4.6 TRANSPORTATION AND CIRCULATION

This section provides a description of existing transportation conditions in the Plan area and its vicinity. Included are descriptions of the existing roadway network and transportation facilities as well as current circulation elements including automobiles, pedestrians, bicycles, transit, and parking conditions. Traffic operations at study intersections in and near the Plan area are analyzed. This section also discusses the transportation impacts of the proposed project and recommends mitigation measures to address significant and potentially significant impacts.

The Plan area, other areas within Roseville, and cities and communities throughout Placer and Sacramento Counties are expected to experience significant growth over the next 20 years. As development occurs, traffic volumes are expected to increase on local and regional roadways and freeways. To accommodate the growth in traffic, transportation system improvements will be provided through local and regional funding/fee programs, individual project mitigation, improvements funded by Caltrans, and other sources.

Although there is a reasonable expectation that future roadway system improvements would be provided as planned, many of these improvements rely on fees generated by development that would affect the roadways. While much of this expected development will likely occur in one form or another, it is impossible to predict with certainty which specific projects will proceed. Furthermore, given market conditions and environmental constraints, the timing of future projects is also uncertain. Consequently, this traffic analysis evaluates impacts of the proposed project under two primary scenarios:

- Existing conditions scenario: Existing conditions including the existing roadway system with existing traffic volumes; and

- 2020 scenario: An improved roadway system and increased traffic volumes based on projected regional growth, regional traffic plans, and known transportation system improvement commitments. This condition is evaluated for the year 2020.

These two conditions represent the reasonably foreseeable range of possible roadway scenarios that could be in place as the Plan area develops over time. The specific intersections included in the study area (i.e., in the Plan area or nearby) are listed in Section 4.6.2, "Existing Conditions," and in the analysis methodology portion of Section 4.6.3, "Environmental Impacts." The level of service (LOS) worksheets for all the signalized intersections are included in Appendix B of this DEIR.

4.6.1 EXISTING CONDITIONS

Roseville is located approximately 20 miles northwest of Sacramento and 12 miles north of Folsom. The Plan area is located in Roseville, California, north of Interstate 80 (I-80) and is split into two major districts including the Historic District and the Vernon Street District. The general boundaries of each are described below:

- **Historic District –** This district is bound by the Union Pacific Railroad (UPRR) tracks to the south and east, the Placer County Fairgrounds to the north, and just west of Washington Boulevard to the west.

- **Vernon Street District –** This district is bound by the eastern edge of Royer and Saugstad Parks to the east, Douglas Boulevard to the south, and the UPRR tracks to the north and west.

EXISTING ROADWAY SYSTEM

Regional access to the study area is provided by I-80 and State Route 65 (SR-65) via interchanges with Eureka Road/Atlantic Street, Douglas Boulevard, Riverside Avenue, Galleria Boulevard, and Pleasant Grove Boulevard. Sub-regional access is provided by Vernon Street, Washington Boulevard, and Main Street/Baseline Road. These roadways are described in detail below:

I-80

I-80 is an east-west interstate highway and major freight shipment route; I-80 is the only interstate highway in California that crosses the Sierra Nevada. Through Roseville, I-80 is generally a six- to eight-lane freeway with auxiliary lanes between major interchanges. West of Roseville, high-occupancy vehicle (HOV) lanes are provided to the I-80/Business 80 junction in Sacramento.

SR-65

SR-65 is a north-south facility that begins at I-80 and extends north through the cities of Rocklin, Lincoln, and Wheatland and terminates at SR-70 near the City of Marysville. In Roseville, SR-65 is a four-lane freeway with interchanges at Galleria Boulevard, Pleasant Grove Boulevard, and Blue Oaks Boulevard.

Eureka Road/Atlantic Street

Eureka Road, east of I-80, is generally a six-lane arterial roadway that provides access to major employment and retail destinations within the City. West of I-80 Eureka Road changes names to Atlantic Street. Atlantic Street is a four-lane road that provides access to Downtown Roseville.

Riverside Avenue

Riverside Avenue is a north-south, two- to four-lane arterial roadway beginning at I-80 that extends north to its terminus at the Vernon Street/Douglas Boulevard intersection. North of Darling Way, parallel parking is provided on both sides of the roadway.

Galleria Boulevard

Galleria Boulevard is a north–south, four- to six-lane arterial roadway beginning at SR-65 and extending south to Eureka Road. North of SR-65 Galleria Boulevard changes name to Stanford Ranch Road and South of Eureka Road changes name to Harding Boulevard. Galleria Boulevard provides primary access to major activity centers within Roseville such as the Roseville Galleria Mall and other retail centers near SR-65.

Pleasant Grove Boulevard

Pleasant Grove Boulevard is an east-west, four- to six-lane arterial roadway beginning east of SR-65 (at the Rocklin-Roseville City limit) and extending west past Fiddyment Road. Pleasant Grove Boulevard provides access to retail and housing developments in West Roseville.

Vernon Street

Vernon Street is a two- to four-lane arterial roadway that parallels the UPRR in a southwest to northeast direction. Vernon Street begins just east of the Plan area and extends west past Douglas Boulevard, Riverside Avenue, and Cirby Way and ends at Whyte Avenue in Citrus Heights. Vernon Street, through the Plan area, provides access to retail and office development including access to the Civic Center. In the downtown core, angled parking is provided on both sides of the roadway.

Washington Boulevard

Washington Boulevard is a north–south, two- to four-lane arterial roadway beginning at the SR-65/Blue Oaks Boulevard southbound ramps and extends south to its terminus at Oak Street in Downtown Roseville. North of the Plan area, Washington Boulevard primarily serves industrial and retail land uses. In the Plan area, Washington Boulevard provides access to local residential and retail land uses.

Main Street/Baseline Road

Main Street/Baseline Road is primarily a two-lane collector roadway within the study area. Main Street begins at Lincoln Street within the Historic District and extends west to Foothills Boulevard. West of Foothills Boulevard, Main Street changes name to Baseline Road and continues west into Sutter County. Between Foothills Boulevard and Fiddyment Road, Main Street is a four-lane arterial roadway. Within the Plan area, Main Street/Baseline Road provides access to retail and residential land uses.

Truck Routes

Approved truck routes accommodate significant volumes of large trucks that serve regional and interregional freight movement. While the arterial street system within the Plan area is used by trucks for the delivery of goods and services, there are no designated truck routes in the study area.

Existing Transit System

Amtrak operates heavy rail passenger transit service in the area from its station on Church Street. The train station operates from 6:45 a.m. to 5:00 p.m., Monday through Saturday.

Dial-a-Ride service provides curb-to-curb service in the Plan area. Dial-a-Ride operates Monday through Friday, from 6:00 a.m. to 8:00 p.m., and Saturday and Sunday from 8:00 a.m. to 6:00 p.m.

Roseville Transit operates seven bus lines in the Plan area and operates Monday through Saturday. Most of the routes connect to both the Amtrak station and the Civic Center Transfer Point located on Vernon Street. These routes are shown in Exhibit 4.6-1 and described in detail below.

Route A

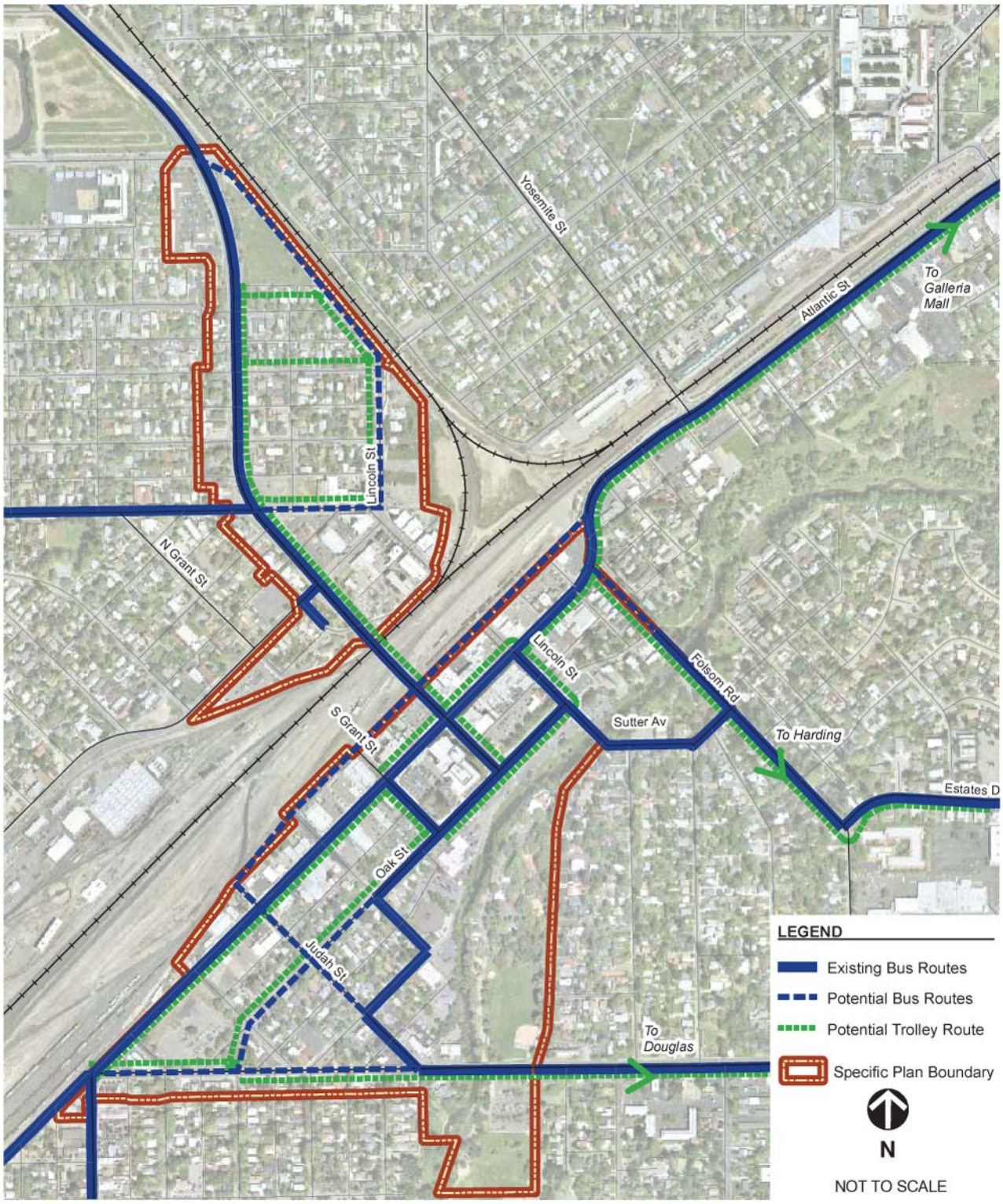
Route A runs northbound on Riverside Avenue and is part of a loop route that connects key points throughout Roseville including the Louis/Orlando Transfer Point, Civic Center, Galleria Transfer Point, Sutter Roseville Medical Center, Sierra Gardens Transfer Point, and the Kaiser Medical Center on Riverside Avenue. Route A is accessible to the Amtrak Station near the Civic Center and operates Monday (from about 6 a.m. to 8 p.m.) through Saturday (from about 8 a.m. to 6 p.m.) on approximately one-hour headways. Bus stops are located at the Tower Theater near Vernon Street/Douglas Boulevard, along Bonita Street, and Darling Way, at Roller King on Riverside Avenue, and along Cirby Way.

Route B

Route B runs southbound on Riverside Avenue and in the opposite direction of the Route A loop and serves the same key destinations and transfer points. Route B operates on about the same schedule and headways as Route A and Route B stops are generally paired with Route A stops.

Route D

Route D connects the Civic Center Transfer Point to Woodcreek High School by way of Washington Boulevard, Main Street, Junction Boulevard, Foothills Boulevard, McAnally Drive, and Woodcreek Oaks Boulevard. Route D operates Monday through Friday between 6:00 a.m. and 7:30 p.m. and on Saturday from 8:00 a.m. to 6:00 p.m. The route operates on one-hour headways throughout the day.



Source: Fehr & Peers 2008

Existing and Proposed Transit Routes **Exhibit 4.6-1**

Route H

Route H begins at the Civic Center Transfer Point and extends north, along Washington Boulevard, to Roseville Parkway. It then loops back to Washington Boulevard via Pleasant Grove Boulevard and returns to the Civic Center Transfer Point. Route H operates Monday through Friday, between 6:00 a.m. and 7:30 p.m. The route operates on Saturday, from 8:00 a.m. to 6:00 p.m. The route operates on one-hour headways throughout the day.

