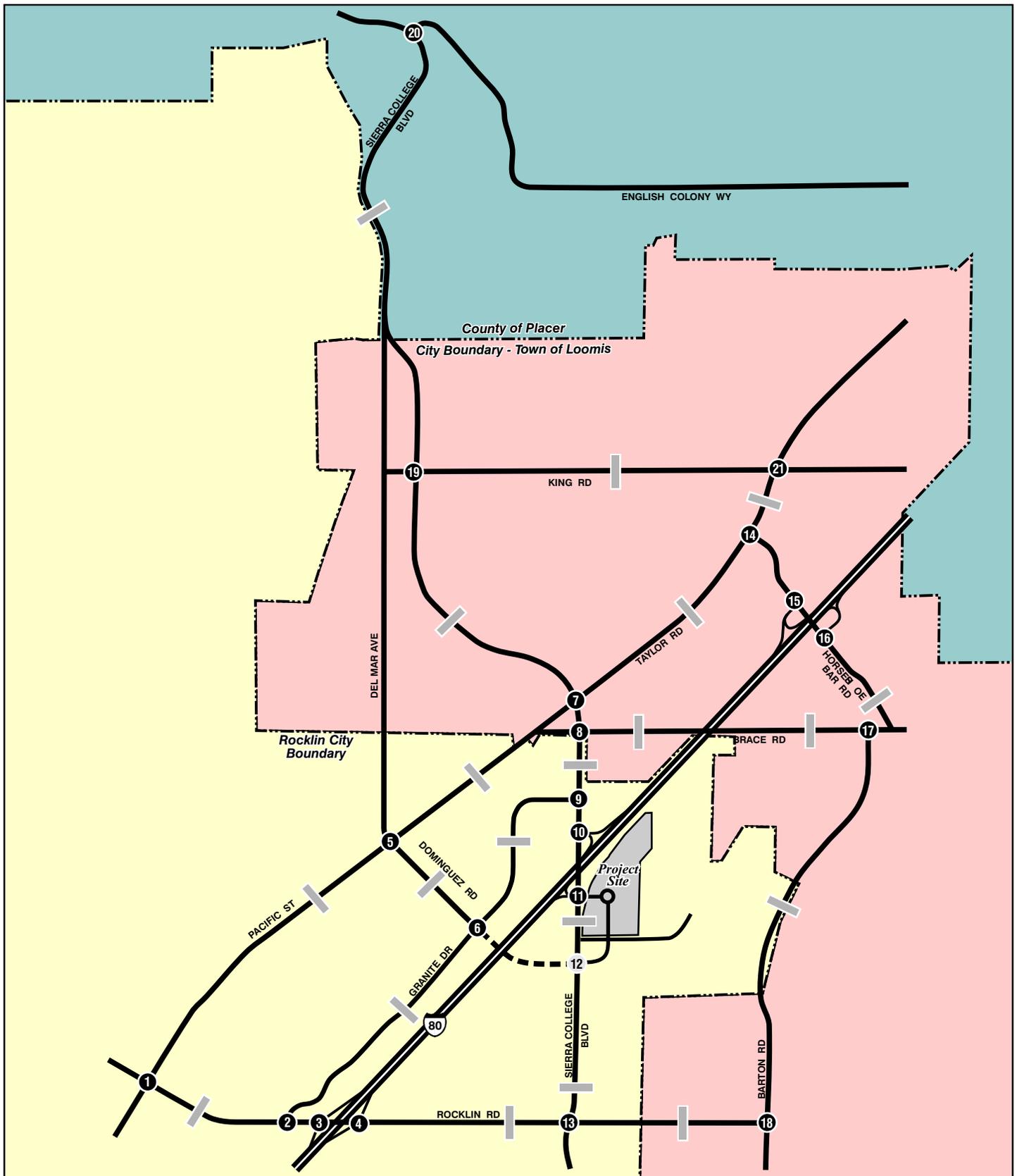
- € Taylor Road between King Road and Horseshoe Bar Road (Loomis)
- € Taylor Road between Horseshoe Bar Road and Sierra College Boulevard (Loomis)
- € Pacific Street between Sierra College Boulevard and Dominguez Road
- € Pacific Street between Dominguez Road and Rocklin Road
- € Rocklin Road between Pacific Street and Granite Drive *
- € Rocklin Road between I-80 and Sierra College Boulevard *
- € Rocklin Road between Sierra College Boulevard and Barton Road (Loomis)
- € Barton Road between Rocklin Road and Brace Road (Loomis)
- € Horseshoe Bar Road between I-80 and Brace Road * (Loomis)
- € Brace Road between I-80 and Barton Road (Loomis)
- € Brace Road between I-80 and Sierra College Boulevard (Loomis)
- € Sierra College Boulevard between English Colony Way and King Road (Placer County)
- € Sierra College Boulevard between King Road and Taylor Road (Loomis)
- € Sierra College Boulevard between Taylor Road and I-80 *
- € Sierra College Boulevard between I-80 and Dominguez Road *
- € Sierra College Boulevard between Dominguez Road and Rocklin Road
- € Granite Drive between Dominguez Road and Sierra College Boulevard
- € Granite Drive between Dominguez Road and Rocklin Road
- € Dominguez Road between Taylor Road and Granite Drive
- € King Road between Sierra College Boulevard and Taylor Road (Loomis)

Further analysis for a roadway segment forecast to operate beyond the LOS C or D threshold of the daily capacities includes an analysis of the a.m. and p.m. peak-hour directional volumes. The a.m. and p.m. peak-hour v/c ratios were evaluated based on per-lane capacity of 1,650 vehicles per hour. The location of the study intersections and study roadway segments is illustrated in Figure 3.

EXISTING CONDITIONS

Roadway Network

The existing intersection geometrics and traffic control at study area intersections are illustrated in Figure 4. The roadways that will provide access to the project are described below:



LSA



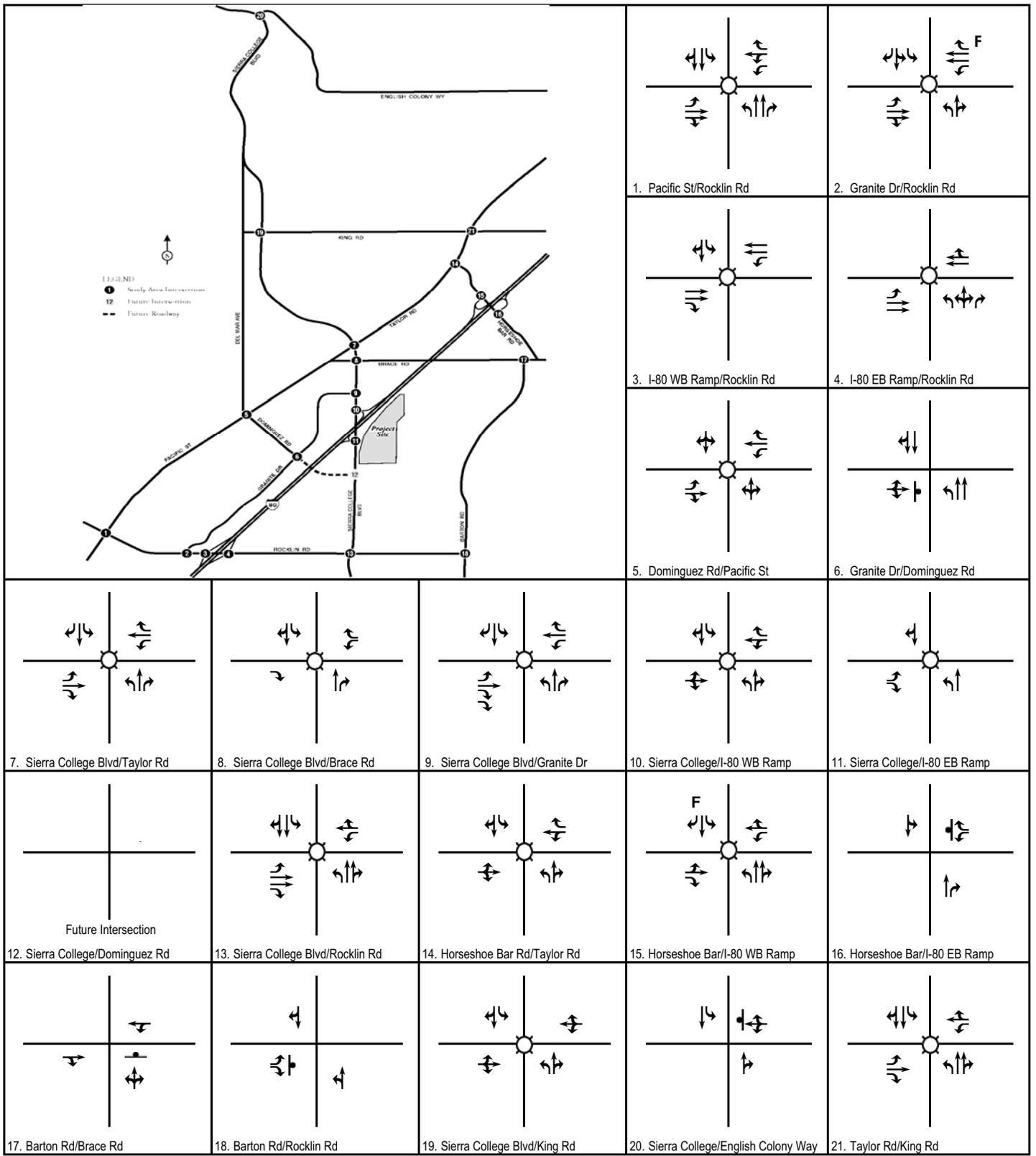
LEGEND

- ① - Study Area Intersection
- ⑫ - Future Intersection
- - Study Area Roadway Segment
- - - - Future Roadway

FIGURE 3

SCHEMATIC - NOT TO SCALE

Rocklin Crossings
Study Intersections and Roadway Segments



LSA

- Legend
- Signal
 - Stop Sign
 - F Free Right Turn

FIGURE 4

Rocklin Crossings
Existing Geometrics and Traffic Control

- € **Interstate 80 (I-80).** I-80 is an interstate highway providing inter-regional access in the vicinity of the project. Throughout the study area, I-80 generally travels in a southwest to northeast direction. Interchanges along I-80 near the project site are provided at Rocklin Road, Sierra College Boulevard, and Horseshoe Bar Road. Direct access to the project site will be provided from the I-80 eastbound ramps at Sierra College Boulevard.
- € **State Route 65 (SR-65).** SR-65 provides regional access in the vicinity of the project. SR-65 runs generally northwest from I-80 and joins SR-70 near the town of Marysville. Near the I-80 connector, SR-65 is a four-lane expressway with interchanges at N. Harding Boulevard/Stanford Ranch Road, Pleasant Grove Boulevard, Blue Oaks Boulevard, and Washington Boulevard.
- € **Pacific Street.** Pacific Street is a two-lane roadway located east of Granite Drive, a four-lane roadway from Rocklin Road to Sierra Meadows Drive, and a two-lane roadway north of Sierra Meadows Drive. Pacific Street is classified as an Arterial in the City General Plan Circulation Element and is classified as a Truck Route by the City. This roadway provides travel throughout the entire City limits. Pacific Street becomes Taylor Road east of Sierra College Drive.
- € **Granite Drive.** Granite Drive is a four-lane southwest-northeast roadway located west of I-80. Granite Drive is classified as an Arterial in the City General Plan Circulation Element. Granite Drive runs from Rocklin Road in the south and terminates at Sierra College Boulevard just north of the project site. Granite Drive is classified as a Truck Route from Dominguez Road to Sierra College Boulevard.
- € **Sierra College Boulevard.** Sierra College Boulevard is a north-south roadway that forms the western boundary of the project site. This roadway is classified as an Arterial roadway with an ultimate six-lane cross-section in the City's General Plan Circulation Element. Sierra College Boulevard is designated as a Truck Route by the City. Within the study area, Sierra College Boulevard is a two-lane roadway north of Rocklin Road and a four-lane roadway immediately south of Rocklin Road.

Direct access to the project will be provided via three locations on Sierra College Boulevard.

- € **Rocklin Road.** Rocklin Road is an east-west roadway located south of the project site. West of Sierra College Boulevard, Rocklin Road is a four-lane roadway. Immediately east of Sierra College Boulevard, there are two eastbound and one westbound travel lanes. Farther east, Rocklin Road becomes a two-lane roadway and terminates at Barton Road.
- € **Dominguez Road.** Dominguez Road is classified as a Collector roadway on the City's General Plan. North of Pacific Street, Dominguez Road becomes Del Mar Avenue. Dominguez Road/Del Mar Avenue is currently a two-lane undivided roadway. Currently, Dominguez Road terminates at Granite Drive, west of I-80. Dominguez Drive is planned to be extended across I-80 and will become the west leg of the southern project driveway. The Dominguez Road extension is included in the City's Traffic Impact Fee and Capital Improvement Program.
- € **Brace Road.** Brace Road is a two-lane east-west roadway located north of the project site. This roadway is located within the City of Loomis.
- € **Horseshoe Bar Road.** This roadway is located within the City of Loomis and provides access to I-80. Horseshoe Bar Road is a two-lane roadway running in a northwest-southeast direction and is located north of the project site.

Existing Traffic Volumes

Existing traffic counts at the 21 study intersections were collected in October 2006 (a.m. and p.m. peak hours) and September 2006 (Saturday peak hour). The traffic counts are provided in Appendix A. These counts were taken during a nonholiday period when schools were in session and therefore include the traffic generated by Sierra College and all schools within the study area. The existing a.m. and p.m. peak-hour and Saturday peak-hour traffic volumes are illustrated in Figures 5 and 6.

Existing Levels of Service

Levels of service at study area intersections and roadway segments were calculated for the existing conditions and are summarized in Tables A and B. The existing LOS worksheets are provided in Appendix B.

As shown in Table A, the following two intersections are operating at an unsatisfactory LOS in the existing condition.

- € Sierra College Boulevard/I-80 eastbound ramp
- € Taylor Road/Horseshoe Bar Road

As shown in Table B, all but two roadway segments currently operate with satisfactory LOS, per City guidelines. The following roadway segments are currently operating at unsatisfactory LOS:

- € Taylor Road between King Road and Horseshoe Bar Road
- € Sierra College Boulevard between Taylor Road and I-80

PROJECT TRIP GENERATION AND DISTRIBUTION

The proposed project is a regional shopping center with approximately 543,500 sf of retail/commercial use, including two major tenants (presently expected to be a Wal-Mart Supercenter and The Home Depot). An estimation of the number of vehicle trips was generated for the site using the trip rates from the Institute of Transportation Engineers (ITE) *Trip Generation*, 7th Edition, and the article, "Trip Generation Characteristics of Free-Standing Discount Superstores," *ITE Journal*, August 2006. The project trip generation is shown in Table C. As indicated in the table, the project is forecast to generate 18,788 daily trips, 617 a.m. peak-hour trips, 1,914 p.m. peak-hour trips, and 2,280 Saturday peak-hour trips.

As explained above, although *Trip Generation*, 7th Edition, is the industry-recognized source of trip generation information, this study departs from the approach employed in the ITE manual in one respect because of a study conducted of trips generated by superstores, the results of which were published in the August 2006 ITE Journal. This article proposes a higher trip generation rate for superstores than the one used in the ITE manual. Due to existence of an ongoing debate in some quarters about trip generation rates associated with Wal-Mart Supercenters, LSA employed a conservative approach that assumes the higher trip generation rate in the ITE Journal article. LSA took this approach, even though there are good reasons to question the high trip generation rate posited by the ITE Journal article.

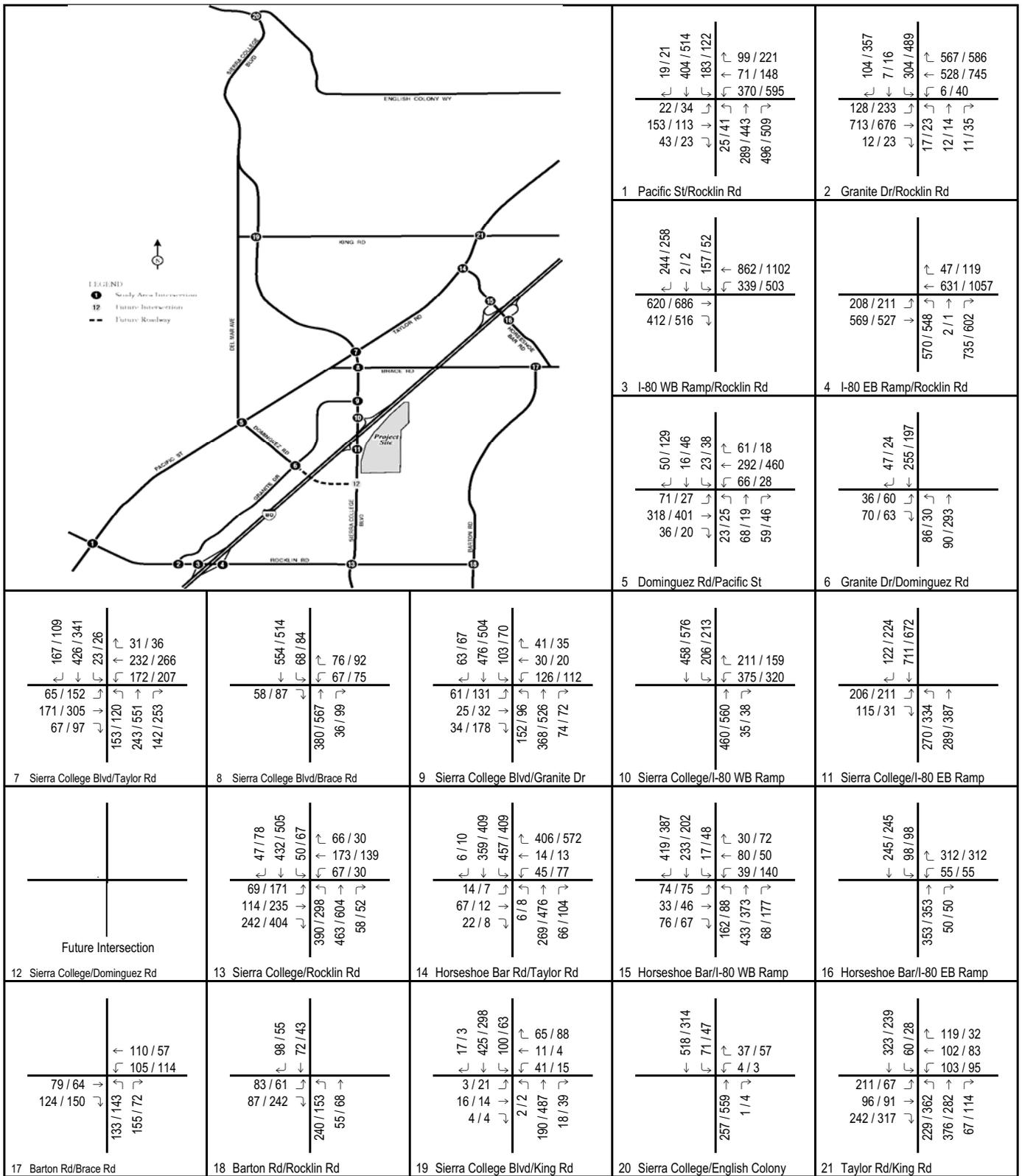


FIGURE 5

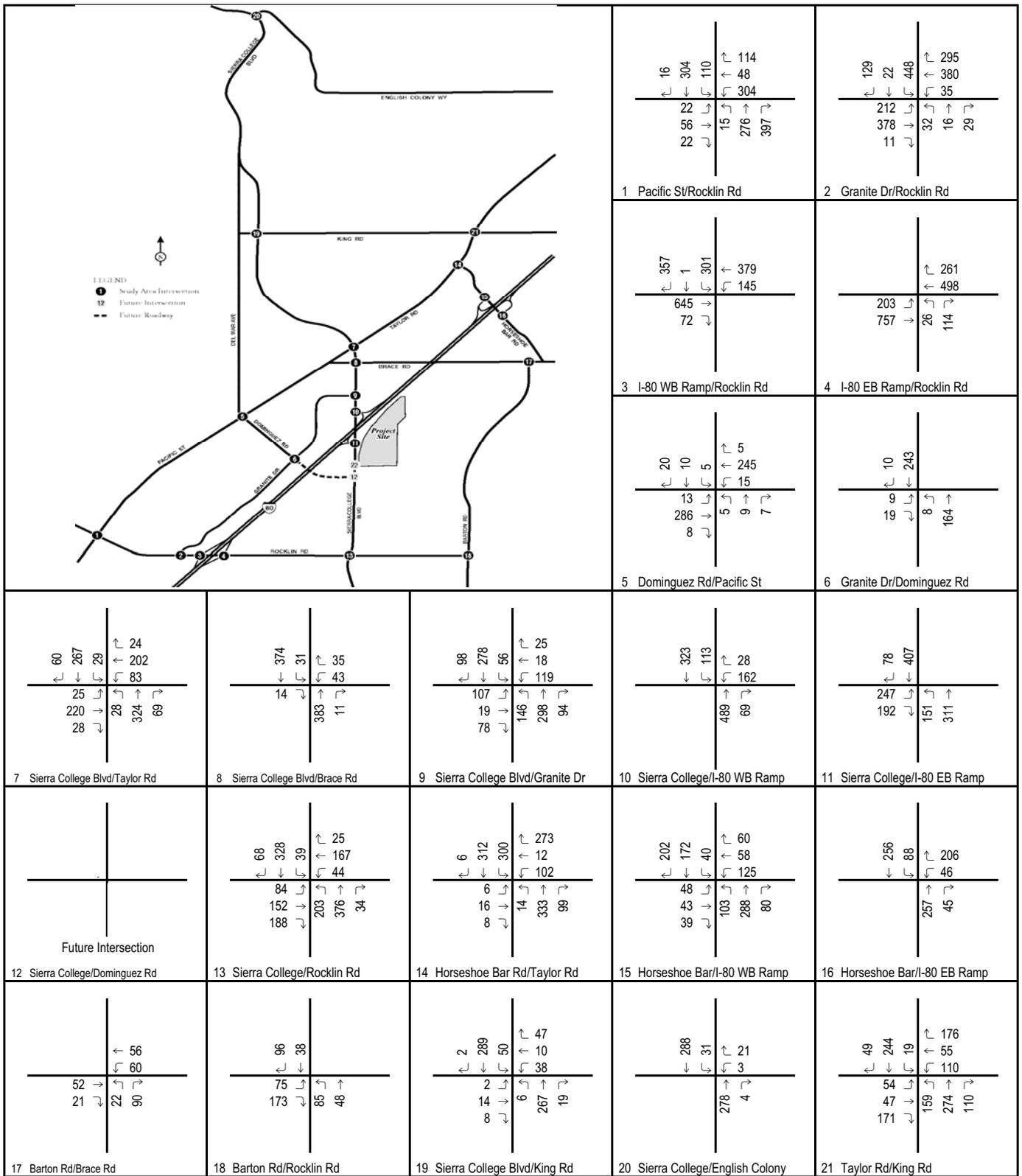


FIGURE 6

Rocklin Crossings
Existing Saturday Peak Hour Traffic Volumes

Table A: Existing Peak Hour Intersection Level of Service Summary

Intersection	Existing Condition								
	AM Peak Hour			PM Peak Hour			Saturday		
	V/C Ratio / Delay	LOS	LOS	V/C Ratio / Delay	LOS	V/C Ratio / Delay	LOS	V/C Ratio / Delay	LOS
1 Rocklin Road/Pacific Street ¹	0.734	C	C	0.709	C	C	0.453	A	A
2 Rocklin Road/Granite Drive	0.389	A	A	0.637	B	B	0.452	A	A
3 Rocklin Road/I-80 Westbound Ramps	0.663	B	B	0.834	D	D	0.534	A	A
4 Rocklin Road/I-80 Eastbound Ramps	0.716	C	C	0.757	C	C	0.433	A	A
5 Dominguez Road/Pacific Street ¹	0.391	A	A	0.454	A	A	0.230	A	A
6 Dominguez Road/Granite Drive ¹	11.7 sec	B	B	11.9 sec	B	B	9.9 sec	A	A
7 Sierra College Boulevard/Taylor Road (Loomis)	0.614	B	B	0.728	C	C	0.423	A	A
8 Sierra College Boulevard/Brace Road (Loomis)	0.440	A	A	0.522	A	A	0.295	A	A
9 Sierra College Boulevard/Granite Drive	0.521	A	A	0.534	A	A	0.384	A	A
10 Sierra College Boulevard/I-80 Westbound Ramps	0.740	C	C	0.747	C	C	0.575	A	A
11 Sierra College Boulevard/I-80 Eastbound Ramps	0.892	D	D	0.970	E	E	0.639	B	B
12 Sierra College Boulevard/Dominguez Road	-	-	-	-	-	-	-	-	-
13 Sierra College Boulevard/Rocklin Road ¹	0.591	A	A	0.660	B	B	0.443	A	A
14 Taylor Road/Horseshoe Bar Road (Loomis)	0.837	D	D	0.998	E	E	0.626	B	B
15 Horseshoe Bar Road/I-80 Westbound Ramps (Loomis)	0.392	A	A	0.369	A	A	0.310	A	A
16 Horseshoe Bar Road/I-80 Eastbound Ramps (Loomis)	16.4 sec	C	C	16.0 sec	C	C	12.1 sec	B	B
17 Barton Road/Brace Road ¹ (Loomis)	16.1 sec	C	C	15.0 sec	C	C	9.5 sec	A	A
18 Barton Road/Rocklin Road ¹ (Loomis)	15.6 sec	C	C	10.9 sec	B	B	10.2 sec	B	B
19 Sierra College Boulevard/King Road ¹ (Loomis)	0.390	A	A	0.465	A	A	0.301	A	A
20 Sierra College Boulevard/English Colony Way ¹ (Placer County)	10.9 sec	B	B	13.4 sec	B	B	10.5 sec	B	B
21 Taylor Road/King Road ¹ (Loomis)	0.600	A	A	0.602	B	B	0.407	A	A

Notes:

¹ ICU V/C ratio is used for signalized intersections. HCM delay in seconds is used for unsignalized intersections.

¹ LOS C required for these intersections. LOS D acceptable for all other intersections.

☐ Exceeds level of service criteria

Table B: Existing Daily Roadway Segment Level of Service Summary

Roadway	Segment	Configuration	Capacity	Weekday			Saturday		
				Volume	V/C	LOS	Volume	V/C	LOS
Taylor Road	King Road and Horseshoe Bar Road ¹ (Loomis)	Two-lane Collector	15,000	17,060	1.14	F	11,370	0.76	C
	Horseshoe Bar Road and Sierra College Boulevard ¹ (Loomis)	Two-lane Collector	15,000	10,673	0.71	B	3,500	0.23	A
Pacific Street	Sierra College Boulevard and Dominguez Road ¹	Two-lane Collector	15,000	11,578	0.77	C	5,880	0.39	A
	Dominguez Road and Rocklin Road ¹	Four-lane Undivided Arterial	30,000	15,889	0.53	A	6,820	0.23	A
Rocklin Road	Pacific Street and Granite Drive	Four-lane Undivided Arterial	30,000	21,211	0.71	B	11,040	0.37	A
	I-80 and Sierra College Boulevard	Four-lane Undivided Arterial	30,000	9,989	0.33	A	13,090	0.44	A
	Sierra College Boulevard and Barton Road ¹ (Loomis)	Two-lane Collector	15,000	5,176	0.35	A	4,060	0.27	A
Barton Road	Rocklin Road and Brace Road ¹ (Loomis)	Two-lane Collector	15,000	3,354	0.22	A	2,040	0.14	A
Horseshoe Bar Road	I-80 and Brace Road (Loomis)	Two-lane Collector	15,000	6,101	0.41	A	6,460	0.43	A
Brace Road	I-80 and Barton Road ¹ (Loomis)	Two-lane Collector	15,000	4,006	0.27	A	1,940	0.13	A
	I-80 and Sierra College Boulevard ¹ (Loomis)	Two-lane Collector	15,000	3,408	0.23	A	560	0.04	A
Sierra College Boulevard	English Colony Way and King Road ¹ (Placer County)	Two-lane Collector	15,000	9,600	0.64	B	6,570	0.44	A
	King Road and Taylor Road ¹ (Loomis)	Two-lane Collector	15,000	10,560	0.70	B	7,080	0.47	A
	Taylor Road and I-80	Two-lane Collector	15,000	17,566	1.17	F	8,610	0.57	A
	I-80 and Dominguez Road	Two-lane Collector	15,000	13,275	0.88	D	10,400	0.69	B
	Dominguez Road and Rocklin Road ¹	Two-lane Collector	15,000	13,275	0.88	D	10,840	0.72	C
Granite Drive	Dominguez Road and Sierra College Boulevard ¹	Four-lane Undivided Arterial	30,000	6,178	0.21	A	4,350	0.15	A
	Dominguez Road and Rocklin Road ¹	Four-lane Undivided Arterial	30,000	8,258	0.28	A	7,850	0.26	A
Dominguez Road	Taylor Road and Granite Drive ¹	Two-lane Collector	15,000	2,382	0.16	A	510	0.03	A
King Road	Sierra College Boulevard and Taylor Road ¹ (Loomis)	Two-lane Collector	15,000	5,610	0.37	A	3,460	0.23	A

Notes:

¹ LOS C required for these segments. LOS D acceptable for all other segments.

