Transportation Impact Report
NewBridge Specific Plan

prepared for:
Sacramento County
Community Development PERD

Prepared by
DKS Associates

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1. INTRODUCTION

1.1 STUDY DEFINITION

This transportation analysis discusses existing and cumulative transportation and circulation conditions associated with the implementation of the NewBridge Specific Plan development. In addition, the report discusses the combined effects of implementing the following four developments (FOUR PROJECTS):

- West Jackson Highway Master Plan (West Jackson)
- Jackson Township Specific Plan (Jackson Township)
- NewBridge Specific Plan (NewBridge)
- Mather South Specific Plan Amendment (Mather South)

The FOUR PROJECTS are located adjacent to each other in the Jackson Road corridor. Because of this proximity and the concurrent entitlement process, the transportation analysis addresses the combined effects of the FOUR PROJECTS on existing and cumulative transportation and circulation conditions.

Figure 1.1 illustrates the location of the NewBridge project. The NewBridge project is located in unincorporated Sacramento County, generally east of the City of Sacramento and south of the City of Rancho Cordova and Mather Airport. It is bounded on the south by Jackson Road (SR 16), on the east by Sunrise Boulevard, and on the north by existing and future Kiefer Boulevard. The western boundary is located west of Eagles Nest Road.

For more details of the West Jackson, Jackson Township, and Mather South projects, please refer to Section 4.1.

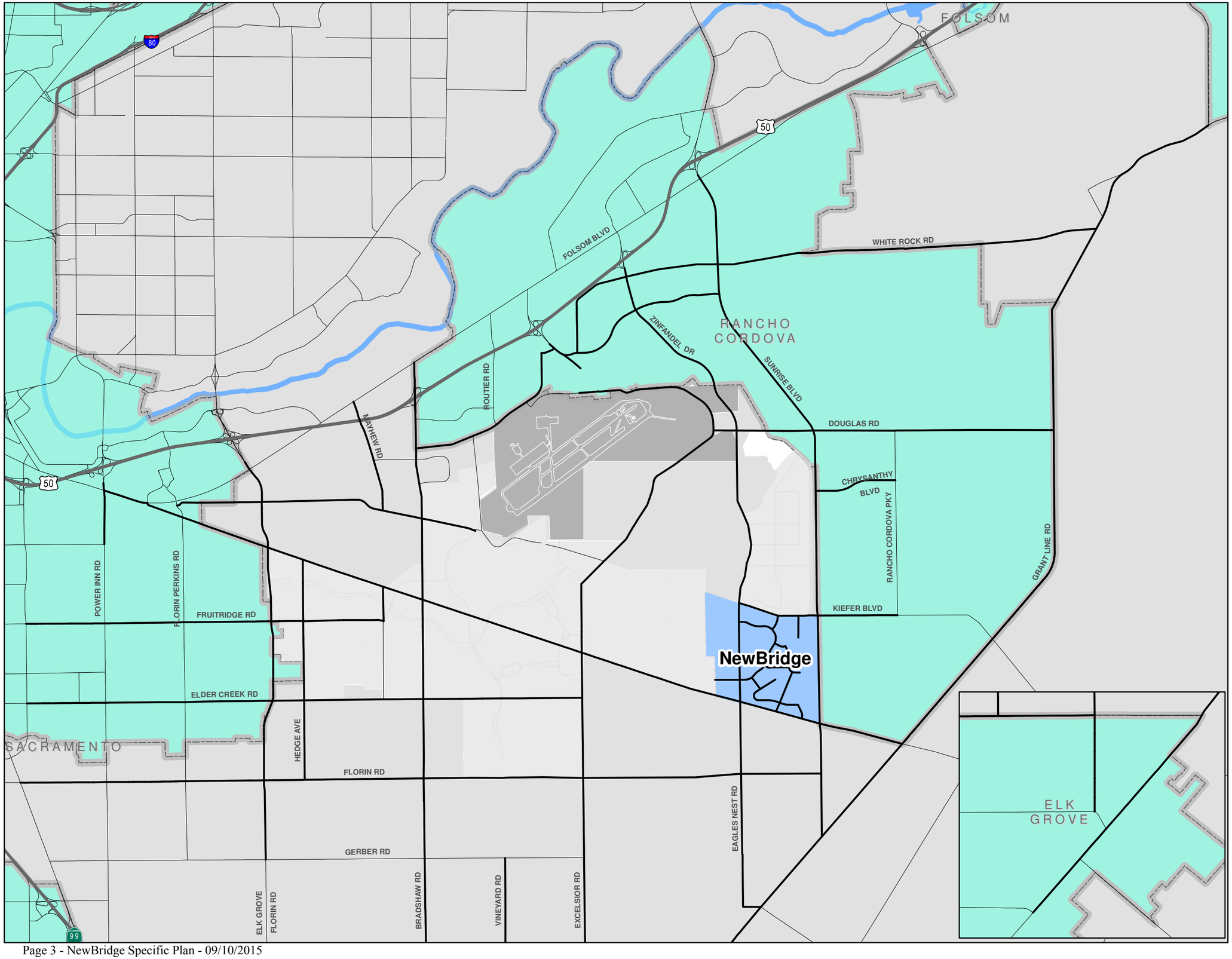
Other development projects in the vicinity are included in the California Environmental Quality Act (CEQA) cumulative analysis scenarios and are discussed in Section 6.1.1.

The transportation analysis documented in this report includes consideration of vehicular traffic impacts on roadway and intersection capacity and safety, transit impacts, and bicycle and pedestrian facility impacts. Quantitative transportation analyses have been conducted for the following scenarios, summarized in Table 1.1:

- Existing (without FOUR PROJECTS)
- Existing Plus NewBridge Project
- Existing Plus FOUR PROJECTS (West Jackson, Jackson Township, NewBridge, and Mather South developments)
- MTP Cumulative (without FOUR PROJECTS)
- MTP Cumulative Plus FOUR PROJECTS
- CEQA Cumulative (without FOUR PROJECTS)
- CEQA Cumulative Plus FOUR PROJECTS
- CEQA Cumulative Plus NewBridge Project

The scenarios followed by the notation "(without FOUR PROJECTS)" contain no development, beyond existing levels, within the boundaries of the West Jackson, Jackson Township, NewBridge, and Mather South projects.

FIGURE 1.1
NEWBRIDGE PROJECT
PROJECT LOCATION



Legend

- NB Study Roadway Segments
- Freeways
- Other Major Roadways

Name

- NewBridge Project
- Cities
- Mather Airport

Table 1.1: Analysis Scenarios			
Scenario	**Land Use**	**Base Transportation Network**	**Project Improvements**
Existing	Existing	Existing	None
Existing Plus NewBridge	Existing Plus NewBridge	Existing	NewBridge Project
Existing Plus FOUR PROJECTS	Existing Plus West Jackson, Jackson Township, New Bridge, and Mather South	Existing	West Jackson Project Jackson Township Project NewBridge Project Mather South Project
MTP Cumulative	2035 Development Levels without FOUR PROJECTS	Year 2035 (Based on 2012 MTP)	None
MTP Cumulative Plus FOUR PROJECTS	2035 Development Levels plus West Jackson, Jackson Township, New Bridge, and Mather South	Year 2035 (Based on 2012 MTP)	West Jackson Project Jackson Township Project NewBridge Project Mather South Project
CEQA Cumulative	2035 Development Levels (SACOG Projections), Build Out of Additional Readily Foreseeable Projects in Study Area, without FOUR PROJECTS	Year 2035 (Based on 2012 MTP) Plus Improvements Fully Funded by Additional Readily Foreseeable Projects in Study Area	None
CEQA Cumulative Plus FOUR PROJECTS	2035 Development Levels (SACOG Projections), Build Out of Additional Readily Foreseeable Projects in Study Area, plus West Jackson, Jackson Township, New Bridge, and Mather South	Year 2035 (Based on 2012 MTP) Plus Improvements Fully Funded by Additional Readily Foreseeable Projects in Study Area	West Jackson Project Jackson Township Project NewBridge Project Mather South Project
CEQA Cumulative Plus NewBridge Project	Estimation of NewBridge Project Impacts based upon CEQA Cumulative Plus FOUR PROJECTS scenario		
Source: *DKS Associates, 2014.*			

1.2 STUDY AREA

For transportation analysis purposes, a set of existing, proposed, and future intersections, roadway segments, and freeway facilities were selected based upon the anticipated volume of additional traffic, the distributional patterns of traffic, and known locations of operational difficulty. The Sacramento County Department of Transportation, Caltrans, City of Sacramento, City of Rancho Cordova, City of Elk Grove, City of Folsom, and Capital Southeast Corridor Joint Powers Authority were consulted. Figures 1.2 through 1.4 illustrate the study area, which was agreed to by all of the above jurisdictions and agencies.

1.3 ANALYSIS METHODOLOGY

1.3.1 Forecasting

In this transportation analysis, the forecasting of travel patterns and volumes for each of the scenarios was developed through utilization of the Sacramento Area Council of Governments' (SACOG's) SACSIM travel model. SACSIM is an "activity-based" model that tracks the travel of individuals throughout the day in trip "tours", and allocates household and employment to the parcel level. This allows the model to capture smaller-scale land use changes and differences. SACSIM is sensitive to the local physical environment, including the presence (or absence) of pedestrian and bicycle facilities, the patterns of local street networks (e.g., grid vs. cul-de-sacs), and the density, proximity and mix of surrounding land uses (i.e. employment destinations, schools, retail, parks, etc.). SACSIM forecasts automobile, transit, bicycle, and walk trips. SACSIM requires a detailed definition of household population/demographics and employment by type at a parcel-level of geography. During the analysis, SACOG staff assisted in developing household population and demographics within the study area, and was consulted to ensure consistency with the latest and most appropriate modeling procedures and databases.

1.3.2 Operations Analysis

Field reconnaissance was undertaken to ascertain the traffic control and capacity characteristics of each of the study area intersections, roadway segments, and freeway elements. Combined with known or projected traffic volumes, these characteristics enable the calculation of performance measures. Levels of service are a quantitative stratification of performance measures that represent quality of service. There are six levels of service, ranging from A to F. LOS A represents the best operating conditions from the traveler's perspective and LOS F the worst. The specific performance measures that define LOS vary by type of transportation facility, and are discussed in the following sections.

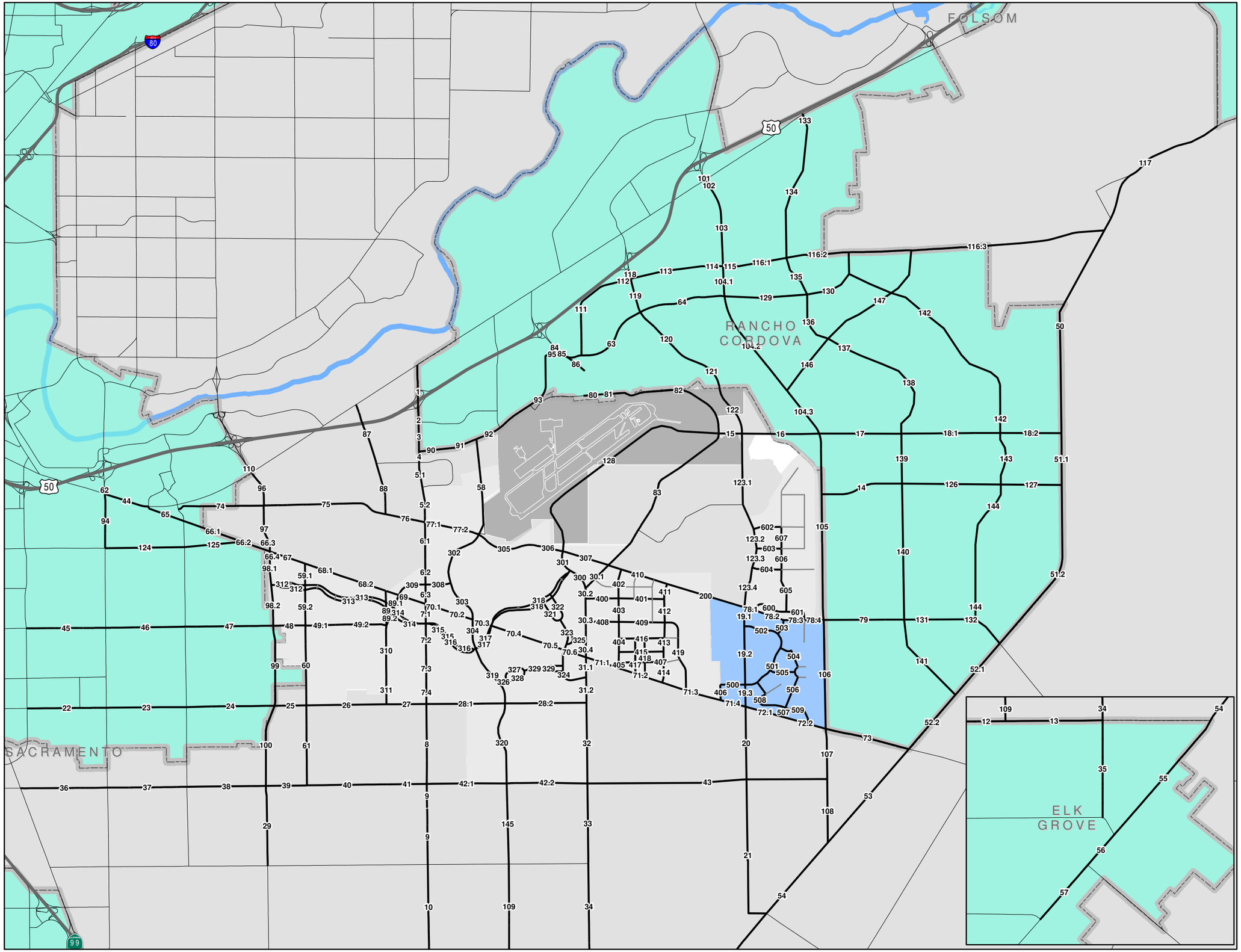


FIGURE 1.2
STUDY AREA MAP
ROADWAY SEGMENTS

Legend

- Study Roadway Segments
- Other Project Roadways
- Freeways
- Other Major Roadways
- NewBridge Project
- Cities
- Mather Airport

DKS

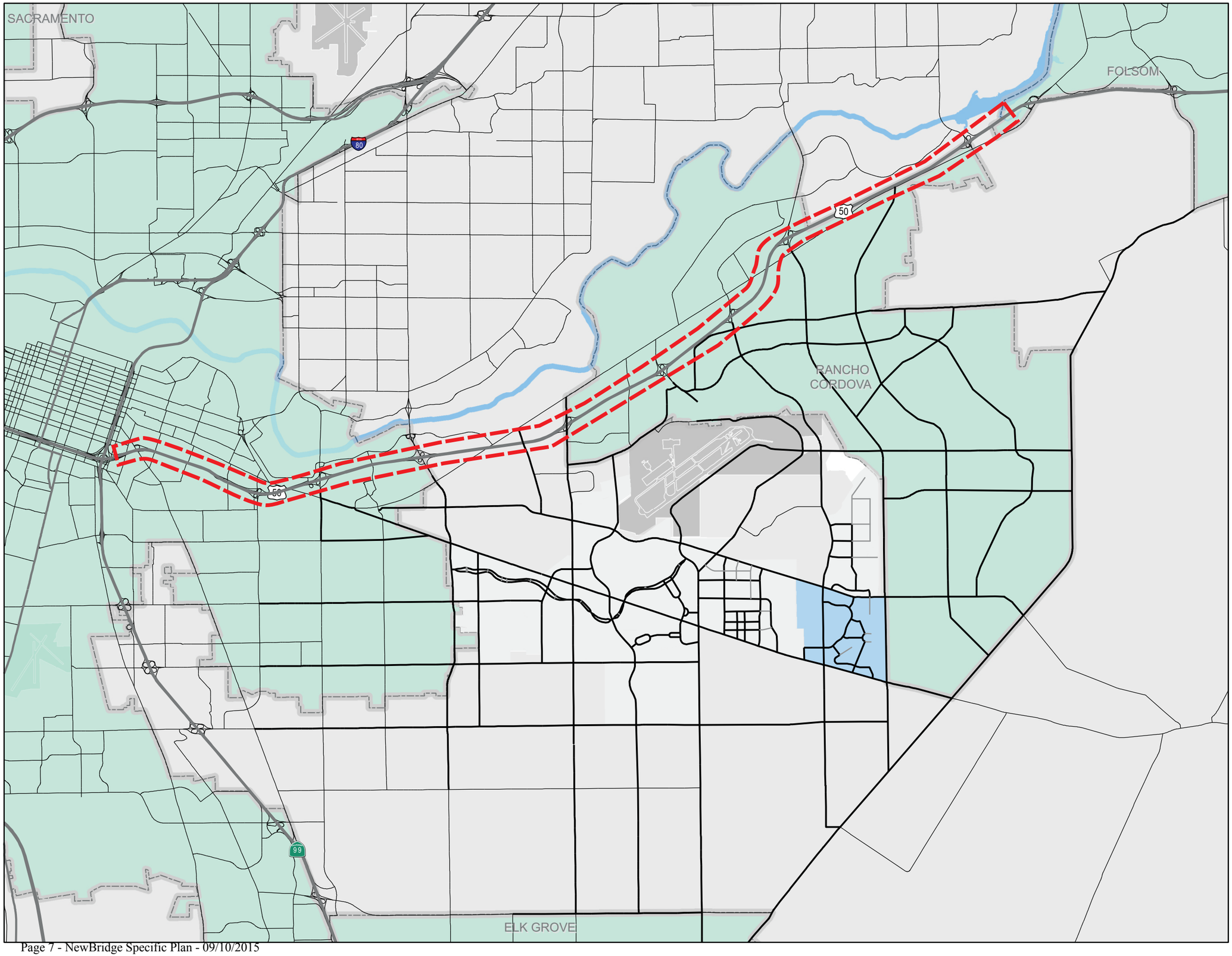


FIGURE 1.3
FREEWAY STUDY AREA

Legend

- Freeway Study Area
- Study Roadway Segments
- Other Project Roadways
- Freeways
- Other Major Roadways
- NewBridge Project
- Cities
- Mather Airport

FIGURE 1.4
STUDY AREA MAP
INTERSECTIONS

Legend

Study Intersections

- Existing
- Future Outside Project Boundaries
- Shared Between Two Projects
- West Jackson
- Jackson Township
- NewBridge
- Mather South

- Study Roadways
- Freeways
- Other Major Roadways
- NewBridge Project
- Cities
- Mather Airport

1.3.2.1 Roadway Segment Analysis

Level of service analyses were conducted for roadway segments in the study area based upon daily traffic volumes, number of traffic lanes between intersections, and roadway characteristics. In this methodology, study area roadways are stratified into "capacity class" categories for level of service determination, as shown in Tables 1.2 and 1.3, for Sacramento County and the City of Sacramento, respectively. The Sacramento County criteria were also utilized for segments in the City of Rancho Cordova and City of Elk Grove, as these jurisdictions utilize the same roadway segment level of service criteria.

The capacity class categories are based upon the nature of traffic flow along the facility, including number of interruptions due to intersection control and "side-friction" due to driveways and local streets. For each capacity class, relationships were developed between daily traffic volumes and roadway level of service.

Tables 1.2 and 1.3 summarize the maximum daily traffic volumes associated with each level of service designation and capacity class combination. Although the segment-based level of service calculations are based upon daily traffic volumes, the resultant levels of service are representative of peak hour conditions. While a roadway segment's daily capacity could theoretically be very high if traffic were spread evenly throughout the 24-hour period, this is clearly not a realistic condition. The daily roadway segment capacity methodology takes into account typical peak hour volume profiles, as well as the effects of signalized intersections in reducing the roadway's carrying capacity. With good signal timing, spacing, and additional intersection capacity improvements (e.g. additional turn lanes, overlap phasing), a segment would be able to carry more vehicles than one having less-than-ideal intersection conditions.

1.3.2.2 Intersection Analysis

For signalized and unsignalized intersections, operational analyses were conducted using a methodology outlined in the Transportation Research Board's *Highway Capacity Manual, 2000* (HCM 2000) and *Highway Capacity Manual, 2010* (HCM 2010). The HCM 2010 methodology was used in all locations except where signalized intersection characteristics deemed the methodology inappropriate. These locations include intersections with unconventional signal phasing, and locations adjacent to light rail tracks where additional delay occurs due to light rail operations. In the selected locations, the HCM 2000 methodology was employed.

The methodology utilized is known as an "operational analysis". This procedure calculates an average control delay per vehicle for each movement at an intersection, and assigns a level of service designation based upon the average delay per vehicle. Table 1.4 presents the level of service criteria for signalized and unsignalized intersections based on the HCM methodology.

Table 1.2: Daily Volume Threshold For Roadway Segments (Sacramento County)

Roadway Capacity Class	Number of Lanes	Daily Volume Threshold (Level of Service)				
		LOS A	LOS B	LOS C	LOS D	LOS E
Residential	2	600	1,200	2,000	3,000	4,500
Residential Collector with Frontage	2	1,600	3,200	4,800	6,400	8,000
Residential Collector without Frontage	2	6,000	7,000	8,000	9,000	10,000
Arterial, Low Access Control	2	9,000	10,500	12,000	13,500	15,000
	4	18,000	21,000	24,000	27,000	30,000
	6	27,000	31,500	36,000	40,500	45,000
Arterial, Moderate Access Control	2	10,800	12,600	14,400	16,200	18,000
	4	21,600	25,200	28,800	32,400	36,000
	6	32,400	37,800	43,200	48,600	54,000
Arterial, High Access Control	2	12,000	14,000	16,000	18,000	20,000
	4	24,000	28,000	32,000	36,000	40,000
	6	36,000	43,000	48,000	54,000	60,000
Rural, 2-lane Highway	2	2,400	4,800	7,900	13,500	22,900
Rural, 2-lane Road, 24' - 36' of pavement, Paved Shoulders	2	2,200	4,300	7,100	12,200	20,000
Rural, 2-lane Road, 24' - 36' of pavement, No Shoulders	2	1,800	3,600	5,900	10,100	17,000

Roadway Capacity Class	Stops per Mile	Driveways	Speed
Arterial, Low Access Control	4 +	Frequent	25 – 35 mph
Arterial, Moderate Access Control	2 – 4	Limited	35 – 45 mph
Arterial, High Access Control	1 - 2	None	45 – 55 mph

Note: *LOS = level of service*

Source: *Traffic Impact Analysis Guidelines, County of Sacramento Department of Transportation, July 2004.*

Table 1.3: Daily Volume Threshold For Roadway Segments (City of Sacramento)						
Roadway Capacity Class	**Number of Lanes**	**Daily Volume Threshold (Level of Service)**				
		LOS A	**LOS B**	**LOS C**	**LOS D**	**LOS E**
Arterial, Low Access Control	2	9,000	10,500	12,000	13,500	15,000
	4	18,000	21,000	24,000	27,000	30,000
	6	27,000	31,500	36,000	40,500	45,000
Arterial, Moderate Access Control	2	10,800	12,600	14,400	16,200	18,000
	4	21,600	25,200	28,800	32,400	36,000
	6	32,400	37,800	43,200	48,600	54,000
Arterial, High Access Control	2	12,000	14,000	16,000	18,000	20,000
	4	24,000	28,000	32,000	36,000	40,000
	6	36,000	43,000	48,000	54,000	60,000
Collector, minor	2	5,250	6,125	7,000	7,875	8,750
Residential	2	3,000	3,500	4,000	4,500	5,000

Roadway Capacity Class	**Stops per Mile**	**Driveways**	**Speed**
Arterial, Low Access Control	4 +	Frequent	25 – 35 mph
Arterial, Moderate Access Control	2 – 4	Limited	35 – 45 mph
Arterial, High Access Control	1 - 2	None	45 – 55 mph

Note: *LOS = level of service*

Source: *City of Sacramento Traffic Impact Analysis Guidelines, 1996; City of Sacramento, Department of Transportation Staff, 2007.*

Table 1.4: Level of Service Criteria (Intersections)		
Level of Service (LOS)	**Total Delay Per Vehicle (seconds)**	
	Signalized Intersections	**Unsignalized Intersections**
A	≤ 10	≤ 10
B	> 10 and ≤ 20	> 10 and ≤ 15
C	> 20 and ≤ 35	> 15 and ≤ 25
D	> 35 and ≤ 55	> 25 and ≤ 35
E	> 55 and ≤ 80	> 35 and ≤ 50
F	> 80	> 50
Source: *HCM 2010 Highway Capacity Manual, Transportation Research Board, Washington, D.C., 2010.*		

1.3.2.3 Traffic Signal Warrant Analysis

Traffic signals are valuable devices for the control of motor vehicle, pedestrian, and bicycle traffic. However, because they assign the right-of-way to the various traffic movements, signals exert a profound influence on traffic flow. Properly located and operated control signals may provide for the orderly movement of traffic (motor vehicle, pedestrian, and bicycle), increase the traffic-handling capacity of an intersection, and reduce the frequency of certain types of crashes. After extensive study and analysis, the Federal Highway Administration and Caltrans developed traffic signal warrants. These warrants define minimum conditions under which signal installations may be justified. Traffic control signals should not be installed unless one or more of the signal warrants are met. However, the satisfaction of a warrant or warrants is not in itself justification for a signal. Every situation is unique and warrant guidelines must be supplemented by the review of specific site conditions and the application of good engineering judgment. Installation of a traffic signal should improve the overall safety and/or operation of an intersection and should be considered only when deemed necessary by careful traffic analysis and after less restrictive solutions have been attempted.

1.3.2.4 Freeway Analysis

Freeway mainline segments, ramp junctions, and weaving segments were analyzed utilizing methodologies outlined in the HCM 2010. Table 1.5 presents the level of service criteria for the freeway mainline, freeway ramp junctions, and freeway weaving segments.

1.4 LEVEL OF SERVICE POLICIES

For analysis purposes, each of the study area roadway segments, intersections, and freeway elements was assigned to a particular jurisdiction (County of Sacramento, City of Sacramento, City of Rancho Cordova, City of Elk Grove, City of Folsom, or Caltrans) for purposes of specifying acceptable traffic operating conditions (level of service) and standards of significance for impact determination. In cases where transportation elements are located on a jurisdictional boundary, the more conservative (e.g., LOS D rather than LOS E) policy was utilized.

1.4.1 County of Sacramento

The County of Sacramento has the following level of service policy:

> *Plan and design the roadway system in a manner that meets Level of Service (LOS) D on rural roadways and LOS E on urban roadways, unless it is infeasible to implement project alternatives or mitigation measures that would achieve LOS D on rural roadways or LOS E on urban roadways. The urban areas are those areas within the Urban Service Boundary as shown in the Land Use Element of the Sacramento County General Plan. The areas outside the Urban Service Boundary are considered rural.*[1]

1 Sacramento County General Plan, amended November 9, 2011, Circulation Element Policy CI-9.

Table 1.5: Level of Service Criteria (Freeway)			
Level of Service (LOS)	**Maximum Density (Passenger Cars Per Mile Per Lane)**		
	Mainline	**Ramp Junctions**	**Weaving Segments**
A	≤ 11	≤ 10	≤ 10
B	> 11 and ≤ 18	> 10 and ≤ 20	> 10 and ≤ 20
C	> 18 and ≤ 26	> 20 and ≤ 28	> 20 and ≤ 28
D	> 26 and ≤ 35	> 28 and ≤ 35	> 28 and ≤ 35
E	> 35 and ≤ 45	> 35	> 35
F	> 45	Demand Exceeds Capacity	Demand Exceeds Capacity
Source: *HCM 2010 Highway Capacity Manual, Transportation Research Board, Washington, D.C., 2010.*			

The county roadway segments and intersections in the study area are located within the Urban Service Boundary. Therefore, the LOS E standard applies.

1.4.2 City of Sacramento

The Mobility Element of the City of Sacramento 2030 General Plan outlines goals and policies that coordinate the transportation and circulation system with planned land uses. The City of Sacramento has the following level of service policy relevant to this study:

> ***Policy M 1.2.2 LOS Standard.*** *The City shall allow for flexible Level of Service (LOS) standards, which will permit increased densities and mix of uses to increase transit ridership, biking, and walking, which decreases auto travel, thereby reducing air pollution, energy consumption, and greenhouse gas emissions.*
>
> *…*
>
> *b.* ***Level of Service Standard for Multi-Modal Districts*** *– The City shall seek to maintain the following standards in the Central Business District, in areas within ½ mile walking distance of light rail stations, and in areas designated for urban scale development (Urban Centers, Urban Corridors, and Urban Neighborhoods as designated in the Land Use and Urban Form Diagram). These areas are characterized by frequent transit service, enhanced pedestrian and bicycle systems, a mix of uses, and higher density development.*
>
> - *Maintain operations on all roadways and intersections at LOS A-E at all times, including peak travel times, unless maintaining this LOS would, in the City's judgment, be infeasible and/or conflict with the achievement of other goals. LOS F conditions may be acceptable, provided that provisions are made to improve the overall system and/or promote non-vehicular transportation and transit as part of a development project or a City-initiated project.*
>
> *c.* ***Base Level of Service Standard*** *– the City shall seek to maintain the following standards for all areas outside of multi-modal districts.*
>
> - *Maintain operations on all roadways and intersections at LOS A-D at all times, including peak travel times, unless maintaining this LOS would, in the City's judgment, be infeasible and/or conflict with the achievement of other goals. LOS E or F conditions may be accepted, provided that provisions are made to improve the overall system and/or promote non-vehicular transportation as part of a development project or a City-initiated project.*

d. ***Roadways Exempt from Level of Service Standard*** – *The above LOS standards shall apply to all roads, intersections, or interchanges within the City except as specified below. If a Traffic Study is prepared and identifies a significant LOS impact to a roadway or intersection that is located within one of the roadway corridors described below, the project would not be required in that particular instance to widen roadways in order for the City to find project conformance with the General Plan. Instead, General Plan conformance could still be found if the project provides improvements to other parts of the city wide transportation system in order to improve transportation-system-wide roadway capacity, to make intersection improvements, or to enhance non-auto travel modes in furtherance of the General Plan goals. The improvements would be required within the project site vicinity or within the area affected by the project's vehicular traffic impacts. With the provision of such other transportation infrastructure improvements, the project would not be required to provide any mitigation for vehicular traffic impacts to the listed road segment in order to conform to the General Plan.*

- *12th/14th Avenue: State Route 99 to 36th Street*
- *24th Street: Meadowview Road to Delta Shores Circle*
- *65th Street: Folsom Boulevard to 14th Avenue*
- *Alhambra Boulevard: Folsom Boulevard to P Street*
- *Arcade Boulevard: Marysville Boulevard to Del Paso Boulevard*
- *Arden Way: Capital City Freeway to Ethan Way*
- *Blair Avenue/47th Avenue: S. Land Park Drive to Freeport Boulevard*
- *Broadway: 15th Street to Franklin Boulevard*
- *Broadway: 58th to 65th Streets*
- *El Camino Avenue: Stonecreek Drive to Marysville Boulevard*
- *El Camino Avenue: Capital City Freeway to Howe Avenue*
- *Elder Creek Road: 65th Street to Power Inn Road*
- *Florin Perkins Road: 14th Avenue to Elder Creek Road*
- *Florin Road: Greenhaven Drive to I-5; 24th Street to Franklin Boulevard*
- *Folsom Boulevard: 34th Street to Watt Avenue*
- *Freeport Boulevard: Broadway to Seamas Avenue*
- *Fruitridge Road: Franklin Boulevard to SR 99*
- *Garden Highway: Truxel Road to Northgate Boulevard*
- *Howe Avenue: American River Drive to Folsom Boulevard*
- *J Street: 43rd Street to 56th Street*
- *Mack Road: Meadowview Road to Stockton Boulevard*
- *Martin Luther King Boulevard: Broadway to 12th Avenue*
- *Marysville Boulevard: I-80 to Arcade Boulevard*
- *Northgate Boulevard: Del Paso Road to SR 160*
- *Raley Boulevard: Bell Avenue to I-80*
- *Roseville Road: Marconi Avenue to I-80*

- *Royal Oaks Drive: SR 160 to Arden Way*
- *Truxel Road: I-80 to Gateway Park*[2]

1.4.3 City of Rancho Cordova

The City General Plan Circulation Element has the following level of service policy:

> ***Policy C.1.2*** *- Seek to maintain operations on all roadways and intersections at Level of Service D or better at all times, including peak travel times, unless maintaining this Level of Service would, in the City's judgment, be infeasible and / or conflict with the achievement of other goals. Congestion in excess of Level of Service D may be accepted in these cases, provided that provisions are made to improve traffic flow and / or promote non-vehicular transportation as part of a development project of a City-initiated project.*[3]

1.4.4 City of Elk Grove

The City General Plan Circulation Element has the following level of service policy:

> ***CI-13*** *- The City shall require that all roadways and intersections in Elk Grove operate at a minimum Level of Service "D" at all times.*[4]

1.4.5 City of Folsom

Policy 17.17 of the City of Folsom General Plan identifies the minimum acceptable level of service for traffic operations in the City. Specifically, this policy states:

> *The City should strive to achieve at least a traffic Level of Service 'C' throughout the City.*[5]

As part of the Folsom South of U.S. Highway 50 Specific Plan, the level of service policy for the portion of the City of Folsom to be located south of US 50 is amended as follows:

> *The City should strive to achieve at least a traffic Level of Service "C" within the Folsom South of US 50 Specific Plan. For roadways and intersections within the Specific Plan, LOS "D" conditions may be considered on a case by case basis if improvements required to meet LOS "C" exceeds the "normally accepted maximum" improvements established by the City.*[6]

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2 Sacramento 2030 General Plan, Master Environmental Impact Report, Certified March 3, 2009.
3 City of Rancho Cordova General Plan Circulation Element, June 26, 2006.
4 Elk Grove General Plan Circulation Element, Adopted November 19, 2003, Reflects Amendments through July 22, 2009.
5 City of Folsom General Plan, 1993.
6 Folsom South of U.S. Highway 50 Specific Plan DEIR/DEIS, June 2010.

1.4.6 Caltrans

The standards for Caltrans' facilities in the study area are detailed in the U.S. 50 Corridor System Management Plan (CSMP)[7] and the SR 16 Route Concept Report[8]. Typical Concept LOS standards in Caltrans District 3 are LOS "D" in rural areas and LOS "E" in urban areas. The 20-Year Concept LOS for U.S. 50 in the study area is LOS F, because improvements necessary to improve the LOS to E are not feasible due to environmental, right-of-way, financial, and other constraints. Although the US 50 CSMP allows LOS F, standards of significance hold that any increase in volume would constitute an impact. For SR 16, LOS E is considered the minimum acceptable operating condition.

1.5 SIGNIFICANCE CRITERIA

In accordance with CEQA, the effects of a project are evaluated to determine if they will result in a significant adverse impact on the environment. The standards of significance in this analysis are based upon current practice of the appropriate regulatory agencies.

1.5.1 Roadways Segments and Intersections

Table 1.6 summarizes the significance criteria for intersections and roadway segments for Sacramento County, the City of Sacramento, the City of Rancho Cordova, the City of Elk Grove, and the City of Folsom.

1.5.2 Freeway Facilities

Caltrans considers the following to be significant impacts:

- Off-ramps with vehicle queues that extend into the ramp's deceleration area or onto the freeway.
- Project traffic increases that cause any ramp's merge / diverge level of service to be worse than the freeway's level of service.
- Project traffic increases that cause the freeway level of service to deteriorate beyond level of service threshold defined in the Caltrans Route Concept Report for the facility.
- The expected ramp queue is greater than the storage capacity.

7 Highway 50 Corridor System Management Plan, May 2009.
8 Transportation Corridor Concept Report, State Route 16, June 26, 2012.

Table 1.6: Level of Service Standards and Thresholds of Significance

Jurisdiction	Area	LOS Policy	Thresholds of Significance			Notes
			Signalized Intersection	Unsignalized Intersection	Roadway Segment	
County of Sacramento	Inside Urban Service Boundary	E	> 5 seconds (intersection average)	> 5 seconds (movement / approach) and meet traffic signal warrant	> .05 V/C	
	Outside Urban Service Boundary	D				
City of Sacramento	Base	D	≥ 5 seconds (intersection average)		≥ .02 V/C	Deficient LOS may be accepted provided provisions are made to improve the overall system and / or promote non-vehicular transportation
	Exempt Areas	E / F				
City of Elk Grove	All	D	≥ 5 seconds (intersection average)		≥ .05 V/C	
City of Folsom	Base	C	≥ 5 seconds (intersection average)		Not Applicable	
	South of US 50 Specific Plan	D				
City of Rancho Cordova	All	D	> 5 seconds (intersection average)	> 5 seconds (movement / approach) and meet traffic signal warrant	> .05 V/C	

Sources: *Traffic Impact Analysis Guidelines, County of Sacramento, July 2004; Sacramento 2030 General Plan, Master Environmental Impact Report, Certified March 3, 2009; Elk Grove General Plan Circulation Element, Adopted November 19, 2003, Reflects Amendments through July 22, 2009; City of Folsom General Plan, 1993; Folsom South of U.S. Highway 50 Specific Plan DEIR/DEIS, June 2010; City of Rancho Cordova General Plan Circulation Element, June 26, 2006.*

Note: V/C refers to volume-to-capacity ratio.

1.5.3 Bicycle and Pedestrian Facilities

Impacts to bicycle and pedestrian facilities are considered significant if the proposed project would:

- Eliminate or adversely affect an existing bikeway or pedestrian facility in a way that would discourage its use;
- Interfere with the implementation of a planned bikeway as shown in the Bicycle Master Plan, or be in conflict with the Pedestrian Master Plan; or
- Result in unsafe conditions for bicyclists or pedestrians, including unsafe bicycle / pedestrian, bicycle / motor vehicle, or pedestrian / motor vehicle conflict.

1.5.4 Transit

Impacts to the transit system are considered significant if the proposed project would:

- Adversely affect public transit operations; or,
- Fail to adequately provide access to transit.

1.5.5 Rural Roadway Functionality

Of specific concern in the study area of this project is the functionality of substandard rural roadways. The County's current rural roadway standard consists of two-twelve foot wide travel lanes and six-foot wide paved shoulders. Therefore, any rural roadway not fitting this definition can be considered substandard.

Many of the existing rural roadways in the study area have travel lanes as narrow as 10 feet wide with no roadside shoulders. These roadways were constructed many years ago and tended to serve as roadway connections between small towns and communities and to serve as farm to market roadways. While these narrow roadways have adequately served the travel demand of the historical past, they are not intended to serve the greater travel demands that nearby residential and commercial development may impose.

The County expects that the functionality of these roadways will change with nearby development, the increase in population, the introduction of various modes of travel in the study area, and the addition of project traffic on these substandard roadways. No longer will these roadways only serve farm to market and small communities. With these changes in functionality of the roadway comes the possibility of increased interactions between varying modes of travel (i.e. pedestrians, bicyclists, etc.) as well as the increased interaction between a greater number of vehicles on substandard roads.

General Plan Policy CI-1 states *Provide complete streets to provide safe and efficient access to a diversity of travel modes for all urban, suburban and rural land uses within Sacramento County. Within rural areas of the County, a complete street may be accommodated through roadway shoulders of sufficient width or other means to accommodate all modes of travel.*

General Plan Policy CI-7 states *Plan and construct transportation facilities as delineated on the Transportation Plan of the Sacramento County General Plan. Transportation facilities shall be consistent with the Sacramento County, Municipal Services Agency Improvement Standards…*

General Plan Policy CI-10 states *Land development projects shall be responsible to mitigate the project's adverse impacts to local and regional roadways.*

Therefore, the County has applied an impact standard to these substandard roadways as follows:

Impacts to substandard rural roadway functionality are considered significant if the proposed project would:

- Cause the substandard rural roadway to exceed an average daily traffic volume of 6,000 daily vehicles; or

- Add 600 or more new daily vehicle trips to a substandard rural roadway that already carries 6,000 or more daily vehicles.

Significant impacts shall be mitigated by requiring reconstruction of the substandard rural roadway to the County standard of 12-foot vehicle lanes with 6-foot paved shoulders.

1.6 DEVELOPMENT OF MITIGATION MEASURES

This transportation analysis includes the development of mitigation measures for those impacts that have been determined to exceed the level of service policies. Important considerations in the development of such mitigation measures are feasibility, consistency with the General Plan and secondary impacts. While most impacts could theoretically be mitigated by adding more traffic lanes, grade separations, new roadways, and other similar measures, such mitigation may not be consistent with public policy, and could result in secondary impacts to the environment and other users.

The Sacramento County General Plan Circulation Element provides guidance regarding the development of mitigation measures. In particular, the Circulation Element specifies the maximum number of through lanes for major County roadways. The General Plans of the other jurisdictions in the study area provide similar guidance. In general, for those impacts that exceed the level of service policies, mitigation measures have been developed for the widening of roadway segments to accommodate additional travel lanes up to the maximum number of lanes designated in the general plans.

Similarly, the County and other jurisdictions have typical intersection cross-sections. In general, on each approach to an intersection on a four-lane or six-lane roadway, the typical cross-section includes two left turn lanes, the appropriate number of through lanes (two or three), and a single right turn lane. Exceptions to the typical intersection geometry will be considered on a case-by-case basis and in special circumstances. Mitigation measures that exceed the typical intersection geometry will be noted as so.

In the development of mitigation measures, the number of roadway segment lanes and intersection lanes has been expanded, where appropriate, to reduce impacts. In most cases, the mitigation measure does not exceed the maximum number of roadway lanes identified in the General Plans nor exceeds the typical intersection geometry. In some cases, mitigation measures consistent with the General Plan and the typical intersection geometry may not reduce the impact consistent with the level of service policies. In these cases, an alternative mitigation measure may be considered that may necessitate an amendment to the County's General Plan or deviate from the typical intersection geometry. In other cases where the roadway is already constructed to the full General Plan designation or an intersection is already constructed to the standard intersection geometry and no alternative mitigation measure is feasible, no mitigation measure may be available to reduce the impacts.

1.7 HIGH CAPACITY INTERSECTIONS

The Sacramento County General Plan recognizes that at-grade intersections may not be able to accommodate all traffic demands along the County's busiest roadways. In selected locations, the General Plan designates High Capacity Intersections. A high capacity intersection would utilize special treatments to increase the capacity of the intersection to reduce congestion and travel delay. Since each intersection has unique travel movements, volumes and existing context sensitive conditions, the special treatments utilized at each high capacity intersection will vary to meet the specific needs of each intersection. The range of special treatments is quite wide, ranging from the restriction of certain turning movements to various combinations that could include grade separating certain movements. Special treatments such as the following could be utilized at a high capacity intersection:

- Restricting turning movements
- Median U-turns
- Roundabouts
- Split intersections
- Quadrant roadway intersections
- Bowtie intersections
- Directional flyovers
- Center turn overpass
- Grade separated roundabout
- Diverging diamond grade separation
- Compact diamond grade separation
- Single point urban grade separation
- Traditional urban grade separation

Implementation of a high capacity intersection treatment could result in secondary impacts, including right-of-way, pedestrian and bicycle impacts, restrictions to local access, fiscal, and many others. As there are many possible solutions that would provide an acceptable LOS at any location, each with related impacts, this transportation analysis cannot identify specific high capacity intersection solutions. While high capacity intersections could theoretically mitigate any of the identified LOS impacts, the feasibility of such measures has not been established at this time.

2. EXISTING CONDITIONS

2.1 ROADWAY SYSTEM

Figure 2.1 illustrates the existing roadway network.

2.1.1 Regional Access

Regional automobile access to the site is provided by the freeway system and by State Route 16.

U.S. Highway 50 (US 50) is an east-west freeway that extends from the Interstate 80 (I-80) junction in West Sacramento to Canal Street in the City of Placerville, where it continues as a highway across the Sierra Nevada to South Lake Tahoe and Nevada. Primary access to US 50 is via a series of interchanges, including (from west to east) Howe Avenue, Watt Avenue, Bradshaw Road, Mather Field Road, and Sunrise Boulevard. To the west, US 50 provides access to Central City Sacramento, SR 99, I-5, and I-80. To the east, US 50 provides access to eastern Sacramento County, the cities of Rancho Cordova and Folsom, and El Dorado County.

State Route 16 (SR 16) is a Caltrans facility. In the vicinity of the site, SR 16 is located on **Jackson Road**, which is the southern boundary of the NewBridge project site. The roadway generally travels from west-northwest to east-southeast from Folsom Boulevard to the west into Amador County to the east. It is generally a two-lane roadway with some widening at intersections. To the west, SR 16 continues to US 50 via Folsom Boulevard and Howe Avenue in the City of Sacramento.

2.1.2 Local Access

Direct access to the site is provided primarily via Eagles Nest Road, Kiefer Boulevard, and Sunrise Boulevard.

Eagles Nest Road is a north-south roadway that crosses the NewBridge project site. The roadway begins at Kiefer Boulevard, and extends southerly to Grant Line Road. It is a two-lane roadway.

Kiefer Boulevard is an east-west roadway that forms the northern boundary of the NewBridge project site. The roadway consists of two segments, divided by Mather Field. The western segment extends from Florin-Perkins Road in the City of Sacramento through the Rosemont community to Happy Lane. This segment has two to four through lanes. East of Mather Field, the roadway begins at Eagles Nest Road and continues easterly to Jackson Road as a two-lane roadway.

Sunrise Boulevard is a north-south roadway that forms the eastern boundary of the NewBridge project site. As the Folsom South Canal parallels Sunrise Boulevard within the NewBridge project site, direct site access is limited to a proposed commercial parcel at Jackson Road

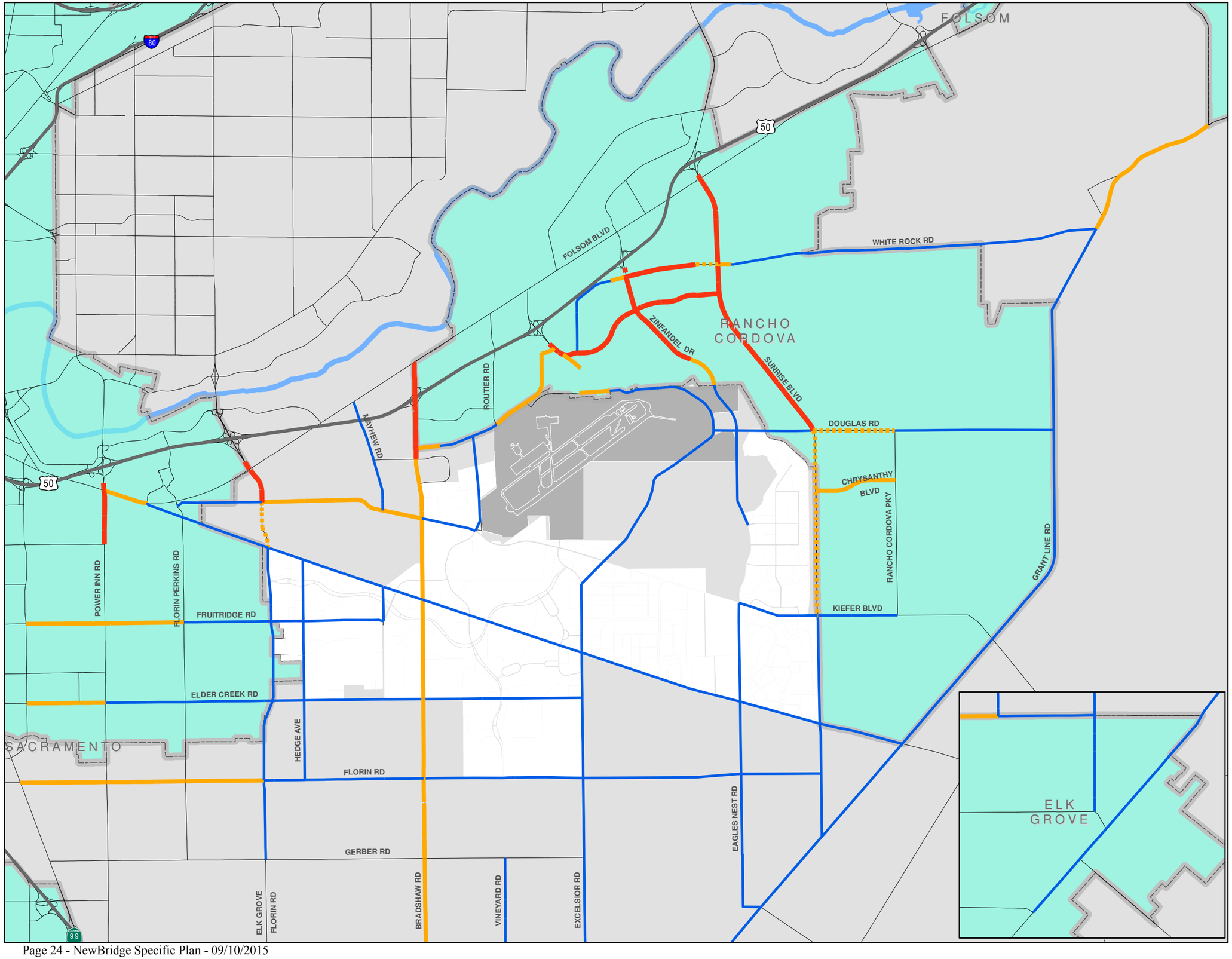


FIGURE 2.1
EXISTING CONDITIONS ROADWAY NETWORK

Legend

- 2 Lanes
- 3 Lanes
- 4 Lanes
- 5 Lanes
- 6 Lanes
- 7 Lanes
- Cities
- Mather Airport

2.2 TRANSIT SYSTEM

The Sacramento Regional Transit District (RT) operates 67 bus routes and 38.6 miles of light rail covering a 418 square-mile service area. Buses and light rail run 365 days a year using 76 light rail vehicles, 182 buses (with an additional 30 buses in reserve) powered by compressed natural gas (CNG) and 11 shuttle vans. Buses operate daily from 5 a.m. to 11 p.m. every 12 to 75 minutes, depending on the route. Light rail trains begin operation at 4 a.m. with service every 15 minutes during the day and every 30 minutes in the evening and on weekends. Blue Line and Gold Line trains operate until 12:30 a.m. and the Gold Line to Folsom operates until 7 p.m. Green Line trains operate every 30 minutes Monday through Friday.

Passenger amenities include 50 light rail stops or stations, 31 bus and light rail transfer centers and 18 park-and-ride lots. RT also serves over 3,300 bus stops throughout Sacramento County.[9]

Figure 2.2 illustrates selected RT service near the NewBridge project site. The RT Gold Line light rail service is located parallel to Folsom Boulevard north of the NewBridge project site. Nearby stations include (from west to east) Watt / Manlove, Starfire, Tiber, Butterfield, Mather Field / Mills, Zinfandel, Cordova Town Center, and Sunrise. No RT bus routes operate in the vicinity of the site.

2.3 BICYCLE SYSTEM

Figure 2.3 illustrates the Sacramento County Bikeway Master Plan in the vicinity of the NewBridge project site, depicting existing and planned bikeways. A Class I Bikeway, parallel to the Folsom South Canal, traverses the site.

2.4 PEDESTRIAN SYSTEM

The pedestrian sidewalk system is incomplete within the NewBridge project site and in many areas in the vicinity of the NewBridge project site. As development occurs, sidewalks are being installed along many roadways in the area. With the exception of those locations where such improvements have already occurred, pedestrian access in the immediate vicinity of the NewBridge project is limited to roadway shoulders, where such shoulders exist.

2.5 TRAFFIC VOLUMES

Peak period (7:00 to 9:00 a.m. and 4:00 to 6:00 p.m.) intersection turning movement counts were collected on Tuesdays, Wednesdays, and Thursdays in April and Early May, 2013 for the existing intersections in the study area. Peak hour counts (a.m. and p.m.) are illustrated in the technical appendix.

Daily (24-hour) segment counts were collected on Tuesdays, Wednesdays, and Thursdays in April and Early May, 2013 for the existing segments in the study area. The existing daily traffic volumes are summarized later in Section 2.6.1 of this report.

9 http://www.sacrt.com/rtataglance.stm Accessed 14 February 2014.

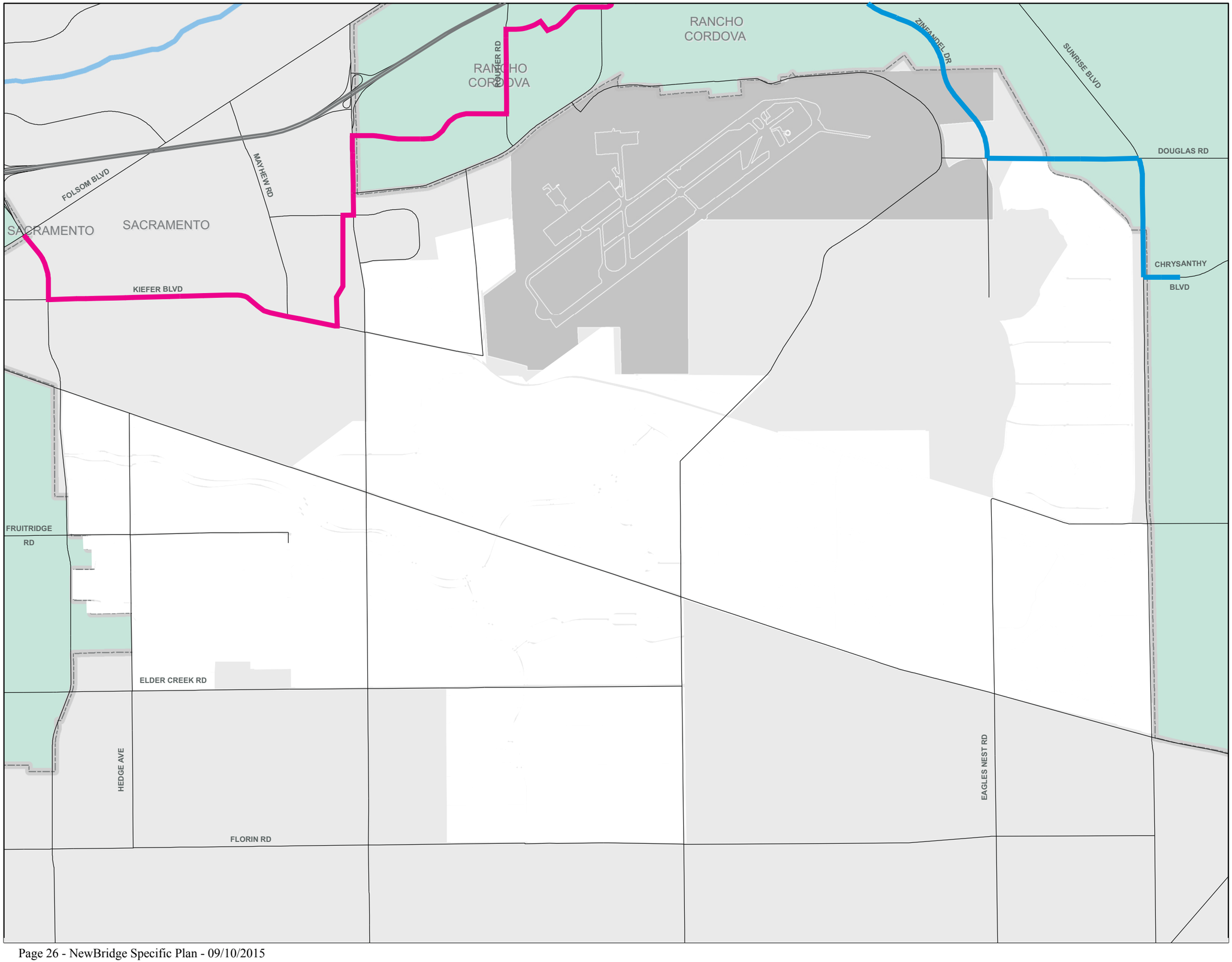
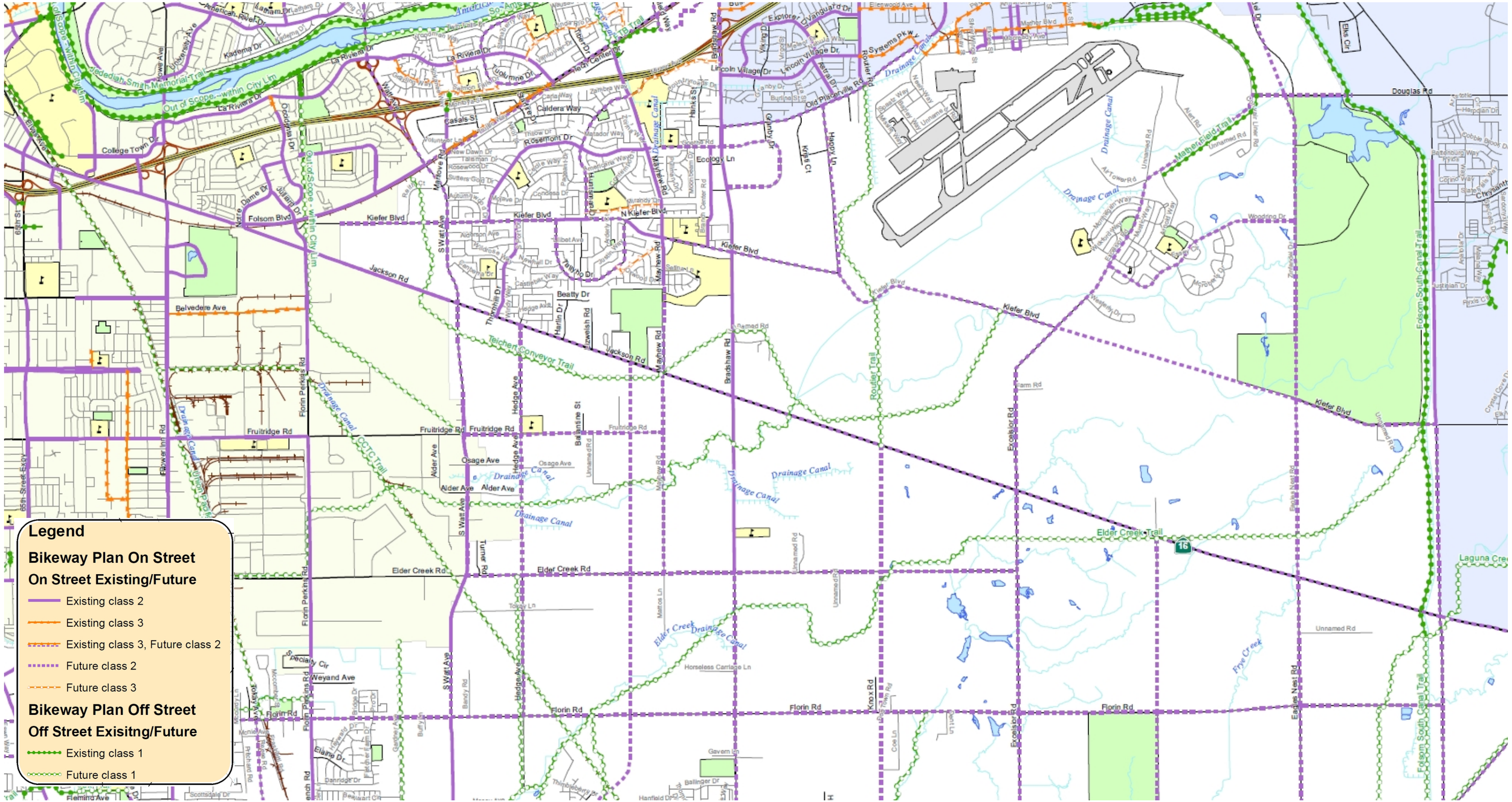


FIGURE 2.2
STUDY AREA TRANSIT NETWORK EXISTING CONDITIONS

Legend

- Route 72 (Rosemont - Lincoln Village)
- Route 76 (Anatolia Shuttle)
- Cities
- Mather Airport


Legend
Bikeway Plan On Street
On Street Existing/Future
Existing class 2
Existing class 3
Existing class 3, Future class 2
Future class 2
Future class 3
Bikeway Plan Off Street
Off Street Exisitng/Future
Existing class 1
Future class 1
Folsom Blvd
Kiefer Blvd
Jackson Rd
Belvedere Ave
Fruitridge Rd
Elder Creek Rd
Florin Rd
Douglas Rd
Mather Field Trail
Folsom South Canal Trail
Elder Creek Trail
Drainage Canal
Router Trail
Teichert Conveyor Trail
CCTC Trail
Out of Scope - Within City Lim
Out of Scope - Within City Sphere
Sacramento Northern Bikeway
Jedediah Smith Memorial Trail
La Riviera Dr
College Town Dr
Florin Perkins Rd
S Watt Ave
Hedge Ave
Bradshaw Rd
Mayhew Rd
Excelsior Rd
Eagles Nest Rd
Frye Creek
Elder Creek Drainage Canal
Laguna Creek
Horseless Carriage Ln
Unnamed Rd
Farm Rd
Ecology Ln
Rosemont Dr
Beatty Dr
Osage Ave
Alder Ave
Weyand Ave
Elaine Dr
Gavern Ln
Ballinger Dr
Dahridge Dr
Scottsdale Dr
Fleming Ave
Woodring Dr
Lincoln Village Dr
Systems Pkwy
Old Placerville Rd
Elks Cir
Cobble Brook Dr
Pattenburg Way
Crystal Cove Dr
Arabian Dr
Pixie Ct
Justinian Dr
Chrysanthemum Dr
Aviation Cir
Hangman Dr
Meyer Way
Mather Blvd
Explorer Dr
Vanguard Dr
Viking Dr
Lindero Dr
Tioga Center Dr
Yuba Dr
Yuba Way
Yosemite Dr
Yosemite Way
Yolo Dr
Yolo Way
Tuolumne Dr
Tuolumne Way
Salmon Falls Dr
Salmon Falls Way
Trinity Dr
Trinity Way
Shasta Dr
Shasta Way
Sierra Dr
Sierra Way
Shasta Dam Way
Mokelumne Way
Mokelumne Dr
Calaveras Way
Calaveras Dr
Amador Way
Amador Dr
Volunteer Ln
Carla Way
Caldera Way
Casals St
Talisman Dr
New Dawn Dr
Rosevood Dr
Sutters Gold Dr
Autumnwood Dr
Autumnwood Way
Condessa Dr
Mojave Dr
Mojave Way
Mariposa Way
Mariposa Dr
Cabrillo Way
Cabrillo Dr
Conquistador Dr
Conquistador Way
Moon Beam Dr
Moon Beam Center Rd
Ardenwood Dr
Ardenwood Way
Aldridge Way
Aldridge Ave
Fairfield Dr
Newhall Dr
Tallyho Dr
Talbot Ave
Thornhill Dr
Hedge Ave
Harlin Dr
Ezzwelsh Rd
Saltillo Pl
Oxford Dr
Oxford Cir
Hanks St
Hanks Ct
Kirby Ln
Kirby Ct
Happy Ln
Orangevale Dr
Lincoln Village Dr
Viking Dr
Explorer Dr
Vanguard Dr
Elkhorn Blvd
Elkhorn Way
Elkhorn Ct
Elkhorn Cir
Elkhorn Dr
Mather Blvd
Mather Way
Mather Ct
Mather Cir
Mather Dr
Mather Rd
Mather Field Trail
Drainage Canal
Air Tower Rd
Unnamed Rd
Avert Rd
Lewis Stein Rd
Meyer Way
Meyer Ct
Meyer Cir
Meyer Dr
Westerly Dr
Westerly Ct
Westerly Cir
Meyer Way
Meyer Ct
Meyer Cir
Meyer Dr

Peak period traffic volumes on the US 50 freeway system (mainline and ramps) were obtained from the California Freeway Performance Measurement System (PeMS). Data recorded on April 16 through 18, 2013, and April 23 through 25, 2013 were utilized in these analyses. Peak hour volumes are summarized later in Section 2.6.3 of this report, and in the technical appendix.

2.6 EXISTING OPERATING CONDITIONS

Figure 2.4 summarizes existing roadway operating conditions.

2.6.1 Roadway Segments

Level of service analyses were also conducted for the roadway segments in the study area based upon daily traffic volumes, number of traffic lanes between intersections, and roadway characteristics. Table 2.1 summarizes the roadway levels of service, and the performance of the segment compared to the level of service policies of the assigned jurisdiction.

The following segments do not meet the level of service policies:

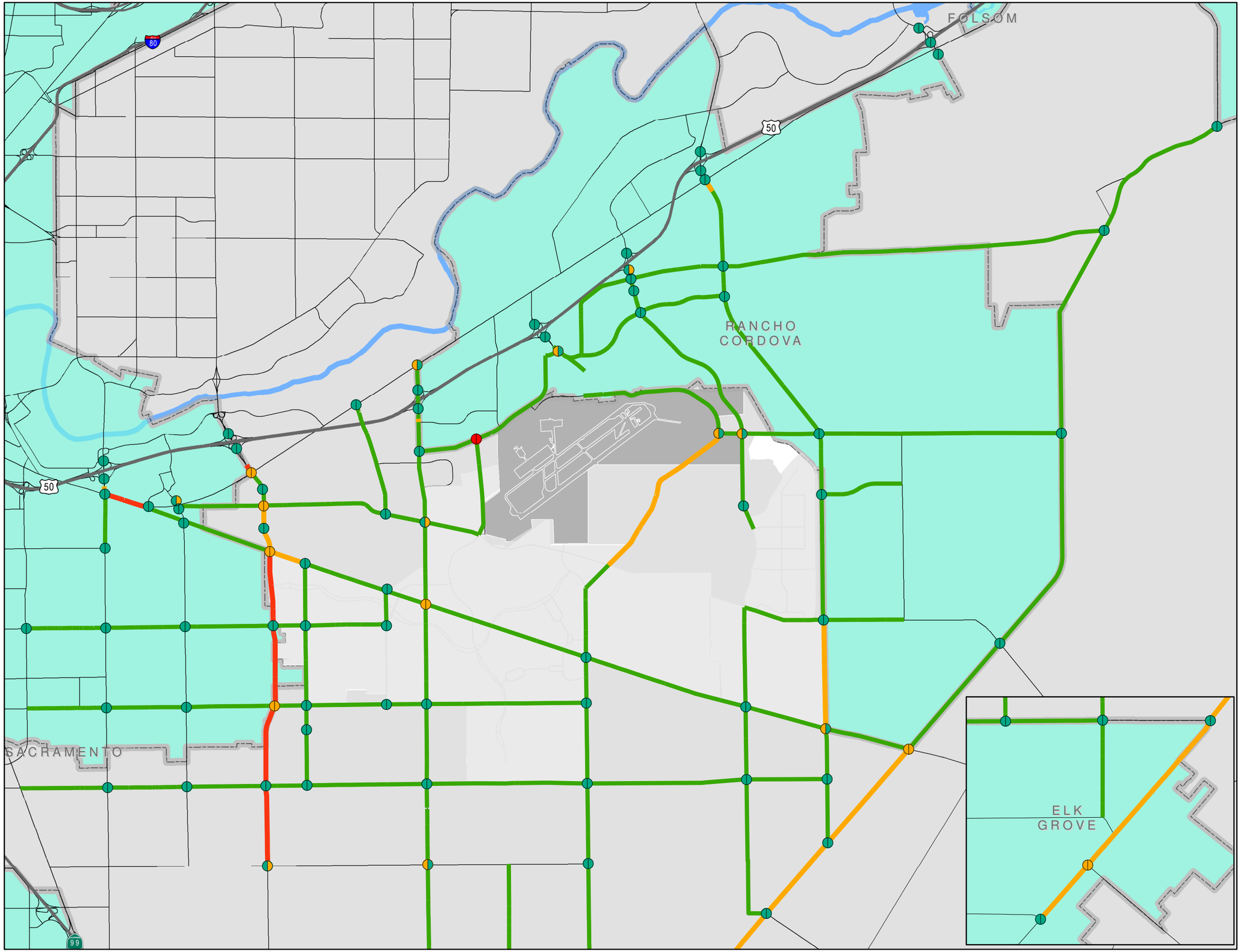
- Bradshaw Road - US 50 to Lincoln Village Drive
- Elk Grove Florin Road - Florin Road to Gerber Road
- Folsom Boulevard - Howe Avenue to Jackson Road
- Grant Line Road - Calvine Road to Bond Road
- South Watt Avenue - Jackson Road to Florin Road
- Sunrise Boulevard - US 50 to Trade Center Drive
- Sunrise Boulevard - Kiefer Boulevard to Jackson Road
- Watt Avenue - US 50 to Folsom Boulevard

2.6.2 Intersections

Existing intersection geometry (number of approach lanes and traffic control) is illustrated in the technical appendix.

Table 2.2 summarizes the existing a.m. and p.m. peak hour operating conditions at the study area intersections, and the performance of the segment compared to the level of service policies of the assigned jurisdiction. At two-way stop unsignalized intersections, Sacramento County determines conformity with the level of service policy on an approach / movement basis, while the City of Sacramento utilizes a calculation of the average intersection level of service (similar to signalized intersections and all-way stop intersections). Details of the intersection operating condition calculations are included in the technical appendix.

FIGURE 2.4
EXISTING CONDITIONS ROADWAY SEGMENT AND INTERSECTION LOS



Legend

Intersections (AM Peak Hour)
- LOS A-D
- LOS E
- LOS F

Intersections (PM Peak Hour)
- LOS A-D
- LOS E
- LOS F

Roadway Segments
- LOS A-D
- LOS E
- LOS F
- Cities
- Mather Airport

DKS

Table 2.1
Existing Roadway Segment Levels of Service

ID	Roadway	Segment		Jurisdiction	Governing Jurisdiction / Area[1]	LOS Policy Criteria	Existing				
		From	To				Travel Lanes	Facility Type[1]	Daily Volume	Volume / Capacity Ratio	Level of Service
1	Bradshaw Rd	Folsom Blvd	US 50	Rancho Cordova/County	Rancho Cordova	D	6	Arterial M	20,592	0.38	A
2	Bradshaw Rd	US 50	Lincoln Village Dr	Rancho Cordova/County	Rancho Cordova	D	6	Arterial M	52,590	0.97	**E**
3	Bradshaw Rd	Lincoln Village Dr	Old Placerville Rd	Rancho Cordova/County	Rancho Cordova	D	6	Arterial M	42,787	0.79	C
4	Bradshaw Rd	Old Placerville Rd	Goethe Rd	County	County Urban	E	6	Arterial M	38,984	0.72	C
5	Bradshaw Rd	Goethe Rd	Kiefer Blvd	County	County Urban	E	4	Arterial M	28,651	0.80	C
6	Bradshaw Rd	Kiefer Blvd	Jackson Rd	County	County Urban	E	4	Arterial M	30,726	0.85	D
7	Bradshaw Rd	Jackson Rd	Elder Creek Rd	County	County Urban	E	4	Arterial M	22,871	0.64	B
8	Bradshaw Rd	Elder Creek Rd	Florin Rd	County	County Urban	E	4	Arterial M	22,265	0.62	B
9	Bradshaw Rd	Florin Rd	Gerber Rd	County	County Urban	E	4	Arterial M	22,883	0.64	B
10	Bradshaw Rd	Gerber Rd	Calvine Rd	County	County Urban	E	4	Arterial M	16,984	0.47	A
11	Calvine Rd	Waterman Rd	Bradshaw Rd	Elk Grove/County	Elk Grove	D	4	Arterial M	16,015	0.44	A
12	Calvine Rd	Bradshaw Rd	Vineyard Rd	Elk Grove/County	Elk Grove	D	4	Arterial M	12,395	0.34	A
13	Calvine Rd	Vineyard Rd	Excelsior Rd	Elk Grove/County	Elk Grove	D	2	Arterial M	6,036	0.34	A
14	Chrysanthy Blvd	Sunrise Blvd	Rancho Cordova Pkwy	Rancho Cordova/County	Rancho Cordova	D	4	Arterial M	3,411	0.09	A
15	Douglas Rd	Mather Blvd	Zinfandel Dr	County	County Urban	E	2	Arterial M	6,635	0.37	A
16	Douglas Rd	Zinfandel Dr	Sunrise Blvd	Rancho Cordova/County	Rancho Cordova	D	2	Arterial M	8,369	0.46	A
17	Douglas Rd	Sunrise Blvd	Rancho Cordova Pkwy	Rancho Cordova	Rancho Cordova	D	5	Arterial M	3,674	0.10	A
18	Douglas Rd	Rancho Cordova Pkwy	Grant Line Rd	Rancho Cordova	Rancho Cordova	D	2	Arterial M	3,674	0.20	A
19	Eagles Nest Rd	Kiefer Blvd	Jackson Rd	County	County Urban	E	2	Arterial M	740	0.04	A
20	Eagles Nest Rd	Jackson Rd	Florin Rd	County	County Urban	E	2	Arterial M	517	0.03	A
21	Eagles Nest Rd	Florin Rd	Grant Line Rd	County	County Urban	E	2	Arterial M	189	0.01	A
22	Elder Creek Rd	65th St	Power Inn Rd	City of Sacramento	City Exempt Roadway	E	4	Arterial M	17,891	0.50	A
23	Elder Creek Rd	Power Inn Rd	Florin-Perkins Rd	City of Sacramento	City Default	D	2	Arterial M	15,734	0.87	D
24	Elder Creek Rd	Florin Perkins Rd	South Watt Ave	City of Sacramento	City Default	D	2	Arterial M	11,092	0.62	B
25	Elder Creek Rd	South Watt Ave	Hedge Ave	County	County Urban	E	2	Arterial M	5,576	0.31	A
26	Elder Creek Rd	Hedge Ave	Mayhew Rd	County	County Urban	E	2	Arterial M	5,797	0.32	A
27	Elder Creek Rd	Mayhew Rd	Bradshaw Rd	County	County Urban	E	2	Arterial M	5,355	0.30	A
28	Elder Creek Rd	Bradshaw Rd	Excelsior Rd	County	County Urban	E	2	Arterial M	2,158	0.12	A
29	Elk Grove-Florin Rd	Florin Rd	Gerber Rd	County	County Urban	E	2	Arterial M	22,960	1.28	**F**
30	Excelsior Rd	Kiefer Blvd	Jackson Rd	County	County Urban	E	2	Arterial M	3,716	0.21	A
31	Excelsior Rd	Jackson Rd	Elder Creek Rd	County	County Urban	E	2	Arterial M	5,075	0.28	A
32	Excelsior Rd	Elder Creek Rd	Florin Rd	County	County Urban	E	2	Arterial M	4,203	0.23	A
33	Excelsior Rd	Florin Rd	Gerber Rd	County	County Urban	E	2	Arterial M	5,423	0.30	A

Bold values do not meet LOS policy.

Table 2.1
Existing Roadway Segment Levels of Service

ID	Roadway	Segment		Jurisdiction	Governing Jurisdiction / Area[1]	LOS Policy Criteria	Existing				
		From	To				Travel Lanes	Facility Type[1]	Daily Volume	Volume / Capacity Ratio	Level of Service
34	Excelsior Rd	Gerber Rd	Calvine Rd	County	County Urban	E	2	Arterial M	4,229	0.23	A
35	Excelsior Rd	Calvine Rd	Sheldon Rd	Elk Grove	Elk Grove	D	2	Arterial M	4,473	0.25	A
36	Florin Rd	Stockton Blvd	Power Inn Rd	County	County Urban	E	4	Arterial M	27,495	0.76	C
37	Florin Rd	Power Inn Rd	Florin-Perkins Rd	County	County Urban	E	4	Arterial M	21,595	0.60	A
38	Florin Rd	Florin-Perkins Rd	So Watt Ave/ Elk Grove Florin Rd	County	County Urban	E	4	Arterial M	14,163	0.39	A
39	Florin Rd	South Watt Ave	Hedge Ave	County	County Urban	E	2	Arterial M	7,718	0.43	A
40	Florin Rd	Hedge Ave	Mayhew Rd	County	County Urban	E	2	Arterial M	6,312	0.35	A
41	Florin Rd	Mayhew Rd	Bradshaw Rd	County	County Urban	E	2	Arterial M	6,317	0.35	A
42	Florin Rd	Bradshaw Rd	Excelsior Rd	County	County Urban	E	2	Arterial M	3,478	0.19	A
43	Florin Rd	Excelsior Rd	Sunrise Blvd	County	County Urban	E	2	Arterial M	3,835	0.21	A
44	Folsom Blvd	Howe Ave	Jackson Rd	City of Sacramento	City Exempt Roadway	E	4	Arterial M	37,516	1.04	**F**
45	Fruitridge Rd	65th St	Power Inn Rd	City of Sacramento	City Default	D	4	Arterial M	16,634	0.46	A
46	Fruitridge Rd	Power Inn Rd	Florin Perkins Rd	City of Sacramento	City Default	D	4	Arterial M	15,214	0.42	A
47	Fruitridge Rd	Florin Perkins Rd	South Watt Ave	City of Sacramento	City Default	D	2	Arterial M	10,280	0.57	A
48	Fruitridge Rd	South Watt Ave	Hedge Ave	City of Sacramento/ County	City Default	D	2	Arterial M	2,890	0.16	A
49	Fruitridge Rd	Hedge Ave	Mayhew Rd	County	County Urban	E	2	Arterial M	1,790	0.10	A
50	Grant Line Rd	White Rock Rd	Douglas Rd	Rancho Cordova/County	Rancho Cordova	D	2	Rural NS	7,189	0.42	D
51	Grant Line Rd	Douglas Rd	Kiefer Blvd	Rancho Cordova/County	Rancho Cordova	D	2	Rural S	6,143	0.31	C
52	Grant Line Rd	Kiefer Blvd	Jackson Rd	Rancho Cordova/County	Rancho Cordova	D	2	Rural S	5,758	0.29	C
53	Grant Line Rd	Jackson Rd	Sunrise Blvd	County	County Urban	E	2	Rural S	14,720	0.74	E
54	Grant Line Rd	Sunrise Blvd	Calvine Rd	County	County Urban	E	2	Rural S	14,812	0.74	E
55	Grant Line Rd	Calvine Rd	Sheldon Rd	Elk Grove/County	Elk Grove	D	2	Rural S	13,140	0.66	**E**
56	Grant Line Rd	Sheldon Rd	Wilton Rd	Elk Grove	Elk Grove	D	2	Rural S	17,459	0.87	**E**
57	Grant Line Rd	Wilton Rd	Bond Rd	Elk Grove	Elk Grove	D	2	Rural S	16,064	0.80	**E**
58	Happy Ln	Old Placerville Rd	Kiefer Blvd	County	County Urban	E	2	Rural S	4,635	0.23	C
59	Hedge Ave	Jackson Rd	Fruitridge Rd	County	County Urban	E	2	Arterial M	3,061	0.17	A
60	Hedge Ave	Fruitridge Rd	Elder Creek Rd	City of Sacramento/County	County Urban	E	2	Arterial M	3,737	0.21	A
61	Hedge Ave	Elder Creek Rd	Florin Rd	County	County Urban	E	2	Arterial M	2,722	0.15	A
62	Howe Ave	US 50	Folsom Blvd	City of Sacramento	City Exempt Roadway	E	6	Arterial M	53,849	1.00	E
63	International Dr	Mather Field Rd	Zinfandel Dr	Rancho Cordova	Rancho Cordova	D	6	Arterial M	17,500	0.32	A
64	International Dr	Zinfandel Dr	Sunrise Blvd	Rancho Cordova	Rancho Cordova	D	6	Arterial M	8,802	0.16	A

Bold values do not meet LOS policy.

Table 2.1
Existing Roadway Segment Levels of Service

ID	Roadway	Segment		Jurisdiction	Governing Jurisdiction / Area[1]	LOS Policy Criteria	Existing				
		From	To				Travel Lanes	Facility Type[1]	Daily Volume	Volume / Capacity Ratio	Level of Service
65	Jackson Rd	Folsom Blvd	Florin Perkins Rd	City of Sacramento	City Exempt Light Rail	E	2	Arterial M	12,358	0.69	B
66	Jackson Rd	Florin Perkins Rd	South Watt Ave	City of Sacramento/County	City Exempt Light Rail	E	2	Arterial M	10,414	0.58	A
67	Jackson Rd	South Watt Ave	Hedge Ave	County	County Urban	E	2	Arterial M	17,060	0.95	E
68	Jackson Rd	Hedge Ave	Mayhew Rd	County	County Urban	E	2	Arterial M	12,616	0.70	C
69	Jackson Rd	Mayhew Rd	Bradshaw Rd	County	County Urban	E	2	Arterial M	14,996	0.83	D
70	Jackson Rd	Bradshaw Rd	Excelsior Rd	County	County Urban	E	2	Arterial M	13,030	0.72	C
71	Jackson Rd	Excelsior Rd	Eagles Nest Rd	County	County Urban	E	2	Rural Hwy	10,478	0.46	D
72	Jackson Rd	Eagles Nest Rd	Sunrise Blvd	County	County Urban	E	2	Rural Hwy	9,976	0.44	D
73	Jackson Rd	Sunrise Blvd	Grant Line Rd	Rancho Cordova/County	Rancho Cordova	D	2	Rural Hwy	13,306	0.58	D
74	Kiefer Blvd	Florin Perkins Rd	South Watt Ave	City of Sacramento/County	City Exempt Light Rail	E	2	Arterial M	4,616	0.26	A
75	Kiefer Blvd	South Watt Ave	Mayhew Rd	County	County Urban	E	4	Arterial M	18,668	0.52	A
76	Kiefer Blvd	Mayhew Rd	Bradshaw Rd	County	County Urban	E	4	Arterial M	9,274	0.26	A
77	Kiefer Blvd	Bradshaw Rd	Happy Ln	County	County Urban	E	2	Arterial M	4,618	0.26	A
78	Kiefer Blvd	Zinfandel Dr	Sunrise Blvd	County	County Urban	E	2	Arterial M	656	0.04	A
79	Kiefer Blvd	Sunrise Blvd	Rancho Cordova Pkwy	Rancho Cordova	Rancho Cordova	D	2	Arterial M	2,786	0.15	A
80	Mather Blvd / Norden Ave	Von Karman St	Bleckely St	Rancho Cordova	Rancho Cordova	D	4	Arterial M	4,373	0.12	A
81	Mather Blvd	Bleckely St	Femoyer St	Rancho Cordova	Rancho Cordova	D	4	Arterial M	4,373	0.12	A
82	Mather Blvd	Femoyer St	Douglas Rd	Rancho Cordova/County	Rancho Cordova	D	2	Arterial M	4,373	0.24	A
83	Mather Blvd-Excelsior Rd	Douglas Rd	Kiefer Blvd	County	County Urban	E	2	Res Collector F	6,751	0.84	E
84	Mather Field Rd	US 50	Rockingham Dr	Rancho Cordova	Rancho Cordova	D	6	Arterial M	37,755	0.70	B
85	Mather Field Rd	Rockingham Dr	International Dr	Rancho Cordova	Rancho Cordova	D	6	Arterial M	37,520	0.69	B
86	Mather Field Rd	International Dr	Peter A McCuen Blvd	Rancho Cordova	Rancho Cordova	D	4	Arterial M	14,857	0.41	A
87	Mayhew Rd	Folsom Blvd	Goethe Rd	County	County Urban	E	2	Arterial M	6,977	0.39	A
88	Mayhew Rd	Goethe Rd	Kiefer Blvd	County	County Urban	E	2	Arterial L	6,593	0.44	A
89	Mayhew Rd	Jackson Rd	Fruitridge Rd	County	County Urban	E	2	Arterial L	1,616	0.11	A
90	Old Placerville Rd	Bradshaw Rd	Granby Dr	Rancho Cordova/County	Rancho Cordova	D	4	Arterial M	15,800	0.44	A
91	Old Placerville Rd	Granby Dr	Happy Ln	Rancho Cordova/County	Rancho Cordova	D	2	Arterial M	13,573	0.75	C
92	Old Placerville Rd	Happy Ln	Routier Rd	Rancho Cordova/County	Rancho Cordova	D	2	Arterial M	10,710	0.60	A
93	Old Placerville Rd	Routier Rd	Rockingham Dr	Rancho Cordova/County	Rancho Cordova	D	4	Arterial M	10,710	0.30	A

Bold values do not meet LOS policy.

Table 2.1
Existing Roadway Segment Levels of Service

ID	Roadway	Segment		Jurisdiction	Governing Jurisdiction / Area[1]	LOS Policy Criteria	Existing				
		From	To				Travel Lanes	Facility Type[1]	Daily Volume	Volume / Capacity Ratio	Level of Service
94	Power Inn Rd	Folsom Blvd	14th Ave	City of Sacramento	City Exempt Light Rail	E	6	Arterial M	36,175	0.67	B
95	Rockingham Dr	Old Placerville Rd	Mather Field Rd	Rancho Cordova	Rancho Cordova	D	4	Arterial M	19,881	0.55	A
96	South Watt Ave	Folsom Blvd	Kiefer Blvd	County	County Urban	E	6	Arterial M	40,920	0.76	C
97	South Watt Ave	Kiefer Blvd	Jackson Rd	County	County Urban	E	5	Arterial M	32,415	0.90	E
98	South Watt Ave	Jackson Rd	Fruitridge Rd	City of Sacramento/County	City Default	D	2	Arterial M	25,832	1.44	**F**
99	South Watt Ave	Fruitridge Rd	Elder Creek Rd	City of Sacramento/County	City Default	D	2	Arterial M	21,567	1.20	**F**
100	South Watt Ave	Elder Creek Rd	Florin Rd	City of Sacramento/County	City Default	D	2	Arterial M	19,069	1.06	**F**
101	Sunrise Blvd	US 50	Folsom Blvd	Rancho Cordova	Rancho Cordova	D	7	Arterial M	54,500	1.01	**F**
102	Sunrise Blvd	Folsom Blvd	Trade Center Dr	Rancho Cordova	Rancho Cordova	D	6	Arterial M	49,500	0.92	**E**
103	Sunrise Blvd	Trade Center Dr	White Rock Rd	Rancho Cordova	Rancho Cordova	D	6	Arterial M	34,571	0.64	B
104	Sunrise Blvd	White Rock Rd	Douglas Rd	Rancho Cordova	Rancho Cordova	D	6	Arterial M	25,811	0.48	A
105	Sunrise Blvd	Douglas Rd	Kiefer Blvd	Rancho Cordova/County	Rancho Cordova	D	5	Arterial M	21,878	0.61	B
106	Sunrise Blvd	Kiefer Blvd	Jackson Rd	Rancho Cordova/County	Rancho Cordova	D	2	Arterial M	16,894	0.94	**E**
107	Sunrise Blvd	Jackson Rd	Florin Rd	County	County Urban	E	2	Rural S	11,181	0.56	D
108	Sunrise Blvd	Florin Rd	Grant Line Rd	County	County Urban	E	2	Rural S	7,752	0.39	D
109	Vineyard Rd	Gerber Rd	Calvine Rd	County	County Urban	E	2	Arterial M	5,515	0.31	A
110	Watt Ave	US 50	Folsom Blvd	City of Sacramento/County	City Exempt Light Rail	E	6	Arterial H	65,242	1.09	**F**
111	White Rock Rd	International Rd	Quality Dr	Rancho Cordova	Rancho Cordova	D	2	Arterial M	3,962	0.22	A
112	White Rock Rd	Quality Dr	Zinfandel Dr	Rancho Cordova	Rancho Cordova	D	4	Arterial M	11,200	0.31	A
113	White Rock Rd	Zinfandel Dr	Kilgore Rd	Rancho Cordova	Rancho Cordova	D	6	Arterial M	14,756	0.27	A
114	White Rock Rd	Kilgore Rd	Sunrise Blvd	Rancho Cordova	Rancho Cordova	D	5	Arterial M	14,756	0.41	A
115	White Rock Rd	Sunrise Blvd	Fitzgerald Rd	Rancho Cordova	Rancho Cordova	D	4	Arterial M	15,433	0.43	A
116	White Rock Rd	Fitzgerald Rd	Grant Line Rd	Rancho Cordova/County	Rancho Cordova	D	2	Rural NS	2,490	0.15	B
117	White Rock Rd	Grant Line Rd	Prairie City Rd	County	County Urban	E	4	Arterial M	9,400	0.26	A
118	Zinfandel Dr	US 50	White Rock Rd	Rancho Cordova	Rancho Cordova	D	7	Arterial M	45,228	0.84	D
119	Zinfandel Dr	White Rock Rd	International Rd	Rancho Cordova	Rancho Cordova	D	6	Arterial M	17,923	0.33	A
120	Zinfandel Dr	International Rd	Baroque Dr	Rancho Cordova	Rancho Cordova	D	6	Arterial M	7,595	0.14	A
121	Zinfandel Dr	Baroque Dr	City Limit	Rancho Cordova	Rancho Cordova	D	4	Arterial M	7,595	0.21	A
122	Zinfandel Dr	City Limit	Douglas Rd	County	County Urban	E	2	Arterial M	7,595	0.42	A
123	Zinfandel Dr	Douglas Rd	Kiefer Blvd	County	County Urban	E	2	Arterial M	2,848	0.16	A

Bold values do not meet LOS policy.

Table 2.1
Existing Roadway Segment Levels of Service

ID	Roadway	Segment		Jurisdiction	Governing Jurisdiction / Area[1]	LOS Policy Criteria	Existing				
		From	To				Travel Lanes	Facility Type[1]	Daily Volume	Volume / Capacity Ratio	Level of Service

Note: Gray shading indicates changes in travel lanes or facility type that the project is responsible to provide.

[1] The following classifications are used to determine daily roadway capacity:
Arterial L - Arterial, Low Access Control
Arterial M - Arterial, Moderate Access Control
Arterial H - Arterial, High Access Control
Rural Hwy - Rural 2-lane Highway
Rural S - Rural 2-lane Road, 24'-36' of pavement, Paved Shoulders
Rural NS - Rural 2-lane Road, 24'-36' of pavement, No Shoulders
Res Collector F - Residential Collector with Frontage
Res Collector NF - Residential Collector with No Frontage

Bold values do not meet LOS policy.

Table 2.2

Existing Intersection Levels of Service

	Intersection	Jurisdiction	Governing Jurisdiction / Area [1]	LOS Policy Criteria	AM Peak Hour			PM Peak Hour		
					Existing			Existing		
					Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)
1	Howe Ave & College Town Dr/US 50 WB Ramps	City of Sacramento	City Exempt Roadway	E	Signal	D	36.6	Signal	D	44.4
2	Howe Ave & US 50 EB Ramps	City of Sacramento	City Exempt Roadway	E	Signal	B	16.9	Signal	C	20.5
3	Power Inn Rd/Howe Ave & Folsom Blvd	City of Sacramento	City Exempt Roadway	E	Signal	D	39.1	Signal	D	55.0
4	Power Inn Rd & 14th Ave	City of Sacramento	City Default	D	Signal	C	31.5	Signal	D	39.6
5	Power Inn Rd & Fruitridge Rd	City of Sacramento	City Default	D	Signal	D	43.4	Signal	C	33.5
6	Jackson Rd/Notre Dame Dr. & Folsom Blvd.	City of Sacramento	City Exempt Roadway	E	Signal	D	36.8	Signal	C	32.1
7	Florin Perkins Rd/Julliard Dr. & Folsom Blvd	City of Sacramento	City Exempt Roadway	E	Signal	D	39.0	Signal	E	55.6
8	Florin Perkins Rd & Kiefer Blvd.	City of Sacramento	City Exempt Light Rail	E	Two-way stop	A	2.8	Two-way stop	A	3.2
	Westbound Left Turn					*C*	*20.1*		*C*	*23.3*
	Westbound Right Turn					*B*	*13.3*		*B*	*12.6*
	Southbound Left Turn					*A*	*10.0*		*B*	*10.9*

Bold values do not meet LOS policy.

Table 2.2

Existing Intersection Levels of Service

	Intersection	Jurisdiction	Governing Jurisdiction / Area [1]	LOS Policy Criteria	AM Peak Hour			PM Peak Hour		
					Existing			Existing		
					Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)
9	Florin Perkins Rd & Jackson Rd	City of Sacramento	City Exempt Light Rail	E	Signal	D	51.5	Signal	D	54.1
10	Florin Perkins Rd & Fruitridge Rd	City of Sacramento	City Exempt Roadway	E	Signal	C	25.1	Signal	C	25.4
11	Florin Perkins Rd & Elder Creek Rd	City of Sacramento	City Exempt Roadway	E	Signal	C	25.7	Signal	C	26.2
12	Watt Ave & Folsom Blvd.	County	County Urban	E	Signal	E	66.2	Signal	E	71.9
13	S. Watt Ave. & Reith Ct/Manlove Rd	County	County Urban	E	Signal	B	19.6	Signal	D	54.1
14	S. Watt Ave & Kiefer Blvd.	County	County Urban	E	Signal	E	56.0	Signal	E	75.9
15	S. Watt Ave & Canberra Dr.	County	County Urban	E	Signal	B	11.5	Signal	A	9.7
16	S. Watt Ave & Jackson Rd	County	County Urban	E	Signal	E	62.5	Signal	E	66.4
17	S. Watt Ave & Fruitridge Rd	City of Sacramento / County	City Default	D	Signal	D	38.1	Signal	D	41.7
18	S. Watt Ave & Elder Creek Rd	City of Sacramento / County	City Default	D	Signal	**E**	**62.7**	Signal	**E**	**68.8**

Bold values do not meet LOS policy.

Table 2.2

Existing Intersection Levels of Service

	Intersection	Jurisdiction	Governing Jurisdiction / Area [1]	LOS Policy Criteria	AM Peak Hour			PM Peak Hour		
					Existing			Existing		
					Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)
20	Elk Grove Florin Rd/S. Watt Ave. & Florin Rd	County	County Urban	E	Signal	D	54.7	Signal	D	51.8
21	Elk Grove Florin Rd & Gerber Rd	County	County Urban	E	Signal	D	49.1	Signal	E	64.6
23	Hedge Ave & Jackson Rd	County	County Urban	E	Signal	D	35.1	Signal	D	37.3
24	Hedge Ave & Fruitridge Rd	County	County Urban	E	All-way stop	B	13.6	All-way stop	A	9.4
25	Hedge Ave & Elder Creek Rd	County	County Urban	E	All-way stop	C	15.9	All-way stop	B	11.6
26	Hedge Ave & Tokay Lane	County	County Urban	E	Two-way stop	A	0.4	Two-way stop	A	0.2
	Northbound Left Turn			*E*		*A*	*0.0*		*A*	*0.0*
	Southbound Left Turn			*E*		*A*	*8.0*		*A*	*7.3*
	Eastbound			*E*		*B*	*12.2*		*B*	*10.2*
	Westbound			*E*		*B*	*11.1*		*A*	*9.6*
27	Hedge Ave & Florin Rd	County	County Urban	E	All-way stop	B	12.9	All-way stop	B	11.1
28	Mayhew Rd & Kiefer Blvd	County	County Urban	E	Signal	D	48.6	Signal	D	51.1

Bold values do not meet LOS policy.

Table 2.2

Existing Intersection Levels of Service

	Intersection	Jurisdiction	Governing Jurisdiction / Area [1]	LOS Policy Criteria	AM Peak Hour			PM Peak Hour		
					Existing			Existing		
					Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)
29	Mayhew Rd & Jackson Rd	County	County Urban	E	Two-way stop	A	1.8	Two-way stop	A	1.9
	Northbound Through - Left Turn			*E*		*D*	*27.6*		*D*	*34.0*
	Northbound Right Turn			*E*		*B*	*11.8*		*C*	*15.0*
	Southbound			*E*		*C*	*18.3*		*C*	*24.9*
	Eastbound Left Turn			*E*		*A*	*8.9*		*A*	*8.4*
	Westbound Left Turn			*E*		*A*	*8.3*		*A*	*9.3*
30	Mayhew Rd & Fruitridge Rd	County	County Urban	E	Two-way stop	A	6.2	Two-way stop	A	5.1
	Northbound Left Turn			*E*		*A*	*0.0*		*A*	*7.4*
	Eastbound			*E*		*A*	*9.2*		*A*	*9.2*

Bold values do not meet LOS policy.

Table 2.2

Existing Intersection Levels of Service

	Intersection	Jurisdiction	Governing Jurisdiction / Area [1]	LOS Policy Criteria	AM Peak Hour			PM Peak Hour		
					Existing			Existing		
					Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)
31	Mayhew Rd & Elder Creek Rd	County	County Urban	E	Two-way stop	A	0.2	Two-way stop	A	0.3
	Northbound			*E*		*B*	*11.9*		*B*	*10.9*
	Southbound			*E*		*B*	*11.1*		*A*	*9.8*
	Eastbound Left Turn			*E*		*A*	*8.3*		*A*	*7.6*
	Westbound Left Turn			*E*		*A*	*7.5*		*A*	*0.0*
32	Woodring Dr & Zinfandel Dr				Two-way stop	A	5.9	Two-way stop	A	3.0
	Eastbound					*A*	*9.3*		*A*	*9.3*
	Northbound Left Turn					*A*	*0.0*		*A*	*0.0*
33	Bradshaw Rd & Folsom Blvd.	City of Rancho Cordova / County	Rancho Cordova	D	Signal	**E**	**56.7**	Signal	D	49.9
34	Bradshaw Rd & US 50 WB Ramps	City of Rancho Cordova / County	Rancho Cordova	D	Signal	B	15.9	Signal	B	15.2
35	Bradshaw Rd & US 50 EB Ramps	City of Rancho Cordova / County	Rancho Cordova	D	Signal	C	24.4	Signal	B	16.0
36	Bradshaw Rd & Old Placerville Rd	City of Rancho Cordova / County	Rancho Cordova	D	Signal	D	45.9	Signal	D	52.0
37	Bradshaw Rd & Kiefer Blvd	County	County Urban	E	Signal	D	45.7	Signal	E	66.2

Bold values do not meet LOS policy.

Table 2.2

Existing Intersection Levels of Service

	Intersection	Jurisdiction	Governing Jurisdiction / Area [1]	LOS Policy Criteria	AM Peak Hour			PM Peak Hour		
					Existing			Existing		
					Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)
38	Bradshaw Rd & Jackson Rd	County	County Urban	E	Signal	E	73.1	Signal	E	59.4
39	Bradshaw Rd & Elder Creek Rd	County	County Urban	E	Signal	D	36.8	Signal	D	36.1
40	Bradshaw Rd & Florin Rd	County	County Urban	E	Signal	D	38.1	Signal	D	53.6
41	Bradshaw Rd & Gerber Rd	County	County Urban	E	Signal	E	72.2	Signal	D	49.9
42	Happy Lane & Old Placerville Rd	City of Rancho Cordova / County	Rancho Cordova	D	Two-way stop	A	7.3	Two-way stop	A	4.7
	Northbound Left Turn			*D*		***F***	***64.8***		***F***	***95.9***
	Northbound Right Turn			*D*		*D*	*30.6*		*C*	*15.4*
	Westbound Left Turn			*D*		*B*	*10.2*		*B*	*10.1*
45	Excelsior Rd & Jackson Rd	County	County Urban	E	Signal	D	36.7	Signal	D	40.3
46	Excelsior Rd & Elder Creek Rd	County	County Urban	E	Two-way stop	A	3.5	Two-way stop	A	2.7
	Northbound Left Turn			*E*		*A*	*7.5*		*A*	*8.0*
	Eastbound			*E*		*C*	*18.6*		*B*	*12.3*

Bold values do not meet LOS policy.

Table 2.2

Existing Intersection Levels of Service

	Intersection	Jurisdiction	Governing Jurisdiction / Area [1]	LOS Policy Criteria	AM Peak Hour			PM Peak Hour		
					Existing			Existing		
					Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)
47	Excelsior Rd & Florin Rd	County	County Urban	E	All-way stop	C	24.9	All-way stop	B	12.5
48	Excelsior Rd & Gerber Rd/Birch Ranch Dr	County	County Urban	E	All-way stop	B	14.0	All-way stop	B	10.6
49	Mather Field Rd & US 50 WB Ramps	City of Rancho Cordova	Rancho Cordova	D	Signal	C	24.7	Signal	A	9.4
50	Mather Field Rd & US 50 EB Ramps	City of Rancho Cordova	Rancho Cordova	D	Signal	C	27.7	Signal	B	13.4
51	Mather Field Rd & Rockingham Dr	City of Rancho Cordova	Rancho Cordova	D	Signal	**E**	**56.4**	Signal	D	54.7
52	Mather Blvd & Douglas Rd	County	County Urban	E	All-way stop	E	39.3	All-way stop	C	15.5
53	Zinfandel Dr & US 50 WB Ramps	City of Rancho Cordova	Rancho Cordova	D	Signal	B	16.4	Signal	D	51.7
54	Zinfandel Dr & US 50 EB Ramps/Gold Center Dr	City of Rancho Cordova	Rancho Cordova	D	Signal	D	40.0	Signal	**E**	**60.1**
55	Zinfandel Dr & White Rock Rd	City of Rancho Cordova	Rancho Cordova	D	Signal	D	47.7	Signal	D	54.7
56	Zinfandel Dr & Data Dr	City of Rancho Cordova	Rancho Cordova	D	Signal	D	49.3	Signal	D	52.9

Bold values do not meet LOS policy.

Table 2.2

Existing Intersection Levels of Service

	Intersection	Jurisdiction	Governing Jurisdiction / Area [1]	LOS Policy Criteria	AM Peak Hour			PM Peak Hour		
					Existing			Existing		
					Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)
57	Zinfandel Dr & International Dr	City of Rancho Cordova	Rancho Cordova	D	Signal	C	34.0	Signal	D	48.5
58	Zinfandel Dr & Douglas Rd	County	County Urban	E	Signal	E	55.5	Signal	D	54.2
60	Eagles Nest Rd & Jackson Rd	County	County Urban	E	Two-way stop	A	2.3	Two-way stop	A	3.6
	Northbound			*E*		*C*	*22.0*		*C*	*23.8*
	Southbound			*E*		*B*	*13.9*		*C*	*22.0*
	Eastbound Left Turn			*E*		*A*	*8.8*		*A*	*7.9*
	Westbound Left Turn			*E*		*A*	*7.9*		*A*	*8.7*
61	Eagles Nest Rd & Florin Rd	County	County Urban	E	Two-way stop	A	2.3	Two-way stop	A	2.6
	Northbound			*E*		*B*	*12.7*		*B*	*12.1*
	Southbound			*E*		*B*	*10.0*		*B*	*10.5*
	Eastbound Left Turn			*E*		*A*	*7.7*		*A*	*7.7*
	Westbound Left Turn			*E*		*A*	*0.0*		*A*	*7.6*
62	Sunrise Blvd & US 50 WB Ramps	City of Rancho Cordova	Rancho Cordova	D	Signal	D	44.7	Signal	B	19.7
63	Sunrise Blvd & US 50 EB Ramps	City of Rancho Cordova	Rancho Cordova	D	Signal	B	16.9	Signal	B	17.6

Bold values do not meet LOS policy.

Table 2.2

Existing Intersection Levels of Service

	Intersection	Jurisdiction	Governing Jurisdiction / Area [1]	LOS Policy Criteria	AM Peak Hour			PM Peak Hour		
					Existing			Existing		
					Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)
64	Sunrise Blvd & Folsom Blvd	City of Rancho Cordova	Rancho Cordova	D	Signal	D	54.4	Signal	D	48.6
65	Sunrise Blvd & White Rock Rd	City of Rancho Cordova	Rancho Cordova	D	Signal	D	47.8	Signal	D	51.6
66	Sunrise Blvd & International Dr/Monier Circle	City of Rancho Cordova	Rancho Cordova	D	Signal	D	47.8	Signal	D	45.8
67	Sunrise Blvd & Douglas Rd	City of Rancho Cordova	Rancho Cordova	D	Signal	D	51.7	Signal	D	46.5
68	Sunrise Blvd & Chrysanthy Blvd	City of Rancho Cordova / County	Rancho Cordova	D	Signal	C	27.0	Signal	C	21.0
69	Sunrise Blvd & Kiefer Blvd	City of Rancho Cordova / County	Rancho Cordova	D	Signal	D	53.6	Signal	C	27.0
70	Sunrise Blvd & Jackson Rd	City of Rancho Cordova / County	Rancho Cordova	D	Signal	**E**	**57.0**	Signal	D	47.2
71	Sunrise Blvd & Florin Rd	County	County Urban	E	Signal	B	11.3	Signal	D	48.3
72	Sheldon Lake Dr/Sunrise Blvd & Grant Line Rd	County	County Urban	E	Signal	D	43.2	Signal	D	40.7
73	Hazel Ave & Tributary Point Dr/US 50 WB Off-ramp	County	County Urban	E	Signal	C	31.2	Signal	D	41.4

Bold values do not meet LOS policy.

Table 2.2

Existing Intersection Levels of Service

	Intersection	Jurisdiction	Governing Jurisdiction / Area [1]	LOS Policy Criteria	AM Peak Hour			PM Peak Hour		
					Existing			Existing		
					Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)
74	Hazel Ave & US 50 EB Ramps	City of Rancho Cordova / County	Rancho Cordova	D	Signal	C	20.6	Signal	C	29.9
75	Hazel Ave & Folsom Blvd	City of Rancho Cordova / County	Rancho Cordova	D	Signal	D	51.7	Signal	D	46.7
76	Prairie City Rd & White Rock Rd	City of Folsom / County	Folsom	C	Signal	B	19.2	Signal	B	15.0
77	Grant Line Rd & White Rock Rd	County	County Urban	E	Signal	B	10.9	Signal	B	11.2
78	Grant Line Rd & Douglas Rd	City of Rancho Cordova / County	Rancho Cordova	D	All-way stop	C	15.2	All-way stop	B	12.3
79	Grant Line Rd & Kiefer Blvd	City of Rancho Cordova / County	Rancho Cordova	D	All-way stop	B	11.4	All-way stop	B	10.5
80	Grant Line Rd & Jackson Rd	City of Rancho Cordova / County	Rancho Cordova	D	Signal	**E**	**74.0**	Signal	**E**	**78.9**
81	Watt Ave & US-50 EB Ramps	City of Sacramento / County	City Exempt Light Rail	E	Signal	B	13.0	Signal	B	14.9
82	Watt Ave & US-50 WB Ramps	City of Sacramento / County	City Default	D	Signal	C	32.9	Signal	C	28.6
83	Mayhew Rd & Folsom Blvd.	County	County Urban	E	Signal	B	19.8	Signal	C	20.1

Bold values do not meet LOS policy.

Table 2.2

Existing Intersection Levels of Service

	Intersection	Jurisdiction	Governing Jurisdiction / Area [1]	LOS Policy Criteria	AM Peak Hour			PM Peak Hour		
					Existing			Existing		
					Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)
84	65th Street Expy & Fruitridge Rd	City of Sacramento	City Default	D	Signal	C	31.2	Signal	D	35.3
85	Power Inn Rd & Elder Creek Rd	City of Sacramento	City Exempt Roadway	E	Signal	D	35.2	Signal	D	36.3
86	Power Inn Rd & Florin Rd	County	County Urban	E	Signal	D	36.3	Signal	D	45.9
87	Florin Perkins Rd & Florin Rd	County	County Urban	E	Signal	D	36.7	Signal	C	32.5
88	Bradshaw Rd & Calvine Rd	City of Elk Grove / County	Elk Grove	D	Signal	C	30.5	Signal	D	36.9
89	Vineyard Rd & Calvine Rd	City of Elk Grove / County	Elk Grove	D	Signal	C	30.8	Signal	C	34.9
90	Excelsior Rd & Calvine Rd	City of Elk Grove / County	Elk Grove	D	All-way stop	C	16.6	All-way stop	B	13.0
91	Grant Line Rd & Eagles Nest Rd/Sloughhouse Rd	County	County Urban	E	Signal	D	51.7	Signal	D	46.5
92	Grant Line Rd & Calvine Rd	City of Elk Grove / County	Elk Grove	D	Signal	C	21.4	Signal	C	24.0
93	Grant Line Rd & Dwy/Wilton Rd	City of Elk Grove	Elk Grove	D	Signal	**E**	**65.9**	Signal	**E**	**64.8**

Bold values do not meet LOS policy.

Table 2.2

Existing Intersection Levels of Service

Intersection		Jurisdiction	Governing Jurisdiction / Area [1]	LOS Policy Criteria	AM Peak Hour			PM Peak Hour		
					Existing			Existing		
					Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)
94	Grant Line Rd & Bond Rd/Wrangler Dr	City of Elk Grove	Elk Grove	D	Signal	C	33.3	Signal	D	46.4

[1] The following classifications are used to determine the applicable LOS Policy:
County Rural - Sacramento County, Outside Urban Service Boundary
County Urban - Sacramento County, Within Urban Service Boundary
City Default - City of Sacramento, Base Level of Service Standard
City Exempt Roadway - City of Sacramento, Roadways Exempt from Base Level of Service Standard
City Exempt Light Rail - City of Sacramento, Within 1/2 Mile Walking Distance of Light Rail Station

Bold values do not meet LOS policy.

The following intersections do not meet the level of service policies:

- South Watt Avenue and Elder Creek Road - a.m. and p.m. peak hours
- Bradshaw Road and Folsom Boulevard - a.m. peak hour
- Happy Lane and Old Placerville Road - northbound left turn - a.m. and p.m. peak hours
- Mather Field Road and Rockingham Drive - a.m. peak hour
- Zinfandel Drive and US 50 Eastbound Ramps / Gold Center Drive - p.m. peak hour
- Sunrise Boulevard and Jackson Road - a.m. peak hour
- Grant Line Road and Jackson Road - a.m. and p.m. peak hours
- Grant Line Road and Wilton Road - a.m. and p.m. peak hours

2.6.3 U.S. 50 Freeway

2.6.3.1 Freeway Mainline

Table 2.3 summarizes a.m. and p.m. peak hour US 50 freeway mainline operations. Details of the analysis are included in the technical appendix. The following locations exhibit LOS F conditions:

- Eastbound
  - Stockton Boulevard to 59th Street - a.m. and p.m. peak hours
  - Bradshaw Road to Mather Field Road - a.m. peak hour
  - Zinfandel Drive to Hazel Avenue - p.m. peak hour
- Westbound
  - Mather Field Road to Watt Avenue - a.m. peak hour
  - Watt Avenue to 59th Street - a.m. and p.m. peak hours
  - 59th Street to SR 51 / SR 99 - p.m. peak hour

2.6.3.2 Freeway Ramp Junctions / Weaving

Table 2.4 summarizes a.m. and p.m. peak hour freeway operations at ramp junctions and weaving areas. Details of the analysis are included in the technical appendix. The following locations exhibit LOS F conditions:

- Eastbound
  - Watt Avenue Entrance Merge - a.m. peak hour
  - Mather Field Road to Zinfandel Drive weave - a.m. peak hour
- Westbound
  - Sunrise Boulevard Entrance - a.m. peak hour

2.6.3.3 Freeway Ramp Intersection Queuing

Table 2.5 summarizes a.m. and p.m. peak hour freeway ramp intersection queuing. None of the existing queues extends onto the freeway mainline.

Table 2.3: Existing Peak Hour Freeway Mainline Level of Service

Direc-tion	Location	Mixed Flow Lanes	AM Peak Hour			PM Peak Hour		
			Volume	Density	LOS	Volume	Density	LOS
East-bound US 50	SR 99 / SR 51 to Stockton Boulevard	5	7,068	23.46	C	6,415	23.33	C
	Stockton Boulevard to 59th Street	5	7,470	35.05	**F**	7,228	41.46	**F**
	59th Street to 65th Street	4	6,767	27.40	D	6,641	28.36	D
	65th Street to Howe Avenue	5	7,962	28.05	D	7,562	29.71	D
	Howe Avenue to Watt Avenue	4	7,405	31.77	D	7,602	33.01	D
	Watt Avenue to Bradshaw Road	4	7,935	27.22	D	7,176	24.80	C
	Bradshaw Rd to Mather Field Rd	4	7,725	45.10	**F**	7,366	25.50	C
	Mather Field Rd to Zinfandel Drive	5	7,275	19.18	C	7,224	20.13	C
	Zinfandel Drive to Sunrise Blvd	4	5,121	20.08	C	6,649	42.12	**F**
	Sunrise Boulevard to Hazel Avenue	3	4,985	27.67	D	5,323	37.30	**F**
West-bound US 50	Hazel Avenue to Sunrise Boulevard	3	6,068	32.91	D	4,370	23.17	C
	Sunrise Blvd to Zinfandel Drive	4	7,502	33.31	D	4,762	19.30	C
	Zinfandel Drive to Mather Field Rd	5	7,548	21.96	C	5,765	14.85	B
	Mather Field Rd to Bradshaw Road	4	7,859	44.40	**F**	6,939	28.66	D
	Bradshaw Road to Watt Avenue	4	7,488	53.92	**F**	6,466	32.91	D
	Watt Avenue to Howe Avenue	5	7,376	53.44	**F**	6,234	28.04	**F**
	Howe Avenue to 65th Street	5	8,157	35.68	**F**	7,407	41.55	**F**
	65th Street to 59th Street	4	8,278	44.85	**F**	7,358	51.56	**F**
	59th Street to Stockton Boulevard	5	9,115	29.39	D	7,945	32.31	**F**
	Stockton Boulevard to SR 99 / SR 51	5	8,546	31.89	D	8,136	33.25	**F**

Density = passenger cars per hour per lane (pc/ph/pl). **Bold** values denote level of service "F" conditions.

Source: *DKS Associates, 2014.*

Table 2.4: Existing Peak Hour Freeway Ramp Junction/Weaving Level of Service						
Direc-tion	**Location**	**Junction Type**	**A.M. Peak Hour**		**P.M. Peak Hour**	
			Ramp Volume	**LOS**	**Ramp Volume**	**LOS**
East-bound US 50	Northbound 65th Street Slip Entrance	Weave	765	D	653	C
	Howe Avenue / Hornet Drive Exit		1,631		1,417	
	Southbound Howe Avenue Loop Entrance	One-Lane Merge	484	C	881	C
	Northbound Howe Avenue Slip Entrance	One-Lane Merge	419	C	431	C
	Watt Avenue Exit	Two-Lane Diverge	1,317	B	1,634	B
	Watt Avenue Entrance	One-Lane Merge	2,134	**F**	1,724	D
	Bradshaw Road Exit	Two-Lane Diverge	1,520	B	1,228	B
	Southbound Bradshaw Road Loop Entrance	One-Lane Merge	220	C	422	C
	Northbound Bradshaw Road Slip Entrance	One-Lane Merge	971	C	918	C
	Mather Field Road Exit	Two-Lane Diverge	1,266	B	1,062	A
	Southbound Mather Field Road Loop Entrance	One-Lane Merge	125	C	101	B
	Northbound Mather Field Road Slip Entrance	Weave	317	**F**	816	C
	Zinfandel Drive Exit		2,932		1,452	
	Southbound Zinfandel Drive Loop Entrance	One-Lane Merge	182	B	129	C
	Northbound Zinfandel Drive Slip Entrance	One-Lane Merge	348	B	540	C
	Sunrise Boulevard Exit	Major Diverge	1,773	C	1,959	D
	Sunrise Boulevard Entrance	One-Lane Merge	992	C	889	D
	Hazel Avenue Exit	Two-Lane Diverge	933	B	1,541	C
	Hazel Avenue Entrance	Weave	804	C	945	C
	Aerojet Road Exit		241		55	

Table 2.4: Existing Peak Hour Freeway Ramp Junction/Weaving Level of Service						
Direc-tion	**Location**	**Junction Type**	**A.M. Peak Hour**		**P.M. Peak Hour**	
			Ramp Volume	**LOS**	**Ramp Volume**	**LOS**
West-bound US 50	Hazel Avenue Exit	Two-Lane Diverge	631	A	869	A
	Northbound Hazel Avenue Loop Entrance	One-Lane Merge	160	B	600	B
	Southbound Hazel Avenue Slip Entrance	One-Lane Merge	1,550	B	800	B
	Sunrise Boulevard Exit	One-Lane Diverge	749	E	758	D
	Sunrise Blvd Entrance	Lane Addition	2,183	**F**	1,656	D
	Zinfandel Drive Exit	One-Lane Diverge	1,034	E	608	C
	Northbound Zinfandel Drive Loop Entrance	Lane Addition	585	B	1,197	B
	Southbound Zinfandel Drive Slip Entrance	One-Lane Merge	442	C	561	B
	Mather Field Road Exit	One-Lane Drop	1,093	C	556	A
	Northbound Mather Field Road Loop Entrance	One-Lane Merge	515	B	861	B
	Southbound Mather Field Road Slip Entrance	One-Lane Merge	387	B	380	B
	Bradshaw Road Exit	Two-Lane Diverge	1,236	B	1,327	B
	Northbound Bradshaw Road Loop Entrance	One-Lane Merge	914	D	910	C
	Southbound Bradshaw Road Slip Entrance	One-Lane Merge	338	D	590	C
	Watt Avenue Exit	Major Diverge	1,373	D	1,188	C
	Northbound Watt Avenue Entrance	One-Lane Merge	820	D	943	C
	Southbound Watt Avenue Slip Entrance	Lane Addition / Weave	1,232	C	1,317	D
	Howe Avenue Exit	Major Diverge / Weave	1,531	D	1,419	
	Northbound Howe Avenue Loop Entrance	One-Lane Merge	654	D	602	C
	Southbound Howe Avenue Slip Entrance	One-Lane Merge	574	C	574	C

Bold values denote level of service "F" conditions.

Source: *DKS Associates, 2014.*

Table 2.5: Existing Peak Hour Freeway Ramp Termini Queuing

Direction	US 50 Exit Ramp	Available Storage Length (feet / lane)			Maximum Queue Length (feet / lane)					
					Existing AM Peak Hour			Existing PM Peak Hour		
		L	T	R	L	T	R	L	T	R
Eastbound US-50	Howe Avenue	765	-	765	200	-	378	224	-	247
	Watt Avenue	1,500	-	1,500	179	-	201	254	-	181
	Bradshaw Road	1,250	-	1,250	198	-	509	164	-	414
	Mather Field Road	1,385	-	1,385	207	-	554	271	-	61
	Zinfandel Drive	1,025	1,025	1,025	218	810	746	430	361	131
	Sunrise Boulevard	1,695	-	1,695	283	-	184	360	-	76
	Hazel Avenue	1,310	-	1,310	317	-	76	808	-	29
Westbound US-50	Hazel Avenue	1,995		1,995	271		48	281	271	499
	Sunrise Boulevard	1,540	-	1,540	134	-	165	133	-	172
	Zinfandel Drive	1,065	-	1,065	390	-	68	132	-	199
	Mather Field Road	1,335	-	1,335	594	-	538	222	-	97
	Bradshaw Road	1,330	-	1,330	326	-	107	389	-	31
	Watt Avenue	1,480	-	1,480	147	-	448	94	-	425
	Howe Avenue	1,355	1,355	1,355	192	412	123	241	412	239

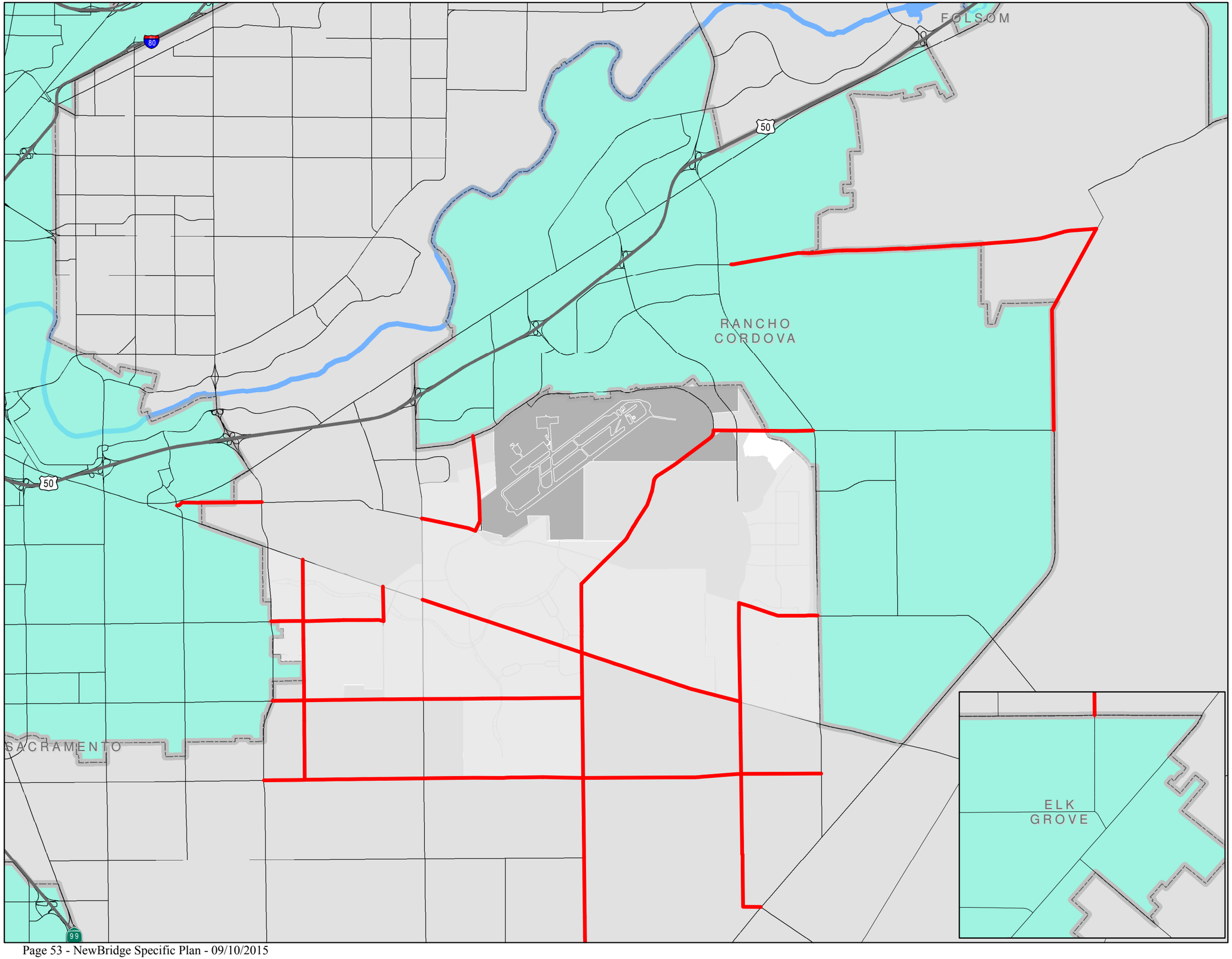
L = left turn movement, T = through movement, R = right turn movement

Source: *DKS Associates, 2014.*

2.6.4 Rural Roadway Functionality

Figure 2.5 shows rural roadway segments that currently do not meet the County standard of 12-foot vehicle lanes with 6-foot paved shoulders. Sacramento County is currently the only jurisdiction that has policies regarding the functionality of rural roadways, therefore the functionality of rural roadways in other jurisdictions was not considered in the traffic study. Table 2.6 summarizes substandard County rural roadways in the study area.