Route I

Route I runs in the opposite direction of the Route D loop and serves the same key destinations and transfer points. Route B operates on the same schedule and headways as Route D.

Route J

Route J connects the Louis/Orlando Transfer Point, Sierra Gardens Transfer Point, and the Civic Center Transfer Point via Riverside Avenue, Cirby Way, Sunrise Avenue, Douglas Boulevard, Judah Street, Vernon Street, Oak Street, and Royer Street. Route J operates Monday through Friday between 6:00 a.m. and 7:30 p.m. and operates on Saturday, from 8:00 a.m. to 6:00 p.m. The route operates on one-hour headways throughout the day.

Route L

Route L connects the Sierra Gardens Transfer Point and the Civic Center Transfer Point via Eureka Road, Douglas Boulevard, Sunrise Avenue, Lead Hill Road, Harding Boulevard, Estates Drive, Folsom Drive, Sutter Street, and Vernon Street. Route L operates Monday through Friday between 6:00 a.m. and 7:30 p.m. and operates on Saturday from 8:00 a.m. to 6:00 p.m. The route operates on one-hour headways throughout the day.

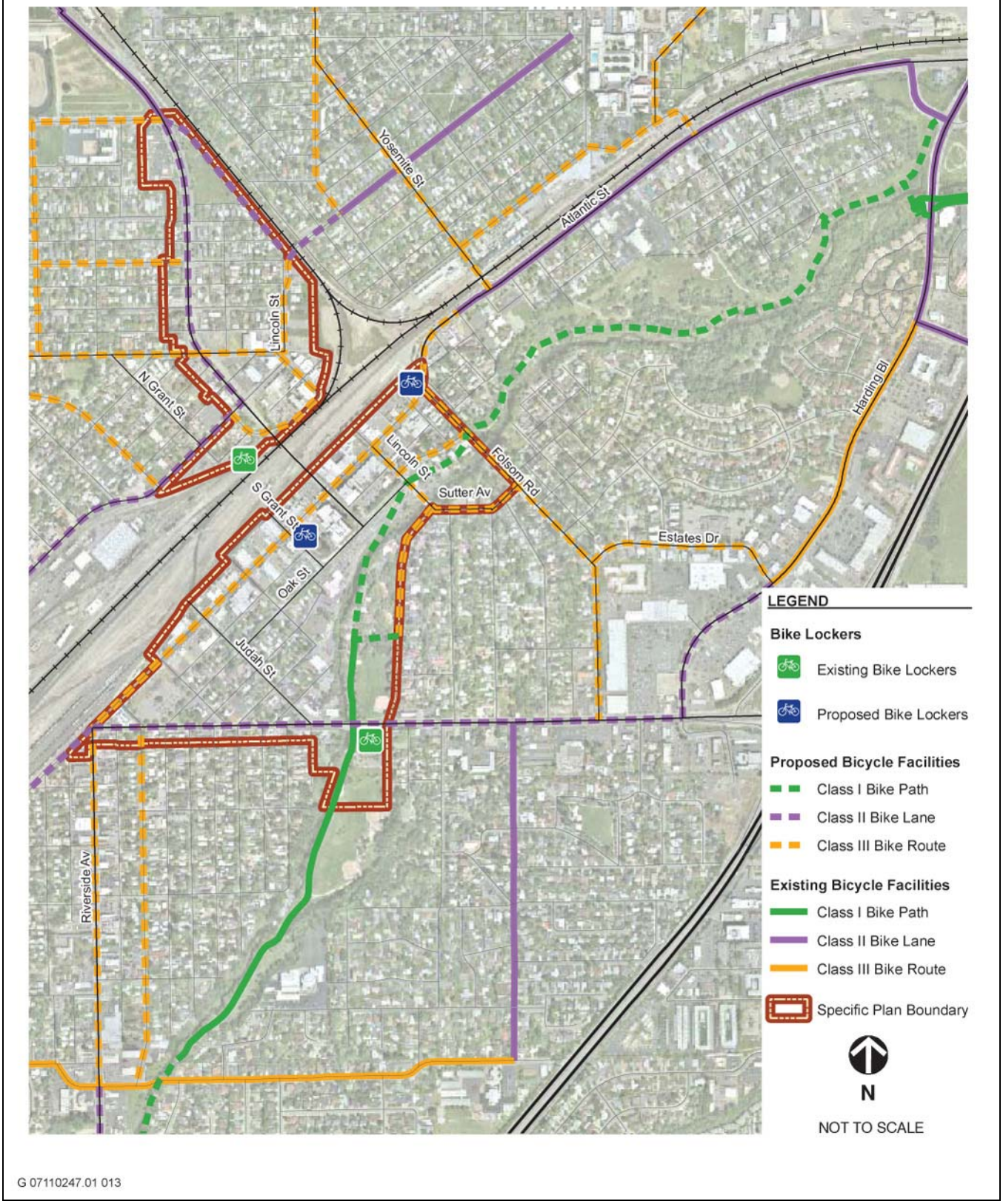
EXISTING BICYCLE AND PEDESTRIAN NETWORK

Bicycle System

The City's bikeway system consists of on- and off-street facilities that interconnect to form a comprehensive citywide network of bikeways. Bicycle facilities in the City of Roseville include:

- **Class I Off-Street Paths**—paved multiuse paths, a minimum of 10 feet wide, within their own alignment, separated from streets.
- **Class II On-Street Bike Lanes**—separate striped and marked lanes on streets. Class II bike lanes are typically 5–6 feet wide.
- **Class III On-Street Routes**—streets designated and signed as bicycle routes, but without separate bicycle facilities. Class III bike routes share travel lanes with other vehicles and are usually located on low-volume and low-speed collector/local streets. Roadway conditions may necessitate relatively wide travel lanes for the comfort and safety of bicyclists.

In the study area, Class I facilities are provided along Saugstad and Royer Parks. Class II facilities are provided on Atlantic Street, east of Vernon Street, and on Sierra Street, east of the Crooked Bridge. Washington Boulevard also has Class II bike lanes north of Lincoln Avenue. Class III bike routes are designated on Church Street, Lincoln Avenue (west of the Crooked Bridge), and Oak Street. Bicyclists are required to walk their bicycles on the pedestrian path through the Washington Boulevard UPRR under-crossing. Exhibit 4.6-2 identifies each of these existing bicycle facilities in the Plan area.



Source: Fehr & Peers 2008

Existing and Proposed Bicycle Facilities **Exhibit 4.6-2**

Pedestrian System

The pedestrian system within the Plan area consists primarily of sidewalks and crosswalks. Sidewalks are provided along most streets within the study area, while crosswalks are provided at most major intersections. Sidewalk widths are consistent with current city requirements. In addition, the pedestrian network has sufficient connectivity to provide pedestrian circulation throughout the entire Plan area.

Sidewalks are not currently provided at two locations where field observations identified appreciable pedestrian activities. Sidewalks are not provided between Atlantic Street and the UPRR in the Vernon Street District and between Lincoln Street and the UPRR in the Historic Old Town District.

EXISTING ROADWAY SYSTEM OPERATIONS

Traffic operations are typically described by transportation professionals in terms of "level of service" (LOS), which measures the quality of the overall operating characteristics of a street or highway. Factors involved in determining LOS include speed and safety, travel time, traffic conflicts and interruptions, freedom to maneuver, and driving convenience and comfort. Traffic conditions are typically evaluated during the peak-hour to determine LOS. LOS scores range from LOS A (no congestion on the system) to LOS F (high levels of congestion on the system). LOS E represents "at capacity" operations.

Intersection Operations

Study Locations

The following 12 intersections were evaluated as part of this assessment:

- Vernon Street/Judah Street
- Oak Street/Judah Street
- Vernon Street/Riverside Avenue
- Vernon Street/Taylor Street
- Oak Street/Taylor Street
- Vernon Street/Grant Street
- Oak Street/Grant Street
- Oak Street/Washington Boulevard
- Vernon Street/Lincoln Street
- Oak Street/Lincoln Street
- Main Street/Washington Boulevard
- Junction Boulevard/Washington Boulevard

Signalized Intersection Level of Service Methodology

For existing and existing plus project conditions, the study intersections were evaluated using the Highway Capacity Manual (HCM) (Transportation Research Board 2000) methodologies. Specifically, the Synchro/ SimTraffic LOS analysis software was used to develop LOS at the study intersections using delay based thresholds. For cumulative conditions, the City defines the LOS for signalized intersections according to the volume-to-capacity ratio (V/C) using methodologies described in Circular 212 (Transportation Research Board 1985). Using Circular 212 methodologies, LOS is assigned based on the capacity of the intersection as a whole and corresponds to the ratio of the total traffic volume at the facility to the maximum capacity of volume allowable at that facility. These thresholds are summarized in Table 4.6-1.

Table 4.6-1
Level of Service Definitions for Signalized Intersections

Level of Service	Delay[1]	V/C Ratio[2]	Description
A	≤ 10	0.00–0.59	Free Flow/Insignificant Delays: No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication.
B	10–20	0.60–0.69	Stable Operation/Minimal Delays: An occasional approach phase is fully utilized. Many drivers begin to feel somewhat restricted within platoons of vehicles.
C	20–35	0.70–0.81	Stable Operation/Acceptable Delays: Major approach phases fully utilized. Most drivers feel somewhat restricted.
D	35–55	0.82–0.89	Approaching Unstable/Tolerable Delays: Drivers may have to wait through more than one red signal indication. Queues may develop but dissipate rapidly without excessive delays.
E	55–80	0.90–0.99	Unstable Operation/Significant Delays: Volumes at or near capacity. Vehicles may wait through several signal cycles. Long queues form upstream from intersection.
F	> 80	1.00+	Forced Flow/Excessive Delays: Represents jammed conditions. Intersection operates below capacity with low volumes. Queues may block upstream intersections.

Source: Transportation Research Board 1985 *Circular 212*, quoted in City of Roseville 2020 General Plan Circulation Element and the Transportation Research Board 2000 *Highway Capacity Manual.*

[1] Average delay at the intersection reported in seconds per vehicle.

[2] The ratio of the traffic volume demand at an intersection to the capacity of the intersection.

Unsignalized Intersection Level of Service Methodology

Unsignalized study intersections were analyzed using HCM 2000 methodologies. Table 4.6-2 summarizes the relationship between the average total delay per vehicle and LOS. Delays are calculated for the movements that operate under traffic control (i.e., the minor-street approach). Total delay is the total elapsed time from when a vehicle stops at the end of the queue until the vehicle departs from the stop line and includes the time required for the vehicle to travel from the last-in-queue position to the first-in-queue position. The average total delay for any particular minor movement is a function of the service rate or capacity of the approach. The LOS criteria for unsignalized intersections are different from the criteria for signalized intersections because drivers expect different levels of performance at different transportation facilities.

Table 4.6-2
Level of Service Definitions for Unsignalized Intersections

Level of Service	Average Total Delay per Vehicle (sec/veh)
A	≤ 10 sec/veh
B	10–15 sec/veh
C	15–25 sec/veh
D	25–35 sec/veh
E	35–50 sec/veh
F	> 50 sec/veh

Source: *Highway Capacity Manual* (Transportation Research Board 2000)

Existing Traffic Volumes

Intersection Volumes

Existing intersection turning movement counts used for this assessment were obtained from the Final Grant Street Closure Study (City of Roseville 2007). These counts were supplemented with two additional intersection counts, obtained from the City of Roseville, at the Washington Boulevard/Main Street and Washington Boulevard/Junction Boulevard intersections because these intersections were not included in the Grant Street Closure Study.

Existing No Project Conditions

Signalized Intersection Operations

Peak hour traffic volumes, existing lane configurations, traffic control devices (see Exhibits 4.6-3a and 4.6-3b), and signal timing information were incorporated into the LOS assessment to evaluate existing conditions. The results of the assessment are summarized in Table 4.6-3.