☐ Exceeds level of service criteria

Table C: Rocklin Crossings Trip Generation

Land Use	Size	Units	ADT	A.M. Peak Hour			P.M. Peak Hour			Saturday				
				In	Out	Total	In	Out	Total	In	Out	Total		
Discount Superstore	231,353	TSF												
Trip Rate ¹			49.21	0.94	0.90	1.84	2.75	2.75	5.50	2.56	2.45	5.01		
Trip Generation			11,385	217	209	426	636	636	1,272	591	568	1,159		
Home Improvement Store ²	141,038	TSF												
Trip Rate ³			29.80	0.65	0.55	1.20	1.15	1.30	2.45	2.86	2.54	5.40		
Trip Generation			3,065	67	57	123	118	134	252	294	261	555		
Shopping Center	171,109	TSF												
Trip Rate ^{4,5}			37.55	0.49	0.31	0.80	1.69	1.83	3.52	2.49	2.30	4.79		
Trip Generation			6,425	83	53	136	289	313	602	426	393	819		
Total Site Gross Trips			20,875	367	318	685	1,044	1,083	2,127	1,311	1,222	2,533		
Total Site Pass-by Trips ⁶	10.0%		-2088	-37	-32	-69	-104	-108	-213	-131	-122	-253		
Total Site Trip Generation	543,500	TSF	18,788	330	287	617	939	975	1,914	1,180	1,100	2,280		

Note: volumes shown rounded to nearest integer

- ¹ Trip generation based on rates documented in *Trip Generation Characteristics of Free-Standing Discount Superstores*, ITE Journal, August 2006.
- ² Trip generation of Home Improvement Store does not include garden center (34,760 sq. ft) and vestibules (3,411 sq. ft) per description of land use in ITE Trip Generation (7th Edition).
- ³ Trip generation based on rates for Land Use 862 - Home Improvement Superstore from *ITE Trip Generation (7th Edition)*
- ⁴ Average rate derived from total site generation (543.5 TSF) using fitted curve equations for Land Use 820 - Shopping Center from *ITE Trip Generation (7th Edition)*
- ⁵ ADT: $\text{Ln}(T) = 0.65 \text{Ln}(X) + 5.83$; AM: $\text{Ln}(T) = 0.60 \text{Ln}(X) + 2.29$; PM: $\text{Ln}(T) = 0.66 \text{Ln}(X) + 3.40$; Saturday: $\text{Ln}(T) = 0.63 \text{Ln}(T) + 6.23$
- ⁶ Pass-by trip percentages from *ITE Trip Generation Handbook*, 2004 vary between 28% and 48% for various land uses. However, a 10% estimate has been used as a conservative average pass-by trip reduction rate for the entire retail center.

TSF = Thousand square feet

Specifically, the ITE Journal article focused on a small sample of five Wal-Mart Supercenters in Texas and Oklahoma, and found that p.m. trip generation for the five stores ranges from 4.16 to 6.67, with an average of 5.5 trips per 1,000 square feet (compared to the *Trip Generation* p.m. peak-hour trip generation rate of 3.87 per thousand square feet). There are at least three reasons why this result may not be immediately applicable to the proposed project. First, the sample stores are located in Texas and Oklahoma and do not necessarily reflect conditions in Northern California. Demographics, proximity to the stores, and other factors assumed in the ITE Journal Study have not been demonstrated to be the same as in Northern California. In contrast, information contained in *Trip Generation*, 7th edition, is comprised of a blend of locations throughout the U.S., including California. Second, the survey data are incomplete and did not include information regarding a.m. peak or daily trip characteristics. Third, the average rate of the sample stores has not been officially accepted by ITE as the rate that should be applied to discount supercenters from now on; and given the small sample size used for the ITE Journal article, the rate recommended in the article may not be widely accepted as reliable until additional survey information becomes available. If the five-store Texas/Oklahoma data were officially accepted and incorporated into the existing ITE manual data for Free Standing Discount Superstore, the data would be added to the existing data points from the previous field studies, with a new average derived from the augmented data set. The resulting average might well yield a trip generation rate considerably lower than the article found to occur in Texas and Oklahoma.

It should be noted that the trip rates contained in *Trip Generation*, 7th Edition, for Home Improvement Store include the vehicle trips generated by an adjacent garden center. Calculation of trip generation involves taking the product of the trip generation rate (from ITE) and the square footage of the Home Improvement Store building only, not including the garden center. As noted in the description of the land use code for Home Improvement Store, the garden center should not be included in the building's overall gross floor area for the purpose of calculating the vehicle trip generation. The vehicle trip generation shown in Table C for the home improvement store is based on the floor area without the garden center. However, trips generated by the garden center are still included in the trip generation because they are inherent in the trip rate per thousand square feet.

For further clarification the ITE trip rate are calculated as follows:

- € All trips coming into and out of the Home Improvement Store are counted.
- € These trips are then divided by the building square footage (in thousand square feet) only, deducting the garden center.
- € The resultant trips per thousand square feet are the trip generation factors; while the factor is only applied to the building square footage, it does reflect the trips generated by the garden center.

Many of the trips generated by a retail shopping center such as the Rocklin Crossings project would be pass-by trips, or trips whose primary destination is not the shopping center. These would include trips such as a work-to-home trip that stops at a retail center on the way. These trips would not be new trips generated by the project; rather, they are trips that are already on the roadway network that would make a stopover at the proposed shopping center. ITE's *Trip Generation Handbook* (2004) provides estimates of pass-by trip percentages for various types of land uses. The *Trip Generation Handbook* estimates pass-by trips to vary between 28 percent and 48 percent for the land uses shown in Table C. Rather than apply the more aggressive trip reduction of 28 to 48 percent, a conservative

estimate of 10 percent average pass-by trip reduction rate was applied to the trips generated by the entire retail center.

Project trips were distributed throughout the study area using the City's traffic analysis model. The select zone model assignments for the proposed project were used to obtain the trip distribution. The regional trip distribution percentages from the traffic model and the resulting project trips at each intersection are illustrated in Figures 7 and 8. It should be noted that the distribution percentages shown in the figures are the generalized distribution for illustration only and do not reflect all project trips that may be destined within the study area. This interaction between land uses in the study area is reflected in the actual trip assignment volumes.

EXISTING PLUS PROJECT

Traffic volumes generated by the proposed project were added to the existing traffic volumes and LOS were calculated for the existing plus project scenario. Because construction of the project will follow construction of other previously approved projects in the study area, the existing plus project conditions are not the real-world physical condition that the project will affect. However, an existing plus project condition has nevertheless been analyzed for disclosure purposes. The existing plus project weekday and Saturday peak-hour traffic volumes are illustrated in Figures 9 and 10. The LOS for study area intersections and roadway segments in the existing plus project scenario is shown in Tables D and E. The existing plus project LOS worksheets are provided in Appendix C. The short-term geometrics and traffic control for project scenarios are illustrated in Figure 11.

As shown in Table D, the two intersections, Sierra College Boulevard/I-80 Eastbound Ramp and Taylor Road/Horseshoe Bar Road that operate at LOS E in the existing condition would operate at LOS A and LOS F respectively, with the addition of project traffic. The project would add more than 0.05 to the intersection of Sierra College Boulevard/I-80 Eastbound Ramp. However, as will be discussed later in this report, the City's Traffic Fee Program has a project to improve the I-80/Sierra College Boulevard interchange, which would mitigate this unsatisfactory LOS. The Rocklin Crossings project would be subject to the City's Traffic Fee and thus would contribute its fair share towards mitigating this impact. The intersection of Taylor Road/Horseshoe Bar Road is forecast to operate at LOS F ($v/c = 1.029$) in the existing plus project condition. The project would have a significant impact on the intersection of Taylor Road/Horseshoe Bar Road in the existing plus project condition.

As shown in Table E, most of the study area roadway segments are forecast to operate within their daily roadway capacities in the existing plus project condition except for the following four segments:

- € Taylor Road between King Road and Horseshoe Bar Road (Loomis)
- € Taylor Road between Sierra College Boulevard and Dominguez Road
- € Sierra College Boulevard between Taylor Road and I-80
- € Sierra College Boulevard between Dominguez Road and Rocklin Road

A directional peak-hour roadway segment analysis was prepared for these four segments and is shown in Table F. In both a.m. and p.m. peak hours, the four affected roadway segments will operate

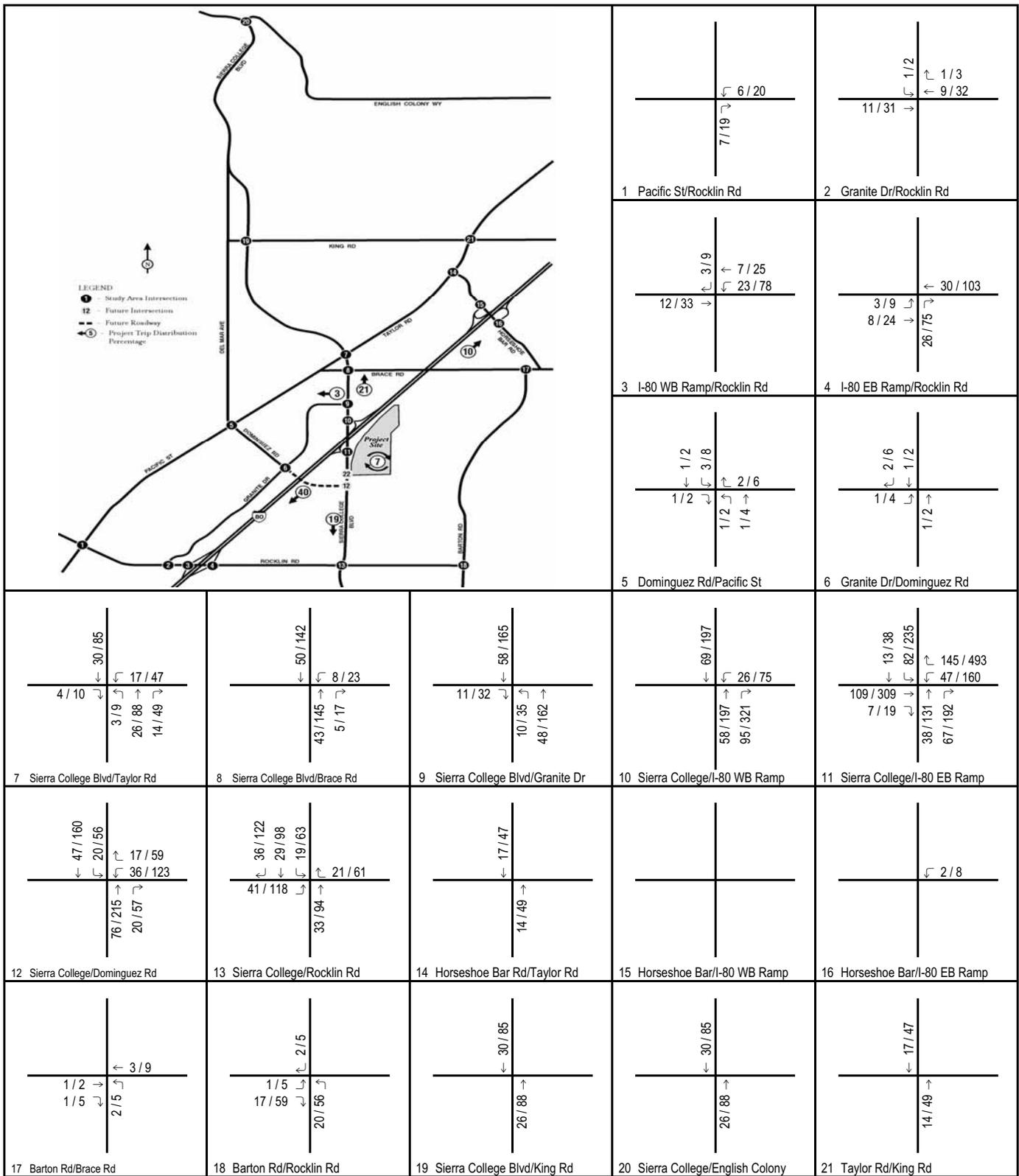


FIGURE 7

123 / 456 AM / PM Peak Hour Volume

Rocklin Crossings
Project Trip Distribution and Peak Hour Project Trips

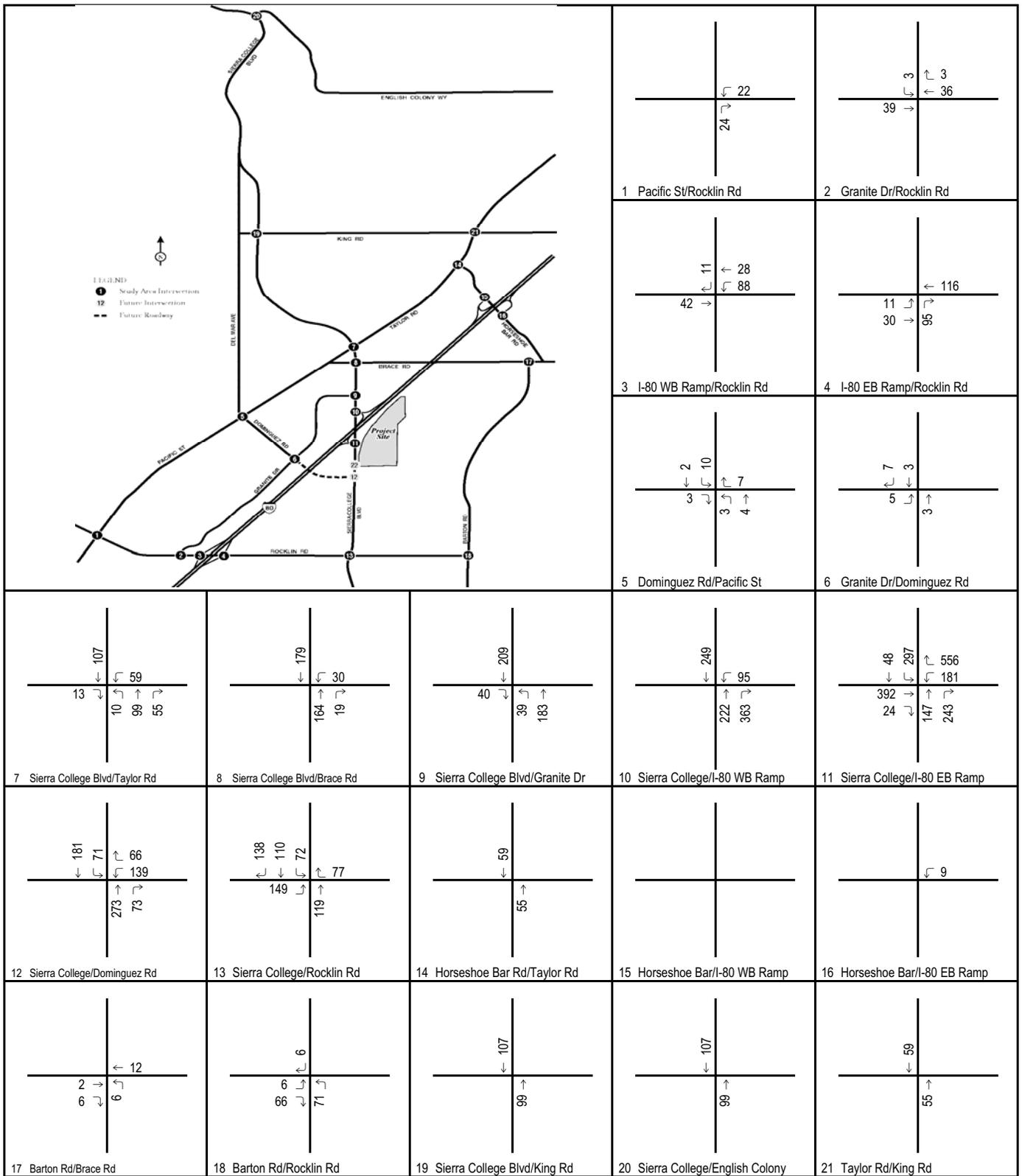


FIGURE 8

Rocklin Crossings
Saturday Peak Hour Project Trips

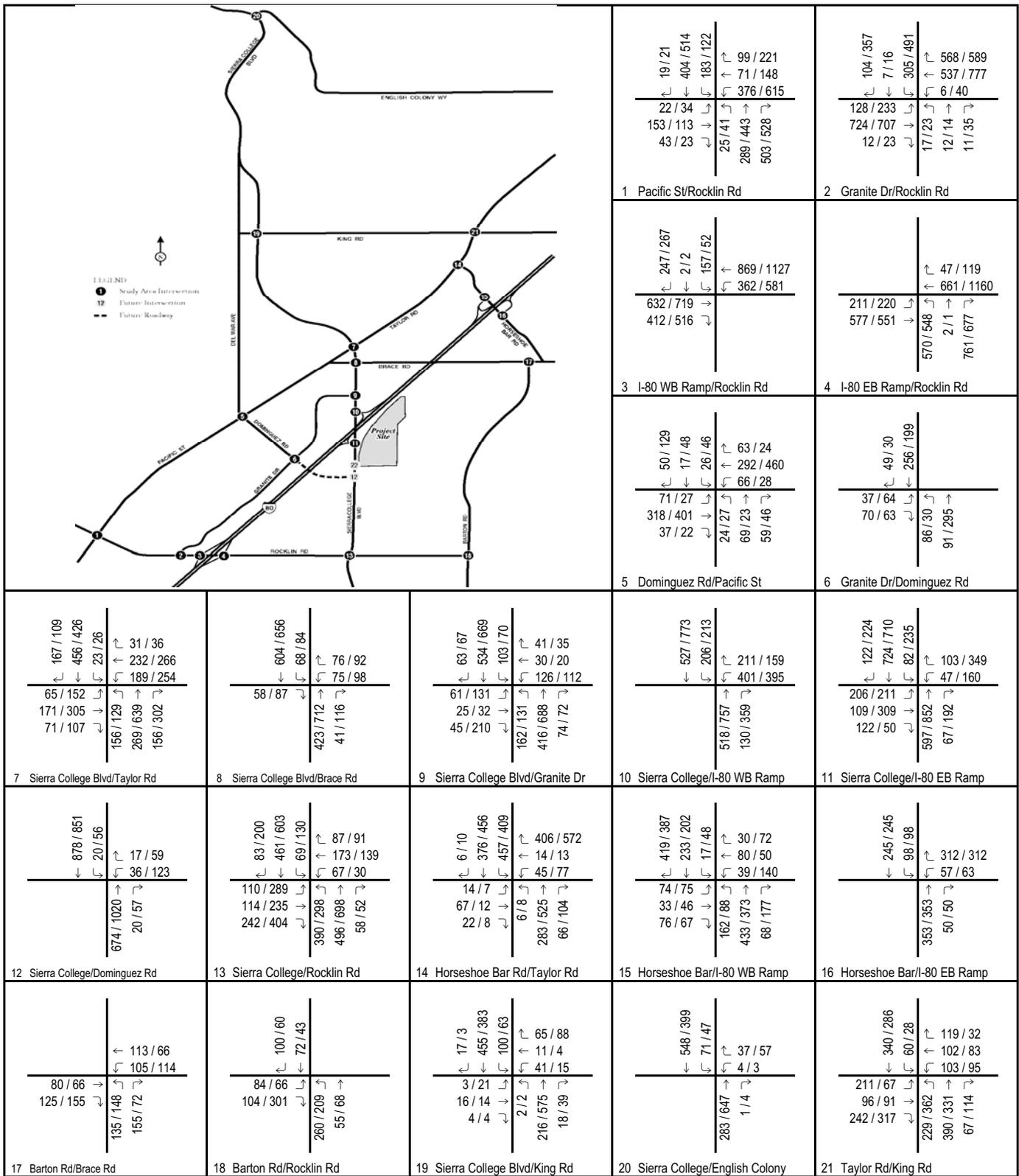


FIGURE 9

Table D: Existing Plus Project Peak Hour Intersection Level of Service Summary

Intersection	Existing Condition						Existing Plus Project Condition					
	AM Peak Hour		PM Peak Hour		Saturday		AM Peak Hour		PM Peak Hour		Saturday	
	V/C Ratio / Delay	LOS	V/C Ratio / Delay	LOS	V/C Ratio / Delay	LOS	V/C Ratio / Delay	LOS	V/C Ratio / Delay	LOS	V/C Ratio / Delay	LOS
1 Rocklin Road/Pacific Street ¹	0.734	C	0.709	C	0.453	A	0.741	C	0.728	C	0.475	A
2 Rocklin Road/Granite Drive	0.389	A	0.637	B	0.452	A	0.392	A	0.648	B	0.465	A
3 Rocklin Road/I-80 Westbound Ramps	0.663	B	0.834	D	0.534	A	0.680	B	0.891	D	0.614	B
4 Rocklin Road-I-80 Eastbound Ramps	0.716	C	0.757	C	0.433	A	0.729	C	0.815	D	0.504	A
5 Dominguez Road/Pacific Street ¹	0.391	A	0.454	A	0.230	A	0.395	A	0.462	A	0.242	A
6 Dominguez Road/Granite Drive ¹	11.7 sec	B	11.9 sec	B	9.9 sec	A	11.8 sec	B	12.1 sec	B	10.2 sec	B
7 Sierra College Boulevard/Taylor Road (Loomis)	0.614	B	0.728	C	0.423	A	0.647	B	0.818	D	0.525	A
8 Sierra College Boulevard/Brace Road (Loomis)	0.440	A	0.522	A	0.295	A	0.477	A	0.630	B	0.416	A
9 Sierra College Boulevard/Granite Drive	0.521	A	0.534	A	0.384	A	0.566	A	0.681	B	0.561	A
10 Sierra College Boulevard/I-80 Westbound Ramps	0.740	C	0.747	C	0.575	A	0.320	A	0.360	A	0.254	A
11 Sierra College Boulevard/I-80 Eastbound Ramps	0.892	D	0.970	E	0.639	B	0.402	A	0.574	A	0.736	C
12 Sierra College Boulevard/Dominguez Road	-	-	-	-	-	-	-	-	-	-	-	-
13 Sierra College Boulevard/Rocklin Road ¹	0.591	A	0.660	B	0.443	A	0.650	B	0.786	C	0.672	B
14 Taylor Road/Horseshoe Bar Road (Loomis)	0.837	D	0.998	E	0.626	B	0.846	D	1.029	F	0.660	B
15 Horseshoe Bar Road/I-80 Westbound Ramps (Loomis)	0.392	A	0.369	A	0.310	A	0.392	A	0.369	A	0.310	A
16 Horseshoe Bar Road/I-80 Eastbound Ramps (Loomis)	16.4 sec	C	16.0 sec	C	12.1 sec	B	16.4 sec	C	16.1 sec	C	12.3 sec	B
17 Barton Road/Brace Road ¹ (Loomis)	16.1 sec	C	15.0 sec	C	9.5 sec	A	16.4 sec	C	15.5 sec	C	9.7 sec	A
18 Barton Road/Rocklin Road ¹ (Loomis)	15.6 sec	C	10.9 sec	B	10.2 sec	B	16.3 sec	C	11.8 sec	B	11.1 sec	B
19 Sierra College Boulevard/King Road ¹ (Loomis)	0.390	A	0.465	A	0.301	A	0.410	A	0.521	A	0.366	A
20 Sierra College Boulevard/English Colony Way ¹ (Placer County)	10.9 sec	B	13.4 sec	B	10.5 sec	B	11.2 sec	B	14.8 sec	B	11.5 sec	B
21 Taylor Road/King Road ¹ (Loomis)	0.600	A	0.602	B	0.407	A	0.606	B	0.618	B	0.428	A

Notes:

¹ ICU V/C ratio is used for signalized intersections. HCM delay in seconds is used for unsignalized intersections.

¹ LOS C required for these intersections. LOS D acceptable for all other intersections.

☐ Exceeds level of service criteria

■ (Shade) = Significant Impact

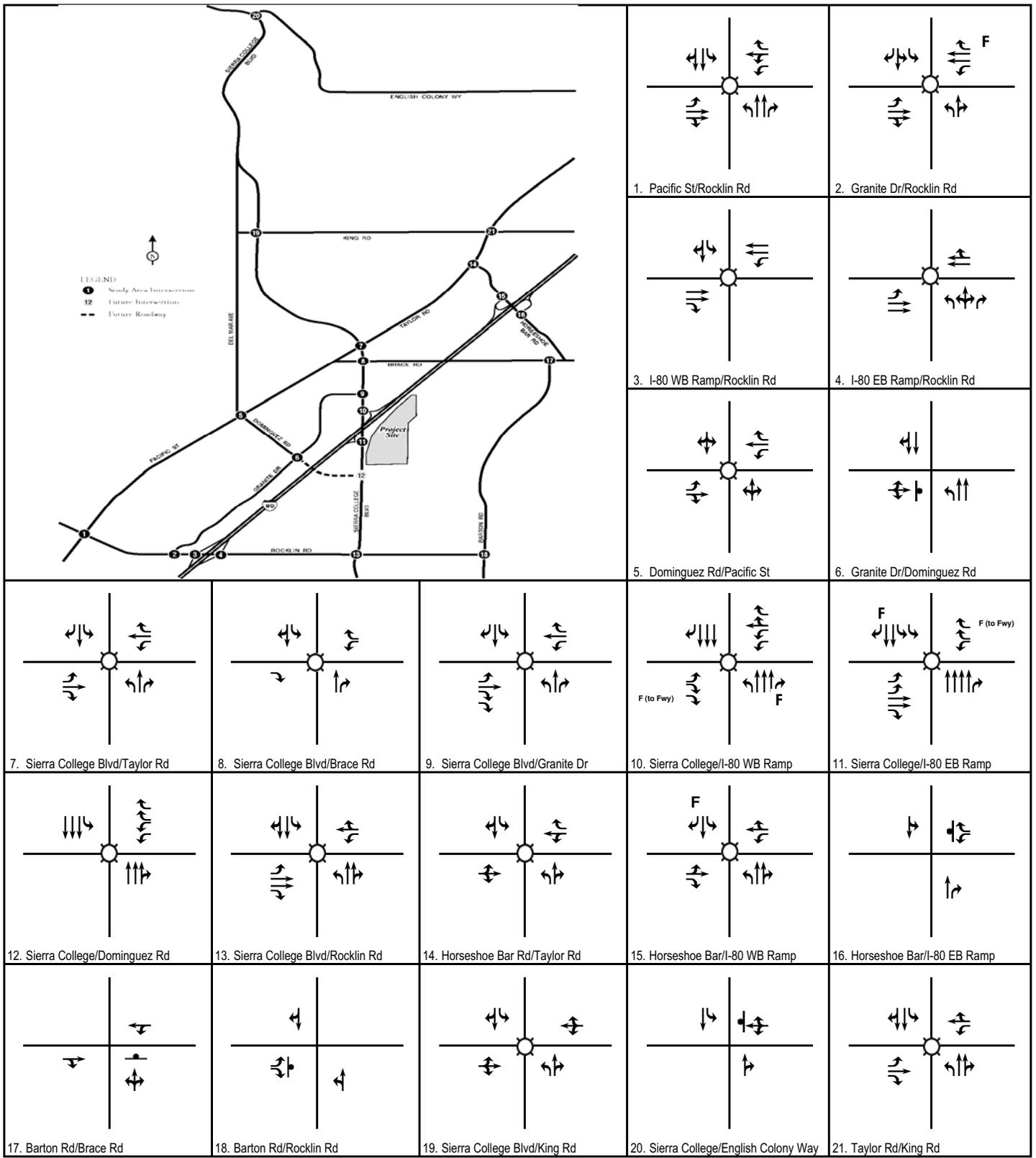
Table E: Existing Plus Project Daily Roadway Segment Level of Service Summary

Roadway	Segment	Configuration	Capacity	Weekday		Saturday			
				Volume	V/C	LOS	V/C	LOS	
Taylor Road	King Road and Horseshoe Bar Road ¹ (Loomis)	Two-lane Collector	15,000	18,020	1.20	F	12,510	0.83	D
Pacific Street	Horseshoe Bar Road and Sierra College Boulevard ¹ (Loomis)	Two-lane Collector	15,000	11,253	0.75	C	4,150	0.28	A
	Sierra College Boulevard and Dominguez Road ¹	Two-lane Collector	15,000	12,088	0.81	D	6,460	0.43	A
Rocklin Road	Dominguez Road and Rocklin Road ¹	Four-lane Undivided Arterial	30,000	16,169	0.54	A	7,140	0.24	A
	Pacific Street and Granite Drive	Four-lane Undivided Arterial	30,000	21,541	0.72	C	11,460	0.38	A
	I-80 and Sierra College Boulevard	Four-lane Undivided Arterial	30,000	11,649	0.39	A	14,970	0.50	A
Barton Road	Sierra College Boulevard and Barton Road ¹ (Loomis)	Two-lane Collector	15,000	6,396	0.43	A	5,440	0.36	A
	Rocklin Road and Brace Road ¹ (Loomis)	Two-lane Collector	15,000	3,944	0.26	A	2,700	0.18	A
Horseshoe Bar Road	I-80 and Brace Road (Loomis)	Two-lane Collector	15,000	6,151	0.41	A	6,520	0.43	A
Brace Road	I-80 and Barton Road ¹ (Loomis)	Two-lane Collector	15,000	4,116	0.27	A	2,080	0.14	A
	I-80 and Sierra College Boulevard ¹ (Loomis)	Two-lane Collector	15,000	3,408	0.23	A	560	0.04	A
Sierra College Boulevard	English Colony Way and King Road ¹ (Placer County)	Two-lane Collector	15,000	11,330	0.76	C	8,630	0.58	A
	King Road and Taylor Road ¹ (Loomis)	Two-lane Collector	15,000	12,860	0.86	D	9,860	0.66	B
	Taylor Road and I-80	Two-lane Collector	15,000	20,986	1.40	F	12,740	0.85	D
	I-80 and Dominguez Road	Four-lane Undivided Arterial	30,000	22,345	0.74	C	20,630	0.69	B
Granite Drive	Dominguez Road and Rocklin Road ¹	Two-lane Collector	15,000	16,995	1.13	F	15,330	1.02	F
	Dominguez Road and Sierra College Boulevard ¹	Four-lane Undivided Arterial	30,000	6,198	0.21	A	4,380	0.15	A
Dominguez Road	Dominguez Road and Rocklin Road ¹	Four-lane Undivided Arterial	30,000	8,318	0.28	A	7,930	0.26	A
	Taylor Road and Granite Drive ¹	Two-lane Collector	15,000	2,482	0.17	A	620	0.04	A
King Road	Sierra College Boulevard and Taylor Road ¹ (Loomis)	Two-lane Collector	15,000	5,610	0.37	A	3,460	0.23	A

Notes:

¹ LOS C required for these segments. LOS D acceptable for all other segments.

