

4.6 TRANSPORTATION

This section describes the results of the transportation impact analysis conducted to evaluate potential transportation-related impacts of The Village at Loomis (proposed project) on roadways, intersections, transit, bicycle, and pedestrian movements.

Comments received in response to the Notice of Preparation include concerns raised by the City of Rocklin that the current Horseshoe Bar/Interstate 80 (I-80) overcrossing and two-lane roadway be evaluated to determine if it is adequately sized to accommodate project traffic as well as other planned growth; and the Sierra College/I-80 interchange and City of Rocklin roads and intersections in the project vicinity be evaluated. The California Department of Transportation (Caltrans) requested that the traffic impact study evaluate Horseshoe Bar Road, Horseshoe Bar Road/I-80 interchange, Sierra College Boulevard/I-80 interchange and mainline I-80. The Notice of Preparation and comments received in response to it are included in Appendix A.

The Traffic Impact Analysis, prepared by KD Anderson & Associates Inc., March 2016, is included in Appendix E.

4.6.1 Environmental Setting

Study Area

The study area was identified based on knowledge of local traffic patterns and represents those locations that could potentially be impacted by the proposed project. The study area streets and intersections were reviewed and approved by Town of Loomis (Town) staff. Existing traffic conditions have been evaluated through observation of current weekday AM and PM peak hour traffic volumes at 11 intersections in the vicinity of the project site. Please see Appendix E for a detailed description of the intersections listed in the following text.

1. King Road/Switzer Road - signalized
2. Taylor Road/King Road - signalized
3. King Road/Boyington Road - westbound (WB) stop
4. Taylor Road/Webb Street – northbound/southbound (NB/SB) stops
5. Taylor Road/Horseshoe Bar Road - signalized
6. Horseshoe Bar Road/ Laird Street - WB stop
7. Horseshoe Bar Road/Library Drive - WB stop
8. Horseshoe Bar Road/Doc Barnes Drive – eastbound (EB) stop
9. Horseshoe Bar Road/WB I-80 ramps - signalized

10. Horseshoe Bar Road/EB I-80 ramps - SB stop
11. Horseshoe Bar Road/Laird Road - all-way stop (note this intersection is different than location 6; it is located south of I-80)

Roadway Network

Highways, major roads and streets that serve the study area include the following:

I-80. I-80 is the primary east–west arterial across Placer County and Northern California. In the vicinity of the proposed project, I-80 is a six-lane controlled access freeway. Access to the freeway is available for the Town at the Horseshoe Bar Road interchange and at the Penryn Road interchange to the east, and the Sierra College Boulevard interchange to the west. Caltrans provides annual reports of traffic volumes on the state highway system. The most recent counts available from Caltrans (2013) report an annual average daily traffic volume of 91,000 vehicles per day between Sierra College Boulevard and Horseshoe Bar Road, and 84,000 vehicles per day in the area from Horseshoe Bar Road to Penryn Road.

Taylor Road. Taylor Road is a major arterial street that runs parallel to I-80 and links Loomis with the City of Rocklin to the west and with the communities of Penryn and Newcastle to the east. Taylor Road is generally a two-lane road through Loomis, but incremental half section widening has occurred as development has proceeded. In the area of this project Taylor Road has one travel lane in each direction, and turn lanes exist at all intersections. Parking is permitted along Taylor Road through downtown Loomis. New traffic counts conducted in March 2014 for this study reveal that Taylor Road carries an average daily traffic (ADT) volume of 10,603 vehicles per day between Sierra College Boulevard and Horseshoe Bar Road, about 19,037 ADT in the area from Horseshoe Bar Road to Webb Street, and 16,374 ADT between Webb Street and King Road in the vicinity of the proposed project.

Horseshoe Bar Road. Horseshoe Bar Road is the primary gateway to Loomis. This arterial street originates at an intersection on Taylor Road in downtown Loomis and continues east past the project site to an interchange on I-80. Beyond I-80, Horseshoe Bar Road continues for several miles into the rural area of Placer County near Folsom Lake. Horseshoe Bar Road is a two-lane road with auxiliary left turn lanes at major intersections. On street parking is permitted at several locations on Horseshoe Bar Road. Recent 2014 traffic counts indicate that Horseshoe Bar Road carries 14,452 ADT in the area between I-80 and Taylor Road, and 8,107 ADT between I-80 and Laird Road.

King Road. King Road is an east–west arterial road that provides access to Loomis and the rural areas of Placer County surrounding the Town. King Road originates at an intersection on Sierra College Boulevard in western Loomis and continues easterly across Taylor Road, over I-80 and

ultimately to an intersection on Auburn Folsom Road near Folsom Lake. King Road is a two-lane road with auxiliary turn lanes at major intersections. Traffic counts taken in 2014 indicate that King Road carried 6,464 ADT between Taylor Road and Boyington Road.

Boyington Road. Boyington Road is a collector street that runs parallel to I-80 in the area from the Penryn Road/I-80 interchange to King Road. Boyington Road provides access to commercial uses along the freeway and provides access to the rear parking lot at Del Oro High School. Based on the peak hour volume observed for this study, Boyington Road is estimated to carry 2,600 ADT just north of King Road.

Webb Street. Webb Street is a local street that links King Road with Taylor Road in the area east of downtown Loomis. Webb Street also extends east from Taylor Road to Laird Street. On-street parking is permitted for the portion south of Taylor Road, and currently this two-lane street carries 676 ADT between Taylor Road and Laird Street. Traffic counts taken for the Downtown Implementation Plan indicated that Webb Street carried 3,760 ADT between Taylor Road and King Road in 2009.

Laird Street. Laird Street is a local street that is located one block southeast of Taylor Road. Laird Street extends east from an intersection on Horseshoe Bar Road to Webb Street and then into the residential area surrounding Loomis Grammar School. Parking is permitted along Laird Street, and in March 2014 Laird Street carried 1,152 ADT between Horseshoe Bar Road and Webb Street.

Sun Knoll Drive. Sun Knoll Drive is a local street that links King Road and Laird Street through the residential area east of Loomis Grammar School. Currently, Sun Knoll Drive terminates at the undeveloped project site. Parking is permitted along Sun Knoll Drive, and speed bumps have been installed at many locations along this two-lane residential street. New traffic counts taken in March 2014 indicate that Sun Knoll Drive carried 518 ADT between King Road and Thornwood Drive.

Day Avenue. Day Avenue is a local street that extends south from King Road to serve an existing subdivision located east of Loomis Grammar School. Currently, Day Avenue terminates at the undeveloped project site. On-street parking is permitted on Day Avenue. Traffic counts taken in March 2014 indicate that Day Avenue carried 591 ADT in the area between King Road and David Avenue.

Doc Barnes Drive. Doc Barnes Drive is a local street that links Horseshoe Bar Road and Walnut Street in the area immediately west of the WB I-80 ramps. The Town General Plan indicates that Doc Barnes Drive will eventually be extended northerly to King Road and link up with Boyington Road, and this street is included in the proposed project. In concert with a future westerly extension of Walnut Street to Brace Road, the Doc Barnes Drive extension will be part of an I-80 frontage road that will extend from Brace Road to Penryn Road.

Library Drive. Library Drive is a local street that provides access to Horseshoe Bar Road for Loomis Memorial Hall and the Loomis Library. Parking is permitted on Library Drive. Currently, this two-lane road terminates at the undeveloped project site.

Transit, Bicycle, Rail, and Pedestrian Facilities

Placer County Transit provides public bus service to the Loomis area with two fixed-routes and a Dial-a-Ride service. The Taylor Road Shuttle links Loomis, Penryn, Auburn and Sierra College in Rocklin and the Placer Commuter Express, which runs during commute hours and links the community with downtown Sacramento. Both routes stop at the downtown multimodal center while the Taylor Road Shuttle makes additional stops along Taylor Road. Service is provided between 6:30 a.m. and 4:15 p.m. Monday through Friday with four buses per day. Dial-a-Ride service is available between 6:00 a.m. and 8:00 p.m.

The Town’s Bicycle Transportation Plan (Town of Loomis 2010a) identifies existing and planned bicycle facilities. The existing bicycle system consists of a series of Class II facilities (on-street striped bike lanes) on major arterials. Class II lanes exist on Taylor Road between Sierra College Boulevard and the northern town limits, although the lanes are not marked through the downtown area. Bike lanes also exist on King Road at various locations. There are no Class I facilities (off-street trails) or Class III facilities (routes) in Loomis.

The Town’s Trails Master Plan (Town of Loomis 2010b) identifies the location of existing sidewalks and trails. Sidewalks are provided on major downtown area streets and in developed residential subdivisions. However, there are many gaps in the sidewalk system. No sidewalks exist on portions of Taylor Road and King Road outside of the developed area of Loomis and most of the local streets in the older area of downtown Loomis lack sidewalks.

The Union Pacific Railroad runs parallel to and immediately north of Taylor Road. At-grade crossings are located at Webb Street and King Road. Each is equipped with standard crossing gates and warning flashers.

Level of Service

To assess the quality of existing traffic conditions, operating levels of service (LOS) were calculated at each study intersection. LOS is a qualitative measure of traffic operating conditions whereby a letter grade “A” through “F,” corresponding to progressively worsening traffic operating conditions, is assigned to an intersection.

Table 4.6-1 presents the characteristics associated with each LOS grade. As shown in the table, LOS A, B, and C are considered satisfactory to most motorists, and LOS D is marginally acceptable. LOS E and F are associated with increasingly long delays and congestion and are

unacceptable to most motorists. With one exception, the Town has established LOS C as an operational threshold beyond which mitigation is required. The King Road/Taylor Road intersection is permitted to operate at LOS D during the AM peak hour.

The General Plan also contains thresholds based on the volume of traffic on individual roadway segments. Measured in terms of the volume/capacity ratio (v/c), unsatisfactory conditions occur when the v/c ratio exceeds 0.80.

LOS was calculated for study intersections using the methodologies contained in the 2010 Highway Capacity Manual using SYNCHRO 8.0 software. In the case of intersections controlled by side street stop signs, the individual LOS for movements that yield the right-of-way has been identified.

LOS and v/c ratio for roadway segments were calculated using the capacity thresholds identified in the Town's General Plan.

**Table 4.6-1
Level of Service Definitions**

LOS	Signalized Intersection	Unsignalized Intersection	Roadway Conditions
A	Uncongested operations, all queues clear in a single-signal cycle. Delay < 10.0 sec	Little or no delay. Delay < 10 sec/veh	Completely free flow.
B	Uncongested operations, all queues clear in a single cycle. Delay > 10.0 sec and < 20.0 sec	Short traffic delays. Delay > 10 sec/veh and < 15 sec/veh	Free flow, presence of other vehicles noticeable.
C	Light congestion, occasional backups on critical approaches. Delay > 20.0 sec and < 35.0 sec	Average traffic delays. Delay > 15 sec/veh and < 25 sec/veh	Ability to maneuver and select operating speed affected.
D	Significant congestion of critical approaches but intersection functional. Cars required to wait through more than one cycle during short peaks. No long queues formed. Delay > 35.0 sec and < 55.0 sec	Long traffic delays. Delay > 25 sec/veh and < 35 sec/veh	Unstable flow, speeds and ability to maneuver restricted.
E	Severe congestion with some long standing queues on critical approaches. Blockage of intersection may occur if traffic signal does not provide for protected turning movements. Traffic queue may block nearby intersection(s) upstream of critical approach(es). Delay > 55.0 sec and < 80.0 sec	Very long traffic delays, failure, extreme congestion. Delay > 35 sec/veh and < 50 sec/veh	At or near capacity, flow quite unstable.
F	Total breakdown, stop-and-go operation. Delay > 80.0 sec	Intersection blocked by external causes. Delay > 50 sec/veh	Forced flow, breakdown.

Source: TRB 2000.

Notes: LOS = level of service; sec = seconds; sec/veh = seconds per vehicle.

Overall LOS for unsignalized intersections is weighted average of delays experienced by all motorists yielding the right of way, excluding through traffic.

Existing Traffic Volumes

Peak hour (AM and PM) traffic counts were taken in March 2014 at the study intersections (listed previously). Figure 4.6-1, Existing Traffic Volumes and Lane Configurations, displays the existing traffic volumes that were used for the analysis.

Existing Levels of Service

The current AM and PM peak hour LOS for intersections are summarized in Table 4.6-2 followed by roadway segments in Table 4.6-3. As shown, all intersections evaluated meet the Town's minimum LOS C threshold, with two exceptions.

- In the PM peak hour, motorists waiting to turn onto Taylor Road at the Taylor Road / Webb Street intersection experience delays that are indicative of LOS F conditions on the northbound approach. This LOS currently exceeds the Town's LOS C minimum.
- Motorists waiting to turn at the Horseshoe Bar Road/Laird Street intersection experience delays that are associated with LOS D conditions. As with the Taylor Road/ Webb Street intersection, the Town could consider prohibiting left turns at this location during peak hours as a method for improving the LOS. However, as U-turns are not permitted at adjoining intersections, this control could inconvenience residents living along Laird Street or Sun Knoll Drive.

In addition, at the Horseshoe Bar Road/EB I-80 ramps intersection, motorists waiting to turn onto Horseshoe Bar Road from the off ramp experience delays that are indicative of LOS E. The volume of traffic at this location also satisfies peak hour traffic signal warrants. Therefore the LOS E condition at this location violates the applicable LOS standards.

Current traffic volumes at the unsignalized study intersections were compared with peak hour warrants contained in the California Manual on Uniform Traffic Control Devices. As noted in Table 4.6-2, three intersections carry volumes that satisfy peak hour volume warrants. These locations are:

- Taylor Road/Webb Street
- Horseshoe Bar Road/EB I-80 ramps
- Horseshoe Bar Road/Laird Road

While satisfying peak hour warrants can be an indication that a traffic signal is needed, it is also necessary to consider warrants that address conditions occurring throughout the day to determine whether a traffic signal should be installed. Because the I-80 ramps intersections are under Caltrans jurisdiction, approval from Caltrans would be required to signalize the intersection.

**Table 4.6-2
Existing Intersection LOS**

Intersection	Control	AM Peak Hour		PM Peak Hour		Peak Hour Traffic Signal Warrants Met?
		Average Delay (sec)	LOS	Average Delay (sec)	LOS	
King Rd/Swetzer Rd	Signal	25.5	C	6.0	A	N/A
Taylor Rd/King Rd	Signal	39.6	D	20.9	C	N/A
King Rd/Boyington Rd	WB stop					No
EB left turn		8.7	A	7.9	A	
SB left+right turn		18.7	C	11.3	B	
Taylor Rd/Webb St	NB/SB stop					Yes (PM)
EB left turn		9.4	A	10.0	A	
WB left turn		9.0	A	9.4	A	
NB left+thru+right turn		23.8	C	29.9	D	
SB left+thru+right turn	18.2	C	27.5	D		
Taylor Rd/Horseshoe Bar Rd	Signal	28.8	C	30.6	C	N/A
Horseshoe Bar Rd/Laird St	EB/WB stop					No
NB left+thru+right turn		15.8	C	16.5	C	
SB left+thru+right turn		29.2	D	34.6	D	
Horseshoe Bar Rd/Library Dr.	WB stop					No
SB left turn		8.6	A	9.0	A	
WB left+right turn		17.5	C	22.7	C	
Horseshoe Bar Rd/Doc Barnes Dr.	EB stop					No
NB left turn		9.0	A	9.1	A	
EB left+right turn		15.4	C	18.0	C	
Horseshoe Bar Rd/WB I-80 ramps	Signal	19.8	B	20.5	C	N/A
Horseshoe Bar Rd/EB I-80 ramps	WB stop					Yes
SB left turn		8.4	A	9.0	A	
WB left+right turn		41.9	E	35.3	E	
Horseshoe Bar Rd/Laird Rd	All-way stop	12.3	B	19.4	C	Yes (PM)

Source: Appendix E.