FIGURE 2.5
EXISTING SUBSTANDARD ROADWAYS



Legend

- Substandard Roadways
- Cities
- Mather Airport

Table 2.6
Existing Substandard Roadway Segments

ID	Roadway	Segment		Jurisdiction	Existing Substandard Roadways			
		From	To		Travel Lanes	Pavement (ft)	Substandard? [1]	Existing Volume
15	Douglas Rd	Mather Blvd	Zinfandel Dr	County	2	23	Yes	6,635
16	Douglas Rd	Zinfandel Dr	Sunrise Blvd	Rancho Cordova/County	2	23	Yes	8,369
19	Eagles Nest Rd	Kiefer Blvd	Jackson Rd	County	2	20	Yes	740
20	Eagles Nest Rd	Jackson Rd	Florin Rd	County	2	<21	Yes	517
21	Eagles Nest Rd	Florin Rd	Grant Line Rd	County	2	<21	Yes	189
25	Elder Creek Rd	South Watt Ave	Hedge Ave	County	2	23	Yes	5,576
26	Elder Creek Rd	Hedge Ave	Mayhew Rd	County	2	23	Yes	5,797
27	Elder Creek Rd	Mayhew Rd	Bradshaw Rd	County	2	23	Yes	5,355
28	Elder Creek Rd	Bradshaw Rd	Excelsior Rd	County	2	23	Yes	2,158
30	Excelsior Rd	Kiefer Blvd	Jackson Rd	County	2	22	Yes	3,716
31	Excelsior Rd	Jackson Rd	Elder Creek Rd	County	2	<21	Yes	5,075
32	Excelsior Rd	Elder Creek Rd	Florin Rd	County	2	<21	Yes	4,203
33	Excelsior Rd	Florin Rd	Gerber Rd	County	2	<21	Yes	5,423
34	Excelsior Rd	Gerber Rd	Calvine Rd	County	2	<21	Yes	4,229
39	Florin Rd	South Watt Ave	Hedge Ave	County	2	22	Yes	7,718
40	Florin Rd	Hedge Ave	Mayhew Rd	County	2	22	Yes	6,312
41	Florin Rd	Mayhew Rd	Bradshaw Rd	County	2	22	Yes	6,317
42	Florin Rd	Bradshaw Rd	Excelsior Rd	County	2	22	Yes	3,478
43	Florin Rd	Excelsior Rd	Sunrise Blvd	County	2	22	Yes	3,835
48	Fruitridge Rd	South Watt Ave	Hedge Ave	City of Sacramento/ County	2	22	Yes	2,890
49	Fruitridge Rd	Hedge Ave	Mayhew Rd	County	2	22	Yes	1,790
50	Grant Line Rd	White Rock Rd	Douglas Rd	Rancho Cordova/County	2	22	Yes	7,189
58	Happy Ln	Old Placerville Rd	Kiefer Blvd	County	2	22	Yes	4,635
59	Hedge Ave	Jackson Rd	Fruitridge Rd	County	2	22	Yes	3,061
60	Hedge Ave	Fruitridge Rd	Elder Creek Rd	City of Sacramento/County	2	22	Yes	3,737
61	Hedge Ave	Elder Creek Rd	Florin Rd	County	2	22	Yes	2,722

Table 2.6
Existing Substandard Roadway Segments

ID	Roadway	Segment		Jurisdiction	Existing Substandard Roadways			
		From	To		Travel Lanes	Pavement (ft)	Substandard? [1]	Existing Volume
70	Jackson Rd	Bradshaw Rd	Excelsior Rd	County	2	26	Yes	13,030
71	Jackson Rd	Excelsior Rd	Eagles Nest Rd	County	2	26	Yes	10,478
74	Kiefer Blvd	Florin Perkins Rd	South Watt Ave	City of Sacramento/County	2	22	Yes	4,616
77	Kiefer Blvd	Bradshaw Rd	Happy Ln	County	2	22	Yes	4,618
78	Kiefer Blvd	Zinfandel Dr	Sunrise Blvd	County	2	22	Yes	656
83	Mather Blvd-Excelsior Rd[4]	Douglas Rd	Kiefer Blvd	County	2	22	Yes	6,751
89	Mayhew Rd	Jackson Rd	Fruitridge Rd	County	2	22	Yes	1,616
116	White Rock Rd	Fitzgerald Rd	Grant Line Rd	Rancho Cordova/County	2	20	Yes	2,490
123	Zinfandel Dr	Douglas Rd	Kiefer Blvd	County	2	<21	Yes	2,848

Note: Gray shading indicates changes in travel lanes or facility type that the project is responsible to provide. For all roadway segments to be widened, the project is responsible to build the entire roadway to County standards.

[1] Substandard rural roads are defined as rural, 2-lane roadway segments with travel lanes narrower than 12 feet and/or roadside shoulders narrower than 6 feet.

[2] Functionality impacts are triggered when a substandard rural road increases over a threshold of 6,000 ADT, or for a roadway already above 6,000 ADT, increases by more than 600 ADT.

[3] The potential for an impact exists should the project generate traffic volumes on the roadway exceeding 6,000 ADT, or increasing more than 600 ADT on a roadway already above 6,000 ADT, prior to the construction of roadway improvements.

[4] Excluding the roadway segment that is within the developed community of Independence at Mather.

[5] The functionality impact is mitigated by improving the roadway to County standards, including widening travel lanes to 12 feet and/or widening or providing paved shoulders to 6 feet.

3. EXISTING PLUS NEWBRIDGE PROJECT

3.1 NEWBRIDGE PROJECT DESCRIPTION

As illustrated previously in Figure 1.1, the NewBridge project is located in unincorporated Sacramento County, generally east of the City of Sacramento and south of the City of Rancho Cordova and Mather Airport. It is bounded on the south by Jackson Road (SR 16), on the east by Sunrise Boulevard, and on the north by existing and future Kiefer Boulevard. The western boundary is located west of Eagles Nest Road.

3.1.1 Land Use

Table 3.1 summarizes the NewBridge project land use.

The SACSIM model (used to estimate travel demand by travel mode) requires estimates of the number and demographics of people who would live in each household as well as key social/economic characteristics of each household. SACOG helped estimate the required household demographics based on the number housing units by density category and detailed local Census data compiled by housing types.

SACSIM also requires employment by type for each parcel in the NewBridge project. The applicant provided number of acres and square feet by non-residential category on each parcel. Employment estimates were then estimated using average square feet per employee and per student. The total employment in the NewBridge project was estimated to be about 1,350.

The model also requires the estimated enrollment at each school within the NewBridge project. The total enrollment for the one elementary school was estimated at about 750 students. Some of those students would come from housing units outside the NewBridge project.

3.1.2 Transportation Network

3.1.2.1 Roadway Segments and Intersections

Figure 3.1 illustrates the NewBridge project transportation network. The NewBridge project would widen and / or complete many roadways that cross or border the site, and would include new roadways to serve the proposed land use. Sections 3.4.1 and 3.4.2 include information regarding the roadway segment and intersection improvements that are considered part of the NewBridge project.

3.1.2.2 Pedestrian and Bicycle Facilities

Figure 3.2 illustrates the proposed bikeway and trail plan of the NewBridge project. Numerous off-street (Class I) multi-purpose trails would be provided to enhance the local and regional active transportation network. Crossing enhancements would be provided at key intersections both internal to the project and on the boundary.

Table 3.1: Land Use Summary for the NewBridge Specific Plan

Land Use Category	Acres	Residential			Non-Residential	
		Density Range	Ave Density	Dwelling Units	Floor Area Ratio	Estimated Square Feet
Low Density	225.2	< 7	4.8	1,085		
Medium Density	107.3	7 – 22.9	8.2	880		
High Density	37.3	23 - 40	25.5	950		
High Density Bonus Units[1]				113		
Commercial	19.2				0.227	190,000
Mixed Use	11.7	> 30		160	0.255	130,000
Office	14.0				0.295	180,000
Park	41.3					
Open Space	471.7					
Elementary School	9.4					
Other Public/Quasi-Public	2.8					
Major Roads	50.0					
Agriculture (Ag Res)	105.4			660		60,000
Total	**1,095.3**			**3,848**		**560,000**

[1] Includes bonus units in both the high density and mixed use areas.

Source: *Project Applicant*

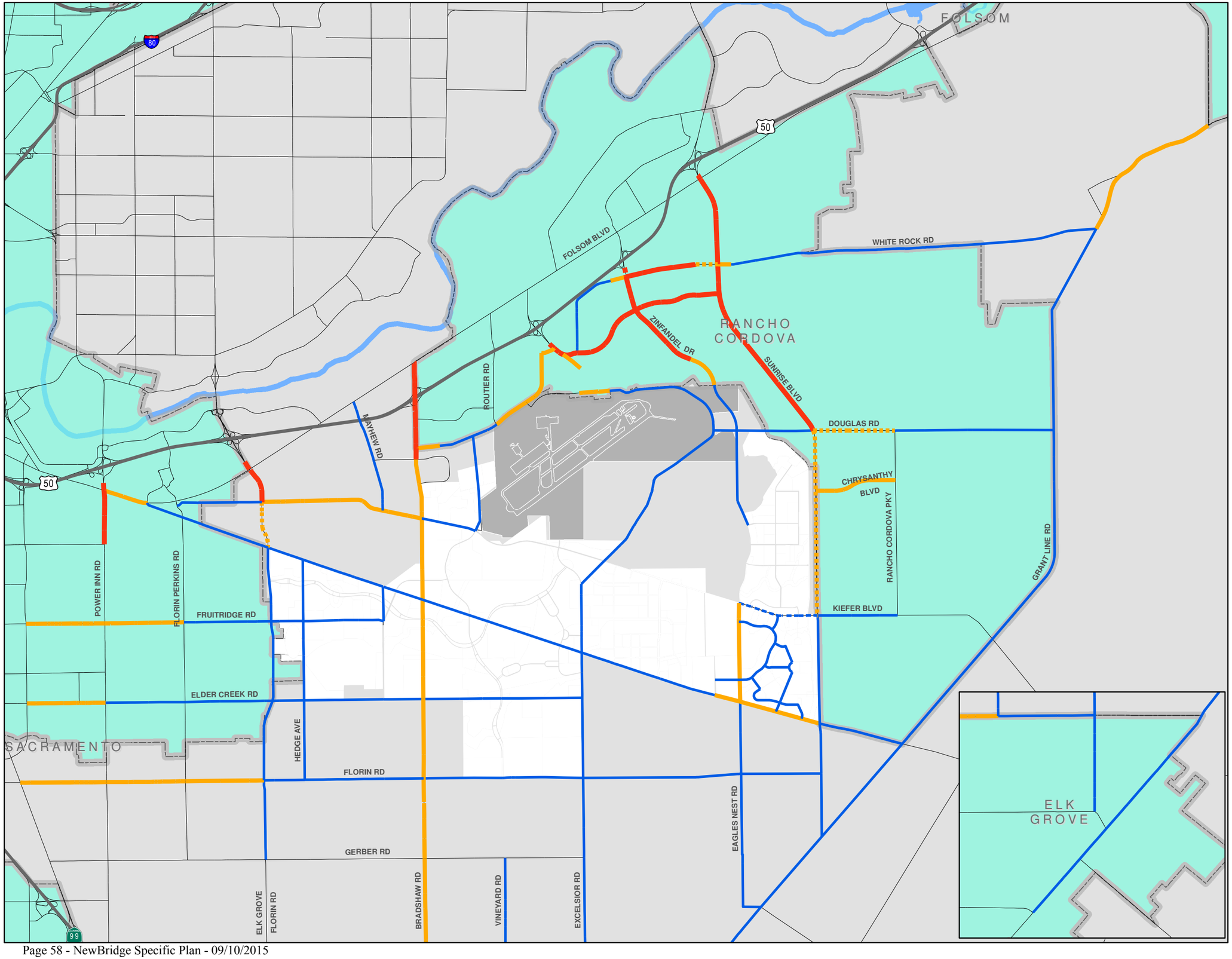


FIGURE 3.1
EXISTING PLUS NEWBRIDGE ROADWAY NETWORK

Legend

- 2 Lanes
- 3 Lanes
- 4 Lanes
- 5 Lanes
- 6 Lanes
- 7 Lanes
- Cities
- Mather Airport

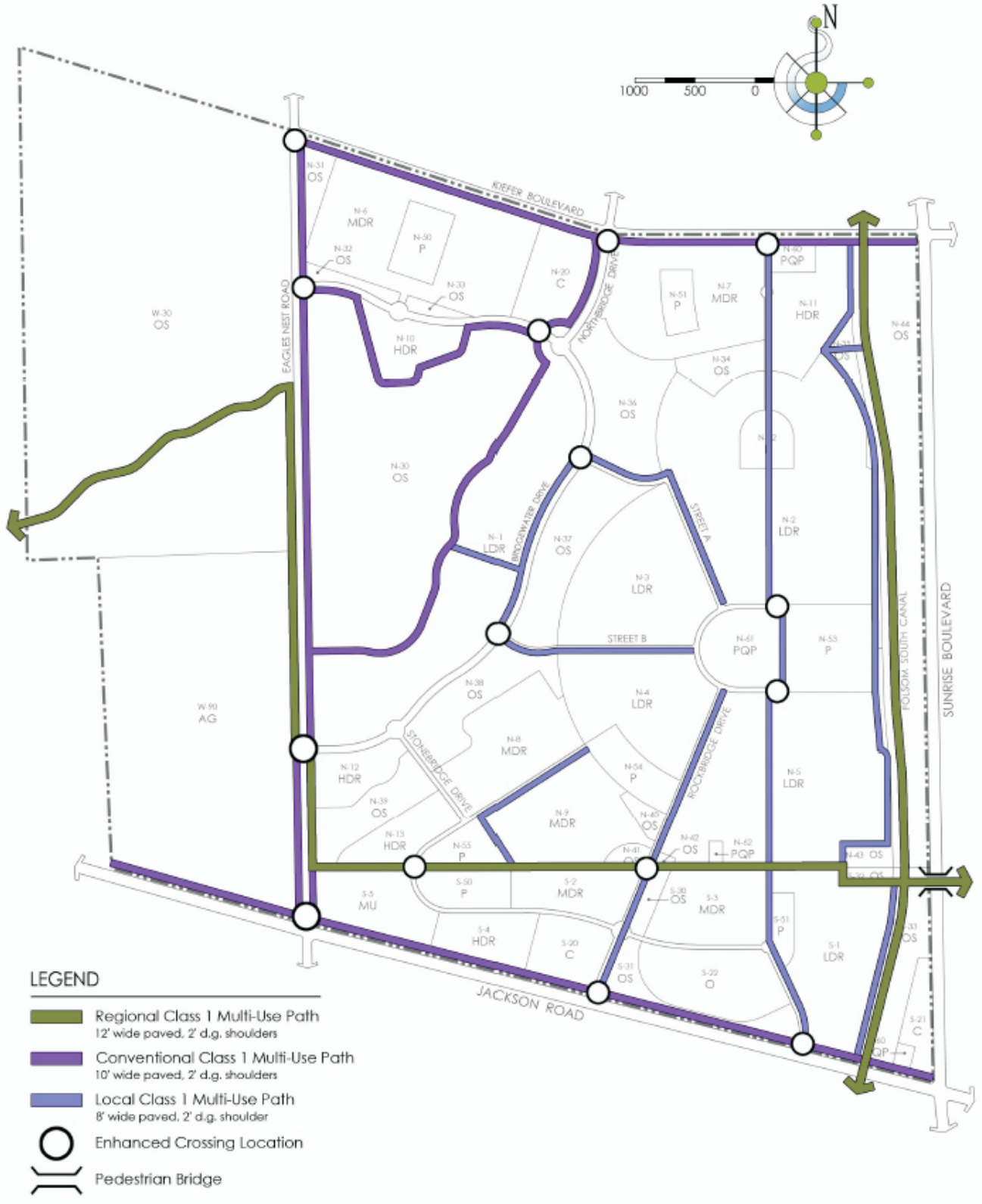


FIGURE 3.2
PROPOSED BIKEWAY AND TRAILS MASTER PLAN

3.1.2.3 Transit System

Consistent with Sacramento County's General Plan policy LU-120, the NewBridge project incorporates higher density land uses and mixed uses along transportation corridors to help support transit use. However, as described in Section 2.2, existing transit service is very limited near the NewBridge project. The transit provider for the area, Sacramento Regional Transit (RT), has developed a long-range transit plan that anticipates three additional high frequency transit lines in the general area by the year 2035. However, even with this additional transit network, the NewBridge project would likely not meet the County's General Plan policy.

To comply with the County's General Plan Policy LU-120, a separate planning effort involving staff from Sacramento County, RT, DKS, and the applicants of the FOUR PROJECTS was conducted to define an appropriate transit network and frequency that could serve the proposed development in the Jackson Corridor consistent with the intent of the County's policies.

An important consideration in the development of a transit network for the Jackson Corridor is that there are four major development projects proposed in the Jackson Corridor (FOUR PROJECTS) The transit planning effort needed to define standalone transit systems for each of the FOUR PROJECTS that would not only serve the transit needs of each of the FOUR PROJECTS independently, but would also serve as cohesive and complementary transit system units that could operate efficiently together should more than one of the FOUR PROJECTS be approved for development.

A series of transit networks and service frequencies were developed and tested using the SACSIM model with the objective of optimizing transit ridership and the number of boardings. Utilizing RT's performance criteria for evaluating the effectiveness of the various transit lines and service frequencies, an optimum transit network and frequency was developed for the Jackson Corridor.

The planning effort resulted in four transit lines that would serve the FOUR PROJECTS in the Jackson Corridor at a frequency of 15 minutes throughout the typical operating hours (approximately 6 AM to 8 PM) on weekdays. Figure 3.3 illustrates the proposed transit system for the NewBridge project, which represents a portion of the ultimate transit system that would serve the FOUR PROJECTS. The combined transit system for the FOUR PROJECTS is discussed and illustrated in Section 4.1.2.3.

The proposed transit system for the NewBridge project has been assumed as an attribute of the NewBridge project and has been included in the traffic modeling for this traffic analysis. The assumed transit routes and service frequency would be required at full development of the NewBridge project. The full level of transit service would not achieve adequate transit ridership during the early stages of development. Thus the ultimate transit service, like the roadway system serving the NewBridge project, must be phased with development of the NewBridge project.

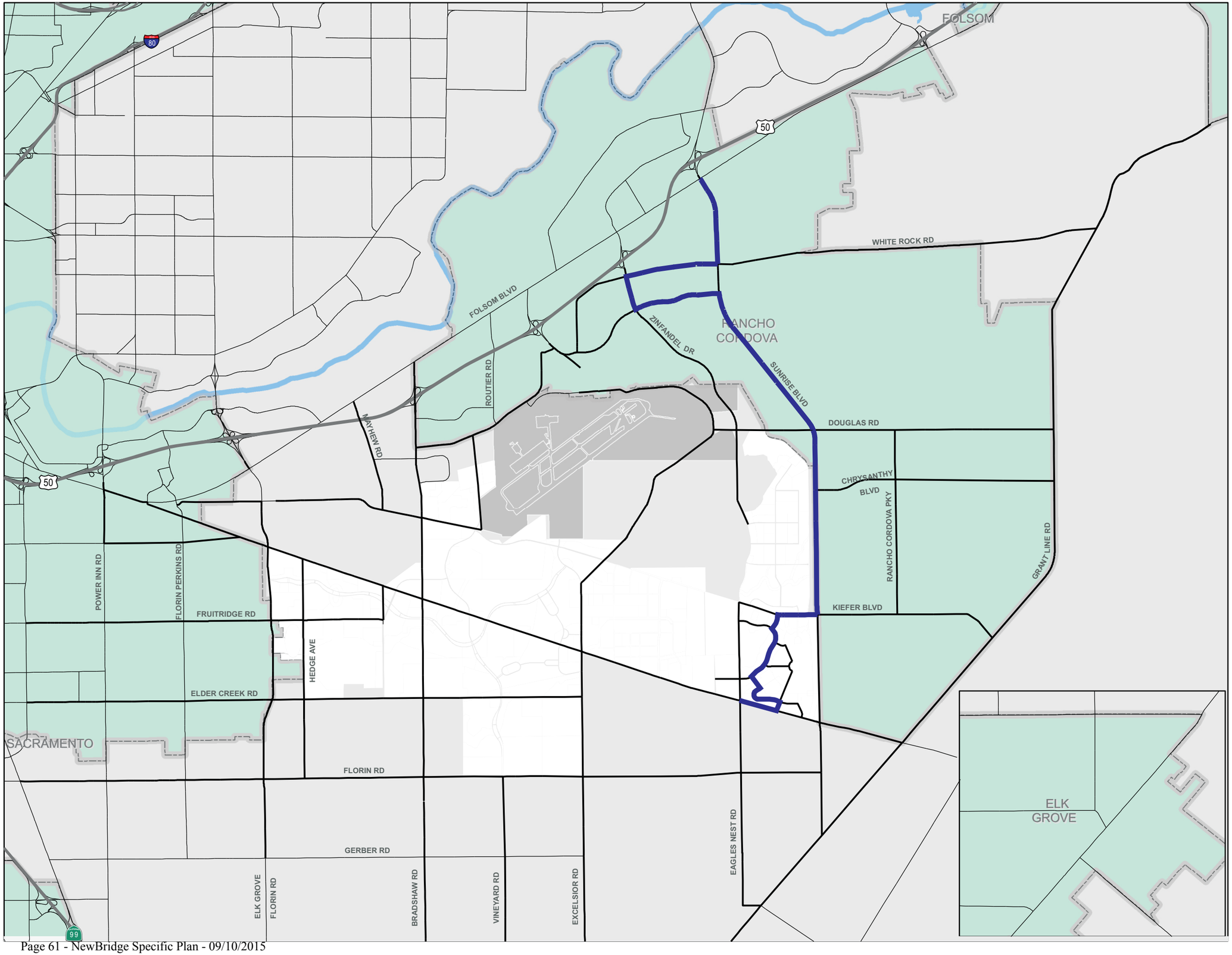


FIGURE 3.3
PROJECT TRANSIT NETWORK
EXISTING PLUS NEWBRIDGE

Legend

- NewBridge Local Route (NB)
- Cities
- Mather Airport

3.2 TRIP GENERATION

The SACSIM model that has been utilized for the transportation forecasts in this analysis estimated trip generation of the NewBridge project. Table 3.2 summarizes the person trip generation. The NewBridge project would generate over 7,000 daily work person trip ends, and over 45,000 daily person trip ends for all trip purposes.

Table 3.3 summarizes the estimated mode choice for the Existing plus NewBridge project scenario. About 88.9 percent of all person trips are expected to be accommodated by automobile. Transit will serve about 1.1 percent of all trips, while walk and bike modes will accommodate about 9.9 percent of all trips. The mode choice assumes full implementation of the project's pedestrian and bicycle systems.

Table 3.4 summarizes the vehicular (auto) trip generation of the NewBridge project. The NewBridge project is estimated to generate over 27,000 daily vehicle trip ends. It should be noted that more than one person trip may be accommodated by a vehicle trip (e.g. carpooling). About 2,400 of the daily vehicle trip ends will be associated with trips with both an origin and destination within the NewBridge project, about 9 percent of the trip ends. The internal trip ends represent about 1,200 daily vehicle trips (one-half the number of internal trip ends). The NewBridge project will generate about 25,000 external vehicle trips that have an origin or destination inside the NewBridge project but the other end of the trip is outside the NewBridge project. Table 3.4 also shows the vehicle trips generated during the a.m. and p.m. peak hours.

3.3 TRIP DISTRIBUTION

The distribution of trips associated with development on the NewBridge project site was derived utilizing SACSIM, incorporating the proposed land use and access locations associated with the NewBridge project site. Trip distribution varies by land use and time period. Figure 3.4 illustrates the overall trip distribution of daily NewBridge project trips with the Existing Plus NewBridge project scenario. The highest percentages of NewBridge project traffic are accommodated on Jackson Road and Sunrise Boulevard.

3.4 OPERATIONS ANALYSIS AND IMPACTS

For purposes of this analysis, full development of the NewBridge project is assumed to occur "instantaneously." In this manner, the traffic and impacts associated with the NewBridge project can be directly compared to known and measured conditions. Existing scenario impacts are determined by comparing the traffic operating conditions associated with the NewBridge project with the traffic operating conditions associated with the existing (without development) conditions, and comparing the change to the thresholds of significance. Figure 3.5 illustrates the resultant traffic operating conditions.

Table 3.2: Estimated Daily Person Trip Generation (Existing Plus Project Scenario)
NewBridge Specific Plan

Trip Purpose	Daily Person Trip Ends
Work Trips	7,041
Non-Work Trips	38,001
All Trip Purposes	45,042

Source: *DKS Associates, 2014.*

Table 3.3: Mode Split (Existing Plus Project Scenario)
NewBridge Specific Plan

Mode	Percentage of Person Trips by Trip Purpose		
	Work Trips	Non-Work Trips	All Trip Purposes
Auto - SOV	87.7%	43.8%	50.6%
Auto - HOV	9.3%	43.7%	38.3%
Transit	1.8%	1.0%	1.1%
Walk	0.9%	10.9%	9.3%
Bike	0.3%	0.7%	0.6%

Source: *DKS Associates, 2014.*

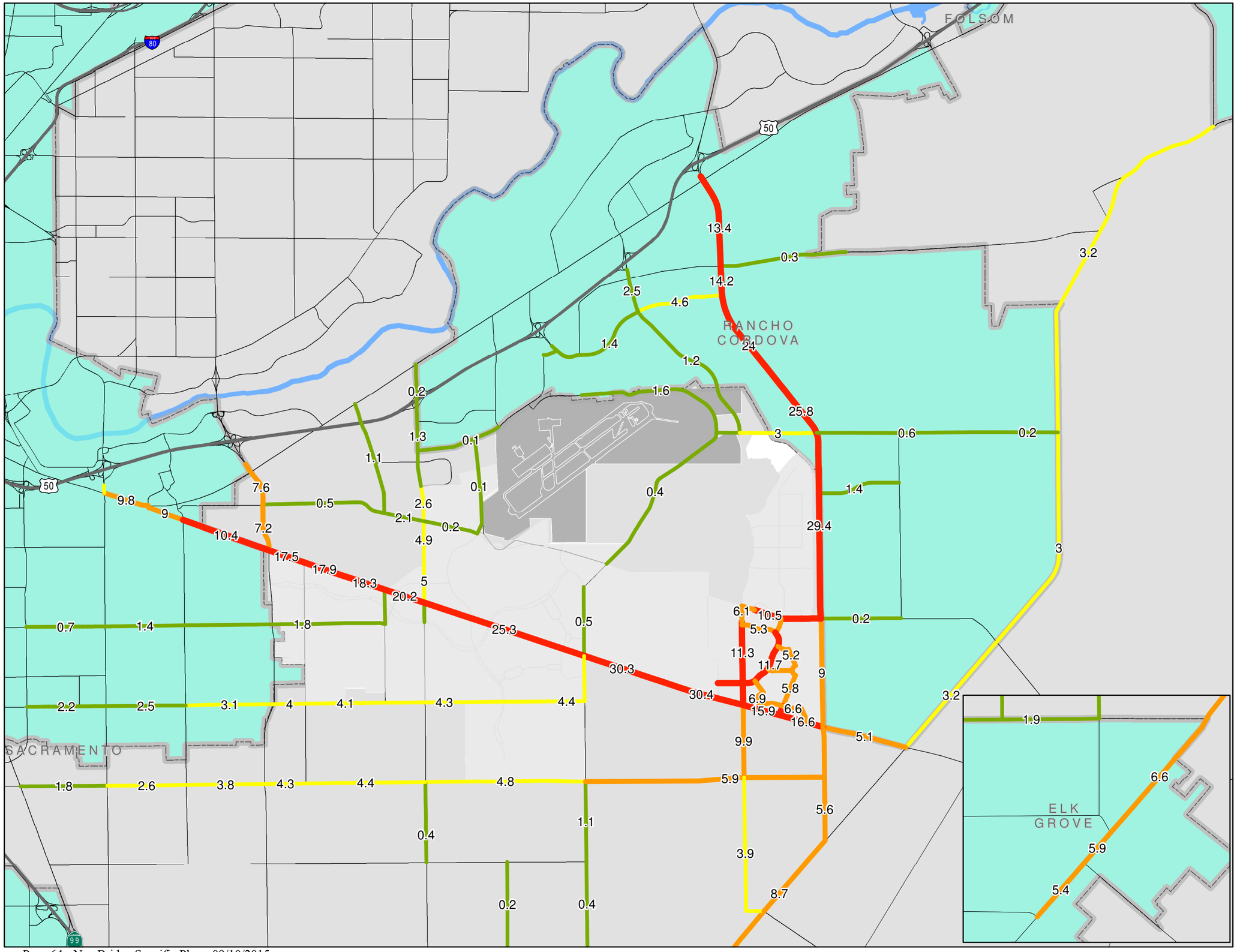
Table 3.4: Estimated Daily Vehicle Trip Generation (Existing Plus Project Scenario)
NewBridge Specific Plan

Trip Type		AM Peak Hour	PM Peak Hour	Daily
Total Vehicle Trip Ends		2,631	3,484	29,825
Percent Internal Trip Ends[1]		14.7%	19.7%	16.4%
Vehicle Trips	Internal to Project	194	343	2,448
	External to Project	2,243	2,799	24,930
	Total	2,437	3,142	27,378

[1.] Both trip ends within the project.

Source: *DKS Associates, 2014.*

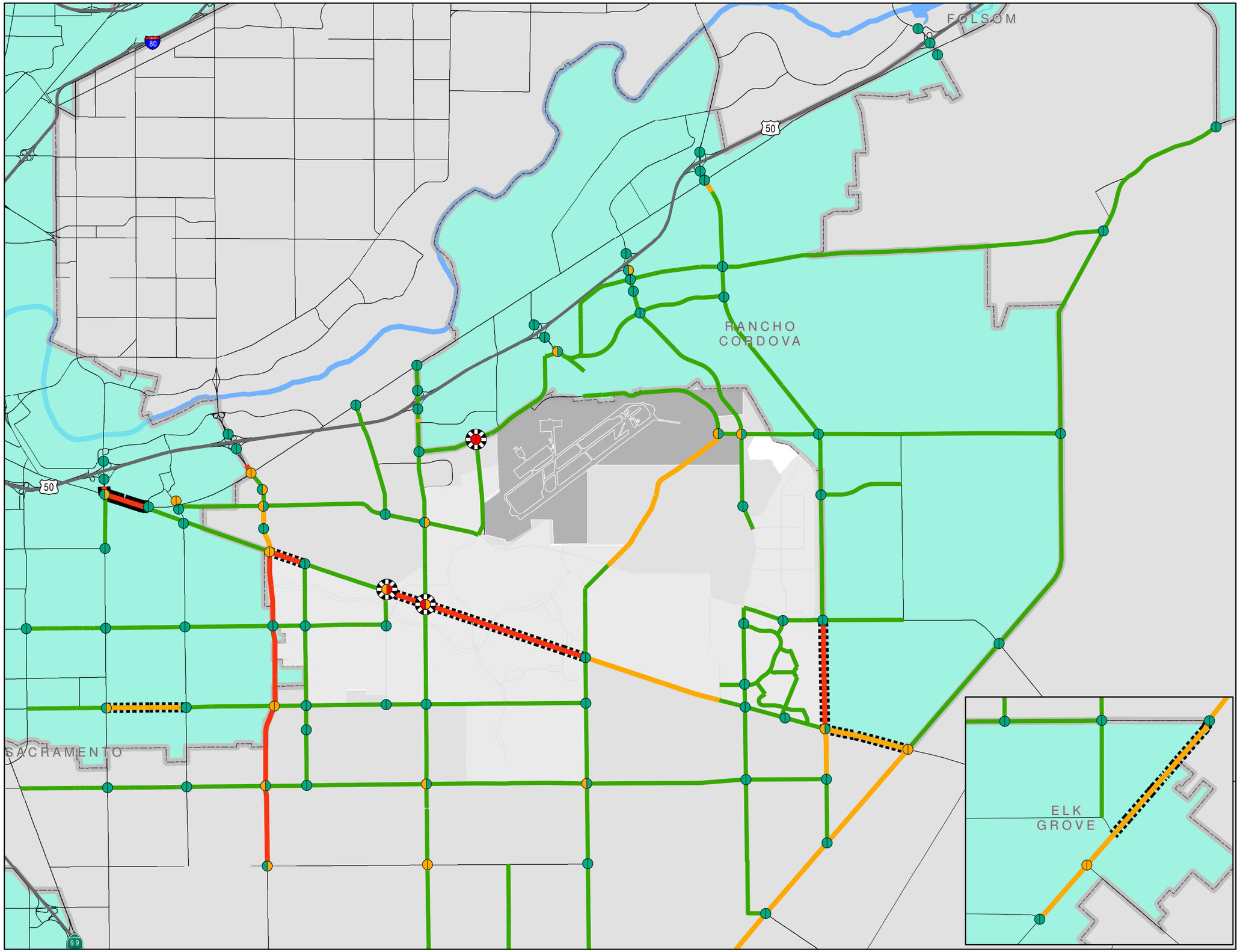
FIGURE 3.4
EXISTING PLUS NEWBRIDGE
TRIP DISTRIBUTION



Legend

- 0.1% to 2.5%
- 2.6% to 5.0%
- 5.1% to 10.0%
- 10.0% and up
- Freeways
- Other Major Roadways
- Cities
- Mather Airport

FIGURE 3.5
EXISTING PLUS NEWBRIDGE ROADWAY SEGMENT AND INTERSECTION LOS AND IMPACTS



Legend

Intersections (AM Peak Hour)
- LOS A-D
- LOS E
- LOS F

Intersections (PM Peak Hour)
- LOS A-D
- LOS E
- LOS F
- Mitigable Intersection Impact
- Unavoidable Intersection Impact

Roadway Segments
- LOS A-D
- LOS E
- LOS F

Impacts
- Unavoidable Segment Impact
- Mitigable Segment Impact
- Cities
- Mather Airport

DKS

3.4.1 Existing Plus NewBridge Project Roadway Segment Impacts

Table 3.5 summarizes the results of the operations analysis for the study area roadway segments. The table includes the number of lanes assumed with the implementation of the NewBridge project, which in many cases is greater than the number of lanes in the existing condition. The shaded table cells under the "Travel Lanes" and "Facility Type" headings illustrate new roadways and widened roadways that are assumed part of the NewBridge project. The shaded table cells under the "Level of Service" heading indicate those locations with an LOS impact.

As stated above, the traffic analysis assumed that the NewBridge project would construct a number of travel lanes on roadway segments that are internal to or on the boundary of the NewBridge project, which would be greater than the number of lanes in the existing condition. The timing of implementation of such additional traffic lanes on these internal or boundary roadway segments will affect whether or not impacts would exist at some time prior to full build out of the NewBridge project.

3.4.2 Existing Plus NewBridge Project Intersection Impacts

Tables 3.6 and 3.7 summarize the results of the operations analysis for the study area intersections. The tables include the implementation of intersection changes associated with the NewBridge project. Table 3.7 illustrates the type of traffic control and number of lanes by type on each study area intersection approach. Shaded table cells indicate those locations where changes in traffic control and / or number of approach lanes by type were assumed to be implemented by the NewBridge project. Shaded table cells in Table 3.6 illustrate those locations with an LOS impact. Detailed analysis information is included in the technical appendix.

As stated above, the traffic analysis assumed that the NewBridge project would construct a number of changes to many of the intersections that are internal to or on the boundary of the NewBridge project, which would be an improvement over the existing condition. The timing of implementation of such intersection improvements on these internal or boundary roadway segments will affect whether or not impacts would exist at some time prior to full build out of the NewBridge project.

Signal warrant analysis was conducted for all unsignalized intersections along Jackson Road, and other unsignalized intersections in close proximity to the project. The project is considered to have a significant impact at an unsignalized location if both the impact criteria in Table 1.6 are met, and one or more of the signal warrants specified in the California Manual on Uniform Traffic Control Devices (CAMUTCD) are met. Detailed signal warrant calculation sheets are included in the technical appendix. The following unsignalized intersections exhibit significant impacts and meet one or more traffic signal warrants:

- Mayhew Road and Jackson Road
- Happy Lane and Old Placerville Road

Table 3.5
Existing Plus NewBridge Project Roadway Segment Levels of Service

ID	Roadway	Segment		Existing					Existing + NewBridge Project				
		From	To	Travel Lanes	Facility Type[1]	Daily Volume	Volume / Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service
1	Bradshaw Rd	Folsom Blvd	US 50	6	Arterial M	20,592	0.38	A	6	Arterial M	20,630	0.38	A
2	Bradshaw Rd	US 50	Lincoln Village Dr	6	Arterial M	52,590	0.97	**E**	6	Arterial M	53,140	0.98	**E**
3	Bradshaw Rd	Lincoln Village Dr	Old Placerville Rd	6	Arterial M	42,787	0.79	C	6	Arterial M	43,520	0.81	D
4	Bradshaw Rd	Old Placerville Rd	Goethe Rd	6	Arterial M	38,984	0.72	C	6	Arterial M	39,340	0.73	C
5	Bradshaw Rd	Goethe Rd	Kiefer Blvd	4	Arterial M	28,651	0.80	C	4	Arterial M	28,990	0.81	D
6	Bradshaw Rd	Kiefer Blvd	Jackson Rd	4	Arterial M	30,726	0.85	D	4	Arterial M	32,250	0.90	D
7	Bradshaw Rd	Jackson Rd	Elder Creek Rd	4	Arterial M	22,871	0.64	B	4	Arterial M	22,550	0.63	B
8	Bradshaw Rd	Elder Creek Rd	Florin Rd	4	Arterial M	22,265	0.62	B	4	Arterial M	22,030	0.61	B
9	Bradshaw Rd	Florin Rd	Gerber Rd	4	Arterial M	22,883	0.64	B	4	Arterial M	22,940	0.64	B
10	Bradshaw Rd	Gerber Rd	Calvine Rd	4	Arterial M	16,984	0.47	A	4	Arterial M	17,040	0.47	A
11	Calvine Rd	Waterman Rd	Bradshaw Rd	4	Arterial M	16,015	0.44	A	4	Arterial M	16,410	0.46	A
12	Calvine Rd	Bradshaw Rd	Vineyard Rd	4	Arterial M	12,395	0.34	A	4	Arterial M	12,900	0.36	A
13	Calvine Rd	Vineyard Rd	Excelsior Rd	2	Arterial M	6,036	0.34	A	2	Arterial M	6,560	0.36	A
14	Chrysanthy Blvd	Sunrise Blvd	Rancho Cordova Pkwy	4	Arterial M	3,411	0.09	A	4	Arterial M	3,930	0.11	A
15	Douglas Rd	Mather Blvd	Zinfandel Dr	2	Arterial M	6,635	0.37	A	2	Arterial M	7,250	0.40	A
16	Douglas Rd	Zinfandel Dr	Sunrise Blvd	2	Arterial M	8,369	0.46	A	2	Arterial M	9,750	0.54	A
17	Douglas Rd	Sunrise Blvd	Rancho Cordova Pkwy	5	Arterial M	3,674	0.10	A	5	Arterial M	4,680	0.13	A
18	Douglas Rd	Rancho Cordova Pkwy	Grant Line Rd	2	Arterial M	3,674	0.20	A	2	Arterial M	3,910	0.22	A
19.1	Eagles Nest Rd	Kiefer Blvd	N Bridgewater Dr	2	Arterial M	740	0.04	A	4	Arterial M	2,510	0.07	A
19.2	Eagles Nest Rd	N Bridgewater Dr	S Bridgewater Dr	2	Arterial M	740	0.04	A	4	Arterial M	4,020	0.11	A
19.3	Eagles Nest Rd	S Bridgewater Dr	Jackson Rd	2	Arterial M	740	0.04	A	4	Arterial M	9,790	0.27	A
20	Eagles Nest Rd	Jackson Rd	Florin Rd	2	Arterial M	517	0.03	A	2	Arterial M	3460	0.19	A
21	Eagles Nest Rd	Florin Rd	Grant Line Rd	2	Arterial M	189	0.01	A	2	Arterial M	1330	0.07	A
22	Elder Creek Rd	65th St	Power Inn Rd	4	Arterial M	17,891	0.50	A	4	Arterial M	18,200	0.51	A
23	Elder Creek Rd	Power Inn Rd	Florin-Perkins Rd	2	Arterial M	15,734	0.87	D	2	Arterial M	16,320	0.91	**E**
24	Elder Creek Rd	Florin Perkins Rd	South Watt Ave	2	Arterial M	11,092	0.62	B	2	Arterial M	11,830	0.66	B
25	Elder Creek Rd	South Watt Ave	Hedge Ave	2	Arterial M	5,576	0.31	A	2	Arterial M	6,300	0.35	A
26	Elder Creek Rd	Hedge Ave	Mayhew Rd	2	Arterial M	5,797	0.32	A	2	Arterial M	6,540	0.36	A
27	Elder Creek Rd	Mayhew Rd	Bradshaw Rd	2	Arterial M	5,355	0.30	A	2	Arterial M	6,400	0.36	A
28	Elder Creek Rd	Bradshaw Rd	Excelsior Rd	2	Arterial M	2,158	0.12	A	2	Arterial M	3,440	0.19	A
29	Elk Grove-Florin Rd	Florin Rd	Gerber Rd	2	Arterial M	22,960	1.28	**F**	2	Arterial M	22,910	1.27	**F**
30	Excelsior Rd	Kiefer Blvd	Jackson Rd	2	Arterial M	3,716	0.21	A	2	Arterial M	3,660	0.20	A
31	Excelsior Rd	Jackson Rd	Elder Creek Rd	2	Arterial M	5,075	0.28	A	2	Arterial M	5,470	0.30	A

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Table 3.5
Existing Plus NewBridge Project Roadway Segment Levels of Service

ID	Roadway	Segment		Existing					Existing + NewBridge Project				
		From	To	Travel Lanes	Facility Type[1]	Daily Volume	Volume / Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service
32	Excelsior Rd	Elder Creek Rd	Florin Rd	2	Arterial M	4,203	0.23	A	2	Arterial M	3,990	0.22	A
33	Excelsior Rd	Florin Rd	Gerber Rd	2	Arterial M	5,423	0.30	A	2	Arterial M	5,390	0.30	A
34	Excelsior Rd	Gerber Rd	Calvine Rd	2	Arterial M	4,229	0.23	A	2	Arterial M	3,970	0.22	A
35	Excelsior Rd	Calvine Rd	Sheldon Rd	2	Arterial M	4,473	0.25	A	2	Arterial M	4,400	0.24	A
36	Florin Rd	Stockton Blvd	Power Inn Rd	4	Arterial M	27,495	0.76	C	4	Arterial M	28,310	0.79	C
37	Florin Rd	Power Inn Rd	Florin-Perkins Rd	4	Arterial M	21,595	0.60	A	4	Arterial M	22,690	0.63	B
38	Florin Rd	Florin-Perkins Rd	So Watt Ave/ Elk Grove Florin Rd	4	Arterial M	14,163	0.39	A	4	Arterial M	15,540	0.43	A
39	Florin Rd	South Watt Ave	Hedge Ave	2	Arterial M	7,718	0.43	A	2	Arterial M	8,940	0.50	A
40	Florin Rd	Hedge Ave	Mayhew Rd	2	Arterial M	6,312	0.35	A	2	Arterial M	7,680	0.43	A
41	Florin Rd	Mayhew Rd	Bradshaw Rd	2	Arterial M	6,317	0.35	A	2	Arterial M	7,750	0.43	A
42	Florin Rd	Bradshaw Rd	Excelsior Rd	2	Arterial M	3,478	0.19	A	2	Arterial M	5,110	0.28	A
43	Florin Rd	Excelsior Rd	Sunrise Blvd	2	Arterial M	3,835	0.21	A	2	Arterial M	5,910	0.33	A
44	Folsom Blvd	Howe Ave	Jackson Rd	4	Arterial M	37,516	1.04	**F**	4	Arterial M	38,790	1.08	**F**
45	Fruitridge Rd	65th St	Power Inn Rd	4	Arterial M	16,634	0.46	A	4	Arterial M	16,880	0.47	A
46	Fruitridge Rd	Power Inn Rd	Florin Perkins Rd	4	Arterial M	15,214	0.42	A	4	Arterial M	15,780	0.44	A
47	Fruitridge Rd	Florin Perkins Rd	South Watt Ave	2	Arterial M	10,280	0.57	A	2	Arterial M	10,660	0.59	A
48	Fruitridge Rd	South Watt Ave	Hedge Ave	2	Arterial M	2,890	0.16	A	2	Arterial M	3,140	0.17	A
49	Fruitridge Rd	Hedge Ave	Mayhew Rd	2	Arterial M	1,790	0.10	A	2	Arterial M	2,030	0.11	A
50	Grant Line Rd	White Rock Rd	Douglas Rd	2	Rural NS	7,189	0.42	D	2	Rural NS	7,920	0.47	D
51	Grant Line Rd	Douglas Rd	Kiefer Blvd	2	Rural S	6,143	0.31	C	2	Rural S	6,940	0.35	C
52	Grant Line Rd	Kiefer Blvd	Jackson Rd	2	Rural S	5,758	0.29	C	2	Rural S	6,460	0.32	C
53	Grant Line Rd	Jackson Rd	Sunrise Blvd	2	Rural S	14,720	0.74	E	2	Rural S	14,440	0.72	E
54	Grant Line Rd	Sunrise Blvd	Calvine Rd	2	Rural S	14,812	0.74	E	2	Rural S	16,430	0.82	E
55	Grant Line Rd	Calvine Rd	Sheldon Rd	2	Rural S	13,140	0.66	**E**	2	Rural S	14,240	0.71	**E**
56	Grant Line Rd	Sheldon Rd	Wilton Rd	2	Rural S	17,459	0.87	**E**	2	Rural S	18,280	0.91	**E**
57	Grant Line Rd	Wilton Rd	Bond Rd	2	Rural S	16,064	0.80	**E**	2	Rural S	16,880	0.84	**E**
58	Happy Ln	Old Placerville Rd	Kiefer Blvd	2	Rural S	4,635	0.23	C	2	Rural S	6,660	0.33	C
59	Hedge Ave	Jackson Rd	Fruitridge Rd	2	Arterial M	3,061	0.17	A	2	Arterial M	2,970	0.17	A
60	Hedge Ave	Fruitridge Rd	Elder Creek Rd	2	Arterial M	3,737	0.21	A	2	Arterial M	3,680	0.20	A
61	Hedge Ave	Elder Creek Rd	Florin Rd	2	Arterial M	2,722	0.15	A	2	Arterial M	2,790	0.16	A
62	Howe Ave	US 50	Folsom Blvd	6	Arterial M	53,849	1.00	E	6	Arterial M	54,510	1.01	**F**

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Table 3.5
Existing Plus NewBridge Project Roadway Segment Levels of Service

ID	Roadway	Segment		Existing					Existing + NewBridge Project				
		From	To	Travel Lanes	Facility Type[1]	Daily Volume	Volume / Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service
63	International Dr	Mather Field Rd	Zinfandel Dr	6	Arterial M	17,500	0.32	A	6	Arterial M	17,850	0.33	A
64	International Dr	Zinfandel Dr	Sunrise Blvd	6	Arterial M	8,802	0.16	A	6	Arterial M	9,610	0.18	A
65	Jackson Rd	Folsom Blvd	Florin Perkins Rd	2	Arterial M	12,358	0.69	B	2	Arterial M	12,960	0.72	C
66	Jackson Rd	Florin Perkins Rd	South Watt Ave	2	Arterial M	10,414	0.58	A	2	Arterial M	11,770	0.65	B
67	Jackson Rd	South Watt Ave	Hedge Ave	2	Arterial M	17,060	0.95	E	2	Arterial M	19,820	1.10	**F**
68	Jackson Rd	Hedge Ave	Mayhew Rd	2	Arterial M	12,616	0.70	C	2	Arterial M	15,530	0.86	D
69	Jackson Rd	Mayhew Rd	Bradshaw Rd	2	Arterial M	14,996	0.83	D	2	Arterial M	18,170	1.01	**F**
70	Jackson Rd	Bradshaw Rd	Excelsior Rd	2	Arterial M	13,030	0.72	C	2	Arterial M	18,090	1.01	**F**
71	Jackson Rd	Excelsior Rd	Eagles Nest Rd	2	Rural Hwy	10,478	0.46	D	2	Rural Hwy	17,610	0.77	E
72.1	Jackson Rd	Eagles Nest Rd	Rockbridge Dr	2	Rural Hwy	9,976	0.44	D	4	Arterial M	13,160	0.37	A
72.2	Jackson Rd	Rockbridge Dr	Sunrise Blvd	2	Rural Hwy	9,976	0.44	D	4	Arterial M	13,540	0.38	A
73	Jackson Rd	Sunrise Blvd	Grant Line Rd	2	Rural Hwy	13,306	0.58	D	2	Rural Hwy	14,120	0.62	**E**
74	Kiefer Blvd	Florin Perkins Rd	South Watt Ave	2	Arterial M	4,616	0.26	A	2	Arterial M	4,810	0.27	A
75	Kiefer Blvd	South Watt Ave	Mayhew Rd	4	Arterial M	18,668	0.52	A	4	Arterial M	19,330	0.54	A
76	Kiefer Blvd	Mayhew Rd	Bradshaw Rd	4	Arterial M	9,274	0.26	A	4	Arterial M	10,430	0.29	A
77	Kiefer Blvd	Bradshaw Rd	Happy Ln	2	Arterial M	4,618	0.26	A	2	Arterial M	5,500	0.31	A
78.1	Kiefer Blvd	Eagles Nest Rd	W Collector MS-1	2	Arterial M	656	0.04	A	3	Arterial M	2430	0.14	A
78.2	Kiefer Blvd	W Collector MS-1	Northbridge Dr	2	Arterial M	656	0.04	A	3	Arterial M	3440	0.19	A
78.3	Kiefer Blvd	Northbridge Dr	E Collector MS-1	2	Arterial M	656	0.04	A	3	Arterial M	6400	0.36	A
78.4	Kiefer Blvd	E Collector MS-1	Sunrise Blvd	2	Arterial M	656	0.04	A	3	Arterial M	7510	0.42	A
79	Kiefer Blvd	Sunrise Blvd	Rancho Cordova Pkwy	2	Arterial M	2,786	0.15	A	2	Arterial M	2,730	0.15	A
80	Mather Blvd / Norden Ave	Von Karman St	Bleckely St	4	Arterial M	4,373	0.12	A	4	Arterial M	5,120	0.14	A
81	Mather Blvd	Bleckely St	Femoyer St	4	Arterial M	4,373	0.12	A	4	Arterial M	5,120	0.14	A
82	Mather Blvd	Femoyer St	Douglas Rd	2	Arterial M	4,373	0.24	A	2	Arterial M	5,110	0.28	A
83	Mather Blvd-Excelsior Rd	Douglas Rd	Kiefer Blvd	2	Res Collector F	6,751	0.84	E	2	Res Collector F	6,660	0.83	E
84	Mather Field Rd	US 50	Rockingham Dr	6	Arterial M	37,755	0.70	B	6	Arterial M	38,300	0.71	C

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Table 3.5
Existing Plus NewBridge Project Roadway Segment Levels of Service

ID	Roadway	Segment		Existing					Existing + NewBridge Project				
		From	To	Travel Lanes	Facility Type[1]	Daily Volume	Volume / Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service
85	Mather Field Rd	Rockingham Dr	International Dr	6	Arterial M	37,520	0.69	B	6	Arterial M	37,680	0.70	B
86	Mather Field Rd	International Dr	Peter A McCuen Blvd	4	Arterial M	14,857	0.41	A	4	Arterial M	14,840	0.41	A
87	Mayhew Rd	Folsom Blvd	Goethe Rd	2	Arterial M	6,977	0.39	A	2	Arterial M	7,460	0.41	A
88	Mayhew Rd	Goethe Rd	Kiefer Blvd	2	Arterial L	6,593	0.44	A	2	Arterial L	7,230	0.48	A
89	Mayhew Rd	Jackson Rd	Fruitridge Rd	2	Arterial L	1,616	0.11	A	2	Arterial L	1,860	0.12	A
90	Old Placerville Rd	Bradshaw Rd	Granby Dr	4	Arterial M	15,800	0.44	A	4	Arterial M	16,630	0.46	A
91	Old Placerville Rd	Granby Dr	Happy Ln	2	Arterial M	13,573	0.75	C	2	Arterial M	14,350	0.80	C
92	Old Placerville Rd	Happy Ln	Routier Rd	2	Arterial M	10,710	0.60	A	2	Arterial M	12,040	0.67	B
93	Old Placerville Rd	Routier Rd	Rockingham Dr	4	Arterial M	10,710	0.30	A	4	Arterial M	11,490	0.32	A
94	Power Inn Rd	Folsom Blvd	14th Ave	6	Arterial M	36,175	0.67	B	6	Arterial M	36,320	0.67	B
95	Rockingham Dr	Old Placerville Rd	Mather Field Rd	4	Arterial M	19,881	0.55	A	4	Arterial M	20,700	0.58	A
96	South Watt Ave	Folsom Blvd	Kiefer Blvd	6	Arterial M	40,920	0.76	C	6	Arterial M	42,450	0.79	C
97	South Watt Ave	Kiefer Blvd	Jackson Rd	5	Arterial M	32,415	0.90	E	5	Arterial M	33,780	0.94	E
98	South Watt Ave	Jackson Rd	Fruitridge Rd	2	Arterial M	25,832	1.44	**F**	2	Arterial M	25,820	1.43	**F**
99	South Watt Ave	Fruitridge Rd	Elder Creek Rd	2	Arterial M	21,567	1.20	**F**	2	Arterial M	21,630	1.20	**F**
100	South Watt Ave	Elder Creek Rd	Florin Rd	2	Arterial M	19,069	1.06	**F**	2	Arterial M	19,040	1.06	**F**
101	Sunrise Blvd	US 50	Folsom Blvd	7	Arterial M	54,500	1.01	**F**	7	Arterial M	56,230	1.04	**F**
102	Sunrise Blvd	Folsom Blvd	Trade Center Dr	6	Arterial M	49,500	0.92	**E**	6	Arterial M	51,850	0.96	**E**
103	Sunrise Blvd	Trade Center Dr	White Rock Rd	6	Arterial M	34,571	0.64	B	6	Arterial M	37,680	0.70	B
104.1	Sunrise Blvd	White Rock Rd	International Dr	6	Arterial M	25,811	0.48	A	6	Arterial M	28,610	0.53	A
104.2	Sunrise Blvd	International Dr	Future Rio Del Oro Pkwy	6	Arterial M	28,400	0.53	A	6	Arterial M	33,940	0.63	B
104.3	Sunrise Blvd	Future Rio Del Oro Pkwy	Douglas Rd	6	Arterial M	25,811	0.48	A	6	Arterial M	31,970	0.59	A
105	Sunrise Blvd	Douglas Rd	Kiefer Blvd	5	Arterial M	21,878	0.61	B	5	Arterial M	28,740	0.80	C
106	Sunrise Blvd	Kiefer Blvd	Jackson Rd	2	Arterial M	16,894	0.94	**E**	2	Arterial M	18,370	1.02	**F**
107	Sunrise Blvd	Jackson Rd	Florin Rd	2	Rural S	11,181	0.56	D	2	Rural S	12,420	0.62	E
108	Sunrise Blvd	Florin Rd	Grant Line Rd	2	Rural S	7,752	0.39	D	2	Rural S	8,730	0.44	D
109	Vineyard Rd	Gerber Rd	Calvine Rd	2	Arterial M	5,515	0.31	A	2	Arterial M	5,730	0.32	A
110	Watt Ave	US 50	Folsom Blvd	6	Arterial H	65,242	1.09	**F**	6	Arterial H	66,200	1.10	**F**
111	White Rock Rd	International Rd	Quality Dr	2	Arterial M	3,962	0.22	A	2	Arterial M	3,970	0.22	A
112	White Rock Rd	Quality Dr	Zinfandel Dr	4	Arterial M	11,200	0.31	A	4	Arterial M	11,040	0.31	A
113	White Rock Rd	Zinfandel Dr	Kilgore Rd	6	Arterial M	14,756	0.27	A	6	Arterial M	15,100	0.28	A
114	White Rock Rd	Kilgore Rd	Sunrise Blvd	5	Arterial M	14,756	0.41	A	5	Arterial M	15,380	0.43	A

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Table 3.5
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ID	Roadway	Segment		Existing					Existing + NewBridge Project				
		From	To	Travel Lanes	Facility Type[1]	Daily Volume	Volume / Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service
115	White Rock Rd	Sunrise Blvd	Fitzgerald Rd	4	Arterial M	15,433	0.43	A	4	Arterial M	15,650	0.43	A
116	White Rock Rd	Fitzgerald Rd	Grant Line Rd	2	Rural NS	2,490	0.15	B	2	Rural NS	2,520	0.15	B
117	White Rock Rd	Grant Line Rd	Prairie City Rd	4	Arterial M	9,400	0.26	A	4	Arterial M	10,100	0.28	A
118	Zinfandel Dr	US 50	White Rock Rd	7	Arterial M	45,228	0.84	D	7	Arterial M	45,450	0.84	D
119	Zinfandel Dr	White Rock Rd	International Rd	6	Arterial M	17,923	0.33	A	6	Arterial M	18,710	0.35	A
120	Zinfandel Dr	International Rd	Baroque Dr	6	Arterial M	7,595	0.14	A	6	Arterial M	8,500	0.16	A
121	Zinfandel Dr	Baroque Dr	City Limit	4	Arterial M	7,595	0.21	A	4	Arterial M	8,500	0.24	A
122	Zinfandel Dr	City Limit	Douglas Rd	2	Arterial M	7,595	0.42	A	2	Arterial M	8,500	0.47	A
123	Zinfandel Dr	Douglas Rd	Kiefer Blvd	2	Arterial M	2,848	0.16	A	2	Arterial M	2,860	0.16	A
500	S Bridgewater Dr	Collector JT-4	Eagles Nest Rd						2	Res Collector F	4,670	0.58	C
501	S Bridgewater Dr	Eagles Nest Rd	Northbridge Dr						2	Res Collector F	3,780	0.47	C
502	N Bridgewater Dr	Northbridge Dr	Eagles Nest Rd						2	Res Collector F	1,520	0.19	A
503	Northbridge Dr	Kiefer Blvd	Bridgewater Dr						2	Arterial M	2,970	0.17	A
504	Street A	S Bridgewater Dr	Street B						2	Res Collector F	1,560	0.20	A
505	Street B	S Bridgewater Dr	Street A						2	Res Collector F	1,500	0.19	A
506	Rockbridge Dr	Street B	Stonebridge Dr						2	Res Collector F	1,790	0.22	B
507	Rockbridge Dr	Stonebridge Dr	Jackson Rd						2	Arterial M	5,500	0.31	A
508	Stonebridge Dr	S Bridgewater Dr	Rockbridge Dr						2	Arterial M	2,490	0.14	A
509	Stonebridge Dr	Rockbridge Dr	Jackson Rd						2	Res Collector F	2,880	0.36	B

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		From	To	Travel Lanes	Facility Type[1]	Daily Volume	Volume / Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service

Note: Gray shading indicates changes in travel lanes or facility type that the project is responsible to provide.

[1] The following classifications are used to determine daily roadway capacity:
Arterial L - Arterial, Low Access Control
Arterial M - Arterial, Moderate Access Control
Arterial H - Arterial, High Access Control
Rural Hwy - Rural 2-lane Highway
Rural S - Rural 2-lane Road, 24'-36' of pavement, Paved Shoulders
Rural NS - Rural 2-lane Road, 24'-36' of pavement, No Shoulders
Res Collector F - Residential Collector with Frontage
Res Collector NF - Residential Collector with No Frontage

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Table 3.6

Existing Plus NewBridge Project Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus NewBridge Project			LOS Impact	Existing			Existing Plus NewBridge Project			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
1	Howe Avenue & College Town Drive/US 50 WB Ramps	Signal	D	36.6	Signal	D	36.6	No	Signal	D	44.4	Signal	D	44.6	No
2	Howe Avenue & US 50 EB Ramps	Signal	B	16.9	Signal	B	17.2	No	Signal	C	20.5	Signal	C	20.7	No
3	Power Inn Road/Howe Avenue & Folsom Blvd	Signal	D	39.1	Signal	D	40.1	No	Signal	D	55.0	Signal	E	55.7	No
4	Power Inn Road & 14th Avenue	Signal	C	31.5	Signal	C	31.7	No	Signal	D	39.6	Signal	D	39.4	No
5	Power Inn Road & Fruitridge Road	Signal	D	43.4	Signal	D	42.5	No	Signal	C	33.5	Signal	C	34.1	No
6	Jackson Road/Notre Dame Dr. & Folsom Blvd.	Signal	D	36.8	Signal	D	41.0	No	Signal	C	32.1	Signal	C	32.4	No
7	Florin Perkins Road/Julliard Dr. & Folsom Boulevard	Signal	D	39.0	Signal	E	56.5	No	Signal	E	55.6	Signal	E	55.2	No
8	Florin Perkins Road & Kiefer Blvd.	Two-way stop	A	2.8	Two-way stop	A	2.5	No	Two-way stop	A	3.2	Two-way stop	A	3.4	No
	Westbound Left Turn		*C*	*20.1*		*C*	*21.6*			*C*	*23.3*		*C*	*23.9*	
	Westbound Right Turn		*B*	*13.3*		*B*	*13.6*			*B*	*12.6*		*B*	*12.8*	
	Southbound Left Turn		*A*	*10.0*		*B*	*10.3*			*B*	*10.9*		*B*	*11.0*	
9	Florin Perkins Road & Jackson Road	Signal	D	51.5	Signal	D	51.6	No	Signal	D	54.1	Signal	C	31.5	No
10	Florin Perkins Road & Fruitridge Road	Signal	C	25.1	Signal	C	27.7	No	Signal	C	25.4	Signal	C	25.4	No
11	Florin Perkins Road & Elder Creek Road	Signal	C	25.7	Signal	C	25.9	No	Signal	C	26.2	Signal	C	26.5	No
12	Watt Avenue & Folsom Blvd.	Signal	E	66.2	Signal	E	69.6	No	Signal	E	71.9	Signal	E	72.3	No
13	S. Watt Ave. & Reith Ct/Manlove Road	Signal	B	19.6	Signal	B	19.8	No	Signal	D	54.1	Signal	E	57.0	No
14	S. Watt Avenue & Kiefer Blvd.	Signal	E	56.0	Signal	E	62.2	No	Signal	E	75.9	Signal	D	52.0	No

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Table 3.6

Existing Plus NewBridge Project Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus NewBridge Project			LOS Impact	Existing			Existing Plus NewBridge Project			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
15	S. Watt Avenue & Canberra Dr.	Signal	B	11.5	Signal	B	11.7	No	Signal	A	9.7	Signal	A	9.9	No
16	S. Watt Avenue & Jackson Road	Signal	E	62.5	Signal	E	62.3	No	Signal	E	66.4	Signal	E	66.0	No
17	S. Watt Avenue & Fruitridge Road	Signal	D	38.1	Signal	D	39.5	No	Signal	D	41.7	Signal	C	32.0	No
18	S. Watt Avenue & Elder Creek Road	Signal	**E**	**62.7**	Signal	**E**	**62.5**	No	Signal	**E**	**68.8**	Signal	**E**	**68.8**	No
20	Elk Grove Florin Road/S. Watt Ave. & Florin Road	Signal	D	54.7	Signal	E	59.9	No	Signal	D	51.8	Signal	D	42.7	No
21	Elk Grove Florin Road & Gerber Road	Signal	D	49.1	Signal	D	49.1	No	Signal	E	64.6	Signal	E	75.4	No
23	Hedge Avenue & Jackson Road	Signal	D	35.1	Signal	D	41.5	No	Signal	D	37.3	Signal	D	41.9	No
24	Hedge Avenue & Fruitridge Road	All-way stop	B	13.6	All-way stop	C	15.8	No	All-way stop	A	9.4	All-way stop	A	9.6	No
25	Hedge Avenue & Elder Creek Road	All-way stop	C	15.9	All-way stop	C	22.3	No	All-way stop	B	11.6	All-way stop	B	12.9	No
26	Hedge Avenue & Tokay Lane	Two-way stop	A	0.4	Two-way stop	A	0.4	No	Two-way stop	A	0.2	Two-way stop	A	0.2	No
	Northbound Left Turn		*A*	*0.0*		*A*	*0.0*			*A*	*0.0*		*A*	*0.0*	
	Southbound Left Turn		*A*	*8.0*		*A*	*8.1*			*A*	*7.3*		*A*	*7.3*	
	Eastbound		*B*	*12.2*		*B*	*12.4*			*B*	*10.2*		*B*	*10.4*	
	Westbound		*B*	*11.1*		*B*	*11.3*			*A*	*9.6*		*A*	*9.7*	
27	Hedge Avenue & Florin Road	All-way stop	B	12.9	All-way stop	B	14.2	No	All-way stop	B	11.1	All-way stop	B	12.5	No
28	Mayhew Road & Kiefer Boulevard	Signal	D	48.6	Signal	D	50.8	No	Signal	D	51.1	Signal	D	51.1	No

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Table 3.6

Existing Plus NewBridge Project Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus NewBridge Project			LOS Impact	Existing			Existing Plus NewBridge Project			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
29	Mayhew Road & Jackson Road	Two-way stop	A	1.8	Two-way stop	A	1.7	No	Two-way stop	A	1.9	Two-way stop	A	2.1	Yes
	Northbound Through - Left Turn		*D*	*27.6*		*E*	*36.6*			*D*	*34.0*		***F***	***50.0***	
	Northbound Right Turn		*B*	*11.8*		*B*	*13.0*			*C*	*15.0*		*C*	*15.9*	
	Southbound		*C*	*18.3*		*C*	*22.2*			*C*	*24.9*		*D*	*33.6*	
	Eastbound Left Turn		*A*	*8.9*		*A*	*9.0*			*A*	*8.4*		*A*	*8.7*	
	Westbound Left Turn		*A*	*8.3*		*A*	*8.7*			*A*	*9.3*		*A*	*9.6*	
30	Mayhew Road & Fruitridge Road	Two-way stop	A	6.2	Two-way stop	A	5.6	No	Two-way stop	A	5.1	Two-way stop	A	4.5	No
	Northbound Left Turn		*A*	*0.0*		*A*	*0.0*			*A*	*7.4*		*A*	*7.4*	
	Eastbound		*A*	*9.2*		*A*	*9.2*			*A*	*9.2*		*A*	*9.3*	
31	Mayhew Road & Elder Creek Road	Two-way stop	A	0.2	Two-way stop	A	0.2	No	Two-way stop	A	0.3	Two-way stop	A	0.2	No
	Northbound		*B*	*11.9*		*B*	*12.8*			*B*	*10.9*		*B*	*11.6*	
	Southbound		*B*	*11.1*		*B*	*12.0*			*A*	*9.8*		*B*	*10.2*	
	Eastbound Left Turn		*A*	*8.3*		*A*	*8.6*			*A*	*7.6*		*A*	*7.7*	
	Westbound Left Turn		*A*	*7.5*		*A*	*7.5*			*A*	*0.0*		*A*	*0.0*	
32	Woodring Drive & Zinfandel Drive	Two-way stop	A	5.9	Two-way stop	A	5.9	No	Two-way stop	A	3.0	Two-way stop	A	3.0	No
	Eastbound		*A*	*9.3*		*A*	*9.3*			*A*	*9.3*		*A*	*9.3*	
	Northbound Left Turn		*A*	*0.0*		*A*	*0.0*			*A*	*0.0*		*A*	*0.0*	
33	Bradshaw Road & Folsom Blvd.	Signal	**E**	**56.7**	Signal	D	55.0	No	Signal	D	49.9	Signal	D	55.0	No
34	Bradshaw Road & US 50 WB Ramps	Signal	B	15.9	Signal	B	14.9	No	Signal	B	15.2	Signal	B	15.3	No
35	Bradshaw Road & US 50 EB Ramps	Signal	C	24.4	Signal	C	29.5	No	Signal	B	16.0	Signal	B	15.9	No
36	Bradshaw Road & Old Placerville Road	Signal	D	45.9	Signal	D	47.6	No	Signal	D	52.0	Signal	D	53.7	No
37	Bradshaw Road & Kiefer Boulevard	Signal	D	45.7	Signal	D	46.6	No	Signal	E	66.2	Signal	E	71.6	No

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Table 3.6

Existing Plus NewBridge Project Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus NewBridge Project			LOS Impact	Existing			Existing Plus NewBridge Project			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
38	Bradshaw Road & Jackson Road	Signal	E	73.1	Signal	**F**	**86.2**	Yes	Signal	E	59.4	Signal	E	65.4	No
39	Bradshaw Road & Elder Creek Road	Signal	D	36.8	Signal	D	37.9	No	Signal	D	36.1	Signal	D	36.6	No
40	Bradshaw Road & Florin Road	Signal	D	38.1	Signal	E	56.4	No	Signal	D	53.6	Signal	D	52.1	No
41	Bradshaw Road & Gerber Road	Signal	E	72.2	Signal	E	74.3	No	Signal	D	49.9	Signal	E	65.3	No
42	Happy Lane & Old Placerville Road	Two-way stop	A	7.3	Two-way stop	B	11.8	Yes	Two-way stop	A	4.7	Two-way stop	B	12.5	Yes
	Northbound Left Turn		***F***	***64.8***		***F***	***201.8***			***F***	***95.9***		***F***	***288.0***	
	Northbound Right Turn		*D*	*30.6*		***E***	***36.1***			*C*	*15.4*		*C*	*17.5*	
	Westbound Left Turn		*B*	*10.2*		*B*	*11.0*			*B*	*10.1*		*B*	*10.2*	
45	Excelsior Road & Jackson Road	Signal	D	36.7	Signal	D	39.9	No	Signal	D	40.3	Signal	C	26.3	No
46	Excelsior Road & Elder Creek Road	Two-way stop	A	3.5	Two-way stop	A	4.4	No	Two-way stop	A	2.7	Two-way stop	A	5.0	No
	Northbound Left Turn		*A*	*7.5*		*A*	*7.5*			*A*	*8.0*		*A*	*7.9*	
	Eastbound		*C*	*18.6*		*C*	*18.7*			*B*	*12.3*		*B*	*13.8*	
47	Excelsior Road & Florin Road	All-way stop	C	24.9	All-way stop	E	35.5	No	All-way stop	B	12.5	All-way stop	B	14.2	No
48	Excelsior Road & Gerber Road/Birch Ranch Drive	All-way stop	B	14.0	All-way stop	B	13.1	No	All-way stop	B	10.6	All-way stop	B	10.4	No
49	Mather Field Road & US 50 WB Ramps	Signal	C	24.7	Signal	C	27.9	No	Signal	A	9.4	Signal	A	9.8	No
50	Mather Field Road & US 50 EB Ramps	Signal	C	27.7	Signal	C	29.1	No	Signal	B	13.4	Signal	B	13.2	No
51	Mather Field Road & Rockingham Drive	Signal	**E**	**56.4**	Signal	**E**	**60.9**	No	Signal	D	54.7	Signal	D	45.0	No
52	Mather Boulevard & Douglas Road	All-way stop	E	39.3	All-way stop	E	40.0	No	All-way stop	C	15.5	All-way stop	C	17.9	No

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Table 3.6

Existing Plus NewBridge Project Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus NewBridge Project			LOS Impact	Existing			Existing Plus NewBridge Project			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
53	Zinfandel Drive & US 50 WB Ramps	Signal	B	16.4	Signal	B	16.9	No	Signal	D	51.7	Signal	D	36.9	No
54	Zinfandel Drive & US 50 EB Ramps/Gold Center Drive	Signal	D	40.0	Signal	D	41.0	No	Signal	**E**	**60.1**	Signal	**E**	**63.5**	No
55	Zinfandel Drive & White Rock Road	Signal	D	47.7	Signal	D	48.9	No	Signal	D	54.7	Signal	D	55.0	No
56	Zinfandel Drive & Data Drive	Signal	D	49.3	Signal	D	49.8	No	Signal	D	52.9	Signal	D	52.9	No
57	Zinfandel Drive & International Dr	Signal	C	34.0	Signal	D	48.8	No	Signal	D	48.5	Signal	D	47.4	No
58	Zinfandel Drive & Douglas Road	Signal	E	55.5	Signal	E	62.7	No	Signal	D	54.2	Signal	C	25.9	No
60	Eagles Nest Road & Jackson Road	Two-way stop	A	2.3	Signal	C	28.0	No	Two-way stop	A	3.6	Signal	C	25.7	No
	Northbound		*C*	*22.0*						*C*	*23.8*				
	Southbound		*B*	*13.9*						*C*	*22.0*				
	Eastbound Left Turn		*A*	*8.8*						*A*	*7.9*				
	Westbound Left Turn		*A*	*7.9*						*A*	*8.7*				
61	Eagles Nest Road & Florin Road	Two-way stop	A	2.3	Two-way stop	A	7.2	No	Two-way stop	A	2.6	Two-way stop	A	7.0	No
	Northbound		*B*	*12.7*		*C*	*19.1*			*B*	*12.1*		*C*	*16.4*	
	Southbound		*B*	*10.0*		*B*	*13.7*			*B*	*10.5*		*B*	*14.9*	
	Eastbound Left Turn		*A*	*7.7*		*A*	*8.0*			*A*	*7.7*		*A*	*7.9*	
	Westbound Left Turn		*A*	*0.0*		*A*	*7.6*			*A*	*7.6*		*A*	*7.6*	
62	Sunrise Boulevard & US 50 WB Ramps	Signal	D	44.7	Signal	D	44.2	No	Signal	B	19.7	Signal	B	19.6	No
63	Sunrise Boulevard & US 50 EB Ramps	Signal	B	16.9	Signal	B	16.7	No	Signal	B	17.6	Signal	B	17.8	No
64	Sunrise Boulevard & Folsom Boulevard	Signal	D	54.4	Signal	D	53.9	No	Signal	D	48.6	Signal	D	48.5	No

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Table 3.6

Existing Plus NewBridge Project Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus NewBridge Project			LOS Impact	Existing			Existing Plus NewBridge Project			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
65	Sunrise Boulevard & White Rock Road	Signal	D	47.8	Signal	D	48.4	No	Signal	D	51.6	Signal	D	51.8	No
66	Sunrise Boulevard & International Drive/Monier Circle	Signal	D	47.8	Signal	D	50.6	No	Signal	D	45.8	Signal	D	47.7	No
67	Sunrise Boulevard & Douglas Road	Signal	D	51.7	Signal	C	33.7	No	Signal	D	46.5	Signal	C	33.5	No
68	Sunrise Boulevard & Chrysanthy Boulevard	Signal	C	27.0	Signal	C	30.5	No	Signal	C	21.0	Signal	C	22.9	No
69	Sunrise Boulevard & Kiefer Boulevard	Signal	D	53.6	Signal	D	38.7	No	Signal	C	27.0	Signal	C	26.1	No
70	Sunrise Boulevard & Jackson Road	Signal	**E**	**57.0**	Signal	**E**	**60.4**	No	Signal	D	47.2	Signal	D	44.0	No
71	Sunrise Boulevard & Florin Road	Signal	B	11.3	Signal	B	11.9	No	Signal	D	48.3	Signal	D	52.0	No
72	Sheldon Lake Drive/Sunrise Boulevard & Grant Line Road	Signal	D	43.2	Signal	D	42.5	No	Signal	D	40.7	Signal	D	40.2	No
73	Hazel Avenue & Tributary Point Drive/US 50 WB Off-ramp	Signal	C	31.2	Signal	C	31.0	No	Signal	D	41.4	Signal	D	37.4	No
74	Hazel Avenue & US 50 EB Ramps	Signal	C	20.6	Signal	C	21.0	No	Signal	C	29.9	Signal	C	30.2	No
75	Hazel Avenue & Folsom Boulevard	Signal	D	51.7	Signal	D	53.7	No	Signal	D	46.7	Signal	D	47.6	No
76	Prairie City Road & White Rock Road	Signal	B	19.2	Signal	B	19.2	No	Signal	B	15.0	Signal	B	15.0	No
77	Grant Line Road & White Rock Road	Signal	B	10.9	Signal	B	11.0	No	Signal	B	11.2	Signal	B	11.2	No
78	Grant Line Road & Douglas Road	All-way stop	C	15.2	All-way stop	C	17.8	No	All-way stop	B	12.3	All-way stop	B	13.0	No
79	Grant Line Road & Kiefer Boulevard	All-way stop	B	11.4	All-way stop	B	12.3	No	All-way stop	B	10.5	All-way stop	B	11.4	No

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Table 3.6

Existing Plus NewBridge Project Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus NewBridge Project			LOS Impact	Existing			Existing Plus NewBridge Project			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
80	Grant Line Road & Jackson Road	Signal	**E**	**74.0**	Signal	**E**	**77.9**	No	Signal	**E**	**78.9**	Signal	**E**	**76.0**	No
81	Watt Avenue & US-50 EB Ramps	Signal	B	13.0	Signal	B	13.2	No	Signal	B	14.9	Signal	B	14.9	No
82	Watt Avenue & US-50 WB Ramps	Signal	C	32.9	Signal	D	38.0	No	Signal	C	28.6	Signal	C	29.2	No
83	Mayhew Rd & Folsom Blvd.	Signal	B	19.8	Signal	C	20.3	No	Signal	C	20.1	Signal	C	20.2	No
84	65th Street Expy & Fruitridge Road	Signal	C	31.2	Signal	C	33.6	No	Signal	D	35.3	Signal	C	33.6	No
85	Power Inn Road & Elder Creek Road	Signal	D	35.2	Signal	C	34.8	No	Signal	D	36.3	Signal	E	67.3	No
86	Power Inn Road & Florin Rd	Signal	D	36.3	Signal	D	39.9	No	Signal	D	45.9	Signal	D	49.5	No
87	Florin Perkins Road & Florin Rd	Signal	D	36.7	Signal	D	49.2	No	Signal	C	32.5	Signal	D	42.9	No
88	Bradshaw Rd & Calvine Rd	Signal	C	30.5	Signal	C	31.7	No	Signal	D	36.9	Signal	D	37.6	No
89	Vineyard Rd & Calvine Rd	Signal	C	30.8	Signal	C	30.9	No	Signal	C	34.9	Signal	C	34.7	No
90	Excelsior Road & Calvine Rd	All-way stop	C	16.6	All-way stop	C	16.7	No	All-way stop	B	13.0	All-way stop	B	13.1	No
91	Grant Line Rd & Eagles Nest Rd/Sloughhouse Rd	Signal	D	51.7	Signal	D	50.7	No	Signal	D	46.5	Signal	D	47.9	No
92	Grant Line Rd & Calvine Rd	Signal	C	21.4	Signal	C	25.2	No	Signal	C	24.0	Signal	C	29.6	No
93	Grant Line Rd & Dwy/Wilton Rd	Signal	**E**	**65.9**	Signal	**E**	**70.0**	No	Signal	**E**	**64.8**	Signal	**E**	**66.5**	No
94	Grant Line Rd & Bond Rd/Wrangler Dr	Signal	C	33.3	Signal	C	32.7	No	Signal	D	46.4	Signal	D	48.4	No

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Table 3.6

Existing Plus NewBridge Project Intersection Levels of Service

Intersection		AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus NewBridge Project			LOS Impact	Existing			Existing Plus NewBridge Project			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
203	Northbridge Dr & Kiefer Boulevard	NewBridge Project Int.			Signal	B	15.7	No	NewBridge Project Int.			Signal	B	18.5	No
500	Rockbridge Dr & Jackson Road	NewBridge Project Int.			Signal	B	17.8	No	NewBridge Project Int.			Signal	B	14.5	No
501	Eagles Nest Road & N Bridgewater Dr	NewBridge Project Int.			Signal	B	10.2	No	NewBridge Project Int.			Signal	A	8.8	No
502	Eagles Nest Road & S Bridgewater Dr	NewBridge Project Int.			Signal	D	46.0	No	NewBridge Project Int.			Signal	C	24.7	No

Note: Gray shading represents changes in traffic control that the project is responsible to provide.

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Table 3.7

Existing and Existing Plus NewBridge Project Intersection Geometrics

	Intersection	Traffic Control		Existing Lane Geometrics				Existing Plus NewBridge Project Lane Geometrics			
		Existing	Existing Plus Project	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach
1	Howe Avenue & College Town Drive/US 50 WB Ramps	Signal	Signal	↑↑↑ r	↲↓↓↓↓	↰ rr	↰↰↰ ↱r	↑↑↑ r	↲↓↓↓↓	↰ rr	↰↰↰ ↱r
2	Howe Avenue & US 50 EB Ramps	Signal	Signal	↑↑↑ r	↲↓↓↓	↰↰rr		↑↑↑ r	↲↓↓↓	↰↰rr	
3	Power Inn Road/Howe Avenue & Folsom Blvd	Signal	Signal	↰↰↑↑↑ r	↲↓↓↓↰↰	↰↰↑ ↱	↰↰↑↑ rr	↰↰↑↑↑ r	↲↓↓↓↰↰	↰↰↑ ↱	↰↰↑↑ rr
4	Power Inn Road & 14th Avenue	Signal	Signal	↰↰↑↑ ↱	↲↓↓↰	↰↰ r	↰	↰↰↑↑ ↱	↲↓↓↰	↰↰ r	↰
5	Power Inn Road & Fruitridge Road	Signal	Signal	↰↰↑↱	↲↓↓↰↰	↰↑ ↱	↰↑↑ r	↰↰↑↱	↲↓↓↰↰	↰↑ ↱	↰↑↑ r
6	Jackson Road/Notre Dame Dr. & Folsom Blvd.	Signal	Signal	↰↰ r	↲↱	↰↑↑ r	↰↑↑ r	↰↰ r	↲↱	↰↑↑ r	↰↑↑ r
7	Florin Perkins Road/Julliard Dr. & Folsom Boulevard	Signal	Signal	↰↰ r	↲↱	↰↑↑ r	↰↑ ↱	↰↰ r	↲↱	↰↑↑ r	↰↑ ↱
8	Florin Perkins Road & Kiefer Blvd.	Two-way stop	Two-way stop	↑↱	↓↓↰		↰r	↑↱	↓↓↰		↰r
9	Florin Perkins Road & Jackson Road	Signal	Signal	↰↑↑ r	↲↓↰	↰↑ rr	↰↑ ↱	↰↑↑ r	↲↓↰	↰↑ rr	↰↑ ↱
10	Florin Perkins Road & Fruitridge Road	Signal	Signal	↰↑↑ r	↲↓↓↰	↰↑↑ r	↰↑ ↱	↰↑↑ r	↲↓↓↰	↰↑↑ r	↰↑ ↱
11	Florin Perkins Road & Elder Creek Road	Signal	Signal	↰↑↑ r	↲↓↓↰	↰↑↑ r	↰↑↑ r	↰↑↑ r	↲↓↓↰	↰↑↑ r	↰↑↑ r
12	Watt Avenue & Folsom Blvd.	Signal	Signal	↰↰↑↑↑ r	↲↓↓↓↰↰	↰↰↑↑ r	↰↰↑↑ r	↰↰↑↑↑ r	↲↓↓↓↰↰	↰↰↑↑ r	↰↰↑↑ r
13	S. Watt Ave. & Reith Ct/Manlove Road	Signal	Signal	↰↑↑↑ r	↲↓↓↰	↱	↰↱r	↰↑↑↑ r	↲↓↓↰	↱	↰↱r
14	S. Watt Avenue & Kiefer Blvd.	Signal	Signal	↰↰↑↑ ↱	↲↓↓↰↰	↰↰↑↑ r	↰↰↑↑ r	↰↰↑↑ ↱	↲↓↓↰↰	↰↰↑↑ r	↰↰↑↑ r
15	S. Watt Avenue & Canberra Dr.	Signal	Signal	↑↑ ↱	↓↓↰		↰r	↑↑ ↱	↓↓↰		↰r
16	S. Watt Avenue & Jackson Road	Signal	Signal	↰↑↑ r	↲↓↓↰	↰↱	↰↑ r	↰↑↑ r	↲↓↓↰	↰↱	↰↑ r
17	S. Watt Avenue & Fruitridge Road	Signal	Signal	↰↑↱	↲↓↓↰	↰↑ r	↰↱	↰↑↱	↲↓↓↰	↰↑ r	↰↱
18	S. Watt Avenue & Elder Creek Road	Signal	Signal	↰↑r	↲↓↰	↰ r	↰↑ r	↰↑r	↲↓↰	↰ r	↰↑ r
20	Elk Grove Florin Road/S. Watt Ave. & Florin Road	Signal	Signal	↰↑↱	↲↓↰	↰↑ ↱	↰↑↑ r	↰↑↱	↲↓↰	↰↑ ↱	↰↑↑ r
21	Elk Grove Florin Road & Gerber Road	Signal	Signal	↰↰↑↱	↲↓↓↰↰	↰↰↑↑ r	↰↰↑↑ r	↰↰↑↱	↲↓↓↰↰	↰↰↑↑ r	↰↰↑↑ r
23	Hedge Avenue & Jackson Road	Signal	Signal	↰↱	↲↰	↰↑ r	↰↑ r	↰↱	↲↰	↰↑ r	↰↑ r
24	Hedge Avenue & Fruitridge Road	All-way stop	All-way stop	↱	↟	↱	↱	↱	↟	↱	↱
25	Hedge Avenue & Elder Creek Road	All-way stop	All-way stop	↱	↟	↱	↱	↱	↟	↱	↱
26	Hedge Avenue & Tokay Lane	Two-way stop	Two-way stop	↱	↟	↱	↱	↱	↟	↱	↱
27	Hedge Avenue & Florin Road	All-way stop	All-way stop	↱	↟	↱	↱	↱	↟	↱	↱
28	Mayhew Road & Kiefer Boulevard	Signal	Signal	↰↑r	↲↓↰	↰↑ ↱	↰↑ ↱	↰↑r	↲↓↰	↰↑ ↱	↰↑ ↱
29	Mayhew Road & Jackson Road	Two-way stop	Two-way stop	↰ r	↟	↰↑ r	↰↱	↰ r	↟	↰↑ r	↰↱

Note: Gray shading represents changes in traffic control or approach lanes that the project is responsible to provide.

Table 3.7

Existing and Existing Plus NewBridge Project Intersection Geometrics

	Intersection	Traffic Control		Existing Lane Geometrics				Existing Plus NewBridge Project Lane Geometrics			
		Existing	Existing Plus Project	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach
30	Mayhew Road & Fruitridge Road	Two-way stop	Two-way stop								
31	Mayhew Road & Elder Creek Road	Two-way stop	Two-way stop								
32	Zinfandel Drive & Woodring Drive	Two-way stop	Two-way stop								
33	Bradshaw Road & Folsom Blvd.	Signal	Signal								
34	Bradshaw Road & US 50 WB Ramps	Signal	Signal								
35	Bradshaw Road & US 50 EB Ramps	Signal	Signal								
36	Bradshaw Road & Old Placerville Road	Signal	Signal								
37	Bradshaw Road & Kiefer Boulevard	Signal	Signal								
38	Bradshaw Road & Jackson Road	Signal	Signal								
39	Bradshaw Road & Elder Creek Road	Signal	Signal								
40	Bradshaw Road & Florin Road	Signal	Signal								
41	Bradshaw Road & Gerber Road	Signal	Signal								
42	Happy Lane & Old Placerville Road	Two-way stop	Two-way stop								
43	Happy Lane & Kiefer Boulevard										
45	Excelsior Road & Jackson Road	Signal	Signal								
46	Excelsior Road & Elder Creek Road	Two-way stop	Two-way stop								
47	Excelsior Road & Florin Road	All-way stop	All-way stop								
48	Excelsior Road & Gerber Road/Birch Ranch Drive	All-way stop	All-way stop								
49	Mather Field Road & US 50 WB Ramps	Signal	Signal								
50	Mather Field Road & US 50 EB Ramps	Signal	Signal								
51	Mather Field Road & Rockingham Drive	Signal	Signal								
52	Mather Boulevard & Douglas Road	All-way stop	All-way stop								
53	Zinfandel Drive & US 50 WB Ramps	Signal	Signal								
54	Zinfandel Drive & US 50 EB Ramps/Gold Center Drive	Signal	Signal								
55	Zinfandel Drive & White Rock Road	Signal	Signal								
56	Zinfandel Drive & Data Drive	Signal	Signal								
57	Zinfandel Drive & International Dr	Signal	Signal								

Note: Gray shading represents changes in traffic control or approach lanes that the project is responsible to provide.

Table 3.7

Existing and Existing Plus NewBridge Project Intersection Geometrics

	Intersection	Traffic Control		Existing Lane Geometrics				Existing Plus NewBridge Project Lane Geometrics			
		Existing	Existing Plus Project	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach
58	Zinfandel Drive & Douglas Road	Signal	Signal	↰↱	↲↓↰↰	↰↑ ↱	↰↑ ↱	↰↱	↲↓↰↰	↰↑ ↱	↰↑ ↱
59	Eagles Nest Road/Zinfandel Drive & Kiefer Boulevard			↱			↰	↱			↰
60	Eagles Nest Road & Jackson Road	Two-way stop	Signal	Y	⅄	↰↱	↰↱	↰↑↱	↲↓↰↰	↰↰↑ ↱	↰↑↑ ↱
61	Eagles Nest Road & Florin Road	Two-way stop	Two-way stop	Y	⅄	Y	Y	Y	⅄	Y	↱
62	Sunrise Boulevard & US 50 WB Ramps	Signal	Signal	↑↑↑ ↱	↲↓↓↓		↰↰↱↱	↑↑↑ ↱	↲↓↓↓		↰↰↱↱
63	Sunrise Boulevard & US 50 EB Ramps	Signal	Signal	↑↑↑↑ ↱	↲↓↓↓	↰↰↰↱↱		↑↑↑↑ ↱	↲↓↓↓	↰↰↰↱↱	
64	Sunrise Boulevard & Folsom Boulevard	Signal	Signal	↰↰↑↑↑↑ ↱	↲↓↓↓↰↰	↰↰↑↑ ↱	↰↰↑ ↱↱	↰↰↑↑↑↑ ↱	↲↓↓↓↰↰	↰↰↑↑ ↱	↰↰↑ ↱↱
65	Sunrise Boulevard & White Rock Road	Signal	Signal	↰↰↑↑↑ ↱	↲↓↓↓↰↰	↰↰↑↑ ↱	↰↰↑↑↑ ↱	↰↰↑↑↑ ↱	↲↓↓↓↰↰	↰↰↑↑ ↱	↰↰↑↑↑ ↱
66	Sunrise Boulevard & International Drive/Monier Circle	Signal	Signal	↰↰↑↑ ↱	↲↓↓↓↰	↰↰↑ ↱↱	↰↱	↰↰↑↑ ↱	↲↓↓↓↰	↰↰↑ ↱↱	↰↱
67	Sunrise Boulevard & Douglas Road	Signal	Signal	↰↰↑↑↑ ↱	↲↓↓↓↰↰	↰↰↑ ↱	↰↰↑↑ ↱	↰↰↑↑↑ ↱	↲↓↓↓↰↰	↰↰↑ ↱	↰↰↑↑ ↱
68	Sunrise Boulevard & Chrysanthy Boulevard	Signal	Signal	↑↑↑ ↱	↓↓↰↰		↰↰↱	↑↑↑ ↱	↓↓↰↰		↰↰↱
69	Sunrise Boulevard & Kiefer Boulevard	Signal	Signal	↰↑↑ ↱	⅃↓↰↰	Y	⅂↱	↰↑↑ ↱	⅃↓↰↰	↰↰↑↑ ↱	⅂↱
70	Sunrise Boulevard & Jackson Road	Signal	Signal	↰↱	↲↓↰	↰↑ ↱	↰↑ ↱	↰↱	↲↓↰	↰↑ ↱	↰↑ ↱
71	Sunrise Boulevard & Florin Road	Signal	Signal	↰↑	⅃	⅄		↰↑	⅃	⅄	
72	Sheldon Lake Drive/Sunrise Boulevard & Grant Line Road	Signal	Signal	Y	⅄↰	↰↑ ↱	↰↱	Y	⅄↰	↰↑ ↱	↰↱
73	Hazel Avenue & Tributary Point Drive/US 50 WB Off-ramp	Signal	Signal	↰↰↑↑↑	↲↓↓↓↓	↱	⅂↱↱	↰↰↑↑↑	↲↓↓↓↓	↱	⅂↱↱
74	Hazel Avenue & US 50 EB Ramps	Signal	Signal		↲↓↓	↰⅄↱			↲↓↓	↰⅄↱	
75	Hazel Avenue & Folsom Boulevard	Signal	Signal	↰↱	⅄⅃↰↰	↰↰↑ ↱	↰↑ ↱	↰↱	⅄⅃↰↰	↰↰↑ ↱	↰↑ ↱
76	Prairie City Road & White Rock Road	Signal	Signal		⅄↰	↰↑↑	↑↑ ↱		⅄↰	↰↑↑	↑↑ ↱
77	Grant Line Road & White Rock Road	Signal	Signal	↰↑↑	↲↓↓	↰↰↱		↰↑↑	↲↓↓	↰↰↱	
78	Grant Line Road & Douglas Road	All-way stop	All-way stop	↰	⅃	⅄		↰	⅃	⅄	
79	Grant Line Road & Kiefer Boulevard	All-way stop	All-way stop	Y	⅄	Y	Y	Y	⅄	Y	Y
80	Grant Line Road & Jackson Road	Signal	Signal	Y	⅄	↰↱	↰↱	Y	⅄	↰↱	↰↱
81	Watt Avenue & US-50 EB Ramps	Signal	Signal	↑↑↑↑ ↱	⅄⅃↓↓	↰↰↱↱		↑↑↑↑ ↱	⅄⅃↓↓	↰↰↱↱	
82	Watt Avenue & US-50 WB Ramps	Signal	Signal	↑↑ ⅋↱	⅄⅃↓↓↓		↰↰↱↱↱	↑↑ ⅋↱	⅄⅃↓↓↓		↰↰↱↱↱
83	Mayhew Rd & Folsom Blvd.	Signal	Signal	↰↰↱		↑↑ ↱	↰↑↑	↰↰↱		↑↑ ↱	↰↑↑
84	65th Street Expy & Fruitridge Road	Signal	Signal	↰↑↑ ↱	↲↓↓↰	↰↑↑	↰↑↑ ↱	↰↑↑ ↱	↲↓↓↰	↰↑↑	↰↑↑ ↱

Note: Gray shading represents changes in traffic control or approach lanes that the project is responsible to provide.

Table 3.7

Existing and Existing Plus NewBridge Project Intersection Geometrics

Intersection		Traffic Control		Existing Lane Geometrics				Existing Plus NewBridge Project Lane Geometrics			
		Existing	Existing Plus Project	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach
85	Power Inn Road & Elder Creek Road	Signal	Signal	↰↑↱	↰↓↘	↰↑↑↱	↰↑↱	↰↑↱	↰↓↘	↰↑↑↱	↰↑↱
86	Power Inn Road & Florin Rd	Signal	Signal	↰↑↱	↱↓↓↘	↰↑↑↱	↰↑↑↱	↰↑↱	↱↓↓↘	↰↑↑↱	↰↑↑↱
87	Florin Perkins Road & Florin Rd	Signal	Signal	↰↑↑↱	↱↓↓↘	↰↑↱	↰↑↱	↰↑↑↱	↱↓↓↘	↰↑↱	↰↑↱
88	Bradshaw Rd & Calvine Rd	Signal	Signal	↰↰↑↱	↱↓↓↘↘	↰↰↑↑↱	↰↰↑↱	↰↰↑↱	↱↓↓↘↘	↰↰↑↑↱	↰↰↑↱
89	Vineyard Rd & Calvine Rd	Signal	Signal	↾	↱↱↘	↰↑↱	↰↑↱	↾	↱↱↘	↰↑↱	↰↑↱
90	Excelsior Road & Calvine Rd	All-way stop	All-way stop	↾	↟	↾	↾	↾	↟	↾	↾
91	Grant Line Rd & Eagles Nest Rd/Sloughhouse Rd	Signal	Signal	↰↑↱	↰↘	↾	↰↱	↰↑↱	↰↘	↾	↰↱
92	Grant Line Rd & Calvine Rd	Signal	Signal	↰↑	↰	↽		↰↑	↰	↽	
93	Grant Line Rd & Dwy/Wilton Rd	Signal	Signal	↰↱	↰↘	↰↱	↰↱	↰↱	↰↘	↰↱	↰↱
94	Grant Line Rd & Bond Rd/Wrangler Dr	Signal	Signal	↰↱	↱↓↘	↰↱	↾	↰↱	↱↓↘	↰↱	↾
203	Northbridge Dr & Kiefer Boulevard		Signal					↰↱		↑ ↱	↰↑
500	Rockbridge Dr & Jackson Road		Signal						↱↘	↰↑↑	↑ ↱
501	Zinfandel Drive & N Bridgewater Dr		Signal					↑↱	↓↓↘		↰↱
502	Zinfandel Drive & S Bridgewater Dr		Signal					↰↑↱	↰↓↘	↰↑ ↱	↰↑ ↱

Note: Gray shading represents changes in traffic control or approach lanes that the project is responsible to provide.

3.4.3 Existing Plus NewBridge Project U.S. 50 Freeway Impacts

3.4.3.1 Freeway Mainline

Table 3.8 summarizes a.m. and p.m. peak hour US 50 freeway mainline operations. Details of the analysis are included in the technical appendix. The following locations exhibit significant impacts:

- Eastbound US 50
  - Stockton Boulevard to 59th Street - a.m. and p.m. peak hours
  - Bradshaw Road to Mather Field Road - a.m. peak hour
  - Zinfandel Drive to Hazel Avenue - p.m. peak hour
- Westbound US 50
  - Mather Field Road to Watt Avenue - a.m. peak hour
  - Watt Avenue to 59th Street – a.m. and p.m. peak hours
  - 59th Street to SR 51 / SR 99 - p.m. peak hour

3.4.3.2 Freeway Ramp Junctions / Weaving

Table 3.9 summarizes a.m. and p.m. peak hour freeway operations at ramp junctions and weaving areas. Details of the analysis are included in the technical appendix. The following locations exhibit significant impacts:

- Eastbound
  - Mather Field Road to Zinfandel Drive weave - a.m. peak hour
- Westbound
  - Sunrise Boulevard Entrance - a.m. peak hour

3.4.3.3 Freeway Ramp Intersection Queuing

Table 3.10 summarizes a.m. and p.m. peak hour freeway ramp intersection queuing. No locations exhibit a significant impact.

3.4.4 Existing Plus NewBridge Project Pedestrian and Bicycle Facility Impacts

The NewBridge project would not remove any existing or planned pedestrian facility. The NewBridge project would not remove any existing bicycle facility or any facility that is planned in the Bikeway Master Plan. The NewBridge project would add pedestrian and bicycle demands within the NewBridge project site and to and from nearby land uses. As illustrated in Figure 3.2, the NewBridge project has proposed changes to the Bikeway Master Plan. Because the NewBridge project would add demand for pedestrian and bicycle facilities that may not be available in the site vicinity, the impact of the NewBridge project on pedestrian and bicycle circulation is potentially significant.

Table 3.8: Existing Plus NewBridge Project Peak Hour Freeway Mainline Level of Service

Direc-tion	Location	Existing				Existing Plus NewBridge Project			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		Volume	LOS	Volume	LOS	Volume	LOS	Volume	LOS
East-bound US 50	SR 99 / SR 51 to Stockton Boulevard	7,068	C	6,415	C	7,124	C	6,436	C
	Stockton Boulevard to 59th Street	7,470	**F**	7,228	**F**	7,537	**F**	7,261	**F**
	59th Street to 65th Street	6,767	D	6,641	D	6,827	D	6,659	D
	65th Street to Howe Avenue	7,962	D	7,562	D	8,039	D	7,582	D
	Howe Avenue to Watt Avenue	7,405	D	7,602	D	7,437	D	7,660	D
	Watt Avenue to Bradshaw Road	7,935	D	7,176	C	7,958	D	7,253	C
	Bradshaw Rd to Mather Field Rd	7,725	**F**	7,366	C	7,733	**F**	7,414	C
	Mather Field Rd to Zinfandel Drive	7,275	C	7,224	C	7,294	C	7,294	C
	Zinfandel Drive to Sunrise Blvd	5,121	C	6,649	**F**	5,146	C	6,709	**F**
	Sunrise Boulevard to Hazel Avenue	4,985	C	5,323	**F**	5,054	C	5,362	**F**
West-bound US 50	Hazel Avenue to Sunrise Boulevard	6,068	D	4,370	C	6,083	D	4,436	C
	Sunrise Blvd to Zinfandel Drive	7,502	D	4,762	C	7,566	D	4,807	C
	Zinfandel Drive to Mather Field Rd	7,548	C	5,765	B	7,620	C	5,800	B
	Mather Field Rd to Bradshaw Road	7,859	**F**	6,939	D	7,909	**F**	6,931	D
	Bradshaw Road to Watt Avenue	7,550	**F**	6,466	D	7,626	**F**	6,499	D
	Watt Avenue to Howe Avenue	7,376	**F**	5,106	**F**	7,429	**F**	5,133	**F**
	Howe Avenue to 65th Street	8,157	**F**	7,407	**F**	8,232	**F**	7,417	**F**
	65th Street to 59th Street	8,278	**F**	7,358	**F**	8,310	**F**	7,378	**F**
	59th Street to Stockton Boulevard	9,115	D	7,945	**F**	9,152	D	7,971	**F**
	Stockton Boulevard to SR 99 / SR 51	8,546	D	8,136	**F**	8,571	D	8,160	**F**

Bold values denote level of service "F" conditions.

Red shaded values indicate project impacts.

Source: *DKS Associates, 2014.*

Table 3.9: Existing Plus NewBridge Project Peak Hour Freeway Ramp Junction/Weaving Level of Service

Direc-tion	Location	Junction Type	Existing				Existing Plus NewBridge Project			
			A.M. Peak Hour		P.M. Peak Hour		A.M. Peak Hour		P.M. Peak Hour	
			Ramp Volume	LOS	Ramp Volume	LOS	Ramp Volume	LOS	Ramp Volume	LOS
East-bound US 50	Northbound 65th Street Slip Entrance	Weave	765	D	653	C	773	D	655	C
	Howe Avenue / Hornet Drive Exit		1,631		1,417		1,665		1,381	
	Southbound Howe Avenue Loop Entrance	One-Lane Merge	484	C	881	C	476	C	874	C
	Northbound Howe Avenue Slip Entrance	One-Lane Merge	419	C	431	C	431	C	448	C
	Watt Avenue Exit	Two-Lane Diverge	1,317	B	1,634	B	1,317	B	1,611	B
	Watt Avenue Entrance	One-Lane Merge	2,134	**F**	1,724	D	2,131	**F**	1,727	D
	Bradshaw Road Exit	Two-Lane Diverge	1,520	B	1,228	B	1,538	B	1,257	B
	Southbound Bradshaw Road Loop Entrance	One-Lane Merge	220	C	422	C	217	C	421	C
	Northbound Bradshaw Road Slip Entrance	One-Lane Merge	971	C	918	C	976	C	925	C
	Mather Field Road Exit	Two-Lane Diverge	1,266	B	1,062	A	1,262	B	1,080	A
	Southbound Mather Field Road Loop Entrance	One-Lane Merge	125	C	101	B	120	C	105	B

Table 3.9: Existing Plus NewBridge Project Peak Hour Freeway Ramp Junction/Weaving Level of Service

Direc-tion	Location	Junction Type	Existing				Existing Plus NewBridge Project			
			A.M. Peak Hour		P.M. Peak Hour		A.M. Peak Hour		P.M. Peak Hour	
			Ramp Volume	LOS	Ramp Volume	LOS	Ramp Volume	LOS	Ramp Volume	LOS
	Northbound Mather Field Road Slip Entrance	Weave	317	**F**	816	C	327	**F**	840	C
	Zinfandel Drive Exit		2,932		1,452		2,934		1,465	
	Southbound Zinfandel Drive Loop Entrance	One-Lane Merge	182	B	129	C	181	B	129	C
	Northbound Zinfandel Drive Slip Entrance	One-Lane Merge	348	B	540	C	359	B	545	C
	Sunrise Boulevard Exit	Major Diverge	1,773	C	1,959	D	1,763	C	1,976	D
	Sunrise Boulevard Entrance	One-Lane Merge	992	C	889	D	1,023	C	890	D
	Hazel Avenue Exit	Two-Lane Diverge	933	B	1,541	C	958	B	1,547	C
	Hazel Avenue Entrance	Weave	804	C	945	C	792	C	948	C
	Aerojet Road Exit		241		55		241		51	
West-bound US 50	Hazel Avenue Exit	Two-Lane Diverge	631	A	869	A	662	A	869	B
	Northbound Hazel Avenue Loop Entrance	One-Lane Merge	160	B	600	B	163	B	612	B
	Southbound Hazel Avenue Slip Entrance	One-Lane Merge	1,550	B	800	B	1,558	B	821	B

Table 3.9: Existing Plus NewBridge Project Peak Hour Freeway Ramp Junction/Weaving Level of Service

Direc-tion	Location	Junction Type	Existing				Existing Plus NewBridge Project			
			A.M. Peak Hour		P.M. Peak Hour		A.M. Peak Hour		P.M. Peak Hour	
			Ramp Volume	LOS	Ramp Volume	LOS	Ramp Volume	LOS	Ramp Volume	LOS
	Sunrise Boulevard Exit	One-Lane Diverge	749	E	758	D	701	E	783	D
	Sunrise Blvd Entrance	Lane Addition	2,183	**F**	1,656	D	2,186	**F**	1,658	D
	Zinfandel Drive Exit	One-Lane Diverge	1,034	E	608	C	1,046	E	609	C
	Northbound Zinfandel Drive Loop Entrance	Lane Addition	585	B	1,197	B	617	B	1,180	B
	Southbound Zinfandel Drive Slip Entrance	One-Lane Merge	442	C	561	B	447	C	569	B
	Mather Field Road Exit	One-Lane Drop	1,093	C	556	A	1,125	C	583	A
	Northbound Mather Field Road Loop Entrance	One-Lane Merge	515	B	861	B	520	B	878	B
	Southbound Mather Field Road Slip Entrance	One-Lane Merge	387	B	380	B	383	B	349	B
	Bradshaw Road Exit	Two-Lane Diverge	1,236	B	1,327	B	1,251	B	1,319	B
	Northbound Bradshaw Road Loop Entrance	One-Lane Merge	914	D	910	C	946	D	930	C
	Southbound Bradshaw Road Slip Entrance	One-Lane Merge	338	D	590	C	337	D	608	C
	Watt Avenue Exit	Major Diverge	1,373	D	1,188	C	1,384	D	1,195	C
	Northbound Watt Avenue Entrance	One-Lane Merge	820	D	943	C	806	D	948	C

Table 3.9: Existing Plus NewBridge Project Peak Hour Freeway Ramp Junction/Weaving Level of Service

Direc-tion	Location	Junction Type	Existing				Existing Plus NewBridge Project			
			A.M. Peak Hour		P.M. Peak Hour		A.M. Peak Hour		P.M. Peak Hour	
			Ramp Volume	LOS	Ramp Volume	LOS	Ramp Volume	LOS	Ramp Volume	LOS
	Southbound Watt Avenue Slip Entrance	Lane Addition / Weave	1,232	C	1,317	D	1,234	C	1,313	D
	Howe Avenue Exit	Major Diverge / Weave	1,531	D	1,419		1,540	D	1,439	
	Northbound Howe Avenue Loop Entrance	One-Lane Merge	654	D	602	C	655	D	600	C
	Southbound Howe Avenue Slip Entrance	One-Lane Merge	574	C	574	C	564	C	564	C

Bold values denote level of service "F" conditions.
Red shaded values indicate project impacts.
Source: *DKS Associates, 2014.*

Table 3.10: Existing Plus NewBridge Project Peak Hour Freeway Ramp Termini Queuing

Direction	US 50 Exit Ramp	Available Storage Length (feet / lane)			Maximum Queue Length (feet / lane)					
					AM Peak Hour			PM Peak Hour		
		L	T	R	L	T	R	L	T	R
Eastbound US-50	Howe Avenue	765	-	765	202	-	395	226	-	248
	Watt Avenue	1,500	-	1,500	156	-	209	249	-	186
	Bradshaw Road	1,250	-	1,250	193	-	556	169	-	412
	Mather Field Road	1,385	-	1,385	198	-	572	276	-	69
	Zinfandel Drive	1,025	1,025	1,025	225	812	736	412	341	123
	Sunrise Boulevard	1,695	-	1,695	280	-	185	371	-	90
	Hazel Avenue	1,310	-	1,310	312	-	84	817	-	26
Westbound US-50	Hazel Avenue	1,995		1,995	268		50	295		469
	Sunrise Boulevard	1,540	-	1,540	130	-	135	154	-	167
	Zinfandel Drive	1,065	-	1,065	429	-	67	65	-	103
	Mather Field Road	1,335	-	1,335	629	-	575	242	-	101
	Bradshaw Road	1,330	-	1,330	321	-	117	399	-	31
	Watt Avenue	1,480	-	1,480	155	-	512	104	-	471
	Howe Avenue	1,355	1,355	1,355	197	412	131	250	412	242

Red shaded values indicate project impacts.

L = left turn movement, T = through movement, R = right turn movement

Source: *DKS Associates, 2014.*

3.4.5 Existing Plus NewBridge Project Transit System Impacts

Public transit is not currently provided to the NewBridge project site. In the preparation of this analysis, a conceptual transit system to serve the NewBridge project and adjacent future projects was developed (see Section 3.1.2.3). The additional transit service was assumed to be funded by the NewBridge project. However, the timing and implementation of the transit system are uncertain at this time. The NewBridge project would increase demands for public transit facilities. Therefore, the impact of the NewBridge project on the transit system is potentially significant.

3.4.6 Existing Plus NewBridge Functionality Impacts

Table 3.11 summarizes the results of the rural roadway segment functionality analysis. Figure 3.6 illustrates the resultant functionality impacts. The table includes the number of lanes assumed with the implementation of the NewBridge project, which in many cases is greater than the number of lanes in the existing condition. The shaded table cells under the "Travel Lanes" heading illustrates new roadways and widened roadways that are assumed part of the NewBridge project. The "Substandard?" heading indicates whether or not a roadway meets the County standards of 12-foot lanes and 6-foot shoulders. If the project makes improvements to a roadway segment such as widening, it would be required to reconstruct the entire substandard roadway segment to County standards. The shaded table cells under the "Functionality Impact?" heading indicate those locations with a functionality impact.

As stated above, the traffic analysis assumed that the NewBridge project would construct a number of travel lanes on roadway segments that are internal to or on the boundary of the NewBridge project, and the entire roadway segment would be reconstructed to County standards at that time. The timing of implementation of such additional traffic lanes on these internal or boundary roadway segments will affect whether or not impacts would exist at some time prior to full build out of the NewBridge project.

Table 3.11
Existing Plus NewBridge Project Functionality Impacts

ID	Roadway	Segment		Jurisdiction	Existing Substandard Roadways				Existing + NewBridge Project			
		From	To		Travel Lanes	Pavement (ft)	Substandard? [1]	Existing Volume	Travel Lanes	Substandard? [1]	Forecasted Volume	Functionality Impact? [2]
15	Douglas Rd	Mather Blvd	Zinfandel Dr	County	2	23	Yes	6,635	2	Yes	7,250	**Yes**
16	Douglas Rd	Zinfandel Dr	Sunrise Blvd	Rancho Cordova/County	2	23	Yes	8,369	2	Yes	9,750	**Yes**
19	Eagles Nest Rd	Kiefer Blvd	Jackson Rd	County	2	20	Yes	740	4	No	9,790	**Yes[3]**
20	Eagles Nest Rd	Jackson Rd	Florin Rd	County	2	<21	Yes	517	2	Yes	3,460	No
21	Eagles Nest Rd	Florin Rd	Grant Line Rd	County	2	<21	Yes	189	2	Yes	1,330	No
25	Elder Creek Rd	South Watt Ave	Hedge Ave	County	2	23	Yes	5,576	2	Yes	6,300	**Yes**
26	Elder Creek Rd	Hedge Ave	Mayhew Rd	County	2	23	Yes	5,797	2	Yes	6,540	**Yes**
27	Elder Creek Rd	Mayhew Rd	Bradshaw Rd	County	2	23	Yes	5,355	2	Yes	6,400	**Yes**
28	Elder Creek Rd	Bradshaw Rd	Excelsior Rd	County	2	23	Yes	2,158	2	Yes	3,440	No
30	Excelsior Rd	Kiefer Blvd	Jackson Rd	County	2	22	Yes	3,716	2	Yes	3,660	No
31	Excelsior Rd	Jackson Rd	Elder Creek Rd	County	2	<21	Yes	5,075	2	Yes	5,470	No
32	Excelsior Rd	Elder Creek Rd	Florin Rd	County	2	<21	Yes	4,203	2	Yes	3,990	No
33	Excelsior Rd	Florin Rd	Gerber Rd	County	2	<21	Yes	5,423	2	Yes	5,390	No
34	Excelsior Rd	Gerber Rd	Calvine Rd	County	2	<21	Yes	4,229	2	Yes	3,970	No
39	Florin Rd	South Watt Ave	Hedge Ave	County	2	22	Yes	7,718	2	Yes	8,940	**Yes**
40	Florin Rd	Hedge Ave	Mayhew Rd	County	2	22	Yes	6,312	2	Yes	7,680	**Yes**
41	Florin Rd	Mayhew Rd	Bradshaw Rd	County	2	22	Yes	6,317	2	Yes	7,750	**Yes**
42	Florin Rd	Bradshaw Rd	Excelsior Rd	County	2	22	Yes	3,478	2	Yes	5,110	No
43	Florin Rd	Excelsior Rd	Sunrise Blvd	County	2	22	Yes	3,835	2	Yes	5,910	No
48	Fruitridge Rd	South Watt Ave	Hedge Ave	City of Sacramento/ County	2	22	Yes	2,890	2	Yes	3,140	No
49	Fruitridge Rd	Hedge Ave	Mayhew Rd	County	2	22	Yes	1,790	2	Yes	2,030	No
50	Grant Line Rd	White Rock Rd	Douglas Rd	Rancho Cordova/County	2	22	Yes	7,189	2	Yes	7,920	**Yes**
58	Happy Ln	Old Placerville Rd	Kiefer Blvd	County	2	22	Yes	4,635	2	Yes	6,660	**Yes**
59	Hedge Ave	Jackson Rd	Fruitridge Rd	County	2	22	Yes	3,061	2	Yes	2,970	No
60	Hedge Ave	Fruitridge Rd	Elder Creek Rd	City of Sacramento/County	2	22	Yes	3,737	2	Yes	3,680	No
61	Hedge Ave	Elder Creek Rd	Florin Rd	County	2	22	Yes	2,722	2	Yes	2,790	No

Red text with light gray shading indicate project impacts.

Table 3.11
Existing Plus NewBridge Project Functionality Impacts

ID	Roadway	Segment		Jurisdiction	Existing Substandard Roadways				Existing + NewBridge Project			
		From	To		Travel Lanes	Pavement (ft)	Substandard? [1]	Existing Volume	Travel Lanes	Substandard? [1]	Forecasted Volume	Functionality Impact? [2]
70	Jackson Rd	Bradshaw Rd	Excelsior Rd	County	2	26	Yes	13,030	2	Yes	18,090	**Yes**
71	Jackson Rd	Excelsior Rd	Eagles Nest Rd	County	2	26	Yes	10,478	2	Yes	17,610	**Yes**
74	Kiefer Blvd	Florin Perkins Rd	South Watt Ave	City of Sacramento/County	2	22	Yes	4,616	2	Yes	4,810	No
77	Kiefer Blvd	Bradshaw Rd	Happy Ln	County	2	22	Yes	4,618	2	Yes	5,500	No
78	Kiefer Blvd	Zinfandel Dr	Sunrise Blvd	County	2	22	Yes	656	3	No	7,510	**Yes[3]**
83	Mather Blvd-Excelsior Rd[4]	Douglas Rd	Kiefer Blvd	County	2	22	Yes	6,751	2	Yes	6,660	No
89	Mayhew Rd	Jackson Rd	Fruitridge Rd	County	2	22	Yes	1,616	2	Yes	1,860	No
116	White Rock Rd	Fitzgerald Rd	Grant Line Rd	Rancho Cordova/County	2	20	Yes	2,490	2	Yes	2,520	No
123	Zinfandel Dr	Douglas Rd	Kiefer Blvd	County	2	<21	Yes	2,848	2	Yes	2,860	No

Note: Gray shading indicates changes in travel lanes or facility type that the project is responsible to provide. For all roadway segments to be widened, the project is responsible to build the entire roadway to County standards.

[1] Substandard rural roads are defined as rural, 2-lane roadway segments with travel lanes narrower than 12 feet and/or roadside shoulders narrower than 6 feet.

[2] Functionality impacts are triggered when a substandard rural road increases over a threshold of 6,000 ADT, or for a roadway already above 6,000 ADT, increases by more than 600 ADT.

[3] The potential for an impact exists should the project generate traffic volumes on the roadway exceeding 6,000 ADT, or increasing more than 600 ADT on a roadway already above 6,000 ADT, prior to the construction of roadway improvements.

[4] Excluding the roadway segment that is within the developed community of Independence at Mather.

[5] The functionality impact is mitigated by improving the roadway to County standards, including widening travel lanes to 12 feet and/or widening or providing paved shoulders to 6 feet.

Red text with light gray shading indicate project impacts.

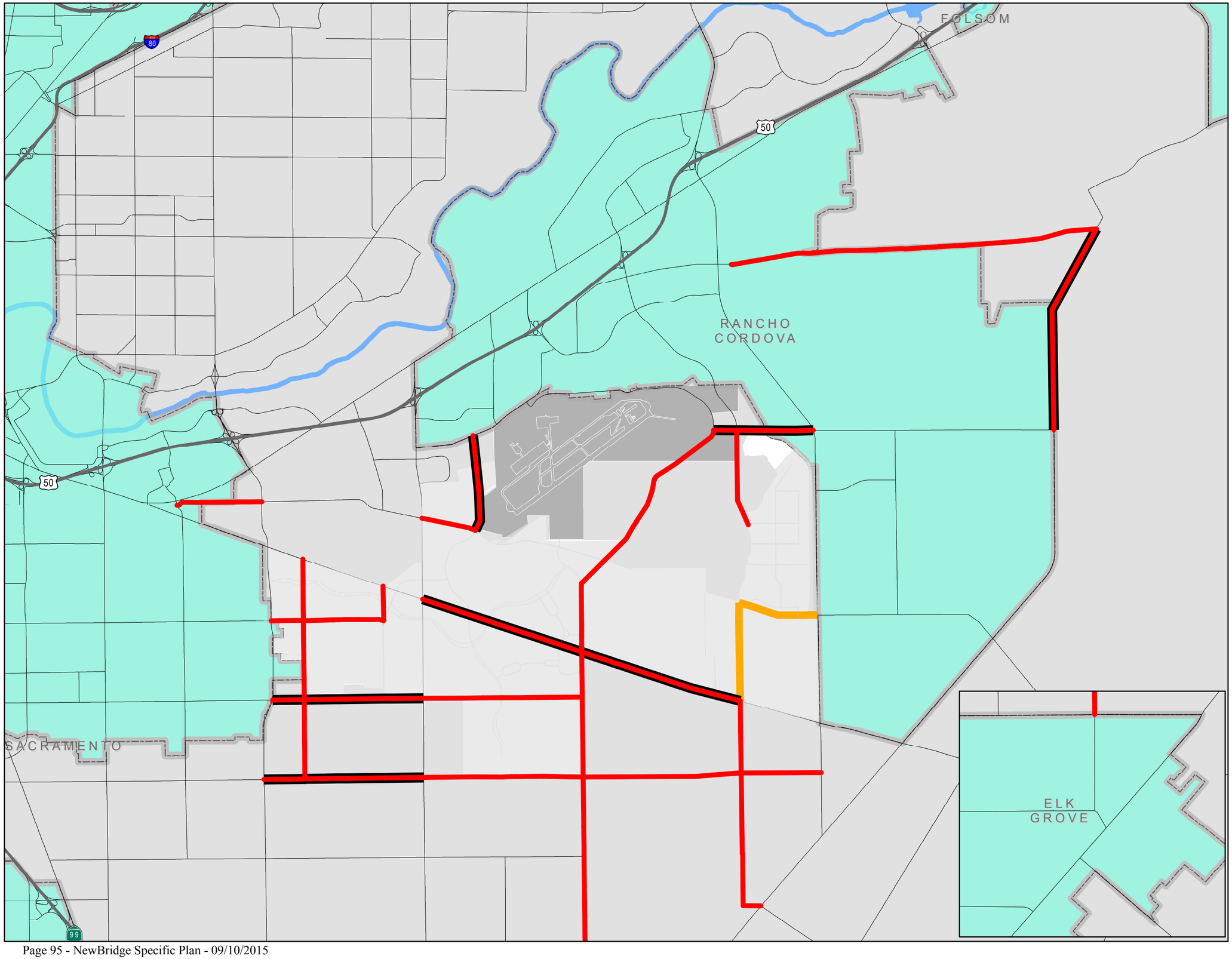


FIGURE 3.6
EXISTING PLUS NEWBRIDGE
FUNCTIONALITY IMPACTS

Legend

- Substandard Roadways
- Functionaityl Impact
- Functionality Impact if Roadway is Not Already Improved
- Cities
- Mather Airport

3.5 MITIGATION

3.5.1 Existing Plus NewBridge Project Roadway Segment Mitigation

Table 3.12 summarizes the results of the operations analysis for the study area roadway segments with mitigation. Where feasible, the number of roadway lanes was increased to mitigate the impact. However, the increased number of lanes could not exceed the maximum General Plan designations of the appropriate jurisdictions. The shaded table cells under the "Travel Lanes" and "Facility Type" headings illustrate widened roadways for mitigation purposes, which would be the responsibility of the NewBridge project to implement. The shaded table cells under the "Level of Service" heading indicate those locations that would continue to have LOS impacts after mitigation. The table also includes the constraint that precluded full mitigation of the LOS impact.