☐ Exceeds level of service criteria



LSA
 Legend
 ○ Signal
 ■ Stop Sign
 F Free Right Turn

FIGURE 11

Rocklin Crossings
 Short Term Geometrics and Traffic Control

Table F: Existing plus Project Peak Hour Roadway Segment Level of Service Summary

Roadway	Segment	Capacity	Existing			Existing + Project		
			Volume	V/C	LOS	Volume	V/C	LOS
Taylor Road	King Rd and Horseshoe Bar Rd (Loomis)							
	A.M. Peak Hour Northbound	1,650	426	0.26	A	443	0.27	A
	A.M. Peak Hour Southbound	1,650	706	0.43	A	720	0.44	A
	Total A.M. Peak Hour	3,300	1,132	0.34	A	1,163	0.35	A
	P.M. Peak Hour Northbound	1,650	494	0.30	A	541	0.33	A
	P.M. Peak Hour Southbound	1,650	588	0.36	A	637	0.39	A
	Total P.M. Peak Hour	3,300	1,082	0.33	A	1,178	0.36	A
	SAT Peak Hour Northbound	1,650	422	0.26	A	481	0.29	A
	SAT Peak Hour Southbound	1,650	504	0.31	A	559	0.34	A
	Total SAT Peak Hour	3,300	926	0.28	A	1,040	0.32	A
Pacific Street	Sierra College Blvd and Dominguez Rd							
	A.M. Peak Hour Northbound	1,650	435	0.26	A	452	0.27	A
	A.M. Peak Hour Southbound	1,650	425	0.26	A	426	0.26	A
	Total A.M. Peak Hour	3,300	860	0.26	A	878	0.27	A
	P.M. Peak Hour Northbound	1,650	614	0.37	A	616	0.37	A
	P.M. Peak Hour Southbound	1,650	584	0.35	A	633	0.38	A
	Total P.M. Peak Hour	3,300	1,198	0.36	A	1,249	0.38	A
	SAT Peak Hour Northbound	1,650	309	0.19	A	368	0.22	A
	SAT Peak Hour Southbound	1,650	318	0.19	A	373	0.23	A
	Total SAT Peak Hour	3,300	627	0.19	A	741	0.22	A
Sierra College Boulevard	English Colony Way and King Rd (Placer County)							
	A.M. Peak Hour Northbound	1,650	294	0.18	A	619	0.38	A
	A.M. Peak Hour Southbound	1,650	589	0.36	A	320	0.19	A
	Total A.M. Peak Hour	3,300	883	0.27	A	939	0.28	A
	P.M. Peak Hour Northbound	1,650	361	0.22	A	446	0.27	A
	P.M. Peak Hour Southbound	1,650	616	0.37	A	704	0.43	A
	Total P.M. Peak Hour	3,300	977	0.30	A	1,150	0.35	A
	SAT Peak Hour Northbound	1,650	335	0.20	A	442	0.27	A
	SAT Peak Hour Southbound	1,650	299	0.18	A	398	0.24	A
	Total SAT Peak Hour	3,300	634	0.19	A	840	0.25	A
Sierra College Boulevard	King Rd and Taylor Rd (Loomis)							
	A.M. Peak Hour Northbound	1,650	665	0.40	A	716	0.43	A
	A.M. Peak Hour Southbound	1,650	538	0.33	A	581	0.35	A
	Total A.M. Peak Hour	3,300	1,203	0.36	A	1,297	0.39	A
	P.M. Peak Hour Northbound	1,650	645	0.39	A	787	0.48	A
	P.M. Peak Hour Southbound	1,650	924	0.56	A	1,070	0.65	B
	Total P.M. Peak Hour	3,300	1,569	0.48	A	1,857	0.56	A
	SAT Peak Hour Northbound	1,650	378	0.23	A	557	0.34	A
	SAT Peak Hour Southbound	1,650	421	0.26	A	585	0.35	A
	Total SAT Peak Hour	3,300	799	0.24	A	1,142	0.35	A
Sierra College Boulevard	Taylor Rd and I-80							
	A.M. Peak Hour Northbound	1,650	594	0.36	A	705	0.43	A
	A.M. Peak Hour Southbound	1,650	636	0.39	A	652	0.40	A
	Total A.M. Peak Hour	3,300	1,230	0.37	A	1,357	0.41	A
	P.M. Peak Hour Northbound	1,650	794	0.48	A	991	0.60	A
	P.M. Peak Hour Southbound	1,650	694	0.42	A	891	0.54	A
	Total P.M. Peak Hour	3,300	1,488	0.45	A	1,882	0.57	A
	SAT Peak Hour Northbound	1,650	475	0.29	A	760	0.46	A
	SAT Peak Hour Southbound	1,650	538	0.33	A	724	0.44	A
	Total SAT Peak Hour	3,300	1,013	0.31	A	1,484	0.45	A
Sierra College Boulevard	Dominguez Rd and Rocklin Rd							
	A.M. Peak Hour Northbound	1,650	831	0.50	A	944	0.57	A
	A.M. Peak Hour Southbound	1,650	911	0.55	A	770	0.47	A
	Total A.M. Peak Hour	3,300	1,742	0.53	A	1,714	0.52	A
	P.M. Peak Hour Northbound	1,650	939	0.57	A	1,037	0.63	A
	P.M. Peak Hour Southbound	1,650	954	0.58	A	1,079	0.65	A
	Total P.M. Peak Hour	3,300	1,893	0.57	A	2,116	0.64	A
	SAT Peak Hour Northbound	1,650	599	0.36	A	851	0.52	A
	SAT Peak Hour Southbound	1,650	613	0.37	A	780	0.47	A
	Total SAT Peak Hour	3,300	1,212	0.37	A	1,631	0.49	A

at LOS A or B. Because the roadway segments will operate with satisfactory LOS during the peak hour of roadway traffic, they are not considered impacted by the project.

EXISTING PLUS APPROVED PROJECTS (BASELINE)

Existing plus Approved Projects (Baseline) Traffic Volumes

To identify traffic conditions that could be expected at the time of project opening, an existing plus approved projects (baseline) scenario was developed. The City provided a list of approved projects in the vicinity of the project. The approved projects include interchange improvements at I-80 and Sierra College Boulevard, as the interchange improvements have CEQA approval and are fully funded. The approved projects do not include the proposed Dominguez Road extension. The approved projects list is provided in Appendix D. Traffic volumes for approved projects were determined by applying the trip generation rates from the *ITE Trip Generation*, 7th Edition, to the approved land uses. Vehicle trips from approved projects were distributed to the study area intersections based on the location of the approved projects in relation to other land uses and local and regional transportation networks. The locations of the approved projects and trip distribution are illustrated in Figure 12. The approved projects and their respective trip generation are shown in Table G.

Existing Plus Approved Projects (Baseline) Levels of Service

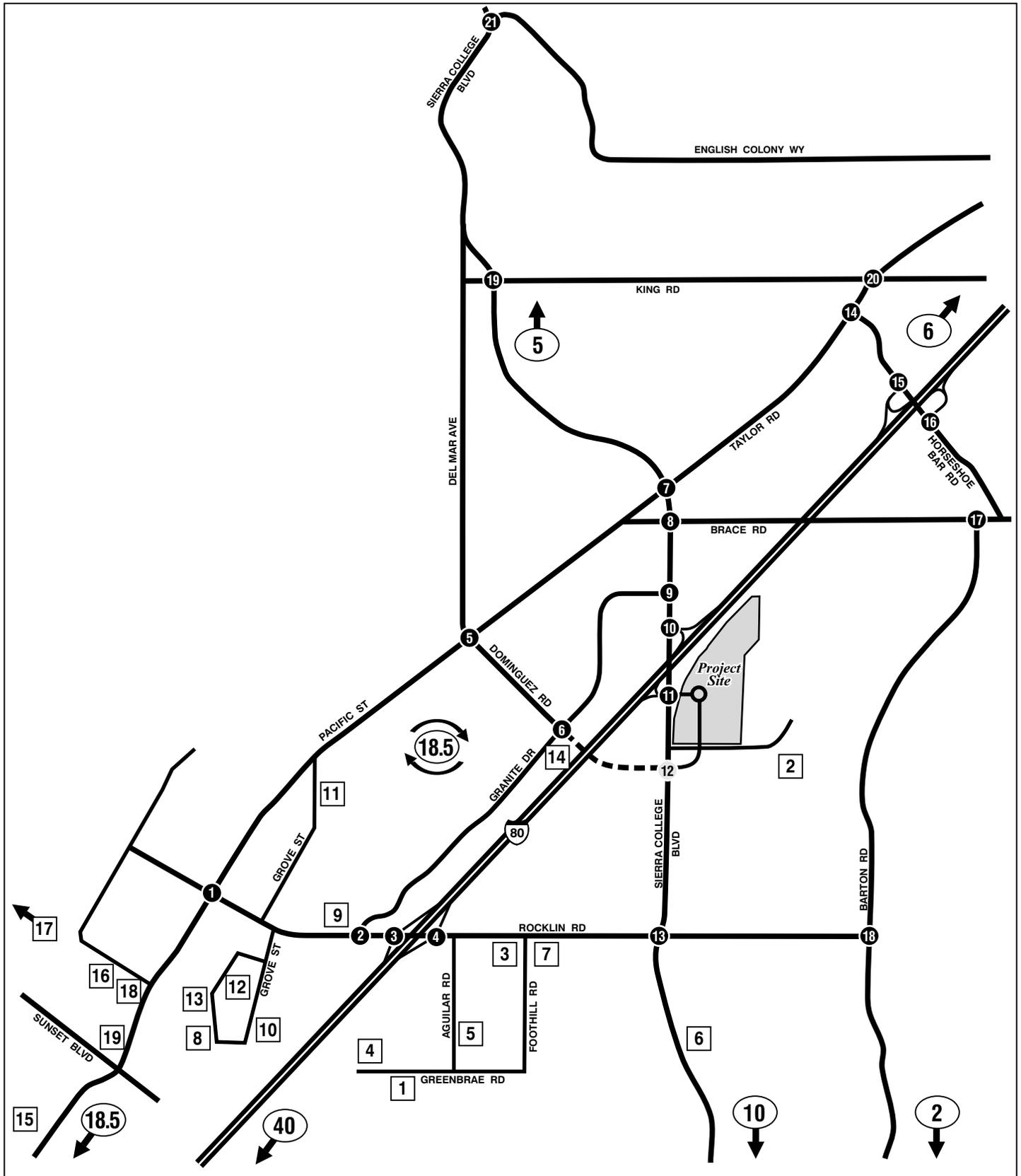
Traffic from the approved projects was added to the existing traffic counts and LOS were calculated for the existing plus approved projects scenario. Existing plus approved projects weekday peak-hour and Saturday traffic volumes are illustrated in Figures 13 and 14. The LOS for study area intersections and roadway segments in the existing plus approved projects scenario are shown in Tables H and I. The existing plus approved projects LOS worksheets are provided in Appendix E.

As shown in Table H, the following five intersections are operating at an unsatisfactory LOS in the existing plus approved projects condition:

- € Rocklin Road/Pacific Street
- € Rocklin Road/I-80 westbound ramps
- € Rocklin Road/I-80 eastbound ramps
- € Sierra College Boulevard/Rocklin Road
- € Taylor Road/Horseshoe Bar Road (Loomis)

As shown in Table I, most of the study area roadway segments are forecast to operate within their daily roadway capacities except for the following three segments:

- € Taylor Road between King Road and Horseshoe Bar Road (Loomis)
- € Sierra College Boulevard between Taylor Road and I-80
- € Sierra College Boulevard between Dominguez Road and Rocklin Road



LSA

LEGEND

- 1** - Study Area Intersection
- 12** - Future Intersection
- - Future Roadway
- 10** - Approved Projects*
- XX** - Trip Distribution Percentage
- 18.5** - Internal Trips

*Refer to Table G for Project Identification



FIGURE 12

Rocklin Crossings
Location of Approved Projects

Table G: Trip Generation of Approved Projects

Project No.	Description	Landuse (ITE Code)	Size	AM Peak Hour		PM Peak Hour		Saturday Peak Hour				
				In	Out	In	Out	In	Out	Total		
1	Granite Lake Estates	Single Family Detached Housing (210)	119 du	23	70	93	79	46	125	60	51	112
2	Croftwood, Unit 1	Single Family Detached Housing (210)	156 du	30	89	119	101	59	160	79	67	147
3	Rocklin Sierra Plaza	Shopping Center (820)	31.60 ksf	78	30	108	140	153	293	82	75	157
4	Bender Insurance Office Building	Bender Insurance Office Building	14.75 ksf	10	31	41	60	35	95	3	3	6
5	Bramblewood Estates	Single Family Detached Housing (210)	2 du	3	8	11	2	1	3	1	1	2
6	Sunrise Assisted Living	Sunrise Assisted Living	48 ksf	6	3	9	7	7	14	12	14	26
7	Rocklin Executive Office Park	Office Park (710)	21 ksf	27	27	54	51	51	102	5	4	9
8	Villages	Single Family Detached Housing (210)	65 du	14	41	55	46	27	73	33	28	61
9	Granite Business Center	General Office Building (710)	16.60 ksf	39	6	45	17	80	97	4	3	7
10	Rocklin Mobile Home Park Addition	Mobile Home Park (240)	21 du	4	14	18	9	5	14	6	5	11
11	Holy Cross Lutheran Church	Church (560)	40.63 ksf	16	13	29	14	13	27	102	42	144
12	Winding Lane Estates	Single Family Detached Housing (210)	26 du	7	21	28	20	12	32	13	11	24
13	Samoylovich Estates	Single Family Detached Housing (210)	4 du	7	5	12	3	3	6	2	2	4
14	Granite Drive Retail/Office	Office (710)	22 ksf	14	42	56	65	38	103	5	4	9
15	Rocklin 94	Residential Condominium (230)	94 du	8	41	49	38	19	57	24	20	44
16	Colish Subdivision	Single Family Detached Housing (210)	8 du	4	11	15	7	4	11	4	3	8
17	Community Covenant Church	Church (560)	11.78 ksf	1	0	1	1	0	1	30	12	42
18	Rocklin Retail Center	Shopping Center (820)	19.5 ksf	36	23	59	102	111	213	50	47	97
19	Pacific Center Retail Center	Shopping Center (820)	32.2 ksf	48	31	79	142	154	296	83	77	160
Total				375	506	881	904	818	1,722	598	470	1,068

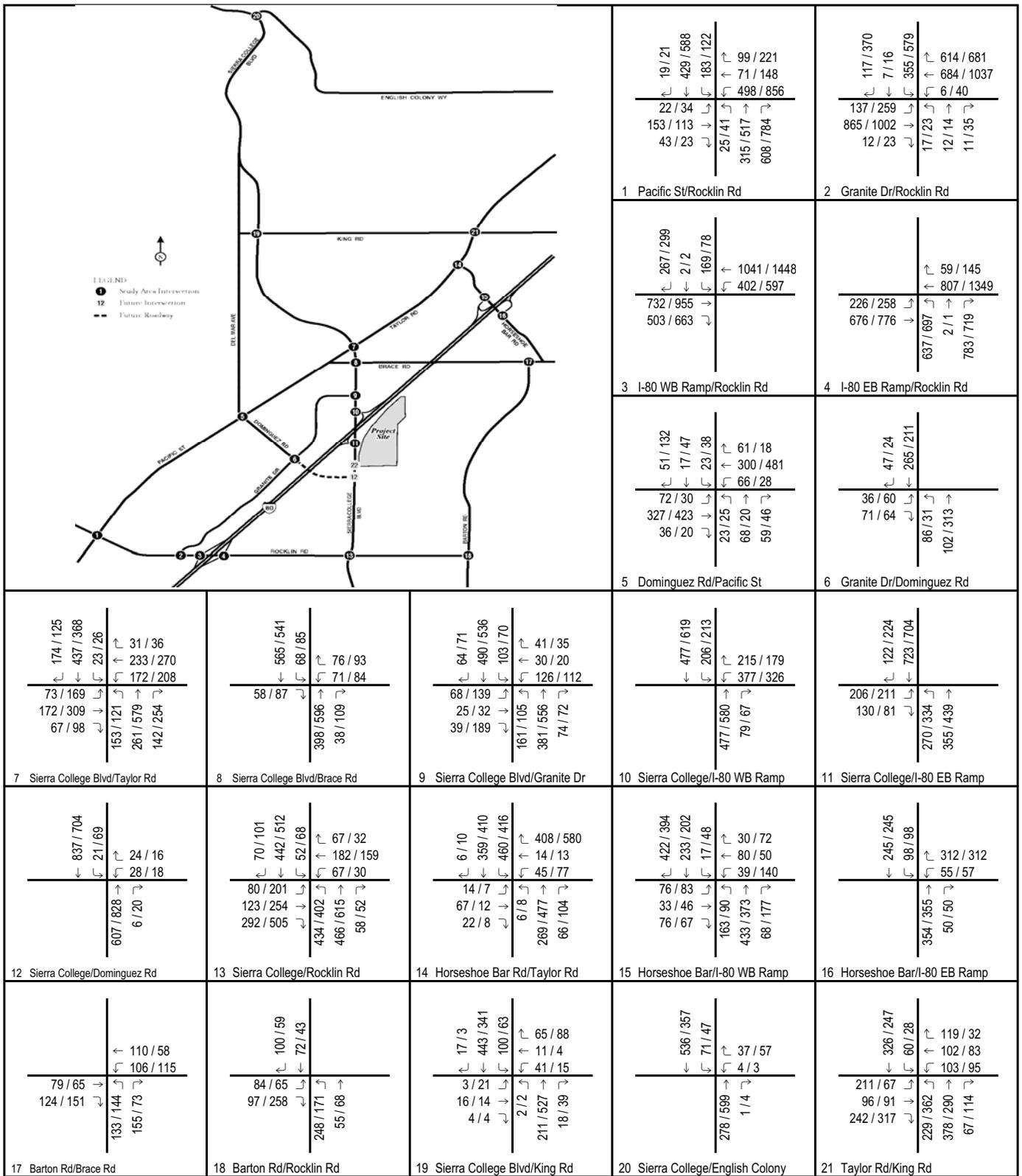


FIGURE 13

123 / 456 AM / PM Peak Hour Volume

Rocklin Crossings
Existing Plus Approved Projects (Baseline) Peak Hour Traffic Volumes

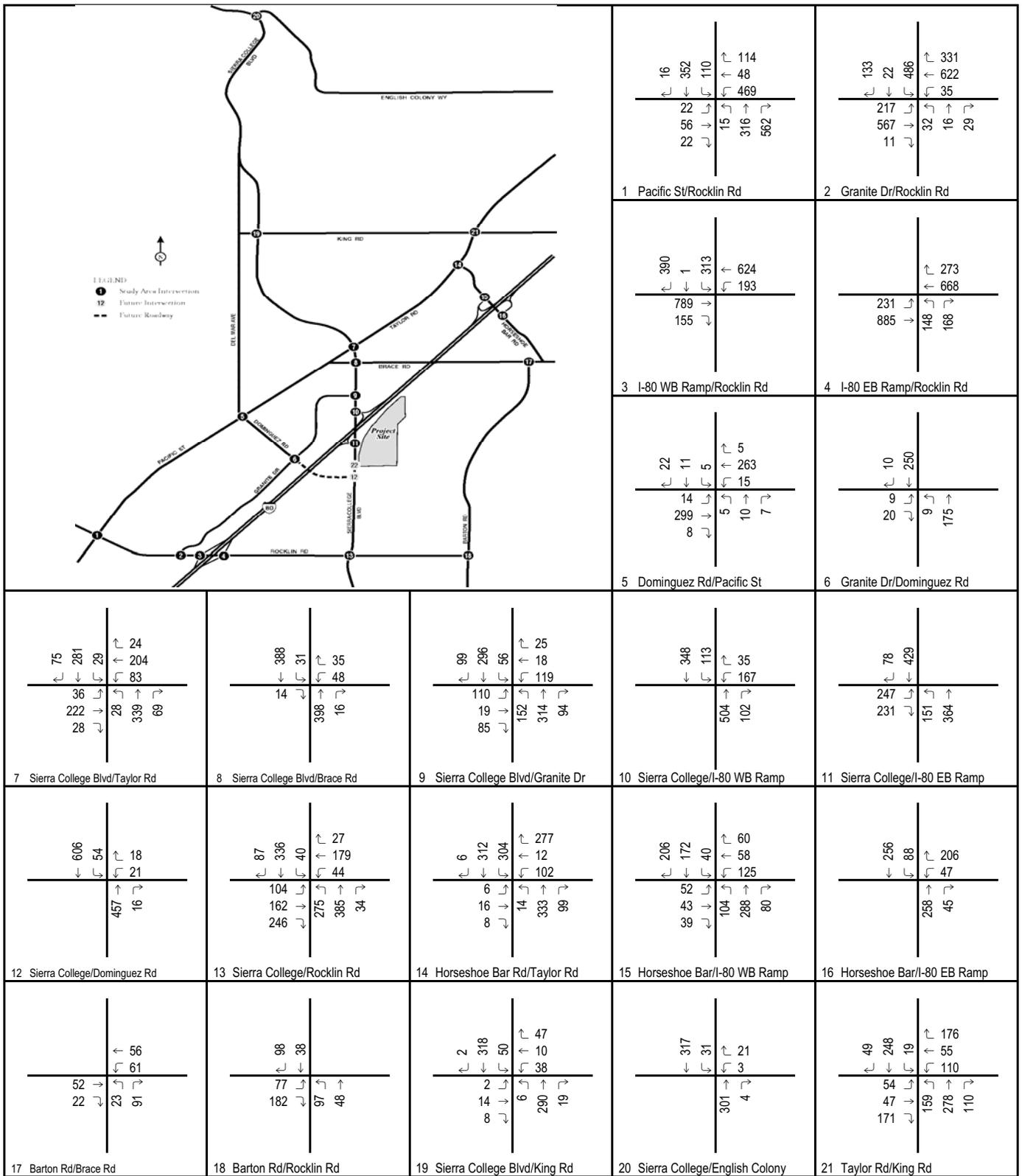


FIGURE 14

Rocklin Crossings
Existing Plus Approved Projects (Baseline) Saturday Peak Hour Traffic Volumes

Table H: Existing Plus Approved Projects (Baseline) Condition Intersection Level of Service Summary

Intersection	Existing Plus Approved Condition								
	AM Peak Hour			PM Peak Hour			Saturday		
	V/C Ratio / Delay	LOS	LOS	V/C Ratio / Delay	LOS	V/C Ratio / Delay	LOS	V/C Ratio / Delay	LOS
1 Rocklin Road/Pacific Street ¹	0.866	D	D	0.978	E	E	0.610	B	B
2 Rocklin Road/Granite Drive	0.465	A	A	0.757	C	C	0.547	A	A
3 Rocklin Road/I-80 Westbound Ramps	0.780	C	C	1.018	F	F	0.633	B	B
4 Rocklin Road/I-80 Eastbound Ramps	0.823	D	D	0.946	E	E	0.549	A	A
5 Dominguez Road/Pacific Street ¹	0.397	A	A	0.472	A	A	0.241	A	A
6 Dominguez Road/Granite Drive ¹	11.8 sec	B	B	12.2 sec	B	B	9.9 sec	A	A
7 Sierra College Boulevard/Taylor Road (Loomis)	0.622	B	B	0.750	C	C	0.434	A	A
8 Sierra College Boulevard/Brace Road (Loomis)	0.449	A	A	0.547	A	A	0.307	A	A
9 Sierra College Boulevard/Granite Drive	0.536	A	A	0.568	A	A	0.402	A	A
10 Sierra College Boulevard/I-80 Westbound Ramps	0.299	A	A	0.301	A	A	0.179	A	A
11 Sierra College Boulevard/I-80 Eastbound Ramps	0.335	A	A	0.315	A	A	0.323	A	A
12 Sierra College Boulevard/Dominguez Road	-	-	-	-	-	-	-	-	-
13 Sierra College Boulevard/Rocklin Road ¹	0.661	B	B	0.802	D	D	0.521	A	A
14 Taylor Road/Horseshoe Bar Road (Loomis)	0.840	D	D	1.008	F	F	0.631	B	B
15 Horseshoe Bar Road/I-80 Westbound Ramps (Loomis)	0.394	A	A	0.375	A	A	0.313	A	A
16 Horseshoe Bar Road/I-80 Eastbound Ramps (Loomis)	16.4 sec	C	C	16.1 sec	C	C	12.2 sec	B	B
17 Barton Road/Brace Road ¹ (Loomis)	16.2 sec	C	C	15.2 sec	C	C	9.5 sec	A	A
18 Barton Road/Rocklin Road ¹ (Loomis)	15.9 sec	C	C	11.2 sec	B	B	10.3 sec	B	B
19 Sierra College Boulevard/King Road ¹ (Loomis)	0.402	A	A	0.490	A	A	0.316	A	A
20 Sierra College Boulevard/English Colony Way ¹ (Placer County)	11.1 sec	B	B	14.0 sec	B	B	10.7 sec	B	B
21 Taylor Road/King Road ¹ (Loomis)	0.601	B	B	0.604	B	B	0.409	A	A

Notes:

ICU V/C ratio is used for signalized intersections. HCM delay in seconds is used for unsignalized intersections.

¹ LOS C required for these intersections. LOS D acceptable for all other intersections.

☐ Exceeds level of service criteria

Table I: Existing Plus Approved Projects (Baseline) Daily Roadway Segment Level of Service Summary

Roadway	Segment	Configuration	Capacity	Weekday		Saturday			
				Volume	V/C	LOS	V/C	LOS	
Taylor Road	King Road and Horseshoe Bar Road ¹ (Loomis)	Two-lane Collector	15,000	17,150	1.14	F	11,410	0.76	C
	Horseshoe Bar Road and Sierra College Boulevard ¹ (Loomis)	Two-lane Collector	15,000	10,973	0.73	C	3,710	0.25	A
Pacific Street	Sierra College Boulevard and Dominguez Road ¹	Two-lane Collector	15,000	11,868	0.79	C	6,100	0.41	A
	Dominguez Road and Rocklin Road ¹	Four-lane Undivided Arterial	30,000	19,459	0.65	B	9,080	0.30	A
Rocklin Road	Pacific Street and Granite Drive	Four-lane Undivided Arterial	30,000	25,371	0.85	D	13,310	0.44	A
	I-80 and Sierra College Boulevard	Four-lane Undivided Arterial	30,000	14,599	0.49	A	16,120	0.54	A
	Sierra College Boulevard and Barton Road ¹ (Loomis)	Two-lane Collector	15,000	6,646	0.44	A	5,090	0.34	A
Barton Road	Rocklin Road and Brace Road ¹ (Loomis)	Two-lane Collector	15,000	3,514	0.23	A	2,130	0.14	A
Horseshoe Bar Road	I-80 and Brace Road (Loomis)	Two-lane Collector	15,000	6,141	0.41	A	6,490	0.43	A
Brace Road	I-80 and Barton Road ¹ (Loomis)	Two-lane Collector	15,000	4,046	0.27	A	1,960	0.13	A
	I-80 and Sierra College Boulevard ¹ (Loomis)	Two-lane Collector	15,000	3,408	0.23	A	560	0.04	A
Sierra College Boulevard	English Colony Way and King Road ¹ (Placer County)	Two-lane Collector	15,000	10,430	0.70	B	7,090	0.47	A
	King Road and Taylor Road ¹ (Loomis)	Two-lane Collector	15,000	11,250	0.75	C	7,450	0.50	A
	Taylor Road and I-80	Two-lane Collector	15,000	18,296	1.22	F	9,010	0.60	B
	I-80 and Dominguez Road	Four-lane Undivided Arterial	30,000	14,105	0.47	A	11,210	0.37	A
	Dominguez Road and Rocklin Road ¹	Two-lane Collector	15,000	14,745	0.98	E	11,840	0.79	C
Granite Drive	Dominguez Road and Sierra College Boulevard ¹	Four-lane Undivided Arterial	30,000	6,328	0.21	A	4,430	0.15	A
	Dominguez Road and Rocklin Road ¹	Four-lane Undivided Arterial	30,000	8,458	0.28	A	7,960	0.27	A
Dominguez Road	Taylor Road and Granite Drive ¹	Two-lane Collector	15,000	2,422	0.16	A	530	0.04	A
King Road	Sierra College Boulevard and Taylor Road ¹ (Loomis)	Two-lane Collector	15,000	5,610	0.37	A	3,460	0.23	A

Notes:

¹ LOS C required for these segments. LOS D acceptable for all other segments.

☐ Exceeds level of service criteria

These segments will exceed the threshold of daily capacity in the existing plus approved projects (baseline) scenario. However, in both a.m. and p.m. peak hours, all affected segments are forecast to operate with satisfactory v/c ratios, as shown in Table J.