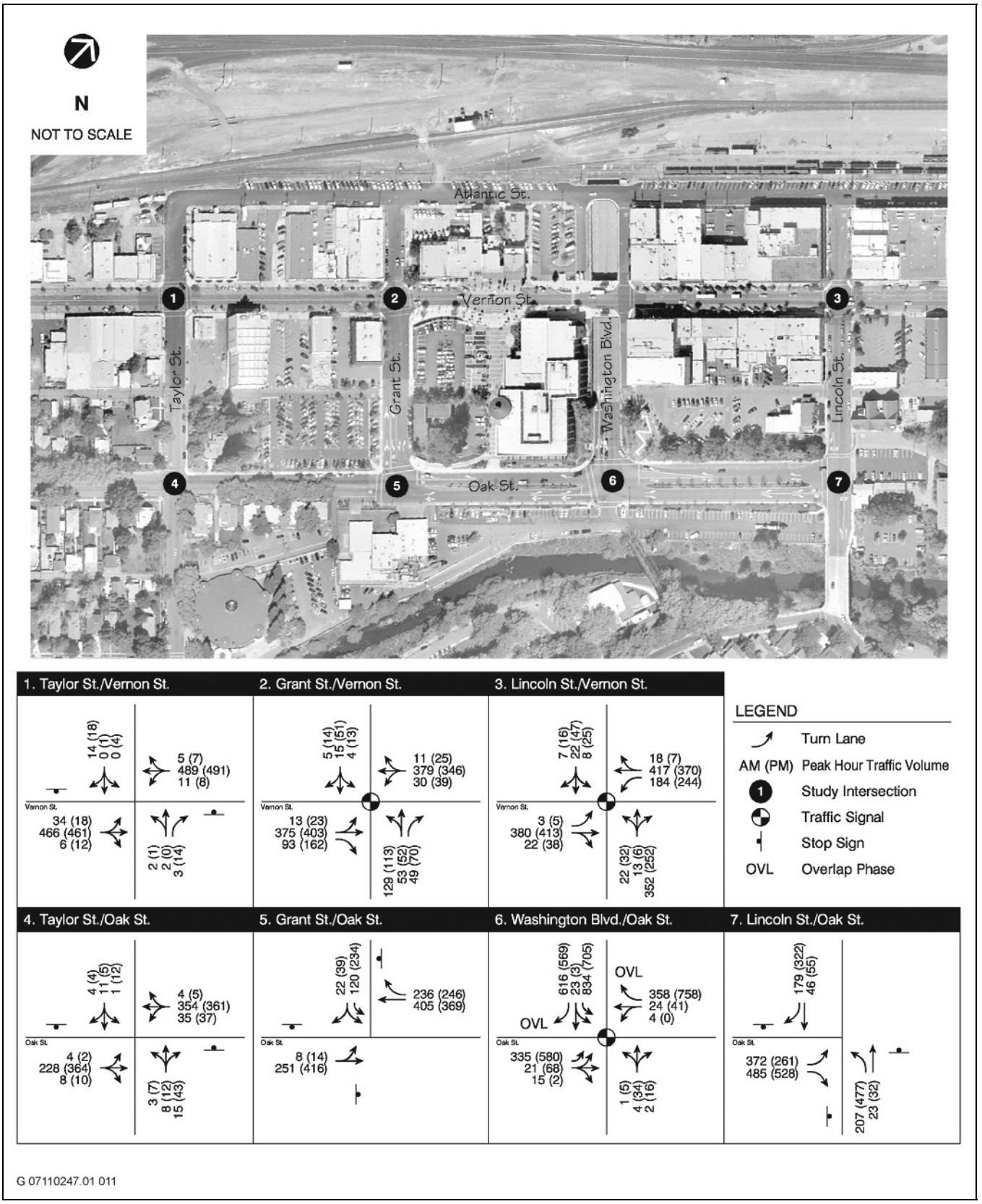
Table 4.6-3
Existing No-Project Conditions - Signalized Intersection Levels of Service

Intersection	Control	a.m. Peak Hour		p.m. Peak Hour	
		Delay	LOS	Delay	LOS
Vernon Street / Grant Street	Signal	8	A	12	B
Vernon Street / Lincoln Street	Signal	13	B	18	B
Oak Street / Washington Blvd.	Signal	19	B	22	C
Vernon Street / Riverside Avenue	Signal	***55***	***D***	***51***	***D***
Vernon Street / Judah Street	Signal	7	A	8	A
Main Street / Washington Blvd.	Signal	***44***	***D***	***101***	***F***
Junction Blvd. / Washington Blvd.	Signal	16	B	26	C

Source: Fehr & Peers 2008
Note: LOS = level of service; Delay = sec/veh
Bold & Italicized = unacceptable LOS
[1] Analysis based on 2000 Highway Capacity Manual using the Synchro/SimTraffic LOS software.
[2] For signalized and all way stop controlled intersections, delay and Level of service are reported for the intersection as a whole. For side street stop controlled intersections, delay and LOS are reported for the worst case movement.

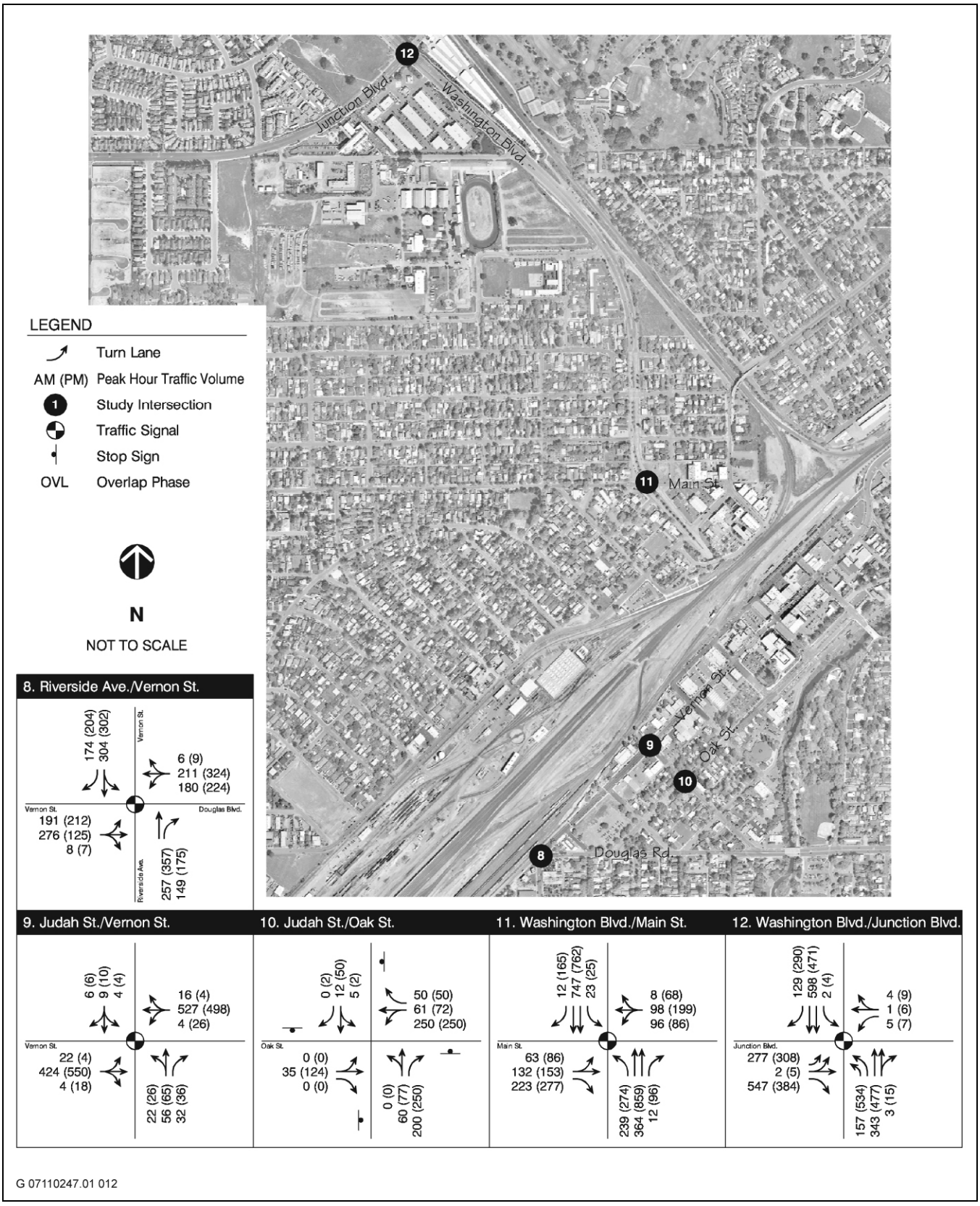
As identified in the City of Roseville's General Plan, Level of Service Policy 1 (see Section 4.6.2, 'Regulatory Setting') requires 70% of the City's signalized intersections to operate at LOS A, B, or C. Therefore, for descriptive purposes, LOS C is considered the minimum acceptable operating level for signalized intersections. Signalized intersections in the study area operating below LOS C include:

- Oak Street/Lincoln Street – LOS D during the p.m. peak hour,
- Vernon Street/Riverside Avenue – LOS D during the a.m. and p.m. peak hours, and
- Main Street/Washington Boulevard – LOS D during the a.m. peak hours and LOS F during the p.m. peak hours.



Source: Fehr & Peers 2008

Existing No-Project Traffic Volumes and Lane Configurations **Exhibit 4.6-3a**



Source: Fehr & Peers 2008

Existing No-Project Traffic Volumes and Lane Configurations **Exhibit 4.6-3b**

Unsignalized Intersection Operations

The City does not have a specific LOS policy for unsignalized intersection operations. It is not uncommon for individual side-street movements at unsignalized intersections (stop-controlled on side streets) along arterial roadways to experience delays that translate to worse than LOS C; however, the overall LOS of the intersection typically would operate at LOS C or better. If the overall intersection LOS is identified as operating at worse than LOS C, the City would evaluate appropriate improvements, such as additional turn lanes and/or signalization. It should be noted that traffic signals are only considered after a traffic signal warrant evaluation is conducted. Unsignalized intersections with relatively low side-street volumes do not typically meet the criteria for traffic signal installation.

EXISTING IMPROVEMENT PROGRAMS

One on-going improvement project is occurring in the study area which consists of the Historic Downtown Streetscape project. This project involves widening sidewalks and adding streetscape features within the Historic Downtown area.

Because these improvements were not completed at the time the intersection turning movement counts were collected, they were not reflected in the analysis as they are not representative of the existing setting.

EXISTING PARKING CONDITIONS

Existing Parking Supply and Demand

As part of the Specific Plan effort, extensive parking supply and occupancy surveys were conducted throughout the Plan area. The results of the parking surveys were used to assess parking adequacy within the Plan area. The parking supply and parking demand, by hour, are summarized on figures in Appendix B of this DEIR.

The entire Plan area contains 2,659 off-street parking spaces and 751 on-street parking spaces for a total of 3,410 spaces. Time restrictions are placed on 268 of the parking spaces. When the parking surveys were conducted, the parking structure in Downtown Roseville was still under construction and is not included in this description. Refer to Exhibit 4.6-4 that illustrates the location of existing and proposed public parking.