Notes: LOS = level of service; sec = seconds; N/A = not applicable; EB = eastbound; SB = southbound; WB = westbound; NB = northbound. The LOS significance determination for the unsignalized intersections is based on the worst-case movement.

**Table 4.6-3
Existing Daily Traffic Volumes and LOS**

Roadway	Segment	No. of Lanes	ADT	Daily v/c Ratio ¹	LOS
Taylor Rd	Sierra College Blvd to Horseshoe Bar Rd	2	10,603	0.71	C
	Horseshoe Bar Rd to Webb St	2	19,037	1.27	F
	Webb St to King Rd	2	16,374	1.09	F
King Rd	Taylor Rd to Boyington Rd	2	6,464	0.43	A
Horseshoe Bar Rd	Taylor Rd to Doc Barnes Dr	2	14,452	0.96	E
	Doc Barnes Rd to I-80	4	15,706	0.52	A
	I-80 to Laird Rd	2	8,107	0.54	A
Day Ave	King Rd to David Ave	2	591	0.04	A
Laird St	Horseshoe Bar Rd to Webb St	2	1,152	0.08	A
Sun Knoll Dr	King Rd to Thornwood Dr	2	518	0.03	A
Boyington Rd	North of King Rd	2	2,600	0.17	A
Library Dr	Horseshoe Bar Rd to Gates Drive	2	100	0.01	A
Webb St	Taylor Rd to Laird St	2	676	0.05	A
	King Rd to Taylor Rd	2	3,760	0.25	A
I-80	Sierra College Blvd to Horseshoe Bar Rd	6	91,000	0.85	D
	Horseshoe Bar Rd to Penryn Rd	6	84,000	0.77	D

Source: Appendix E.

Notes: LOS = level of service; ADT = average daily traffic; v/c = volume-to-capacity.

¹ Based on General Plan threshold capacity of 15,000 ADT for two-lane road.

As shown in Table 4.6-3, the daily traffic volumes on the portion of Taylor Road through Loomis already exceeds the Town's minimum standard (i.e., v/c ratio >0.80). Current volumes are indicative of LOS F conditions. This existing condition has been noted in the Town's General Plan as a current deficiency.

Similarly, the daily traffic volumes on Horseshoe Bar Road have reached the point that the v/c ratio on the two-lane segment between Taylor Road and Doc Barnes Drive is 0.96.

Caltrans has prepared a Transportation Corridor Concept Report (TCCR) for each state highway, including a TCCR for I-80. The TCCR for I-80 describes existing conditions on the mainline freeway through the study area at LOS D.

As noted in Table 4.6-3, current traffic volumes on local roadways in the study area are far below the roadway's theoretical capacity. However, it is important to note that residents often perceive traffic impacts along their streets at volume levels that are far below the actual capacity of the road. Noise, access difficulties, and pedestrian conflicts are typical complaints at relatively low traffic volume levels. Many jurisdictions have adopted planning-level thresholds for acceptable traffic volumes on residential streets, typically in the range of 2,000 to 3,000 vehicles

per day. Because the Town has not adopted such a threshold, this analysis uses these typical thresholds for residential street capacity. Observed volumes on local streets surrounding the project are below this range.

4.6.2 Regulatory Setting

Federal Regulations

There are no known federal standards that would affect the transportation and circulation aspects of the proposed project.

State Regulations

Transportation Corridor Concept Report

The TCCR is Caltrans' long-range (20-year) planning document for each state highway route. The TCCR identifies existing route conditions and future needs, including existing and forecasted travel data, a concept LOS standard, and the facility needed to maintain the concept LOS and address mobility needs over the next 20 years.

The I-80 TCCR provides data for the portion of I-80 from the Sierra College Boulevard interchange to the Nevada state line. The Town adjoins segment 9. The TCCR notes that the concept LOS for this segment is LOS F, assuming the existing six-lane facility remains. The TCCR identifies programmed improvements and notes that widening the Horseshoe Bar Road overcrossing for four lanes is programmed in the Metropolitan Transportation Plan. No improvements to mainline I-80 are anticipated.

I-80/Horseshoe Bar Interchange Modification Project Study Report

In the late 1990s, the Raley's shopping center was constructed on the north side of I-80, as well as a proposal for developing the property south of the freeway (Turtle Island). The Town commissioned a Project Study Report, which is the first step in Caltrans' process for identifying and approving improvements to the state highway system. The report, completed in 1998 anticipated a multiphase widening project that would ultimately replace the existing structure with a four-lane overcrossing. Due to the age of that document, it is expected that Caltrans would require that the document be updated to reflect current design standards and policies before the Town commences any improvements to the interchange structure.

Caltrans Traffic Study Guidelines

The *Guide for the Preparation of Traffic Impact Studies* (Caltrans 2002) includes the following generalized statement regarding target LOS goals for Caltrans facilities. Caltrans endeavors to

maintain a target LOS at the transition between LOS C and LOS D on state highway facilities; however, Caltrans acknowledges that this may not be always feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS. If an existing state highway facility is operating at less than the appropriate target LOS, the existing Measure of Efficiency should be maintained.

Based on these standards, the Town's LOS C is the minimum acceptable LOS in the study area.

Senate Bill 375

Senate Bill (SB) 375, signed in September 2008 (Chapter 728, Statutes of 2008), aligns regional transportation planning efforts, regional greenhouse gas reduction targets, and land use and housing allocations. SB 375 requires each metropolitan planning organization (MPO), such as the Sacramento Area Council of Governments, to adopt a sustainable communities strategy or alternative planning strategy that will prescribe land use allocation in that MPO's Regional Transportation Plan. The Sacramento Area Council of Governments adopted its sustainable communities strategy in April 2012. The California Air Resources Board, in consultation with MPOs, will provide each affected region with reduction targets for greenhouse gases emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets will be updated every 8 years, but can be updated every 4 years if needed based on changing technology.

Local Regulations

Town of Loomis General Plan

The Town's General Plan (2001) contains the following issues, goals, and policies that address transportation.

Level of Service

Goal: To strive for service levels that reflect a balance between mobility, cost-effectiveness, and financial resources.

Level of Service Policy. In order to minimize congestion, maintain Level of Service C on all roads and intersections within the Town. Level of Service D may be allowed in conjunction with development approved within the Town as an exception to this standard, at the intersections of King Road/Taylor Road, Horseshoe Bar Road/Taylor Road, Horseshoe Bar Road/I-80 ramps, Sierra College Boulevard/Brace Road and Webb Street/Taylor Road when:

1. The deficiency is substantially caused by "through" traffic which neither begins nor ends in Loomis, and is primarily generated by non-residents, or

2. The deficiency will be temporary (i.e., less than three years), and a fully funded plan is in place to provide the improvements needed to remedy the sub-standard condition.

The Town accepts LOS D at the King Road/Taylor Road intersection during the morning peak hour due to the effects of school traffic.

Roadway Improvement Standards

Goal: To develop standards that protect public safety and provide mobility for all forms of transportation.

Roadway Improvement Policy: Roadway improvements within the Town shall conform to the roadway classification system and improvement standards specified in the current version of the Town of Loomis Design & Improvement Standards after their adoption.

Policy on Character of Roadway Improvements: The design of Town Center roadway and streetscape improvements will continue to maintain the “small town downtown” character.

Transit Service

Goal: To devote resources for the promotion of transit service that are appropriate for its size and financial resources using comparable cities as a benchmark.

Transit Service Policies

1. The Town will promote and support a safe, efficient, and coordinated public transit system that meets residents’ needs, reduces congestion, improves the environment, and helps provide a viable non-automotive means of transportation in and through the Town of Loomis.
2. The Town should work with Placer County Transit and other transit providers to plan and implement public transportation services within the Town that are timely, cost-effective, and responsive to growth patterns and transit demand.
 - a. Transit routes should conform to plans established by Placer County Transit, and should generally coincide with major destinations for employment and shopping, the location of major institutions, concentrations of multifamily housing, and other land uses likely to attract public transit ridership.
 - b. Bus routes should follow major roads with service to residential neighborhoods via collector streets.
 - c. Bus stops should be located in conformance with the applicable policies of Placer County Transit.

3. The Town should consider the transit needs of senior, disabled, minority, low-income, and transit-dependent persons in making decisions regarding transit services and in compliance with the Americans with Disabilities Act (ADA).
4. The Town should support efforts to provide demand-responsive service (“paratransit”) and other transportation services for those unable to use conventional transit.

Bicycle Facilities

Goal: To implement additional bicycle facilities that result in increased bicycle usage.

Bicycle Facility Policies

1. The Town shall promote bicycle travel, as appropriate, and shall pursue all available sources of funding for the development and improvement of bicycle facilities.
2. Bicycle facilities shall be provided in compliance with the Loomis Bicycle Master Plan or subsequent amended versions of that document, as well as on other appropriate routes at the discretion of the Town Council.

Neighborhood Environment

Goal: To take actions to minimize cut-thru traffic and manage speeds on residential streets.

Neighborhood Environment Policies:

1. The Town shall create and maintain a street system which protects residential neighborhoods from unnecessary levels of traffic, while providing for logical traffic circulation.
2. The Town shall design streets and approve development in such a manner as to prevent and eliminate high traffic flows and parking problems within residential neighborhoods.
3. The Town shall promote the development of a circulation system that preserves the historic nature and character of neighborhoods and districts, and reinforces neighborhood identity and integrity.
4. New local streets shall be designed to promote the interconnection of residential neighborhoods while simultaneously discouraging through-traffic within residential neighborhoods.
5. The Town of Loomis shall establish and maintain a procedure through which local residents can receive assistance in managing and reducing traffic flows through their residential neighborhoods. Such assistance could be technical, the provision of equipment (such as signs) and the labor needed to install such equipment, or the provision of enhanced police traffic enforcement in neighborhoods. The Town could also participate in modifying the existing street system to reduce or eliminate through traffic intrusion

into residential neighborhoods. Such modifications could include installation of speed humps, traffic diverters, traffic circles, or a variety of other techniques. Based on the identified need and available financing, priorities will be established and an appropriate level of resources (including staff time, equipment, and physical improvements) will be committed by the Town.

6. If recommended by the Town Engineer after review, and if determined to be feasible, the Town should pursue the construction of a pedestrian bridge over Sierra College Boulevard to address safety impacts. The precise location of the crossing would be determined after further review.

Roadway System Funding

Goal: To leverage the Town’s resources with outside funding sources (developer fees, state funds, federal funds, etc.).

Roadway System Funding Policies

1. The Town shall aggressively pursue state and federal funding to implement the primary elements of the Town’s Circulation Plan.
2. The Town shall require proposed new development projects to analyze their contribution to increased vehicle, pedestrian, and bicycle traffic and to implement the roadway improvements necessary to address their impact.
3. The Town shall assess fees on new development sufficient to cover the fair share portion of development’s cumulative impacts on the local and regional transportation system. The cost of all on-site roadways within new development projects is the responsibility of the developer.
4. Prior to acceptance of new local streets by the Town, provisions shall be made for the ongoing maintenance of those facilities. Such provisions could include the establishment of a maintenance district covering the specific roadways identified, or assumption of all maintenance responsibilities by the pertinent homeowners association or other approved organization.

Roadway Maintenance

Goal: To create a pavement management system that provides timely and accurate information about how to use maintenance resources.

Roadway Maintenance Policies

1. The Town shall assure that the transportation system continues to provide safe, efficient, and convenient access to its residents.
2. The Town shall provide dependable and adequate resources to maintain and repair the existing system of roads and bridges, according to priorities established on an annual basis.
3. The Town shall work with the Placer County Transportation Planning Agency (PCTPA) to ensure that the PCTPA's Regional Transportation Plan is coordinated with the Town's Capital Improvement Plan [CIP]. This coordination will allow access to Federal and State funds, where possible, for road maintenance and improvement.

The Environmental Impact Report prepared for the Town of Loomis General Plan also clarifies LOS thresholds by noting that when a project adds traffic to a roadway segment that already operates at an unacceptable LOS, a significant impact would occur when the project would increase the roadway segment's v/c ratio by 5% or more.

Loomis Bicycle Transportation Plan

The Loomis Bicycle Transportation Plan was adopted in 2010 and replaced the previous Placer County Bikeways Master Plan. The plan proposes new bikeways through the project site, specifically:

1. A Class III route from the current end of Day Avenue to Doc Barnes Drive
2. Class I paths along Doc Barnes Drive and connecting the current end of Sun Knoll Drive to Doc Barnes Drive
3. Class II paths along Doc Barnes Drive and also extending from the end of Library Drive easterly through the open space into the neighborhood to be built south of Day Avenue.

Traffic Impact Fee Program

The Town has a traffic impact fee program intended to address the impacts of future development that originated in 2005. The fee program includes a share of costs for various Horseshoe Bar Road improvements, including the following:

- Item 2-1 – I-80/King Road freeway access Project Study Report
- Item 2-5 – Horseshoe Bar Road/Laird Road intersection
- Item 2-5 – Horseshoe Bar Road/Laird Road T signalization
- Item 2-9 – Horseshoe Bar Road lane width and shoulders (Brace to Town limits)
- Item 2-11 – Horseshoe Bar Road turn lanes (Walnut to Taylor)

- Item 2-12 – Horseshoe Bar Road widening (Walnut to south edge of commercial)
- Item 2-15 – Doc Barnes Drive (Boyington Road extension through the project site)

4.6.3 Impacts

Methods of Analysis

The proposed project involves development of approximately 66 acres within the Town. The project includes creation of a new four way intersection on Laird Street with the existing Webb Street intersection. The project also proposes to construct Doc Barnes Drive (formerly Boyington Road Extension) from the intersection of Doc Barnes Drive/Horseshoe Bar Road to King Road/Boyington Road. This improvement is included in the Town’s Traffic Impact Fee Program. The Loomis Town Center Implementation Plan indicates that a traffic signal is planned at the Horseshoe Bar Road/Doc Barnes Drive intersection, when Doc Barnes Drive is extended north, however this signal is not included in the Traffic Impact Fee Program.

Trip Generation

The number of vehicle trips that may result from development of the proposed project has been estimated based the proposed land uses and trip generation rates published in the Institute of Transportation Engineers (ITE) publication Trip Generation, 9th Edition, have been consulted. Table 4.6-4 provides the trip rates estimated for the project.