EXISTING PLUS APPROVED PROJECTS (BASELINE) PLUS PROJECT

Existing plus Approved Projects (Baseline) plus Project Levels of Service

Traffic volumes generated by the proposed project were added to the existing plus approved projects (baseline) traffic volumes and LOS were calculated for the existing plus approved projects (baseline) plus project scenario. The existing plus approved projects (baseline) plus project weekday and Saturday peak-hour traffic volumes are illustrated in Figures 15 and 16. The LOS for study area intersections and roadway segments in the existing plus approved projects plus project scenario are shown in Tables K and L. The existing plus approved projects plus project LOS worksheets are provided in Appendix F. The LOS for the existing plus approved projects (baseline) plus project condition assumes the reconstruction of the I-80/Sierra College Boulevard interchange (Figure 11), as the interchange improvements have CEQA approval and are fully funded.

- € As shown in Table K, the following five intersections are forecast to operate at unsatisfactory LOS in the existing plus approved projects (baseline) plus project scenario:
- € Rocklin Road/Pacific Street
- € Rocklin Road/I-80 westbound ramps
- € Rocklin Road/I-80 eastbound ramps
- € Sierra College Boulevard/Rocklin Road
- € Taylor Road/Horseshoe Bar Road (Loomis)

As shown in Table L, most of the study area roadway segments are forecast to operate within their daily roadway capacities except for the following six roadway segments:

- € Taylor Road between King Road and Horseshoe Bar Road (Loomis)
- € Taylor Road between Sierra College Boulevard and Dominguez Road
- € Sierra College Boulevard between English Colony Way and King Road (Placer County)
- € Sierra College Boulevard between King Road and Taylor Road (Loomis)
- € Sierra College Boulevard between Taylor Road and I-80
- € Sierra College Boulevard between Dominguez Road and Rocklin Road

Similar to the previous scenarios, these segments will exceed the threshold of daily capacity in the existing plus approved projects (baseline) plus project scenario. However, in both the a.m. and p.m. peak hours, the traffic on all six roadway segments are forecast to operate with satisfactory v/c ratios in both peak hours with project conditions, as shown in Table J. Therefore, the project does not cause a significant impact on the roadway segments.

Table J: Existing Plus Approved Projects (Baseline) Peak Hour Roadway Segment Level of Service Summary

Roadway	Segment	Capacity	Existing + Approved			Existing + Approved + Project		
			Volume	V/C	LOS	Volume	V/C	LOS
Taylor Road	King Rd and Horseshoe Bar Rd (Loomis)							
	A.M. Peak Hour Northbound	1,650	426	0.26	A	443	0.27	A
	A.M. Peak Hour Southbound	1,650	708	0.43	A	722	0.44	A
	Total A.M. Peak Hour	3,300	1,134	0.34	A	1,165	0.35	A
	P.M. Peak Hour Northbound	1,650	495	0.30	A	638	0.39	A
	P.M. Peak Hour Southbound	1,650	589	0.36	A	542	0.33	A
	Total P.M. Peak Hour	3,300	1,084	0.33	A	1,180	0.36	A
	SAT Peak Hour Northbound	1,650	422	0.26	A	482	0.29	A
	SAT Peak Hour Southbound	1,650	508	0.31	A	563	0.34	A
	Total SAT Peak Hour	3,300	930	0.28	A	1,045	0.32	A
Pacific Street	Sierra College Blvd and Dominguez Rd							
	A.M. Peak Hour Northbound	1,650	436	0.26	A	453	0.27	A
	A.M. Peak Hour Southbound	1,650	435	0.26	A	436	0.26	A
	Total A.M. Peak Hour	3,300	871	0.26	A	889	0.27	A
	P.M. Peak Hour Northbound	1,650	638	0.39	A	640	0.39	A
	P.M. Peak Hour Southbound	1,650	514	0.31	A	638	0.39	A
	Total P.M. Peak Hour	3,300	1,152	0.35	A	1,278	0.39	A
	SAT Peak Hour Northbound	1,650	321	0.19	A	371	0.22	A
	SAT Peak Hour Southbound	1,650	311	0.19	A	375	0.23	A
	Total SAT Peak Hour	3,300	632	0.19	A	746	0.23	A
Sierra College Boulevard	English Colony Way and King Rd (Placer County)							
	A.M. Peak Hour Northbound	1,650	607	0.37	A	636	0.39	A
	A.M. Peak Hour Southbound	1,650	315	0.19	A	341	0.21	A
	Total A.M. Peak Hour	3,300	922	0.28	A	977	0.30	A
	P.M. Peak Hour Northbound	1,650	404	0.24	A	489	0.30	A
	P.M. Peak Hour Southbound	1,650	656	0.40	A	744	0.45	A
	Total P.M. Peak Hour	3,300	1,060	0.32	A	1,233	0.37	A
	SAT Peak Hour Northbound	1,650	364	0.22	A	471	0.29	A
	SAT Peak Hour Southbound	1,650	322	0.20	A	421	0.26	A
	Total SAT Peak Hour	3,300	686	0.21	A	892	0.27	A
Sierra College Boulevard	King Rd and Taylor Rd (Loomis)							
	A.M. Peak Hour Northbound	1,650	676	0.41	A	726	0.44	A
	A.M. Peak Hour Southbound	1,650	556	0.34	A	600	0.36	A
	Total A.M. Peak Hour	3,300	1,232	0.37	A	1,326	0.40	A
	P.M. Peak Hour Northbound	1,650	674	0.41	A	815	0.49	A
	P.M. Peak Hour Southbound	1,650	954	0.58	A	1,099	0.67	B
	Total P.M. Peak Hour	3,300	1,628	0.49	A	1,914	0.58	A
	SAT Peak Hour Northbound	1,650	392	0.24	A	571	0.35	A
	SAT Peak Hour Southbound	1,650	436	0.26	A	600	0.36	A
	Total SAT Peak Hour	3,300	828	0.25	A	1,171	0.35	A
Sierra College Boulevard	Taylor Rd and I-80							
	A.M. Peak Hour Northbound	1,650	655	0.40	A	724	0.44	A
	A.M. Peak Hour Southbound	1,650	616	0.37	A	674	0.41	A
	Total A.M. Peak Hour	3,300	1,271	0.39	A	1,398	0.42	A
	P.M. Peak Hour Northbound	1,650	837	0.51	A	1,034	0.63	B
	P.M. Peak Hour Southbound	1,650	733	0.44	A	930	0.56	A
	Total P.M. Peak Hour	3,300	1,570	0.48	A	1,964	0.60	A
	SAT Peak Hour Northbound	1,650	500	0.30	A	749	0.45	A
	SAT Peak Hour Southbound	1,650	560	0.34	A	783	0.47	A
	Total SAT Peak Hour	3,300	1,060	0.32	A	1,532	0.46	A
Sierra College Boulevard	Dominguez Rd and Rocklin Rd							
	A.M. Peak Hour Northbound	1,650	865	0.52	A	924	0.56	A
	A.M. Peak Hour Southbound	1,650	958	0.58	A	991	0.60	A
	Total A.M. Peak Hour	3,300	1,823	0.55	A	1,915	0.58	A
	P.M. Peak Hour Northbound	1,650	1,047	0.63	B	1,144	0.69	B
	P.M. Peak Hour Southbound	1,650	1,069	0.65	B	1,163	0.70	C
	Total P.M. Peak Hour	3,300	2,116	0.64	B	2,307	0.70	B
	SAT Peak Hour Northbound	1,650	660	0.40	A	482	0.29	A
	SAT Peak Hour Southbound	1,650	694	0.42	A	501	0.30	A
	Total SAT Peak Hour	3,300	1,354	0.41	A	983	0.30	A

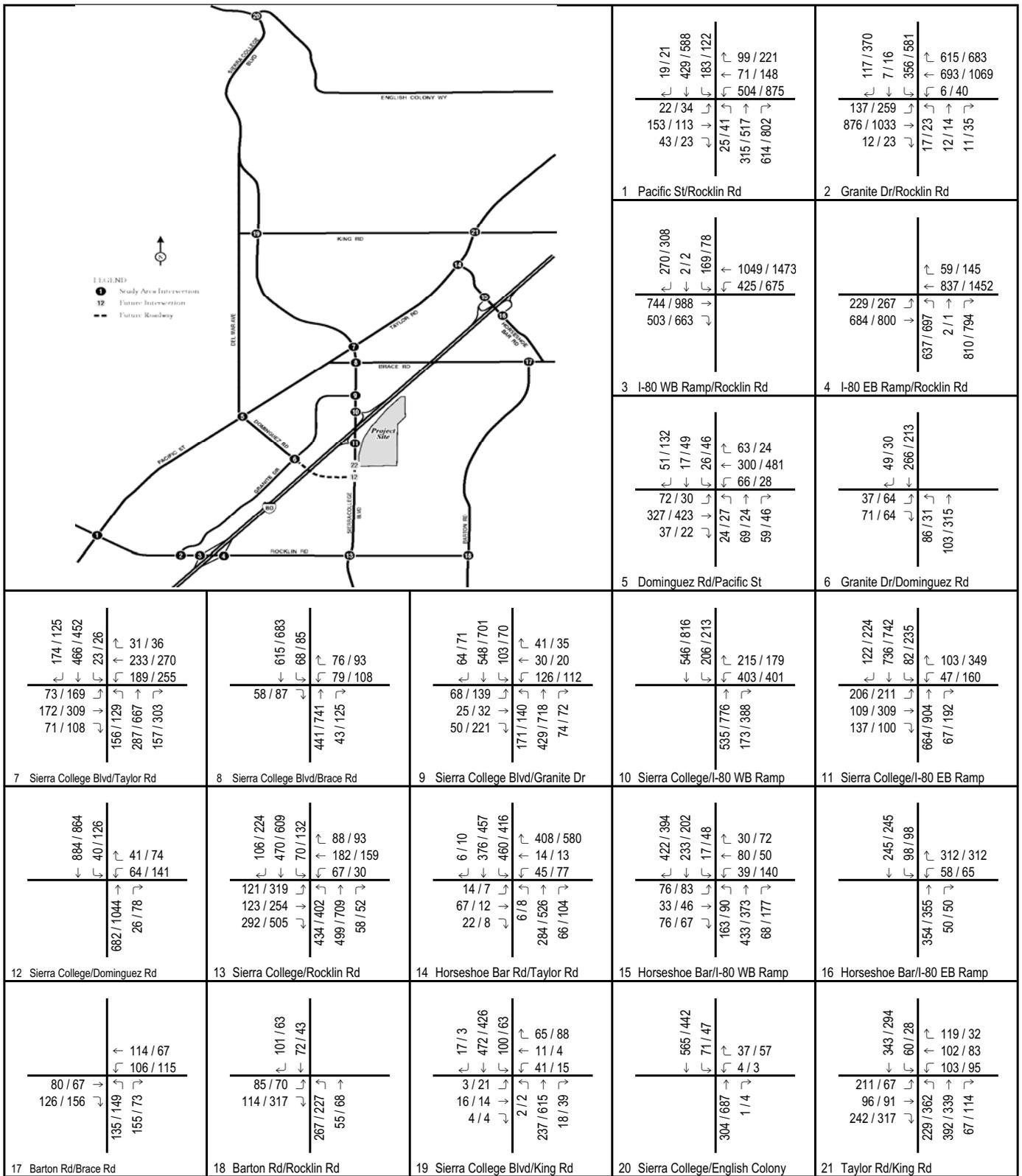


FIGURE 15

123 / 456 AM / PM Peak Hour Volume

Rocklin Crossings

Existing Plus Approved Projects (Baseline) Plus Project Peak Hour Traffic Volumes

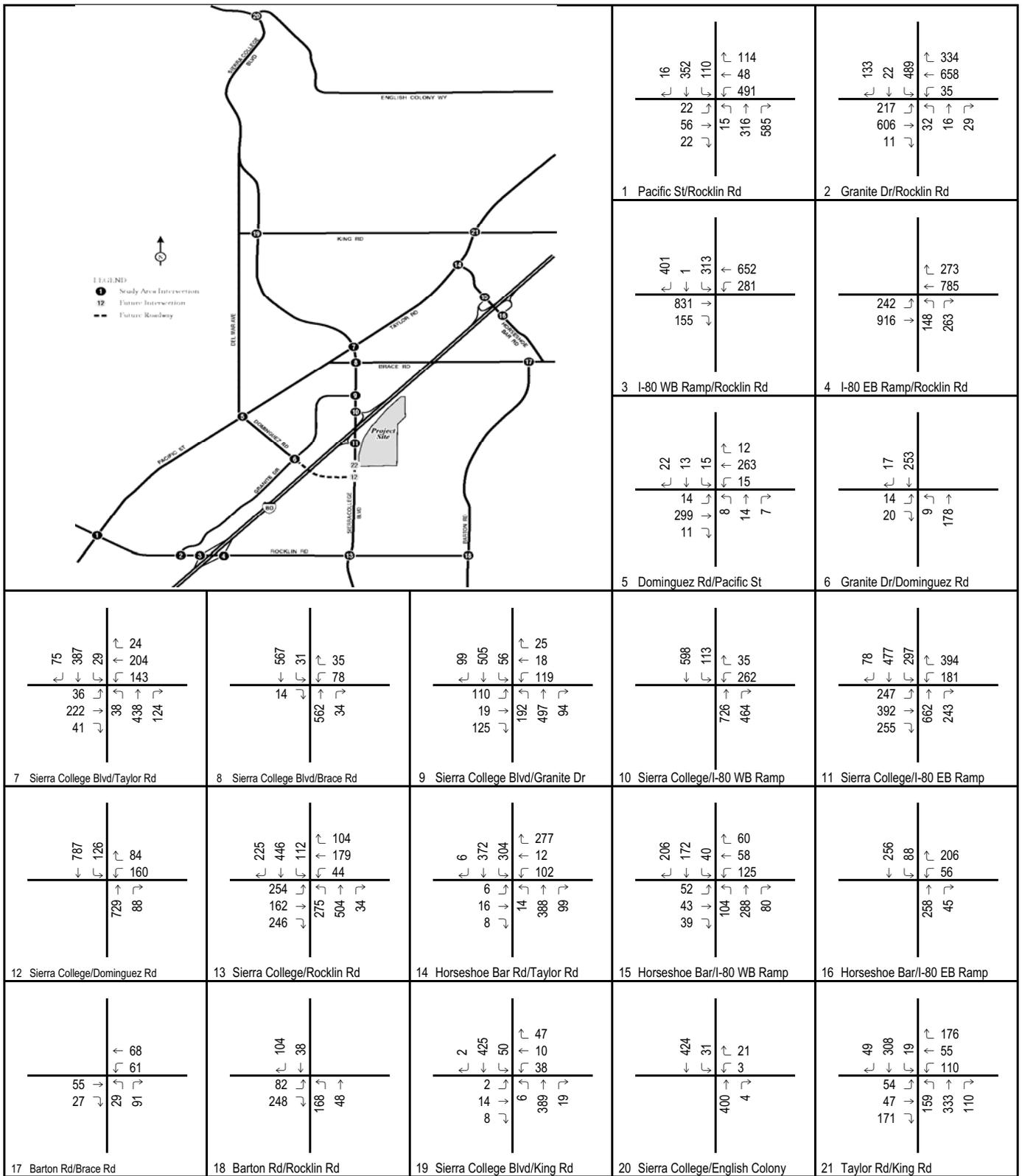


FIGURE 16

Rocklin Crossings

Existing Plus Approved Projects (Baseline) Plus Project Saturday Peak Hour Traffic Volumes

Table K: Existing Plus Approved Projects (Baseline) Plus Project Condition Intersection Level of Service Summary

Intersection	Existing Plus Approved Condition						Existing Plus Approved Plus Project Condition					
	AM Peak Hour		PM Peak Hour		Saturday		AM Peak Hour		PM Peak Hour		Saturday	
	V/C Ratio / Delay	LOS	V/C Ratio / Delay	LOS	V/C Ratio / Delay	LOS	V/C Ratio / Delay	LOS	V/C Ratio / Delay	LOS	V/C Ratio / Delay	LOS
1 Rocklin Road/Pacific Street ¹	0.866	D	0.978	E	0.610	B	0.872	D	0.997	E ²	0.632	B
2 Rocklin Road/Granite Drive	0.465	A	0.757	C	0.547	A	0.469	A	0.767	C	0.559	A
3 Rocklin Road/I-80 Westbound Ramps	0.780	C	1.018	F	0.633	B	0.797	C	1.075	F	0.711	C
4 Rocklin Road/I-80 Eastbound Ramps	0.823	D	0.946	E	0.549	A	0.843	D	1.000	F	0.619	B
5 Dominguez Road/Pacific Street ¹	0.397	A	0.472	A	0.241	A	0.401	A	0.479	A	0.253	A
6 Dominguez Road/Granite Drive ¹	11.8 sec	B	12.2 sec	B	9.9 sec	A	11.9 sec	B	12.4 sec	B	10.3 sec	B
7 Sierra College Boulevard/Taylor Road (Loomis)	0.622	B	0.750	C	0.434	A	0.655	B	0.840	D	0.537	A
8 Sierra College Boulevard/Brace Road (Loomis)	0.449	A	0.547	A	0.307	A	0.487	A	0.655	B	0.429	A
9 Sierra College Boulevard/Granite Drive	0.536	A	0.568	A	0.402	A	0.583	A	0.713	C	0.580	A
10 Sierra College Boulevard/I-80 Westbound Ramps	0.299	A	0.301	A	0.179	A	0.325	A	0.372	A	0.267	A
11 Sierra College Boulevard/I-80 Eastbound Ramps	0.335	A	0.315	A	0.323	A	0.414	A	0.589	A	0.764	C
12 Sierra College Boulevard/Dominguez Road	-	-	-	-	-	-	-	-	-	-	-	-
13 Sierra College Boulevard/Rocklin Road ¹	0.661	B	0.802	D	0.521	A	0.701	C	0.896	D	0.751	C
14 Taylor Road/Horseshoe Bar Road (Loomis)	0.840	D	1.008	F	0.631	B	0.850	D	1.040	F ²	0.665	B
15 Horseshoe Bar Road/I-80 Westbound Ramps (Loomis)	0.394	A	0.375	A	0.313	A	0.394	A	0.375	A	0.313	A
16 Horseshoe Bar Road/I-80 Eastbound Ramps (Loomis)	16.4 sec	C	16.1 sec	C	12.2 sec	B	16.5 sec	C	16.2 sec	C	12.3 sec	B
17 Barton Road/Brace Road ¹ (Loomis)	16.2 sec	C	15.2 sec	C	9.5 sec	A	16.5 sec	C	15.7 sec	C	9.7 sec	A
18 Barton Road/Rocklin Road ¹ (Loomis)	15.9 sec	C	11.2 sec	B	10.3 sec	B	16.5 sec	C	12.2 sec	B	11.3 sec	B
19 Sierra College Boulevard/King Road ¹ (Loomis)	0.402	A	0.490	A	0.316	A	0.422	A	0.546	A	0.381	A
20 Sierra College Boulevard/English Colony Way ¹ (Placer County)	11.1 sec	B	14.0 sec	B	10.7 sec	B	11.4 sec	B	15.6 sec	C	11.8 sec	B
21 Taylor Road/King Road ¹ (Loomis)	0.601	B	0.604	B	0.409	A	0.607	B	0.620	B	0.429	A

Notes:

1 ICU V/C ratio is used for signalized intersections. HCM delay in seconds is used for unsignalized intersections.

2 LOS C required for these intersections. LOS D acceptable for all other intersections.

3 Project impact is less than 5% of total intersection V/C or delay and therefore not a significant impact.

□ Exceeds level of service criteria

■ (Shade) = Significant Impact

Table L: Existing Plus Approved Projects (Baseline) Plus Project - Daily Roadway Segment Level of Service Summary

Roadway	Segment	Configuration	Capacity	Weekday		Saturday			
				Volume	V/C	LOS	V/C	LOS	
Taylor Road	King Road and Horseshoe Bar Road ¹ (Loomis)	Two-lane Collector	15,000	18,110	1.21	F	12,550	0.84	D
Pacific Street	Horseshoe Bar Road and Sierra College Boulevard ¹ (Loomis)	Two-lane Collector	15,000	11,553	0.77	C	4,360	0.29	A
	Sierra College Boulevard and Dominguez Road ¹	Two-lane Collector	15,000	12,378	0.83	D	6,680	0.45	A
Rocklin Road	Dominguez Road and Rocklin Road ¹	Four-lane Undivided Arterial	30,000	19,739	0.66	B	9,400	0.31	A
	Pacific Street and Granite Drive	Four-lane Undivided Arterial	30,000	25,701	0.86	D	13,730	0.46	A
	I-80 and Sierra College Boulevard	Four-lane Undivided Arterial	30,000	16,259	0.54	A	18,000	0.60	B
Barton Road	Sierra College Boulevard and Barton Road ¹ (Loomis)	Two-lane Collector	15,000	7,866	0.52	A	6,470	0.43	A
	Rocklin Road and Brace Road ¹ (Loomis)	Two-lane Collector	15,000	4,104	0.27	A	2,790	0.19	A
Horseshoe Bar Road	I-80 and Brace Road (Loomis)	Two-lane Collector	15,000	6,191	0.41	A	6,550	0.44	A
Brace Road	I-80 and Barton Road ¹ (Loomis)	Two-lane Collector	15,000	4,156	0.28	A	2,100	0.14	A
	I-80 and Sierra College Boulevard ¹ (Loomis)	Two-lane Collector	15,000	3,408	0.23	A	560	0.04	A
Sierra College Boulevard	English Colony Way and King Road ¹ (Placer County)	Two-lane Collector	15,000	12,160	0.81	D	9,150	0.61	B
	King Road and Taylor Road ¹ (Loomis)	Two-lane Collector	15,000	13,550	0.90	E	10,230	0.68	B
	Taylor Road and I-80	Two-lane Collector	15,000	21,716	1.45	F	13,140	0.88	D
	I-80 and Dominguez Road	Four-lane Undivided Arterial	30,000	23,175	0.77	C	21,440	0.71	C
Granite Drive	Dominguez Road and Rocklin Road ¹	Two-lane Collector	15,000	18,465	1.23	F	16,330	1.09	F
	Dominguez Road and Sierra College Boulevard ¹	Four-lane Undivided Arterial	30,000	6,348	0.21	A	4,460	0.15	A
Dominguez Road	Dominguez Road and Rocklin Road ¹	Four-lane Undivided Arterial	30,000	8,518	0.28	A	8,040	0.27	A
	Taylor Road and Granite Drive ¹	Two-lane Collector	15,000	2,522	0.17	A	640	0.04	A
King Road	Sierra College Boulevard and Taylor Road ¹ (Loomis)	Two-lane Collector	15,000	5,610	0.37	A	3,460	0.23	A

Notes:

¹ LOS C required for these segments. LOS D acceptable for all other segments.

☐ Exceeds level of service criteria

Recommended Mitigation: Existing Plus Approved Projects (Baseline) Plus Project

Rocklin Road/I-80 Westbound Ramps. The project would add traffic to this already deficient location, which is operating at LOS F during the p.m. peak hour in the existing plus approved projects condition. The City has proposed improvement at the intersection of Rocklin Road/I-80 westbound ramps that provides a flyover from westbound Rocklin Road to the I-80 westbound on ramp. This improvement will mitigate the impact at this location. The project applicant will pay a traffic impact fee (on a fair-share basis) that has been set up by the City for this proposed improvement.

Rocklin Road/I-80 Eastbound Ramps. The proposed improvement at the intersection of Rocklin Road/I-80 westbound ramps (discussed above) will reduce westbound through traffic at the intersection of Rocklin Road/I-80 eastbound ramps; therefore, the intersection will not have a cumulative impact. The project applicant will pay a traffic impact fee (on a fair-share basis) that has been set up by the City for the proposed interchange improvements.

Sierra College Boulevard/Rocklin Road. The project would add traffic to this already deficient location, which is operating at LOS D during the p.m. peak hour in the existing plus approved projects condition. Adding a northbound left-turn lane (resulting in dual left-turn lanes) would result in a satisfactory LOS at this location. The project applicant should participate in this improvement on a fair-share basis.

The proposed mitigations for the existing plus approved projects (baseline) plus project are shown in Figure 17. Proposed new features or proposed changes to the phasing of improvements can be identified by comparing the diagrams in Figure 17 to the corresponding diagrams found in Figure 4 (Existing Geometrics and Traffic Control).

CUMULATIVE (YEAR 2025) CONDITIONS

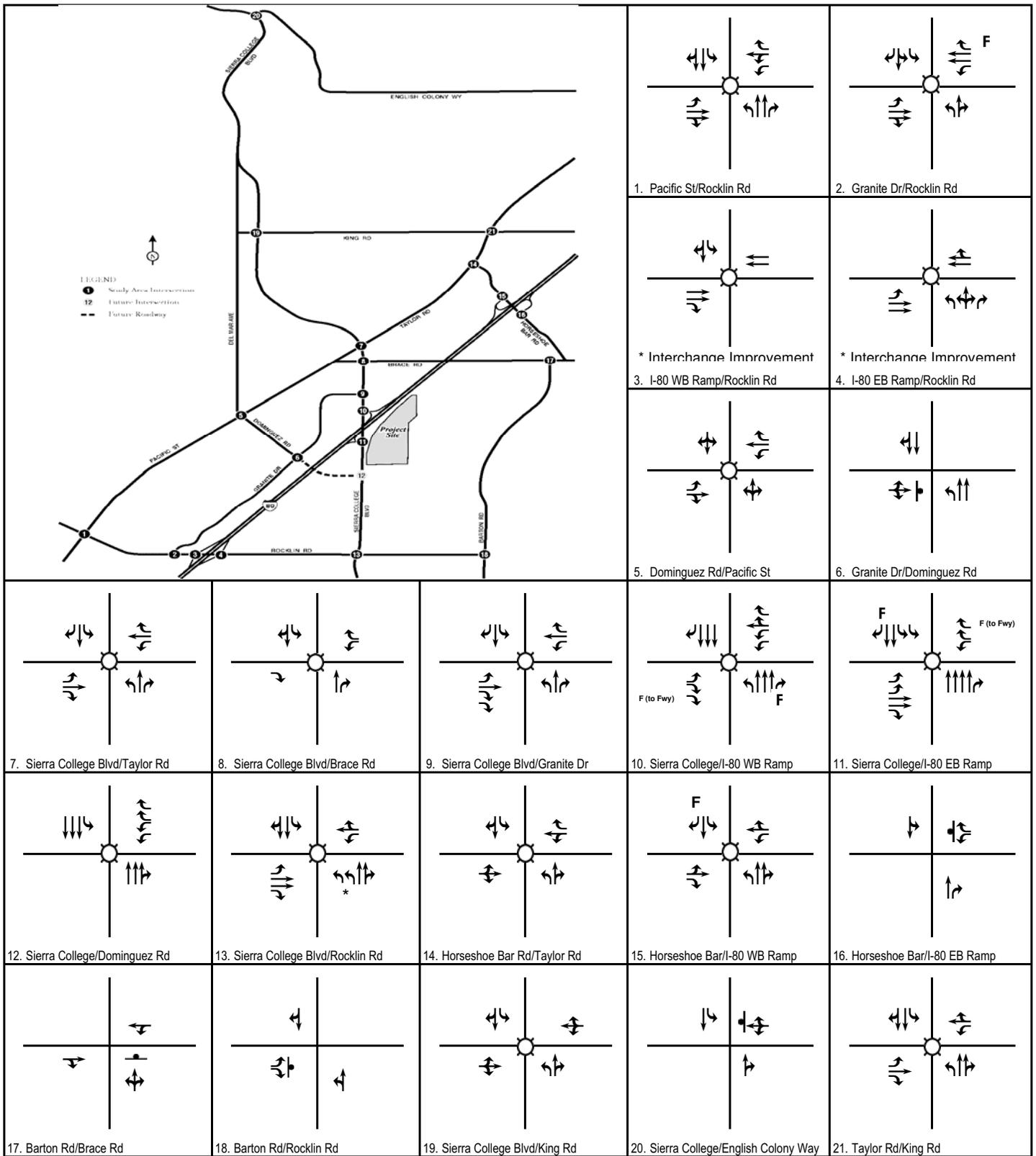
Development of Future Traffic Volumes

Traffic volume data for 2025 conditions were developed using forecasts from the City of Rocklin traffic model. The traffic model is based on the land use and circulation system shown in the City's General Plan. The 2025 projected volume for this analysis is based on the summary of projections method contained in the adopted General Plan. Base-year and future-year p.m. peak-hour arterial segment volumes were forecast using the City's model. Turn movements for the p.m. peak hour were postprocessed according to the methodology described below.

Intersection Turning Movements

For passenger vehicles, the base-year scenario in the City's traffic model is 2001, and the future-year scenario is 2025. The following describes the methodology used to postprocess traffic model volumes to develop a.m. and p.m. peak-hour intersection turn volumes for 2025 conditions:

1. The difference between the modeled 2001 and 2025 peak-hour directional arterial traffic volumes (for each intersection approach and departure) was identified from loaded highway network plots. This difference defines growth in traffic over the 24-year period. The incremental growth in peak-



LSA

- Legend
- Signal
- Stop Sign
- F Free Right Turn
- * Proposed Mitigation

Existing Plus Approved Projects (Baseline) Plus Project Conditions - Mitigation

FIGURE 17

Rocklin Crossings

period approach and departure volumes between 2001 and 2025 was factored to develop the incremental change in peak-hour volumes.