The "LOS Impact with Mitigation?" column shows whether there is still an LOS impact after the mitigation measure is applied. In other words, this column shows whether a mitigation measure successfully mitigates the impact or not. In several locations where the improvements allowed under the General Plan would not mitigate an LOS impact, the County has proposed alternative mitigation measures, which are shown in the "Alternative Mitigation" column. These alternative mitigation measures will either fully mitigate the impact or substantially reduce the level of impact.

3.5.2 Existing Plus NewBridge Project Intersection Mitigation

Tables 3.13 and 3.14 summarize the results of the operations analysis for the study area intersections with mitigation. However, the increased number of lanes on each approach does not exceed the County's standard number of approach lanes. Shaded table cells in Table 3.14 indicate those locations where changes in traffic control and / or number of approach lanes by type have been made which would be the responsibility of the NewBridge project to implement. As shown in Table 3.13, all LOS impacts have been fully mitigated. Detailed analysis information is included in the technical appendix.

The "LOS Impact with Mitigation?" column in Table 3.14 shows whether there is still an LOS impact after the mitigation measure is applied. In other words, this column shows whether a mitigation measure successfully mitigates the impact or not. In locations where the LOS impact could not be mitigated by implementing the County's standard number of approach lanes, the County has proposed alternative mitigation measures, which are shown in the "Alternative Mitigation" column. These generally include providing additional turn lanes, carrying an additional through lane past the intersection, or designating the intersection as a High Capacity Intersection. These alternative mitigation measures will either fully mitigate the impact or substantially reduce the level of impact.

3.5.3 Existing Plus NewBridge Project U.S. 50 Freeway Mitigation

Capacity improvements such as widening of the freeway and freeway junctions would reduce the severity of the impacts, but were generally not considered feasible due to right-of-way

restrictions, legal constraints, and the numerous transportation structures that would need to be modified and/or replaced. Potential alternative improvements have been identified from Caltrans' US-50 Transportation Concept Report (TCR) and Corridor System Management Plan (CSMP). The TCR and CSMP is focused on intelligent transportation systems (ITS) and integrated corridor management (ICM) projects that would have operational benefits to US-50 without adding additional capacity. The TCR and CSMP also identify potential improvements to parallel local facilities that would be expected to reduce travel demand on US-50. The NewBridge project will participate in one or more of these alternative improvements that could directly reduce the severity of the project's impact and/or provide operational benefits to the US-50 corridor in general.

3.5.3.1 US-50 Eastbound Alternative Improvements

To lessen the impact to the eastbound US-50 mainline between Stockton Boulevard and 59th Street, the project may pay a fair share toward the construction of:

- Ramp meter improvements (Caltrans ITS/OPS Project List)

To lessen the impact to the eastbound US-50 mainline between Bradshaw Road and Mather Field Road, and to the weave between Mather Field Road to Zinfandel Drive, the project may pay a fair share toward the construction of:

- Auxiliary lanes between Bradshaw Road and Mather Field Road (2035 SACOG MTP)
- An interchange modification of US-50 at Mather Field Road (2035 SACOG MTP)

To lessen the impact to the eastbound US-50 mainline between Zinfandel Drive and Hazel Avenue, the project may pay a fair share toward the construction of:

- Auxiliary lanes between Zinfandel Drive and Sunrise Boulevard (2035 SACOG MTP)
- Auxiliary lanes between Sunrise Boulevard and Hazel Avenue (2035 SACOG MTP)
- Widen Sunrise Boulevard to 6 lanes with special treatments, including intersection improvements at White Rock Road, Folsom Boulevard, Coloma Road, Gold Express Drive, and Gold Country Boulevard (2035 SACOG MTP)
- A new interchange at Rancho Cordova Parkway, including a 4-lane arterial from US-50 to White Rock Road (2035 SACOG MTP)
- Multi-modal corridor improvements and interchange improvements at Hazel Avenue (2035 SACOG MTP)

3.5.3.2 US-50 Westbound Alternative Improvements

To lessen the impact to the westbound US-50 on-ramp at Sunrise Boulevard, the project may pay a fair share toward the construction of:

- Auxiliary lanes between Sunrise Boulevard and Zinfandel Drive (2035 SACOG MTP)
- A transition lane from the Sunrise Boulevard slip off-ramp to the Sunrise Boulevard slip on-ramp (2035 SACOG MTP)

To lessen the impact to the westbound US-50 mainline between Mather Field Road and Watt Avenue, the project may pay a fair share toward the construction of:

- Auxiliary lanes between Mather Field Road and Bradshaw Road (2035 SACOG MTP)

- An interchange modification of US-50 at Mather Field Road (2035 SACOG MTP)

To lessen the impact to the westbound US-50 mainline between Watt Avenue and SR-51/SR-99, the project may pay a fair share toward the construction of:

- Bus/HOV lanes from Watt Avenue to Downtown Sacramento (2035 SACOG MTP)
- Replacement of existing communication lines with fiber optics to improve performance between SR-51/SR-99 and Watt Avenue (2013 10-Year SHOPP Plan)
- Auxiliary lane between the NB Howe Avenue on-ramp and the SB Howe Avenue on-ramp (2035 SACOG MTP)
- Ramp meter improvements (Caltrans ITS/OPS Project List)

Table 3.12
Existing Plus NewBridge Project Roadway Segment Mitigations

ID	Roadway	Segment		Existing + NewBridge Project					Mitigated Existing + NewBridge Project						
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Volume / Capacity Ratio	Level of Service	LOS Impact with Mitigation?	Alternative Mitigation[2]	Constraint if Full Mitigation Not Possible
23	Elder Creek Rd	Power Inn Rd	Florin-Perkins Rd	2	Arterial M	16,320	0.91	**E**	4	Arterial M	0.45	A	No		
44	Folsom Blvd	Howe Ave	Jackson Rd	4	Arterial M	38,790	1.08	**F**	4	Arterial M	1.08	**F**	Yes		Maximum General Plan lanes
55	Grant Line Rd	Calvine Rd	Sheldon Rd	2	Rural S	14,240	0.71	**E**	4	Arterial M	0.40	A	No		
62	Howe Ave	US 50	Folsom Blvd	6	Arterial M	54,510	1.01	**F**	6	Arterial M	1.01	**F**	Yes		Maximum General Plan lanes
67	Jackson Rd	South Watt Ave	Hedge Ave	2	Arterial M	19,820	1.10	**F**	4	Arterial M	0.55	A	No		
69	Jackson Rd	Mayhew Rd	Bradshaw Rd	2	Arterial M	18,170	1.01	**F**	4	Arterial M	0.50	A	No		
70	Jackson Rd	Bradshaw Rd	Excelsior Rd	2	Arterial M	18,090	1.01	**F**	4	Arterial M	0.50	A	No		
73	Jackson Rd	Sunrise Blvd	Grant Line Rd	2	Rural Hwy	14,120	0.62	**E**	4	Arterial M	0.39	A	No		
106	Sunrise Blvd	Kiefer Blvd	Jackson Rd	2	Arterial M	18,370	1.02	**F**	4	Arterial M	0.51	A	No		

Note: Gray shading represents changes in travel lanes or facility type that the project is responsible to provide.

[1] The following classifications are used to determine daily roadway capacity:
Arterial L - Arterial, Low Access Control
Arterial M - Arterial, Moderate Access Control
Arterial H - Arterial, High Access Control
Rural Hwy - Rural 2-lane Highway
Rural S - Rural 2-lane Road, 24'-36' of pavement, Paved Shoulders
Rural NS - Rural 2-lane Road, 24'-36' of pavement, No Shoulders
Res Collector F - Residential Collector with Frontage
Res Collector NF - Residential Collector with No Frontage

[2] Alternative mitigations represent proposed mitigations beyond the General Plan, as proposed by the County of Sacramento.

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 3.13

Existing Plus NewBridge Project Impacted Intersections and Mitigations

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing Plus NewBridge Project			LOS Impact	Mitigated Existing Plus NewBridge Project			Existing Plus NewBridge Project			LOS Impact	Mitigated Existing Plus NewBridge Project		
		Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)
29	Mayhew Road & Jackson Road	Two-way stop	A	1.7	No				Two-way stop	A	2.1	Yes	Signal	C	31.5
	Northbound Through - Left Turn		*E*	*36.6*						***F***	***50.0***				
	Northbound Right Turn		*B*	*13.0*						*C*	*15.9*				
	Southbound		*C*	*22.2*						*D*	*33.6*				
	Eastbound Left Turn		*A*	*9.0*						*A*	*8.7*				
	Westbound Left Turn		*A*	*8.7*						*A*	*9.6*				
38	Bradshaw Road & Jackson Road	Signal	**F**	**86.2**	Yes	Signal	E	69.5	Signal	E	65.4	No			
42	Happy Lane & Old Placerville Road	Two-way stop	B	11.8	Yes	Signal	C	28.0	Two-way stop	B	12.5	Yes	Signal	C	26.4
	Northbound Left Turn		***F***	***201.8***						***F***	***288.0***				
	Northbound Right Turn		***E***	***36.1***						*C*	*17.5*				
	Westbound Left Turn		*B*	*11.0*						*B*	*10.2*				

Note: Gray shading represents changes in traffic control that the project is responsible to provide.

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 3.14

Existing Plus NewBridge Project Intersection Impacts and Mitigations

	Intersection	Traffic Control		Existing Plus NewBridge Project Lane Geometrics				Mitigated Existing Plus NewBridge Project Lane Geometrics				LOS Impact with Mitgation?	High Capacity Intersection?[1]	Alternative Mitigation[2]	Constraint if Full Mitigation Not Possible
		Existing Plus Project	Mitigated Existing Plus Project	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach				
29	Mayhew Road & Jackson Road	Two-way stop	Signal									No	No		
38	Bradshaw Road & Jackson Road	Signal	Signal									No	No		
42	Happy Lane & Old Placerville Road	Two-way stop	Signal									No	No	Realign Happy Lane to Routier Road (2 lanes)	

[1] High capacity intersections are defined in the Sacramento County General Plan and may include grade separations, additional turn lanes, and/or other features as deemed appropriate by the County.

[2] Alternative mitigations represent proposed mitigations beyond the General Plan, excluding high capacity intersections, as proposed by the County of Sacramento.

Note: Gray shading represents changes in traffic control or approach lanes that the project is responsible to provide.

3.5.4 Existing Plus NewBridge Project Pedestrian and Bicycle Facility Mitigation

The NewBridge project applicant shall coordinate with Sacramento County to identify the necessary on- and off-site pedestrian and bicycle facilities to serve the proposed development. These facilities shall be incorporated into the NewBridge project and could include sidewalks, stop signs, standard pedestrian and school crossing warning signs, lane striping to provide a bicycle lane, bicycle parking, signs to identify pedestrian and bicycle paths, raised crosswalks, pedestrian signal heads, and all appropriate traffic calming measures as defined in the County's Neighborhood Traffic Management Program (NTMP). Sidewalks would be required as part of the frontage improvements along all new roadway construction in the NewBridge project vicinity in conformance with County design standards. Circulation and access to all proposed public spaces shall include sidewalks that meet Americans with Disabilities Act standards.

3.5.5 Existing Plus NewBridge Project Transit System Mitigation

The NewBridge project applicant shall coordinate with Regional Transit (or other transit operators) to provide the additional transit facilities and services assumed in transportation analysis (see Section 3.1.2.3), or a cost-effective equivalent level of transit facilities and services.

The assumed transit routes and service frequency would be required at full development of the NewBridge project. The full level of transit service would not achieve adequate transit ridership during the early stages of development. Thus the ultimate transit service, like the roadway system serving the NewBridge project, must be phased with development of the NewBridge project.

3.5.6 Existing Plus NewBridge Project Functionality Mitigation

Table 3.15 summarizes the results of the functionality analysis for the study area rural roadway segments with mitigation.

3.5.7 Existing Plus NewBridge Project Mitigation Summary

Tables 3.16 through 3.20 summarize all of the roadway segments, intersections, and freeway facilities that would exhibit significant LOS impacts along with the mitigation success for these impacts.

Table 3.15
Existing Plus NewBridge Project Functionality Mitigations

ID	Roadway	Segment		Existing + NewBridge Project				Mitigation	Impact after Mitigation?
		From	To	Travel Lanes	Substandard? [1]	Forecasted Volume	Functionality Impact? [2]		
15	Douglas Rd	Mather Blvd	Zinfandel Dr	2	Yes	7,250	**Yes**	Widen to County standards [5]	No
16	Douglas Rd	Zinfandel Dr	Sunrise Blvd	2	Yes	9,750	**Yes**	Widen to County standards [5]	No
19	Eagles Nest Rd	Kiefer Blvd	Jackson Rd	4	No	9,790	**Yes[3]**	Widen to County standards [5]	No
25	Elder Creek Rd	South Watt Ave	Hedge Ave	2	Yes	6,300	**Yes**	Widen to County standards [5]	No
26	Elder Creek Rd	Hedge Ave	Mayhew Rd	2	Yes	6,540	**Yes**	Widen to County standards [5]	No
27	Elder Creek Rd	Mayhew Rd	Bradshaw Rd	2	Yes	6,400	**Yes**	Widen to County standards [5]	No
39	Florin Rd	South Watt Ave	Hedge Ave	2	Yes	8,940	**Yes**	Widen to County standards [5]	No
40	Florin Rd	Hedge Ave	Mayhew Rd	2	Yes	7,680	**Yes**	Widen to County standards [5]	No
41	Florin Rd	Mayhew Rd	Bradshaw Rd	2	Yes	7,750	**Yes**	Widen to County standards [5]	No
50	Grant Line Rd	White Rock Rd	Douglas Rd	2	Yes	7,920	**Yes**	Widen to County standards [5]	No
58	Happy Ln	Old Placerville Rd	Kiefer Blvd	2	Yes	6,660	**Yes**	Widen to County standards [5]	No
70	Jackson Rd	Bradshaw Rd	Excelsior Rd	2	Yes	18,090	**Yes**	Widen to County standards [5]	No
71	Jackson Rd	Excelsior Rd	Eagles Nest Rd	2	Yes	17,610	**Yes**	Widen to County standards [5]	No
78	Kiefer Blvd	Zinfandel Dr	Sunrise Blvd	3	No	7,510	**Yes[3]**	Widen to County standards [5]	No

Note: Gray shading indicates changes in travel lanes or facility type that the project is responsible to provide. For all roadway segments to be widened, the project is responsible to build the entire roadway to County standards.

[1] Substandard rural roads are defined as rural, 2-lane roadway segments with travel lanes narrower than 12 feet and/or roadside shoulders narrower than 6 feet.

[2] Functionality impacts are triggered when a substandard rural road increases over a threshold of 6,000 ADT, or for a roadway already above 6,000 ADT, increases by more than 600 ADT.

[3] The potential for an impact exists should the project generate traffic volumes on the roadway exceeding 6,000 ADT, or increasing more than 600 ADT on a roadway already above 6,000 ADT, prior to the construction of roadway improvements.

[4] Excluding the roadway segment that is within the developed community of Independence at Mather.

[5] The functionality impact is mitigated by improving the roadway to County standards, including widening travel lanes to 12 feet and/or widening or providing paved shoulders to 6 feet.

Red text with light gray shading indicate project impacts.

Table 3.16
Existing Plus NewBridge Project Summary of Impacted Roadway Segments

ID	Roadway	Segment	
		From	To
Level of Service Impact Fully Mitigated by General Plan Lanes			
23	Elder Creek Rd	Power Inn Rd	Florin-Perkins Rd
55	Grant Line Rd	Calvine Rd	Sheldon Rd
67	Jackson Rd	South Watt Ave	Hedge Ave
69	Jackson Rd	Mayhew Rd	Bradshaw Rd
70	Jackson Rd	Bradshaw Rd	Excelsior Rd
73	Jackson Rd	Sunrise Blvd	Grant Line Rd
106	Sunrise Blvd	Kiefer Blvd	Jackson Rd
Level of Service Impact Not Fully Mitigated by General Plan Lanes			
44	Folsom Blvd	Howe Ave	Jackson Rd
62	Howe Ave	US 50	Folsom Blvd

Note: Refer to Table 3.12 for detailed description of impacts and mitigations.

Table 3.17

Existing Plus NewBridge Project Summary of Impacted Intersections

	Intersection	Alternative Mitigation
Level of Service Impact Fully Mitigated by General Plan Lanes		
29	Mayhew Road & Jackson Road	
38	Bradshaw Road & Jackson Road	
42	Happy Lane & Old Placerville Road	**

[1] Alternative mitigations represent proposed mitigations beyond the General Plan, excluding designated high capacity intersections, as proposed by the County of Sacramento.

* denotes alternative mitigations that improve operations but do not fully mitigate the impact.
** denotes alternative mitigations that fully mitigate the impact.

Table 3.18

Existing Plus NewBridge Project
Summary of Impacted Freeway Segments

Direction	Location
Level of Service Impact Not Mitigated	
Eastbound US-50	Stockton Boulevard to 59th Street
	Bradshaw Road to Mather Field Road
Westbound US-50	Mather Field Road to Bradshaw Road
	Bradshaw Road to Watt Avenue
	Watt Avenue to Howe Avenue
	Howe Avenue to 65th Street
	65th Street to 59th Street
	59th Street to Stockton Boulevard
	Stockton Boulevard to SR 99 / SR 51

Source: *DKS Associates, 2014.*

Table 3.19

Existing Plus NewBridge Project
Summary of Impacted Freeway Ramp Junction/Weaves

Direction	Location	Junction Type
Level of Service Impact Not Mitigated		
Eastbound US-50	Northbound Mather Field Road Slip Entrance	Weave
	Zinfandel Drive Exit	
Westbound US-50	Sunrise Boulevard Entrance	Lane Addition

Source: *DKS Associates, 2014.*

Table 3.20
Existing Plus NewBridge Project Functionality Impact Summary

ID	Roadway	Segment	
		From	To
Functionality Impact Fully Mitigated			
15	Douglas Rd	Mather Blvd	Zinfandel Dr
16	Douglas Rd	Zinfandel Dr	Sunrise Blvd
19	Eagles Nest Rd	Kiefer Blvd	Jackson Rd
25	Elder Creek Rd	South Watt Ave	Hedge Ave
26	Elder Creek Rd	Hedge Ave	Mayhew Rd
27	Elder Creek Rd	Mayhew Rd	Bradshaw Rd
39	Florin Rd	South Watt Ave	Hedge Ave
40	Florin Rd	Hedge Ave	Mayhew Rd
41	Florin Rd	Mayhew Rd	Bradshaw Rd
50	Grant Line Rd	White Rock Rd	Douglas Rd
58	Happy Ln	Old Placerville Rd	Kiefer Blvd
70	Jackson Rd	Bradshaw Rd	Excelsior Rd
71	Jackson Rd	Excelsior Rd	Eagles Nest Rd
78	Kiefer Blvd	Zinfandel Dr	Sunrise Blvd

4. EXISTING PLUS FOUR PROJECTS SCENARIO

4.1 PROJECT DESCRIPTION

The existing plus FOUR PROJECTS scenario evaluates the effects of the traffic of four developments (FOUR PROJECTS) added to existing conditions. Figure 4.1 illustrates the location of the FOUR PROJECTS:

- West Jackson
- Jackson Township
- NewBridge
- Mather South

The FOUR PROJECTS are located in unincorporated Sacramento County, generally east of the City of Sacramento and south of the community of Rosemont and the City of Rancho Cordova. The FOUR PROJECTS are located both north and south of Jackson Road (SR 16). The FOUR PROJECTS are generally bounded to the west by South Watt Avenue, to the north by the Community of Rosemont and Mather Airport, to the east by Sunrise Boulevard, and to the south by Elder Creek Road and Florin Road.

4.1.1 Land Use

Table 4.1 summarizes the land use assumptions for the FOUR PROJECTS in Jackson Corridor. Together, the FOUR PROJECTS would contain over 30,000 dwelling units and contain enough non-residential land uses to employ over 54,000 workers.

4.1.2 Transportation Network

4.1.2.1 Roadway Segments and Intersections

Figure 4.2 illustrates the FOUR PROJECTS transportation network. The FOUR PROJECTS would widen and / or complete many roadways that cross or border the FOUR PROJECTS sites. The FOUR PROJECTS would improve many intersections within or on the borders of the projects. In addition, the FOUR PROJECTS would include new roadways to serve the proposed land use. The proposed improvements associated with the FOUR PROJECTS are summarized later in Sections 4.2.1 and 4.2.2.

4.1.2.2 Pedestrian and Bicycle Facilities

The roadways within the FOUR PROJECTS would meet County standards, which would provide sidewalks and on-street (Class II) bike lanes on all collector, arterial and thoroughfare roadways. The FOUR PROJECTS also provide several off-street (Class I) multi-purpose trails.

FIGURE 4.1
FOUR PROJECTS
PROJECT LOCATIONS

Legend

- Study Roadway Segments
- Freeways
- Other Major Roadways
- West Jackson Hwy Project
- Jackson Township Project
- NewBridge Project
- Mather South Project
- Cities
- Mather Airport

Table 4.1: Assumed Land Use for Existing Plus FOUR PROJECTS Scenario			
Project	**General Land Use**	**Acres**	**Dwelling Units**
West Jackson	Residential	2233.3	13,186
	Assumed Density Bonus[1]		256
	Commercial/Mixed Use	383.6	2,464
	Employment	1100.6	
	Industrial	37.0	
	Schools	150.7	
	Park/Open Space/Ag	1704.6	
	Institutional	23.4	
	Primary Roadways	280.1	
	Subtotal	**5913.3**	**15,906**
Jackson Township	Residential	577.5	6,043
	Assumed Density Bonus[1]		76
	Commercial/Mixed Use	96.5	100
	Office	33.6	
	Pubic/Quasi Public	105.0	
	Park/Open Space/Ag	488.2	545
	Primary Roadways	90.2	
	Subtotal	**1,391.0**	**6,764**
NewBridge	Residential	369.8	2,915
	Assumed Density Bonus[1]		113
	Commercial/Mixed Use	30.9	160
	Office	14.0	
	Pubic/Quasi Public	12.2	
	Park/Open Space/Ag	618.4	660
	Primary Roadways	50.0	
	Subtotal	**1,095.3**	**3,848**

Mather South	Residential	379.1	3,537
	Assumed Density Bonus[1]		20
	Commercial	10.0	
	Schools	17.9	
	University[2]	152.9	
	Sports Complex	126.2	
	Park/Open Space/Basins/Landscape	242.6	
	Streets and Utilities	59.0	
	Subtotal	**987.7**	**3,557**

[1] Reflects estimated potential for additional units that may occur due to County's Housing Incentive Program.

[2] An enrollment of 7,500 students was assumed with 3,000 students living on-campus

Source: *Project Applicants and Sacramento County, 2013*

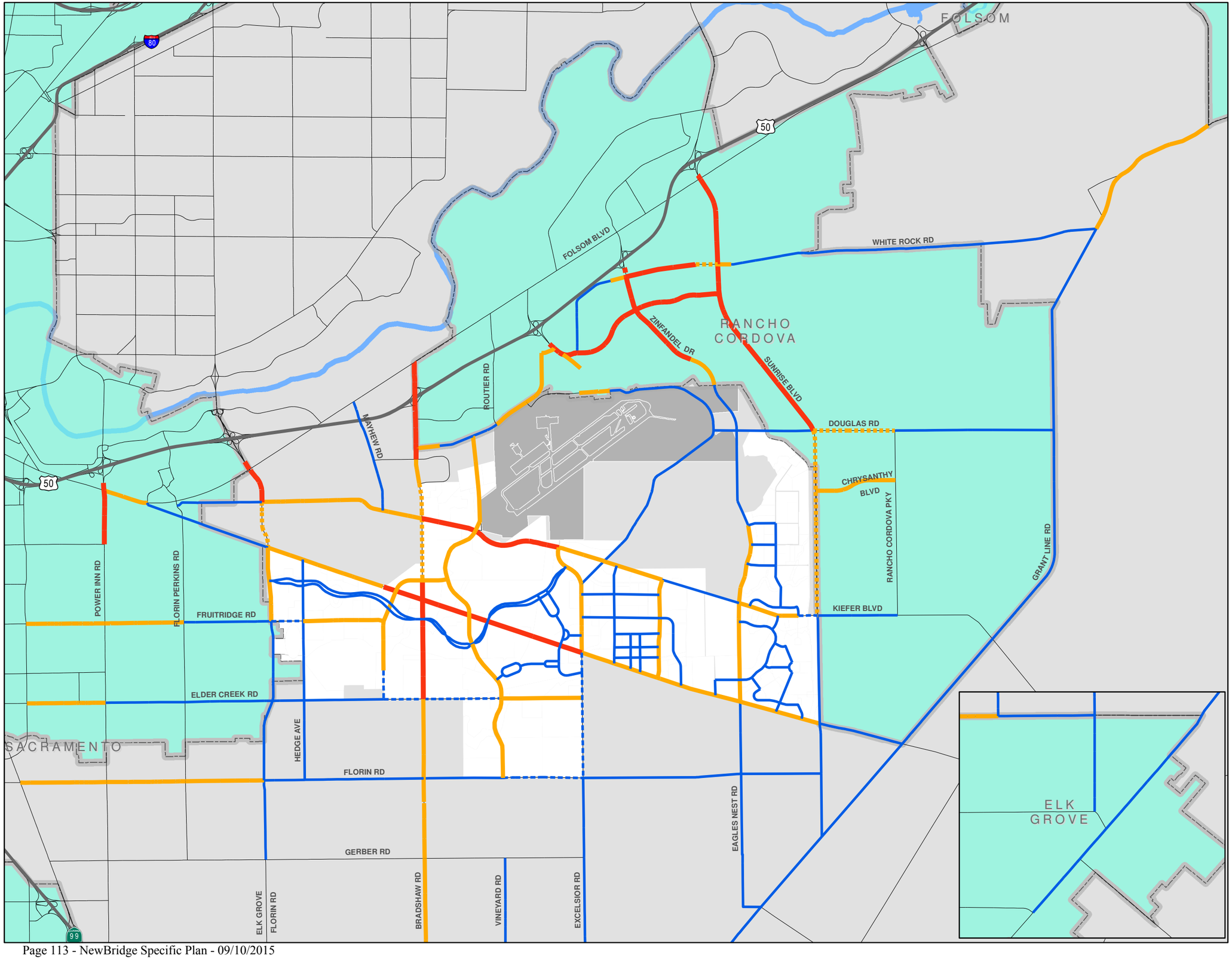


FIGURE 4.2
EXISTING PLUS FOUR PROJECTS ROADWAY NETWORK

Legend

- 2 Lanes
- 3 Lanes
- 4 Lanes
- 5 Lanes
- 6 Lanes
- 7 Lanes
- Cities
- Mather Airport

4.1.2.3 Transit System

As described in Section 2.2, transit service in the vicinity of the FOUR PROJECTS is very limited. The FOUR PROJECTS are designed with significant amounts of higher density and mixed uses to help support transit use but transit service within walking distances of those uses is required to achieve significant transit ridership.

An accurate estimation of transit use requires the definition of specific transit routes and frequency of service on those routes. A separate planning effort, involving staff from Sacramento County and Sacramento Regional Transit (RT), was conducted to define an appropriate transit system for the transportation analysis. That effort is described in Section 3.1.2.3.

The planning effort resulted in four transit lines that would serve the FOUR PROJECTS at a frequency of 15 minutes throughout the typical operating hours (approximately 6 AM to 8 PM) on weekdays. Another key characteristic of the proposed transit system built into the modeling assumptions is the targeted use of queue jumps on portions of key corridors (Bradshaw Road from Kiefer Boulevard to Rock Creek Parkway, and Jackson Road from Watt Avenue to Excelsior Road). Queue jumps ensure that buses are not excessively delayed at signals along congested corridors, and therefore not too heavily penalized from a travel time perspective. This is necessary to achieve the adequate ridership levels that were forecast and ensure reliable operations. Figure 4.3 shows the assumed transit routes for this scenario.

The assumed transit routes, service frequency, and supporting infrastructure (i.e. queue jumps) would be required at full development of the FOUR PROJECTS. The full level of transit service would not achieve adequate transit ridership during the early stages of development. Thus the ultimate transit service, like the roadway system serving the FOUR PROJECTS, must be phased with development of the FOUR PROJECTS.

4.2 TRIP GENERATION

The SACSIM model that has been utilized for the transportation forecasts in this analysis estimated trip generation of the FOUR PROJECTS. Table 4.2 summarizes the person trip generation. The FOUR PROJECTS would generate over 108,000 daily work person trip ends, and over 827,000 daily person trip ends for all trip purposes.

Table 4.3 summarizes the estimated mode choice for the Existing plus FOUR PROJECTS scenario. Over 90 percent of all person trips are expected to be accommodated by automobile. Transit will serve about 1.8 percent of all trips, while walk and bike modes will accommodate about 8.2 percent of all trips. The mode choice assumes full implementation of the project's pedestrian and bicycle systems.

Table 4.4 summarizes the vehicular (auto) trip generation of the FOUR PROJECTS. The FOUR PROJECTS are estimated to generate over 575,000 daily vehicle trip ends. About 47,900 of the daily vehicle trip ends will be associated with trips with both an origin and destination within the individual projects, about 17 percent of the trip ends. The internal trip ends represent about

23,900 daily vehicle trips (one-half the number of internal trip ends). The FOUR PROJECTS will generate about 479,400 external vehicle trips that have an origin or destination inside one of the FOUR PROJECTS but the other end of the trip is outside the project from which it originated. Table 4.4 also shows the vehicle trips generated during the a.m. and p.m. peak hours.

Table 4.2: Estimated Daily Person Trip Generation (Existing Plus FOUR PROJECTS Scenario)

FOUR PROJECTS

Trip Purpose	Daily Person Trip Ends
Work Trips	108,693
Non-Work Trips	718,807
All Trip Purposes	827,500

Source: *DKS Associates, 2014.*

Table 4.3: Mode Split (Existing Plus FOUR PROJECTS Scenario)

FOUR PROJECTS

Mode	Percentage of Person Trips by Trip Purpose		
	Work Trips	Non-Work Trips	All Trip Purposes
Auto - SOV	85.2%	50.8%	55.3%
Auto - HOV	9.8%	38.5%	34.7%
Transit	2.4%	1.7%	1.8%
Walk	1.7%	8.2%	7.3%
Bike	0.8%	0.9%	0.9%

Source: *DKS Associates, 2014.*

Table 4.4: Estimated Daily Vehicle Trip Generation (Existing Plus FOUR PROJECTS Scenario)

FOUR PROJECTS

Trip Type		AM Peak Hour	PM Peak Hour	Daily
Total Vehicle Trip Ends		45,948	74,403	575,143
Percent Internal Trip Ends[1]		25.2%	32.7%	28.3%
Vehicle Trips	Internal to Projects	5,786	12,175	81,336
	External to Projects	34,375	50,053	412,464
	Total	40,161	62,228	493,799

[1.] Both trip ends within individual projects.

Source: *DKS Associates, 2014.*

4.3 TRIP DISTRIBUTION

The distribution of trips associated with development of the FOUR PROJECTS was derived utilizing SACSIM, incorporating the proposed land use and access locations associated with the FOUR PROJECTS. Trip distribution varies by land use and time period. Figure 4.4 illustrates the overall trip distribution of daily FOUR PROJECTS trips with the Existing Plus FOUR PROJECTS scenario. The highest percentages of FOUR PROJECTS traffic are accommodated on Jackson Road, Bradshaw Road, Kiefer Boulevard, and Vineyard Road.

4.4 OPERATIONS ANALYSIS AND IMPACTS

For purposes of this analysis, full development of the FOUR PROJECTS is assumed to occur "instantaneously." In this manner, the traffic and impacts associated with the FOUR PROJECTS can be directly compared to known and measured conditions. Existing scenario impacts are determined by comparing the traffic operating conditions associated with the FOUR PROJECTS with the traffic operating conditions associated with the existing (without FOUR PROJECTS) conditions, and comparing the change to the thresholds of significance. Figure 4.4 illustrates the resultant traffic operating conditions.

4.4.1 Existing Plus FOUR PROJECTS Roadway Segment Impacts

Table 4.5 summarizes the results of the operations analysis for the study area roadway segments. The table includes the number of lanes assumed with the implementation of the FOUR PROJECTS. The shaded table cells under the "Travel Lanes" and "Facility Type" headings illustrate new roadways or widened roadways. The last column of the table shows the project(s) responsible for the increase in the number of roadway lanes. The shaded table cells under the "Level of Service" heading indicate those locations with an LOS impact.

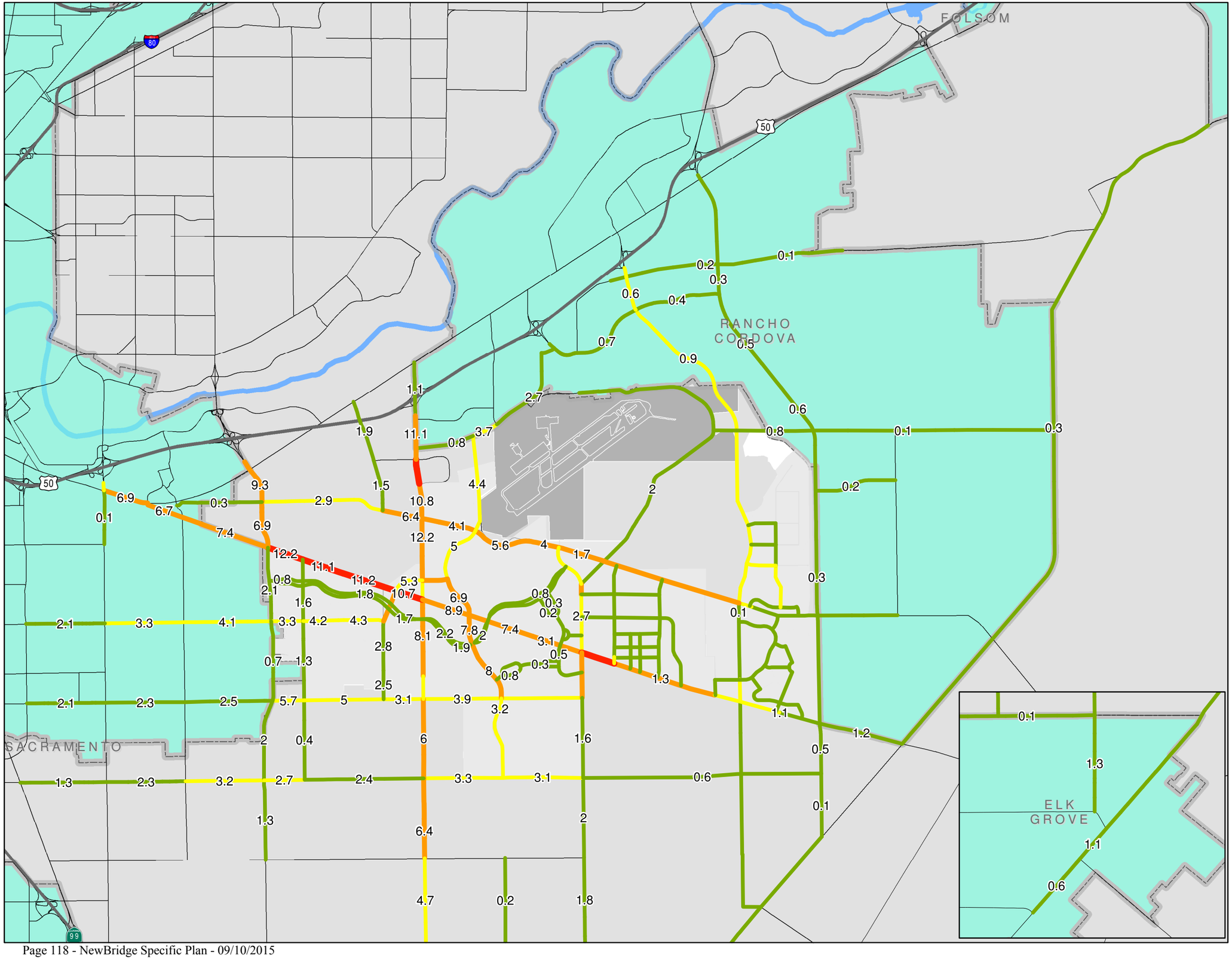
FIGURE 4.3
PROJECT TRANSIT NETWORK
EXISTING PLUS FOUR PROJECTS

Legend

- Jackson Express Route (JEX)
- Kiefer Jackson Local Route (KJL)
- Rock Creek Parkway Route (RCPK)
- West Jackson Local Shuttle (WJL)
- Cities
- Mather Airport

FOLSOM
80
50
WHITE ROCK RD
FOLSOM BLVD
ZINFANDEL DR
RANCHO CORDOVA
SUNRISE BLVD
ROUTIER RD
MAYHEW RD
DOUGLAS RD
CHRYSANTHY BLVD
RANCHO CORDOVA PKY
GRANT LINE RD
KIEFER BLVD
POWER INN RD
FLORIN PERKINS RD
FRUITRIDGE RD
HEDGE AVE
ELDER CREEK RD
SACRAMENTO
FLORIN RD
GERBER RD
ELK GROVE FLORIN RD
BRADSHAW RD
VINEYARD RD
EXCELSIOR RD
EAGLES NEST RD
99
ELK GROVE

FIGURE 4.4
EXISTING PLUS FOUR PROJECTS
FOUR PROJECTS TRIP DISTRIBUTION



Legend

- 0.1% to 2.5%
- 2.6% to 5.0%
- 5.1% to 10.0%
- 10.0% and up
- Freeways
- Other Major Roadways
- Cities
- Mather Airport

DKS

FIGURE 4.5
EXISTING PLUS FOUR PROJECTS ROADWAY SEGMENT AND INTERSECTION LOS AND IMPACTS

FOLSOM

RANCHO CORDOVA

SACRAMENTO

ELK GROVE

80

50

99

Legend

Intersections (AM Peak Hour)
- LOS A-D
- LOS E
- LOS F

Intersections (PM Peak Hour)
- LOS A-D
- LOS E
- LOS F
- Mitigable Intersection Impact
- Unavoidable Intersection Impact

Roadway Segments
- LOS A-D
- LOS E
- LOS F

Impacts
- Unavoidable Segment Impact
- Mitigable Segment Impact
- Cities
- Mather Airport

DKS

Table 4.5
Existing Plus FOUR PROJECTS Roadway Segment Levels of Service

ID	Roadway	Segment		Existing					Existing + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Daily Volume	Volume / Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
1	Bradshaw Rd	Folsom Blvd	US 50	6	Arterial M	20,592	0.38	A	6	Arterial M	22,070	0.41	A	
2	Bradshaw Rd	US 50	Lincoln Village Dr	6	Arterial M	52,590	0.97	**E**	6	Arterial M	81,440	1.51	**F**	
3	Bradshaw Rd	Lincoln Village Dr	Old Placerville Rd	6	Arterial M	42,787	0.79	C	6	Arterial M	76,070	1.41	**F**	
4	Bradshaw Rd	Old Placerville Rd	Goethe Rd	6	Arterial M	38,984	0.72	C	6	Arterial M	69,070	1.28	**F**	
5.1	Bradshaw Rd	Goethe Rd	Collector WJ-8	4	Arterial M	28,651	0.80	C	4	Arterial M	57,700	1.60	**F**	
5.2	Bradshaw Rd	Collector WJ-8	Kiefer Blvd	4	Arterial M	28,651	0.80	C	5	Arterial M	56,380	1.57	**F**	West Jackson
6.1	Bradshaw Rd	Kiefer Blvd	Collector WJ-9	4	Arterial M	30,726	0.85	D	5	Arterial M	57,960	1.61	**F**	West Jackson
6.2	Bradshaw Rd	Collector WJ-9	Mayhew Rd	4	Arterial M	30,726	0.85	D	5	Arterial M	54,630	1.52	**F**	West Jackson
6.3	Bradshaw Rd	Mayhew Rd	Jackson Rd	4	Arterial M	30,726	0.85	D	6	Arterial M	30,220	0.56	A	West Jackson
7.1	Bradshaw Rd	Jackson Rd	Rock Creek Pkwy	4	Arterial M	22,871	0.64	B	6	Arterial M	29,960	0.55	A	West Jackson
7.2	Bradshaw Rd	Rock Creek Pkwy	Collector WJ-10	4	Arterial M	22,871	0.64	B	6	Arterial M	32,920	0.61	B	West Jackson
7.3	Bradshaw Rd	Collector WJ-10	Collector WJ-11	4	Arterial M	22,871	0.64	B	6	Arterial M	28,070	0.52	A	West Jackson
7.4	Bradshaw Rd	Collector WJ-11	Elder Creek Rd	4	Arterial M	22,871	0.64	B	6	Arterial M	25,630	0.47	A	West Jackson
8	Bradshaw Rd	Elder Creek Rd	Florin Rd	4	Arterial M	22,265	0.62	B	4	Arterial M	32,530	0.90	E	
9	Bradshaw Rd	Florin Rd	Gerber Rd	4	Arterial M	22,883	0.64	B	4	Arterial M	34,060	0.95	E	
10	Bradshaw Rd	Gerber Rd	Calvine Rd	4	Arterial M	16,984	0.47	A	4	Arterial M	25,950	0.72	C	
11	Calvine Rd	Waterman Rd	Bradshaw Rd	4	Arterial M	16,015	0.44	A	4	Arterial M	22,340	0.62	B	
12	Calvine Rd	Bradshaw Rd	Vineyard Rd	4	Arterial M	12,395	0.34	A	4	Arterial M	13,090	0.36	A	
13	Calvine Rd	Vineyard Rd	Excelsior Rd	2	Arterial M	6,036	0.34	A	2	Arterial M	6,750	0.38	A	
14	Chrysanthy Blvd	Sunrise Blvd	Rancho Cordova Pkwy	4	Arterial M	3,411	0.09	A	4	Arterial M	5,080	0.14	A	
15	Douglas Rd	Mather Blvd	Zinfandel Dr	2	Arterial M	6,635	0.37	A	2	Arterial M	12,160	0.68	B	
16	Douglas Rd	Zinfandel Dr	Sunrise Blvd	2	Arterial M	8,369	0.46	A	2	Arterial M	11,450	0.64	B	
17	Douglas Rd	Sunrise Blvd	Rancho Cordova Pkwy	5	Arterial M	3,674	0.10	A	5	Arterial M	5,050	0.14	A	
18	Douglas Rd	Rancho Cordova Pkwy	Grant Line Rd	2	Arterial M	3,674	0.20	A	2	Arterial M	5,030	0.28	A	
19.1	Eagles Nest Rd	Kiefer Blvd	N Bridgewater Dr	2	Arterial M	740	0.04	A	4	Arterial M	10,600	0.29	A	NewBridge
19.2	Eagles Nest Rd	N Bridgewater Dr	S Bridgewater Dr	2	Arterial M	740	0.04	A	4	Arterial M	10,810	0.30	A	NewBridge
19.3	Eagles Nest Rd	S Bridgewater Dr	Jackson Rd	2	Arterial M	740	0.04	A	4	Arterial M	12,100	0.34	A	NewBridge
20	Eagles Nest Rd	Jackson Rd	Florin Rd	2	Arterial M	517	0.03	A	2	Arterial M	8250	0.46	A	
21	Eagles Nest Rd	Florin Rd	Grant Line Rd	2	Arterial M	189	0.01	A	2	Arterial M	4100	0.23	A	
22	Elder Creek Rd	65th St	Power Inn Rd	4	Arterial M	17,891	0.50	A	4	Arterial M	23,620	0.66	B	
23	Elder Creek Rd	Power Inn Rd	Florin-Perkins Rd	2	Arterial M	15,734	0.87	D	2	Arterial M	23,530	1.31	**F**	
24	Elder Creek Rd	Florin Perkins Rd	South Watt Ave	2	Arterial M	11,092	0.62	B	2	Arterial M	19,020	1.06	**F**	
25	Elder Creek Rd	South Watt Ave	Hedge Ave	2	Arterial M	5,576	0.31	A	2	Arterial M	26,320	1.46	**F**	

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 4.5
Existing Plus FOUR PROJECTS Roadway Segment Levels of Service

ID	Roadway	Segment		Existing					Existing + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Daily Volume	Volume / Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
26	Elder Creek Rd	Hedge Ave	Mayhew Rd	2	Arterial M	5,797	0.32	A	2	Arterial M	25,670	1.43	**F**	
27	Elder Creek Rd	Mayhew Rd	Bradshaw Rd	2	Arterial M	5,355	0.30	A	3	Arterial M	15,260	0.85	D	West Jackson
28.1	Elder Creek Rd	Bradshaw Rd	Vineyard Rd	2	Arterial M	2,158	0.12	A	3	Arterial M	23,810	1.32	**F**	West Jackson
28.2	Elder Creek Rd	Vineyard Rd	Excelsior Rd	2	Arterial M	2,158	0.12	A	4	Arterial M	21,510	0.60	A	West Jackson
29	Elk Grove-Florin Rd	Florin Rd	Gerber Rd	2	Arterial M	22,960	1.28	**F**	2	Arterial M	24,830	1.38	**F**	
30.1	Excelsior Rd	Kiefer Blvd	Douglas Rd	2	Arterial M	3,716	0.21	A	2	Arterial M	8,450	0.47	A	
30.2	Excelsior Rd	Douglas Rd	Collector WJ-1/ Collector JT-1	2	Arterial M	3,716	0.21	A	4	Arterial M	25,010	0.69	B	West Jackson; Jackson Township
30.3	Excelsior Rd	Collector WJ-1/ Collector JT-1	Collector WJ-2/ Collector JT-2	2	Arterial M	3,716	0.21	A	4	Arterial M	22,510	0.63	B	West Jackson; Jackson Township
30.4	Excelsior Rd	Collector WJ-2/ Collector JT-2	Jackson Rd	2	Arterial M	3,716	0.21	A	4	Arterial M	23,640	0.66	B	West Jackson; Jackson Township
31.1	Excelsior Rd	Jackson Rd	Collector WJ-6	2	Arterial M	5,075	0.28	A	3	Arterial M	30,640	1.70	**F**	West Jackson
31.2	Excelsior Rd	Collector WJ-6	Elder Creek Rd	2	Arterial M	5,075	0.28	A	3	Arterial M	30,490	1.69	**F**	West Jackson
32	Excelsior Rd	Elder Creek Rd	Florin Rd	2	Arterial M	4,203	0.23	A	3	Arterial M	11,610	0.65	B	West Jackson
33	Excelsior Rd	Florin Rd	Gerber Rd	2	Arterial M	5,423	0.30	A	2	Arterial M	14,730	0.82	D	
34	Excelsior Rd	Gerber Rd	Calvine Rd	2	Arterial M	4,229	0.23	A	2	Arterial M	11,350	0.63	B	
35	Excelsior Rd	Calvine Rd	Sheldon Rd	2	Arterial M	4,473	0.25	A	2	Arterial M	9,470	0.53	A	
36	Florin Rd	Stockton Blvd	Power Inn Rd	4	Arterial M	27,495	0.76	C	4	Arterial M	33,040	0.92	E	
37	Florin Rd	Power Inn Rd	Florin-Perkins Rd	4	Arterial M	21,595	0.60	A	4	Arterial M	32,750	0.91	E	
38	Florin Rd	Florin-Perkins Rd	So Watt Ave/ Elk Grove Florin Rd	4	Arterial M	14,163	0.39	A	4	Arterial M	26,450	0.73	C	
39	Florin Rd	South Watt Ave	Hedge Ave	2	Arterial M	7,718	0.43	A	2	Arterial M	18,340	1.02	**F**	
40	Florin Rd	Hedge Ave	Mayhew Rd	2	Arterial M	6,312	0.35	A	2	Arterial M	14,890	0.83	D	
41	Florin Rd	Mayhew Rd	Bradshaw Rd	2	Arterial M	6,317	0.35	A	2	Arterial M	15,190	0.84	D	
42.1	Florin Rd	Bradshaw Rd	Vineyard Rd	2	Arterial M	3,478	0.19	A	2	Arterial M	17,150	0.95	E	
42.2	Florin Rd	Vineyard Rd	Excelsior Rd	2	Arterial M	3,478	0.19	A	3	Arterial M	17,530	0.97	E	West Jackson
43	Florin Rd	Excelsior Rd	Sunrise Blvd	2	Arterial M	3,835	0.21	A	2	Arterial M	8,750	0.49	A	
44	Folsom Blvd	Howe Ave	Jackson Rd	4	Arterial M	37,516	1.04	**F**	4	Arterial M	55,810	1.55	**F**	
45	Fruitridge Rd	65th St	Power Inn Rd	4	Arterial M	16,634	0.46	A	4	Arterial M	24,410	0.68	B	

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 4.5
Existing Plus FOUR PROJECTS Roadway Segment Levels of Service

ID	Roadway	Segment		Existing					Existing + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Daily Volume	Volume / Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
46	Fruitridge Rd	Power Inn Rd	Florin Perkins Rd	4	Arterial M	15,214	0.42	A	4	Arterial M	31,140	0.87	D	
47	Fruitridge Rd	Florin Perkins Rd	South Watt Ave	2	Arterial M	10,280	0.57	A	2	Arterial M	24,650	1.37	**F**	
48	Fruitridge Rd	South Watt Ave	Hedge Ave	2	Arterial M	2,890	0.16	A	3	Arterial M	17,250	0.96	**E**	West Jackson
49.1	Fruitridge Rd	Hedge Ave	Collector WJ-12	2	Arterial M	1,790	0.10	A	4	Arterial M	20,530	0.57	A	West Jackson
49.2	Fruitridge Rd	Collector WJ-12	Mayhew Rd	2	Arterial M	1,790	0.10	A	4	Arterial M	20,950	0.58	A	West Jackson
50	Grant Line Rd	White Rock Rd	Douglas Rd	2	Rural NS	7,189	0.42	D	2	Rural NS	8,980	0.53	D	
51	Grant Line Rd	Douglas Rd	Kiefer Blvd	2	Rural S	6,143	0.31	C	2	Rural S	8,100	0.41	D	
52	Grant Line Rd	Kiefer Blvd	Jackson Rd	2	Rural S	5,758	0.29	C	2	Rural S	7,430	0.37	D	
53	Grant Line Rd	Jackson Rd	Sunrise Blvd	2	Rural S	14,720	0.74	E	2	Rural S	13,430	0.67	E	
54	Grant Line Rd	Sunrise Blvd	Calvine Rd	2	Rural S	14,812	0.74	E	2	Rural S	19,270	0.96	E	
55	Grant Line Rd	Calvine Rd	Sheldon Rd	2	Rural S	13,140	0.66	**E**	2	Rural S	16,650	0.83	**E**	
56	Grant Line Rd	Sheldon Rd	Wilton Rd	2	Rural S	17,459	0.87	**E**	2	Rural S	24,280	1.21	**F**	
57	Grant Line Rd	Wilton Rd	Bond Rd	2	Rural S	16,064	0.80	**E**	2	Rural S	21,350	1.07	**F**	
58	Happy Ln	Old Placerville Rd	Kiefer Blvd	2	Rural S	4,635	0.23	C	4	Arterial M	26,210	0.73	C	West Jackson
59.1	Hedge Ave	Jackson Rd	Rock Creek Pkwy	2	Arterial M	3,061	0.17	A	2	Arterial M	8,750	0.49	A	
59.2	Hedge Ave	Rock Creek Pkwy	Fruitridge Rd	2	Arterial M	3,061	0.17	A	2	Arterial M	3,490	0.19	A	
60	Hedge Ave	Fruitridge Rd	Elder Creek Rd	2	Arterial M	3,737	0.21	A	2	Arterial M	3,780	0.21	A	
61	Hedge Ave	Elder Creek Rd	Florin Rd	2	Arterial M	2,722	0.15	A	2	Arterial M	4,250	0.24	A	
62	Howe Ave	US 50	Folsom Blvd	6	Arterial M	53,849	1.00	E	6	Arterial M	62,720	1.16	**F**	
63	International Dr	Mather Field Rd	Zinfandel Dr	6	Arterial M	17,500	0.32	A	6	Arterial M	19,580	0.36	A	
64	International Dr	Zinfandel Dr	Sunrise Blvd	6	Arterial M	8,802	0.16	A	6	Arterial M	8,430	0.16	A	
65	Jackson Rd	Folsom Blvd	Florin Perkins Rd	2	Arterial M	12,358	0.69	B	2	Arterial M	34,200	1.90	**F**	
66	Jackson Rd	Florin Perkins Rd	South Watt Ave	2	Arterial M	10,414	0.58	A	2	Arterial M	40,370	2.24	**F**	
67	Jackson Rd	South Watt Ave	Hedge Ave	2	Arterial M	17,060	0.95	E	4	Arterial M	61,300	1.70	**F**	West Jackson
68.1	Jackson Rd	Hedge Ave	Collector WJ-3	2	Arterial M	12,616	0.70	C	4	Arterial M	54,090	1.50	**F**	West Jackson
68.2	Jackson Rd	Collector WJ-3	Mayhew Rd	2	Arterial M	12,616	0.70	C	4	Arterial M	55,200	1.53	**F**	West Jackson
69	Jackson Rd	Mayhew Rd	Bradshaw Rd	2	Arterial M	14,996	0.83	D	6	Arterial M	55,630	1.03	**F**	West Jackson
70.1	Jackson Rd	Bradshaw Rd	Collector WJ-4	2	Arterial M	13,030	0.72	C	6	Arterial M	51,570	0.96	E	West Jackson
70.2	Jackson Rd	Collector WJ-4	Happy Ln	2	Arterial M	13,030	0.72	C	6	Arterial M	49,600	0.92	E	West Jackson
70.3	Jackson Rd	Happy Ln	Rock Creek Pkwy	2	Arterial M	13,030	0.72	C	6	Arterial M	43,260	0.80	D	West Jackson
70.4	Jackson Rd	Rock Creek Pkwy	Collector WJ-5	2	Arterial M	13,030	0.72	C	6	Arterial M	43,830	0.81	D	West Jackson

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Table 4.5
Existing Plus FOUR PROJECTS Roadway Segment Levels of Service

ID	Roadway	Segment		Existing					Existing + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Daily Volume	Volume / Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
70.5	Jackson Rd	Collector WJ-5	Collector WJ-6	2	Arterial M	13,030	0.72	C	6	Arterial M	34,770	0.64	B	West Jackson
70.6	Jackson Rd	Collector WJ-6	Excelsior Rd	2	Arterial M	13,030	0.72	C	6	Arterial M	34,630	0.64	B	West Jackson
71.1	Jackson Rd	Excelsior Rd	Collector JT-3	2	Rural Hwy	10,478	0.46	D	4	Arterial M	47,230	1.31	**F**	Jackson Township
71.2	Jackson Rd	Collector JT-3	Tree View Ln	2	Rural Hwy	10,478	0.46	D	4	Arterial M	33,970	0.94	E	Jackson Township
71.3	Jackson Rd	Tree View Ln	Collector JT-4	2	Rural Hwy	10,478	0.46	D	4	Arterial M	27,230	0.76	C	Jackson Township
71.4	Jackson Rd	Collector JT-4	Eagles Nest Rd	2	Rural Hwy	10,478	0.46	D	4	Arterial M	23,800	0.66	B	Jackson Township
72.1	Jackson Rd	Eagles Nest Rd	Rockbridge Dr	2	Rural Hwy	9,976	0.44	D	4	Arterial M	19,810	0.55	A	NewBridge
72.2	Jackson Rd	Rockbridge Dr	Sunrise Blvd	2	Rural Hwy	9,976	0.44	D	4	Arterial M	18,090	0.50	A	NewBridge
73	Jackson Rd	Sunrise Blvd	Grant Line Rd	2	Rural Hwy	13,306	0.58	D	2	Rural Hwy	17,790	0.78	**E**	
74	Kiefer Blvd	Florin Perkins Rd	South Watt Ave	2	Arterial M	4,616	0.26	A	2	Arterial M	6,900	0.38	A	
75	Kiefer Blvd	South Watt Ave	Mayhew Rd	4	Arterial M	18,668	0.52	A	4	Arterial M	29,770	0.83	D	
76	Kiefer Blvd	Mayhew Rd	Bradshaw Rd	4	Arterial M	9,274	0.26	A	4	Arterial M	42,990	1.19	**F**	
77.1	Kiefer Blvd	Bradshaw Rd	Collector WJ-14	2	Arterial M	4,618	0.26	A	6	Arterial M	49,480	0.92	E	West Jackson
77.2	Kiefer Blvd	Collector WJ-14	Happy Ln	2	Arterial M	4,618	0.26	A	6	Arterial M	40,350	0.75	C	West Jackson
78.1	Kiefer Blvd	Eagles Nest Rd	W Collector MS-1	2	Arterial M	656	0.04	A	4	Arterial M	14380	0.40	A	NewBridge; Mather South
78.2	Kiefer Blvd	W Collector MS-1	Northbridge Dr	2	Arterial M	656	0.04	A	4	Arterial M	7750	0.22	A	NewBridge; Mather South
78.3	Kiefer Blvd	Northbridge Dr	E Collector MS-1	2	Arterial M	656	0.04	A	4	Arterial M	8260	0.23	A	NewBridge; Mather South
78.4	Kiefer Blvd	E Collector MS-1	Sunrise Blvd	2	Arterial M	656	0.04	A	3	Arterial M	12540	0.70	B	NewBridge
79	Kiefer Blvd	Sunrise Blvd	Rancho Cordova Pkwy	2	Arterial M	2,786	0.15	A	2	Arterial M	2,800	0.16	A	
80	Mather Blvd / Norden Ave	Von Karman St	Bleckely St	4	Arterial M	4,373	0.12	A	4	Arterial M	3,990	0.11	A	
81	Mather Blvd	Bleckely St	Femoyer St	4	Arterial M	4,373	0.12	A	4	Arterial M	3,990	0.11	A	
82	Mather Blvd	Femoyer St	Douglas Rd	2	Arterial M	4,373	0.24	A	2	Arterial M	4,030	0.22	A	
83	Mather Blvd-Excelsior Rd	Douglas Rd	Kiefer Blvd	2	Res Collector F	6,751	0.84	E	2	Res Collector F	16,410	2.05	**F**	
84	Mather Field Rd	US 50	Rockingham Dr	6	Arterial M	37,755	0.70	B	6	Arterial M	37,730	0.70	B	
85	Mather Field Rd	Rockingham Dr	International Dr	6	Arterial M	37,520	0.69	B	6	Arterial M	40,040	0.74	C	
86	Mather Field Rd	International Dr	Peter A McCuen Blvd	4	Arterial M	14,857	0.41	A	4	Arterial M	14,260	0.40	A	
87	Mayhew Rd	Folsom Blvd	Goethe Rd	2	Arterial M	6,977	0.39	A	2	Arterial M	14,970	0.83	D	
88	Mayhew Rd	Goethe Rd	Kiefer Blvd	2	Arterial L	6,593	0.44	A	2	Arterial L	12,470	0.83	D	

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Table 4.5
Existing Plus FOUR PROJECTS Roadway Segment Levels of Service

ID	Roadway	Segment		Existing					Existing + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Daily Volume	Volume / Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
89.1	Mayhew Rd	Jackson Rd	Rock Creek Pkwy	2	Arterial L	1,616	0.11	A	4	Arterial M	36,540	1.02	**F**	West Jackson
89.2	Mayhew Rd	Rock Creek Pkwy	Fruitridge Rd	2	Arterial L	1,616	0.11	A	4	Arterial M	33,610	0.93	E	West Jackson
90	Old Placerville Rd	Bradshaw Rd	Granby Dr	4	Arterial M	15,800	0.44	A	4	Arterial M	15,330	0.43	A	
91	Old Placerville Rd	Granby Dr	Happy Ln	2	Arterial M	13,573	0.75	C	2	Arterial M	12,220	0.68	B	
92	Old Placerville Rd	Happy Ln	Routier Rd	2	Arterial M	10,710	0.60	A	2	Arterial M	24,000	1.33	**F**	
93	Old Placerville Rd	Routier Rd	Rockingham Dr	4	Arterial M	10,710	0.30	A	4	Arterial M	19,670	0.55	A	
94	Power Inn Rd	Folsom Blvd	14th Ave	6	Arterial M	36,175	0.67	B	6	Arterial M	35,470	0.66	B	
95	Rockingham Dr	Old Placerville Rd	Mather Field Rd	4	Arterial M	19,881	0.55	A	4	Arterial M	24,960	0.69	B	
96	South Watt Ave	Folsom Blvd	Kiefer Blvd	6	Arterial M	40,920	0.76	C	6	Arterial M	69,720	1.29	**F**	
97	South Watt Ave	Kiefer Blvd	Jackson Rd	5	Arterial M	32,415	0.90	E	5	Arterial M	51,440	1.43	**F**	
98.1	South Watt Ave	Jackson Rd	Rock Creek Pkwy	2	Arterial M	25,832	1.44	**F**	4	Arterial M	33,140	0.92	**E**	West Jackson
98.2	South Watt Ave	Rock Creek Pkwy	Fruitridge Rd	2	Arterial M	25,832	1.44	**F**	4	Arterial M	33,690	0.94	**E**	West Jackson
99	South Watt Ave	Fruitridge Rd	Elder Creek Rd	2	Arterial M	21,567	1.20	**F**	2	Arterial M	26,290	1.46	**F**	
100	South Watt Ave	Elder Creek Rd	Florin Rd	2	Arterial M	19,069	1.06	**F**	2	Arterial M	25,530	1.42	**F**	
101	Sunrise Blvd	US 50	Folsom Blvd	7	Arterial M	54,500	1.01	**F**	7	Arterial M	53,560	0.99	**E**	
102	Sunrise Blvd	Folsom Blvd	Trade Center Dr	6	Arterial M	49,500	0.92	**E**	6	Arterial M	50,280	0.93	**E**	
103	Sunrise Blvd	Trade Center Dr	White Rock Rd	6	Arterial M	34,571	0.64	B	6	Arterial M	38,230	0.71	C	
104.1	Sunrise Blvd	White Rock Rd	International Dr	6	Arterial M	25,811	0.48	A	6	Arterial M	30,130	0.56	A	
104.2	Sunrise Blvd	International Dr	Future Rio Del Oro Pkwy	6	Arterial M	28,400	0.53	A	6	Arterial M	33,840	0.63	B	
104.3	Sunrise Blvd	Future Rio Del Oro Pkwy	Douglas Rd	6	Arterial M	25,811	0.48	A	6	Arterial M	33,940	0.63	B	
105	Sunrise Blvd	Douglas Rd	Kiefer Blvd	5	Arterial M	21,878	0.61	B	5	Arterial M	25,790	0.72	C	
106	Sunrise Blvd	Kiefer Blvd	Jackson Rd	2	Arterial M	16,894	0.94	**E**	2	Arterial M	20,060	1.11	**F**	
107	Sunrise Blvd	Jackson Rd	Florin Rd	2	Rural S	11,181	0.56	D	2	Rural S	14,580	0.73	E	
108	Sunrise Blvd	Florin Rd	Grant Line Rd	2	Rural S	7,752	0.39	D	2	Rural S	10,620	0.53	D	
109	Vineyard Rd	Gerber Rd	Calvine Rd	2	Arterial M	5,515	0.31	A	2	Arterial M	5,610	0.31	A	
110	Watt Ave	US 50	Folsom Blvd	6	Arterial H	65,242	1.09	**F**	6	Arterial H	80,700	1.35	**F**	
111	White Rock Rd	International Rd	Quality Dr	2	Arterial M	3,962	0.22	A	2	Arterial M	3,730	0.21	A	
112	White Rock Rd	Quality Dr	Zinfandel Dr	4	Arterial M	11,200	0.31	A	4	Arterial M	9,710	0.27	A	
113	White Rock Rd	Zinfandel Dr	Kilgore Rd	6	Arterial M	14,756	0.27	A	6	Arterial M	14,730	0.27	A	
114	White Rock Rd	Kilgore Rd	Sunrise Blvd	5	Arterial M	14,756	0.41	A	5	Arterial M	15,290	0.42	A	
115	White Rock Rd	Sunrise Blvd	Fitzgerald Rd	4	Arterial M	15,433	0.43	A	4	Arterial M	14,910	0.41	A	
116	White Rock Rd	Fitzgerald Rd	Grant Line Rd	2	Rural NS	2,490	0.15	B	2	Rural NS	1,870	0.11	B	

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Table 4.5
Existing Plus FOUR PROJECTS Roadway Segment Levels of Service

ID	Roadway	Segment		Existing					Existing + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Daily Volume	Volume / Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
117	White Rock Rd	Grant Line Rd	Prairie City Rd	4	Arterial M	9,400	0.26	A	4	Arterial M	10,640	0.30	A	
118	Zinfandel Dr	US 50	White Rock Rd	7	Arterial M	45,228	0.84	D	7	Arterial M	51,560	0.95	**E**	
119	Zinfandel Dr	White Rock Rd	International Rd	6	Arterial M	17,923	0.33	A	6	Arterial M	28,420	0.53	A	
120	Zinfandel Dr	International Rd	Baroque Dr	6	Arterial M	7,595	0.14	A	6	Arterial M	26,100	0.48	A	
121	Zinfandel Dr	Baroque Dr	City Limit	4	Arterial M	7,595	0.21	A	4	Arterial M	26,100	0.73	C	
122	Zinfandel Dr	City Limit	Douglas Rd	2	Arterial M	7,595	0.42	A	2	Arterial M	26,100	1.45	**F**	
123.1	Zinfandel Dr	Douglas Rd	Collector MS-2	2	Arterial M	2,848	0.16	A	2	Arterial M	23,220	1.29	**F**	
123.2	Zinfandel Dr	Collector MS-2	Collector MS-3						4	Arterial M	18,200	0.51	A	Mather South
123.3	Zinfandel Dr	Collector MS-3	Collector MS-4						4	Arterial M	16,750	0.47	A	Mather South
123.4	Zinfandel Dr	Collector MS-4	Kiefer Blvd						4	Arterial M	17,400	0.48	A	Mather South
200	Kiefer Blvd	Tree View Ln	Eagles Nest Rd						2	Arterial M	22,920	1.27	**F**	West Jackson; Jackson Township; NewBridge; Mather South
300	Douglas Rd	Excelsior Rd	Rock Creek Pkwy						4	Arterial M	20010	0.56	A	West Jackson
301	Douglas Rd	Rock Creek Pkwy	Kiefer Blvd						4	Arterial M	24070	0.67	B	West Jackson
302	Happy Ln	Kiefer Blvd	Mayhew Rd						4	Arterial M	26490	0.74	C	West Jackson
303	Happy Ln	Mayhew Rd	Jackson Rd						4	Arterial M	29360	0.82	D	West Jackson
304	Happy Ln	Jackson Rd	Rock Creek Pkwy						4	Arterial M	31020	0.86	D	West Jackson
305	Kiefer Blvd	Happy Ln	Collector WJ-15						6	Arterial M	49800	0.92	E	West Jackson
306	Kiefer Blvd	Collector WJ-15	Douglas Rd						6	Arterial M	44940	0.83	D	West Jackson
307	Kiefer Blvd	Douglas Rd	Excelsior Rd						4	Arterial M	28810	0.80	D	West Jackson
308	Mayhew Rd	Happy Ln	Bradshaw Rd						4	Arterial M	32960	0.92	E	West Jackson
309	Mayhew Rd	Bradshaw Rd	Jackson Rd						4	Arterial M	30900	0.86	D	West Jackson
310	Mayhew Rd	Fruitridge Rd	Collector WJ-13						4	Arterial M	14460	0.40	A	West Jackson
311	Mayhew Rd	Collector WJ-13	Elder Creek Rd						3	Arterial M	13190	0.73	C	West Jackson
312	Rock Creek Pkwy	South Watt Ave	Hedge Ave						2	Arterial M	4590	0.26	A	West Jackson
313	Rock Creek Pkwy	Hedge Ave	Mayhew Rd						2	Arterial M	8700	0.48	A	West Jackson
314	Rock Creek Pkwy	Mayhew Rd	Bradshaw Rd						2	Arterial M	7270	0.40	A	West Jackson
315	Rock Creek Pkwy	Bradshaw Rd	Collector WJ-7						2	Arterial M	9520	0.53	A	West Jackson
316	Rock Creek Pkwy	Collector WJ-7	Happy Ln/ Vineyard Rd						2	Arterial M	9720	0.54	A	West Jackson
317	Rock Creek Pkwy	Happy Ln/ Vineyard Rd	Jackson Rd						2	Arterial M	10200	0.57	A	West Jackson
318	Rock Creek Pkwy	Jackson Rd	Excelsior Rd						2	Arterial M	10110	0.56	A	West Jackson

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Table 4.5
Existing Plus FOUR PROJECTS Roadway Segment Levels of Service

ID	Roadway	Segment		Existing					Existing + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Daily Volume	Volume / Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
319	Vineyard Rd	Rock Creek Pkwy	Elder Creek Rd						4	Arterial M	32370	0.90	D	West Jackson
320	Vineyard Rd	Elder Creek Rd	Florin Rd						4	Arterial M	13110	0.36	A	West Jackson
321	Collector WJ-16	Rock Creek Pkwy	Collector WJ-6						2	Res Collector F	570	0.07	A	West Jackson
322	Collector WJ-17	Rock Creek Pkwy	Collector WJ-6						2	Res Collector F	1140	0.14	A	West Jackson
323	Collector WJ-6	Collector WJ-16/WJ-17	Jackson Rd						2	Res Collector F	3160	0.40	B	West Jackson
324	Collector WJ-6	Jackson Rd	Excelsior Rd						2	Res Collector F	3230	0.40	C	West Jackson
325	Collector WJ-2	Excelsior Rd	Collector WJ-6						2	Arterial M	3470	0.19	A	West Jackson
326	Collector WJ-18	Vineyard Rd	Collector WJ-19/ WJ-20						2	Arterial M	2830	0.16	A	West Jackson
327	Collector WJ-19	Collector WJ-18	Collector WJ-21						2	Arterial M	1250	0.07	A	West Jackson
328	Collector WJ-20	Collector WJ-18	Collector WJ-21						2	Res Collector F	2830	0.35	B	West Jackson
329	Collector WJ-21	Collector WJ-19/ WJ-20	Collector WJ-6						2	Res Collector F	2180	0.27	B	West Jackson
400	Collector JT-1	Excelsior Rd	Collector JT-3						2	Res Collector F	3,680	0.46	C	Jackson Township
401	Collector JT-1	Collector JT-3	Tree View Ln						2	Res Collector F	1,200	0.15	A	Jackson Township
402	Collector JT-3	Kiefer Blvd	Collector JT-1						2	Res Collector F	1,980	0.25	B	Jackson Township
403	Collector JT-3	Collector JT-1	Collector JT-6						2	Res Collector F	1,590	0.20	A	Jackson Township
404	Collector JT-3	Collector JT-6	Collector JT-5						2	Res Collector F	2,560	0.32	B	Jackson Township
405	Collector JT-3	Collector JT-5	Jackson Rd						2	Res Collector F	16,550	2.07	**F**	Jackson Township
406	Collector JT-4	Jackson Rd	Bridgewater Dr						2	Arterial M	2,900	0.16	A	Jackson Township
407	Collector JT-5	Collector JT-3	Tree View Ln						2	Arterial M	8,250	0.46	A	Jackson Township
408	Collector JT-6	Excelsior Rd	Collector JT-3						2	Res Collector F	3,820	0.48	C	Jackson Township

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Table 4.5
Existing Plus FOUR PROJECTS Roadway Segment Levels of Service

DKS

ID	Roadway	Segment		Existing					Existing + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Daily Volume	Volume / Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
409	Collector JT-6	Collector JT-3	Tree View Ln						2	Res Collector F	640	0.08	A	Jackson Township
410	Kiefer Blvd	Excelsior Rd	Tree View Ln						4	Arterial M	23,190	0.64	B	Jackson Township
411	Tree View Ln	Kiefer Blvd	Collector JT-1						4	Arterial M	9,700	0.27	A	Jackson Township
412	Tree View Ln	Collector JT-1	Collector JT-6						4	Arterial M	9,610	0.27	A	Jackson Township
413	Tree View Ln	Collector JT-6	Collector JT-5						4	Arterial M	9,550	0.27	A	Jackson Township
414	Tree View Ln	Collector JT-5	Jackson Rd						4	Arterial M	5,790	0.16	A	Jackson Township
415	Collector JT-7	Collector JT-3	Tree View Ln						2	Arterial M	1,500	0.08	A	Jackson Township
416	Collector JT-8	Collector JT-3	Tree View Ln						2	Arterial M	1,740	0.10	A	Jackson Township
417	Collector JT-9	Jackson Rd	Collector JT-8						2	Arterial M	4,200	0.23	A	Jackson Township
418	Collector JT-10	Jackson Rd	Collector JT-8						2	Arterial M	1,450	0.08	A	Jackson Township
419	Collector JT-6	Tree View Ln	Jackson Rd						2	Res Collector F	1,940	0.24	B	Jackson Township
500	S Bridgewater Dr	Collector JT-4	Eagles Nest Rd						2	Res Collector F	3,380	0.42	C	NewBridge
501	S Bridgewater Dr	Eagles Nest Rd	Northbridge Dr						2	Res Collector F	4,390	0.55	C	NewBridge
502	N Bridgewater Dr	Northbridge Dr	Eagles Nest Rd						2	Res Collector F	1,180	0.15	A	NewBridge
503	Northbridge Dr	Kiefer Blvd	Bridgewater Dr						2	Arterial M	2,770	0.15	A	NewBridge
504	Street A	S Bridgewater Dr	Street B						2	Res Collector F	1,410	0.18	A	NewBridge
505	Street B	S Bridgewater Dr	Street A						2	Res Collector F	1,260	0.16	A	NewBridge
506	Rockbridge Dr	Street B	Stonebridge Dr						2	Res Collector F	1,570	0.20	A	NewBridge
507	Rockbridge Dr	Stonebridge Dr	Jackson Rd						2	Arterial M	5,660	0.31	A	NewBridge
508	Stonebridge Dr	S Bridgewater Dr	Rockbridge Dr						2	Arterial M	2,630	0.15	A	NewBridge
509	Stonebridge Dr	Rockbridge Dr	Jackson Rd						2	Res Collector F	3,210	0.40	C	NewBridge
600	W Collector MS-1	Kiefer Blvd	Collector MS-5						2	Arterial M	5,950	0.33	A	Mather South
601	E Collector MS-1	Collector MS-5	Kiefer Blvd						2	Arterial M	5,540	0.31	A	Mather South
602	Collector MS-2	Eagles Nest Rd	Collector MS-5						2	Res Collector F	9,200	1.15	**F**	Mather South

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Table 4.5
Existing Plus FOUR PROJECTS Roadway Segment Levels of Service

ID	Roadway	Segment		Existing					Existing + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Daily Volume	Volume / Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
603	Collector MS-3	Eagles Nest Rd	Collector MS-5						2	Arterial M	4,800	0.27	A	Mather South
604	Collector MS-4	Eagles Nest Rd	Collector MS-5						2	Arterial M	10,170	0.57	A	Mather South
605	Collector MS-5	Collector MS-1	Collector MS-4						2	Arterial M	11,480	0.64	B	Mather South
606	Collector MS-5	Collector MS-4	Collector MS-3						2	Arterial M	3,080	0.17	A	Mather South
607	Collector MS-5	Collector MS-3	Collector MS-2						2	Arterial M	1,580	0.09	A	Mather South

Note: Gray shading indicates changes in travel lanes or facility type that the project is responsible to provide.

[1] The following classifications are used to determine daily roadway capacity:
Arterial L - Arterial, Low Access Control
Arterial M - Arterial, Moderate Access Control
Arterial H - Arterial, High Access Control
Rural Hwy - Rural 2-lane Highway
Rural S - Rural 2-lane Road, 24'-36' of pavement, Paved Shoulders
Rural NS - Rural 2-lane Road, 24'-36' of pavement, No Shoulders
Res Collector F - Residential Collector with Frontage
Res Collector NF - Residential Collector with No Frontage

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

4.4.2 Existing Plus FOUR PROJECTS Intersection Impacts

Tables 4.6 and 4.7 summarize the results of the operations analysis for the study area intersections. The tables include the implementation of intersection changes associated with the FOUR PROJECTS. Table 4.7 illustrates the type of traffic control and number of lanes by type on each study area intersection approach. Shaded table cells indicate those locations where changes in traffic control and / or number of approach lanes by type would be fully funded by the project(s) shown in the last column. Shaded table cells in Table 4.6 illustrate those locations with an LOS impact. Detailed analysis information is included in the technical appendix.

Signal warrant analysis was conducted for all unsignalized intersections along Jackson Road, and other unsignalized intersections in close proximity to the project. The project is considered to have a significant impact at an unsignalized location if both the impact criteria in Table 1.6 are met, and one or more of the signal warrants specified in the California Manual on Uniform Traffic Control Devices (CAMUTCD) are met. Detailed signal warrant calculation sheets are included in the technical appendix. The following unsignalized intersections exhibit significant impacts and meet one or more traffic signal warrants:

- Happy Lane and Old Placerville Road
- Eagles Nest Road and Florin Road

4.4.3 Existing Plus FOUR PROJECTS U.S. 50 Freeway Impacts

4.4.3.1 Freeway Mainline

Table 4.8 summarizes a.m. and p.m. peak hour US 50 freeway mainline operations. Details of the analysis are included in the technical appendix. The following locations exhibit significant impacts:

- Eastbound US 50
  - Stockton Boulevard to 59th Street - a.m. and p.m. peak hours
  - Bradshaw Road to Mather Field Road - a.m. peak hour
  - Zinfandel Drive to Hazel Avenue - p.m. peak hour
- Westbound US 50
  - Mather Field Road to Bradshaw Road - a.m. peak hour
  - Watt Avenue to Howe Avenue - p.m. peak hour
  - Howe Avenue to 59th Street - a.m. and p.m. peak hours
  - 59th Street to SR 99 / SR 51 - p.m. peak hour

4.4.3.2 Freeway Ramp Junctions / Weaving

Table 4.9 summarizes a.m. and p.m. peak hour freeway operations at ramp junctions and weaving areas. Details of the analysis are included in the technical appendix. The following locations exhibit significant impacts:

- Eastbound
  - 65th Street to Howe Avenue weave - a.m. peak hour
  - Mather Field Road to Zinfandel Drive weave - a.m. peak hour
- Westbound
  - Sunrise Boulevard Entrance - a.m. peak hour

4.4.3.3 Freeway Ramp Intersection Queuing

Table 4.10 summarizes a.m. and p.m. peak hour freeway ramp intersection queuing. The following location exhibits a significant impact:

- Eastbound
  - Exit ramp to Howe Avenue - right turn queue length exceeds available storage

Table 4.6

Existing Plus FOUR PROJECTS Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus FOUR PROJECTS			LOS Impact	Existing			Existing Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
1	Howe Avenue & College Town Drive/US 50 WB Ramps	Signal	D	36.6	Signal	D	36.8	No	Signal	D	44.4	Signal	D	49.4	No
2	Howe Avenue & US 50 EB Ramps	Signal	B	16.9	Signal	C	34.5	No	Signal	C	20.5	Signal	C	21.3	No
3	Power Inn Road/Howe Avenue & Folsom Blvd	Signal	D	39.1	Signal	E	72.1	No	Signal	D	55.0	Signal	E	78.9	No
4	Power Inn Road & 14th Avenue	Signal	C	31.5	Signal	C	32.4	No	Signal	D	39.6	Signal	D	39.6	No
5	Power Inn Road & Fruitridge Road	Signal	D	43.4	Signal	D	54.0	No	Signal	C	33.5	Signal	D	41.9	No
6	Jackson Road/Notre Dame Dr. & Folsom Blvd.	Signal	D	36.8	Signal	E	63.3	No	Signal	C	32.1	Signal	**F**	**95.2**	Yes
7	Florin Perkins Road/Julliard Dr. & Folsom Boulevard	Signal	D	39.0	Signal	D	43.3	No	Signal	E	55.6	Signal	D	44.8	No
8	Florin Perkins Road & Kiefer Blvd.	Two-way stop	A	2.8	Two-way stop	A	4.3	No	Two-way stop	A	3.2	Two-way stop	A	7.3	No
	Westbound Left Turn		*C*	*20.1*		*D*	*32.2*			*C*	*23.3*		**F**	**56.8**	
	Westbound Right Turn		*B*	*13.3*		*B*	*12.3*			*B*	*12.6*		*C*	*17.3*	
	Southbound Left Turn		*A*	*10.0*		*B*	*10.1*			*B*	*10.9*		*B*	*13.9*	
9	Florin Perkins Road & Jackson Road	Signal	D	51.5	Signal	**F**	**123.3**	Yes	Signal	D	54.1	Signal	**F**	**146.7**	Yes
10	Florin Perkins Road & Fruitridge Road	Signal	C	25.1	Signal	E	59.8	No	Signal	C	25.4	Signal	E	55.3	No
11	Florin Perkins Road & Elder Creek Road	Signal	C	25.7	Signal	C	35.0	No	Signal	C	26.2	Signal	C	33.4	No
12	Watt Avenue & Folsom Blvd.	Signal	E	66.2	Signal	E	79.1	No	Signal	E	71.9	Signal	**F**	**90.4**	Yes
13	S. Watt Ave. & Reith Ct/Manlove Road	Signal	B	19.6	Signal	C	23.2	No	Signal	D	54.1	Signal	D	40.2	No
14	S. Watt Avenue & Kiefer Blvd.	Signal	E	56.0	Signal	**F**	**138.5**	Yes	Signal	E	75.9	Signal	**F**	**136.6**	Yes

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 4.6

Existing Plus FOUR PROJECTS Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus FOUR PROJECTS			LOS Impact	Existing			Existing Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
15	S. Watt Avenue & Canberra Dr.	Signal	B	11.5	Signal	B	19.9	No	Signal	A	9.7	Signal	C	24.1	No
16	S. Watt Avenue & Jackson Road	Signal	E	62.5	Signal	**F**	**404.2**	Yes	Signal	E	66.4	Signal	**F**	**385.0**	Yes
17	S. Watt Avenue & Fruitridge Road	Signal	D	38.1	Signal	**F**	**114.0**	Yes	Signal	D	41.7	Signal	**E**	**68.4**	Yes
18	S. Watt Avenue & Elder Creek Road	Signal	**E**	**62.7**	Signal	**F**	**177.5**	Yes	Signal	**E**	**68.8**	Signal	**F**	**189.3**	Yes
20	Elk Grove Florin Road/S. Watt Ave. & Florin Road	Signal	D	54.7	Signal	E	74.3	No	Signal	D	51.8	Signal	E	72.3	No
21	Elk Grove Florin Road & Gerber Road	Signal	D	49.1	Signal	D	51.6	No	Signal	E	64.6	Signal	E	73.5	No
23	Hedge Avenue & Jackson Road	Signal	D	35.1	Signal	**F**	**155.7**	Yes	Signal	D	37.3	Signal	E	68.6	No
24	Hedge Avenue & Fruitridge Road	All-way stop	B	13.6	Signal	D	52.1	No	All-way stop	A	9.4	Signal	D	47.8	No
25	Hedge Avenue & Elder Creek Road	All-way stop	C	15.9	Signal	D	39.1	No	All-way stop	B	11.6	Signal	E	58.5	No
26	Hedge Avenue & Tokay Lane	Two-way stop	A	0.4	Two-way stop	A	0.3	No	Two-way stop	A	0.2	Two-way stop	A	0.1	No
	Northbound Left Turn		*A*	*0.0*		*A*	*0.0*			*A*	*0.0*		*A*	*0.0*	
	Southbound Left Turn		*A*	*8.0*		*A*	*8.6*			*A*	*7.3*		*A*	*7.5*	
	Eastbound		*B*	*12.2*		*B*	*14.8*			*B*	*10.2*		*B*	*13.2*	
	Westbound		*B*	*11.1*		*B*	*13.2*			*A*	*9.6*		*B*	*11.5*	
27	Hedge Avenue & Florin Road	All-way stop	B	12.9	All-way stop	E	43.2	No	All-way stop	B	11.1	All-way stop	**F**	**59.5**	Yes
28	Mayhew Road & Kiefer Boulevard	Signal	D	48.6	Signal	**F**	**130.1**	Yes	Signal	D	51.1	Signal	E	76.6	No

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 4.6

Existing Plus FOUR PROJECTS Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus FOUR PROJECTS			LOS Impact	Existing			Existing Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
29	Mayhew Road & Jackson Road	Two-way stop	A	1.8	Signal	E	69.8	No	Two-way stop	A	1.9	Signal	E	60.5	No
	Northbound Through - Left Turn		*D*	*27.6*						*D*	*34.0*				
	Northbound Right Turn		*B*	*11.8*						*C*	*15.0*				
	Southbound		*C*	*18.3*						*C*	*24.9*				
	Eastbound Left Turn		*A*	*8.9*						*A*	*8.4*				
	Westbound Left Turn		*A*	*8.3*						*A*	*9.3*				
30	Mayhew Road & Fruitridge Road	Two-way stop	A	6.2	Signal	E	67.8	No	Two-way stop	A	5.1	Signal	B	17.2	No
	Northbound Left Turn		*A*	*0.0*						*A*	*7.4*				
	Eastbound		*A*	*9.2*						*A*	*9.2*				
31	Mayhew Road & Elder Creek Road	Two-way stop	A	0.2	Signal	**F**	**355.5**	Yes	Two-way stop	A	0.3	Signal	**F**	**353.8**	Yes
	Northbound		*B*	*11.9*						*B*	*10.9*				
	Southbound		*B*	*11.1*						*A*	*9.8*				
	Eastbound Left Turn		*A*	*8.3*						*A*	*7.6*				
	Westbound Left Turn		*A*	*7.5*						*A*	*0.0*				
32	Woodring Drive & Zinfandel Drive	Two-way stop	A	5.9	Two-way stop	A	2.6	No	Two-way stop	A	3.0	Two-way stop	A	1.4	No
	Eastbound		*A*	*9.3*		*E*	*36.4*			*A*	*9.3*		*D*	*28.8*	
	Northbound Left Turn		*A*	*0.0*		*A*	*9.8*			*A*	*0.0*		*B*	*10.4*	
33	Bradshaw Road & Folsom Blvd.	Signal	**E**	**56.7**	Signal	D	35.8	No	Signal	D	49.9	Signal	D	53.2	No
34	Bradshaw Road & US 50 WB Ramps	Signal	B	15.9	Signal	B	19.8	No	Signal	B	15.2	Signal	B	19.2	No
35	Bradshaw Road & US 50 EB Ramps	Signal	C	24.4	Signal	D	39.6	No	Signal	B	16.0	Signal	C	26.2	No
36	Bradshaw Road & Old Placerville Road	Signal	D	45.9	Signal	D	48.7	No	Signal	D	52.0	Signal	**E**	**60.9**	Yes
37	Bradshaw Road & Kiefer Boulevard	Signal	D	45.7	Signal	**F**	**129.2**	Yes	Signal	E	66.2	Signal	**F**	**153.2**	Yes

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Table 4.6

Existing Plus FOUR PROJECTS Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus FOUR PROJECTS			LOS Impact	Existing			Existing Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
38	Bradshaw Road & Jackson Road	Signal	E	73.1	Signal	E	59.6	No	Signal	E	59.4	Signal	E	74.3	No
39	Bradshaw Road & Elder Creek Road	Signal	D	36.8	Signal	**F**	**136.6**	Yes	Signal	D	36.1	Signal	E	73.2	No
40	Bradshaw Road & Florin Road	Signal	D	38.1	Signal	**F**	**126.9**	Yes	Signal	D	53.6	Signal	E	70.6	No
41	Bradshaw Road & Gerber Road	Signal	E	72.2	Signal	**F**	**82.8**	Yes	Signal	D	49.9	Signal	E	69.3	No
42	Happy Lane & Old Placerville Road	Two-way stop	A	7.3	Two-way stop	C	15.4	Yes	Two-way stop	A	4.7	Two-way stop	**F**	**>300**	Yes
	Northbound Left Turn		***F***	***64.8***		***F***	***>300***			***F***	***95.9***		***F***	***>300***	
	Northbound Right Turn		*D*	*30.6*		***F***	***>300***			*C*	*15.4*		***F***	***211.4***	
	Westbound Left Turn		*B*	*10.2*		***E***	***41.3***			*B*	*10.1*		*C*	*20.5*	
43	Happy Lane & Kiefer Boulevard	Free Turn			Signal	D	45.7	No	Free Turn			Signal	E	72.4	No
44	Excelsior Road & Kiefer Boulevard	West Jackson/Jackson Township Project Int.			Signal	E	67.8	No	West Jackson/Jackson Township Project Int.			Signal	E	55.5	No
45	Excelsior Road & Jackson Road	Signal	D	36.7	Signal	**F**	**210.6**	Yes	Signal	D	40.3	Signal	**F**	**165.8**	Yes
46	Excelsior Road & Elder Creek Road	Two-way stop	A	3.5	Signal	C	34.1	No	Two-way stop	A	2.7	Signal	**F**	**81.3**	Yes
	Northbound Left Turn		*A*	*7.5*						*A*	*8.0*				
	Eastbound		*C*	*18.6*						*B*	*12.3*				
47	Excelsior Road & Florin Road	All-way stop	C	24.9	Signal	E	62.8	No	All-way stop	B	12.5	Signal	E	65.1	No
48	Excelsior Road & Gerber Road/Birch Ranch Drive	All-way stop	B	14.0	All-way stop	E	46.6	No	All-way stop	B	10.6	All-way stop	E	41.3	No
49	Mather Field Road & US 50 WB Ramps	Signal	C	24.7	Signal	C	24.1	No	Signal	A	9.4	Signal	A	9.5	No
50	Mather Field Road & US 50 EB Ramps	Signal	C	27.7	Signal	C	28.9	No	Signal	B	13.4	Signal	B	12.7	No

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 4.6

Existing Plus FOUR PROJECTS Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus FOUR PROJECTS			LOS Impact	Existing			Existing Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
51	Mather Field Road & Rockingham Drive	Signal	**E**	**56.4**	Signal	**F**	**85.9**	Yes	Signal	D	54.7	Signal	D	54.9	No
52	Mather Boulevard & Douglas Road	All-way stop	E	39.3	All-way stop	**F**	**57.0**	Yes	All-way stop	C	15.5	All-way stop	E	43.4	No
53	Zinfandel Drive & US 50 WB Ramps	Signal	B	16.4	Signal	C	24.8	No	Signal	D	51.7	Signal	D	42.5	No
54	Zinfandel Drive & US 50 EB Ramps/Gold Center Drive	Signal	D	40.0	Signal	**E**	**62.8**	Yes	Signal	**E**	**60.1**	Signal	**E**	**64.2**	No
55	Zinfandel Drive & White Rock Road	Signal	D	47.7	Signal	D	52.6	No	Signal	D	54.7	Signal	D	54.8	No
56	Zinfandel Drive & Data Drive	Signal	D	49.3	Signal	D	45.5	No	Signal	D	52.9	Signal	D	53.9	No
57	Zinfandel Drive & International Dr	Signal	C	34.0	Signal	D	52.1	No	Signal	D	48.5	Signal	D	37.8	No
58	Zinfandel Drive & Douglas Road	Signal	E	55.5	Signal	E	80.0	No	Signal	D	54.2	Signal	E	75.6	No
59	Eagles Nest Road/Zinfandel Drive & Kiefer Boulevard	Free Turn			Signal	C	32.2	No	Free Turn			Signal	C	26.0	No
60	Eagles Nest Road & Jackson Road	Two-way stop	A	2.3	Signal	D	36.5	No	Two-way stop	A	3.6	Signal	C	34.5	No
	Northbound		*C*	*22.0*						*C*	*23.8*				
	Southbound		*B*	*13.9*						*C*	*22.0*				
	Eastbound Left Turn		*A*	*8.8*						*A*	*7.9*				
	Westbound Left Turn		*A*	*7.9*						*A*	*8.7*				
61	Eagles Nest Road & Florin Road	Two-way stop	A	2.3	Two-way stop	**F**	**71.8**	Yes	Two-way stop	A	2.6	Two-way stop	**F**	**100.0**	Yes
	Northbound		*B*	*12.7*		***F***	***287.6***			*B*	*12.1*		***F***	***>300***	
	Southbound		*B*	*10.0*		***F***	***>300***			*B*	*10.5*		***F***	***242.6***	
	Eastbound Left Turn		*A*	*7.7*		*A*	*8.4*			*A*	*7.7*		*A*	*8.2*	
	Westbound Left Turn		*A*	*0.0*		*A*	*0.0*			*A*	*7.6*		*A*	*7.8*	

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 4.6

Existing Plus FOUR PROJECTS Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus FOUR PROJECTS			LOS Impact	Existing			Existing Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
62	Sunrise Boulevard & US 50 WB Ramps	Signal	D	44.7	Signal	D	50.5	No	Signal	B	19.7	Signal	C	26.7	No
63	Sunrise Boulevard & US 50 EB Ramps	Signal	B	16.9	Signal	B	17.9	No	Signal	B	17.6	Signal	B	19.1	No
64	Sunrise Boulevard & Folsom Boulevard	Signal	D	54.4	Signal	D	46.6	No	Signal	D	48.6	Signal	D	48.0	No
65	Sunrise Boulevard & White Rock Road	Signal	D	47.8	Signal	D	48.2	No	Signal	D	51.6	Signal	D	52.2	No
66	Sunrise Boulevard & International Drive/Monier Circle	Signal	D	47.8	Signal	D	47.8	No	Signal	D	45.8	Signal	D	48.3	No
67	Sunrise Boulevard & Douglas Road	Signal	D	51.7	Signal	D	53.7	No	Signal	D	46.5	Signal	D	48.1	No
68	Sunrise Boulevard & Chrysanthy Boulevard	Signal	C	27.0	Signal	C	26.4	No	Signal	C	21.0	Signal	C	22.1	No
69	Sunrise Boulevard & Kiefer Boulevard	Signal	D	53.6	Signal	D	45.4	No	Signal	C	27.0	Signal	C	34.7	No
70	Sunrise Boulevard & Jackson Road	Signal	**E**	**57.0**	Signal	**F**	**120.5**	Yes	Signal	D	47.2	Signal	E	79.2	No
71	Sunrise Boulevard & Florin Road	Signal	B	11.3	Signal	B	13.5	No	Signal	D	48.3	Signal	E	69.5	No
72	Sheldon Lake Drive/Sunrise Boulevard & Grant Line Road	Signal	D	43.2	Signal	D	53.2	No	Signal	D	40.7	Signal	D	42.6	No
73	Hazel Avenue & Tributary Point Drive/US 50 WB Off-ramp	Signal	C	31.2	Signal	C	32.3	No	Signal	D	41.4	Signal	D	35.8	No
74	Hazel Avenue & US 50 EB Ramps	Signal	C	20.6	Signal	C	22.1	No	Signal	C	29.9	Signal	D	48.0	No
75	Hazel Avenue & Folsom Boulevard	Signal	D	51.7	Signal	D	52.0	No	Signal	D	46.7	Signal	D	47.7	No
76	Prairie City Road & White Rock Road	Signal	B	19.2	Signal	B	19.5	No	Signal	B	15.0	Signal	B	14.2	No

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 4.6

Existing Plus FOUR PROJECTS Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus FOUR PROJECTS			LOS Impact	Existing			Existing Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
77	Grant Line Road & White Rock Road	Signal	B	10.9	Signal	B	10.6	No	Signal	B	11.2	Signal	B	10.5	No
78	Grant Line Road & Douglas Road	All-way stop	C	15.2	All-way stop	D	28.8	No	All-way stop	B	12.3	All-way stop	C	17.9	No
79	Grant Line Road & Kiefer Boulevard	All-way stop	B	11.4	All-way stop	B	14.1	No	All-way stop	B	10.5	All-way stop	B	13.5	No
80	Grant Line Road & Jackson Road	Signal	**E**	**74.0**	Signal	**F**	**113.0**	Yes	Signal	**E**	**78.9**	Signal	**F**	**80.2**	No
81	Watt Avenue & US-50 EB Ramps	Signal	B	13.0	Signal	B	18.2	No	Signal	B	14.9	Signal	B	14.5	No
82	Watt Avenue & US-50 WB Ramps	Signal	C	32.9	Signal	C	32.0	No	Signal	C	28.6	Signal	C	32.0	No
83	Mayhew Rd & Folsom Blvd.	Signal	B	19.8	Signal	C	27.9	No	Signal	C	20.1	Signal	C	22.5	No
84	65th Street Expy & Fruitridge Road	Signal	C	31.2	Signal	D	50.5	No	Signal	D	35.3	Signal	D	40.0	No
85	Power Inn Road & Elder Creek Road	Signal	D	35.2	Signal	D	51.7	No	Signal	D	36.3	Signal	D	50.8	No
86	Power Inn Road & Florin Rd	Signal	D	36.3	Signal	E	76.2	No	Signal	D	45.9	Signal	E	71.7	No
87	Florin Perkins Road & Florin Rd	Signal	D	36.7	Signal	D	52.7	No	Signal	C	32.5	Signal	E	65.9	No
88	Bradshaw Rd & Calvine Rd	Signal	C	30.5	Signal	D	51.4	No	Signal	D	36.9	Signal	D	51.3	No
89	Vineyard Rd & Calvine Rd	Signal	C	30.8	Signal	C	30.3	No	Signal	C	34.9	Signal	D	35.5	No
90	Excelsior Road & Calvine Rd	All-way stop	C	16.6	All-way stop	**F**	**55.1**	Yes	All-way stop	B	13.0	All-way stop	**E**	**43.2**	Yes
91	Grant Line Rd & Eagles Nest Rd/Sloughhouse Rd	Signal	D	51.7	Signal	E	58.7	No	Signal	D	46.5	Signal	E	62.9	No

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 4.6

Existing Plus FOUR PROJECTS Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus FOUR PROJECTS			LOS Impact	Existing			Existing Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
92	Grant Line Rd & Calvine Rd	Signal	C	21.4	Signal	C	28.1	No	Signal	C	24.0	Signal	D	37.0	No
93	Grant Line Rd & Dwy/Wilton Rd	Signal	**E**	**65.9**	Signal	**F**	**94.6**	Yes	Signal	**E**	**64.8**	Signal	**F**	**104.4**	Yes
94	Grant Line Rd & Bond Rd/Wrangler Dr	Signal	C	33.3	Signal	D	50.3	No	Signal	D	46.4	Signal	D	40.2	No
200	Excelsior Road & Collector WJ-1/Collector JT-1	West Jackson/Jackson Township Project Int.			Signal	D	51.1	No	West Jackson/Jackson Township Project Int.			Signal	D	40.3	No
201	Excelsior Road & Collector WJ-2/Collector JT-2	West Jackson/Jackson Township Project Int.			Signal	D	46.2	No	West Jackson/Jackson Township Project Int.			Signal	D	43.1	No
202	W Collector MS-1 & Kiefer Boulevard	Mather South Project Int.			Signal	B	19.2	No	Mather South Project Int.			Signal	B	18.3	No
203	Northbridge Dr & Kiefer Boulevard	NewBridge Project Int.			Signal	C	20.7	No	NewBridge Project Int.			Signal	B	19.2	No
204	E Collector MS-1 & Kiefer Boulevard	Mather South Project Int.			Signal	B	12.3	No	Mather South Project Int.			Signal	B	16.2	No
300	Collector WJ-3 & Jackson Road	West Jackson Project Int.			Signal	D	42.7	No	West Jackson Project Int.			Signal	C	30.5	No
301	Collector WJ-4 & Jackson Road	West Jackson Project Int.			Signal	D	39.5	No	West Jackson Project Int.			Signal	D	38.4	No
302	Happy Lane & Jackson Road	West Jackson Project Int.			Signal	E	59.3	No	West Jackson Project Int.			Signal	D	44.9	No
303	Rock Creek Pkwy & Jackson Road	West Jackson Project Int.			Signal	D	36.2	No	West Jackson Project Int.			Signal	C	33.1	No
304	Collector WJ-5 & Jackson Road	West Jackson Project Int.			Signal	C	32.9	No	West Jackson Project Int.			Signal	C	30.6	No
305	Collector WJ-6 & Jackson Road	West Jackson Project Int.			Signal	C	29.2	No	West Jackson Project Int.			Signal	C	27.1	No
306	Excelsior Road & Collector WJ-6	West Jackson Project Int.			Signal	C	22.4	No	West Jackson Project Int.			Signal	D	50.9	No

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 4.6

Existing Plus FOUR PROJECTS Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus FOUR PROJECTS			LOS Impact	Existing			Existing Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
307	S. Watt Avenue & Rock Creek Pkwy	West Jackson Project Int.			Signal	B	14.2	No	West Jackson Project Int.			Signal	C	21.3	No
308	Hedge Avenue & Rock Creek Pkwy WB	West Jackson Project Int.			Roundabout	B	10.1	No	West Jackson Project Int.			Roundabout	A	8.3	No
309	Hedge Avenue & Rock Creek Pkwy EB	West Jackson Project Int.			Roundabout	A	9.5	No	West Jackson Project Int.			Roundabout	A	6.0	No
310	Mayhew Road & Rock Creek Pkwy WB	West Jackson Project Int.			Roundabout	D	25.3	No	West Jackson Project Int.			Roundabout	**F**	**93.0**	Yes
311	Mayhew Road & Rock Creek Pkwy EB	West Jackson Project Int.			Roundabout	**F**	**70.6**	Yes	West Jackson Project Int.			Roundabout	C	20.0	No
312	Bradshaw Road & Rock Creek Pkwy	West Jackson Project Int.			Signal	D	42.9	No	West Jackson Project Int.			Signal	D	43.0	No
313	Collector WJ-7 & Rock Creek Pkwy	West Jackson Project Int.			Signal	B	11.0	No	West Jackson Project Int.			Signal	B	11.5	No
314	Vineyard Road/Happy Lane & Rock Creek Pkwy	West Jackson Project Int.			Signal	D	43.1	No	West Jackson Project Int.			Signal	D	53.1	No
315	Douglas Road & Rock Creek Pkwy	West Jackson Project Int.			Signal	C	31.7	No	West Jackson Project Int.			Signal	B	17.6	No
316	Bradshaw Road & Collector WJ-8	West Jackson Project Int.			Signal	C	26.7	No	West Jackson Project Int.			Signal	C	26.8	No
317	Bradshaw Road & Collector WJ-9	West Jackson Project Int.			Signal	D	37.1	No	West Jackson Project Int.			Signal	D	52.1	No
318	Bradshaw Road & Mayhew Road	West Jackson Project Int.			Signal	**F**	**112.7**	Yes	West Jackson Project Int.			Signal	**F**	**101.4**	Yes
319	Bradshaw Road & Collector WJ-10	West Jackson Project Int.			Signal	A	7.2	No	West Jackson Project Int.			Signal	B	16.6	No
320	Bradshaw Road & Collector WJ-11	West Jackson Project Int.			Signal	B	10.6	No	West Jackson Project Int.			Signal	A	8.6	No
321	Collector WJ-12 & Fruitridge Road	West Jackson Project Int.			Signal	C	29.6	No	West Jackson Project Int.			Signal	C	24.8	No

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 4.6

Existing Plus FOUR PROJECTS Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus FOUR PROJECTS			LOS Impact	Existing			Existing Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
322	Mayhew Road & Collector WJ-13	West Jackson Project Int.			Signal	A	9.6	No	West Jackson Project Int.			Signal	B	11.3	No
323	Collector WJ-14 & Kiefer Boulevard	West Jackson Project Int.			Signal	D	45.3	No	West Jackson Project Int.			Signal	E	68.6	No
324	Collector WJ-15 & Kiefer Boulevard	West Jackson Project Int.			Signal	C	27.4	No	West Jackson Project Int.			Signal	B	15.4	No
325	Douglas Road & Kiefer Boulevard	West Jackson Project Int.			Signal	E	76.7	No	West Jackson Project Int.			Signal	E	66.0	No
326	Happy Lane & Mayhew Road	West Jackson Project Int.			Roundabout	**F**	**67.4**	Yes	West Jackson Project Int.			Roundabout	**F**	**71.7**	Yes
327	Vineyard Road & Elder Creek Road	West Jackson Project Int.			Signal	C	32.9	No	West Jackson Project Int.			Signal	C	28.8	No
328	Vineyard Road & Florin Road	West Jackson Project Int.			Signal	B	17.5	No	West Jackson Project/CEQA Cumulative Intersection			Signal	B	19.9	No
400	Collector JT-3 & Jackson Road	Jackson Township Project Int.			Signal	E	57.9	No	Jackson Township Project Int.			Signal	C	28.2	No
401	Tree View Lane & Jackson Road	Jackson Township Project Int.			Signal	B	15.0	No	Jackson Township Project Int.			Signal	B	10.5	No
402	Collector JT-4 & Jackson Road	Jackson Township Project Int.			Signal	C	21.9	No	Jackson Township Project Int.			Signal	B	17.9	No
403	Tree View Lane & Collector JT-5	Jackson Township Project Int.			Signal	B	18.8	No	Jackson Township Project Int.			Signal	B	19.6	No
404	Tree View Lane & Collector JT-6	Jackson Township Project Int.			Signal	B	10.2	No	Jackson Township Project Int.			Signal	B	14.2	No
405	Tree View Lane & Collector JT-1	Jackson Township Project Int.			Signal	C	30.3	No	Jackson Township Project Int.			Signal	C	22.6	No
406	Tree View Lane & Kiefer Boulevard	Jackson Township Project Int.			Signal	C	26.4	No	Jackson Township Project Int.			Signal	C	21.8	No
407	HS/MS Dwy & Kiefer Boulevard	Jackson Township Project Int.			Signal	B	18.4	No	Jackson Township Project Int.			Signal	B	18.8	No

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 4.6

Existing Plus FOUR PROJECTS Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing			Existing Plus FOUR PROJECTS			LOS Impact	Existing			Existing Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
500	Rockbridge Dr & Jackson Road	NewBridge Project Int.			Signal	B	19.2	No	NewBridge Project Int.			Signal	B	11.8	No
501	Eagles Nest Road & N Bridgewater Dr	NewBridge Project Int.			Signal	A	9.7	No	NewBridge Project Int.			Signal	A	8.8	No
502	Eagles Nest Road & S Bridgewater Dr	NewBridge Project Int.			Signal	C	29.7	No	NewBridge Project Int.			Signal	C	27.4	No
600	Zinfandel Drive & Collector MS-2	Mather South Project Int.			Signal	B	12.7	No	Mather South Project Int.			Signal	C	20.9	No
601	Zinfandel Drive & Collector MS-3	Mather South Project Int.			Signal	B	12.0	No	Mather South Project Int.			Signal	B	14.9	No
602	Zinfandel Drive & Collector MS-4	Mather South Project Int.			Signal	B	19.3	No	Mather South Project Int.			Signal	B	14.2	No
603	Collector MS-5 & Collector MS-2	Mather South Project Int.			All-way stop	B	11.0	No	Mather South Project Int.			All-way stop	B	12.0	No
604	Collector MS-5 & Collector MS-3	Mather South Project Int.			Two-way stop	A	7.0	No	Mather South Project Int.			Two-way stop	A	6.0	No
	Northbound Left Turn					*A*	*7.5*						*A*	*7.4*	
	Southbound Left Turn					*A*	*0.0*						*A*	*0.0*	
	Eastbound					*A*	*9.7*						*B*	*11.4*	
	Westbound					*B*	*11.6*						*B*	*11.4*	
605	Collector MS-5 & Collector MS-4	Mather South Project Int.			All-way stop	C	15.2	No	Mather South Project Int.			All-way stop	B	14.5	No
606	Collector MS-5 & W Collector MS-1/E Collector MS-1	Mather South Project Int.			All-way stop	C	19.7	No	Mather South Project Int.			All-way stop	C	20.2	No

Note: Gray shading represents changes in traffic control for which the project is responsible to pay a fair share.

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 4.7

Existing and Existing Plus FOUR PROJECTS Intersection Geometrics

	Intersection	Traffic Control		Existing Lane Geometrics				Existing Plus FOUR PROJECTS Lane Geometrics				Project(s) Responsible for Change
		Existing	Existing Plus FOUR PROJECTS	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach	
1	Howe Avenue & College Town Drive/US 50 WB Ramps	Signal	Signal	↑↑↑ ⌐	⌟↓↓↓↓	↰ ⌐⌐	⌝⌝↰ ⊬⌐	↑↑↑ ⌐	⌟↓↓↓↓	↰ ⌐⌐	⌝⌝↰ ⊬⌐	
2	Howe Avenue & US 50 EB Ramps	Signal	Signal	↑↑↑ ⌐	⌟↓↓↓	⌝⌝⌐⌐		↑↑↑ ⌐	⌟↓↓↓	⌝⌝⌐⌐		
3	Power Inn Road/Howe Avenue & Folsom Blvd	Signal	Signal	⌝⌝↑↑↑ ⌐	⌟↓↓↓↘↘	⌝⌝↑ ⊬	⌝⌝↑↑ ⌐⌐	⌝⌝↑↑↑ ⌐	⌟↓↓↓↘↘	⌝⌝↑ ⊬	⌝⌝↑↑ ⌐⌐	
4	Power Inn Road & 14th Avenue	Signal	Signal	⌝⌝↑↑ ⊬	⌟↓↓↘	⌝↰ ⌐	⊬	⌝⌝↑↑ ⊬	⌟↓↓↘	⌝↰ ⌐	⊬	
5	Power Inn Road & Fruitridge Road	Signal	Signal	⌝⌝↑ ⊬	⌟↓↓↘↘	⌝↑ ⊬	⌝↑↑ ⌐	⌝⌝↑ ⊬	⌟↓↓↘↘	⌝↑ ⊬	⌝↑↑ ⌐	
6	Jackson Road/Notre Dame Dr. & Folsom Blvd.	Signal	Signal	⌝↰ ⌐	⌟⊬	⌝↑↑ ⌐	⌝↑↑ ⌐	⌝↰ ⌐	⌟⊬	⌝↑↑ ⌐	⌝↑↑ ⌐	
7	Florin Perkins Road/Julliard Dr. & Folsom Boulevard	Signal	Signal	⌝↰ ⌐	⌟⊬	⌝↑↑ ⌐	⌝↑ ⊬	⌝↰ ⌐	⌟⊬	⌝↑↑ ⌐	⌝↑ ⊬	
8	Florin Perkins Road & Kiefer Blvd.	Two-way stop	Two-way stop	↑ ⊬	↓↓↘		⌝⌐	↑ ⊬	↓↓↘		⌝⌐	
9	Florin Perkins Road & Jackson Road	Signal	Signal	⌝↑↑ ⌐	⌟↓↘	⌝↑ ⌐⌐	⌝↑ ⊬	⌝↑↑ ⌐	⌟↓↘	⌝↑ ⌐⌐	⌝↑ ⊬	
10	Florin Perkins Road & Fruitridge Road	Signal	Signal	⌝↑↑ ⌐	⌟↓↓↘	⌝↑↑ ⌐	⌝↑ ⊬	⌝↑↑ ⌐	⌟↓↓↘	⌝↑↑ ⌐	⌝↑ ⊬	
11	Florin Perkins Road & Elder Creek Road	Signal	Signal	⌝↑↑ ⌐	⌟↓↓↘	⌝↑↑ ⌐	⌝↑↑ ⌐	⌝↑↑ ⌐	⌟↓↓↘	⌝↑↑ ⌐	⌝↑↑ ⌐	
12	Watt Avenue & Folsom Blvd.	Signal	Signal	⌝⌝↑↑↑ ⌐	⌟↓↓↓↘↘	⌝⌝↑↑ ⌐	⌝⌝↑↑ ⌐	⌝⌝↑↑↑ ⌐	⌟↓↓↓↘↘	⌝⌝↑↑ ⌐	⌝⌝↑↑ ⌐	
13	S. Watt Ave. & Reith Ct/Manlove Road	Signal	Signal	⌝↑↑↑ ⌐	⌟↓↓↘	⊬	⌝⊬⌐	⌝↑↑↑ ⌐	⌟↓↓↘	⊬	⌝⊬⌐	
14	S. Watt Avenue & Kiefer Blvd.	Signal	Signal	⌝⌝↑↑ ⊬	⌟↓↓↓↘↘	⌝⌝↑↑ ⌐	⌝⌝↑↑ ⌐	⌝⌝↑↑ ⊬	⌟↓↓↓↘↘	⌝⌝↑↑ ⌐	⌝⌝↑↑ ⌐	
15	S. Watt Avenue & Canberra Dr.	Signal	Signal	↑↑ ⊬	↓↓↘		⌝⌐	↑↑ ⊬	↓↓↘		⌝⌐	
16	S. Watt Avenue & Jackson Road	Signal	Signal	⌝↑↑ ⌐	⌟↓↓↘	⌝⊬	⌝↑ ⌐	⌝⌝↑↑ ⌐	⌟↓↓↘	⌝⊬	⌝⌝↑↑ ⌐	West Jackson
17	S. Watt Avenue & Fruitridge Road	Signal	Signal	⌝↑⊬	⌟↓↓↘	⌝↑ ⌐	⌝⊬	⌝↑⊬	⌟↓↓↘	⌝↑ ⌐	⌝↑ ⊬	West Jackson
18	S. Watt Avenue & Elder Creek Road	Signal	Signal	⌝↑⌐	⌟↓↘	↰ ⌐	⌝↑ ⌐	⌝↑⌐	⌟↓↘	↰ ⌐	⌝↑ ⌐	
20	Elk Grove Florin Road/S. Watt Ave. & Florin Road	Signal	Signal	⌝↑⊬	⌟↓↘	⌝↑ ⊬	⌝↑↑ ⌐	⌝↑⊬	⌟↓↘	⌝↑ ⊬	⌝↑↑ ⌐	
21	Elk Grove Florin Road & Gerber Road	Signal	Signal	⌝⌝↑⊬	⌟↓↓↘↘	⌝⌝↑↑ ⌐	⌝⌝↑↑ ⌐	⌝⌝↑⊬	⌟↓↓↘↘	⌝⌝↑↑ ⌐	⌝⌝↑↑ ⌐	
23	Hedge Avenue & Jackson Road	Signal	Signal	⌝⊬	⌟↘	⌝↑ ⌐	⌝↑ ⌐	⌝⊬	⌟↘	⌝↑ ⊬	⌝↑ ⊬	West Jackson
24	Hedge Avenue & Fruitridge Road	All-way stop	Signal	⊬	⊹	⊬	⊬	⌝↑⌐	⌟↓↘	⌝↑ ⊬	⌝↑ ⊬	West Jackson
25	Hedge Avenue & Elder Creek Road	All-way stop	Signal	⊬	⊹	⊬	⊬	⌝↑⌐	⌟↓↘	⌝↑ ⊬	⌝↑ ⊬	West Jackson
26	Hedge Avenue & Tokay Lane	Two-way stop	Two-way stop	⊬	⊹	⊬	⊬	⊬	⊹	⊬	⊬	
27	Hedge Avenue & Florin Road	All-way stop	All-way stop	⊬	⊹	⊬	⊬	⊬	⊹	⊬	⊬	
28	Mayhew Road & Kiefer Boulevard	Signal	Signal	⌝↑⌐	⌟↓↘	⌝↑ ⊬	⌝↑ ⊬	⌝↑⌐	⌟↓↘	⌝↑ ⊬	⌝↑ ⊬	
29	Mayhew Road & Jackson Road	Two-way stop	Signal	↰ ⌐	⊹	⌝↑ ⌐	⌝⊬	⌝⌝↑↑ ⌐	⌟↓↓↘↘	⌝⌝↑↑↑ ⌐	⌝⌝↑↑↑ ⌐	West Jackson

Note: Gray shading represents changes in traffic control or approach lanes for which the project is responsible to pay a fair share.

Table 4.7

Existing and Existing Plus FOUR PROJECTS Intersection Geometrics

	Intersection	Traffic Control		Existing Lane Geometrics				Existing Plus FOUR PROJECTS Lane Geometrics				Project(s) Responsible for Change
		Existing	Existing Plus FOUR PROJECTS	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach	
30	Mayhew Road & Fruitridge Road	Two-way stop	Signal	↰	↲	↱		↰↰↑↑	↲↓↓	↰↰↱		West Jackson
31	Mayhew Road & Elder Creek Road	Two-way stop	Signal	↰↱	↰↲	↰↱	↰↱	↰↱	↰↲	↰↱	↰↑↱	West Jackson
32	Zinfandel Drive & Woodring Drive	Two-way stop	Two-way stop	↰	↲	↱		↰↑	↲	↱		Mather South
33	Bradshaw Road & Folsom Blvd.	Signal	Signal	↰↰↑↱	↲↓↓↘	↰↑↑↱	↰↰↑↑↱	↰↰↑↱	↲↓↓↘	↰↑↑↱	↰↰↑↑↱	
34	Bradshaw Road & US 50 WB Ramps	Signal	Signal	↑↑↑↱	↲↓↓↓		↰↰↱↱	↑↑↑↱	↲↓↓↓		↰↰↱↱	
35	Bradshaw Road & US 50 EB Ramps	Signal	Signal	↑↑↑↱	↲↓↓↓	↰↰↱↱		↑↑↑↱	↲↓↓↓	↰↰↱↱		
36	Bradshaw Road & Old Placerville Road	Signal	Signal	↰↑↑↑↱	↲↓↓↘↘	↰↱	↰↰↑↱	↰↑↑↑↱	↲↓↓↘↘	↰↱	↰↰↑↱	
37	Bradshaw Road & Kiefer Boulevard	Signal	Signal	↰↰↑↑↑↱	↲↓↓↘↘	↰↰↑↱	↰↰↑↱	↰↰↑↑↑↱	↲↓↓↘↘	↰↰↑↑↱	↰↰↑↑↱	West Jackson
38	Bradshaw Road & Jackson Road	Signal	Signal	↰↑↱	↲↓↓↘	↰↑↱	↰↑↱	↰↰↑↑↑↱	↲↓↓↓↘↘	↰↰↑↑↑↱	↰↰↑↑↑↱	West Jackson
39	Bradshaw Road & Elder Creek Road	Signal	Signal	↰↑↱	↲↓↘	↰↰↱	↰↰↱	↰↑↱	↲↓↓↘↘	↰↰↱	↰↰↑↱	West Jackson
40	Bradshaw Road & Florin Road	Signal	Signal	↰↑↱	↲↓↘	↰↰↱	↰↰↱	↰↑↱	↲↓↘	↰↰↱	↰↰↱	
41	Bradshaw Road & Gerber Road	Signal	Signal	↰↑↱	↲↓↘	↰↰↱	↰↱	↰↑↱	↲↓↘	↰↰↱	↰↱	
42	Happy Lane & Old Placerville Road	Two-way stop	Two-way stop	↰↱		↑↱	↰↑	↰↱		↑↱	↰↑	
43	Happy Lane & Kiefer Boulevard		Signal		↲	↰		↰↰↑↑↱	↲↓↓↘↘	↰↰↑↑↑↱	↰↰↑↑↑↱	West Jackson
44	Excelsior Road & Kiefer Boulevard	Two-way stop	Signal	↱	↳		↱	↰↑↱	↲↓↘	↰↑↱	↰↑↱	West Jackson; Jackson Township
45	Excelsior Road & Jackson Road	Signal	Signal	↰↱	↲↘	↰↑↱	↰↑↱	↰↱	↲↓↓↘↘	↰↰↑↑↑↱	↰↰↑↑↑↱	West Jackson; Jackson Township
46	Excelsior Road & Elder Creek Road	Two-way stop	Signal	↰	↲↓	↱		↰↑	↲↓	↰↱		West Jackson
47	Excelsior Road & Florin Road	All-way stop	Signal	↱	↳	↱	↱	↰↱	↲↘	↰↱	↰↱	West Jackson
48	Excelsior Road & Gerber Road/Birch Ranch Drive	All-way stop	All-way stop	↱	↳	↱	↱	↱	↳	↱	↱	
49	Mather Field Road & US 50 WB Ramps	Signal	Signal	↑↑↱	↲↓↓		↰↱	↑↑↱	↲↓↓		↰↱	
50	Mather Field Road & US 50 EB Ramps	Signal	Signal	↑↑↑↱	↲↓↓	↰↱↱		↑↑↑↱	↲↓↓	↰↱↱		
51	Mather Field Road & Rockingham Drive	Signal	Signal	↰↑↑↱	↲↓↓↓↘	↰↰↱	↰↱	↰↑↑↱	↲↓↓↓↘	↰↰↱	↰↱	
52	Mather Boulevard & Douglas Road	All-way stop	All-way stop	↱	↲↘	↱	↱	↱	↲↘	↱	↱	
53	Zinfandel Drive & US 50 WB Ramps	Signal	Signal	↑↑↑↱	↲↓↓		↰↰↱	↑↑↑↱	↲↓↓		↰↰↱	
54	Zinfandel Drive & US 50 EB Ramps/Gold Center Drive	Signal	Signal	↑↑↑↱	↲↓↓	↰↰↱↱	↱↱	↑↑↑↱	↲↓↓	↰↰↱↱	↱↱	
55	Zinfandel Drive & White Rock Road	Signal	Signal	↰↰↑↑↱	↲↓↓↓↘↘	↰↰↑↑↱	↰↰↑↱↱	↰↰↑↑↱	↲↓↓↓↘↘	↰↰↑↑↱	↰↰↑↱↱	

Note: Gray shading represents changes in traffic control or approach lanes for which the project is responsible to pay a fair share.