**Table 4.6-4
Trip Generation Rates**

ITE Code	Description	Trip per Unit						
		Daily	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
210	Medium and Medium-High Density Residential	9.52	25%	75%	0.75	63%	37%	1.00
220	Multifamily Residential	6.65	20%	80%	0.51	65%	35%	0.62
820	Commercial-Retail (<45 ksf)	90.52	62%	38%	2.14	48%	52%	7.86
826	Commercial – Village	44.32	62%	38%	1.90	44%	56%	4.19
710	Commercial – Office	11.03	88%	12%	1.56	17%	83%	1.49

Source: Appendix E.

Notes: ITE = Institute of Transportation Engineers; ksf = thousand square feet.

Table 4.6-5 identifies the daily and peak hour trip generation forecasts for the proposed project based on the trip generation rates identified in Table 4.6-4. As shown, the proposed project could generate a total of 8,487 daily trips, with a portion of the trips remaining internal to the project site and a portion of the trips coming from “pass-by” trips, or vehicles that are already assumed to be on the local roadway network and would be diverted into the project site as a leg of their

overall trip. The trip generation analysis determined that the project would generate a total of 5,635 new daily trips external to the project site, with 395 trips originating during the AM peak hour and 559 generated during the PM peak hour.

**Table 4.6-5
Project Trip Generation**

ITE Code	Description	Quantity	Trip Per Unit						
			Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
210	Medium and Medium-High Density	301 du	2,866	56	170	226	190	111	301
220	Multifamily Residential	125 du	831	13	51	64	50	28	78
820	Commercial-Retail (<45 ksf)	44 ksf	3,982	58	36	94	166	180	346
826	Commercial – Village	12 ksf	532	14	9	23	22	28	50
710	Commercial – Office	25 ksf	276	34	5	39	6	31	37
<i>Total</i>			8,487	175	271	446	434	378	812
Less Internal Trips 5% of Office and 5% Commercial Retail matched			-426	-7	-6	-13	-19	-19	-38
Less Internal Trips 50% of Commercial – Village			-532	-12	-11	-23	-25	-25	-50
<i>External Trips</i>			7,529	156	254	410	390	334	724
Less Commercial Retail Pass-by Trips	15% AM 49% PM		-1,854	-8	-5	-13	-77	-84	-161
Less Commercial Village Retail Pass-by Trips	15% (AM and PM)		-40	-1	-1	-2	-2	-2	-4
Net New Trips			5,635	147	248	395	311	248	559
			<i>AM Peak Hour Total: 395</i>			<i>PM Peak Hour Total: 559</i>			
Share of Net New Daily Trips – Medium and Medium-High Density			2,495 (44%)			268 (48%)			
Share of Net New Daily Trips – Multifamily			723 (13%)			67 (12%)			
Share of Net New Daily Trips – Commercial Retail			1,929 (34%)			168 (30%)			
Share of Net New Daily Trips – Commercial Village			226 (4%)			21 (4%)			
Share of Net New Daily Trips – Commercial Office			262 (5%)			35 (6%)			

Source: Appendix E.

Notes: ITE = Institute of Traffic Engineers; du = dwelling unit; ksf = thousand square feet.

The pass-by rate is inversely proportional to the size of the commercial based on the ITE Trip Generation Handbook, 2nd Edition (Figure 5-5). Small centers with high trip generation rates also have high pass-by rates. In this case, the pass-by is from Horseshoe Bar Road.

Trip Distribution

The external origins and destinations of trips associated with the proposed project were identified based on review of current travel patterns, knowledge of the location of complementary land use and the result of “select zone” analysis performed using the Town’s regional travel demand forecasting model. Trips associated with new residences will be oriented to local schools and to regional shopping and employment opportunities. New commercial areas will attract trips from residential neighborhoods throughout the Loomis/South Placer Area. Table 4.6-6 identifies the general distribution of trips by land use type.

**Table 4.6-6
Trip Distribution Assumptions**

Direction	Route	Percent of Total Trips			
		Residential		Office/Commercial Retail	Village Commercial
		AM Peak Hour	PM Peak Hour		
Northeast	Taylor Rd beyond King Rd	4.0	3.7	4.0	2.2
	Del Oro High School	10.0	0.0	0.0	0.0
	Swetzer Rd north of King Rd	1.5	1.41	1.5	0.9
	I-80 beyond Horseshoe Bar Rd	5.0	4.6	5.0	2.7
	Horseshoe Bar Rd beyond Laird Rd	1.0	0.9	1.0	0.6
	Boyington Rd north of King Rd	0.0	0.0	0.0	0.0
East	King Rd east of Boyington Rd	1.5	1.4	1.5	0.9
	Laird Rd east of Horseshoe Bar Rd	3.5	3.2	3.5	1.8
Southwest	Taylor Rd west of Horseshoe Bar Rd	17.5	21.3	23.5	12.0
	I-80 west of Horseshoe Bar Rd	35.0	36.1	39.0	20.0
West	King Road west of Swetzer Rd	7.5	7.0	7.5	4.0
	Horseshoe Bar Road west of Taylor Rd	1.0	0.9	0.0	0.0
	Downtown Loomis	7.5	8.9	8.5	4.9
	<i>Internal</i>	5.0	12.0	5.0	50.0
	Total	100%	100%	100%	100%

Source: Appendix E.

Trip Assignment

The routes selected by individual residents, employees and customers will reflect the shortest distance between competing routes to identified destinations and accounts for the presence of new streets incorporated into the proposed project. Figure 4.6-2, Project Only Traffic Volumes

and Lane Configurations, identifies the assignment of project trips to the study area street system when the project is built out.

Proposed Roadway Improvements

The proposed project includes construction of the Doc Barnes Drive extension from its current intersection on Horseshoe Bar Road northeasterly through the site to the King Road/ Boyington Road intersection. This route is identified in the General Plan and the Town's Traffic Impact Fee. It is intended to provide an alternative route parallel to I-80 and provide a more direct route to the I-80/Horseshoe Bar Road interchange for Loomis residences residing on the south side of the freeway, who could access the Horseshoe Bar Road interchange by traveling west on King Road and southwest on Doc Barnes Drive. Construction of Doc Barnes Drive also includes installing a traffic signal at the Horseshoe Bar Road/Doc Barnes Drive intersection, in accordance with the Loomis Town Center Implementation Plan.

The potential diversion of existing traffic to this new route has been identified based on consideration of current peak hour travel patterns at study intersections and select link analysis derived from the Town's regional travel demand forecasting model. The peak hour traffic observed turning from King Road to Taylor Road and from Horseshoe Bar Road to Taylor Road was reviewed. These volumes were compared to the trips suggested on the new route using the baseline version of the traffic model.

A conservative estimate of the amount of traffic that would be diverted to the new route was made to ensure that impacts elsewhere in Loomis were not underestimated. It is recognized that Doc Barnes Drive would be used to varying degrees throughout the day based on actual traffic patterns occurring elsewhere in Loomis and in rural Placer County. It is also possible that Loomis residents may alter their travel patterns to take advantage of the new route in a manner that is not readily quantified in this analysis. For example, Del Oro High School parents may elect to use the school's Boyington Road access in greater numbers if a new route to I-80 is available. The number of parents electing to change travel patterns cannot be anticipated by the regional traffic model. Therefore, this analysis does not attempt to forecast the number of parent vehicles diverted from Del Oro's Taylor Road access to the Boyington Road driveway. Similarly, parents may elect to make greater use of Loomis Grammar School's King Road loading area instead of the Taylor Road access if a more convenient route to I-80 is available through the project, although it is not possible to estimate the amount of school traffic diverted. From the standpoint of safety, the Doc Barnes Drive–Boyington Road route would likely be especially beneficial for local residents on days when traffic conditions deteriorate on mainline I-80 and background traffic moves to Taylor Road. Because any diversion is likely to draw traffic away from locations with poor LOS and toward areas that operate better, traffic projections that attempt to account for the additional

diversion would be expected to yield better LOS than those identified in this analysis of Existing Plus Project Conditions.

Additionally, the project would create a new four-way intersection on Laird Street just west of the Webb Street intersection and provide access to the project site from Library Drive.

Traffic Forecasts and Methodology

The traffic impact analysis evaluated four traffic scenarios, per the Town's requirements:

1. Existing Conditions
2. Existing Plus Project Conditions
3. Cumulative Baseline Without Project Conditions
4. Cumulative Plus Project Conditions

The results of the Existing and Cumulative scenarios traffic modeling is discussed in the following text, while the analysis of Existing Plus Project and Cumulative Plus Project conditions is presented in the Impact discussions. Existing conditions were determined by modifying the Town's baseline traffic model to reflect recent area development. The most appreciable change was the addition of commercial land uses that have been constructed and occupied near the I-80/Sierra College Boulevard interchange (i.e., Rocklin Commons and Rocklin Crossings shopping centers). For this analysis, the amount of development that was occupied on the date the new traffic counts were conducted was identified in consultation with Town staff, and this land use was added to the baseline model.

In addition, modifications were made to the Loomis 2030 traffic model to create the Cumulative Baseline Without Project conditions. For this Without Project scenario, the Doc Barnes Drive extension to the King Road/Boyington Road intersection and the land uses that the model assumes would be developed at the project site were both eliminated from the model.

To create the Plus Project condition, the proposed land uses were added to the model's land use inventory, the model was adjusted to incorporate anticipated circulation system improvements (including the Doc Barnes Extension), and new traffic model runs were conducted.

The results of the model runs were then used to determine the cumulative traffic volumes with and without the project. Existing (2014) and cumulative traffic volumes were then compared to identify equivalent growth rates for roadway segments and intersection turning movement volumes. To create peak hour intersection turning movements, the segment growth factors were applied to the observed peak hour volumes and the results were balanced to best approximate conditions on each leg using the methodologies contained in the Transportation Research

Board’s NCHRP Report 255, Highway Traffic Data for Urbanized Area Project Planning and Design. This approach reflects the fact that the development of various land uses may affect current travel patterns while adding new traffic, while new roadways may provide alternative routes for existing traffic.

Cumulative Scenario Methodology

The Town’s regional travel demand forecasting model is intended to be consistent with a similar model developed for the City of Rocklin and Placer County, and is essentially an enhanced version of the SACMET regional model. As a result, the Loomis model reflects development anticipated in Loomis/Rocklin and throughout Sacramento, Placer, Yuba and Yolo Counties by the year 2030.

Locally, the Loomis traffic model assumes development permitted under the Town’s General Plan, as well as circulation system components anticipated by the Town. Noteworthy commercial development is assumed on the old Turtle Island site south of I-80 and along Sierra College Boulevard. The Loomis model assumes that the Doc Barnes Drive extension will be completed to King Road. Regionally, the model assumes major improvements in Rocklin (i.e., Dominguez Road/I-80 Overcrossing and Clover Valley Road extension to Park Drive) as well as Placer Parkway connecting State Route 99 and State Route 65.

Future Improvements

Various plans and programs identify improvements that will be made to the study area circulation system by year 2030. The study area improvements suggested in the Loomis Town Center Implementation Plan include the following:

- Taylor Road/Horseshoe Bar Road intersection would still be controlled by a traffic signal. The plan maintains the separate left turn lanes that exist on the Taylor Road approaches as well as the right turn lane that is available on northbound Horseshoe Bar Road. The intersection would still be wide enough to accommodate trucks. Bulb-outs would be added to reduce the crossing distance for pedestrians, and the eastbound right turn lane on Taylor Road would be removed.
- Traffic signal at Taylor Road/Webb Street intersection, in lieu of the current control by stop signs on the Webb Street approaches. Crosswalks would be provided across Taylor Road on both sides of the street and the intersection would be “bulbed out” to shorten pedestrian crossing distances. Currently, the intersection is signed to prohibit left turns from southbound Webb Street onto eastbound Taylor Road.

While not a part of the Loomis Town Center Implementation Plan, it may be necessary to also eliminate eastbound left turns from Taylor Road onto Webb Street due to the short distance between this intersection and Horseshoe Bar Road.

- Taylor Road/King Road intersection would remain a signalized intersection with auxiliary turn lanes on each approach. The westbound through plus right-turn lane on Taylor Road would be restriped as a right-turn-only lane to allow a reduced width on Taylor Road west of the intersection.
- Horseshoe Bar Road/Library Drive intersection would include a southbound left-turn lane added to Horseshoe Bar Road at this intersection. In the near term, traffic would still be controlled by a stop sign on Library Drive, although the intersection could be signalized in the future if needed. Crosswalks would be available across Library Drive and across Horseshoe Bar Road.
- Currently, the Horseshoe Bar Road/Doc Barnes Drive intersection is a “T” intersection controlled by a stop sign on the Doc Barnes Drive approach. A major signalized intersection is planned in the future when Doc Barnes Drive is extended to King Road. The Loomis Town Center Implementation Plan recognized that auxiliary turn lanes on Horseshoe Bar Road would be needed to accommodate traffic diverted from Taylor Road to the Doc Barnes Drive Extension, as well as traffic from the anticipated development on the project site.
- Horseshoe Bar Road/Westbound I-80 intersection would remain as it exists currently. However, the Loomis Town Center Implementation Plan recognizes the need to extend the existing southbound right-turn lane on Horseshoe Bar Road back to the Doc Barnes Drive intersection.
- A 10-foot-wide mixed bicycle–pedestrian path would extend on both sides of Taylor Road from Sierra College Boulevard to the High Hand Nursery and from Horseshoe Bar Road to King Road. Bicycle–pedestrian paths would also be created on Horseshoe Bar Road from Laird Street to Doc Barnes Drive. Within the existing downtown area, striped Class II bicycle lanes would be provided on Taylor Road in both directions from High Hand Nursery to Horseshoe Bar Road, and for a little less than 300 feet in front of the Blue Goose Fruit Shed.

Cumulative No Project Year 2030 Traffic Volumes and LOS

The anticipated cumulative traffic volumes at study intersections are shown in Figure 4.6-3, Cumulative Without Project Traffic Volumes and Lane Configurations, and the cumulative no project intersection levels of service are shown in Table 4.6-7. In the Cumulative Without Project

scenario, peak hour traffic conditions would exceed the Town’s minimum LOS C standard at eight intersection locations.

- Taylor Road/King Road intersection is projected to operate at LOS E during the AM peak hour. This exceeds the LOS D conditions accepted at this intersection under the general plan. (Note: This LOS E during the AM peak hour assumes the elimination of approximately 300 feet of an existing second westbound lane on Taylor Road immediately west of the King Road intersection. If this second lane remains, the LOS during the AM peak hour will be D.)
- Southbound approach to the King Road/Boyington Road intersection is projected to operate at LOS E during the AM peak hour.
- Taylor Road/Webb Street intersection LOS for the northbound and southbound Webb Street approaches would reach LOS F during the PM peak hour.
- Horseshoe Bar Road/Taylor Road intersection is projected to operate at LOS F during the PM peak hour. (Note: This LOS F during the PM peak hour assumes a pedestrian bulb out will be constructed on eastbound Taylor Road immediately west of Horseshoe Bar Road, which will eliminate the existing dedicated right turn lane at this location. If this dedicated right turn lane remains, the PM peak hour LOS will be D.)
- Westbound approach to the Horseshoe Bar Road/Laird Street intersection is projected to operate at LOS F in the AM and PM peak hour.
- Westbound approach to the Horseshoe Bar Road/Library Drive intersection is projected to operate at LOS D in the AM peak hour and LOS E during the PM peak hour.
- Eastbound approach to the Horseshoe Bar Road/Doc Barnes Drive intersection is projected to operate at LOS D during the PM peak hour.
- Horseshoe Bar Road/Laird Road intersection westbound approach is projected to operate at LOS F in the AM and PM peak hour.