Off-Street Parking and Conditions

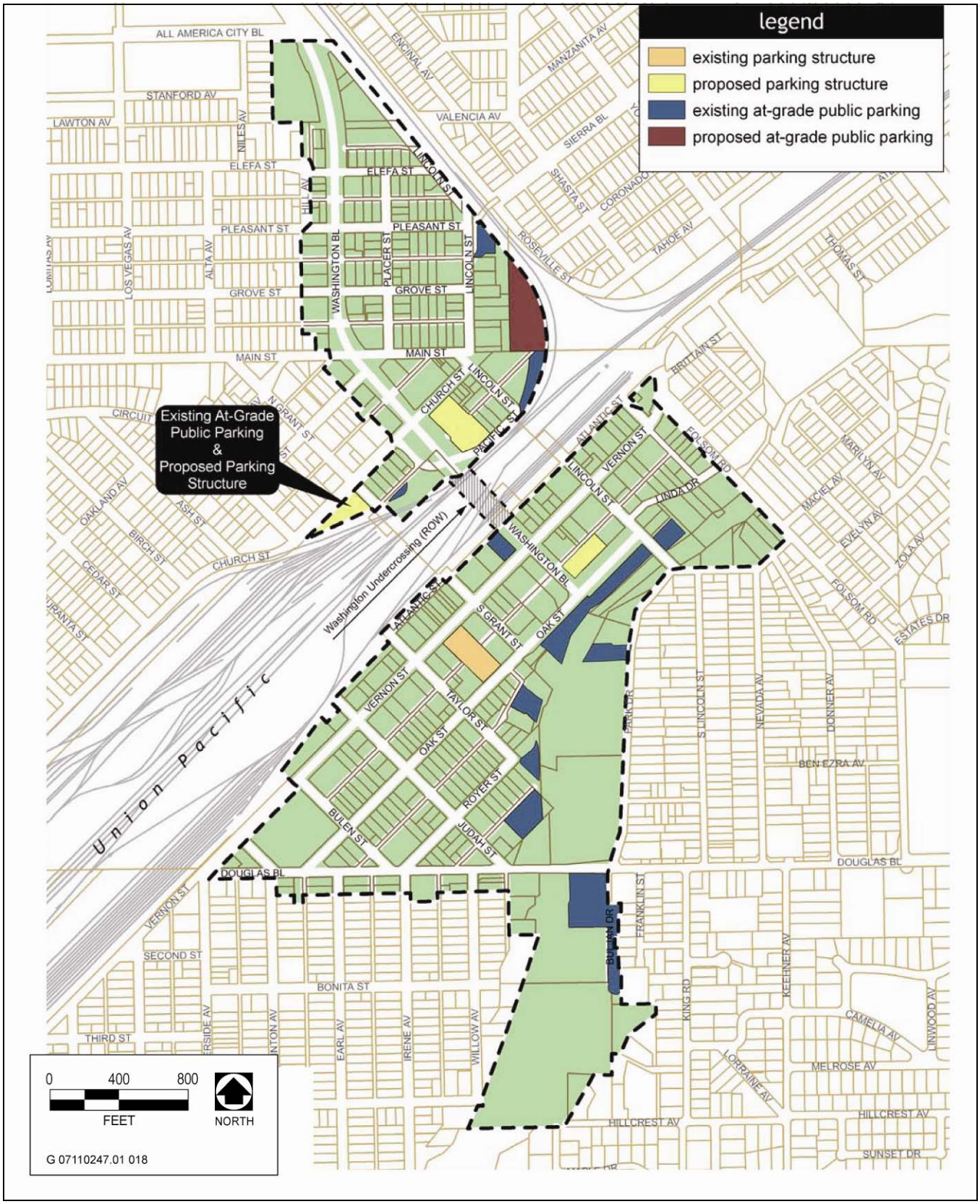
In general, off-street parking lots are under-utilized throughout the day. However, there are a few lots where parking demand was observed approaching or exceeding the available supply. These are summarized below:

- **Oak Street parking lot –** the public parking lot, located east of Oak Street and between Lincoln Street and Grant Street, has high utilization during the week day, during typical office hours.

- **Amtrak parking lot –** the lot adjacent to the Amtrak station experiences high utilization during the weekday.

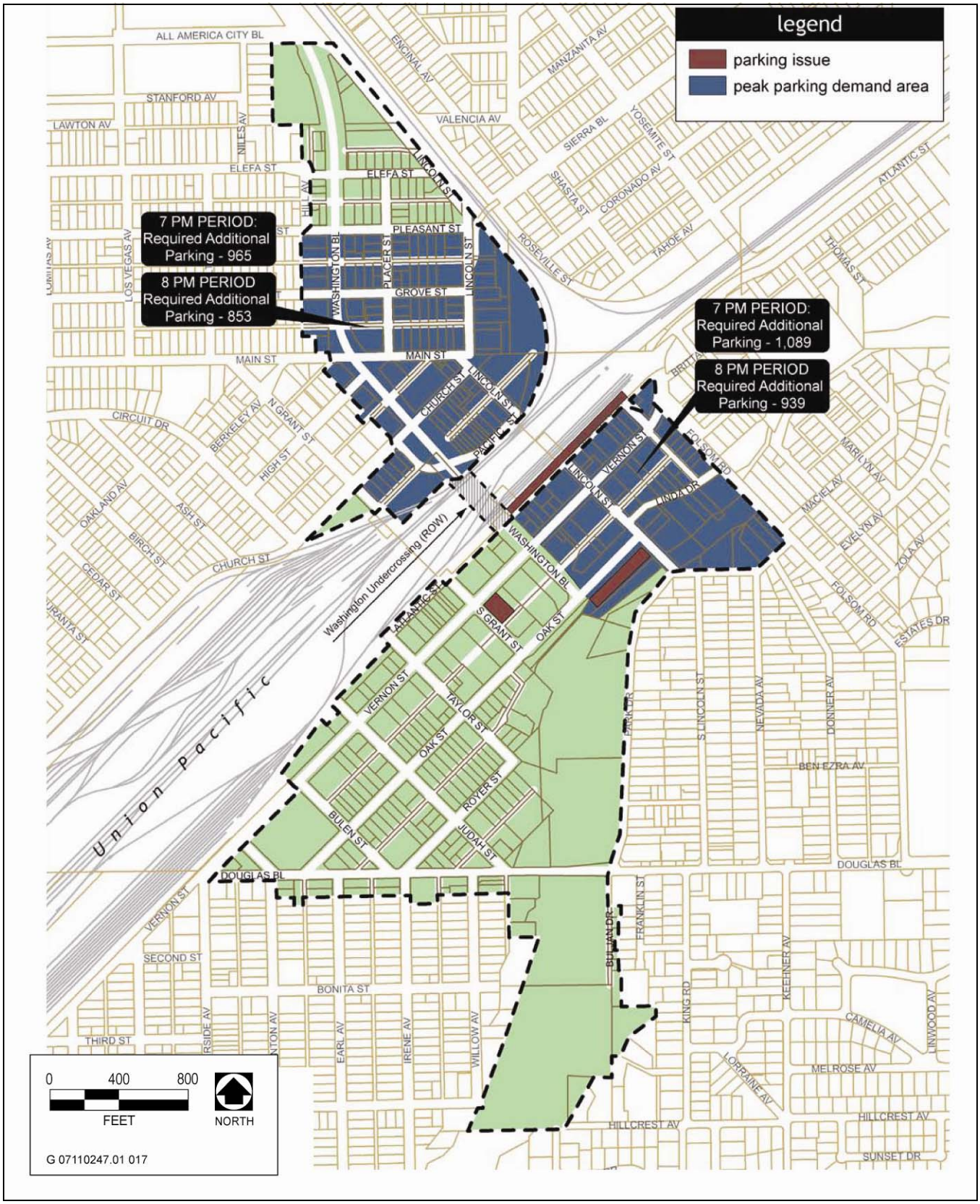
On-Street Parking and Conditions

Tables 4.6-4 and 4.6-5 summarize on-street parking utilization during the weekday and weekend study periods, respectively. Specifically, the tables summarize blocks where parking occupancy represents at least 70% of the existing supply. Also refer to Exhibit 4.6-5 that illustrates the location of parking issues in the Plan area.



Source: Fehr & Peers 2008

Existing and Proposed Parking Locations **Exhibit 4.6-4**



Source: Fehr & Peers 2008

Parking Issues **Exhibit 4.6-5**

Table 4.6-4
Blocks With High Hourly Parking Space Occupancy Rates on Weekdays

Block	Capacity	70–79%	80–89%	> 90%
Washington Blvd.				
Westside north of Pleasant Street	9		*12 p.m.–1 p.m.*	*7 a.m.–12 p.m.* *1 p.m.–9 p.m.*
Westside north of Grove Street	14	*3 p.m.–4 p.m.*	*12 p.m.–1 p.m.* *8 p.m.–9 p.m.*	
Eastside north of Main Street	23	*1 p.m.–2 p.m.*	*10 a.m.–12 p.m.* *2 p.m.–4 p.m.*	*12 p.m.–1 p.m.* *4 p.m.–5 p.m.*
Westside north of High Street	9	*7 a.m.–8 a.m.* *11 a.m.–1 p.m.* *2 p.m.–3 p.m.*		
Westside north of Church Street	27	*7 p.m.–8 p.m.*		*8 a.m.–12 p.m.*
Church Street				
Southside – N. Grant Street to Washington Blvd.	17	*7 a.m.–8 a.m.* *10 a.m.–11 a.m.*		
Southside – Circuit Drive to N. Grant Street	76		*1 p.m.–2 p.m.* *5 p.m.–6 p.m.*	*7 a.m.–1 p.m.* *2 p.m.–5 p.m.*
Lincoln Street				
Eastside north of Main Street	54	*5 p.m.–7 p.m.*		
Westside north of Pacific Street	42	*7 a.m.–8 a.m.* *5 p.m.–6 p.m.*	*8 a.m.–10 a.m.*	*10 a.m.–5 p.m.*
Eastside north of Pacific Street	31	*11 a.m.–12 p.m.* *1 p.m.–2 p.m.* *3 p.m.–5 p.m.* *6 p.m.–7 p.m.*		
Douglas Blvd.				
Southside – Willow Avenue to Barjo Alley	9	*1 p.m.–2 p.m.*	*8 a.m.–9 a.m.*	*7 a.m.–8 a.m.* *9 a.m.–1 p.m.* *2 p.m.–4 p.m.*
Southside east of Barjo Alley	103	*9 a.m.–10 a.m.*		
Vernon Street				
Northside east of Lincoln Street	131	*9 a.m.–3 p.m.*		
Northside west of Washington Blvd.	123	*3 p.m.–4 p.m.*		
Southside west of Washington Blvd.	59	*3 p.m.–5 p.m.*	*11 a.m.–12 p.m.* *1 p.m.–3 p.m.*	*10 a.m.–11 a.m.*
Oak Street				
Southside – Taylor Street to Lincoln Street	253	*9 a.m.–1 p.m.* *3 p.m.–4 p.m.*	*1 p.m.–2 p.m.*	*2 p.m.–3 p.m.*
Bulen Street				
Westside north of Douglas Blvd.	9	*8 a.m.–2 p.m.*	*7 a.m.–8 a.m.* *2 p.m.–3 p.m.*	

Source: Fehr & Peers 2008

Table 4.6-5
Blocks With High Hourly Parking Space Occupancy Rates on Weekends

Block	Capacity	70–79%	80–89%	> 90%
Washington Blvd.				
Westside north of Pleasant Street	6		*12 p.m.–1 p.m.* *3 p.m.–4 p.m.*	*7 a.m.–12 p.m.* *1 p.m.–3 p.m.* *4 p.m.–9 p.m.*
Westside north of Grove Street	14	*11 a.m.–12 p.m.* *1 p.m.–6 p.m.* *8 p.m.–9 p.m.*		
Westside north of Main Street	28	*5 p.m.–6 p.m.*		*6 p.m.–9 p.m.*
Westside north of High Street	9			*1 p.m.–2 p.m.*
Lincoln Street				
Westside north of Pacific Street	88	*8 a.m.–9 a.m.*	*12 p.m.–1 p.m.*	*9 a.m.–12 p.m.*
Eastside north of Pacific Street	31	*9 a.m.–10 a.m.* *12 p.m.–1 p.m.*	*1 p.m.–3 p.m.*	
Douglas Blvd.				
Southside – Irene Avenue to Willow Avenue	20	*11 a.m.–12 p.m.*		
Southside – Earl Avenue to Clinton Avenue	25	*2 p.m.–3 p.m.*		
Church Street				
Southside – N. Grant Street. to Washington Blvd.	17	*8 a.m.–9 a.m.*		

Source: Fehr & Peers 2008

Ideally, parking demand should represent approximately 85% of the parking supply, as the 15% additional supplied spaces account for circulation and turnover within the parking facility. Areas where parking demand exceeds 90% of the available supply represents a situation where insufficient supply is provided. These areas are summarized below:

- Westside of Washington Boulevard, north of Pleasant Street – Weekdays between 7:00 a.m. and 12:00 p.m., and 1:00 p.m. and 9:00 p.m. Weekends between 7:00 a.m. and 12:00 p.m., 1:00 p.m. and 3:00 p.m., and 4:00 p.m. and 9:00 p.m.
- Eastside of Washington Boulevard, north of Main Street – Weekdays between 12:00 p.m. and 1:00 p.m., and 4:00 p.m. and 5:00 p.m.
- Westside of Washington Boulevard, north of Main Street – Weekends between 6:00 p.m. and 9:00 p.m.
- Westside of Washington Boulevard, north of Church Street – Weekdays between 8:00 a.m. and 12:00 p.m.
- Westside of Washington Boulevard, north of High Street – Weekends between 1:00 p.m. and 2:00 p.m.
- Southside of Church Street, between Circuit Drive and N. Grant Street – Weekdays between 7:00 a.m. and 1:00 p.m., and 2:00 p.m. and 5:00 p.m.
- Westside of Lincoln Street, north of Pacific Street – Weekdays between 10:00 a.m. and 5:00 p.m. Weekends between 9:00 a.m. and 12:00 p.m.