Table 4.7

Existing and Existing Plus FOUR PROJECTS Intersection Geometrics

	Intersection	Traffic Control		Existing Lane Geometrics				Existing Plus FOUR PROJECTS Lane Geometrics				Project(s) Responsible for Change
		Existing	Existing Plus FOUR PROJECTS	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach	
56	Zinfandel Drive & Data Drive	Signal	Signal	↰ ↑ ↑ ↱	↰ ↓ ↓ ↘	↰ ↱	↰ ↱ ↱	↰ ↑ ↑ ↱	↰ ↓ ↓ ↘	↰ ↱	↰ ↱ ↱	
57	Zinfandel Drive & International Dr	Signal	Signal	↰ ↰ ↑ ↑ ↑ ↱	↰ ↓ ↓ ↘ ↘	↰ ↰ ↑ ↑ ↱	↰ ↰ ↑ ↑ ↑ ↱	↰ ↰ ↑ ↑ ↑ ↱	↰ ↓ ↓ ↘ ↘	↰ ↰ ↑ ↑ ↱	↰ ↰ ↑ ↑ ↑ ↱	
58	Zinfandel Drive & Douglas Road	Signal	Signal	↰ ↱	↱ ↓ ↘ ↘	↰ ↑ ↱	↰ ↑ ↱	↰ ↱	↱ ↓ ↘ ↘	↰ ↑ ↱	↰ ↑ ↱	
59	Eagles Nest Road/Zinfandel Drive & Kiefer Boulevard		Signal	↱			↰	↰ ↰ ↑ ↑ ↱	↱ ↓ ↓ ↘ ↘	↰ ↰ ↑ ↑ ↱	↰ ↰ ↑ ↑ ↱	NewBridge; Mather South
60	Eagles Nest Road & Jackson Road	Two-way stop	Signal	↟	↟	↰ ↱	↰ ↱	↰ ↑ ↱	↱ ↓ ↘ ↘	↰ ↰ ↑ ↱	↰ ↑ ↑ ↱	NewBridge
61	Eagles Nest Road & Florin Road	Two-way stop	Two-way stop	↟	↟	↟	↟	↟	↟	↟	↟	
62	Sunrise Boulevard & US 50 WB Ramps	Signal	Signal	↑ ↑ ↑ ↱	↱ ↓ ↓ ↓		↰ ↰ ↱ ↱	↑ ↑ ↑ ↱	↱ ↓ ↓ ↓		↰ ↰ ↱ ↱	
63	Sunrise Boulevard & US 50 EB Ramps	Signal	Signal	↑ ↑ ↑ ↑ ↱	↱ ↓ ↓ ↓	↰ ↰ ↰ ↱ ↱		↑ ↑ ↑ ↑ ↱	↱ ↓ ↓ ↓	↰ ↰ ↰ ↱ ↱		
64	Sunrise Boulevard & Folsom Boulevard	Signal	Signal	↰ ↰ ↑ ↑ ↑ ↑ ↱	↱ ↓ ↓ ↓ ↘ ↘	↰ ↰ ↑ ↑ ↱	↰ ↰ ↑ ↱ ↱	↰ ↰ ↑ ↑ ↑ ↑ ↱	↱ ↓ ↓ ↓ ↘ ↘	↰ ↰ ↑ ↑ ↱	↰ ↰ ↑ ↱ ↱	
65	Sunrise Boulevard & White Rock Road	Signal	Signal	↰ ↰ ↑ ↑ ↑ ↱	↱ ↓ ↓ ↓ ↘ ↘	↰ ↰ ↑ ↑ ↱	↰ ↰ ↑ ↑ ↑ ↱	↰ ↰ ↑ ↑ ↑ ↱	↱ ↓ ↓ ↓ ↘ ↘	↰ ↰ ↑ ↑ ↱	↰ ↰ ↑ ↑ ↑ ↱	
66	Sunrise Boulevard & International Drive/Monier Circle	Signal	Signal	↰ ↰ ↑ ↑ ↱	↱ ↓ ↓ ↓ ↘	↰ ↰ ↑ ↱↱	↰ ↱	↰ ↰ ↑ ↑ ↱	↱ ↓ ↓ ↓ ↘	↰ ↰ ↑ ↱↱	↰ ↱	
67	Sunrise Boulevard & Douglas Road	Signal	Signal	↰ ↰ ↑ ↑ ↑ ↱	↱ ↓ ↓ ↓ ↘ ↘	↰ ↰ ↑ ↱	↰ ↰ ↑ ↑ ↱	↰ ↰ ↑ ↑ ↑ ↱	↱ ↓ ↓ ↓ ↘ ↘	↰ ↰ ↑ ↱	↰ ↰ ↑ ↑ ↱	
68	Sunrise Boulevard & Chrysanthy Boulevard	Signal	Signal	↑ ↑ ↑ ↱	↓ ↓ ↘ ↘		↰ ↰ ↱	↑ ↑ ↑ ↱	↓ ↓ ↘ ↘		↰ ↰ ↱	
69	Sunrise Boulevard & Kiefer Boulevard	Signal	Signal	↰ ↑ ↑ ↱	↰ ↓ ↘ ↘	↟	↰ ↱	↰ ↑ ↑ ↱	↰ ↓ ↘ ↘	↰ ↰ ↑ ↑ ↱	↰ ↱	NewBridge; Mather South
70	Sunrise Boulevard & Jackson Road	Signal	Signal	↰ ↱	↱ ↓ ↘	↰ ↑ ↱	↰ ↑ ↱	↰ ↱	↱ ↓ ↘	↰ ↑ ↱	↰ ↑ ↱	
71	Sunrise Boulevard & Florin Road	Signal	Signal	↰ ↑	↰	↾		↰ ↑	↰	↾		
72	Sheldon Lake Drive/Sunrise Boulevard & Grant Line Road	Signal	Signal	↟	↱ ↰	↰ ↑ ↱	↰ ↱	↟	↱ ↰	↰ ↑ ↱	↰ ↱	
73	Hazel Avenue & Tributary Point Drive/US 50 WB Off-ramp	Signal	Signal	↰ ↰ ↑ ↑ ↑	↱ ↓ ↓ ↓ ↓	↱	↰ ↱↱	↰ ↰ ↑ ↑ ↑	↱ ↓ ↓ ↓ ↓	↱	↰ ↱↱	
74	Hazel Avenue & US 50 EB Ramps	Signal	Signal		↱ ↓ ↓	↰ ↾ ↱			↱ ↓ ↓	↰ ↾ ↱		
75	Hazel Avenue & Folsom Boulevard	Signal	Signal	↰ ↱	↱ ↰ ↰ ↰	↰ ↰ ↑ ↱	↰ ↑ ↱	↰ ↱	↱ ↰ ↰ ↰	↰ ↰ ↑ ↱	↰ ↑ ↱	
76	Prairie City Road & White Rock Road	Signal	Signal		↱ ↰	↰ ↑ ↑	↑ ↑ ↱		↱ ↰	↰ ↑ ↑	↑ ↑ ↱	
77	Grant Line Road & White Rock Road	Signal	Signal	↰ ↑ ↑	↱ ↓ ↓	↰ ↰ ↱		↰ ↑ ↑	↱ ↓ ↓	↰ ↰ ↱		
78	Grant Line Road & Douglas Road	All-way stop	All-way stop	↟	↰	↾		↟	↰	↾		
79	Grant Line Road & Kiefer Boulevard	All-way stop	All-way stop	↟	↟	↟	↟	↟	↟	↟	↟	
80	Grant Line Road & Jackson Road	Signal	Signal	↟	↟	↰ ↱	↰ ↱	↟	↟	↰ ↱	↰ ↱	
81	Watt Avenue & US-50 EB Ramps	Signal	Signal	↑ ↑ ↑ ↑ ↱	↱ ↰ ↓ ↓	↰ ↰ ↱ ↱		↑ ↑ ↑ ↑ ↱	↱ ↰ ↓ ↓	↰ ↰ ↱ ↱		

Note: Gray shading represents changes in traffic control or approach lanes for which the project is responsible to pay a fair share.

Table 4.7

Existing and Existing Plus FOUR PROJECTS Intersection Geometrics

	Intersection	Traffic Control		Existing Lane Geometrics				Existing Plus FOUR PROJECTS Lane Geometrics				Project(s) Responsible for Change
		Existing	Existing Plus FOUR PROJECTS	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach	
82	Watt Avenue & US-50 WB Ramps	Signal	Signal	↑↑ ↱↱	↲↲↓↓↓		↰↰↱↱	↑↑ ↱↱	↲↲↓↓↓		↰↰↱↱	
83	Mayhew Rd & Folsom Blvd.	Signal	Signal	↰↰↱		↑↑ ↱	↰↑↑	↰↰↱		↑↑ ↱	↰↑↑	
84	65th Street Expy & Fruitridge Road	Signal	Signal	↰↑↑ ↱	↲↓↓↘	↰↑↑	↰↑↑ ↱	↰↑↑ ↱	↲↓↓↘	↰↑↑	↰↑↑ ↱	
85	Power Inn Road & Elder Creek Road	Signal	Signal	↰↑↱	↲↓↘	↰↑↑ ↱	↰↑ ↱	↰↑↱	↲↓↘	↰↑↑ ↱	↰↑ ↱	
86	Power Inn Road & Florin Rd	Signal	Signal	↰↑↱	↲↓↓↘	↰↑↑ ↱	↰↑↑ ↱	↰↑↱	↲↓↓↘	↰↑↑ ↱	↰↑↑ ↱	
87	Florin Perkins Road & Florin Rd	Signal	Signal	↰↑↑ ↱	↲↓↓↘	↰↑ ↱	↰↑ ↱	↰↑↑ ↱	↲↓↓↘	↰↑ ↱	↰↑ ↱	
88	Bradshaw Rd & Calvine Rd	Signal	Signal	↰↰↑↱	↲↓↓↘↘	↰↰↑↑ ↱	↰↰↑ ↱	↰↰↑↱	↲↓↓↘↘	↰↰↑↑ ↱	↰↰↑ ↱	
89	Vineyard Rd & Calvine Rd	Signal	Signal	↟	↲↱↘	↰↑ ↱	↰↑ ↱	↟	↲↱↘	↰↑ ↱	↰↑ ↱	
90	Excelsior Road & Calvine Rd	All-way stop	All-way stop	↟	↟	↟	↟	↟	↟	↟	↟	
91	Grant Line Rd & Eagles Nest Rd/Sloughhouse Rd	Signal	Signal	↰↑↱	↲↘	↟	↰↱	↰↑↱	↲↘	↟	↰↱	
92	Grant Line Rd & Calvine Rd	Signal	Signal	↰↑	↲	↾		↰↑	↲	↾		
93	Grant Line Rd & Dwy/Wilton Rd	Signal	Signal	↰↱	↲↘	↰↱	↰↱	↰↱	↲↘	↰↱	↰↱	
94	Grant Line Rd & Bond Rd/Wrangler Dr	Signal	Signal	↰↱	↲↓↘	↰↱	↟	↰↱	↲↓↘	↰↱	↟	
200	Excelsior Road & Collector WJ-1/Collector JT-1		Signal					↰↑↱	↲↓↘	↰↑ ↱	↰↑ ↱	West Jackson; Jackson Township
201	Excelsior Road & Collector WJ-2/Collector JT-2		Signal					↰↑↱	↲↓↘	↰↑ ↱	↰↑ ↱	West Jackson; Jackson Township
202	W Collector MS-1 & Kiefer Boulevard		Signal						↲↘	↰↰↑↑	↑ ↱	NewBridge; Mather South
203	Northbridge Dr & Kiefer Boulevard		Signal					↰↱		↑ ↱	↰↑↑	NewBridge; Mather South
204	E Collector MS-1 & Kiefer Boulevard		Signal						↲↘	↰↑↑	↑↑ ↱	NewBridge; Mather South
300	Collector WJ-3 & Jackson Road		Signal					↰↱		↑ ↱	↰↑↑	West Jackson
301	Collector WJ-4 & Jackson Road		Signal					↰↑↱	↲↓↘	↰↑↑ ↱	↰↑↑ ↱	West Jackson
302	Happy Lane & Jackson Road		Signal					↰↰↑↑ ↱	↲↓↓↘↘	↰↰↑↑↑ ↱	↰↰↑↑↑ ↱	West Jackson
303	Rock Creek Pkwy & Jackson Road		Signal					↰↑↱	↲↓↘	↰↰↑↑ ↱	↰↰↑↑ ↱	West Jackson
304	Collector WJ-5 & Jackson Road		Signal					↰↑↱	↲↓↘	↰↑↑ ↱	↰↑↑ ↱	West Jackson
305	Collector WJ-6 & Jackson Road		Signal					↰↑↱	↲↓↘	↰↑↑ ↱	↰↑↑ ↱	West Jackson
306	Excelsior Road & Collector WJ-6		Signal					↰↑	↲↓	↰↱		West Jackson

Note: Gray shading represents changes in traffic control or approach lanes for which the project is responsible to pay a fair share.

Table 4.7

Existing and Existing Plus FOUR PROJECTS Intersection Geometrics

Intersection		Traffic Control		Existing Lane Geometrics				Existing Plus FOUR PROJECTS Lane Geometrics				Project(s) Responsible for Change
		Existing	Existing Plus FOUR PROJECTS	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach	
307	S. Watt Avenue & Rock Creek Pkwy		Signal					↑ ↱	↓ ↓ ↘ ↘		↰	West Jackson
308	Hedge Avenue & Rock Creek Pkwy WB		Roundabout					↰	↲		↾	West Jackson
309	Hedge Avenue & Rock Creek Pkwy EB		Roundabout					↱	↳	↾		West Jackson
310	Mayhew Road & Rock Creek Pkwy WB		Roundabout					↰ ↑	↲ ↓		↾	West Jackson
311	Mayhew Road & Rock Creek Pkwy EB		Roundabout					↑ ↱	↓ ↳	↰ ↱		West Jackson
312	Bradshaw Road & Rock Creek Pkwy		Signal					↰ ↑ ↑ ↱	↲ ↓ ↓ ↘	↰ ↑ ↱	↰ ↑ ↱	West Jackson
313	Collector WJ-7 & Rock Creek Pkwy		Signal					↾	↿	↾	↾	West Jackson
314	Vineyard Road/Happy Lane & Rock Creek Pkwy		Signal					↰ ↑ ↱	↲ ↓ ↘	↰ ↑ ↱	↰ ↑ ↱	West Jackson
315	Douglas Road & Rock Creek Pkwy		Signal					↰ ↑ ↑	↲ ↓	↰ ↱		West Jackson
316	Bradshaw Road & Collector WJ-8		Signal					↑ ↑ ↱	↓ ↓ ↘		↰ ↱	West Jackson
317	Bradshaw Road & Collector WJ-9		Signal					↑ ↑ ↱	↓ ↓ ↘		↰ ↱	West Jackson
318	Bradshaw Road & Mayhew Road		Signal					↰ ↰ ↑ ↑ ↑ ↱	↙ ↓ ↓ ↓ ↘ ↘	↰ ↰ ↑ ↑ ↱	↰ ↰ ↑ ↑ ↱	West Jackson
319	Bradshaw Road & Collector WJ-10		Signal					↰ ↑ ↑ ↑	↲ ↓ ↓	↰ ↱		West Jackson
320	Bradshaw Road & Collector WJ-11		Signal					↰ ↑ ↑ ↑	↲ ↓ ↓	↰ ↱		West Jackson
321	Collector WJ-12 & Fruitridge Road		Signal					↰ ↑ ↱	↙ ↓ ↘	↰ ↑ ↱	↰ ↑ ↱	West Jackson
322	Mayhew Road & Collector WJ-13		Signal					↰ ↑ ↑	↲ ↓	↰ ↱		West Jackson
323	Collector WJ-14 & Kiefer Boulevard		Signal					↰ ↱	↙ ↓ ↘	↰ ↑ ↑ ↱	↰ ↑ ↑ ↱	West Jackson
324	Collector WJ-15 & Kiefer Boulevard		Signal						↙ ↘	↰ ↰ ↑ ↑ ↑	↑ ↑ ↱	West Jackson
325	Douglas Road/Shopping Center Dwy & Kiefer Boulevard		Signal					↰ ↰ ↑ ↱	↙ ↓ ↘	↰ ↑ ↑ ↑ ↱	↰ ↰ ↑ ↑ ↱	West Jackson
326	Happy Lane & Mayhew Road		Roundabout					↰ ↑	↲ ↓	↰ ↱		West Jackson
327	Vineyard Road & Elder Creek Road		Signal					↰ ↰ ↑ ↑ ↱	↙ ↓ ↓ ↘ ↘	↰ ↰ ↑ ↑ ↱	↰ ↰ ↑ ↑ ↱	West Jackson
328	Vineyard Road & Florin Road		Signal						↙ ↘	↰ ↑	↑ ↱	West Jackson
400	Collector JT-3 & Jackson Road		Signal						↙ ↘	↰ ↰ ↑ ↑	↑ ↑ ↱	Jackson Township
401	Tree View Lane & Jackson Road		Signal						↙ ↘ ↘	↰ ↰ ↑ ↑	↑ ↑ ↱	Jackson Township
402	Collector JT-4 & Jackson Road		Signal						↙ ↘	↰ ↑ ↑	↑ ↱	Jackson Township
403	Tree View Lane & Collector JT-5		Signal					↰ ↑ ↱	↲ ↓ ↘	↰ ↑ ↱	↰ ↑ ↱	Jackson Township
404	Tree View Lane & Collector JT-6		Signal					↰ ↑ ↱	↲ ↓ ↘	↰ ↑ ↱	↰ ↑ ↱	Jackson Township

Note: Gray shading represents changes in traffic control or approach lanes for which the project is responsible to pay a fair share.

Table 4.7

Existing and Existing Plus FOUR PROJECTS Intersection Geometrics

Intersection		Traffic Control		Existing Lane Geometrics				Existing Plus FOUR PROJECTS Lane Geometrics				Project(s) Responsible for Change
		Existing	Existing Plus FOUR PROJECTS	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach	
405	Tree View Lane & Collector JT-1		Signal									Jackson Township
406	Tree View Lane & Kiefer Boulevard		Signal									Jackson Township
407	HS/MS Dwy & Kiefer Boulevard		Signal									Jackson Township
500	Rockbridge Dr & Jackson Road		Signal									NewBridge
501	Zinfandel Drive & N Bridgewater Dr		Signal									NewBridge
502	Zinfandel Drive & S Bridgewater Dr		Signal									NewBridge
600	Zinfandel Drive & Collector MS-2		Signal									Mather South
601	Zinfandel Drive & Collector MS-3		Signal									Mather South
602	Zinfandel Drive & Collector MS-4		Signal									Mather South
603	Collector MS-5 & Collector MS-2		All-way stop									Mather South
604	Collector MS-5 & Collector MS-3		Two-way stop									Mather South
605	Collector MS-5 & Collector MS-4		All-way stop									Mather South
606	Collector MS-5 & W Collector MS-1/E Collector MS-1		All-way stop									Mather South

Note: Gray shading represents changes in traffic control or approach lanes for which the project is responsible to pay a fair share.

Table 4.8: Existing Plus FOUR PROJECTS Peak Hour Freeway Mainline Level of Service

Direc-tion	Location	Existing				Existing Plus FOUR PROJECTS			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		Volume	LOS	Volume	LOS	Volume	LOS	Volume	LOS
East-bound US 50	SR 99 / SR 51 to Stockton Boulevard	7,068	C	6,415	C	7,834	D	6,614	C
	Stockton Boulevard to 59th Street	7,470	**F**	7,228	**F**	8,261	**F**	7,448	**F**
	59th Street to 65th Street	6,767	D	6,641	D	7,552	D	6,830	D
	65th Street to Howe Avenue	7,962	D	7,562	D	8,804	D	7,721	D
	Howe Avenue to Watt Avenue	7,405	D	7,602	D	7,780	D	7,552	D
	Watt Avenue to Bradshaw Road	7,935	D	7,176	C	8,231	D	7,362	C
	Bradshaw Rd to Mather Field Rd	7,725	**F**	7,366	C	7,769	**F**	7,441	C
	Mather Field Rd to Zinfandel Drive	7,275	C	7,224	C	7,376	C	7,583	C
	Zinfandel Drive to Sunrise Blvd	5,121	C	6,649	**F**	5,419	C	7,126	**F**
	Sunrise Boulevard to Hazel Avenue	4,985	C	5,323	**F**	5,137	C	5,654	**F**
West-bound US 50	Hazel Avenue to Sunrise Boulevard	6,068	D	4,370	C	6,293	E	4,506	C
	Sunrise Blvd to Zinfandel Drive	7,502	D	4,762	C	7,908	E	4,995	C
	Zinfandel Drive to Mather Field Rd	7,548	C	5,765	B	7,806	C	5,780	B
	Mather Field Rd to Bradshaw Road	7,859	**F**	6,939	D	7,965	**F**	6,972	D
	Bradshaw Road to Watt Avenue	7,550	**F**	6,466	D	7,366	**F**	6,941	E
	Watt Avenue to Howe Avenue	7,376	**F**	5,106	**F**	7,091	**F**	5,409	**F**
	Howe Avenue to 65th Street	8,157	**F**	7,407	**F**	8,289	**F**	8,098	**F**
	65th Street to 59th Street	8,278	**F**	7,358	**F**	8,412	**F**	8,036	**F**
	59th Street to Stockton Boulevard	9,115	D	7,945	**F**	9,281	D	8,636	**F**
	Stockton Boulevard to SR 99 / SR 51	8,546	D	8,136	**F**	8,704	D	8,725	**F**

Bold values denote level of service "F" conditions.

Red shaded values indicate project impacts.

Source: *DKS Associates, 2014.*

Table 4.9: Existing Plus FOUR PROJECTS Peak Hour Freeway Ramp Junction/Weaving Level of Service										
Direc-tion	**Location**	**Junction Type**	**Existing**				**Existing Plus FOUR PROJECTS**			
			A.M. Peak Hour		**P.M. Peak Hour**		**A.M. Peak Hour**		**P.M. Peak Hour**	
			Ramp Volume	**LOS**	**Ramp Volume**	**LOS**	**Ramp Volume**	**LOS**	**Ramp Volume**	**LOS**
East-bound US 50	Northbound 65th Street Slip Entrance	Weave	765	D	653	C	785	F	568	C
	Howe Avenue / Hornet Drive Exit		1,631		1,417		2,149		1,645	
	Southbound Howe Avenue Loop Entrance	One-Lane Merge	484	C	881	C	551	C	933	C
	Northbound Howe Avenue Slip Entrance	One-Lane Merge	419	C	431	C	400	C	385	C
	Watt Avenue Exit	Two-Lane Diverge	1,317	B	1,634	B	1,320	B	1,364	B
	Watt Avenue Entrance	One-Lane Merge	2,134	**F**	1,724	D	2,049	E	1,677	D
	Bradshaw Road Exit	Two-Lane Diverge	1,520	B	1,228	B	1,911	C	1,510	B
	Southbound Bradshaw Road Loop Entrance	One-Lane Merge	220	C	422	C	141	C	449	C
	Northbound Bradshaw Road Slip Entrance	One-Lane Merge	971	C	918	C	1,199	C	1,138	C
	Mather Field Road Exit	Two-Lane Diverge	1,266	B	1,062	A	1,232	B	1,053	A
	Southbound Mather Field Road Loop Entrance	One-Lane Merge	125	C	101	B	118	C	92	B

Table 4.9: Existing Plus FOUR PROJECTS Peak Hour Freeway Ramp Junction/Weaving Level of Service										
Direc-tion	**Location**	**Junction Type**	**Existing**				**Existing Plus FOUR PROJECTS**			
			A.M. Peak Hour		**P.M. Peak Hour**		**A.M. Peak Hour**		**P.M. Peak Hour**	
			Ramp Volume	**LOS**	**Ramp Volume**	**LOS**	**Ramp Volume**	**LOS**	**Ramp Volume**	**LOS**
	Northbound Mather Field Road Slip Entrance	Weave	317	**F**	816	C	338	**F**	1,096	C
	Zinfandel Drive Exit		2,932		1,452		2,912		1,430	
	Southbound Zinfandel Drive Loop Entrance	One-Lane Merge	182	B	129	C	162	B	112	C
	Northbound Zinfandel Drive Slip Entrance	One-Lane Merge	348	B	540	C	560	C	666	C
	Sunrise Boulevard Exit	Major Diverge	1,773	C	1,959	D	1,923	C	2,075	D
	Sunrise Boulevard Entrance	One-Lane Merge	992	C	889	D	986	C	817	D
	Hazel Avenue Exit	Two-Lane Diverge	933	B	1,541	C	989	B	1,704	C
	Hazel Avenue Entrance	Weave	804	C	945	C	731	C	948	C
	Aerojet Road Exit		241		55		240		58	
West-bound US 50	Hazel Avenue Exit	Two-Lane Diverge	631	A	869	A	612	A	842	A
	Northbound Hazel Avenue Loop Entrance	One-Lane Merge	160	B	600	B	160	B	590	B
	Southbound Hazel Avenue Slip Entrance	One-Lane Merge	1,550	B	800	B	1,740	C	902	B

Table 4.9: Existing Plus FOUR PROJECTS Peak Hour Freeway Ramp Junction/Weaving Level of Service										
Direc-tion	Location	Junction Type	Existing				Existing Plus FOUR PROJECTS			
			A.M. Peak Hour		P.M. Peak Hour		A.M. Peak Hour		P.M. Peak Hour	
			Ramp Volume	LOS	Ramp Volume	LOS	Ramp Volume	LOS	Ramp Volume	LOS
	Sunrise Boulevard Exit	One-Lane Diverge	749	E	758	D	601	E	704	D
	Sunrise Blvd Entrance	Lane Addition	2,183	**F**	1,656	D	2,189	**F**	1,687	D
	Zinfandel Drive Exit	One-Lane Diverge	1,034	E	608	C	1,151	E	738	C
	Northbound Zinfandel Drive Loop Entrance	Lane Addition	585	B	1,197	B	544	B	1,115	B
	Southbound Zinfandel Drive Slip Entrance	One-Lane Merge	442	C	561	B	387	C	552	B
	Mather Field Road Exit	One-Lane Drop	1,093	C	556	A	1,338	C	605	A
	Northbound Mather Field Road Loop Entrance	One-Lane Merge	515	B	861	B	382	B	915	B
	Southbound Mather Field Road Slip Entrance	One-Lane Merge	387	B	380	B	527	B	368	B
	Bradshaw Road Exit	Two-Lane Diverge	1,236	B	1,327	B	1,709	B	1,571	B
	Northbound Bradshaw Road Loop Entrance	One-Lane Merge	914	D	910	C	1,191	D	1,501	D
	Southbound Bradshaw Road Slip Entrance	One-Lane Merge	338	D	590	C	327	D	694	D
	Watt Avenue Exit	Major Diverge	1,373	D	1,188	C	1,256	D	1,177	C
	Northbound Watt Avenue Entrance	One-Lane Merge	820	D	943	C	791	D	904	C

Table 4.9: Existing Plus FOUR PROJECTS Peak Hour Freeway Ramp Junction/Weaving Level of Service

Direc-tion	Location	Junction Type	Existing				Existing Plus FOUR PROJECTS			
			A.M. Peak Hour		P.M. Peak Hour		A.M. Peak Hour		P.M. Peak Hour	
			Ramp Volume	LOS	Ramp Volume	LOS	Ramp Volume	LOS	Ramp Volume	LOS
	Southbound Watt Avenue Slip Entrance	Lane Addition / Weave	1,232	C	1,317	D	1,045	C	1,172	B
	Howe Avenue Exit	Major Diverge / Weave	1,531	D	1,419		1,341	D	1,372	D
	Northbound Howe Avenue Loop Entrance	One-Lane Merge	654	D	602	C	681	D	734	C
	Southbound Howe Avenue Slip Entrance	One-Lane Merge	574	C	574	C	625	C	492	C

Bold values denote level of service "F" conditions.
Red shaded values indicate project impacts.
Source: *DKS Associates, 2014.*

Table 4.10: Existing Plus FOUR PROJECTS Peak Hour Freeway Ramp Termini Queuing

Direction	US 50 Exit Ramp	Available Storage Length (feet / lane)			Maximum Queue Length (feet / lane)					
					AM Peak Hour			PM Peak Hour		
		L	T	R	L	T	R	L	T	R
Eastbound US-50	Howe Avenue	765	-	765	196		**930**	224		360
	Watt Avenue	1,500	-	1,500	118		296	161		230
	Bradshaw Road	1,250	-	1,250	129		821	86		636
	Mather Field Road	1,385	-	1,385	222		543	266		60
	Zinfandel Drive	1,025	1,025	1,025	261	866	790	434	403	162
	Sunrise Boulevard	1,695	-	1,695	330		175	397		92
	Hazel Avenue	1,310	-	1,310	351		84	985		27
Westbound US-50	Hazel Avenue	1,995		1,995	256		48	283		462
	Sunrise Boulevard	1,540	-	1,540	136		94	147		140
	Zinfandel Drive	1,065	-	1,065	307		45	175		189
	Mather Field Road	1,335	-	1,335	413		368	238		100
	Bradshaw Road	1,330	-	1,330	403		118	422		24
	Watt Avenue	1,480	-	1,480	197		532	118		525
	Howe Avenue	1,355	1,355	1,355	140	412	89	206	412	254

Red shaded values indicate project impacts.

L = left turn movement, T = through movement, R = right turn movement

Source: *DKS Associates, 2014.*

4.4.4 Existing Plus FOUR PROJECTS Pedestrian and Bicycle Facility Impacts

The FOUR PROJECTS would not remove any existing or planned pedestrian facility. The FOUR PROJECTS would not remove any existing bicycle facility or any facility that is planned in the Bikeway Master Plan. The FOUR PROJECTS would add pedestrian and bicycle demands within the FOUR PROJECTS site and to and from nearby land uses. Complete information on improvements to on- and off-site bicycle and pedestrian facilities is not available at this time. Because the FOUR PROJECTS would add demand for pedestrian and bicycle facilities that may not be available, the impact of the FOUR PROJECTS on pedestrian and bicycle circulation is potentially significant.

4.4.5 Existing Plus FOUR PROJECTS Transit System Impacts

Public transit service is currently limited in the vicinity of the FOUR PROJECTS. In the preparation of this analysis, a conceptual transit system to serve the FOUR PROJECTS was developed (see Section 3.1.2.3). The additional transit service was assumed to be funded by the FOUR PROJECTS. However, the timing and implementation of the transit system are uncertain at this time. The FOUR PROJECTS would increase demands for public transit facilities. Therefore, the impact of the FOUR PROJECTS on the transit system is potentially significant.

4.4.6 Existing Plus FOUR PROJECTS Functionality Impacts

Table 4.11 summarizes the results of the rural roadway segment functionality analysis. Figure 4.6 illustrates the resultant functionality impacts. The table includes the number of lanes assumed with the implementation of the FOUR PROJECTS, which in many cases is greater than the number of lanes in the existing condition. The shaded table cells under the "Travel Lanes" heading illustrates new roadways and widened roadways that are assumed part of the FOUR PROJECTS. The "Substandard?" heading indicates whether or not a roadway meets the County standards of 12-foot lanes and 6-foot shoulders. If the FOUR PROJECTS make improvements to a roadway segment such as widening, they would be required to reconstruct the entire substandard roadway segment to County standards. The shaded table cells under the "Functionality Impact?" heading indicate those locations with a functionality impact.

As stated above, the traffic analysis assumed that the FOUR PROJECTS would construct a number of travel lanes on roadway segments that are internal to or on the boundary of the FOUR PROJECTS, and the entire roadway segment would be reconstructed to County standards at that time. The timing of implementation of such additional traffic lanes on these internal or boundary roadway segments will affect whether or not impacts would exist at some time prior to full build out of the FOUR PROJECTS.

Table 4.11
Existing Plus FOUR PROJECTS Functionality Impacts

ID	Roadway	Segment		Jurisdiction	Existing Substandard Roadways				Existing + FOUR PROJECTS			
		From	To		Travel Lanes	Pavement (ft)	Substandard? [1]	Existing Volume	Travel Lanes	Substandard? [1]	Forecasted Volume	Functionality Impact? [2]
15	Douglas Rd	Mather Blvd	Zinfandel Dr	County	2	23	Yes	6,635	2	Yes	12,160	**Yes**
16	Douglas Rd	Zinfandel Dr	Sunrise Blvd	Rancho Cordova/County	2	23	Yes	8,369	2	Yes	11,450	**Yes**
19	Eagles Nest Rd	Kiefer Blvd	Jackson Rd	County	2	20	Yes	740	4	No	12,100	**Yes[3]**
20	Eagles Nest Rd	Jackson Rd	Florin Rd	County	2	<21	Yes	517	2	Yes	8,250	**Yes**
21	Eagles Nest Rd	Florin Rd	Grant Line Rd	County	2	<21	Yes	189	2	Yes	4,100	No
25	Elder Creek Rd	South Watt Ave	Hedge Ave	County	2	23	Yes	5,576	2	Yes	26,320	**Yes**
26	Elder Creek Rd	Hedge Ave	Mayhew Rd	County	2	23	Yes	5,797	2	Yes	25,670	**Yes**
27	Elder Creek Rd	Mayhew Rd	Bradshaw Rd	County	2	23	Yes	5,355	3	No	15,260	**Yes[3]**
28	Elder Creek Rd	Bradshaw Rd	Excelsior Rd	County	2	23	Yes	2,158	3	No	23,810	**Yes[3]**
30	Excelsior Rd	Kiefer Blvd	Jackson Rd	County	2	22	Yes	3,716	2	Yes	25,010	**Yes**
31	Excelsior Rd	Jackson Rd	Elder Creek Rd	County	2	<21	Yes	5,075	3	No	30,490	**Yes[3]**
32	Excelsior Rd	Elder Creek Rd	Florin Rd	County	2	<21	Yes	4,203	3	No	11,610	**Yes[3]**
33	Excelsior Rd	Florin Rd	Gerber Rd	County	2	<21	Yes	5,423	2	Yes	14,730	**Yes**
34	Excelsior Rd	Gerber Rd	Calvine Rd	County	2	<21	Yes	4,229	2	Yes	11,350	**Yes**
39	Florin Rd	South Watt Ave	Hedge Ave	County	2	22	Yes	7,718	2	Yes	18,340	**Yes**
40	Florin Rd	Hedge Ave	Mayhew Rd	County	2	22	Yes	6,312	2	Yes	14,890	**Yes**
41	Florin Rd	Mayhew Rd	Bradshaw Rd	County	2	22	Yes	6,317	2	Yes	15,190	**Yes**
42	Florin Rd	Bradshaw Rd	Excelsior Rd	County	2	22	Yes	3,478	2	Yes	17,150	**Yes**
43	Florin Rd	Excelsior Rd	Sunrise Blvd	County	2	22	Yes	3,835	2	Yes	8,750	**Yes**
48	Fruitridge Rd	South Watt Ave	Hedge Ave	City of Sacramento/ County	2	22	Yes	2,890	3	No	17,250	**Yes[3]**
49	Fruitridge Rd	Hedge Ave	Mayhew Rd	County	2	22	Yes	1,790	4	No	20,950	**Yes[3]**
50	Grant Line Rd	White Rock Rd	Douglas Rd	Rancho Cordova/County	2	22	Yes	7,189	2	Yes	8,980	**Yes**
58	Happy Ln	Old Placerville Rd	Kiefer Blvd	County	2	22	Yes	4,635	4	No	26,210	**Yes[3]**
59	Hedge Ave	Jackson Rd	Fruitridge Rd	County	2	22	Yes	3,061	2	Yes	8,750	**Yes**
60	Hedge Ave	Fruitridge Rd	Elder Creek Rd	City of Sacramento/County	2	22	Yes	3,737	2	Yes	3,780	No
61	Hedge Ave	Elder Creek Rd	Florin Rd	County	2	22	Yes	2,722	2	Yes	4,250	No

Red text with light gray shading indicate project impacts.

Table 4.11
Existing Plus FOUR PROJECTS Functionality Impacts

ID	Roadway	Segment		Jurisdiction	Existing Substandard Roadways				Existing + FOUR PROJECTS			
		From	To		Travel Lanes	Pavement (ft)	Substandard? [1]	Existing Volume	Travel Lanes	Substandard? [1]	Forecasted Volume	Functionality Impact? [2]
70	Jackson Rd	Bradshaw Rd	Excelsior Rd	County	2	26	Yes	13,030	6	No	51,570	Yes[3]
71	Jackson Rd	Excelsior Rd	Eagles Nest Rd	County	2	26	Yes	10,478	4	No	47,230	Yes[3]
74	Kiefer Blvd	Florin Perkins Rd	South Watt Ave	City of Sacramento/County	2	22	Yes	4,616	2	Yes	6,900	Yes
77	Kiefer Blvd	Bradshaw Rd	Happy Ln	County	2	22	Yes	4,618	6	No	49,480	Yes[3]
78	Kiefer Blvd	Zinfandel Dr	Sunrise Blvd	County	2	22	Yes	656	3	No	12,540	Yes[3]
83	Mather Blvd-Excelsior Rd[4]	Douglas Rd	Kiefer Blvd	County	2	22	Yes	6,751	2	Yes	16,410	Yes
89	Mayhew Rd	Jackson Rd	Fruitridge Rd	County	2	22	Yes	1,616	4	No	36,540	Yes[3]
116	White Rock Rd	Fitzgerald Rd	Grant Line Rd	Rancho Cordova/County	2	20	Yes	2,490	2	Yes	1,870	No
123	Zinfandel Dr	Douglas Rd	Kiefer Blvd	County	2	<21	Yes	2,848	2	Yes	23,220	Yes

Note: Gray shading indicates changes in travel lanes or facility type that the project is responsible to provide. For all roadway segments to be widened, the project is responsible to build the entire roadway to County standards.

[1] Substandard rural roads are defined as rural, 2-lane roadway segments with travel lanes narrower than 12 feet and/or roadside shoulders narrower than 6 feet.

[2] Functionality impacts are triggered when a substandard rural road increases over a threshold of 6,000 ADT, or for a roadway already above 6,000 ADT, increases by more than 600 ADT.

[3] The potential for an impact exists should the project generate traffic volumes on the roadway exceeding 6,000 ADT, or increasing more than 600 ADT on a roadway already above 6,000 ADT, prior to the construction of roadway improvements.

[4] Excluding the roadway segment that is within the developed community of Independence at Mather.

[5] The functionality impact is mitigated by improving the roadway to County standards, including widening travel lanes to 12 feet and/or widening or providing paved shoulders to 6 feet.

Red text with light gray shading indicate project impacts.

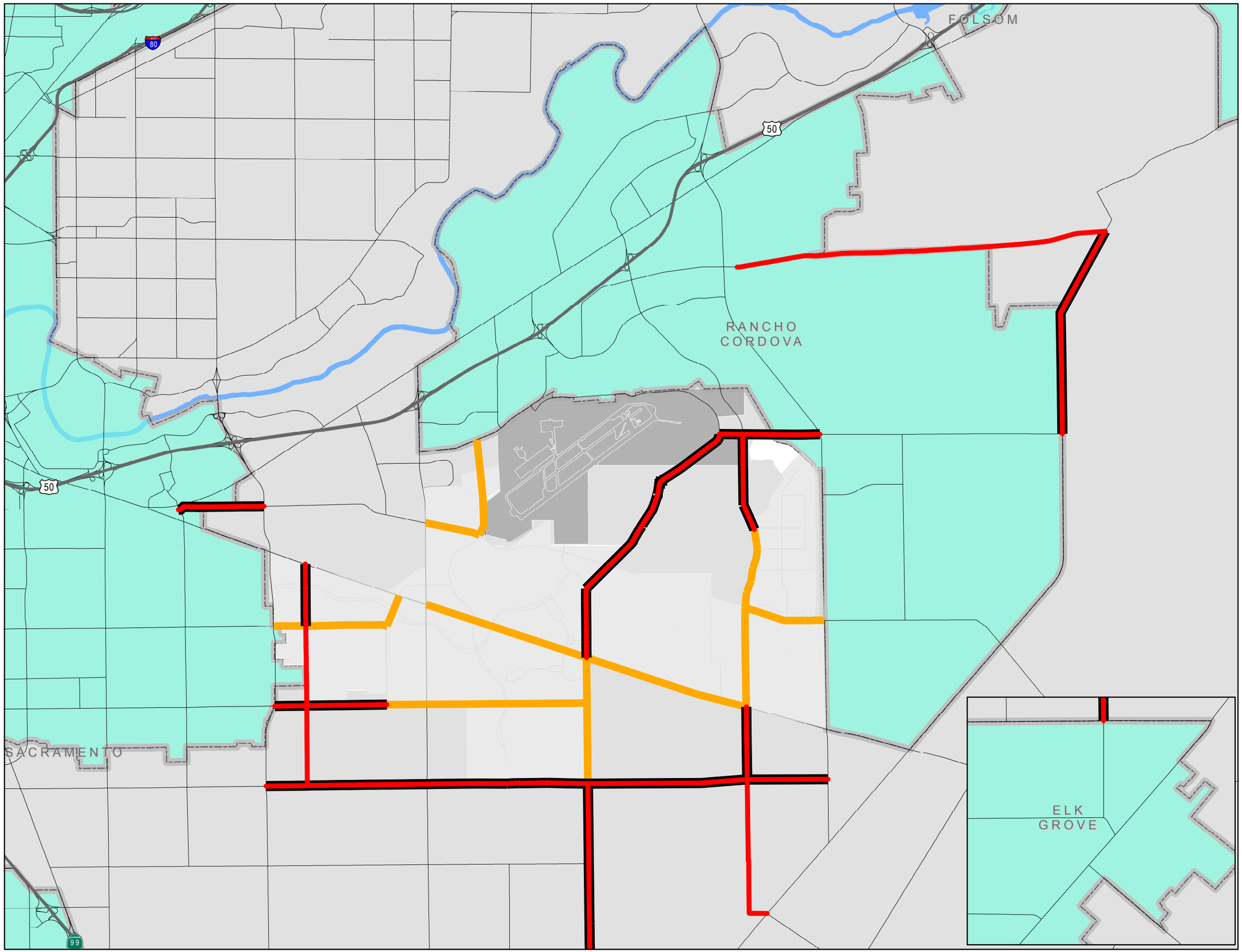

FIGURE 4.6
EXISTING PLUS FOUR PROJECTS
FUNCTIONALITY IMPACTS

Legend

- Substandard Roadways
- Functionality Impact
- Functionality Impact if Roadway is Not Already Improved
- Cities
- Mather Airport

4.5 MITIGATION

4.5.1 Existing Plus FOUR PROJECTS Roadway Segment Mitigation

Table 4.12 summarizes the results of the operations analysis for the study area roadway segments with mitigation. Where feasible, the number of roadway lanes was increased to mitigate the impact. However, the increased number of lanes could not exceed the maximum General Plan designations of the appropriate jurisdictions. The shaded table cells under the "Travel Lanes" and "Facility Type" headings illustrate widened roadways for mitigation purposes, which would be the responsibility of the FOUR PROJECTS to fund and provide. The NewBridge project would contribute a fair share. The shaded table cells under the "Level of Service" heading indicate those locations that would continue to have LOS impacts after mitigation. The table also includes the constraint that precluded full mitigation of the LOS impact.

The "LOS Impact with Mitigation?" column shows whether there is still an LOS impact after the mitigation measure is applied. In other words, this column shows whether a mitigation measure successfully mitigates the impact or not. In several locations where the improvements allowed under the General Plan would not mitigate an LOS impact, the County has proposed alternative mitigation measures, which are shown in the "Alternative Mitigation" column. These alternative mitigation measures will either fully mitigate the impact or substantially reduce the level of impact.

4.5.2 Existing Plus FOUR PROJECTS Intersection Mitigation

Tables 4.13 and 4.14 summarize the results of the operations analysis for the study area intersections with mitigation. However, the increased number of lanes on each approach does not exceed the County's standard number of approach lanes. Shaded table cells in Table 4.14 indicate those locations where changes in traffic control and / or number of approach lanes by type have been made to mitigate impacts, which would be the responsibility of the FOUR PROJECTS to fund and provide. The NewBridge project would contribute a fair share. The shaded table cells in Table 4.13 under the "Level of Service" heading indicate those locations with an LOS impact after mitigation. Table 4.14 also identifies those intersections that would continue to have LOS impacts after mitigation, along with the constraint that precluded full mitigation. Detailed analysis information is included in the technical appendix.

The "LOS Impact with Mitigation?" column shows whether there is still an LOS impact after the mitigation measure is applied. In other words, this column shows whether a mitigation measure successfully mitigates the impact or not. In several locations where the LOS impact could not be mitigated by implementing the County's standard number of approach lanes, the County has proposed alternative mitigation measures, which are shown in the "Alternative Mitigation" column. These generally include providing additional turn lanes, carrying an additional through lane past the intersection, or designating the intersection as a High Capacity Intersection. These alternative mitigation measures will either fully mitigate the impact or substantially reduce the level of impact.

High Capacity Intersections

Three intersections are currently designated as "High Capacity Intersections" on the County's General Plan: Watt Avenue & Folsom Boulevard, Watt Avenue & Kiefer Boulevard, and Watt Avenue & Jackson Road. At two intersections on Bradshaw Road where an LOS impact could not be mitigated by implementing the County's standard number of approach lanes, the County has proposed alternative mitigation measures by designating those two intersections as High Capacity Intersections: Bradshaw Road & Mayhew Road and Bradshaw Road & Jackson Road.

A high capacity intersection would utilize special treatments to increase the capacity of the intersection so as to reduce congestion and travel delay. Since each intersection could have unique travel movements, volumes and existing context sensitive conditions, the special treatments utilized at each high capacity intersection will be selected to meet the specific needs of each intersection. The range of special treatments is quite wide, ranging from the restriction of certain turning movements to various combinations that could include grade separating certain movements. While the field of traffic engineering is ever expending and evolving resulting in the use of new technologies and treatments, special treatments such as the following could be utilized at a high capacity intersection:

- Restricting turning movements
- Median U-turns
- Roundabouts
- Split intersections
- Quadrant roadway intersections
- Bowtie intersections
- Directional flyovers
- Center turn overpass
- Grade separated Roundabout
- Diverging diamond grade separation
- Compact diamond grade separation
- Single point urban grade separation
- Traditional urban grade separation

The County has conducted conceptual engineering to define potential improvements at the three study area intersections on Watt Avenue that are currently designated as "High Capacity Intersections" on the County's General Plan. These are:

- At the **Watt Avenue & Folsom Boulevard** intersection, the County proposes an ultimate configuration involving grade separation of the northbound and southbound through movements of Watt Avenue. Access to and from Folsom Boulevard would be accomplished via on and off-ramps from the left lanes of Watt Avenue to a single signalized intersection. A bus rapid transit (BRT) lane along Watt Avenue would also intersect Folsom Boulevard at the traffic signal. This design is consistent with the recommendations of the South Watt Area Transportation Study (SWATS) dated November 1, 2002 and approved by the Board of Supervisors on November 26, 2002, and with the planning study for the *State Route 16 (Jackson Road) Corridor Study* (Fehr

& Peers, 2012). It should be noted that the State Route 16 study has only had a staff-level review done by Caltrans, Sacramento County Department of Transportation, City of Rancho Cordova, and City of Sacramento. Other equivalent mitigation measures may be selected to the satisfaction of the Department of Transportation to mitigate the project's impact.

- At the **Watt Avenue & Kiefer Boulevard** intersection, the County proposes a tight diamond interchange as the ultimate improvement. The through movements (and BRT lane) on Watt Avenue would be grade separated from Kiefer Boulevard. Access to and from Kiefer Boulevard would be accomplished via on and off-ramps at two signalized intersections along Kiefer Boulevard. This design is proposed in the planning study prepared for *State Route 16 (Jackson Road) Corridor Study* (Fehr & Peers, 2012). It should be noted that the State Route 16 study has only had a staff-level review done by Caltrans, Sacramento County Department of Transportation, City of Rancho Cordova, and City of Sacramento. Other equivalent mitigation measures may be selected to the satisfaction of the Department of Transportation to mitigate the project's impact.

- At the **Watt Avenue & Jackson Road** intersection, the County proposes a standard six-by-six signalized intersection (two left-turn lanes, three through lanes, and one right-turn lane, on each approach) with three modifications. 1) The southbound left-turn movement would be grade separated; 2) The westbound right-turn movement would be grade separated; and 3) Three northbound left-turn lanes are proposed. This configuration represents an enhanced version of Alternative 6 in the planning study prepared for *State Route 16 (Jackson Road) Corridor Study* (Fehr and Peers, 2012). It should be noted that the State Route 16 study has only had a staff-level review done by Caltrans, Sacramento County Department of Transportation, City of Rancho Cordova, and City of Sacramento. Other equivalent mitigation measures may be selected to the satisfaction of the Department of Transportation to mitigate the project's impact.

At the two new proposed "High Capacity Intersections" along Bradshaw Road, the ultimate configurations have not been defined. A number of improvement options involving one or more of the special treatments identified above could be defined that would mitigate the LOS impact at these locations. Since each of these intersections have unique travel movements, volumes and existing context sensitive conditions (potential environmental issues, right-of-way, physical constraints, etc.), the special treatments utilized at each location will need to be studied to select the treatments that mitigate the LOS impact, while avoiding or minimizing other impacts. At Bradshaw Road & Mayhew Road, heavy southbound right turns and westbound left turns suggest that a combination of triple left-turn lanes, dual right-turn lanes and/or overlap phasing may be effective. A high conflicting northbound and southbound volume suggests that grade separating one or more movements may also be necessary to fully mitigate the LOS impact. At Bradshaw Road & Jackson Road, the critical movements are the conflicting through volumes on all approaches. Grade separating either the Bradshaw Road or Jackson Road through movements is likely the only option that would mitigate the LOS impact at this location.

Table 4.12
Existing Plus FOUR PROJECTS Roadway Segment Mitigations

ID	Roadway	Segment		Existing + FOUR PROJECTS					Mitigated Existing + FOUR PROJECTS						
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Volume / Capacity Ratio	Level of Service	LOS Impact with Mitigation?	Alternative Mitigation[2]	Constraint if Full Mitigation Not Possible
2	Bradshaw Rd	US 50	Lincoln Village Dr	6	Arterial M	81,440	1.51	**F**	6	Arterial M	1.51	**F**	Yes		Maximum General Plan lanes
3	Bradshaw Rd	Lincoln Village Dr	Old Placerville Rd	6	Arterial M	76,070	1.41	**F**	6	Arterial M	1.41	**F**	Yes		Maximum General Plan lanes
4	Bradshaw Rd	Old Placerville Rd	Goethe Rd	6	Arterial M	69,070	1.28	**F**	6	Arterial M	1.28	**F**	Yes		Maximum General Plan lanes
5.1	Bradshaw Rd	Goethe Rd	Collector WJ-8	4	Arterial M	57,700	1.60	**F**	6	Arterial M	1.07	**F**	Yes		Maximum General Plan lanes
5.2	Bradshaw Rd	Collector WJ-8	Kiefer Blvd	5	Arterial M	56,380	1.57	**F**	6	Arterial M	1.04	**F**	Yes		Maximum General Plan lanes
6.1	Bradshaw Rd	Kiefer Blvd	Collector WJ-9	5	Arterial M	57,960	1.61	**F**	6	Arterial M	1.07	**F**	Yes		Maximum General Plan lanes
6.2	Bradshaw Rd	Collector WJ-9	Mayhew Rd	5	Arterial M	54,630	1.52	**F**	6	Arterial M	1.01	**F**	Yes		Maximum General Plan lanes
23	Elder Creek Rd	Power Inn Rd	Florin-Perkins Rd	2	Arterial M	23,530	1.31	**F**	4	Arterial M	0.65	B	No		
24	Elder Creek Rd	Florin Perkins Rd	South Watt Ave	2	Arterial M	19,020	1.06	**F**	4	Arterial M	0.53	A	No		
25	Elder Creek Rd	South Watt Ave	Hedge Ave	2	Arterial M	26,320	1.46	**F**	4	Arterial M	0.73	C	No		
26	Elder Creek Rd	Hedge Ave	Mayhew Rd	2	Arterial M	25,670	1.43	**F**	4	Arterial M	0.71	C	No		
28.1	Elder Creek Rd	Bradshaw Rd	Vineyard Rd	3	Arterial M	23,810	1.32	**F**	4	Arterial M	0.66	B	No		
29	Elk Grove-Florin Rd	Florin Rd	Gerber Rd	2	Arterial M	24,830	1.38	**F**	4	Arterial M	0.69	B	No		
31.1	Excelsior Rd	Jackson Rd	Collector WJ-6	3	Arterial M	30,640	1.70	**F**	4	Arterial M	0.85	D	No		
31.2	Excelsior Rd	Collector WJ-6	Elder Creek Rd	3	Arterial M	30,490	1.69	**F**	4	Arterial M	0.85	D	No		
39	Florin Rd	South Watt Ave	Hedge Ave	2	Arterial M	18,340	1.02	**F**	4	Arterial M	0.51	A	No		

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 4.12
Existing Plus FOUR PROJECTS Roadway Segment Mitigations

ID	Roadway	Segment		Existing + FOUR PROJECTS					Mitigated Existing + FOUR PROJECTS						
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Volume / Capacity Ratio	Level of Service	LOS Impact with Mitigation?	Alternative Mitigation[2]	Constraint if Full Mitigation Not Possible
44	Folsom Blvd	Howe Ave	Jackson Rd	4	Arterial M	55,810	1.55	**F**	4	Arterial M	1.55	**F**	Yes		Maximum General Plan lanes
47	Fruitridge Rd	Florin Perkins Rd	South Watt Ave	2	Arterial M	24,650	1.37	**F**	4	Arterial M	0.68	B	No		
48	Fruitridge Rd	South Watt Ave	Hedge Ave	3	Arterial M	17,250	0.96	**E**	4	Arterial M	0.48	A	No		
55	Grant Line Rd	Calvine Rd	Sheldon Rd	2	Rural S	16,650	0.83	**E**	4	Arterial M	0.46	A	No		
56	Grant Line Rd	Sheldon Rd	Wilton Rd	2	Rural S	24,280	1.21	**F**	4	Arterial M	0.67	B	No		
57	Grant Line Rd	Wilton Rd	Bond Rd	2	Rural S	21,350	1.07	**F**	4	Arterial M	0.59	A	No		
62	Howe Ave	US 50	Folsom Blvd	6	Arterial M	62,720	1.16	**F**	6	Arterial M	1.16	**F**	Yes		Maximum General Plan lanes
65	Jackson Rd	Folsom Blvd	Florin Perkins Rd	2	Arterial M	34,200	1.90	**F**	4	Arterial M	0.95	E	No		
66	Jackson Rd	Florin Perkins Rd	South Watt Ave	2	Arterial M	40,370	2.24	**F**	4	Arterial M	1.12	**F**	Yes		Maximum General Plan lanes
67	Jackson Rd	South Watt Ave	Hedge Ave	4	Arterial M	61,300	1.70	**F**	6	Arterial M	1.14	**F**	Yes		Maximum General Plan lanes
68.1	Jackson Rd	Hedge Ave	Collector WJ-3	4	Arterial M	54,090	1.50	**F**	6	Arterial M	1.00	**F**	Yes		Maximum General Plan lanes
68.2	Jackson Rd	Collector WJ-3	Mayhew Rd	4	Arterial M	55,200	1.53	**F**	6	Arterial M	1.02	**F**	Yes		Maximum General Plan lanes
69	Jackson Rd	Mayhew Rd	Bradshaw Rd	6	Arterial M	55,630	1.03	**F**	6	Arterial M	1.03	**F**	Yes		Maximum General Plan lanes

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 4.12
Existing Plus FOUR PROJECTS Roadway Segment Mitigations

ID	Roadway	Segment		Existing + FOUR PROJECTS					Mitigated Existing + FOUR PROJECTS						
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Volume / Capacity Ratio	Level of Service	LOS Impact with Mitigation?	Alternative Mitigation[2]	Constraint if Full Mitigation Not Possible
71.1	Jackson Rd	Excelsior Rd	Collector JT-3	4	Arterial M	47,230	1.31	**F**	6	Arterial M	0.87	D	No		
73	Jackson Rd	Sunrise Blvd	Grant Line Rd	2	Rural Hwy	17,790	0.78	**E**	4	Arterial M	0.49	A	No		
76	Kiefer Blvd	Mayhew Rd	Bradshaw Rd	4	Arterial M	42,990	1.19	**F**	4	Arterial M	1.19	**F**	Yes		Maximum General Plan lanes
83	Mather Blvd-Excelsior Rd	Douglas Rd	Kiefer Blvd	2	Res Collector F	16,410	2.05	**F**	2	Res Collector F	2.05	**F**	Yes	Construct Douglas Road extension to 4 lanes	Maximum General Plan lanes
89.1	Mayhew Rd	Jackson Rd	Rock Creek Pkwy	4	Arterial M	36,540	1.02	**F**	6	Arterial M	0.68	B	No		
92	Old Placerville Rd	Happy Ln	Routier Rd	2	Arterial M	24,000	1.33	**F**					No	Happy Lane realigned to Routier Road, widened to 6 lanes	
96	South Watt Ave	Folsom Blvd	Kiefer Blvd	6	Arterial M	69,720	1.29	**F**	6	Arterial M	1.29	**F**	Yes		Maximum General Plan lanes
97	South Watt Ave	Kiefer Blvd	Jackson Rd	5	Arterial M	51,440	1.43	**F**	6	Arterial M	0.95	E	No		
99	South Watt Ave	Fruitridge Rd	Elder Creek Rd	2	Arterial M	26,290	1.46	**F**	4	Arterial M	0.73	C	No		
100	South Watt Ave	Elder Creek Rd	Florin Rd	2	Arterial M	25,530	1.42	**F**	4	Arterial M	0.71	C	No		
106	Sunrise Blvd	Kiefer Blvd	Jackson Rd	2	Arterial M	20,060	1.11	**F**	4	Arterial M	0.56	A	No		
110	Watt Ave	US 50	Folsom Blvd	6	Arterial H	80,700	1.35	**F**	6	Arterial H	1.35	**F**	Yes		Maximum General Plan lanes

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 4.12
Existing Plus FOUR PROJECTS Roadway Segment Mitigations

ID	Roadway	Segment		Existing + FOUR PROJECTS					Mitigated Existing + FOUR PROJECTS						
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Volume / Capacity Ratio	Level of Service	LOS Impact with Mitigation?	Alternative Mitigation[2]	Constraint if Full Mitigation Not Possible
118	Zinfandel Dr	US 50	White Rock Rd	7	Arterial M	51,560	0.95	**E**	7	Arterial M	0.95	**E**	Yes		Maximum General Plan lanes
122	Zinfandel Dr	City Limit	Douglas Rd	2	Arterial M	26,100	1.45	**F**	4	Arterial M	0.73	C	No		
123.1	Zinfandel Dr	Douglas Rd	Collector MS-2	2	Arterial M	23,220	1.29	**F**	4	Arterial M	0.65	B	No		
200	Kiefer Blvd	Tree View Ln	Eagles Nest Rd	2	Arterial M	22,920	1.27	**F**	4	Arterial M	0.64	B	No		
405	Collector JT-3	Collector JT-5	Jackson Rd	2	Res Collector F	16,550	2.07	**F**	2	Arterial M	0.92	E	No		
602	Collector MS-2	Eagles Nest Rd	Collector MS-5	2	Res Collector F	9,200	1.15	**F**	2	Res Collector NF	0.92	E	No		

Note: Gray shading represents changes in travel lanes or facility type that the project is responsible to provide.

[1] The following classifications are used to determine daily roadway capacity:
Arterial L - Arterial, Low Access Control
Arterial M - Arterial, Moderate Access Control
Arterial H - Arterial, High Access Control
Rural Hwy - Rural 2-lane Highway
Rural S - Rural 2-lane Road, 24'-36' of pavement, Paved Shoulders
Rural NS - Rural 2-lane Road, 24'-36' of pavement, No Shoulders
Res Collector F - Residential Collector with Frontage
Res Collector NF - Residential Collector with No Frontage

[2] Alternative mitigations represent proposed mitigations beyond the General Plan, as proposed by the County of Sacramento.

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 4.13

Existing Plus FOUR PROJECTS Impacted Intersections and Mitigations

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing Plus FOUR PROJECTS			LOS Impact	Mitigated Existing Plus FOUR PROJECTS			Existing Plus FOUR PROJECTS			LOS Impact	Mitigated Existing Plus FOUR PROJECTS		
		Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)
6	Jackson Road/Notre Dame Dr. & Folsom Blvd.	Signal	E	63.3	No				Signal	**F**	**95.2**	Yes	Signal	D	47.8
9	Florin Perkins Road & Jackson Road	Signal	**F**	**123.3**	Yes	Signal	D	47.2	Signal	**F**	**146.7**	Yes	Signal	D	50.2
12	Watt Avenue & Folsom Blvd.	Signal	E	79.1	No				Signal	**F**	**90.4**	Yes	Signal	D	44.5
14	S. Watt Avenue & Kiefer Blvd.	Signal	**F**	**138.5**	Yes	Signal	SB Ramps B NB Ramps C	SB Ramps 16.1 NB Ramps 21.9	Signal	**F**	**136.6**	Yes	Signal	SB Ramps B NB Ramps C	SB Ramps 17.0 NB Ramps 21.5
16	S. Watt Avenue & Jackson Road	Signal	**F**	**404.2**	Yes	Signal	C	34.6	Signal	**F**	**385.0**	Yes	Signal	C	27.9
17	S. Watt Avenue & Fruitridge Road	Signal	**F**	**114.0**	Yes	Signal	D	54.1	Signal	**E**	**68.4**	Yes	Signal	D	51.9
18	S. Watt Avenue & Elder Creek Road	Signal	**F**	**177.5**	Yes	Signal	D	50.5	Signal	**F**	**189.3**	Yes	Signal	**E**	**60.9**
23	Hedge Avenue & Jackson Road	Signal	**F**	**155.7**	Yes	Signal	C	33.1	Signal	E	68.6	No			
27	Hedge Avenue & Florin Road	All-way stop	E	43.2	No				All-way stop	**F**	**59.5**	Yes	Signal	D	49.9
28	Mayhew Road & Kiefer Boulevard	Signal	**F**	**130.1**	Yes	Signal	E	79.1	Signal	E	76.6	No			
31	Mayhew Road & Elder Creek Road	Signal	**F**	**355.5**	Yes	Signal	E	58.6	Signal	**F**	**353.8**	Yes	Signal	D	41.7
36	Bradshaw Road & Old Placerville Road	Signal	D	48.7	No				Signal	**E**	**60.9**	Yes			
37	Bradshaw Road & Kiefer Boulevard	Signal	**F**	**129.2**	Yes	Signal	**F**	**115.9**	Signal	**F**	**153.2**	Yes	Signal	**F**	**107.4**
39	Bradshaw Road & Elder Creek Road	Signal	**F**	**136.6**	Yes	Signal	E	75.9	Signal	E	73.2	No			

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Table 4.13

Existing Plus FOUR PROJECTS Impacted Intersections and Mitigations

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing Plus FOUR PROJECTS			LOS Impact	Mitigated Existing Plus FOUR PROJECTS			Existing Plus FOUR PROJECTS			LOS Impact	Mitigated Existing Plus FOUR PROJECTS		
		Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)
40	Bradshaw Road & Florin Road	Signal	F	126.9	Yes	Signal	E	56.6	Signal	E	70.6	No			
41	Bradshaw Road & Gerber Road	Signal	F	82.8	Yes	Signal	E	74.1	Signal	E	69.3	No			
42	Happy Lane & Old Placerville Road	Two-way stop	C	15.4	Yes	Signal	E	55.0	Two-way stop	F	>300	Yes	Signal	D	52.9
	Northbound Left Turn		*F*	*>300*						*F*	*>300*				
	Northbound Right Turn		*F*	*>300*						*F*	*211.4*				
	Westbound Left Turn		*E*	*41.3*						*C*	*20.5*				
45	Excelsior Road & Jackson Road	Signal	F	210.6	Yes	Signal	D	38.1	Signal	F	165.8	Yes	Signal	D	45.7
46	Excelsior Road & Elder Creek Road	Signal	C	34.1	No				Signal	F	81.3	Yes	Signal	C	27.5
	Northbound Left Turn														
	Eastbound														
51	Mather Field Road & Rockingham Drive	Signal	F	85.9	Yes				Signal	D	54.9	No			
52	Mather Boulevard & Douglas Road	All-way stop	F	57.0	Yes	Signal	D	43.2	All-way stop	E	43.4	No			
54	Zinfandel Drive & US 50 EB Ramps/Gold Center Drive	Signal	E	62.8	Yes				Signal	**E**	**64.2**	No			
61	Eagles Nest Road & Florin Road	Two-way stop	F	71.8	Yes	Signal	E	78.5	Two-way stop	F	100.0	Yes	Signal	E	69.3
	Northbound		*F*	*287.6*						*F*	*>300*				
	Southbound		*F*	*>300*						*F*	*242.6*				
	Eastbound Left Turn		*A*	*8.4*						*A*	*8.2*				
	Westbound Left Turn		*A*	*0.0*						*A*	*7.8*				
70	Sunrise Boulevard & Jackson Road	Signal	F	120.5	Yes	Signal	D	54.6	Signal	E	79.2	No			

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 4.13

Existing Plus FOUR PROJECTS Impacted Intersections and Mitigations

	Intersection	AM Peak Hour							PM Peak Hour						
		Existing Plus FOUR PROJECTS			LOS Impact	Mitigated Existing Plus FOUR PROJECTS			Existing Plus FOUR PROJECTS			LOS Impact	Mitigated Existing Plus FOUR PROJECTS		
		Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)
80	Grant Line Road & Jackson Road	Signal	**F**	**113.0**	Yes	Signal	**E**	**64.1**	Signal	**F**	**80.2**	No			
90	Excelsior Road & Calvine Rd	All-way stop	**F**	**55.1**	Yes	Signal	D	36.3	All-way stop	**E**	**43.2**	Yes	Signal	D	37.4
93	Grant Line Rd & Dwy/Wilton Rd	Signal	**F**	**94.6**	Yes	Signal	D	45.7	Signal	**F**	**104.4**	Yes	Signal	**E**	**69.4**
310	Mayhew Road & Rock Creek Pkwy WB	Roundabout	D	25.3	No				Roundabout	**F**	**93.0**	Yes	Signal	D	51.7
311	Mayhew Road & Rock Creek Pkwy EB	Roundabout	**F**	**70.6**	Yes	Signal	E	59.4	Roundabout	C	20.0	No			
318	Bradshaw Road & Mayhew Road	Signal	**F**	**112.7**	Yes	Signal	**F**	**92.5**	Signal	**F**	**101.4**	Yes	Signal	E	58.8
326	Happy Lane & Mayhew Road	Roundabout	**F**	**67.4**	Yes	Signal	D	47.2	Roundabout	**F**	**71.7**	Yes	Signal	C	29.1

Note: Gray shading represents changes in traffic control for which the project is responsible to pay a fair share.

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 4.14

Existing Plus FOUR PROJECTS Intersection Impacts and Mitigations

	Intersection	Traffic Control		Existing Plus FOUR PROJECTS Lane Geometrics				Mitigated Existing Plus FOUR PROJECTS Lane Geometrics				LOS Impact with Mitgation?	High Capacity Intersection?[1]	Alternative Mitigation[2]	Constraint if Full Mitigation Not Possible
		Existing Plus FOUR PROJECTS	Mitigated Existing Plus FOUR PROJECTS	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach				
6	Jackson Road/Notre Dame Dr. & Folsom Blvd.	Signal	Signal									No	No	Dual EBR	
9	Florin Perkins Road & Jackson Road	Signal	Signal									No	No		
12	Watt Avenue & Folsom Blvd.	Signal	Signal									No	Yes	Grade separated NBT and SBT	
14	S. Watt Avenue & Kiefer Blvd.	Signal	Signal									No	Yes	Tight Diamond Interchange (SB Watt Ramps/Kiefer intersection shown)	
		Signal	Signal											Tight Diamond Interchange (NB Watt Ramps/Kiefer intersection shown)	
16	S. Watt Avenue & Jackson Road	Signal	Signal						*Free left		*Free right	No	Yes	Triple NBL, Free WBR and SBL via tunnel	
17	S. Watt Avenue & Fruitridge Road	Signal	Signal									No	No		
18	S. Watt Avenue & Elder Creek Road	Signal	Signal									No	No		
23	Hedge Avenue & Jackson Road	Signal	Signal									No	No	Dual NBL, and exclusive EBR	
27	Hedge Avenue & Florin Road	All-way stop	Signal									No	No		
28	Mayhew Road & Kiefer Boulevard	Signal	Signal									No	No	Dual SBL	
31	Mayhew Road & Elder Creek Road	Signal	Signal									No	No	Dual SBR	
36	Bradshaw Road & Old Placerville Road	Signal	Signal									Yes	No		Existing development
37	Bradshaw Road & Kiefer Boulevard	Signal	Signal									Yes	No	Carry 3 EBT and 3 WBT lanes through intersection	Maximum General Plan lanes
39	Bradshaw Road & Elder Creek Road	Signal	Signal									No	No		
40	Bradshaw Road & Florin Road	Signal	Signal									No	No		
41	Bradshaw Road & Gerber Road	Signal	Signal									No	No		
42	Happy Lane & Old Placerville Road	Two-way stop	Signal									No	No	Realign Happy Lane to Routier Road (4 lanes)	
45	Excelsior Road & Jackson Road	Signal	Signal									No	No	NBR overlap	
46	Excelsior Road & Elder Creek Road	Signal	Signal									No	No		

Note: Gray shading represents changes in traffic control or approach lanes for which the project is responsible to pay a fair share.

Table 4.14

Existing Plus FOUR PROJECTS Intersection Impacts and Mitigations

	Intersection	Traffic Control		Existing Plus FOUR PROJECTS Lane Geometrics				Mitigated Existing Plus FOUR PROJECTS Lane Geometrics				LOS Impact with Mitgation?	High Capacity Intersection?[1]	Alternative Mitigation[2]	Constraint if Full Mitigation Not Possible
		Existing Plus FOUR PROJECTS	Mitigated Existing Plus FOUR PROJECTS	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach				
51	Mather Field Road & Rockingham Drive	Signal	Signal									Yes	No		Existing development
52	Mather Boulevard & Douglas Road	All-way stop	Signal									No	No		
54	Zinfandel Drive & US 50 EB Ramps/Gold Center Drive	Signal	Signal									Yes	No		Maximum General Plan lanes
61	Eagles Nest Road & Florin Road	Two-way stop	Signal									No	No		
70	Sunrise Boulevard & Jackson Road	Signal	Signal									No	No		
80	Grant Line Road & Jackson Road	Signal	Signal									No	No		
90	Excelsior Road & Calvine Rd	All-way stop	Signal									No	No		
93	Grant Line Rd & Dwy/Wilton Rd	Signal	Signal									No	No		
310	Mayhew Road & Rock Creek Pkwy WB	Roundabout	Signal									No	No		
311	Mayhew Road & Rock Creek Pkwy EB	Roundabout	Signal									No	No		
318	Bradshaw Road & Mayhew Road	Signal	Signal									Yes	No	HCI, Triple EBL and dual SBR	Maximum General Plan lanes
326	Happy Lane & Mayhew Road	Roundabout	Signal									No	No		

[1] High capacity intersections are defined in the Sacramento County General Plan and may include grade separations, additional turn lanes, and/or other features as deemed appropriate by the County.

[2] Alternative mitigations represent proposed mitigations beyond the General Plan, excluding high capacity intersections, as proposed by the County of Sacramento.

Note: Gray shading represents changes in traffic control or approach lanes for which the project is responsible to pay a fair share.

Table 4.15
Existing Plus FOUR PROJECTS Functionality Mitigations

ID	Roadway	Segment		Existing + FOUR PROJECTS				Mitigation	Impact after Mitigation?
		From	To	Travel Lanes	Substandard? [1]	Forecasted Volume	Functionality Impact? [2]		
15	Douglas Rd	Mather Blvd	Zinfandel Dr	2	Yes	12,160	Yes	Widen to County standards [5]	No
16	Douglas Rd	Zinfandel Dr	Sunrise Blvd	2	Yes	11,450	Yes	Widen to County standards [5]	No
19	Eagles Nest Rd	Kiefer Blvd	Jackson Rd	4	No	12,100	Yes[3]	Widen to County standards [5]	No
20	Eagles Nest Rd	Jackson Rd	Florin Rd	2	Yes	8,250	Yes	Widen to County standards [5]	No
25	Elder Creek Rd	South Watt Ave	Hedge Ave	2	Yes	26,320	Yes	Widen to County standards [5]	No
26	Elder Creek Rd	Hedge Ave	Mayhew Rd	2	Yes	25,670	Yes	Widen to County standards [5]	No
27	Elder Creek Rd	Mayhew Rd	Bradshaw Rd	3	No	15,260	Yes[3]	Widen to County standards [5]	No
28	Elder Creek Rd	Bradshaw Rd	Excelsior Rd	3	No	23,810	Yes[3]	Widen to County standards [5]	No
30	Excelsior Rd	Kiefer Blvd	Jackson Rd	2	Yes	25,010	Yes	Widen to County standards [5]	No
31	Excelsior Rd	Jackson Rd	Elder Creek Rd	3	No	30,490	Yes[3]	Widen to County standards [5]	No
32	Excelsior Rd	Elder Creek Rd	Florin Rd	3	No	11,610	Yes[3]	Widen to County standards [5]	No
33	Excelsior Rd	Florin Rd	Gerber Rd	2	Yes	14,730	Yes	Widen to County standards [5]	No
34	Excelsior Rd	Gerber Rd	Calvine Rd	2	Yes	11,350	Yes	Widen to County standards [5]	No
39	Florin Rd	South Watt Ave	Hedge Ave	2	Yes	18,340	Yes	Widen to County standards [5]	No
40	Florin Rd	Hedge Ave	Mayhew Rd	2	Yes	14,890	Yes	Widen to County standards [5]	No
41	Florin Rd	Mayhew Rd	Bradshaw Rd	2	Yes	15,190	Yes	Widen to County standards [5]	No
42	Florin Rd	Bradshaw Rd	Excelsior Rd	2	Yes	17,150	Yes	Widen to County standards [5]	No
43	Florin Rd	Excelsior Rd	Sunrise Blvd	2	Yes	8,750	Yes	Widen to County standards [5]	No
48	Fruitridge Rd	South Watt Ave	Hedge Ave	3	No	17,250	Yes[3]	Widen to County standards [5]	No
49	Fruitridge Rd	Hedge Ave	Mayhew Rd	4	No	20,950	Yes[3]	Widen to County standards [5]	No
50	Grant Line Rd	White Rock Rd	Douglas Rd	2	Yes	8,980	Yes	Widen to County standards [5]	No
58	Happy Ln	Old Placerville Rd	Kiefer Blvd	4	No	26,210	Yes[3]	Widen to County standards [5]	No
59	Hedge Ave	Jackson Rd	Fruitridge Rd	2	Yes	8,750	Yes	Widen to County standards [5]	No
70	Jackson Rd	Bradshaw Rd	Excelsior Rd	6	No	51,570	Yes[3]	Widen to County standards [5]	No
71	Jackson Rd	Excelsior Rd	Eagles Nest Rd	4	No	47,230	Yes[3]	Widen to County standards [5]	No
74	Kiefer Blvd	Florin Perkins Rd	South Watt Ave	2	Yes	6,900	Yes	Widen to County standards [5]	No

Red text with light gray shading indicate project impacts.

Table 4.15
Existing Plus FOUR PROJECTS Functionality Mitigations

ID	Roadway	Segment		Existing + FOUR PROJECTS				Mitigation	Impact after Mitigation?
		From	To	Travel Lanes	Substandard? [1]	Forecasted Volume	Functionality Impact? [2]		
77	Kiefer Blvd	Bradshaw Rd	Happy Ln	6	No	49,480	Yes[3]	Widen to County standards [5]	No
78	Kiefer Blvd	Zinfandel Dr	Sunrise Blvd	3	No	12,540	Yes[3]	Widen to County standards [5]	No
83	Mather Blvd-Excelsior Rd[4]	Douglas Rd	Kiefer Blvd	2	Yes	16,410	Yes	Widen to County standards [5]	No
89	Mayhew Rd	Jackson Rd	Fruitridge Rd	4	No	36,540	Yes[3]	Widen to County standards [5]	No
123	Zinfandel Dr	Douglas Rd	Kiefer Blvd	2	Yes	23,220	Yes	Widen to County standards [5]	No

Note: Gray shading indicates changes in travel lanes or facility type that the project is responsible to provide. For all roadway segments to be widened, the project is responsible to build the entire roadway to County standards.

[1] Substandard rural roads are defined as rural, 2-lane roadway segments with travel lanes narrower than 12 feet and/or roadside shoulders narrower than 6 feet.

[2] Functionality impacts are triggered when a substandard rural road increases over a threshold of 6,000 ADT, or for a roadway already above 6,000 ADT, increases by more than 600 ADT.

[3] The potential for an impact exists should the project generate traffic volumes on the roadway exceeding 6,000 ADT, or increasing more than 600 ADT on a roadway already above 6,000 ADT, prior to the construction of roadway improvements.

[4] Excluding the roadway segment that is within the developed community of Independence at Mather.

[5] The functionality impact is mitigated by improving the roadway to County standards, including widening travel lanes to 12 feet and/or widening or providing paved shoulders to 6 feet.

Red text with light gray shading indicate project impacts.

4.5.3 Existing Plus FOUR PROJECTS U.S. 50 Freeway Mitigation

According to Caltrans' US-50 Transportation Concept Report (TCR) and Corridor System Management Plan (CSMP), all mainline freeway lanes of the 8-lane ultimate facility (4 lanes in each direction) have already been built, with the exception of the segment between Zinfandel Drive and Sunrise Boulevard (where 6 of the 8 ultimate lanes exist today). With the exception of this segment, capacity improvements to widen the freeway mainline are precluded by the ultimate configuration in the TCR/CSMP. The TCR/CSMP does conceptualize other projects that will benefit the US-50 corridor without adding additional mainline travel lanes. These improvements generally fall into one of three categories:

- Intelligent transportation systems (ITS) and integrated corridor management (ICM) projects. Some examples may include ramp metering and multimodal improvements.
- Improvements to parallel local facilities. Such projects are expected to reduce travel demand on US-50.
- Future HOV lanes and auxiliary lanes. These projects would extend, or bridge gaps in, the existing HOV and auxiliary lane network. Constructing these lanes is permissible even when further widening of the mainline is not allowable, and is consistent with the ultimate configuration in the TCR/CSMP.

The FOUR PROJECTS shall participate in one or more of these alternative improvements that could directly reduce the severity of the project's impact and/or provide operational benefits to the US-50 corridor in general.

4.5.3.1 US-50 Eastbound Alternative Improvements

To lessen the impact to the eastbound US-50 mainline between Stockton Boulevard and 59th Street, the project may pay a fair share toward the construction of:

- Ramp meter improvements (Caltrans ITS/OPS Project List)

To lessen the impact to the eastbound US-50 weave between 65th Street and Howe Avenue, the project may pay a fair share toward the construction of:

- Ramp meter improvements (Caltrans ITS/OPS Project List)
- Widen 65th Street to 5 lanes from US-50 to Broadway (2035 SACOG MTP)

To lessen the impact to the eastbound US-50 mainline between Bradshaw Road and Mather Field Road, and to the weave between Mather Field Road to Zinfandel Drive, the project may pay a fair share toward the construction of:

- Auxiliary lanes between Bradshaw Road and Mather Field Road (2035 SACOG MTP)
- An interchange modification of US-50 at Mather Field Road (2035 SACOG MTP)

To lessen the impact to the eastbound US-50 mainline between Zinfandel Drive and Hazel Avenue, the project may pay a fair share toward the construction of:

- Auxiliary lanes between Zinfandel Drive and Sunrise Boulevard (2035 SACOG MTP)
- Auxiliary lanes between Sunrise Boulevard and Hazel Avenue (2035 SACOG MTP)
- Widen Sunrise Boulevard to 6 lanes with special treatments, including intersection improvements at White Rock Road, Folsom Boulevard, Coloma Road, Gold Express Drive, and Gold Country Boulevard (2035 SACOG MTP)

- A new interchange at Rancho Cordova Parkway, including a 4-lane arterial from US-50 to White Rock Road (2035 SACOG MTP)
- Multi-modal corridor improvements and interchange improvements at Hazel Avenue (2035 SACOG MTP)

4.5.3.2 US-50 Westbound Alternative Improvements

To lessen the impact to the westbound US-50 on-ramp at Sunrise Boulevard, the project may pay a fair share toward the construction of:

- Auxiliary lanes between Sunrise Boulevard and Zinfandel Drive (2035 SACOG MTP)
- A transition lane from the Sunrise Boulevard slip off-ramp to the Sunrise Boulevard slip on-ramp (2035 SACOG MTP)

To lessen the impact to the westbound US-50 mainline between Mather Field Road and Bradshaw Road, the project may pay a fair share toward the construction of:

- Auxiliary lanes between Mather Field Road and Bradshaw Road (2035 SACOG MTP)
- An interchange modification of US-50 at Mather Field Road (2035 SACOG MTP)

To lessen the impact to the westbound US-50 mainline between Watt Avenue and SR-51/SR-99, the project may pay a fair share toward the construction of:

- Bus/HOV lanes from Watt Avenue to Downtown Sacramento (2035 SACOG MTP)
- Replacement of existing communication lines with fiber optics to improve performance between SR-51/SR-99 and Watt Avenue (2013 10-Year SHOPP Plan)
- Auxiliary lane between the NB Howe Avenue on-ramp and the SB Howe Avenue on-ramp (2035 SACOG MTP)
- Ramp meter improvements (Caltrans ITS/OPS Project List)

4.5.4 Existing Plus FOUR PROJECTS Pedestrian and Bicycle Facility Mitigation

The FOUR PROJECTS applicants shall coordinate with Sacramento County to identify the necessary on- and off-site pedestrian and bicycle facilities to serve the proposed development. These facilities shall be incorporated into the FOUR PROJECTS and could include sidewalks, stop signs, standard pedestrian and school crossing warning signs, lane striping to provide a bicycle lane, bicycle parking, signs to identify pedestrian and bicycle paths, raised crosswalks, pedestrian signal heads, and all appropriate traffic calming measures as defined in the County's Neighborhood Traffic Management Program (NTMP). Sidewalks would be required as part of the frontage improvements along all new roadway construction in the FOUR PROJECTS vicinity in conformance with County design standards. Circulation and access to all proposed public spaces shall include sidewalks that meet Americans with Disabilities Act standards.

4.5.5 Existing Plus FOUR PROJECTS Transit System Mitigation

The applicants of the FOUR PROJECTS shall coordinate with Regional Transit (or other transit operators) to provide the additional transit facilities and services assumed in transportation analysis (see Section 3.1.2.3), or a cost-effective equivalent level of transit facilities and services.

The assumed transit routes and service frequency would be required at full development of the FOUR PROJECTS. The full level of transit service would not achieve adequate transit ridership during the early stages of development. Thus the ultimate transit service, like the roadway system serving the FOUR PROJECTS, must be phased with development of the FOUR PROJECTS.

4.5.6 Existing Plus FOUR PROJECTS Functionality Mitigation

Table 4.15 summarizes the results of the functionality analysis for the study area rural roadway segments with mitigation.

4.4.7 Existing Plus FOUR PROJECTS Mitigation Summary

Tables 4.16 through 4.21 summarize all of the roadway segments, intersections, and freeway facilities that would exhibit significant LOS impacts along with the mitigation success for these impacts.

Table 4.16
Existing Plus FOUR PROJECTS Summary of Impacted Roadway Segments

ID	Roadway	Segment	
		From	To
Level of Service Impact Fully Mitigated by General Plan Lanes			
23	Elder Creek Rd	Power Inn Rd	Florin-Perkins Rd
24	Elder Creek Rd	Florin Perkins Rd	South Watt Ave
25	Elder Creek Rd	South Watt Ave	Hedge Ave
26	Elder Creek Rd	Hedge Ave	Mayhew Rd
28.1	Elder Creek Rd	Bradshaw Rd	Vineyard Rd
29	Elk Grove-Florin Rd	Florin Rd	Gerber Rd
31.1	Excelsior Rd	Jackson Rd	Collector WJ-6
31.2	Excelsior Rd	Collector WJ-6	Elder Creek Rd
39	Florin Rd	South Watt Ave	Hedge Ave
47	Fruitridge Rd	Florin Perkins Rd	South Watt Ave
48	Fruitridge Rd	South Watt Ave	Hedge Ave
55	Grant Line Rd	Calvine Rd	Sheldon Rd
56	Grant Line Rd	Sheldon Rd	Wilton Rd
57	Grant Line Rd	Wilton Rd	Bond Rd
65	Jackson Rd	Folsom Blvd	Florin Perkins Rd
71.1	Jackson Rd	Excelsior Rd	Collector JT-3
73	Jackson Rd	Sunrise Blvd	Grant Line Rd
89.1	Mayhew Rd	Jackson Rd	Rock Creek Pkwy
92	Old Placerville Rd	Happy Ln	Routier Rd
97	South Watt Ave	Kiefer Blvd	Jackson Rd
99	South Watt Ave	Fruitridge Rd	Elder Creek Rd
100	South Watt Ave	Elder Creek Rd	Florin Rd
106	Sunrise Blvd	Kiefer Blvd	Jackson Rd
122	Zinfandel Dr	City Limit	Douglas Rd
123.1	Zinfandel Dr	Douglas Rd	Collector MS-2
200	Kiefer Blvd	Tree View Ln	Eagles Nest Rd
405	Collector JT-3	Collector JT-5	Jackson Rd
602	Collector MS-2	Eagles Nest Rd	Collector MS-5
Level of Service Impact Not Fully Mitigated by General Plan Lanes			
2	Bradshaw Rd	US 50	Lincoln Village Dr
3	Bradshaw Rd	Lincoln Village Dr	Old Placerville Rd
4	Bradshaw Rd	Old Placerville Rd	Goethe Rd
5.1	Bradshaw Rd	Goethe Rd	Collector WJ-8
5.2	Bradshaw Rd	Collector WJ-8	Kiefer Blvd
6.1	Bradshaw Rd	Kiefer Blvd	Collector WJ-9
6.2	Bradshaw Rd	Collector WJ-9	Mayhew Rd

Note: Refer to Table 4.12 for detailed description of impacts and mitigations.

Table 4.16
Existing Plus FOUR PROJECTS Summary of Impacted Roadway Segments

ID	Roadway	Segment	
		From	To
44	Folsom Blvd	Howe Ave	Jackson Rd
62	Howe Ave	US 50	Folsom Blvd
66	Jackson Rd	Florin Perkins Rd	South Watt Ave
67	Jackson Rd	South Watt Ave	Hedge Ave
68.1	Jackson Rd	Hedge Ave	Collector WJ-3
68.2	Jackson Rd	Collector WJ-3	Mayhew Rd
69	Jackson Rd	Mayhew Rd	Bradshaw Rd
76	Kiefer Blvd	Mayhew Rd	Bradshaw Rd
83	Mather Blvd-Excelsior Rd	Douglas Rd	Kiefer Blvd
96	South Watt Ave	Folsom Blvd	Kiefer Blvd
110	Watt Ave	US 50	Folsom Blvd
118	Zinfandel Dr	US 50	White Rock Rd

Note: Refer to Table 4.12 for detailed description of impacts and mitigations.

Table 4.17
Existing Plus FOUR PROJECTS Summary of Impacted Intersections

	Intersection	Alternative Mitigation
Level of Service Impact Fully Mitigated by General Plan Lanes		
6	Jackson Road/Notre Dame Dr. & Folsom Blvd.	**
9	Florin Perkins Road & Jackson Road	
17	S. Watt Avenue & Fruitridge Road	
18	S. Watt Avenue & Elder Creek Road	
23	Hedge Avenue & Jackson Road	**
27	Hedge Avenue & Florin Road	
31	Mayhew Road & Elder Creek Road	**
39	Bradshaw Road & Elder Creek Road	
40	Bradshaw Road & Florin Road	
41	Bradshaw Road & Gerber Road	
42	Happy Lane & Old Placerville Road	**
46	Excelsior Road & Elder Creek Road	
52	Mather Boulevard & Douglas Road	
61	Eagles Nest Road & Florin Road	
70	Sunrise Boulevard & Jackson Road	
80	Grant Line Road & Jackson Road	
90	Excelsior Road & Calvine Rd	
93	Grant Line Rd & Dwy/Wilton Rd	

Table 4.17
Existing Plus FOUR PROJECTS Summary of Impacted Intersections

	Intersection	Alternative Mitigation
310	Mayhew Road & Rock Creek Pkwy WB	
311	Mayhew Road & Rock Creek Pkwy EB	
326	Happy Lane & Mayhew Road	
	Level of Service Impact Not Fully Mitigated by General Plan Lanes But Designated High Capacity Intersection	
12	Watt Avenue & Folsom Blvd.	**
14	S. Watt Avenue & Kiefer Blvd.	**
16	S. Watt Avenue & Jackson Road	**
	Level of Service Impact Not Fully Mitigated by General Plan Lanes	
28	Mayhew Road & Kiefer Boulevard	**
36	Bradshaw Road & Old Placerville Road	
37	Bradshaw Road & Kiefer Boulevard	*
45	Excelsior Road & Jackson Road	**
51	Mather Field Road & Rockingham Drive	
54	Zinfandel Drive & US 50 EB Ramps/Gold Center Drive	
318	Bradshaw Road & Mayhew Road	*

[1] Alternative mitigations represent proposed mitigations beyond the General Plan, excluding designated high capacity intersections, as proposed by the County of Sacramento.

* denotes alternative mitigations that improve operations but do not fully mitigate the impact.
** denotes alternative mitigations that fully mitigate the impact.

Table 4.18

Existing Plus FOUR PROJECTS
Summary of Impacted Freeway Segments

Direction	Location
Level of Service Impact Not Mitigated	
Eastbound US-50	Stockton Boulevard to 59th Street
	Bradshaw Road to Mather Field Rd
	Zinfandel Drive to Sunrise Boulevard
	Sunrise Boulevard to Hazel Avenue
Westbound US-50	Mather Field Road to Bradshaw Road
	Howe Avenue to 65th Street
	65th Street to 59th Street
	59th Street to Stockton Boulevard
	Stockton Boulevard to SR 99 / SR 51

Source: *DKS Associates, 2014.*

Table 4.19

Existing Plus FOUR PROJECTS
Summary of Impacted Freeway Ramp Junction/Weaves

Direction	Location	Junction Type
Level of Service Impact Not Mitigated		
Eastbound US-50	Northbound 65th Street Slip Entrance	Weave
	Howe Avenue / Hornet Drive Exit	
	Northbound Mather Field Road Slip Entrance	Weave
	Zinfandel Drive Exit	
Westbound US-50	Sunrise Boulevard Entrance	Lane Addition

Source: *DKS Associates, 2014.*

Table 4.20

Existing Plus FOUR PROJECTS Summary of Impacted Freeway Ramp Termini

Direction	US 50 Exit Ramp
Queuing Impact Not Mitigated	
Eastbound US-50	Howe Avenue

Source: *DKS Associates, 2014.*

Table 4.21
Existing Plus FOUR PROJECTS Functionality Impact Summary

ID	Roadway	Segment	
		From	To
Functionality Impact Fully Mitigated			
15	Douglas Rd	Mather Blvd	Zinfandel Dr
16	Douglas Rd	Zinfandel Dr	Sunrise Blvd
19	Eagles Nest Rd	Kiefer Blvd	Jackson Rd
20	Eagles Nest Rd	Jackson Rd	Florin Rd
25	Elder Creek Rd	South Watt Ave	Hedge Ave
26	Elder Creek Rd	Hedge Ave	Mayhew Rd
27	Elder Creek Rd	Mayhew Rd	Bradshaw Rd
28	Elder Creek Rd	Bradshaw Rd	Excelsior Rd
30	Excelsior Rd	Kiefer Blvd	Jackson Rd
31	Excelsior Rd	Jackson Rd	Elder Creek Rd
32	Excelsior Rd	Elder Creek Rd	Florin Rd
33	Excelsior Rd	Florin Rd	Gerber Rd
34	Excelsior Rd	Gerber Rd	Calvine Rd
39	Florin Rd	South Watt Ave	Hedge Ave
40	Florin Rd	Hedge Ave	Mayhew Rd
41	Florin Rd	Mayhew Rd	Bradshaw Rd
42	Florin Rd	Bradshaw Rd	Excelsior Rd
43	Florin Rd	Excelsior Rd	Sunrise Blvd
48	Fruitridge Rd	South Watt Ave	Hedge Ave
49	Fruitridge Rd	Hedge Ave	Mayhew Rd
50	Grant Line Rd	White Rock Rd	Douglas Rd
58	Happy Ln	Old Placerville Rd	Kiefer Blvd
59	Hedge Ave	Jackson Rd	Fruitridge Rd
70	Jackson Rd	Bradshaw Rd	Excelsior Rd
71	Jackson Rd	Excelsior Rd	Eagles Nest Rd

Table 4.21
Existing Plus FOUR PROJECTS Functionality Impact Summary

ID	Roadway	Segment	
		From	To
74	Kiefer Blvd	Florin Perkins Rd	South Watt Ave
77	Kiefer Blvd	Bradshaw Rd	Happy Ln
78	Kiefer Blvd	Zinfandel Dr	Sunrise Blvd
83	Mather Blvd-Excelsior Rd[4]	Douglas Rd	Kiefer Blvd
89	Mayhew Rd	Jackson Rd	Fruitridge Rd
123	Zinfandel Dr	Douglas Rd	Kiefer Blvd

5. MTP CUMULATIVE PLUS FOUR PROJECTS SCENARIO

5.1 FOUR PROJECTS DESCRIPTION

The MTP Cumulative plus FOUR PROJECTS scenario evaluates the effects of the traffic of four developments (the FOUR PROJECTS) added to MTP Cumulative conditions.

5.1.1 MTP Cumulative Land Use

Outside the FOUR PROJECTS, SACOG's 2035 development forecasts (the amount and location of housing and employment) for the adopted 2012 Metropolitan Transportation Plan (MTP) were used to prepare travel demand forecasts for this scenario.

5.1.2 Transportation Network

5.1.2.1 Roadways

Figure 5.1 illustrates the transportation network associated with the MTP Cumulative without FOUR PROJECTS scenario, consisting of the improvements in the adopted 2012 Metropolitan Transportation Plan (MTP).

Figure 5.2 shows the transportation network associated with the MTP Cumulative with FOUR PROJECTS scenario. The FOUR PROJECTS would widen and / or complete many roadways that cross or border the PROJECT site. The FOUR PROJECTS would include new roadways to serve the proposed land use.

5.1.2.2 Pedestrian and Bicycle Facilities

The roadways within the FOUR PROJECTS would meet County standards, which would provide sidewalks and on-street (Class II) bike lanes on all collector, arterial and thoroughfare roadways. The FOUR PROJECTS also provide several off-street (Class I) multi-purpose trails.

5.1.2.3 Transit System

The FOUR PROJECTS are designed with significant amounts of higher density and mixed uses to help support transit use but transit service within walking distances of those uses is required to achieve a significant transit ridership.

An accurate estimation of transit use requires the definition of specific transit routes and frequency of service on those routes. A separate planning effort, involving staff from Sacramento County and Sacramento Regional Transit (RT), was conducted to define an appropriate transit system for the transportation analysis. That effort is described in Section 3.1.2.3.

FIGURE 5.1
MTP CUMULATIVE NO PROJECT ROADWAY NETWORK

Legend

- 2 Lanes
- 3 Lanes
- 4 Lanes
- 5 Lanes
- 6 Lanes
- 7 Lanes
- Cities
- Mather Airport

FOLSOM
RANCHO CORDOVA
SACRAMENTO
ELK GROVE
80
50
99
FOLSOM BLVD
WHITE ROCK RD
ZINFANDEL DR
SUNRISE BLVD
ROUTIER RD
MAYHEW RD
DOUGLAS RD
CHRYSANTHY BLVD
RANCHO CORDOVA PKY
GRANT LINE RD
KIEFER BLVD
POWER INN RD
FLORIN PERKINS RD
FRUITRIDGE RD
ELDER CREEK RD
HEDGE AVE
FLORIN RD
GERBER RD
ELK GROVE FLORIN RD
BRADSHAW RD
VINEYARD RD
EXCELSIOR RD
EAGLES NEST RD

DKS

FIGURE 5.2
MTP CUM PLUS FOUR PROJECTS ROADWAY NETWORK

Legend

- 2 Lanes
- 3 Lanes
- 4 Lanes
- 5 Lanes
- 6 Lanes
- 7 Lanes
- Cities
- Mather Airport

The planning effort resulted in four transit lines that would serve the FOUR PROJECTS at a frequency of 15 minutes throughout the typical operating hours (approximately 6 AM to 8 PM) on weekdays. Another key characteristic of the proposed transit system built into the modeling assumptions is the targeted use of queue jumps on portions of key corridors (Bradshaw Road from Kiefer Boulevard to Rock Creek Parkway, and Jackson Road from Watt Avenue to Excelsior Road). Queue jumps ensure that buses are not excessively delayed at signals along congested corridors, and therefore not too heavily penalized from a travel time perspective. This is necessary to achieve the adequate ridership levels that were forecast and ensure reliable operations. Figure 5.3 shows the assumed transit routes for this scenario.

The assumed transit routes, service frequency, and supporting infrastructure (i.e. queue jumps) would be required at full development of the FOUR PROJECTS. The full level of transit service would not achieve adequate transit ridership during the early stages of development. Thus the ultimate transit service, like the roadway system serving the FOUR PROJECTS, must be phased with development of the FOUR PROJECTS.

5.2 TRIP GENERATION

The SACSIM model that has been utilized for the transportation forecasts in this analysis estimated trip generation of the FOUR PROJECTS. Table 5.1 summarizes the person trip generation. The FOUR PROJECTS would generate over 108,000 daily work person trip ends, and over 885,000 daily person trip ends for all trip purposes.

Table 5.2 summarizes the estimated mode choice for the MTP plus FOUR PROJECTS scenario. Over 89 percent of all person trips are expected to be accommodated by automobile. Transit will serve about 2.3 percent of all trips, while walk and bike modes will accommodate about 7.7 percent of all trips. The mode choice assumes full implementation of the project's pedestrian and bicycle systems.

Table 5.3 summarizes the vehicular (auto) trip generation of the FOUR PROJECTS. The FOUR PROJECTS are estimated to generate over 641,000 daily vehicle trip ends. About 44,000 of the daily vehicle trip ends will be associated with trips with both an origin and destination within the individual projects, about 14 percent of the trip ends. The internal trip ends represent about 22,000 daily vehicle trips (one-half the number of internal trip ends). The FOUR PROJECTS will generate about 553,500 external vehicle trips that have an origin or destination inside one of the FOUR PROJECTS but the other end of the trip is outside the project from which it originated. Table 5.3 also shows the vehicle trips generated during the a.m. and p.m. peak hours.

5.3 TRIP DISTRIBUTION

The distribution of trips associated with development of the FOUR PROJECTS was derived utilizing SACSIM, incorporating the proposed land use and access locations associated with the FOUR PROJECTS. Trip distribution varies by land use and time period. Figure 5.4 illustrates the overall trip distribution of daily FOUR PROJECTS trips with the MTP Plus FOUR PROJECTS scenario. The highest percentages of FOUR PROJECTS traffic are accommodated on Jackson Road, Bradshaw Road, Kiefer Boulevard, and Vineyard Road.

Table 5.1: Estimated Daily Person Trip Generation (MTP Cumulative)

FOUR PROJECTS

Trip Purpose	Daily Person Trip Ends
Work Trips	108,203
Non-Work Trips	777,490
All Trip Purposes	885,692

Source: *DKS Associates, 2014.*

Table 5.2: Mode Split (MTP Cumulative)

FOUR PROJECTS

Mode	Percentage of Person Trips by Trip Purpose		
	Work Trips	Non-Work Trips	All Trip Purposes
Auto - SOV	83.0%	49.1%	53.2%
Auto - HOV	10.4%	40.4%	36.7%
Transit	4.1%	2.1%	2.3%
Walk	1.8%	7.6%	6.9%
Bike	0.8%	0.8%	0.8%

Source: *DKS Associates, 2014.*

Table 5.3: Estimated Daily Vehicle Trip Generation (MTP Cumulative)

FOUR PROJECTS

Trip Type		AM Peak Hour	PM Peak Hour	Daily
Total Vehicle Trip Ends		47,742	79,384	604,517
Percent Internal Trip Ends[1]		22.6%	30.6%	26.1%
Vehicle Trips	Internal to Projects	5,403	12,165	79,002
	External to Projects	36,936	55,054	446,501
	Total	42,339	67,219	525,503

[1.] Both trip ends within individual projects.

Source: *DKS Associates, 2014.*

5.4 OPERATIONS ANALYSIS AND IMPACTS

Cumulative scenario impacts are determined by comparing the traffic operating conditions associated with the FOUR PROJECTS with the traffic operating conditions associated with the cumulative (without FOUR PROJECTS) conditions, and comparing the change to the thresholds of significance. Figure 5.5 illustrates the resultant traffic operating conditions associated with the MTP Cumulative (without FOUR PROJECTS) scenario. Figure 5.6 illustrates the resultant traffic operating conditions associated with the MTP Cumulative Plus FOUR PROJECTS scenario.

5.4.1 MTP Cumulative Plus FOUR PROJECTS Roadway Segment Impacts

Table 5.4 summarizes the results of the operations analysis for the study area roadway segments. The table includes the number of lanes assumed with the implementation of the FOUR PROJECTS. The shaded table cells under the "Travel Lanes" and "Facility Type" headings illustrate new roadways or widened roadways. The last column of the table shows the project(s) responsible for the increase in the number of roadway lanes. The shaded table cells under the "Level of Service" heading indicate those locations with an LOS impact.

5.4.2 MTP Cumulative Plus FOUR PROJECTS Intersection Impacts

Table 5.5 and 5.6 summarize the results of the operations analysis for the study area intersections. The tables include the implementation of intersection changes associated with the FOUR PROJECTS. Table 5.6 illustrates the type of traffic control and number of lanes by type on each study area intersection approach. Shaded table cells indicate those locations where changes in traffic control and / or number of approach lanes by type would be fully funded by the project(s) shown in the last column. Shaded table cells in Table 5.5 illustrate those locations with an LOS impact. Detailed analysis information is included in the technical appendix.

Signal warrant analysis was conducted for all unsignalized intersections along Jackson Road, and other unsignalized intersections in close proximity to the project. The project is considered to have a significant impact at an unsignalized location if both the impact criteria in Table 1.6 are met, and one or more of the signal warrants specified in the California Manual on Uniform Traffic Control Devices (CAMUTCD) are met. Detailed signal warrant calculation sheets are included in the technical appendix. The following unsignalized intersections exhibit significant impacts and meet one or more traffic signal warrants:

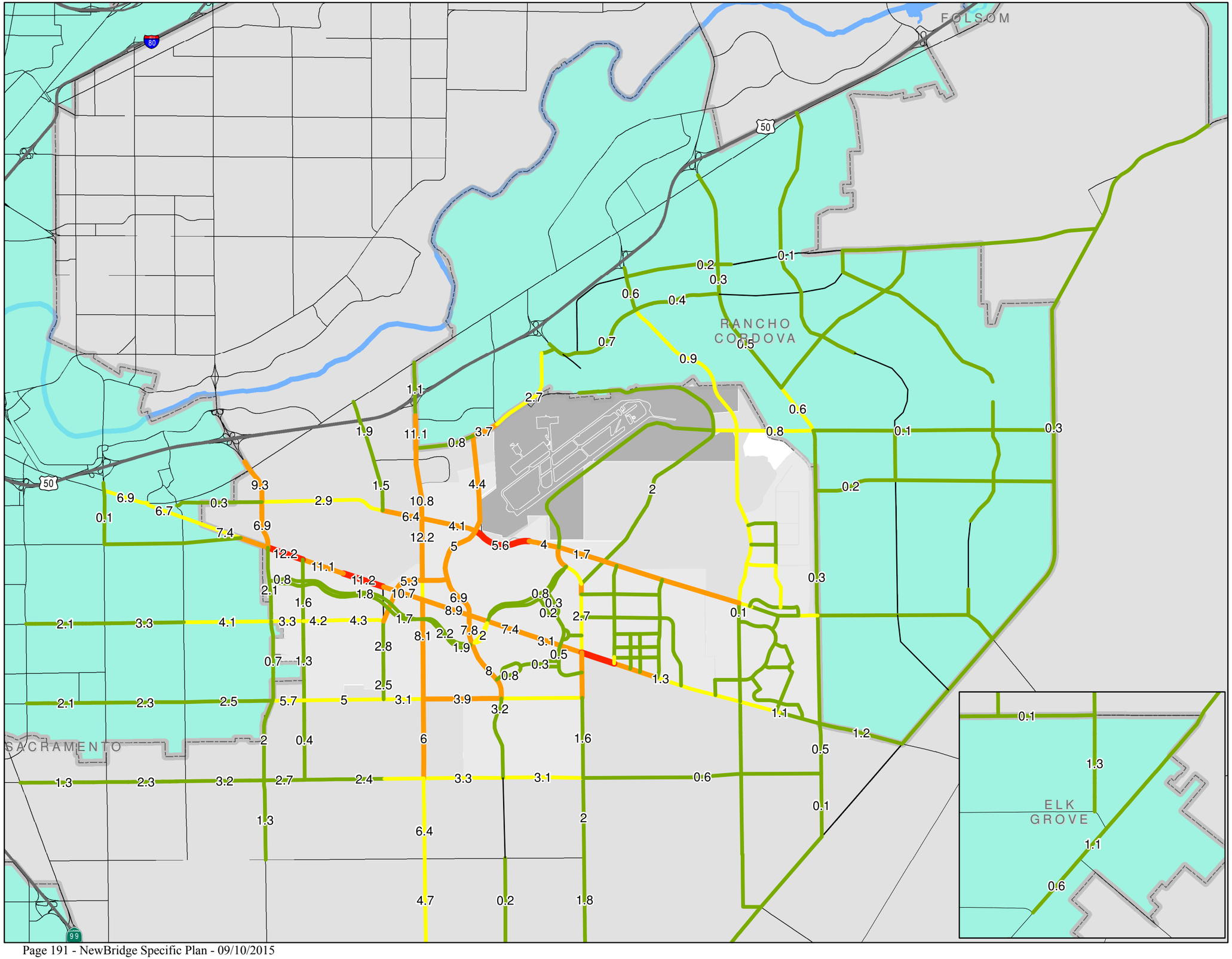
- Zinfandel Drive and Woodring Drive
- Happy Lane and Old Placerville Road
- Eagles Nest Road and Florin Road

FIGURE 5.3
PROJECT TRANSIT NETWORK
MTP CUM PLUS FOUR PROJECTS

Legend

- Jackson Express Route (JEX)
- Kiefer Jackson Local Route (KJL)
- Rock Creek Parkway Route (RCPK)
- West Jackson Local Shuttle (WJL)
- Cities
- Mather Airport

FIGURE 5.4
MTP CUM PLUS FOUR PROJECTS
FOUR PROJECTS TRIP DISTRIBUTION

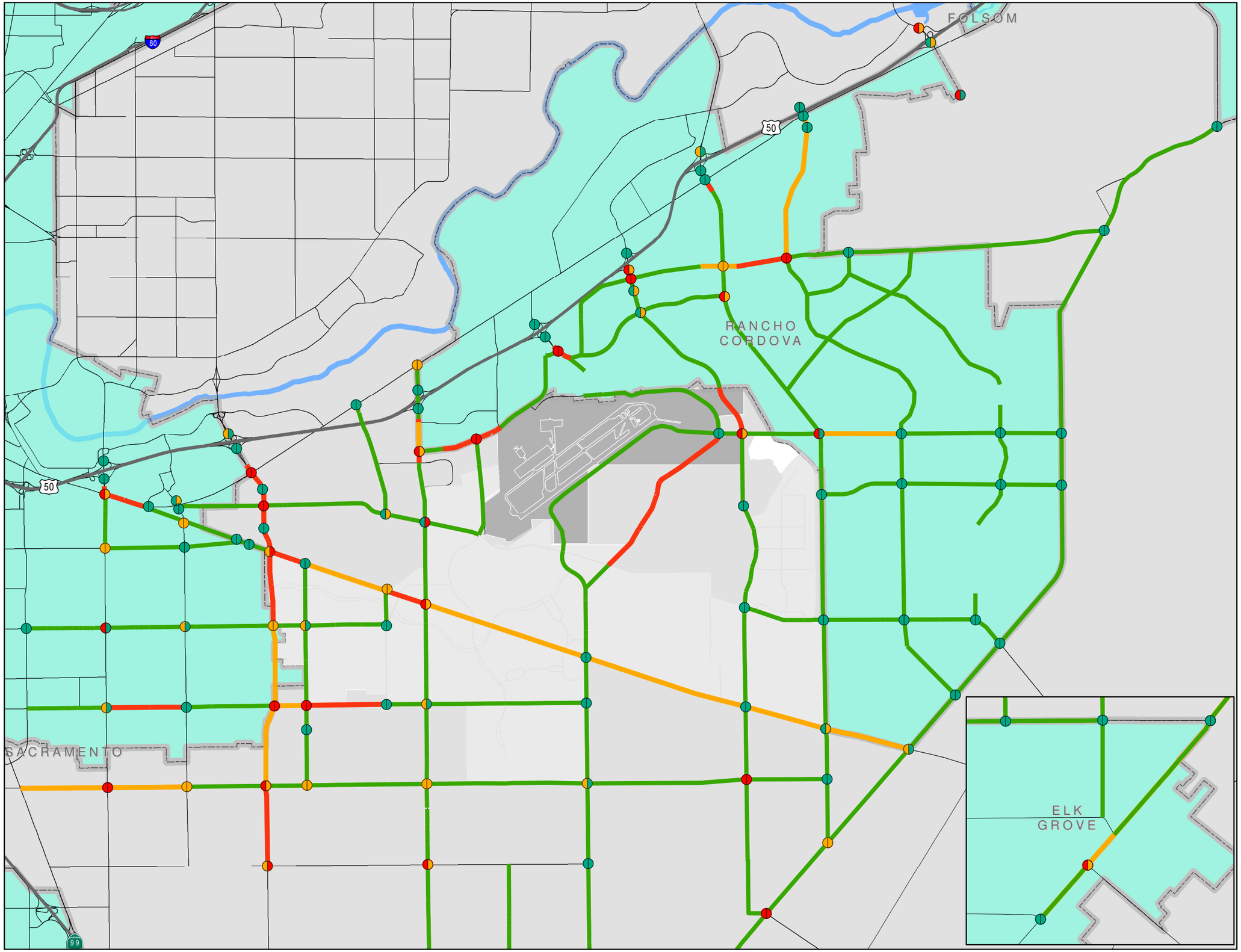


Legend

- 0.0%
- 0.1% to 2.5%
- 2.6% to 5.0%
- 5.1% to 10.0%
- 10.0% and up
- Freeways
- Other Major Roadways
- Cities
- Mather Airport

DKS

FIGURE 5.5
MTP CUMULATIVE NO PROJECT ROADWAY SEGMENT AND INTERSECTION LOS AND IMPACTS



Legend

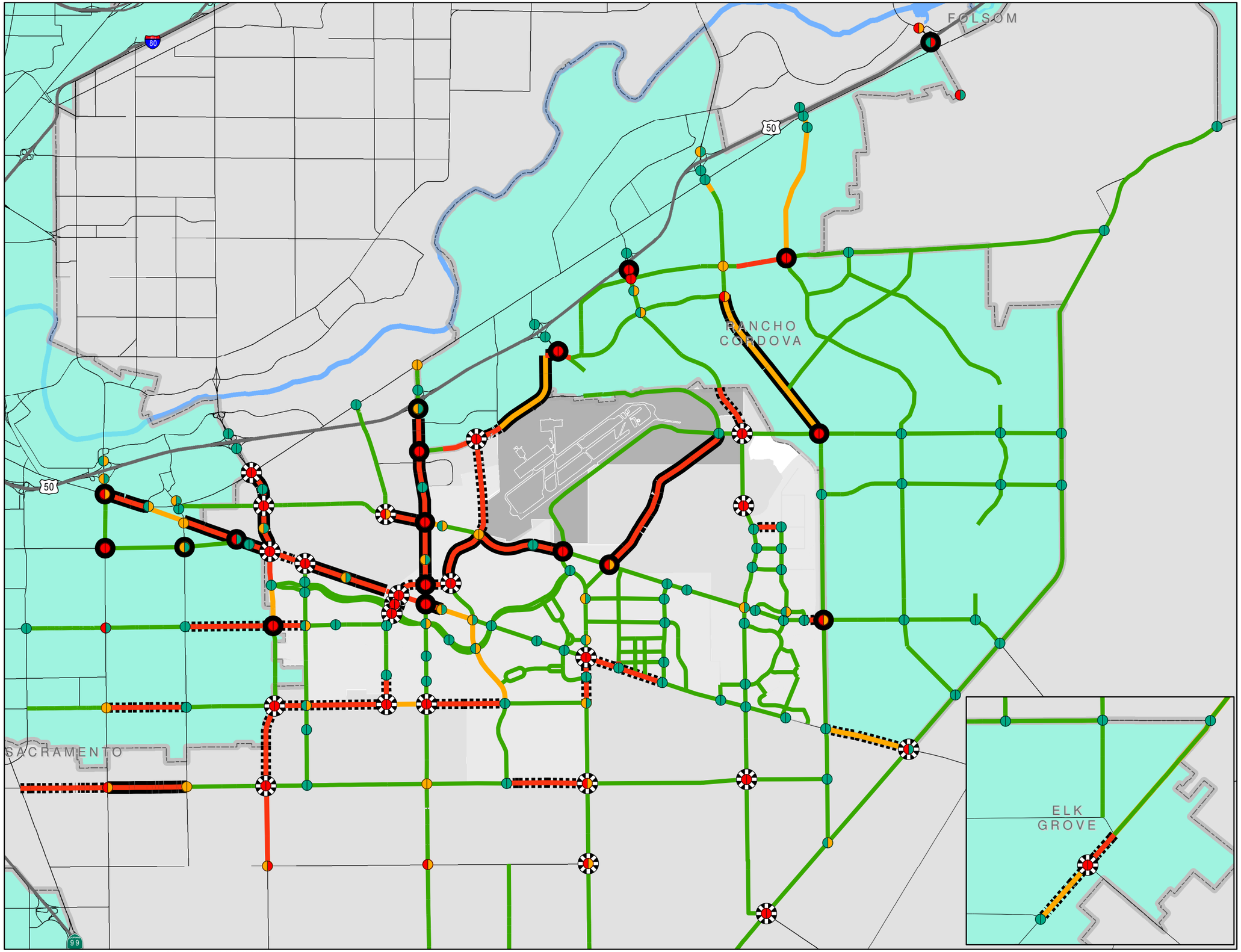
Intersections (AM Peak Hour)
- LOS A-D
- LOS E
- LOS F

Intersections (PM Peak Hour)
- LOS A-D
- LOS E
- LOS F

Roadway Segments
- LOS A-D
- LOS E
- LOS F
- Cities
- Mather Airport

DKS

FIGURE 5.6
MTP CUM PLUS FOUR PROJECTS ROADWAY SEGMENT AND INTERSECTION LOS AND IMPACTS



Legend

Intersections (AM Peak Hour)
- LOS A-D
- LOS E
- LOS F

Intersections (PM Peak Hour)
- LOS A-D
- LOS E
- LOS F
- Mitigable Intersection Impact
- Unavoidable Intersection Impact

Roadway Segments
- LOS A-D
- LOS E
- LOS F

Impacts
- Unavoidable Segment Impact
- Mitigable Segment Impact
- Cities
- Mather Airport

Table 5.4
MTP Cumulative Roadway Segment Levels of Service

ID	Roadway	Segment		MTP Cumulative No Project					MTP Cumulative + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
1	Bradshaw Rd	Folsom Blvd	US 50	6	Arterial M	25,970	0.48	A	6	Arterial M	23,720	0.44	A	
2	Bradshaw Rd	US 50	Lincoln Village Dr	6	Arterial M	63,640	1.18	**F**	6	Arterial M	85,970	1.59	**F**	
3	Bradshaw Rd	Lincoln Village Dr	Old Placerville Rd	6	Arterial M	49,490	0.92	**E**	6	Arterial M	78,400	1.45	**F**	
4	Bradshaw Rd	Old Placerville Rd	Goethe Rd	6	Arterial M	56,990	1.06	**F**	6	Arterial M	76,540	1.42	**F**	
5.1	Bradshaw Rd	Goethe Rd	Collector WJ-8	6	Arterial M	40,840	0.76	C	6	Arterial M	65,320	1.21	**F**	
5.2	Bradshaw Rd	Collector WJ-8	Kiefer Blvd	6	Arterial M	39,170	0.73	C	6	Arterial M	60,740	1.12	**F**	
6.1	Bradshaw Rd	Kiefer Blvd	Collector WJ-9	6	Arterial M	44,220	0.82	D	6	Arterial M	64,280	1.19	**F**	
6.2	Bradshaw Rd	Collector WJ-9	Mayhew Rd	6	Arterial M	45,020	0.83	D	6	Arterial M	62,160	1.15	**F**	
6.3	Bradshaw Rd	Mayhew Rd	Jackson Rd	6	Arterial M	44,980	0.83	D	6	Arterial M	39,710	0.74	C	
7.1	Bradshaw Rd	Jackson Rd	Rock Creek Pkwy	6	Arterial M	38,130	0.71	C	6	Arterial M	39,890	0.74	C	
7.2	Bradshaw Rd	Rock Creek Pkwy	Collector WJ-10	6	Arterial M	38,130	0.71	C	6	Arterial M	44,390	0.82	D	
7.3	Bradshaw Rd	Collector WJ-10	Collector WJ-11	6	Arterial M	38,300	0.71	C	6	Arterial M	40,470	0.75	C	
7.4	Bradshaw Rd	Collector WJ-11	Elder Creek Rd	6	Arterial M	38,110	0.71	C	6	Arterial M	38,110	0.71	C	
8	Bradshaw Rd	Elder Creek Rd	Florin Rd	6	Arterial M	38,690	0.72	C	6	Arterial M	43,780	0.81	D	
9	Bradshaw Rd	Florin Rd	Gerber Rd	6	Arterial M	36,340	0.67	B	6	Arterial M	45,090	0.84	D	
10	Bradshaw Rd	Gerber Rd	Calvine Rd	6	Arterial M	27,420	0.51	A	6	Arterial M	33,330	0.62	B	
11	Calvine Rd	Waterman Rd	Bradshaw Rd	6	Arterial M	14,540	0.27	A	6	Arterial M	14,150	0.26	A	
12	Calvine Rd	Bradshaw Rd	Vineyard Rd	6	Arterial M	11,570	0.21	A	6	Arterial M	11,510	0.21	A	
13	Calvine Rd	Vineyard Rd	Excelsior Rd	4	Arterial M	5,470	0.15	A	4	Arterial M	5,460	0.15	A	
14	Chrysanthy Blvd	Sunrise Blvd	Rancho Cordova Pkwy	4	Arterial M	6,190	0.17	A	4	Arterial M	13,110	0.36	A	
15	Douglas Rd	Mather Blvd	Zinfandel Dr	4	Arterial M	15,600	0.43	A	4	Arterial M	30,940	0.86	D	
16	Douglas Rd	Zinfandel Dr	Sunrise Blvd	6	Arterial M	28,550	0.53	A	6	Arterial M	39,820	0.74	C	
17	Douglas Rd	Sunrise Blvd	Rancho Cordova Pkwy	5	Arterial M	35,080	0.97	**E**	5	Arterial M	28,260	0.79	C	
18.1	Douglas Rd	Rancho Cordova Pkwy	Americanos Blvd	5	Arterial M	29,920	0.83	D	5	Arterial M	22,850	0.63	B	
18.2	Douglas Rd	Americanos Blvd	Grant Line Rd	5	Arterial M	7,100	0.20	A	5	Arterial M	7,220	0.20	A	
19.1	Eagles Nest Rd	Kiefer Blvd	N Bridgewater Dr	2	Arterial M	6,080	0.34	A	4	Arterial M	13,030	0.36	A	NewBridge
19.2	Eagles Nest Rd	N Bridgewater Dr	S Bridgewater Dr	2	Arterial M	6,080	0.34	A	4	Arterial M	13,210	0.37	A	NewBridge
19.3	Eagles Nest Rd	S Bridgewater Dr	Jackson Rd	2	Arterial M	6,200	0.34	A	4	Arterial M	13,460	0.37	A	NewBridge
20	Eagles Nest Rd	Jackson Rd	Florin Rd	2	Arterial M	4530	0.25	A	2	Arterial M	9590	0.53	A	
21	Eagles Nest Rd	Florin Rd	Grant Line Rd	2	Arterial M	4020	0.22	A	2	Arterial M	5590	0.31	A	
22	Elder Creek Rd	65th St	Power Inn Rd	4	Arterial M	21,830	0.61	B	4	Arterial M	27,440	0.76	C	
23	Elder Creek Rd	Power Inn Rd	Florin-Perkins Rd	2	Arterial M	22,340	1.24	**F**	2	Arterial M	27,780	1.54	**F**	
24	Elder Creek Rd	Florin Perkins Rd	South Watt Ave	4	Arterial M	21,190	0.59	A	4	Arterial M	28,120	0.78	C	

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 5.4
MTP Cumulative Roadway Segment Levels of Service