**Table 4.6-7
Year 2030 No Project and Plus Project Intersection LOS**

Intersection	Control	AM Peak Hour				PM Peak Hour			
		No Project		Plus Project		No Project		Plus Project	
		Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS
King Rd/Swetzer Rd	Signal	20.2	C	20.0	C	10.5	B	10.6	B
Taylor Rd/King Rd	Signal	76.7	E	63.2	E	27.1	C	26.8	C
	Current Geometry	—	—	45.4	D	—	—	—	—

**Table 4.6-7
Year 2030 No Project and Plus Project Intersection LOS**

Intersection	Control	AM Peak Hour				PM Peak Hour			
		No Project		Plus Project		No Project		Plus Project	
		Average Delay (sec)	LOS						
King Rd/Boyington Rd SB left+thru+right NB left+thru+right	NB/SB Stop	39.7	E	823.6	F	13.9	B	32.1	D
		—	—	>999	F	—	—	32.3	D
	Signal	—	—	19.6	B	—	—	13.9	B
Taylor Rd/Webb St EB left turn WB left turn NB left+thru+right SB left+thru+right	NB/SB Stop	11.6	A	11.1	B	10.3	A	10.2	B
		9.0	A	9.0	A	10.6	A	10.6	B
		27.1	D	24.4	C	51.6	F	50.5	F
		25.6	D	21.9	C	234.1	F	217.4	F
Taylor Rd/Horseshoe Bar Rd	Signal	26.8	C	25.5	C	91.0	F	94.6	F
	Current Geometry	—	—	—	—	—	—	46.9	D
Horseshoe Bar Rd/Laird St EB left+thru+right WB left+thru+right	EB/WB Stop	12.2	B	11.3	B	12.7	B	13.1	B
		66.0	F	49.9	E	68.2	F	105.5	F
Horseshoe Bar Rd/Library Dr SB left turn WB left+right turn	WB Stop	9.6	A	9.6	A	10.1	B	10.6	B
		28.8	D	30.5	D	40.0	E	59.8	F
Horseshoe Bar Rd/Doc Barnes Dr EB left+thru+right WB left+thru+right	EB/WB Stop	9.0	A	—	—	9.6	A	—	—
		17.2	C	—	—	29.7	D	—	—
Signal	—	—	30.5	C	—	—	33.9	C	
Horseshoe Bar Rd/WB I-80 ramps	Signal	25.4	C	26.1	C	21.5	C	23.9	C
Horseshoe Bar Rd/EB I-80 ramps	Signal	24.4	C	26.0	C	25.6	C	26.9	C
Horseshoe Bar Rd/Laird Rd	Signal	32.7	C	33.5	C	52.5	D	79.1	E
	Add EB right turn lane	28.9	C	22.6	C	32.6	C	39.4 (22.6)*	D (C)*

Source: Appendix E.

Note: * With overlap phasing.

Year 2030 daily traffic volume forecasts created by the traffic model for the No Project condition are shown in Table 4.6-8. Resulting LOS are also identified. As indicated, five roadway segments are projected to operate at a LOS that exceeds the Town's LOS C threshold.

The volume of traffic on Taylor Road through the study area is expected to increase appreciably. Based on the General Plan's capacities, the LOS F conditions now occurring east of Horseshoe Bar Road would also occur between Sierra College Boulevard and Horseshoe Bar Road. These forecasts and LOS conclusions are generally consistent with the findings of the current Loomis General Plan EIR, which noted that a four-lane section would be needed to meet the Town's minimum LOS.

The volume of traffic forecast for Horseshoe Bar Road would also increase. LOS F conditions are projected on Horseshoe Bar Road in the area between Taylor Road and Doc Barnes Drive. The Town assumes that significant traffic occurs when the minimum segment LOS is exceeded and the project increases the volume by more than 5%. In this case, the increase from existing to cumulative conditions without the project is less than 5% on each street.

The daily traffic volume on I-80 is projected to exceed the highway capacity and LOS F conditions are forecast. This is consistent with the findings of the TCCR. That document suggested that carpool lanes might be added to I-80 in this area; however, funding for adding carpool lanes has not been identified. The TCCR projects LOS F in the future with and without this improvement.

**Table 4.6-8
Year 2030 No Project and Plus Project Daily Traffic Volumes and LOS**

Roadway	Segment	# of Lanes	No Project			Plus Project		
			ADT	Daily v/c Ratio*	LOS	Average ADT	Daily v/c Ratio*	LOS
Taylor Rd	Oak St to Horseshoe Bar Rd	2	13,460	0.89	D	13,850	0.92	E
	Horseshoe Bar Rd to Webb St	2	23,760	1.58	F	23,300	1.55	F
	Webb St to King Rd	2	18,350	1.22	F	17,960	1.20	F
King Rd	Taylor Rd to Boyington Rd	2	9,290	0.62	B	8,920	0.59	A
Horseshoe Bar Rd	Taylor Rd to Doc Barnes Dr	2	17,850	1.19	E	18,350	1.22	F
	Doc Barnes Rd to I-80	4	17,560	0.59	A	22,200	0.74	C
	I-80 to Laird Rd	2	12,295	0.82	D	11,700	0.78	C
Doc Barnes Rd	Taylor Rd to Gates Dr	2	—	—	—	5,200	0.35	A
	Gates Dr to Blue Anchor Dr	2	—	—	—	2,900	0.20	A
	Blue Anchor Dr to King Rd	2	—	—	—	2,400	0.16	A
Library Dr	Horseshoe Bar Rd to Gates Dr	2	160	0.01	A	1,900	0.13	A
I-80	Sierra College Blvd to Horseshoe Bar Rd	6	126,700	1.17	F	128,350	1.18	F
	Horseshoe Bar Rd to Penryn Rd	6	117,700	1.08	F	116,425	1.07	F

Source: Appendix E.

Notes: LOS = level of service; ADT = average daily traffic; v/c = volume-to-capacity.

(*) based on General Plan threshold capacity of 15,000 ADT for two-lane road.

Bold values indicate unacceptable LOS.

Significance Criteria

Potential significant impacts associated with traffic have been evaluated using the following criteria, as identified in Appendix G of the CEQA Guidelines:

The analysis in the following text evaluates the potential for the project to result in significant transportation and circulation impacts related to the following criteria. Would the project:

- Result in an increase in traffic that is substantial in relation to the existing and/or planned future year traffic load and capacity of the roadway system?
- Exceed a level of service standard established by the local General Plan for roads affected by project traffic?
- Increase impacts to vehicle safety due to roadway design features or incompatible uses?
- Result in inadequate emergency access or access to nearby uses?
- Create hazards or barriers for pedestrians or bicyclists?
- Conflict with adopted policies, plans, or programs supporting alternative transportation or otherwise decrease the performance or safety of such facilities?
- Cause a change in air traffic patterns, including either an increase in traffic levels or a change in location resulting in substantial safety risks?
- Result in increased vehicle circulation or congestion due to a lack of sufficient parking capacity to support the proposed land uses?

Impact Discussion

IMPACT 4.6-1: Result in an increase in traffic that is substantial in relation to the existing and/or planned future year traffic load and capacity of the roadway system, including consideration of LOS and ADT.

SIGNIFICANCE: Significant

MITIGATION: Mitigation Measures 4.6a through 4.6d

RESIDUAL SIGNIFICANCE: Less Than Significant

Intersection Level of Service

Under Existing Plus Project conditions, the LOS at all three signalized intersections within the study area would meet the Town’s LOS C goal. The King Road/Taylor Road, Taylor Road/Horseshoe Bar Road, and Horseshoe Bar Road/WB I-80 ramps intersections would operate at LOS C or better during AM and PM peak hours, as shown in Figure 4.6-4, Existing Plus Project Traffic Volumes and Lane Configurations.

As shown in Table 4.6-9, five intersections would exceed the Town’s LOS C standard, whether for the intersection as a whole or on a single approach to a stop controlled intersection. Two of these locations are already deficient under existing conditions. Where the proposed project would result in a decrease in LOS or an increase in average delay through the intersection, the project’s impacts would be significant.

**Table 4.6-9
Existing Plus Project Intersection LOS**

Intersection	Control	AM Peak Hour				PM Peak Hour			
		Existing		Existing Plus Project		Existing		Existing Plus Project	
		Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS
King Rd/Switzer Rd	Signal	25.5	C	25.1	C	6.0	A	6.2	A
Taylor Rd/King Rd	Signal	39.6	D	37.3	D	20.9	C	19.2	B
King Rd/Boyington Rd SB left+thru+right turn NB left+thru+right	NB/SB Stop	18.7	C	31.5	D	11.3	B	14.0	B
	Signal	—	—	22.1	C	—	—	12.7	B
Taylor Rd/Webb St EB left turn WB left turn NB left+thru+right turn SB left+thru+right turn	NB/SB Stop	9.4	A	9.1	A	10.0	A	10.0	A
		9.0	A	9.0	A	9.4	A	9.4	A
		23.8	C	21.8	C	29.9	D	27.8	D
		18.2	C	16.6	C	27.5	D	26.6	D
Taylor Rd/Horseshoe Bar Rd	Signal	28.8	C	26.4	C	30.6	C	29.8	C
Horseshoe Bar Rd/Laird Street EB left+thru+right turn WB left+thru+right turn	EB/WB Stop	15.8	C	16.3	C	16.5	C	18.1	C
		29.2	D	35.2	E	34.6	D	42.8	E
Horseshoe Bar Rd/Library Dr SB left turn WB left+right turn	WB Stop	8.6	A	8.8	A	9.0	A	9.3	A
		17.5	C	19.0	C	22.7	C	27.7	D

Table 4.6-9
Existing Plus Project Intersection LOS

Intersection	Control	AM Peak Hour				PM Peak Hour			
		Existing		Existing Plus Project		Existing		Existing Plus Project	
		Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS
Horseshoe Bar Rd/Doc Barnes Dr EB left+thru+right turn WB left+thru+right	EB/WB Stop	15.4	C	—	—	18.0	C	—	—
	Signal	—	—	22.5	C	—	—	24.6	C
Horseshoe Bar Rd/WB I-80 ramps	Signal	19.8	B	20.8	C	20.5	C	34.0	C
Horseshoe Bar Rd/EB I-80 ramps SB left turn WB left+right turn	WB Stop	8.4	A	8.5	A	0.5	A	9.2	A
		41.9	E	68.2	F	35.3	E	301.6	F
	Signal	—	—	10.5	B	—	—	13.7	B
Horseshoe Bar Rd/Laird Rd	All-Way Stop	12.3	B	12.7	B	19.4	C	20.9	C

Source: Appendix E.

Notes: LOS = level of service; SB = southbound; NB = northbound; EB = eastbound; WB = westbound.

Bold text indicates an unacceptable delay or LOS. **Highlighted** text indicates a significant project impact.

Intersection Traffic Signal Warrants

Table 4.6-10 identifies where traffic volumes meet traffic signal warrants at study intersections with and without the project. As indicated, conditions at four locations would not change between existing and existing plus project conditions, and one new location would satisfy traffic signal warrants.

- Traffic volumes at the Taylor Road/Webb Street intersection would satisfy warrants, but the same as under existing conditions, nearly all traffic is turning right and a traffic signal is not justified as a result of the project.
- Traffic volumes at the Horseshoe Bar Road/Eastbound I-80 ramps intersection would continue to satisfy traffic signal warrants during the AM and PM peak hours.
- Traffic volumes at the Horseshoe Bar Road/Laird Road intersection would continue to satisfy peak hour warrants during the PM peak hour. A traffic signal for this intersection is included in the Town's traffic impact fee program. Under the Town's traffic impact fee program, the project applicant would be required to pay the Town's traffic impact fee at building permit issuance, which constitutes a portion of the project's fair share contribution toward the cost of this signal. In addition, **Mitigation Measure 4.6a** requires

that the project applicant contribute additional funds to installation of this traffic signal sufficient to meet the project's fair share of the total cost. With implementation of **Mitigation Measure 4.6a** and the Town's implementation of the planned signal at this intersection, the project's impact at this location would be reduced to a **less-than-significant** level.

Table 4.6-10
Existing Plus Project Traffic Signal Warrants

Intersection	Control	Peak Hour Warrants Satisfied?				Notes
		AM Peak Hour		PM Peak Hour		
		Existing	Existing Plus Project	Existing	Existing Plus Project	
King Rd/Boyington Rd	NB/SB Stop	NO	NO	NO	NO	
Taylor Rd/Webb St	NB/SB Stop	YES	YES	YES	YES	Nearly all right turns
Horseshoe Bar Rd/Laird St	EB/WB Stop	NO	NO	NO	NO	
Horseshoe Bar Rd/Library Dr	WB Stop	NO	NO	NO	NO	
Horseshoe Bar Rd/EB I-80 Ramps	WB Stop	YES	YES	YES	YES	20% right turns
Horseshoe Bar Rd/Laird Rd	All-Way Stop	NO	NO	YES	YES	

Source: Appendix E.

Notes: NB = northbound; SB = southbound; EB = eastbound; WB = westbound.

Roadway Segment Volumes and LOS

LOS on roadway segments based on the General Plan segment capacity are noted in Table 4.6-11. As indicated, the same three segments that currently carry traffic volumes that exceed the minimum LOS C threshold would continue to do so with completion of the project.

The project would add traffic to mainline I-80, primarily between the Sierra College Boulevard and Horseshoe Bar Road interchanges. However, the volume added would not change the current LOS (i.e., LOS D).

The project proposes pedestrian connections to existing streets that are stubbed to the project but does not propose vehicular access to Day Avenue or Sun Knoll Drive. These connections might theoretically be expanded to accommodate motor vehicles to facilitate neighborhood circulation. However, the amount of vehicle traffic that would use either connection would be relatively low, (i.e., 100 to 200 vehicles per day). As a result, expanding these connections would not appreciably improve traffic conditions elsewhere in Loomis but would not appreciably impact the existing neighborhoods served by either connection.