- Southside of Douglas Boulevard, between Willow Avenue and Barjo Alley – Weekdays between 7:00 a.m. and 8:00 a.m., 9:00 a.m. and 1:00 p.m., and 2:00 p.m. and 4:00 p.m.
- Southside of Vernon Street, west of Washington Boulevard – Weekdays between 10:00 a.m. and 11:00 a.m.
- Southside of Oak Street, Between Taylor Street and Lincoln Street – Weekdays between 2:00 p.m. and 3:00 p.m.

City of Roseville Parking Standards

The City's zoning code provides standards for the provision of off-street parking spaces for a variety of land uses. In general, commercial retail land uses are required to provide one space for every 300 square feet (sf) of gross building space (1:300 parking ratio). These standards are somewhat higher for restaurant and entertainment uses, (one space for every 100 sf) and for professional office use (one space for every 250 sf). Automotive sales require one parking space per every 1,000 sf of indoor and outdoor display area.

From inspection, the majority of land uses in the Plan area do not conform to current code-required off-street parking standards. The majority of buildings within the Plan area does not have any associated parking and rely on on-street parking to serve their employees and customers. There are limited shared parking facilities except for the City-owned parking facilities near City Hall.

Conclusions

Overall, there is sufficient parking supply to meet existing demands. However, some blocks approach capacity on weekdays or on weekends as identified in Tables 4.6-4 and 4.6-5.

4.6.2 REGULATORY SETTING

Existing transportation policies, laws, and regulations that apply to the proposed project are summarized below. This information provides a context for the impact discussion related to the project's consistency with applicable regulatory conditions.

FEDERAL AND STATE REGULATIONS

Americans with Disabilities Act Accessibility Standards

The Americans with Disabilities Act (ADA) of 1990 (42 USC 12181) requires that new and altered public sidewalks and street crossings be accessible so that people with disabilities can use the pedestrian routes that connect buildings, facilities, and transportation modes. The following categories have requirements that are included in the ADA's *Checklist for Accessible Sidewalks and Street Crossings in Accessible Rights-of-Way: A Design Guide* (Access Board 1999).

- Curb Ramps
- Sidewalks
- Street Crossings
- Temporary Work
- Other Pedestrian Features

Caltrans Highway Design Manual

The *Caltrans Highway Design Manual* establishes uniform policies and procedures to carry out Caltrans' highway design functions. The highway design criteria and policies in the manual provide a guide for applying standards in the design of projects and are for information and guidance.

CITY OF ROSEVILLE GENERAL PLAN 2020

Most of the guiding and implementing policies in the *City of Roseville General Plan 2020* Circulation Element are relevant to the Plan area. These policies are numerous and are not repeated in their entirety in this report, but generalized descriptions of the General Plan elements are presented below. From a transportation and circulation perspective, the most important component of the General Plan is the Circulation Element. The following components make up the Circulation Element:

- Functional Classification
- Level of Service
- Transit
- Transportation System Management
- Bikeways and Trails

Functional Classification

Goal 1: Provide guidance to the long-range planning of the City's roadway system, including design standards, right-of-way requirements, and coordination with surrounding jurisdictions.

- **Policy 1:** Establish a functional classification system to guide the planning and design of the City's roadway system.
- **Policy 2:** Coordinate with surrounding jurisdictions to achieve compatible functional classifications for roadways that cross the City's boundaries.
- **Policy 3:** Establish a comprehensive set of design standards for the City's roadway system by functional class.
- **Policy 4:** Maintain a system of truck routes to provide for the safe and efficient movement of goods and to avoid impacting residential neighborhoods.

Level of Service

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

- **Policy 1:** Maintain a level of service (LOS) "C" standard at 70% of all signalized intersections and roadway segments in the City during the p.m. peak hours. Exceptions to the LOS "C" standard may be considered for intersections where the City finds that the required improvements are unacceptable based on established criteria identified in the implementation measures. In addition, Pedestrian Districts may be exempted from the LOS standard.
- **Policy 2:** Strive to meet the level of service standards through a balanced transportation system that provides alternatives to the automobile.
- **Policy 3:** Work with neighboring jurisdictions to provide acceptable and compatible LOS on the roadways that cross the City's boundaries.
- **Policy 4:** Secure adequate funding for all components of the City's transportation system to ensure that the level of service policy is maintained.
- **Policy 5:** Enable the City to designate a Pedestrian District over a geographic area for the purpose of implementing measures that promote pedestrian walkability. In these districts, the City recognizes that pedestrian travel takes a higher priority than automobile travel, which could reduce the vehicular level of service.

Transit

Goal 1: Promote a safe and efficient mass transit system, utilizing both rail and bus modes, to reduce congestion, improve the environment, and provide viable non-automobile means of transportation in and through Roseville.

- **Policy 1:** Pursue and support transit services within the community and region and pursue land use, design and other mechanisms that promote the use of such services.
- **Policy 2:** Pursue all available sources of funding for transit services.
- **Policy 3:** Support and actively pursue the extension of light rail service to Roseville.
- **Policy 4:** Support and remain actively involved in the implementation of commuter rail service between Colfax and Davis, as well as other regional linkages.
- **Policy 5:** Consider the transit needs of senior, disabled, minority, low-income, and transit dependent persons when making decisions regarding transit service.

Transportation System Management

Goal 1: Reduce travel demand on the City's roadway system.

Goal 2: Reduce total vehicle emissions in the City of Roseville and the South Placer County Region.

- **Policy 1:** Continue to enforce the City's Transportation Systems Management (TSM) ordinance and monitor its effectiveness.
- **Policy 2:** Work with appropriate agencies to develop measures to reduce vehicular travel demand and vehicle miles traveled and meet air quality goals.

Title 11, Chapter 11.33 of the *City of Roseville Municipal Code* requires the implementation of a Transportation Systems Management Program (TSMP) that focuses on alternative transportation modes to protect the public health, safety, and welfare. The need for travel modes other than single-occupant vehicles to minimize road congestion and air pollution in the region and for fulfillment of the goals, policies, and implementation measures in the General Plan is demonstrated by the adoption of several specific area plans. A TSMP attempts to improve the movement of persons by providing information regarding better and more efficient utilization of existing infrastructure (e.g., streets, roads, freeways) and new and innovative alternative commute modes (e.g., transit, carpooling, bicycling, telecommuting), particularly during the morning and evening peak hours of travel.

Bikeways and Trails

Goal 1: Provide a safe, comprehensive, and integrated bikeway and trail system that encourages the use of bikes and walking for commuting, recreational, and other trips.

- **Policy 1:** Develop a comprehensive and safe system of recreational and commuter bicycle routes and trails that provides connections between the City's major employment and housing areas and between its existing and planned bikeways.
- **Policy 2:** Coordinate Roseville's bikeway and trail system with those of neighborhood jurisdictions to provide both local and regional connections.
- **Policy 3:** Pursue available sources of funding for bikeways and trails.

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS' DESIGN GUIDANCE

A Policy on Geometric Design of Highways and Streets, last published in 2001 by the American Association of State Highway and Transportation Officials (AASHTO), provides general guidance on the design of facilities ranging from interstates to local streets. The AASHTO document or "green book" provides information regarding lane widths, shoulder widths, vertical curvature standards, horizontal curvature standards, median widths, sidewalk widths, and other design elements. Based on this information, the AASHTO standards should be viewed as a compilation of the recommended "best practices" in roadway designs while retaining sufficient flexibility to allow local jurisdictions to vary their standards to suit their needs.

4.6.3 ENVIRONMENTAL IMPACTS

ANALYSIS METHODOLOGY

The following analysis of the effects of the proposed project on traffic conditions is based on the proposed land uses and the existing (and planned) roadway network. Details regarding the analysis methodology utilized in this EIR are described below.

Summary of Model Run Procedures and Assumptions

Buildout under the Specific Plan (including the proposed land use and roadway network modifications) was incorporated into the City's recently developed TransCAD base year model. The model was used to estimate trip generation, trip distribution, and trip assignment for the proposed land uses. In addition, the model accounted for the redistribution of trips given the modified roadway network proposed in the Plan area.

Assumptions Regarding Transportation Facilities

The analysis of transportation impacts assumes that the following facilities would be in place in the Plan area.

Pedestrian and Bicycle Enhancements

The Specific Plan identifies a variety of pedestrian enhancements including mid-block crossings to promote pedestrian activity and pedestrian facilities on all roadways within the Plan area.

Bicycle facility enhancements are also identified in the Specific Plan, consistent with the City of Roseville's Bicycle Master Plan, which includes Class I, Class II, and Class III facilities within the Plan area. The existing and proposed bicycle facilities are identified on Exhibit 4.6-2. New bicycle facilities include:

- Extension of the Class I bike path northward, along Dry Creek, to Harding Boulevard.
- Improved pedestrian crossings of Dry Creek within Royer Park.
- Class II bike facilities on Douglas Boulevard, Washington Boulevard, and Church Street.
- Class III bike facilities on Vernon Street, Lincoln Street, Sutter Avenue, Park Drive, Linda Drive, Main Street, and Pleasant Street

Proposed Transit Enhancements

In addition to the existing public transit facilities in the study area, new public transit routes are identified in the Specific Plan. Transit facilities were divided into two main categories: (1) existing and proposed bus routes; and (2) proposed trolley service connecting the Historic and Vernon Street Districts. These routes are identified on Exhibit 4.6-1. Potential new bus routes have been identified along Oak Street, Judah Street, Douglas Boulevard,

Atlantic Street, Main Street, and Lincoln Street. In addition, trolley service is proposed on Washington Boulevard, Vernon Street, Lincoln Street, Oak Street, Atlantic Street, Folsom Boulevard, Main Street, and Lincoln Street.

Proposed Circulation Enhancements

The Specific Plan identifies additional circulation enhancements which are listed below.

Historic District

Enhancements within the Historic District consist of the following:

- Roadway improvements consistent with the Historic District's on-going streetscape improvement project. This consists of enhancements to the Main Street/Washington Boulevard intersection, including the addition of a northbound U-turn lane.
- A center median on Washington Boulevard, between Main Street and Lincoln Street, restricting side street access to right turns only. The median would break at Pleasant Street, where a full intersection would be constructed (with left-turn and right-turn lanes) to provide access to the adjacent neighborhoods.

Vernon Street District

Improvements within the Vernon Street District consist of the following:

- Widening Oak Street, from Grant Street to Lincoln Street, to provide additional capacity.
- Addition of a second right-turn lane (with receiving lane) from Oak Street to Lincoln Street to provide better lane utilization at the Washington Boulevard/Oak Street Intersection.
- Modifications to Grant Street to provide additional turn lanes at intersections, and enhance the pedestrian character of the street next to the Civic Center.
- Extension of Atlantic Street to Judah Street.
- Realignment of Oak Street to Douglas Boulevard, to intersect opposite Earl Avenue.
- Installation of a signal at the Grant Street/Oak Street intersection.
- Modified signal timings through the Oak Street and Vernon Street Corridors.

Traffic Facility Operations

Analysis Scenarios

The following scenarios were used to analyze impacts associated with implementation of the Specific Plan:

- Existing Plus Project Conditions: This scenario places traffic generated by full buildout of the Plan area on the existing plus project roadway network.
- Cumulative (2020) No-Project: This scenario includes buildout of the City's currently entitled land plus some potential redevelopment and 2020 market rate development outside the City. This scenario is consistent with the City's Capitol Improvement Program (CIP) and General Plan.

- Cumulative (2020) Plus Project: This scenario incorporates the roadway improvements and new traffic generation associated with full buildout of the Plan area in addition to the land uses and roadway improvements assumed under Cumulative No Project Conditions.

Forecasts

The following forecasts were developed for this assessment:

Existing Plus Project

Buildout under the Specific Plan (including the proposed land use and roadway network modifications) was incorporated into the City's recently developed TransCAD base year model. The model was used to estimate trip generation, trip distribution, and trip assignment for the proposed land uses. In addition, the model was able to account for the redistribution of trips given the modified roadway network proposed in the Specific Plan. It should be noted that use of a travel demand forecasting model is state of the practice for developing forecasts for large specific plans and developments with high internalization or new roadway connectivity.

The "with project" model runs were adjusted using the difference method, which identifies the growth in turning movement volumes and adds that growth to existing count data. The adjusted forecasts were then incorporated into the operations analysis for the proposed project.