ID	Roadway	Segment		MTP Cumulative No Project					MTP Cumulative + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
25	Elder Creek Rd	South Watt Ave	Hedge Ave	2	Arterial M	17,500	0.97	E	2	Arterial M	43,150	2.40	**F**	
26	Elder Creek Rd	Hedge Ave	Mayhew Rd	2	Arterial M	20,280	1.13	**F**	2	Arterial M	43,640	2.42	**F**	
27	Elder Creek Rd	Mayhew Rd	Bradshaw Rd	2	Arterial M	3,720	0.21	A	3	Arterial M	17,180	0.95	E	West Jackson
28.1	Elder Creek Rd	Bradshaw Rd	Vineyard Rd	2	Arterial M	5,130	0.29	A	3	Arterial M	27,790	1.54	**F**	West Jackson
28.2	Elder Creek Rd	Vineyard Rd	Excelsior Rd	2	Arterial M	5,040	0.28	A	4	Arterial M	25,470	0.71	C	West Jackson
29	Elk Grove-Florin Rd	Florin Rd	Gerber Rd	2	Arterial M	27,340	1.52	**F**	2	Arterial M	26,630	1.48	**F**	
30.1	Excelsior Rd	Kiefer Blvd	Douglas Rd	2	Arterial M	6,120	0.34	A	2	Arterial M	10,920	0.61	B	
30.2	Excelsior Rd	Douglas Rd	Collector WJ-1/ Collector JT-1	4	Arterial M	8,140	0.23	A	4	Arterial M	29,040	0.81	D	
30.3	Excelsior Rd	Collector WJ-1/ Collector JT-1	Collector WJ-2/ Collector JT-2	4	Arterial M	8,570	0.24	A	4	Arterial M	27,120	0.75	C	
30.4	Excelsior Rd	Collector WJ-2/ Collector JT-2	Jackson Rd	4	Arterial M	8,570	0.24	A	4	Arterial M	27,730	0.77	C	
31.1	Excelsior Rd	Jackson Rd	Collector WJ-6	2	Arterial M	9,190	0.51	A	3	Arterial M	35,350	1.96	**F**	West Jackson
31.2	Excelsior Rd	Collector WJ-6	Elder Creek Rd	2	Arterial M	9,190	0.51	A	3	Arterial M	35,140	1.95	**F**	West Jackson
32	Excelsior Rd	Elder Creek Rd	Florin Rd	2	Arterial M	4,980	0.28	A	3	Arterial M	11,870	0.66	B	West Jackson
33	Excelsior Rd	Florin Rd	Gerber Rd	2	Arterial M	6,960	0.39	A	2	Arterial M	14,310	0.80	C	
34	Excelsior Rd	Gerber Rd	Calvine Rd	2	Arterial M	3,990	0.22	A	2	Arterial M	8,990	0.50	A	
35	Excelsior Rd	Calvine Rd	Sheldon Rd	2	Arterial M	4,910	0.27	A	2	Arterial M	9,330	0.52	A	
36	Florin Rd	Stockton Blvd	Power Inn Rd	4	Arterial M	33,990	0.94	E	4	Arterial M	38,590	1.07	**F**	
37	Florin Rd	Power Inn Rd	Florin-Perkins Rd	4	Arterial M	33,140	0.92	E	4	Arterial M	39,640	1.10	**F**	
38	Florin Rd	Florin-Perkins Rd	So Watt Ave/ Elk Grove Florin Rd	4	Arterial M	17,080	0.47	A	4	Arterial M	23,480	0.65	B	
39	Florin Rd	South Watt Ave	Hedge Ave	4	Arterial M	9,900	0.28	A	4	Arterial M	9,410	0.26	A	
40	Florin Rd	Hedge Ave	Mayhew Rd	4	Arterial M	11,300	0.31	A	4	Arterial M	9,160	0.25	A	
41	Florin Rd	Mayhew Rd	Bradshaw Rd	4	Arterial M	21,540	0.60	A	4	Arterial M	32,310	0.90	D	
42.1	Florin Rd	Bradshaw Rd	Vineyard Rd	4	Arterial M	4,930	0.14	A	4	Arterial M	20,460	0.57	A	
42.2	Florin Rd	Vineyard Rd	Excelsior Rd	2	Arterial M	4,970	0.28	A	3	Arterial M	19,520	1.08	**F**	West Jackson
43	Florin Rd	Excelsior Rd	Sunrise Blvd	2	Arterial M	6,790	0.38	A	2	Arterial M	11,880	0.66	B	
44	Folsom Blvd	Howe Ave	Jackson Rd	4	Arterial M	47,760	1.33	**F**	4	Arterial M	55,090	1.53	**F**	

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Table 5.4
MTP Cumulative Roadway Segment Levels of Service

ID	Roadway	Segment		MTP Cumulative No Project					MTP Cumulative + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
45	Fruitridge Rd	65th St	Power Inn Rd	4	Arterial M	21,640	0.60	B	4	Arterial M	26,690	0.74	C	
46	Fruitridge Rd	Power Inn Rd	Florin Perkins Rd	4	Arterial M	18,700	0.52	A	4	Arterial M	30,040	0.83	D	
47	Fruitridge Rd	Florin Perkins Rd	South Watt Ave	2	Arterial M	12,760	0.71	C	2	Arterial M	27,360	1.52	**F**	
48	Fruitridge Rd	South Watt Ave	Hedge Ave	2	Arterial M	5,150	0.29	A	3	Arterial M	19,590	1.09	**F**	West Jackson
49.1	Fruitridge Rd	Hedge Ave	Collector WJ-12	2	Arterial M	1,260	0.07	A	4	Arterial M	23,000	0.64	B	West Jackson
49.2	Fruitridge Rd	Collector WJ-12	Mayhew Rd	2	Arterial M	1,230	0.07	A	4	Arterial M	22,940	0.64	B	West Jackson
50	Grant Line Rd	White Rock Rd	Douglas Rd	4	Arterial M	17,720	0.49	A	4	Arterial M	19,330	0.54	A	
51.1	Grant Line Rd	Douglas Rd	Chrysanthy Blvd	4	Arterial M	10,670	0.30	A	4	Arterial M	15,220	0.42	A	
51.2	Grant Line Rd	Chrysanthy Blvd	Kiefer Blvd	4	Arterial M	10,640	0.30	A	4	Arterial M	15,100	0.42	A	
52.1	Grant Line Rd	Kiefer Blvd	Rancho Cordova Pkwy	4	Arterial M	11,510	0.32	A	4	Arterial M	14,610	0.41	A	
52.2	Grant Line Rd	Rancho Cordova Pkwy	Jackson Rd	4	Arterial M	15,240	0.42	A	4	Arterial M	16,150	0.45	A	
53	Grant Line Rd	Jackson Rd	Sunrise Blvd	4	Arterial M	19,200	0.53	A	4	Arterial M	19,230	0.53	A	
54	Grant Line Rd	Sunrise Blvd	Calvine Rd	4	Arterial M	29,380	0.82	D	4	Arterial M	31,320	0.87	D	
55	Grant Line Rd	Calvine Rd	Sheldon Rd	4	Arterial M	27,060	0.75	C	4	Arterial M	28,970	0.80	D	
56	Grant Line Rd	Sheldon Rd	Wilton Rd	4	Arterial M	32,480	0.90	**E**	4	Arterial M	38,800	1.08	**F**	
57	Grant Line Rd	Wilton Rd	Bond Rd	4	Arterial M	27,930	0.78	C	4	Arterial M	33,840	0.94	**E**	
58	Happy Ln	Old Placerville Rd	Kiefer Blvd	2	Arterial M	3,980	0.22	A	4	Arterial M	49,530	1.38	**F**	West Jackson
59.1	Hedge Ave	Jackson Rd	Rock Creek Pkwy	2	Arterial M	2,130	0.12	A	2	Arterial M	9,640	0.54	A	
59.2	Hedge Ave	Rock Creek Pkwy	Fruitridge Rd	2	Arterial M	2,240	0.12	A	2	Arterial M	4,270	0.24	A	
60	Hedge Ave	Fruitridge Rd	Elder Creek Rd	2	Arterial M	3,370	0.19	A	2	Arterial M	4,440	0.25	A	
61	Hedge Ave	Elder Creek Rd	Florin Rd	2	Arterial M	4,150	0.23	A	2	Arterial M	2,250	0.13	A	
62	Howe Ave	US 50	Folsom Blvd	6	Arterial M	65,100	1.21	**F**	6	Arterial M	70,480	1.31	**F**	
63	International Dr	Mather Field Rd	Zinfandel Dr	6	Arterial M	40,240	0.75	C	6	Arterial M	39,720	0.74	C	
64	International Dr	Zinfandel Dr	Sunrise Blvd	6	Arterial M	18,860	0.35	A	6	Arterial M	26,670	0.49	A	
65	Jackson Rd	Folsom Blvd	Florin Perkins Rd	4	Arterial M	27,690	0.77	C	4	Arterial M	35,670	0.99	E	
66.1	Jackson Rd	Florin Perkins Rd	14th Ave	4	Arterial M	23,710	0.66	B	4	Arterial M	42,300	1.18	**F**	
66.2	Jackson Rd	14th Ave	Rock Creek Pkwy	4	Arterial M	30,370	0.84	D	4	Arterial M	58,220	1.62	**F**	
66.3	Jackson Rd	Rock Creek Pkwy	Aspen 1 Dwy	4	Arterial M	23,810	0.66	B	4	Arterial M	52,540	1.46	**F**	

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Table 5.4
MTP Cumulative Roadway Segment Levels of Service

ID	Roadway	Segment		MTP Cumulative No Project					MTP Cumulative + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
66.4	Jackson Rd	Aspen 1 Dwy	South Watt Ave	4	Arterial M	23,810	0.66	B	4	Arterial M	52,540	1.46	**F**	
67	Jackson Rd	South Watt Ave	Hedge Ave	2	Arterial M	21,080	1.17	**F**	4	Arterial M	65,760	1.83	**F**	West Jackson
68.1	Jackson Rd	Hedge Ave	Collector WJ-3	2	Arterial M	17,470	0.97	E	4	Arterial M	59,710	1.66	**F**	West Jackson
68.2	Jackson Rd	Collector WJ-3	Mayhew Rd	2	Arterial M	17,500	0.97	E	4	Arterial M	60,300	1.68	**F**	West Jackson
69	Jackson Rd	Mayhew Rd	Bradshaw Rd	2	Arterial M	19,430	1.08	**F**	6	Arterial M	58,820	1.09	**F**	West Jackson
70.1	Jackson Rd	Bradshaw Rd	Collector WJ-4	2	Rural Hwy	17,430	0.76	E	6	Arterial M	54,830	1.02	**F**	West Jackson
70.2	Jackson Rd	Collector WJ-4	Happy Ln	2	Rural Hwy	17,510	0.76	E	6	Arterial M	52,140	0.97	E	West Jackson
70.3	Jackson Rd	Happy Ln	Rock Creek Pkwy	2	Rural Hwy	17,410	0.76	E	6	Arterial M	44,970	0.83	D	West Jackson
70.4	Jackson Rd	Rock Creek Pkwy	Collector WJ-5	2	Rural Hwy	17,410	0.76	E	6	Arterial M	45,320	0.84	D	West Jackson
70.5	Jackson Rd	Collector WJ-5	Collector WJ-6	2	Rural Hwy	17,430	0.76	E	6	Arterial M	36,060	0.67	B	West Jackson
70.6	Jackson Rd	Collector WJ-6	Excelsior Rd	2	Rural Hwy	17,430	0.76	E	6	Arterial M	36,140	0.67	B	West Jackson
71.1	Jackson Rd	Excelsior Rd	Collector JT-3	2	Rural Hwy	13,760	0.60	E	4	Arterial M	50,100	1.39	**F**	Jackson Township
71.2	Jackson Rd	Collector JT-3	Tree View Ln	2	Rural Hwy	13,780	0.60	E	4	Arterial M	36,060	1.00	**F**	Jackson Township
71.3	Jackson Rd	Tree View Ln	Collector JT-4	2	Rural Hwy	13,760	0.60	E	4	Arterial M	28,070	0.78	C	Jackson Township
71.4	Jackson Rd	Collector JT-4	Eagles Nest Rd	2	Rural Hwy	13,780	0.60	E	4	Arterial M	24,660	0.69	B	Jackson Township
72.1	Jackson Rd	Eagles Nest Rd	Rockbridge Dr	2	Rural Hwy	14,440	0.63	E	4	Arterial M	23,630	0.66	B	NewBridge
72.2	Jackson Rd	Rockbridge Dr	Sunrise Blvd	2	Rural Hwy	14,920	0.65	E	4	Arterial M	22,200	0.62		NewBridge
73	Jackson Rd	Sunrise Blvd	Grant Line Rd	2	Rural Hwy	18,000	0.79	**E**	2	Rural Hwy	20,160	0.88	**E**	
74	Kiefer Blvd	Florin Perkins Rd	South Watt Ave	2	Arterial M	2,890	0.16	A	2	Arterial M	4,930	0.27	A	
75	Kiefer Blvd	South Watt Ave	Mayhew Rd	4	Arterial M	24,290	0.67	B	4	Arterial M	32,340	0.90	D	
76	Kiefer Blvd	Mayhew Rd	Bradshaw Rd	4	Arterial M	13,650	0.38	A	4	Arterial M	43,890	1.22	**F**	
77.1	Kiefer Blvd	Bradshaw Rd	Collector WJ-14	2	Arterial M	5,930	0.33	A	6	Arterial M	49,620	0.92	E	West Jackson
77.2	Kiefer Blvd	Collector WJ-14	Happy Ln	2	Arterial M	4,940	0.27	A	6	Arterial M	41,720	0.77	C	West Jackson
78.1	Kiefer Blvd	Eagles Nest Rd	W Collector MS-1	2	Arterial M	3400	0.19	A	4	Arterial M	21,740	0.60	B	NewBridge; Mather South
78.2	Kiefer Blvd	W Collector MS-1	Northbridge Dr	2	Arterial M	3400	0.19	A	4	Arterial M	15,380	0.43	A	NewBridge; Mather South
78.3	Kiefer Blvd	Northbridge Dr	E Collector MS-1	2	Arterial M	3400	0.19	A	4	Arterial M	15,900	0.44	A	NewBridge; Mather South
78.4	Kiefer Blvd	E Collector MS-1	Sunrise Blvd	2	Arterial M	3350	0.19	A	3	Arterial M	22,480	1.25	**F**	NewBridge
79	Kiefer Blvd	Sunrise Blvd	Rancho Cordova Pkwy	2	Arterial M	7,120	0.40	A	2	Arterial M	13,400	0.74	C	

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Table 5.4
MTP Cumulative Roadway Segment Levels of Service

ID	Roadway	Segment		MTP Cumulative No Project					MTP Cumulative + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
80	Mather Blvd / Norden Ave	Von Karman St	Bleckely St	4	Arterial M	11,430	0.32	A	4	Arterial M	11,380	0.32	A	
81	Mather Blvd	Bleckely St	Femoyer St	4	Arterial M	11,430	0.32	A	4	Arterial M	11,380	0.32	A	
82	Mather Blvd	Femoyer St	Douglas Rd	2	Arterial M	11,490	0.64	B	2	Arterial M	11,430	0.64	B	
83	Mather Blvd-Excelsior Rd	Douglas Rd	Kiefer Blvd	2	Res Collector F	9,160	1.15	**F**	2	Res Collector F	14,550	1.82	**F**	
84	Mather Field Rd	US 50	Rockingham Dr	6	Arterial M	60,190	1.11	**F**	6	Arterial M	59,270	1.10	**F**	
85	Mather Field Rd	Rockingham Dr	International Dr	6	Arterial M	65,760	1.22	**F**	6	Arterial M	67,280	1.25	**F**	
86	Mather Field Rd	International Dr	Peter A McCuen Blvd	6	Arterial M	17,610	0.33	A	6	Arterial M	18,200	0.34	A	
87	Mayhew Rd	Folsom Blvd	Goethe Rd	2	Arterial M	6,240	0.35	A	2	Arterial M	14,220	0.79	C	
88	Mayhew Rd	Goethe Rd	Kiefer Blvd	2	Arterial M	10,090	0.56	A	2	Arterial M	13,300	0.74	C	
89.1	Mayhew Rd	Jackson Rd	Rock Creek Pkwy						4	Arterial M	45,500	1.26	**F**	West Jackson
89.2	Mayhew Rd	Rock Creek Pkwy	Fruitridge Rd						4	Arterial M	40,820	1.13	**F**	West Jackson
90	Old Placerville Rd	Bradshaw Rd	Granby Dr	4	Arterial M	28,270	0.79	C	4	Arterial M	25,530	0.71	C	
91	Old Placerville Rd	Granby Dr	Happy Ln	2	Arterial M	24,860	1.38	**F**	2	Arterial M	23,530	1.31	**F**	
92	Old Placerville Rd	Happy Ln	Routier Rd	2	Arterial M	20,930	1.16	**F**	2	Arterial M	50,980	2.83	**F**	
93	Old Placerville Rd	Routier Rd	Rockingham Dr	4	Arterial M	22,140	0.62	B	4	Arterial M	32,970	0.92	**E**	
94	Power Inn Rd	Folsom Blvd	14th Ave	6	Arterial M	42,040	0.78	C	6	Arterial M	46,170	0.86	D	
95	Rockingham Dr	Old Placerville Rd	Mather Field Rd	4	Arterial M	27,940	0.78	C	4	Arterial M	36,140	1.00	**F**	
96	South Watt Ave	Folsom Blvd	Kiefer Blvd	6	Arterial M	62,830	1.16	**F**	6	Arterial M	82,250	1.52	**F**	
97	South Watt Ave	Kiefer Blvd	Jackson Rd	6	Arterial M	62,170	1.15	**F**	6	Arterial M	72,010	1.33	**F**	
98.1	South Watt Ave	Jackson Rd	Rock Creek Pkwy	6	Arterial M	59,380	1.10	**F**	6	Arterial M	54,560	1.01	**F**	
98.2	South Watt Ave	Rock Creek Pkwy	Fruitridge Rd	6	Arterial M	58,150	1.08	**F**	6	Arterial M	53,910	1.00	**E**	
99	South Watt Ave	Fruitridge Rd	Elder Creek Rd	6	Arterial M	52,450	0.97	**E**	6	Arterial M	47,300	0.88	D	
100	South Watt Ave	Elder Creek Rd	Florin Rd	4	Arterial M	34,360	0.95	**E**	4	Arterial M	37,030	1.03	**F**	
101	Sunrise Blvd	US 50	Folsom Blvd	7	Arterial M	58,090	1.08	**F**	7	Arterial M	55,140	1.02	**F**	
102	Sunrise Blvd	Folsom Blvd	Trade Center Dr	6	Arterial M	54,090	1.00	**F**	6	Arterial M	51,430	0.95	**E**	
103	Sunrise Blvd	Trade Center Dr	White Rock Rd	6	Arterial M	31,510	0.58	A	6	Arterial M	33,400	0.62	B	
104.1	Sunrise Blvd	White Rock Rd	International Dr	6	Arterial M	38,030	0.70	C	6	Arterial M	39,950	0.74	C	
104.2	Sunrise Blvd	International Dr	Rio Del Oro Pkwy	6	Arterial M	43,770	0.81	D	6	Arterial M	53,110	0.98	**E**	
104.3	Sunrise Blvd	Rio Del Oro Pkwy	Douglas Rd	6	Arterial M	35,150	0.65	B	6	Arterial M	53,560	0.99	**E**	
105	Sunrise Blvd	Douglas Rd	Kiefer Blvd	5	Arterial M	21,340	0.59	A	5	Arterial M	30,680	0.85	D	
106	Sunrise Blvd	Kiefer Blvd	Jackson Rd	4	Arterial M	24,880	0.69	B	4	Arterial M	29,460	0.82	D	

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ID	Roadway	Segment		MTP Cumulative No Project					MTP Cumulative + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
107	Sunrise Blvd	Jackson Rd	Florin Rd	4	Arterial M	20,580	0.57	A	4	Arterial M	22,850	0.63	B	
108	Sunrise Blvd	Florin Rd	Grant Line Rd	4	Arterial M	14,420	0.40	A	4	Arterial M	15,750	0.44	A	
109	Vineyard Rd	Gerber Rd	Calvine Rd	2	Arterial M	9,220	0.51	A	2	Arterial M	9,050	0.50	A	
110	Watt Ave	US 50	Folsom Blvd	6	Arterial H	94,000	1.57	**F**	6	Arterial H	105,950	1.77	**F**	
111	White Rock Rd	International Rd	Quality Dr	2	Arterial M	4,680	0.26	A	2	Arterial M	4,720	0.26	A	
112	White Rock Rd	Quality Dr	Zinfandel Dr	4	Arterial M	19,370	0.54	A	4	Arterial M	16,820	0.47	A	
113	White Rock Rd	Zinfandel Dr	Kilgore Rd	6	Arterial M	29,240	0.54	A	6	Arterial M	27,470	0.51	A	
114	White Rock Rd	Kilgore Rd	Sunrise Blvd	5	Arterial M	33,520	0.93	**E**	5	Arterial M	30,700	0.85	D	
115	White Rock Rd	Sunrise Blvd	Fitzgerald Rd	4	Arterial M	33,460	0.93	**E**	4	Arterial M	30,360	0.84	D	
116.1	White Rock Rd	Fitzgerald Rd	Rancho Cordova Pkwy	4	Arterial M	45,390	1.26	**F**	4	Arterial M	38,630	1.07	**F**	
116.2	White Rock Rd	Rancho Cordova Pkwy	Americanos Blvd	4	Arterial M	10,890	0.30	A	4	Arterial M	5,570	0.15	A	
116.3	White Rock Rd	Americanos Blvd	Grant Line Rd	4	Arterial M	8,260	0.23	A	4	Arterial M	8,800	0.24	A	
117	White Rock Rd	Grant Line Rd	Prairie City Rd	4	Arterial M	26,760	0.74	C	4	Arterial M	29,070	0.81	D	
118	Zinfandel Dr	US 50	White Rock Rd	7	Arterial M	77,650	1.44	**F**	7	Arterial M	77,970	1.44	**F**	
119	Zinfandel Dr	White Rock Rd	International Rd	6	Arterial M	33,110	0.61	B	6	Arterial M	40,620	0.75	C	
120	Zinfandel Dr	International Rd	Baroque Dr	6	Arterial M	27,010	0.50	A	6	Arterial M	32,020	0.59	A	
121	Zinfandel Dr	Baroque Dr	City Limit	4	Arterial M	27,010	0.75	C	4	Arterial M	32,020	0.89	D	
122	Zinfandel Dr	City Limit	Douglas Rd	2	Arterial M	27,010	1.50	**F**	2	Arterial M	32,020	1.78	**F**	
123.1	Zinfandel Dr	Douglas Rd	Collector MS-2	4	Arterial M	11,210	0.31	A	4	Arterial M	30,180	0.84	D	
123.2	Zinfandel Dr	Collector MS-2	Collector MS-3	4	Arterial M	8,420	0.23	A	4	Arterial M	24,780	0.69	B	
123.3	Zinfandel Dr	Collector MS-3	Collector MS-4	4	Arterial M	8,420	0.23	A	4	Arterial M	23,030	0.64	B	
123.4	Zinfandel Dr	Collector MS-4	Kiefer Blvd	4	Arterial M	8,420	0.23	A	4	Arterial M	23,640	0.66	B	
124	14th Ave	Power Inn Rd	Florin Perkins Rd	4	Arterial M	13,060	0.36	A	4	Arterial M	26,570	0.74	C	
125	14th Ave	Florin Perkins Rd	Jackson Rd	4	Arterial M	7,070	0.20	A	4	Arterial M	15,960	0.44	A	
126	Chrysanthy Blvd	Rancho Cordova Pkwy	Americanos Blvd	4	Arterial M	8,010	0.22	A	4	Arterial M	16,980	0.47	A	
127	Chrysanthy Blvd	Americanos Blvd	Grant Line Rd	2	Arterial M	2,200	0.12	A	2	Arterial M	4,610	0.26	A	
128	Douglas Rd (Extension)	Mather Blvd	Kiefer Blvd	4	Arterial M	2,210	0.06	A	4	Arterial M	17,530	0.49	A	
130	International Dr	Rancho Cordova Pkwy	Americanos Blvd	6	Arterial M	2,340	0.04	A	6	Arterial M	1,630	0.03	A	
131	Kiefer Blvd	Rancho Cordova Pkwy	Americanos Blvd	4	Arterial M	520	0.01	A	4	Arterial M	2,070	0.06	A	
132	Kiefer Blvd	Americanos Blvd	Grant Line Rd	4	Arterial M	520	0.01	A	4	Arterial M	2,080	0.06	A	
133	Rancho Cordova Pkwy	US 50	Easton Valley Pkwy	4	Arterial M	34,920	0.97	E	4	Arterial M	35,330	0.98	E	
134	Rancho Cordova Pkwy	Easton Valley Pkwy	White Rock Rd	4	Arterial M	35,100	0.98	E	4	Arterial M	35,620	0.99	E	
135	Rancho Cordova Pkwy	White Rock Rd	International Dr	6	Arterial M	43,480	0.81	D	6	Arterial M	39,600	0.73	C	

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ID	Roadway	Segment		MTP Cumulative No Project					MTP Cumulative + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
136	Rancho Cordova Pkwy	International Dr	Rio Del Oro Pkwy	6	Arterial M	41,770	0.77	C	6	Arterial M	38,670	0.72	C	
137	Rancho Cordova Pkwy	Rio Del Oro Pkwy	Villagio Dr	6	Arterial M	27,820	0.52	A	6	Arterial M	22,210	0.41	A	
138	Rancho Cordova Pkwy	Villagio Dr	Douglas Rd	6	Arterial M	14,600	0.27	A	6	Arterial M	13,820	0.26	A	
139	Rancho Cordova Pkwy	Douglas Rd	Chrysanthy Blvd	4	Arterial M	15,040	0.42	A	4	Arterial M	15,960	0.44	A	
140	Rancho Cordova Pkwy	Chrysanthy Blvd	Kiefer Blvd	4	Arterial M	7,500	0.21	A	4	Arterial M	5,040	0.14	A	
141	Rancho Cordova Pkwy	Kiefer Blvd	Grant Line Rd	4	Arterial M	6,190	0.17	A	4	Arterial M	1,610	0.04	A	
142	Americanos Blvd	White Rock Rd	Douglas Rd	4	Arterial M	2,670	0.07	A	4	Arterial M	2,750	0.08	A	
143	Americanos Blvd	Douglas Rd	Chrysanthy Blvd	4	Arterial M	7,740	0.22	A	4	Arterial M	6,180	0.17	A	
144	Americanos Blvd	Chrysanthy Blvd	Kiefer Blvd	4	Arterial M	1,930	0.05	A	4	Arterial M	3,130	0.09	A	
146	Rio Del Oro Pkwy	Sunrise Blvd	Rancho Cordova Pkwy	6	Arterial M	19,290	0.36	A	6	Arterial M	37,230	0.69	B	
147	Rio Del Oro Pkwy	Rancho Cordova Pkwy	White Rock Rd	2	Arterial M	2,630	0.15	A	2	Arterial M	2,990	0.17	A	
200	Kiefer Blvd	Tree View Ln	Eagles Nest Rd						4	Arterial M	31,370	0.87	D	West Jackson; Jackson Township; NewBridge; Mather South
300	Douglas Rd	Excelsior Rd	Rock Creek Pkwy	4	Arterial M	2,210	0.06	A	4	Arterial M	21,870	0.61	B	
301	Douglas Rd	Rock Creek Pkwy	Kiefer Blvd	4	Arterial M	2,210	0.06	A	4	Arterial M	29,770	0.83	D	
302	Happy Ln	Kiefer Blvd	Mayhew Rd						4	Arterial M	40,480	1.12	**F**	West Jackson
303	Happy Ln	Mayhew Rd	Jackson Rd						4	Arterial M	30,100	0.84	D	West Jackson
304	Happy Ln	Jackson Rd	Rock Creek Pkwy						4	Arterial M	33,020	0.92	E	West Jackson
305	Kiefer Blvd	Happy Ln	Collector WJ-15						6	Arterial M	60,300	1.12	**F**	West Jackson
306	Kiefer Blvd	Collector WJ-15	Douglas Rd						6	Arterial M	56,010	1.04	**F**	West Jackson
307	Kiefer Blvd	Douglas Rd	Excelsior Rd						4	Arterial M	27,430	0.76	C	West Jackson
308	Mayhew Rd	Happy Ln	Bradshaw Rd						4	Arterial M	40,230	1.12	**F**	West Jackson
309	Mayhew Rd	Bradshaw Rd	Jackson Rd						4	Arterial M	40,820	1.13	**F**	West Jackson
310	Mayhew Rd	Fruitridge Rd	Collector WJ-13						4	Arterial M	21,080	0.59	A	West Jackson
311	Mayhew Rd	Collector WJ-13	Elder Creek Rd						3	Arterial M	19,870	1.10	**F**	West Jackson
312	Rock Creek Pkwy	South Watt Ave	Hedge Ave						2	Arterial M	9,310	0.52	A	West Jackson
313	Rock Creek Pkwy	Hedge Ave	Mayhew Rd						2	Arterial M	12,270	0.68	B	West Jackson
314	Rock Creek Pkwy	Mayhew Rd	Bradshaw Rd						2	Arterial M	9,210	0.51	A	West Jackson
315	Rock Creek Pkwy	Bradshaw Rd	Collector WJ-7						2	Arterial M	10,290	0.57	A	West Jackson
316	Rock Creek Pkwy	Collector WJ-7	Happy Ln/ Vineyard Rd						2	Arterial M	10,900	0.61	B	West Jackson
317	Rock Creek Pkwy	Happy Ln/ Vineyard Rd	Jackson Rd						2	Arterial M	12,250	0.68	B	West Jackson

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Table 5.4
MTP Cumulative Roadway Segment Levels of Service

ID	Roadway	Segment		MTP Cumulative No Project					MTP Cumulative + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
318	Rock Creek Pkwy	Jackson Rd	Excelsior Rd						2	Arterial M	12,310	0.68	B	West Jackson
319	Vineyard Rd	Rock Creek Pkwy	Elder Creek Rd						4	Arterial M	34,380	0.96	E	West Jackson
320	Vineyard Rd	Elder Creek Rd	Florin Rd						4	Arterial M	13,230	0.37	A	West Jackson
321	Collector WJ-16	Rock Creek Pkwy	Collector WJ-6						2	Res Collector F	640	0.08	A	West Jackson
322	Collector WJ-17	Rock Creek Pkwy	Collector WJ-6						2	Res Collector F	1,070	0.13	A	West Jackson
323	Collector WJ-6	Collector WJ-16/WJ-17	Jackson Rd						2	Res Collector F	2,980	0.37	B	West Jackson
324	Collector WJ-6	Jackson Rd	Excelsior Rd						2	Res Collector F	3,290	0.41	C	West Jackson
325	Collector WJ-2	Excelsior Rd	Collector WJ-6						2	Arterial M	3,660	0.20	A	West Jackson
326	Collector WJ-18	Vineyard Rd	Collector WJ-19/ WJ-20						2	Arterial M	2,980	0.17	A	West Jackson
327	Collector WJ-19	Collector WJ-18	Collector WJ-21						2	Arterial M	1,290	0.07	A	West Jackson
328	Collector WJ-20	Collector WJ-18	Collector WJ-21						2	Res Collector F	2,980	0.37	B	West Jackson
329	Collector WJ-21	Collector WJ-19/ WJ-20	Collector WJ-6						2	Res Collector F	2,320	0.29	B	West Jackson
400	Collector JT-1	Excelsior Rd	Collector JT-3						2	Res Collector F	3,790	0.47	C	Jackson Township
401	Collector JT-1	Collector JT-3	Tree View Ln						2	Res Collector F	1,340	0.17	A	Jackson Township
402	Collector JT-3	Kiefer Blvd	Collector JT-1						2	Res Collector F	2,470	0.31	B	Jackson Township
403	Collector JT-3	Collector JT-1	Collector JT-6						2	Res Collector F	2,180	0.27	B	Jackson Township
404	Collector JT-3	Collector JT-6	Collector JT-5						2	Res Collector F	2,970	0.37	B	Jackson Township
405	Collector JT-3	Collector JT-5	Jackson Rd						2	Res Collector F	17,330	2.17	**F**	Jackson Township
406	Collector JT-4	Jackson Rd	Bridgewater Dr						2	Arterial M	3,540	0.20	A	Jackson Township
407	Collector JT-5	Collector JT-3	Tree View Ln						2	Arterial M	8,630	0.48	A	Jackson Township
408	Collector JT-6	Excelsior Rd	Collector JT-3						2	Res Collector F	3,880	0.49	C	Jackson Township

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Table 5.4
MTP Cumulative Roadway Segment Levels of Service

ID	Roadway	Segment		MTP Cumulative No Project					MTP Cumulative + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
409	Collector JT-6	Collector JT-3	Tree View Ln						2	Res Collector F	660	0.08	A	Jackson Township
410	Kiefer Blvd	Excelsior Rd	Tree View Ln						4	Arterial M	29,240	0.81	D	Jackson Township
411	Tree View Ln	Kiefer Blvd	Collector JT-1						4	Arterial M	11,040	0.31	A	Jackson Township
412	Tree View Ln	Collector JT-1	Collector JT-6						4	Arterial M	10,850	0.30	A	Jackson Township
413	Tree View Ln	Collector JT-6	Collector JT-5						4	Arterial M	10,830	0.30	A	Jackson Township
414	Tree View Ln	Collector JT-5	Jackson Rd						4	Arterial M	6,520	0.18	A	Jackson Township
415	Collector JT-7	Collector JT-3	Tree View Ln						2	Arterial M	1,560	0.09	A	Jackson Township
416	Collector JT-8	Collector JT-3	Tree View Ln						2	Arterial M	1,830	0.10	A	Jackson Township
417	Collector JT-9	Jackson Rd	Collector JT-8						2	Arterial M	4,250	0.24	A	Jackson Township
418	Collector JT-10	Jackson Rd	Collector JT-8						2	Arterial M	1,570	0.09	A	Jackson Township
419	Collector JT-6	Tree View Ln	Jackson Rd						2	Res Collector F	1,370	0.17	A	Jackson Township
500	S Bridgewater Dr	Collector JT-4	Eagles Nest Rd						2	Res Collector F	4,190	0.52	C	NewBridge
501	S Bridgewater Dr	Eagles Nest Rd	Northbridge Dr						2	Res Collector F	4,450	0.56	C	NewBridge
502	N Bridgewater Dr	Northbridge Dr	Eagles Nest Rd						2	Res Collector F	1,170	0.15	A	NewBridge
503	Northbridge Dr	Kiefer Blvd	Bridgewater Dr						2	Arterial M	3,240	0.18	A	NewBridge
504	Street A	S Bridgewater Dr	Street B						2	Res Collector F	1,600	0.20	B	NewBridge
505	Street B	S Bridgewater Dr	Street A						2	Res Collector F	1,260	0.16	A	NewBridge
506	Rockbridge Dr	Street B	Stonebridge Dr						2	Res Collector F	1,420	0.18	A	NewBridge
507	Rockbridge Dr	Stonebridge Dr	Jackson Rd						2	Arterial M	5,740	0.32	A	NewBridge
508	Stonebridge Dr	S Bridgewater Dr	Rockbridge Dr						2	Arterial M	2,810	0.16	A	NewBridge
509	Stonebridge Dr	Rockbridge Dr	Jackson Rd						2	Res Collector F	3,570	0.45	C	NewBridge
600	W Collector MS-1	Kiefer Blvd	Collector MS-5						2	Arterial M	5,880	0.33	A	Mather South
601	E Collector MS-1	Collector MS-5	Kiefer Blvd						2	Arterial M	7,930	0.44	A	Mather South
602	Collector MS-2	Eagles Nest Rd	Collector MS-5						2	Res Collector F	9,370	1.17	**F**	Mather South

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Table 5.4
MTP Cumulative Roadway Segment Levels of Service

ID	Roadway	Segment		MTP Cumulative No Project					MTP Cumulative + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
603	Collector MS-3	Eagles Nest Rd	Collector MS-5						2	Arterial M	5,310	0.30	A	Mather South
604	Collector MS-4	Eagles Nest Rd	Collector MS-5						2	Arterial M	11,470	0.64	B	Mather South
605	Collector MS-5	Collector MS-1	Collector MS-4						2	Arterial M	13,800	0.77	C	Mather South
606	Collector MS-5	Collector MS-4	Collector MS-3						2	Arterial M	3,610	0.20	A	Mather South
607	Collector MS-5	Collector MS-3	Collector MS-2						2	Arterial M	1,660	0.09	A	Mather South

Note: Gray shading indicates changes in travel lanes or facility type that the project is responsible to provide.

[1] The following classifications are used to determine daily roadway capacity:
Arterial L - Arterial, Low Access Control
Arterial M - Arterial, Moderate Access Control
Arterial H - Arterial, High Access Control
Rural Hwy - Rural 2-lane Highway
Rural S - Rural 2-lane Road, 24'-36' of pavement, Paved Shoulders
Rural NS - Rural 2-lane Road, 24'-36' of pavement, No Shoulders
Res Collector F - Residential Collector with Frontage
Res Collector NF - Residential Collector with No Frontage

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Table 5.5

MTP Cumulative Plus FOUR PROJECTS Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		MTP Cumulative No FOUR PROJECTS			MTP Cumulative Plus FOUR PROJECTS			LOS Impact	MTP Cumulative No FOUR PROJECTS			MTP Cumulative Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
1	Howe Avenue & College Town Drive/US 50 WB Ramps	Signal	D	40.7	Signal	D	48.7	No	Signal	D	50.0	Signal	E	55.8	No
2	Howe Avenue & US 50 EB Ramps	Signal	C	28.6	Signal	E	64.5	No	Signal	B	17.0	Signal	C	20.0	No
3	Power Inn Road/Howe Avenue & Folsom Blvd	Signal	**F**	**84.5**	Signal	**F**	**104.3**	Yes	Signal	E	61.0	Signal	E	77.3	No
4	Power Inn Road & 14th Avenue	Signal	**E**	**59.0**	Signal	**F**	**205.7**	Yes	Signal	**E**	**71.4**	Signal	**F**	**142.0**	Yes
5	Power Inn Road & Fruitridge Road	Signal	**F**	**115.6**	Signal	**F**	**111.4**	No	Signal	D	46.2	Signal	D	52.4	No
6	Jackson Road/Notre Dame Dr. & Folsom Blvd.	Signal	D	37.7	Signal	D	48.6	No	Signal	D	51.2	Signal	E	71.5	No
7	Florin Perkins Road/Julliard Dr. & Folsom Boulevard	Signal	D	37.9	Signal	E	63.1	No	Signal	E	77.1	Signal	D	37.5	No
8	Florin Perkins Road & Kiefer Blvd.	Two-way stop	A	2.0	Two-way stop	A	3.1	No	Two-way stop	A	2.9	Two-way stop	A	4.6	No
	Westbound Left Turn		*C*	*15.3*		*C*	*23.5*			*C*	*17.3*		*D*	*26.8*	
	Westbound Right Turn		*B*	*11.3*		*B*	*12.1*			*B*	*10.7*		*C*	*15.2*	
	Southbound Left Turn		*A*	*9.1*		*A*	*9.9*			*A*	*9.6*		*B*	*11.8*	
9	Florin Perkins Road & Jackson Road	Signal	E	64.8	Signal	E	73.9	No	Signal	E	60.3	Signal	E	63.1	No
10	Florin Perkins Road & Fruitridge Road	Signal	E	71.8	Signal	D	42.7	No	Signal	C	27.0	Signal	D	38.0	No
11	Florin Perkins Road & Elder Creek Road	Signal	D	36.0	Signal	C	31.8	No	Signal	C	34.5	Signal	C	35.0	No
12	Watt Avenue & Folsom Blvd.	Signal	**F**	**202.6**	Signal	**F**	**190.1**	No	Signal	**F**	**124.9**	Signal	**F**	**187.8**	Yes
13	S. Watt Ave. & Reith Ct/Manlove Road	Signal	C	34.1	Signal	D	40.8	No	Signal	C	25.3	Signal	D	36.3	No
14	S. Watt Avenue & Kiefer Blvd.	Signal	**F**	**108.7**	Signal	**F**	**120.8**	Yes	Signal	**F**	**90.8**	Signal	**F**	**92.7**	No

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Table 5.5

MTP Cumulative Plus FOUR PROJECTS Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		MTP Cumulative No FOUR PROJECTS			MTP Cumulative Plus FOUR PROJECTS			LOS Impact	MTP Cumulative No FOUR PROJECTS			MTP Cumulative Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
15	S. Watt Avenue & Canberra Dr.	Signal	B	18.8	Signal	E	65.5	No	Signal	B	12.4	Signal	B	11.4	No
16	S. Watt Avenue & Jackson Road	Signal	E	67.8	Signal	**F**	**221.7**	Yes	Signal	**F**	**88.8**	Signal	**F**	**196.7**	Yes
17	S. Watt Avenue & Fruitridge Road	Signal	**E**	**69.9**	Signal	**F**	**124.8**	Yes	Signal	**E**	**75.3**	Signal	**F**	**111.7**	Yes
18	S. Watt Avenue & Elder Creek Road	Signal	**F**	**265.0**	Signal	**F**	**196.2**	No	Signal	**F**	**149.5**	Signal	**F**	**203.8**	Yes
20	Elk Grove Florin Road/S. Watt Ave. & Florin Road	Signal	**F**	**121.5**	Signal	**F**	**153.2**	Yes	Signal	E	70.2	Signal	**F**	**101.0**	Yes
21	Elk Grove Florin Road & Gerber Road	Signal	E	64.3	Signal	E	78.1	No	Signal	**F**	**102.5**	Signal	**F**	**86.5**	No
23	Hedge Avenue & Jackson Road	Signal	D	35.4	Signal	**F**	**213.6**	Yes	Signal	C	28.0	Signal	**F**	**141.4**	Yes
24	Hedge Avenue & Fruitridge Road	All-way stop	E	41.6	Signal	D	45.8	No	All-way stop	B	10.5	Signal	E	61.0	No
25	Hedge Avenue & Elder Creek Road	All-way stop	**F**	**68.0**	Signal	D	50.6	No	All-way stop	**F**	**66.6**	Signal	E	71.4	No
26	Hedge Avenue & Tokay Lane	Two-way stop	A	0.3	Two-way stop	A	0.5	No	Two-way stop	A	0.1	Two-way stop	A	0.3	No
	Northbound Left Turn		*A*	*0.0*		*A*	*0.0*			*A*	*0.0*		*A*	*0.0*	
	Southbound Left Turn		*A*	*9.0*		*A*	*7.7*			*A*	*7.3*		*A*	*7.3*	
	Eastbound		*C*	*16.6*		*B*	*10.8*			*B*	*13.2*		*A*	*9.9*	
	Westbound		*B*	*14.6*		*B*	*10.0*			*B*	*11.2*		*A*	*9.3*	
27	Hedge Avenue & Florin Road	Signal	E	75.3	Signal	C	23.4	No	Signal	E	68.7	Signal	B	10.1	No
28	Mayhew Road & Kiefer Boulevard	Signal	D	51.5	Signal	**F**	**112.8**	Yes	Signal	E	76.9	Signal	E	75.5	No

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Table 5.5

MTP Cumulative Plus FOUR PROJECTS Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		MTP Cumulative No FOUR PROJECTS			MTP Cumulative Plus FOUR PROJECTS			LOS Impact	MTP Cumulative No FOUR PROJECTS			MTP Cumulative Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
29	Mayhew Road & Jackson Road	Two-way stop	A	1.1	Signal	**F**	**127.5**	Yes	Two-way stop	A	1.3	Signal	**F**	**103.8**	Yes
	Northbound Through - Left Turn		*E*	*35.8*						*E*	*47.9*				
	Northbound Right Turn		*B*	*13.2*						*C*	*16.7*				
	Southbound		*C*	*22.4*						*D*	*33.3*				
	Eastbound Left Turn		*A*	*9.4*						*A*	*8.9*				
	Westbound Left Turn		*A*	*8.7*						*A*	*9.7*				
30	Mayhew Road & Fruitridge Road	Two-way stop	A	8.0	Signal	C	21.4	No	Two-way stop	A	5.7	Signal	C	21.3	No
	Northbound Left Turn		*A*	*0.0*						*A*	*7.3*				
	Eastbound		*A*	*8.9*						*A*	*9.0*				
31	Mayhew Road & Elder Creek Road	Two-way stop	A	0.2	Signal	**F**	**569.1**	Yes	Two-way stop	A	0.3	Signal	**F**	**547.5**	Yes
	Northbound		*B*	*11.9*						*B*	*11.1*				
	Southbound		*A*	*8.7*						*B*	*10.7*				
	Eastbound Left Turn		*A*	*7.4*						*A*	*8.0*				
	Westbound Left Turn		*A*	*8.3*						*A*	*0.0*				
32	Woodring Drive & Zinfandel Drive	Two-way stop	A	2.0	Two-way stop	D	32.7	Yes	Two-way stop	A	1.8	Two-way stop	C	15.1	Yes
	Eastbound		*C*	*16.2*		***F***	***>300***			*C*	*23.6*		***F***	***>300***	
	Northbound Left Turn		*A*	*7.9*		*B*	*12.0*			*A*	*9.7*		*B*	*13.8*	
33	Bradshaw Road & Folsom Blvd.	Signal	**E**	**58.2**	Signal	**E**	**59.2**	No	Signal	**E**	**69.8**	Signal	**E**	**59.9**	No
34	Bradshaw Road & US 50 WB Ramps	Signal	B	17.0	Signal	B	17.2	No	Signal	B	12.5	Signal	D	37.2	No
35	Bradshaw Road & US 50 EB Ramps	Signal	C	34.3	Signal	**E**	**71.8**	Yes	Signal	B	15.6	Signal	D	36.1	No
36	Bradshaw Road & Old Placerville Road	Signal	**F**	**82.5**	Signal	**F**	**87.0**	No	Signal	**E**	**55.6**	Signal	**F**	**88.8**	Yes
37	Bradshaw Road & Kiefer Boulevard	Signal	D	48.8	Signal	**F**	**143.6**	Yes	Signal	**F**	**99.8**	Signal	**F**	**166.1**	Yes

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Table 5.5

MTP Cumulative Plus FOUR PROJECTS Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		MTP Cumulative No FOUR PROJECTS			MTP Cumulative Plus FOUR PROJECTS			LOS Impact	MTP Cumulative No FOUR PROJECTS			MTP Cumulative Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
38	Bradshaw Road & Jackson Road	Signal	**F**	**109.0**	Signal	F	97.9	No	Signal	E	75.2	Signal	**F**	**96.1**	Yes
39	Bradshaw Road & Elder Creek Road	Signal	E	70.0	Signal	**F**	**149.1**	Yes	Signal	D	44.2	Signal	**F**	**90.7**	Yes
40	Bradshaw Road & Florin Road	Signal	E	71.6	Signal	E	78.1	No	Signal	E	67.7	Signal	E	70.6	No
41	Bradshaw Road & Gerber Road	Signal	**F**	**135.3**	Signal	**F**	**109.8**	No	Signal	E	65.0	Signal	E	61.6	No
42	Happy Lane & Old Placerville Road	Two-way stop	**E**	**45.2**	Two-way stop	**F**	**>300**	Yes	Two-way stop	A	5.2	Two-way stop	**F**	**>300**	Yes
	Northbound Left Turn		***F***	***>300***		***F***	***>300***			***F***	***>300***		***F***	***>300***	
	Northbound Right Turn		***F***	***>300***		***F***	***>300***			*D*	*28.5*		***F***	***>300***	
	Westbound Left Turn		*C*	*15.0*		***F***	***>300***			*B*	*13.4*		***F***	***>300***	
43	Happy Lane & Kiefer Boulevard	Free Turn			Signal	E	67.1	No	Free Turn			Signal	E	55.9	No
44	Excelsior Road & Kiefer Boulevard	West Jackson/Jackson Township Project Int.			Signal	**F**	**93.9**	Yes	West Jackson/Jackson Township Project Int.			Signal	E	56.8	No
45	Excelsior Road & Jackson Road	Signal	D	47.9	Signal	**F**	**241.0**	Yes	Signal	D	36.1	Signal	**F**	**202.4**	Yes
46	Excelsior Road & Elder Creek Road	Two-way stop	B	11.4	Signal	E	72.3	No	Two-way stop	A	4.6	Signal	D	43.4	No
	Northbound Left Turn		*A*	*7.5*						*A*	*8.2*				
	Eastbound		*D*	*34.2*						*C*	*17.2*				
47	Excelsior Road & Florin Road	All-way stop	E	40.2	Signal	**F**	**123.2**	Yes	All-way stop	D	25.8	Signal	E	68.2	No
48	Excelsior Road & Gerber Road/Birch Ranch Drive	All-way stop	C	20.1	All-way stop	**F**	**53.1**	Yes	All-way stop	B	13.4	All-way stop	E	39.8	No
49	Mather Field Road & US 50 WB Ramps	Signal	B	16.8	Signal	C	28.2	No	Signal	B	11.9	Signal	B	12.3	No
50	Mather Field Road & US 50 EB Ramps	Signal	C	27.1	Signal	D	41.6	No	Signal	B	17.9	Signal	B	14.7	No

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Table 5.5

MTP Cumulative Plus FOUR PROJECTS Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		MTP Cumulative No FOUR PROJECTS			MTP Cumulative Plus FOUR PROJECTS			LOS Impact	MTP Cumulative No FOUR PROJECTS			MTP Cumulative Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
51	Mather Field Road & Rockingham Drive	Signal	**F**	**135.1**	Signal	**F**	**238.4**	Yes	Signal	**F**	**102.2**	Signal	**F**	**129.1**	Yes
52	Mather Boulevard & Douglas Road	Signal	D	48.4	Signal	D	44.9	No	Signal	C	34.5	Signal	D	45.0	No
53	Zinfandel Drive & US 50 WB Ramps	Signal	B	19.0	Signal	B	18.0	No	Signal	D	46.4	Signal	D	36.5	No
54	Zinfandel Drive & US 50 EB Ramps/Gold Center Drive	Signal	**F**	**96.1**	Signal	**F**	**90.1**	No	Signal	**E**	**76.3**	Signal	**F**	**90.6**	Yes
55	Zinfandel Drive & White Rock Road	Signal	**F**	**104.7**	Signal	**F**	**80.1**	No	Signal	**F**	**99.2**	Signal	**F**	**98.7**	No
56	Zinfandel Drive & Data Drive	Signal	D	50.0	Signal	D	48.8	No	Signal	**E**	**70.8**	Signal	**E**	**64.0**	No
57	Zinfandel Drive & International Dr	Signal	D	54.3	Signal	D	52.9	No	Signal	**E**	**68.7**	Signal	**E**	**62.7**	No
58	Zinfandel Drive & Douglas Road	Signal	**F**	**120.1**	Signal	**F**	**227.7**	Yes	Signal	E	67.3	Signal	**F**	**225.8**	Yes
59	Eagles Nest Road/Zinfandel Drive & Kiefer Boulevard	Two-way stop	A	4.8	Signal	E	69.4	No	Two-way stop	A	5.7	Signal	D	44.1	No
	Westbound		*B*	*14.4*						*C*	*21.8*				
	Southbound Left Turn		*A*	*8.2*						*A*	*8.3*				
60	Eagles Nest Road & Jackson Road	Signal	C	27.0	Signal	D	36.4	No	Signal	C	32.1	Signal	D	41.0	No
61	Eagles Nest Road & Florin Road	Two-way stop	**F**	**67.9**	Two-way stop	**F**	**>300**	Yes	Two-way stop	E	37.3	Two-way stop	**F**	**>300**	Yes
	Northbound		***F***	***223.4***		***F***	***>300***			*D*	*32.8*		***F***	***>300***	
	Southbound		***F***	***>300***		***F***	***>300***			***F***	***90.3***		***F***	***>300***	
	Eastbound Left Turn		*A*	*8.2*		*A*	*9.7*			*A*	*8.1*		*A*	*8.4*	
	Westbound Left Turn		*A*	*0.0*		*A*	*7.9*			*A*	*7.8*		*A*	*8.2*	
62	Sunrise Boulevard & US 50 WB Ramps	Signal	**E**	**70.5**	Signal	**E**	**69.9**	No	Signal	B	15.7	Signal	B	17.9	No

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Table 5.5

MTP Cumulative Plus FOUR PROJECTS Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		MTP Cumulative No FOUR PROJECTS			MTP Cumulative Plus FOUR PROJECTS			LOS Impact	MTP Cumulative No FOUR PROJECTS			MTP Cumulative Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
63	Sunrise Boulevard & US 50 EB Ramps	Signal	C	20.8	Signal	C	20.0	No	Signal	B	14.8	Signal	B	15.3	No
64	Sunrise Boulevard & Folsom Boulevard	Signal	D	49.8	Signal	D	53.0	No	Signal	D	45.5	Signal	D	54.6	No
65	Sunrise Boulevard & White Rock Road	Signal	**E**	**56.8**	Signal	**E**	**58.3**	No	Signal	**E**	**72.2**	Signal	**E**	**70.0**	No
66	Sunrise Boulevard & International Drive/Monier Circle	Signal	**F**	**129.5**	Signal	**F**	**134.3**	No	Signal	**E**	**74.2**	Signal	**E**	**78.9**	No
67	Sunrise Boulevard & Douglas Road	Signal	**F**	**97.0**	Signal	**F**	**229.1**	Yes	Signal	D	52.4	Signal	**F**	**90.7**	Yes
68	Sunrise Boulevard & Chrysanthy Boulevard	Signal	C	26.5	Signal	C	34.2	No	Signal	B	10.5	Signal	D	39.7	No
69	Sunrise Boulevard & Kiefer Boulevard	Signal	D	53.2	Signal	**F**	**144.6**	Yes	Signal	D	41.9	Signal	**E**	**63.9**	Yes
70	Sunrise Boulevard & Jackson Road	Signal	D	54.2	Signal	D	50.1	No	Signal	**E**	**56.6**	Signal	D	44.5	No
71	Sunrise Boulevard & Florin Road	Signal	B	16.4	Signal	B	18.4	No	Signal	C	23.5	Signal	C	31.4	No
72	Sheldon Lake Drive/Sunrise Boulevard & Grant Line Road	Signal	E	79.9	Signal	D	46.5	No	Signal	E	76.1	Signal	E	68.4	No
73	Hazel Avenue & Tributary Point Drive/US 50 WB Off-ramp	Signal	**F**	**142.7**	Signal	**F**	**137.9**	No	Signal	E	74.2	Signal	E	79.6	No
74	Hazel Avenue & US 50 EB Ramps	Signal	B	14.3	Signal	B	16.1	No	Signal	**E**	**77.9**	Signal	**F**	**99.6**	Yes
76	Prairie City Road & White Rock Road	Signal	C	27.6	Signal	C	32.2	No	Signal	C	21.6	Signal	B	19.6	No
77	Grant Line Road & White Rock Road	Signal	B	16.1	Signal	B	19.4	No	Signal	B	16.8	Signal	B	17.2	No
78	Grant Line Road & Douglas Road	Signal	B	10.9	Signal	B	13.0	No	Signal	B	18.5	Signal	B	13.5	No

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Table 5.5

MTP Cumulative Plus FOUR PROJECTS Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		MTP Cumulative No FOUR PROJECTS			MTP Cumulative Plus FOUR PROJECTS			LOS Impact	MTP Cumulative No FOUR PROJECTS			MTP Cumulative Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
79	Grant Line Road & Kiefer Boulevard	Signal	B	15.7	Signal	B	16.4	No	Signal	B	13.8	Signal	B	13.7	No
80	Grant Line Road & Jackson Road	Signal	**E**	**67.8**	Signal	**F**	**85.9**	Yes	Signal	D	54.8	Signal	D	51.3	No
81	Watt Avenue & US-50 EB Ramps	Signal	B	19.9	Signal	C	21.2	No	Signal	C	21.3	Signal	C	26.9	No
82	Watt Avenue & US-50 WB Ramps	Signal	E	76.2	Signal	D	54.0	No	Signal	D	50.9	Signal	D	51.7	No
83	Mayhew Rd & Folsom Blvd.	Signal	C	22.2	Signal	C	32.4	No	Signal	C	25.5	Signal	C	29.7	No
84	65th Street Expy & Fruitridge Road	Signal	C	32.8	Signal	D	53.5	No	Signal	D	40.2	Signal	D	43.0	No
85	Power Inn Road & Elder Creek Road	Signal	E	71.8	Signal	E	60.6	No	Signal	D	48.0	Signal	E	61.8	No
86	Power Inn Road & Florin Rd	Signal	**F**	**123.9**	Signal	**F**	**128.8**	No	Signal	**F**	**88.9**	Signal	E	74.9	No
87	Florin Perkins Road & Florin Rd	Signal	E	74.5	Signal	E	79.7	No	Signal	E	72.3	Signal	E	79.8	No
88	Bradshaw Rd & Calvine Rd	Signal	C	32.5	Signal	D	38.3	No	Signal	D	47.3	Signal	D	51.1	No
89	Vineyard Rd & Calvine Rd	Signal	C	30.5	Signal	C	30.6	No	Signal	D	35.3	Signal	C	34.6	No
90	Excelsior Road & Calvine Rd	Signal	C	22.8	Signal	D	38.3	No	Signal	C	20.2	Signal	C	22.7	No
91	Grant Line Rd & Eagles Nest Rd/Sloughhouse Rd	Signal	**F**	**169.9**	Signal	**F**	**184.3**	Yes	Signal	**F**	**123.9**	Signal	**F**	**158.3**	Yes
92	Grant Line Rd & Calvine Rd	Signal	C	20.5	Signal	C	30.7	No	Signal	C	28.5	Signal	B	17.3	No
93	Grant Line Rd & Dwy/Wilton Rd	Signal	**F**	**89.4**	Signal	**F**	**93.9**	No	Signal	**E**	**61.6**	Signal	**F**	**86.6**	Yes

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Table 5.5

MTP Cumulative Plus FOUR PROJECTS Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		MTP Cumulative No FOUR PROJECTS			MTP Cumulative Plus FOUR PROJECTS			LOS Impact	MTP Cumulative No FOUR PROJECTS			MTP Cumulative Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
94	Grant Line Rd & Bond Rd/Wrangler Dr	Signal	D	39.8	Signal	D	48.9	No	Signal	D	52.4	Signal	D	42.3	No
95	Florin Perkins Road & 14th Avenue	Signal	D	54.3	Signal	**E**	**61.0**	Yes	Signal	D	49.4	Signal	D	54.6	No
96	Jackson Road & 14th Avenue	Signal	D	43.1	Signal	**F**	**120.1**	Yes	Signal	C	27.6	Signal	D	51.5	No
97	Rock Creek Pkwy & Jackson Road	Signal	C	22.9	Signal	D	45.0	No	Signal	D	54.1	Signal	D	48.4	No
99	Rancho Cordova Pkwy & US-50 WB Ramps	Signal	D	37.9	Signal	D	46.5	No	Signal	C	25.9	Signal	C	21.8	No
100	Rancho Cordova Pkwy & US-50 EB Ramps	Signal	C	26.3	Signal	C	23.0	No	Signal	B	16.5	Signal	D	35.5	No
101	Rancho Cordova Pkwy & Easton Valley Pkwy	Signal	D	42.2	Signal	C	23.8	No	Signal	C	22.7	Signal	D	36.3	No
102	Rancho Cordova Pkwy & White Rock Road	Signal	**F**	**117.1**	Signal	**F**	**137.5**	Yes	Signal	**F**	**99.3**	Signal	**F**	**132.0**	Yes
103	Rancho Cordova Pkwy & Douglas Road	Signal	C	31.1	Signal	C	23.8	No	Signal	D	39.0	Signal	C	25.2	No
104	Rancho Cordova Pkwy & Chrysanthy Boulevard/Chrysanthy Blvd	Signal	C	23.8	Signal	D	53.5	No	Signal	C	23.1	Signal	C	29.9	No
105	Rancho Cordova Pkwy & Kiefer Blvd	Signal	C	30.5	Signal	B	18.4	No	Signal	B	16.6	Signal	B	19.6	No
106	Rancho Cordova Pkwy & Grant Line Road	Signal	B	14.3	Signal	B	17.4	No	Signal	B	14.0	Signal	B	13.4	No
107	Americanos Blvd & White Rock Road	Signal	B	10.9	Signal	B	10.7	No	Signal	A	9.3	Signal	B	10.4	No
108	Americanos Blvd & Douglas Road	Signal	C	31.6	Signal	C	25.7	No	Signal	C	28.6	Signal	C	27.4	No
109	Americanos Blvd & Chrysanthy Blvd	Signal	C	24.2	Signal	C	22.0	No	Signal	B	16.1	Signal	B	16.8	No

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Table 5.5

MTP Cumulative Plus FOUR PROJECTS Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		MTP Cumulative No FOUR PROJECTS			MTP Cumulative Plus FOUR PROJECTS			LOS Impact	MTP Cumulative No FOUR PROJECTS			MTP Cumulative Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
110	Americanos Blvd & Kiefer Blvd	Signal	A	9.3	Signal	B	10.2	No	Signal	A	7.0	Signal	A	8.8	No
111	Grant Line Road & Chrysanthy Blvd	Signal	B	13.4	Signal	B	18.3	No	Signal	B	17.7	Signal	C	20.1	No
112	Hazel Avenue & Easton Valley Pkwy	Signal	**F**	**203.3**	Signal	**F**	**177.0**	No	Signal	C	25.0	Signal	C	24.5	No
200	Excelsior Road & Collector WJ-1/Collector JT-1	West Jackson/Jackson Township Project Int.			Signal	E	63.5	No	West Jackson/Jackson Township Project Int.			Signal	D	50.2	No
201	Excelsior Road & Collector WJ-2/Collector JT-2	West Jackson/Jackson Township Project Int.			Signal	D	36.3	No	West Jackson/Jackson Township Project Int.			Signal	E	63.7	No
202	W Collector MS-1 & Kiefer Boulevard	Mather South Project Int.			Signal	C	25.3	No	Mather South Project Int.			Signal	B	14.7	No
203	Northbridge Dr & Kiefer Boulevard	NewBridge Project Int.			Signal	B	17.1	No	NewBridge Project Int.			Signal	B	16.7	No
204	E Collector MS-1 & Kiefer Boulevard	Mather South Project Int.			Signal	B	12.9	No	Mather South Project Int.			Signal	B	17.5	No
300	Collector WJ-3 & Jackson Road	West Jackson Project Int.			Signal	E	58.7	No	West Jackson Project Int.			Signal	C	28.8	No
301	Collector WJ-4 & Jackson Road	West Jackson Project Int.			Signal	E	65.4	No	West Jackson Project Int.			Signal	D	44.5	No
302	Happy Lane & Jackson Road	West Jackson Project Int.			Signal	E	63.4	No	West Jackson Project Int.			Signal	D	46.5	No
303	Rock Creek Pkwy & Jackson Road	West Jackson Project Int.			Signal	D	38.4	No	West Jackson Project Int.			Signal	D	36.8	No
304	Collector WJ-5 & Jackson Road	West Jackson Project Int.			Signal	D	43.2	No	West Jackson Project Int.			Signal	C	30.3	No
305	Collector WJ-6 & Jackson Road	West Jackson Project Int.			Signal	C	34.9	No	West Jackson Project Int.			Signal	D	36.1	No
306	Excelsior Road & Collector WJ-6	West Jackson Project Int.			Signal	D	53.4	No	West Jackson Project Int.			Signal	C	22.7	No

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Table 5.5

MTP Cumulative Plus FOUR PROJECTS Intersection Levels of Service

Intersection		AM Peak Hour							PM Peak Hour						
		MTP Cumulative No FOUR PROJECTS			MTP Cumulative Plus FOUR PROJECTS			LOS Impact	MTP Cumulative No FOUR PROJECTS			MTP Cumulative Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
307	S. Watt Avenue & Rock Creek Pkwy	West Jackson Project Int.			Signal	B	17.3	No	West Jackson Project Int.			Signal	C	22.8	No
308	Hedge Avenue & Rock Creek Pkwy WB	West Jackson Project Int.			Roundabout	C	19.3	No	West Jackson Project Int.			Roundabout	B	10.9	No
309	Hedge Avenue & Rock Creek Pkwy EB	West Jackson Project Int.			Roundabout	B	11.3	No	West Jackson Project Int.			Roundabout	B	13.7	No
310	Mayhew Road & Rock Creek Pkwy WB	West Jackson Project Int.			Roundabout	**F**	**162.1**	Yes	West Jackson Project Int.			Roundabout	**F**	**202.2**	Yes
311	Mayhew Road & Rock Creek Pkwy EB	West Jackson Project Int.			Roundabout	**F**	**198.6**	Yes	West Jackson Project Int.			Roundabout	**F**	**92.3**	Yes
312	Bradshaw Road & Rock Creek Pkwy	West Jackson Project Int.			Signal	D	51.1	No	West Jackson Project Int.			Signal	E	66.0	No
313	Collector WJ-7 & Rock Creek Pkwy	West Jackson Project Int.			Signal	B	11.9	No	West Jackson Project Int.			Signal	B	11.2	No
314	Vineyard Road/Happy Lane & Rock Creek Pkwy	West Jackson Project Int.			Signal	D	47.4	No	West Jackson Project Int.			Signal	E	57.2	No
315	Douglas Road & Rock Creek Pkwy	West Jackson Project Int.			Signal	D	36.2	No	West Jackson Project Int.			Signal	C	30.4	No
316	Bradshaw Road & Collector WJ-8	West Jackson Project Int.			Signal	D	47.3	No	West Jackson Project Int.			Signal	C	22.2	No
317	Bradshaw Road & Collector WJ-9	West Jackson Project Int.			Signal	E	60.0	No	West Jackson Project Int.			Signal	C	30.4	No
318	Bradshaw Road & Mayhew Road	West Jackson Project Int.			Signal	**F**	**161.6**	Yes	West Jackson Project Int.			Signal	**F**	**127.4**	Yes
319	Bradshaw Road & Collector WJ-10	West Jackson Project Int.			Signal	B	10.8	No	West Jackson Project Int.			Signal	C	25.7	No
320	Bradshaw Road & Collector WJ-11	West Jackson Project Int.			Signal	B	12.9	No	West Jackson Project Int.			Signal	C	23.0	No
321	Collector WJ-12 & Fruitridge Road	West Jackson Project Int.			Signal	C	33.1	No	West Jackson Project Int.			Signal	D	45.0	No

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Table 5.5

MTP Cumulative Plus FOUR PROJECTS Intersection Levels of Service

Intersection		AM Peak Hour							PM Peak Hour						
		MTP Cumulative No FOUR PROJECTS			MTP Cumulative Plus FOUR PROJECTS			LOS Impact	MTP Cumulative No FOUR PROJECTS			MTP Cumulative Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
322	Mayhew Road & Collector WJ-13	West Jackson Project Int.			Signal	B	11.7	No	West Jackson Project Int.			Signal	C	21.1	No
323	Collector WJ-14 & Kiefer Boulevard	West Jackson Project Int.			Signal	D	45.8	No	West Jackson Project Int.			Signal	E	61.5	No
324	Collector WJ-15 & Kiefer Boulevard	West Jackson Project Int.			Signal	D	40.7	No	West Jackson Project Int.			Signal	C	24.1	No
325	Douglas Road & Kiefer Boulevard	West Jackson Project Int.			Signal	**F**	**207.5**	Yes	West Jackson Project Int.			Signal	**F**	**127.5**	Yes
326	Happy Lane & Mayhew Road	West Jackson Project Int.			Roundabout	**F**	**304.2**	Yes	West Jackson Project Int.			Roundabout	**F**	**139.6**	Yes
327	Vineyard Road & Elder Creek Road	West Jackson Project Int.			Signal	D	47.8	No	West Jackson Project Int.			Signal	D	38.4	No
328	Vineyard Road & Florin Road	West Jackson Project/CEQA Cumulative Intersection			Signal	C	25.0	No	West Jackson Project/CEQA Cumulative Intersection			Signal	B	13.8	No
400	Collector JT-3 & Jackson Road	Jackson Township Project Int.			Signal	D	48.1	No	Jackson Township Project Int.			Signal	C	32.9	No
401	Tree View Lane & Jackson Road	Jackson Township Project Int.			Signal	B	16.5	No	Jackson Township Project Int.			Signal	B	11.6	No
402	Collector JT-4 & Jackson Road	Jackson Township Project Int.			Signal	C	21.4	No	Jackson Township Project Int.			Signal	B	15.8	No
403	Tree View Lane & Collector JT-5	Jackson Township Project Int.			Signal	B	18.9	No	Jackson Township Project Int.			Signal	C	21.2	No
404	Tree View Lane & Collector JT-6	Jackson Township Project Int.			Signal	B	11.7	No	Jackson Township Project Int.			Signal	B	12.9	No
405	Tree View Lane & Collector JT-1	Jackson Township Project Int.			Signal	C	27.3	No	Jackson Township Project Int.			Signal	C	24.3	No
406	Tree View Lane & Kiefer Boulevard	Jackson Township Project Int.			Signal	C	29.4	No	Jackson Township Project Int.			Signal	B	17.5	No
407	HS/MS Dwy & Kiefer Boulevard	Jackson Township Project Int.			Signal	C	20.8	No	Jackson Township Project Int.			Signal	C	20.3	No

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Table 5.5

MTP Cumulative Plus FOUR PROJECTS Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		MTP Cumulative No FOUR PROJECTS			MTP Cumulative Plus FOUR PROJECTS			LOS Impact	MTP Cumulative No FOUR PROJECTS			MTP Cumulative Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
500	Rockbridge Dr & Jackson Road	NewBridge Project Int.			Signal	C	27.6	No	NewBridge Project Int.			Signal	B	14.1	No
501	Eagles Nest Road & N Bridgewater Dr	NewBridge Project Int.			Signal	A	7.1	No	NewBridge Project Int.			Signal	B	10.4	No
502	Eagles Nest Road & S Bridgewater Dr	NewBridge Project Int.			Signal	C	30.5	No	NewBridge Project Int.			Signal	C	26.6	No
600	Zinfandel Drive & Collector MS-2	Mather South Project Int.			Signal	B	17.9	No	Mather South Project Int.			Signal	C	33.5	No
601	Zinfandel Drive & Collector MS-3	Mather South Project Int.			Signal	B	18.8	No	Mather South Project Int.			Signal	B	18.2	No
602	Zinfandel Drive & Collector MS-4	Mather South Project Int.			Signal	D	40.1	No	Mather South Project Int.			Signal	B	19.9	No
603	Collector MS-5 & Collector MS-2	Mather South Project Int.			All-way stop	B	11.5	No	Mather South Project Int.			All-way stop	B	12.5	No
604	Collector MS-5 & Collector MS-3	Mather South Project Int.			Two-way stop	A	7.7	No	Mather South Project Int.			Two-way stop	A	7.2	No
	Northbound Left Turn					*A*	*7.5*						*A*	*7.5*	
	Southbound Left Turn					*A*	*0.0*						*A*	*0.0*	
	Eastbound					*B*	*10.3*						*B*	*14.3*	
	Westbound					*B*	*12.5*						*B*	*14.3*	
605	Collector MS-5 & Collector MS-4	Mather South Project Int.			All-way stop	D	26.4	No	Mather South Project Int.			All-way stop	D	31.5	No
606	Collector MS-5 & W Collector MS-1/E Collector MS-1	Mather South Project Int.			All-way stop	C	24.6	No	Mather South Project Int.			All-way stop	E	35.5	No

Note: Gray shading represents changes in traffic control for which the project is responsible to pay a fair share.

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Table 5.6

MTP Cumulative and MTP Cumulative Plus FOUR PROJECTS Intersection Geometrics

	Intersection	Traffic Control		MTP Cumulative Lane Geometrics				MTP Cumulative Plus FOUR PROJECTS Lane Geometrics				Project(s) Responsible for Change
		MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach	
1	Howe Avenue & College Town Drive/US 50 WB Ramps	Signal	Signal	3	5	3	3	3	5	3	3	
2	Howe Avenue & US 50 EB Ramps	Signal	Signal	3	4	2		3	4	2		
3	Power Inn Road/Howe Avenue & Folsom Blvd	Signal	Signal	3	4	2	3	3	4	2	3	
4	Power Inn Road & 14th Avenue	Signal	Signal	2	4	2	2	2	4	2	2	
5	Power Inn Road & Fruitridge Road	Signal	Signal	2	4	2	2	2	4	2	2	
6	Jackson Road/Notre Dame Dr. & Folsom Blvd.	Signal	Signal	2	1	2	2	2	1	2	2	
7	Florin Perkins Road/Julliard Dr. & Folsom Boulevard	Signal	Signal	2	1	2	2	2	1	2	2	
8	Florin Perkins Road & Kiefer Blvd.	Two-way stop	Two-way stop	1	2		2	1	2		2	
9	Florin Perkins Road & Jackson Road	Signal	Signal	2	1	2	2	2	1	2	2	
10	Florin Perkins Road & Fruitridge Road	Signal	Signal	2	3	2	2	2	3	2	2	
11	Florin Perkins Road & Elder Creek Road	Signal	Signal	2	3	2	2	2	3	2	2	
12	Watt Avenue & Folsom Blvd.	Signal	Signal	3	4	3	3	3	4	3	3	
13	S. Watt Ave. & Reith Ct/Manlove Road	Signal	Signal	2	1	1	2	2	1	1	2	
14	S. Watt Avenue & Kiefer Blvd.	Signal	Signal	3	1	3	3	3	1	3	3	
15	S. Watt Avenue & Canberra Dr.	Signal	Signal	1	3		2	1	3		2	
16	S. Watt Avenue & Jackson Road	Signal	Signal	3	4	3	3	3	4	3	3	West Jackson
17	S. Watt Avenue & Fruitridge Road	Signal	Signal	2	3	2	2	2	3	2	2	West Jackson
18	S. Watt Avenue & Elder Creek Road	Signal	Signal	3	3	3	2	3	3	3	2	
20	Elk Grove Florin Road/S. Watt Ave. & Florin Road	Signal	Signal	2	1	2	2	2	1	2	2	
21	Elk Grove Florin Road & Gerber Road	Signal	Signal	3	4	3	3	3	4	3	3	
23	Hedge Avenue & Jackson Road	Signal	Signal	2	1	2	2	2	1	2	2	West Jackson
24	Hedge Avenue & Fruitridge Road	All-way stop	Signal	1	1	1	1	2	3	2	2	West Jackson
25	Hedge Avenue & Elder Creek Road	All-way stop	Signal	1	1	1	1	2	3	2	2	West Jackson
26	Hedge Avenue & Tokay Lane	Two-way stop	Two-way stop	1	1	1	1	1	1	1	1	
27	Hedge Avenue & Florin Road	Signal	Signal	1	1	2	2	1	1	2	2	
28	Mayhew Road & Kiefer Boulevard	Signal	Signal	2	3	2	2	2	3	2	2	

Note: Gray shading represents changes in traffic control or approach lanes for which the project is responsible to pay a fair share.

Table 5.6

MTP Cumulative and MTP Cumulative Plus FOUR PROJECTS Intersection Geometrics

	Intersection	Traffic Control		MTP Cumulative Lane Geometrics				MTP Cumulative Plus FOUR PROJECTS Lane Geometrics				Project(s) Responsible for Change
		MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach	
29	Mayhew Road & Jackson Road	Two-way stop	Signal									West Jackson
30	Mayhew Road & Fruitridge Road	Two-way stop	Signal									West Jackson
31	Mayhew Road & Elder Creek Road	Two-way stop	Signal									West Jackson
32	Zinfandel Drive & Woodring Drive	Two-way stop	Two-way stop									
33	Bradshaw Road & Folsom Blvd.	Signal	Signal									
34	Bradshaw Road & US 50 WB Ramps	Signal	Signal									
35	Bradshaw Road & US 50 EB Ramps	Signal	Signal									
36	Bradshaw Road & Old Placerville Road	Signal	Signal									
37	Bradshaw Road & Kiefer Boulevard	Signal	Signal									West Jackson
38	Bradshaw Road & Jackson Road	Signal	Signal									West Jackson
39	Bradshaw Road & Elder Creek Road	Signal	Signal									West Jackson
40	Bradshaw Road & Florin Road	Signal	Signal									
41	Bradshaw Road & Gerber Road	Signal	Signal									
42	Happy Lane & Old Placerville Road	Two-way stop	Two-way stop									
43	Happy Lane & Kiefer Boulevard		Signal									West Jackson
44	Excelsior Road & Kiefer Boulevard	Two-way stop	Signal									West Jackson; Jackson Township
45	Excelsior Road & Jackson Road	Signal	Signal									West Jackson; Jackson Township
46	Excelsior Road & Elder Creek Road	Two-way stop	Signal									West Jackson
47	Excelsior Road & Florin Road	All-way stop	Signal									West Jackson
48	Excelsior Road & Gerber Road/Birch Ranch Drive	All-way stop	All-way stop									
49	Mather Field Road & US 50 WB Ramps	Signal	Signal									
50	Mather Field Road & US 50 EB Ramps	Signal	Signal									
51	Mather Field Road & Rockingham Drive	Signal	Signal									
52	Mather Boulevard & Douglas Road	Signal	Signal									
53	Zinfandel Drive & US 50 WB Ramps	Signal	Signal									

Note: Gray shading represents changes in traffic control or approach lanes for which the project is responsible to pay a fair share.

Table 5.6

MTP Cumulative and MTP Cumulative Plus FOUR PROJECTS Intersection Geometrics

	Intersection	Traffic Control		MTP Cumulative Lane Geometrics				MTP Cumulative Plus FOUR PROJECTS Lane Geometrics				Project(s) Responsible for Change
		MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach	
54	Zinfandel Drive & US 50 EB Ramps/Gold Center Drive	Signal	Signal									
55	Zinfandel Drive & White Rock Road	Signal	Signal									
56	Zinfandel Drive & Data Drive	Signal	Signal									
57	Zinfandel Drive & International Dr	Signal	Signal									
58	Zinfandel Drive & Douglas Road	Signal	Signal									
59	Eagles Nest Road/Zinfandel Drive & Kiefer Boulevard	Two-way stop	Signal									NewBridge; Mather South
60	Eagles Nest Road & Jackson Road	Signal	Signal									NewBridge
61	Eagles Nest Road & Florin Road	Two-way stop	Two-way stop									
62	Sunrise Boulevard & US 50 WB Ramps	Signal	Signal									
63	Sunrise Boulevard & US 50 EB Ramps	Signal	Signal									
64	Sunrise Boulevard & Folsom Boulevard	Signal	Signal									
65	Sunrise Boulevard & White Rock Road	Signal	Signal									
66	Sunrise Boulevard & International Drive/Monier Circle	Signal	Signal									
67	Sunrise Boulevard & Douglas Road	Signal	Signal									
68	Sunrise Boulevard & Chrysanthy Boulevard	Signal	Signal									
69	Sunrise Boulevard & Kiefer Boulevard	Signal	Signal									NewBridge; Mather South
70	Sunrise Boulevard & Jackson Road	Signal	Signal									NewBridge
71	Sunrise Boulevard & Florin Road	Signal	Signal									
72	Sheldon Lake Drive/Sunrise Boulevard & Grant Line Road	Signal	Signal									
73	Hazel Avenue & Tributary Point Drive/US 50 WB Off-ramp	Signal	Signal									
74	Hazel Avenue & US 50 EB Ramps	Signal	Signal									
75	Hazel Avenue & Folsom Boulevard											
76	Prairie City Road & White Rock Road	Signal	Signal									
77	Grant Line Road & White Rock Road	Signal	Signal									
78	Grant Line Road & Douglas Road	Signal	Signal									

Note: Gray shading represents changes in traffic control or approach lanes for which the project is responsible to pay a fair share.

Table 5.6

MTP Cumulative and MTP Cumulative Plus FOUR PROJECTS Intersection Geometrics

	Intersection	Traffic Control		MTP Cumulative Lane Geometrics				MTP Cumulative Plus FOUR PROJECTS Lane Geometrics				Project(s) Responsible for Change
		MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach	
79	Grant Line Road & Kiefer Boulevard	Signal	Signal	↰↰↑↑↱	↲↓↓↘	↰↰↑↱	↰↑↱	↰↰↑↑↱	↲↓↓↘	↰↰↑↱	↰↑↱	
80	Grant Line Road & Jackson Road	Signal	Signal	↰↑↱	↰↓↘	↰↱	↰↱	↰↑↱	↰↓↘	↰↱	↰↱	
81	Watt Avenue & US-50 EB Ramps	Signal	Signal	↑↑↑↑↱	↲↰↓↓	↰↰↱↱		↑↑↑↑↱	↲↰↓↓	↰↰↱↱		
82	Watt Avenue & US-50 WB Ramps	Signal	Signal	↑↑↱↱	↲↰↓↓↓		↰↰↱↱↱	↑↑↱↱	↲↰↓↓↓		↰↰↱↱↱	
83	Mayhew Rd & Folsom Blvd.	Signal	Signal	↰↰↱		↑↑↱	↰↑↑	↰↰↱		↑↑↱	↰↑↑	
84	65th Street Expy & Fruitridge Road	Signal	Signal	↰↑↑↱	↲↓↓↘	↰↑↑	↰↑↑↱	↰↑↑↱	↲↓↓↘	↰↑↑	↰↑↑↱	
85	Power Inn Road & Elder Creek Road	Signal	Signal	↰↑↱	↰↓↘	↰↑↑↱	↰↑↱	↰↑↱	↰↓↘	↰↑↑↱	↰↑↱	
86	Power Inn Road & Florin Rd	Signal	Signal	↰↑↱	↲↓↓↘	↰↑↑↱	↰↑↑↱	↰↑↱	↲↓↓↘	↰↑↑↱	↰↑↑↱	
87	Florin Perkins Road & Florin Rd	Signal	Signal	↰↑↑↱	↲↓↓↘	↰↑↱	↰↑↱	↰↑↑↱	↲↓↓↘	↰↑↱	↰↑↱	
88	Bradshaw Rd & Calvine Rd	Signal	Signal	↰↰↑↱	↲↓↓↘↘	↰↰↑↑↑↱	↰↰↑↑↑↱	↰↰↑↱	↲↓↓↘↘	↰↰↑↑↑↱	↰↰↑↑↑↱	
89	Vineyard Rd & Calvine Rd	Signal	Signal	↟	↲↰↘	↰↑↱	↰↑↱	↟	↲↰↘	↰↑↱	↰↑↱	
90	Excelsior Road & Calvine Rd	Signal	Signal	↰↑↱	↲↓↘	↰↑↱	↰↑↱	↰↑↱	↲↓↘	↰↑↱	↰↑↱	
91	Grant Line Rd & Eagles Nest Rd/Sloughhouse Rd	Signal	Signal	↰↑↑↱	↰↓↘	↟	↰↱	↰↑↑↱	↰↓↘	↟	↰↱	
92	Grant Line Rd & Calvine Rd	Signal	Signal	↰↑↑	↰↓	↰↱		↰↑↑	↰↓	↰↱		
93	Grant Line Rd & Dwy/Wilton Rd	Signal	Signal	↰↑↱	↰↓↘	↰↱	↰↱	↰↑↱	↰↓↘	↰↱	↰↱	
94	Grant Line Rd & Bond Rd/Wrangler Dr	Signal	Signal	↰↑↱	↲↓↓↘	↰↱	↟	↰↑↱	↲↓↓↘	↰↱	↟	
95	Florin Perkins Road & 14th Avenue	Signal	Signal	↰↰↑↑↱	↲↓↓↘↘	↰↰↑↑↱	↰↰↑↑↱	↰↰↑↑↱	↲↓↓↘↘	↰↰↑↑↱	↰↰↑↑↱	
96	Jackson Road & 14th Avenue	Signal	Signal		↰↘	↰↑↑	↑↑↱		↰↘	↰↑↑	↑↑↱	
97	Rock Creek Pkwy & Jackson Road	Signal	Signal	↰↱		↑↱	↰↑↑	↰↱		↑↱	↰↑↑	
98	Aspen 1 Access Road & Jackson Road											
99	Rancho Cordova Pkwy & US-50 WB Ramps	Signal	Signal	↰↰			↰↰	↰↰			↰↰	
100	Rancho Cordova Pkwy & US-50 EB Ramps	Signal	Signal	↑↱↱	↓↓↘	↟↱		↑↱↱	↓↓↘	↟↱		
101	Rancho Cordova Pkwy & Easton Valley Pkwy	Signal	Signal	↑↑↱	↓↓↘↘		↰↰↱	↑↑↱	↓↓↘↘		↰↰↱	
102	Rancho Cordova Pkwy & White Rock Road	Signal	Signal	↰↰↑↑↑↱	↲↓↓↓↘↘	↰↰↑↑↱	↰↰↑↑↱	↰↰↑↑↑↱	↲↓↓↓↘↘	↰↰↑↑↱	↰↰↑↑↱	
103	Rancho Cordova Pkwy & Douglas Road	Signal	Signal	↰↰↑↑↱	↲↓↓↘↘	↰↰↑↑↑↱	↰↰↑↑↱	↰↰↑↑↱	↲↓↓↘↘	↰↰↑↑↑↱	↰↰↑↑↱	
104	Rancho Cordova Pkwy & Chrysanthy Boulevard/Chrysanthy Blvd	Signal	Signal	↰↰↑↑↱	↲↓↓↘↘	↰↰↑↑↱	↰↰↑↑↱	↰↰↑↑↱	↲↓↓↘↘	↰↰↑↑↱	↰↰↑↑↱	

Note: Gray shading represents changes in traffic control or approach lanes for which the project is responsible to pay a fair share.

Table 5.6

MTP Cumulative and MTP Cumulative Plus FOUR PROJECTS Intersection Geometrics

Intersection		Traffic Control		MTP Cumulative Lane Geometrics				MTP Cumulative Plus FOUR PROJECTS Lane Geometrics				Project(s) Responsible for Change
		MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach	
105	Rancho Cordova Pkwy & Kiefer Blvd	Signal	Signal	↰ ↑ ↑ ↱	↲ ↓ ↓ ↘	↰ ↑ ↱	↰ ↰ ↑ ↱	↰ ↑ ↑ ↱	↲ ↓ ↓ ↘	↰ ↑ ↱	↰ ↰ ↑ ↱	
106	Rancho Cordova Pkwy & Grant Line Road	Signal	Signal		↲ ↘	↰ ↰ ↑ ↑	↑ ↑ ↱		↲ ↘	↰ ↰ ↑ ↑	↑ ↑ ↱	
107	Americanos Blvd & White Rock Road	Signal	Signal	↰ ↱		↑ ↑ ↱	↰ ↰ ↑ ↑	↰ ↱		↑ ↑ ↱	↰ ↰ ↑ ↑	
108	Americanos Blvd & Douglas Road	Signal	Signal	↰ ↰ ↑ ↱	↲ ↓ ↘	↰ ↑ ↑ ↑ ↱	↰ ↰ ↑ ↑ ↱	↰ ↰ ↑ ↱	↲ ↓ ↘	↰ ↑ ↑ ↑ ↱	↰ ↰ ↑ ↑ ↱	
109	Americanos Blvd & Chrysanthy Blvd	Signal	Signal	↰ ↰ ↑ ↑ ↱	↲ ↓ ↓ ↘	↰ ↰ ↑ ↱	↰ ↑ ↱	↰ ↰ ↑ ↑ ↱	↲ ↓ ↓ ↘	↰ ↰ ↑ ↱	↰ ↑ ↱	
110	Americanos Blvd & Kiefer Blvd	Signal	Signal		↲ ↘	↰ ↰ ↑ ↑	↑ ↑ ↱		↲ ↘	↰ ↰ ↑ ↑	↑ ↑ ↱	
111	Grant Line Road & Chrysanthy Blvd	Signal	Signal	↰ ↑ ↑	↲ ↓ ↓	↰ ↱		↰ ↑ ↑	↲ ↓ ↓	↰ ↱		
112	Hazel Avenue & Easton Valley Pkwy	Signal	Signal	↰ ↑ ↱	↲ ↓ ↘ ↘	↰ ↰ ↑ ↑ ↱	↰ ↑ ↑ ↱	↰ ↑ ↱	↲ ↓ ↘ ↘	↰ ↰ ↑ ↑ ↱	↰ ↑ ↑ ↱	
200	Excelsior Road & Collector WJ-1/Collector JT-1		Signal					↰ ↑ ↱	↲ ↓ ↘	↰ ↑ ↱	↰ ↑ ↱	West Jackson; Jackson Township
201	Excelsior Road & Collector WJ-2/Collector JT-2		Signal					↰ ↑ ↱	↲ ↓ ↘	↰ ↑ ↱	↰ ↑ ↱	West Jackson; Jackson Township
202	W Collector MS-1 & Kiefer Boulevard		Signal						↲ ↘	↰ ↰ ↑ ↑	↑ ↱	NewBridge; Mather South
203	Northbridge Dr & Kiefer Boulevard		Signal					↰ ↱		↑ ↱	↰ ↑ ↑	NewBridge; Mather South
204	E Collector MS-1 & Kiefer Boulevard		Signal						↲ ↘	↰ ↑ ↑	↑ ↑ ↱	NewBridge; Mather South
300	Collector WJ-3 & Jackson Road		Signal					↰ ↱		↑ ↱	↰ ↑ ↑	West Jackson
301	Collector WJ-4 & Jackson Road		Signal					↰ ↑ ↱	↲ ↓ ↘	↰ ↑ ↑ ↱	↰ ↑ ↑ ↱	West Jackson
302	Happy Lane & Jackson Road		Signal					↰ ↰ ↑ ↑ ↱	↲ ↓ ↓ ↘ ↘	↰ ↰ ↑ ↑ ↑ ↱	↰ ↰ ↑ ↑ ↑ ↱	West Jackson
303	Rock Creek Pkwy & Jackson Road		Signal					↰ ↑ ↱	↲ ↓ ↘	↰ ↰ ↑ ↑ ↱	↰ ↰ ↑ ↑ ↱	West Jackson
304	Collector WJ-5 & Jackson Road		Signal					↰ ↑ ↱	↲ ↓ ↘	↰ ↑ ↑ ↱	↰ ↑ ↑ ↱	West Jackson
305	Collector WJ-6 & Jackson Road		Signal					↰ ↑ ↱	↲ ↓ ↘	↰ ↑ ↑ ↱	↰ ↑ ↑ ↱	West Jackson
306	Excelsior Road & Collector WJ-6		Signal					↰ ↑	↲ ↓	↰ ↱		West Jackson
307	S. Watt Avenue & Rock Creek Pkwy		Signal					↑ ↑ ↱	↓ ↓ ↓ ↘ ↘		↰ ↱	West Jackson
308	Hedge Avenue & Rock Creek Pkwy WB		Roundabout					↰	↲		↱	West Jackson
309	Hedge Avenue & Rock Creek Pkwy EB		Roundabout					↱	↳	↱		West Jackson
310	Mayhew Road & Rock Creek Pkwy WB		Roundabout					↰ ↑	↲ ↓		↱	West Jackson

Note: Gray shading represents changes in traffic control or approach lanes for which the project is responsible to pay a fair share.

Table 5.6

MTP Cumulative and MTP Cumulative Plus FOUR PROJECTS Intersection Geometrics

Intersection		Traffic Control		MTP Cumulative Lane Geometrics				MTP Cumulative Plus FOUR PROJECTS Lane Geometrics				Project(s) Responsible for Change
		MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach	
311	Mayhew Road & Rock Creek Pkwy EB		Roundabout									West Jackson
312	Bradshaw Road & Rock Creek Pkwy		Signal									West Jackson
313	Collector WJ-7 & Rock Creek Pkwy		Signal									West Jackson
314	Vineyard Road/Happy Lane & Rock Creek Pkwy		Signal									West Jackson
315	Douglas Road & Rock Creek Pkwy		Signal									West Jackson
316	Bradshaw Road & Collector WJ-8		Signal									West Jackson
317	Bradshaw Road & Collector WJ-9		Signal									West Jackson
318	Bradshaw Road & Mayhew Road		Signal									West Jackson
319	Bradshaw Road & Collector WJ-10		Signal									West Jackson
320	Bradshaw Road & Collector WJ-11		Signal									West Jackson
321	Collector WJ-12 & Fruitridge Road		Signal									West Jackson
322	Mayhew Road & Collector WJ-13		Signal									West Jackson
323	Collector WJ-14 & Kiefer Boulevard		Signal									West Jackson
324	Collector WJ-15 & Kiefer Boulevard		Signal									West Jackson
325	Douglas Road/Shopping Center Dwy & Kiefer Boulevard		Signal									West Jackson
326	Happy Lane & Mayhew Road		Roundabout									West Jackson
327	Vineyard Road & Elder Creek Road		Signal									West Jackson
328	Vineyard Road & Florin Road		Signal									West Jackson
400	Collector JT-3 & Jackson Road		Signal									Jackson Township
401	Tree View Lane & Jackson Road		Signal									Jackson Township
402	Collector JT-4 & Jackson Road		Signal									Jackson Township
403	Tree View Lane & Collector JT-5		Signal									Jackson Township
404	Tree View Lane & Collector JT-6		Signal									Jackson Township
405	Tree View Lane & Collector JT-1		Signal									Jackson Township
406	Tree View Lane & Kiefer Boulevard		Signal									Jackson Township
407	HS/MS Dwy & Kiefer Boulevard		Signal									Jackson Township

Note: Gray shading represents changes in traffic control or approach lanes for which the project is responsible to pay a fair share.

Table 5.6

MTP Cumulative and MTP Cumulative Plus FOUR PROJECTS Intersection Geometrics

Intersection		Traffic Control		MTP Cumulative Lane Geometrics				MTP Cumulative Plus FOUR PROJECTS Lane Geometrics				Project(s) Responsible for Change
		MTP Cumulative	MTP Cumulative Plus FOUR PROJECTS	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach	
500	Rockbridge Dr & Jackson Road		Signal									NewBridge
501	Zinfandel Drive & N Bridgewater Dr		Signal									NewBridge
502	Zinfandel Drive & S Bridgewater Dr		Signal									NewBridge
600	Zinfandel Drive & Collector MS-2		Signal									Mather South
601	Zinfandel Drive & Collector MS-3		Signal									Mather South
602	Zinfandel Drive & Collector MS-4		Signal									Mather South
603	Collector MS-5 & Collector MS-2		All-way stop									Mather South
604	Collector MS-5 & Collector MS-3		Two-way stop									Mather South
605	Collector MS-5 & Collector MS-4		All-way stop									Mather South
606	Collector MS-5 & W Collector MS-1/E Collector MS-1		All-way stop									Mather South

Note: Gray shading represents changes in traffic control or approach lanes for which the project is responsible to pay a fair share.

5.4.3 MTP Cumulative Plus FOUR PROJECTS US 50 Freeway Impacts

5.4.3.1 Freeway Mainline

Table 5.7 summarizes a.m. and p.m. peak hour US 50 freeway mainline operations. Details of the analysis are included in the technical appendix. The following locations exhibit significant impacts:

- Eastbound
  - Stockton Boulevard to 59th Street - a.m. peak hour
  - Watt Avenue to Bradshaw Road - a.m. peak hour
  - Zinfandel Drive to Hazel Avenue - p.m. peak hour
- Westbound
  - Mather Field Road to Bradshaw Road - a.m. peak hour
  - Watt Avenue to SR 99 / SR 51 - p.m. peak hour

5.4.3.2 Freeway Ramp Junctions / Weaving

Table 5.8 summarizes a.m. and p.m. peak hour freeway operations at ramp junctions and weaving areas. Details of the analysis are included in the technical appendix. The following locations exhibit significant impacts:

- Eastbound
  - 65th Street to Howe Avenue weave - a.m. and p.m. peak hours
  - Bradshaw Road exit - a.m. peak hour
  - Mather Field Road to Zinfandel Drive weave - a.m. and p.m. peak hours
  - Rancho Cordova Parkway to Hazel Avenue weave - p.m. peak hour
- Westbound
  - Hazel Avenue to Rancho Cordova Parkway weave - a.m. peak hour
  - Southbound Sunrise Boulevard Slip Entrance - a.m. peak hour
  - Southbound Bradshaw Road Slip Entrance - a.m. peak hour
  - Southbound Howe Avenue Slip Entrance - a.m. peak hour

5.4.3.3 Freeway Ramp Intersection Queuing

Tables 5.9 and 5.10 summarize a.m. and p.m. peak hour freeway ramp intersection queuing. The following locations exhibit a significant impact:

- Eastbound
  - Exit ramp to Howe Avenue - right turn queue length exceeds available storage
  - Exit ramp to Zinfandel Drive - right turn queue length exceeds available storage

Table 5.7: MTP Cumulative Plus FOUR PROJECTS Peak Hour Freeway Mainline Level of Service

Direc-tion	Location	MTP Cumulative				MTP Cumulative Plus FOUR PROJECTS			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		Volume	LOS	Volume	LOS	Volume	LOS	Volume	LOS
East-bound US 50	SR 99 / SR 51 to Stockton Boulevard	8,582	D	8,297	D	9,245	D	8,246	D
	Stockton Boulevard to 59th Street	8,024	**F**	7,539	**F**	8,627	**F**	7,473	**F**
	59th Street to 65th Street	7,506	D	7,088	D	8,094	E	7,033	D
	65th Street to Howe Avenue	7,971	D	7,455	D	8,166	D	7,302	D
	Howe Avenue to Watt Avenue	7,147	C	6,393	C	7,149	C	6,150	C
	Watt Avenue to Bradshaw Road	9,583	**F**	8,662	E	9,596	**F**	8,437	D
	Bradshaw Rd to Mather Field Rd	9,362	**F**	8,502	C	8,922	**F**	8,510	C
	Mather Field Rd to Zinfandel Drive	8,935	D	8,234	C	8,490	C	8,548	C
	Zinfandel Drive to Sunrise Blvd	6,237	C	6,181	**F**	5,990	C	6,487	**F**
	Sunrise Bl to Rancho Cordova Pkwy	5,335	C	5,450	**F**	4,943	C	5,894	**F**
	Rancho Cordova Pkwy to Hazel Ave	6,571	D	6,395	**F**	6,074	C	6,887	**F**
West-bound US 50	Hazel Ave to Rancho Cordova Pkwy	5,240	B	4,367	B	5,695	B	3,934	B
	Rancho Cordova Pkwy to Sunrise Bl	6,587	C	3,883	B	7,048	C	3,515	B
	Sunrise Blvd to Zinfandel Drive	8,392	D	4,914	B	8,891	D	4,555	B
	Zinfandel Drive to Mather Field Rd	8,942	D	7,154	C	9,330	D	6,703	B
	Mather Field Rd to Bradshaw Road	8,996	**F**	8,442	D	9,065	**F**	7,995	C
	Bradshaw Road to Watt Avenue	8,662	**F**	7,703	D	8,415	E	7,847	D
	Watt Avenue to Howe Avenue	7,604	**F**	5,740	**F**	7,111	**F**	5,836	**F**
	Howe Avenue to 65th Street	8,577	**F**	7,896	**F**	8,539	**F**	8,148	**F**
	65th Street to 59th Street	8,621	**F**	7,827	**F**	8,601	**F**	8,270	**F**
	59th Street to Stockton Boulevard	9,516	D	8,137	**F**	9,426	D	8,631	**F**
	Stockton Boulevard to SR 99 / SR 51	10,023	E	9,566	**F**	9,930	E	9,855	**F**

Bold values denote level of service "F" conditions. **Red shaded** values indicate project impacts.

Source: *DKS Associates, 2014.*

Table 5.8: MTP Cumulative Plus FOUR PROJECTS Peak Hour Freeway Ramp Junction/Weaving Level of Service										
Direc-tion	**Location**	**Junction Type**	**MTP Cumulative**				**MTP Cumulative Plus FOUR PROJECTS**			
			A.M. Peak Hour		**P.M. Peak Hour**		**A.M. Peak Hour**		**P.M. Peak Hour**	
			Ramp Volume	**LOS**	**Ramp Volume**	**LOS**	**Ramp Volume**	**LOS**	**Ramp Volume**	**LOS**
East-bound US 50	Northbound 65th Street Slip Entrance	Weave	956	**F**	799	**F**	902	**F**	665	**F**
	Howe Avenue / Hornet Drive Exit		2,070		2,201		2,322		2,237	
	Southbound Howe Avenue Loop Entrance	One-Lane Merge	731	D	1,291	D	808	D	1,152	D
	Northbound Howe Avenue Slip Entrance	One-Lane Merge	591	D	582	D	463	D	555	C
	Watt Avenue Exit	Two-Lane Diverge	1,553	B	1,762	B	1,518	B	1,609	A
	Southbound Watt Avenue Loop Entrance	One-Lane Merge	1,644	D	1,306	C	1,582	D	1,101	C
	Northbound Watt Avenue Slip Entrance	One-Lane Merge	733	D	684	C	667	D	773	C
	Bradshaw Road Exit	Two-Lane Diverge	2,035	**F**	1,608	B	2,366	**F**	1,789	B
	Southbound Bradshaw Road Loop Entrance	One-Lane Merge	253	D	399	C	216	C	564	C
	Northbound Bradshaw Road Slip Entrance	One-Lane Merge	1,409	D	843	C	1,340	C	1,173	C

Table 5.8
MTP Cumulative Plus FOUR PROJECTS Peak Hour Freeway Ramp Junction/Weaving Level of Service

Direc-tion	Location	Junction Type	MTP Cumulative				MTP Cumulative Plus FOUR PROJECTS			
			A.M. Peak Hour		P.M. Peak Hour		A.M. Peak Hour		P.M. Peak Hour	
			Ramp Volume	LOS	Ramp Volume	LOS	Ramp Volume	LOS	Ramp Volume	LOS
	Mather Field Road Exit	Two-Lane Diverge	1,492	B	1,462	B	1,464	B	1,400	B
	Southbound Mather Field Road Loop Entrance	One-Lane Merge	236	C	197	C	206	C	167	C
	Northbound Mather Field Road Slip Entrance	Weave	432	**F**	920	**F**	447	**F**	1,210	**F**
	Zinfandel Drive Exit		3,097		1,759		3,052		1,708	
	Southbound Zinfandel Drive Loop Entrance	One-Lane Merge	187	C	170	C	183	C	161	C
	Northbound Zinfandel Drive Slip Entrance	Lane Addition	644	A	819	B	661	A	938	B
	Sunrise Boulevard Exit	Major Diverge	2,135	C	2,353	C	2,085	C	2,421	C
	Sunrise Boulevard Entrance	Lane Addition / Weave	1,152	B	1,145	C	1,101	A	1,182	C
	Rancho Cordova Parkway Exit	Major Diverge / Weave	78	C	448		25	C	535	
	Rancho Cordova Parkway Entrance	Weave	1,342	**F**	1,499	**F**	1,202	**F**	1,651	**F**
	Hazel Avenue Exit		1,869		2,657		1,710		2,826	

Table 5.8
MTP Cumulative Plus FOUR PROJECTS Peak Hour Freeway Ramp Junction/Weaving Level of Service

Direc-tion	Location	Junction Type	MTP Cumulative				MTP Cumulative Plus FOUR PROJECTS			
			A.M. Peak Hour		P.M. Peak Hour		A.M. Peak Hour		P.M. Peak Hour	
			Ramp Volume	LOS	Ramp Volume	LOS	Ramp Volume	LOS	Ramp Volume	LOS
	Hazel Avenue Entrance	Weave	1,088	D	2,320	**F**	1,048	D	2,087	D
	Aerojet Road Exit		674		122		736		130	
West-bound US 50	Hazel Avenue Exit	Two-Lane Diverge	1,077	B	959	B	905	B	951	B
	Northbound Hazel Avenue Loop Entrance	One-Lane Merge	52	B	434	C	124	C	434	B
	Southbound Hazel Avenue Slip Entrance	Weave	2,283	**F**	1,814	**F**	2,376	**F**	1,725	**F**
	Rancho Cordova Parkway Exit		1,512		1,595		1,644		1,479	
	Rancho Cordova Parkway Entrance	Lane Addition	875	A	791	A	897	A	747	A
	Sunrise Boulevard Exit	Major Diverge	623	C	627	C	611	C	580	C
	Northbound Sunrise Boulevard Loop Entrance	Lane Addition	167	A	197	A	169	A	106	A
	Southbound Sunrise Boulevard Slip Entrance	Lane Addition	2,334	**F**	1,673	C	2,345	**F**	1,746	D
	Zinfandel Drive Exit	One-Lane Diverge	1,478	E	1,124	D	1,488	E	1,097	C
	Northbound Zinfandel Drive Loop Entrance	Lane Addition	780	B	1,314	C	689	C	1,178	B

Table 5.8
MTP Cumulative Plus FOUR PROJECTS Peak Hour Freeway Ramp Junction/Weaving Level of Service

Direc-tion	Location	Junction Type	MTP Cumulative				MTP Cumulative Plus FOUR PROJECTS			
			A.M. Peak Hour		P.M. Peak Hour		A.M. Peak Hour		P.M. Peak Hour	
			Ramp Volume	LOS	Ramp Volume	LOS	Ramp Volume	LOS	Ramp Volume	LOS
	Southbound Zinfandel Drive Slip Entrance	One-Lane Merge	1,349	D	723	B	1,219	D	708	B
	Mather Field Road Exit	One-Lane Drop	1,372	D	809	C	1,768	E	848	B
	Northbound Mather Field Road Loop Entrance	One-Lane Merge	578	B	1,189	C	439	B	1,185	B
	Southbound Mather Field Road Slip Entrance	One-Lane Merge	343	C	474	B	481	C	467	B
	Bradshaw Road Exit	Two-Lane Diverge	1,376	C	1,733	B	1,788	C	1,724	B
	Northbound Bradshaw Road Loop Entrance	One-Lane Merge	1,091	D	1,023	D	1,313	D	1,667	D
	Southbound Bradshaw Road Slip Entrance	One-Lane Merge	385	**F**	836	D	387	**F**	894	D
	Watt Avenue Exit	Major Diverge	1,577	D	1,167	D	1,381	D	1,054	D
	Northbound Watt Avenue Entrance	One-Lane Merge	806	D	1,104	D	738	D	1,050	D
	Southbound Watt Avenue Slip Entrance	Lane Addition	1,224	D	1,201	C	845	D	1,098	C
	Howe Avenue Exit	Major Diverge	1,806	E	1,677	D	1,520	D	1,694	D
	Northbound Howe Avenue Loop Entrance	One-Lane Merge	582	D	503	C	668	D	519	D

Table 5.8
MTP Cumulative Plus FOUR PROJECTS Peak Hour Freeway Ramp Junction/Weaving Level of Service

Direc-tion	Location	Junction Type	MTP Cumulative				MTP Cumulative Plus FOUR PROJECTS			
			A.M. Peak Hour		P.M. Peak Hour		A.M. Peak Hour		P.M. Peak Hour	
			Ramp Volume	LOS	Ramp Volume	LOS	Ramp Volume	LOS	Ramp Volume	LOS
	Southbound Howe Avenue Slip Entrance	One-Lane Merge	732	**F**	763	C	781	**F**	689	C

Bold values denote level of service "F" conditions.
Red shaded values indicate project impacts.
Source: *DKS Associates, 2014.*

Table 5.9: MTP Cumulative Peak Hour Freeway Ramp Termini Queuing

Direction	US 50 Exit Ramp	Available Storage Length (feet / lane)			Maximum Queue Length (feet / lane)					
					AM Peak Hour			PM Peak Hour		
		L	T	R	L	T	R	L	T	R
Eastbound US-50	Howe Avenue	765	-	765	192	-	**837**	154	-	330
	Watt Avenue	1,500	-	1,500	225	-	293	278	-	256
	Bradshaw Road	1,250	-	1,250	221	-	797	153	-	280
	Mather Field Road	1,385	-	1,385	173	-	526	197	-	324
	Zinfandel Drive	1,025	1,025	1,025	187	**1388**	**1272**	489	403	702
	Sunrise Boulevard	1,695	-	1,695	282	-	316	222	-	89
	Rancho Cordova Pkwy.	-	-	1,850	-	-	9	-	-	104
	Hazel Avenue	1,310	-	1,310	216	-	8	669	-	12
Westbound US-50	Hazel Avenue	1,995		1,995	286		884	309		589
	Rancho Cordova Pkwy	1,065	-	-	542	-	-	513	-	-
	Sunrise Boulevard	1,540	-	1,540	88	-	86	20	-	273
	Zinfandel Drive	1,065	-	1,065	648	-	51	156	-	170
	Mather Field Road	1,335	-	1,335	318	-	293	316	-	264
	Bradshaw Road	1,330	-	1,330	197	-	292	310	-	80
	Watt Avenue	1,480	-	1,480	267	-	818	201	-	714
	Howe Avenue	1,355	1,355	1,355	119	412	695	197	412	550

Bold values exceed storage capacity.
L = left turn movement, T = through movement, R = right turn movement
Source: *DKS Associates, 2014.*

Table 5.10: MTP Cumulative Plus FOUR PROJECTS Peak Hour Freeway Ramp Termini Queuing

Direction	US 50 Exit Ramp	Available Storage Length (feet / lane)			Maximum Queue Length (feet / lane)					
					AM Peak Hour			PM Peak Hour		
		L	T	R	L	T	R	L	T	R
Eastbound US-50	Howe Avenue	765	-	765	196	-	**1,189**	148	-	443
	Watt Avenue	1,500	-	1,500	206	-	335	251	-	332
	Bradshaw Road	1,250	-	1,250	168	-	1,294	97	-	603
	Mather Field Road	1,385	-	1,385	331	-	724	335	-	275
	Zinfandel Drive	1,025	1,025	1,025	207	1,304	**1,325**	672	569	764
	Sunrise Boulevard	1,695	-	1,695	360	-	247	232	-	86
	Rancho Cordova Pkwy.	-	-	1,850	-	-	0	-	-	138
	Hazel Avenue	1,310	-	1,310	280	-	15	1,047	-	11
Westbound US-50	Hazel Avenue	1,995		1,995	432		747	391		685
	Rancho Cordova Pkwy	1,065	-	-	638	-	-	455	-	-
	Sunrise Boulevard	1,540	-	1,540	59	-	81	26	-	259
	Zinfandel Drive	1,065	-	1,065	487	-	70	171	-	172
	Mather Field Road	1,335	-	1,335	726	-	684	316	-	231
	Bradshaw Road	1,330	-	1,330	418	-	150	331	-	58
	Watt Avenue	1,480	-	1,480	432	-	670	210	-	697
	Howe Avenue	1,355	1,355	1,355	77	412	543	196	412	837

Red shaded values indicate project impacts.
L = left turn movement, T = through movement, R = right turn movement
Source: *DKS Associates, 2014.*

5.4.4 MTP Cumulative Plus FOUR PROJECTS Pedestrian and Bicycle Facility Impacts

The FOUR PROJECTS would not remove any existing or planned pedestrian facility. The FOUR PROJECTS would not remove any existing bicycle facility or any facility that is planned in the Bikeway Master Plan. The FOUR PROJECTS would add pedestrian and bicycle demands within the FOUR PROJECTS site and to and from nearby land uses. Complete information on improvements to on- and off-site bicycle and pedestrian facilities is not available at this time. Because the FOUR PROJECTS would add demand for pedestrian and bicycle facilities that may not be available, the impact of the FOUR PROJECTS on pedestrian and bicycle circulation is potentially significant.

5.4.5 MTP Cumulative Plus FOUR PROJECTS Transit System Impacts

Public transit service is currently limited in the vicinity of the FOUR PROJECTS. In the preparation of this analysis, a conceptual transit system to serve the FOUR PROJECTS was developed (see Section 3.1.2.3). The additional transit service was assumed to be funded by the FOUR PROJECTS. However, the timing and implementation of the transit system are uncertain at this time. The FOUR PROJECTS would increase demands for public transit facilities. Therefore, the impact of the FOUR PROJECTS on the transit system is potentially significant.

5.4.6 MTP Cumulative Plus FOUR PROJECTS Functionality Impacts

Table 5.11 summarizes the results of the rural roadway segment functionality analysis. Figure 5.7 illustrates the resultant functionality impacts. The table includes the number of lanes assumed with the implementation of the FOUR PROJECTS, which in many cases is greater than the number of lanes in the existing condition. The shaded table cells under the "Travel Lanes" heading illustrates new roadways and widened roadways that are assumed part of the FOUR PROJECTS. The "Substandard?" heading indicates whether or not a roadway meets the County standards of 12-foot lanes and 6-foot shoulders. If the FOUR PROJECTS make improvements to a roadway segment such as widening, they would be required to reconstruct the entire substandard roadway segment to County standards. The shaded table cells under the "Functionality Impact?" heading indicate those locations with a functionality impact.

As stated above, the traffic analysis assumed that the FOUR PROJECTS would construct a number of travel lanes on roadway segments that are internal to or on the boundary of the FOUR PROJECTS, and the entire roadway segment would be reconstructed to County standards at that time. The timing of implementation of such additional traffic lanes on these internal or boundary roadway segments will affect whether or not impacts would exist at some time prior to full build out of the FOUR PROJECTS.

Table 5.11
MTP Cumulative Plus FOUR PROJECTS Functionality Impacts

ID	Roadway	Segment		Jurisdiction	Existing Substandard Roadways				MTP Cumulative + FOUR PROJECTS			
		From	To		Travel Lanes	Pavement (ft)	Substandard? [1]	Existing Volume	Travel Lanes	Substandard? [1]	Forecasted Volume	Functionality Impact? [2]
15	Douglas Rd	Mather Blvd	Zinfandel Dr	County	2	23	Yes	6,635	4	No	30,940	Yes[3]
16	Douglas Rd	Zinfandel Dr	Sunrise Blvd	Rancho Cordova/County	2	23	Yes	8,369	6	No	39,820	Yes[3]
19	Eagles Nest Rd	Kiefer Blvd	Jackson Rd	County	2	20	Yes	740	4	No	13,460	Yes[3]
20	Eagles Nest Rd	Jackson Rd	Florin Rd	County	2	<21	Yes	517	2	Yes	9,590	Yes
21	Eagles Nest Rd	Florin Rd	Grant Line Rd	County	2	<21	Yes	189	2	Yes	5,590	No
25	Elder Creek Rd	South Watt Ave	Hedge Ave	County	2	23	Yes	5,576	2	Yes	43,150	Yes
26	Elder Creek Rd	Hedge Ave	Mayhew Rd	County	2	23	Yes	5,797	2	Yes	43,640	Yes
27	Elder Creek Rd	Mayhew Rd	Bradshaw Rd	County	2	23	Yes	5,355	3	No	17,180	Yes[3]
28	Elder Creek Rd	Bradshaw Rd	Excelsior Rd	County	2	23	Yes	2,158	3	No	27,790	Yes[3]
30	Excelsior Rd	Kiefer Blvd	Jackson Rd	County	2	22	Yes	3,716	2	Yes	29,040	Yes
31	Excelsior Rd	Jackson Rd	Elder Creek Rd	County	2	<21	Yes	5,075	3	No	35,140	Yes[3]
32	Excelsior Rd	Elder Creek Rd	Florin Rd	County	2	<21	Yes	4,203	3	No	11,870	Yes[3]
33	Excelsior Rd	Florin Rd	Gerber Rd	County	2	<21	Yes	5,423	2	Yes	14,310	Yes
34	Excelsior Rd	Gerber Rd	Calvine Rd	County	2	<21	Yes	4,229	2	Yes	8,990	Yes
39	Florin Rd	South Watt Ave	Hedge Ave	County	2	22	Yes	7,718	4	No	9,410	Yes[3]
40	Florin Rd	Hedge Ave	Mayhew Rd	County	2	22	Yes	6,312	4	No	9,160	Yes[3]
41	Florin Rd	Mayhew Rd	Bradshaw Rd	County	2	22	Yes	6,317	4	No	32,310	Yes[3]
42	Florin Rd	Bradshaw Rd	Excelsior Rd	County	2	22	Yes	3,478	4	No	20,460	Yes[3]
43	Florin Rd	Excelsior Rd	Sunrise Blvd	County	2	22	Yes	3,835	2	Yes	11,880	Yes
48	Fruitridge Rd	South Watt Ave	Hedge Ave	City of Sacramento/ County	2	22	Yes	2,890	3	No	19,590	Yes[3]
49	Fruitridge Rd	Hedge Ave	Mayhew Rd	County	2	22	Yes	1,790	4	No	22,940	Yes[3]
50	Grant Line Rd	White Rock Rd	Douglas Rd	Rancho Cordova/County	2	22	Yes	7,189	4	No	19,330	Yes[3]
58	Happy Ln	Old Placerville Rd	Kiefer Blvd	County	2	22	Yes	4,635	4	No	49,530	Yes[3]
59	Hedge Ave	Jackson Rd	Fruitridge Rd	County	2	22	Yes	3,061	2	Yes	9,640	Yes
60	Hedge Ave	Fruitridge Rd	Elder Creek Rd	City of Sacramento/County	2	22	Yes	3,737	2	Yes	4,440	No
61	Hedge Ave	Elder Creek Rd	Florin Rd	County	2	22	Yes	2,722	2	Yes	2,250	No

Red text with light gray shading indicate project impacts.

Table 5.11
MTP Cumulative Plus FOUR PROJECTS Functionality Impacts

ID	Roadway	Segment		Jurisdiction	Existing Substandard Roadways				MTP Cumulative + FOUR PROJECTS			
		From	To		Travel Lanes	Pavement (ft)	Substandard? [1]	Existing Volume	Travel Lanes	Substandard? [1]	Forecasted Volume	Functionality Impact? [2]
70	Jackson Rd	Bradshaw Rd	Excelsior Rd	County	2	26	Yes	13,030	6	No	54,830	Yes[3]
71	Jackson Rd	Excelsior Rd	Eagles Nest Rd	County	2	26	Yes	10,478	4	No	50,100	Yes[3]
74	Kiefer Blvd	Florin Perkins Rd	South Watt Ave	City of Sacramento/County	2	22	Yes	4,616	2	Yes	4,930	No
77	Kiefer Blvd	Bradshaw Rd	Happy Ln	County	2	22	Yes	4,618	6	No	49,620	Yes[3]
78	Kiefer Blvd	Zinfandel Dr	Sunrise Blvd	County	2	22	Yes	656	3	No	22,480	Yes[3]
83	Mather Blvd-Excelsior Rd[4]	Douglas Rd	Kiefer Blvd	County	2	22	Yes	6,751	2	Yes	14,550	Yes
89	Mayhew Rd	Jackson Rd	Fruitridge Rd	County	2	22	Yes	1,616	4	No	45,500	Yes[3]
116	White Rock Rd	Fitzgerald Rd	Grant Line Rd	Rancho Cordova/County	2	20	Yes	2,490	4	No	38,630	Yes[3]
123	Zinfandel Dr	Douglas Rd	Kiefer Blvd	County	2	<21	Yes	2,848	4	No	30,180	Yes[3]

Note: Gray shading indicates changes in travel lanes or facility type that the project is responsible to provide. For all roadway segments to be widened, the project is responsible to build the entire roadway to County standards.

[1] Substandard rural roads are defined as rural, 2-lane roadway segments with travel lanes narrower than 12 feet and/or roadside shoulders narrower than 6 feet.

[2] Functionality impacts are triggered when a substandard rural road increases over a threshold of 6,000 ADT, or for a roadway already above 6,000 ADT, increases by more than 600 ADT.

[3] The potential for an impact exists should the project generate traffic volumes on the roadway exceeding 6,000 ADT, or increasing more than 600 ADT on a roadway already above 6,000 ADT, prior to the construction of roadway improvements.

[4] Excluding the roadway segment that is within the developed community of Independence at Mather.

[5] The functionality impact is mitigated by improving the roadway to County standards, including widening travel lanes to 12 feet and/or widening or providing paved shoulders to 6 feet.

Red text with light gray shading indicate project impacts.

FOLSOM

RANCHO CORDOVA

SACRAMENTO

ELK GROVE

80

50

99

FIGURE 5.7
MTP CUM PLUS FOUR PROJECTS
FUNCTIONALITY IMPACTS

Legend

- Substandard Roadways
- Functionality Impact
- Functionality Impact if Roadway is Not Already Improved
- Cities
- Mather Airport

DKS

5.5 MITIGATION

5.5.1 MTP Cumulative Plus FOUR PROJECTS Roadway Segment Mitigation

Table 5.12 summarizes the results of the operations analysis for the study area roadway segments with mitigation. Where feasible, the number of roadway lanes was increased to mitigate the impact. However, the increased number of lanes could not exceed the maximum General Plan designations of the appropriate jurisdictions. The shaded table cells under the "Travel Lanes" and "Facility Type" headings illustrate widened roadways for mitigation purposes, which would be the responsibility of the FOUR PROJECTS to fund. The NewBridge project would contribute a fair share. The shaded table cells under the "Level of Service" heading indicate those locations that would continue to have LOS impacts after mitigation. The table also includes the constraint that precluded full mitigation of the LOS impact.

The "LOS Impact with Mitigation?" column shows whether there is still an LOS impact after the mitigation measure is applied. In other words, this column shows whether a mitigation measure successfully mitigates the impact or not. In several locations where the improvements allowed under the General Plan would not mitigate an LOS impact, the County has proposed alternative mitigation measures, which are shown in the "Alternative Mitigation" column. These alternative mitigation measures will either fully mitigate the impact or substantially reduce the level of impact.

5.5.2 MTP Cumulative Plus FOUR PROJECTS Intersection Mitigation

Tables 5.13 and 5.14 summarize the results of the operations analysis for the study area intersections with mitigation. However, the increased number of lanes on each approach does not exceed the County's standard number of approach lanes. Shaded table cells in Table 5.14 indicate those locations where changes in traffic control and / or number of approach lanes by type have been made to mitigate impacts, which would be the responsibility of the FOUR PROJECTS to fund. The NewBridge project would contribute a fair share. The shaded table cells in Table 5.13 under the "Level of Service" heading indicate those locations with an LOS impact after mitigation. Table 5.14 also identifies those intersections that would continue to have LOS impacts after mitigation, along with the constraint that precluded full mitigation. Detailed analysis information is included in the technical appendix.

The "LOS Impact with Mitigation?" column shows whether there is still an LOS impact after the mitigation measure is applied. In other words, this column shows whether a mitigation measure successfully mitigates the impact or not. In several locations where the LOS impact could not be mitigated by implementing the County's standard number of approach lanes, the County has proposed alternative mitigation measures, which are shown in the "Alternative Mitigation" column. These generally include providing additional turn lanes, carrying an additional through lane past the intersection, or designating the intersection as a High Capacity Intersection. These alternative mitigation measures will either fully mitigate the impact or substantially reduce the level of impact.

High Capacity Intersections

Three intersections are currently designated as "High Capacity Intersections" on the County's General Plan: Watt Avenue & Folsom Boulevard, Watt Avenue & Kiefer Boulevard, and Watt Avenue & Jackson Road. At two intersections on Bradshaw Road where an LOS impact could not be mitigated by implementing the County's standard number of approach lanes, the County has proposed alternative mitigation measures by designating those two intersections as High Capacity Intersections: Bradshaw Road & Mayhew Road and Bradshaw Road & Jackson Road.

A high capacity intersection would utilize special treatments to increase the capacity of the intersection so as to reduce congestion and travel delay. Since each intersection could have unique travel movements, volumes and existing context sensitive conditions, the special treatments utilized at each high capacity intersection will be selected to meet the specific needs of each intersection. The range of special treatments is quite wide, ranging from the restriction of certain turning movements to various combinations that could include grade separating certain movements. While the field of traffic engineering is ever expending and evolving resulting in the use of new technologies and treatments, special treatments such as the following could be utilized at a high capacity intersection:

- Restricting turning movements
- Median U-turns
- Roundabouts
- Split intersections
- Quadrant roadway intersections
- Bowtie intersections
- Directional flyovers
- Center turn overpass
- Grade separated Roundabout
- Diverging diamond grade separation
- Compact diamond grade separation
- Single point urban grade separation
- Traditional urban grade separation

The County has conducted conceptual engineering to define potential improvements at the three study area intersections on Watt Avenue that are currently designated as "High Capacity Intersections" on the County's General Plan. These are:

- At the **Watt Avenue & Folsom Boulevard** intersection, the County proposes an ultimate configuration involving grade separation of the northbound and southbound through movements of Watt Avenue. Access to and from Folsom Boulevard would be accomplished via on and off-ramps from the left lanes of Watt Avenue to a single signalized intersection. A bus rapid transit (BRT) lane along Watt Avenue would also intersect Folsom Boulevard at the traffic signal. This design is consistent with the recommendations of the South Watt Area Transportation Study (SWATS) dated November 1, 2002 and approved by the Board of Supervisors on November 26, 2002, and with the planning study for the *State Route 16 (Jackson Road) Corridor Study* (Fehr

& Peers, 2012). It should be noted that the State Route 16 study has only had a staff-level review done by Caltrans, Sacramento County Department of Transportation, City of Rancho Cordova, and City of Sacramento. Other equivalent mitigation measures may be selected to the satisfaction of the Department of Transportation to mitigate the project's impact.