2. The forecast growth in approach and departure volumes from 2006 to future-year 2025 was added to the existing approach and departure volumes, resulting in postprocessed forecast-year 2025 approach and departure volumes. Volume development worksheets summarizing the steps are included in Appendix G.
3. Forecast year 2025 turn volumes were developed using existing turn volumes and the future approach and departure volumes, based on the methodologies contained in the National Cooperative Highway Research Program Report (NCHRP) 255: *Highway Traffic Data for Urbanized Area Project Planning and Design* (Transportation Research Board, December 1982). NCHRP 255 worksheets are included in Appendix G.

The City's current traffic model is not validated for the a.m. peak hour and does not have forecasting capability for the Saturday peak hour. To validate the 2025 model a.m. peak-hour traffic volumes, the existing a.m. peak-hour traffic volumes were compared to the existing p.m. peak-hour traffic volumes and ratios between existing a.m. and p.m. peak volume were calculated. These ratios were then applied to the 2025 a.m. peak model numbers. These adjusted 2025 a.m. peak directional arterial traffic volumes were then used in the methodology described above in Step 1 to obtain the growth in traffic during the a.m. peak hour. Similarly, to develop future intersection turn movements for the Saturday peak hours, the ratios of the existing p.m. peak to Saturday peak hours were used. These ratios were applied to the postprocessed year 2025 no project p.m. peak hour traffic volumes to determine the 2025 no project Saturday peak-hour traffic volumes. Project trips were then manually added to the study area intersections to determine the 2025 plus project traffic volumes. Year 2025 traffic volumes were forecast for two roadway networks. The network used for project impact analysis assumes that Dominguez Road terminates at Granite Drive, as in the existing condition, and is referred to as "without Dominguez Road." The alternative network assumes that Dominguez Road is extended east to Sierra College Boulevard. This alternative network is referred to as "with Dominguez Road" and is intended to provide a sensitivity analysis of the effects of extending Dominguez Road. The Dominguez Road extension is in the City's Traffic Impact Fee and Capital Improvement Program and is included in the City's current General Plan although no schedule exists for construction of the new segment. The analysis of "with Dominguez Road" conditions is provided in the Special Issues section.

2025 No Project without Dominguez Road

Weekday and Saturday peak-hour forecast traffic volumes for the 2025 no project without Dominguez Road scenario are shown in Figures 18 and 19. The LOS for study area intersections and roadway segments are shown in Tables M and N. The 2025 no project without Dominguez Road traffic volume development and LOS worksheets are provided in Appendix G. All 2025 LOS include the roadway improvements assumed in the baseline condition as well as implementation of the City's General Plan roadway system as documented in the City General Plan Circulation Element. The LOS also includes the following improvements to the intersection of Sierra College Boulevard/Rocklin Road, which is planned as part of the Sierra College Boulevard widening project: (1) Northbound – addition of a second left, third through, and exclusive right-turn lanes; (2) Southbound – addition of a

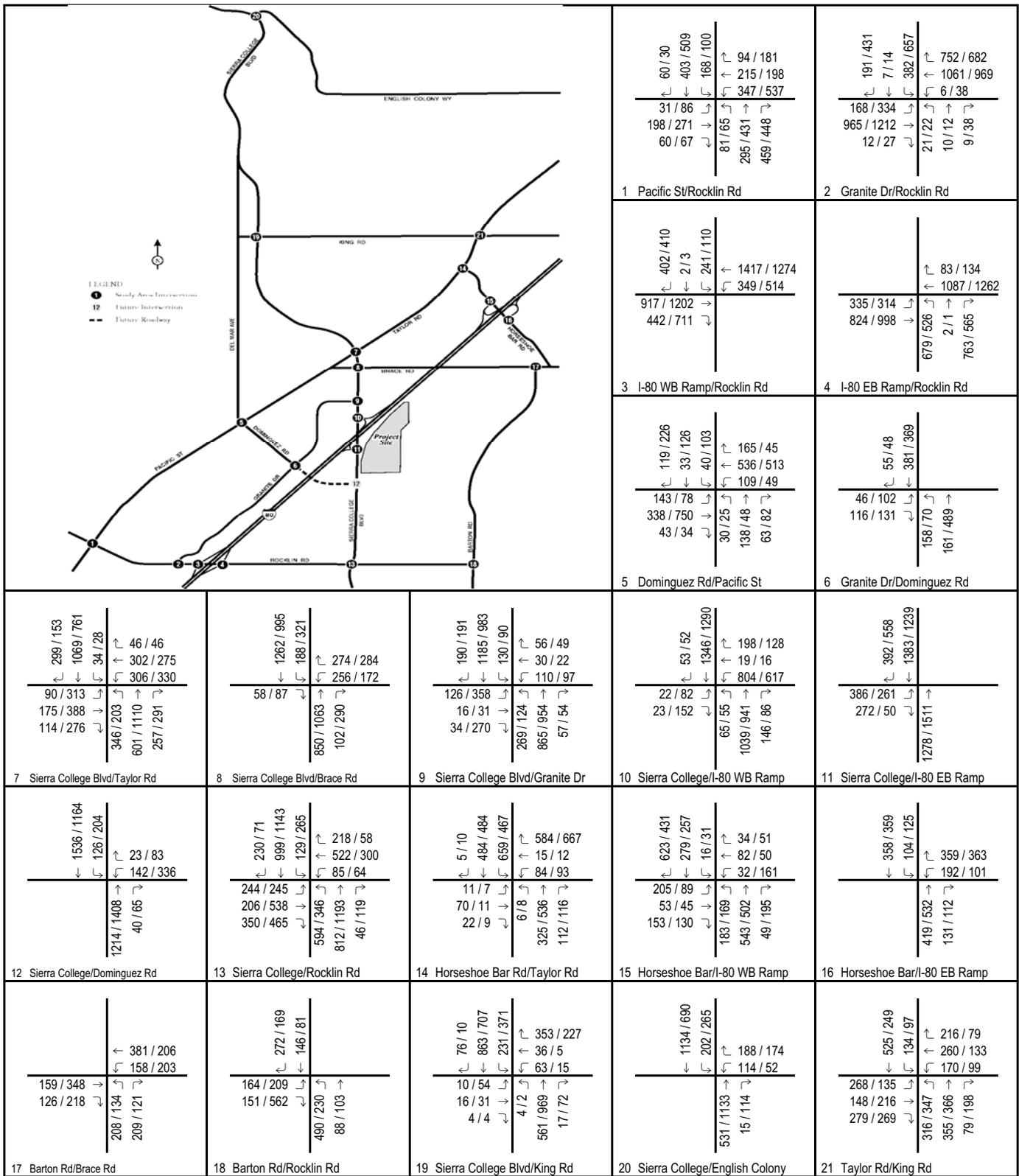


FIGURE 18

123 / 456 AM / PM Peak Hour Volume

Rocklin Crossings

Year 2025 No Project Peak Hour Traffic Volumes - Without Dominguez Road

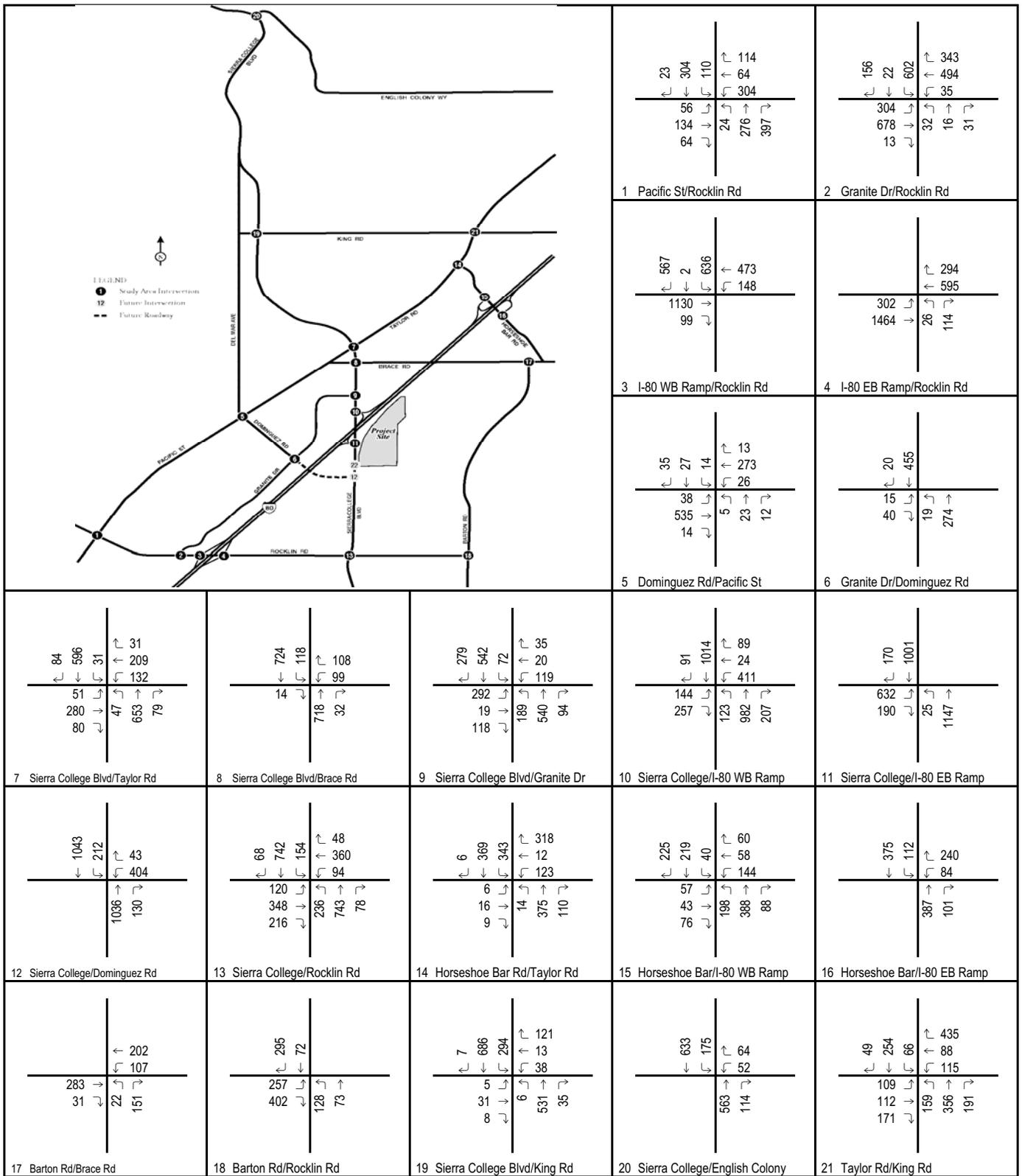


FIGURE 19

Rocklin Crossings

Year 2025 No Project Saturday Peak Hour Traffic Volumes - Without Dominguez Road

Table M: 2025 No Project without Dominguez Road Condition Peak Hour Intersection Level of Service Summary

Intersection	2025 No Project without Dominguez Road Condition								
	AM Peak Hour			PM Peak Hour			Saturday		
	V/C Ratio / Delay	LOS	LOS	V/C Ratio / Delay	LOS	V/C Ratio / Delay	LOS	LOS	
1 Rocklin Road/Pacific Street ¹	0.639	B	B	0.674	B	0.488	A	A	
2 Rocklin Road/Granite Drive	0.564	A	A	0.771	C	0.570	A	A	
3 Rocklin Road/I-80 Westbound Ramps	0.734	C	C	0.993	E	0.818	D	D	
4 Rocklin Road/I-80 Eastbound Ramps	0.878	D	D	0.856	D	0.490	A	A	
5 Dominguez Road/Pacific Street ¹	0.502	A	A	0.657	B	0.368	A	A	
6 Dominguez Road/Granite Drive ¹	13.0 sec	B	B	15.1 sec	C	11.1 sec	B	B	
7 Sierra College Boulevard/Taylor Road (Loomis)	0.825	D	D	0.788	C	0.466	A	A	
8 Sierra College Boulevard/Brace Road (Loomis)	0.497	A	A	0.640	B	0.288	A	A	
9 Sierra College Boulevard/Granite Drive	0.551	A	A	0.559	A	0.482	A	A	
10 Sierra College Boulevard/I-80 Westbound Ramps	0.593	A	A	0.592	A	0.572	A	A	
11 Sierra College Boulevard/I-80 Eastbound Ramps	0.584	A	A	0.462	A	0.529	A	A	
12 Sierra College Boulevard/Dominguez Road	0.377	A	A	0.533	A	0.499	A	A	
13 Sierra College Boulevard/Rocklin Road ¹	0.705	C	C	0.649	B	0.392	A	A	
14 Taylor Road/Horseshoe Bar Road (Loomis)	1.025	F	F	1.087	F	0.698	B	B	
15 Horseshoe Bar Road/I-80 Westbound Ramps (Loomis)	0.475	A	A	0.437	A	0.401	A	A	
16 Horseshoe Bar Road/I-80 Eastbound Ramps ² (Loomis)	29.8 sec	D	D	26.9 sec	D	16.7 sec	C	C	
17 Barton Road/Brace Road ¹² (Loomis)	81.4 sec	F	F	59.9 sec	F	12.4 sec	B	B	
18 Barton Road/Rocklin Road ¹² (Loomis)	261.4 sec	F	F	20.4 sec	C	17.0 sec	C	C	
19 Sierra College Boulevard/King Road ¹ (Loomis)	0.607	B	B	0.744	C	0.481	A	A	
20 Sierra College Boulevard/English Colony Way ¹² (Placer County)	266.4 sec	F	F	593.7 sec	F	32.9 sec	D	D	
21 Taylor Road/King Road ¹ (Loomis)	0.802	D	D	0.509	A	0.589	A	A	

Notes:

ICU V/C ratio is used for signalized intersections. HCM delay in seconds is used for unsignalized intersections.

¹ LOS C required for these intersections. LOS D acceptable for all other intersections.

² Peak Hour volumes meet Signal Warrant #3 of the MUTCD

☐ Exceeds level of service criteria

Table N: 2025 No Project Without Dominguez Road Daily Roadway Segment Level of Service Summary

Roadway	Segment	Capacity	Volume	Capacity Configuration	V/C	LOS
Taylor Road	King Road and Horseshoe Bar Road ¹ (Loomis)	15,000	19,499	Two-lane Collector	1.30	F
	Horseshoe Bar Road and Sierra College Boulevard ¹ (Loomis)	15,000	14,891	Two-lane Collector	0.99	E
Pacific Street	Sierra College Boulevard and Dominguez Road ¹	30,000	17,725	Four-lane Undivided Arterial	0.59	A
	Dominguez Road and Rocklin Road ¹	30,000	22,105	Four-lane Undivided Arterial	0.74	C
Rocklin Road	Pacific Street and Granite Drive	30,000	37,534	Four-lane Undivided Arterial	1.25	F
	I-80 and Sierra College Boulevard	30,000	16,346	Four-lane Undivided Arterial	0.54	A
	Sierra College Boulevard and Barton Road ¹ (Loomis)	30,000	14,281	Four-lane Undivided Arterial	0.48	A
Barton Road	Rocklin Road and Brace Road ¹ (Loomis)	15,000	6,372	Two-lane Collector	0.42	A
Horseshoe Bar Road	I-80 and Brace Road (Loomis)	15,000	9,983	Two-lane Collector	0.67	B
Brace Road	I-80 and Barton Road ¹ (Loomis)	15,000	9,754	Two-lane Collector	0.65	B
	I-80 and Sierra College Boulevard ¹ (Loomis)	15,000	9,202	Two-lane Collector	0.61	B
Sierra College Boulevard	English Colony Way and King Road ¹ (Placer County)	30,000	22,994	Four-lane Undivided Arterial	0.77	C
	King Road and Taylor Road ¹ (Loomis)	30,000	21,382	Four-lane Undivided Arterial	0.71	C
	Taylor Road and I-80	50,525	32,940	Six-lane Arterial	0.65	B
	I-80 and Dominguez Road	50,525	26,424	Six-lane Arterial	0.52	A
	Dominguez Road and Rocklin Road ¹	50,525	32,628	Six-lane Arterial	0.65	B
Granite Drive	Dominguez Road and Sierra College Boulevard ¹	30,000	11,367	Four-lane Undivided Arterial	0.38	A
	Dominguez Road and Rocklin Road ¹	30,000	14,008	Four-lane Undivided Arterial	0.47	A
Dominguez Road	Taylor Road and Granite Drive ¹	15,000	4,942	Two-lane Collector	0.33	A
King Road	Sierra College Boulevard and Taylor Road ¹ (Loomis)	15,000	7,037	Two-lane Collector	0.47	A

Notes:

¹ LOS C required for these segments, LOS D acceptable for all other segments.

Exceeds level of service criteria

Roadway Improvements consistent with City of Rocklin General Plan, Town of Loomis General Plan, and the Horseshoe Bar/Pennryn Community Plan

third through and exclusive right-turn lanes; and (3) Westbound – addition of a second left and second through lanes. The 2025 intersection geometrics and traffic control are shown in Figure 20.

As shown in Table M, the following six intersections are forecast to operate at unsatisfactory LOS in the 2025 No Project without Dominguez Road condition:

- € Rocklin Road/I-80 Westbound Ramps
- € Taylor Road/Horseshoe Bar Road (Loomis)
- € Barton Road/Brace Road (Loomis)
- € Barton Road/Rocklin Road (Loomis)
- € Sierra College Boulevard/English Colony Way (Placer County)
- € Taylor Road/King Road (Loomis)

The results of the roadway analysis as shown in Table N indicate that most of the study area roadway segments are forecast to operate within their daily roadway capacities with the exception of the following three segments:

- € Taylor Road between King Road and Horseshoe Bar Road (Loomis)
- € Taylor Road between Horseshoe Bar Road and Sierra College Boulevard (Loomis)
- € Rocklin Road between Pacific Street and Granite Drive

2025 Plus Project without Dominguez Road

Traffic volumes generated by the proposed project were added to the 2025 no project traffic volumes, and LOS were calculated for the 2025 plus project scenario. Weekday and Saturday peak-hour forecast traffic volumes for the 2025 plus project without Dominguez Road scenario are shown in Figures 21 and 22. The LOS for study area intersections and roadway segments in the 2025 plus project without Dominguez Road scenario are shown in Tables O and P. The 2025 plus project without Dominguez Road LOS worksheets are provided in Appendix H.

As shown in Table O, the following five intersections operate at unsatisfactory LOS and are significantly impacted in the 2025 plus project without Dominguez Road scenario:

- € Rocklin Road/I-80 Westbound Ramps
- € Rocklin Road/I-80 Eastbound Ramps
- € Barton Road/Brace Road (Loomis)
- € Barton Road/Rocklin Road (Loomis)
- € Sierra College Boulevard/English Colony Way (Placer County)

As shown in Table P, the results of the roadway segment analysis indicate that the following four roadway segments that were forecast to operate with unsatisfactory LOS in the without project scenario would continue to operate with unsatisfactory LOS in the 2025 plus project without Dominguez Road scenario:

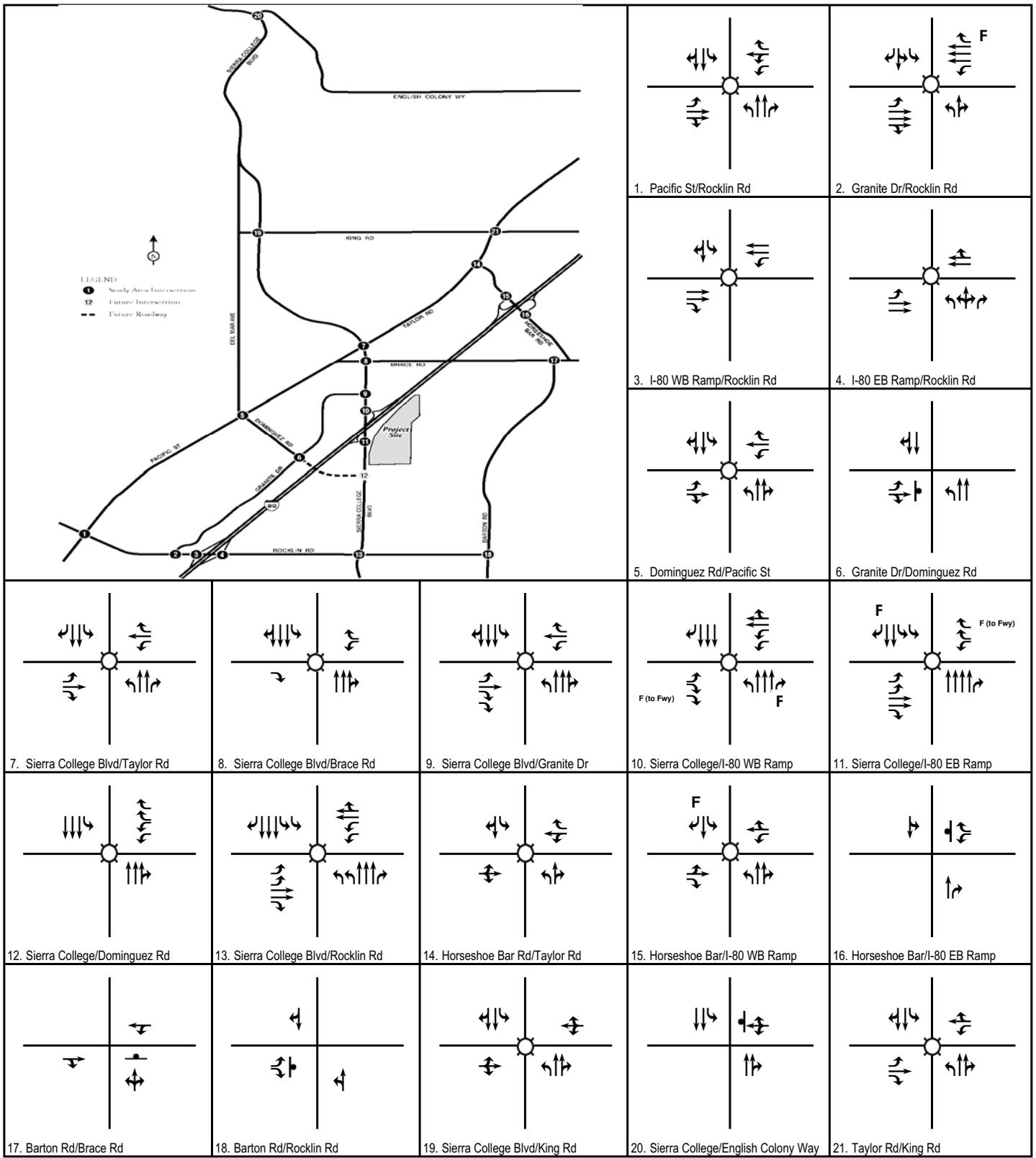


FIGURE 20

LSA

- Legend
- Signal
- Stop Sign
- F Free Right Turn

Rocklin Crossings
Year 2025 Geometrics and Traffic Control

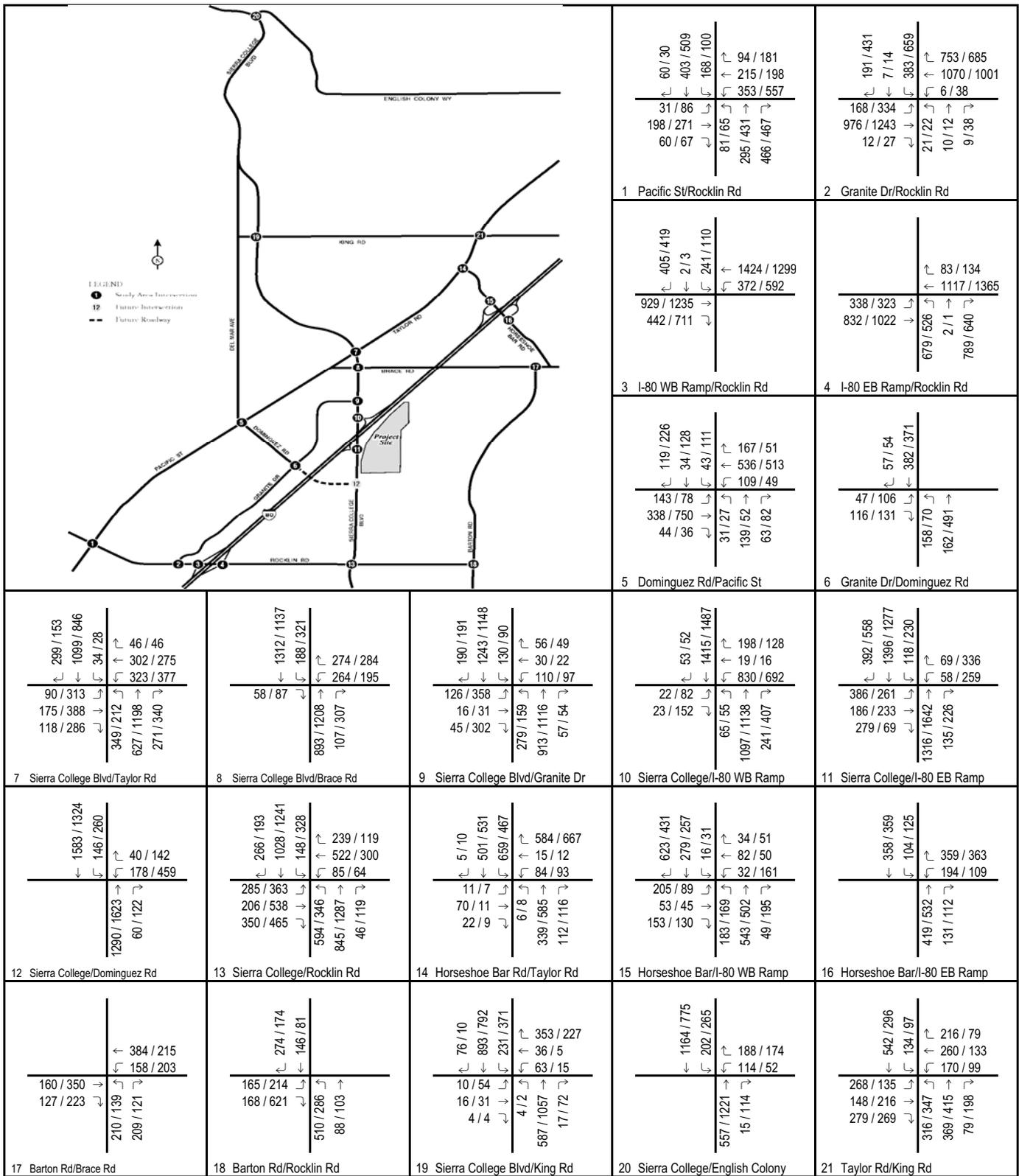


FIGURE 21

123 / 456 AM / PM Peak Hour Volume

Rocklin Crossings

Year 2025 Plus Project Peak Hour Traffic Volumes - Without Dominguez Road

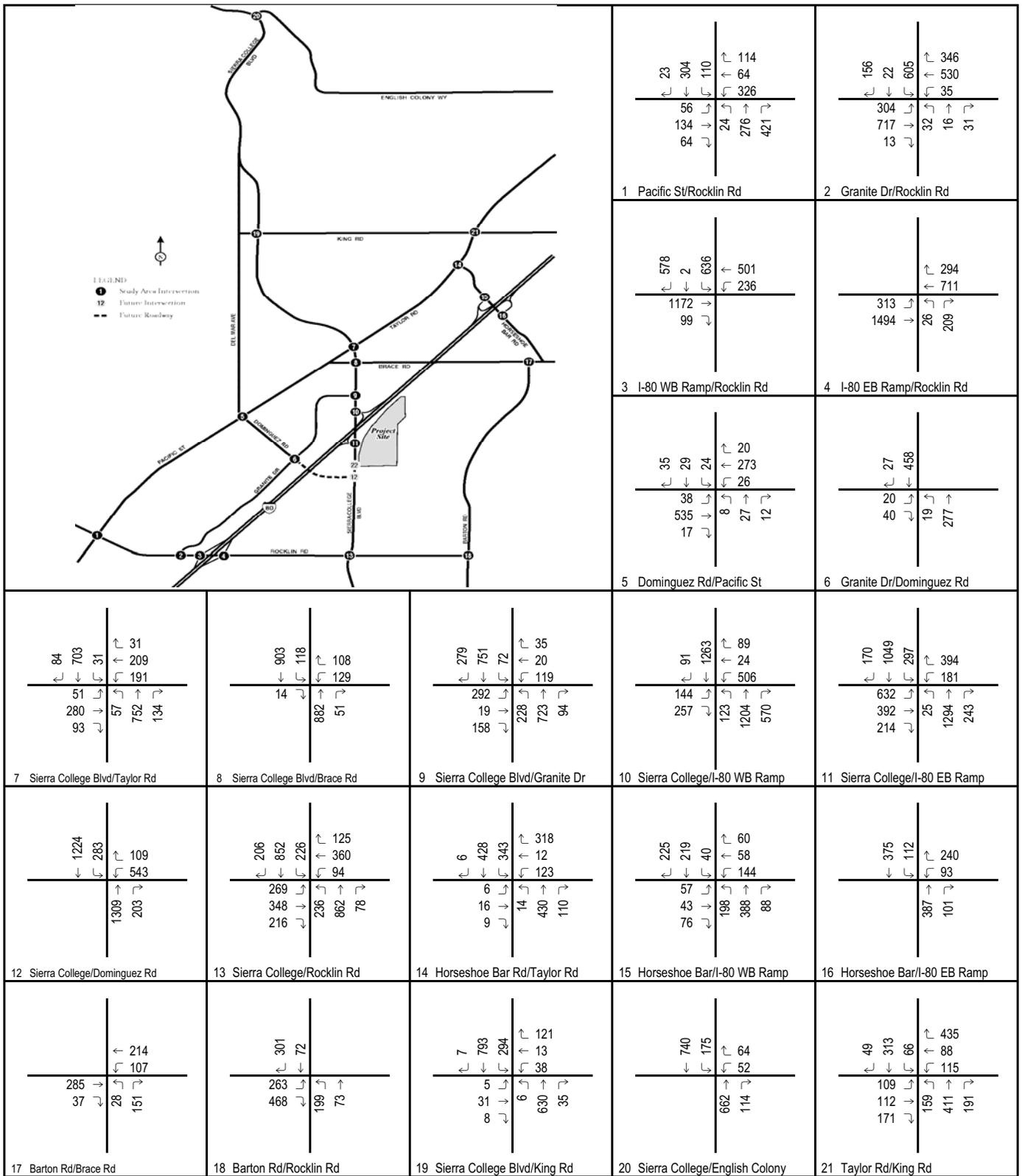


FIGURE 22

Rocklin Crossings
Year 2025 Plus Project Saturday Peak Hour Traffic Volumes - Without Dominguez Road