The gross number of trips (prior to trip matching within the Specific Plan) by each land use type is summarized in Table 4.6-6 below:

Table 4.6-6
Downtown Roseville Specific Plan Trip Generation Estimates by Land Use Type

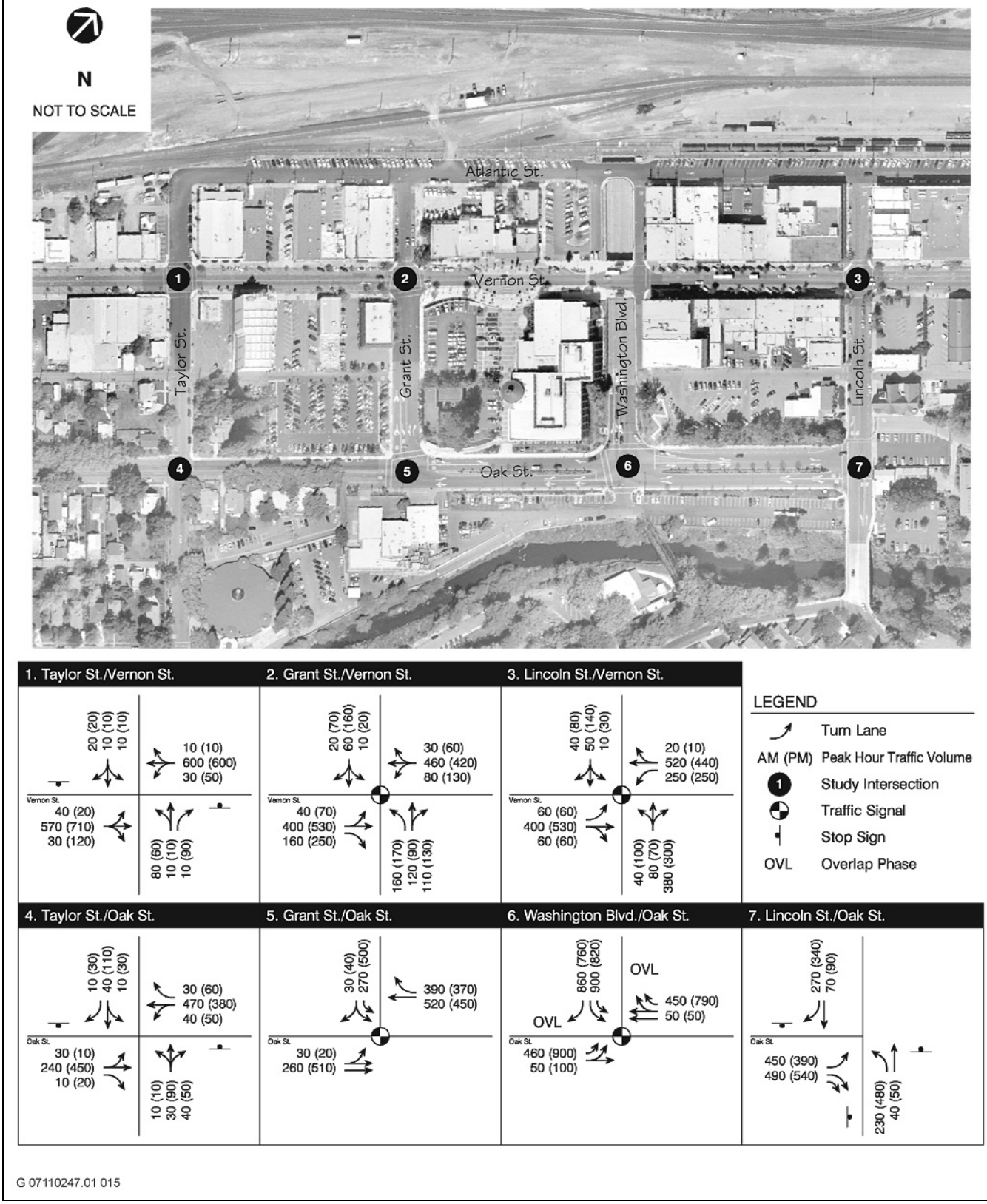
Land Use	a.m. Peak Hour			p.m. Peak Hour			Daily		
	Inbound	Outbound	Total	Inbound	Outbound	Total	Inbound	Outbound	Total
Retail	1,060	427	1,487	989	1,651	2,640	15,769	15,769	31,538
Restaurant	714	285	999	664	1,112	1,776	10,668	10,668	21,336
Office	138	60	198	84	210	294	1,652	1,652	3,304
Single Family Residential	2	5	7	6	3	9	66	66	132
Multi Family Residential	151	322	473	291	161	452	3,266	3,266	6,532
Total	***2,065***	***1,099***	***3,164***	***2,034***	***3,137***	***5,171***	***31,421***	***31,421***	***62,842***

Source: Fehr & Peers 2008
Trip generation rates from the *Roseville Capital Improvement Program Model – Final Travel Demand Model Development Report* (Fehr & Peers 2008)

In general, the trips are distributed as follows:

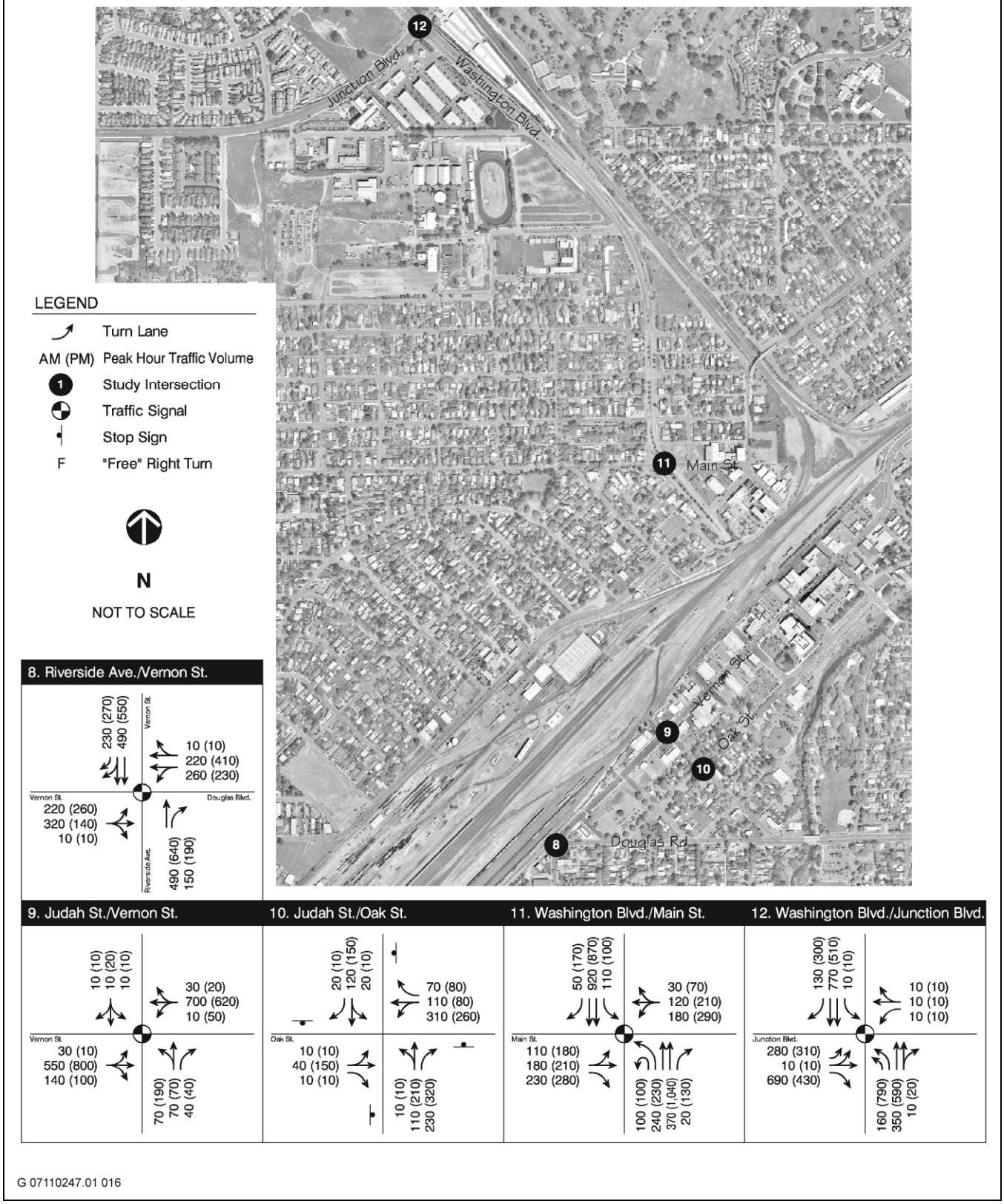
- 25% to the north via Washington Boulevard
- 20% to the south via Riverside Avenue
- 35% to the east via Atlantic Street and Douglas Road
- 20% to the west via Atkinson Road, Main Street, and Foothills Boulevard

Existing Plus Project turning movement volumes are summarized on Exhibits 4.6-6a and 4.6-6b.



Source: Fehr & Peers 2008

Existing Plus Project Traffic Volumes and Lane Configurations **Exhibit 4.6-6a**



Source: Fehr & Peers 2008

Existing Plus Project Traffic Volumes and Lane Configurations **Exhibit 4.6-6b**

Cumulative No Project

Consistent with City of Roseville guidelines for determining cumulative project impacts, forecasts were developed using the City's CIP TP+ travel demand forecasting model. Specifically, the model was used "as is" to be consistent with the City's CIP and General Plan assessments to reflect assumed growth by year 2020.

Cumulative Plus Project

Cumulative Plus Project forecasts were developed by modifying the land use and roadway network within the City's CIP TP+ model to reflect buildout of the Plan area.

TRAFFIC OPERATIONS ANALYSIS

Existing Plus Project

The methodology for evaluating the signalized intersections for the Existing Plus Project scenario is consistent with the Existing No-Project conditions. The Existing Plus Project LOS are shown in Table 4.6-7 and are compared with the Existing No-Project conditions.

Table 4.6-7
Existing Plus Project Conditions Intersection Levels of Service

Intersection	Control	a.m. Peak Hour		p.m. Peak Hour	
		Delay[2]	LOS[1]	Delay[2]	LOS[1]
Vernon Street/ Grant Street	Signal	17	B	***42***	***D***
Vernon Street / Lincoln Street	Signal	30	C	***58***	***F***
Oak Street / Grant Street	Signal	21	C	27	C
Oak Street / Washington Blvd.	Signal	***85***	***F***	***148***	***F***
Vernon Street / Riverside Avenue	Signal	***155***	***F***	***82***	***F***
Vernon Street / Judah Street	Signal	16	B	16	B
Main Street / Washington Blvd.	Signal	***94***	***E***	***243***	***F***
Junction Blvd. / Washington Blvd.	Signal	20	C	26	C

Source: Fehr & Peers 2008
Note: LOS = level of service; Delay = sec/veh.
Bold & Italicized = unacceptable LOS
[1] Analysis based on 2000 Highway Capacity Manual using the Synchro/SimTraffic LOS software.
[2] For signalized and all way stop controlled intersections, delay and Level of service are reported for the intersection as a whole. For side street stop controlled intersections, delay and LOS are reported for the worst case movement.

The results indicate that the following eight signalized intersections would operate below acceptable LOS under Existing Plus Project conditions:

- Vernon Street/Grant Street – LOS D during the p.m. peak hour
- Vernon Street/Lincoln Street – LOS F during the p.m. peak hour
- Oak Street/Washington Boulevard – LOS F during the a.m. and p.m. peak hours
- Vernon Street/Riverside Avenue – LOS F during the a.m. and p.m. peak hours
- Main Street/Washington Boulevard – LOS F during the a.m. and p.m. peak hours

Implementation of the Specific Plan would establish a Pedestrian Overlay District over the Plan area, consistent with Level of Service Policy 5 of City's General Plan. The purpose of the Pedestrian Overlay District is to promote pedestrian walkability and to recognize that pedestrian travel takes a higher priority than automobile travel, which could reduce the vehicular level of service (as allowed under Level of Service Policy 1 of the City's General Plan). With this designation, all of the signalized intersections would be exempt from the City's LOS C policy and, therefore, would operate at an acceptable level.