**Table 4.6-11
Existing Plus Project Daily Traffic Volumes and LOS**

Roadway	Segment	# of Lanes	Existing			Existing Plus Project				
			ADT	Daily v/c Ratio*	LOS	ADT			Daily v/c Ratio*	LOS
						Diversion	Project Only	Total		
Taylor Rd	Oak St to Horseshoe Bar Rd	2	10,603	0.71	C	-400	1,440	11,643	0.78	C
	Horseshoe Bar Rd to Webb St	2	19,037	1.27	F	-1,500	680	18,217	1.21	F
	Webb St to King Rd	2	16,344	1.09	F	-1,500	710	15,554	1.04	F
King Rd	Taylor Rd to Boyington Rd	2	6,464	0.43	A	-1,500	235	5,199	0.35	A
Horseshoe Bar Rd	Taylor Rd to Library Dr	2	14,452	0.98	E	-1,100	1,900	15,252	1.02	F
	Library Dr to Doc Barnes Dr	2	14,452	0.98	E	-1,100	1,680	15,032	1.00	F
	Doc Barnes Dr to I-80	4	15,706	0.52	A	0	2,970	18,676	0.62	A
	I-80 to Laird Rd	2	8,107	0.54	A	0	260	8,367	0.56	A
Day Ave	King Rd to David Ave	2	591	0.04	A	0	0	591	0.04	A
Laird St	Horseshoe Bar Rd to Webb St	2	1,152	0.08	A	0	300	1,452	0.10	A
Sun Knoll Dr	King Rd to Thornwood Dr	2	518	0.04	A	0	10	528	0.04	A
Boyington Rd	North of King Rd	2	2,600	0.17	A	0	150	2,750	0.18	A
Webb St	Taylor Rd to Laird St	2	676	0.07	A	0	160	836	0.06	A
	Taylor Rd /King Rd	2	3,760	0.25	A	0	50	3,810	0.25	A
Doc Barnes Rd	Taylor Rd to Gates Dr	2	—	—	—	1,500	4,640	6,140	0.35	A
	Gates Dr to Blue Anchor Dr	2	—	—	—	1,500	1,800	3,300	0.22	A
	Blue Anchor Dr to King Rd	2	—	—	—	1,500	1,300	2,800	0.19	A
Library Dr	Horseshoe Bar Rd to Gates Dr	2	100	0.01	A	0	1,230	1,330	0.09	A
I-80	Sierra College Blvd to Horseshoe Bar Rd	6	91,000	0.85	D	0	2,270	93,270	0.86	D
	Horseshoe Bar Rd to Penryn Rd	6	84,000	0.77	D	0	220	84,220	0.78	D

Source: Appendix E.

Notes: LOS = level of service; ADT = average daily traffic; v/c = volume-to-capacity.

* based on General Plan threshold capacity of 15,000 ADT for two-lane road.

Bold text indicates an unacceptable LOS.

Highlighted values are an increase of more than 5% where the LOS is unacceptable.

Impacts

King Road/Boyington Road: The project would add traffic to the King Road/Boyington Road intersection. During the AM peak hour the project-generated traffic would degrade the LOS for the southbound movements from LOS C under Existing No Project conditions to LOS D in Existing Plus Project conditions. The intersection would operate at LOS B during the PM peak hour under both Existing and Existing Plus Project conditions. This intersection serves as a key link in routes accessing Del Oro High School and Loomis Grammar School, and school-age pedestrians can be expected. While the traffic volumes through the intersection would not satisfy traffic signal warrants, the variability in traffic volumes as a result of school-related traffic and the use of the intersection by school-age pedestrians indicate that a potential safety impact could occur at this intersection that warrant mitigation. **Mitigation Measure 4.6b** requires that the project applicant install the following roadway and intersection improvements:

- Widening King Road to provide separate eastbound and westbound left-turn lanes
- Installing a traffic signal
- Installing pedestrian landings and school crosswalks

As shown in Table 4.6-9, with installation of the traffic signal, the AM peak hour LOS would remain at LOS C. As noted previously, the project site is adjacent to this intersection. As provided in **Mitigation Measure 4.6b**, the Village at Loomis project applicant would install this traffic signal at the time that Doc Barnes Drive is constructed. The identified improvements would provide LOS C operations at the intersection and ensure that pedestrians have sufficient protected time to cross King Road. With implementation of **Mitigation Measure 4.6b**, the impacts at this intersection would be reduced to a **less-than-significant** level.

Taylor Road/Webb Street: The LOS for the PM peak hour under both Existing No Project and Existing Plus Project would be LOS D. When project traffic is added to the existing conditions, the average delays through the intersection would decrease by 2.1 seconds for the northbound movements and by 0.9 second for the southbound movements. As the project would not alter the LOS and would not increase delay at this intersection, the project would have a **less than significant** impact at this intersection.

Horseshoe Bar Road/Laird Street: With the addition of project-generated traffic at this intersection, the LOS for the westbound approach would degrade from LOS D under Existing No Project conditions to LOS E under Existing Plus Project conditions for both AM and PM peak hours. This would be a **significant** impact. **Mitigation Measure 4.6c** requires the project applicant to install signage prohibiting left turns from Laird Street onto Horseshoe Bar Road during peak periods. With implementation of this mitigation, this intersection would operate at LOS C and the impact would be **less than significant**. This measure would cause redistribution

of existing traffic, but review of resulting traffic volumes, as provided in the appendix to the traffic study, indicates that these changes would not result in any additional impacts. Traffic signal warrants are not satisfied with the project's additional traffic, and as a result, a traffic signal is not recommended with the project. A traffic signal is also very unlikely in the future due to the proximity to the Taylor Road/Horseshoe Bar Road intersection.

Horseshoe Bar Road/Library Drive: Project-generated traffic would result in a decrease in LOS for the westbound approach from LOS C under Existing No Project conditions to LOS D under Existing Plus Project conditions for the AM and PM peak hour. This would be a **significant** impact. Traffic signal warrants are not satisfied with the project, and as a result, a traffic signal is not recommended with the project. A traffic signal may be justified in the future. **Mitigation Measure 4.6d** requires the project applicant to install signage to prohibit left turns from Library Drive onto Horseshoe Bar Road during peak periods. With implementation of this mitigation, this intersection would operate at LOS C and the impact would be **less than significant** (Table 4.6-12). This measure would cause redistribution of existing traffic, but review of resulting traffic volumes, as provided in the appendix to the traffic study, reveals no additional impacts.

Horseshoe Bar Road/Doc Barnes Drive: The eastbound approach to this intersection exists currently while the westbound approach would be created by the proposed project's construction of the Doc Barnes Drive extension. Assuming only stop-sign controls are used (as in the existing condition for the eastbound approach), the proposed project would cause the LOS for the eastbound approach to degrade from LOS C to LOS D in the AM peak hour and from LOS C to LOS F in the PM peak hour. The project would also create LOS F conditions on the new westbound approach in both peak hours. The project includes a traffic signal at this intersection that would be installed at the time the Doc Barnes Drive extension is constructed. This would provide LOS C operations for both directions in AM and PM peak hours. Therefore, the impact would be **less than significant**.

Horseshoe Bar Road/Eastbound I-80 Ramps: Project-generated traffic is projected to cause operations at this intersection to decrease from LOS E to LOS F during both the AM and PM peak hours, with a substantial increase in delay (from 35.3 to 301.6 seconds) in the PM peak hour. However, a traffic signal and phased interchange improvements are included in the Town's traffic impact fee program and CIP and the traffic signal is already warranted under existing conditions. The anticipated improvements at this intersection include installing a signal and widening both Horseshoe Bar Road and the eastbound off-ramp to provide separate left turn lanes on each road. Payment of the traffic impact fee, as required by the traffic impact fee program would include a fair-share contribution to this signal, which would provide LOS C operations at the intersection. This would ensure the impact remains **less than significant**.

Horseshoe Bar Road between Taylor Road and Doc Barnes Drive: These roadway segments are projected to carry 14,452 vehicles daily under Existing No Project conditions. At this volume, the roadway is at a v/c ratio of 0.98, which indicates LOS F. The traffic generated by the proposed project would increase the volume on the segment between Taylor Road and Library Drive to 15,252 daily vehicles, which is a 5.5% increase, and increase the volume on the segment between Library Drive and Doc Barnes Drive to 15,032 daily vehicles, which is a 4% increase. As the increase on the segment between Taylor Road and Library Drive exceeds 5%, this would be a **significant** impact.

This segment already carries volumes that exceed the LOS C threshold, and neither the General Plan nor the Loomis Town Center Implementation Plan anticipates capacity improvements in this developed area. While development of the project would include construction of the Doc Barnes Drive extension, which would provide an alternative to Taylor Road and Horseshoe Bar Road, the with-project traffic volume on Horseshoe Bar Road would still exceed the LOS C threshold and the project would increase the volume by more than 5%. The project's net traffic increase identified for the affected roadway segment is 800 ADT. Based on current volumes, the permissible increase of 5% would equal 723 ADT. The project would exceed the permissible increase by 77 ADT. **Mitigation Measures 4.6c** and **4.6d** prescribe implementation of traffic controls that would limit left turns onto Horseshoe Bar Road during peak periods (Table 4.6-12). With implementation of **Mitigation Measures 4.6c** and **4.6d**, approximately 100 vehicles would be diverted from Horseshoe Bar Road through the project by peak period traffic controls. With this reduction, the daily traffic volume increase resulting from the project would be less than a 5% increase over the existing volume; therefore, the project's impact would be **less than significant**.

Table 4.6-12
Existing Plus Project With Mitigation Intersection LOS

Intersection	Control	AM Peak Hour				PM Peak Hour			
		Existing Plus Project Conditions		Mitigated Conditions		Existing Plus Project Conditions		Mitigated Conditions	
		Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS
King Rd/Switzer Rd	Signal	25.1	C	25.1	C	6.2	A	6.2	A
Taylor Rd/King Rd	Current Geometry	37.3	D	37.3	D	19.2	B	19.2	B
King Rd/Boyington Rd SB left+thru+right NB left+thru+right	NB/SB	31.5	D	N/A	N/A	14.0	B	N/A	N/A
	Stop	22.1	C	N/A	N/A	12.7	B	N/A	N/A
	Signal	—	—	11.9	B	—	—	15.6	B

**Table 4.6-12
Existing Plus Project With Mitigation Intersection LOS**

Intersection	Control	AM Peak Hour				PM Peak Hour			
		Existing Plus Project Conditions		Mitigated Conditions		Existing Plus Project Conditions		Mitigated Conditions	
		Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS
Taylor Rd/Webb St EB left turn	NB/SB Stop	9.1	A	9.1	A	10.0	A	9.8	A
WB left turn		9.0	A	9.0	A	9.4	A	9.3	A
NB left+thru+right		21.8	C	21.8	C	27.8	D	15.9	C
SB left+thru+right		16.6	C	16.6	C	26.6	D	14.2	B
Taylor Rd/Horseshoe Bar Rd	Signal	26.4	C	26.4	C	29.8	C	29.8	C
Horseshoe Bar Rd/Laird St EB left+thru+right	EB/WB Stop	16.3	C	12.0	B	18.1	C	12.1	B
WB left+thru+right		35.2	E	12.9	B	42.8	E	14.2	B
Horseshoe Bar Rd/Library Dr SB left turn	WB Stop	8.8	A	8.8	A	9.3	A	9.3	A
WB left+right turn		19.0	C	19.0	C	27.7	D	16.9	C
Horseshoe Bar Rd/Doc Barnes Dr EB left-thru-right	EB/WB Stop	25.6	D	N/A	N/A	104.6	F	N/A	N/A
WB left-thru-right		303.1	F	N/A	N/A	>999	F	N/A	N/A
	Signal			22.5	C			24.6	C
Horseshoe Bar Rd/WB I-80 ramps	Signal	20.8	C	20.8	C	34.0	C	34.0	C
Horseshoe Bar Rd/EB I-80 ramps SB left turn	WB Stop	8.5	A	N/A	N/A	9.2	A	N/A	N/A
WB left-right turn		68.2	F	N/A	N/A	301.6	F	N/A	N/A
	Signal			10.5	B			13.7	B
Horseshoe Bar Rd/Laird Rd	All-Way Stop	12.7	B	12.7	B	20.9	C	20.9	C

Source: Appendix E.

N/A = not applicable; N/D = data missing from Traffic Impact Assessment.

* With overlap phasing.

Bold text indicates an unacceptable LOS.

IMPACT 4.6-2: Increase impacts to vehicle safety due to roadway design features or incompatible uses.

SIGNIFICANCE: No Impact

MITIGATION: None

RESIDUAL No Impact

SIGNIFICANCE:

The proposed project would develop commercial, office, and residential land uses. It would not introduce non-passenger vehicles to the local roadway network. The proposed streets within the project site would meet all applicable Town standards to ensure safe driving conditions are provided. The project would result in **no impact** related to roadway and vehicle safety.

IMPACT 4.6-3: Result in inadequate emergency access or access to nearby uses.

SIGNIFICANCE: Less Than Significant

MITIGATION: None

RESIDUAL Less Than Significant

SIGNIFICANCE:

The project would construct an internal circulation system throughout the project that would be required to meet the Design and Development Standards for the project. This internal circulation would include two emergency evacuation roads from the residential component of the project: one onto Day Avenue and the other onto King Road. Internal circulation and emergency evacuation roads would comply with all federal, state, and local regulations pertaining to emergency vehicle access. The project would have a **less than significant** impact on emergency access.

IMPACT 4.6-4: Create hazards or barriers for pedestrians or bicyclists.

SIGNIFICANCE: Significant

MITIGATION: Mitigation Measures 4.6b and 4.6e

RESIDUAL Less Than Significant

SIGNIFICANCE:

King Road/Boyington Road Intersection: Under existing plus project conditions, the southbound approach to the King Road/Boyington Road intersection is projected to operate at LOS D during the morning peak hour. LOS D exceeds the Town's minimum LOS C standard. This location

experiences appreciable peak hour traffic variation as a result of travel to Del Oro High School and Loomis Elementary School, and school-age pedestrians can be expected. The project's increase in traffic through this intersection would increase potential hazards for pedestrians. While the traffic volumes through the intersection would not satisfy traffic signal warrants, the variability in traffic volumes as a result of school-related traffic and the use of the intersection by school-age pedestrians indicate that a potential safety impact could occur at this intersection that warrant mitigation. As discussed in Impact 4.6-1, **Mitigation Measure 4.6b** requires that the project applicant install the following roadway and intersection improvements:

- Widening King Road to provide separate eastbound and westbound left-turn lanes
- Installing a traffic signal
- Installing pedestrian landings and school crosswalks

As shown in Table 4.6-9, with installation of the traffic signal, the AM peak hour LOS would remain at LOS C. As provided in **Mitigation Measure 4.6b**, The Village at Loomis project applicant would install this traffic signal at the time that Doc Barnes Drive is constructed. The identified improvements would provide LOS C operations at the intersection and ensure that pedestrians have sufficient protected time to cross King Road. With implementation of **Mitigation Measure 4.6b**, the potential safety impacts at this intersection would be reduced to a **less-than-significant** level.

Doc Barnes Drive Extension: The extension of Doc Barnes Drive through the project site, connecting Horseshoe Bar Road to King Road would create a new collector street. Because of the proposed alignment, which is relatively straight, this roadway has the potential for high-speed traffic, which would conflict with pedestrian and bicycle traffic. This would be a **significant** traffic safety impact.

Measures to control the speed of traffic on this 0.5-mile-long route have been considered. Because emergency vehicle routes should be preserved and this will be a route used by both project residents and regional traffic, vertical measures such as speed bumps are not appropriate, but horizontal measures to reduce the street width to reduce pedestrian crossing distances can be implemented. All-way stops could also be considered but are not warranted based on the projected traffic volumes. **Mitigation Measure 4.6e** requires the project to construct intersection bulb-outs at all public street intersections on Doc Barnes Drive to calm traffic and ensure conflicts between vehicles, bicycles, and pedestrians are reduced to **less-than-significant** levels.