Table O: 2025 Plus Project without Dominguez Road Intersection Peak Hour Intersection Level of Service Summary

Intersection	2025 No Project without Dominguez Road Condition						2025 Plus Project without Dominguez Road Condition								
	AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour			Saturday		
	V/C Ratio / Delay	LOS		V/C Ratio / Delay	LOS		V/C Ratio / Delay	LOS		V/C Ratio / Delay	LOS		V/C Ratio / Delay	LOS	
1 Rocklin Road/Pacific Street ¹	0.639	B		0.674	B		0.645	B		0.692	B		0.510	A	
2 Rocklin Road/Granite Drive	0.564	A		0.771	C		0.567	A		0.780	C		0.582	A	
3 Rocklin Road/I-80 Westbound Ramps	0.734	C		0.993	E		0.754	C		1.045	F		0.884	D	
4 Rocklin Road/I-80 Eastbound Ramps	0.878	D		0.856	D		0.895	D		0.909	E		0.564	A	
5 Dominguez Road/Pacific Street ¹	0.502	A		0.657	B		0.502	A		0.659	B		0.377	A	
6 Dominguez Road/Granite Drive ¹	13.0 sec	B		15.1 sec	C		13.1 sec	B		15.5 sec	C		11.5 sec	B	
7 Sierra College Boulevard/Taylor Road (Loomis)	0.825	D		0.788	C		0.846	D		0.848	D		0.532	A	
8 Sierra College Boulevard/Brace Road (Loomis)	0.497	A		0.640	B		0.511	A		0.673	B		0.347	A	
9 Sierra College Boulevard/Granite Drive	0.551	A		0.559	A		0.569	A		0.614	B		0.544	A	
10 Sierra College Boulevard/I-80 Westbound Ramps	0.593	A		0.592	A		0.616	B		0.657	B		0.654	B	
11 Sierra College Boulevard/I-80 Eastbound Ramps	0.584	A		0.462	A		0.634	B		0.678	B		0.782	C	
12 Sierra College Boulevard/Dominguez Road	0.377	A		0.533	A		0.421	A		0.663	B		0.658	B	
13 Sierra College Boulevard/Rocklin Road ¹	0.705	C		0.649	B		0.731	C		0.672	B		0.487	A	
14 Taylor Road/Horseshoe Bar Road (Loomis)	1.025	F		1.087	F		1.033	F ²		1.116	F ²		0.732	C	
15 Horseshoe Bar Road/I-80 Westbound Ramps (Loomis)	0.475	A		0.437	A		0.475	A		0.437	A		0.401	A	
16 Horseshoe Bar Road/I-80 Eastbound Ramps ³ (Loomis)	29.8 sec	D		26.9 sec	D		30.2 sec	D		27.7 sec	D		17.3 sec	C	
17 Barton Road/Brace Road ¹³ (Loomis)	81.4 sec	F		59.9 sec	F		85.2 sec	F ²		68.0 sec	F		12.8 sec	B	
18 Barton Road/Rocklin Road ¹³ (Loomis)	261.4 sec	F		20.4 sec	C		304.7 sec	F		27.6 sec	D		23.9 sec	C	
19 Sierra College Boulevard/King Road ¹ (Loomis)	0.607	B		0.744	C		0.615	B		0.771	C		0.511	A	
20 Sierra College Boulevard/English Colony Way ¹³ (Placer County)	266.4 sec	F		593.7 sec	F		305.0 sec	F		840.9 sec	F		47.3 sec	E	
21 Taylor Road/King Road ¹ (Loomis)	0.802	D		0.509	A		0.807	D ²		0.523	A		0.605	B	

Notes:

- ICU V/C ratio is used for signalized intersections. HCM delay in seconds is used for unsignalized intersections.
- LOS C required for these intersections. LOS D acceptable for all other intersections.
- Project impact is less than 5% of total intersection V/C or delay and therefore not a significant impact.
- Peak Hour volumes meet Signal Warrant #3 of the MUTCD
- Delay exceeds 1000 seconds
- Exceeds level of service criteria
- (Shade) = Significant Impact

Table P: 2025 Plus Project Without Dominguez Road Daily Roadway Segment Level of Service Summary

Roadway	Segment	Capacity	Volume	Capacity Configuration	V/C	LOS
Taylor Road	King Road and Horseshoe Bar Road ¹ (Loomis)	15,000	20,459	Two-lane Collector	1.36	F
	Horseshoe Bar Road and Sierra College Boulevard ¹ (Loomis)	15,000	15,471	Two-lane Collector	1.03	F
Pacific Street	Sierra College Boulevard and Dominguez Road ¹	30,000	18,235	Four-lane Undivided Arterial	0.61	B
	Dominguez Road and Rocklin Road ¹	30,000	22,385	Four-lane Undivided Arterial	0.75	C
Rocklin Road	Pacific Street and Granite Drive	30,000	37,864	Four-lane Undivided Arterial	1.26	F
	I-80 and Sierra College Boulevard	30,000	18,006	Four-lane Undivided Arterial	0.60	B
	Sierra College Boulevard and Barton Road ¹ (Loomis)	30,000	15,501	Four-lane Undivided Arterial	0.52	A
Barton Road	Rocklin Road and Brace Road ¹ (Loomis)	15,000	6,962	Two-lane Collector	0.46	A
Horseshoe Bar Road	I-80 and Brace Road (Loomis)	15,000	10,033	Two-lane Collector	0.67	B
Brace Road	I-80 and Barton Road ¹ (Loomis)	15,000	9,864	Two-lane Collector	0.66	B
	I-80 and Sierra College Boulevard ¹ (Loomis)	15,000	9,202	Two-lane Collector	0.61	B
Sierra College Boulevard	English Colony Way and King Road ¹ (Placer County)	30,000	24,724	Four-lane Undivided Arterial	0.82	D
	King Road and Taylor Road ¹ (Loomis)	30,000	23,682	Four-lane Undivided Arterial	0.79	C
	Taylor Road and I-80	50,525	36,360	Six-lane Arterial	0.72	C
	I-80 and Dominguez Road	50,525	35,494	Six-lane Arterial	0.70	B
	Dominguez Road and Rocklin Road ¹	50,525	36,348	Six-lane Arterial	0.72	C
Granite Drive	Dominguez Road and Sierra College Boulevard ¹	30,000	11,387	Four-lane Undivided Arterial	0.38	A
	Dominguez Road and Rocklin Road ¹	30,000	14,068	Four-lane Undivided Arterial	0.47	A
Dominguez Road	Taylor Road and Granite Drive ¹	15,000	5,042	Two-lane Collector	0.34	A
King Road	Sierra College Boulevard and Taylor Road ¹ (Loomis)	15,000	7,037	Two-lane Collector	0.47	A

Notes:

¹ LOS C required for these segments. LOS D acceptable for all other segments.

Exceeds level of service criteria

Roadway Improvements consistent with City of Rocklin General Plan, Town of Loomis General Plan, and the Horseshoe Bar/Pentryn Community Plan

- € Taylor Road between King Road and Horseshoe Bar Road (Loomis)
- € Taylor Road between Horseshoe Bar Road and Sierra College Boulevard (Loomis)
- € Rocklin Road between Pacific Street and Granite Drive
- € Sierra College Boulevard between English Colony Way and King Road (Placer County)

A peak-hour segment analysis was prepared for these four roadway segments and is shown in Table Q. As shown in Table Q, the segments along Sierra College Boulevard would operate with satisfactory LOS during the a.m. and p.m. peak hours. As a result, the project would not create a significant impact on these roadway segments.

Recommended Mitigation: 2025 Plus Project Without Dominguez Road

- € **Rocklin Road/I-80 Westbound Ramps.** The project would add traffic to this already deficient location, which is operating at LOS F during the p.m. peak hour in the 2025 no project without Dominguez Road scenario. The City has proposed an improvement at the intersection of Rocklin Road/I-80 westbound ramps that provides a flyover from westbound Rocklin Road to the I-80 westbound on-ramp. This improvement will mitigate the impact at this location. The project applicant will pay a traffic impact fee (on a fair-share basis) that has been set up by the City for this proposed improvement.
- € **Rocklin Road/I-80 Eastbound Ramps.** The proposed improvement at the intersection of Rocklin Road/I-80 westbound ramps (discussed above) will reduce westbound through traffic at the intersection of Rocklin Road/I-80 eastbound ramps; therefore, the intersection will not have a cumulative impact. The project applicant will pay a traffic impact fee (on a fair-share basis) that has been set up by the City for the proposed interchange improvement.
- € **Barton Road/Brace Road.** This intersection is operating at an unsatisfactory LOS during the a.m. and p.m. peak hours in the no project condition. The intersection is forecast to meet the peak-hour traffic signal warrant in the 2025 no project without Dominguez Road extension scenario. The intersection would continue to meet the peak-hour traffic signal warrant with the addition of project traffic. Signalization of this intersection would result in a satisfactory LOS. To mitigate the project contribution of traffic at this intersection, the project should participate on a fair-share basis in the installation of a traffic signal at Barton Road/Brace Road.
- € **Barton Road/Rocklin Road.** This intersection is operating at an unsatisfactory LOS during the a.m. peak hour in the no project condition. The intersection is forecast to meet the peak-hour traffic signal warrant in the 2025 no project without Dominguez Road extension scenario. The intersection would continue to meet the peak-hour traffic signal warrant with the addition of project traffic. Signalization of this intersection would result in a satisfactory LOS. To mitigate the project contribution of traffic at this intersection, the project should participate on a fair-share basis in the installation of a traffic signal at Barton Road/Rocklin Road.
- € **Sierra College Boulevard/English Colony Way.** This intersection is operating at an unsatisfactory LOS during the a.m. peak hour in the no project condition. The intersection is forecast to meet the peak-hour traffic signal warrant in the 2025 no project without Dominguez

Table Q: 2025 Without Dominguez Road - Peak Hour Roadway Segment Level of Service Summary

Roadway	Segment	Capacity	2025 No Project			2025 Plus Project		
			Volume	V/C	LOS	Volume	V/C	LOS
Taylor Road	King Rd and Horseshoe Bar Rd (Loomis)							
	A.M. Peak Hour Northbound	1,650	657	0.40	A	674	0.41	A
	A.M. Peak Hour Southbound	1,650	846	0.51	A	860	0.52	A
	Total A.M. Peak Hour	3,300	1,503	0.46	A	1,534	0.46	A
	P.M Peak Hour Northbound	1,650	586	0.36	A	633	0.38	A
	P.M Peak Hour Southbound	1,650	660	0.40	A	709	0.43	A
	Total P.M. Peak Hour	3,300	1,246	0.38	A	1,342	0.41	A
	SAT Peak Hour Northbound	1,650	501	0.30	A	560	0.34	A
	SAT Peak Hour Southbound	1,650	898	0.54	A	953	0.58	A
	Total SAT Peak Hour	3,300	1,399	0.42	A	1,513	0.46	A
Taylor Road	Horseshoe Bar Rd and Sierra College Blvd (Loomis)							
	A.M. Peak Hour Northbound	1,650	1,147	0.70	C	1,164	0.71	C
	A.M. Peak Hour Southbound	1,650	921	0.56	A	935	0.57	A
	Total A.M. Peak Hour	3,300	2,068	0.63	B	2,099	0.64	B
	P.M Peak Hour Northbound	1,650	961	0.58	A	1,008	0.61	B
	P.M Peak Hour Southbound	1,650	1,210	0.73	C	1,259	0.76	C
	Total P.M. Peak Hour	3,300	2,171	0.66	B	2,267	0.69	B
	SAT Peak Hour Northbound	1,650	718	0.44	A	777	0.47	A
	SAT Peak Hour Southbound	1,650	699	0.42	A	754	0.46	A
	Total SAT Peak Hour	3,300	1,417	0.43	A	1,531	0.46	A
Rocklin Road	Pacific St and Granit Dr							
	A.M. Peak Hour Eastbound	3,300	1,815	0.55	A	1,825	0.55	A
	A.M. Peak Hour Westbound	3,300	1,355	0.41	A	1,367	0.41	A
	Total A.M. Peak Hour	6,600	3,170	0.48	A	3,192	0.48	A
	P.M Peak Hour Eastbound	3,300	1,691	0.51	A	1,726	0.52	A
	P.M Peak Hour Westbound	3,300	1,907	0.58	A	1,940	0.59	A
	Total P.M. Peak Hour	6,600	3,598	0.55	A	3,666	0.56	A
	SAT Peak Hour Eastbound	3,300	870	0.26	A	911	0.28	A
	SAT Peak Hour Westbound	3,300	1,310	0.40	A	1,352	0.41	A
	Total SAT Peak Hour	6,600	2,180	0.33	A	2,263	0.34	A
Sierra College Boulevard	English Colony Way and King Rd (Placer County)							
	A.M. Peak Hour Northbound	3,300	1,333	0.40	A	1,363	0.41	A
	A.M. Peak Hour Southbound	3,300	718	0.22	A	744	0.23	A
	Total A.M. Peak Hour	6,600	2,051	0.31	A	2,107	0.32	A
	P.M Peak Hour Northbound	3,300	955	0.29	A	1,040	0.32	A
	P.M Peak Hour Southbound	3,300	1,307	0.40	A	1,395	0.42	A
	Total P.M. Peak Hour	6,600	2,262	0.34	A	2,435	0.37	A
	SAT Peak Hour Northbound	3,300	808	0.24	A	776	0.24	A
	SAT Peak Hour Southbound	3,300	627	0.19	A	915	0.28	A
	Total SAT Peak Hour	6,600	1,435	0.22	A	1,691	0.26	A

Road extension scenario. The intersection would continue to meet the peak-hour traffic signal warrant with the addition of project traffic. Signalization of this intersection would result in a satisfactory LOS. To mitigate the project contribution of traffic at this intersection, the project should participate on a fair-share basis.

Although the intersection of Taylor Road/King Road operates unsatisfactorily, in the 2025 plus project without Dominguez Road scenario the project would not increase the v/c ratio by 0.05 or more. As a result, the project contribution of traffic at this intersection is not considered a significant impact.

The proposed mitigations for the 2025 plus project without Dominguez Road scenario are shown in Figure 23. Per Town of Loomis¹ and Horseshoe Bar/Penryn Community Plan, Sierra College Boulevard is planned to be widened to a four-lane arterial between Taylor Road and SR-193. In addition, the Town of Loomis has a proposed signal installation at the intersection of Barton Road/Rocklin Road for the near future.

SPECIAL ISSUES

Dominguez Road Sensitivity Analysis

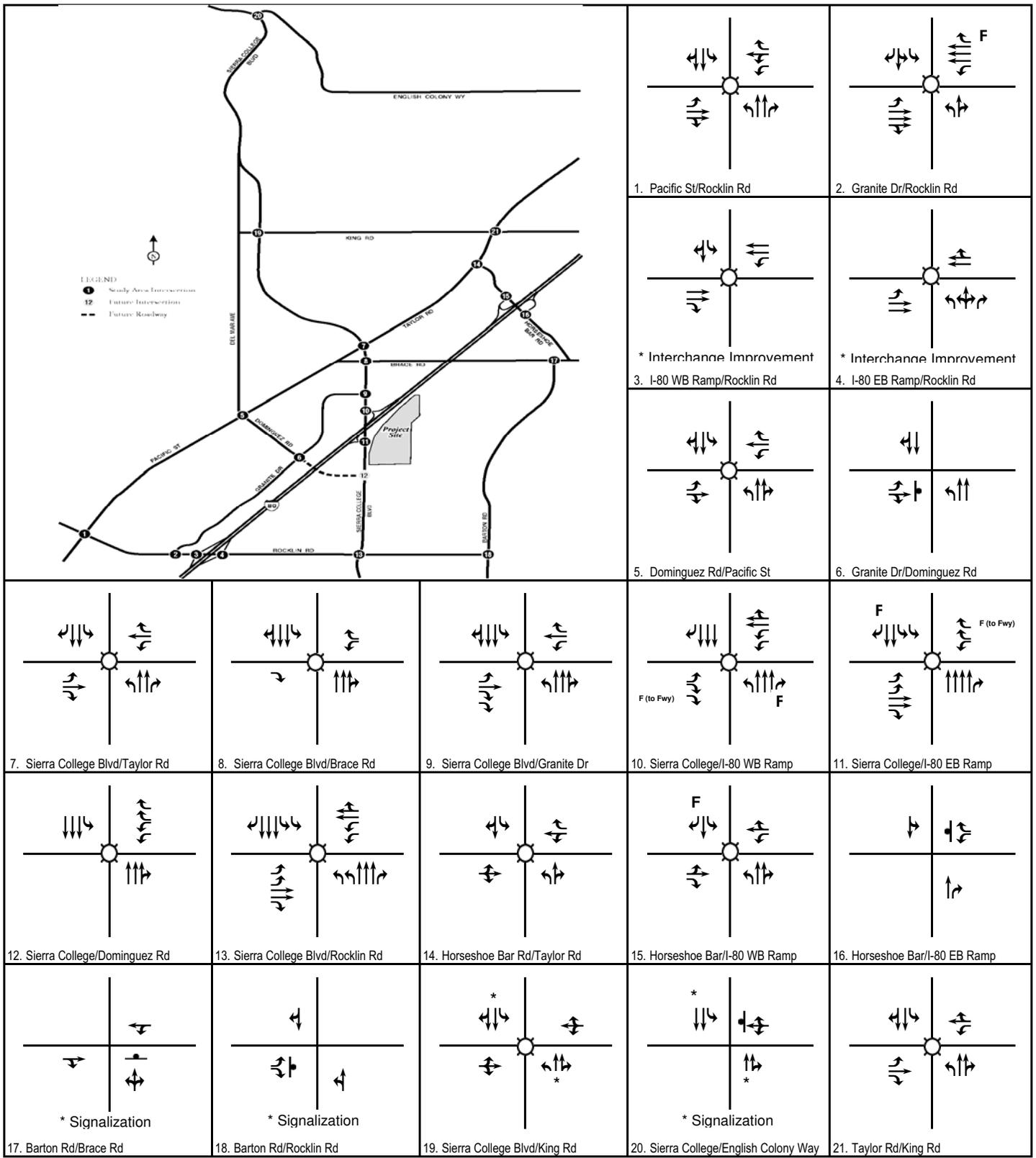
An analysis of forecast year 2025 traffic volumes was prepared assuming that Dominguez Road is extended east to Sierra College Boulevard. This alternative network is referred to as “with Dominguez Road” and is intended to provide a sensitivity analysis of the effects of extending Dominguez Road.

2025 No Project with Dominguez Road. Weekday and Saturday peak-hour forecast traffic volumes for the 2025 no project with Dominguez Road scenario are shown in Figures 24 and 25. The LOS for study area intersections and roadway segments are shown in Tables R and S. The 2025 no project with Dominguez Road traffic volume development and LOS worksheets are provided in Appendix I.

As shown in Table R, the following seven intersections are forecast to operate at unsatisfactory LOS in the 2025 no project with Dominguez Road condition:

- € Rocklin Road/I-80 Westbound Ramps
- € Dominguez Road/Granite Drive
- € Taylor Road/Horseshoe Bar Road (Loomis) Barton Road/Brace Road (Loomis)
- € Barton Road/Rocklin Road (Loomis)
- € Sierra College Boulevard/English Colony Way (Placer County)
- € Taylor Road/King Road (Loomis)

¹ Brian Fraggio, Town of Loomis. Personal communication, January 17, 2007.



LSA

FIGURE 23

- Legend
- Signal
- Stop Sign
- F Free Right Turn
- * Proposed Mitigation

Rocklin Crossings

Year 2025 Plus Project Without Dominguez Road - Mitigation

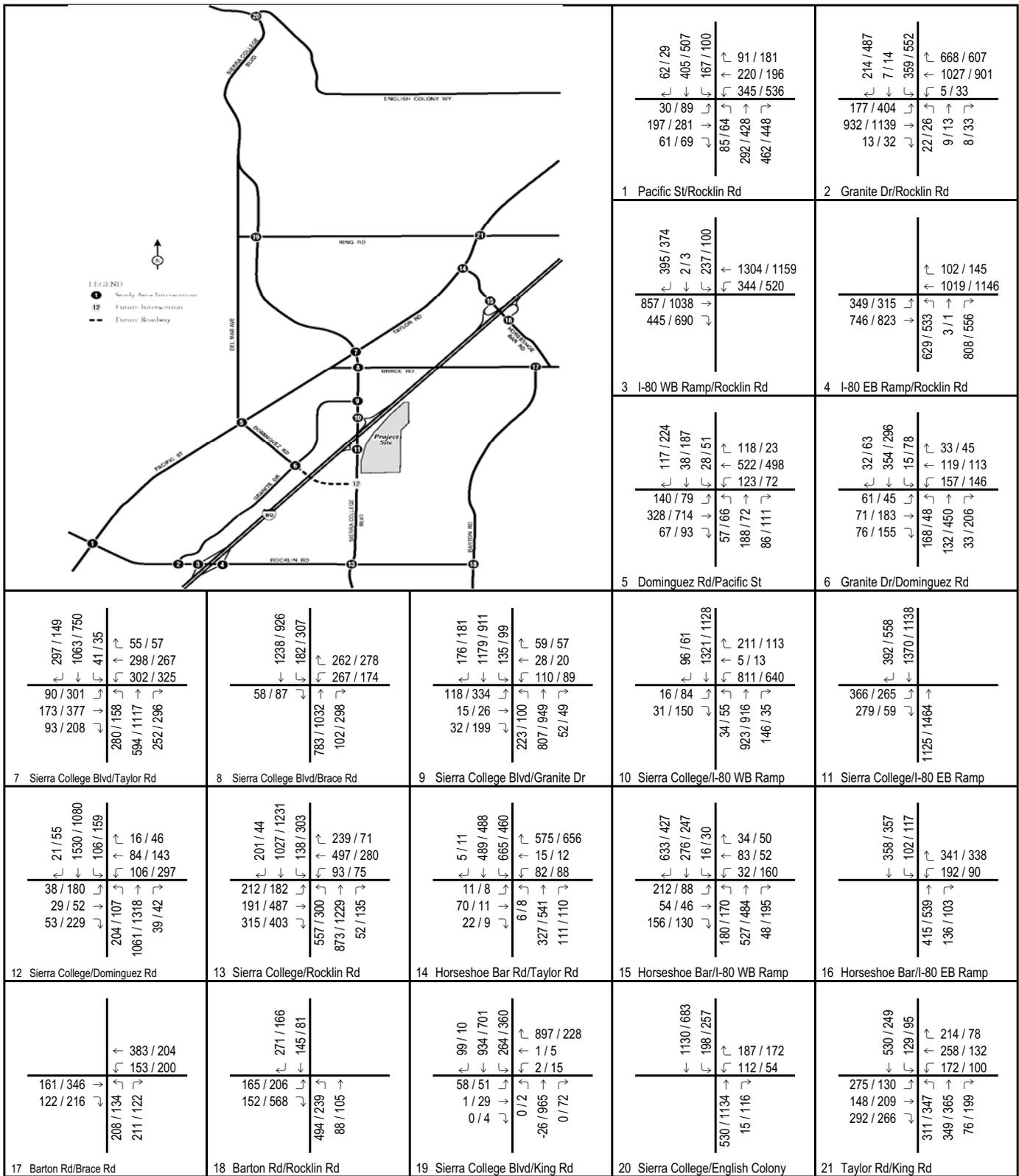


FIGURE 24

123 / 456 AM / PM Peak Hour Volume

Rocklin Crossings
Year 2025 No Project Peak Hour Traffic Volumes - With Dominguez Road

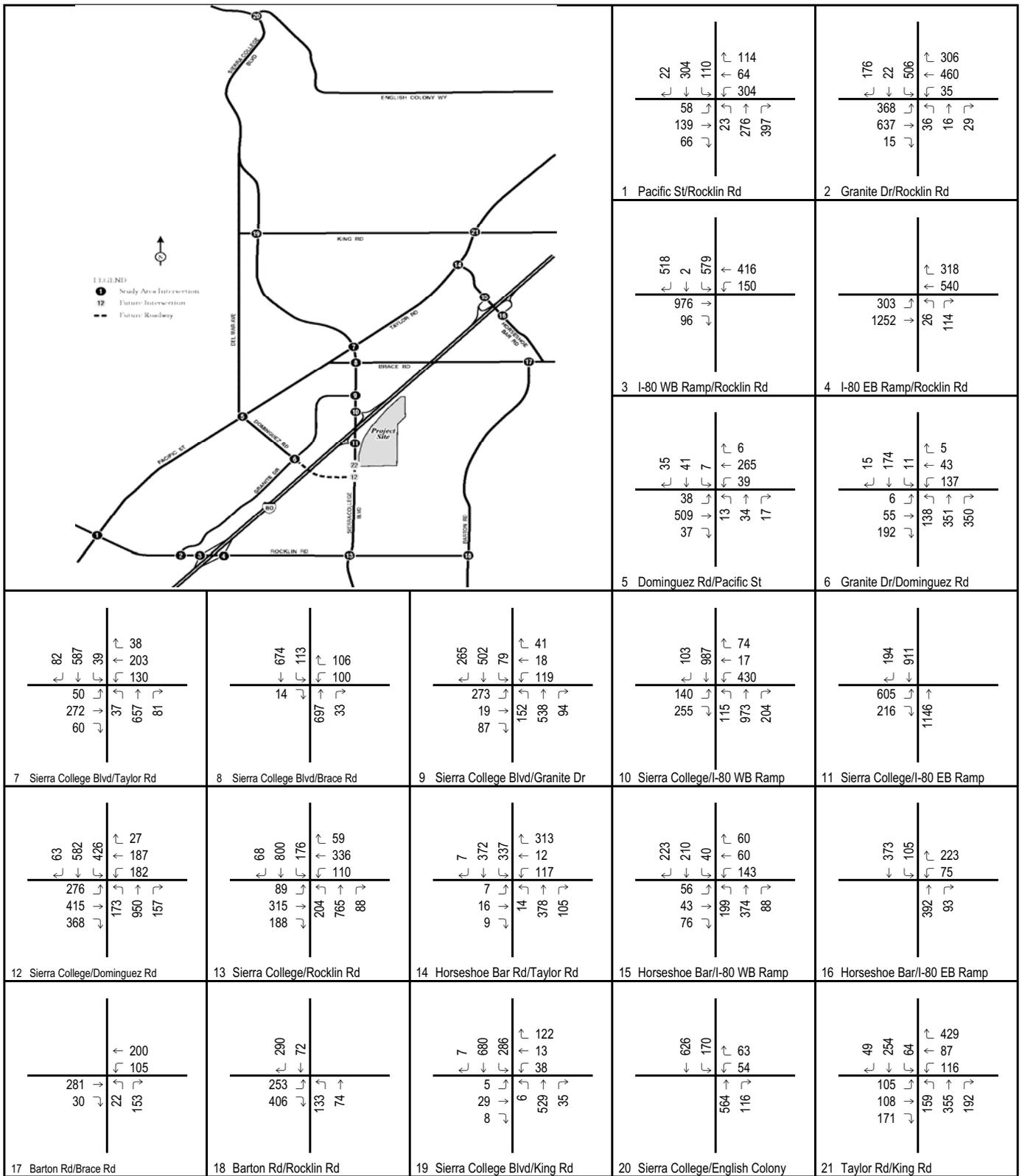


FIGURE 25

Rocklin Crossings
Year 2025 No Project Saturday Peak Hour Traffic Volumes - With Dominguez Road

Table R: 2025 No Project with Dominguez Road Condition Peak Hour Intersection Level of Service Summary

Intersection	2025 No Project with Dominguez Road Condition								
	AM Peak Hour			PM Peak Hour			Saturday		
	V/C Ratio / Delay	LOS	LOS	V/C Ratio / Delay	LOS	V/C Ratio / Delay	LOS	LOS	
1 Rocklin Road/Pacific Street ¹	0.641	B	B	0.676	B	0.490	A	A	
2 Rocklin Road/Granite Drive	0.562	A	D	0.829	D	0.565	A	A	
3 Rocklin Road/I-80 Westbound Ramps	0.719	C	E	0.962	E	0.738	C	C	
4 Rocklin Road/I-80 Eastbound Ramps	0.871	D	D	0.824	D	0.482	A	A	
5 Dominguez Road/Pacific Street ¹	0.507	A	C	0.708	C	0.385	A	A	
6 Dominguez Road/Granite Drive ¹²	48.8 sec	E	F	*	F	70.6 sec	F	F	
7 Sierra College Boulevard/Taylor Road (Loomis)	0.780	C	C	0.785	C	0.466	A	A	
8 Sierra College Boulevard/Brace Road (Loomis)	0.486	A	B	0.623	B	0.285	A	A	
9 Sierra College Boulevard/Granite Drive	0.516	A	A	0.518	A	0.443	A	A	
10 Sierra College Boulevard/I-80 Westbound Ramps	0.577	A	A	0.565	A	0.567	A	A	
11 Sierra College Boulevard/I-80 Eastbound Ramps	0.584	A	A	0.433	A	0.478	A	A	
12 Sierra College Boulevard/Dominguez Road	0.445	A	B	0.600	B	0.762	C	C	
13 Sierra College Boulevard/Rocklin Road ¹	0.687	B	B	0.619	B	0.380	A	A	
14 Taylor Road/Horseshoe Bar Road (Loomis)	1.024	F	F	1.076	F	0.691	B	B	
15 Horseshoe Bar Road/I-80 Westbound Ramps (Loomis)	0.476	A	A	0.431	A	0.395	A	A	
16 Horseshoe Bar Road/I-80 Eastbound Ramps ² (Loomis)	29.0 sec	D	C	24.6 sec	C	16.0 sec	C	C	
17 Barton Road/Brace Road ¹² (Loomis)	78.4 sec	F	F	57.3 sec	F	12.3 sec	B	B	
18 Barton Road/Rocklin Road ¹² (Loomis)	272.1 sec	F	C	20.8 sec	C	17.0 sec	C	C	
19 Sierra College Boulevard/King Road ¹ (Loomis)	0.607	B	C	0.734	C	0.475	A	A	
20 Sierra College Boulevard/English Colony Way ¹² (Placer County)	246.7 sec	F	F	587.0 sec	F	33.2 sec	D	D	
21 Taylor Road/King Road ¹ (Loomis)	0.802	D	A	0.508	A	0.581	A	A	

Notes:

ICU V/C ratio is used for signalized intersections. HCM delay in seconds is used for unsignalized intersections.