Cumulative (2020) Analysis

Cumulative (2020) No-Project

Consistent with the City of Roseville traffic impact requirements, the Cumulative (2020) No-Project conditions, the forecasts were incorporated into the Roseville CIP post processor created by DKS Associates to evaluate intersection operations at 179 signalized intersections within the City. Specifically, the travel demand model was created to develop forecasts for buildout of the City's General Plan (year 2020 planning horizon) at all signalized intersections within the City. The forecasts are then incorporated into the post processor, consisting of a TRAFFIX level of service analysis program, which produces levels of service at all 179 signalized intersections within the City using Circular 212 planning analysis methodologies. The results of the Cumulative No Project assessment are summarized in Table 4.6-8.

Based on the City's LOS policy, the City strives to maintain LOS C or better on 70% of its roadway segments and intersections. As shown in Table 4.6-8, under the Cumulative (2020) Condition, the total number of signalized intersections operating at LOS C or better is above 70% in the No-Project scenario.

Table 4.6-8
Cumulative (2020) No-Project - Signalized p.m. Citywide Intersection Levels of Service

Level of Service	Quantity	%
LOS A–C	**137**	**77%**
LOS D–F	**42**	**23%**
LOS D	24	13%
LOS E	9	5%
LOS F	9	5%

Note: **Bold** = unacceptable LOS
Source: Fehr & Peers 2008

Cumulative (2020) Plus Project

The Cumulative (2020) Plus Project scenario is characterized by the Cumulative (2020) No-Project land use assumptions, updated to reflect buildout of the Plan area, as well as roadway improvements anticipated by Year 2020 or implemented in conjunction with the Specific Plan.

The LOS for all signalized intersections under Cumulative (2020) Plus Project conditions are shown in Table 4.6-9. The LOS worksheets for all the signalized intersections are included in Appendix B of this DEIR. As shown in Table 4.6-9, over 70% of signalized intersections are expected to operate at LOS C or better under Cumulative Plus Project conditions which is consistent with the City's General Plan LOS policy.

Table 4.6-9 Cumulative (2020) Plus Project – Signalized p.m. Citywide Intersection Levels of Service		
Level of Service	Quantity	%
LOS A–C	**135**	**75%**
LOS D–F	**44**	**25%**
LOS D	24	13%
LOS E	10	6%
LOS F	10	6%

Note: **Bold** = unacceptable LOS
Source: Fehr & Peers 2008

Specific intersections where the addition of project-generated traffic degraded LOS operations from an acceptable level to an unacceptable level are shown in Table 4.6-10. Table 4.6-11 shows deficient intersections where the addition of project-generated traffic degraded intersection operations by one full LOS letter grade.

Table 4.6-10 Cumulative (2020) Conditions – Signalized p.m. Citywide Intersections Degrading to LOS D				
Intersection	2020 No Project		2020 Plus Project	
	LOS	V/C	LOS	V/C
Yosemite Street / Atlantic Street	C	0.80	D	0.82
Orlando Avenue / Marlin Drive / Cirby Way	C	0.80	D	0.82
Harding Blvd. / Estates Drive	C	0.80	D	0.82

V/C = volume-to-capacity ratio
Source: Fehr & Peers 2008

Table 4.6-11 Cumulative (2020) Conditions – Signalized p.m. Citywide Intersections with a Full Letter Grade Decline				
Intersection	2020 No Project		2020 Plus Project	
	LOS	V/C	LOS	V/C
Sunrise Avenue / Eureka Road	D	0.90	E	0.91
Judah Street / Vernon Street	D	0.86	E	0.93
Washington Blvd. / Main Street	E	0.93	F	1.14

V/C = volume-to-capacity ratio
Source: Fehr & Peers 2008

THRESHOLDS OF SIGNIFICANCE

Vehicular Impacts

The *City of Roseville General Plan 2020* establishes a goal of maintaining LOS C at 70% of its signalized intersections during the p.m. peak hour under a Circular 212 planning analysis. In addition, the City's improvement standards require that no more than 43 intersections function at less than LOS C under an operational analysis.

As identified in the *City of Roseville General Plan 2020*, the LOS standard for intersections is LOS C with some flexibility (see "Level of Service" in Section 4.6.2, "Regulatory Background," above). An impact should only be considered significant under the City's LOS Policy if:

- the LOS degrades from LOS C or better to below LOS C[1]; or
- an intersection operating at worse than LOS C degrades a full letter designation or more (LOS D to E, D to F, or E to F), and the resulting letter designation has not been previously approved by the City Council.

The significance threshold described above is compared against two different baseline conditions:

- Existing No-Project condition. The "Existing Plus Project" scenario evaluates traffic impacts by comparing existing conditions (i.e., Existing No-Project) against the Existing Plus Project traffic. This is the most basic CEQA impact evaluation approach of comparing existing conditions against post-project conditions to determine whether thresholds of significance are exceeded (see State CEQA Guidelines Section 15125[a]). This approach does not take into account additional traffic generated by other development in the region over the buildout period for the proposed project or by foreseeable roadway network improvements that are very likely, if not certain, to occur over this time period.
- Cumulative (2020) No-Project condition. Reasonably foreseeable development expected by Year 2020, according to the City's CIP travel demand forecasting model. The Cumulative Plus Project scenario assumes buildout of the proposed Specific Plan within the CIP travel demand forecasting model.

The Cumulative (2020) scenario, in projecting conditions in future years, accounts for reasonably foreseeable future developments and roadway conditions using the City's traffic model and roadway improvements identified in various plans and funding programs. By using Existing No-Project and Cumulative No-Project conditions as the baseline for the analyses, a reasonable comparison can be made between:

- Existing conditions and full project buildout added to existing traffic conditions, and
- Cumulative (2020) conditions with no-project and projected 2020 cumulative conditions with full project buildout.

Use of these baseline conditions to evaluate LOS standards is considered an appropriate method to identify and describe the full range of traffic impacts generated by the proposed project.

1 A LOS degradation from LOS C or better to below LOS C, where the resulting LOS letter designation has previously been approved by the City Council, and where the total number of signalized intersections operating at LOS C or better does not drop below 70% is not considered a significant impact.

Transit

A significant transit impact is defined to occur if the proposed project would:

- Interfere with any existing transit facility, or
- Conflict or prevent any planned transit facility.

Bicycle and Pedestrian

A significant bicycle and/or pedestrian impact would occur if the proposed project would:

- Interfere with any existing bicycle or pedestrian facility, or
- Conflict or prevent any planned bicycle or pedestrian facilities.

Parking

A significant parking impact would occur if the proposed project would:

- Result in an inadequate parking supply to meet projected demands

Design

A significant design impact would occur if the project would:

- Result in substantially increased hazards due to a design feature or incompatible uses

Emergency Access

A significant emergency access impact would occur if the project would:

- Result in inadequate emergency access

IMPACT ANALYSIS

IMPACT 4.6-1 Transportation and Circulation—Unacceptable Peak Hour LOS at Signalized Intersections under Existing Plus Project Conditions. *With the introduction of traffic from the proposed project, peak hour traffic volumes would increase at several signalized study intersections in the Plan area, resulting in an LOS of D or worse at various intersections. However, with implementation of the Pedestrian District Overlay in the Plan area as part of the proposed project, the LOS impact at all Plan area intersections would be considered less than significant. Therefore, all impacts to signalized study intersections under existing plus project conditions are considered* ***less than significant****.*

Peak hour traffic volumes, existing lane configurations, traffic control devices (see Exhibits 4.6-6a and 4.6-6b), and signal timing information were incorporated into the LOS assessment to evaluate Existing Plus Project conditions. Under Existing Plus Project conditions, the addition of project traffic would cause the following signalized intersections to operate at an unacceptable LOS:

- Vernon Street/Grant Street – LOS D during the p.m. peak hour,
- Vernon Street/Lincoln Street – LOS F during the p.m. peak hour,
- Oak Street/Washington Boulevard – LOS F during the a.m. and p.m. peak hours,
- Vernon Street/Riverside Avenue – LOS F during the a.m. and p.m. peak hours, and
- Main Street/Washington Boulevard – LOS E during the a.m. and LOS F during the p.m. peak hour.

In addition, the following improvements (beyond those identified within the Specific Plan) would improve intersection operations in the study area. These improvements include:

- Addition of a northbound right-turn lane at the Vernon Street/Lincoln Street intersection, and
- Addition of a westbound left-turn lane at the Vernon Street/Grant Street intersection.

With construction of the improvements identified in the Specific Plan and those identified above, all signalized intersections in the study area would operate at LOS C or better during the a.m. and p.m. peak hours except at the following intersections:

- Main Street/Washington Boulevard,
- Oak Street/Washington Boulevard, and
- Vernon Street/Riverside Avenue.

Because three intersections would operate unacceptably under Existing Plus Project conditions, these project impacts are considered significant.

IMPACT 4.6-2 **Transportation and Circulation—Unacceptable p.m. Peak Hour LOS at Signalized Intersections under Cumulative (2020) Plus Project Conditions.** *With the introduction of traffic from the proposed project, p.m. peak hour traffic volumes would increase at several signalized study intersections, resulting in an LOS of D or worse. Although certain mechanisms either are or would be in place as part of the proposed project (currently approved exemptions to the City's LOS policy and implementation of the Pedestrian Overlay District) which would allow these impacts to be considered less than significant, some signalized intersections located outside of the City's Pedestrian Overlay Districts would degrade to an unacceptable level or the addition of project traffic would degrade operations by a whole letter grade. This impact is considered* ***significant****.*

Under Cumulative (2020) Plus Project conditions, addition of project traffic volumes would cause the following intersections to operate at an unacceptable LOS:

- Yosemite Street/Atlantic Street – LOS D during the p.m. peak hour,
- Orlando Avenue/Marlin Drive/Cirby Way – LOS D during the p.m. peak hour,
- Harding Drive/Estates Drive – LOS D during the p.m. peak hour,
- Sunrise Avenue/Eureka Road – LOS E during the p.m. peak hour,
- Judah Street/Vernon Street – LOS E during the p.m. peak hour, and
- Washington Boulevard/Main Street – LOS F during the p.m. peak hour.

Although the project is consistent with the City's General Plan LOS policy because more than 70% of the City's signalized intersections would continue to operate at an acceptable level, six intersections would operate unacceptably under Cumulative (2020) Plus Project conditions and these project impacts are considered significant.

IMPACT 4.6-3 **Transportation and Circulation—Transit.** *Implementation of the proposed land uses in the Plan area would increase the demand for public transit services in the plan area. Policies of the Specific Plan would not interfere or conflict with existing or planned transit services. This impact is considered* ***less than significant****.*

The development of additional residential and commercial land uses in the Plan area would increase the demand for public transit services. In addition, the Specific Plan would promote the use of transit facilities with the following policies:

- **Policy 6.4.1:** The City will, as feasible and warranted, enhance transit service in the Downtown.
    - **Strategy 6.4.1a:** Utilize a soft tired trolley system linked to other commercial centers outside of the Downtown to promote connectivity and an alternative mode of travel.

- **Policy 6.4.2:** Promote the use of transit in new developments by requiring the installation of transit facilities where appropriate along transit routes.
- **Policy 6.4.3:** Provide sufficient infrastructure to promote existing and future transit use within Downtown.
    - **Strategy 6.4.2a:** For existing and future transit routes and facilities, use City standards to ensure appropriate turning radii for transit vehicles and waiting areas for transit riders.

In addition to the policies described above, the project designates increased transit facilities within the study area by designating potential transit routes to complement existing routes. Policies of the Specific Plan and the potential transit facilities identified within the Plan area would not interfere or conflict with existing or planned future transit services in the City of Roseville. Therefore, the project would result in a less-than-significant impact.

IMPACT 4.6-4 Transportation and Circulation—Bicycle and Pedestrian. *Implementation of the proposed land uses in the Plan area would increase demand for bicycle and pedestrian facilities. Policies of the Specific Plan would not interfere or conflict with existing and planned bicycle and pedestrian systems. This impact is considered less than significant.*

The development of additional residential and commercial land uses in the plan area would increase the demand for public transit services. In addition, the following policies of the Specific Plan would encourage the development of pedestrian- and bicycle-oriented land uses in the Plan area with the following policies:

- **Policy 6.2.1:** Encourage a pedestrian orientation within the circulation system.
- **Policy 6.2.2:** Designate the Downtown Plan area as a pedestrian district per the City's General Plan.
    - **Strategy 6.2.2.a:** Develop specific improvements to allow an effective vehicular traffic flow through Downtown, but give the pedestrian priority.
    - **Strategy 6.2.2.b:** Promote pedestrian connectivity and walkability throughout the plan through the future construction of physical improvements.
- **Policy 6.2.3:** Pedestrians shall cross no more than five travel lanes at intersections within the Downtown.
- **Policy 6.6.4:** Provide direct pedestrian and bicycle access to and from parking facilities.
- **Policy 6.3:** Implement bicycle facilities consistent with the City's Bicycle Master Plan.