- At the **Watt Avenue & Kiefer Boulevard** intersection, the County proposes a tight diamond interchange as the ultimate improvement. The through movements (and BRT lane) on Watt Avenue would be grade separated from Kiefer Boulevard. Access to and from Kiefer Boulevard would be accomplished via on and off-ramps at two signalized intersections along Kiefer Boulevard. This design is proposed in the planning study prepared for *State Route 16 (Jackson Road) Corridor Study* (Fehr & Peers, 2012). It should be noted that the State Route 16 study has only had a staff-level review done by Caltrans, Sacramento County Department of Transportation, City of Rancho Cordova, and City of Sacramento. Other equivalent mitigation measures may be selected to the satisfaction of the Department of Transportation to mitigate the project's impact.

- At the **Watt Avenue & Jackson Road** intersection, the County proposes a standard six-by-six signalized intersection (two left-turn lanes, three through lanes, and one right-turn lane, on each approach) with three modifications. 1) The southbound left-turn movement would be grade separated; 2) The westbound right-turn movement would be grade separated; and 3) Three northbound left-turn lanes are proposed. This configuration represents an enhanced version of Alternative 6 in the planning study prepared for *State Route 16 (Jackson Road) Corridor Study* (Fehr and Peers, 2012). It should be noted that the State Route 16 study has only had a staff-level review done by Caltrans, Sacramento County Department of Transportation, City of Rancho Cordova, and City of Sacramento. Other equivalent mitigation measures may be selected to the satisfaction of the Department of Transportation to mitigate the project's impact.

At the two new proposed "High Capacity Intersections" along Bradshaw Road, the ultimate configurations have not been defined. A number of improvement options involving one or more of the special treatments identified above could be defined that would mitigate the LOS impact at these locations. Since each of these intersections have unique travel movements, volumes and existing context sensitive conditions (potential environmental issues, right-of-way, physical constraints, etc.), the special treatments utilized at each location will need to be studied to select the treatments that mitigate the LOS impact, while avoiding or minimizing other impacts. At Bradshaw Road & Mayhew Road, heavy southbound right turns and westbound left turns suggest that a combination of triple left-turn lanes, dual right-turn lanes and/or overlap phasing may be effective. A high conflicting northbound and southbound volume suggests that grade separating one or more movements may also be necessary to fully mitigate the LOS impact. At Bradshaw Road & Jackson Road, the critical movements are the conflicting through volumes on all approaches. Grade separating either the Bradshaw Road or Jackson Road through movements is likely the only option that would mitigate the LOS impact at this location.

Table 5.12
MTP Cumulative Plus FOUR PROJECTS Roadway Segment Mitigations

ID	Roadway	Segment		MTP Cumulative + FOUR PROJECTS					Mitigated MTP Cumulative + FOUR PROJECTS						
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Volume / Capacity Ratio	Level of Service	LOS Impact with Mitigation?	Alternative Mitigation[2]	Constraint if Full Mitigation Not Possible
2	Bradshaw Rd	US 50	Lincoln Village Dr	6	Arterial M	85,970	1.59	**F**	6	Arterial M	1.59	**F**	Yes		Maximum General Plan lanes
3	Bradshaw Rd	Lincoln Village Dr	Old Placerville Rd	6	Arterial M	78,400	1.45	**F**	6	Arterial M	1.45	**F**	Yes		Maximum General Plan lanes
4	Bradshaw Rd	Old Placerville Rd	Goethe Rd	6	Arterial M	76,540	1.42	**F**	6	Arterial M	1.42	**F**	Yes		Maximum General Plan lanes
5.1	Bradshaw Rd	Goethe Rd	Collector WJ-8	6	Arterial M	65,320	1.21	**F**	6	Arterial M	1.21	**F**	Yes		Maximum General Plan lanes
5.2	Bradshaw Rd	Collector WJ-8	Kiefer Blvd	6	Arterial M	60,740	1.12	**F**	6	Arterial M	1.12	**F**	Yes		Maximum General Plan lanes
6.1	Bradshaw Rd	Kiefer Blvd	Collector WJ-9	6	Arterial M	64,280	1.19	**F**	6	Arterial M	1.19	**F**	Yes		Maximum General Plan lanes
6.2	Bradshaw Rd	Collector WJ-9	Mayhew Rd	6	Arterial M	62,160	1.15	**F**	6	Arterial M	1.15	**F**	Yes		Maximum General Plan lanes
23	Elder Creek Rd	Power Inn Rd	Florin-Perkins Rd	2	Arterial M	27,780	1.54	**F**	4	Arterial M	0.77	C	No		
25	Elder Creek Rd	South Watt Ave	Hedge Ave	2	Arterial M	43,150	2.40	**F**	6	Arterial M	0.80	C	No		
26	Elder Creek Rd	Hedge Ave	Mayhew Rd	2	Arterial M	43,640	2.42	**F**	6	Arterial M	0.81	D	No		
28.1	Elder Creek Rd	Bradshaw Rd	Vineyard Rd	3	Arterial M	27,790	1.54	**F**	4	Arterial M	0.77	C	No		
31.1	Excelsior Rd	Jackson Rd	Collector WJ-6	3	Arterial M	35,350	1.96	**F**	4	Arterial M	0.98	E	No		
31.2	Excelsior Rd	Collector WJ-6	Elder Creek Rd	3	Arterial M	35,140	1.95	**F**	4	Arterial M	0.98	E	No		
36	Florin Rd	Stockton Blvd	Power Inn Rd	4	Arterial M	38,590	1.07	**F**	6	Arterial M	0.71	C	No		
37	Florin Rd	Power Inn Rd	Florin-Perkins Rd	4	Arterial M	39,640	1.10	**F**	4	Arterial M	1.10	**F**	Yes		Maximum General Plan lanes
42.2	Florin Rd	Vineyard Rd	Excelsior Rd	3	Arterial M	19,520	1.08	**F**	4	Arterial M	0.54	A	No		

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Table 5.12
MTP Cumulative Plus FOUR PROJECTS Roadway Segment Mitigations

ID	Roadway	Segment		MTP Cumulative + FOUR PROJECTS					Mitigated MTP Cumulative + FOUR PROJECTS						
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Volume / Capacity Ratio	Level of Service	LOS Impact with Mitigation?	Alternative Mitigation[2]	Constraint if Full Mitigation Not Possible
44	Folsom Blvd	Howe Ave	Jackson Rd	4	Arterial M	55,090	1.53	**F**	4	Arterial M	1.53	**F**	Yes		Maximum General Plan lanes
47	Fruitridge Rd	Florin Perkins Rd	South Watt Ave	2	Arterial M	27,360	1.52	**F**	4	Arterial M	0.76	C	No		
48	Fruitridge Rd	South Watt Ave	Hedge Ave	3	Arterial M	19,590	1.09	**F**	4	Arterial M	0.54	A	No		
56	Grant Line Rd	Sheldon Rd	Wilton Rd	4	Arterial M	38,800	1.08	**F**	6	Arterial M	0.72	C	No		
57	Grant Line Rd	Wilton Rd	Bond Rd	4	Arterial M	33,840	0.94	**E**	6	Arterial M	0.63	B	No		
58	Happy Ln	Old Placerville Rd	Kiefer Blvd	4	Arterial M	49,530	1.38	**F**	6	Arterial M	0.92	**E**	Yes	Happy Lane realigned to Routier Road, widened to 6 lanes	County will not exceed 6 lanes
62	Howe Ave	US 50	Folsom Blvd	6	Arterial M	70,480	1.31	**F**	6	Arterial M	1.31	**F**	Yes		Maximum General Plan lanes
66.1	Jackson Rd	Florin Perkins Rd	14th Ave	4	Arterial M	42,300	1.18	**F**	4	Arterial M	1.18	**F**	Yes		Maximum General Plan lanes
66.2	Jackson Rd	14th Ave	Rock Creek Pkwy	4	Arterial M	58,220	1.62	**F**	4	Arterial M	1.62	**F**	Yes		Maximum General Plan lanes
66.3	Jackson Rd	Rock Creek Pkwy	Aspen 1 Dwy	4	Arterial M	52,540	1.46	**F**	4	Arterial M	1.46	**F**	Yes		Maximum General Plan lanes
66.4	Jackson Rd	Aspen 1 Dwy	South Watt Ave	4	Arterial M	52,540	1.46	**F**	4	Arterial M	1.46	**F**	Yes		Maximum General Plan lanes
67	Jackson Rd	South Watt Ave	Hedge Ave	4	Arterial M	65,760	1.83	**F**	6	Arterial M	1.22	F	No		

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Table 5.12
MTP Cumulative Plus FOUR PROJECTS Roadway Segment Mitigations

ID	Roadway	Segment		MTP Cumulative + FOUR PROJECTS					Mitigated MTP Cumulative + FOUR PROJECTS						
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Volume / Capacity Ratio	Level of Service	LOS Impact with Mitigation?	Alternative Mitigation[2]	Constraint if Full Mitigation Not Possible
68.1	Jackson Rd	Hedge Ave	Collector WJ-3	4	Arterial M	59,710	1.66	**F**	6	Arterial M	1.11	**F**	Yes		Maximum General Plan lanes
68.2	Jackson Rd	Collector WJ-3	Mayhew Rd	4	Arterial M	60,300	1.68	**F**	6	Arterial M	1.12	**F**	Yes		Maximum General Plan lanes
70.1	Jackson Rd	Bradshaw Rd	Collector WJ-4	6	Arterial M	54,830	1.02	**F**	2	Arterial M	3.05	**F**	Yes		Maximum General Plan lanes
71.1	Jackson Rd	Excelsior Rd	Collector JT-3	4	Arterial M	50,100	1.39	**F**	6	Arterial M	0.93	E	No		
71.2	Jackson Rd	Collector JT-3	Tree View Ln	4	Arterial M	36,060	1.00	**F**	6	Arterial M	0.67	B	No		
73	Jackson Rd	Sunrise Blvd	Grant Line Rd	2	Rural Hwy	20,160	0.88	**E**	4	Arterial M	0.56	A	No		
76	Kiefer Blvd	Mayhew Rd	Bradshaw Rd	4	Arterial M	43,890	1.22	**F**	4	Arterial M	1.22	**F**	Yes		Maximum General Plan lanes
78.4	Kiefer Blvd	E Collector MS-1	Sunrise Blvd	3	Arterial M	22,480	1.25	**F**	4	Arterial M	0.62	B	No		
83	Mather Blvd-Excelsior Rd	Douglas Rd	Kiefer Blvd	2	Res Collector F	14,550	1.82	**F**	2	Res Collector F	1.82	**F**	Yes	Construct Douglas Road extension to 4 lanes	Maximum General Plan lanes
89.1	Mayhew Rd	Jackson Rd	Rock Creek Pkwy	4	Arterial M	45,500	1.26	**F**	6	Arterial M	0.84	D	No		
89.2	Mayhew Rd	Rock Creek Pkwy	Fruitridge Rd	4	Arterial M	40,820	1.13	**F**	6	Arterial M	0.76	C	No		
92	Old Placerville Rd	Happy Ln	Routier Rd	2	Arterial M	50,980	2.83	**F**					No	Happy Lane realigned to Routier Road, widened to 6 lanes	

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Table 5.12
MTP Cumulative Plus FOUR PROJECTS Roadway Segment Mitigations

ID	Roadway	Segment		MTP Cumulative + FOUR PROJECTS					Mitigated MTP Cumulative + FOUR PROJECTS						
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Volume / Capacity Ratio	Level of Service	LOS Impact with Mitigation?	Alternative Mitigation[2]	Constraint if Full Mitigation Not Possible
93	Old Placerville Rd	Routier Rd	Rockingham Dr	4	Arterial M	32,970	0.92	**E**	4	Arterial M	0.92	**E**	Yes		Maximum General Plan lanes
95	Rockingham Dr	Old Placerville Rd	Mather Field Rd	4	Arterial M	36,140	1.00	**F**	4	Arterial M	1.00	**F**	Yes		Maximum General Plan lanes
96	South Watt Ave	Folsom Blvd	Kiefer Blvd	6	Arterial M	82,250	1.52	**F**	6	Arterial M	1.52	**F**	Yes		Maximum General Plan lanes
97	South Watt Ave	Kiefer Blvd	Jackson Rd	6	Arterial M	72,010	1.33	**F**	6	Arterial M	1.33	**F**	Yes		Maximum General Plan lanes
100	South Watt Ave	Elder Creek Rd	Florin Rd	4	Arterial M	37,030	1.03	**F**	6	Arterial M	0.69	B	No		
104.2	Sunrise Blvd	International Dr	Rio Del Oro Pkwy	6	Arterial M	53,110	0.98	**E**	6	Arterial M	0.98	**E**	Yes		Maximum General Plan lanes
104.3	Sunrise Blvd	Rio Del Oro Pkwy	Douglas Rd	6	Arterial M	53,560	0.99	**E**	6	Arterial M	0.99	**E**	Yes		Maximum General Plan lanes
110	Watt Ave	US 50	Folsom Blvd	6	Arterial H	105,950	1.77	**F**	6	Arterial H	1.77	**F**	Yes		Maximum General Plan lanes
122	Zinfandel Dr	City Limit	Douglas Rd	2	Arterial M	32,020	1.78	**F**	4	Arterial M	0.89	D	No		
302	Happy Ln	Kiefer Blvd	Mayhew Rd	4	Arterial M	40,480	1.12	**F**	4	Arterial M	1.12	**F**	Yes		Maximum General Plan lanes
305	Kiefer Blvd	Happy Ln	Collector WJ-15	6	Arterial M	60,300	1.12	**F**	6	Arterial M	1.12	**F**	Yes		Maximum General Plan lanes

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Table 5.12
MTP Cumulative Plus FOUR PROJECTS Roadway Segment Mitigations

ID	Roadway	Segment		MTP Cumulative + FOUR PROJECTS					Mitigated MTP Cumulative + FOUR PROJECTS						
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Volume / Capacity Ratio	Level of Service	LOS Impact with Mitigation?	Alternative Mitigation[2]	Constraint if Full Mitigation Not Possible
306	Kiefer Blvd	Collector WJ-15	Douglas Rd	6	Arterial M	56,010	1.04	**F**	6	Arterial M	1.04	**F**	Yes		Maximum General Plan lanes
308	Mayhew Rd	Happy Ln	Bradshaw Rd	4	Arterial M	40,230	1.12	**F**	6	Arterial M	0.75	C	No		
309	Mayhew Rd	Bradshaw Rd	Jackson Rd	4	Arterial M	40,820	1.13	**F**	6	Arterial M	0.76	C	No		
311	Mayhew Rd	Collector WJ-13	Elder Creek Rd	3	Arterial M	19,870	1.10	**F**	4	Arterial M	0.55	A	No		
405	Collector JT-3	Collector JT-5	Jackson Rd	2	Res Collector F	17,330	2.17	**F**	2	Arterial M	0.96	E	No		
602	Collector MS-2	Eagles Nest Rd	Collector MS-5	2	Res Collector F	9,370	1.17	**F**	2	Res Collector NF	0.94	E	No		

Note: Gray shading represents changes in travel lanes or facility type that the project is responsible to provide.

[1] The following classifications are used to determine daily roadway capacity:
Arterial L - Arterial, Low Access Control
Arterial M - Arterial, Moderate Access Control
Arterial H - Arterial, High Access Control
Rural Hwy - Rural 2-lane Highway
Rural S - Rural 2-lane Road, 24'-36' of pavement, Paved Shoulders
Rural NS - Rural 2-lane Road, 24'-36' of pavement, No Shoulders
Res Collector F - Residential Collector with Frontage
Res Collector NF - Residential Collector with No Frontage

[2] Alternative mitigations represent proposed mitigations beyond the General Plan, as proposed by the County of Sacramento.

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Table 5.13

MTP Cumulative Plus FOUR PROJECTS Impacted Intersections and Mitigations

	Intersection	AM Peak Hour							PM Peak Hour						
		MTP Cumulative Plus FOUR PROJECTS			LOS Impact	Mitigated MTP Cum Plus FOUR PROJECTS			MTP Cumulative Plus FOUR PROJECTS			LOS Impact	Mitigated MTP Cum Plus FOUR PROJECTS		
		Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)
3	Power Inn Road/Howe Avenue & Folsom Blvd	Signal	F	104.3	Yes				Signal	E	77.3	No			
4	Power Inn Road & 14th Avenue	Signal	F	205.7	Yes	Signal	F	132.2	Signal	F	142.0	Yes	Signal	F	87.1
12	Watt Avenue & Folsom Blvd.	Signal	F	190.1	No				Signal	F	187.8	Yes	Signal	E	66.8
14	S. Watt Avenue & Kiefer Blvd.	Signal	F	120.8	Yes	Signal	SB Ramps B NB Ramps B	SB Ramps 19.0 NB Ramps 18.9	Signal	F	92.7	No			
16	S. Watt Avenue & Jackson Road	Signal	F	221.7	Yes	Signal	E	68.8	Signal	F	196.7	Yes	Signal	E	61.6
17	S. Watt Avenue & Fruitridge Road	Signal	F	124.8	Yes	Signal	F	87.2	Signal	F	111.7	Yes	Signal	E	76.1
18	S. Watt Avenue & Elder Creek Road	Signal	F	196.2	No				Signal	F	203.8	Yes	Signal	D	50.8
20	Elk Grove Florin Road/S. Watt Ave. & Florin Road	Signal	F	153.2	Yes	Signal	E	69.6	Signal	F	101.0	Yes	Signal	E	57.8
23	Hedge Avenue & Jackson Road	Signal	F	213.6	Yes	Signal	D	44.8	Signal	F	141.4	Yes	Signal	C	26.1
28	Mayhew Road & Kiefer Boulevard	Signal	F	112.8	Yes	Signal	E	69.6	Signal	E	75.5	No			
29	Mayhew Road & Jackson Road	Signal	F	127.5	Yes	Signal	E	73.3	Signal	F	103.8	Yes	Signal	E	59.5
31	Mayhew Road & Elder Creek Road	Signal	F	569.1	Yes	Signal	D	48.2	Signal	F	547.5	Yes	Signal	E	78.6
32	Woodring Drive & Zinfandel Drive	Two-way stop	D	32.7	Yes	Signal	B	13.7	Two-way stop	C	15.1	Yes	Signal	C	20.6
	Eastbound		*F*	*>300*						*F*	*>300*				
	Northbound Left Turn		*B*	*12.0*						*B*	*13.8*				

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MTP Cumulative Plus FOUR PROJECTS Impacted Intersections and Mitigations

	Intersection	AM Peak Hour							PM Peak Hour						
		MTP Cumulative Plus FOUR PROJECTS			LOS Impact	Mitigated MTP Cum Plus FOUR PROJECTS			MTP Cumulative Plus FOUR PROJECTS			LOS Impact	Mitigated MTP Cum Plus FOUR PROJECTS		
		Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)
35	Bradshaw Road & US 50 EB Ramps	Signal	E	71.8	Yes				Signal	D	36.1	No			
36	Bradshaw Road & Old Placerville Road	Signal	**F**	**87.0**	No				Signal	F	88.8	Yes			
37	Bradshaw Road & Kiefer Boulevard	Signal	F	143.6	Yes	Signal	F	129.1	Signal	F	166.1	Yes	Signal	F	154.9
38	Bradshaw Road & Jackson Road	Signal	F	97.9	No				Signal	F	96.1	Yes			
39	Bradshaw Road & Elder Creek Road	Signal	F	149.1	Yes	Signal	E	56.8	Signal	F	90.7	Yes	Signal	E	56.4
42	Happy Lane & Old Placerville Road	Two-way stop	F	>300	Yes	Signal	C	34.5	Two-way stop	F	>300	Yes	Signal	C	31.7
	Northbound Left Turn		*F*	*>300*						*F*	*>300*				
	Northbound Right Turn		*F*	*>300*						*F*	*>300*				
	Westbound Left Turn		*F*	*>300*						*F*	*>300*				
44	Excelsior Road & Kiefer Boulevard	Signal	F	93.9	Yes				Signal	E	56.8	No			
45	Excelsior Road & Jackson Road	Signal	F	241.0	Yes	Signal	D	42.4	Signal	F	202.4	Yes	Signal	D	53.1
47	Excelsior Road & Florin Road	Signal	F	123.2	Yes	Signal	E	75.0	Signal	E	68.2	No			
48	Excelsior Road & Gerber Road/Birch Ranch Drive	All-way stop	F	53.1	Yes	Signal	D	48.8	All-way stop	E	39.8	No			
51	Mather Field Road & Rockingham Drive	Signal	F	238.4	Yes				Signal	F	129.1	Yes			
54	Zinfandel Drive & US 50 EB Ramps/Gold Center Drive	Signal	**F**	**90.1**	No				Signal	F	90.6	Yes			
58	Zinfandel Drive & Douglas Road	Signal	F	227.7	Yes	Signal	E	60.4	Signal	F	225.8	Yes	Signal	E	70.9

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MTP Cumulative Plus FOUR PROJECTS Impacted Intersections and Mitigations

	Intersection	AM Peak Hour									PM Peak Hour								
		MTP Cumulative Plus FOUR PROJECTS			LOS Impact	Mitigated MTP Cum Plus FOUR PROJECTS					MTP Cumulative Plus FOUR PROJECTS			LOS Impact	Mitigated MTP Cum Plus FOUR PROJECTS				
		Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)			Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)		
61	Eagles Nest Road & Florin Road	Two-way stop	F	>300	Yes	Signal	E	74.6			Two-way stop	F	>300	Yes	Signal	D	43.5		
	Northbound		*F*	*>300*								*F*	*>300*						
	Southbound		*F*	*>300*								*F*	*>300*						
	Eastbound Left Turn		*A*	*9.7*								*A*	*8.4*						
	Westbound Left Turn		*A*	*7.9*								*A*	*8.2*						
67	Sunrise Boulevard & Douglas Road	Signal	F	229.1	Yes	Signal	F	199.3			Signal	F	90.7	Yes	Signal	F	87.9		
69	Sunrise Boulevard & Kiefer Boulevard	Signal	F	144.6	Yes	Signal	F	95.0			Signal	E	63.9	Yes	Signal	D	45.2		
74	Hazel Avenue & US 50 EB Ramps	Signal	B	16.1	No						Signal	F	99.6	Yes					
80	Grant Line Road & Jackson Road	Signal	F	85.9	Yes	Signal	D	48.5			Signal	D	51.3	No					
91	Grant Line Rd & Eagles Nest Rd/Sloughhouse Rd	Signal	F	184.3	Yes	Signal	**F**	**101.9**			Signal	F	158.3	Yes	Signal	**F**	**101.3**		
93	Grant Line Rd & Dwy/Wilton Rd	Signal	**F**	**93.9**	No						Signal	F	86.6	Yes	Signal	**E**	**56.6**		
95	Florin Perkins Road & 14th Avenue	Signal	E	61.0	Yes						Signal	D	54.6	No					
96	Jackson Road & 14th Avenue	Signal	F	120.1	Yes						Signal	D	51.5	No					
102	Rancho Cordova Pkwy & White Rock Road	Signal	F	137.5	Yes						Signal	F	132.0	Yes					
310	Mayhew Road & Rock Creek Pkwy WB	Roundabout	F	162.1	Yes	Signal	E	63.3			Roundabout	F	202.2	Yes	Signal	D	42.7		
311	Mayhew Road & Rock Creek Pkwy EB	Roundabout	F	198.6	Yes	Signal	E	63.3			Roundabout	F	92.3	Yes	Signal	D	42.7		
318	Bradshaw Road & Mayhew Road	Signal	F	161.6	Yes	Signal	F	98.1			Signal	F	127.4	Yes	Signal	E	59.3		

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Table 5.13

MTP Cumulative Plus FOUR PROJECTS Impacted Intersections and Mitigations

Intersection		AM Peak Hour							PM Peak Hour						
		MTP Cumulative Plus FOUR PROJECTS			LOS Impact	Mitigated MTP Cum Plus FOUR PROJECTS			MTP Cumulative Plus FOUR PROJECTS			LOS Impact	Mitigated MTP Cum Plus FOUR PROJECTS		
		Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)
325	Douglas Road & Kiefer Boulevard	Signal	**F**	**207.5**	Yes	Signal	**F**	**138.9**	Signal	**F**	**127.5**	Yes	Signal	E	76.4
326	Happy Lane & Mayhew Road	Roundabout	**F**	**304.2**	Yes	Signal	D	50.0	Roundabout	**F**	**139.6**	Yes	Signal	D	41.2

Note: Gray shading represents changes in traffic control for which the project is responsible to pay a fair share.

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Table 5.14

MTP Cumulative Plus FOUR PROJECTS Intersection Impacts and Mitigations

	Intersection	Traffic Control		MTP Cumulative Plus FOUR PROJECTS Lane Geometrics				Mitigated MTP Cumulative Plus FOUR PROJECTS Lane Geometrics				LOS Impact with Mitgation?	High Capacity Intersection?[1]	Alternative Mitigation[2]	Constraint if Full Mitigation Not Possible
		MTP Cumulative Plus Project	Mitigated MTP Cumulative Plus Project	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach				
3	Power Inn Road/Howe Avenue & Folsom Blvd	Signal	Signal									Yes	No		Existing development
4	Power Inn Road & 14th Avenue	Signal	Signal									Yes	No		Existing development
12	Watt Avenue & Folsom Blvd.	Signal	Signal									No	Yes	Grade separated NBT and SBT	
14	S. Watt Avenue & Kiefer Blvd.	Signal	Signal									No	Yes	Tight Diamond Interchange (SB Watt Ramps/Kiefer intersection shown)	
		Signal	Signal											Tight Diamond Interchange (NB Watt Ramps/Kiefer intersection shown)	
16	S. Watt Avenue & Jackson Road	Signal	Signal						*Free left		*Free right	No	Yes	Triple NBL, Free WBR and SBL via tunnel	
17	S. Watt Avenue & Fruitridge Road	Signal	Signal									Yes	No	Dual SBR	Existing development
18	S. Watt Avenue & Elder Creek Road	Signal	Signal									No	No		
20	Elk Grove Florin Road/S. Watt Ave. & Florin Road	Signal	Signal									No	No		
23	Hedge Avenue & Jackson Road	Signal	Signal									No	No	Dual NBL and exclusive EBR	
28	Mayhew Road & Kiefer Boulevard	Signal	Signal									No	No	Dual SBL	
29	Mayhew Road & Jackson Road	Signal	Signal									No	No		
31	Mayhew Road & Elder Creek Road	Signal	Signal									No	No	Dual SBR	
32	Zinfandel Drive & Woodring Drive	Two-way stop	Signal									No	No		
35	Bradshaw Road & US 50 EB Ramps	Signal	Signal									Yes	No		Maximum General Plan lanes
36	Bradshaw Road & Old Placerville Road	Signal	Signal									Yes	No		Existing development
37	Bradshaw Road & Kiefer Boulevard	Signal	Signal									Yes	No	Carry 3 EBT and 3 WBT lanes through intersection	Maximum General Plan lanes

Note: Gray shading represents changes in traffic control or approach lanes for which the project is responsible to pay a fair share.

12/10/2014

Table 5.14

MTP Cumulative Plus FOUR PROJECTS Intersection Impacts and Mitigations

	Intersection	Traffic Control		MTP Cumulative Plus FOUR PROJECTS Lane Geometrics				Mitigated MTP Cumulative Plus FOUR PROJECTS Lane Geometrics				LOS Impact with Mitgation?	High Capacity Intersection?[1]	Alternative Mitigation[2]	Constraint if Full Mitigation Not Possible
		MTP Cumulative Plus Project	Mitigated MTP Cumulative Plus Project	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach				
38	Bradshaw Road & Jackson Road	Signal	Signal									Yes	No	HCI	Maximum General Plan lanes
39	Bradshaw Road & Elder Creek Road	Signal	Signal									No	No		
42	Happy Lane & Old Placerville Road	Two-way stop	Signal									No	No	Realign Happy Lane to Routier Road (6 lanes), triple WBL and dual NBR (trap)	
44	Excelsior Road & Kiefer Boulevard	Signal	Signal									Yes	No		Maximum General Plan lanes
45	Excelsior Road & Jackson Road	Signal	Signal									No	No	NBR overlap	
47	Excelsior Road & Florin Road	Signal	Signal									No	No		
48	Excelsior Road & Gerber Road/Birch Ranch Drive	All-way stop	Signal									No	No		
51	Mather Field Road & Rockingham Drive	Signal	Signal									Yes	No		Existing development
54	Zinfandel Drive & US 50 EB Ramps/Gold Center Drive	Signal	Signal									Yes	No		Maximum General Plan lanes
58	Zinfandel Drive & Douglas Road	Signal	Signal									No	No		
61	Eagles Nest Road & Florin Road	Two-way stop	Signal									No	No		
67	Sunrise Boulevard & Douglas Road	Signal	Signal									Yes	No		Maximum General Plan lanes
69	Sunrise Boulevard & Kiefer Boulevard	Signal	Signal									Yes	No		Maximum General Plan lanes
74	Hazel Avenue & US 50 EB Ramps	Signal	Signal									Yes	No		Maximum General Plan lanes
80	Grant Line Road & Jackson Road	Signal	Signal									No	No		
91	Grant Line Rd & Eagles Nest Rd/Sloughhouse Rd	Signal	Signal									No	No		

Note: Gray shading represents changes in traffic control or approach lanes for which the project is responsible to pay a fair share.

12/10/2014

Table 5.14

MTP Cumulative Plus FOUR PROJECTS Intersection Impacts and Mitigations

	Intersection	Traffic Control		MTP Cumulative Plus FOUR PROJECTS Lane Geometrics				Mitigated MTP Cumulative Plus FOUR PROJECTS Lane Geometrics				LOS Impact with Mitgation?	High Capacity Intersection?[1]	Alternative Mitigation[2]	Constraint if Full Mitigation Not Possible
		MTP Cumulative Plus Project	Mitigated MTP Cumulative Plus Project	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach				
93	Grant Line Rd & Dwy/Wilton Rd	Signal	Signal									No	No		
95	Florin Perkins Road & 14th Avenue	Signal	Signal									Yes	No		Maximum General Plan lanes
96	Jackson Road & 14th Avenue	Signal	Signal									Yes	No		Maximum General Plan lanes
102	Rancho Cordova Pkwy & White Rock Road	Signal	Signal									Yes	No		Maximum General Plan lanes
310	Mayhew Road & Rock Creek Pkwy WB	Roundabout	Signal									No	No		
311	Mayhew Road & Rock Creek Pkwy EB	Roundabout	Signal									No	No		
318	Bradshaw Road & Mayhew Road	Signal	Signal									Yes	No	HCI, Triple EBL and dual SBR	Maximum General Plan lanes
325	Douglas Road/Shopping Center Dwy & Kiefer Boulevard	Signal	Signal									Yes	No	3 WBT	Maximum General Plan lanes
326	Happy Lane & Mayhew Road	Roundabout	Signal									No	No		

[1] High capacity intersections are defined in the Sacramento County General Plan and may include grade separations, additional turn lanes, and/or other features as deemed appropriate by the County.

[2] Alternative mitigations represent proposed mitigations beyond the General Plan, excluding high capacity intersections, as proposed by the County of Sacramento.

Note: Gray shading represents changes in traffic control or approach lanes for which the project is responsible to pay a fair share.

12/10/2014

5.5.3 MTP Cumulative Plus FOUR PROJECTS US 50 Freeway Mitigation

According to Caltrans' US-50 Transportation Concept Report (TCR) and Corridor System Management Plan (CSMP), all mainline freeway lanes of the 8-lane ultimate facility (4 lanes in each direction) have already been built, with the exception of the segment between Zinfandel Drive and Sunrise Boulevard (where 6 of the 8 ultimate lanes exist today). With the exception of this segment, capacity improvements to widen the freeway mainline are precluded by the ultimate configuration in the TCR/CSMP. The TCR/CSMP does conceptualize other projects that will benefit the US-50 corridor without adding additional mainline travel lanes. These improvements generally fall into one of three categories:

- Intelligent transportation systems (ITS) and integrated corridor management (ICM) projects. Some examples may include ramp metering and multimodal improvements.
- Improvements to parallel local facilities. Such projects are expected to reduce travel demand on US-50.
- Future HOV lanes and auxiliary lanes. These projects would extend, or bridge gaps in, the existing HOV and auxiliary lane network. Constructing these lanes is permissible even when further widening of the mainline is not allowable, and is consistent with the ultimate configuration in the TCR/CSMP.

The FOUR PROJECTS shall participate in one or more of these alternative improvements that could directly reduce the severity of the project's impact and/or provide operational benefits to the US-50 corridor in general.

5.5.3.1 US-50 Eastbound Alternative Improvements

To lessen the impact to the eastbound US-50 mainline between Stockton Boulevard and 59th Street, the project may pay a fair share toward the construction of:

- Ramp meter improvements (Caltrans ITS/OPS Project List)

To lessen the impact to the eastbound US-50 weave between 65th Street and Howe Avenue, the project may pay a fair share toward the construction of:

- Ramp meter improvements (Caltrans ITS/OPS Project List)
- Widen 65th Street to 5 lanes from US-50 to Broadway (2035 SACOG MTP)

To lessen the impact to the eastbound US-50 mainline between Watt Avenue and Bradshaw Road, and to the Bradshaw Road exit, the project may pay a fair share toward the construction of:

- No mitigation measures identified

To lessen the impact to the weave between Mather Field Road to Zinfandel Drive, the project may pay a fair share toward the construction of:

- Auxiliary lanes between Bradshaw Road and Mather Field Road (2035 SACOG MTP)
- An interchange modification of US-50 at Mather Field Road (2035 SACOG MTP)

To lessen the impact to the eastbound US-50 mainline between Zinfandel Drive and Hazel Avenue, and to the weave between Rancho Cordova Parkway and Hazel Avenue, the project may pay a fair share toward the construction of:

- Auxiliary lanes between Zinfandel Drive and Sunrise Boulevard (2035 SACOG MTP)
- Auxiliary lanes between Sunrise Boulevard and Hazel Avenue (2035 SACOG MTP)
- Widen Sunrise Boulevard to 6 lanes with special treatments, including intersection improvements at White Rock Road, Folsom Boulevard, Coloma Road, Gold Express Drive, and Gold Country Boulevard (2035 SACOG MTP)
- A new interchange at Rancho Cordova Parkway, including a 4-lane arterial from US-50 to White Rock Road (2035 SACOG MTP)
- Multi-modal corridor improvements and interchange improvements at Hazel Avenue (2035 SACOG MTP)

5.5.3.2 US-50 Westbound Alternative Improvements

To lessen the impact to the westbound US-50 weave between Hazel Avenue and Rancho Cordova Parkway, the project may pay a fair share toward the construction of:

- Multi-modal corridor improvements and interchange improvements at Hazel Avenue (2035 SACOG MTP)
- Auxiliary lanes between Hazel Avenue and Rancho Cordova Parkway (2035 SACOG MTP)

To lessen the impact to the westbound US-50 on-ramp at Sunrise Boulevard, the project may pay a fair share toward the construction of:

- Auxiliary lanes between Sunrise Boulevard and Zinfandel Drive (2035 SACOG MTP)
- A transition lane from the Sunrise Boulevard slip off-ramp to the Sunrise Boulevard slip on-ramp (2035 SACOG MTP)

To lessen the impact to the westbound US-50 mainline between Mather Field Road and Bradshaw Road, and to the SB Bradshaw Road slip on-ramp, the project may pay a fair share toward the construction of:

- Auxiliary lanes between Mather Field Road and Bradshaw Road (2035 SACOG MTP)
- An interchange modification of US-50 at Mather Field Road (2035 SACOG MTP)

To lessen the impact to the westbound US-50 mainline between Watt Avenue and SR-51/SR-99, and to the SB Howe Avenue slip on-ramp, the project may pay a fair share toward the construction of:

- Bus/HOV lanes from Watt Avenue to Downtown Sacramento (2035 SACOG MTP)
- Replacement of existing communication lines with fiber optics to improve performance between SR-51/SR-99 and Watt Avenue (2013 10-Year SHOPP Plan)
- Auxiliary lane between the NB Howe Avenue on-ramp and the SB Howe Avenue on-ramp (2035 SACOG MTP)
- Ramp meter improvements (Caltrans ITS/OPS Project List)

5.5.4 MTP Cumulative Plus FOUR PROJECTS Pedestrian and Bicycle Facility Mitigation

The FOUR PROJECTS applicants shall coordinate with Sacramento County to identify the necessary on- and off-site pedestrian and bicycle facilities to serve the proposed development.

These facilities shall be incorporated into the FOUR PROJECTS and could include sidewalks, stop signs, standard pedestrian, and school crossing warning signs, lane striping to provide a bicycle lane, bicycle parking, sign to identify pedestrian and bicycle paths, raised crosswalks, pedestrian signal heads, and all appropriate traffic calming measures as defined in the County's Neighborhood Traffic Management Program (NTMP). Sidewalks would be required as part of the frontage improvements along all new roadway construction in the FOUR PROJECTS vicinity in conformance with County design standards. Circulation and access to all proposed public spaces shall include sidewalks that meet Americans with Disabilities Act standards.

5.5.5 MTP Cumulative Plus FOUR PROJECTS Transit System Mitigation

The applicants of the FOUR PROJECTS shall coordinate with Regional Transit (or other transit operators) to provide the additional transit facilities and services assumed in transportation analysis (see Section 3.1.2.3), or a cost-effective equivalent level of transit facilities and services.

The assumed transit routes and service frequency would be required at full development of the FOUR PROJECTS. The full level of transit service would not achieve adequate transit ridership during the early stages of development. Thus the ultimate transit service, like the roadway system serving the FOUR PROJECTS, must be phased with development of the FOUR PROJECTS.

5.5.6 MTP Cumulative Plus FOUR PROJECTS Functionality Mitigation

Table 5.15 summarizes the results of the functionality analysis for the study area rural roadway segments with mitigation.

5.5.7 MTP Cumulative Plus FOUR PROJECTS Mitigation Summary

Tables 5.16 through 5.21 summarize all of the roadway segments, intersections, and freeway facilities that would exhibit significant LOS impacts along with the mitigation success for these impacts.

Table 5.15
MTP Cumulative Plus FOUR PROJECTS Functionality Mitigations

ID	Roadway	Segment		MTP Cumulative + FOUR PROJECTS				Mitigation	Impact after Mitigation?
		From	To	Travel Lanes	Substandard? [1]	Forecasted Volume	Functionality Impact? [2]		
15	Douglas Rd	Mather Blvd	Zinfandel Dr	4	No	30,940	Yes[3]	Widen to County standards [5]	No
16	Douglas Rd	Zinfandel Dr	Sunrise Blvd	6	No	39,820	Yes[3]	Widen to County standards [5]	No
19	Eagles Nest Rd	Kiefer Blvd	Jackson Rd	4	No	13,460	Yes[3]	Widen to County standards [5]	No
20	Eagles Nest Rd	Jackson Rd	Florin Rd	2	Yes	9,590	Yes	Widen to County standards [5]	No
25	Elder Creek Rd	South Watt Ave	Hedge Ave	2	Yes	43,150	Yes	Widen to County standards [5]	No
26	Elder Creek Rd	Hedge Ave	Mayhew Rd	2	Yes	43,640	Yes	Widen to County standards [5]	No
27	Elder Creek Rd	Mayhew Rd	Bradshaw Rd	3	No	17,180	Yes[3]	Widen to County standards [5]	No
28	Elder Creek Rd	Bradshaw Rd	Excelsior Rd	3	No	27,790	Yes[3]	Widen to County standards [5]	No
30	Excelsior Rd	Kiefer Blvd	Jackson Rd	2	Yes	29,040	Yes	Widen to County standards [5]	No
31	Excelsior Rd	Jackson Rd	Elder Creek Rd	3	No	35,140	Yes[3]	Widen to County standards [5]	No
32	Excelsior Rd	Elder Creek Rd	Florin Rd	3	No	11,870	Yes[3]	Widen to County standards [5]	No
33	Excelsior Rd	Florin Rd	Gerber Rd	2	Yes	14,310	Yes	Widen to County standards [5]	No
34	Excelsior Rd	Gerber Rd	Calvine Rd	2	Yes	8,990	Yes	Widen to County standards [5]	No
39	Florin Rd	South Watt Ave	Hedge Ave	4	No	9,410	Yes[3]	Widen to County standards [5]	No
40	Florin Rd	Hedge Ave	Mayhew Rd	4	No	9,160	Yes[3]	Widen to County standards [5]	No
41	Florin Rd	Mayhew Rd	Bradshaw Rd	4	No	32,310	Yes[3]	Widen to County standards [5]	No
42	Florin Rd	Bradshaw Rd	Excelsior Rd	4	No	20,460	Yes[3]	Widen to County standards [5]	No
43	Florin Rd	Excelsior Rd	Sunrise Blvd	2	Yes	11,880	Yes	Widen to County standards [5]	No
48	Fruitridge Rd	South Watt Ave	Hedge Ave	3	No	19,590	Yes[3]	Widen to County standards [5]	No
49	Fruitridge Rd	Hedge Ave	Mayhew Rd	4	No	22,940	Yes[3]	Widen to County standards [5]	No
50	Grant Line Rd	White Rock Rd	Douglas Rd	4	No	19,330	Yes[3]	Widen to County standards [5]	No
58	Happy Ln	Old Placerville Rd	Kiefer Blvd	4	No	49,530	Yes[3]	Widen to County standards [5]	No
59	Hedge Ave	Jackson Rd	Fruitridge Rd	2	Yes	9,640	Yes	Widen to County standards [5]	No
70	Jackson Rd	Bradshaw Rd	Excelsior Rd	6	No	54,830	Yes[3]	Widen to County standards [5]	No
71	Jackson Rd	Excelsior Rd	Eagles Nest Rd	4	No	50,100	Yes[3]	Widen to County standards [5]	No
77	Kiefer Blvd	Bradshaw Rd	Happy Ln	6	No	49,620	Yes[3]	Widen to County standards [5]	No
78	Kiefer Blvd	Zinfandel Dr	Sunrise Blvd	3	No	22,480	Yes[3]	Widen to County standards [5]	No

Red text with light gray shading indicate project impacts.

Table 5.15
MTP Cumulative Plus FOUR PROJECTS Functionality Mitigations

ID	Roadway	Segment		MTP Cumulative + FOUR PROJECTS				Mitigation	Impact after Mitigation?
		From	To	Travel Lanes	Substandard? [1]	Forecasted Volume	Functionality Impact? [2]		
83	Mather Blvd-Excelsior Rd[4]	Douglas Rd	Kiefer Blvd	2	Yes	14,550	Yes	Widen to County standards [5]	No
89	Mayhew Rd	Jackson Rd	Fruitridge Rd	4	No	45,500	Yes[3]	Widen to County standards [5]	No
116	White Rock Rd	Fitzgerald Rd	Grant Line Rd	4	No	38,630	Yes[3]	Widen to County standards [5]	No
123	Zinfandel Dr	Douglas Rd	Kiefer Blvd	4	No	30,180	Yes[3]	Widen to County standards [5]	No

Note: Gray shading indicates changes in travel lanes or facility type that the project is responsible to provide. For all roadway segments to be widened, the project is responsible to build the entire roadway to County standards.

[1] Substandard rural roads are defined as rural, 2-lane roadway segments with travel lanes narrower than 12 feet and/or roadside shoulders narrower than 6 feet.

[2] Functionality impacts are triggered when a substandard rural road increases over a threshold of 6,000 ADT, or for a roadway already above 6,000 ADT, increases by more than 600 ADT.

[3] The potential for an impact exists should the project generate traffic volumes on the roadway exceeding 6,000 ADT, or increasing more than 600 ADT on a roadway already above 6,000 ADT, prior to the construction of roadway improvements.

[4] Excluding the roadway segment that is within the developed community of Independence at Mather.

[5] The functionality impact is mitigated by improving the roadway to County standards, including widening travel lanes to 12 feet and/or widening or providing paved shoulders to 6 feet.

Red text with light gray shading indicate project impacts.

Table 5.16
MTP Cumulative Plus FOUR PROJECTS Summary of Impacted Roadway Segments

ID	Roadway	Segment	
		From	To
Level of Service Impact Fully Mitigated by General Plan Lanes			
23	Elder Creek Rd	Power Inn Rd	Florin-Perkins Rd
25	Elder Creek Rd	South Watt Ave	Hedge Ave
26	Elder Creek Rd	Hedge Ave	Mayhew Rd
28.1	Elder Creek Rd	Bradshaw Rd	Vineyard Rd
31.1	Excelsior Rd	Jackson Rd	Collector WJ-6
31.2	Excelsior Rd	Collector WJ-6	Elder Creek Rd
36	Florin Rd	Stockton Blvd	Power Inn Rd
42.2	Florin Rd	Vineyard Rd	Excelsior Rd
47	Fruitridge Rd	Florin Perkins Rd	South Watt Ave
48	Fruitridge Rd	South Watt Ave	Hedge Ave
56	Grant Line Rd	Sheldon Rd	Wilton Rd
57	Grant Line Rd	Wilton Rd	Bond Rd
67	Jackson Rd	South Watt Ave	Hedge Ave
71.1	Jackson Rd	Excelsior Rd	Collector JT-3
71.2	Jackson Rd	Collector JT-3	Tree View Ln
73	Jackson Rd	Sunrise Blvd	Grant Line Rd
78.4	Kiefer Blvd	E Collector MS-1	Sunrise Blvd
89.1	Mayhew Rd	Jackson Rd	Rock Creek Pkwy
89.2	Mayhew Rd	Rock Creek Pkwy	Fruitridge Rd
92	Old Placerville Rd	Happy Ln	Routier Rd
100	South Watt Ave	Elder Creek Rd	Florin Rd
122	Zinfandel Dr	City Limit	Douglas Rd
308	Mayhew Rd	Happy Ln	Bradshaw Rd
309	Mayhew Rd	Bradshaw Rd	Jackson Rd
311	Mayhew Rd	Collector WJ-13	Elder Creek Rd
405	Collector JT-3	Collector JT-5	Jackson Rd
602	Collector MS-2	Eagles Nest Rd	Collector MS-5
Level of Service Impact Not Fully Mitigated by General Plan Lanes			
2	Bradshaw Rd	US 50	Lincoln Village Dr
3	Bradshaw Rd	Lincoln Village Dr	Old Placerville Rd
4	Bradshaw Rd	Old Placerville Rd	Goethe Rd
5.1	Bradshaw Rd	Goethe Rd	Collector WJ-8
5.2	Bradshaw Rd	Collector WJ-8	Kiefer Blvd
6.1	Bradshaw Rd	Kiefer Blvd	Collector WJ-9
6.2	Bradshaw Rd	Collector WJ-9	Mayhew Rd
37	Florin Rd	Power Inn Rd	Florin-Perkins Rd

Note: Refer to Table 5.12 for detailed description of impacts and mitigations.

Table 5.16
MTP Cumulative Plus FOUR PROJECTS Summary of Impacted Roadway Segments

ID	Roadway	Segment	
		From	To
44	Folsom Blvd	Howe Ave	Jackson Rd
58	Happy Ln	Old Placerville Rd	Kiefer Blvd
62	Howe Ave	US 50	Folsom Blvd
66.1	Jackson Rd	Florin Perkins Rd	14th Ave
66.2	Jackson Rd	14th Ave	Rock Creek Pkwy
66.3	Jackson Rd	Rock Creek Pkwy	Aspen 1 Dwy
66.4	Jackson Rd	Aspen 1 Dwy	South Watt Ave
68.1	Jackson Rd	Hedge Ave	Collector WJ-3
68.2	Jackson Rd	Collector WJ-3	Mayhew Rd
70.1	Jackson Rd	Bradshaw Rd	Collector WJ-4
76	Kiefer Blvd	Mayhew Rd	Bradshaw Rd
79	Kiefer Blvd	Sunrise Blvd	Rancho Cordova Pkwy
83	Mather Blvd-Excelsior Rd	Douglas Rd	Kiefer Blvd
93	Old Placerville Rd	Routier Rd	Rockingham Dr
95	Rockingham Dr	Old Placerville Rd	Mather Field Rd
96	South Watt Ave	Folsom Blvd	Kiefer Blvd
97	South Watt Ave	Kiefer Blvd	Jackson Rd
104.2	Sunrise Blvd	International Dr	Rio Del Oro Pkwy
104.3	Sunrise Blvd	Rio Del Oro Pkwy	Douglas Rd
110	Watt Ave	US 50	Folsom Blvd
302	Happy Ln	Kiefer Blvd	Mayhew Rd
305	Kiefer Blvd	Happy Ln	Collector WJ-15
306	Kiefer Blvd	Collector WJ-15	Douglas Rd

Note: Refer to Table 5.12 for detailed description of impacts and mitigations.

Table 5.17

MTP Cumulative Plus FOUR PROJECTS Summary of Impacted Intersections

	Intersection	Alternative Mitigation
Level of Service Impact Fully Mitigated by General Plan Lanes		
20	Elk Grove Florin Road/S. Watt Ave. & Florin Road	
23	Hedge Avenue & Jackson Road	**
29	Mayhew Road & Jackson Road	
31	Mayhew Road & Elder Creek Road	**
32	Woodring Drive & Zinfandel Drive	
39	Bradshaw Road & Elder Creek Road	
42	Happy Lane & Old Placerville Road	**
47	Excelsior Road & Florin Road	
48	Excelsior Road & Gerber Road/Birch Ranch Drive	
58	Zinfandel Drive & Douglas Road	
61	Eagles Nest Road & Florin Road	
80	Grant Line Road & Jackson Road	
91	Grant Line Rd & Eagles Nest Rd/Sloughhouse Rd	
93	Grant Line Rd & Dwy/Wilton Rd	
310	Mayhew Road & Rock Creek Pkwy WB	
311	Mayhew Road & Rock Creek Pkwy EB	
326	Happy Lane & Mayhew Road	

Table 5.17

MTP Cumulative Plus FOUR PROJECTS Summary of Impacted Intersections

	Intersection	Alternative Mitigation
	Level of Service Impact Not Fully Mitigated by General Plan Lanes But Designated High Capacity Intersection	
12	Watt Avenue & Folsom Blvd.	**
14	S. Watt Avenue & Kiefer Blvd.	**
16	S. Watt Avenue & Jackson Road	**
	Level of Service Impact Not Fully Mitigated by General Plan Lanes	
3	Power Inn Road/Howe Avenue & Folsom Blvd	
4	Power Inn Road & 14th Avenue	
17	S. Watt Avenue & Fruitridge Road	*
18	S. Watt Avenue & Elder Creek Road	
28	Mayhew Road & Kiefer Boulevard	**
35	Bradshaw Road & US 50 EB Ramps	
36	Bradshaw Road & Old Placerville Road	
37	Bradshaw Road & Kiefer Boulevard	*
38	Bradshaw Road & Jackson Road	*
44	Excelsior Road & Kiefer Boulevard	
45	Excelsior Road & Jackson Road	**
51	Mather Field Road & Rockingham Drive	
54	Zinfandel Drive & US 50 EB Ramps/Gold Center Drive	

Table 5.17

MTP Cumulative Plus FOUR PROJECTS Summary of Impacted Intersections

	Intersection	Alternative Mitigation
67	Sunrise Boulevard & Douglas Road	
69	Sunrise Boulevard & Kiefer Boulevard	
74	Hazel Avenue & US 50 EB Ramps	
95	Florin Perkins Road & 14th Avenue	
96	Jackson Road & 14th Avenue	
102	Rancho Cordova Pkwy & White Rock Road	
318	Bradshaw Road & Mayhew Road	*
325	Douglas Road & Kiefer Boulevard	*

[1] Alternative mitigations represent proposed mitigations beyond the General Plan, excluding designated high capacity intersections, as proposed by the County of Sacramento.

* denotes alternative mitigations that improve operations but do not fully mitigate the impact.
** denotes alternative mitigations that fully mitigate the impact.

Table 5.18

MTP Cumulative Plus FOUR PROJECTS
Summary of Impacted Freeway Segments

Direction	Location
Level of Service Impact Not Mitigated	
Eastbound US-50	Stockton Boulevard to 59th Street
	Watt Avenue to Bradshaw Road
	Zinfandel Drive to Sunrise Boulevard
	Sunrise Boulevard to Rancho Cordova Parkway
	Rancho Cordova Parkway to Hazel Avenue
Westbound US-50	Mather Field Road to Bradshaw Road
	Watt Avenue to Howe Avenue
	Howe Avenue to 65th Street
	65th Street to 59th Street
	59th Street to Stockton Boulevard
	Stockton Boulevard to SR 99 / SR 51

Source: *DKS Associates, 2014.*

Table 5.19

MTP Cumulative Plus FOUR PROJECTS Summary of Impacted Freeway Ramp Junction/Weaves

Direction	Location	Junction Type
Level of Service Impact Not Mitigated		
Eastbound US-50	Northbound 65th Street Slip Entrance	Weave
	Howe Avenue / Hornet Drive Exit	
	Bradshaw Road Exit	Two-Lane Diverge
	Northbound Mather Field Road Slip Entrance	Weave
	Zinfandel Drive Exit	
	Rancho Cordova Parkway Entrance	Weave
	Hazel Avenue Exit	
Westbound US-50	Southbound Hazel Avenue Slip Entrance	Weave
	Rancho Cordova Parkway Exit	
	Southbound Sunrise Boulevard Slip Entrance	Lane Addition

Source: *DKS Associates, 2014.*

Table 5.20

MTP Cumulative Plus FOUR PROJECTS
Summary of Impacted Freeway Ramp Termini

Direction	US 50 Exit Ramp
Queuing Impact Not Mitigated	
Eastbound US-50	Howe Avenue
	Zinfandel Drive

Source: *DKS Associates, 2014.*

Table 5.21
MTP Cumulative Plus FOUR PROJECTS Functionality Impact Summary

ID	Roadway	Segment	
		From	To
Functionality Impact Fully Mitigated			
15	Douglas Rd	Mather Blvd	Zinfandel Dr
16	Douglas Rd	Zinfandel Dr	Sunrise Blvd
19	Eagles Nest Rd	Kiefer Blvd	Jackson Rd
20	Eagles Nest Rd	Jackson Rd	Florin Rd
25	Elder Creek Rd	South Watt Ave	Hedge Ave
26	Elder Creek Rd	Hedge Ave	Mayhew Rd
27	Elder Creek Rd	Mayhew Rd	Bradshaw Rd
28	Elder Creek Rd	Bradshaw Rd	Excelsior Rd
30	Excelsior Rd	Kiefer Blvd	Jackson Rd
31	Excelsior Rd	Jackson Rd	Elder Creek Rd
32	Excelsior Rd	Elder Creek Rd	Florin Rd
33	Excelsior Rd	Florin Rd	Gerber Rd
34	Excelsior Rd	Gerber Rd	Calvine Rd
39	Florin Rd	South Watt Ave	Hedge Ave
40	Florin Rd	Hedge Ave	Mayhew Rd
41	Florin Rd	Mayhew Rd	Bradshaw Rd
42	Florin Rd	Bradshaw Rd	Excelsior Rd
43	Florin Rd	Excelsior Rd	Sunrise Blvd
48	Fruitridge Rd	South Watt Ave	Hedge Ave
49	Fruitridge Rd	Hedge Ave	Mayhew Rd
50	Grant Line Rd	White Rock Rd	Douglas Rd
58	Happy Ln	Old Placerville Rd	Kiefer Blvd
59	Hedge Ave	Jackson Rd	Fruitridge Rd
70	Jackson Rd	Bradshaw Rd	Excelsior Rd
71	Jackson Rd	Excelsior Rd	Eagles Nest Rd
77	Kiefer Blvd	Bradshaw Rd	Happy Ln

Table 5.21
MTP Cumulative Plus FOUR PROJECTS Functionality Impact Summary

ID	Roadway	Segment	
		From	To
78	Kiefer Blvd	Zinfandel Dr	Sunrise Blvd
83	Mather Blvd-Excelsior Rd[4]	Douglas Rd	Kiefer Blvd
89	Mayhew Rd	Jackson Rd	Fruitridge Rd
116	White Rock Rd	Fitzgerald Rd	Grant Line Rd
123	Zinfandel Dr	Douglas Rd	Kiefer Blvd

6. CEQA CUMULATIVE PLUS FOUR PROJECTS SCENARIO

6.1 FOUR PROJECTS DESCRIPTION

The CEQA Cumulative plus FOUR PROJECTS scenario evaluates the effects of the traffic of four developments added to CEQA Cumulative conditions. Figure 4.1 illustrates the location of the FOUR PROJECTS:

- West Jackson Highway Master Plan (West Jackson)
- Jackson Township Specific Plan (Jackson Township)
- NewBridge Specific Plan (NewBridge)
- Mather South Specific Plan Amendment (Mather South)

6.1.1 CEQA Cumulative Land Use

Outside the FOUR PROJECTS area (see Figure 4.1), SACOG's 2035 development forecasts (the amount and location of housing and employment) for the adopted 2012 Metropolitan Transportation Plan (MTP) were used to prepare travel demand forecasts for this scenario. In addition, full build out of all reasonably foreseeable development projects was assumed within the study area, including the following major developments:

- Unincorporated Sacramento County
  - Vineyard Springs Comprehensive Plan
  - North Vineyard Station Specific Plan
  - Florin Vineyard Gap Community Plan
  - Mather Airport Specific Plan
  - Cordova Hills
  - Easton
  - Glenborough
  - East County Quarries

- City of Ranch Cordova
  - Arboretum
  - Suncreek
  - Sunridge Ranch
  - Rio del Oro
  - Westborough

- City of Folsom
  - Folsom South of 50 Specific Plan

- City of Sacramento
  - Aspen 1

6.1.2 Transportation Network

Figure 6.1 illustrates the transportation network associated with the CEQA Cumulative without FOUR PROJECTS scenario. Outside the FOUR PROJECTS area (see Figure 4.1), it consists of the improvements through 2035 in the adopted 2012 Metropolitan Transportation Plan (MTP). Within the FOUR PROJECTS area, it includes roadway improvements beyond those in the MTP, which would be fully funded by the developments assumed in this scenario or by other committed funding sources. Sacramento County staff helped define such improvements and the number of roadway lanes for this scenario.

Figure 6.2 illustrates the transportation network associated with the CEQA Cumulative with FOUR PROJECTS scenario. The FOUR PROJECTS would construct new roadways within their sites, and widen many existing roadways within or on the borders of their sites. Details of this expansion of the roadway system is included in Section 6.2.1.

6.1.2.3 Pedestrian and Bicycle Facilities

The roadways within the FOUR PROJECTS would meet County standards, which would provide sidewalks and on-street (Class II) bike lanes on all collector, arterial and thoroughfare roadways. The FOUR PROJECTS also provide several off-street (Class I) multi-purpose trails.

6.1.2.4 Transit System

The FOUR PROJECTS are designed with significant amounts of higher density and mixed uses to help support transit use but transit service within walking distances of those uses is required to achieve a significant transit ridership. An accurate estimation of transit use requires the definition of specific transit routes and frequency of service on those routes. A separate planning effort, involving staff from Sacramento County and Sacramento Regional Transit (RT), was conducted to define an appropriate transit system for the transportation analysis. That effort is described in Section 3.1.2.3.

The planning effort resulted in four transit lines that would serve the FOUR PROJECTS at a frequency of 15 minutes throughout the typical operating hours (approximately 6 AM to 8 PM) on weekdays. Another key characteristic of the proposed transit system built into the modeling assumptions is the targeted use of queue jumps on portions of key corridors (Bradshaw Road from Kiefer Boulevard to Rock Creek Parkway, and Jackson Road from Watt Avenue to Excelsior Road). Queue jumps ensure that buses are not excessively delayed at signals along congested corridors, and therefore not too heavily penalized from a travel time perspective. This is necessary to achieve the adequate ridership levels that were forecast and ensure reliable operations. Figure 6.3 shows the assumed transit routes for this scenario.

The assumed transit routes, service frequency, and supporting infrastructure (i.e. queue jumps) would be required at full development of the FOUR PROJECTS. The full level of transit service would not achieve adequate transit ridership during the early stages of development. Thus the ultimate transit service, like the roadway system serving the FOUR PROJECTS, must be phased with development of the FOUR PROJECTS.

FIGURE 6.1
CEQA CUMULATIVE NO PROJECT ROADWAY NETWORK

Legend

- 2 Lanes
- 3 Lanes
- 4 Lanes
- 5 Lanes
- 6 Lanes
- 7 Lanes
- Cities
- Mather Airport

FOLSOM
80
50
FOLSOM BLVD
WHITE ROCK RD
RANCHO CORDOVA
ZINFANDEL DR
SUNRISE BLVD
ROUTIER RD
MAYHEW RD
DOUGLAS RD
CHRYSANTHY BLVD
RANCHO CORDOVA PKY
GRANT LINE RD
KIEFER BLVD
POWER INN RD
FLORIN PERKINS RD
FRUITRIDGE RD
ELDER CREEK RD
HEDGE AVE
SACRAMENTO
FLORIN RD
GERBER RD
ELK GROVE FLORIN RD
BRADSHAW RD
VINEYARD RD
EXCELSIOR RD
EAGLES NEST RD
99
ELK GROVE

DKS

FIGURE 6.2
CEQA CUM PLUS FOUR PROJECTS ROADWAY NETWORK

Legend

- 2 Lanes
- 3 Lanes
- 4 Lanes
- 5 Lanes
- 6 Lanes
- 7 Lanes
- Cities
- Mather Airport

FOLSOM
RANCHO CORDOVA
SACRAMENTO
ELK GROVE
80
50
99
FOLSOM BLVD
WHITE ROCK RD
ZINFANDEL DR
SUNRISE BLVD
ROUTIER RD
MAYHEW RD
DOUGLAS RD
CHRYSANTHY BLVD
RANCHO CORDOVA PKY
GRANT LINE RD
KIEFER BLVD
POWER INN RD
FLORIN PERKINS RD
FRUITRIDGE RD
ELDER CREEK RD
HEDGE AVE
FLORIN RD
GERBER RD
ELK GROVE FLORIN RD
BRADSHAW RD
VINEYARD RD
EXCELSIOR RD
EAGLES NEST RD

FIGURE 6.3
PROJECT TRANSIT NETWORK
CEQA CUM PLUS FOUR PROJECTS

Legend

- Jackson Express Route (JEX)
- Kiefer Jackson Local Route (KJL)
- Rock Creek Parkway Route (RCPK)
- West Jackson Local Shuttle (WJL)
- Cities
- Mather Airport

6.2 TRIP GENERATION

The SACSIM model that has been utilized for the transportation forecasts in this analysis estimated trip generation of the FOUR PROJECTS. Table 6.1 summarizes the person trip generation. The FOUR PROJECTS would generate over 107,000 daily work person trip ends, and over 929,000 daily person trip ends for all trip purposes.

Table 6.2 summarizes the estimated mode choice for the CEQA cumulative with FOUR PROJECTS scenario. Over 90 percent of all person trips are expected to be accommodated by automobile. Transit will serve about 2 percent of all trips, while walk and bike modes will accommodate about 7.2 percent of all trips. The mode choice assumes full implementation of the project's pedestrian and bicycle systems.

Table 6.3 summarizes the vehicular (auto) trip generation of the FOUR PROJECTS. The FOUR PROJECTS are estimated to generate over 604,000 daily vehicle trip ends. About 46,000 of the daily vehicle trip ends will be associated with trips with both an origin and destination within the individual projects, about 15 percent of the trip ends. The internal trip ends represent about 23,000 daily vehicle trips (one-half the number of internal trip ends). The FOUR PROJECTS will generate about 512,800 external vehicle trips that have an origin or destination inside one of the FOUR PROJECTS but the other end of the trip is outside the project from which it originated. Table 6.3 also shows the vehicle trips generated during the a.m. and p.m. peak hours.

6.3 TRIP DISTRIBUTION

The distribution of trips associated with development of the FOUR PROJECTS was derived utilizing SACSIM, incorporating the proposed land use and access locations associated with the FOUR PROJECTS. Trip distribution varies by land use and time period. Figure 6.4 illustrates the overall trip distribution of daily FOUR PROJECTS trips with the CEQA Plus FOUR PROJECTS scenario. The highest percentages of FOUR PROJECTS traffic are accommodated on Jackson Road, Bradshaw Road, Kiefer Boulevard, and Vineyard Road.

Table 6.1: Estimated Daily Person Trip Generation (CEQA Cumulative Plus FOUR PROJECTS Scenario)

FOUR PROJECTS

Trip Purpose	Daily Person Trip Ends
Work Trips	107,188
Non-Work Trips	822,512
All Trip Purposes	929,700

Source: *DKS Associates, 2014.*

Table 6.2: Mode Split (CEQA Cumulative Plus FOUR PROJECTS Scenario)

FOUR PROJECTS

Mode	Percentage of Person Trips by Trip Purpose		
	Work Trips	Non-Work Trips	All Trip Purposes
Auto - SOV	84.2%	49.8%	53.8%
Auto - HOV	9.9%	40.6%	37.1%
Transit	3.5%	1.8%	2.0%
Walk	1.6%	7.0%	6.4%
Bike	0.9%	0.8%	0.8%

Source: *DKS Associates, 2014.*

Table 6.3: Estimated Daily Vehicle Trip Generation (CEQA Cumulative Plus FOUR PROJECTS Scenario)

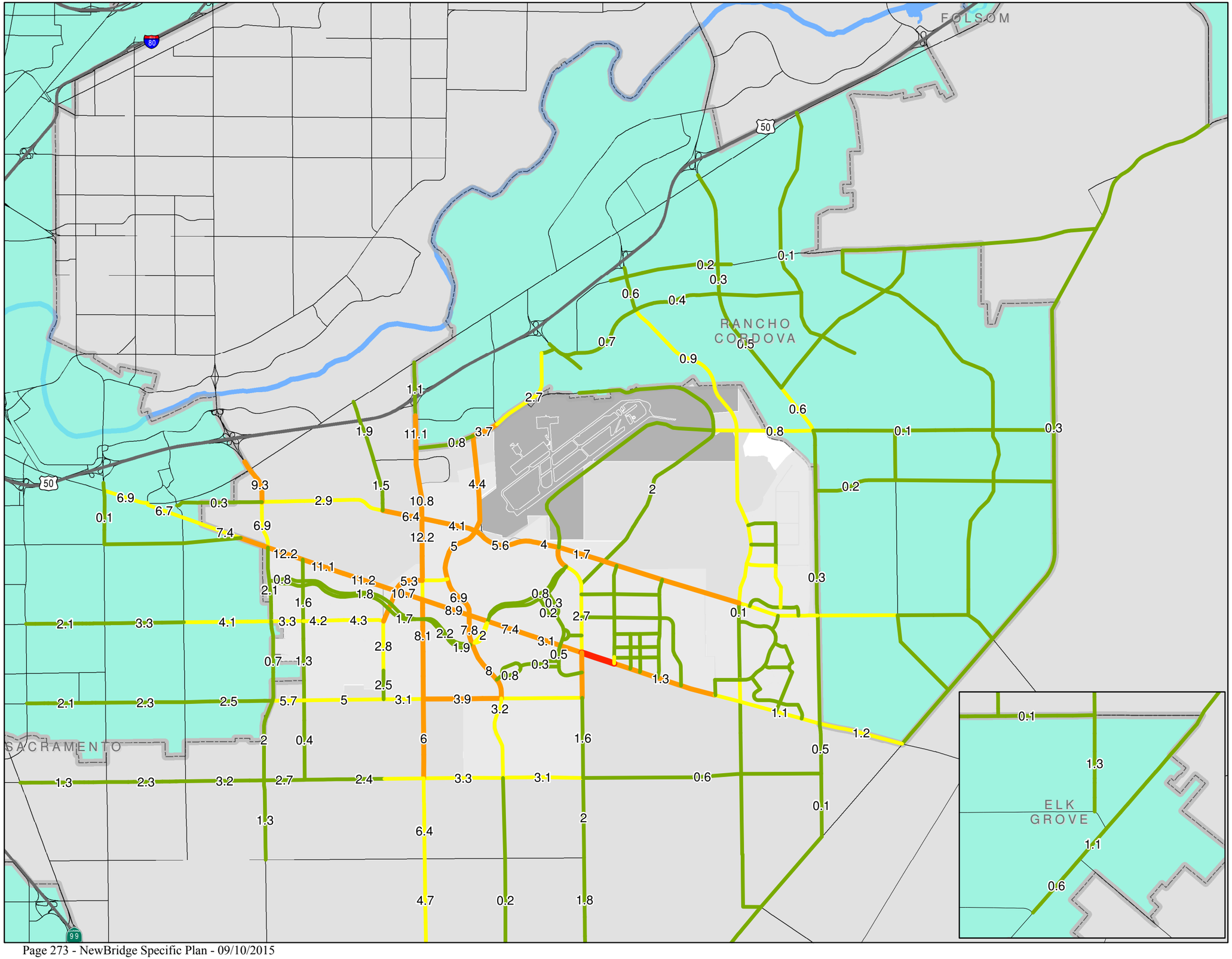
FOUR PROJECTS

Trip Type		AM Peak Hour	PM Peak Hour	Daily
Total Vehicle Trip Ends		49,555	83,827	641,649
Percent Internal Trip Ends[1]		20.5%	28.1%	24.0%
Vehicle Trips	Internal to Projects	5,072	11,762	76,943
	External to Projects	39,410	60,303	487,741
	Total	44,482	72,065	564,684

[1.] Both trip ends within individual projects.

Source: *DKS Associates, 2014.*

FIGURE 6.4
CEQA CUM PLUS FOUR PROJECTS
FOUR PROJECTS TRIP DISTRIBUTION



6.4 OPERATIONS ANALYSIS AND IMPACTS

Cumulative scenario impacts are determined by comparing the traffic operating conditions associated with the FOUR PROJECTS with the traffic operating conditions associated with the cumulative (without FOUR PROJECTS) conditions, and comparing the change to the thresholds of significance. Figure 6.5 illustrates the resultant traffic operating conditions associated with the CEQA Cumulative (without FOUR PROJECTS) scenario. Figure 6.6 illustrates the resultant traffic operating conditions associated with the CEQA Cumulative Plus FOUR PROJECTS scenario.

6.4.1 CEQA Cumulative Plus FOUR PROJECTS Roadway Segment Impacts

Table 6.4 summarizes the results of the operations analysis for the study area roadway segments. The table includes the number of lanes assumed with the implementation of the FOUR PROJECTS. The shaded table cells under the "Travel Lanes" and "Facility Type" headings illustrate new roadways or widened roadways. The last column of the table shows the project(s) responsible for the increase in the number of roadway lanes. The shaded table cells under the "Level of Service" heading indicate those locations with an LOS impact.

6.4.2 CEQA Cumulative Plus FOUR PROJECTS Intersection Impacts

Table 6.5 and 6.6 summarize the results of the operations analysis for the study area intersections. The tables include the implementation of intersection changes associated with the FOUR PROJECTS. Table 6.6 illustrates the type of traffic control and number of lanes by type on each study area intersection approach. Shaded table cells indicate those locations where changes in traffic control and / or number of approach lanes by type would be fully funded by the project(s) shown in the last column. Shaded table cells in Table 6.5 illustrate those locations with an LOS impact. Detailed analysis information is included in the technical appendix.

Signal warrant analysis was conducted for all unsignalized intersections along Jackson Road, and other unsignalized intersections in close proximity to the project. The project is considered to have a significant impact at an unsignalized location if both the impact criteria in Table 1.6 are met, and one or more of the signal warrants specified in the California Manual on Uniform Traffic Control Devices (CAMUTCD) are met. Detailed signal warrant calculation sheets are included in the technical appendix. The following unsignalized intersections exhibit significant impacts and meet one or more traffic signal warrants:

- Zinfandel Drive and Woodring Drive
- Happy Lane and Old Placerville Road
- Eagles Nest Road and Florin Road

6.4.3 CEQA Cumulative Plus FOUR PROJECTS U.S. 50 Freeway Impacts

6.4.3.1 Freeway Mainline

Table 6.7 summarizes a.m. and p.m. peak hour US 50 freeway mainline operations. Details of the analysis are included in the technical appendix. The following locations exhibit significant impacts:

- Eastbound
  - Stockton Boulevard to 59th Street - a.m. and p.m. peak hours
  - Watt Avenue to Mather Field Road - a.m. peak hour
  - Zinfandel Drive to Hazel Avenue - p.m. peak hour
- Westbound
  - Watt Avenue to Howe Avenue - p.m. peak hour
  - Howe Avenue to 59th Street - a.m. and p.m. peak hours
  - 59th Street to SR 99 / SR 51 - p.m. peak hour

6.4.3.2 Freeway Ramp Junctions / Weaving

Table 6.8 summarizes a.m. and p.m. peak hour freeway operations at ramp junctions and weaving areas. Details of the analysis are included in the technical appendix. The following locations exhibit significant impacts:

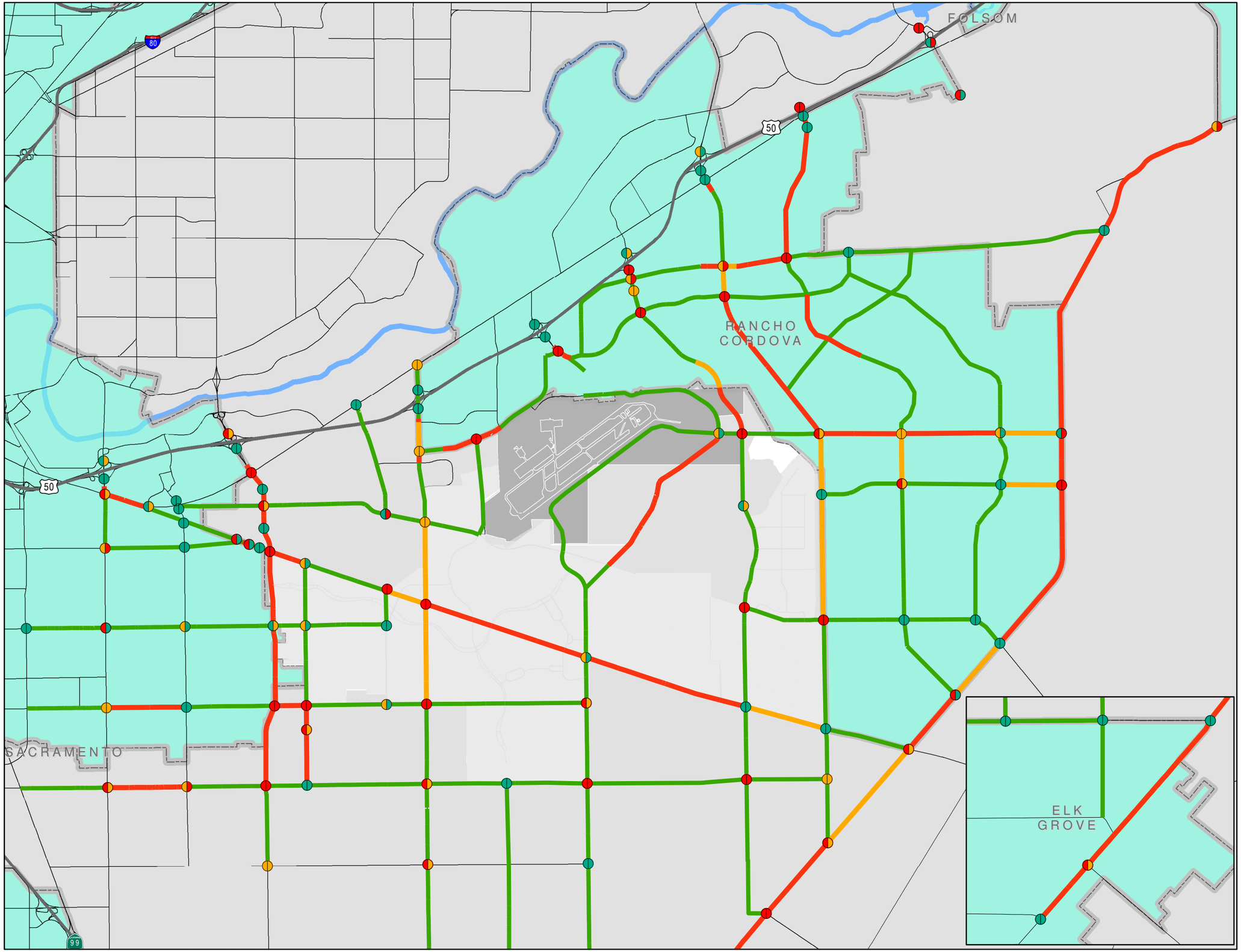
- Eastbound
  - 65th Street to Howe Avenue weave - a.m. and p.m. peak hours
  - Bradshaw Road exit - a.m. peak hour
  - Mather Field Road to Zinfandel Drive weave - a.m. and p.m. peak hours
  - Rancho Cordova Parkway to Hazel Avenue weave - a.m. and p.m. peak hours
- Westbound
  - Hazel Avenue to Rancho Cordova Parkway weave - a.m. and p.m. peak hours
  - Southbound Sunrise Boulevard Entrance Ramp - a.m. peak hour
  - Northbound Bradshaw Road Loop Entrance Ramp - a.m. peak hour
  - Southbound Bradshaw Road Slip Entrance Ramp - a.m. peak hour
  - Southbound Howe Avenue Slip Entrance Ramp - a.m. peak hour

6.4.3.3 Freeway Ramp Intersection Queuing

Tables 6.9 and 6.10 summarize a.m. and p.m. peak hour freeway ramp intersection queuing. The following locations exhibit a significant impact:

- Eastbound
  - Exit ramp to Howe Avenue - right turn queue length exceeds available storage
- Westbound
  - Exit ramp to Rancho Cordova Parkway - left turn queue length exceeds available storage

FIGURE 6.5
CEQA CUMULATIVE NO PROJECT ROADWAY SEGMENT AND INTERSECTION LOS AND IMPACTS



Legend

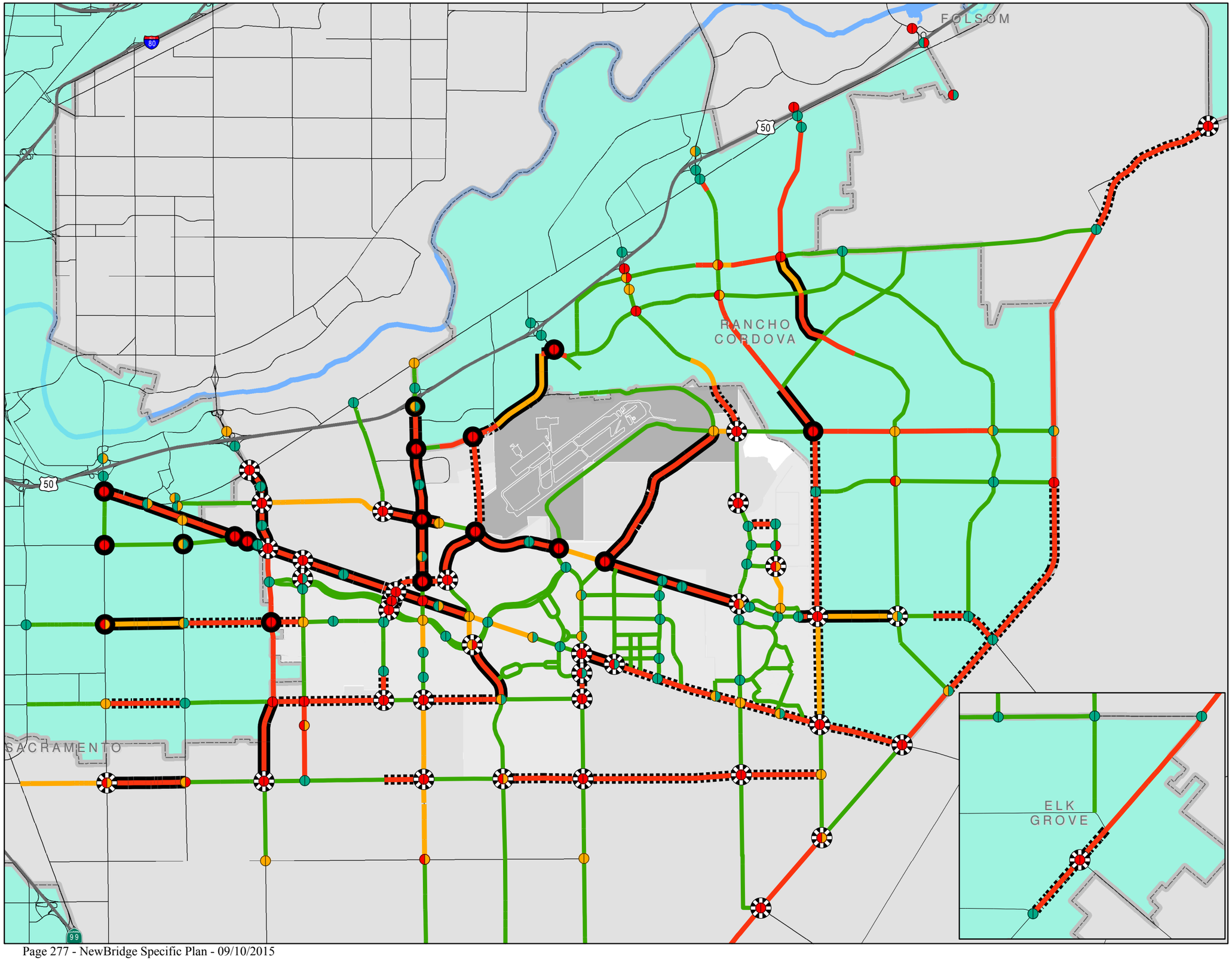
Intersections (AM Peak Hour)
- LOS A-D
- LOS E
- LOS F

Intersections (PM Peak Hour)
- LOS A-D
- LOS E
- LOS F

Roadway Segments
- LOS A-D
- LOS E
- LOS F
- Cities
- Mather Airport

DKS

FIGURE 6.6
CEQA CUM PLUS FOUR PROJECTS ROADWAY SEGMENT AND INTERSECTION LOS AND IMPACTS



Legend

Intersections (AM Peak Hour)
- LOS A-D
- LOS E
- LOS F

Intersections (PM Peak Hour)
- LOS A-D
- LOS E
- LOS F
- Mitigable Intersection Impact
- Unavoidable Intersection Impact

Roadway Segments
- LOS A-D
- LOS E
- LOS F

Impacts
- Unavoidable Segment Impact
- Mitigable Segment Impact
- Cities
- Mather Airport

DKS

Table 6.4
CEQA Cumulative Roadway Segment Levels of Service

ID	Roadway	Segment		CEQA Cumulative No Project					CEQA Cumulative + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
1	Bradshaw Rd	Folsom Blvd	US 50	6	Arterial M	27,690	0.51	A	6	Arterial M	24,810	0.46	A	
2	Bradshaw Rd	US 50	Lincoln Village Dr	6	Arterial M	66,570	1.23	**F**	6	Arterial M	88,900	1.65	**F**	
3	Bradshaw Rd	Lincoln Village Dr	Old Placerville Rd	6	Arterial M	52,770	0.98	**E**	6	Arterial M	81,450	1.51	**F**	
4	Bradshaw Rd	Old Placerville Rd	Goethe Rd	6	Arterial M	62,130	1.15	**F**	6	Arterial M	81,000	1.50	**F**	
5.1	Bradshaw Rd	Goethe Rd	Collector WJ-8	6	Arterial M	46,870	0.87	D	6	Arterial M	70,200	1.30	**F**	
5.2	Bradshaw Rd	Collector WJ-8	Kiefer Blvd	6	Arterial M	45,290	0.84	D	6	Arterial M	66,370	1.23	**F**	
6.1	Bradshaw Rd	Kiefer Blvd	Collector WJ-9	6	Arterial M	51,100	0.95	E	6	Arterial M	68,950	1.28	**F**	
6.2	Bradshaw Rd	Collector WJ-9	Mayhew Rd	6	Arterial M	51,960	0.96	E	6	Arterial M	68,690	1.27	**F**	
6.3	Bradshaw Rd	Mayhew Rd	Jackson Rd	6	Arterial M	51,930	0.96	E	6	Arterial M	43,320	0.80	D	
7.1	Bradshaw Rd	Jackson Rd	Rock Creek Pkwy	6	Arterial M	52,210	0.97	E	6	Arterial M	43,750	0.81	D	
7.2	Bradshaw Rd	Rock Creek Pkwy	Collector WJ-10	6	Arterial M	52,210	0.97	E	6	Arterial M	49,890	0.92	E	
7.3	Bradshaw Rd	Collector WJ-10	Collector WJ-11	6	Arterial M	52,380	0.97	E	6	Arterial M	47,120	0.87	D	
7.4	Bradshaw Rd	Collector WJ-11	Elder Creek Rd	6	Arterial M	52,440	0.97	E	6	Arterial M	46,560	0.86	D	
8	Bradshaw Rd	Elder Creek Rd	Florin Rd	6	Arterial M	45,030	0.83	D	6	Arterial M	50,650	0.94	E	
9	Bradshaw Rd	Florin Rd	Gerber Rd	6	Arterial M	42,410	0.79	C	6	Arterial M	52,310	0.97	E	
10	Bradshaw Rd	Gerber Rd	Calvine Rd	6	Arterial M	29,910	0.55	A	6	Arterial M	37,560	0.70	B	
11	Calvine Rd	Waterman Rd	Bradshaw Rd	6	Arterial M	16,760	0.31	A	6	Arterial M	18,490	0.34	A	
12	Calvine Rd	Bradshaw Rd	Vineyard Rd	6	Arterial M	14,540	0.27	A	6	Arterial M	14,820	0.27	A	
13	Calvine Rd	Vineyard Rd	Excelsior Rd	4	Arterial M	8,460	0.24	A	4	Arterial M	10,280	0.29	A	
14	Chrysanthy Blvd	Sunrise Blvd	Rancho Cordova Pkwy	4	Arterial M	7,980	0.22	A	4	Arterial M	12,520	0.35	A	
15	Douglas Rd	Mather Blvd	Zinfandel Dr	4	Arterial M	21,130	0.59	A	4	Arterial M	35,330	0.98	E	
16	Douglas Rd	Zinfandel Dr	Sunrise Blvd	6	Arterial M	37,070	0.69	B	6	Arterial M	48,540	0.90	D	
17	Douglas Rd	Sunrise Blvd	Rancho Cordova Pkwy	5	Arterial M	42,430	1.18	**F**	5	Arterial M	41,470	1.15	**F**	
18.1	Douglas Rd	Rancho Cordova Pkwy	Americanos Blvd	5	Arterial M	42,610	1.18	**F**	5	Arterial M	41,670	1.16	**F**	
18.2	Douglas Rd	Americanos Blvd	Grant Line Rd	5	Arterial M	33,170	0.92	**E**	5	Arterial M	30,940	0.86	D	
19.1	Eagles Nest Rd	Kiefer Blvd	N Bridgewater Dr	2	Arterial M	4,680	0.26	A	4	Arterial M	14,060	0.39	A	NewBridge
19.2	Eagles Nest Rd	N Bridgewater Dr	S Bridgewater Dr	2	Arterial M	4,680	0.26	A	4	Arterial M	14,270	0.40	A	NewBridge
19.3	Eagles Nest Rd	S Bridgewater Dr	Jackson Rd	2	Arterial M	4,760	0.26	A	4	Arterial M	15,420	0.43	A	NewBridge
20	Eagles Nest Rd	Jackson Rd	Florin Rd	2	Arterial M	3,620	0.20	A	2	Arterial M	9790	0.54	A	
21	Eagles Nest Rd	Florin Rd	Grant Line Rd	2	Arterial M	3,270	0.18	A	2	Arterial M	5230	0.29	A	
22	Elder Creek Rd	65th St	Power Inn Rd	4	Arterial M	24,110	0.67	B	4	Arterial M	28,230	0.78	C	
23	Elder Creek Rd	Power Inn Rd	Florin-Perkins Rd	2	Arterial M	25,310	1.41	**F**	2	Arterial M	28,710	1.60	**F**	
24	Elder Creek Rd	Florin Perkins Rd	South Watt Ave	4	Arterial M	28,080	0.78	C	4	Arterial M	31,550	0.88	D	

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 6.4
CEQA Cumulative Roadway Segment Levels of Service

ID	Roadway	Segment		CEQA Cumulative No Project					CEQA Cumulative + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
25	Elder Creek Rd	South Watt Ave	Hedge Ave	4	Arterial M	40,970	1.14	**F**	4	Arterial M	54,480	1.51	**F**	
26	Elder Creek Rd	Hedge Ave	Mayhew Rd	4	Arterial M	30,110	0.84	D	4	Arterial M	43,210	1.20	**F**	
27	Elder Creek Rd	Mayhew Rd	Bradshaw Rd	4	Arterial M	17,880	0.50	A	4	Arterial M	25,620	0.71	C	
28.1	Elder Creek Rd	Bradshaw Rd	Vineyard Rd	2	Arterial M	9,260	0.51	A	3	Arterial M	31,620	1.76	**F**	West Jackson
28.2	Elder Creek Rd	Vineyard Rd	Excelsior Rd	2	Arterial M	9,450	0.53	A	4	Arterial M	28,590	0.79	C	West Jackson
29	Elk Grove-Florin Rd	Florin Rd	Gerber Rd	6	Arterial M	48,360	0.90	D	6	Arterial M	46,840	0.87	D	
30.1	Excelsior Rd	Kiefer Blvd	Douglas Rd	2	Arterial M	7,500	0.42	A	2	Arterial M	12,160	0.68	B	
30.2	Excelsior Rd	Douglas Rd	Collector WJ-1/ Collector JT-1	4	Arterial M	10,890	0.30	A	4	Arterial M	30,400	0.84	D	
30.3	Excelsior Rd	Collector WJ-1/ Collector JT-1	Collector WJ-2/ Collector JT-2	4	Arterial M	11,480	0.32	A	4	Arterial M	29,620	0.82	D	
30.4	Excelsior Rd	Collector WJ-2/ Collector JT-2	Jackson Rd	4	Arterial M	11,480	0.32	A	4	Arterial M	29,840	0.83	D	
31.1	Excelsior Rd	Jackson Rd	Collector WJ-6	2	Arterial M	11,630	0.65	B	3	Arterial M	41,580	2.31	**F**	West Jackson
31.2	Excelsior Rd	Collector WJ-6	Elder Creek Rd	2	Arterial M	11,630	0.65	B	3	Arterial M	41,380	2.30	**F**	West Jackson
32	Excelsior Rd	Elder Creek Rd	Florin Rd	2	Arterial M	4,670	0.26	A	3	Arterial M	12,900	0.72	C	West Jackson
33	Excelsior Rd	Florin Rd	Gerber Rd	2	Arterial M	5,960	0.33	A	2	Arterial M	14,300	0.79	C	
34	Excelsior Rd	Gerber Rd	Calvine Rd	2	Arterial M	2,560	0.14	A	2	Arterial M	9,110	0.51	A	
35	Excelsior Rd	Calvine Rd	Sheldon Rd	2	Arterial M	3,130	0.17	A	2	Arterial M	10,290	0.57	A	
36	Florin Rd	Stockton Blvd	Power Inn Rd	6	Arterial M	42,730	0.79	C	6	Arterial M	48,790	0.90	E	
37	Florin Rd	Power Inn Rd	Florin-Perkins Rd	4	Arterial M	37,000	1.03	**F**	4	Arterial M	44,830	1.25	**F**	
38	Florin Rd	Florin-Perkins Rd	So Watt Ave/ Elk Grove Florin Rd	6	Arterial M	29,920	0.55	A	6	Arterial M	37,850	0.70	C	
39	Florin Rd	South Watt Ave	Hedge Ave	4	Arterial M	9,840	0.27	A	4	Arterial M	13,280	0.37	A	
40	Florin Rd	Hedge Ave	Mayhew Rd	4	Arterial M	10,470	0.29	A	4	Arterial M	14,700	0.41	A	
41	Florin Rd	Mayhew Rd	Bradshaw Rd	4	Arterial M	30,370	0.84	D	4	Arterial M	43,130	1.20	**F**	
42.1	Florin Rd	Bradshaw Rd	Vineyard Rd	4	Arterial M	19,600	0.54	A	4	Arterial M	29,540	0.82	D	
42.2	Florin Rd	Vineyard Rd	Excelsior Rd	2	Arterial M	11,450	0.64	B	3	Arterial M	28,090	1.56	**F**	West Jackson
43	Florin Rd	Excelsior Rd	Sunrise Blvd	2	Arterial M	14,130	0.79	C	2	Arterial M	18,580	1.03	**F**	
44	Folsom Blvd	Howe Ave	Jackson Rd	4	Arterial M	50,710	1.41	**F**	4	Arterial M	56,760	1.58	**F**	

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 6.4
CEQA Cumulative Roadway Segment Levels of Service

ID	Roadway	Segment		CEQA Cumulative No Project					CEQA Cumulative + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
45	Fruitridge Rd	65th St	Power Inn Rd	4	Arterial M	23,020	0.64	B	4	Arterial M	28,430	0.79	C	
46	Fruitridge Rd	Power Inn Rd	Florin Perkins Rd	4	Arterial M	20,330	0.56	A	4	Arterial M	32,850	0.91	**E**	
47	Fruitridge Rd	Florin Perkins Rd	South Watt Ave	2	Arterial M	13,930	0.77	C	2	Arterial M	29,480	1.64	**F**	
48	Fruitridge Rd	South Watt Ave	Hedge Ave	2	Arterial M	5,880	0.33	A	3	Arterial M	24,970	1.39	**F**	West Jackson
49.1	Fruitridge Rd	Hedge Ave	Collector WJ-12	2	Arterial M	2,270	0.13	A	4	Arterial M	26,870	0.75	C	West Jackson
49.2	Fruitridge Rd	Collector WJ-12	Mayhew Rd	2	Arterial M	2,250	0.13	A	4	Arterial M	27,150	0.75	C	West Jackson
50	Grant Line Rd	White Rock Rd	Douglas Rd	4	Arterial M	39,520	1.10	**F**	4	Arterial M	40,500	1.13	**F**	
51.1	Grant Line Rd	Douglas Rd	Chrysanthy Blvd	4	Arterial M	58,550	1.63	**F**	4	Arterial M	57,040	1.58	**F**	
51.2	Grant Line Rd	Chrysanthy Blvd	Kiefer Blvd	4	Arterial M	45,070	1.25	**F**	4	Arterial M	47,600	1.32	**F**	
52.1	Grant Line Rd	Kiefer Blvd	Rancho Cordova Pkwy	4	Arterial M	34,280	0.95	**E**	4	Arterial M	37,390	1.04	**F**	
52.2	Grant Line Rd	Rancho Cordova Pkwy	Jackson Rd	4	Arterial M	43,750	1.22	**F**	4	Arterial M	41,910	1.16	**F**	
53	Grant Line Rd	Jackson Rd	Sunrise Blvd	4	Arterial M	33,280	0.92	E	4	Arterial M	29,670	0.82	D	
54	Grant Line Rd	Sunrise Blvd	Calvine Rd	4	Arterial M	42,850	1.19	**F**	4	Arterial M	43,840	1.22	**F**	
55	Grant Line Rd	Calvine Rd	Sheldon Rd	4	Arterial M	36,450	1.01	**F**	4	Arterial M	36,830	1.02	**F**	
56	Grant Line Rd	Sheldon Rd	Wilton Rd	4	Arterial M	40,680	1.13	**F**	4	Arterial M	46,230	1.28	**F**	
57	Grant Line Rd	Wilton Rd	Bond Rd	4	Arterial M	36,130	1.00	**F**	4	Arterial M	40,920	1.14	**F**	
58	Happy Ln	Old Placerville Rd	Kiefer Blvd	2	Arterial M	4,110	0.23	A	4	Arterial M	51,220	1.42	**F**	West Jackson
59.1	Hedge Ave	Jackson Rd	Rock Creek Pkwy	2	Arterial M	7,240	0.40	A	2	Arterial M	11,810	0.66	B	
59.2	Hedge Ave	Rock Creek Pkwy	Fruitridge Rd	2	Arterial M	7,360	0.41	A	2	Arterial M	8,590	0.48	A	
60	Hedge Ave	Fruitridge Rd	Elder Creek Rd	2	Arterial M	8,520	0.47	A	2	Arterial M	9,680	0.54	A	
61	Hedge Ave	Elder Creek Rd	Florin Rd	2	Arterial M	22,680	1.26	**F**	2	Arterial M	22,180	1.23	**F**	
62	Howe Ave	US 50	Folsom Blvd	6	Arterial M	67,100	1.24	**F**	6	Arterial M	72,510	1.34	**F**	
63	International Dr	Mather Field Rd	Zinfandel Dr	6	Arterial M	48,300	0.89	D	6	Arterial M	47,490	0.88	D	
64	International Dr	Zinfandel Dr	Sunrise Blvd	6	Arterial M	35,780	0.66	B	6	Arterial M	41,510	0.77	C	
65	Jackson Rd	Folsom Blvd	Florin Perkins Rd	4	Arterial M	30,560	0.85	D	4	Arterial M	36,540	1.02	**F**	
66.1	Jackson Rd	Florin Perkins Rd	14th Ave	4	Arterial M	31,230	0.87	D	4	Arterial M	45,880	1.27	**F**	
66.2	Jackson Rd	14th Ave	Rock Creek Pkwy	4	Arterial M	40,490	1.12	**F**	4	Arterial M	64,740	1.80	**F**	
66.3	Jackson Rd	Rock Creek Pkwy	Aspen 1 Dwy	4	Arterial M	34,850	0.97	E	4	Arterial M	61,240	1.70	**F**	

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Table 6.4
CEQA Cumulative Roadway Segment Levels of Service

ID	Roadway	Segment		CEQA Cumulative No Project					CEQA Cumulative + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
66.4	Jackson Rd	Aspen 1 Dwy	South Watt Ave	4	Arterial M	32,550	0.90	E	4	Arterial M	58,860	1.64	**F**	
67	Jackson Rd	South Watt Ave	Hedge Ave	4	Arterial M	38,450	1.07	**F**	4	Arterial M	69,380	1.93	**F**	
68.1	Jackson Rd	Hedge Ave	Collector WJ-3	4	Arterial M	31,030	0.86	D	4	Arterial M	62,190	1.73	**F**	
68.2	Jackson Rd	Collector WJ-3	Mayhew Rd	4	Arterial M	30,930	0.86	D	4	Arterial M	62,890	1.75	**F**	
69	Jackson Rd	Mayhew Rd	Bradshaw Rd	4	Arterial M	33,880	0.94	E	6	Arterial M	63,070	1.17	**F**	West Jackson
70.1	Jackson Rd	Bradshaw Rd	Collector WJ-4	2	Rural Hwy	23,080	1.01	**F**	6	Arterial M	60,480	1.12	**F**	West Jackson
70.2	Jackson Rd	Collector WJ-4	Happy Ln	2	Rural Hwy	23,160	1.01	**F**	6	Arterial M	57,380	1.06	**F**	West Jackson
70.3	Jackson Rd	Happy Ln	Rock Creek Pkwy	2	Rural Hwy	23,010	1.00	**F**	6	Arterial M	50,740	0.94	E	West Jackson
70.4	Jackson Rd	Rock Creek Pkwy	Collector WJ-5	2	Rural Hwy	23,010	1.00	**F**	6	Arterial M	52,830	0.98	E	West Jackson
70.5	Jackson Rd	Collector WJ-5	Collector WJ-6	2	Rural Hwy	23,030	1.01	**F**	6	Arterial M	43,720	0.81	D	West Jackson
70.6	Jackson Rd	Collector WJ-6	Excelsior Rd	2	Rural Hwy	23,030	1.01	**F**	6	Arterial M	43,760	0.81	D	West Jackson
71.1	Jackson Rd	Excelsior Rd	Collector JT-3	2	Rural Hwy	23,230	1.01	**F**	4	Arterial M	62,780	1.74	**F**	Jackson Township
71.2	Jackson Rd	Collector JT-3	Tree View Ln	2	Rural Hwy	23,250	1.02	**F**	4	Arterial M	48,960	1.36	**F**	Jackson Township
71.3	Jackson Rd	Tree View Ln	Collector JT-4	2	Rural Hwy	23,210	1.01	**F**	4	Arterial M	42,560	1.18	**F**	Jackson Township
71.4	Jackson Rd	Collector JT-4	Eagles Nest Rd	2	Rural Hwy	23,230	1.01	**F**	4	Arterial M	39,060	1.09	**F**	Jackson Township
72.1	Jackson Rd	Eagles Nest Rd	Rockbridge Dr	2	Rural Hwy	21,990	0.96	E	4	Arterial M	39,660	1.10	**F**	NewBridge
72.2	Jackson Rd	Rockbridge Dr	Sunrise Blvd	2	Rural Hwy	22,730	0.99	E	4	Arterial M	39,710	1.10	**F**	NewBridge
73	Jackson Rd	Sunrise Blvd	Grant Line Rd	4	Arterial M	31,990	0.89	D	4	Arterial M	46,130	1.28	**F**	
74	Kiefer Blvd	Florin Perkins Rd	South Watt Ave	2	Arterial M	3,340	0.19	A	2	Arterial M	5,630	0.31	A	
75	Kiefer Blvd	South Watt Ave	Mayhew Rd	4	Arterial M	21,590	0.60	A	4	Arterial M	34,100	0.95	E	
76	Kiefer Blvd	Mayhew Rd	Bradshaw Rd	4	Arterial M	13,420	0.37	A	4	Arterial M	47,090	1.31	**F**	
77.1	Kiefer Blvd	Bradshaw Rd	Collector WJ-14	2	Arterial M	5,950	0.33	A	6	Arterial M	56,300	1.04	**F**	West Jackson
77.2	Kiefer Blvd	Collector WJ-14	Happy Ln	2	Arterial M	5,020	0.28	A	6	Arterial M	47,880	0.89	D	West Jackson
78.1	Kiefer Blvd	Eagles Nest Rd	W Collector MS-1	2	Arterial M	10,170	0.57	A	4	Arterial M	32,550	0.90	E	NewBridge; Mather South
78.2	Kiefer Blvd	W Collector MS-1	Northbridge Dr	2	Arterial M	10,170	0.57	A	4	Arterial M	26,230	0.73	C	NewBridge; Mather South
78.3	Kiefer Blvd	Northbridge Dr	E Collector MS-1	2	Arterial M	10,170	0.57	A	4	Arterial M	27,040	0.75	C	NewBridge; Mather South
78.4	Kiefer Blvd	E Collector MS-1	Sunrise Blvd	2	Arterial M	10,120	0.56	A	3	Arterial M	37,390	2.08	**F**	NewBridge
79	Kiefer Blvd	Sunrise Blvd	Rancho Cordova Pkwy	4	Arterial M	20,550	0.57	A	4	Arterial M	33,880	0.94	**E**	

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Table 6.4
CEQA Cumulative Roadway Segment Levels of Service

ID	Roadway	Segment		CEQA Cumulative No Project					CEQA Cumulative + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
80	Mather Blvd / Norden Ave	Von Karman St	Bleckely St	4	Arterial M	14,490	0.40	A	4	Arterial M	13,660	0.38	A	
81	Mather Blvd	Bleckely St	Femoyer St	4	Arterial M	14,490	0.40	A	4	Arterial M	13,660	0.38	A	
82	Mather Blvd	Femoyer St	Douglas Rd	2	Arterial M	14,560	0.81	D	2	Arterial M	13,780	0.77	C	
83	Mather Blvd-Excelsior Rd	Douglas Rd	Kiefer Blvd	2	Res Collector F	10,400	1.30	**F**	2	Res Collector F	15,750	1.97	**F**	
84	Mather Field Rd	US 50	Rockingham Dr	6	Arterial M	65,380	1.21	**F**	6	Arterial M	63,340	1.17	**F**	
85	Mather Field Rd	Rockingham Dr	International Dr	6	Arterial M	71,670	1.33	**F**	6	Arterial M	72,360	1.34	**F**	
86	Mather Field Rd	International Dr	Peter A McCuen Blvd	6	Arterial M	15,890	0.29	A	6	Arterial M	16,140	0.30	A	
87	Mayhew Rd	Folsom Blvd	Goethe Rd	2	Arterial M	7,270	0.40	A	2	Arterial M	15,600	0.87	D	
88	Mayhew Rd	Goethe Rd	Kiefer Blvd	2	Arterial M	10,720	0.60	A	2	Arterial M	13,910	0.77	C	
89.1	Mayhew Rd	Jackson Rd	Rock Creek Pkwy	2	Arterial L	2,070	0.14	A	4	Arterial M	52,530	1.46	**F**	West Jackson
89.2	Mayhew Rd	Rock Creek Pkwy	Fruitridge Rd	2	Arterial L	2,070	0.14	A	4	Arterial M	51,240	1.42	**F**	West Jackson
90	Old Placerville Rd	Bradshaw Rd	Granby Dr	4	Arterial M	29,940	0.83	D	4	Arterial M	26,590	0.74	C	
91	Old Placerville Rd	Granby Dr	Happy Ln	2	Arterial M	26,640	1.48	**F**	2	Arterial M	24,810	1.38	**F**	
92	Old Placerville Rd	Happy Ln	Routier Rd	2	Arterial M	22,800	1.27	**F**	2	Arterial M	53,710	2.98	**F**	
93	Old Placerville Rd	Routier Rd	Rockingham Dr	4	Arterial M	24,320	0.68	B	4	Arterial M	34,690	0.96	**E**	
94	Power Inn Rd	Folsom Blvd	14th Ave	6	Arterial M	43,300	0.80	D	6	Arterial M	47,750	0.88	D	
95	Rockingham Dr	Old Placerville Rd	Mather Field Rd	4	Arterial M	31,910	0.89	D	4	Arterial M	38,480	1.07	**F**	
96	South Watt Ave	Folsom Blvd	Kiefer Blvd	6	Arterial M	69,300	1.28	**F**	6	Arterial M	84,250	1.56	**F**	
97	South Watt Ave	Kiefer Blvd	Jackson Rd	6	Arterial M	67,640	1.25	**F**	6	Arterial M	71,600	1.33	**F**	
98.1	South Watt Ave	Jackson Rd	Rock Creek Pkwy	6	Arterial M	61,230	1.13	**F**	6	Arterial M	61,350	1.14	**F**	
98.2	South Watt Ave	Rock Creek Pkwy	Fruitridge Rd	6	Arterial M	64,370	1.19	**F**	6	Arterial M	62,690	1.16	**F**	
99	South Watt Ave	Fruitridge Rd	Elder Creek Rd	6	Arterial M	61,380	1.14	**F**	6	Arterial M	58,250	1.08	**F**	
100	South Watt Ave	Elder Creek Rd	Florin Rd	6	Arterial M	55,240	1.02	**F**	6	Arterial M	59,790	1.11	**F**	
101	Sunrise Blvd	US 50	Folsom Blvd	7	Arterial M	64,480	1.19	**F**	7	Arterial M	61,860	1.15	**F**	
102	Sunrise Blvd	Folsom Blvd	Trade Center Dr	6	Arterial M	61,120	1.13	**F**	6	Arterial M	59,050	1.09	**F**	
103	Sunrise Blvd	Trade Center Dr	White Rock Rd	6	Arterial M	38,420	0.71	C	6	Arterial M	36,750	0.68	B	
104.1	Sunrise Blvd	White Rock Rd	International Dr	6	Arterial M	49,390	0.91	**E**	6	Arterial M	48,490	0.90	D	
104.2	Sunrise Blvd	International Dr	Rio Del Oro Pkwy	6	Arterial M	54,460	1.01	**F**	6	Arterial M	54,560	1.01	**F**	
104.3	Sunrise Blvd	Rio Del Oro Pkwy	Douglas Rd	6	Arterial M	54,050	1.00	**F**	6	Arterial M	65,850	1.22	**F**	
105	Sunrise Blvd	Douglas Rd	Kiefer Blvd	5	Arterial M	34,810	0.97	**E**	5	Arterial M	37,890	1.05	**F**	
106	Sunrise Blvd	Kiefer Blvd	Jackson Rd	4	Arterial M	30,020	0.83	D	4	Arterial M	33,310	0.93	**E**	

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Table 6.4
CEQA Cumulative Roadway Segment Levels of Service

ID	Roadway	Segment		CEQA Cumulative No Project					CEQA Cumulative + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
107	Sunrise Blvd	Jackson Rd	Florin Rd	4	Arterial M	28,360	0.79	C	4	Arterial M	31,600	0.88	D	
108	Sunrise Blvd	Florin Rd	Grant Line Rd	4	Arterial M	14,980	0.42	A	4	Arterial M	18,080	0.50	A	
109	Vineyard Rd	Gerber Rd	Calvine Rd	2	Arterial M	8,060	0.45	A	2	Arterial M	12,470	0.69	B	
110	Watt Ave	US 50	Folsom Blvd	6	Arterial H	98,100	1.64	**F**	6	Arterial H	108,540	1.81	**F**	
111	White Rock Rd	International Rd	Quality Dr	2	Arterial M	5,420	0.30	A	2	Arterial M	5,450	0.30	A	
112	White Rock Rd	Quality Dr	Zinfandel Dr	4	Arterial M	18,180	0.51	A	4	Arterial M	17,860	0.50	A	
113	White Rock Rd	Zinfandel Dr	Kilgore Rd	6	Arterial M	31,720	0.59	A	6	Arterial M	31,340	0.58	A	
114	White Rock Rd	Kilgore Rd	Sunrise Blvd	5	Arterial M	40,230	1.12	**F**	5	Arterial M	39,340	1.09	**F**	
115	White Rock Rd	Sunrise Blvd	Fitzgerald Rd	4	Arterial M	34,000	0.94	**E**	4	Arterial M	34,260	0.95	**E**	
116.1	White Rock Rd	Fitzgerald Rd	Rancho Cordova Pkwy	4	Arterial M	56,150	1.56	**F**	4	Arterial M	54,910	1.53	**F**	
116.2	White Rock Rd	Rancho Cordova Pkwy	Americanos Blvd	4	Arterial M	22,070	0.61	B	4	Arterial M	20,920	0.58	A	
116.3	White Rock Rd	Americanos Blvd	Grant Line Rd	4	Arterial M	15,780	0.44	A	4	Arterial M	17,180	0.48	A	
117	White Rock Rd	Grant Line Rd	Prairie City Rd	4	Arterial M	53,790	1.49	**F**	4	Arterial M	55,730	1.55	**F**	
118	Zinfandel Dr	US 50	White Rock Rd	7	Arterial M	82,720	1.53	**F**	7	Arterial M	82,400	1.53	**F**	
119	Zinfandel Dr	White Rock Rd	International Rd	6	Arterial M	41,490	0.77	C	6	Arterial M	43,750	0.81	D	
120	Zinfandel Dr	International Rd	Baroque Dr	6	Arterial M	32,810	0.61	B	6	Arterial M	33,990	0.63	B	
121	Zinfandel Dr	Baroque Dr	City Limit	4	Arterial M	32,810	0.91	**E**	4	Arterial M	33,990	0.94	**E**	
122	Zinfandel Dr	City Limit	Douglas Rd	2	Arterial M	32,810	1.82	**F**	2	Arterial M	33,990	1.89	**F**	
123.1	Zinfandel Dr	Douglas Rd	Collector MS-2	4	Arterial M	15,160	0.42	A	4	Arterial M	31,690	0.88	D	
123.2	Zinfandel Dr	Collector MS-2	Collector MS-3	4	Arterial M	12,370	0.34	A	4	Arterial M	26,460	0.74	C	
123.3	Zinfandel Dr	Collector MS-3	Collector MS-4	4	Arterial M	12,370	0.34	A	4	Arterial M	23,420	0.65	B	
123.4	Zinfandel Dr	Collector MS-4	Kiefer Blvd	4	Arterial M	12,370	0.34	A	4	Arterial M	24,910	0.69	B	
124	14th Ave	Power Inn Rd	Florin Perkins Rd	4	Arterial M	15,990	0.44	A	4	Arterial M	28,970	0.80	D	
125	14th Ave	Florin Perkins Rd	Jackson Rd	4	Arterial M	9,290	0.26	A	4	Arterial M	18,880	0.52	A	
126	Chrysanthy Blvd	Rancho Cordova Pkwy	Americanos Blvd	4	Arterial M	21,980	0.61	B	4	Arterial M	21,520	0.60	A	
127	Chrysanthy Blvd	Americanos Blvd	Grant Line Rd	2	Arterial M	16,580	0.92	**E**	2	Arterial M	15,490	0.86	D	
128	Douglas Rd (Extension)	Mather Blvd	Kiefer Blvd	4	Arterial M	3,580	0.10	A	4	Arterial M	18,650	0.52	A	
129	International Dr	Sunrise Blvd	Rancho Cordova Pkwy	6	Arterial M	31,190	0.58	A	6	Arterial M	32,150	0.60	A	
130	International Dr	Rancho Cordova Pkwy	Americanos Blvd	6	Arterial M	19,510	0.36	A	6	Arterial M	18,160	0.34	A	
131	Kiefer Blvd	Rancho Cordova Pkwy	Americanos Blvd	2	Arterial M	3,730	0.21	A	2	Arterial M	9,130	0.51	A	
132	Kiefer Blvd	Americanos Blvd	Grant Line Rd	2	Arterial M	10,160	0.56	A	2	Arterial M	18,810	1.05	**F**	
133	Rancho Cordova Pkwy	US 50	Easton Valley Pkwy	6	Arterial M	70,300	1.30	**F**	6	Arterial M	69,460	1.29	**F**	
134	Rancho Cordova Pkwy	Easton Valley Pkwy	White Rock Rd	6	Arterial M	72,290	1.34	**F**	6	Arterial M	72,010	1.33	**F**	

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CEQA Cumulative Roadway Segment Levels of Service

ID	Roadway	Segment		CEQA Cumulative No Project					CEQA Cumulative + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
135	Rancho Cordova Pkwy	White Rock Rd	International Dr	6	Arterial M	46,430	0.86	D	6	Arterial M	49,470	0.92	**E**	
136	Rancho Cordova Pkwy	International Dr	Rio Del Oro Pkwy	6	Arterial M	55,350	1.03	**F**	6	Arterial M	60,440	1.12	**F**	
137	Rancho Cordova Pkwy	Rio Del Oro Pkwy	Villagio Dr	4	Arterial M	38,030	1.06	**F**	4	Arterial M	38,290	1.06	**F**	
138	Rancho Cordova Pkwy	Villagio Dr	Douglas Rd	4	Arterial M	32,140	0.89	D	4	Arterial M	32,370	0.90	D	
139	Rancho Cordova Pkwy	Douglas Rd	Chrysanthy Blvd	4	Arterial M	34,150	0.95	**E**	4	Arterial M	31,250	0.87	D	
140	Rancho Cordova Pkwy	Chrysanthy Blvd	Kiefer Blvd	4	Arterial M	20,840	0.58	A	4	Arterial M	18,610	0.52	A	
141	Rancho Cordova Pkwy	Kiefer Blvd	Grant Line Rd	2	Arterial M	15,470	0.86	D	2	Arterial M	14,130	0.79	C	
142	Americanos Blvd	White Rock Rd	Douglas Rd	2	Arterial M	5,600	0.31	A	2	Arterial M	6,290	0.35	A	
143	Americanos Blvd	Douglas Rd	Chrysanthy Blvd	2	Arterial M	9,600	0.53	A	2	Arterial M	8,800	0.49	A	
144	Americanos Blvd	Chrysanthy Blvd	Kiefer Blvd	2	Arterial M	8,990	0.50	A	2	Arterial M	7,830	0.44	A	
145	Vineyard Rd	Florin Rd	Gerber Rd	4	Arterial M	1,560	0.04	A	4	Arterial M	12,670	0.35	A	
146	Rio Del Oro Pkwy	Sunrise Blvd	Rancho Cordova Pkwy	6	Arterial M	23,880	0.44	A	6	Arterial M	32,340	0.60	A	
147	Rio Del Oro Pkwy	Rancho Cordova Pkwy	White Rock Rd	2	Arterial M	8,040	0.45	A	2	Arterial M	8,690	0.48	A	
200	Kiefer Blvd	Tree View Ln	Eagles Nest Rd						4	Arterial M	41,540	1.15	**F**	West Jackson; Jackson Township; NewBridge; Mather South
300	Douglas Rd	Excelsior Rd	Rock Creek Pkwy	4	Arterial M	3,580	0.10	A	4	Arterial M	23,060	0.64	B	
301	Douglas Rd	Rock Creek Pkwy	Kiefer Blvd	4	Arterial M	3,580	0.10	A	4	Arterial M	30,630	0.85	D	
302	Happy Ln	Kiefer Blvd	Mayhew Rd						4	Arterial M	43,730	1.21	**F**	West Jackson
303	Happy Ln	Mayhew Rd	Jackson Rd						4	Arterial M	30,680	0.85	D	West Jackson
304	Happy Ln	Jackson Rd	Rock Creek Pkwy						4	Arterial M	34,670	0.96	E	West Jackson
305	Kiefer Blvd	Happy Ln	Collector WJ-15						6	Arterial M	66,970	1.24	**F**	West Jackson
306	Kiefer Blvd	Collector WJ-15	Douglas Rd						6	Arterial M	63,570	1.18	**F**	West Jackson
307	Kiefer Blvd	Douglas Rd	Excelsior Rd						4	Arterial M	35,470	0.99	E	West Jackson
308	Mayhew Rd	Happy Ln	Bradshaw Rd						4	Arterial M	40,390	1.12	**F**	West Jackson
309	Mayhew Rd	Bradshaw Rd	Jackson Rd						4	Arterial M	46,460	1.29	**F**	West Jackson
310	Mayhew Rd	Fruitridge Rd	Collector WJ-13						4	Arterial M	29,410	0.82	D	West Jackson
311	Mayhew Rd	Collector WJ-13	Elder Creek Rd						3	Arterial M	28,570	1.59	**F**	West Jackson
312	Rock Creek Pkwy	South Watt Ave	Hedge Ave						2	Arterial M	10,000	0.56	A	West Jackson
313	Rock Creek Pkwy	Hedge Ave	Mayhew Rd						2	Arterial M	11,880	0.66	B	West Jackson
314	Rock Creek Pkwy	Mayhew Rd	Bradshaw Rd						2	Arterial M	10,980	0.61	B	West Jackson
315	Rock Creek Pkwy	Bradshaw Rd	Collector WJ-7						2	Arterial M	11,920	0.66	B	West Jackson

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		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
316	Rock Creek Pkwy	Collector WJ-7	Happy Ln/ Vineyard Rd						2	Arterial M	12,410	0.69	B	West Jackson
317	Rock Creek Pkwy	Happy Ln/ Vineyard Rd	Jackson Rd						2	Arterial M	15,150	0.84	D	West Jackson
318	Rock Creek Pkwy	Jackson Rd	Excelsior Rd						2	Arterial M	13,520	0.75	C	West Jackson
319	Vineyard Rd	Rock Creek Pkwy	Elder Creek Rd						4	Arterial M	39,590	1.10	**F**	West Jackson
320	Vineyard Rd	Elder Creek Rd	Florin Rd						4	Arterial M	20,790	0.58	A	West Jackson
321	Collector WJ-16	Rock Creek Pkwy	Collector WJ-6						2	Res Collector F	620	0.08	A	West Jackson
322	Collector WJ-17	Rock Creek Pkwy	Collector WJ-6						2	Res Collector F	1,160	0.15	A	West Jackson
323	Collector WJ-6	Collector WJ-16/WJ-17	Jackson Rd						2	Res Collector F	3,780	0.47	C	West Jackson
324	Collector WJ-6	Jackson Rd	Excelsior Rd						2	Res Collector F	3,770	0.47	C	West Jackson
325	Collector WJ-2	Excelsior Rd	Collector WJ-6						2	Arterial M	4,410	0.25	A	West Jackson
326	Collector WJ-18	Vineyard Rd	Collector WJ-19/ WJ-20						2	Arterial M	4,130	0.23	A	West Jackson
327	Collector WJ-19	Collector WJ-18	Collector WJ-21						2	Arterial M	1,430	0.08	A	West Jackson
328	Collector WJ-20	Collector WJ-18	Collector WJ-21						2	Res Collector F	3,310	0.41	C	West Jackson
329	Collector WJ-21	Collector WJ-19/ WJ-20	Collector WJ-6						2	Res Collector F	2,800	0.35	B	West Jackson
400	Collector JT-1	Excelsior Rd	Collector JT-3						2	Res Collector F	4,430	0.55	C	Jackson Township
401	Collector JT-1	Collector JT-3	Tree View Ln						2	Res Collector F	1,850	0.23	B	Jackson Township
402	Collector JT-3	Kiefer Blvd	Collector JT-1						2	Res Collector F	2,630	0.33	B	Jackson Township
403	Collector JT-3	Collector JT-1	Collector JT-6						2	Res Collector F	2,480	0.31	B	Jackson Township
404	Collector JT-3	Collector JT-6	Collector JT-5						2	Res Collector F	3,400	0.43	C	Jackson Township
405	Collector JT-3	Collector JT-5	Jackson Rd						2	Res Collector F	18,370	2.30	**F**	Jackson Township
406	Collector JT-4	Jackson Rd	Bridgewater Dr						2	Arterial M	3,760	0.21	A	Jackson Township
407	Collector JT-5	Collector JT-3	Tree View Ln						2	Arterial M	9,070	0.50	A	Jackson Township

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 6.4
CEQA Cumulative Roadway Segment Levels of Service

ID	Roadway	Segment		CEQA Cumulative No Project					CEQA Cumulative + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
408	Collector JT-6	Excelsior Rd	Collector JT-3						2	Res Collector F	4,370	0.55	C	Jackson Township
409	Collector JT-6	Collector JT-3	Tree View Ln						2	Res Collector F	960	0.12	A	Jackson Township
410	Kiefer Blvd	Excelsior Rd	Tree View Ln						4	Arterial M	38,470	1.07	**F**	Jackson Township
411	Tree View Ln	Kiefer Blvd	Collector JT-1						4	Arterial M	11,620	0.32	A	Jackson Township
412	Tree View Ln	Collector JT-1	Collector JT-6						4	Arterial M	11,590	0.32	A	Jackson Township
413	Tree View Ln	Collector JT-6	Collector JT-5						4	Arterial M	11,350	0.32	A	Jackson Township
414	Tree View Ln	Collector JT-5	Jackson Rd						4	Arterial M	7,680	0.21	A	Jackson Township
415	Collector JT-7	Collector JT-3	Tree View Ln						2	Arterial M	1,650	0.09	A	Jackson Township
416	Collector JT-8	Collector JT-3	Tree View Ln						2	Arterial M	1,880	0.10	A	Jackson Township
417	Collector JT-9	Jackson Rd	Collector JT-8						2	Arterial M	4,320	0.24	A	Jackson Township
418	Collector JT-10	Jackson Rd	Collector JT-8						2	Arterial M	1,570	0.09	A	Jackson Township
419	Collector JT-6	Tree View Ln	Jackson Rd						2	Res Collector F	1,490	0.19	A	Jackson Township
500	S Bridgewater Dr	Collector JT-4	Eagles Nest Rd						2	Res Collector F	4,820	0.60	D	NewBridge
501	S Bridgewater Dr	Eagles Nest Rd	Northbridge Dr						2	Res Collector F	4,480	0.56	C	NewBridge
502	N Bridgewater Dr	Northbridge Dr	Eagles Nest Rd						2	Res Collector F	1,170	0.15	A	NewBridge
503	Northbridge Dr	Kiefer Blvd	Bridgewater Dr						2	Arterial M	3,480	0.19	A	NewBridge
504	Street A	S Bridgewater Dr	Street B						2	Res Collector F	1,690	0.21	B	NewBridge
505	Street B	S Bridgewater Dr	Street A						2	Res Collector F	1,320	0.17	A	NewBridge
506	Rockbridge Dr	Street B	Stonebridge Dr						2	Res Collector F	1,690	0.21	B	NewBridge
507	Rockbridge Dr	Stonebridge Dr	Jackson Rd						2	Arterial M	6,600	0.37	A	NewBridge
508	Stonebridge Dr	S Bridgewater Dr	Rockbridge Dr						2	Arterial M	2,660	0.15	A	NewBridge
509	Stonebridge Dr	Rockbridge Dr	Jackson Rd						2	Res Collector F	3,830	0.48	C	NewBridge
600	W Collector MS-1	Kiefer Blvd	Collector MS-5						2	Arterial M	6,040	0.34	A	Mather South
601	E Collector MS-1	Collector MS-5	Kiefer Blvd						2	Arterial M	11,720	0.65	B	Mather South

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Table 6.4
CEQA Cumulative Roadway Segment Levels of Service

ID	Roadway	Segment		CEQA Cumulative No Project					CEQA Cumulative + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
602	Collector MS-2	Eagles Nest Rd	Collector MS-5						2	Res Collector F	9,980	1.25	**F**	Mather South
603	Collector MS-3	Eagles Nest Rd	Collector MS-5						2	Arterial M	6,730	0.37	A	Mather South
604	Collector MS-4	Eagles Nest Rd	Collector MS-5						2	Arterial M	12,560	0.70	B	Mather South
605	Collector MS-5	Collector MS-1	Collector MS-4						2	Arterial M	17,760	0.99	E	Mather South
606	Collector MS-5	Collector MS-4	Collector MS-3						2	Arterial M	4,870	0.27	A	Mather South
607	Collector MS-5	Collector MS-3	Collector MS-2						2	Arterial M	1,590	0.09	A	Mather South

Note: Gray shading indicates changes in travel lanes or facility type that the project is responsible to provide.