¹ LOS C required for these intersections. LOS D acceptable for all other intersections.

² Peak Hour volumes meet Signal Warrant #3 of the MUTCD

* Delay exceeds 1000 seconds

☐ Exceeds level of service criteria

Table S: 2025 No Project With Dominguez Road Daily Roadway Segment Level of Service Summary

Roadway	Segment	Capacity	Volume	Capacity Configuration	V/C	LOS
Taylor Road	King Road and Horseshoe Bar Road ¹ (Loomis)	15,000	19,454	Two-lane Collector	1.30	F
	Horseshoe Bar Road and Sierra College Boulevard ¹ (Loomis)	15,000	14,950	Two-lane Collector	1.00	E
Pacific Street	Sierra College Boulevard and Dominguez Road ¹	30,000	16,466	Four-lane Undivided Arterial	0.55	A
	Dominguez Road and Rocklin Road ¹	30,000	22,389	Four-lane Undivided Arterial	0.75	C
Rocklin Road	Pacific Street and Granite Drive	30,000	37,537	Four-lane Undivided Arterial	1.25	F
	I-80 and Sierra College Boulevard	30,000	13,176	Four-lane Undivided Arterial	0.44	A
	Sierra College Boulevard and Barton Road ¹ (Loomis)	30,000	14,496	Four-lane Undivided Arterial	0.48	A
Barton Road	Rocklin Road and Brace Road ¹ (Loomis)	15,000	6,292	Two-lane Collector	0.42	A
Horseshoe Bar Road	I-80 and Brace Road (Loomis)	15,000	9,908	Two-lane Collector	0.66	B
Brace Road	I-80 and Barton Road ¹ (Loomis)	15,000	9,715	Two-lane Collector	0.65	B
	I-80 and Sierra College Boulevard ¹ (Loomis)	15,000	9,161	Two-lane Collector	0.61	B
Sierra College Boulevard	English Colony Way and King Road ¹ (Placer County)	30,000	23,002	Four-lane Undivided Arterial	0.77	C
	King Road and Taylor Road ¹ (Loomis)	30,000	21,470	Four-lane Undivided Arterial	0.72	C
	Taylor Road and I-80	50,525	31,973	Six-lane Arterial	0.63	B
	I-80 and Dominguez Road	50,525	25,276	Six-lane Arterial	0.50	A
	Dominguez Road and Rocklin Road ¹	50,525	34,148	Six-lane Arterial	0.68	B
Granite Drive	Dominguez Road and Sierra College Boulevard ¹	30,000	9,210	Four-lane Undivided Arterial	0.31	A
	Dominguez Road and Rocklin Road ¹	30,000	13,319	Four-lane Undivided Arterial	0.44	A
Dominguez Road	Taylor Road and Granite Drive ¹	15,000	7,278	Two-lane Collector	0.49	A
King Road	Sierra College Boulevard and Taylor Road ¹ (Loomis)	15,000	7,019	Two-lane Collector	0.47	A

Notes:

¹ LOS C required for these segments. LOS D acceptable for all other segments.

Exceeds level of service criteria

Roadway Improvements consistent with City of Rocklin General Plan, Town of Loomis General Plan, and the Horseshoe Bar/Penryn Community Plan

As shown in Table S, the results of the roadway segment analysis indicate that most of the study area roadway segments are forecast to operate within their daily roadway capacities except for the following three segments:

- € Taylor Road between King Road and Horseshoe Bar Road (Loomis)
- € Taylor Road between Horseshoe Bar Road and Sierra College Boulevard (Loomis)
- € Rocklin Road between Pacific Street and Granite Drive

2025 plus Project with Dominguez Road. Traffic volumes generated by the proposed project were added to the 2025 no project traffic volumes, and LOS were calculated for the 2025 plus project with Dominguez Road scenario. Weekday and Saturday peak-hour forecast traffic volumes for the 2025 plus project with Dominguez Road scenario are shown in Figures 26 and 27. The LOS for study area intersections and roadway segments in the 2025 plus project with Dominguez Road scenario is shown in Tables T and U. The 2025 plus project with Dominguez Road LOS worksheets are provided in Appendix J.

As shown in Table T, the following six intersections are forecast to operate at unsatisfactory LOS and are significantly impacted in the 2025 plus project with Dominguez Road scenario:

- € Rocklin Road/I-80 Westbound Ramps
- € Dominguez Road/Granite Drive
- € Sierra College Boulevard/Dominguez Road
- € Barton Road/Brace Road (Loomis)
- € Barton Road/Rocklin Road (Loomis)
- € Sierra College Boulevard/English Colony Way (Placer County)

The results of the roadway segment analysis as shown in Table U indicate that most of the study area roadway segments are forecast to operate within their daily roadway capacities except for the following four roadway segments, which are forecast to operate with unsatisfactory LOS with the project:

- € Taylor Road between King Road and Horseshoe Bar Road (Loomis)
- € Taylor Road between Horseshoe Bar Road and Sierra College Boulevard (Loomis)
- € Rocklin Road between Pacific Street and Granite Drive
- € Sierra College Boulevard between English Colony Way and King Road (Placer County)

Recommended Mitigation: 2025 Plus Project With Dominguez Road

- € **Rocklin Road/I-80 Westbound Ramps.** The project would add traffic to this already deficient location, which is operating at LOS F during the p.m. peak hour in the 2025 no project with Dominguez Road scenario. The City has proposed an improvement at the intersection of Rocklin Road/I-80 westbound ramps that provides a flyover from westbound Rocklin Road to the I-80

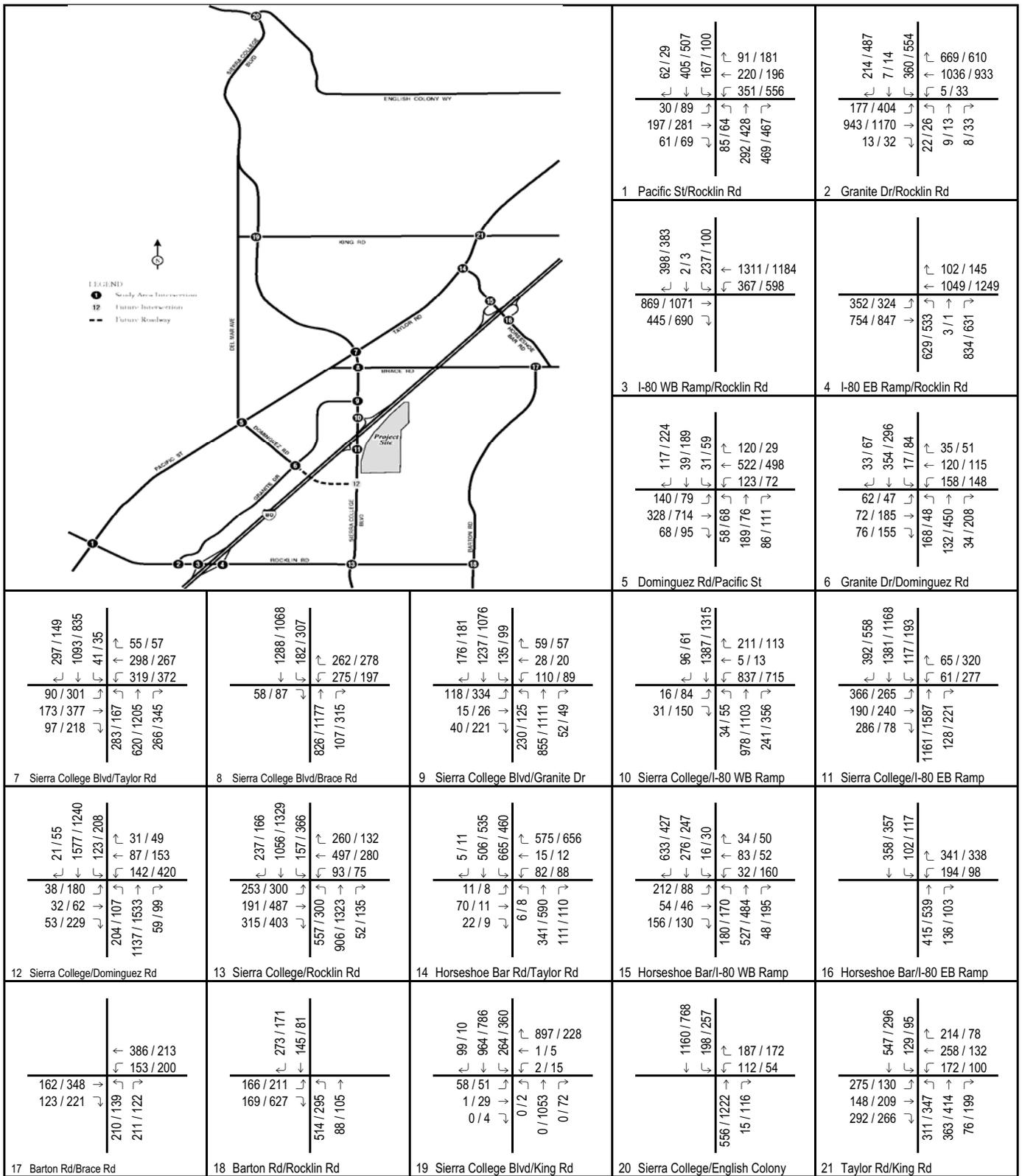


FIGURE 26

123 / 456 AM / PM Peak Hour Volume

Rocklin Crossings
Year 2025 Plus Project Peak Hour Traffic Volumes - With Dominguez Road

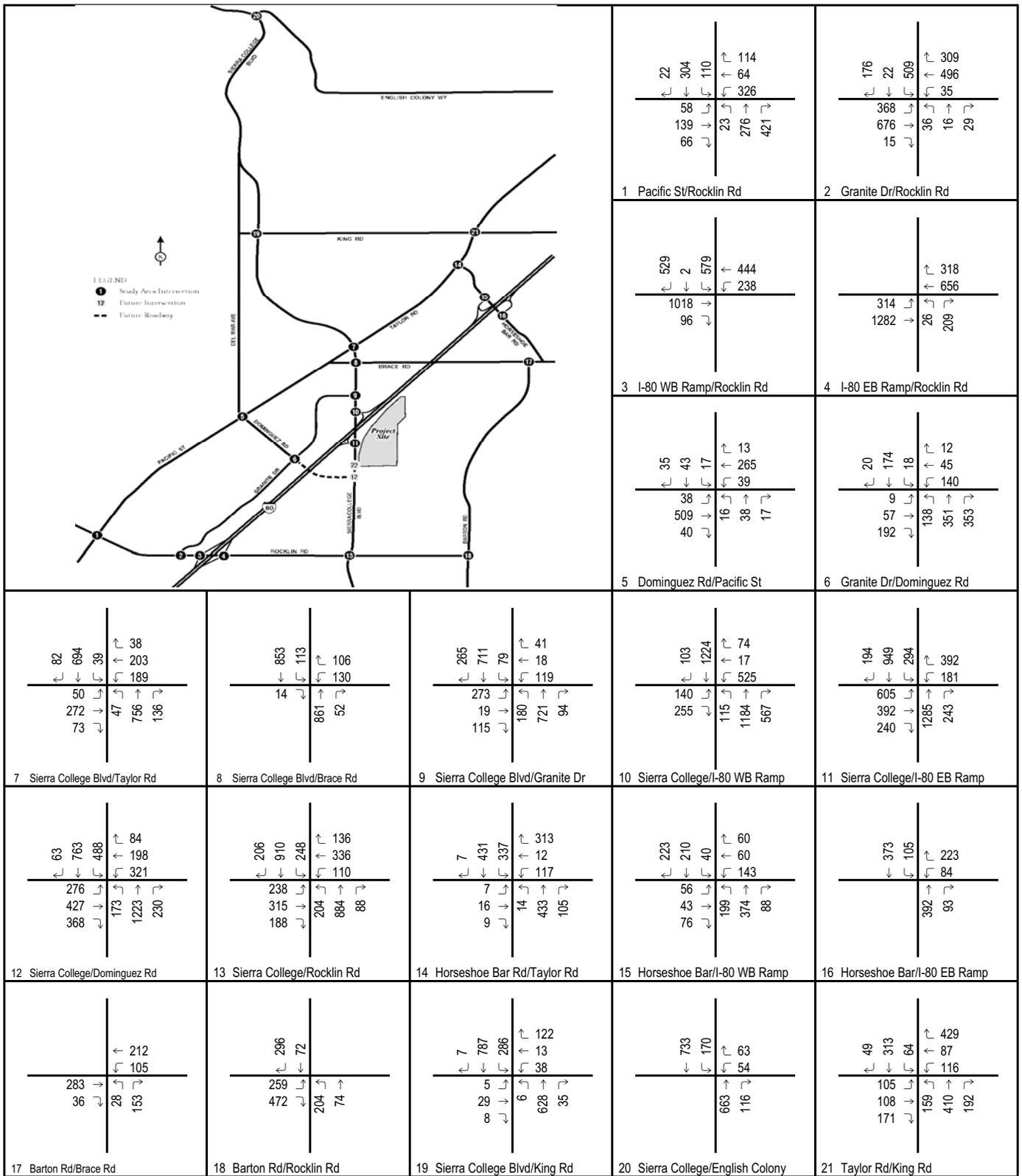


FIGURE 27

Rocklin Crossings

Year 2025 Plus Project Saturday Peak Hour Traffic Volumes - With Dominguez Road

Table T: 2025 Plus Project with Dominguez Road Condition Peak Hour Intersection Level of Service Summary

Intersection	2025 No Project with Dominguez Road Condition						2025 Plus Project with Dominguez Road Condition					
	AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
	V/C Ratio / Delay	LOS	Saturday V/C Ratio / Delay	V/C Ratio / Delay	LOS	Saturday V/C Ratio / Delay	V/C Ratio / Delay	LOS	Saturday V/C Ratio / Delay	V/C Ratio / Delay	LOS	
1 Rocklin Road/Pacific Street ¹	0.641	B	0.490	0.676	B	0.490	0.647	B	0.694	B	0.512	A
2 Rocklin Road/Granite Drive	0.562	A	0.565	0.829	D	0.565	0.564	A	0.838	D	0.577	A
3 Rocklin Road/I-80 Westbound Ramps	0.719	C	0.738	0.962	E	0.738	0.735	C	1.015	F	0.804	D
4 Rocklin Road/I-80 Eastbound Ramps	0.871	D	0.482	0.824	D	0.482	0.888	D	0.878	D	0.555	A
5 Dominguez Road/Pacific Street ¹	0.507	A	0.385	0.708	C	0.385	0.507	A	0.711	C	0.390	A
6 Dominguez Road/Granite Drive ¹³	48.8 sec	E	70.6 sec	*	F	70.6 sec	50.6 sec	F	*	F	81.3 sec	F
7 Sierra College Boulevard/Taylor Road (Loomis)	0.780	C	0.466	0.785	C	0.466	0.801	D	0.840	D	0.532	A
8 Sierra College Boulevard/Brace Road (Loomis)	0.486	A	0.285	0.623	B	0.285	0.501	A	0.656	B	0.340	A
9 Sierra College Boulevard/Granite Drive	0.516	A	0.443	0.518	A	0.443	0.532	A	0.567	A	0.497	A
10 Sierra College Boulevard/I-80 Westbound Ramps	0.577	A	0.567	0.565	A	0.567	0.599	A	0.628	B	0.647	B
11 Sierra College Boulevard/I-80 Eastbound Ramps	0.584	A	0.478	0.433	A	0.478	0.631	B	0.636	B	0.732	C
12 Sierra College Boulevard/Dominguez Road	0.445	A	0.762	0.600	B	0.762	0.466	A	0.715	C	0.909	E
13 Sierra College Boulevard/Rocklin Road ¹	0.687	B	0.380	0.619	B	0.380	0.713	C	0.659	B	0.484	A
14 Taylor Road/Horseshoe Bar Road (Loomis)	1.024	F	0.691	1.076	F	0.691	1.032	F ²	1.105	F ²	0.724	C
15 Horseshoe Bar Road/I-80 Westbound Ramps (Loomis)	0.476	A	0.395	0.431	A	0.395	0.476	A	0.431	A	0.395	A
16 Horseshoe Bar Road/I-80 Eastbound Ramps ³ (Loomis)	29.0 sec	D	16.0 sec	24.6 sec	C	16.0 sec	29.4 sec	D	25.3 sec	D	16.5 sec	C
17 Barton Road/Brace Road ¹³ (Loomis)	78.4 sec	F	12.3 sec	57.3 sec	F	12.3 sec	82.1 sec	F ²	64.9 sec	F	12.8 sec	B
18 Barton Road/Rocklin Road ¹³ (Loomis)	272.1 sec	F	17.0 sec	20.8 sec	C	17.0 sec	316.9 sec	F	28.5 sec	D	24.0 sec	C
19 Sierra College Boulevard/King Road ¹ (Loomis)	0.607	B	0.475	0.734	C	0.475	0.615	B	0.760	C	0.505	A
20 Sierra College Boulevard/English Colony Way ¹³ (Placer County)	246.7 sec	F	33.2 sec	587.0 sec	F	33.2 sec	283.5 sec	F	829.8 sec	F	47.9 sec	E
21 Taylor Road/King Road ¹ (Loomis)	0.802	D	0.581	0.508	A	0.581	0.807	D ²	0.522	A	0.598	A

Notes:

- 1 ICU V/C ratio is used for signalized intersections. HCM delay in seconds is used for unsignalized intersections.
- 2 LOS C required for these intersections. LOS D acceptable for all other intersections.
- 3 Project impact is less than 5% of total intersection V/C or delay and therefore not a significant impact.
- 4 Peak Hour volumes meet Signal Warrant #3 of the MUTCD
- 5 Delay exceeds 1000 seconds
- 6 Exceeds level of service criteria

Table U: 2025 Plus Project With Dominguez Road Daily Roadway Segment Level of Service Summary

Roadway	Segment	Capacity	Volume	Capacity Configuration	V/C	LOS
Taylor Road	King Road and Horseshoe Bar Road ¹ (Loomis)	15,000	20,414	Two-lane Collector	1.36	F
	Horseshoe Bar Road and Sierra College Boulevard ¹ (Loomis)	15,000	15,530	Two-lane Collector	1.04	F
Pacific Street	Sierra College Boulevard and Dominguez Road ¹	30,000	16,976	Four-lane Undivided Arterial	0.57	A
	Dominguez Road and Rocklin Road ¹	30,000	22,669	Four-lane Undivided Arterial	0.76	C
Rocklin Road	Pacific Street and Granite Drive	30,000	37,867	Four-lane Undivided Arterial	1.26	F
	I-80 and Sierra College Boulevard	30,000	14,836	Four-lane Undivided Arterial	0.49	A
	Sierra College Boulevard and Barton Road ¹ (Loomis)	30,000	15,716	Four-lane Undivided Arterial	0.52	A
Barton Road	Rocklin Road and Brace Road ¹ (Loomis)	15,000	6,882	Two-lane Collector	0.46	A
Horseshoe Bar Road	I-80 and Brace Road (Loomis)	15,000	9,958	Two-lane Collector	0.66	B
Brace Road	I-80 and Barton Road ¹ (Loomis)	15,000	9,825	Two-lane Collector	0.65	B
	I-80 and Sierra College Boulevard ¹ (Loomis)	15,000	9,161	Two-lane Collector	0.61	B
Sierra College Boulevard	English Colony Way and King Road ¹ (Placer County)	30,000	24,732	Four-lane Undivided Arterial	0.82	D
	King Road and Taylor Road ¹ (Loomis)	30,000	23,770	Four-lane Undivided Arterial	0.79	C
	Taylor Road and I-80	50,525	35,393	Six-lane Arterial	0.70	B
	I-80 and Dominguez Road	50,525	34,346	Six-lane Arterial	0.68	B
	Dominguez Road and Rocklin Road ¹	50,525	37,868	Six-lane Arterial	0.75	C
Granite Drive	Dominguez Road and Sierra College Boulevard ¹	30,000	9,230	Four-lane Undivided Arterial	0.31	A
	Dominguez Road and Rocklin Road ¹	30,000	13,379	Four-lane Undivided Arterial	0.45	A
Dominguez Road	Taylor Road and Granite Drive ¹	15,000	7,378	Two-lane Collector	0.49	A
King Road	Sierra College Boulevard and Taylor Road ¹ (Loomis)	15,000	7,019	Two-lane Collector	0.47	A

Notes:

¹ LOS C required for these segments. LOS D acceptable for all other segments.

Exceeds level of service criteria

 Roadway Improvements consistent with City of Rocklin General Plan, Town of Loomis General Plan, and the Horseshoe Bar/Penryn Community Plan

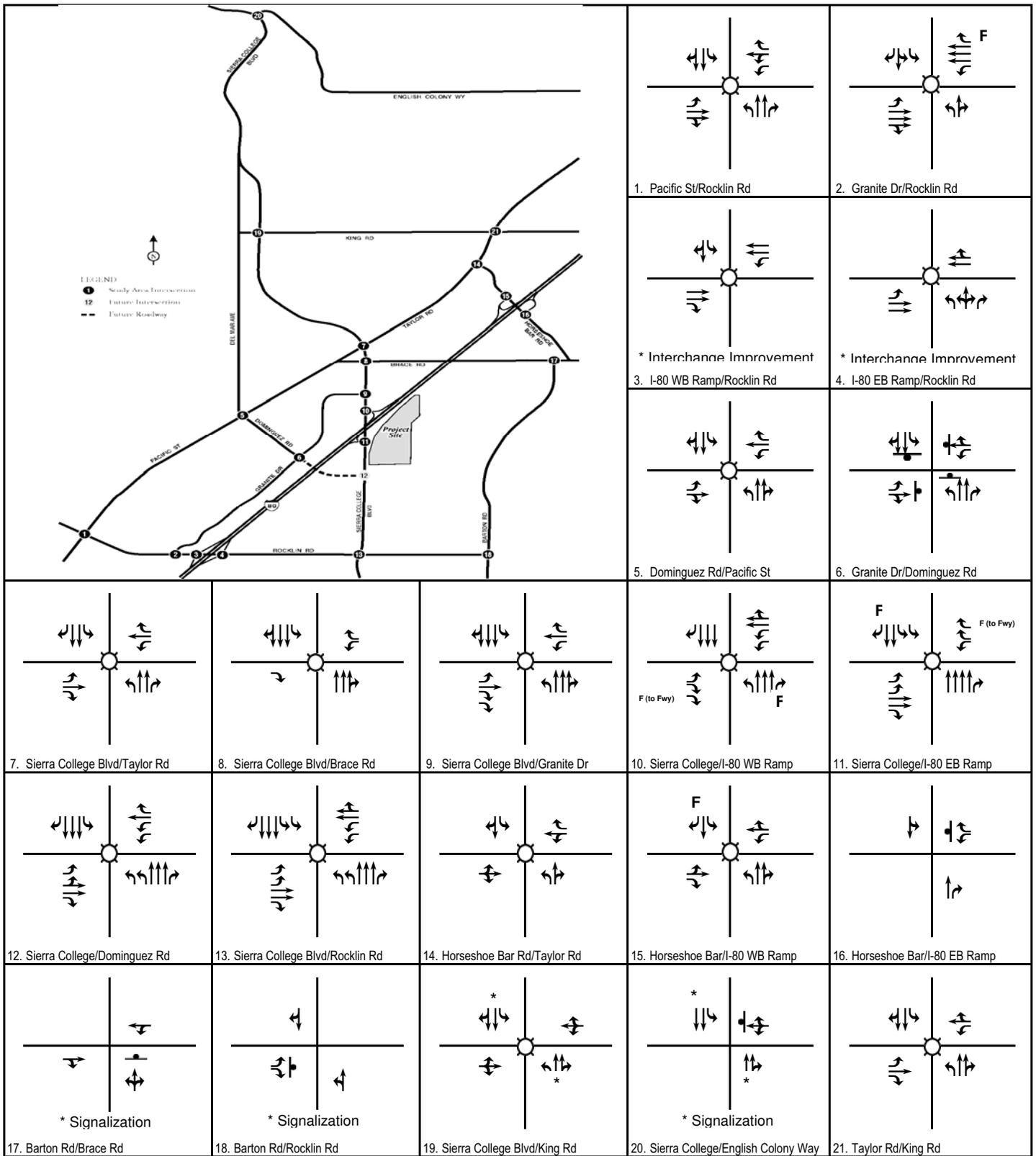
westbound on-ramp. This improvement will mitigate the impact at this location. The project applicant will pay a traffic impact fee (on a fair-share basis) that has been set up by the City for this proposed improvement.

- € **Dominguez Road/Granite Drive.** The proposed extension of Dominguez Road will create a deficiency at this intersection in the 2025 no project with Dominguez scenario. The project would add traffic to this already deficient location. Changing the stop control from a two-way stop to a four-way stop would result in a satisfactory LOS at this location. The project applicant will pay a traffic impact fee (on a fair-share basis) for the proposed improvement.
- € **Sierra College Boulevard/Dominguez Road.** The proposed intersection striping will not be sufficient to accommodate project traffic in the 2025 with Dominguez Road scenario. However, if the currently proposed lane configuration were restriped to accommodate one exclusive left turn lane, one shared left/through lane, one exclusive through lane, and one exclusive right turn lane at the time of its construction, then the intersection will operate at a satisfactory LOS.
- € **Barton Road/Brace Road.** This intersection is operating at an unsatisfactory LOS during the a.m. and p.m. peak hours in the no project condition. The intersection is forecast to meet the peak-hour traffic signal warrant in the 2025 no project with Dominguez Road extension scenario. The intersection would continue to meet the peak-hour traffic signal warrant with the addition of project traffic. Signalization of this intersection would result in a satisfactory LOS. To mitigate the project contribution of traffic at this intersection, the project should participate on a fair-share basis in the installation of a traffic signal at Barton Road/Brace Road.
- € **Barton Road/Rocklin Road.** This intersection is operating at an unsatisfactory LOS during the a.m. peak hour in the no project condition. The intersection is forecast to meet the peak-hour traffic signal warrant in the 2025 no project with Dominguez Road extension scenario. The intersection would continue to meet the peak-hour traffic signal warrant with the addition of project traffic. Signalization of this intersection would result in a satisfactory LOS. To mitigate the project contribution of traffic at this intersection, the project should participate on a fair-share basis in the installation of a traffic signal at Barton Road/Rocklin Road.
- € **Sierra College Boulevard/English Colony Way.** This intersection is operating at an unsatisfactory LOS during the a.m. peak hour in the no project condition. The intersection is forecast to meet the peak-hour traffic signal warrant in the 2025 no project with Dominguez Road extension scenario. The intersection would continue to meet the peak-hour traffic signal warrant with the addition of project traffic. Signalization of this intersection would result in a satisfactory LOS. To mitigate the project contribution of traffic at this intersection, the project should participate on a fair-share basis.

Although the intersection of Taylor Road/King Road operates unsatisfactorily, in the 2025 plus project with Dominguez Road scenario the project would not increase the v/c ratio by 0.05 or more. As a result, the project contribution of traffic at this intersection is not considered a significant impact.

The proposed mitigations for the 2025 plus project with Dominguez Road scenario are shown in Figure 28. Per Town of Loomis¹ and Horseshoe Bar/Penryn Community Plan, Sierra College Boulevard is planned to be widened to a four-lane arterial between Taylor Road and SR-193. In

¹ Brian Fraggio, Town of Loomis. Personal communication, January 17, 2007.



LSA

- Legend
- Signal
- Stop Sign
- F Free Right Turn
- * Proposed Mitigation

FIGURE 28

Rocklin Crossings

Year 2025 Plus Project With Dominguez Road - Mitigation

addition, the Town of Loomis has a proposed signal installation at the intersection of Barton Road/Rocklin Road for the near future.