Policies of the Specific Plan described above are designed to complement and improve existing bicycle and pedestrian movement through the Plan area and would not conflict with existing or proposed bicycle and pedestrian systems in the City of Roseville. Therefore, the project would result in a less-than-significant impact.

IMPACT 4.6-5 Transportation and Circulation—Parking. *Implementation of the proposed land uses in the Specific Plan area would result in an inadequate parking supply. The Specific Plan would generate demand for parking in excess of existing and proposed parking supply in the Plan area by a maximum of 580 spaces. However, the Specific Plan identifies development of additional parking to meet future demands. This impact is considered less than significant.*

The development of additional residential and commercial land uses in the Plan area would increase the demand for parking in the plan area. The following policies of the Downtown Roseville Specific Plan are intended to ensure sufficient parking is available to serve future needs:

- **Policy 6.6.1:** Provide adequate parking supply for the specific plan area, as a whole.
- **Policy 6.6.2:** Promote shared parking concepts within the downtown core.
    - **Strategy 6.6.2a:** Establish a parking-in-lieu fee to develop and construct public parking garages.
    - **Strategy 6.6.2b:** Develop and implement a Parking Management Plan (PMP) to manage parking supply and demand in the downtown area.
    - **Strategy 6.6.2c:** Reduce the on-site parking requirements directing parking to public facilities.

As part of the Specific Plan's parking management plan (PMP), a GIS-based parking model was developed to estimate parking demand within the Plan area while incorporating shared parking concepts. Based on that model, the Specific Plan would generate demand in excess of its proposed parking supply by a maximum of 580 spaces, which would occur between 12:00 p.m. and 1:00 p.m. Although the Specific Plan includes a policy requiring adequate parking be supplied in the Plan area (Policy 6.6.1), insufficient parking supply is identified to be developed as part of the Specific Plan to serve future, long-term demands in the Plan area. This is considered a potentially significant impact.

IMPACT 4.6-6 Transportation and Circulation—Design. *Implementation of the proposed land uses and transportation facilities in the Plan area may result in hazards due to a design feature. However, policies of the Specific Plan would require circulation improvements in the Plan area to meet design requirements to prevent safety hazards. This impact is considered* ***less than significant****.*

As part of implementing the Specific Plan, new transportation facilities would be constructed and improvements to existing transportation facilities would occur. The design of new or improved transportation facilities could result in a safety hazard. The following policies of the Specific Plan are intended to prevent and minimize, to the greatest extent possible, potential safety hazards:

- **Policy 6.6.3:** To the extent feasible, design parking facilities to blend in with the character of downtown.
- **Policy 6.6.5:** To the extent possible, minimize traffic intrusion from Downtown into the surrounding neighborhoods.
- **Goal 6.5:** Utilize land use concepts, transportation options, parking strategy and special programs to reduce single occupant vehicle trips.

The proposed transportation system within the Plan area would be designed to meet standard design requirements of the City of Roseville. In addition, at many locations (e.g., realignment of Oak Street to Douglas Boulevard), the proposed improvements create a more traditional intersection and would improve safety within the roadway network design and policies of the Specific Plan would not increase or create a safety hazard due to a design feature. Therefore, this impact is considered less than significant.

IMPACT 4.6-7 Transportation and Circulation—Emergency Access. *Implementation of proposed land uses in the Plan area could result in inadequate emergency access because of transportation facility designs and/or increased traffic. However, the Specific Plan has been developed in coordination with the City's fire department to ensure adequate emergency response is available in the Plan area. This impact is considered* ***less than significant****.*

Implementation of the Specific Plan would result in increased traffic, including pedestrian and bicycle traffic, in the Plan area. The Specific Plan was developed through consultation with the City's fire department to ensure adequate access for fire protection vehicles would be maintained throughout the Plan area. Specifically, the

location of a new Fire Station #1 was identified to ensure adequate emergency response to all areas of the City (see Section 4.3, "Public Services," for further discussion). However, the Roseville Police Department expressed concern with traffic congestion that may result from implementation of the Specific Plan (Allison, pers. comm. 2007). New and improved transportation facilities would be constructed in the Plan area as envisioned in the Specific Plan to ensure adequate vehicular and pedestrian movement and access is provided (see Section 4.6.3, *Proposed Circulation Enhancements*, above). Because the Specific Plan has been designed in coordination with the City's fire department, would construct improved transportation facilities, and has been determined to provide adequate emergency access needs in the Plan area, this impact is considered less than significant.

4.6.4 MITIGATION MEASURES

No mitigation measures are necessary for the following less-than-significant impacts.

4.6-3: Transportation and Circulation – Transit.

4.6-4: Transportation and Circulation – Pedestrian and Bicycle.

4.6-6: Transportation and Circulation – Design.

4.6-7: Transportation and Circulation – Emergency Access.

The following mitigation measures are provided for significant traffic impacts.

Mitigation Measure 4.6-1: Transportation and Circulation – Unacceptable Peak Hour LOS at Signalized Study Intersections under Existing Plus Project Conditions.

The Specific Plan would establish a Pedestrian Overlay District within the Plan area. The Pedestrian Overlay District is would construct physical improvements at intersections in the Plan area to encourage pedestrian activity and increase pedestrian safety. Although three signalized intersections in the study area would operate below LOS C, they would be located in the Pedestrian Overlay District which would make the intersections exempt from the City's LOS C policy. Therefore, the project would result in a less-than-significant impact.

Mitigation Measure 4.6-2: Transportation and Circulation – Unacceptable Peak Hour LOS at Signalized Study Intersections under Cumulative (2020) Plus Project Conditions.

The Specific Plan would establish a Pedestrian Overlay District within the Plan area. The Pedestrian Overlay District is would construct physical improvements at intersections in the Plan area to encourage pedestrian activity and increase pedestrian safety. Establishment of a Pedestrian Overlay District would reduce impacts to the Judah Street/Vernon Street and Washington Boulevard/Main Street intersections because it would these intersections exempt from the City's LOS C policy such that the intersections would operate at an acceptable LOS.

The following mitigation measures are identified for the significant impacts under the Cumulative (2020) Plus Project scenario at signalized study intersections:

- **4.6-2a: LOS D at Yosemite Street/Atlantic Street.** The addition of project traffic at this intersection under cumulative 2020 conditions would deteriorate operations from LOS C to LOS D. To mitigate project impacts, the southbound right-turn lane could be restriped as a shared left/right-turn lane. With this restriping, the intersection would operate at an acceptable LOS C. The project would be responsible to pay its fair share toward this improvement. This intersection improvement shall be incorporated into the City of Roseville Capital Improvement Program. Incorporating this intersection improvement into the City's Capital Improvement Program would establish a funding mechanism to collect the remaining funds for this improvement (beyond the project's fair share). Therefore, implementation of the ultimate improvement would be guaranteed and the impact is considered less than significant.

- **4.6-2b: LOS D at Orlando Avenue/Marlin Drive/Cirby Way.** The addition of project traffic at this intersection under cumulative 2020 conditions would deteriorate operations from LOS C to LOS D. To mitigate project impacts, the northbound and southbound approaches should be widened to provide one dedicated left-turn lane, one through lane, and one right-turn lane. With these improvements, the intersection phasing could be modified to provide protected left-turn movements, and would operate at an acceptable LOS C. Please note that, given the curvature of Marlin Drive and Orlando Avenue, the creek just north of the intersection, and right-of-way constraints, the identified mitigation may not be feasible. Therefore, this impact is considered significant and unavoidable.

- **4.6-2c: LOS D at Harding Drive/Estates Drive.** The addition of project traffic at this intersection under cumulative 2020 conditions would deteriorate operations from LOS C to LOS D. To mitigate project impacts, a dedicated southbound right-turn lane would be needed. With this improvement, the intersection would operate at an acceptable LOS C. The project would be responsible to pay a fair share toward this improvement. Please note that existing development is present on all four quadrants of the intersection, limiting the available right-of-way to implement the improvement which may make the identified mitigation infeasible. Therefore, this impact is considered significant and unavoidable.

- **4.6-2d: LOS E at Sunrise Avenue/Eureka Road.** The addition of project traffic at this intersection under cumulative 2020 conditions would deteriorate operations from LOS D to LOS E. To mitigate project impacts, a third eastbound left-turn lane could be added to the intersection. With the improvement, the intersection would operate at LOS D, consistent with the No Project Condition. However, there are potential right-of-way constraints and inherent design complexities of implementing triple left-turn lanes. Therefore, this impact is considered significant and unavoidable.

For each intersection with significant and unavoidable impacts under the Cumulative (2020) Plus Project scenario, a qualitative assessment was performed to assess the increase in average vehicle delay that would occur with implementation of the Plan. As shown in Table 4.6-12 below, the Plan would add up to three seconds in average vehicle delay at these three intersections during the PM peak hour under cumulative (2020) conditions. Although the Plan would increase delay at these three intersections, it is unlikely many drivers would notice a one to three seconds of additional delay.

Table 4.6-12
Cumulative (2020) Conditions – Increase in Delay at Citywide Intersections [1]

Intersection	2020 No Project		2020 Plus Project	
	LOS	Delay	LOS	Delay
Orlando Avenue / Marlin Drive / Cirby Way	C	34	D	35
Harding Blvd. / Estates Drive	C	34	D	35
Sunrise Avenue / Eureka Road	D	55	E	58

[1] The analysis was performed using Circular 212 methodology, which is based on volume-to-capacity ratios. Circular 212 does not measure average vehicle delay. Delay was estimated by comparing volume-to-capacity LOS thresholds to delay-based thresholds provided in the Highway Capacity Manual (TRB, 2000).

Source: Fehr & Peers 2008

Mitigation Measure 4.6-5: Transportation and Circulation—Parking.

To mitigate parking impacts for the Plan area, the project shall provide an additional 580 parking spaces. This shall be accommodated by providing extra spaces within the three planned parking structures, providing additional public parking spaces (as part of developing and implementing the Parking Management Plan), or require development to provide additional parking (e.g., in-lieu fees). With implementation of these measures, the impact would be reduced to a ***less-than-significant*** level.

4.6.5 RESIDUAL SIGNIFICANT IMPACTS

Readers are advised that because long-term traffic analyses inherently deal with "cumulative impacts" as defined by CEQA, the payment of fair-share fees constitutes mitigation for the project's incremental contribution to significant cumulative impacts caused by the project together with other past, present, and reasonably foreseeable future projects. CEQA specifically authorizes the use of such fair-share payments to mitigate a project's incremental contribution to such impacts to less-than-cumulatively-considerable (i.e., less-than-significant) levels (State CEQA Guidelines Section 15130[b][3]). However, because the remaining funding for the identified improvements has not been identified and implementation of measures to effectively mitigate the impact are uncertain, the impacts are considered to remain significant and unavoidable. For these reasons and as described above in Section 4.6.4, "Mitigation Measures," the following impacts would remain significant and unavoidable:

4.6-2a: LOS D at Yosemite Street/Atlantic Street.

4.6-2b: LOS D at Orlando Avenue/Marlin Drive/Cirby Way.

4.6-2c: LOS D at Harding Drive/Estates Drive.

4.6-2d: LOS E at Sunrise Avenue/Eureka Road.

4.6.6 COMMENTS ON THE NOTICE OF PREPARATION

The City of Roseville received a comment letter from the Sacramento County Department of Transportation responding to the Notice of Preparation. The letter asked that if the project added significant traffic to Sacramento County facilities (primarily in the Antelope area), they should be included in the assessment. The 2020 (or cumulative year) absorption anticipated by the proposed project is anticipated to exceed current entitled development within the Plan area by less than 70,000 square feet of development. Therefore, the additional development was incorporated into the base year SACMET regional travel demand forecasting model (the forecasting model used to assess development projects in Sacramento County) to determine if the increased 2020 development would satisfy traffic levels identified in the County's guidelines for requiring a traffic impact study. The County's guidelines identify a traffic impact study is required when a project would add a minimum of 100 peak hour trips to study area intersections. The results indicate that the increased development from the proposed project would add less than 100 peak hour trips to the intersections in the Antelope area. Based on the Sacramento County guidelines and because the proposed project would not add more than 100 peak hour trips to Sacramento County facilities, no traffic impact study would be required and the identified facilities in that area are not assessed.