IMPACT 4.6-5:	Conflict with adopted policies, plans, or programs supporting alternative transportation or otherwise decrease the performance or safety of such facilities.
SIGNIFICANCE:	Less Than Significant
MITIGATION:	None
RESIDUAL SIGNIFICANCE:	Less Than Significant

The project's residents, employees, and visitors would be able to take advantage of the Placer Transit services available along Taylor Road as well as Placer Transit's Dial-a-Ride services. Both the Taylor Road shuttle and the Placer Commuter Express have stops at Loomis Station, which is as close as 0.1 mile to the western portion of the project site and as far as 0.75 mile from the eastern portion of the site. The proximity of existing stops to the project site would support their use by project site residents, employees, and visitors. Placer Transit operates the Taylor Road shuttle, which connects with the Auburn/Light Rail bus at Sierra College and will deviate up to 0.75 mile from Taylor Road on reservation. The Placer Commuter Express provides service on Taylor Road and Horseshoe Bar Road. The Commuter Express buses have 57 seats; typically 20 people will board the Commuter Express at the Loomis Station stop in the AM peak hour and between 10 and 20 people will exit the Commuter Express in Loomis in the PM peak hour (Placer County Transit pers. comm. 2016). The number of additional riders generated by the project is unlikely to be large enough to justify changes to existing routes or modification of existing schedules. The project would have a less-than-significant impact related to demand for transit services.

The project would add a small amount of traffic on the roads that cross the at-grade Union Pacific Railroad tracks. The project would add five AM and six PM peak hour trips at the King Road railroad crossing and one AM and no PM peak hour trips at the Webb Street railroad crossing. These increases would not substantially increase hazards for railroad operations and the project would have a **less-than-significant** impact related to railroad transportation.

The project would include new facilities to accommodate bicycle travel by project residents and employees. Frontage improvements along Horseshoe Bar Road would be consistent with the Loomis Town Center Implementation Plan and would include bicycle lanes. The Doc Barnes Drive extension also includes Class II bicycle lanes, consistent with the Town's Bicycle Transportation Master Plan. These bicycle lanes would link the community with existing bicycle lanes on King Road and Horseshoe Bar Road.

The project also includes sidewalks on both sides of all new streets for pedestrians, except for the southern side of Doc Barnes Drive, which would not provide direct access to any existing or planned land uses. New pedestrian connections to existing neighborhoods would be provided at Sun Knoll Drive, Day Avenue, Laird Street and King Road. The traffic signal anticipated at the Horseshoe Bar Road /Doc Barnes Drive intersection would link the community with downtown Loomis and provide safe access for pedestrians from the project site to the downtown area. The quality of project connections to the community's pedestrian circulation system has been evaluated to identify any particular gaps. Sidewalks currently exist along Laird Street and along Horseshoe Bar Road. However, there are no sidewalks along King Road in the vicinity of the new Doc Barnes Drive connection. This location is likely to see increased pedestrian activity, particularly as a route to Del Oro High School. As discussed previously, planned improvements to this intersection include installation of a signal, crosswalks and pedestrian landings, which would serve the Del Oro High School pedestrian activity. Within the project site itself, Doc Barnes Drive would be used for both pedestrian circulation and through automobile travel by residents as well as neighbors who cut through the project site. The project would provide sufficient pedestrian and bicycle facilities, consistent with the Town's Bikeway Master Plan, and would have a **less than significant** impact related to pedestrian and bicycle transportation.

IMPACT 4.6-6: Cause a change in air traffic patterns, including either an increase in traffic levels or a change in location resulting in substantial safety risks.

SIGNIFICANCE: No Impact

MITIGATION: None

RESIDUAL SIGNIFICANCE: No Impact

The proposed project is not located in the vicinity of a public or private airstrip. The project site is located approximately 10 miles from both the Lincoln Regional Airport and the Auburn Municipal Airport. Because the project would not change air traffic patterns or increase safety risks associated with air traffic, the project would have **no impact** on air traffic.

IMPACT 4.6-7: Result in increased vehicle circulation or congestion due to a lack of sufficient parking capacity on site or off site.

SIGNIFICANCE: No Impact

MITIGATION: None

RESIDUAL SIGNIFICANCE: No Impact

The proposed project would provide on-site parking for all of the proposed land uses consistent with the Town’s parking standards. Specifically, the project would provide a two-car garage for each single-family home within the project site, and residents will be required by the project’s Codes, Covenants, and Restrictions (CC&Rs) to park their vehicles in their garages. This will be enforced by the homeowners’ association. In addition, guest parking would be provided with on-street parking on Gates Drive, Library Drive, Laird Street, Red Ravine Drive, and Blue Anchor Drive. In total, 107 guest parking spaces would be available in the western portion of the site, providing a ratio of 0.75 guest parking spaces per dwelling unit and a total of 68 guest parking spaces would be available in the eastern portion of the site, providing a ratio of 0.68 guest parking spaces per dwelling unit. The project also proposes to provide one parking space for every 250 square feet of office space and one parking space for every 300 square feet of commercial space. The project would provide sufficient parking for the anticipated uses and would have **no impact** related to insufficient parking capacity.

IMPACT 4.6-8: Contribute to a cumulative increase in traffic that conflicts with adopted policies and plans related to intersection and roadway segment function, including consideration of LOS and ADT.

SIGNIFICANCE: Potentially Significant

MITIGATION: Mitigation Measures 4.6a through 4.6g

RESIDUAL SIGNIFICANCE: Significant and Unavoidable at the Horseshoe Bar Road/Taylor Road intersection due to the uncertainty that the Loomis Town Center Implementation Plan would be modified to retain the eastbound right-turn lane at this intersection and on the segment of I-80 between Sierra College Boulevard and Horseshoe Bar Road; Less Than Significant elsewhere

Intersection Level of Service

Under the Cumulative No Project condition, several of the study area intersections would operate at unacceptable LOS (D or worse), as shown in Table 4.6-7. The proposed project would exacerbate conditions at some of these locations. The Cumulative Plus Project Traffic Volumes and Lane Configurations are shown in Figure 4.6-5, Cumulative Plus Project Traffic Volumes and Lane Configurations. Under the Cumulative Plus Project scenario the project would result in decreased LOS at five intersections within the study area, as shown in Table 4.6-7 and discussed in the following text. Where the proposed project would result in a decrease in LOS or an increase in average delay through the intersection, the project’s impacts would be significant.

Taylor Road/King Road: In the Cumulative No Project condition, the Taylor Road/King Road intersection is expected to operate at LOS E with an average delay of 76.7 seconds. This represents a **significant cumulative** impact. With the addition of project-generated traffic, the intersection would continue to operate at LOS E, with an average delay of 63.2 seconds. As the project would reduce average delay at this intersection, the project's impacts would be **less than cumulatively considerable**.

King Road/Boyington Road: In the Cumulative No Project condition, the King Road/Boyington Road intersection with southbound stop controls would operate at LOS E in the AM peak hour and LOS B in the PM peak hour. The addition of project-generated traffic would reduce the AM peak hour operations to LOS F and the PM peak hour operations to LOS D. As described previously, **Mitigation Measure 4.6b** requires that the project applicant install the following roadway and intersection improvements:

- Widening King Road to provide separate eastbound and westbound left-turn lanes
- Installing a traffic signal
- Installing pedestrian landings and school crosswalks

As shown in Table 4.6-7, with installation of the traffic signal, the AM and PM peak hour LOS would be improved to LOS B. Implementation of **Mitigation Measure 4.6b** would provide LOS B or better operations at the intersection in the Cumulative Plus Project conditions. This would reduce the impact at this location to a **less-than-significant** level.

Taylor Road/Webb Street: The LOS for the northbound and southbound movements in the Cumulative No Project condition would be LOS D in the AM peak hour and LOS F in the PM peak hour. With addition of the project-generated traffic, these movements would operate at LOS C for the AM peak hour. While the LOS for the PM peak hour would remain at LOS F, the average delay would decrease (by 1.1 seconds for the northbound movement and by 16.7 seconds for the southbound movement). As the project would not degrade the LOS and would not increase delay at this intersection, the project would have a **less than cumulatively considerable** contribution to impacts at this intersection. It is noted that although the traffic volumes at this intersection meet the traffic signal warrants, a signal is not justified for this location because the right-turn movements from Webb Street onto westbound Taylor Road contribute a large portion of the traffic through this intersection.

Horseshoe Bar Road/Taylor Road: Under the Cumulative No Project conditions, LOS F is anticipated at the Horseshoe Bar Road/Taylor Road intersection during the PM peak hour. This represents a **significant cumulative** impact in the Cumulative No Project scenario. With the addition of project-generated traffic, the LOS would remain the same while delay would increase by 3.6 seconds in the PM peak hour. However, because the project would increase

delay in the PM peak hour, when the intersection is projected to operate at an unacceptable LOS, the project would make a **significant/cumulatively considerable** contribution to this impact. The LOS calculations reflect the improvements included in the Loomis Town Center Implementation Plan, which includes eliminating the eastbound right-turn lane from this intersection. **Mitigation Measure 4.6f** requires the project applicant to work with the Town to revise the Loomis Town Center Implementation Plan to omit this alteration to the intersection geometry. With retention of the eastbound right-turn lane, the intersection would operate at LOS D, and impacts would be reduced to a **less than significant** level. However, because it is not certain that this modification to the Loomis Town Center Implementation Plan would be made, the impact is considered to be **significant and unavoidable**.

Horseshoe Bar Road/Laird Street: Under the Cumulative No Project condition, the westbound approach to this intersection would operate at LOS F during the AM and PM peak hours. These operations violate the Town's LOS C standard and therefore represent a **significant cumulative** impact. With the addition of project-generated traffic at this intersection, the LOS for the westbound approach would improve from LOS F to LOS E in the AM peak hour and would remain at LOS F for the PM peak hour. The project would increase delay in the PM peak hour by 37.3 seconds. Therefore, the project would make a **cumulatively considerable** contribution to the significant cumulative impact. **Mitigation Measure 4.6c** requires the project applicant to install signage prohibiting left turns from Laird Street onto Horseshoe Bar Road during peak periods. With implementation of this mitigation, the westbound approach to this intersection would operate at LOS C in the Cumulative Plus Project scenario PM peak hour. With mitigation, the project's impact would be **less than cumulatively considerable** and the cumulative impact would be reduced to a **less than significant** level. Traffic signal warrants are not satisfied with the project's additional traffic, and as a result, a traffic signal is not recommended with the project. A traffic signal is also very unlikely in the future due to the proximity to the Taylor Road/Horseshoe Bar Road intersection.

Horseshoe Bar Road/Library Drive: Under the Cumulative No Project condition, the westbound approach to this intersection would operate at LOS D in the AM peak hour and LOS E in the PM peak hour. This would be a **significant cumulative** impact. The proposed project would increase delay in the AM peak hour by 1.7 seconds. In the PM peak hour the project would degrade LOS to LOS F, with an associated increase in delay of 19.8 seconds. This would be a **cumulatively considerable** contribution to the significant cumulative impact. Traffic signal warrants are not satisfied with the project, and as a result, a traffic signal is not recommended with the project. **Mitigation Measure 4.6d** requires the project applicant to install signage to prohibit left turns from Library Drive onto Horseshoe Bar Road during peak periods. With implementation of this mitigation, this intersection would operate at LOS C and the impact would be **less than significant**.

Horseshoe Bar Road/Doc Barnes Drive: The eastbound approach to this intersection is expected to operate at LOS D in the PM peak hour under Cumulative No Project conditions, assuming stop sign control is provided for the eastbound and westbound approaches. This would be a **significant cumulative** impact. The project includes installation of a traffic signal at this intersection when warranted by the traffic volume. This would provide LOS C operations for both directions in both peak hours. Therefore, the impact would be **less than cumulatively considerable**.

Horseshoe Bar Road/Laird Road: (Note that this intersection is shown as location 11 in the Traffic Impacts Analysis and the figures in this section, and this is a different intersection than the Horseshoe Bar Road/Laird Street intersection discussed previously. This intersection is located south of I-80.) Although the intersection currently is controlled by stop signs at each approach, the Town's traffic impact fee program include signalization of this intersection and widening of Horseshoe Bar Road from Brace Road to the Town limits (improvements 2.5 and 2.9). These improvements are assumed to be installed under the Cumulative No Project conditions. In this scenario, the intersection is expected to operate at LOS D in the both the AM and PM peak hours. This would be a **significant cumulative** impact. The addition of project-generated traffic would improve the AM peak hour operations to LOS C but would decrease the PM peak hour operations to LOS E. Therefore, the project would have a **cumulatively considerable** contribution to this impact. The Traffic Impact Analysis finds that LOS C conditions could be achieved at this intersection with the addition of a separate eastbound right-turn lane. **Mitigation Measure 4.6a** requires that the project applicant provide a fair-share contribution toward the planned installation of a traffic signal at this location and **Mitigation Measure 4.6g** requires that the project applicant provide a fair-share contribution toward construction of this additional improvement and modification of the signal timing to allow overlapped phasing. The measure also notes that this additional improvement should be added to the Town's traffic impact fee program. With implementation of this mitigation measure, the project applicant would provide a fair-share contribution toward the new turn lane and signal timing modification, which would allow the intersection to operate at an acceptable LOS; the impact would be reduced to be **less than cumulatively considerable**.

Table 4.6-13 presents mitigated LOS reflecting the combined effects of all mitigation measures. The associated traffic volumes for each intersection are shown on Figure 4.6-6, Cumulative Plus Project Mitigated Traffic Volumes and Lane Configurations.

**Table 4.6-13
Mitigated Year 2030 Plus Project Intersection LOS**

Intersection	Control	AM Peak Hour				PM Peak Hour			
		Cumulative Plus Project		Mitigated Cumulative Plus Project		Cumulative Plus Project		Mitigated Cumulative Plus Project	
		Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS
King Rd/Swetzer Rd	Signal	20.0	B	20.0	B	10.6	A	10.6	A
Taylor Rd/King Rd	Current Geometry	63.2	E	63.2	E	26.8	C	26.8	C
King Rd/Boyington Rd SB left+thru+right NB left+thru+right	NB/SB Stop	823.6	F	N/A	N/A	32.1	D	N/A	N/A
		>999	F	N/A	N/A	32.3	D	N/A	N/A
	Signal	—	—	19.6	B	—	—	13.9	B
Taylor Rd/Webb St EB left turn WB left turn NB left+thru+right SB left+thru+right	NB/SB Stop	11.6	A	11.6	A	10.2	A	10.2	A
		9.0	A	9.0	A	10.6	A	10.6	A
		24.4	C	24.4	C	50.5	F	50.5	F
		21.9	C	21.9	C	217.4	F	217.4	F
Taylor Rd/Horseshoe Bar Rd	Signal	25.5	C	25.5	C	94.6	F	46.9	D
Horseshoe Bar Rd/Laird St EB left+thru+right WB left+thru+right	EB/WB Stop	11.3	B	11.3	B	13.1	B	13.1	B
		49.9	E	17.0	C	105.5	F	17.9	C
Horseshoe Bar Rd/Library Dr SB left turn WB left+right turn	WB Stop	9.6	A	9.6	A	10.6	B	10.6	B
		30.5	D	16.5	C	59.8	F	19.1	C
Horseshoe Bar Rd/Doc Barnes Dr	Signal*	—	—	28.6	C	—	—	29.1	C
Horseshoe Bar Rd/WB I-80 ramps	Signal	26.1	C	26.1	C	23.9	C	23.9	C
Horseshoe Bar Rd/EB I-80 ramps	Signal	26.0	C	26.0	C	26.9	C	26.9	C
Horseshoe Bar Rd/Laird Rd	Signal	33.5	C	33.5	C	73.4	E	39.4	D
Add EB right-turn lane and overlap phasing		N/A	N/A	22.6	C	N/A	N/A	(22.6)	(C)*

Source: Appendix E.