[1] The following classifications are used to determine daily roadway capacity:
Arterial L - Arterial, Low Access Control
Arterial M - Arterial, Moderate Access Control
Arterial H - Arterial, High Access Control
Rural Hwy - Rural 2-lane Highway
Rural S - Rural 2-lane Road, 24'-36' of pavement, Paved Shoulders
Rural NS - Rural 2-lane Road, 24'-36' of pavement, No Shoulders
Res Collector F - Residential Collector with Frontage
Res Collector NF - Residential Collector with No Frontage

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Table 6.5

CEQA Cumulative Plus FOUR PROJECTS Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		CEQA Cumulative No FOUR PROJECTS			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact	CEQA Cumulative No FOUR PROJECTS			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
1	Howe Avenue & College Town Drive/US 50 WB Ramps	Signal	D	42.0	Signal	C	34.3	No	Signal	E	55.6	Signal	E	60.8	No
2	Howe Avenue & US 50 EB Ramps	Signal	C	32.4	Signal	D	52.5	No	Signal	B	17.8	Signal	C	21.5	No
3	Power Inn Road/Howe Avenue & Folsom Blvd	Signal	**F**	**82.4**	Signal	**F**	**103.3**	Yes	Signal	E	67.2	Signal	**F**	**91.6**	Yes
4	Power Inn Road & 14th Avenue	Signal	**E**	**75.1**	Signal	**F**	**227.8**	Yes	Signal	**F**	**86.5**	Signal	**F**	**149.2**	Yes
5	Power Inn Road & Fruitridge Road	Signal	**F**	**116.2**	Signal	**F**	**118.6**	No	Signal	D	50.4	Signal	**E**	**60.8**	Yes
6	Jackson Road/Notre Dame Dr. & Folsom Blvd.	Signal	D	41.2	Signal	D	45.9	No	Signal	E	55.1	Signal	E	75.3	No
7	Florin Perkins Road/Julliard Dr. & Folsom Boulevard	Signal	D	35.2	Signal	E	60.1	No	Signal	D	40.7	Signal	D	42.3	No
8	Florin Perkins Road & Kiefer Blvd.	Two-way stop	A	2.0	Two-way stop	A	3.4	No	Two-way stop	A	2.7	Two-way stop	A	5.2	No
	Westbound Left Turn		*C*	*17.1*		*D*	*25.9*			*C*	*20.0*		*E*	*37.8*	
	Westbound Right Turn		*B*	*11.8*		*B*	*14.5*			*B*	*11.1*		*C*	*15.0*	
	Southbound Left Turn		*A*	*9.5*		*B*	*10.9*			*B*	*10.2*		*B*	*13.4*	
9	Florin Perkins Road & Jackson Road	Signal	D	50.3	Signal	E	66.6	No	Signal	D	49.0	Signal	E	59.3	No
10	Florin Perkins Road & Fruitridge Road	Signal	E	58.8	Signal	E	57.8	No	Signal	D	54.5	Signal	D	49.9	No
11	Florin Perkins Road & Elder Creek Road	Signal	D	35.7	Signal	C	33.3	No	Signal	D	38.6	Signal	D	42.2	No
12	Watt Avenue & Folsom Blvd.	Signal	**F**	**174.1**	Signal	**F**	**196.0**	Yes	Signal	**F**	**139.4**	Signal	**F**	**217.7**	Yes
13	S. Watt Ave. & Reith Ct/Manlove Road	Signal	D	37.8	Signal	D	35.5	No	Signal	C	20.2	Signal	C	32.2	No
14	S. Watt Avenue & Kiefer Blvd.	Signal	**F**	**82.7**	Signal	**F**	**118.0**	Yes	Signal	E	76.6	Signal	**F**	**90.7**	Yes

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Table 6.5

CEQA Cumulative Plus FOUR PROJECTS Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		CEQA Cumulative No FOUR PROJECTS			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact	CEQA Cumulative No FOUR PROJECTS			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
15	S. Watt Avenue & Canberra Dr.	Signal	B	18.2	Signal	B	18.4	No	Signal	B	10.6	Signal	B	10.6	No
16	S. Watt Avenue & Jackson Road	Signal	**F**	**140.9**	Signal	**F**	**246.9**	Yes	Signal	**F**	**102.2**	Signal	**F**	**207.8**	Yes
17	S. Watt Avenue & Fruitridge Road	Signal	D	46.8	Signal	**F**	**159.8**	Yes	Signal	**E**	**79.2**	Signal	**F**	**174.2**	Yes
18	S. Watt Avenue & Elder Creek Road	Signal	**F**	**324.5**	Signal	**F**	**165.7**	No	Signal	**F**	**232.8**	Signal	**F**	**162.4**	No
20	Elk Grove Florin Road/S. Watt Ave. & Florin Road	Signal	**F**	**199.4**	Signal	**F**	**302.3**	Yes	Signal	**F**	**160.8**	Signal	**F**	**204.3**	Yes
21	Elk Grove Florin Road & Gerber Road	Signal	E	63.3	Signal	E	72.8	No	Signal	E	70.8	Signal	E	73.5	No
23	Hedge Avenue & Jackson Road	Signal	E	56.3	Signal	**F**	**214.4**	Yes	Signal	C	29.7	Signal	**F**	**121.0**	Yes
24	Hedge Avenue & Fruitridge Road	All-way stop	E	43.7	Signal	E	72.0	No	All-way stop	D	28.5	Signal	E	70.5	No
25	Hedge Avenue & Elder Creek Road	Signal	**F**	**150.1**	Signal	**F**	**155.0**	No	Signal	**F**	**148.0**	Signal	**F**	**140.5**	No
26	Hedge Avenue & Tokay Lane	Two-way stop	A	0.5	Two-way stop	A	0.4	No	Two-way stop	A	0.2	Two-way stop	A	0.2	No
	Northbound Left Turn		*A*	*0.0*		*A*	*0.0*			*A*	*0.0*		*A*	*0.0*	
	Southbound Left Turn		*B*	*11.0*		*B*	*10.8*			*A*	*9.3*		*A*	*9.3*	
	Eastbound		***F***	***102.1***		***F***	***99.5***			*E*	*47.9*		*E*	*45.4*	
	Westbound		***F***	***54.2***		***F***	***52.3***			*E*	*39.0*		*E*	*37.1*	
27	Hedge Avenue & Florin Road	Signal	C	32.6	Signal	B	15.5	No	Signal	C	23.9	Signal	A	9.1	No
28	Mayhew Road & Kiefer Boulevard	Signal	D	55.0	Signal	**F**	**133.5**	Yes	Signal	**F**	**95.1**	Signal	**F**	**84.1**	No

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Table 6.5

CEQA Cumulative Plus FOUR PROJECTS Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		CEQA Cumulative No FOUR PROJECTS			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact	CEQA Cumulative No FOUR PROJECTS			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
29	Mayhew Road & Jackson Road	Two-way stop	A	1.9	Signal	F	145.8	Yes	Two-way stop	A	3.0	Signal	F	129.4	Yes
	Northbound Through - Left Turn		***F***	***125.0***						***F***	***>300***				
	Northbound Right Turn		*C*	*15.6*						*C*	*18.4*				
	Southbound		***F***	***107.1***						***F***	***>300***				
	Eastbound Left Turn		*B*	*13.4*						*B*	*11.1*				
	Westbound Left Turn		*B*	*11.5*						*C*	*18.0*				
30	Mayhew Road & Fruitridge Road	Two-way stop	A	5.9	Signal	D	36.3	No	Two-way stop	A	3.3	Signal	D	42.3	No
	Northbound Left Turn		*A*	*0.0*						*A*	*7.5*				
	Eastbound		*A*	*9.7*						*A*	*9.3*				
31	Mayhew Road & Elder Creek Road	Signal	E	76.4	Signal	F	297.4	Yes	Signal	C	27.3	Signal	F	211.5	Yes
32	Woodring Drive & Zinfandel Drive	Two-way stop	A	2.1	Two-way stop	E	40.8	Yes	Two-way stop	A	2.2	Two-way stop	C	20.8	Yes
	Eastbound		*C*	*21.5*		***F***	***>300***			*E*	*38.5*		***F***	***>300***	
	Northbound Left Turn		*A*	*8.0*		*B*	*12.6*			*B*	*10.6*		*B*	*14.8*	
33	Bradshaw Road & Folsom Blvd.	Signal	**E**	**56.6**	Signal	**E**	**55.8**	No	Signal	**E**	**70.1**	Signal	**E**	**60.2**	No
34	Bradshaw Road & US 50 WB Ramps	Signal	B	10.5	Signal	B	13.1	No	Signal	B	12.1	Signal	C	32.3	No
35	Bradshaw Road & US 50 EB Ramps	Signal	D	35.3	Signal	E	68.7	Yes	Signal	B	14.4	Signal	D	40.2	No
36	Bradshaw Road & Old Placerville Road	Signal	**E**	**78.4**	Signal	F	89.9	Yes	Signal	**E**	**66.1**	Signal	F	88.7	Yes
37	Bradshaw Road & Kiefer Boulevard	Signal	E	65.5	Signal	F	180.8	Yes	Signal	E	61.7	Signal	F	197.9	Yes
38	Bradshaw Road & Jackson Road	Signal	**F**	**188.2**	Signal	**F**	**147.0**	No	Signal	**F**	**184.2**	Signal	**F**	**149.8**	No
39	Bradshaw Road & Elder Creek Road	Signal	**F**	**127.5**	Signal	F	172.5	Yes	Signal	**F**	**105.3**	Signal	F	155.7	Yes

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Table 6.5

CEQA Cumulative Plus FOUR PROJECTS Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		CEQA Cumulative No FOUR PROJECTS			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact	CEQA Cumulative No FOUR PROJECTS			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
40	Bradshaw Road & Florin Road	Signal	**F**	**127.5**	Signal	**F**	**128.0**	No	Signal	E	66.1	Signal	**F**	**95.5**	Yes
41	Bradshaw Road & Gerber Road	Signal	**F**	**108.6**	Signal	**F**	**87.6**	No	Signal	E	59.1	Signal	E	66.0	No
42	Happy Lane & Old Placerville Road	Two-way stop	**E**	**47.0**	Two-way stop	**F**	**181.0**	Yes	Two-way stop	A	9.8	Two-way stop	**F**	**192.1**	Yes
	Northbound Left Turn		***F***	***>300***		***F***	***>300***			***F***	***>300***		***F***	***>300***	
	Northbound Right Turn		***F***	***>300***		***F***	***>300***			***E***	***38.3***		***F***	***>300***	
	Westbound Left Turn		*C*	*15.6*		***F***	***>300***			*B*	*14.8*		***F***	***>300***	
43	Happy Lane & Kiefer Boulevard	Free Turn			Signal	**F**	**125.0**	Yes	Free Turn			Signal	**F**	**98.2**	Yes
44	Excelsior Road & Kiefer Boulevard	West Jackson/Jackson Township Project Int.			Signal	**F**	**148.2**	Yes	West Jackson/Jackson Township Project Int.			Signal	**F**	**83.6**	Yes
45	Excelsior Road & Jackson Road	Signal	E	60.4	Signal	**F**	**357.8**	Yes	Signal	D	54.4	Signal	**F**	**274.1**	Yes
46	Excelsior Road & Elder Creek Road	Two-way stop	**F**	**102.9**	Signal	**F**	**126.6**	Yes	Two-way stop	C	24.1	Signal	**F**	**120.1**	Yes
	Northbound Left Turn		*A*	*7.9*						*A*	*8.0*				
	Eastbound		***F***	***>300***						*E*	*44.0*				
47	Excelsior Road & Florin Road	All-way stop	**F**	**61.6**	Signal	**F**	**212.0**	Yes	All-way stop	**F**	**67.7**	Signal	**F**	**169.6**	Yes
48	Excelsior Road & Gerber Road/Birch Ranch Drive	All-way stop	C	15.8	All-way stop	E	46.1	No	All-way stop	B	11.1	All-way stop	E	39.8	No
49	Mather Field Road & US 50 WB Ramps	Signal	B	18.0	Signal	C	23.0	No	Signal	B	12.9	Signal	B	15.2	No
50	Mather Field Road & US 50 EB Ramps	Signal	C	20.5	Signal	C	20.3	No	Signal	C	22.5	Signal	B	18.6	No
51	Mather Field Road & Rockingham Drive	Signal	**F**	**158.8**	Signal	**F**	**271.4**	Yes	Signal	**F**	**118.7**	Signal	**F**	**144.7**	Yes
52	Mather Boulevard & Douglas Road	Signal	E	56.0	Signal	E	58.6	No	Signal	D	48.7	Signal	E	64.8	No

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Table 6.5

CEQA Cumulative Plus FOUR PROJECTS Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		CEQA Cumulative No FOUR PROJECTS			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact	CEQA Cumulative No FOUR PROJECTS			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
53	Zinfandel Drive & US 50 WB Ramps	Signal	D	53.8	Signal	B	17.7	No	Signal	**E**	**60.8**	Signal	D	48.3	No
54	Zinfandel Drive & US 50 EB Ramps/Gold Center Drive	Signal	**F**	**121.0**	Signal	**F**	**118.7**	No	Signal	**F**	**117.6**	Signal	**F**	**81.2**	No
55	Zinfandel Drive & White Rock Road	Signal	**E**	**75.9**	Signal	**E**	**78.0**	No	Signal	**F**	**132.1**	Signal	**F**	**130.8**	No
56	Zinfandel Drive & Data Drive	Signal	**E**	**69.3**	Signal	**E**	**69.0**	No	Signal	**E**	**56.9**	Signal	**E**	**57.8**	No
57	Zinfandel Drive & International Dr	Signal	**F**	**83.3**	Signal	**F**	**83.6**	No	Signal	**F**	**99.8**	Signal	**F**	**89.0**	No
58	Zinfandel Drive & Douglas Road	Signal	**F**	**152.7**	Signal	**F**	**273.9**	Yes	Signal	**F**	**84.5**	Signal	**F**	**273.2**	Yes
59	Eagles Nest Road/Zinfandel Drive & Kiefer Boulevard	Two-way stop	**F**	**51.5**	Signal	**F**	**86.3**	Yes	Two-way stop	E	49.8	Signal	E	61.2	No
	Westbound		***F***	***91.1***						***F***	***182.9***				
	Southbound Left Turn		*A*	*8.1*						*A*	*9.2*				
60	Eagles Nest Road & Jackson Road	Signal	C	30.4	Signal	E	62.7	No	Signal	C	34.2	Signal	E	64.0	No
61	Eagles Nest Road & Florin Road	Two-way stop	**F**	**194.9**	Two-way stop	**F**	**>300**	Yes	Two-way stop	**F**	**83.9**	Two-way stop	**F**	**>300**	Yes
	Northbound		***F***	***>300***		***F***	***>300***			***F***	***>300***		***F***	***>300***	
	Southbound		***F***	***>300***		***F***	***>300***			***F***	***>300***		***F***	***>300***	
	Eastbound Left Turn		*B*	*10.3*		*B*	*11.6*			*A*	*8.4*		*A*	*0.0*	
	Westbound Left Turn		*A*	*0.0*		*A*	*0.0*			*A*	*9.4*		*A*	*0.0*	
62	Sunrise Boulevard & US 50 WB Ramps	Signal	**E**	**68.6**	Signal	**E**	**72.1**	No	Signal	C	23.4	Signal	C	23.8	No
63	Sunrise Boulevard & US 50 EB Ramps	Signal	B	12.0	Signal	B	11.7	No	Signal	B	19.7	Signal	B	15.7	No
64	Sunrise Boulevard & Folsom Boulevard	Signal	D	52.1	Signal	D	54.6	No	Signal	D	51.6	Signal	D	52.7	No

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Table 6.5

CEQA Cumulative Plus FOUR PROJECTS Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		CEQA Cumulative No FOUR PROJECTS			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact	CEQA Cumulative No FOUR PROJECTS			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
65	Sunrise Boulevard & White Rock Road	Signal	**E**	**70.0**	Signal	**E**	**71.4**	No	Signal	**F**	**128.2**	Signal	**F**	**131.9**	No
66	Sunrise Boulevard & International Drive/Monier Circle	Signal	**F**	**115.2**	Signal	**F**	**116.7**	No	Signal	**F**	**82.6**	Signal	**E**	**77.2**	No
67	Sunrise Boulevard & Douglas Road	Signal	**F**	**142.9**	Signal	**F**	**230.7**	Yes	Signal	**E**	**75.5**	Signal	**F**	**115.4**	Yes
68	Sunrise Boulevard & Chrysanthy Boulevard	Signal	D	49.8	Signal	D	47.1	No	Signal	B	11.4	Signal	C	20.6	No
69	Sunrise Boulevard & Kiefer Boulevard	Signal	**F**	**157.5**	Signal	**F**	**443.8**	Yes	Signal	**F**	**133.4**	Signal	**F**	**167.2**	Yes
70	Sunrise Boulevard & Jackson Road	Signal	D	48.8	Signal	**F**	**109.7**	Yes	Signal	D	49.2	Signal	**F**	**89.0**	Yes
71	Sunrise Boulevard & Florin Road	Signal	E	78.7	Signal	E	71.8	No	Signal	E	67.1	Signal	E	78.8	No
72	Sheldon Lake Drive/Sunrise Boulevard & Grant Line Road	Signal	**F**	**149.2**	Signal	**F**	**188.1**	Yes	Signal	E	72.0	Signal	E	79.3	No
73	Hazel Avenue & Tributary Point Drive/US 50 WB Off-ramp	Signal	**F**	**157.9**	Signal	**F**	**156.2**	No	Signal	**F**	**115.7**	Signal	**F**	**119.5**	No
74	Hazel Avenue & US 50 EB Ramps	Signal	B	16.9	Signal	B	17.4	No	Signal	**F**	**83.4**	Signal	**F**	**82.6**	No
76	Prairie City Road & White Rock Road	Signal	**E**	**77.7**	Signal	**F**	**96.4**	Yes	Signal	**F**	**133.7**	Signal	**F**	**137.2**	No
77	Grant Line Road & White Rock Road	Signal	C	30.0	Signal	C	34.2	No	Signal	D	41.1	Signal	D	39.0	No
78	Grant Line Road & Douglas Road	Signal	D	51.8	Signal	D	48.3	No	Signal	**F**	**103.0**	Signal	**E**	**79.7**	No
79	Grant Line Road & Kiefer Boulevard	Signal	C	21.2	Signal	B	19.8	No	Signal	C	22.7	Signal	C	26.2	No
80	Grant Line Road & Jackson Road	Signal	**F**	**104.0**	Signal	**F**	**140.0**	Yes	Signal	**E**	**58.9**	Signal	**F**	**83.0**	Yes

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Table 6.5

CEQA Cumulative Plus FOUR PROJECTS Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		CEQA Cumulative No FOUR PROJECTS			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact	CEQA Cumulative No FOUR PROJECTS			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
81	Watt Avenue & US-50 EB Ramps	Signal	C	24.5	Signal	C	28.5	No	Signal	B	19.3	Signal	B	19.0	No
82	Watt Avenue & US-50 WB Ramps	Signal	**F**	**81.4**	Signal	E	76.2	No	Signal	E	57.1	Signal	E	57.2	No
83	Mayhew Rd & Folsom Blvd.	Signal	C	23.6	Signal	C	34.6	No	Signal	C	26.8	Signal	C	30.9	No
84	65th Street Expy & Fruitridge Road	Signal	D	43.5	Signal	D	44.9	No	Signal	D	43.4	Signal	D	49.8	No
85	Power Inn Road & Elder Creek Road	Signal	E	71.2	Signal	E	75.9	No	Signal	E	55.4	Signal	E	65.2	No
86	Power Inn Road & Florin Rd	Signal	**F**	**99.3**	Signal	**F**	**118.5**	Yes	Signal	E	72.7	Signal	E	79.0	No
87	Florin Perkins Road & Florin Rd	Signal	E	55.8	Signal	E	77.3	No	Signal	**F**	**107.4**	Signal	**F**	**112.0**	No
88	Bradshaw Rd & Calvine Rd	Signal	D	49.6	Signal	D	50.2	No	Signal	C	34.5	Signal	D	44.2	No
89	Vineyard Rd & Calvine Rd	Signal	C	32.0	Signal	D	35.3	No	Signal	C	34.0	Signal	D	36.0	No
90	Excelsior Road & Calvine Rd	Signal	C	21.6	Signal	D	35.0	No	Signal	C	21.7	Signal	C	27.7	No
91	Grant Line Rd & Eagles Nest Rd/Sloughhouse Rd	Signal	**F**	**369.2**	Signal	**F**	**358.4**	No	Signal	**F**	**314.5**	Signal	**F**	**343.5**	Yes
92	Grant Line Rd & Calvine Rd	Signal	D	42.4	Signal	D	47.6	No	Signal	D	40.9	Signal	D	51.2	No
93	Grant Line Rd & Dwy/Wilton Rd	Signal	**F**	**85.4**	Signal	**F**	**89.1**	No	Signal	**E**	**79.3**	Signal	**F**	**103.6**	Yes
94	Grant Line Rd & Bond Rd/Wrangler Dr	Signal	D	54.9	Signal	D	48.3	No	Signal	D	48.0	Signal	D	47.0	No
95	Florin Perkins Road & 14th Avenue	Signal	D	54.3	Signal	**E**	**67.6**	Yes	Signal	D	37.3	Signal	D	54.3	No

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Table 6.5

CEQA Cumulative Plus FOUR PROJECTS Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		CEQA Cumulative No FOUR PROJECTS			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact	CEQA Cumulative No FOUR PROJECTS			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
96	Jackson Road & 14th Avenue	Signal	**F**	**96.3**	Signal	**F**	**166.5**	Yes	Signal	C	33.3	Signal	**F**	**115.4**	Yes
97	Rock Creek Pkwy & Jackson Road	Signal	**F**	**89.0**	Signal	**F**	**201.5**	Yes	Signal	D	49.9	Signal	**F**	**188.2**	Yes
98	Aspen 1 Access Road & Jackson Road	Signal	C	29.7	Signal	C	25.6	No	Signal	D	39.2	Signal	C	23.3	No
99	Rancho Cordova Pkwy & US-50 WB Ramps	Signal	**F**	**147.4**	Signal	**F**	**149.2**	No	Signal	**F**	**119.8**	Signal	**F**	**102.6**	No
100	Rancho Cordova Pkwy & US-50 EB Ramps	Signal	D	53.7	Signal	C	26.7	No	Signal	D	44.4	Signal	D	40.2	No
101	Rancho Cordova Pkwy & Easton Valley Pkwy	Signal	C	30.9	Signal	D	51.2	No	Signal	D	50.3	Signal	D	50.8	No
102	Rancho Cordova Pkwy & White Rock Road	Signal	**F**	**229.8**	Signal	**F**	**221.4**	No	Signal	**F**	**135.6**	Signal	**F**	**135.6**	No
103	Rancho Cordova Pkwy & Douglas Road	Signal	**E**	**65.6**	Signal	**E**	**64.6**	No	Signal	**E**	**60.8**	Signal	**E**	**58.5**	No
104	Rancho Cordova Pkwy & Chrysanthy Boulevard/Chrysanthy Blvd	Signal	**F**	**106.8**	Signal	**F**	**102.9**	No	Signal	**E**	**68.0**	Signal	**E**	**64.2**	No
105	Rancho Cordova Pkwy & Kiefer Blvd	Signal	D	49.4	Signal	**E**	**71.1**	Yes	Signal	C	34.2	Signal	D	52.4	No
106	Rancho Cordova Pkwy & Grant Line Road	Signal	**F**	**87.1**	Signal	**E**	**66.3**	No	Signal	D	46.7	Signal	D	53.7	No
107	Americanos Blvd & White Rock Road	Signal	B	15.0	Signal	B	13.6	No	Signal	C	21.0	Signal	B	18.9	No
108	Americanos Blvd & Douglas Road	Signal	**E**	**61.4**	Signal	**E**	**61.7**	No	Signal	D	43.1	Signal	D	41.0	No
109	Americanos Blvd & Chrysanthy Blvd	Signal	D	41.6	Signal	D	35.1	No	Signal	D	37.3	Signal	D	35.8	No
110	Americanos Blvd & Kiefer Blvd	Signal	A	8.8	Signal	B	15.2	No	Signal	B	11.0	Signal	B	18.6	No

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Table 6.5

CEQA Cumulative Plus FOUR PROJECTS Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		CEQA Cumulative No FOUR PROJECTS			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact	CEQA Cumulative No FOUR PROJECTS			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
111	Grant Line Road & Chrysanthy Blvd	Signal	**F**	**125.9**	Signal	**F**	**114.9**	No	Signal	**F**	**112.9**	Signal	**F**	**111.3**	No
112	Hazel Avenue & Easton Valley Pkwy	Signal	**F**	**188.9**	Signal	**F**	**170.7**	No	Signal	C	26.4	Signal	C	26.5	No
200	Excelsior Road & Collector WJ-1/Collector JT-1	West Jackson/Jackson Township Project Int.			Signal	E	62.6	No	West Jackson/Jackson Township Project Int.			Signal	D	53.1	No
201	Excelsior Road & Collector WJ-2/Collector JT-2	West Jackson/Jackson Township Project Int.			Signal	E	75.4	No	West Jackson/Jackson Township Project Int.			Signal	D	53.6	No
202	W Collector MS-1 & Kiefer Boulevard	Mather South Project Int.			Signal	C	27.0	No	Mather South Project Int.			Signal	B	19.2	No
203	Northbridge Dr & Kiefer Boulevard	NewBridge Project Int.			Signal	B	15.9	No	NewBridge Project Int.			Signal	C	22.5	No
204	E Collector MS-1 & Kiefer Boulevard	Mather South Project Int.			Signal	B	12.4	No	Mather South Project Int.			Signal	C	23.8	No
300	Collector WJ-3 & Jackson Road	West Jackson Project Int.			Signal	D	52.2	No	West Jackson Project Int.			Signal	C	29.0	No
301	Collector WJ-4 & Jackson Road	West Jackson Project Int.			Signal	D	42.1	No	West Jackson Project Int.			Signal	E	76.4	No
302	Happy Lane & Jackson Road	West Jackson Project Int.			Signal	E	60.7	No	West Jackson Project Int.			Signal	E	61.4	No
303	Rock Creek Pkwy & Jackson Road	West Jackson Project Int.			Signal	D	45.8	No	West Jackson Project Int.			Signal	D	42.6	No
304	Collector WJ-5 & Jackson Road	West Jackson Project Int.			Signal	E	72.5	No	West Jackson Project Int.			Signal	D	39.2	No
305	Collector WJ-6 & Jackson Road	West Jackson Project Int.			Signal	D	38.6	No	West Jackson Project Int.			Signal	D	44.3	No
306	Excelsior Road & Collector WJ-6	West Jackson Project Int.			Signal	**F**	**109.6**	Yes	West Jackson Project Int.			Signal	D	44.9	No
307	S. Watt Avenue & Rock Creek Pkwy	West Jackson Project Int.			Signal	C	22.6	No	West Jackson Project Int.			Signal	C	20.3	No

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Table 6.5

CEQA Cumulative Plus FOUR PROJECTS Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		CEQA Cumulative No FOUR PROJECTS			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact	CEQA Cumulative No FOUR PROJECTS			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
308	Hedge Avenue & Rock Creek Pkwy WB	West Jackson Project Int.			Roundabout	**F**	**77.3**	Yes	West Jackson Project Int.			Roundabout	C	17.0	No
309	Hedge Avenue & Rock Creek Pkwy EB	West Jackson Project Int.			Roundabout	C	16.0	No	West Jackson Project Int.			Roundabout	B	11.1	No
310	Mayhew Road & Rock Creek Pkwy WB	West Jackson Project Int.			Roundabout	**F**	**341.2**	Yes	West Jackson Project Int.			Roundabout	**F**	**348.9**	Yes
311	Mayhew Road & Rock Creek Pkwy EB	West Jackson Project Int.			Roundabout	**F**	**254.9**	Yes	West Jackson Project Int.			Roundabout	**F**	**204.0**	Yes
312	Bradshaw Road & Rock Creek Pkwy	West Jackson Project Int.			Signal	E	79.5	No	West Jackson Project Int.			Signal	E	76.7	No
313	Collector WJ-7 & Rock Creek Pkwy	West Jackson Project Int.			Signal	B	18.1	No	West Jackson Project Int.			Signal	B	16.7	No
314	Vineyard Road/Happy Lane & Rock Creek Pkwy	West Jackson Project Int.			Signal	E	56.0	No	West Jackson Project Int.			Signal	**F**	**88.7**	Yes
315	Douglas Road & Rock Creek Pkwy	West Jackson Project Int.			Signal	D	42.2	No	West Jackson Project Int.			Signal	D	41.3	No
316	Bradshaw Road & Collector WJ-8	West Jackson Project Int.			Signal	D	46.1	No	West Jackson Project Int.			Signal	C	27.7	No
317	Bradshaw Road & Collector WJ-9	West Jackson Project Int.			Signal	E	57.9	No	West Jackson Project Int.			Signal	D	41.4	No
318	Bradshaw Road & Mayhew Road	West Jackson Project Int.			Signal	**F**	**185.3**	Yes	West Jackson Project Int.			Signal	**F**	**132.9**	Yes
319	Bradshaw Road & Collector WJ-10	West Jackson Project Int.			Signal	B	10.5	No	West Jackson Project Int.			Signal	C	30.6	No
320	Bradshaw Road & Collector WJ-11	West Jackson Project Int.			Signal	B	14.0	No	West Jackson Project Int.			Signal	C	30.6	No
321	Collector WJ-12 & Fruitridge Road	West Jackson Project Int.			Signal	C	31.3	No	West Jackson Project Int.			Signal	D	46.9	No
322	Mayhew Road & Collector WJ-13	West Jackson Project Int.			Signal	B	17.0	No	West Jackson Project Int.			Signal	C	20.8	No

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Table 6.5

CEQA Cumulative Plus FOUR PROJECTS Intersection Levels of Service

Intersection		AM Peak Hour							PM Peak Hour						
		CEQA Cumulative No FOUR PROJECTS			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact	CEQA Cumulative No FOUR PROJECTS			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
323	Collector WJ-14 & Kiefer Boulevard	West Jackson Project Int.			Signal	E	59.1	No	West Jackson Project Int.			Signal	E	69.2	No
324	Collector WJ-15 & Kiefer Boulevard	West Jackson Project Int.			Signal	D	41.9	No	West Jackson Project Int.			Signal	C	29.5	No
325	Douglas Road & Kiefer Boulevard	West Jackson Project Int.			Signal	**F**	**223.6**	Yes	West Jackson Project Int.			Signal	**F**	**141.7**	Yes
326	Happy Lane & Mayhew Road	West Jackson Project Int.			Roundabout	**F**	**277.4**	Yes	West Jackson Project Int.			Roundabout	**F**	**204.6**	Yes
327	Vineyard Road & Elder Creek Road	West Jackson Project Int.			Signal	E	77.7	No	West Jackson Project Int.			Signal	D	51.3	No
328	Vineyard Road & Florin Road	Signal	B	11.2	Signal	**F**	**104.2**	Yes	Signal	B	12.6	Signal	E	55.9	No
400	Collector JT-3 & Jackson Road	Jackson Township Project Int.			Signal	**F**	**88.1**	Yes	Jackson Township Project Int.			Signal	D	49.8	No
401	Tree View Lane & Jackson Road	Jackson Township Project Int.			Signal	C	27.0	No	Jackson Township Project Int.			Signal	A	8.9	No
402	Collector JT-4 & Jackson Road	Jackson Township Project Int.			Signal	E	77.3	No	Jackson Township Project Int.			Signal	B	17.4	No
403	Tree View Lane & Collector JT-5	Jackson Township Project Int.			Signal	B	19.1	No	Jackson Township Project Int.			Signal	C	21.3	No
404	Tree View Lane & Collector JT-6	Jackson Township Project Int.			Signal	B	10.1	No	Jackson Township Project Int.			Signal	B	18.2	No
405	Tree View Lane & Collector JT-1	Jackson Township Project Int.			Signal	C	29.2	No	Jackson Township Project Int.			Signal	C	26.3	No
406	Tree View Lane & Kiefer Boulevard	Jackson Township Project Int.			Signal	B	18.6	No	Jackson Township Project Int.			Signal	B	19.1	No
407	HS/MS Dwy & Kiefer Boulevard	Jackson Township Project Int.			Signal	C	34.6	No	Jackson Township Project Int.			Signal	C	34.7	No
500	Rockbridge Dr & Jackson Road	NewBridge Project Int.			Signal	E	75.4	No	NewBridge Project Int.			Signal	C	20.7	No

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CEQA Cumulative Plus FOUR PROJECTS Intersection Levels of Service

	Intersection	AM Peak Hour							PM Peak Hour						
		CEQA Cumulative No FOUR PROJECTS			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact	CEQA Cumulative No FOUR PROJECTS			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
501	Eagles Nest Road & N Bridgewater Dr	NewBridge Project Int.			Signal	A	7.4	No	NewBridge Project Int.			Signal	B	10.6	No
502	Eagles Nest Road & S Bridgewater Dr	NewBridge Project Int.			Signal	C	31.8	No	NewBridge Project Int.			Signal	C	27.8	No
600	Zinfandel Drive & Collector MS-2	Mather South Project Int.			Signal	B	18.4	No	Mather South Project Int.			Signal	D	45.4	No
601	Zinfandel Drive & Collector MS-3	Mather South Project Int.			Signal	C	32.5	No	Mather South Project Int.			Signal	B	15.9	No
602	Zinfandel Drive & Collector MS-4	Mather South Project Int.			Signal	D	51.3	No	Mather South Project Int.			Signal	C	24.8	No
603	Collector MS-5 & Collector MS-2	Mather South Project Int.			All-way stop	B	11.7	No	Mather South Project Int.			All-way stop	B	12.8	No
604	Collector MS-5 & Collector MS-3	Mather South Project Int.			Two-way stop	B	11.4	No	Mather South Project Int.			Two-way stop	C	19.2	No
	Northbound Left Turn					*A*	*7.5*						*A*	*8.1*	
	Southbound Left Turn					*A*	*0.0*						*A*	*0.0*	
	Eastbound					*B*	*12.7*						***F***	***56.1***	
	Westbound					*C*	*17.6*						*E*	*45.5*	
605	Collector MS-5 & Collector MS-4	Mather South Project Int.			All-way stop	**F**	**55.5**	Yes	Mather South Project Int.			All-way stop	E	43.1	No
606	Collector MS-5 & W Collector MS-1/E Collector MS-1	Mather South Project Int.			All-way stop	E	40.3	No	Mather South Project Int.			All-way stop	E	41.4	No

Note: Gray shading represents changes in traffic control for which the project is responsible to pay a fair share.

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Table 6.6

CEQA Cumulative and CEQA Cumulative Plus FOUR PROJECTS Intersection Geometrics

	Intersection	Traffic Control		CEQA Cumulative Lane Geometrics				CEQA Cumulative Plus FOUR PROJECTS Lane Geometrics				Project(s) Responsible for Change
		CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach	
1	Howe Avenue & College Town Drive/US 50 WB Ramps	Signal	Signal	1!1!1!r	2!1!1!1!1!	4!rr	3!3!4!2!rr	1!1!1!r	2!1!1!1!1!	4!rr	3!3!4!2!rr	
2	Howe Avenue & US 50 EB Ramps	Signal	Signal	1!1!1!r	2!1!1!1!	3!3!rr		1!1!1!r	2!1!1!1!	3!3!rr		
3	Power Inn Road/Howe Avenue & Folsom Blvd	Signal	Signal	3!3!1!1!1!r	2!1!1!1!3!3!	3!3!1!2!	3!3!1!1!rr	3!3!1!1!1!r	2!1!1!1!3!3!	3!3!1!2!	3!3!1!1!rr	
4	Power Inn Road & 14th Avenue	Signal	Signal	3!1!1!2!	2!1!1!1!3!	3!1!2!	3!1!r	3!1!1!2!	2!1!1!1!3!	3!1!2!	3!1!r	
5	Power Inn Road & Fruitridge Road	Signal	Signal	3!3!1!2!	2!1!1!3!3!	3!1!2!	3!1!1!r	3!3!1!2!	2!1!1!3!3!	3!1!2!	3!1!1!r	
6	Jackson Road/Notre Dame Dr. & Folsom Blvd.	Signal	Signal	3!3!r	2!2!	3!1!1!r	3!1!1!r	3!3!r	2!2!	3!1!1!r	3!1!1!r	
7	Florin Perkins Road/Julliard Dr. & Folsom Boulevard	Signal	Signal	3!3!r	4!2!	3!1!1!r	3!1!2!	3!3!r	4!2!	3!1!1!r	3!1!2!	
8	Florin Perkins Road & Kiefer Blvd.	Two-way stop	Two-way stop	1!2!	1!1!3!		3!r	1!2!	1!1!3!		3!r	
9	Florin Perkins Road & Jackson Road	Signal	Signal	3!1!1!r	4!1!3!	3!1!1!r	3!1!2!	3!1!1!r	4!1!3!	3!1!1!r	3!1!2!	
10	Florin Perkins Road & Fruitridge Road	Signal	Signal	3!1!1!r	2!1!1!3!	3!1!1!r	3!1!2!	3!1!1!r	2!1!1!3!	3!1!1!r	3!1!2!	
11	Florin Perkins Road & Elder Creek Road	Signal	Signal	3!1!1!r	2!1!1!3!	3!1!1!r	3!1!1!r	3!1!1!r	2!1!1!3!	3!1!1!r	3!1!1!r	
12	Watt Avenue & Folsom Blvd.	Signal	Signal	3!3!1!1!1!r	2!1!1!1!3!3!	3!3!1!1!r	3!3!1!1!r	3!3!1!1!1!r	2!1!1!1!3!3!	3!3!1!1!r	3!3!1!1!r	
13	S. Watt Ave. & Reith Ct/Manlove Road	Signal	Signal	3!1!1!1!r	4!1!1!3!	Y	3!1!2!r	3!1!1!1!r	4!1!1!3!	Y	3!1!2!r	
14	S. Watt Avenue & Kiefer Blvd.	Signal	Signal	3!3!1!1!2!	4!1!1!3!3!	3!3!1!1!r	3!3!1!1!r	3!3!1!1!2!	4!1!1!3!3!	3!3!1!1!r	3!3!1!1!r	
15	S. Watt Avenue & Canberra Dr.	Signal	Signal	1!1!2!	1!1!1!3!		3!r	1!1!2!	1!1!1!3!		3!r	
16	S. Watt Avenue & Jackson Road	Signal	Signal	3!3!1!1!1!r	2!1!1!1!3!3!	3!3!1!1!r	3!3!1!1!r	3!3!1!1!1!r	2!1!1!1!3!3!	3!3!1!1!r	3!3!1!1!r	West Jackson
17	S. Watt Avenue & Fruitridge Road	Signal	Signal	3!1!1!1!r	2!1!1!1!3!	3!1!r	3!2!	3!1!1!1!r	2!1!1!1!3!	3!1!r	3!1!2!	West Jackson
18	S. Watt Avenue & Elder Creek Road	Signal	Signal	3!3!1!1!1!r	2!1!1!1!3!3!	3!3!1!1!r	3!1!1!r	3!3!1!1!1!r	2!1!1!1!3!3!	3!3!1!1!r	3!1!1!r	
20	Elk Grove Florin Road/S. Watt Ave. & Florin Road	Signal	Signal	3!3!1!1!1!r	2!1!1!1!3!3!	3!1!1!r	3!1!1!r	3!3!1!1!1!r	2!1!1!1!3!3!	3!1!1!r	3!1!1!r	
21	Elk Grove Florin Road & Gerber Road	Signal	Signal	3!3!1!1!1!r	2!1!1!1!3!3!	3!3!1!1!r	3!3!1!1!r	3!3!1!1!1!r	2!1!1!1!3!3!	3!3!1!1!r	3!3!1!1!r	
23	Hedge Avenue & Jackson Road	Signal	Signal	3!2!	4!3!	3!1!1!r	3!1!1!r	3!2!	4!3!	3!1!2!	3!1!2!	West Jackson
24	Hedge Avenue & Fruitridge Road	All-way stop	Signal	Y	A	Y	Y	3!1!r	2!1!3!	3!1!2!	3!1!2!	West Jackson
25	Hedge Avenue & Elder Creek Road	Signal	Signal	3!1!r	2!1!3!	3!1!2!	3!1!2!	3!1!r	2!1!3!	3!1!2!	3!1!2!	
26	Hedge Avenue & Tokay Lane	Two-way stop	Two-way stop	Y	A	Y	Y	Y	A	Y	Y	
27	Hedge Avenue & Florin Road	Signal	Signal	Y	A	3!1!2!	3!1!2!	Y	A	3!1!2!	3!1!2!	
28	Mayhew Road & Kiefer Boulevard	Signal	Signal	3!1!r	2!1!3!	3!1!2!	3!1!2!	3!1!r	2!1!3!	3!1!2!	3!1!2!	

Note: Gray shading represents changes in traffic control or approach lanes for which the project is responsible to pay a fair share.

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Table 6.6

CEQA Cumulative and CEQA Cumulative Plus FOUR PROJECTS Intersection Geometrics

	Intersection	Traffic Control		CEQA Cumulative Lane Geometrics				CEQA Cumulative Plus FOUR PROJECTS Lane Geometrics				Project(s) Responsible for Change
		CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach	
29	Mayhew Road & Jackson Road	Two-way stop	Signal									West Jackson
30	Mayhew Road & Fruitridge Road	Two-way stop	Signal									West Jackson
31	Mayhew Road & Elder Creek Road	Signal	Signal									West Jackson
32	Zinfandel Drive & Woodring Drive	Two-way stop	Two-way stop									
33	Bradshaw Road & Folsom Blvd.	Signal	Signal									
34	Bradshaw Road & US 50 WB Ramps	Signal	Signal									
35	Bradshaw Road & US 50 EB Ramps	Signal	Signal									
36	Bradshaw Road & Old Placerville Road	Signal	Signal									
37	Bradshaw Road & Kiefer Boulevard	Signal	Signal									West Jackson
38	Bradshaw Road & Jackson Road	Signal	Signal									West Jackson
39	Bradshaw Road & Elder Creek Road	Signal	Signal									West Jackson
40	Bradshaw Road & Florin Road	Signal	Signal									
41	Bradshaw Road & Gerber Road	Signal	Signal									
42	Happy Lane & Old Placerville Road	Two-way stop	Two-way stop									
43	Happy Lane & Kiefer Boulevard		Signal									West Jackson
44	Excelsior Road & Kiefer Boulevard	Two-way stop	Signal									West Jackson; Jackson Township
45	Excelsior Road & Jackson Road	Signal	Signal									West Jackson; Jackson Township
46	Excelsior Road & Elder Creek Road	Two-way stop	Signal									West Jackson
47	Excelsior Road & Florin Road	All-way stop	Signal									West Jackson
48	Excelsior Road & Gerber Road/Birch Ranch Drive	All-way stop	All-way stop									
49	Mather Field Road & US 50 WB Ramps	Signal	Signal									
50	Mather Field Road & US 50 EB Ramps	Signal	Signal									
51	Mather Field Road & Rockingham Drive	Signal	Signal									
52	Mather Boulevard & Douglas Road	Signal	Signal									
53	Zinfandel Drive & US 50 WB Ramps	Signal	Signal									

Note: Gray shading represents changes in traffic control or approach lanes for which the project is responsible to pay a fair share.

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Table 6.6

CEQA Cumulative and CEQA Cumulative Plus FOUR PROJECTS Intersection Geometrics

	Intersection	Traffic Control		CEQA Cumulative Lane Geometrics				CEQA Cumulative Plus FOUR PROJECTS Lane Geometrics				Project(s) Responsible for Change
		CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach	
54	Zinfandel Drive & US 50 EB Ramps/Gold Center Drive	Signal	Signal									
55	Zinfandel Drive & White Rock Road	Signal	Signal									
56	Zinfandel Drive & Data Drive	Signal	Signal									
57	Zinfandel Drive & International Dr	Signal	Signal									
58	Zinfandel Drive & Douglas Road	Signal	Signal									
59	Eagles Nest Road/Zinfandel Drive & Kiefer Boulevard	Two-way stop	Signal									NewBridge; Mather South
60	Eagles Nest Road & Jackson Road	Signal	Signal									NewBridge
61	Eagles Nest Road & Florin Road	Two-way stop	Two-way stop									
62	Sunrise Boulevard & US 50 WB Ramps	Signal	Signal									
63	Sunrise Boulevard & US 50 EB Ramps	Signal	Signal									
64	Sunrise Boulevard & Folsom Boulevard	Signal	Signal									
65	Sunrise Boulevard & White Rock Road	Signal	Signal									
66	Sunrise Boulevard & International Drive/Monier Circle	Signal	Signal									
67	Sunrise Boulevard & Douglas Road	Signal	Signal									
68	Sunrise Boulevard & Chrysanthy Boulevard	Signal	Signal									
69	Sunrise Boulevard & Kiefer Boulevard	Signal	Signal									NewBridge; Mather South
70	Sunrise Boulevard & Jackson Road	Signal	Signal									
71	Sunrise Boulevard & Florin Road	Signal	Signal									
72	Sheldon Lake Drive/Sunrise Boulevard & Grant Line Road	Signal	Signal									
73	Hazel Avenue & Tributary Point Drive/US 50 WB Off-ramp	Signal	Signal									
74	Hazel Avenue & US 50 EB Ramps	Signal	Signal									
75	Hazel Avenue & Folsom Boulevard											
76	Prairie City Road & White Rock Road	Signal	Signal									
77	Grant Line Road & White Rock Road	Signal	Signal									
78	Grant Line Road & Douglas Road	Signal	Signal									

Note: Gray shading represents changes in traffic control or approach lanes for which the project is responsible to pay a fair share.

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Table 6.6

CEQA Cumulative and CEQA Cumulative Plus FOUR PROJECTS Intersection Geometrics

	Intersection	Traffic Control		CEQA Cumulative Lane Geometrics				CEQA Cumulative Plus FOUR PROJECTS Lane Geometrics				Project(s) Responsible for Change
		CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach	
79	Grant Line Road & Kiefer Boulevard	Signal	Signal	3TR	2L	3T	T	3TR	2L	3T	T	
80	Grant Line Road & Jackson Road	Signal	Signal	3TR	2L	3TR	3TR	3TR	2L	3TR	3TR	
81	Watt Avenue & US-50 EB Ramps	Signal	Signal	TTTR	2T	3TT		TTTR	2T	3TT		
82	Watt Avenue & US-50 WB Ramps	Signal	Signal	TT 2R	2T		3TTR	TT 2R	2T		3TTR	
83	Mayhew Rd & Folsom Blvd.	Signal	Signal	3TR		TT R	TTT	3TR		TT R	TTT	
84	65th Street Expy & Fruitridge Road	Signal	Signal	TTT R	2L	TTT	TTT R	TTT R	2L	TTT	TTT R	
85	Power Inn Road & Elder Creek Road	Signal	Signal	TT2	T	TTT R	TT 2	TT2	T	TTT R	TT 2	
86	Power Inn Road & Florin Rd	Signal	Signal	TT2	2L	TTT 2	TTTT R	TT2	2L	TTT 2	TTTT R	
87	Florin Perkins Road & Florin Rd	Signal	Signal	TTT R	2L	TT 2	TTT R	TTT R	2L	TT 2	TTT R	
88	Bradshaw Rd & Calvine Rd	Signal	Signal	3TT2	2L	3TTTT R	3TTTT R	3TT2	2L	3TTTT R	3TTTT R	
89	Vineyard Rd & Calvine Rd	Signal	Signal	Y	2L	TT 2	TT 2	Y	2L	TT 2	TT 2	
90	Excelsior Road & Calvine Rd	Signal	Signal	TT R	2L	TT 2	TT 2	TT R	2L	TT 2	TT 2	
91	Grant Line Rd & Eagles Nest Rd/Sloughhouse Rd	Signal	Signal	TTT R	T	Y	T2	TTT R	T	Y	T2	
92	Grant Line Rd & Calvine Rd	Signal	Signal	TTT	T	T R		TTT	T	T R		
93	Grant Line Rd & Dwy/Wilton Rd	Signal	Signal	TT2	T	T2	T2	TT2	T	T2	T2	
94	Grant Line Rd & Bond Rd/Wrangler Dr	Signal	Signal	TT2	2L	T R	Y	TT2	2L	T R	Y	
95	Florin Perkins Road & 14th Avenue	Signal	Signal	3TTT R	2L	3TTT R	3TTT R	3TTT R	2L	3TTT R	3TTT R	
96	Jackson Road & 14th Avenue	Signal	Signal		3L	TTT	TT R		3L	TTT	TT R	
97	Rock Creek Pkwy & Jackson Road	Signal	Signal	TT R	2L	TT 2	TT 2	TT R	2L	TT 2	TT 2	
98	Aspen 1 Access Road & Jackson Road	Signal	Signal	T R		T 2	TTT	T R		T 2	TTT	
99	Rancho Cordova Pkwy & US-50 WB Ramps	Signal	Signal	3T			T4	3T			T4	
100	Rancho Cordova Pkwy & US-50 EB Ramps	Signal	Signal	T 2R	TTL	Y R		T 2R	TTL	Y R		
101	Rancho Cordova Pkwy & Easton Valley Pkwy	Signal	Signal	TTT R	TTTL		3TR	TTT R	TTTL		3TR	
102	Rancho Cordova Pkwy & White Rock Road	Signal	Signal	3TTTT R	2L	3TTT R	3TTT R	3TTTT R	2L	3TTT R	3TTT R	
103	Rancho Cordova Pkwy & Douglas Road	Signal	Signal	3TTT R	2L	3TTTT R	3TTTT R	3TTT R	2L	3TTTT R	3TTTT R	
104	Rancho Cordova Pkwy & Chrysanthy Boulevard/Chrysanthy Blvd	Signal	Signal	3TTT R	2L	3TTT R	3TTT R	3TTT R	2L	3TTT R	3TTT R	

Note: Gray shading represents changes in traffic control or approach lanes for which the project is responsible to pay a fair share.

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Table 6.6

CEQA Cumulative and CEQA Cumulative Plus FOUR PROJECTS Intersection Geometrics

Intersection		Traffic Control		CEQA Cumulative Lane Geometrics				CEQA Cumulative Plus FOUR PROJECTS Lane Geometrics				Project(s) Responsible for Change
		CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach	
105	Rancho Cordova Pkwy & Kiefer Blvd	Signal	Signal	↰↑↱	↲↓↘	↰↑ ↱	↰↑ ↱	↰↑↱	↲↓↘	↰↑ ↱	↰↑ ↱	
106	Rancho Cordova Pkwy & Grant Line Road	Signal	Signal		↲↘	↰↑↑	↑↑ ↱		↲↘	↰↑↑	↑↑ ↱	
107	Americanos Blvd & White Rock Road	Signal	Signal	↰↱		↑↑ ↱	↰↰↑↑	↰↱		↑↑ ↱	↰↰↑↑	
108	Americanos Blvd & Douglas Road	Signal	Signal	↰↑↱	↲↓↘	↰↑↑ ↱	↰↑↑ ↱	↰↑↱	↲↓↘	↰↑↑ ↱	↰↑↑ ↱	
109	Americanos Blvd & Chrysanthy Blvd	Signal	Signal	↰↱	↿↘	↰↑ ↱	↰↱	↰↱	↿↘	↰↑ ↱	↰↱	
110	Americanos Blvd & Kiefer Blvd	Signal	Signal		↿	↰	↱		↿	↰	↱	
111	Grant Line Road & Chrysanthy Blvd	Signal	Signal	↰↑↑ ↱	↲↓↓↘↘	↰↱	↰↑ ↱	↰↑↑ ↱	↲↓↓↘↘	↰↱	↰↑ ↱	
112	Hazel Avenue & Easton Valley Pkwy	Signal	Signal	↰↑↱	↲↓↘↘	↰↰↑↑ ↱	↰↑↑ ↱	↰↑↱	↲↓↘↘	↰↰↑↑ ↱	↰↑↑ ↱	
200	Excelsior Road & Collector WJ-1/Collector JT-1		Signal					↰↑↱	↿↓↘	↰↑ ↱	↰↑ ↱	West Jackson; Jackson Township
201	Excelsior Road & Collector WJ-2/Collector JT-2		Signal					↰↑↱	↿↓↘	↰↑ ↱	↰↑ ↱	West Jackson; Jackson Township
202	W Collector MS-1 & Kiefer Boulevard		Signal						↲↘	↰↰↑↑	↑ ↱	NewBridge; Mather South
203	Northbridge Dr & Kiefer Boulevard		Signal					↰↱		↑ ↱	↰↑↑	NewBridge; Mather South
204	E Collector MS-1 & Kiefer Boulevard		Signal						↲↘	↰↑↑	↑↑ ↱	NewBridge; Mather South
300	Collector WJ-3 & Jackson Road		Signal					↰↱		↑ ↱	↰↑↑	West Jackson
301	Collector WJ-4 & Jackson Road		Signal					↰↑↱	↲↓↘	↰↑↑ ↱	↰↑↑ ↱	West Jackson
302	Happy Lane & Jackson Road		Signal					↰↰↑↑ ↱	↲↓↓↘↘	↰↰↑↑↑ ↱	↰↰↑↑↑ ↱	West Jackson
303	Rock Creek Pkwy & Jackson Road		Signal					↰↑↱	↲↓↘	↰↰↑↑ ↱	↰↰↑↑ ↱	West Jackson
304	Collector WJ-5 & Jackson Road		Signal					↰↑↱	↲↓↘	↰↑↑ ↱	↰↑↑ ↱	West Jackson
305	Collector WJ-6 & Jackson Road		Signal					↰↑↱	↲↓↘	↰↑↑ ↱	↰↑↑ ↱	West Jackson
306	Excelsior Road & Collector WJ-6		Signal					↰↑	↿↓	↰↱		West Jackson
307	S. Watt Avenue & Rock Creek Pkwy		Signal					↑↑ ↱	↓↓↓↘↘		↰↱	West Jackson
308	Hedge Avenue & Rock Creek Pkwy WB		Roundabout					↰	↿		↰	West Jackson
309	Hedge Avenue & Rock Creek Pkwy EB		Roundabout					↑↱	↓↿	↰↱		West Jackson
310	Mayhew Road & Rock Creek Pkwy WB		Roundabout					↰↑	↿↓		↰	West Jackson

Note: Gray shading represents changes in traffic control or approach lanes for which the project is responsible to pay a fair share.

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Table 6.6

CEQA Cumulative and CEQA Cumulative Plus FOUR PROJECTS Intersection Geometrics

Intersection		Traffic Control		CEQA Cumulative Lane Geometrics				CEQA Cumulative Plus FOUR PROJECTS Lane Geometrics				Project(s) Responsible for Change
		CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach	
311	Mayhew Road & Rock Creek Pkwy EB		Roundabout									West Jackson
312	Bradshaw Road & Rock Creek Pkwy		Signal									West Jackson
313	Collector WJ-7 & Rock Creek Pkwy		Signal									West Jackson
314	Vineyard Road/Happy Lane & Rock Creek Pkwy		Signal									West Jackson
315	Douglas Road & Rock Creek Pkwy		Signal									West Jackson
316	Bradshaw Road & Collector WJ-8		Signal									West Jackson
317	Bradshaw Road & Collector WJ-9		Signal									West Jackson
318	Bradshaw Road & Mayhew Road		Signal									West Jackson
319	Bradshaw Road & Collector WJ-10		Signal									West Jackson
320	Bradshaw Road & Collector WJ-11		Signal									West Jackson
321	Collector WJ-12 & Fruitridge Road		Signal									West Jackson
322	Mayhew Road & Collector WJ-13		Signal									West Jackson
323	Collector WJ-14 & Kiefer Boulevard		Signal									West Jackson
324	Collector WJ-15 & Kiefer Boulevard		Signal									West Jackson
325	Douglas Road/Shopping Center Dwy & Kiefer Boulevard		Signal									West Jackson
326	Happy Lane & Mayhew Road		Roundabout									West Jackson
327	Vineyard Road & Elder Creek Road		Signal									West Jackson
328	Vineyard Road & Florin Road	Signal	Signal									West Jackson
400	Collector JT-3 & Jackson Road		Signal									Jackson Township
401	Tree View Lane & Jackson Road		Signal									Jackson Township
402	Collector JT-4 & Jackson Road		Signal									Jackson Township
403	Tree View Lane & Collector JT-5		Signal									Jackson Township
404	Tree View Lane & Collector JT-6		Signal									Jackson Township
405	Tree View Lane & Collector JT-1		Signal									Jackson Township
406	Tree View Lane & Kiefer Boulevard		Signal									Jackson Township
407	HS/MS Dwy & Kiefer Boulevard		Signal									Jackson Township

Note: Gray shading represents changes in traffic control or approach lanes for which the project is responsible to pay a fair share.

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Table 6.6

CEQA Cumulative and CEQA Cumulative Plus FOUR PROJECTS Intersection Geometrics

Intersection		Traffic Control		CEQA Cumulative Lane Geometrics				CEQA Cumulative Plus FOUR PROJECTS Lane Geometrics				Project(s) Responsible for Change
		CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach	
500	Rockbridge Dr & Jackson Road		Signal									NewBridge
501	Zinfandel Drive & N Bridgewater Dr		Signal									NewBridge
502	Zinfandel Drive & S Bridgewater Dr		Signal									NewBridge
600	Zinfandel Drive & Collector MS-2		Signal									Mather South
601	Zinfandel Drive & Collector MS-3		Signal									Mather South
602	Zinfandel Drive & Collector MS-4		Signal									Mather South
603	Collector MS-5 & Collector MS-2		All-way stop									Mather South
604	Collector MS-5 & Collector MS-3		Two-way stop									Mather South
605	Collector MS-5 & Collector MS-4		All-way stop									Mather South
606	Collector MS-5 & W Collector MS-1/E Collector MS-1		All-way stop									Mather South

Note: Gray shading represents changes in traffic control or approach lanes for which the project is responsible to pay a fair share.

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Table 6.7: CEQA Cumulative Plus FOUR PROJECTS Peak Hour Freeway Mainline Level of Service									
Direc-tion	**Location**	**CEQA Cumulative**				**CEQA Cumulative Plus FOUR PROJECTS**			
		AM Peak Hour		**PM Peak Hour**		**AM Peak Hour**		**PM Peak Hour**	
		Volume	**LOS**	**Volume**	**LOS**	**Volume**	**LOS**	**Volume**	**LOS**
East-bound US 50	SR 99 / SR 51 to Stockton Boulevard	8,778	D	8,638	D	9,385	D	8,839	D
	Stockton Boulevard to 59th Street	8,188	**F**	7,819	**F**	8,702	**F**	7,978	**F**
	59th Street to 65th Street	7,646	D	7,343	D	8,152	E	7,464	D
	65th Street to Howe Avenue	8,029	D	7,667	D	8,350	D	7,706	D
	Howe Avenue to Watt Avenue	7,220	C	6,672	C	7,399	C	6,603	C
	Watt Avenue to Bradshaw Road	9,656	**F**	8,982	E	9,963	**F**	9,077	E
	Bradshaw Rd to Mather Field Rd	9,485	**F**	9,052	C	9,496	**F**	9,069	C
	Mather Field Rd to Zinfandel Drive	9,094	D	8,767	D	9,132	D	8,895	D
	Zinfandel Drive to Sunrise Blvd	6,314	C	6,370	**F**	6,384	C	6,543	**F**
	Sunrise Bl to Rancho Cordova Pkwy	5,809	C	5,878	**F**	5,850	C	6,056	**F**
	Rancho Cordova Pkwy to Hazel Ave	7,142	D	6,636	**F**	7,229	D	6,892	**F**
West-bound US 50	Hazel Ave to Rancho Cordova Pkwy	5,378	B	5,162	C	5,639	B	5,168	C
	Rancho Cordova Pkwy to Sunrise Bl	6,919	C	4,366	B	7,087	C	4,367	B
	Sunrise Blvd to Zinfandel Drive	8,607	D	5,233	B	8,817	D	5,341	B
	Zinfandel Drive to Mather Field Rd	9,513	D	7,406	C	9,550	D	7,364	C
	Mather Field Rd to Bradshaw Road	9,597	**F**	8,720	D	9,505	**F**	8,509	D
	Bradshaw Road to Watt Avenue	9,008	**F**	7,882	D	8,892	**F**	8,155	E
	Watt Avenue to Howe Avenue	7,897	**F**	5,892	**F**	7,574	**F**	6,154	**F**
	Howe Avenue to 65th Street	8,782	**F**	8,070	**F**	8,880	**F**	8,388	**F**
	65th Street to 59th Street	8,822	**F**	7,978	**F**	8,932	**F**	8,324	**F**
	59th Street to Stockton Boulevard	9,698	D	8,294	**F**	9,795	D	8,712	**F**
	Stockton Boulevard to SR 99 / SR 51	10,176	E	9,674	**F**	10,262	E	9,963	**F**

Bold values denote level of service "F" conditions.

Red shaded values indicate project impacts.

Source: *DKS Associates, 2014.*

6.4.4 CEQA Cumulative Plus FOUR PROJECTS Pedestrian and Bicycle Facility Impacts

The FOUR PROJECTS would not remove any existing or planned pedestrian facility that is planned in the Bikeway Master Plan. The FOUR PROJECTS would add pedestrian and bicycle demands within the FOUR PROJECTS site and to and from nearby land uses. Specific information on improvements to on- and off-site bicycle and pedestrian facilities is not available at this time. Because the FOUR PROJECTS would add demand for pedestrian and bicycle facilities that may not be available, the impact of the FOUR PROJECTS on pedestrian and bicycle circulation is potentially significant.

Table 6.8: CEQA Cumulative Plus FOUR PROJECTS Peak Hour Freeway Ramp Junction/Weaving Level of Service										
Direc-tion	**Location**	**Junction Type**	**CEQA Cumulative**				**CEQA Cumulative Plus FOUR PROJECTS**			
			A.M. Peak Hour		**P.M. Peak Hour**		**A.M. Peak Hour**		**P.M. Peak Hour**	
			Ramp Volume	**LOS**	**Ramp Volume**	**LOS**	**Ramp Volume**	**LOS**	**Ramp Volume**	**LOS**
East-bound US 50	Northbound 65th Street Slip Entrance	Weave	946	**F**	778	**F**	953	**F**	701	**F**
	Howe Avenue / Hornet Drive Exit		2,093		2,125		2,176		2,265	
	Southbound Howe Avenue Loop Entrance	One-Lane Merge	754	D	1,336	D	730	D	1,291	D
	Northbound Howe Avenue Slip Entrance	One-Lane Merge	619	D	541	D	523	D	564	D
	Watt Avenue Exit	Two-Lane Diverge	1,523	B	1,707	B	1,495	B	1,535	A
	Southbound Watt Avenue Loop Entrance	One-Lane Merge	1,612	D	1,365	C	1,506	D	1,218	C
	Northbound Watt Avenue Slip Entrance	One-Lane Merge	675	D	591	C	700	D	656	C
	Bradshaw Road Exit	Two-Lane Diverge	2,068	**F**	1,624	B	2,336	**F**	1,826	C
	Southbound Bradshaw Road Loop Entrance	One-Lane Merge	270	D	426	D	257	D	500	D
	Northbound Bradshaw Road Slip Entrance	One-Lane Merge	1,480	D	1,027	D	1,492	D	1,152	C

Table 6.8
CEQA Cumulative Plus FOUR PROJECTS Peak Hour Freeway Ramp Junction/Weaving Level of Service

Direc-tion	Location	Junction Type	CEQA Cumulative				CEQA Cumulative Plus FOUR PROJECTS			
			A.M. Peak Hour		P.M. Peak Hour		A.M. Peak Hour		P.M. Peak Hour	
			Ramp Volume	LOS	Ramp Volume	LOS	Ramp Volume	LOS	Ramp Volume	LOS
	Mather Field Road Exit	Two-Lane Diverge	1,493	B	1,536	B	1,480	B	1,502	B
	Southbound Mather Field Road Loop Entrance	One-Lane Merge	246	C	211	C	242	C	168	C
	Northbound Mather Field Road Slip Entrance	Weave	434	**F**	897	**F**	472	**F**	1,061	**F**
	Zinfandel Drive Exit		3,088		1,866		3,084		1,811	
	Southbound Zinfandel Drive Loop Entrance	One-Lane Merge	186	C	178	C	183	C	148	C
	Northbound Zinfandel Drive Slip Entrance	Lane Addition	648	A	707	B	712	B	783	B
	Sunrise Boulevard Exit	Major Diverge	1,903	C	2,318	C	1,926	C	2,406	C
	Sunrise Boulevard Entrance	Lane Addition / Weave	1,228	C	1,134	C	1,192	B	1,168	C
	Rancho Cordova Parkway Exit	Major Diverge / Weave	367		780		322	C	776	
	Rancho Cordova Parkway Entrance	Weave	1,778	**F**	1,742	**F**	1,764	**F**	1,811	**F**
	Hazel Avenue Exit		1,913		2,615		1,943		2,706	

Table 6.8
CEQA Cumulative Plus FOUR PROJECTS Peak Hour Freeway Ramp Junction/Weaving Level of Service

Direc-tion	Location	Junction Type	CEQA Cumulative				CEQA Cumulative Plus FOUR PROJECTS			
			A.M. Peak Hour		P.M. Peak Hour		A.M. Peak Hour		P.M. Peak Hour	
			Ramp Volume	LOS	Ramp Volume	LOS	Ramp Volume	LOS	Ramp Volume	LOS
	Hazel Avenue Entrance	Weave	1,159	D	2,167	**F**	1,063	D	2,099	D
	Aerojet Road Exit		593		200		606		180	
West-bound US 50	Hazel Avenue Exit	Two-Lane Diverge	1,098	B	1,027	B	1,043	B	1,045	C
	Northbound Hazel Avenue Loop Entrance	One-Lane Merge	72	B	434	B	93	B	434	C
	Southbound Hazel Avenue Slip Entrance	Weave	2,300	**F**	2,265	**F**	2,369	**F**	2,306	**F**
	Rancho Cordova Parkway Exit		1,816		2,224		1,868		2,206	
	Rancho Cordova Parkway Entrance	Lane Addition / Weave	1,455	C	1,181	B	1,380	C	1,128	B
	Sunrise Boulevard Exit	Major Diverge / Weave	728		739	C	744		713	C
	Northbound Sunrise Boulevard Loop Entrance	Lane Addition	172	A	274	A	172	A	218	A
	Southbound Sunrise Boulevard Slip Entrance	Lane Addition	2,323	**F**	1,517	C	2,366	**F**	1,653	C
	Zinfandel Drive Exit	One-Lane Diverge	1,395	E	1,173	D	1,372	E	1,257	D

Table 6.8
CEQA Cumulative Plus FOUR PROJECTS Peak Hour Freeway Ramp Junction/Weaving Level of Service

Direc-tion	Location	Junction Type	CEQA Cumulative				CEQA Cumulative Plus FOUR PROJECTS			
			A.M. Peak Hour		P.M. Peak Hour		A.M. Peak Hour		P.M. Peak Hour	
			Ramp Volume	LOS	Ramp Volume	LOS	Ramp Volume	LOS	Ramp Volume	LOS
	Northbound Zinfandel Drive Loop Entrance	Lane Addition	897	C	1,439	D	790	C	1,321	C
	Southbound Zinfandel Drive Slip Entrance	One-Lane Merge	1,587	D	646	B	1,401	D	656	B
	Mather Field Road Exit	One-Lane Drop	1,344	E	835	C	1,564	D	953	C
	Northbound Mather Field Road Loop Entrance	One-Lane Merge	623	C	1,187	C	510	C	1,189	C
	Southbound Mather Field Road Slip Entrance	One-Lane Merge	306	C	528	C	420	C	434	B
	Bradshaw Road Exit	Two-Lane Diverge	1,555	C	1,753	B	1,778	C	1,818	B
	Northbound Bradshaw Road Loop Entrance	One-Lane Merge	993	**F**	912	D	1,336	**F**	1,616	D
	Southbound Bradshaw Road Slip Entrance	One-Lane Merge	385	**F**	862	D	392	**F**	868	D
	Watt Avenue Exit	Major Diverge	1,558	E	1,109	D	1,417	E	980	D
	Northbound Watt Avenue Loop Entrance	One-Lane Merge	764	D	1,128	D	706	D	1,064	D
	Southbound Watt Avenue Slip Entrance	Lane Addition	1,127	D	1,062	C	850	D	967	D
	Howe Avenue Exit	Major Diverge	1,885	E	1,701	E	1,659	E	1,725	D

Table 6.8
CEQA Cumulative Plus FOUR PROJECTS Peak Hour Freeway Ramp Junction/Weaving Level of Service

Direc-tion	Location	Junction Type	CEQA Cumulative				CEQA Cumulative Plus FOUR PROJECTS			
			A.M. Peak Hour		P.M. Peak Hour		A.M. Peak Hour		P.M. Peak Hour	
			Ramp Volume	LOS	Ramp Volume	LOS	Ramp Volume	LOS	Ramp Volume	LOS
	Northbound Howe Avenue Loop Entrance	One-Lane Merge	598	D	542	D	599	D	548	D
	Southbound Howe Avenue Slip Entrance	One-Lane Merge	678	**F**	708	C	786	**F**	637	C

Bold values denote level of service "F" conditions.
Red shaded values indicate project impacts.
Source: *DKS Associates, 2014.*

Table 6.9: CEQA Cumulative Peak Hour Freeway Ramp Termini Queuing

Direction	US 50 Exit Ramp	Available Storage Length (feet / lane)			Maximum Queue Length (feet / lane)					
					AM Peak Hour			PM Peak Hour		
		L	T	R	L	T	R	L	T	R
Eastbound US-50	Howe Avenue	765	-	765	108	-	618	129	-	325
	Watt Avenue	1,500	-	1,500	193	-	376	352	-	346
	Bradshaw Road	1,250	-	1,250	137	-	505	153	-	281
	Mather Field Road	1,385	-	1,385	126	-	365	205	-	427
	Zinfandel Drive	1,025	1,025	1,025	157	**1,437**	**1,300**	402	379	963
	Sunrise Boulevard	1,695	-	1,695	119	-	211	192	-	114
	Rancho Cordova Pkwy.	-	-	1,850	-	-	237	-	-	409
	Hazel Avenue	1,310	-	1,310	307	-	23	720	-	19
Westbound US-50	Hazel Avenue	1,995		1,995	287		917	310		719
	Rancho Cordova Pkwy	1,065	-	-	**1,677**	-	-	**1,236**	-	-
	Sunrise Boulevard	1,540	-	1,540	58	-	152	15	-	350
	Zinfandel Drive	1,065	-	1,065	717	-	134	140	-	203
	Mather Field Road	1,335	-	1,335	330	-	301	333	-	328
	Bradshaw Road	1,330	-	1,330	198	-	136	330	-	71
	Watt Avenue	1,480	-	1,480	256	-	814	199	-	696
	Howe Avenue	1,355	1,355	1,355	86	412	671	202	412	668

Bold values exceed storage capacity.
L = left turn movement, T = through movement, R = right turn movement
Source: *DKS Associates, 2014.*

Table 6.10: CEQA Cumulative Plus FOUR PROJECTS Peak Hour Freeway Ramp Termini Queuing

Direction	US 50 Exit Ramp	Available Storage Length (feet / lane)			Maximum Queue Length (feet / lane)					
					AM Peak Hour			PM Peak Hour		
		L	T	R	L	T	R	L	T	R
Eastbound US-50	Howe Avenue	765	-	765	129	-	**893**	162	-	454
	Watt Avenue	1,500	-	1,500	210	-	450	239	-	310
	Bradshaw Road	1,250	-	1,250	172	-	1,248	118	-	727
	Mather Field Road	1,385	-	1,385	161	-	389	257	-	323
	Zinfandel Drive	1,025	1,025	1,025	156	**1,403**	**1,298**	614	340	546
	Sunrise Boulevard	1,695	-	1,695	124	-	192	223	-	100
	Rancho Cordova Pkwy.	-	-	1,850	-	-	358	-	-	406
	Hazel Avenue	1,310	-	1,310	306	-	29	814	-	22
Westbound US-50	Hazel Avenue	1,995		1,995	308		843	332		710
	Rancho Cordova Pkwy	1,065	-	-	**1,527**	-	-	**1,683**	-	-
	Sunrise Boulevard	1,540	-	1,540	60	-	153	31	-	340
	Zinfandel Drive	1,065	-	1,065	485	-	71	188	-	177
	Mather Field Road	1,335	-	1,335	546	-	431	313	-	363
	Bradshaw Road	1,330	-	1,330	336	-	122	363	-	65
	Watt Avenue	1,480	-	1,480	269	-	754	219	-	667
	Howe Avenue	1,355	1,355	1,355	43	412	629	208	412	810

Red shaded values indicate project impacts.
L = left turn movement, T = through movement, R = right turn movement
Source: *DKS Associates, 2014.*

6.4.5 CEQA Cumulative Plus FOUR PROJECTS Transit System Impacts

Public transit would not be provided to the sites of the FOUR PROJECTS under CEQA Cumulative scenario without development of the FOUR PROJECTS. In the preparation of this analysis, a transit system to serve the FOUR PROJECTS was developed (see Section 3.1.2.3). However, the timing and implementation of the transit system are uncertain at this time. The FOUR PROJECTS would increase demands for public transit facilities. Therefore, the impact of the FOUR PROJECTS on the transit system is potentially significant.

6.4.6 CEQA Cumulative Plus FOUR PROJECTS Functionality Impacts

Table 6.11 summarizes the results of the rural roadway segment functionality analysis. Figure 6.7 illustrates the resultant functionality impacts. The table includes the number of lanes assumed with the implementation of the FOUR PROJECTS, which in many cases is greater than the number of lanes in the existing condition. The shaded table cells under the "Travel Lanes" heading illustrates new roadways and widened roadways that are assumed part of the FOUR PROJECTS. The "Substandard?" heading indicates whether or not a roadway meets the County standards of 12-foot lanes and 6-foot shoulders. If the FOUR PROJECTS make improvements to a roadway segment such as widening, they would be required to reconstruct the entire substandard roadway segment to County standards. The shaded table cells under the "Functionality Impact?" heading indicate those locations with a functionality impact.

As stated above, the traffic analysis assumed that the FOUR PROJECTS would construct a number of travel lanes on roadway segments that are internal to or on the boundary of the FOUR PROJECTS, and the entire roadway segment would be reconstructed to County standards at that time. The timing of implementation of such additional traffic lanes on these internal or boundary roadway segments will affect whether or not impacts would exist at some time prior to full build out of the FOUR PROJECTS.

Table 6.11
CEQA Cumulative Plus FOUR PROJECTS Functionality Impacts

ID	Roadway	Segment		Jurisdiction	Existing Substandard Roadways				CEQA Cumulative + FOUR PROJECTS			
		From	To		Travel Lanes	Pavement (ft)	Substandard? [1]	Existing Volume	Travel Lanes	Facility Type[1]	Forecasted Volume	Functionality Impact? [2]
15	Douglas Rd	Mather Blvd	Zinfandel Dr	County	2	23	Yes	6,635	4	Arterial M	35,330	Yes[3]
16	Douglas Rd	Zinfandel Dr	Sunrise Blvd	Rancho Cordova/County	2	23	Yes	8,369	6	Arterial M	48,540	Yes[3]
19	Eagles Nest Rd	Kiefer Blvd	Jackson Rd	County	2	20	Yes	740	4	Arterial M	15,420	Yes[3]
20	Eagles Nest Rd	Jackson Rd	Florin Rd	County	2	<21	Yes	517	2	Arterial M	9,790	Yes
21	Eagles Nest Rd	Florin Rd	Grant Line Rd	County	2	<21	Yes	189	2	Arterial M	5,230	No
25	Elder Creek Rd	South Watt Ave	Hedge Ave	County	2	23	Yes	5,576	4	Arterial M	54,480	Yes[3]
26	Elder Creek Rd	Hedge Ave	Mayhew Rd	County	2	23	Yes	5,797	4	Arterial M	43,210	Yes[3]
27	Elder Creek Rd	Mayhew Rd	Bradshaw Rd	County	2	23	Yes	5,355	4	Arterial M	25,620	Yes[3]
28	Elder Creek Rd	Bradshaw Rd	Excelsior Rd	County	2	23	Yes	2,158	3	Arterial M	31,620	Yes[3]
30	Excelsior Rd	Kiefer Blvd	Jackson Rd	County	2	22	Yes	3,716	2	Arterial M	30,400	Yes
31	Excelsior Rd	Jackson Rd	Elder Creek Rd	County	2	<21	Yes	5,075	3	Arterial M	41,380	Yes[3]
32	Excelsior Rd	Elder Creek Rd	Florin Rd	County	2	<21	Yes	4,203	3	Arterial M	12,900	Yes[3]
33	Excelsior Rd	Florin Rd	Gerber Rd	County	2	<21	Yes	5,423	2	Arterial M	14,300	Yes
34	Excelsior Rd	Gerber Rd	Calvine Rd	County	2	<21	Yes	4,229	2	Arterial M	9,110	Yes
39	Florin Rd	South Watt Ave	Hedge Ave	County	2	22	Yes	7,718	4	Arterial M	13,280	Yes[3]
40	Florin Rd	Hedge Ave	Mayhew Rd	County	2	22	Yes	6,312	4	Arterial M	14,700	Yes[3]
41	Florin Rd	Mayhew Rd	Bradshaw Rd	County	2	22	Yes	6,317	4	Arterial M	43,130	Yes[3]
42	Florin Rd	Bradshaw Rd	Excelsior Rd	County	2	22	Yes	3,478	4	Arterial M	29,540	Yes[3]
43	Florin Rd	Excelsior Rd	Sunrise Blvd	County	2	22	Yes	3,835	2	Arterial M	18,580	Yes
48	Fruitridge Rd	South Watt Ave	Hedge Ave	City of Sacramento/ County	2	22	Yes	2,890	3	Arterial M	24,970	Yes[3]
49	Fruitridge Rd	Hedge Ave	Mayhew Rd	County	2	22	Yes	1,790	4	Arterial M	27,150	Yes[3]
50	Grant Line Rd	White Rock Rd	Douglas Rd	Rancho Cordova/County	2	22	Yes	7,189	4	Arterial M	40,500	Yes[3]
58	Happy Ln	Old Placerville Rd	Kiefer Blvd	County	2	22	Yes	4,635	4	Arterial M	51,220	Yes[3]
59	Hedge Ave	Jackson Rd	Fruitridge Rd	County	2	22	Yes	3,061	2	Arterial M	11,810	Yes
60	Hedge Ave	Fruitridge Rd	Elder Creek Rd	City of Sacramento/County	2	22	Yes	3,737	2	Arterial M	9,680	Yes
61	Hedge Ave	Elder Creek Rd	Florin Rd	County	2	22	Yes	2,722	2	Arterial M	22,180	Yes

Red text with light gray shading indicate project impacts.

Table 6.11
CEQA Cumulative Plus FOUR PROJECTS Functionality Impacts

ID	Roadway	Segment		Jurisdiction	Existing Substandard Roadways				CEQA Cumulative + FOUR PROJECTS			
		From	To		Travel Lanes	Pavement (ft)	Substandard? [1]	Existing Volume	Travel Lanes	Facility Type[1]	Forecasted Volume	Functionality Impact? [2]
70	Jackson Rd	Bradshaw Rd	Excelsior Rd	County	2	26	Yes	13,030	6	Arterial M	60,480	Yes[3]
71	Jackson Rd	Excelsior Rd	Eagles Nest Rd	County	2	26	Yes	10,478	4	Arterial M	62,780	Yes[3]
74	Kiefer Blvd	Florin Perkins Rd	South Watt Ave	City of Sacramento/County	2	22	Yes	4,616	2	Arterial M	5,630	No
77	Kiefer Blvd	Bradshaw Rd	Happy Ln	County	2	22	Yes	4,618	6	Arterial M	56,300	Yes[3]
78	Kiefer Blvd	Zinfandel Dr	Sunrise Blvd	County	2	22	Yes	656	3	Arterial M	37,390	Yes[3]
83	Mather Blvd-Excelsior Rd[4]	Douglas Rd	Kiefer Blvd	County	2	22	Yes	6,751	2	Res Collector F	15,750	Yes
89	Mayhew Rd	Jackson Rd	Fruitridge Rd	County	2	22	Yes	1,616	4	Arterial M	52,530	Yes[3]
116	White Rock Rd	Fitzgerald Rd	Grant Line Rd	Rancho Cordova/County	2	20	Yes	2,490	4	Arterial M	54,910	Yes[3]
123	Zinfandel Dr	Douglas Rd	Kiefer Blvd	County	2	<21	Yes	2,848	4	Arterial M	31,690	Yes[3]

Note: Gray shading indicates changes in travel lanes or facility type that the project is responsible to provide. For all roadway segments to be widened, the project is responsible to build the entire roadway to County standards.

[1] Substandard rural roads are defined as rural, 2-lane roadway segments with travel lanes narrower than 12 feet and/or roadside shoulders narrower than 6 feet.

[2] Functionality impacts are triggered when a substandard rural road increases over a threshold of 6,000 ADT, or for a roadway already above 6,000 ADT, increases by more than 600 ADT.

[3] The potential for an impact exists should the project generate traffic volumes on the roadway exceeding 6,000 ADT, or increasing more than 600 ADT on a roadway already above 6,000 ADT, prior to the construction of roadway improvements.

[4] Excluding the roadway segment that is within the developed community of Independence at Mather.

[5] The functionality impact is mitigated by improving the roadway to County standards, including widening travel lanes to 12 feet and/or widening or providing paved shoulders to 6 feet.

Red text with light gray shading indicate project impacts.

FIGURE 6.7
CEQA CUM PLUS FOUR PROJECTS
FUNCTIONALITY IMPACTS

Legend

- Substandard Roadways
- Functionality Impact
- Functionality Impact if Roadway is Not Already Improved
- Cities
- Mather Airport

6.5 MITIGATION

6.5.1 CEQA Cumulative Plus FOUR PROJECTS Roadway Segment Mitigation

Table 6.12 summarizes the results of the operations analysis for the study area roadway segments with mitigation. Where feasible, the number of roadway lanes was increased to mitigate the impact. However, the increased number of lanes could not exceed the maximum General Plan designations of the appropriate jurisdictions. The shaded table cells under the "Travel Lanes" and "Facility Type" headings illustrate widened roadways for mitigation purposes, which would be the responsibility of the FOUR PROJECTS to fund. The NewBridge project would contribute a fair share. The shaded table cells under the "Level of Service" heading indicate those locations that would continue to have LOS impacts after mitigation. The table also includes the constraint that precluded full mitigation of the LOS impact.

The "LOS Impact with Mitigation?" column shows whether there is still an LOS impact after the mitigation measure is applied. In other words, this column shows whether a mitigation measure successfully mitigates the impact or not. In several locations where the improvements allowed under the General Plan would not mitigate an LOS impact, the County has proposed alternative mitigation measures, which are shown in the "Alternative Mitigation" column. These alternative mitigation measures will either fully mitigate the impact or substantially reduce the level of impact.

6.5.2 CEQA Cumulative Plus FOUR PROJECTS Intersection Mitigation

Tables 6.13 and 6.14 summarize the results of the operations analysis for the study area intersections with mitigation. However, the increased number of lanes on each approach does not exceed the County's standard number of approach lanes. Shaded table cells in Table 6.14 indicate those locations where changes in traffic control and / or number of approach lanes by type have been made to mitigate impacts, which would be the responsibility of the FOUR PROJECTS to fund. The NewBridge project would contribute a fair share. The shaded table cells in Table 6.13 under the "Level of Service" heading indicate those locations with an LOS impact after mitigation. Table 6.14 also identifies those intersections that would continue to have LOS impacts after mitigation, along with the constraint that precluded full mitigation. Detailed analysis information is included in the technical appendix.

The "LOS Impact with Mitigation?" column shows whether there is still an LOS impact after the mitigation measure is applied. In other words, this column shows whether a mitigation measure successfully mitigates the impact or not. In several locations where the LOS impact could not be mitigated by implementing the County's standard number of approach lanes, the County has proposed alternative mitigation measures, which are shown in the "Alternative Mitigation" column. These generally include providing additional turn lanes, carrying an additional through lane past the intersection, or designating the intersection as a High Capacity Intersection. These alternative mitigation measures will either fully mitigate the impact or substantially reduce the level of impact.

High Capacity Intersections

Three intersections are currently designated as "High Capacity Intersections" on the County's General Plan: Watt Avenue & Folsom Boulevard, Watt Avenue & Kiefer Boulevard, and Watt Avenue & Jackson Road. At two intersections on Bradshaw Road where an LOS impact could not be mitigated by implementing the County's standard number of approach lanes, the County has proposed alternative mitigation measures by designating those two intersections as High Capacity Intersections: Bradshaw Road & Mayhew Road and Bradshaw Road & Jackson Road.

A high capacity intersection would utilize special treatments to increase the capacity of the intersection so as to reduce congestion and travel delay. Since each intersection could have unique travel movements, volumes and existing context sensitive conditions, the special treatments utilized at each high capacity intersection will be selected to meet the specific needs of each intersection. The range of special treatments is quite wide, ranging from the restriction of certain turning movements to various combinations that could include grade separating certain movements. While the field of traffic engineering is ever expending and evolving resulting in the use of new technologies and treatments, special treatments such as the following could be utilized at a high capacity intersection:

- Restricting turning movements
- Median U-turns
- Roundabouts
- Split intersections
- Quadrant roadway intersections
- Bowtie intersections
- Directional flyovers
- Center turn overpass
- Grade separated Roundabout
- Diverging diamond grade separation
- Compact diamond grade separation
- Single point urban grade separation
- Traditional urban grade separation

The County has conducted conceptual engineering to define potential improvements at the three study area intersections on Watt Avenue that are currently designated as "High Capacity Intersections" on the County's General Plan. These are:

- At the **Watt Avenue & Folsom Boulevard** intersection, the County proposes an ultimate configuration involving grade separation of the northbound and southbound through movements of Watt Avenue. Access to and from Folsom Boulevard would be accomplished via on and off-ramps from the left lanes of Watt Avenue to a single signalized intersection. A bus rapid transit (BRT) lane along Watt Avenue would also intersect Folsom Boulevard at the traffic signal. This design is consistent with the recommendations of the South Watt Area Transportation Study (SWATS) dated November 1, 2002 and approved by the Board of Supervisors on November 26, 2002, and with the planning study for the *State Route 16 (Jackson Road) Corridor Study* (Fehr

& Peers, 2012). It should be noted that the State Route 16 study has only had a staff-level review done by Caltrans, Sacramento County Department of Transportation, City of Rancho Cordova, and City of Sacramento. Other equivalent mitigation measures may be selected to the satisfaction of the Department of Transportation to mitigate the project's impact.

- At the **Watt Avenue & Kiefer Boulevard** intersection, the County proposes a tight diamond interchange as the ultimate improvement. The through movements (and BRT lane) on Watt Avenue would be grade separated from Kiefer Boulevard. Access to and from Kiefer Boulevard would be accomplished via on and off-ramps at two signalized intersections along Kiefer Boulevard. This design is proposed in the planning study prepared for *State Route 16 (Jackson Road) Corridor Study* (Fehr & Peers, 2012). It should be noted that the State Route 16 study has only had a staff-level review done by Caltrans, Sacramento County Department of Transportation, City of Rancho Cordova, and City of Sacramento. Other equivalent mitigation measures may be selected to the satisfaction of the Department of Transportation to mitigate the project's impact.

- At the **Watt Avenue & Jackson Road** intersection, the County proposes a standard six-by-six signalized intersection (two left-turn lanes, three through lanes, and one right-turn lane, on each approach) with three modifications. 1) The southbound left-turn movement would be grade separated; 2) The westbound right-turn movement would be grade separated; and 3) Three northbound left-turn lanes are proposed. This configuration represents an enhanced version of Alternative 6 in the planning study prepared for *State Route 16 (Jackson Road) Corridor Study* (Fehr and Peers, 2012). It should be noted that the State Route 16 study has only had a staff-level review done by Caltrans, Sacramento County Department of Transportation, City of Rancho Cordova, and City of Sacramento. Other equivalent mitigation measures may be selected to the satisfaction of the Department of Transportation to mitigate the project's impact.

At the two new proposed "High Capacity Intersections" along Bradshaw Road, the ultimate configurations have not been defined. A number of improvement options involving one or more of the special treatments identified above could be defined that would mitigate the LOS impact at these locations. Since each of these intersections have unique travel movements, volumes and existing context sensitive conditions (potential environmental issues, right-of-way, physical constraints, etc.), the special treatments utilized at each location will need to be studied to select the treatments that mitigate the LOS impact, while avoiding or minimizing other impacts. At Bradshaw Road & Mayhew Road, heavy southbound right turns and westbound left turns suggest that a combination of triple left-turn lanes, dual right-turn lanes and/or overlap phasing may be effective. A high conflicting northbound and southbound volume suggests that grade separating one or more movements may also be necessary to fully mitigate the LOS impact. At Bradshaw Road & Jackson Road, the critical movements are the conflicting through volumes on all approaches. Grade separating either the Bradshaw Road or Jackson Road through movements is likely the only option that would mitigate the LOS impact at this location.

6.5.3 CEQA Cumulative Plus FOUR PROJECTS U.S. 50 Freeway Mitigation

According to Caltrans' US-50 Transportation Concept Report (TCR) and Corridor System Management Plan (CSMP), all mainline freeway lanes of the 8-lane ultimate facility (4 lanes in each direction) have already been built, with the exception of the segment between Zinfandel Drive and Sunrise Boulevard (where 6 of the 8 ultimate lanes exist today). With the exception of this segment, capacity improvements to widen the freeway mainline are precluded by the ultimate configuration in the TCR/CSMP. The TCR/CSMP does conceptualize other projects that will benefit the US-50 corridor without adding additional mainline travel lanes. These improvements generally fall into one of three categories:

- Intelligent transportation systems (ITS) and integrated corridor management (ICM) projects. Some examples may include ramp metering and multimodal improvements.
- Improvements to parallel local facilities. Such projects are expected to reduce travel demand on US-50.
- Future HOV lanes and auxiliary lanes. These projects would extend, or bridge gaps in, the existing HOV and auxiliary lane network. Constructing these lanes is permissible even when further widening of the mainline is not allowable, and is consistent with the ultimate configuration in the TCR/CSMP.

The FOUR PROJECTS shall participate in one or more of these alternative improvements that could directly reduce the severity of the project's impact and/or provide operational benefits to the US-50 corridor in general.

6.5.3.1 US-50 Eastbound Alternative Improvements

To lessen the impact to the eastbound US-50 mainline between Stockton Boulevard and 59th Street, the project may pay a fair share toward the construction of:

- Ramp meter improvements (Caltrans ITS/OPS Project List)

To lessen the impact to the eastbound US-50 weave between 65th Street and Howe Avenue, the project may pay a fair share toward the construction of:

- Ramp meter improvements (Caltrans ITS/OPS Project List)
- Widen 65th Street to 5 lanes from US-50 to Broadway (2035 SACOG MTP)

To lessen the impact to the eastbound US-50 mainline between Watt Avenue and Mather Field Road, and to the Bradshaw Road exit, and to the weave between Mather Field Road and Zinfandel Drive, the project may pay a fair share toward the construction of:

- Auxiliary lanes between Bradshaw Road and Mather Field Road (2035 SACOG MTP)
- An interchange modification of US-50 at Mather Field Road (2035 SACOG MTP)

To lessen the impact to the eastbound US-50 mainline between Zinfandel Drive and Hazel Avenue, and to the weave between Rancho Cordova Parkway and Hazel Avenue, the project may pay a fair share toward the construction of:

- Auxiliary lanes between Zinfandel Drive and Sunrise Boulevard (2035 SACOG MTP)
- Auxiliary lanes between Sunrise Boulevard and Hazel Avenue (2035 SACOG MTP)
- Widen Sunrise Boulevard to 6 lanes with special treatments, including intersection improvements at White Rock Road, Folsom Boulevard, Coloma Road, Gold Express Drive, and Gold Country Boulevard (2035 SACOG MTP)

- A new interchange at Rancho Cordova Parkway, including a 4-lane arterial from US-50 to White Rock Road (2035 SACOG MTP)
- Multi-modal corridor improvements and interchange improvements at Hazel Avenue (2035 SACOG MTP)

6.5.3.2 US-50 Westbound Alternative Improvements

To lessen the impact to the westbound US-50 weave between Hazel Avenue and Rancho Cordova Parkway, the project may pay a fair share toward the construction of:

- Multi-modal corridor improvements and interchange improvements at Hazel Avenue (2035 SACOG MTP)
- Auxiliary lanes between Hazel Avenue and Rancho Cordova Parkway (2035 SACOG MTP)

To lessen the impact to the westbound US-50 on-ramp at Sunrise Boulevard, the project may pay a fair share toward the construction of:

- Auxiliary lanes between Sunrise Boulevard and Zinfandel Drive (2035 SACOG MTP)
- A transition lane from the Sunrise Boulevard slip off-ramp to the Sunrise Boulevard slip on-ramp (2035 SACOG MTP)

To lessen the impact to the westbound US-50 mainline between Mather Field Road and Bradshaw Road, and to the SB Bradshaw Road slip on-ramp, the project may pay a fair share toward the construction of:

- Auxiliary lanes between Mather Field Road and Bradshaw Road (2035 SACOG MTP)
- An interchange modification of US-50 at Mather Field Road (2035 SACOG MTP)

To lessen the impact to the westbound US-50 mainline between Watt Avenue and SR-51/SR-99, and to the SB Howe Avenue slip on-ramp, the project may pay a fair share toward the construction of:

- Bus/HOV lanes from Watt Avenue to Downtown Sacramento (2035 SACOG MTP)
- Replacement of existing communication lines with fiber optics to improve performance between SR-51/SR-99 and Watt Avenue (2013 10-Year SHOPP Plan)
- Auxiliary lane between the NB Howe Avenue on-ramp and the SB Howe Avenue on-ramp (2035 SACOG MTP)
- Ramp meter improvements (Caltrans ITS/OPS Project List)

Table 6.12
CEQA Cumulative Plus FOUR PROJECTS Roadway Segment Mitigations

ID	Roadway	Segment		CEQA Cumulative + FOUR PROJECTS					Mitigated CEQA Cumulative + FOUR PROJECTS						
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Volume / Capacity Ratio	Level of Service	LOS Impact with Mitigation?	Alternative Mitigation[2]	Constraint if Full Mitigation Not Possible
2	Bradshaw Rd	US 50	Lincoln Village Dr	6	Arterial M	88,900	1.65	**F**	6	Arterial M	1.65	**F**	Yes		Maximum General Plan lanes
3	Bradshaw Rd	Lincoln Village Dr	Old Placerville Rd	6	Arterial M	81,450	1.51	**F**	6	Arterial M	1.51	**F**	Yes		Maximum General Plan lanes
4	Bradshaw Rd	Old Placerville Rd	Goethe Rd	6	Arterial M	81,000	1.50	**F**	6	Arterial M	1.50	**F**	Yes		Maximum General Plan lanes
5.1	Bradshaw Rd	Goethe Rd	Collector WJ-8	6	Arterial M	70,200	1.30	**F**	6	Arterial M	1.30	**F**	Yes		Maximum General Plan lanes
5.2	Bradshaw Rd	Collector WJ-8	Kiefer Blvd	6	Arterial M	66,370	1.23	**F**	6	Arterial M	1.23	**F**	Yes		Maximum General Plan lanes
6.1	Bradshaw Rd	Kiefer Blvd	Collector WJ-9	6	Arterial M	68,950	1.28	**F**	6	Arterial M	1.28	**F**	Yes		Maximum General Plan lanes
6.2	Bradshaw Rd	Collector WJ-9	Mayhew Rd	6	Arterial M	68,690	1.27	**F**	6	Arterial M	1.27	**F**	Yes		Maximum General Plan lanes
23	Elder Creek Rd	Power Inn Rd	Florin-Perkins Rd	2	Arterial M	28,710	1.60	**F**	4	Arterial M	0.80	C	No		
25	Elder Creek Rd	South Watt Ave	Hedge Ave	4	Arterial M	54,480	1.51	**F**	6	Arterial M	1.01	**F**	No		
26	Elder Creek Rd	Hedge Ave	Mayhew Rd	4	Arterial M	43,210	1.20	**F**	6	Arterial M	0.80	D	No		
28.1	Elder Creek Rd	Bradshaw Rd	Vineyard Rd	3	Arterial M	31,620	1.76	**F**	4	Arterial M	0.88	D	No		
31.1	Excelsior Rd	Jackson Rd	Collector WJ-6	3	Arterial M	41,580	2.31	**F**	6	Arterial M	0.77	C	No		
31.2	Excelsior Rd	Collector WJ-6	Elder Creek Rd	3	Arterial M	41,380	2.30	**F**	6	Arterial M	0.77	C	No		
37	Florin Rd	Power Inn Rd	Florin-Perkins Rd	4	Arterial M	44,830	1.25	**F**	4	Arterial M	1.25	**F**	Yes		Maximum General Plan lanes
41	Florin Rd	Mayhew Rd	Bradshaw Rd	4	Arterial M	43,130	1.20	**F**	6	Arterial M	0.80	C	No		
42.2	Florin Rd	Vineyard Rd	Excelsior Rd	3	Arterial M	28,090	1.56	**F**	4	Arterial M	0.78	C	No		

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ID	Roadway	Segment		CEQA Cumulative + FOUR PROJECTS					Mitigated CEQA Cumulative + FOUR PROJECTS						
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Volume / Capacity Ratio	Level of Service	LOS Impact with Mitigation?	Alternative Mitigation[2]	Constraint if Full Mitigation Not Possible
43	Florin Rd	Excelsior Rd	Sunrise Blvd	2	Arterial M	18,580	1.03	**F**	4	Arterial M	0.52	A	No		
44	Folsom Blvd	Howe Ave	Jackson Rd	4	Arterial M	56,760	1.58	**F**	4	Arterial M	1.58	**F**	Yes		Maximum General Plan lanes
46	Fruitridge Rd	Power Inn Rd	Florin Perkins Rd	4	Arterial M	32,850	0.91	**E**	4	Arterial M	0.91	**E**	Yes		Maximum General Plan lanes
47	Fruitridge Rd	Florin Perkins Rd	South Watt Ave	2	Arterial M	29,480	1.64	**F**	4	Arterial M	0.82	D	No		
48	Fruitridge Rd	South Watt Ave	Hedge Ave	3	Arterial M	24,970	1.39	**F**	4	Arterial M	0.69	B	No		
51.2	Grant Line Rd	Chrysanthy Blvd	Kiefer Blvd	4	Arterial M	47,600	1.32	**F**	6	Arterial M	0.88	D	No		
52.1	Grant Line Rd	Kiefer Blvd	Rancho Cordova Pkwy	4	Arterial M	37,390	1.04	**F**	6	Arterial M	0.69	B	No		
56	Grant Line Rd	Sheldon Rd	Wilton Rd	4	Arterial M	46,230	1.28	**F**	6	Arterial M	0.86	D	No		
57	Grant Line Rd	Wilton Rd	Bond Rd	4	Arterial M	40,920	1.14	**F**	6	Arterial M	0.76	C	No		
58	Happy Ln	Old Placerville Rd	Kiefer Blvd	4	Arterial M	51,220	1.42	**F**	4	Arterial M	1.42	**F**	Yes	Happy Lane realigned to Routier Road, widened to 6 lanes	County will not exceed 6 lanes
62	Howe Ave	US 50	Folsom Blvd	6	Arterial M	72,510	1.34	**F**	6	Arterial M	1.34	**F**	Yes		Maximum General Plan lanes
65	Jackson Rd	Folsom Blvd	Florin Perkins Rd	4	Arterial M	36,540	1.02	**F**	4	Arterial M	1.02	**F**	Yes		Maximum General Plan lanes
66.1	Jackson Rd	Florin Perkins Rd	14th Ave	4	Arterial M	45,880	1.27	**F**	4	Arterial M	1.27	**F**	Yes		Maximum General Plan lanes
66.2	Jackson Rd	14th Ave	Rock Creek Pkwy	4	Arterial M	64,740	1.80	**F**	4	Arterial M	1.80	**F**	Yes		Maximum General Plan lanes

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		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Volume / Capacity Ratio	Level of Service	LOS Impact with Mitigation?	Alternative Mitigation[2]	Constraint if Full Mitigation Not Possible
66.3	Jackson Rd	Rock Creek Pkwy	Aspen 1 Dwy	4	Arterial M	61,240	1.70	**F**	4	Arterial M	1.70	**F**	Yes		Maximum General Plan lanes
66.4	Jackson Rd	Aspen 1 Dwy	South Watt Ave	4	Arterial M	58,860	1.64	**F**	4	Arterial M	1.64	**F**	Yes		Maximum General Plan lanes
67	Jackson Rd	South Watt Ave	Hedge Ave	4	Arterial M	69,380	1.93	**F**	6	Arterial M	1.28	**F**	Yes		Maximum General Plan lanes
68.1	Jackson Rd	Hedge Ave	Collector WJ-3	4	Arterial M	62,190	1.73	**F**	6	Arterial M	1.15	**F**	Yes		Maximum General Plan lanes
68.2	Jackson Rd	Collector WJ-3	Mayhew Rd	4	Arterial M	62,890	1.75	**F**	6	Arterial M	1.16	**F**	Yes		Maximum General Plan lanes
69	Jackson Rd	Mayhew Rd	Bradshaw Rd	6	Arterial M	63,070	1.17	**F**	6	Arterial M	1.17	**F**	Yes		Maximum General Plan lanes
70.1	Jackson Rd	Bradshaw Rd	Collector WJ-4	6	Arterial M	60,480	1.12	**F**	6	Arterial M	1.12	**F**	Yes		Maximum General Plan lanes
70.2	Jackson Rd	Collector WJ-4	Happy Ln	6	Arterial M	57,380	1.06	**F**	6	Arterial M	1.06	**F**	Yes		Maximum General Plan lanes
71.1	Jackson Rd	Excelsior Rd	Collector JT-3	4	Arterial M	62,780	1.74	**F**	6	Arterial M	1.16	**F**	Yes		Maximum General Plan lanes
71.2	Jackson Rd	Collector JT-3	Tree View Ln	4	Arterial M	48,960	1.36	**F**	6	Arterial M	0.91	E	No		
71.3	Jackson Rd	Tree View Ln	Collector JT-4	4	Arterial M	42,560	1.18	**F**	6	Arterial M	0.79	C	No		
71.4	Jackson Rd	Collector JT-4	Eagles Nest Rd	4	Arterial M	39,060	1.09	**F**	6	Arterial M	0.72	C	No		
72.1	Jackson Rd	Eagles Nest Rd	Rockbridge Dr	4	Arterial M	39,660	1.10	**F**	6	Arterial M	0.73	C	No		

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		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Volume / Capacity Ratio	Level of Service	LOS Impact with Mitigation?	Alternative Mitigation[2]	Constraint if Full Mitigation Not Possible
72.2	Jackson Rd	Rockbridge Dr	Sunrise Blvd	4	Arterial M	39,710	1.10	**F**	6	Arterial M	0.74	C	No		
73	Jackson Rd	Sunrise Blvd	Grant Line Rd	4	Arterial M	46,130	1.28	**F**	6	Arterial M	0.85	D	No		
76	Kiefer Blvd	Mayhew Rd	Bradshaw Rd	4	Arterial M	47,090	1.31	**F**	4	Arterial M	1.31	**F**	Yes		Maximum General Plan lanes
77.1	Kiefer Blvd	Bradshaw Rd	Collector WJ-14	6	Arterial M	56,300	1.04	**F**	6	Arterial M	1.04	**F**	Yes		Maximum General Plan lanes
78.4	Kiefer Blvd	E Collector MS-1	Sunrise Blvd	3	Arterial M	37,390	2.08	**F**	4	Arterial M	1.04	**F**	Yes		Maximum General Plan lanes
79	Kiefer Blvd	Sunrise Blvd	Rancho Cordova Pkwy	4	Arterial M	33,880	0.94	**E**	4	Arterial M	0.94	**E**	Yes		Maximum General Plan lanes
83	Mather Blvd-Excelsior Rd	Douglas Rd	Kiefer Blvd	2	Res Collector F	15,750	1.97	**F**	2	Res Collector F	1.97	**F**	Yes	Construct Douglas Road extension to 4 lanes	Maximum General Plan lanes
89.1	Mayhew Rd	Jackson Rd	Rock Creek Pkwy	4	Arterial M	52,530	1.46	**F**	6	Arterial M	0.97	E	No		
89.2	Mayhew Rd	Rock Creek Pkwy	Fruitridge Rd	4	Arterial M	51,240	1.42	**F**	6	Arterial M	0.95	E	No		
92	Old Placerville Rd	Happy Ln	Routier Rd	2	Arterial M	53,710	2.98	**F**					No	Happy Lane realigned to Routier Road, widened to 6 lanes	
93	Old Placerville Rd	Routier Rd	Rockingham Dr	4	Arterial M	34,690	0.96	**E**	4	Arterial M	0.96	**E**	Yes		Maximum General Plan lanes
95	Rockingham Dr	Old Placerville Rd	Mather Field Rd	4	Arterial M	38,480	1.07	**F**	4	Arterial M	1.07	**F**	Yes		Maximum General Plan lanes

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		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Volume / Capacity Ratio	Level of Service	LOS Impact with Mitigation?	Alternative Mitigation[2]	Constraint if Full Mitigation Not Possible
96	South Watt Ave	Folsom Blvd	Kiefer Blvd	6	Arterial M	84,250	1.56	**F**	6	Arterial M	1.56	**F**	Yes		Maximum General Plan lanes
97	South Watt Ave	Kiefer Blvd	Jackson Rd	6	Arterial M	71,600	1.33	**F**	6	Arterial M	1.33	**F**	Yes		Maximum General Plan lanes
100	South Watt Ave	Elder Creek Rd	Florin Rd	6	Arterial M	59,790	1.11	**F**	6	Arterial M	1.11	**F**	Yes		Maximum General Plan lanes
104.3	Sunrise Blvd	Rio Del Oro Pkwy	Douglas Rd	6	Arterial M	65,850	1.22	**F**	6	Arterial M	1.22	**F**	Yes		Maximum General Plan lanes
105	Sunrise Blvd	Douglas Rd	Kiefer Blvd	5	Arterial M	37,890	1.05	**F**	6	Arterial M	0.70	C	No		
106	Sunrise Blvd	Kiefer Blvd	Jackson Rd	4	Arterial M	33,310	0.93	**E**	6	Arterial M	0.62	B	No		
110	Watt Ave	US 50	Folsom Blvd	6	Arterial H	108,540	1.81	**F**	6	Arterial H	1.81	**F**	Yes		Maximum General Plan lanes
117	White Rock Rd	Grant Line Rd	Prairie City Rd	4	Arterial M	55,730	1.55	**F**	6	Arterial M	1.03	**F**	No		
122	Zinfandel Dr	City Limit	Douglas Rd	2	Arterial M	33,990	1.89	**F**	4	Arterial M	0.94	E	No		
132	Kiefer Blvd	Americanos Blvd	Grant Line Rd	2	Arterial M	18,810	1.05	**F**	4	Arterial M	0.52	A	No		
135	Rancho Cordova Pkwy	White Rock Rd	International Dr	6	Arterial M	49,470	0.92	**E**	6	Arterial M	0.92	**E**	Yes		Maximum General Plan lanes
136	Rancho Cordova Pkwy	International Dr	Rio Del Oro Pkwy	6	Arterial M	60,440	1.12	**F**	6	Arterial M	1.12	**F**	Yes		Maximum General Plan lanes
200	Kiefer Blvd	Tree View Ln	Eagles Nest Rd	4	Arterial M	41,540	1.15	**F**	4	Arterial M	1.15	**F**	Yes		Maximum General Plan lanes

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		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Volume / Capacity Ratio	Level of Service	LOS Impact with Mitigation?	Alternative Mitigation[2]	Constraint if Full Mitigation Not Possible
302	Happy Ln	Kiefer Blvd	Mayhew Rd	4	Arterial M	43,730	1.21	**F**	4	Arterial M	1.21	**F**	Yes		Maximum General Plan lanes
305	Kiefer Blvd	Happy Ln	Collector WJ-15	6	Arterial M	66,970	1.24	**F**	6	Arterial M	1.24	**F**	Yes		Maximum General Plan lanes
306	Kiefer Blvd	Collector WJ-15	Douglas Rd	6	Arterial M	63,570	1.18	**F**	6	Arterial M	1.18	**F**	Yes		Maximum General Plan lanes
308	Mayhew Rd	Happy Ln	Bradshaw Rd	4	Arterial M	40,390	1.12	**F**	6	Arterial M	0.75	C	No		
309	Mayhew Rd	Bradshaw Rd	Jackson Rd	4	Arterial M	46,460	1.29	**F**	6	Arterial M	0.86	D	No		
311	Mayhew Rd	Collector WJ-13	Elder Creek Rd	3	Arterial M	28,570	1.59	**F**	4	Arterial M	0.79	C	No		
319	Vineyard Rd	Rock Creek Pkwy	Elder Creek Rd	4	Arterial M	39,590	1.10	**F**	4	Arterial M	1.10	**F**	Yes		Maximum General Plan lanes
405	Collector JT-3	Collector JT-5	Jackson Rd	2	Res Collector F	18,370	2.30	**F**	4	Arterial M	0.51	A	No		
410	Kiefer Blvd	Excelsior Rd	Tree View Ln	4	Arterial M	38,470	1.07	**F**	4	Arterial M	1.07	**F**	Yes		Maximum General Plan lanes
602	Collector MS-2	Eagles Nest Rd	Collector MS-5	2	Res Collector F	9,980	1.25	**F**	2	Res Collector NF	1.00	E	No		

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		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Volume / Capacity Ratio	Level of Service	LOS Impact with Mitigation?	Alternative Mitigation[2]	Constraint if Full Mitigation Not Possible

Note: Gray shading represents changes in travel lanes or facility type that the project is responsible to provide.

[1] The following classifications are used to determine daily roadway capacity:
Arterial L - Arterial, Low Access Control
Arterial M - Arterial, Moderate Access Control
Arterial H - Arterial, High Access Control
Rural Hwy - Rural 2-lane Highway
Rural S - Rural 2-lane Road, 24'-36' of pavement, Paved Shoulders
Rural NS - Rural 2-lane Road, 24'-36' of pavement, No Shoulders
Res Collector F - Residential Collector with Frontage
Res Collector NF - Residential Collector with No Frontage

[2] Alternative mitigations represent proposed mitigations beyond the General Plan, as proposed by the County of Sacramento.

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Table 6.13

CEQA Cumulative Plus FOUR PROJECTS Impacted Intersections and Mitigations

	Intersection	AM Peak Hour							PM Peak Hour						
		CEQA Cumulative Plus FOUR PROJECTS			LOS Impact	Mitigated CEQA Cumulative Plus FOUR PROJECTS			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact	Mitigated CEQA Cumulative Plus FOUR PROJECTS		
		Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)
3	Power Inn Road/Howe Avenue & Folsom Blvd	Signal	F	103.3	Yes				Signal	F	91.6	Yes			
4	Power Inn Road & 14th Avenue	Signal	F	227.8	Yes	Signal	F	174.1	Signal	F	149.2	Yes	Signal	F	117.7
5	Power Inn Road & Fruitridge Road	Signal	F	118.6	No				Signal	E	60.8	Yes			
12	Watt Avenue & Folsom Blvd.	Signal	F	196.0	Yes	Signal	D	53.3	Signal	F	217.7	Yes	Signal	D	54.2
14	S. Watt Avenue & Kiefer Blvd.	Signal	F	118.0	Yes	Signal	SB Ramps B NB Ramps B	SB Ramps 15.8 NB Ramps 19.6	Signal	F	90.7	Yes	Signal	SB Ramps B NB Ramps C	SB Ramps 18.0 NB Ramps 32.0
16	S. Watt Avenue & Jackson Road	Signal	F	246.9	Yes	Signal	E	79.6	Signal	F	207.8	Yes	Signal	E	78.7
17	S. Watt Avenue & Fruitridge Road	Signal	F	159.8	Yes	Signal	F	116.1	Signal	F	174.2	Yes	Signal	F	108.8
20	Elk Grove Florin Road/S. Watt Ave. & Florin Road	Signal	F	302.3	Yes	Signal	F	104.0	Signal	F	204.3	Yes	Signal	F	84.3
23	Hedge Avenue & Jackson Road	Signal	F	214.4	Yes	Signal	D	38.5	Signal	F	121.0	Yes	Signal	C	23.6
28	Mayhew Road & Kiefer Boulevard	Signal	F	133.5	Yes	Signal	E	74.4	Signal	F	84.1	No			
29	Mayhew Road & Jackson Road	Signal	F	145.8	Yes	Signal	E	78.9	Signal	F	129.4	Yes	Signal	E	72.0
31	Mayhew Road & Elder Creek Road	Signal	F	297.4	Yes	Signal	E	79.0	Signal	F	211.5	Yes	Signal	E	77.1
32	Woodring Drive & Zinfandel Drive	Two-way stop	E	40.8	Yes	Signal	B	15.0	Two-way stop	C	20.8	Yes	Signal	C	27.2
	Eastbound		*F*	*>300*						*F*	*>300*				
	Northbound Left Turn		*B*	*12.6*						*B*	*14.8*				

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	Intersection	AM Peak Hour							PM Peak Hour							
		CEQA Cumulative Plus FOUR PROJECTS			LOS Impact	Mitigated CEQA Cumulative Plus FOUR PROJECTS			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact	Mitigated CEQA Cumulative Plus FOUR PROJECTS		
		Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)
35	Bradshaw Road & US 50 EB Ramps	Signal	E	68.7	Yes				Signal	D	40.2	No			
36	Bradshaw Road & Old Placerville Road	Signal	F	89.9	Yes				Signal	F	88.7	Yes			
37	Bradshaw Road & Kiefer Boulevard	Signal	F	180.8	Yes	Signal	F	159.4	Signal	F	197.9	Yes	Signal	F	170.7
39	Bradshaw Road & Elder Creek Road	Signal	F	172.5	Yes	Signal	F	94.9	Signal	F	155.7	Yes	Signal	D	54.9
40	Bradshaw Road & Florin Road	Signal	F	128.0	No				Signal	F	95.5	Yes	Signal	E	60.1
42	Happy Lane & Old Placerville Road	Two-way stop	F	181.0	Yes	Signal	E	67.7	Two-way stop	F	192.1	Yes	Signal	D	47.4
	Northbound Left Turn		*F*	*>300*						*F*	*>300*				
	Northbound Right Turn		*F*	*>300*						*F*	*>300*				
	Westbound Left Turn		*F*	*>300*						*F*	*>300*				
43	Happy Lane & Kiefer Boulevard	Signal	F	125.0	Yes	Signal	F	83.3	Signal	F	98.2	Yes	Signal	E	76.9
44	Excelsior Road & Kiefer Boulevard	Signal	F	148.2	Yes				Signal	F	83.6	Yes			
45	Excelsior Road & Jackson Road	Signal	F	357.8	Yes	Signal	E	58.4	Signal	F	274.1	Yes	Signal	E	76.1
46	Excelsior Road & Elder Creek Road	Signal	F	126.6	Yes	Signal	B	14.9	Signal	F	120.1	Yes	Signal	C	24.0
47	Excelsior Road & Florin Road	Signal	F	212.0	Yes	Signal	E	71.3	Signal	F	169.6	Yes	Signal	E	55.3
51	Mather Field Road & Rockingham Drive	Signal	F	271.4	Yes				Signal	F	144.7	Yes			
58	Zinfandel Drive & Douglas Road	Signal	F	273.9	Yes	Signal	E	65.8	Signal	F	273.2	Yes	Signal	E	77.1

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	Intersection	AM Peak Hour							PM Peak Hour						
		CEQA Cumulative Plus FOUR PROJECTS			LOS Impact	Mitigated CEQA Cumulative Plus FOUR PROJECTS			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact	Mitigated CEQA Cumulative Plus FOUR PROJECTS		
		Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)
59	Eagles Nest Road/Zinfandel Drive & Kiefer Boulevard	Signal	F	86.3	Yes	Signal	E	63.9	Signal	E	61.2	No			
61	Eagles Nest Road & Florin Road	Two-way stop	F	>300	Yes	Signal	E	76.1	Two-way stop	F	>300	Yes	Signal	E	62.4
	Northbound		*F*	*>300*						*F*	*>300*				
	Southbound		*F*	*>300*						*F*	*>300*				
	Eastbound Left Turn		*B*	*11.6*						*A*	*0.0*				
	Westbound Left Turn		*A*	*0.0*						*A*	*0.0*				
67	Sunrise Boulevard & Douglas Road	Signal	F	230.7	Yes	Signal	F	230.5	Signal	F	115.4	Yes	Signal	F	114.7
69	Sunrise Boulevard & Kiefer Boulevard	Signal	F	443.8	Yes	Signal	**F**	**88.7**	Signal	F	167.2	Yes	Signal	**E**	**59.3**
70	Sunrise Boulevard & Jackson Road	Signal	F	109.7	Yes	Signal	D	50.2	Signal	F	89.0	Yes	Signal	D	54.8
72	Sheldon Lake Drive/Sunrise Boulevard & Grant Line Road	Signal	F	188.1	Yes	Signal	E	77.4	Signal	E	79.3	No			
76	Prairie City Road & White Rock Road	Signal	F	96.4	Yes	Signal	D	51.5	Signal	**F**	**137.2**	No			
80	Grant Line Road & Jackson Road	Signal	F	140.0	Yes	Signal	D	44.8	Signal	F	83.0	Yes	Signal	D	46.5
86	Power Inn Road & Florin Rd	Signal	F	118.5	Yes	Signal	**F**	**99.0**	Signal	E	79.0	No			
91	Grant Line Rd & Eagles Nest Rd/Sloughhouse Rd	Signal	**F**	**358.4**	No				Signal	F	343.5	Yes	Signal	**F**	**280.3**
93	Grant Line Rd & Dwy/Wilton Rd	Signal	**F**	**89.1**	No				Signal	F	103.6	Yes	Signal	**E**	**55.8**
95	Florin Perkins Road & 14th Avenue	Signal	E	67.6	Yes				Signal	D	54.3	No			
96	Jackson Road & 14th Avenue	Signal	F	166.5	Yes				Signal	F	115.4	Yes			

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 6.13

CEQA Cumulative Plus FOUR PROJECTS Impacted Intersections and Mitigations

	Intersection	AM Peak Hour							PM Peak Hour						
		CEQA Cumulative Plus FOUR PROJECTS			LOS Impact	Mitigated CEQA Cumulative Plus FOUR PROJECTS			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact	Mitigated CEQA Cumulative Plus FOUR PROJECTS		
		Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)
97	Rock Creek Pkwy & Jackson Road	Signal	**F**	**201.5**	Yes				Signal	**F**	**188.2**	Yes			
105	Rancho Cordova Pkwy & Kiefer Blvd	Signal	**E**	**71.1**	Yes	Signal	D	39.3	Signal	D	52.4	No			
306	Excelsior Road & Collector WJ-6	Signal	**F**	**109.6**	Yes	Signal	C	25.1	Signal	D	44.9	No			
308	Hedge Avenue & Rock Creek Pkwy WB	Roundabout	**F**	**77.3**	Yes	Roundabout	B	10.0	Roundabout	C	17.0	No			
310	Mayhew Road & Rock Creek Pkwy WB	Roundabout	**F**	**341.2**	Yes	Signal	E	66.4	Roundabout	**F**	**348.9**	Yes	Signal	E	67.9
311	Mayhew Road & Rock Creek Pkwy EB	Roundabout	**F**	**254.9**	Yes	Signal	E	66.4	Roundabout	**F**	**204.0**	Yes	Signal	E	67.9
314	Vineyard Road/Happy Lane & Rock Creek Pkwy	Signal	E	56.0	No				Signal	**F**	**88.7**	Yes	Signal	E	78.2
318	Bradshaw Road & Mayhew Road	Signal	**F**	**185.3**	Yes	Signal	**F**	**100.8**	Signal	**F**	**132.9**	Yes	Signal	E	58.5
325	Douglas Road & Kiefer Boulevard	Signal	**F**	**223.6**	Yes	Signal	**F**	**133.8**	Signal	**F**	**141.7**	Yes	Signal	E	59.3
326	Happy Lane & Mayhew Road	Roundabout	**F**	**277.4**	Yes	Signal	D	46.8	Roundabout	**F**	**204.6**	Yes	Signal	D	44.3
328	Vineyard Road & Florin Road	Signal	**F**	**104.2**	Yes	Signal	E	59.6	Signal	E	55.9	No			
400	Collector JT-3 & Jackson Road	Signal	**F**	**88.1**	Yes	Signal	D	49.9	Signal	D	49.8	No			
605	Collector MS-5 & Collector MS-4	All-way stop	**F**	**55.5**	Yes	Signal	E	63.8	All-way stop	E	43.1	No			

Note: Gray shading represents changes in traffic control for which the project is responsible to pay a fair share.