I-80/Sierra College Interchange

Environmental documentation, including a traffic operations analysis, was previously completed for the I-80/Sierra College interchange project. The traffic operations analysis was completed using the Highway Capacity Manual (HCM) methodology for signalized intersections. Traffic volumes for the previous analysis were forecast using the Sacramento Metropolitan (SACMET-2001) traffic model developed by the Sacramento Area Council of Governments (SACOG). As discussed previously, 2025 forecasts for this traffic impact analysis were prepared using the City's traffic model. A LOS analysis using the HCM methodology has been prepared at the interchange ramp intersections using the traffic forecasts developed for this traffic impact analysis. The purpose of this analysis was to demonstrate that the intersection would still operate satisfactorily with the planned improvements when analyzed using the City's traffic model.

The LOS were analyzed at the freeway ramp intersections in the year 2025 plus project with and without Dominguez Road scenarios. The LOS calculation sheets are provided in Appendices K and L. Table V summarizes the results of the freeway interchange analysis.

As shown in Table V, the interchange would operate at LOS D or better during both peak hours when the Rocklin Traffic Model with and without Dominguez Road traffic volumes are analyzed using the HCM methodology.

Table V: I-80/Sierra College Boulevard Freeway Ramp Intersection Analysis (2025 Plus Project)

Intersection	AM Peak Hour			PM Peak Hour		
	Delay (sec)	LOS	Off-ramp Queue (ft)	Delay (sec)	LOS	Off-ramp Queue (ft)
10. I-80 Westbound/Sierra College Boulevard						
Rocklin Traffic Model with Dominguez Road	38.5	D	631	45.7	D	475
Rocklin Traffic Model without Dominguez Road	36.4	D	533	46.3	D	393
SACMET-2001 Model ¹	18.7	B		14.3	B	
11. I-80 Eastbound/Sierra College Boulevard						
Rocklin Traffic Model with Dominguez Road	18.0	B	205	32.4	C	160
Rocklin Traffic Model without Dominguez Road	21.3	C	194	32.7	C	137
SACMET-2001 Model ¹	30.9	C		96.6	F	

¹ *Traffic Operations Analysis, I-80/Sierra College Boulevard Interchange, Table 4, Alternative A. OMNI-MEANS, January 8, 2003*

Freeway Mainline Analysis

In order to assess the operation of the highway system in the vicinity of the project in 2025 without and with project conditions, the I-80 freeway mainline between the Horseshoe Bar Road and Atlantic Avenue interchanges and the SR-65 mainline between the I-80 junction and Blue Oaks Boulevard were analyzed for both without and with Dominguez Road extension scenarios. The Caltrans I-80 freeway improvement project¹ between Riverside Avenue/Auburn Boulevard and SR-65, proposes to increase freeway capacity by adding HOV lane and auxiliary lanes by 2009. Since the proposed project has CEQA clearance and funding, the improvements are used in the baseline conditions. Therefore the I-80 freeway mainline between Atlantic Avenue and SR-65 was analyzed as a future eight-lane (mainline) freeway, and the freeway mainline segment between SR-65 and Horseshoe Bar Road interchange was analyzed as six-lane freeway. As shown in Table W, all freeway mainline segments along I-80 are projected to operate at LOS D or better in 2025 (for both without and with Dominguez Road extension scenarios) with the future eight-lane freeway for the segment between Atlantic Avenue and SR-65. Also, all freeway segments along SR-65 are projected to operate at LOS D or better in 2025. The HCS worksheets are provided in Appendices M and N.

Driveway Throat Length

As shown in the project site plan (Figure 2), the main project access driveway on Sierra College Boulevard will form the east leg of the I-80 eastbound off-ramp intersection. The main access drive is approximately 300 feet in length and terminates at a roundabout on site. Vehicles entering the project could make a right turn from the access drive into Village 1 (approximately 250 feet from Sierra College Boulevard); however, left turns will be prohibited along the access drive.

Most of the inbound project traffic will use the roundabout to access The Home Depot, Wal-Mart, and retail buildings located on the north end of the site. However, some traffic would make a right turn off the access drive into Village 1. To determine whether adequate throat distance is provided, LSA consulted the Access Management Manual, published by the Transportation Research Board. According to Table 10-8 in the Access Management Manual, the minimum throat length recommended for a driveway with three egress lanes is 200 feet. Approximately 250 feet is provided from Sierra College Boulevard to the first right-turn opportunity into Village 1. This distance would exceed the recommendation in the Access Management Manual. As a result, no stacking of vehicles from the internal right turn to Sierra College Boulevard is expected.

Right Turns From Unsignalized Driveway

The geometrics shown on the project site plan for Sierra College Boulevard and the project driveways include the planned improvements to the I-80/Sierra College Boulevard interchanges as well as the improvements to Sierra College Boulevard along the project frontage. The project site plan includes one unsignalized driveway, located approximately half way between the I-80 eastbound off-ramp and the Dominguez Road extension. The unsignalized driveway would allow right turns in and out only onto Sierra College Boulevard. The northbound Sierra College Boulevard at the driveway location is

¹ Freeway Improvement Project on Interstate 80 from 1.1km west of the Sacramento/Placer County line to 1.56 km east of the Route 65 connector in Placer County, April 2003, Caltrans.

Table W: 2025 Peak Hour - Freeway Segment Level of Service Summary

Roadway Segment	Without Dominguez Road Extension						With Dominguez Road Extension									
	2025 No Project			2025 With Project			2025 No Project			2025 With Project						
	AM	PM	LOS	Density	LOS	Density	AM	PM	LOS	Density	LOS	AM	PM	LOS	Density	LOS
I-80 EB	26.3	D	32.0	D	26.4	D	32.7	D	26.4	D	32.0	D	26.4	D	32.7	D
Atlantic Street to Taylor Road	23.6	C	27.9	D	23.8	C	28.4	D	23.6	C	27.9	D	23.7	C	28.5	D
Taylor Road to RTE 65	23.9	C	27.3	D	24.2	C	28.5	D	23.9	C	27.3	D	24.2	C	28.5	D
RTE 65 to Rocklin Road	22.6	C	29.0	D	23.0	C	30.7	D	22.9	C	29.1	D	23.3	C	30.8	D
Rocklin Road to Sierra College Boulevard	21.1	C	30.6	D	21.2	C	31.2	D	21.1	C	30.5	D	21.2	C	31.1	D
Sierra College Boulevard to Horseshoe Bar Road	28.0	D	30.3	D	28.2	D	30.8	D	28.0	D	30.2	D	28.1	D	30.8	D
RTE 65 NB I-80 to Harding Boulevard	27.3	D	30.5	D	27.3	D	30.8	D	27.3	D	31.1	D	27.4	D	31.3	D
Harding Boulevard to Blue Oaks Boulevard																
I-80 WB	27.7	D	30.6	D	27.9	D	31.2	D	27.5	D	30.7	D	27.7	D	31.3	D
Atlantic Street to Taylor Road	24.6	C	26.8	D	24.7	C	27.3	D	24.6	C	26.8	D	24.7	C	27.3	D
Taylor Road to RTE 65	24.2	C	27.9	D	24.5	C	29.1	D	24.2	C	27.8	D	24.5	C	28.9	D
RTE 65 to Rocklin Road	26.4	D	25.0	C	26.7	D	26.2	D	26.2	D	24.6	C	26.6	D	25.8	C
Rocklin Road to Sierra College Boulevard	27.0	D	23.7	C	27.1	D	23.9	C	26.9	D	23.7	C	27	D	23.9	C
Sierra College Boulevard to Horseshoe Bar Road	19.2	C	21.3	C	19.3	C	21.7	C	19.3	C	21.3	C	19.4	C	21.6	C
RTE 65 SB I-80 to Harding Boulevard	21.1	C	21.9	C	21.2	C	22.1	C	21.1	C	22	C	21.2	C	22.2	C
Harding Boulevard to Blue Oaks Boulevard																

made up of five lanes. The number 1, 2, and 3 lanes provide northbound through-movement. The number 4 lane provides northbound movement through the I-80 eastbound off-ramp intersection and becomes a “trap” lane onto the I-80 eastbound on-ramp. The number 5 lane is a right-turn-only lane into Rocklin Crossings at the Signalized I-80 eastbound off-ramp driveway.

Because of the width of Sierra College Boulevard at the unsignalized driveway, outbound vehicles could have difficulty turning onto the northbound Sierra College Boulevard through lanes, as those vehicles would need to cross both the right-turn lane into Rocklin Crossings and the freeway trap lane. To determine whether vehicles would be restricted from turning out of the driveway into the through lanes by heavy northbound through traffic, an operational analysis of this driveway location was prepared using Synchro 7. Synchro allows the user to model the expected traffic operations of a corridor, rather than just a single intersection. The unsignalized driveway was modeled along with the two adjacent signalized intersections to determine whether adequate gaps would be caused by the traffic signals to allow egress from the driveway. The unsignalized operations analysis is provided in Appendix I. The unsignalized LOS worksheets indicate the proportion of time that the westbound right-turn movement is not blocked by vehicles traveling northbound on Sierra College Boulevard as well as the capacity of the right-turn movement considering the total conflicting flow rate. In both the a.m. and p.m. peak hour, the capacity of the right-turn movement exceeds the demand for right turns (890 capacity vs. 193 demand during the a.m. peak hour, and 785 capacity vs. 394 demand during the p.m. peak hour). According to the calculations, the westbound right turn would be unblocked 82 percent of the time during the a.m. peak hour and 72 percent of the time during the p.m. peak hour. As a result, sufficient gaps in the traffic stream will occur along Sierra College Boulevard to allow right turns from the unsignalized driveway to the northbound through lanes.

MITIGATION MEASURES

This report provides an analysis of the circulation impacts associated with development of the Rocklin Crossings project. Mitigation measures for all project impacts have been identified in the document and are summarized below.

Existing Plus Approved Projects (Baseline) Plus Project

The following improvements would mitigate the impacts of the project in the existing plus approved projects (baseline) plus project conditions:

- € **Rocklin Road/I-80 Westbound Ramps.** The project would add traffic to this already deficient location, which is operating at LOS F during the p.m. peak hour in the existing plus approved projects condition. The City has proposed an improvement at the intersection of Rocklin Road/I-80 westbound ramps that provides a flyover from westbound Rocklin Road to the I-80 westbound on-ramp. This improvement will mitigate the impact at this location. The project applicant will pay a traffic impact fee (on a fair-share basis) that has been set up by the City for this proposed improvement.
- € **Rocklin Road/I-80 Eastbound Ramps.** The proposed improvement at the intersection of Rocklin Road/I-80 westbound ramps (discussed above) will reduce westbound through traffic at the intersection of Rocklin Road/I-80 eastbound ramps; therefore, the intersection will not have a

cumulative impact. The project applicant will pay a traffic impact fee (on a fair-share basis) that has been set up by the City for the proposed interchange improvement.

- € **Sierra College Boulevard/Rocklin Road.** The project would add traffic to this already deficient location, which is operating at LOS D during the p.m. peak hour in the existing plus approved projects condition. Adding a northbound left-turn lane (resulting in dual left-turn lanes) would result in a satisfactory LOS at this location. The project should participate in this improvement on a fair-share basis.

Table X shows the mitigated LOS at the study locations.

2025 Plus Project Without Dominguez Road

The following improvements would mitigate the impacts of the project in the 2025 plus project without Dominguez Road conditions:

- € **Rocklin Road/I-80 Westbound Ramps.** The project would add traffic to this already deficient location, which is operating at LOS F during the p.m. peak hour in the 2025 no project without Dominguez Road scenario. The City has proposed an improvement at the intersection of Rocklin Road/I-80 westbound ramps that provides a flyover from westbound Rocklin Road to the I-80 westbound on ramp. This improvement will mitigate the impact at this location. The project applicant will pay a traffic impact fee (on a fair-share basis) that has been set up by the City for this proposed improvement.
- € **Rocklin Road/I-80 Eastbound Ramps.** The proposed improvement at the intersection of Rocklin Road/I-80 westbound ramps (discussed above) will reduce westbound through traffic at the intersection of Rocklin Road/I-80 eastbound ramps; therefore, the intersection will not have a cumulative impact. The project applicant will pay a traffic impact fee (on a fair-share basis) that has been set up by the City for the proposed interchange improvement.
- € **Barton Road/Brace Road.** This intersection is operating at an unsatisfactory LOS during the a.m. and p.m. peak hours in the no project condition. The intersection is forecast to meet the peak-hour traffic signal warrant in the 2025 no project without Dominguez Road extension scenario. The intersection would continue to meet the peak-hour traffic signal warrant with the addition of project traffic. Signalization of this intersection would result in a satisfactory LOS. To mitigate the project contribution of traffic at this intersection, the project should participate on a fair-share basis in the installation of a traffic signal at Barton Road/Brace Road.
- € **Barton Road/Rocklin Road.** This intersection is operating at an unsatisfactory LOS during the a.m. peak hour in the no project condition. The intersection is forecast to meet the peak-hour traffic signal warrant in the 2025 no project without Dominguez Road extension scenario. The intersection would continue to meet the peak-hour traffic signal warrant with the addition of project traffic. Signalization of this intersection would result in a satisfactory LOS. To mitigate the project contribution of traffic at this intersection, the project should participate on a fair-share basis in the installation of a traffic signal at Barton Road/Rocklin Road.
- € **Sierra College Boulevard/English Colony Way.** This intersection is operating at an unsatisfactory LOS during the a.m. peak hour in the no project condition. The intersection is forecast to meet the peak-hour traffic signal warrant in the 2025 no project without Dominguez

Table X: Existing Plus Approved Projects (Baseline) Plus Project Condition Peak Hour Intersection Level of Service Summary - With Mitigation

Intersection	Existing Plus Approved Plus Project Condition						Existing Plus Approved Plus Project Condition - With mitigation									
	AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour			Saturday			
	V/C Ratio	LOS	Delay	V/C Ratio	LOS	Delay	V/C Ratio	LOS	Delay	V/C Ratio	LOS	Delay	V/C Ratio	LOS	Delay	
1 Rocklin Road/Pacific Street ¹	0.872	D	0.997	E	0.632	B	0.872	D	0.997	E	0.632	B	0.872	D	0.997	E
2 Rocklin Road/Granite Drive	0.469	A	0.767	C	0.559	A	0.469	A	0.767	C	0.559	A	0.469	A	0.767	C
3 Rocklin Road/I-80 Westbound Ramps	0.797	C	1.075	F	0.711	C	0.529	A	0.683	B	0.529	A	0.529	A	0.529	A
4 Rocklin Road/I-80 Eastbound Ramps	0.843	D	1.000	F	0.619	B	0.694	B	0.791	C	0.524	A	0.694	B	0.791	C
5 Dominguez Road/Pacific Street ¹	0.401	A	0.479	A	0.253	A	0.401	A	0.479	A	0.253	A	0.401	A	0.479	A
6 Dominguez Road/Granite Drive ¹	11.9 sec	B	12.4 sec	B	10.3 sec	B	11.9 sec	B	12.4 sec	B	10.3 sec	B	11.9 sec	B	12.4 sec	B
7 Sierra College Boulevard/Taylor Road (Loomis)	0.655	B	0.840	D	0.537	A	0.655	B	0.840	D	0.537	A	0.655	B	0.840	D
8 Sierra College Boulevard/Brace Road (Loomis)	0.487	A	0.655	B	0.429	A	0.487	A	0.655	B	0.429	A	0.487	A	0.655	B
9 Sierra College Boulevard/Granite Drive	0.583	A	0.713	C	0.580	A	0.583	A	0.713	C	0.580	A	0.583	A	0.713	C
10 Sierra College Boulevard/I-80 Westbound Ramps	0.325	A	0.372	A	0.267	A	0.325	A	0.372	A	0.267	A	0.325	A	0.372	A
11 Sierra College Boulevard/I-80 Eastbound Ramps	0.414	A	0.589	A	0.764	C	0.414	A	0.589	A	0.764	C	0.414	A	0.589	A
12 Sierra College Boulevard/Dominguez Road	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13 Sierra College Boulevard/Rocklin Road ¹	0.701	C	0.896	D	0.751	C	0.578	A	0.779	C	0.670	B	0.578	A	0.779	C
14 Taylor Road/Horseshoe Bar Road (Loomis)	0.850	D	1.040	F	0.665	B	0.850	D	1.040	F	0.665	B	0.850	D	1.040	F
15 Horseshoe Bar Road/I-80 Westbound Ramps (Loomis)	0.394	A	0.375	A	0.313	A	0.394	A	0.375	A	0.313	A	0.394	A	0.375	A
16 Horseshoe Bar Road/I-80 Eastbound Ramps (Loomis)	16.5 sec	C	16.2 sec	C	12.3 sec	B	16.5 sec	C	16.2 sec	C	12.3 sec	B	16.5 sec	C	16.2 sec	C
17 Barton Road/Brace Road ¹ (Loomis)	16.5 sec	C	15.7 sec	C	9.7 sec	A	16.5 sec	C	15.7 sec	C	9.7 sec	A	16.5 sec	C	15.7 sec	C
18 Barton Road/Rocklin Road ¹ (Loomis)	16.5 sec	C	12.2 sec	B	11.3 sec	B	16.5 sec	C	12.2 sec	B	11.3 sec	B	16.5 sec	C	12.2 sec	B
19 Sierra College Boulevard/King Road ¹ (Loomis)	0.422	A	0.546	A	0.381	A	0.422	A	0.546	A	0.381	A	0.422	A	0.546	A
20 Sierra College Boulevard/English Colony Way ¹ (Placer County)	11.4 sec	B	15.6 sec	C	11.8 sec	B	11.4 sec	B	15.6 sec	C	11.8 sec	B	11.4 sec	B	15.6 sec	C
21 Taylor Road/King Road ¹ (Loomis)	0.607	B	0.620	B	0.429	A	0.607	B	0.620	B	0.429	A	0.607	B	0.620	B

Notes:

ICU V/C ratio is used for signalized intersections. HCM delay in seconds is used for unsignalized intersections.

¹ LOS C required for these intersections. LOS D acceptable for all other intersections.

☐ Mitigated condition

☐ (Shade) = Significant Impact

Road extension scenario. The intersection would continue to meet the peak-hour traffic signal warrant with the addition of project traffic. Signalization of this intersection would result in a satisfactory LOS. To mitigate the project contribution of traffic at this intersection, the project should participate on a fair-share basis.

Table Y shows the mitigated LOS at the study locations.

2025 Plus Project With Dominguez Road

The following improvements would mitigate the impacts of the project in the 2025 plus project without Dominguez Road conditions:

- € **Rocklin Road/I-80 Westbound Ramps.** The project would add traffic to this already deficient location, which is operating at LOS F during the p.m. peak hour in the 2025 no project with Dominguez Road scenario. The City has proposed an improvement at the intersection of Rocklin Road/I-80 westbound ramps that provides a flyover from westbound Rocklin Road to the I-80 westbound on ramp. This improvement will mitigate the impact at this location. The project applicant will pay a traffic impact fee (on a fair-share basis) that has been set up by the City for this proposed improvement.
- € **Dominguez Road/Granite Drive.** The proposed extension of Dominguez Road will create a deficiency at this intersection in the 2025 no project with Dominguez scenario. The project would add traffic to this already deficient location. Changing the stop control from a two-way stop to a four-way stop would result in a satisfactory LOS at this location. The project applicant will pay a traffic impact fee (on a fair-share basis) for the proposed improvement.
- € **Sierra College Boulevard/Dominguez Road.** The proposed intersection striping will not be sufficient to accommodate project traffic in the 2025 with Dominguez Road scenario. However, if the currently proposed lane configuration were restriped to accommodate one exclusive left turn lane, one shared left/through lane, one exclusive through lane, and one exclusive right turn lane at the time of its construction, then the intersection will operate at a satisfactory LOS.
- € **Barton Road/Brace Road.** This intersection is operating at an unsatisfactory LOS during the a.m. and p.m. peak hours in the no project condition. The intersection is forecast to meet the peak-hour traffic signal warrant in the 2025 no project with Dominguez Road extension scenario. The intersection would continue to meet the peak-hour traffic signal warrant with the addition of project traffic. Signalization of this intersection would result in a satisfactory LOS. To mitigate the project contribution of traffic at this intersection, the project should participate on a fair-share basis in the installation of a traffic signal at Barton Road/Brace Road.
- € **Barton Road/Rocklin Road.** This intersection is operating at an unsatisfactory LOS during the a.m. peak hour in the no project condition. The intersection is forecast to meet the peak-hour traffic signal warrant in the 2025 no project with Dominguez Road extension scenario. The intersection would continue to meet the peak-hour traffic signal warrant with the addition of project traffic. Signalization of this intersection would result in a satisfactory LOS. To mitigate the project contribution of traffic at this intersection, the project should participate on a fair-share basis in the installation of a traffic signal at Barton Road/Rocklin Road.

Table Y - 2025 Plus Project without Dominguez Road Intersection Peak Hour Intersection Level of Service Summary - With Mitigation

Intersection	2025 Plus Project without Dominguez Road Condition				2025 Plus Project without Dominguez Road Condition - With Mitigation				
	AM Peak Hour V/C Ratio / Delay	LOS	PM Peak Hour V/C Ratio / Delay	Saturday V/C Ratio / Delay	AM Peak Hour V/C Ratio / Delay	LOS	PM Peak Hour V/C Ratio / Delay	Saturday V/C Ratio / Delay	LOS
1 Rocklin Road/Pacific Street ¹	0.645	B	0.692	0.510	0.645	B	0.692	0.510	A
2 Rocklin Road/Granite Drive	0.567	A	0.780	0.582	0.567	A	0.780	0.582	A
3 Rocklin Road/I-80 Westbound Ramps	0.754	C	1.045	0.884	0.678	B	0.687	0.741	C
4 Rocklin Road/I-80 Eastbound Ramps	0.895	D	0.909	0.564	0.782	C	0.730	0.522	A
5 Dominguez Road/Pacific Street ¹	0.502	A	0.659	0.377	0.502	A	0.659	0.377	A
6 Dominguez Road/Granite Drive ¹	13.1 sec	B	15.5 sec	11.5 sec	13.1 sec	B	15.5 sec	11.5 sec	B
7 Sierra College Boulevard/Taylor Road (Loomis)	0.846	D	0.848	0.532	0.846	D	0.848	0.532	A
8 Sierra College Boulevard/Brace Road (Loomis)	0.511	A	0.673	0.347	0.511	A	0.673	0.347	A
9 Sierra College Boulevard/Granite Drive	0.569	A	0.614	0.544	0.569	A	0.614	0.544	A
10 Sierra College Boulevard/I-80 Westbound Ramps	0.616	B	0.657	0.654	0.616	B	0.657	0.654	B
11 Sierra College Boulevard/I-80 Eastbound Ramps	0.634	B	0.678	0.782	0.634	B	0.678	0.782	C
12 Sierra College Boulevard/Dominguez Road	0.421	A	0.663	0.658	0.421	A	0.663	0.658	B
13 Sierra College Boulevard/Rocklin Road ¹	0.731	C	0.672	0.487	0.731	C	0.672	0.487	A
14 Taylor Road/Horseshoe Bar Road (Loomis)	1.033	F	1.116	0.732	1.033	F	1.116	0.732	C
15 Horseshoe Bar Road/I-80 Westbound Ramps (Loomis)	0.475	A	0.437	0.401	0.475	A	0.437	0.401	A
16 Horseshoe Bar Road/I-80 Eastbound Ramps ² (Loomis)	30.2 sec	D	27.7 sec	17.3 sec	30.2 sec	D	27.7 sec	17.3 sec	C
17 Barton Road/Brace Road ¹² (Loomis)	85.2 sec	F	68.0 sec	12.8 sec	58.2	A	6.28	0.368	A
18 Barton Road/Rocklin Road ¹² (Loomis)	304.7 sec	F	27.6 sec	23.9 sec	0.665	B	0.704	0.630	B
19 Sierra College Boulevard/King Road ¹ (Loomis)	0.615	B	0.771	0.511	0.615	B	0.771	0.511	A
20 Sierra College Boulevard/English Colony Way ¹² (Placer County)	305.0 sec	F	840.9 sec	47.3 sec	0.536	A	0.702	0.491	A
21 Taylor Road/King Road ¹ (Loomis)	0.807	D	0.523	0.605	0.807	D	0.523	0.605	B

Notes:

ICU V/C ratio is used for signalized intersections. HCM delay in seconds is used for unsignalized intersections.

¹ LOS C required for these intersections. LOS D acceptable for all other intersections.

² Peak Hour volumes meet Signal Warrant #3 of the MUTCD

* Delay exceeds 1000 seconds

☐ Mitigated condition

◼ (Shade) = Significant Impact

Sierra College Boulevard/English Colony Way. This intersection is operating at an unsatisfactory LOS during the a.m. peak hour in the no project condition. The intersection is forecast to meet the peak-hour traffic signal warrant in the 2025 no project with Dominguez Road extension scenario. The intersection would continue to meet the peak-hour traffic signal warrant with the addition of project traffic. Signalization of this intersection would result in a satisfactory LOS. To mitigate the project contribution of traffic at this intersection, the project should participate on a fair-share basis.

Table Z shows the mitigated LOS at the study locations.

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Table Z: 2025 Plus Project with Dominguez Road Condition Peak Hour Intersection Level of Service Summary - With Mitigation

Intersection	2025 Plus Project without Dominguez Road Condition						2025 Plus Project with Dominguez Road Condition - With Mitigation										
	AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour			Saturday				
	V/C Ratio / Delay	LOS	LOS	V/C Ratio / Delay	LOS	LOS	V/C Ratio / Delay	LOS	LOS	V/C Ratio / Delay	LOS	LOS	V/C Ratio / Delay	LOS	LOS		
1 Rocklin Road/Pacific Street ¹	0.647	B	B	0.694	B	B	0.512	A	0.512	A	0.647	B	B	0.694	B	0.512	A
2 Rocklin Road/Granite Drive	0.564	A	D	0.838	D	A	0.577	A	0.564	A	0.564	A	A	0.838	D	0.577	A
3 Rocklin Road/I-80 Westbound Ramps	0.735	C	F	1.015	F	D	0.804	D	0.636	B	0.580	A	A	0.878	D	0.713	C
4 Rocklin Road/I-80 Eastbound Ramps	0.888	D	D	0.878	D	A	0.555	A	0.888	D	0.878	D	D	0.878	D	0.555	A
5 Dominguez Road/Pacific Street ¹	0.507	A	C	0.711	C	A	0.390	A	0.507	A	0.711	C	C	0.711	C	0.390	A
6 Dominguez Road/Granite Drive ¹	50.6 sec	F	F	*	F	F	81.3 sec	F	13.2 sec	B	20.8 sec	C	C	14.5 sec	B	14.5 sec	B
7 Sierra College Boulevard/Taylor Road (Loomis)	0.801	D	D	0.840	D	A	0.532	A	0.801	D	0.840	D	D	0.532	A	0.532	A
8 Sierra College Boulevard/Brace Road (Loomis)	0.501	A	B	0.656	B	A	0.340	A	0.501	A	0.656	B	B	0.340	A	0.340	A
9 Sierra College Boulevard/Granite Drive	0.532	A	A	0.567	A	A	0.497	A	0.532	A	0.567	A	A	0.497	A	0.497	A
10 Sierra College Boulevard/I-80 Westbound Ramps	0.599	A	B	0.628	B	B	0.647	B	0.599	A	0.628	B	B	0.647	B	0.647	B
11 Sierra College Boulevard/I-80 Eastbound Ramps	0.631	B	B	0.631	B	C	0.732	C	0.631	B	0.636	B	B	0.732	C	0.732	C
12 Sierra College Boulevard/Dominguez Road	0.466	A	C	0.715	C	E	0.909	E	0.460	A	0.600	B	B	0.886	D	0.886	D
13 Sierra College Boulevard/Rocklin Road ¹	0.713	C	B	0.659	B	A	0.484	A	0.713	C	0.659	B	B	0.484	A	0.484	A
14 Taylor Road/Horseshoe Bar Road (Loomis)	1.032	F	F	1.105	F	C	0.724	C	1.032	F	1.105	F	F	0.724	C	0.724	C
15 Horseshoe Bar Road/I-80 Westbound Ramps (Loomis)	0.476	A	A	0.431	A	A	0.395	A	0.476	A	0.431	A	A	0.395	A	0.395	A
16 Horseshoe Bar Road/I-80 Eastbound Ramps ² (Loomis)	29.4 sec	D	D	25.3 sec	D	C	16.5 sec	C	29.4 sec	D	25.3 sec	D	D	16.5 sec	C	16.5 sec	C
17 Barton Road/Brace Road ¹² (Loomis)	82.1 sec	F	F	64.9 sec	F	B	12.8 sec	B	0.579	A	0.617	B	B	0.367	A	0.367	A
18 Barton Road/Rocklin Road ¹² (Loomis)	316.9 sec	F	F	28.5 sec	D	C	24.0 sec	C	0.652	B	0.639	B	B	0.633	B	0.633	B
19 Sierra College Boulevard/King Road ¹ (Loomis)	0.615	B	C	0.760	C	A	0.505	A	0.615	B	0.760	C	C	0.505	A	0.505	A
20 Sierra College Boulevard/English Colony Way ¹² (Placer County)	283.5 sec	F	F	829.8 sec	F	E	47.9 sec	E	0.524	A	0.672	B	B	0.410	A	0.410	A
21 Taylor Road/King Road ¹ (Loomis)	0.807	D	A	0.522	A	A	0.598	A	0.807	D	0.522	A	A	0.598	A	0.598	A

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