LOS = level of service; sec = seconds; NB = northbound; SB = southbound; EB = eastbound; WB = westbound; N/A = not applicable.

* Westbound Doc Barnes approach shall be striped as a separate left turn lane and a combined left+thru+right turn lane.

Intersection Signal Warrants

The status of traffic signal warrants at the remaining three intersections where no traffic signal is assumed is included in Table 4.6-14. As indicated in the table, traffic signal warrants are not satisfied at the King Road/Boyington Road intersection and at the Horseshoe Bar Road/Library Drive intersection. As is the case under the existing (2014) condition, the volume of traffic at the Taylor Road/Webb Street intersection in the cumulative condition reaches the level that satisfies warrants, but because nearly all the traffic at this location turns right, a traffic signal is not justified.

Table 4.6-14
Year 2030 Plus Project Traffic Signal Warrants

Intersection	Control	Peak Hour Warrants Satisfied?				Notes
		AM Peak Hour		PM Peak Hour		
		No Project	Plus Project	No Project	Plus Project	
King Rd/Boyington Rd	NB/SB Stop	NO	NO	NO	NO	
Taylor Rd/Webb St	NB/SB Stop	YES	YES	YES	YES	Nearly all right turns
Horseshoe Bar Rd/Laird St	EB/WB Stop	NO	NO	NO	NO	
Horseshoe Bar Rd/Library Dr	WB Stop	NO	NO	NO	NO	

Source: Appendix E.

Notes: NB = northbound; SB = southbound; EB = eastbound; WB = westbound.

Cumulative Plus Project Year 2030 Roadway Segment Traffic Volumes and LOS

Table 4.6-8 shows the Year 2030 daily traffic volume and LOS for the Cumulative Plus Project condition. As indicated, four roadway segments within the Town and both of the study area segments of I-80 are projected to operate at unacceptable LOS. These would be **significant cumulative** impacts.

The volume of traffic on Taylor Road through the study area is expected to increase somewhat with the project. Based on the General Plan's capacities, the LOS F conditions now occurring on Taylor Road east of Horseshoe Bar Road would also occur in the area between Sierra College Boulevard and Horseshoe Bar Road. The proposed project would be expected to decrease daily traffic volumes on the segments of Taylor Road between Horseshoe Bar Road and King Road, whereas it would increase traffic volumes on the segment between Oak Street and Horseshoe Bar Road by approximately 2.9%. As the increase in volumes would be less than 5%, the project would cause a **less than cumulatively considerable** contribution to the impacts on this segment. These forecasts and LOS conclusions are generally consistent with the findings of the current Loomis General Plan EIR, which noted that a four-lane section would theoretically be needed on Taylor Road to meet the Town's minimum level of service.

The volume of traffic forecast for Horseshoe Bar Road would also increase. LOS F conditions are projected on Horseshoe Bar Road in the area between Taylor Road and Doc Barnes Drive. This is a **significant cumulative** impact. The project-generated traffic would increase daily traffic volumes on this segment in the Cumulative Plus Project condition by approximately 2.8% compared to Cumulative No Project conditions. Therefore, the project would cause a **less than cumulatively considerable** contribution to this impact.

The project would add traffic to I-80 west of the Horseshoe Bar Road interchange, but under long-term conditions the creation of the Doc Barnes Drive extension would reduce traffic volumes east of Horseshoe Bar Road slightly. LOS F conditions are forecast with and without the proposed project, as suggested by the TCCR. This would be a **significant cumulative** impact. The project would increase the daily traffic volumes on I-80 west of the Horseshoe Bar Road interchange by 1.3%. Caltrans considers any increase to existing or forecasted unacceptable conditions to be significant; therefore, the project would result in a **cumulatively considerable** contribution to the significant impact. As noted in Section 4.6.2, Regulatory Setting, the I-80 TCCR indicates that no improvements to mainline I-80 are anticipated. Therefore, this impact is considered **significant and unavoidable**.

4.6.4 Mitigation Measures

4.6a The project applicant shall contribute a fair share amount to the installation of a traffic signal at the Horseshoe Bar Road/Laird Road intersection prior to issuance of building permits.

4.6b The project applicant shall install the following roadway and intersection improvements:

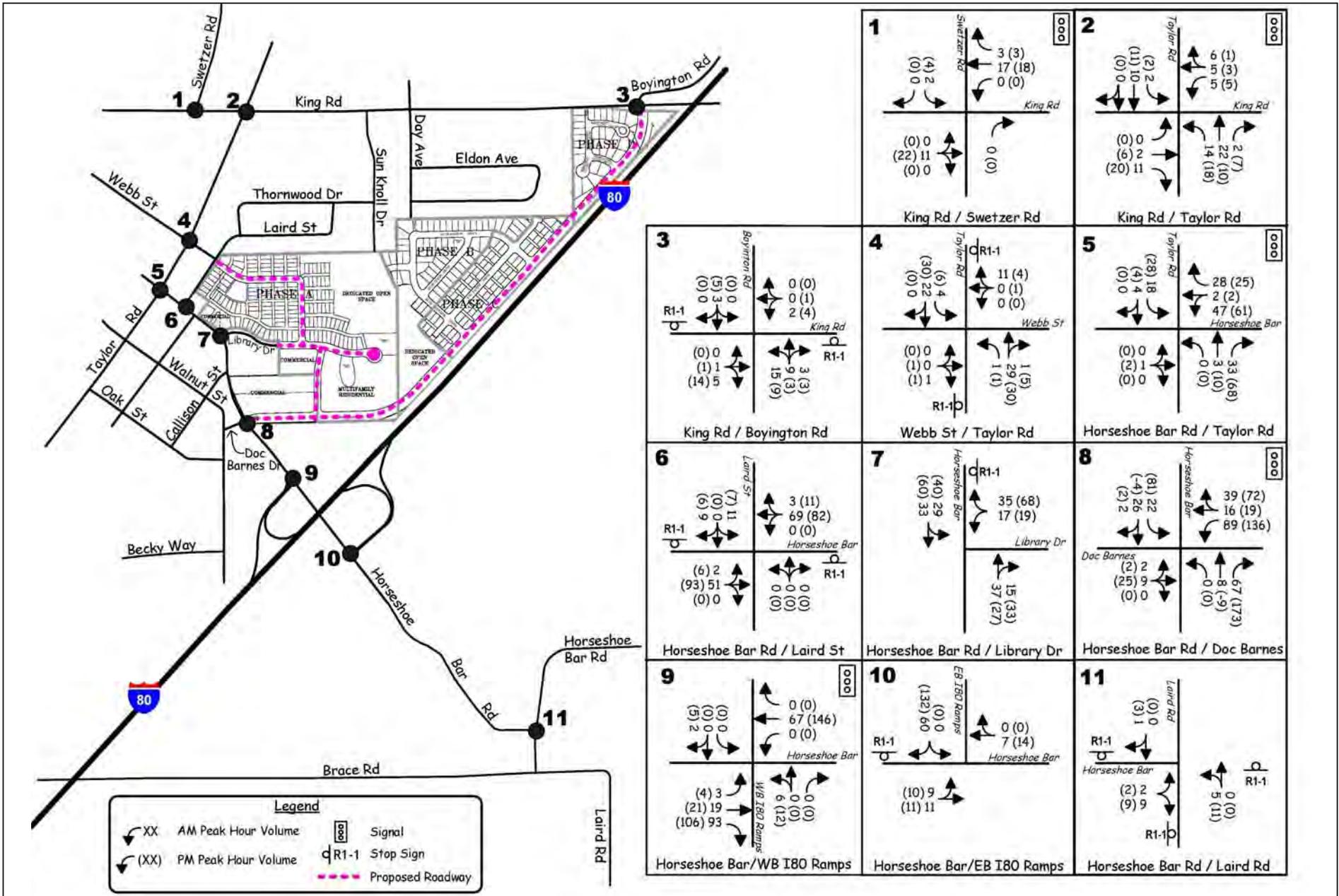
- Widen King Road to provide separate eastbound and westbound left-turn lanes
- Install a traffic signal
- Install pedestrian landings and school crosswalks

The Village at Loomis project applicant shall install this traffic signal at the time that Doc Barnes Drive is constructed.

4.6c The project applicant shall install signage prohibiting left turns from Laird Street onto Horseshoe Bar Road during peak periods. The signs shall be installed prior to issuance of occupancy permits for any new building constructed on site.

4.6d The project applicant shall install signage prohibiting left turns from Library Drive onto Horseshoe Bar Road during peak periods. The signs shall be installed prior to issuance of occupancy permits for any new building constructed on site.

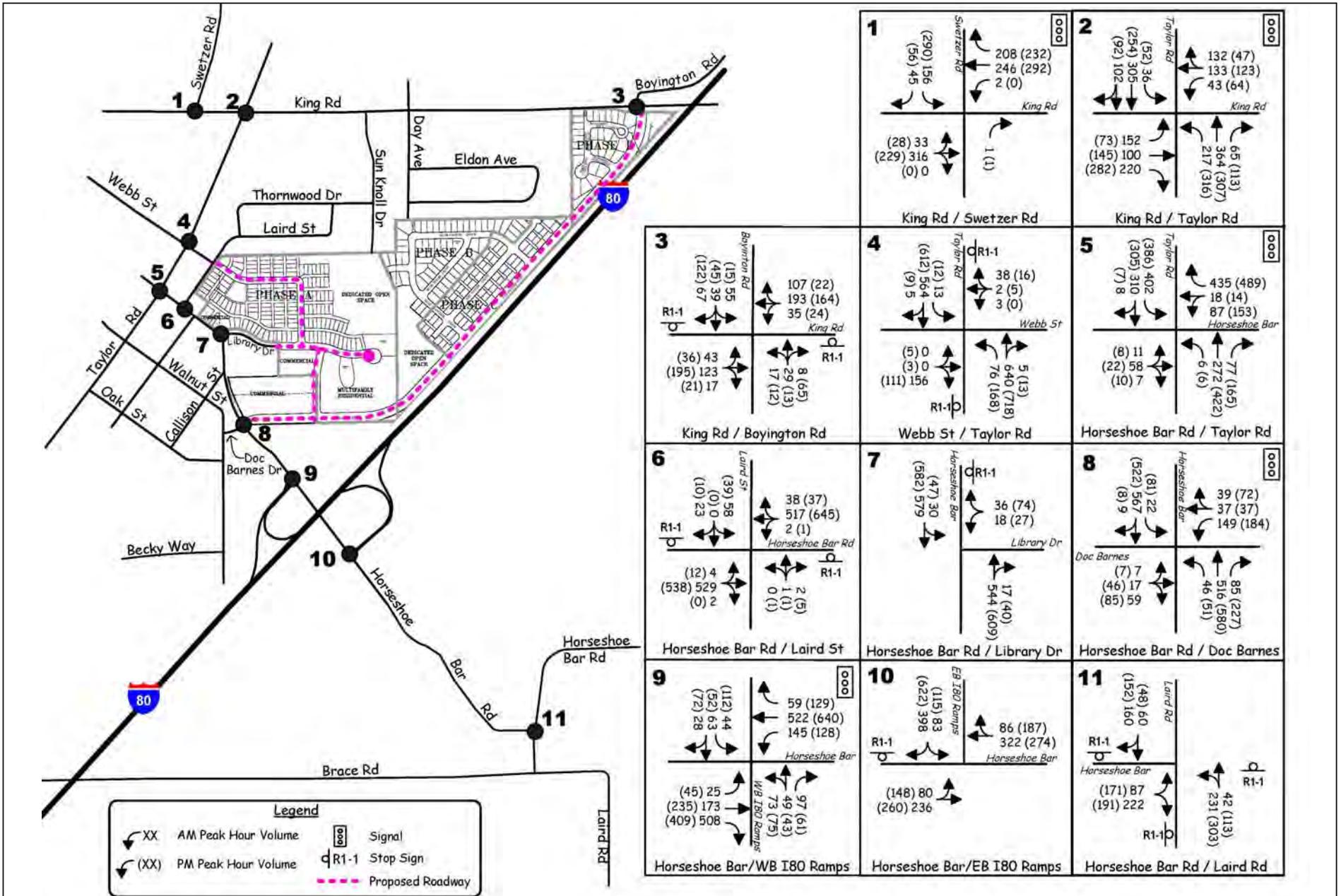
- 4.6e** The project applicant shall construct intersection bulb-outs at all public street intersections on Doc Barnes Drive. The bulb-outs shall be shown on grading and improvement plans prior to issuance of grading and building permits.
- 4.6f** The project applicant shall provide funding sufficient to allow Town of Loomis staff to complete updates necessary to modify the Loomis Town Center Implementation Plan to omit the planned elimination of the eastbound right-turn lane from the Horseshoe Bar Road/Taylor Road intersection from the Downtown Implementation Plan prior to issuance of building permits for the project site.
- 4.6g** Prior to issuance of building permits for the project site, the project applicant shall provide funding sufficient to allow Town of Loomis staff to complete updates necessary to modify the Town's traffic impact fee program Items 2-5 and 2-9 to include a separate eastbound right-turn lane at the intersection of Horseshoe Bar Road/Laird Road and ensure that signal timing allows overlapped phasing. The project applicant shall provide a fair-share contribution toward construction of the additional intersection improvements at this location.