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 6.14

CEQA Cumulative Plus FOUR PROJECTS Intersection Impacts and Mitigations

	Intersection	Traffic Control		CEQA Cumulative Plus FOUR PROJECTS Lane Geometrics				Mitigated CEQA Cumulative Plus FOUR PROJECTS Lane Geometrics				Impact Caused by NewBridge Alone?	LOS Impact with Mitgation?	High Capacity Intersection?[1]	Alternative Mitigation[2]	Constraint if Full Mitigation Not Possible
		CEQA Cumulative Plus FOUR PROJECTS	Mitigated CEQA Cumulative Plus FOUR PROJECTS	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach					
3	Power Inn Road/Howe Avenue & Folsom Blvd	Signal	Signal									No	Yes	No		Existing development
4	Power Inn Road & 14th Avenue	Signal	Signal									No	Yes	No		Existing development
5	Power Inn Road & Fruitridge Road	Signal	Signal									No	Yes	No		Existing development
12	Watt Avenue & Folsom Blvd.	Signal	Signal									No	No	Yes	Grade separated NBT and SBT	
14	S. Watt Avenue & Kiefer Blvd.	Signal	Signal									No	No	Yes	Tight Diamond Interchange (SB Watt Ramps/Kiefer intersection shown)	
		Signal	Signal												Tight Diamond Interchange (NB Watt Ramps/Kiefer intersection shown)	
16	S. Watt Avenue & Jackson Road	Signal	Signal						*Free left		*Free right	No	No	Yes	Triple NBL, Free WBR and SBL via tunnel	
17	S. Watt Avenue & Fruitridge Road	Signal	Signal									No	Yes	No	Dual SBR	Existing development
20	Elk Grove Florin Road/S. Watt Ave. & Florin Road	Signal	Signal									No	No	No	Triple EBL and dual SBR	
23	Hedge Avenue & Jackson Road	Signal	Signal									No	No	No	Dual NBL and exclusive EBR	
28	Mayhew Road & Kiefer Boulevard	Signal	Signal									No	No	No	Dual SBL	
29	Mayhew Road & Jackson Road	Signal	Signal									No	No	No		
31	Mayhew Road & Elder Creek Road	Signal	Signal									No	No	No	Dual SBR	
32	Zinfandel Drive & Woodring Drive	Two-way stop	Signal									No	No	No		
35	Bradshaw Road & US 50 EB Ramps	Signal	Signal									No	Yes	No		Maximum General Plan lanes
36	Bradshaw Road & Old Placerville Road	Signal	Signal									No	Yes	No		Existing development

Note: Gray shading represents changes in traffic control or approach lanes for which the project is responsible to pay a fair share.

Table 6.14

CEQA Cumulative Plus FOUR PROJECTS Intersection Impacts and Mitigations

	Intersection	Traffic Control		CEQA Cumulative Plus FOUR PROJECTS Lane Geometrics				Mitigated CEQA Cumulative Plus FOUR PROJECTS Lane Geometrics				Impact Caused by NewBridge Alone?	LOS Impact with Mitgation?	High Capacity Intersection?[1]	Alternative Mitigation[2]	Constraint if Full Mitigation Not Possible
		CEQA Cumulative Plus FOUR PROJECTS	Mitigated CEQA Cumulative Plus FOUR PROJECTS	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach					
37	Bradshaw Road & Kiefer Boulevard	Signal	Signal									No	Yes	No	Carry 3 EBT and 3 WBT lanes through intersection	Maximum General Plan lanes
39	Bradshaw Road & Elder Creek Road	Signal	Signal									No	No	No		
40	Bradshaw Road & Florin Road	Signal	Signal									No	No	No		
42	Happy Lane & Old Placerville Road	Two-way stop	Signal									No	Yes	No	Realign Happy Lane to Routier Road (6 lanes), triple WBL and dual NBR (trap)	Maximum General Plan lanes
43	Happy Lane & Kiefer Boulevard	Signal	Signal									No	Yes	No	3 NBT and 3 SBT	Maximum General Plan lanes
44	Excelsior Road & Kiefer Boulevard	Signal	Signal									No	Yes	No		Maximum General Plan lanes
45	Excelsior Road & Jackson Road	Signal	Signal									No	No	No	NBR overlap	
46	Excelsior Road & Elder Creek Road	Signal	Signal									No	No	No	Dual SBR	
47	Excelsior Road & Florin Road	Signal	Signal									No	No	No		
51	Mather Field Road & Rockingham Drive	Signal	Signal									No	Yes	No		Existing development
58	Zinfandel Drive & Douglas Road	Signal	Signal									No	No	No		
59	Eagles Nest Road/Zinfandel Drive & Kiefer Boulevard	Signal	Signal									No	No	No	3 WBT	
61	Eagles Nest Road & Florin Road	Two-way stop	Signal									Yes	No	No		
67	Sunrise Boulevard & Douglas Road	Signal	Signal									Yes	Yes	No		Maximum General Plan lanes
69	Sunrise Boulevard & Kiefer Boulevard	Signal	Signal									Yes	No	No		
70	Sunrise Boulevard & Jackson Road	Signal	Signal									No	No	No		

Note: Gray shading represents changes in traffic control or approach lanes for which the project is responsible to pay a fair share.

Table 6.14

CEQA Cumulative Plus FOUR PROJECTS Intersection Impacts and Mitigations

	Intersection	Traffic Control		CEQA Cumulative Plus FOUR PROJECTS Lane Geometrics				Mitigated CEQA Cumulative Plus FOUR PROJECTS Lane Geometrics				Impact Caused by NewBridge Alone?	LOS Impact with Mitgation?	High Capacity Intersection?[1]	Alternative Mitigation[2]	Constraint if Full Mitigation Not Possible
		CEQA Cumulative Plus FOUR PROJECTS	Mitigated CEQA Cumulative Plus FOUR PROJECTS	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach					
72	Sheldon Lake Drive/Sunrise Boulevard & Grant Line Road	Signal	Signal									No	No	No		
76	Prairie City Road & White Rock Road	Signal	Signal									No	No	No		
80	Grant Line Road & Jackson Road	Signal	Signal									No	No	No	Triple EBL and dual SBR	
86	Power Inn Road & Florin Rd	Signal	Signal									No	No	No		
91	Grant Line Rd & Eagles Nest Rd/Sloughhouse Rd	Signal	Signal									Yes	No	No		
93	Grant Line Rd & Dwy/Wilton Rd	Signal	Signal									Yes	No	No		
95	Florin Perkins Road & 14th Avenue	Signal	Signal									No	Yes	No		Maximum General Plan lanes
96	Jackson Road & 14th Avenue	Signal	Signal									No	Yes	No		Maximum General Plan lanes
97	Rock Creek Pkwy & Jackson Road	Signal	Signal									Yes	Yes	No		Maximum General Plan lanes
105	Rancho Cordova Pkwy & Kiefer Blvd	Signal	Signal									No	No	No		
306	Excelsior Road & Collector WJ-6	Signal	Signal									No	No	No		
308	Hedge Avenue & Rock Creek Pkwy WB	Roundabout	Roundabout									No	No	No		
310	Mayhew Road & Rock Creek Pkwy WB	Roundabout	Signal									No	No	No		
311	Mayhew Road & Rock Creek Pkwy EB	Roundabout	Signal									No	No	No		
314	Vineyard Road/Happy Lane & Rock Creek Pkwy	Signal	Signal									No	No	No		
318	Bradshaw Road & Mayhew Road	Signal	Signal									No	Yes	No	HCI, Triple EBL and dual SBR	Maximum General Plan lanes

Note: Gray shading represents changes in traffic control or approach lanes for which the project is responsible to pay a fair share.

Table 6.14

CEQA Cumulative Plus FOUR PROJECTS Intersection Impacts and Mitigations

Intersection		Traffic Control		CEQA Cumulative Plus FOUR PROJECTS Lane Geometrics				Mitigated CEQA Cumulative Plus FOUR PROJECTS Lane Geometrics				Impact Caused by NewBridge Alone?	LOS Impact with Mitgation?	High Capacity Intersection?[1]	Alternative Mitigation[2]	Constraint if Full Mitigation Not Possible
		CEQA Cumulative Plus FOUR PROJECTS	Mitigated CEQA Cumulative Plus FOUR PROJECTS	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach					
325	Douglas Road/Shopping Center Dwy & Kiefer Boulevard	Signal	Signal									No	Yes	No	3 WBT	Maximum General Plan lanes
326	Happy Lane & Mayhew Road	Roundabout	Signal									No	No	No		
328	Vineyard Road & Florin Road	Signal	Signal									No	No	No		
400	Collector JT-3 & Jackson Road	Signal	Signal									No	No	No		
605	Collector MS-5 & Collector MS-4	All-way stop	Signal									No	No	No		

[1] High capacity intersections are defined in the Sacramento County General Plan and may include grade separations, additional turn lanes, and/or other features as deemed appropriate by the County.

[2] Alternative mitigations represent proposed mitigations beyond the General Plan, excluding high capacity intersections, as proposed by the County of Sacramento.

Note: Gray shading represents changes in traffic control or approach lanes for which the project is responsible to pay a fair share.

6.5.4 CEQA Cumulative Plus FOUR PROJECTS Pedestrian and Bicycle Facility Mitigation

The FOUR PROJECTS applicants shall coordinate with Sacramento County to identify the necessary on- and off-site pedestrian and bicycle facilities to serve the proposed development. These facilities shall be incorporated into the FOUR PROJECTS and could include sidewalks, stop signs, standard pedestrian and school crossing warning signs, lane striping to provide a bicycle lane, bicycle parking, signs to identify pedestrian and bicycle paths, raised crosswalks, pedestrian signal heads, and all appropriate traffic calming measures as defined in the County's Neighborhood Traffic Management Program (NTMP). Sidewalks would be required as part of the frontage improvements along all new roadway construction in the FOUR PROJECTS vicinity in conformance with County design standards. Circulation and access to all proposed public spaces shall include sidewalks that meet Americans with Disabilities Act standards.

6.5.5 CEQA Cumulative Plus FOUR PROJECTS Transit System Mitigation

The applicants of the FOUR PROJECTS shall coordinate with Regional Transit (or other transit operators) to provide the additional transit facilities and services assumed in transportation analysis (see Section 3.1.2.3), or a cost-effective equivalent level of transit facilities and services.

The assumed transit routes and service frequency would be required at full development of the FOUR PROJECTS. The full level of transit service would not achieve adequate transit ridership during the early stages of development. Thus the ultimate transit service, like the roadway system serving the FOUR PROJECTS, must be phased with development of the FOUR PROJECTS.

6.5.6 CEQA Cumulative Plus FOUR PROJECTS Functionality Mitigation

Table 6.15 summarizes the results of the functionality analysis for the study area rural roadway segments with mitigation.

6.5.7 CEQA Cumulative Plus FOUR PROJECTS Mitigation Summary

Tables 6.16 through 6.21 summarize the roadway segments, intersections, and freeway facilities that would exhibit significant LOS impacts, along with the mitigation success for these impacts.

Table 6.15
CEQA Cumulative Plus FOUR PROJECTS Functionality Mitigations

ID	Roadway	Segment		CEQA Cumulative + FOUR PROJECTS				Mitigation	Impact after Mitigation?
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Functionality Impact? [2]		
15	Douglas Rd	Mather Blvd	Zinfandel Dr	4	Arterial M	35,330	Yes[3]	Widen to County standards [5]	No
16	Douglas Rd	Zinfandel Dr	Sunrise Blvd	6	Arterial M	48,540	Yes[3]	Widen to County standards [5]	No
19	Eagles Nest Rd	Kiefer Blvd	Jackson Rd	4	Arterial M	15,420	Yes[3]	Widen to County standards [5]	No
20	Eagles Nest Rd	Jackson Rd	Florin Rd	2	Arterial M	9,790	Yes	Widen to County standards [5]	No
25	Elder Creek Rd	South Watt Ave	Hedge Ave	4	Arterial M	54,480	Yes[3]	Widen to County standards [5]	No
26	Elder Creek Rd	Hedge Ave	Mayhew Rd	4	Arterial M	43,210	Yes[3]	Widen to County standards [5]	No
27	Elder Creek Rd	Mayhew Rd	Bradshaw Rd	4	Arterial M	25,620	Yes[3]	Widen to County standards [5]	No
28	Elder Creek Rd	Bradshaw Rd	Excelsior Rd	3	Arterial M	31,620	Yes[3]	Widen to County standards [5]	No
30	Excelsior Rd	Kiefer Blvd	Jackson Rd	2	Arterial M	30,400	Yes	Widen to County standards [5]	No
31	Excelsior Rd	Jackson Rd	Elder Creek Rd	3	Arterial M	41,380	Yes[3]	Widen to County standards [5]	No
32	Excelsior Rd	Elder Creek Rd	Florin Rd	3	Arterial M	12,900	Yes[3]	Widen to County standards [5]	No
33	Excelsior Rd	Florin Rd	Gerber Rd	2	Arterial M	14,300	Yes	Widen to County standards [5]	No
34	Excelsior Rd	Gerber Rd	Calvine Rd	2	Arterial M	9,110	Yes	Widen to County standards [5]	No
39	Florin Rd	South Watt Ave	Hedge Ave	4	Arterial M	13,280	Yes[3]	Widen to County standards [5]	No
40	Florin Rd	Hedge Ave	Mayhew Rd	4	Arterial M	14,700	Yes[3]	Widen to County standards [5]	No
41	Florin Rd	Mayhew Rd	Bradshaw Rd	4	Arterial M	43,130	Yes[3]	Widen to County standards [5]	No
42	Florin Rd	Bradshaw Rd	Excelsior Rd	4	Arterial M	29,540	Yes[3]	Widen to County standards [5]	No
43	Florin Rd	Excelsior Rd	Sunrise Blvd	2	Arterial M	18,580	Yes	Widen to County standards [5]	No
48	Fruitridge Rd	South Watt Ave	Hedge Ave	3	Arterial M	24,970	Yes[3]	Widen to County standards [5]	No
49	Fruitridge Rd	Hedge Ave	Mayhew Rd	4	Arterial M	27,150	Yes[3]	Widen to County standards [5]	No
50	Grant Line Rd	White Rock Rd	Douglas Rd	4	Arterial M	40,500	Yes[3]	Widen to County standards [5]	No
58	Happy Ln	Old Placerville Rd	Kiefer Blvd	4	Arterial M	51,220	Yes[3]	Widen to County standards [5]	No
59	Hedge Ave	Jackson Rd	Fruitridge Rd	2	Arterial M	11,810	Yes	Widen to County standards [5]	No
60	Hedge Ave	Fruitridge Rd	Elder Creek Rd	2	Arterial M	9,680	Yes	Widen to County standards [5]	No
61	Hedge Ave	Elder Creek Rd	Florin Rd	2	Arterial M	22,180	Yes	Widen to County standards [5]	No
70	Jackson Rd	Bradshaw Rd	Excelsior Rd	6	Arterial M	60,480	Yes[3]	Widen to County standards [5]	No

Red text with light gray shading indicate project impacts.

Table 6.15
CEQA Cumulative Plus FOUR PROJECTS Functionality Mitigations

ID	Roadway	Segment		CEQA Cumulative + FOUR PROJECTS				Mitigation	Impact after Mitigation?
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Functionality Impact? [2]		
71	Jackson Rd	Excelsior Rd	Eagles Nest Rd	4	Arterial M	62,780	Yes[3]	Widen to County standards [5]	No
77	Kiefer Blvd	Bradshaw Rd	Happy Ln	6	Arterial M	56,300	Yes[3]	Widen to County standards [5]	No
78	Kiefer Blvd	Zinfandel Dr	Sunrise Blvd	3	Arterial M	37,390	Yes[3]	Widen to County standards [5]	No
83	Mather Blvd-Excelsior Rd[4]	Douglas Rd	Kiefer Blvd	2	Res Collector F	15,750	Yes	Widen to County standards [5]	No
89	Mayhew Rd	Jackson Rd	Fruitridge Rd	4	Arterial M	52,530	Yes[3]	Widen to County standards [5]	No
116	White Rock Rd	Fitzgerald Rd	Grant Line Rd	4	Arterial M	54,910	Yes[3]	Widen to County standards [5]	No
123	Zinfandel Dr	Douglas Rd	Kiefer Blvd	4	Arterial M	31,690	Yes[3]	Widen to County standards [5]	No

Note: Gray shading indicates changes in travel lanes or facility type that the project is responsible to provide. For all roadway segments to be widened, the project is responsible to build the entire roadway to County standards.

[1] Substandard rural roads are defined as rural, 2-lane roadway segments with travel lanes narrower than 12 feet and/or roadside shoulders narrower than 6 feet.

[2] Functionality impacts are triggered when a substandard rural road increases over a threshold of 6,000 ADT, or for a roadway already above 6,000 ADT, increases by more than 600 ADT.

[3] The potential for an impact exists should the project generate traffic volumes on the roadway exceeding 6,000 ADT, or increasing more than 600 ADT on a roadway already above 6,000 ADT, prior to the construction of roadway improvements.

[4] Excluding the roadway segment that is within the developed community of Independence at Mather.

[5] The functionality impact is mitigated by improving the roadway to County standards, including widening travel lanes to 12 feet and/or widening or providing paved shoulders to 6 feet.

Red text with light gray shading indicate project impacts.

Table 6.16
CEQA Cumulative Plus FOUR PROJECTS Summary of Impacted Roadway Segments

ID	Roadway	Segment	
		From	To
Level of Service Impact Fully Mitigated by General Plan Lanes			
23	Elder Creek Rd	Power Inn Rd	Florin-Perkins Rd
25	Elder Creek Rd	South Watt Ave	Hedge Ave
26	Elder Creek Rd	Hedge Ave	Mayhew Rd
28.1	Elder Creek Rd	Bradshaw Rd	Vineyard Rd
31.1	Excelsior Rd	Jackson Rd	Collector WJ-6
31.2	Excelsior Rd	Collector WJ-6	Elder Creek Rd
41	Florin Rd	Mayhew Rd	Bradshaw Rd
42.2	Florin Rd	Vineyard Rd	Excelsior Rd
43	Florin Rd	Excelsior Rd	Sunrise Blvd
47	Fruitridge Rd	Florin Perkins Rd	South Watt Ave
48	Fruitridge Rd	South Watt Ave	Hedge Ave
51.1	Grant Line Rd	Douglas Rd	Chrysanthy Blvd
51.2	Grant Line Rd	Chrysanthy Blvd	Kiefer Blvd
56	Grant Line Rd	Sheldon Rd	Wilton Rd
57	Grant Line Rd	Wilton Rd	Bond Rd
71.2	Jackson Rd	Collector JT-3	Tree View Ln
71.3	Jackson Rd	Tree View Ln	Collector JT-4
71.4	Jackson Rd	Collector JT-4	Eagles Nest Rd
72.1	Jackson Rd	Eagles Nest Rd	Rockbridge Dr
72.2	Jackson Rd	Rockbridge Dr	Sunrise Blvd
73	Jackson Rd	Sunrise Blvd	Grant Line Rd
89.1	Mayhew Rd	Jackson Rd	Rock Creek Pkwy
89.2	Mayhew Rd	Rock Creek Pkwy	Fruitridge Rd
92	Old Placerville Rd	Happy Ln	Routier Rd
105	Sunrise Blvd	Douglas Rd	Kiefer Blvd
106	Sunrise Blvd	Kiefer Blvd	Jackson Rd
117	White Rock Rd	Grant Line Rd	Prairie City Rd
122	Zinfandel Dr	City Limit	Douglas Rd
132	Kiefer Blvd	Americanos Blvd	Grant Line Rd
308	Mayhew Rd	Happy Ln	Bradshaw Rd
309	Mayhew Rd	Bradshaw Rd	Jackson Rd
311	Mayhew Rd	Collector WJ-13	Elder Creek Rd
405	Collector JT-3	Collector JT-5	Jackson Rd
602	Collector MS-2	Eagles Nest Rd	Collector MS-5
Level of Service Impact Not Fully Mitigated by General Plan Lanes			
2	Bradshaw Rd	US 50	Lincoln Village Dr

Note: Refer to Table 6.12 for detailed description of impacts and mitigations.

Table 6.16
CEQA Cumulative Plus FOUR PROJECTS Summary of Impacted Roadway Segments

ID	Roadway	Segment	
		From	To
3	Bradshaw Rd	Lincoln Village Dr	Old Placerville Rd
4	Bradshaw Rd	Old Placerville Rd	Goethe Rd
5.1	Bradshaw Rd	Goethe Rd	Collector WJ-8
5.2	Bradshaw Rd	Collector WJ-8	Kiefer Blvd
6.1	Bradshaw Rd	Kiefer Blvd	Collector WJ-9
6.2	Bradshaw Rd	Collector WJ-9	Mayhew Rd
37	Florin Rd	Power Inn Rd	Florin-Perkins Rd
44	Folsom Blvd	Howe Ave	Jackson Rd
46	Fruitridge Rd	Power Inn Rd	Florin Perkins Rd
58	Happy Ln	Old Placerville Rd	Kiefer Blvd
62	Howe Ave	US 50	Folsom Blvd
65	Jackson Rd	Folsom Blvd	Florin Perkins Rd
66.1	Jackson Rd	Florin Perkins Rd	14th Ave
66.2	Jackson Rd	14th Ave	Rock Creek Pkwy
66.3	Jackson Rd	Rock Creek Pkwy	Aspen 1 Dwy
66.4	Jackson Rd	Aspen 1 Dwy	South Watt Ave
67	Jackson Rd	South Watt Ave	Hedge Ave
68.1	Jackson Rd	Hedge Ave	Collector WJ-3
68.2	Jackson Rd	Collector WJ-3	Mayhew Rd
69	Jackson Rd	Mayhew Rd	Bradshaw Rd
70.1	Jackson Rd	Bradshaw Rd	Collector WJ-4
70.2	Jackson Rd	Collector WJ-4	Happy Ln
71.1	Jackson Rd	Excelsior Rd	Collector JT-3
76	Kiefer Blvd	Mayhew Rd	Bradshaw Rd
77.1	Kiefer Blvd	Bradshaw Rd	Collector WJ-14
78.4	Kiefer Blvd	E Collector MS-1	Sunrise Blvd
79	Kiefer Blvd	Sunrise Blvd	Rancho Cordova Pkwy
83	Mather Blvd-Excelsior Rd	Douglas Rd	Kiefer Blvd
93	Old Placerville Rd	Routier Rd	Rockingham Dr
95	Rockingham Dr	Old Placerville Rd	Mather Field Rd
96	South Watt Ave	Folsom Blvd	Kiefer Blvd
97	South Watt Ave	Kiefer Blvd	Jackson Rd
100	South Watt Ave	Elder Creek Rd	Florin Rd
104.3	Sunrise Blvd	Rio Del Oro Pkwy	Douglas Rd
110	Watt Ave	US 50	Folsom Blvd
135	Rancho Cordova Pkwy	White Rock Rd	International Dr
136	Rancho Cordova Pkwy	International Dr	Rio Del Oro Pkwy

Note: Refer to Table 6.12 for detailed description of impacts and mitigations.

Table 6.16
CEQA Cumulative Plus FOUR PROJECTS Summary of Impacted Roadway Segments

ID	Roadway	Segment	
		From	To
200	Kiefer Blvd	Tree View Ln	Eagles Nest Rd
302	Happy Ln	Kiefer Blvd	Mayhew Rd
305	Kiefer Blvd	Happy Ln	Collector WJ-15
306	Kiefer Blvd	Collector WJ-15	Douglas Rd
319	Vineyard Rd	Rock Creek Pkwy	Elder Creek Rd
410	Kiefer Blvd	Excelsior Rd	Tree View Ln

Note: Refer to Table 6.12 for detailed description of impacts and mitigations.

Table 6.17

CEQA Cumulative Plus FOUR PROJECTS Summary of Impacted Intersections

	Intersection	Alternative Mitigation
Level of Service Impact Fully Mitigated by General Plan Lanes		
20	Elk Grove Florin Road/S. Watt Ave. & Florin Road	**
23	Hedge Avenue & Jackson Road	**
29	Mayhew Road & Jackson Road	
31	Mayhew Road & Elder Creek Road	**
32	Woodring Drive & Zinfandel Drive	
39	Bradshaw Road & Elder Creek Road	
40	Bradshaw Road & Florin Road	
46	Excelsior Road & Elder Creek Road	**
47	Excelsior Road & Florin Road	
58	Zinfandel Drive & Douglas Road	
61	Eagles Nest Road & Florin Road	
69	Sunrise Boulevard & Kiefer Boulevard	
70	Sunrise Boulevard & Jackson Road	
72	Sheldon Lake Drive/Sunrise Boulevard & Grant Line Road	
76	Prairie City Road & White Rock Road	
86	Power Inn Road & Florin Rd	
91	Grant Line Rd & Eagles Nest Rd/Sloughhouse Rd	
93	Grant Line Rd & Dwy/Wilton Rd	
105	Rancho Cordova Pkwy & Kiefer Blvd	

Table 6.17

CEQA Cumulative Plus FOUR PROJECTS Summary of Impacted Intersections

	Intersection	Alternative Mitigation
306	Excelsior Road & Collector WJ-6	
308	Hedge Avenue & Rock Creek Pkwy WB	
310	Mayhew Road & Rock Creek Pkwy WB	
311	Mayhew Road & Rock Creek Pkwy EB	
314	Vineyard Road/Happy Lane & Rock Creek Pkwy	
326	Happy Lane & Mayhew Road	
328	Vineyard Road & Florin Road	
400	Collector JT-3 & Jackson Road	
605	Collector MS-5 & Collector MS-4	
	Level of Service Impact Not Fully Mitigated by General Plan Lanes But Designated High Capacity Intersection	
12	Watt Avenue & Folsom Blvd.	**
14	S. Watt Avenue & Kiefer Blvd.	**
16	S. Watt Avenue & Jackson Road	**
	Level of Service Impact Not Fully Mitigated by General Plan Lanes	
3	Power Inn Road/Howe Avenue & Folsom Blvd	
4	Power Inn Road & 14th Avenue	
5	Power Inn Road & Fruitridge Road	
17	S. Watt Avenue & Fruitridge Road	*
28	Mayhew Road & Kiefer Boulevard	**
35	Bradshaw Road & US 50 EB Ramps	

Table 6.17

CEQA Cumulative Plus FOUR PROJECTS Summary of Impacted Intersections

	Intersection	Alternative Mitigation
36	Bradshaw Road & Old Placerville Road	
37	Bradshaw Road & Kiefer Boulevard	*
42	Happy Lane & Old Placerville Road	*
43	Happy Lane & Kiefer Boulevard	*
44	Excelsior Road & Kiefer Boulevard	
45	Excelsior Road & Jackson Road	**
51	Mather Field Road & Rockingham Drive	
59	Eagles Nest Road/Zinfandel Drive & Kiefer Boulevard	**
67	Sunrise Boulevard & Douglas Road	
80	Grant Line Road & Jackson Road	**
95	Florin Perkins Road & 14th Avenue	
96	Jackson Road & 14th Avenue	
97	Rock Creek Pkwy & Jackson Road	
318	Bradshaw Road & Mayhew Road	*
325	Douglas Road & Kiefer Boulevard	*

[1] Alternative mitigations represent proposed mitigations beyond the General Plan, excluding designated high capacity intersections, as proposed by the County of Sacramento.

* denotes alternative mitigations that improve operations but do not fully mitigate the impact.
** denotes alternative mitigations that fully mitigate the impact.

Table 6.18

CEQA Cumulative Plus FOUR PROJECTS
Summary of Impacted Freeway Segments

Direction	Location
Level of Service Impact Not Mitigated	
Eastbound US-50	Stockton Boulevard to 59th Street
	Watt Avenue to Bradshaw Road
	Bradshaw Road to Mather Field Road
	Zinfandel Drive to Sunrise Boulevard
	Sunrise Boulevard to Rancho Cordova Parkway
	Rancho Cordova Parkway to Hazel Avenue
Westbound US-50	Watt Avenue to Howe Avenue
	Howe Avenue to 65th Street
	65th Street to 59th Street
	59th Street to Stockton Boulevard
	Stockton Boulevard to SR 99 / SR 51

Source: *DKS Associates, 2014.*

Table 6.19

CEQA Cumulative Plus FOUR PROJECTS Summary of Impacted Freeway Ramp Junction/Weaves

Direction	Location	Junction Type
Level of Service Impact Not Mitigated		
Eastbound US-50	Northbound 65th Street Slip Entrance	Weave
	Howe Avenue / Hornet Drive Exit	
	Bradshaw Road Exit	Two-Lane Diverge
	Northbound Mather Field Road Slip Entrance	Weave
	Zinfandel Drive Exit	
	Rancho Cordova Parkway Entrance	Weave
	Hazel Avenue Exit	
Westbound US-50	Southbound Hazel Avenue Slip Entrance	Weave
	Rancho Cordova Parkway Exit	
	Southbound Sunrise Boulevard Slip Entrance	Lane Addition
	Northbound Bradshaw Road Loop Entrance	One-Lane Merge
	Southbound Bradshaw Road Slip Entrance	One-Lane Merge
	Southbound Howe Avenue Slip Entrance	One-Lane Merge

Source: *DKS Associates, 2014.*

Table 6.20

CEQA Cumulative Plus FOUR PROJECTS
Summary of Impacted Freeway Ramp Termini

Direction	US 50 Exit Ramp
Queuing Impact Not Mitigated	
Eastbound US-50	Howe Avenue
Westbound US-50	Rancho Cordova Parkway

Source: *DKS Associates, 2014.*

Table 6.21
CEQA Cumulative Plus FOUR PROJECTS Functionality Impact Summary

ID	Roadway	Segment	
		From	To
Functionality Impact Fully Mitigated			
15	Douglas Rd	Mather Blvd	Zinfandel Dr
16	Douglas Rd	Zinfandel Dr	Sunrise Blvd
19	Eagles Nest Rd	Kiefer Blvd	Jackson Rd
20	Eagles Nest Rd	Jackson Rd	Florin Rd
25	Elder Creek Rd	South Watt Ave	Hedge Ave
26	Elder Creek Rd	Hedge Ave	Mayhew Rd
27	Elder Creek Rd	Mayhew Rd	Bradshaw Rd
28	Elder Creek Rd	Bradshaw Rd	Excelsior Rd
30	Excelsior Rd	Kiefer Blvd	Jackson Rd
31	Excelsior Rd	Jackson Rd	Elder Creek Rd
32	Excelsior Rd	Elder Creek Rd	Florin Rd
33	Excelsior Rd	Florin Rd	Gerber Rd
34	Excelsior Rd	Gerber Rd	Calvine Rd
39	Florin Rd	South Watt Ave	Hedge Ave
40	Florin Rd	Hedge Ave	Mayhew Rd
41	Florin Rd	Mayhew Rd	Bradshaw Rd
42	Florin Rd	Bradshaw Rd	Excelsior Rd
43	Florin Rd	Excelsior Rd	Sunrise Blvd
48	Fruitridge Rd	South Watt Ave	Hedge Ave
49	Fruitridge Rd	Hedge Ave	Mayhew Rd
50	Grant Line Rd	White Rock Rd	Douglas Rd
58	Happy Ln	Old Placerville Rd	Kiefer Blvd
59	Hedge Ave	Jackson Rd	Fruitridge Rd
60	Hedge Ave	Fruitridge Rd	Elder Creek Rd
61	Hedge Ave	Elder Creek Rd	Florin Rd

Table 6.21
CEQA Cumulative Plus FOUR PROJECTS Functionality Impact Summary

ID	Roadway	Segment	
		From	To
70	Jackson Rd	Bradshaw Rd	Excelsior Rd
71	Jackson Rd	Excelsior Rd	Eagles Nest Rd
77	Kiefer Blvd	Bradshaw Rd	Happy Ln
78	Kiefer Blvd	Zinfandel Dr	Sunrise Blvd
83	Mather Blvd-Excelsior Rd[4]	Douglas Rd	Kiefer Blvd
89	Mayhew Rd	Jackson Rd	Fruitridge Rd
116	White Rock Rd	Fitzgerald Rd	Grant Line Rd
123	Zinfandel Dr	Douglas Rd	Kiefer Blvd

7. CEQA CUMULATIVE PLUS NEWBRIDGE PROJECT SCENARIO

7.1 NEWBRIDGE PROJECT DESCRIPTION AND METHODOLOGY

7.1.1 Project Description

As illustrated previously in Figure 1.1, the NewBridge project is located in unincorporated Sacramento County, generally east of the City of Sacramento and south of the City of Rancho Cordova and Mather Airport. It is bounded on the south by Jackson Road (SR 16), on the east by Sunrise Boulevard, and on the north by existing and future Kiefer Boulevard. The western boundary is located west of Eagles Nest Road.

7.1.2 Methodology

The analysis of the CEQA Cumulative Plus NewBridge Project scenario is based upon the analysis of the CEQA Cumulative Plus FOUR PROJECTS scenario discussed in Section 6. The travel model was utilized to estimate the portion of the FOUR PROJECTS traffic that is associated with the NewBridge project. With this information, it was possible to identify whether the NewBridge project, on its own, would trigger significant impacts. It should be noted that, even at locations where the NewBridge project on its own would not trigger a significant impact, the NewBridge project contributes to the cumulative impacts associated with the CEQA Cumulative Plus FOUR PROJECTS scenario.

7.1.1 CEQA Cumulative Land Use

Section 6.1.1 discusses land use associated with CEQA Cumulative conditions.

7.1.2 Transportation Network

Section 6.1.2 discusses the transportation network associated with the CEQA Cumulative conditions, including the transportation network improvements associated with the FOUR PROJECTS.

7.1.3 NewBridge Project Trip Generation

The trip generation of the NewBridge project was estimated by the SACSIM model, which has been utilized to prepare transportation forecasts for this analysis. Table 7.1 summarizes the person trip generation. The NewBridge project would generate about 6,800 daily work person trip ends, and over 52,000 daily person trip ends for all trip purposes.

The total trip generation of the NewBridge project is somewhat higher under the CEQA Cumulative scenario than with existing conditions. The SACSIM model will vary the trips generated by retail and service uses depending on the amount of development that is near those uses. This result is expected as commercial development with much housing and/or employment nearby will be more successful (and generate more trips) than the same commercial development located in an area with less nearby population.

Table 7.1: Estimated Daily Person Trip Generation (CEQA Cumulative Plus FOUR PROJECTS Scenario)

NewBridge Specific Plan

Project	Trip Purpose	Daily Person Trip Ends
NewBridge	Work Trips	6,795
	Non-Work Trips	45,477
	All Trip Purposes	52,272

Source: *DKS Associates, 2014.*

Table 7.2 summarizes the estimated mode choice for the NewBridge Project. Over 90 percent of all person trips are expected to be accommodated by automobile. Transit will serve about 1.7 percent of all trips, while walk and bike modes will accommodate about 6.7 percent of all trips.

Table 7.3 summarizes the vehicular (auto) trip generation of the NewBridge project. The NewBridge project is estimated to generate over 33,000 daily vehicle trip ends. About 1,500 of the daily vehicle trip ends will be associated with trips with both an origin and destination within the NewBridge project, about 4 percent of the trip ends. Those internal trip ends represent about 750 daily vehicle trips (one-half the number of internal trip ends). The NewBridge project will generate about 32,000 external vehicle trips that have an origin or destination inside the NewBridge project but the other end of the trip is outside the NewBridge project. Table 7.3 also shows the vehicle trips generated during the a.m. and p.m. peak hours.

7.1.4 NewBridge Project Trip Distribution

The distribution of trips associated with development on the NewBridge project site was derived utilizing SACSIM, incorporating the proposed land use and access locations associated with the NewBridge project site. Trip distribution varies by land use and time period. Figure 7.1 illustrates the overall trip distribution of daily NewBridge project trips with the CEQA Cumulative scenario.

7.2 Operations Analysis and Impacts

7.2.1 CEQA Cumulative Plus NewBridge Project Roadway Segment Impacts

Table 7.4 summarizes the results of the operations analysis for the study area roadway segments. Only those segments where an impact would be triggered by the NewBridge project are shown. The table includes the number of lanes assumed with the implementation of the FOUR PROJECTS. The shaded table cells under the "Travel Lanes" and "Facility Type" headings illustrate new roadways or widened roadways. The last column of the table shows the project(s) responsible for the increase in the number of roadway lanes. The shaded table cells under the "Level of Service" heading indicate those locations with an LOS impact.

7.2.2 CEQA Cumulative Plus NewBridge Project Intersection Impacts

Table 7.5 and 7.6 summarize the results of the operations analysis for the study area intersections. Only those intersections where an impact would be triggered by the NewBridge project are shown. The tables include the implementation of intersection changes associated with the FOUR PROJECTS. Table 7.6 illustrates the type of traffic control and number of lanes by type on each study area intersection approach. Shaded table cells indicate those locations where changes in traffic control and / or number of approach lanes by type would be fully funded by the project(s) shown in the last column. Shaded table cells in Table 7.5 illustrate those locations with an LOS impact. Detailed analysis information is included in the technical appendix.

Signal warrant analysis was conducted for all unsignalized intersections along Jackson Road, and other unsignalized intersections in close proximity to the project. The project is considered to have a significant impact at an unsignalized location if both the impact criteria in Table 1.6 are met, and one or more of the signal warrants specified in the California Manual on Uniform Traffic Control Devices (CAMUTCD) are met. Detailed signal warrant calculation sheets are included in the technical appendix. The following unsignalized intersections exhibit significant impacts and meet one or more traffic signal warrants:

- Eagles Nest Road and Florin Road

Table 7.2: Mode Split (CEQA Cumulative Plus FOUR PROJECTS Scenario)

NewBridge Specific Plan

Project	Mode	Percentage of Person Trips by Trip Purpose		
		Work Trips	Non-Work Trips	All Trip Purposes
NewBridge	Auto - SOV	84.4%	43.8%	49.1%
	Auto - HOV	10.2%	47.4%	42.6%
	Transit	3.8%	1.4%	1.7%
	Walk	0.8%	6.7%	6.0%
	Bike	0.7%	0.7%	0.7%

Source: *DKS Associates, 2014.*

Table 7.3: Estimated Daily Vehicle Trip Generation (CEQA CUMULATIVE Plus FOUR PROJECTS Scenario)

NewBridge Specific Plan

Trip Type		AM Peak Hour	PM Peak Hour	Daily
Total Vehicle Trip Ends		2,833	4,147	34,835
Percent Internal Trip Ends[1]		6.9%	9.8%	8.5%
Vehicle trips	Internal to Project	99	203	1,481
	External to Project	2,636	3,742	31,873
	Total	2,735	3,945	33,354

[1.] Both trip ends within the project.

Source: *DKS Associates, 2014.*

FIGURE 7.1
CEQA CUM PLUS FOUR PROJECTS
NEWBRIDGE TRIP DISTRIBUTION

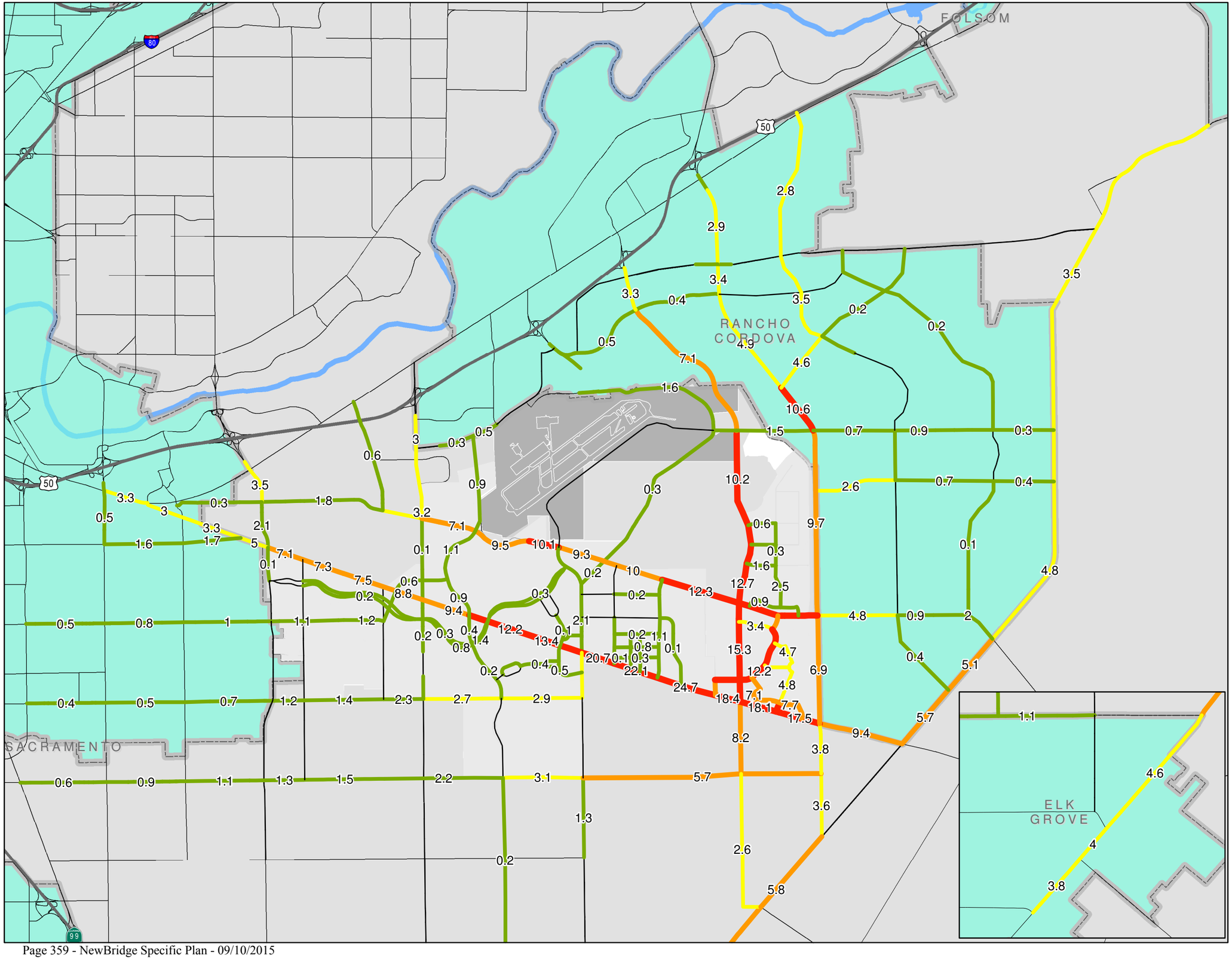


Table 7.4
CEQA Cumulative Roadway Segment Levels of Service - Impacts Triggered by NewBridge Project

ID	Roadway	Segment		CEQA Cumulative No Project					CEQA Cumulative + FOUR PROJECTS					Project(s) Responsible for Change in Lanes
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	
66.2	Jackson Rd	14th Ave	Rock Creek Pkwy	4	Arterial M	40,490	1.12	**F**	4	Arterial M	64,740	1.80	**F**	
66.3	Jackson Rd	Rock Creek Pkwy	Aspen 1 Dwy	4	Arterial M	34,850	0.97	E	4	Arterial M	61,240	1.70	**F**	
71.1	Jackson Rd	Excelsior Rd	Collector JT-3	2	Rural Hwy	23,230	1.01	**F**	4	Arterial M	62,780	1.74	**F**	Jackson Township
71.2	Jackson Rd	Collector JT-3	Tree View Ln	2	Rural Hwy	23,250	1.02	**F**	4	Arterial M	48,960	1.36	**F**	Jackson Township
71.3	Jackson Rd	Tree View Ln	Collector JT-4	2	Rural Hwy	23,210	1.01	**F**	4	Arterial M	42,560	1.18	**F**	Jackson Township
71.4	Jackson Rd	Collector JT-4	Eagles Nest Rd	2	Rural Hwy	23,230	1.01	**F**	4	Arterial M	39,060	1.09	**F**	Jackson Township
73	Jackson Rd	Sunrise Blvd	Grant Line Rd	4	Arterial M	31,990	0.89	D	4	Arterial M	46,130	1.28	**F**	
79	Kiefer Blvd	Sunrise Blvd	Rancho Cordova Pkwy	4	Arterial M	20,550	0.57	A	4	Arterial M	33,880	0.94	**E**	

Note: Gray shading indicates changes in travel lanes or facility type that the project is responsible to provide.

[1] The following classifications are used to determine daily roadway capacity:
Arterial L - Arterial, Low Access Control
Arterial M - Arterial, Moderate Access Control
Arterial H - Arterial, High Access Control
Rural Hwy - Rural 2-lane Highway
Rural S - Rural 2-lane Road, 24'-36' of pavement, Paved Shoulders
Rural NS - Rural 2-lane Road, 24'-36' of pavement, No Shoulders
Res Collector F - Residential Collector with Frontage
Res Collector NF - Residential Collector with No Frontage

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 7.5

CEQA Cumulative Plus FOUR PROJECTS Intersection Levels of Service - Impacts Triggered by NewBridge Project

	Intersection	AM Peak Hour							PM Peak Hour						
		CEQA Cumulative No FOUR PROJECTS			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact	CEQA Cumulative No FOUR PROJECTS			CEQA Cumulative Plus FOUR PROJECTS			LOS Impact
		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	Control	Int LOS	Delay (sec)	
61	Eagles Nest Road & Florin Road	Two-way stop	**F**	**194.9**	Two-way stop	**F**	**>300**	Yes	Two-way stop	**F**	**83.9**	Two-way stop	**F**	**>300**	Yes
	Northbound		***F***	***>300***		***F***	***>300***			***F***	***>300***		***F***	***>300***	
	Southbound		***F***	***>300***		***F***	***>300***			***F***	***>300***		***F***	***>300***	
	Eastbound Left Turn		*B*	*10.3*		*B*	*11.6*			*A*	*8.4*		*A*	*0.0*	
	Westbound Left Turn		*A*	*0.0*		*A*	*0.0*			*A*	*9.4*		*A*	*0.0*	
67	Sunrise Boulevard & Douglas Road	Signal	**F**	**142.9**	Signal	**F**	**230.7**	Yes	Signal	**E**	**75.5**	Signal	**F**	**115.4**	Yes
69	Sunrise Boulevard & Kiefer Boulevard	Signal	**F**	**157.5**	Signal	**F**	**443.8**	Yes	Signal	**F**	**133.4**	Signal	**F**	**167.2**	Yes
91	Grant Line Rd & Eagles Nest Rd/Sloughhouse Rd	Signal	**F**	**369.2**	Signal	**F**	**358.4**	No	Signal	**F**	**314.5**	Signal	**F**	**343.5**	Yes
93	Grant Line Rd & Dwy/Wilton Rd	Signal	**F**	**85.4**	Signal	**F**	**89.1**	No	Signal	**E**	**79.3**	Signal	**F**	**103.6**	Yes
97	Rock Creek Pkwy & Jackson Road	Signal	**F**	**89.0**	Signal	**F**	**201.5**	Yes	Signal	D	49.9	Signal	**F**	**188.2**	Yes

Note: Gray shading represents changes in traffic control that the project is responsible to provide.

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 7.6

CEQA Cumulative and CEQA Cumulative Plus FOUR PROJECTS Intersection Geometrics - Impacts Triggered by NewBridge Project

	Intersection	Traffic Control		CEQA Cumulative Lane Geometrics				CEQA Cumulative Plus FOUR PROJECTS Lane Geometrics				Project(s) Responsible for Change
		CEQA Cumulative	CEQA Cumulative Plus FOUR PROJECTS	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach	
61	Eagles Nest Road & Florin Road	Two-way stop	Two-way stop									
67	Sunrise Boulevard & Douglas Road	Signal	Signal									
69	Sunrise Boulevard & Kiefer Boulevard	Signal	Signal									NewBridge; Mather South
91	Grant Line Rd & Eagles Nest Rd/Sloughhouse Rd	Signal	Signal									
93	Grant Line Rd & Dwy/Wilton Rd	Signal	Signal									
97	Rock Creek Pkwy & Jackson Road	Signal	Signal									

Note: Gray shading represents changes in traffic control or approach lanes that the project is responsible to provide.

7.2.3 CEQA Cumulative Plus NewBridge Project U.S. 50 Freeway Impacts

Based upon the Caltrans' thresholds of significance, any volume contribution to a significant impact of the CEQA Cumulative Plus FOUR PROJECTS scenario is considered significant. Therefore, the impacts of the CEQA Cumulative Plus NewBridge Project scenario are identical to those of the CEQA Cumulative Plus FOUR PROJECTS scenario.

7.2.3.1 Freeway Mainline

Table 6.4 summarizes a.m. and p.m. peak hour US 50 freeway mainline operations. Details of the analysis are included in the technical appendix. The following locations exhibit significant impacts:

- Eastbound
  - Stockton Boulevard to 59th Street - a.m. and p.m. peak hours
  - Watt Avenue to Mather Field Road - a.m. peak hour
  - Zinfandel Drive to Hazel Avenue - p.m. peak hour
- Westbound
  - Watt Avenue to Howe Avenue - p.m. peak hour
  - Howe Avenue to 59th Street - a.m. and p.m. peak hours
  - 59th Street to SR 99 / SR 51 - p.m. peak hour

7.2.3.2 Freeway Ramp Junctions / Weaving

Table 6.5 summarizes a.m. and p.m. peak hour freeway operations at ramp junctions and weaving areas. Details of the analysis are included in the technical appendix. The following locations exhibit significant impacts:

- Eastbound
  - 65th Street to Howe Avenue weave - a.m. and p.m. peak hours
  - Bradshaw Road exit - a.m. peak hour
  - Mather Field Road to Zinfandel Drive weave - a.m. and p.m. peak hours
  - Rancho Cordova Parkway to Hazel Avenue weave - a.m. and p.m. peak hours
- Westbound
  - Hazel Avenue to Rancho Cordova Parkway weave - a.m. and p.m. peak hours
  - Sunrise Boulevard Entrance Ramp - a.m. peak hour
  - Northbound Bradshaw Road Loop Entrance Ramp - a.m. peak hour
  - Southbound Bradshaw Road Slip Entrance Ramp - a.m. peak hour
  - Southbound Howe Avenue Slip Entrance Ramp - a.m. peak hour

7.2.3.3 Freeway Ramp Intersection Queuing

Tables 6.6 and 6.7 summarizes a.m. and p.m. peak hour freeway ramp intersection queuing. The following locations exhibit a significant impact:

- Eastbound
  - Exit ramp to Howe Avenue - right turn queue length exceeds available storage
- Westbound
  - Exit ramp to Rancho Cordova Parkway - left turn queue length exceeds available storage

7.2.4 CEQA Cumulative Plus NewBridge Project Pedestrian and Bicycle Facility Impacts

The NewBridge project would not remove any existing or planned pedestrian facility. The NewBridge project would not remove any existing bicycle facility or any facility that is planned in the Bikeway Master Plan. The NewBridge project would add pedestrian and bicycle demands within the NewBridge project site and to and from nearby land uses. As illustrated in Figure 3.2, the NewBridge project has proposed changes to the Bikeway Master Plan. Because the NewBridge project would add demand for pedestrian and bicycle facilities that may not be available in the site vicinity, the impact of the NewBridge project on pedestrian and bicycle circulation is potentially significant.

7.2.5 CEQA Cumulative Plus NewBridge Project Transit System Impacts

Public transit would not be provided to the site of the NewBridge project under CEQA Cumulative scenario without development of the NewBridge project. In the preparation of this analysis, a transit system to serve the FOUR PROJECTS was developed (see Section 3.1.2.3). However, the timing and implementation of the transit system are uncertain at this time. The NewBridge project would increase demands for public transit facilities. Therefore, the impact of the NewBridge project on the transit system is potentially significant.

7.2.6 CEQA Cumulative Plus NewBridge Project Functionality Impacts

Table 7.7 summarizes the results of the functionality analysis. Only those segments where an impact would be triggered by the NewBridge project are shown. The table includes the number of lanes assumed with the implementation of the FOUR PROJECTS, which in many cases is greater than the number of lanes in the existing condition. The shaded table cells under the "Travel Lanes" heading illustrates new roadways and widened roadways that are assumed part of the FOUR PROJECTS. The "Substandard?" heading indicates whether or not a roadway meets the County standards of 12-foot lanes and 6-foot shoulders. If the FOUR PROJECTS make improvements to a roadway segment such as widening, they would be required to reconstruct the entire substandard roadway segment to County standards. The shaded table cells under the "Functionality Impact?" heading indicate those locations with a functionality impact.

As stated above, the traffic analysis assumed that the FOUR PROJECTS would construct a number of travel lanes on roadway segments that are internal to or on the boundary of the FOUR PROJECTS, and the entire roadway segment would be reconstructed to County standards at that time. The timing of implementation of such additional traffic lanes on these internal or boundary roadway segments will affect whether or not impacts would exist at some time prior to full build out of the FOUR PROJECTS.

Table 7.7
CEQA Cumulative Plus FOUR PROJECTS Functionality Impacts Triggered by NewBridge Project

ID	Roadway	Segment		Jurisdiction	Existing Substandard Roadways				CEQA Cumulative + FOUR PROJECTS			
		From	To		Travel Lanes	Pavement (ft)	Substandard? [1]	Existing Volume	Travel Lanes	Facility Type[1]	Forecasted Volume	Functionality Impact? [2]
16	Douglas Rd	Zinfandel Dr	Sunrise Blvd	Rancho Cordova/County	2	23	Yes	8,369	6	Arterial M	48,540	Yes[3]
19	Eagles Nest Rd	Kiefer Blvd	Jackson Rd	County	2	20	Yes	740	4	Arterial M	15,420	Yes[3]
25	Elder Creek Rd	South Watt Ave	Hedge Ave	County	2	23	Yes	5,576	4	Arterial M	54,480	Yes[3]
26	Elder Creek Rd	Hedge Ave	Mayhew Rd	County	2	23	Yes	5,797	4	Arterial M	43,210	Yes[3]
27	Elder Creek Rd	Mayhew Rd	Bradshaw Rd	County	2	23	Yes	5,355	4	Arterial M	25,620	Yes[3]
33	Excelsior Rd	Florin Rd	Gerber Rd	County	2	<21	Yes	5,423	2	Arterial M	14,300	Yes
39	Florin Rd	South Watt Ave	Hedge Ave	County	2	22	Yes	7,718	4	Arterial M	13,280	Yes[3]
40	Florin Rd	Hedge Ave	Mayhew Rd	County	2	22	Yes	6,312	4	Arterial M	14,700	Yes[3]
41	Florin Rd	Mayhew Rd	Bradshaw Rd	County	2	22	Yes	6,317	4	Arterial M	43,130	Yes[3]
42	Florin Rd	Bradshaw Rd	Excelsior Rd	County	2	22	Yes	3,478	4	Arterial M	29,540	Yes[3]
43	Florin Rd	Excelsior Rd	Sunrise Blvd	County	2	22	Yes	3,835	2	Arterial M	18,580	Yes
48	Fruitridge Rd	South Watt Ave	Hedge Ave	City of Sacramento/ County	2	22	Yes	2,890	3	Arterial M	24,970	Yes[3]
50	Grant Line Rd	White Rock Rd	Douglas Rd	Rancho Cordova/County	2	22	Yes	7,189	4	Arterial M	40,500	Yes[3]
70	Jackson Rd	Bradshaw Rd	Excelsior Rd	County	2	26	Yes	13,030	6	Arterial M	60,480	Yes[3]
71	Jackson Rd	Excelsior Rd	Eagles Nest Rd	County	2	26	Yes	10,478	4	Arterial M	62,780	Yes[3]
77	Kiefer Blvd	Bradshaw Rd	Happy Ln	County	2	22	Yes	4,618	6	Arterial M	56,300	Yes[3]
78	Kiefer Blvd	Zinfandel Dr	Sunrise Blvd	County	2	22	Yes	656	3	Arterial M	37,390	Yes[3]
123	Zinfandel Dr	Douglas Rd	Kiefer Blvd	County	2	<21	Yes	2,848	4	Arterial M	31,690	Yes[3]

Note: Gray shading indicates changes in travel lanes or facility type that the project is responsible to provide. For all roadway segments to be widened, the project is responsible to build the entire roadway to County standards.

[1] Substandard rural roads are defined as rural, 2-lane roadway segments with travel lanes narrower than 12 feet and/or roadside shoulders narrower than 6 feet.
[2] Functionality impacts are triggered when a substandard rural road increases over a threshold of 6,000 ADT, or for a roadway already above 6,000 ADT, increases by more than 600 ADT.
[3] The potential for an impact exists should the project generate traffic volumes on the roadway exceeding 6,000 ADT, or increasing more than 600 ADT on a roadway already above 6,000 ADT, prior to the construction of roadway improvements.
[4] Excluding the roadway segment that is within the developed community of Independence at Mather.
[5] The functionality impact is mitigated by improving the roadway to County standards, including widening travel lanes to 12 feet and/or widening or providing paved shoulders to 6 feet.

Red text with light gray shading indicate project impacts.

7.3 MITIGATION

7.3.1 CEQA Cumulative Plus NewBridge Project Roadway Segment Mitigation

Table 7.8 summarizes the results of the operations analysis for the study area roadway segments with mitigation. Where feasible, the number of roadway lanes was increased to mitigate the impact. However, the increased number of lanes could not exceed the maximum General Plan designations of the appropriate jurisdictions. The shaded table cells under the "Travel Lanes" and "Facility Type" headings illustrate widened roadways for mitigation purposes, which would be the responsibility of the FOUR PROJECTS to fund. The NewBridge project would contribute a fair share. The shaded table cells under the "Level of Service" heading indicate those locations that would continue to have LOS impacts after mitigation. The table also includes the constraint that precluded full mitigation of the LOS impact.

The "LOS Impact with Mitigation?" column shows whether there is still an LOS impact after the mitigation measure is applied. In other words, this column shows whether a mitigation measure successfully mitigates the impact or not. In several locations where the improvements allowed under the General Plan would not mitigate an LOS impact, the County has proposed alternative mitigation measures, which are shown in the "Alternative Mitigation" column. These alternative mitigation measures will either fully mitigate the impact or substantially reduce the level of impact.

Table 7.8
CEQA Cumulative Plus FOUR PROJECTS Roadway Segment Mitigations - Impacts Triggered by NewBridge Project

ID	Roadway	Segment		CEQA Cumulative + FOUR PROJECTS					Mitigated CEQA Cumulative + FOUR PROJECTS						
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Volume/ Capacity Ratio	Level of Service	Travel Lanes	Facility Type[1]	Volume / Capacity Ratio	Level of Service	LOS Impact with Mitigation?	Alternative Mitigation[2]	Constraint if Full Mitigation Not Possible
66.2	Jackson Rd	14th Ave	Rock Creek Pkwy	4	Arterial M	64,740	1.80	**F**	4	Arterial M	1.80	**F**	Yes		Maximum General Plan lanes
66.3	Jackson Rd	Rock Creek Pkwy	Aspen 1 Dwy	4	Arterial M	61,240	1.70	**F**	4	Arterial M	1.70	**F**	Yes		Maximum General Plan lanes
71.1	Jackson Rd	Excelsior Rd	Collector JT-3	4	Arterial M	62,780	1.74	**F**	6	Arterial M	1.16	**F**	Yes		Maximum General Plan lanes
71.2	Jackson Rd	Collector JT-3	Tree View Ln	4	Arterial M	48,960	1.36	**F**	6	Arterial M	0.91	E	No		
71.3	Jackson Rd	Tree View Ln	Collector JT-4	4	Arterial M	42,560	1.18	**F**	6	Arterial M	0.79	C	No		
71.4	Jackson Rd	Collector JT-4	Eagles Nest Rd	4	Arterial M	39,060	1.09	**F**	6	Arterial M	0.72	C	No		
73	Jackson Rd	Sunrise Blvd	Grant Line Rd	4	Arterial M	46,130	1.28	**F**	6	Arterial M	0.85	D	No		
79	Kiefer Blvd	Sunrise Blvd	Rancho Cordova Pkwy	4	Arterial M	33,880	0.94	**E**	4	Arterial M	0.94	**E**	Yes		Maximum General Plan lanes

Note: Gray shading represents changes in travel lanes or facility type that the project is responsible to provide.

[1] The following classifications are used to determine daily roadway capacity:
Arterial L - Arterial, Low Access Control
Arterial M - Arterial, Moderate Access Control
Arterial H - Arterial, High Access Control
Rural Hwy - Rural 2-lane Highway
Rural S - Rural 2-lane Road, 24'-36' of pavement, Paved Shoulders
Rural NS - Rural 2-lane Road, 24'-36' of pavement, No Shoulders
Res Collector F - Residential Collector with Frontage
Res Collector NF - Residential Collector with No Frontage

[2] Alternative mitigations represent proposed mitigations beyond the General Plan, as proposed by the County of Sacramento.

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

7.3.2 CEQA Cumulative Plus NewBridge Project Intersection Mitigation

Tables 7.9 and 7.10 summarize the results of the operations analysis for the study area intersections with mitigation. However, the increased number of lanes on each approach does not exceed the County's standard number of approach lanes. Shaded table cells in Table 7.10 indicate those locations where changes in traffic control and / or number of approach lanes by type have been made to mitigate impacts, which would be the responsibility of the FOUR PROJECTS to fund. The NewBridge project would contribute a fair share. The shaded table cells in Table 7.9 under the "Level of Service" heading indicate those locations with an LOS impact after mitigation. Table 7.10 also identifies those intersections that would continue to have LOS impacts after mitigation, along with the constraint that precluded full mitigation. Detailed analysis information is included in the technical appendix.

The "LOS Impact with Mitigation?" column shows whether there is still an LOS impact after the mitigation measure is applied. In other words, this column shows whether a mitigation measure successfully mitigates the impact or not. In several locations where the LOS impact could not be mitigated by implementing the County's standard number of approach lanes, the County has proposed alternative mitigation measures, which are shown in the "Alternative Mitigation" column. These generally include providing additional turn lanes, carrying an additional through lane past the intersection, or designating the intersection as a High Capacity Intersection. These alternative mitigation measures will either fully mitigate the impact or substantially reduce the level of impact.

High Capacity Intersections

Three intersections are currently designated as "High Capacity Intersections" on the County's General Plan: Watt Avenue & Folsom Boulevard, Watt Avenue & Kiefer Boulevard, and Watt Avenue & Jackson Road. At two intersections on Bradshaw Road where an LOS impact could not be mitigated by implementing the County's standard number of approach lanes, the County has proposed alternative mitigation measures by designating those two intersections as High Capacity Intersections: Bradshaw Road & Mayhew Road and Bradshaw Road & Jackson Road.

A high capacity intersection would utilize special treatments to increase the capacity of the intersection so as to reduce congestion and travel delay. Since each intersection could have unique travel movements, volumes and existing context sensitive conditions, the special treatments utilized at each high capacity intersection will be selected to meet the specific needs of each intersection. The range of special treatments is quite wide, ranging from the restriction of certain turning movements to various combinations that could include grade separating certain movements. While the field of traffic engineering is ever expending and evolving resulting in the use of new technologies and treatments, special treatments such as the following could be utilized at a high capacity intersection:

- Restricting turning movements
- Median U-turns
- Roundabouts
- Split intersections

- Quadrant roadway intersections
- Bowtie intersections
- Directional flyovers
- Center turn overpass
- Grade separated Roundabout
- Diverging diamond grade separation
- Compact diamond grade separation
- Single point urban grade separation
- Traditional urban grade separation

The County has conducted conceptual engineering to define potential improvements at the three study area intersections on Watt Avenue that are currently designated as "High Capacity Intersections" on the County's General Plan. These are:

- At the **Watt Avenue & Folsom Boulevard** intersection, the County proposes an ultimate configuration involving grade separation of the northbound and southbound through movements of Watt Avenue. Access to and from Folsom Boulevard would be accomplished via on and off-ramps from the left lanes of Watt Avenue to a single signalized intersection. A bus rapid transit (BRT) lane along Watt Avenue would also intersect Folsom Boulevard at the traffic signal. This design is consistent with the recommendations of the South Watt Area Transportation Study (SWATS) dated November 1, 2002 and approved by the Board of Supervisors on November 26, 2002, and with the planning study for the *State Route 16 (Jackson Road) Corridor Study* (Fehr & Peers, 2012). It should be noted that the State Route 16 study has only had a staff-level review done by Caltrans, Sacramento County Department of Transportation, City of Rancho Cordova, and City of Sacramento. Other equivalent mitigation measures may be selected to the satisfaction of the Department of Transportation to mitigate the project's impact.

- At the **Watt Avenue & Kiefer Boulevard** intersection, the County proposes a tight diamond interchange as the ultimate improvement. The through movements (and BRT lane) on Watt Avenue would be grade separated from Kiefer Boulevard. Access to and from Kiefer Boulevard would be accomplished via on and off-ramps at two signalized intersections along Kiefer Boulevard. This design is proposed in the planning study prepared for *State Route 16 (Jackson Road) Corridor Study* (Fehr & Peers, 2012). It should be noted that the State Route 16 study has only had a staff-level review done by Caltrans, Sacramento County Department of Transportation, City of Rancho Cordova, and City of Sacramento. Other equivalent mitigation measures may be selected to the satisfaction of the Department of Transportation to mitigate the project's impact.

- At the **Watt Avenue & Jackson Road** intersection, the County proposes a standard six-by-six signalized intersection (two left-turn lanes, three through lanes, and one right-turn lane, on each approach) with three modifications. 1) The southbound left-turn movement would be grade separated; 2) The westbound right-turn movement would be grade separated; and 3) Three northbound left-turn lanes are proposed. This configuration represents an enhanced version of Alternative 6 in the planning study prepared for *State*

Route 16 (Jackson Road) Corridor Study (Fehr and Peers, 2012). It should be noted that the State Route 16 study has only had a staff-level review done by Caltrans, Sacramento County Department of Transportation, City of Rancho Cordova, and City of Sacramento. Other equivalent mitigation measures may be selected to the satisfaction of the Department of Transportation to mitigate the project's impact.

At the two new proposed "High Capacity Intersections" along Bradshaw Road, the ultimate configurations have not been defined. A number of improvement options involving one or more of the special treatments identified above could be defined that would mitigate the LOS impact at these locations. Since each of these intersections have unique travel movements, volumes and existing context sensitive conditions (potential environmental issues, right-of-way, physical constraints, etc.), the special treatments utilized at each location will need to be studied to select the treatments that mitigate the LOS impact, while avoiding or minimizing other impacts. At Bradshaw Road & Mayhew Road, heavy southbound right turns and westbound left turns suggest that a combination of triple left-turn lanes, dual right-turn lanes and/or overlap phasing may be effective. A high conflicting northbound and southbound volume suggests that grade separating one or more movements may also be necessary to fully mitigate the LOS impact. At Bradshaw Road & Jackson Road, the critical movements are the conflicting through volumes on all approaches. Grade separating either the Bradshaw Road or Jackson Road through movements is likely the only option that would mitigate the LOS impact at this location.

7.3.3 CEQA Cumulative Plus NewBridge Project U.S. 50 Freeway Mitigation

According to Caltrans' US-50 Transportation Concept Report (TCR) and Corridor System Management Plan (CSMP), all mainline freeway lanes of the 8-lane ultimate facility (4 lanes in each direction) have already been built, with the exception of the segment between Zinfandel Drive and Sunrise Boulevard (where 6 of the 8 ultimate lanes exist today). With the exception of this segment, capacity improvements to widen the freeway mainline are precluded by the ultimate configuration in the TCR/CSMP. The TCR/CSMP does conceptualize other projects that will benefit the US-50 corridor without adding additional mainline travel lanes. These improvements generally fall into one of three categories:

- Intelligent transportation systems (ITS) and integrated corridor management (ICM) projects. Some examples may include ramp metering and multimodal improvements.
- Improvements to parallel local facilities. Such projects are expected to reduce travel demand on US-50.
- Future HOV lanes and auxiliary lanes. These projects would extend, or bridge gaps in, the existing HOV and auxiliary lane network. Constructing these lanes is permissible even when further widening of the mainline is not allowable, and is consistent with the ultimate configuration in the TCR/CSMP.

The NewBridge project shall participate in one or more of these alternative improvements that could directly reduce the severity of the project's impact and/or provide operational benefits to the US-50 corridor in general.

7.3.3.1 US-50 Eastbound Alternative Improvements

To lessen the impact to the eastbound US-50 mainline between Stockton Boulevard and 59th Street, the project may pay a fair share toward the construction of:

- Ramp meter improvements (Caltrans ITS/OPS Project List)

To lessen the impact to the eastbound US-50 weave between 65th Street and Howe Avenue, the project may pay a fair share toward the construction of:

- Ramp meter improvements (Caltrans ITS/OPS Project List)
- Widen 65th Street to 5 lanes from US-50 to Broadway (2035 SACOG MTP)

To lessen the impact to the eastbound US-50 mainline between Watt Avenue and Mather Field Road, and to the Bradshaw Road exit, and to the weave between Mather Field Road and Zinfandel Drive, the project may pay a fair share toward the construction of:

- Auxiliary lanes between Bradshaw Road and Mather Field Road (2035 SACOG MTP)
- An interchange modification of US-50 at Mather Field Road (2035 SACOG MTP)

To lessen the impact to the eastbound US-50 mainline between Zinfandel Drive and Hazel Avenue, and to the weave between Rancho Cordova Parkway and Hazel Avenue, the project may pay a fair share toward the construction of:

- Auxiliary lanes between Zinfandel Drive and Sunrise Boulevard (2035 SACOG MTP)
- Auxiliary lanes between Sunrise Boulevard and Hazel Avenue (2035 SACOG MTP)
- Widen Sunrise Boulevard to 6 lanes with special treatments, including intersection improvements at White Rock Road, Folsom Boulevard, Coloma Road, Gold Express Drive, and Gold Country Boulevard (2035 SACOG MTP)
- A new interchange at Rancho Cordova Parkway, including a 4-lane arterial from US-50 to White Rock Road (2035 SACOG MTP)
- Multi-modal corridor improvements and interchange improvements at Hazel Avenue (2035 SACOG MTP)

7.3.3.2 US-50 Westbound Alternative Improvements

To lessen the impact to the westbound US-50 weave between Hazel Avenue and Rancho Cordova Parkway, the project may pay a fair share toward the construction of:

- Multi-modal corridor improvements and interchange improvements at Hazel Avenue (2035 SACOG MTP)
- Auxiliary lanes between Hazel Avenue and Rancho Cordova Parkway (2035 SACOG MTP)

To lessen the impact to the westbound US-50 on-ramp at Sunrise Boulevard, the project may pay a fair share toward the construction of:

- Auxiliary lanes between Sunrise Boulevard and Zinfandel Drive (2035 SACOG MTP)
- A transition lane from the Sunrise Boulevard slip off-ramp to the Sunrise Boulevard slip on-ramp (2035 SACOG MTP)

To lessen the impact to the westbound US-50 mainline between Mather Field Road and Bradshaw Road, and to the SB Bradshaw Road slip on-ramp, the project may pay a fair share toward the construction of:

- Auxiliary lanes between Mather Field Road and Bradshaw Road (2035 SACOG MTP)
- An interchange modification of US-50 at Mather Field Road (2035 SACOG MTP)

To lessen the impact to the westbound US-50 mainline between Watt Avenue and SR-51/SR-99, and to the SB Howe Avenue slip on-ramp, the project may pay a fair share toward the construction of:

- Bus/HOV lanes from Watt Avenue to Downtown Sacramento (2035 SACOG MTP)
- Replacement of existing communication lines with fiber optics to improve performance between SR-51/SR-99 and Watt Avenue (2013 10-Year SHOPP Plan)
- Auxiliary lane between the NB Howe Avenue on-ramp and the SB Howe Avenue on-ramp (2035 SACOG MTP)
- Ramp meter improvements (Caltrans ITS/OPS Project List)

7.3.4 CEQA Cumulative Plus NewBridge Project Pedestrian and Bicycle Facility Mitigation

The NewBridge project applicant shall coordinate with Sacramento County to identify the necessary on- and off-site pedestrian and bicycle facilities to serve the proposed development. These facilities shall be incorporated into the NewBridge project and could include sidewalks, stop signs, standard pedestrian and school crossing warning signs, lane striping to provide a bicycle lane, bicycle parking, signs to identify pedestrian and bicycle paths, raised crosswalks, pedestrian signal heads, and all appropriate traffic calming measures as defined in the County's Neighborhood Traffic Management Program (NTMP). Sidewalks would be required as part of the frontage improvements along all new roadway construction in the NewBridge project vicinity in conformance with County design standards. Circulation and access to all proposed public spaces shall include sidewalks that meet Americans with Disabilities Act standards.

7.3.5 CEQA Cumulative Plus NewBridge Project Transit System Mitigation

The applicant of the NewBridge project shall coordinate with Regional Transit (or other transit operators) to provide the additional transit facilities and services assumed in transportation analysis (see Section 3.1.2.3), or a cost-effective equivalent level of transit facilities and services.

The assumed transit routes and service frequency would be required at full development of the NewBridge project. The full level of transit service would not achieve adequate transit ridership during the early stages of development. Thus the ultimate transit service, like the roadway system serving the NewBridge project, must be phased with development of the NewBridge project.

7.3.6 CEQA Cumulative Plus NewBridge Project Functionality Mitigation

Table 7.11 summarizes the results of the functionality analysis for the rural roadway segments with mitigation.

Table 7.9

CEQA Cumulative Plus FOUR PROJECTS Impacted Intersections and Mitigations - Impacts Triggered by NewBridge Project

	Intersection	AM Peak Hour								PM Peak Hour							
		CEQA Cumulative Plus FOUR PROJECTS			LOS Impact	Mitigated CEQA Cumulative Plus FOUR PROJECTS				CEQA Cumulative Plus FOUR PROJECTS			LOS Impact	Mitigated CEQA Cumulative Plus FOUR PROJECTS			
		Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)		Control	Int LOS	Delay (sec)	
61	Eagles Nest Road & Florin Road	Two-way stop	F	>300	Yes	Signal	E	76.1		Two-way stop	F	>300	Yes	Signal	E	62.4	
	Northbound		*F*	*>300*							*F*	*>300*					
	Southbound		*F*	*>300*							*F*	*>300*					
	Eastbound Left Turn		*B*	*11.6*							*A*	*0.0*					
	Westbound Left Turn		*A*	*0.0*							*A*	*0.0*					
67	Sunrise Boulevard & Douglas Road	Signal	F	230.7	Yes	Signal	F	230.5		Signal	F	115.4	Yes	Signal	F	114.7	
69	Sunrise Boulevard & Kiefer Boulevard	Signal	F	443.8	Yes	Signal	**F**	**88.7**		Signal	F	167.2	Yes	Signal	**E**	**59.3**	
91	Grant Line Rd & Eagles Nest Rd/Sloughhouse Rd	Signal	**F**	**358.4**	No					Signal	F	343.5	Yes	Signal	**F**	**280.3**	
93	Grant Line Rd & Dwy/Wilton Rd	Signal	**F**	**89.1**	No					Signal	F	103.6	Yes	Signal	**E**	**55.8**	
97	Rock Creek Pkwy & Jackson Road	Signal	F	201.5	Yes					Signal	F	188.2	Yes				

Note: Gray shading represents changes in traffic control that the project is responsible to provide.

Bold values do not meet LOS policy. **Red** values with light gray shading indicate project impacts.

Table 7.10

CEQA Cumulative Plus FOUR PROJECTS Intersection Impacts and Mitigations - Impacts Triggered by NewBridge Project

	Intersection	Traffic Control		CEQA Cumulative Plus FOUR PROJECTS Lane Geometrics				Mitigated CEQA Cumulative Plus FOUR PROJECTS Lane Geometrics				Impact Caused by NewBridge Alone?	LOS Impact with Mitgation?	High Capacity Intersection?[1]	Alternative Mitigation[2]	Constraint if Full Mitigation Not Possible
		CEQA Cumulative Plus FOUR PROJECTS	Mitigated CEQA Cumulative Plus FOUR PROJECTS	NB Approach	SB Approach	EB Approach	WB Approach	NB Approach	SB Approach	EB Approach	WB Approach					
61	Eagles Nest Road & Florin Road	Two-way stop	Signal									Yes	No	No		
67	Sunrise Boulevard & Douglas Road	Signal	Signal									Yes	Yes	No		Maximum General Plan lanes
69	Sunrise Boulevard & Kiefer Boulevard	Signal	Signal									Yes	No	No		
91	Grant Line Rd & Eagles Nest Rd/Sloughhouse Rd	Signal	Signal									Yes	No	No		
93	Grant Line Rd & Dwy/Wilton Rd	Signal	Signal									Yes	No	No		
97	Rock Creek Pkwy & Jackson Road	Signal	Signal									Yes	Yes	No		Maximum General Plan lanes

[1] High capacity intersections are defined in the Sacramento County General Plan and may include grade separations, additional turn lanes, and/or other features as deemed appropriate by the County.

[2] Alternative mitigations represent proposed mitigations beyond the General Plan, excluding high capacity intersections, as proposed by the County of Sacramento.

Note: Gray shading represents changes in traffic control or approach lanes that the project is responsible to provide.

Table 7.11
CEQA Cumulative Plus FOUR PROJECTS Functionality Mitigations - Impacts Triggered by NewBridge Project

ID	Roadway	Segment		CEQA Cumulative + FOUR PROJECTS				Mitigation	Impact after Mitigation?
		From	To	Travel Lanes	Facility Type[1]	Forecasted Volume	Functionality Impact? [2]		
16	Douglas Rd	Zinfandel Dr	Sunrise Blvd	6	Arterial M	48,540	Yes[3]	Widen to County standards [5]	No
19	Eagles Nest Rd	Kiefer Blvd	Jackson Rd	4	Arterial M	15,420	Yes[3]	Widen to County standards [5]	No
25	Elder Creek Rd	South Watt Ave	Hedge Ave	4	Arterial M	54,480	Yes[3]	Widen to County standards [5]	No
26	Elder Creek Rd	Hedge Ave	Mayhew Rd	4	Arterial M	43,210	Yes[3]	Widen to County standards [5]	No
27	Elder Creek Rd	Mayhew Rd	Bradshaw Rd	4	Arterial M	25,620	Yes[3]	Widen to County standards [5]	No
33	Excelsior Rd	Florin Rd	Gerber Rd	2	Arterial M	14,300	Yes	Widen to County standards [5]	No
39	Florin Rd	South Watt Ave	Hedge Ave	4	Arterial M	13,280	Yes[3]	Widen to County standards [5]	No
40	Florin Rd	Hedge Ave	Mayhew Rd	4	Arterial M	14,700	Yes[3]	Widen to County standards [5]	No
41	Florin Rd	Mayhew Rd	Bradshaw Rd	4	Arterial M	43,130	Yes[3]	Widen to County standards [5]	No
42	Florin Rd	Bradshaw Rd	Excelsior Rd	4	Arterial M	29,540	Yes[3]	Widen to County standards [5]	No
43	Florin Rd	Excelsior Rd	Sunrise Blvd	2	Arterial M	18,580	Yes	Widen to County standards [5]	No
48	Fruitridge Rd	South Watt Ave	Hedge Ave	3	Arterial M	24,970	Yes[3]	Widen to County standards [5]	No
50	Grant Line Rd	White Rock Rd	Douglas Rd	4	Arterial M	40,500	Yes[3]	Widen to County standards [5]	No
70	Jackson Rd	Bradshaw Rd	Excelsior Rd	6	Arterial M	60,480	Yes[3]	Widen to County standards [5]	No
71	Jackson Rd	Excelsior Rd	Eagles Nest Rd	4	Arterial M	62,780	Yes[3]	Widen to County standards [5]	No
77	Kiefer Blvd	Bradshaw Rd	Happy Ln	6	Arterial M	56,300	Yes[3]	Widen to County standards [5]	No
78	Kiefer Blvd	Zinfandel Dr	Sunrise Blvd	3	Arterial M	37,390	Yes[3]	Widen to County standards [5]	No
123	Zinfandel Dr	Douglas Rd	Kiefer Blvd	4	Arterial M	31,690	Yes[3]	Widen to County standards [5]	No

Note: Gray shading indicates changes in travel lanes or facility type that the project is responsible to provide. For all roadway segments to be widened, the project is responsible to build the entire roadway to County standards.

[1] Substandard rural roads are defined as rural, 2-lane roadway segments with travel lanes narrower than 12 feet and/or roadside shoulders narrower than 6 feet.

[2] Functionality impacts are triggered when a substandard rural road increases over a threshold of 6,000 ADT, or for a roadway already above 6,000 ADT, increases by more than 600 ADT.

[3] The potential for an impact exists should the project generate traffic volumes on the roadway exceeding 6,000 ADT, or increasing more than 600 ADT on a roadway already above 6,000 ADT, prior to the construction of roadway improvements.

[4] Excluding the roadway segment that is within the developed community of Independence at Mather.

[5] The functionality impact is mitigated by improving the roadway to County standards, including widening travel lanes to 12 feet and/or widening or providing paved shoulders to 6 feet.

Red text with light gray shading indicate project impacts.

7.3.7 CEQA Cumulative Plus NewBridge Project Mitigation Summary

Tables 7.12 and 7.13 summarize the mitigation success for the roadway segments and intersections that exhibit significant LOS impacts. Table 7.14 summarizes the mitigation success for the rural roadway segments that exhibit functionality impacts. Tables 6.13 through 6.15 summarize the mitigation success for the freeway system facilities that exhibit significant impacts.

Table 7.12
CEQA Cumulative Plus FOUR PROJECTS
Summary of Impacted Roadway Segments Triggered by NewBridge Project

ID	Roadway	Segment	
		From	To
Level of Service Impact Fully Mitigated by General Plan Lanes			
71.2	Jackson Rd	Collector JT-3	Tree View Ln
71.3	Jackson Rd	Tree View Ln	Collector JT-4
71.4	Jackson Rd	Collector JT-4	Eagles Nest Rd
73	Jackson Rd	Sunrise Blvd	Grant Line Rd
Level of Service Impact Not Fully Mitigated by General Plan Lanes			
66.2	Jackson Rd	14th Ave	Rock Creek Pkwy
66.3	Jackson Rd	Rock Creek Pkwy	Aspen 1 Dwy
71.1	Jackson Rd	Excelsior Rd	Collector JT-3
79	Kiefer Blvd	Sunrise Blvd	Rancho Cordova Pkwy

Note: Refer to Table 7.8 for detailed description of impacts and mitigations.

Table 7.13

CEQA Cumulative Plus FOUR PROJECTS -
Summary of Intersection Impacts Triggered by NewBridge Project

	Intersection	Alternative Mitigation
Level of Service Impact Fully Mitigated by General Plan Lanes		
61	Eagles Nest Road & Florin Road	
69	Sunrise Boulevard & Kiefer Boulevard	
91	Grant Line Rd & Eagles Nest Rd/Sloughhouse Rd	
93	Grant Line Rd & Dwy/Wilton Rd	
Level of Service Impact Not Fully Mitigated by General Plan Lanes		
67	Sunrise Boulevard & Douglas Road	
97	Rock Creek Pkwy & Jackson Road	

[1] Alternative mitigations represent proposed mitigations beyond the General Plan, excluding designated high capacity intersections, as proposed by the County of Sacramento.

* denotes alternative mitigations that improve operations but do not fully mitigate the impact.
** denotes alternative mitigations that fully mitigate the impact.

Table 7.14
CEQA Cumulative Plus FOUR PROJECTS
Summary of Functionality Impacts Triggered by NewBridge Project

ID	Roadway	Segment	
		From	To
Functionality Impact Fully Mitigated			
16	Douglas Rd	Zinfandel Dr	Sunrise Blvd
19	Eagles Nest Rd	Kiefer Blvd	Jackson Rd
25	Elder Creek Rd	South Watt Ave	Hedge Ave
26	Elder Creek Rd	Hedge Ave	Mayhew Rd
27	Elder Creek Rd	Mayhew Rd	Bradshaw Rd
33	Excelsior Rd	Florin Rd	Gerber Rd
39	Florin Rd	South Watt Ave	Hedge Ave
40	Florin Rd	Hedge Ave	Mayhew Rd
41	Florin Rd	Mayhew Rd	Bradshaw Rd
42	Florin Rd	Bradshaw Rd	Excelsior Rd
43	Florin Rd	Excelsior Rd	Sunrise Blvd
48	Fruitridge Rd	South Watt Ave	Hedge Ave
50	Grant Line Rd	White Rock Rd	Douglas Rd
70	Jackson Rd	Bradshaw Rd	Excelsior Rd
71	Jackson Rd	Excelsior Rd	Eagles Nest Rd
77	Kiefer Blvd	Bradshaw Rd	Happy Ln
78	Kiefer Blvd	Zinfandel Dr	Sunrise Blvd
123	Zinfandel Dr	Douglas Rd	Kiefer Blvd

8. NEWBRIDGE ALTERNATIVES ANALYSIS

8.1 INTRODUCTION

The NewBridge project proposes four additional alternatives for analysis, in addition to the base alternative. The additional alternatives are further described in Section 8.3, but are identified as follows:

- Alternative 1: Increased Density, Smaller Footprint
- Alternative 2: Maximized Wetland Avoidance
- Alternative 3: Decreased Greenhouse Gas (GHG) Emissions and Vehicle Miles Traveled (VMT)
- Alternative 4: Buildout of Existing Zoning

The analysis for the NewBridge project (base alternative) can be found in Section 3 (existing conditions) and Sections 6 and 7 (CEQA cumulative conditions). Please refer to those sections for the transportation analysis of the project. Note that this alternatives analysis provides a comparison of the impacts of the alternatives *relative* to the impacts of the project.

Two types of analyses are typically used to evaluate the traffic impacts of a proposed project or alternative: quantitative analysis and qualitative analysis. **Quantitative** analysis includes running a travel demand model and using forecasted volumes to conduct level of service analysis, VMT-related calculations, and evaluate other measures of performance. **Qualitative** analysis may or may not include running a travel demand model, but takes a more macro approach to evaluating traffic operations. Instead of making numerous calculations at each intersection and roadway segment, a qualitative approach to analyzing an alternative may look at the project as a whole and analyze whether traffic volumes generally decreased, increased, or remained constant. A qualitative approach may also evaluate if changes to proposed land use caused traffic patterns to shift temporally and / or spatially.

8.2 METHODOLOGY

A "hybrid" approach was selected for the analysis of the NewBridge project alternatives. A hybrid analysis consists of an existing plus project alternative travel demand model run that provides quantitative data for person and vehicle trip generation, mode split, average daily traffic (ADT), and VMT inputs needed for air quality/greenhouse gas (GHG) emissions analysis, but no further detailed traffic analysis (level of service calculations).

For a description of the study area, forecasting and operations analysis methodology, level of service policies, and standards of significance, please refer to the base project documentation in Chapter 2 of this report.

8.3 ALTERNATIVE DESCRIPTIONS

8.3.1 Description of Alternative 1 – Increased Density, Smaller Footprint

Alternative 1 proposes to increase the density of the project, in order to decrease its overall footprint. This is accomplished by changing some of the low density parcels to medium density, medium density to high density and/or mixed use, and increasing the area of open space. The net effect of these changes is shifting 600 low and medium density units to high density. There were small adjustments to the acreage, and therefore square footage, of non-residential uses.

Table 8.1 summarizes the NewBridge Alternative 1 land use. Table 8.2 shows the difference in dwelling unit and square footage totals between the base project and Alternative 1. Figure 8.1 shows the proposed land use map of Alternative 1.

Table 8.1: Land Use Summary for the NewBridge Alternative 1 – Increased Density, Smaller Footprint

		Residential			Non-Residential	
Land Use Category	**Acres**	**Density Range**	**Ave Density**	**Dwelling Units**	**Floor Area Ratio**	**Estimated Square Feet**
Low Density	144.1	< 7	4.6	660		
Medium Density	68.2	7 – 12.9	10.3	705		
High Density	59.6	13 – 30	26.0	1,550		
High Density Bonus Units[1]				57		
Commercial	21.0				0.227	207,800
Mixed Use	15.0	> 30		160	0.255	166,700
Office	13.8				0.295	177,400
Park	39.7					
Open Space	564.4					
Elementary School	10.3					
Other Public/Quasi-Public	2.8					
Major Roads	51.0					
Agriculture (Ag Res)	105.4			660		60,000
Total	**1,095.3**			**3,792**		**611,900**

[1] Includes bonus units in both the high density and mixed use areas.

Source: *Project Applicant*

Table 8.2: Change in Land Use Totals Between Base Project and NewBridge Alternative 1 – Increased Density, Smaller Footprint

Land Use Category	Acres	Residential	Non-Residential
		Dwelling Units	Estimated Square Feet
Low Density	-81.1	-425	
Medium Density	-39.1	-175	
High Density	+22.3	+600	
High Density Bonus Units[1]		-56	
Commercial	+1.8		+17,800
Mixed Use	+3.3	0	+36,700
Office	-0.2		-2,600
Park	-1.6		
Open Space	+92.7		
Elementary School	+0.9		
Other Public/Quasi-Public	0.0		
Major Roads	+1.0		
Agriculture (Ag Res)	0.0	0	0
Total	**0.0**	**-56**	**+51,900**

[1] Includes bonus units in both the high density and mixed use areas.

Source: *Project Applicant and DKS Associates, 2015.*

Figure 8.1: Land Use Map of NewBridge Alternative 1 – Increased Density, Smaller Footprint

8.3.2 Description of Alternative 2 – Maximized Wetland Avoidance

Alternative 2 was crafted to maximize the avoidance of wetlands. This is accomplished by sharply reducing the number of dwelling units across all densities in order to increase the area of open space. The net effect of these changes is a loss of over 850 units, compared to the base project. This alternative slightly increases the commercial square footage, but completely eliminates the office land use.

Table 8.3 summarizes the NewBridge Alternative 2 land use. Table 8.4 shows the difference in dwelling unit and square footage totals between the base project and Alternative 2. Figure 8.2 shows the proposed land use map of Alternative 2.

Table 8.3: Land Use Summary for the NewBridge Alternative 2 – Maximized Wetland Avoidance

		Residential			Non-Residential	
Land Use Category	**Acres**	**Density Range**	**Ave Density**	**Dwelling Units**	**Floor Area Ratio**	**Estimated Square Feet**
Low Density	177.2	< 7	5.2	925		
Medium Density	62.4	7 – 12.9	9.1	565		
High Density	27.6	13 – 30	23.7	655		
High Density Bonus Units[1]				28		
Commercial	23.9				0.227	236,500
Mixed Use	13.8	> 30		160	0.216	130,000
Office	N/A					
Park	34.0					
Open Space	586.9					
Elementary School	10.3					
Other Public/Quasi-Public	2.8					
Major Roads	51.0					
Agriculture (Ag Res)	105.4			660		60,000
Total	**1,095.3**			**2,993**		**426,500**

[1] Includes bonus units in both the high density and mixed use areas.

Source: *Project Applicant*

Table 8.4: Change in Land Use Totals Between Base Project and NewBridge Alternative 2 – Maximized Wetland Avoidance

Land Use Category	Acres	Residential	Non-Residential
		Dwelling Units	Estimated Square Feet
Low Density	-48.0	-160	
Medium Density	-44.9	-315	
High Density	-9.7	-295	
High Density Bonus Units[1]		-85	
Commercial	+4.7		+46,500
Mixed Use	+2.1	0	0
Office	-14.0		-180,000
Park	-7.3		
Open Space	+115.2		
Elementary School	+0.9		
Other Public/Quasi-Public	0.0		
Major Roads	+1.0		
Agriculture (Ag Res)	0.0	0	0
Total	**0.0**	**-855**	**-133,500**

[1] Includes bonus units in both the high density and mixed use areas.

Source: *Project Applicant and DKS Associates, 2015.*

Figure 8.2: Land Use Map of NewBridge Alternative 2 – Maximized Wetland Avoidance

8.3.3 Description of Alternative 3 – Decreased GHG Emissions and VMT

Alternative 3 was developed to minimize greenhouse gas (GHG) emissions and vehicle miles traveled (VMT). This is accomplished by altering the roadway system to a more grid-like network, improving connectivity, walkability, and bikeability. The Alternative 3 roadway network would require installation of a new traffic signal on Sunrise Boulevard, which does not exist under the base project and would have to be coordinated with the City of Rancho Cordova. The net effect of the proposed changes is a loss of approximately 300 units and moderate increases to retail and office square footage, compared to the base project.

Table 8.5 summarizes the NewBridge Alternative 3 land use. Table 8.6 shows the difference in dwelling unit and square footage totals between the base project and Alternative 3. Figure 8.3 shows the proposed land use map of Alternative 3.

Table 8.5: Land Use Summary for the NewBridge Alternative 3 – Decreased GHG Emissions and VMT

		Residential			Non-Residential	
Land Use Category	**Acres**	**Density Range**	**Ave Density**	**Dwelling Units**	**Floor Area Ratio**	**Estimated Square Feet**
Low Density	248.3	< 7	4.8	1,180		
Medium Density	92.0	7 – 12.9	7.6	700		
High Density	32.4	13 – 30	25.0	810		
High Density Bonus Units[1]				34		
Commercial	21.0				0.227	207,800
Mixed Use	11.4	> 30		160	0.255	126,700
Office	19.0				0.295	244,200
Park	39.0					
Open Space	463.2					
Elementary School	10.3					
Other Public/Quasi-Public	2.8					
Major Roads	50.5					
Agriculture (Ag Res)	105.4			660		60,000
Total	**1,095.3**			**3,544**		**638,700**

[1] Includes bonus units in both the high density and mixed use areas.

Source: *Project Applicant*

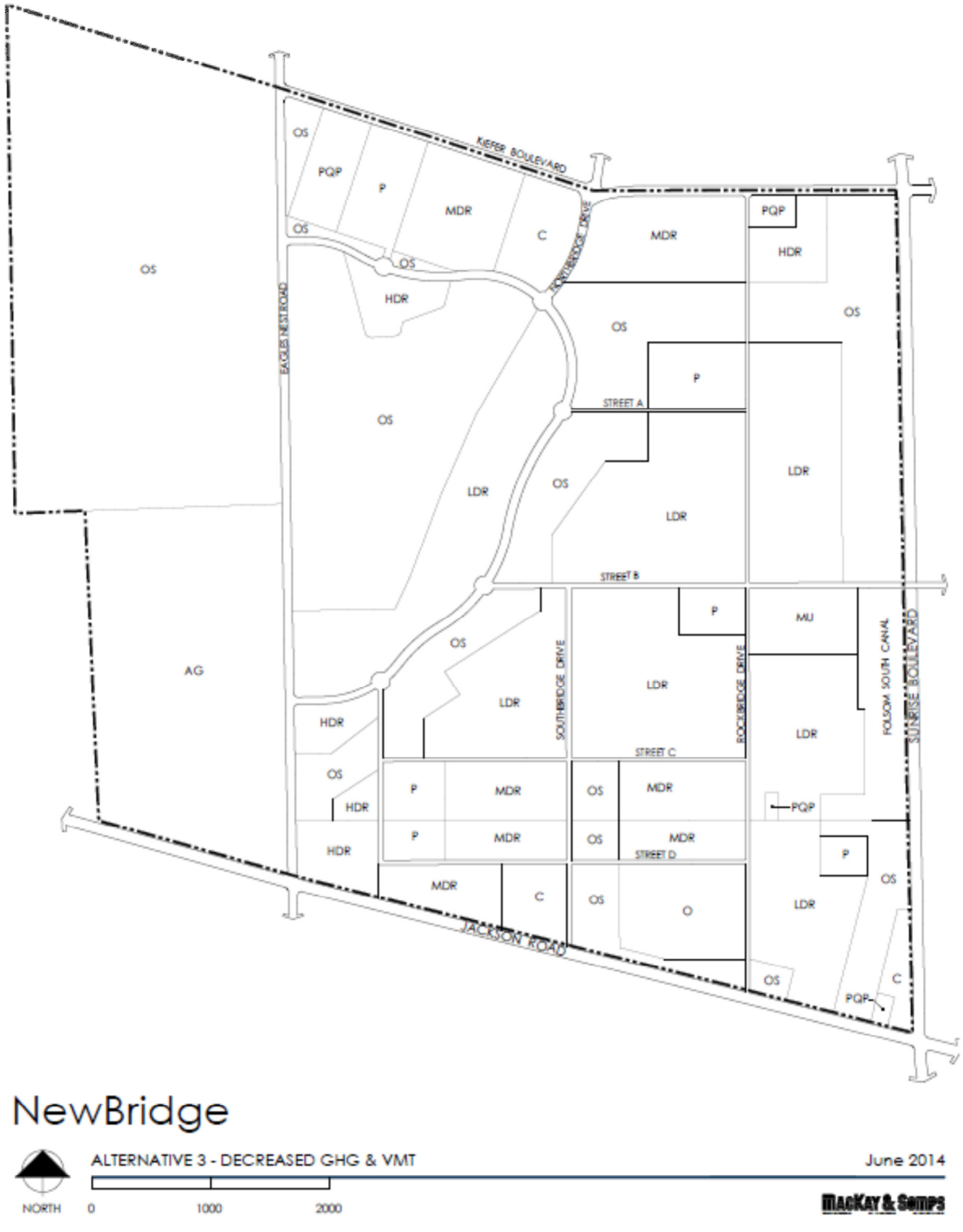
Table 8.6: Change in Land Use Totals Between Base Project and NewBridge Alternative 3 – Decreased GHG Emissions and VMT

Land Use Category	Acres	Residential	Non-Residential
		Dwelling Units	Estimated Square Feet
Low Density	+23.1	+95	
Medium Density	-15.3	-180	
High Density	-4.9	-140	
High Density Bonus Units[1]		-79	
Commercial	+1.8		+17,800
Mixed Use	-0.3	0	-3,300
Office	+5.0		+64,200
Park	-2.3		
Open Space	-8.5		
Elementary School	+0.9		
Other Public/Quasi-Public	0.0		
Major Roads	+0.5		
Agriculture (Ag Res)	0.0	0	0
Total	**0.0**	**-304**	**+78,700**

[1] Includes bonus units in both the high density and mixed use areas.

Source: *Project Applicant and DKS Associates, 2015.*

Figure 8.3: Land Use Map of NewBridge Alternative 3 – Decreased GHG Emissions and VMT



8.3.4 Description of Alternative 4 – Buildout of Existing Zoning

Alternative 4 assumed that instead of the proposed project, existing zoning was retained and built out. This alternative has no residential development (with the exception of three single family homes on agriculturally-zoned land), and over 6.5 square million feet of light and heavy industrial use. No other employment besides industrial is assumed in this alternative.

Table 8.7 summarizes the NewBridge Alternative 4 land use. Table 8.8 shows the difference in dwelling unit and square footage totals between the base project and Alternative 4. Figure 8.4 shows the proposed land use map of Alternative 4.

Table 8.7: Land Use Summary for the NewBridge Alternative 4 – Buildout of Existing Zoning

		Residential			Non-Residential	
Land Use Category	**Acres**	**Density Range**	**Ave Density**	**Dwelling Units**	**Floor Area Ratio**	**Estimated Square Feet**
Low Density	N/A					
Medium Density	N/A					
High Density	N/A					
High Density Bonus Units[1]	N/A					
Commercial	N/A					
Mixed Use	N/A					
Office	N/A					
Park	N/A					
Open Space	63.8					
Elementary School	N/A					
Other Public/Quasi-Public	N/A					
Major Roads	19.5					
Agriculture	511.7			3		
Light Industrial	197.8					2,584,850
Heavy Industrial	302.5					3,986,070
Total	**1,095.3**			**3**		**6,570,920**

[1] Includes bonus units in both the high density and mixed use areas.

Source: *Project Applicant*

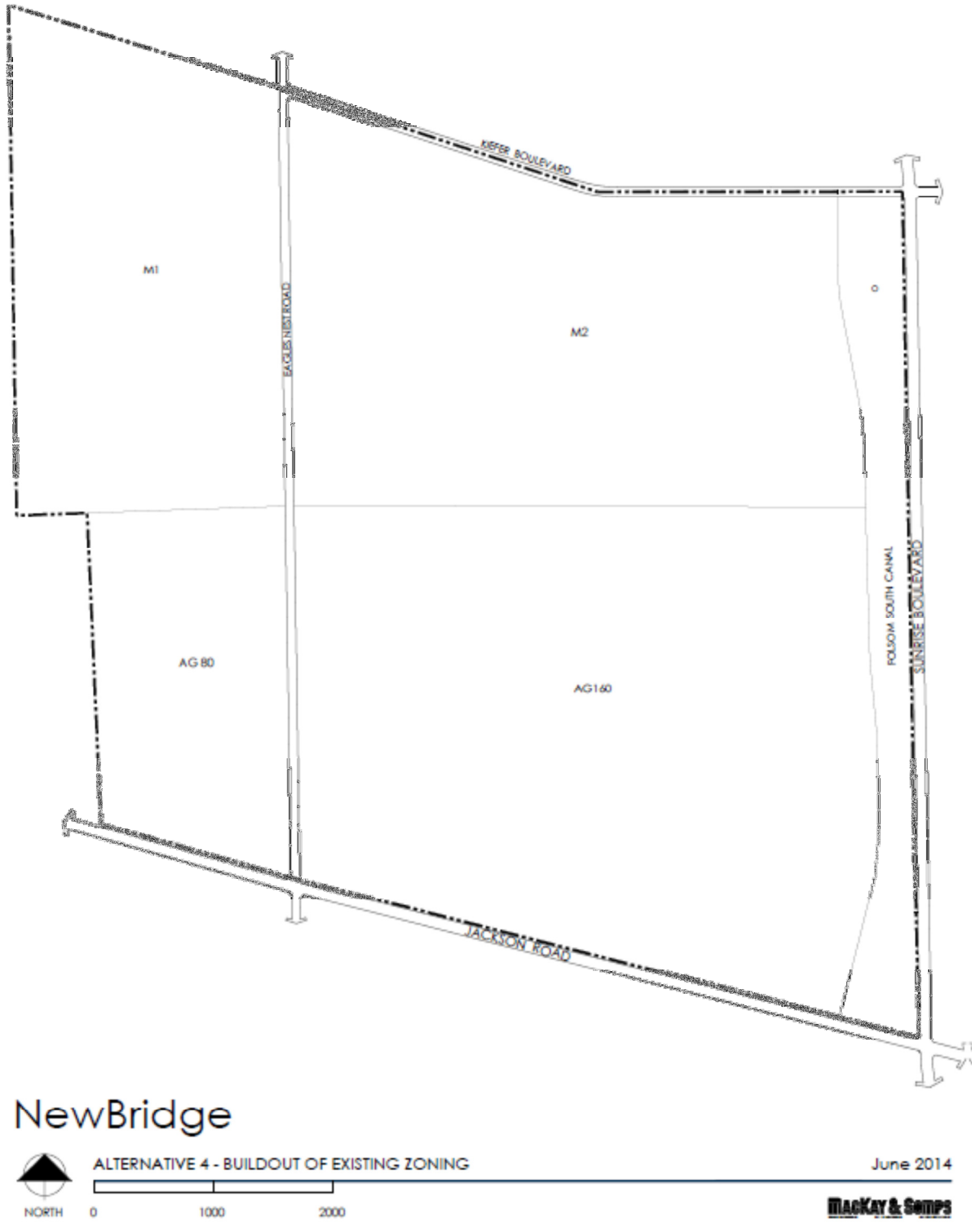
Table 8.8: Change in Land Use Totals Between Base Project and NewBridge Alternative 4 – Buildout of Existing Zoning

Land Use Category	Acres	Residential	Non-Residential
		Dwelling Units	Estimated Square Feet
Low Density	-225.2	-1,085	
Medium Density	-107.3	-880	
High Density	-37.3	-950	
High Density Bonus Units[1]		-113	
Commercial	-19.2		-190,000
Mixed Use	-11.7	-160	-130,000
Office	-14.0		-180,000
Park	-41.3		
Open Space	-407.9		
Elementary School	-9.4		
Other Public/Quasi-Public	-2.8		
Major Roads	-30.5		
Agriculture (Ag Res)	+406.3	-657	-60,000
Light Industrial	+197.8		+2,584,850
Heavy Industrial	+302.5		+3,986,070
Total	**0.0**	**-3,845**	**+6,010,920**

[1] Includes bonus units in both the high density and mixed use areas.

Source: *Project Applicant and DKS Associates, 2015.*

Figure 8.4: Land Use Map of NewBridge Alternative 4 – Buildout of Existing Zoning



8.3.5 Land Use Summary and Comparison

A side-by-side comparison of the land use assumptions for the NewBridge project and Alternatives 1 through 4 is provided in Table 8.9. Alternative 1 primarily increases the density of the residential development to allow for more open space. Alternative 2 reduces the magnitude of the overall residential development and does not include any office development, in order to maximize the avoidance of wetlands. Alternative 3 changes the assumed roadway network to be more grid-like, reducing the number of dwelling units and increasing the square footage of non-residential development. Alternative 4 simply assumes that the existing (industrial) zoning remains and is built out.

Table 8.9: Land Use Summary Comparison between Alternatives

Land Use Category	Residential Dwelling Units					Non-Residential Estimated Square Feet				
	Base Project	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Base Project	Alt. 1	Alt. 2	Alt. 3	Alt. 4
Low Density	1,085	660	925	1,180						
Medium Density	880	705	565	700						
High Density	950	1,550	655	810						
High Density Bonus Units[1]	113	57	28	34						
Commercial						190,000	207,800	236,500	207,800	
Mixed Use	160	160	160	160		130,000	166,700	130,000	126,700	
Office						180,000	177,400		244,200	
Park										
Open Space										
Elementary School										
Other Public/Quasi-Public										
Major Roads										
Agriculture	660	660	660	660	3	60,000	60,000	60,000	60,000	
Light Industrial										2,584,850
Heavy Industrial										3,986,070
Total	**3,848**	**3,792**	**2,993**	**3,544**	**3**	**560,000**	**611,900**	**426,500**	**638,700**	**6,570,920**

[1] Includes bonus units in both the high density and mixed use areas.

Source: Project Applicant and DKS Associates, 2015.

8.4 TRIP GENERATION

8.4.1 Alternative 1 Trip Generation

The SACSIM travel demand model was utilized to estimate trip generation and mode split for Alternative 1, using the same methodology as the NewBridge project analysis.

Table 8.9: Estimated Daily Person Trip Generation (Existing Plus Alternative 1) NewBridge Specific Plan

Trip Purpose	Daily Person Trip Ends
Work Trips	6,865
Non-Work Trips	38,055
All Trip Purposes	44,920

Source: *DKS Associates, 2015.*

Table 8.10: Mode Split (Existing Plus Alternative 1) NewBridge Specific Plan

Mode	Percentage of Person Trips by Trip Purpose		
	Work Trips	Non-Work Trips	All Trip Purposes
Auto - SOV	87.6%	45.4%	51.8%
Auto - HOV	8.9%	47.1%	41.3%
Transit	1.4%	0.8%	0.9%
Walk	1.8%	6.2%	5.5%
Bike	0.1%	0.6%	0.5%

Source: *DKS Associates, 2015.*

Table 8.11: Estimated Daily Vehicle Trip Generation (Existing Plus Alternative 1) NewBridge Specific Plan

Trip Type		AM Peak Hour	PM Peak Hour	Daily
Total Vehicle Trip Ends		6,370	9,399	30,799
Percent Internal Trip Ends[1]		9.4%	11.4%	10.3%
Vehicle Trips	Internal to Project	299	537	1,580
	External to Project	5,772	8,324	27,639
	Total	6,071	8,861	29,219

[1.] Both trip ends within the project.

Source: *DKS Associates, 2015.*

8.4.2 Alternative 2 Trip Generation

The SACSIM travel demand model was utilized to estimate trip generation and mode split for Alternative 2, using the same methodology as the NewBridge project analysis.

Table 8.12: Estimated Daily Person Trip Generation (Existing Plus Alternative 2) NewBridge Specific Plan

Trip Purpose	Daily Person Trip Ends
Work Trips	4,905
Non-Work Trips	29,427
All Trip Purposes	34,333

Source: *DKS Associates, 2015.*

Table 8.13: Mode Split (Existing Plus Alternative 2) NewBridge Specific Plan

Mode	Percentage of Person Trips by Trip Purpose		
	Work Trips	Non-Work Trips	All Trip Purposes
Auto - SOV	87.3%	41.3%	47.9%
Auto - HOV	10.8%	46.9%	41.7%
Transit	1.7%	0.7%	0.8%
Walk	0.1%	4.0%	3.5%
Bike	0.1%	0.5%	0.4%

Source: *DKS Associates, 2015.*

Table 8.14: Estimated Daily Vehicle Trip Generation (Existing Plus Alternative 2) NewBridge Specific Plan

Trip Type		AM Peak Hour	PM Peak Hour	Daily
Total Vehicle Trip Ends		4,563	6,618	22,227
Percent Internal Trip Ends[1]		6.8%	8.0%	6.8%
Vehicle Trips	Internal to Project	154	266	757
	External to Project	4,254	6,086	20,714
	Total	4,408	6,352	21,470

[1.] Both trip ends within the project.

Source: *DKS Associates, 2015.*

8.4.3 Alternative 3 Trip Generation

The SACSIM travel demand model was utilized to estimate trip generation and mode split for Alternative 3, using the same methodology as the NewBridge project analysis.

Table 8.15: Estimated Daily Person Trip Generation (Existing Plus Alternative 3) NewBridge Specific Plan

Trip Purpose	Daily Person Trip Ends
Work Trips	7,022
Non-Work Trips	37,054
All Trip Purposes	44,076

Source: *DKS Associates, 2015.*

Table 8.16: Mode Split (Existing Plus Alternative 3) NewBridge Specific Plan

Mode	Percentage of Person Trips by Trip Purpose		
	Work Trips	Non-Work Trips	All Trip Purposes
Auto - SOV	86.1%	47.2%	53.4%
Auto - HOV	10.0%	46.5%	40.7%
Transit	1.8%	0.5%	0.7%
Walk	1.9%	5.2%	4.7%
Bike	0.2%	0.5%	0.5%

Source: *DKS Associates, 2015.*

Table 8.17: Estimated Daily Vehicle Trip Generation (Existing Plus Alternative 3) NewBridge Specific Plan

Trip Type		AM Peak Hour	PM Peak Hour	Daily
Total Vehicle Trip Ends		6,401	9,394	30,844
Percent Internal Trip Ends[1]		10.5%	12.0%	10.7%
Vehicle Trips	Internal to Project	335	565	1,653
	External to Project	5,730	8,264	27,537
	Total	6,066	8,829	29,191

[1.] Both trip ends within the project.

Source: *DKS Associates, 2015.*

8.4.4 Alternative 4 Trip Generation

The SACSIM travel demand model was utilized to estimate trip generation and mode split for Alternative 4, using the same methodology as the NewBridge project analysis.

Table 8.18: Estimated Daily Person Trip Generation (Existing Plus Alternative 4) NewBridge Specific Plan

Trip Purpose	Daily Person Trip Ends
Work Trips	5,480
Non-Work Trips	19,014
All Trip Purposes	24,494

Source: *DKS Associates, 2015.*

Table 8.19: Mode Split (Existing Plus Alternative 4) NewBridge Specific Plan

Mode	Percentage of Person Trips by Trip Purpose		
	Work Trips	Non-Work Trips	All Trip Purposes
Auto - SOV	89.5%	77.7%	80.4%
Auto - HOV	10.3%	18.1%	16.4%
Transit	0.0%	0.0%	0.0%
Walk	0.0%	4.0%	3.1%
Bike	0.2%	0.1%	0.2%

Source: *DKS Associates, 2015.*

Table 8.20: Estimated Daily Vehicle Trip Generation (Existing Plus Alternative 4) NewBridge Specific Plan

Trip Type		AM Peak Hour	PM Peak Hour	Daily
Total Vehicle Trip Ends		4,659	7,675	21,174
Percent Internal Trip Ends[1]		4.3%	8.4%	5.8%
Vehicle Trips	Internal to Project	100	322	615
	External to Project	4,459	7,031	19,944
	Total	4,559	7,353	20,559

[1.] Both trip ends within the project.

Source: *DKS Associates, 2015.*

8.4.5 Trip Generation Summary and Comparison

Table 8.21 provides a comparison of the daily person trip generation between the NewBridge project and the proposed alternatives. All of the proposed alternatives have a lower daily person trip generation than the base project. Alternatives 2 and 4 have a substantially lower daily person trip generation, whereas Alternatives 1 and 3 are close to the base alternative.

Table 8.21: Comparison of Estimated Daily Person Trip Generation

Trip Purpose	Base Project	Alt. 1	Alt. 2	Alt. 3	Alt. 4
Work Trips	7,041	6,865	4,905	7,022	5,480
Non-Work Trips	38,001	38,055	29,427	37,054	19,014
All Trip Purposes	45,042	44,920	34,333	44,076	24,494

Source: *DKS Associates, 2015.*

Table 8.22 provides a comparison of the mode split (for all trip purposes) between the NewBridge project and the proposed alternatives. The base project clearly has the highest mode share of walkers, whereas the SOV, HOV, transit, and bike shares are fairly similar between the base project and Alternatives 1 through 3. Alternative 4 has a very high SOV mode share, which is explainable by the large amount of industrial employment proposed without any nearby (walk, bike, or transit distance) homes.

Table 8.22: Comparison of Mode Split (All Trip Purposes)

Mode	Base Project	Alt. 1	Alt. 2	Alt. 3	Alt. 4
Auto - SOV	50.6%	51.8%	47.9%	53.4%	80.4%
Auto - HOV	38.3%	41.3%	41.7%	40.7%	16.4%
Transit	1.1%	0.9%	0.8%	0.7%	0.0%
Walk	9.3%	5.5%	3.5%	4.7%	3.1%
Bike	0.6%	0.5%	0.4%	0.5%	0.2%

Source: *DKS Associates, 2015.*

Table 8.23 provides a comparison of daily vehicle trip generation between the NewBridge project and the proposed alternatives. As was the case for daily person trip generation, Alternatives 2 and 4 have a substantially lower daily vehicle trip generation compared to the base project. This is due to the generally lower levels of development in these alternatives. As was the case for daily person trip generation, Alternatives 1 and 3 have similar daily vehicle trip generation compared to the base project. Unlike the daily person trip generation numbers, the daily vehicle trip generation numbers are actually slightly higher for Alternatives 1 and 3. This is because the auto mode share (both SOV and HOV) is slightly higher for these alternatives compared to the base project.

Table 8.23: Comparison of Estimated Daily Vehicle Trip Generation

Trip Type		Base Project	Alt. 1	Alt. 2	Alt. 3	Alt. 4
Total Vehicle Trip Ends		29,825	30,799	22,227	30,844	21,174
Percent Internal Trip Ends[1]		16.4%	10.3%	6.8%	10.7%	5.8%
Vehicle Trips	Internal to Project	2,448	1,580	757	1,653	615
	External to Project	24,930	27,639	20,714	27,537	19,944
	Total	27,378	29,219	21,470	29,191	20,559

Source: *DKS Associates, 2015.*

8.5 QUALITATIVE ASSESSMENT OF IMPACTS

This section of the report provides a qualitative comparison of how each alternative compares to the project in terms of trip generation, number of impacts, and travel pattern shifts. Each alternative is evaluated in greater detail in the following subsections, but a summary matrix is provided below in Table 8.24.

Table 8.24: Qualitative Assessment of Impacts Relative to the Base Project

Trip Type	Alt. 1	Alt. 2	Alt. 3	Alt. 4
	(Relative to the Base Project)			
Vehicle Trip Generation	Similar	Less	Similar	Less
Roadway Segment/ Intersection Impacts	Similar	Less	Similar	More and Less
Freeway Impacts	Similar	Similar	Similar	Similar
Travel Pattern Shifts	Minor	Minor	Moderate	Major

Source: *DKS Associates, 2015.*

8.5.1 Alternative 1 Qualitative Assessment of Impacts

8.5.1.1 Vehicle Trip Generation

Based on Table 8.23, the vehicle trip generation of Alternative 1 is estimated to be similar to the project.

8.5.1.2 Number of Impacts

Overall, the daily volumes on the Alternative 1 roadway network are similar to the project. Therefore, Alternative 1 is expected to result in similar roadway segment, intersection, and freeway impacts as the project.

8.5.1.3 Shift in Travel Patterns

On all roadways external to the project, there are no volume shifts with a magnitude greater than 400 vehicles per day. Within or bounding the project, the greatest volume shift occurs between the north and south ends of the project. Under Alternative 1, between 2,000 and 3,000 vehicles per day shift from exiting onto Jackson Highway to exiting onto Kiefer Boulevard. This is due to the relocation of more intense land uses (high density residential, mixed use) to the north end of the project. The ADT on Kiefer Boulevard is still below 9,000 (even after the volume shift), so this shift is not expected to result in any additional impacts.

8.5.2 Alternative 2 Qualitative Assessment of Impacts

8.5.2.1 Vehicle Trip Generation

Based on Table 8.23, the vehicle trip generation of Alternative 2 is estimated to be less than the project.

8.5.2.2 Number of Impacts

Overall, the daily volumes on the Alternative 2 roadway network are less than the project. Therefore, Alternative 2 is expected to result in less roadway segment and intersection impacts as the project. Alternative 2 is expected to result in similar freeway impacts as the project, due to Caltrans significance criteria.

8.5.2.3 Shift in Travel Patterns

Alternative 2 project volumes decrease to the north on Sunrise Boulevard by approximately 1,600 ADT, to the west on Jackson Highway by approximately 1,400 ADT, on Elder Creek Road by 600 ADT, and on Florin Road by 800 ADT. The only external volume increase is on Jackson Highway to the east of the project, by approximately 200 ADT. This alternative's loss of over 850 dwelling units and 130,000 square feet of employment, relative to the project, is clearly reflected in the lower traffic volumes.

8.5.3 Alternative 3 Qualitative Assessment of Impacts

8.5.3.1 Vehicle Trip Generation

Based on Table 8.23, the vehicle trip generation of Alternative 3 is estimated to be similar to the project.

8.5.3.2 Number of Impacts

Overall, the daily volumes on the Alternative 3 roadway network are similar to the project. Therefore, Alternative 3 is expected to result in similar roadway segment, intersection, and freeway impacts as the project.

8.5.3.3 Shift in Travel Patterns

On all roadways external to the project, there are no volume shifts with a magnitude greater than 600 vehicles per day. Within or bounding the project, the greatest volume shift occurs between the north and south ends of the project. Under Alternative 3, between 1,000 and 2,000 vehicles per day shift from exiting onto Jackson Highway or Kiefer Boulevard to exiting onto Sunrise Boulevard instead. This is due to a newly proposed (in this alternative) access point to Sunrise Boulevard, via a canal crossing. Sunrise Boulevard currently operates at level of service "E" and is expected to operate at level of service "F" with the implementation of the base project. It is likely that Alternative 3 would exacerbate this base project impact by allowing more traffic to use this roadway segment, but this impact is easily be mitigated by widening Sunrise Boulevard from 2 to 4 lanes between Kiefer Boulevard and Jackson Highway. In fact, this is already a required mitigation measure for the base project. Alternative 3 is therefore expected to result in similar roadway segment, intersection, and freeway impacts as the project.

8.5.4 Alternative 4 Qualitative Assessment of Impacts

8.5.4.1 Vehicle Trip Generation

Based on Table 8.23, the vehicle trip generation of Alternative 4 is estimated to be less than the project.

8.5.4.2 Number of Impacts

Alternative 4 is expected to result in increased roadway segment and intersection impacts along Eagles Nest Road and Grant Line Road, and less roadway segment and intersection impacts elsewhere, compared to the project. This is due to major volume shifts under Alternative 4, which are described in the next subsection. Alternative 4 is expected to result in similar freeway impacts as the project, due to Caltrans significance criteria.

8.5.4.3 Shift in Travel Patterns

Alternative 4 project volumes decrease by approximately 3,000 ADT on Sunrise Boulevard north of the project, by approximately 1,000 ADT on Grant Line Road north of Jackson Highway, between 2,000 and 3,000 ADT on Jackson Highway west of the project, and by approximately 800 ADT on Elder Creek Road and Florin Road. Volumes increase by approximately 800 ADT on Eagles Nest Road and Grant Line Road south of the project. This is the logical result of the introduction of a large number of industrial jobs (over 7,000 employees) and concurrent elimination of all of the base project's residential development. These jobs must all be filled, and a large number of them are taken by residents in Elk Grove; this is seen in the increase in traffic to the south of the project, along Eagles Nest Road and Grant Line Road. At the same time, residents of over 3,800 homes in NewBridge previously made employment and shopping trips to Rancho Cordova and Sacramento, but these households no longer exist in this scenario; this is reflected in the sharply decreased traffic heading north and west from the project.