SOURCE: KD ANDERSON & ASSOCIATES, INC. 2015

FIGURE 4.6-1
Existing Traffic Volumes and Lane Configurations

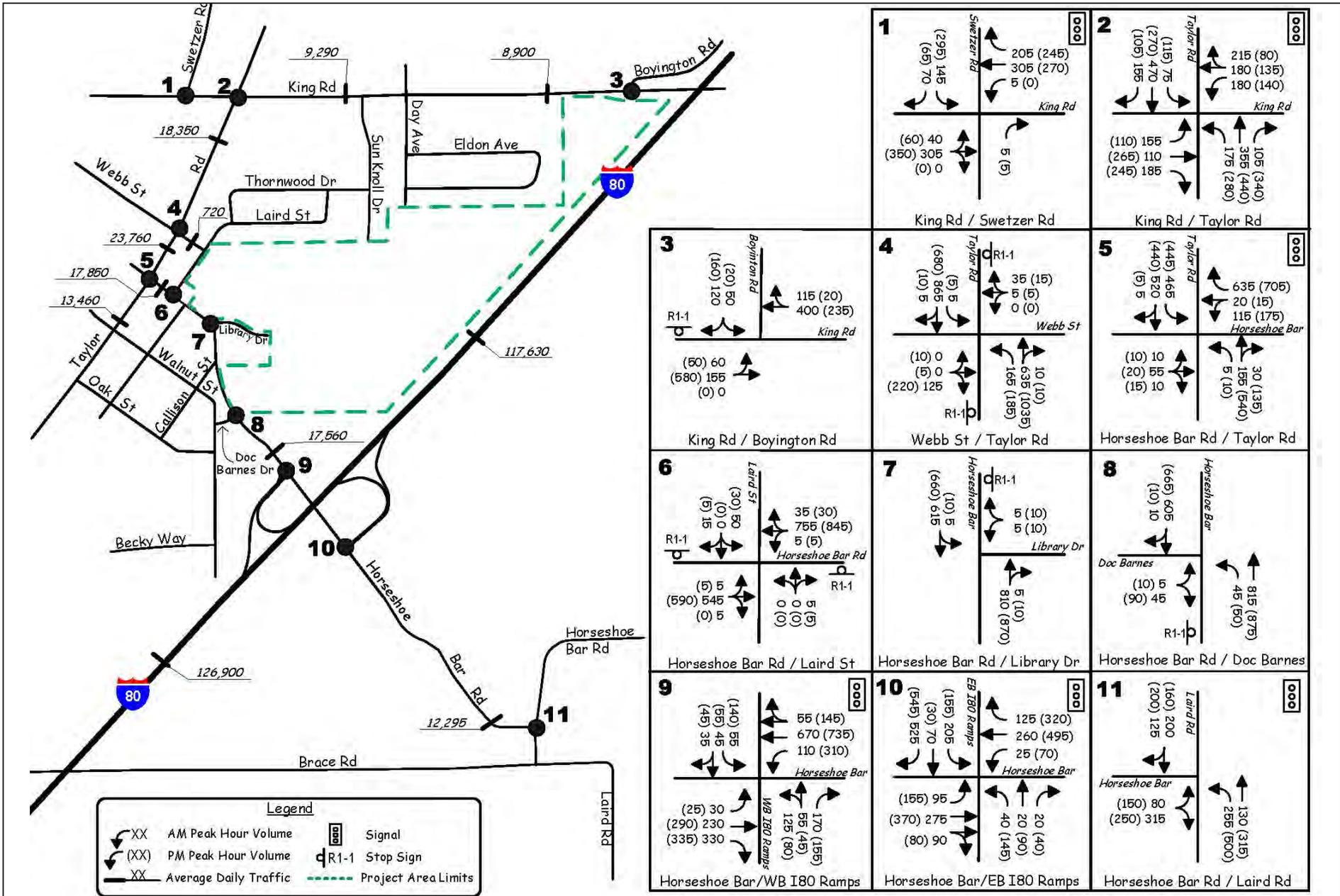
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SOURCE: KD ANDERSON & ASSOCIATES, INC. 2015

FIGURE 4.6-2
Project Only Traffic Volumes and Lane Configurations

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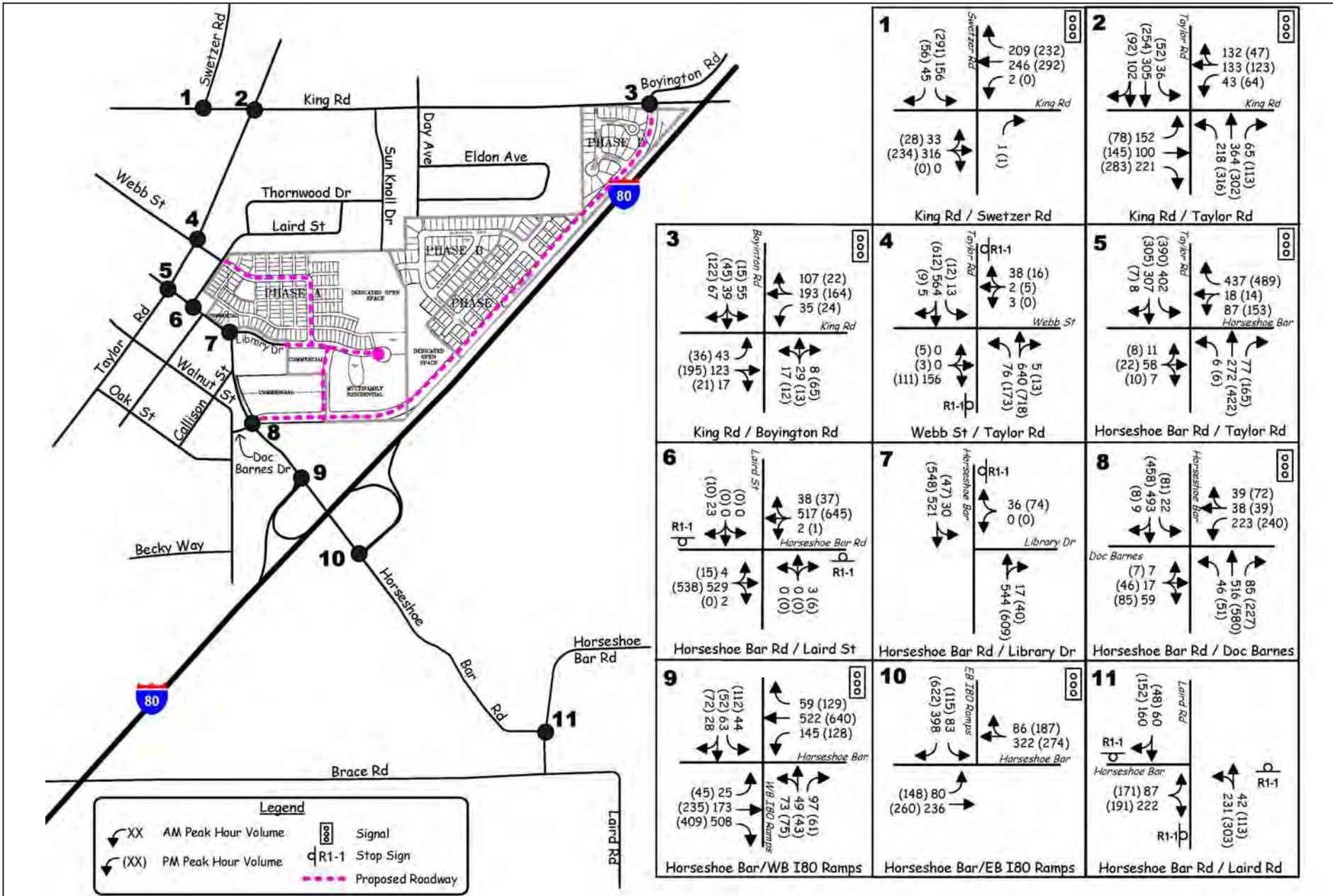


SOURCE: KD ANDERSON & ASSOCIATES, INC. 2015



FIGURE 4.6-3
Cumulative Without Project Traffic Volumes and Lane Configurations

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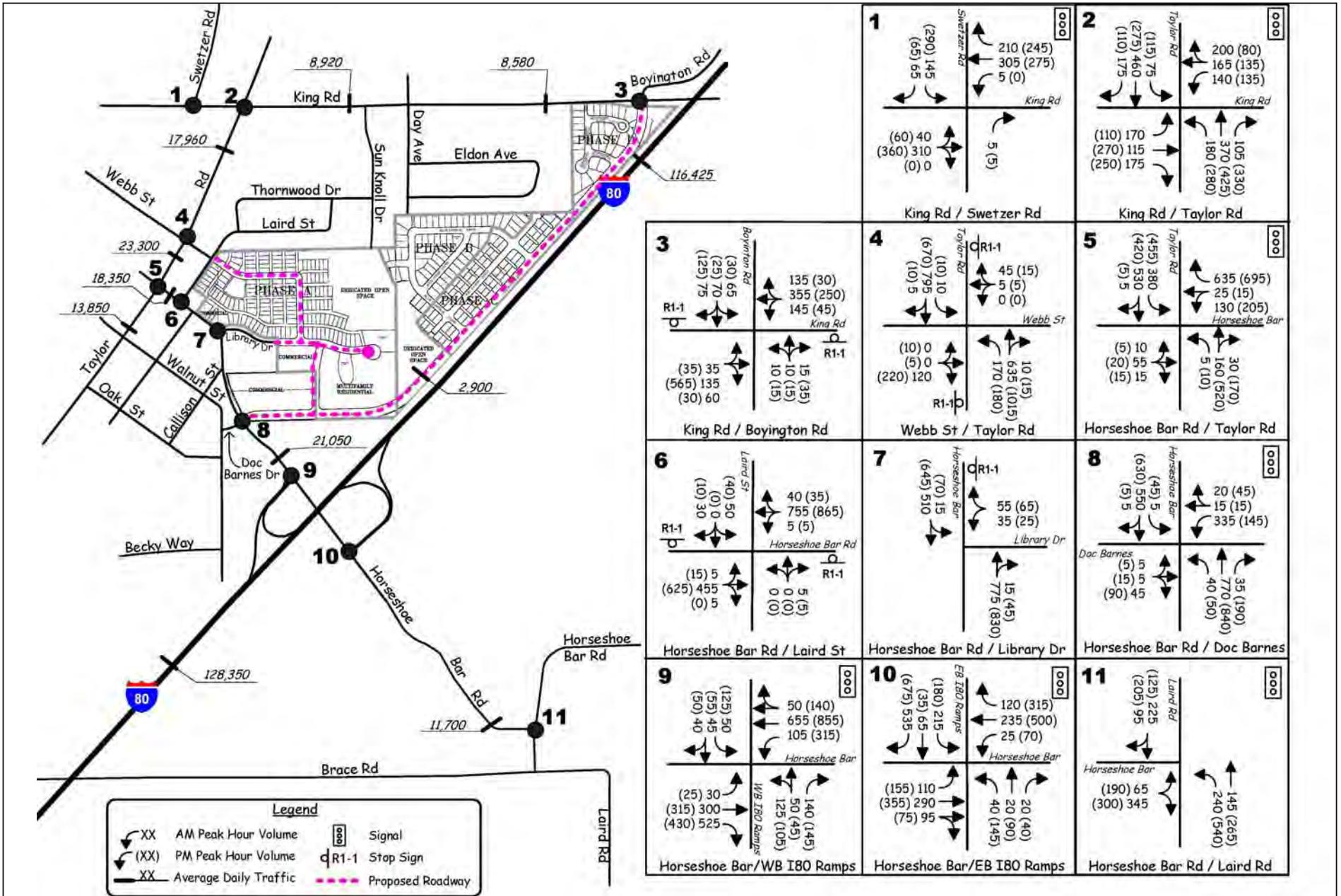


SOURCE: KD ANDERSON & ASSOCIATES, INC. 2015



FIGURE 4.6-4
Existing Plus Project Traffic Volumes and Lane Configurations

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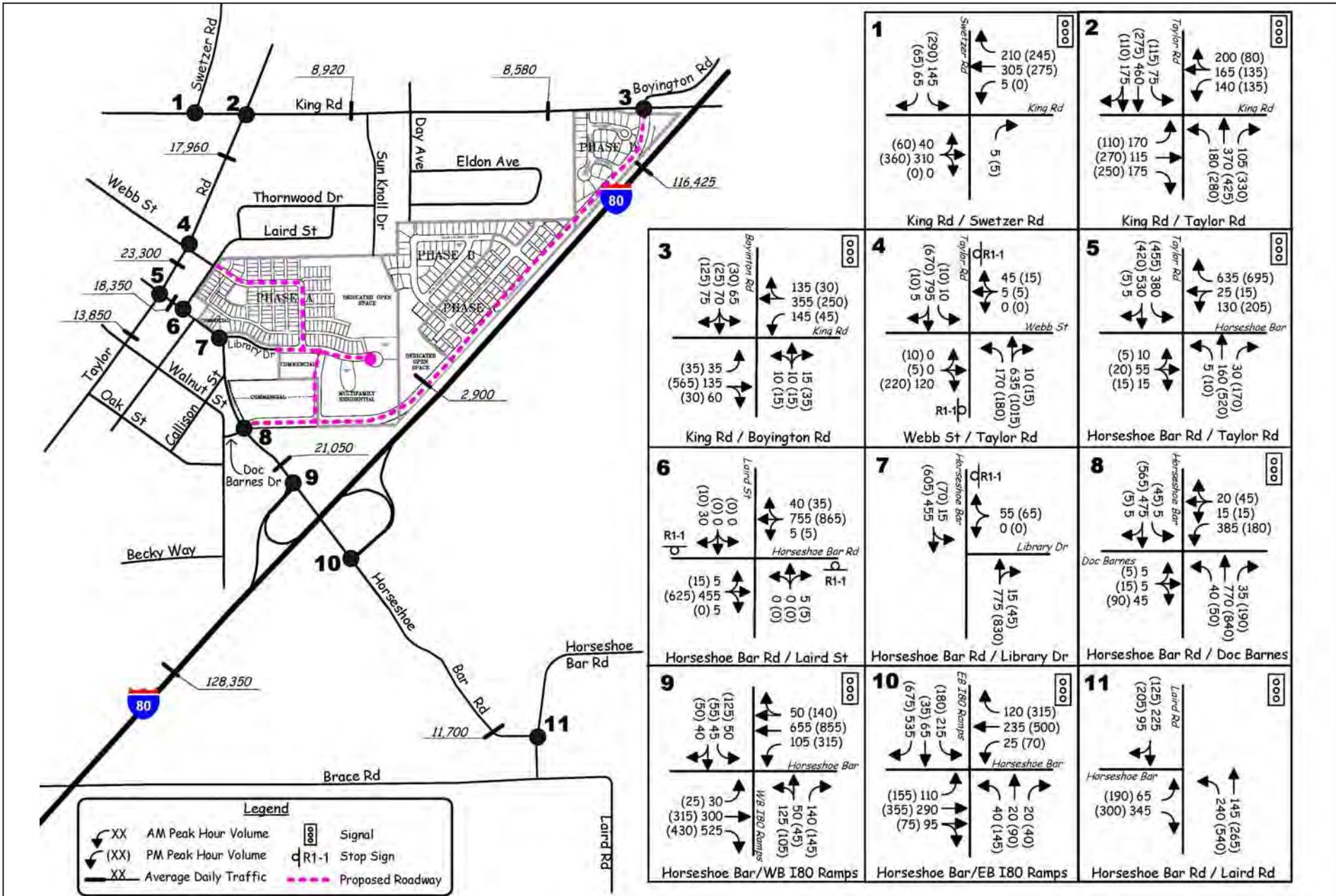


SOURCE: KD ANDERSON & ASSOCIATES, INC. 2015

FIGURE 4.6-5

Cumulative Plus Project Traffic Volumes and Lane Configurations

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SOURCE: KD ANDERSON & ASSOCIATES, INC. 2015



FIGURE 4.6-6
Cumulative Plus Project Mitigated Traffic Volumes and Lane Configurations

The Village at Loomis Draft EIR

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